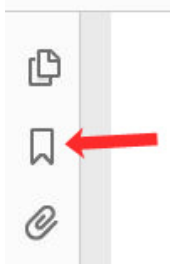


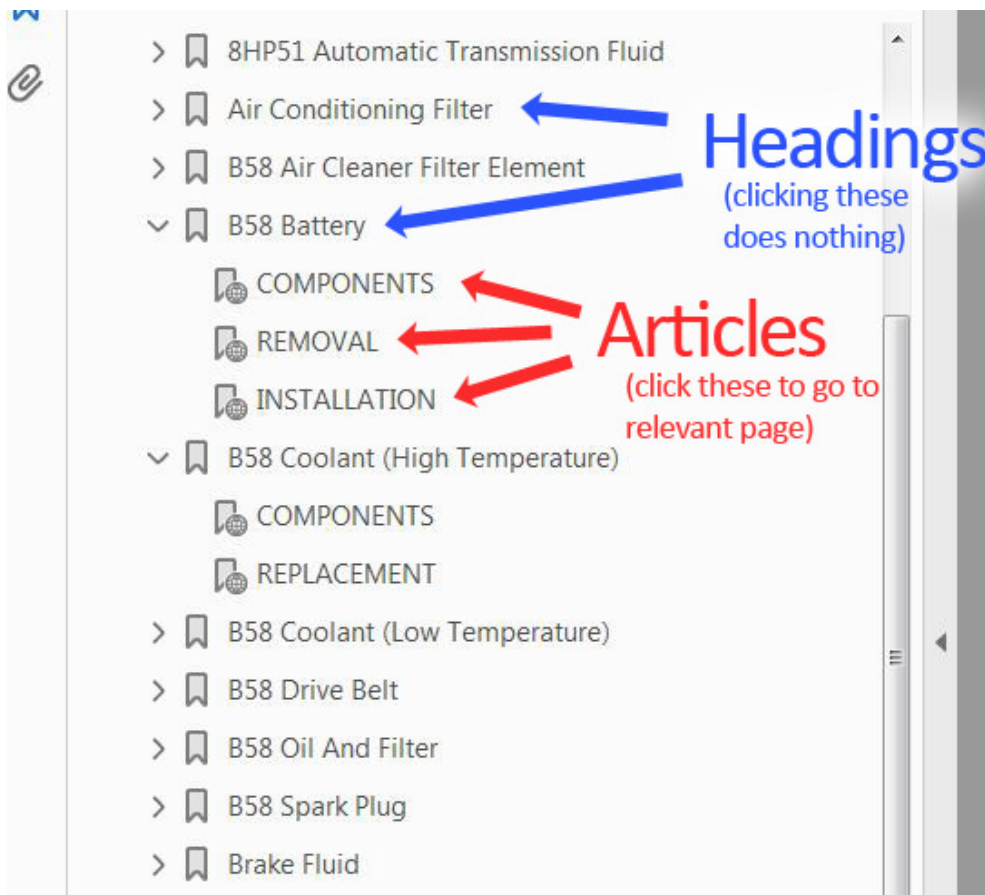
NOTES ON USING THIS PDF

To avoid scrolling through hundreds of pages in this document trying to find something, I've added bookmarks that link to each section and mimic the Toyota TIS structure (which is where all of the information in this PDF was downloaded from).

You can view these bookmarks in your Adobe PDF viewer software by expanding the section on the left of the screen and then clicking the bookmark icon highlighted below:



NOTE: The headings for each section are not links - you need to expand the section fully until you get to the level that actually contains individual articles, then click on those to go to the relevant page.



One other thing to mention about this PDF is that it does not retain all of the internal hyperlinks from the web based Toyota TIS system.

So sometimes in an article you will see something like this that says "Click here [INFO]" but clicking it will not do anything.

PROCEDURE

1. REMOVE FRONT WHEEL

 Click here 

2. REMOVE FRONT NO. 2 FENDER LINER

So for now you will have to just use your head and look for the section it would probably be linking to (a lot of common things are within General -> Maintenance, so start by looking there).

As far as I have seen, all of these [INFO] links are just internal links to other articles that are also in this document. So you are not missing any information by not being able to click them, it just makes things a little less convenient.

Final thing to note is that this PDF was produced in September 2019, so if you need information that has only been added to the Toyota TIS after that date then you might have to just pay the \$20 to access the Toyota TIS system yourself at **<https://techinfo.toyota.com>**

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: HOW TO USE THIS MANUAL: GENERAL INFORMATION; 2020 MY Supra [03/2019 -]		

GENERAL INFORMATION

GENERAL DESCRIPTION

- (a) Repair operations can be separated mainly into the following 3 processes:
- (1) Diagnosis
 - (2) Removing/Installing, Replacing, Disassembling/Reassembling, Checking and Adjusting
 - (3) Final Inspection
- (b) The following procedures are omitted from this manual. However, these procedures must be performed.
- (1) Use a jack or lift to perform operations.
 - (2) Clean all removed parts.
 - (3) Perform a visual check before and after performing any work.






PREPARATION

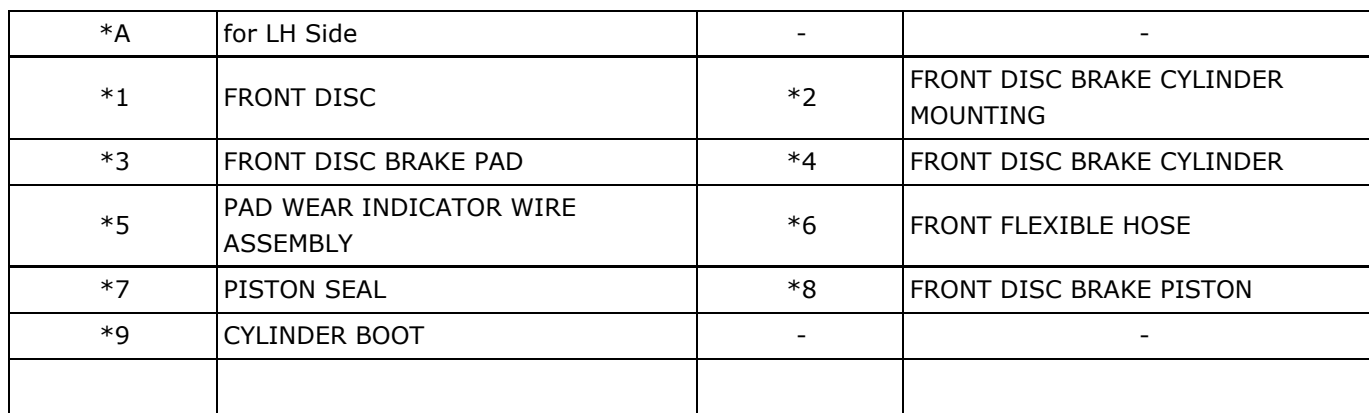
- (a) Use of Special Service Tools (SST) and Special Service Materials (SSM) may be required, depending on the repair procedure. Be sure to use SST and SSM when they are required and follow the work procedure properly. A list of SST and SSM is in the "Preparation" section of this manual.





REPAIR PROCEDURES

- (a) A component illustration is placed under the title where necessary.
- (b) Non-reusable parts, grease application areas, precoated parts and torque specifications are noted in the component illustrations.

The following illustration is an example.

SYMBOL	CONTENTS
	N*m (kgf*cm, ft.*lbf): Specified torque
	Non-reusable part
	Precoated part
	Apply Lubricant Here
	Do not apply lubricants to the threaded parts



	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part
	Brake Pad Paste		Syntheso Glep 1 Lubricating Grease

(c) Torque specifications, grease application areas and non-reusable parts are emphasized in the procedures.

HINT:

There are cases where such information can only be explained by using an illustration. In these cases, torque, oil and other information are described in the illustration.

(d) Only items with key points are described in the text. What to do and other details are explained using illustrations next to the text. Both the text and illustrations are accompanied by standard values and notices.

(e) Illustrations of similar vehicle models are sometimes used. In these cases, minor details may be different from the actual vehicle.

Work Item

1.INSTALL FRONT SHOCK ABSORBER WITH COIL SPRING

a. Spread the steering knuckle with the special tool 0 494 541 (31 2 230).
SST **BMW Old Part Number** **BMW Part Number**

Toyota Part Number **09600-WA030**

b. Correctly align the positioning pin (2) on the front shock absorber with coil spring (1) with the steering knuckle and push it on up to the limit position in the direction of arrow.

c. Position the holder on the steering knuckle.

d. Replace the 18 mm bolt and 16 mm nut.

e. Insert the 18 mm bolt and tighten the 16 mm nut.
Torque:
56 N*m (571 kgf*cm, 41 ft.*lbf)

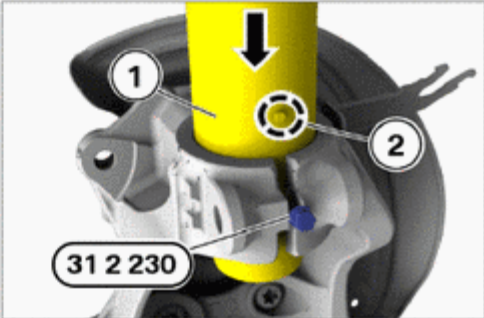


Illustration: Work area and work contents.

Description: Detailed explanation of work procedures.

Sizes of tools other than the standard tools.

(f) Procedures are presented in a step-by-step format.

SERVICE SPECIFICATIONS

(a) Specifications are presented in boldface text throughout the manual. The specifications are also found in the "Specifications" section for reference.

TERM DEFINITIONS

CAUTION	Possibility of injury to you or other people
NOTICE	Possibility of damage to components being repaired
HINT	Provides additional information to help you perform repairs

INTERNATIONAL SYSTEM OF UNITS

(a) The units used in this manual comply with the International System of Units (SI UNIT) standard. Other units from the metric system and the English system are also provided.

Example:

Torque:

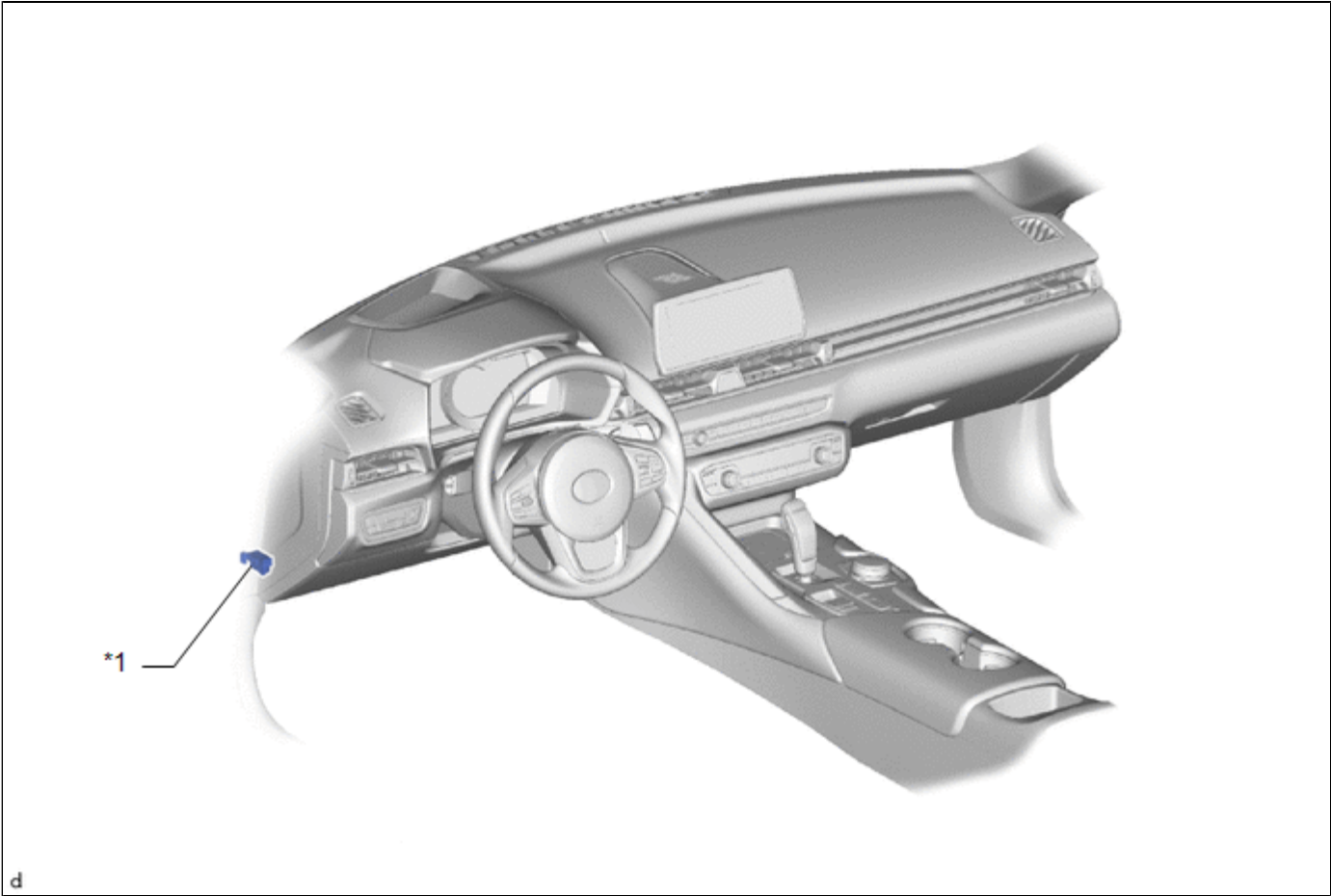
30 N·m {306 kgf·cm, 22 ft·lbf}



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JM9Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: HOW TO TROUBLESHOOT ECU CONTROLLED SYSTEMS: PARTS LOCATION; 2020 MY Supra [03/2019 -]		

PARTS LOCATION

ILLUSTRATION



*1	DLC3	-	-
----	------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JNET
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: HOW TO TROUBLESHOOT ECU CONTROLLED SYSTEMS: ISTA; How to connect the diagnosis system; 2020 MY Supra [03/2019 -]		

DTC	ISTA	How to connect the diagnosis system
------------	-------------	--

CAUTION / NOTICE / HINT

Connect the ISTA interface cable to the diagnosis system itself before connecting it to the vehicle.

DTC DETECTION CONDITION

DTC NO.	DETECTION ITEM
ISTA	How to connect the diagnosis system

PROCEDURE

1.	Turn the diagnosis system on.
-----------	--------------------------------------

NEXT



2.	Connect the ISTA interface cable to the diagnosis system.
-----------	--

NEXT



3.	Connect the ISTA interface cable to the DLC3.
-----------	--

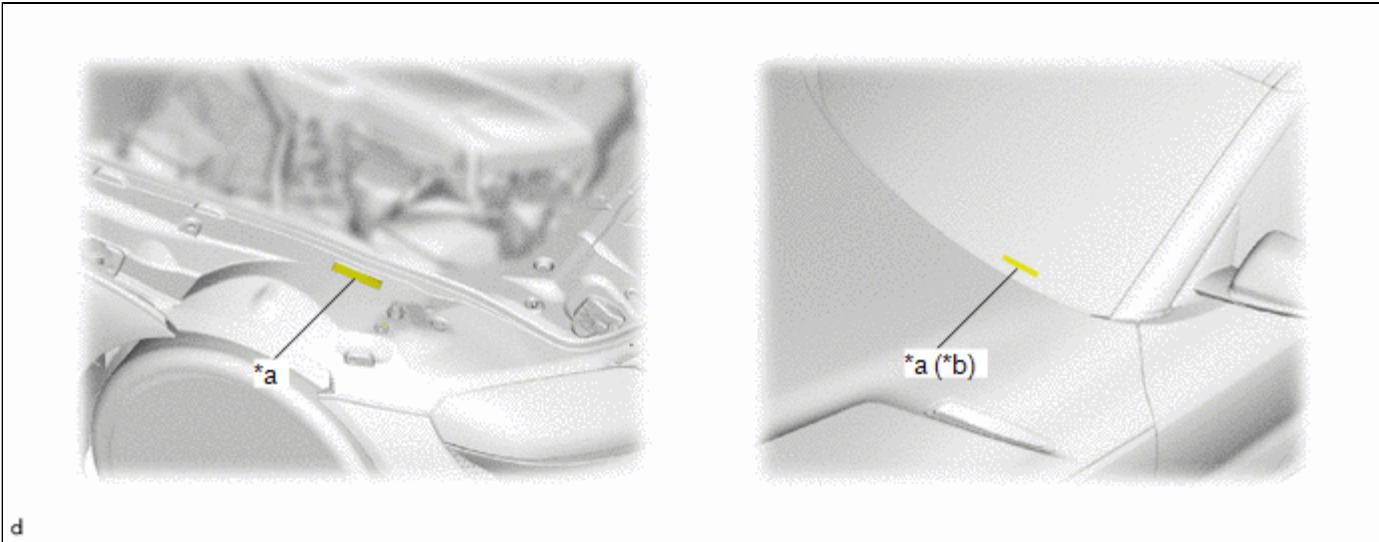
NEXT ▶ **Press the START-STOP button (engine switch) 3 times within 0.8 seconds to enter Diagnostic (PAD) Mode.**

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2T
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: IDENTIFICATION INFORMATION: VEHICLE IDENTIFICATION AND SERIAL NUMBERS; 2020 MY Supra [03/2019 -]		

VEHICLE IDENTIFICATION AND SERIAL NUMBERS

VEHICLE IDENTIFICATION NUMBER

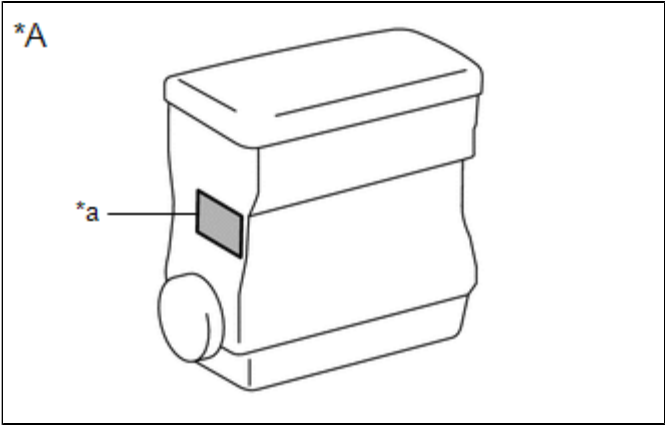
(a) The vehicle identification number is stamped on the vehicle body as shown in the illustration.



*a	Vehicle Identification Number	*b	Depending on vehicle destination, vehicle identification number may not be marked here.
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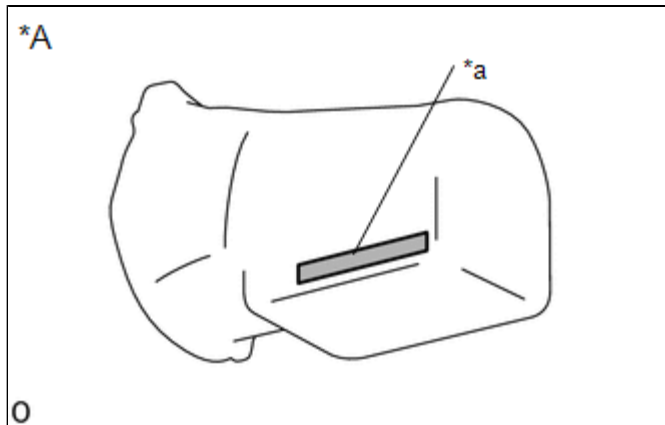
ENGINE SERIAL NUMBER AND TRANSMISSION CODE

(a) The engine serial number is stamped on the area shown in the illustration.



*A	B58
*a	Engine Serial Number

(b) The transmission serial number is stamped on the area shown in the illustration.



*A	8HP51
*a	Transmission Serial Number



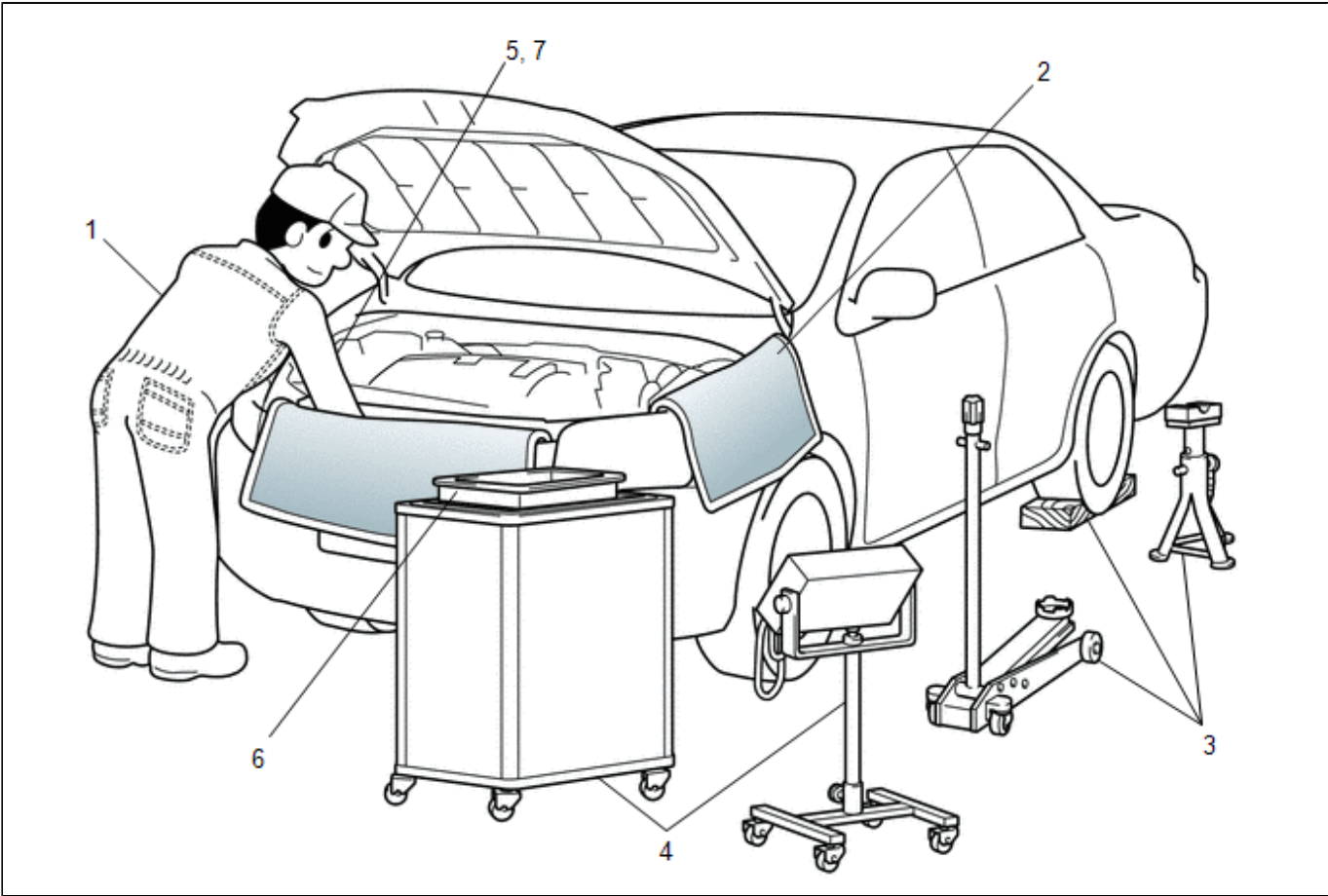
TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2U
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: REPAIR INSTRUCTION: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

BASIC REPAIR HINT

(a) HINTS ON OPERATIONS



1	Attire	<ul style="list-style-type: none"> Always wear a clean uniform. A hat and safety shoes must be worn.
2	Vehicle protection	Prepare a grille cover, fender cover, seat cover and floor mat before starting work.
3	Safety procedures	<ul style="list-style-type: none"> When working with 2 or more persons, be sure to check the safety of one another. When working with the engine running, make sure to provide ventilation for exhaust fumes in the workshop. If working on high temperature, high pressure, rotating, moving or vibrating parts, wear appropriate safety equipment and take extra care not to injure yourself or others. When jacking up the vehicle, be sure to support the vehicle at the specified locations with safety stands. When lifting up the vehicle, use appropriate safety equipment.
4	Preparation of tools and measuring	Before starting work, prepare a tool stand, SST, measuring equipment, oil, and any replacement parts required.

	equipment	
5	Removal and installation, disassembly and assembly operations	<ul style="list-style-type: none"> • Diagnose with a thorough understanding of proper procedures and of the reported problem. • Before removing any parts, check the general condition of the assembly and for deformation and damage. • If the procedure is complicated, take notes. For example, note the total number of electrical connections, bolts or hoses removed. Add matchmarks to ensure reassembly of components in the original positions. Temporarily mark hoses and their fittings if needed. • Clean and wash the removed parts if necessary and assemble them after a thorough check.
6	Removed parts	<ul style="list-style-type: none"> • Place the removed parts in a separate box to avoid mixing them up with new parts or contaminating the new parts. • For non-reusable parts such as gaskets, O-rings and self-locking nuts, replace them with new ones as instructed in this manual. • Retain the removed parts for customer inspection, if requested.
7*	Checks to perform after work is finished	<ul style="list-style-type: none"> • Make sure that removed and installed parts (oil filler cap, level dipstick, floor mat, etc.) are properly installed/tightened. • Make sure that none of the cloths or tools that were used have been left in the engine compartment or within the vehicle. • Check that there are no oil leaks.

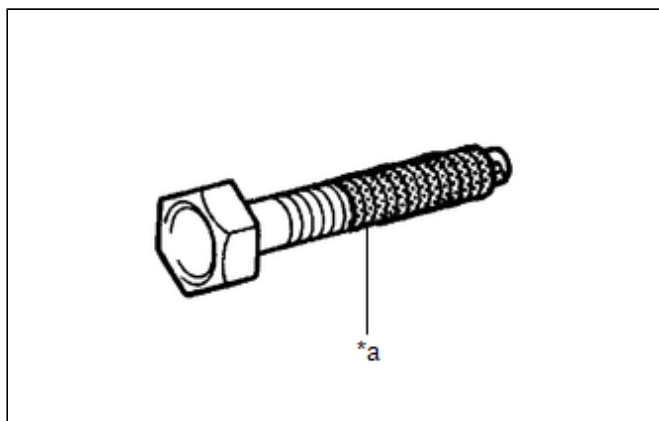
CAUTION:

*: Be sure to perform these checks properly, not performing these checks properly after finishing work can lead to a serious accident or injury.

(b) JACKING UP AND SUPPORTING THE VEHICLE

(1) Care must be taken when jacking up and supporting the vehicle. Be sure to lift and support the vehicle at the proper locations.

(c) PRECOATED PARTS



*a	Seal Lock Adhesive
----	--------------------

- (1) Precoated parts are bolts and nuts that are coated with seal lock adhesive at the factory.
- (2) If a precoated part is retightened, loosened or moved in any way, it must be recoated with the specified adhesive.
- (3) When reusing a precoated part, clean off the old adhesive and dry the part with compressed air. Then apply new seal lock adhesive appropriately to that part.
- (4) Some seal lock agents harden slowly. You may have to wait for the seal lock adhesive to harden.

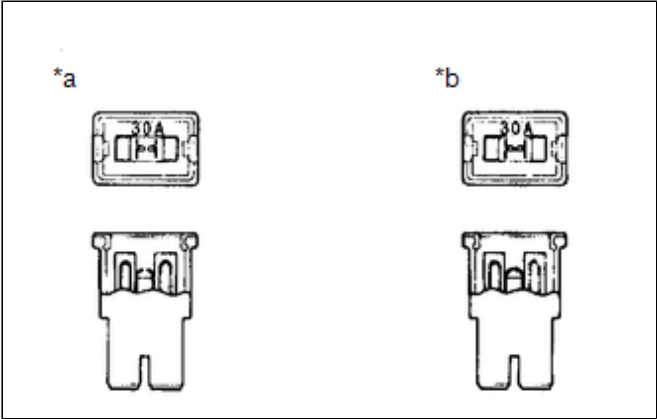
(d) GASKETS

(1) When necessary, use a sealant on gaskets to prevent leaks.

(e) BOLTS, NUTS AND SCREWS

- (1) Carefully follow all of the specifications for tightening torque. Always use a torque wrench.
- (2) Make sure that no foreign matter (burrs, paint, etc.) gets trapped under the heads of the bolts and nuts when tightening them.



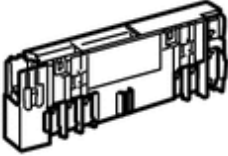

(f) FUSES



*a	NG
*b	OK

- (1) When inspecting a fuse, check that the wire of the fuse is not broken.
- (2) If the wire of a fuse is broken, confirm that there are no shorts in its circuit.
- (3) When a fuse is replaced, a fuse with the same amperage rating must be used.

ILLUSTRATION	SYMBOL	PART NAME	ABBREVIATION
		FUSE	FUSE
		MEDIUM CURRENT FUSE	M-FUSE
		HIGH CURRENT FUSE	H-FUSE
		FUSIBLE LINK	FL

		CIRCUIT BREAKER	CB
		FUSIBLE LINK	FL

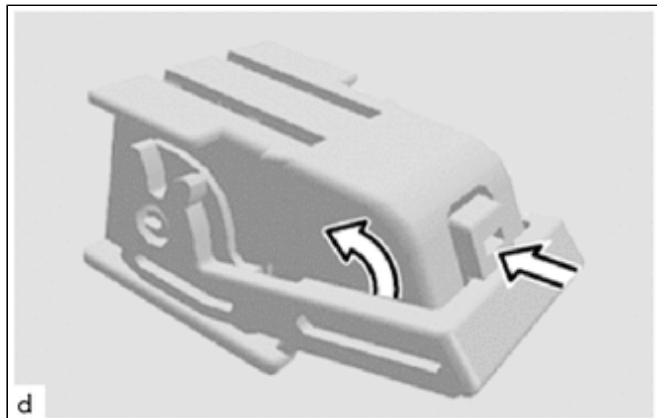
(g) UNLOCKING AND DISCONNECTING DIFFERENT PLUG CONNECTIONS

HINT:

- The document describes unlocking and disconnecting different types of plug connections.
- Differences in the details of the size and shape of the plug connections are possible.

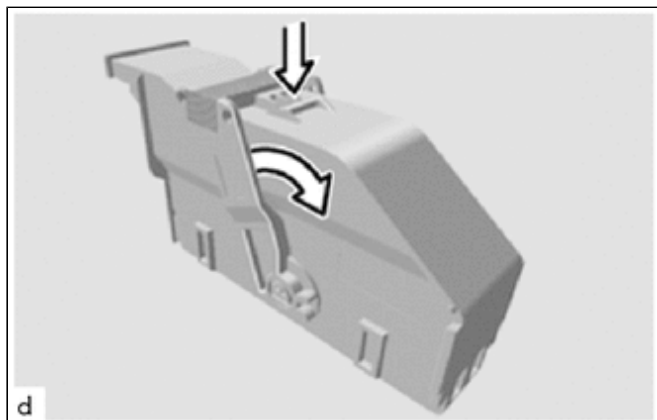
(1) Press lock and open release clip in direction of arrow.

Disconnect plug connection.

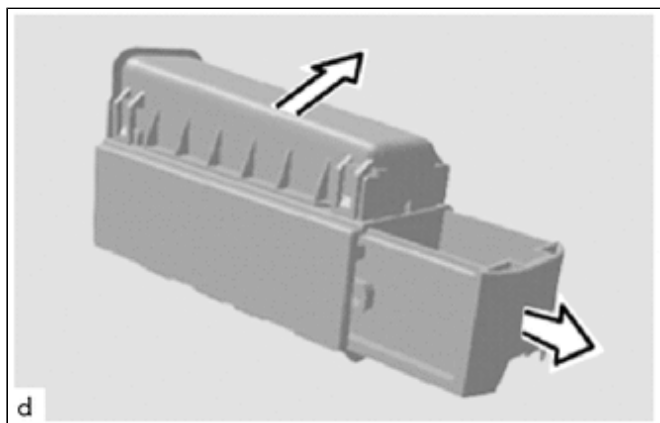


(2) Press lock and open release clip in direction of arrow.

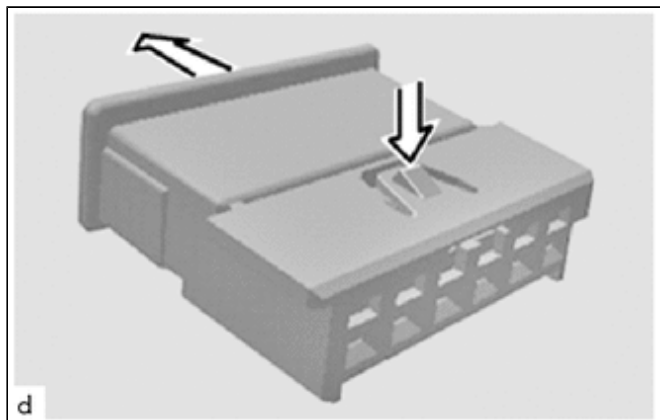
Disconnect plug connection.



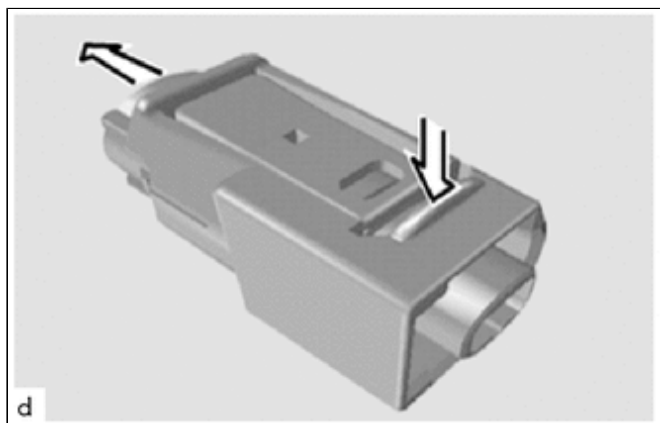
(3) Open release clip in direction of arrow and disconnect plug connection in direction of arrow.



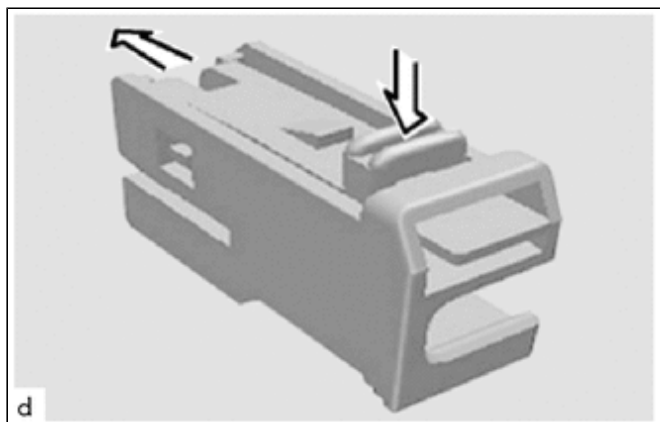
(4) Press lock and disconnect plug connection in direction of arrow.



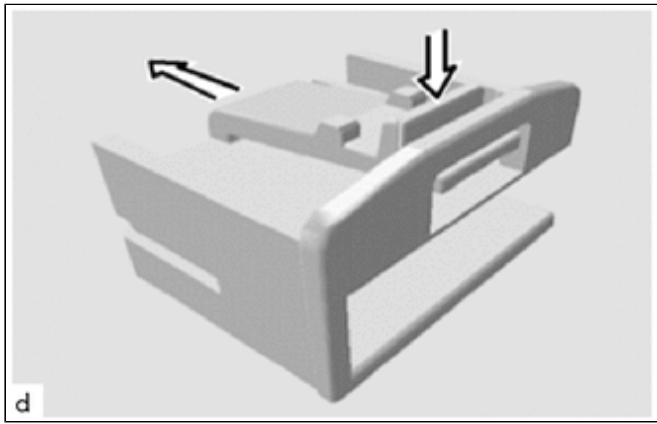
(5) Press lock and disconnect plug connection in direction of arrow.



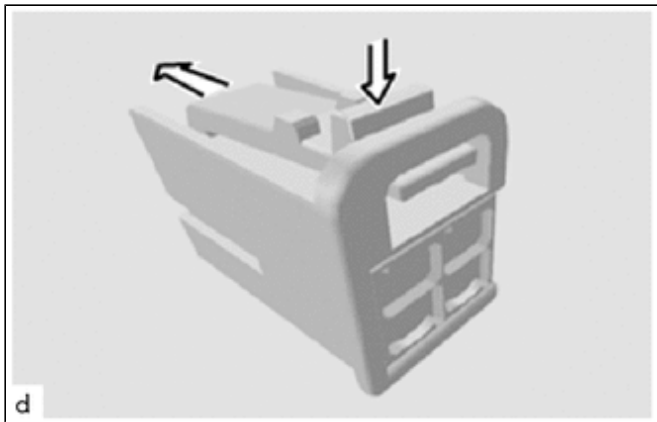
(6) Press lock and disconnect plug connection in direction of arrow.



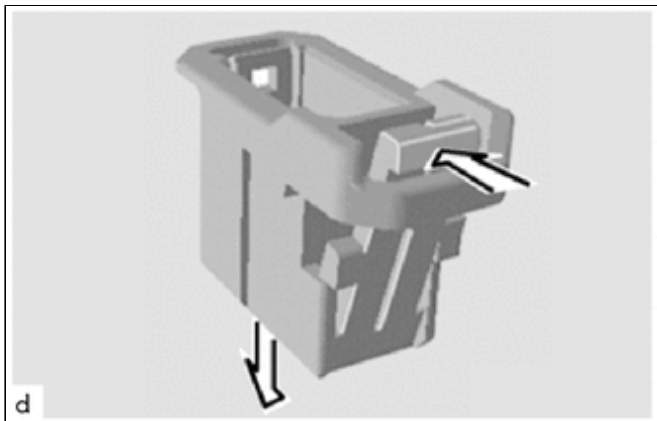
(7) Press lock and disconnect plug connection in direction of arrow.



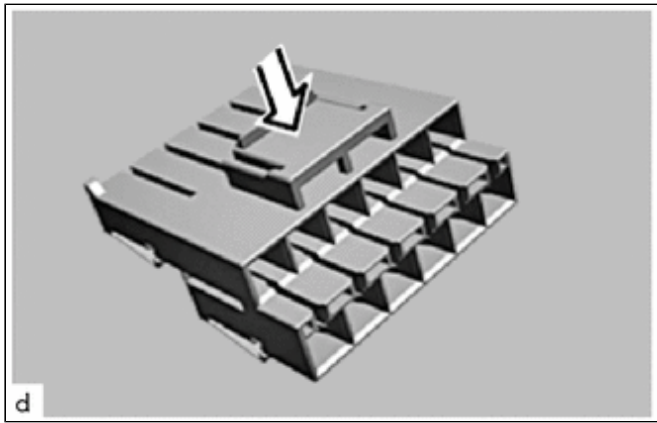
(8) Press lock and disconnect plug connection in direction of arrow.



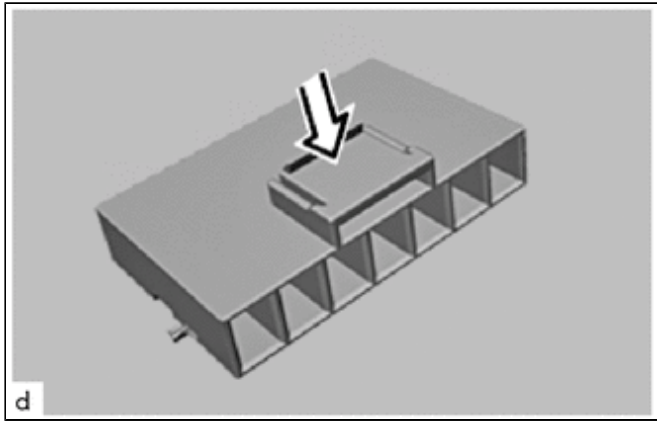
(9) Press lock and disconnect plug connection in direction of arrow.



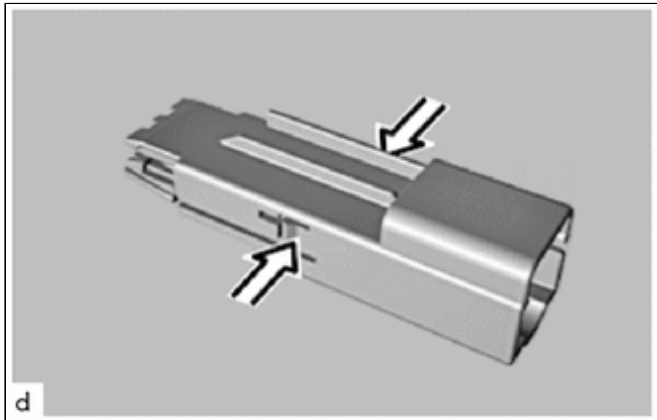
(10) Press the lock and detach plug connection.



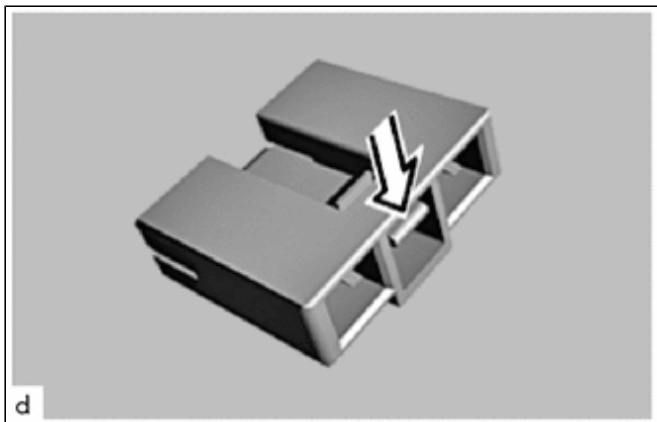
(11) Press the lock and detach plug connection.



(12) Press the locks on both sides and detach plug connection.

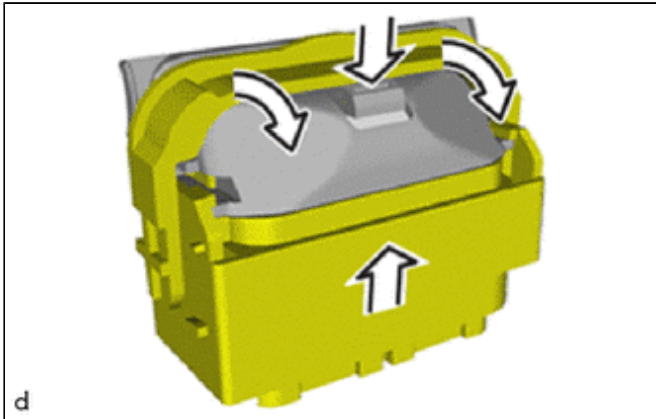


(13) Press the lock and detach plug connection.

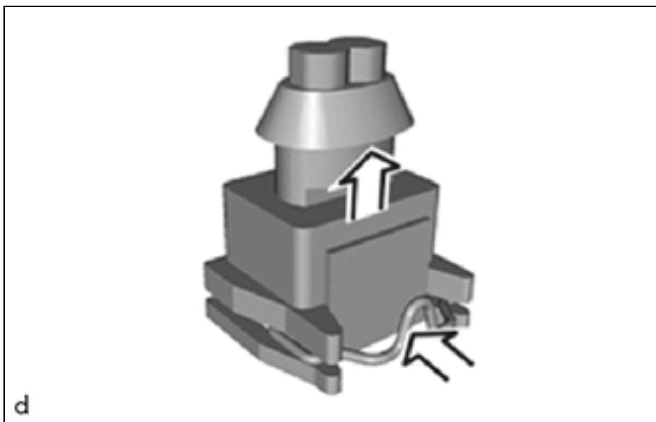


(14) Press lock and open release clip in direction of arrow.

Disconnect plug connection.

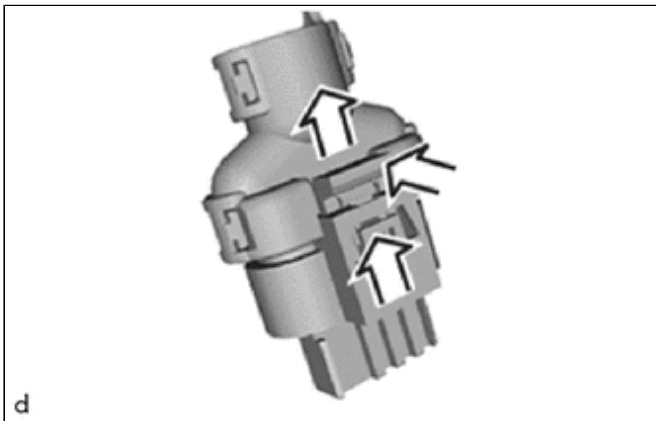


(15) Press the lock and detach plug connection.

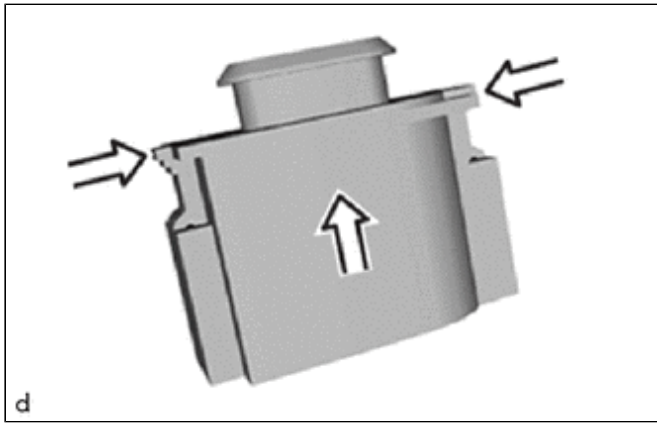


(16) Pull out lock and press.

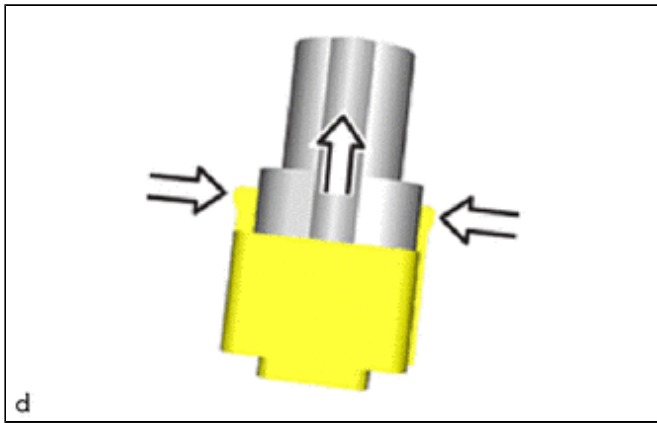
Disconnect plug connection.



(17) Press the locks on both sides and detach plug connection.



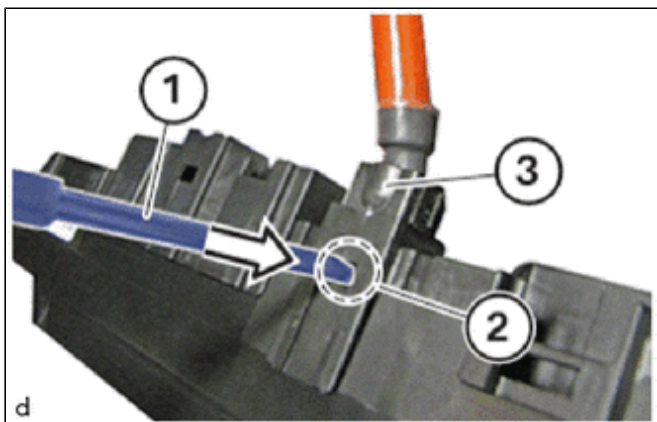
(18) Press the locks on both sides and detach plug connection.



(19) Press the lock and detach plug connection.



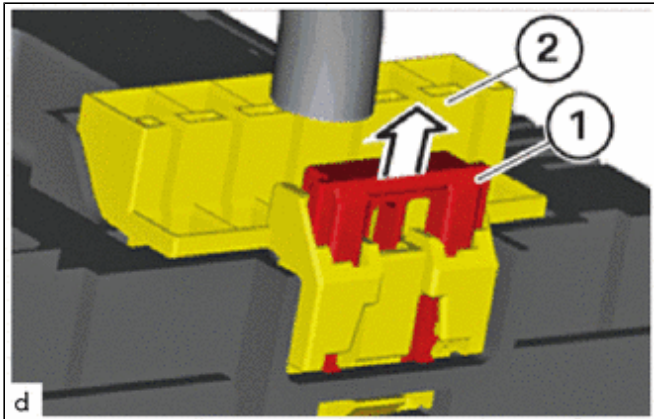
(20) Plug connection on the power distribution box:



Press into the opening (2) using a screwdriver (1).

Pull off plug connection (3) upwards.

(21) Plug connection on the power distribution box:



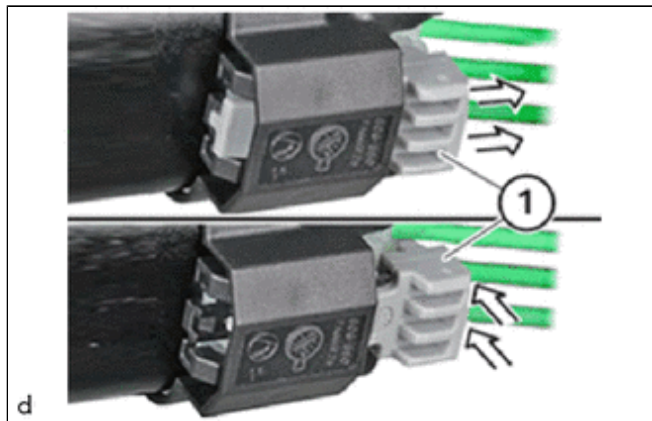
Lift lock (1) with a screwdriver.

Pull off plug connection (2) upwards.

(22) Vibration resistant high power engine contacts:

NOTICE:

For this connector type, increased forces come into play when disconnecting and closing.

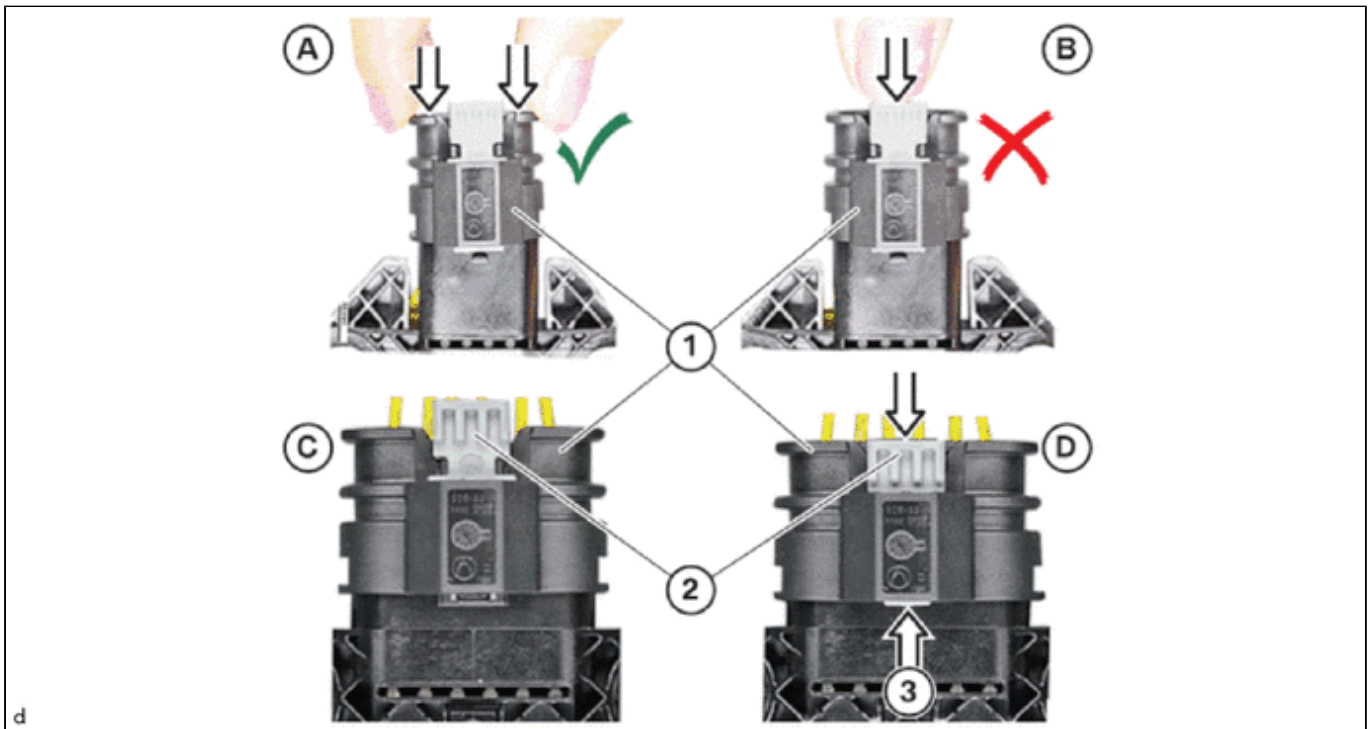


Disconnect:

Pull out lock (1) downward in direction of arrow first.

Then press lock (1) down in direction of arrow and pull off connector.

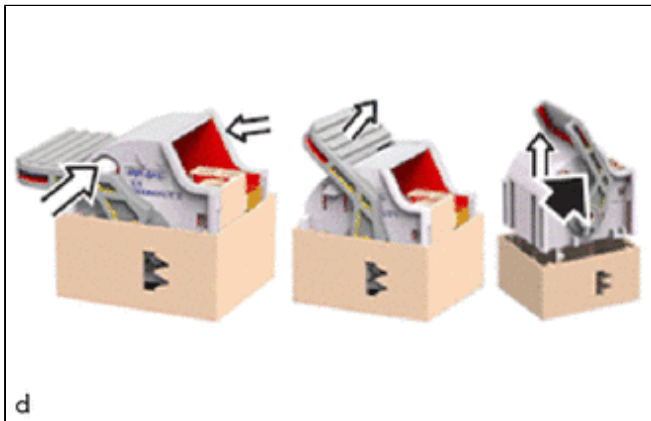
Close:



- A. Press connector (1) down to the end position at positions marked with the arrow.
- B. Do not press connector (1) down through the lock.
- C. Connector (1) is in the end position, lock (2) is not yet locked.
- D. Press down lock (2) in the direction of arrow until the tip of the lock (2) at position (3) is visible.

(23) Unlock / lock front light combination plug connection and replace housing after damage:

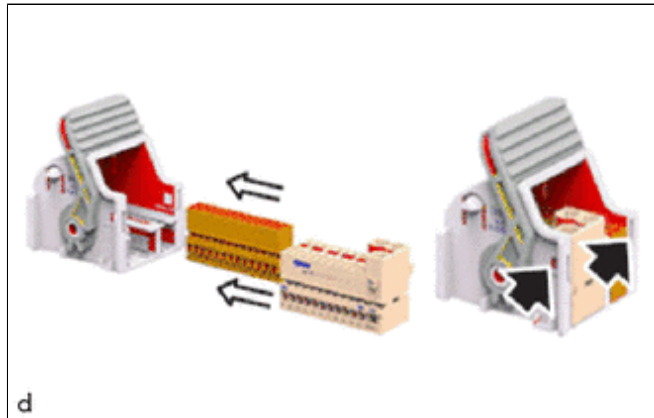
Press in locking lever at both sides until the lever is unlocked and can be moved.



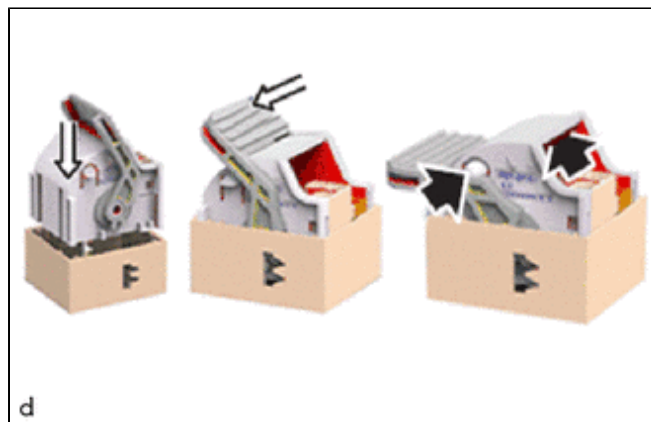
Move lever upwards until it latches into place in the end position.
Once the lever is locked in the end position, remove plug connection upwards.



Unlock socket housing by lifting up each of the locking tabs.
Slide out after unlocking the socket housing.

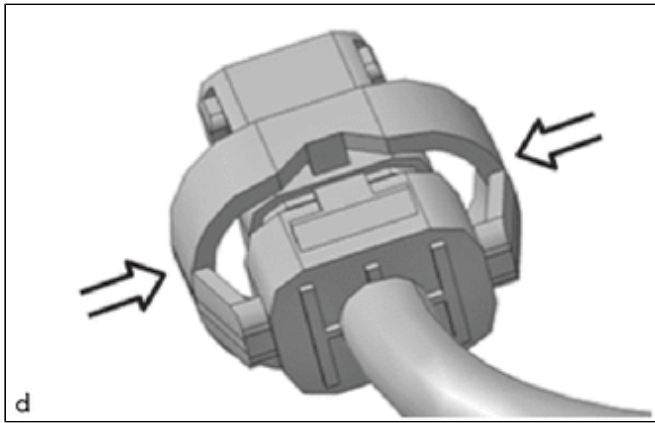


Slide in socket housing up to limit position.
Lock socket housing into place in end position.

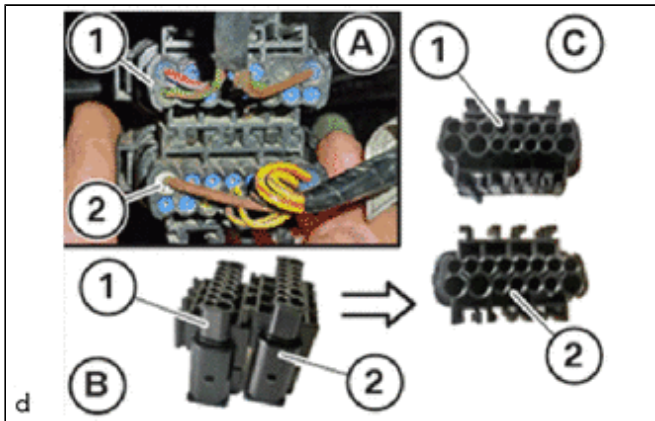


Sliding in up to limit position.
Activate plug-in procedure by moving lever downwards.
Important: the latch mechanism on both sides only works for a completed plug-in procedure.

(24) Press to unlock on both sides.



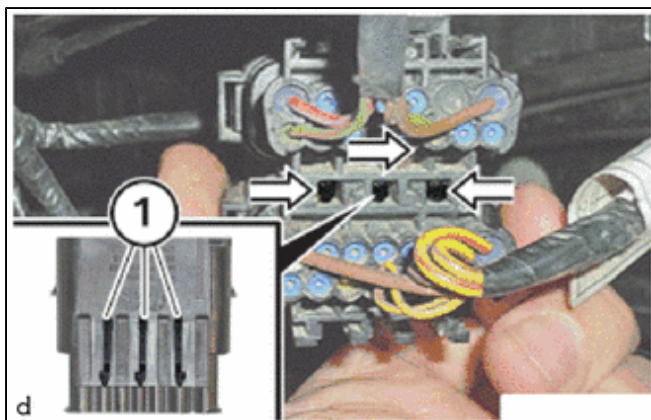
(25) 15-pin housing:



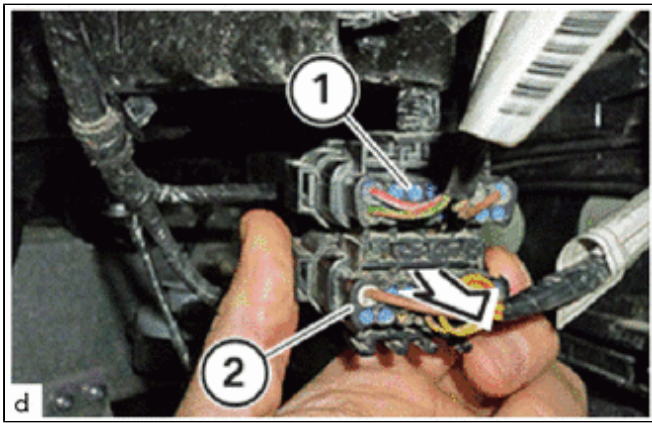
- A and B. To avoid any damage to individual connectors, the given connector assembly consisting of several individual connectors (1) and (2) must be released before disconnecting the plug connection.
- C: released connector assembly.

Disconnecting connector assembly:

Release retaining hooks (1) in direction of arrow (detail image shows retaining hooks of individual connector).



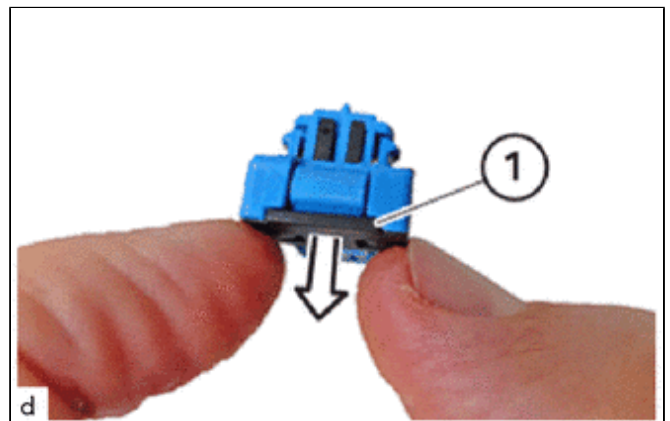
Release connector (2) in direction of arrow from connector (1).



(26) Airbag ignition circuit connector:

CAUTION:

Note the safety information for working on vehicles with airbag systems prior to disconnecting the plug connection.



Pull the cap (1) in the direction of the arrow to unlock.

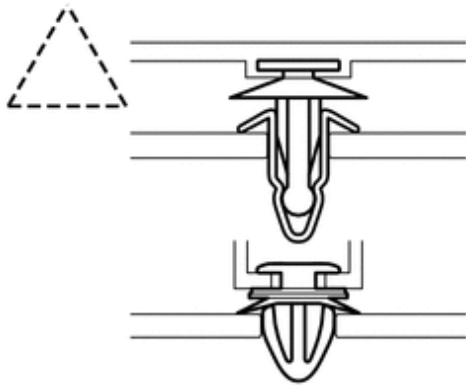
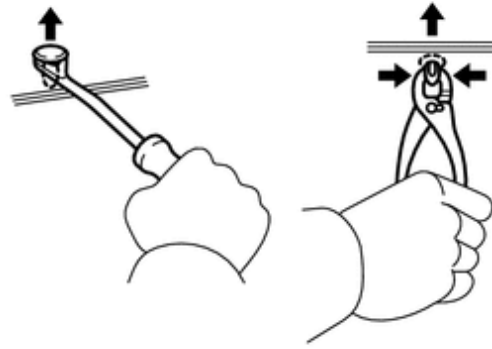
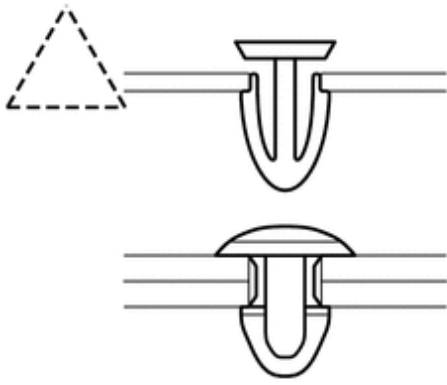
(h) CLIPS

(1) The removal and installation methods of typical clips used for vehicle body parts are shown in the table below.

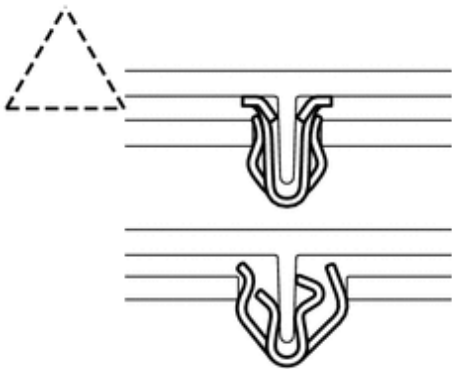
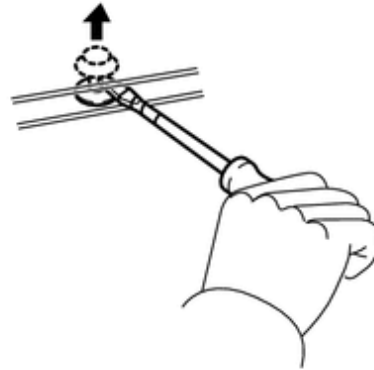
HINT:

If clips are damaged during a procedure, always replace the damaged clips with new ones.

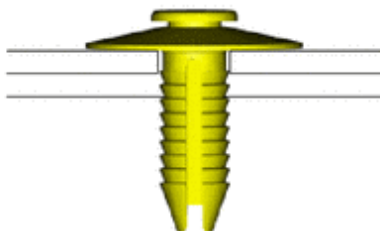
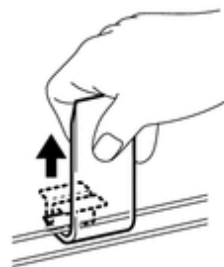
SHAPE (EXAMPLE)	REMOVAL/INSTALLATION
	Remove the clips with a clip remover or pliers.



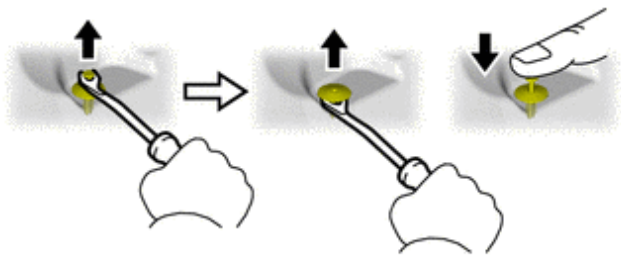
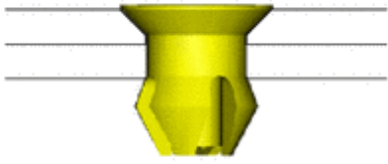
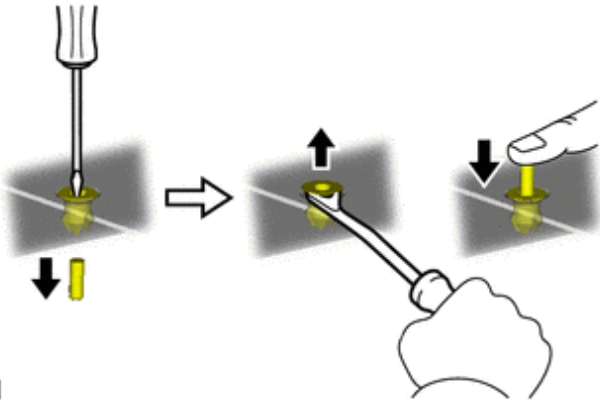
Remove the clips using a clip remover or a screwdriver with its tip wrapped with protective tape.



Disengage the clips with a moulding remover to prevent panel damage.



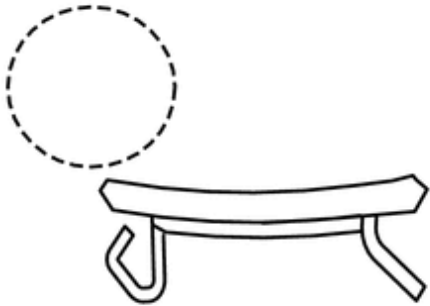
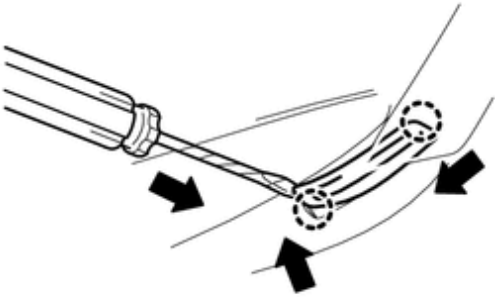
Remove the clips by prying out the center pin using a clip remover and then prying out the shell.

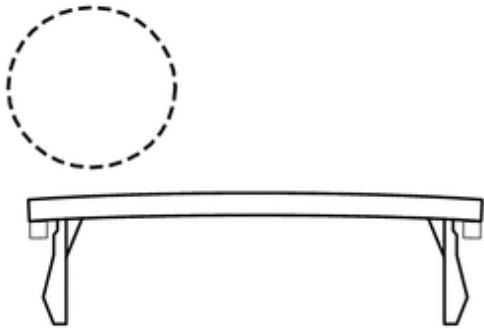
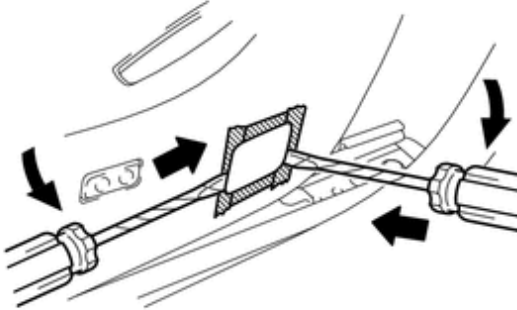
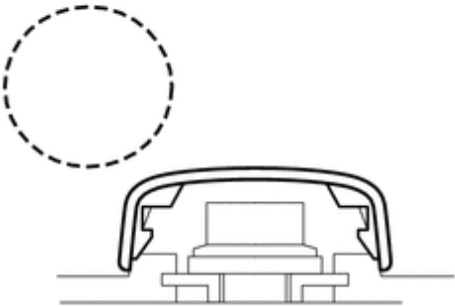
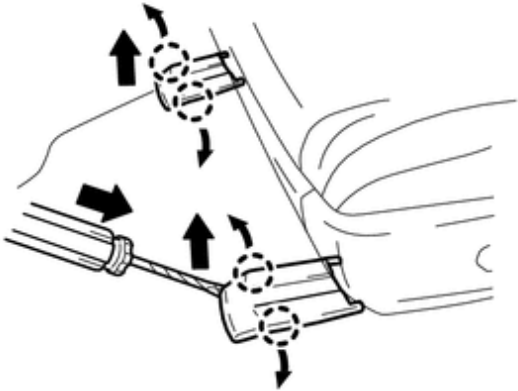
	 <p>d</p>
 <p>d</p>	<p>Remove the clips by pushing out the center pin using a screwdriver and then prying out the shell.</p>  <p>d</p>

(i) CLAWS

(1) The removal and installation methods of typical claws used for vehicle body parts are shown in the table below.

HINT:
 If claws are damaged during a procedure, always replace the cap or cover that has damaged claws with a new one.

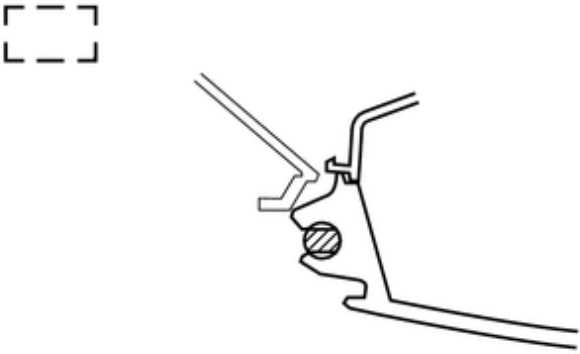
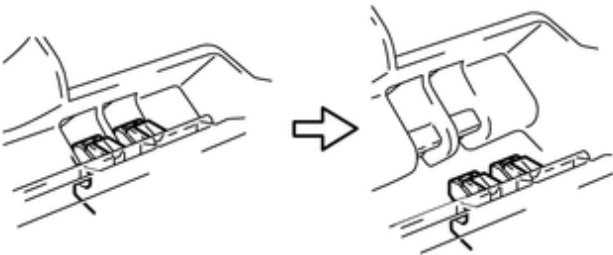
SHAPE (EXAMPLE)	ILLUSTRATION/PROCEDURES
	<p>Disengage the claws using a screwdriver with its tip wrapped with protective tape to remove the caps or covers.</p> 
	<p>Disengage the claws using a screwdriver with its tip wrapped with protective tape to remove the caps or covers.</p>

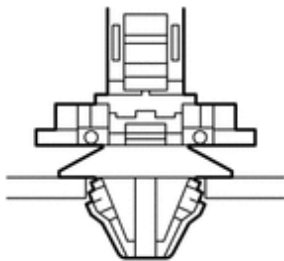
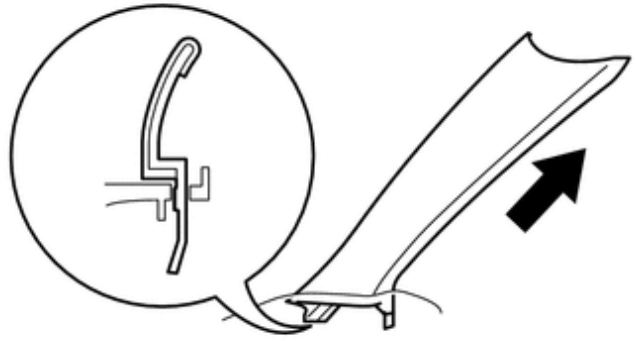
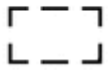
	
	<p>Disengage the claws using a screwdriver with its tip wrapped with protective tape to remove the caps or covers.</p> 

(j) HINGES, GUIDES, CLAMPS, PINS, ETC.

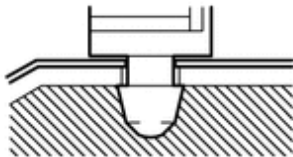
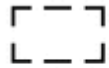
(1) The removal and installation methods of typical hinges, guides, clamps and pins used for vehicle body parts are shown in the table below.

HINT:
 If clamps are damaged during a procedure, always replace the cap or cover that has damaged clamps with a new one.

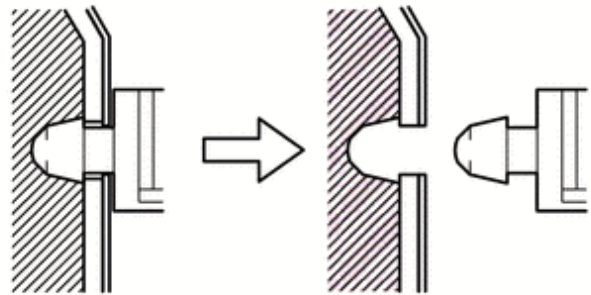
SHAPE (EXAMPLE)	REMOVAL/INSTALLATION
	<p>Pull away from the pins to disengage.</p> 
	<p>Disengage the pins by pulling.</p>



Remove the clamps with pliers.

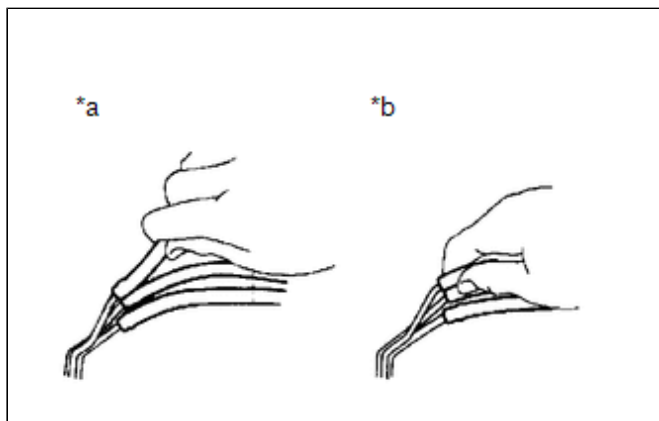


Disengage the pins by pulling.



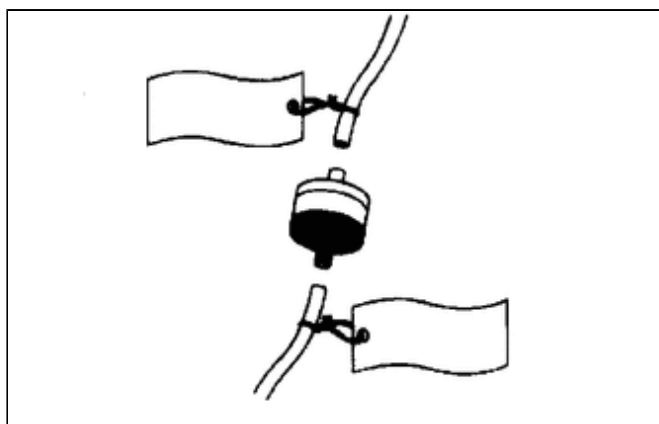
(k) REMOVAL AND INSTALLATION OF VACUUM HOSES

- (1) To disconnect a vacuum hose, pull and twist it from the end of the hose. Do not pull it from the middle of the hose as this may damage the hose.



*a	Incorrect
*b	Correct

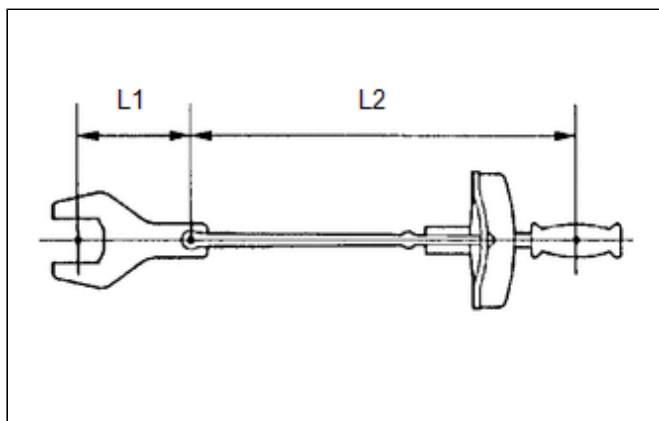
(2) When disconnecting vacuum hoses, use tags to identify where they should be reconnected.



(3) After completing any hose related repairs, double-check that the vacuum hoses are properly connected. The label under the hood shows the proper layout.

(4) When using a vacuum gauge, never force the hose onto a connector that is too large. If a hose has been stretched, air may leak. Use a step-down adapter if necessary.

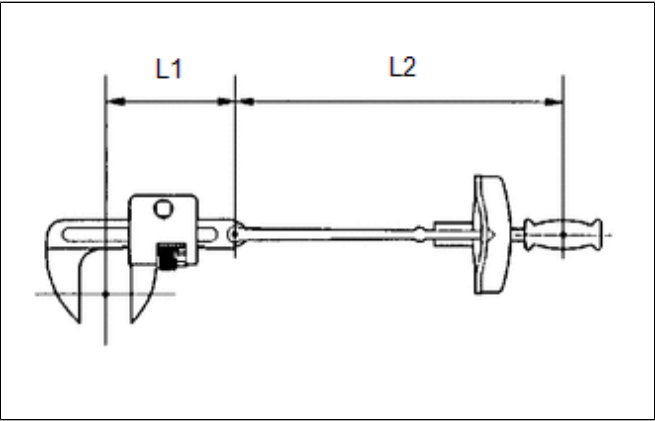
(I) TORQUE WHEN USING TORQUE WRENCH WITH EXTENSION TOOL



(1) Use the formula below to calculate special torque values for situations where SST or an extension tool is combined with a torque wrench.

Formula:

$$T' = (L2 / (L1 + L2)) * T$$

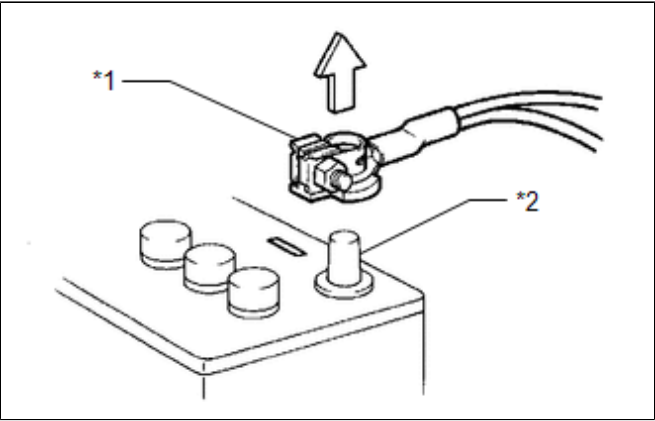


T'	Reading of torque wrench (N*m (kgf*cm, ft.*lbf))
T	Torque (N*m (kgf*cm, ft.*lbf))
L1	Length of SST or extension tool (cm (in.))
L2	Length of torque wrench (cm (in.))

NOTICE:

If an extension tool or SST is combined with a torque wrench and used to tighten to a torque specification in this manual, the actual torque will be excessive and parts will be damaged.

ELECTRONIC CONTROL



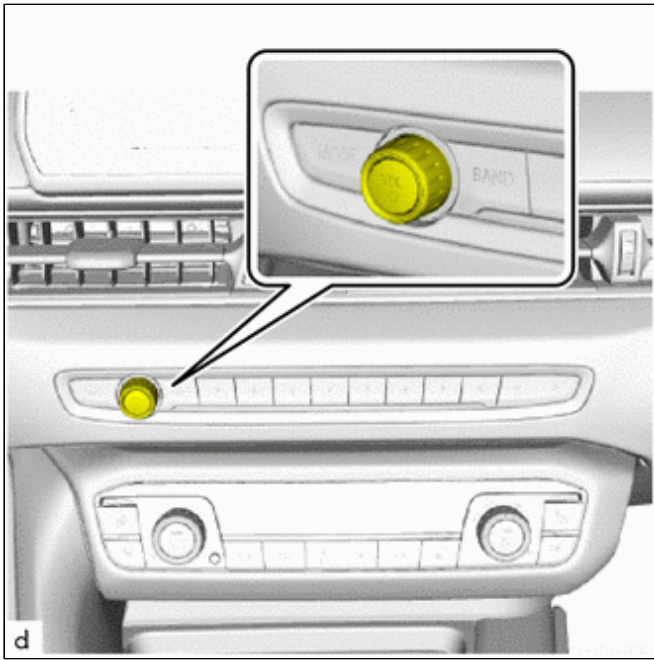
*1	Cable
*2	Negative (-) Battery Terminal

(a) DISCONNECTING AND RECONNECTING CABLE TO NEGATIVE (-) BATTERY TERMINAL

- (1) Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- (2) When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



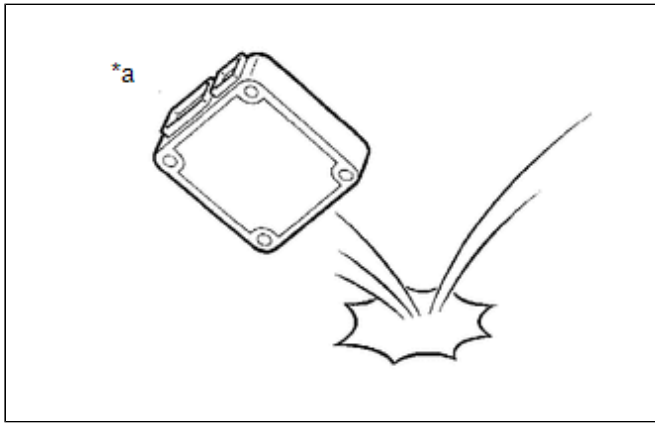
(3) Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

(b) HANDLING OF ELECTRONIC PARTS

- (1) To avoid damaging or destroying electrical components as a result of electrostatic discharge, when replacing electrical components, leave the replacement components in their original packaging until immediately before they are to be installed.
- (2) Do not open the cover or case of an ECU unless absolutely necessary. If the IC terminals are touched, the IC may be rendered inoperative by static electricity.
- (3) Do not touch the terminals of the connector to avoid damaging or destroying electrical components as a result of electrostatic discharge.
- (4) Electrical components which are particularly sensitive to electrostatic discharge (ECU, sensors, etc.) are marked with the ESD (Electrostatic Discharge) warning symbol.



- (5) Do not pull on the wires when disconnecting electronic connectors. Pull the connector itself.
- (6) Do not drop electronic components, such as sensors or relays. If they are dropped on a hard surface, they should be replaced.



*a	Incorrect
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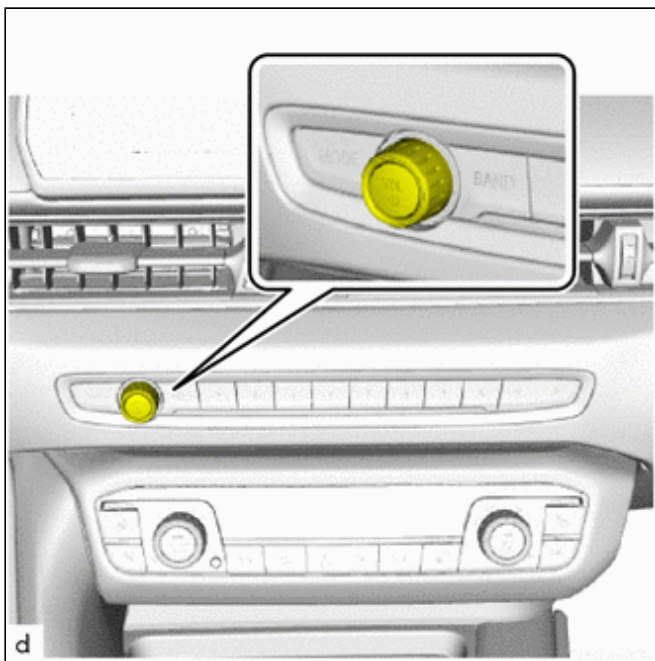
- (7) When cleaning the engine components with a pressure washer, protect the electronic components, air filter and emission-related components from water.
- (8) When measuring the resistance between terminals of a connector, insert the tester probe carefully to prevent the terminals from bending.
- (9) Never use an impact wrench to remove or install temperature switches or temperature sensors.

REMOVAL AND INSTALLATION OF CONTROL UNITS

- (a) Disconnecting the vehicle battery will cancel the fault memories of ECUs. Consequently, before disconnecting the car's battery, always interrogate the fault memories. Investigate stored faults and, once any faults have been remedied, cancel the fault memory.
- (b) ECU plugs should only ever be connected and disconnected while the START-STOP button (engine switch) is turned off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



- (c) The removal and installation of components, relays, fuses etc. can cause faults to be stored in fault memories capable of self diagnosis. Always interrogate the fault memories after completing work on the electrical system.
- (d) Investigate stored faults and, once any faults have been remedied, cancel the fault memory.
- (e) If necessary, initialize power window unit.

REMOVAL AND INSTALLATION OF FUEL CONTROL PARTS

(a) PLACE FOR REMOVING AND INSTALLING FUEL SYSTEM PARTS

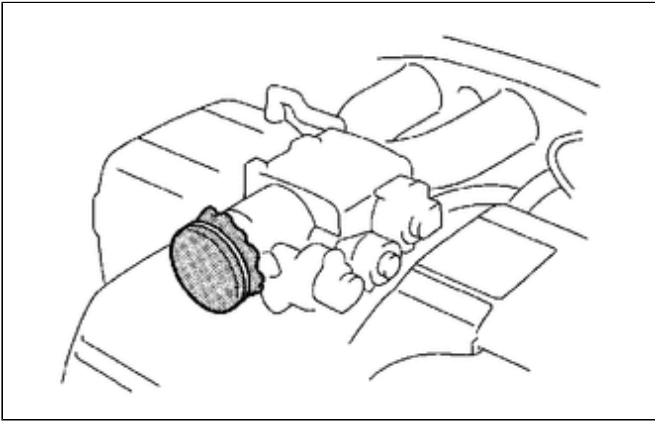
- (1) Work in a location with good air ventilation that does not have welders, grinders, drills, electric motors, stoves or any other ignition sources nearby.
- (2) Never work in a pit or near a pit as fuel vapors will collect there.

(b) REMOVING AND INSTALLING FUEL SYSTEM PARTS

- (1) Prepare a fire extinguisher before starting work.
- (2) To prevent static electricity, install a ground wire between the fuel changer and vehicle, and do not spray the surrounding area with water. Be careful when performing work in this area, as the floor surface will become slippery. Do not clean up gasoline spills with water, as this may cause the gasoline to spread, and possibly create a fire hazard.
- (3) Avoid using electric motors, work lights and other electric equipment that can cause sparks or high temperatures.
- (4) Avoid using iron hammers as they may create sparks.
- (5) Dispose of fuel-contaminated cloth separately using a fire resistant container.

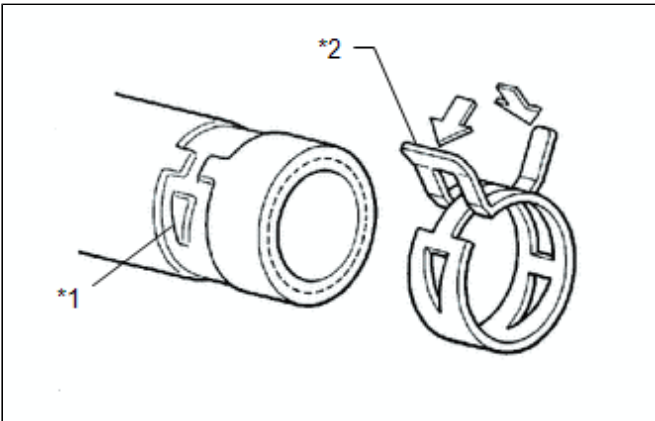
REMOVAL AND INSTALLATION OF ENGINE INTAKE PARTS

- (a) If any metal particles enter intake system parts, they may damage the engine.



- (b) When removing and installing intake system parts, cover the openings of the removed parts and engine openings. Use adhesive tape or other suitable materials.
- (c) When installing intake system parts, check that no metal particles have entered the engine or installed parts.

HANDLING OF HOSE CLAMPS

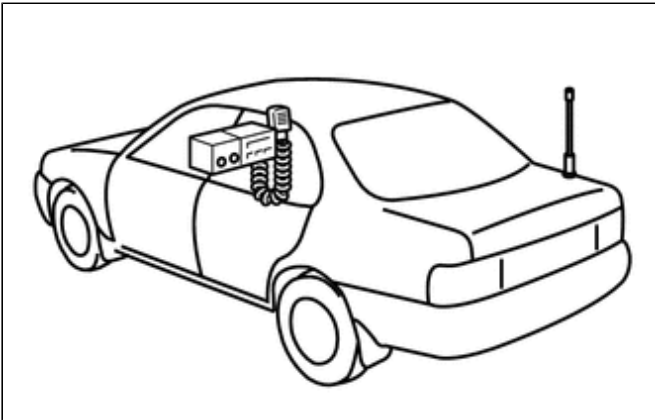


*1	Clamp Track
*2	Spring Type Clamp

- (a) Before removing a hose, check the clamp position so that it can be reinstalled in the same position.

- (b) Replace any deformed or dented clamps with new ones.
- (c) When reusing a hose, attach the clamp on the clamp track portion of the hose.
- (d) For a spring type clamp, it may be necessary to spread the tabs slightly after installation by pushing them in the direction of the arrows as shown in the illustration.

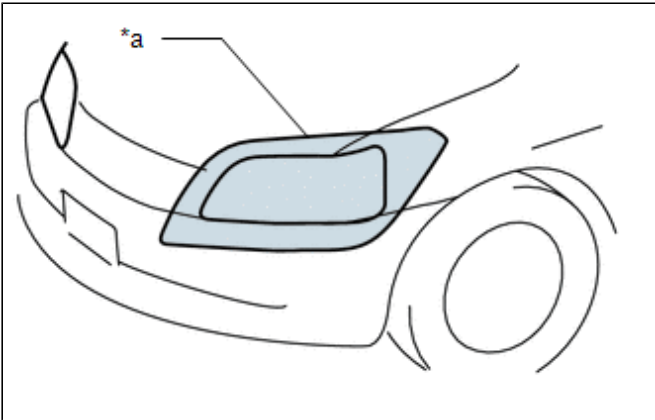
FOR VEHICLES EQUIPPED WITH MOBILE COMMUNICATION SYSTEMS



- (a) Install the antenna as far away from the ECU and sensors of the vehicle electronic systems as possible.
- (b) Install the antenna and feeder at least 20 cm (7.87 in.) away from the ECUs and sensors of the vehicle electronic systems. For details about ECU and sensor locations, refer to the section on the applicable components.
- (c) Keep the antenna and feeder separate from other wiring as much as possible. This will prevent signals sent from the communication equipment from affecting vehicle equipment and vice versa.
- (d) Check that the antenna and feeder are correctly adjusted.
- (e) Do not install a high-powered mobile communication system.

HEADLIGHT INSPECTION OR MAINTENANCE

- (a) When the headlights are illuminated, do not cover the headlights for 3 minutes or more.



*a	Illumination for 3 minutes or more prohibited if covered
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NOTICE:

As the headlight outer lens is made of resin, the resulting heat created when covering the headlight for an extended period of time may deform the headlight.

ACTIONS TO BE TAKEN WHEN BATTERIES ARE DISCHARGED

- (a) Perform this procedure when the battery is fully discharged.

HINT:

The following problems indicate that the battery is discharged:

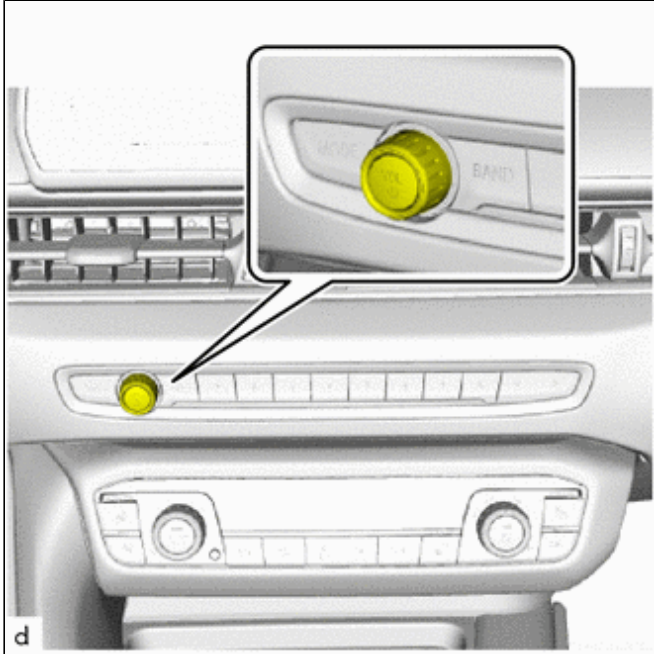
- No display appears on the instrument panel when the START-STOP button (engine switch) on (IG).
- The engine does not start.
- The headlights are dim.
- The sound from the horn is weak.

(1) Engage the parking brake.

(2) Turn the START-STOP button (engine switch) off.

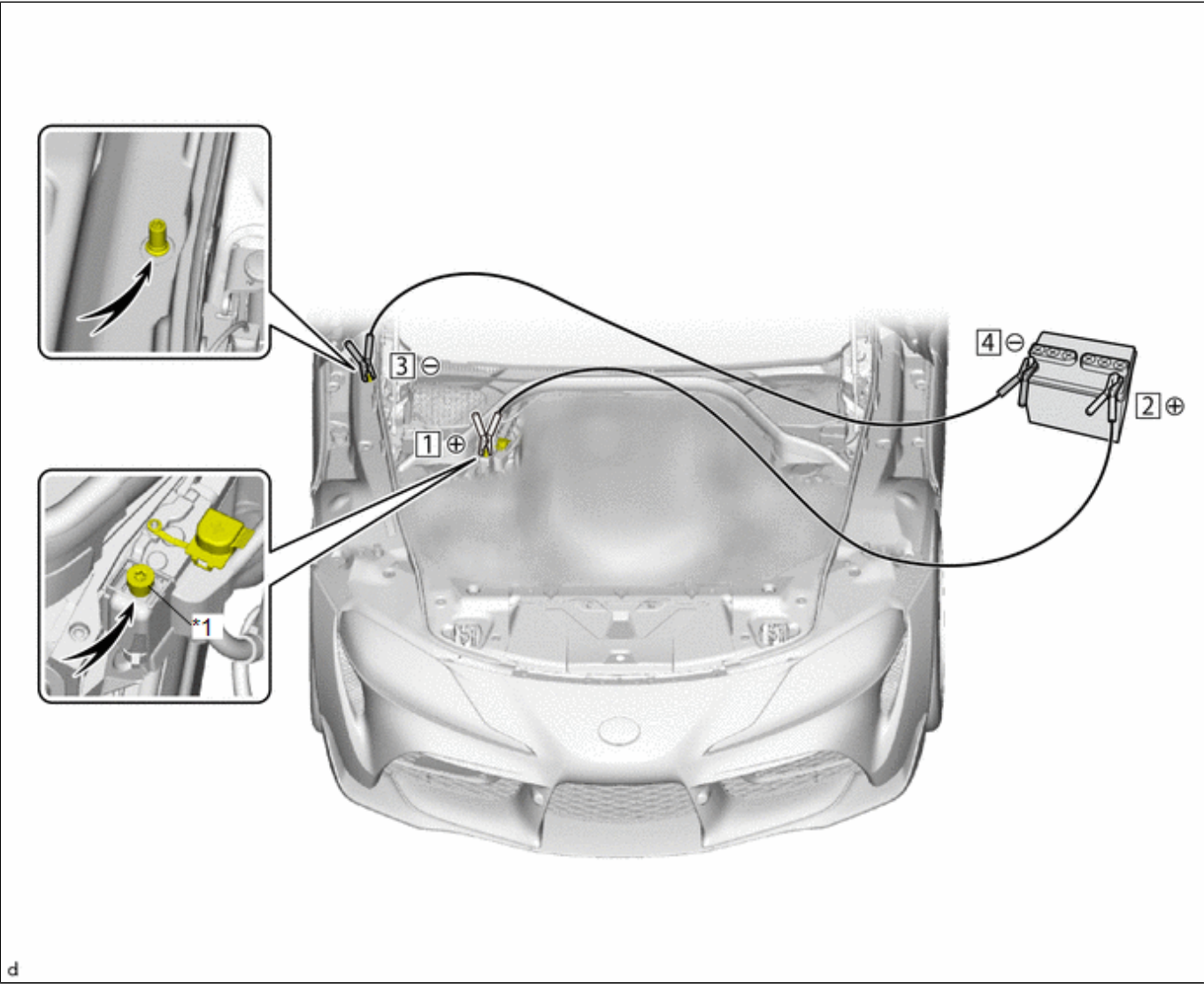
HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(3) Open the cover of the jump-starting terminal.

(4) Using booster cables, connect the battery of the rescue vehicle to the battery of the stalled vehicle as shown in the illustration.



*1	Jump-starting Terminal	-	-
----	------------------------	---	---

CONNECTING SEQUENCE	CONNECTING LOCATION
1	Jump-starting terminal of stalled vehicle
2	Positive (+) battery terminal of rescue vehicle
3	Position shown in the illustration on stalled vehicle
4	Negative (-) battery terminal of rescue vehicle

- (5) Start the engine of the rescue vehicle and run the engine at a speed slightly higher than usual.
- (6) Start the engine of the stalled vehicle.

NOTICE:
Once the engine starts, immediately disconnect the booster cable by performing the connection procedure in reverse. Do not leave the booster cables connected because they are not designed for recharging purposes.

PRECAUTIONS WHEN REPLACING PARTS AFTER A COLLISION

- (a) FRONT AXLE HUB
Click here [INFO](#)
- (b) REAR AXLE HUB

Click here [INFO](#)

(c) STEERING COLUMN ASSEMBLY

Click here [INFO](#)

(d) STEERING INTERMEDIATE SHAFT

Click here [INFO](#)

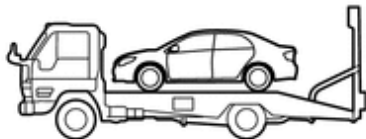
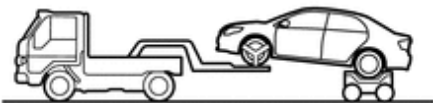

(e) STEERING GEAR

Click here [INFO](#)

PRECAUTIONS FOR TOWING REAR WHEEL DRIVE VEHICLES

(a) Use one of the following methods to tow the vehicle.

(b) If the vehicle has trouble with the chassis or drivetrain, use method 1 (flatbed truck).

Towing Method	Conditions	Parking Brake	Shift Position
1. Flatbed Truck 		Applied	Any
2. Wheel Lift Type Truck From Front (using dollies)  From Rear (using dollies) 		Applied	Any

NOTICE:

Do not use any towing method other than those shown above.

(c) When selecting the shift position to N and rolling the vehicle at short distances.

(1) Start the engine while depressing the brake pedal and enter the driving standby state.

(2) If necessary, release the parking brake.

(3) Depress the brake pedal.

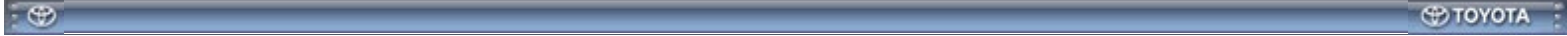
(4) Operate the selector lever and engage the shift position to N.

(5) Stop the engine.

- Driving standby state then remains switched on and the vehicle can now roll.

CAUTION:

- Shift position P is automatically engaged when driving standby state is switched off. There is a danger of damage to property.
- Irrespective of driving standby state, shift position P is engaged automatically after approximately 35 minutes.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2V
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: REPAIR INSTRUCTION: VEHICLE LIFT AND SUPPORT LOCATIONS; 2020 MY Supra [03/2019 -]		

VEHICLE LIFT AND SUPPORT LOCATIONS

PRECAUTIONS ABOUT VEHICLE CONDITION WHEN RAISING VEHICLE

- (a) The vehicle must be unloaded before jacking up or raising the vehicle. Never jack up or raise a heavily loaded vehicle.
- (b) When removing any heavy components, like the engine, transmission or transaxle, the vehicle center of gravity will shift. To stabilize the vehicle, place a balance weight in a location that will prevent the vehicle from rolling or shifting, or place a transmission jack under the appropriate jack position at the opposite end of the vehicle.

PRECAUTIONS FOR WHEN USING A 4 POST LIFT

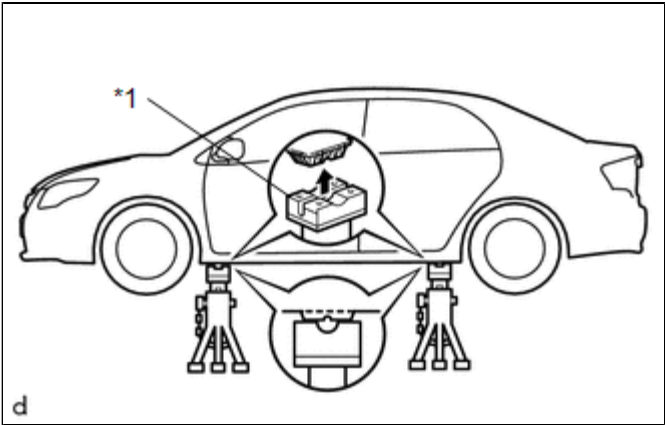
- (a) Follow the safety procedures outlined in the lift's instruction manual.
- (b) Do not damage the tires or wheels while driving onto the lift.
- (c) Use wheel chocks to secure the vehicle.

PRECAUTIONS FOR WHEN USING JACK AND SAFETY STANDS

- (a) Work on a level surface. Use wheel chocks at all times.
- (b) Use safety stands with rubber attachments as shown in the illustration.

HINT:

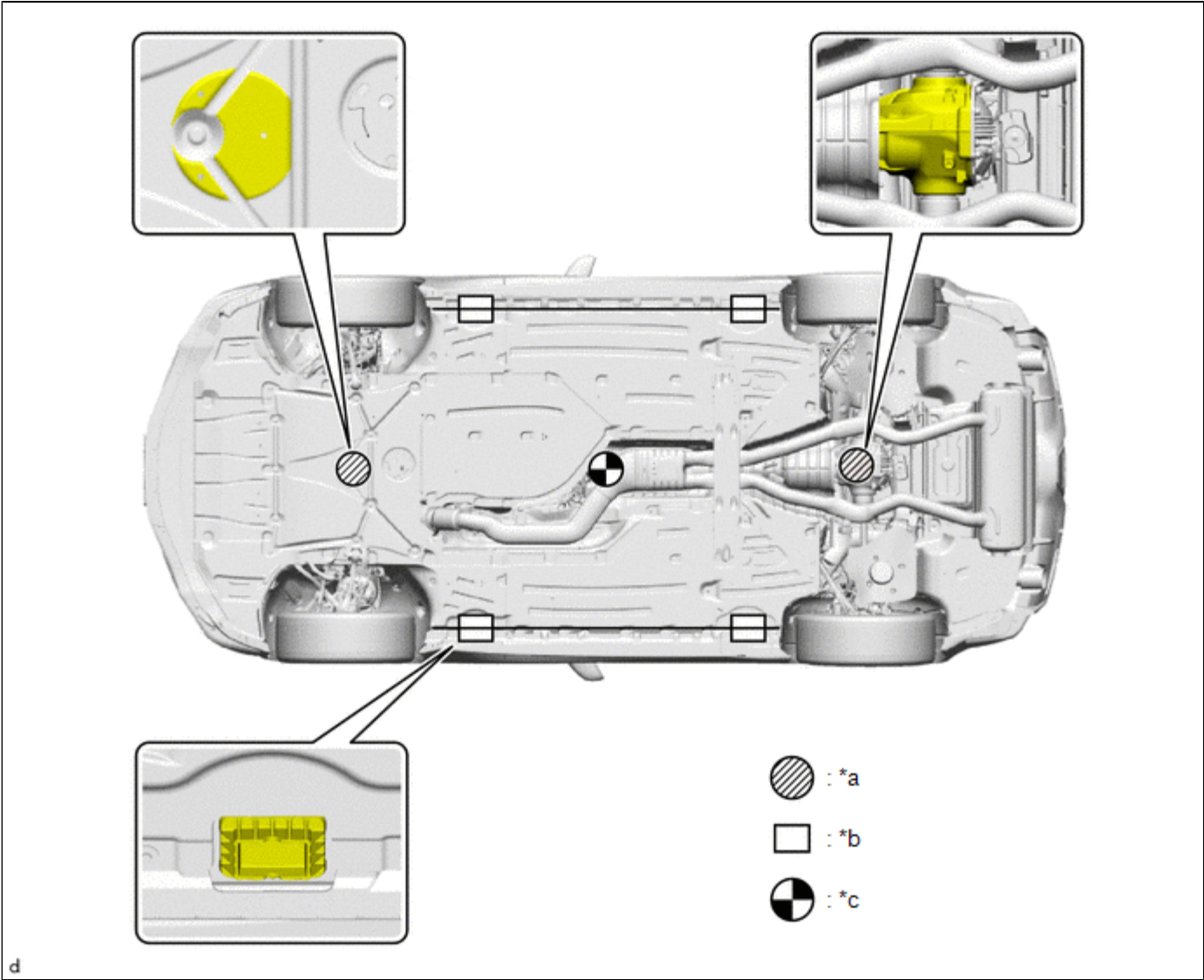
The shape of the support position varies depending on the vehicle model. Therefore, make sure to confirm the shape.



*1	Rubber Attachment
----	-------------------

- (c) Set the jack and safety stands exactly under the specified locations on the vehicle.
Never set the jack or safety stands under suspension parts, such as a front lower arm, when jacking up the vehicle.
- (d) When jacking up the vehicle, first release the parking brake, then move the shift lever to N and confirm that neutral (N) has been selected.
- (e) Do not work on or leave the vehicle supported only by a jack. Be sure to support the vehicle with safety stands.
- (f) When jacking up the entire vehicle:
 - (1) When jacking up the front wheels first, make sure wheel chocks are behind the rear wheels.
 - (2) When jacking up the rear wheels first, make sure wheel chocks are in front of the front wheels.
- (g) When jacking up only the front or rear wheels of the vehicle:

- (1) Before jacking up the front wheels, place wheel chocks on both sides of the rear wheels.
- (2) Before jacking up the rear wheels, place wheel chocks on both sides of the front wheels.
- (h) When lowering a vehicle that only has its front or rear wheels jacked up.



*a	JACK POSITION	*b	SUPPORT POSITION <ul style="list-style-type: none"> - Safety stand - Swing arm type lift - Plate type lift
*c	VEHICLE CENTER OF GRAVITY (Unloaded Condition)	-	-

NOTICE:
 When using a jack to jack up the vehicle, take care that it does not touch the rear differential carrier cover.

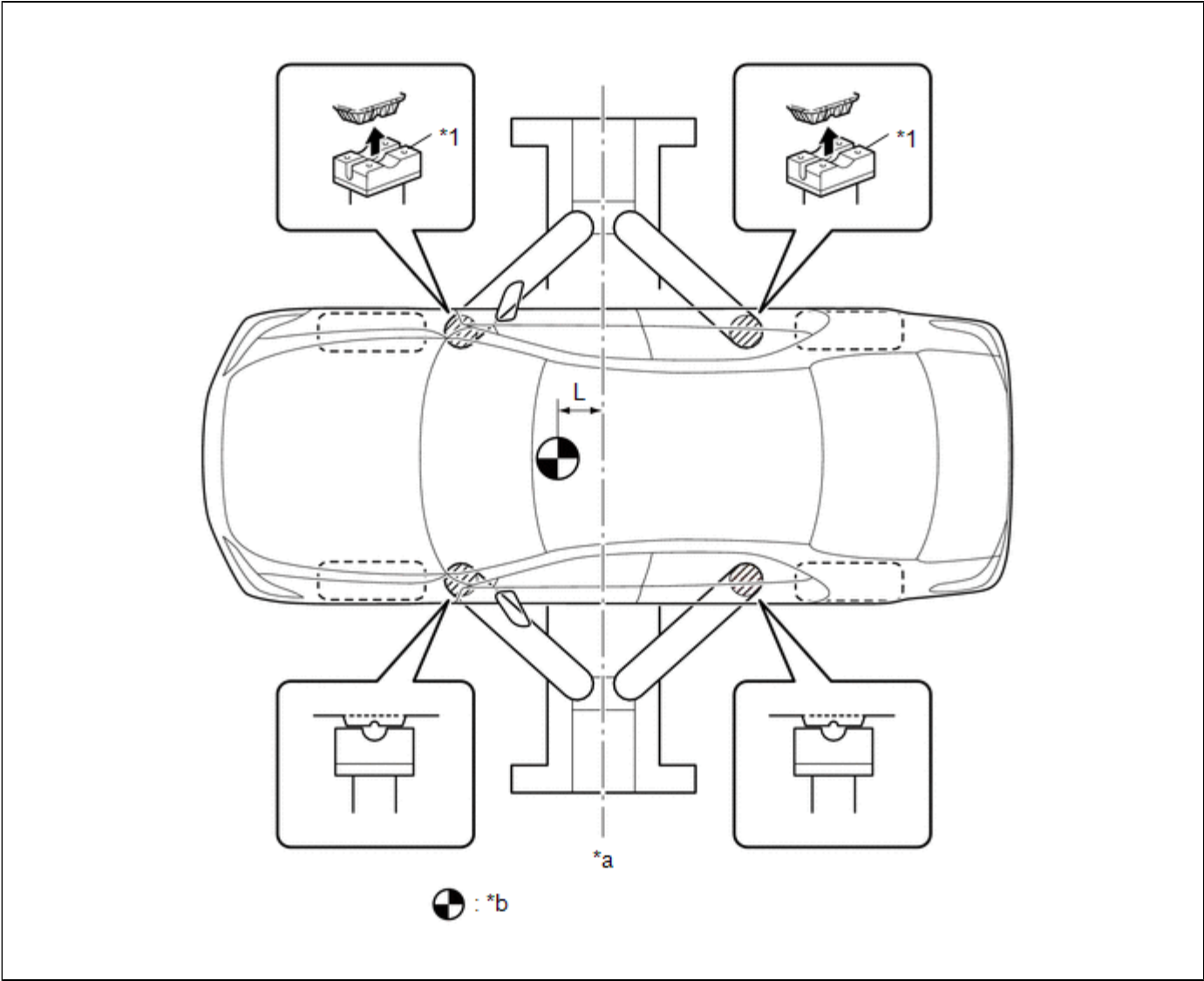
- (1) Before lowering the front wheels, make sure wheel chocks are in front of the rear wheels.
- (2) Before lowering the rear wheels, make sure wheel chocks are behind the front wheels.

PRECAUTIONS FOR WHEN USING A SWING ARM TYPE LIFT

- (a) Follow the safety procedures outlined in the lift's instruction manual.
- (b) Use swing arms equipped with rubber attachments as shown in the illustration.
- (c) Position the vehicle so that its center of gravity is centered on the lift (length of "L" in the illustration should be as

short as possible).

- (d) Ensure that the rubber cushions or swing arms do not contact the body cladding or lower mouldings.
- (e) Be sure to lock the swing arms before raising the vehicle (if equipped with arm locks).
- (f) Use the lift to raise the vehicle until the tires are off the ground, then stop the lift and shake the front and rear of the vehicle to make sure that it is stable.



*1	Rubber Attachment	-	-
*a	Center of lift	*b	VEHICLE CENTER OF GRAVITY (Unloaded Condition)

HINT:
The shape of the support position varies depending on the vehicle model. Therefore, make sure to confirm the shape.

PRECAUTIONS FOR WHEN USING A PLATE TYPE LIFT

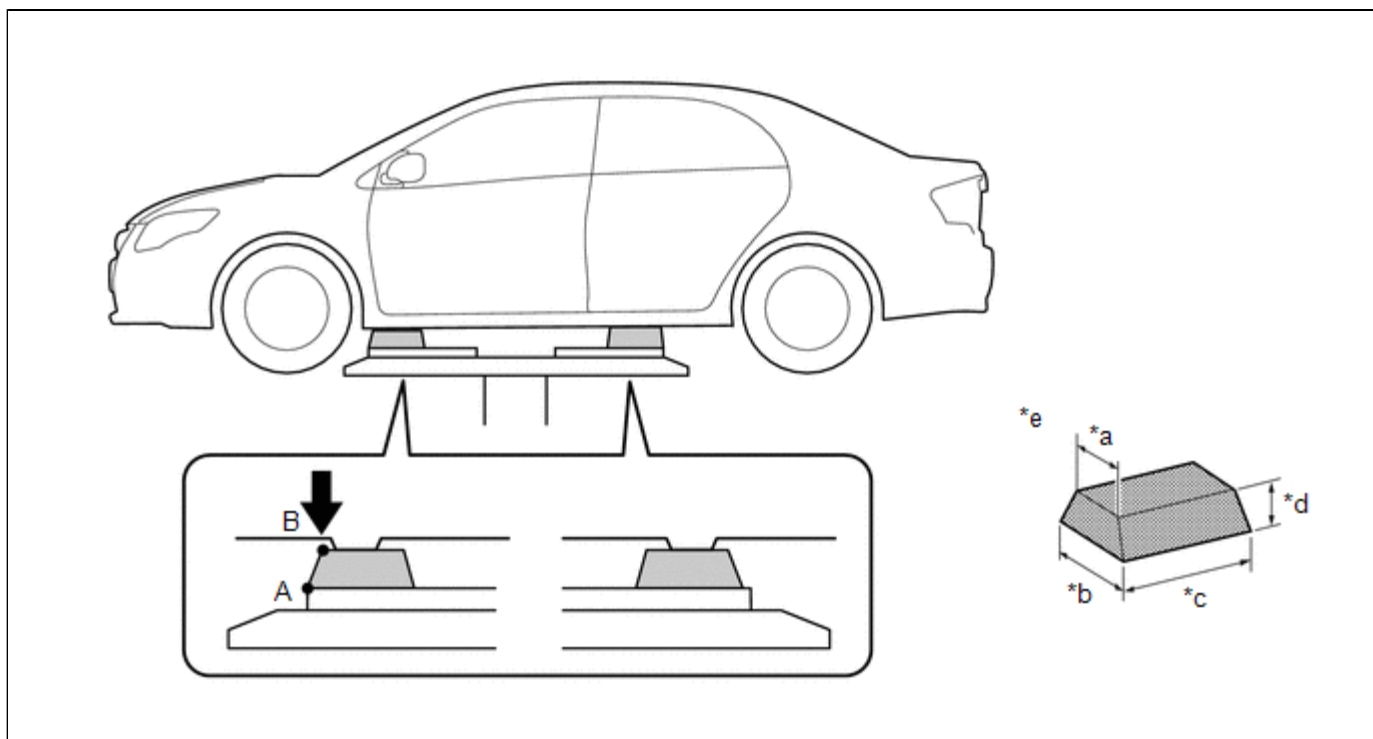
- (a) Follow the safety procedures outlined in the lift's instruction manual.
- (b) Use plate lift attachments (rubber lifting blocks) on top of the plates.
- (c) Be sure to set the vehicle to the specified position described in the following chart and shown in the following illustration.

Right and left set position	Center the vehicle on the lift.
-----------------------------	---------------------------------

- Align the plate cushion ends with the lower ends of the attachments (A).
- Align the upper end of the attachments (B) with the rocker flange front side notch.

(d) Ensure that the plate lift or rubber lifting blocks do not contact the body cladding or lower mouldings.

(e) Use the lift to raise the vehicle until the tires are off the ground, then stop the lift and shake the front and rear of the vehicle to make sure that it is stable.



*a	85 mm (3.35 in.)	*b	100 mm (3.94 in.)
*c	200 mm (7.87 in.)	*d	70 mm (2.76 in.)
*e	Attachment Dimensions	-	-

HINT:

The shape of the support position varies depending on the vehicle model. Therefore, make sure to confirm the shape.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: REPAIR INSTRUCTION: CONDITION BASED SERVICE (CBS); 2020 MY Supra [03/2019 -]		

CONDITION BASED SERVICE (CBS)

Condition Based Service (CBS)

- (a) Condition Based Service (CBS) informs the customer about necessary inspections and maintenance in order to support safe driving and safe operation of the vehicle.
- (b) The sensors and special programs built into the vehicle analyze the vehicle usage conditions, and based on this the CBS calculates appropriate maintenance timing. This enables the system to display information about maintenance timing appropriate for the vehicle usage conditions on the combination meter and multi-display.
- (c) After CBS-related maintenance has been performed, it is necessary to perform CBS reset. Depending on the type of maintenance, this is performed via the combination meter, multi-display or diagnostic system.
- (d) The CBS-related maintenance items are as follows:
 - 1. Engine oil
 - 2. Front brake pad
 - 3. Rear brake pad
 - 4. Brake fluid
 - 5. Vehicle check
 - 6. Emission inspection
 - 7. Vehicle inspection

Maintenance Timing Display

- (a) When the engine is started, the information area of the combination meter briefly displays the next inspection timing and remaining driving distance.



*a	Information Area	-	-
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- (b) Detailed information about maintenance can be displayed in the multi-display.



(1) To display the information, enter the following menus in Toyota Supra Command:

1. "My vehicle"
2. "Vehicle status"
3. "Service required"
4. Select the maintenance item:
 - o "Engine oil"
 - o "Front brake pad"*1
 - o "Rear brake pad"*1
 - o "Brake fluid"
 - o "Vehicle check"
 - o "Emission inspection"*2
 - o "Vehicle inspection"*2

*1: The maintenance item will be displayed once the brake pad wear sensor begins to experience wear.

*2: This item may not be displayed by country or region.
5. Confirm the selected item to display the detailed information.

CBS Reset

(a) Reset and Date Setting Tool Support Table

ITEM	COMBINATION METER	MULTI-DISPLAY	DIAGNOSIS SYSTEM
Engine oil (Diagnosis system display: Motor oil)	Reset	-	Reset
Front brake pad (Diagnosis system display: Front brake)	Reset*1	-	Reset
Rear brake pad (Diagnosis system display: Rear brake)	Reset*1	-	Reset
Brake fluid	Reset	-	Reset
Vehicle check	Reset	-	Reset
Emission inspection	-	Date setting	Date setting
Vehicle inspection	-	Date setting	Date setting

*1: The maintenance item will be displayed once the brake pad wear sensor begins to experience wear.

HINT:

If procedures have been performed before the maintenance timing and reset cannot be performed via the combination meter, it can still be performed using diagnosis system.

(b) Reset Using the Combination Meter

1. Press the START-STOP button (engine switch) 3 times within 0.8 seconds to enter Diagnostic (PAD) Mode.
2. Press and hold the trip distance recorder reset button on the combination meter for 5 to 10 seconds.

HINT:

Continue pressing until maintenance item display appears on the combination meter.

3. Briefly press the trip distance recorder reset button to change the maintenance item.

HINT:

Reset can only be performed when the combination meter displays "Reset possible".

4. Press and hold the trip distance recorder reset button to confirm the maintenance item.

HINT:

When the maintenance item is confirmed, the display changes to "Perform reset?".

5. Press and hold the trip distance recorder reset button to reset the maintenance item.

HINT:

When the reset is completed, the display changes to "Reset successful".

(c) Date Setting Using the Multi-display

(1) In Toyota Supra Command, enter the following menus:

1. "My vehicle"
2. "Vehicle status"
3. "Service required"
4. "Emission inspection" or "Vehicle inspection"
5. Set the date.

(d) Reset and Date Setting Using the Diagnosis System

(1) Connect the diagnosis system to the vehicle and enter the following menus:

1. "Vehicle management"
2. "Service functions"
3. "Maintenance and pre-delivery check"
4. "Reset CBS Condition Based Service"
5. "ABL / CBS reset UDS"
6. Select the maintenance item:
 - o "Motor oil" (Vehicle display: Engine oil)
 - o "Front brake" (Vehicle display: Front brake pad)
 - o "Rear brake" (Vehicle display: Rear brake pad)
 - o "Brake fluid"
 - o "Vehicle check"
 - o "Emission inspection"
 - o "Vehicle inspection"
7. Follow the instructions on the screen to complete the rest of the procedure.

HINT:

For "Emission inspection" and "Vehicle inspection," selecting "Activate" will move to the date

setting.

(e) When engine oil change and vehicle check were performed at the same time

(1) When engine oil change and vehicle check were performed at the same time, reset must be performed according to the following procedure:

1. Change the engine oil.
2. Perform engine oil change reset.
3. Perform the vehicle check.
4. Perform the vehicle check reset.

Correcting CBS Vehicle Data

(a) If CBS reset has been performed in error, it is possible to correct the CBS vehicle data using the diagnosis system.

(b) The procedure to correct CBS vehicle data is as follows:

(1) Connect the diagnosis system to the vehicle and enter the following menus:

1. "Vehicle management"
2. "Service functions"
3. "Maintenance and pre-delivery check"
4. "CBS correction, vehicle data "
5. "ABL / CBS vehicle data correction"
6. Select the maintenance item:
 - o "Motor oil" (Vehicle display: Engine oil)
 - o "Front brake" (Vehicle display: Front brake pad)
 - o "Rear brake" (Vehicle display: Rear brake pad)
 - o "Brake fluid"
 - o "Vehicle check"
 - o "Emission inspection"
 - o "Vehicle inspection"

7. Follow the instructions on the screen to complete the rest of the procedure.

Changing Maintenance Items

(a) Using the diagnosis system, the vehicle's "Emission inspection" and "Vehicle inspection" can be changed between displayed or not displayed.

(b) The procedure to change maintenance items is as follows:

(1) Connect the diagnosis system to the vehicle and enter the following menus:

1. "Vehicle management"
2. "Service functions"
3. "Maintenance and pre-delivery check"
4. "CBS correction, vehicle data "
5. "ABL / CBS vehicle data correction"
6. "Emission inspection" or "Vehicle inspection"
7. Follow the instructions on the screen to complete the rest of the procedure.

Resetting Annual Mileage

HINT:

In the case of a vehicle which has not been driven for a long time, the learning value for annual driving distance will be set too low and must be reset.

(a) Using the diagnosis system, the annual driving distance applied for CBS can be reset.

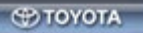
(b) After reset, the mileage accumulated over a period of 6 to 8 weeks is used to estimate a new value for annual mileage, which is then applied to CBS calculations.

(c) The initial default value is 30000 km (20000 mile) per year, and the varying mileage values are then learned over the period of time described above.

(d) The procedure to reset the annual mileage is as follows:

(1) Connect the diagnosis system to the vehicle and enter the following menus:

1. "Vehicle management"
2. "Service functions"
3. "Maintenance and pre-delivery check"
4. "CBS correction, vehicle data "
5. "ABL / CBS vehicle data correction"
6. "Resetting the annual mileage"
7. Follow the instructions on the screen to complete the rest of the procedure.



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CUSTOMIZE PARAMETERS

PROCEDURE

1. CUSTOMIZE USING CONTROL LEVER

(a) Select "My Vehicle"→"Vehicle settings" tab on the control display and set the customize settings.

Vehicle settings

DISPLAY	DETAIL	DESCRIPTION	SETTING
Exterior lighting	One-touch turn signal	Sets the number of flashes when using turn signal switch 1-step operation (lane changer function).	1 time, 3 times
	Right-hand/left-hand traffic	Configures lighting functions for right-hand or left-hand traffic.	Left-hand traffic (default), Right-hand traffic
	Welcome lights	Welcome light illumination function on/off.	ON / OFF
	Door handle lighting	Function to illuminate outside door handle upon unlocking.	ON / OFF
	Home lights	Low beam illumination duration when home light function is activated.	0 to 240 sec.
Doors/Key	All doors (illustration)	Door locks which can be opened or closed when key button is operated.	Driver's door only, All doors
	Comfort entry	Comfort entry function on/off.	ON / OFF
	Tailgate and door (s) (illustration)	Door locks which can be opened or closed when tailgate button is operated.	Tailgate, Tailgate and door (s)
	Relock automatically	Function to automatically relock doors if the doors have not been opened after having been unlocked by electrical key transmitter sub-assembly (electronic key) operation.	ON / OFF
	Lock after pulling away	Function to automatically lock the doors when the vehicle starts moving.	ON / OFF
	Unlock at end of journey	Function to automatically unlock the doors when the start/stop button is pressed and driving standby has turned off.	ON / OFF
	Switch off after door opening	Function to turn the vehicle off when the door is opened and there are no other occupants in the vehicle.	ON / OFF
	Flash for lock/unlock	Function to flash the hazard warning lights when doors are unlocked by electrical key transmitter sub-assembly (electronic key) operation.	ON / OFF
	Fold mirrors in when locked	Automatic folding of mirrors by electric motor.	ON / OFF
	Front collision warning	Adjusts the timing for frontal collision warning alert.	Early, Medium, Late

Toyota Supra Safety	Lane departure warning		Adjusts the timing for lane departure alert.	Early, Medium, Reduced, Off
	Steering intervention		Steering intervention support on/off.	ON / OFF
	Blind spot monitor		Adjusts the timing for notification about vehicles approaching from the rear.	Early, Medium, Late, Off
Steering wheel vibration	-		Adjusts the strength of the steering wheel vibration alert.	Strong, Medium, Light
Speed Warning	Warning at:		Sets the vehicle speed beyond which a warning buzzer will sound.	6 to 260 km/h
	Select current speed		Sets the speed warning value to the current vehicle speed.	Select
Attentiveness Assistant	-		Adjusts the sensitivity of the attentiveness assistant.	Sensitive, Standard, Off
Parking	Autom. activation Parking Sensors	Autom. activation Parking Sens.	Sonar display on the multi-information display.	ON / OFF
	Parking Sensors with braking	Parking Sensors with braking	Parking support brake (vehicle proximity to rear) function on/off.	ON / OFF
	Cross-traffic alert	Cross-traffic alert	Rear cross traffic alert function on/off.	ON / OFF
Configure SPORTS INDIVIDUAL	Damping		SPORT INDIVIDUAL damper setting.	SPORT, NORMAL
	Steering		SPORT INDIVIDUAL steering setting.	SPORT, NORMAL
	Engine		SPORT INDIVIDUAL engine setting.	SPORT, NORMAL
	Transmission		SPORT INDIVIDUAL engine setting.	SPORT, NORMAL
Climate comfort	Temperature adjustment, upper body		Upper body temperature setting.	Adjustable
	Auxiliary ventilation	Active now	Immediate startup of parking ventilation function.	ON / OFF
		For one-off departure time	Parking ventilation function one-time operation.	ON / OFF
		For departure time	Parking ventilation function (date/time repeat setting 1).	ON / OFF
		For departure time	Parking ventilation function (date/time repeat setting 2).	ON / OFF
Vehicle tracking	Vehicle tracking		Vehicle location tracking.	ON / OFF

(b) Select "My Vehicle"→"System settings" tab on the control display and set the customize settings.

System settings

DISPLAY	DETAIL		DESCRIPTION	SETTING
Mobile devices	Connect new device		Connect a new device.	Select function
	Settings	Bluetooth	Bluetooth connection.	ON / OFF
		Apple CarPlay	Apple CarPlay connection.	ON / OFF
		Office	Setting for telephone function operation.	ON / OFF
		Vehicle Wi-Fi	Vehicle Wi-Fi connection	ON / OFF
Wireless charging tray	Forgotten mobile device alert		Alert when mobile phone is left behind.	ON / OFF
Language	Language		Language selection.	Select
	Voice input		Voice input language setting.	English UK , English US
	Voice control		Voice control setting.	Standard, Simple
	Server speech recognition		Speech recognition via server.	ON / OFF
	Speaking during voice output		Speech during voice guidance output on/off.	ON / OFF
Touchpad	Write		Touchpad on/off.	ON / OFF
	Map		Map operation on/off.	ON / OFF
	Audio feedback		Audio feedback on/off.	ON / OFF
Displays	Head-up display	Head-up display	Head-up display on/off.	ON / OFF
		Brightness	Head-up display image adjustment (brightness adjustment).	Adjustable
		Height	Head-up display image adjustment (height adjustment).	Adjustable
		Rotation	Head-up display image adjustment (rotation adjustment).	Adjustable
		Entertainment/Telephone	Head-up display entertainment/telephone display on/off.	ON / OFF
		Distance information	Head-up display distance information display on/off.	ON / OFF
		Vehicle messages	Head-up display vehicle message display on/off.	ON / OFF
		Navigation	Head-up display navigation display on/off.	ON / OFF
	Control display	Switch off control display	Turn off control display screen.	Select
		Brightness at night	Control display nighttime brightness setting.	Adjustable
			Instrument cluster "My Journey"	

	Instrument cluster	On-board computer	My journey	display.	ON / OFF
			Total range	Instrument cluster total cruising range display.	ON / OFF
			Consumption display	Instrument cluster fuel consumption display.	ON / OFF
			Average speed and average consumption	Instrument cluster average speed and average fuel consumption display.	ON / OFF
Date and time	Time zone		Time zone setting.		Select
	Time		The current time.		tt:mm am,pm
	Time format		Time format setting.		12h, 24h
	Date		The current date.		
	Date format		Date format setting.		dd.mm.yyyy, mm/dd/yyyy, yyyy/mm/dd, yyyy.mm.dd
Units	Consumption		Display units for fuel consumption.		l/100km, km/l
	Power		Display units for output power.		kW, ps
	Torque		Display units for torque.		Nm, ft lb, kgm
	Pressure		Display units for pressure.		bar, psi, kPa
	Temperature		Display units for temperature.		°C , °F
Sound	Equaliser		Equalizer function setting.		Adjustable
	Treble		Treble setting.		Adjustable
	Bass		Bass setting.		Adjustable
	Balance		Audio balance setting.		Adjustable
	Fader		Fader setting.		Adjustable
	Surround		Surround function on/off.		Adjustable
	Volume settings	Navigation	Navigation voice guidance volume setting.		Adjustable
		Speed volume	Automatic volume compensation for navigation unit according to vehicle speed.		Adjustable
		Parking Sens.	Adjust the warning sound (clearance sonar) when approaching an obstacle.		Adjustable
		Gong	Confirmation sound for message display.		Adjustable
		Microphone*1	Adjustment of microphone volume during phone call. *1		Adjustable
		Loudspeakers*1	Adjustment of speaker volume during phone call. *1		Adjustable
	Touchscreen		Feedback sound when operating touchscreen.		ON / OFF

	Touchpad	Feedback sound when operating touchpad.	ON / OFF
Notifications	Reminders for appointments	Appointment reminders on/off.	ON / OFF
	Reminders for tasks	Task reminders on/off.	ON / OFF
	Missed calls	Missed call notifications on/off.	ON / OFF
	Messages	Message notifications on/off.	ON / OFF
	Emails	Email notifications on/off.	ON / OFF
	Text messages	SMS notifications on/off.	ON / OFF
Pop-ups	Sports mode button	Sports mode button pop-up alert on/off.	ON / OFF
Getting started	Which language would you like to use?	-	Select
Data privacy	Vehicle tracking	Vehicle location tracking operating/canceled.	Select
	Server speech recognition	Speech recognition via server.	ON / OFF
	Delete personal data	Delete personal information from the vehicle.	Select

*1: Setting only possible during a call

2. CUSTOMIZE USING ISTA

- (a) Press the start/stop button 3 times within 0.8 seconds to activate Testing-analysis-diagnosis (PAD) mode.
- (b) Select "Vehicle management"→"vehicle modification"→"Conversion" tab on the ISTA and set the customize settings.

DESCRIPTION
Conversion, deactivate Telematics

- (c) Select "Vehicle management"→"vehicle modification"→"Conversion (coding only)" tab on the ISTA and set the customize settings.

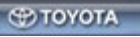
DESCRIPTION
Conversion, temperature target value correction, +1 degree
Conversion, temperature target value correction, +2 degree
Conversion, temperature target value correction, +3 degree
Conversion, temperature target value correction, -1 degree
Conversion, temperature target value correction, -2 degree
Conversion, temperature target value correction, -3 degree

- (d) Select "Vehicle management"→"vehicle modification"→"Removal of retrofit / conversion (coding only)" tab on the ISTA and set the customize settings.

DESCRIPTION
Conversion deactivation of the automatic air recirculation control

Conversion, deactive driver seat belt warning

Conversion, deactive passenger seat belt warning



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ABBREVIATIONS USED IN MANUAL

NOTICE:

Contents from preexisting TOYOTA abbreviations and systems have been included as representative examples for their BMW equivalents, and may differ from actual controls and constructions.

HINT:

The search function can be used by simultaneously pressing the Ctrl and F keys on the keyboard.

Abbreviation (include System Name)

ABBREVIATIONS FOR BMW	TERMS OF BMW	ABBREVIATIONS FOR TOYOTA	TERMS OF TOYOTA	NOTE
-	2-circuit brake system with front/rear split	-	-	Division of the 2-circuit brake system into one brake circuit for the wheel brakes of the front axle and one brake circuit for the rear axle.
ABL	Procedure	-	-	Designation of test modules in ISTA.
ACC	Active Cruise Control	-	Dynamic Rader Cruise Control System	Abbreviation for the active cruise control with Stop & Go function.
ASD	Active Sound Design	ASC	Active Sound Control Acceleration Sound Control	The Active Sound Design amplifies the engine sound in the vehicle interior for a sportier impression.
AGM	AGM battery	-	Battery	Abbreviation for Absorbent Glass Mat, a special type of lead-acid battery.
AKF	Carbon canister	-	Canister (for Emission Control)	Filter for storing fuel vapours.
AMPT	Amplifier Top	AMP	Amplifier	The Amplifier Top is the audio amplifier for the highest speaker system equipment.
ABS	Antilock Brake System	ABS	Anti-Lock Brake System	Function of the Dynamic Stability Control (DSC) for vehicle stabilisation.
ASC	Automatic Stability Control	TRAC/TRC VSC	Traction Control System Vehicle Stability Control	Function of the Dynamic Stability Control (DSC) for vehicle stabilisation.
ADB	Automatic differential brake	TRAC/TRC LSD	Traction Control System Limited Slip Differential	Function of the Dynamic Stability Control (DSC) for improving the traction.
-	Automatic air recirculation control	-	Automatic Recirculation Control	Function of the heating and air conditioning system that assesses the air quality and if necessary automatically changes to the air recirculation

				function.
APIX	Automotive Pixel Link	-	-	Data line for video transmission.
BDC	Body Domain Controller	-	Main Body ECU	Central control unit for the vehicle electrical system. Contains the gateway.
CID	Central information display	-	Multi-Display	Display in the centre console for the display of the infotainment functions.
CCM	Check Control message	-	Warning message	Fault message or warning in the instrument cluster (KOMBI) or on the central information display (CID).
CVO	Controlled Valve Operating	-	-	Determination of the actual opening period of the solenoid valve injectors.
CON	Controller	-	Remote touch (Remote Operation Controller ASSY)	The controller is the central operating element.
CBC	Cornering Brake Control	VSC	Vehicle Stability Control	Function of the Dynamic Stability Control (DSC) for vehicle stabilisation.
ACSM	Advanced Crash Safety Module	SRS	Airbag Control Computer	Control unit for passive safety systems, e.g. airbags.
D-CAN	Diagnosis-CAN	CAN	Controller Area Network	Bus System.
DAB	Digital Audio Broadcast	DAB	Digital Audio Broadcast	Digital radio reception.
DME	Digital Motor Electronics	ECM	Engine Control Computer	The Digital Motor Electronics is the engine control unit.
DSC	Dynamic Stability Control	-	Skid Control Computer	Central control unit for driving stabilisation. Contains, e.g. the ABS function.
DTC	Dynamic Traction Control	TRC	Traction Control	Function of the Dynamic Stability Control, which supports a sportier driving style with restricted driving stability.
EBO	Installation location	-	Parts Location	Designation of document type on the topic installation location in ISTA.
EPS	Electronic Power Steering	EPS	Electronic Power Steering	Electronic Power Steering is the control unit for the electromechanical power steering.
EKP	Electric fuel pump	-	Fuel Pump	Pump for the delivery of the fuel from the fuel tank to the engine.
DBC	Dynamic Brake Control	VDIM VSC	Vehicle Dynamics Integrated Management Vehicle Stability	Function of the Dynamic Stability Control (DSC) for vehicle stabilisation.

			Control	
EDC	Electronic Damper Control	AVS	Adaptive Variable Suspension system	The EDC adapts the damping characteristics of the shock absorbers to the current driving situation.
EGS	Electronic transmission control	TCM ECT	Transmission Control Module Electronic Controlled Automatic Transmission	The electronic transmission control is responsible for the activation of the automatic transmission.
-	Ethernet switch	-	-	Distributor box for Ethernet.
FDR	Driving dynamics control	VSC ACA	Vehicle Stability Control Active Cornering Assist	Function of the Dynamic Stability Control (DSC) for vehicle stabilisation.
-	Remote control receiver	-	Door Control Receiver	The remote control receiver receives the signals from the ID transmitter and forwards them to the Body Domain Controller.
FLA	High-beam assistant	AHB	Adaptive High Beam Switch	The high-beam assistant is responsible for the automatic activation of the high beam if no KAFAS camera is installed.
-	FlexRay	-	-	Bus System.
FLEL	Frontal Light Electronics Left	-	Headlight Control Computer LH	The Frontal Light Electronics Left is responsible for the control of the LED headlight.
FLER	Frontal Light Electronics Right	-	Headlight Control Computer RH	The Frontal Light Electronics Right is responsible for the control of the LED headlight.
FRS	Front radar sensor	-	Millimeter Wave Radar Sensor	Control unit with integrated radar sensor, which monitors the traffic space in front.
FPC	Fuel Pump Controller	-	Fuel Pump Control Computer	Control unit for controlling the electric fuel pump.
FUB	Functional description	-	System Description	Designation of document type on the topic component or system function in ISTA.
FZD	Roof function centre	-	Map Lamp ASSY	The roof function centre contains the alarm system.
GWS	Gear selector switch	-	Transmission Shift Switch ASSY	The drive positions are shifted using the gear selector switch.
GHAS	Regulated rear axle differential lock	-	-	The regulated rear axle differential lock adjusts the limited slip differential.
			Radio Receiver ASSY	

HU-B HU-H	Head unit	-	Telematics Transceiver Navigation Computer	The head unit controls the components in the infotainment area. Depending on the equipment, a Head Unit Basic or a Head Unit High is installed.
HRSNL	Rear radar sensor short range left	-	Blind spot monitor sensor rear corner LH (Slave)	Control unit with integrated radar sensor, which monitors the traffic space at the rear left.
HRSNR	Rear radar sensor short range right	-	Blind spot monitor sensor rear corner RH (Master)	Control unit with integrated radar sensor, which monitors the traffic space at the rear right.
-	ID transmitter	-	Ignition Key (Electrical Key Transmitter SUB-ASSY)	Ignition key.
KOMBI	Instrument cluster	-	Combination meter	Control unit with display element, e.g. speed and engine speed.
IHKA	Integrated automatic heating /air conditioning	-	Air Conditioning Amplifier ASSY	Control unit for the function of the heating and air conditioning.
IBS	Intelligent battery sensor	-	Battery State Sensor	Sensor, which detects the battery data.
IROX	IROX coating	-	-	Specially coated bearing shells for connecting rod and crankshaft.
-	ITS head airbag	-	SRS Curtain Shield Airbag (Side Airbag)	Inflatable Tubular Structure head airbag.
KAFAS	KAFAS control unit	-	Forward Recognition Camera	Control unit with integrated camera, which is responsible for image processing and image evaluation.
KAFAS	Camera-based driver assistance systems	RSA PCS LTA	Road Sign Assist System Supplemental Restraint System Lane Tracing Assist System	Collective term for assistance systems that use the camera function, e.g. lane departure warning.
K-CAN.	Body CAN	CAN	Controller Area Network	Bus System.
-	Terminal 1	-	-	Connection designation at ignition coil.
15WUP	Terminal 15 wake-up line	-	-	Terminal that wakes up control units with a voltage signal.
-	Terminal 15N	-	-	Switched positive, the N stands for after-run.
-	Terminal 30	-	-	Permanent positive.

-	Terminal 30B	-	-	Terminal 30B is used to supply power to control units and components that are required in the presence of the driver during normal operation.
-	Terminal 30F	-	-	Terminal 30F is used to supply power to control units and components that require permanent positive during normal operation, but can be switched off in case of a fault.
-	Terminal 31	-	-	Body ground
-	Terminal 4a	-	-	Connection designation at ignition coil.
LDS	Electric arc wire spraying	-	-	Manufacturing procedure for the coating of the engine cylinders.
LIN bus	Local interconnect network bus	LIN	LIN	Single-wire bus.
-	Lumbar support	-	Lumbar support	Curvature of the spine to the front.
MOST	Media Oriented System Transport	MOST	Media Oriented System Transport	Optical fibre.
Automatic start-stop	Automatic engine start/stop function	-	Stop and Start System	Automatic shutdown and start of the petrol engine at vehicle standstill.
-	Multi-turn value	-	-	Value for determining the steering angle.
NVLD	Natural Vacuum Leak Detection	-	-	Passive on-board-diagnosis for the fuel evaporation system for the leakage test of the fuel tank in US- and Korea-version vehicles.
-	OABR Ethernet	-	-	Open Alliance BroadR-Reach.
OBD	On-board diagnosis	-	-	Function of the Digital Motor Electronics, which detects and stores faults.
Petrol particulate filter	Petrol particulate filter	GPF	Gasoline Particulate filter	Filter for the reduction of the emission of particulate matter in petrol engines.
PDC	Park Distance Control	-	Parking Support Brake System	Assistance system, which detects and evaluates the surrounding area of the vehicle by means of ultrasonic sensors and reports the distances to the driver visually and acoustically.
PWF	Parking-residing-driving	-	-	Intelligent terminal control.
PMA	Parking Manoeuvring Assistant	-	-	Control unit, which is responsible for the evaluation of all ultrasonic sensors.
PIB	Pin assignment	-	-	Designation of document type on the topic pin assignment in ISTA.

PT-CAN	Powertrain CAN	CAN	Controller Area Network	Bus System.
PAD	Check Analysis Diagnosis	-	INSPECTION MODE MAINTENANCE MODE CERTIFICATION MODE	All terminals and control units are active.
RLSBS	Rain-light-solar-condensation sensor	-	Rain sensor Light Control sensor	Sensor at the windscreen, which influences the control of the heating and air conditioning system and the wiper.
RDC	Tyre pressure control	TPMS	Tire Pressure Monitoring System	System for monitoring the tyre pressure and the tyre air temperature.
RFK	Rear view camera	-	Rear view camera Back-up Camera	The rear view camera supports the driver during parking and manoeuvring.
-	Safety Systems	-	-	All safety-relevant assistance systems are summarised under the term, such as collision warning, pedestrian warning or lane change warning.
-	Safety Systems menu	-	-	Overview and settings menu in the vehicle in which the safety-relevant assistance systems are summarised.
SZL	Steering column switch cluster	-	Steering Pad Switch	Control unit, which allows functions of the multifunction steering wheel.
-	Safety battery terminal	-	-	The alternator and the starter motor are connected to the safety battery terminal. They are activated in the event of an accident of corresponding severity.
SMFA	Driver's seat module	-	Front Power Seat Control System	Control unit for the functions of the driver's seat, e.g. backrest adjustment.
STA	Connector view	-	Connector List (Electronic Wiring Diagram)	Designation of document type on the topic connector in ISTA.
-	Stop&Go function	-	-	Function within the active cruise control, with which the vehicle can automatically decelerate to a standstill in certain conditions and then automatically drive off again.
SSP	System wiring diagram	-	System Circuit (Electronic Wiring Diagram)	Designation of document type on the topic wiring diagram in ISTA.
	Telematic			

TCB	Communication Box	-	Telematics Transceiver	The Telematic Communication Box is the control unit for the Toyota Supra Connected services.
ISTA	Integrated Service Technical Application	-	-	Workshop system for the diagnosis and programming of the Supra.
-	Valvetronic	VVTL-i	Variable Valve Timing and Lift-intelligent	Combination of the variable camshaft timing control (VANOS) and the variable Valvetronic.
VANOS	Variable camshaft timing control	VVT-i	Variable Valve Timing-intelligent	Variable adjustment of the valve timings.
-	Variable valve lift	-	VALVEMATIC system	Control of the amount of air of the fuel-air mixture on the intake side.
VDP	Vertical Dynamic Platform	-	Absorber Control ECU	The control unit Vertical Dynamic Platform controls the Electronic Damper Control.
VM	Video module	-	Radio Receiver ASSY	The video module is the TV control unit.
WMM	Heat management module	-	-	Electrically driven actuator for controlling the coolant circuits.
WCA	Wireless charging station	-	Wireless Charging System	Tray in the centre console, on which a compatible smartphone can be charged wirelessly.
ZGM	Central gateway module	-	Central gateway ECU	The central gateway module is an independent control unit in the housing of the Body Domain Controller. The gateway links the different bus systems.

System Name

BMW	TOYOTA
Park Distance Control	Parking Sensors
Intelligent Safety	Toyota Supra Safety
Active Cruise Control /Cruise Control (abbr.)	Adaptive Cruise Control
High-beam assistant	Automatic high-beam
Dynamic brake lamp	Emergency brake lamp
Electronic Damping Control	adaptive variable suspension
Traction control /Dynamic Traction Control	Traction mode
Chassis stabilization /Dynamic Stability Control /DSC /driving stability /Chassis stability /Driving stabilization	chassis stabilization /Dynamic Stability Control /Vehicle Stability Control and Traction control
Automatic Start/Stop	Auto Start/Stop
Radio Professional, Navigation Business, Navigation Professional, rear-seat entertainment Professional	Multimedia Systems

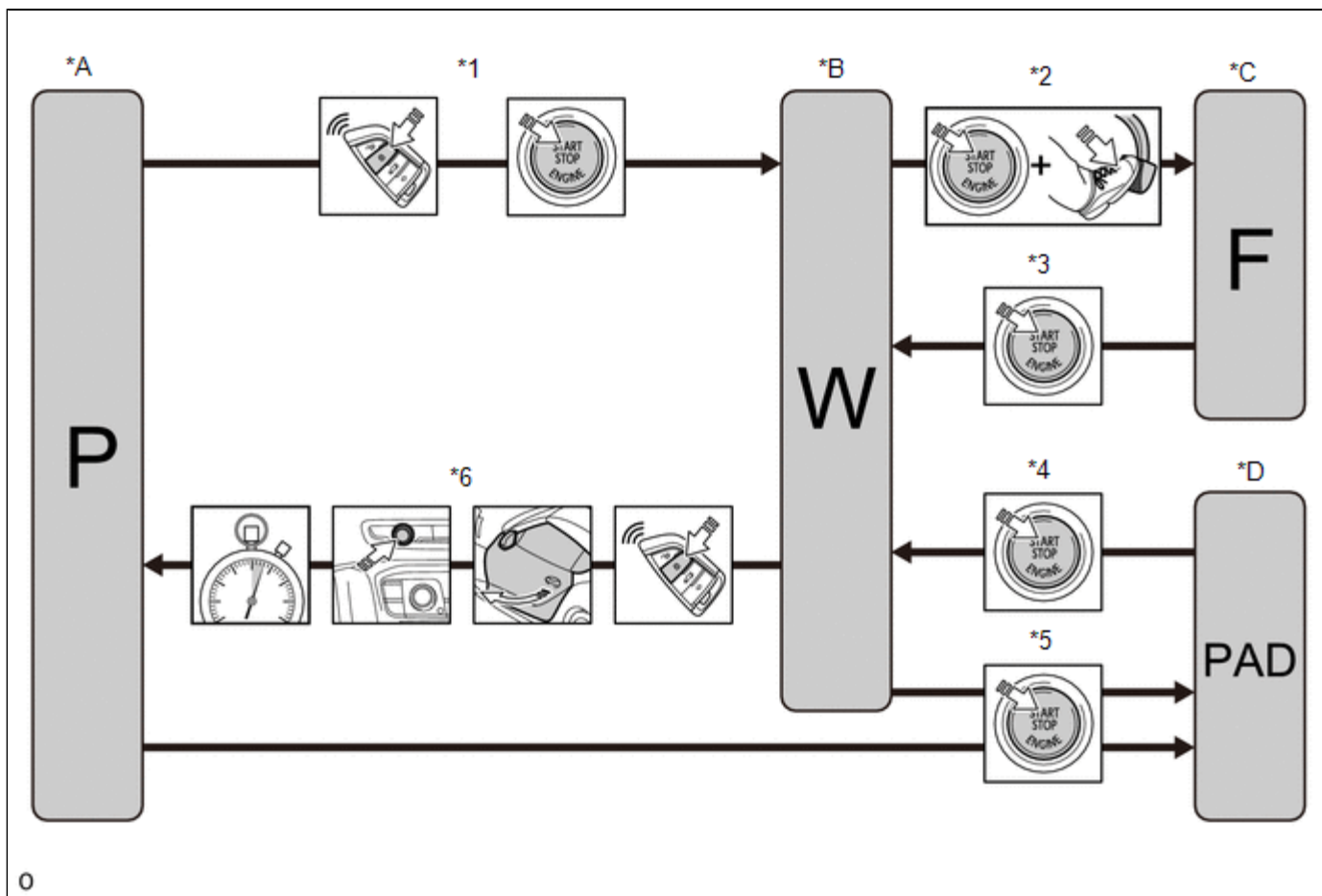
Active PDC	Parking Sensors with emergency braking function
Auto PDC /Automatic PDC	Automatic Parking Sensors
Comfort access	Comfort entry
Comfort access	Smart Key System
Automatic Teleservice Call	automatic maintenance call
Teleservice	remote maintenance
Emergency Request /Emergency call /Emergency	Emergency call
Active Blind Spot Detection	Blind spot monitor
DSC Dynamic Stability Control	VSC Vehicle Stability Control System

Information in ISTA (Abbreviation)

ABBREVIATION	INFORMATION
ABL	Procedure (service program)
AZD	Tightening torque
EBO	Installation location
FEB	Fault elimination
FTD	Vehicle engineering diagnosis
FUB	Functional description
IBAC	Internet Based Calculation of Enabling Codes
KFA	Function changes to vehicle
PIB	Pin assignment
REP	Repair instruction
SBS	Operating fluids
SIT	Service Engineering Information
SPI	Vehicle software information
SSP	Wiring diagram
STA	Connector view
SWS	Special Tool
SWZ	Special Tool
TED	Technical data

OPERATION AND CONDITION

(a) Terminal Control



0

*A	Parking	*B	Residing
*C	Driving	*D	Testing-analysis-diagnosis (PAD) mode
*1	Change from parking to residing. <ul style="list-style-type: none"> Waking up the vehicle (e.g. vehicle unlocking) Press the start/stop button. 	*2	Change from residing to driving (combustion engine is started). <ul style="list-style-type: none"> Press the start/stop button and the brake pedal at the same time.
*3	Change from driving to residing (combustion engine is switched off). <ul style="list-style-type: none"> Press the start/stop button. 	*4	Changes from testing analysis-diagnosis (PAD) to residing. <ul style="list-style-type: none"> Press the start/stop button.
*5	Change to testing-analysis-diagnosis (PAD). <ul style="list-style-type: none"> Start/stop button is pressed 3 times in 0.8 s. 	*6	Change from residing to parking. <ul style="list-style-type: none"> Activate the AUDIO button for more than 3 s. Leaving the vehicle. Lock vehicle. No customer interaction for 10 minutes.

condition

STATES	ACTIVATED BY THE FOLLOWING ACTIONS:

Parking	<ul style="list-style-type: none"> Customer not in the vehicle Vehicle secured or not used for a certain time Vehicle functions not operable (IG OFF).
Residing	<ul style="list-style-type: none"> Customer in the vehicle Not ready to drive (engine off) Functions that are required when the vehicle is stationary can be operated.
Driving	<ul style="list-style-type: none"> Customer in the vehicle Ready to drive (engine running) All vehicle functions are available.
Testing-analysis-diagnosis (PAD) mode	<ul style="list-style-type: none"> Press the start/stop button 3 times within 0.8 seconds Independent activation during diagnostic test when ISTA is used.

(b) Power supply

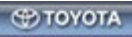
CONDITIONS	EXPLANATION
Terminal 30	Voltage is always supplied to a specific control unit (antitheft device, etc.), and is not switched OFF even if there is a failure.
Terminal 30B	Supplies Power to the necessary control unit when the driver is in the driver's seat.
Terminal 30F	Supplies Power to the necessary control unit even when the driver is not in the driver's seat. Possible to stop power supply when there is a failure.
Terminal 15N	Supplies power to the necessary control unit for running operations.
Terminal 31	Body ground

(c) Systems

BUS systems

TERMS	EXPLANATION
D-CAN (Diagnose-on-CAN)	Responsible for data transfer between the diagnosis master (gateway) and the diagnosis system.
PT-CAN (PowerTrain CAN)	Used for networking the control units for the drive and assistance systems.
K-CAN	<p>Transfer information from the control units that perform functions in the body area, such as lighting or heating and air-conditioning.</p> <p>Characteristics of the K-CAN bus systems:</p> <ul style="list-style-type: none"> 2 twisted copper wires Data transfer rate of 500 kBit/s Linear bus structure No emergency running properties.
	The following Local-CAN (500 kBit/s) are installed, depending on the equipment specification:

Local-CAN	<ul style="list-style-type: none"> • Between the rear radar sensor short range right (HRSNR) and rear radar sensor short range left (HRSNL) • Between camera-based driver assistance systems (KAFAS) and front radar sensor (FRS).
FlexRay	Used in the Supra to ensure networking of the driving dynamics control systems, safety systems and drive systems.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JJ8J
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: TERMS: SST LIST; 2020 MY Supra [03/2019 -]		

SST LIST

HINT:
The search function can be used by simultaneously pressing the Ctrl and F keys on the keyboard.

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TOYOTA PARTS NUMBER	PARTS NAME	BMW PARTS NUMBER	BMW PARTS NUMBER (OLD)
09200 - WA040	PLIERS SET	83300495794	172050
09200-WA050	TESTER	83300494417	170100
09200-WA060	ADAPTER	83302360215	-
09200-WA070	TOOL	83300493881	119180
09200-WA080 (PZ4TB0496127)	INSTALLER	83300496127	118800
09200-WA090	INSTALLER	83300496132	118810
09200-WA120	HOOK	83300496733	006080
09200-WA130	PLUG	83300496565	135160
09200-WA140	EXTRACTOR	83300491454	230490
09200-WA160	EXTENSION PIECE	83300493751	119150
09200-WA180	LONG SOCKET 24 MM	83300496106	118720
09200-WA190 (PZ4TB0493380)	CONNECTION PIECE	83300493380	116480
09200-WA210	EXTRACTOR	83300493321	135250
09200-WA260	MANDREL	83300490873	112350
09200-WA280	HOOK	83300493681	641020
09200-WA330	BLASTING DEVICE	81292208034	-
09200-WA340	BLASTING MATERIAL ADAPTER	81292410274	-
09200-WA380	GAUGE	83302358122	-
09200-WA400	VALVE SPRING TOOL	83300496143	118840
09200-WA410	FIXTURE	83302359088	-
09200-WA420	FIXTURE	83302359089	-
09200-WA430	FIXTURE	83302361215	-
09200-WA440	BUSH	83300493249	116380
09200-WA450	PLIERS	83300490796	111480
09200-WA460	EXTRACTOR	83302458114	-
09200-WA470	RATCHET HANDLE	83300496855	-

09200-WA480	BUSH	83300495373	116240
09200-WA500	FIXTURE	83302410670	-
09200-WA510	LOCKING FIXTURE	83300495739	118550
09200-WA520	FIXTURE	83302358417	-
09200-WA530	PLUG	83302364711	-
09200-WA550	MEASURING ADAPTER	83302410238	-
09200-WA560	ADAPTER	83302420355	-
09200-WA570	ALIGNMENT PIN	83302288380	-
09200-WA580	DISASSAMBLY AND MOUNTING AID	83302410685	-
09200-WA590	PLIERS	83300494152	321260
09200-WA600	EXHAUST PIPE CUTTER	83300496469	002220
09200-WA610	HOOK	83302459012	-
09200-WA650	BEAM PROBE	81292208033	-
09200-WA660	TESTER	81392302630	-
09200-WA670	BEAM PROBE	81292356969	-
09200-WA680	SPACER	83302455172	-
09200-WA700	GAUGE	83302456372	-
09200-WA710	HOLDING SLEEVE	83300490797	111960
09200-WA720	PLUG	83302456190	-
09200-WA730	INSERTION TOOL	83302463755	-
09200-WA740	TOOLS SET	83300495743	118560
09200-WA750	ADAPTER	83302463754	-
09200-WA800	SOCKET	83302450487	-
09200-WA810	TENSIONING TOOL	83302455654	-
09200-WA850	ADAPTER	83302288054	-
09200-WA860	ENGINE HOIST	83300490567	110020
09200-WA870	ENGINE HOIST	83300490561	110000
09200-WA930	PRESSURE GAUGE	83300491260	133061
09200-WA950	HOSE	83300491262	133063
09200-WA960	CAP	83302471014	-
09200-WA970	MEASURING ADAPTER	83302289603	-

093XX

TOYOTA PARTS NUMBER	PARTS NAME	BMW PARTS NUMBER	BMW PARTS NUMBER (OLD)
09300-WA030	HOLDER	83300494451	244160
09300-WA040	HANDLE	83300496717	241440
09300-WA050	EXTRACTOR	83300496716	241420

09300-WA060	MANDREL	83300496719	241410
09300-WA070	HANDLE WRENCH	83302455997	-
09300-WA080	DRIVER	83300496715	241430
09300-WA100	CAP	83300494213	242390
09300-WA110	EXTRACTOR	83300494416	233160
09300-WA120	BUSH	83300491781	245360
09300-WA130	EXTRACTOR	83300496718	245367
09300-WA160	TOOL	83300492260	333200
09300-WA180	PLIERS	83300490472	005020

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TOYOTA PARTS NUMBER	PARTS NAME	BMW PARTS NUMBER	BMW PARTS NUMBER (OLD)
09500-WA020	FIXTURE	83300495851	335120
09500-WA030	ADAPTER	83302240465	-
09500-WA040	RING WRENCH	83300495552	335050
09500-WA050	MULTITOOTH SOCKET	83300495553	335060
09500-WA060	MANDREL	83300495860	335130
09500-WA070	HANDLE	83300490475	005500
09500-WA080	MANDREL	83300495313	334320
09500-WA090	UNIVERSAL PULLER	83300490466	005010
09500-WA100	FIXTURE	83300492397	334140
09500-WA110	ADAPTER	83300496887	-
09500-WA120	ADAPTER	83302241760	-
09500-WA130	DISC	83302241779	-
09500-WA140	DISC	83302241780	-
09500-WA150	TOOL	83300494929	334460
09500-WA170	WRENCH	83300496959	330080
09500-WA180	MANDREL	83300496596	330150
09500-WA200	HOLDING SLEEVE	83300492074	331020
09500-WA210	MANDREL	83300495862	335140
09500-WA220	TOOLS SET	81642208573	-
09500-WA230	PULLER	83300490482	007500
09500-WA240	PUMP	83300493337	002080
09500-WA250	TOOL	83300494926	334430
09500-WA270	THRUST PIECE	83300496390	330010
09500-WA280	FIXTURE	83300496951	-
09500-WA290	FIXTURE	83300495339	-

09500-WA300	DISC	83302464360	-
09500-WA310	FIXTURE	83300496495	-
09500-WA320	THRUST PIECE	83302304560	-
09500-WA330	TOOL SET	83300493694	-

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TOYOTA PARTS NUMBER	PARTS NAME	BMW PARTS NUMBER	BMW PARTS NUMBER (OLD)
09600-WA010	WHEEL HUB GRINDER	81252344011	-
09600-WA020	HYDRAULIC UNIT	81642155744	-
09600-WA030	SOCKET WRENCH	83300494541	312230
09600-WA040	WRENCH	83300496483	323220
09650-14010	WHEEL GUIDE PIN	-	-

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TOYOTA PARTS NUMBER	PARTS NAME	BMW PARTS NUMBER	BMW PARTS NUMBER (OLD)
09700-WA010	SOCKET WRENCH	83302355965	-
09700-WA020	SOCKET WRENCH	83302355966	-
09700-WA030	RELEASE TOOL	83302409646	-
09700-WA040	COUNTER SUPPORT	83300496595	116130
09700-WA050	RELEASING TOOL	83302355850	-
09700-WA070	SOCKET WRENCH	83300492482	343170
09700-WA090	GAUGE	83300495451	341280
09700-WA120	BRAKE PISTON TOOL	83302352960	-
09700-WA140	TORX SOCKET E14	83302444999	-
09700-WA160	SPRING TENSIONER	83300494933	335010
09700-WA180	SPRING CUP	83302241783	-
09700-WA190	SPRING TENSIONER	83302213022	-
09700-WA200	SPRING CUP	83302213042	-
09700-WA210	PROTECTION	83302412607	-

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TOYOTA PARTS NUMBER	PARTS NAME	BMW PARTS NUMBER	BMW PARTS NUMBER (OLD)
09800-WA020	UNIVERSAL WIPER ARM PULLER	83300493441	616060
09800-WA030	BONNET SUPPORT	83300493647	512170
09800-WA060	TOOL	83300495346	616100
09800-WA070	HOSE GUIDE	83300495588	161080
09800-WA080	BIT	83302411349	-

09800-WA090	RIVETING TOOL	83300490474	005040
09800-WA110	TOOL	83300496726	510400
09800-WA130	HOOK WRENCH	83302360051	-
09800-WA150	MEASURING DEVICE	81310442898	-
09800-WA170	TOOL	83300496529	513320
09800-WA190	SPRAY LANCE PISTOL	81459429217	-
09800-WA200	I ADAPTER CABLE	83300496519	-
09800-WA220	FIXTURE	83302356862	-
09800-WA230	TORX	83302450364	-
09800-WA250	SPRAY LANCE	83302222502	-
09800-WA260	SPRAY LANCE	83302364733	-
09800-WA280	RELEASING TOOL	83302450405	-
09800-WA290	WRENCH	83302445958	-
09800-WA300	MEASURING DEVICE	81310442899	-
09800-WA310	ATTACHMENT	83302464950	-

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TOYOTA PARTS NUMBER	PARTS NAME	BMW PARTS NUMBER	BMW PARTS NUMBER (OLD)
09900-WA010	TORQUE ANGLE MEASURING DIAL	83300490504	009120
09900-WA040	EXCENTSION PIEACE	83300495554	335070
09900-WA060	34 SOCKET	83300494212	242380
09900-WA090	CLAMPING TOOLS SET	81642184117	-
09900-WA100	BLIND RIVETING TOOL	83300496521	002230
09900-WA110	ADAPTER	83302293877	-
09900-WA150	PLIERS	83302447297	-
09900-WA180	TOOL	83302463965	-
09900-WA210	THRUST PIECE	83300492104	331308
09900-WA280	TORQUE WRENCH ADAPTER	-	-
09901-WA350	ADAPTER CABLE 2 PIN	83300496882	616230
09901-WA410	RESISTOR	83302365864	-
09901-WA430	RESISTOR	83302420291	-
09902-WA010	INSERTION TOOL	83302448401	-
09902-WA020	PLIERS	83302452959	-
09903-WA010	RELEASE TOOL SET	83300495382	-
09903-WA020	RELEASE TOOL	83302412134	-
09903-WA030	RELEASE TOOL	83302412135	-
09903-WA040	RELEASE TOOL	83300495383	-

09903-WA050	RELEASE TOOL	83300495385	-
09903-WA060	RELEASE TOOL	83300495387	-
09903-WA070	RELEASE TOOL	83300495389	-
09903-WA080	RELEASE TOOL	83300495391	-
09903-WA090	RELEASE TOOL	83300495394	-
09903-WA100	RELEASE TOOL	83300495395	-
09903-WA110	RELEASE TOOL	83300495396	-
09903-WA120	RELEASE TOOL	83300495397	-
09903-WA130	RELEASE TOOL	83300495398	-
09903-WA140	RELEASE TOOL	83300495399	-
09903-WA150	RELEASE TOOL	83300495400	-
09903-WA160	RELEASE TOOL	83300495403	-
09903-WA170	RELEASE TOOL	83300495404	-
09903-WA180	RELEASE TOOL	83300495405	-
09903-WA190	RELEASE TOOL	83300495406	-
09903-WA200	RELEASE TOOL	83300495578	-
09903-WA210	RELEASE TOOL	83300495676	-
09903-WA220	INSERTION AID	83300495677	-
09903-WA230	INSERTION AID	83300495678	-
09903-WA240	CASE	83300495407	-
09903-WA250	RELEASE TOOL	83300495680	-
09903-WA260	RELEASE TOOL	83300496332	-
09903-WA270	RELEASE TOOL	83300496333	-
09940-10040	NO. 2 PLUG	-	-
09940-10050	SLIDE FOOT ASSY NO. 2	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JJ8I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTRODUCTION: TERMS: PARTS NAME DESCRIPTION; 2020 MY Supra [03/2019 -]		

PARTS NAME DESCRIPTION

PARTS NAME DESCRIPTION

HINT:

The search function can be used by simultaneously pressing the Ctrl and F keys on the keyboard.

BMW	TOYOTA
Repair kit valve seal ring	INTAKE VALVE STEM OIL SEAL
Valve	TIRE AIR CONTROL VALVE (FOR SPARE WHEEL)
Rubber valve	VALVE (FOR TUBELESS TIRE SPARE)
Valve caps	TIRE VALVE CAP (FOR SPARE)
Rubber pad	BRAKE PEDAL PAD
Dust protection collar	FRONT DISC BRAKE CYLINDER BOOT
Rubber Mounting	NO. 1 COOLER CONDENSER CUSHION
Screwdriver	SCREW DRIVER
Rubber grommet	FUEL TANK CUSHION
Cable clip	FUEL TUBE CLAMP
Lock Ring	REAR DRIVE SHAFT INBOARD JOINT SHAFT SNAP RING RH
dustcover plate, small	REAR DIFFERENTIAL DUST DEFLECTOR
Lock Ring	REAR DRIVE SHAFT INBOARD JOINT SHAFT SNAP RING RH
Grooved ball bearing	NO. 1 CENTER SUPPORT BEARING
Valve collet	VALVE SPRING RETAINER LOCK
Chock	WHEEL STOPPER
Repair kit, control unit DSC	SKID CONTROL COMPUTER
RP hydraulic unit DSC	BRAKE ACTUATOR ASSEMBLY
Left tie rod	TIE ROD ASSEMBLY LH
Right tie rod	TIE ROD ASSEMBLY RH
Instruction notice, Airbag	DRIVER AND PASSENGER AIRBAG INFORMATION LABEL
Label "Bar code"	BODY CAUTION PLATE
Enable code HU-H-2 map Europe Initial	DISC PLAYER DISC
Enable code HU-H-2 map Turkey Initial	DISC PLAYER DISC
Enable code HU-H-2 map N. Africa Initial	DISC PLAYER DISC
Enable code HU-H-2 map S. Africa Initial	DISC PLAYER DISC
Enable code HU-H-2 map India Initial	DISC PLAYER DISC
Enable code HU-H-2 map Middle East Ini	DISC PLAYER DISC

Enable code HU-H-2 map N.America Initial	DISC PLAYER DISC
Enable code HU-H-2 map S.America Initial	DISC PLAYER DISC
Enable code HU-H2 map Argentina Initial	DISC PLAYER DISC
Enable code HU-H-2 map SE Asia Initial	DISC PLAYER DISC
Enable code HU-H-2 map Oceania Initial	DISC PLAYER DISC
Enable code HU-H-2 map Israel Initial	DISC PLAYER DISC
Set felt strip self-adhesive	WIRING HARNESS PROTECTOR
FSC conversion to GPS map of Europe	DISC PLAYER DISC
Enable code HU-H-2 map Taiwan Initial	DISC PLAYER DISC
FSC Conversion to GPS map for Taiwan	DISC PLAYER DISC
Enable code HU-H-2 map Korea Initial	DISC PLAYER DISC
FSC Conversion to GPS map for Korea	DISC PLAYER DISC
Enable code HU-H-2 map Japan Initial	DISC PLAYER DISC
FSC Conversion to GPS map for Japan	DISC PLAYER DISC
FSC conversion to GPS map of USA	DISC PLAYER DISC
Enable code HU-H-2 map China Initial	DISC PLAYER DISC
FSC Conversion to GPS map for China	DISC PLAYER DISC
FSC Conversion to GPS map, Oceania	DISC PLAYER DISC
Enab code, Middle East GPS card convers.	DISC PLAYER DISC
Enable code convert to N.Africa GPS card	DISC PLAYER DISC
FSC Conversion to GPS map, South Africa	DISC PLAYER DISC
FSC Conversion, GPS map, Southeast Asia	DISC PLAYER DISC
FSC Conversion to GPS map, South America	DISC PLAYER DISC
Enable code conversion, GPS card India	DISC PLAYER DISC
Enable code, conversion, GPS card Israel	DISC PLAYER DISC
Enable code, conversion GPS map, Turkey	DISC PLAYER DISC
Enable code convert to Argentina GPScard	DISC PLAYER DISC
Set of wheel bearings	REAR AXLE HUB AND BEARING ASSEMBLY RH
Enable code HU-H2 map Argentina Evo Upd	DISC PLAYER DISC
Enable code HU-H2 map China Evo Update	DISC PLAYER DISC
Enable code HU-H2 map Europe Evo Update	DISC PLAYER DISC
Enable code HU-H2 map India Evo Update	DISC PLAYER DISC
Enable code HU-H2 map Israel Evo Update	DISC PLAYER DISC
Enable code HU-H2 map Japan Evo Update	DISC PLAYER DISC
Enable code HU-H2 map Korea Evo Update	DISC PLAYER DISC
Enable code HU-H2 map Mid. East Evo Upd.	DISC PLAYER DISC
Enable code HU-H2 map N. Africa Evo Upd.	DISC PLAYER DISC

Enable code HU-H2 map N. America Evo Upd	DISC PLAYER DISC
Enable code HU-H2 map Oceania Evo Update	DISC PLAYER DISC
Enable code HU-H2 map S. Africa Evo Upd	DISC PLAYER DISC
Enable code HU-H2 map S. America Evo Upd	DISC PLAYER DISC
Enable code HU-H2 map SE Asia Evo Update	DISC PLAYER DISC
Enable code HU-H2 map Taiwan Evo Update	DISC PLAYER DISC
Enable code HU-H2 map Turkey Evo Update	DISC PLAYER DISC
Set wheel locks	HUB BOLT (FOR AXLE)
Spark plug, High Power	SPARK PLUG
Ultraschallsensor Farbcode	REAR CORNER ULTRASONIC SENSOR
Ultraschallsensor Farbcode	REAR CENTER ULTRASONIC SENSOR
Ultraschallsensor Farbcode	REAR SIDE ULTRASONIC SENSOR
Ultraschallsensor Farbcode	FRONT CORNER ULTRASONIC SENSOR
Ultraschallsensor Farbcode	FRONT CENTER ULTRASONIC SENSOR
Ultraschallsensor Farbcode	FRONT SIDE ULTRASONIC SENSOR
Support bracket w. VIN, wheelhouse fr RI	UPPER RADIATOR SUPPORT RH
Wheelhousing with VIN, front right	APRON ASSEMBLY WITH FRONT SIDE MEMBER RH
Short Engine	PARTIAL ENGINE ASSEMBLY
Exch. short engine	PARTIAL ENGINE ASSEMBLY
Set of codes with BDC control unit	DOOR LOCK SET
Wiring harness, I-panel, duplicate	INSTRUMENT PANEL WIRE
Audio wiring harness, duplicate	NO.2 FLOOR WIRE
Main wiring harness, duplicate	FLOOR WIRE
Top-hifi MID-range loudspeaker	FRONT NO. 4 SPEAKER ASSEMBLY
Top-hifi MID-range loudspeaker	FRONT NO. 1 SPEAKER ASSEMBLY
Central woofer	REAR SPEAKER ASSEMBLY
Support speaker partition panel, left	FRONT NO. 2 SPEAKER ASSEMBLY
Support speaker partition panel, right	REAR NO. 3 SPEAKER ASSEMBLY
Mid-range speaker HiFi system	REAR NO. 4 SPEAKER ASSEMBLY
Midrange speaker for hifi system	FRONT NO. 1 SPEAKER ASSEMBLY
Telematics control unit	TELEPHONE TRANSCEIVER ASSEMBLY
MID-range loudspeaker	FRONT NO. 1 SPEAKER ASSEMBLY
Hifi-System Tweeter	FRONT NO. 2 SPEAKER ASSEMBLY
Amplifier hifi system	STEREO COMPONENT EQUALIZER ASSEMBLY
Top-hifi system amplifier	STEREO COMPONENT EQUALIZER ASSEMBLY
Temperature sensor	TEMPERATURE SENSOR ASSEMBLY
Hose clamp	NO. 1 HEATER HOSE CLAMP

Hexagon screw with flange	FRONT SUSPENSION UPPER ARM BOLT RH
Self-locking collar nut	FRONT SUSPENSION UPPER ARM NUT RH
Hex bolt with washer	NO. 1 CENTER SUPPORT BEARING BOLT
Pipe clip	FUEL HOSE CLAMP
Locking nut	SUSPENSION MEMBER BODY BRACKET NUT
Repair kit ventilation valve	FRONT DISC BRAKE BLEEDER PLUG
Hexagon nut with collar	FRONT STABILIZER LINK NUT
Spacer, 4-way	NO . 2 BRAKE TUBE CLAMP
Dust cap	FRONT DISC BRAKE BLEEDER PLUG CAP
Ventilation valve	FRONT DISC BRAKE BLEEDER PLUG
Left swing support	REAR STABILIZER LINK ASSEMBLY LH
Right swing support	REAR STABILIZER LINK ASSEMBLY RH
Label "tire pressure"	TIRE PRESSURE INFORMATION LABEL
Crank for wheel bolt with width A/F 17	HUB NUT BOX WRENCH
Hex nut wiht flange	NO. 1 PROPELLER SHAFT AND DIFFERENTIAL SETTING NUT
Additional shock absorber, front	FRONT SPRING BUMPER RH
Wheel bolt black	SPARE WHEEL HUB BOLT
Cover bolt	ACCELERATOR PEDAL PAD
Warning switch	BRAKE RESERVOIR LEVEL WARNING SWITCH
Plug	MASTER CYLINDER RESERVOIR GROMMET
Brake master cylinder o-ring	BRAKE MASTER CYLINDER O-RING
Gasket	CHECK VALVE GROMMET
Label "Brake fluid"	FLUID MARK LABEL
LTE compensator	LTE LINE COMPENSATOR
Carrier instrument panel	INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY
Airbag for front passenger	INSTRUMENT PANEL PASSENGER AIRBAG ASSEMBLY WITHOUT DOOR
Condenser air conditioning with drier	COOLER CONDENSER ASSEMBLY
Combination bracket	NO. 1 COOLER REFRIGERANT HOSE BRACKET
Knee protection airbag module left	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY
Knee protection airbag module right	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY
Knee protection airbag module right	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY
Switch, multifunct. steering wheel	STEERING PAD SWITCH ASSEMBLY
Footwell vent duct, left	NO. 1 AIR DUCT
Footwell vent duct, right	NO. 2 AIR DUCT
Trim cover, windshield defroster, center	NO. 1 DEFROSTER NOZZLE GARNISH
Passenger's footwell trim panel	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
Driver's footwell trim panel	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Airbag chann.knee airbag, driver's side	LOWER INSTRUMENT PANEL
Steering column jacket, lower	LOWER STEERING COLUMN COVER
Seal Head-Up Display	NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL
Bracket condenser	NO. 1 COOLER CONDENSER BRACKET
Mount, center console	CONSOLE BOX ASSEMBLY
Trim center console passenger's side	NO. 1 BOX PANEL
Trim center console "Dark Silver"	UPPER CONSOLE PANEL SUB-ASSEMBLY
Cover, side window defroster, left	NO. 2 SIDE DEFROSTER NOZZLE
Cover, side window defroster, right	NO. 1 SIDE DEFROSTER NOZZLE
Trim piece for head-up display	INSTRUMENT CLUSTER FINISH END PANEL
Fresh-air vent, driver's side	NO. 1 INSTRUMENT PANEL REGISTER ASSEMBLY
Fresh air grille AT passenger's side	NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY
Cover, center speaker	INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL
Cover panel, Centerstack, lower	INSTRUMENT PANEL FINISH LOWER PANEL
Cold air duct left	NO. 1 HEATER TO REGISTER DUCT SUB-ASSEMBLY
Cold air duct right	NO. 2 HEATER TO REGISTER DUCT SUB-ASSEMBLY
Side cover, left	NO. 2 INSTRUMENT SIDE PANEL
Side cover, right	NO. 1 INSTRUMENT SIDE PANEL
Side cover for "Airbag off" left	NO. 2 INSTRUMENT SIDE PANEL
Side cover for "Airbag off" right	NO. 1 INSTRUMENT SIDE PANEL
Joint cover, steering column	STEERING COLUMN COVER
Bracket, center console rear	NO. 1 CONSOLE BOX MOUNTING BRACKET
Operating unit, switch module, door	POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
Support trim on center console	CONSOLE PANEL RETAINER
Trim center console driver's side inner	CONSOLE PANEL
Headliner control module	ROOF CONSOLE BOX SUB-ASSEMBLY
Holder for tunnel support left	NO. 1 INSTRUMENT PANEL BRACKET
Holder for tunnel support right	NO. 1 INSTRUMENT PANEL BRACKET
Covering cap	HEATER AIR DUCT HOLE COVER
Rubber insert, oddments tray rear	NO. 2 CONSOLE BOX SILENCER PAD
Battery bracket	BATTERY CLAMP SUB-ASSEMBLY
Battery tray plus dual storage system	BATTERY CARRIER ASSEMBLY
Cover center console carbon	UPPER CONSOLE PANEL SUB-ASSEMBLY
Adaptor left	NO. 3 INSTRUMENT PANEL BRACKET
Adaptor right	NO. 2 INSTRUMENT PANEL BRACKET
Cover positive battery terminal	BATTERY TERMINAL CONNECTOR COVER
Accelerating sensor	AIRBAG SENSOR

Rearview mirror EC / LED	INNER REAR VIEW MIRROR ASSEMBLY
Interior antenna convenience access	NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY
Outside antenna, comfort access	ELECTRICAL KEY ANTENNA
Trap circuit	TRAP CIRCUIT
Label, coolant	COOLER SERVICE CAUTION LABEL
Steering column jacket, top	UPPER STEERING COLUMN COVER
Sensor f. AUC	SMOKE SENSOR
Sensor door	SIDE AIRBAG PRESSURE SENSOR RH
Frame seal, firewall, inner	AIR DUCT BRACKET
Antenna amplifier	NO. 1 AMPLIFIER ANTENNA ASSEMBLY
Suppression filter	NOISE FILTER,
Instruction notice, Passenger's airbag	PASSENGER AIRBAG CAUTION LABEL
Cover positive battery terminal	BATTERY CONNECTOR COVER
Holder amplifier	NO. 1 STEREO COMPONENT BRACKET
Hex bolt	FRONT DISC BRAKE CYLINDER SLIDE BOLT
Lock	BRAKE MASTER CYLINDER RESERVOIR FILLER CAP ASSEMBLY
Auxiliary shock absorber, rear	REAR NO. 1 SPRING BUMPER RH
Brake pipe bracket	TUBE CLAMP BRACKET
Wire clip, dual	NO. 4 BRAKE TUBE CLAMP
Accelerat.pedal module,automatic transm.	ACCELERATOR PEDAL SENSOR ASSEMBLY
Engine mount, left	FRONT ENGINE MOUNTING INSULATOR
Engine mount, right	FRONT ENGINE MOUNTING INSULATOR
Repair kit ventilation valve	REAR DISC BRAKE BLEEDER PLUG
Hex bolt	REAR CALIPER HEXAGON BOLT
Brake disc, lightweight, ventilated	FRONT DISC
Brake disc, lightweight, ventilated,left	FRONT DISC LH
Brake disc, lightweight,ventilated,right	FRONT DISC RH
Brake disc, lightweight, ventilated	REAR DISC
Lower joint assy	STEERING INTERMEDIATE SHAFT ASSEMBLY
Steering shaft sleeve	NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY
Pulse generator, DSC rear	REAR SKID CONTROL SENSOR WIRE RH
Warning triangle without container	TRIANGLE REFLECTOR SET
Seal, brake booster	BRAKE BOOSTER GASKET
Torx screw with washer	FRONT DISC BRAKE CALIPER HEXAGON BOLT
Cover, structural reinforcement panel	CENTER NO. 4 ENGINE UNDER COVER
Mounting screw	BRAKE MASTER CYLINDER RING PIN
Wheel hub with bearing	FRONT AXLE HUB SUB-ASSEMBLY RH

Stabilizer support	REAR NO. 1 STABILIZER BAR BRACKET
Level sensor	FRONT HEIGHT CONTROL SENSOR SUB-ASSEMBLY
Brake pad wear sensor, rear	PAD WEAR INDICATOR WIRE RH
Wire clip, dual	NO. 5 BRAKE TUBE CLAMP
Tire inflating bottle	TUBELESS TIRE REPAIR KIT
Compressor Mobility System	AIR COMPRESSOR ASSEMBLY
Protection plate left	FRONT DISC BRAKE DUST COVER LH
Protection plate right	FRONT DISC BRAKE DUST COVER RH
Protection plate left	REAR DISC BRAKE DUST COVER LH
Protection plate right	REAR DISC BRAKE DUST COVER RH
Spring pad lower	FRONT COIL SPRING LOWER INSULATOR RH
Repair kit, guide pin	TORQUE PIN
Repair kit for expansion spring	NO. 1 FRONT DISC BRAKE ANTI-RATTLE SPRING
Caliper housing left	DISC BRAKE CYLINDER ASSEMBLY LH
Caliper housing right	FRONT DISC BRAKE CYLINDER ASSEMBLY RH
Repair set brake caliper	FRONT DISC BRAKE CYLINDER PISTON SEAL
Repair kit bellows	NO. 1 BUSH DUST BOOT
Complete pedal assembly	BRAKE PEDAL SUPPORT ASSEMBLY
Stabilizer front with rubber mounting	FRONT STABILIZER BAR
Absorber	REAR SUSPENSION MEMBER DAMPER
Holder	SPEED SENSOR BRACKET
Holder	SPEED SENSOR BRACKET
Spring pad lower	REAR COIL SPRING LOWER INSULATOR
Spring pad upper	REAR COIL SPRING UPPER INSULATOR
Piston rod protection top	FRONT NO. 1 SHOCK ABSORBER DUST COVER RH
Storage tray, Mobility System	NO. 1 TOOL BOX SUB-ASSEMBLY
Holder	BRAKE ACTUATOR BRACKET ASSEMBLY
Engine supporting bracket, left	FRONT NO. 1 ENGINE MOUNTING BRACKET LH
Engine supporting bracket, right	FRONT NO. 1 ENGINE MOUNTING BRACKET RH
RUBBER MOUNTING front	REAR SUSPENSION MEMBER BODY MOUNTING FRONT CUSHION
RUBBER MOUNTING rear	REAR SUSPENSION MEMBER CUSHION
Aero cover panel, rear left	REAR SUSPENSION ARM COVER LH
Aero cover panel, rear right	REAR SUSPENSION ARM COVER RH
Stop light switch	STOP LIGHT SWITCH ASSEMBLY
Compression strut rear	REAR SUSPENSION MEMBER REAR LOWER BRACE RH
Crash lever, left	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY LH
Crash lever, right	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY RH

Brake pad wear sensor	PAD WEAR INDICATOR WIRE LH
Gearbox support	REAR ENGINE MOUNTING MEMBER
Transmission supporting bracket	REAR ENGINE MOUNTING BRACKET SUB-ASSEMBLY
Pivot bearing, camber correction, left	STEERING KNUCKLE LH
Swivel bearing, camber correction, right	STEERING KNUCKLE RH
RUBBER MOUNTING front	NO. 2 REAR DIFFERENTIAL MOUNT CUSHION
Hydro mount rear	REAR SUSPENSION MEMBER BODY MOUNTING REAR CUSHION
Center plate	REAR NO. 1 SHOCK ABSORBER CUSHION
Bracket for brake hose, front left	FRONT FLEXIBLE HOSE BRACKET LH
Bracket for brake hose, front right	FRONT FLEXIBLE HOSE BRACKET RH
Wheel electronics module TPM 315MHZ	TIRE PRESSURE MONITOR VALVE SUB-ASSEMBLY
Wheel electronics module, RDC 433MHZ	TIRE PRESSURE MONITOR VALVE SUB-ASSEMBLY
Jointed rod front	FRONT HEIGHT CONTROL SENSOR LINK SUB-ASSEMBLY
Structural reinforcement panel	FRONT SUSPENSION MEMBER LOWER PROTECTOR
LEFT tension strut WITH RUBBER MOUNTING	FRONT UPPER SUSPENSION ARM ASSEMBLY LH
Right tension strut with rubber mounting	FRONT UPPER SUSPENSION ARM ASSEMBLY RH
Control arm with rubber bushing, left	FRONT LOWER SUSPENSION ARM ASSY LH
Control arm with rubber bushing, right	FRONT LOWER SUSPENSION ARM ASSY RH
Front axle support	FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY
Carrier, left	STEERING KNUCKLE LH
Carrier, right	STEERING KNUCKLE RH
Wheel carrier, rear left	REAR AXLE CARRIER SUB-ASSEMBLY LH
Wheel carrier, rear right	REAR AXLE CARRIER SUB-ASSEMBLY RH
Guiding suspens. link w rubber mount lft	REAR UPPER CONTROL ARM ASSEMBLY LH
Guiding suspens. link w rubber mount rgh	REAR UPPER CONTROL ARM ASSEMBLY RH
Trailing arm with rubber bushing	REAR NO. 1 SUSPENSION ARM ASSEMBLY RH
Adapter cable EDC rear axle	REAR ABSORBER CONTROL WIRE
Pulse generator DSC, front	FRONT SKID CONTROL SENSOR WIRE RH
Holder left rear	NO. 2 SENSOR BRACKET
Holder right rear	SENSOR BRACKET
Valve cap for RDCi	TIRE VALVE CAP
Valve insert for RDCi	TIRE AIR CONTROL VALVE
Rep. kit, screw valve for RDCi	TIRE PRESSURE MONITOR OR BALANCER VALVE FITTING KIT
Disc wheel, light alloy, Reflexsilber	DISC WHEEL
Support bearing, front	FRONT SUSPENSION SUPPORT SUB-ASSEMBLY RH
Brake hose	FRONT NO. 2 FLEXIBLE HOSE
Brake hose rear	REAR FLEXIBLE HOSE LH

Track strut with rubber mount	TOE CONTROL LINK SUB-ASSEMBLY RH
Holder for variable damper control left	WIRING HARNESS BRACKET LH
Holder for variable damper control right	WIRING HARNESS BRACKET RH
Dual clip	NO. 1 BRAKE TUBE CLAMP
Wheel center cap with chrome ring	WHEEL HUB ORNAMENT SUB-ASSEMBLY
Steering box heat resistant plate	STEERING GEAR HEAT INSULATOR
Wishbone with rubber bushing	REAR UPPER NO. 2 CONTROL ARM ASSEMBLY RH
Heat shield bellows	STEERING GEAR HEAT INSULATOR
Stabilizer, rear	REAR STABILIZER BAR
Radius rod, front left	REAR LOWER SUSPENSION MEMBER STOPPER LH
Radius rod, front right	REAR LOWER SUSPENSION MEMBER STOPPER RH
Brake disc, lightweight, ventilated, left	REAR DISC
Brake disc, lightweight, ventilated, right	REAR DISC
Calliper carrier left	FRONT DISC BRAKE CYLINDER MOUNTING LH
Calliper carrier right	FRONT DISC BRAKE CYLINDER MOUNTING RH
Vibration absorber	REAR NO. 1 DIFFERENTIAL MOUNT CUSHION
Holder	NO. 2 MILLIMETER WAVE RADAR SENSOR BRACKET
Holder	NO. 1 MILLIMETER WAVE RADAR SENSOR BRACKET
Roll-over strut with rubber mount	REAR NO. 2 SUSPENSION ARM ASSEMBLY RH
Emergency wheel, light alloy	SPARE DISC WHEEL
Rubber pad with stainless steel inlay	BRAKE PEDAL PAD
Swing support, front, left	FRONT STABILIZER LINK ASSEMBLY LH
Swing support, front, right	FRONT STABILIZER LINK ASSEMBLY RH
Shelf for compact spare wheel	SPARE WHEEL COVER STOPPER
Lifting jack crank	JACK HANDLE
Adapter cable RBS front axle	SENSOR WIRE
Ball joint, left	TIE ROD END SUB-ASSEMBLY LH
Ball joint, right	TIE ROD END SUB-ASSEMBLY RH
Manually adjust. steering column	STEERING COLUMN ASSEMBLY
Stone-chip guard left rear	STONE GUARD LH
Stone-chip guard right rear	STONE GUARD RH
Repair kit, brake pads asbestos-free	FRONT DISC BRAKE PAD KIT
Repair kit, brake pads asbestos-free	REAR DISC BRAKE PAD KIT
Lifting jack	JACK ASSY
Repair kit power brake unit	BRAKE BOOSTER ASSEMBLY
Brake servo unit	BRAKE BOOSTER ASSEMBLY
Repair kit, expansion tank	BRAKE MASTER CYLINDER RESERVOIR ASSEMBLY

Support bearing rear	REAR SUSPENSION SUPPORT ASSEMBLY RH
Repair kit bellows	NO. 1 STEERING RACK BOOT
Stabilizer support	FRONT NO. 1 STABILIZER BRACKET RH
Brake pad wear sensor, front	PAD WEAR INDICATOR WIRE LH
Connection piece	FRONT BRAKE TUBE UNION
Grommet, upper section	FRONT NO. 1 BRAKE TUBE GROMMET
Grommet bottom part	FRONT NO. 1 BRAKE TUBE GROMMET
Tubing support	NO. 3 BRAKE TUBE CLAMP
Repair kit brake master cylinder	BRAKE MASTER CYLINDER SUB-ASSEMBLY
Control unit for VDP	ABSORBER CONTROL COMPUTER
Radar sensor, close range	BLIND SPOT MONITOR SENSOR LH
Caliper housing left	REAR DISC BRAKE CYLINDER ASSEMBLY LH
Caliper housing right	REAR DISC BRAKE CYLINDER ASSEMBLY RH
Calliper carrier left	REAR DISC BRAKE CYLINDER MOUNTING LH
Calliper carrier right	REAR DISC BRAKE CYLINDER MOUNTING RH
Repair kit for wiring loom, left	NO. 1 WIRE CLAMP BRACKET LH
Repair kit for wiring loom, right	NO. 1 WIRE CLAMP BRACKET RH
Repair kit, EMF actuator	PARKING BRAKE ACTUATOR ASSEMBLY RH
Seal	REAR DISC BRAKE CYLINDER PISTON SEAL
Connecting rod rear	REAR HEIGHT CONTROL SENSOR LINK SUB-ASSEMBLY
Repair kit bellows	REAR DISC BRAKE BUSH DUST BOOT
Spring strut front left VDC	FRONT SHOCK ABSORBER ASSEMBLY LH
Spring strut front right VDC	FRONT SHOCK ABSORBER ASSEMBLY RH
Spring strut, EDC, rear	REAR SHOCK ABSORBER ASSEMBLY LH
Steering gear, electric	RACK AND PINION POWER STEERING GEAR ASSEMBLY
Exch. steering box, electr.	RACK AND PINION POWER STEERING GEAR ASSEMBLY
Shim	FRONT STABILIZER BRACKET
Pipe	FRONT NO. 5 BRAKE TUBE
Pipe	FRONT NO. 4 BRAKE TUBE
Pipe	FRONT NO. 6 BRAKE TUBE
Pipe	FRONT NO. 3 BRAKE TUBE
Pipe	FRONT NO. 1 BRAKE TUBE
Pipe	FRONT NO. 2 BRAKE TUBE
Pipe	FRONT NO. 2 BRAKE TUBE
Pipe	FRONT NO. 1 BRAKE TUBE
Front radar sensor	LASER RADAR SENSOR
Battery	TRANSMITTER BATTERY

Fuse Mini, yellow-brown	ENGINE ROOM FUSE
Fuse Mini, brown	ENGINE ROOM FUSE
Valve	NO. 2 SERVICE VALVE
Original BMW AGM-battery	BATTERY
Fuse Mini, yellow	ENGINE ROOM FUSE
Instruction notice, Airbag	DRIVER AND PASSENGER AIRBAG INFORMATION LABEL
Hex nut	FRONT WIPER ARM SETTING NUT
Cable duct cowl, right	WIRING HARNESS PROTECTOR COVER
Cable duct	NO. 5 WIRING HARNESS PROTECTOR COVER
Holder Ethernet switchbox	ETHERNET SWITCH BOX HOLDER
Cable duct	NO. 7 WIRING HARNESS PROTECTOR COVER
Cable duct	NO. 8 WIRING HARNESS PROTECTOR COVER
Cable duct	WIRING HARNESS PROTECTOR COVER
Cable duct	NO. 9 WIRING HARNESS PROTECTOR COVER
Electronics seat occupancy detection	OCCUPANT DETECTION COMPUTER
Armrest, centre console	FRONT CONSOLE ARMREST ASSEMBLY
Armrest, center console, leather	FRONT CONSOLE ARMREST ASSEMBLY
Center console trim on driver's side	CONSOLE SIDE PANEL
Insert mat, storage compartment, front	BOX BOTTOM MAT
Cup holder, center console	CONSOLE BOX CUP HOLDER
Rubber insert, cup holder	NO. 1 CONSOLE BOX SILENCER PAD
Oddments tray centre console, rear	CONSOLE UPPER REAR PANEL
Power distribution box LIN module	SEMICONDUCTOR POWER INTEGRATION COMPUTER
Glove box	GLOVE COMPARTMENT DOOR ASSEMBLY
Bracket bag hook, left	NO. 1 DECK BOARD BRACKET LH
Bracket bag hook, right	NO. 1 DECK BOARD BRACKET RH
RP A/C compressor with magnetic clutch	COMPRESSOR WITH PULLEY ASSEMBLY
Support, luggage compartment floor panel	BRACKET
Expansion valve	COOLER EXPANSION VALVE
Distribution housing a/c unit	AIR CONDITIONER UNIT ASSEMBLY
Emergency start coil	TRANSPONDER KEY AMPLIFIER
Sound insulation windshield	NO. 1 INSTRUMENT PANEL CUSHION
Dashboard sound insulation	NO. 2 INSTRUMENT PANEL CUSHION
Set of floor mats	FLOOR MAT ASSY
Floor mat, driver side	NO. 1 FLOOR MAT
Leather cover sport backrest right	FRONT SEAT BACK COVER RH (FOR SEPARATE TYPE)
Leather cover sport backrest left	FRONT SEAT BACK COVER LH (FOR SEPARATE TYPE)

Seat cover cloth	FRONT SEAT CUSHION COVER RH (FOR SEPARATE TYPE)
Cover backrest cloth left	FRONT SEAT BACK COVER LH (FOR SEPARATE TYPE)
Cover backrest cloth right	FRONT SEAT BACK COVER RH (FOR SEPARATE TYPE)
Mount, trim, driver footwell, outer	NO. 1 INSTRUMENT PANEL UNDER COVER BRACKET
Controller	REMOTE OPERATION CONTROLLER ASSEMBLY
Warning torch holder	FUSEE HOLDER
Clip for hose line	NO. 1 FUEL TUBE CLAMP
Clip, bottom part	FRONT FENDER TO COWL SIDE SEAL CLIP
Stop buffer	CUSHION
Ball pin	BACK DOOR STAY BOLT
License plate lamp, LED	LICENSE PLATE LIGHT ASSEMBLY
Supporting strut,whl house, interior lft	FENDER SIDE APRON SUB-ASSEMBLY LH
Supporting strut,whl house,interior rght	FENDER SIDE APRON SUB-ASSEMBLY RH
Striker trunk lid	BACK DOOR LOCK STRIKER ASSEMBLY
Type plate	IDENTIFICATION NUMBER PLATE
Bump stop	NO. 1 WINDSHIELD GLASS SPACER
Wash pump/fluid container	WINDSHIELD WASHER MOTOR AND PUMP ASSEMBLY
Mirror glas, heated, wide-angle, left	OUTER MIRROR LH
Mirror glas, heated, wide-angle, right	OUTER MIRROR RH
Backrest frame, left	FRONT SEAT BACK SPRING ASSEMBLY LH (FOR SEPARATE TYPE)
Backrest frame, right	FRONT SEAT BACK SPRING ASSEMBLY RH (FOR SEPARATE TYPE)
Lumbar support pad with pump	LUMBAR SUPPORT ADJUSTER ASSEMBLY RH
Backrest width adjuster with valve	SEAT BACK SIDE SUPPORT ADJUSTER ASSEMBLY
Bracket, control unit	FRONT SEAT CUSHION BRACKET
Lower strap, front	FRONT SEAT INNER BELT ASSEMBLY RH
Lower strap, front	FRONT SEAT INNER BELT ASSEMBLY LH
Wire clip, single	NO. 5 FUEL TUBE CLAMP
Electrical seat mechanism, left	FRONT SEAT ADJUSTER ASSEMBLY LH
Electrical seat mechanism, right	FRONT SEAT ADJUSTER ASSEMBLY RH
Lever, seat tilt adjustment, left	SEAT LIFTER LEVER SUB-ASSEMBLY LH
Lever, seat tilt adjustment, right	SEAT LIFTER LEVER SUB-ASSEMBLY RH
Label "Manufacture identification"	NAME PLATE
Support f left seat adjustment	FRONT SEAT SUPPORT LH
Support f right seat adjustment	FRONT SEAT SUPPORT RH
Clip for roof trim strip	NO. 1 ROOF DRIP SIDE FINISH MOULDING CLIP
Trunk lid lock	BACK DOOR LOCK ASSEMBLY
Clamp	SEAT TRACK UPPER RAIL COVER

Lock left	ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)
Lock right	HOOD LOCK ASSEMBLY
Lock top part	HOOD LOCK STRIKER
Trim, seat inner left	FRONT SEAT CUSHION INNER SHIELD LH
Trim, seat inner right	FRONT SEAT CUSHION INNER SHIELD RH
Covering seat rail left	SEAT TRACK COVER LH
Covering seat rail right	SEAT TRACK COVER RH
Isofix bracket, left	CHILD RESTRAINT SEAT ANCHOR BRACKET
Isofix bracket, right	CHILD RESTRAINT SEAT ANCHOR BRACKET
Backrest frame electrical left	FRONT SEAT BACK SPRING ASSEMBLY LH (FOR SEPARATE TYPE)
Backrest frame electrical right	FRONT SEAT BACK SPRING ASSEMBLY RH (FOR SEPARATE TYPE)
Retainer, trim cover, outer left	FRONT SEAT SIDE SHIELD NO. 2 BRACKET
Retainer, trim cover, outer right	FRONT SEAT SIDE SHIELD NO. 1 BRACKET
Absorber, sidewall	NO. 2 QUARTER WHEEL HOUSE INSURATOR RH
Cover for speaker, metal	FRONT DOOR SPEAKER HOLE COVER
Clip	NO. 3 FUEL TUBE CLAMP
Mirror glas heated plane left	OUTER MIRROR LH
Heat insulation engine mount	NO. 1 FRONT FLOOR HEAT INSULATOR SUB-ASSEMBLY
Backrest width adjustment	SEAT BACK SIDE SUPPORT ADJUSTER ASSEMBLY
Lumbar support	LUMBAR SUPPORT ADJUSTER ASSEMBLY RH
Covering cap, seat rail	NO. 1 SEAT TRACK LOWER RAIL PROTECTOR
Wire clip, dual	NO. 4 FUEL TUBE CLAMP
Integrated key	CUT KEY
Dogbone link, left	NO. 2 RECLINING ADJUSTER RELEAS ARM
Dogbone link, right	NO. 1 RECLINING ADJUSTER RELEAS ARM
Lever, seat height adjustment, left	VERTICAL ADJUSTING HANDLE LH
Lever, seat height adjustment, right	VERTICAL ADJUSTING HANDLE RH
Mount, bumper left	REAR BUMPER ARM SUPPORT REINFORCE LH
Mount, bumper right	REAR BUMPER ARM SUPPORT REINFORCE RH
Set uniform locking system, coded	LOCK CYLINDER SET
Door hinge, bottom left	FRONT DOOR LOWER HINGE ASSEMBLY LH
Door hinge, bottom right	FRONT DOOR LOWER HINGE ASSEMBLY RH
Door hinge, top left	FRONT DOOR UPPER HINGE ASSY LH
Door hinge, top right	FRONT DOOR UPPER HINGE ASSY RH
Engine support, left	FRONT SIDE MEMBER SUB-ASSEMBLY LH
Engine support right	FRONT SIDE MEMBER SUB-ASSEMBLY RH
Strut brace, bulkhead	UPPER FRONT SUSPENSION CENTER BRACE

Loudspeaker cover	REAR SPEAKER GRILLE SUB-ASSEMBLY RH
Bulkhead lower section	NO. 2 COWL TOP VENTTINATOR LOUVER PROTECTOR
Bracket activated Carbon container	NO. 1 BODY SUPPORT BRACKET RH
Scavenge air line	NO. 1 FUEL EMISSION TUBE
Scavenging line front	NO. 2 FUEL EMISSION TUBE
breather line	CHARCOAL CANISTER HOSE
Tension strap	FUEL TANK BAND SUB-ASSEMBLY
Bowden cable hood latch	HOOD LOCK CONTROL CABLE ASSEMBLY
Coupling, two bowden cables	HOOD LOCK CONTROL CABLE ASSEMBLY
Seal, hood, rear	HOOD TO COWL TOP SEAL
Gasket hood side left	FRONT FENDER TO COWL SIDE SEAL LH
Gasket hood side right	FRONT FENDER TO COWL SIDE SEAL RH
Gas spring front flap, passive	HOOD SUPPORT ASSEMBLY RH
Gas spring front flap, active	HOOD SUPPORT ASSEMBLY RH
Actor, left	POP UP HOOD LIFTER ASSEMBLY LH
Actor, right	POP UP HOOD LIFTER ASSEMBLY RH
Mount for headlight, left	RADIATOR SUPPORT LH
Mount for headlight, right	RADIATOR SUPPORT RH
Connection, upper front	FRONT CROSSMEMBER
Connection, upper rear	UPPER RADIATOR SUPPORT SUB-ASSEMBLY
Crosslink, front	RADIATOR UPPER AIR DEFLECTOR
Adaptor left	FRONT BUMPER LOWER SIDE SUPPORT LH
Adaptor right	FRONT BUMPER LOWER SIDE SUPPORT RH
V-brace for front panel	RADIATOR BRACE ROD SUB-ASSEMBLY
Carrier, bumper rear	REAR BUMPER REINFORCEMENT SUB-ASSEMBLY
Adapter for support rear	REAR BUMPER ENERGY ABSORBER
Air duct, brake, wheelhousing, left	AIR INTAKE DUCT LH
Air duct, brake, wheelhousing, right	AIR INTAKE DUCT RH
Door edge guard	IMPACT ABSORBER
Crash reinforcement, left	FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY LH
Crash reinforcement, right	FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY RH
Lock striker, left	AUXILIARY COOLANT RADIATOR BRACKET PLATE LH
Lock striker, right	AUXILIARY COOLANT RADIATOR BRACKET PLATE RH
Tie-down ring	ROPE HOOK
Carrier, outside door handle, left	FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY LH
Carrier, outside door handle, right	FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY RH
Clip	NO. 2 FUEL TUBE CLAMP

Engine encapsulation, front	NO. 1 ENGINE UNDERCOVER ASSEMBLY
Underfloor coating center	FRONT FLOOR COVER
Underbody panelling, side on left	FRONT FLOOR COVER LH
Underbody panelling, side on right	FRONT FLOOR COVER RH
Underbody panelling, rear left	REAR UNDERBODY PROTECTOR LH
Underbody panelling, rear right	REAR UNDERBODY PROTECTOR RH
Undershield for tank, left	REAR FLOOR SIDE MEMBER COVER LH
Undershield for tank, right	REAR FLOOR SIDE MEMBER COVER RH
Lid AMOeK	FRONT FENDER LINER PROTECTOR
Firewall, upper section	COWL TOP VENTILATOR LOUVER PROTECTOR
Heat insulation, center left	NO. 2 FLOOR HEAT INSULATOR
Heat insulation, center right	NO. 1 FLOOR HEAT INSULATOR
Heat insulation, side right	NO. 2 FRONT FLOOR HEAT INSULATOR SUB-ASSEMBLY
Tunnel heat insulator	NO. 1 FRONT FLOOR HEAT INSULATOR
Heat insulator rear silencer	MAIN MAFFLAR HEAT INSULATOR
Heat insulator floor panel trunk	REAR FLOOR HEAT INSULATOR SUB-ASSEMBLY
Heat insulation for rear muffler	NO. 2 REAR FLOOR HEAT INSULATOR SUB-ASSEMBLY
Heat insulation, rear silencer, left	MAIN MUFFLER HEAT INSULATOR LH
Heat insulation, rear silencer, right	MAIN MUFFLER HEAT INSULATOR RH
System latch, left	FRONT DOOR LOCK WITH MOTOR ASSEMBLY
System latch, right	FRONT DOOR LOCK WITH MOTOR ASSEMBLY
Combination bracket	HOOD SUPPORT BRACKET
Striker without base	FRONT DOOR LOCK STRIKER PLATE ASSEMBLY
Moulded part	INSTRUMENT PANEL TO COWL SIDE BRACKET SUB-ASSEMBLY RH
Cowl panel cover, Part 1	COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY
Cowl panel cover, Part 2	COWL VENT COVER LH
Cowl cover panel, Part 3	COWL VENT COVER RH
Water drain channel, left	COWL VENTILATOR SPLASH SHIELD LH
Water drain channel, right	COWL VENTILATOR SPLASH SHIELD RH
Nozzle array window washing system	FRONT WASHER NOZZLE AND HOSE ASSEMBLY
Filler pipe for wash container	WASHER INLET SUB-ASSEMBLY
Wiper arm, driver's side	FRONT WIPER ARM LH
Wiper arm, driver's side	FRONT WIPER ARM RH
Wiper arm, passenger's side	FRONT WIPER ARM RH
Wiper arm, passenger's side	FRONT WIPER ARM LH
Fuel feed line	NO. 1 FUEL MAIN TUBE
Side trim panel bottom left	COWL SIDE TRIM SUB-ASSEMBLY LH

Side trim panel bottom right	COWL SIDE TRIM BOARD RH
Floor covering	FRONT FLOOR CARPET ASSEMBLY
Foam insert, left	FRONT FLOOR SILENCER PAD LH
Foam insert, right	FRONT FLOOR SILENCER PAD RH
Cover strip, entry, left	FRONT DOOR SCUFF PLATE LH
Cover strip, entry, right	FRONT DOOR SCUFF PLATE RH
Partition panel lower part left	LOWER QUARTER TRIM PANEL LH
Partition panel, lower section, right	LOWER QUARTER TRIM PANEL RH
Sound insulation, condensation drain	NO. 2 FRONT FLOOR HEAT INSULATOR
Sound insulat., splash wall, upper part	DASH PANEL INSULATOR ASSEMBLY
Sound insulat., accelerator pedal mod.	NO. 2 DASH PANEL INSULATOR ASSEMBLY
Sound insulation, tunnel	NO. 3 FRONT FLOOR HEAT INSULATOR
Sound insulating dash panel engine room	OUTER DASH PANEL INSULATOR
Sound insulat.dash panel engine room L.	LOWER DASH PANEL INSULATOR ASSEMBLY LH
Sound insulat.dash panel engine room R.	LOWER DASH PANEL INSULATOR ASSEMBLY RH
Sound insul.,eng.-comp. part. wall,left	FRONT FENDER APRON SEAL LH
Sound insul.,eng.-comp. part.wall,right	FRONT FENDER APRON SEAL RH
Hold.-down elem.,sound insul.,fr.bulkh.	DASH PANEL HEAT INSULATOR
Hold.-dwn el.,sound ins.,fr.bulkh.,left	DASH PANEL HEAT INSULATOR PLATE
Hold.-dwn el.,sound ins., fr.bulkh.,rgh	DASH PANEL HEAT INSULATOR PLATE
Floor carpet, luggage compartment	DECK BOARD ASSEMBLY
Left sun visor	VISOR ASSEMBLY LH
Right sun visor	VISOR ASSEMBLY RH
Noise insulation, A-pillar lower right	NO. 1 FRONT PANEL SIDE SILENCER RH
Label "Chassis Number"	IDENTIFICATION NUMBER INFORMATION LABEL
Auxiliary turn signal, mirror, left	SIDE TURN SIGNAL LIGHT ASSEMBLY LH
Auxiliary turn signal, mirror, right	SIDE TURN SIGNAL LIGHT ASSEMBLY RH
Mirror glas heated convex right	OUTER MIRROR RH
Drive, outside Memory mirror	OUTER MIRROR ACTUATOR ASSEMBLY RH
Trim cover for Top Tether	CHILD RESTRAINT SEAT COVER
Crossbrace, rear left	FRONT BUMPER SIDE SUPPORT LH
Crossbrace, rear right	FRONT BUMPER SIDE SUPPORT RH
Activated Charcoal Filter	FILTER ASSY, FUEL
Front fuel feed line	NO. 2 FUEL MAIN TUBE
Luggage compartment pan	NO. 1 REAR FLOOR CROSS MEMBER
Extension for door sill, rear left	NO. 3 ROCKER PANEL REINFORCEMENT LH
Extension, door sill, rear right	NO. 3 ROCKER PANEL REINFORCEMENT RH

Trunk floor left	REAR FLOOR PAN EXTENSION LH
Trunk floor right	REAR FLOOR SIDE PANEL EXTENSION RH
Trunk tub left	REAR FLOOR TO QUARTER EXTENSION SUB-ASSY LH
luggage compartment liner right	REAR FLOOR TO QUARTER EXTENSION SUB-ASSY RH
Bracket for thrust arm, left	NO. 3 FUEL TUBE BRACKET
Bracket for thrust arm, right	NO. 3 FUEL TUBE BRACKET
Front trunk floor	CENTER FLOOR PAN
Noise insulation, wheelhousing, left	APRON FRONT FENDERINSULATOR LH
Noise insulation, wheelhousing, right	APRON FRONT FENDERINSULATOR RH
Luggage compartment floor, rear	REAR FLOOR REAR PANEL
Extension, side member, lower left	REAR FLOOR SIDE MEMBER REAR REINFORCEMENT SUB-ASSEMBLY LH
Extension, side member, lower right	REAR FLOOR SIDE MEMBER REAR REINFORCEMENT SUB-ASSEMBLY RH
End plate side member, left	QUARTER WHEEL HOUSE INNER PANEL LH
End plate side member, right	QUARTER WHEEL HOUSE INNER PANEL RH
Extension, side member, upper left	REAR FLOOR SIDE REAR MEMBER LH
Extension, side member, upper right	REAR FLOOR SIDE REAR MEMBER RH
Support structure, left	REAR FLOOR SIDE MEMBER SUB-ASSEMBLY LH
Support structure, right	REAR FLOOR SIDE MEMBER SUB-ASSEMBLY RH
Side member, top left	REAR SIDE MEMBER SUB-ASSEMBLY LH
Side member, top right	REAR SIDE MEMBER SUB-ASSEMBLY RH
Rear cross member for rear axle carrier	REAR FLOOR CROSS MEMBER SUB-ASSEMBLY
Front cross member for rear axle carrier	FRONT CENTER FLOOR PAN
Bracket for B+ junction point	NO. 2 QUARTER WHEEL HOUSE GUSSET SUB-ASSEMBLY
Bracket RDS/brake wear indicator, left	STRUT BAR BRACKET REINFORCEMENT LH
Bracket RDS/brake wear indicator, right	STRUT BAR BRACKET REINFORCEMENT RH
Holder, brake hose, left	NO. 8 BODY MOUNTING BRACKET LH
Holder, brake hose, right	NO. 8 BODY MOUNTING BRACKET RH
Rear left wheelhouse, inner half	QUARTER WHEEL HOUSE INNER PANEL SUB-ASSEMBLY LH
Rear right wheelhouse, inner half	QUARTER WHEEL HOUSE INNER PANEL SUB-ASSEMBLY RH
Closure ring	FUEL PUMP GAUGE RETAINER
Counterbearing for sun visor	VISOR HOLDER
Bracket f shifting arm bearing	BOX SUPPORT BRACKET
Bracket, accelerator pedal module bottom	FRONT FLOOR CROSSMEMBER PLATE LH
Bracket, accelerator pedal module bottom	FRONT FLOOR CROSSMEMBER PLATE RH
Floor panel left	FRONT FLOOR PANEL LH
Floor panel right	FRONT FLOOR PANEL RH
Holder,activat.carbon contain.,exterior	NO. 1 BODY SUPPORT BRACKET

Left rear seat console	FRONT FLOOR CROSS MEMBER REINFORCEMENT SUB-ASSEMBLY LH
Right rear seat console	FRONT FLOOR CROSS MEMBER REINFORCEMENT SUB-ASSEMBLY RH
Bracket for propel. shaft center bearing	DRIVE SHAFT CENTER SUPPORT REINFORCEMENT SUB-ASSEMBLY
Reinforcement, tunnel, front left	ENGINE REAR MOUNTING MEMBER BRACKET LH
Reinforcement, tunnel, front right	ENGINE REAR MOUNTING MEMBER BRACKET RH
Bracket for accelerator pedal module top	FRONT FLOOR REINFORCEMENT SUB-ASSEMBLY LH
Bracket for accelerator pedal module top	FRONT FLOOR REINFORCEMENT SUB-ASSEMBLY RH
Left front seat console	FRONT FLOOR CROSS MEMBER SUB-ASSEMBLY LH
Right front seat console	FRONT FLOOR CROSS MEMBER SUB-ASSEMBLY RH
Console, transmission support, left	NO. 2 FRONT FLOOR REINFORCEMENT LH
Console, transmission support, right	NO. 2 FRONT FLOOR REINFORCEMENT RH
Heel panel	ROOM PARTITION PANEL SUB-ASSEMBLY
Cross brace, heel plate, left	FRONT FLOOR BRACE LH
Cross brace, heel plate, right	FRONT FLOOR BRACE RH
Molded brace, firewall, left	FRONT BODY PILLAR INNER BRACE LH
Molded brace, firewall, right	FRONT BODY PILLAR INNER BRACE RH
Supply module	FUEL SUCTION TUBE WITH PUMP AND GAGE ASSEMBLY
Activated Charcoal Filter	NO. 1 CHARCOAL CANISTER FILTER
O-ring	FUEL SUCTION TUBE SET GASKET
Spring strut assembly, front left	FRONT FENDER APRON SUB-ASSY LH
Spring strut assembly, front right	FRONT FENDER APRON SUB-ASSY RH
Front left wheelhouse	APRON ASSY WITH FRONT SIDE MEMBER LH
Wheelhousing without VIN, front right	APRON ASSY WITH FRONT SIDE MEMBER RH
Left interior column A	FRONT BODY PILLAR DOOR OPENING UPPER GUSSET LH
Right interior column A	FRONT BODY PILLAR DOOR OPENING UPPER GUSSET RH
Reinforcement engine mount inner left	NO. 4 FRONT SIDE MEMBER PLATE LH
Reinforcement engine mount inner right	NO. 4 FRONT SIDE MEMBER PLATE RH
Holder, brake hose, left	FRONT SIDE MEMBER BRACKET SUB-ASSEMBLY LH
Holder, brake hose, right	FRONT SIDE MEMBER BRACKET SUB-ASSEMBLY RH
Joint, side frame, left	FRONT SIDE MEMBER REINFORCEMENT SUB-ASSY LH
Joint, side frame, right	FRONT SIDE MEMBER REINFORCEMENT SUB-ASSY RH
Reinforcement engine mount outer left	FRONT TORQUE BOX LH
Reinforcement engine mount outer right	FRONT TORQUE BOX RH
Extension for door sill, front left	NO. 2 ROCKER PANEL REINFORCEMENT LH
Extension, door sill, front right	NO. 2 ROCKER PANEL REINFORCEMENT RH
Splash wall	DASH PANEL SUB-ASSEMBLY
Mount, strut tower brace, left	FRONT SUSPENSION UPPER TO COWL BRACE BRACKET LH

Mount, strut tower brace, right	FRONT SUSPENSION UPPER TO COWL BRACE BRACKET RH
Supporting strut, front wall	NO. 3 FLOOR CROSSMEMBER SUB-ASSY
Cross member, splash wall	FRONT SIDE MEMBER TO DASH PANEL CROSSMEMBER SUB-ASSEMBLY
Attachment, left trans. mount bracket	NO. 1 FRONT CROSSMEMBER REINFORCEMENT LH
Attachment, right trans. mount bracket	NO. 1 FRONT CROSSMEMBER REINFORCEMENT RH
Support plate	FRONT BUMPER SIDE SUPPORT
Reinforcement, engine support, left	NO. 1 FRONT SIDE MEMBER REINFORCEMENT LH
Reinforcement, engine support, right	NO. 1 FRONT SIDE MEMBER REINFORCEMENT RH
Cover f filler pipe	WINDSHIELD WASHER JAR CAP
Seat module	SEAT HEATER CONTROL SUB-ASSEMBLY
Bracket AMOEK, bottom left	LOWER AUXILIARY COOLANT RADIATOR BRACKET RH
Bracket AMOEK, bottom right	LOWER AUXILIARY COOLANT RADIATOR BRACKET LH
Bracket AMOEK, top left	UPPER AUXILIARY COOLANT RADIATOR BRACKET RH
Bracket AMOEK, top right	UPPER AUXILIARY COOLANT RADIATOR BRACKET LH
Attachment cap, left	FRONT DOOR OUTSIDE HANDLE COVER LH
Attachment cap, right	FRONT DOOR OUTSIDE HANDLE COVER RH
Label	NAME PLATE
Trim for backrest, outer left	FRONT SEAT SIDE SHIELD LH
Trim for backrest, outer right	FRONT SEAT SIDE SHIELD RH
Cover, left control	FRONT SEAT CUSHION SHIELD LH
Cover, right control	FRONT SEAT CUSHION SHIELD RH
dustcover plate, large	REAR DIFFERENTIAL DUST DEFLECTOR
Universal joint	FLEXIBLE COUPLING
Screw plug with O-ring	REAR DIFFERENTIAL DRAIN PLUG
Centering sleeve	PROPELLER SHAFT SPLINE SLEEVE
Rubber boot, center bearing	REAR PROPELLER SHAFT BOOT
Hex bolt	NO. 2 PROPELLER SHAFT AND DIFFERENTIAL SETTING BOLT
Damper ring	DAMPER RING
Self-locking hex nut	NO. 2 PROPELLER SHAFT AND DIFFERENTIAL SETTING NUT
Upper spring plate	INTAKE VALVE SPRING RETAINER
Clamping bush	TAIL EXHAUST PIPE REAR NO. 1 CLAMP
Hex bolt	DRIVE PLATE AND TORQUE CONVERTER SETTING BOLT
Snap ring	PISTON PIN HOLE SNAP RING
Centering sleeve hard	PROPELLER SHAFT SPLINE SLEEVE
Gasket	THROTTLE BODY GASKET
Gasket set differential	REAR DRIVE SHAFT OIL SEAL RH
Temperature sensor coolant / oil	WATER TEMPERATURE SENSOR

Gasket ring	NO. 1 TURBINE OUTLET ELBOW GASKET
Washer	CYLINDER HEAD SET PLATE WASHER
O-ring	TURBO WATER PIPE O RING
Cap	TRANSMISSION HOUSING COVER
Preformed seal	AIR TUBE GASKET
Gasket	ENGINE OIL LEVEL SENSOR GASKET
Screw clamp	EXHAUST PIPE CLAMP
Dowel	RING PIN
Repair kit insert nut	REAR DRIVE PINION COMPANION FLANGE NUT
Drehfeder (S-Kontur)	TORSION SPRING
Shaft seal	REAR DIFFERENTIAL CARRIER OIL SEAL
O-ring	TRANSMISSION OIL THERMOSTAT O-RING
Upper spring plate	RETAINER, EXHAUST VALVE SPRING
Actuator, VANOS	VANOS ACTUATOR
Dust guard ring, plastic	DUST DEFLECTOR RH
Hose clamp	NO. 6 RADIATOR HOSE CLIP
non-return valve	BOOSTER AIR VALVE
Bearing shell	CONNECTING ROD BEARING
Ventilation line, heated	VENTILATION HOSE
Vent pipe	VENTILATION HOSE
Bump stop	AIR CLEANER SUPPORT
Intake valve	INTAKE VALVE
Camshaft position sensor	CAMSHAFT POSITION SENSOR
Oil Spraying Nozzle	NO. 1 OIL NOZZLE SUB-ASSEMBLY
Oil deflector	NO. 1 OIL PAN BAFFLE PLATE
Hex bolt	FLEXIBLE COUPLING BOLT
Bearing shell, blue	CRANKSHAFT BEARING
Bearing shell green	CRANKSHAFT BEARING
Bearing shell, brown	CRANKSHAFT BEARING
Guide-bearing Shell blue	UPPER CRANKSHAFT THRUST WASHER
Guide-bearing Shell green	UPPER CRANKSHAFT THRUST WASHER
Main bearing shell, brown	UPPER CRANKSHAFT THRUST WASHER
Chain	OIL PUMP DRIVE CHAIN SUB-ASSEMBLY
Ping Sensor	KNOCK CONTROL SENSOR
Loop	NO. 1 ENGINE HANGER
Cover lid	RADIATOR RESERVE TANK CAP SUB-ASSEMBLY
Solenoid valve (SOLV)	OIL PRESSURE CONTROL VALVE ASSEMBLY

Zwischenhebel (S-Kontur)	INTERMEDIATE LEVER
Roller drag lever	NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY
Suction pipe	OIL STRAINER SUB-ASSEMBLY
Actuator	SERVO MOTOR
Fuel tank breather valve	NO. 1 CHECK VALVE
Support	TURBOCHARGER STAY
Compensating shaft	NO. 1 BALANCESHAFT
Label "premium fuel unleaded"	FUEL INFORMATION LABEL
ASA-stud bolt	MANIFOLD TO CYLINDER HEAD STUD BOLT
Acoustic capsule, left	TRANSMISSION CASE SIDE COVER LH
Acoustic capsule, right	TRANSMISSION CASE SIDE COVER RH
Tubing support	CONNECTOR TO BRAKE BOOSTER CLAMP
Hex bolt	DRIVE PLATE SETTING HEXAGON BOLT
Temperature sensor	OIL TEMPERATURE SENSOR
Cover cap "Airbag"	FRONT PILLAR GARNISH COVER RH
Left engine compartment partition	FENDER APRON BRACE SUB-ASSEMBLY LH
Right engine compartment partition	FENDER APRON BRACE SUB-ASSEMBLY RH
Supporting strut,whl house, exterior lft	RADIATOR UPPER SUPPORT LH
Support bracket w/o VIN wheelhousing f r	RADIATOR UPPER SUPPORT RH
Control unit for front light electronics	LIGHT CONTROL COMPUTER
Hose	VACUUM TRANSMITTING HOSE ASSEMBLY
Bracket exhaust, rear	NO. 3 EXHAUST PIPE SUPPORT BRACKET
Turbocharger with exhaust manifold	TURBOCHARGER SUB-ASSEMBLY
Exchange turbocharger with exh.manifold	TURBOCHARGER SUB-ASSEMBLY
Turbo charger	TURBOCHARGER SUB-ASSEMBLY
Exch. turbo charger	TURBOCHARGER SUB-ASSEMBLY
Set Wastegate valve actuator	TURBOCHARGER ACTUATOR AND LINK ASSEMBLY
Front muffler	FRONT EXHAUST PIPE ASSEMBLY
Rear muffler with exhaust flap	TAIL EXHAUST PIPE ASSEMBLY
RP-catalytic converter	CENTER EXHAUST PIPE ASSEMBLY
Cylinder head with valve gear	CYLINDER HEAD SUB-ASSEMBLY
Heat resistant plate	REAR DIFFERENTIAL PROTECTOR
Cylinder head gasket	CYLINDER HEAD GASKET
Bracket for electric water pump	NO. 3 WATER PUMP BRACKET SUB-ASSEMBLY
Bracket for coolant pump, electric	NO. 1 WATER PUMP BRACKET SUB-ASSEMBLY
Support	NO. 2 WATER PUMP BRACKET SUB-ASSEMBLY
Bracket for auxiliary water pump	NO. 3 WATER PUMP BRACKET SUB-ASSEMBLY

Bracket for electric water pump	NO. 1 WATER PUMP BRACKET SUB-ASSEMBLY
Support	NO. 4 WATER PUMP BRACKET SUB-ASSEMBLY
Bracket, oil cooler line	AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
Bracket for coolant line	NO. 2 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
Airbag module, driver's side	HORN BUTTON ASSEMBLY
Switch for Start/Stop	PUSH START SWITCH
Lever f engine hood mechanism	HOOD LOCK RELEASE LEVER PROTECTOR
Switch for emergency flasher system	HAZARD WARNING SIGNAL SWITCH ASSEMBLY
Gear selector switch	TRANSMISSION FLOOR SHIFT ASSEMBLY
Wiper system, complete	FRONT WIPER MOTOR AND LINK ASSEMBLY
Coolant hose, return	HEATER WATER HOSE
Plug-in socket	NO. 2 POWER OUTLET SOCKET ASSEMBLY
Sensor for pedestrian protection PTS	PEDESTRIAN DETECTION CHAMBER ASSEMBLY
Vibration generator	STEERING WHEEL MOTOR
Cover storage bin, center console front	UPPER CONSOLE COVER
Steering wheel electronic control	STEERING WHEEL HEATER CONTROL ASSEMBLY
Rearview mirror EC	INNER REAR VIEW MIRROR ASSEMBLY
Guide, headrest, lockable	FRONT SEAT HEADREST SUPPORT
Guide, headrest	FRONT SEAT HEADREST SUPPORT
Label "Outer paint"	BODY CAUTION PLATE
Cover, microphone	MICROPHONE CASE
Air outlet grille, right	LOWER SIDE RADIATOR GRILLE RH
Covering cap	FRONT WIPER ARM HEAD CAP
Blind plug	SET BOLT CAP
Illuminated ring, transparent	NO. 1 POWER OUTLET SOCKET COVER
Rubber buffer	GLOVE COMPARTMENT DOOR CHECK CUSHION
Hook&loop fastener	BACK DOOR GLASS SPACER
Sealing cap for suction line	NO. 1 SERVICE VALVE CAP
Sealing cap for pressure line	NO. 2 SERVICE VALVE CAP
Fan shroud	FAN SHROUD
Water pump	ENGINE WATER PUMP ASSEMBLY
Connector	WATER INLET
Connector	NO. 2 WATER BY-PASS PIPE
Connector	NO. 3 WATER BY-PASS PIPE
O-ring	WATER INLET O-RING
O-ring	NO. 2 WATER BY-PASS PIPE O-RING
Refrigerant pipe	WATER INLET

O-ring	NO. 3 WATER BY-PASS PIPE O-RING
Profile-gasket	WATER PUMP GASKET
wiring harness, engine ignition module	NO. 4 ENGINE WIRE
Wiring loom, eng., Valvetronic servomtr	NO. 3 ENGINE WIRE
wiring harness, engine trans. module	TRANSMISSION WIRE
Wiring harness, eng. Sensoric module 2	NO. 2 ENGINE WIRE
Stone chip guard bottom	UPPER RADIATOR PROTECTOR
Stone chip guard top	LOWER RADIATOR PROTECTOR
Exch catalytic converter close to engine	EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY
Tension relief, wiring harness	CONNECTOR CLAMP BRACKET
Foam-rubber pad	NO. 1 FUEL TANK CUSHION
Cable alternator-base B+	ALTERNATOR WIRE
Temperature sensor air	INTAKE AIR FLOW METER SUB-ASSEMBLY
Cable starter-base B+	STARTER WIRING ASSEMBLY
Temp. sensor, leak diagnosis module	FUEL TEMPERATURE SENSOR
Vibration absorber	NO. 5 EXHAUST PIPE SUPPORT
Clip	RADIATOR HOSE SUB-ASSEMBLY HOSE CLIP
Vent pipe	VENTILATION PIPE SUB-ASSEMBLY
Oil filter	OIL FILTER BRACKET
Seal side panel Japan, left	FRONT FENDER UPPER PROTECTOR LH
Seal, side panel, Japan, right	FRONT FENDER UPPER PROTECTOR RH
Set of wiper blades	FR WIPER BLADE RH
Cover left	ROCKER PANEL MOULDING COVER LH
Cover right	ROCKER PANEL MOULDING COVER RH
Trunk lid	BACK DOOR PANEL SUB-ASSEMBLY
Left engine hood hinge	HOOD HINGE ASSEMBLY LH
Right engine hood hinge	HOOD HINGE ASSEMBLY RH
Hood	HOOD SUB-ASSEMBLY
Side panel, front left	FRONT FENDER PANEL LH
Side panel, front right	FRONT FENDER PANEL RH
Outer panel tail trim	BODY LOWER BACK PANEL SUB-ASSEMBLY
Roof cover	ROOF PANEL
Wheel-house inner panel, rear left	OUTER QUARTER WHEEL HOUSE PANEL LH
Wheel-house inner panel, rear right	OUTER QUARTER WHEEL HOUSE PANEL RH
Cover panel, wheel house, left	NO. 5 ROCKER PANEL REINFORCEMENT LH
Cover panel, wheel house, right	NO. 5 ROCKER PANEL REINFORCEMENT RH
Extension, wheel housing strut left	LOWER FRONT BODY PILLAR GUSSET LH

Extension, wheel housing strut right	LOWER FRONT BODY PILLAR GUSSET RH
Left upper apron reinforcement	ROOF PANEL SIDE GUSSET LH
Right upper apron reinforcement	ROOF PANEL SIDE GUSSET RH
Bracket, trunk trim panel, left	QUARTER PANEL REINFORCEMENT BRACKET LH
Bracket, trunk trim panel, right	QUARTER PANEL REINFORCEMENT BRACKET RH
Support, carrier support, left	FRONT BODY PILLAR LOWER GUSSET LH
Support, carrier support, right	FRONT BODY PILLAR LOWER GUSSET RH
Interior tail trim	INNER BODY LOWER BACK PANEL REINFORCEMENT
Side frame, exterior, left	OUTER SIDE PANEL SUB-ASSEMBLY LH
Side frame, exterior, right	OUTER SIDE PANEL SUB-ASSEMBLY RH
Left interior side frame	INNER SIDE PANEL SUB-ASSEMBLY LH
Right interior side frame	INNER SIDE PANEL SUB-ASSEMBLY RH
Side frame, center left	COWL SIDE PANEL SUB-ASSY LH
Side frame, center right	COWL SIDE PANEL SUB-ASSY RH
Upper apron	WINDSHIELD HEADER PANEL SUB-ASSEMBLY
Rear window frame upper part	REAR ROOF PANEL REINFORCEMENT SUB-ASSY
Rear lights cup, left	FRONT LUGGAGE DOOR OPENING TROUGH SUB-ASSY LH
Rear lights cup, right	FRONT LUGGAGE DOOR OPENING TROUGH SUB-ASSY RH
Driprail	WATER GUARD PLATE RH
Driprail	WATER GUARD PLATE LH
Covering cap left	BACK DOOR TRIM COVER
Covering cap right	BACK DOOR TRIM COVER
Door left	FRONT DOOR PANEL SUB-ASSEMBLY LH
Door right	FRONT DOOR PANEL SUB-ASSEMBLY RH
Supporting ring left	OUTER MIRROR VISOR LH
Supporting ring right	OUTER MIRROR VISOR RH
Housing lower section, left	NO. 2 OUTER MIRROR COVER LH
Housing lower section, right	NO. 2 OUTER MIRROR COVER RH
Cover, mirror base, left	LOWER OUTER MIRROR COVER LH
Cover, mirror base, right	LOWER OUTER MIRROR COVER RH
Tubing support	AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
Adapter plate	ENGINE MOUNTING BRACKET
Differential pressure sensor	DIFFERENTIAL PRESSURE SENSOR
Acoustic plug	STARTER COVER
Set oil-filter element	OIL FILTER ELEMENT KIT
Oil Pan	OIL PAN SUB-ASSEMBLY
Mechanical belt tensioner	V-RIBBED BELT TENSIONER ASSEMBLY

Air filter element	AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY
Acoustic cover for oil pan	OIL PAN COVER
Gasket set	OIL FILTER BRACKET GASKET
Gasket set	OIL COOLER GASKET
Oil filter cover	OIL FILTER CAP ASSEMBLY
Heat exchanger	OIL COOLER ASSEMBLY
Belt pulley, coolant pump	WATER PUMP PULLEY
Guide-bearing Shell blue	LOWER CRANKSHAFT THRUST WASHER
Guide-bearing Shell green	LOWER CRANKSHAFT THRUST WASHER
Main bearing shell, brown	LOWER CRANKSHAFT THRUST WASHER
Vibration absorber	NO. 2 EXHAUST PIPE SUPPORT
Sprocket	OIL PUMP DRIVE SHAFT GEAR
Throttle	THROTTLE WITH MOTOR BODY ASSEMBLY
Charge air line	NO. 2 AIR CLEANER HOSE
Shaft seal	TIMING GEAR CASE OR TIMING CHAIN CASE OIL SEAL
Valve spring	EXHAUST VALVE COMPRESSION SPRING
ASA-Bolt	CRANKSHAFT BEARING CAP SET BOLT
O-ring	NO. 1 TURBO OIL OUTLET GASKET
Shaft seal	FRONT CRANKSHAFT OIL SEAL PLATE
Reluctor	NO. 1 CRANK ANGLE SENSOR PLATE
Label "anti-theft system"	THEFT WARNING INFORMATION LABEL
Torx screw	NO. 1 PROPELLER SHAFT AND DIFFERENTIAL SETTING BOLT
Expansion tank	RADIATOR RESERVE TANK ASSEMBLY
Expansion tank	RADIATOR RESERVE TANK SUB-ASSEMBLY
Flywheel automatic	DRIVE PLATE AND RING GEAR SUB-ASSEMBLY
Acoustic capsule, lower	TRANSMISSION HOUSING UNDER COVER (ATM)
Muffler clamp	EXHAUST PIPE CLAMP
Valve spring	INTAKE VALVE COMPRESSION SPRING
Set connecting rod	CONNECTING ROD SUB-ASSEMBLY
Temperature sensor	INLET AIR TEMPERATURE SENSOR
Air-discharge fitting with O-ring	AIR BY-PASS VALVE ASSEMBLY
Camshaft exhaust	EXHAUST CAMSHAFT SUB-ASSEMBLY
Cam follower	FUEL PUMP LIFTER ASSEMBLY
Adjustment unit, inlet camshaft	CAMSHAFT TIMING GEAR ASSEMBLY
Adjustment unit, outlet camshaft	CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY
Oil supply line	INLET TURBO OIL PIPE SUB-ASSEMBLY
Oil return line	OUTLET TURBO OIL PIPE

Line from turbocharger-cylinder block	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY
Eccentric shaft	NO. 3 CAMSHAFT SUB-ASSEMBLY
High-pressure pump	FUEL PUMP ASSEMBLY
Oil/vacuum pump assembly	OIL PUMP ASSEMBLY
Sensor, high-pressure	FUEL PRESSURE SENSOR
Timing chain	CHAIN SUB-ASSEMBLY
Guide rail	NO. 1 CHAIN VIBRATION DAMPER
Chain tensioner	CHAIN TENSIONER SLIPPER
Chain tensioner	NO. 1 CHAIN TENSIONER ASSEMBLY
Screw clamp	FRONT EXHAUST PIPE CENTER NO. 2 CLAMP
Rubber Mounting	NO. 4 EXHAUST PIPE SUPPORT
Heat shield for exhaust manifold	NO. 1 EXHAUST MANIFOLD HEAT INSULATOR
Heat shield	NO.2 EXHAUST MANIFOLD HEAT INSULATOR
Alternator	ALTERNATOR ASSEMBLY
REAR SILENCER BRACKET, front	NO. 5 EXHAUST PIPE SUPPORT BRACKET
Spring clip	NO. 1 AIR HOSE CLIP
Sensor, charge-air pressure	AIR PRESSURE SENSOR
T-map sensor	VACUUM SENSOR ASSEMBLY
Holder catalytic converter near engine	NO. 2 MANIFOLD STAY
Profile-gasket	FUEL PUMP SPACER GASKET
Profile seal for cylinder head cover	CYLINDER HEAD COVER GASKET
Integrated supply module	NO. 1 INTEGRATION RELAY
Oil levelling sensor	SENSOR, ENGINE OIL LEVEL
Spring clip	AIR HOSE CLIP
Preformed seal	NO. 2 AIR TUBE GASKET
Bracket injector	NOZZLE HOLDER CLAMP
Heat management module	WATER VALVE
Gasket for exhaust manifold	EXHAUST MANIFOLD TO HEAD GASKET
Sliding bar	NO. 2 TURBOCHARGER STAY
Ignition coil	IGNITION COIL ASSEMBLY
Needle bearing	NO. 1 BALANCESHAFT BEARING
Pipe clip	NO. 1 RADIATOR HOSE CLIP
Crankshaft sensor	CRANK POSITION SENSOR
Cylinder head bolt	CYLINDER HEAD SET BOLT
Oil pump	OIL PUMP ASSEMBLY
Oil pressure sensor	OIL PRESSURE SENSOR
Intake system with charge air cooler	INTAKE MANIFOLD

Bracket for intake assembly	THROTTLE BODY BRACKET
Support, front	INTAKE MANIFOLD STAY
Support, rear	NO. 2 MANIFOLD STAY
Vacuum pipe	CONNECTOR TO CHECK VALVE TUBE
Vacuum pipe with non-return valve	CONNECTOR TO BRAKE BOOSTER TUBE
Coolant line, turbocharger supply line	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY
Coolant line, turbocharger return line	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY
Temperature sensor, coolant	NO. 2 WATER TEMPERATURE SENSOR
Ribbed v-belt	FAN AND ALTERNATOR V BELT
Vibration damper	CRANKSHAFT PULLEY ASSEMBLY
Flanged cap screw	REAR DIFFERENTIAL CARRIER COVER SETTING BOLT
Collar screw	CYLINDER HEAD COVER BOLT
Hose, thermostat-coolant pump	NO. 3 WATER BY-PASS HOSE
Line from coolant pump-cylinder head	NO. 2 WATER BY-PASS HOSE
Coolant pump with support	WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY
Charge air induction tract	NO. 2 AIR CLEANER HOSE
Lambda Monitor sensor	OXYGEN SENSOR
Line, turbocharger-coolant pump	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY
Wire heat management module	NO. 5 WATER BY-PASS HOSE
Auxiliary water pump	WATER PUMP ASSEMBLY
Auxiliary water pump	WATER PUMP SUB-ASSEMBLY
Support	GATE
Hose, radiator	NO. 2 RADIATOR HOSE
Hose, radiator	NO. 1 RADIATOR HOSE
Pipe, expansion tank-cylinder head	RADIATOR RESERVE TANK HOSE
Hose, radiator	NO. 5 WATER BY-PASS HOSE
Hose suction module	NO. 7 WATER BY-PASS HOSE
Hose, radiator	NO. 6 RADIATOR HOSE
Hose, remote, coolant radiator	RADIATOR HOSE SUB-ASSEMBLY
Line external radiator	RADIATOR HOSE SUB-ASSEMBLY
Hose, remote, coolant radiator	NO. 3 RADIATOR HOSE
Holder	ENGINE ROOM ECM BOX
Cover	ENGINE ROOM ECU COVER
Cap for oil filler	OIL FILLER CAP ASSEMBLY
Hose heater return	NO. 1 WATER BY-PASS HOSE
Hose for expansion tank	NO. 6 WATER BY-PASS HOSE
Bracket for coolant line	WATER BY-PASS PIPE BRACKET

Transmission oil cooler line, flow	NO. 1 OIL COOLER INLET TUBE
Transmission oil cooler line, return	NO. 1 OIL COOLER OUTLET TUBE
Label "engine oil"	ENGINE SERVICE INFORMATION LABEL
RP injector	FUEL INJECTOR ASSEMBLY
Sign ignition coil/ fuel	CAUTION LABEL
Filtered air pipe with resonator	AIR CLEANER HOSE ASSEMBLY
Acoustic cover rear	REAR CYLINDER BLOCK COVER
Connecting rod bolt	CONNECTING ROD BOLT
Regulating lambda probe	WIDE RANGE AIR FUEL RATIO SENSOR
Gear wheel	NO. 2 BALANCESHAFT DRIVEN GEAR
Gear wheel	NO. 1 BALANCESHAFT DRIVEN GEAR
Component temperature sensor	TEMPERATURE SENSOR ASSEMBLY
Intake muffler	AIR CLEANER ASSEMBLY
Tailpipe tip, chrome	TAIL EXHAUST PIPE BAFFLE SUB ASSEMBLY
Transmission holder	NO. 2 EXHAUST PIPE SUPPORT
Inlet camshaft	INTAKE CAMSHAFT SUB-ASSEMBLY
Vacuum pipe	CONNECTOR TO BRAKE BOOSTER TUBE
Ground cable	EARTH WIRE
Wiring harness, eng. Sensoric module 1	ENGINE WIRE
Cable harness injection valve/ignition	NO. 4 ENGINE ROOM WIRE
fuel tank breather line	NO. 1 FUEL VAPOR FEED HOSE
Tank EVAP line with pressure sensor	NO. 1 FUEL VAPOR FEED HOSE
Fuel tank breath.line with resonator	NO. 2 FUEL VAPOR FEED HOSE
Cover, rear	REAR DIFFERENTIAL CARRIER COVER
fuel tank breather line	NO. 3 FUEL VAPOR FEED HOSE
Suction jet pump with line	NO. 4 FUEL VAPOR FEED HOSE
High pressure pipe	NO. 1 FUEL PIPE SUB-ASSEMBLY
Supply line to engine compartment	NO.2 FUEL PIPE SUB-ASSEMBLY
High-pressure rail	FUEL DELIVERY PIPE
High-pressure rail	NO. 2 FUEL DELIVERY PIPE
Screw cap for expansion tank	RESERVE TANK CAP SUB-ASSEMBLY
Output shaft, rear left	REAR DRIVE SHAFT ASSEMBLY LH
Output shaft, rear right	REAR DRIVE SHAFT ASSEMBLY RH
Transmission oil cooler	TRANSMISSION OIL COOLER
Radiator	RADIATOR ASSEMBLY
Radiator	NO. 2 RADIATOR ASSEMBLY
Fan housing with fan	FAN ASSEMBLY WITH MOTOR

Cover,top	RADIATOR UPPER AIR GUIDE PLATE
Covering Lower	RADIATOR LOWER AIR GUIDE PLATE
Covering right	RADIATOR SIDE PLATE RH
Covering left	RADIATOR SIDE PLATE LH
Foam rubber sound deadening, right	CYLINDER BLOCK SIDE COVER
Foam rubber sound deadening, left	NO. 4 ENGINE COVER
Engine cover	CYLINDER BLOCK COVER
Throttle Housing Assy	THROTTLE WITH MOTOR BODY ASSEMBLY
Drive shaft automatic transmission	PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING
Acoustic cover	NO. 2 CYLINDER BLOCK SIDE COVER
Seal for exhaust turbocharger	EXHAUST MANIFOLD TO HEAD GASKET
Support, intake system	INTAKE MANIFOLD STAY
Crankshaft	CRANKSHAFT
Cover for high-pressure pump	NO. 2 ENGINE COVER SUB-ASSEMBLY
remote radiator	SUB RADIATOR ASSEMBLY
O-ring	NO. 3 WATER BY-PASS HOSE CLIP
Engine cover	NO. 1 ENGINE COVER SUB-ASSEMBLY
Gasket	NO. 2 WATER BY-PASS HOSE CLIP
Sealing sleeve	BEARING JOURNAL
Fuel hose	FUEL TUBE SUB-ASSEMBLY
Terminal strip	TURBOCHARGER STAY
Thermostat	TRANSMISSION OIL THERMOSTAT
Piston	PISTON SUB-ASSEMBLY WITH PIN
Label	ENGINE CAUTION LABEL
Heat shield, turbocharger, lower	NO. 2 EXHAUST MANIFOLD HEAT INSULATOR
Heat shield, turbocharger, upper	NO. 1 EXHAUST MANIFOLD HEAT INSULATOR
Alignment element	VALVE LASH ADJUSTER ASSEMBLY
Bracket, coolant hose	WATER BY-PASS PIPE BRACKET
Intake manifold	INLET NO. 1 AIR DUCT
Intake duct	INLET NO. 2 AIR DUCT
Idler	DIFFERENTIAL GEAR SET
Exhaust valve	EXHAUST VALVE
Bracket exhaust, rear	NO. 4 EXHAUST PIPE SUPPORT BRACKET
Metal bracket	NO. 1 WIRING HARNESS PROTECTOR
Center Mount, aluminium	NO. 1 CENTER SUPPORT BEARING ASSEMBLY
Actuator drive, exhaust flap	ACTUATOR ASSEMBLY WITH BRACKET
Final drive with differential	REAR DIFFERENTIAL CARRIER ASSEMBLY

Exch. final drive with differential	REAR DIFFERENTIAL CARRIER ASSEMBLY
Timing case cover	TIMING GEAR CASE
Adapter, tank vent line, heated	INLET COMPRESSOR ELBOW
Switch valve	SWITCH VALVE
Exch. generator	ALTERNATOR ASSEMBLY
Cyl.head cover w/o pressure ctrl.valve	CYLINDER HEAD COVER SUB-ASSEMBLY
Exchange starter motor	STARTER ASSEMBLY
Set Wastegate valve actuator	ACTUATOR ASSEMBLY WITH BRACKET
Slide rail	CHAIN DAMPER GUIDE
Cover, sensor	SENSOR COVER
Rubber element	SUB-RADIATOR SUPPORT
Preformed seal	NO. 3 AIR TUBE GASKET
VANOS central valve	INTAKE CAMSHAFT TIMING GEAR CENTER BOLT ASSEMBLY
Rear-axle-drive	REAR DIFFERENTIAL, CARRIER ASSEMBLY
Exch. final drive	REAR DIFFERENTIAL, CARRIER ASSEMBLY
Rubber Mounting	NO. 3 EXHAUST PIPE SUPPORT
Top shell for holder	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
Ethernet switch box	ETHERNET SWITCH BOX
Antenna, TV	MULTIPLE-BAND AERIAL
Instrument cluster	COMBINATION METER ASSEMBLY
Wiring set seat	FRONT SEAT WIRE RH
Wiring set seat left	FRONT SEAT WIRE LH
Wiring set seat right	FRONT SEAT WIRE RH
Rep. wiring harness for electric fan	AUTO FAN WIRE
Rep. module EPS	NO. 23 FLOOR WIRE
Control unit with Active Sound Design	STEREO COMPONENT AMPLIFIER ASSEMBLY
Cover for trunk lid striker	BACK DOOR LOCK STRIKER COVER
Absorber funnel, left	ABSORBER FUNNEL LH
Absorber funnel, right	ABSORBER FUNNEL RH
Heated outside mirror, memory bus, left	OUTER REAR VIEW MIRROR ASSEMBLY LH
Heated outside mirror, memory bus, right	OUTER REAR VIEW MIRROR ASSEMBLY RH
Cover door outer skin, primed, left	FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY LH
Cover door outer skin, primed, right	FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY RH
Cover cap, painted, left	OUTER MIRROR COVER LH
Cover cap, painted, right	OUTER MIRROR COVER RH
Bracket side panel left	NO. 1 SIDE MUDGUARD BRACKET RH
Bracket side panel right	NO. 1 SIDE MUDGUARD BRACKET RH

Gasket ring	FUEL INJECTOR O-RING
Earth strap	NO. 2 EARTH WIRE
Multi-band antenna	MULTIPLE-BAND AERIAL
Bracket for TV module	NO. 1 DIGITAL TELEVISION BRACKET SET
Battery cable minus dual storage system	NO. 2 EARTH WIRE
Battery cable plus dual storage system	NO. 4 ENGINE ROOM WIRE
Battery cable (plus pole)	NO. 4 FLOOR WIRE
Battery cable positive, below-floor	NO. 5 FLOOR WIRE
Third stoplamp	CENTER STOP LIGHT ASSEMBLY
Seal strip side frame, left	FRONT DOOR WINDOW FRAME FRONT MOULDING LH
Seal strip side frame, right	FRONT DOOR WINDOW FRAME FRONT MOULDING RH
Seal mirror triangle, left	FRONT DOOR BELT FRONT SEAL LH
Seal mirror triangle, right	FRONT DOOR BELT FRONT SEAL RH
Window cavity seal front door left	FRONT DOOR GLASS INNER WEATHERSTRIP LH
Window cavity seal front door right	FRONT DOOR GLASS INNER WEATHERSTRIP RH
Shaft cover front door left	FRONT DOOR BELT MOULDING ASSEMBLY LH
Shaft cover front door right	FRONT DOOR BELT MOULDING ASSEMBLY RH
Gap seal for door sill front door left	FRONT DOOR WEATHERSTRIP LH
Gap seal for door sill front door right	FRONT DOOR WEATHERSTRIP RH
Gap seal A-pillar front door left	NO. 3 FRONT DOOR WEATHERSTRIP LH
Gap seal A-pillar front door right	NO. 3 FRONT DOOR WEATHERSTRIP RH
Seal, outer left mirror triangle	FRONT DOOR FRONT LOWER FRAME UPPER COVER LH
Seal, outer right mirror triangle	FRONT DOOR FRONT LOWER FRAME UPPER COVER RH
Side window, rigid, rear left	QUARTER WINDOW ASSEMBLY LH
Side window, rigid, rear right	QUARTER WINDOW ASSEMBLY RH
Finisher, side frame left	FRONT ROOF SIDE RAIL WEATHERSTRIP RETAINER LH
Finisher, side frame right	FRONT ROOF SIDE RAIL WEATHERSTRIP RETAINER RH
Cover, entrance, left	FRONT DOOR SCUFF PLATE OUTSIDE LH
Cover, entrance, right	FRONT DOOR SCUFF PLATE OUTSIDE RH
Left column A cover	ROOF DRIP SIDE FINISH MOULDING LH
Right column A cover	ROOF DRIP SIDE FINISH MOULDING RH
Reflector, rear left	REFLEX REFLECTOR ASSEMBLY LH
Reflector, rear right	REFLEX REFLECTOR ASSEMBLY RH
Door handle, inside left	FRONT DOOR INSIDE HANDLE LH
Door handle inner right	FRONT DOOR INSIDE HANDLE RH
Left bracket	FRONT DOOR OUTSIDE PANEL BRACKET
Right bracket	FRONT DOOR OUTSIDE PANEL BRACKET

Window guide rail left	FRONT DOOR BELT FRONT SEAL
Window guide rail right	FRONT DOOR BELT FRONT SEAL
Head airbag, left	CURTAIN SHIELD AIRBAG ASSEMBLY LH
Head airbag, right	CURTAIN SHIELD AIRBAG ASSEMBLY RH
Airbag ramp B-pillar trim panel, left	CURTAIN SHIELD AIRBAG BRACKET LH
Airbag ramp B-pillar trim panel, right	CURTAIN SHIELD AIRBAG BRACKET RH
Seal, engine bonnet, front	HOOD TO RADIATOR SUPPORT SEAL
Sealing side panel, left	FRONT FENDER UPPER PROTECTOR LH
Sealing side panel right	FRONT FENDER UPPER PROTECTOR RH
Carrier, bumper front	FRONT BUMPER REINFORCEMENT
Mount, bumper, front, lower	LOWER FRONT BUMPER REINFORCEMENT
Air duct	NO. 1 COOL AIR INTAKE DUCT
Mount, bumper front center	FRONT BUMPER UPPER RETAINER
Molded part column A, exterior	INSTRUMENT SIDE BRACKET RH
Shaped part, carrier support	NO. 6 STIFFENER BRACKET RH
Molded part column A, bottom int. left	NO. 2 STIFFENER BRACKET
Molded part column A, bottom int. right	NO. 2 STIFFENER BRACKET
Shaped part A-pillar bottom left	NO. 3 STIFFENER BRACKET
Shaped part A-pillar bottom right	NO. 3 STIFFENER BRACKET
Molded part, wheelhousing, outside, left	LOWER QUARTER PANEL END HOUSING LH
Molded part, wheelhousing outer right	LOWER QUARTER PANEL END HOUSING RH
Molded part, wheelhousing, inside, left	FRONT QUARTER OUTER PANEL EXTENSION
Molded part, wheelhousing, inside, right	FRONT QUARTER OUTER PANEL EXTENSION
Shaped part, roof frame inner rear left	QUARTER PANEL INNER REAR EXTENSION LH
Shaped part roof frame inner rear right	QUARTER PANEL INNER REAR EXTENSION RH
Front towing hitch cover	FRONT BUMPER HOLE COVER
License plate holder	FRONT BUMPER EXTENSION MOUNTING BRACKET
Insert, bumper front left	FRONT BUMPER SIDE RETAINER LH
Insert, bumper front right	FRONT BUMPER SIDE RETAINER RH
Grill, air intake, center	LOWER NO. 1 RADIATOR GRILLE
Fresh air grille partially closed left	LOWER RADIATOR GRILLE
Grill, air intake, part closed, right	LOWER RADIATOR GRILLE
Grill, air intake, open, left	LOWER RADIATOR GRILLE
Grill, air intake, open, right	LOWER RADIATOR GRILLE
Support, sill, left	NO. 2 BODY OUTSIDE MOULDING PAD
Support, sill, right	NO. 1 BODY OUTSIDE MOULDING PAD
Support, sill, rear left	NO. 4 BODY OUTSIDE MOULDING PAD

Support, sill, rear right	NO. 3 BODY OUTSIDE MOULDING PAD
Cover, towing hinge	REAR BUMPER PLATE RH
Connection wheel well, left	REAR BUMPER LOWER SIDE RETAINER LH
Connection wheel well, right	REAR BUMPER LOWER SIDE RETAINER RH
Guide for bumper, side, left	REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY LH
Guide for bumper, side, right	REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY RH
Guide, center rear	NO. 1 REAR BUMPER SUPPORT
Side window, door, left front	FRONT DOOR GLASS SUB-ASSEMBLY LH
Side window, door, right front	FRONT DOOR GLASS SUB-ASSEMBLY RH
Lockrod, left	FRONT DOOR LOCK CONTROL LINK SUB-ASSEMBLY LH
Lockrod, right	FRONT DOOR LOCK CONTROL LINK SUB-ASSEMBLY RH
Adapter support, left	DOOR LOCK SPACER
Adapter support, right	DOOR LOCK SPACER
Bowd.cable,outside door handle front	FRONT DOOR LOCK REMOTE CONTROL OPEN LEVER CABLE RH
Left operating rod	FRONT DOOR LOCK OPEN ROD LH
Right operating rod	FRONT DOOR LOCK OPEN ROD RH
Left trunk lid hinge	BACK DOOR HINGE ASSEMBLY LH
Right trunk lid hinge	BACK DOOR HINGE ASSEMBLY RH
Trim panel, trunk lid, center	BACK DOOR TRIM BOARD
Upper trunk lid trim panel	UPPER BACK DOOR TRIM
Rear window	BACK DOOR GLASS
Gas pressurized spring f trunk lid	BACK DOOR STAY ASSEMBLY RH
Rear light bumper	BACK-UP LIGHT ASSEMBLY
Tail light left	REAR COMBINATION LIGHT ASSEMBLY LH
Tail light right	REAR COMBINATION LIGHT ASSEMBLY RH
Seal roof gap tailgate	BACK DOOR SEAL
Trim for tweeter left	FRONT DOOR SPEAKER HOLE COVER
Cover for screw, door opener, front	DOOR TRIM COVER RH
Cover, bottom left	FRONT FENDER FRONT SPLASH SHIELD LH
Cover, bottom right	FRONT FENDER FRONT SPLASH SHIELD RH
Left protection foil	REAR BUMPER SEAL
Right protection foil	REAR BUMPER SEAL
Abrasion protection film, left	NO. 1 MOULDING TAPE
Abrasion protection film right	NO. 1 MOULDING TAPE
Bumper trim front center	FRONT SPOILER SUB-ASSEMBLY
Bowden cable door handle front	FRONT DOOR INSIDE LOCKING LOCK AND UNLOCK KNOB CABLE RH
Horn, high pitch	HIGH PITCHED HORN ASSEMBLY

Air horn, high-frequency, electronic	HIGH PITCHED HORN ASSEMBLY
Trim panel, bumper, rear, bottom	REAR BUMPER EXTENSION
Air inlet finisher, left	COOL AIR INTAKE GRILLE RH
Air inlet finisher, right	COOL AIR INTAKE GRILLE LH
Rocker panel cover, matt black, left	ROCKER PANEL MOULDING LH
Rocker panel cover, matt black, right	ROCKER PANEL MOULDING RH
Air inlet finisher, left	AIR INLET TRIM LH
Air inlet finisher, right	AIR INLET TRIM RH
Trim for taillight	BACK UP LIGHT SHADE
Trim panel partition wall, front	LUGGAGE COMPARTMENT TRIM FRONT COVER
Partition panel upper section, left	UPPER QUARTER TRIM PANEL LH
Partition panel, upper section, right	UPPER QUARTER TRIM PANEL RH
Cover, belt outlet, left	SEAT BELT HOLE COVER SUB-ASSEMBLY LH
Cover, belt outlet, right	SEAT BELT HOLE COVER SUB-ASSEMBLY RH
Loading sill cover	REAR DECK TRIM COVER
Trim, waistrail, luggage bay, left	DECK SIDE TRIM COVER LH
Trim, waistrail, luggage bay, right	DECK SIDE TRIM COVER RH
Sound insulating wheel housing rear left	QUARTER WHEEL HOUSE INSULATOR LH
Sound insulating wheel housing rear rig.	QUARTER WHEEL HOUSE INSULATOR RH
Left column A cover	FRONT PILLAR GARNISH LH
Right column A cover	FRONT PILLAR GARNISH RH
Trim cover, C-pillar, upper left	INNER ROOF SIDE GARNISH ASSEMBLY LH
Trim cover, C-pillar, upper right	INNER ROOF SIDE GARNISH ASSEMBLY RH
Deformation panel, A-pillar, left	UPPER INNER FRONT PILLAR EXTENSION LH
Deformation panel, A-pillar, right	UPPER INNER FRONT PILLAR EXTENSION RH
Deformation panel, A-pillar, left	UPPER INNER FRONT BODY PILLAR GUSSET LH
Deformation panel, A-pillar, right	UPPER INNER FRONT BODY PILLAR GUSSET RH
Headlining	ROOF HEADLINING ASSEMBLY
Sound insulation for roof, front	ROOF SILENCER PAD
Insert, head restraint	FRONT SEAT HEADREST ASSEMBLY
Trim backrest	FRONT SEAT BACK GARNISH
Connecting bridge	REAR FLOOR PANEL BRACE
Air inlet on hood, left	FRONT SIDE AIR GUIDE SUB-ASSEMBLY LH
Air inlet hood right	FRONT SIDE AIR GUIDE SUB-ASSEMBLY RH
Windshield, green, rain/light/fog	WINDSHIELD GLASS
Side marker reflector left	REFLEX REFLECTOR ASSEMBLY LH
Side marker reflector right	REFLEX REFLECTOR ASSEMBLY RH

Cover, windshield	MOULDING, WINDSHIELD, OUTSIDE
Roof molding left	ROOF DRIP SIDE FINISH MOULDING LH
Roof molding right	ROOF DRIP SIDE FINISH MOULDING RH
Filler pipe	FUEL TANK INLET PIPE SUB-ASSEMBLY
Support column B left	PIVOT MOUNTING SUPPORT LH
Support column B right	PIVOT MOUNTING SUPPORT RH
Label	NO. 1 REAR NAME PLATE
Seal, side frame, left	FRONT PANEL SIDE NO. 1 SILENCER LH
Seal, side frame, right	FRONT PANEL SIDE NO. 1 SILENCER RH
Emblem front	FRONT BUMPER EMBLEM SUB-ASSEMBLY
Emblem rear	NO. 1 BACK DOOR EMBLEM
Trim, drip rail, left	BACK DOOR SIDE GARNISH LH
Trim, drip rail, right	BACK DOOR SIDE GARNISH RH
Cover, wheelhousing, fr. sec., front lft	FRONT FENDER LINER LH
Cover, wheelhousing, fr. sec., front rgt	FRONT FENDER LINER RH
Cover, wheel housing, rear left	REAR WHEEL HOUSE LINER LH
Cover, wheel housing, rear right	REAR WHEEL HOUSE LINER RH
Cover, wheelhousing, rear, front left	FRONT NO. 2 FENDER LINER
Cover, wheelhousing, rear, front right	FRONT NO. 2 FENDER LINER
Filling system cover housing	FUEL FILLER OPENING LID SUB-ASSEMBLY
Fill-in flap	FUEL FILLER OPENING LID ASSEMBLY
Bowden cable, emergency unlocking	BACK DOOR LOCK CONTROL CABLE ASSEMBLY
Disk wheel, light alloy, in Orbitgrey	DISC WHEEL
Disc wheel light alloy jet bl.sol.paint	DISC WHEEL
Trim bass speaker	REAR SPEAKER GRILLE SUB-ASSEMBLY RH
Tube for cargo holder	TRANSVERSE PIPE
Trim for loading protector, left	TRANSVERSE PIPE TRIM
Trim loading protector right	TRANSVERSE PIPE TRIM
Door brake left	FRONT DOOR CHECK ASSEMBLY LH
Door brake right	FRONT DOOR CHECK ASSEMBLY
Side airbag, front left seat	FRONT SEAT AIRBAG ASSEMBLY LH
Side airbag, front right seat	FRONT SEAT AIRBAG ASSEMBLY RH
Cover, entrance, left	SOUND INSULATION
Cover, entrance, right	SOUND INSULATION
Filler cap	FUEL TANK CAP ASSEMBLY
Left trunk trim	DECK TRIM SIDE BOARD LH
Right TRUNK TRIM	DECK TRIM SIDE BOARD RH

Cover column B left	CENTER PILLER GARNISH ASSY LH
Cover column B right	CENTER PILLER GARNISH ASSY RH
Bracket, B-pillar top left	CENTER PILLAR GARNISH BRACKET LH
Bracket, B-pillar top right	CENTER PILLAR GARNISH BRACKET RH
Cover fuel filling tube	FUEL FILLER OPENING LID LOCK BRACKET
Insert, backrest	FRONT SEAT BACK BOARD
License plate bracket, rear	REAR LICENSE PLATE SUPPORT BRACKET
Trim license-plate carrier rear	REAR LICENSE PLATE MOUNTING BRACKET
Holder partition panel, side	PACKAGE TRAY TRIM BRACKET RH
Holder for partition panel, center	PACKAGE TRAY TRIM BRACKET LH
Trim panel partition panel, rear	REAR LUGGAGE COMPARTMENT TRIM COVER
Tailpipe trim, stainless steel	EXHAUST TAIL PIPE BAFFLE SUB-ASSEMBLY
Seal hinge bracket	BACK DOOR HINGE COVER RH
Mount I-CAM	BRACKET FOR REAR VIEW CAMERA
Mounting plate I-CAM	HOLDER
Rear window shelf	PACKAGE TRAY TRIM PANEL ASSEMBLY
Bumper carrier shock absorber	REAR BUMPER ENERGY ABSORBER
Adapter	ROOF HEADLINING SUPPORT
Bump stop, trunk lid	BACK DOOR PANEL CUSHION
Central information display	MULTI-DISPLAY ASSEMBLY
Screw cover	COVER TOP SET BOLT CAP B
Shaped part, outer skin	NO. 2 SIDE PANEL BRACKET
Blanking plate, left	NO. 1 DOOR INSIDE HANDLE BEZEL LH
Blanking plate, right	NO. 1 DOOR INSIDE HANDLE BEZEL RH
Lid Gegenlager	VISOR HOLDER COVER
Impact absorber, top	FRONT BUMPER ENERGY ABSORBER
Bumper carrier shock absorber	FRONT BUMPER ENERGY ABSORBER SUPPORT
Trim cover, lock	BACK DOOR STRIKER COVER
Wheel arch trim, left front	HOOD MOULDING LH
Wheel arch trim, right front	HOOD MOULDING RH
Wheel arch trim, rear left	QUARTER OUTSIDE MOULDING LH
Wheel arch trim, rear right	QUARTER OUTSIDE MOULDING RH
Blanking plate, left	NO. 2 DOOR INSIDE HANDLE BEZEL LH
Blanking plate, right	NO. 2 DOOR INSIDE HANDLE BEZEL RH
Upper belt left	FRONT SEAT OUTER BELT ASSEMBLY LH
Upper belt right	FRONT SEAT OUTER BELT ASSEMBLY RH
Shock absorber, rear	REAR SHOCK ABSORBER ASSEMBLY LH

Left front spring strut	FRONT SHOCK ABSORBER ASSEMBLY LH
Front right spring strut	FRONT SHOCK ABSORBER ASSEMBLY RH
Insert, bumper front center	FRONT BUMPER INNER SUPPORT
Trim cover, bumper, front left	FRONT SIDE SPOILER LH
Trim cover, bumper, front right	FRONT SIDE SPOILER RH
Space saver spare tire cup	SPARE WHEEL COVER
Mount, bumper, front outer left	FRONT BUMPER END RETAINER LH
Mount, bumper front, outer right	FRONT BUMPER END RETAINER RH
Bumper bracket front left	FRONT BUMPER RETAINER LH
Bumper bracket front right	FRONT BUMPER RETAINER RH
Connecting line Headunit Basis - CID	NO. 3 INSTRUMENT PANEL WIRE
Connection cable, Headunit High - CID	NO. 3 INSTRUMENT PANEL WIRE
Connecting line cluster / HUD	NO. 4 INSTRUMENT PANEL WIRE
Cable for Ethernet	NO. 11 FLOOR WIRE
Connecting line HU / instrument cluster	NO. 3 INSTRUMENT PANEL WIRE
HSD line head unit USB HUB	NO. 5 INSTRUMENT PANEL WIRE
Repair module aerial telephone	NO. 19 INSTRUMENT PANEL WIRE
Rep. guide Bluetooth cable antenna	NO. 20 FLOOR WIRE
Rep.module antennas DAB	NO. 12 FLOOR WIRE
Antenna wire TCB/rear antenna	NO. 14 FLOOR WIRE
Antenna cable head unit / rear antenna	NO. 16 FLOOR WIRE
Rep.module aerial line SDARS	NO. 13 FLOOR WIRE
Repair module aerial telephone	NO. 15 FLOOR WIRE
Repair module aerial telephone	NO. 17 FLOOR WIRE
Rep. guide for WLAN cable antenna	NO. 18 FLOOR WIRE
Rep.module aerial lines FM1/ FM2	NO. 12 FLOOR WIRE
Rep.module TV module	NO. 21 FLOOR WIRE
Cable for Ethernet	NO. 7 FLOOR WIRE
Cable for Ethernet	NO. 8 FLOOR WIRE
Repair module Ethernet	NO. 10 FLOOR WIRE
Cable for Ethernet	NO. 4 FLOOR WIRE
Cable, optical fiber	NO. 4 FLOOR WIRE
Cable, optical fiber	NO. 3 FLOOR WIRE
Cable, optical fiber	NO. 6 FLOOR WIRE
Rep.module AUX In / USB	NO. 4 INSTRUMENT PANEL WIRE
Supply line power distribution box	NO. 22 FLOOR WIRE
Cable for Ethernet	NO. 9 FLOOR WIRE

Cable for Ethernet	NO. 3 FLOOR WIRE
Cable for Ethernet	NO. 3 FLOOR WIRE LH
Cable for Ethernet	NO. 5 FLOOR WIRE
Cable for Ethernet	NO. 3 FLOOR WIRE RH
Radio remote control	ELECTRICAL KEY TRANSMITTER SUB-ASSEMBLY
Head-up display	METER MIRROR SUB-ASSEMBLY
Ejector trunk lid	BACK DOOR LOWER LOCK STRIKER ASSEMBLY
LED module, daytime running lights, left	HEADLIGHT ASSEMBLY
LED module, daytime running lights, rgt	HEADLIGHT ASSEMBLY
Rubber buffer	PACKAGE TRAY TRIM STOPPER
Storage net	ROOM PARTITION NET ASSEMBLY
Service flap	DECK TRIM SERVICE HOLE COVER
C-pillar reinforcement, left	CENTER QUARTER WHEEL HOUSE GUSSET LH
C-pillar reinforcement, right	CENTER QUARTER WHEEL HOUSE GUSSET RH
Foam-rubber pad	FRONT ROOF DRIP SIDE FINISH MOULDING PAD
Set of caps	ROOF DRIP MOULDING END COVER
Bracket, A-pill.side panel, center left	FRONT BODY PILLAR OUTER BRACKET
Bracket, A-pillar side panel, center RT	FRONT BODY PILLAR OUTER BRACKET
Bracket, side panel, front left	FRONT SIDE PANEL BRACKET LH
Holder, side panel, front right	FRONT SIDE PANEL BRACKET RH
Bracket, side panel, wheel opening left	COWL SIDE PANEL TO FENDER APRON BRACKET LH
Bracket, side panel, wheel opening right	COWL SIDE PANEL TO FENDER APRON BRACKET RH
Bracket, side panel column A left	HOOD SUPPORT BRACKET
Bracket, side panel, column A right	HOOD SUPPORT BRACKET
Bracket, side panel, entrance left	FRONT BODY PILLAR OUTER BRACKET LH
Bracket, side panel, entrance, right	FRONT BODY PILLAR OUTER BRACKET RH
Instrument panel	UPPER INSTRUMENT PANEL ASSEMBLY
Instrument panel HeadUp Display	UPPER INSTRUMENT PANEL ASSEMBLY
Front left repair wiring set	NO. 6 ENGINE WIRE
Front right repair wiring set	NO. 7 ENGINE WIRE
Disk wheel, light-alloy, black matt	DISC WHEEL
Wiring harness, front end	NO. 2 ENGINE ROOM WIRE
Driver's side door cable harness	FRONT DOOR WIRE RH
Co-driver's side door cable harness	FRONT DOOR WIRE RH
Co-driver's side door cable harness	FRONT DOOR WIRE LH
Driver's side door cable harness	FRONT DOOR WIRE LH
Label "tire pressure"	TIRE PRESSURE INFORMATION LABEL

Cover for warning triangle	NO. 1 DECK TRIM COVER
Storage compartment, front	FRONT CONSOLE BOX COVER
Set, anti-squeak cover	FRONT SEAT BACK SUPPORT RH
Mirror base cover set	INNER REAR VIEW MIRROR STAY HOLDER COVER
Parking brake switch	ELECTRIC PARKING BRAKE SWITCH ASSEMBLY
Emergency speaker	SECURITY HORN ASSEMBLY
Top-hifi loudspeaker tweeter	FRONT NO. 3 SPEAKER ASSEMBLY
Hifi-System Tweeter	FRONT NO. 3 SPEAKER ASSEMBLY
Trunk unlocking switch	LUGGAGE COMPARTMENT DOOR OPENING SWITCH ASSEMBLY
Rear ventilation without absorber	QUARTER VENT DUCT ASSEMBLY LH
Top-hifi loudspeaker tweeter	FRONT NO. 2 SPEAKER ASSEMBLY
Switch	FRONT LUMBAR SUPPORT POWER SEAT SWITCH
USB socket	NO. 1 STEREO JACK ADAPTER ASSEMBLY
Switch for lumbar support, left	FRONT SEAT BACK SUPPORT POWER SEAT SWITCH
Switch for lumbar support, right	FRONT SEAT BACK SUPPORT POWER SEAT SWITCH
Evaporator temperature sensor	NO. 2 COOLER THERMISTOR
Temperature sensor	NO. 1 COOLER THERMISTOR
Cable duct	NO. 6 WIRING HARNESS PROTECTOR COVER
Hands free telephone microphone	TELEPHONE MICROPHONE ASSEMBLY
Cover, control unit	TRANSCEIVER COVER
Plug-in connection bracket	HOOD LOCK CONTROL CABLE BRACKET
Trim, headliner	ROOF CONSOLE BOX COVER
Trim cover for roof function center	ROOF CONSOLE BOX COVER
Battery	MOBILEPHONE BATTERY
Condensation water outlet hose	NO. 1 COOLING UNIT PACKING
Retaining ring for condensate drain	COOLER UNIT DRAIN HOSE GROMMET
Cigarette lighter socket	POWER OUTLET SOCKET RETAINER
Vent hose for battery	BATTERY HOSE
Magnet for for seat position	SEAT POSITION SENSOR MAGNET
Stopper plug-in socket	NO. 1 POWER OUTLET SOCKET ASSEMBLY
Bracket for Comfort Access antenna	ANTENNA HOLDER SENSOR
Pressure sensor	AIRCONDITIONER PRESSURE
Back-Up Antenna	NO. 2 AMPLIFIER ANTENNA ASSEMBLY
Switch window lifter	POWER WINDOW REGULATOR SWITCH ASSEMBLY
Accelerating sensor	AIRBAG SENSOR
Luggage compartment lamp LED	NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY
Hose clamp, double	NO. 2 HEATER HOSE CLAMP

ASD mount	NO. 1 STEREO COMPONENT BRACKET
USB hub	MULTI-MEDIA INTERFACE COMPUTER ASSEMBLY
Switch, power seat memory	FRONT POWER SEAT SWITCH LH
Switch for power seats, Memory, driver	FRONT POWER SEAT SWITCH LH
Sensor, driver's seat	NO. 2 SEAT POSITION AIRBAG SENSOR
Sensor, passenger's seat	SEAT POSITION AIRBAG SENSOR
TV module	DIGITAL TELEVISION TUNER ASSEMBLY
Set of shift paddles	TRANSMISSION SHIFT SWITCH ASSEMBLY
Sensor mat f co-driver's seat identif.	BELT WARNING OCCUPANT DETECTION SENSOR
Blower unit	BLOWER WITH FAN MOTOR SUB-ASSEMBLY
Heat exchanger	HEATER RADIATOR UNIT SUB-ASSEMBLY
Set pipe	WATER PIPE SUB-ASSEMBLY
Evaporator with expansion valve	NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY
Cover microfilter	DRAIN COOLER HOSE
Fine-dust filter	CLEAN AIR FILTER
Microfilter/activated Carbon container	CLEAN AIR FILTER
Set of retaining elements	COOLING UNIT PARTS
Mounting kit for heat exchanger	HEATER BRACKET
Set of seals	COOLER PACKING
Actuator	NO. 1 AIR CONDITIONER RADIATOR DAMPER SERVO SUB-ASSEMBLY
Button, central locking system, left	DOOR CONTROL SWITCH ASSEMBLY
Button, central locking system, right	DOOR CONTROL SWITCH ASSEMBLY
Decoupling ring	ULTRASONIC SENSOR O-RING
Socket mount	NO. 2 POWER OUTLET SOCKET COVER
Screw plug	OIL PAN DRAIN PLUG
Air intake duct	NO. 1 AIR DUCT SUB-ASSEMBLY
Refrigerant line IWT	AIR CONDITIONER TUBE ASSEMBLY
Pressure hose assy compressor-condenser	DISCHARGE TUBE G
Suction pipe evaporator-compressor	SUCTION PIPE SUB-ASSEMBLY
Coolant hose, supply	HEATER WATER HOSE
Coolant hose, supply	HEATER WATER HOSE
Coolant hose, return	HEATER WATER HOSE
Wiring set, heater/air conditioning	AIR CONDITIONER HARNESS ASSEMBLY
Pin	CRANKSHAFT STRAIGHT PIN
Dowel	OIL PUMP SET PIN
Control unit ultrasonic sensor	CLEARANCE WARNING ECU ASSEMBLY
Sports seat cover leather	SEPARATE TYPE FRONT SEAT CUSHION COVER

Wire clip, dual	NO. 1 FUEL TUBE CLAMP
Sensor rain/light/solar/fogging over HUD	RAIN SENSOR
Head unit for basic media2	RADIO RECEIVER ASSEMBLY
Charging device	MOBILE WIRELESS CHARGER CRADLE ASSEMBLY
Supply line ground / DSC	NO. 26 FLOOR WIRE
Supply line	NO. 29 FLOOR WIRE
Supply line power distribution box	NO. 28 FLOOR WIRE
Supply line power distribution box	NO. 25 FLOOR WIRE
Supply line B+ DSC	NO. 7 FLOOR WIRE
Supply line battery voltage PDM	NO. 24 FLOOR WIRE
Supply line power distribution box	NO. 27 FLOOR WIRE
Supply line	NO. 30 FLOOR WIRE
Radio remote control receiver	REMOTE CONTROLLER ASSEMBLY
Battery cable, negative, IBS	NO. 3 EARTH WIRE
Control unit for fuel pump	FUEL PUMP CONTROL COMPUTER
Instruction notice, Fuel tank filling	FUEL INFORMATION LABEL
Dowel	CYLINDER HEAD SET RING PIN
Automatic transmission Eh	AUTOMATIC TRANSMISSION ASSEMBLY
Door trim panel left	FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH
Door trim panel right	FRONT DOOR TRIM BOARD SUB-ASSEMBLY RH
Coil spring cartridge	SPIRAL CABLE SUB-ASSEMBLY
Reversing camera	TELEVISION CAMERA ASSEMBLY
Foam section, seat	SEPARATE TYPE FRONT SEAT CUSHION PAD RH
Foam padding, backrest, left	SEPARATE TYPE FRONT SEAT BACK PAD LH
Foam padding, backrest, right	SEPARATE TYPE FRONT SEAT BACK PAD RH
Control element light	NO. 1 LIGHT CONTROL SWITCH ASSEMBLY
Set of mounts, front PDC/PMA sensor	NO. 1 ULTRASONIC SENSOR RETAINER
Trim cover, bumper, primed, front	FRONT BUMPER COVER
Insert, fresh air grille, center	NO. 2 FRONT BUMPER SUPPORT SPACER SUB-ASSEMBLY
Set, adhesive tape	RADIATOR GRILLE SEAL
Sill trim panel, primed left	NO. 1 SIDE PANEL MOULDING LH
Sill trim panel, primed right	NO. 1 SIDE PANEL MOULDING RH
Trunk lid gasket	BACK DOOR WEATHERSTRIP
Door weatherstrip left	FRONT DOOR OPENING TRIM WEATHERSTRIP LH
Door weatherstrip right	FRONT DOOR OPENING TRIM WEATHERSTRIP RH
Wheel arch trim, rear left	REAR NO. 1 QUARTER OUTSIDE MOULDING LH
Wheel arch trim, rear right	REAR NO. 1 QUARTER OUTSIDE MOULDING RH

Set, adhesive tape	NO. 1 QUARTER OUTSIDE MOULDING TAPE
Set, adhesive tape	NO. 1 FRONT FENDER MOULDING TAPE
Wheel arch trim, left front	FENDER PANEL MUDGUARD SUB-ASSY LH
Wheel arch trim, right front	FENDER PANEL MUDGUARD SUB-ASSY RH
Bumper trim panel, primed, rear	REAR BUMPER COVER
Kit, mount for PDC/PMA sensor, rear	NO. 2 ULTRASONIC SENSOR RETAINER
Set, adhesive tape	BODY OUTSIDE MOULDING PAD
Grid, left	FRONT DOOR OUTSIDE REAR MOULDING LH
Grid, right	FRONT DOOR OUTSIDE REAR MOULDING RH
Reinforcement for side member, left	ROCKER PANEL REINFORCEMENT LH
Reinforcement for side member, right	ROCKER PANEL REINFORCEMENT RH
Lid, support, C-pillar, left	REAR SUSPENSION SPRING SUPPORT LH
Lid, support, C-pillar, right	REAR SUSPENSION SPRING SUPPORT RH
Connector, side frame, top, left	NO. 2 FRONT SIDE MEMBER REINFORCEMENT SUB-ASSEMBLY LH
Connector, side frame, top, right	NO. 2 FRONT SIDE MEMBER REINFORCEMENT SUB-ASSEMBLY RH
Side member, inner left	INNER ROCKER PANEL SUB-ASSEMBLY LH
Side member, inner right	INNER ROCKER PANEL SUB-ASSEMBLY RH
Trunk floor, upper part	UPPER BACK PANEL SUB-ASSEMBLY
Reinf.shield AT left rear side member	REAR SUSPENSION MEMBER MOUNTING REAR BRACKET SUB-ASSEMBLY LH
C-pillar support, left	NO. 1 SIDE PANEL STIFFENER SUB-ASSEMBLY LH
C-pillar support, right	NO. 1 SIDE PANEL STIFFENER SUB-ASSEMBLY
Reinf.shield AT right rear side member	REAR SUSPENSION MEMBER MOUNTING REAR BRACKET SUB-ASSEMBLY RH
Drive for window lifter, left	POWER WINDOW REGULATOR MOTOR ASSEMBLY LH
Drive for window lifter, right	POWER WINDOW REGULATOR MOTOR ASSEMBLY RH
Basic cotrol unit DME	ECM
Ultrasonic sensor	REAR CORNER ULTRASONIC SENSOR
Ultrasonic sensor	REAR CENTER ULTRASONIC SENSOR
Ultrasonic sensor	REAR SIDE ULTRASONIC SENSOR
Ultrasonic sensor	FRONT CORNER ULTRASONIC SENSOR
Ultrasonic sensor	FRONT CENTER ULTRASONIC SENSOR
Ultrasonic sensor	FRONT SIDE ULTRASONIC SENSOR
Switch unit steering column	TURN SIGNAL SWITCH ASSEMBLY
Footwell lamp LED	NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY
LED for interior lamp	COURTESY LIGHT ASSEMBLY
Mirror light, LED	VANITY LIGHT ASSEMBLY
Operating unit, center console	PATTERN SELECT SWITCH ASSEMBLY
LED for interior lamp	MAP LIGHT ASSEMBLY

Locking insert, inner	INSTRUMENT PANEL PATCH
Locking insert, outer	INSTRUMENT PANEL PATCH
Glove box damper	GLOVE COMPARTMENT DOOR STOPPER SUB-ASSEMBLY
Trim cover, lock assembly, left	DOOR LOCK CONTROL KNOB BEZEL LH
Trim cover, lock assembly, right	DOOR LOCK CONTROL KNOB BEZEL RH
Rearview mirror EC / LED / GTO	INNER REAR VIEW MIRROR ASSEMBLY
Rearview mirror EC / LED / GTO / FLA	INNER REAR VIEW MIRROR ASSEMBLY
Control unit airbag	AIRBAG COMPUTER ASSEMBLY
Washer fluid reservoir	WINDSHIELD WASHER JAR ASSEMBLY
Support	REAR HOOD BUMPER
Automatic air conditioning control	AIR CONDITIONER CONTROL ASSEMBLY
Cover water channel nozzle	NO. 1 FLOOR UNDER COVER
Window lifter without motor,front left	FRONT DOOR WINDOW REGULATOR ASSEMBLY LH
Window lifter without motor,front right	FRONT DOOR WINDOW REGULATOR ASSEMBLY RH
RP A/C compressor w/o magnetic clutch	COMPRESSOR WITH PULLEY ASSEMBLY
Switch for passenger airbag	AIRBAG CUT OFF SWITCH CYLINDER SUB-ASSEMBLY
Seat module	POSITION CONTROL COMPUTER ASSEMBLY
Rep.kit f lock cylinder	GLOVE COMPARTMENT DOOR LOCK CYLINDER ASSEMBLY
Trim steering wheel bottom	NO. 1 STEERING WHEEL ORNAMENT
connecting line, steering wheel	NO. 1 SWITCH WIRE
Sprt st. wheel, leather, shift paddles	STEERING WHEEL ASSEMBLY
Preformed seal	NO. 1 INTAKE MANIFOLD TO HEAD GASKET
Plastic fuel tank	FUEL TANK SUB-ASSEMBLY
O-ring	INLET COMPRESSOR GASKET
Seat mechanism, basic seat, left	FRONT SEAT ADJUSTER ASSEMBLY LH
Seat mechanism, basic seat, right	FRONT SEAT ADJUSTER ASSEMBLY RH
Seat mech. assembly, Sport seat, left	FRONT SEAT ADJUSTER ASSEMBLY LH
Seat mech. assembly, Sport seat, right	FRONT SEAT ADJUSTER ASSEMBLY RH
Mirror electronics, left	POSITION CONTROL COMPUTER ASSEMBLY
Mirror electronics, right	POSITION CONTROL COMPUTER ASSEMBLY
Altern.power siren w inclination indicat	THEFT WARNING SIREN ASSEMBLY
Fire extinguisher	EXTINGUISHER
Headlight, LED technology, left	HEADLIGHT ASSEMBLY LH
Headlight with LED technology, right	HEADLIGHT ASSEMBLY RH
Headlight, LED, AHL, high, left	HEADLIGHT ASSEMBLY LH
Headlight, LED, AHL, high, right	HEADLIGHT ASSEMBLY RH
Bracket underfloor panelling, center	FLOOR COVER BRACKET

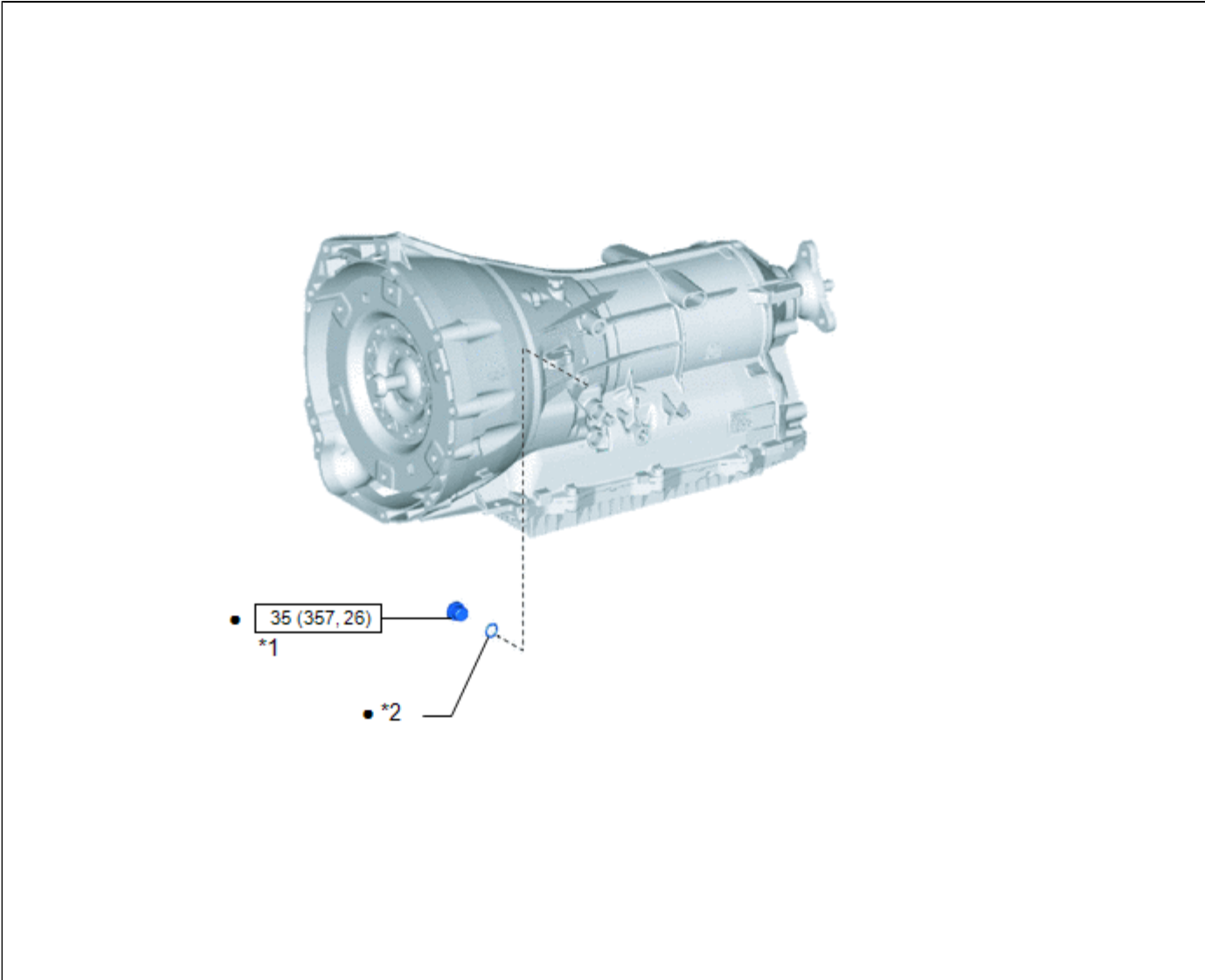
ASA-Bolt	CRANKSHAFT PULLEY SET BOLT
Body Domain Controller BDC	MULTIPLEX NETWORK BODY COMPUTER
Label "Manufacture identification"	NAME LABEL
12-V lithium dual storage system	NO. 2 BATTERY
Trim for I-panel, driver side	INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY
Trim cover, I-panel, passenger side	NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY
Operating unit audio	RADIO RECEIVER SWITCH KNOB
KaFAS camera	FORWARD RECOGNITION CAMERA
Headunit High 2	RADIO RECEIVER ASSEMBLY
Control unit air conditioning sys.	AIR CONDITIONING AMPLIFIER ASSEMBLY
Gasket set, cylinder head cover	CYLINDER HEAD COVER GASKET
Bearing shell 1 (blue)	CRANKSHAFT BEARING
Bearing shell 2 (green)	CRANKSHAFT BEARING
Bearing shell 3 (yellow)	CRANKSHAFT BEARING
Bearing shell 4 (red)	CRANKSHAFT BEARING
Repl.of gas.partic. filt with pre-pipe	FRONT EXHAUST PIPE ASSEMBLY
Transmission bearing set	REAR ENGINE MOUNTING INSULATOR
Hex nut wiht flange	REAR SUPPORT TO REAR SHOCK ABSORBER NUT RH
Countersunk screw	CAMSHAFT HOUSING SET BOLT
Countersunk screw	CAMSHAFT HOUSING SET BOLT
Dowel pin	MANIFOLD TO CYLINDER HEAD STUD BOLT
Hose clamp	FUEL FILLER PIPE CLAMP
Hose clamp	NO. 1 AIR CLEANER HOSE CLAMP
Gasket ring	OIL PAN DRAIN PLUG GASKET




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC95
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: 8HP51 AUTOMATIC TRANSMISSION FLUID: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FILLER PLUG	*2	SEALING RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC96
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: 8HP51 AUTOMATIC TRANSMISSION FLUID: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

HINT:

- To set the correct oil level, it is mandatory that the service function "ABL Transmission control unit: Oil-level adjustment" is carried out with the diagnosis system.
- Performing oil-level adjustment:

Certain fault memory entries may require an oil-level adjustment in the automatic transmission assembly and after repairs have been completed (e.g. exchange of mechatronics, exchange of the converter, exchange of the automatic transmission assembly, servicing of automatic transmission fluid).

(a) Prerequisite:

- (1) Vehicle in horizontal position.
- (2) The vehicle is secured against rolling away.

(b) Preconditions for the oil-level adjustment with the diagnosis system:

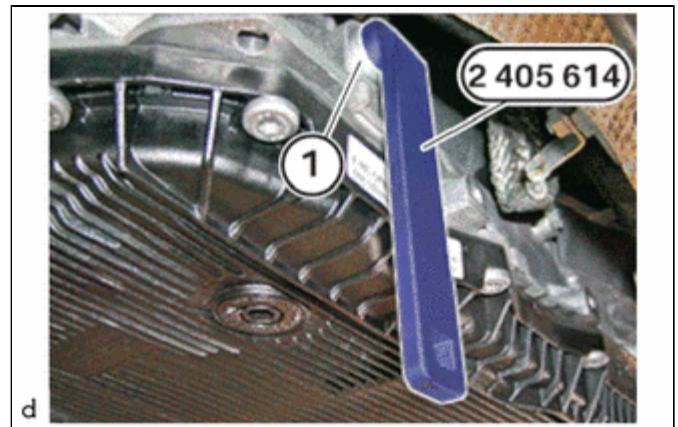
- (1) Precondition for beginning: automatic transmission fluid temperature 30 °C (86 °F) to 40 °C (104 °F).
- (2) Precondition for ending: automatic transmission fluid temperature 40 °C (104 °F) to 50 °C (122 °F).

(c) Connect diagnosis system.

(d) Call up service function (drive).

(e) Carry out oil-level adjustment in accordance with instructions.

(f) Top up the automatic transmission fluid.



(g) Loosen the oil filler plug (1) using the special tool 2 405 614.

SST: 09300-WA070

(h) Top up automatic transmission fluid according to the instructions in the diagnosis system.

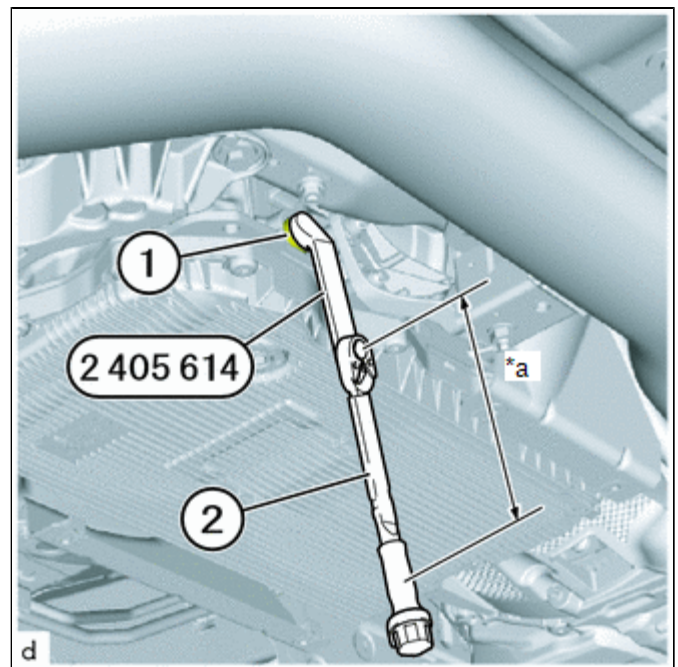
Automatic transmission fluid:

Automatic Gearbox Oil ATF 3+

Standard Capacity:

9.1 liters (9.6 US qts, 8.0 Imp. qts)

(i) Replace the oil filler plug (1) and the sealing ring.



*a	Torque Wrench Fulcrum Length
----	------------------------------

(j) Make sure that the special tool 2 405 614 and the torque wrench (2) align while tightening the oil filler plug (1).

SST: 09300-WA070

Torque:

Specified tightening torque :

35 N·m {357 kgf·cm, 26 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

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3. INSTALL FRONT FLOOR COVER

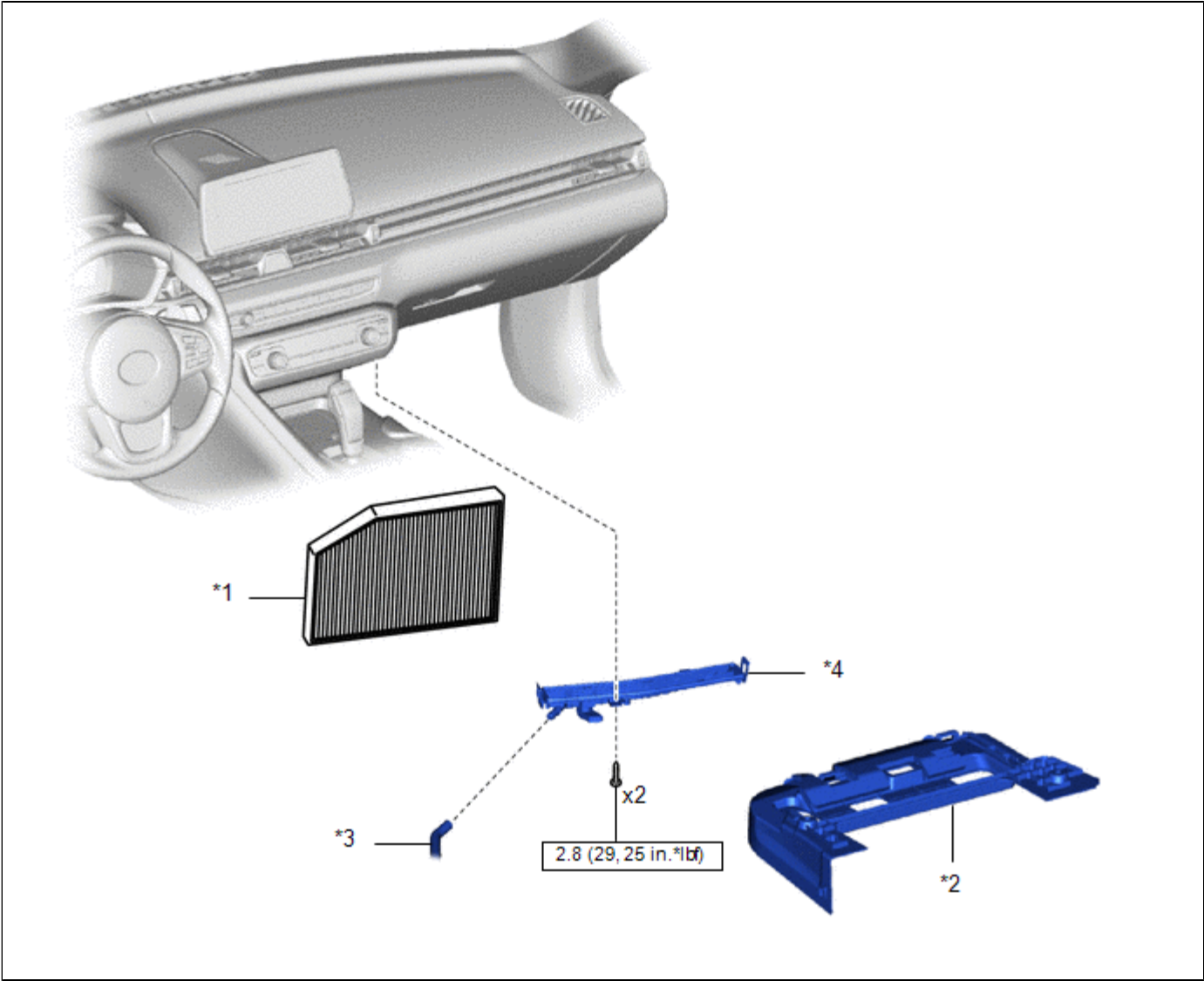
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: AIR CONDITIONING FILTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CLEAN AIR FILTER	*2	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
*3	DRAIN COOLER HOSE	*4	COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: AIR CONDITIONING FILTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Damage to the heating and air conditioning system.
- Use of unapproved clean air filter may cause impairment of functions in the air conditioning.
- Only operate the heating and air conditioning system with the specified clean air filter.

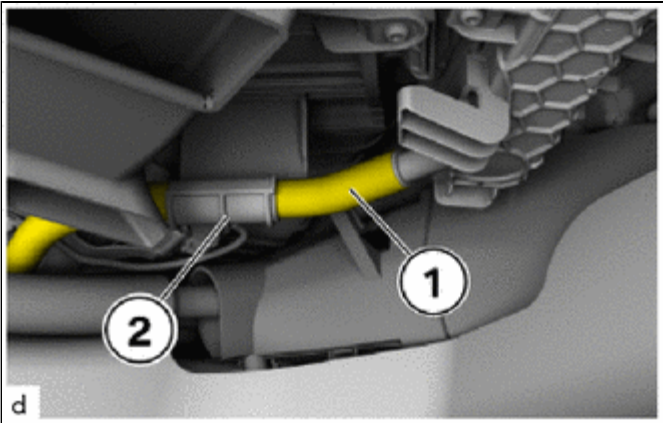
PROCEDURE

1. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

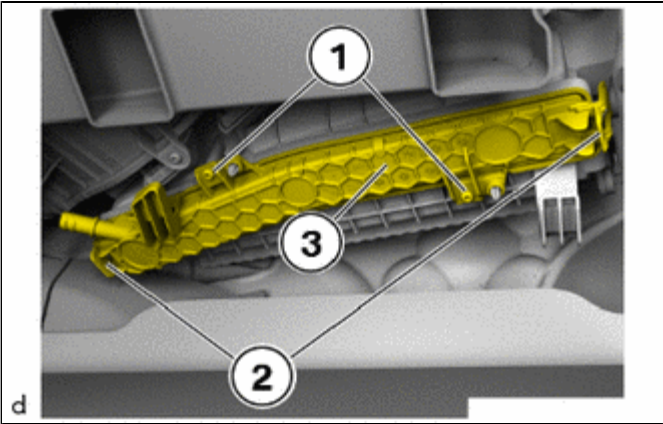
2. REMOVE CLEAN AIR FILTER

(a) Pull off the drain cooler hose (1).



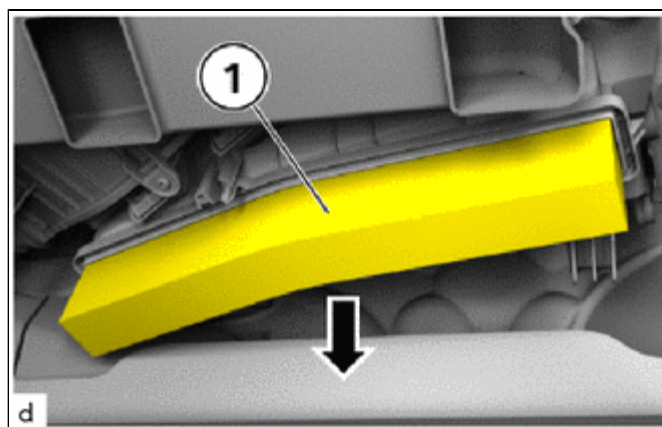
(b) Thread the drain cooler hose (1) out of the bracket (2).

(c) Remove T20 screws (1).



(d) Disengage claws (2) and remove cover (3).

(e) Remove the clean air filter (1) as shown in the illustration.



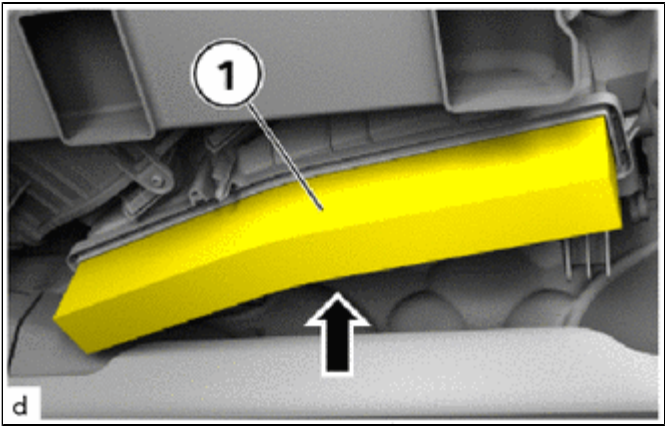
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8T
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: AIR CONDITIONING FILTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

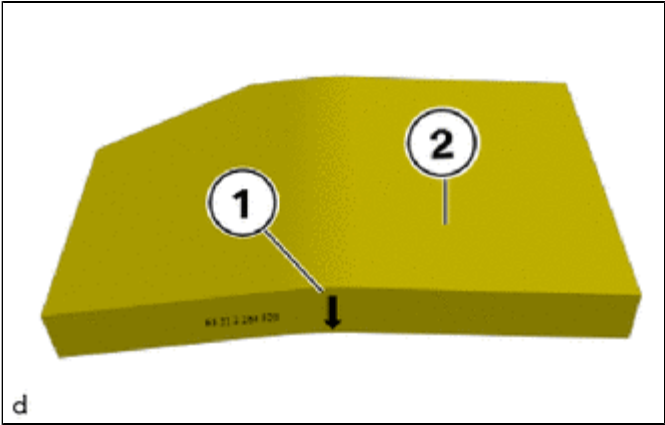
PROCEDURE

1. INSTALL CLEAN AIR FILTER

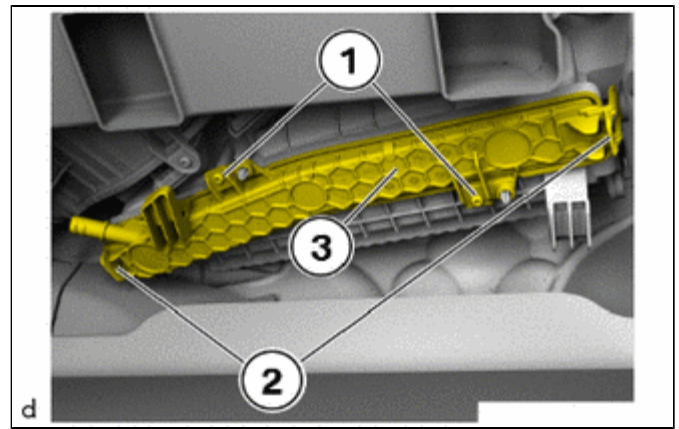
(a) Install the clean air filter (1) as shown in the illustration.



HINT:
Please note that the arrow (1) on the clean air filter (2) must always point in the direction of travel during installation.



(b) Make sure that the cover (3) is correctly inserted into the latch mechanisms (2) of the blower housing.

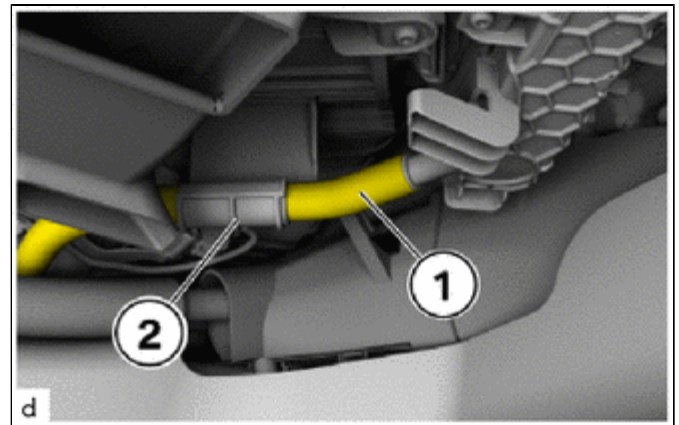


(c) Tighten the T20 screws (1).

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

(d) Connect drain cooler hose (1).



(e) Insert the drain cooler hose (1) into the holder (2).

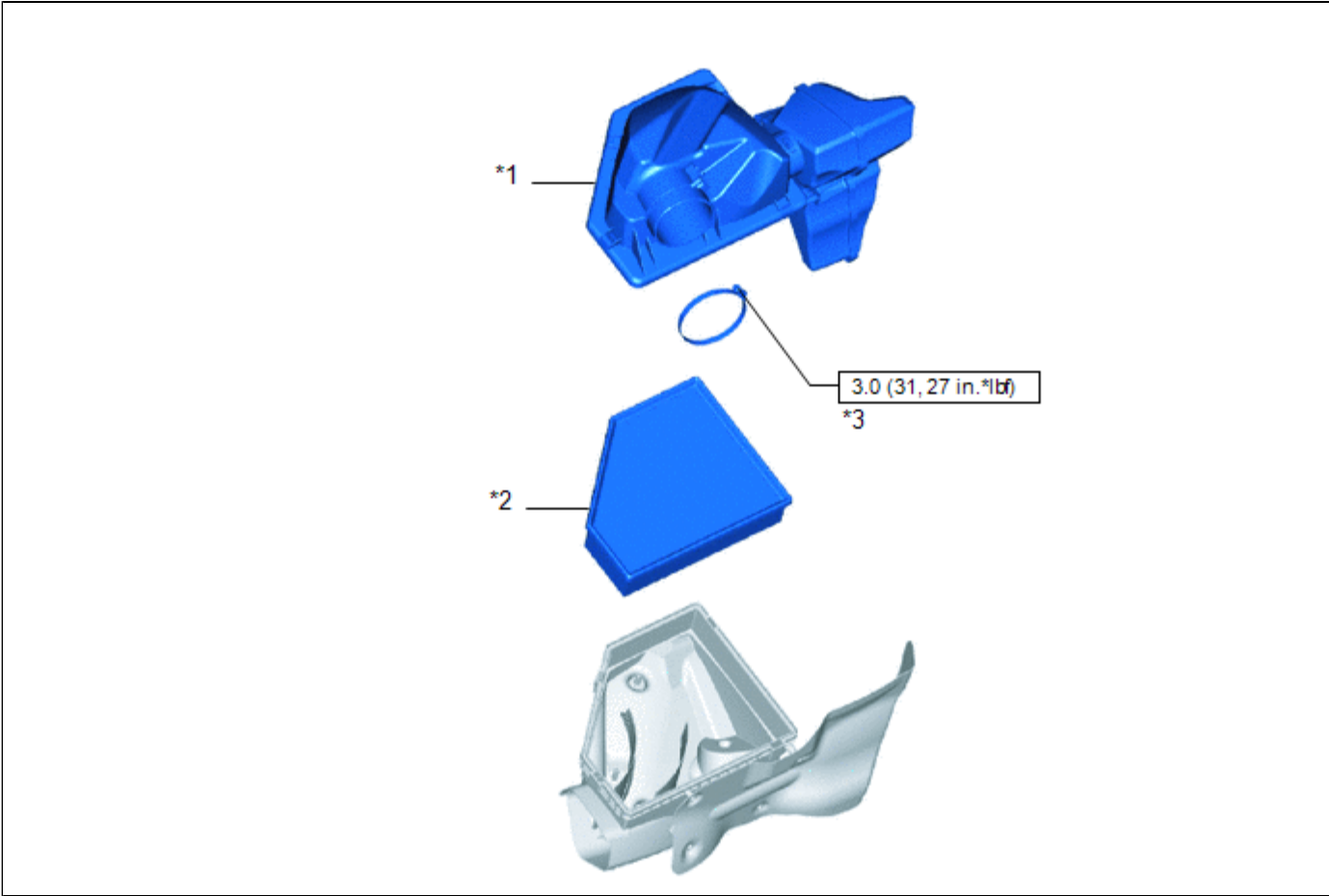
2. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC97
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 AIR CLEANER FILTER ELEMENT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CLEANER CAP SUB-ASSEMBLY	*2	AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY
*3	CLAMP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

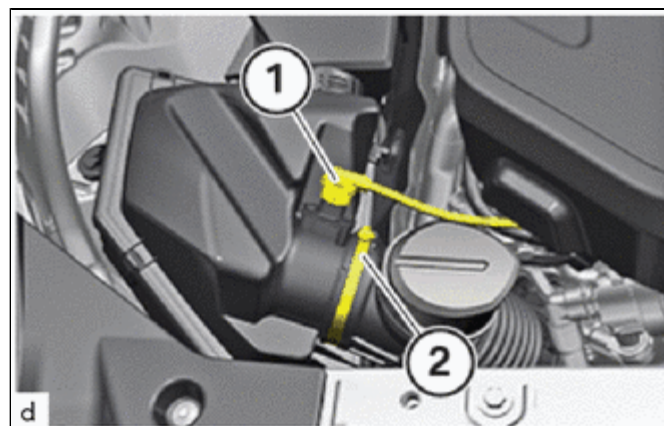
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC98
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 AIR CLEANER FILTER ELEMENT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

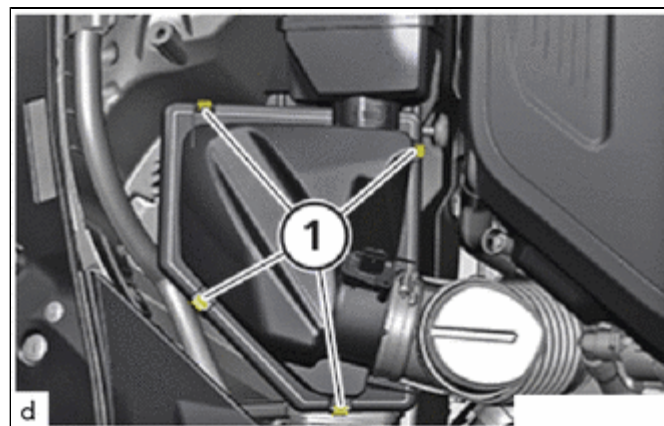
1. REMOVE AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY

(a) Unlock plug connection (1) and disconnect.

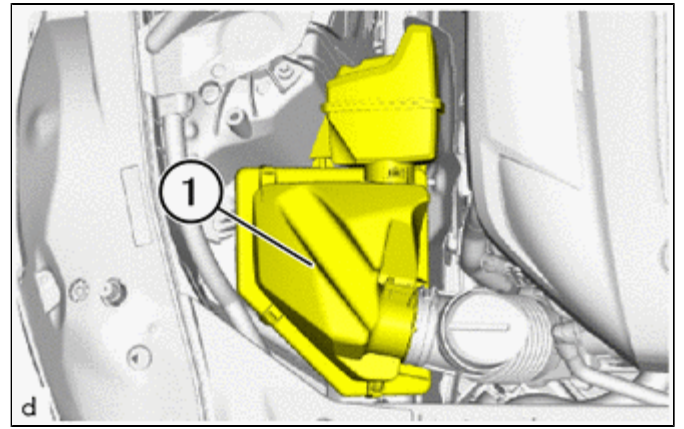


(b) Unfasten clamp (2).

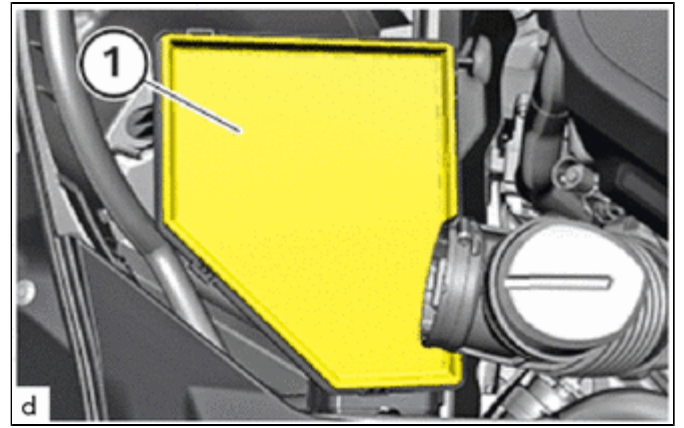
(c) Loosen clamps (1).



(d) Thread out the air cleaner cap sub-assembly (1) and remove.



(e) Remove the air cleaner filter element sub-assembly (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 AIR CLEANER FILTER ELEMENT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY

CAUTION:

- Swirling dirt particles caused by compressed air.
- Danger of injury!
 - Collect dirt particles, e.g. when blowing out, use cloth to do so.
 - Wear safety goggles.

- (a) Clean inside of air cleaner case sub-assembly.
- (b) Install the air cleaner filter element sub-assembly.
- (c) Thread in the air cleaner cap sub-assembly and install.
- (d) Lock clamps.
- (e) Connect connectors and lock.

HINT:

- The connector must engage audibly.
 - Note the installation position of the component. The component may be installed in various installation positions.
- (f) Tighten clamp.

Torque:

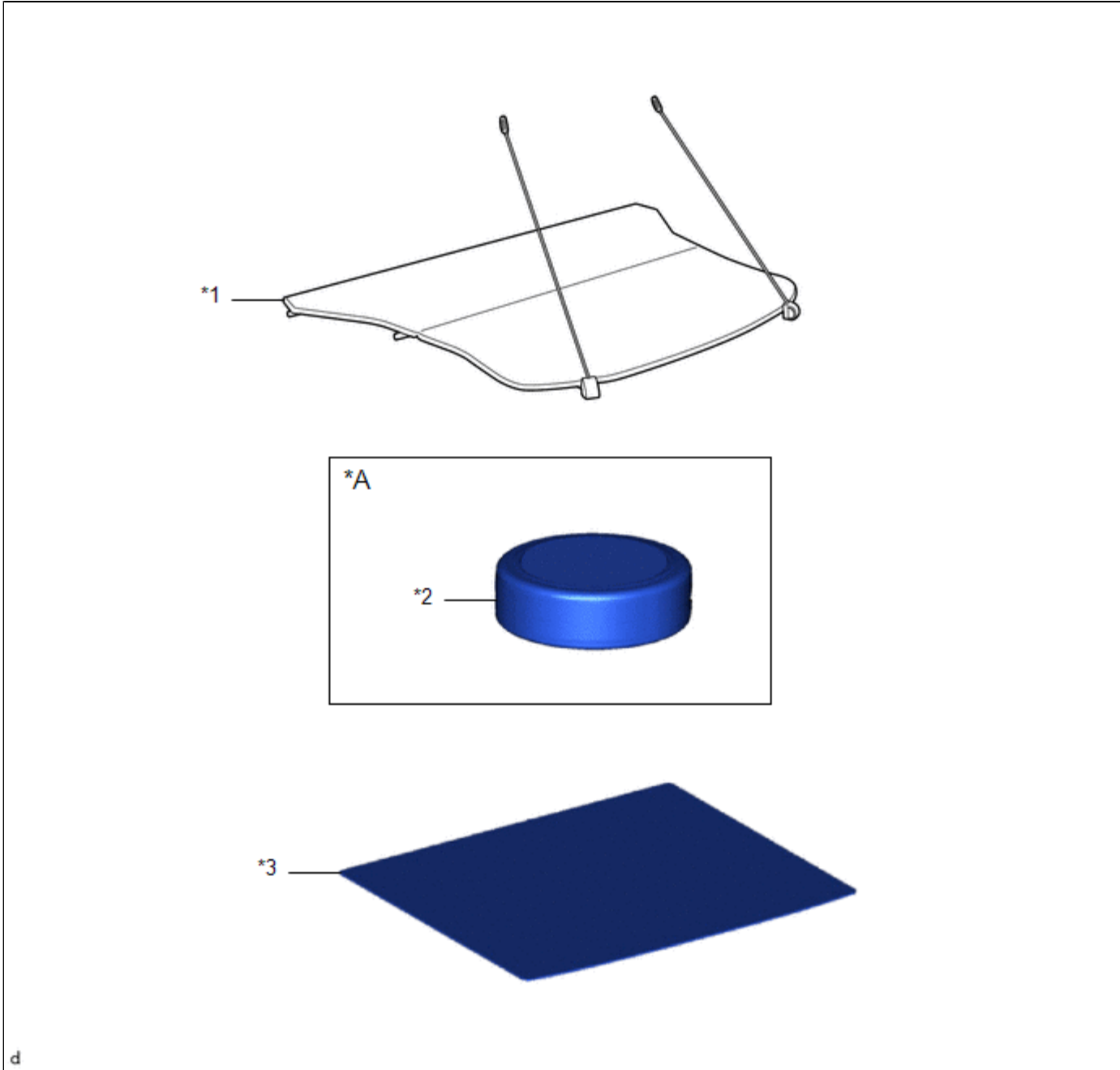
3.0 N·m {31 kgf·cm, 27 in·lbf}



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 BATTERY: COMPONENTS; 2020 MY Supra [03/2019 -]		

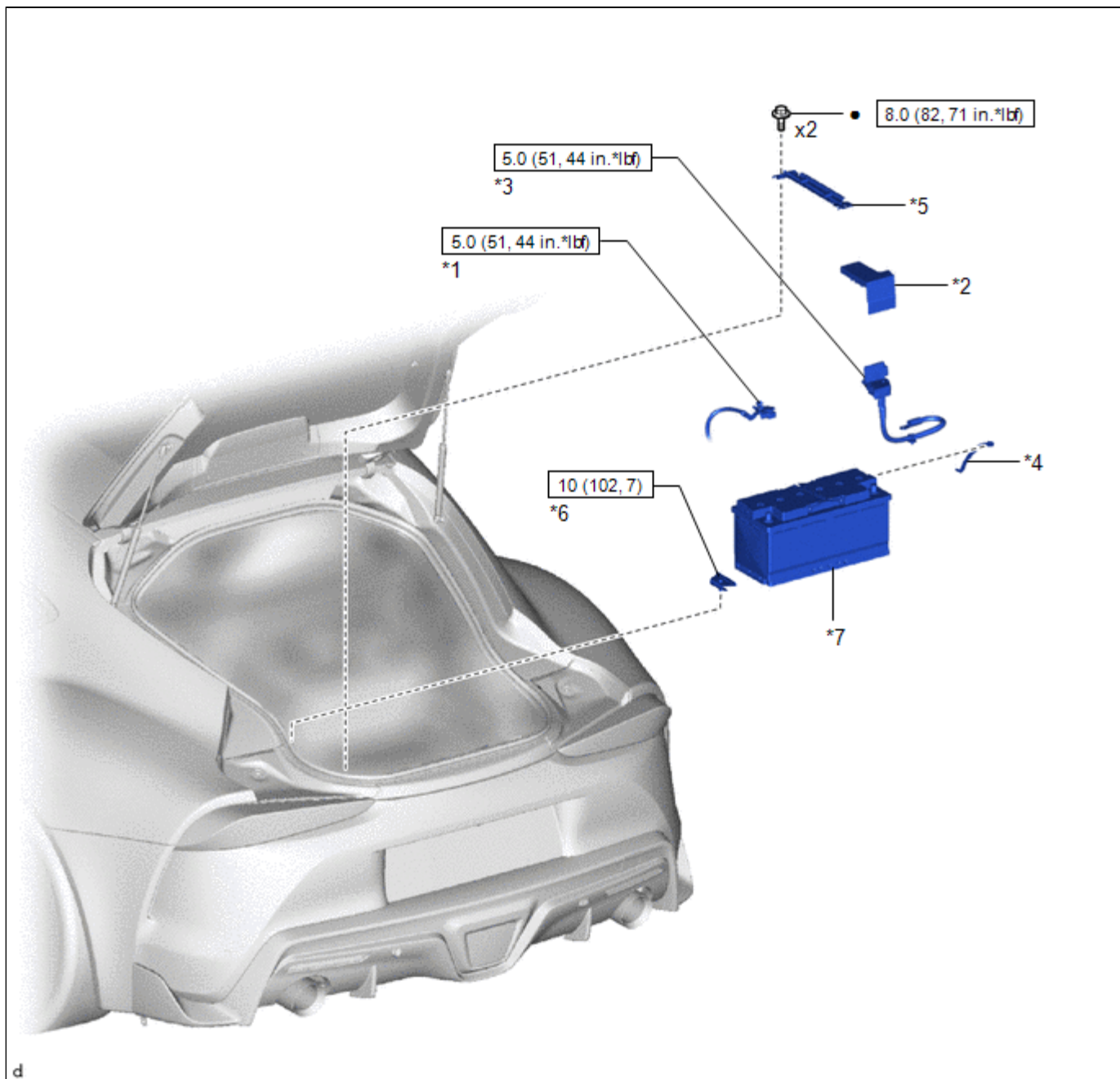
COMPONENTS

ILLUSTRATION




*A	w/ Spare Tire	-	-
*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	*2	SPARE TIRE
*3	DECK BOARD ASSEMBLY	-	-

ILLUSTRATION



d

*1	NO. 3 EARTH WIRE	*2	CONNECTOR COVER
*3	SAFETY BATTERY TERMINAL	*4	BATTERY HOSE
*5	BRACKET	*6	BATTERY HOLDER
*7	BATTERY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCA7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 BATTERY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

- Unprotected battery terminals.

Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

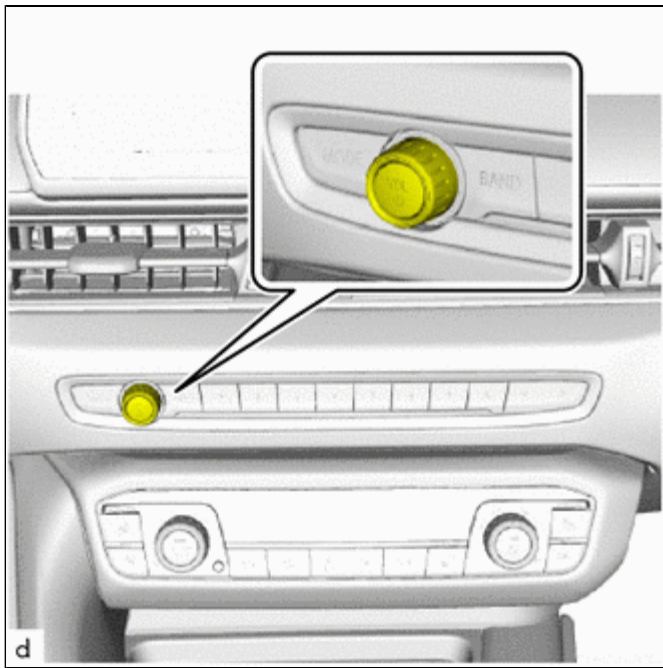
3. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

NOTICE:

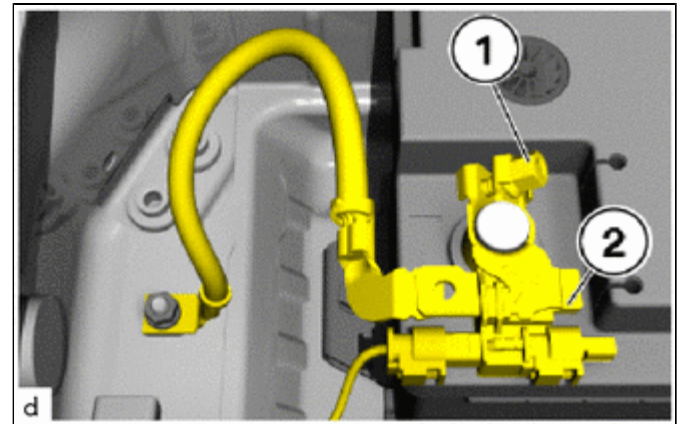
Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(a) Unfasten nut (1).



(b) Disconnect the No. 3 earth wire (2) from the negative (-) battery terminal.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.
- Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.
- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

4. REMOVE BATTERY

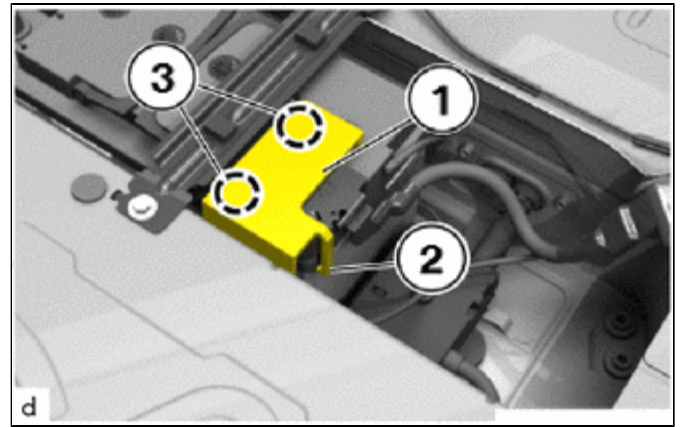
CAUTION:

- Unprotected battery terminals.

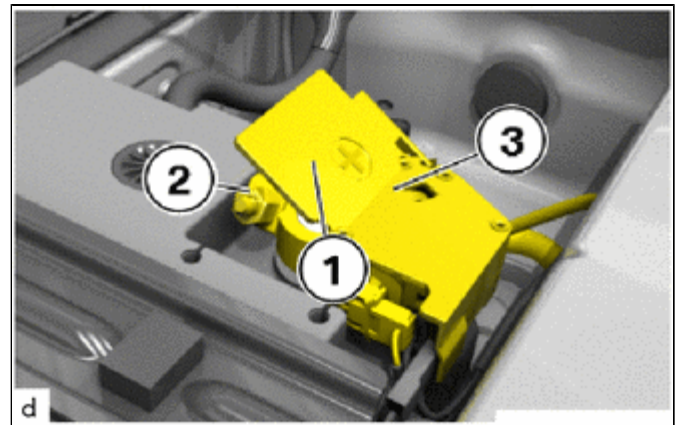
Risk of short circuits! Risk of fire!

- Cover the vehicle battery.

(a) Release latch mechanism (2) and thread the connector cover (1) out the guides (3) to the top and remove.



(b) Open the cover (1) of the safety battery terminal.



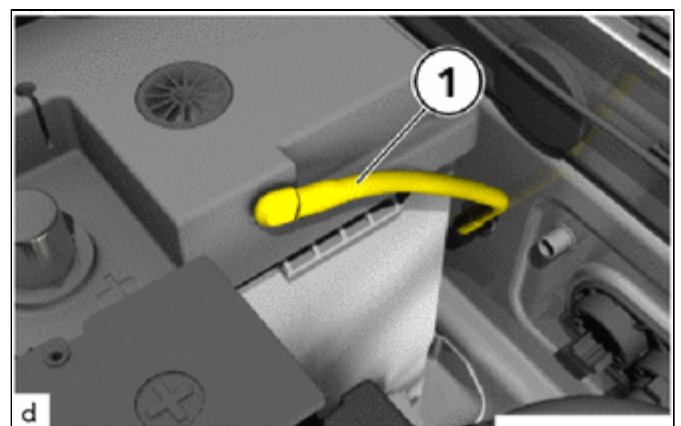
(c) Unfasten nut (2).

(d) Disconnect the safety battery terminal (3) from the positive (+) battery terminal.

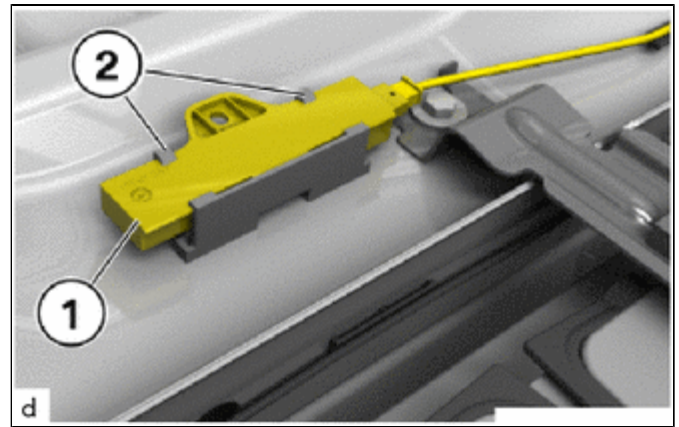
NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.
- Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.
 - Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

(e) Pull off the battery hose (1).

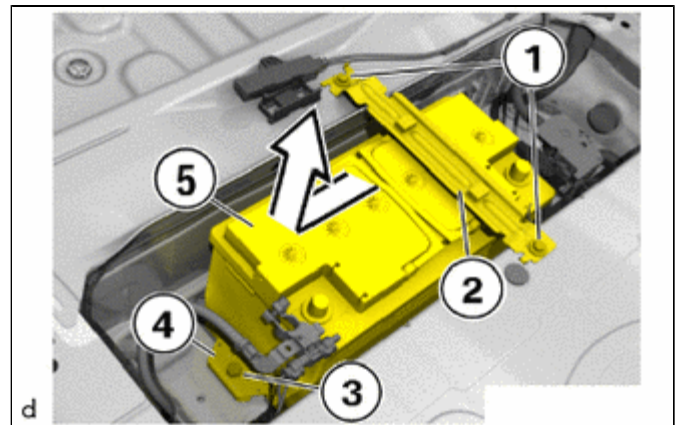


- (f) Disengage the No. 1 indoor electrical key antenna assembly (1) from the latch mechanisms (2) of the holder.



- (g) Set the No. 1 indoor electrical key antenna assembly (1) aside.

- (h) Unscrew the bolts (1) and remove the bracket (2) of the removable panel.



- (i) Unscrew the bolt (3) and remove the battery holder (4).
- (j) Remove the battery (5) in the direction of the arrow.

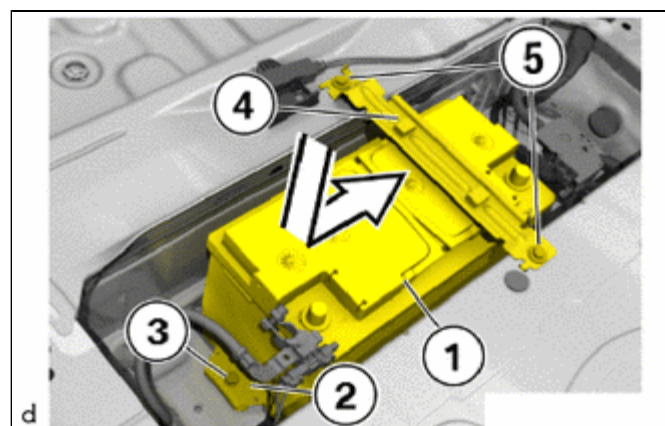
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCA8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 BATTERY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BATTERY

(a) Install battery (1) in the direction of the arrow.



(b) Position the battery holder (2) and tighten the bolt (3).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

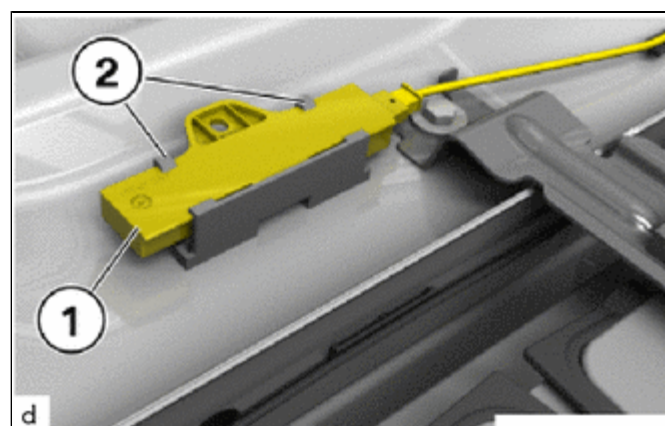
(c) Replace bolts (5).

(d) Position the bracket (4) of the removable panel and tighten the bolts (5).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Clip No. 1 indoor electrical key antenna assembly (1) into the latch mechanisms (2) of the holder.



(f) Mount battery hose and make sure it is fitted correctly.

CAUTION:

- Gas emission.

Danger of injury! Danger of explosion!

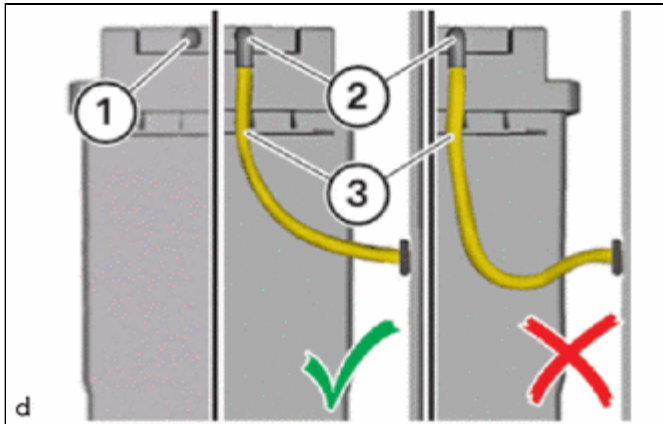
- Assign the vent holes correctly.
- Route the battery hose correctly.

HINT:

The battery has two vent holes, opposite:

One vent hole (1) must be closed correctly with a dummy plug.

The battery hose (3) must be correctly connected and routed at the other vent hole (2).



(1) Check if the vent hole (1) is correctly closed with a dummy plug.

HINT:

No dummy plug.

Close the vent hole (1) correctly with a dummy plug.

(2) Check if the vent hole (2) has a correctly connected battery hose (3).

HINT:

The battery hose (3) is not correctly connected.

At the vent hole (2), connect the battery hose (3) correctly.

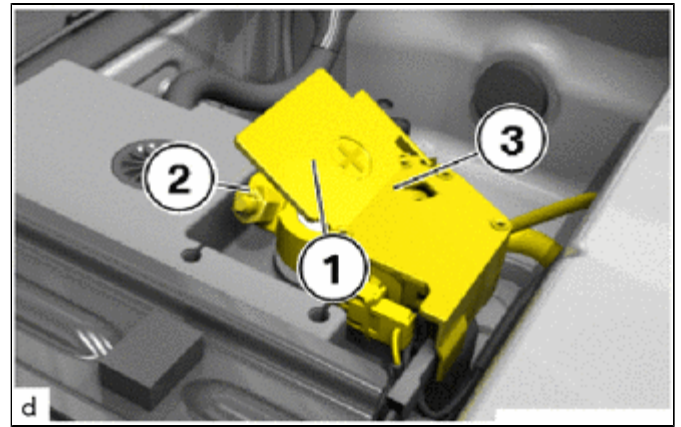
(3) Check if battery hose (3) is routed to the outside with a downhill gradient (no siphon formation!).

HINT:

The battery hose (3) is not correctly routed as shown in the image on the right.

Route the battery hose (3) correctly as shown in the center image.

(g) Connect the safety battery terminal (3) to the positive (+) battery terminal.

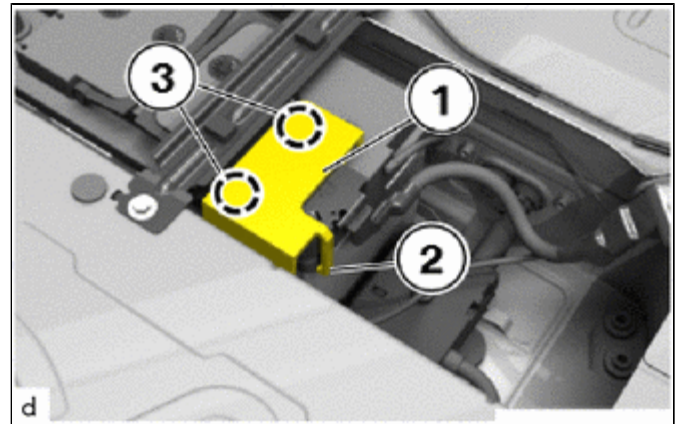


(h) Tighten nut (2).

Torque:

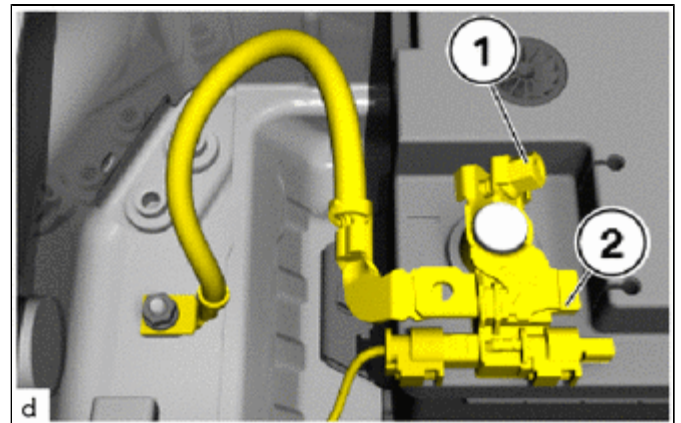
5.0 N·m {51 kgf·cm, 44 in·lbf}

(i) Close the cover (1) of the safety battery terminal.



(j) Insert the connector cover (1) at the guides (3) and engage in the latch mechanism (2).

2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



(a) Connect the No. 3 earth wire (2) from the negative (-) battery terminal.

(b) Tighten nut (1).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

3. INSTALL DECK BOARD ASSEMBLY

Click here [INFO](#)

4. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

5. REGISTER BATTERY EXCHANGE

(a) Connect the diagnosis system to the vehicle and enter the following menus:

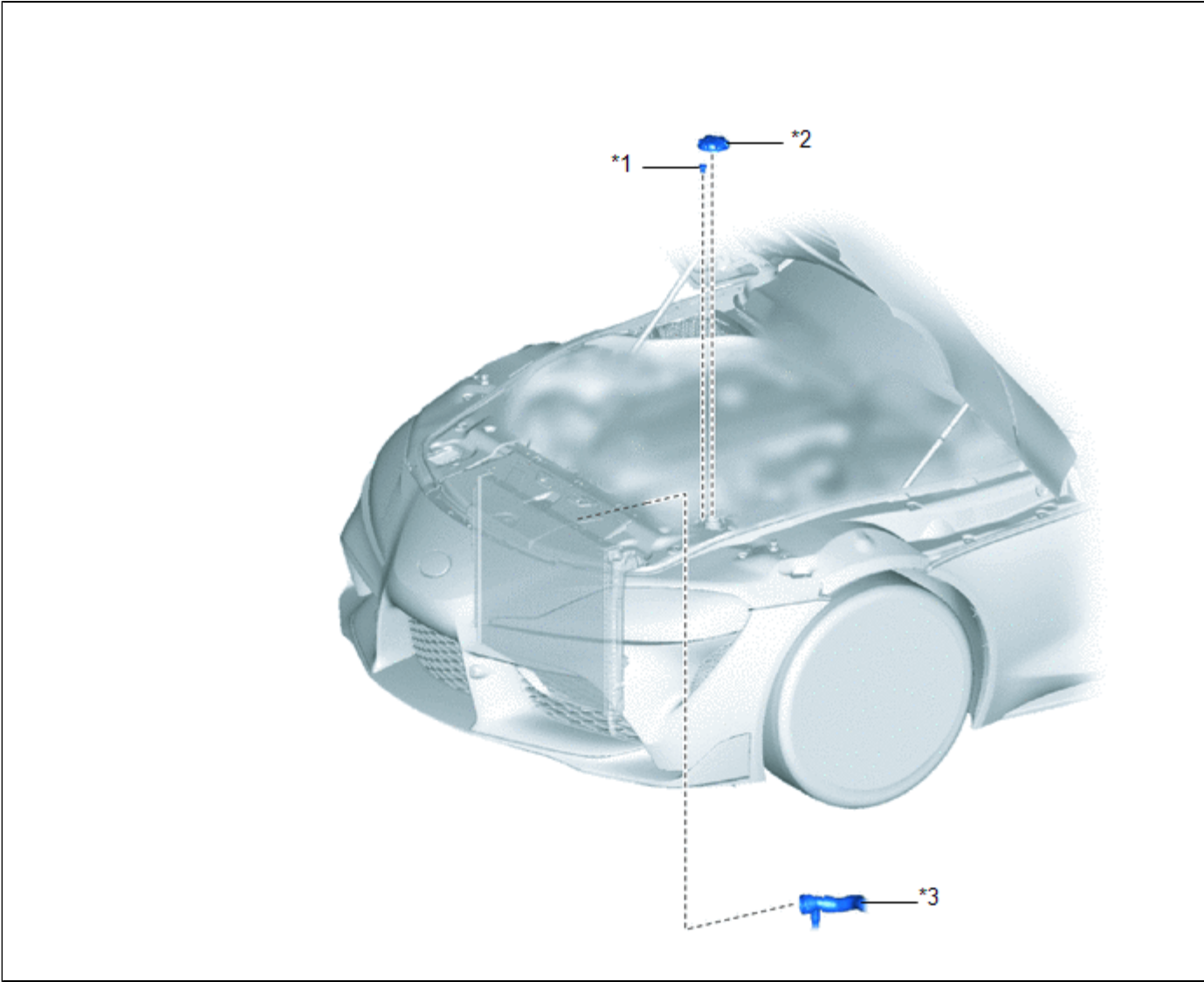
Vehicle management / Service functions / Body / Voltage supply / ABL Register battery change



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Title: MAINTENANCE: B58 COOLANT (for High Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 COOLANT (for High Temperature): REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. DRAIN ENGINE COOLANT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

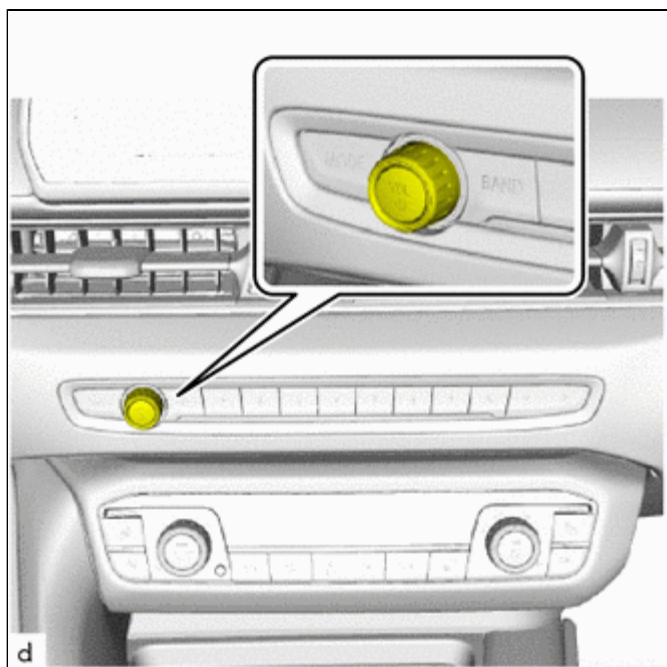
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

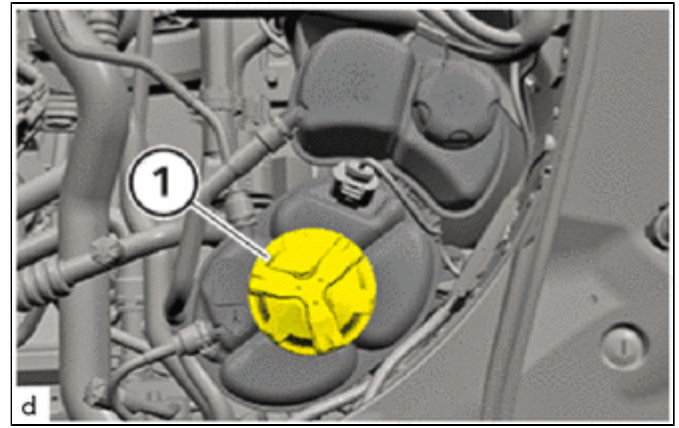
(a) Check that the START-STOP button (engine switch) off.

HINT:

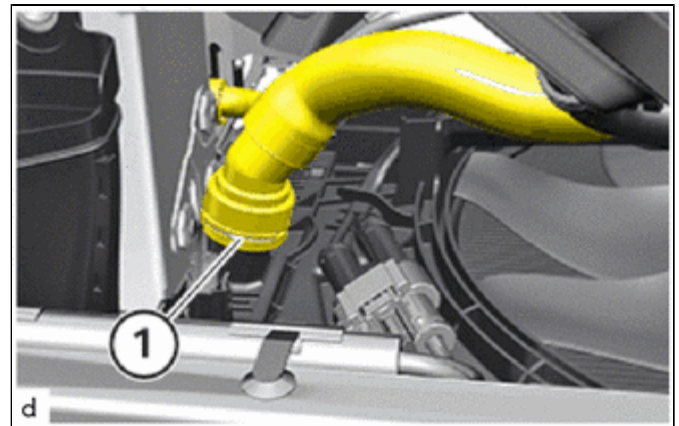
Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(b) Loosen reserve tank cap sub-assembly (1).



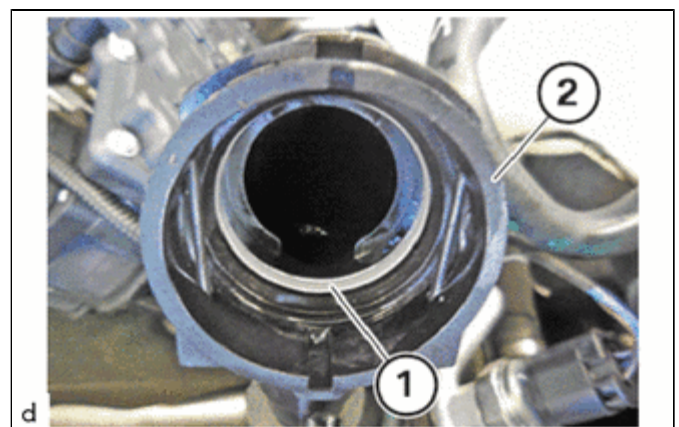
(c) Unlock and disconnect the No. 1 radiator hose (1).



(d) Catch and dispose of escaping coolant.

(e) Check the sealing ring (1) of the No. 1 radiator hose (2) for damage and renew it with the SST, if necessary.

SST: 09800-WA010



(f) Connect and lock the No. 1 radiator hose.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

3. ADD ENGINE COOLANT

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Mixing different coolants is not permitted.

Non-compliance will result in danger of component damage and/or engine damage.

- Filling specification absolutely must be adhered to.

The operation of the vehicle is not permitted unless the filling procedure has been completed. Otherwise, functional limitations (degradation) and/or overheating may occur.

A bleeding procedure is required after a part has been exchanged in the cooling system and/or after refilling the cooling system.

HINT:

- Before starting the automatic cooling system bleeding routine, make sure that all coolant circuits are filled. If the cooling system bleeding routine is started while one of the coolant circuits is empty, there is a risk of damage to the electric coolant pump when running it dry.
- Make sure that negative (-) battery terminal is not disconnected for the bleeding procedure. Switch on low-beam headlights and hazard warning lights. If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

(a) Add engine coolant to the level shown in the illustration.

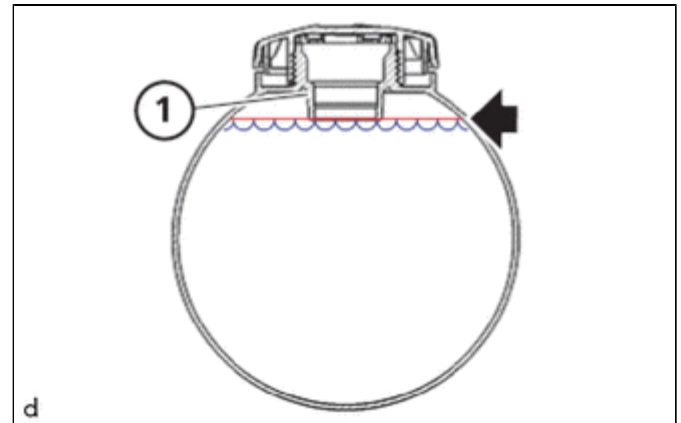
Standard Capacity:

10.5 liters (11.1 US qts, 9.2 Imp. qts)

(1) Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12

HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.



(b) Open the bleeder screw on the radiator reserve tank assembly for the high-temperature coolant circuit and close it again after approx. 10 s.

(1) You can close the bleeder screw prior to expiry of the 10 s once coolant escapes.

(c) Close the reserve tank cap sub-assembly on the radiator reserve tank assembly of the high-temperature cooling circuit.

(d) Make sure the bonnet is closed.[*1]

(e) Make sure that the wheels touch the ground.[*2]

(f) Engage the parking brake.[*3]

(g) Engage into both "P" or "N" automatic transmissions.[*4]

(h) Press the START-STOP button (engine switch) 3 times within 0.8 seconds to enter Diagnostic (PAD) Mode.[*5]

(i) Turn on low-beam headlight and the hazard warning light.[*6]

HINT:

If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

- (j) Adjust the heating to maximum temperature and adjust the blower to the lowest stage.[*7]
- (k) Hold the accelerator pedal down for at least 10 s at limit position and do not step onto the brake pedal.[*8]
- (l) Start engine.[*9]
- (m) The cooling system bleeding routine has been started, pay attention to the display on the instrument cluster (KOMBI). ("Service function started")[*10]

HINT:

- The engine speed (up to 3500 rpm) and the actuators in the cooling system are activated automatically for 11 minutes according to a cooling system bleeding routine.
 - The cooling system bleeding routine ends approx. 11 min after the engine starts.
 - The engine speed drops to the idle speed.
 - Observe the display in the instrument cluster (KOMBI).
 - If the service function is interrupted, the cooling system bleeding routine must be repeated.
- (n) Switch off engine.[*11]
 - (o) Allow the coolant temperature to cool down to < 50°C.[*12]
 - (p) Connect the diagnosis system to the vehicle and enter the following menus:
Vehicle information / Control unit list / DME / Call up control unit functions / Diagnostic request / Diagnostic request / 102 Coolant temperature
 - (q) Loosen reserve tank cap sub-assembly.[*13]
 - (r) Check that the engine coolant level is maximum mark.[*14]
 - (s) If the engine coolant level is below the maximum mark, repeat steps [*1] through [*14] until the water level in the radiator reserve tank assembly stops decreasing.
 - (t) Adjust the filling level in the radiator reserve tank assembly of the high-temperature coolant circuit to 200 ml over the maximum mark.

NOTICE:

- After the cooling system bleeding routine, the cooling system is topped up above the maximum mark.
 - Overfilling the cooling system serves to balance the remaining air in the cooling system.
 - The normal filling level of the coolant is reached while driving.
- (u) Close reserve tank cap sub-assembly.
 - (v) Close the reserve tank cap sub-assembly until the arrows are flush.
 - (w) Disconnect battery charger.

4. INSPECT FOR COOLANT LEAK

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

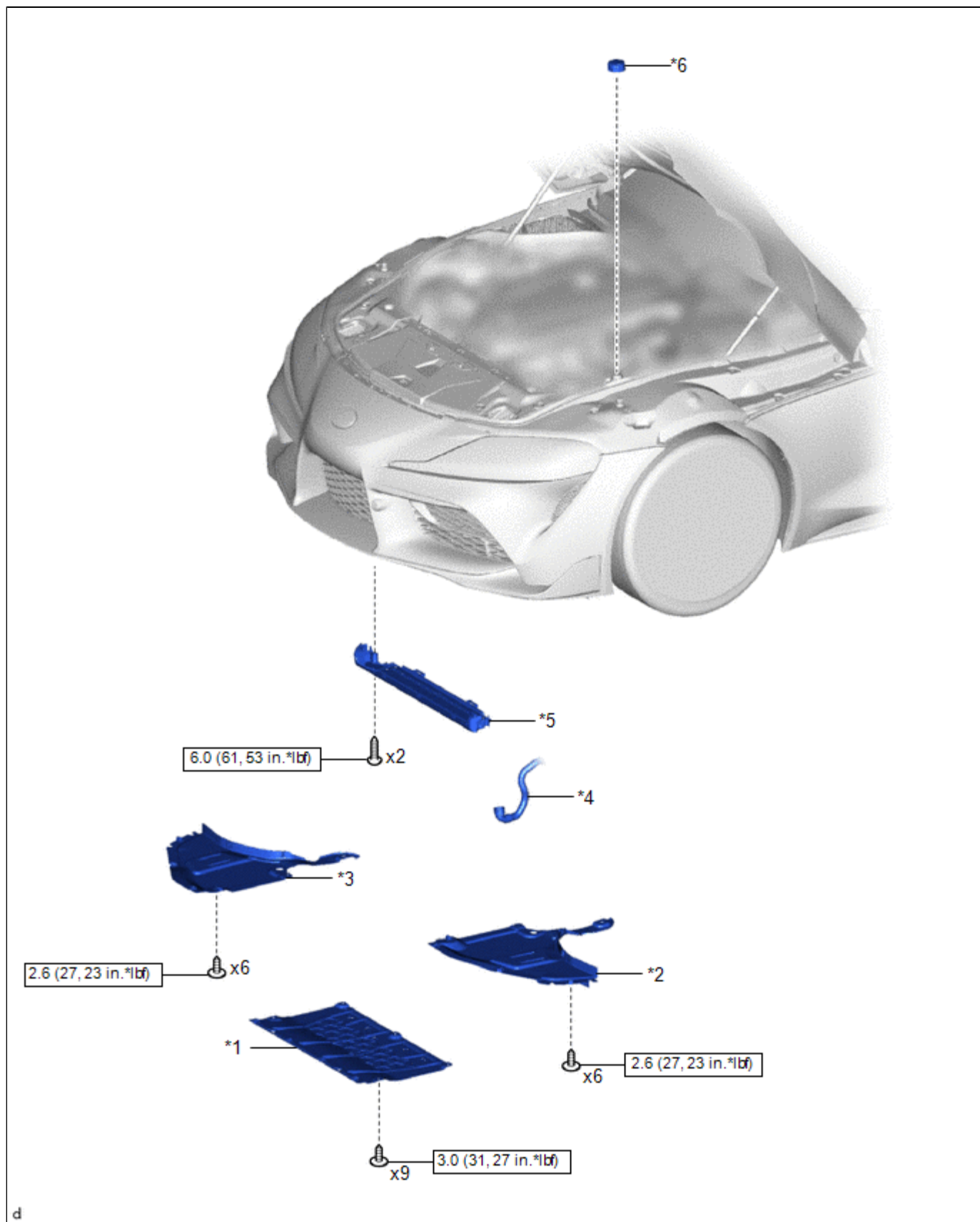
Click here [INFO](#)




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Title: MAINTENANCE: B58 COOLANT (for Low Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE UNDER COVER ASSEMBLY	*2	FRONT FENDER SPLASH FRONT SHIELD LH
*3	FRONT FENDER SPLASH FRONT SHIELD RH	*4	NO. 6 RADIATOR HOSE
			RADIATOR RESERVE TANK CAP SUB-

*5	RADIATOR LOWER AIR GUIDE PLATE	*6	ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 COOLANT (for Low Temperature): REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

PROCEDURE

1. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

3. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

4. DRAIN ENGINE COOLANT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

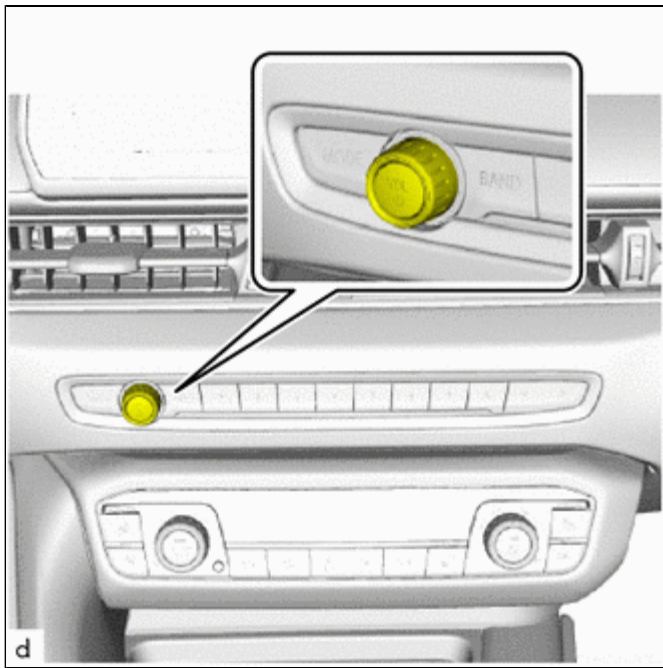
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

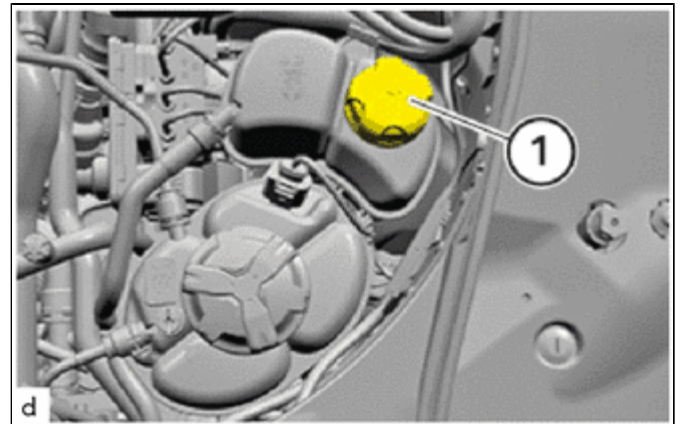
(a) Check that the START-STOP button (engine switch) off.

HINT:

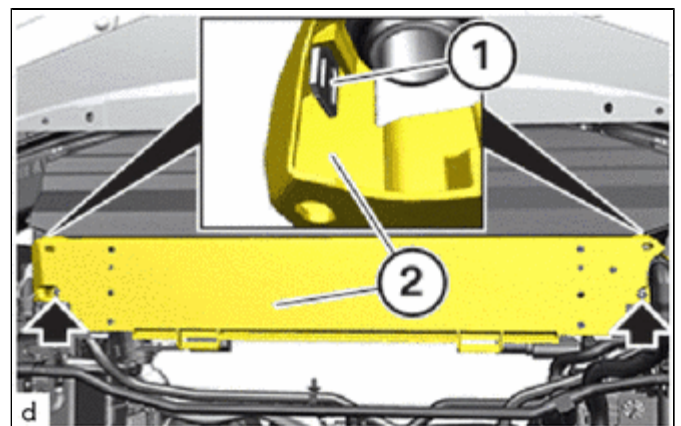
Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(b) Loosen radiator reserve tank cap sub-assembly (1).



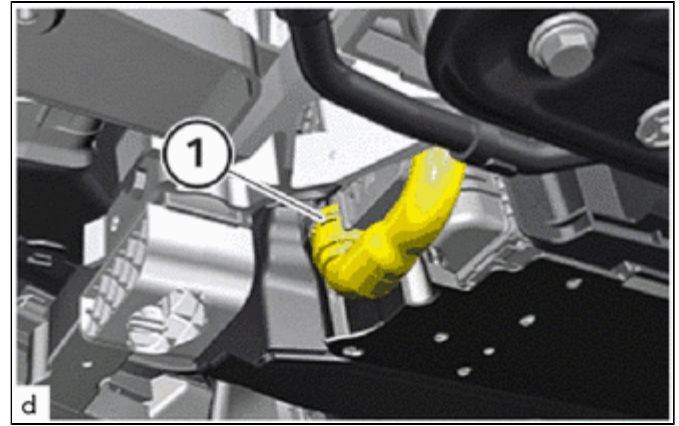
(c) Remove T30 screws (arrows).



(d) Unlock the locks (1).

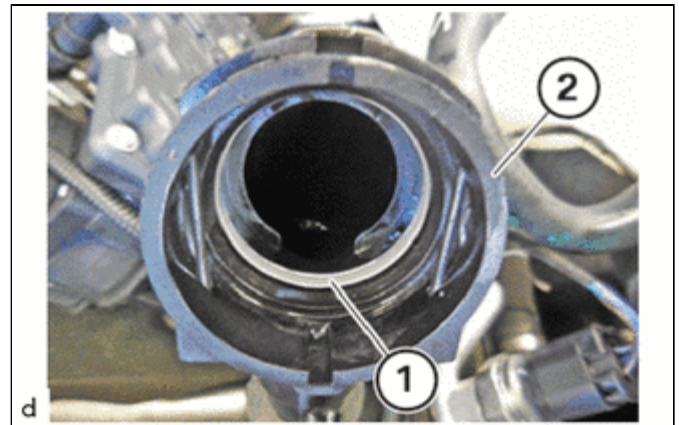
(e) Remove the radiator lower air guide plate (2) from the radiator assembly.

- (f) Unlock No. 6 radiator hose (1) on radiator reserve tank sub-assembly for low-temperature cooling system and release.



- (g) Catch and dispose of escaping coolant.

- (h) Check the sealing ring (1) of the No. 6 radiator hose (2) for damage and renew where required.



- (i) Connect No. 6 radiator hose on radiator reserve tank sub-assembly for low-temperature cooling system and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

- (j) Install the radiator lower air guide plate to the radiator assembly.

(1) The locks must engage audibly.

- (k) Tighten T30 screws (arrows).

Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}

5. ADD ENGINE COOLANT

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Mixing different coolants is not permitted.

Non-compliance will result in danger of component damage and/or engine damage.

- Filling specification absolutely must be adhered to.

The operation of the vehicle is not permitted unless the filling procedure has been completed. Otherwise, functional limitations (degradation) and/or overheating may occur.

A bleeding procedure is required after a part has been exchanged in the cooling system and/or after refilling the cooling system.

HINT:

- Before starting the automatic cooling system bleeding routine, make sure that all coolant circuits are filled. If the cooling system bleeding routine is started while one of the coolant circuits is empty, there is a risk of damage to the electric coolant pump when running it dry.
- Make sure that negative (-) battery terminal is not disconnected for the bleeding procedure. Switch on low-beam headlights and hazard warning lights. If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

(a) Add engine coolant to the level shown in the illustration.

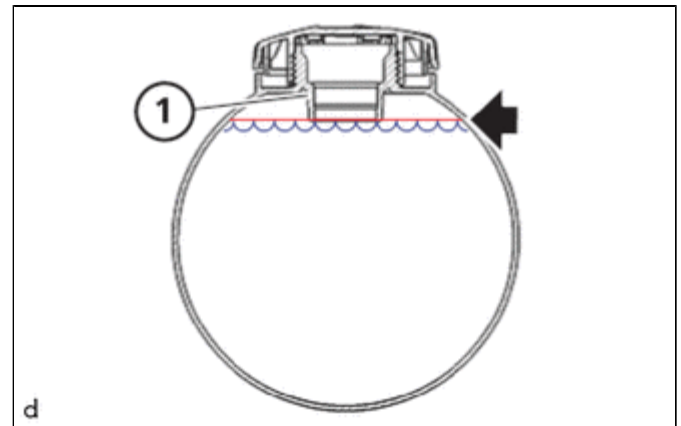
Standard Capacity:

4.0 liters (4.2 US qts, 3.5 Imp. qts)

(1) Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12

HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.



(b) Ensure that the bonnet is open.

(c) Connect battery charger.

NOTICE:

For additional information see:

Click here [INFO](#)

(d) Press the START-STOP button (engine switch) 3 times within 0.8 seconds to enter Diagnostic (PAD) Mode.[*1]

(e) Turn on low-beam headlight and the hazard warning light.[*2]

HINT:

If the low-beam headlights and hazard warning lights are not switched on, the engine switch off automatically after a certain period of time and interrupt the bleeding procedure.

(f) Adjust the heating to maximum temperature and adjust the blower to the lowest stage.[*3]

(g) Hold the accelerator pedal down for at least 10 s at limit position and do not step onto the brake pedal.[*4]

(h) Do not start engine.

(i) The cooling system bleeding routine will start.[*5]

HINT:

- The electric water pump in the low-temperature coolant circuit is activated for 11 minutes according to a cooling system bleeding routine.
- The cooling system bleeding routine ends after 11 minutes.
- Observe the display in the instrument cluster (KOMBI).

(j) While adding coolant to the reserve tank sub-assembly to keep the coolant at the maximum mark and compensate for the drop in the coolant level as the air bleeds.[*6]

HINT:

If the service function is interrupted, the cooling system bleeding routine must be repeated.

(k) If the engine coolant level is below the maximum mark, repeat steps [*1] through [*6] until the water level in the radiator reserve tank assembly stops decreasing.

(l) Adjust the filling level in the radiator reserve tank sub-assembly of the low-temperature coolant circuit to 100 ml above the maximum mark.

(m) Close radiator reserve tank cap sub-assembly.

NOTICE:

- After the cooling system bleeding routine, the cooling system is topped up above the maximum mark.
- Overfilling the cooling system serves to balance the remaining air in the cooling system.
- The normal filling level of the coolant is reached while driving.

(n) Disconnect battery charger.

6. INSPECT FOR COOLANT LEAK

Click here [INFO](#)

7. INSTALL FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

8. INSTALL FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

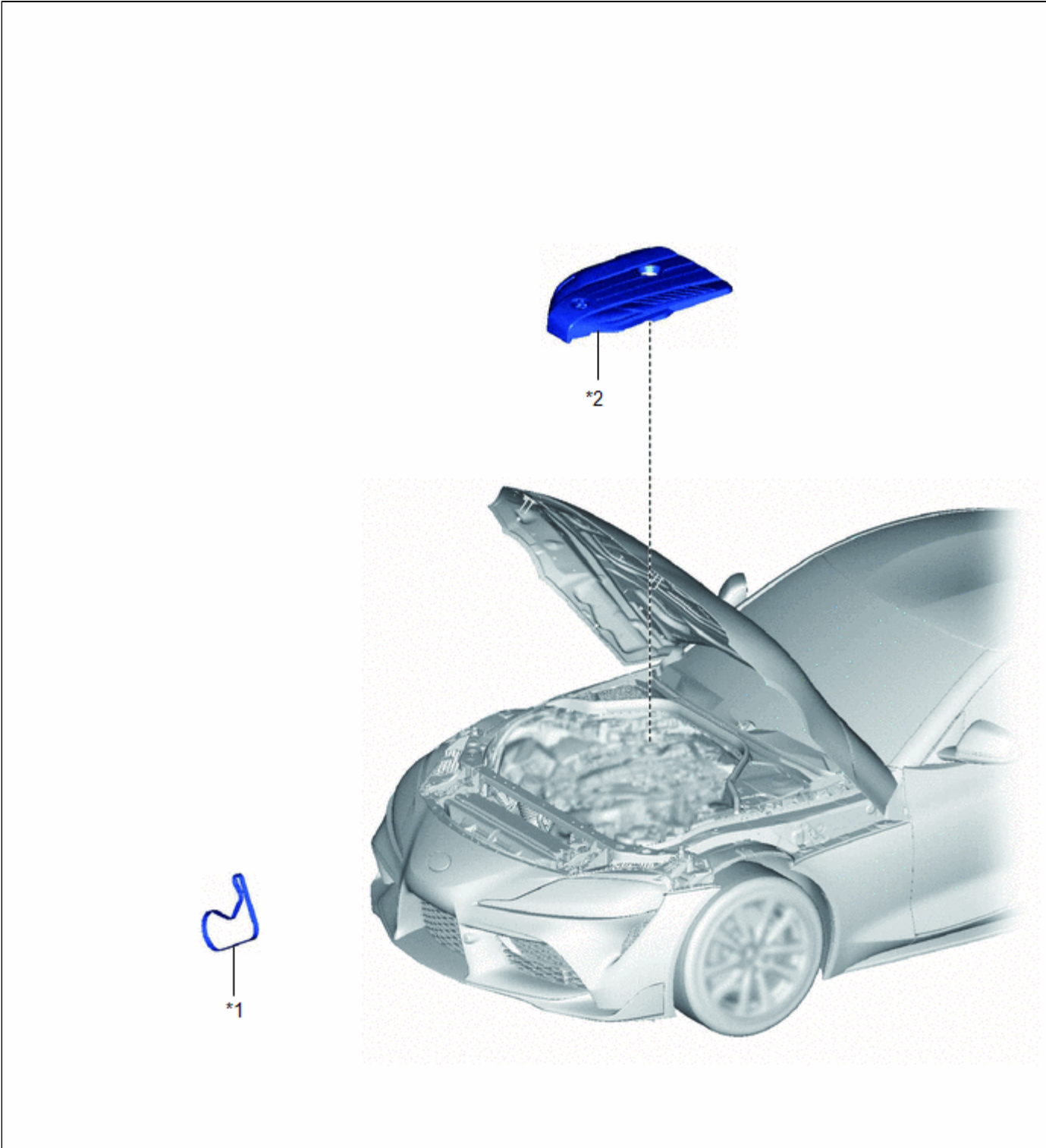
9. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCA1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 DRIVE BELT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FAN AND GENERATOR V BELT	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
----	--------------------------	----	---------------------------------



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCA2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 DRIVE BELT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

3. REMOVE FAN AND GENERATOR V BELT

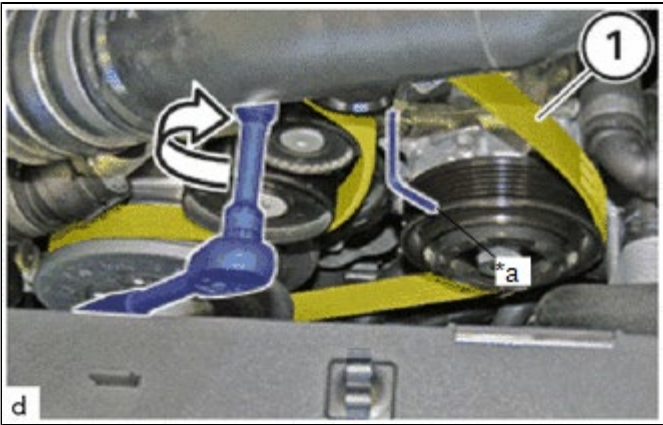
CAUTION:

- Component with preload.
- Danger of injury!
- Reduce preload as far as possible before disassembly. Relieve component.

HINT:

If the fan and generator V belt for the alternator is reused: Mark the direction of travel and reinstall the fan and generator V belt for the alternator in same direction of travel.

(a) Using 15 mm socket wrench, increase the preload on the belt tensioner in the direction of arrow.



*a	4 mm Hexagon Wrench
----	---------------------

- (b) Secure the belt tensioner with the 4 mm hexagon wrench.
- (c) Remove the fan and generator V belt for the alternator (1).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCA3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 DRIVE BELT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FAN AND GENERATOR V BELT

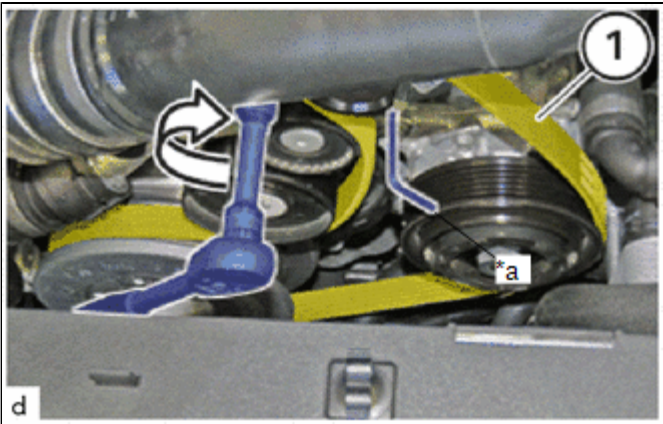
CAUTION:

- Component with preload.
- Danger of injury!
- Reduce preload as far as possible before disassembly. Relieve component.

HINT:

If the fan and generator V belt for the alternator is reused: Mark the direction of travel and reinstall the fan and generator V belt for the alternator in same direction of travel.

(a) Position the fan and generator V belt for alternator (1) on the ancillary components.



*a	4 mm Hexagon Wrench
----	---------------------

- (b) Using 15 mm socket wrench, Increase preload on belt tensioner.
- (c) Remove 4 mm hexagon wrench from belt tensioner.

2. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

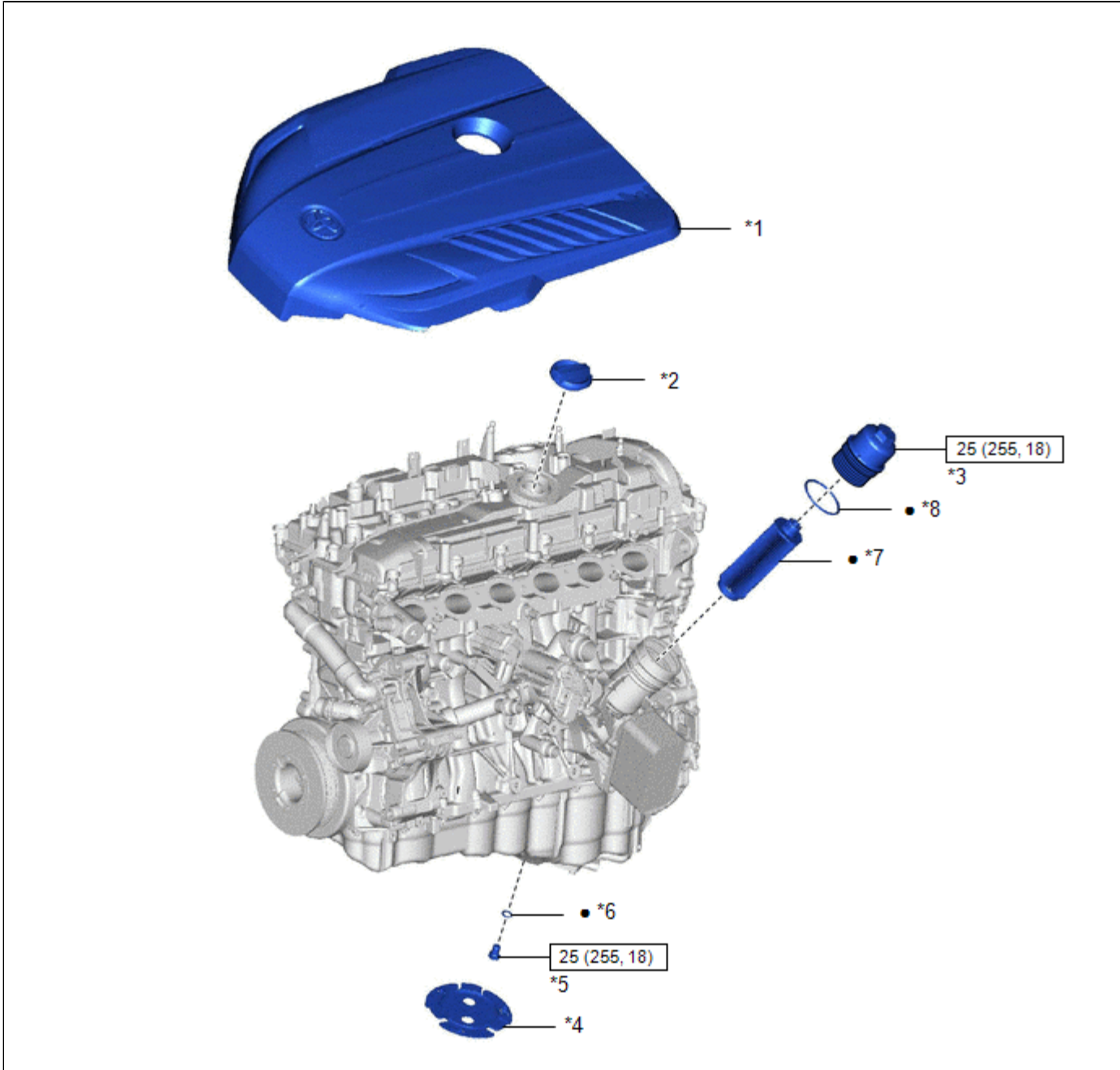
3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC9L
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 OIL AND OIL FILTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	OIL FILLER CAP ASSEMBLY
*3	OIL FILTER CAP ASSEMBLY	*4	CENTER NO. 4 ENGINE UNDER COVER
*5	OIL PAN DRAIN PLUG	*6	OIL PAN DRAIN PLUG GASKET
*7	OIL FILTER ELEMENT	*8	O-RING
N*m (kgf*cm, ft.*lbf): Specified			



torque

•

Non-reusable part



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC9M
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 OIL AND OIL FILTER: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

- Engine damage caused by excessively filling the engine with engine oil.

Filling an excessive quantity of engine oil may cause engine damage.

- Observe the exact engine oil filling capacity.
- Drain the engine oil.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE OIL FILLER CAP ASSEMBLY

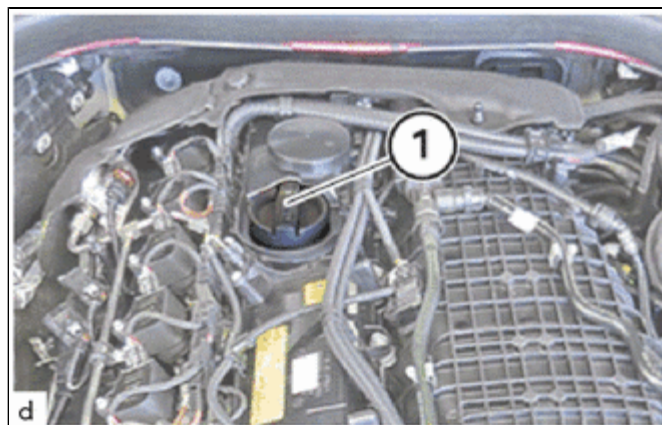
NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

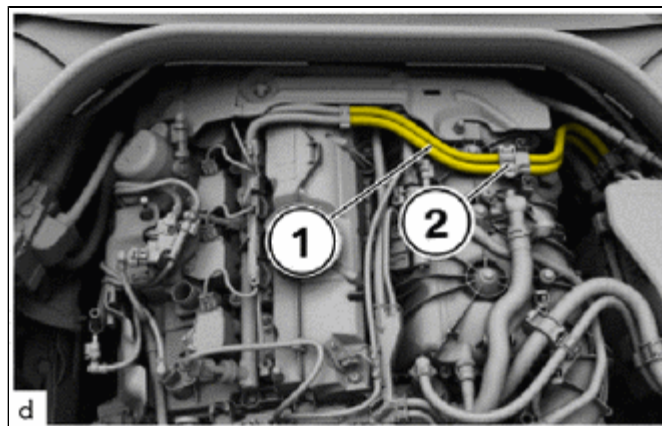
- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

(a) Open oil filler cap assembly (1).



3. REMOVE OIL FILTER CAP ASSEMBLY

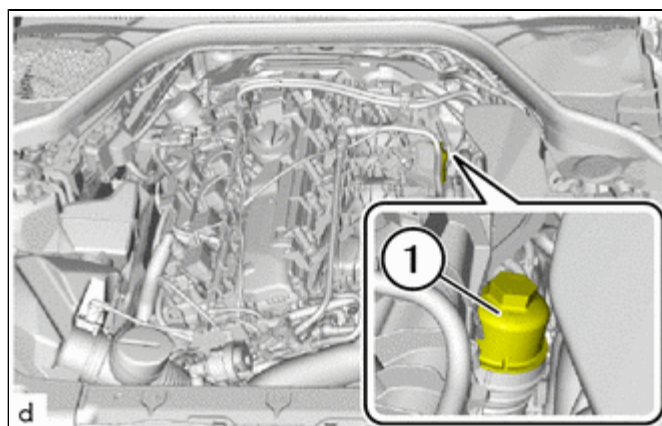
(a) Unclip the engine wiring harness (1) from the holder (2).



(b) Using a 32 mm socket wrench, loosen the oil filter cap assembly (1).

HINT:

Engine oil flows out of the oil filter bracket and back into the oil pan sub-assembly.



4. REMOVE OIL PAN DRAIN PLUG

CAUTION:

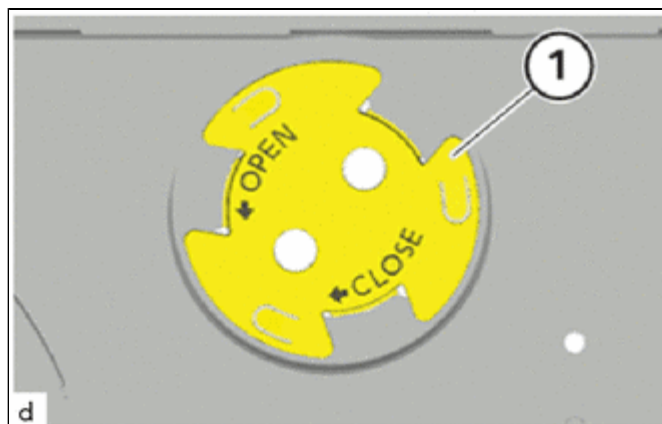
- Hot fluids.

Risk of scalding!

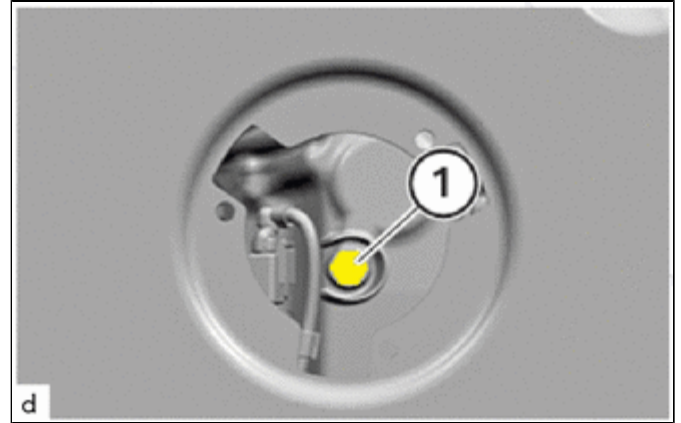
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) While pulling the center No. 4 engine under cover (1) downward, rotate it and remove it.



(b) Release oil pan drain plug (1).



(c) Catch and dispose of emerging engine oil.

5. INSTALL OIL PAN DRAIN PLUG

(a) Replace the oil pan drain plug gasket.

(b) Position oil pan drain plug on the oil pan sub-assembly and tighten.

Torque:

25 N·m {255 kgf·cm, 18 ft·lbf}

(c) Install center No. 4 engine under cover.

6. REMOVE OIL FILTER ELEMENT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

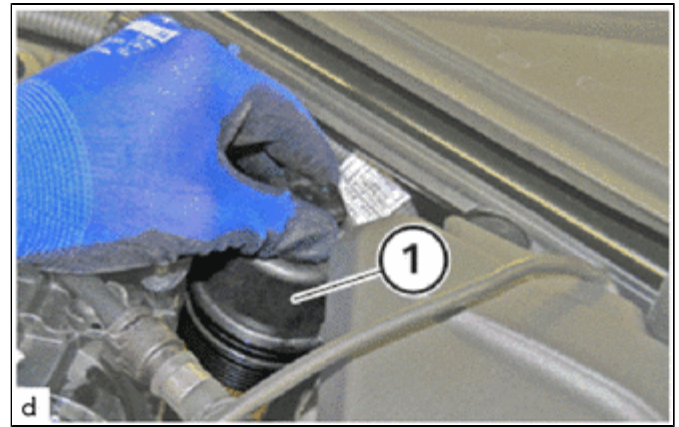
NOTICE:

- Contaminant or foreign body.

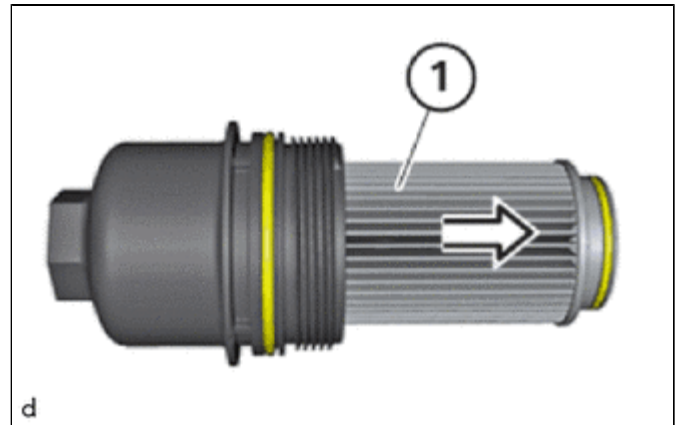
Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

(a) Feed the oil filter cap assembly (1) including oil filter element out to the top.



(b) Loosen the oil filter element (1) from the oil filter cap assembly.



(c) Replace oil filter element.

7. INSTALL OIL FILTER ELEMENT

NOTICE:

- Contaminant or foreign body.

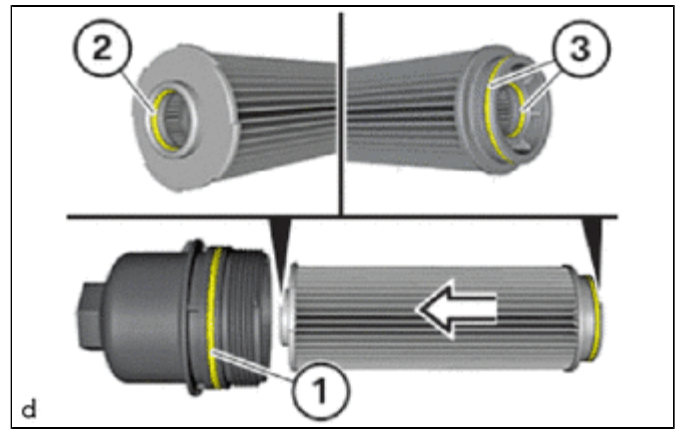
Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

(a) Replace O-ring (1).

HINT:

Before installation, coat the O-ring (1) with engine oil.



- (b) Coat O-ring (2) with engine oil.
- (c) Coat both O-rings (3) with engine oil.
- (d) Push the oil filter element (2) into the oil filter cap assembly.

HINT:

The oil filter element (2) must engage audibly.

- (e) Install the oil filter cap assembly including oil filter element.

8. INSTALL OIL FILTER CAP ASSEMBLY

- (a) Apply a small amount of engine oil to the O-ring.
- (b) Using a 32 mm socket wrench, tighten the oil filter cap assembly.

Torque:

25 N·m {255 kgf·cm, 18 ft·lbf}

- (c) Clip in the engine wiring harness in the holder.

9. ADD ENGINE OIL

NOTICE:

- Engine damage caused by excessively filling the engine with engine oil.

Filling an excessive quantity of engine oil may cause engine damage.

- Observe the exact engine oil filling capacity.
- Drain the engine oil.

- (a) Fill in engine oil at the oil filler neck.

Standard Oil:

Toyota Genuine Motor Oil SN 0W-20 C5 for GR Toyota Supra

Standard Capacity

ITEM	STANDARD CONDITION
Drain and refill with oil filter change	6.5 liters (6.9 US qts, 5.7 Imp. qts)

10. INSTALL OIL FILLER CAP ASSEMBLY

NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

(a) Close oil filler cap assembly.

11. INSPECT FOR ENGINE OIL LEAK

(a) Start the engine. Make sure that there are no engine oil leaks from the area that was worked on.

12. CHECK ENGINE OIL LEVEL

Click here [INFO](#)

13. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

14. PERFORM CBS RESET

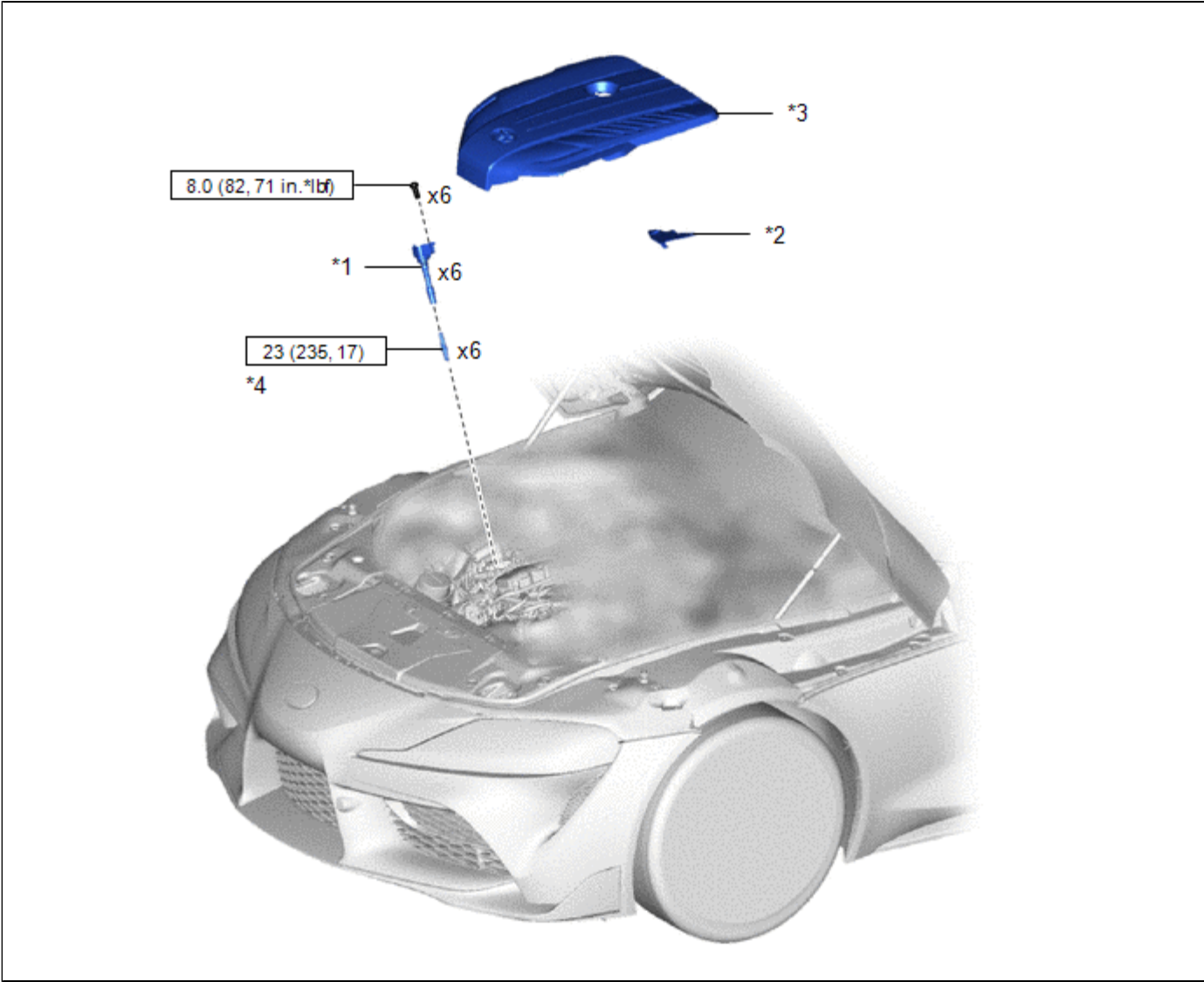
Click here [INFO](#)




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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 SPARK PLUG: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	IGNITION COIL	*2	NO. 1 ENGINE COVER
*3	NO. 1 ENGINE COVER SUB-ASSEMBLY	*4	SPARK PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC9H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 SPARK PLUG: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE COVER

Click here [INFO](#)

3. REMOVE IGNITION COIL

Click here [INFO](#)

4. REMOVE SPARK PLUG

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Swirling dirt particles caused by compressed air.

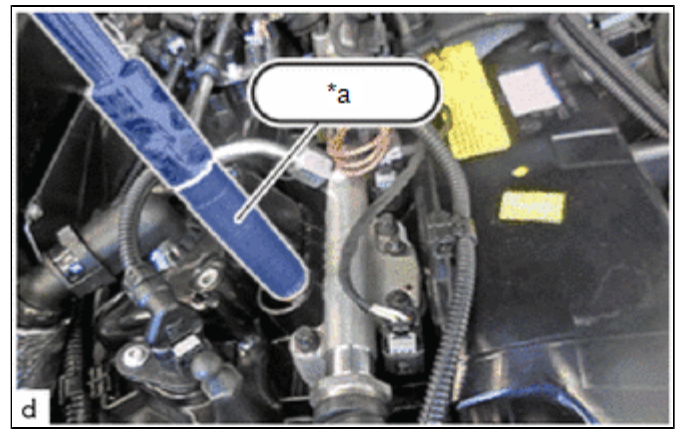
Danger of injury!

- Collect dirt particles, e.g. when blowing out, use cloth to do so.
- Wear safety goggles.

HINT:

- Clean spark plug slot with compressed air.
- The spark plug shaft must be cleaned using compressed air after having removed the ignition coils and before removing the spark plugs. After having removed the spark plugs, once again check the sealing surface for contamination and (if necessary) clean using a moist cloth or clean using compressed air.
- Deposits that are not removed according to instructions may enter the combustion chamber and lead to uncontrolled combustion. Remaining deposits on the spark plug sealing surfaces may lead to leaks and the spark plugs may come loose during engine operation.
- Spark plug threads must not be greased or oiled. Insufficiently tightened spark plugs may cause leaks and the spark plugs may come loose during engine operation.
- Exclusively swivelling extensions may be used for the reversible ratchet. Rigid mounting tool and variable plug connections with rigid option may not be used; there is a risk that the insulator breaks.

(a) Using a 14 mm spark plug wrench, unscrew spark plugs.



*a	14 mm Spark Plug Wrench
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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: B58 SPARK PLUG: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SPARK PLUG

(a) Using a 14 mm spark plug wrench, install the spark plugs to the cylinder head sub-assembly.

Torque:

23 N·m {235 kgf·cm, 17 ft·lbf}

NOTICE:

- Do not drop spark plug into spark plug shaft!
 - This can lead to a reduction of the electrode gap and can thus impair smooth running of the engine, especially in idle position.

HINT:

Exclusively swivelling extensions may be used for the reversible ratchet. Rigid mounting tool and variable plug connections with rigid option may not be used; there is a risk that the insulator breaks.

2. INSTALL IGNITION COIL

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

4. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

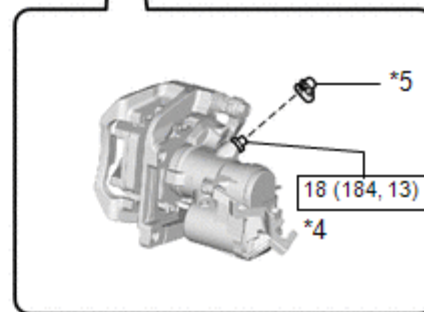
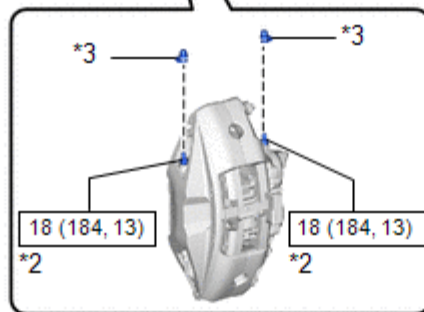
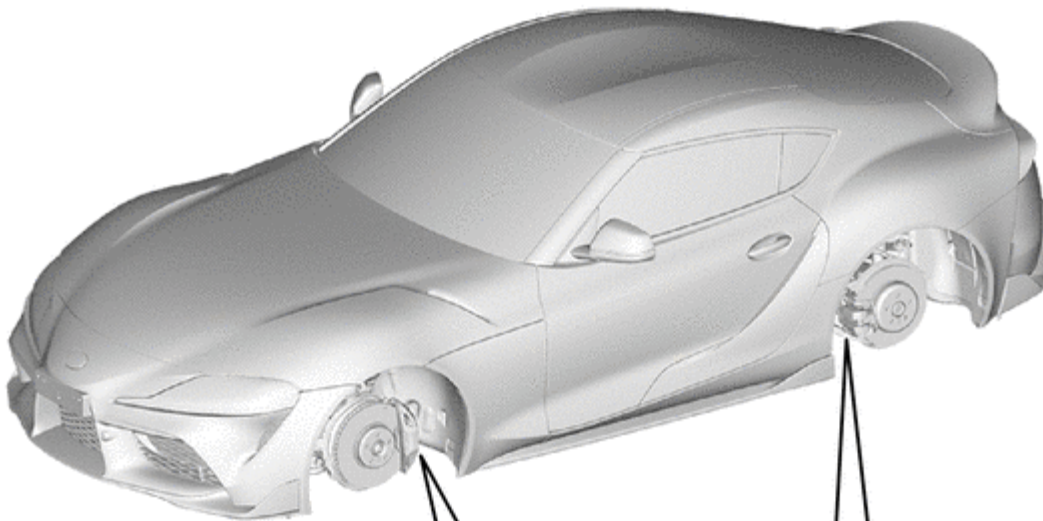
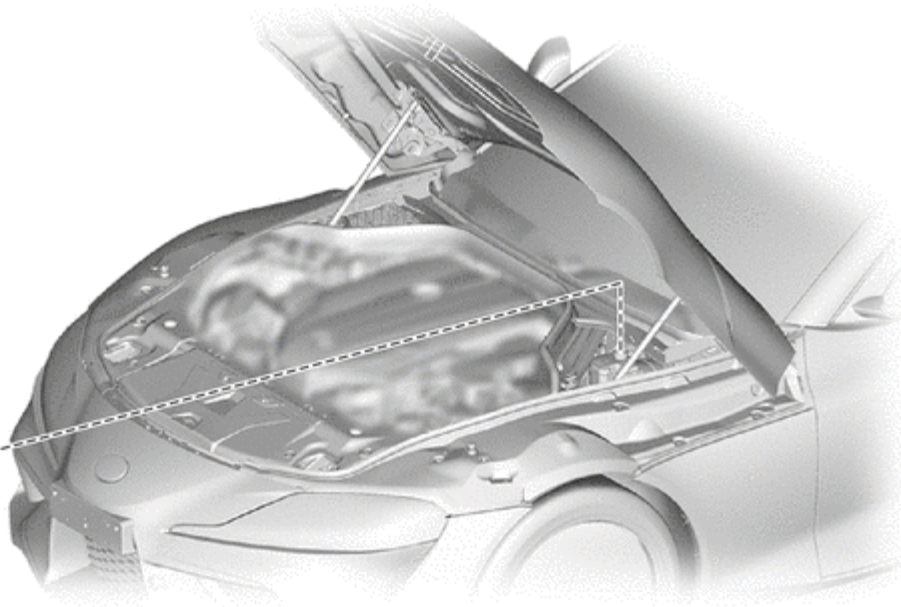
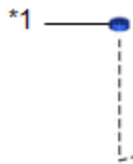
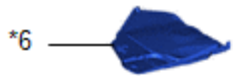
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8X
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: BRAKE FLUID: COMPONENTS; 2020 MY Supra [03/2019 -]		


COMPONENTS

ILLUSTRATION



0

*1	BRAKE MASTER CYLINDER RESERVOIR FILLER CAP	*2	FRONT DISC BRAKE BLEEDER PLUG
*3	FRONT DISC BRAKE BLEEDER PLUG CAP	*4	REAR DISC BRAKE BLEEDER PLUG
	REAR DISC BRAKE BLEEDER PLUG		

*5	CAP	*6	COWL VENT COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: BRAKE FLUID: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

CAUTION / NOTICE / HINT

NOTICE:

- Paint damage.

Mechanical or chemical action may lead to paint damage.

- Cover up working area with specified covering material only.

- Use only approved brake fluids, see operating fluids.

HINT:

- Use the same procedure for RHD and LHD vehicles.
- The procedure listed below is for LHD vehicles.

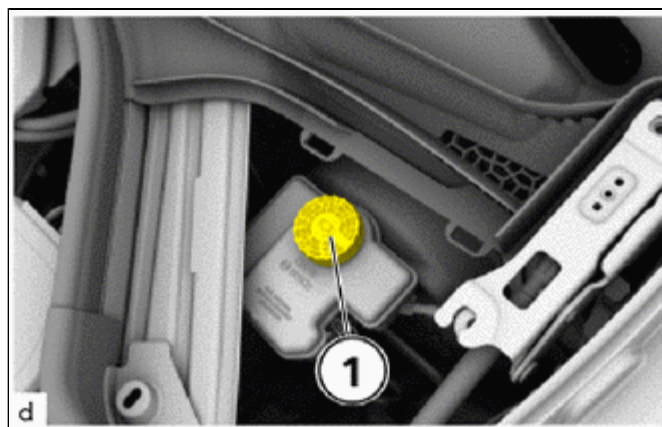
PROCEDURE

1. REMOVE COWL VENT COVER

Click here [INFO](#)

2. FILL RESERVOIR WITH BRAKE FLUID

(a) Remove the brake master cylinder reservoir filler cap.



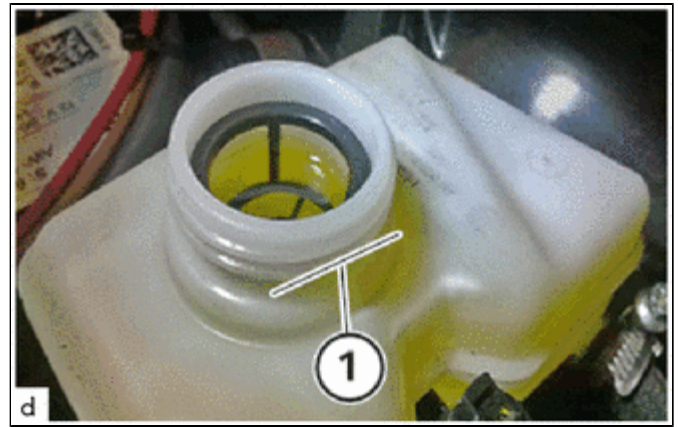
(b) Top up the brake fluid expansion tank to the lower edge of the thread (1) with new brake fluid.

Brake Fluid and Hydraulic Fluid:

Brake fluid DOT4, low viscosity

NOTICE:

Use only approved brake fluids, see operating fluids.



3. BLEED REAR BRAKE

NOTICE:

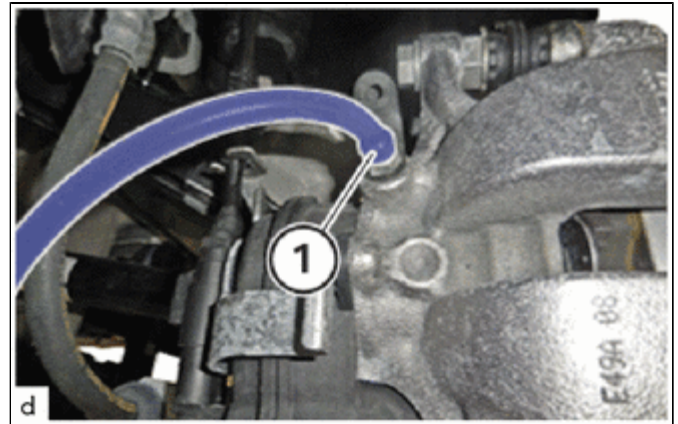
- Bleed the brake line of the wheel farthest from the master cylinder first.
- Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brake lines.

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Start flushing at the rear right.

(b) Connect a vinyl tube to the bleeder plug (1) on rear disc brake cylinder assembly.



(c) Depress the brake pedal several times, and then loosen the bleeder plug with the pedal depressed.*1

(d) When fluid stops coming out, tighten the bleeder plug and release the brake pedal.*2

(e) Repeat steps *1 and *2 until all the air in the brake fluid is completely bled out and new brake fluid comes out.

(f) Tighten the bleeder plug completely.

Torque:

18 N·m {184 kgf·cm, 13 ft·lbf}

(g) Carry out the same procedure on the rear left wheel brake.

4. BLEED FRONT BRAKE

NOTICE:

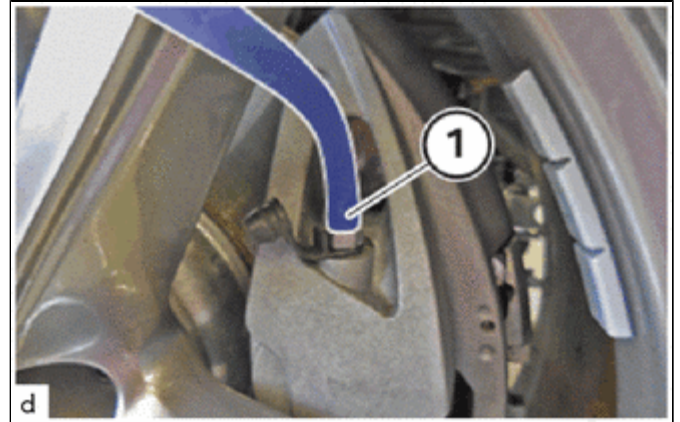
- Bleed the brake line of the wheel farthest from the master cylinder first.
- Add brake fluid to keep the level between the MIN and MAX lines of the reservoir while bleeding the brake lines.

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Start flushing at the front right.

(b) Connect a vinyl tube to the bleeder plug (1) on front disc brake cylinder assembly.



(c) Depress the brake pedal several times, and then loosen the bleeder plug with the pedal depressed.*1

(d) When fluid stops coming out, tighten the bleeder plug and release the brake pedal.*2

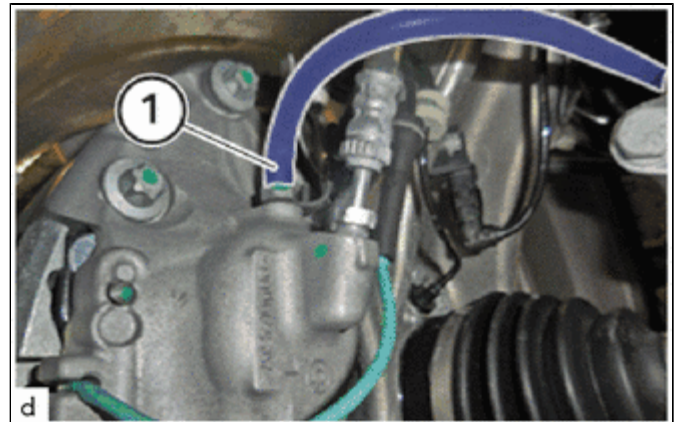
(e) Repeat steps *1 and *2 until all the air in the brake fluid is completely bled out and new brake fluid comes out.

(f) Tighten the bleeder plug completely.

Torque:

18 N·m {184 kgf·cm, 13 ft·lbf}

(g) Connect a vinyl tube to the bleeder plug (1) on front disc brake cylinder assembly.



(h) Depress the brake pedal several times, and then loosen the bleeder plug with the pedal depressed.*1

(i) When fluid stops coming out, tighten the bleeder plug and release the brake pedal.*2

(j) Repeat steps *1 and *2 until all the air in the brake fluid is completely bled out and new brake fluid comes out.

(k) Tighten the bleeder plug completely.

Torque:

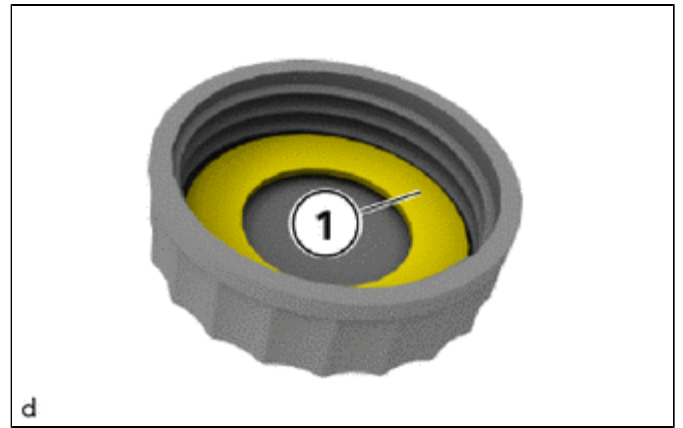
18 N·m {184 kgf·cm, 13 ft·lbf}

(l) Carry out the same procedure on the rear left wheel brake.

(m) Install the brake master cylinder reservoir filler cap.

HINT:

Check the seal (1) on the sealing cap, replace if necessary.



5. INSPECT FOR BRAKE FLUID LEAK

6. INSPECT BRAKE FLUID LEVEL IN RESERVOIR

Click here [INFO](#)

7. INSTALL COWL VENT COVER

Click here [INFO](#)

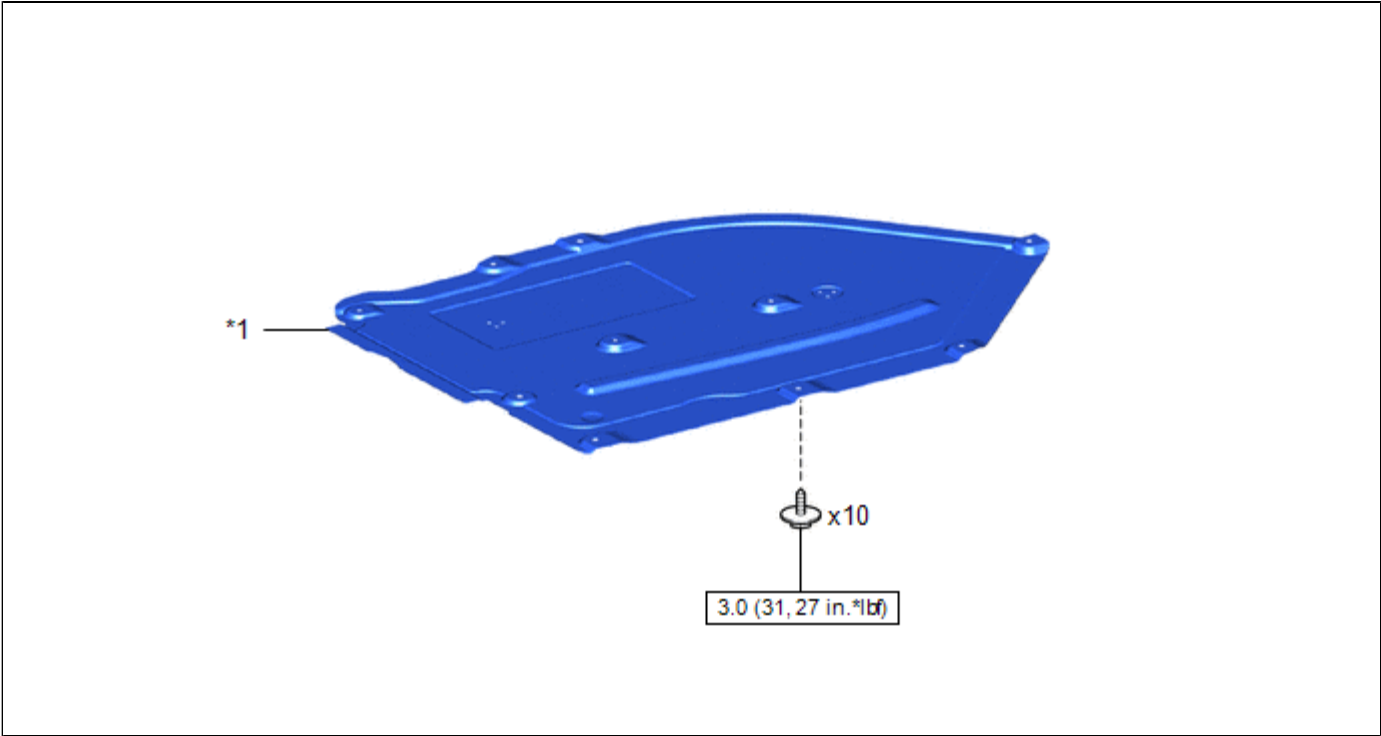
8. PERFORM CBS RESET


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: BRAKE VACUUM HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

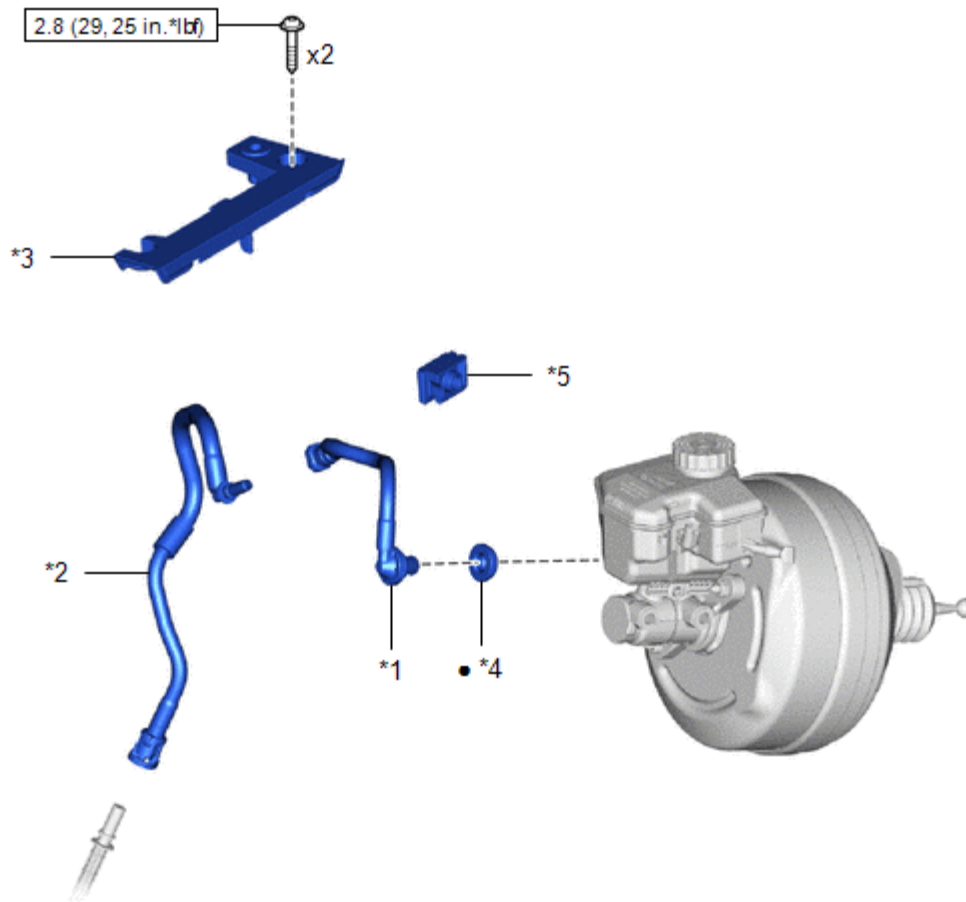
COMPONENTS

ILLUSTRATION




*1	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



0

*1	CHECK VALVE TO BRAKE EBOOSTER HOSE	*2	NO. 1 HOSE TO HOSE TUBE
*3	SEALING FRAME	*4	GROMMET
*5	HOLDER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC90
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: BRAKE VACUUM HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

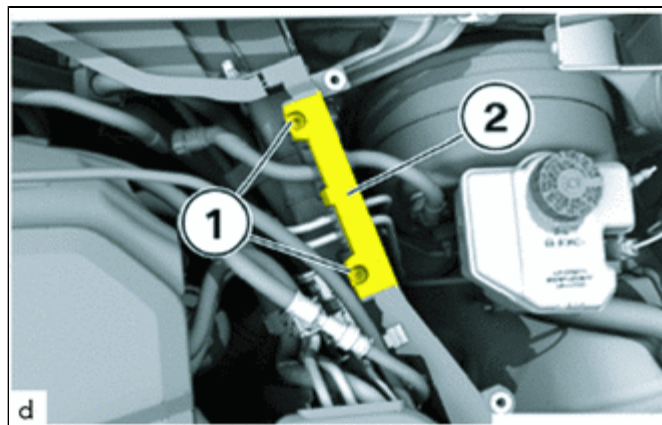
PROCEDURE

1. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

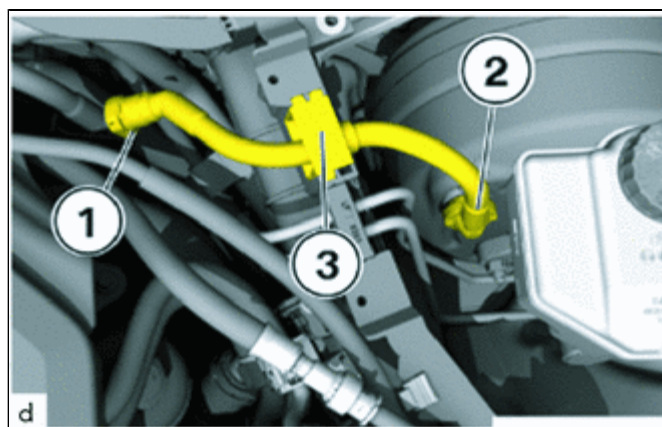
Click here [INFO](#)

2. REMOVE NO. 1 HOSE TO HOSE TUBE

- (a) Unscrew the T25 screws (1) and remove the sealing frame (2).



- (b) Unlock the snap fastener (1) and disconnect the No. 1 hose to hose tube.



- (c) Remove the No. 1 hose to hose tube (2) from the brake booster.
 (d) Detach the No. 1 hose to hose tube from the holder (3).
 (e) Remove the No. 1 hose to hose tube (2).

3. REMOVE FRONT CENTER FLOOR COVER

4. REMOVE CHECK VALVE TO BRAKE EBOOSTER HOSE

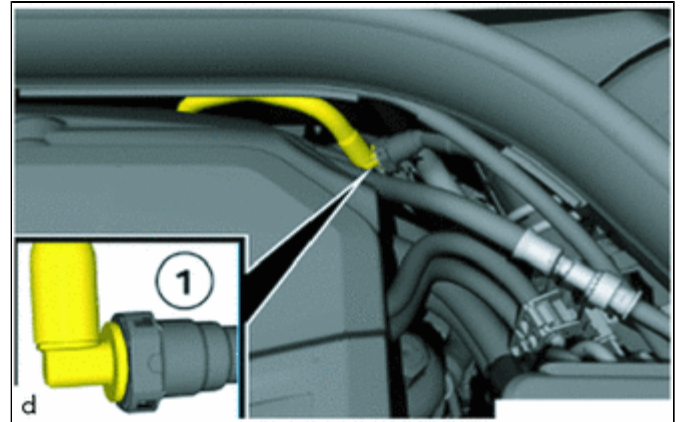
CAUTION:

- Hot surfaces.

Risk of burning!

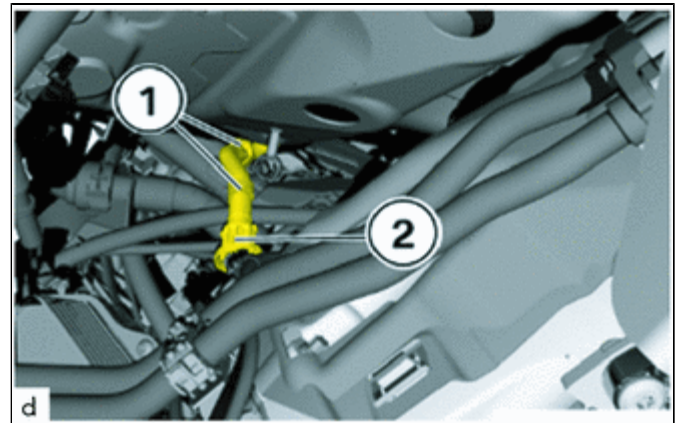
- Perform all work only on components that have cooled down.

(a) Unlock snap fastener (1).



(b) Detach check valve to brake booster hose.

(c) Unclip the check valve to brake booster hose from the holder (1).



(d) Unlock snap fastener (2).

(e) Detach check valve to brake booster hose.

(f) Feed out the check valve to brake booster hose toward the bottom and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC91
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: BRAKE VACUUM HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

PROCEDURE

1. INSTALL CHECK VALVE TO BRAKE EBOOSTER HOSE

- (a) Connect and lock the snap fastener.

NOTICE:

The snap fastener must engage correctly.

- (b) Clip the check valve to brake booster hose into the holder.
- (c) Connect and lock the snap fastener.

NOTICE:

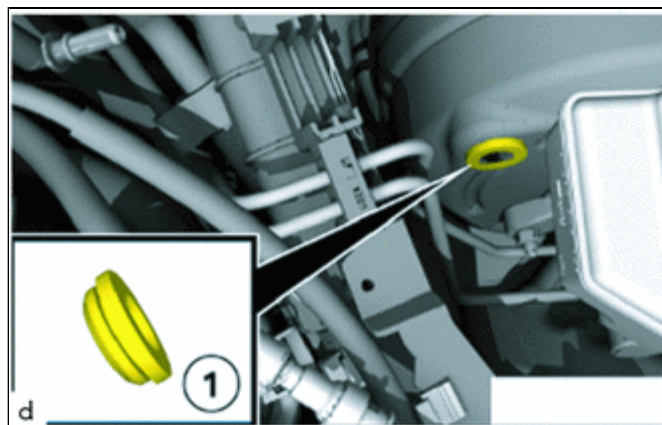
The snap fastener must engage correctly.

2. INSTALL FRONT CENTER FLOOR COVER

Click here [INFO](#)

3. INSTALL NO. 1 HOSE TO HOSE TUBE

- (a) Check the grommet on the brake booster and replace, if necessary.



- (b) Connect the snap fastener.

NOTICE:

The snap fastener must engage correctly.

- (c) Install the No. 1 hose to hose tube in the brake booster.
- (d) Install the No. 1 hose to hose tube in the holder.
- (e) Position the sealing frame and tighten the T25 screws.

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

4. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

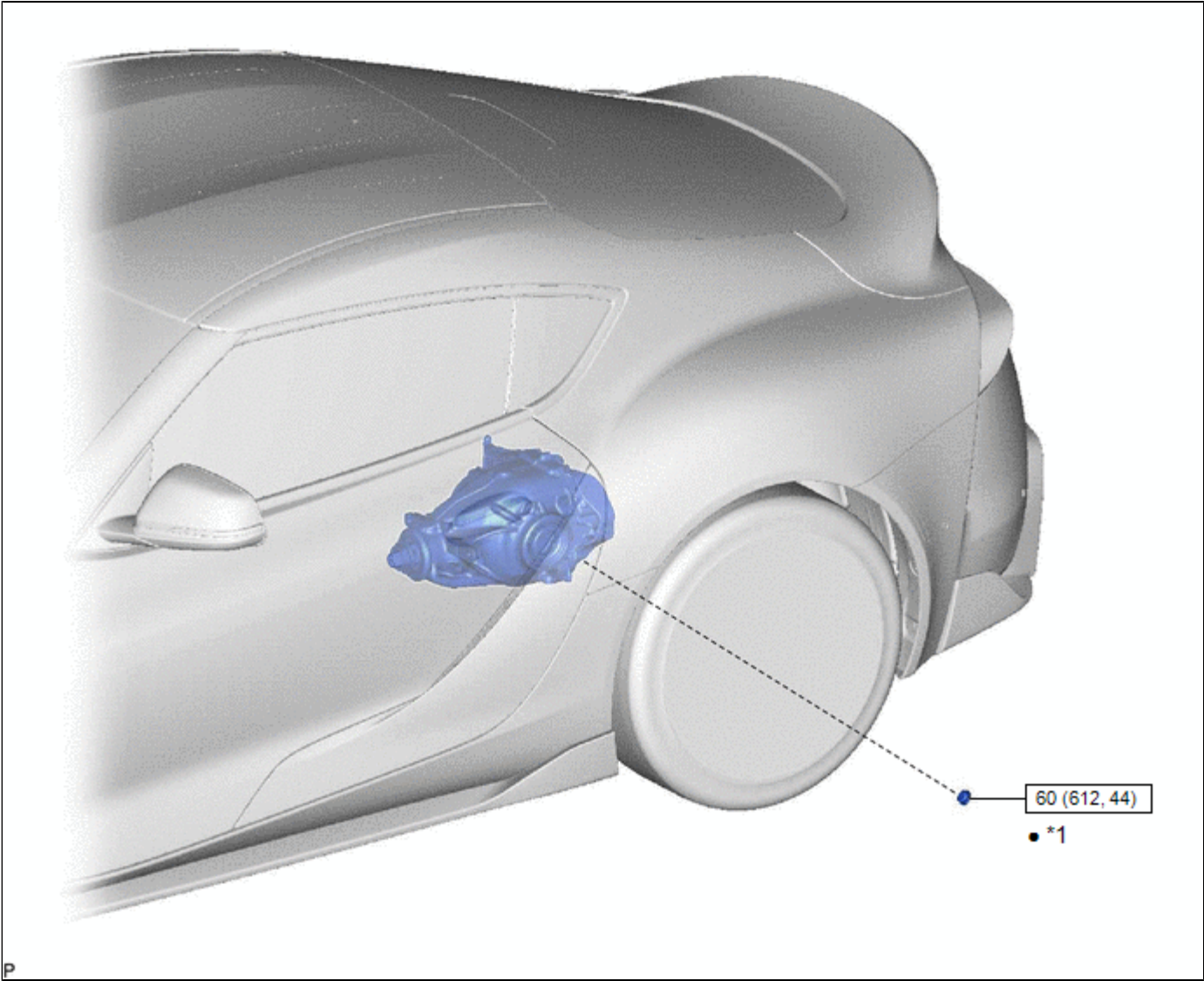
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: DIFFERENTIAL OIL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL FILLER PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: DIFFERENTIAL OIL: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Contact with hazardous fluids.

Hazardous to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to rear differential carrier assembly.

Failure to comply with the oil specifications can result in serious damage to the rear differential carrier assembly.

- After completion of repair work, check the differential oil level in the rear differential carrier assembly.
- Use only the approved differential oil.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

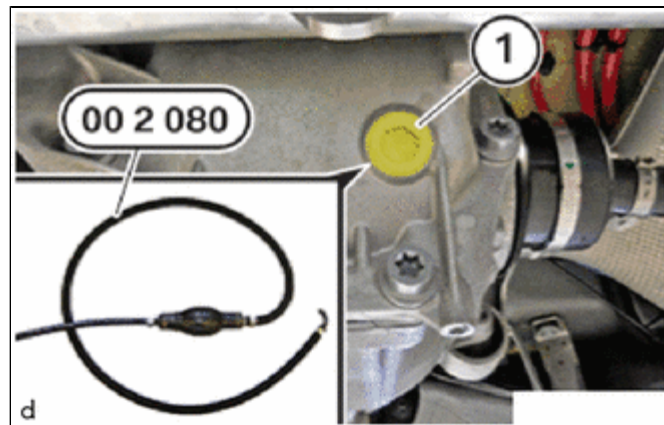
PROCEDURE

1. DRAIN DIFFERENTIAL OIL

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- (a) Using a 14 mm straight hexagon wrench, open the oil filler plug (1).



- (b) Draw off the rear differential carrier assembly oil with the special tool 0 493 337 (00 2 080).

2. ADD DIFFERENTIAL OIL

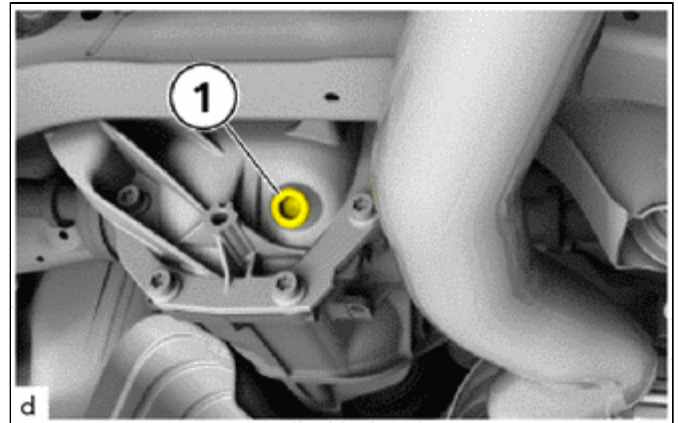
- (a) Top up rear differential carrier assembly oil up to the lower edge of the oil filler plug opening (1).

Differential oil:

Hypoid Axle Oil G4

Standard differential oil capacity:

1.0 liters (1.1 US qts, 0.9 Imp. qts)



- (b) Replace the oil filler plug with O-ring (1).

- (c) Using a 14 mm straight hexagon wrench, tighten the oil filler plug (1).

Torque:

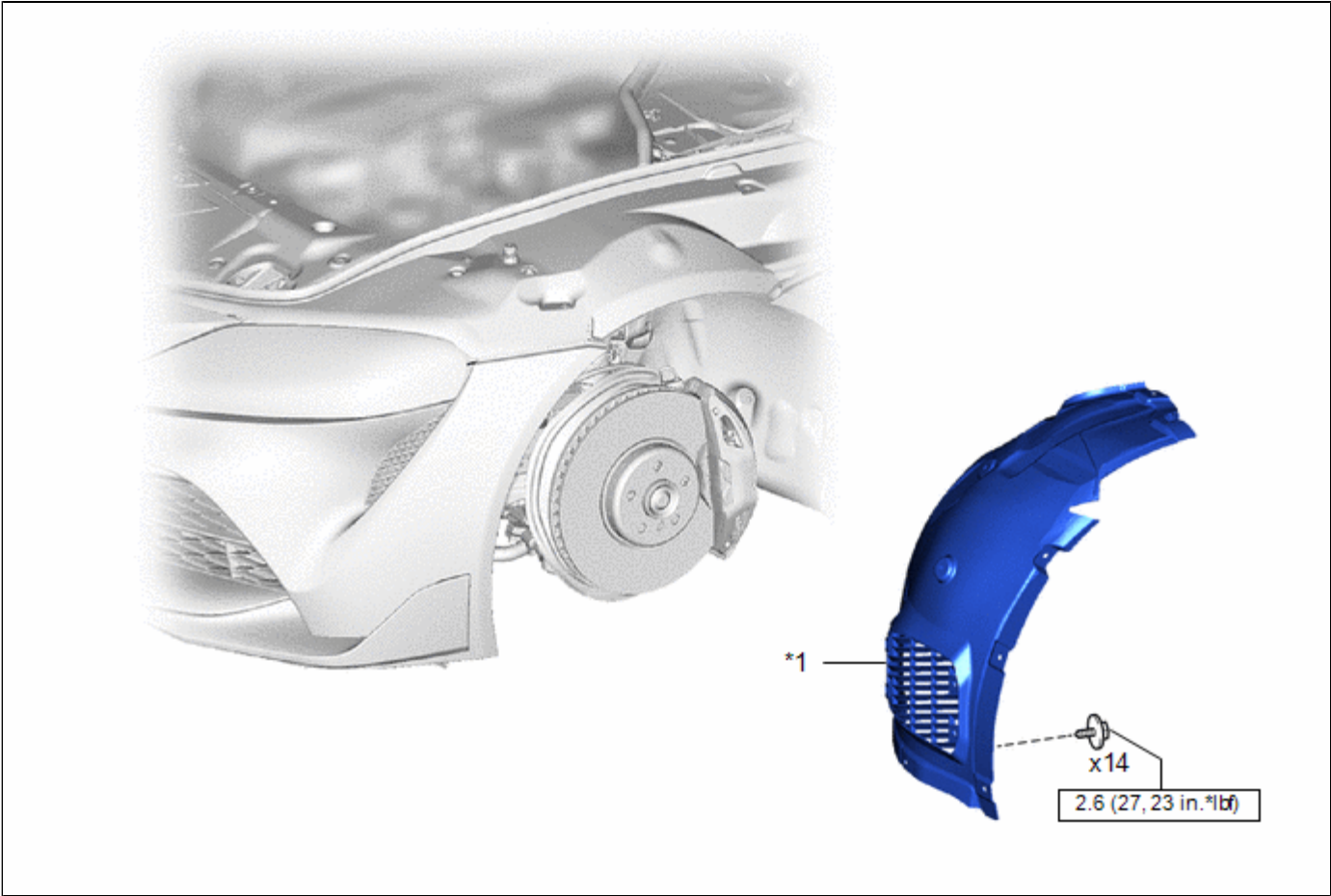
60 N·m {612 kgf·cm, 44 ft·lbf}




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT BRAKE FLEXIBLE HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

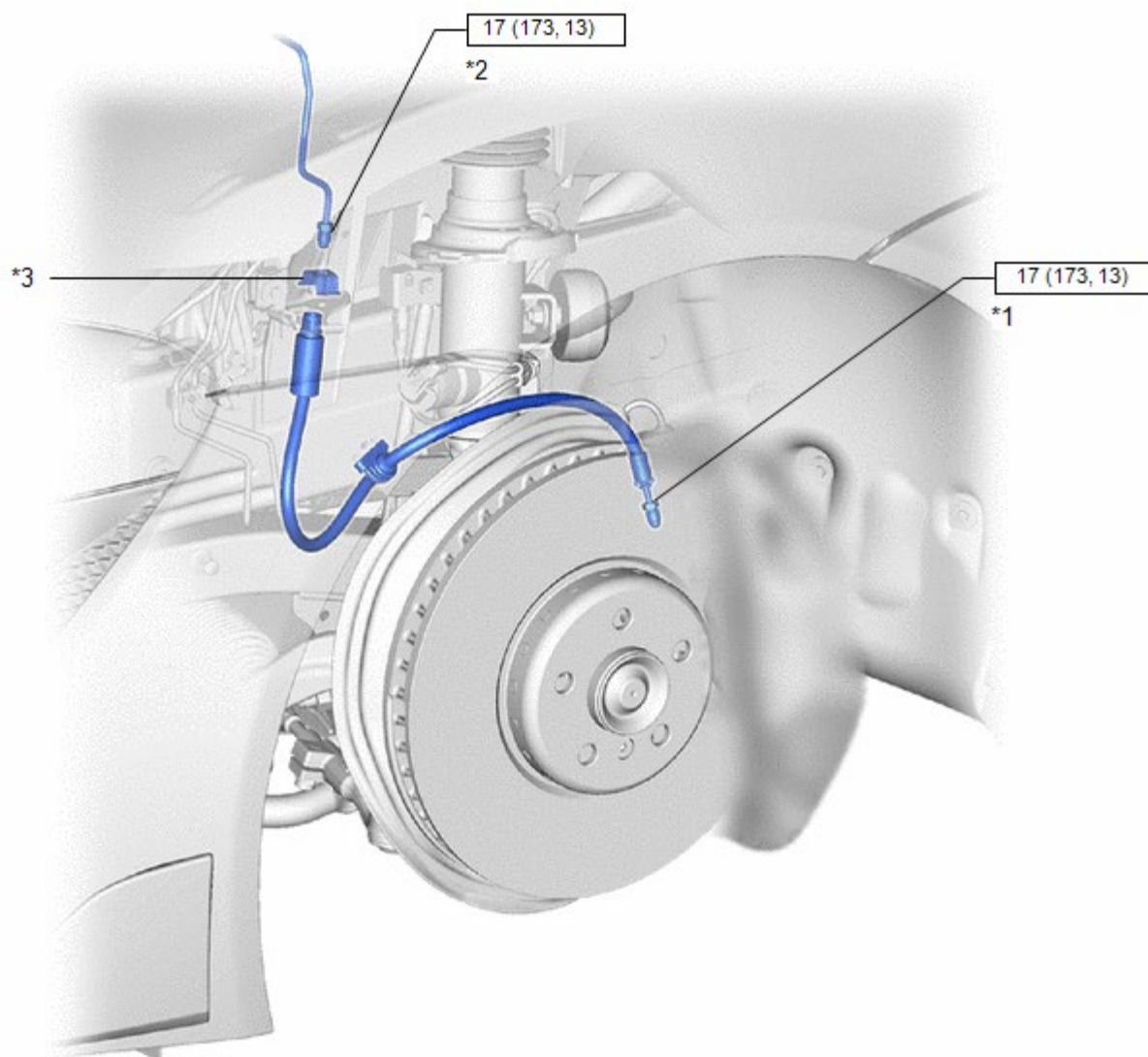
COMPONENTS

ILLUSTRATION



*1	FRONT FENDER LINER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



0

*1	FRONT FLEXIBLE HOSE	*2	BRAKE TUBE
*3	CLIP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8J
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT BRAKE FLEXIBLE HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER

Click here [INFO](#)

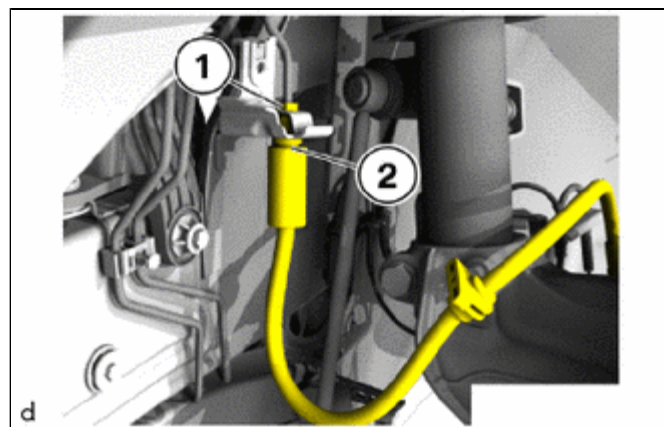
3. INSTALL BRAKE PEDAL PRESSURE

Click here [INFO](#)

4. REMOVE FRONT FLEXIBLE HOSE

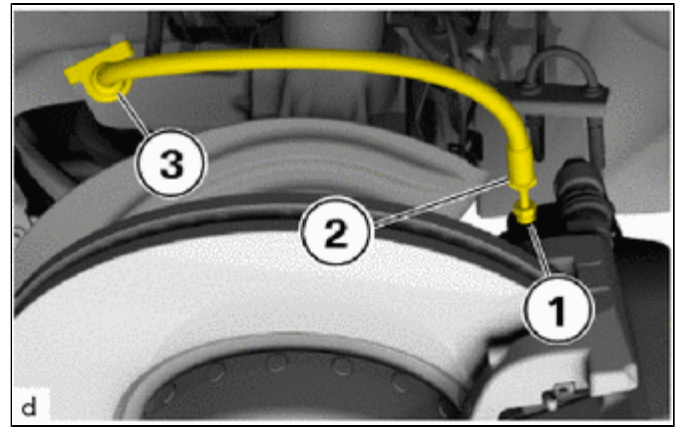
- (a) Release the 11 mm union nut (1) on the brake tube, use the hexagon head (2) for counter support if necessary.

SST: 09700-WA070



- (b) Release the 11 mm union nut (1) on the front flexible hose, use the knurling (2) for counter support if necessary.

SST: 09700-WA070



(c) Detach the front flexible hose from the bracket (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT BRAKE FLEXIBLE HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

- HINT:
- Use the same procedure for the RH side and LH side.
 - The following procedure is for the LH side.

PROCEDURE

1. INSTALL FRONT FLEXIBLE HOSE

(a) Position front flexible hose on the front disc brake cylinder assembly.

(b) Tighten 11 mm union nut (1), if necessary counter at the knurling (2).

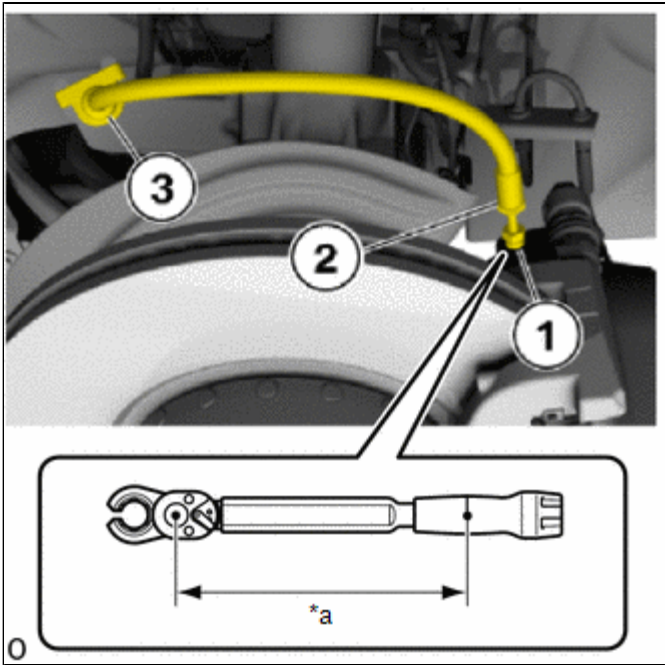
SST: 09700-WA070

Torque:

Specified tightening torque :

17 N·m {173 kgf·cm, 13 ft·lbf}

- HINT:
- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.
- Click here [INFO](#)



*a	Torque Wrench Fulcrum Length
----	------------------------------

(c) Attach cable to the bracket (3).

(d) Tighten 11 mm union nut (1) on the brake tube, if necessary counter on the hexagon head (2).

SST: 09700-WA070

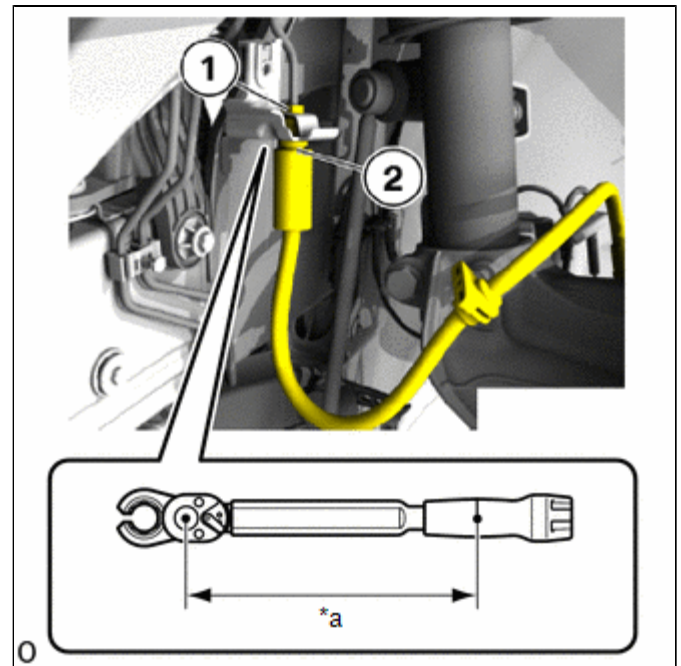
Torque:

Specified tightening torque :
17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)



*a	Torque Wrench Fulcrum Length
----	------------------------------

2. INSTALL FRONT FENDER LINER

Click here [INFO](#)

3. REMOVE BRAKE PEDAL PRESSURE

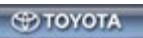
Click here [INFO](#)

4. BLEED BRAKE LINE

Click here [INFO](#)

5. INSTALL FRONT WHEEL

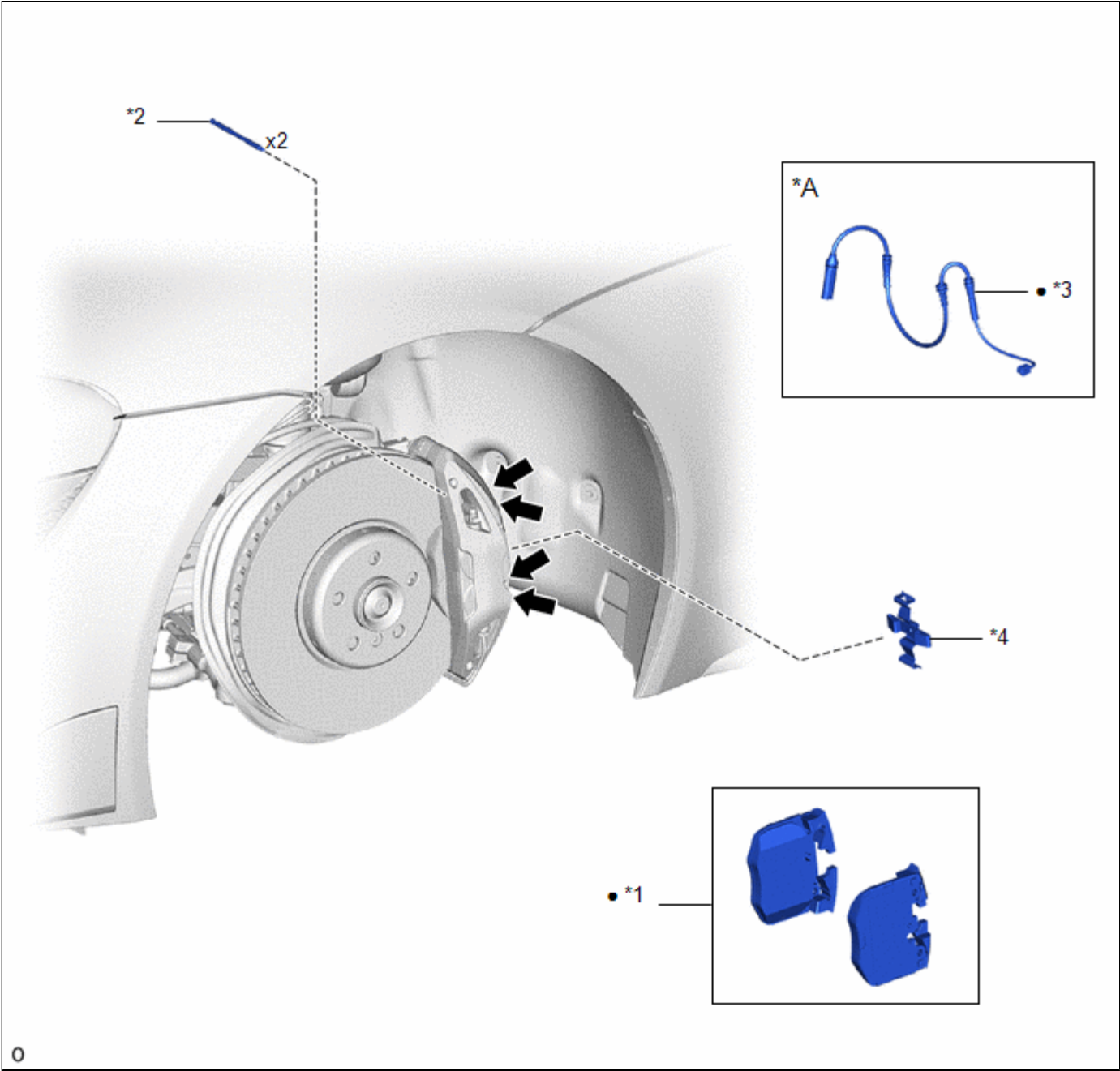
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8F
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT DISC BRAKE PAD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT DISC BRAKE PAD	*2	TORQUE PIN
*3	PAD WEAR INDICATOR WIRE LH	*4	NO. 1 ANTI-RATTLE SPRING
•	Non-reusable part	➡	Brake pad paste



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8G
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT DISC BRAKE PAD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

NOTICE:

- General information on changing the brake pads:
 - For vehicles older than 48 months it is recommended to replace the retaining spring or expanding spring.
 - The pad wear indicator wire LH must be replaced once it has been removed because the pad wear indicator wire LH loses its retention capability in the brake pad.
- A CBS reset must be done after every brake pad exchange:
 - A CBS reset in the vehicle is possible in the event of a partially ground down pad wear indicator wire LH. The CBS display in the multi-display is active.
 - In the event of a pad wear indicator wire LH that is not partially ground down, a CBS reset is only possible with the diagnosis system. No CBS display in the multi-display.

Click here [INFO](#)

- To prevent damage to the surface coating:
 - With floating calipers on the brake caliper mounting bracket or with fixed calipers in the brake caliper housing, do not clean the contact surfaces for the brake pads to the extent that it is possible.
 - Clean the contact surfaces. Next, apply a thin coat of brake pad paste.
 - Spread brake pad paste on the marked surfaces with a brush.
- After a front disc brake pad exchange and before applying the brake pedal:
 - Apply the electromechanical parking brake.
 - In case of non-compliance, a CC message appears and the brake system switches to the emergency program. The brake power assistance is no longer active.
- When exchanging brake pads, reset the CBS display in accordance with factory specification (CBS reset).
- Carry out test braking while driving at low speed because the effectiveness of the brakes may be reduced during the initial braking operations.
- Exaggerated emergency and continuous braking operations for faster bedding-in are not permitted.
- Advise the customer not to perform intentional emergency braking operations for the first 200 km (124 mile) after the brakes have been replaced.

HINT:

- The following procedure is for the LH side.
- Use the same procedure for the RH side and LH side.

PROCEDURE

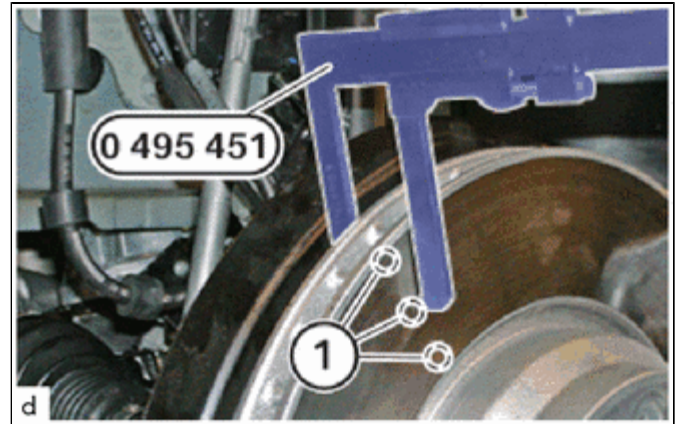
1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. MEASURE MINIMUM BRAKE DISC THICKNESS

- (a) Place the special tool 0 495 451 (34 1 280) at three measuring points in area (1) and measure.

SST: 09700-WA090



- (b) Compare the measuring results and compare the lowest value with the setpoint value.

Minimum brake disc thickness:

Nominal dimension 348x36

34.4 mm (1.35 in.)

NOTICE:

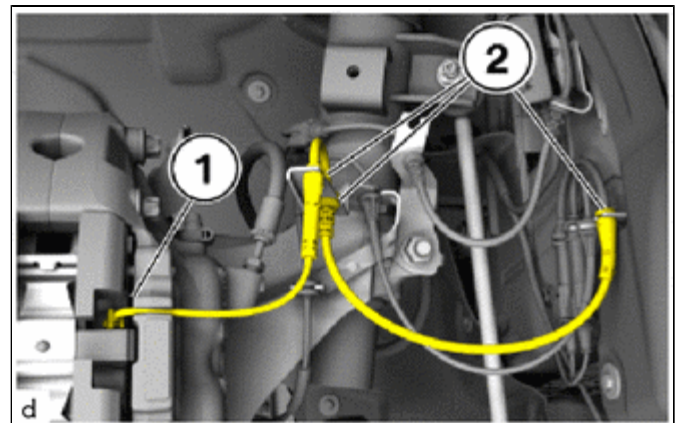
New front disc brake pads must only be installed if the brake disc thickness is greater than the minimum brake disc thickness.

3. REMOVE PAD WEAR INDICATOR WIRE LH

NOTICE:

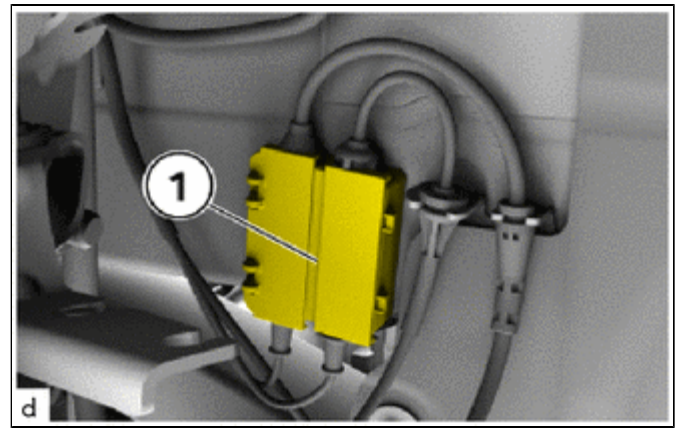
- The pad wear indicator wire LH must be replaced once it has been removed because the pad wear indicator wire LH loses its retention capability in the front disc brake pad.
- If a pad wear indicator wire LH that has already been ground has to be replaced even though the minimum front disc brake pad thickness has not yet been reached, you must observe the following:
- The new sliding contact must be filed down with a file to the same length as the sanded sliding contact.

- (a) Remove the pad wear indicator wire LH (1) from the brake pad in the direction of the arrow.

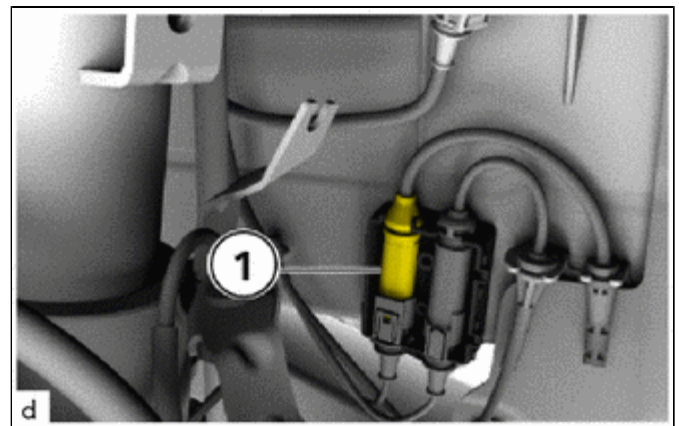


- (b) Detach the cable of the pad wear indicator wire LH from the brackets (2).

(c) Open the connection box (1).



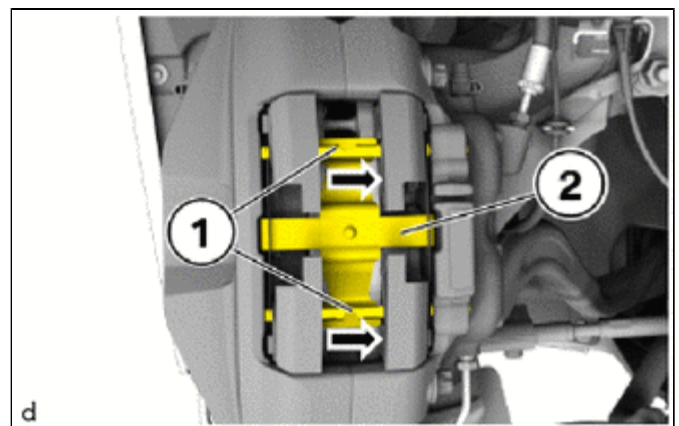
(d) Unlock plug connection (1) and disconnect.



(e) Remove pad wear indicator wire LH.

4. REMOVE FRONT DISC BRAKE PAD

(a) Drive out torque pins (1) in direction of arrow.



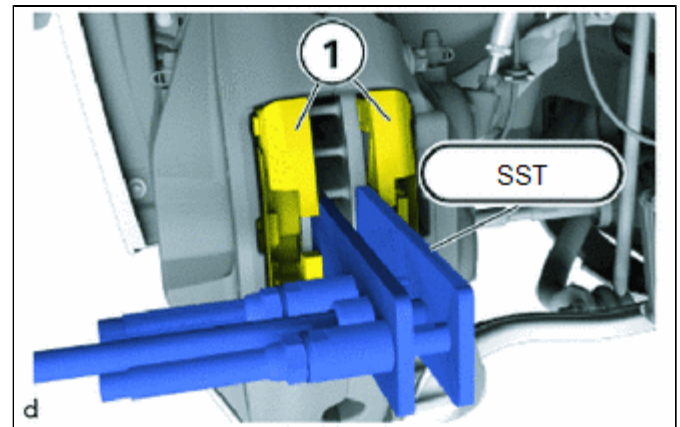
(b) Take off the No. 1 anti-rattle spring (2).

(c) Press back front disc brake piston against the weights (1) with SST.

SST: 09719-77010

NOTICE:

- When pressing the front disc brake piston back, note the brake fluid level in the brake master cylinder reservoir assembly.
 - Overflowing brake fluid will damage the paintwork.

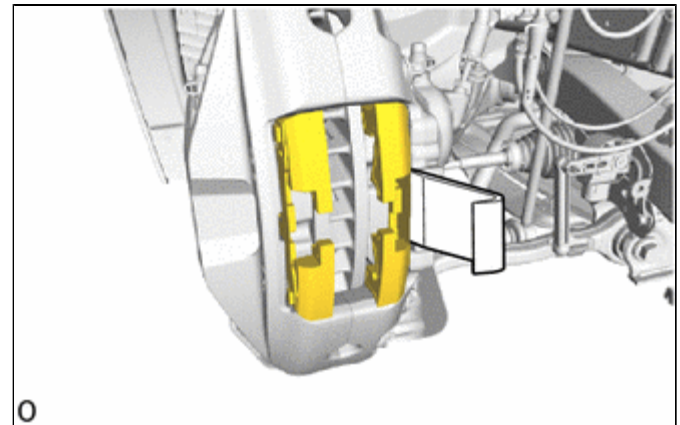


(d) Press back the front disc brake piston up to the limit position.

(e) Remove the front disc brake pads from the front disc brake cylinder assembly with the help of moulding remover D.

NOTICE:

- Note the following for the removal of the front disc brake pads:
 - To prevent damage to the paintwork of the front disc brake cylinder assembly:
 - i. Do not remove the front disc brake pads from the front disc brake piston with a hammer or screwdriver.
 - Use moulding remover D to remove the front disc brake pads.
- The front disc brake pads are bonded onto the front disc brake piston.
- Do not re-use front disc brake pads.
- Once the front disc brake pads have been released from the front disc brake piston, the front disc brake pads must not be reused.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT DISC BRAKE PAD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT DISC BRAKE PAD

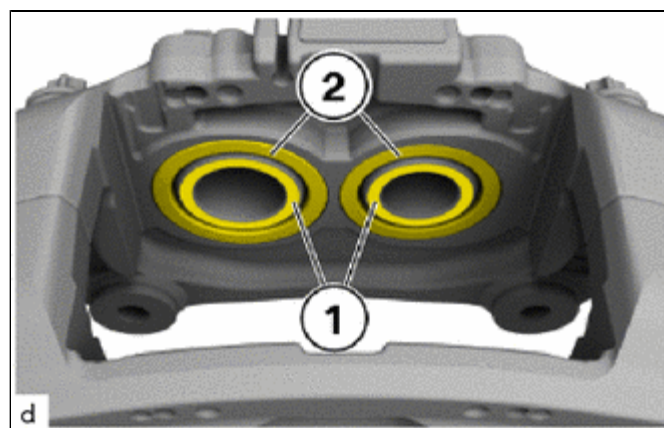
NOTICE:

- After the brake pads have been installed, the brake pads must immediately be bonded to the brake pistons:
 - Press the brake pedal to the floor and hold the pressure for 1 minute. This causes the front disc brake pads to adhere to the front disc brake pistons.

(a) Clean the contact surfaces (1) of the front disc brake pistons (4 pieces) with brake cleaner.

NOTICE:

Adhesive residue must be completely removed.

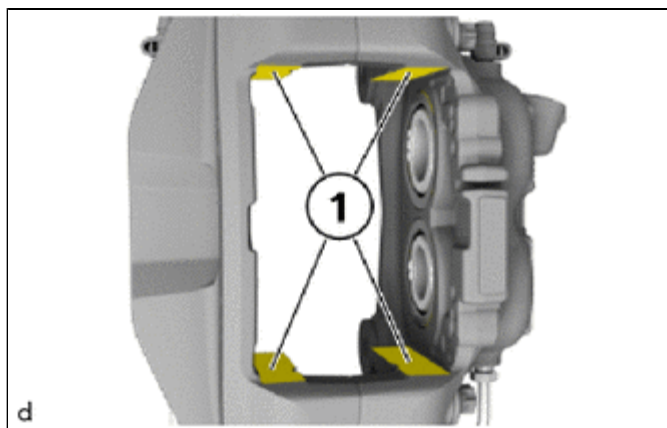


(b) Check the cylinder boot (2) for damage and replace if necessary.

(c) Clean the contact surfaces (1) using brake cleaner and thinly coat with brake pad paste.

NOTICE:

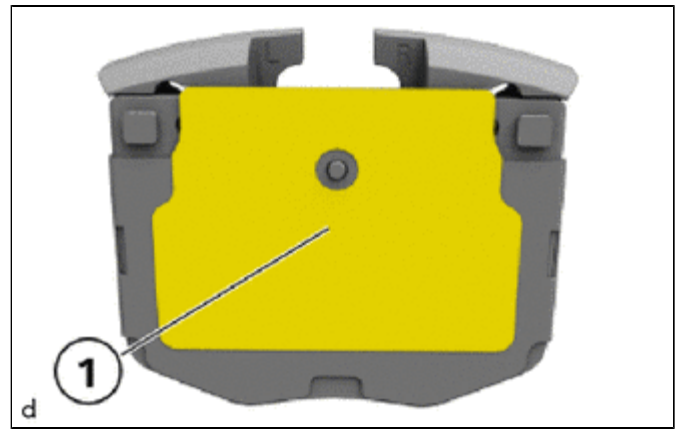
Do not mechanically clean the contact surfaces (1) for the front disc brake pads at the front disc brake cylinder assembly to prevent damage to the surface coating.



(d) Remove the protective film of the adhesive layer (1) at the front disc brake pads.

NOTICE:

The adhesive layer (1) must not be touched.

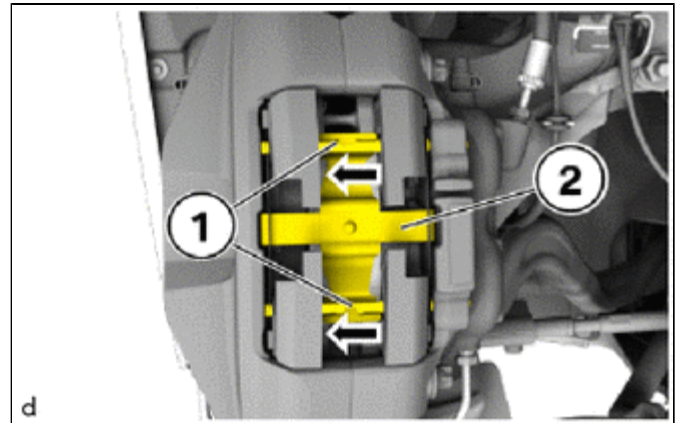


(e) Insert front disc brake pads into the front disc brake cylinder assembly.

NOTICE:

The adhesive layer must not touch the front disc brake piston.

(f) Position the No. 1 anti-rattle spring (2).



(g) Drive in torque pins (2) in the direction of the arrow.

(h) Bond the front disc brake pads to the front disc brake piston. For this purpose, fully press the brake pedal and maintain the pressure for 1 minute.

2. INSTALL PAD WEAR INDICATOR WIRE LH

(a) Replace the pad wear indicator wire LH.

(b) Insert the pad wear indicator wire LH into the front disc brake pad.

NOTICE:

Ensure pad wear indicator wire LH fits correctly in front disc brake pad.

(c) Attach cable of pad wear indicator wire LH in brackets.

(d) Connect connectors and lock.

(e) Close the connection box.

3. INSTALL FRONT WHEEL

Click here [INFO](#)

4. INSPECT FRONT BRAKE

NOTICE:

- When exchanging brake pads, reset the CBS display in accordance with factory specification (CBS reset).
- Carry out test braking while driving at low speed because the effectiveness of the brakes may be reduced during the initial braking operations.
- Exaggerated emergency and continuous braking operations for faster bedding-in are not permitted.
- Advise the customer not to perform intentional emergency braking operations for the first 200 km (124 mile) after the brakes have been replaced.

(a) Fully depress brake pedal several times so that brake pads contact brake discs.

(b) Adjust the brake fluid level to the maximum mark.

(c) Perform a functional check on the brake test stand to ensure compliance of the brake system with statutory guidelines.

5. PERFORM CBS RESET

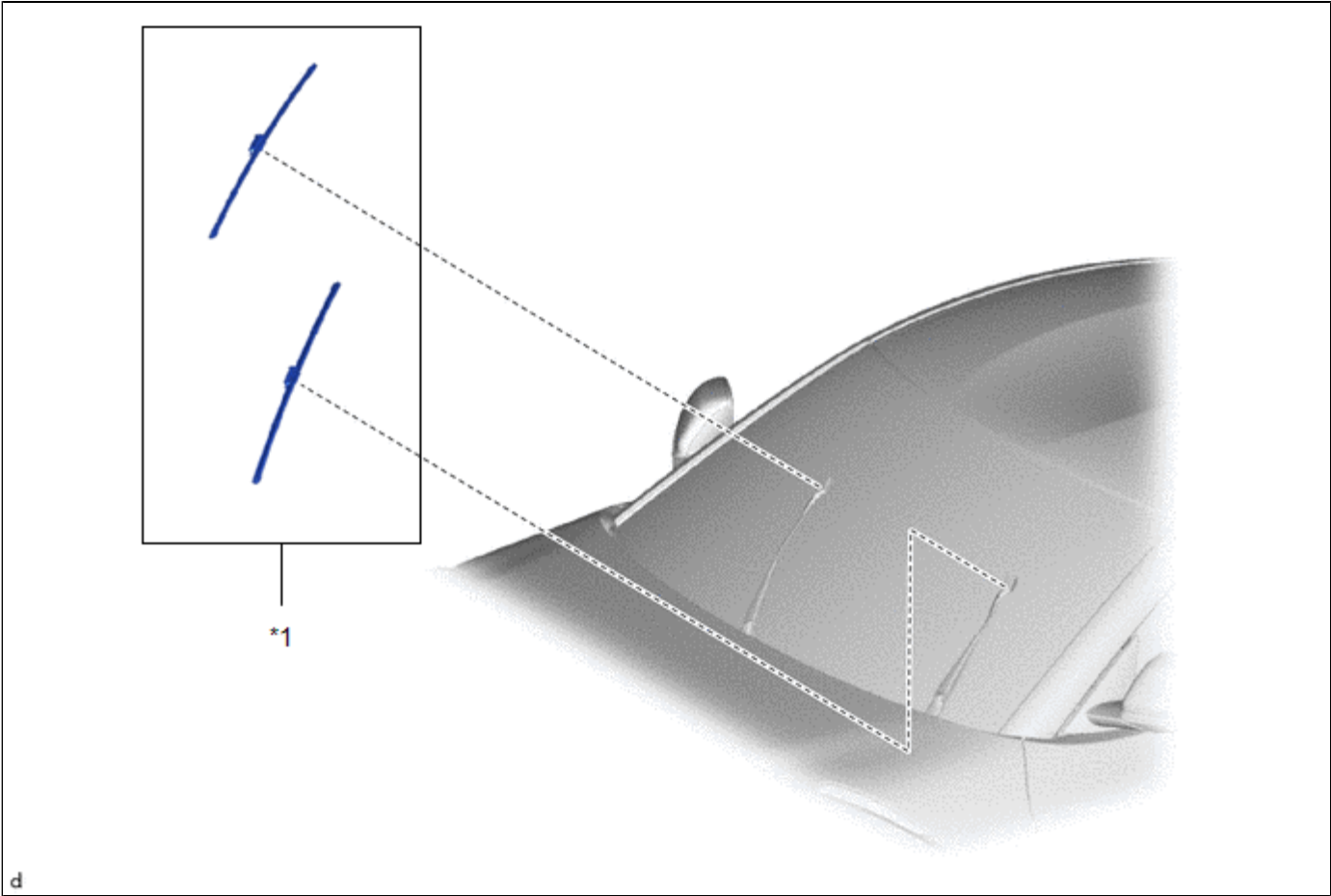
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8U
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT WIPER RUBBER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT WIPER BLADE	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8V
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT WIPER RUBBER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- The wiper arm must not touch the windshield glass without a wiper blade. Otherwise the windshield glass could be damaged.
- In the event of a customer complaint about the cleaning or wiper performance and/or noise (windscreen wiper judder, squeaking noise) of the wiper blades, proceed as follows.
 - First, check if the customer complaint is caused by contamination (preservation wax with new vehicles, tree resins or other environmental influences) on the windshield glass. If necessary, clean the windshield glass thoroughly.
 - Replace the wiper blades only if cleaning the windshield glass fails to remedy the situation.

HINT:

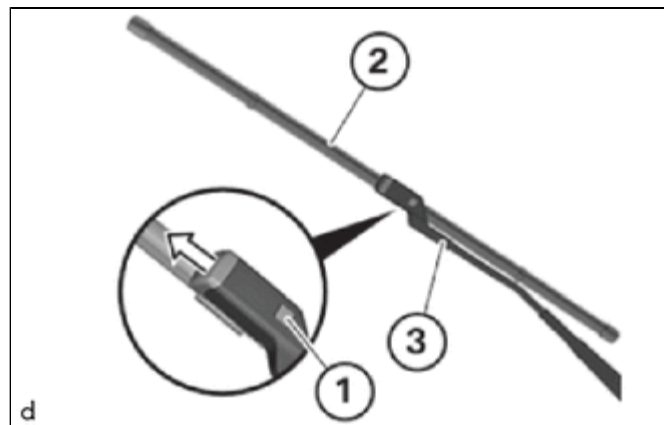
Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. REMOVE FRONT WIPER BLADE

- Open the front door.
- Hold the wiper lever down until the wipers stand still in a roughly vertical position.

- Fold out the front wiper arm (3) and open the lock (1).



- Remove the front wiper blade (2) from the front wiper arm (3) in the direction of the arrow.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: FRONT WIPER RUBBER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

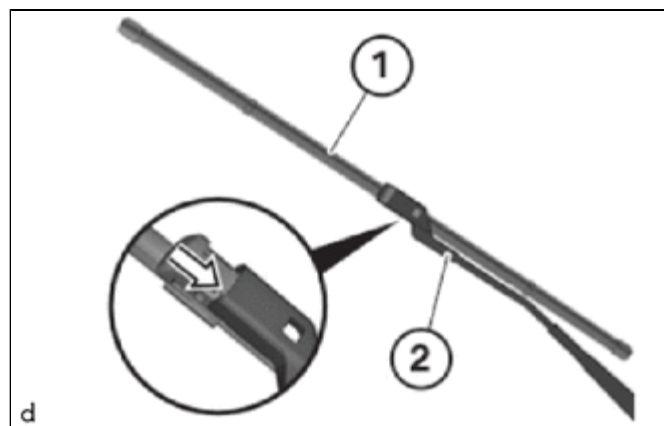
HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. INSTALL FRONT WIPER BLADE

- (a) Clip in the front wiper blade (1) in the direction of the arrow on the front wiper arm (2).



- (b) Fold in the front wiper arm (2) and check the lock.
(c) Press the START-STOP button (engine switch) or hold the wiper lever down again.
(d) Wipers move back to wiper park position and are again operational.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JFJ7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: GENERAL MAINTENANCE: OUTSIDE VEHICLE; 2020 MY Supra [03/2019 -]		

OUTSIDE VEHICLE

Performing the following maintenance checks on the vehicle is the owner's responsibility. The owner may perform the maintenance or take the vehicle to a service center. Check the parts of the vehicle described below on a daily basis. In most cases, special tools are not required. It is recommended that the owner perform these checks. The procedures for general maintenance are as follows.

GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Following the maintenance schedule is mandatory.
- Determine the appropriate time to service the vehicle using either distance driven or time (months) elapsed, whichever reaches the specification first.
- Maintain similar intervals between periodic maintenance, unless otherwise noted.
- Failing to check each vehicle part could lead to poor engine performance and increased exhaust emissions.

TIRES

- (a) Inspect the tires for proper inflation pressure.

Click here [INFO](#)

- (b) Check the surfaces of the tires for cuts, damage or excessive wear.

WHEEL BOLTS

- (a) Check for bolts that are loose or missing. Tighten the bolts if necessary.

TIRE ROTATION

HINT:

Tire rotation cannot be performed on this vehicle.

WINDSHIELD WIPER BLADES

- (a) Check the blades for wear or cracks when they are unable to wipe the windshield clean. Replace them if necessary.

FLUID LEAKS

- (a) Check under the vehicle for leaking fuel, oil, water or other fluids.

NOTICE:

If you smell gasoline fumes or notice any leaks, locate the cause and correct it.

DOORS AND ENGINE HOOD

- (a) Check that all of the doors operate smoothly, and that all the latches lock securely.
- (b) When the engine hood primary latch is released, check that the engine hood secondary latch prevents the hood from opening.
- (c) Confirm the expiration date on the hood support.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JFJ8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: GENERAL MAINTENANCE: INSIDE VEHICLE; 2020 MY Supra [03/2019 -]		

INSIDE VEHICLE

Performing the following maintenance checks on the vehicle is the owner's responsibility. The owner may perform the maintenance or take the vehicle to a service center. Check the parts of the vehicle described below on a daily basis. In most cases, special tools are not required. It is recommended that the owner perform these checks. The procedures for general maintenance are as follows.

GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Determine the appropriate time to service the vehicle using either distance driven or time (months) elapsed, whichever reaches the specification first.
- Maintain similar intervals between periodic maintenance unless noted.
- Failing to check each vehicle part could lead to poor engine performance and increased exhaust emissions.

LIGHTS

- Check that the headlights, stop lights, taillights, turn signal lights and other lights illuminate or blink properly. Also, check that they have enough brightness.
- Check that the headlights are aimed properly.

WARNING LIGHTS AND BUZZERS

- Check that all the warning lights and buzzers are working.

HORNS

- Check that the horn is working.

WINDSHIELD GLASS

- Check for scratches, pits or abrasions.

WINDSHIELD WIPER AND WASHER

- Check that the washers are aimed properly. Also, check that the washer fluid hits the windshield in the center of the operating range of each wiper.
- Check if the wipers streak or not. Replace the wipers if necessary.

WINDSHIELD DEFROSTER

- When the heater or air conditioner is on the defroster setting, check that air comes out of the defroster outlet.

REAR VIEW MIRROR

- Check that the rear view mirror is securely mounted.

SUN VISORS

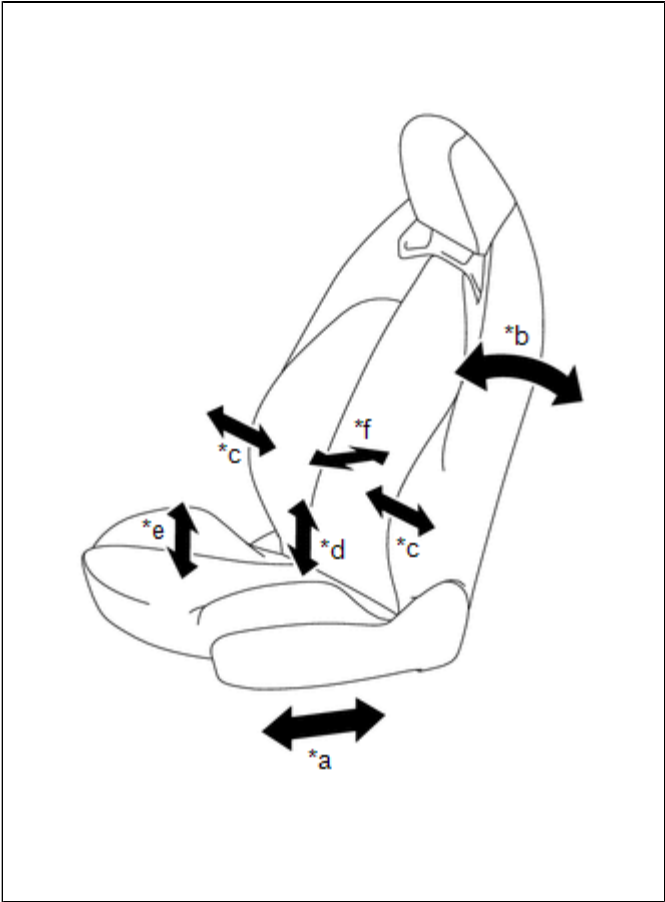
- Check that the sun visors move freely and are securely mounted.

STEERING WHEEL

- Check that the steering wheel free play. Also check for steering difficulty and unusual noises.

SEATS

- (a) Check that the seat adjusters, seatback recliner and other seat controls operate smoothly.
- (b) Check that all the latches lock securely in all positions.
- (c) Check that the locks hold securely in all positions.
- (d) Check that the headrests move up and down smoothly and that the locks hold securely in all latched positions.
- (e) for Power Seat:
 - (1) Operate the power seat switches and check that the following seat functions operate properly:



*a	Slide Function
*b	Reclining Function
*c	Back Side Adjustment Function
*d	Rear Lifter Function
*e	Front Vertical Function
*f	Lumbar Support Adjustment Function

- Slide function
- Reclining function
- Back side adjustment function
- Rear lifter function
- Front vertical function
- Lumbar support adjustment function

SEAT BELTS

- (a) Check that the seat belt components, such as the buckles, retractors and anchors, operate properly and smoothly.
- (b) Check that the belt webbing is not cut, frayed, worn or damaged.

ACCELERATOR PEDAL

- (a) Check that the pedal operates smoothly. In other words, check that the pedal does not have uneven pedal resistance or become stuck in certain positions.

BRAKE PEDAL

- (a) Check that the pedal operates smoothly.
- (b) Check that the pedal has the proper reserve distance and free play.
- (c) Start the engine and check the brake booster function.
- (d) Start the engine and check the brake system indicator.

BRAKES

- (a) In a safe place, check that the vehicle remains straight when applying the brakes.

PARKING BRAKE

- (a) On a slight grade, check that the parking brake alone can hold the vehicle in place.

AUTOMATIC TRANSMISSION "PARK" MECHANISM

- (a) Check the operation of the P position switch.
- (b) Check that park (P) can be disengaged by operating the shift lever.
- (c) With park (P) selected, release all brakes in an area that has a slight grade and check that the vehicle is stable.

FLOOR MATS

- (a) Check that the correct floor mats are used, and that they are properly installed.



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Title: MAINTENANCE: GENERAL MAINTENANCE: UNDER HOOD; 2020 MY Supra [03/2019 -]		

UNDER HOOD

GENERAL NOTES

- Maintenance requirements vary depending on the country.
- Check the maintenance schedule in the owner's manual supplement.
- Following the maintenance schedule is mandatory.
- Determine the appropriate time to service the vehicle using either distance driven or time elapsed, whichever reaches the specification first.
- Maintain similar intervals between periodic maintenance unless noted.
- Failing to check each vehicle part could lead to poor engine performance and increased exhaust emissions.

WINDSHIELD WASHER FLUID

- (a) Check that there is sufficient fluid in the tank.

ENGINE COOLANT LEVEL (for Low Temperature)

- (a) Check that the coolant level is between the "max" and "min" lines in the reserve tank.

ENGINE COOLANT LEVEL (for High Temperature)

- (a) Check that the coolant level is between the "max" and "min" lines in the reserve tank.

RADIATOR AND HOSES

- (a) Check that the front of the radiator is clean and free of leaves, dirt and bugs.
- (b) Check the hoses for cracks, kinks, rotting or loose connections.

BRAKE FLUID LEVEL

- (a) Check that the brake fluid level is near the upper level line on the see-through reservoir.

ENGINE DRIVE BELT

- (a) Check the drive belt for fraying, cracks, wear or oiliness.

EXHAUST SYSTEM

- (a) Visually inspect for severe corrosion, cracks, holes or loose supports.

HINT:

If any change in the sound of the exhaust or smell of the exhaust fumes is noticed, inspect and repair the exhaust system.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: GENERAL MAINTENANCE: ENGINE; 2020 MY Supra [03/2019 -]		

ENGINE

HINT:

Perform these procedures after the engine has cooled down.

INSPECT DRIVE BELT

- (a) Inspect the drive belt.

Click here [INFO](#)

INSPECT ENGINE OIL

- (a) Inspect the engine oil.

Click here [INFO](#)

REPLACE ENGINE OIL AND OIL FILTER

- (a) Replace the engine oil and oil filter.

Click here [INFO](#)

INSPECT ENGINE COOLANT

- (a) Inspect the engine coolant.

Click here [INFO](#)

REPLACE ENGINE COOLANT (for Low Temperature)

- (a) Replace the engine coolant.

Click here [INFO](#)

REPLACE ENGINE COOLANT (for High Temperature)

- (a) Replace the engine coolant.

Click here [INFO](#)

REPLACE SPARK PLUGS

- (a) Replace the spark plugs.

Click here [INFO](#)

REPLACE BATTERY

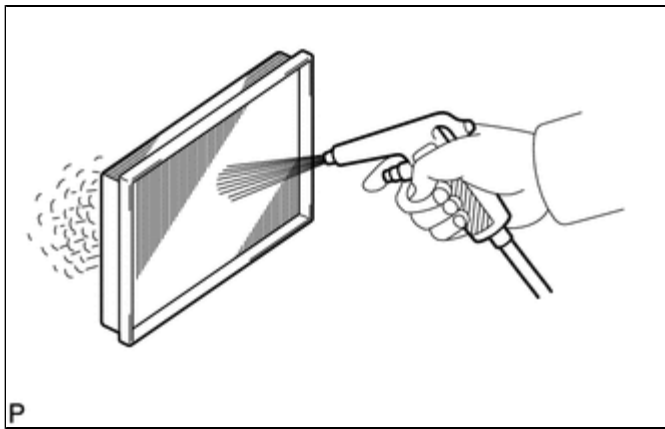
- (a) Replace the battery.

Click here [INFO](#)

INSPECT AIR CLEANER FILTER ELEMENT

- (a) Remove the air cleaner filter element.
- (b) Check that the air cleaner filter element is not excessively dirty.

If the air cleaner filter element is excessively dirty, replace the air cleaner filter element.



(c) If cleaning the air cleaner filter element, blow compressed air as shown in the illustration to clean it.

(d) Reinstall the air cleaner filter element.

INSPECT EXHAUST PIPES AND MOUNTINGS

(a) Visually check the pipes, hangers and connections for severe corrosion, leaks or damage.

INSPECT FUEL TANK CAP GASKET

(a) Visually check that the fuel tank cap gasket is not deformed or damaged.

INSPECT FUEL LINES, CONNECTIONS, FUEL TANK VAPOR VENT SYSTEM HOSES, AND FUEL TANK BANDS

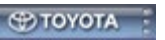
(a) Visually check the fuel lines and hoses for cracks, leaks, loose connections, or deformation.

(b) Check for tank band looseness or deformation.

REPLACE CHARCOAL CANISTER

(a) Replace the charcoal canister.

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: GENERAL MAINTENANCE: BRAKE; 2020 MY Supra [03/2019 -]		

BRAKE

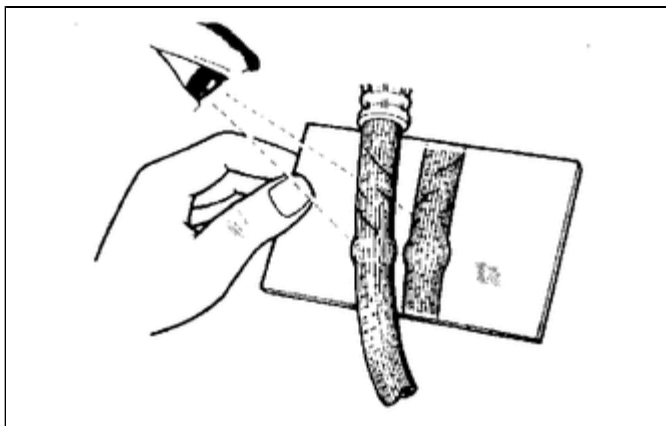
INSPECT BRAKE LINE PIPES AND HOSES

HINT:

Work in a well-lighted area. Turn the front wheels fully to the right or left before beginning the inspection.

(a) Using a mirror, check the entire circumference and length of the brake lines and hoses for:

- Damage
- Wear
- Deformation
- Cracks
- Kinks
- Corrosion
- Leaks
- Twists



(b) Check all the clamps for tightness and check the connections for leakage.

(c) Check that the hoses and lines are not near sharp edges, moving parts or the exhaust system.

(d) Check that the lines are installed properly and pass through the center of the grommets.

INSPECT BRAKE PEDAL

(a) Check that the pedal has the proper reserve distance and free play.

INSPECT PARKING BRAKE

(a) Inspect the parking brake.

Click here [INFO](#)

INSPECT FRONT BRAKE

(a) Inspect the front brake pads and discs.

Click here [INFO](#)

INSPECT REAR BRAKE

(a) Inspect the rear brake pads and discs.

Click here [INFO](#)

INSPECT BRAKE FLUID

(a) Inspect the brake fluid.

Click here [INFO](#)

REPLACE BRAKE FLUID

(a) Replace the brake fluid.

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: GENERAL MAINTENANCE: CHASSIS; 2020 MY Supra [03/2019 -]		

CHASSIS

INSPECT STEERING LINKAGE AND GEAR BOX

- (a) Check the steering wheel free play.
- (b) Check the steering linkage for looseness or damage.
 - (1) Check that the tie rod ends do not have any play.
 - (2) Check that the dust seals and boots are not damaged.
 - (3) Check that the boot clamps are not loose.
 - (4) Check that the steering gear housing is not damaged.

INSPECT SUSPENSION BALL JOINT AND DUST COVER

- (a) Check the ball joints for excessive looseness.
- (b) Check the dust cover for damage.

INSPECT AXLE HUB BEARING

- (a) Check the axle hub bearings for excessive looseness.

INSPECT DRIVE SHAFT BOOTS

- (a) Check the drive shaft boots for loose clamps, cracks, grease leaks, kinks or damage.

INSPECT AUTOMATIC TRANSMISSION

- (a) Visually check the transmission for fluid leaks. If fluid is leaking, find the cause and repair it.

INSPECT AUTOMATIC TRANSMISSION FLUID COOLER HOSE AND CONNECTIONS

- (a) Check the automatic transmission fluid cooler hoses (oil cooler hoses) for cracks, leakage, loose connections and deformation.

REPLACE AUTOMATIC TRANSMISSION FLUID

- (a) Replace the automatic transmission fluid.

Click here [INFO](#)

INSPECT DIFFERENTIAL

- (a) Visually check the differentia for fluid leaks. If fluid is leaking, find the cause and repair it.

REPLACE DIFFERENTIAL OIL

- (a) Replace the differential oil.

Click here [INFO](#)

INSPECT FRONT AND REAR SUSPENSION

- (a) Inspect the front and rear suspension.

for Front Suspension: Click here [INFO](#)

for Rear Suspension: Click here [INFO](#)

TIGHTEN PROPELLER SHAFT BOLT

(a) Tighten the propeller shaft bolts.

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: GENERAL MAINTENANCE: BODY; 2020 MY Supra [03/2019 -]		

BODY

TIGHTEN BOLTS AND NUTS ON CHASSIS AND BODY

(a) If necessary, tighten the bolts and nuts on the chassis parts listed below.

- Front axle and suspension
- Drivetrain
- Rear axle and suspension
- Brake system
- Engine mounts
- Other chassis parts

(b) If necessary, tighten the bolts and nuts on the body parts listed below.

- Seat belt system
- Seats
- Doors and hood
- Body mounts
- Fuel tank
- Exhaust system
- Other body parts

CLEAN OR REPLACE AIR CONDITIONING FILTER

(a) Remove the air conditioning filter.

Click here [INFO](#)

(b) Visually inspect the surface of the air conditioning filter.

(c) If the air conditioning filter is contaminated with foreign matter, clean or replace it according to the maintenance schedule.

NOTICE:

Some filters are not able to be cleaned.

ROAD TEST

- (a) Check the engine and chassis for abnormal noises.
- (b) Check that the vehicle does not wander or pull to one side.
- (c) Check that the brakes work properly and do not drag.
- (d) Bed-in the parking brake pads.

BODY INSPECTION

- (a) Check the body exterior for dents, scratches and rust.
- (b) Check the underbody for rust and damage.

If necessary, replace any damaged parts or repair any damaged areas.

FINAL INSPECTION

- (a) Check the operation of the body parts.

- (1) Hood

- Auxiliary catch operates properly.
- Hood locks securely when closed.

(2) Front doors

- Door locks operate properly.
- Doors close properly.

(3) Back door

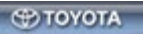
- Door lock operates properly.

(4) Seats

- Seats adjust easily and lock securely in any position.
- Front seatbacks lock securely in any position.

(5) Be sure to deliver a clean car. Make sure to check the following:

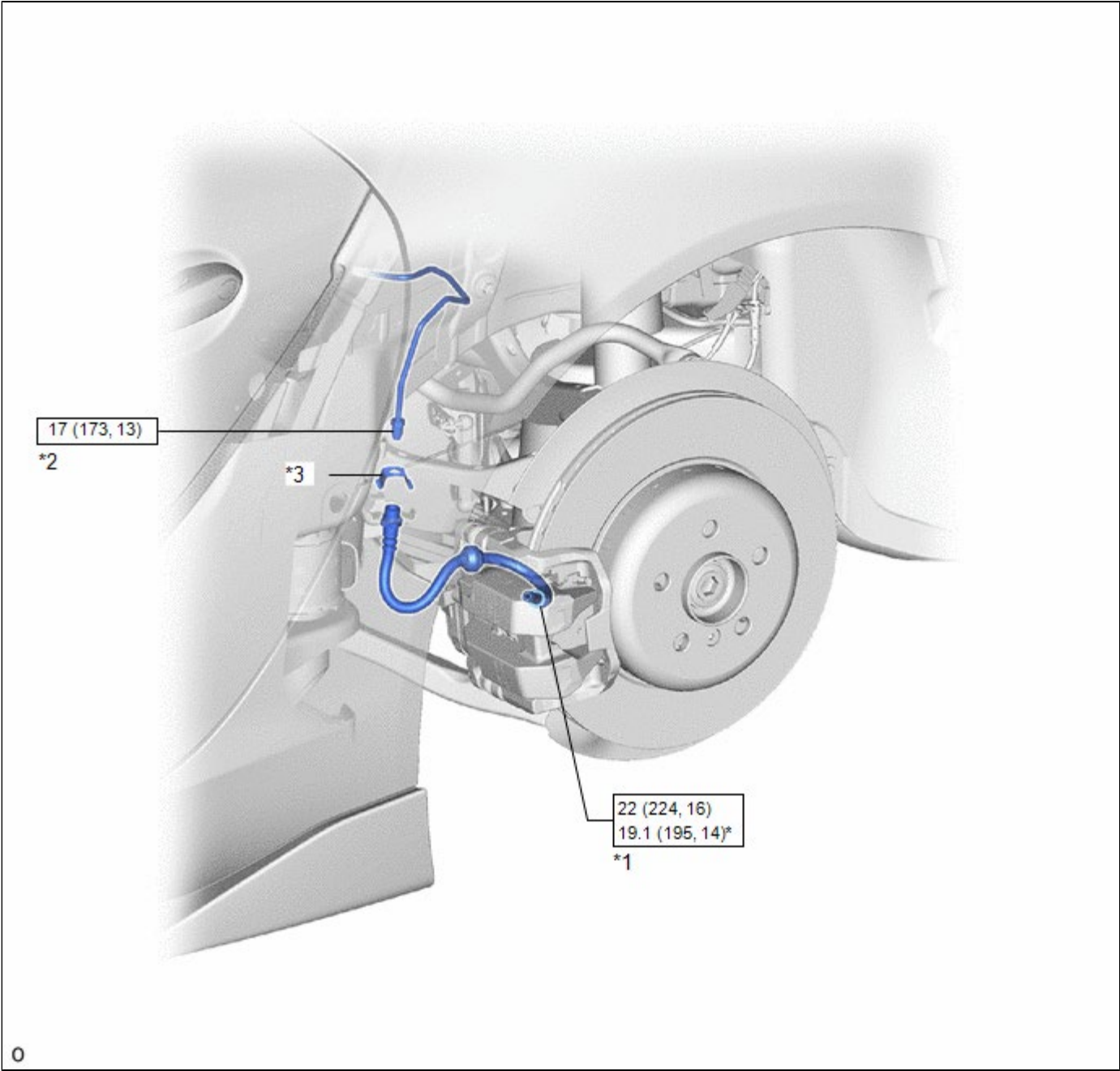
- Steering wheel
- Shift lever knob
- All switches and knobs
- Door handles
- Seats




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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: REAR BRAKE FLEXIBLE HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR FLEXIBLE HOSE	*2	BRAKE TUBE
*3	CLIP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: REAR BRAKE FLEXIBLE HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

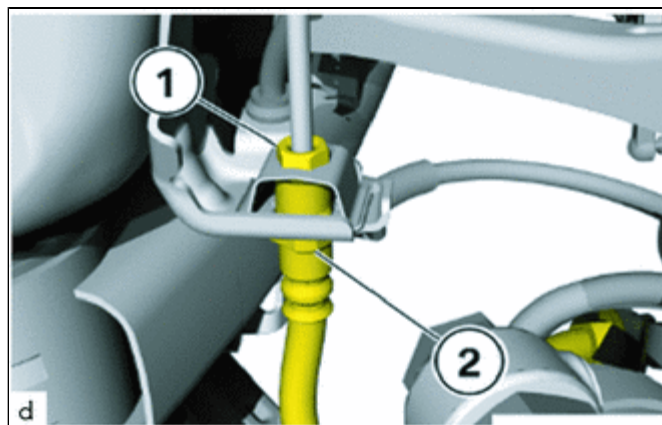
2. INSTALL BRAKE PEDAL PRESSURE

Click here [INFO](#)

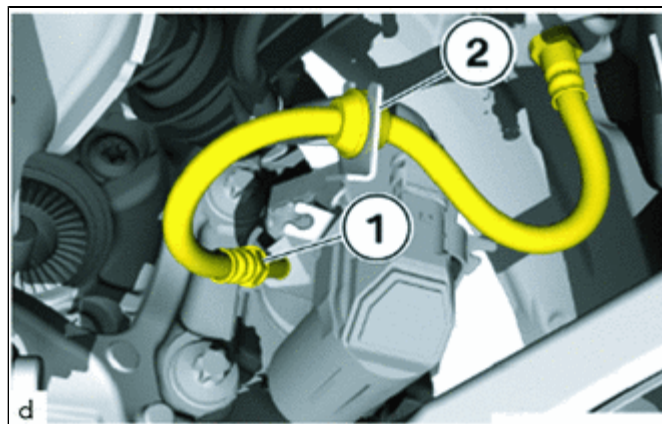
3. REMOVE REAR FLEXIBLE HOSE

- (a) Release 11 mm union nut (1), if necessary counter on the square shaft (2).

SST: 09700-WA070



- (b) Detach rear flexible hose (1) from rear disc brake cylinder assembly.



(c) Remove the rear flexible hose (1) from the bracket (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: REAR BRAKE FLEXIBLE HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

- HINT:
- Use the same procedure for the RH side and LH side.
 - The following procedure is for the LH side.

PROCEDURE

1. INSTALL REAR BRAKE HOSE

(a) Using a 14 mm union nut wrench, tighten the rear flexible hose (1) on the rear disc brake cylinder assembly.

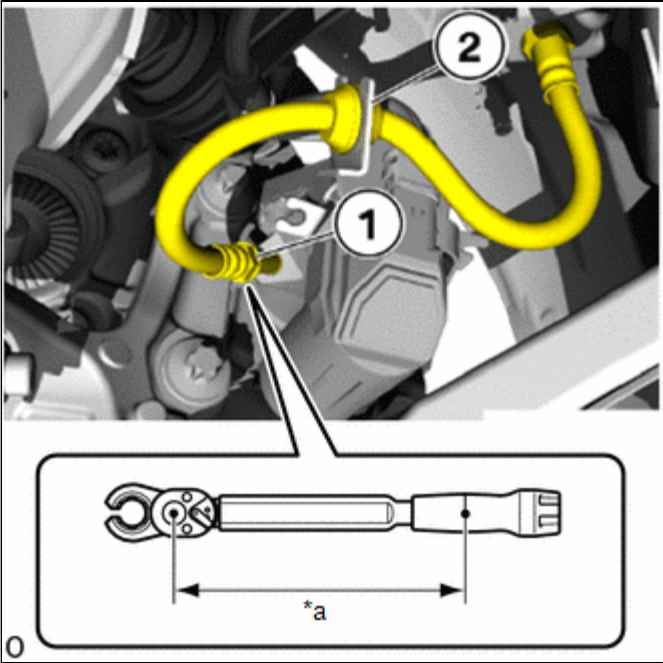
Torque:

Specified tightening torque :

22 N·m {224 kgf·cm, 16 ft·lbf}

- HINT:
- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.
- Click here

INFO
- When using a special tool (fulcrum length of 25.0 mm (0.984 in.)) + torque wrench (fulcrum length of 162 mm (6.38 in.)): 19.1 N*m (195 kgf*cm, 14 ft.*lbf)



*a	Torque Wrench Fulcrum Length
----	------------------------------

(b) Insert the rear flexible hose into the holder (2).

NOTICE:

Make sure that the rear flexible hose does not rest against the components fixed to the body and that it is not twisted.

(c) Position and tighten the 11 mm union nut (1). If necessary, use the square end (2) for counter support.

SST: 09700-WA070

Torque:

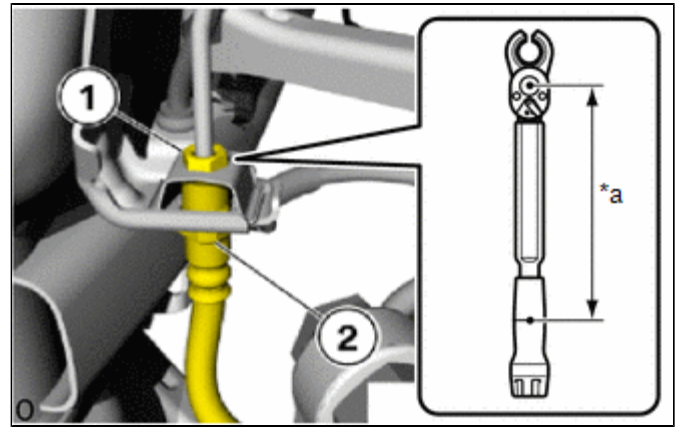
Specified tightening torque :

17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)



*a

Torque Wrench Fulcrum Length

2. REMOVE BRAKE PEDAL PRESSURE

Click here [INFO](#)

3. BLEED BRAKE LINE

Click here [INFO](#)

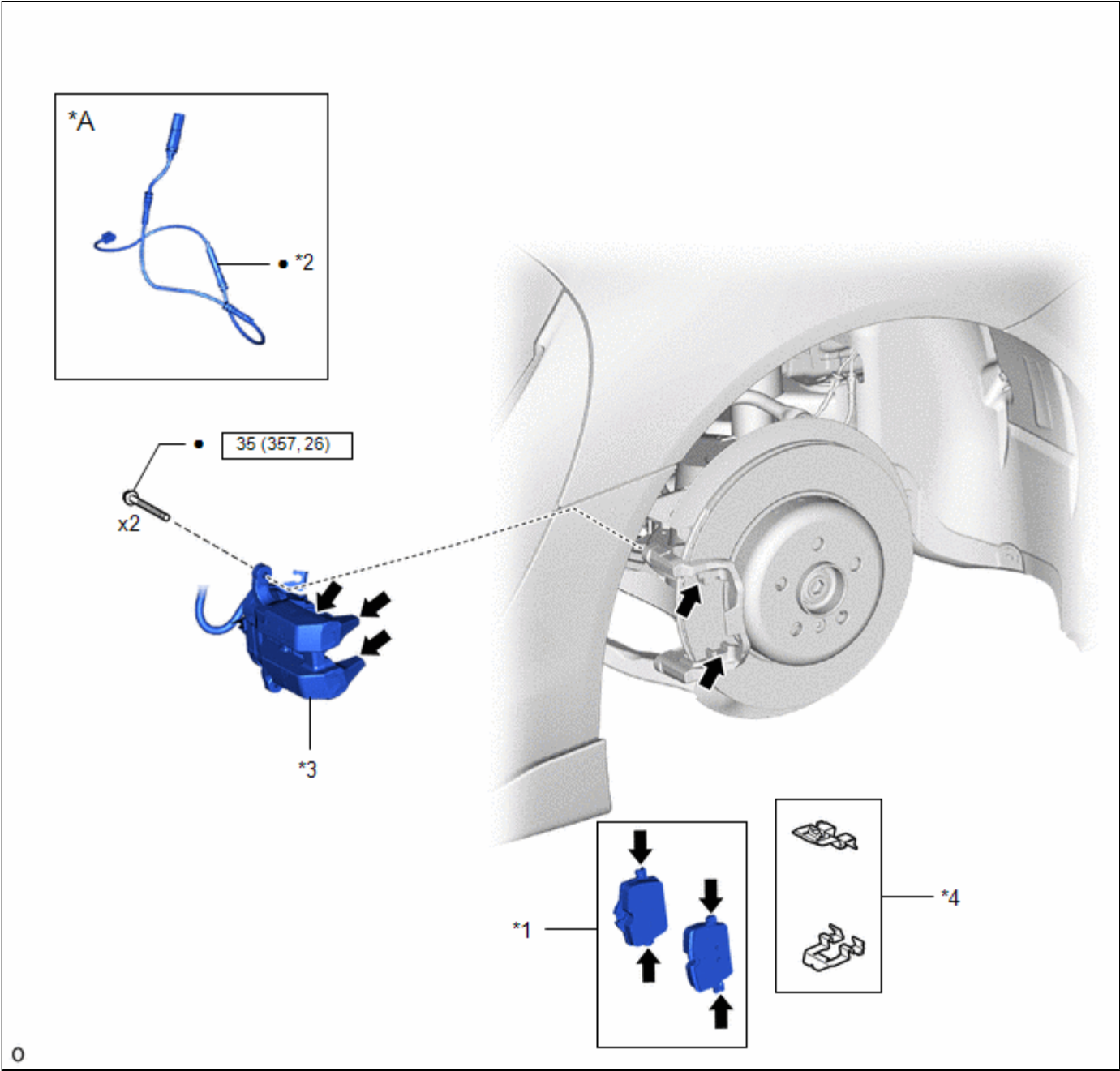
4. INSTALL REAR WHEEL

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: REAR DISC BRAKE PAD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for RH Side	-	-
*1	REAR DISC BRAKE PAD	*2	PAD WEAR INDICATOR WIRE RH
*3	REAR DISC BRAKE CYLINDER ASSEMBLY	*4	REAR DISC BRAKE PAD SUPPORT PLATE
N*m (kgf*cm, ft.*lbf): Specified			

	torque	•	Non-reusable part
	Brake Pad Paste	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: REAR DISC BRAKE PAD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here 

- Effects on other persons.

Danger of injury! Risk of damage!

- Make sure that no other persons are in or around the vehicle.
- After a rear disc brake pad exchange and before applying the brake pedal:
 - Apply the electromechanical parking brake.
 - In case of non-compliance, a CC message appears and the brake system switches to the emergency program. The brake power assistance is no longer active.

NOTICE:

- General information on changing the brake pads:
 - For vehicles older than 48 months it is recommended to replace the retaining spring or expanding spring.
 - The pad wear indicator wire RH must be replaced once it has been removed because the pad wear indicator wire RH loses its retention capability in the brake pad.
- A CBS reset must be done after every brake pad exchange:
 - A CBS reset in the vehicle is possible in the event of a partially ground down pad wear indicator wire RH. The CBS display in the multi-display is active.
 - In the event of a pad wear indicator wire RH that is not partially ground down, a CBS reset is only possible with the diagnosis system. No CBS display in the multi-display.

Click here 

- During work on the rear brake, it must be ensured that the button for the electromechanical parking brake cannot be pressed.
- To prevent damage to the surface coating:
 - With floating calipers on the brake caliper mounting bracket or with fixed calipers in the brake caliper housing, do not clean the contact surfaces for the brake pads to the extent that it is possible.
 - Clean the contact surfaces. Next, apply a thin coat of brake pad paste.
 - Spread brake pad paste on the marked surfaces with a brush.
- When exchanging brake pads, reset the CBS display in accordance with factory specification (CBS reset).
- Carry out test braking while driving at low speed because the effectiveness of the brakes may be reduced during the initial braking operations.
- Exaggerated emergency and continuous braking operations for faster bedding-in are not permitted.
- Advise the customer not to perform intentional emergency braking operations for the first 200 km (124 mile) after the brakes have been replaced.

HINT:

- The following procedure is for the LH side.
- Use the same procedure for the RH side and LH side.

PROCEDURE

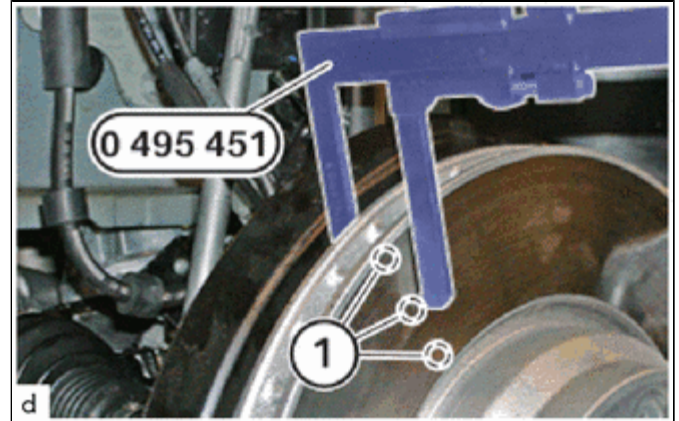
1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. MEASURE MINIMUM BRAKE DISC THICKNESS (REAR BRAKE)

- (a) Place the special tool 0 495 451 (34 1 280) at three measuring points in area (1) and measure.

SST: 09700-WA090



- (b) Compare the measuring results and compare the lowest value with the setpoint value.

HINT:

New rear disc brake pads must only be installed if the rear disc thickness is greater than the minimum rear disc thickness.

Minimum brake disc thickness:

Nominal dimension 330x20

18.4 mm (0.724 in.)

Nominal dimension 345x24

22.4 mm (0.882 in.)

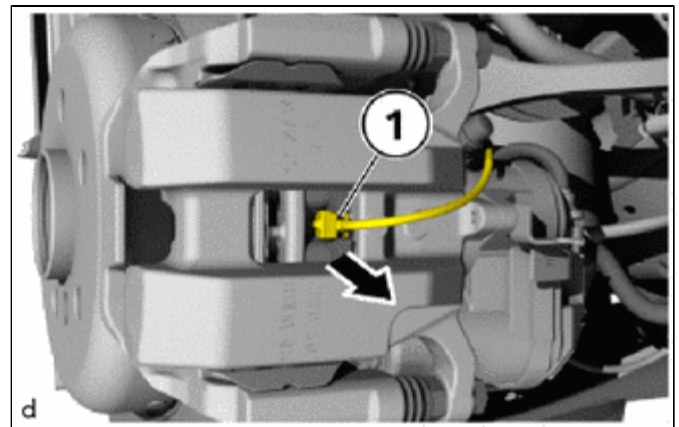
3. REMOVE PAD WEAR INDICATOR WIRE RH (for RH Side)

HINT:

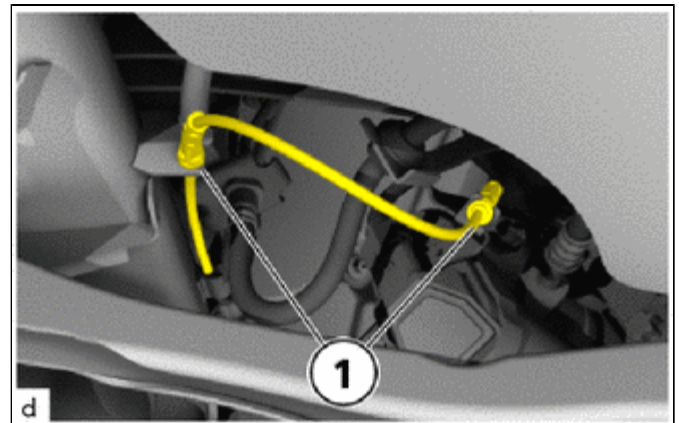
- The pad wear indicator wire RH must be replaced once it has been removed because the pad wear indicator wire RH loses its retention capability in the rear disc brake pad.
- If a pad wear indicator wire RH that has already been ground has to be replaced even though the minimum rear disc brake pad thickness has not yet been reached, you must observe the following:
 - The new sliding contact must be filed down with a file to the same length as the sanded sliding contact.

- (a) Remove the pad wear indicator wire RH (1) from the rear

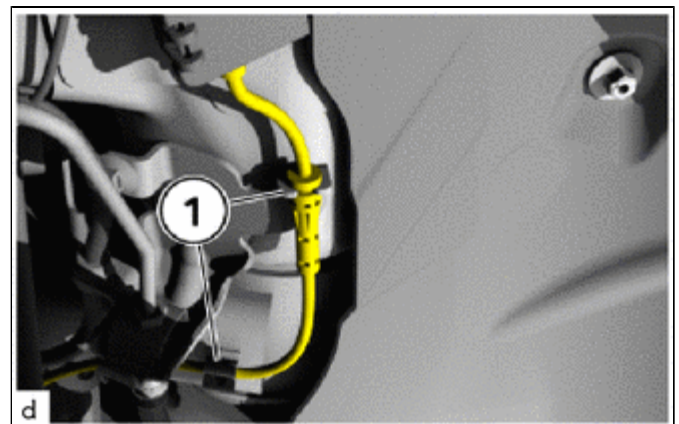
disc brake pad in the direction of the arrow.



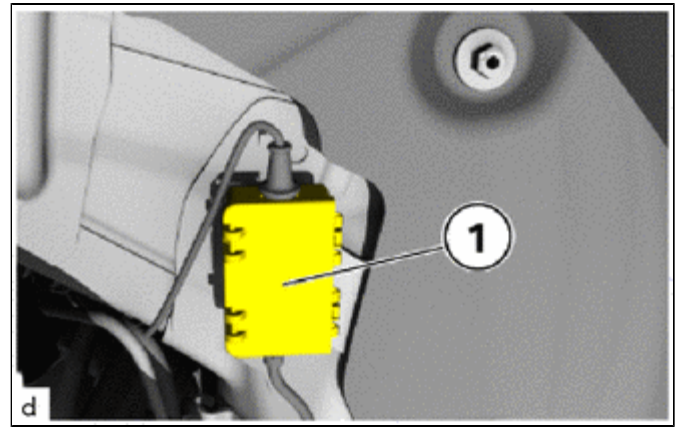
(b) Detach the cable of the pad wear indicator wire RH from the brackets (1).



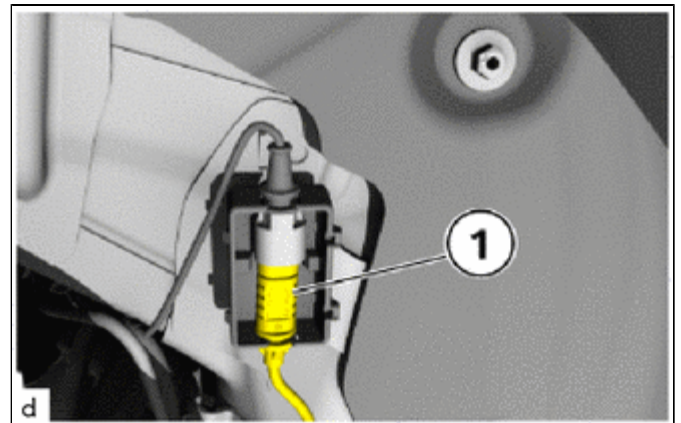
(c) Detach the cable of the pad wear indicator wire RH from the brackets (1).



(d) Open the connection box (1).



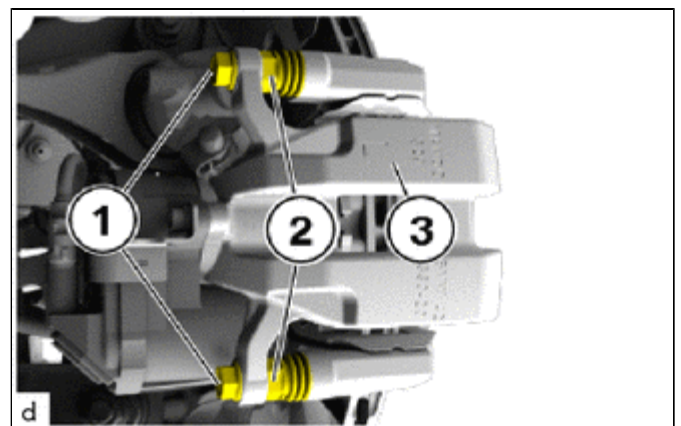
(e) Unlock plug connection (1) and disconnect.



(f) Remove pad wear indicator wire RH.

4. REMOVE REAR DISC BRAKE PAD

(a) Release the 15 mm bolts (1), if necessary use the hexagon head (2) for counter support.

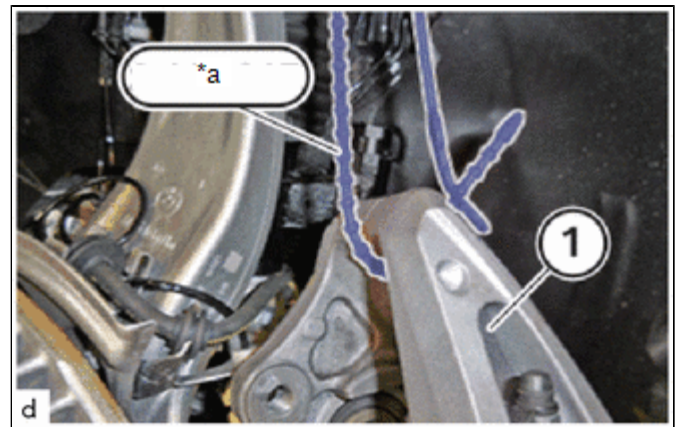


(b) Remove rear disc brake cylinder assembly (3).

(c) Tie up the rear disc brake cylinder assembly (1) with the rope.

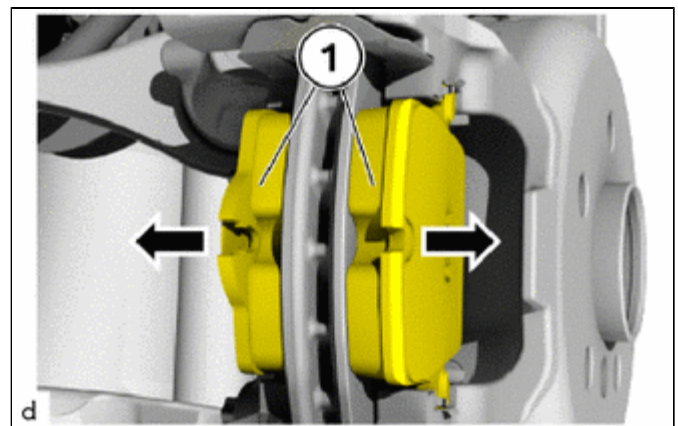
NOTICE:

Do not hang the rear disc brake cylinder assembly from the rear flexible hose.



*a	Rope
----	------

(d) Remove the rear disc brake pad (1) in the direction of the arrows.

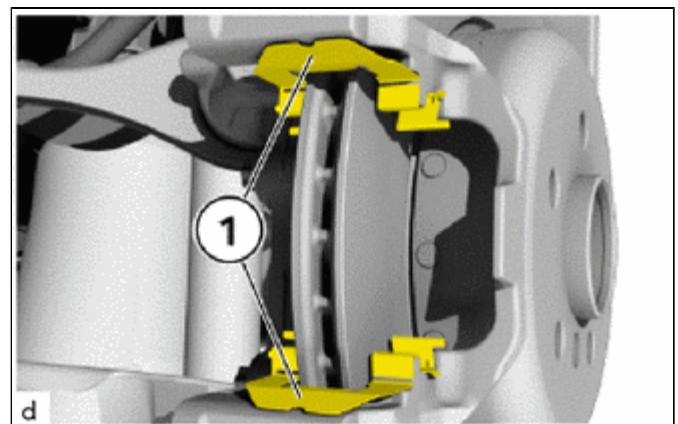


(e) Mark any worn brake pads.

HINT:

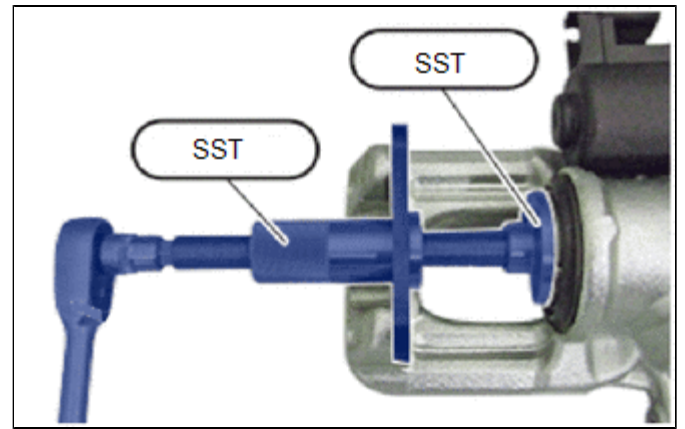
If the rear disc brake pad wear exists on one side, they must not be mixed up.

(f) Remove the rear disc brake pad support plates (1).



(g) Press back the brake piston using the SST.

SST: 09719-12010



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8N
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: REAR DISC BRAKE PAD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

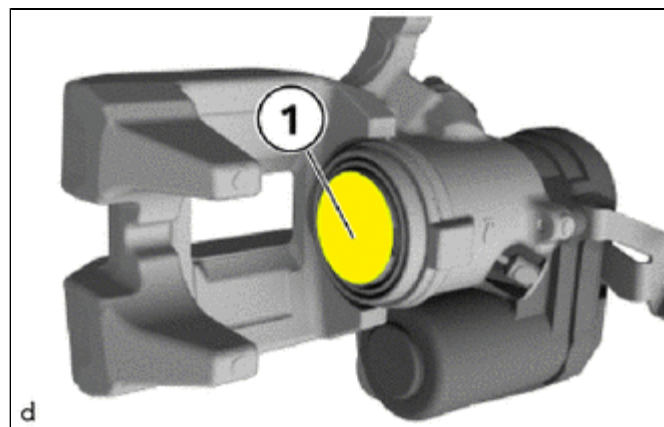
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

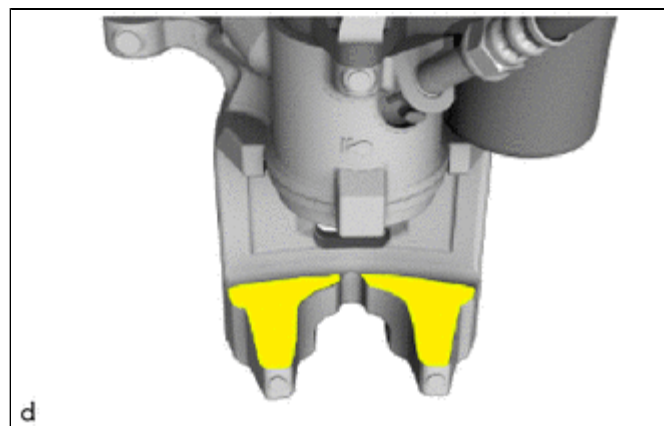
1. INSTALL REAR DISC BRAKE PAD

- (a) Clean contact surface (1) of the brake piston with brake cleaner and apply a thin coat of brake pad paste.



- (b) Check cylinder boot for damage, replace if necessary.

- (c) Clean contact surface of the rear disc brake cylinder assembly with brake cleaner and apply a thin coat of brake pad paste.

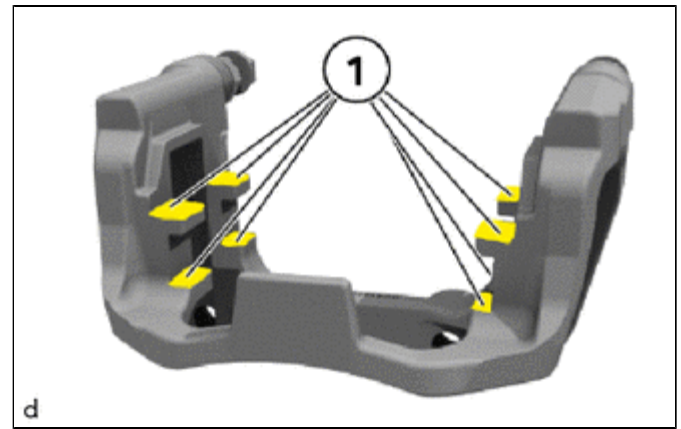


- (d) Clean the contact surfaces of the rear disc brake pad

support plates (1) with brake cleaner and apply a thin coating of brake pad paste.

NOTICE:

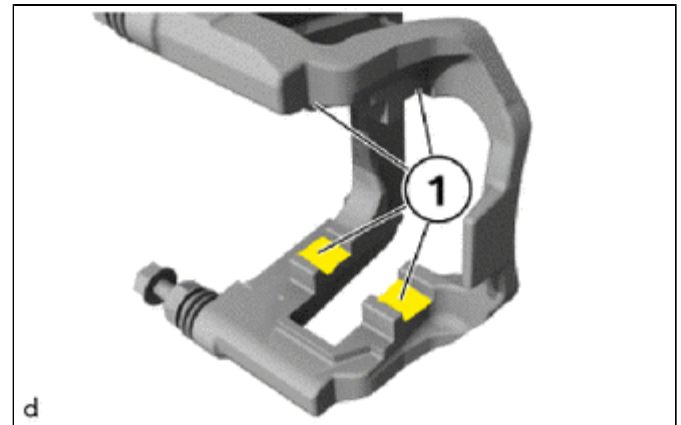
The contact surfaces of the rear disc brake pad support plates (1) for the rear disc brake pads on the rear disc brake cylinder mounting must not be cleaned mechanically to avoid damage to the surface coating.



(e) Clean the contact surfaces of the rear disc brake pad support plates (1) with brake cleaner and apply a thin coating of brake pad paste.

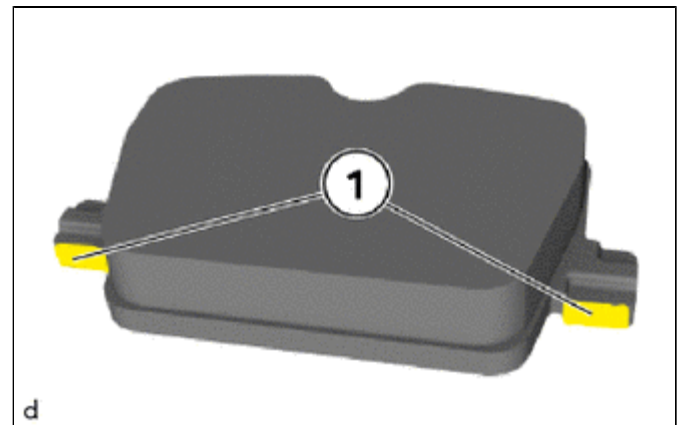
NOTICE:

The contact surfaces of the rear disc brake pad support plates (1) for the rear disc brake pads on the rear disc brake cylinder mounting must not be cleaned mechanically to avoid damage to the surface coating.



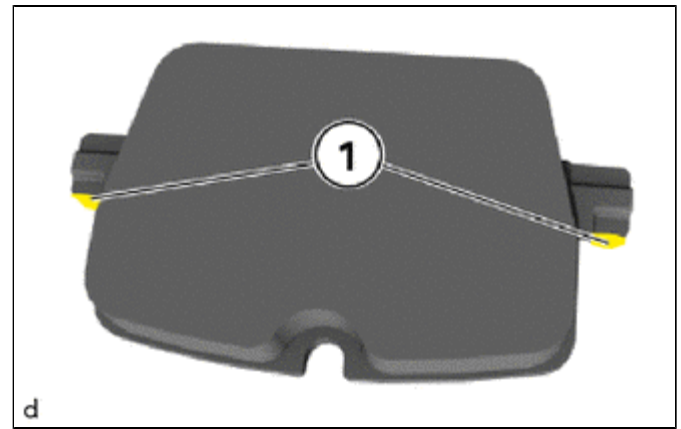
(f) Install the rear disc brake pad support plates.

(g) Coat the T-head of outer rear disc brake pad in the marked area (1) in each case with a thin coating of brake pad paste.

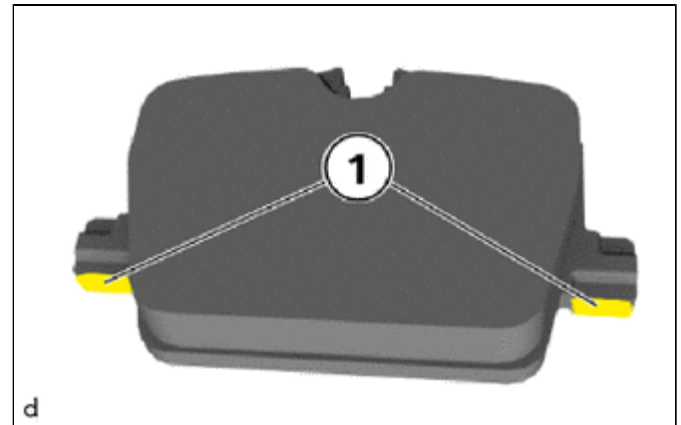


(h) Coat the T-head of outer rear disc brake pad in the marked

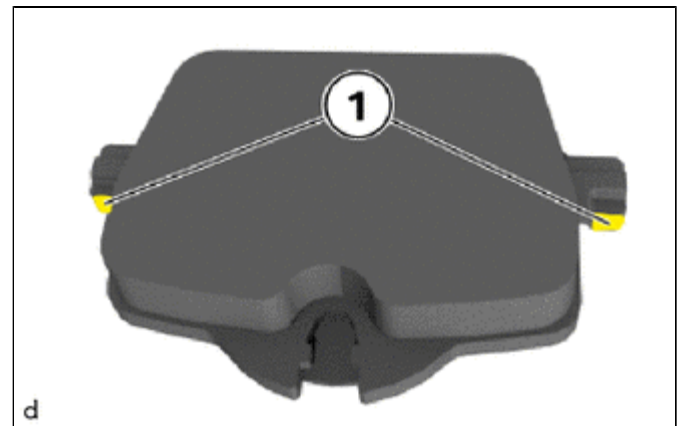
area (1) in each case with a thin coating of brake pad paste.



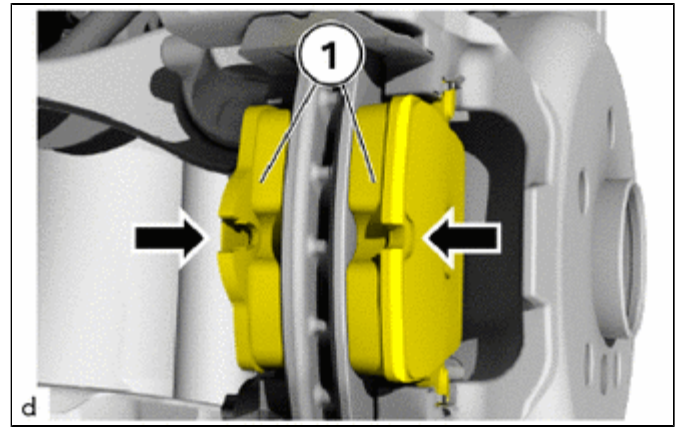
- (i) Coat the T-head of outer rear disc brake pad in the marked area (1) in each case with a thin coating of brake pad paste.



- (j) Coat the T-head of outer rear disc brake pad in the marked area (1) in each case with a thin coating of brake pad paste.



- (k) Install the rear disc brake pads (1) in the direction of the arrows.



(l) Detach the rear disc brake cylinder assembly from the rope and position on the rear disc brake cylinder assembly.

(m) Replace 15 mm bolts.

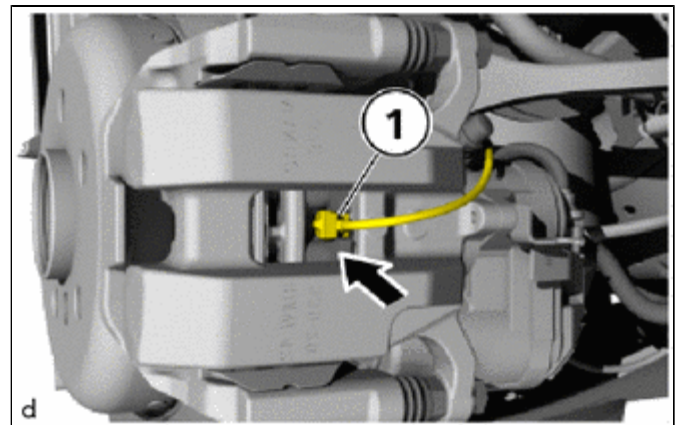
(n) Tighten the 15 mm bolts, if applicable, hold against the hexagon head.

Torque:

35 N·m {357 kgf·cm, 26 ft·lbf}

2. INSTALL PAD WEAR INDICATOR WIRE RH (for RH Side)

(a) Replace the pad wear indicator wire RH (1).

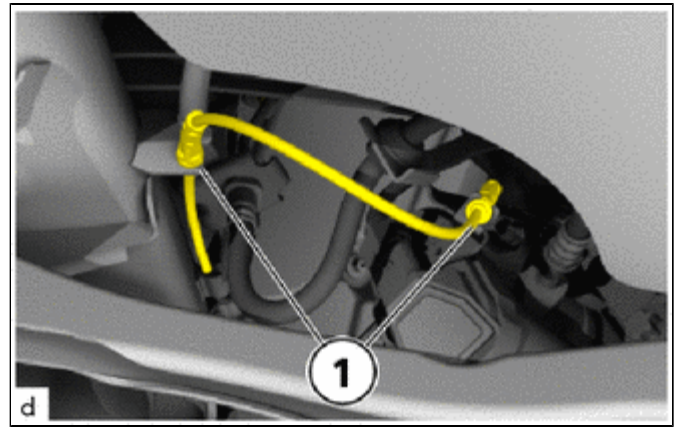


(b) Insert the pad wear indicator wire RH (1) into the rear disc brake pad in the direction of the arrow.

HINT:

Ensure pad wear indicator wire RH (1) fits correctly in rear disc brake pad.

(c) Attach cable of pad wear indicator wire RH in brackets (1).



(d) Attach cable of pad wear indicator wire RH in brackets (1).

(e) Connect connectors and lock.

(f) Close the connection box.

3. INSTALL REAR WHEEL

Click here [INFO](#)

4. START-UP OR BEDDING-IN OF NEW BRAKE PADS AND DISCS

NOTICE:

- When exchanging brake pads, reset the CBS display in accordance with factory specification (CBS reset).
- Carry out test braking while driving at low speed because the effectiveness of the brakes may be reduced during the initial braking operations.
- Exaggerated emergency and continuous braking operations for faster bedding-in are not permitted.
- Advise the customer not to perform intentional emergency braking operations for the first 200 km (124 mile) after the brakes have been replaced.

(a) Fully depress brake pedal several times so that brake pads contact brake discs.

(b) Use the parking brake button to open, close and open the parking brake again.

(c) Adjust the brake fluid level to the maximum mark.

(d) Perform a functional check on the brake test stand to ensure compliance of the brake system with statutory guidelines.

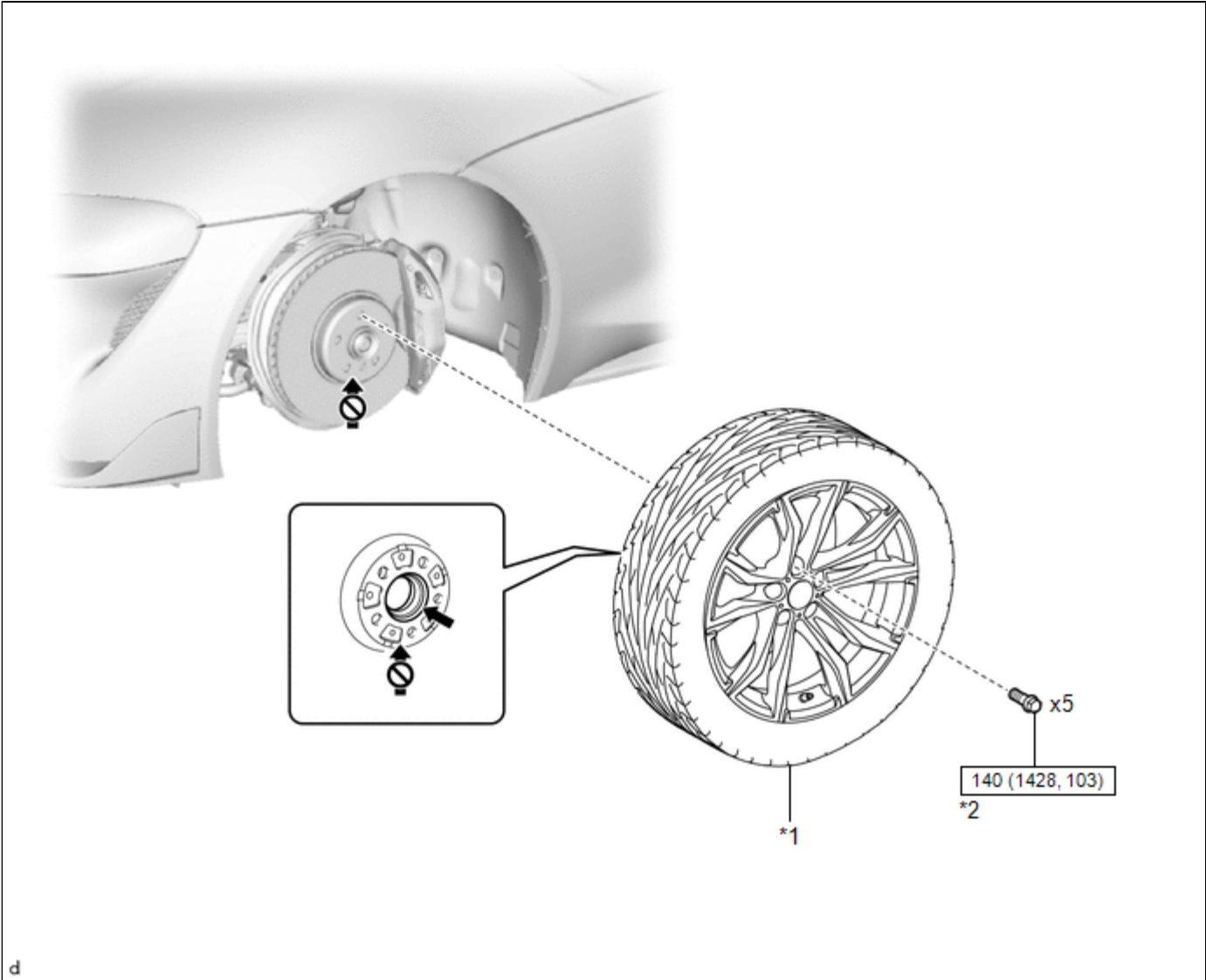
5. PERFORM CBS RESET

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: TIRE AND WHEEL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	WHEEL ASSEMBLY	*2	AXLE HUB BOLT
	N*m (kgf*cm, ft.*lbf): Specified torque		Brake Pad Paste
	Do not apply lubricants	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: TIRE AND WHEEL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.

Click here [INFO](#)

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

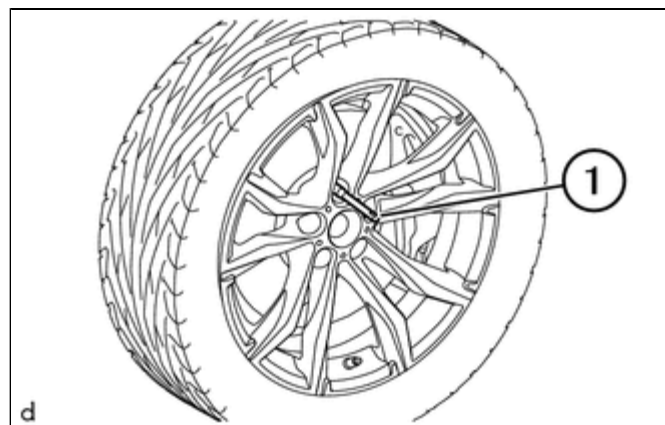
- Loosen the axle hub bolts approximately 90°.
- Lift up the vehicle.

- Remove the axle hub bolt and then install SST (1) to the hole where the axle hub bolt was removed as shown in the illustration.

SST: 09650-14010

NOTICE:

- Place the mounting position of SST at the top.
- Be sure to screw in the thread of SST completely.



- Remove the 4 remaining axle hub bolts and then use SST as a guide to remove the wheel assembly.

HINT:

Because this vehicle does not have wheel studs, SST is used as a guide to assist with removal and installation of the wheel assembly.

- Remove SST.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: TIRE AND WHEEL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WHEEL ASSEMBLY

- (a) Clean the contact surfaces between the brake disc and the wheel rim.

NOTICE:

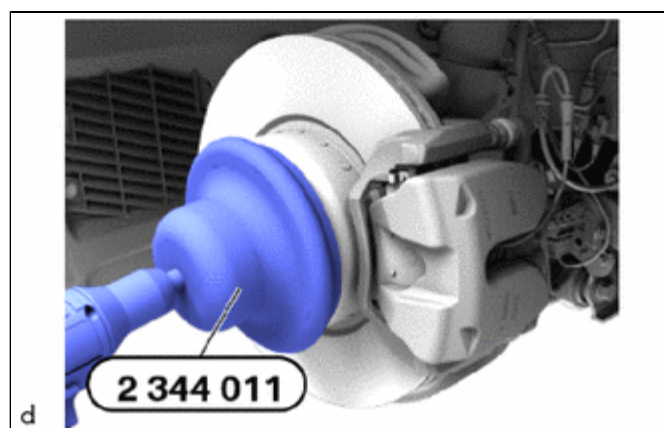
The contact surface between the brake disc and the wheel rim must be clean and free from oil and grease. There is otherwise a risk of the wheel becoming loose at a later time.

- (1) Remove dirt, grease residues and corrosion from the contact surface with a drill and the special tool 2 344 011.

SST: 09600-WA010

NOTICE:

Do not operate special tool 2 344 011 with an impact wrench.



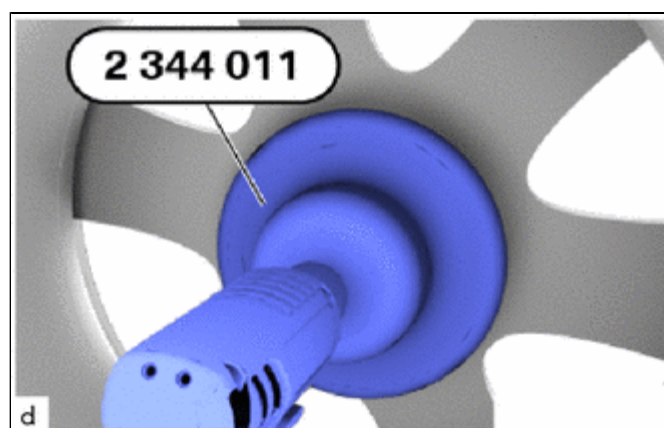
- (2) In the event of grease residue in the area of the axle hub bolt holes, remove and clean the brake disc.

- (3) Remove dirt, grease residues and corrosion from the contact surface with a drill and the special tool 2 344 011.

SST: 09600-WA010

NOTICE:

Do not operate special tool 2 344 011 with an impact wrench.



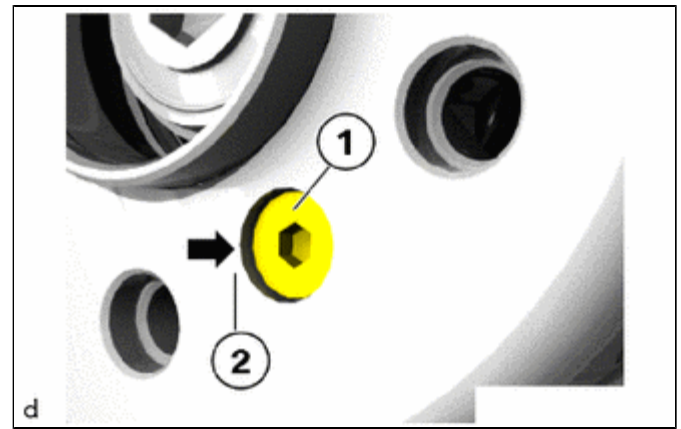
- (4) Check that the mounting bolt (1) for the brake disc is securely seated.

Torque:

16 N·m {163 kgf·cm, 12 ft·lbf}

NOTICE:

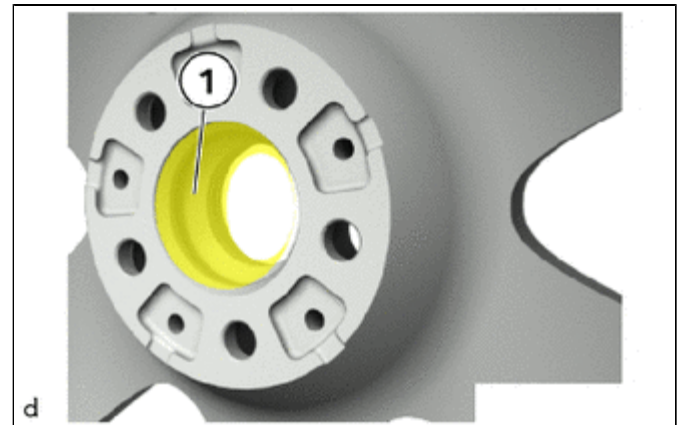
The mounting bolt (1) for the brake disc must not under any circumstances protrude onto the contact surface (2) between the brake disc and the wheel rim.



(5) Thinly grease the wheel centering (1) in the wheel rim.

Grease:

Brake Pad Paste



(b) Clean the axle hub bolts.

HINT:

Check the axle hub bolts and threads for damage, replace the axle hub bolts if necessary.

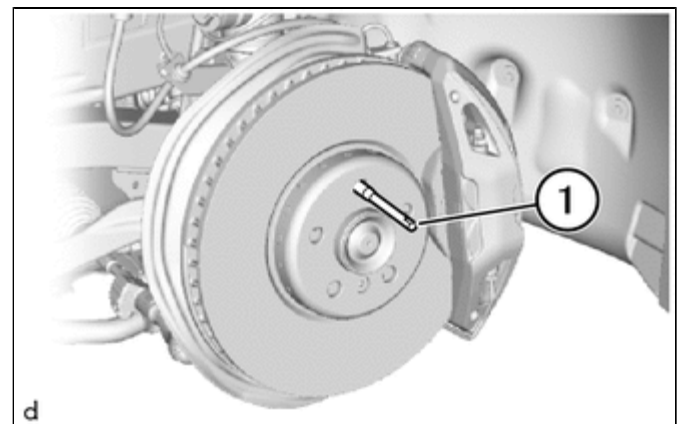
(c) Tighten the axle hub bolts as follows:

(1) Install SST (1) at the position as shown in the illustration.

SST: 09650-14010

NOTICE:

- Place the mounting position of SST at the top.
- Be sure to screw in the thread of SST completely.



(2) Use SST as a guide to install the wheel assembly and then temporarily install the 4 axle hub bolts by hand.

NOTICE:

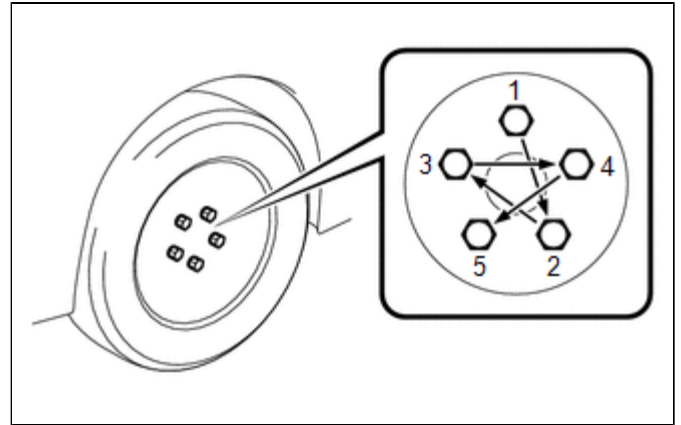
- Never use impact wrench or electric screwdrivers to screw in and tighten the axle hub bolts.
- The wheel rim must rest uniformly against the brake disc.
- Do not apply oil to the axle hub bolts.

HINT:

Because this vehicle does not have wheel studs, SST is used as a guide to assist with removal and installation of the wheel assembly.

(3) Remove SST and then temporarily install the axle hub bolt by hand.

(4) Temporarily tighten the axle hub bolts in the order shown in the illustration.



(5) Lower the vehicle then fully tighten the axle hub bolts in the order shown in the illustration.

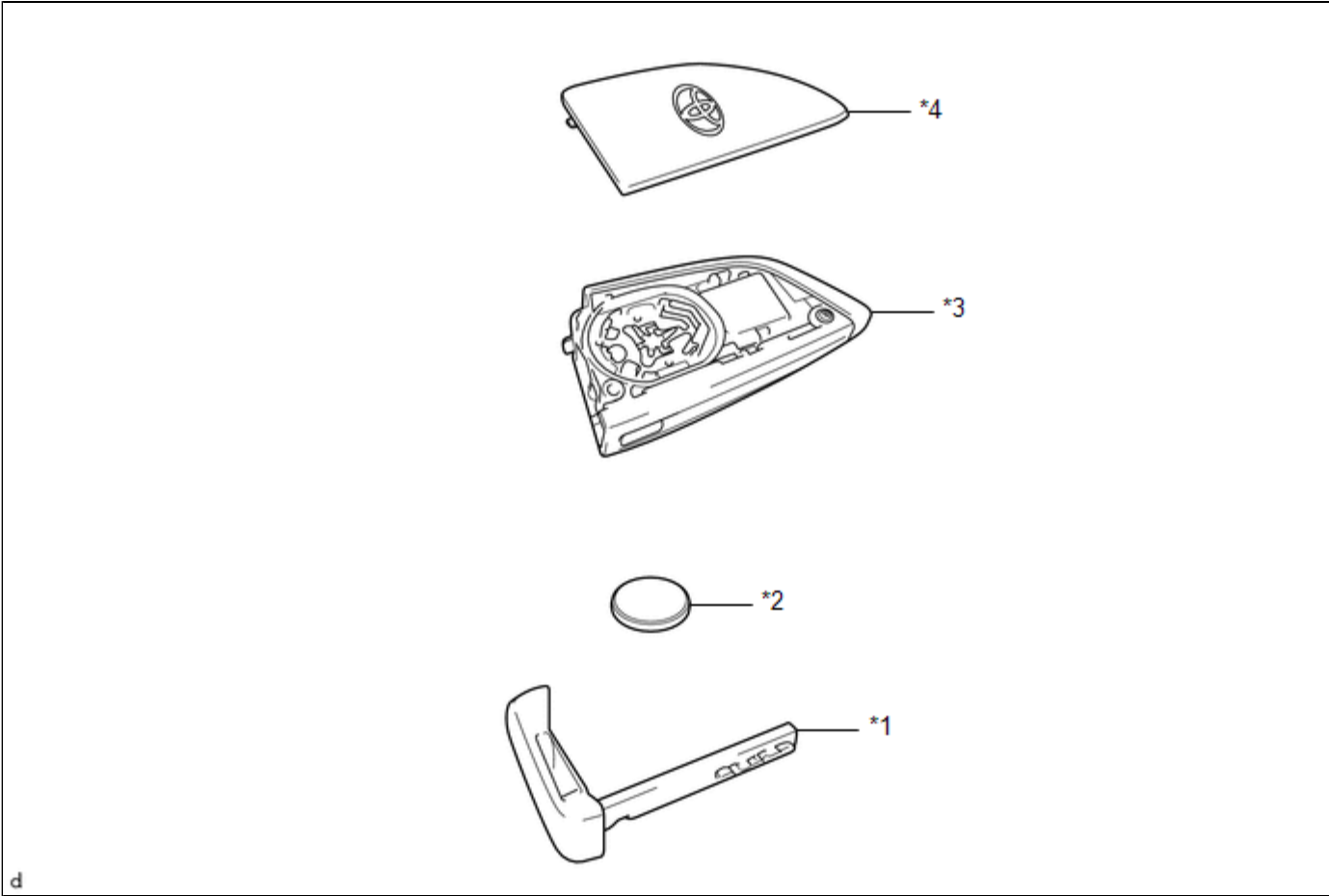
Torque:

140 N·m {1428 kgf·cm, 103 ft·lbf}

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC9A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: TRANSMITTER BATTERY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CUT KEY	*2	TRANSMITTER BATTERY
*3	TRANSMITTER HOUSING CASE	*4	TRANSMITTER HOUSING COVER

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC9B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: TRANSMITTER BATTERY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

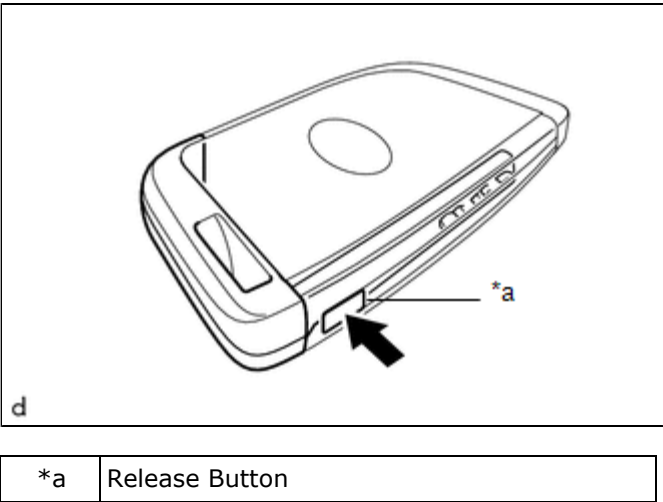
CAUTION / NOTICE / HINT

NOTICE:
Take extra care when handling these precision electronic components.

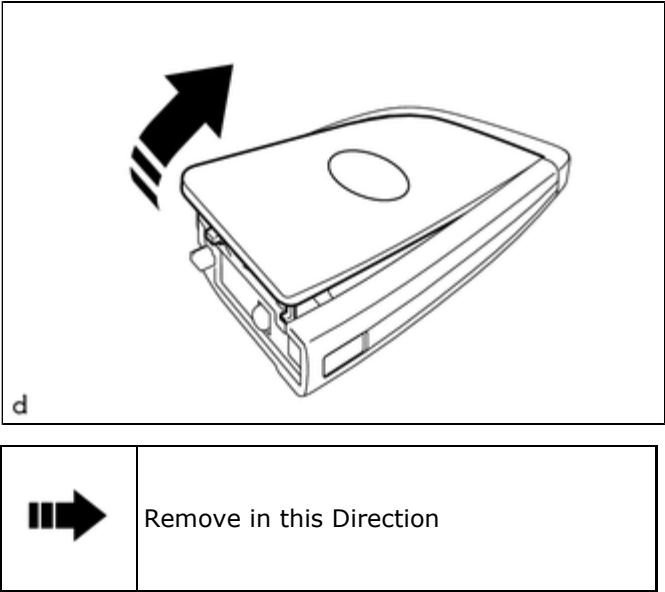
PROCEDURE

1. REMOVE TRANSMITTER BATTERY

(a) Press the release button to remove the cut key.



(b) Remove the transmitter housing cover as shown in the illustration.

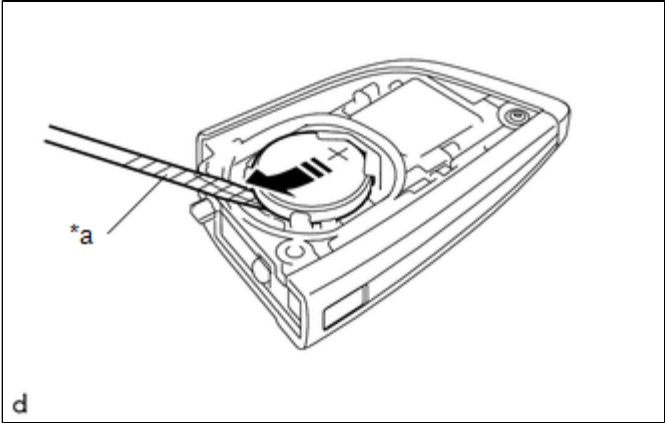



NOTICE:
Do not use excessive force when prying apart the transmitter housing cover.

(c) Using a screwdriver with its tip wrapped in protective tape, remove the transmitter battery as shown in the illustration.

NOTICE:

- Do not push the terminals with your finger.
- Do not forcibly pry up the transmitter battery as the terminals may be damaged.
- Do not touch the transmitter battery with wet hands. Moisture may cause rust.
- Do not touch or move any components inside the transmitter housing case. It may interfere with proper operation.
- When replacing the transmitter battery, before starting work, remove static electricity that has built up in the body by touching, for example, the vehicle to prevent the electrical key transmitter sub-assembly from being damaged.



*a	Protective Tape
	Remove in this Direction

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC9C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MAINTENANCE: TRANSMITTER BATTERY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

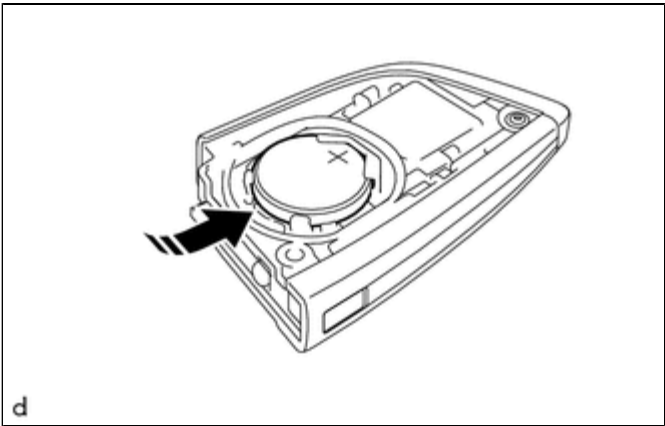
NOTICE:
Take extra care when handling these precision electronic components.


PROCEDURE

1. INSTALL TRANSMITTER BATTERY

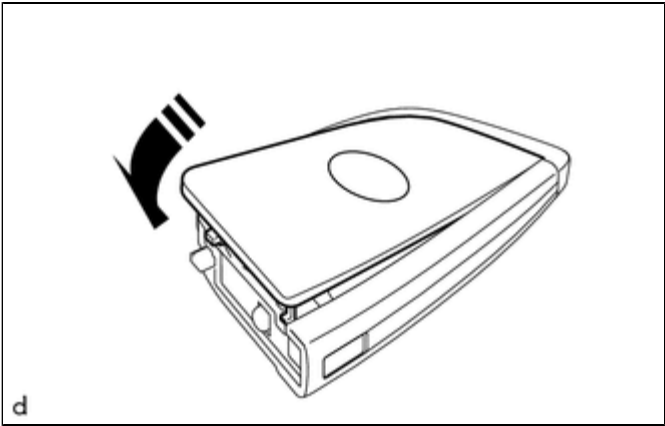
(a) Install a new transmitter battery with the positive (+) side facing upward, as shown in the illustration.

- NOTICE:**
- Do not bend the transmitter battery electrode during installation.
 - Keep the inside of the transmitter housing cover free of dust and oil.
 - When replacing the transmitter battery, before starting work, remove static electricity that has built up in the body by touching, for example, the vehicle to prevent the electrical key transmitter sub-assembly from being damaged.



	Install in this Direction
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(b) Install the transmitter housing cover by pressing down on it as shown in the illustration.



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Install in this Direction

(c) Insert the cut key into the transmitter.



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JGLP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: 8HP51 AUTOMATIC TRANSMISSION / TRANSAXLE: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Automatic Transmission Fluid

Standard Capacity	9.1 liters (9.6 US qts, 8.0 Imp. qts)	Automatic Gearbox Oil ATF 3+
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JGLQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: 8HP51 AUTOMATIC TRANSMISSION / TRANSAXLE: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

Automatic Transmission Fluid

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Automatic transmission assembly x Filler plug	35	357	26

Transmission Valve Body

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Mechatronics x Automatic transmission case		8.0	82		71
Output speed sensor x Automatic transmission case	1st	4.0	41		35
	2nd	Turn 12°			
Transmission oil sump x Automatic transmission case		10	102	7	
Automatic transmission assembly x Oil drain plug		8.0	82		71

Transmission Wire

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Transmission Wire x Cylinder head	8.0	82		71

Accumulator Assembly

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Hydraulic impulse storage x Automatic transmission case	8.0	82		71

Oil Cooler Tube

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Oil cooler tube x No. 1 automatic transmission oil cooler tube clamp	5.0	51	44

Oil cooler tube x No. 3 automatic transmission oil cooler tube clamp	5.0	51	44
Oil cooler tube x Transmission oil thermostat	8.0	82	71
Radiator side plate x Vehicle body	8.0	82	71

Transmission Oil Thermostat

PART TIGHTENED	N*M	KG*CM	IN.*LBF
No. 1 floor heat Insulator x Vehicle body	2.6	27	23
Automatic transmission assembly x Transmission oil thermostat	8.0	82	71
Oil cooler tube x Transmission oil thermostat	8.0	82	71

Shift Lever

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Transmission floor shift assembly x Vehicle body	3.3	34	29

Shift Paddle Switch

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Transmission shift switch assembly x Steering wheel	2.0	20	18

Automatic Transmission Rear Oil Seal

PART TIGHTENED	N*M	KG*CM	FT.*LBF
Output flange x Automatic transmission assembly	60	612	44

Torque Converter Radial Shaft Seal

PART TIGHTENED		N*M	KG*CM	FT.*LBF
T50 bolt x Automatic transmission assembly	1st	10	102	7
	2nd	Turn 90°		

Sealing Sleeve

PART TIGHTENED	N*M	KG*CM	IN.*LBF
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Slide x Automatic transmission case	8.0	82	71
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Automatic Transmission Assembly

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
No. 2 manifold stay x Exhaust manifold converter sub-assembly		28	286	21	
Automatic transmission assembly x Engine assembly	E10 bolt	19	194	14	
	E14 bolt	66	673	49	
Drive plate and torque converter assembly setting bolt		56	571	41	
No. 2 earth wire x Vehicle body		19	194	14	
Oil cooler tube x No. 3 automatic transmission oil cooler tube clamp		5.0	51		44
Oil cooler tube x Transmission oil thermostat		8.0	82		71
Flexible coupling x Output flange	1st	55	561	41	
	2nd	Turn 90°			
Center bearing x Vehicle body		21.4	218	16	
Rear engine mounting member x Vehicle body		19	194	14	
Rear engine mounting member x Automatic transmission assembly		19	194	14	
No. 1 floor heat Insulator x Vehicle body		3.0	31		27
No. 2 floor heat Insulator x Vehicle body		3.0	31		27
Rear engine mounting insulator x Automatic transmission assembly		19	194	14	
Rear engine mounting bracket sub-assembly x Automatic transmission assembly		48	489	35	



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JGE7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: ALIGNMENT / HANDLING DIAGNOSIS: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Vehicle Height:

TIRE SIZE	EQUIPMENT	FRONT (A)	REAR (B)
18 inch	w/o AVS	621 mm (2.04 ft.)	619 mm (2.03 ft.)
	w/ AVS	614 mm (2.01 ft.)	612 mm (2.01 ft.)
19 inch	w/o AVS	634 mm (2.08 ft.)	632 mm (2.07 ft.)
	w/ AVS	627 mm (2.06 ft.)	625 mm (2.05 ft.)

Toe-in:

-	SPECIFIED CONDITION
Front	C + D: 0°16' +/- 0°12' (0.27° +/- 0.20°)
	B - A: 3.1 +/- 2.3 mm (0.1220 +/- 0.0906 in.)
Rear	C + D: 0°14' +/- 0°12' (0.23° +/- 0.20°)
	B - A: 2.7 +/- 2.3 mm (0.1063 +/- 0.0906 in.)

Camber:

-	EQUIPMENT	CAMBER INCLINATION	RIGHT-LEFT DIFFERENCE
Front	w/o AVS	-1°38' +/- 0°30' (-1.63° +/- 0.50°)	0°30' (0.50°) or less
	w/ AVS	-1°45' +/- 0°30' (-1.75° +/- 0.50°)	
Rear	w/o AVS	-1°50' +/- 0°25' (-1.83° +/- 0.42°)	0°30' (0.50°) or less
	w/ AVS	-2°00' +/- 0°25' (-2.00° +/- 0.42°)	

Caster:

CASTER INCLINATION	RIGHT-LEFT DIFFERENCE
7°35' +/- 0°30' (7.58° +/- 0.50°)	0°30' (0.50°) or less

Steering Axis Inclination:

STEERING AXIS INCLINATION REFERENCE
17°21' (17.35°)

Wheel Turning Angle:

INSIDE WHEEL	OUTSIDE WHEEL
38°23' (38.38°)	29°09' (29.15°)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JGE8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: ALIGNMENT / HANDLING DIAGNOSIS: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Tie rod end x Tie rod	32	326	24
Rear No. 2 suspension arm x Rear suspension member	175	1785	129
Toe control link x Rear suspension member	108	1101	80

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC6K
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: AUDIO / VIDEO: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

RADIO RECEIVER

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Radio receiver assembly x Instrument panel reinforcement sub-assembly	2.3	23	20

STEREO COMPONENT AMPLIFIER

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Stereo component amplifier assembly x No. 1 amplifier bracket	3.3	34	29
Stereo component amplifier assembly with brackrt x Body	6.0	61	53

LUGGAGE SPEAKER

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Deck trim rear cover x Body	6.0	61		53
Rope hook x Body	19	194	14	
Deck trim side board and deck side trim cover LH x Body	2.0	20		18
Deck trim side board and deck side trim cover RH x Body	2.0	20		18
Luggage compartment trim front cover	3.0	31		27
Rear speaker assembly x Body	4.0	41		35

FRONT DOOR SPEAKER

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Front No. 1 speaker assembly x Front door	1.8	18	16

QUARTER TRIM SPEAKER

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PART TIGHTENED		N*M	KGF*CM	IN.*LBF
for 10 Speakers	Rear No. 2 speaker assembly x Body	1.8	18	16
for 12 Speakers	Rear No. 3 speaker assembly x Body	1.8	18	16
Mid-range speaker in the rear side trim panel x Speaker holder		1.8	18	16

INSTRUMENT PANEL SPEAKER

PART TIGHTENED		N*M	KGF*CM	IN.*LBF
Front No. 3 speaker assembly x Instrument panel		2.3	23	20
Front No. 4 speaker assembly x Instrument panel		2.3	23	20

AMPLIFIER ANTENNA

PART TIGHTENED		N*M	KGF*CM	IN.*LBF
No. 1 amplifier antenna assembly x Tailgate		3.0	31	27

NOISE FILTER

PART TIGHTENED		N*M	KGF*CM	IN.*LBF
Noise filter x Rear window frame		4.0	41	35
Trap circuit x Rear window frame		3.0	31	27

ASC ECU

PART TIGHTENED		N*M	KGF*CM	IN.*LBF
Stereo component equalizer assembly x holder		3.3	34	29



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Title: SPECIFICATIONS: AXLE AND DIFFERENTIAL: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

FRONT AXLE HUB

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Front axle hub sub-assembly x Steering knuckle	1st	120	1224	89
	2nd	Turn 90°		

STEERING KNUCKLE

PART TIGHTENED	N*M	KG*CM	FT.*LBF	IN.*LBF
Front disc brake dust cover x Steering knuckle	8.0	82		71
Brake hose bracket x Steeringknuckle	10	102	7	
Front shock absorber x Steering knuckle	71	724	52	

REAR AXLE HUB

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Rear axle hub sub-assembly x Rear axle carrier sub-assembly	1st	120	1224	89
	2nd	Turn 90°		

REAR AXLE CARRIER

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
Rear axle hub and bearing assembly x Rear drive shaft assembly	1st	210	2141	155	
	2nd	Turn 90°			
Rear disc brake dust cover x Rear axle carrier sub-assembly		8.0	82		71
Skid control sensor wire x Steering knuckle		11.8	120	9	

Rear stabilizer link assembly x Rear axle carrier sub-assembly		56	571	41	
Rear upper control arm assembly x Rear axle carrier sub-assembly	1st	165	1683	122	
	2nd	Turn 90°			
Rear No. 2 upper control arm assembly x Rear axle carrier sub-assembly	1st	100	1020	74	
	2nd	Turn 90°			
Rear No. 1 suspension arm assembly x Rear axle carrier sub-assembly	1st	100	1020	74	
	2nd	Turn 90°			
Rear No. 2 suspension arm assembly x Rear axle carrier sub-assembly	1st	165	1683	122	
	2nd	Turn 90°			
Toe control link sub-assembly x Rear axle carrier sub-assembly	1st	100	1020	74	
	2nd	Turn 90°			

DIFFERENTIAL OIL

PART TIGHTENED	N*M	KG*CM	FT.*LBF
Rear differential carrier assembly x Filler plug	60	612	44

REAR DIFFERENTIAL CARRIER ASSEMBLY

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
Rear differential carrier cover x Rear differential carrier assembly		140	1428	103	
Rear differential protector set bolt		4.5	46		40
Ground wire set bolt		8.0	82		71
Rear differential carrier cover x Rear suspension member	Bolt (1)	100	1020	74	
	Nut (2)	165	1683	122	

DIFFERENTIAL OIL TEMPERATURE SENSOR

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Oil temperature sensor x Rear differential carrier assembly	13.5	138	10

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: B58 BATTERY / CHARGING: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

GENERATOR ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
V-ribbed belt tensioner assembly x Generator assembly	28	286	21
Generator assembly x Cylinder block sub-assembly	38	387	28
Generator wire x Generator assembly	19	194	14

GENERATOR WIRE

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Generator wire x Generator assembly	19	194	14
Generator wire x Battery terminal	19	194	14

BATTERY

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Battery holder x Vehicle body	10	102	7	
Bracket x Vehicle body	8.0	82		71
Safety battery terminal x Battery terminal	5.0	51		44
No. 3 earth wire x Battery terminal	5.0	51		44

NEGATIVE BATTERY CABLE

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 3 earth wire x Vehicle body	20.5	209	15

SAFETY BATTERY TERMINAL

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PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Safety battery terminal x Battery terminal	5.0	51		44
No. 4 floor wire x Safety battery terminal	15	153	11	
No. 4 floor wire x Power distribution box	15	153	11	

FRONT POWER DISTRIBUTION BOX

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Front power distribution box x Vehicle body	19	194	14	
No. 5 floor wire x Battery terminal	19	194	14	
Generator wire, starter wiring assembly and No. 5 front wire x Battery terminal	20.5	209	15	
No. 4 engine room wire x Front power distribution box	19	194	14	
Sealing frame x Vehicle body	2.5	25		22

REAR POWER DISTRIBUTION BOX

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Rear power distribution box x Vehicle body	2.6	27		23
Positive battery cables x Rear power distribution box	15	153	11	



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: B58 COOLING: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Radiator

ITEM	CONDITION	SPECIFIED CONDITION
Reserve tank cap	Minimum pressure	140 kPa (1.4 kgf/cm ² , 20 psi)

Coolant (for High Temperature)

CAPACITY	CLASSIFICATION
10.5 liters (11.1 US qts, 9.2 Imp. qts)	Antifreeze and Corrosion Inhibitor Frostox HT-12

Coolant (for Low Temperature)

CAPACITY	CLASSIFICATION
4.0 liters (4.2 US qts, 3.5 Imp. qts)	Antifreeze and Corrosion Inhibitor Frostox HT-12

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Title: SPECIFICATIONS: B58 COOLING: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

WATER PUMP

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Engine water pump assembly x Water inlet housing	10	102	7	
No. 2 water by-pass hose x Engine water pump assembly	8.0	82		71
Water inlet x Engine water pump assembly	8.0	82		71

ELECTRIC WATER PUMP (for Turbo)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 2 water pump bracket sub-assembly x No. 1 water pump bracket sub-assembly	8.0	82	71

ELECTRIC WATER PUMP (for Heater)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 4 water pump bracket sub-assembly x No. 3 water pump bracket sub-assembly	8.0	82	71

WATER INLET HOUSING

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Water inlet housing sub-assembly (engine water pump) x Engine assembly	19	194	14	
Oil cooler tube x Water inlet housing sub-assembly (engine water pump)	8.0	82		71
No. 2 water by-pass hose x Engine water pump assembly	8.0	82		71

SUB RADIATOR (for LH Side)

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 front bumper bracket plate x Front bumper side bracket	19	194	14

SUB RADIATOR (for RH Side)

PART TIGHTENED	N*M	KG*CM	FT.*LBF
No. 1 front bumper bracket plate x Front bumper side bracket	19	194	14

RADIATOR (for Low Temperature)

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Radiator upper air guide plate x Radiator assembly	6.0	61	53

RADIATOR (for High Temperature)

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Radiator upper air guide plate x Radiator assembly	6.0	61	53
Radiator assembly x Vehicle body	6.0	61	53

HEAT MANAGEMENT MODULE

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Water valve with bracket assembly x Engine assembly	9.0	92	80

COOLANT LINE

PART TIGHTENED	N*M	KG*CM	IN.*LBF
No. 2 water by-pass hose x Engine assembly	8.0	82	71

COOLANT PIPE

PART TIGHTENED	N*M	KG*CM	FT.*LBF
No. 2 water by-pass hose x Engine water pump assembly	10.5	107	8
Water inlet x Water inlet housing	10.5	107	8

FAN SHROUD

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
upper radiator support sub-assembly x Vehicle body	Bolt (1)	19	194	14	
	Bolt (2)	56	571	41	

	Bolt (3)	8.0	82	71
Fan shroud with motor assembly x Radiator assembly		6.0	61	53

SUB RADIATOR AIR DUCT (for LH Side)

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 front bumper bracket plate x Front bumper side bracket	19	194	14

SUB RADIATOR AIR DUCT (for RH Side)

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 front bumper bracket plate x Front bumper side bracket	19	194	14

COOLING FAN RELAY

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Cooling fan relay x Vehicle body	1.2	12	11
Position the battery cables x Cooling fan relay	5.0	51	44



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Title: SPECIFICATIONS: B58 EMISSION CONTROL: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

CANISTER

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 1 charcoal canister filter x Vehicle body	8.0	82	71
Fuel filter assembly x Vehicle body	8.0	82	71

PRESSURE SWITCH

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Pressure switch x Fuel filter assembly	2.8	29	25
Fuel filter assembly x Vehicle body	8.0	82	71

DIFFERENTIAL PRESSURE SENSOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Differential pressure sensor x Cover	3.0	31	27

MONOLITHIC CONVERTER

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Exhaust pipe clamp	13	133	10
Exhaust manifold converter sub-assembly x holder	19	194	14

PCV VALVE

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Ventilation pipe sub-assembly x Crank case	13	133	10
No. 1 turbo water pipe sub-assembly x Cylinder block	19	194	14

PCV VALVE

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Ventilation pipe sub-assembly x Crank case	8.0	82	71
No. 1 turbo water pipe sub-assembly x Cylinder block	8.0	82	71

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Title: SPECIFICATIONS: B58 ENGINE CONTROL: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

CAMSHAFT TIMING GEAR BOLT

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 2 electric engine water pump bracket sub-assembly x Holder		8.0	82		71
No. 1 electric water pump bracket sub-assembly x Cylinder head sub-assemnbly	Nut (1)	8.0	82		71
	Stud bolt	8.0	82		71
	Bolt (3)	8.0	82		71
Cylinder head cover sub-assembly x Cylinder head sub-assemnbly	1st	6.0	61		53
	2nd	11	112	8	
Intake camshaft timing gear bolt x Intake camshaft sub-assembly	1st	10	102	7	
	2nd	30	306	22	
	3rd	50	510	37	
	4th	Turn 35°			
Exhaust camshaft timing gear bolt x Exhaust camshaft sub-assembly	1st	10	102	7	
	2nd	30	306	22	
	3rd	50	510	37	
	4th	Turn 35°			

SERVO MOTOR

PART TIGHTENED	N*M	KGF*CM	FT.*LBF

Servo motor x Cylinder head sub-assembly	10	102	7
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THROTTLE BODY

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Throttle body with motor assembly x Intake manifold	7.0	71		62
Throttle body with motor assembly set bolt	11.8	120	9	

ACCELERATOR PEDAL

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Accelerator pedal sensor assembly x Vehicle body	7.6	77	67

MASS AIR FLOW METER

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Mass air flow meter x Air cleaner assembly	1.4	14	12

AIR PRESSURE SENSOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Air pressure sensor x No. 2 air cleaner hose	4.0	41	35

CAMSHAFT POSITION SENSOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Camshaft position sensor x Cylinder head cover sub-assembly (for Intake Side)	4.0	41	35
Camshaft position sensor x Cylinder head cover sub-assembly (for Exhaust Side)	4.0	41	35

CRANKSHAFT POSITION SENSOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 3 automatic transmission oil cooler tube clamp set screw	5.0	51	44
No. 2 automatic transmission oil cooler tube clamp set bolt	8.0	82	71
Crankshaft position sensor x Cylinder block sub-assembly	4.6	47	41

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IGNITION COIL AND SPARK PLUG

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Ignition coil assembly x Cylinder head cover sub-assembly	8.0	82	71

ENGINE COOLANT TEMPERATURE SENSOR (for Engine)

PART TIGHTENED	N*M	KG*CM	FT.*LBF
Engine coolant temperature sensor x Cylinder block sub-assembly	13.5	138	10

ENGINE OIL TEMPERATURE SENSOR

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Oil temperature sensor x Cylinder block sub-assembly	8.0	82	71

INTAKE AIR TEMPERATURE SENSOR

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Intake air temperature sensor x No. 2 air cleaner hose	1.8	18	16

KNOCK SENSOR

PART TIGHTENED	N*M	KG*CM	FT.*LBF	IN.*LBF
Knock sensor x Cylinder block sub-assembly (for Bank1)	21.5	219	16	
Knock sensor x Cylinder block sub-assembly (for Bank2)	21.5	219	16	
Intake manifold stay set bolt	8.0	82		71

VACUUM SENSOR

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Vacuum sensor assembly x Intake manifold	4.0	41	35

AIR FUEL RATIO SENSOR

PART TIGHTENED	N*M	KG*CM	FT.*LBF
Specified tightening torque	50	510	37

Air fuel ratio sensor x Exhaust manifold converter sub-assembly				
	For use with SST	42.9	437	32

HEATED OXYGEN SENSOR

PART TIGHTENED		N*M	KGF*CM	FT.*LBF
Heated oxygen sensor x Exhaust manifold converter sub-assembly	Specified tightening torque	50	510	37
	For use with SST	42.9	437	32

ENGINE WIRE HARNESS

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Ground cables set nut	5.0	51	44



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Title: SPECIFICATIONS: B58 ENGINE MECHANICAL: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

ENGINE

Ignition timing	Minimum standard compression pressure	900 kPa (9.2 kgf/cm ² , 131 psi)
	Maximum pressure difference between each cylinder	250 kPa (2.5 kgf/cm ² , 36 psi)

CRANKSHAFT

Crankshaft	Thrust clearance	Maximum	0.09 to 0.314 mm (0.0035 to 0.0124 in.)
	Coefficient of friction	Maximum	12 N*m (122 kgf*cm, 9 ft.*lbf)

PISTON

Piston	Diameter	Distance (A) to the lowerend of the piston skirt 14 mm (0.551 in.)	Standard	81.938 to 81.956 mm (3.226 to 3.227 in.)
		Distance (A) to the lowerend of the piston skirt 26 mm (1.02 in.)	Standard	81.870 to 81.884 mm (3.223 to 3.224 in.)
		Distance (A) to the lowerend of the piston skirt 49 mm (1.93 in.)	Standard	81.285 to 81.309 mm (3.200 to 3.201 in.)
Cylinder bore	Diameter	Distance from the upperedge of the cylinder barrelto the measuring point 0 to 60 mm (0 to 2.36 in.)	Standard	82.000 to 82.014 mm (3.228 to 3.229 in.)
		Distance from the upperedge of the cylinder barrelto the measuring point 60 to 80 mm (2.36 to 3.15in.)	Standard	82.008 to 82.022 mm (3.2287 to 3.2292 in.)
		Distance from the upperedge of the cylinder barrelto the measuring point 80 to 115 mm (3.15 to 4.53 in.)	Standard	82.021 to 82.037 mm (3.2292 to 3.2298 in.)
		Distance from the upperedge of the cylinder barrelto the measuring point 115 to 135 mm (4.53 to 5.31 in.)	Standard	82.033 to 82.057 mm (3.230 to 3.231 in.)



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Title: SPECIFICATIONS: B58 ENGINE MECHANICAL: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

V-RIBBED BELT TENSIONER

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
V-ribbed belt tensioner assembly x Generator assembly	28	286	21

DEFLECTING ELEMENT

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Deflecting element x V-ribbed belt tensioner assembly	28	286	21

ENGINE MOUNTING

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 1 front engine mounting bracket RH x Cylinder block sub-assembly		38	387	28	
No. 1 front engine mounting bracket LH x Cylinder block sub-assembly		38	387	28	
Front engine mounting insulator x Front suspension crossmember sub-assembly		19	194	14	
Front suspension crossmember sub-assembly x Front upper suspension arm assembly LH	1st	100	1020	74	
	2nd	Turn 90°			
Front suspension crossmember sub-assembly x Front upper suspension arm assembly RH	1st	100	1020	74	
	2nd	Turn 90°			
Coolant hose x Front suspension crossmember sub-assembly		11.8	120	9	
Floor wire x Front suspension crossmember sub-assembly		8.0	82		71
Front engine mounting insulator x No. 1 front engine mounting bracket		100	1020	74	

TIMING CHAIN

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 chain vibration damper x Cylinder block sub-assembly	20	204	15

CHAIN TENSIONER

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 chain tensioner assembly x Cylinder head sub-assembly	1st	20	204
	2nd	Turn 40°	

OIL PUMP DRIVE CHAIN

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Oil pump drive shaft sprocket x Oil pump assembly	1st	5.0	51
	2nd	Turn 90°	

CAMSHAFT

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Camshaft sensor wheel x Intake camshaft sub-assembly	4.5	46		40
Exhaust camshaft bearing cap x Cylinder head sub-assembly	9.6	98		85
Camshaft bearing cap x Cylinder head sub-assembly	9.6	98		85

CAMSHAFT (for No. 3)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Bearing cap x Intake camshaft sub-assembly	9.6	98	85

CYLINDER HEAD GASKET

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Cylinder head sub-assembly x Cylinder block sub-assembly	1st	30	306	22
	2nd	Turn 90°		

	3rd	Turn 180°		
Cylinder head sub-assembly x Timing gear case	19	194	14	
Camshaft sensor wheel x Intake camshaft sub-assembly	4.5	46		40
Bearing journal x Cylinder block sub-assembly	20	204	15	
Chain damper guide x Cylinder head sub-assembly	8.0	82		71
No. 2 water by-pass hose x Cylinder head sub-assembly	8.0	82		71
No. 4 engine cover x Cylinder head sub-assembly	8.0	82		71
Engine wire x Cylinder head sub-assembly	8.0	82		71
Transmission wire x Cylinder head sub-assembly	8.0	82		71
Inlet turbo oil pipe sub-assembly, No. 2 turbo water pipe sub-assembly x Turbocharger sub-assembly	8.0	82		71
No. 2 turbo water pipe sub-assembly x Cylinder block sub-assembly	8.0	82		71
No. 1 turbo water pipe sub-assembly x Cylinder block sub-assembly	8.0	82		71
Turbocharger stay x Cylinder block sub-assembly	19	194	14	
Turbocharger stay x Turbocharger sub-assembly	19	194	14	

CRANKSHAFT

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Crankshaft bearing cap x Cylinder block sub-assembly	1st	25	255	18
	2nd	Turn 65°		
	3rd	Turn 65°		
No. 1 oil pan baffle plate x Cylinder block sub-assembly	1st	15	153	11

	2nd	Turn 45°	
Oil pan sub-assembly x Cylinder block sub-assembly, timing gear case	24	245	18
Turbocharger stay x Cylinder block sub-assembly	19	194	14
Turbocharger stay x Turbocharger sub-assembly	19	194	14

FRONT CRANKSHAFT OIL SEAL

PART TIGHTENED		N*M	KGf*CM	FT.*LBF
Crankshaft pulley assembly x Crankshaft	1st	40	408	30
	2nd	Turn 120°		

TIMING GEAR CASE

PART TIGHTENED		N*M	KGf*CM	IN.*LBF
Crankshaft position sensor x Cylinder block sub-assembly		4.6	47	41
Timing gear case x Cylinder block sub-assembly	1st	8.0	82	71
	2nd	Turn 90°		

REAR CRANKSHAFT OIL SEAL

PART TIGHTENED		N*M	KGf*CM	FT.*LBF
Drive plate and ring gear sub-assembly x Crankshaft	1st	45	459	33
	2nd	Turn 40°		

OIL FILTER BRACKET

PART TIGHTENED		N*M	KGf*CM	FT.*LBF	IN.*LBF
Oil filter bracket x Cylinder block sub-assembly	1st	4.0	41		35
	2nd	10	102	7	

ENGINE ASSEMBLY

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
No. 1 front engine mounting bracket RH x Cylinder block sub-assembly		38	387	28	
No. 1 front engine mounting bracket LH x Front engine mounting insulator LH		100	1020	74	
No. 1 front engine mounting bracket RH x Front engine mounting insulator RH		100	1020	74	
Suction pipe sub-assembly x Compressor with magnet clutch		19	194	14	
Air conditioning tube assembly x Compressor with magnet clutch		19	194	14	
Generator wire x Generator assembly		19	194	14	
Oil cooler tube x Automatic transmission oil cooler tube clamp		5.0	51		44
Engine room ECM box x Vehicle body		8.0	82		71
Wire harness clamp bracket x Cylinder head cover sub-assembly		19	194	14	
Starter wire x Front power distribution box		19	194	14	
Generator wire x Front power distribution box		19	194	14	
No. 2 cowl top ventilator louver protector x Vehicle body		2.6	27		23
Cowl top ventilator louver protector x Vehicle body		2.6	27		23
Upper front suspension center brace x Vehicle body	1st	56	571	41	
	2nd	Turn 90°			

CYLINDER HEAD

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Gate x Bearing cap		20.5	209	15
Servo motor x Cylinder head sub-assembly		10	102	7

ENGINE INSTALLATION POSITION

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 front engine mounting bracket LH x Front engine mounting insulator LH	100	1020	74
No. 1 front engine mounting bracket RH x Front engine mounting insulator RH	100	1020	74

PISTON

PART TIGHTENED		N*M	KGF*CM	FT.*LBF
Connecting rod bearing cap x Connecting rod	1st	20	204	15
	2nd	Turn 70°		
	3rd	Turn 70°		

ENGINE WIRE HARNESS (for No. 1)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Engine wire x Cylinder block sub-assembly	8.0	82	71



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Title: SPECIFICATIONS: B58 FUEL: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

FUEL INJECTOR

PART TIGHTENED		N*M	KG*CM	IN.*LBF
Fuel injector assembly x Fuel delivery pipe	1st	5	51	44
	2nd	Turn 90°		

FUEL TUBE (for Front)

PART TIGHTENED	N*M	KG*CM	FT.*LBF
Fuel tube sub-assembly x Fuel delivery pipe	33	337	24

FUEL TUBE (for Rear)

PART TIGHTENED	N*M	KG*CM	FT.*LBF	IN.*LBF
Fuel tube sub-assembly x Fuel delivery pipe	31	316	23	
Fuel tube sub-assembly clamp x Cylinder head cover sub-assembly	6.5	66		58

FUEL FILTER

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Fuel filter assembly x Fuel filter assembly bracket	8.0	82	71

FUEL-FILLER PIPE

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Fuel filler pipe clamp	4.0	41	35
Fuel tank inlet pipe sub-assembly x Vehicle body	3.3	34	29

FUEL PRESSURE SENSOR

PART TIGHTENED	N*M	KG*CM	FT.*LBF

Fuel pressure sensor x Fuel delivery pipe	30	306	22
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FUEL PUMP (for High Pressure)

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Fuel pump assembly x Cylinder head cover sub-assembly	12	122	9

FUEL PUMP ECU

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Fuel pump control ecu x Vehicle body	3.0	31	27

FUEL TANK

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Fuel tank sub-assembly x Vehicle body	19	194	14	
Fuel tank band sub-assembly x Vehicle body	19	194	14	
Fuel filler pipe clamp	4.0	41		35
Rear wheel house liner RH x Vehicle body	2.6	27		23



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Title: SPECIFICATIONS: B58 INTAKE / EXHAUST: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

Air Cleaner Assembly

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Clamp x Air cleaner assembly	3.0	31	27

No. 2 Air Cleaner Hose

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 2 air cleaner hose x Throttle body with motor assembly	8.0	82	71
Nut x No. 2 Water Pump bracket sub-assembly	8.0	82	71

Inlet Compressor Elbow

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Compressor inlet elbow x Turbocharger sub-assembly	8.0	82	71

Intake Manifold

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Throttle body with motor assembly x Intake manifold	7.0	71		62
No. 3 fuel tank breather tube x Intake manifold	3.0	31		27
Vacuum sensor x Intake manifold	4.0	41		35
Intake manifold x Cylinder block sub-assembly	10	102	7	
Intake manifold x Intake manifold stay	8.0	82		71
Throttle body with motor assembly x holder	11.8	120	9	
Control unit holder x Vehicle body	8.0	82		71

Turbocharger

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Turbocharger sub-assembly x Cylinder block sub-assembly	18	184	13	
Turbocharger stay x Turbocharger sub-assembly	19	194	14	
No. 1 turbo water pipe sub-assembly x Cylinder block sub-assembly	8.0	82		71
Inlet turbo oil pipe sub-assembly x Cylinder block sub-assembly	8.0	82		71
No. 2 turbo water pipe sub-assembly x Cylinder block sub-assembly	8.0	82		71

Turbo Charger Actuator and Link

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Turbocharger actuator and link assembly x Compressor housing	2.0	20		18

Outlet Turbo Oil Pipe

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Outlet turbo oil pipe x Turbocharger sub-assembly	8.0	82	71
Outlet turbo oil pipe x Cylinder block sub-assembly	8.0	82	71

Exhaust Manifold Heat Insulator

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
No. 1 exhaust manifold heat Insulator x Cylinder block sub-assembly	19	194	14

Main Muffler Heat Insulator

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Main muffler heat Insulator x Vehicle body	2.6	27	23
Rear No. 2 floor heat Insulator sub-assembly x Screw	Nut	2.6	27
	Screw	2.0	20

Main muffler heat Insulator RH x Vehicle body	Nut	3.0	31	27
	Screw	2.6	27	23
Main muffler heat Insulator LH x Vehicle body	Nut	3.0	31	27
	Screw	2.6	27	23

Tail Exhaust Pipe Assembly

PART TIGHTENED	N*M	KG*CM	FT.*LBF	IN.*LBF
Exhaust tail pipe assembly x Vehicle body	19	194	14	
Rear No. 1 exhaust tail pipe clamps x Nut	45	459	33	

Exhaust Pipe

PART TIGHTENED	N*M	KG*CM	FT.*LBF	IN.*LBF
Exhaust pipe assembly x Vehicle body	19	194	14	
Exhaust pipe clamp (for V-band Clamp) x Nut	25	255	18	
Exhaust pipe clamp (for Ribbon Clamp) x Nut	26	265	19	
Rear floor cover LH x Vehicle body	3.0	31		27
Rear floor cover RH x Vehicle body	3.0	31		27
Rear floor panel brace x Vehicle body	E14 bolt	56	571	41
	Bolt	28	286	21
No. 2 floor under cover x Vehicle body	Screw	3.0	31	27
	Nut	2.6	27	23

Center Exhaust Pipe

PART TIGHTENED	N*M	KG*CM	FT.*LBF
Exhaust pipe assembly x Vehicle body	19	194	14

Exhaust pipe clamp (for Ribbon Clamp) x Nut	26	265	19
Exhaust pipe clamp (for V-band Clamp) x Nut	25	255	18
Rear No. 1 exhaust tail pipe clamps x Nut	45	459	33

Turbo Water Pipe (for Outlet Side)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
No. 2 turbo water pipe sub-assembly x Turbocharger sub-assembly	8.0	82	71

Exhaust Pipe Gas Control Actuator Sub-Assembly

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Actuator with bracket assembly x Exhaust tail assembly	8.5	87	75



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Title: SPECIFICATIONS: B58 LUBRICATION: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

Oil Pressure Sensor

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Oil pressure sensor x Cylinder block sub-assembly	15	153	11

Oil Level Sensor

PART TIGHTENED		N*M	KGF*CM	IN.*LBF
Engine oil level sensor x Oil pan sub-assembly	1st	2.0	20	18
	2nd	8.0	82	71

Oil Pump

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Oil strainer sub-assembly x Oil pump assembly		8.0	82		71
Oil pump drive shaft gear x Oil pump assembly	1st	5.0	51		44
	2nd	Turn 90°			
Oil pump assembly x Cylinder block sub-assembly	1st	15	153	11	
	2nd	Turn 45°			

Engine Oil Cooler

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Oil cooler assembly x Oil filter bracket	10	102	7

Oil Pan

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
	1st	2.0	20	18

Engine oil level sensor x Oil pan sub-assembly				
	2nd	8.0	82	71
Oil pan sub-assembly x Automatic transmission assembly		19	194	14
Oil pan sub-assembly x Cylinder block sub-assembly, timing gear case		24	245	18

Oil Pressure Control Valve

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Oil pressure control valve assembly x Cylinder block sub-assembly	8.0	82	71

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Title: SPECIFICATIONS: B58 STARTING: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

STARTER ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Starter assembly x Cylinder block sub-assembly	19	194	14
Starter wiring assembly x Starter assembly	13.5	138	10

STARTER WIRING ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 2 front floor heat Insulator x Vehicle body	3.0	31		27
Starter wiring assembly x Starter assembly	13.5	138	10	
Starter wiring assembly x Battery terminal	19	194	14	

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: BRAKE (FRONT): SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Minimum brake disc thickness (Nominal dimension 330x24)	22.4 mm (0.882 in.)
Minimum brake disc thickness (Nominal dimension 348x36)	34.4 mm (1.35 in.)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: BRAKE (FRONT): TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Front disc x Front axle hub sub-assembly	16	163	12
Front disc brake cylinder assembly x Steering knuckle	80	816	59
Front flexible hose x Front disc brake cylinder assembly	17	173	13

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: BRAKE (REAR): SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Minimum brake disc thickness (nominal dimension 330x20)	18.4 mm (0.724 in.)
Minimum brake disc thickness (nominal dimension 345x24)	22.4 mm (0.882 in.)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: BRAKE (REAR): TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED		N*M	KGF*CM	FT.*LBF
Rear disc x Rear axle hub and bearing assembly		16	163	12
Rear flexible hose x Rear disc brake cylinder assembly	Specified tightening torque	22	224	16
	For use with a union nut wrench	19.1	195	14
Rear disc brake cylinder mounting x Rear axle carrier sub-assembly		110	1122	81
Rear disc brake cylinder assembly x Rear disc brake cylinder mounting		35	357	26

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

BRAKE ACTUATOR (for LHD)

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Brake actuator assembly x Body	8.0	82		71
Brake actuator assembly x Brake pipe	17	173	13	
Front skid control sensor wire x Steering knuckle	11.8	120	9	
Rear skid control sensor wire x Rear axle carrier sub-assembly	11.8	120	9	

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: BRAKE SYSTEM (OTHER): TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Brake pipe x Frexible hose	17	173	13	
Brake pipe x Squea end	17	173	13	
Brake pipe x Master cylinder body	17	173	13	
Brake pipe x Brake actuator assembly	17	173	13	
Sealing frame x body	2.8	29		25
Brake pedal support assembly x Brake booster assembly x Body	21.4	218		189
Master cylinder body x Brake booster assembly	21	214	15	
Brake master cylinder reservoir sub-assembly x Master cylinder body	4.0	41		35
Booster air valve x Cylinder block sub-assembly	8.0	82		71
Holder x Cylinder block sub-assembly	8.0	82		71
Upper holder x Holder	5.0	51		44



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: CELLULAR COMMUNICATION: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

DCM(TELEMATICS TRANSCEIVER)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
DCM (telematics transceiver) x Body	8.0	82	71

TELEPHONE ANTENNA

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Emergency GSM aerial x Body	6.0	61	53

TELEPHONE AND GPS ANTENNA

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Multiple-band aerial x Body	3.0	31	27

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: CRUISE CONTROL: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

MILLIMETER WAVE RADAR SENSOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Millimeter wave radar sensor x Lower side radiator grille RH	8.0	82	71



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: DOOR / HATCH: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Hood hinge x Hood		19	194	14	
Hood lock striker x Hood		8.0	82		71
Hood support bracket x Vehicle body		1.4	14		12
Hood lock assembly RH x Vehicle body		8.0	82		71
Front door hinge x Front door panel		19	194	14	
Front door lock striker plate assembly x Vehicle body		21	214	15	
Front door check assembly x Front door panel		8.0	82		71
Front door check assembly x Vehicle body		28	286	21	
Front door window regulator assembly x Front door panel		9.2	94		81
Front door window regulator assembly x Sound insulation		9.2	94		81
Sound insulation x Front door panel		8.0	82		71
Front door trim board sub-assembly x Front door inside handle	Replacing	2.3	23		20
Front door trim board sub-assembly x Front door panel		3.0	31		27
Front door glass sub-assembly x Front door window regulator assembly		9.0	92		80
Back door lock striker assembly x Vehicle body		19	194	14	
Back door panel x Vehicle body		28	286	21	
Back door trim board x Back door panel		2.8	29		25



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: DOOR LOCK: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Front door lock with motor assembly x Front door panel	8.8	90		78
Front door outside handle frame sub-assembly x Front door panel	3.0	31		27
Back door Lock assembly x Back door panel	19	194	14	

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: DRIVE SHAFT / PROPELLER SHAFT: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Propeller Shaft Assembly

Propeller shaft spline sleeve (for Front Side)	Centering protrusion: 4 to 6 mm (0.1575 to 0.2362 in.)
Propeller shaft spline sleeve (for Rear Side)	Centering protrusion: 17.8 mm (0.701 in.)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: DRIVE SHAFT / PROPELLER SHAFT: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

Rear Drive Shaft Assembly

PART TIGHTENED		N*M	KGF*CM	FT.*LBF
Rear drive shaft assembly x Wheel bearing	1st	210	2141	155
	2nd	Turn 90°		

Propeller Shaft Assembly

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Flexible coupling x Propeller shaft assembly with center bearing	1st	55	561	41	
	2nd	Turn 90°			
Flexible coupling x Three-hole frange	1st	55	561	41	
	2nd	Turn 90°			
Center mount x Body		21.4	218	16	
Front floor cover LH x Body		3.0	31		27
Front floor cover RH x Body		3.0	31	2	
Front No. 1 floor heat insulator x Body	Screw	2.6	27		23
	Nut	3.0	31		27
Insert nut		100	1020	74	



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: EXTERIOR PANELS / TRIM: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

RM TITLE	PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
FRONT BUMPER	Front fender liner x Vehicle body		2.6	27		23
	Front bumper assembly x Vehicle body	Bolt	8.0	82		71
		Screw	3.0	31		27
	No. 1 engine under cover assembly x Vehicle body		3.0	31		27
	Front fender front splash shield x Vehicle body		2.6	27		23
	Front bumper inner support x front bumper upper retainer		4.0	41		35
	Front bumper upper retainer x Front crossmember		8.0	82		71
	Radiator upper air deflector x Vehicle body		19	194	14	
	Front crossmember x No. 1 cool air intake duct		19	194	14	
	Front crossmember x Radiator support		19	194	14	
	Front bumper reinforcement support x Front bumper reinforcement sub-assembly		19	194	14	
	Front bumper reinforcement sub-assembly x Vehicle body	T45 bolt	19	194	14	
		18 mm bolt	100	1020	74	
	Front bumper side support x Front bumper reinforcement		8.0	82		71
	Radiator brace rod sub-assembly x Front bumper reinforcement		19	194	14	
	Bottom cooler module mount x Vehicle body		8.0	82		71

	Front bumper reinforcement x Vehicle body		19	194	14	
	Front bumper retainer x Vehicle body		8.0	82		71
	Radiator support x Vehicle body		19	194	14	
	Lower front bumper reinforcement x Front bumper lower side support		19	194	14	
	Front bumper lower side support x Vehicle body	E10 bolt	19	194	14	
		E8 bolt	8	82	6	
REAR BUMPER	Rear bumper assembly x Vehicle body	Screw <A>	2.0	20		18
		Screw 	2.6	27		
	Rear registration plate x Rear bumper assembly		3.0	31		27
	Rear bumper side support sub-assembly x Vehicle body	Screw <A>	2.0	20		18
		Screw 	3.0	31		27
		Nut	8.0	82		71
	No. 1 rear bumper support x Vehicle body		8.0	82		71
	Bumper energy absorber x Vehicle body		3.0	31		27
	Rear bumper reinforcement sub-assembly x Vehicle body		108	1101		956
ROCKER PANEL MOULDING	No. 1 side panel moulding x Vehicle body		3.0	31		27
FRONT DOOR OUTSIDE MOULDING	Front door outside moulding sub-assembly x Front door		3.0	31		27

WINDSHIELD OUTSIDE MOULDING	Roof drip side finish moulding x Vehicle body		1.8	18		16
WHEEL OPENING MOULDING	Rear wheel house liner x Vehicle body	Screw	2.6	27		23
		Nut	2.6	27		23
	Quarter outside moulding x Vehicle body		3.0	31		27

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: FRONT SUSPENSION: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

FRONT SHOCK ABSORBER

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Front fender splash front shield x Vehicle body		2.6	27		23
Front fender liner x Vehicle body		2.6	27		23
Front No. 2 fender liner x Vehicle body	Screw	2.6	27		23
	Nut	2.6	27		23
Front shock absorber assembly x Front stabilizer link assembly		56	571	41	
Front lower suspension arm assembly x Steering knuckle		175	1785	129	
Front upper suspension arm assembly x Steering knuckle		175	1785	129	
Front shock absorber with coil spring x Vehicle body	1st	28	286	21	
	2nd	Turn 90°			
Front shock absorber with coil spring x Steering knuckle	1st	56	571	41	
	2nd	Turn 90°			
Front support to front shock absorber nut x Front shock absorber assembly		71	724	52	

FRONT UPPER SUSPENSION ARM

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Front fender splash front shield x Vehicle body		2.6	27		23
Front upper suspension arm assembly x Front suspension crossmember sub-assembly	1st	100	1020	74	

	2nd	Turn 90°		
Front upper suspension arm assembly x Steering knuckle		175	1785	129

FRONT LOWER SUSPENSION ARM

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
Front No. 2 fender liner x Vehicle body	Screw	2.6	27		23
	Nut	2.6	27		23
Front lower suspension arm assembly x Front suspension crossmember sub-assembly	1st	100	1020	74	
	2nd	Turn 90°			
Front lower suspension arm assembly x Steering knuckle		175	1785	129	

FRONT STABILIZER BAR

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Front shock absorber assembly x Front stabilizer link assembly		56	571	41
Front stabilizer bar x Front stabilizer link assembly		56	571	41
Front No. 1 stabilizer bracket x Front suspension crossmember sub-assembly		19	194	14

FRONT SUSPENSION MEMBER

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
Front engine mounting insulator x No. 1 engine mounting bracket		100	1020	74	
Coolant hose holder x Front suspension crossmember sub-assembly		11.8	120	9	
Front stabilizer bar x Front stabilizer link assembly		56	571	41	
Wire harness mounting x Front suspension crossmember sub-assembly		8.0	82		71
Front lower suspension arm assembly x Front suspension crossmember sub-assembly	1st	100	1020	74	
	2nd	Turn 90°			

Front upper suspension arm assembly x Front suspension crossmember sub-assembly		1st	100	1020	74	
		2nd	Turn 90°			
Front upper suspension arm assembly x Steering knuckle			175	1785	129	
Front suspension crossmember sub-assembly set bolt			19	194	14	
Front suspension crossmember sub-assembly x Vehicle body	Bolt (1)	1st	56	571	41	
		2nd	Turn 45°			
	Bolt (2), (3), (4)	1st	108	1101	80	
		2nd	Turn 45°			
Front engine mounting insulator x Front suspension crossmember sub-assembly			19	194	14	

FRONT SUSPENSION MEMBER LOWER PROTECTOR

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 1 engine under cover assembly x Vehicle body		3.0	31		27
Front fender splash front shield x Vehicle body		2.6	27		23
Front center floor cover x Vehicle body		3.0	31		27
Front No. 2 fender liner x Vehicle body		3.0	31	2	
Front suspension member lower protector x Front suspension crossmember sub-assembly	1st	56.0	571	41	
	2nd	Turn 45°			



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: HEATING / AIR CONDITIONING: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Refrigerant charge volume (for HFC-134a (R134a))	550 g (19.4 oz)
Refrigerant charge volume (for HFO-1234yf (R1234yf))	550 g (19.4 oz)

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Title: SPECIFICATIONS: HEATING / AIR CONDITIONING: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

AIR CONDITIONING UNIT

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Lower radiator case sub-assembly x Air conditioning radiator assembly		1.2	12		11
Air conditioning radiator assembly x Lower radiator case sub-assembly		1.2	12		11
Blower housing x Lower radiator case sub-assembly		1.2	12		11
Heater radiator unit sub-assembly x Air conditioning unit assembly		1.2	12		11
Water pipe sub-assembly holder x Air conditioning unit assembly		1.2	12		11
No. 1 air conditioning radiator damper servo sub-assembly (M9) x Air conditioning unit assembly		1.2	12		11
Air conditioning unit assembly x Vehicle body		2.8	29		25
No. 1 air duct sub-assembly x Air conditioning unit assembly		2.8	29		25
Instrument panel reinforcement sub-assembly x Air conditioning unit assembly		4.0	41		35
Instrument panel reinforcement sub-assembly x Vehicle body	Bolt	21	214	15	
	Nut	21	214	15	
No. 1 instrument panel bracket x Instrument panel reinforcement sub-assembly		21	214	15	
No. 1 instrument panel bracket x Vehicle body		21	214	15	
No. 1 air conditioning radiator damper servo sub-assembly (M21b) x Air conditioning unit assembly		1.2	12		11
No. 1 air conditioning radiator damper servo sub-assembly (M16) x Air conditioning unit assembly		1.2	12		11

No. 1 air conditioning radiator damper servo sub-assembly (M61) x Air conditioning unit assembly	1.2	12		11
No. 1 air conditioning radiator damper servo sub-assembly (M7a) x Air conditioning unit assembly	1.2	12		11
No. 1 air conditioning radiator damper servo sub-assembly (M69) x Air conditioning unit assembly	1.2	12		11
No. 1 air conditioning radiator damper servo sub-assembly (M23a) x Air conditioning unit assembly	1.2	12		11
No. 1 air conditioning radiator damper servo sub-assembly (M83a) x Air conditioning unit assembly	1.2	12		11
No. 1 air duct x Instrument panel reinforcement sub-assembly	2.8	29		25
No. 2 air duct x Instrument panel reinforcement sub-assembly	2.8	29		25
Air conditioner tube assembly x Cooler expansion valve	13	133	10	
Air conditioner tube assembly x Air conditioning condenser	13	133	10	
Suction pipe sub-assembly x Air conditioner tube assembly	19	194	14	

FRONT BLOWER MOTOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Blower motor with fan sub-assembly x Air conditioning unit assembly	1.2	12	11

COOLER EXPANSION VALVE

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Cooler expansion valve x Air conditioning unit assembly	5.5	56	49

COMPRESSOR

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Compressor with pulley assembly x Engine	38	387	28
Discharge tube G x Compressor with pulley assembly	19	194	14

Suction pipe sub-assembly x Compressor with pulley assembly	19	194	14
Oil filler plug x Compressor with pulley assembly	30	306	22

CONDENSER

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Cooler condenser assembly x Vehicle body	8.0	82		71
Air conditioner tube assembly x Cooler condenser assembly	13	133	10	
Discharge tube G x Cooler condenser assembly	13	133	10	

AIR CONDITIONING PRESSURE SENSOR

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Air conditioner pressure sensor x Air conditioner tube assembly	10	102	7

AIR CONDITIONING PANEL

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Air conditioning control assembly x Instrument panel finish lower panel	1.8	18	16



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Title: SPECIFICATIONS: HORN: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

RM TITLE	PART TIGHTENED	N*M	KGF*CM	FT.*LBF
HORN	High pitched horn assembly x Front bumper reinforcement	11.8	120	9

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: INTERIOR PANELS / TRIM: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

INSTRUMENT PANEL SAFETY PAD

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Instrument panel safety pad assembly x Instrument panel reinforcement sub-assembly	1.8	18	16
Front pillar garnish LH x Body	2.5	25	22
Front pillar garnish RH x Body	2.5	25	22
No. 2 instrument panel register assembly x Instrument panel safety pad assembly	2.3	23	20
No. 1 instrument panel register assembly x Instrument panel safety pad assembly	2.3	23	20
Glove compartment door assembly x Instrument panel safety pad assembly	1.8	18	16
No. 1 instrument panel garnish sub-assembly x Instrument panel safety pad assembly	1.8	18	16
Cowl side trim sub-assembly LH x Body (for LHD)	2.0	20	18
Cowl side trim board RH x Body (for RHD)	2.0	20	18
Instrument lower panel x Instrument panel safety pad assembly	3.0	31	27

FRONT CONSOLE BOX

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Console box assembly x Body (Bolt)	4.6	47	41
Console box assembly x Body (T20 screw)	1.8	18	16
Instrument panel finish lower panel x Instrument panel safety pad assembly	1.8	18	16
Console panel x Console panel retainer	2.3	23	20

Console box assembly x Console panel retainer	2.3	23	20
Front console armrest assembly x Console box assembly	2.3	23	20
Console box cup holder x Front console armrest assembly	2.3	23	20
No. 1 box panel x Upper console panel sub-assembly	3.0	31	27

ROOF HEADLINING

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Roof headlining assembly x Body	8.0	82	71
Roof headlining support x Roof headlining assembly	3.0	31	27

COMBINATION SWITCH (for Console Box)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Pattern select switch assembly x Upper console panel sub-assembly	1.5	15	13



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: LIGHTING (EXT): TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

RM TITLE	PART TIGHTENED		N*M	KGf*CM	IN.*LBF
HEADLIGHT ASSEMBLY	Headlight assembly x Vehicle body	Bolt <A>	8.0	82	71
		Bolt 	5.0	51	44
	Headlight LED unit assembly x Headlight assembly		1.5	15	13
REAR COMBINATION LIGHT ASSEMBLY	Rear combination light assembly x Vehicle body		4.0	41	35
REAR LIGHT ASSEMBLY	Back-up light assembly x Rear bumper assembly		2.0	20	18
HEADLIGHT DIMMER SWITCH	Turn signal switch assembly x Steering column assembly		3.0	31	27
HEIGHT CONTROL SENSOR	Front height control sensor sub-assembly x Vehicle body		5.0	51	44
	Rear height control sensor sub-assembly x Vehicle body		5.0	51	44
HEADLIGHT ECU	Light control LED ECU x Headlight assembly		1.5	15	13

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: MAINTENANCE: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

ITEM	CAPACITY
B58 Coolant (for Low Temperature)	4.0 liters (4.2 US qts, 3.5 Imp. qts)
B58 Coolant (for High Temperature)	10.5 liters (11.1 US qts, 9.2 Imp. qts)
B58 Engine Oil (Drain and refill with oil filter change)	6.5 liters (6.9 US qts, 5.7 Imp. qts)
Automatic Transmission Fluid	9.1 liters (9.6 US qts, 8.0 Imp. qts)
Differential Oil	1.0 liters (1.1 US qts, 0.9 Imp. qts)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: MAINTENANCE: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

B58 Spark Plug

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Spark plug x Cylinder head sub-assembly	23	235	17

B58 Coolant (for Low Temperature)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Radiator lower air guide plate x Radiator assembly	6.0	61	53

B58 Air Cleaner Filter Element

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Air cleaner cap sub-assembly x Clamp	3.0	31	27

B58 Oil and Oil Filter

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Oil pan drain plug x Oil pan sub-assembly	25	255	18
Oil filter cap assembly x Oil filter bracket	25	255	18

8HP51 Automatic Transmission Fluid

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Oil filler plug x Automatic transmission assembly	35	357	26

Differential Oil

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Oil filler plug x Rear differential carrier assembly	60	612	44

Tire and Wheel

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PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Brake disc mounting bolt	16	163	12
Axle hub bolt	140	1428	103

Brake Fluid

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Rear disc brake bleeder plug	18	184	13
Front disc brake bleeder plug	18	184	13

Brake Vacuum Hose

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Sealing frame x Body	2.8	29	25

Front Brake Flexible Hose

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Front flexible hose x Front disc brake cylinder assembly	17	173	13
Front flexible hose x Brake tube	17	173	13

Rear Disc Brake Pad

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Rear disc brake cylinder assembly x Rear disc brake cylinder mounting	35	357	26

Rear Brake Flexible Hose

PART TIGHTENED		N*M	KGF*CM	FT.*LBF
Rear flexible hose x Rear disc brake cylinder assembly	Specified tightening torque	22	224	16
	For use with a union nut wrench	19.1	195	14
Rear flexible hose x Brake tube		17	173	13

B58 Battery

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Battery holder x Body	10	102	7	
Bracket x Body	8.0	82		71
Safety battery terminal x Positive (+) battery terminal	5.0	51		44
No. 3 earth wire x Negative (-) battery terminal	5.0	51		44

Air Conditioning Filter

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Cover x Blower housing	2.8	29	25

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: METER / GAUGE / DISPLAY: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

COMBINATION METER

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Combination meter assembly x Instrument panel safety pad assembly	1.5	15	13

HEADUP DISPLAY

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Meter mirror sub-assembly x Instrument panel reinforcement sub-assembly	8.0	82	71



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: MIRROR (EXT): TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Outer mirror visor x Outer rear view mirror assembly	1.2	12	11
No. 2 outer mirror cover x Outer rear view mirror assembly	1.2	12	11
Side turn signal light assembly x Outer rear view mirror assembly	1.2	12	11
Outer rear view mirror assembly x Front door panel	6.0	61	53

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: NAVIGATION / MULTI INFO DISPLAY: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

NAVIGATION RECEIVER

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Radio receiver assembly x Instrument panel reinforcement sub-assembly	2.3	23	20

GPS ANTENNA

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Multiple-band aerial x Tailgate	3.0	31	27

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC5Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: PARKING BRAKE: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Parking brake actuator assembly x Rear disc brake cylinder assembly x Holder	9.5	97	7
Electric parking brake switch assembly x Upper console panel sub-assembly	1.5	15	1

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: POWER DISTRIBUTION: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

FUSE BOX

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Rear power distribution box x Positive battery cable	15	153	11

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: POWER OUTLETS (INT): TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

REAR POWER OUTLET SOCKET

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Deck trim side board and Deck side trim cover RH x No. 2 power outlet socket assembly	3.0	31	27

USB-HUB

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
USB hub x Instrument panel reinforcement sub-assembly	6.0	61	53

LTE LINE COMPENSATOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
LTE compensator x Body	3.0	31	27

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: REAR SUSPENSION: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

REAR STRUT BAR

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Transverse pipe x Vehicle body	20	204	15

REAR SHOCK ABSORBER

PART TIGHTENED		N*M	KGF*CM	FT.*LBF	IN.*LBF
Rear suspension arm cover x Rear No. 2 suspension arm assembly		6.0	61		53
Rear shock absorber assembly x Rear No. 2 suspension arm assembly	1st	100	1020	74	
	2nd	Turn 90°			
Rear shock absorber assembly x Vehicle body		28	286	21	
Rear support to rear shock absorber nut	Specified tightening torque	41	418	30	
	For use with SST	23.4	239	17	

REAR UPPER ARM

PART TIGHTENED		N*M	KGF*CM	FT.*LBF
Rear upper control arm assembly x Rear axle carrier sub-assembly	1st	165	1683	122
	2nd	Turn 90°		
Rear upper control arm assembly x Rear suspension member sub-assembly	1st	100	1020	74
	2nd	Turn 90°		
Rear No. 2 upper control arm assembly x Rear axle carrier sub-assembly	1st	100	1020	74

	2nd	Turn 90°		
Rear No. 2 upper control arm assembly x Rear suspension member sub-assembly	1st	100	1020	74
	2nd	Turn 90°		
Rear No. 1 stabilizer bar bracket x Rear suspension member sub-assembly		21.4	218	16

REAR LOWER ARM (for No. 1 Arm)

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Rear No. 1 suspension arm assembly x Rear suspension member sub-assembly	1st	100	1020	74
	2nd	Turn 90°		
Rear No. 1 suspension arm assembly x Rear axle carrier sub-assembly	1st	100	1020	74
	2nd	Turn 90°		

REAR LOWER ARM (for No. 2 Arm)

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
Rear No. 2 suspension arm assembly x Rear suspension member sub-assembly		175	1785	129	
Rear No. 2 suspension arm assembly x Rear axle carrier sub-assembly	1st	165	1683	122	
	2nd	Turn 90°			
Rear No. 2 suspension arm assembly x Rear shock absorber assembly	1st	100	1020	74	
	2nd	Turn 90°			
Rear height control sensor sub-assembly set nut		5.0	51		44

TOE CONTROL LINK

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Toe control link sub-assembly x Rear axle carrier sub-assembly	1st	100	1020	74
	2nd	Turn 90°		

Toe control link sub-assembly x Rear suspension member sub-assembly	Specified tightening torque	108	1101	80
	For use with a union nut wrench	100	1020	74

REAR STABILIZER BAR

PART TIGHTENED	N*M	KG*CM	FT.*LBF
Rear stabilizer link assembly x Rear stabilizer bar	56	571	41
Rear stabilizer link assembly x Rear axle carrier sub-assembly	56	571	41
Rear No. 1 stabilizer bar bracket x Rear suspension member sub-assembly	21.4	218	16

REAR SUSPENSION MEMBER

PART TIGHTENED			N*M	KG*CM	FT.*LBF	IN.*LBF	
Rear No. 2 suspension arm assembly x Rear shock absorber assembly		1st	100	1020	74		
		2nd	Turn 90°				
Rear differential protector set bolt			4.5	46		40	
Ground wire set bolt			8.0	82		71	
Rear suspension member rear lower brace x Vehicle body		Bolt (1)		108	1101	80	
		Bolt (2)	1st	47	479	35	
			2nd	Turn 45°			
Rear lower suspension member stopper x Vehicle body		Bolt (1)	1st	47	479	35	
			2nd	Turn 45°			
		Bolt (2)		108	1101	80	

REAR SUSPENSION MEMBER BODY MOUNTING CUSHION

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PART TIGHTENED			N*M	KG*CM	FT.*LBF	IN.*LBF
Rear differential protector set bolt			4.5	46		40
Ground wire set bolt			8.0	82		71
Rear suspension member rear lower brace x Vehicle body	Bolt (1)		108	1101	80	
	Bolt (2)	1st	47	479	35	
		2nd	Turn 45°			
Rear lower suspension member stopper x Vehicle body	Bolt (1)	1st	47	479	35	
		2nd	Turn 45°			
	Bolt (2)		108	1101	80	

REAR SUSPENSION MEMBER DAMPER

PART TIGHTENED			N*M	KG*CM	FT.*LBF
Rear suspension member damper x Rear suspension member sub-assembly			28	286	21
Vibration absorber x Rear suspension member sub-assembly	Specified tightening torque	1st	56	571	41
		2nd	Turn 90°		
	For use with a union nut wrench and SST	1st	28	286	21
		2nd	Turn 90°		



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: SEAT: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

FRONT SEAT ASSEMBLY (for Manual Seat)

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
Front seat assembly x Body		42	428	31	
Separate type front seatback spring assembly x Front seat adjuster assembly		44	449	32	
Front seat airbag assembly x Separate type front seatback spring assembly		6.5	66		58
Front seat cushion shield x Front seat adjuster assembly		1.5	15	1	
Seat lifter lever sub-assembly x Front seat adjuster assembly		19.5	199	14	
Vertical adjusting handle x Front seat adjuster assembly		19.5	199	14	
Seat position sensor x Front seat adjuster assembly	w/ Seat Position Airbag Sensor	1.3	13		12
Separate type front seat cushion cover with pad x Front seat adjuster assembly	w/ Occupant Detection ECU	7.5	76		66

FRONT SEAT ASSEMBLY (for Power Seat)

PART TIGHTENED		N*M	KG*CM	FT.*LBF	IN.*LBF
Front seat assembly x Body		42	428	31	
Separate type front seatback spring assembly x Front seat adjuster assembly		44	449	32	
Front seat airbag assembly x Separate type front seatback spring assembly		6.5	66		58
Seat position sensor x Front seat adjuster assembly	w/ Seat Position Airbag Sensor	1.3	13		12
Separate type front seat cushion cover with pad x Front seat adjuster assembly	w/ Occupant Detection ECU	7.5	76		66

BACK SIDE SUPPORT ADJUSTER ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Seatback side support adjuster assembly x Separate type front seatback spring assembly	1.7	17	15



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: SEAT BELT: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

FRONT SEAT INNER BELT ASSEMBLY





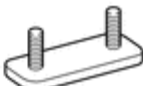



















PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Front seat inner belt assembly x Front seat aseembly	42	428	31

FRONT SEAT OUTER BELT ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Front seat outer belt assembly x Body	42	428	31	
Quarter trim upper panel x Body	2.0	20		18

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: STANDARD BOLT: HOW TO DETERMINE BOLT STRENGTH; 2020 MY Supra [03/2019 -]		

HOW TO DETERMINE BOLT STRENGTH

Bolt Type					
Hexagon Head Bolt			Stud Bolt	Weld Bolt	Class
Normal Recess Bolt		Deep Recess Bolt			
	No Mark 	No Mark 	No Mark 		4T
			-	-	5T
	w/ Washer 	w/ Washer 		-	6T
			-	-	7T
				-	8T
			-	-	9T
			-	-	10T
			-	-	11T



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: STANDARD BOLT: SPECIFIED TORQUE FOR STANDARD BOLTS; 2020 MY Supra [03/2019 -]		














SPECIFIED TORQUE FOR STANDARD BOLTS

CLASS	DIAMETER (MM)	PITCH (MM)	SPECIFIED TORQUE					
			HEXAGON HEAD BOLT			HEXAGON FLANGE BOLT		
			N*M	KG*CM	FT.*LBF	N*M	KG*CM	FT.*LBF
4T	6	1	5	55	48 in.*lbf	6	60	52 in.*lbf
	8	1.25	12.5	130	9	14	145	10
	10	1.25	26	260	19	29	290	21
	12	1.25	47	480	35	53	540	39
	14	1.5	74	760	55	84	850	61
	16	1.5	115	1150	83	-	-	-
5T	6	1	6.5	65	56 in.*lbf	7.5	75	65 in.*lbf
	8	1.25	15.5	160	12	17.5	175	13
	10	1.25	32	330	24	36	360	26
	12	1.25	59	600	43	65	670	48
	14	1.5	91	930	67	100	1050	76
	16	1.5	140	1400	101	-	-	-
6T	6	1	8	80	69 in.*lbf	9	90	78 in.*lbf
	8	1.25	19	195	14	21	210	15
	10	1.25	39	400	29	44	440	32
	12	1.25	71	730	53	80	810	59
	14	1.5	110	1100	80	125	1250	90
	16	1.5	170	1750	127	-	-	-
7T	6	1	10.5	110	8	12	120	9
	8	1.25	25	260	19	28	290	21
	10	1.25	52	530	38	58	590	43
	12	1.25	95	970	70	105	1050	76
	14	1.5	145	1500	108	165	1700	123
	16	1.5	230	2300	166	-	-	-
8T	8	1.25	29	300	22	33	330	24
	10	1.25	61	620	45	68	690	50
	12	1.25	110	1100	80	120	1250	90
9T	8	1.25	34	340	25	37	380	27
	10	1.25	70	710	51	78	790	57

	12	1.25	125	1300	94	140	1450	105
10T	8	1.25	38	390	28	42	430	31
	10	1.25	78	800	58	88	890	64
	12	1.25	140	1450	105	155	1600	116
11T	8	1.25	42	430	31	47	480	35
	10	1.25	87	890	64	97	990	72
	12	1.25	155	1600	116	175	1800	130

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: STANDARD BOLT: HOW TO DETERMINE NUT STRENGTH; 2020 MY Supra [03/2019 -]		

HOW TO DETERMINE NUT STRENGTH

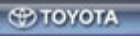
Nut Type			
Present Standard Hexagon Nut	Old Standard Hexagon Nut		Class
	Cold Forging Nut	Cutting Processed Nut	
No Mark 	-	-	4N
No Mark (w/ Washer) 	No Mark (w/ Washer) 	No Mark 	5N (4T)
	-	-	6N
-			7N (5T)
	-	-	8N
		No Mark 	10N (7T)
	-	-	11N
	-	-	12N

- HINT:**
- *: Nut with 1 or more marks on one side surface of the nut.
 - Use a nut with the same nut strength classification number (or more) as the bolt strength classification number when

tightening parts with a bolt and nut.

Example:

- Bolt = 4T
- Nut = 4N or more



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JJ7R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: STEERING COLUMN: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

STEERING COLUMN ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Steering column assembly x Instrument panel reinforcement assembly	28	286	21

STEERING COLUMN HOLE COVER

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
No. 1 steering column hole cover sub-assembly x Vehicle body	8.0	82		71
Steering intermediate shaft assembly x Steering column assembly	28	286	21	

STEERING INTERMEDIATE SHAFT

PART TIGHTENED	N*M	KGF*CM	FT.*LBF
Steering intermediate shaft assembly x Steering column assembly	28	286	21
Steering intermediate shaft assembly x Steering gear assembly	28	286	21

STEERING WHEEL

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Steering wheel assembly x Steering column assembly	62.5	637	46	
Steering wheel motor x Steering wheel assembly	4.0	41		35
Cable set screw	4.0	41		35

STEERING PAD SWITCH

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Steering pad switch assembly x Steering wheel assembly	4.0	41	35



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JJ7S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: STEERING GEAR / LINKAGE: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

STEERING GEAR

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Tie rod end sub-assembly x Steering knuckle		165	1683	122
Steering intermediate shaft assembly x Steering gear assembly		28	286	21
Steering link assembly x Front suspension crossmember sub-assembly	1st	100	1020	74
	2nd	Turn 90°		

TIE ROD

PART TIGHTENED		N*M	KG*CM	FT.*LBF
Tie rod assembly x Steering shaft		105	1071	77
Tie rod end sub-assembly x Tie rod assembly		32	326	24
Tie rod end sub-assembly x Steering knuckle		165	1683	122

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC6D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: SUPPLEMENTAL RESTRAINT SYSTEMS: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

KNEE AIRBAG ASSEMBLY (for Driver Side)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Lower No. 1 instrument panel airbag assembly x Instrument panel reinforcement assembly	8.0	82	71

KNEE AIRBAG ASSEMBLY (for Front Passenger Side)

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Lower No. 2 instrument panel airbag assembly x Instrument panel reinforcement assembly	8.0	82	71

FRONT PASSENGER AIRBAG ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Instrument panel passenger without door airbag assembly x Instrument panel safety pad assembly	2.3	23	20

CURTAIN SHIELD AIRBAG ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Curtain shield airbag assembly x Body	8.0	82	71

FRONT SEAT SIDE AIRBAG ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Front seat airbag assembly x Separate type front seatback spring assembly	6.5	66	58

CENTER AIRBAG SENSOR ASSEMBLY

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Airbag ECU assembly x Body	8.0	82	71

FRONT AIRBAG SENSOR

--	--	--	--

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Airbag sensor x Body	8.0	82	71

REAR AIRBAG SENSOR

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Airbag sensor x Body	8.0	82	71

SEAT POSITION SENSOR

PART TIGHTENED		N*M	KGF*CM	IN.*LBF
Seat position airbag sensor x Front seat adjuster assembly	for Manual Seat	1.3	13	12
Seat position airbag sensor x Front seat adjuster assembly	for Power Seat	1.3	13	12

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC6G
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: SUSPENSION CONTROL: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

Suspension Control ECU

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Absorber Control ECU x Vehicle body	2.6	27	23

Front Acceleration Sensor

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Acceleration sensor assembly x Front shock absorber assembly	8.0	82	71

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC6B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: THEFT DETERRENT / KEYLESS ENTRY: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

ENGINE HOOD COURTESY SWITCH

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Engine hood courtesy switch (Hood lock assembly) x Body	8.0	82	71

SECURITY HORN ASSEMBLY

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Theft warning siren assembly x Rear bumper side support sub-assembly LH	6.0	61	53
Rear bumper side support sub-assembly LH x Vehicle body	Screw <A>	2.0	20
	Screw 	3.0	31
	Nut	8.0	82

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JGEA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: TIRE / WHEEL: SERVICE DATA; 2020 MY Supra [03/2019 -]		

SERVICE DATA

Maximum tire runout	Vertical	1.1 mm (0.0433 in.) or less
	Lateral	1.3 mm (0.0512 in.) or less
Maximum wheel imbalance		4.0 g (0.0088 lb)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JGE9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: TIRE PRESSURE MONITORING: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KG*CM	IN.*LBF
Tire pressure warning valve and transmitter set nut	8.0	82	71

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC5S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: WINDOW / GLASS: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	IN.*LBF
Power window regulator motor assembly x Front door window regulator assembly	4.0	41	35
Trap circuit x Vehicle body	3.0	31	27

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC61
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SPECIFICATIONS: WIPER / WASHER: TORQUE SPECIFICATIONS; 2020 MY Supra [03/2019 -]		

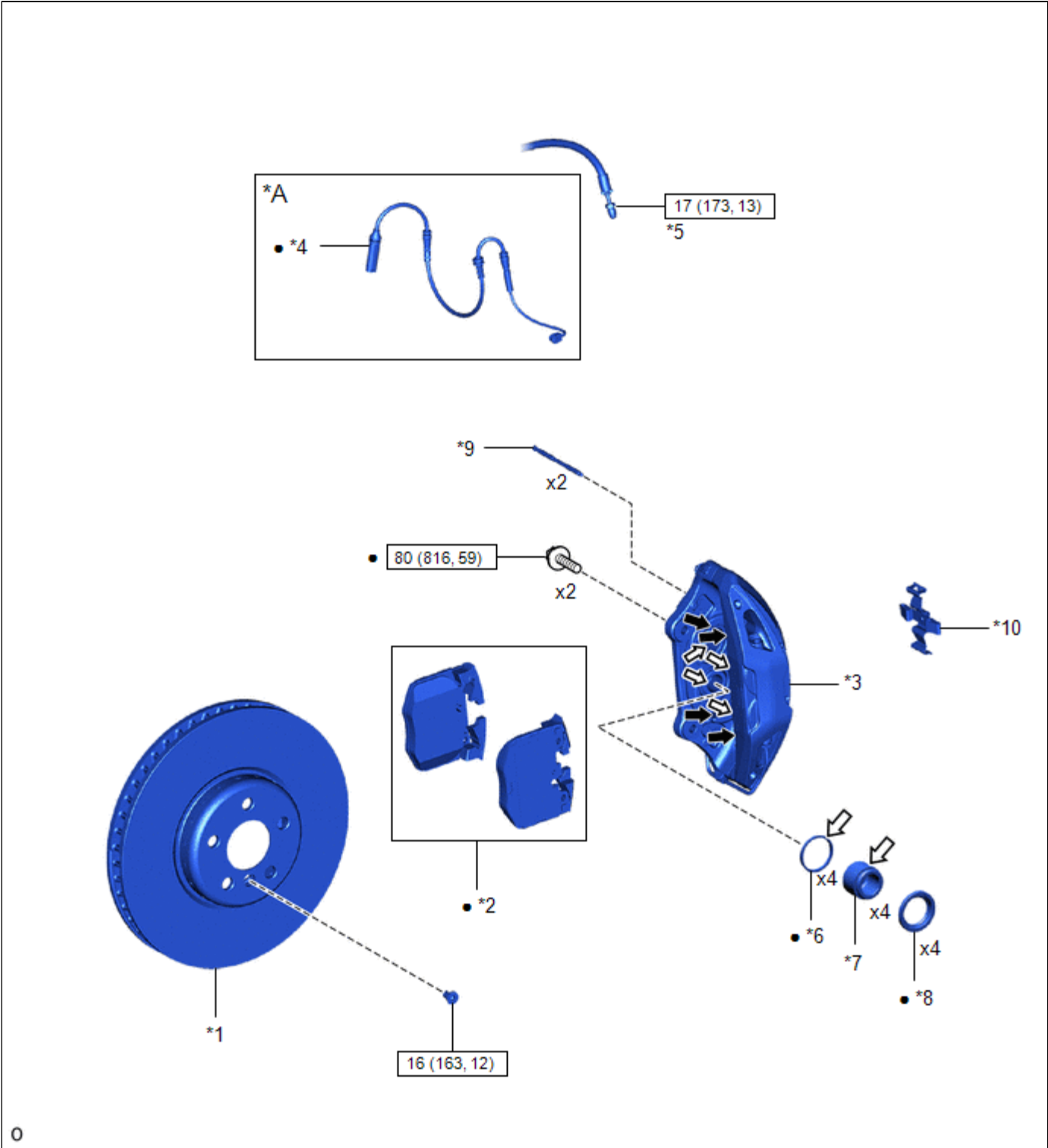
TORQUE SPECIFICATIONS

PART TIGHTENED	N*M	KGF*CM	FT.*LBF	IN.*LBF
Front wiper motor and link assembly x Vehicle body	11.8	120	9	
Front wiper arm and blade assembly x Wiper link assembly	35	357	26	
Turn signal switch assembly x Steering column assembly	3.0	31		27
Windshield washer jar assembly x Vehicle body	8.0	82		71





Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC7Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT DISC	*2	FRONT DISC BRAKE PAD
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*3	FRONT DISC BRAKE CYLINDER ASSEMBLY	*4	PAD WEAR INDICATOR WIRE LH
*5	FRONT FLEXIBLE HOSE	*6	PISTON SEAL
*7	FRONT DISC BRAKE PISTON	*8	CYLINDER BOOT
*9	TORQUE PIN	*10	NO. 1 ANTI-RATTLE SPRING
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part
	Brake pad paste		Syntheso Glep 1 Lubricating Grease

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC7Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

NOTICE:

- General information on changing the brake pads:
 - For vehicles older than 48 months it is recommended to replace the retaining spring or expanding spring.
 - The pad wear indicator wire LH must be replaced once it has been removed because the pad wear indicator wire LH loses its retention capability in the brake pad.
- A CBS reset must be done after every brake pad exchange:
 - A CBS reset in the vehicle is possible in the event of a partially ground down pad wear indicator wire LH. The CBS display in the multi-display is active.
 - In the event of a pad wear indicator wire LH that is not partially ground down, a CBS reset is only possible with the diagnosis system. No CBS display in the multi-display.

Click here [INFO](#)

- To prevent damage to the surface coating:
 - With floating calipers on the brake caliper mounting bracket or with fixed calipers in the brake caliper housing, do not clean the contact surfaces for the brake pads to the extent that it is possible.
 - Clean the contact surfaces. Next, apply a thin coat of brake pad paste.
 - Spread brake pad paste on the marked surfaces with a brush.
- After a front disc brake pad exchange and before applying the brake pedal:
 - Apply the electromechanical parking brake.
 - In case of non-compliance, a CC message appears and the brake system switches to the emergency program. The brake power assistance is no longer active.
- When exchanging brake pads, reset the CBS display in accordance with factory specification (CBS reset).
- Carry out test braking while driving at low speed because the effectiveness of the brakes may be reduced during the initial braking operations.
- Exaggerated emergency and continuous braking operations for faster bedding-in are not permitted.
- Advise the customer not to perform intentional emergency braking operations for the first 200 km (124 mile) after the brakes have been replaced.

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. REMOVE PAD WEAR INDICATOR WIRE LH

Click here [INFO](#)

3. REMOVE FRONT DISC BRAKE PAD

Click here [INFO](#)

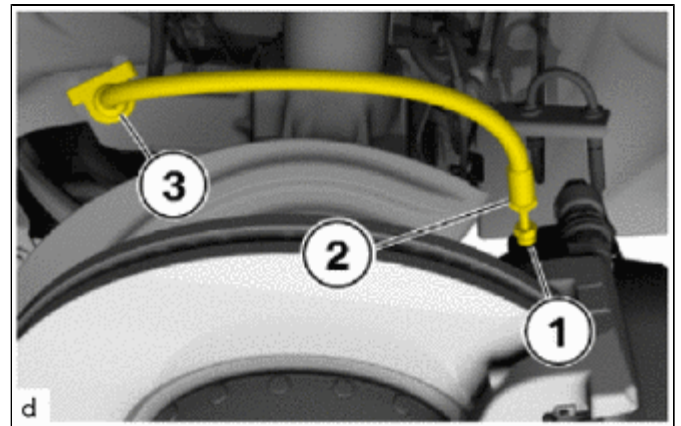
4. REMOVE FRONT DISC BRAKE CYLINDER ASSEMBLY

NOTICE:

Schematic diagram is for example purposes. Some parts may differ in certain details.

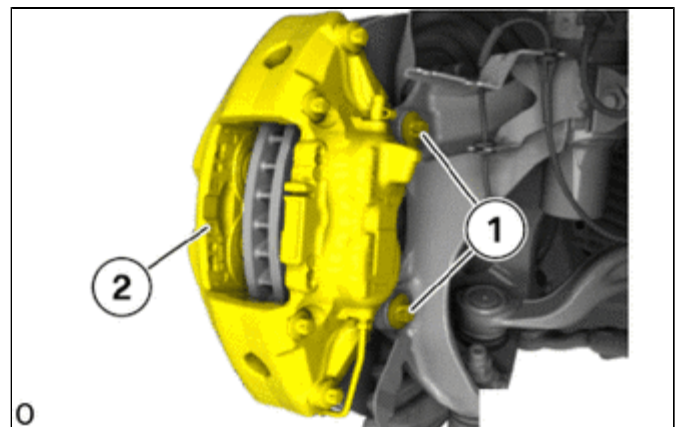
- (a) Release 11 mm union nut on the front flexible hose (1), counter support on the knurl (2).

SST: 09700-WA070



- (b) If necessary, detach front flexible hose (1) from the holder (3).

- (c) Loosen E16 bolts (1).

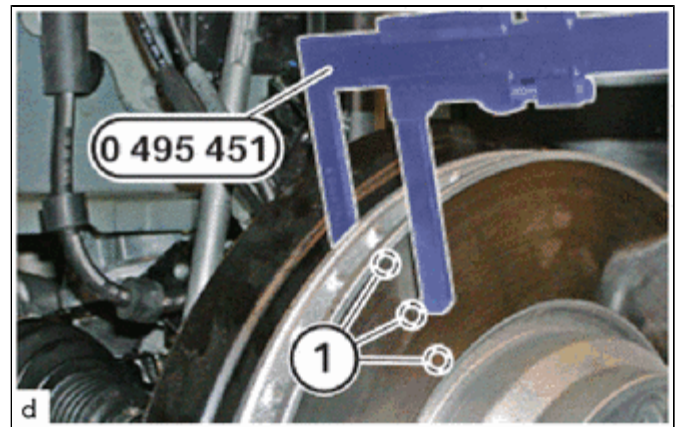


- (d) Remove the front disc brake cylinder assembly (2).

5. INSPECT FRONT DISC

- (a) Place the special tool 0 495 451 (34 1 280) at three measuring points in area (1) and measure.

SST: 09700-WA090



- (b) Compare the measuring results and compare the lowest value with the setpoint value.

Minimum brake disc thickness:

(nominal dimension 348x36)

34.4 mm (1.35 in.)

NOTICE:

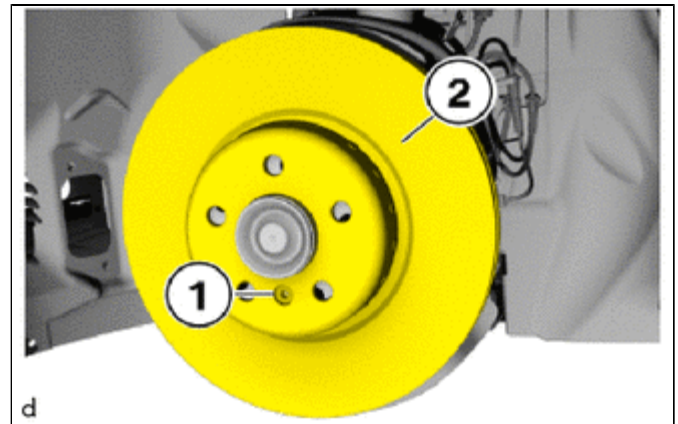
New front disc brake pads must only be installed if the front disc thickness is greater than the minimum front disc thickness.

6. REMOVE FRONT DISC

- (a) Loosen 5 mm hexagon bolt (1).

HINT:

- Note the following for the removal of the front disc:
 - Do not under any circumstances strike the friction ring with a hammer or similar tool.
 - If necessary, carefully tap with a rubber mallet against the front disc chamber.



- (b) Remove the front disc (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

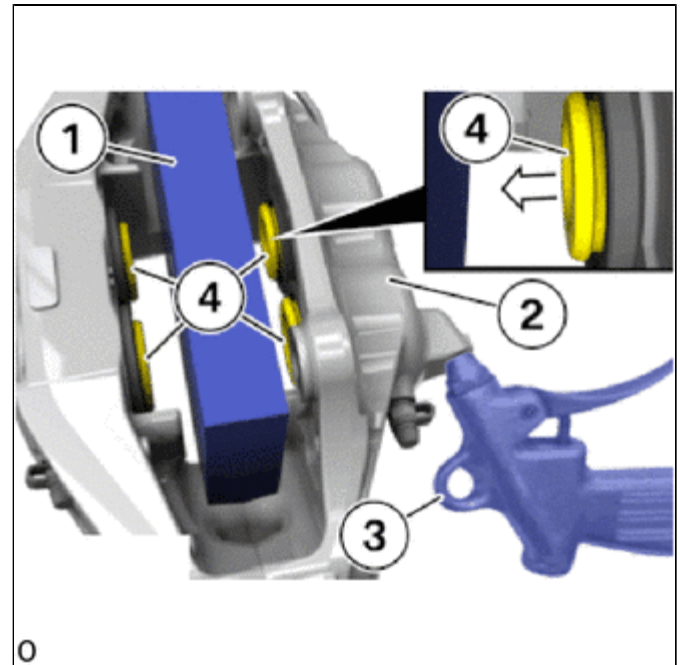
PROCEDURE

1. REMOVE FRONT DISC BRAKE PISTON

- (a) Position protective plate (e.g. Made of hardwood, hardened felt or rubber) (1) in front disc brake cylinder (2).

CAUTION:

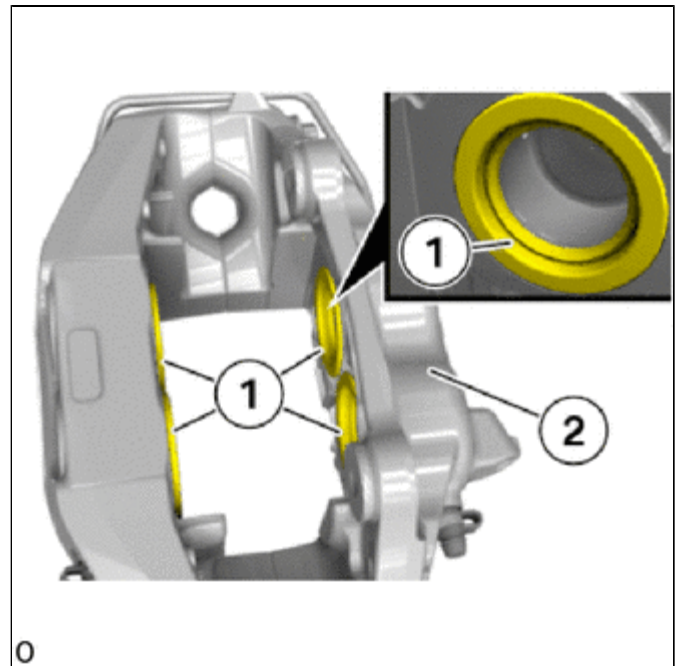
In this process, do not hold the front disc brake piston (4) with your fingers as there is a pinch hazard.



- (b) Position air gun (3) on the connecting bore of the front disc brake cylinder (2).

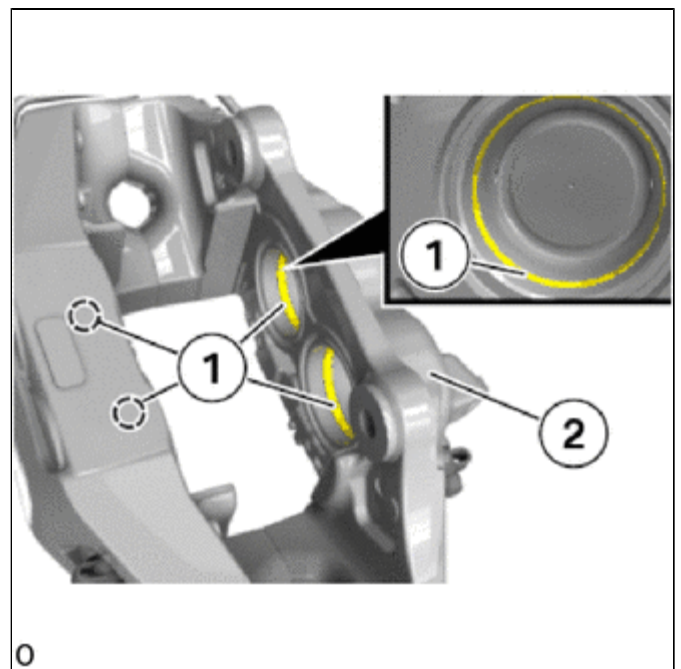
- (c) Carefully push out the front disc brake piston (4) with compressed air in direction of arrow and remove.

- (d) Remove cylinder boot (1) from the front disc brake cylinder (2).

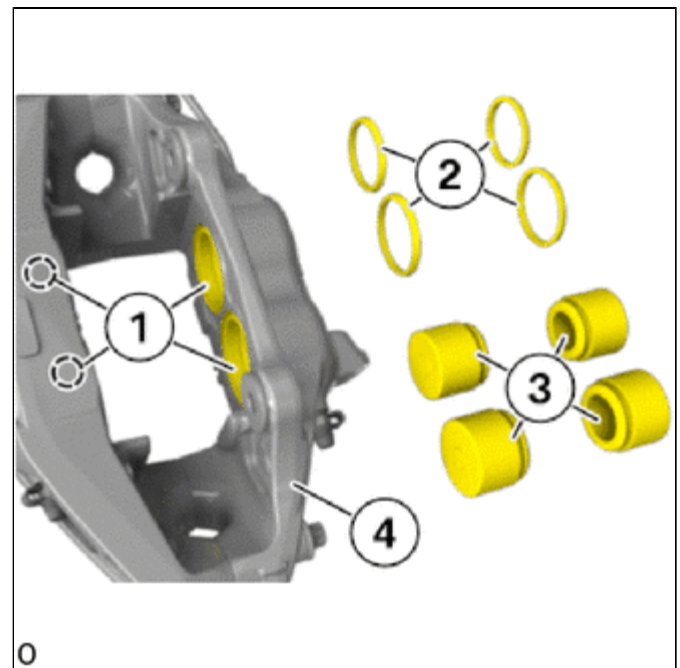


2. REMOVE PISTON SEAL

(a) Carefully remove piston seal (1) from the front disc brake cylinder (2).



(b) Clean the cylinder of the front disc brake cylinder, the piston seal (2) and the front disc brake pistons (3) and dry with compressed air.



(c) Check the cylinder of the front disc brake cylinder (4), the piston seal (2), the front disc brake pistons (3) and the flange surfaces for damage, if necessary, replace the front disc brake cylinder (4).

NOTICE:

Any processing of the cylinder of the front disc brake cylinder (4) and the front disc brake brake piston (3) is not allowed.



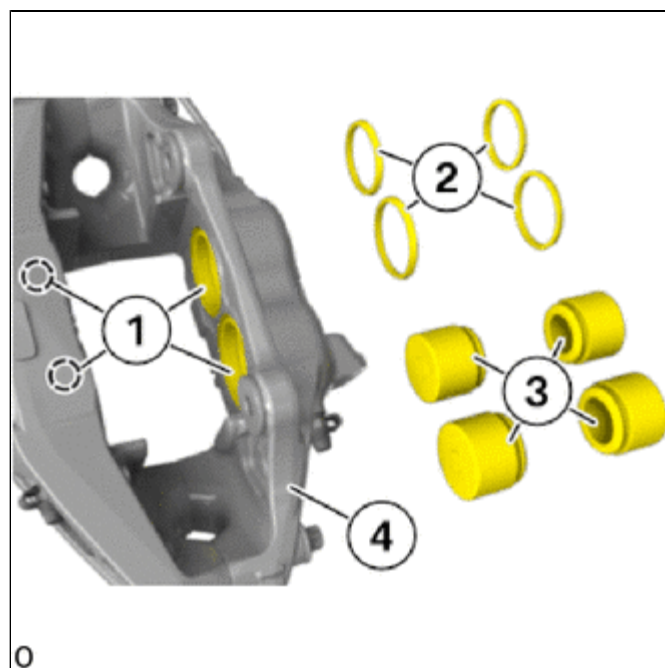
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC81
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL PISTON SEAL

- (a) Clean the cylinder of the front disc brake cylinder, the piston seal (2) and the front disc brake pistons (3) and dry with compressed air.



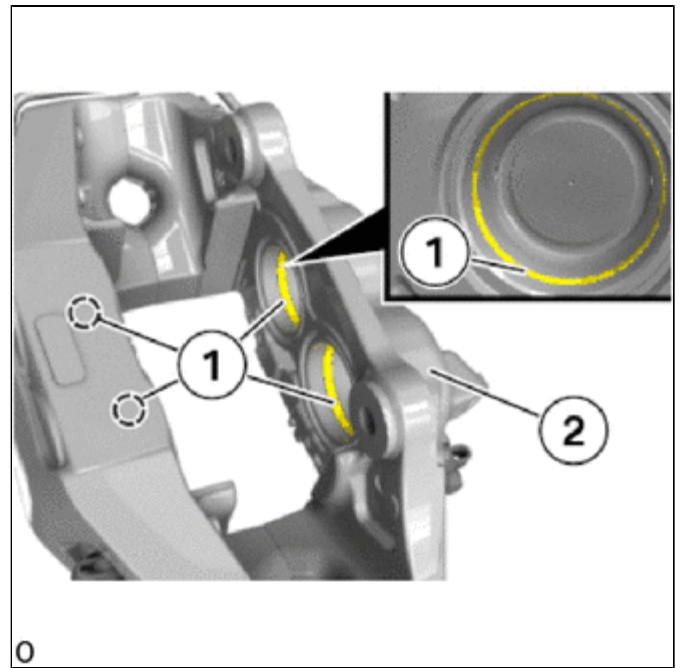
- (b) Check the cylinder of the front disc brake cylinder (4), the piston seal (2), the front disc brake pistons (3) and the flange surfaces for damage, if necessary, replace the front disc brake cylinder (4).

NOTICE:

Any processing of the cylinder of the front disc brake cylinder (4) and the front disc brake piston (3) is not allowed.

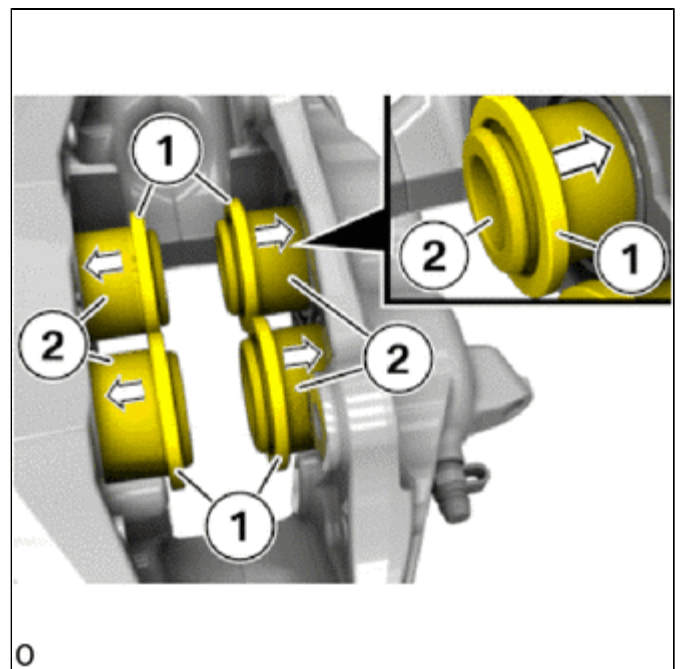
- (c) Lightly coat the cylinder of the front disc brake cylinder (4), the piston seal (2) and the front disc brake pistons (3) with Syntheso Glep 1 Lubricating Grease.

- (d) Install piston seal (1) into the front disc brake cylinder (2).



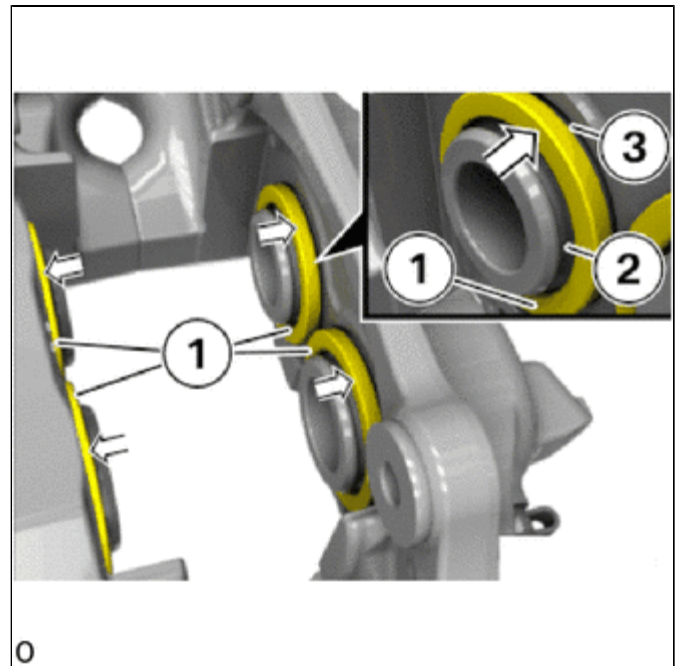
2. INSTALL FRONT DISC BRAKE PISTON

(a) Slide cylinder boot (1) onto the front disc brake pistons (2).



(b) Press in the front disc brake piston (2) into the cylinder of the front disc brake cylinder. In this process, the front disc brake pistons (2) must not tilt.

- (c) Insert cylinder boot (1) into the respective annular groove (2) of the front disc brake piston.



- (d) Evenly push the cylinder boots (1) into the respective groove (3) in the direction of arrow on the front disc brake cylinder up to the limit position.

NOTICE:

- To guarantee that the cylinder boots (1) fit perfectly:
 - Keep the areas between the cylinder boots (1) and the front disc brake cylinder dry.
 - The areas between the cylinder boots (1) and the front disc brake cylinder must not come in contact with the lubricating grease or brake fluid.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC82
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL FRONT DISC

NOTICE:

- Brake front discs must only be replaced in pairs (per axle).
- Fit new front discs only together with new front disc brake pads.

- Position front disc on front axle hub sub-assembly.
- Replace 5 mm hexagon bolt.
- Tighten the 5 mm hexagon bolt.

Torque:

16 N·m {163 kgf·cm, 12 ft·lbf}

2. INSTALL FRONT DISC BRAKE CYLINDER ASSEMBLY

- Install front disc brake cylinder assembly.
- Replace E16 bolts.
- Tighten the E16 bolts.

Torque:

80 N·m {816 kgf·cm, 59 ft·lbf}

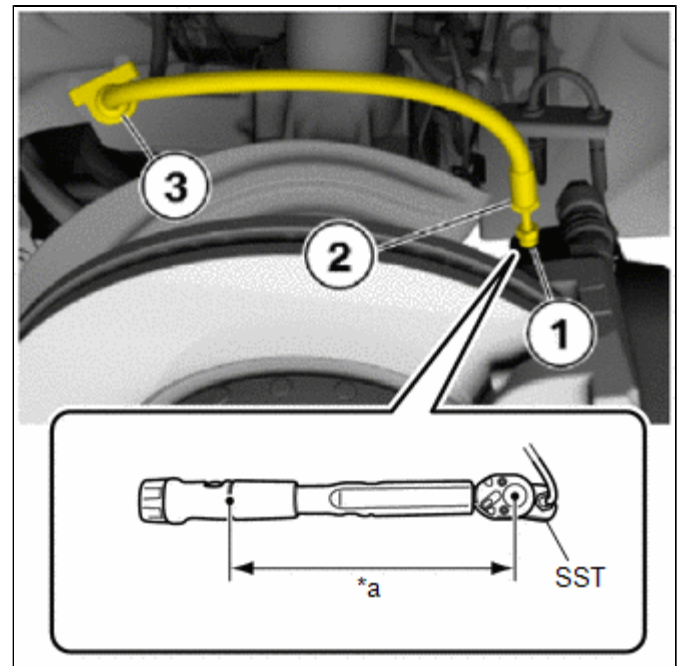
- Position front flexible hose (1) on the front disc brake cylinder assembly.

NOTICE:

Make sure that the front flexible hose (1) does not rest against the components fixed to the body and that it is not twisted.

HINT:

Schematic diagram is for example pur poses. Some parts may differ in certain details.



*a	Torque Wrench Fulcrum Length
----	------------------------------

(e) Tighten 11 mm union nut of the front flexible hose (1) on the front disc brake cylinder assembly; if necessary counter-hold at the knurling (2).

SST: 09700-WA070

Torque:

Specified tightening torque :

17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

[Click here](#) [INFO](#)

3. INSTALL FRONT DISC BRAKE PAD

[Click here](#) [INFO](#)

4. INSTALL PAD WEAR INDICATOR WIRE LH

[Click here](#) [INFO](#)

5. BLEED BRAKE LINE

[Click here](#) [INFO](#)

6. INSTALL FRONT WHEEL

[Click here](#) [INFO](#)

7. INSPECT FRONT BRAKE

NOTICE:

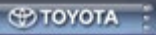
- When exchanging brake pads, reset the CBS display in accordance with factory specification (CBS reset).
- Carry out test braking while driving at low speed because the effectiveness of the brakes may be reduced during the initial braking operations.

Exaggerated emergency and continuous braking operations for faster bedding-in are not permitted.

- Advise the customer not to perform intentional emergency braking operations for the first 200 km (124 mile) after the brakes have been replaced.
- (a) Fully depress brake pedal several times so that front disc brake pads contact front discs.
 - (b) Adjust the brake fluid level to the maximum mark.
 - (c) Perform a functional check on the brake test stand to ensure compliance of the brake system with statutory guidelines.
 - (d) Attach mirror tag to inside mirror.

8. PERFORM CBS RESET

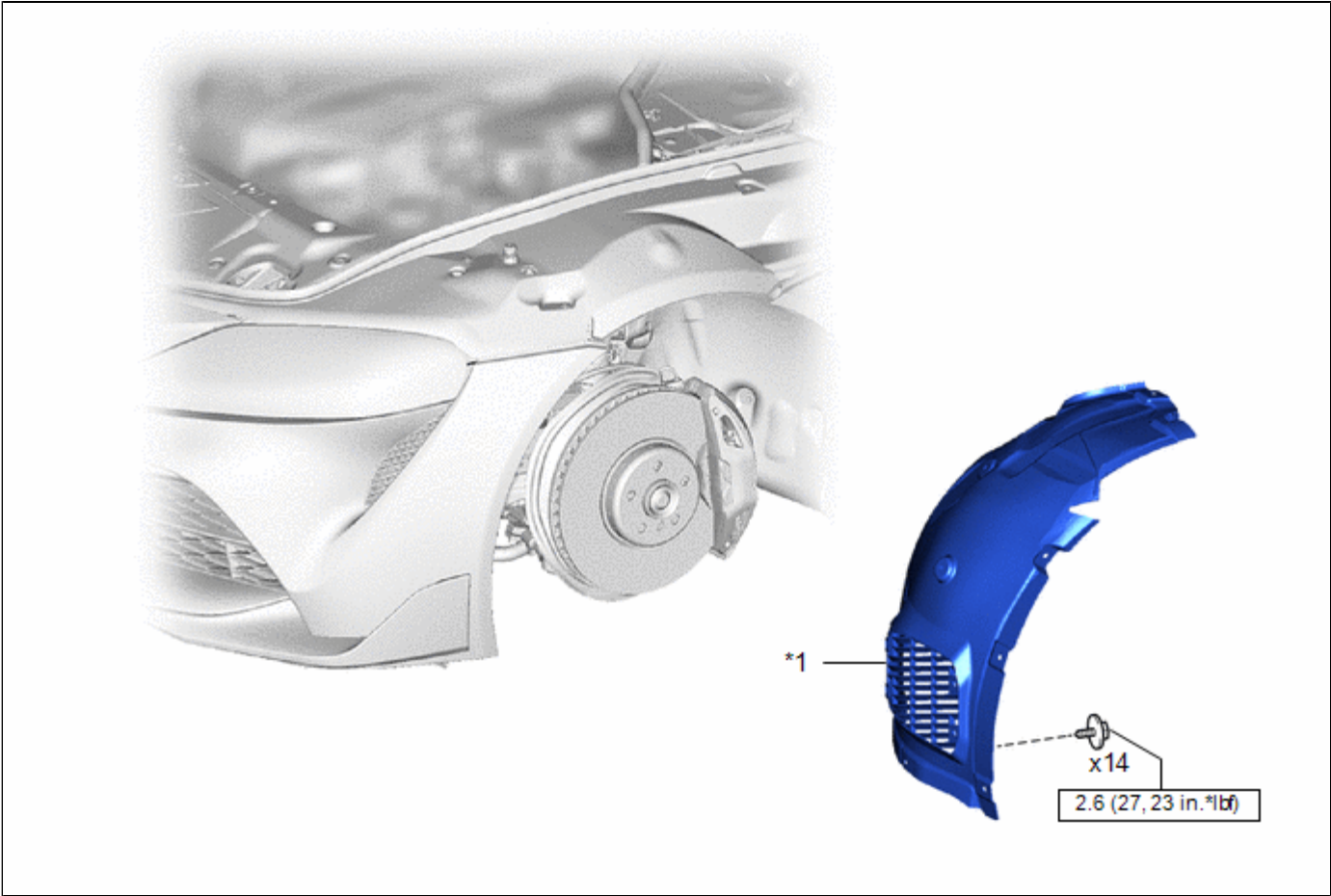
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC89
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE FLEXIBLE HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

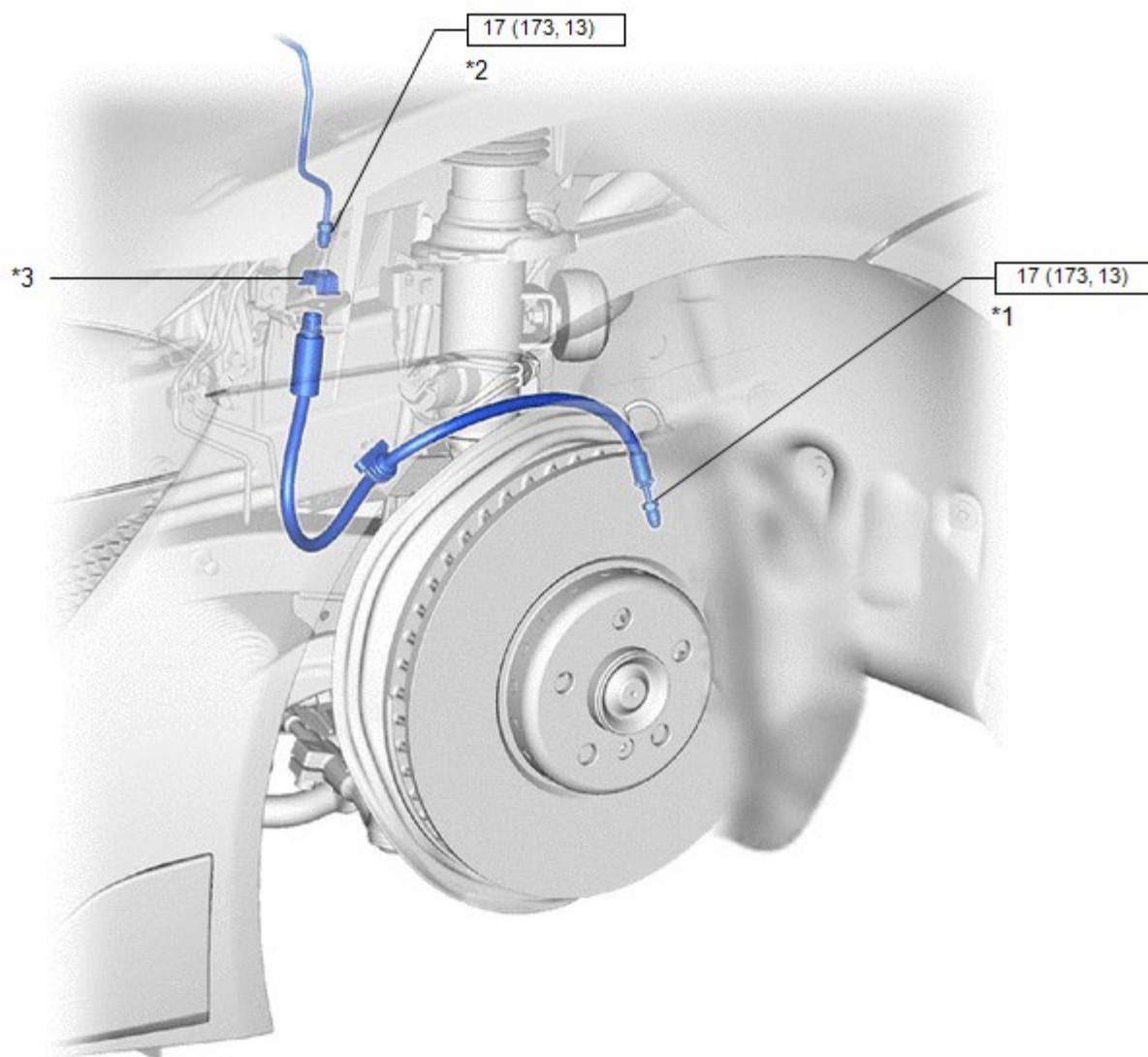
COMPONENTS

ILLUSTRATION




*1	FRONT FENDER LINER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



0

*1	FRONT FLEXIBLE HOSE	*2	BRAKE TUBE
*3	CLIP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE FLEXIBLE HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC8B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT BRAKE FLEXIBLE HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

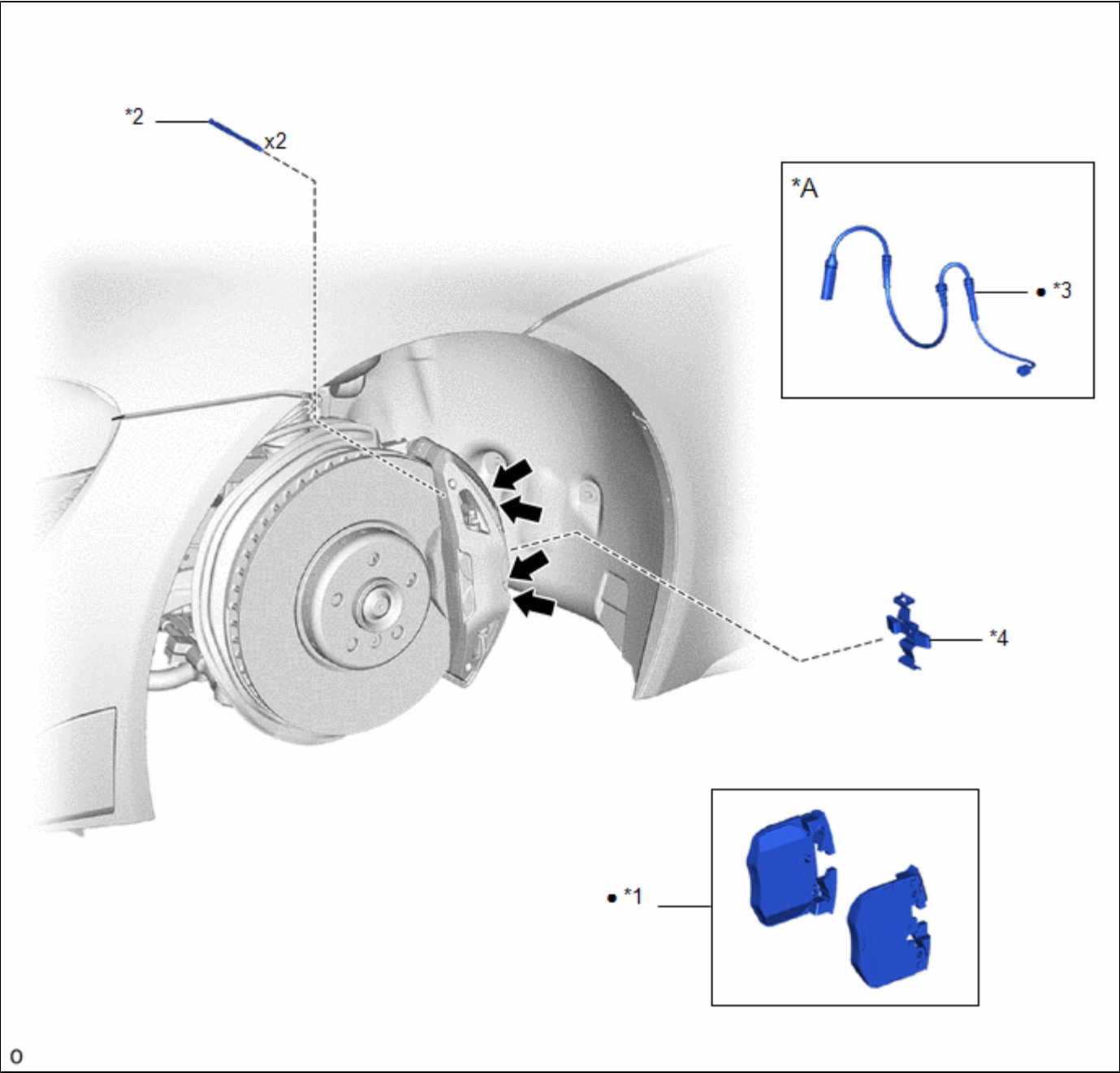
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC86
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT DISC BRAKE PAD (for 4-Pot Caliper): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



0

*1	FRONT DISC BRAKE PAD	*2	TORQUE PIN
*3	PAD WEAR INDICATOR WIRE LH	*4	NO. 1 ANTI-RATTLE SPRING
•	Non-reusable part	➡	Brake pad paste



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC87
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT DISC BRAKE PAD (for 4-Pot Caliper): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC88
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (FRONT): FRONT DISC BRAKE PAD (for 4-Pot Caliper): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

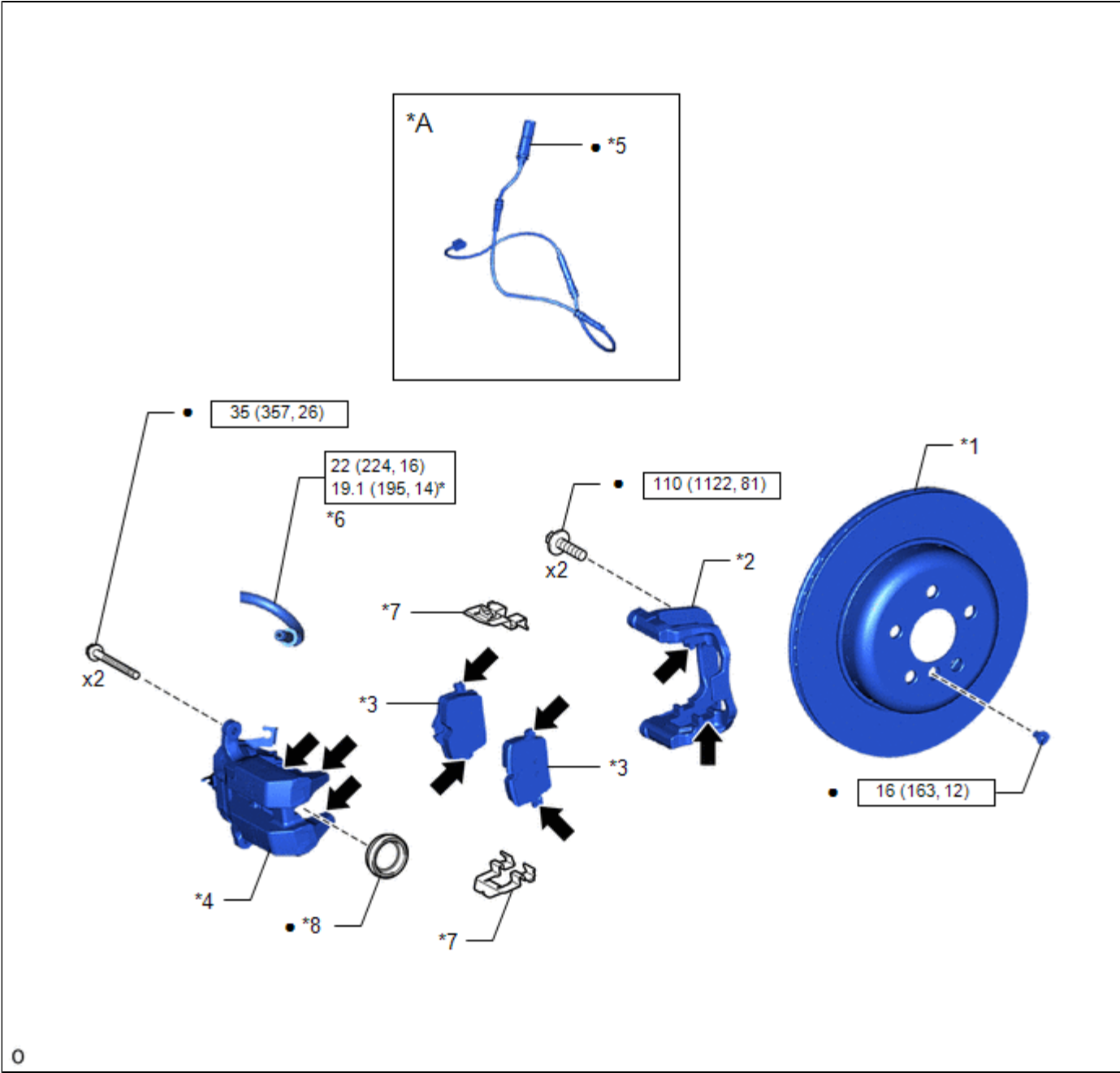
CAUTION / NOTICE / HINT

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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for RH Side	-	-
*1	REAR DISC	*2	REAR DISC BRAKE CYLINDER MOUNTING
*3	REAR DISC BRAKE PAD	*4	REAR DISC BRAKE CYLINDER ASSEMBLY
*5	PAD WEAR INDICATOR WIRE RH	*6	REAR FLEXIBLE HOSE

*7	REAR DISC BRAKE PAD SUPPORT PLATE	*8	CYLINDER BOOT
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench
•	Non-reusable part		Brake pad paste

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here 

- Effects on other persons.

Danger of injury! Risk of damage!

- Make sure that no other persons are in or around the vehicle.
- After a rear disc brake pad exchange and before applying the brake pedal:
 - Apply the electromechanical parking brake.
 - In case of non-compliance, a CC message appears and the brake system switches to the emergency program. The brake power assistance is no longer active.

NOTICE:

- General information on changing the brake pads:
 - For vehicles older than 48 months it is recommended to replace the retaining spring or expanding spring.
 - The pad wear indicator wire RH must be replaced once it has been removed because the pad wear indicator wire RH loses its retention capability in the brake pad.
- A CBS reset must be done after every brake pad exchange:
 - A CBS reset in the vehicle is possible in the event of a partially ground down pad wear indicator wire RH. The CBS display in the multi-display is active.
 - In the event of a pad wear indicator wire RH that is not partially ground down, a CBS reset is only possible with the diagnosis system. No CBS display in the multi-display.

Click here 

- During work on the rear brake, it must be ensured that the button for the electromechanical parking brake cannot be pressed.
- To prevent damage to the surface coating:
 - With floating calipers on the brake caliper mounting bracket or with fixed calipers in the brake caliper housing, do not clean the contact surfaces for the brake pads to the extent that it is possible.
 - Clean the contact surfaces. Next, apply a thin coat of brake pad paste.
 - Spread brake pad paste on the marked surfaces with a brush.
- When exchanging brake pads, reset the CBS display in accordance with factory specification (CBS reset).
- Carry out test braking while driving at low speed because the effectiveness of the brakes may be reduced during the initial braking operations.
- Exaggerated emergency and continuous braking operations for faster bedding-in are not permitted.
- Advise the customer not to perform intentional emergency braking operations for the first 200 km (124 mile) after the brakes have been replaced.

HINT:

- The following procedure is for the LH side.
- Use the same procedure for the RH side and LH side.

PROCEDURE

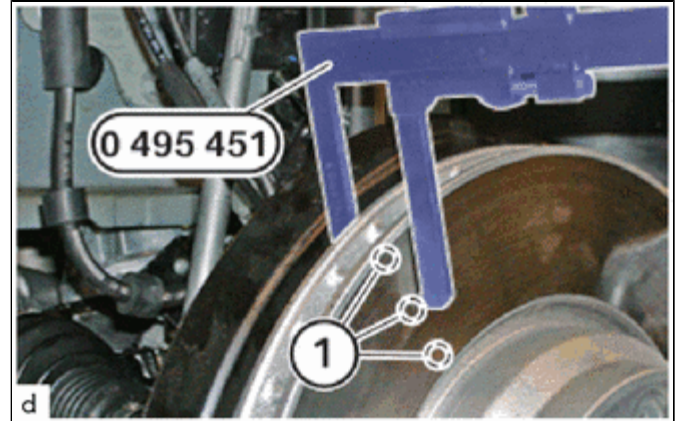
1. REMOVE REAR WHEEL

Click here [INFO](#)

2. MEASURE MINIMUM BRAKE DISC THICKNESS (REAR BRAKE)

- (a) Place the special tool 0 495 451 (34 1 280) at three measuring points in area (1) and measure.

SST: 09700-WA090



- (b) Compare the measuring results and compare the lowest value with the setpoint value.

HINT:

New rear disc brake pads must only be installed if the rear disc thickness is greater than the minimum rear disc thickness.

Minimum brake disc thickness:

Nominal dimension 330x20

18.4 mm (0.724 in.)

Nominal dimension 345x24

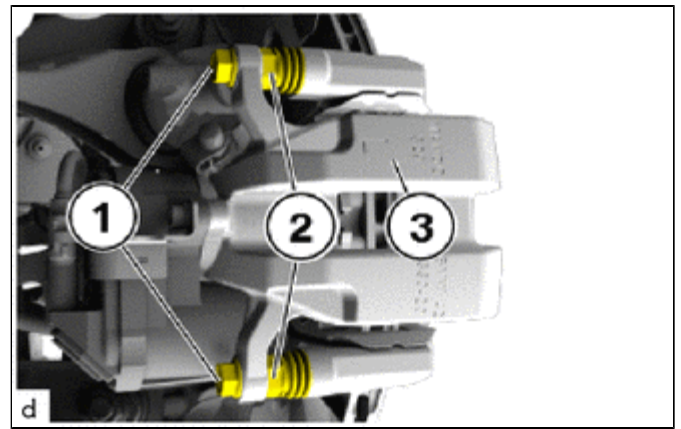
22.4 mm (0.882 in.)

3. REMOVE PAD WEAR INDICATOR WIRE RH (for RH Side)

Click here [INFO](#)

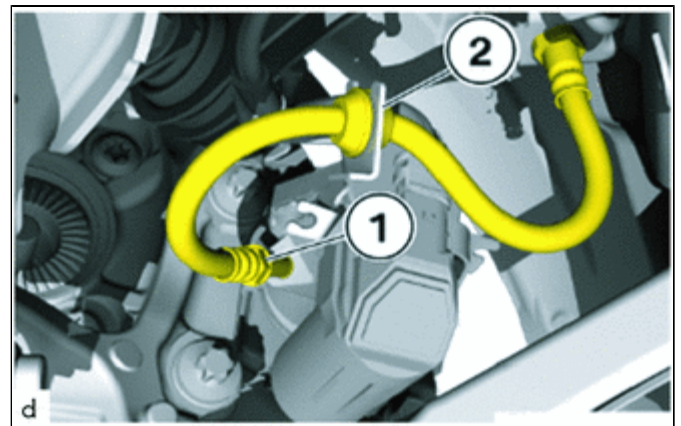
4. REMOVE REAR DISC BRAKE CYLINDER ASSEMBLY

- (a) Release the 15 mm bolts (1), if necessary use the hexagon head (2) for counter support.



(b) Remove rear disc brake cylinder assembly (3).

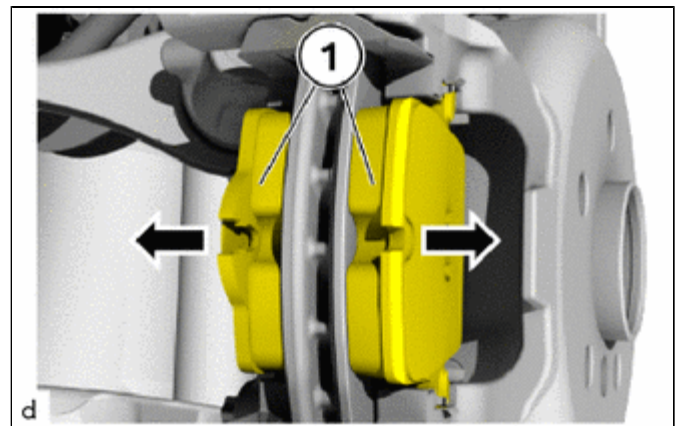
(c) Remove the rear flexible hose (1) from the bracket (2).



(d) Detach rear flexible hose (1) from rear disc brake cylinder assembly.

5. REMOVE REAR DISC BRAKE PAD

(a) Remove the rear disc brake pads (1) from the rear disc brake cylinder mounting in direction of the arrows.

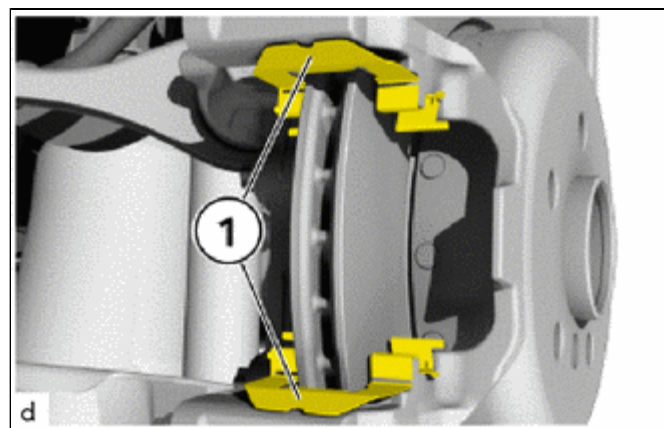


(b) Mark any worn brake pads.

HINT:

If the rear disc brake pad wear exists on one side, they must not be mixed up.

(c) Remove the rear disc brake pad support plates (1).

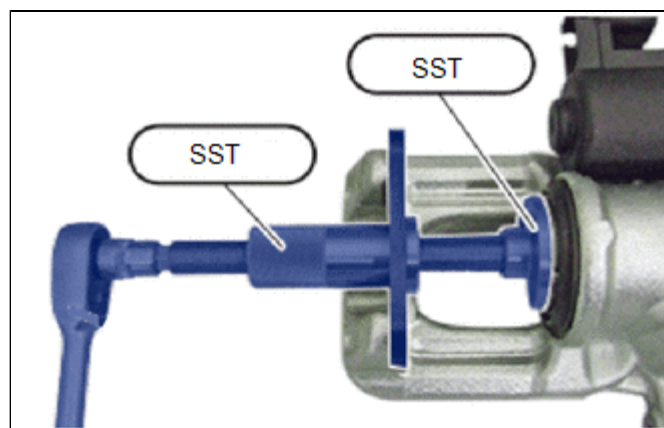


(d) Press back the brake piston using the SST.

SST: 09719-12010

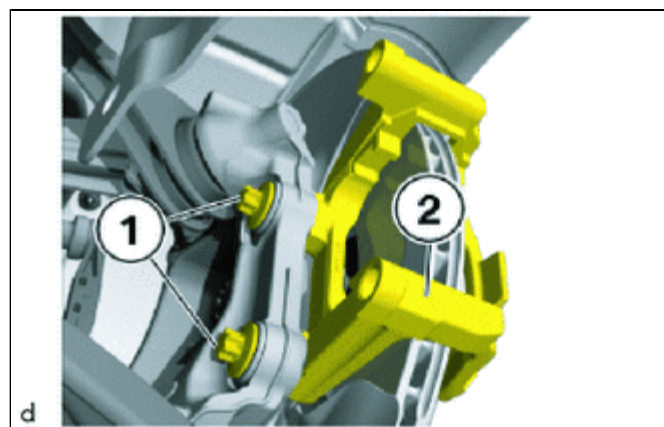
NOTICE:

- When pressing the brake piston back, note the brake fluid level in the brake master cylinder reservoir assembly.
- Overflowing brake fluid will damage the paintwork.



6. REMOVE REAR DISC

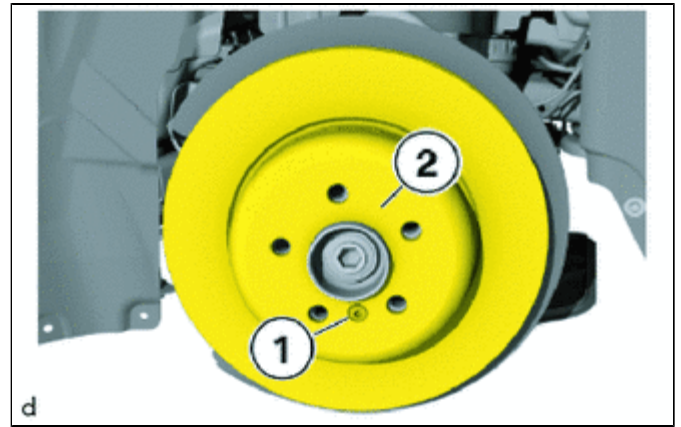
(a) Release the E16 bolts (1) and remove the rear disc brake cylinder mounting (2).



(b) Release the 5 mm hexagon bolt (1) and remove the rear disc (2).

NOTICE:

- Note the following for the removal of the rear disc:
 - Do not under any circumstances strike the friction ring with a hammer or similar tool.
 - If necessary, carefully tap with a rubber mallet against the rear disc chamber.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

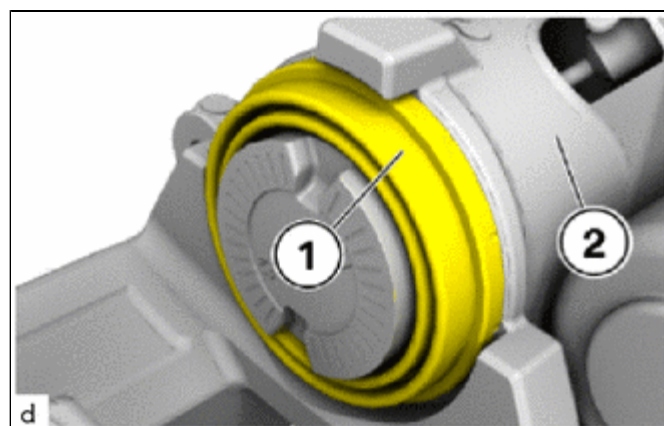
PROCEDURE

1. REMOVE CYLINDER BOOT

- (a) Detach the cylinder boot (1) from the front disc brake cylinder assembly (2).

NOTICE:

The cylinder boot must not be re-used.



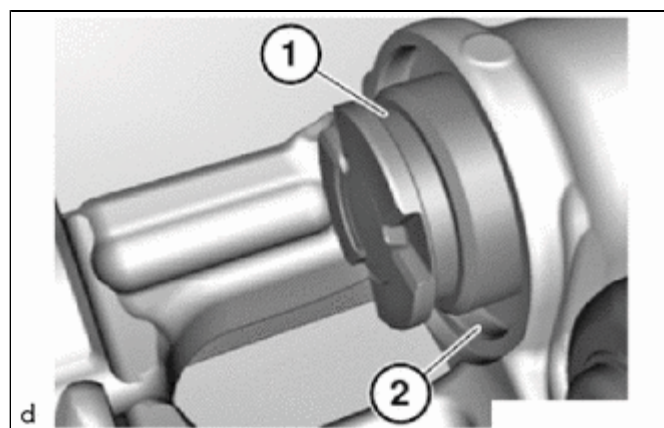
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL CYLINDER BOOT

- (a) Clean the contact surface of the cylinder boot on the rear disc brake cylinder assembly (1) and on the annular groove (2) of the brake piston using a lint-free cloth.

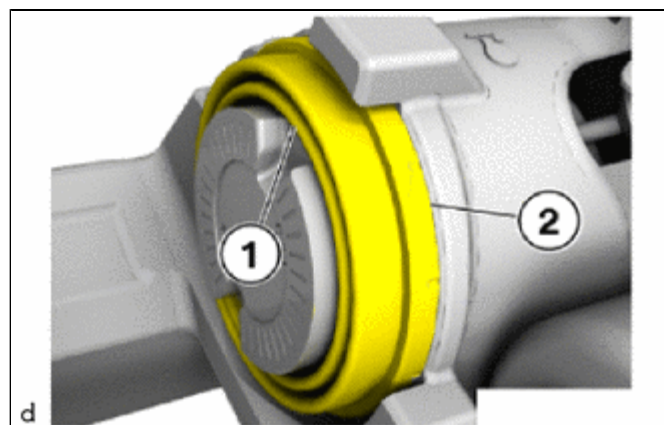


- (b) Carefully check the cylinder of the rear disc brake cylinder assembly and the rear disc brake piston for damage.

NOTICE:

- Corroded or damaged components must be replaced.
- To guarantee that the cylinder boot fits perfectly:
 - Keep the area between the cylinder boot and the rear disc brake cylinder assembly dry.

- (c) Pull the sealing lip (1) of the cylinder boot (2) over the rear disc brake piston until the cylinder boot (2) is completely fitted into the annular groove of the rear disc brake piston.



- (d) Position the cylinder boot (2) evenly on the contact surface of the rear disc brake cylinder assembly and push in evenly.

NOTICE:

The cylinder boot must fit correctly around the entire circumference of the rear disc brake cylinder assembly and on

the annular groove of the rear disc brake piston.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL REAR DISC

HINT:

- Rear discs must only be replaced in pairs (per axle).
- Fit new rear discs only together with new rear disc brake pads.

(a) Thoroughly clean the contact surface of the rear axle hub sub-assembly, remove traces of corrosion if necessary.

NOTICE:

Irregularities in the contact surface can cause distortion in the rear disc.

(b) Install the rear disc.

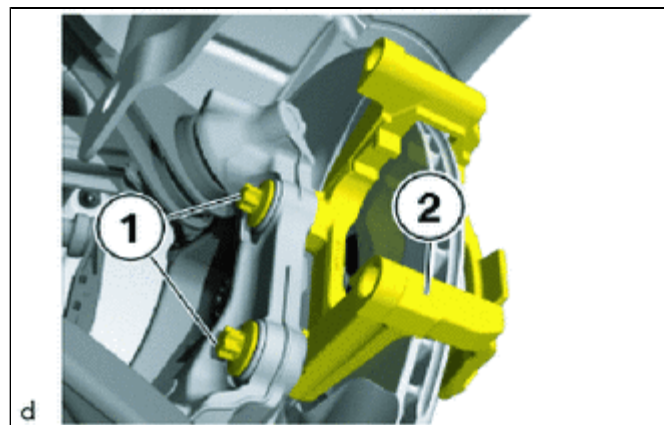
(c) Replace the 5 mm hexagon bolt.

(d) Tighten down 5 mm hexagon bolt.

Torque:

16 N·m {163 kgf·cm, 12 ft·lbf}

(e) Install the rear disc brake cylinder mounting (2).



(f) Replace E16 bolts (1).

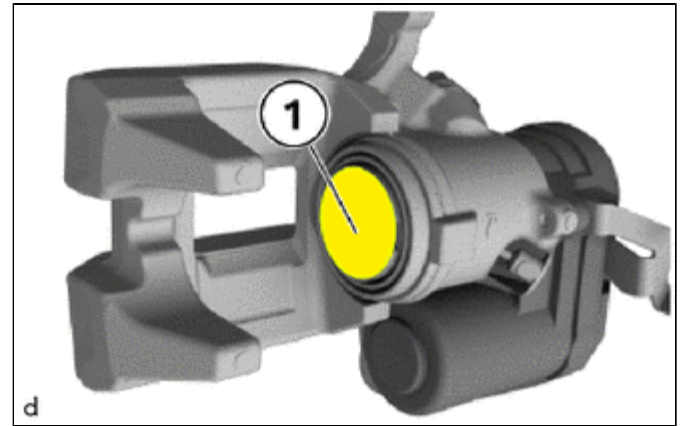
(g) Tighten the E16 bolts (1).

Torque:

110 N·m {1122 kgf·cm, 81 ft·lbf}

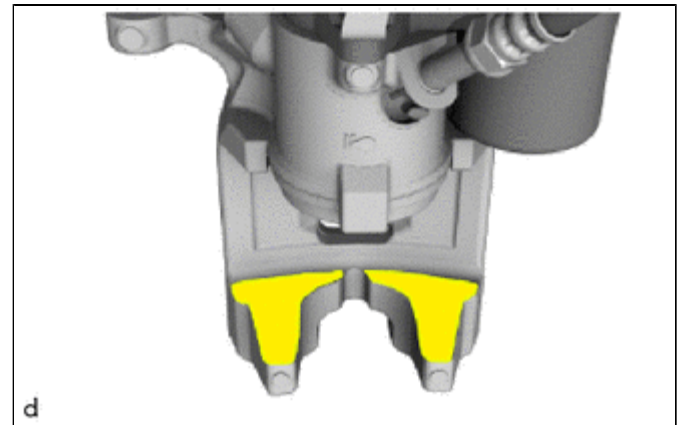
2. INSTALL REAR DISC BRAKE PAD

- (a) Clean contact surface (1) of the brake piston with brake cleaner and apply a thin coat of brake pad paste.



- (b) Check cylinder boot for damage, replace if necessary.

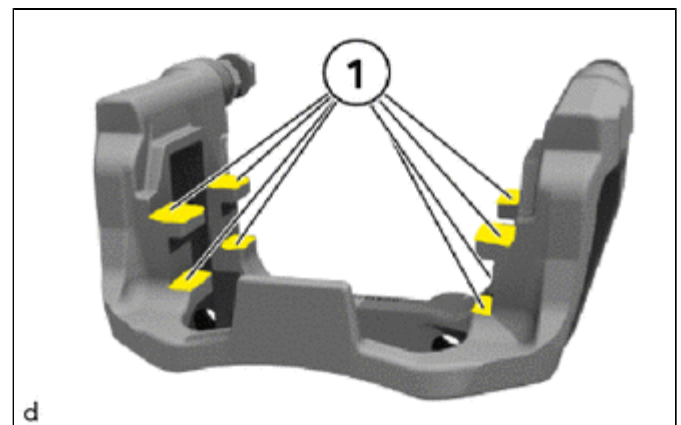
- (c) Clean contact surface of the rear disc brake cylinder assembly with brake cleaner and apply a thin coat of brake pad paste.



- (d) Clean the contact surfaces of the rear disc brake pad support plates (1) with brake cleaner and apply a thin coating of brake pad paste.

NOTICE:

The contact surfaces of the rear disc brake pad support plates (1) for the rear disc brake pads on the rear disc brake cylinder mounting must not be cleaned mechanically to avoid damage to the surface coating.

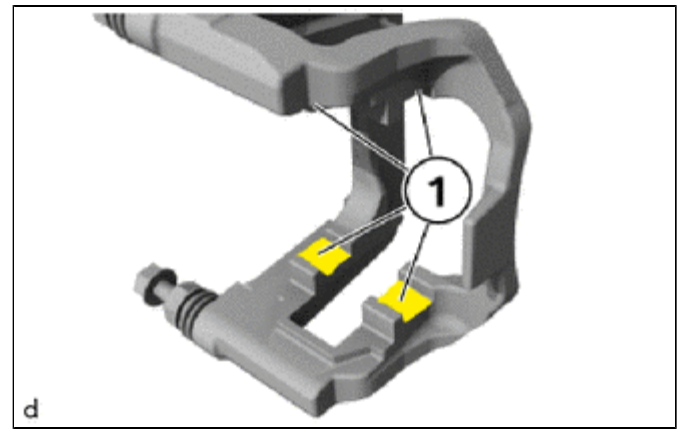


- (e) Clean the contact surfaces of the rear disc brake pad support plates (1) with brake cleaner and apply a thin

coating of brake pad paste.

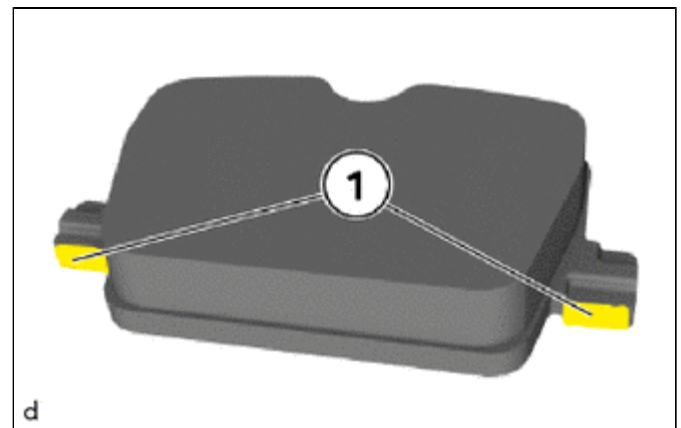
NOTICE:

The contact surfaces of the rear disc brake pad support plates (1) for the rear disc brake pads on the rear disc brake cylinder mounting must not be cleaned mechanically to avoid damage to the surface coating.

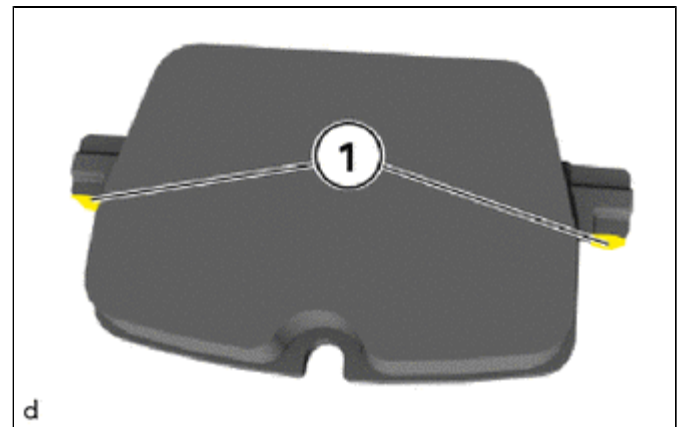


(f) Install the rear disc brake pad support plates.

(g) Coat the T-head of outer rear disc brake pad in the marked area (1) in each case with a thin coating of brake pad paste.

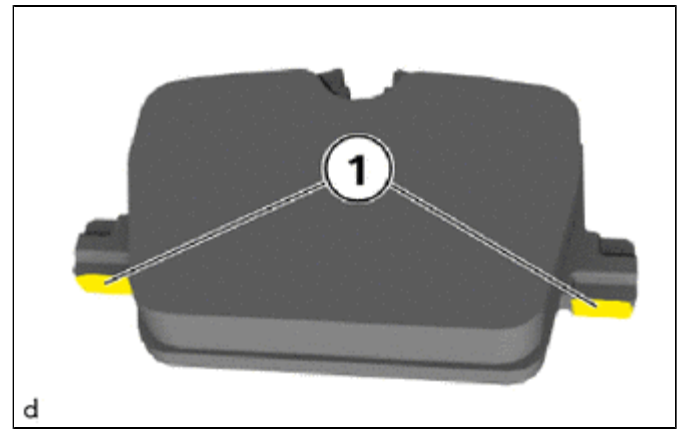


(h) Coat the T-head of outer rear disc brake pad in the marked area (1) in each case with a thin coating of brake pad paste.

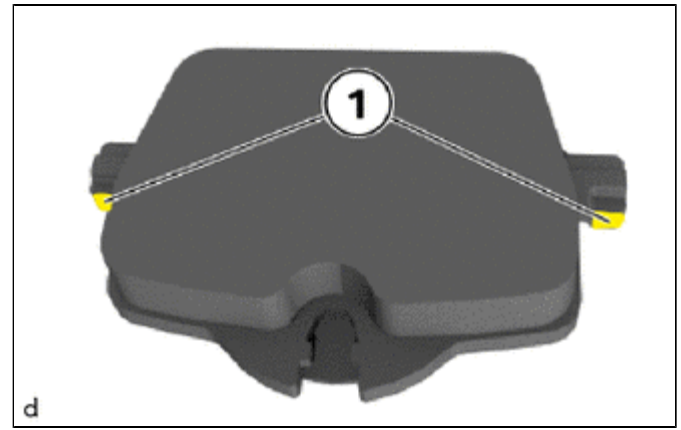


(i) Coat the T-head of outer rear disc brake pad in the marked

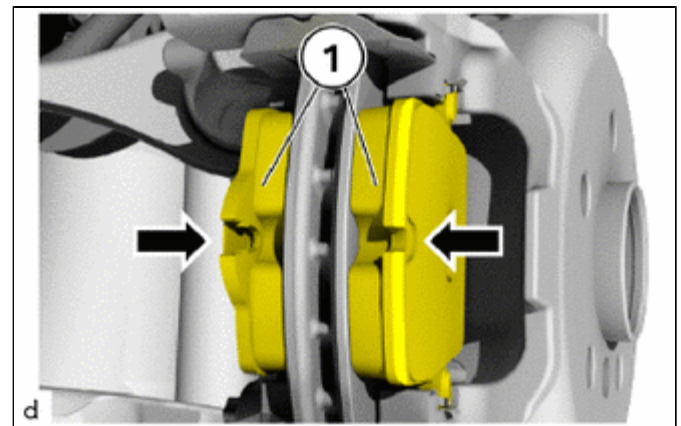
area (1) in each case with a thin coating of brake pad paste.



(j) Coat the T-head of outer rear disc brake pad in the marked area (1) in each case with a thin coating of brake pad paste.



(k) Install the rear disc brake pads (1) in the direction of the arrow.



3. INSTALL REAR DISC BRAKE CYLINDER ASSEMBLY

(a) Using a 14 mm union nut wrench, tighten the rear flexible hose on the rear disc brake cylinder assembly.

Torque:

Specified tightening torque :

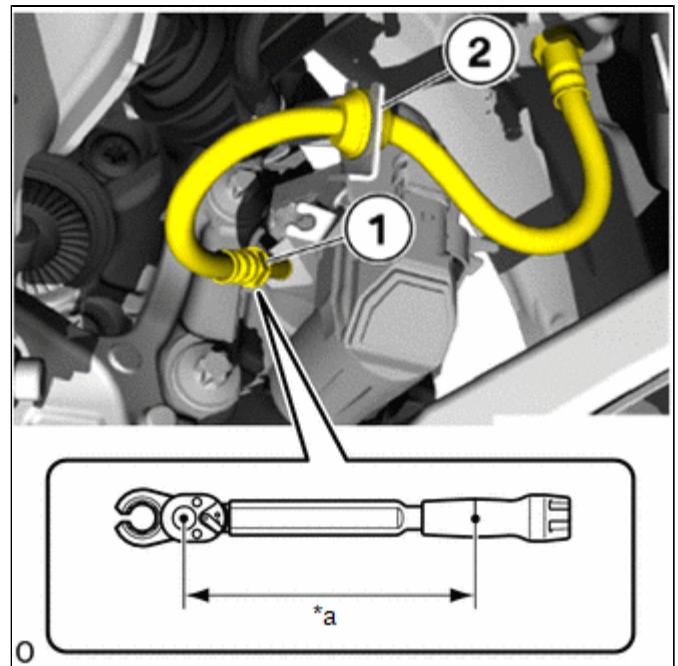
22 N·m {224 kgf·cm, 16 ft·lbf}

HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)

- When using a special tool (fulcrum length of 25.0 mm (0.984 in.)) + torque wrench (fulcrum length of 162 mm (6.38 in.)): 19.1 N·m (195 kgf·cm, 14 ft·lbf)



*a	Torque Wrench Fulcrum Length
----	------------------------------

(b) Insert the rear flexible hose into the holder.

NOTICE:

Make sure that the rear flexible hose does not rest against the components fixed to the body and that it is not twisted.

(c) Install the rear disc brake cylinder assembly.

(d) Replace 15 mm bolts.

(e) Tighten the 15 mm bolts, if applicable, hold against the hexagon head.

Torque:

35 N·m {357 kgf·cm, 26 ft·lbf}

4. INSTALL PAD WEAR INDICATOR WIRE RH (for RH Side)

Click here [INFO](#)

5. BLEED BRAKE LINE

Click here [INFO](#)

6. INSTALL REAR WHEEL

Click here [INFO](#)

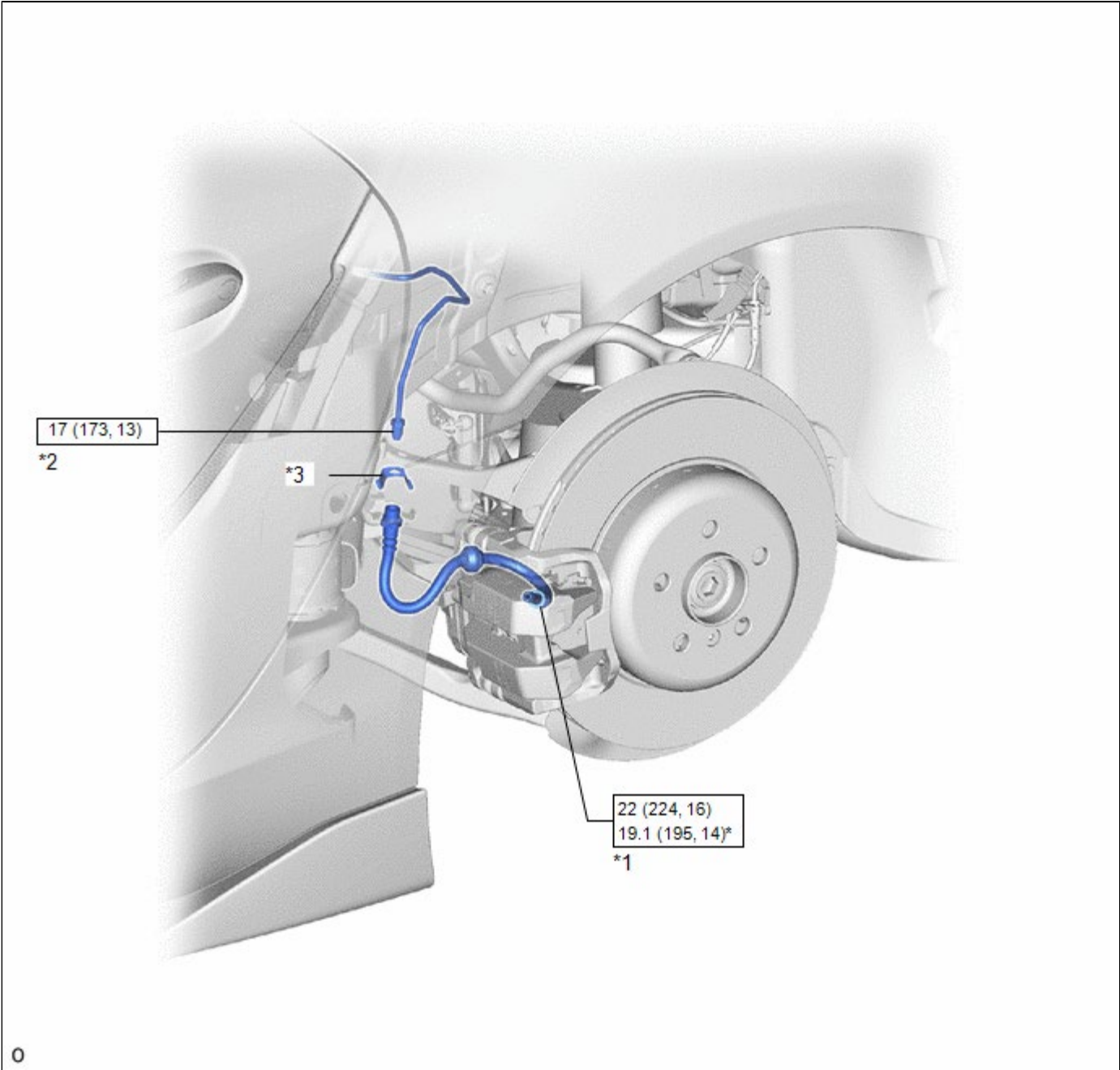
7. PERFORM CBS RESET

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE FLEXIBLE HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR FLEXIBLE HOSE	*2	BRAKE TUBE
*3	CLIP	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE FLEXIBLE HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR BRAKE FLEXIBLE HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

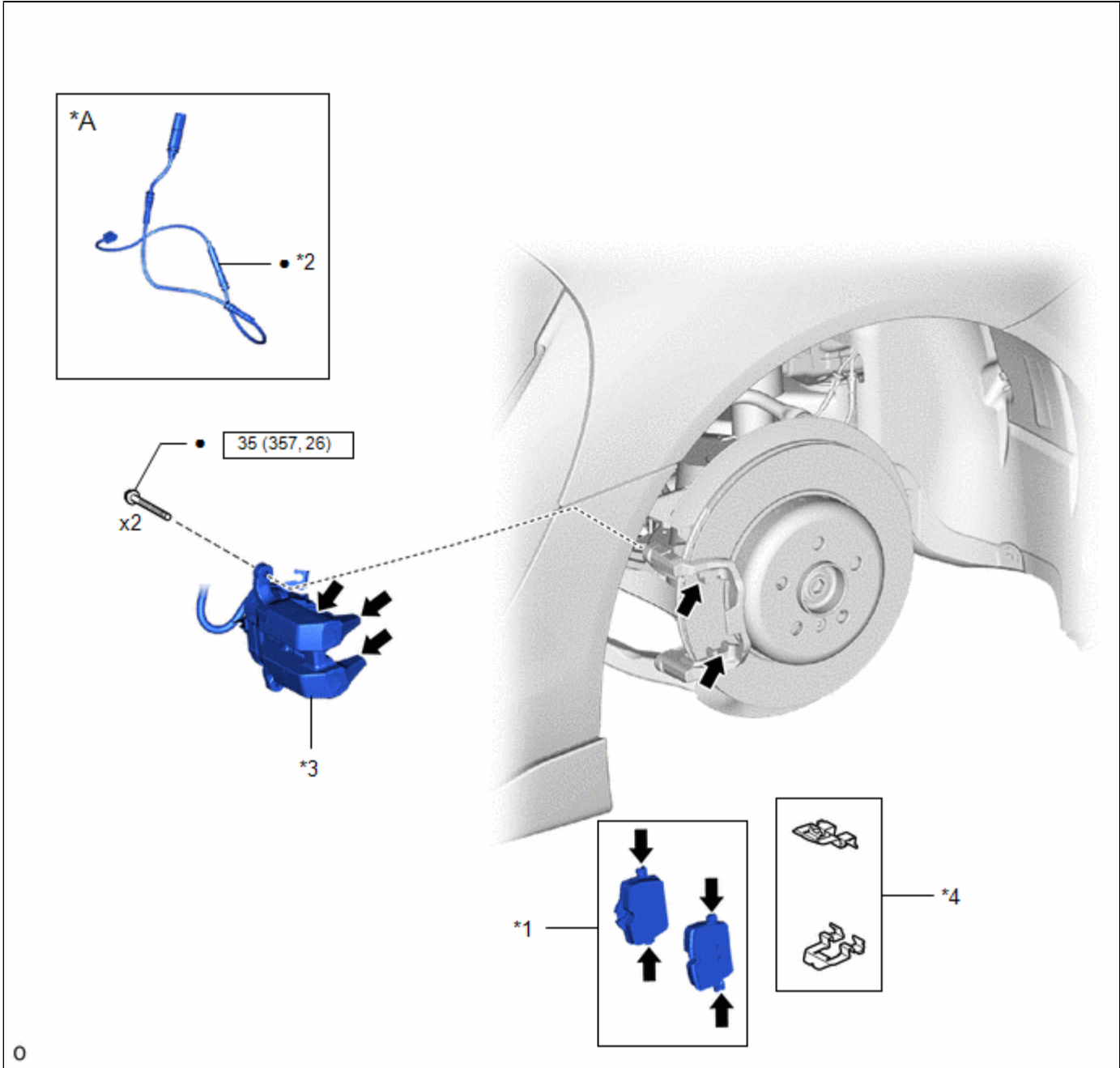
CAUTION / NOTICE / HINT

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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR DISC BRAKE PAD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for RH Side	-	-
*1	REAR DISC BRAKE PAD	*2	PAD WEAR INDICATOR WIRE RH
*3	REAR DISC BRAKE CYLINDER ASSEMBLY	*4	REAR DISC BRAKE PAD SUPPORT PLATE
N*m (kgf*cm, ft.*lbf): Specified			

	torque	•	Non-reusable part
	Brake Pad Paste	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR DISC BRAKE PAD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE (REAR): REAR DISC BRAKE PAD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

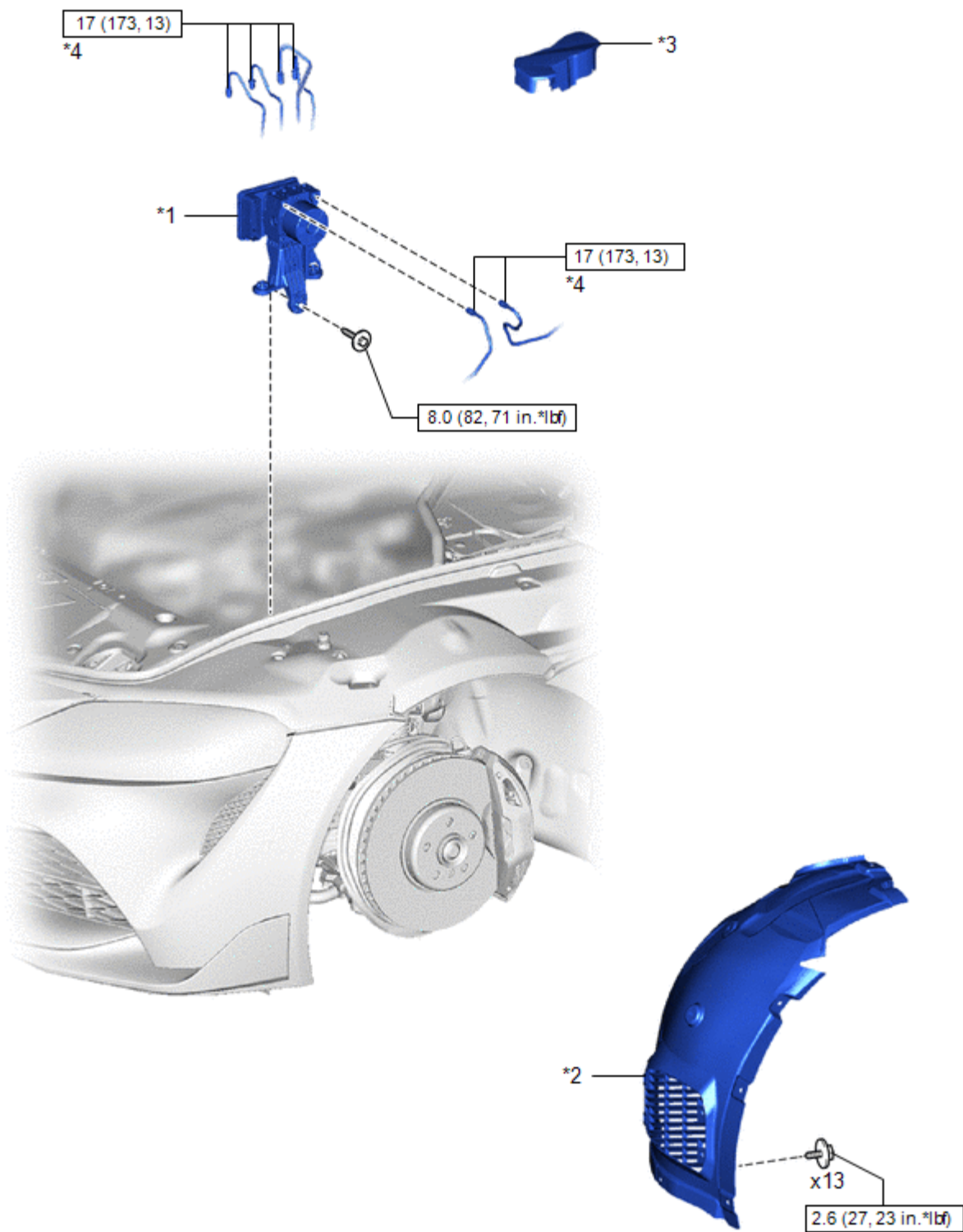
CAUTION / NOTICE / HINT

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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: BRAKE ACTUATOR: COMPONENTS; 2020 MY Supra [03/2019 -]		


COMPONENTS

ILLUSTRATION

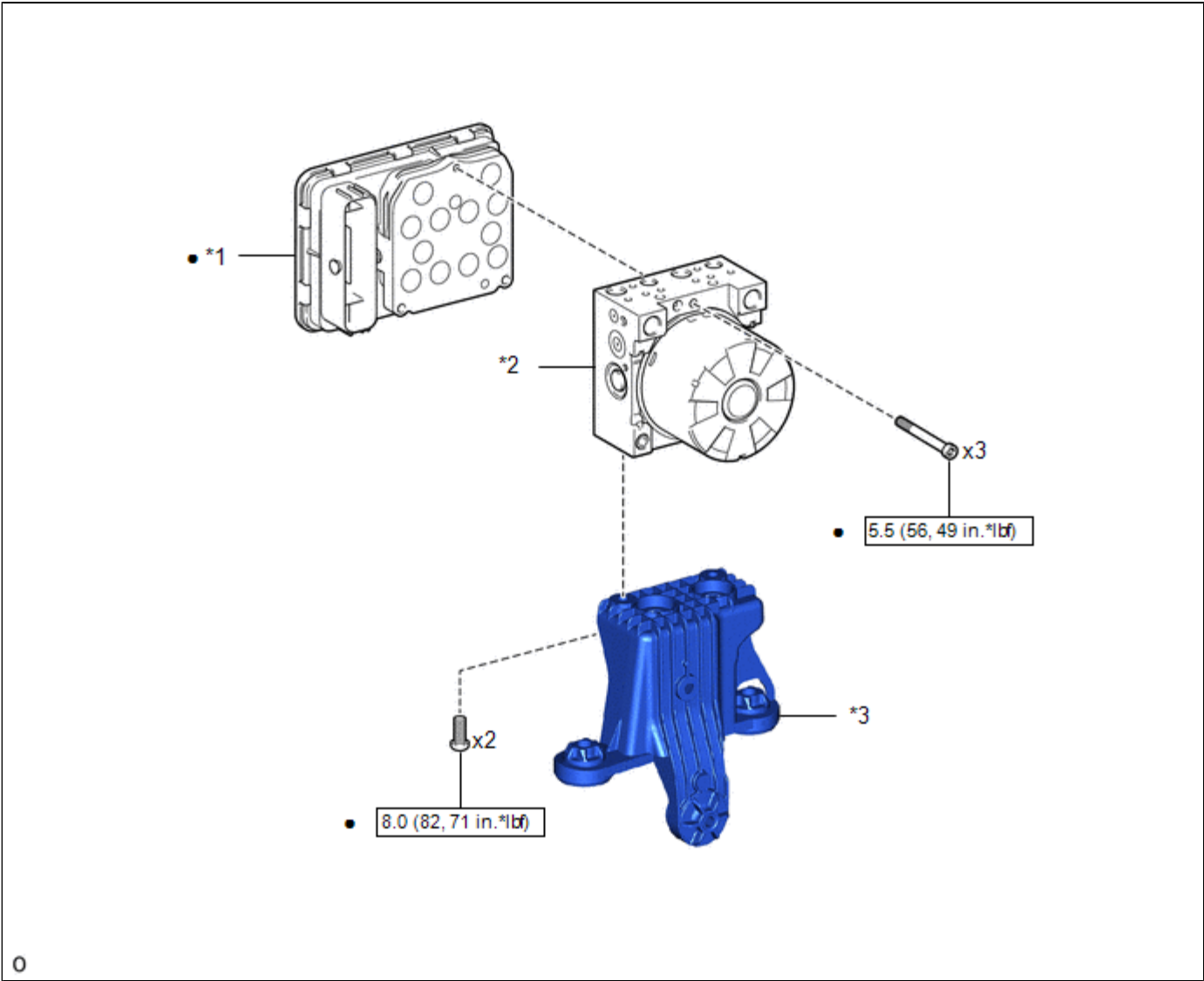



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*1	BRAKE ACTUATOR WITH BRACKET	*2	FRONT FENDER LINER LH
*3	ENGINE ROOM ECU COVER	*4	BRAKE LINE
N*m (kgf*cm, ft.*lbf): Specified			

	torque	-	-
---	--------	---	---

ILLUSTRATION



*1	SKID CONTROL ECU ASSEMBLY	*2	BRAKE ACTUATOR ASSEMBLY
*3	BRAKE ACTUATOR BRACKET ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: BRAKE ACTUATOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Do not interchange brake lines. If necessary, mark the brake lines before disassembly.
- Note various equipment specifications with different line seizure.
- Do not bend brake lines.
- Close off connecting bores with seal plugs.

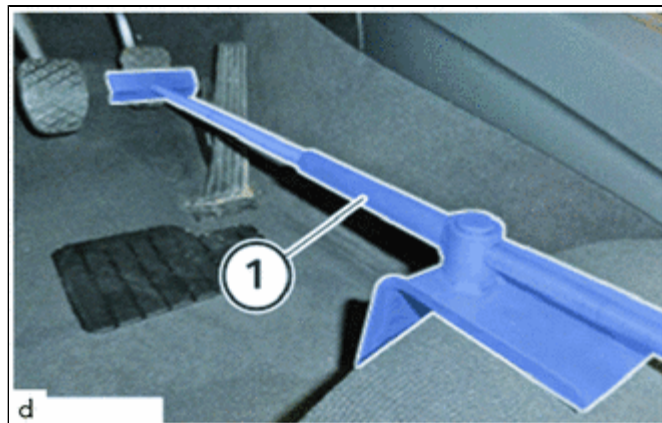
PROCEDURE

1. INSTALL BRAKE PEDAL PRESSURE

- Press the brake pedal to the floor and fix the brake pedal pressure (1).

HINT:

Do not release the brake pedal pressure (1) until the brake lines have been reconnected. This prevents brake fluid from emerging from the expansion tank when the brake lines are opened.



2. REMOVE FRONT WHEEL

Click here [INFO](#)

3. REMOVE FRONT FENDER LINER LH

Click here [INFO](#)

4. REMOVE RADIATOR RESERVE TANK ASSEMBLY

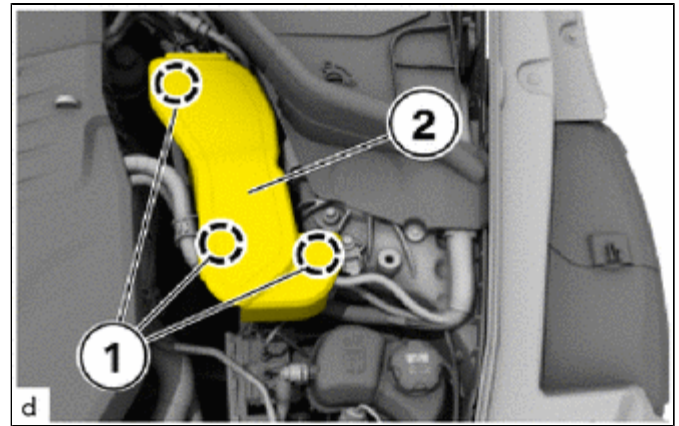
Click here [INFO](#)

5. REMOVE RADIATOR RESERVE TANK SUB-ASSEMBLY

Click here [INFO](#)

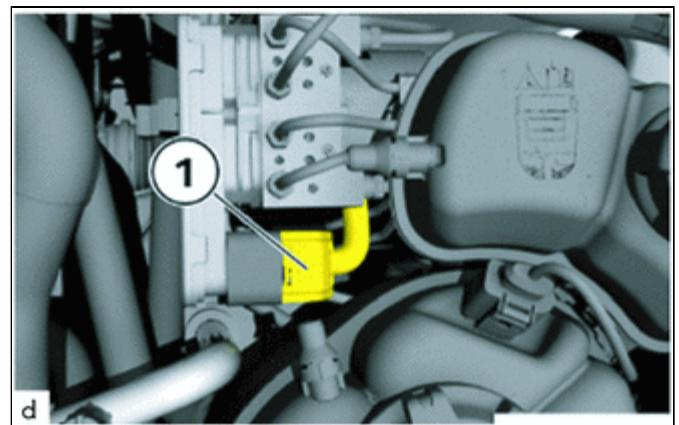
6. REMOVE BRAKE ACTUATOR WITH BRACKET

(a) Release snap-lock couplings (1).



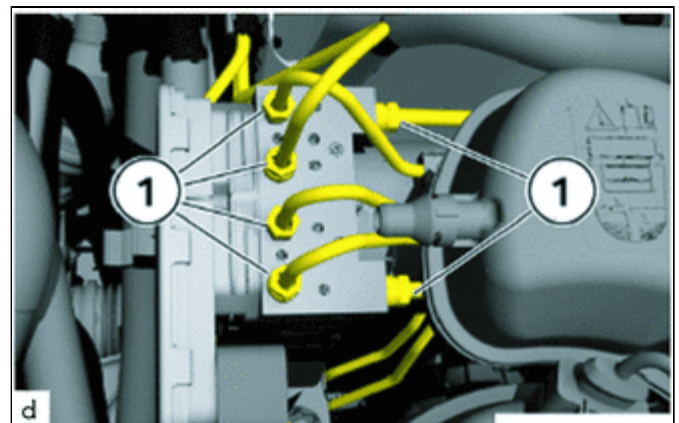
(b) Feed the engine room ECU cover (2) out toward the top and remove.

(c) Unlock plug connection (1) and disconnect.

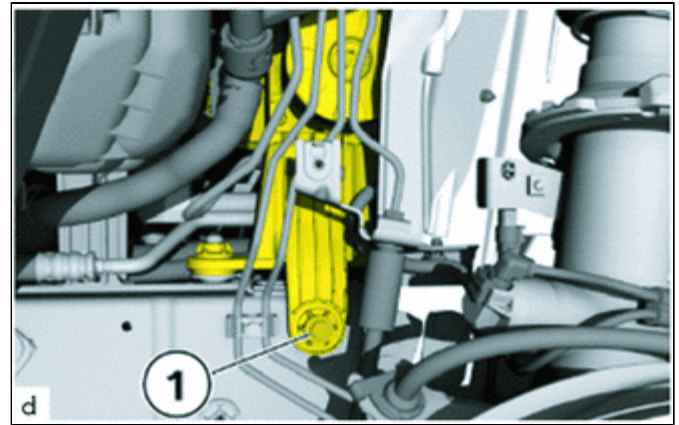


(d) Unfasten 11 mm and 12 mm union nuts of the brake lines (1).

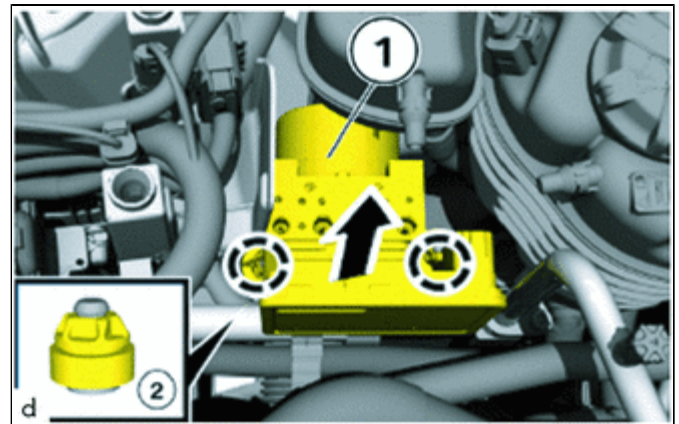
SST: 09700-WA070



(e) Unfasten bolt (1).

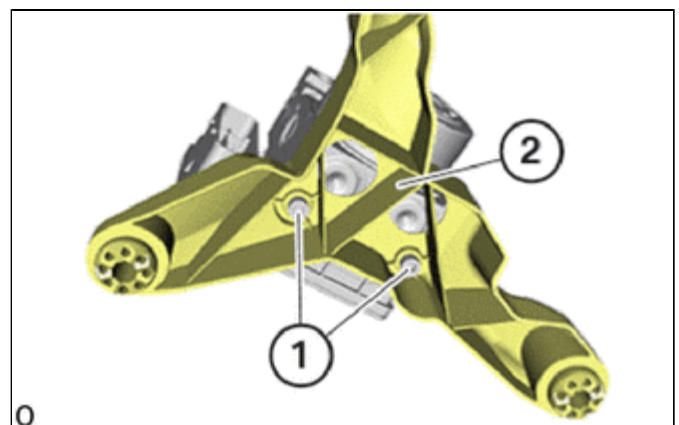


(f) Guide the brake actuator with bracket (1) upwards out of the holders (2).

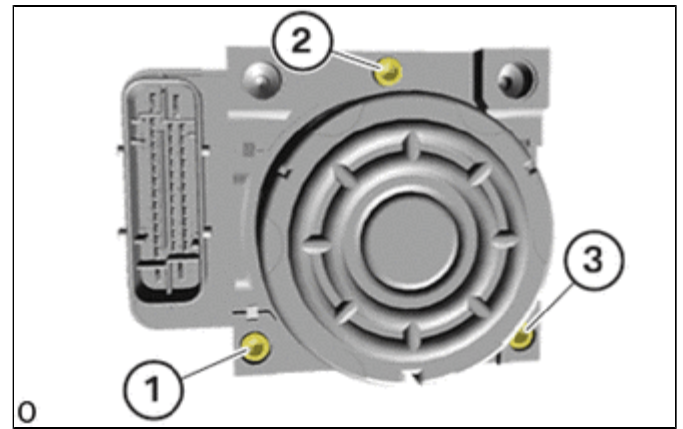


7. REMOVE SKID CONTROL ECU ASSEMBLY

(a) Loosen T25 screws (1) and remove brake actuator bracket assembly (2) for skid control ECU assembly.



(b) Loosen T25 bolts (1) to (3).



(c) Remove skid control ECU assembly from the brake actuator assembly carefully.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: BRAKE ACTUATOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

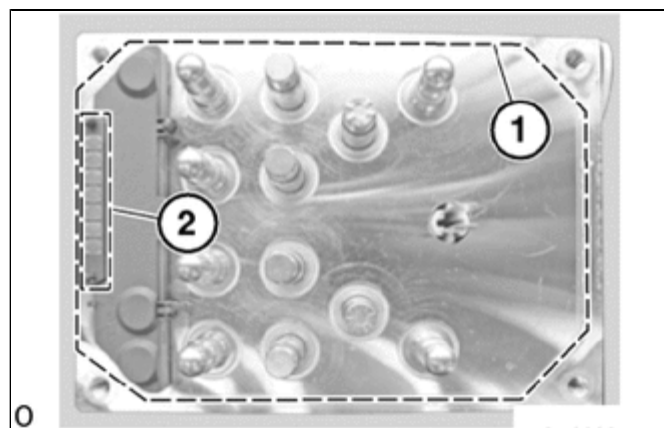
PROCEDURE

1. INSTALL SKID CONTROL ECU ASSEMBLY

NOTICE:

- Do not clean the sealing surface with compressed air, chemical solvents or sharp-edged objects.
- Do not touch or clean the pressure sensor contacts with your fingers.

(a) Clean the sealing surface (1) if necessary, with a lint-free cloth.

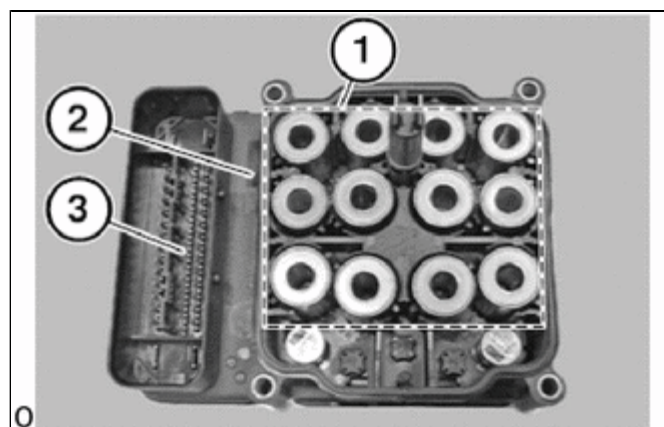


(b) Ensure that the contacts (2) are not damaged.

(c) For renewed use of the brake actuator assembly, an add-on skid control ECU assembly repair kit is required.

HINT:

The repair kit contains a new silicone seal (1) and bolts.

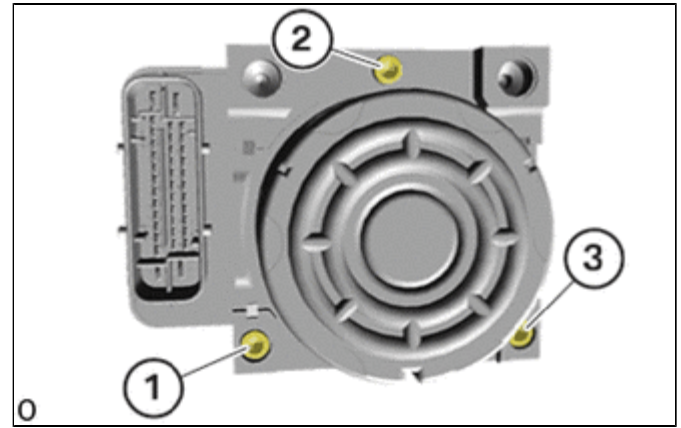


(d) Make sure that the valve coils (2) are not damaged.

NOTICE:

- Do not clean, readjust or touch the valve coils with your fingers.
- If damaged, replace the skid control ECU assembly (3).

(e) Connect skid control ECU assembly carefully to brake actuator assembly.



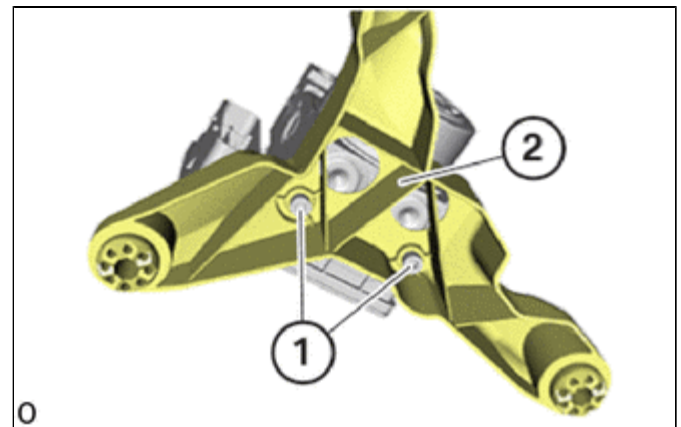
(f) Replace T25 bolts (1) to (3).

(g) Tighten T25 bolts (1) to (3) in this order in stages.

Torque:

5.5 N·m {56 kgf·cm, 49 in·lbf}

(h) Install brake actuator bracket assembly (2).



(i) Replace T25 screws (1).

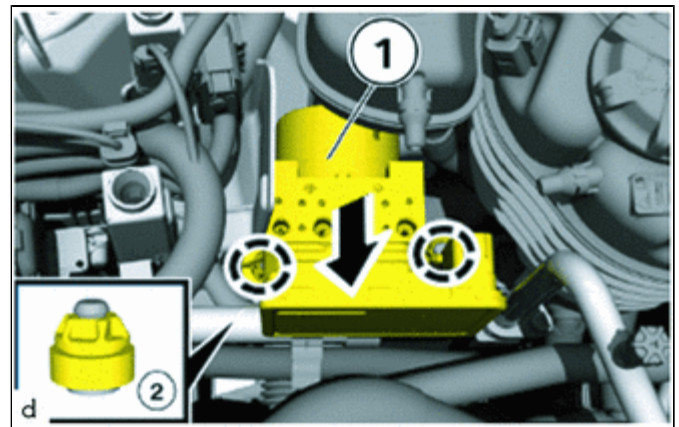
(j) Insert T25 screws (1) and tighten.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL BRAKE ACTUATOR WITH BRACKET

(a) Insert the brake actuator with bracket (1) into the bracket (2) towards the bottom.



(b) Tighten bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(c) Tighten the 11 mm and 12 mm union nuts of the brake lines.

SST: 09700-WA070

Torque:

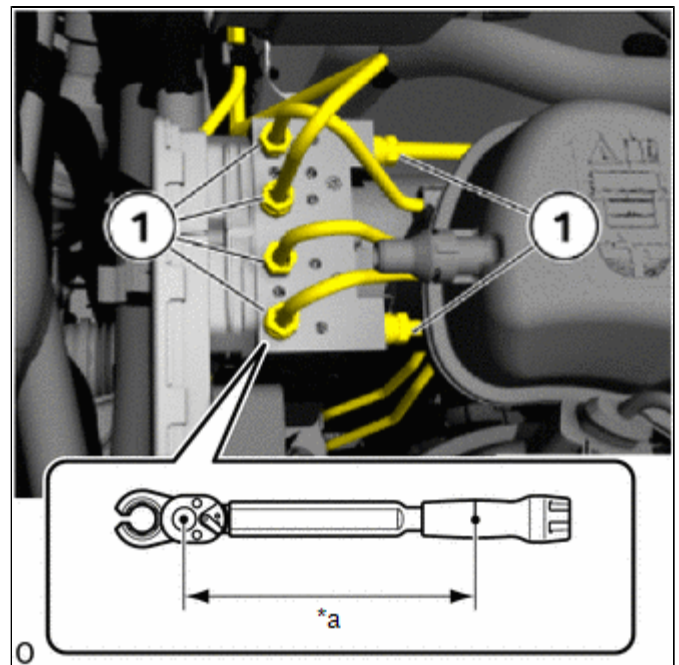
Specified tightening torque :

17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)



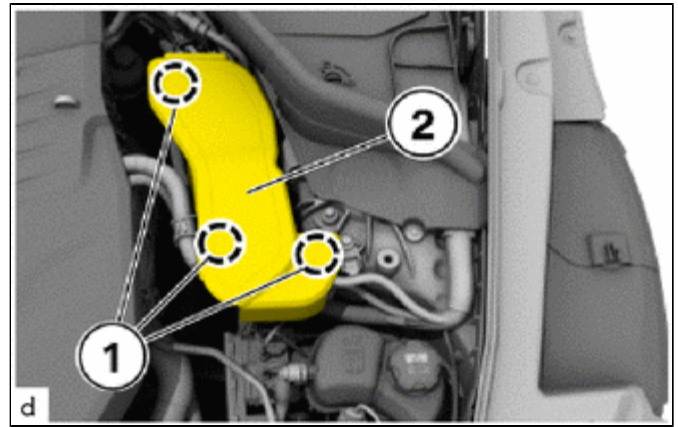
*a	Torque Wrench Fulcrum Length
----	------------------------------

(d) Connect connectors and lock.

(e) Install the engine room ECU cover (2).

HINT:

The snap-lock couplings (1) must engage audibly.



3. REMOVE BRAKE PEDAL PRESSURE

(a) Remove the brake pedal pressure.

4. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

5. INSTALL RADIATOR RESERVE TANK SUB-ASSEMBLY

Click here [INFO](#)

6. BLEED BRAKE LINE

Click here [INFO](#)

7. INSTALL FRONT FENDER LINER LH

Click here [INFO](#)

8. INSTALL FRONT WHEEL

Click here [INFO](#)

9. PERFORMING THE START-UP OF THE DSC UNIT AND ADJUSTMENT OF THE SENSORS FOR DRIVING

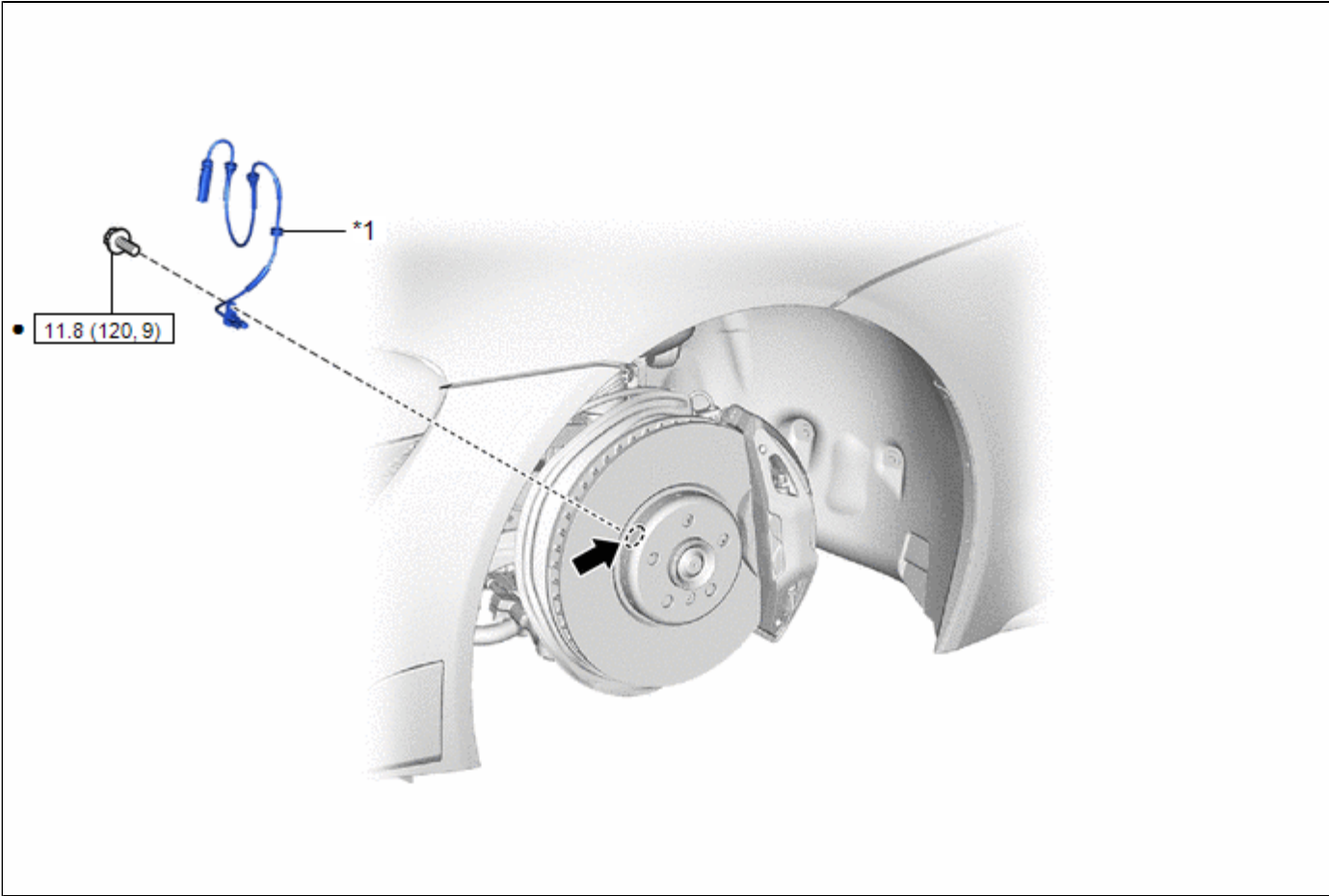
(a) Connect the diagnosis system to the vehicle and enter the following menus:



- Vehicle management / Service functions / Chassis / Traction control system / DSC control unit adjustment / ABL DSC control unit adjustment
- Vehicle management / Service functions / Chassis / Traction control system / Adjustment of the driving dynamics sensors / ABL Adjustment of the driving dynamics sensors

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: FRONT SPEED SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT SKID CONTROL SENSOR WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	NBU 12K Lubricating Grease	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: FRONT SPEED SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

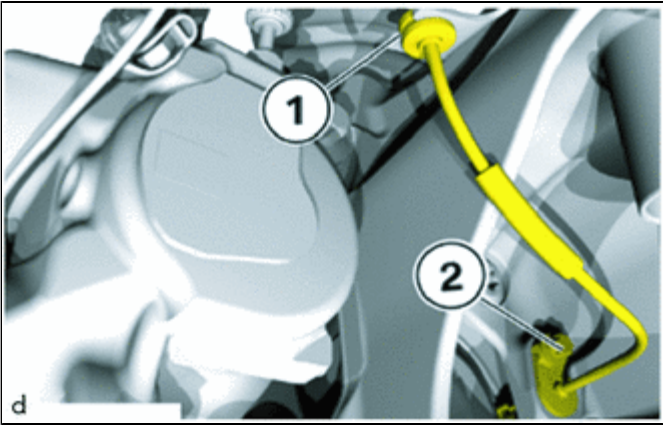
PROCEDURE

1. REMOVE FRONT WHEEL

Click here [INFO](#)

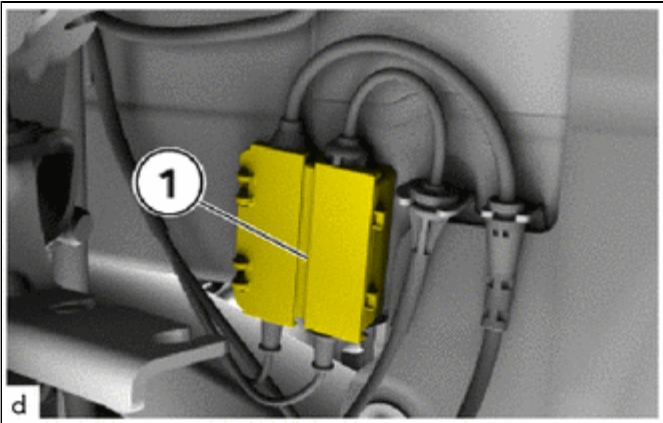
2. REMOVE FRONT SKID CONTROL SENSOR WIRE

(a) Detach the cable of the front skid control sensor wire from the bracket (1).

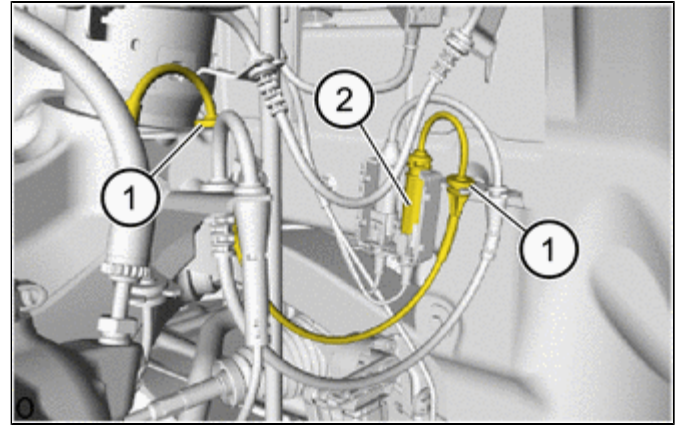


(b) Undo E11 bolt (2) and remove the front skid control sensor wire.

(c) Open the connection box (1).



(d) Detach the front skid control sensor wire cable from the brackets (1).



(e) Unlock plug connection (2) and disconnect.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: FRONT SPEED SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL FRONT SKID CONTROL SENSOR WIRE

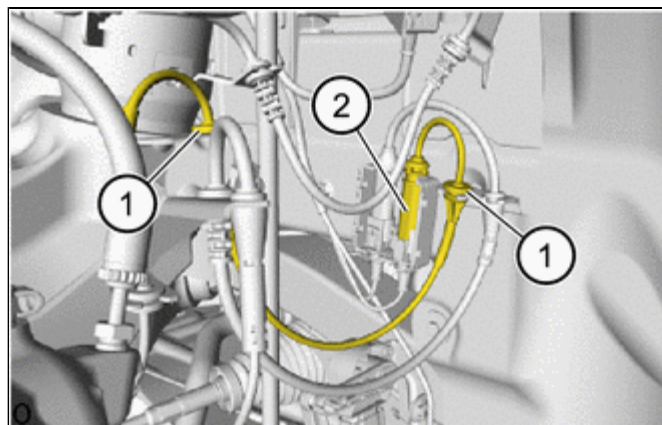
- Clean the bore hole for the front skid control sensor wire.
- Coat the bore hole for the front skid control sensor wire with NBU 12K Lubricating Grease.
- Install front skid control sensor wire.
- Replace the E11 bolt.
- Position and tighten the E11 bolt.

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

- Attach the cable of the front skid control sensor wire in the bracket.

- Connect the cable of the front skid control sensor wire in the brackets (1).



- Connect connectors and lock (2).
- Close the connection box.

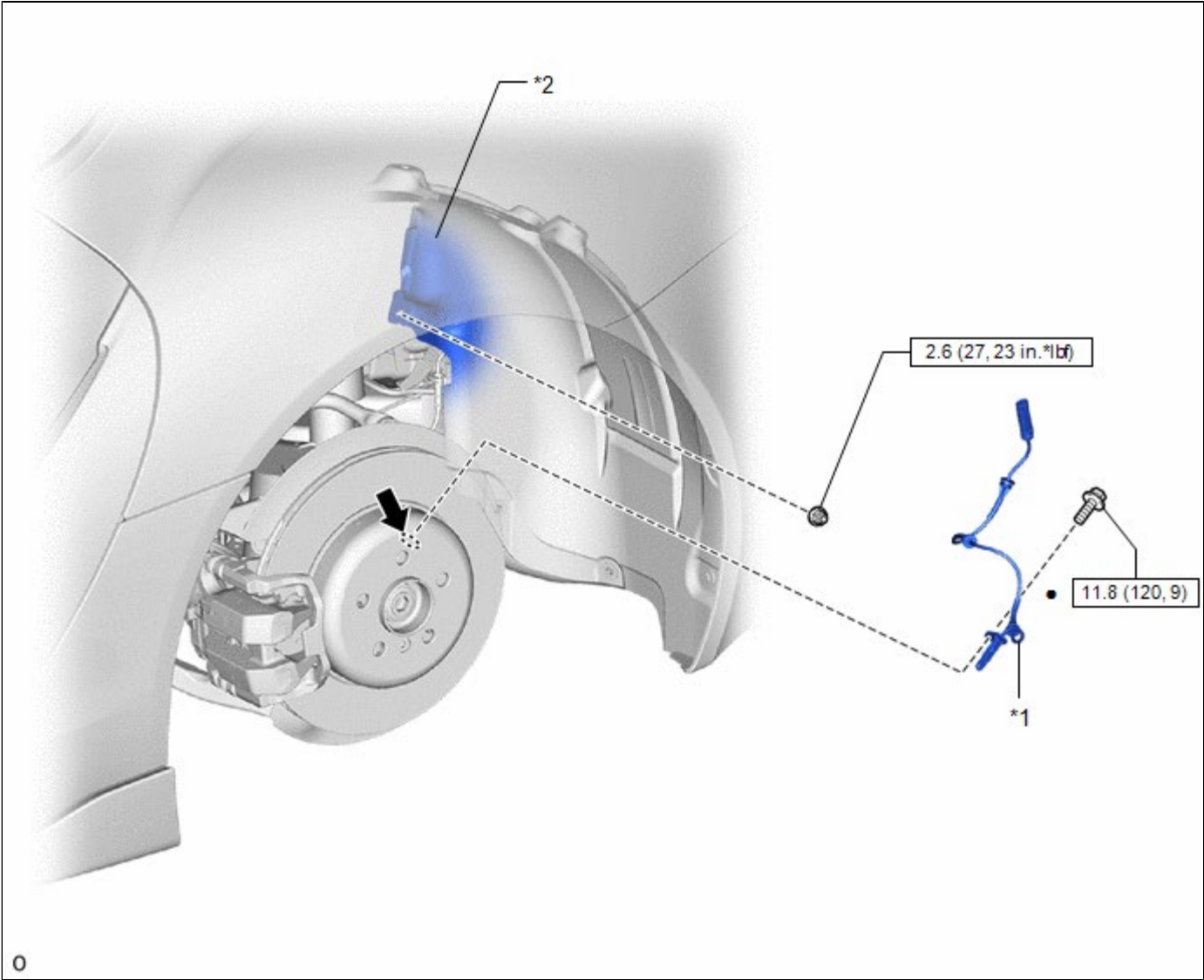
2. INSTALL FRONT WHEEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: REAR SPEED SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR SKID CONTROL SENSOR WIRE	*2	REAR WHEEL HOSE LINER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	NBU 12K Lubricating Grease	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: REAR SPEED SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

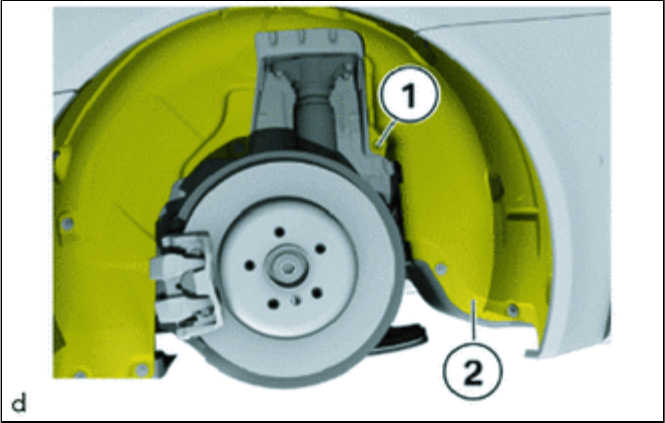
PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

2. REMOVE REAR SKID CONTROL SENSOR WIRE

(a) Unscrew the nut (1) in the area of the spring strut.

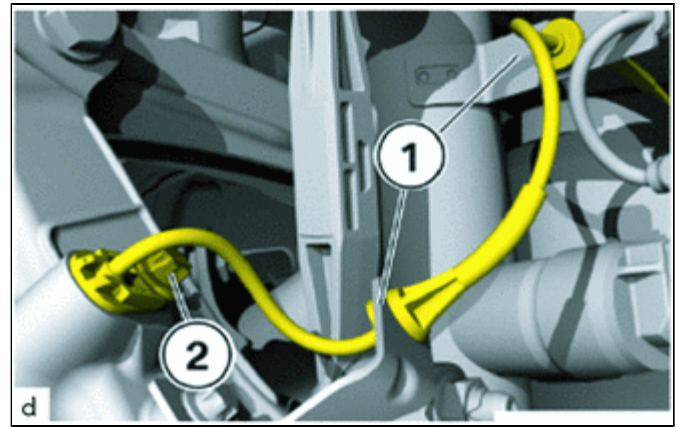


(b) Slightly raise the rear wheel hose liner (2).

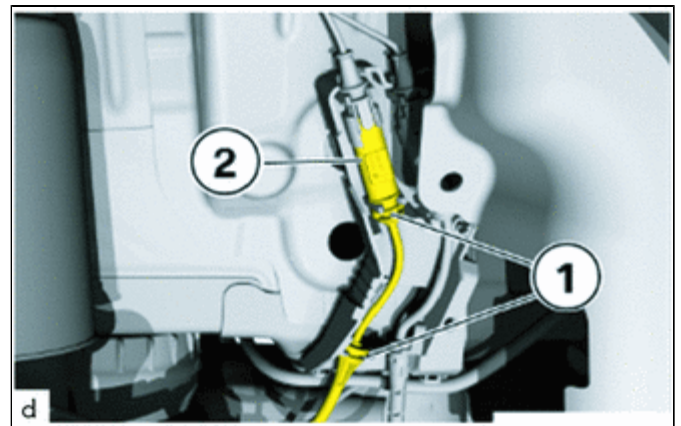
NOTICE:

The wheel arch cover will not be removed.

(c) Undo E11 bolt (2) and remove the rear skid control sensor wire.



(d) Detach the rear skid control sensor wire cable from the brackets (1).



(e) Detach the rear skid control sensor wire cable from the brackets (1).

(f) Unlock plug connection (2) and disconnect.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: REAR SPEED SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

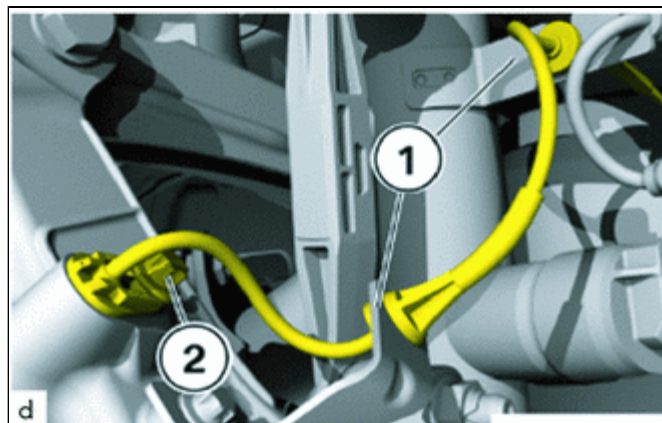
1. INSTALL REAR SKID CONTROL SENSOR WIRE

- Clean the bore hole for the rear skid control sensor wire.
- Coat the bore hole for the rear skid control sensor wire with NBU 12K Lubricating Grease.
- Install rear skid control sensor wire.
- Replace the E11 bolt.

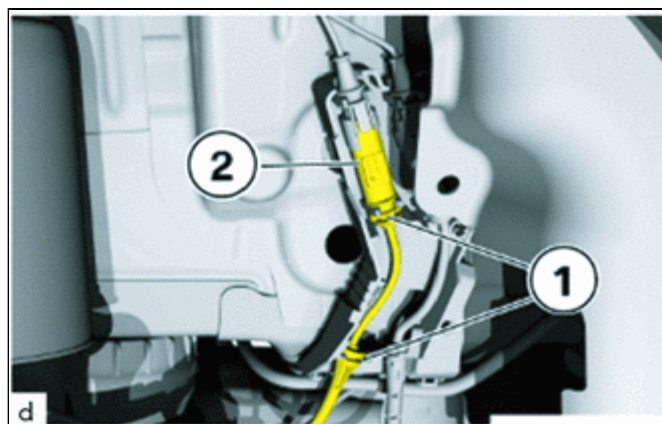
- Tighten down E11 bolt (2).

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}



- Connect the cable of the rear skid control sensor wire in the brackets (1).



- Connect the cable of the rear skid control sensor wire (2) in the brackets (1).

- (h) Connect connectors and lock.
- (i) Position the rear wheel hose liner correctly.
- (j) Tighten down nut.

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

2. INSTALL REAR WHEEL

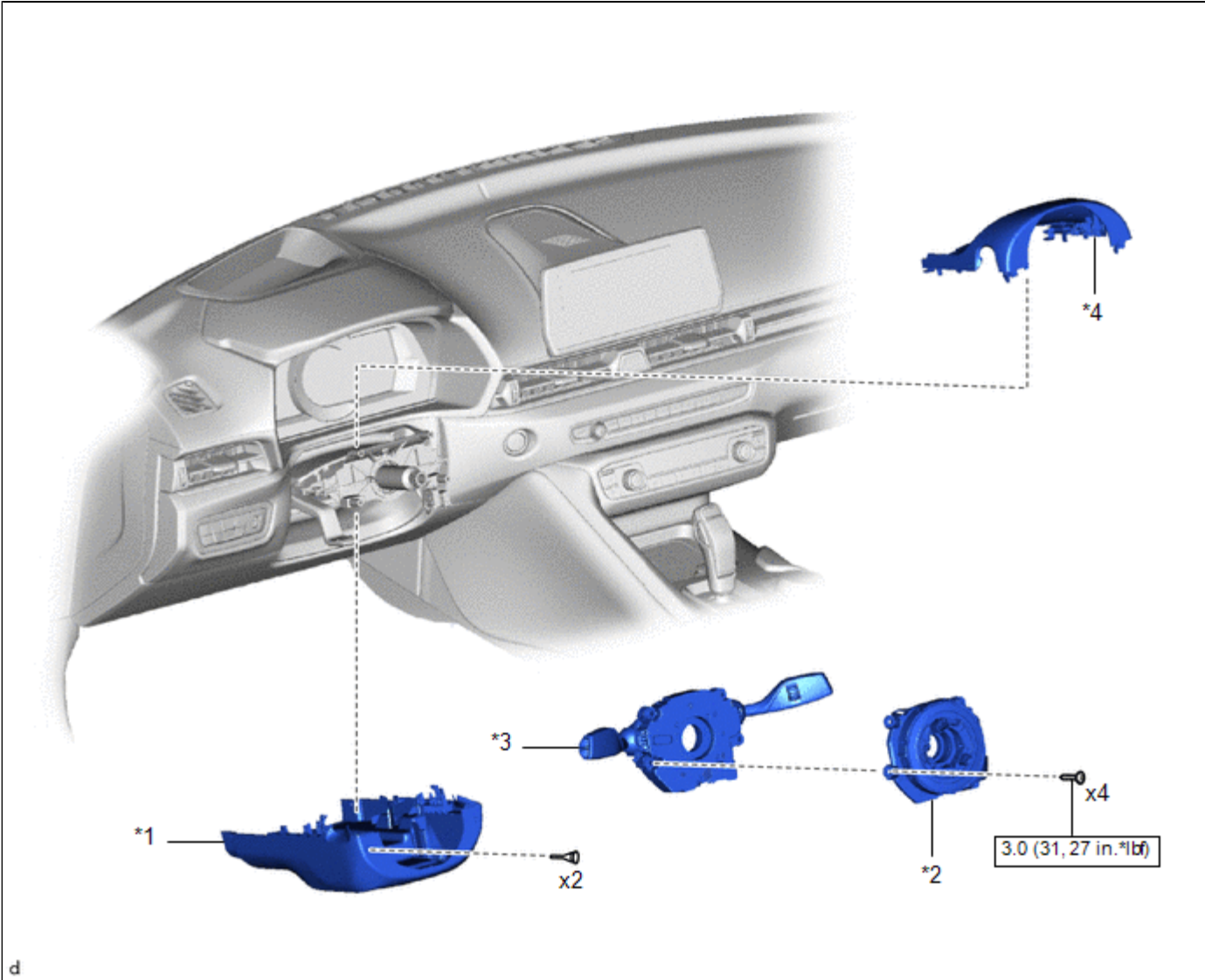
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: STEERING ANGLE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LOWER STEERING COLUMN COVER	*2	SPIRAL CABLE SUB-ASSEMBLY
*3	TURN SIGNAL SWITCH ASSEMBLY	*4	UPPER STEERING COLUMN COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: STEERING ANGLE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE STEERING SENSOR (TURN SIGNAL SWITCH ASSEMBLY)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: STEERING ANGLE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL STEERING SENSOR (TURN SIGNAL SWITCH ASSEMBLY)

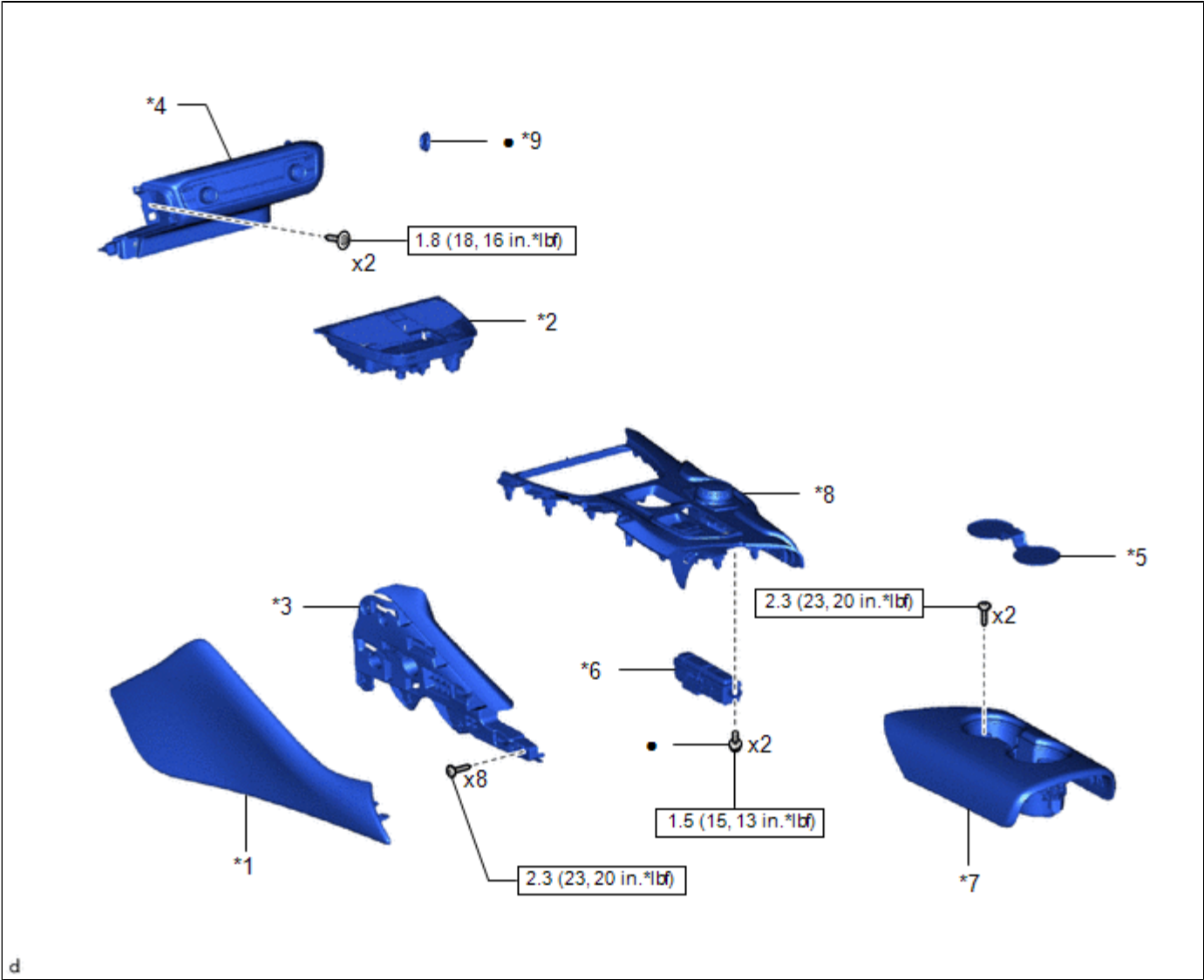
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: VSC OFF SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONSOLE SIDE PANEL	*2	FRONT CONSOLE BOX COVER
*3	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	NO. 1 CONSOLE BOX SILENCER PAD	*6	VSC OFF SWITCH (PATTERN SELECT SWITCH ASSEMBLY)
*7	REAR CONSOLE ARMREST ASSEMBLY	*8	UPPER CONSOLE PANEL SUB-ASSEMBLY
*9	RUBBER PLUG	-	-
N*m (kgf*cm, ft.*lbf): Specified			



torque

•

Non-reusable part



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: VSC OFF SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE VSC OFF SWITCH (PATTERN SELECT SWITCH ASSEMBLY)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE CONTROL / DYNAMIC CONTROL SYSTEMS: VSC OFF SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL VSC OFF SWITCH (PATTERN SELECT SWITCH ASSEMBLY)

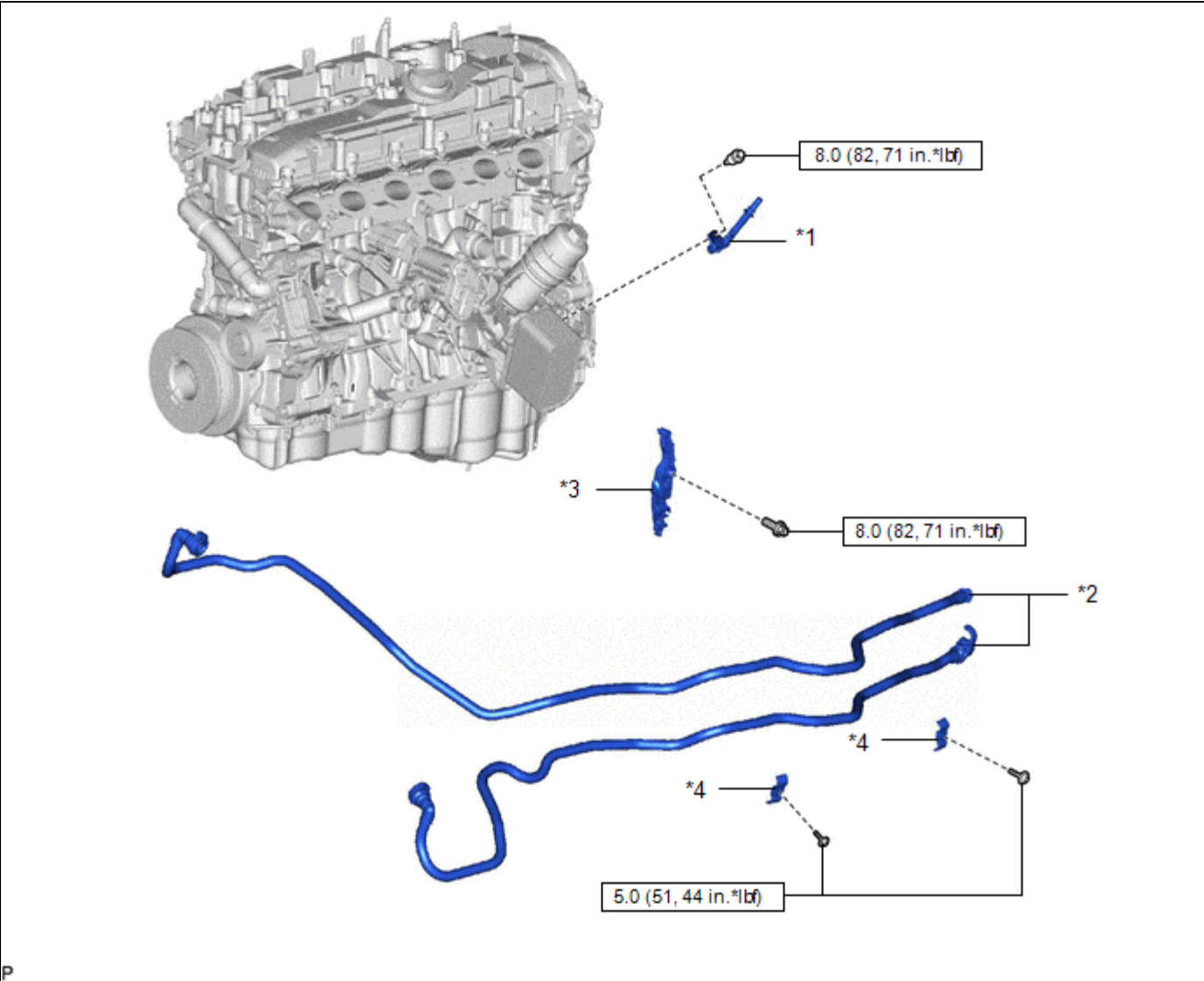
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BOOSTER AIR VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BOOSTER AIR VALVE	*2	OIL COOLER TUBE
*3	HOLDER	*4	UPPER HOLDER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BOOSTER AIR VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

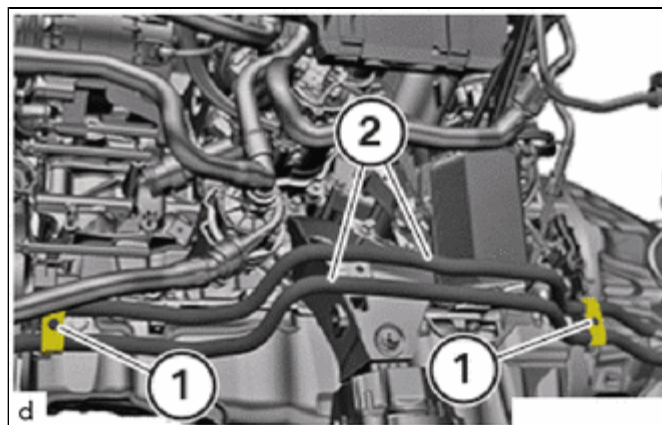
PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. SEPARATE OIL COOLER TUBE

(a) Loosen T25 screws (1).



(b) Remove upper holders.

(c) Detach oil cooler tubes (2) from the holders, set aside and secure.

3. INSTALL BOOSTER AIR VALVE

CAUTION:

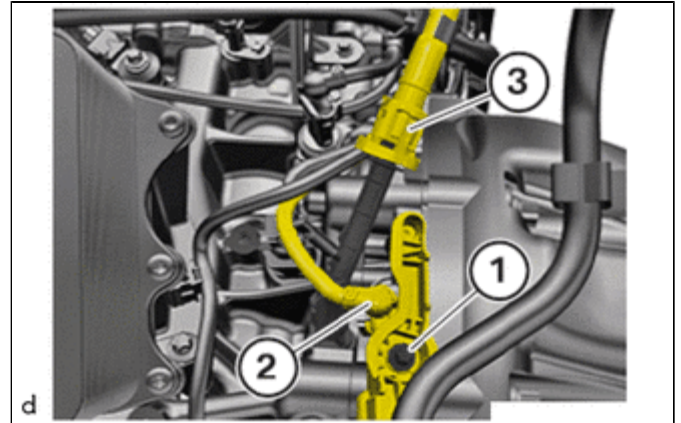
- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

- malfunctions, operating failure or leaks.
- Protect components from contamination e.g. by covering.

- Close off line connections with seal plugs.

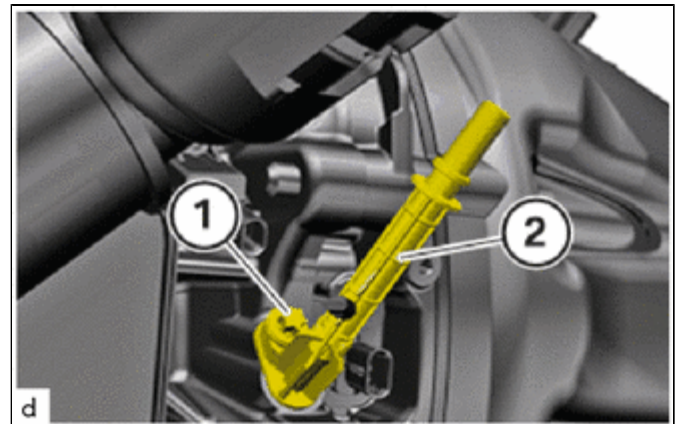
(a) Unscrew the E8 bolt (1) and set the holder aside.



(b) Unlock and disconnect plug connection (2).

(c) Unlock and pull off the connector to check valve tube (3).

(d) Loosen E10 bolt (1).



(e) Remove the booster air valve (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BOOSTER AIR VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BOOSTER AIR VALVE

- (a) Check the O-ring (1) for damage and replace the booster air valve as needed.



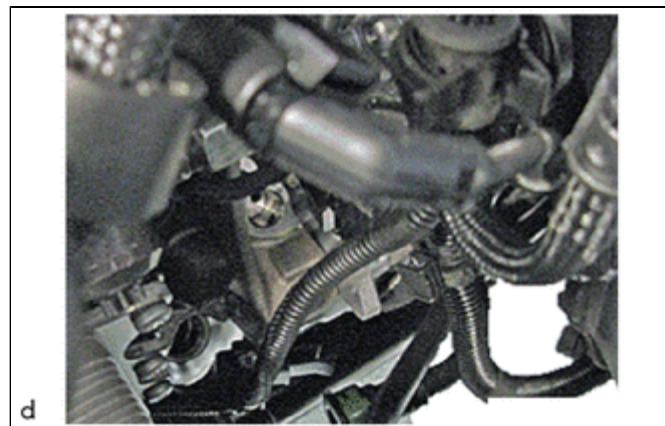
- (b) Clean sealing surface.

NOTICE:

- Damage to the surface.

The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.



- (c) Install the booster air valve.

- (d) Tighten down E10 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

- (e) Connect and lock the connector to check valve tube.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

- (f) Connect and lock the connector.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(g) Position the holder and tighten the E8 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL OIL COOLER TUBE

(a) Position oil cooler tubes in the holders.

(b) Install upper holders.

(c) Tighten the T25 screws.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

3. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

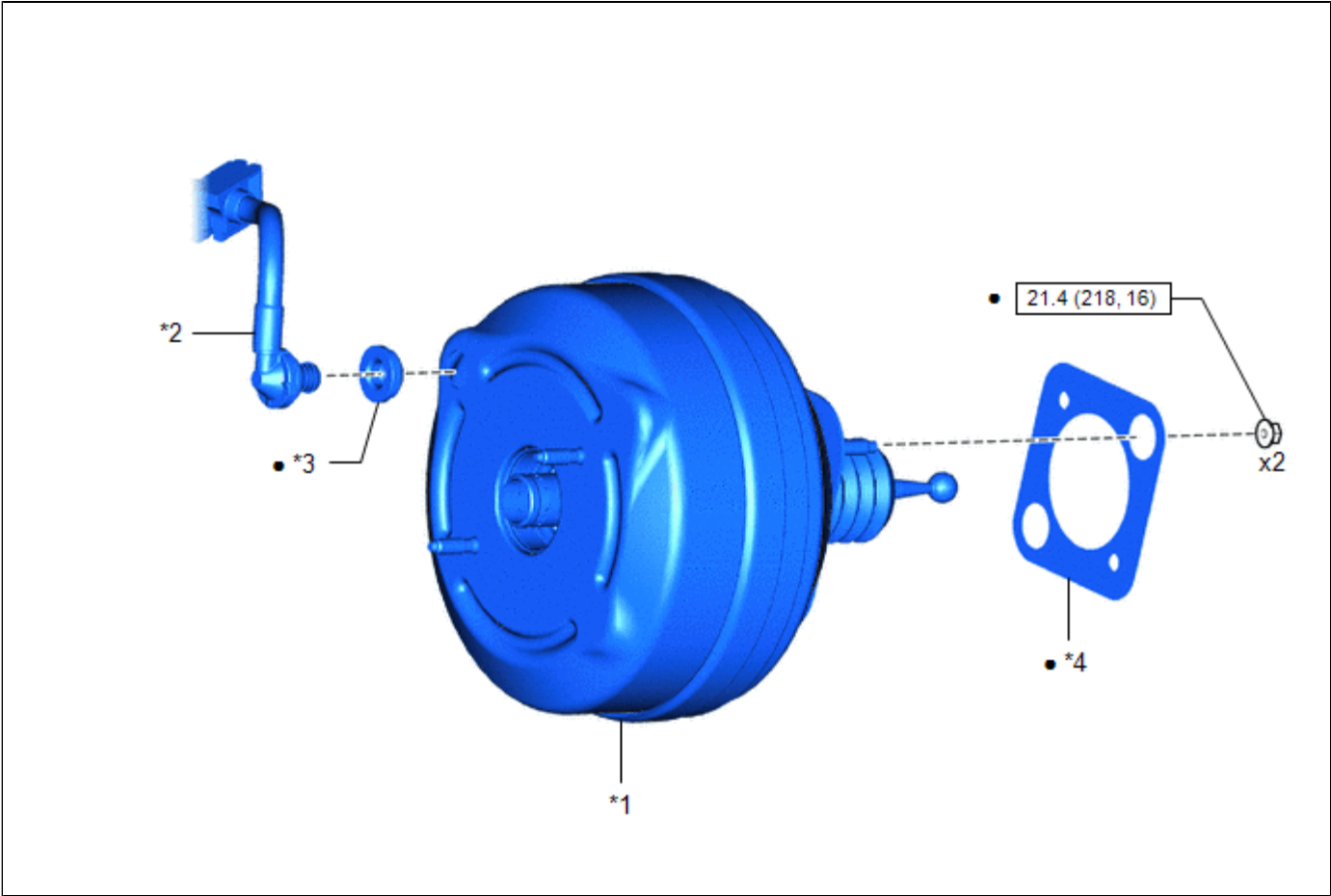
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BRAKE BOOSTER	*2	CONNECTOR TO BRAKE BOOSTER TUBE
*3	GROMMET	*4	GASKET
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE STOP LIGHT SWITCH ASSEMBLY

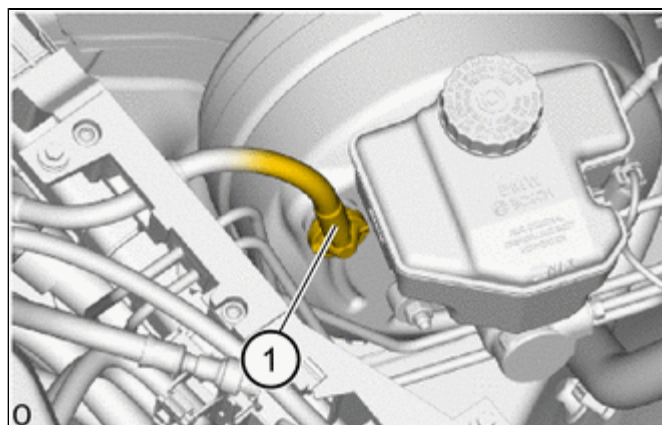
Click here [INFO](#)

2. REMOVE MASTER CYLINDER BODY

Click here [INFO](#)

3. DISCONNECT CONNECTOR TO BRAKE BOOSTER TUBE

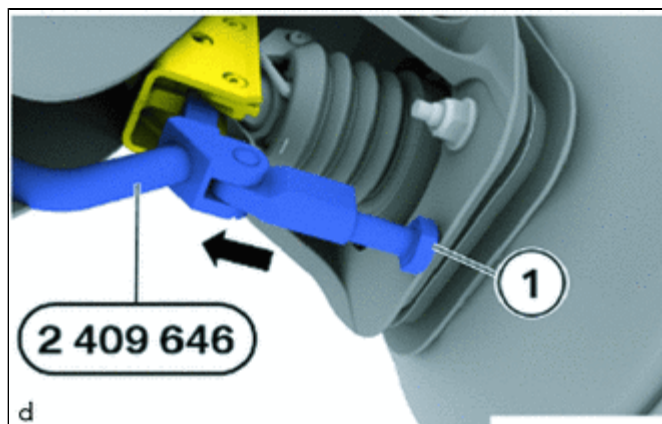
- (a) Disconnect the non-return valve (1) from the brake booster.



4. REMOVE BRAKE BOOSTER

- (a) Insert the special tool 2 409 646 between the brake pedal support assembly and brake booster.

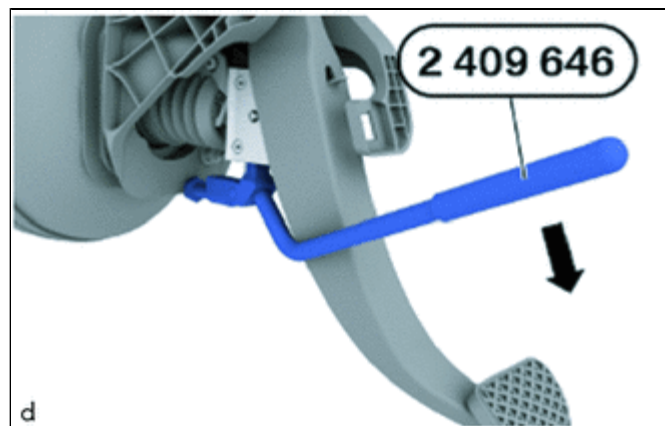
SST: 09700-WA030



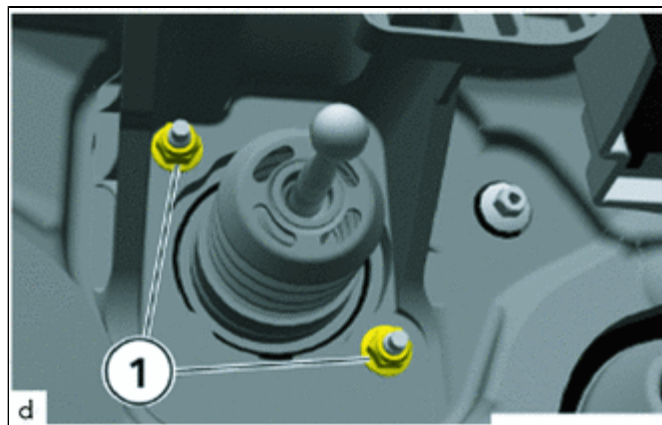
- (b) Apply support (1) of the special tool 2 409 646 on the brake pedal support assembly. If necessary fix the position of the support by rotating the screw on the special tool.

- (c) Push special tool 2 409 646 in the direction of the arrow and lever the brake pedal support assembly off the brake booster.

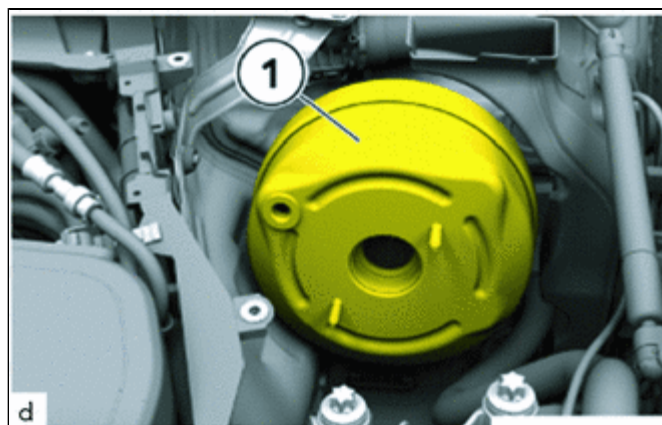
SST: 09700-WA030



- (d) Loosen nuts (1).



- (e) Unscrew the brake booster (1) from the bulkhead.



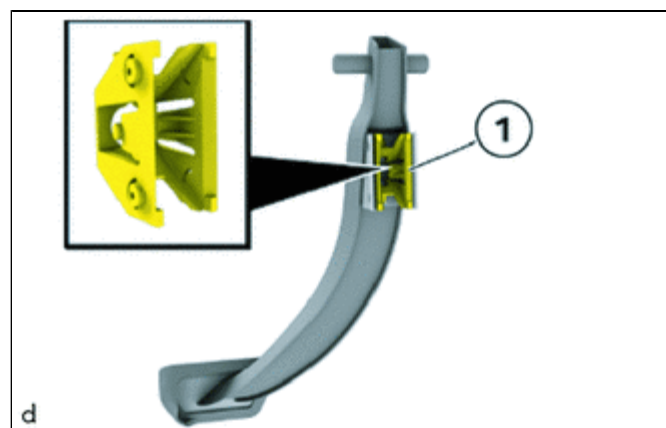
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE BOOSTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

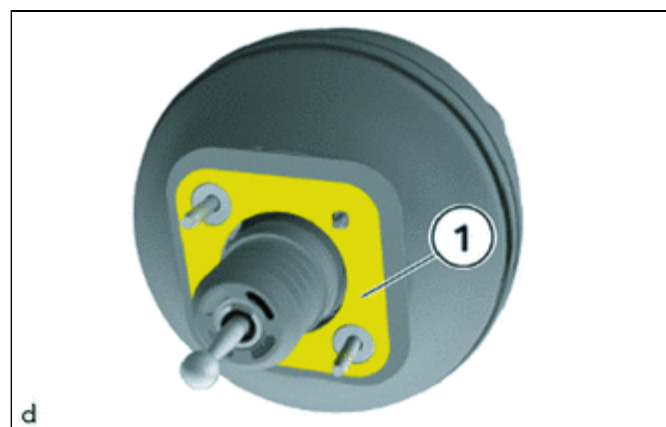
PROCEDURE

1. INSTALL BRAKE BOOSTER

(a) Check the clamp (1) for damage, replace if necessary.

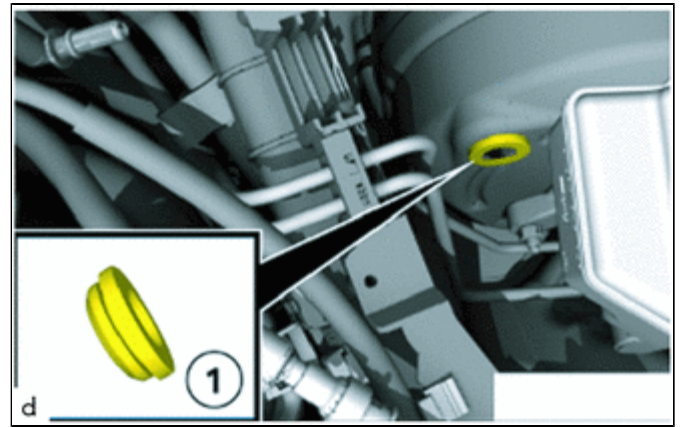


(b) Replace the gasket (1) on the brake booster.



(c) Thoroughly clean the sealing surface on the brake booster and on the bulkhead.

(d) Replace grommet (1).



(e) Insert the grommet (1).

(f) Screw in the brake booster in the bulkhead.

(g) Replace nuts.

(h) Tighten nuts.

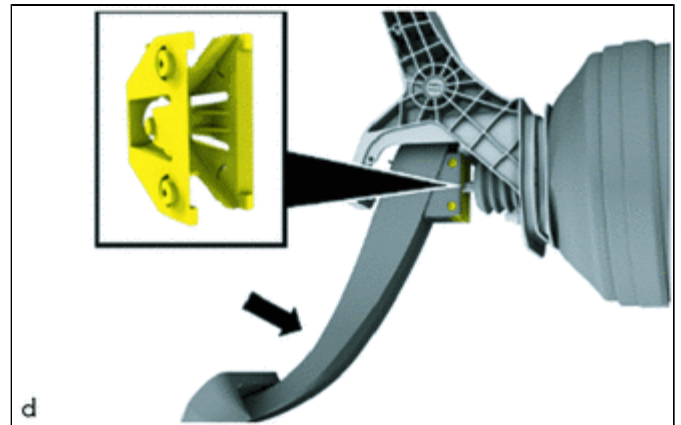
Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

(i) Press the brake pedal in the direction of arrow and lock it with the brake booster.

NOTICE:

The brake pedal must be completely locked with the brake booster.



(j) Screw in the brake booster in the bulkhead.

(k) Replace nuts.

(l) Tighten nuts (1).

Torque:

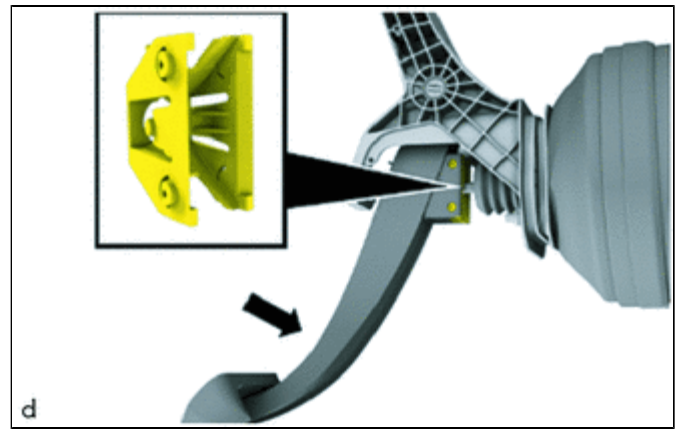
21.4 N·m {218 kgf·cm, 16 ft·lbf}

(m) Press the brake pedal in the direction of arrow and lock it with the brake booster.

NOTICE:

The brake pedal must be completely locked with the brake

booster.



2. CONNECT CONNECTOR TO BRAKE BOOSTER TUBE

- (a) Check the grommet on the brake booster and replace, if necessary.
- (b) Install the non-return valve in the brake booster.

3. INSTALL MASTER CYLINDER BODY

Click here [INFO](#)

4. INSTALL STOP LIGHT SWITCH ASSEMBLY

Click here [INFO](#)

5. BLEED BRAKE LINE

Click here [INFO](#)

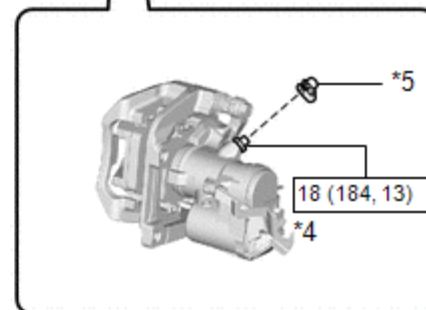
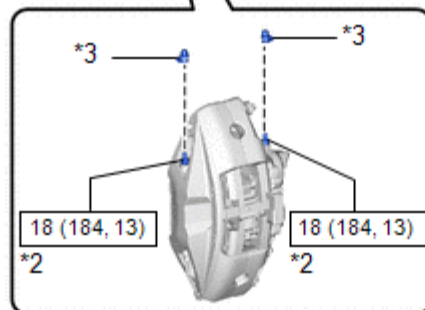
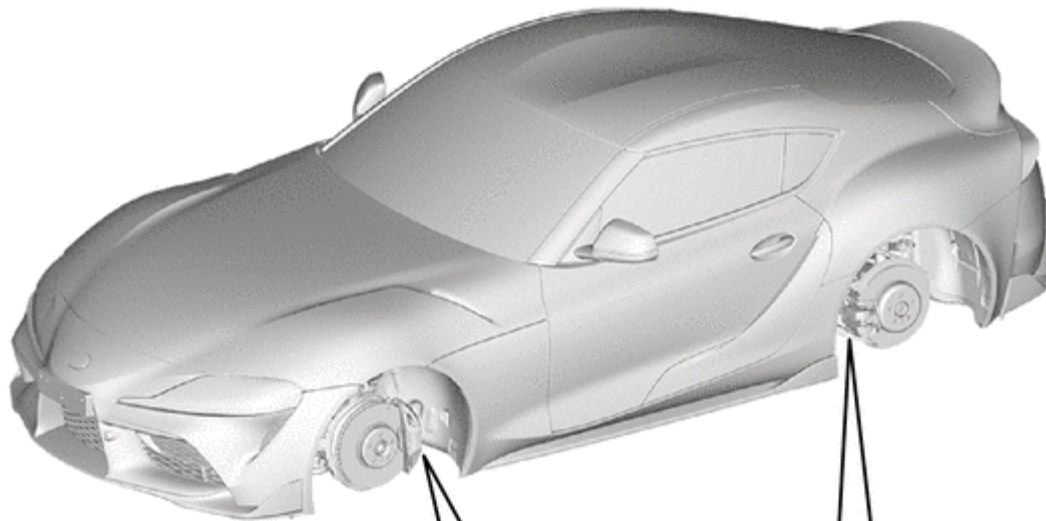
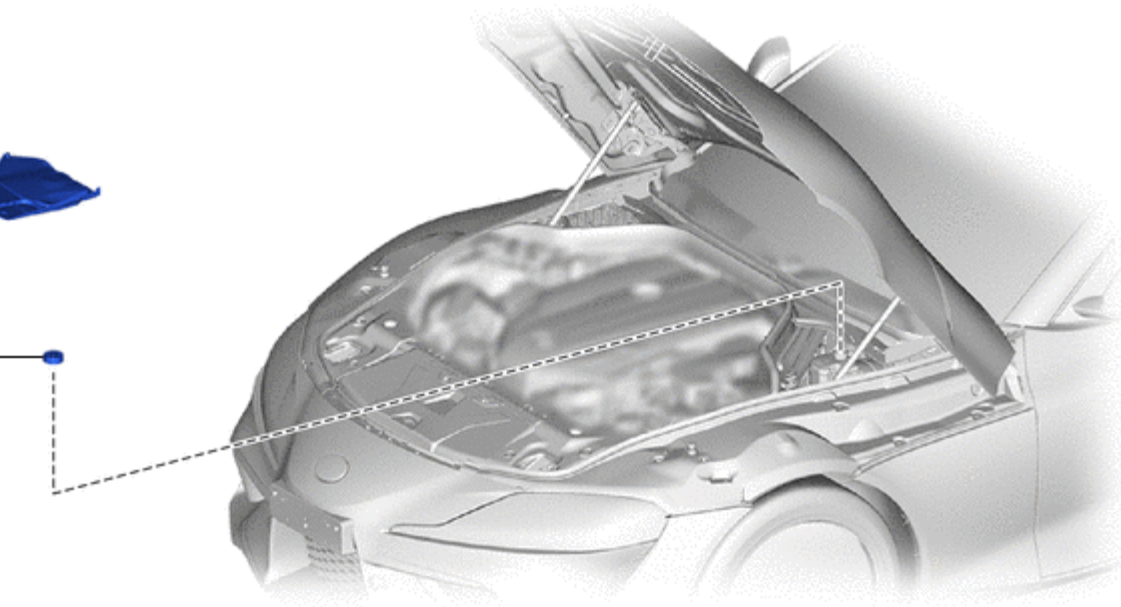
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION


*6

*1



0

*1	BRAKE MASTER CYLINDER RESERVOIR FILLER CAP	*2	FRONT DISC BRAKE BLEEDER PLUG
*3	FRONT DISC BRAKE BLEEDER PLUG CAP	*4	REAR DISC BRAKE BLEEDER PLUG
	REAR DISC BRAKE BLEEDER PLUG		

*5	CAP	*6	COWL VENT COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

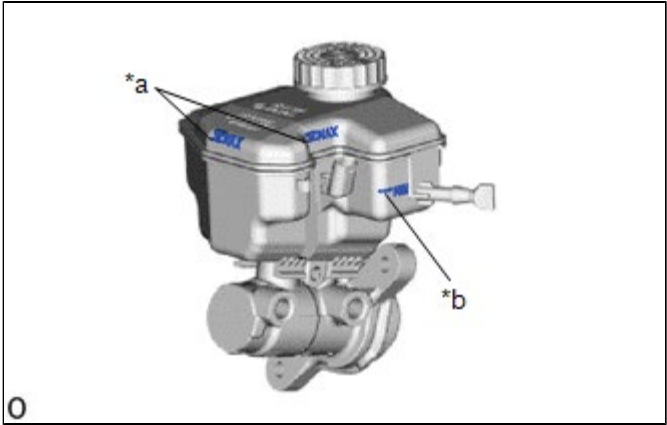
ON-VEHICLE INSPECTION

CAUTION / NOTICE / HINT

PROCEDURE

1. INSPECT BRAKE FLUID LEVEL IN RESERVOIR

- (a) Check the fluid level.
- if necessary, adjust to maximum mark.
- Brake Fluid and Hydraulic Fluid:
- Brake fluid DOT4, low viscosity
- NOTICE:
- Use only approved brake fluids, see operating fluids.



*a	MAX Line
*b	MIN Line

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE FLUID: BLEEDING; 2020 MY Supra [03/2019 -]		

BLEEDING

PROCEDURE

1. REMOVE COWL VENT COVER LH

Click here [INFO](#)

2. FILL RESERVOIR WITH BRAKE FLUID

Click here [INFO](#)

3. BLEED REAR BRAKE

Click here [INFO](#)

4. BLEED FRONT BRAKE

Click here [INFO](#)

5. OPERATE ELECTRIC PARKING BRAKE SWITCH ASSEMBLY

- (a) Operate the electric parking brake switch assembly (1) for the electromechanical parking brake and release it again; then operate again and release again.



6. BLEED REAR BRAKE

Click here [INFO](#)

7. INSPECT FOR BRAKE FLUID LEAK

8. INSPECT BRAKE FLUID LEVEL IN RESERVOIR

Click here [INFO](#)

9. INSTALL COWL VENT COVER LH

Click here [INFO](#)

10. PERFORM CBS RESET

Click here [INFO](#)

<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
---	---	---	-------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

Use only approved brake fluids, see operating fluids.

PROCEDURE

1. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

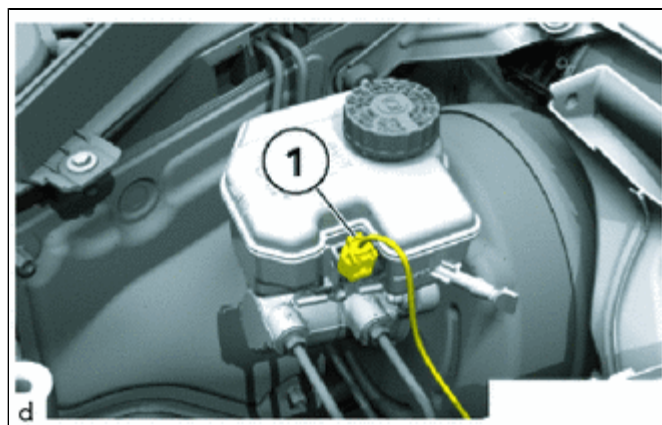
Click here [INFO](#)

2. REMOVE BRAKE MASTER CYLINDER RESERVOIR SUB-ASSEMBLY

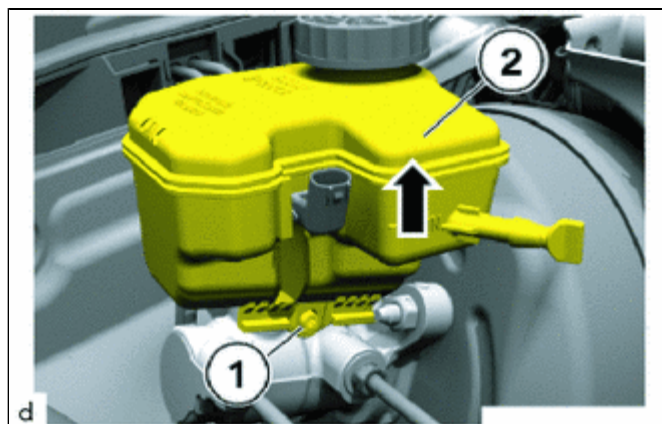
HINT:

- Prerequisite
 - The brake fluid has been drawn off from the brake fluid expansion tank.

(a) Unlock plug connection (1) and disconnect.



(b) Loosen T20 bolt (1).

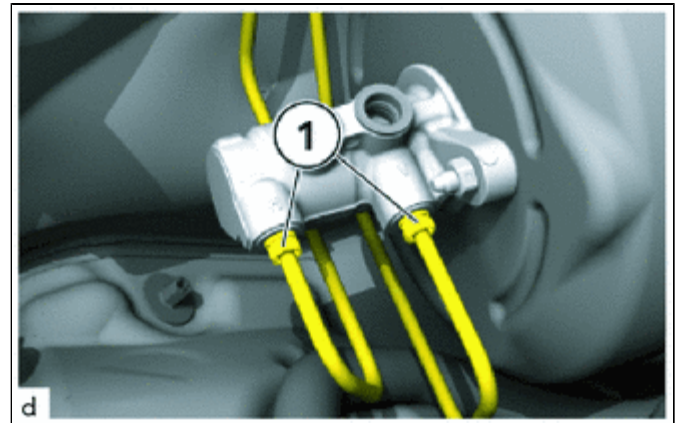


(c) Remove master cylinder reservoir sub-assembly (2) upwards.

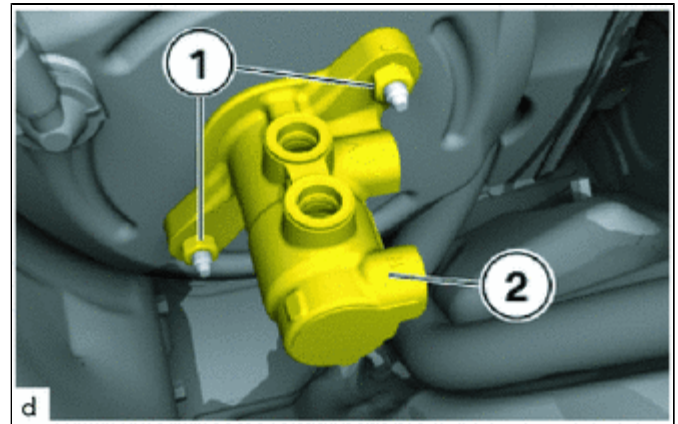
3. REMOVE MASTER CYLINDER BODY

(a) Unfasten brake lines (1).

SST: 09700-WA070



(b) Loosen nuts (1).



(c) Remove the master cylinder body (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE MASTER CYLINDER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

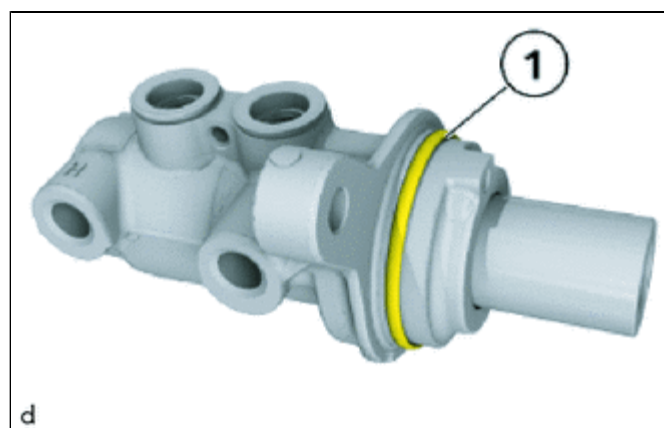
NOTICE:

Use only approved brake fluids, see operating fluids.

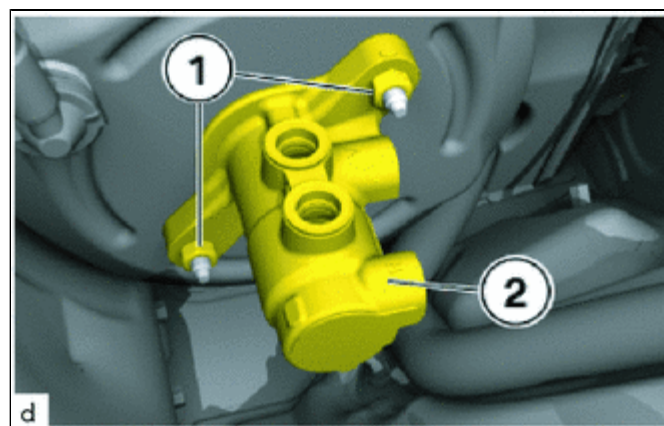
PROCEDURE

1. INSTALL MASTER CYLINDER BODY

(a) Replace gasket (1).



(b) Install master cylinder body (2) in the brake booster.



(c) Replace nuts (1).

(d) Tighten nuts (1).

Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}

(e) Fit brake lines (1) and tighten.

SST: 09700-WA070

Torque:

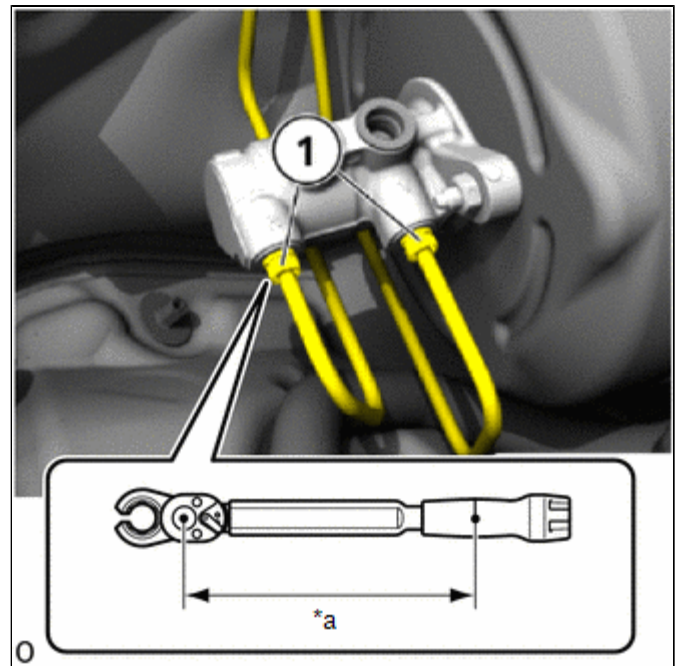
Specified tightening torque :

17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

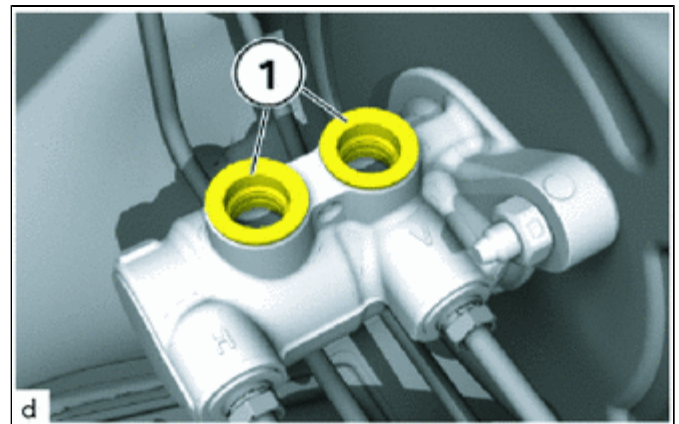
[Click here](#) **INFO**



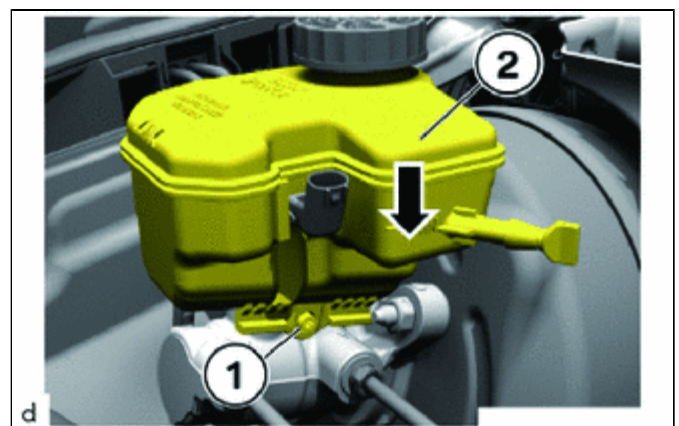
*a	Torque Wrench Fulcrum Length
----	------------------------------

2. INSTALL BRAKE MASTER CYLINDER RESERVOIR SUB-ASSEMBLY

(a) Replace the sealing plug (1).



(b) Install the brake master cylinder reservoir sub-assembly (2).



(c) Tighten down T20 bolt (1).

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(d) Connect connectors and lock.

3. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

4. BLEED BRAKE LINE

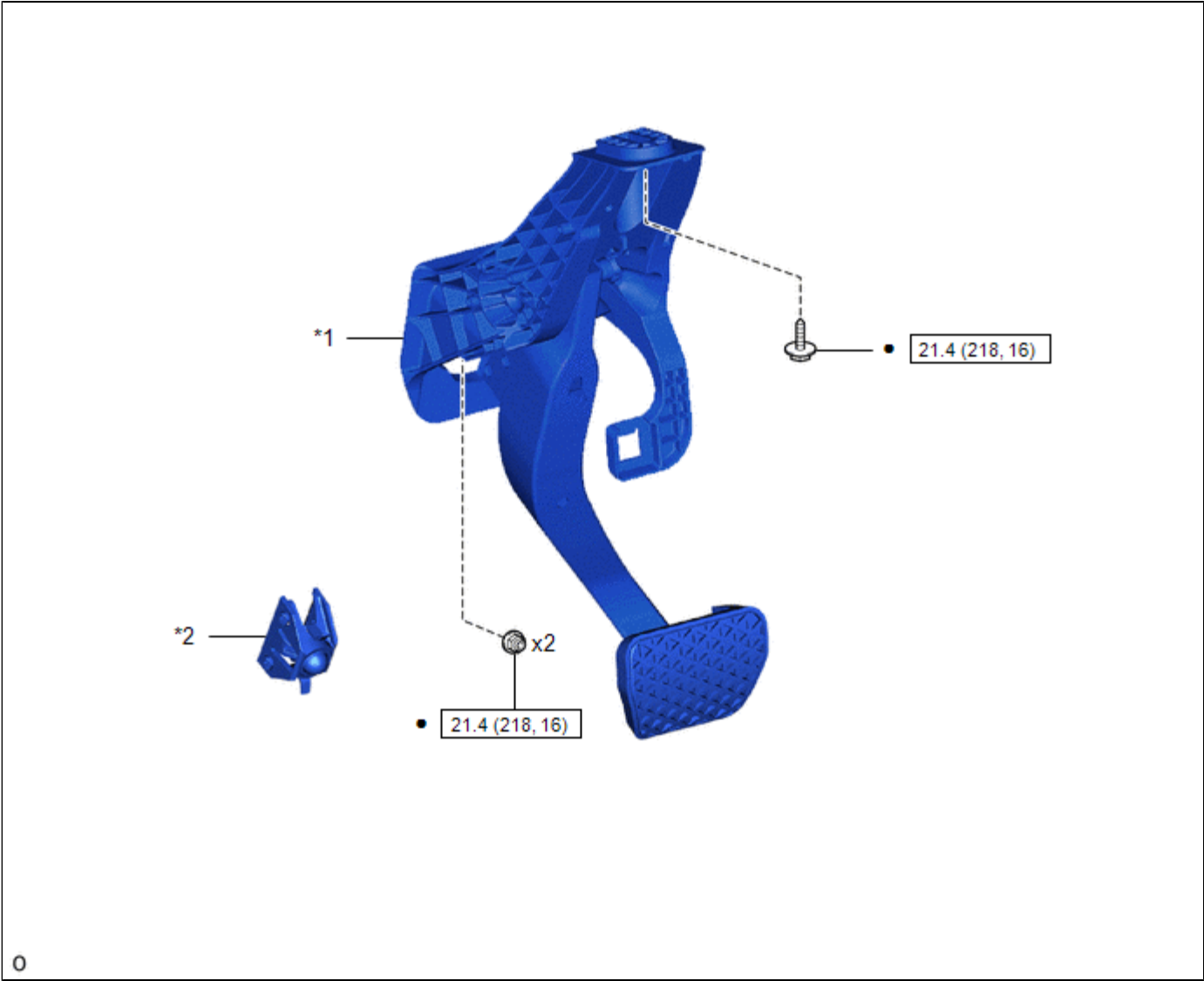
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BRAKE PEDAL SUPPORT ASSEMBLY	*2	CLAMP
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

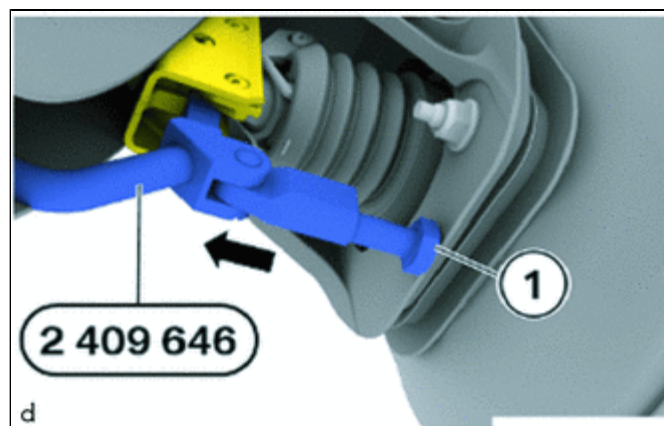
1. REMOVE STOP LIGHT SWITCH ASSEMBLY

Click here [INFO](#)

2. REMOVE BRAKE PEDAL SUPPORT ASSEMBLY

- (a) Insert the special tool 2 409 646 between the brake pedal support assembly and brake booster assembly.

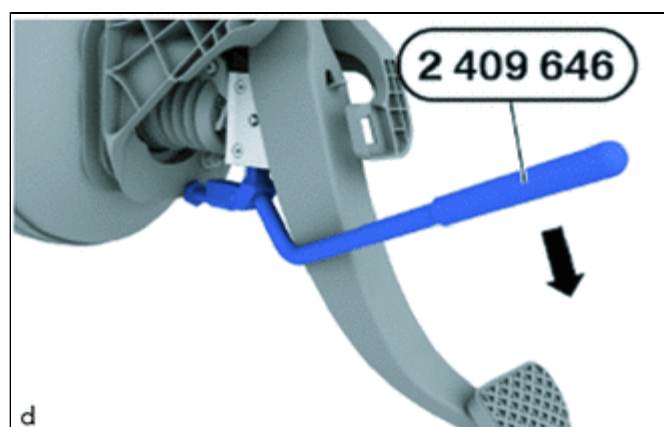
SST: 09700-WA030



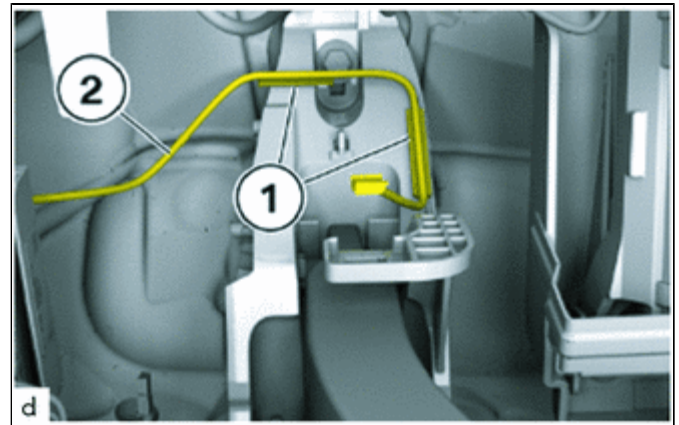
- (b) Apply support (1) of the special tool 2 409 646 on the bearing support. If necessary fix the position of the support by rotating the screw on the release tool.

- (c) Push release special tool 2 409 646 in the direction of the arrow and lever the brake pedal support assembly off the brake booster assembly.

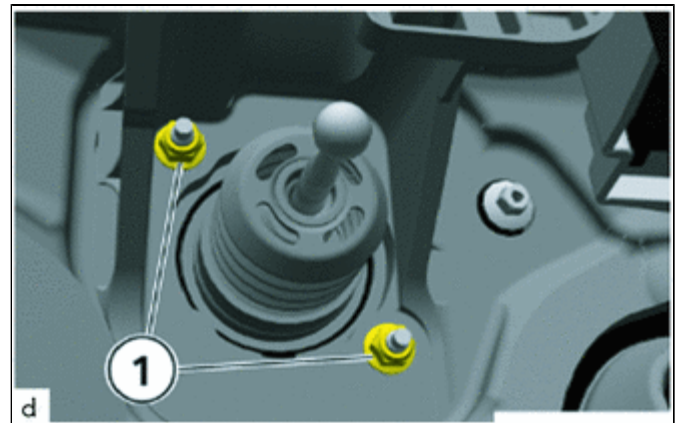
SST: 09700-WA030



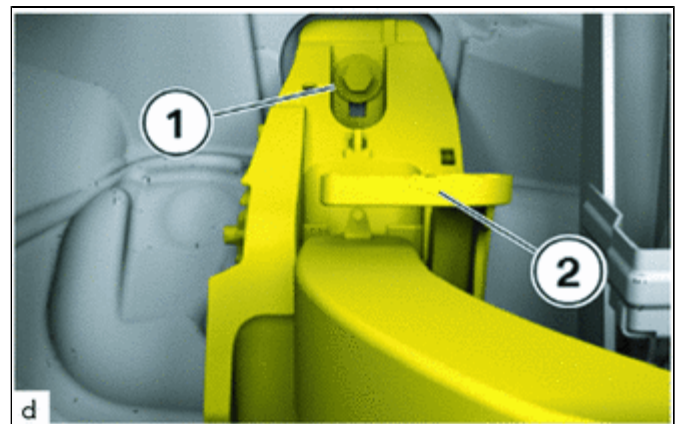
(d) Release both holders (1) and lay the cable (2) to one side.



(e) Loosen nuts (1).



(f) Release the bolt (1) and thread out the brake pedal support assembly (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCE5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE PEDAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BRAKE PEDAL SUPPORT ASSEMBLY

- (a) Insert the brake pedal support assembly.
- (b) Replace the bolt.
- (c) Tighten down bolt.

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

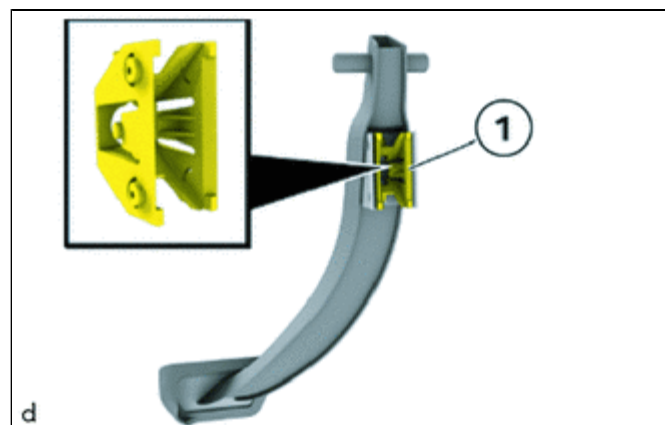
- (d) Replace nuts.
- (e) Tighten nuts.

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

- (f) Position the cable and clip in the holder.

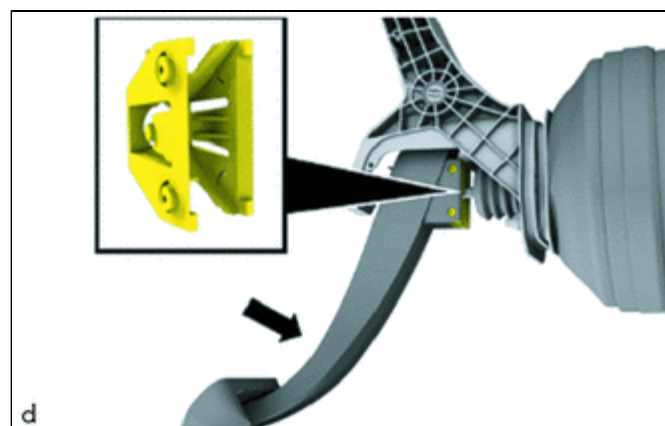
- (g) Check the clamp (1) for damage; replace if necessary.



- (h) Press the brake pedal support assembly in the direction of arrow and lock it with the brake booster assembly.

NOTICE:

The brake pedal support assembly must be completely locked with the brake booster assembly.



2. INSTALL STOP LIGHT SWITCH ASSEMBLY

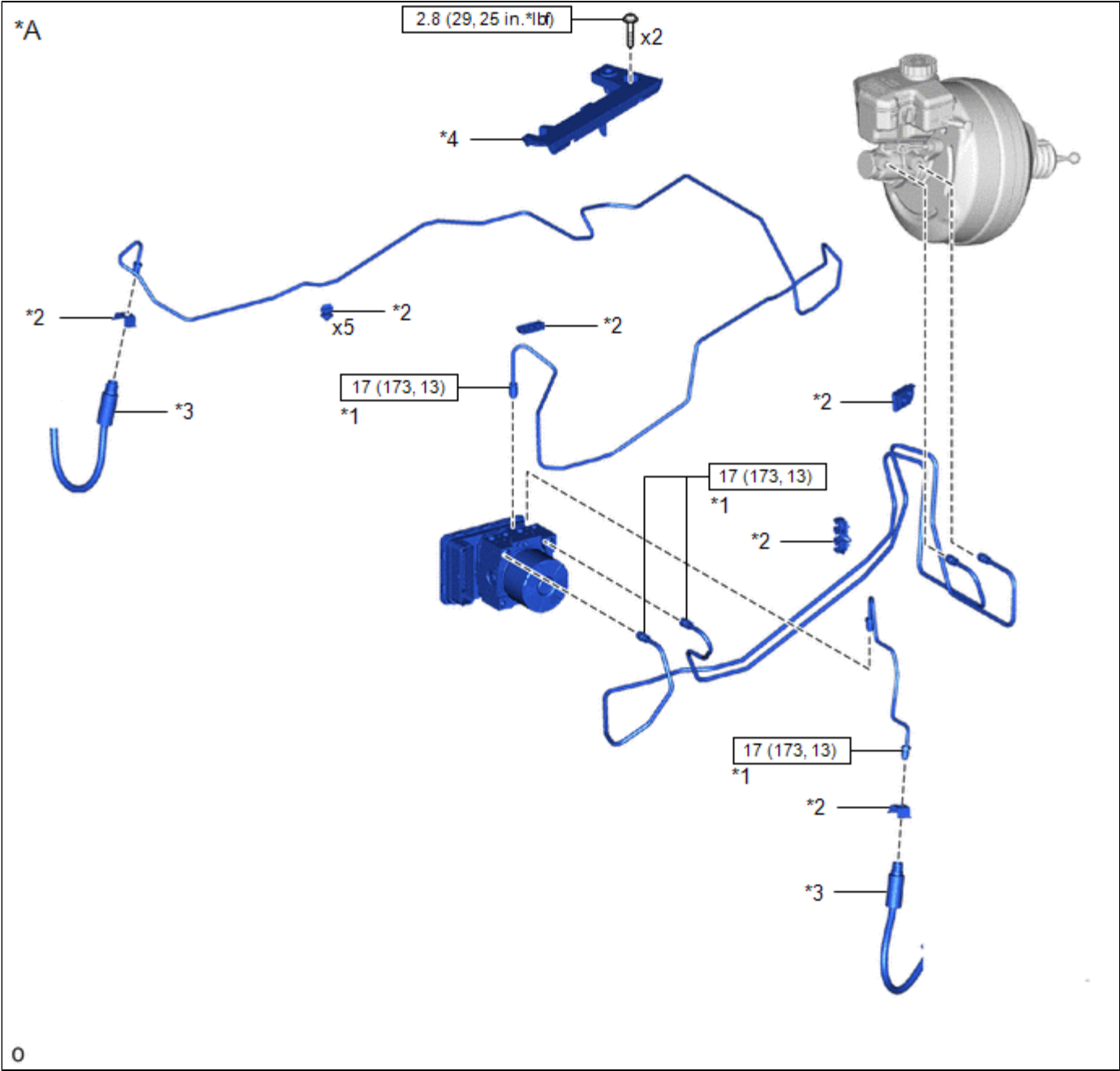
Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION

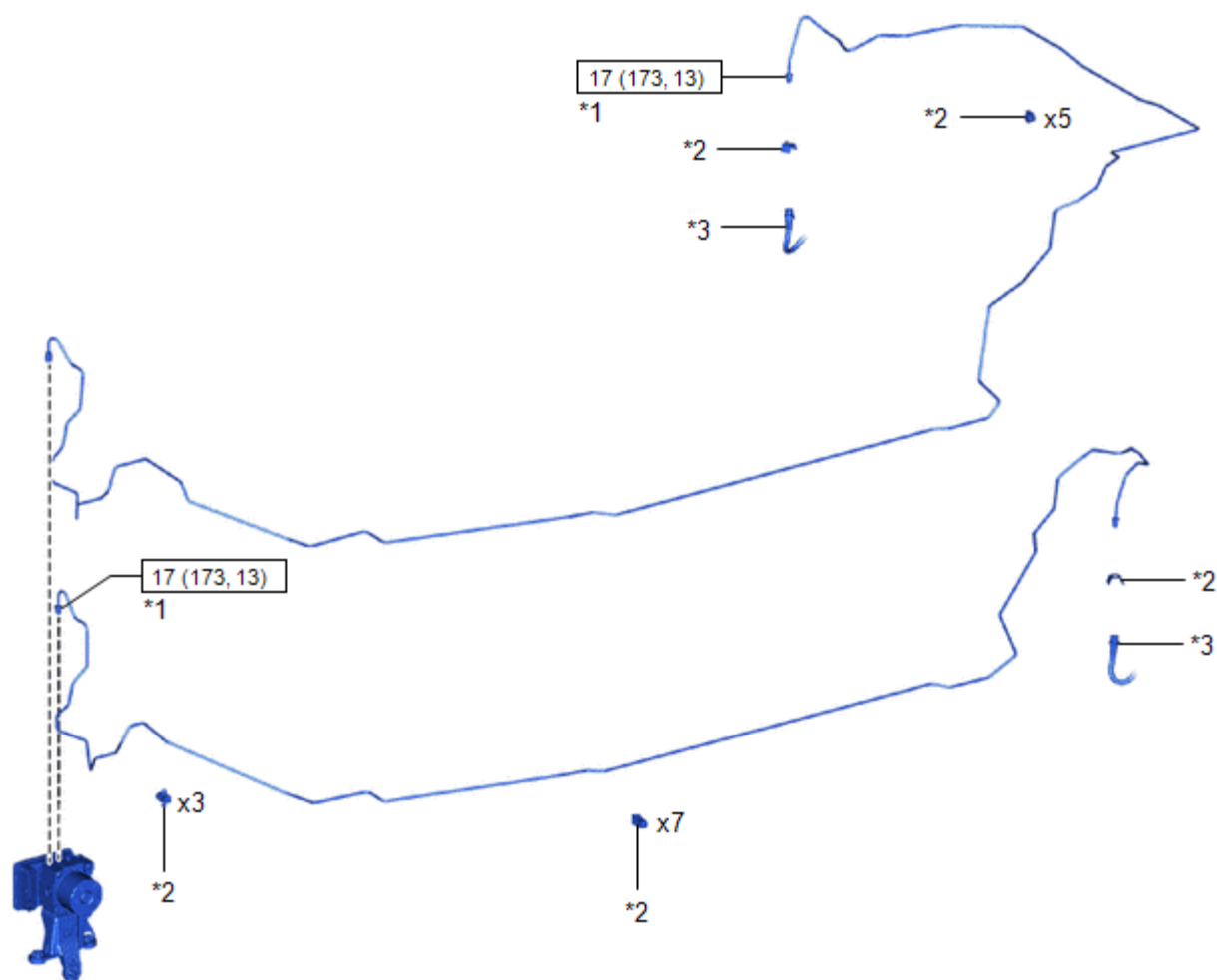


*A	for Front Side	-	-
*1	BRAKE PIPE	*2	CLIP
*3	FRONT FLEXIBLE HOSE	*4	SEALING FRAME
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



ILLUSTRATION

*A



0

*A	for Rear Side	-	-
*1	BRAKE PIPE	*2	CLIP
*3	REAR FLEXIBLE HOSE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE PIPE: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

PROCEDURE

1. REMOVE ENGINE ASSEMBLY

Click here [INFO](#)

2. REMOVE FUEL TANK ASSEMBLY (for Rear Side)

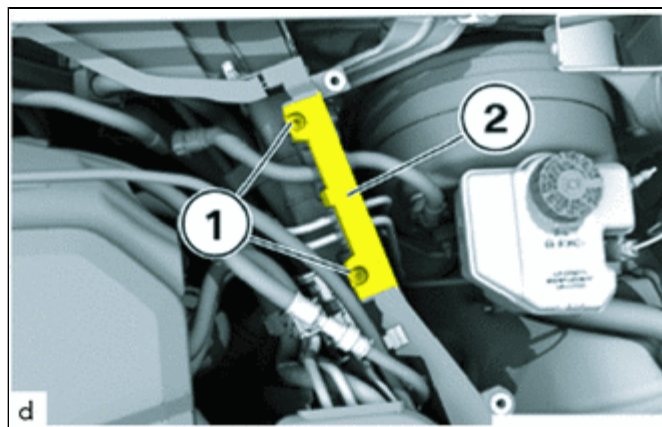
Click here [INFO](#)

3. REMOVE REAR SUSPENSION MEMBER SUB-ASSEMBLY (for Rear Side)

Click here [INFO](#)

4. REMOVE SEALING FRAME

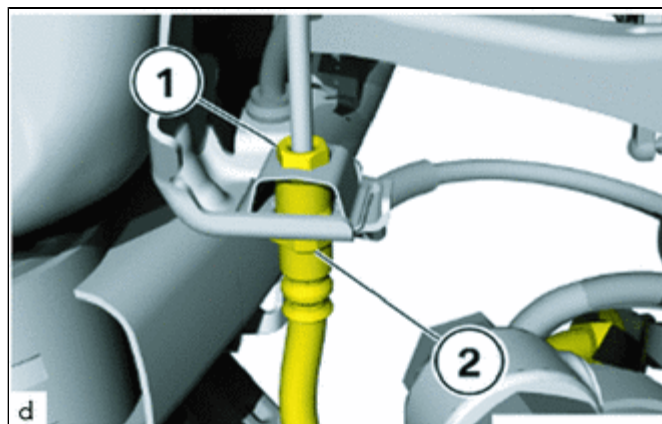
- (a) Unscrew the T25 screws (1) and remove the sealing frame (2).



5. REMOVE ALL BRAKE PIPES

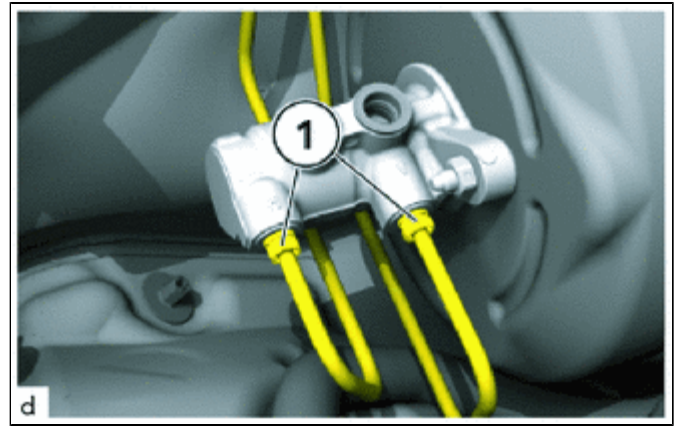
- (a) Loosen union nut (1) with special tool 0 492 482 (34 3 170). Use the square end (2) for counter support if necessary.

SST: 09700-WA070



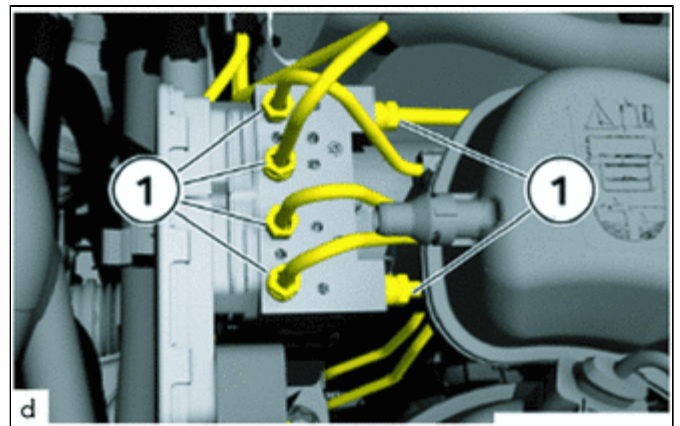
(b) Release brake pipes (1) with the special tool 0 492 482 (34 3 170).

SST: 09700-WA070

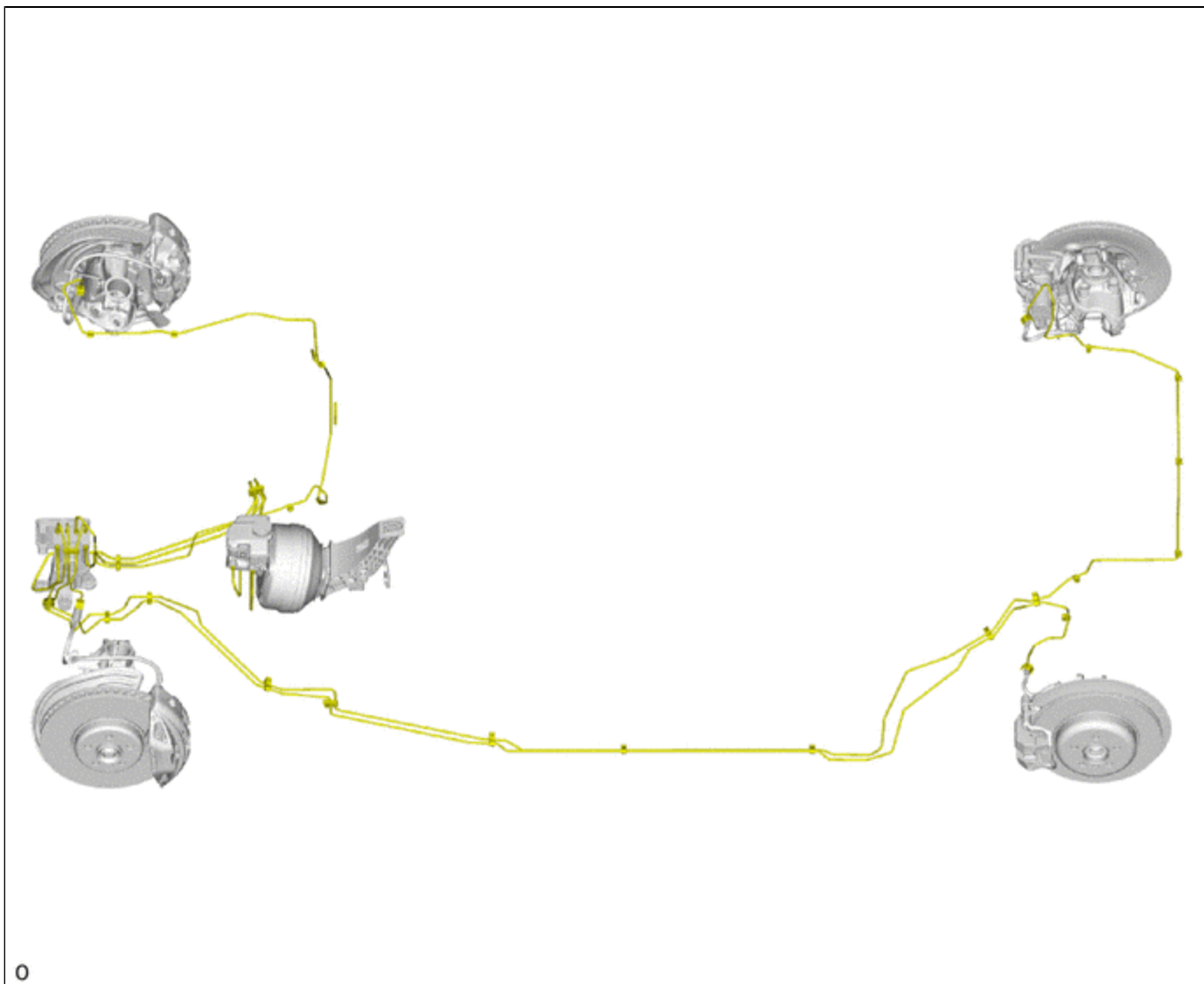


(c) Release brake pipes (1) with the special tool 0 492 482 (34 3 170).

SST: 09700-WA070



(d) Unclip and remove all brake pipes.



6. INSTALL ALL BRAKE PIPES

(a) Install and clip in all brake pipes.

(b) Position the union nut (1) and tighten it with the special tool 0 492 482 (34 3 170). Use the square end (2) for counter support if necessary.

SST: 09700-WA070

Torque:

Specified tightening torque :

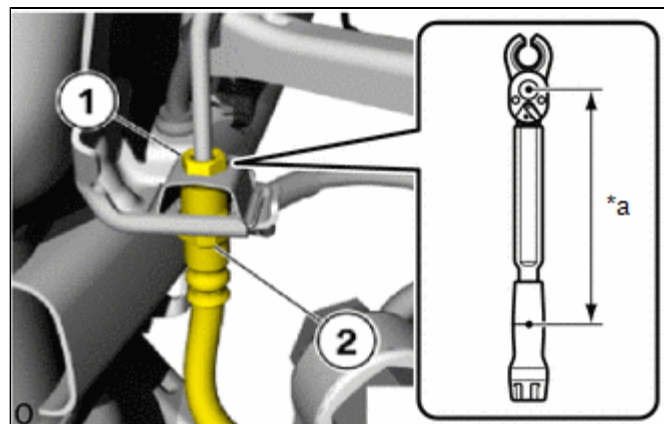
17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

[Click here](#)

INFO



*a

Torque Wrench Fulcrum Length

(c) Tighten the brake pipes (1) with the special tool 0 492 482 (34 3 170).

SST: 09700-WA070

Torque:

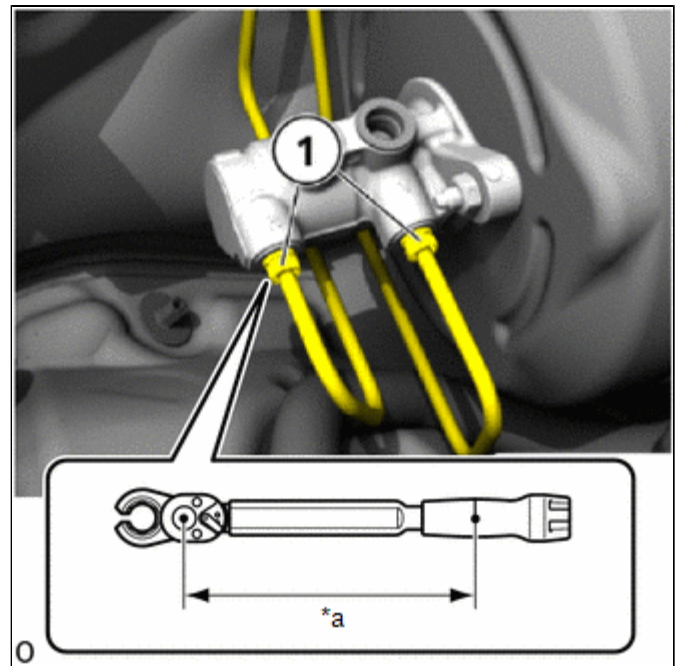
Specified tightening torque :

17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

[Click here](#) [INFO](#)



*a	Torque Wrench Fulcrum Length
----	------------------------------

(d) Tighten the brake pipes (1) with the special tool 0 492 482 (34 3 170).

SST: 09700-WA070

Torque:

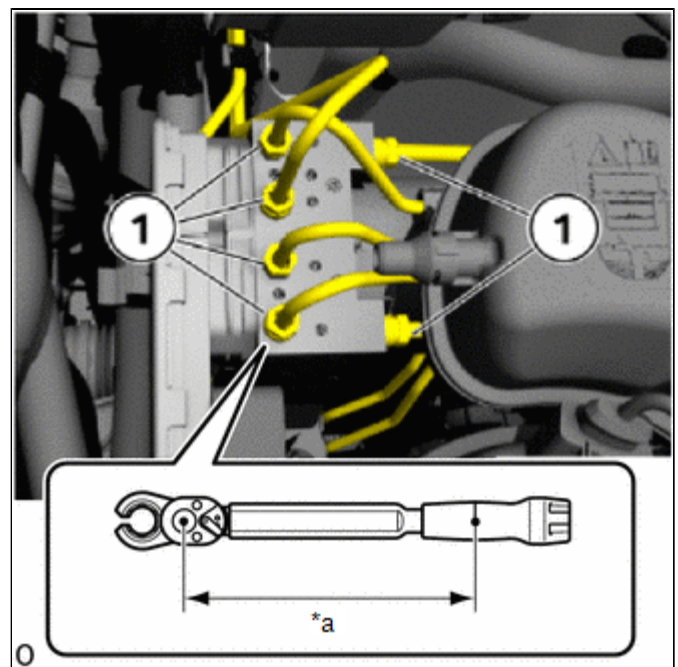
Specified tightening torque :

17 N·m {173 kgf·cm, 13 ft·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

[Click here](#) [INFO](#)



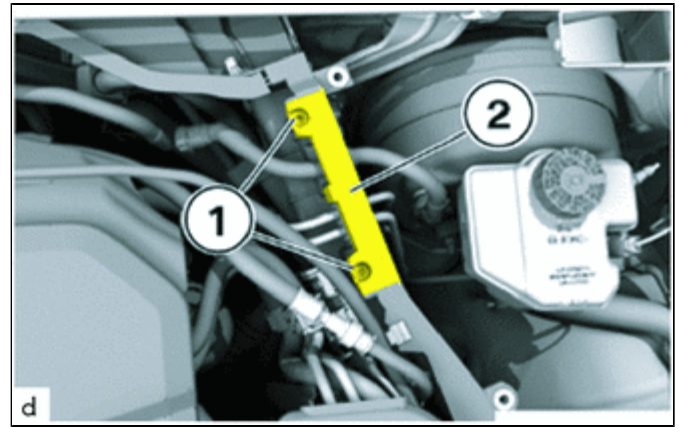
*a	Torque Wrench Fulcrum Length
----	------------------------------

7. INSTALL SEALING FRAME

(a) Position the sealing frame (2) and tighten the T25 screws (1).

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}



8. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY (for Rear Side)

Click here [INFO](#)

9. INSTALL FUEL TANK ASSEMBLY (for Rear Side)

Click here [INFO](#)

10. INSTALL ENGINE ASSEMBLY

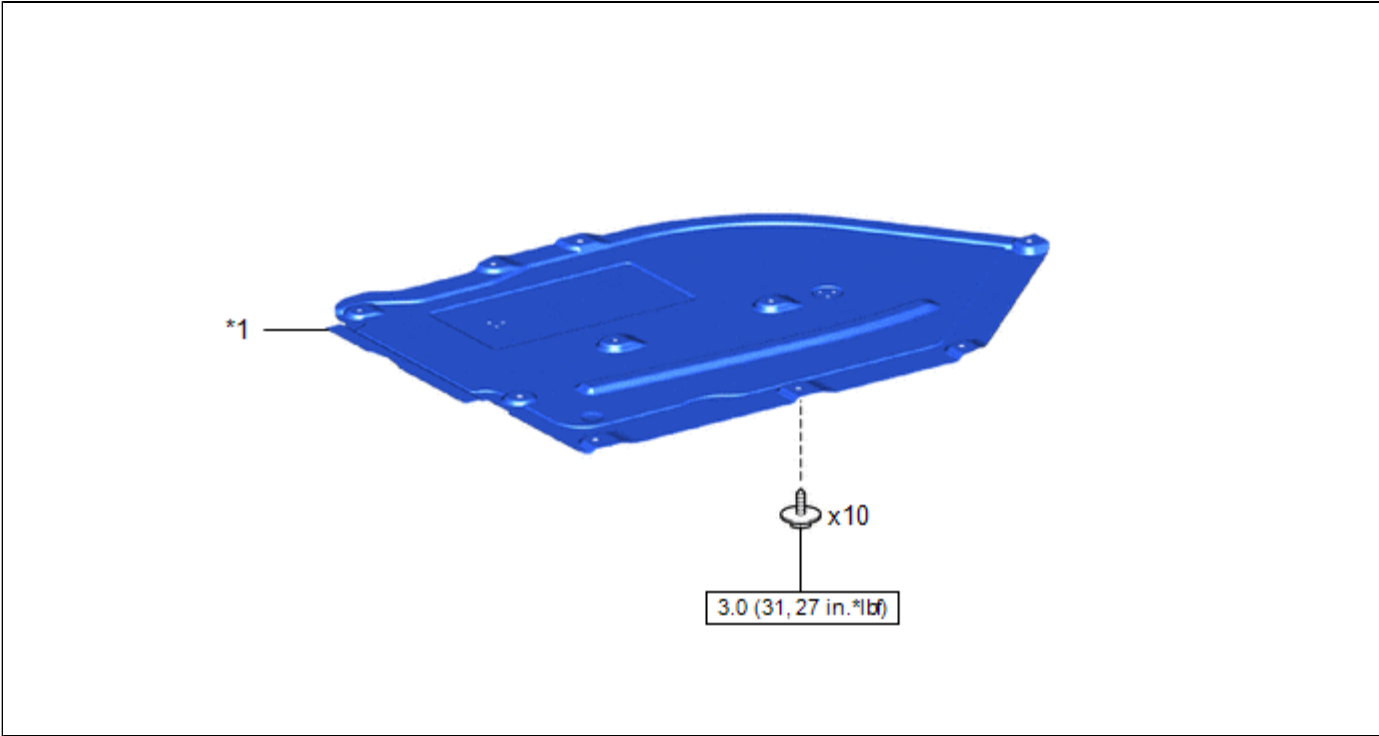
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE VACUUM HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

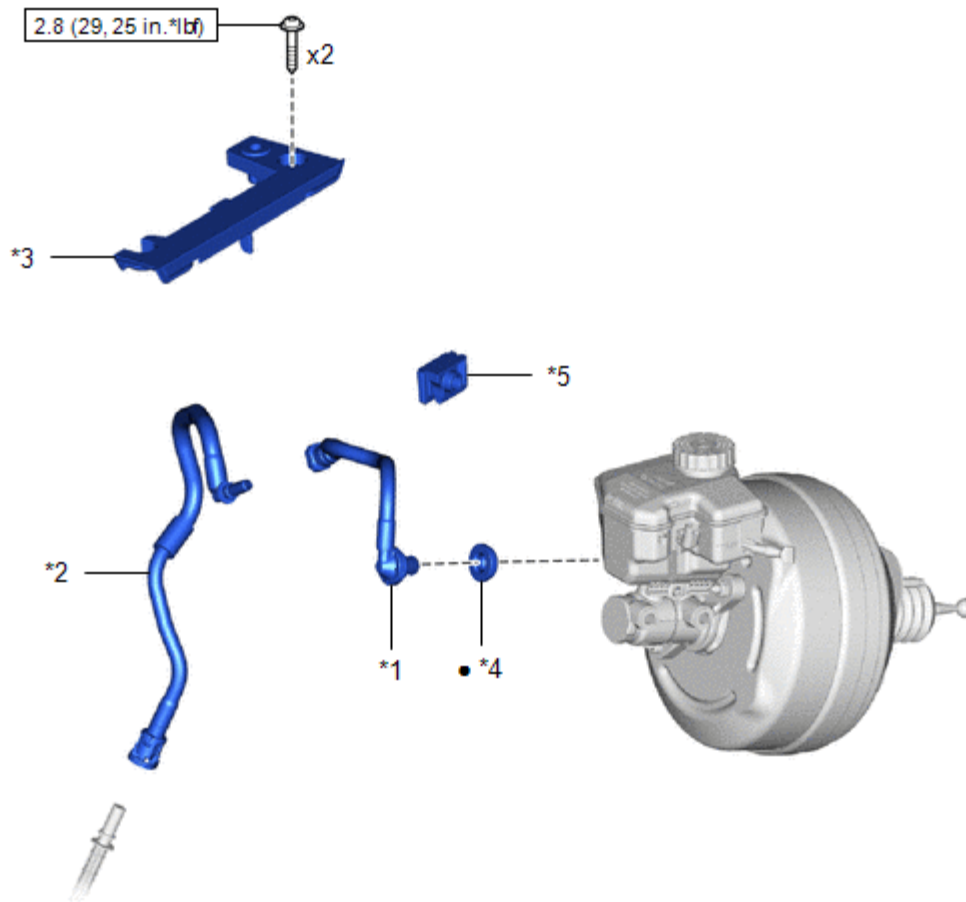
COMPONENTS

ILLUSTRATION




*1	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



0

*1	CHECK VALVE TO BRAKE EBOOSTER HOSE	*2	NO. 1 HOSE TO HOSE TUBE
*3	SEALING FRAME	*4	GROMMET
*5	HOLDER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCED
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE VACUUM HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: BRAKE SYSTEM (OTHER): BRAKE VACUUM HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

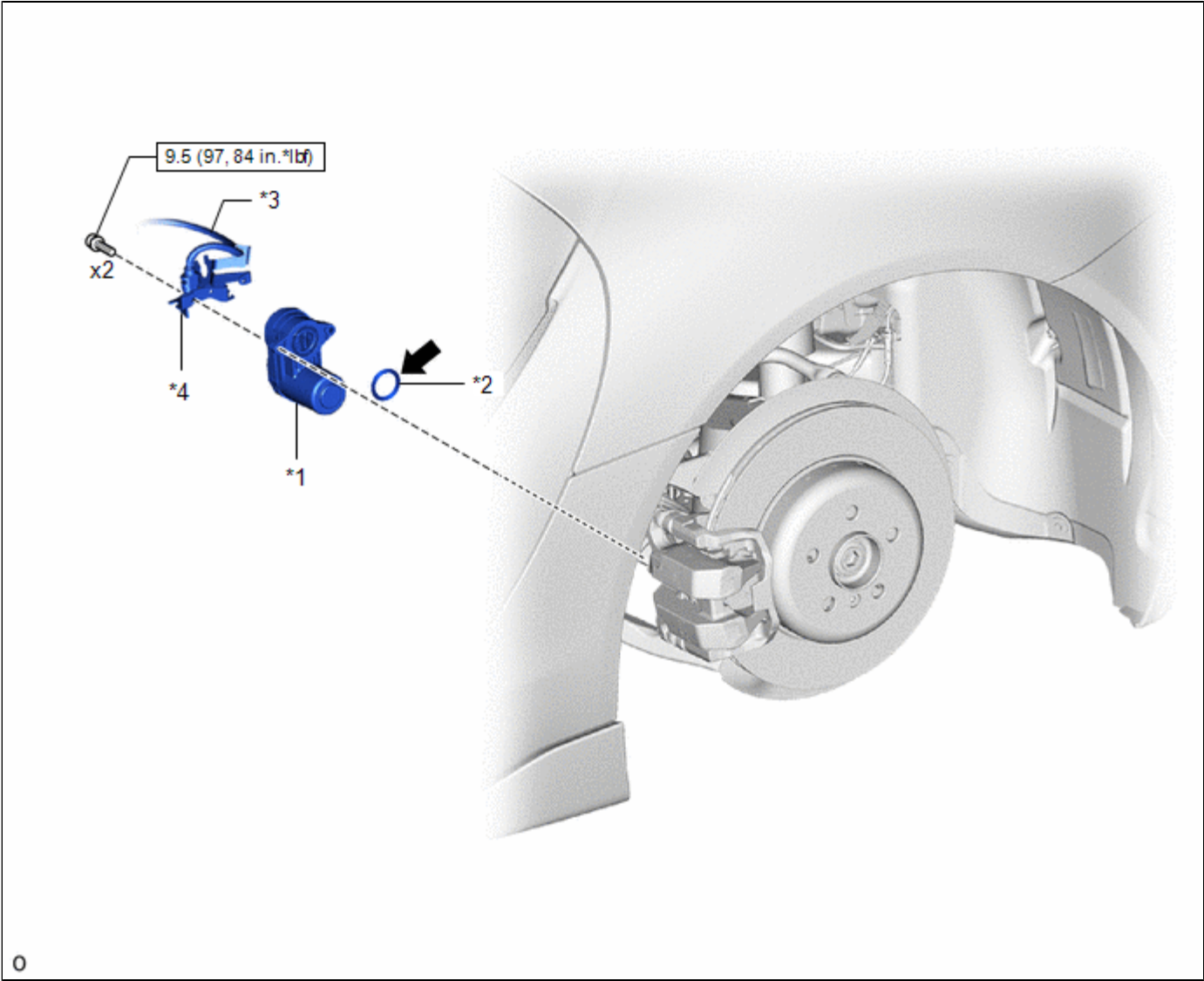
CAUTION / NOTICE / HINT


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCA Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARKING BRAKE: ELECTRIC PARKING BRAKE ACTUATOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	PARKING BRAKE ACTUATOR ASSEMBLY	*2	SEALING RING
*3	WIRE HARNESS	*4	HOLDER
	N*m (kgf*cm, ft.*lbf): Specified torque		Brake Fluid

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARKING BRAKE: ELECTRIC PARKING BRAKE ACTUATOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- After completing repair work:
 - Use the parking brake button to open, close and open the parking brake again.

HINT:

- The following procedure is for the LH side.
- Use the same procedure for the RH side and LH side.

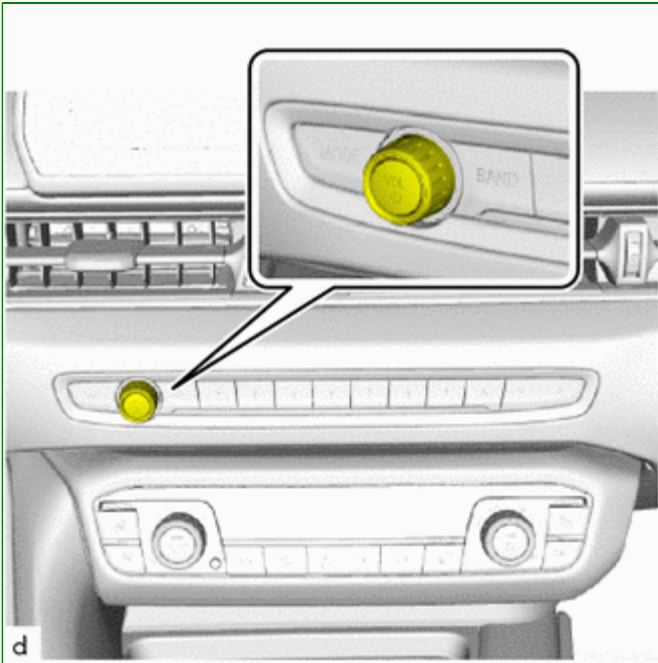
PROCEDURE

1. RELEASE PARKING BRAKE

- (a) Release parking brake.
- (b) Turn the START-STOP button (engine switch) off.

HINT:

- Pressing and holding the AUDIO button changes the power source mode to IG OFF.

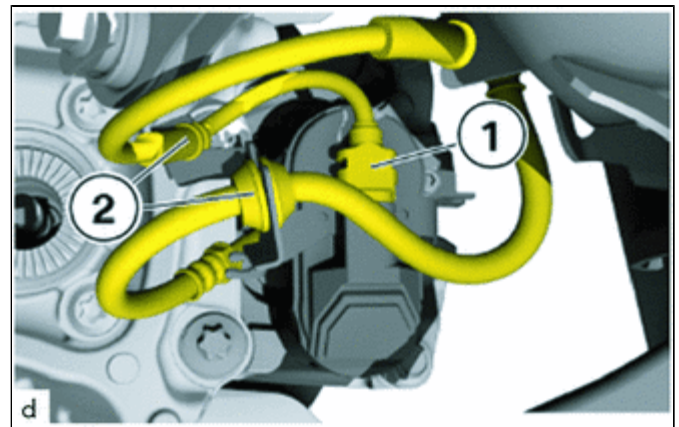


- The START-STOP button (engine switch) off must be switched off for at least 30 seconds before the plug connection is disconnected.

- (c) Disconnect plug connection.

2. REMOVE PARKING BRAKE ACTUATOR ASSEMBLY

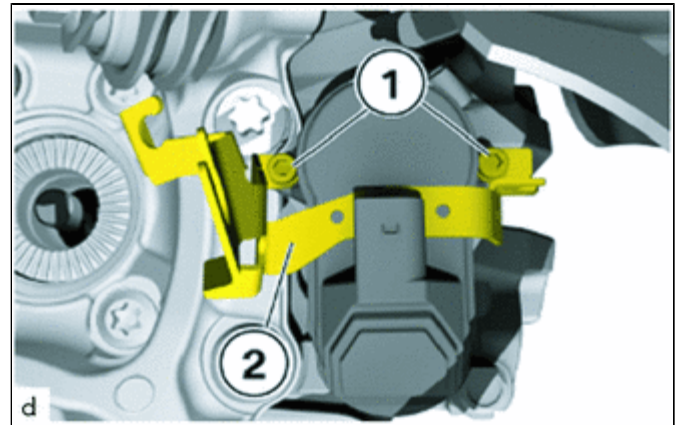
(a) Unlock plug connection (1) and disconnect.



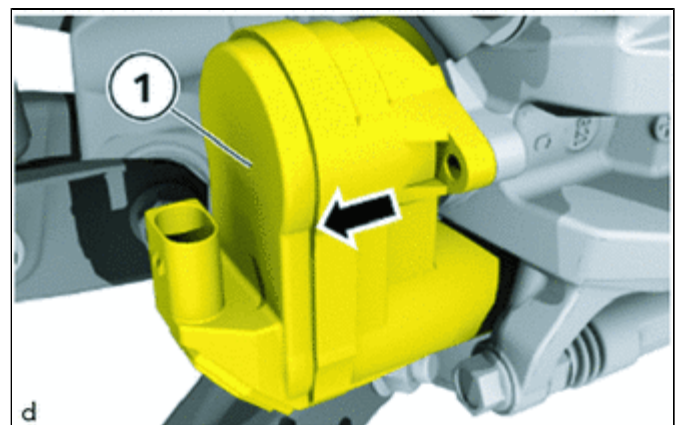
(b) Detach the rear flexible hose from the holder (2).

(c) Detach the cable from the holder (2).

(d) Release the 5 mm hexagon bolts (1) and remove the holder (2).



(e) Remove the parking brake actuator assembly (1) in the direction of the arrow.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARKING BRAKE: ELECTRIC PARKING BRAKE ACTUATOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

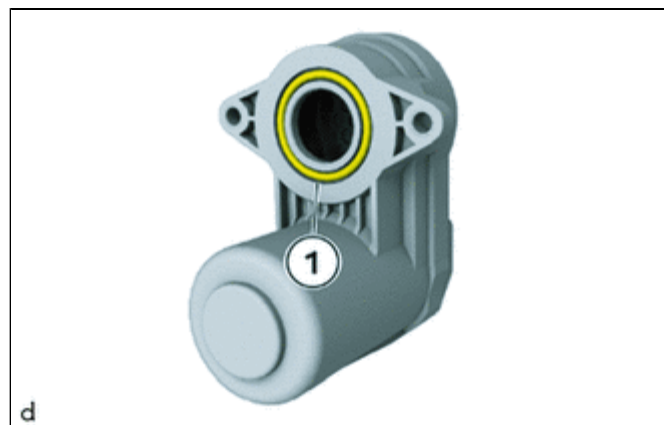
PROCEDURE

1. INSTALL PARKING BRAKE ACTUATOR ASSEMBLY

(a) Lightly coat the sealing ring (1) with brake fluid.

HINT:

- When reusing the parking brake actuator assembly:
 - Check the sealing ring (1) for damage and replace where required.



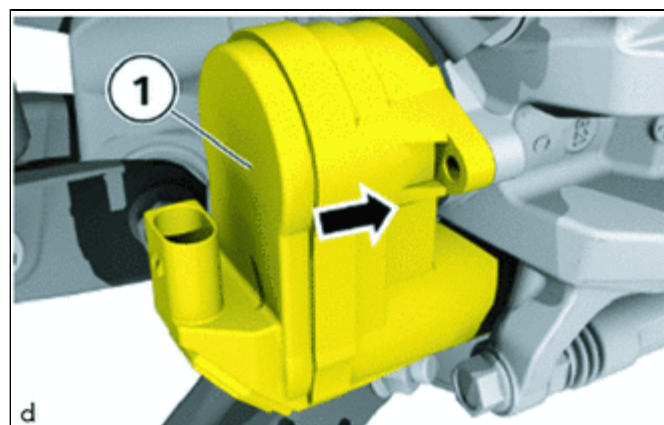
(b) Carefully position the parking brake actuator assembly (1).

NOTICE:

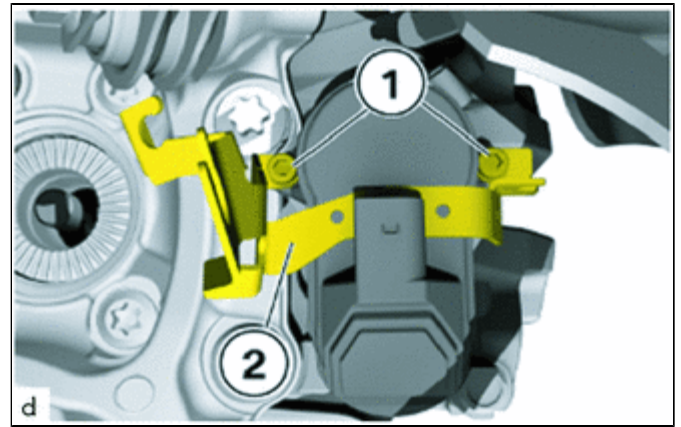
- The gearing must engage.
- Make sure that the parking brake actuator assembly rests flush against the rear disc brake cylinder assembly.

HINT:

If necessary, turn the parking brake actuator assembly slightly until the bore hole and the screw thread are aligned.



(c) Position holder (2).



(d) Tighten the 5 mm hexagon bolts (1).

Torque:

9.5 N·m {97 kgf·cm, 84 in·lbf}

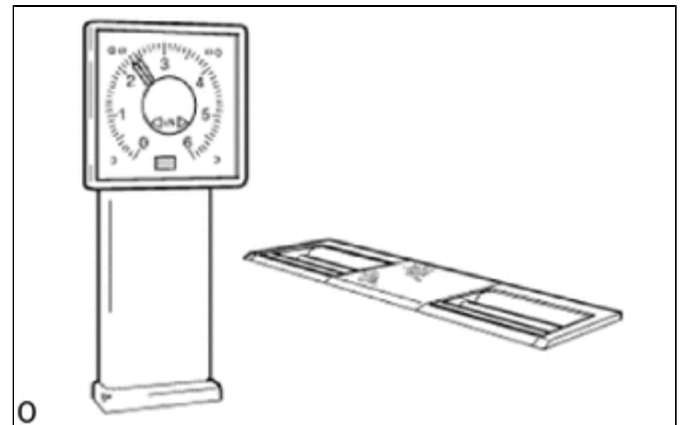
(e) Connect connectors and lock.

(f) Attach the rear flexible hose in the holder.

(g) Attach the cable in the holder.

2. CARRY OUT A BRAKE TEST OF THE PARKING BRAKE ON THE BRAKE TEST STAND

(a) Position the vehicle with its rear axle on the brake test stand.



(b) Position the selector lever in selector lever position N (neutral).

(c) Run engine at idle speed.

(1) The brake test stand starts automatically.

(2) The control unit runs a plausibility check (comparison of wheel speed) to identify within a few seconds that a vehicle is on the brake test stand and changes to brake test stand mode.

(3) If brake test stand mode has been activated and the EMF actuators are open, the indicator light for the electromechanical parking brake (EMF) flashes slowly.

(d) Press the parking brake button (1) to apply the brake pads.

- (1) When brake test stand mode is active and the EMF actuators have been partly applied, the indicator light for the electromechanical parking brake (EMF) flashes quickly.



(e) Press the parking brake button (1) for the brake test with test force 1.

(f) Press the parking brake button (1) for the brake test with test force 2.

(g) Press the parking brake button (1) for the brake test with test force 3.

(h) Read the maximum brake forces on the left and right.

(i) Release the parking brake button (1).

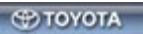
- (1) This releases the parking brake.

(j) Move the vehicle from the brake test stand.

- (1) Brake test stand mode is automatically quit upon driving off the brake test stand.

(k) After having completed the brake tests: Perform terminal change.

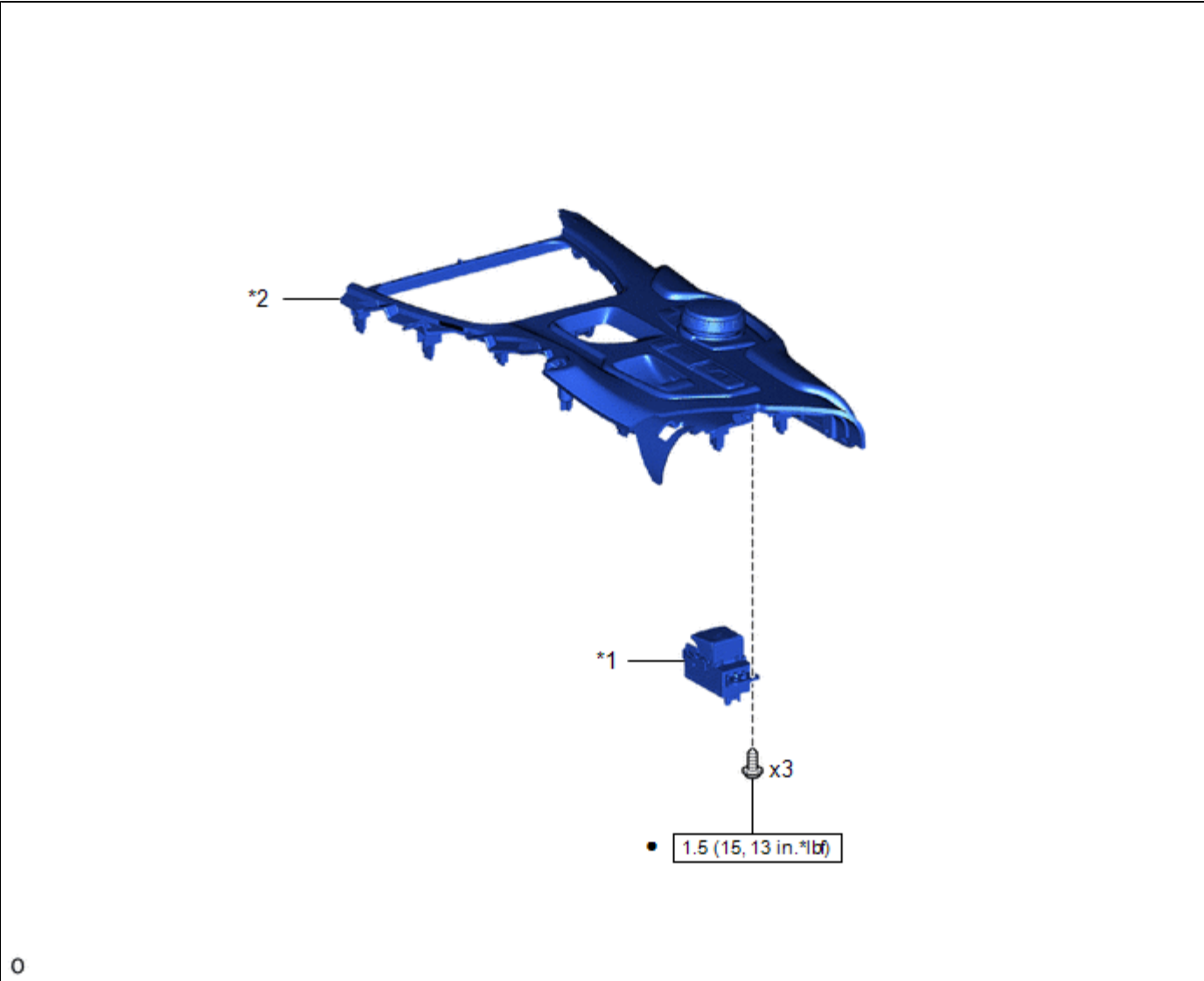
- (1) All indicator lights go out after having completed the terminal change.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARKING BRAKE: ELECTRIC PARKING BRAKE SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ELECTRIC PARKING BRAKE SWITCH ASSEMBLY	*2	UPPER CONSOLE PANEL SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARKING BRAKE: ELECTRIC PARKING BRAKE SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for RHD and LHD vehicles.
- The following procedure is for LHD vehicles.

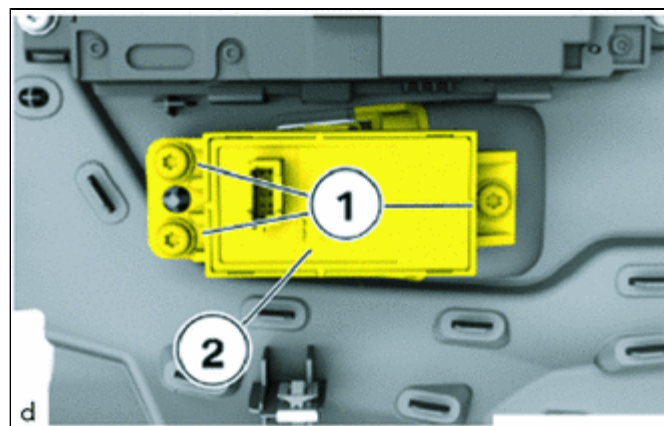
PROCEDURE

1. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE ELECTRIC PARKING BRAKE SWITCH ASSEMBLY

(a) Loosen T20 screws (1).



(b) Remove electric parking brake switch assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARKING BRAKE: ELECTRIC PARKING BRAKE SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

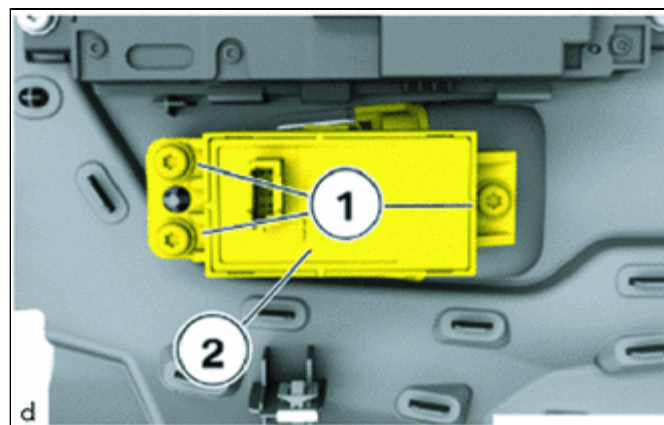
HINT:

- Use the same procedure for RHD and LHD vehicles.
- The following procedure is for LHD vehicles.

PROCEDURE

1. INSTALL ELECTRIC PARKING BRAKE SWITCH ASSEMBLY

(a) Position electric parking brake switch assembly (2).



(b) Replace T20 screws (1).

(c) Tighten the T20 screws (1).

Torque:

1.5 N·m {15 kgf·cm, 13 in·lbf}

2. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCAX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARKING BRAKE: FORCED RELEASE: OPERATION METHOD; 2020 MY Supra [03/2019 -]		

OPERATION METHOD

CAUTION / NOTICE / HINT

PROCEDURE

1. PARKING BRAKE FORCED RELEASE

CAUTION:

Work on a level surface to ensure safety.

NOTICE:

- When moving the vehicle after releasing the parking brake, install all parts except the connector.
- A manual emergency release is possible via the spindle drives of the brake calipers. The actuator needs to be disassembled first. Following an emergency release, the electromechanical parking brake must be initialised.

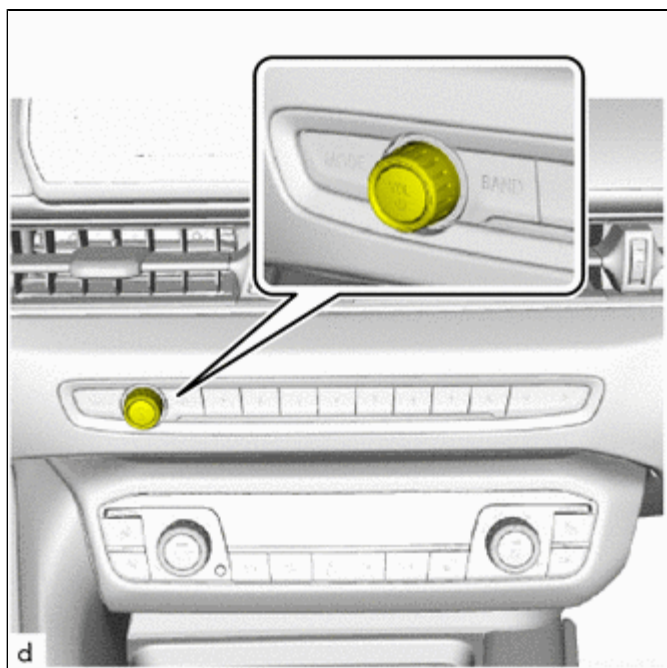
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

- Park the vehicle on a level surface and check that the shift lever is in P.
- Turn the START-STOP button (engine switch) off and check that the wheels are chocked.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



- Remove the rear wheel.

Click here [INFO](#)

CAUTION:

When using a jack to lift the vehicle, make sure to support the vehicle using safety stands. Do not work on the vehicle

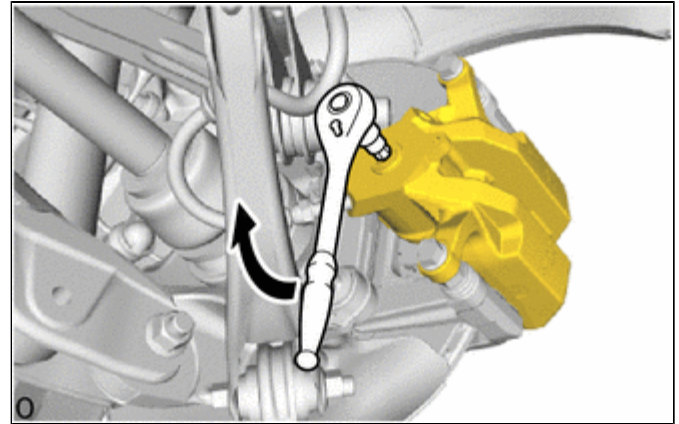
with it supported only by a jack.

[Click here](#) [INFO](#)

(d) Remove the parking brake actuator assembly.

[Click here](#) [INFO](#)

(e) Insert a 5 mm socket hexagon wrench into the rear disc brake cylinder assembly.



(f) Turn the 5 mm socket hexagon wrench rotations clockwise to release the parking brake lock.

NOTICE:

When moving the vehicle after releasing the parking brake, install all parts except the connector.

2. PERFORM INITIALIZATION

(a) Connect the diagnosis system to the vehicle and enter the following menus:

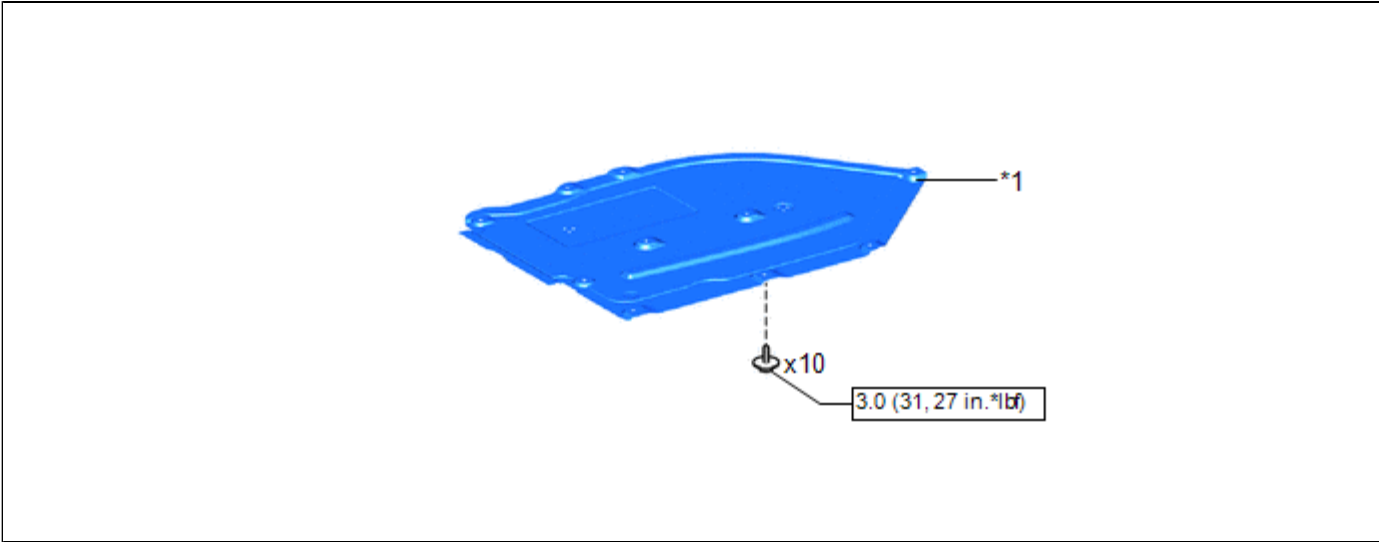
Vehicle management / Service functions / Chassis / Parking brake / Start-up / Commissioning, parking brake




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): ACCUMULATOR ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

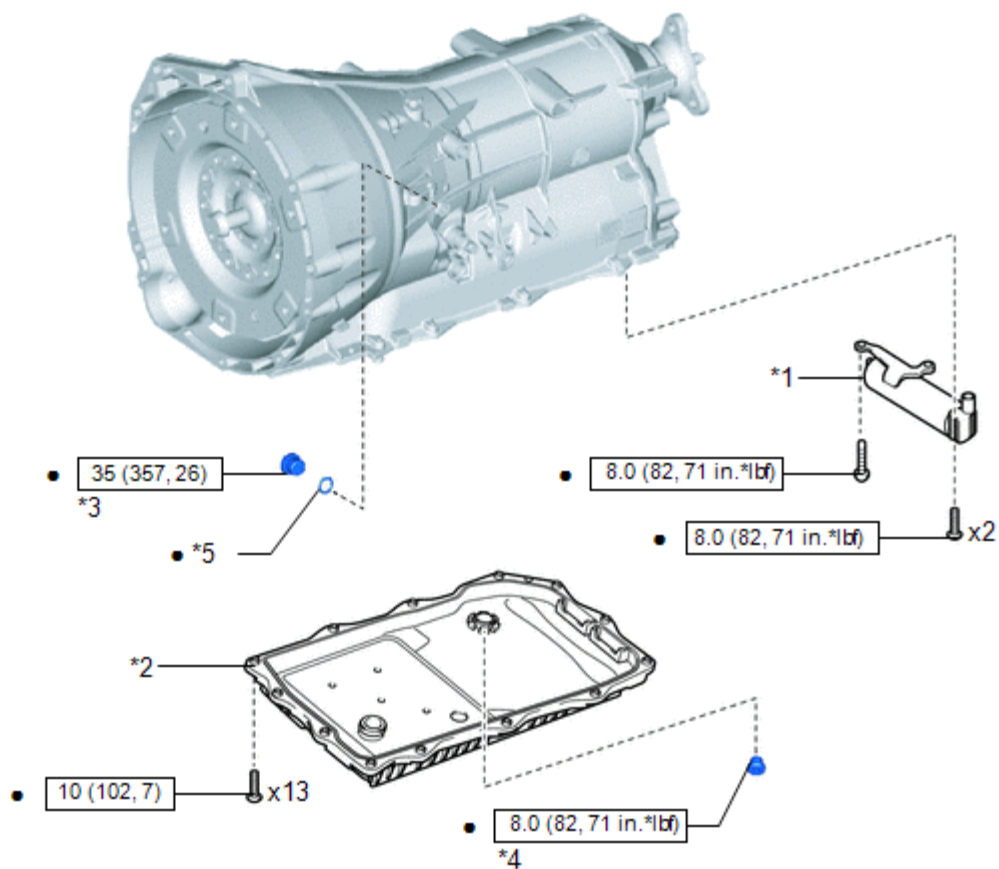
COMPONENTS


ILLUSTRATION



*1	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	HYDRAULIC IMPULSE STORAGE	*2	TRANSMISSION OIL SUMP
*3	FILLER PLUG	*4	OIL DRAIN PLUG
*5	SEALING RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): ACCUMULATOR ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. REMOVE TRANSMISSION OIL SUMP

Click here [INFO](#)

3. REMOVE HYDRAULIC IMPULSE STORAGE

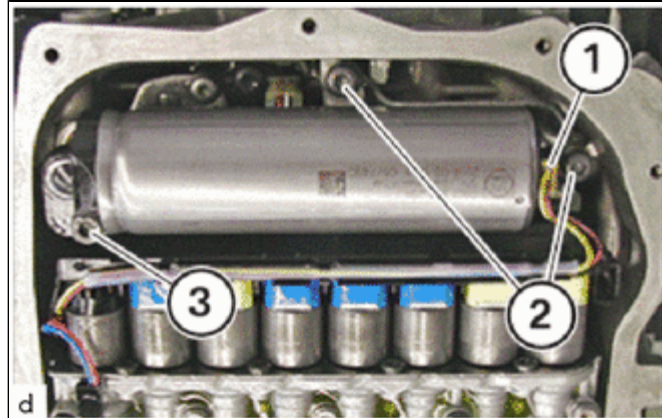
CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

(a) Unlock and disconnect connector (1).



(b) Loosen the T40 bolts (M6x20) (2).

(c) Loosen the T40 bolt (M6x59) (3).

(d) Remove hydraulic impulse storage.



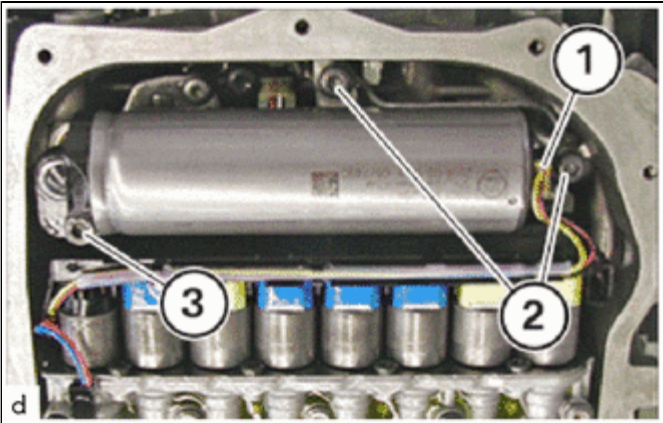
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): ACCUMULATOR ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL HYDRAULIC IMPULSE STORAGE

(a) Install the hydraulic impulse storage.



- (b) Replace the T40 bolts (2) and (3).
- (c) Ensure a correct installation position of the T40 bolts.

HINT:
The T40 bolts are not all equally long.

(d) Tighten the T40 bolts (2) (M6x20).

Torque:
8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Tighten the T40 bolt (3) (M6x59).

Torque:
8.0 N·m {82 kgf·cm, 71 in·lbf}

(f) Connect connectors and lock.

2. INSTALL TRANSMISSION OIL SUMP

Click here [INFO](#)

3. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

4. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

5. INSTALL FRONT FLOOR COVER

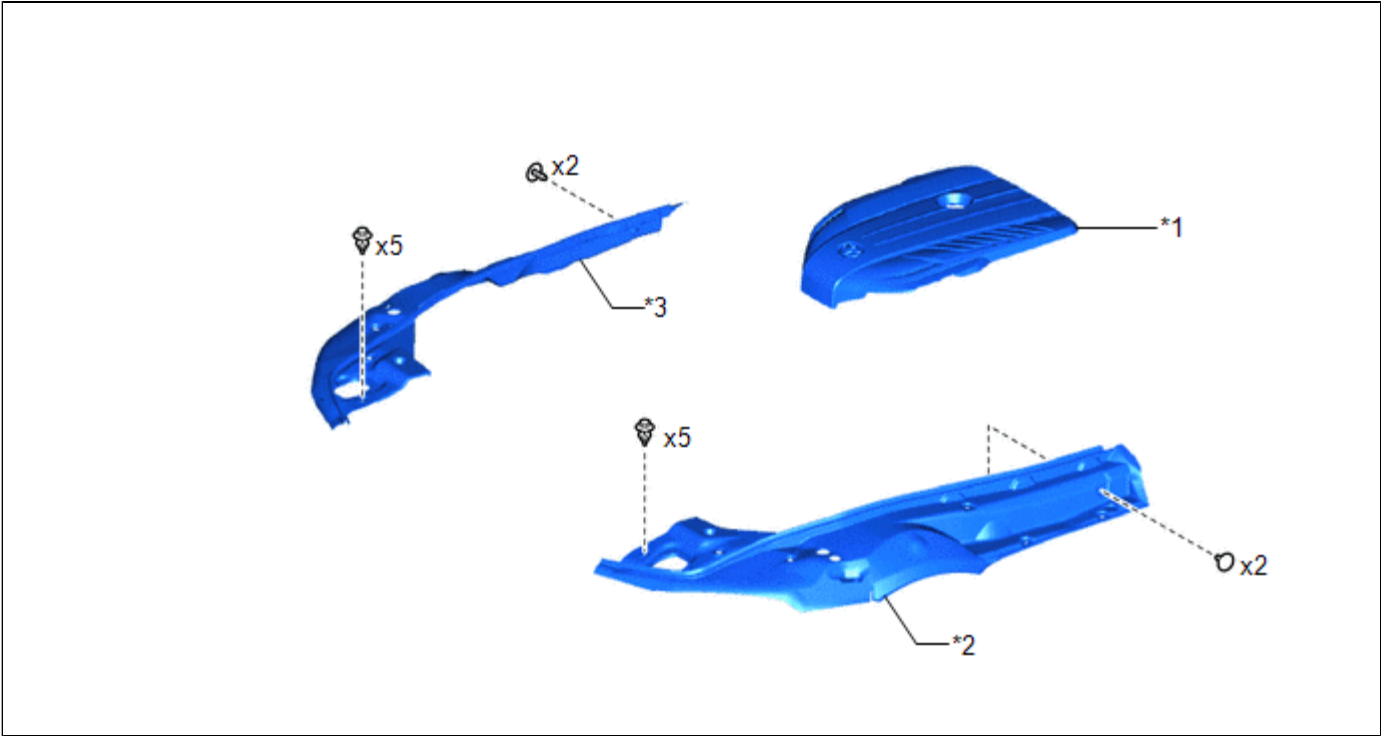
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

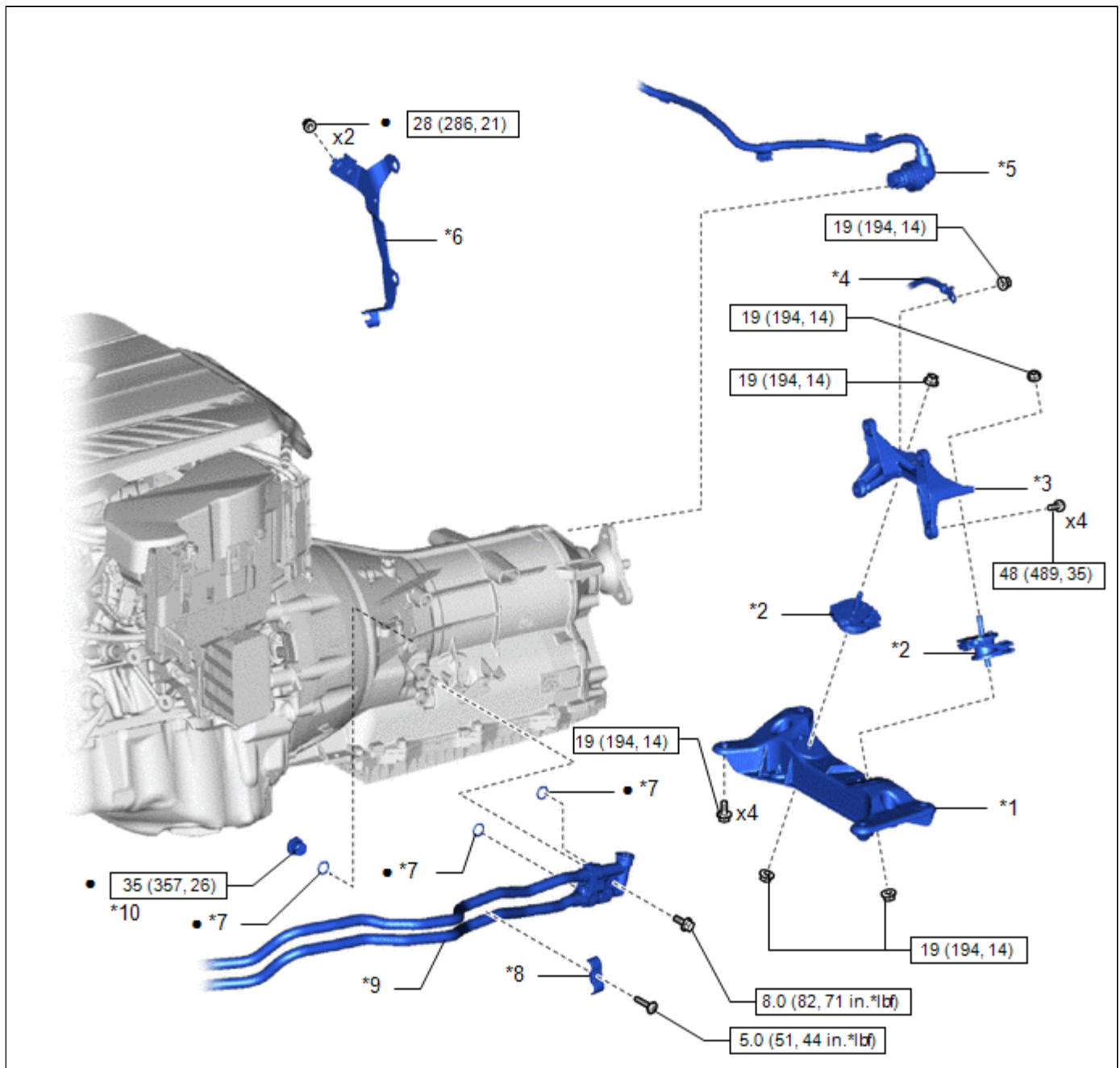
COMPONENTS


ILLUSTRATION



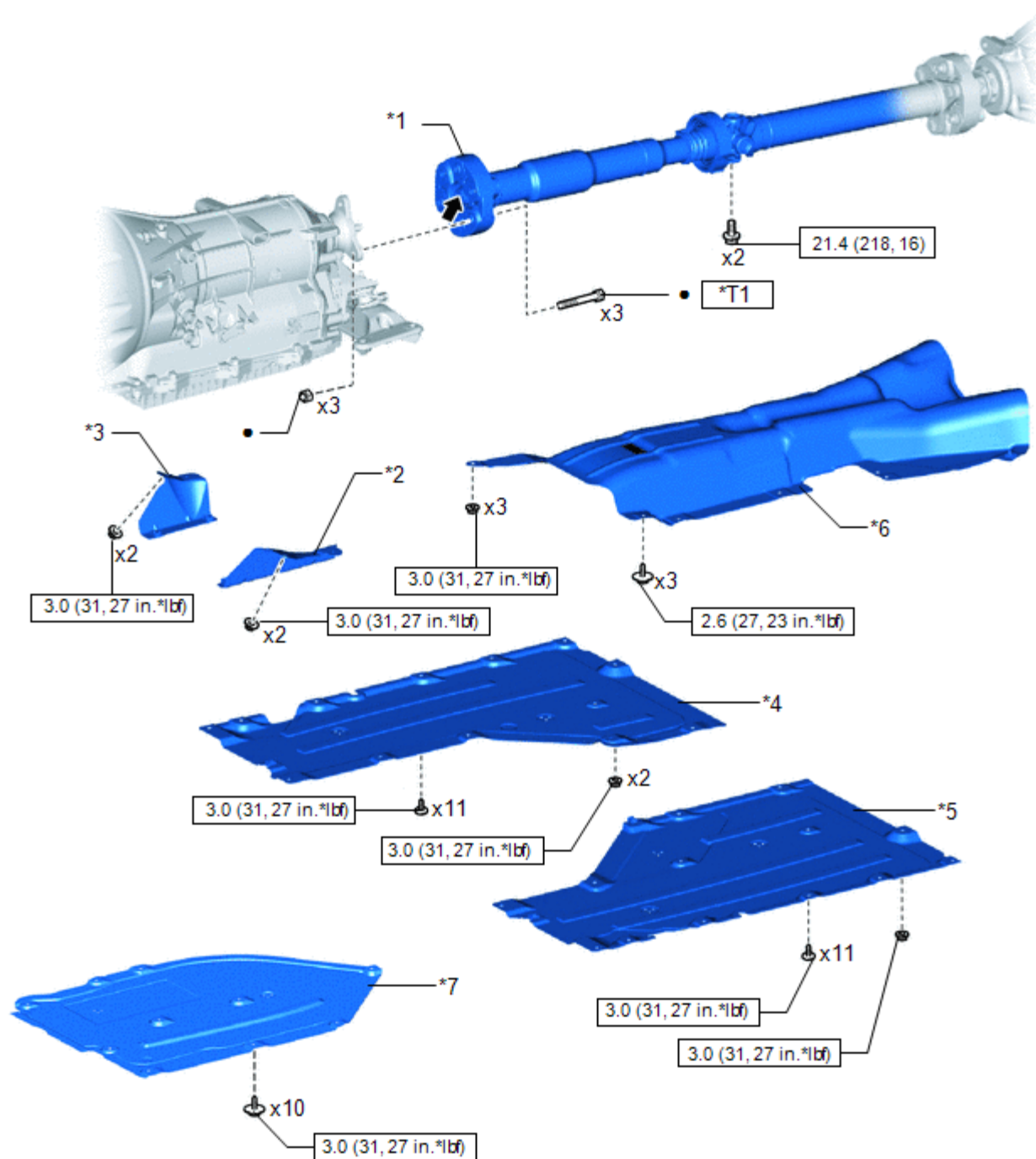
*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	UPPER FRONT FENDER PROTECTOR LH
*3	UPPER FRONT FENDER PROTECTOR RH	-	-



ILLUSTRATION



*1	REAR ENGINE MOUNTING MEMBER	*2	REAR ENGINE MOUNTING INSULATOR
*3	REAR ENGINE MOUNTING BRACKET SUB-ASSEMBLY	*4	NO. 2 EARTH WIRE
*5	WIRE HARNESS	*6	NO. 2 MANIFOLD STAY
*7	SEALING RING	*8	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
*9	OIL COOLER TUBE	*10	FILLER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

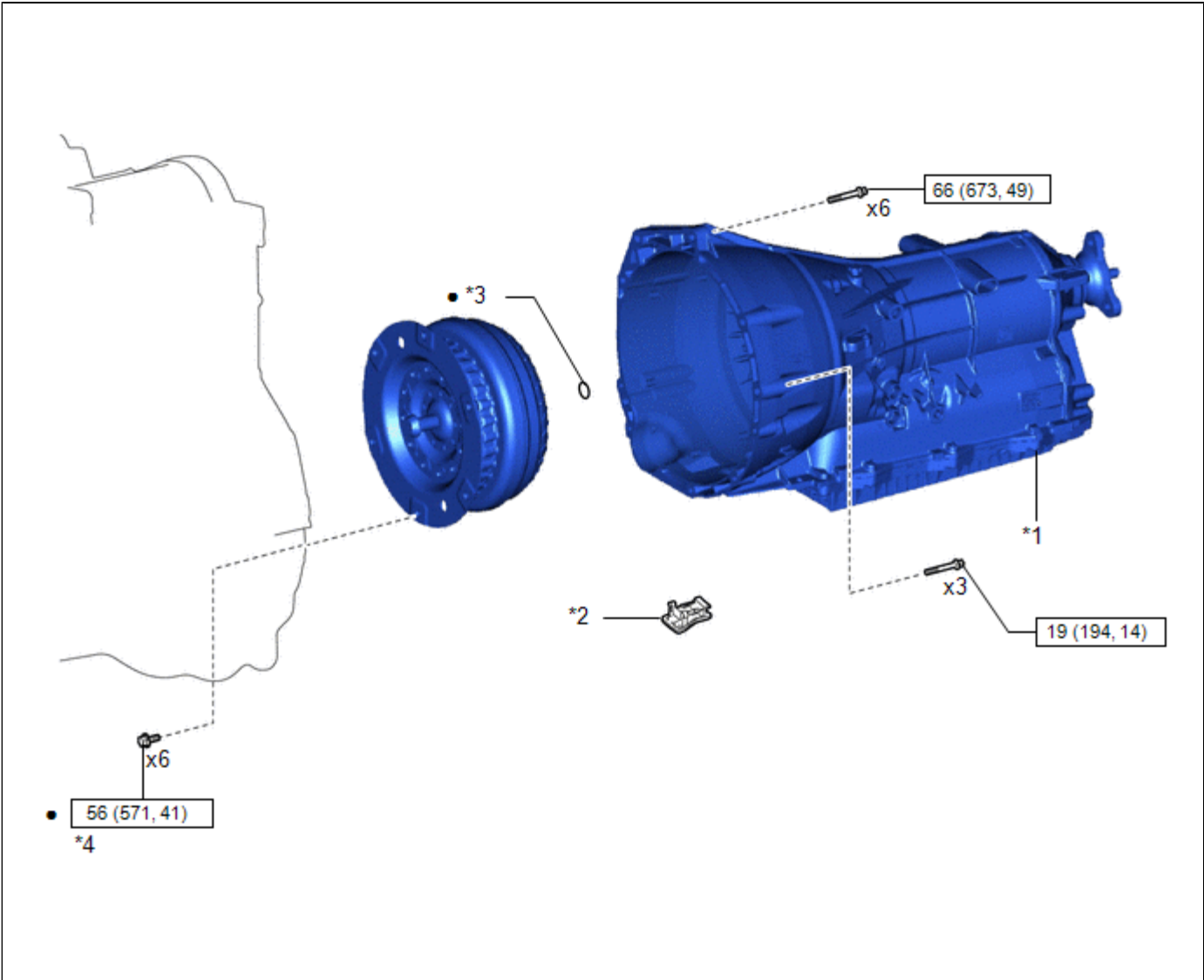
ILLUSTRATION



*1	PROPELLER SHAFT ASSEMBLY	*2	NO. 1 FLOOR HEAT INSULATOR
*3	NO. 2 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER RH
*5	FRONT FLOOR COVER LH	*6	FRONT NO. 1 FLOOR HEAT INSULATOR
*7	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Lubricant Olistamoly 2 LN 584 LO
	1st: 55 (561, 41)		

*T1	2nd: Turn 90°	•	Non-reusable part
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ILLUSTRATION



*1	AUTOMATIC TRANSMISSION ASSEMBLY	*2	TRANSMISSION HOUSING COVER
*3	O-RING	*4	DRIVE PLATE AND TORQUE CONVERTER ASSEMBLY SETTING BOLT
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

3. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

5. REMOVE FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

6. INSTALL ENGINE HANGER

Click here [INFO](#)

7. INSTALL ENGINE SUPPORT BRIDGE

Click here [INFO](#)

8. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

9. REMOVE STARTER ASSEMBLY

Click here [INFO](#)

10. REMOVE FRONT FLOOR COVER LH

Click here [INFO](#)

11. REMOVE FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

12. REMOVE EXHAUST PIPE ASSEMBLY

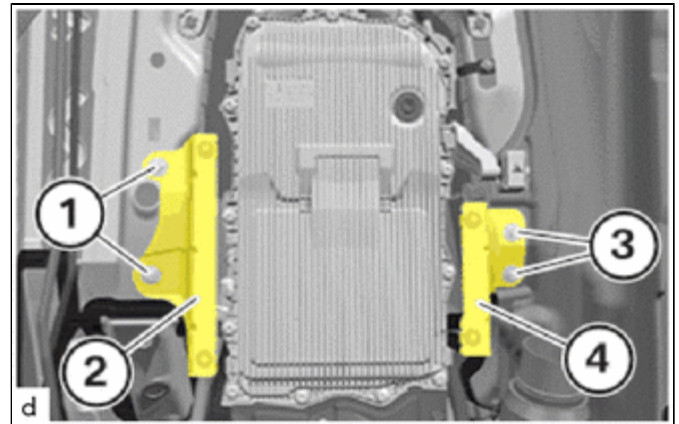
Click here [INFO](#)

13. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

14. REMOVE FLOOR HEAT INSULATOR

(a) Loosen nuts (1).



(b) Remove the No. 1 floor heat Insulator (2).

(c) Loosen nuts (3).

(d) Remove the No. 2 floor heat Insulator (4).

15. REMOVE REAR ENGINE MOUNTING MEMBER

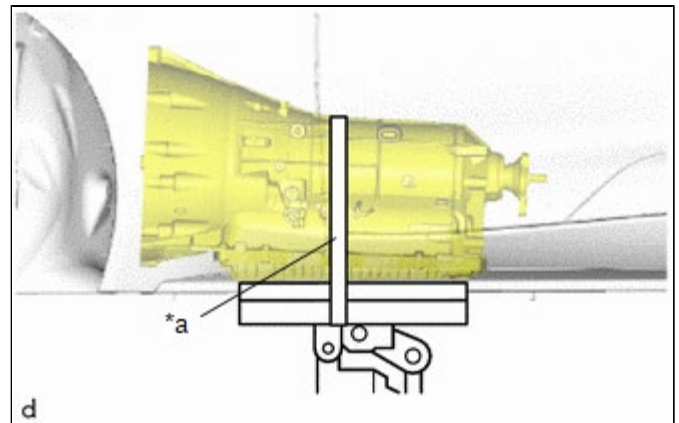
(a) Support the automatic transmission assembly with a transmission jack.

CAUTION:

Secure the automatic transmission assembly to the transmission jack using a lashing belt, etc. to prevent it from falling.

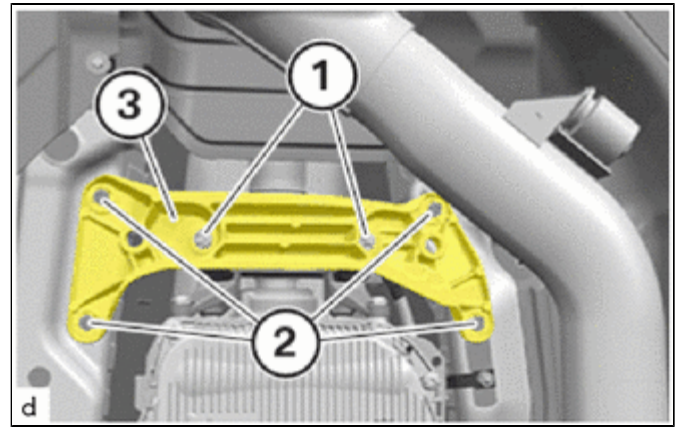
NOTICE:

- Place attachments on the transmission jack saddle.
- Make sure that the attachments and the transmission oil sump are centered on the transmission jack.



*a	Lashing Belt
----	--------------

(b) Loosen the bolts (2).



(c) Loosen nuts (1).

(d) Remove the rear engine mounting member (3).

16. SEPARATE PROPELLER SHAFT ASSEMBLY

NOTICE:

- Damage to propeller shaft assembly during removal.

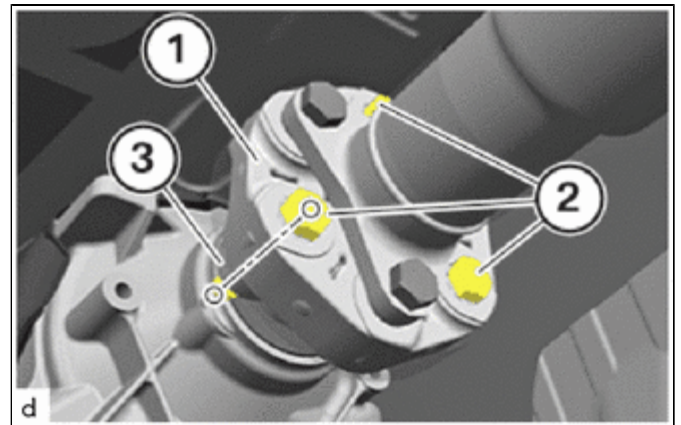
Non-observance of the removal guidelines for the propeller shaft assembly on the rear differential carrier assembly may cause severe damage.

- Do not disassemble the three-hole flange, flexible disc and propeller shaft assembly. The three-hole flange to the rear differential carrier assembly is balanced with the flexible disc and propeller shaft assembly.
- Loosen the recessed nut against the direction of travel in clockwise direction. The propeller shaft assembly must be loosened on the recessed nut only and exclusively in the direction of rotation otherwise the anti-twist lock of the bi-hexagonal flange nut is damaged.
- In the event of a damaged anti-twist lock on the bi-hexagonal flange nut: Replace the rear differential carrier assembly.

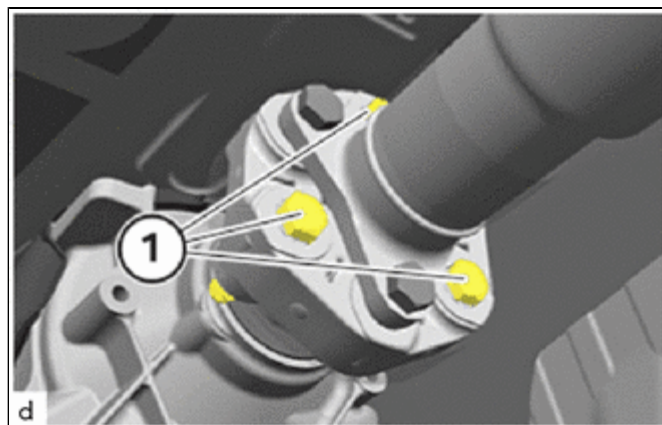
(a) Mark the installation position of the bolt connections (2) of the flexible coupling (1) and the output flange (3).

HINT:

- The mark makes it possible for the propeller shaft assembly to be installed again in the same position.
- This should prevent a humming noise from the drive train during driving.



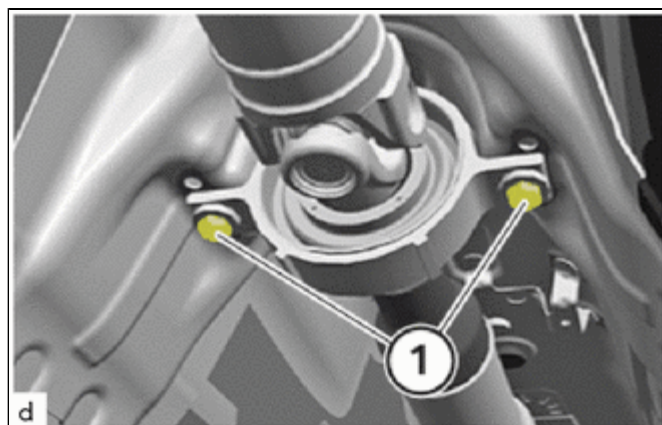
(b) Loosen 18 mm bolts (1).



(c) Unscrew the bolts (1) on the center bearing and hold down the propeller shaft assembly.

NOTICE:

Major deflection angles of the propeller shaft assembly may damage the propeller shaft assembly and/or the joints.



(d) Tie up propeller shaft assembly to underbody.

17. REMOVE NO. 2 MANIFOLD STAY

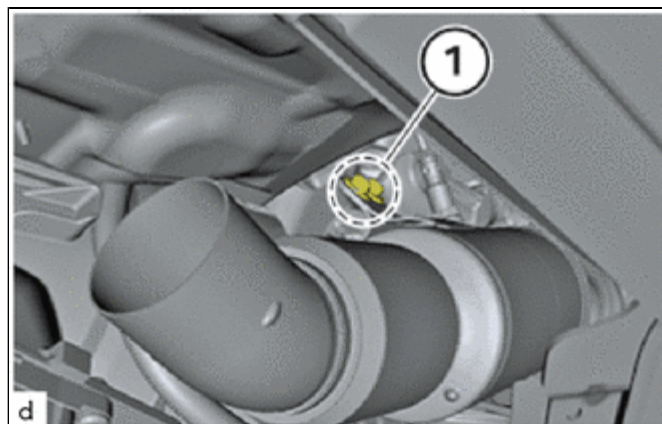
CAUTION:

- Hot surfaces.

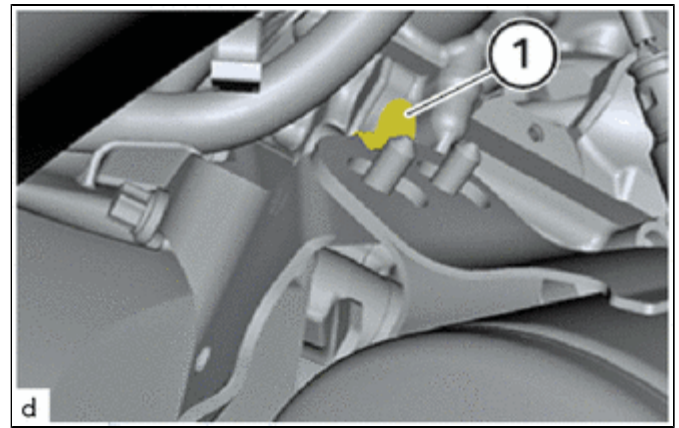
Risk of burning!

- Perform all work only on components that have cooled down.

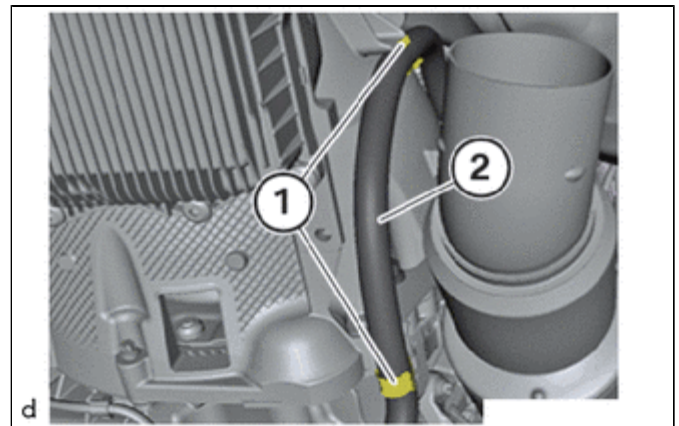
(a) Loosen the nuts (1).



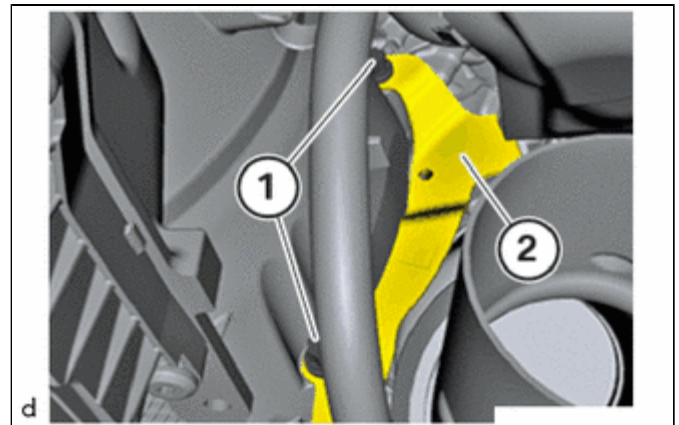
(b) Disengage tab (1) to the top.



(c) Detach starter cable (2) from the clamps (1).



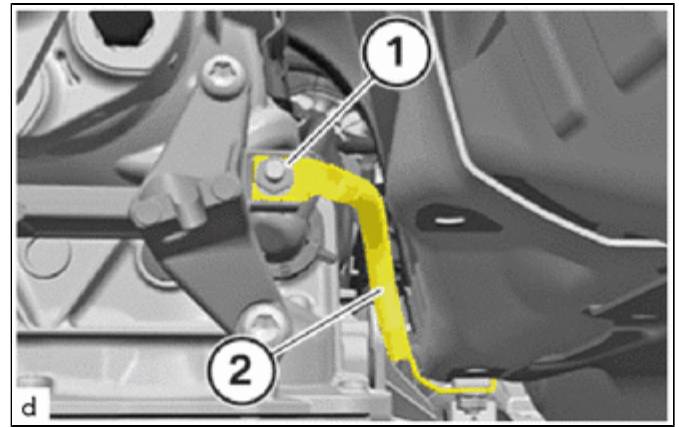
(d) Loosen the bolts (1).



(e) Thread out and remove the No. 2 manifold stay (2).

18. DISCONNECT NO. 2 EARTH WIRE

(a) Unfasten the nut (1).



(b) Detach the No. 2 earth wire (2) from the automatic transmission assembly.

19. DISCONNECT OIL COOLER TUBE

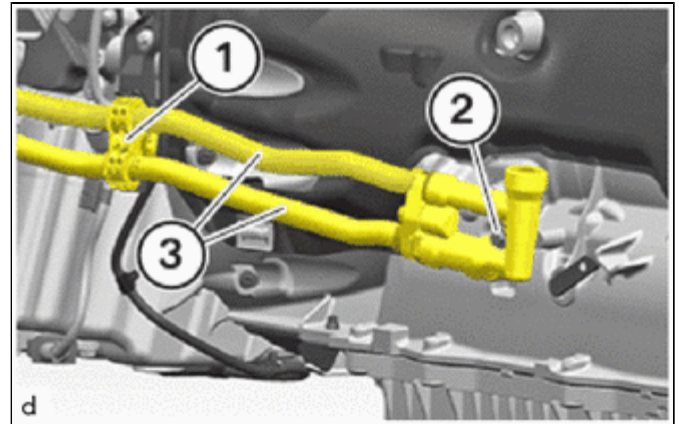
CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

(a) Release the T25 screw (1) and bolt (2).

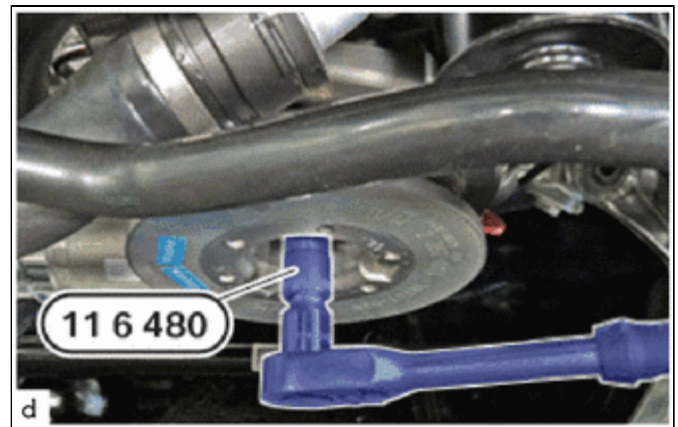


(b) Disconnect the oil cooler tubes (3) at the automatic transmission assembly.

20. REMOVE DRIVE PLATE AND TORQUE CONVERTER ASSEMBLY SETTING BOLT

(a) Turn the engine on the crankshaft pulley assembly with the special tool 0 493 380 (11 6 480) in the direction of rotation until a drive plate and torque converter assembly setting bolt (1) becomes visible in the recess.

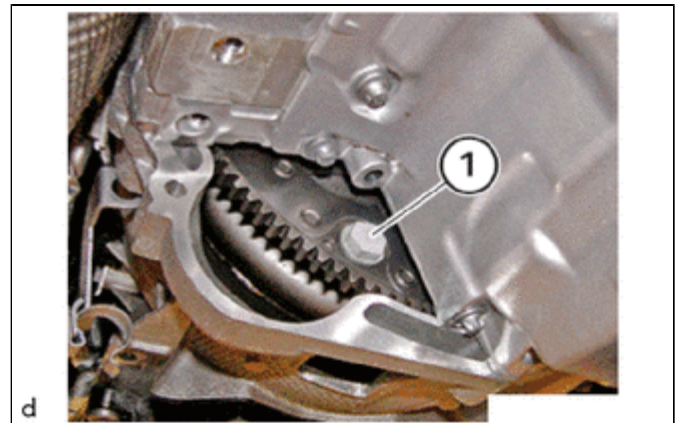
SST: 09200-WA190



(b) Release the drive plate and torque converter assembly setting bolt (1) of the torque converter.

HINT:

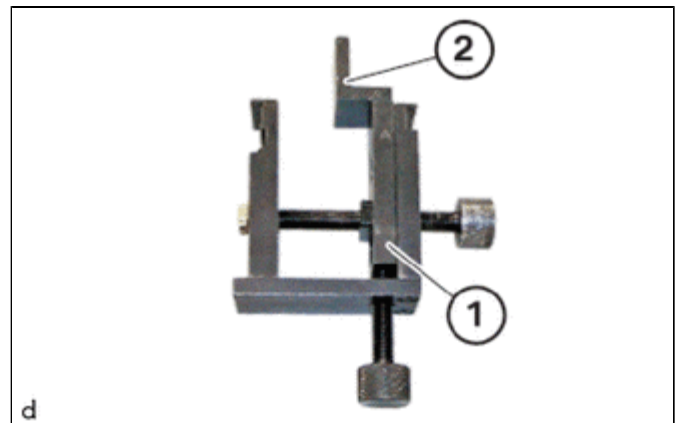
Repeat this procedure for all bolts.



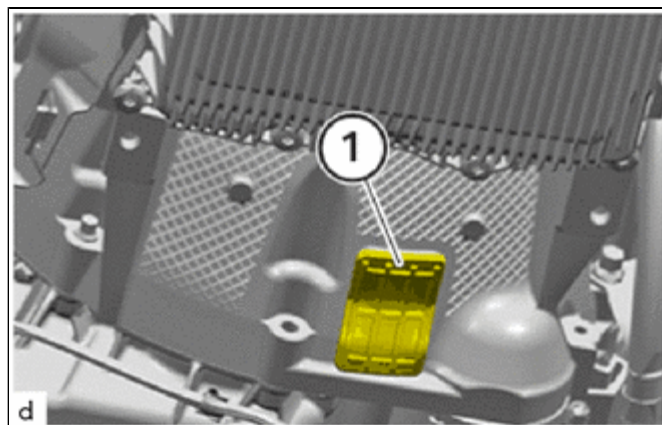
21. INSTALL SPECIAL TOOL TO FIX THE TORQUE CONVERTER

(a) Prepare special tool 0 494 478 (24 4 161) (1) with the special tool 0 496 061 (24 4 166) (2) as shown.

SST: 09300-WA030

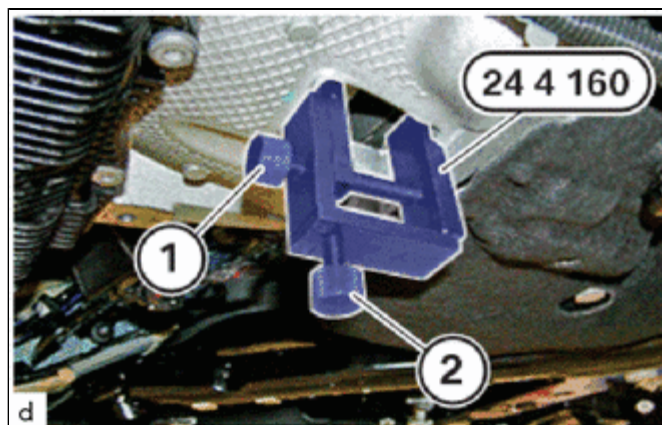


(b) Remove the transmission housing cover (1).



(c) Insert special tool 0 494 451 (24 4 160) into the recess of the transmission housing and apply slight tension using the screw (1).

SST: 09300-WA030



(d) Screw the screw (2) in to the stop.

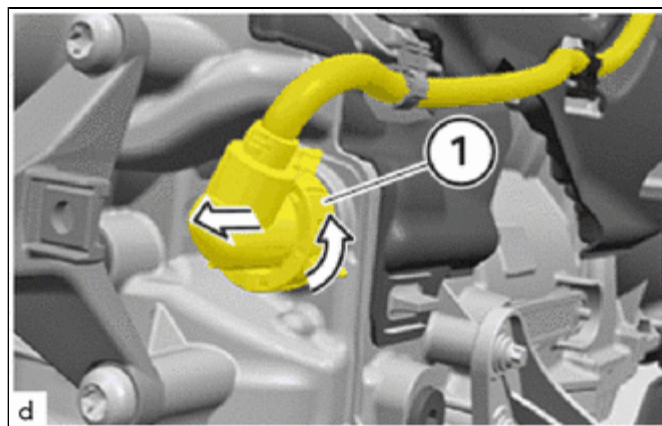
(e) Tighten down screw (1).

22. REMOVE WIRE HARNESS

(a) Unlock connector (1) by turning and pull off.

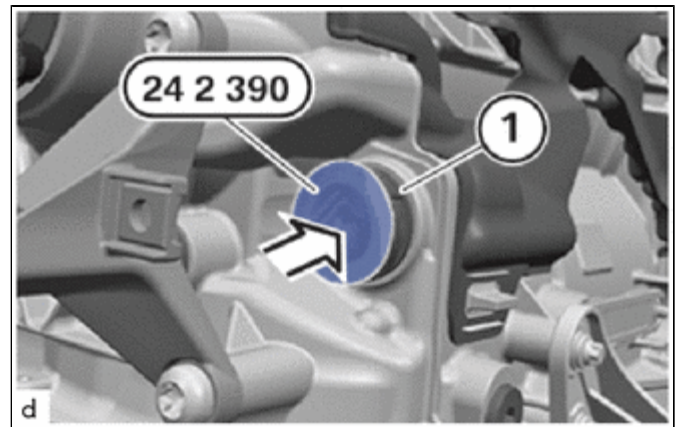
NOTICE:

Do not touch pins.



(b) Insert special tool 0 494 213 (24 2 390) in sealing sleeve (1).

SST: 09300-WA100



23. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

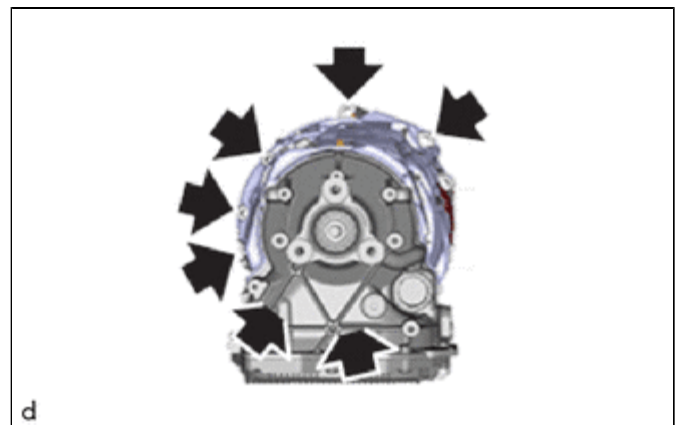
NOTICE:

- Damage to the engine block.

Damaged and corroded bolts will lead to major damage in the engine block and the automatic transmission assembly.

- It is imperative that protruding threads of the automatic transmission assembly bolts are checked for corrosion and damage prior to removal.
- It is imperative that all rust is removed from corroded threads and that they are cleaned prior to removal.
- Replace rusted and damaged bolts.

(a) Unscrew the E10 bolts and E14 bolts.



(b) Remove the automatic transmission assembly.

24. REMOVE TORQUE CONVERTER

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

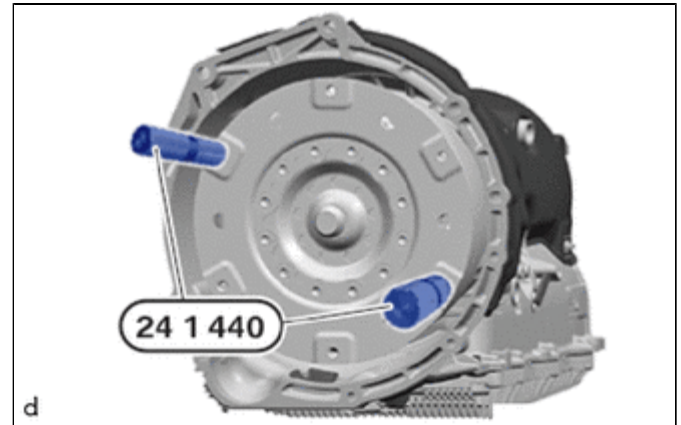
- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- (a) Screw the special tool 0 496 717 (24 1 440) into the torque converter.

SST: 09300-WA040



- (b) Remove torque converter and set down vertically.

HINT:

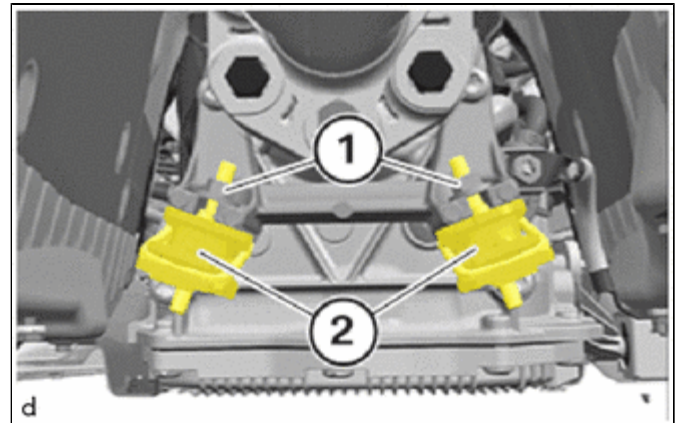
Drain, catch and dispose of the automatic transmission fluid.

25. REMOVE REAR ENGINE MOUNTING INSULATOR

HINT:

Perform this procedure only when replacement of the rear engine mounting insulator is necessary.

- (a) Loosen nuts (1).



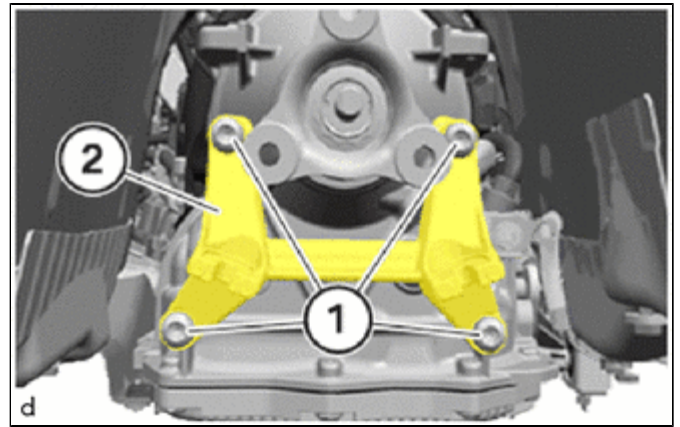
- (b) Remove the rear engine mounting insulator (2).

26. REMOVE REAR ENGINE MOUNTING BRACKET SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the rear engine mounting bracket sub-assembly is necessary.

(a) Loosen the T55 bolts (1).



(b) Remove the rear engine mounting bracket sub-assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TORQUE CONVERTER

CAUTION:

- Damage to the driver of the impeller.

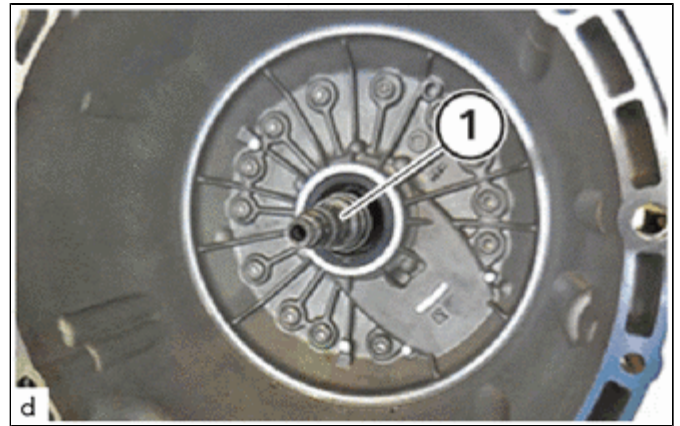
Failure to observe the installation instructions may lead to damage on the impeller driver.

- During installation, do not damage the torque converter radial shaft seal or ball bearing.
- Lock the torque converter correctly. Otherwise, the driver of the impeller may be damaged when the automatic transmission assembly is flange-mounted on the engine.

(a) Replace the O-ring on the drive shaft (1).

HINT:

When replacing the torque converter, use this procedure.



(b) Push the torque converter onto the transmission shaft up to the limit position.

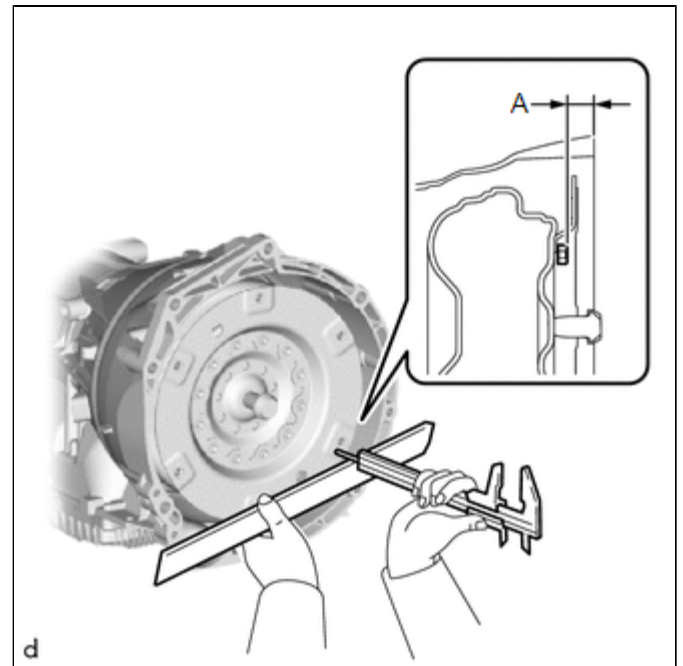
HINT:

- Press torque converter by hand into converter housing.
- At the same time, turn the torque converter until the recesses at the hub of the torque converter engage in the driver of the impeller.
- You can feel the torque converter slipping inward.

(c) Determine the dimension between the contact surface and the outer edge of the torque converter threaded hole using a vernier caliper and straightedge.

Standard:

Dimension (A) = Measured value is greater than 15 mm.



2. TEMPORARILY TIGHTEN AUTOMATIC TRANSMISSION ASSEMBLY

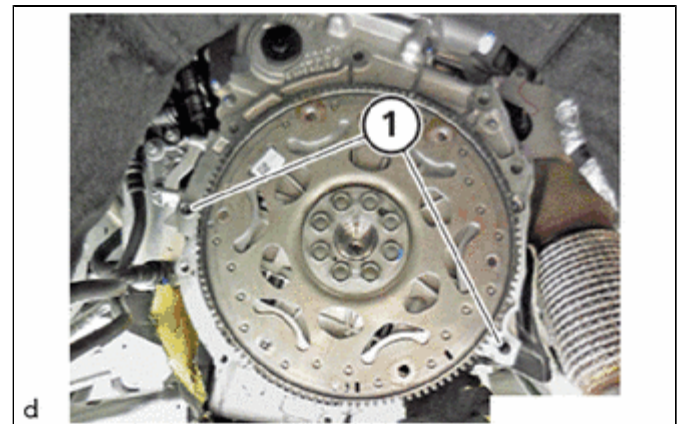
NOTICE:

- Damage to the automatic transmission assembly.

Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

(a) Replace damaged fitting sleeves (1).



(b) Check for correct fit of fitting sleeves (1).

(c) Rotate the torque converter until the bore hole of the torque converter is flush with bore hole in drive plate.

(d) Install the automatic transmission assembly.

(e) Fit the E10 bolts and E14 bolts and apply hand-tighten.

3. INSTALL NO. 2 MANIFOLD STAY

(a) Insert and position the No. 2 manifold stay.

(b) Hand-tighten the bolts.

NOTICE:

- Improper routing of the positive battery cable.
- Risk of short circuits!
- Route the positive battery cable without abrasions and do not trap.

(c) Engage the starter cable in the clamps.

(d) Engage the tab downward.

(e) Replace nuts.

(f) Tighten nuts.

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

4. FULLY TIGHTEN AUTOMATIC TRANSMISSION ASSEMBLY

(a) Tighten the E10 bolts and E14 bolts in sequence (1) to (9).

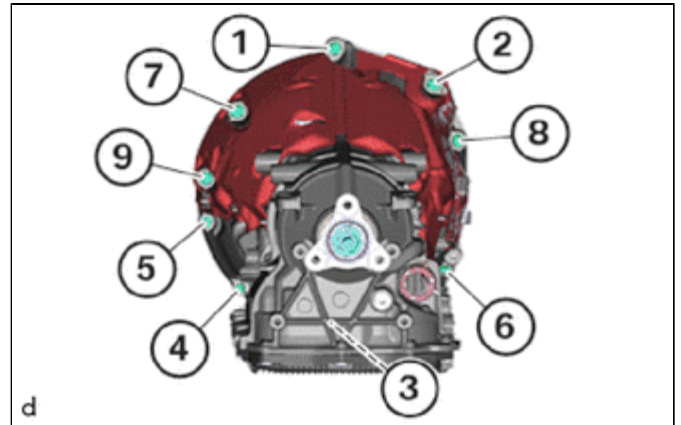
Torque:

E10 bolt :

19 N·m {194 kgf·cm, 14 ft·lbf}

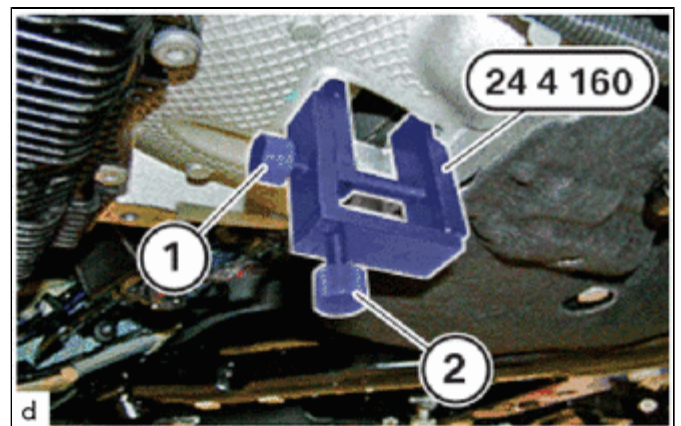
E14 bolt :

66 N·m {673 kgf·cm, 49 ft·lbf}



5. REMOVE SPECIAL TOOL TO FIX THE TORQUE CONVERTER

(a) Release screw (1) and screw (2).



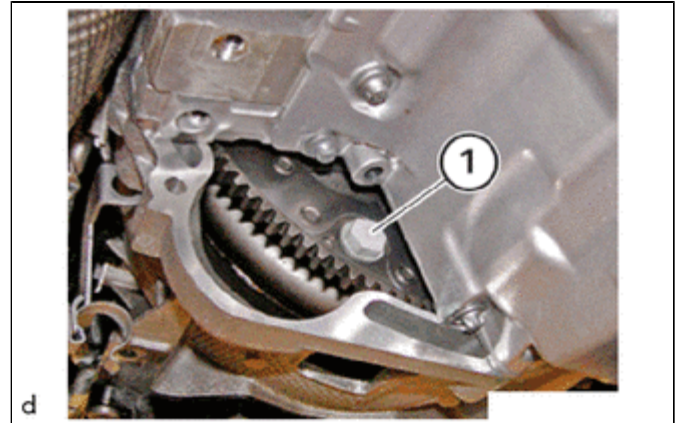
(b) Remove special tool 0 494 451 (24 4 160).

SST: 09300-WA030

(c) Install the transmission housing cover.

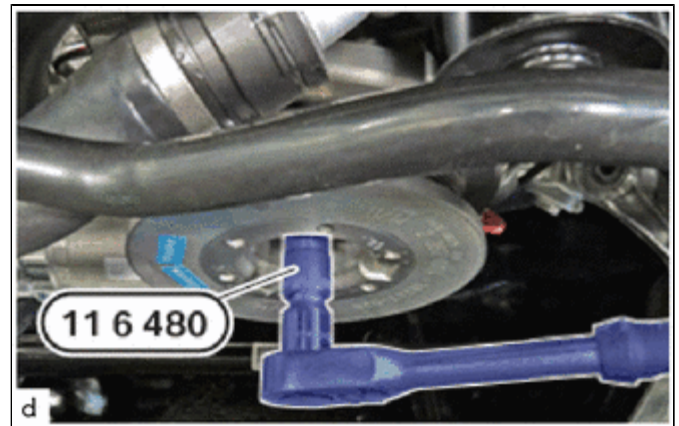
6. INSTALL DRIVE PLATE AND TORQUE CONVERTER ASSEMBLY SETTING BOLT

- (a) Replace the drive plate and torque converter assembly setting bolts.



- (b) Turn the engine on the crankshaft pulley assembly with the special tool 0 493 380 (11 6 480) in the direction of rotation until a drive plate and torque converter assembly setting bolt (1) becomes visible in the recess.

SST: 09200-WA190



- (c) Tighten the drive plate and torque converter assembly setting bolts of the torque converter.

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

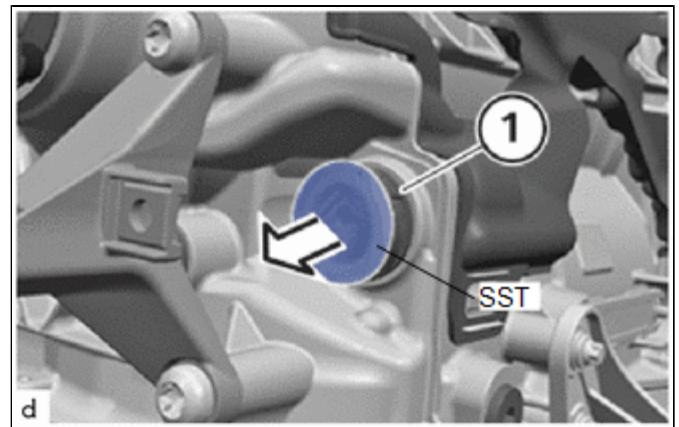
HINT:

Repeat this procedure for all drive plate and torque converter assembly setting bolts.

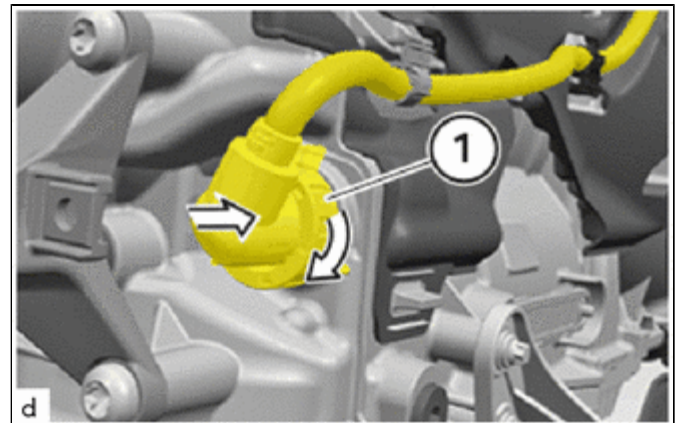
7. INSTALL WIRE HARNESS

- (a) Remove the special tool 0 494 213 (24 2 390) from the sealing sleeve (1).

SST: 09300-WA100



(b) Slide the connector (1) on.



(c) Twist the connector (1) in the direction of the arrow and lock.

8. CONNECT NO. 2 EARTH WIRE

(a) Install the No. 2 earth wire.

(b) Tighten nut.

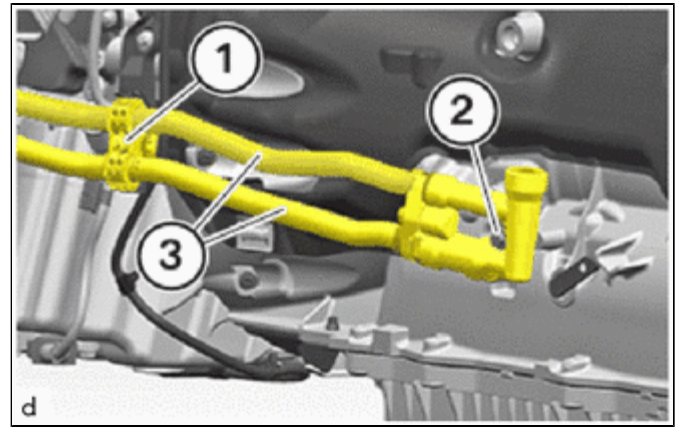
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

9. CONNECT OIL COOLER TUBE

(a) Replace sealing rings.

(b) Position the oil cooler tubes on the automatic transmission assembly.



(c) Tighten down the bolt (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

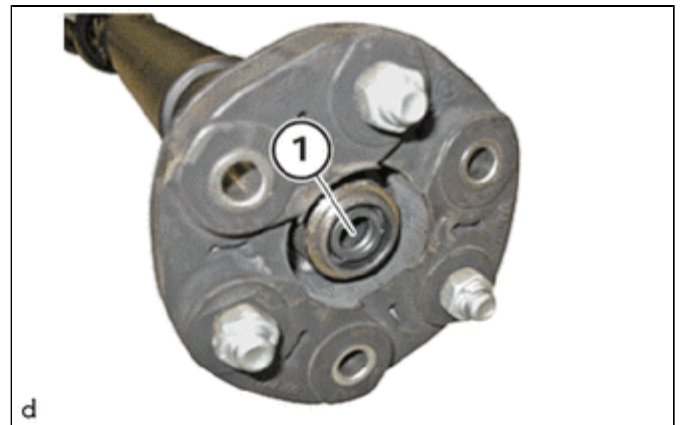
(d) Tighten down the T25 screw (1).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

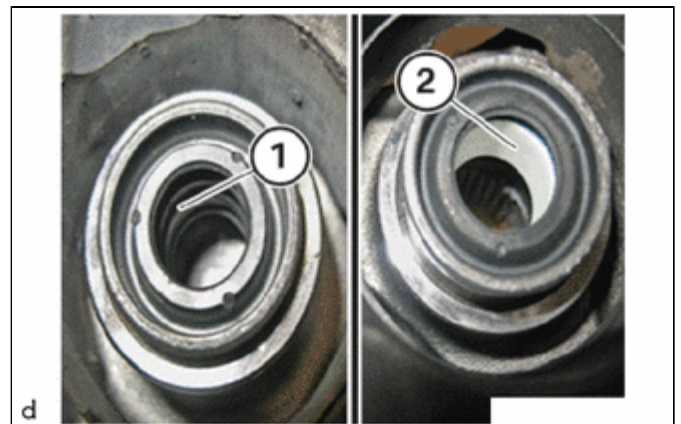
10. INSTALL PROPELLER SHAFT ASSEMBLY

(a) Check center No. 1 support bearing assembly for damage, replace if necessary.



(b) Apply a thin coat of Lubricant Olistamoly 2 LN 584 LO to the soft centering (1), if necessary.

(1) Do not grease the hard centering (2).

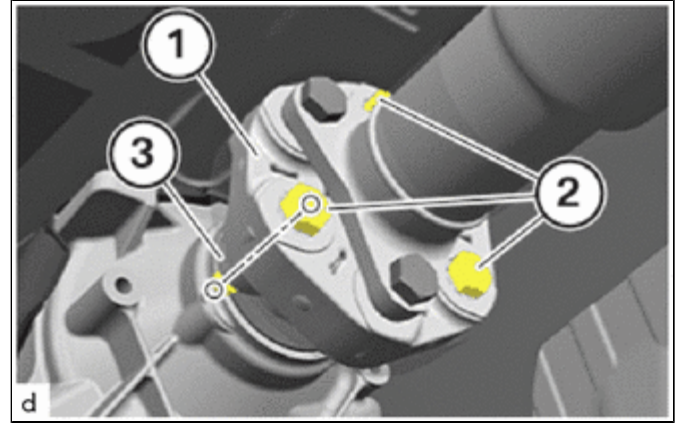


(c) Replace the 18 mm bolts and 18 mm self-locking nuts.

(d) Assemble the 18 mm bolts connections (2) of the flexible coupling (1) and the output flange (3) according to the self-affixed identification.

NOTICE:

This should prevent a humming noise from the drive train during driving.



(e) Hand-tighten 18 mm bolts (1) and 18 mm nuts (2), but do not tighten fully.

(f) Position the center bearing.

HINT:

Hand-tighten the bolts, but do not tighten fully.

(g) Hand-tighten the bolts, but do not tighten fully.

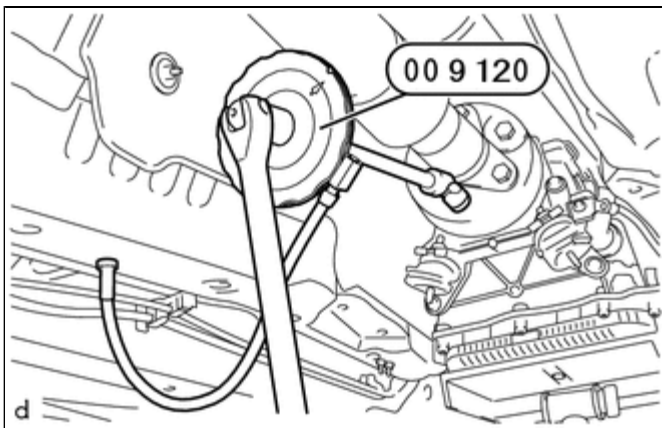
(h) Hold down the 18 mm bolts of the flexible coupling on the 18 mm nuts and tighten over the 18 mm bolts.

Torque:

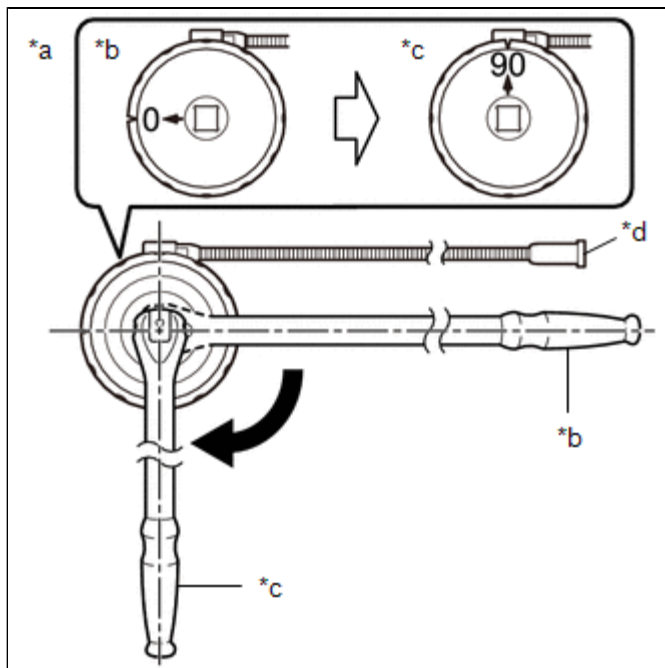
55 N·m {561 kgf·cm, 41 ft·lbf}

(i) Using SST, tighten the 18 mm bolts and counter support them at the 18 mm nuts an additional 90°.

SST: 09900-WA010



HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

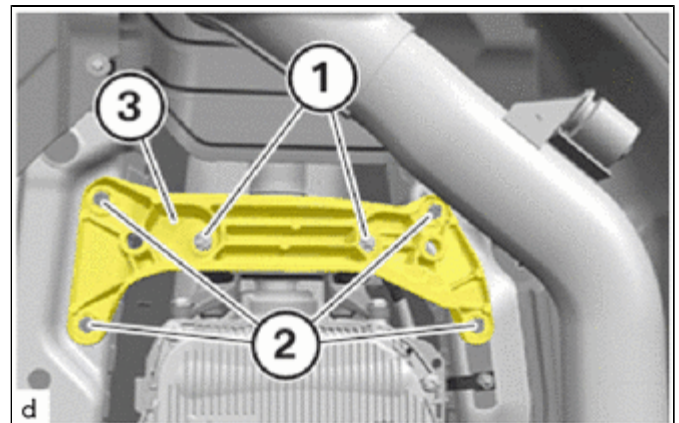
(j) Tighten the bolts.

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

11. INSTALL REAR ENGINE MOUNTING MEMBER

(a) Install the rear engine mounting member (3).



(b) Tighten the nuts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(c) Tighten down the bolts (2).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

12. INSTALL FLOOR HEAT INSULATOR

(a) Install the No. 1 floor heat Insulator and No. 2 floor heat Insulator.

(b) Install the nuts and tighten.

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

13. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

14. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

15. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

16. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

17. INSTALL STARTER ASSEMBLY

Click here [INFO](#)

18. REMOVE ENGINE SUPPORT BRIDGE

Click here [INFO](#)

19. REMOVE ENGINE HANGER

Click here [INFO](#)

20. INSTALL FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

21. INSTALL FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

22. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

23. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

24. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

25. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

26. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

27. INSPECT FOR EXHAUST GAS LEAK

Click here [INFO](#)

28. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

29. INSTALL REAR ENGINE MOUNTING INSULATOR

HINT:

Perform this procedure only when replacement of the rear engine mounting insulator is necessary.

- (a) Install the rear engine mounting insulator.
- (b) Tighten nuts.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

30. INSTALL REAR ENGINE MOUNTING BRACKET SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the rear engine mounting bracket sub-assembly is necessary.

- (a) Install the rear engine mounting bracket sub-assembly.
- (b) Tighten down the T55 bolts.

Torque:

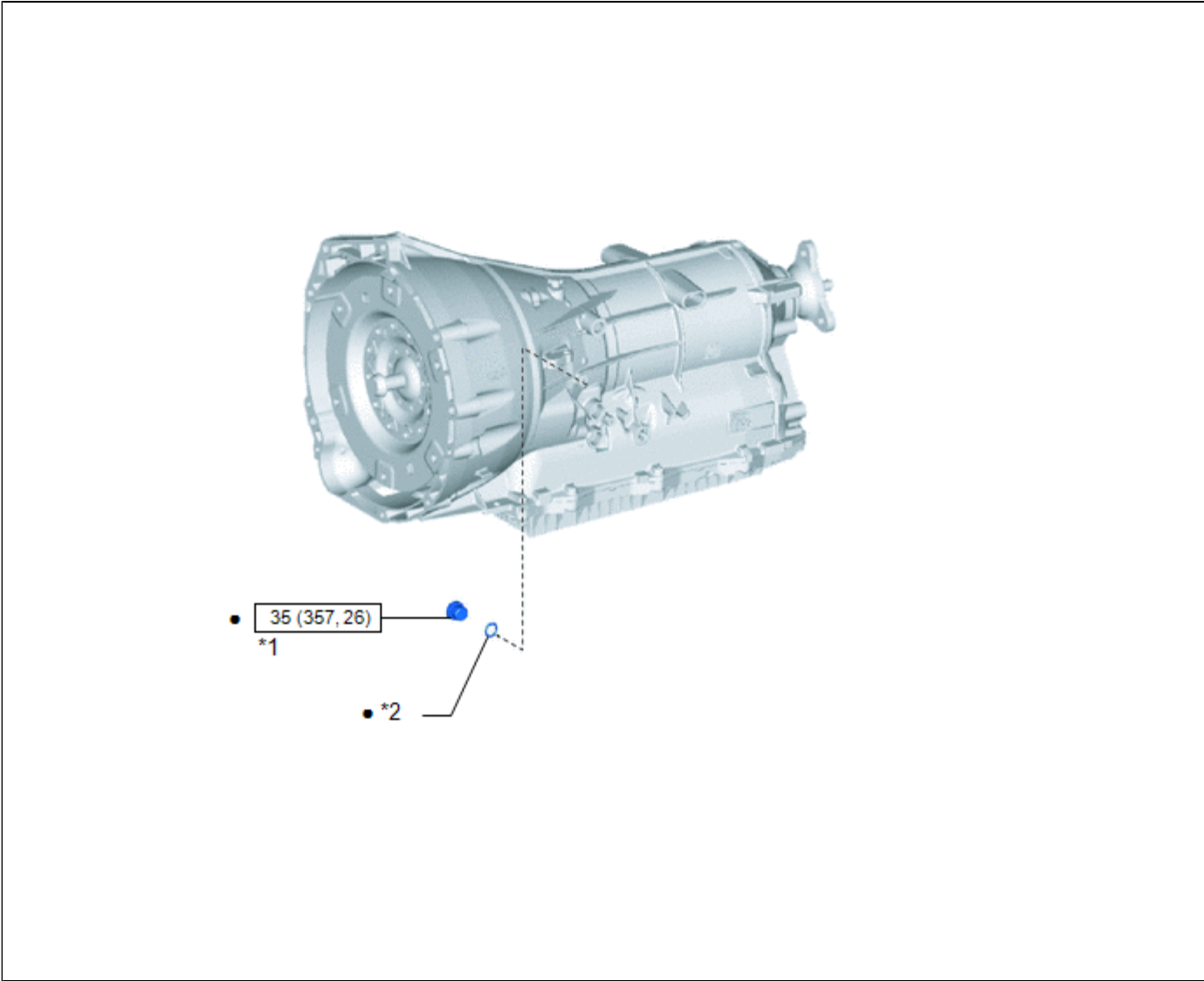
48 N·m {489 kgf·cm, 35 ft·lbf}





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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION FLUID: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FILLER PLUG	*2	SEALING RING
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION FLUID: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

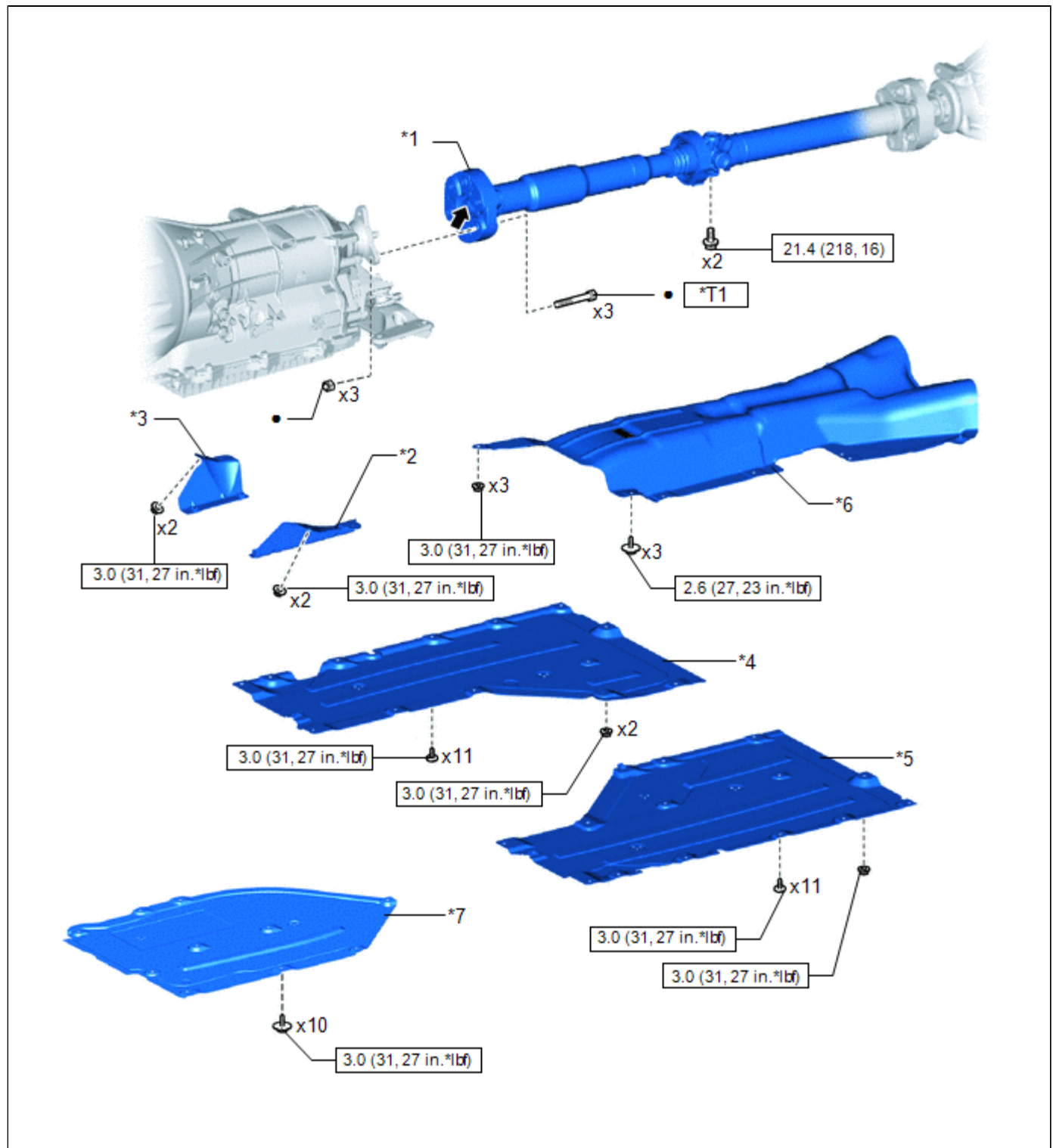
3. INSTALL FRONT FLOOR COVER



Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION REAR OIL SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

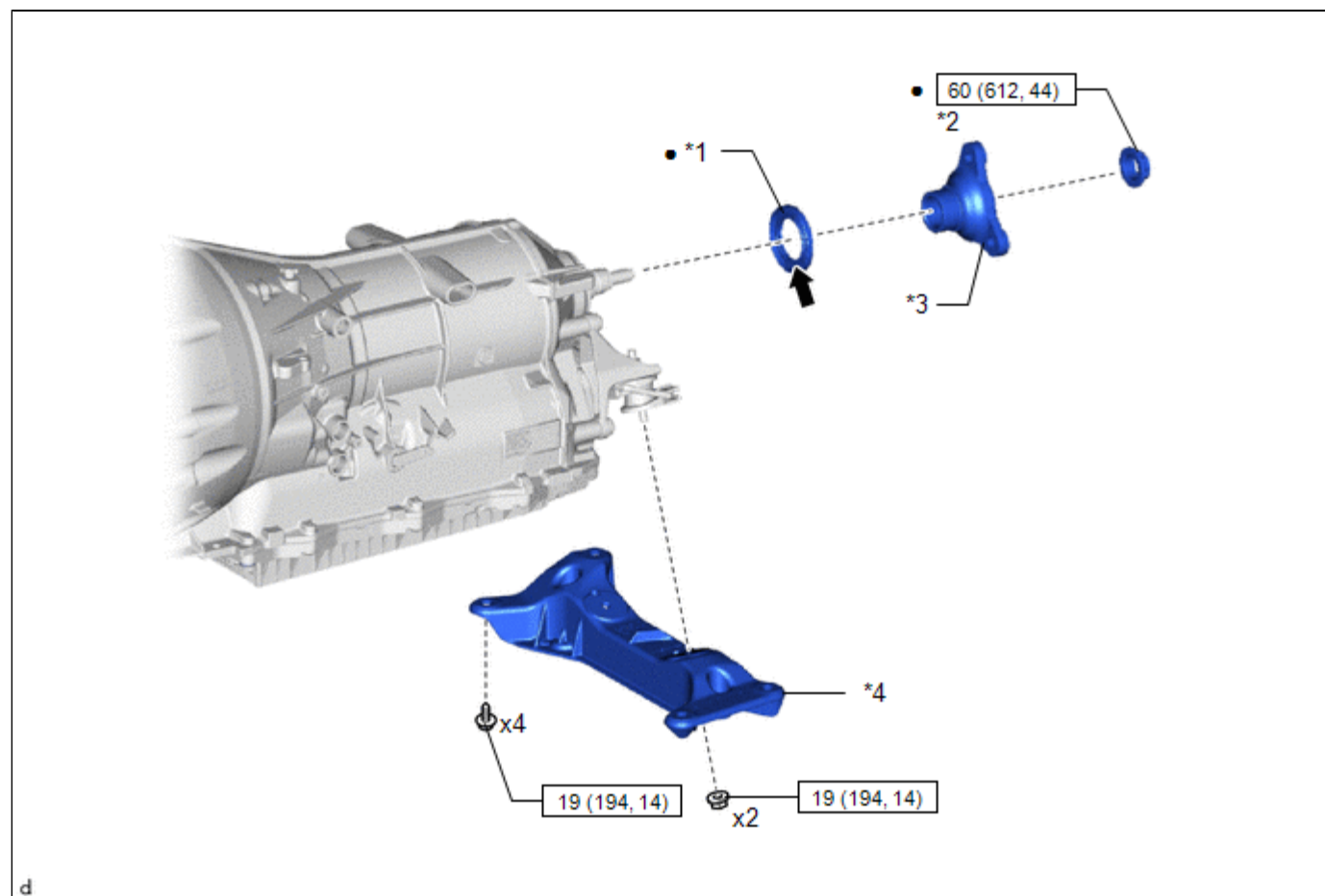
COMPONENTS



ILLUSTRATION



*1	PROPELLER SHAFT ASSEMBLY	*2	NO. 1 FLOOR HEAT INSULATOR
*3	NO. 2 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER RH
*5	FRONT FLOOR COVER LH	*6	FRONT NO. 1 FLOOR HEAT INSULATOR
*7	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Lubricant Olistamoly 2 LN 584 LO
*T1	1st: 55 (561, 41) 2nd: Turn 90°	•	Non-reusable part

ILLUSTRATION



*1	OUTPUT FLANGE RADIAL SHAFT SEAL	*2	NUT
*3	OUTPUT FLANGE	*4	TRANSMISSION CROSSMEMBER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Automatic Gearbox Oil ATF 3+	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION REAR OIL SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

3. REMOVE FRONT FLOOR COVER LH

Click here [INFO](#)

4. REMOVE FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

5. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

6. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

7. REMOVE NO. 2 FLOOR HEAT INSULATOR

Click here [INFO](#)

8. REMOVE NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

9. REMOVE REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

10. SEPARATE PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

11. REMOVE OUTPUT FLANGE RADIAL SHAFT SEAL

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.

- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the automatic transmission assembly.

Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

- (a) Using SST and a hammer, release the staked part of the lock nut.

SST: 09930-00010

NOTICE:

- Use SST with the tapered part facing the shaft.
- Do not modify the tip of SST with a grinder or other device.
- Completely release the staked part of the lock nut before removing it.
- Do not damage the threads of the shaft.

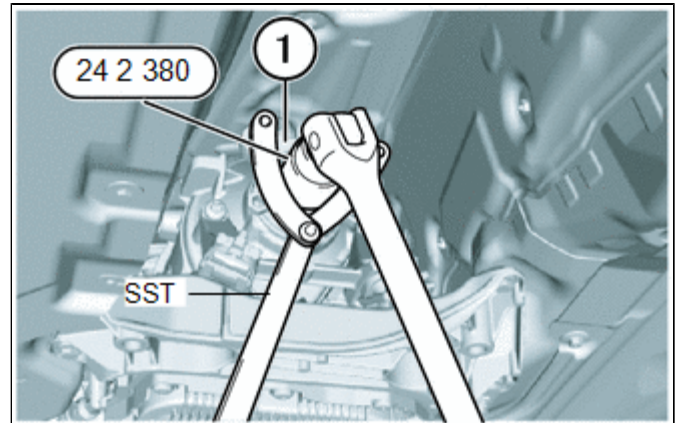


- (b) Using SST, secure the output flange (1).

SST: 09960-10010

09962-01000

09963-01000



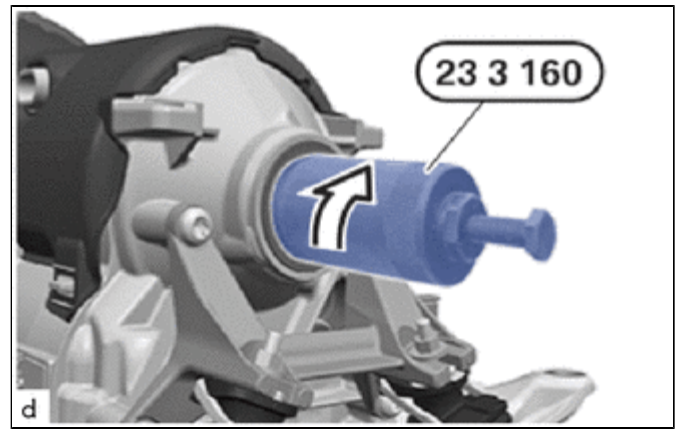
- (c) Release nut with special tool 0 494 212 (24 2 380).

SST: 09900-WA060

- (d) Pull off the output flange (1) from the output shaft.

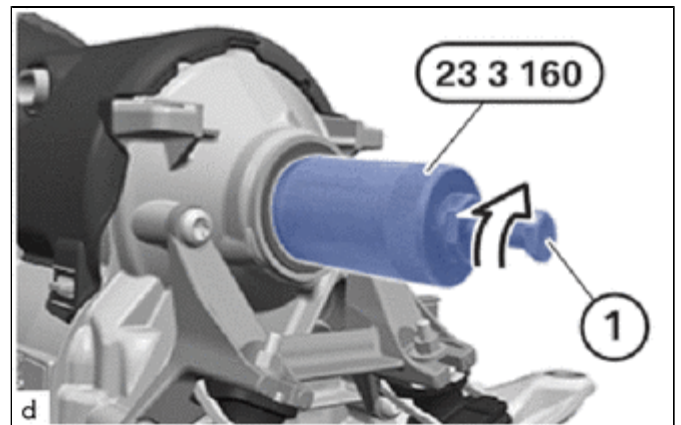
- (e) Slide the special tool 0 494 416 (23 3 160) over the output shaft.

SST: 09300-WA110



- (f) Screw the special tool 0 494 416 (23 3 160) into the output flange radial shaft seal in the direction of arrow until the special tool is securely connected to the output flange radial shaft seal.

SST: 09300-WA110



- (g) Turn the bolt (1) into the special tool 0 494 416 (23 3 160) in the direction of arrow until the output flange radial shaft seal is pulled out of the transmission housing.

SST: 09300-WA110

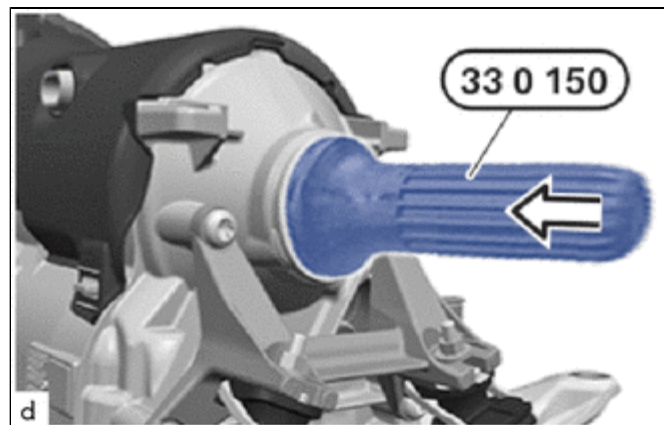
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION REAR OIL SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OUTPUT FLANGE RADIAL SHAFT SEAL

- (a) Oil the sealing lip of the output flange radial shaft seal (1) with ATF.



- (b) Strike in the output flange radial shaft seal (1) with the special tool 0 496 596 (33 0 150) up to the limit position.

SST: 09500-WA180

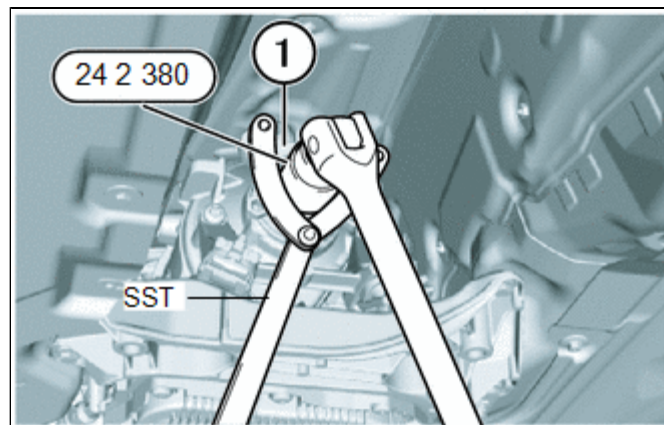
- (c) Replace nut.

- (d) Using SST, secure the output flange (1).

SST: 09960-10010

09962-01000

09963-01000



- (e) Tighten the nut with the special tool 0 494 212 (24 2 380).

SST: 09900-WA060

Torque:

60 N·m {612 kgf·cm, 44 ft·lbf}

- (f) Using a chisel and hammer, securely stake the lock nut.

2. INSTALL PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

3. INSTALL REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

4. INSTALL NO. 2 FLOOR HEAT INSULATOR

Click here [INFO](#)

5. INSTALL NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

6. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

7. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

8. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

9. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

10. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

11. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

12. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

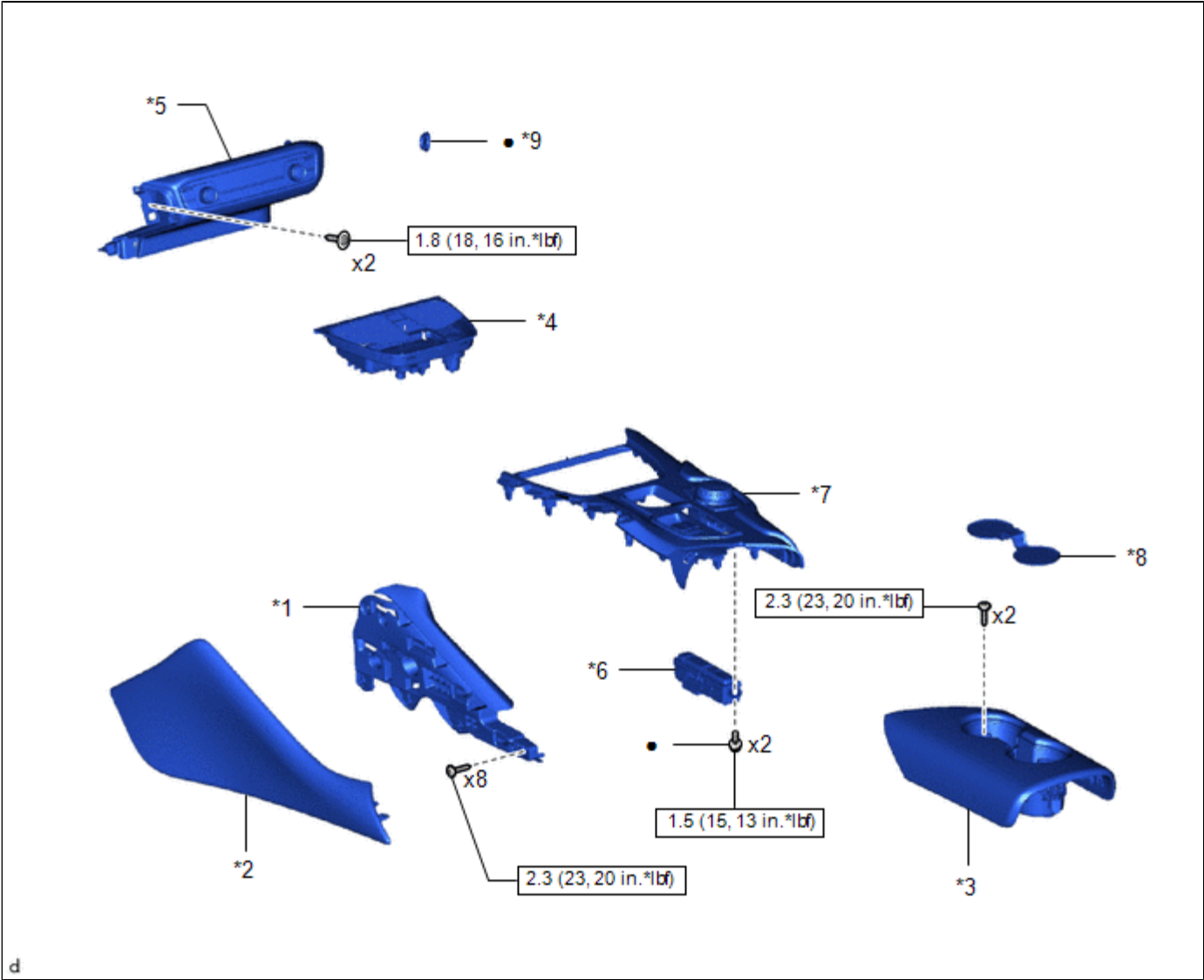
13. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): COMBINATION SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*2	CONSOLE SIDE PANEL
*3	FRONT CONSOLE ARMREST ASSEMBLY	*4	FRONT CONSOLE BOX COVER
*5	INSTRUMENT PANEL FINISH LOWER PANEL	*6	PATTERN SELECT SWITCH ASSEMBLY
*7	UPPER CONSOLE PANEL SUB-ASSEMBLY	*8	NO. 1 CONSOLE BOX SILENCER PAD
*9	RUBBER PLUG	-	-

<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	<div>•</div>	Non-reusable part
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): COMBINATION SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): COMBINATION SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

[**INSTALLATION**](#)

[**CAUTION / NOTICE / HINT**](#)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): FORCED RELEASE: OPERATION METHOD; 2020 MY Supra [03/2019 -]		

OPERATION METHOD

CAUTION / NOTICE / HINT

CAUTION:

- If work is performed without first securing the vehicle, the vehicle may start moving and cause a serious accident or other disaster. Therefore, be sure to apply the parking brake and use wheel chocks to secure the vehicle before performing work.
- Perform the parking lock release operation with the vehicle level.



PROCEDURE

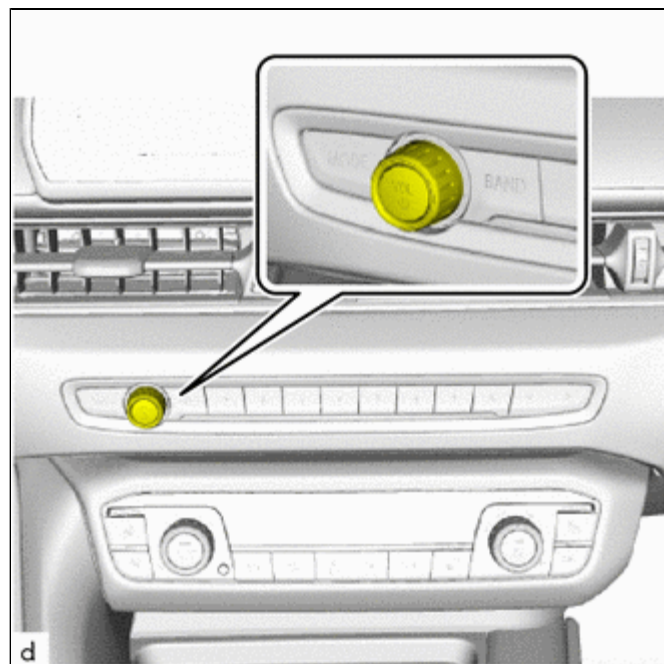
1. SECURE VEHICLE

(a) Apply the parking brake.

(b) Turn the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(c) Using a wheel chocks to secure the vehicle.

CAUTION:

During power failure, make sure use wheel chocks to secure the vehicle as the parking brake cannot be used.

2. PARKING LOCK FORCED RELEASE

CAUTION:

- Vehicle rolls away.

Danger of injury! Risk of damage!

- Secure the vehicle against rolling away before unlocking the parking lock.

HINT:

In the event of an open circuit, e.g. discharged battery or electrical fault, the parking lock must be unlocked manually, otherwise the wheels will be blocked and the vehicle cannot be moved.

(a) Raise vehicle.

CAUTION:

When using a jack, do not work on a vehicle supported only by jacks. Make sure to use safety stands.

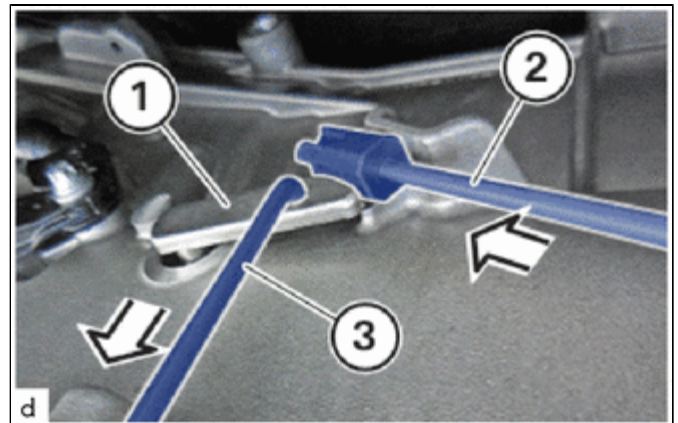
Click here [INFO](#)

(b) Remove the front floor cover.

Click here [INFO](#)

(c) Pull selector shaft journal (1) downwards using special tool 2 355 850 (3).

SST: 09700-WA050



(d) Install special tool 2 355 850 (2) between selector shaft journal (1) and transmission housing.

SST: 09700-WA050

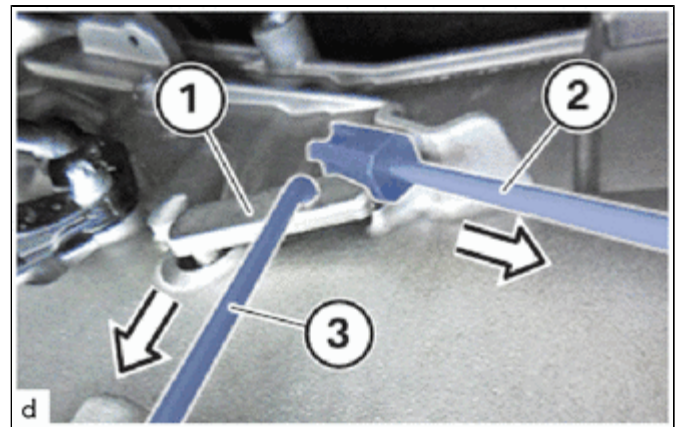
HINT:

The parking lock is unlocked.

3. PARKING LOCK

(a) Pull selector shaft journal (1) downwards using special tool 2 355 850 (3).

SST: 09700-WA050



(b) Remove special tool 2 355 850 (2).

SST: 09700-WA050

HINT:

The parking lock is locked.

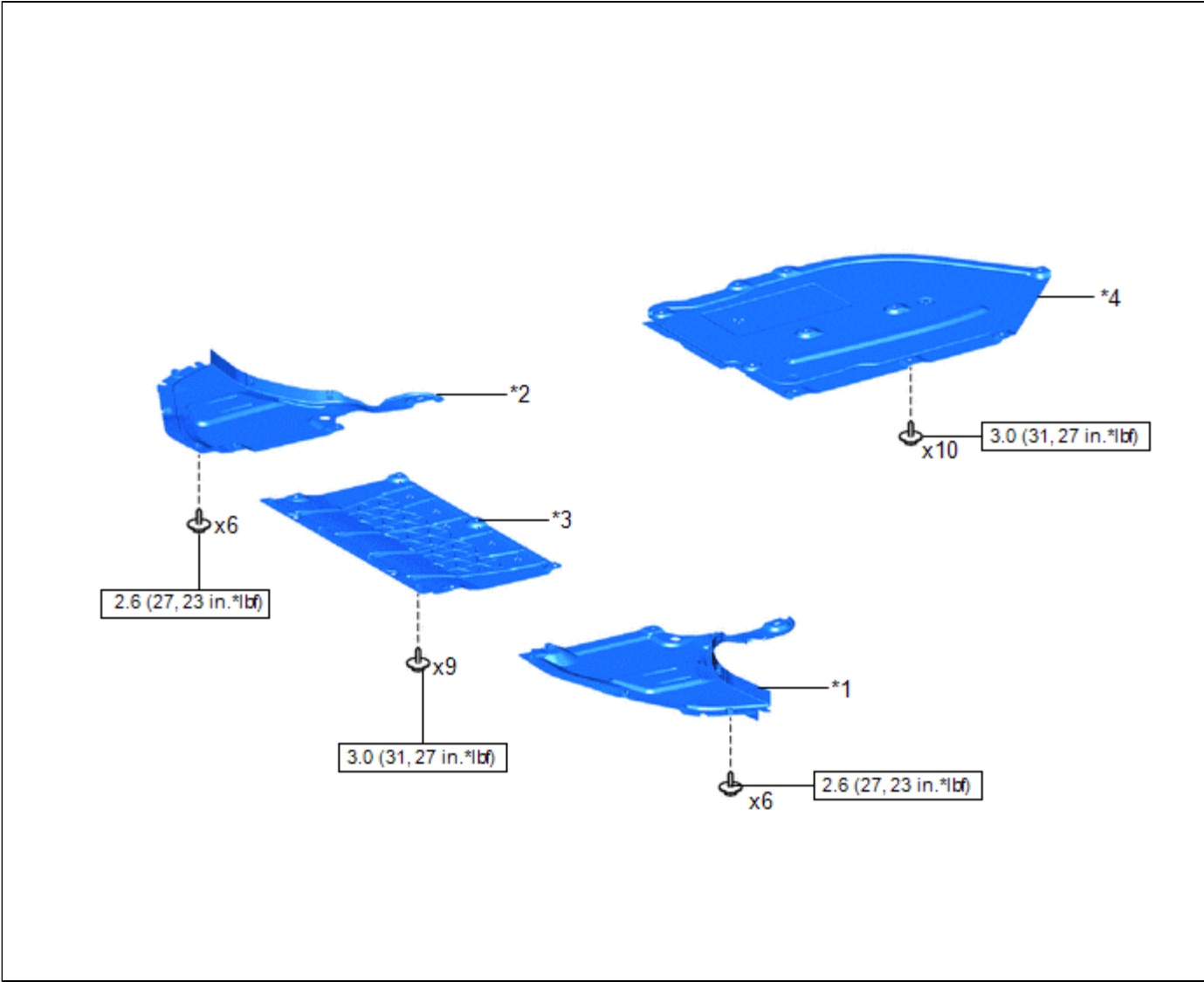
(c) Install the front floor cover.


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER: COMPONENTS; 2020 MY Supra [03/2019 -]		

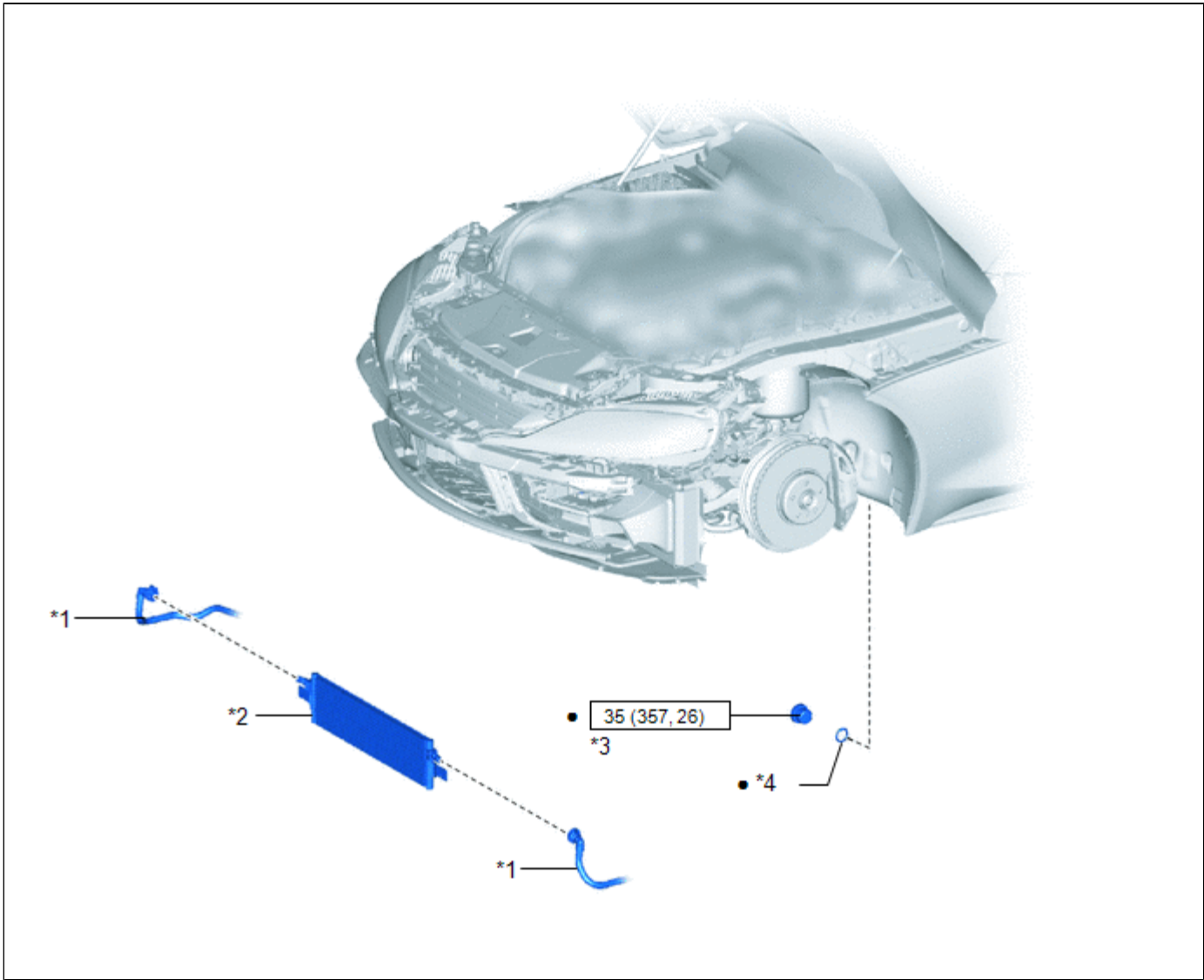
COMPONENTS


ILLUSTRATION



*1	FRONT FENDER SPLASH FRONT SHIELD LH	*2	FRONT FENDER SPLASH FRONT SHIELD RH
*3	NO. 1 ENGINE UNDER COVER ASSEMBLY	*4	FRONT FLOOR COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	OIL COOLER TUBE	*2	TRANSMISSION OIL COOLER
*3	FILLER PLUG	*4	SEALING RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

3. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

5. REMOVE FRONT BUMPER

Click here [INFO](#)

6. REMOVE TRANSMISSION OIL COOLER

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

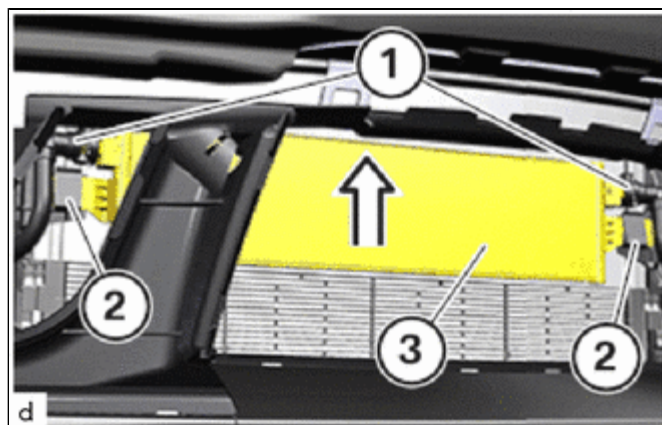
HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock oil cooler tubes (1) and disconnect.

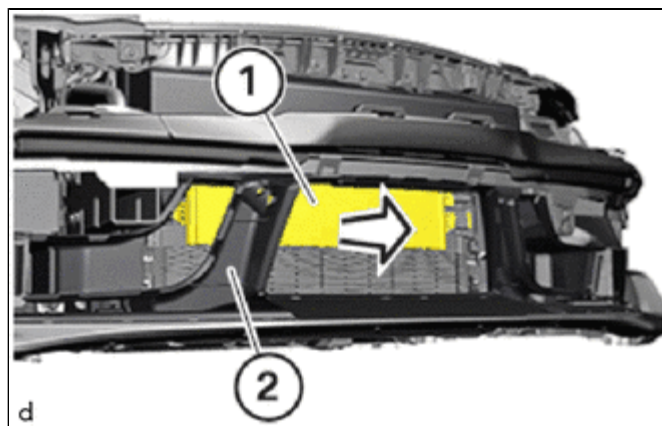
HINT:

Drain, catch and dispose of the automatic transmission fluid.



(b) Thread transmission oil cooler (3) in direction of arrow out of the holders (2).

(c) Thread out transmission oil cooler (1) in direction of arrow through the opening in the front air duct (2) and remove.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION OIL COOLER

CAUTION:

- Hot surfaces.

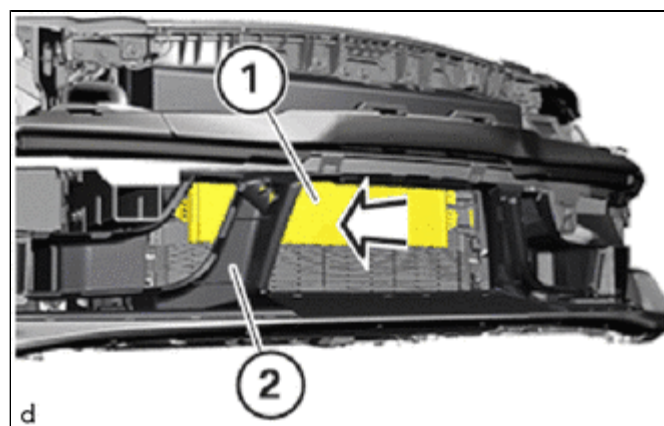
Risk of burning!

- Perform all work only on components that have cooled down.

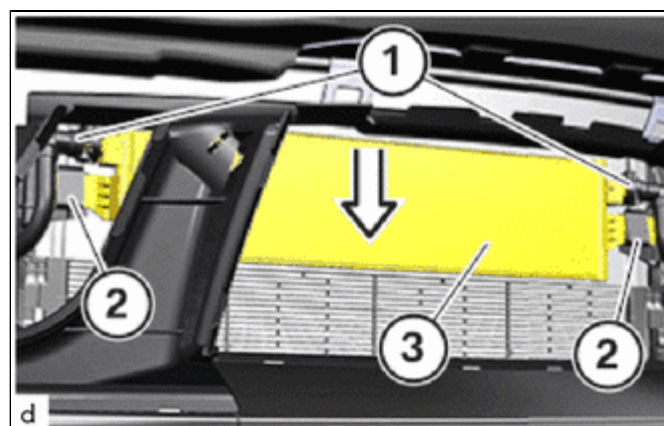
HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- (a) Thread in transmission oil cooler (1) in direction of arrow through the opening in the front air duct (2) and install.



- (b) Position transmission oil cooler (3) and insert into holders (2) in direction of arrow.



- (c) Connect oil cooler tubes (1) and lock.

HINT:

The oil cooler tubes (1) must engage audibly.

2. INSTALL FRONT BUMPER

Click here [INFO](#)

3. INSTALL FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

4. INSTALL FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

6. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

7. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

8. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

9. ADJUST MILLIMETER WAVE RADAR SENSOR

- Before starting adjustment:

Click here [INFO](#)

- Adjustment:

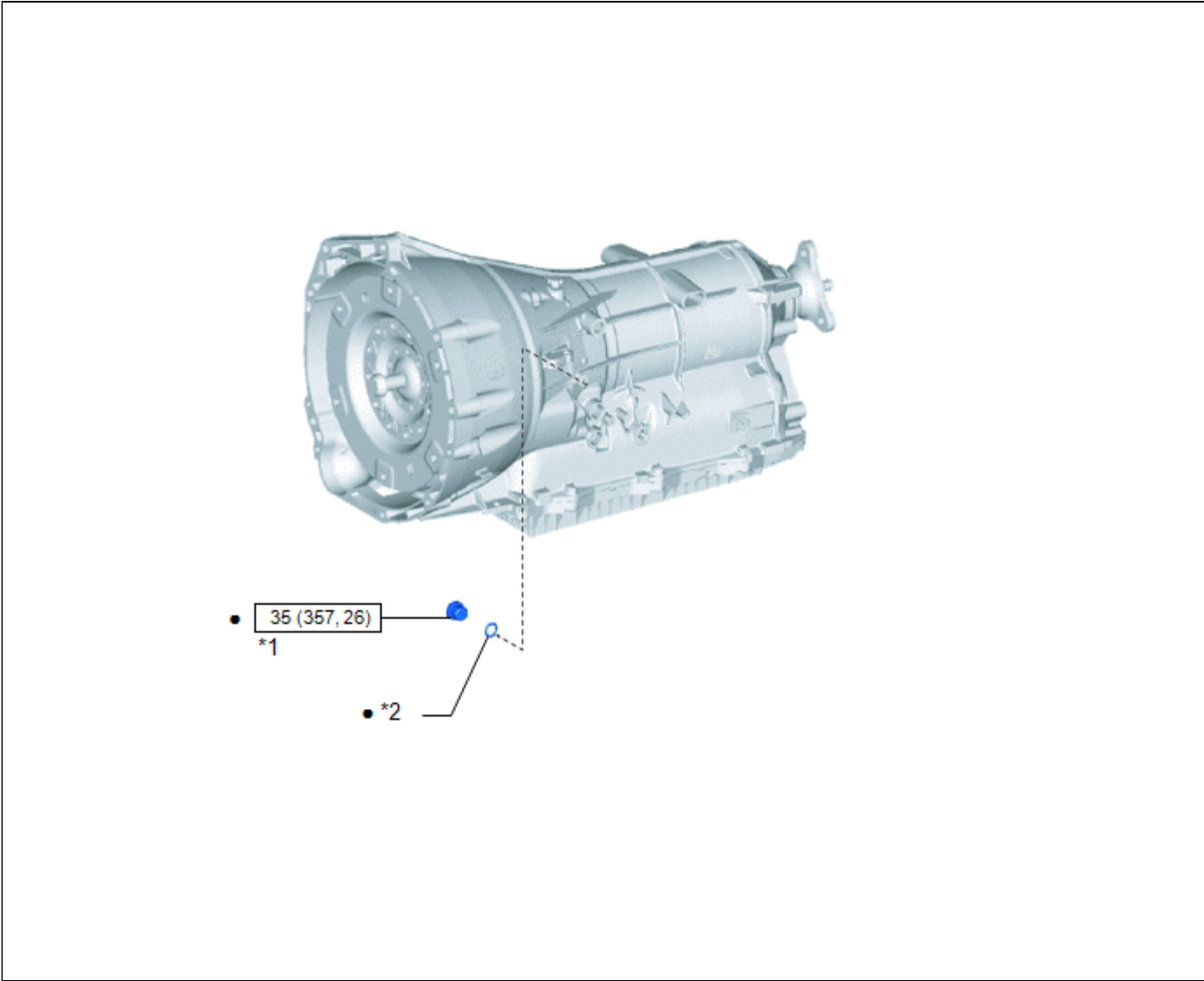
Click here [INFO](#)





Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER TUBE: COMPONENTS; 2020 MY Supra [03/2019 -]		

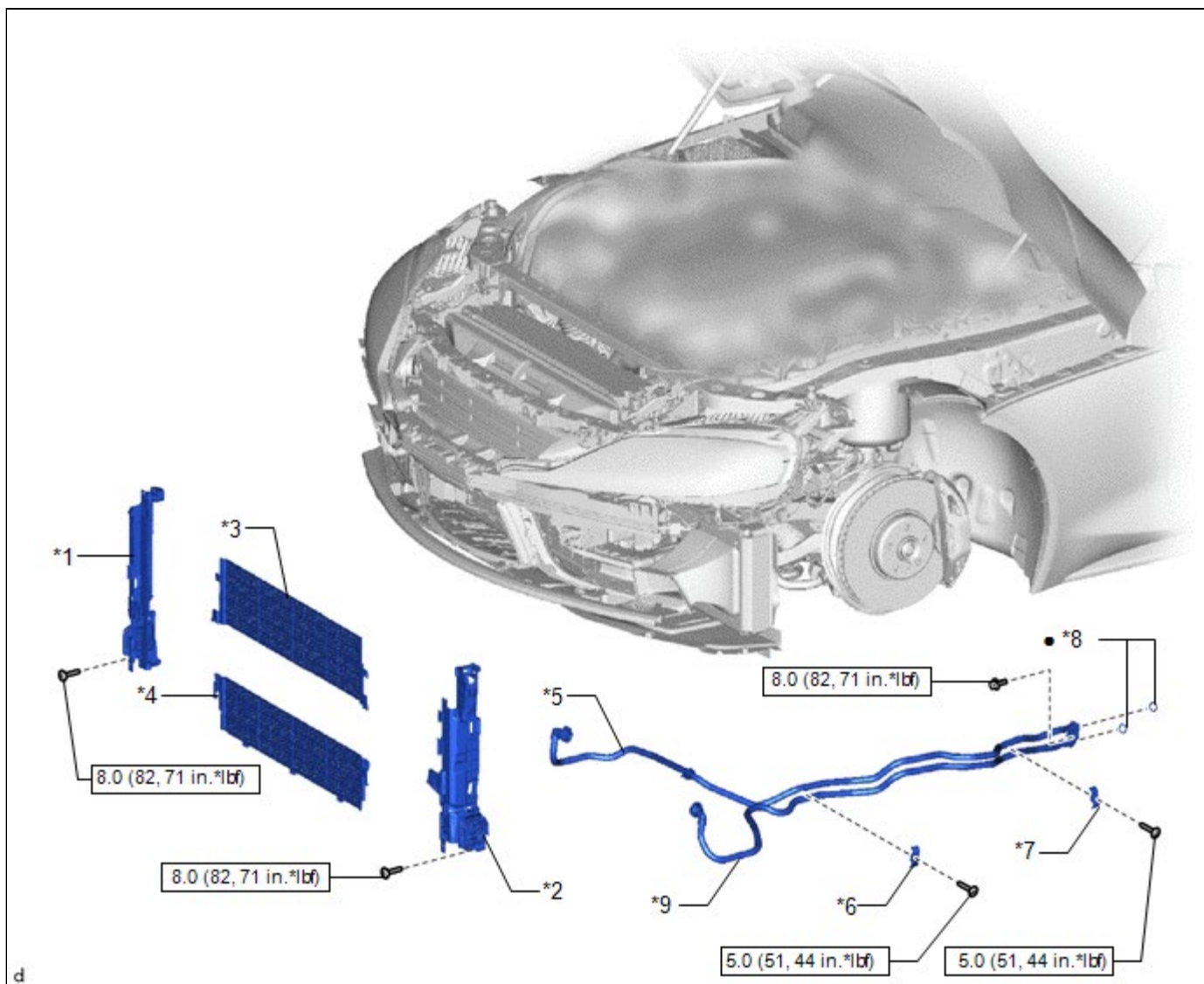
COMPONENTS



ILLUSTRATION



*1	FILLER PLUG	*2	SEALING RING
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

ILLUSTRATION



*1	RADIATOR SIDE PLATE RH	*2	RADIATOR SIDE PLATE LH
*3	UPPER RADIATOR PROTECTOR	*4	LOWER RADIATOR PROTECTOR
*5	NO. 1 OIL COOLER OUTLET TUBE	*6	NO. 1 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
*7	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP	*8	O-RING
*9	NO. 1 OIL COOLER INLET TUBE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER TUBE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE RADIATOR ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 RADIATOR ASSEMBLY

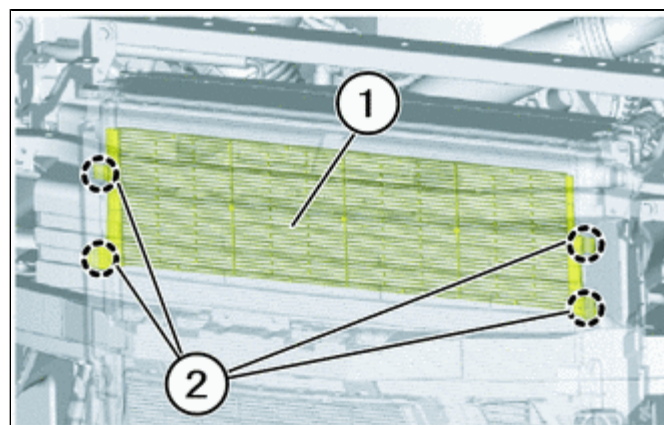
Click here [INFO](#)

3. REMOVE TRANSMISSION OIL COOLER

Click here [INFO](#)

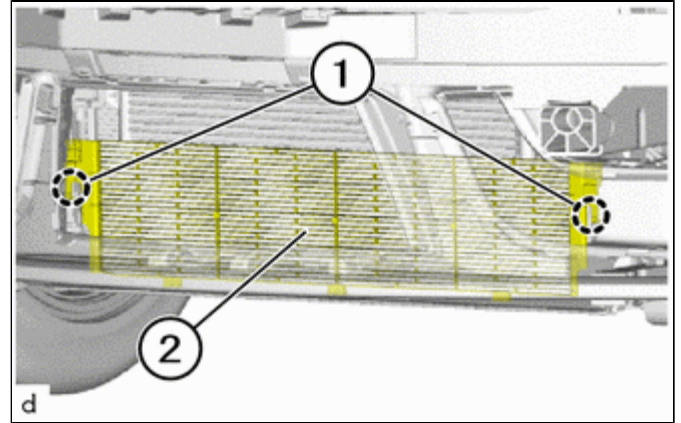
4. REMOVE UPPER RADIATOR PROTECTOR

- (a) Detach the guides (2) to remove the upper radiator protector (1).



5. REMOVE LOWER RADIATOR PROTECTOR

- (a) Detach the guides (1) to remove the lower radiator protector (2).

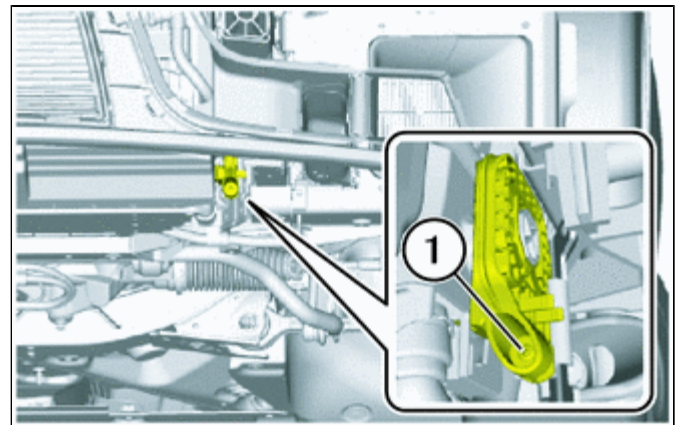


6. REMOVE RADIATOR SIDE PLATE LH

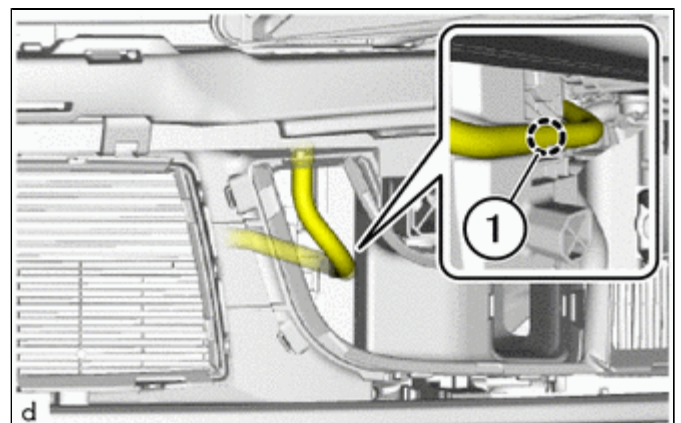
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

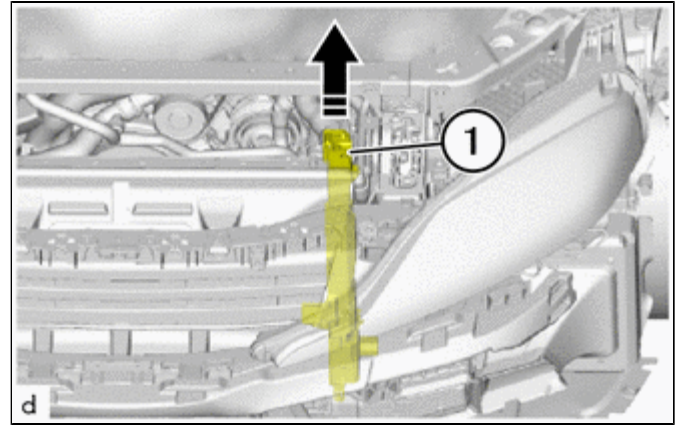
- (a) Loosen the T30 bolts (1).



- (b) Disconnect the oil cooler tubes (1).



(c) Remove the radiator side plate LH (1) in the direction of the arrow.



7. REMOVE OIL COOLER TUBE

CAUTION:

- Hot fluids.

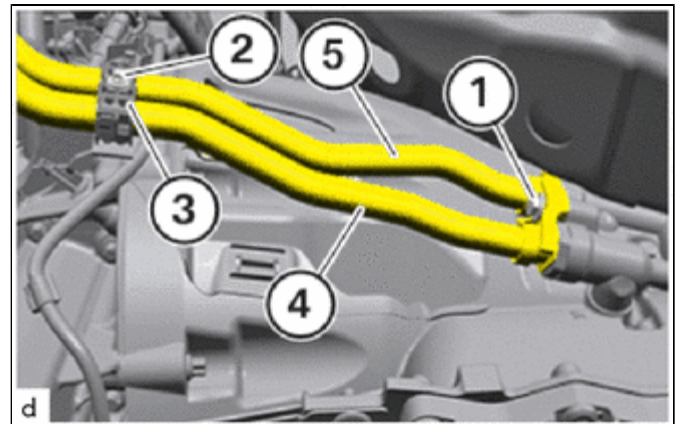
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen the bolt (1).



(b) Loosen the T25 screw (2).

(c) Loosen No. 3 automatic transmission oil cooler tube clamp (3).

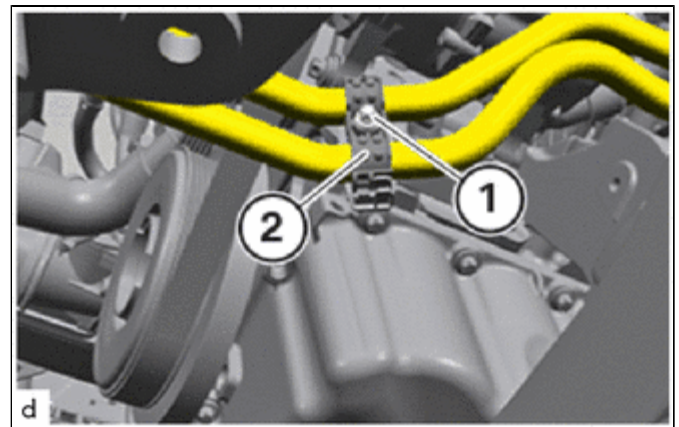
(d) Disconnect the No. 1 oil cooler inlet tube (4) from the transmission oil thermostat.

(e) Disconnect the No. 1 oil cooler outlet tube (5) from the transmission oil thermostat.

HINT:

Drain, catch and dispose of the automatic transmission fluid.

(f) Loosen the T25 screw (1).



(g) Loosen the No. 1 automatic transmission oil cooler tube clamp (2).

(h) Feed the oil cooler tubes out and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER TUBE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

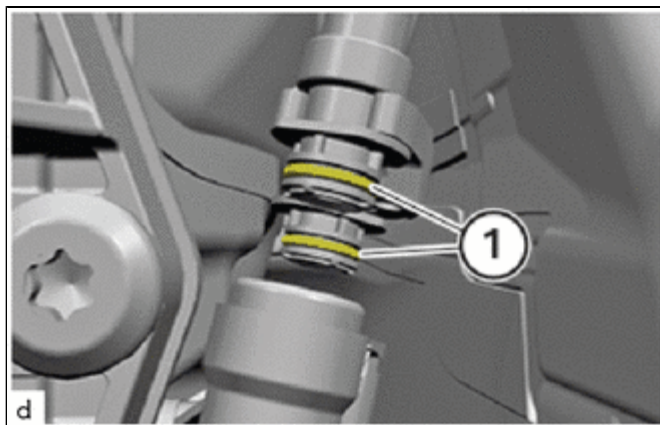
1. INSTALL OIL COOLER TUBE

- (a) Fasten the oil cooler tubes in the No. 1 automatic transmission oil cooler tube clamp.
- (b) Tighten down the T25 screw.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

- (c) Replace O-rings (1).



- (d) Connect the No. 1 oil cooler inlet tube and No. 1 oil cooler outlet tube to the transmission oil thermostat.
- (e) Tighten down the bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

- (f) Position the oil cooler tubes in the No. 3 automatic transmission oil cooler tube clamp.
- (g) Secure the No. 3 automatic transmission oil cooler tube clamp.
- (h) Tighten down the T25 screw.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

2. INSTALL RADIATOR SIDE PLATE LH

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

- (a) Install the radiator side plate LH.
- (b) Connect and lock the oil cooler tubes.

HINT:

Clip in the oil cooler tubes in marked areas.

(c) Tighten the T30 bolts.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

3. INSTALL LOWER RADIATOR PROTECTOR

(a) Attach the guides to install the lower radiator protector.

4. INSTALL UPPER RADIATOR PROTECTOR

(a) Attach the guides to install the upper radiator protector.

5. INSTALL TRANSMISSION OIL COOLER

Click here [INFO](#)

6. INSTALL NO. 2 RADIATOR ASSEMBLY

Click here [INFO](#)

7. INSTALL RADIATOR ASSEMBLY

Click here [INFO](#)

8. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

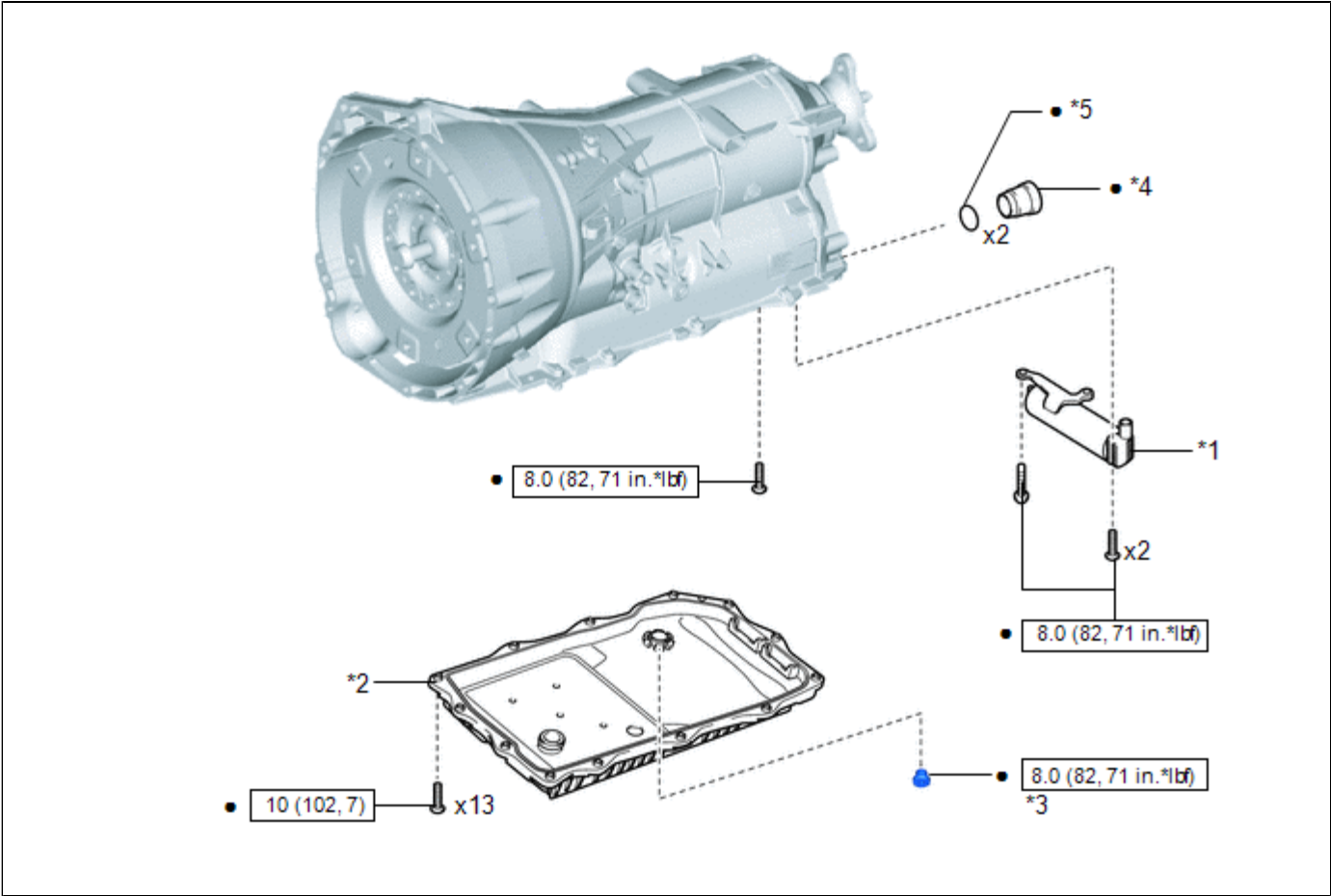
Click here [INFO](#)

9. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SEALING SLEEVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	HYDRAULIC IMPULSE STORAGE	*2	TRANSMISSION OIL SUMP
*3	OIL DRAIN PLUG	*4	SEALING SLEEVE
*5	SEALING RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SEALING SLEEVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

2. SECURE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

3. REMOVE TRANSMISSION OIL SUMP

Click here [INFO](#)

4. REMOVE HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

5. REMOVE SEALING SLEEVE

CAUTION:

- Materials harmful to health.

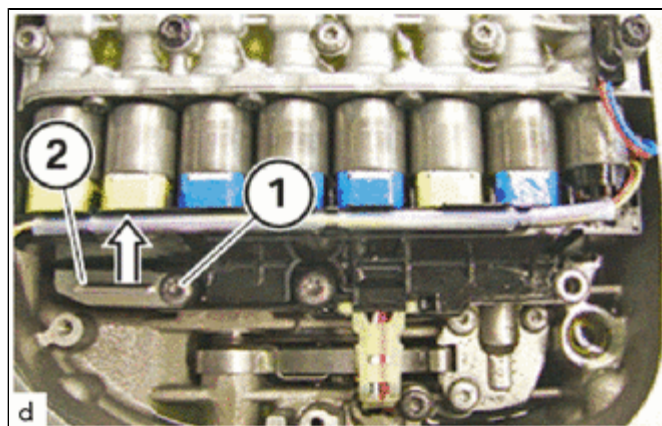
Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

(a) Unscrew the T40 bolt (1) and unlock the sealing sleeve with the slide (2).

HINT:

Press the slide (2) in the direction of the arrow.

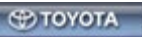
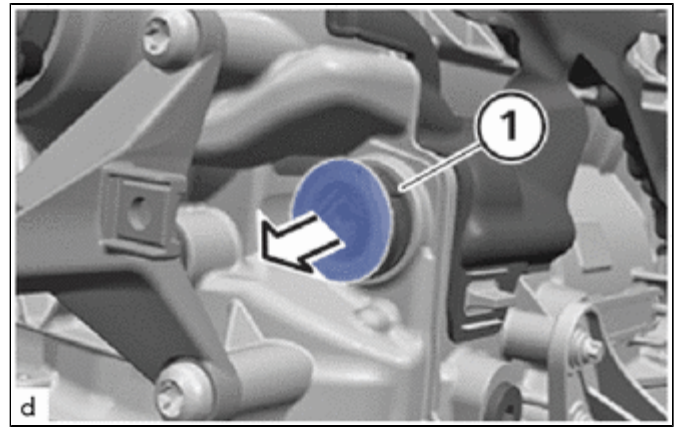


(b) Remove the sealing sleeve (1) with the special tool 0 494 213 (24 2 390).

SST: 09300-WA100

HINT:

The sealing sleeve (1) must be installed in the same mounting orientation.



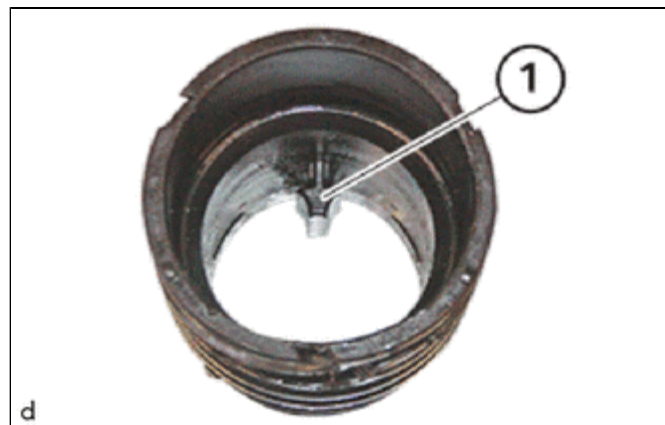
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SEALING SLEEVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SEALING SLEEVE

- (a) Check the lug (1) for damage and replace the sealing sleeve where necessary.



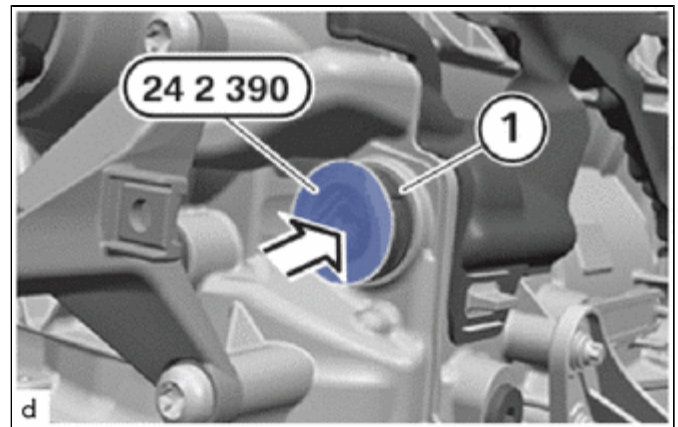
- (b) Replace the sealing rings (1).



- (c) Carefully position the sealing sleeve (1).

HINT:

Twist the sealing sleeve (1) until the lug has been inserted into the groove of the gear.



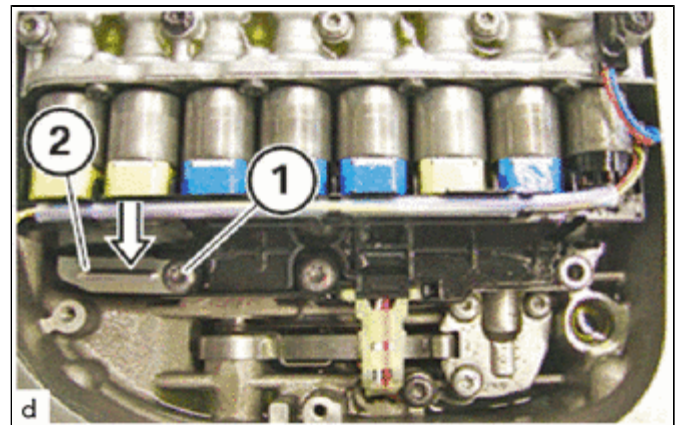
(d) Slide in the sealing sleeve (1) in the direction of the arrow up to the limit position.

NOTICE:

The lug on the sealing sleeve (1) must not be damaged.

(e) Remove special tool 0 494 213 (24 2 390).

SST: 09300-WA100



(f) Push the slide (2) in the direction of the arrow and lock.

(g) Replace the T40 bolt.

(h) Position and tighten the T40 bolt (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

3. INSTALL TRANSMISSION OIL SUMP

Click here [INFO](#)

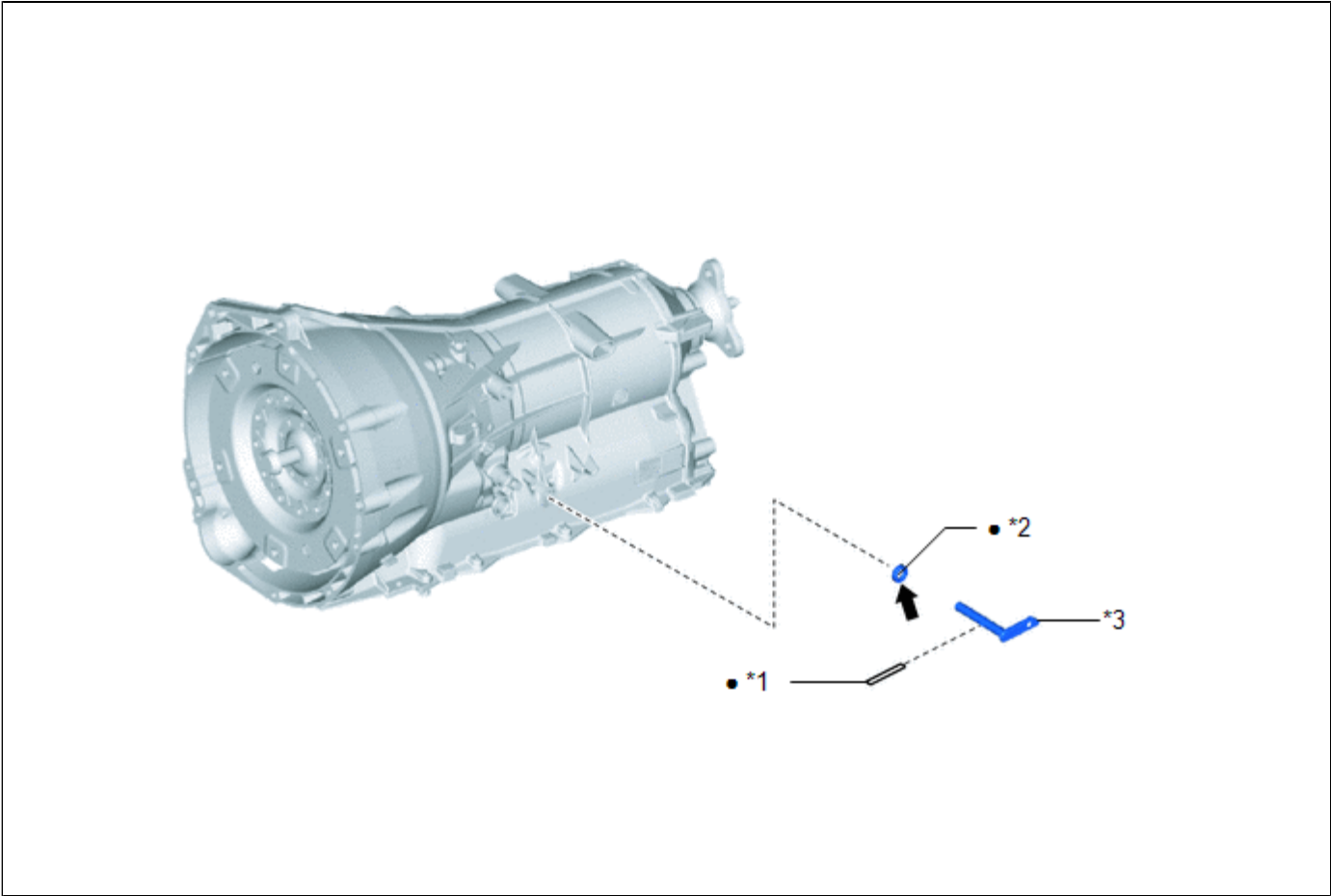
4. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SERECTOR SHAFT RADIAL SHAFT SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CLAMPING SLEEVE	*2	SELECTOR SHAFT RADIAL SHAFT SEAL
*3	SELECTOR SHAFT	-	-
•	Non-reusable part	➡	Automatic Gearbox Oil ATF 3+

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SERECTOR SHAFT RADIAL SHAFT SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

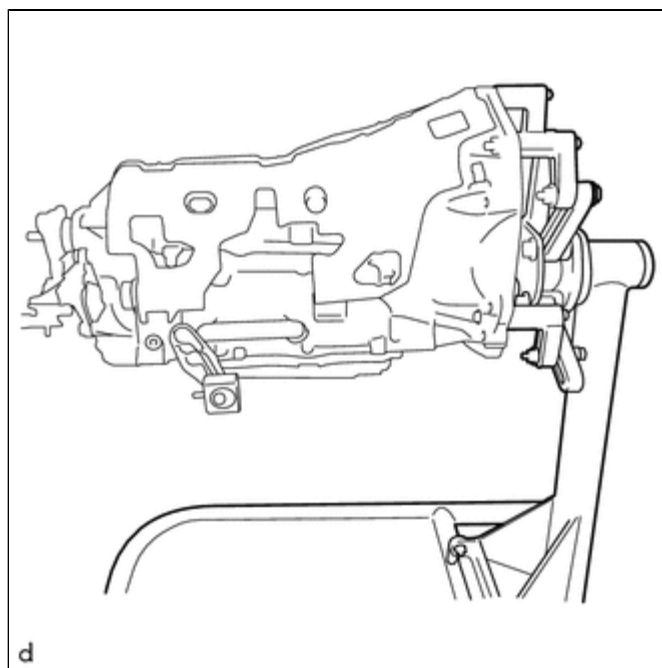
PROCEDURE

1. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

2. SECURE AUTOMATIC TRANSMISSION ASSEMBLY

- (a) Install the automatic transmission assembly to an engine stand.



3. REMOVE MECHATRONICS

Click here [INFO](#)

4. REMOVE SELECTOR SHAFT RADIAL SHAFT SEAL

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the automatic transmission assembly.

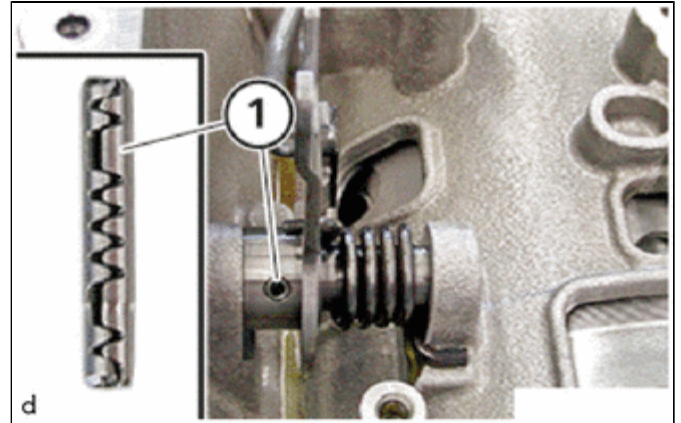
Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

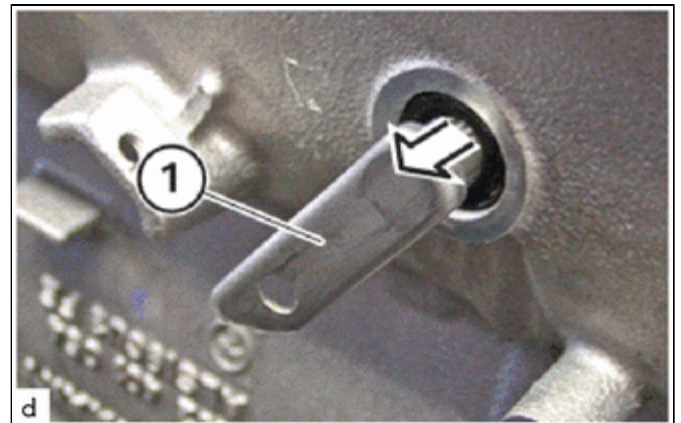
(a) Drive out the clamping sleeve (1) from the selector shaft using a suitable tool.

HINT:

The return spring is under tension.

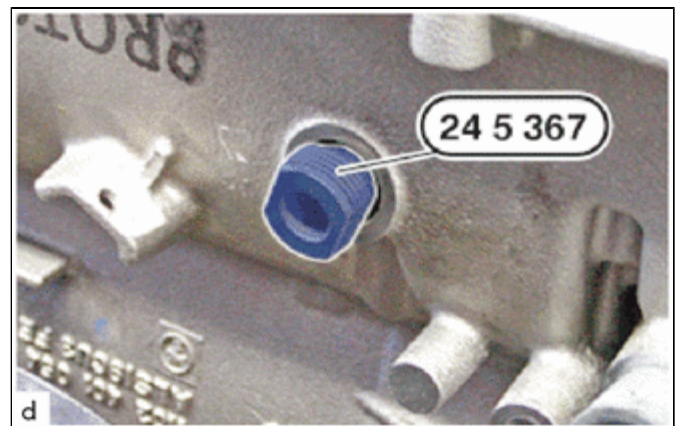


(b) Pull the selector shaft (1) from the transmission housing in the direction of the arrow.



(c) Screw in special tool 0 496 718 (24 5 367) until it has been securely connected to the selector shaft radial shaft seal.

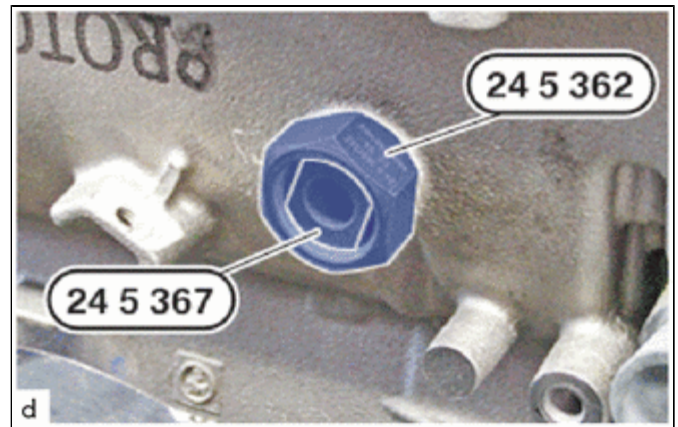
SST: 09300-WA130



(d) Screw special tool 0 491 783 (24 5 362) onto special tool 0 496 718 (24 5 367) and tighten it.

SST: 09300-WA120

SST: 09300-WA130



(e) Pull the selector shaft radial shaft seal from the transmission housing.

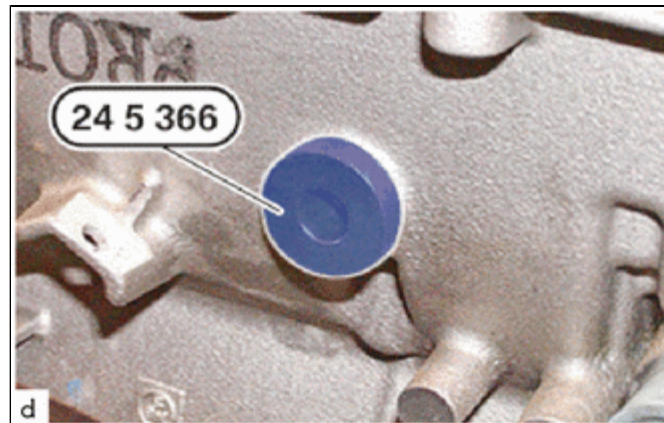
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SERECTOR SHAFT RADIAL SHAFT SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SELECTOR SHAFT RADIAL SHAFT SEAL

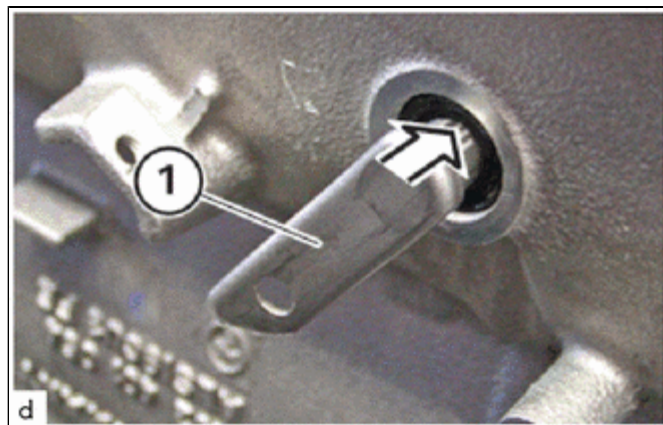
- (a) Oil the sealing lip of the selector shaft radial shaft seal with ATF.



- (b) Drive the selector shaft radial shaft seal to the limit position using the special tool 0 494 208 (24 5 366) and a plastic hammer.

SST: 09300-WA120

- (c) Slide the selector shaft (1) into the transmission housing in the direction of arrow.



- (d) Replace the clamping sleeve.
(e) Insert narrower end of clamping sleeve into bore hole.
(f) Using a suitable tool, drive in the clamping sleeve until the clamping sleeve is in line with the bore hole.

2. INSTALL MECHATRONICS

Click here [INFO](#)

3. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY

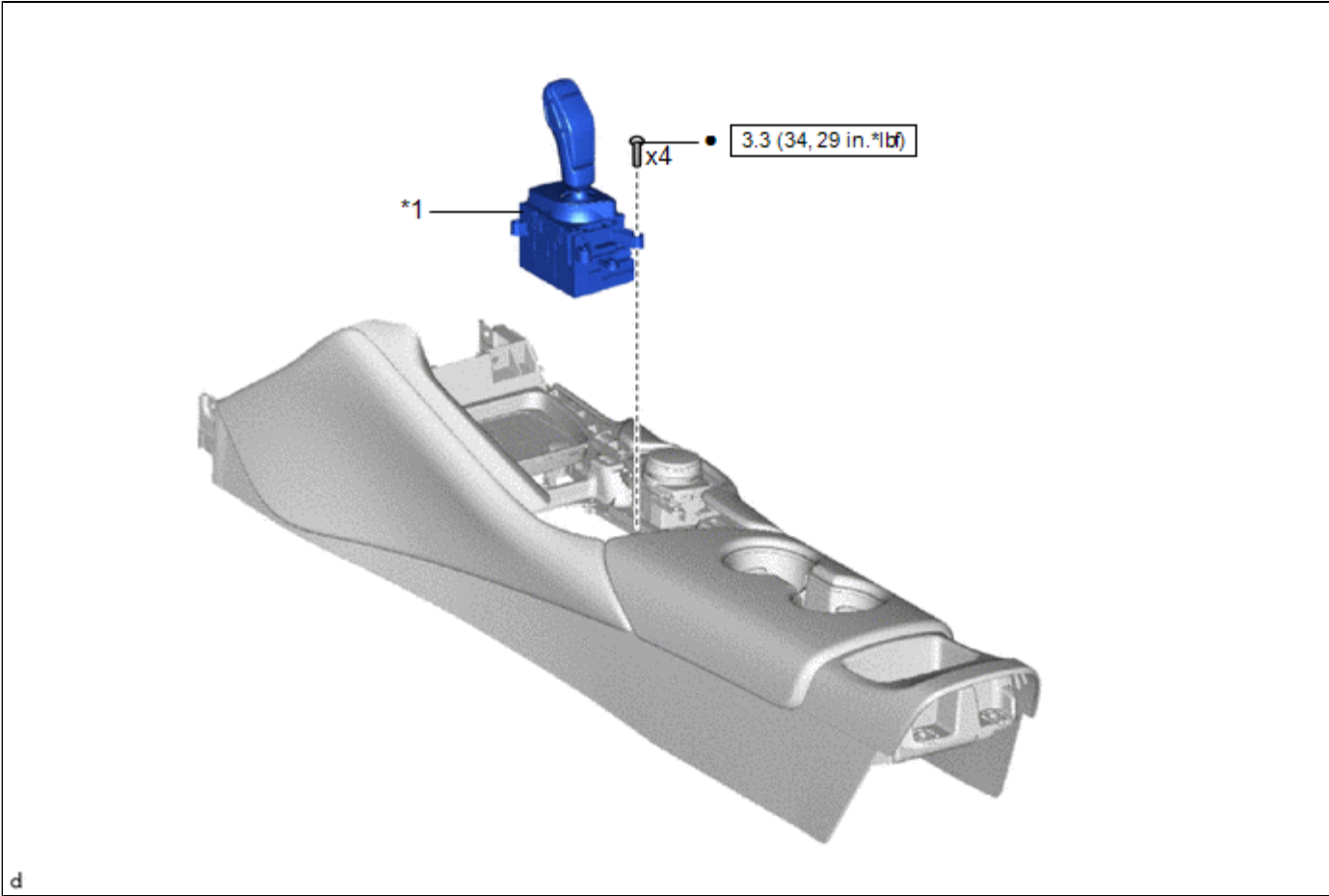
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT LEVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TRANSMISSION FLOOR SHIFT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT LEVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT CONSOLE BOX

Click here [INFO](#)

3. REMOVE TRANSMISSION FLOOR SHIFT ASSEMBLY

NOTICE:

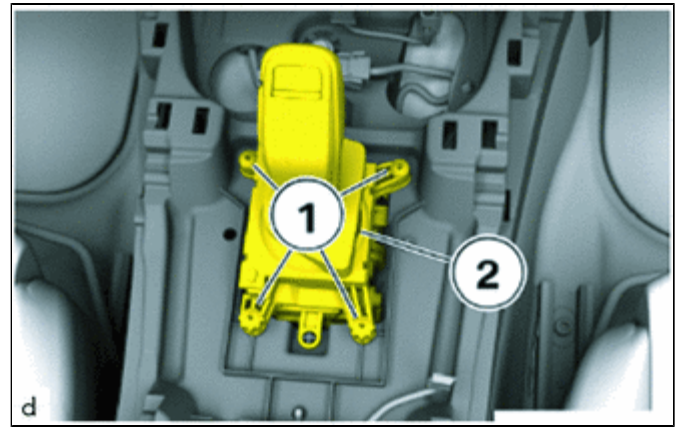
- Electrostatic discharge.

Damage to or destruction of electrical components.

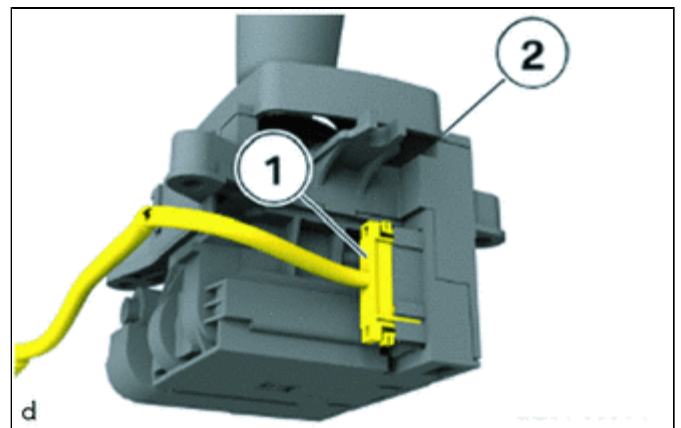
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Loosen the T20 bolts (1).



(b) Lift the transmission floor shift assembly (2).



(c) Unlock plug connection (1) and disconnect.

(d) Remove the transmission floor shift assembly (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT LEVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION FLOOR SHIFT ASSEMBLY

- (a) Connect and lock the connector on the transmission floor shift assembly.
- (b) Position the transmission floor shift assembly.
- (c) Replace the T20 bolts.
- (d) Tighten the T20 bolts.

Torque:
3.3 N·m {34 kgf·cm, 29 in·lbf}

2. INSTALL FRONT CONSOLE BOX

Click here [INFO](#)

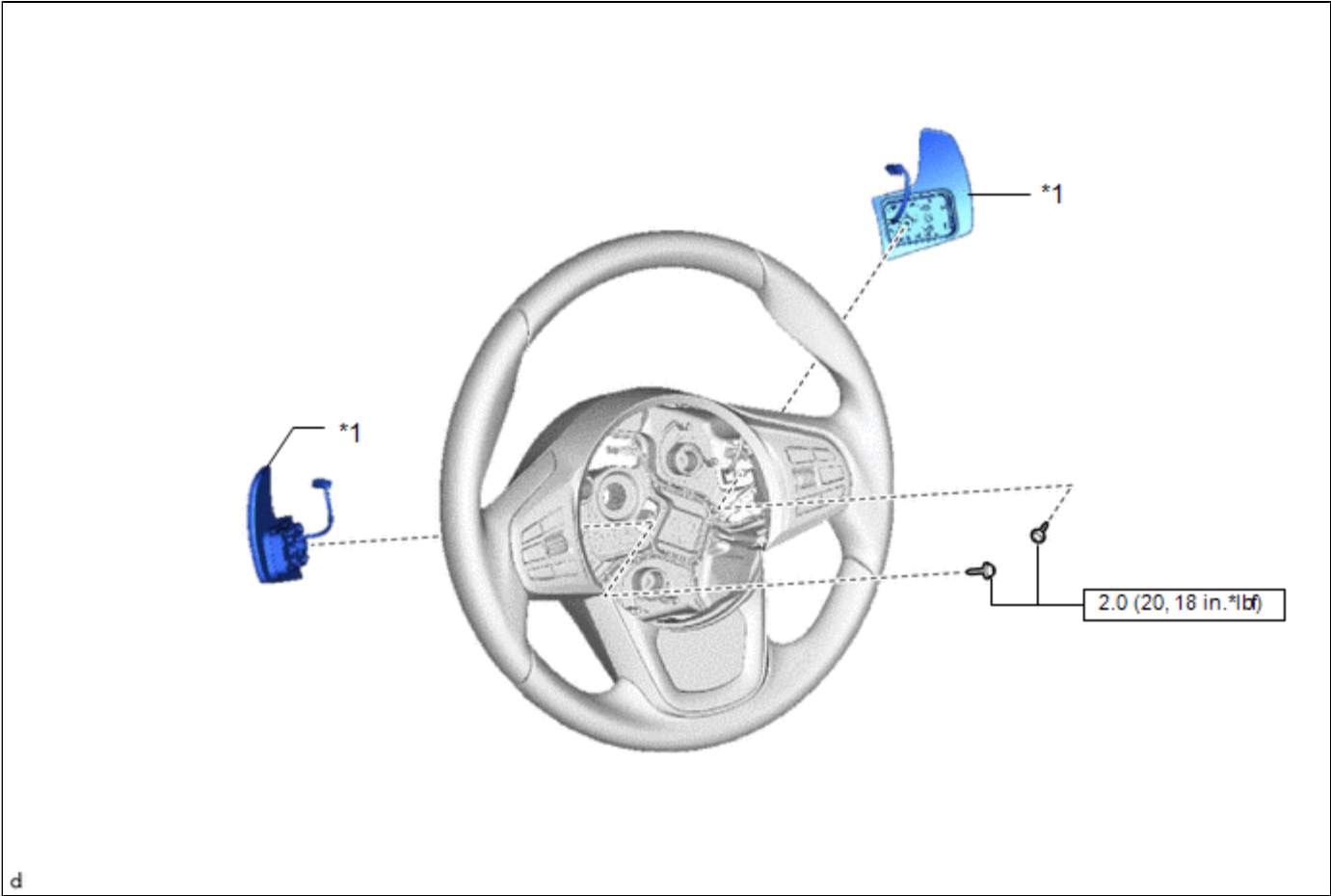
3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT PADDLE SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TRANSMISSION SHIFT SWITCH ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT PADDLE SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

[Click here](#) [INFO](#)

HINT:

A wheel alignment is not necessary after the removal, installation or replacement.

PROCEDURE

1. REMOVE HORN BUTTON ASSEMBLY

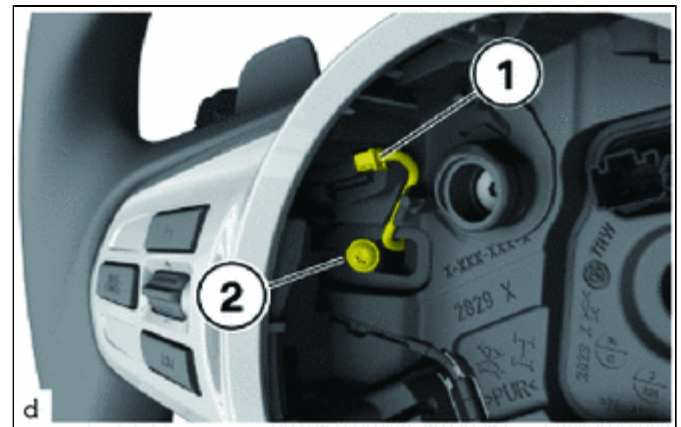
[Click here](#) [INFO](#)

2. REMOVE TRANSMISSION SHIFT SWITCH ASSEMBLY

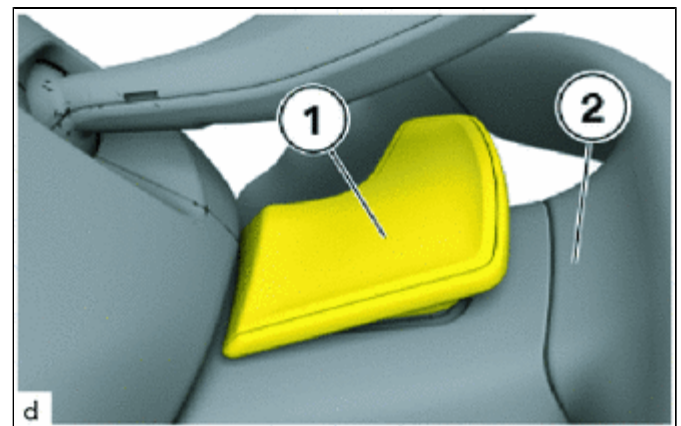
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Unlock plug connection (1) and disconnect.



(b) Loosen the T20 bolt (2).



(c) Thread the transmission shift switch assembly (1) out of the steering wheel (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT PADDLE SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION SHIFT SWITCH ASSEMBLY

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

- (a) Thread the transmission shift switch assembly into the steering wheel.
- (b) Connect connectors and lock.
- (c) Tighten down the T20 bolt.

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

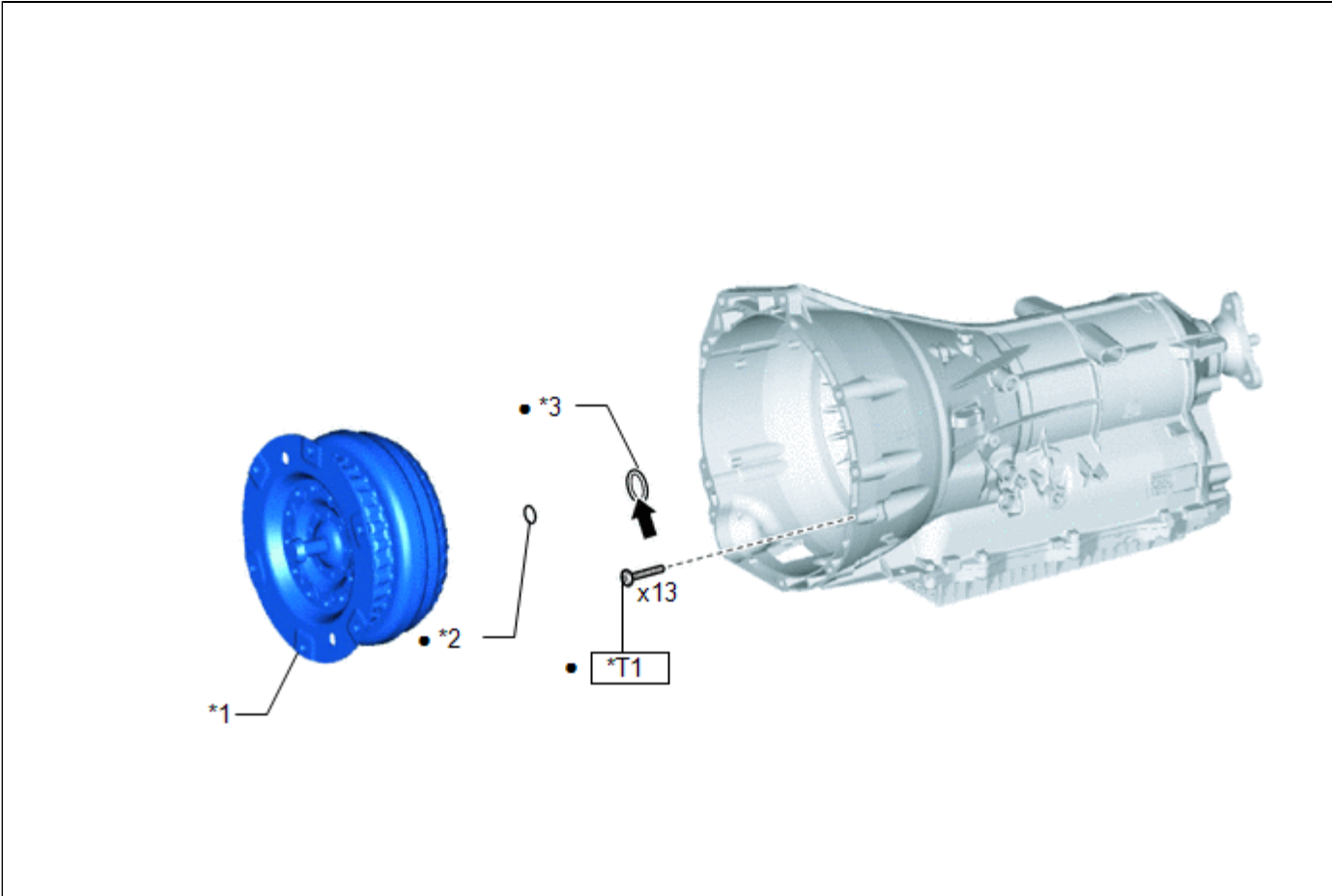
2. INSTALL STEERING WHEEL ASSEMBLY



Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TORQUE CONVERTER RADIAL SHAFT SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TORQUE CONVERTER	*2	O-RING
*3	TORQUE CONVERTER RADIAL SHAFT SEAL	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Automatic Gearbox Oil ATF 3+	-	-
*T1	1st: 10 (102, 7) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TORQUE CONVERTER RADIAL SHAFT SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

2. REMOVE TORQUE CONVERTER

Click here [INFO](#)

3. REMOVE TORQUE CONVERTER RADIAL SHAFT SEAL

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the automatic transmission assembly.

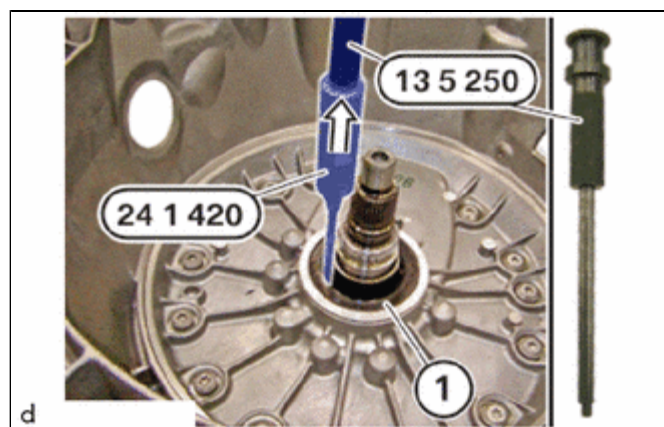
Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

(a) Pull out the torque converter radial shaft seal (1) with the special tools 0 496 716 (24 1 420) and 0 493 321 (13 5 250).

SST: 09300-WA050

SST: 09200-WA210



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TORQUE CONVERTER RADIAL SHAFT SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

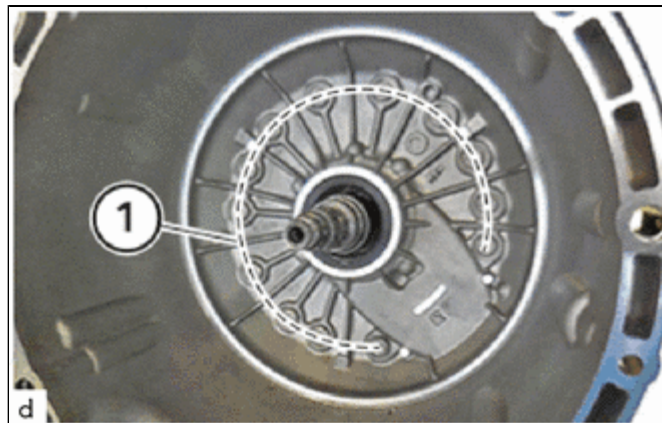
PROCEDURE

1. INSTALL TORQUE CONVERTER RADIAL SHAFT SEAL

(a) Replace the T50 bolts (1).

HINT:

- To do so, it is essential to use the new parts from the drive repair kit.
- The 13 T50 bolts (1) in the drive repair kit are equipped with a sealing ring.



(b) Replace and hand-tighten the T50 bolts (1) along the dotted line.

HINT:

The T50 bolts (1) must be replaced one by one. Only ever replace a T50 bolt (1) one at a time.

(c) Tighten the T50 bolts in the order (1) to (13).

Torque:

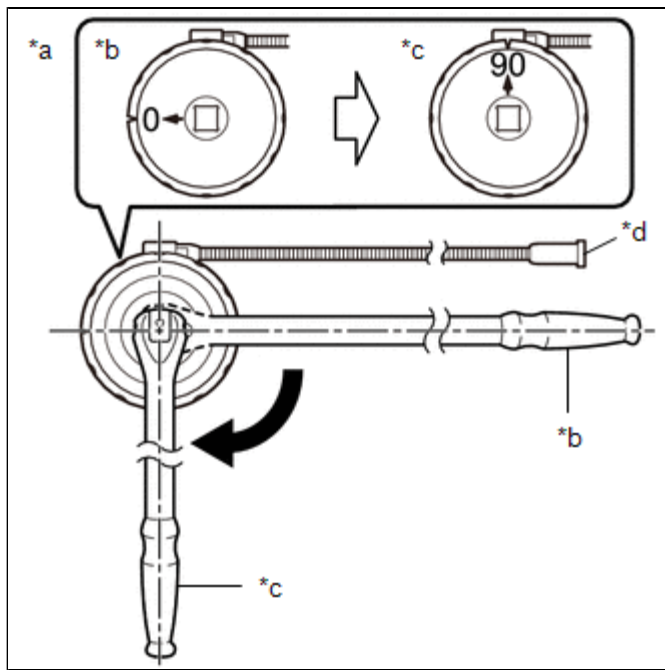
10 N·m {102 kgf·cm, 7 ft·lbf}



(d) Using SST, tighten the T50 bolts an additional 90°

SST: 09900-WA010

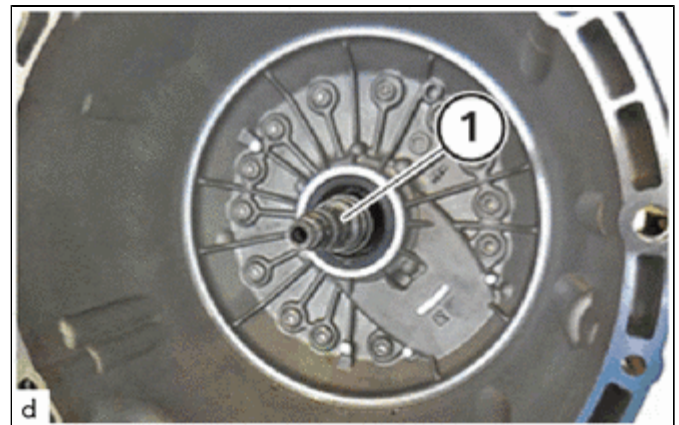
HINT:



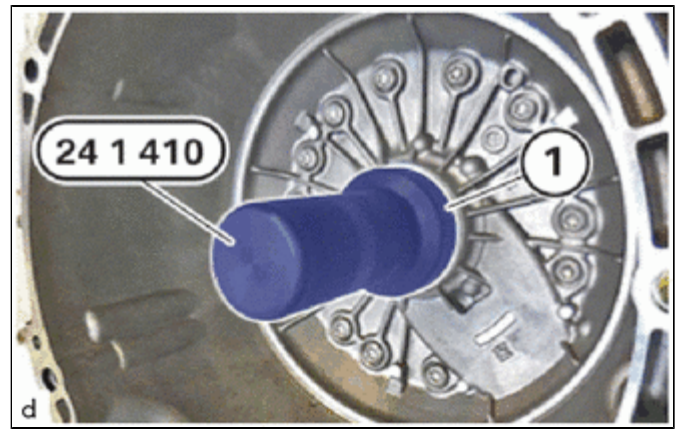
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) Install the O-ring on the drive shaft.



(f) Oil the sealing lip of the torque converter radial shaft seal with ATF.



(g) Strike the torque converter radial shaft seal (1) with the special tool 0 496 719 (24 1 410) until it reaches the limit position.

SST: 09300-WA060

2. INSTALL TORQUE CONVERTER

Click here [INFO](#)

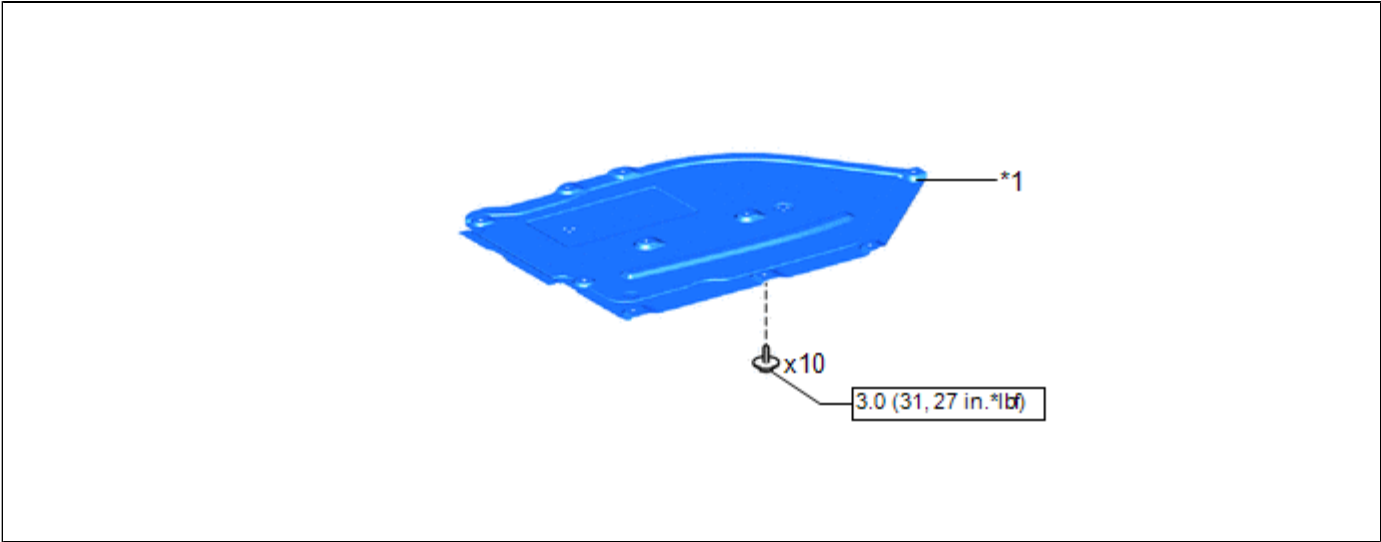
3. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION OIL THERMOSTAT: COMPONENTS; 2020 MY Supra [03/2019 -]		

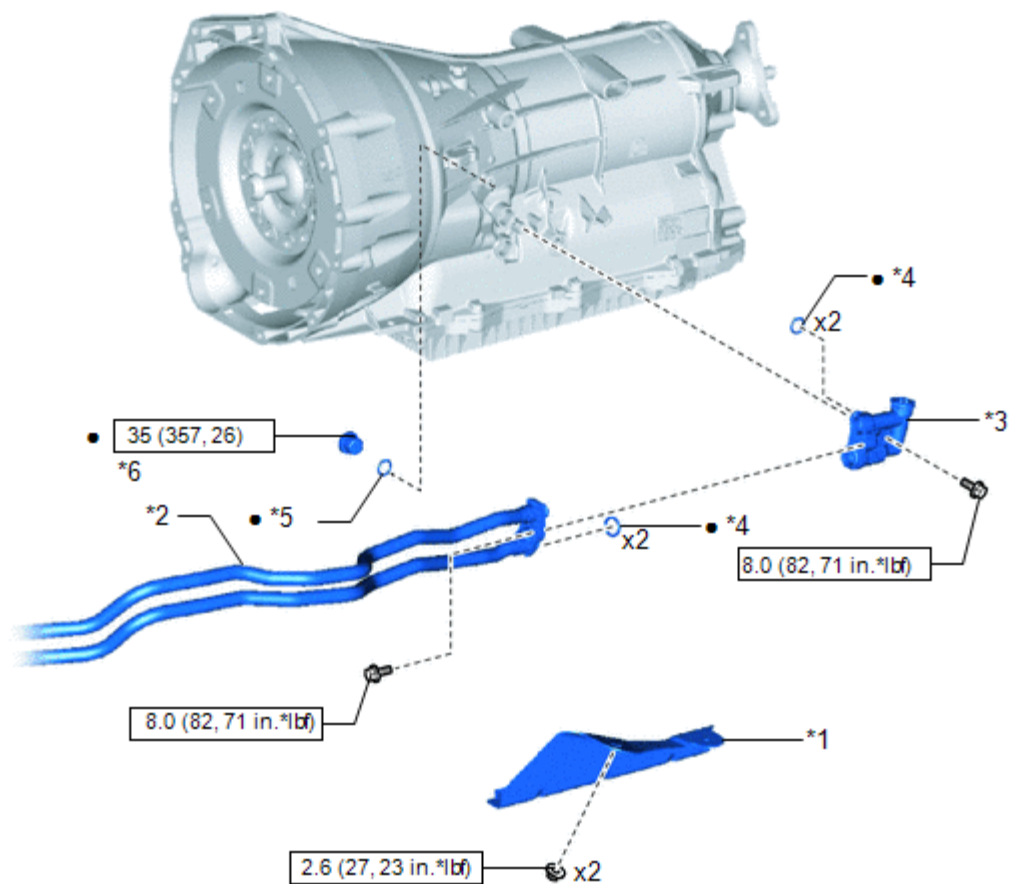
COMPONENTS


ILLUSTRATION



*1	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 1 FLOOR HEAT INSULATOR	*2	OIL COOLER TUBE
*3	TRANSMISSION OIL THERMOSTAT	*4	O-RING
*5	SEALING RING	*6	FILLER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION OIL THERMOSTAT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. REMOVE TRANSMISSION OIL THERMOSTAT

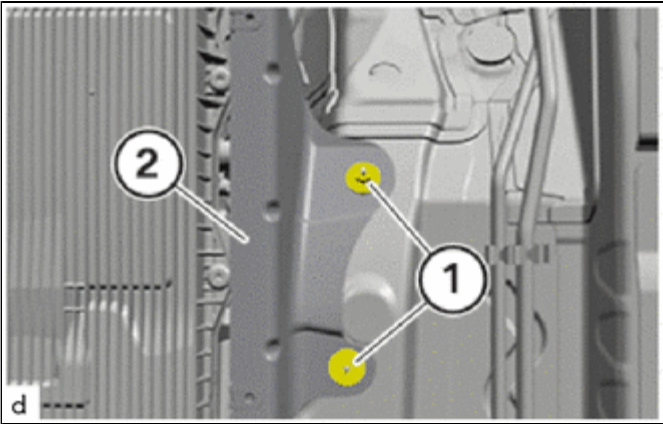
CAUTION:

- Hot surfaces.
 - Risk of burning!
 - Perform all work only on components that have cooled down.

HINT:

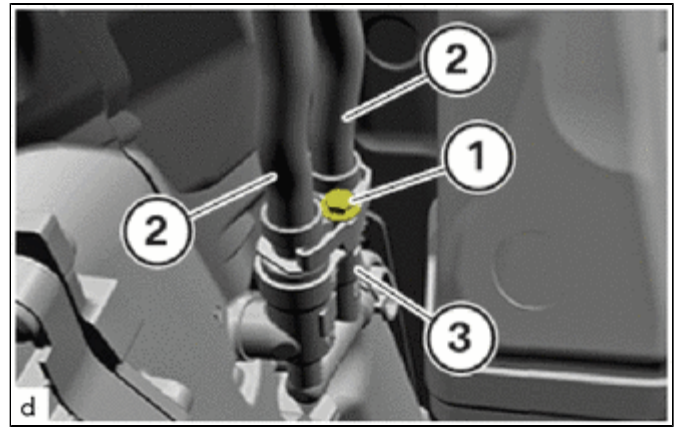
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen nuts (1).



(b) Guide out and remove No. 1 floor heat insulator (2).

(c) Loosen the bolt (1).

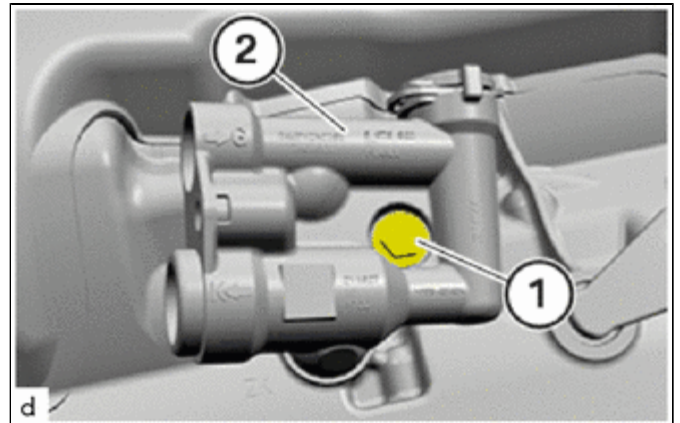


(d) Pull the oil cooler tubes (2) out of the transmission oil thermostat (3) and set aside.

HINT:

Drain, catch and dispose of the automatic transmission fluid.

(e) Loosen the bolt (1).



(f) Pull the transmission oil thermostat (2) out of the connections on the automatic transmission assembly and remove.

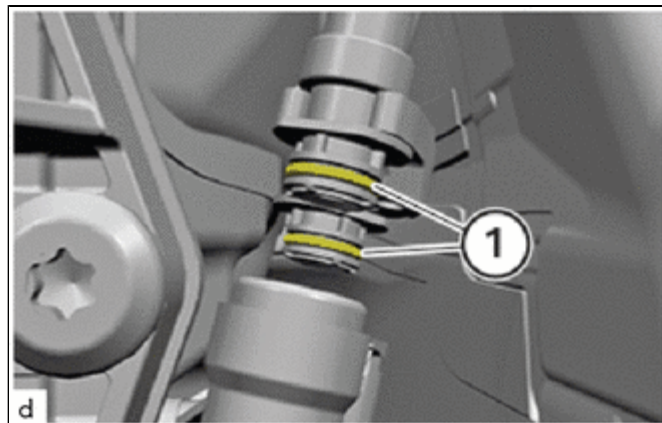
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION OIL THERMOSTAT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

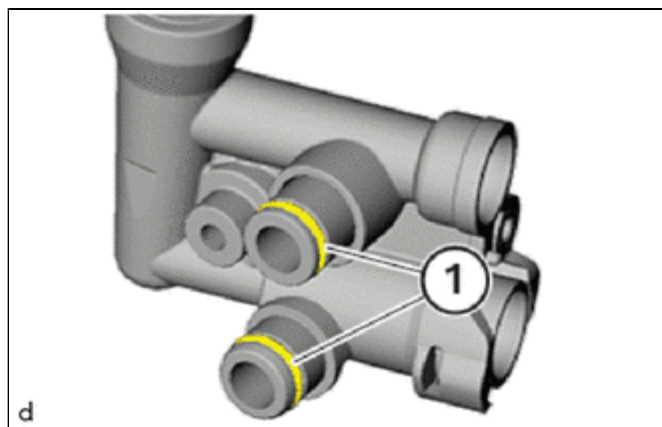
PROCEDURE

1. INSTALL TRANSMISSION OIL THERMOSTAT

(a) Replace O-rings (1).



(b) Replace O-rings (1).



(c) Install the transmission oil thermostat in the connections on the automatic transmission assembly.

(d) Tighten down the bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Install the oil cooler tubes in the transmission oil thermostat.

(f) Tighten down the bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(g) Insert and install the No. 1 floor heat insulator.

(h) Tighten nuts.

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

2. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

3. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

4. INSTALL FRONT FLOOR COVER

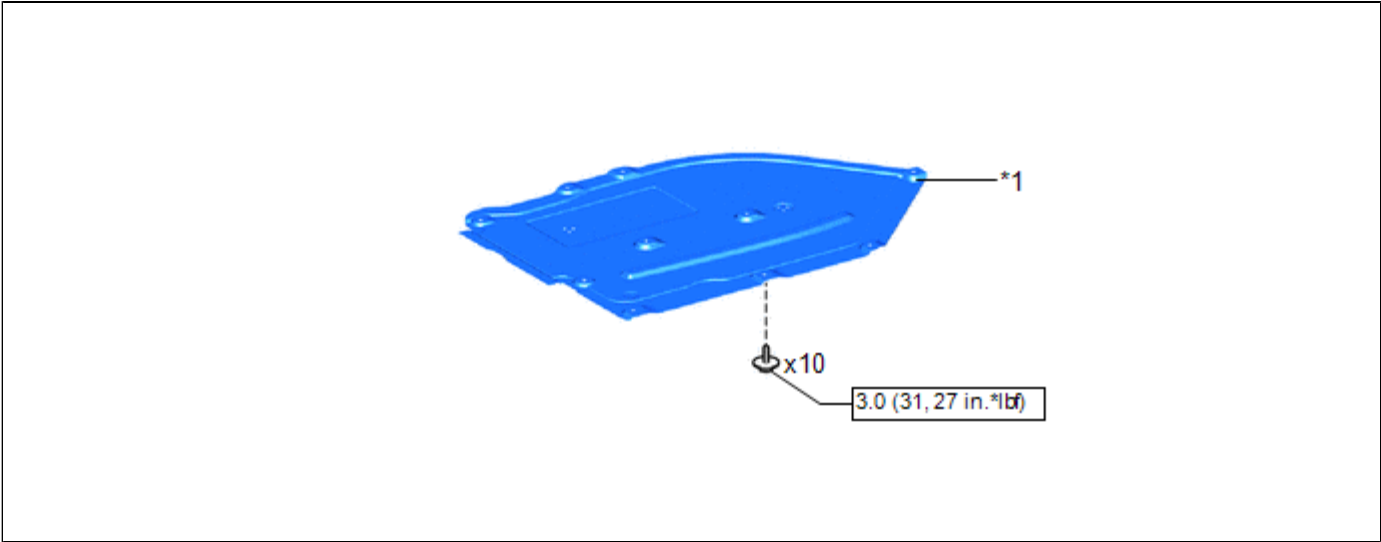
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION VALVE BODY: COMPONENTS; 2020 MY Supra [03/2019 -]		

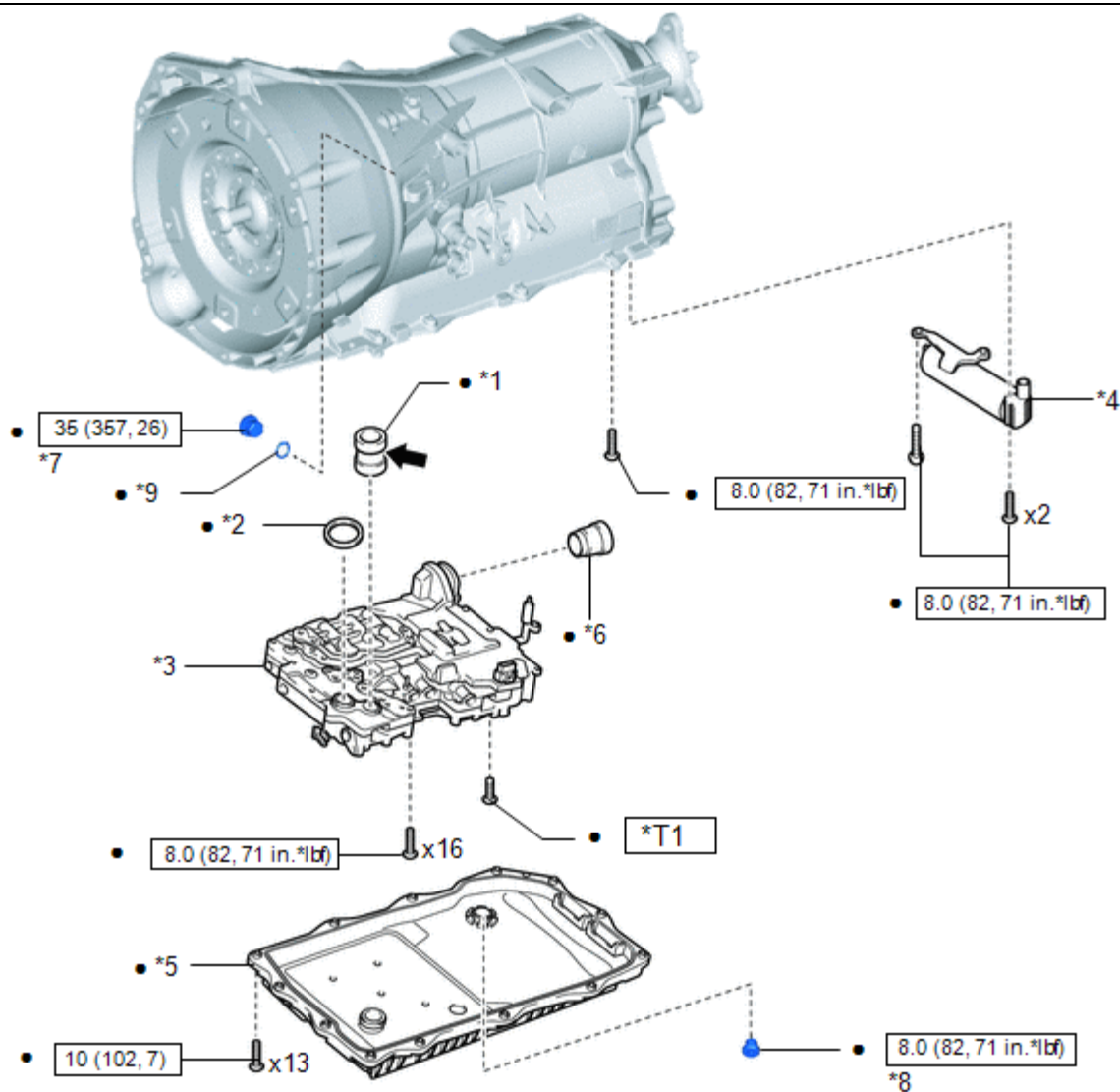
COMPONENTS

ILLUSTRATION



*1	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	PRESSURE PIPE	*2	O-RING
*3	MECHATRONICS	*4	HYDRAULIC IMPULSE STORAGE
*5	TRANSMISSION OIL SUMP	*6	SEALING SLEEVE
*7	FILLER PLUG	*8	OIL DRAIN PLUG
*9	SEALING RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Automatic Gearbox Oil ATF 3+	-	-
*T1	1st: 4.0 (41, 35) 2nd: Turn 12°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION VALVE BODY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

3. REMOVE TRANSMISSION OIL SUMP

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the transmission oil sump.

Non-observance of the automatic transmission fluid specifications may lead to severe damage to the automatic transmission.

- Remove transmission oil sump only after it has cooled down.
- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

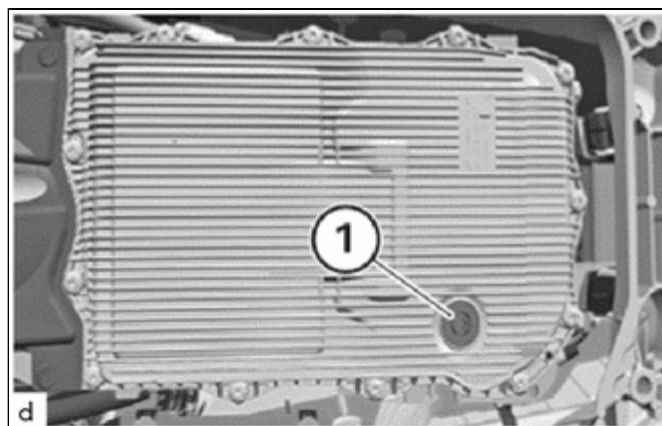
HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

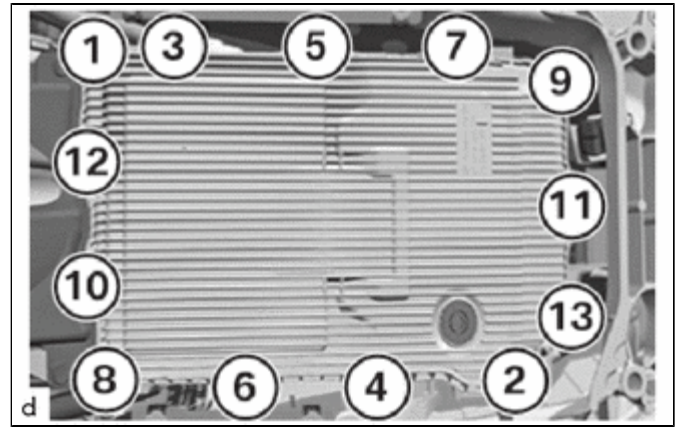
(a) Release oil drain plug (1).

HINT:

Drain, catch and dispose of the automatic transmission fluid.



(b) Loosen the T40 bolts (1) to (13).



(c) Remove transmission oil sump.

4. REMOVE HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

5. REMOVE MECHATRONICS

CAUTION:

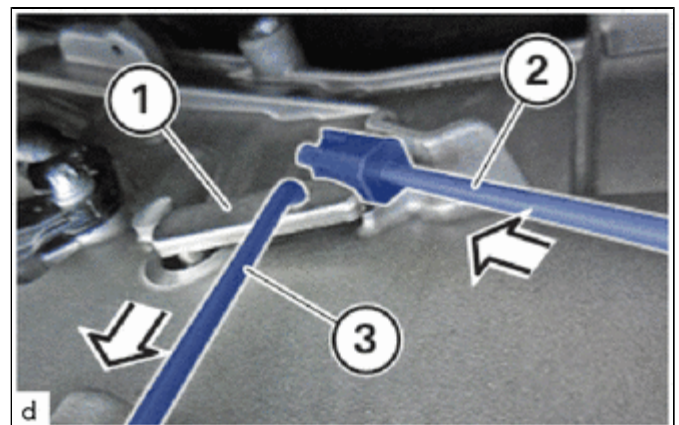
- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

(a) Pull the selector shaft journal (1) downward with the special tool 2 355 850 (3) in the direction of the arrow.

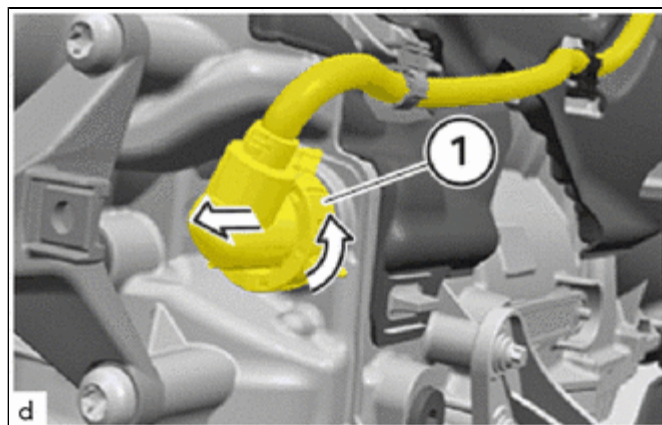
SST: 09700-WA050



(b) Install the special tool 2 355 850 (2) between the selector shaft journal (1) and transmission housing in direction of arrow.

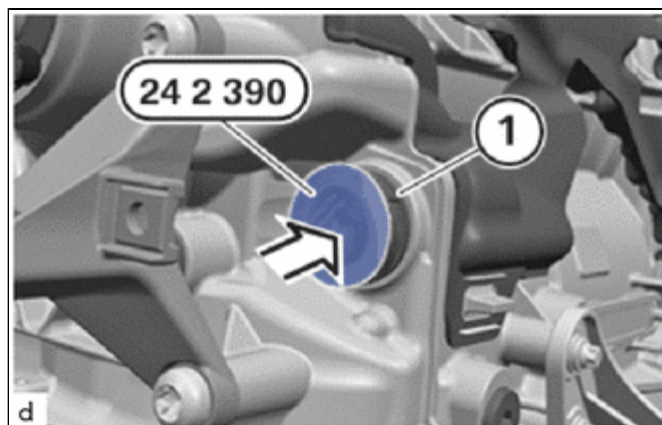
SST: 09700-WA050

(c) Turn the connector (1) in the direction of the arrow and pull it off.

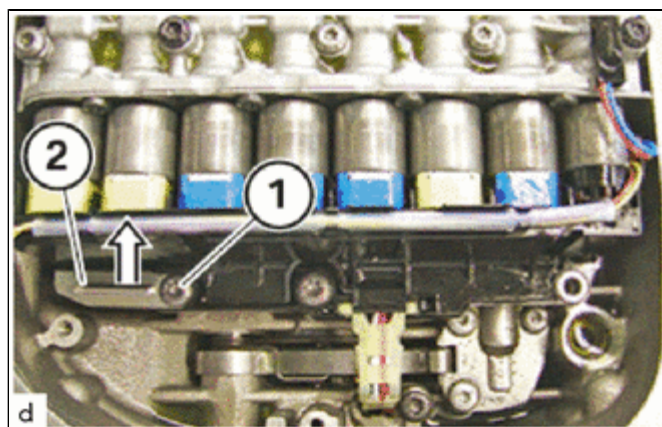


(d) Insert special tool 0 494 213 (24 2 390) in sealing sleeve (1).

SST: 09300-WA100



(e) Unscrew the T40 bolt (1) and unlock the sealing sleeve with the slide (2).



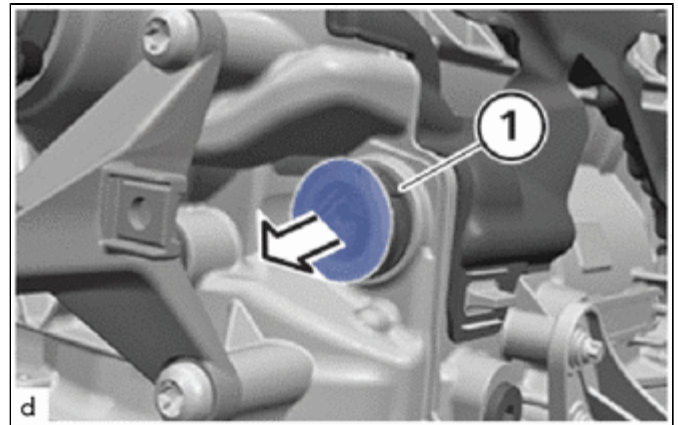
(f) Press the slide (2) in the direction of the arrow.

(g) Remove the sealing sleeve (1) with the special tool 0 494 213 (24 2 390).

SST: 09300-WA100

HINT:

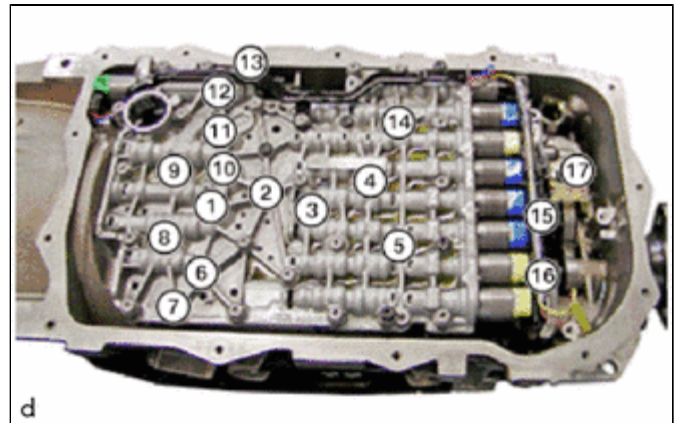
The sealing sleeve (1) must be installed in the same mounting orientation.



(h) Release the T40 bolts (4) and (9) from the mechatronics.

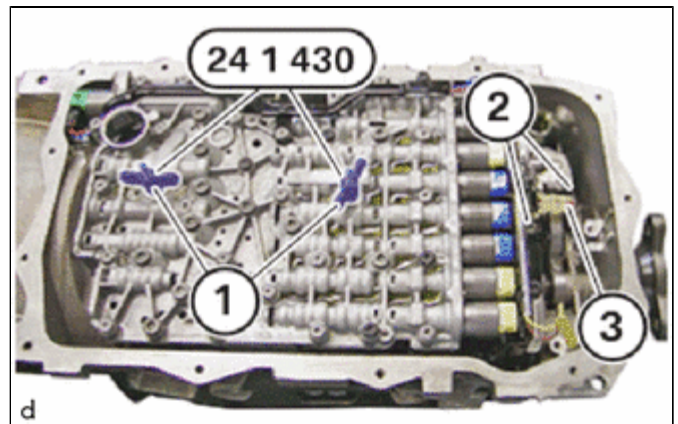
HINT:

Do not release the remaining the T40 bolts (1) to (3), (5) to (8) and (10) to (17) yet.



(i) Install special tool 0 496 715 (24 1 430).

SST: 09300-WA080



(j) Tighten the wing nuts (1).

(k) Loosen the T40 bolts (2).

(l) Carefully pull the output speed sensor (3) out of the housing and insert it in the recess on the module.

NOTICE:

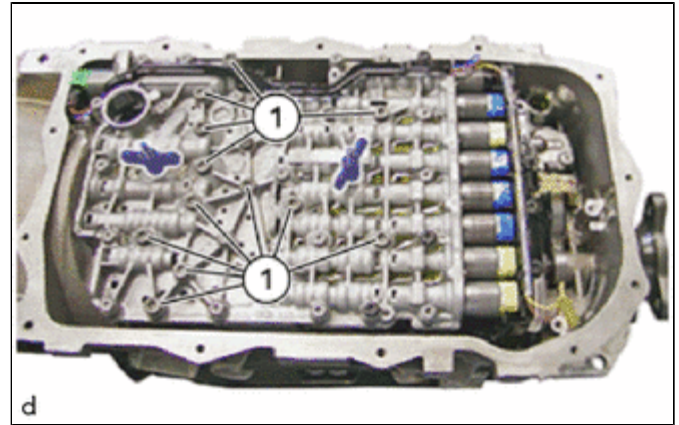
The journal on the output speed sensor may break off during removal or installation.

HINT:

Note the original mounting orientation of the output speed sensor.

- Observe the correct mounting orientation when installing the output speed sensor.

(m) Loosen the T40 bolts (1).



(n) Release the wing nuts on the special tool 0 496 715 (24 1 430).

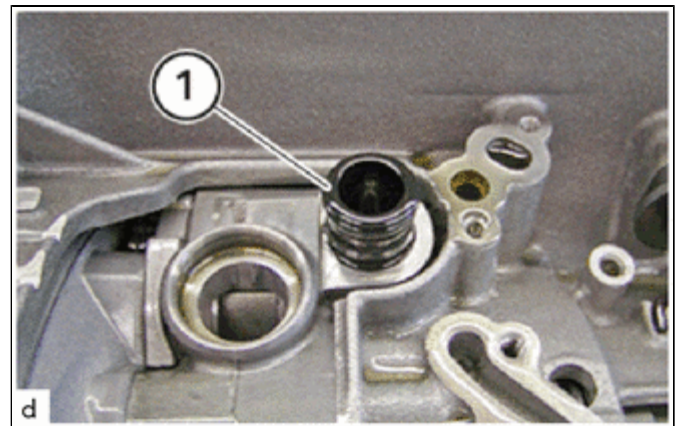
SST: 09300-WA080

(o) Remove mechatronics.

HINT:

Carefully remove mechatronics.

(p) Remove pressure pipe (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION VALVE BODY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL MECHATRONICS

NOTICE:

- Damage on the automatic transmission assembly after removing the mechatronics.

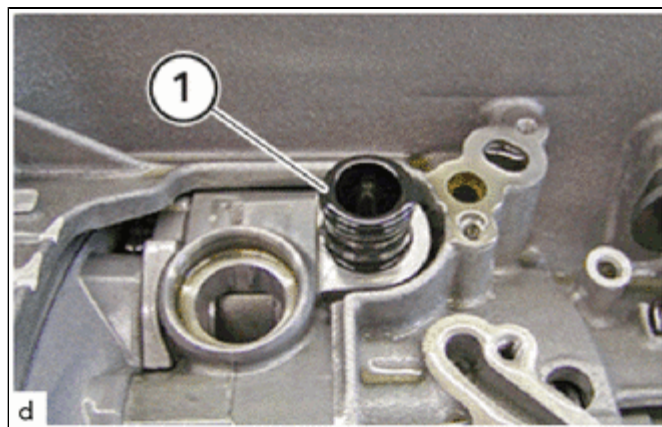
Non-observance of the following work may cause severe damage to the automatic transmission assembly.

- Load specific data status with the diagnosis system.

Vehicle information / Control unit list / EGS / Call up control unit functions / Diagnostic request / EGS sensor / Parking lock position

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check the automatic transmission fluid level.

(a) Replace the pressure pipe (1).

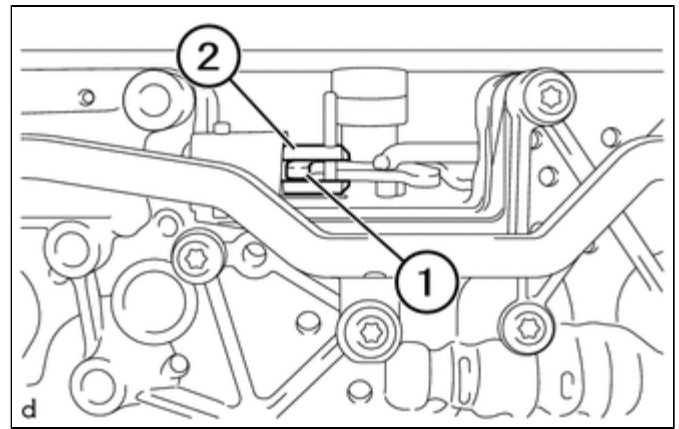


(b) Coat the O-rings at the new pressure pipe using ATF.

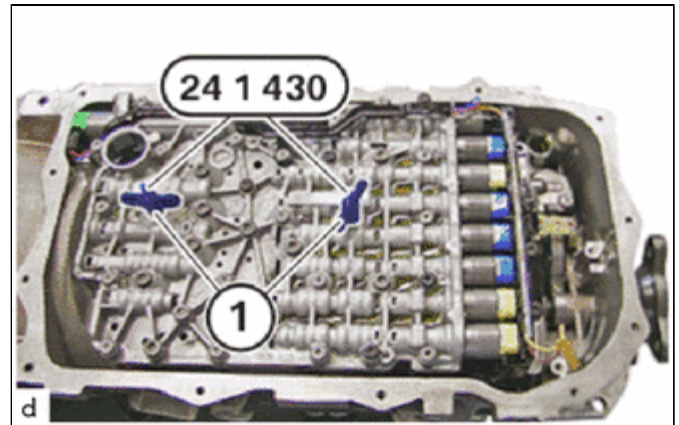
(c) Install pressure pipe (1).

(d) Fit mechatronics unit.

(e) Feed shifting claw (1) into gearshift shaft (2).



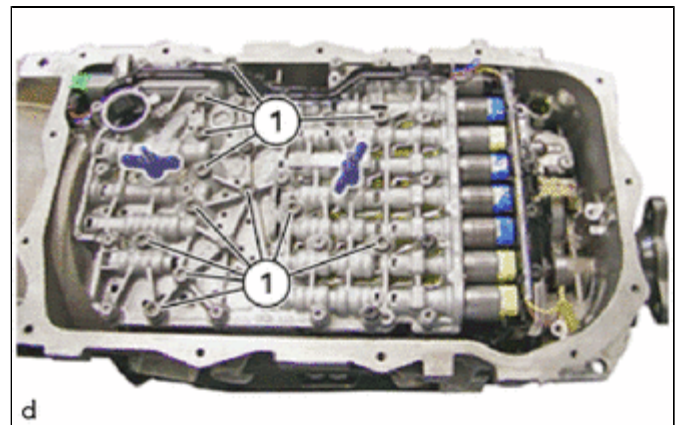
(f) Install mechatronics.



(g) Alternately tighten the wing nuts (1) of special tool 0 496 715 (24 1 430) until the mechatronics are in contact with the automatic transmission assembly.

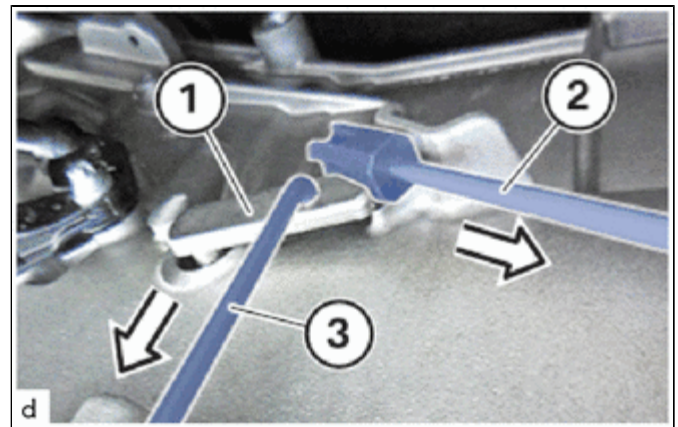
SST: 09300-WA080

(h) Insert the T40 bolts (1) and tighten lightly.



- (i) Pull the selector shaft journal (1) downward with the special tool 2 355 850 (3) in the direction of the arrow.

SST: 09700-WA050



- (j) Remove the special tool 2 355 850 (2) in the direction of the arrow.

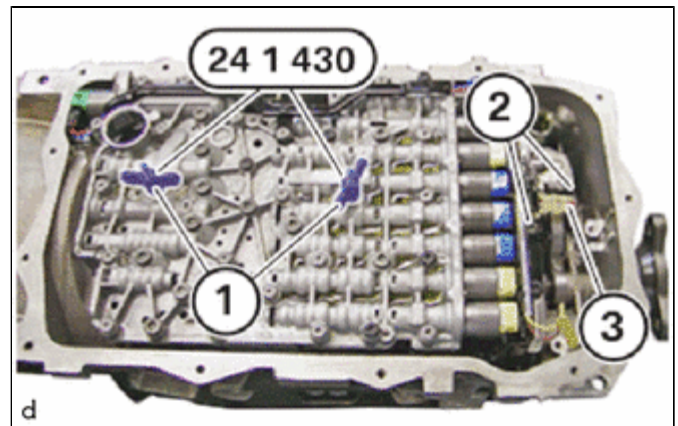
SST: 09700-WA050

- (k) Carefully position the output speed sensor (3) and push it in up to the limit position.

SST: 09700-WA050

HINT:

- Note the original mounting orientation of the output speed sensor.
- Observe the correct mounting orientation when installing the output speed sensor.
- The journal on the output speed sensor may break off during removal or installation.



- (l) Insert the T40 bolts (2) and tighten lightly.

- (m) Release the wing nuts (1).

- (n) Remove special tool 0 496 715 (24 1 430).

SST: 09300-WA080

- (o) Insert the T40 bolts (1) and tighten lightly.

- (p) Replace the sealing sleeve (1).

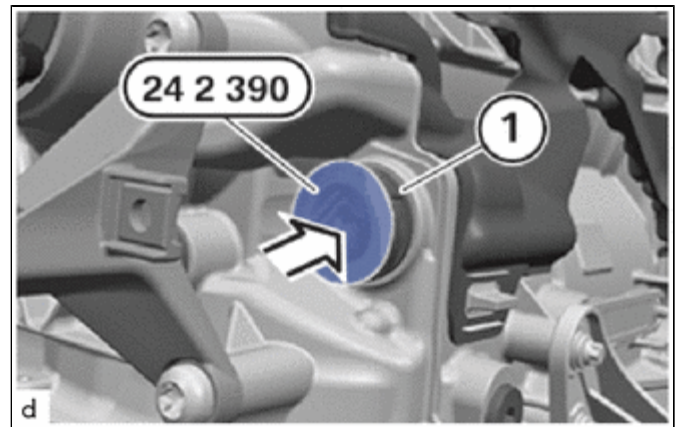
- (q) Carefully position the sealing sleeve (1).

- (r) Twist the sealing sleeve (1) until the lug has been inserted into the groove of the gear.

- (s) Slide in the sealing sleeve (1) in the direction of the arrow up to the limit position.

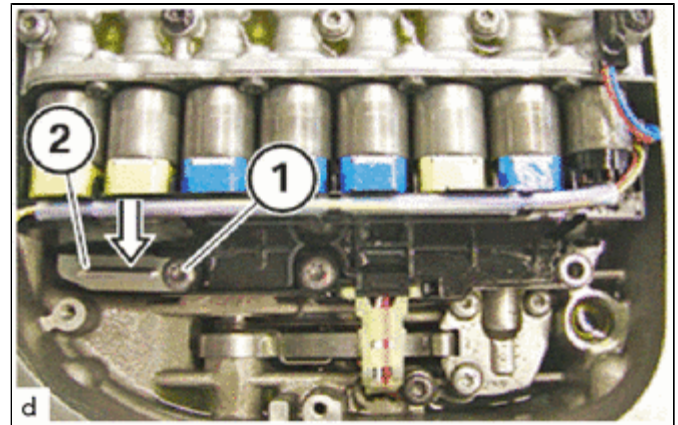
NOTICE:

The lug on the sealing sleeve must not be damaged.



(t) Remove special tool 0 494 213 (24 2 390).

SST: 09300-WA100



(u) Push the slide (2) in the direction of the arrow and lock.

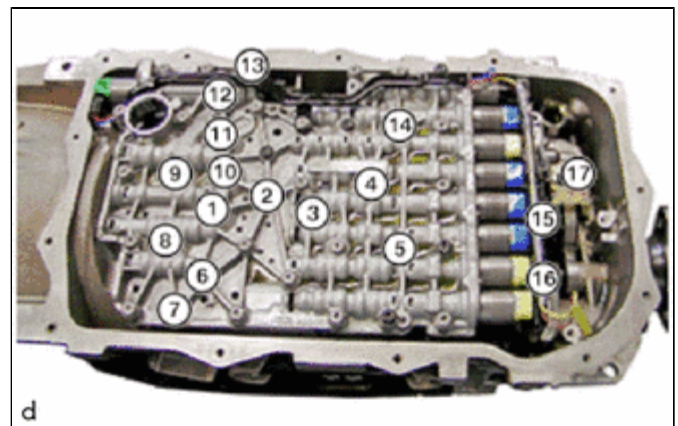
(v) Replace the T40 bolt (1).

(w) Screw in the T40 bolt (1).

(x) Replace T40 bolts.

NOTICE:

- When assembling, it is essential to observe screwing sequences and tightening torques.
- Non-compliance with the regulations can lead to damage.



(y) Tighten the T40 bolts in the order (1) to (16).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(z) Tighten the T40 bolt (17) of the output speed sensor.

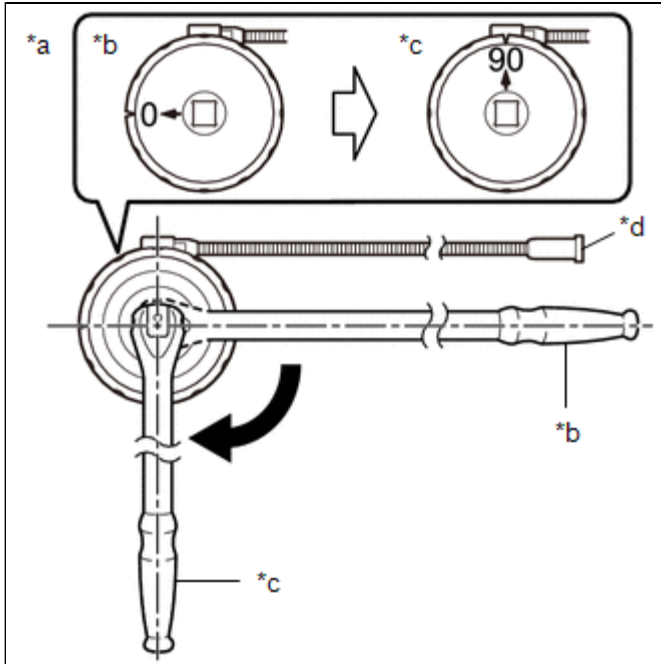
Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(aa) Using SST, tighten the T40 bolt an additional 12°.

SST: 09900-WA010

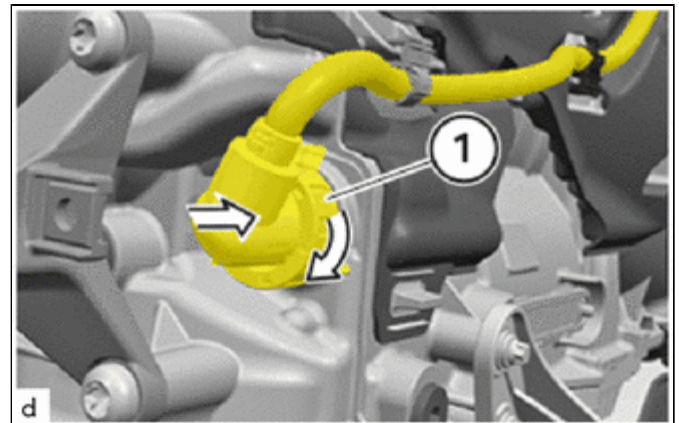
HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(ab) Slide the connector (1) on.



(ac) Twist the connector (1) in the direction of the arrow and lock.

2. INSTALL HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

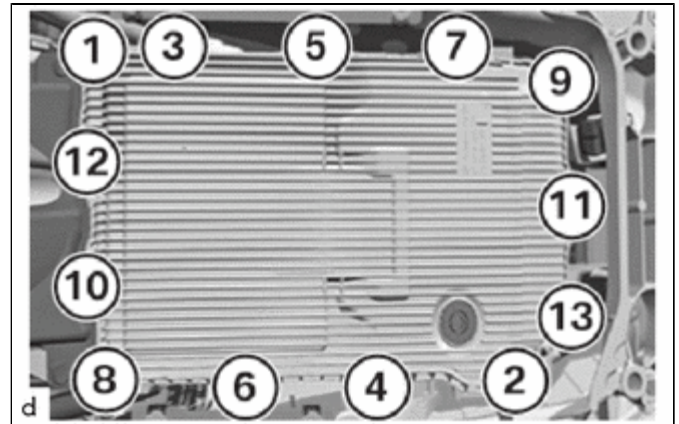
3. INSTALL TRANSMISSION OIL SUMP

HINT:

The transmission oil sump must be replaced each time it is released.

(a) Clean the contact surface of the transmission oil sump on the automatic transmission assembly.

(b) Replace T40 bolts (1) to (13).



(c) Position the transmission oil sump.

(d) Insert T40 bolts until screw heads make contact.

(e) Tighten T40 bolts in the order (1) to (13).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

(f) If necessary, tighten the oil drain plug.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

5. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

6. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

7. INSTALL FRONT FLOOR COVER

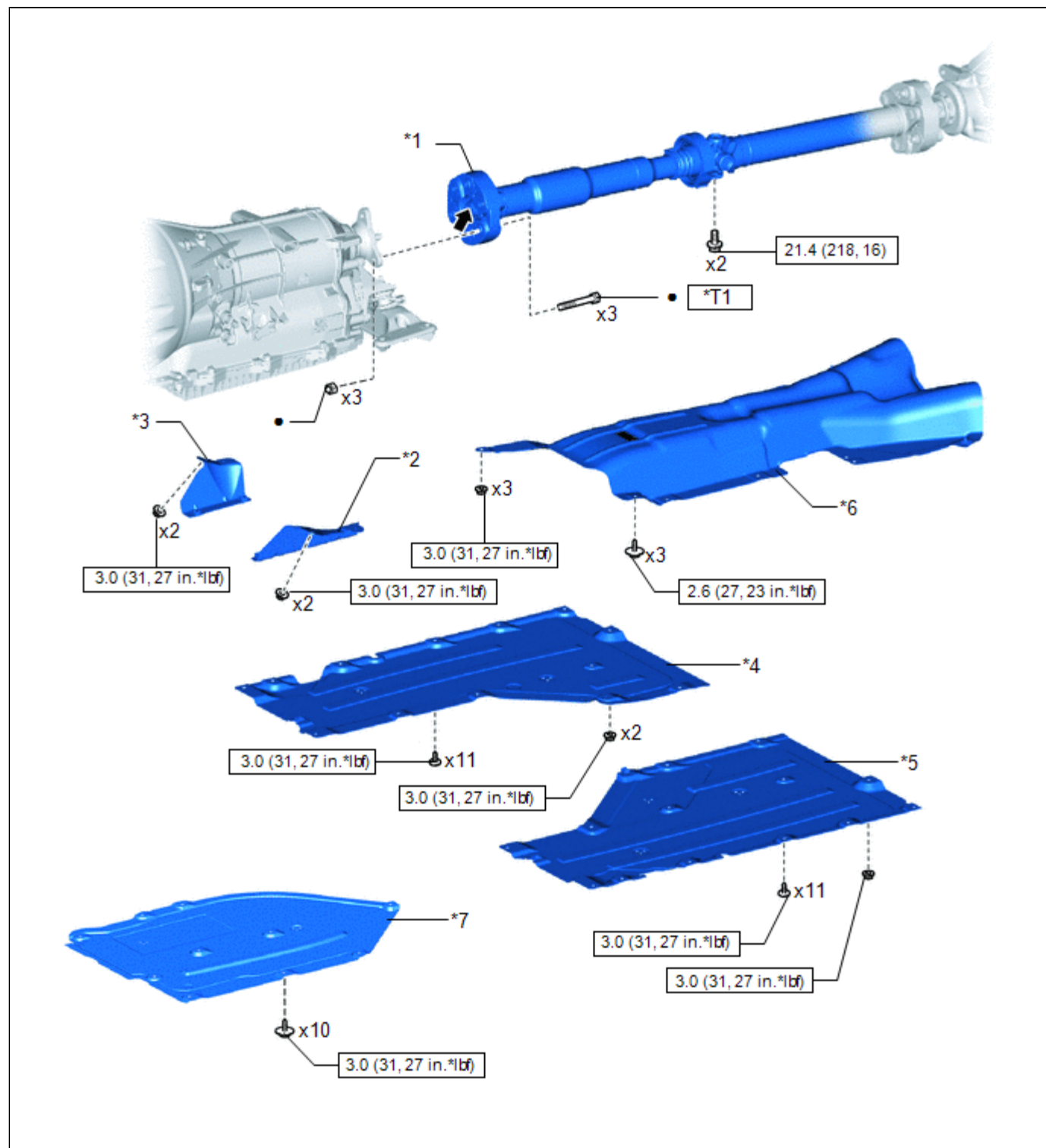
Click here [INFO](#)





Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION WIRE: COMPONENTS; 2020 MY Supra [03/2019 -]		

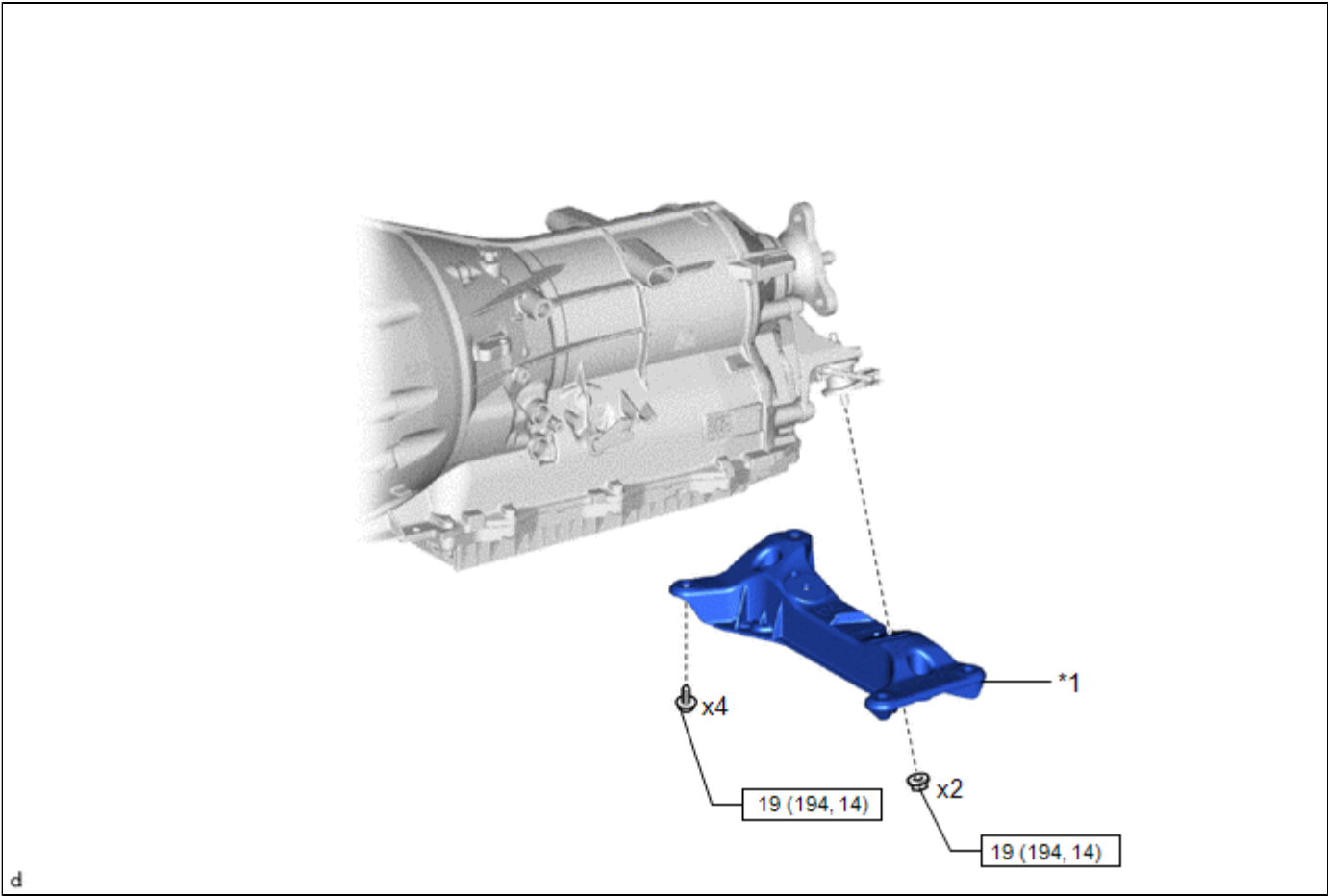
COMPONENTS


ILLUSTRATION



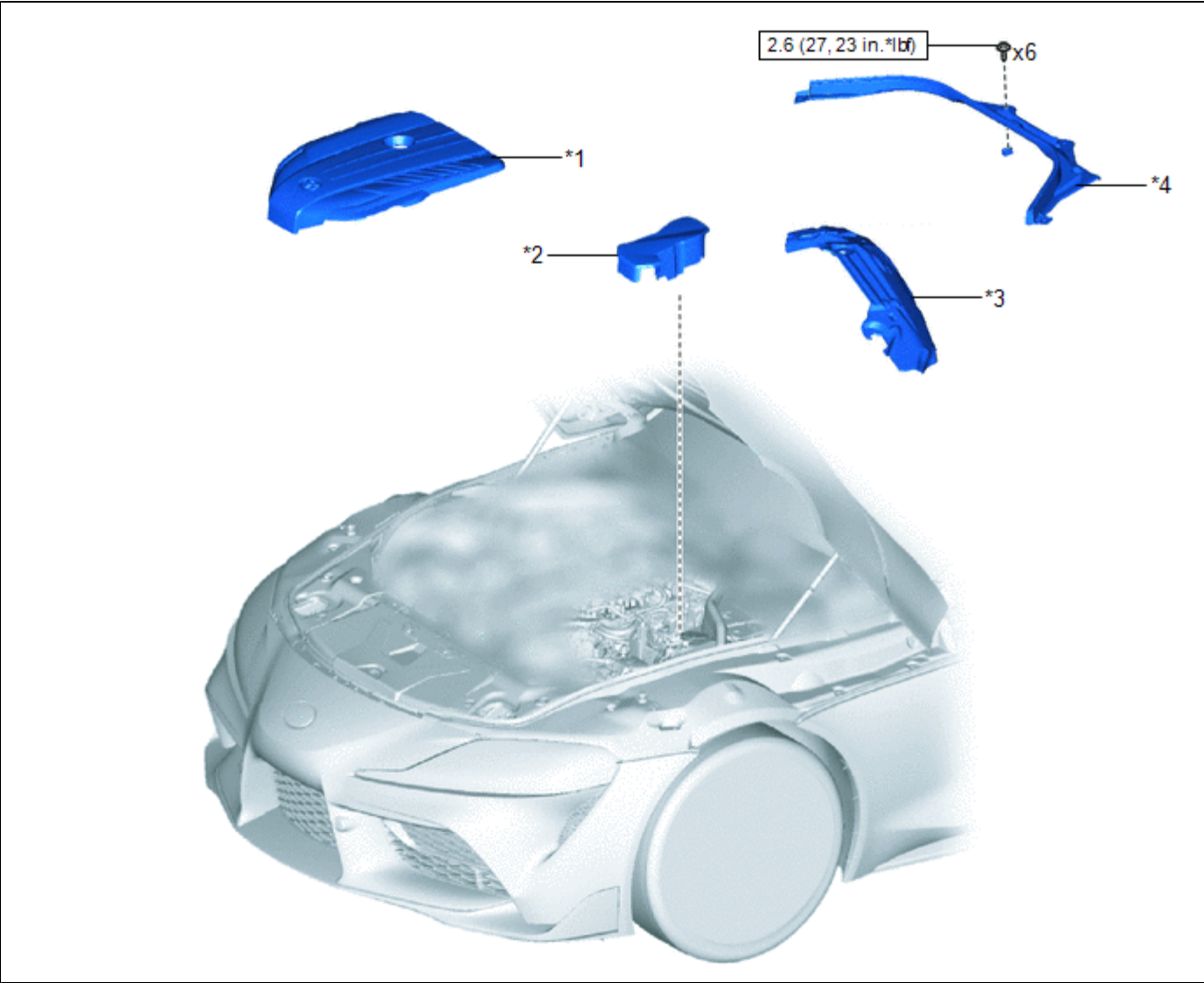
*1	PROPELLER SHAFT ASSEMBLY	*2	NO. 1 FLOOR HEAT INSULATOR
*3	NO. 2 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER RH
*5	FRONT FLOOR COVER LH	*6	FRONT NO. 1 FLOOR HEAT INSULATOR
*7	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Lubricant Olistamoly 2 LN 584 LO
*T1	1st: 55 (561, 41) 2nd: Turn 90°	•	Non-reusable part

ILLUSTRATION



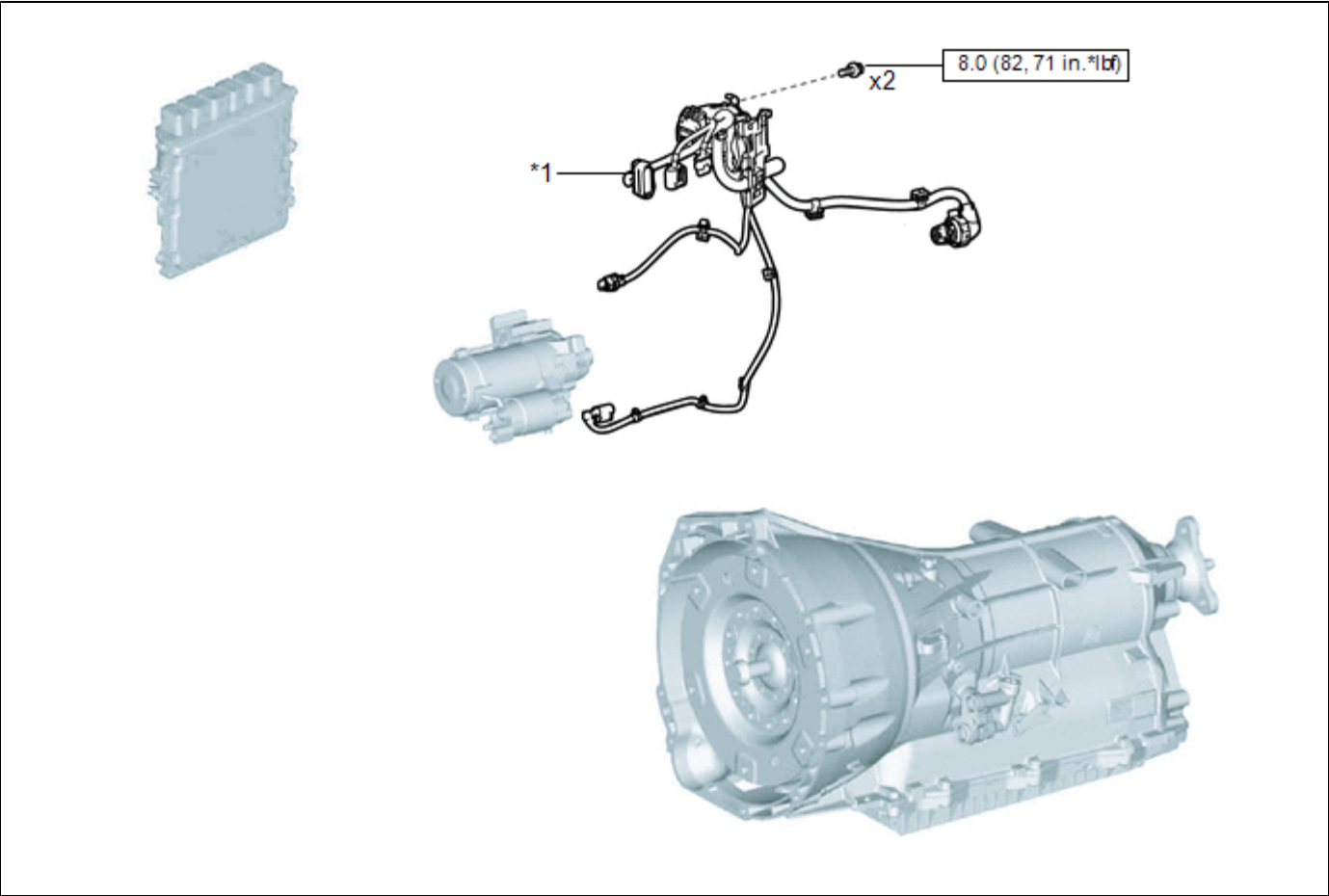
*1	REAR ENGINE MOUNTING MEMBER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	COVER
*3	NO. 1 ENGINE COVER	*4	COWL TOP VENTILATOR LOUVER PROTECTOR

ILLUSTRATION



*1	TRANSMISSION WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION WIRE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

3. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE NO. 1 ENGINE COVER

Click here [INFO](#)

6. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

7. REMOVE FRONT FLOOR COVER LH

Click here [INFO](#)

8. REMOVE FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

9. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

10. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

11. REMOVE NO. 2 FLOOR HEAT INSULATOR

Click here [INFO](#)

12. REMOVE NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

13. REMOVE REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

14. SEPARATE PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

15. DISCONNECT ALL CONNECTORS FROM THE ECM AND FROM THE NO. 1 INTEGRATION RELAY

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

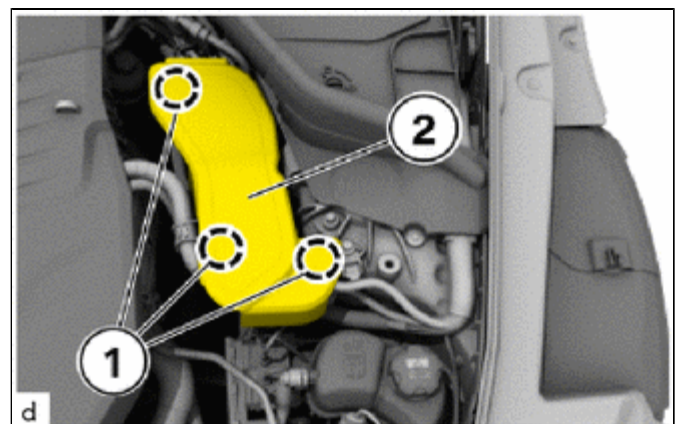
HINT:

- Follow instructions for removing and installing control units.
 - For additional information see:

Click here [INFO](#)

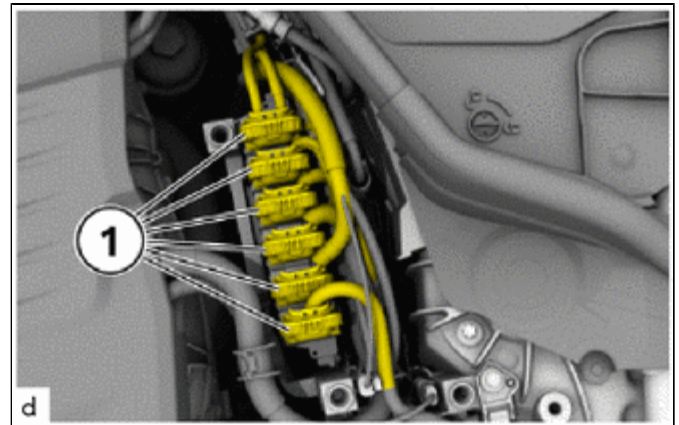
- Disconnecting control units may cause fault code entries and functional limitations. Fault code entries must be read out and deleted if necessary.

(a) Release snap-lock couplings (1).

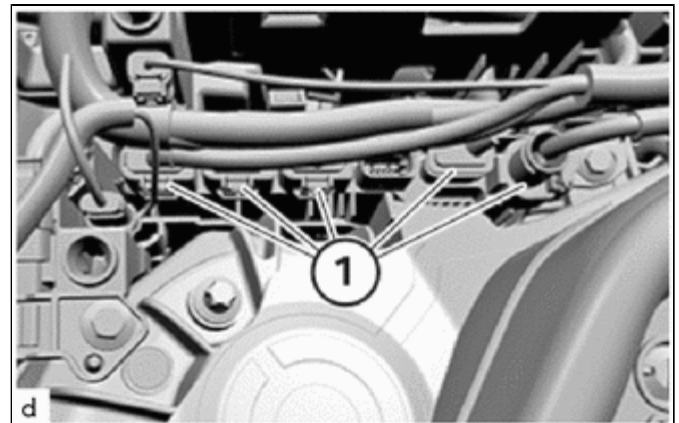


(b) Feed the cover (2) out toward the top and remove.

(c) Unlock and disconnect all plug connections (1).

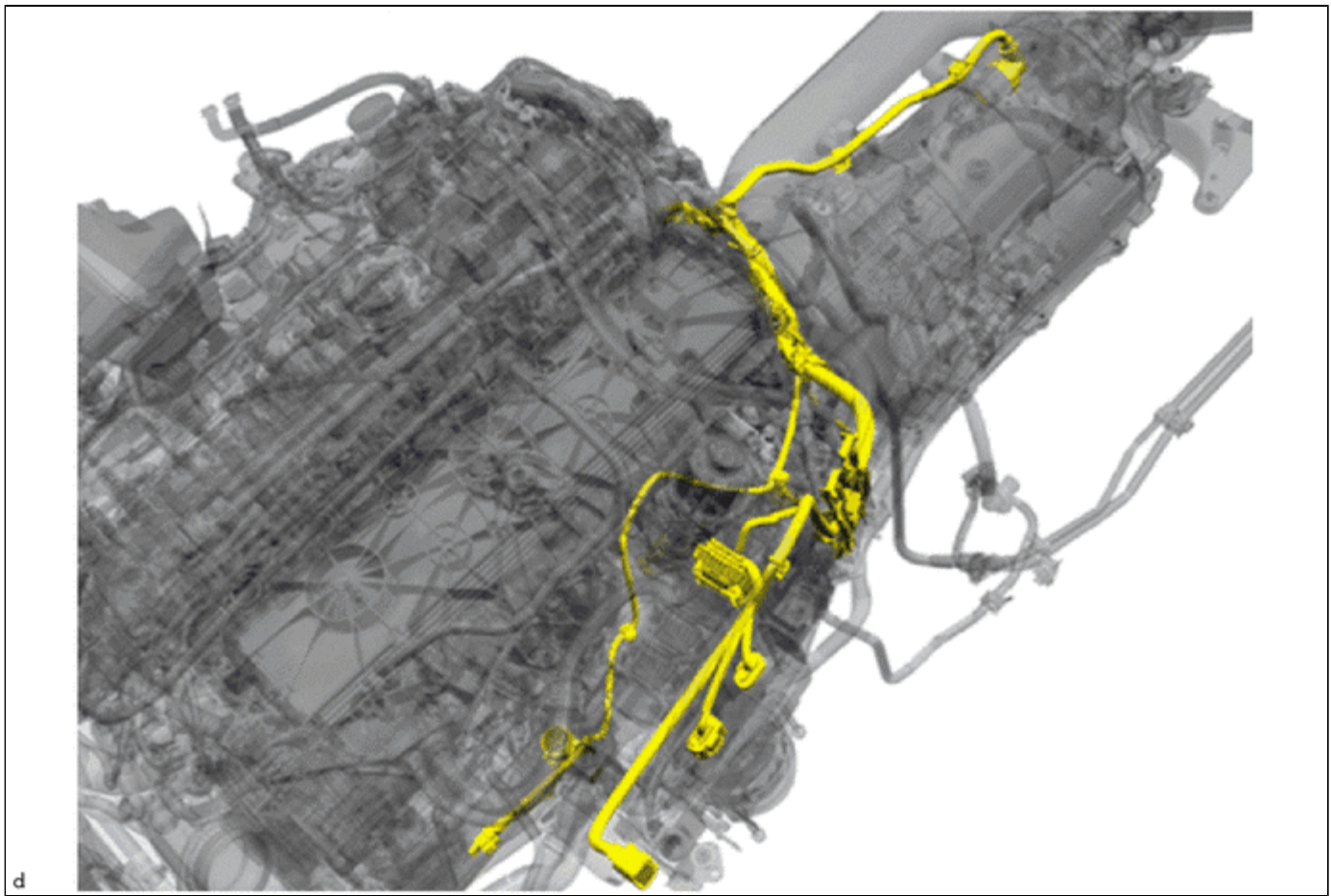


(d) Unlock and disconnect all plug connections (1).



16. REMOVE TRANSMISSION WIRE

(a) Overview of the transmission wire



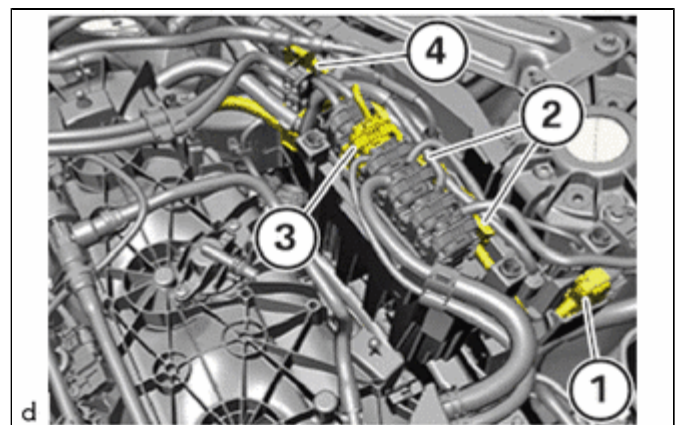
NOTICE:

- Damage to wires when disconnecting connectors and plug connections.

Sheared wires can cause a short circuit.

- Do not pull on the wires when disconnecting connectors and plug connections.

(b) Unlock connector (1) and pull off.

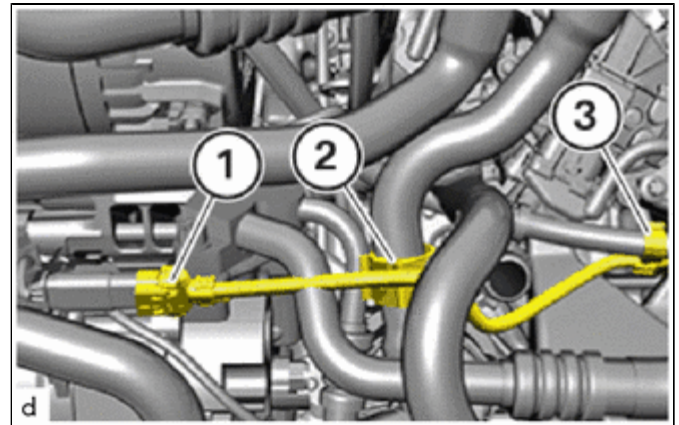


(c) Disconnect connector (2) from the integrated supply module.

(d) Disconnect connector (3) from the ECM.

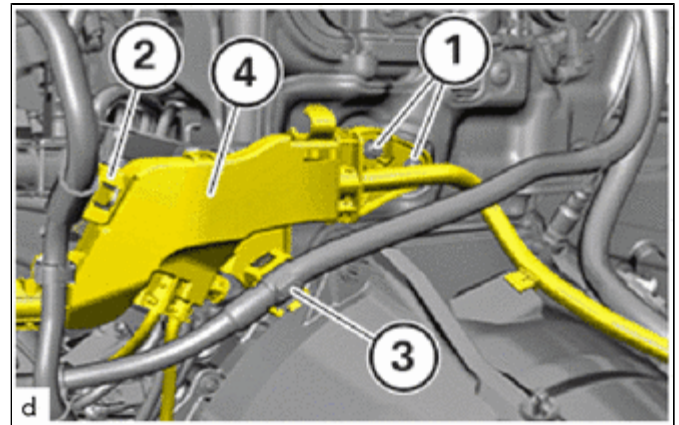
(e) Release transmission wire from bracket (4).

(f) Unlock the connector (1) and disconnect it from the compressor with magnet clutch.



(g) Loosen clamp (2).

(h) Loosen clamp (3).

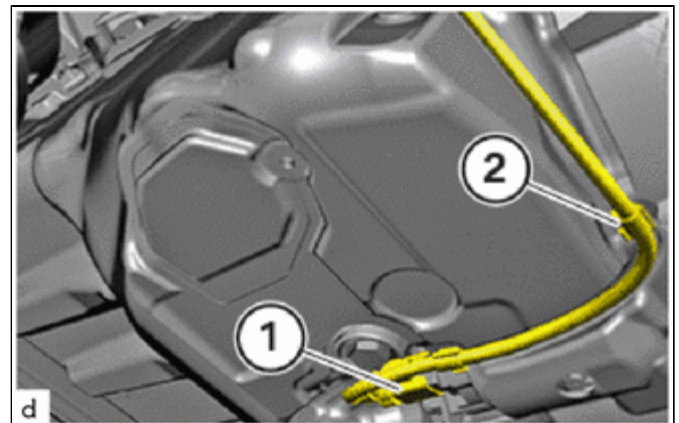


(i) Loosen the E8 bolts (1).

(j) Loosen clamp (2).

(k) Detach positive battery cable at the clamp (3).

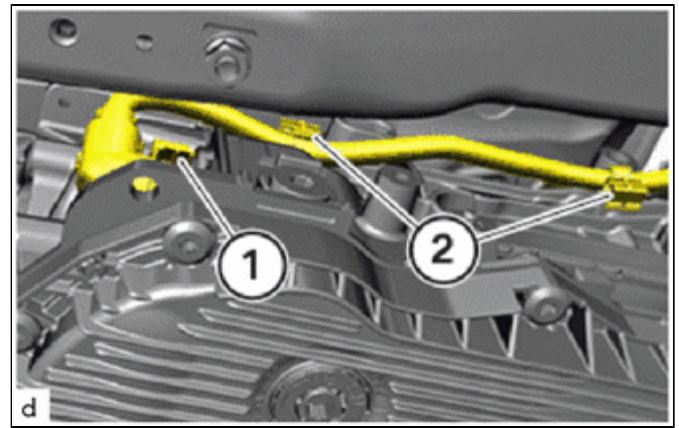
(l) Release cable duct (4) and lay to one side.



(m) Unlock connector (1) and remove from starter assembly.

(n) Detach the cable (2) from the clamps and set it aside.

(o) Unlock the connector (1) on the automatic transmission assembly and pull off.



(p) Loosen the cables from the clamps (2).

(q) Thread out and remove the transmission wire.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION WIRE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION WIRE

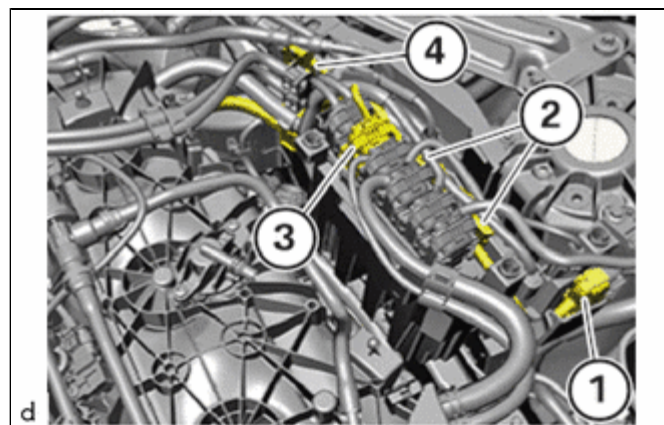
NOTICE:

- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(a) Connect and lock the connector (1).

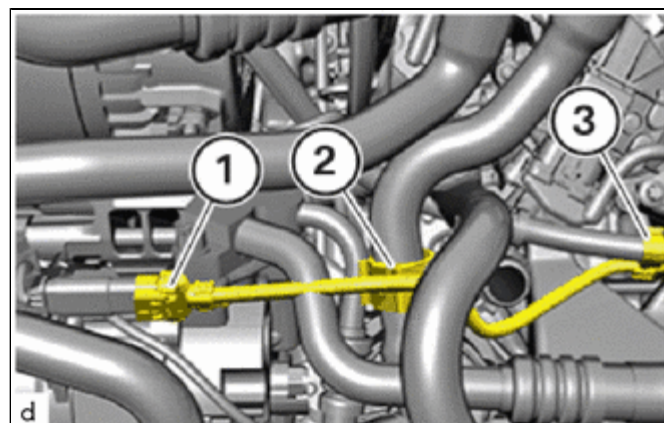


(b) Route the connector (2) to the integrated supply module.

(c) Route the connector (3) to the ECM.

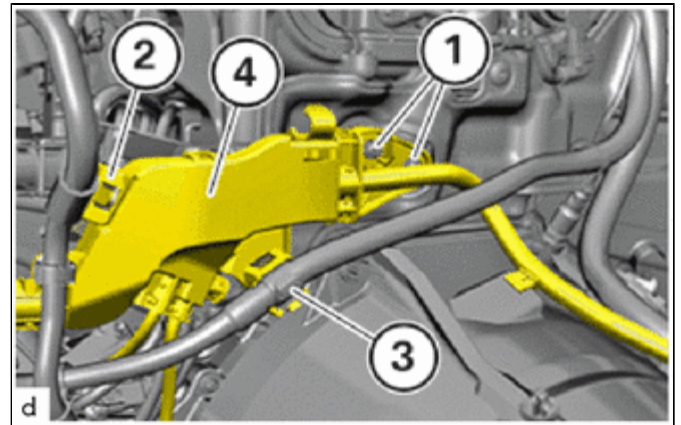
(d) Secure the transmission wire at the bracket (4).

(e) Connect and lock the connector (1) of the compressor with magnet clutch.



- (f) Secure clamps (2).
- (g) Secure clamp (3).

- (h) Mount cable channel (4).



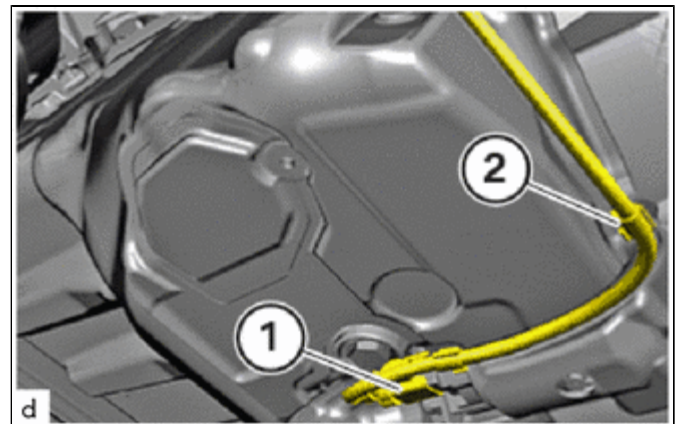
- (i) Tighten the E8 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

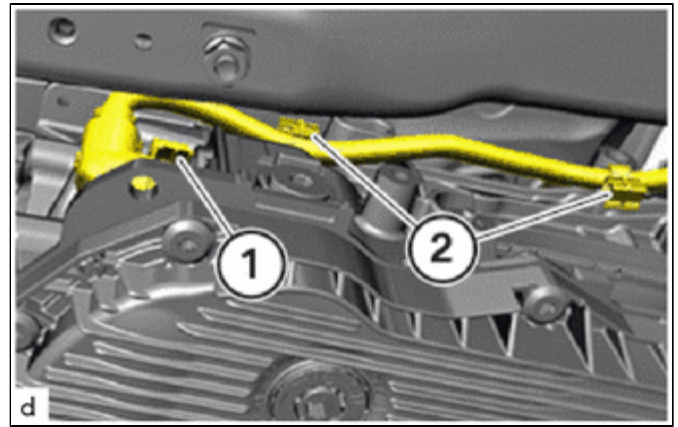
- (j) Lock clamp (2).
- (k) Secure positive battery cable at the clamp (3).

- (l) Connect and lock the connector (1) of the starter assembly.



- (m) Secure the cables (2) to the clamps .

- (n) Connect and lock the connector (1) to the automatic transmission assembly.



(o) Secure the cable with the clamps (2).

2. CONNECT ALL CONNECTORS FROM THE ECM AND FROM THE NO. 1 INTEGRATION RELAY

HINT:

- Follow instructions for removing and installing control units.
- For additional information see:

[Click here](#) **INFO**

- Disconnecting control units may cause fault code entries and functional limitations. Fault code entries must be read out and deleted if necessary.

(a) Connect all connectors and lock.

HINT:

All connectors must engage audibly.

(b) Connect all connectors and lock.

HINT:

All connectors must engage audibly.

(c) Install the cover.

HINT:

The snap-lock couplings must engage audibly.

3. INSTALL PROPELLER SHAFT ASSEMBLY

[Click here](#) **INFO**

4. INSTALL REAR ENGINE MOUNTING MEMBER

[Click here](#) **INFO**

5. INSTALL NO. 2 FLOOR HEAT INSULATOR

[Click here](#) **INFO**

6. INSTALL NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

7. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

8. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

9. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

10. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

11. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

12. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

13. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

14. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

15. INSTALL FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

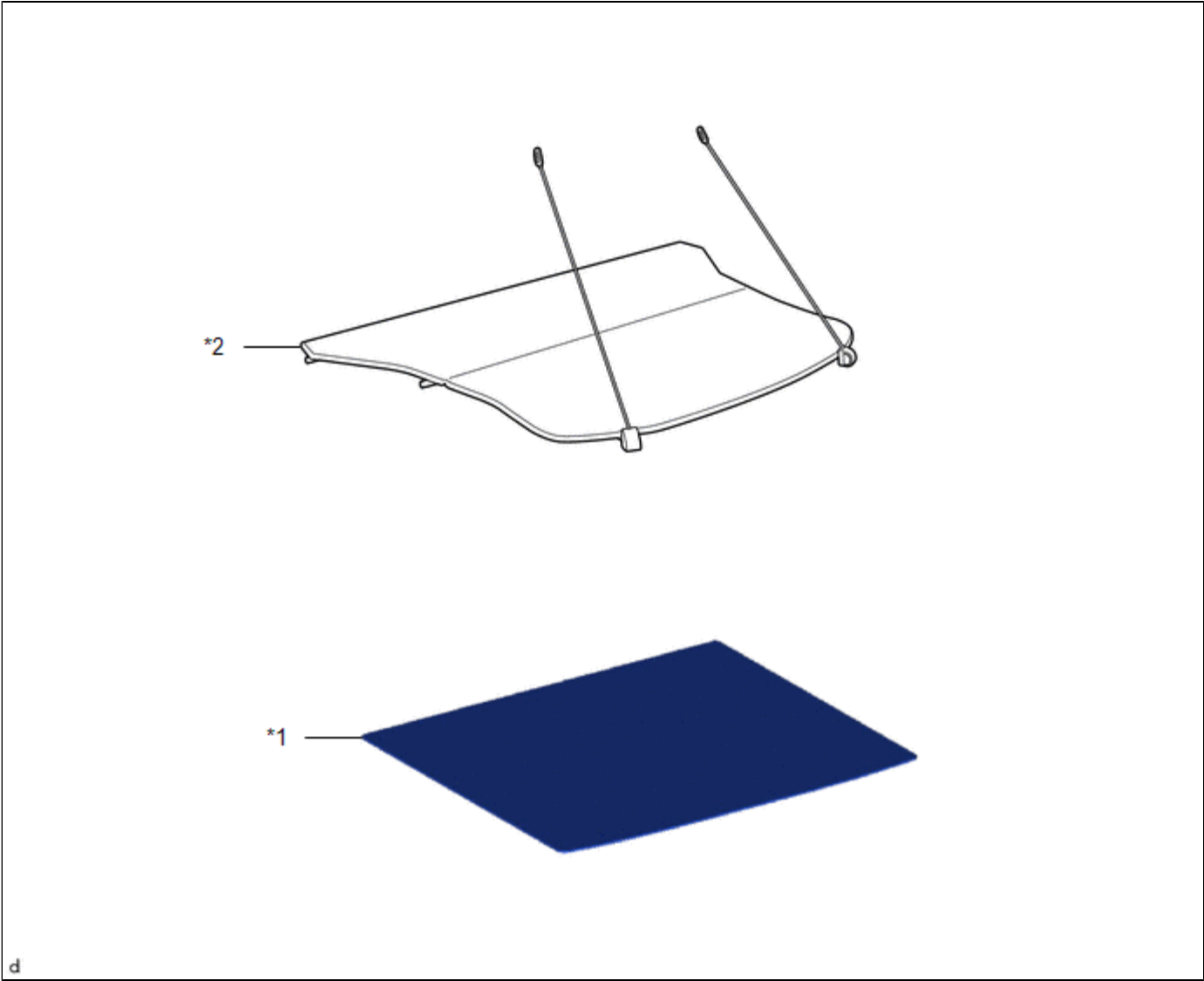
16. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL LOCK ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

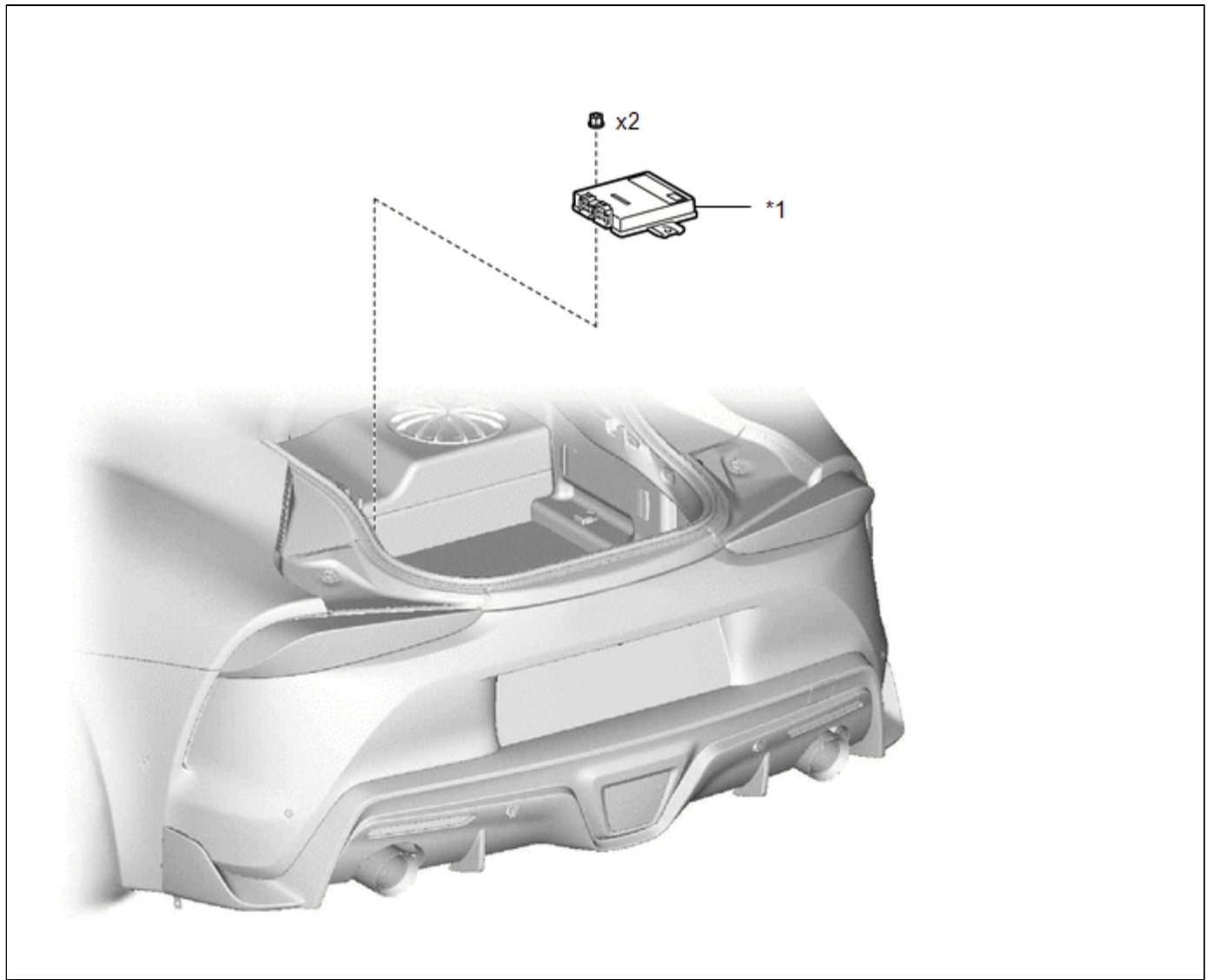
COMPONENTS

ILLUSTRATION



*1	DECK BOARD ASSEMBLY	*2	PACKAGE TRAY TRIM PANEL ASSEMBLY
----	---------------------	----	----------------------------------

ILLUSTRATION



*1	DIFFERENTIAL LOCK ECU	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL LOCK ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

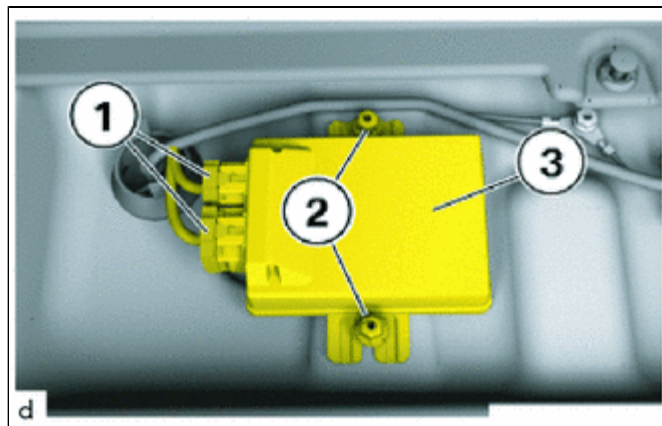
Click here [INFO](#)

2. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

3. REMOVE DIFFERENTIAL LOCK ECU

(a) Unlock and disconnect plug connections (1).



(b) Loosen nuts (2).

(c) Remove the differential lock ECU (3).

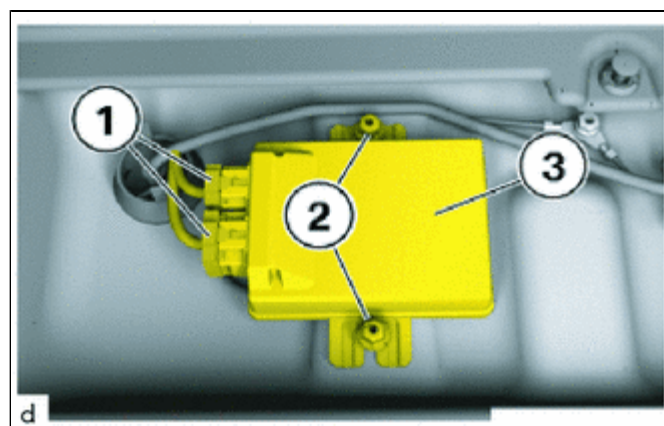
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL LOCK ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL DIFFERENTIAL LOCK ECU

(a) Position the differential lock ECU (3).



(b) Tighten nuts (2).

(c) Connect connectors (1) and lock.

2. INSTALL DECK BOARD ASSEMBLY

Click here [INFO](#)

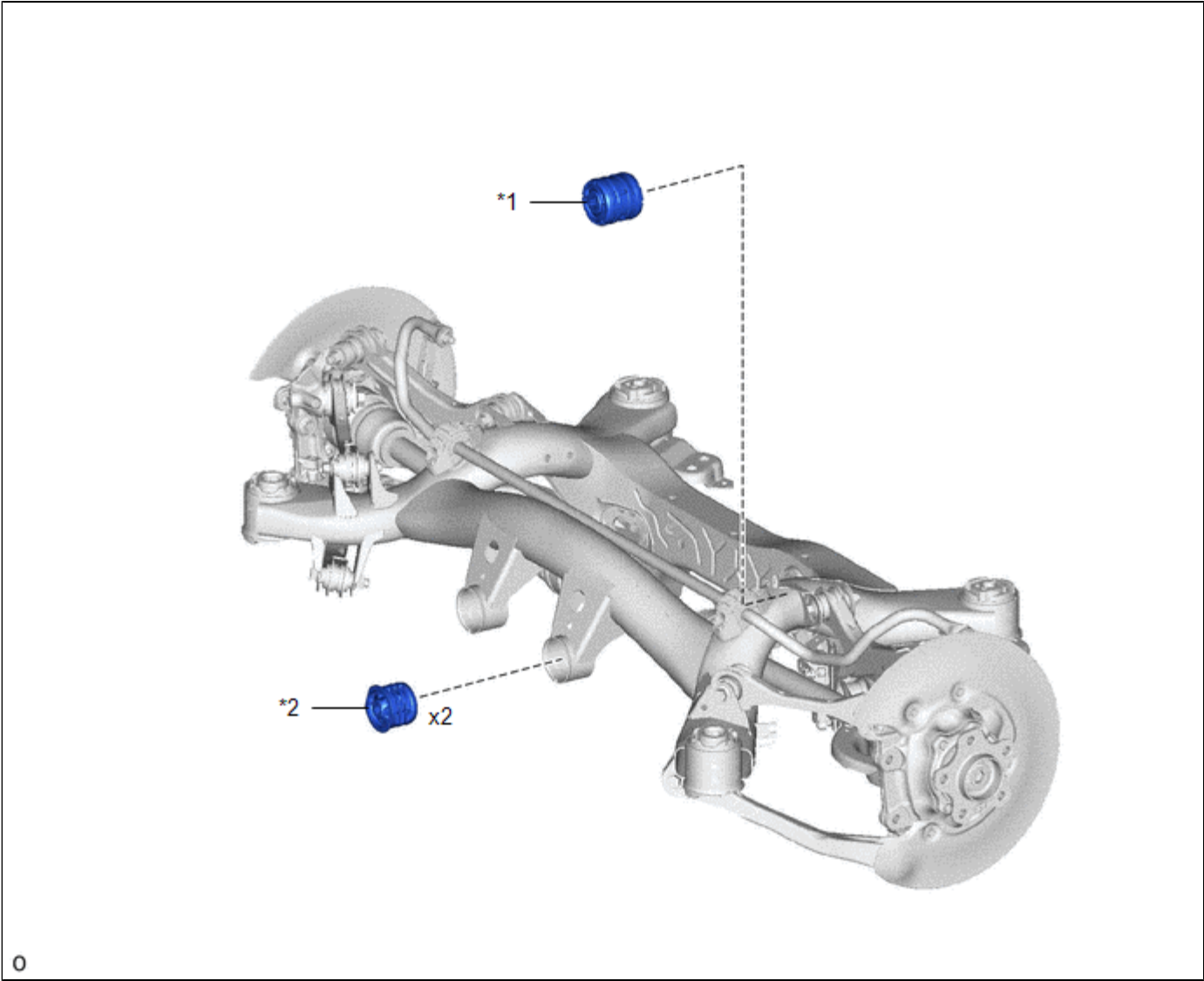
3. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL MOUNT CUSHION: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR NO. 1 DIFFERENTIAL MOUNT CUSHION	*2	REAR NO. 2 DIFFERENTIAL MOUNT CUSHION
----	---------------------------------------	----	---------------------------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL MOUNT CUSHION: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE REAR SUSPENSION MEMBER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE REAR NO. 2 DIFFERENTIAL MOUNT CUSHION

HINT:

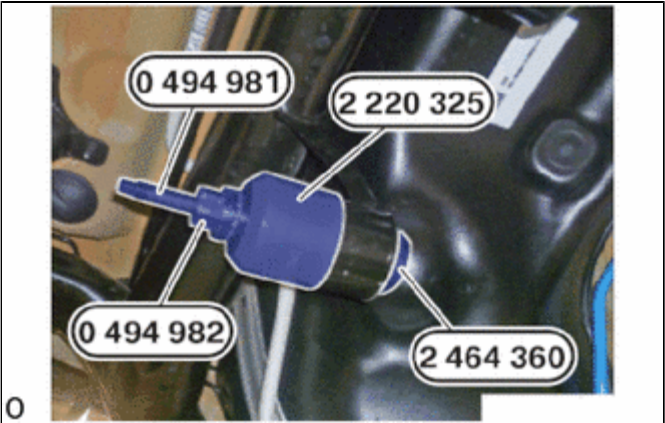
Use the same procedure for the opposite side.

- (a) Pull rear No. 2 differential mount cushion out from the rear suspension member sub-assembly using special tools (2 464 360, 2 220 325 (33 0 181), 0 494 981 (33 4 465) and 0 494 982 (33 4 466)) and remove.

SST: 09500-WA150
SST: 09500-WA260

HINT:

Ensure that the special tool (2 220 325 (33 0 181) is correctly positioned on the rear suspension member sub-assembly.

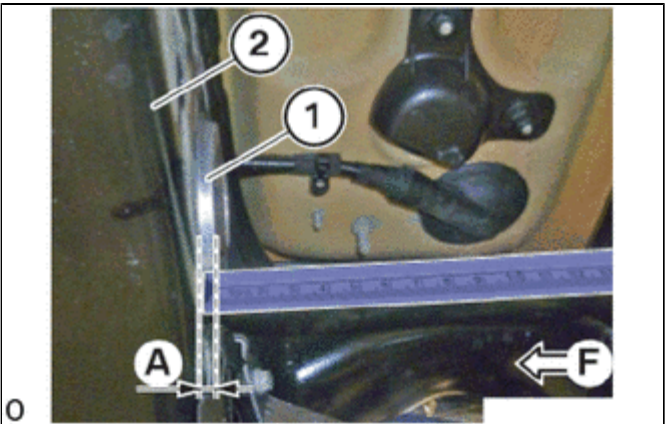


3. REMOVE REAR NO. 1 DIFFERENTIAL MOUNT CUSHION

- (a) Before removal it is essential to measure the protrusion (A) of the rear No. 1 differential mount cushion on the rear suspension member sub-assembly.

HINT:

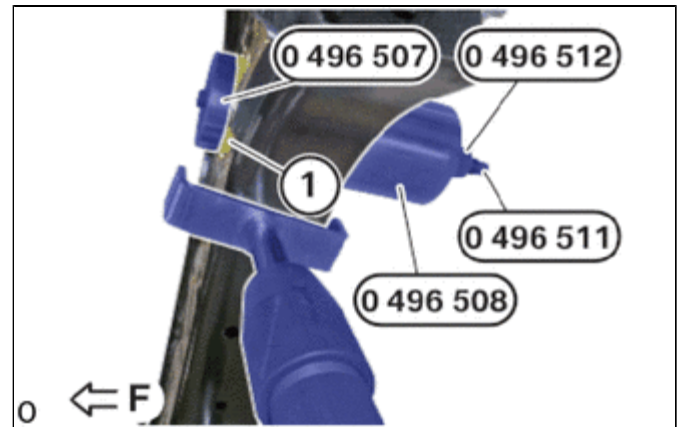
Respect direction of travel (F).



(b) Pull the rear No. 1 differential mount cushion (1) out of the rear suspension member sub-assembly using special tools (0 496 507 (33 0 031), 0 496 508 (33 0 032), 0 496 511 (33 0 035) and 0 496 512 (33 0 036)) remove.

HINT:

Respect direction of travel (F).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL MOUNT CUSHION: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL REAR NO. 1 DIFFERENTIAL MOUNT CUSHION

- (a) Position the rear No. 1 differential mount cushion (1) before assembly so that the arrow (2) is pointing upwards.

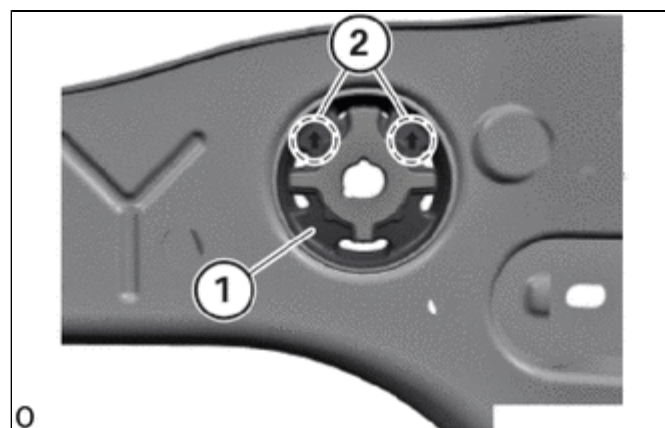
HINT:

A mark can be made on the outer area of the rear No. 1 differential mount cushion (1) to check the assembly position of the rear No. 1 differential mount cushion.

Position of the rear No. 1 differential mount cushion:

Permissible rotation in relation to the vertical

-5° to 5°

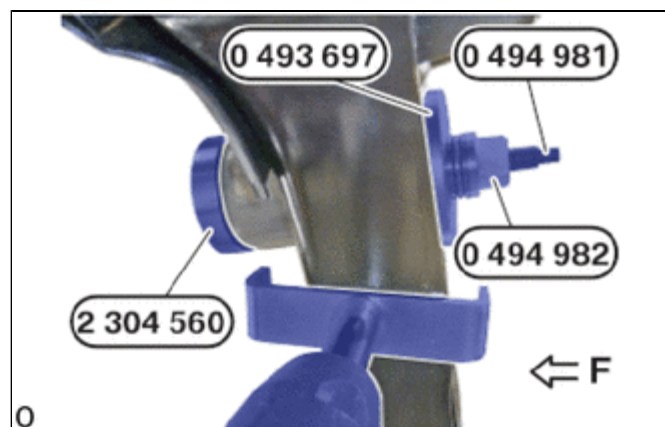


- (b) Position the rear No. 1 differential mount cushion on the rear suspension member sub-assembly using the special tools (2 304 560 , 0 493 697 (33 3 233), 0 494 982 (33 4 466) and 0 494 981 (33 4 465)).

SST: 09500-WA320

HINT:

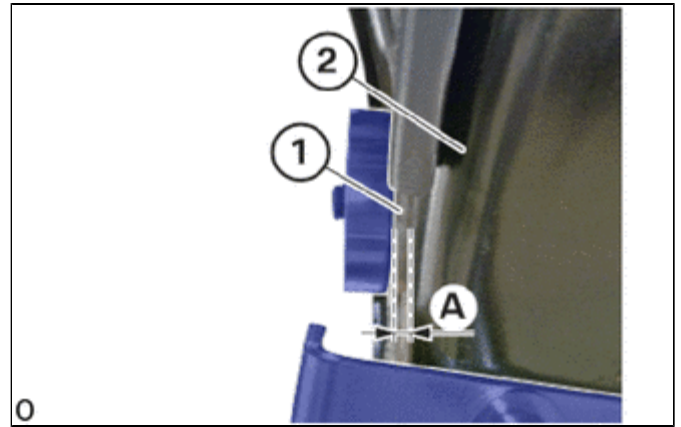
Respect direction of travel (F).



- (c) Pull rear No. 1 differential mount cushion (1) into the rear suspension member sub-assembly (2) using special tool until the protrusion (A) is reached.

HINT:

Prepare protrusion (A), which has been determined before removing the rear No. 1 differential mount cushion.



(d) Remove special tools.

2. INSTALL REAR NO. 2 DIFFERENTIAL MOUNT CUSHION

HINT:

Use the same procedure for the opposite side.

(a) Position the rear No. 2 differential mount cushion before installation so that the arrows in the marked areas point upwards.

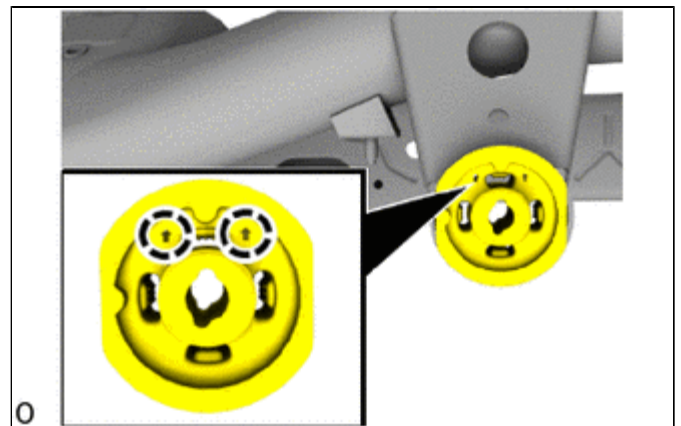
HINT:

A mark can be made on the outer area of the rear No. 2 differential mount cushion to check the installation position of the rear No. 2 differential mount cushion.

Position of the rear No. 2 differential mount cushion:

Permissible rotation in relation to the vertical

-7° to 7°



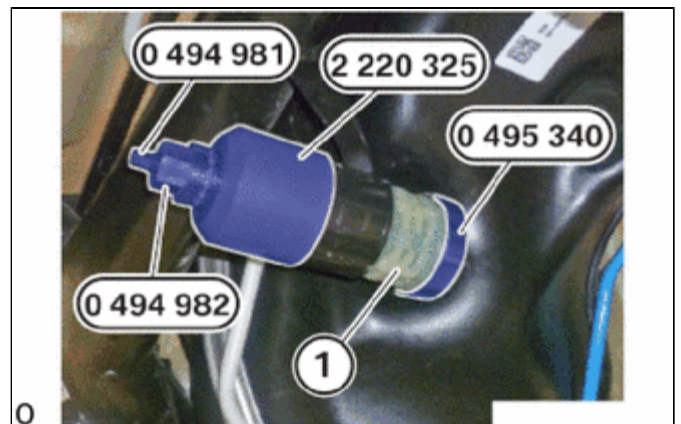
(b) Pull the rear No. 2 differential mount cushion into the rear suspension member sub-assembly using special tools (0 495 340 (33 4 351), 2 220 325 (33 0 181), 0 494 981 (33 4 465) and 0 494 982 (33 4 466)).

SST: 09500-WA150

SST: 09500-WA260

HINT:

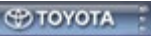
Ensure that the special tool (2 220 325 (33 0 181)) is correctly positioned on the rear suspension member sub-assembly.



(c) Remove special tools.

3. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY

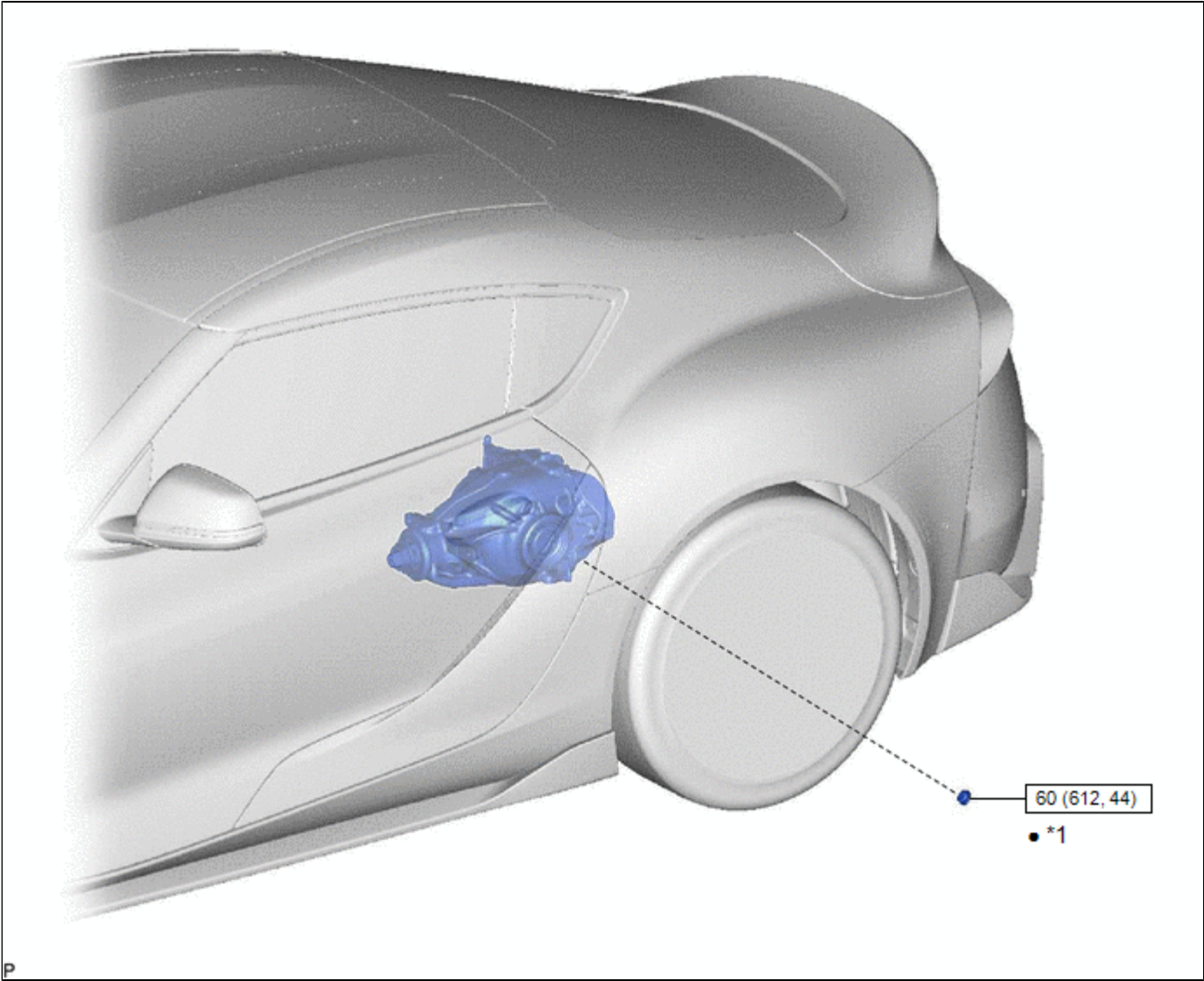
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL OIL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL FILLER PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL OIL: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Contact with hazardous fluids.

Hazardous to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to rear differential carrier assembly.

Failure to comply with the oil specifications can result in serious damage to the rear differential carrier assembly.

- After completion of repair work, check the differential oil level in the rear differential carrier assembly.
- Use only the approved differential oil.

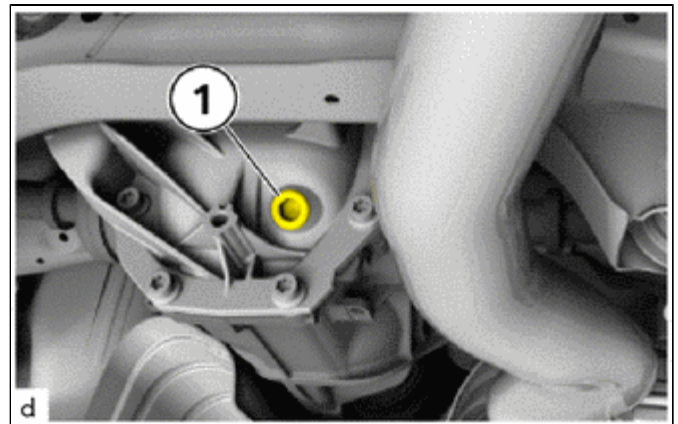
HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. INSPECT DIFFERENTIAL OIL

- (a) Using a 14 mm straight hexagon wrench, open the oil filler plug (1).



- (b) Check oil level:

- (1) If necessary, top up rear differential carrier assembly oil up to the lower edge of the oil filler plug opening (1).

Differential oil:

Hypoid Axle Oil G4

Standard differential oil capacity:

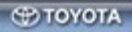
1.0 liters (1.1 US qts, 0.9 Imp. qts)

(c) Replace the oil filler plug with O-ring (1).

(d) Using a 14 mm straight hexagon wrench, tighten the oil filler plug (1).

Torque:

60 N·m {612 kgf·cm, 44 ft·lbf}



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL OIL: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

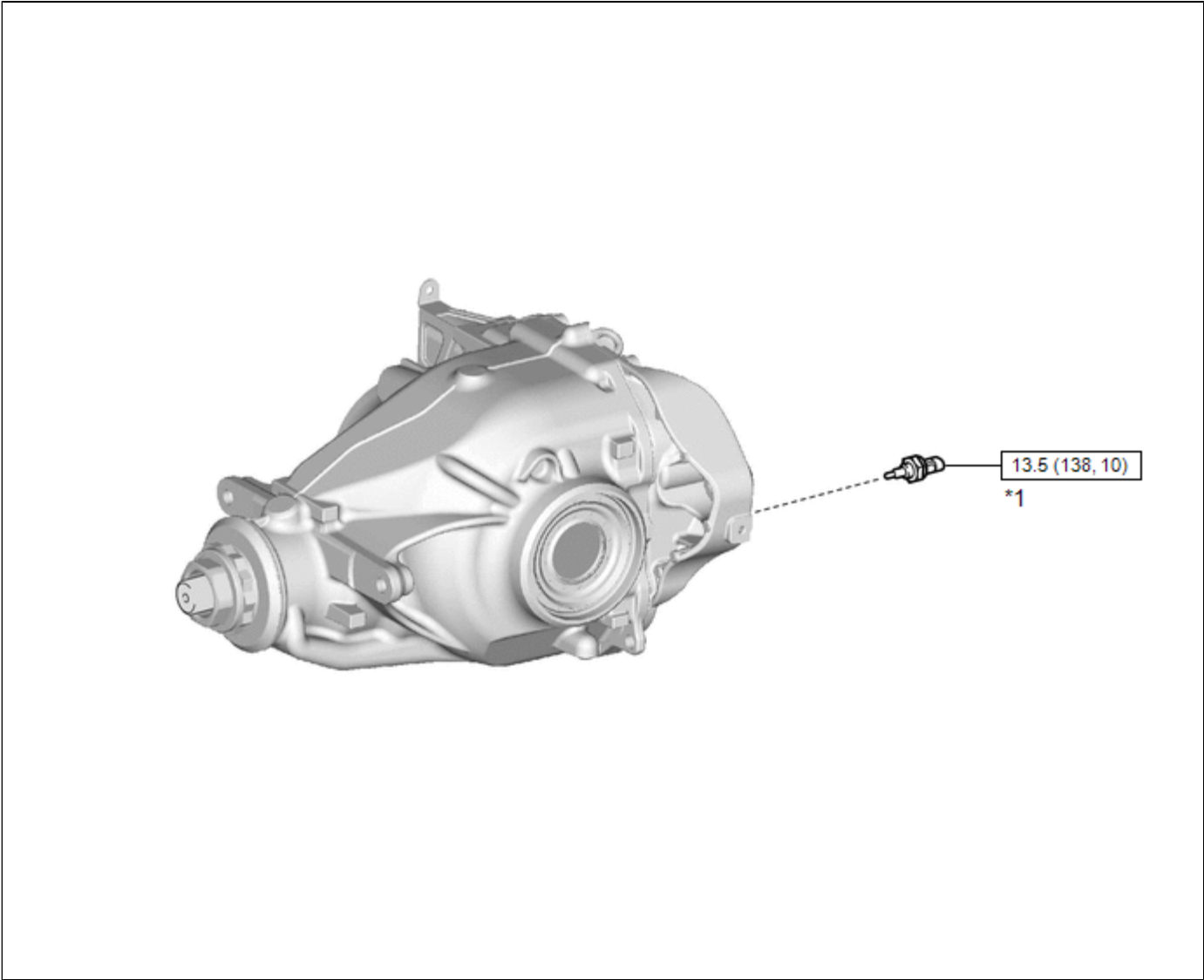
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL OIL TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL TEMPERATURE SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL OIL TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

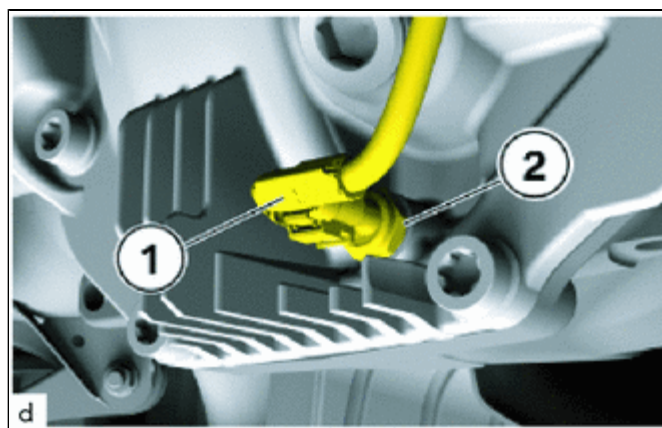
PROCEDURE

1. DRAIN DIFFERENTIAL OIL

Click here [INFO](#)

2. REMOVE OIL TEMPERATURE SENSOR

(a) Unlock plug connection (1) and disconnect.



(b) Using a 17 mm deep socket wrench, release and remove oil temperature sensor (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJ7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: DIFFERENTIAL OIL TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OIL TEMPERATURE SENSOR

- (a) Install the oil temperature sensor.
- (b) Using a 17 mm deep socket wrench, tighten the oil temperature sensor.

Torque:
13.5 N·m {138 kgf·cm, 10 ft·lbf}

- (c) Connect connectors and lock.

2. ADD DIFFERENTIAL OIL

Click here [INFO](#)

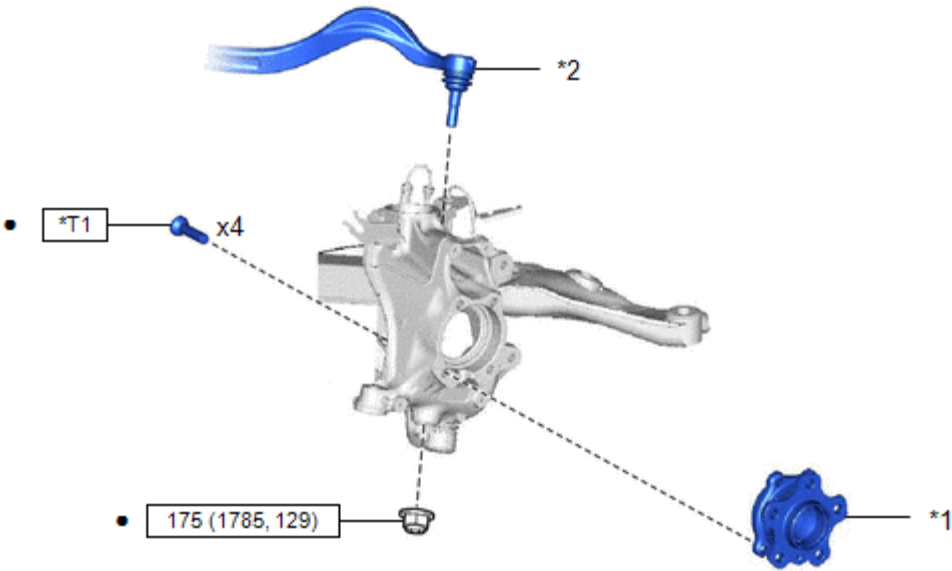
3. INSPECT DIFFERENTIAL OIL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT AXLE HUB SUB-ASSEMBLY	*2	FRONT UPPER SUSPENSION ARM ASSEMBLY
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

*T1	1st: 120 (1224, 89) 2nd: Turn 90°	-	-
-----	--------------------------------------	---	---

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE FRONT BRAKE DISC

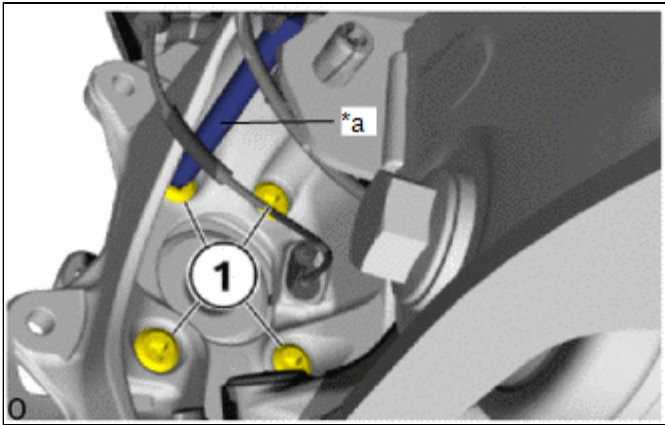
Click here [INFO](#)

2. DISCONNECT FRONT UPPER SUSPENSION ARM ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT AXLE HUB SUB-ASSEMBLY

(a) Release the T60 bolts (1).



*a	Long "TORX" Socket Wrench
----	---------------------------

(b) Remove front axle hub sub-assembly.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

PROCEDURE

1. NOTES ON WHEEL BEARING REPLACEMENT FOLLOWING ACCIDENT DAMAGE

- (a) In the event of accidents or driving conditions similar to accidents, shock-like loads to the wheel bearing units can cause slight damage to the bearing track. Despite initial running without noise, with continued use, this results in later noise generation at the wheel bearing.

2. PROCEDURE FOR WHEEL BEARING

- (a) The wheel bearing must be replaced on the damaged side of the axle if one or several of the following points apply.
- (1) Visible or noticeable damage to the wheel bearing
 - (2) Rolling noises, radial/lateral runout on the wheel bearing
 - (3) Permissible tolerance for the wheel alignment is exceeded and no longer adjustable without the exchange of additional components
 - (4) Damage, permanent deformation or breakages on wheel rims (severe damage) and simultaneous negative result of the wheel alignment
 - (5) Damage, permanent deformation or breakages on shock absorber assemblies, steering knuckles or axle hubs
 - (6) Damage, permanent deformation or breakages on suspension arms
 - (7) Damage, permanent deformation or breakages on pressure and rear floor panel brace or stabilisers with this function
 - (8) Damage, permanent deformation or breakages on body side attachment points of wheel guide parts
 - (9) Damage, permanent deformation or breakages on tie rod end sub-assemblies
 - (10) Damage, permanent deformation or breakages on steering gear mounting



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: FRONT AXLE HUB: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

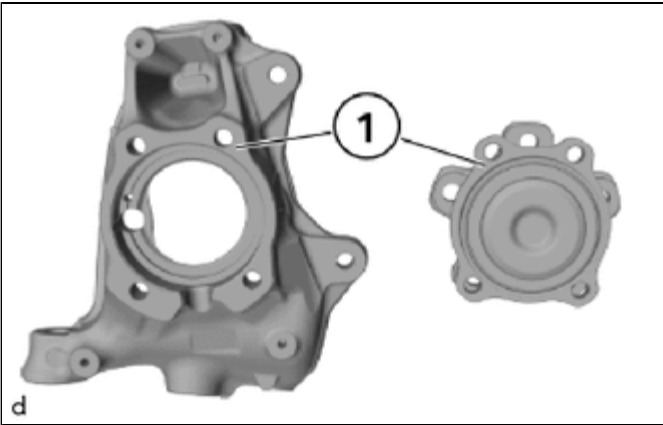
CAUTION / NOTICE / HINT

- HINT:**
- Use the same procedure for the RH side and LH side.
 - The following procedure is for the LH side.

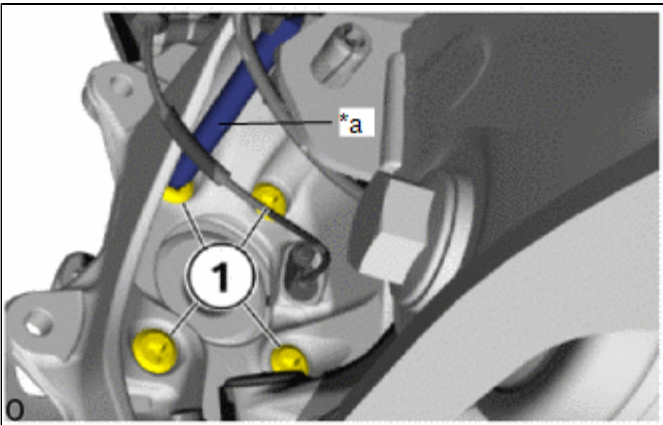
PROCEDURE

1. INSTALL FRONT AXLE HUB SUB-ASSEMBLY

- (a) Make sure that the contact surfaces (1) on the steering knuckle and front axle hub sub-assembly are clean and free from oil and grease.



- (b) Position front axle hub sub-assembly.



*a	Long "TORX" Socket Wrench
----	---------------------------

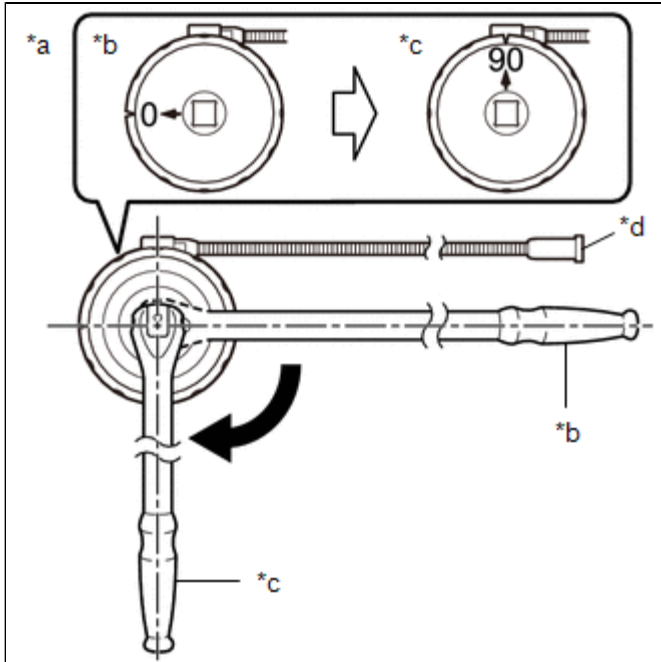
- (c) Replace T60 bolts (1).
- (d) Tighten the T60 bolts (1).

Torque:

120 N·m {1224 kgf·cm, 89 ft·lbf}

(e) Using SST, tighten the T60 bolts (1) an additional 90°.

SST: 09900-WA010



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

2. CONNECT FRONT UPPER SUSPENSION ARM ASSEMBLY

Click here [INFO](#)

3. INSTALL FRONT BRAKE DISC

Click here [INFO](#)

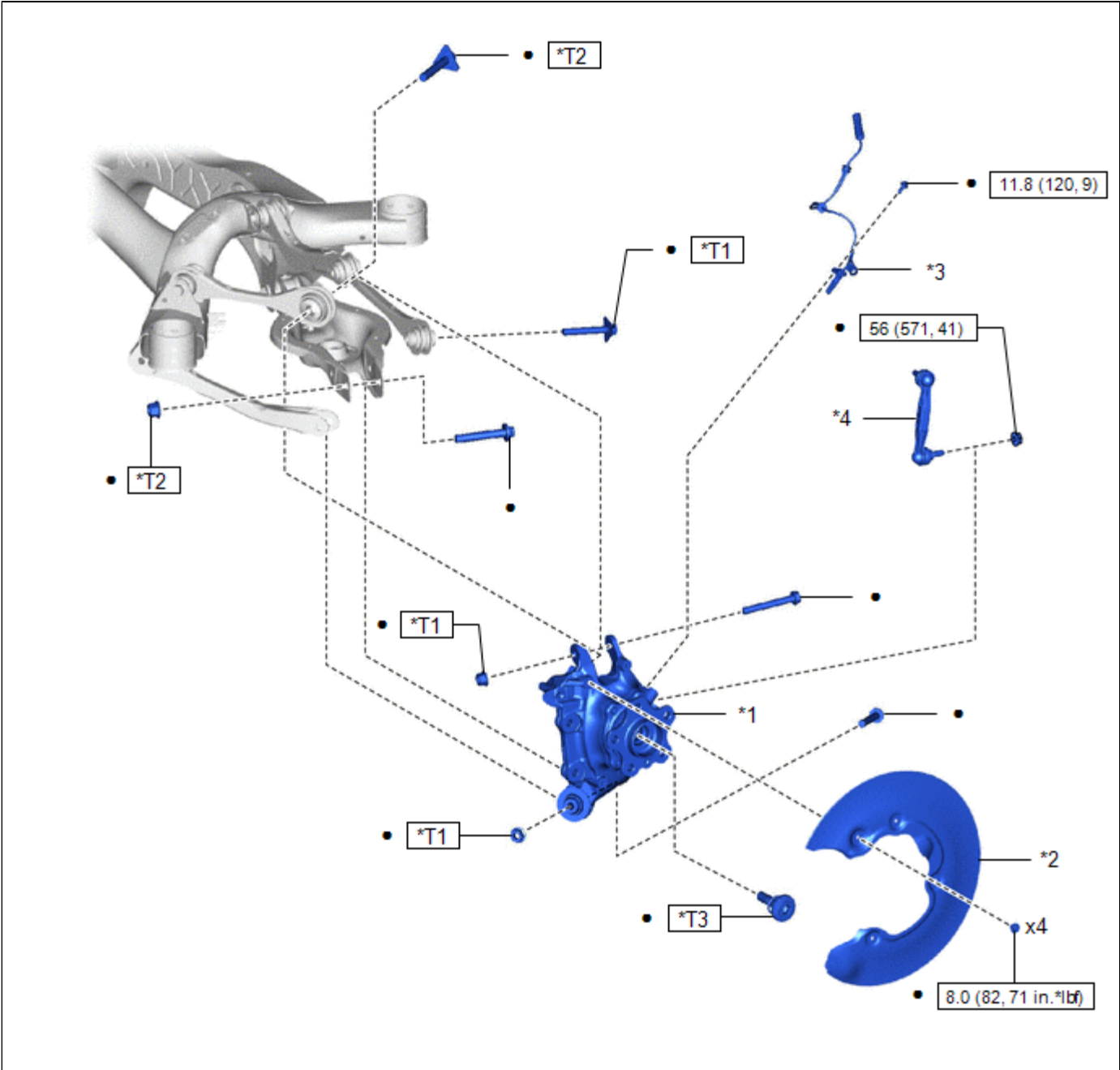
4. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR AXLE CARRIER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR AXLE CARRIER SUB-ASSEMBLY	*2	REAR DISC BRAKE DUST COVER
*3	SKID CONTROL SENSOR	*4	REAR STABILIZER LINK ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

			
*T1	1st: 100 (1020, 74) 2nd: Turn 90°	*T2	1st: 165 (1683, 122) 2nd: Turn 90°
*T3	1st: 210 (2141, 155) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR AXLE CARRIER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Motor vehicle may slip off the vehicle hoist if the weight is distributed unevenly.

Danger! Life-threatening injuries!

- Ensure there is a specific weight compensation on the motor vehicle.

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

- Effects on other persons.

Danger of injury! Risk of damage!

- Make sure that no other persons are in or around the vehicle.

HINT:

- Tighten the screw connection in the normal position.
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.
- During work on the rear brake, it must be ensured that the button for the electromechanical parking brake cannot be pressed.

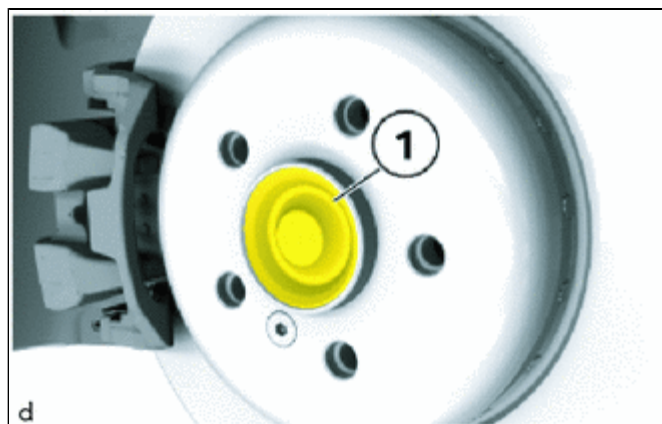
PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

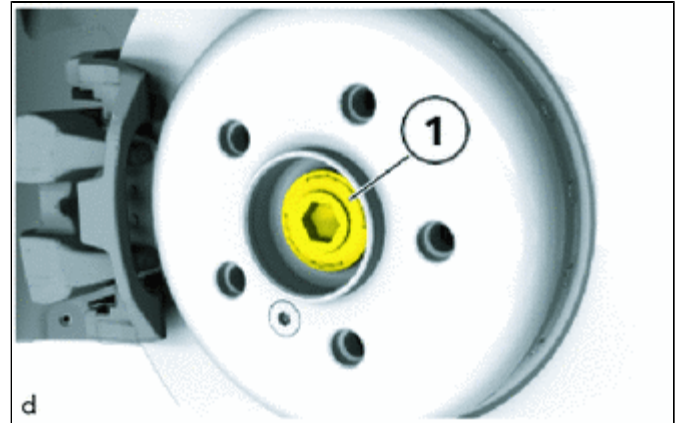
2. SEPARATE REAR DRIVE SHAFT ASSEMBLY

(a) Remove the sealing cap (1).



(b) Press brake pedal.

(c) Using a 17 mm straight hexagon wrench, loosen the 17 mm hexagon bolt (1).



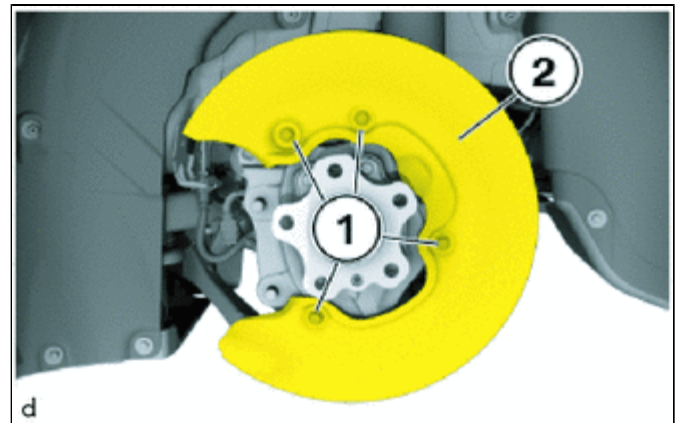
(d) Separate the rear drive shaft assembly towards the center of vehicle.

3. REMOVE REAR BRAKE DISC

Click here [INFO](#)

4. REMOVE REAR DISC BRAKE DUST COVER

(a) Loosen bolts (1).



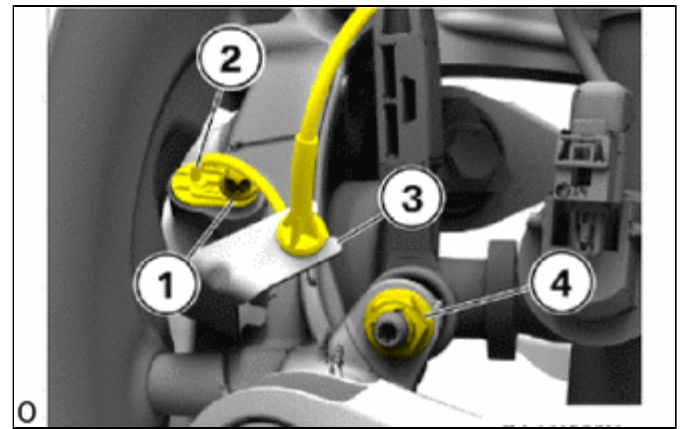
(b) Remove the rear disc brake dust cover (2).

5. REMOVE REAR COIL SPRING

Click here [INFO](#)

6. REMOVE REAR AXLE CARRIER SUB-ASSEMBLY

(a) Loosen E11 bolt (1).



(b) Remove the skid control sensor wire (2) and place to one side.

(c) Detach the cable from the holder (3).

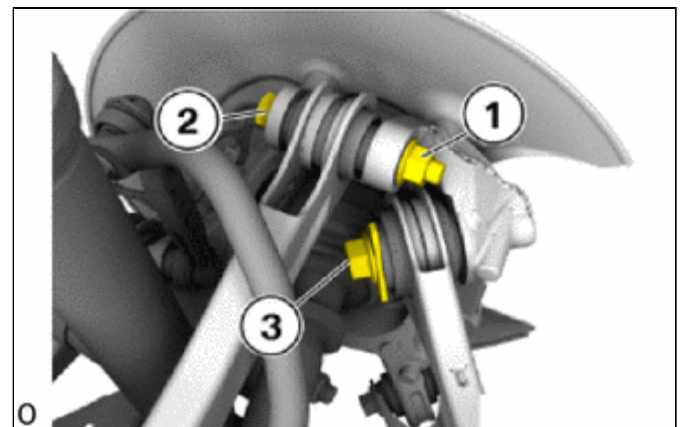
(d) Loosen the 16 mm nut (4).

HINT:

If necessary, counter-hold the T30 "TORX" socket wrench.

(e) Remove the rear stabilizer link assembly from the rear axle carrier sub-assembly.

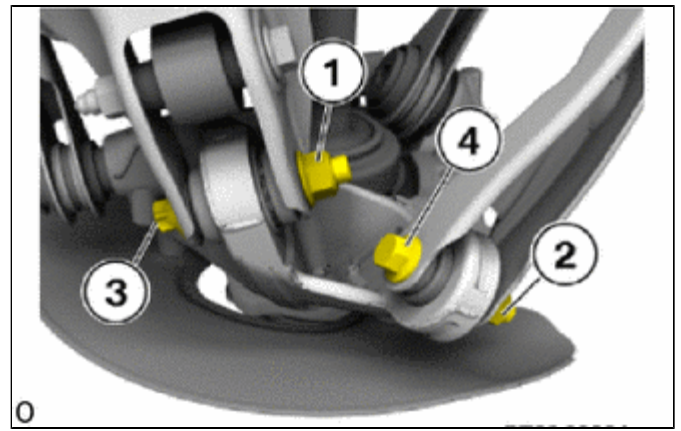
(f) Unfasten 18 mm nut (1).



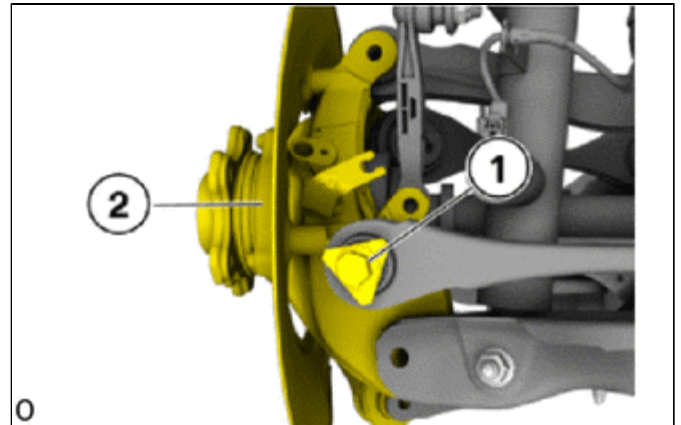
(g) Pull out 18 mm bolt (2).

(h) Release and remove bolt (3).

(i) Unfasten nut (1).



- (j) Loosen 18 mm nut (2).
- (k) Pull out E20 bolt (3).
- (l) Pull out 16 mm bolt (4).



- (m) Loosen bolt (1).

- (n) Guide out and remove rear axle carrier sub-assembly (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR AXLE CARRIER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

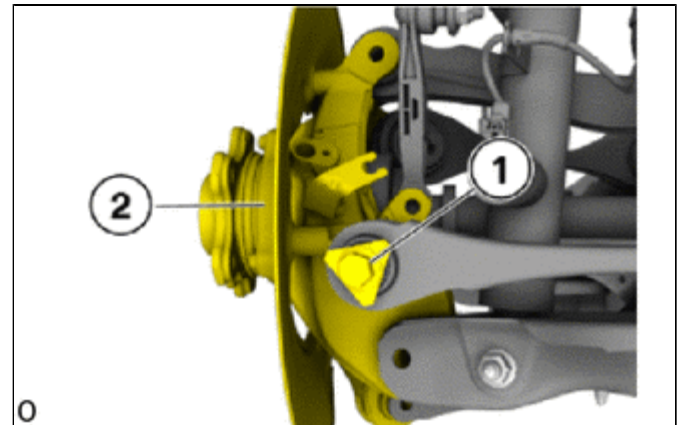
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL REAR AXLE CARRIER SUB-ASSEMBLY

(a) Insert and install the rear axle carrier sub-assembly (2).



(b) Replace the bolt (1).

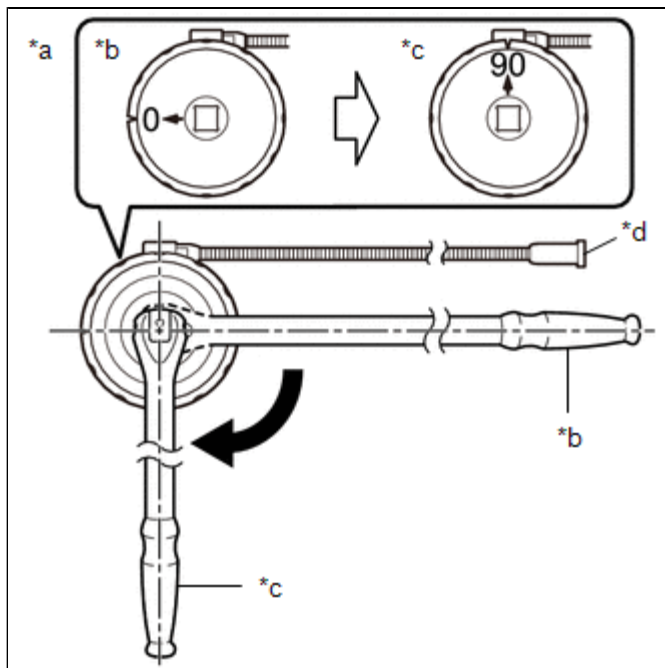
(c) Tighten down bolt (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(d) Using SST, tighten the bolt (1) an additional 90°.

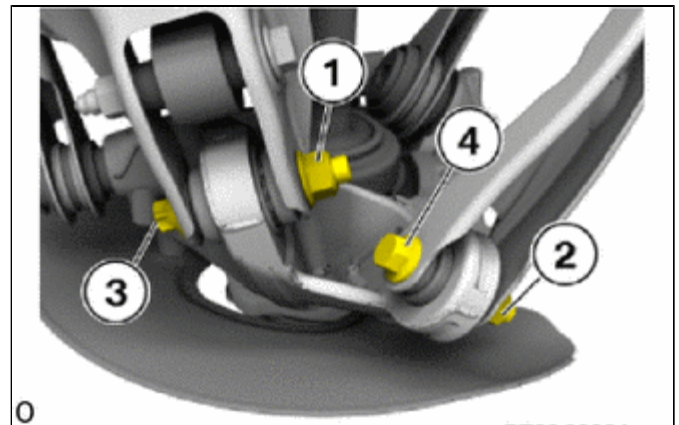
SST: 09900-WA010



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) Replace the nut (1) and 18 mm nut (2).



(f) Replace the E20 bolt (3) and 16 mm bolt (4).

(g) Insert E20 bolt (3) and 16 mm bolt (4).

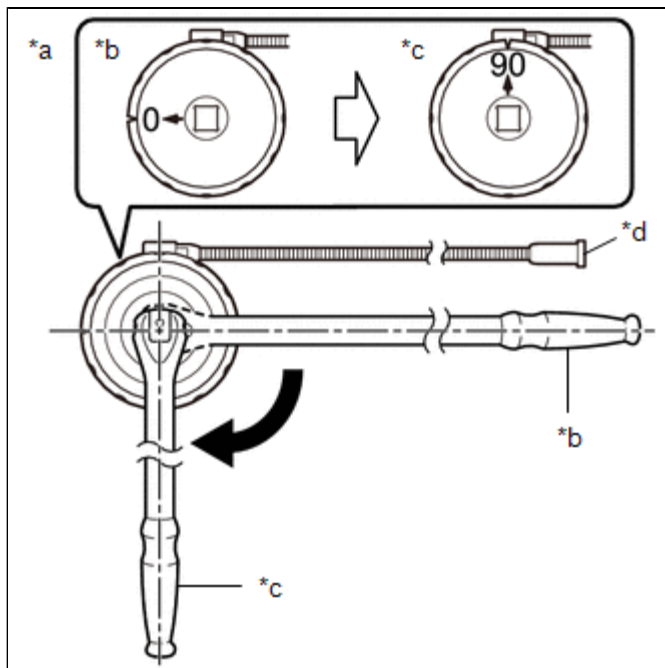
(h) Tighten nut (1).

Torque:

165 N·m {1683 kgf·cm, 122 ft·lbf}

(i) Using SST, tighten the nut (1) an additional 90°.

SST: 09900-WA010



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

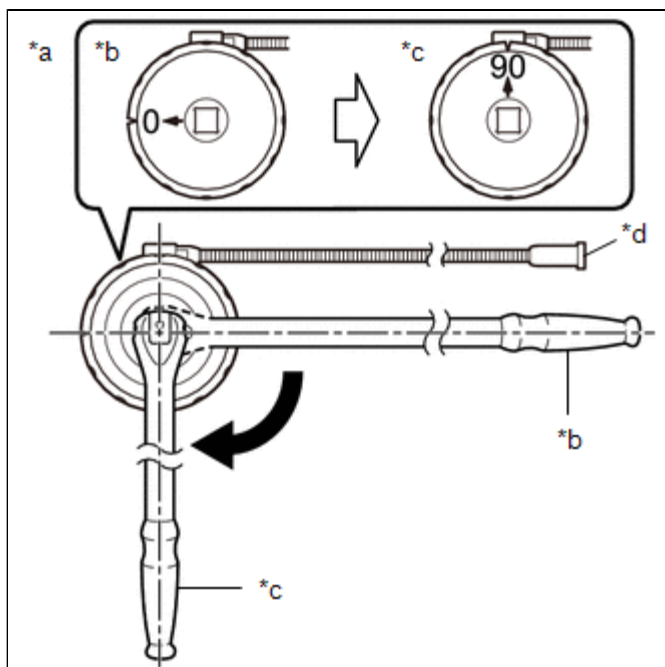
(j) Tighten 18 mm nut (2).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(k) Using SST, tighten the 18 mm nut (2) an additional 90°.

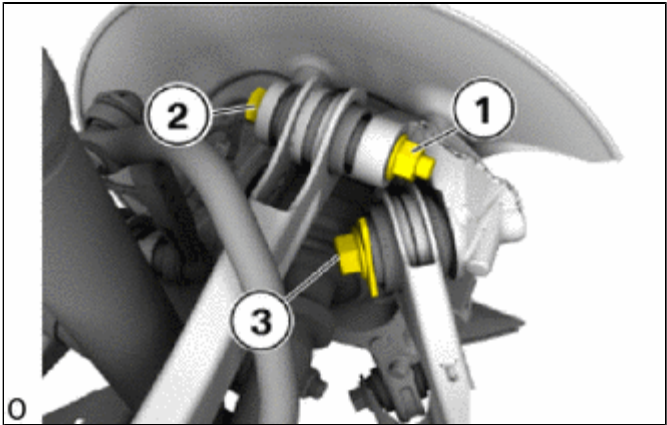
SST: 09900-WA010



*a	Example
----	---------

*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



(l) Replace the 18 mm nut (1).

(m) Replace the 18 mm bolt (2) and bolt (3).

(n) Insert the 18 mm bolt (2).

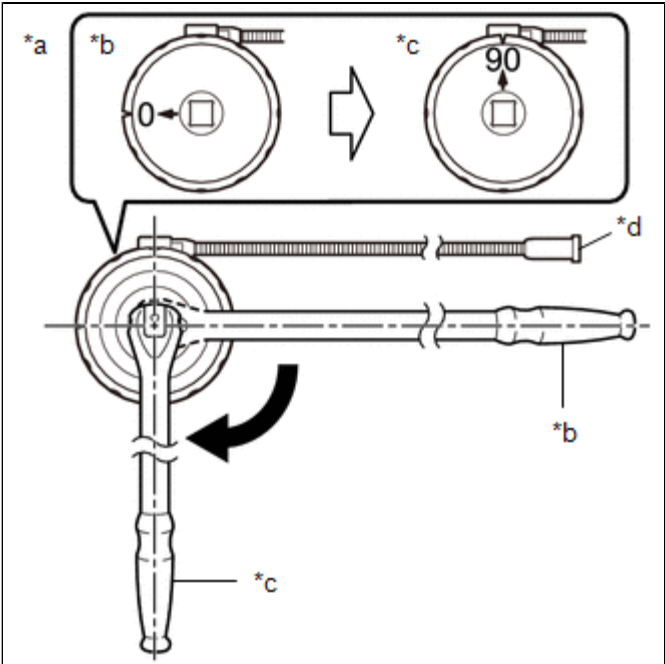
(o) Tighten 18 mm nut (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(p) Using SST, tighten the 18 mm nut (1) an additional 90°.

SST: 09900-WA010



*a	Example
*b	Before Tightening

*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

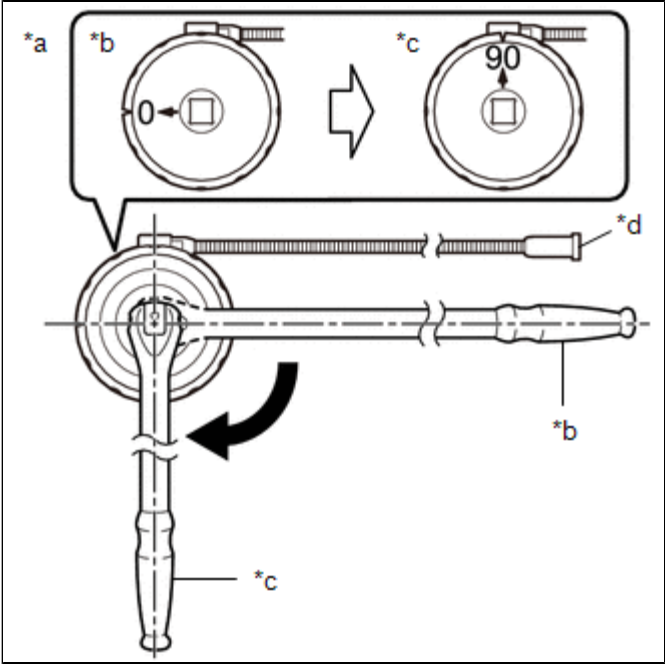
(q) Tighten down bolt (3).

Torque:

165 N·m {1683 kgf·cm, 122 ft·lbf}

(r) Using SST, tighten the bolt (3) an additional 90°.

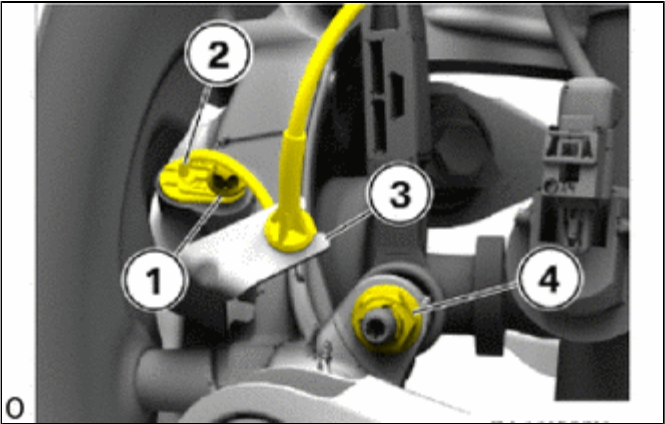
SST: 09900-WA010



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(s) Install the rear stabilizer link assembly on the rear axle carrier sub-assembly.



(t) Replace 16 mm nut (4).

(u) Tighten the 16 mm nut (4).

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

HINT:

If necessary, counter support the T30 "TORX" socket wrench.

(v) Install skid control sensor wire (2).

(w) Replace the E11 bolt (1).

(x) Tighten down E11 bolt (1).

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

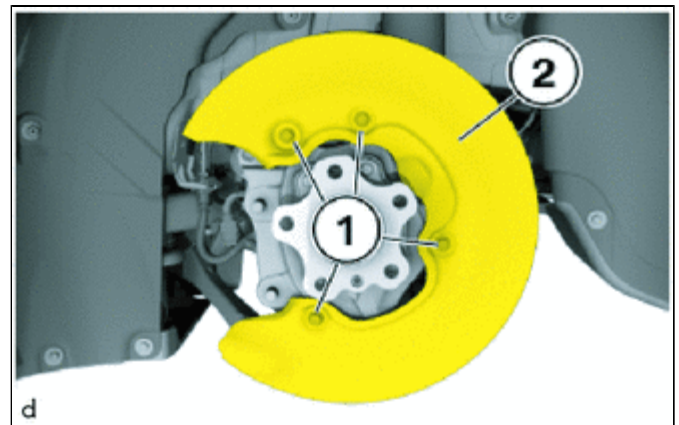
(y) Attach the cable in the holder (3).

2. INSTALL REAR COIL SPRING

Click here [INFO](#)

3. INSTALL REAR DISC BRAKE DUST COVER

(a) Install the rear disc brake dust cover (2).



(b) Replace bolts (1).

(c) Tighten the bolts (1).

Torque:

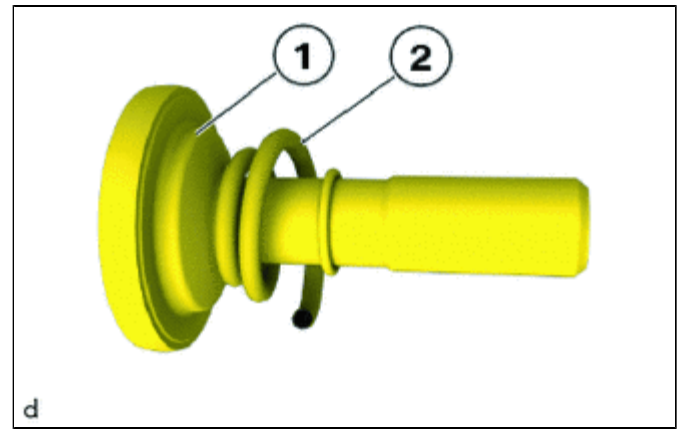
8.0 N·m {82 kgf·cm, 71 in·lbf}

4. INSTALL REAR BRAKE DISC

Click here [INFO](#)

5. INSTALL REAR DRIVE SHAFT ASSEMBLY

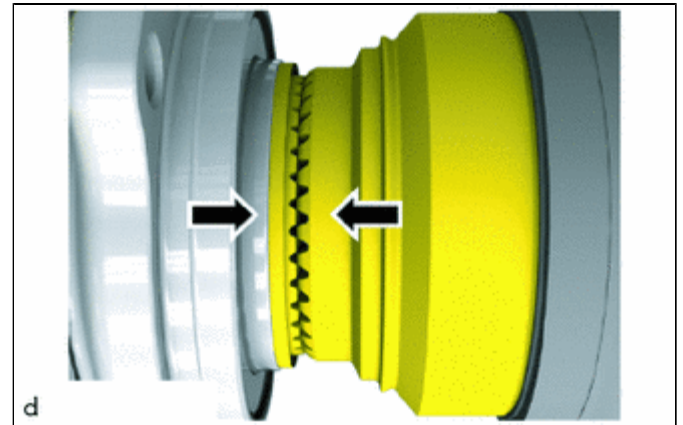
(a) Replace bolt (1) and compression spring (2).



(b) Position the rear drive shaft assembly on the rear axle hub and bearing assembly from the center of the vehicle.

(c) Hand-tighten the bolt (1) with the compression spring (2).

(d) Check whether front gearing is locked tooth in tooth by reciprocally rotating the rear axle hub and bearing assembly and the rear drive shaft assembly.



(e) If positive locking is ensured: Press brake pedal.

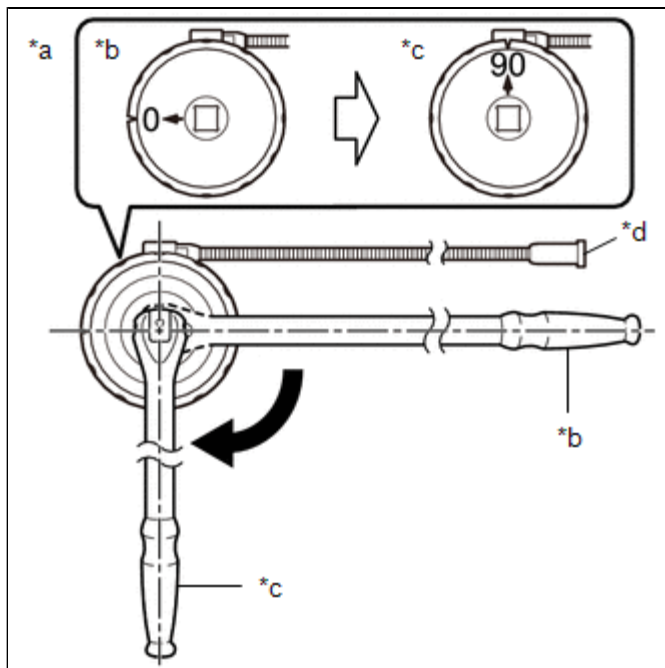
(f) Using a 17 mm straight hexagon wrench, tighten the bolt (1).

Torque:

210 N·m {2141 kgf·cm, 155 ft·lbf}

(g) Tighten the bolt (1) an additional 90°.

SST: 09900-WA010



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(h) Install the sealing cap.

6. INSTALL REAR WHEEL

Click here [INFO](#)

7. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

Click here [INFO](#)

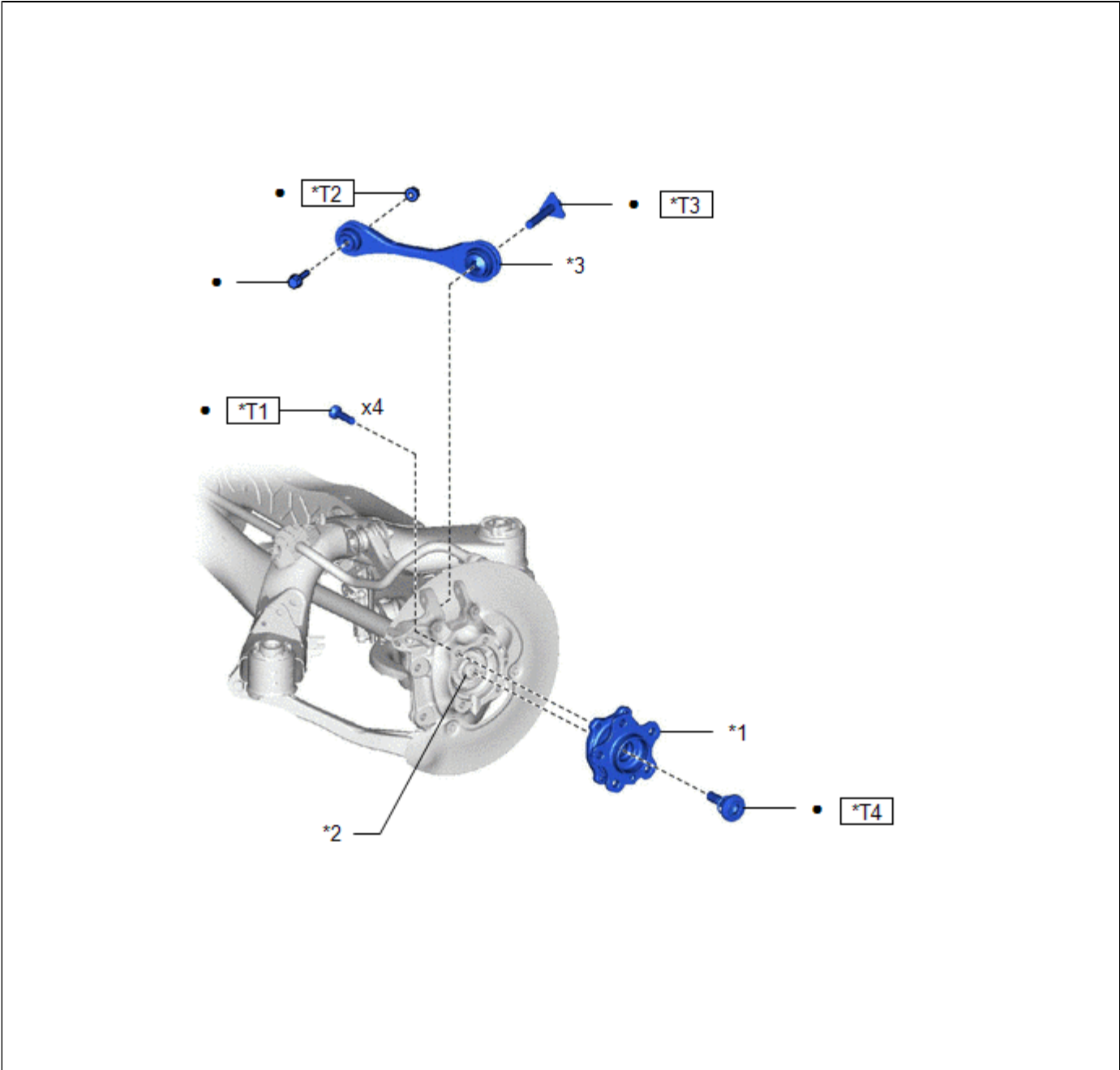
8. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR AXLE HUB AND BEARING ASSEMBLY	*2	REAR DRIVE SHAFT ASSEMBLY
*3	REAR UPPER CONTROL ARM ASSEMBLY	-	-

	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
*T1	1st: 120 (1224, 89) 2nd: Turn 90°	*T2	1st: 100 (1020, 74) 2nd: Turn 90°
*T3	1st: 165 (1683, 122) 2nd: Turn 90°	*T4	1st: 210 (2141, 155) 2nd: Turn 90°

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

2. SEPARATE REAR DRIVE SHAFT ASSEMBLY

Click here [INFO](#)

3. REMOVE REAR BRAKE DISC

Click here [INFO](#)

4. REMOVE REAR SUSPENSION MEMBER SUB-ASSEMBLY

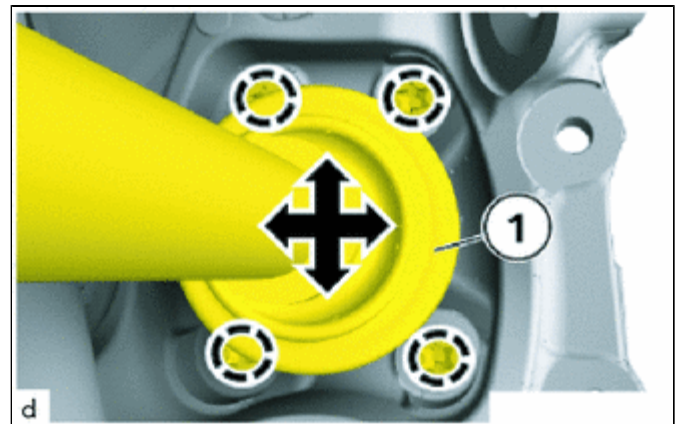
Click here [INFO](#)

5. REMOVE REAR UPPER CONTROL ARM ASSEMBLY

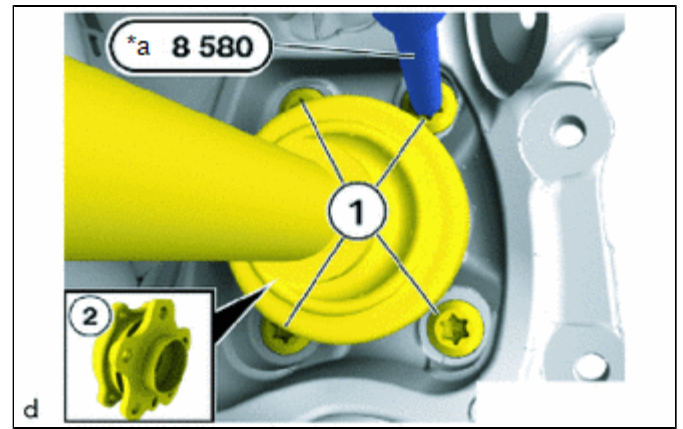
Click here [INFO](#)

6. REMOVE REAR AXLE HUB AND BEARING ASSEMBLY

- (a) Slightly tilt rear drive shaft assembly (1) in order to access the bolts (markings).



(b) Release the T60 bolts (1).



*a	Long "TORX" Socket Wrench
----	---------------------------

(c) Remove rear axle hub and bearing assembly (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

PROCEDURE

1. NOTES ON WHEEL BEARING REPLACEMENT FOLLOWING ACCIDENT DAMAGE

- (a) In the event of accidents or driving conditions similar to accidents, shock-like loads to the wheel bearing units can cause slight damage to the bearing track. Despite initial running without noise, with continued use, this results in later noise generation at the wheel bearing.

2. PROCEDURE FOR WHEEL BEARING

- (a) The wheel bearing must be replaced on the damaged side of the axle if one or several of the following points apply.
- (1) Visible or noticeable damage to the wheel bearing
 - (2) Rolling noises, radial/lateral runout on the wheel bearing
 - (3) Permissible tolerance for the wheel alignment is exceeded and no longer adjustable without the exchange of additional components
 - (4) Damage, permanent deformation or breakages on wheel rims (severe damage) and simultaneous negative result of the wheel alignment
 - (5) Damage, permanent deformation or breakages on shock absorber assemblies, steering knuckles or axle hubs
 - (6) Damage, permanent deformation or breakages on suspension arms
 - (7) Damage, permanent deformation or breakages on pressure and rear floor panel brace or stabilisers with this function
 - (8) Damage, permanent deformation or breakages on body side attachment points of wheel guide parts
 - (9) Damage, permanent deformation or breakages on tie rod end sub-assemblies
 - (10) Damage, permanent deformation or breakages on steering gear mounting



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR AXLE HUB: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

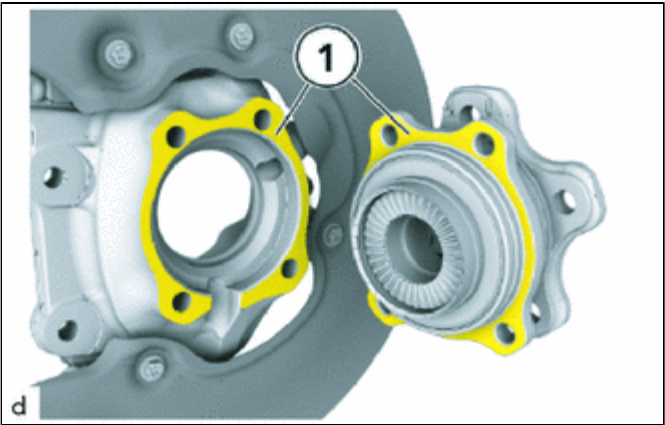
- HINT:**
- Use the same procedure for the RH side and LH side.
 - The following procedure is for the LH side.

PROCEDURE

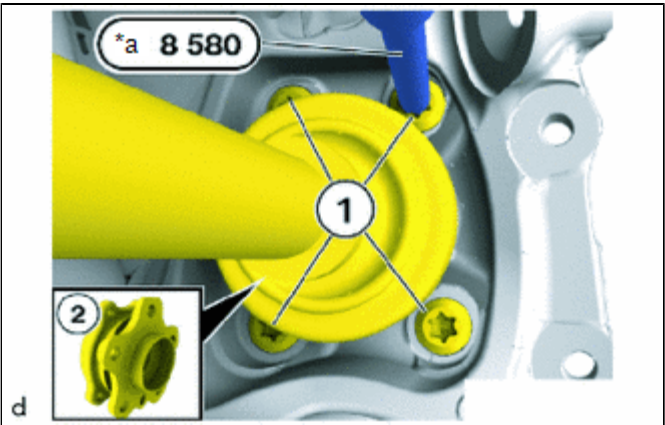
1. INSTALL REAR AXLE HUB AND BEARING ASSEMBLY

- (a) Make sure that the contact surfaces (1) of the wheel carrier and rear axle hub sub-assembly are clean, and free from oil and grease.

- HINT:**
- If necessary, clean the contact surfaces (1).



- (b) Position rear axle hub sub-assembly (2).



*a	Long "TORX" Socket Wrench
----	---------------------------

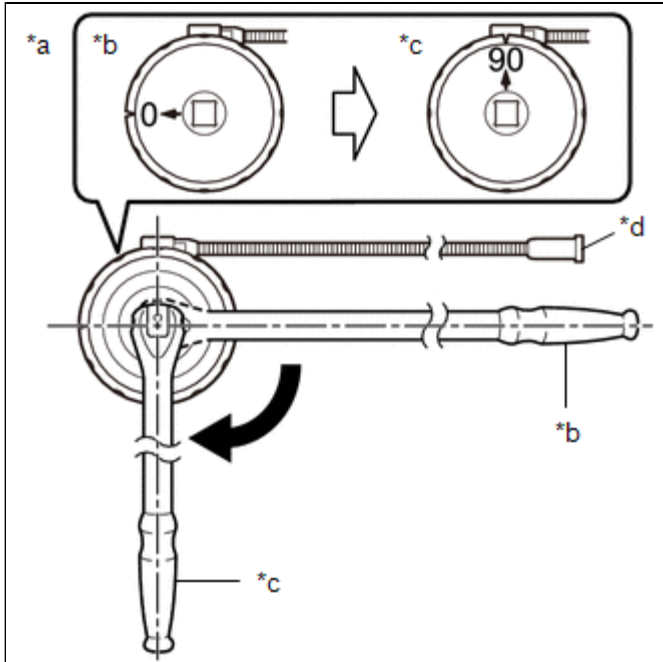
- (c) Replace T60 bolts (1).
- (d) Tighten the T60 bolts (1).

Torque:

120 N·m {1224 kgf·cm, 89 ft·lbf}

(e) Using SST, tighten the T60 bolts (1) an additional 90°.

SST: 09900-WA010



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

2. INSTALL REAR UPPER CONTROL ARM ASSEMBLY

Click here [INFO](#)

3. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY

Click here [INFO](#)

4. INSTALL REAR BRAKE DISC

Click here [INFO](#)

5. INSTALL REAR DRIVE SHAFT ASSEMBLY

Click here [INFO](#)

6. INSTALL REAR WHEEL

Click here [INFO](#)

7. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

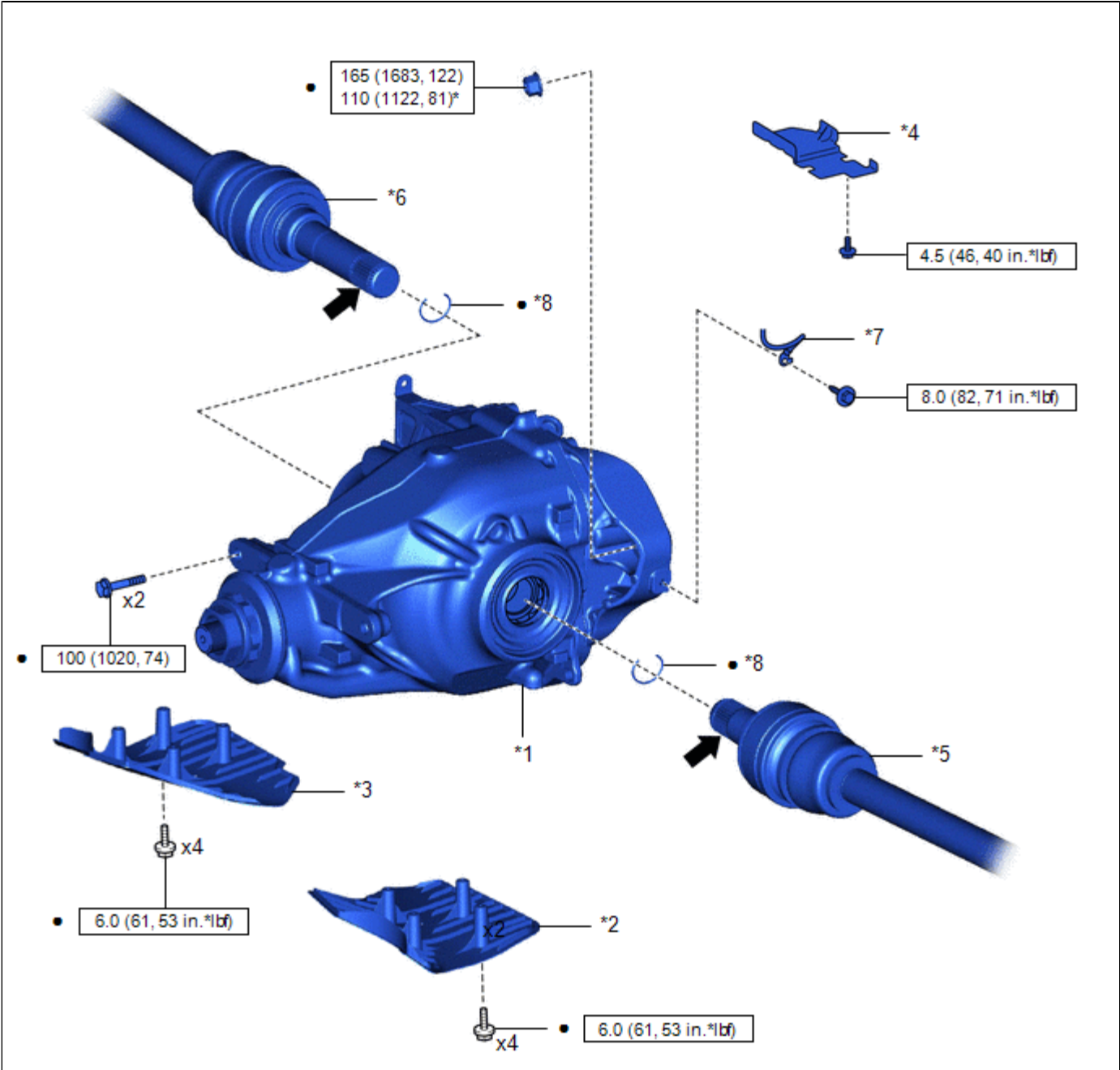
Click here [INFO](#)





Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

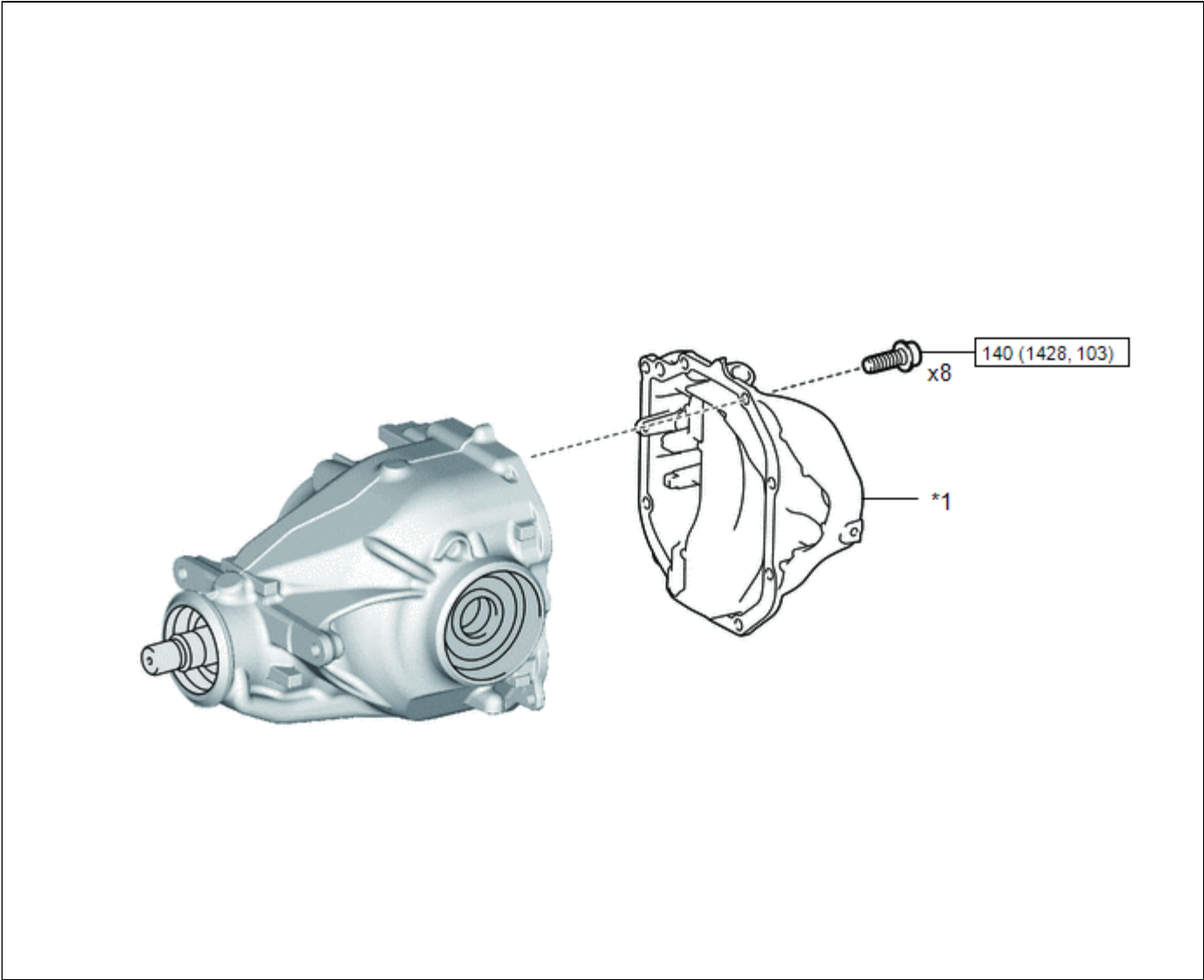
ILLUSTRATION




*1	REAR DIFFERENTIAL CARRIER ASSEMBLY	*2	REAR SUSPENSION ARM COVER LH
*3	REAR SUSPENSION ARM COVER RH	*4	REAR DIFFERENTIAL PROTECTOR

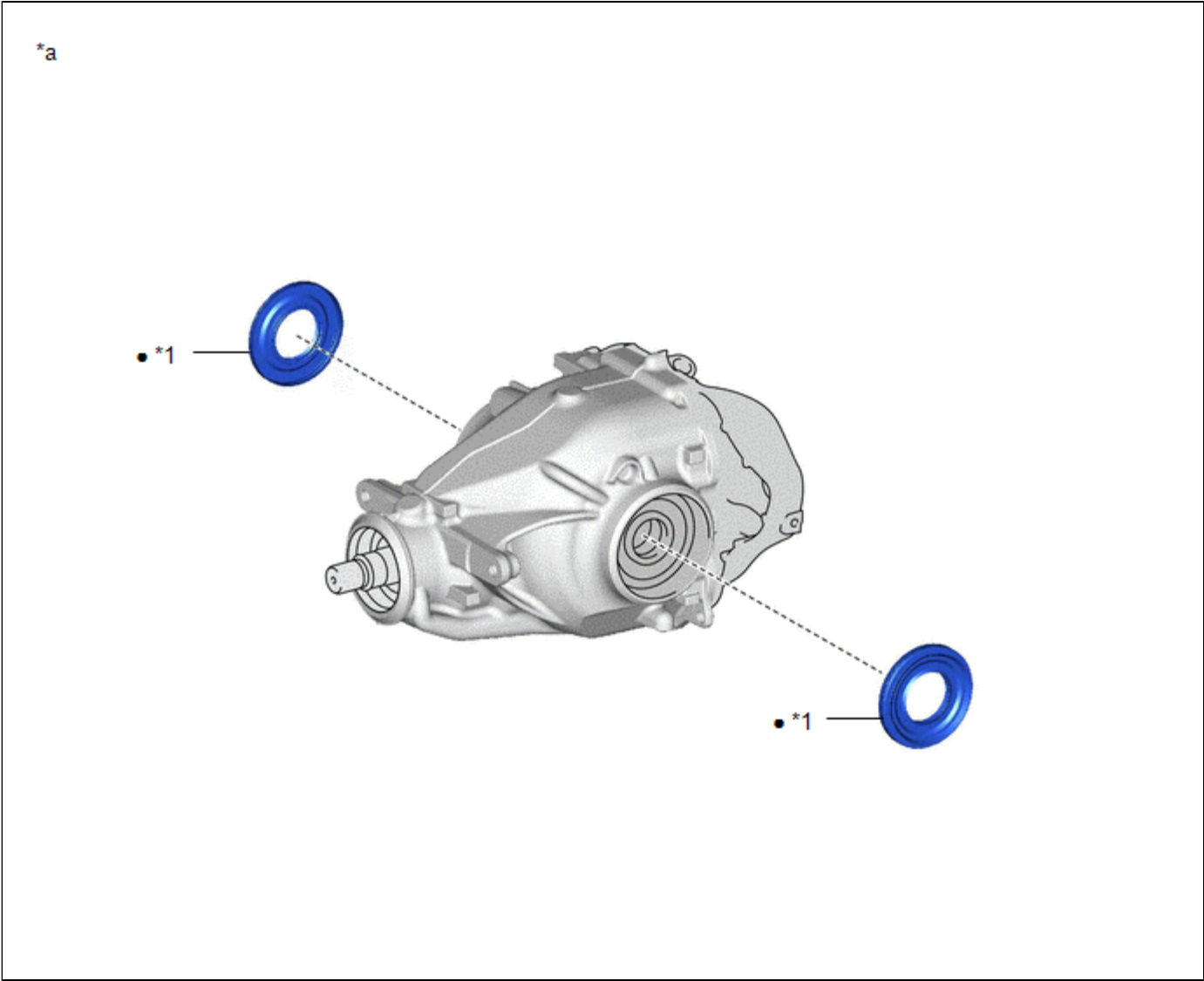
*5	REAR DRIVE SHAFT ASSEMBLY LH	*6	REAR DRIVE SHAFT ASSEMBLY RH
*7	GROUND WIRE	*8	SHAFT SNAP RING
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST
•	Non-reusable part		Differential Oil

ILLUSTRATION



*1	REAR DIFFERENTIAL CARRIER COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	REAR DRIVE SHAFT OIL SEAL	-	-
●	Non-reusable part	-	-
*a	Oil Seal for Replacement	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Damage to rear differential carrier assembly.

Failure to comply with the oil specifications can result in serious damage to the rear differential carrier assembly.

- After completion of repair work, check the transmission oil level in the rear differential carrier assembly.
- Use only the approved differential oil.

PROCEDURE

1. REMOVE PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

2. REMOVE REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

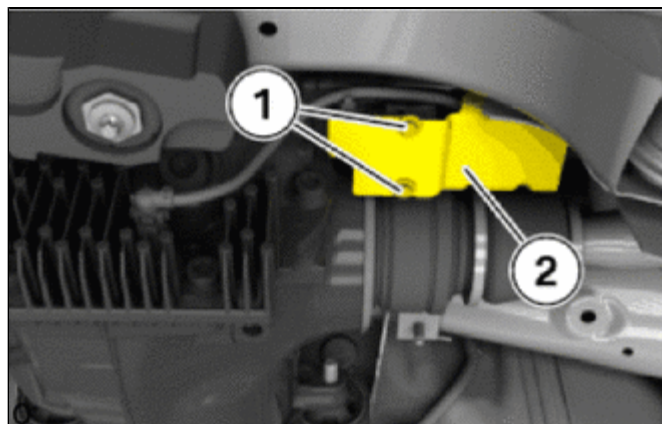
3. REMOVE REAR SUSPENSION ARM COVER RH

HINT:

Use the same procedure as for the LH side.

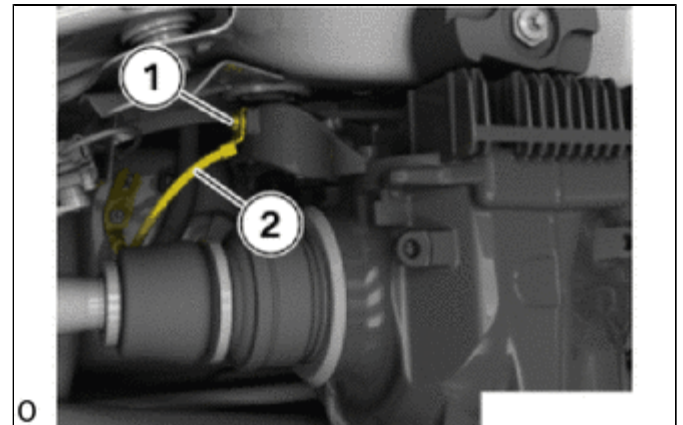
4. REMOVE REAR DIFFERENTIAL CARRIER ASSEMBLY

(a) Loosen bolts (1).

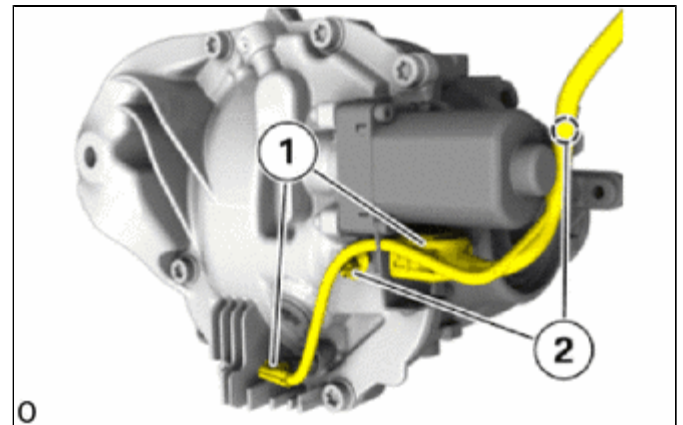


(b) Remove rear differential protector (2).

(c) Remove the bolt (1) to disconnect the ground wire (2).

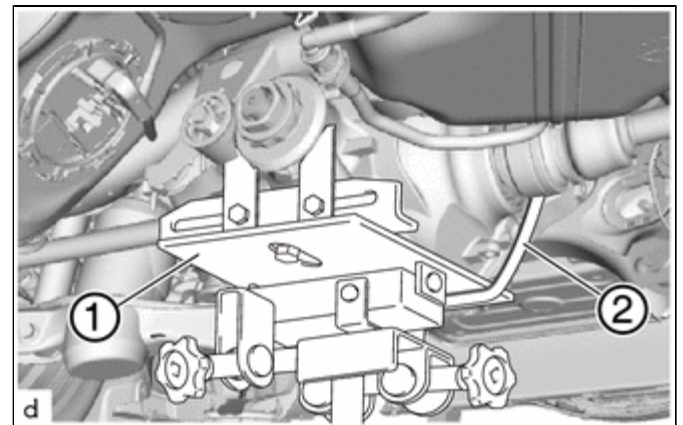


(d) Unlock and disconnect plug connections (1).



(e) Loosen the cable clips (2).

(f) Support the rear differential carrier assembly with the transmission jack (1).

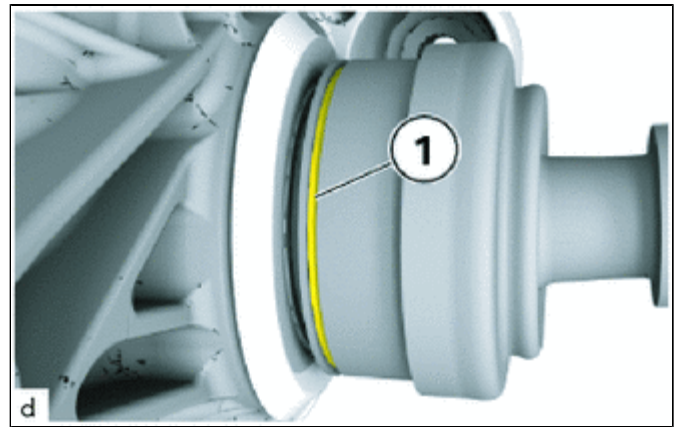


(g) Secure the rear differential carrier assembly with the lashing belt (2) on the transmission jack (1).

- (h) Make sure that the special tool 0 495 856 (33 5 124) or 2 240 465 is inserted in the circumferential slot (1) of the rear drive shaft assembly.

SST: 09500-WA020

SST: 09500-WA030



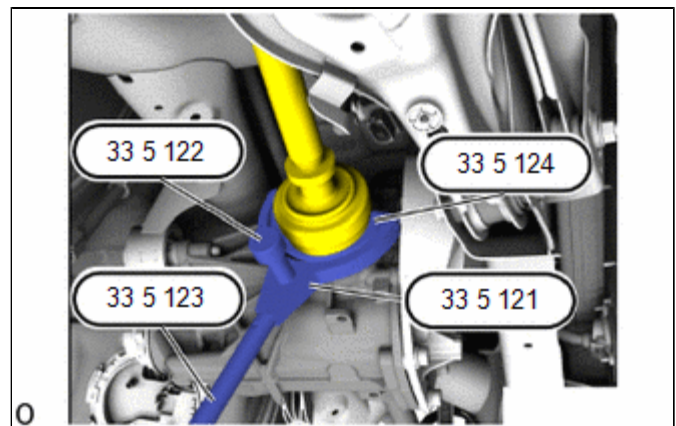
- (i) Use special tools 0 495 854 (33 5 122), 0 495 855 (33 5 123), 0 495 856 (33 5 124) / 0 495 853 (33 5 121) to push the rear drive shaft assembly out of the rear differential carrier assembly by jerking.

SST: 09500-WA020

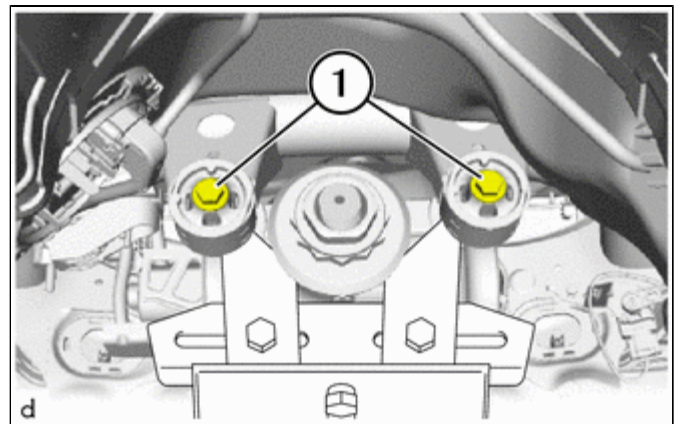
SST: 09500-WA030

HINT:

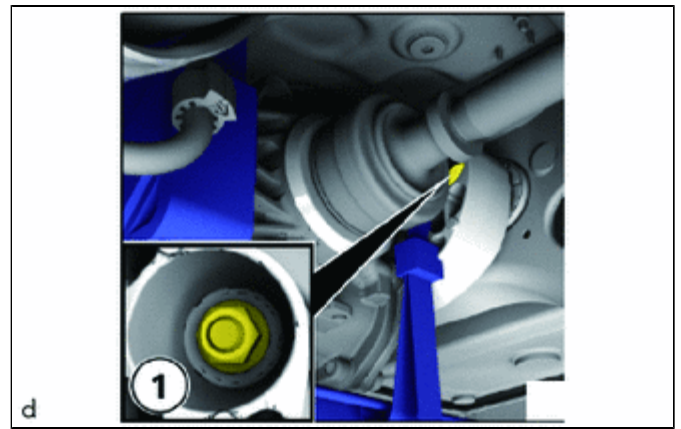
Use the same procedures for the opposite side.



- (j) Loosen 18 mm bolts (1).

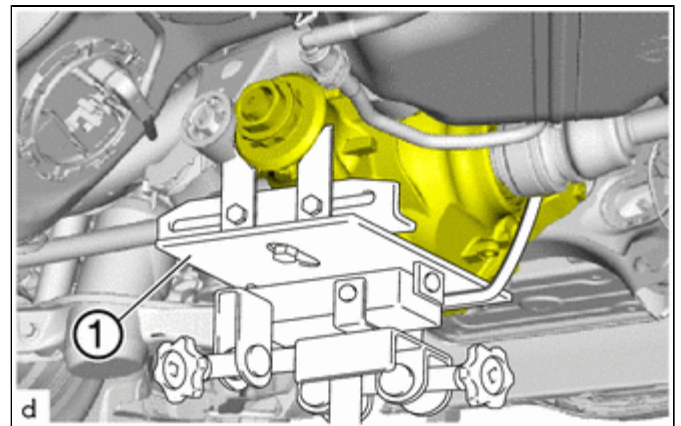


- (k) Loosen nut (1).

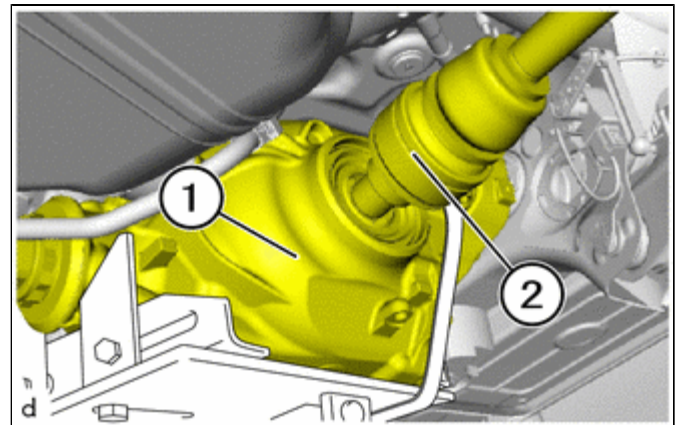


(l) Slide bolt backwards up to the limit position.

(m) Lower the rear differential carrier assembly with the transmission jack (1).



(n) Press (tilt) the right rear differential carrier assembly (1) upwards.



(o) Feed out the left rear drive shaft assembly (2) downwards and tie up.

(p) Swing the rear differential carrier assembly (1) towards the left side.

(q) Remove rear differential carrier assembly.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER ASSEMBLY: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Damage to rear differential carrier assembly.

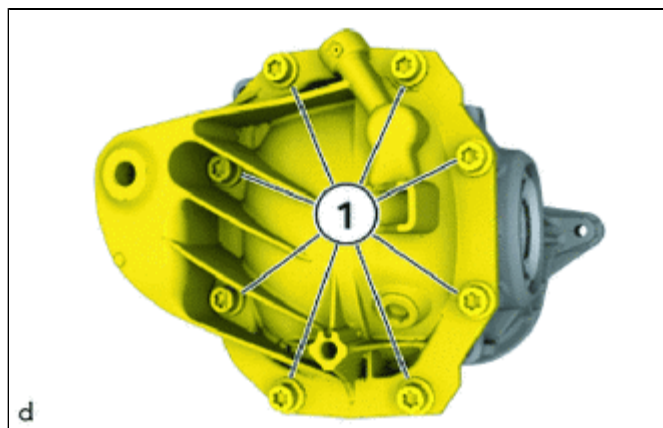
Failure to comply with the oil specifications can result in serious damage to the rear differential carrier assembly.

- After completion of repair work, check the differential oil level in the rear differential carrier assembly.
- Use only the approved final drive differential oil.

PROCEDURE

1. REMOVE REAR DIFFERENTIAL CARRIER COVER

(a) Loosen T55 bolts (1).



(b) Take off rear differential carrier cover.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER ASSEMBLY: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL REAR DIFFERENTIAL CARRIER COVER

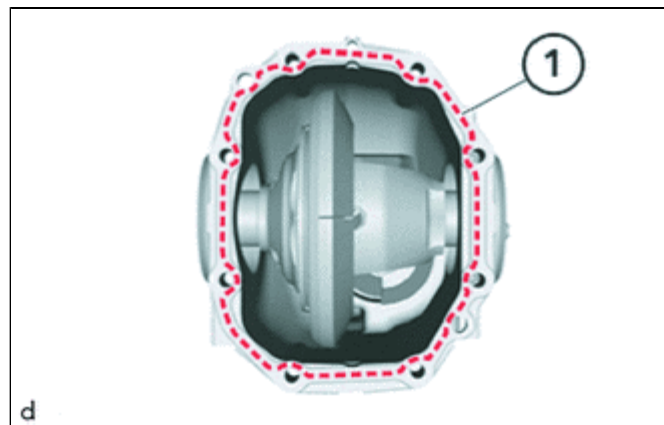
- (a) Apply liquid sealing compound along the dotted line (1) on the sealing surface of the rear differential carrier assembly.

Seal packing:

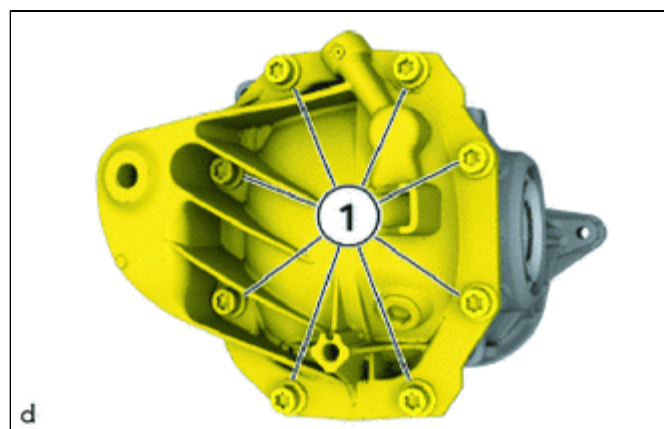
Loctite 5970 Flange Sealant

NOTICE:

The sealing bead must run along the inner edge.



- (b) Position the rear differential carrier cover on the rear differential carrier assembly.



- (c) Tighten the T55 bolts (1).

Torque:

140 N·m {1428 kgf·cm, 103 ft·lbf}

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. REPLACE REAR DRIVE SHAFT OIL SEAL

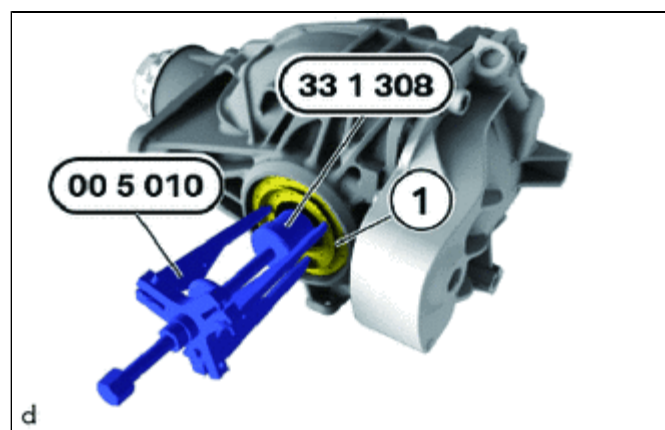
HINT:

When reusing the rear differential carrier assembly, use this procedure.

- (a) Pull out the rear drive shaft oil seal (1) using special tool 0 490 466 (00 5 010) or 0 492 104 (33 1 308).

SST: 09500-WA090

SST: 09900-WA210

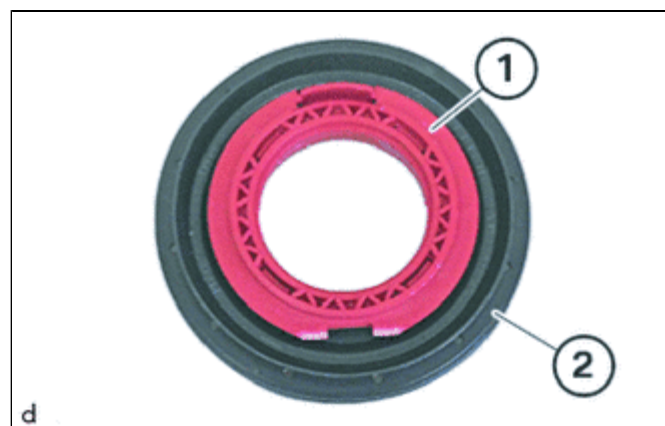


- (b) Replace rear drive shaft oil seal at front.

HINT:

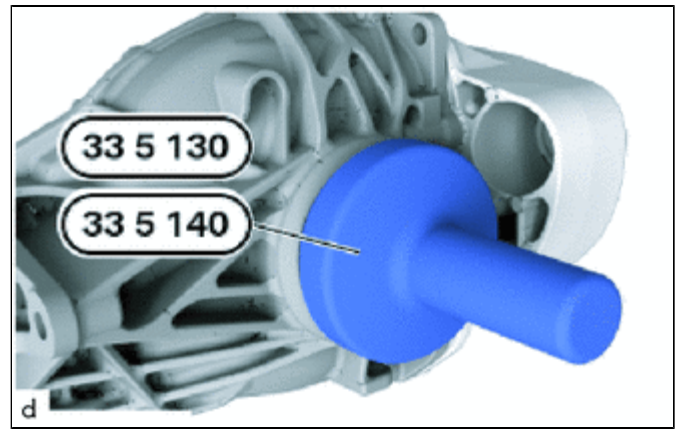
Rear drive shaft oil seal ring are equipped with an installation protection ring. The installation protection ring is used to protect the sealing lip when installing the rear drive shaft assembly.

- (c) Install the rear drive shaft oil seal (2) using the installation protection ring (1).



- (d) Make sure that the installation protection ring does not slide out of the rear drive shaft oil seal.

- (e) Coat housing sheet metal flange and the sealing lips of the new rear drive shaft oil seal with approved differential oil.



- (f) Tap in rear drive shaft oil seal with special tools 0 495 860 (33 5 130) and 0 495 862 (33 5 140) up to the limit position.

SST: 09500-WA060

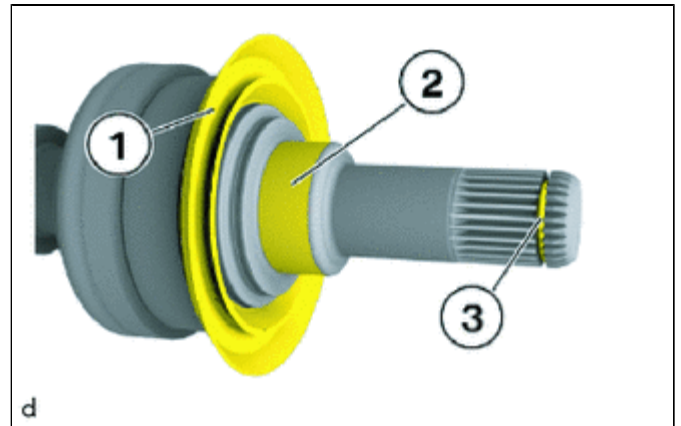
SST: 09500-WA210

2. INSTALL REAR DIFFERENTIAL CARRIER ASSEMBLY

NOTICE:

Extreme force being required during installation is an indication that the component is damaged or deformed. Check the component; replace if necessary.

- (a) Check the gearing of the rear drive shaft assembly for damage; replace the components if necessary.



- (b) Check the dust plate (1) for damage; replace if necessary.
(c) Replace the shaft snap ring (3).

NOTICE:

It is essential to replace the shaft snap ring of the rear drive shaft assembly.

- (d) Coat the contact surface (2) of the rear drive shaft assembly with approved differential oil.

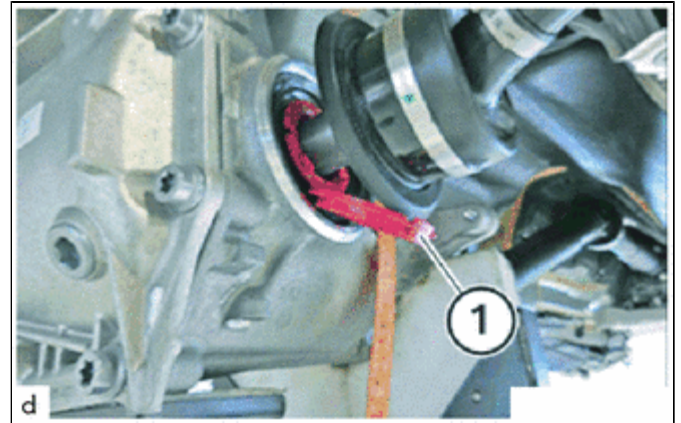
HINT:

Use the same procedures for the opposite side.

- (e) Lift rear differential carrier assembly.
(f) Swing the rear differential carrier assembly towards the left side.
(g) Press (tilt) the right rear differential carrier assembly downwards.

- (h) Guide in the left rear drive shaft assembly upwards.
- (i) Insert rear drive shaft assembly into rear differential carrier assembly.

- (j) Pull on the tab (1) of the installation protection ring until one of the two predetermined breaking points breaks.



- (k) Pull out the assembly protection ring.

HINT:

Use the same procedures for the opposite side.

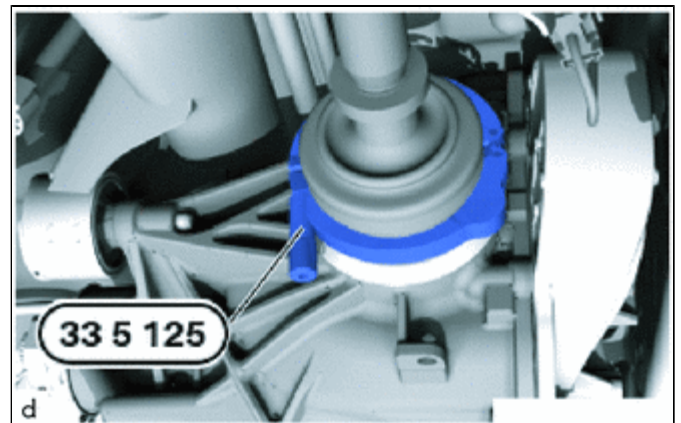
- (l) Drive rear drive shaft assembly with special tool 0 495 857 (33 5 125) and a rubber mallet into rear differential carrier assembly.

SST: 09500-WA020

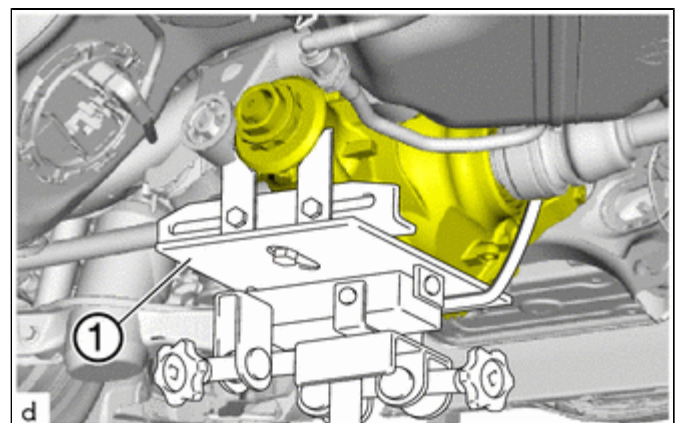
SST: 09500-WA030

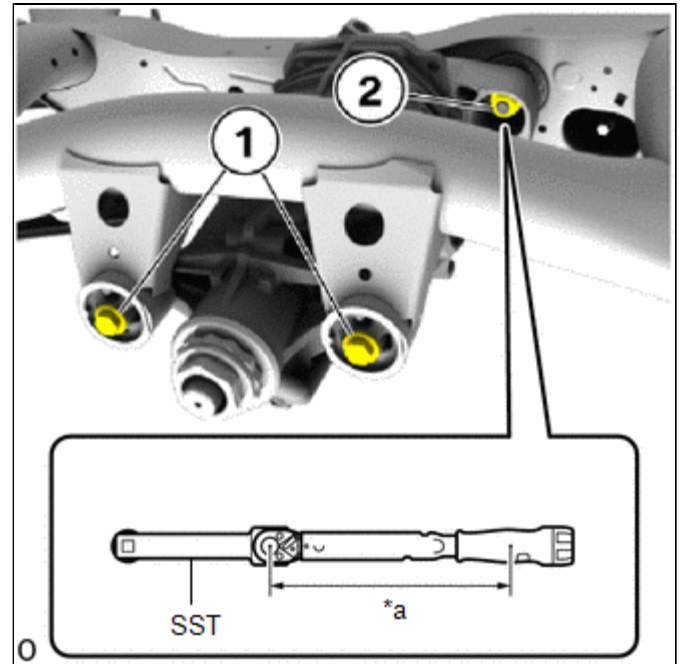
HINT:

Use the same procedures for the opposite side.



- (m) Insert the rear differential carrier assembly into the rear suspension member sub-assembly using the transmission jack (1).





*a	Torque Wrench Fulcrum Length
----	------------------------------

(n) Replace 18 mm bolts (1).

(o) Hand-tighten the 18 mm bolts (1).

(p) Replace the nut (2).

(q) Hand-tighten the nut (2).

(r) Loosen tensioning strap.

(s) Release the transmission jack and put away.

(t) Tighten the 18 mm bolts (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(u) Tighten nut (2).

SST: 09961-01270

Torque:

165 N·m {1683 kgf·cm, 122 ft·lbf}

HINT:

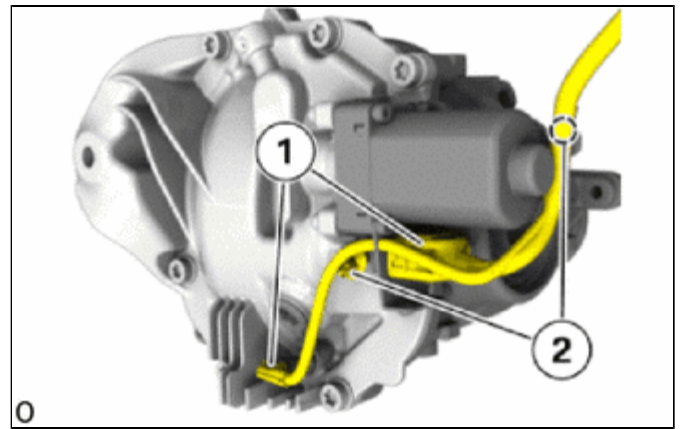
- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)

- When using SST (fulcrum length of 200 mm (7.87 in.)) + torque wrench (fulcrum length of 400 mm (13.12 ft.)):

110 N·m (1122 kgf·cm, 81 ft·lbf)

(v) Connect connectors (1) and lock.



(w) Attach the cable clip (2).

(x) Connect the ground wire with the bolt.

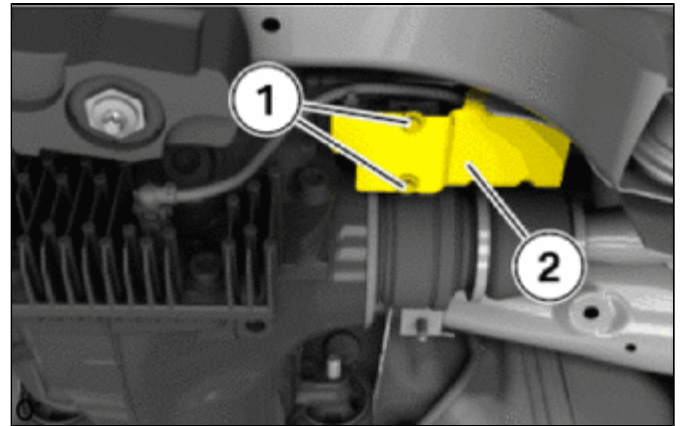
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(y) Install the rear differential protector (2) with the bolts (1).

Torque:

4.5 N·m {46 kgf·cm, 40 in·lbf}



3. INSTALL REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

4. INSTALL REAR SUSPENSION ARM COVER RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

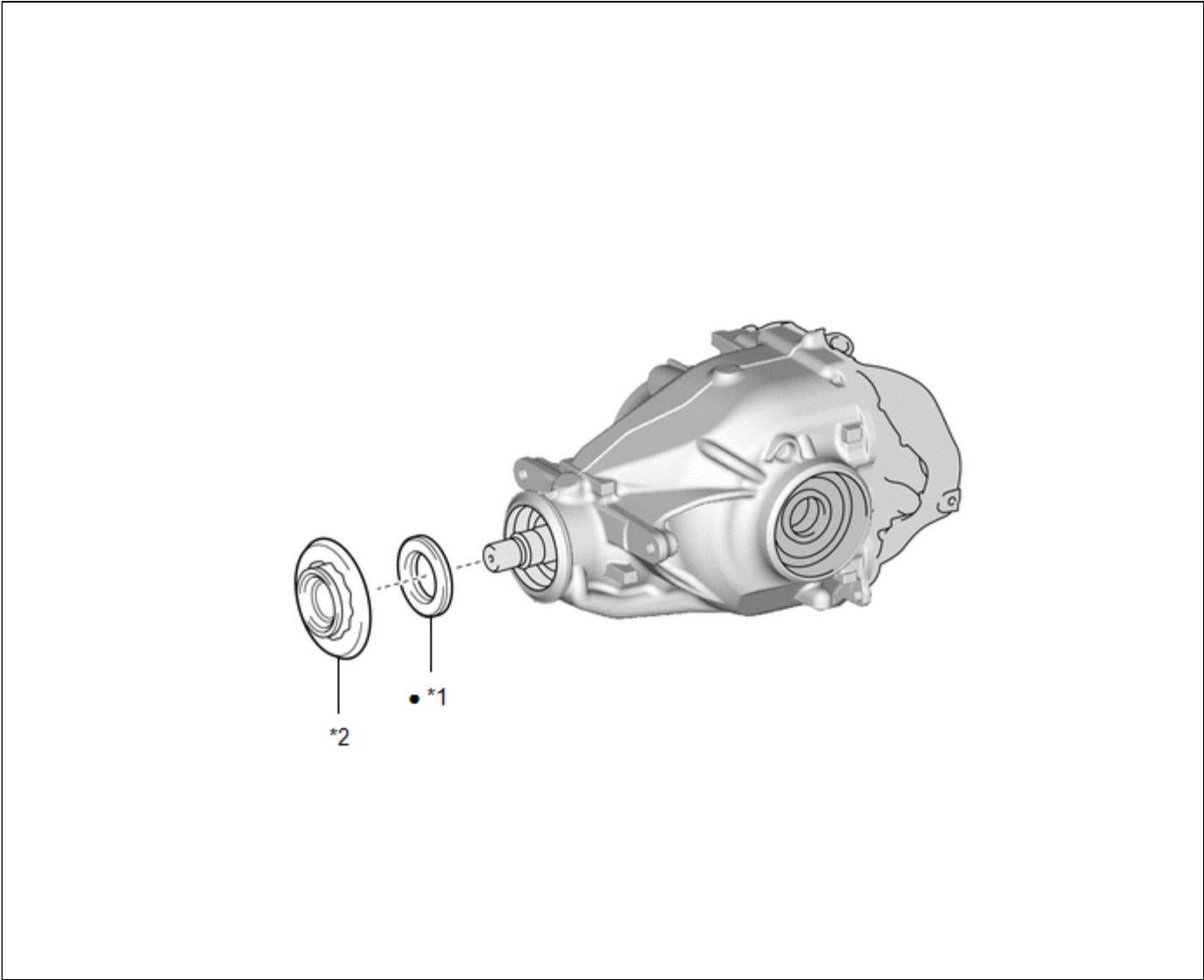
6. INSPECT DIFFERENTIAL OIL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER OIL SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR DIFFERENTIAL CARRIER OIL SEAL	*2	FLANGE NUT
•	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL CARRIER OIL SEAL: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

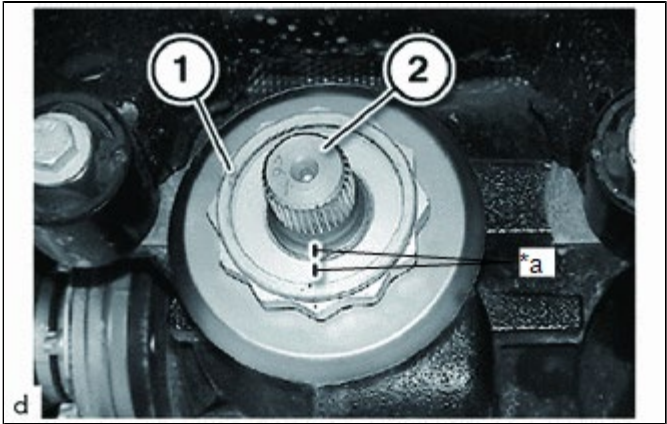
PROCEDURE

1. REMOVE PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

2. REMOVE REAR DIFFERENTIAL CARRIER OIL SEAL

(a) Mark the position of the flange nut (1) for the bevel pinion (2).



*a	Match Mark
----	------------

(b) Warm up flange nut using a hair dryer.

CAUTION:

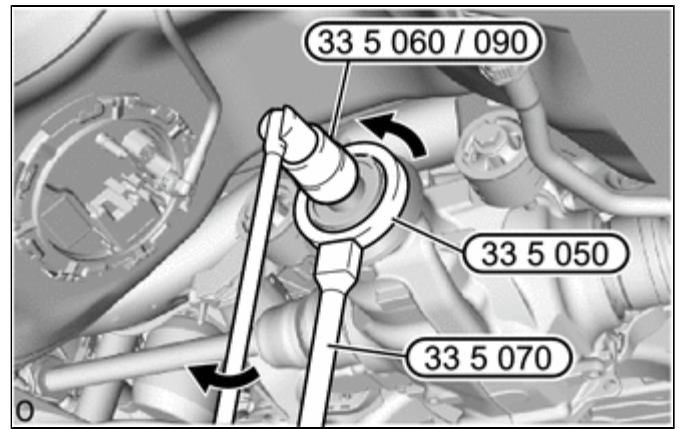
- Do not touch the hair dryer and heated parts, touching the hair dryer may result in burns.
- Touching heated parts for a long time may result in burns.

NOTICE:

- Do not heat beyond the dimension required to open the flange nut.
- Do not use open flames for heating.

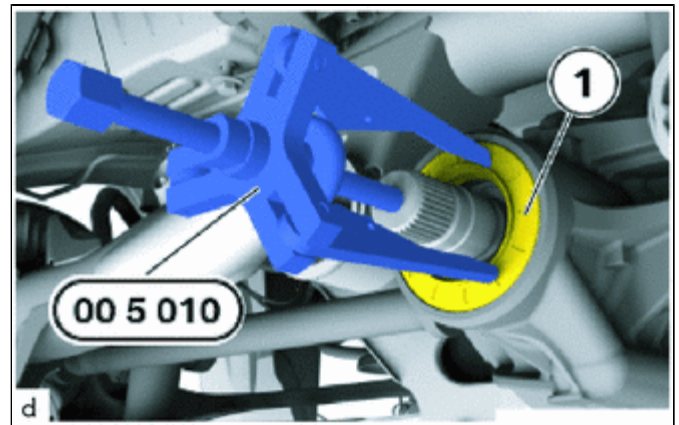
(c) Unscrew the flange nut with the special tools 0 495 552 (33 5 050) and 0 495 554 (33 5 070) counterclockwise. Provide counter support at the bevel pinion with special tools 0 495 553 (33 5 060) and 0 495 554 (33 5 070).

- SST: 09500-WA040
- SST: 09500-WA050
- SST: 09900-WA040



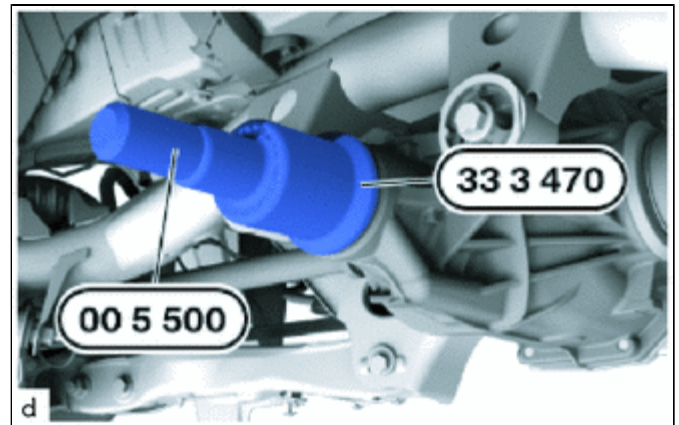
(d) Pull the rear differential carrier oil seal out with the special tool 0 490 466 (00 5 010).

SST: 09500-WA090



3. INSTALL REAR DIFFERENTIAL CARRIER OIL SEAL

(a) Coat the sealing lip of the new rear differential carrier oil seal and sealing surface of the bevel pinion with differential oil.

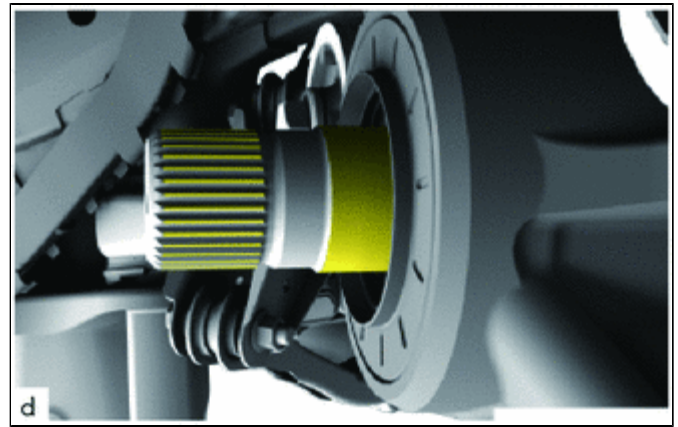


(b) Drive in the rear differential carrier oil seal with special tool 0 490 475 (00 5 500) or 0 492 343 (33 3 470).

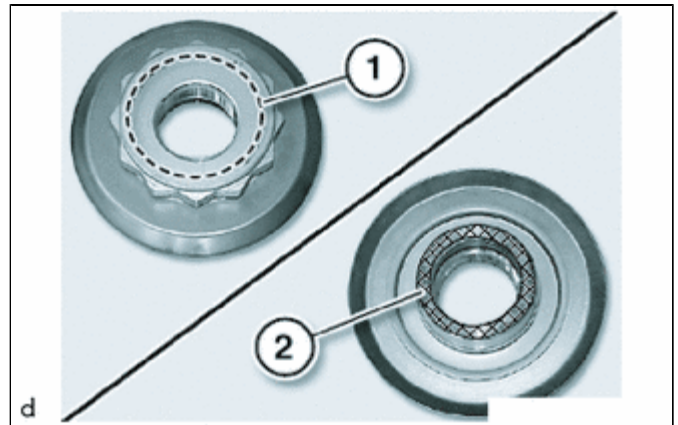
SST: 09500-WA070

SST: 09500-WA180

(c) Clean bevel pinion thoroughly to remove remnants of screw locking agent.



(d) Check dust plate for damage, replace if necessary.



(e) Clean the flange nut thoroughly to remove remnants of grease and screw locking agent.

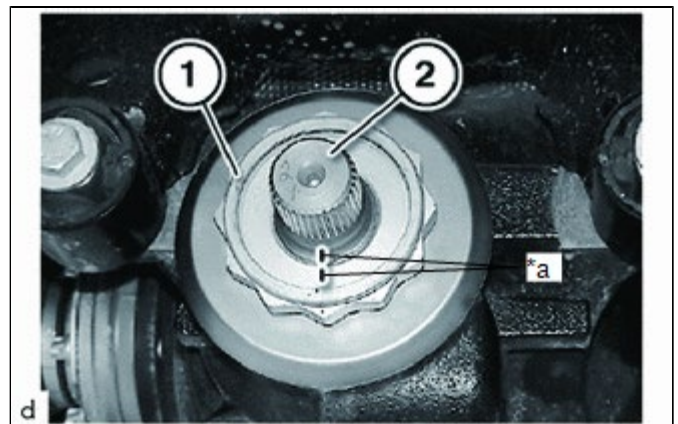
(f) Top up the collar insert (1) of the flange nut with grease.

(g) Apply a thin coating of grease to shaded area (2) of the flange nut.

(h) Tighten the flange nut (1) up to the marker point of the bevel pinion (2).

NOTICE:

To avoid damage to the rear differential carrier assembly, the flange nut must not be applied beyond the mark!



*a	Match Mark
----	------------

4. INSTALL PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

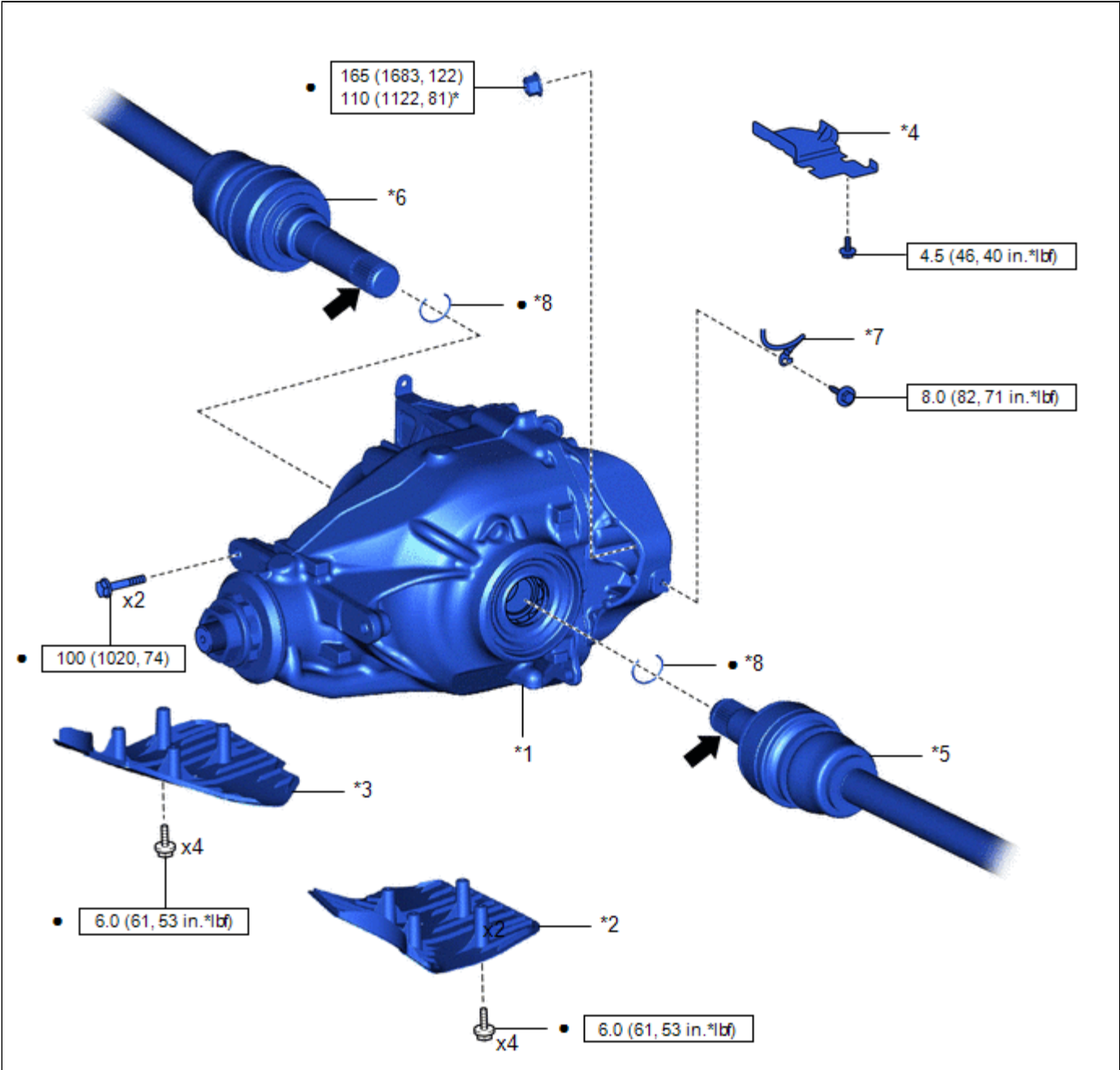
5. INSPECT DIFFERENTIAL OIL

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL SIDE GEAR SHAFT OIL SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

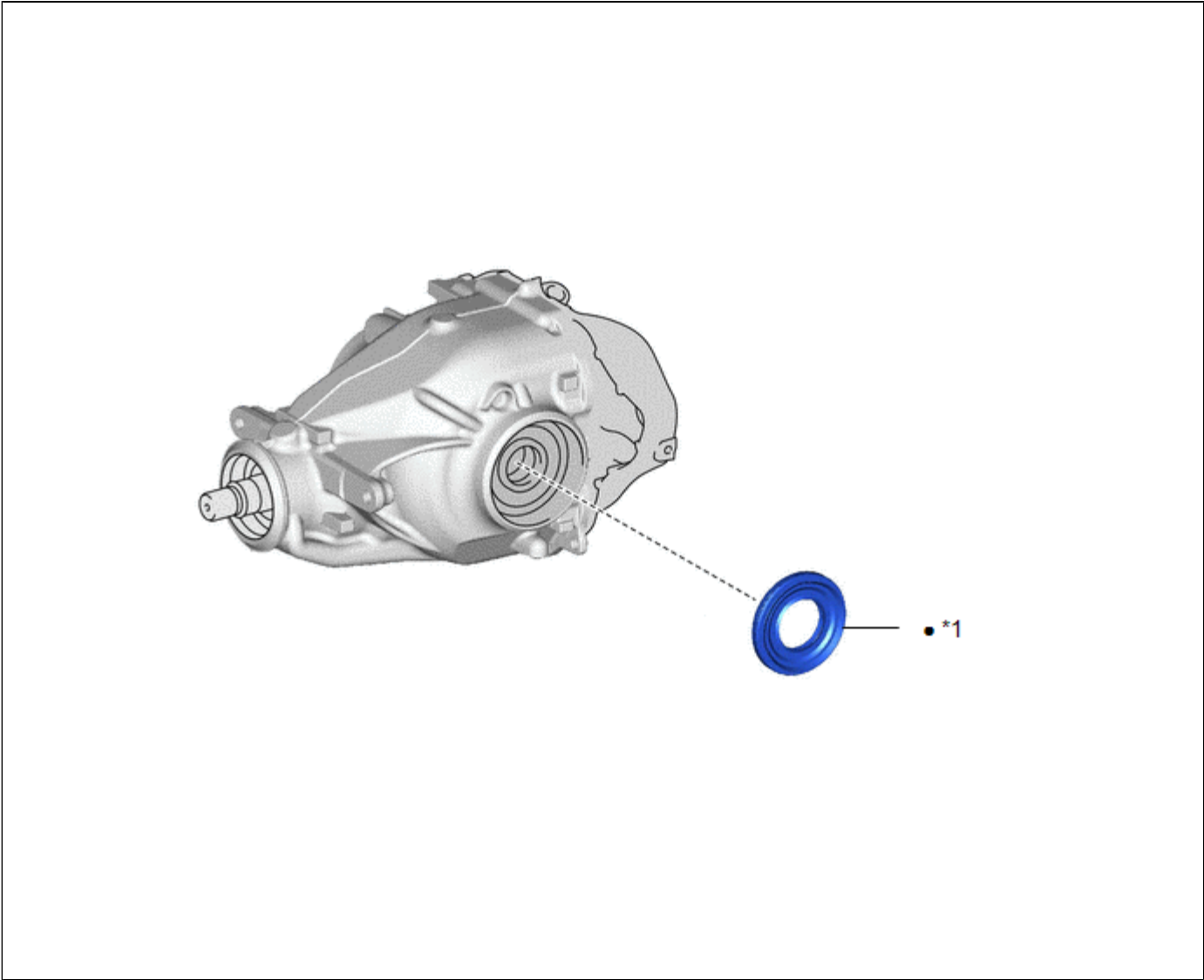
ILLUSTRATION



*1	REAR DIFFERENTIAL CARRIER ASSEMBLY	*2	REAR SUSPENSION ARM COVER LH
*3	REAR SUSPENSION ARM COVER RH	*4	REAR DIFFERENTIAL PROTECTOR

*5	REAR DRIVE SHAFT ASSEMBLY LH	*6	REAR DRIVE SHAFT ASSEMBLY RH
*7	GROUND WIRE	*8	SHAFT SNAP RING
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST
•	Non-reusable part		Differential Oil

ILLUSTRATION



*1	REAR DRIVE SHAFT OIL SEAL	-	-
•	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: REAR DIFFERENTIAL SIDE GEAR SHAFT OIL SEAL: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

2. REMOVE REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

3. REMOVE REAR SUSPENSION ARM COVER RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE REAR DIFFERENTIAL CARRIER ASSEMBLY

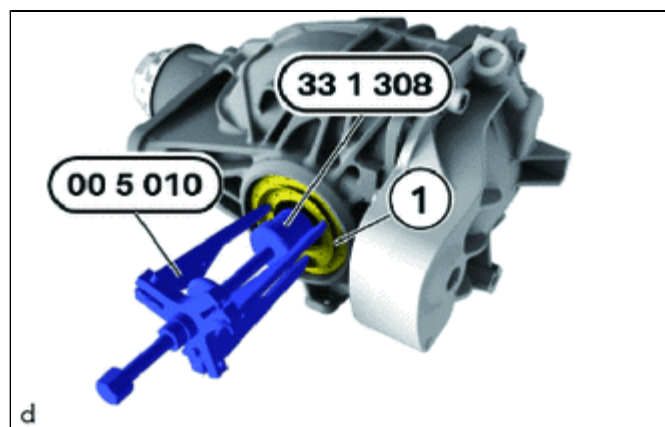
Click here [INFO](#)

5. REMOVE REAR DRIVE SHAFT OIL SEAL

- (a) Pull out the rear drive shaft oil seal (1) using special tool 0 490 466 (00 5 010) or 0 492 104 (33 1 308).

SST: 09500-WA090

SST: 09900-WA210



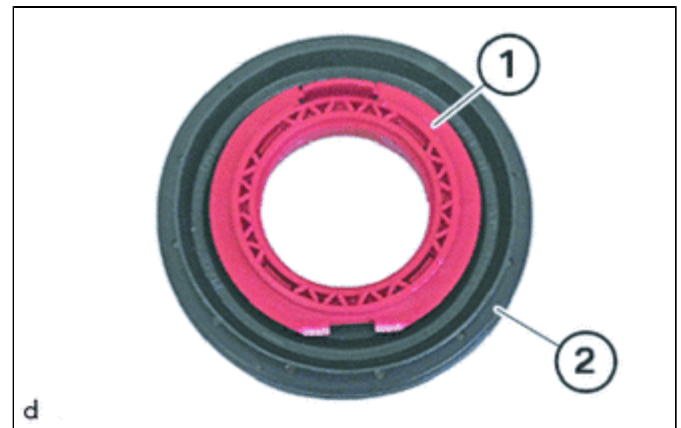
6. INSTALL REAR DRIVE SHAFT OIL SEAL

- (a) Replace rear drive shaft oil seal at front.

HINT:

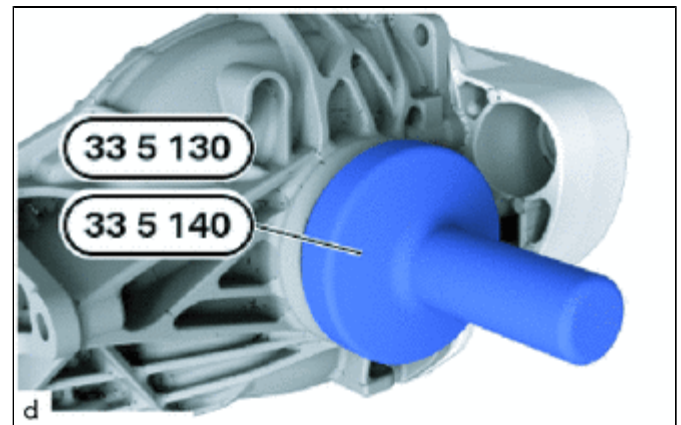
Rear drive shaft oil seal are equipped with an installation protection ring. The installation protection ring is used to protect the sealing lip when installing the rear drive shaft assembly.

(b) Install the rear drive shaft oil seal (2) using the installation protection ring (1).



(c) Make sure that the installation protection ring does not slide out of the rear drive shaft oil seal.

(d) Coat housing sheet metal flange and the sealing lips of the new rear drive shaft oil seal with approved differential oil.



(e) Tap in rear drive shaft oil seal with special tools 0 495 860 (33 5 130) and 0 495 862 (33 5 140) up to the limit position.

SST: 09500-WA060

SST: 09500-WA210

7. INSTALL REAR DIFFERENTIAL CARRIER ASSEMBLY

Click here [INFO](#)

8. INSTALL REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

9. INSTALL REAR SUSPENSION ARM COVER RH

HINT:

Use the same procedure as for the LH side.

10. INSTALL PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

11. INSPECT DIFFERENTIAL OIL

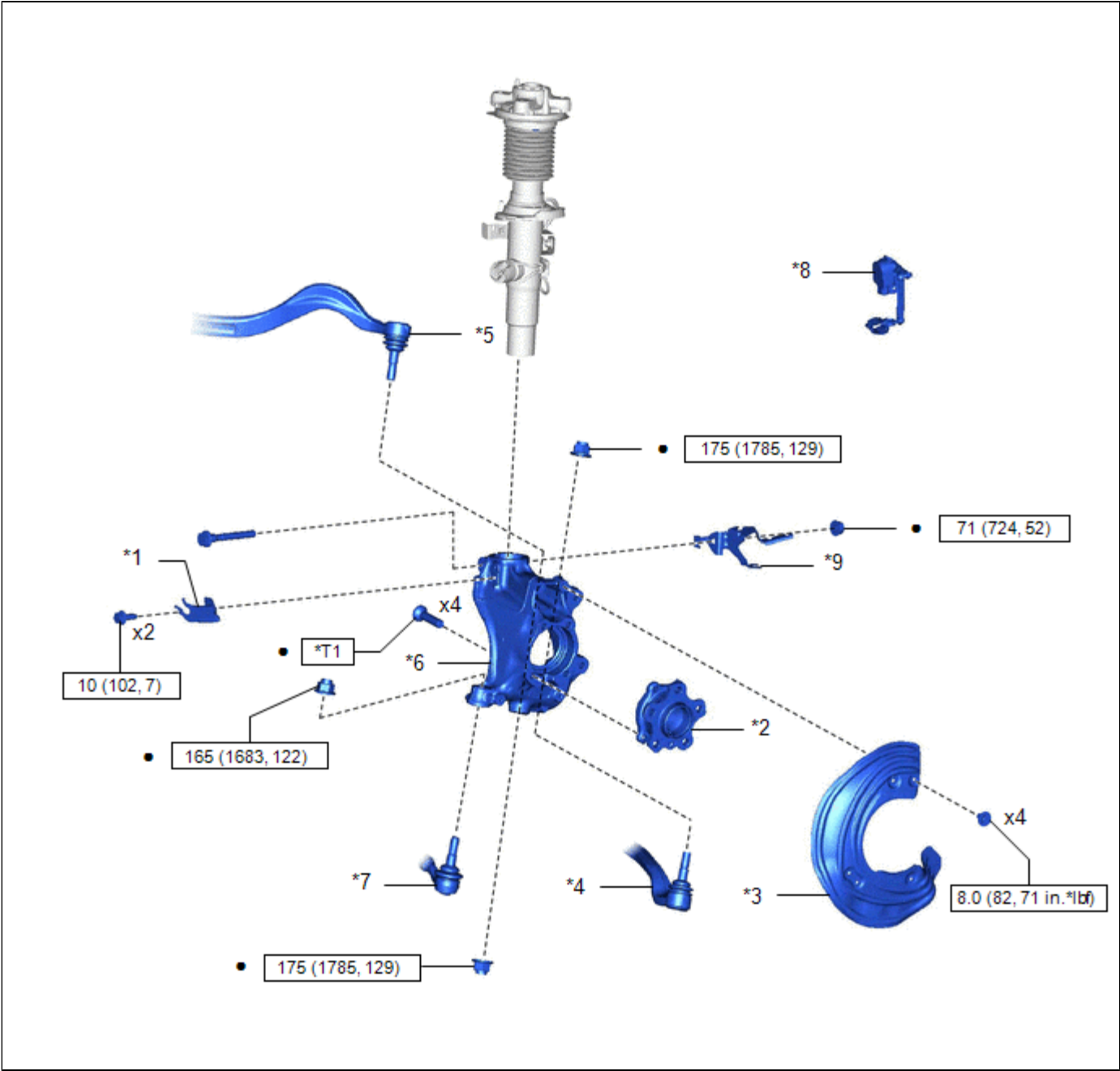
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: STEERING KNUCKLE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BRAKE HOSE BRACKET	*2	FRONT AXLE HUB SUB-ASSEMBLY
*3	FRONT DISC BRAKE DUST COVER	*4	FRONT LOWER SUSPENSION ARM ASSEMBLY

*5	FRONT UPPER SUSPENSION ARM ASSEMBLY	*6	STEERING KNUCKLE
*7	TIE ROD END SUB-ASSEMBLY	*8	HEIGHT CONTROL SENSOR
*9	HOLDER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 120 (1224, 89) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: STEERING KNUCKLE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

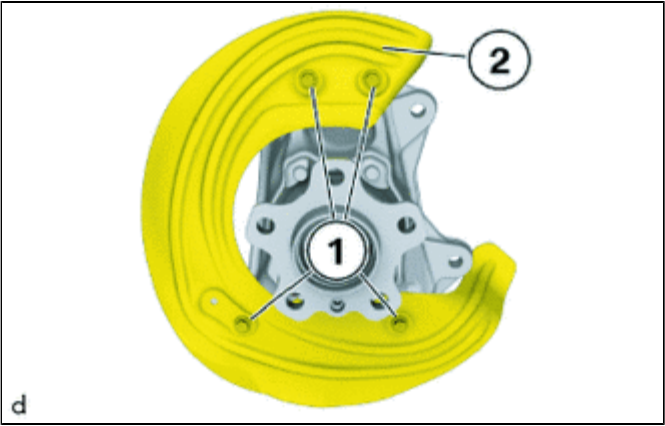
PROCEDURE

1. REMOVE FRONT BRAKE DISC

Click here [INFO](#)

2. REMOVE FRONT DISC BRAKE DUST COVER

(a) Loosen bolts (1).



(b) Remove the front disc brake dust cover (2).

3. DISCONNECT FRONT UPPER SUSPENSION ARM ASSEMBLY

Click here [INFO](#)

4. REMOVE FRONT AXLE HUB SUB-ASSEMBLY

Click here [INFO](#)

5. DISCONNECT FRONT LOWER SUSPENSION ARM ASSEMBLY

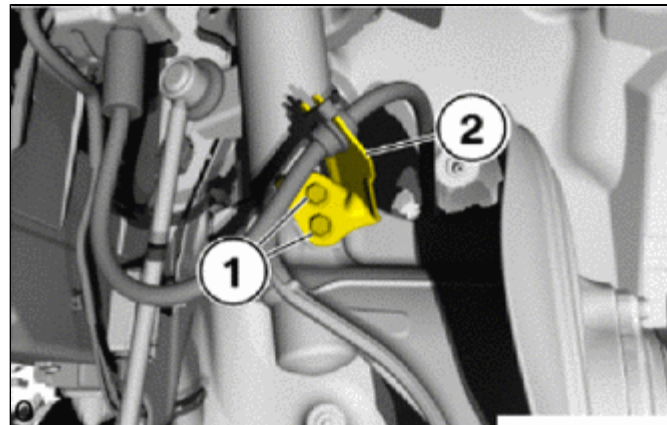
Click here [INFO](#)

6. DISCONNECT TIE ROD END SUB-ASSEMBLY

Click here [INFO](#)

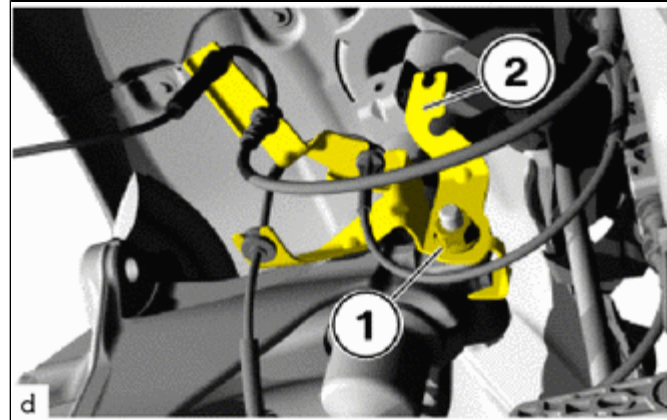
7. REMOVE BRAKE HOSE BRACKET

- (a) Release the bolts (1) and remove the brake hose bracket (2) on the steering knuckle.



8. REMOVE STEERING KNUCKLE

- (a) Unfasten 16 mm nut (1).



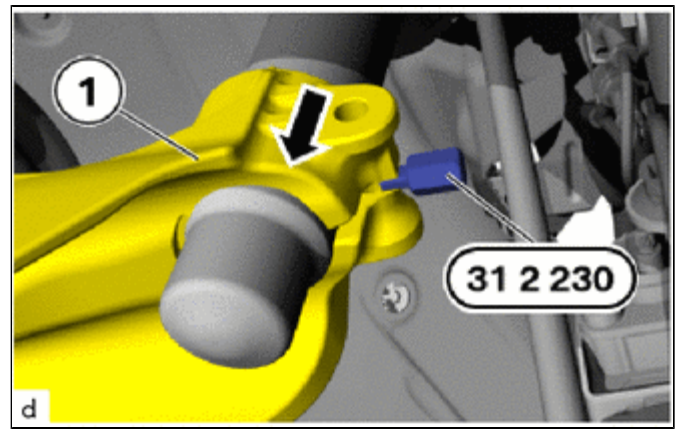
- (b) Remove holder (2).

- (c) Spread the steering knuckle (1) with the special tool 0 494 541 (31 2 230).

SST: 09600-WA030

NOTICE:

Secure component against falling.



(d) Pull the steering knuckle (1) in the direction of arrow and remove from the front shock absorber assembly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AXLE AND DIFFERENTIAL: STEERING KNUCKLE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

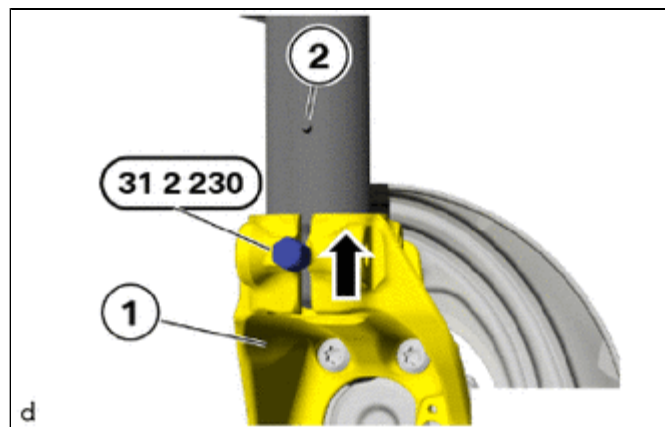
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL STEERING KNUCKLE

- (a) Spread the steering knuckle (1) apart using special tool 0 494 541 (31 2 230).

SST: 09600-WA030



- (b) Correctly align the gap at the steering knuckle (1) with the positioning pin (2) at the spring strut.
- (c) Install holder.
- (d) Replace 16 mm nut.
- (e) Tighten 16 mm nut.

Torque:

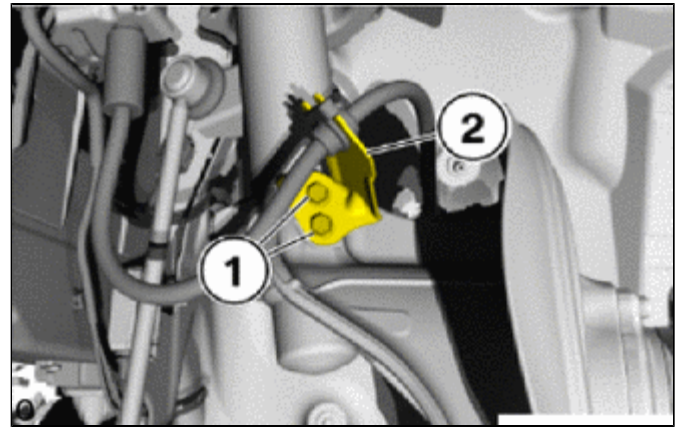
71 N·m {724 kgf·cm, 52 ft·lbf}

2. INSTALL BRAKE HOSE BRACKET

- (a) Position the brake hose bracket (2) on the steering knuckle and tighten with the bolts (1).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}



3. CONNECT TIE ROD END SUB-ASSEMBLY

Click here [INFO](#)

4. CONNECT FRONT LOWER SUSPENSION ARM ASSEMBLY

Click here [INFO](#)

5. INSTALL FRONT AXLE HUB SUB-ASSEMBLY

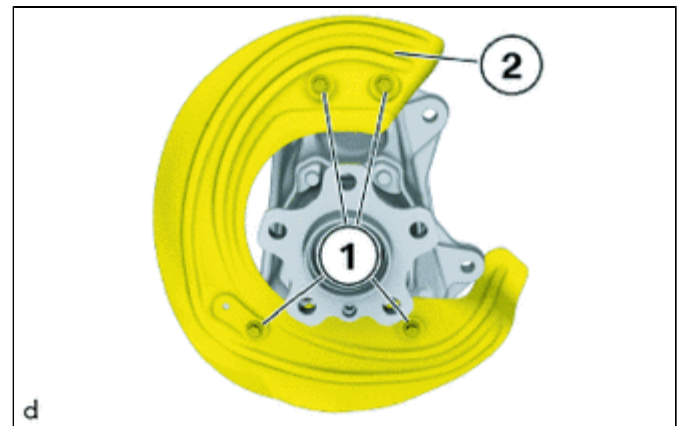
Click here [INFO](#)

6. CONNECT FRONT UPPER SUSPENSION ARM ASSEMBLY

Click here [INFO](#)

7. INSTALL FRONT DISC BRAKE DUST COVER

(a) Install the front disc brake dust cover (2).



(b) Replace bolts (1).

(c) Tighten the bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

8. INSTALL FRONT BRAKE DISC

Click here [INFO](#)

9. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

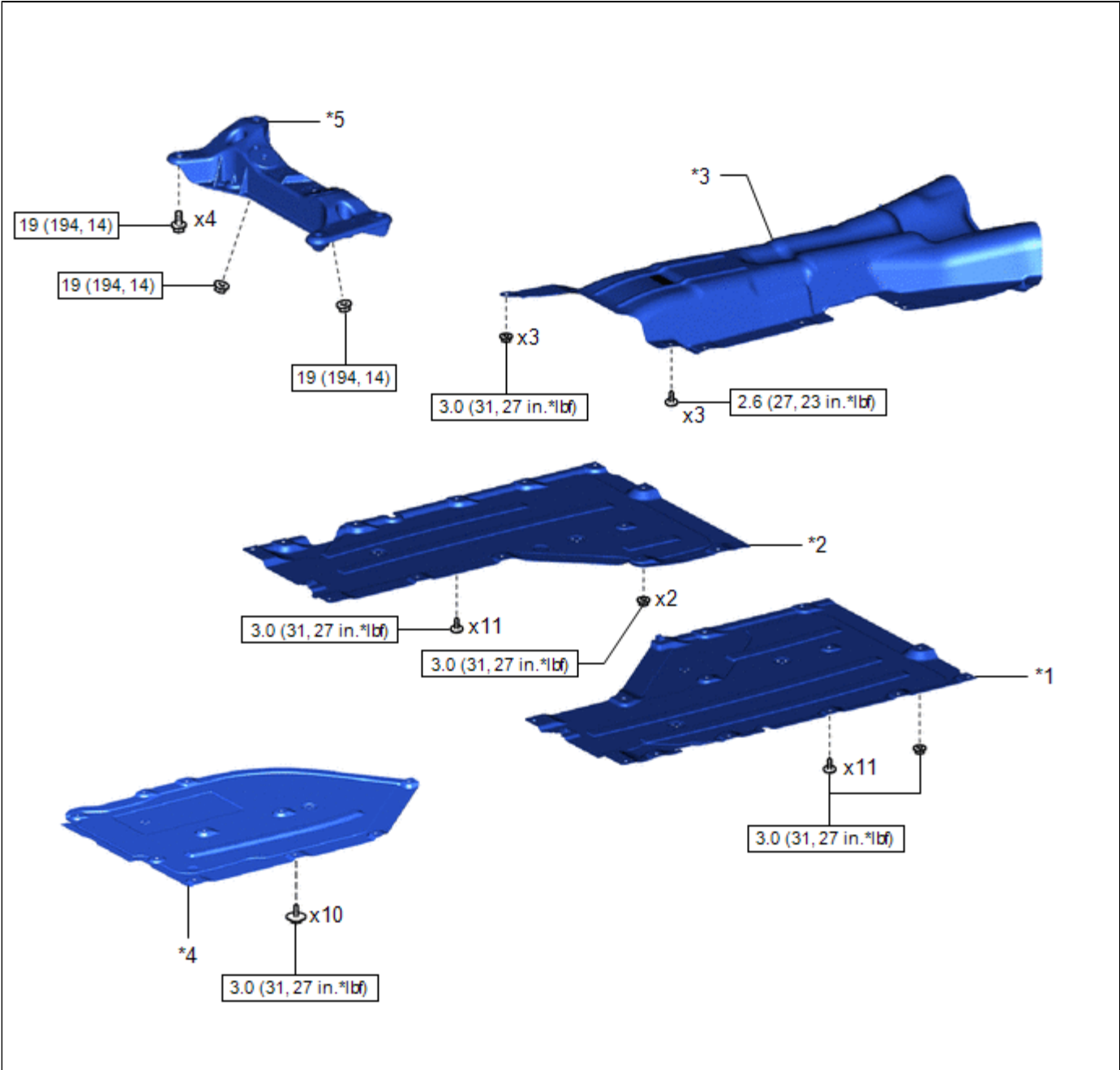
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: FLEXIBLE COUPLING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

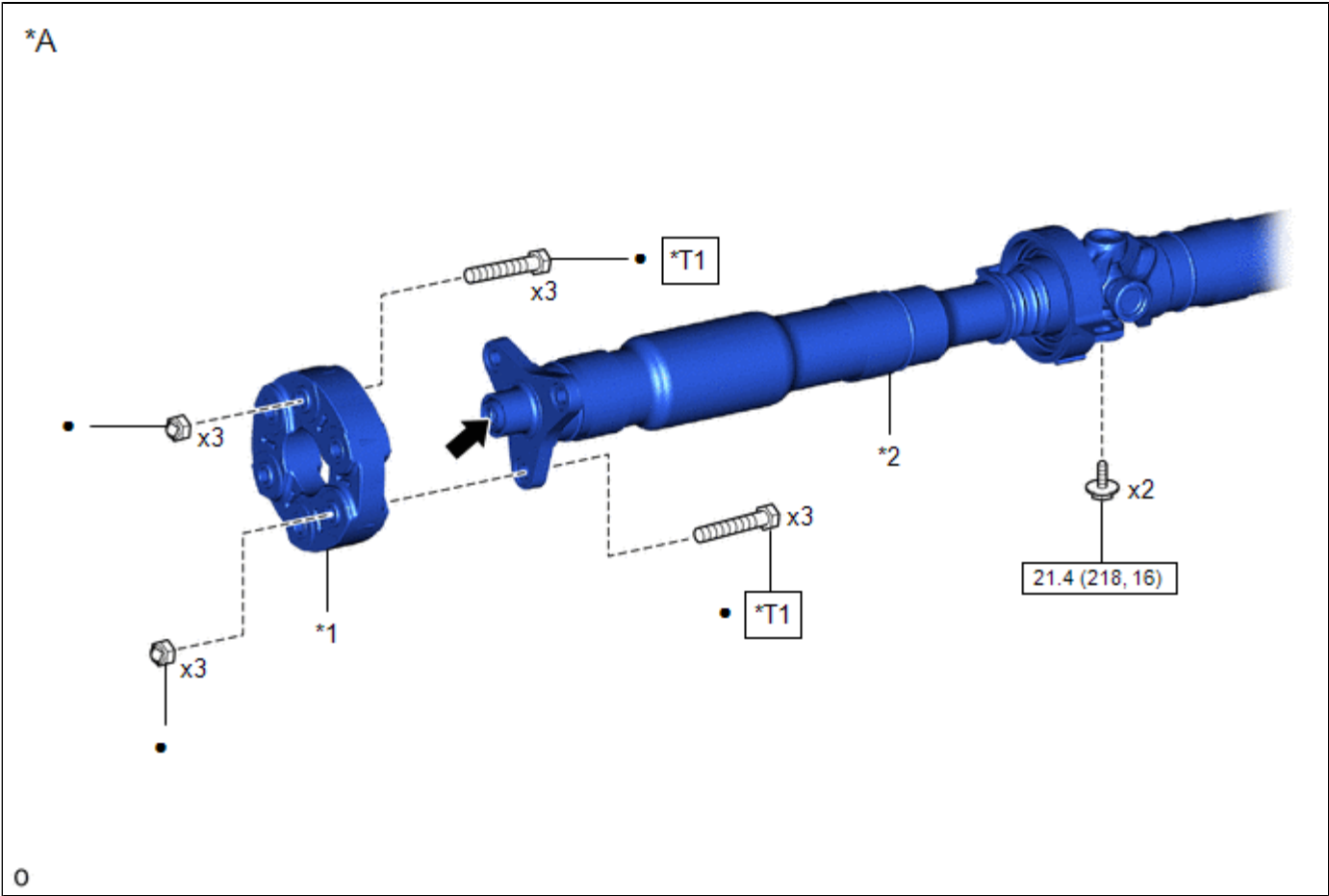
ILLUSTRATION





*1	FRONT FLOOR COVER LH	*2	FRONT FLOOR COVER RH
*3	FRONT NO. 1 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER
*5	REAR ENGINE MOUNTING MEMBER	-	-
N*m (kgf*cm, ft.*lbf): Specified			

	torque	-	-
---	--------	---	---

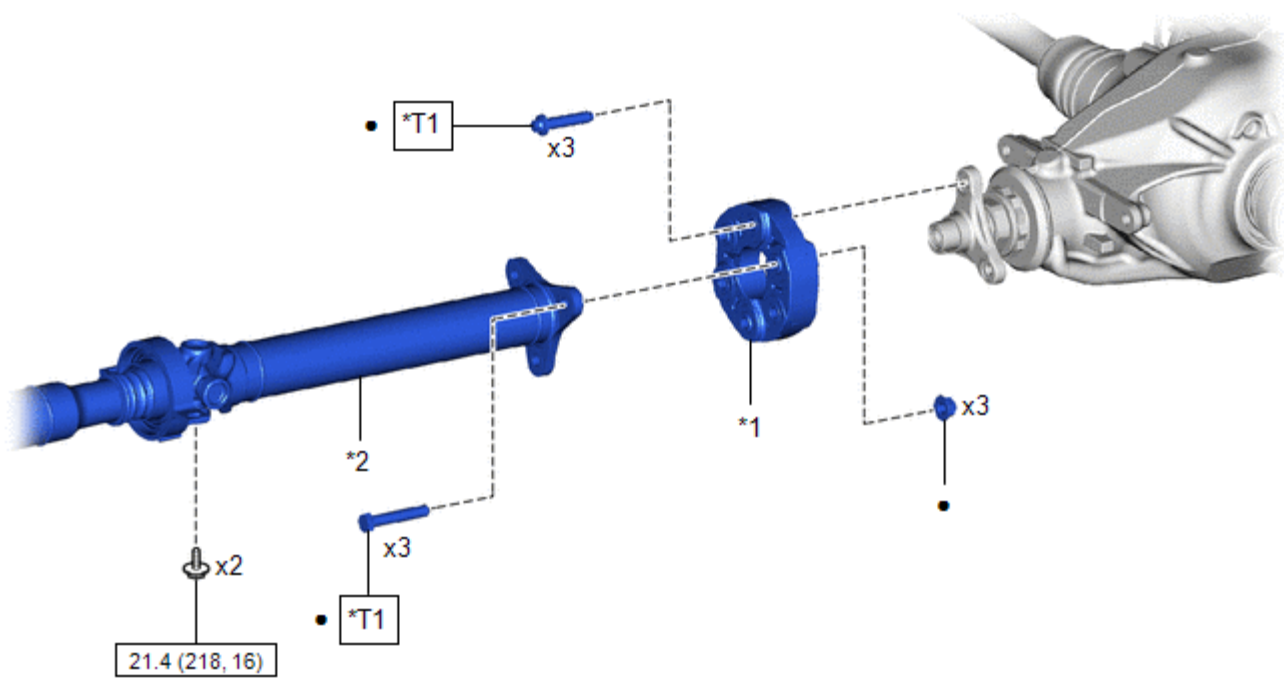
ILLUSTRATION




*A	for Front Side	-	-
*1	FLEXIBLE COUPLING	*2	PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Lubricant Olistamoly 2 LN 584 LO	-	-
*T1	1st: 55 (561, 41) 2nd: Turn 90°	-	-

ILLUSTRATION

*A



0

*A	for Rear Side	-	-
*1	FLEXIBLE COUPLING	*2	PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 55 (561, 41) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: FLEXIBLE COUPLING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. REMOVE FRONT FLOOR COVER LH

Click here [INFO](#)

3. REMOVE FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

5. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

6. REMOVE REAR ENGINE MOUNTING MEMBER (for Front Side)

Click here [INFO](#)

7. SEPARATE PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING (for Front Side)

NOTICE:

- Damage to propeller shaft assembly with center bearing during removal.

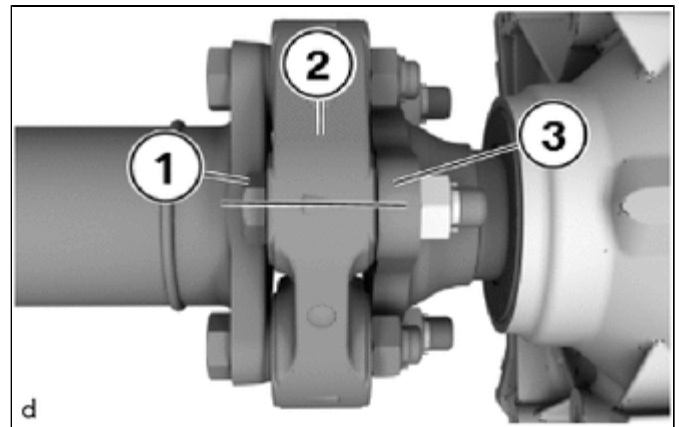
Non-observance of the removal guidelines for the propeller shaft assembly with center bearing on the rear axle differential may cause severe damage.

- Do not disassemble the three-hole flange, flexible coupling and propeller shaft assembly with center bearing. The three-hole flange to the rear axle differential is balanced with the flexible coupling and propeller shaft assembly with center bearing.
- Loosen the recessed nut against the direction of travel in clockwise direction. The propeller shaft assembly with center bearing must be loosened on the recessed nut only and exclusively in the direction of rotation otherwise the anti-twist lock of the bi-hexagonal flange nut is damaged.

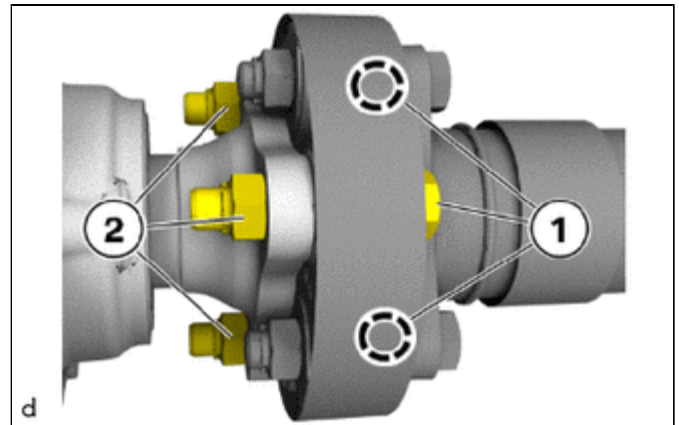
(a) Mark the installation position of the 18 mm bolts connection (2) of the flexible coupling (1) and the three-hole flange (3).

(1) The mark makes it possible for the propeller shaft assembly with center bearing to be installed again in

the same position. This should prevent a humming noise from the drive train during driving.



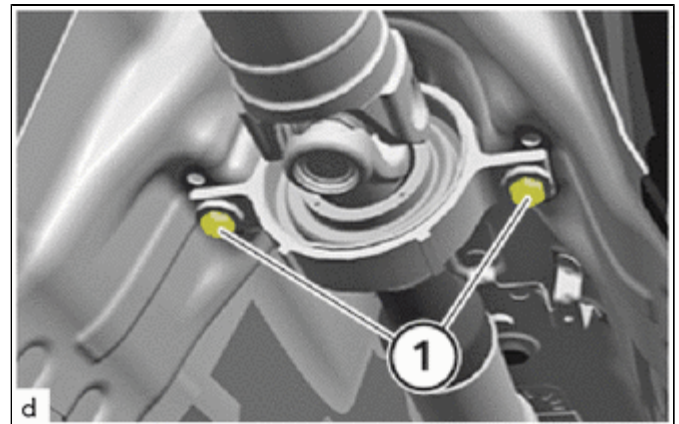
(b) Release 18 mm bolts (1) and counter the 18 mm nuts (2).



(c) Remove the bolts (1) on the center No. 1 support bearing assembly and hold down the propeller shaft assembly with center bearing.

NOTICE:

Major deflection angles of the propeller shaft assembly with center bearing may damage the propeller shaft assembly with center bearing and/or the joints.



(d) Tie up propeller shaft assembly with center bearing to underbody.

8. SEPARATE PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING (for Rear Side)

NOTICE:

- Damage to propeller shaft assembly with center bearing during removal.

Non-observance of the removal guidelines for the propeller shaft assembly with center bearing on the rear axle differential may cause severe damage.

- Do not disassemble the three-hole flange, flexible coupling and propeller shaft assembly with center bearing. The three-hole flange to the rear axle differential is balanced with the flexible coupling and propeller shaft assembly with center bearing.
- Loosen the recessed nut against the direction of travel in clockwise direction. The propeller shaft assembly with center bearing must be loosened on the recessed nut only and exclusively in the direction of rotation otherwise the anti-twist lock of the bi-hexagonal flange nut is damaged.

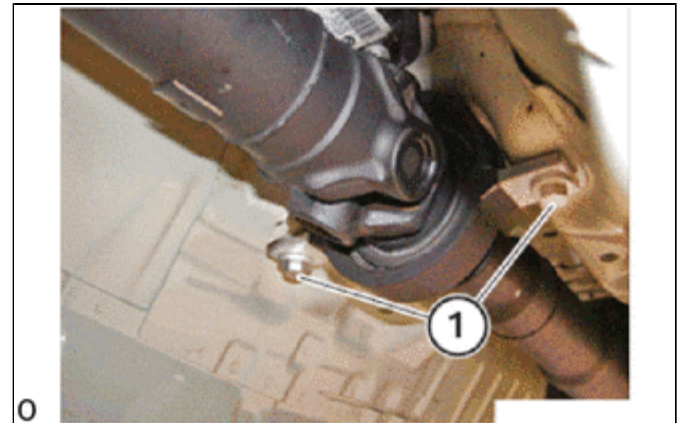
HINT:

To protect universal joints, tie back propeller shaft assembly with center bearing in area of center bearing.

- (a) Remove the bolts (1) on the center No. 1 support bearing assembly and hold down the propeller shaft assembly with center bearing.

NOTICE:

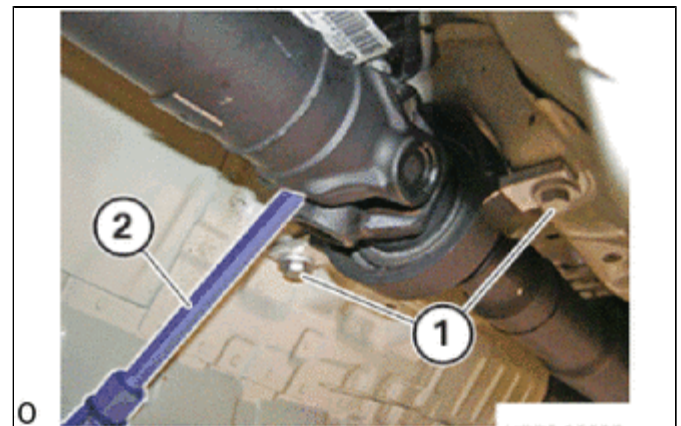
Major deflection angles of the propeller shaft assembly with center bearing may damage the propeller shaft assembly with center bearing and/or the joints.



- (b) Secure the propeller shaft assembly with center bearing against twisting at the central universal joint using a suitable tool (2).

HINT:

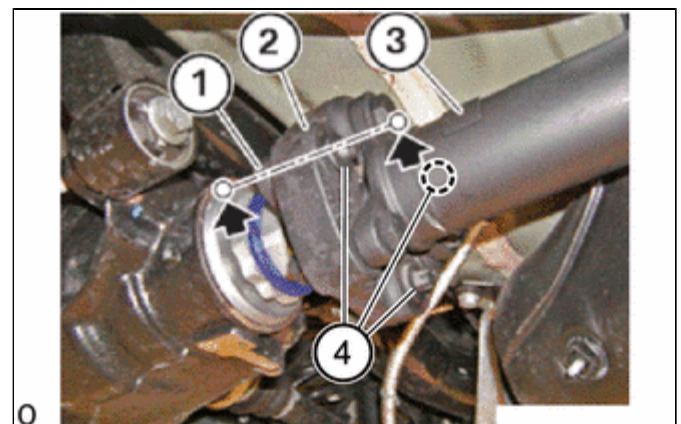
Remove bolts completely (1) only after opening the bolts on the 3-hole flange.



- (c) Mark the installation position of the three-hole flange (1), the flexible disc (2) and the propeller shaft (3) on the same level (arrows).

HINT:

The identification allows the three-hole flange and the propeller shaft to be installed at the same position. This guarantees that the three-hole punch for the rear axle differential will once again be balanced with the propeller shaft after installation.



(d) Remove the E16 bolts (4).

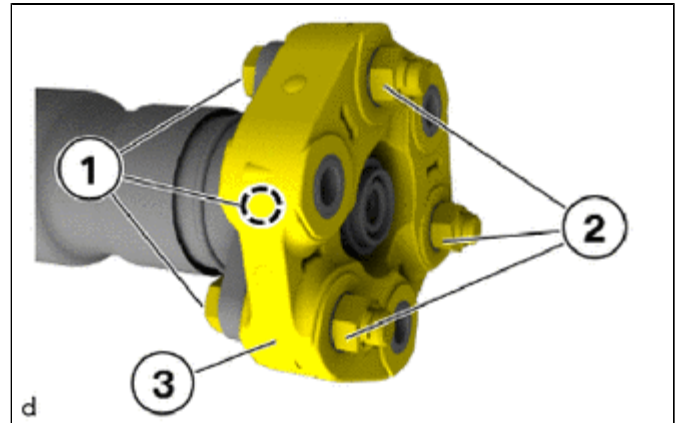
(e) Detach the propeller shaft assembly with center bearing (3) at the three-hole flange (1) and at the center mount.

9. REMOVE FLEXIBLE COUPLING (for Front Side)

HINT:

To protect universal joints, tie back propeller shaft assembly with center bearing in area of center mount.

(a) Release the 18 mm bolts (1), if necessary counter support at the 18 mm nuts (2).



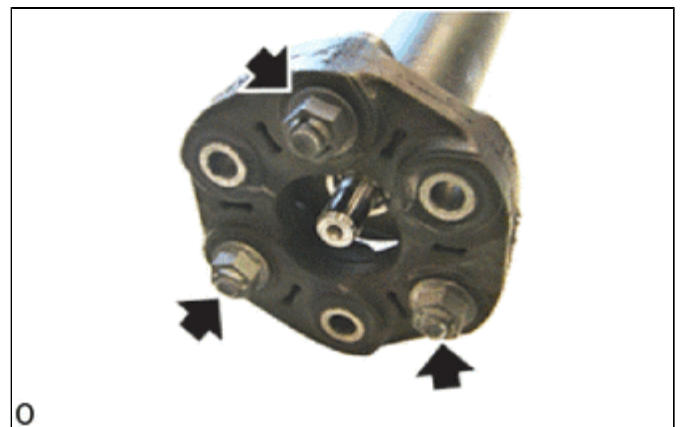
(b) Remove the flexible coupling (3) from the propeller shaft assembly with center bearing.

10. REMOVE FLEXIBLE COUPLING (for Rear Side)

HINT:

To protect universal joints, tie back propeller shaft assembly with center bearing in area of center mount.

(a) Release 18 mm bolts and counter the 18 mm nuts and remove flexible disc from the propeller shaft assembly with center bearing.



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Title: DRIVE SHAFT / PROPELLER SHAFT: FLEXIBLE COUPLING: INSTALLATION; 2020 MY Supra [03/2019 -]		

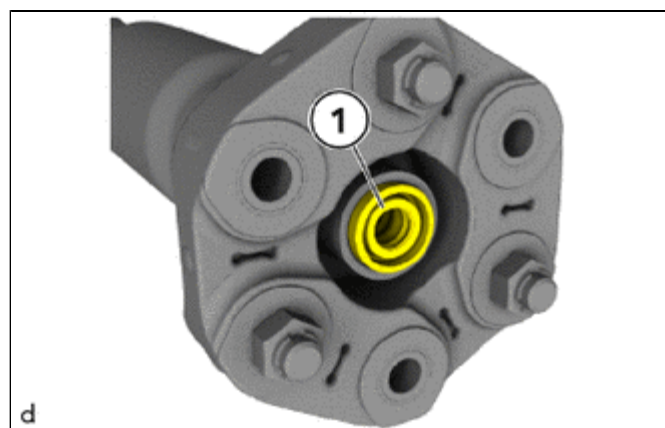
INSTALLATION

CAUTION / NOTICE / HINT

PROCEDURE

1. INSTALL FLEXIBLE COUPLING (for Front Side)

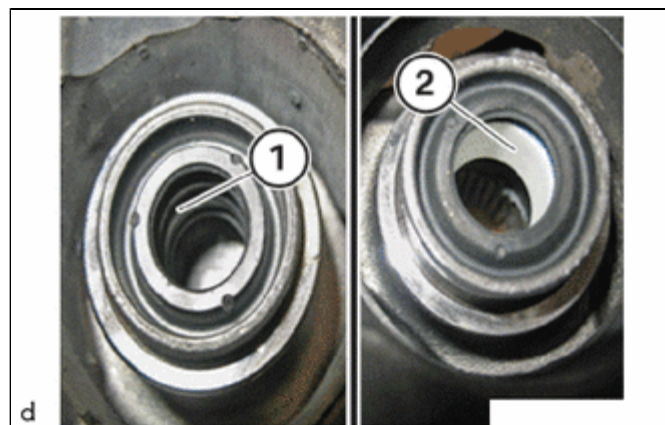
- (a) Check center No. 1 support bearing assembly (1) for damage; replace if necessary.



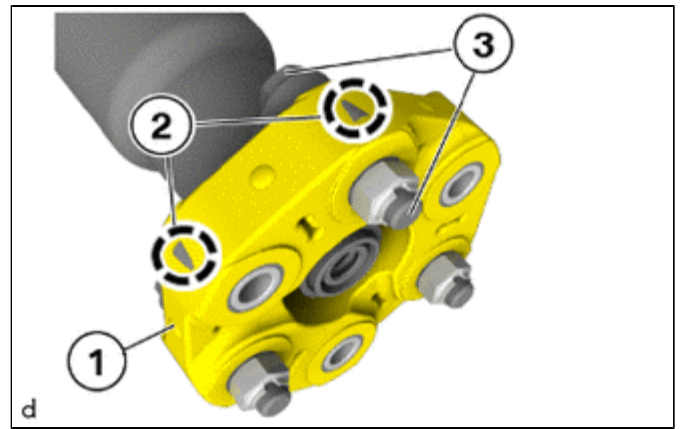
- (b) Apply a thin coat of Lubricant Olistamoly 2 LN 584 LO to the soft centering (1), if necessary.

NOTICE:

Do not grease the hard centering (2).



- (c) Replace 18 mm bolts and 18 mm self-locking nuts.



(d) During the installation, make sure that the arrows (2) on the circumference of the flexible coupling point to the flange arms (3).

(e) Mount flexible coupling (1) on the propeller shaft assembly with center bearing and tighten the 18 mm bolts.

Torque:

55 N·m {561 kgf·cm, 41 ft·lbf}

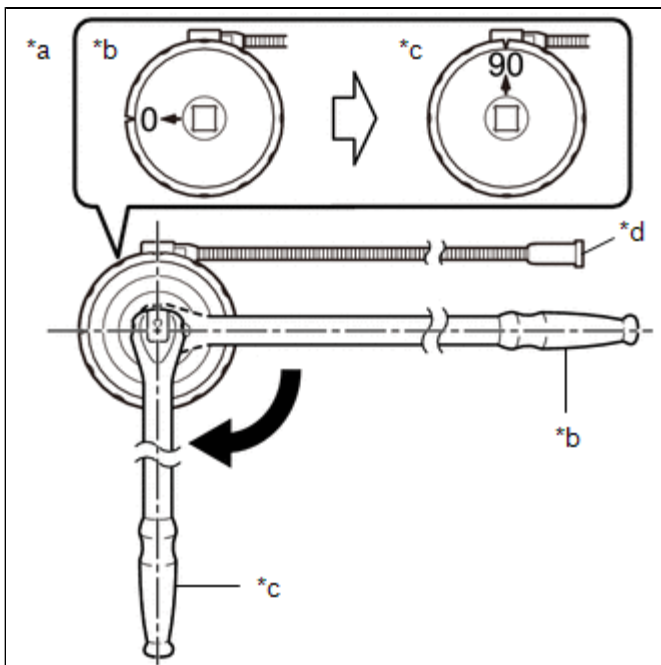
(f) Tighten the 18 mm bolts an additional 90° and counter support them at the 18 mm nuts.

SST: 09900-WA010

NOTICE:

Joining torque and angle of rotation must be observed without fail.

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

2. INSTALL FLEXIBLE COUPLING (for Rear Side)

- (a) Replace 18 mm bolts and 18 mm self-locking nuts.
- (b) Mount the flexible disc on the propeller shaft assembly with center bearing and tighten the 18 mm bolts.

Torque:

55 N·m {561 kgf·cm, 41 ft·lbf}

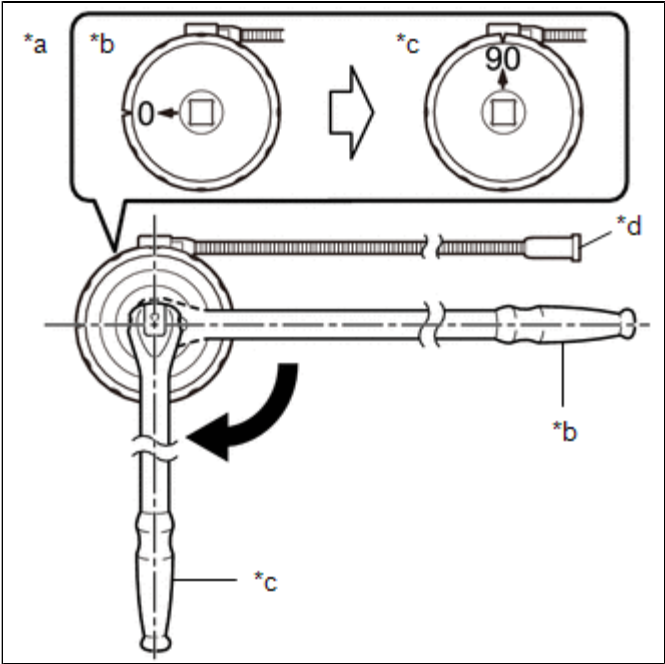
- (c) Tighten the 18 mm bolts an additional 90° and counter support them at the 18 mm nuts.

SST: 09900-WA010

NOTICE:

Jointing torque and angle of rotation must be observed without fail.

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

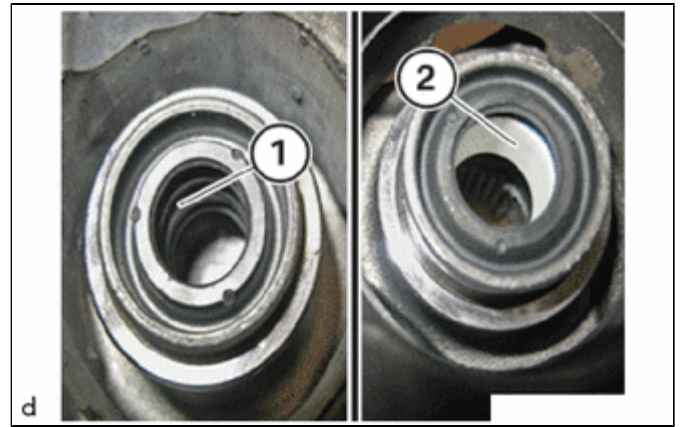
- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

3. INSTALL PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING (for Front Side)

- (a) Check center No. 1 support bearing assembly for damage, replace if necessary.

- (b) Apply a thin coat of Lubricant Olistamoly 2 LN 584 LO to the soft centering (1), if necessary.

(1) Do not grease the hard centering (2).

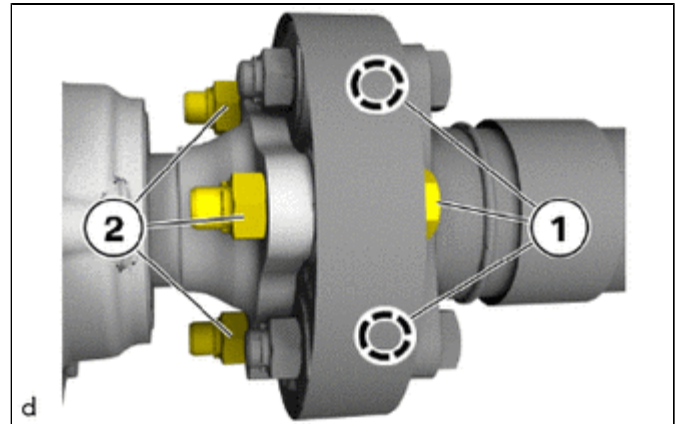


(c) Replace the 18 mm bolts and 18 mm self-locking nuts.

(d) Assemble the 18 mm bolts connections of the flexible coupling and the three-hole flange according to the self-affixed identification.

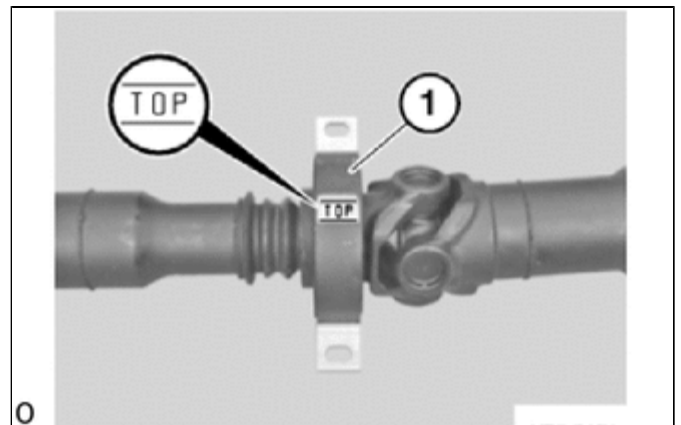
(1) This should prevent a humming noise from the drive train during driving.

(e) Hand-tighten 18 mm bolts (1) and 18 mm nuts (2), but do not tighten fully.

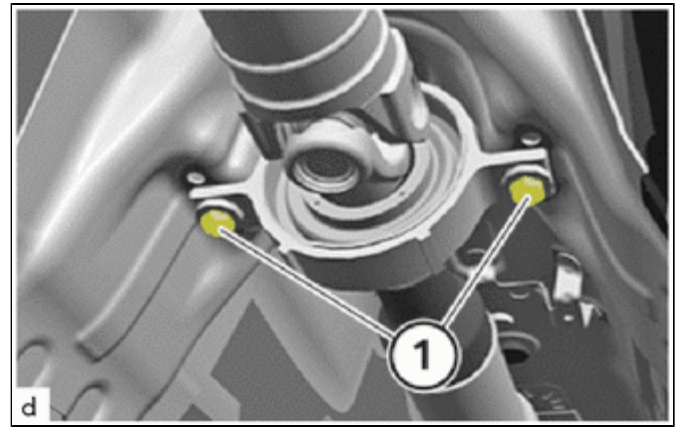


(f) center mount with TOP marking:

(1) The center mount (1) must be installed with the TOP marking at the top in the gearbox tunnel.



(g) Position center mount.



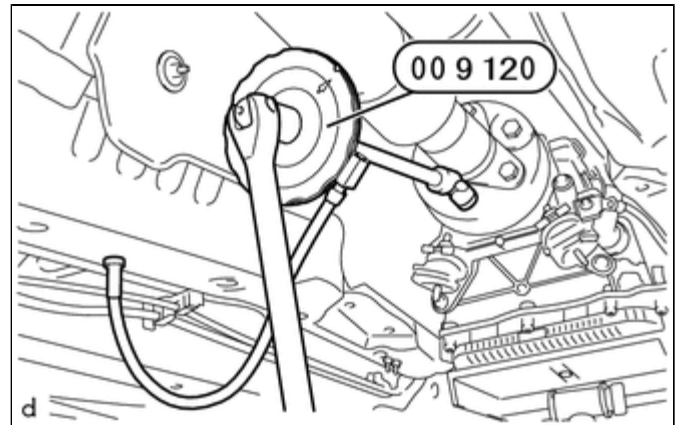
(h) Hand-tighten bolts (1), but do not tighten fully.

(i) Provide counter support for the 18 mm bolts of the flexible coupling on the 18 mm nut and tighten with the 18 mm bolts.

(j) Secure the special tool 0 490 504 (00 9 120) with the special tool 0 495 108 (00 9 130) on the vehicle underbody and continue to 18 mm bolts it in according to the angle of rotation.

Torque:

55 N·m {561 kgf·cm, 41 ft·lbf}



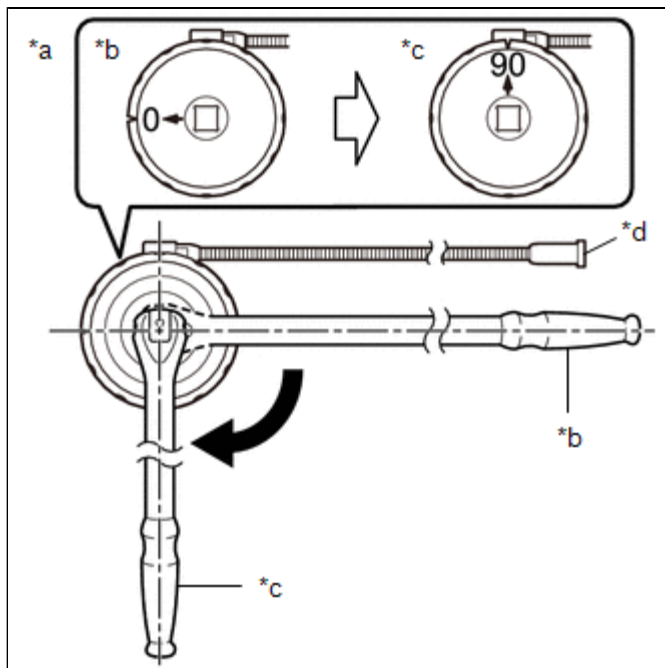
(k) Tighten the 18 mm bolts an additional 90° and counter support them at the 18 mm nuts.

SST: 09900-WA010

NOTICE:

Jointing torque and angle of rotation must be observed without fail.

HINT:



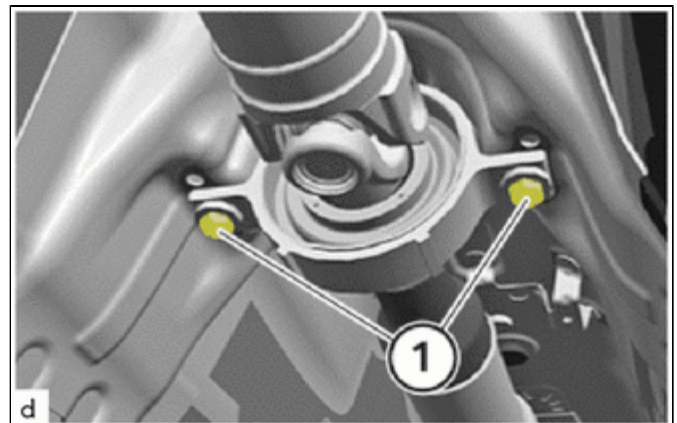
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(I) Tighten the bolts (1).

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

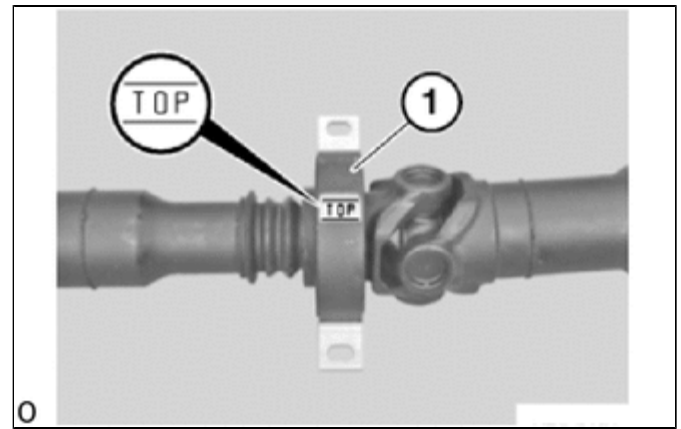


4. INSTALL PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING (for Rear Side)

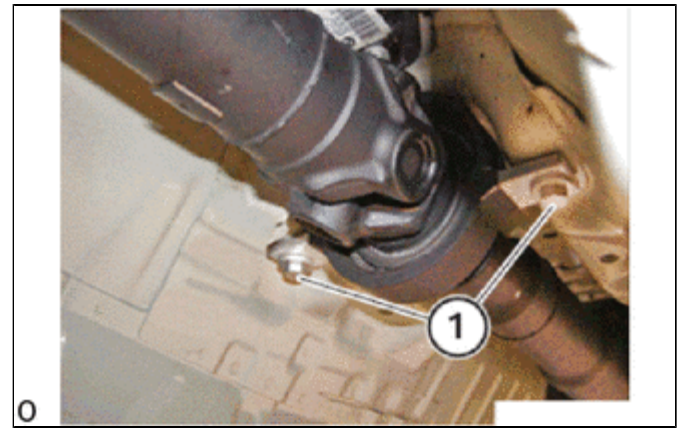
(a) center mount with TOP marking:

(1) The center mount (1) must be installed with the TOP

marking at the top in the gearbox tunnel.



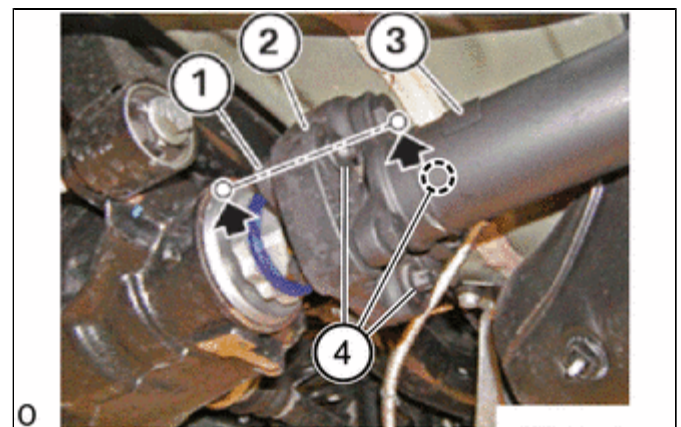
(b) Position center mount.



(c) Position the bolts (1).

(d) Secure the propeller shaft against twisting at the central universal joint using a suitable tool.

(e) Assemble the three-hole flange (1), flexible disc (2) and propeller shaft (3) in the same position that was marked during the removal.



(f) Replace the E16 bolts (4).

(g) Tighten the E16 bolts (4).

Torque:

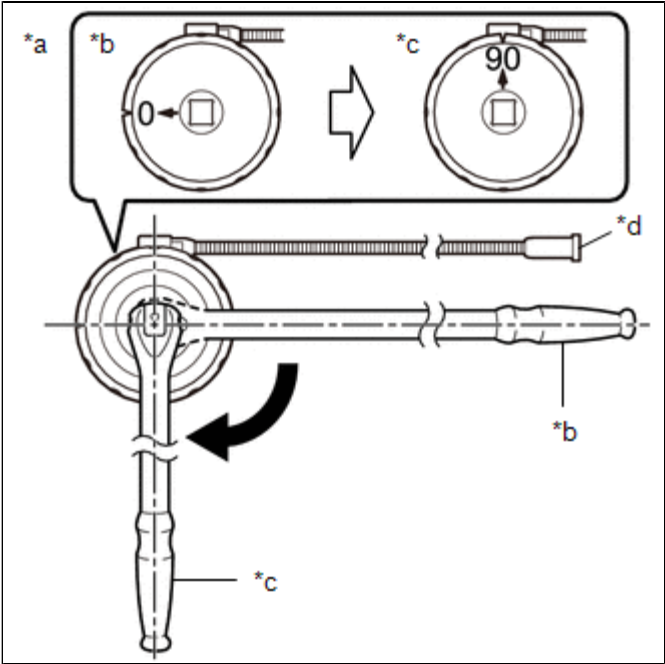
55 N·m {561 kgf·cm, 41 ft·lbf}

(h) Tighten the E16 bolts (4) an additional 90°.

NOTICE:

Jointing torque and angle of rotation must be observed without fail.

HINT:



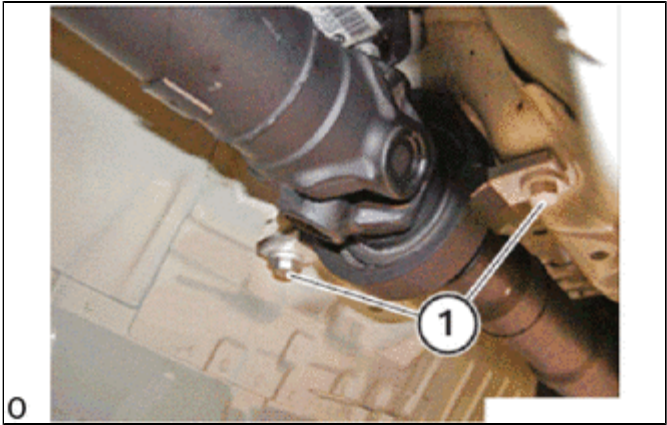
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(i) Tighten the bolts (1).

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}



5. INSTALL REAR ENGINE MOUNTING MEMBER (for Front Side)

Click here [INFO](#)

6. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

7. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

8. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

9. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

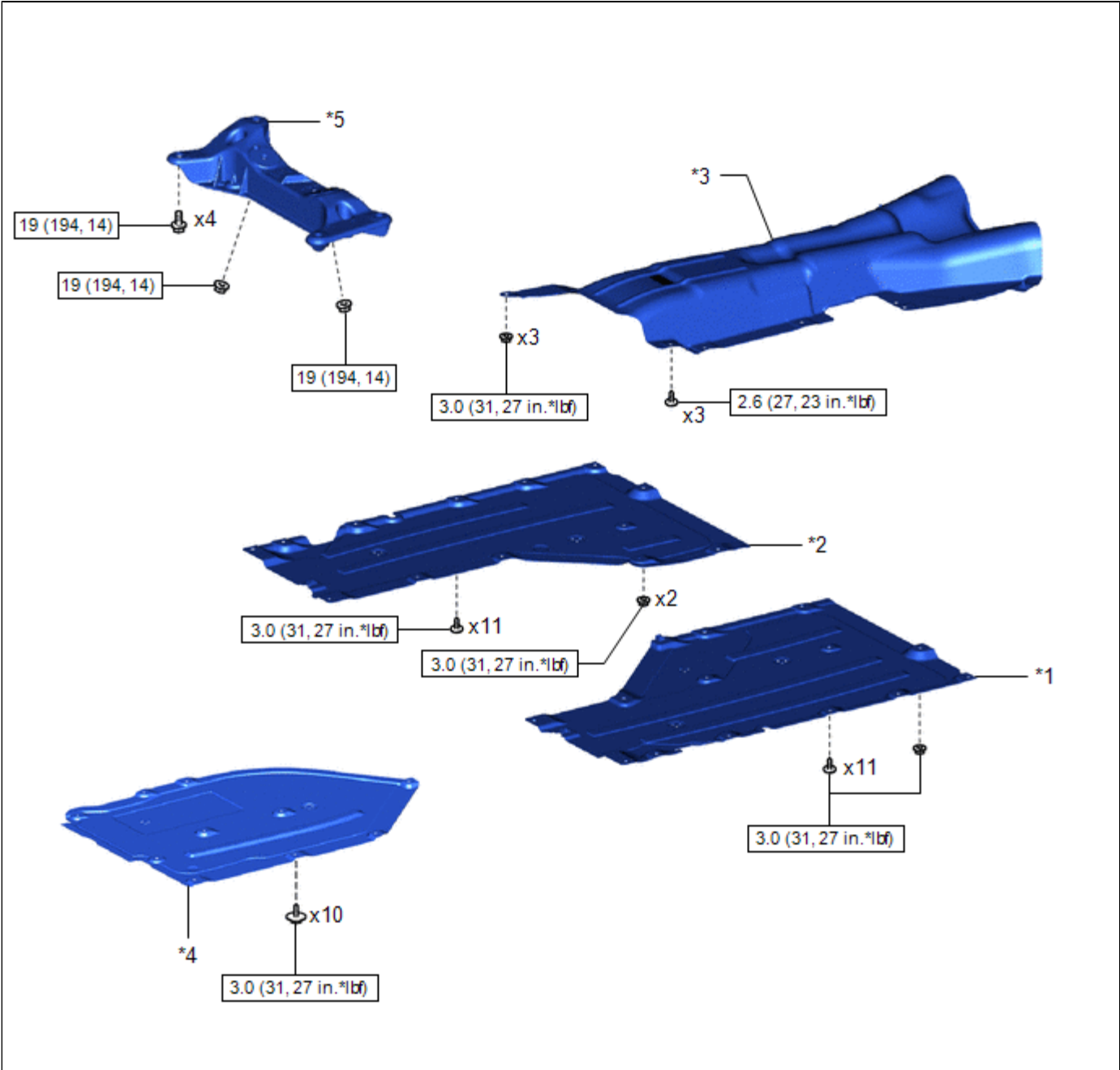
10. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: PROPELLER SHAFT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

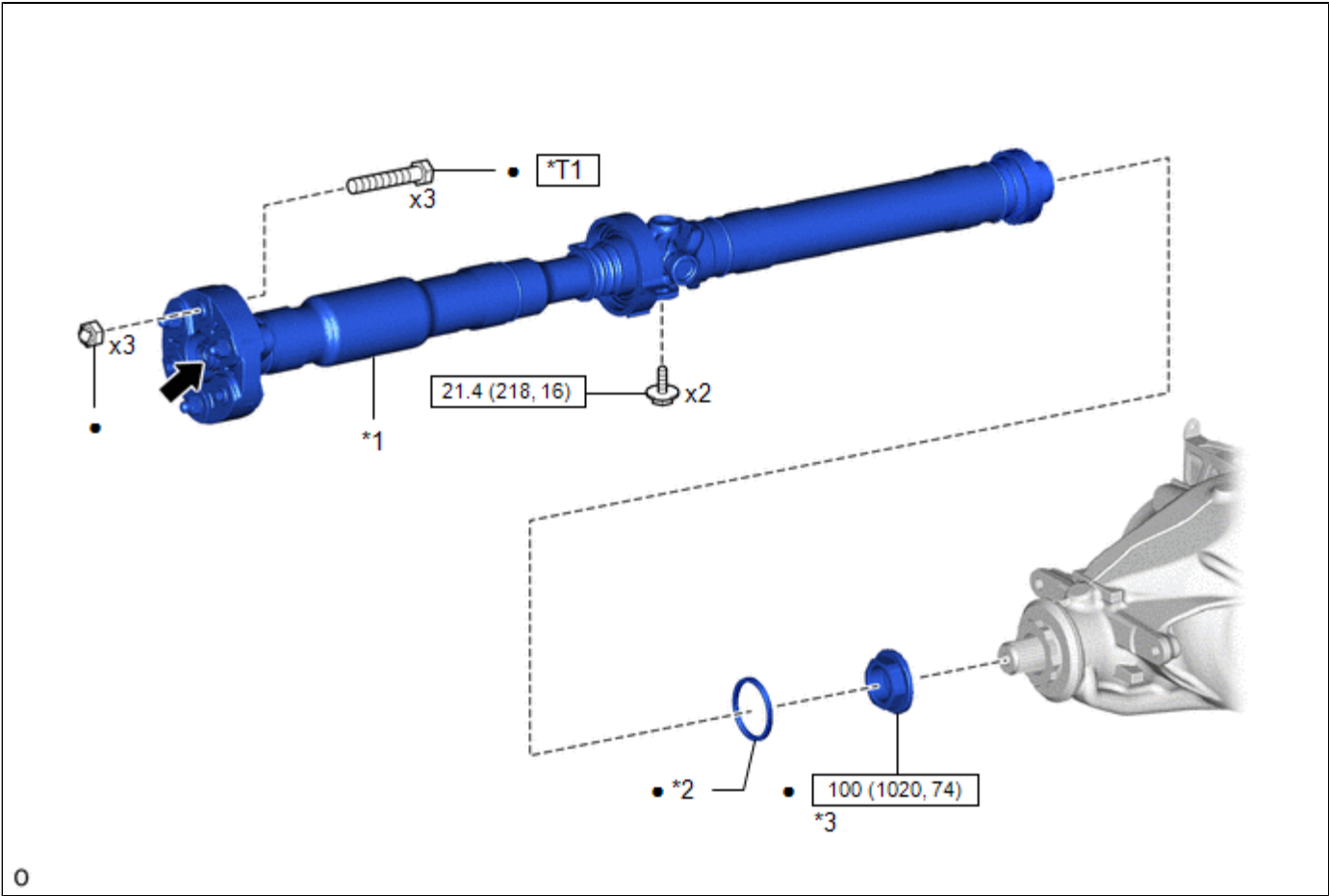
ILLUSTRATION



*1	FRONT FLOOR COVER LH	*2	FRONT FLOOR COVER RH
*3	FRONT NO. 1 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER
*5	REAR ENGINE MOUNTING MEMBER	-	-
N*m (kgf*cm, ft.*lbf): Specified			

<div></div>	torque	-	-
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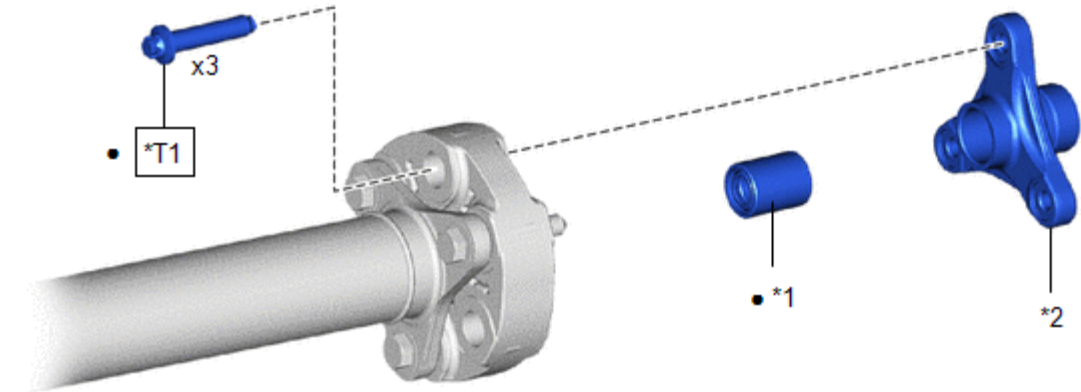
ILLUSTRATION





*1	PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING	*2	RETAINING CLIP
*3	INSERT NUT	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
<div></div>	Lubricant Olistamoly 2 LN 584 LO	-	-
*T1	1st: 55 (561, 41) 2nd: Turn 90°	-	-

ILLUSTRATION

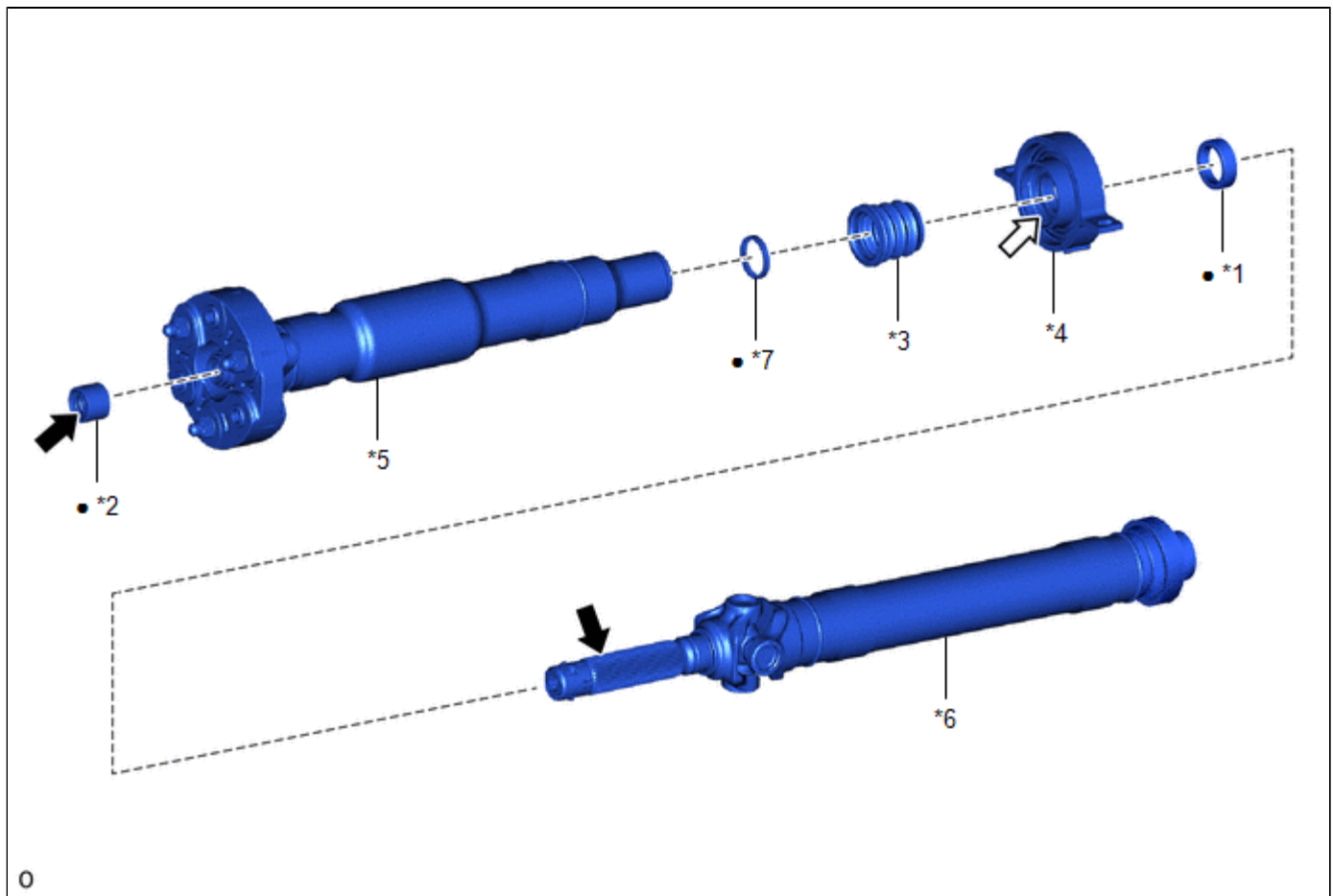
*A



0

*A	for Rear Side	-	-
*1	PROPELLER SHAFT SPLINE SLEEVE	*2	THREE-HOLE FRANGE
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Lubricant Olistamoly 2 LN 584 LO	-	-
*T1	1st: 55 (561, 41) 2nd: Turn 90°	-	-

ILLUSTRATION



*1	CENTER NO. 1 SUPPORT BEARING	*2	PROPELLER SHAFT SPLINE SLEEVE
*3	REAR PROPELLER SHAFT BOOT	*4	CENTER NO. 1 SUPPORT
*5	FRONT PROPELLER SHAFT ASSEMBLY	*6	REAR PROPELLER SHAFT ASSEMBLY
*7	CLAMPING RING	-	-
•	Non-reusable part	➡	Lubricant Olistamoly 2 LN 584 LO
➡	Assembly aid	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: PROPELLER SHAFT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

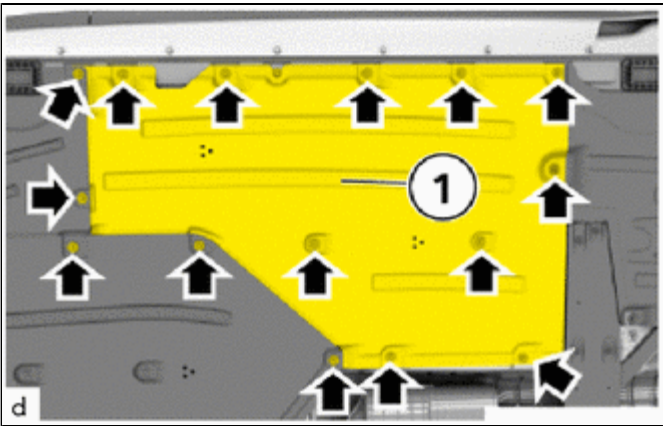
PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. REMOVE FRONT FLOOR COVER LH

(a) Unscrew all screws and nuts (arrows).



(b) Remove the front floor cover LH (1).

3. REMOVE FRONT FLOOR COVER RH

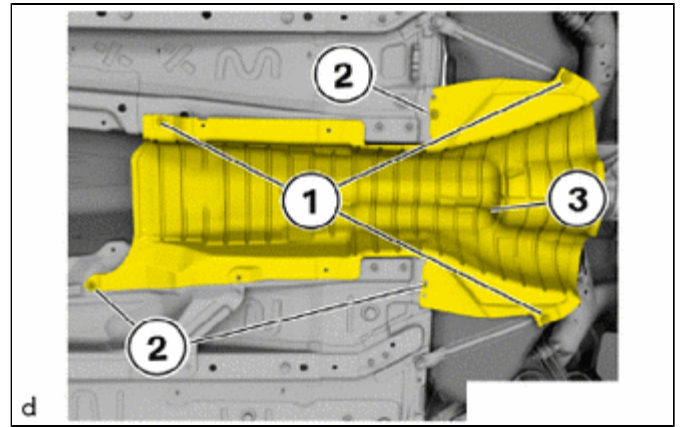
HINT:
Use the same procedure as for the LH side.

4. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

5. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

(a) Loosen screws (1).



(b) Unscrew the sheet metal nuts (2).

(c) Remove the front No. 1 floor heat insulator of the tank (3).

6. REMOVE REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

7. REMOVE PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING

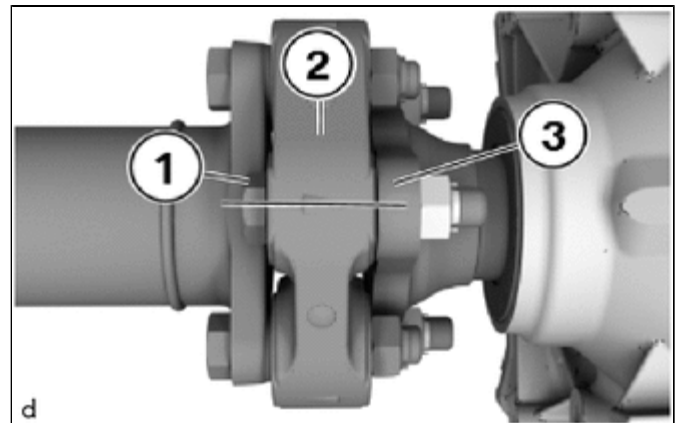
NOTICE:

- Damage to propeller shaft assembly during removal.
- Non-observance of the removal guidelines for the propeller shaft assembly on the rear axle differential may cause severe damage.
 - Do not disassemble the three-hole flange, flexible coupling and propeller shaft assembly. The three-hole flange to the rear axle differential is balanced with the flexible coupling and propeller shaft assembly.
 - Loosen the insert nut against the direction of travel in clockwise direction. The propeller shaft assembly must be loosened on the insert nut only and exclusively in the direction of rotation otherwise the anti-twist lock of the bi-hexagonal flange nut is damaged.
 - In the event of a damaged anti-twist lock on the bi-hexagonal flange nut: Replace the rear axle differential.

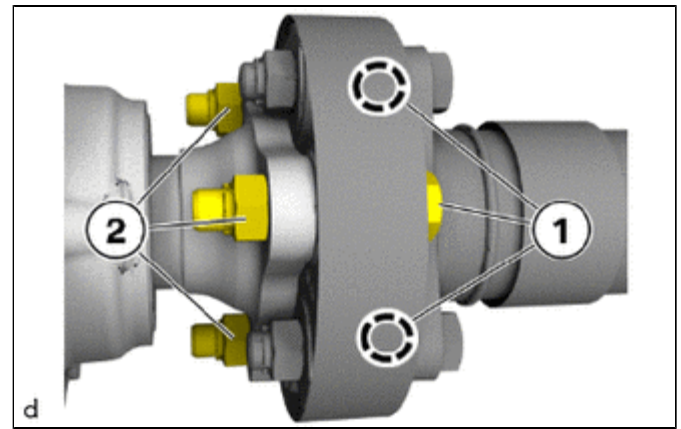
(a) Mark the installation position of the bolt connection (1), the flexible coupling (2) and the three-hole flange (3) on the same level.

HINT:

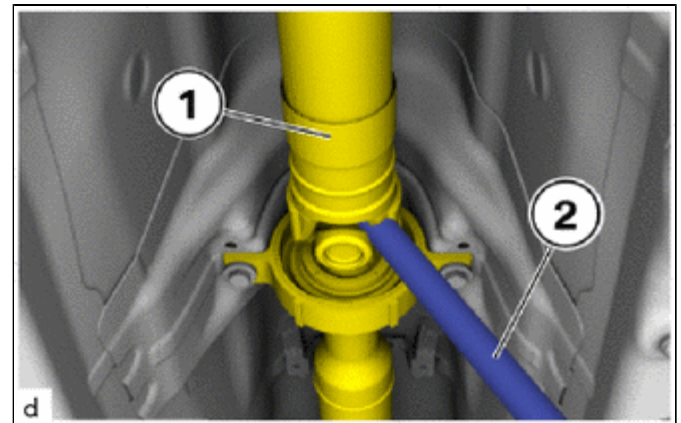
The mark makes it possible for the propeller shaft assembly with center bearing to be installed again in the same position. This should prevent a humming noise from the drive train during driving.



(b) Release 18 mm bolts (1) and counter the 18 mm nuts (2).



(c) Secure the propeller shaft assembly with center bearing (1) on the center universal joint with a suitable tool (2) to protect it from twisting.



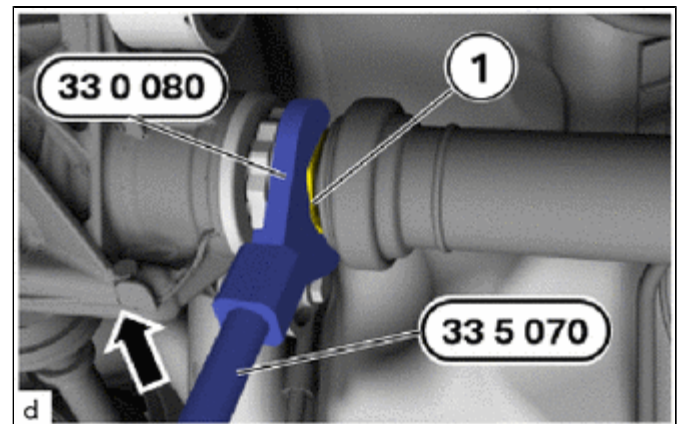
(d) Release insert nut (1) in direction of arrow using the special tools 0 496 959 (33 0 080) and 0 495 554 (33 5 070).

SST: 09900-WA040

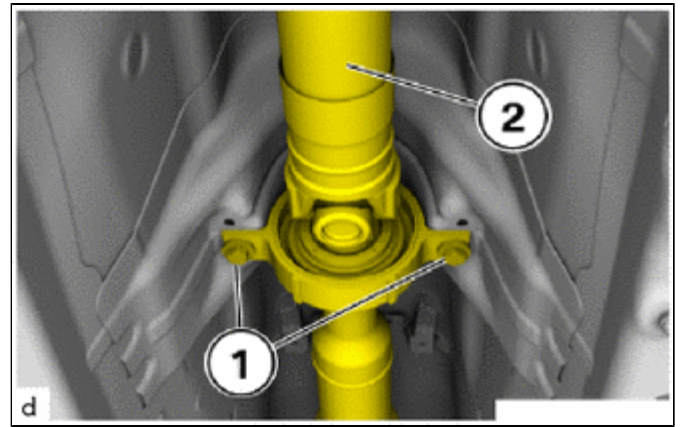
SST: 09500-WA170

NOTICE:

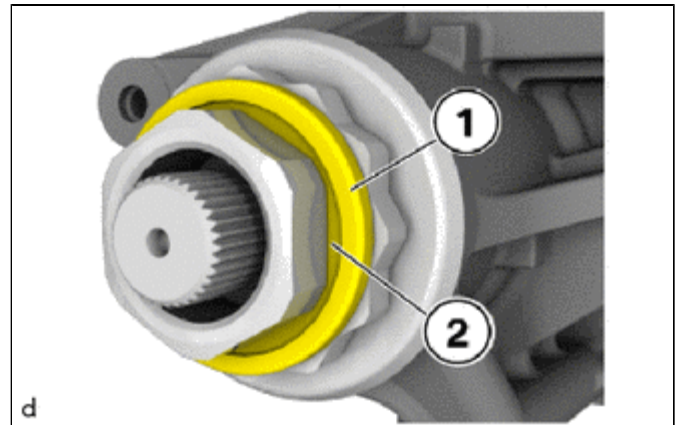
- Damage to rear axle differential.
- Non-observance of the removal and installation guidelines may cause severe damage to the rear axle differential.
 - Do not use the double hexagon head flange nut as counter support.



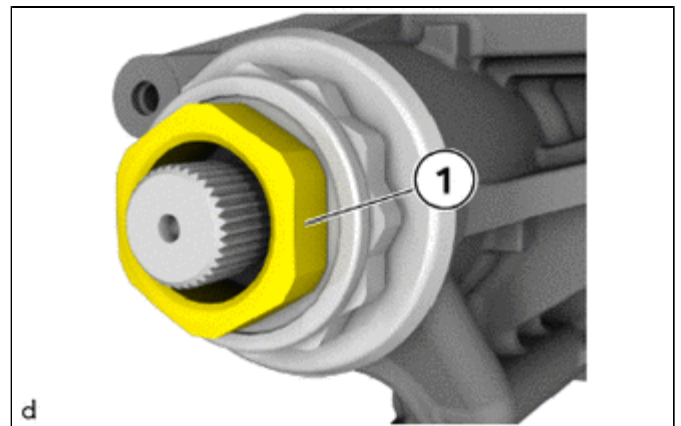
(e) Release 13 mm bolts (1) and remove the propeller shaft assembly with center bearing (2).



(f) Remove retaining clip (1) and the seal (2).



(g) Remove insert nut (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: PROPELLER SHAFT ASSEMBLY: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE PROPELLER SHAFT SPLINE SLEEVE

(a) for Front Side:

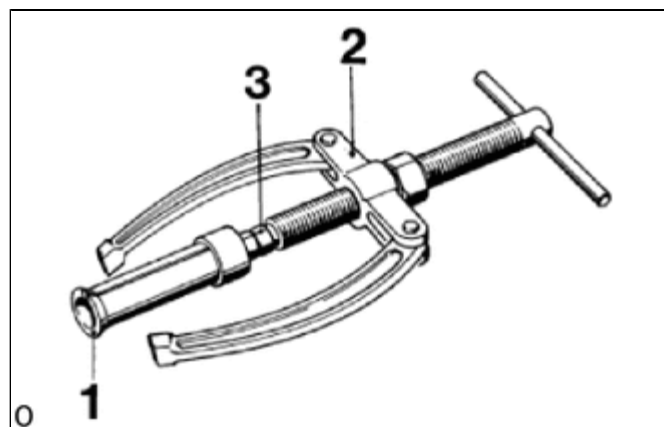


(1) Prepare special tool 2 450 247.

SST: 09300-WA190

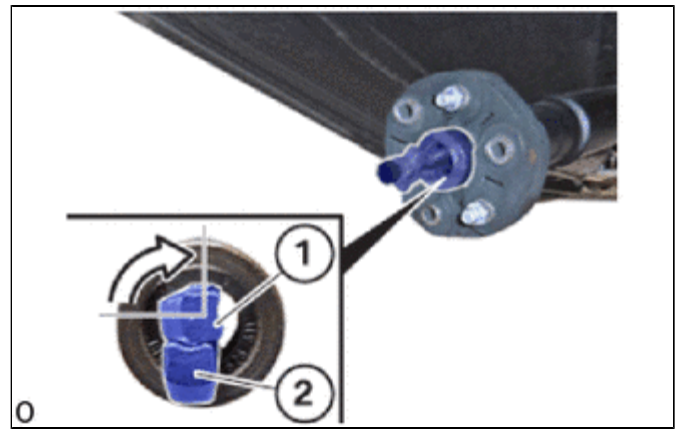
(2) Prepare special tool 0 490 497 (00 8 550).

SST: 09300-WA200

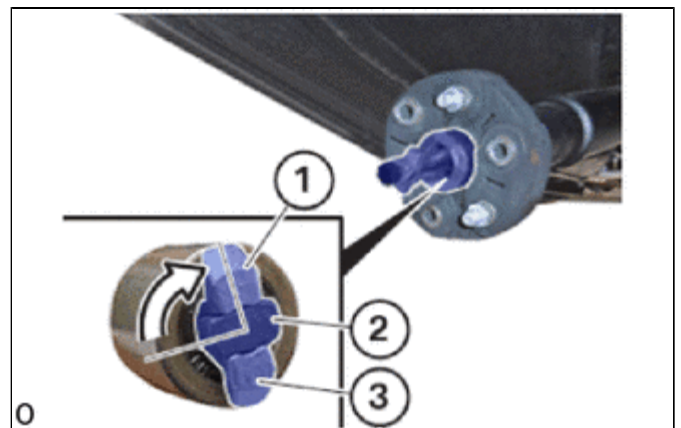


(3) Insert pin (1) and the pin (2) of the special tool 2 450 247 in the propeller shaft spline sleeve of the propeller shaft assembly.

SST: 09300-WA190



(4) Turn pin (1) by 90° in relation to pin (2).



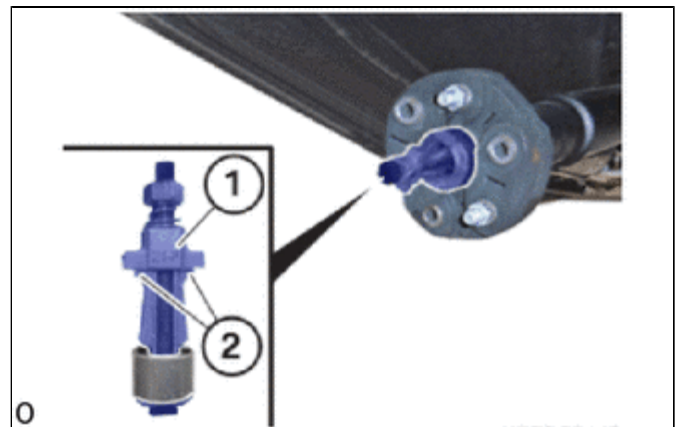
(5) Insert the pin (2) between pins (1) and (3) of the special tool 2 450 247 in the propeller shaft spline sleeve of the propeller shaft assembly.

SST: 09300-WA190

(6) Lock the special tool 2 450 247 by turning the sleeve (1).

SST: 09300-WA190

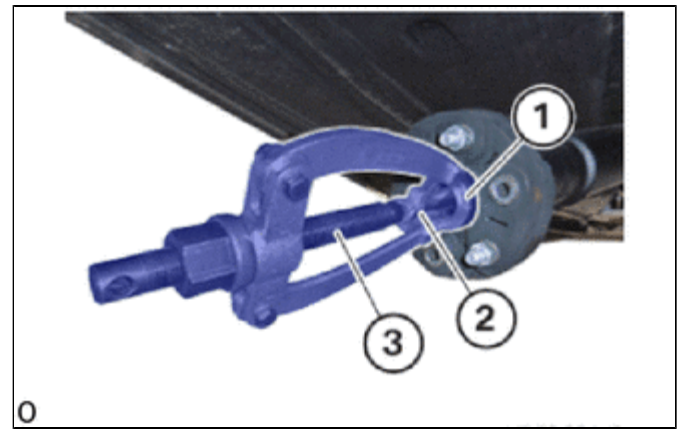
1. The pins (2) are retained by the sleeve (1).



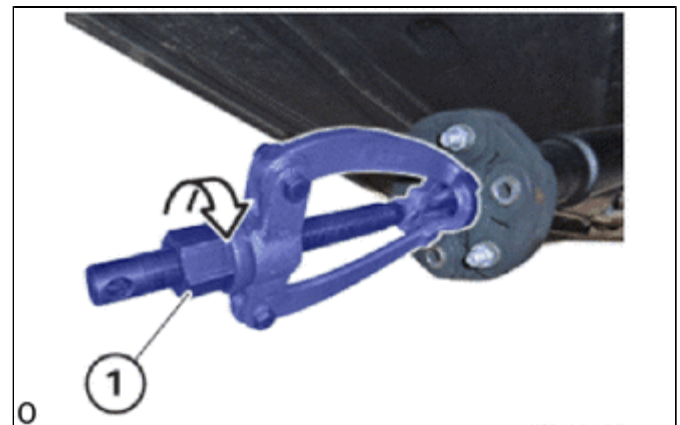
(7) Install the guide sleeve (1).

(8) Bolt special tool 0 490 497 (00 8 550) to special tool 2 450 247 (2) and brace on the guide sleeve (1).

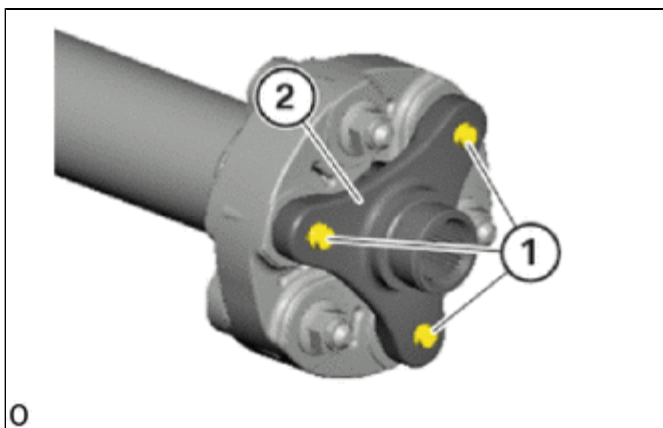
SST: 09300-WA200



(9) Turn nut (1) in direction of arrow and pull out the propeller shaft spline sleeve.



(b) for Rear Side:



(1) Remove the E16 bolts.

(2) Remove the three-hole flange (2)

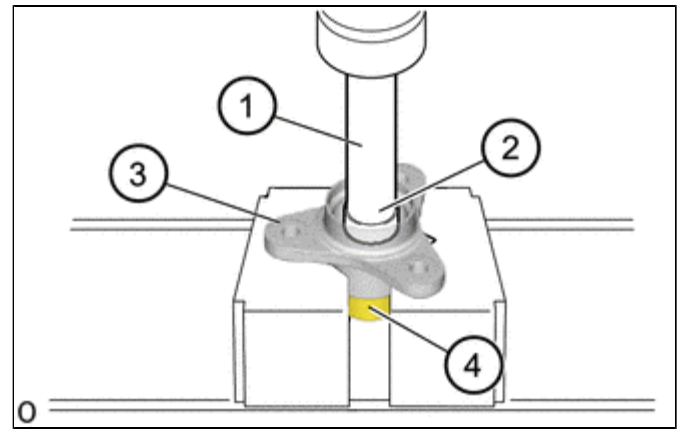
(3) Press the propeller shaft spline sleeve (4) out of the three-hole flange (4) with the SST (1) and (2) in a press.

SST: 09950-70010

09951-07100

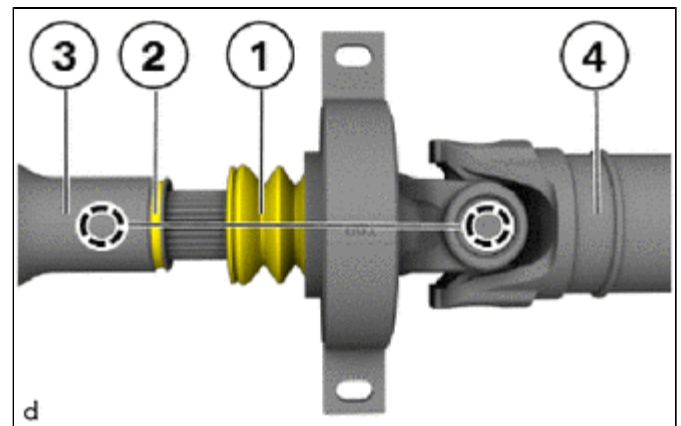
SST: 09950-60011

09951-00250



2. REMOVE REAR PROPELLER SHAFT BOOT

(a) Pull off the rear propeller shaft boot (1) and the groove (2).

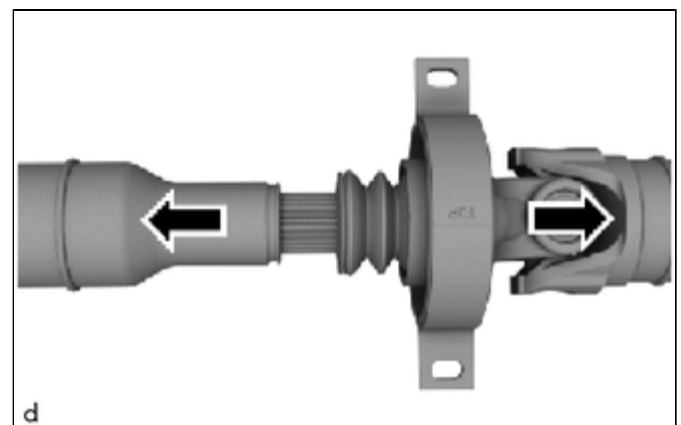


(b) Mark the alignment of the installation positions of the front propeller shaft assembly (3) and the rear propeller shaft assembly (4).

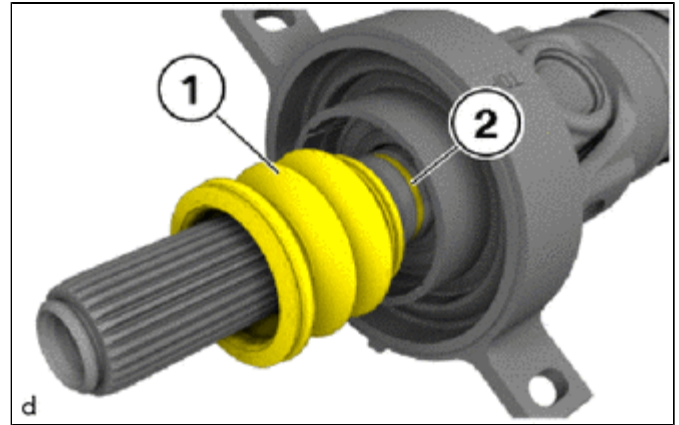
HINT:

The identification allows the front and rear propeller shaft assemblies to be installed at the same position. This guarantees that the propeller shaft assembly will once again be balanced within the system following installation.

(c) Pull apart the front and rear propeller shaft assemblies in the directions of the arrows.



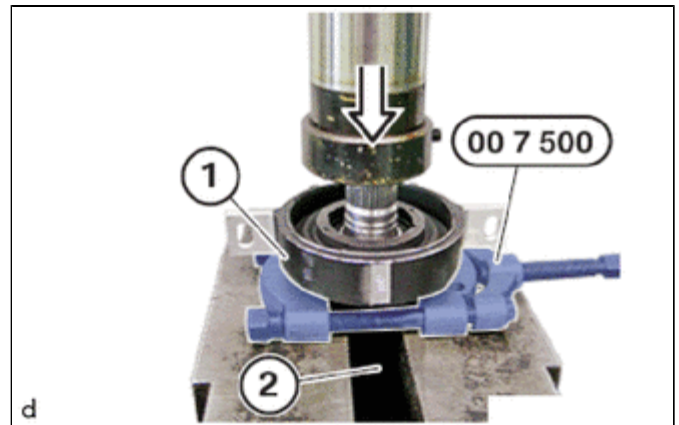
- (d) Release the rear propeller shaft boot (1) from the groove (2) using a screwdriver and pull it off over the longitudinal splines.



3. REMOVE CENTER NO. 1 SUPPORT BEARING ASSEMBLY

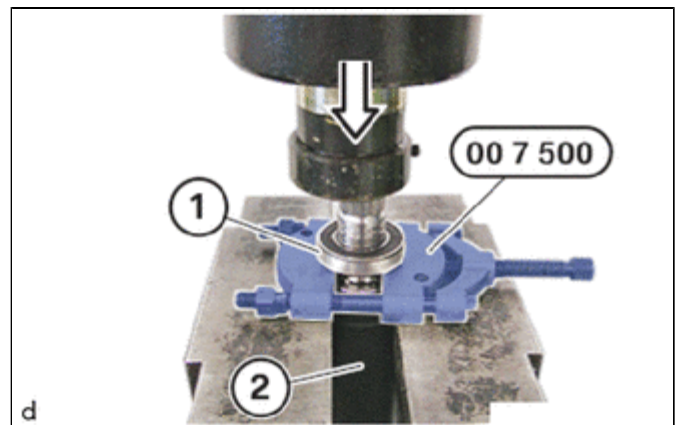
- (a) Install the special tool 0 490 482 (00 7 500) between the center No. 1 support bearing assembly (1) and the rear propeller shaft assembly (2).

SST: 09500-WA230



- (b) Use the hydraulic press to push the center No. 1 support (1) off the rear propeller shaft assembly (2).

- (c) Use the hydraulic press to push the center No. 1 support bearing (1) off the rear propeller shaft assembly (2).



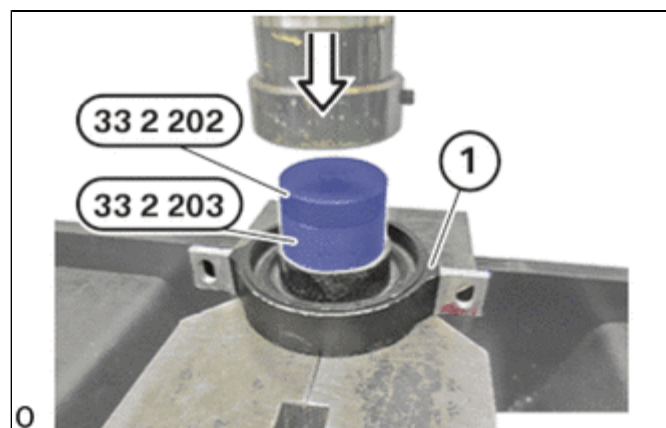
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: PROPELLER SHAFT ASSEMBLY: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL CENTER NO. 1 SUPPORT BEARING

- (a) Coat the rubber-coated bearing seat of the center No. 1 support (1) using Assembly aid.

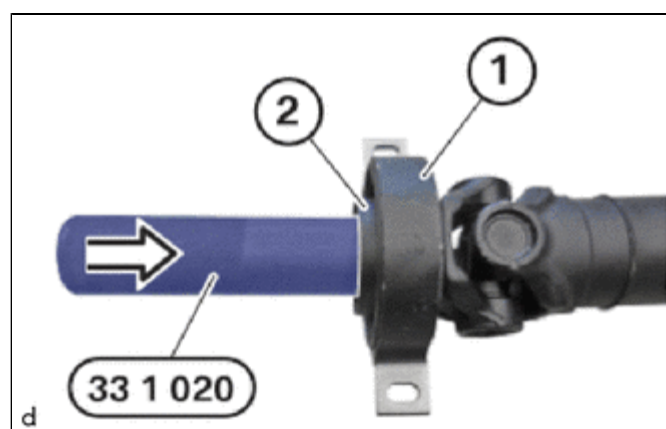


- (b) Press in the grooved a new center No. 1 support bearing using the special tools 0 492 262 (33 2 202) and 0 492 263 (33 3 203) into the center No. 1 support.

SST: 09300-WA160

2. INSTALL CENTER NO. 1 SUPPORT BEARING ASSEMBLY

- (a) Push the center No. 1 support bearing assembly (1) onto the rear propeller shaft.



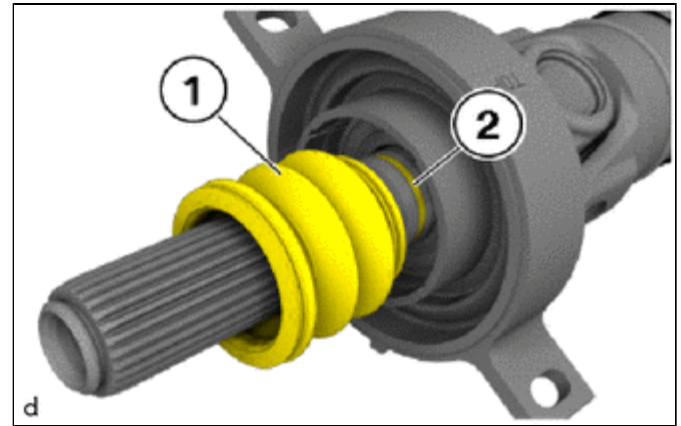
- (b) Collar (2) must point towards the rear propeller shaft assembly in the direction of travel.

- (c) Push on the center No. 1 support bearing assembly (1) up to limit position with the special tool 0 492 074 (33 1 020).

SST: 09500-WA200

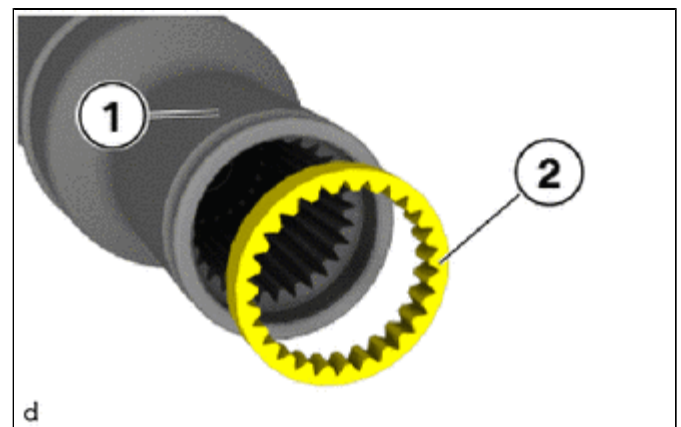
3. INSTALL REAR PROPELLER SHAFT BOOT

- (a) Push in the rear propeller shaft boot (1) onto the groove (2) and make sure it is securely positioned.



- (b) Coat the longitudinal splines of the rear propeller shaft assembly with center bearing with Lubricant Olistamoly 2 LN 584 LO.

- (c) Replace the clamping ring (2).

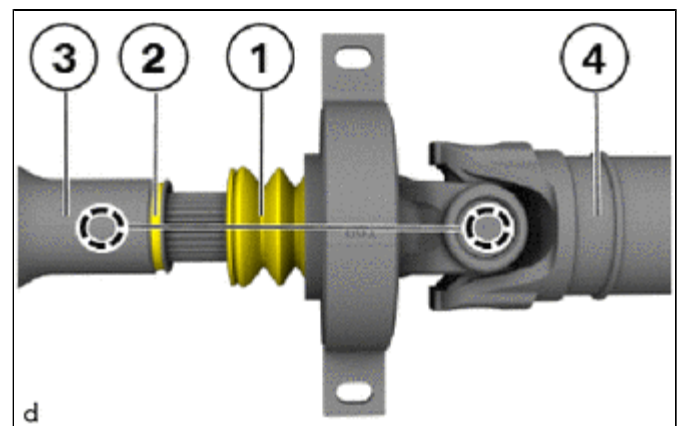


- (d) Install the clamping ring (2) in the rear propeller shaft assembly (1).

- (e) Push the front propeller shaft assembly (3) onto the longitudinal splines of the rear propeller shaft assembly (4) as per the individually applied marks.

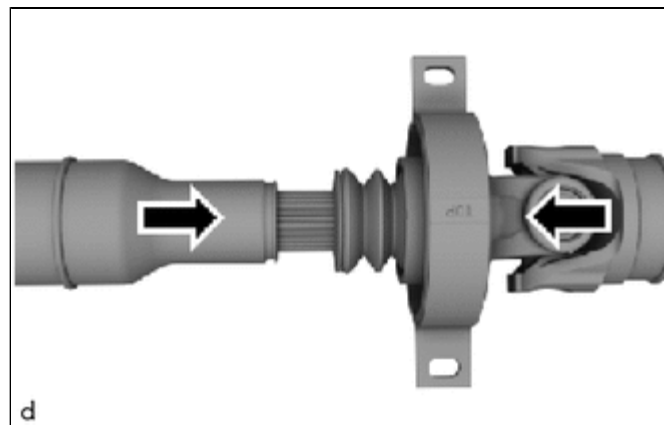
HINT:

The marks must be aligned.



- (f) Push in the rear propeller shaft boot (1) onto the groove (2) and make sure it is securely positioned.

- (g) Push the front and rear propeller shaft assemblies together in the directions of the arrows.



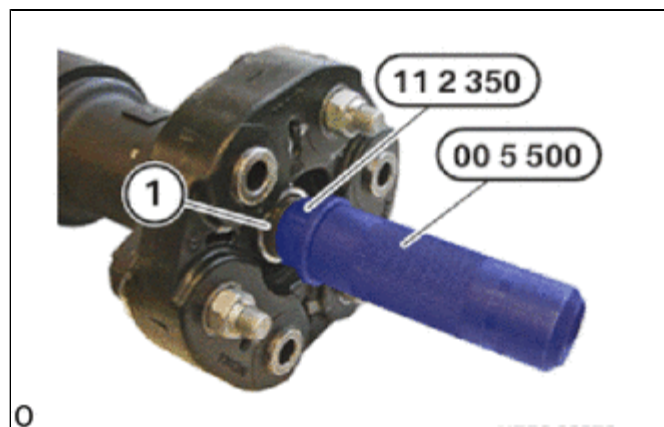
4. INSTALL PROPELLER SHAFT SPLINE SLEEVE

- (a) for Front Side:

- (1) Propeller shaft spline sleeve (1) into the propeller shaft assembly using the special tools 0 490 873 (11 2 350) and 0 490 475 (00 5 500) (observe protrusion).

SST: 09200-WA260

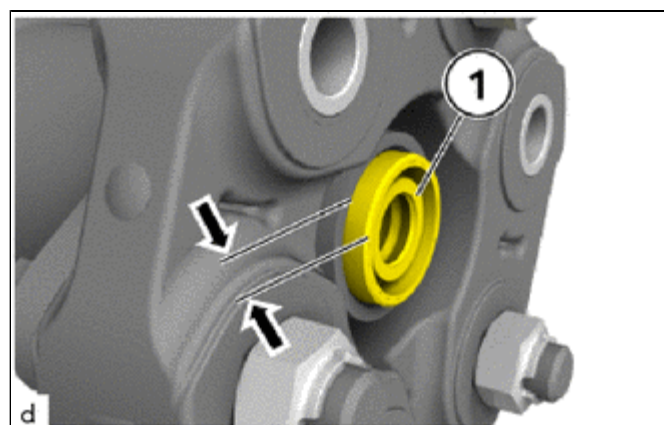
SST: 09500-WA070



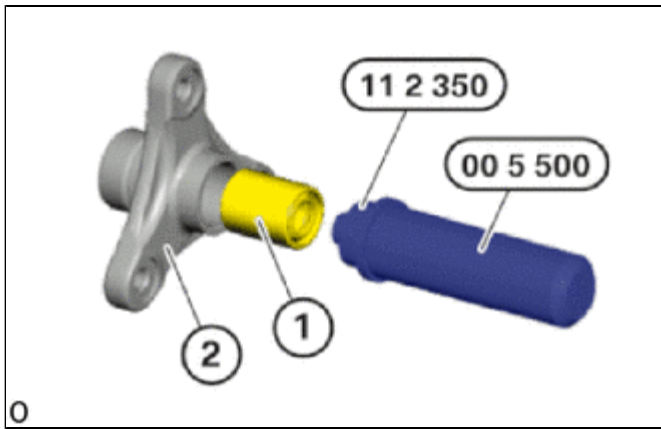
- (2) Make sure that the protrusion (arrows) of the propeller shaft spline sleeve (1) is correct.

Centering protrusion:

4 to 6 mm (0.1575 to 0.2362 in.)



- (b) for Rear Side:



(1) Propeller shaft spline sleeve (1) into the propeller shaft assembly using the special tools 0 490 873 (11 2 350) and 0 490 475 (00 5 500) (observe protrusion).

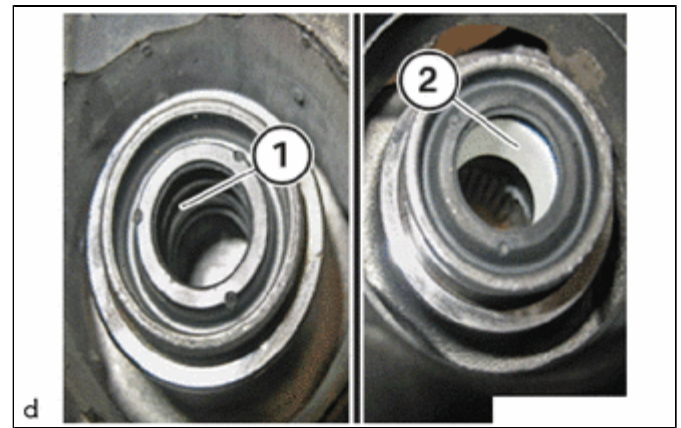
SST: 09200-WA260

SST: 09500-WA070

(2) Apply a thin coat of Lubricant Olistamoly 2 LN 584 LO to the soft centering (1), if necessary.

NOTICE:

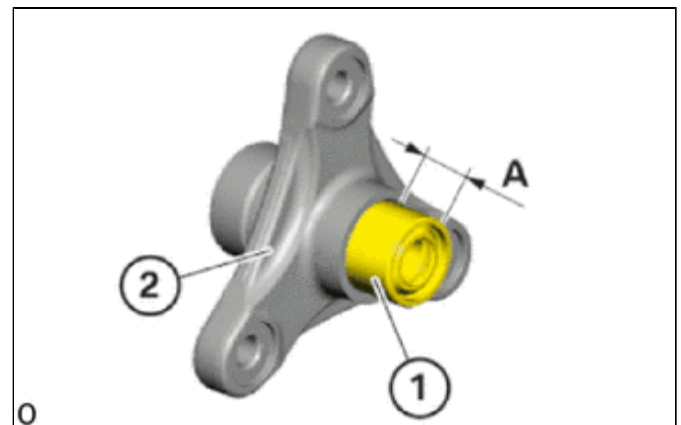
Do not grease the hard centering (2).



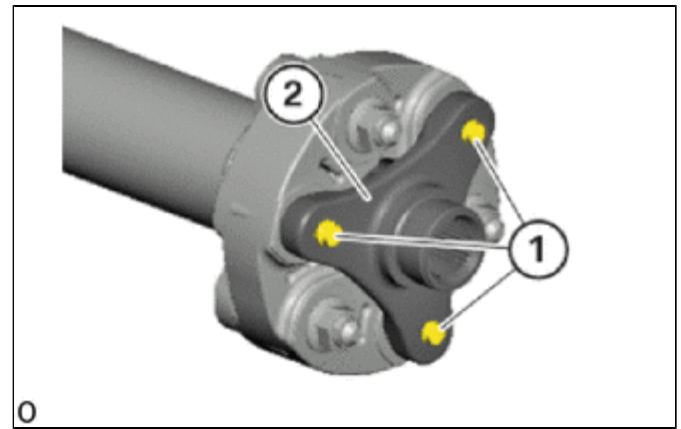
(3) Propeller shaft spline sleeve (1) in the rear of the three-hole flange for the propeller shaft assembly into the three-hole flange (2) until the distance fits.

Centering protrusion:

17.8 mm (0.701 in.)



(4) Install the three-hole frange (2)



(5) Tighten the E16 bolts (1).

Torque:

55 N·m {561 kgf·cm, 41 ft·lbf}

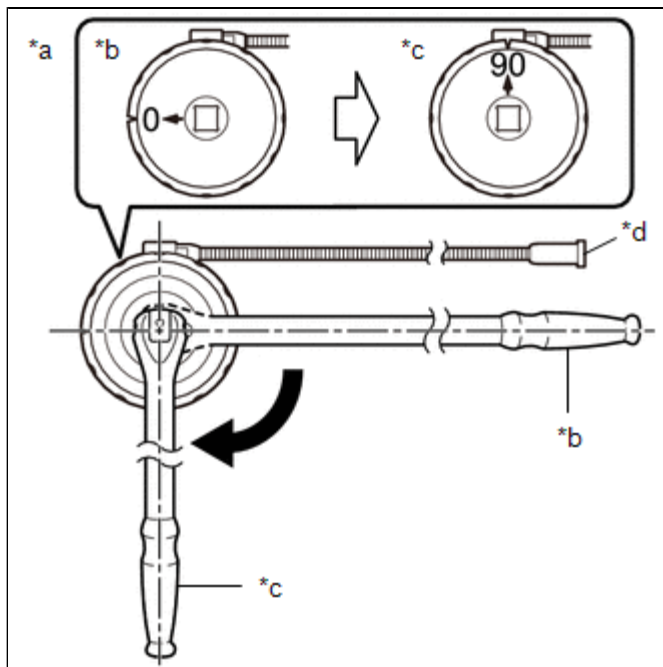
(6) Tighten the E16 bolts (4) an additional 90°.

SST: 09900-WA010

NOTICE:

Joining torque and angle of rotation must be observed without fail.

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: PROPELLER SHAFT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING

NOTICE:

- Damage to the propeller shaft assembly with center bearing during installation.
- Non-observance of the installation guidelines for the propeller shaft on the rear axle differential may cause severe damage.
 - Always replace the insert nut on the rear axle differential. Screw locking must be available.
 - Strictly observe a minimum hardening time of two hours after having screwed in the insert nut. The hardening time may be longer at lower temperatures.

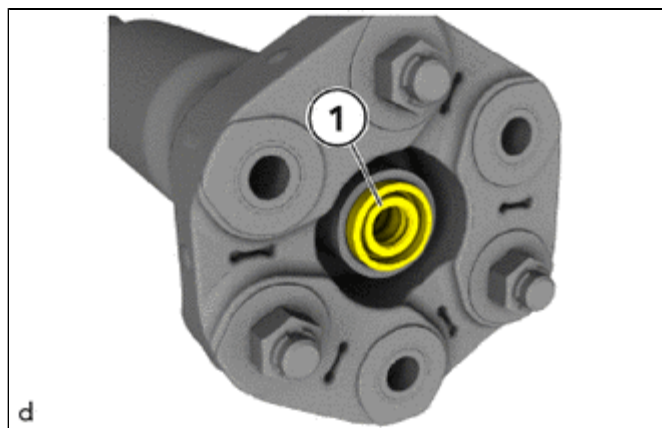
(a) Installation sequence:

- (1) Position propeller shaft assembly with center bearing on automatic transmission.
- (2) Position the propeller shaft assembly with center bearing at the rear axle differential.
- (3) Position center No. 1 support bearing assembly.

(b) Screw-fastening sequence:

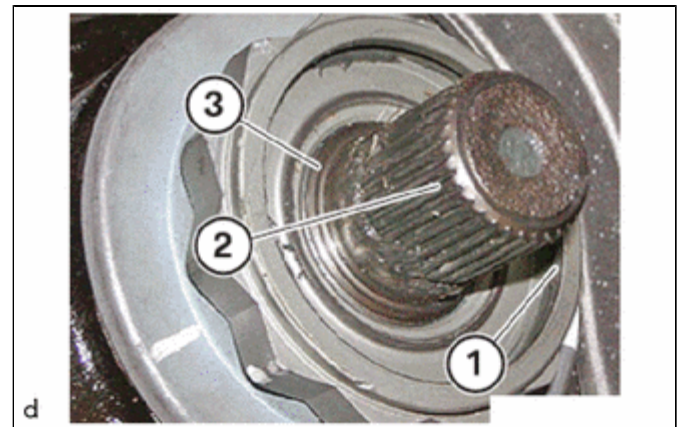
- (1) Insert nut
- (2) Flexible coupling to automatic transmission
- (3) Center No. 1 support bearing assembly

- (c) Check propeller shaft spline sleeve (1) for damage; replace if necessary.



- (d) Coat the propeller shaft spline sleeve (1) of the propeller shaft assembly with center bearing with Lubricant Olistamoly 2 LN 584 LO.

(e) Clean all residue from the recessed collar (1) of the flange nut and the gearing (2) on the bevel gear (3) and degrease the components.

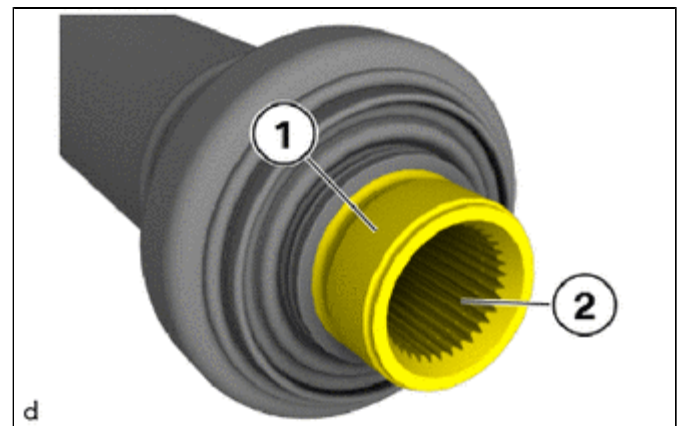


(f) Coat the collar insert (1) of the propeller shaft assembly with center bearing with Lubricant Olistamoly 2 LN 584 LO.

NOTICE:

- Damage to the output flange.
- Failure to observe the greasing specifications may lead to damage on the output flange.
 - Do not contaminate the thread of the output flange with grease.

(g) Remove adhesive residue from the thread (1) of the propeller shaft hub and clean it.



(h) Clean the hub gearing (2) and subsequently coat it with grease.

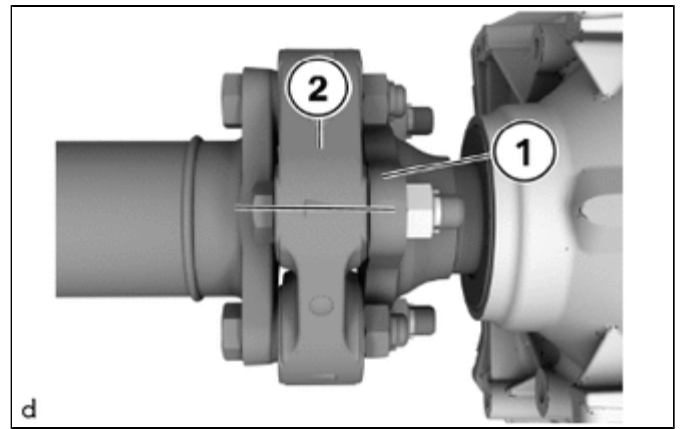
(i) Replace insert nut.

(j) Insert the insert nut.

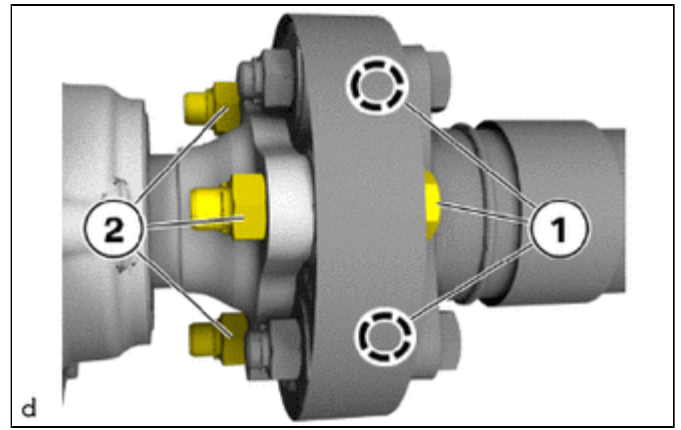
(k) Replace the seal and the retaining clip.

(l) Position the seal and the retaining clip.

(m) In order to avoid a humming noise of the drivetrain after reinstalling the propeller shaft assembly with center bearing: It is essential to reassemble the three-hole flange with the flexible coupling in the highlighted position.

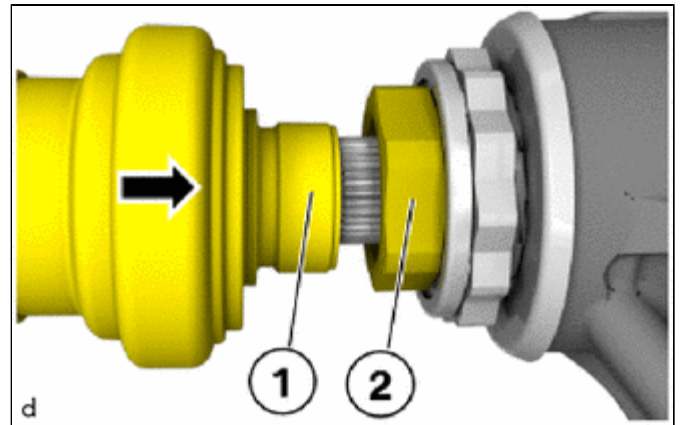


(n) Replace the 18 mm bolts and the 18 mm nuts.



(o) Temporarily install the propeller shaft assembly with center bearing with the 18 mm bolts and 18 mm nuts.

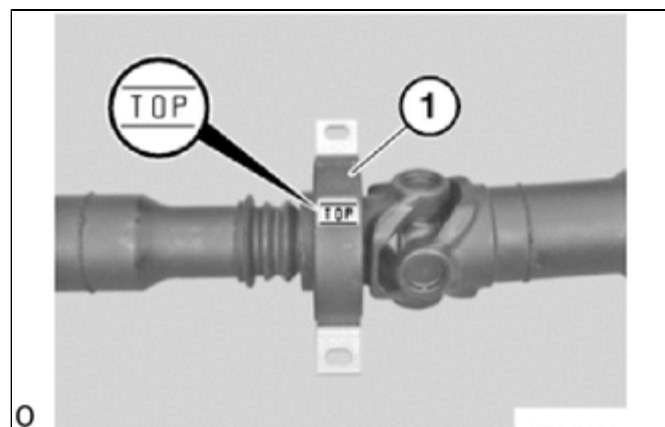
(p) Push the propeller shaft assembly with center bearing (1) in the direction of the arrow against the insert nut (2) up to the limit position.



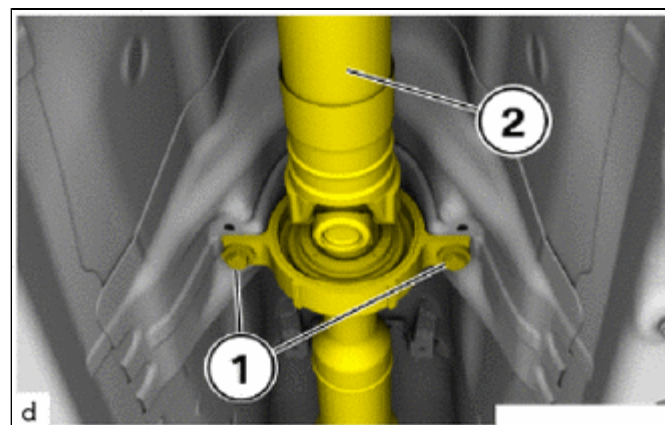
(q) Manually screw on and tighten the insert nut (2) onto the propeller shaft assembly with center bearing (1) by a minimum of two threads.

(r) center mount with TOP marking:

- (1) The center mount (1) must be installed with the TOP marking at the top in the gearbox tunnel.



- (s) Position the propeller shaft assembly with center bearing (2).



- (t) Position bolts (1).

- (u) Secure the propeller shaft assembly with center bearing against twisting at the central universal joint using a suitable tool.

- (v) Tighten the insert nut in anti-clockwise direction using SST 0 496 959 (33 0 080) and SST.

SST: 09900-WA280

SST: 09500-WA170

Torque:

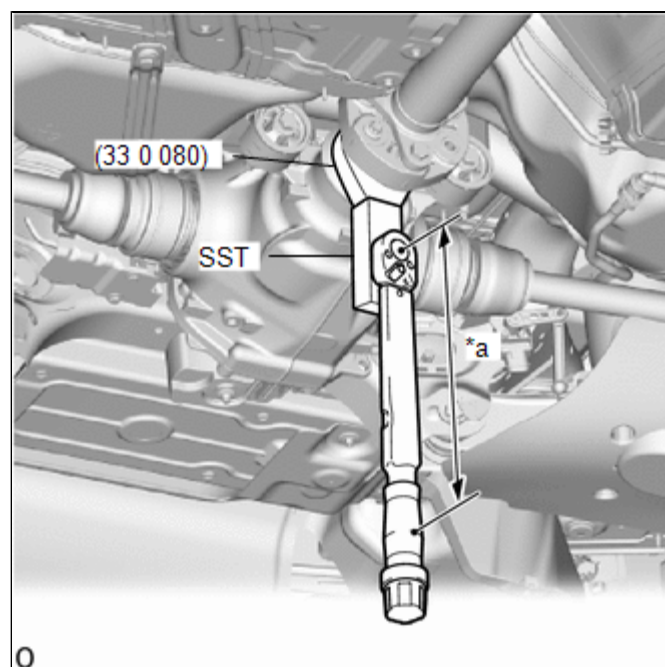
100 N*m (1020 kgf*cm, 74 ft.*lbf)

NOTICE:

- Damage to the flange nut.
- Failure to observe the installation specifications may lead to serious damage to the flange nut and the rear axle differential.
 - Do not use the double hexagon flange nut as counter support.
 - Screw in the insert nut within 5 minutes.

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.



*a	Torque Wrench Fulcrum Length
----	------------------------------

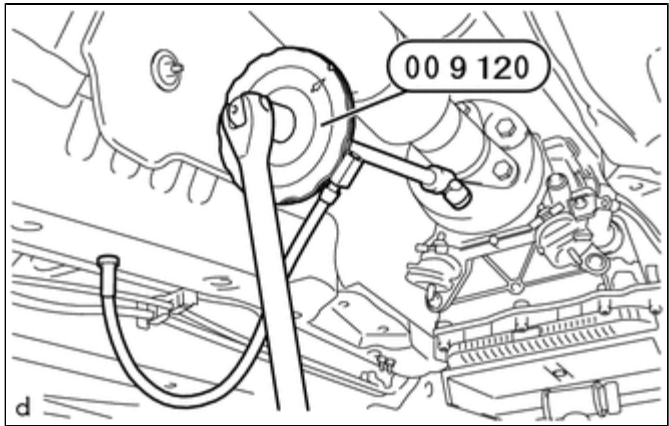
(w) Screw the insert nut within 5 min.

(x) Hold down the 18 mm bolts of the flexible coupling on the 18 mm nuts and tighten over the 18 mm bolts.

SST: 09900-WA010

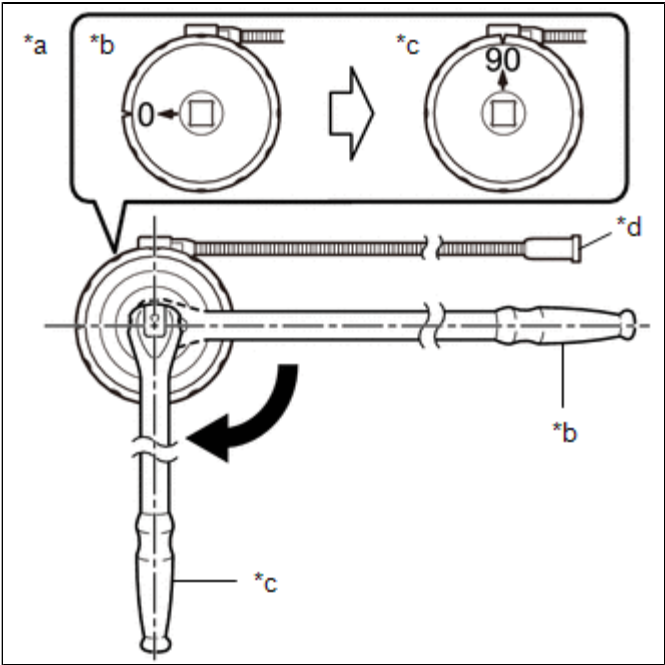
Torque:

55 N·m {561 kgf·cm, 41 ft·lbf}



(y) Tighten the 18 mm bolts an additional 90° and counter support them at the 18 mm nuts.

HINT:



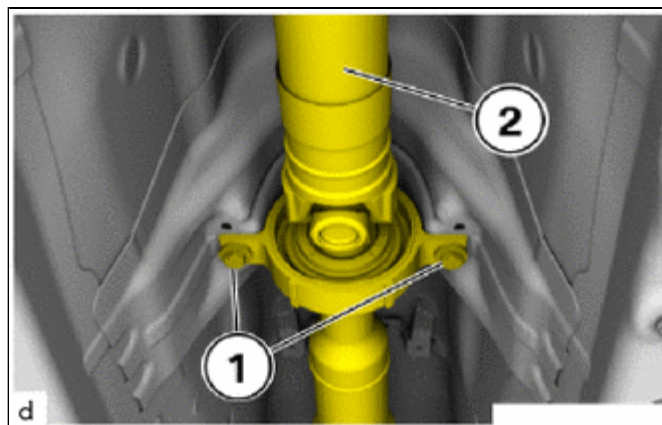
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(z) Tighten the bolts (1).

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

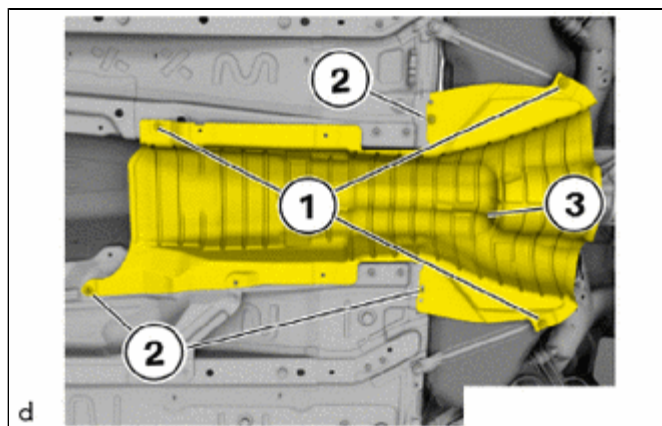


2. INSTALL REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

3. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

(a) Position the front No. 1 floor heat insulator of the tank.



(b) Tighten the sheet metal nuts.

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(c) Tighten the screws.

Torque:

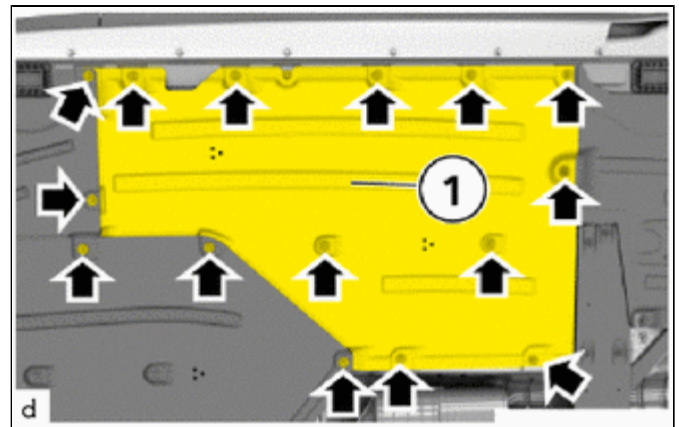
2.6 N·m {27 kgf·cm, 23 in·lbf}

4. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

5. INSTALL FRONT FLOOR COVER LH

(a) Insert the front floor cover LH.



(b) Tighten all screws and nuts.

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

6. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

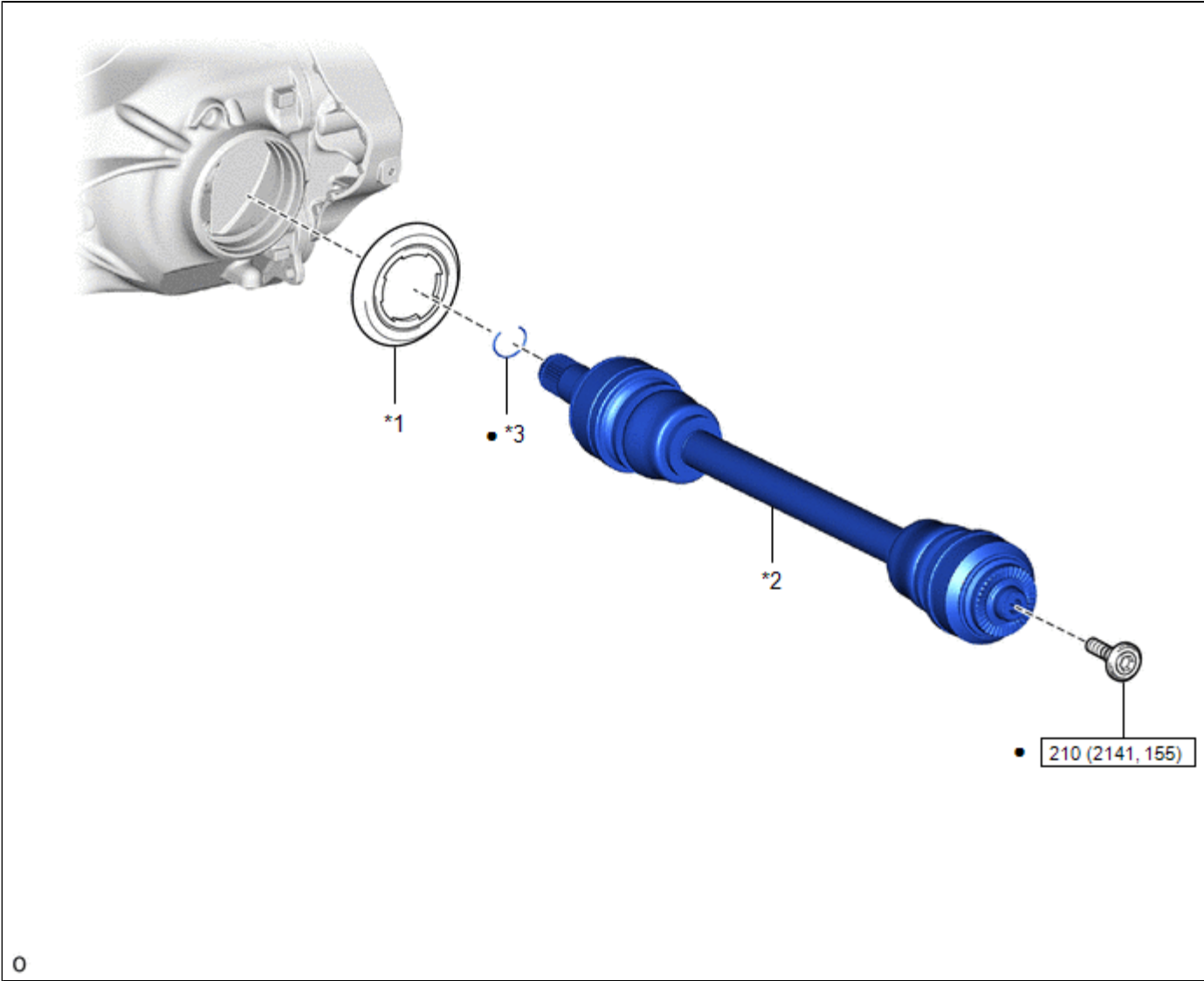
7. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCD9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: REAR DRIVE SHAFT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	DUST DEFLECTOR	*2	REAR DRIVE SHAFT ASSEMBLY
*3	SHAFT SNAP RING (FOR REAR DRIVE SHAFT INBOARD JOINT)	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: REAR DRIVE SHAFT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Damage to rear axle differential.

Failure to comply with the oil specifications can result in serious damage to the rear axle differential.

- After completion of repair work, check the differential oil level in the rear axle differential.
- Use only the approved final drive differential oil.

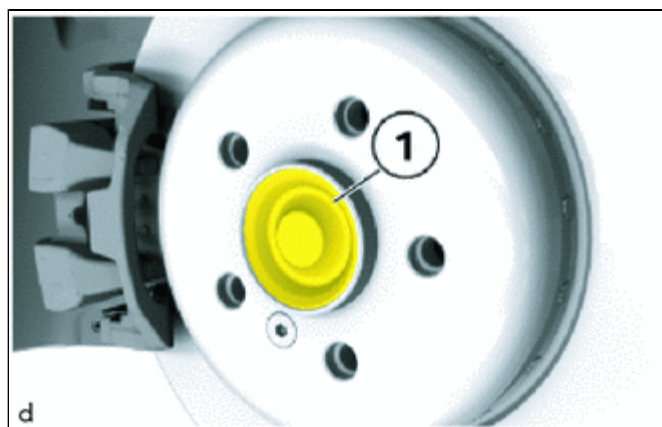
PROCEDURE

1. REMOVE REAR DIFERENTIAL CARRIER ASSEMBLY

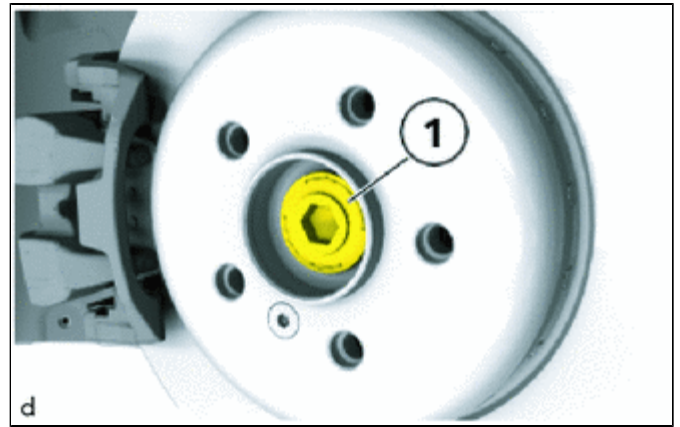
Click here [INFO](#)

2. REMOVE REAR DRIVE SHAFT ASSEMBLY

(a) Remove the sealing cap (1).

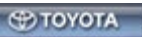


(b) Press brake pedal.



(c) Loosen the 17 mm hexagon bolt (1).

(d) Remove the rear drive shaft assembly towards the center of vehicle.



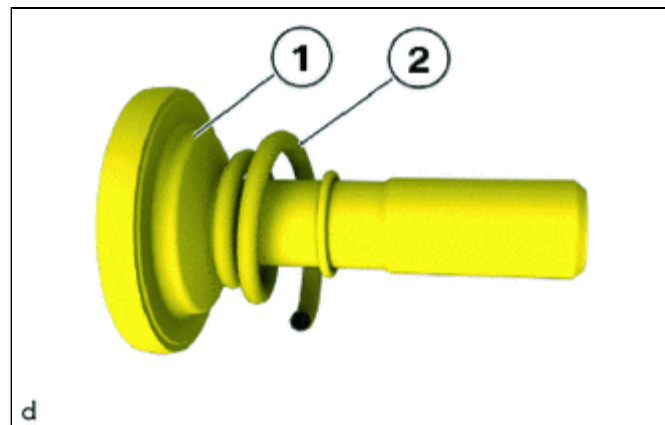
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCDB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DRIVE SHAFT / PROPELLER SHAFT: REAR DRIVE SHAFT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

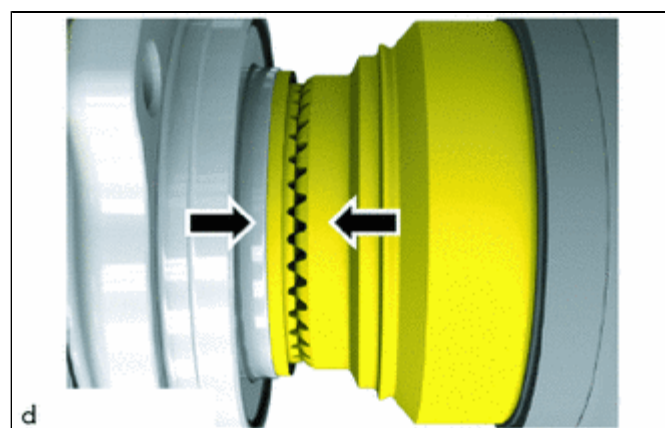
1. INSTALL REAR DRIVE SHAFT ASSEMBLY

- (a) Replace 17 mm hexagon bolt (1) and compression spring (2).



- (b) Position the rear drive shaft assembly on the wheel bearing from the center of the vehicle.
 (c) Hand-tighten the 17 mm hexagon bolt (1) with the compression spring.

- (d) Check whether front gearing is locked tooth in tooth by reciprocally rotating the wheel bearing and the rear drive shaft assembly.



- (e) If positive locking is ensured: Press brake pedal.
 (f) Tighten the 17 mm hexagon bolt.

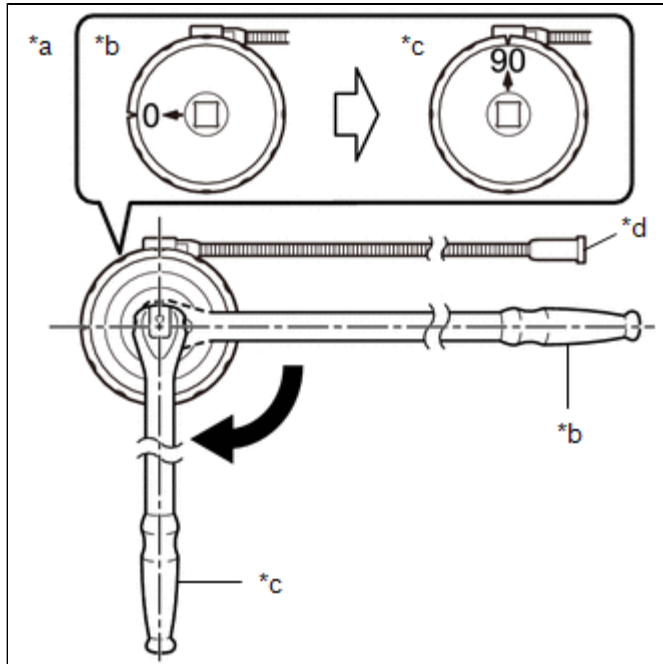
Torque:

210 N·m {2141 kgf·cm, 155 ft·lbf}

- (g) Tighten the 17 mm hexagon bolt an additional 90°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(h) Install the sealing cap.

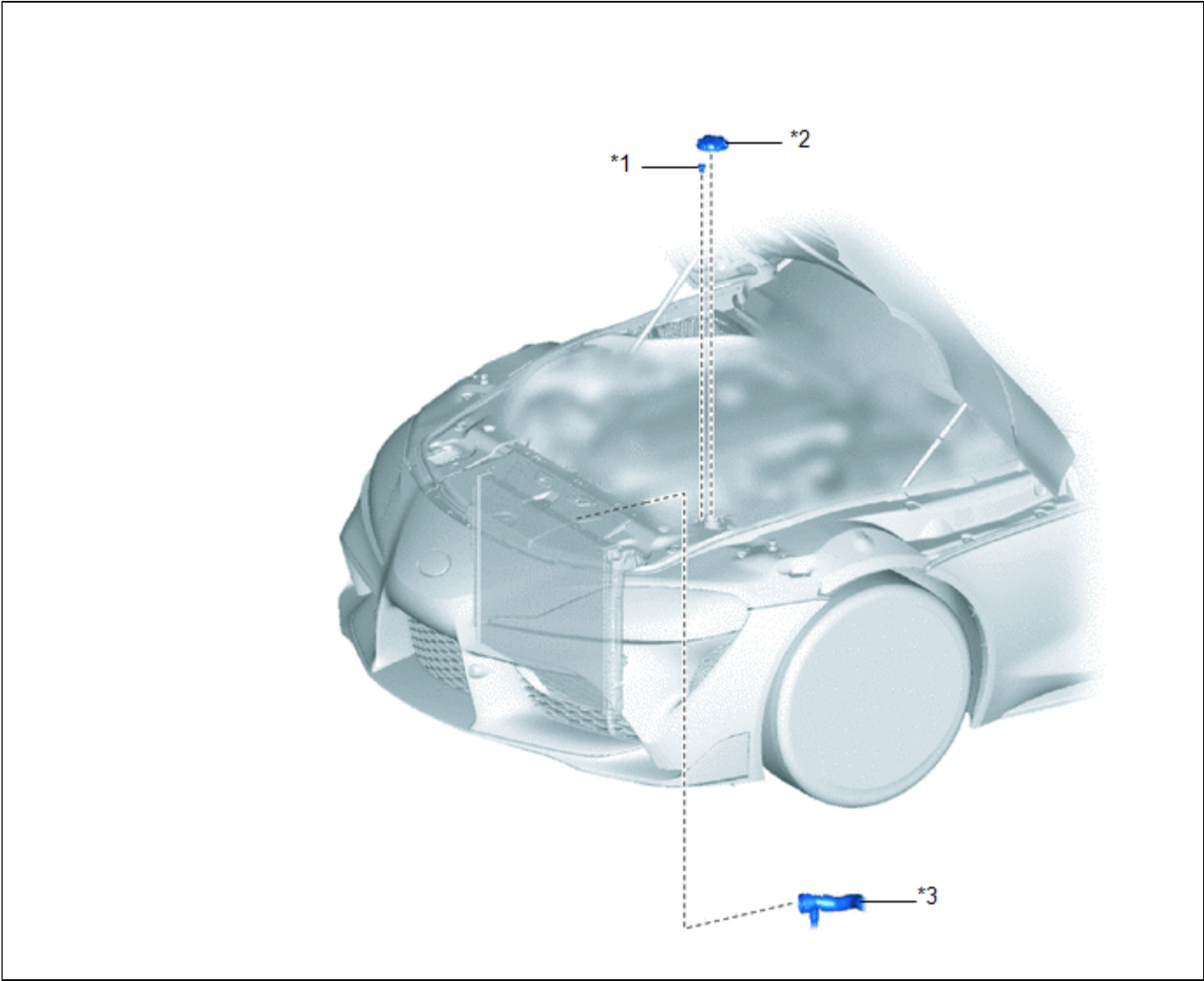
2. INSTALL REAR DIFERENTIAL CARRIER ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT (for High Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT (for High Temperature): REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

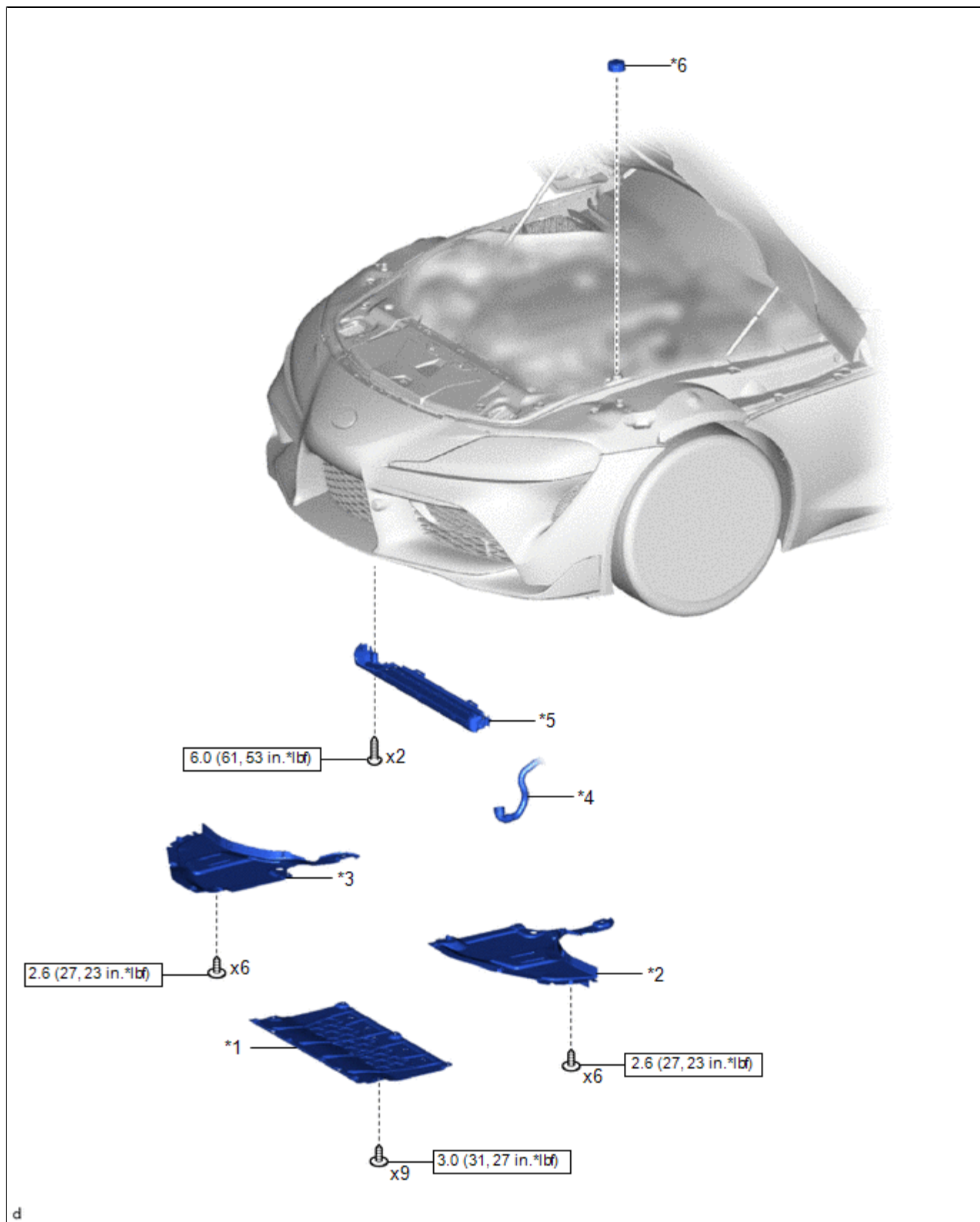
CAUTION / NOTICE / HINT

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT (for Low Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE UNDER COVER ASSEMBLY	*2	FRONT FENDER SPLASH FRONT SHIELD LH
*3	FRONT FENDER SPLASH FRONT SHIELD RH	*4	NO. 6 RADIATOR HOSE
			RADIATOR RESERVE TANK CAP SUB-

*5	RADIATOR LOWER AIR GUIDE PLATE	*6	ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT (for Low Temperature): REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

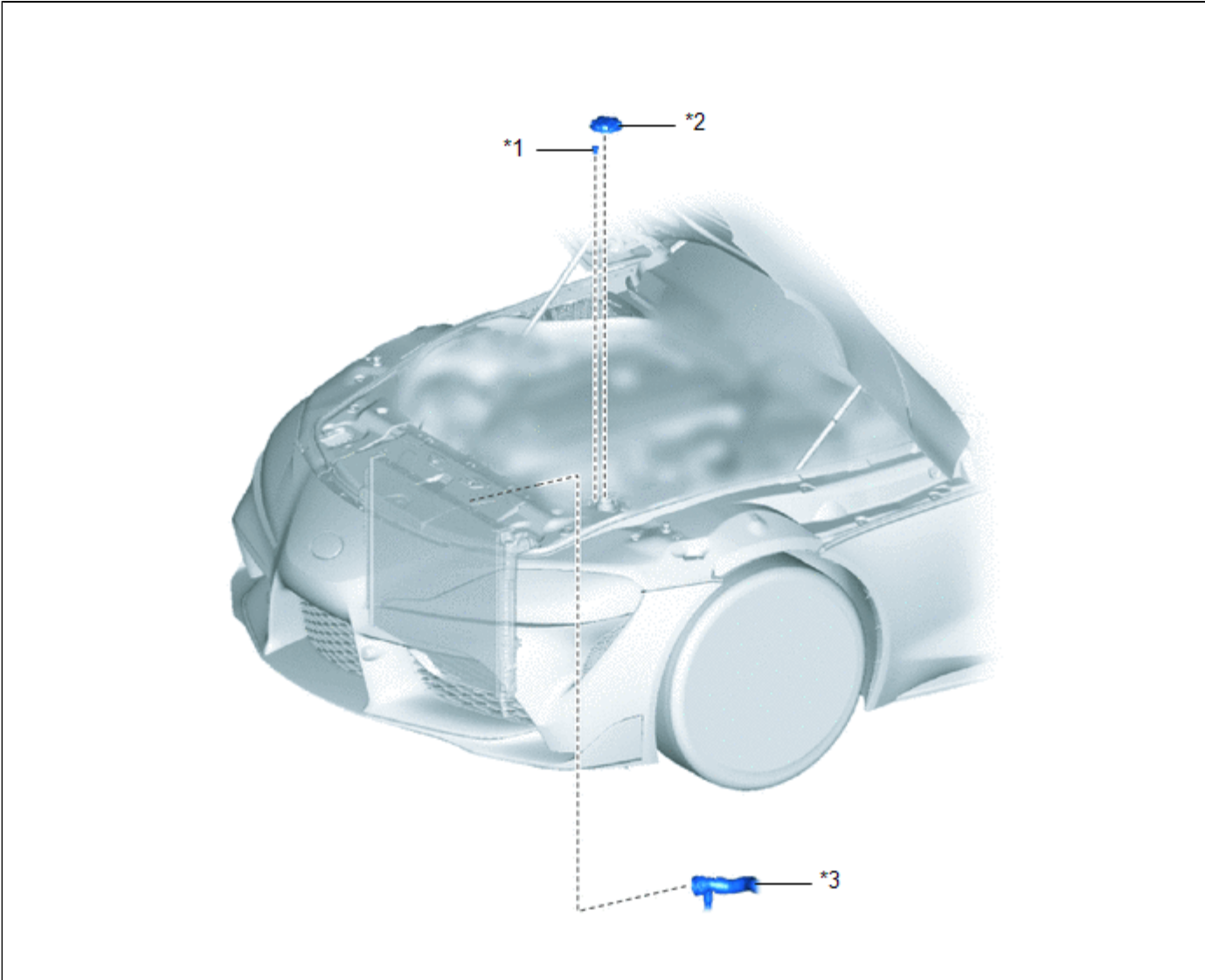
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT LINE: COMPONENTS; 2020 MY Supra [03/2019 -]		

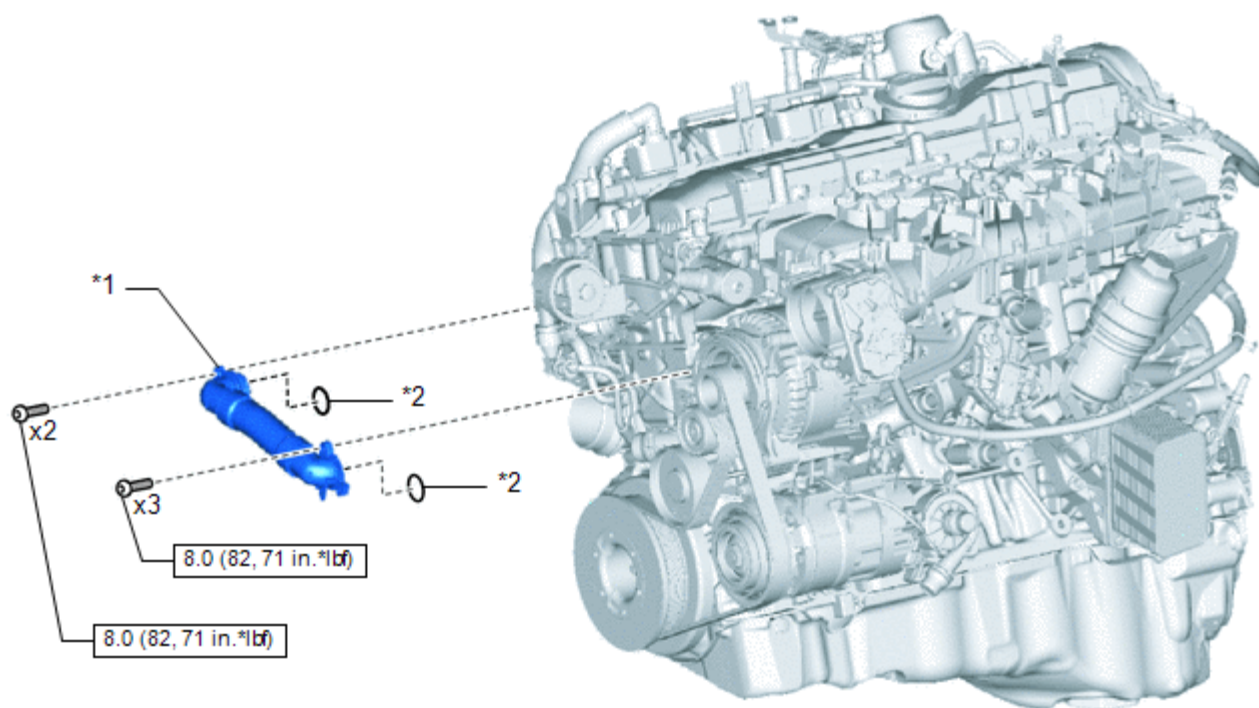
COMPONENTS


ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	NO. 2 WATER BY-PASS HOSE	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT LINE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

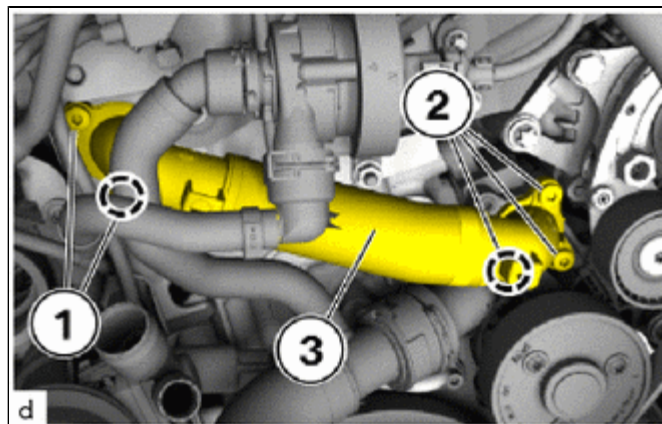
Click here [INFO](#)

4. REMOVE NO. 2 WATER BY-PASS HOSE

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 bolts (1) and (2).



(b) Remove the No. 2 water by-pass hose (3) between the cylinder head and the engine water pump assembly.



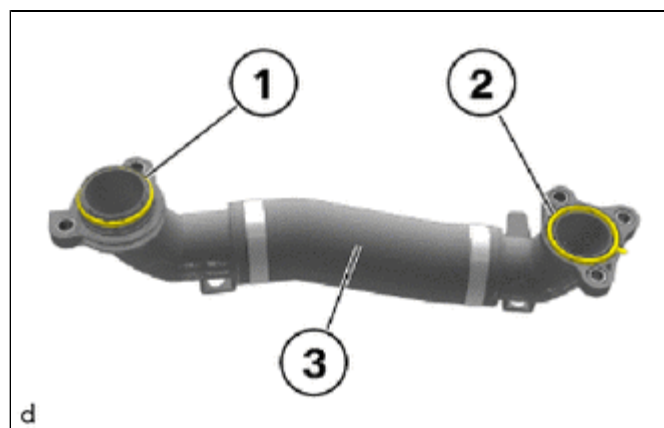
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT LINE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

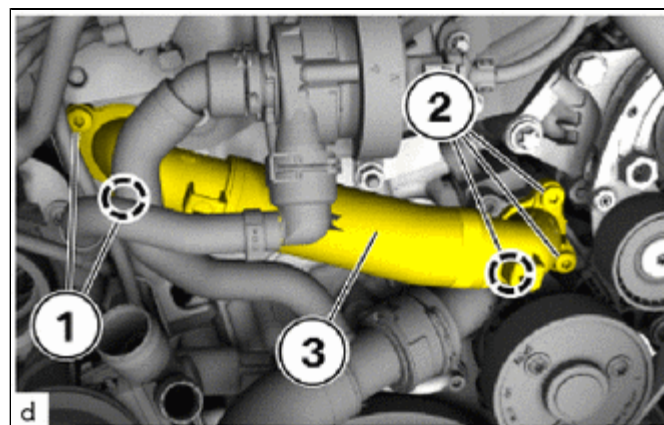
PROCEDURE

1. INSTALL NO. 2 WATER BY-PASS HOSE

- (a) Check the O-rings (1) and (2) on the No. 2 water by-pass hose (3) for damage and replace where required.



- (b) Position the No. 2 water by-pass hose (3) between the cylinder head and the engine water pump assembly.



- (c) Tighten down T30 bolts (1) and (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

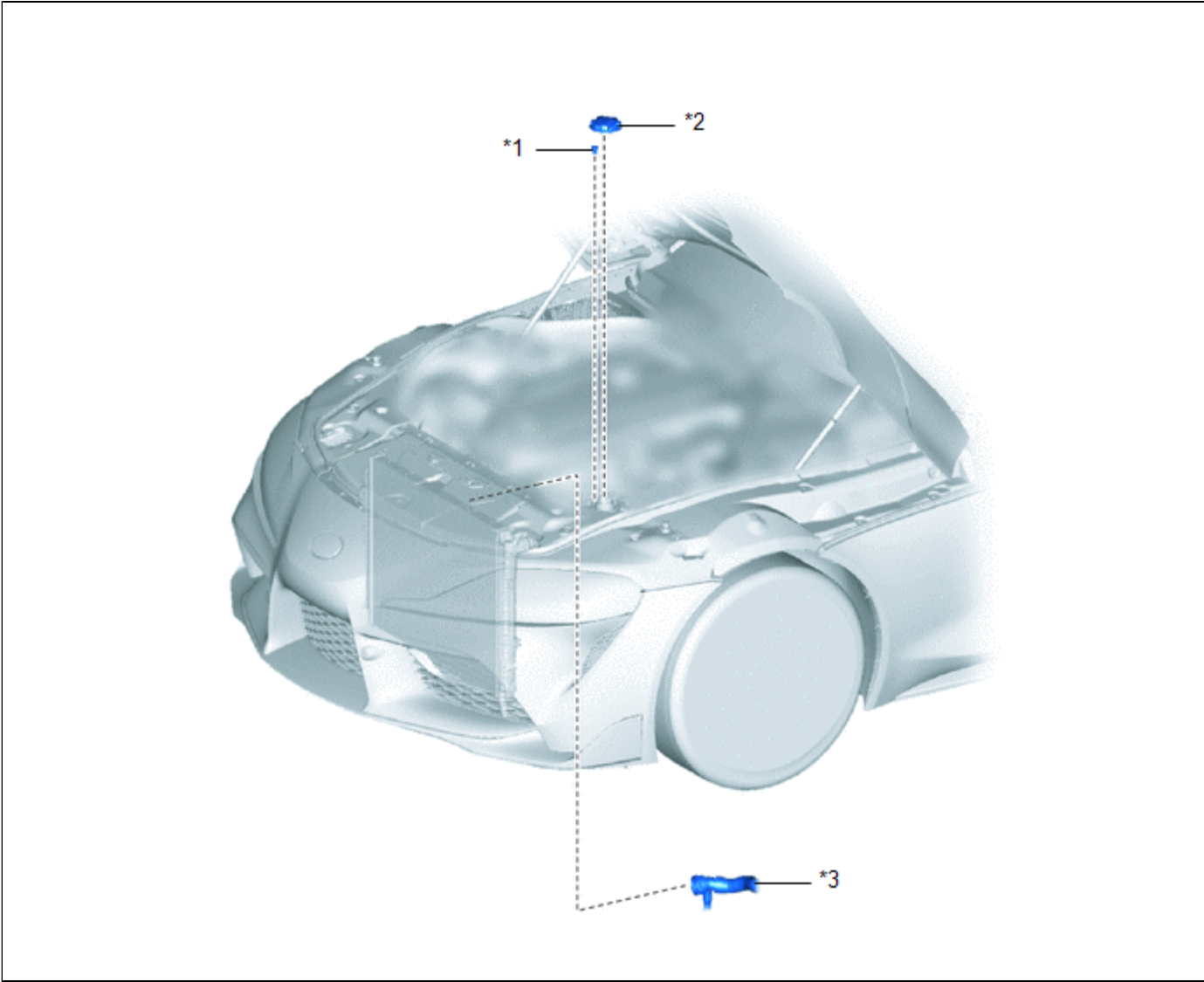
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

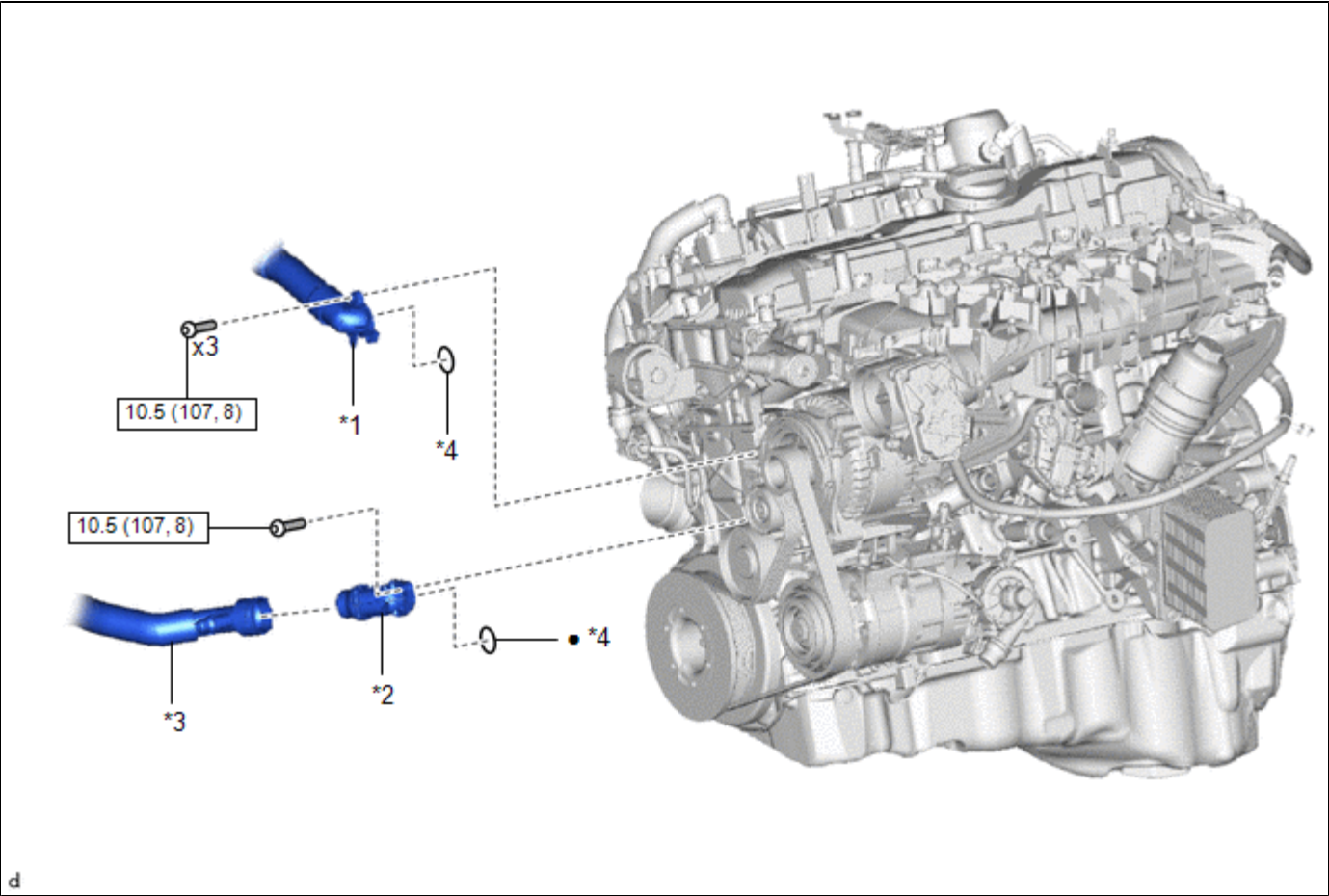
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	NO. 2 WATER BY-PASS HOSE	*2	WATER INLET
*3	NO. 1 RADIATOR HOSE	*4	WATER INLET O-RING
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT PIPE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

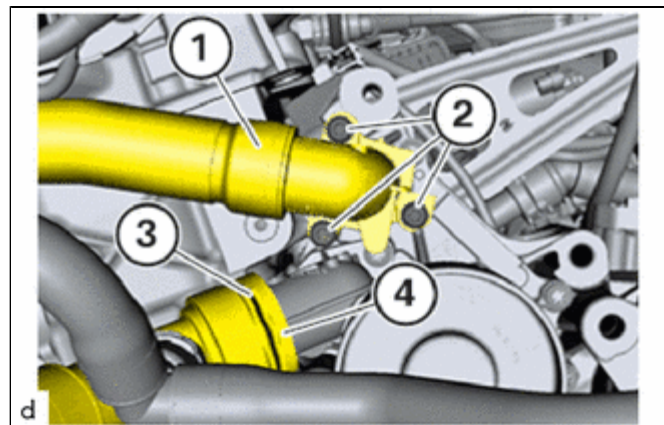
Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. DISCONNECT COOLANT HOSE

(a) Loosen T30 bolts (2).



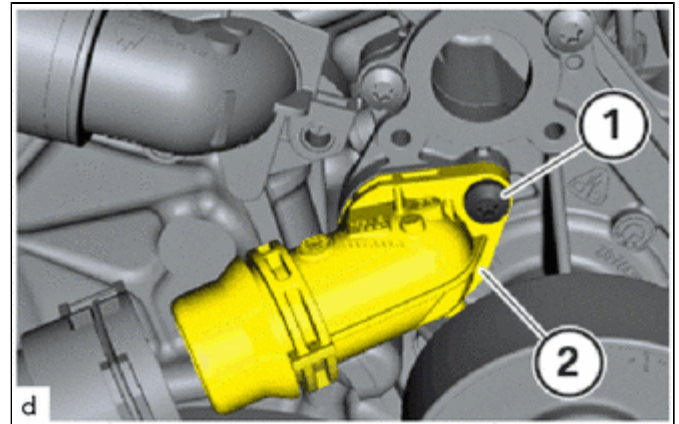
(b) Remove the No. 2 water by-pass hose (1) and tie it to the side.

(c) Unlock retaining clip (3).

(d) Remove No. 1 radiator hose (4).

5. REMOVE WATER INLET

(a) Loosen T30 bolt (1).



(b) Pull off and remove the water inlet (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

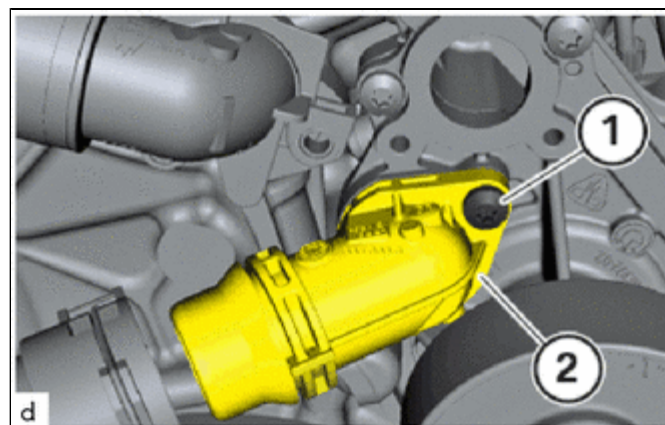
PROCEDURE

1. INSTALL WATER INLET

(a) Replace water inlet O-ring (1).



(b) Position the water inlet (2).



(c) Tighten down T30 bolt (1).

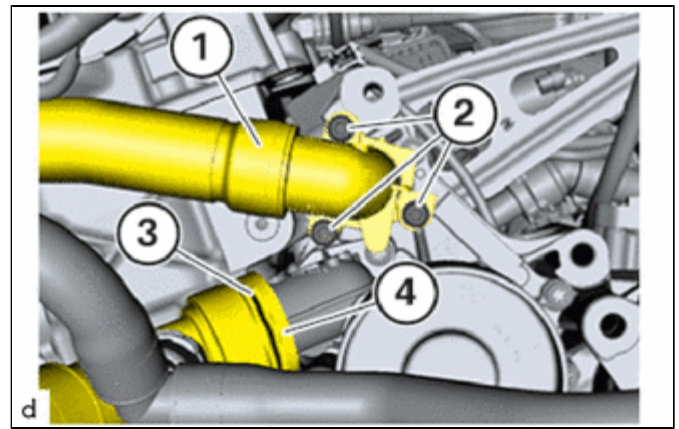
Torque:

10.5 N·m {107 kgf·cm, 8 ft·lbf}

2. CONNECT COOLANT HOSE

(a) Connect and lock the No. 1 radiator hose (4).

(1) Retaining clip (3) must latch audibly into place.



(b) Position the No. 2 water by-pass hose (1).

(c) Tighten down T30 bolts (2).

Torque:

10.5 N·m {107 kgf·cm, 8 ft·lbf}

3. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

4. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

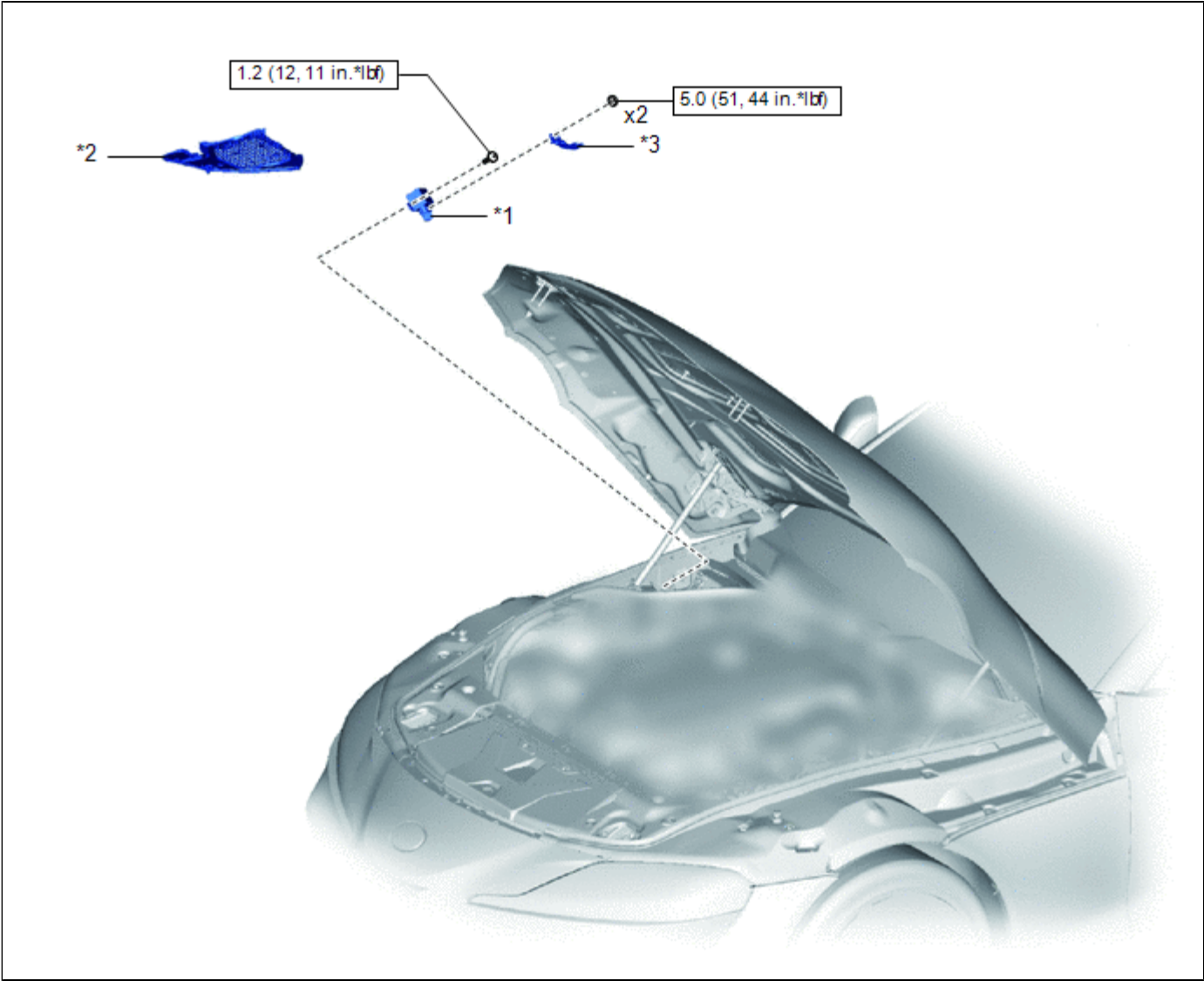
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING FAN RELAY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	COOLING FAN RELAY	*2	COWL VENT COVER RH
*3	POSITIVE BATTERY CABLE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING FAN RELAY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.
- Damage to or destruction of electrical components.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - For additional information see:

Click here [INFO](#)

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

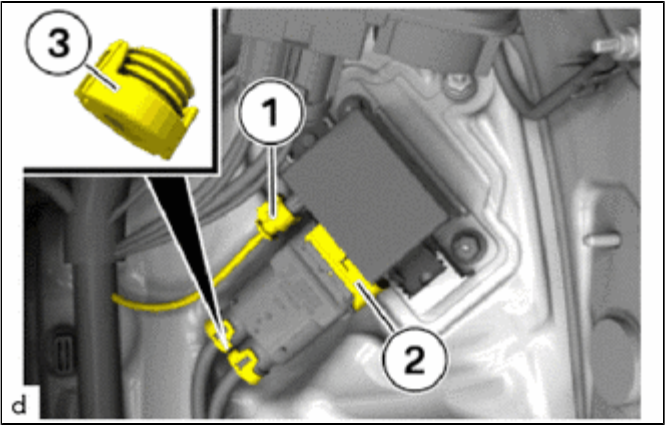
Click here [INFO](#)

2. REMOVE COWL VENT COVER RH

Click here [INFO](#)

3. REMOVE COOLING FAN RELAY

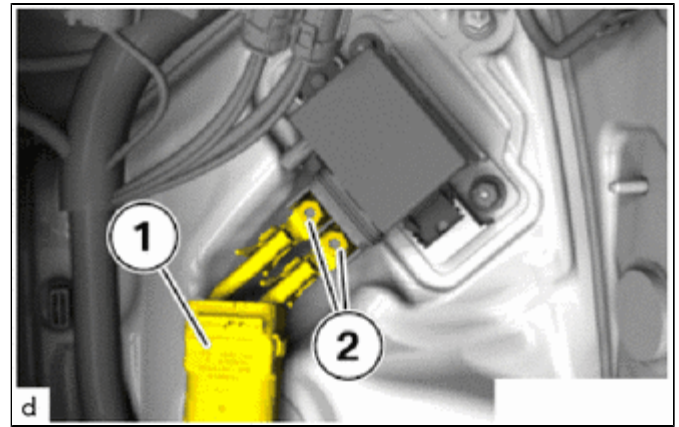
(a) Unlock connector (1) and disconnect.



(b) Remove cap (2).

(c) Unclip caps (3).

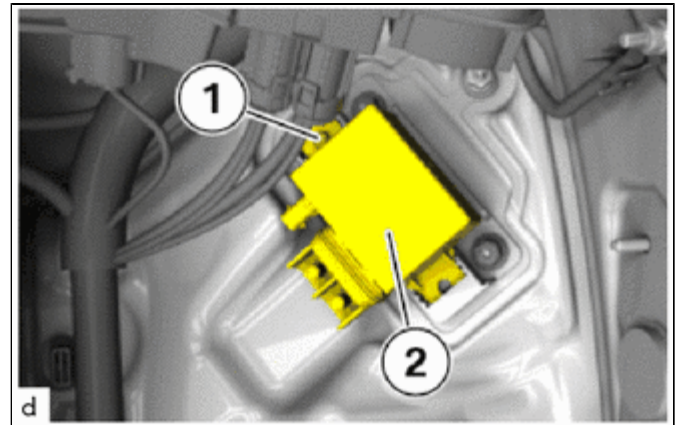
(d) Remove the rubber grommet (1) from the cooling fan relay.



(e) Loosen nuts (2).

(f) Remove the battery cables from the cooling fan relay.

(g) Loosen T25 screw (1).



(h) Swing the cooling fan relay (2) out of the bracket and remove.

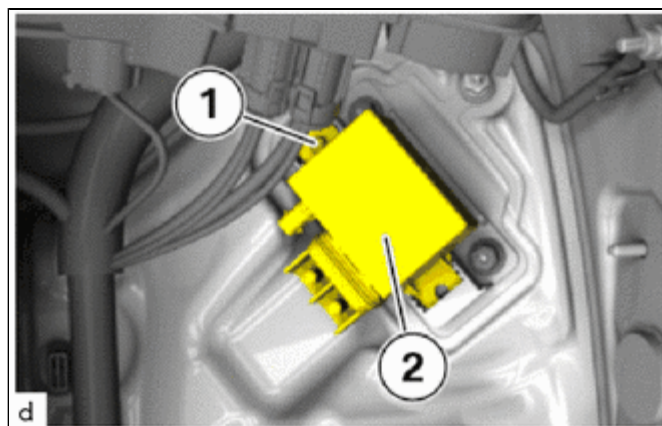
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING FAN RELAY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL COOLING FAN RELAY

(a) Position the cooling fan relay (2) in the bracket correctly.

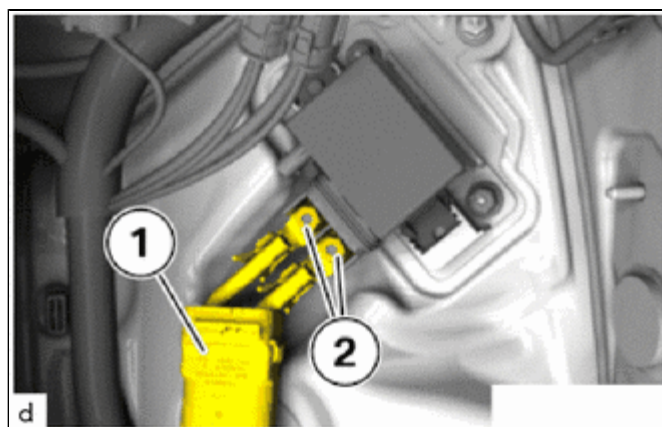


(b) Tighten down T25 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Position the battery cables on the cooling fan relay.



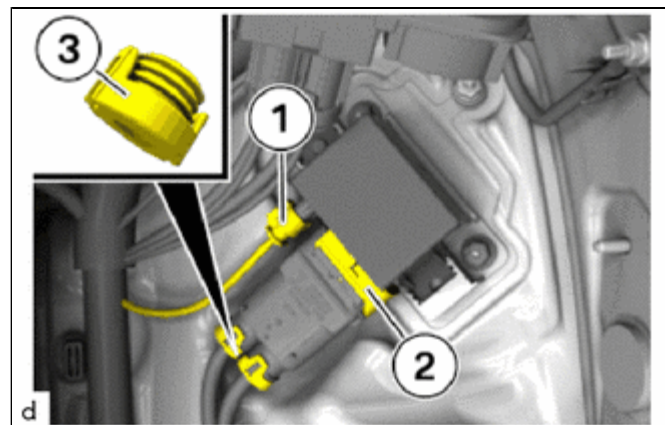
(d) Tighten nuts (2).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(e) Correctly position the rubber grommet (1).

(f) Clip in the caps (3).



(g) Install the cap (2).

(h) Connect connectors (1) and lock.

2. INSTALL COWL VENT COVER RH

Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING SYSTEM: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

PROCEDURE

1. INSPECT FOR COOLANT LEAK (for High Temperature)

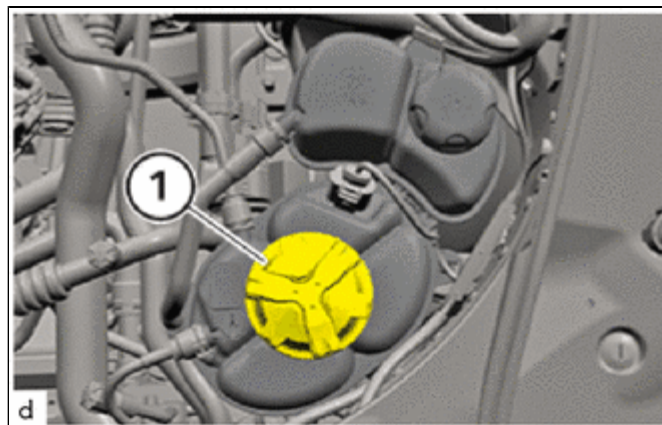
NOTICE:

- Hot surfaces.

Risk of burning!

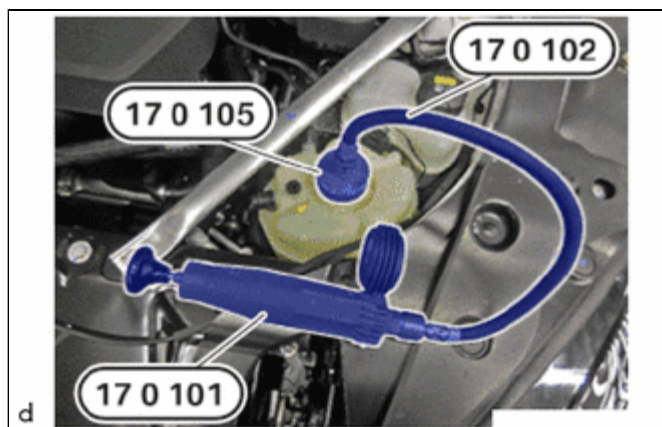
- Perform all work only on components that have cooled down.

(a) Loosen reserve tank cap sub-assembly (1).



(b) Attach the special tool 0 494 418 (17 0 101) with 0 494 419 (17 0 102) and 0 494 422 (17 0 105) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050



(c) Build up excess pressure and wait approx. 2 minutes.

Standard:

150 kPa (1.5 kgf/cm², 22 psi)

Electric switch valve must open at latest when the pressure is lower than the ambient pressure.

Maximum

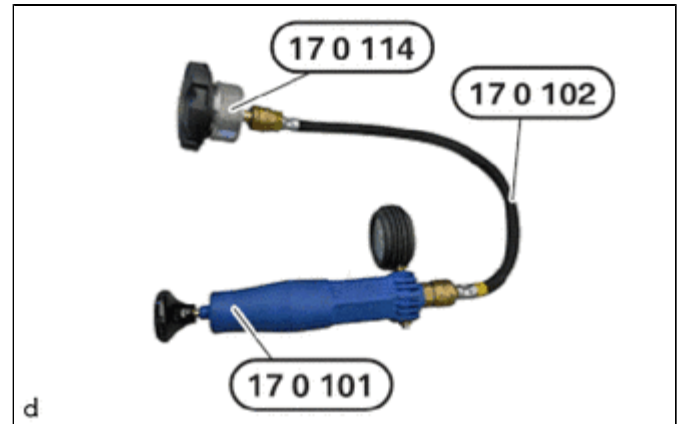
10 kPa (0.1 kgf/cm², 1 psi)

HINT:

- If the described test step is not completed successfully: repeat test step twice. Only replace the reserve tank cap sub-assembly after three tests with an incorrect opening pressure.
- When driving at high ambient temperatures, the design may cause the pressure relief valve in the reserve tank cap sub-assembly to open slightly and air to escape together with dissolved coolant.
- This coolant vapor condenses on the surface of the radiator reserve tank assembly and leaves traces of coolant when the vehicle has cooled down. These traces of coolant do not indicate whether the reserve tank cap sub-assembly is defective or not.
- Escaping coolant vapor when the vehicle is at standstill may cause the pressure relief valve to stick to the reserve tank cap sub-assembly. This may cause an incorrect opening pressure.

- (d) Screw on reserve tank cap sub-assembly (1) on special tool 0 494 643 (17 0 114) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050



- (e) Build up the pressure with special tools 0 494 418 (17 0 101) and 0 494 419 (17 0 102) from the set of special tools 0 494 417 (17 0 100).

- (f) Observe on the pressure measuring device when the opening pressure has been reached.

Maximum:

140 kPa (1.4 kgf/cm², 20 psi)

- (g) Close reserve tank cap sub-assembly.

- (h) Close the reserve tank cap sub-assembly until the arrows are flush.

2. INSPECT FOR COOLANT LEAK (for Low Temperature)

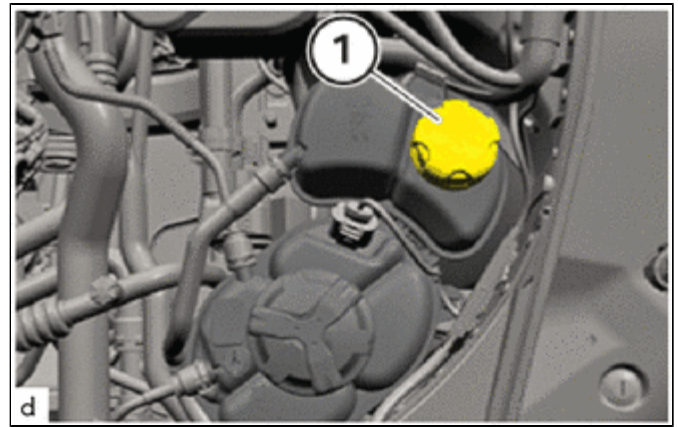
NOTICE:

- Hot surfaces.

Risk of burning!

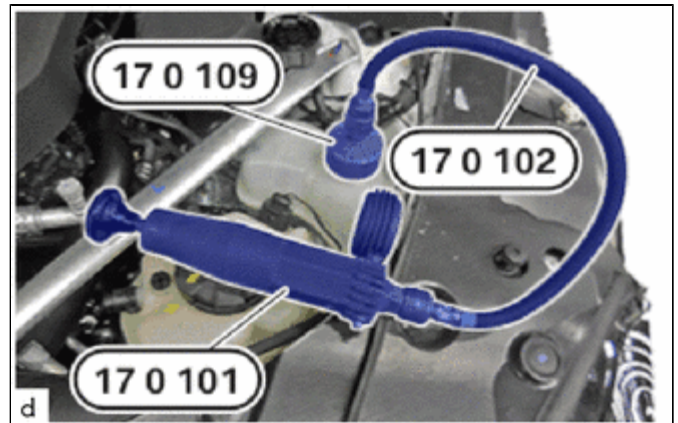
- Perform all work only on components that have cooled down.

- (a) Loosen radiator reserve tank cap sub-assembly (1).



- (b) Attach the special tool 0 494 418 (17 0 101) with 0 494 419 (17 0 102) and 0 494 426 (17 0 109) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050



- (c) Build up excess pressure and wait for approximately 2 minutes.

Standard:

150 kPa (1.5 kgf/cm², 22 psi)

Electric switch valve must open at latest when the pressure is lower than the ambient pressure.

Maximum

10 kPa (0.1 kgf/cm², 1 psi)

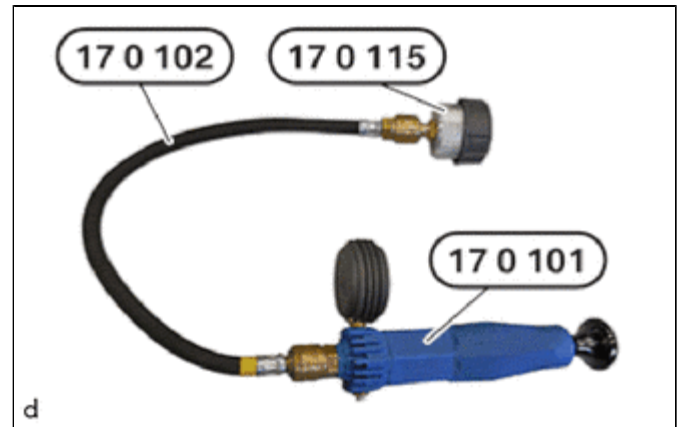
HINT:

- If the described test step is not completed successfully: repeat test step twice. Only replace the radiator reserve tank cap sub-assembly after three tests with an incorrect opening pressure.
- When driving at high ambient temperatures, the design may cause the pressure relief valve in the radiator reserve tank cap sub-assembly to open slightly and air to escape together with dissolved coolant.
- This coolant vapor condenses on the surface of the radiator reserve tank sub-assembly and leaves traces of coolant when the vehicle has cooled down. These traces of coolant do not indicate whether the radiator reserve tank cap sub-assembly is defective or not.
- Escaping coolant vapor when the vehicle is at standstill may cause the pressure relief valve to stick to the radiator reserve tank cap sub-assembly. This may cause an incorrect opening pressure.

- (d) Screw on radiator reserve tank cap sub-assembly (1) on

special tool 0 495 889 (17 0 115) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050



(e) Build up the pressure with the special tool 0 494 418 (17 0 101) and 0 494 419 (17 0 102) from the special tool set 0 494 417 (17 0 100).

(f) Observe on the pressure measuring device when the opening pressure has been reached.

Minimum:

140 kPa (1.4 kgf/cm², 20 psi)

(g) Close radiator reserve tank cap sub-assembly.

3. INSPECT ENGINE COOLANT

(a) Check the connections, hose clamps and hoses for coolant residues and damage such as e.g. cracks.

(b) Check the coolant composition in both radiator reserve tank.

CAUTION:

- When engine assembly and radiator assembly is hot, do not remove the radiator cap sub-assembly and air release valve.
- Fluid and steam may spray out due to high pressure, possibly resulting in burns.

(c) Check the coolant level in both radiator reserve tank.

The filling level in the radiator reserve tank must be between the minimum and maximum mark.

(d) Adjust filling level in the radiator reserve tank to the desired filling level.

The according amount of coolant must be supplemented or drawn off.

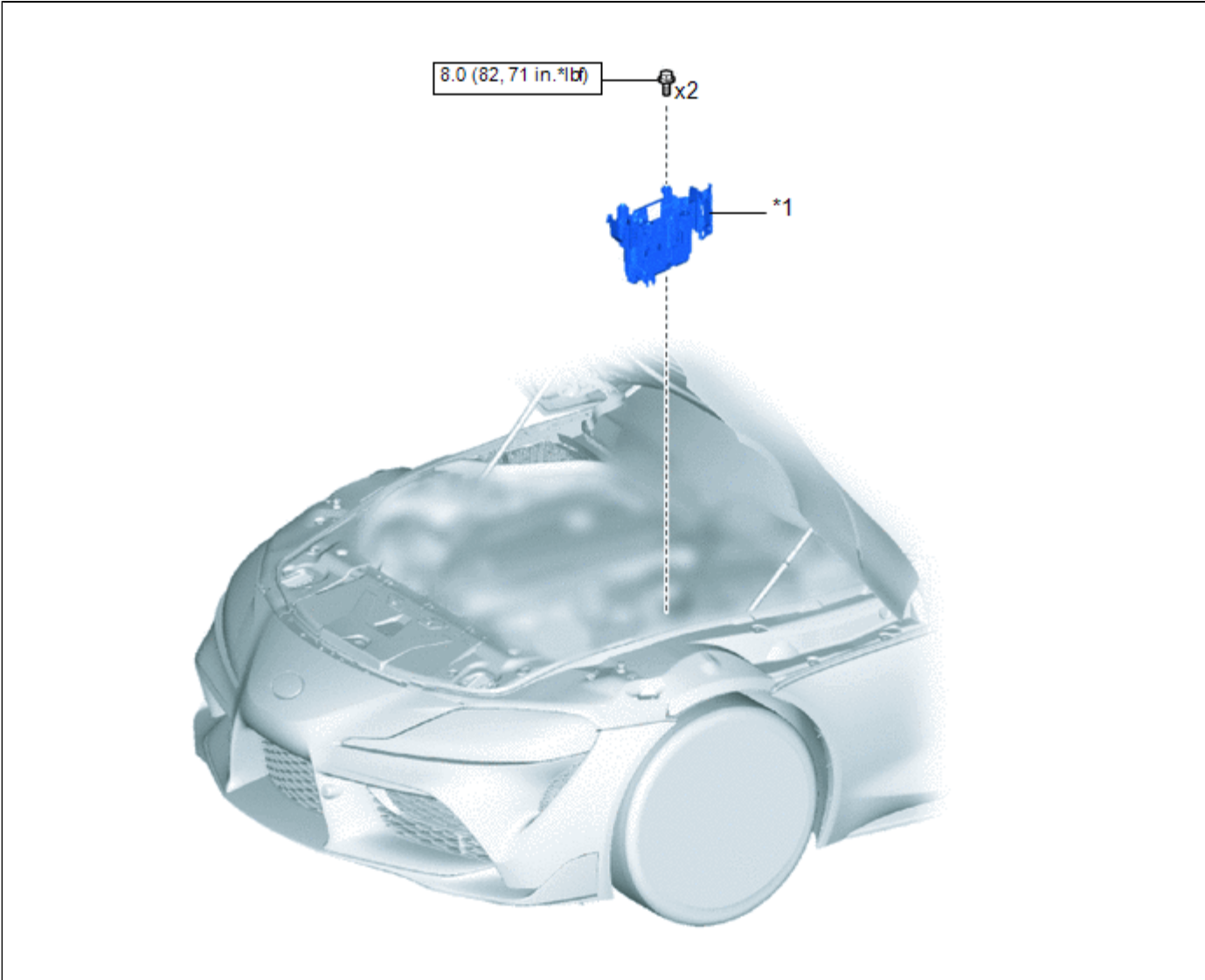
HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

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Title: B58 (COOLING): ELECTRIC WATER PUMP (for Heater): COMPONENTS; 2020 MY Supra [03/2019 -]		

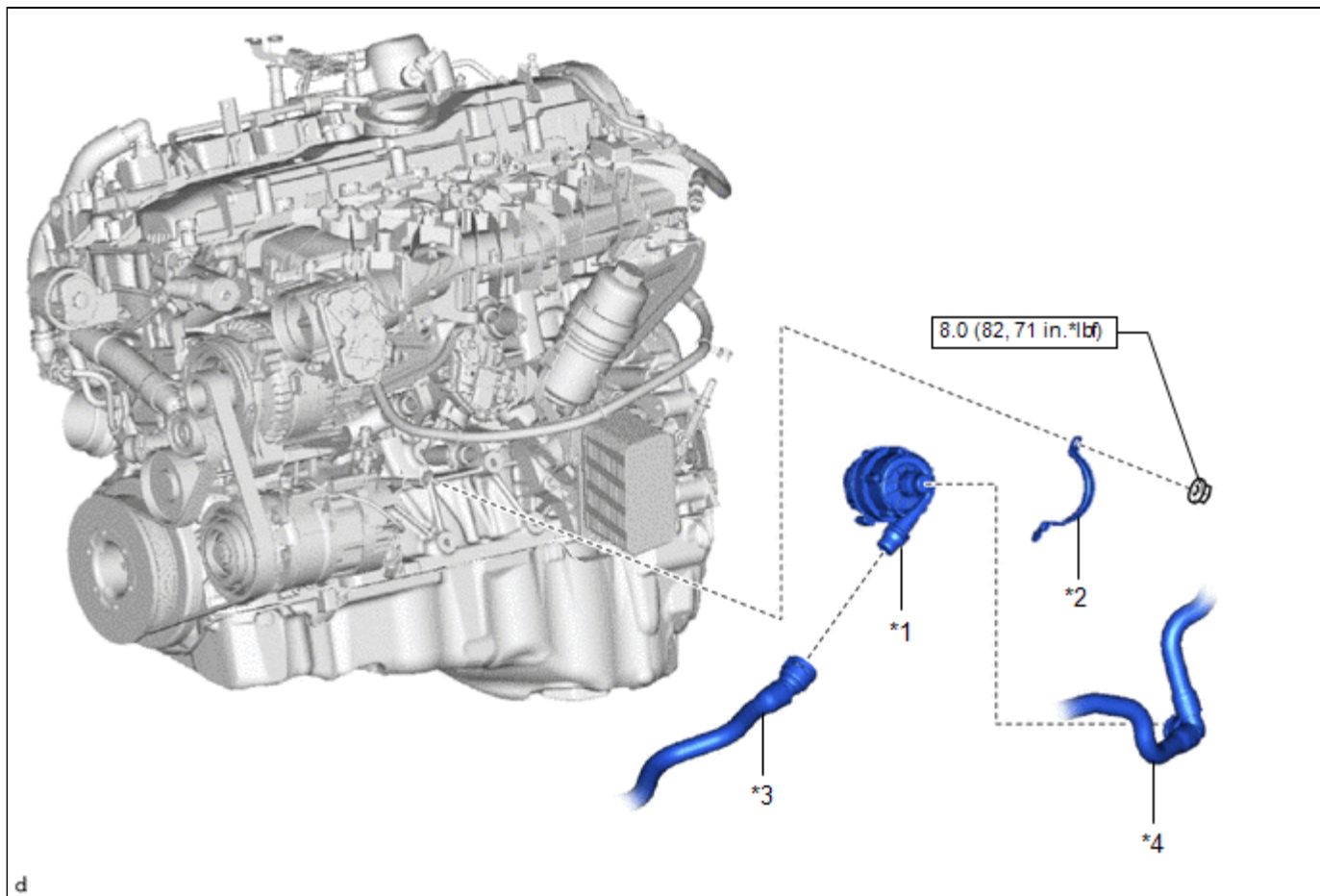
COMPONENTS

ILLUSTRATION



*1	ENGINE ROOM ECM BOX	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	WATER PUMP SUB-ASSEMBLY	*2	NO. 4 WATER PUMP BRACKET SUB-ASSEMBLY
*3	NO. 6 RADIATOR HOSE	*4	NO. 7 WATER BY-PASS HOSE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Heater): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

3. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

4. REMOVE WATER PUMP SUB-ASSEMBLY

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

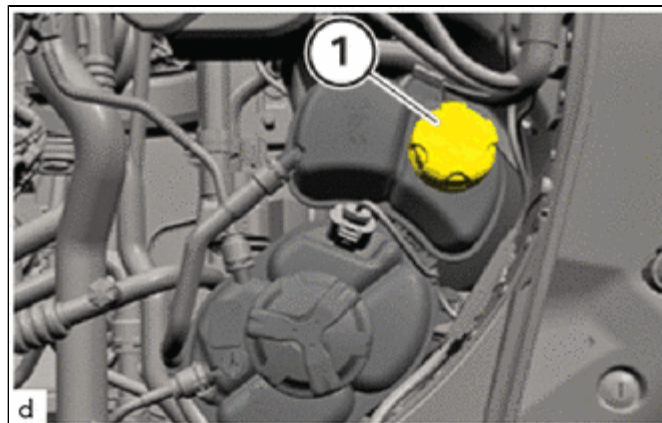
- Damage to wires when disconnecting connectors and plug connections.

Sheared wires can cause a short circuit.

- Do not pull on the wires when disconnecting connectors and plug connections.

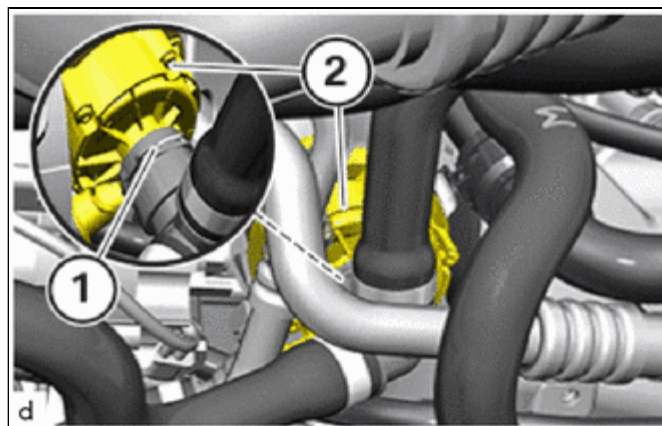
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen reserve tank cap sub-assembly (1).



(b) Disconnect the No. 7 water by-pass hose (1) with the special tool.

SST: 09900-WA090



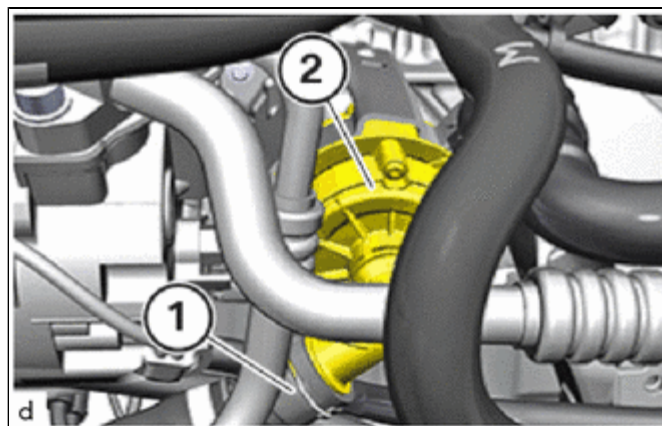
(c) Unlock No. 7 water by-pass hose (1) and disconnect from the water pump sub-assembly (2).

(d) Catch and dispose of escaping coolant.

(e) Place the No. 7 water by-pass hose (1) aside.

(f) Disconnect the No. 6 radiator hose (1) with the special tool.

SST: 09900-WA090

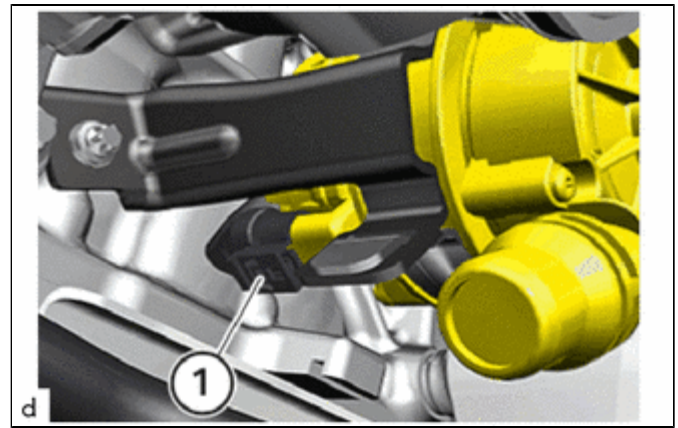


(g) Unlock No. 6 radiator hose (1) and disconnect from the water pump sub-assembly (2).

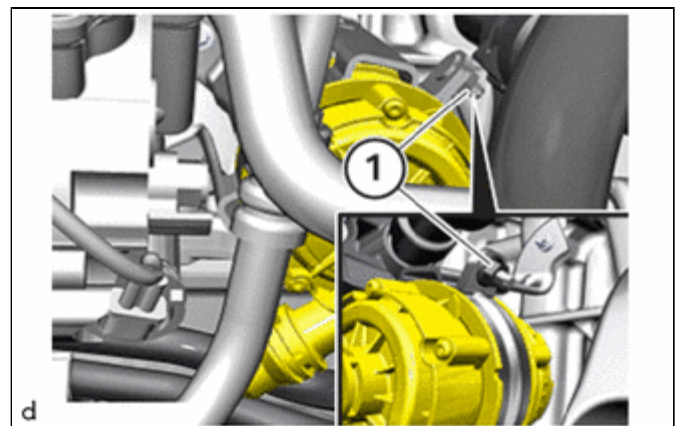
(h) Catch and dispose of escaping coolant.

(i) Place the No. 6 radiator hose (1) aside.

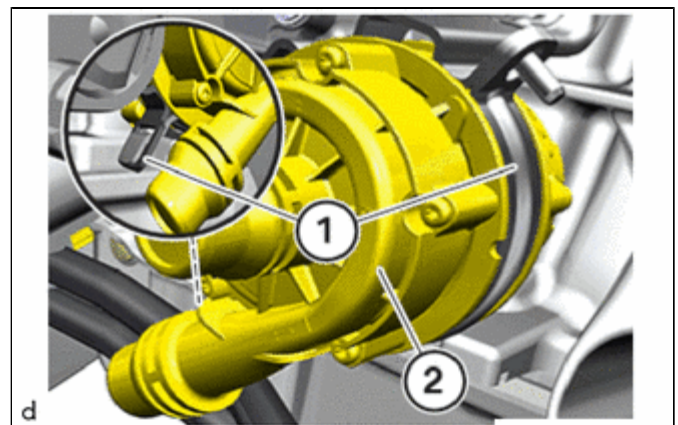
(j) Unlock plug connection (1) and disconnect.



(k) Unfasten nut (1).



(l) Release No. 4 water pump bracket sub-assembly (1).



(m) Guide out and remove the water pump sub-assembly (2).

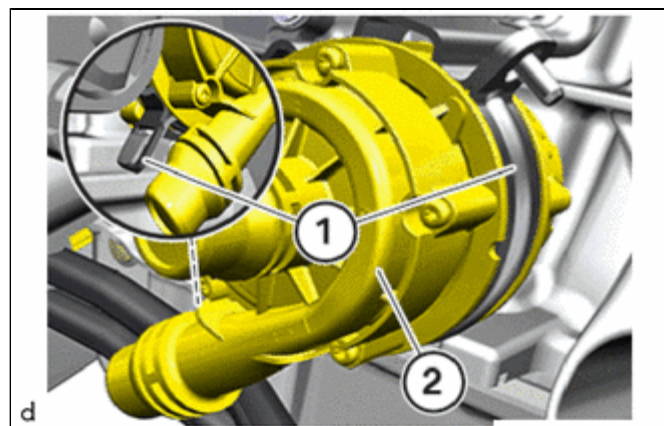
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Heater): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER PUMP SUB-ASSEMBLY

(a) Feed in and install the water pump sub-assembly (2).



(b) Position No. 4 water pump bracket sub-assembly (1).

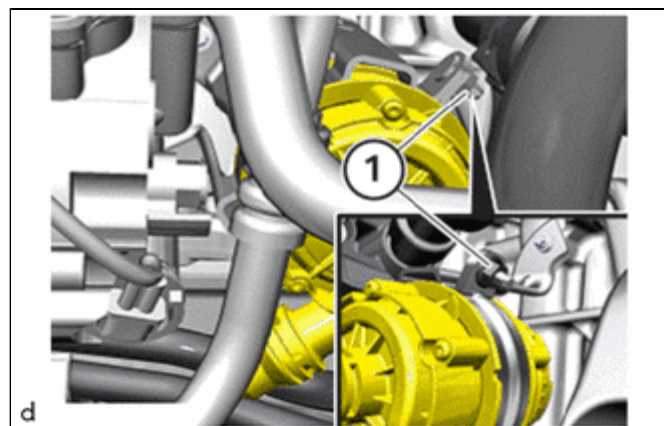
HINT:

Note the installation position of the component. The component may be installed in various installation positions.

(c) Tighten nut (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



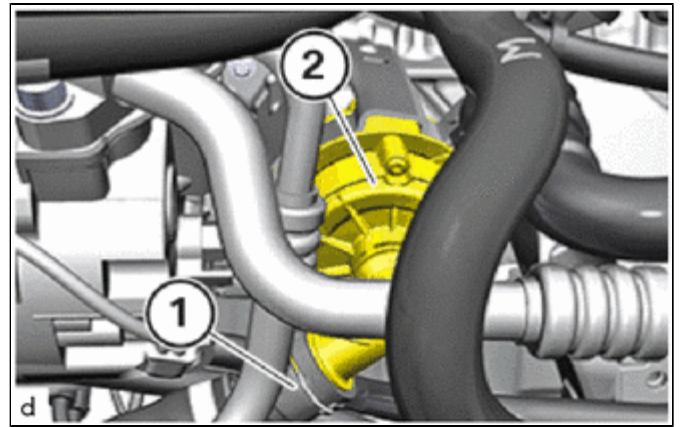
(d) Connect connectors and lock.

(1) The connector must engage audibly.

(e) Connect and lock the No. 6 radiator hose (1) to the water pump sub-assembly (2).

HINT:

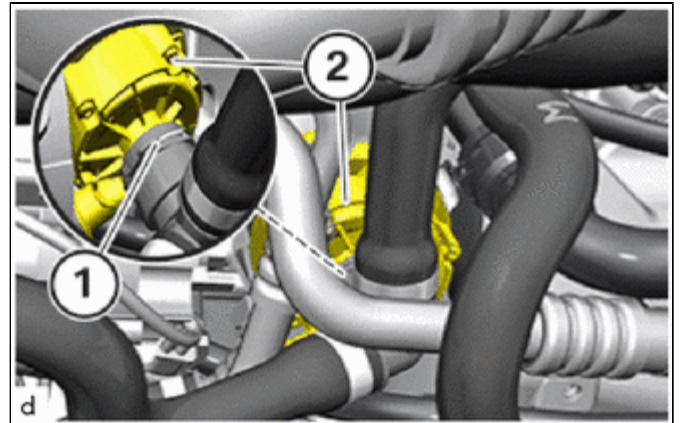
Make sure that the connections are locked correctly. The locks must engage audibly.



(f) Connect and lock the No. 7 water by-pass hose (1) to the water pump sub-assembly (2).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



2. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

3. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

4. ADD ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for Low Temperature)

Click here [INFO](#)

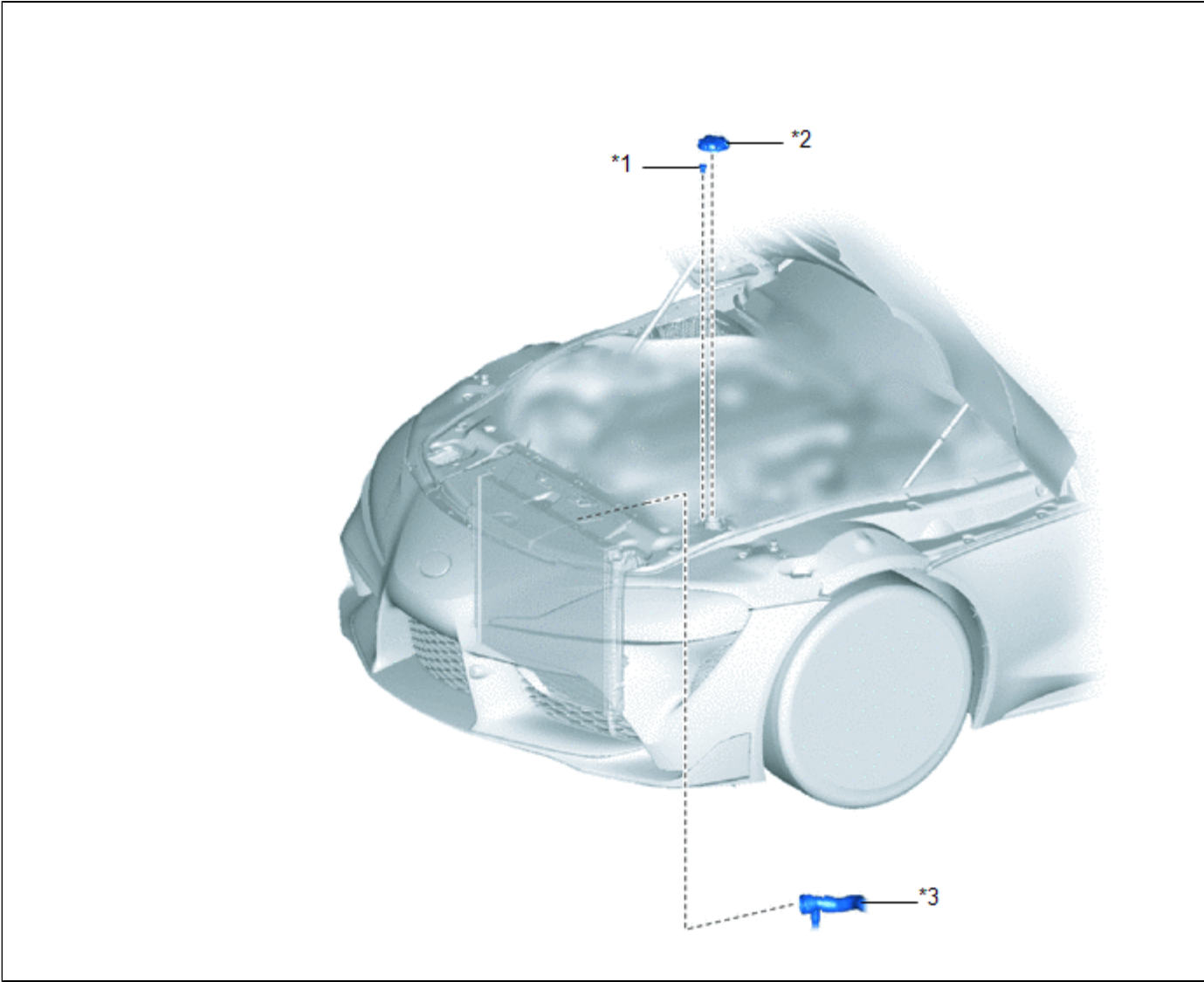
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Turbo): COMPONENTS; 2020 MY Supra [03/2019 -]		

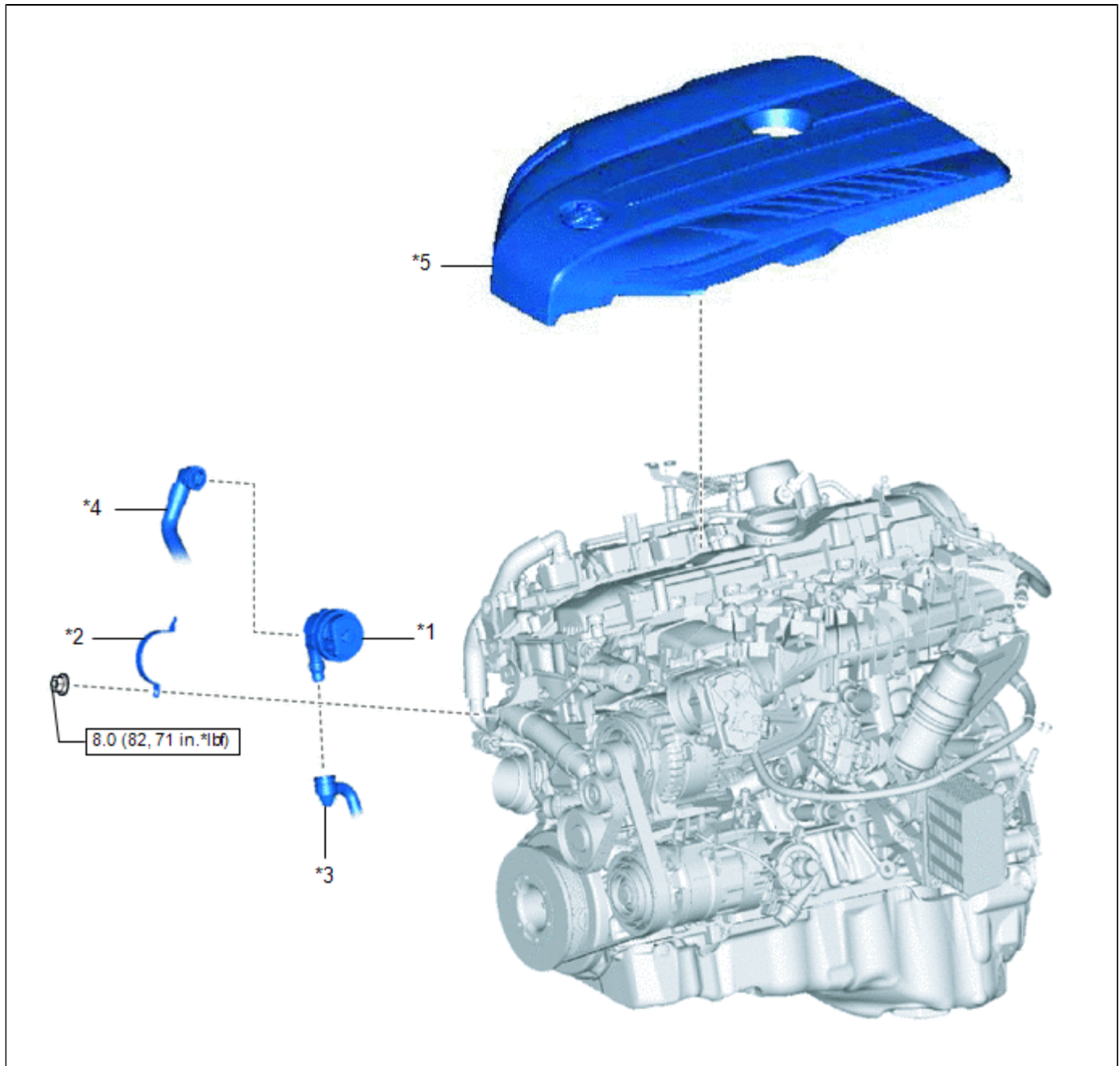
COMPONENTS


ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	WATER PUMP ASSEMBLY	*2	NO. 2 WATER PUMP BRACKET SUB-ASSEMBLY
*3	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY	*4	NO. 3 RADIATOR HOSE
*5	NO. 1 ENGINE COVER SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Turbo): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

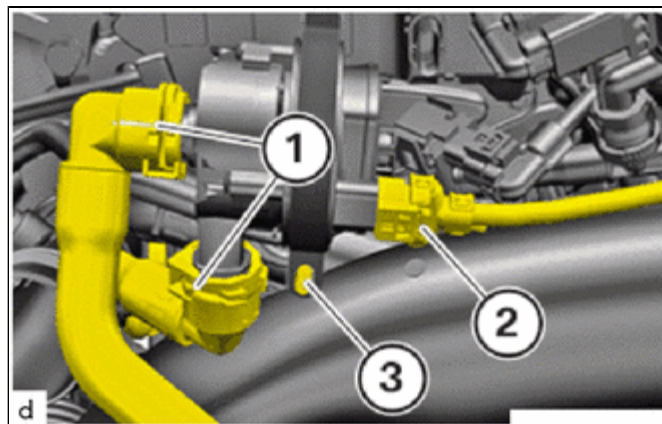
Click here [INFO](#)

4. REMOVE WATER PUMP ASSEMBLY

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

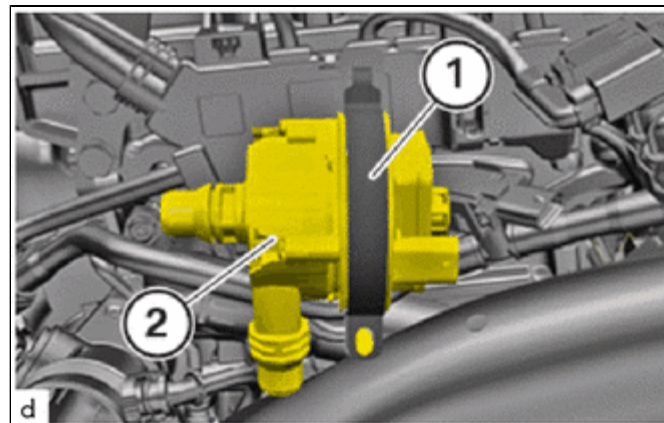
- (a) Unlock and disconnect the No. 3 radiator hose and No. 2 turbo water pipe sub-assembly (1).



(b) Unlock plug connection (2) and disconnect.

(c) Loosen nut (3).

(d) Guide the No. 2 water pump bracket sub-assembly (1) out and remove.



(e) Remove water pump assembly (2).



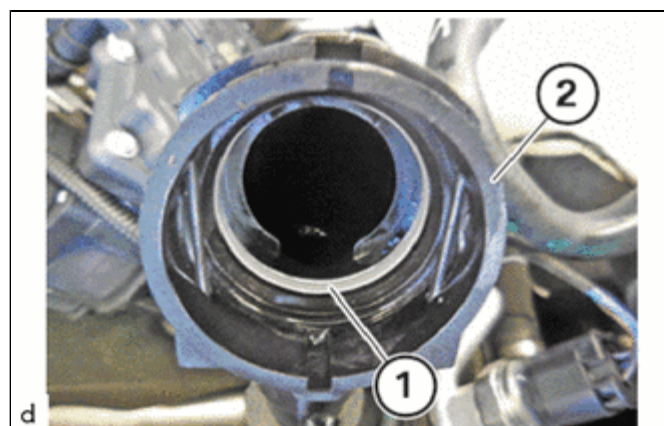
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Turbo): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER PUMP ASSEMBLY

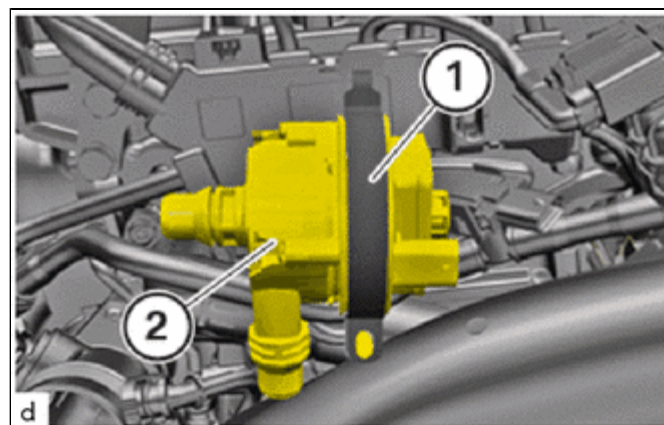
- (a) Check the sealing rings (1) of the coolant lines (2) for damage and replace the coolant lines, if necessary.



- (b) Position the water pump assembly (2).

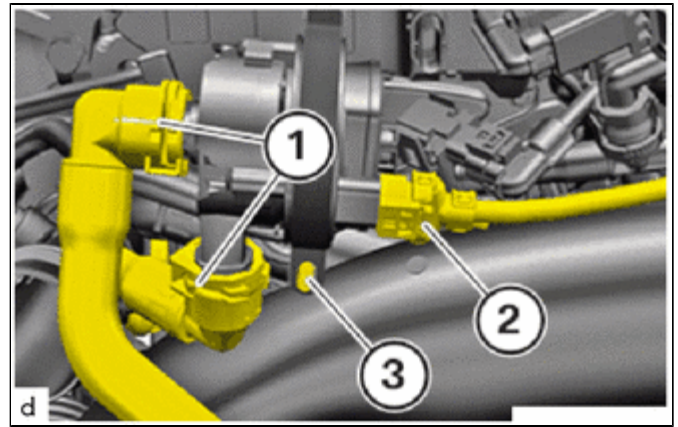
HINT:

Note the installation position of the component. The component may be installed in various installation positions.



- (c) Insert and install the No. 2 water pump bracket sub-assembly (1).

- (d) Make sure the No. 2 water pump bracket sub-assembly is fitted correctly.



(e) Tighten nut (3).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(f) Connect and lock the No. 3 radiator hose and No. 2 turbo water pipe sub-assembly (1).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(g) Connect connector (2) and lock.

2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

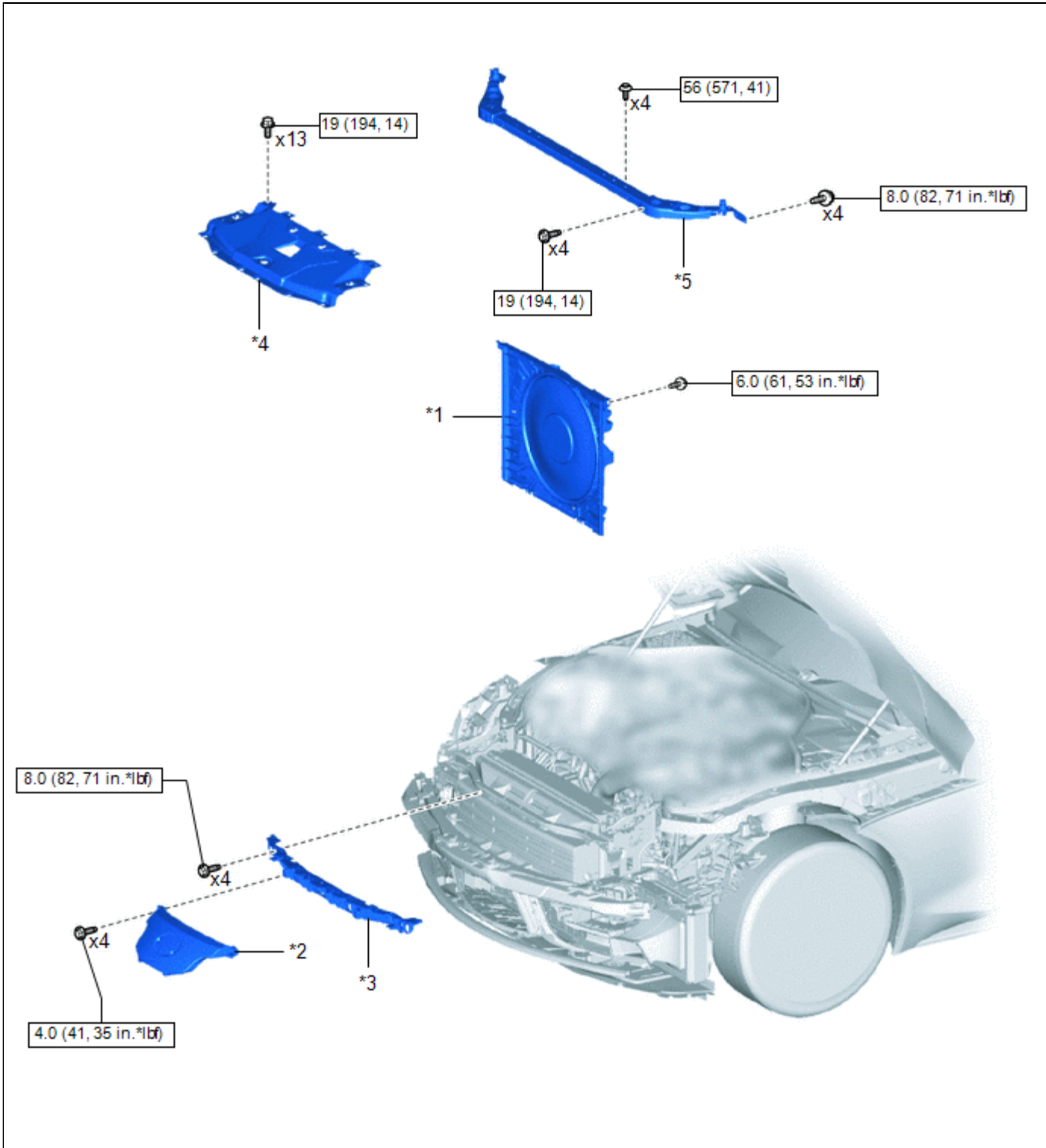
5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): FAN SHROUD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FAN WITH MOTOR ASSEMBLY	*2	FRONT BUMPER INNER SUPPORT
----	-------------------------	----	----------------------------

*3	FRONT BUMPER UPPER RETAINER	*4	RADIATOR UPPER AIR DEFLECTOR
*5	UPPER RADIATOR SUPPORT SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): FAN SHROUD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

When the engine is stopped after the end of the journey, it may be necessary to run the electric fan. In rare cases, operation of the electric fan can last up to 11 min. This protects the components. In this case, replacing the electric fan will not remedy the problem!

PROCEDURE

1. REMOVE HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

2. REMOVE HEADLIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

3. REMOVE FRONT BUMPER INNER SUPPORT

Click here [INFO](#)

4. REMOVE FRONT BUMPER UPPER RETAINER

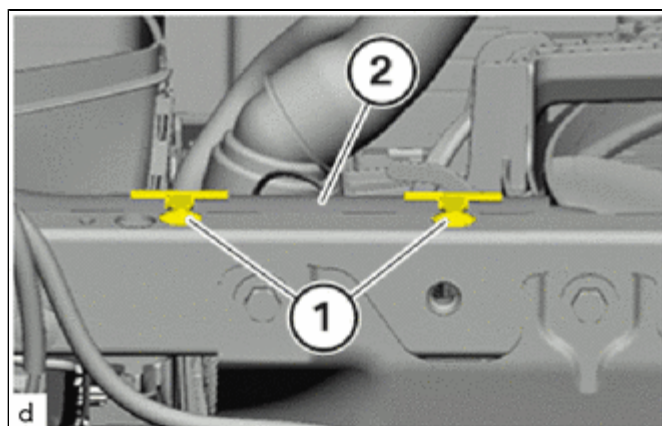
Click here [INFO](#)

5. REMOVE RADIATOR UPPER AIR DEFLECTOR

Click here [INFO](#)

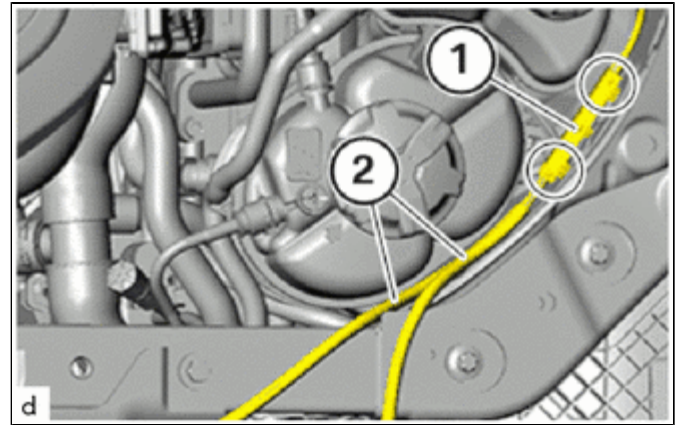
6. REMOVE UPPER RADIATOR SUPPORT SUB-ASSEMBLY

(a) Loosen the clips (1).



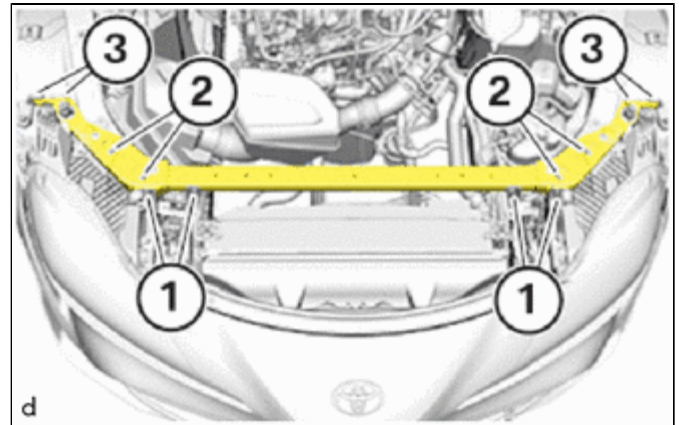
(b) Place wiring harness (2) to one side.

(c) Unclip the housing (1) in the marked areas.



(d) Detach the Bowden cables (2) at the separation point in the housing (1) where required.

(e) Loosen bolts (1).



(f) Loosen E14 bolts (2).

(g) Unscrew the bolts (3) and remove the upper radiator support sub-assembly.

7. REMOVE FAN WITH MOTOR ASSEMBLY

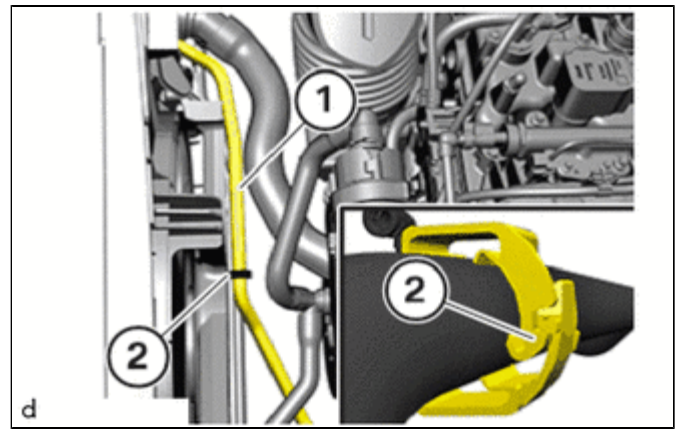
CAUTION:

- Hot surfaces.

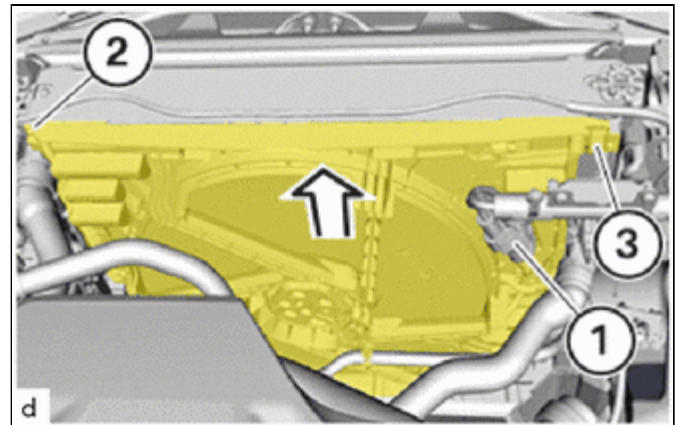
Risk of burning!

- Perform all work only on components that have cooled down.

(a) Release the automatic transmission oil cooler tube (1) from the holder (2) on the fan with motor assembly.



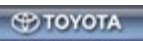
(b) Unlock plug connection (1) and disconnect



(c) Loosen T30 screw (2).

(d) Unlock the right lock (3).

(e) Remove fan with motor assembly (1) in direction of arrow.



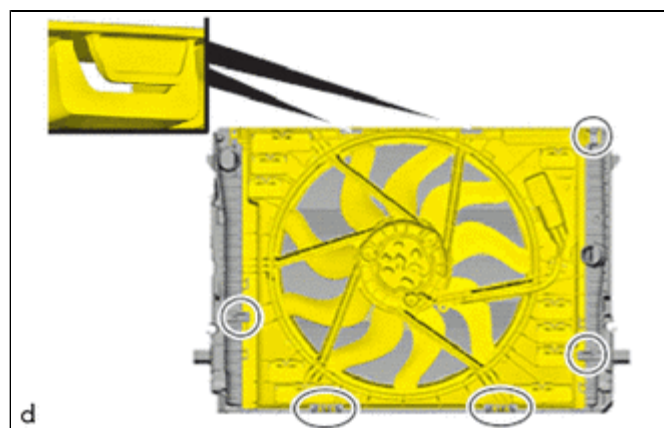
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): FAN SHROUD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

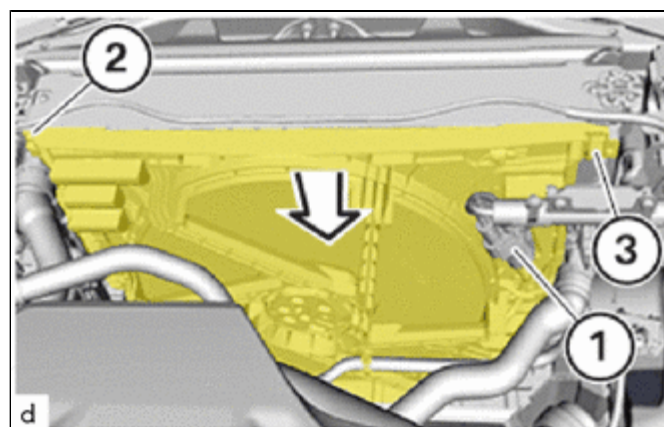
PROCEDURE

1. INSTALL FAN WITH MOTOR ASSEMBLY

(a) Engage the fan with motor assembly at the guides (marks).



(b) Feed in and install the fan with motor assembly in the direction of the arrow.



(c) Lock the right lock (3).

(d) Tighten down T30 screw (2).

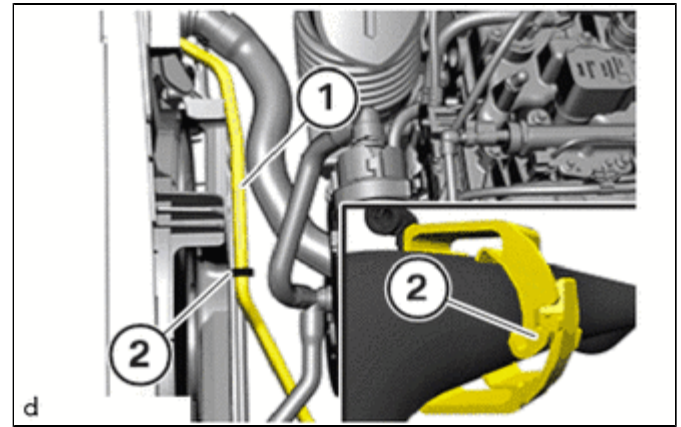
Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}

(e) Connect connectors (1) and lock.

(1) The connector must engage audibly.

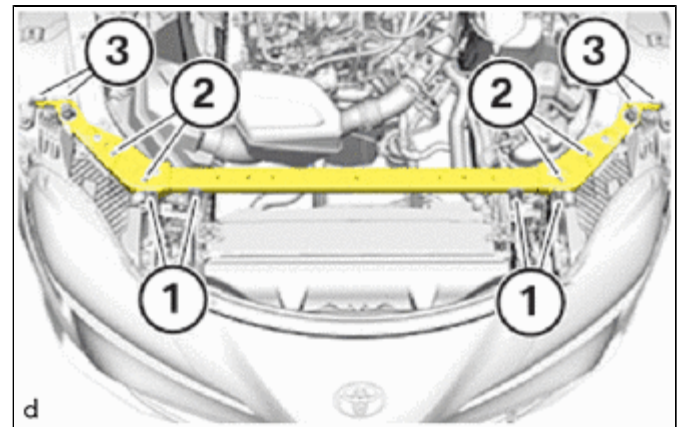
- (f) Secure the automatic transmission oil cooler tube (1) in the holder (2).



- (g) Lock holder (2).

2. INSTALL UPPER RADIATOR SUPPORT SUB-ASSEMBLY

- (a) Position upper radiator support sub-assembly.



- (b) Insert bolts (1) and tighten them.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

- (c) Insert E14 bolts (2) and tighten.

Torque:

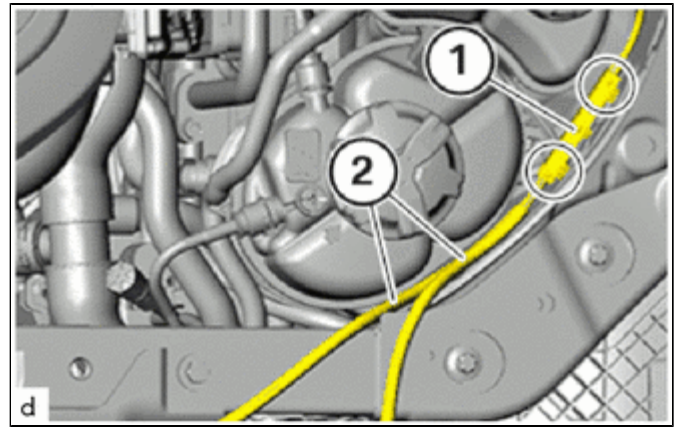
56 N·m {571 kgf·cm, 41 ft·lbf}

- (d) Insert bolts (3) and tighten them.

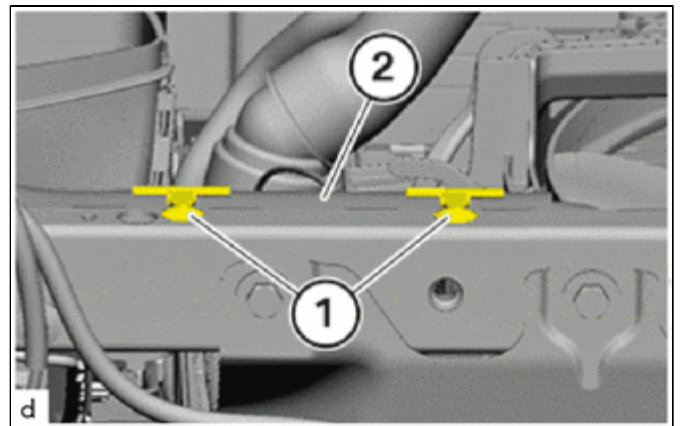
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

- (e) If applicable, attach the Bowden cables (2).



(f) Clip in housing (1) in the marked areas.



(g) Position wiring harness (2).

(h) Mount clips (1).

3. INSTALL RADIATOR UPPER AIR DEFLECTOR

Click here [INFO](#)

4. INSTALL FRONT BUMPER UPPER RETAINER

Click here [INFO](#)

5. INSTALL FRONT BUMPER INNER SUPPORT

Click here [INFO](#)

6. INSTALL HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

7. INSTALL HEADLIGHT ASSEMBLY RH

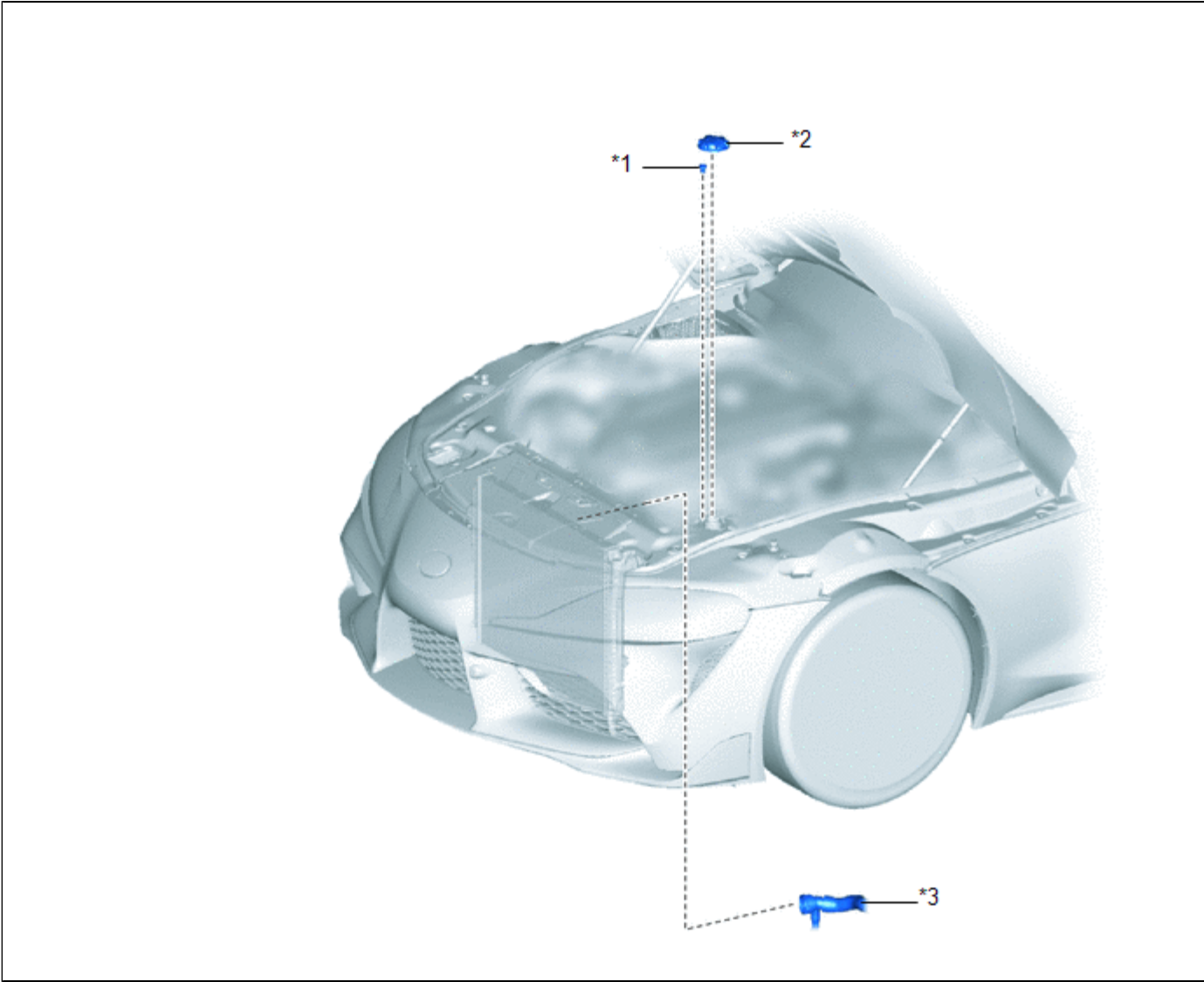
HINT:

Use the same procedure as for the LH side.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): HEAT MANAGEMENT MODULE: COMPONENTS; 2020 MY Supra [03/2019 -]		

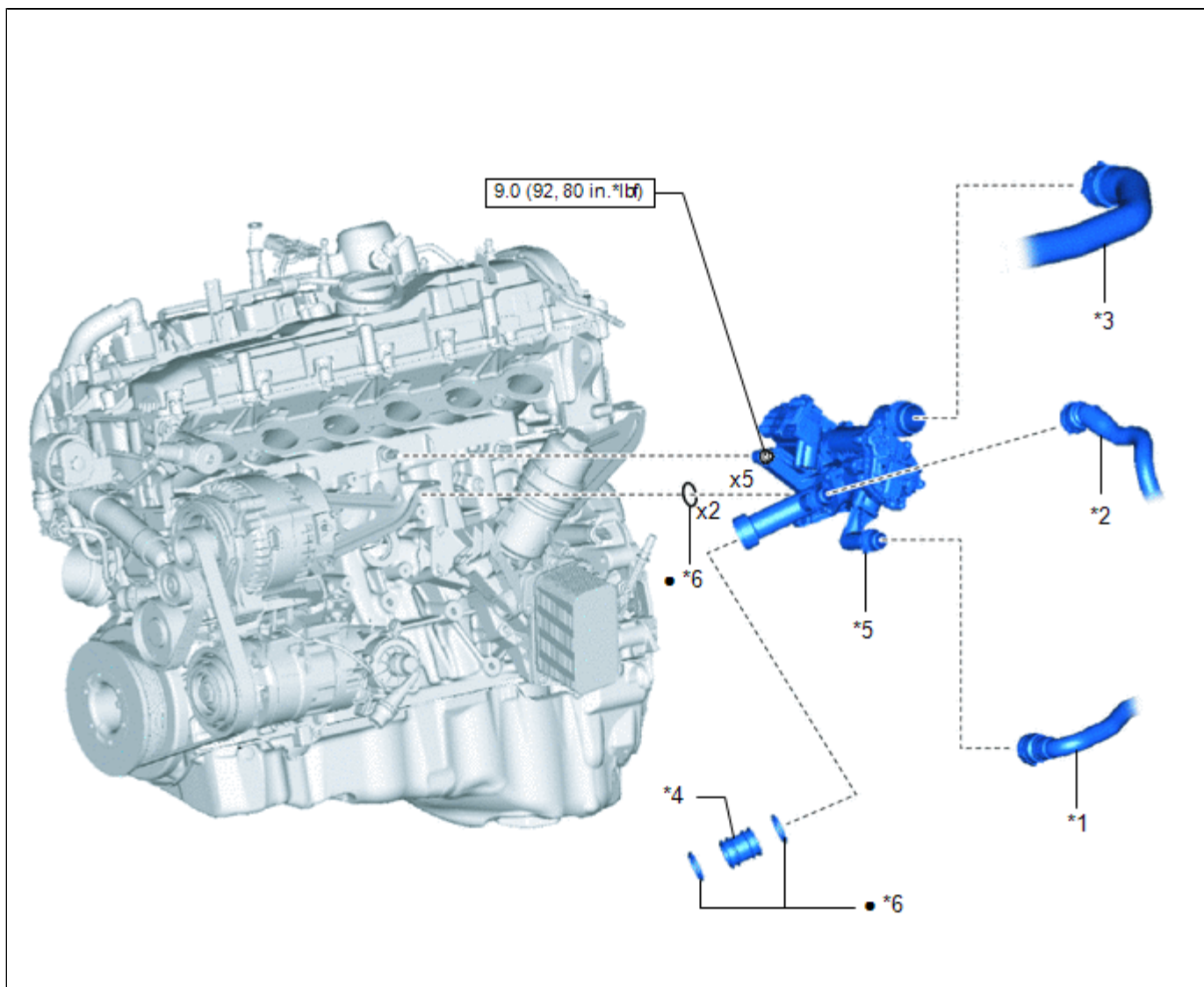
COMPONENTS



ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	HEATER WATER HOSE	*2	NO. 1 WATER BY-PASS HOSE
*3	NO. 2 RADIATOR HOSE	*4	WATER PIPE
*5	WATER VALVE	*6	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): HEAT MANAGEMENT MODULE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.
- Risk of scalding!
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

2. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

3. REMOVE WATER VALVE

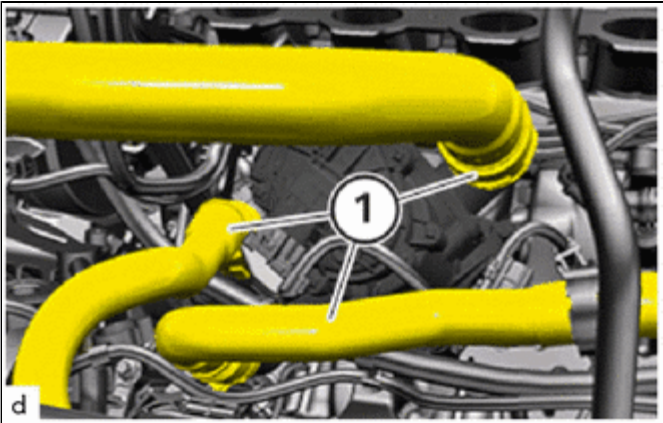
CAUTION:

- Hot fluids.
- Risk of scalding!
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

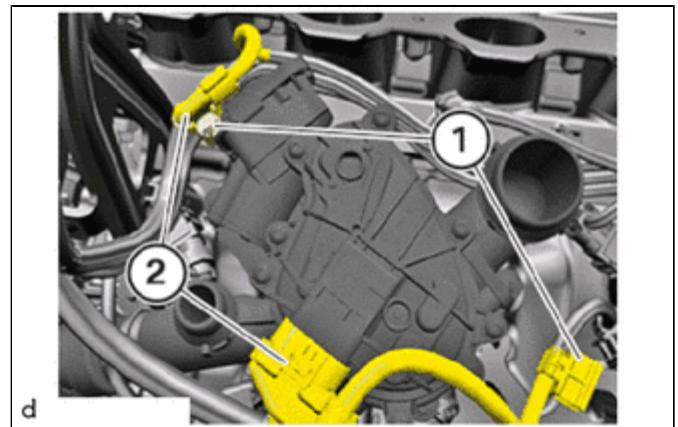
NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock and pull off the No. 2 radiator hose, No. 1 water by-pass hose and water heater hose (1).

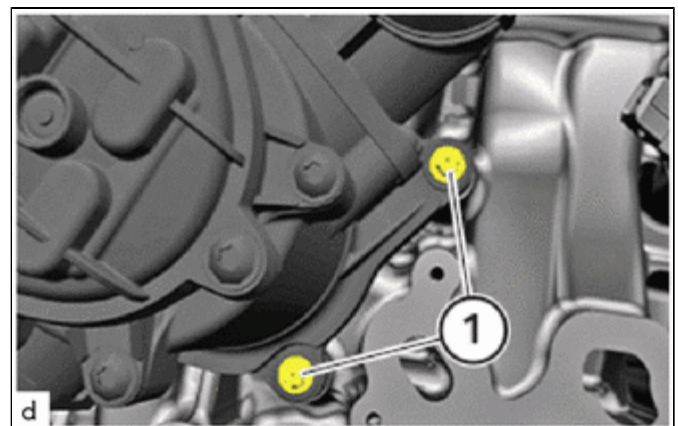


(b) Detach the cable clips (1) from the water valve and the full-flow oil filter.

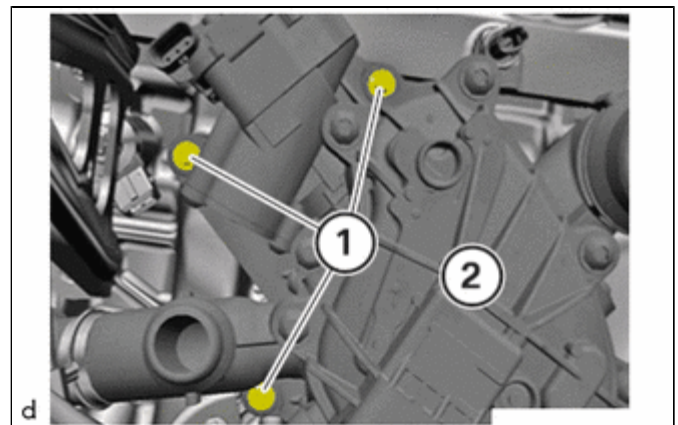


(c) Unlock and disconnect plug connections (2).

(d) Loosen E10 bolt (1).



(e) Loosen E10 bolts (1).



(f) Thread out the water valve (2) to the rear and out of the water inlet with water pump housing sub-assembly and remove.

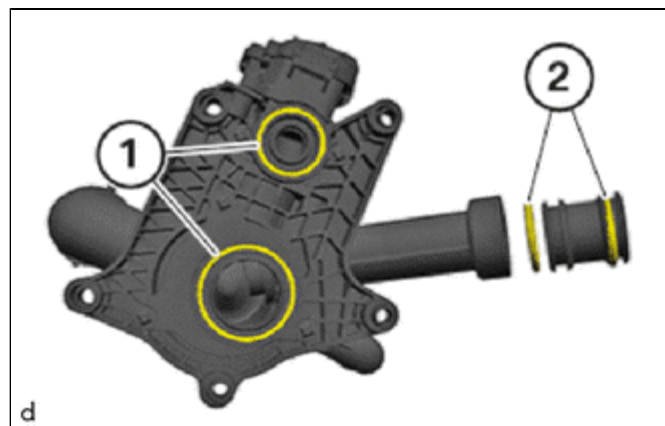
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): HEAT MANAGEMENT MODULE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER VALVE

(a) Replace the O-rings (1).



(b) Replace the O-rings (2).

(c) Coat O-rings (2) with coolant before installing.

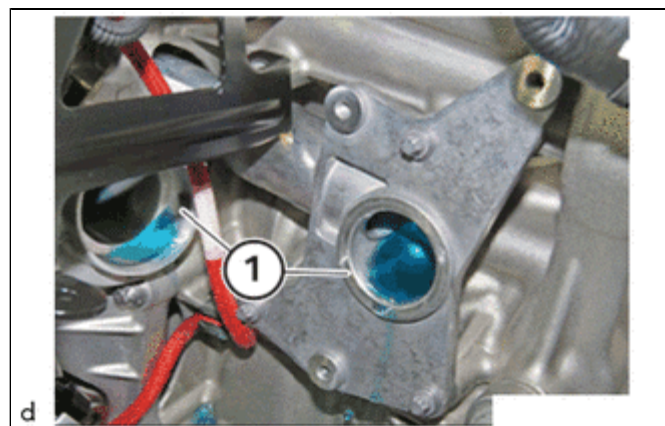
(d) Clean sealing surfaces (1).

NOTICE:

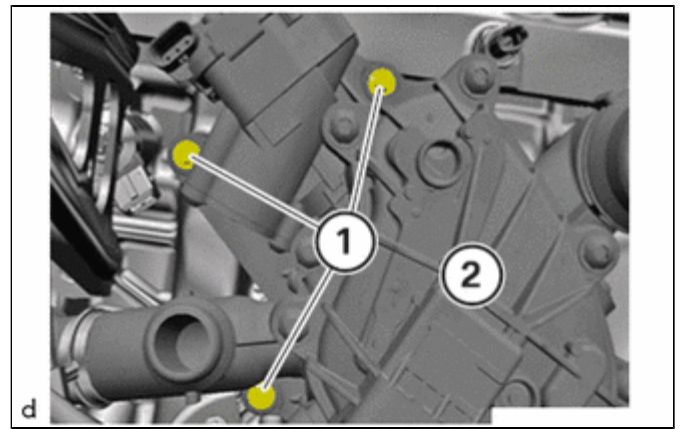
- Damage to the surface.

The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.



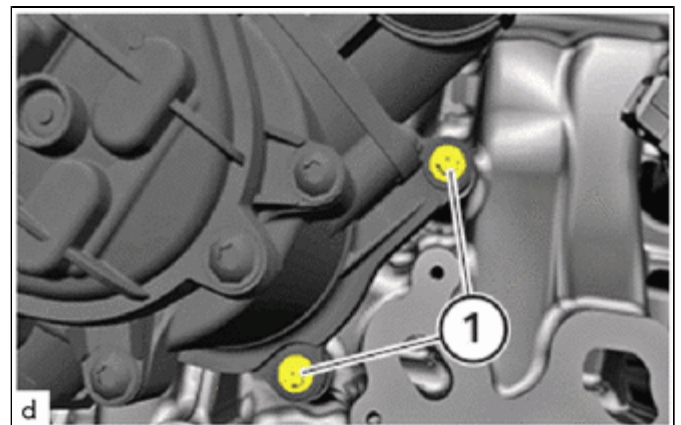
(e) Insert water valve (2) into the water inlet with water pump housing sub-assembly from the rear.



(f) Position the water valve (2) and tighten the E10 bolts (1).

Torque:

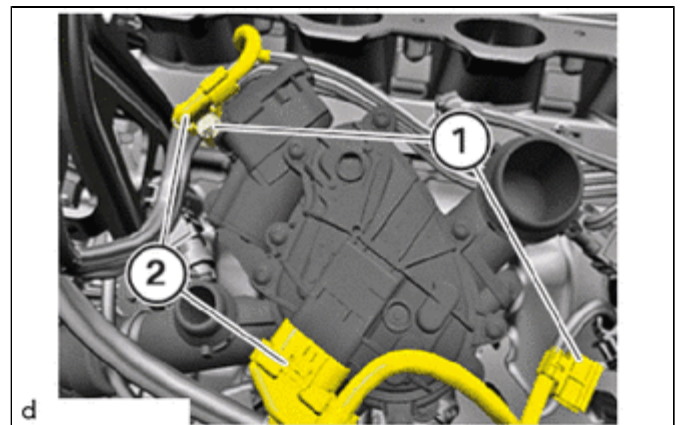
9.0 N·m {92 kgf·cm, 80 in·lbf}



(g) Tighten the E10 bolts (1).

Torque:

9.0 N·m {92 kgf·cm, 80 in·lbf}



(h) Connect and lock the connector (2).

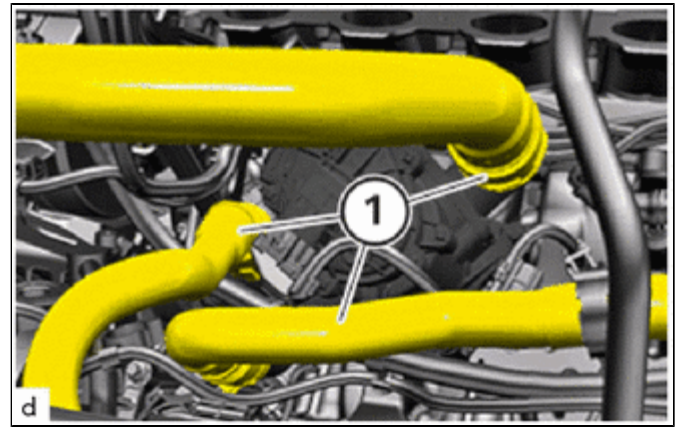
(1) The locks must engage audibly.

(i) Fasten the cable clip (1) on the water valve and on the full-flow oil filter.

- (j) Connect the No. 2 radiator hose, No. 1 water by-pass hose and water heater hose (1) on the water valve and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



2. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

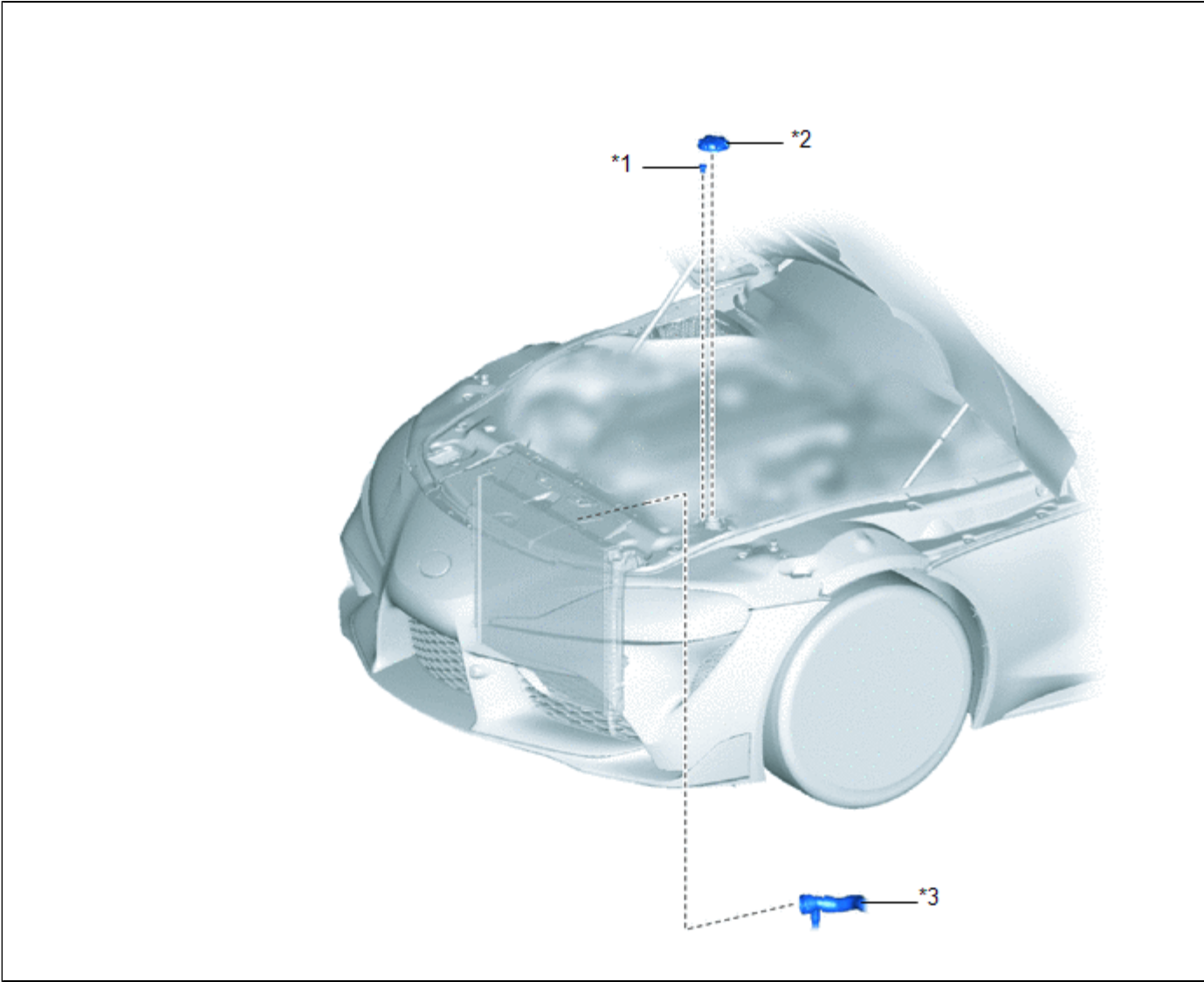
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for High Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

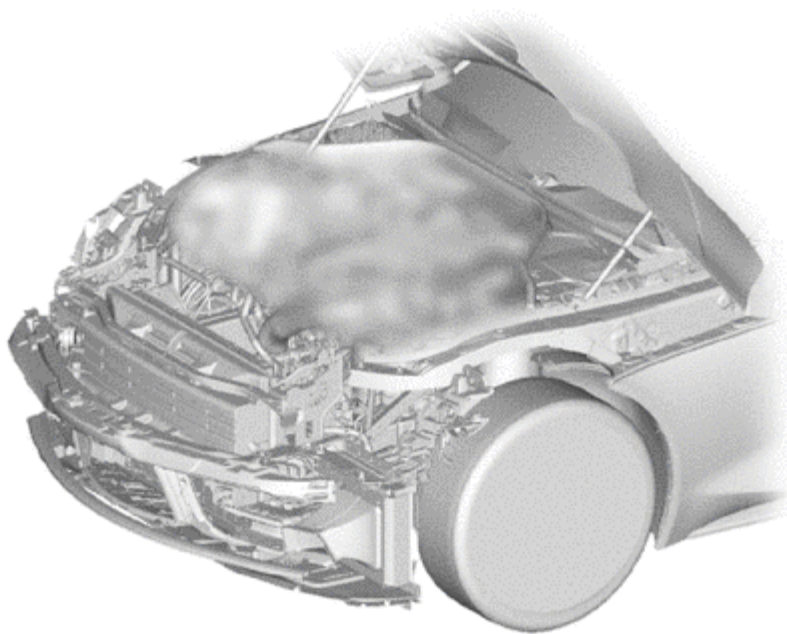
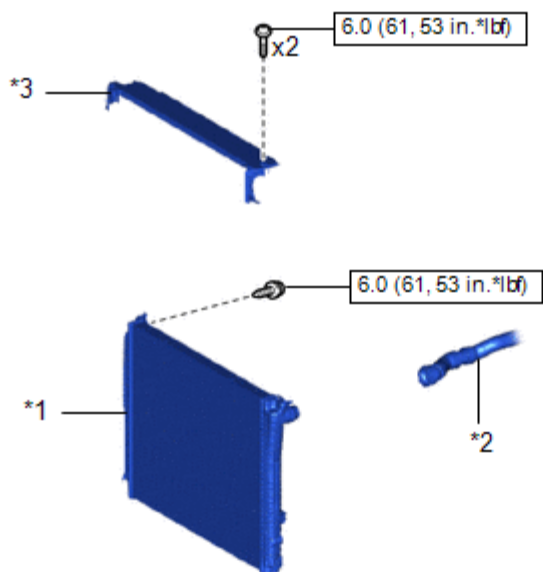
COMPONENTS

ILLUSTRATION




*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



d

*1	RADIATOR ASSEMBLY	*2	NO. 2 RADIATOR HOSE
*3	RADIATOR UPPER AIR GUIDE PLATE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for High Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE RADIATOR ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

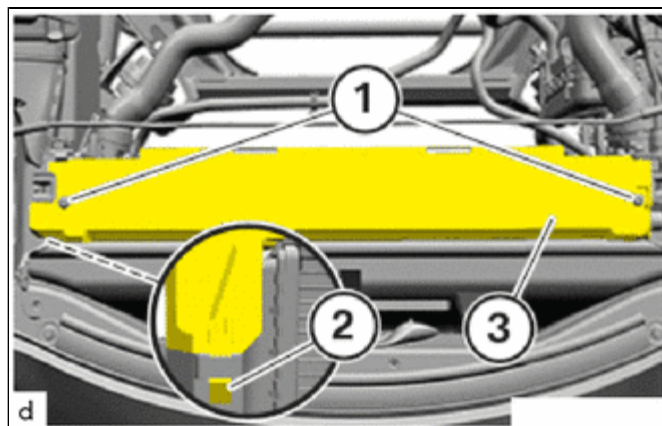
- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

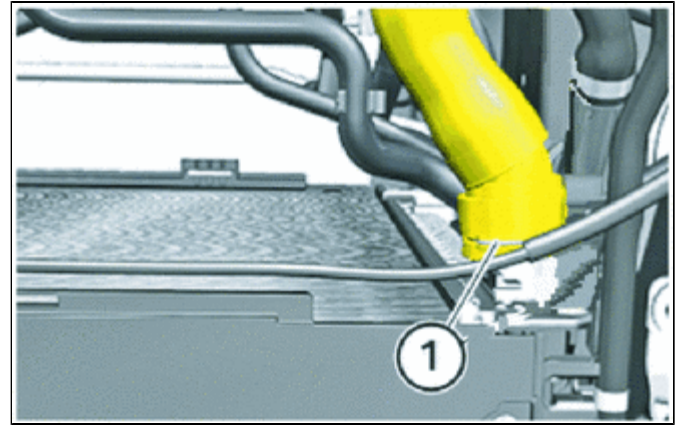
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 screws (1).

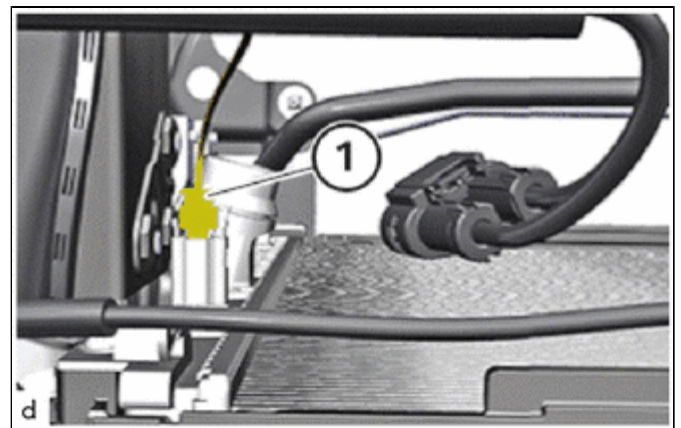


(b) Unlock the lock (2) and remove the radiator upper air guide plate (3) toward the top.

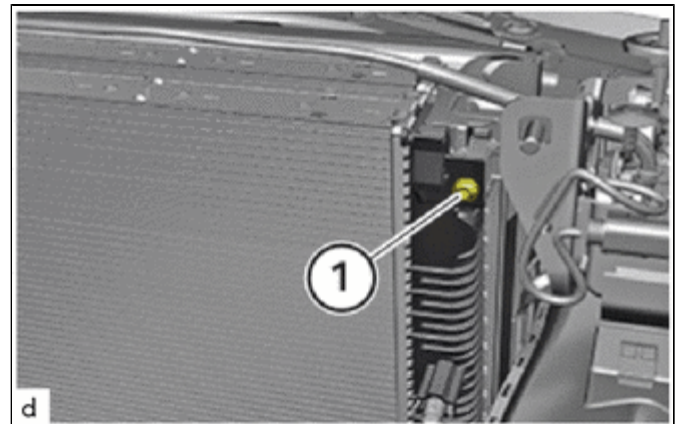
(c) Unlock the No. 2 radiator hose (1) and disconnect from the radiator assembly.



(d) Unlock plug connection (1) and disconnect.

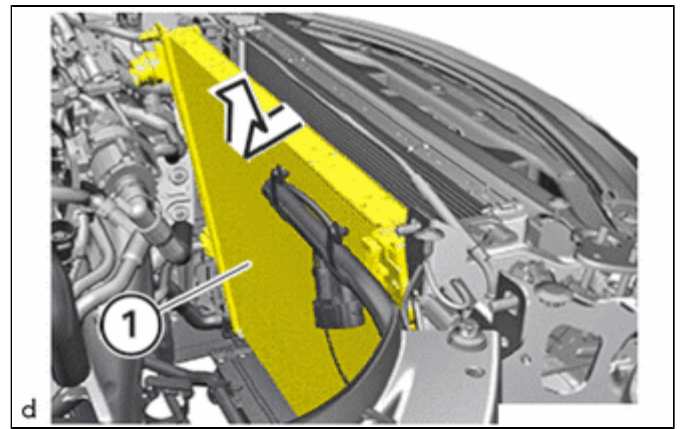


(e) Loosen T30 screw (1).



(f) Slightly pivot the radiator assembly (1) in direction of arrow

and thread out and remove to the top.



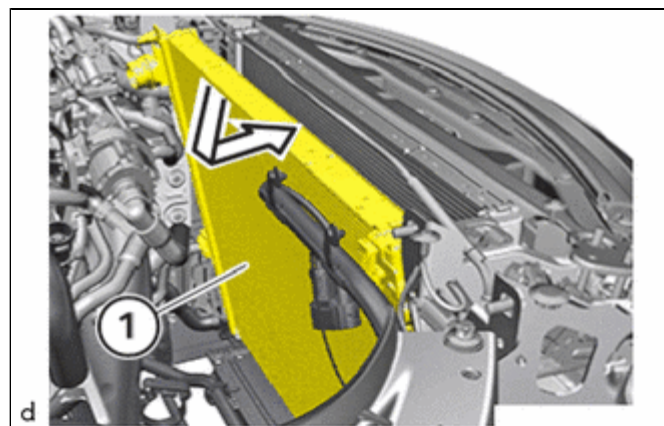
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for High Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

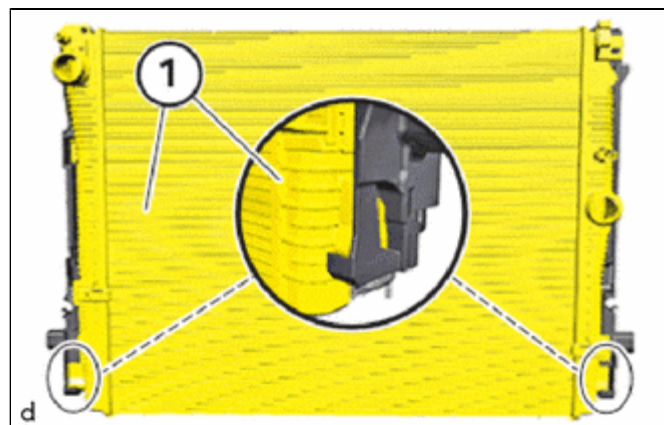
PROCEDURE

1. INSTALL RADIATOR ASSEMBLY

- (a) Feed in and install radiator assembly (1) in direction of arrow.



- (b) Make sure the radiator assembly (1) is positioned correctly in the brackets in the marked areas.



- (c) Tighten down T30 screw.

Torque:

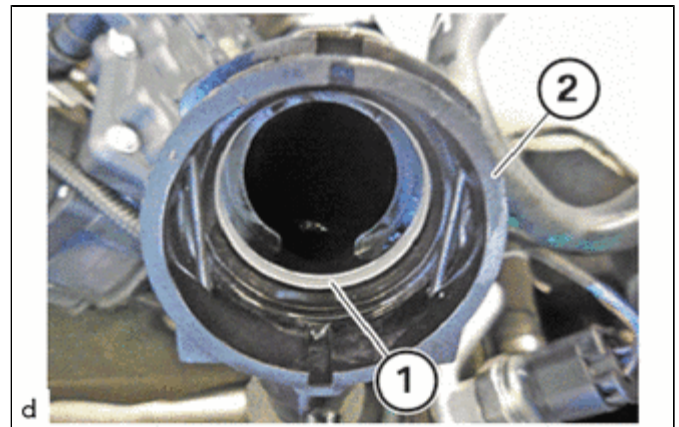
6.0 N·m {61 kgf·cm, 53 in·lbf}

- (d) Connect connectors and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(e) Check the sealing ring (1) of the No. 2 radiator hose (2) for damage and renew where required.



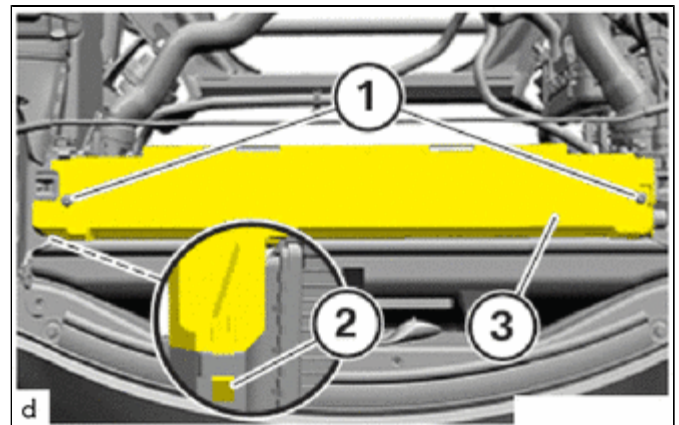
(f) Connect and lock the No. 2 radiator hose.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(g) Guide in and install radiator upper air guide plate (3).

(1) The lock (2) must audibly engage.



(h) Tighten the T30 screws (1).

Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}

2. INSTALL FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

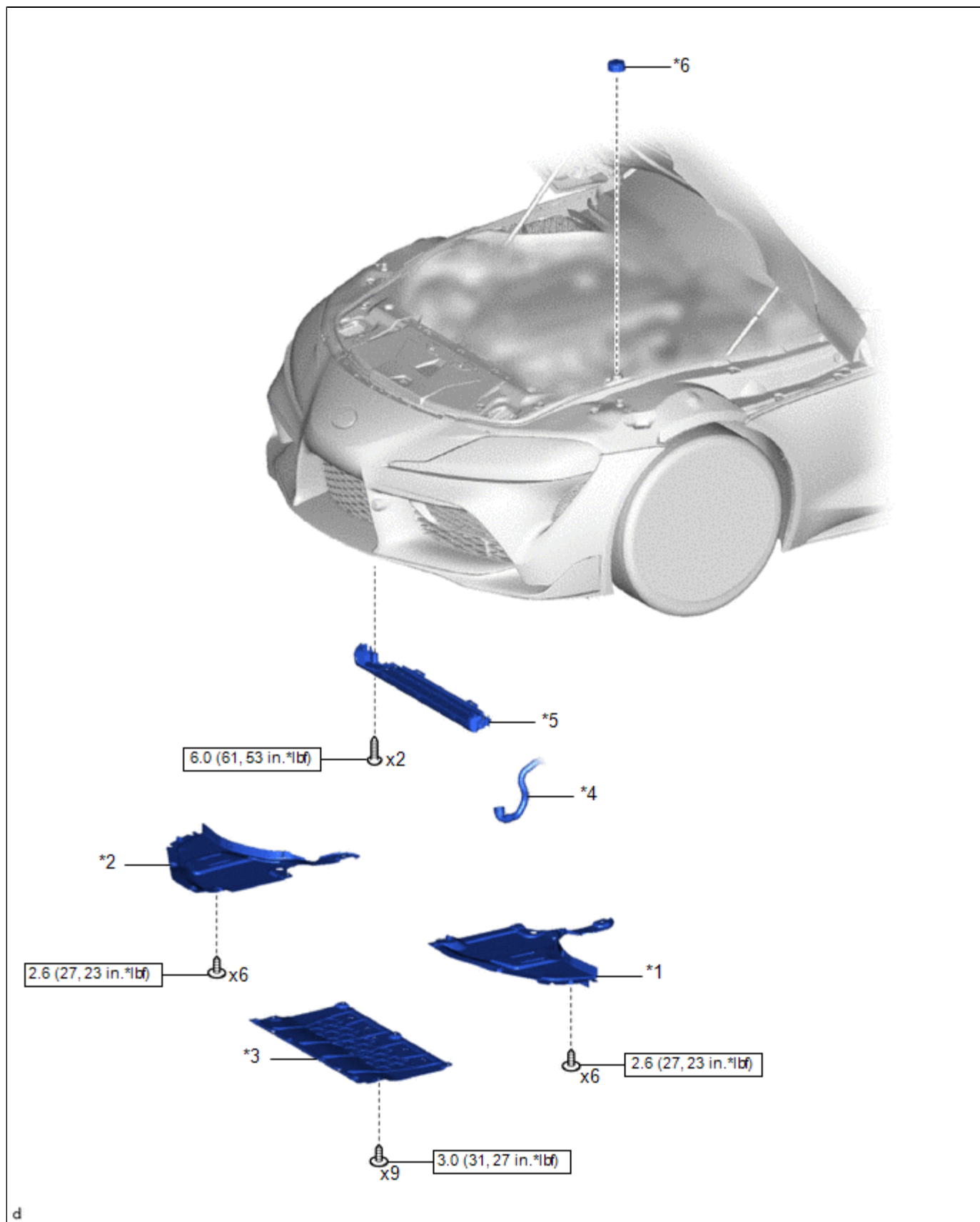
5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for Low Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

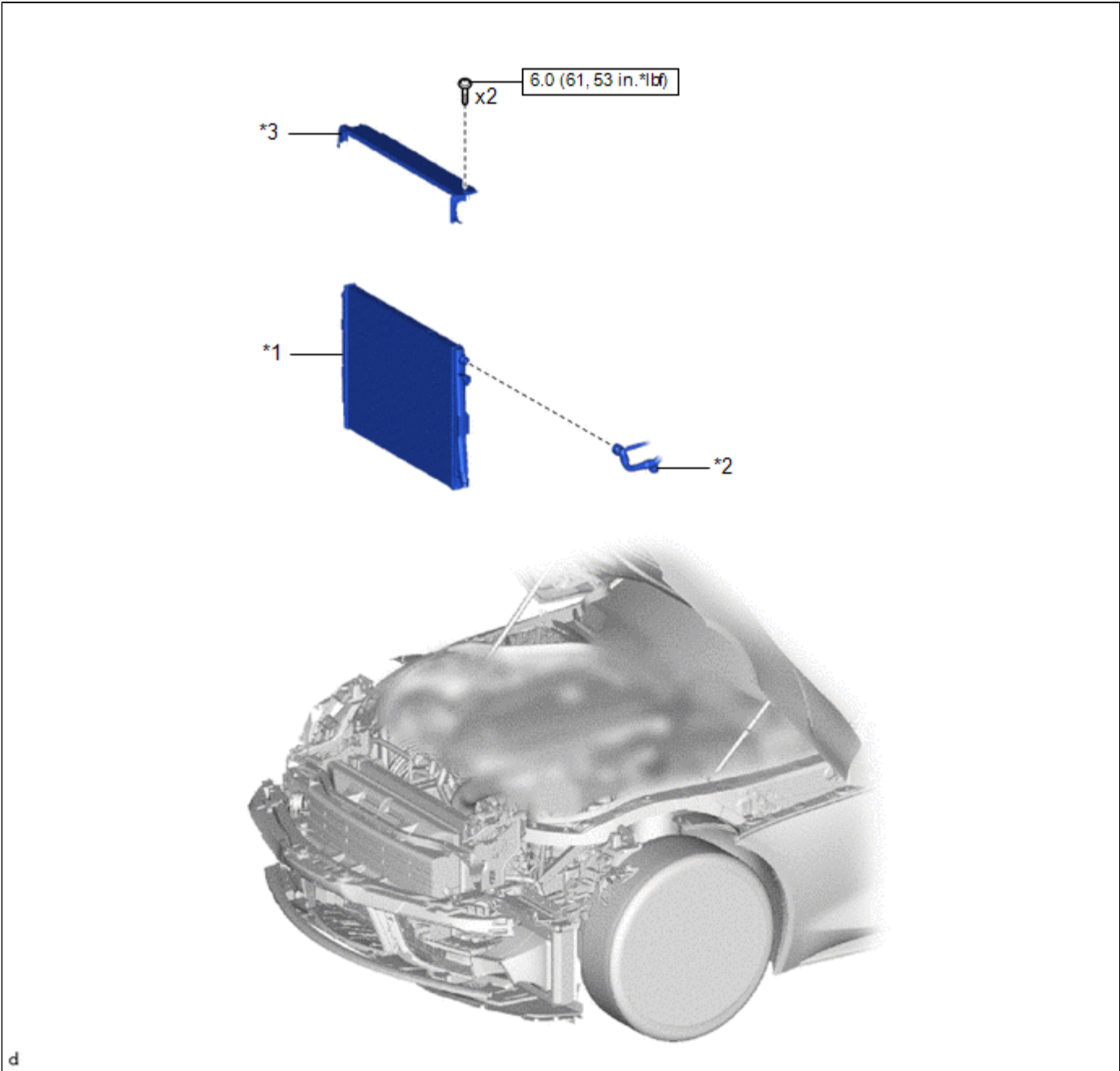
ILLUSTRATION




*1	FRONT FENDER SPLASH FRONT SHIELD LH	*2	FRONT FENDER SPLASH FRONT SHIELD RH
*3	NO. 1 ENGINE UNDER COVER ASSEMBLY	*4	NO. 6 RADIATOR HOSE
			RADIATOR RESERVE TANK CAP SUB-

*5	RADIATOR LOWER AIR GUIDE PLATE	*6	ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 2 RADIATOR ASSEMBLY	*2	NO. 5 WATER BY-PASS HOSE
*3	RADIATOR UPPER AIR GUIDE PLATE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for Low Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

4. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

5. DRAIN ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

6. REMOVE NO. 2 RADIATOR ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

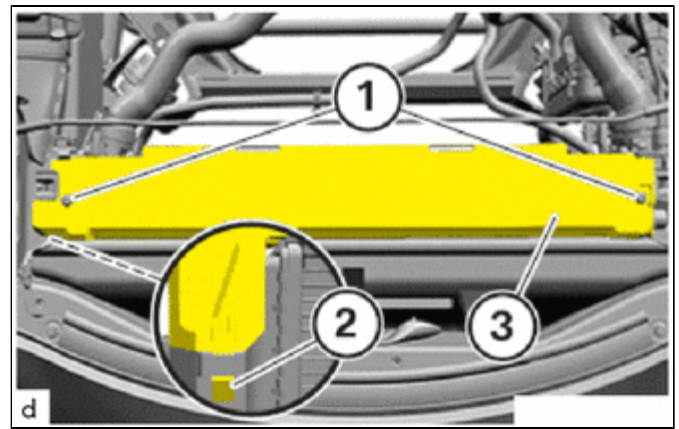
- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

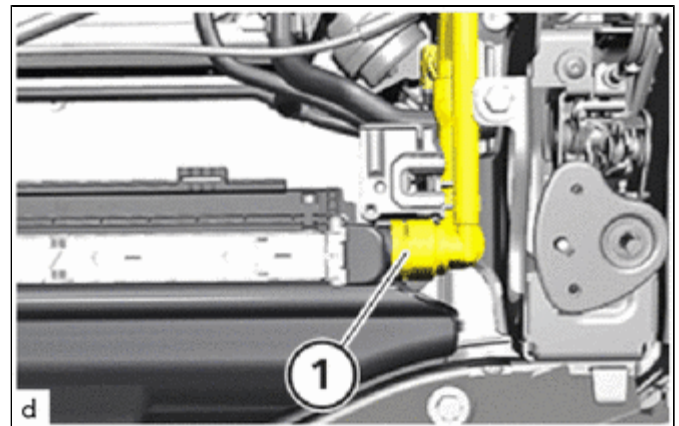
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 screws (1).

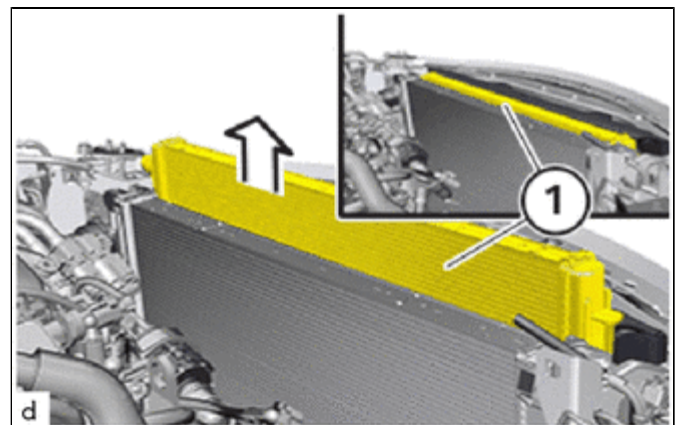


(b) Unlock the lock (2) and remove the radiator lower air guide plate (3) toward the top.



(c) Unlock and disconnect the No. 5 water by-pass hose (1).

(d) Set No. 5 water by-pass hose (1) aside and secure.



(e) Feed out No. 2 radiator assembly (1) in direction of arrow and remove.

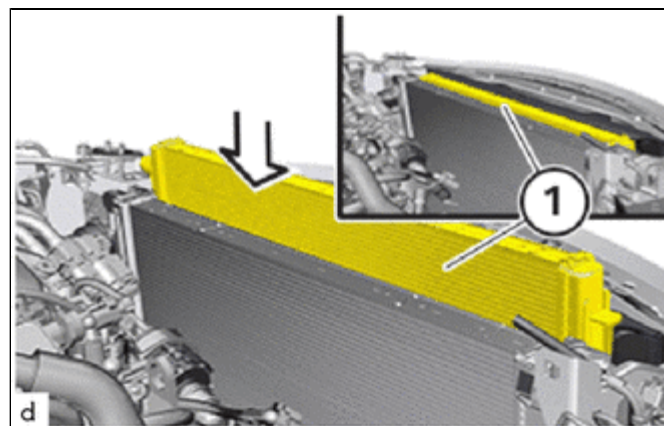
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for Low Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 RADIATOR ASSEMBLY

- (a) Feed in No. 2 radiator assembly (1) in direction of arrow and install.



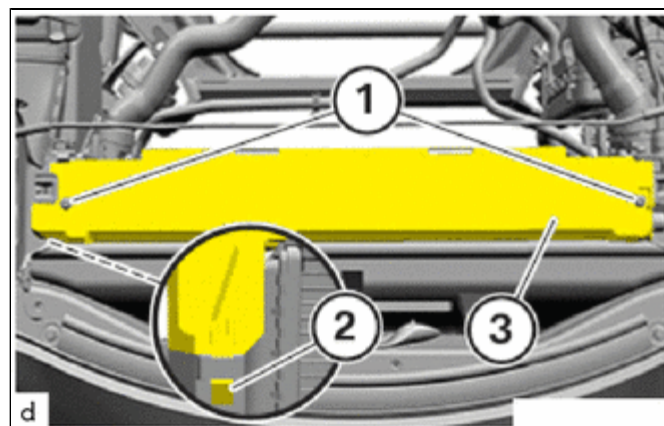
- (b) Connect and lock the No. 5 water by-pass hose.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

- (c) Guide in and install radiator lower air guide plate (3).

(1) The lock (2) must audibly engage.



- (d) Tighten the T30 screws (1).

Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}

2. INSTALL FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for Low Temperature)

Click here [INFO](#)

5. INSTALL FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

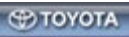
6. INSTALL FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

7. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

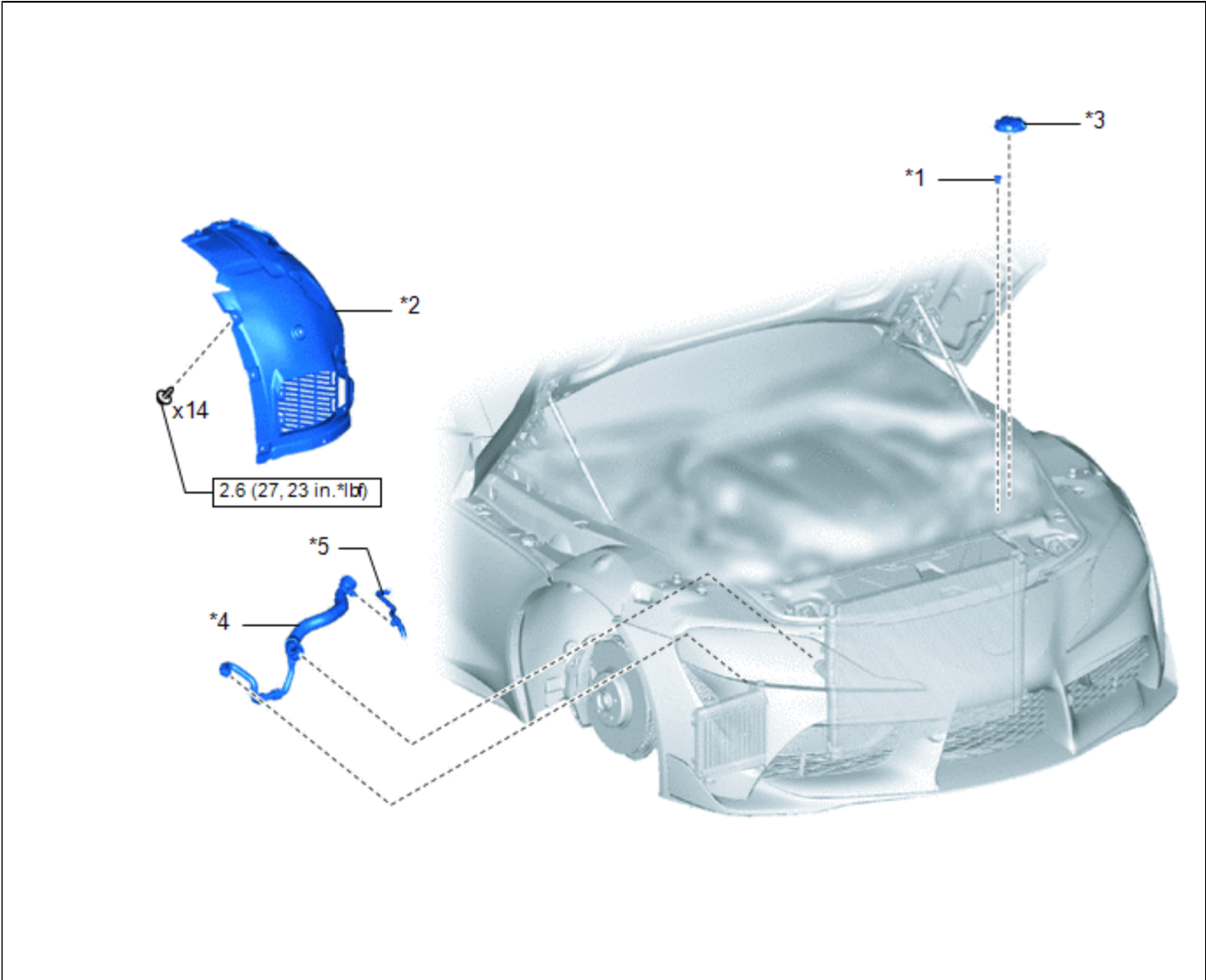
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Lower Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	FRONT FENDER LINER RH
*3	RESERVE TANK CAP SUB-ASSEMBLY	*4	NO. 1 RADIATOR HOSE
*5	NO. 3 RADIATOR HOSE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Lower Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

4. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

5. REMOVE NO. 1 RADIATOR HOSE

CAUTION:

- Hot fluids.

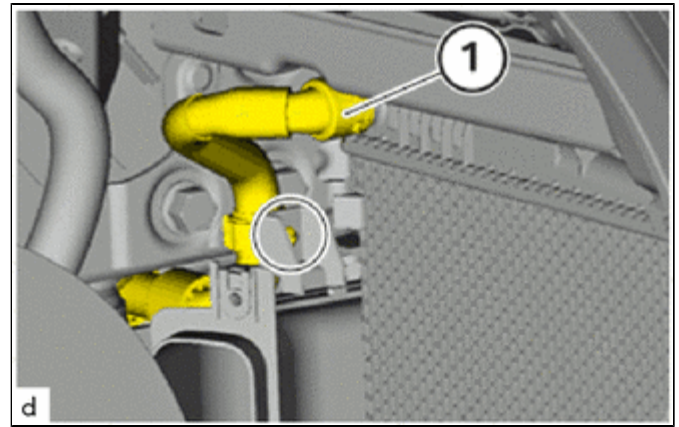
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

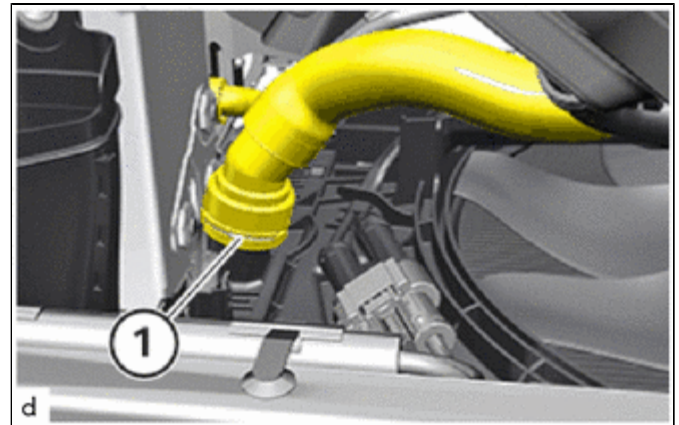
(a) Unlock and disconnect the No. 1 radiator hose (1).



(b) Catch and dispose of escaping coolant.

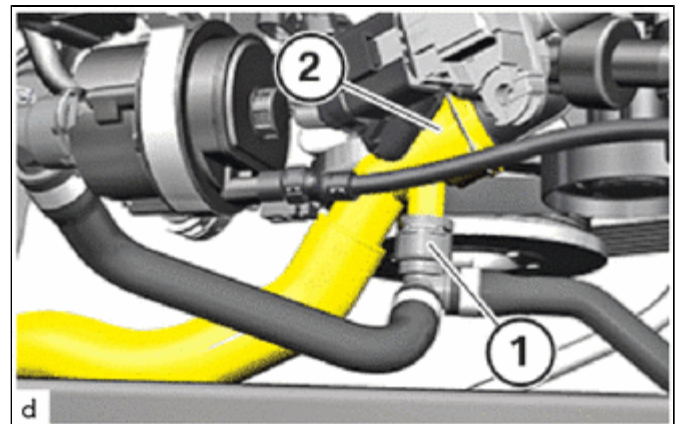
(c) Detach the clamp in the marked area.

(d) Unlock the No. 1 radiator hose (1) and disconnect it from the radiator.



(e) Catch and dispose of escaping coolant.

(f) Unlock the No. 3 radiator hose (1) and disconnect it from the No. 1 radiator hose (2).



(g) Catch and dispose of escaping coolant.

(h) Unlock the No. 1 radiator hose (2) and disconnect it off the coolant pump.

(i) Catch and dispose of escaping coolant.

(j) Guide the No. 1 radiator hose (2) out and remove.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Lower Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

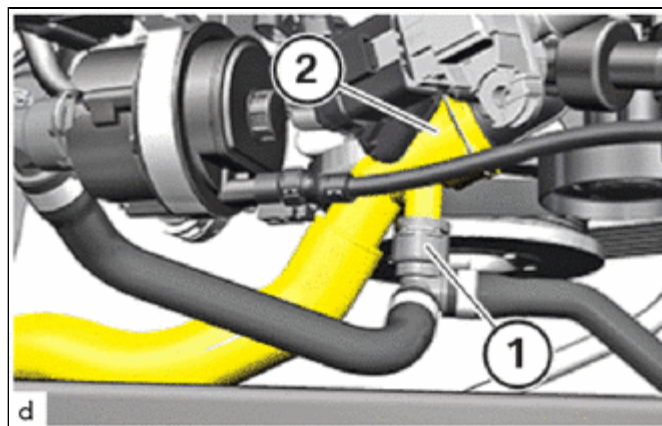
PROCEDURE

1. INSTALL NO. 1 RADIATOR HOSE

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(a) Insert and install the No. 1 radiator hose (2).

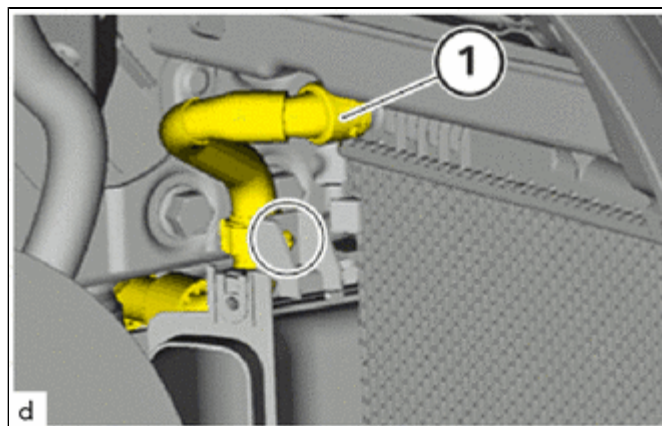


(b) Connect and lock the No. 1 radiator hose (2) to the coolant pump.

(c) Connect the No. 3 radiator hose (1) to the No. 1 radiator hose (2) and lock.

(d) Connect No. 1 radiator hose and lock.

(e) Connect No. 1 radiator hose (1) and lock.



(f) Mount the clamp in the marked area.

2. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

3. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

[Click here](#) [INFO](#)

4. INSTALL WHEEL ASSEMBLY

[Click here](#) [INFO](#)

5. ADD ENGINE COOLANT (for High Temperature)

[Click here](#) [INFO](#)

6. INSPECT FOR COOLANT LEAK (for High Temperature)

[Click here](#) [INFO](#)

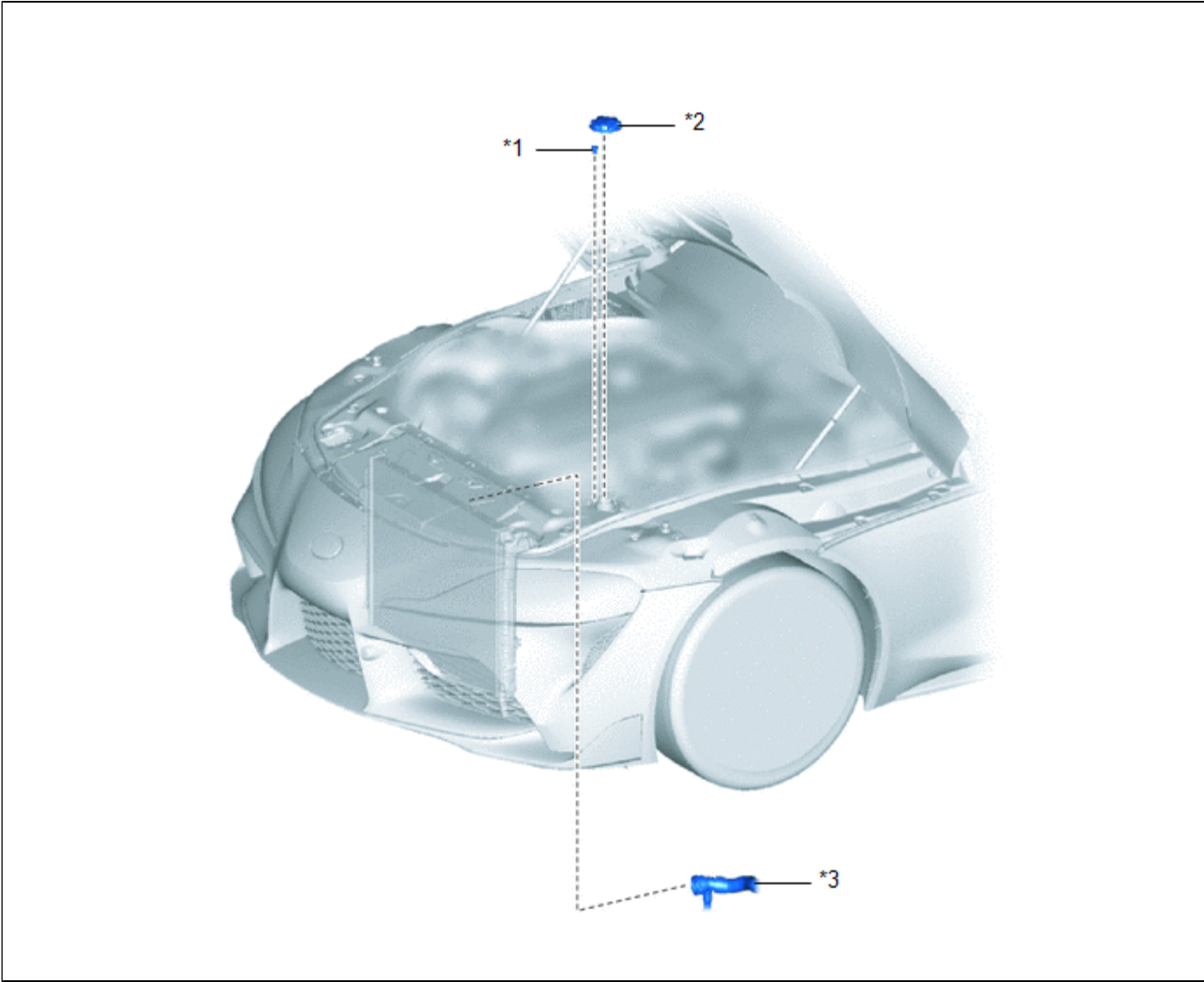
7. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

[Click here](#) [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Upper Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

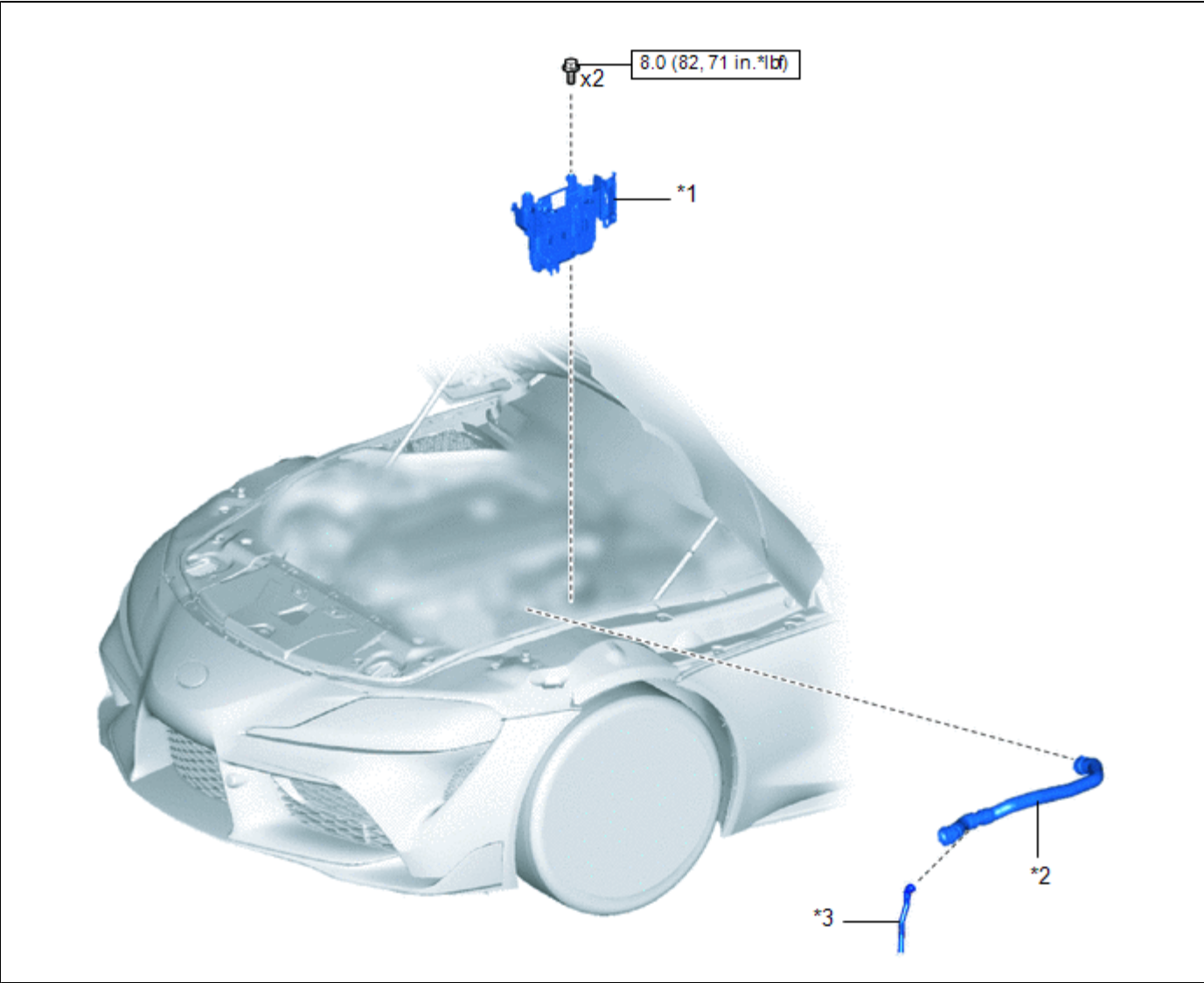
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	ENGINE ROOM ECM BOX	*2	NO. 2 RADIATOR HOSE
*3	RADIATOR HOSE SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Upper Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

3. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

4. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

5. REMOVE NO. 2 RADIATOR HOSE

CAUTION:

- Hot fluids.

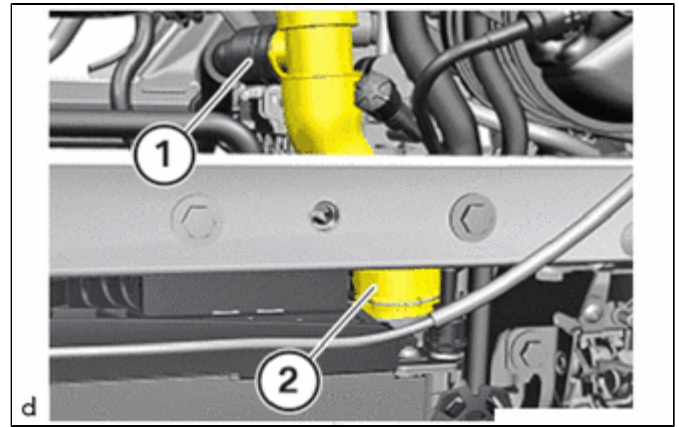
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock and disconnect the radiator hose sub-assembly (1).

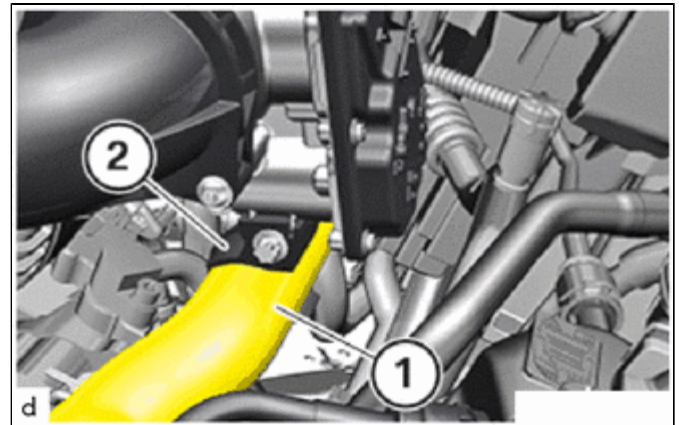


(b) Catch and dispose of escaping coolant.

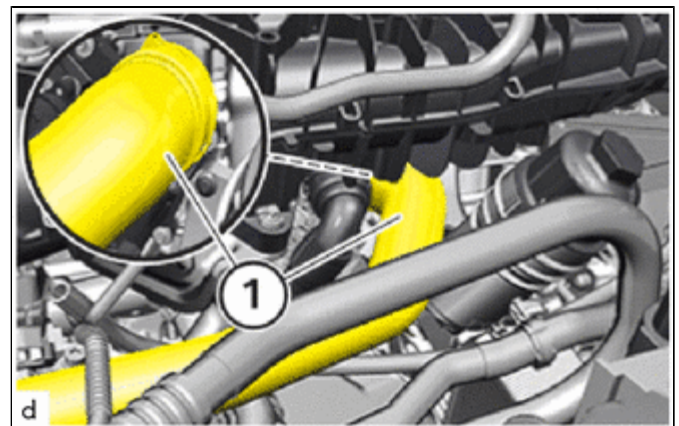
(c) Unlock and disconnect the No. 2 radiator hose (2).

(d) Catch and dispose of escaping coolant.

(e) Unclip the No. 2 radiator hose (1) from the holder (2).



(f) Unlock the No. 2 radiator hose (1) below the intake manifold and disconnect it from the water valve with bracket assembly.



(g) Catch and dispose of escaping coolant.

(h) Guide the No. 2 radiator hose (1) out and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Upper Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

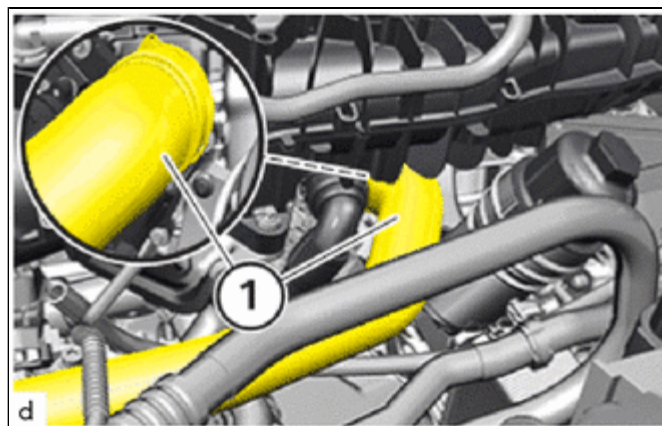
PROCEDURE

1. INSTALL NO. 2 RADIATOR HOSE

HINT:

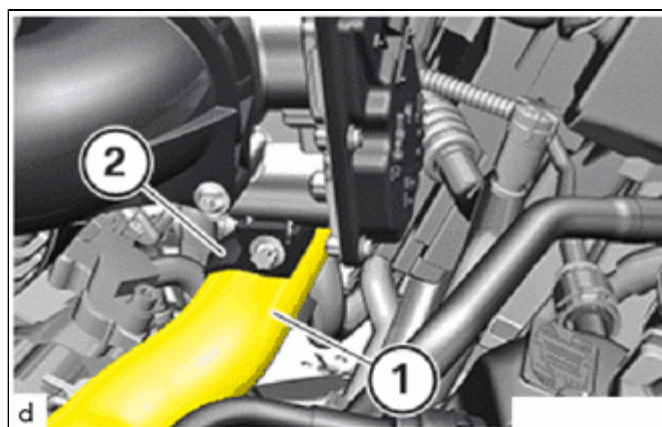
Make sure that the connections are locked correctly. The locks must engage audibly.

(a) Insert and install the No. 2 radiator hose (1).



(b) Connect the No. 2 radiator hose (1) below the intake manifold to the water valve with bracket assembly and lock.

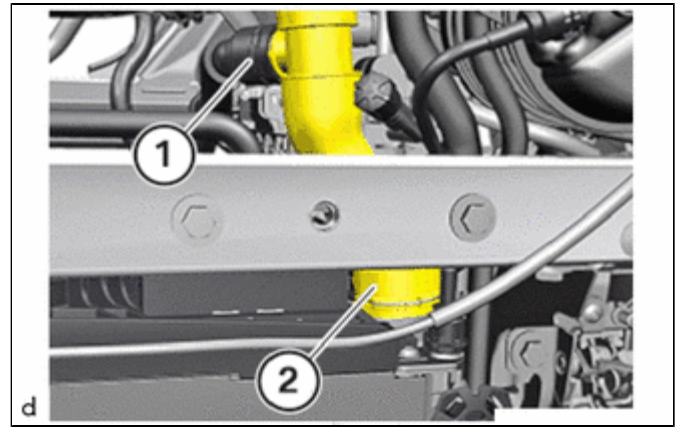
(1) Make sure you can hear the No. 2 radiator hose (1) lock.



(c) Clip No. 2 radiator hose (1) into the holder (2).

(d) Connect No. 2 radiator hose (2) and lock.

- (1) Make sure you can hear the No. 2 radiator hose (2) lock.



(e) Connect radiator hose sub-assembly (1) and lock.

- (1) The radiator hose sub-assembly (1) must audibly engage.

2. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

3. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

4. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

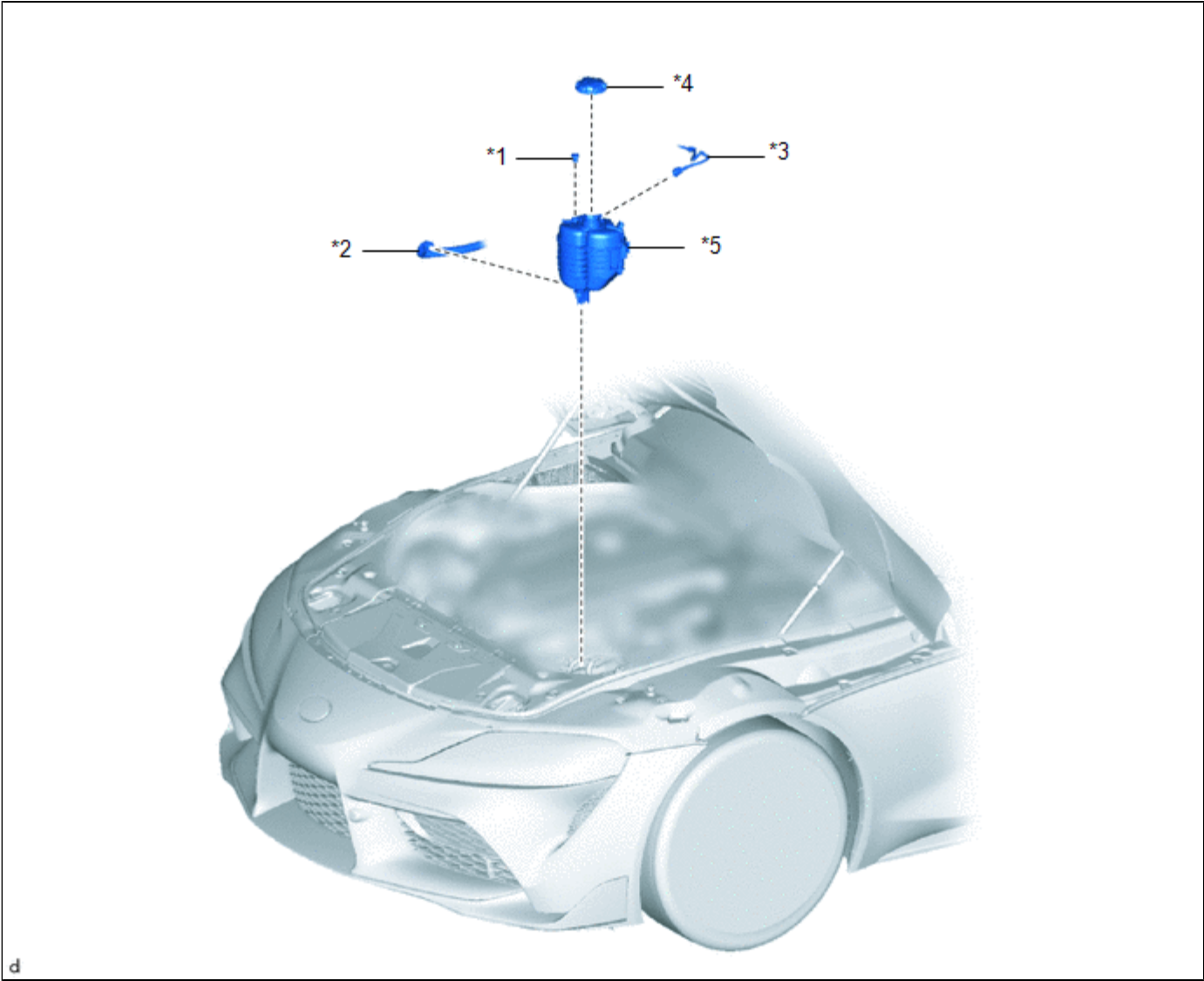
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for High Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	HEATER WATER HOSE
*3	RADIATOR RESERVE TANK HOSE	*4	RESERVE TANK CAP SUB-ASSEMBLY
*5	RADIATOR RESERVE TANK ASSEMBLY	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for High Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE RADIATOR RESERVE TANK ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

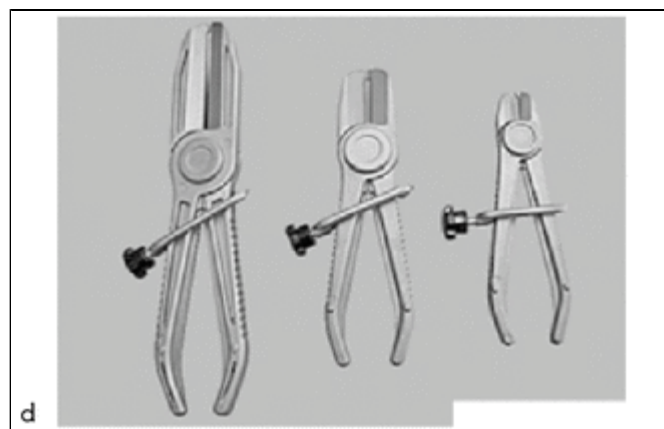
When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

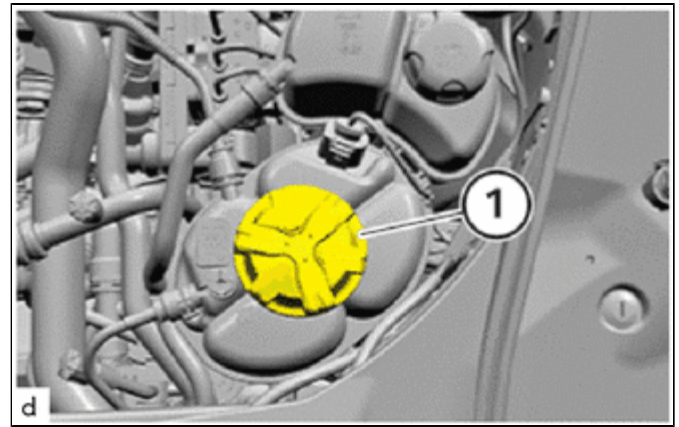
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090

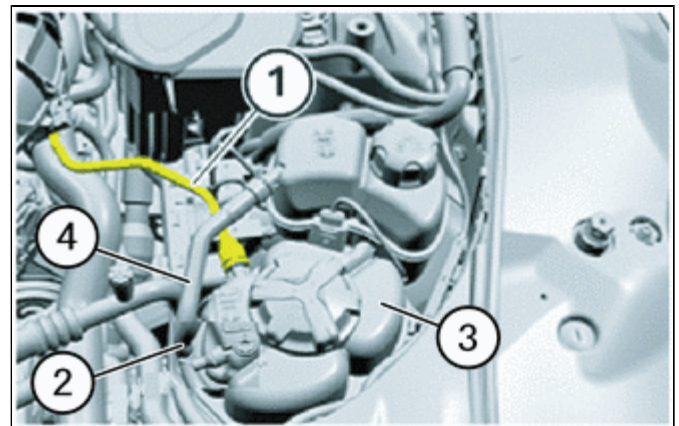


(b) Loosen reserve tank cap sub-assembly (1).



(c) Draw off the coolant with a conventional pump.

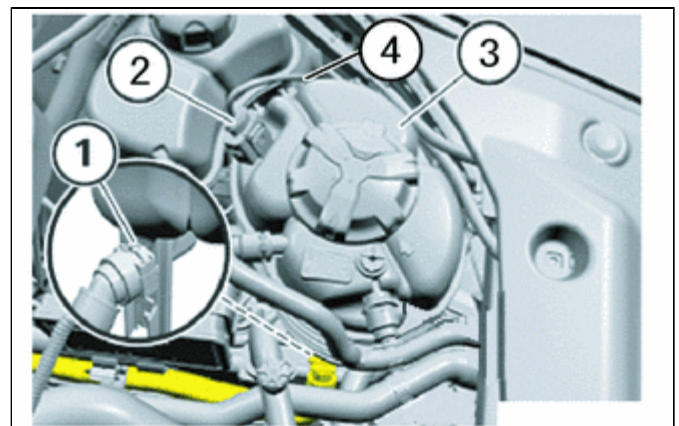
(d) Disconnect the radiator reserve tank hose (1) with the disconnection tool.



(e) Disengage the clamp (2) to disconnect the No. 5 water by-pass hose (4) from the radiator reserve tank assembly (3).

(f) Unlock and disconnect the radiator reserve tank hose (1).

(g) Catch and dispose of escaping coolant.



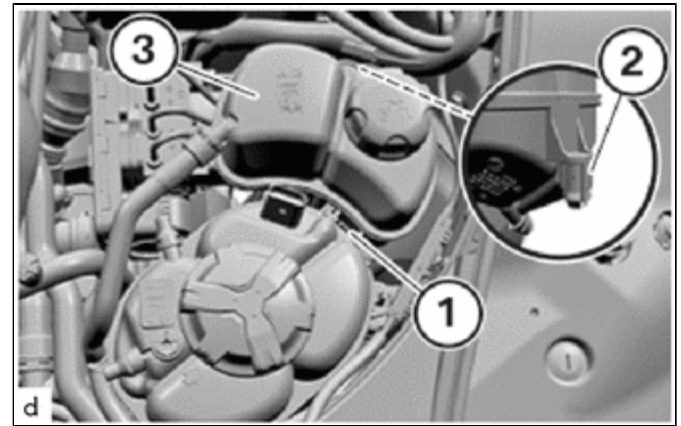
(h) Disconnect the heater water hose (1) with the disconnection tool.

(i) Unlock and disconnect the heater water hose (1).

(j) Catch and dispose of escaping coolant.

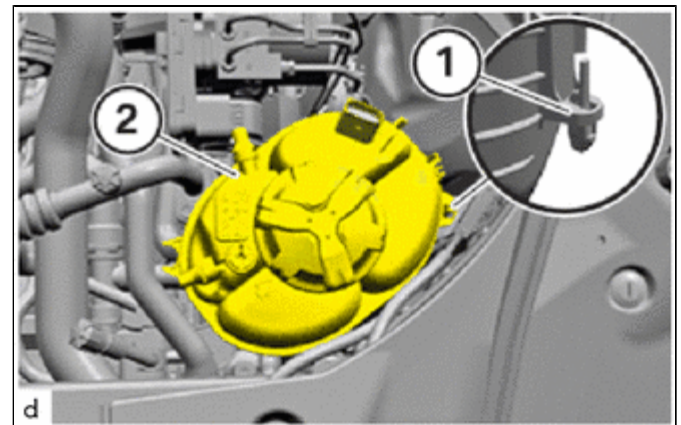
- (k) Disengage the clamp (4) to disconnect the wire harness from the radiator reserve tank assembly (3).
- (l) Disconnect the connector (2) from the radiator reserve tank assembly (3).

- (m) Unlock the lock (1).



- (n) Pull the journal (2) of the radiator reserve tank sub-assembly (3) out of the rubber mount.
- (o) Remove the radiator reserve tank sub-assembly (3) and set it aside.

- (p) Unlock the lock (1) and remove the radiator reserve tank assembly (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for High Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

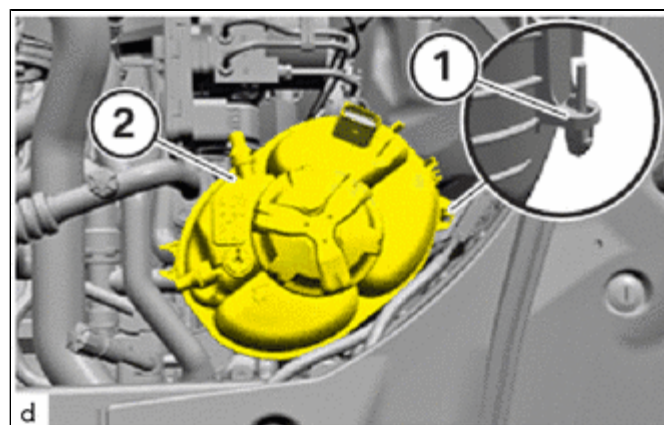
1. INSTALL RADIATOR RESERVE TANK ASSEMBLY

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

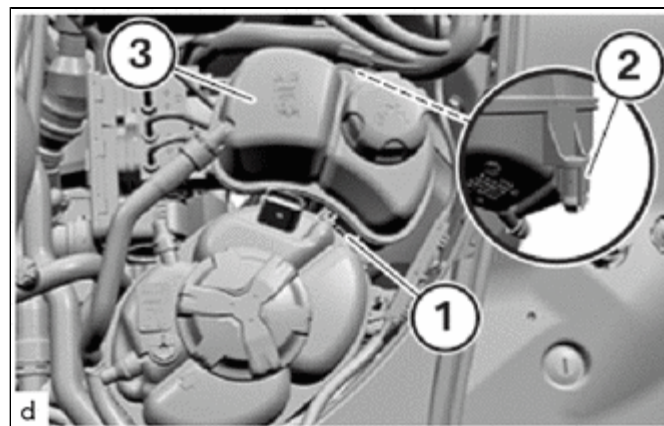
- (a) Guide the radiator reserve tank assembly (2) into the guide.

(1) The lock (1) must audibly engage.



- (b) Guide the radiator reserve tank sub-assembly (3) with the journal (2) into the rubber mount and install.

(1) The rubber mount must engage audibly.

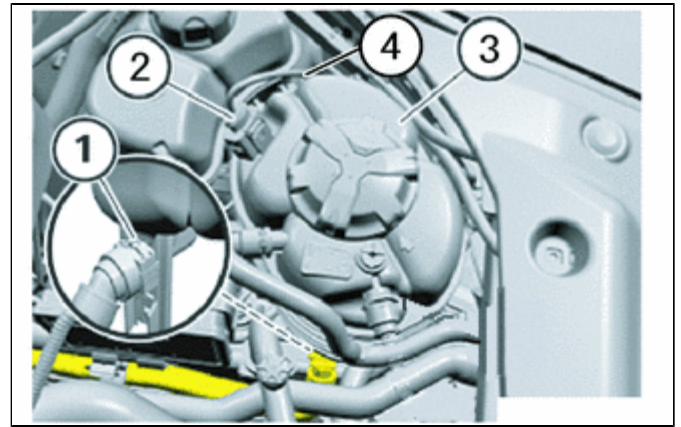


- (c) Make sure that the lock (1) engages correctly.

- (d) Connect the connector (2) to the radiator reserve tank

assembly (3) and lock.

(1) The connector (2) must engage audibly.



(e) Engage the clamp (4) to connect the wire harness to the radiator reserve tank assembly (3).

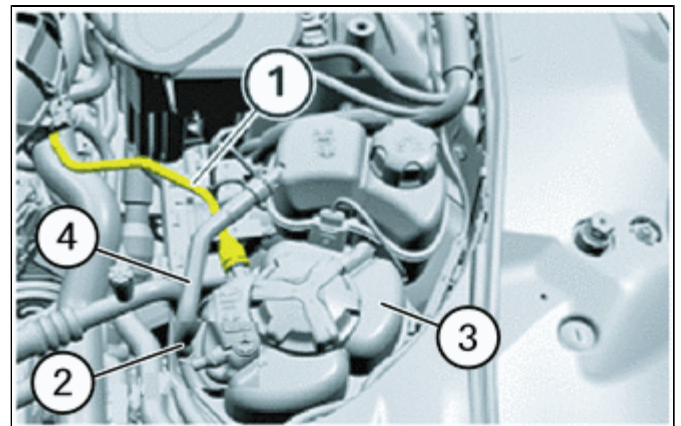
(f) Connect and lock the heater water hose (1).

(1) The heater water hose (1) must audibly engage.

(g) Remove the disconnection tool from the heater water hose (1) and guide it out.

(h) Connect and lock the radiator reserve tank hose (1).

(1) The radiator reserve tank hose (1) must audibly engage.



(i) Engage the clamp (2) to connect the No. 5 water by-pass hose to the radiator reserve tank assembly (3).

(j) Remove the disconnection tool from the radiator reserve tank hose (1) and guide it out.

(k) Top up the coolant to the maximum mark.

(l) Close the reserve tank cap sub-assembly until the arrows are flush.

2. ADD ENGINE COOLANT (for High Temperature)

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

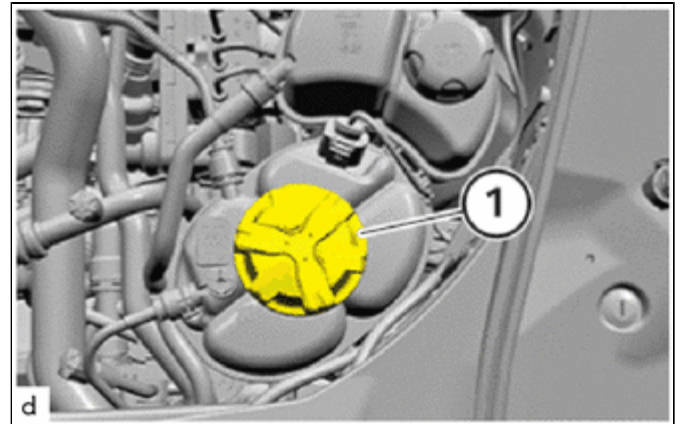
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

HINT:

- Follow notes for repair work on the cooling system.
- For additional information.

[Click here](#) [INFO](#)

- (a) Loosen reserve tank cap sub-assembly (1).



- (b) Check the coolant level in the radiator reserve tank assembly for the high-temperature coolant circuit and top up the coolant where required.

Cooling system, capacities, initial filling:
10.5 liters (11.1 US qts, 9.2 Imp. qts)

- (1) Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12

HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

- (c) Close reserve tank cap sub-assembly (1).

- (1) The arrows must be aligned.

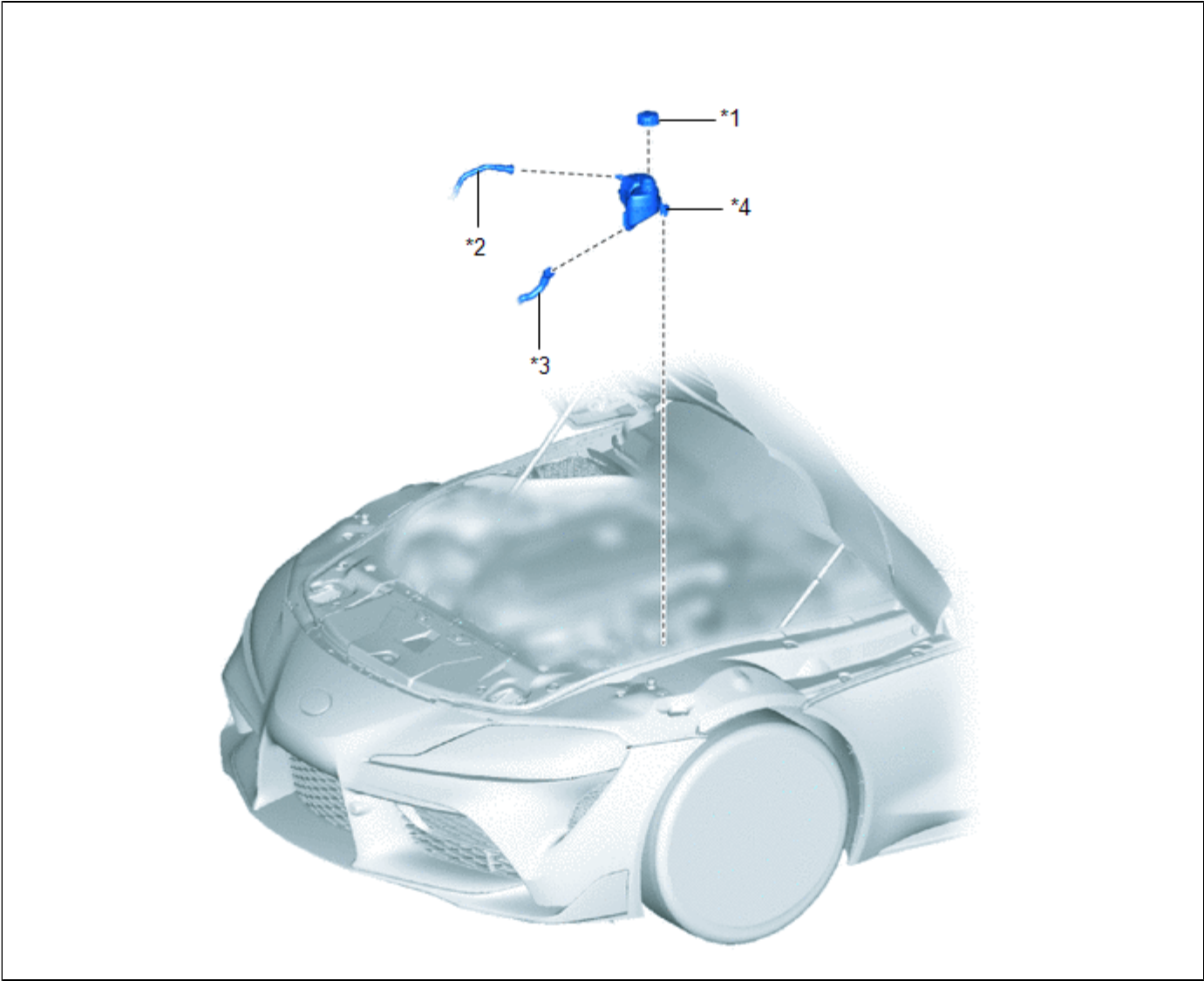
3. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

[Click here](#) [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for Low Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RADIATOR RESERVE TANK CAP SUB-ASSEMBLY	*2	NO. 5 WATER BY-PASS HOSE
*3	NO. 6 WATER BY-PASS HOSE	*4	RADIATOR RESERVE TANK SUB-ASSEMBLY

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for Low Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE LOW TEMPERATURE RADIATOR RESERVE TANK SUB-ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

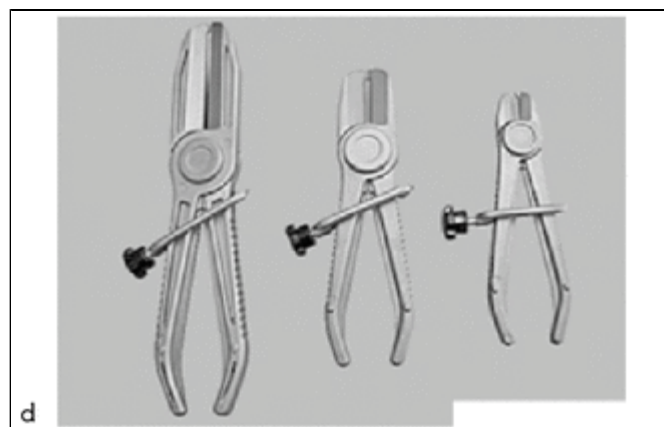
When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

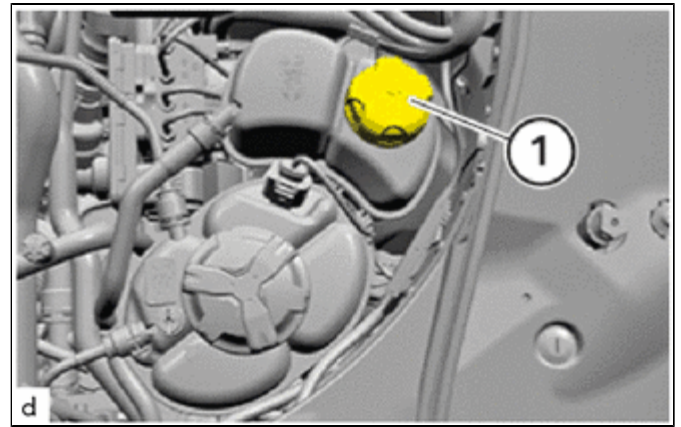
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090

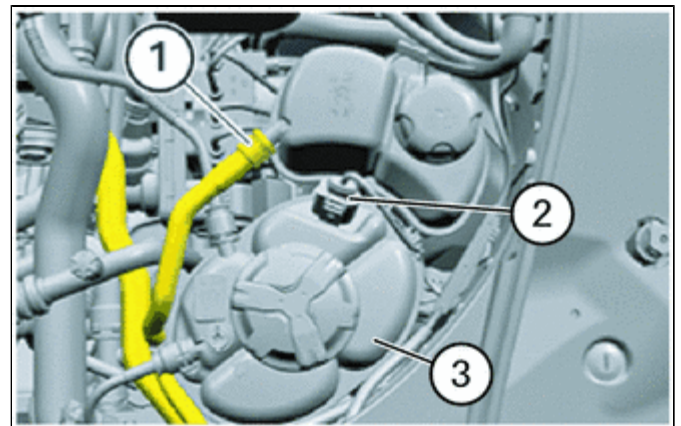


(b) Loosen radiator reserve tank cap sub-assembly (1).



(c) Draw off the coolant with a conventional pump.

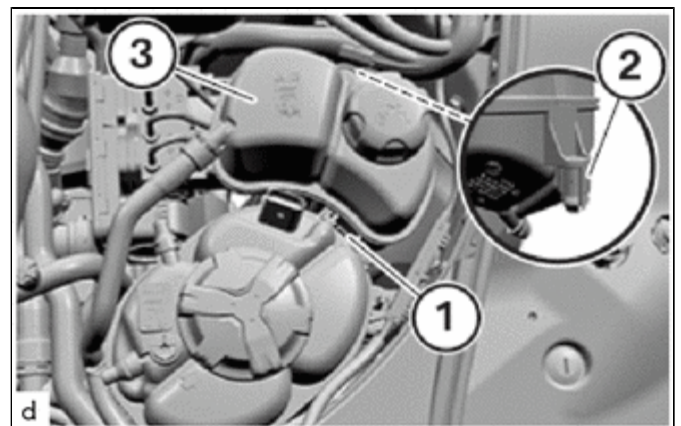
(d) Disconnect the No. 5 water by-pass hose (1) with the disconnection tool.



(e) Unlock and disconnect the No. 5 water by-pass hose (1).

(f) Catch and dispose of escaping coolant.

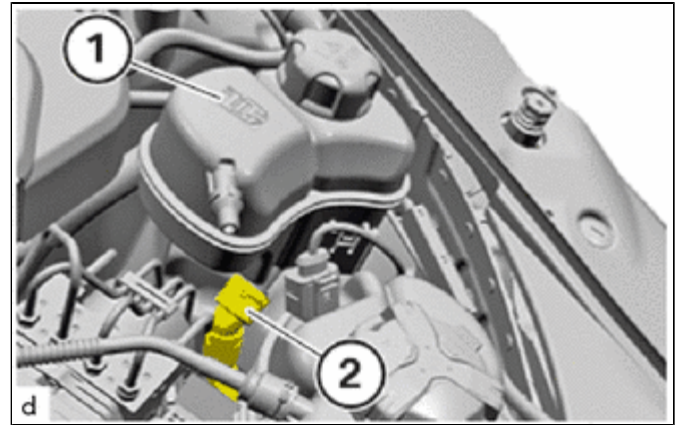
(g) Disconnect the connector (2) from the radiator reserve tank assembly (3).



(h) Unlock the lock (1).

(i) Detach the journal (2) of the radiator reserve tank sub-assembly (3) from the rubber mount.

- (j) Pull the radiator reserve tank sub-assembly (1) up until the No. 6 water by-pass hose (2) is accessible.



- (k) Disconnect the No. 6 water by-pass hose (2) with the disconnection tool.
(l) Unlock and disconnect the No. 6 water by-pass hose (2).
(m) Catch and dispose of escaping coolant.
(n) Guide out and remove the radiator reserve tank sub-assembly (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for Low Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

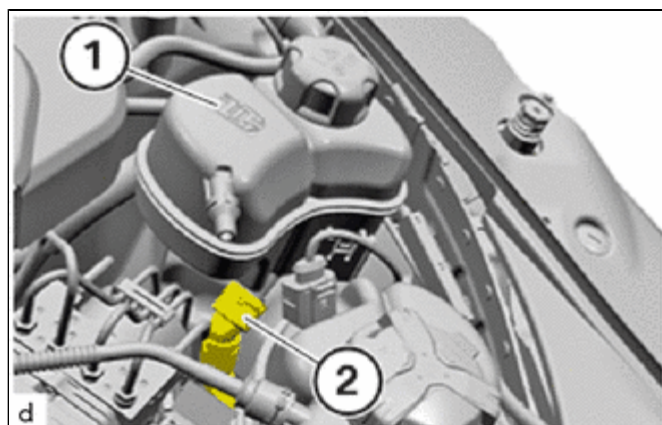
PROCEDURE

1. INSTALL LOW TEMPERATURE RADIATOR RESERVE TANK SUB-ASSEMBLY

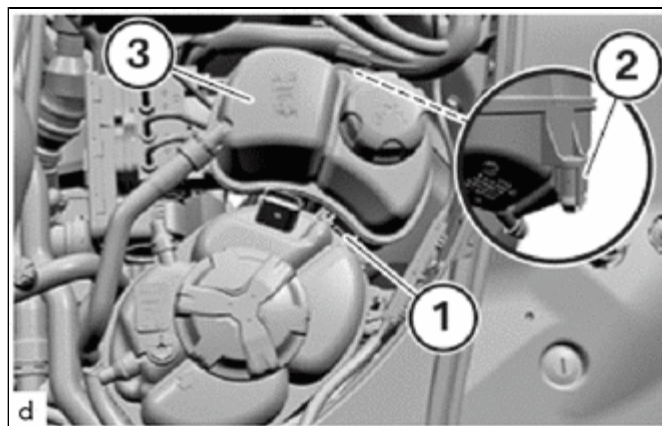
HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

- (a) Connect the No. 6 water by-pass hose (2) to the radiator reserve tank sub-assembly (1) and lock.
- (1) The No. 6 water by-pass hose (2) must audibly engage.



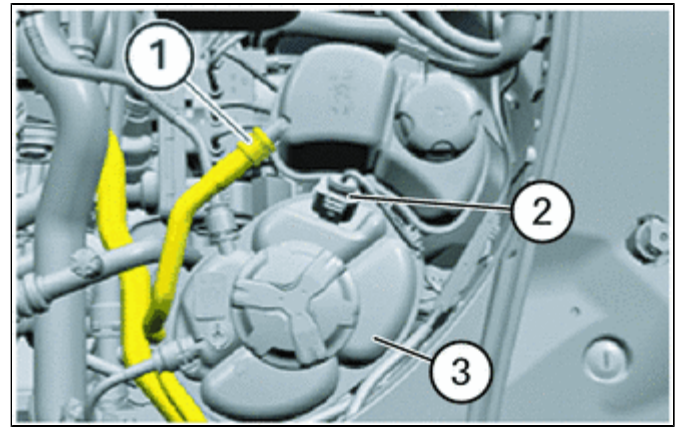
- (b) Guide in and install the radiator reserve tank sub-assembly (3).
- (1) The journal (2) must engage audibly in the rubber mount.



- (c) Make sure that the lock (1) engages correctly.

- (d) Connect and lock the No. 5 water by-pass hose (1).

(1) The No. 5 water by-pass hose (1) must audibly engage.



(e) Guide out and remove the disconnection tool.

(f) Connect the connector (2) to the radiator reserve tank assembly (3) and lock.

(g) Top up the coolant to the maximum mark.

(h) Close radiator reserve tank cap sub-assembly.

2. ADD ENGINE COOLANT (for Low Temperature)

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

HINT:

- Follow notes for repair work on the cooling system.
- For additional information.

[Click here](#) [INFO](#)

(a) Loosen radiator reserve tank cap sub-assembly.

(b) Check the coolant level in the radiator reserve tank sub-assembly for the low-temperature coolant circuit and top up the coolant, if necessary.

Cooling system, capacities, initial filling:

4.0 liters (4.2 US qts, 3.5 Imp. qts)

(1) Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12

HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

(c) Close radiator reserve tank cap sub-assembly.

(1) The arrows must be aligned.

3. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

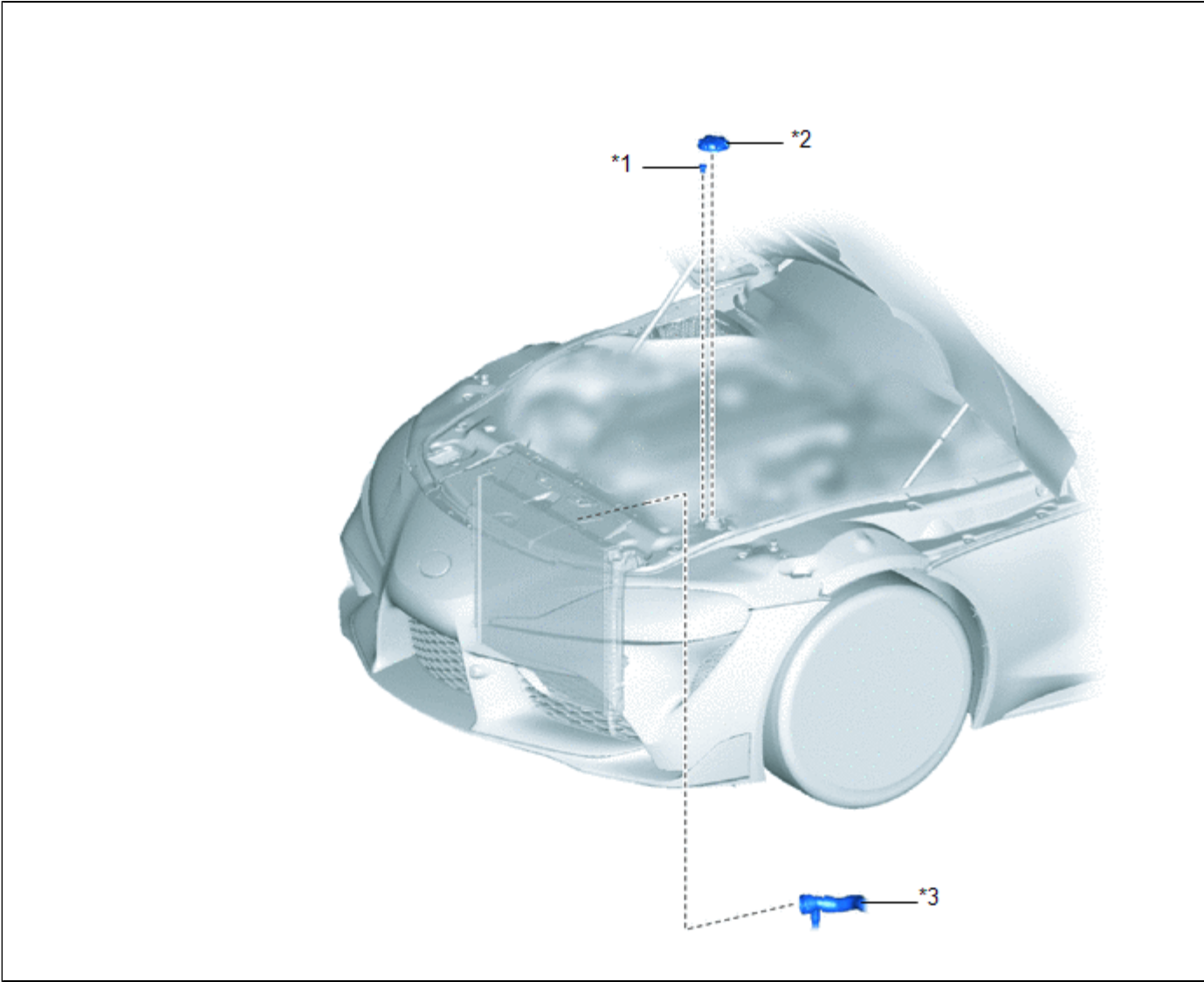
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for LH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

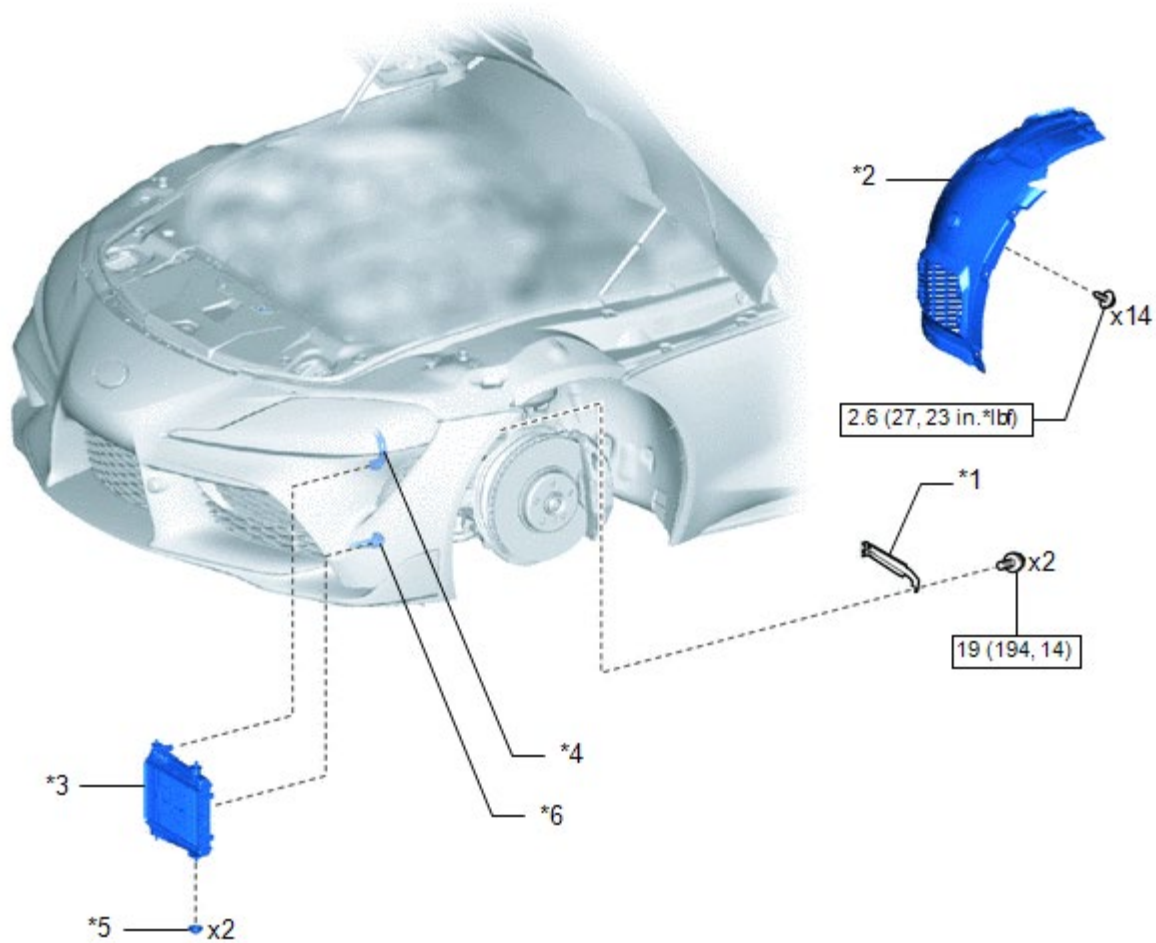
COMPONENTS


ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	FRONT BUMPER REINFORCEMENT SUPPORT LH	*2	FRONT FENDER LINER LH
*3	SUB RADIATOR	*4	NO. 3 RADIATOR HOSE
*5	SUB RADIATOR SUPPORT	*6	RADIATOR HOSE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for LH Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

HINT:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER LH

Click here [INFO](#)

3. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

4. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. REMOVE SUB RADIATOR ASSEMBLY

CAUTION:

- Hot fluids.

Risk of scalding!

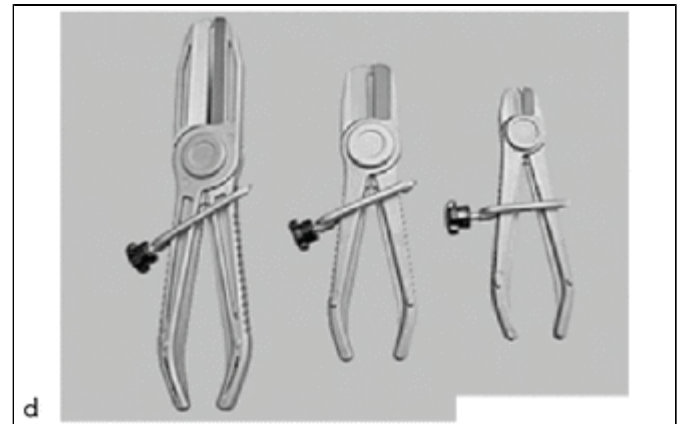
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

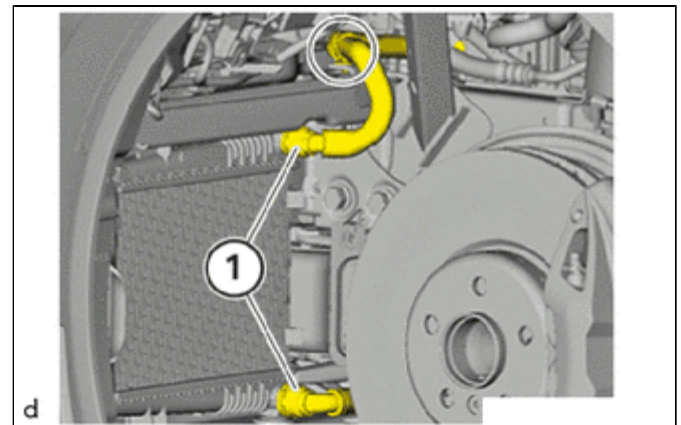
- Damage to wires when disconnecting connectors and plug connections.
 - Sheared wires can cause a short circuit.
 - Do not pull on the wires when disconnecting connectors and plug connections.
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090

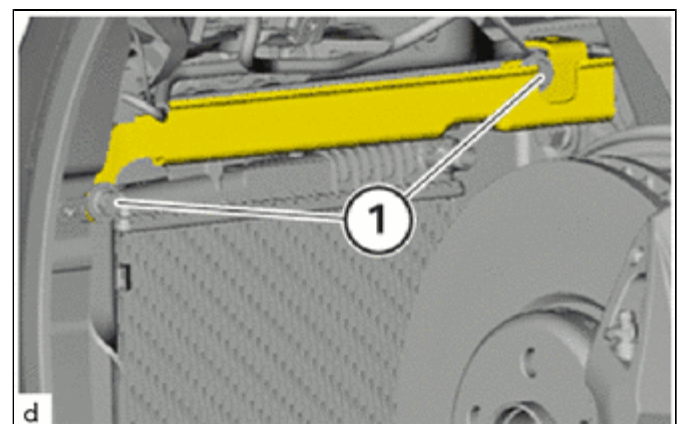


(b) Unlock and disconnect radiator hose sub-assembly and No. 3 radiator hose (1).



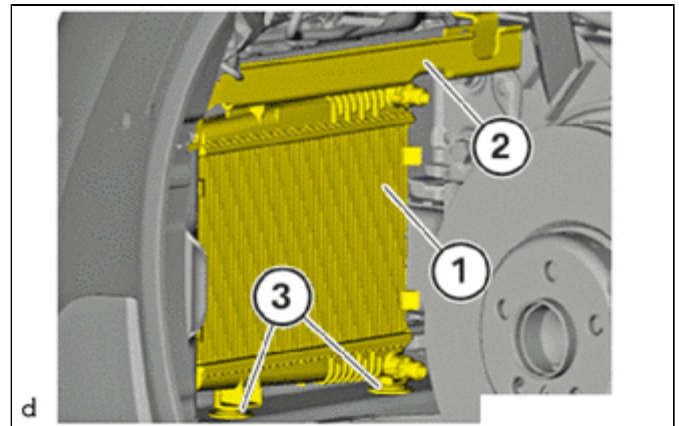
(c) Catch and dispose of escaping coolant.

(d) Detach the clip in the marked area.



(e) Loosen T45 bolts (1).

- (f) Guide the sub radiator assembly (1) with the front bumper reinforcement support LH (2) out and remove it.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for LH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

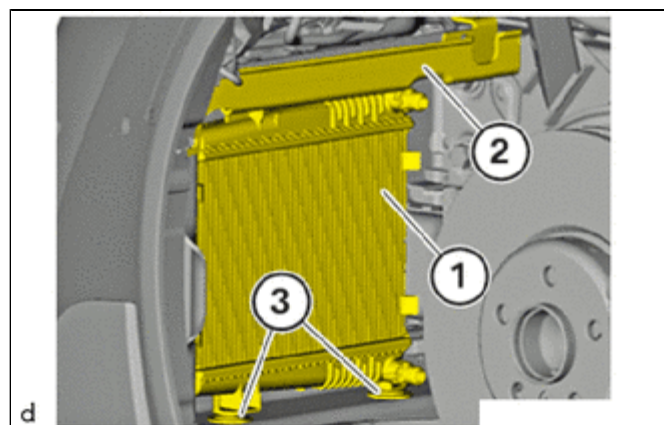
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in the sub radiator assembly (1) with the front bumper reinforcement support LH (2) and install.

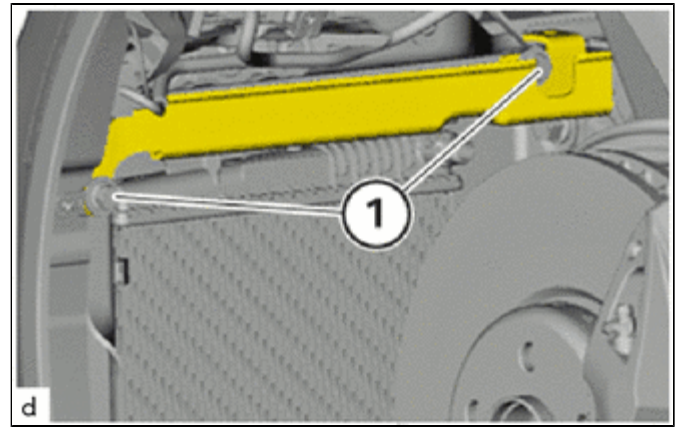


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

- (c) Tighten the T45 bolts (1).

Torque:

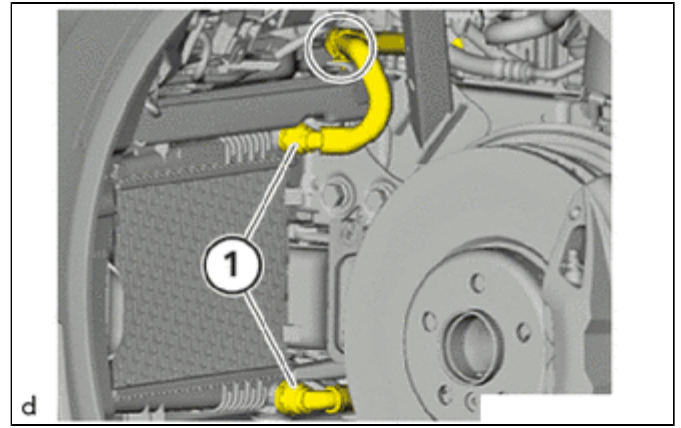
19 N·m {194 kgf·cm, 14 ft·lbf}



(d) Connect and lock the radiator hose sub-assembly and No. 3 radiator hose (1).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(e) Detach the special tool from the radiator hose sub-assembly and No. 3 radiator hose (1) and guide out.

(f) Mount the clip in the marked area.

2. INSTALL FRONT FENDER LINER LH

Click here [INFO](#)

3. INSTALL WHEEL ASSEMBLY

Click here [INFO](#)

4. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

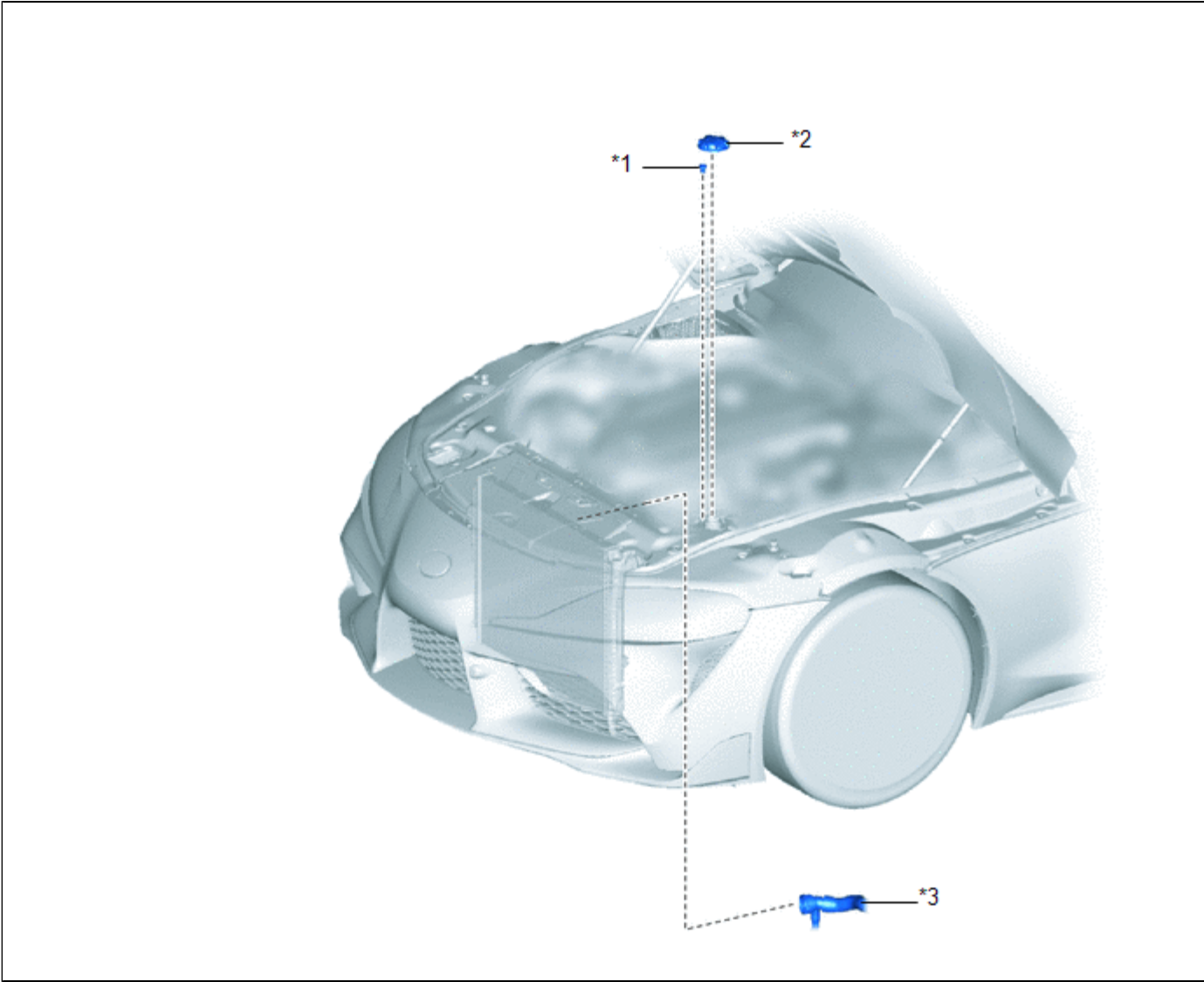
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for RH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

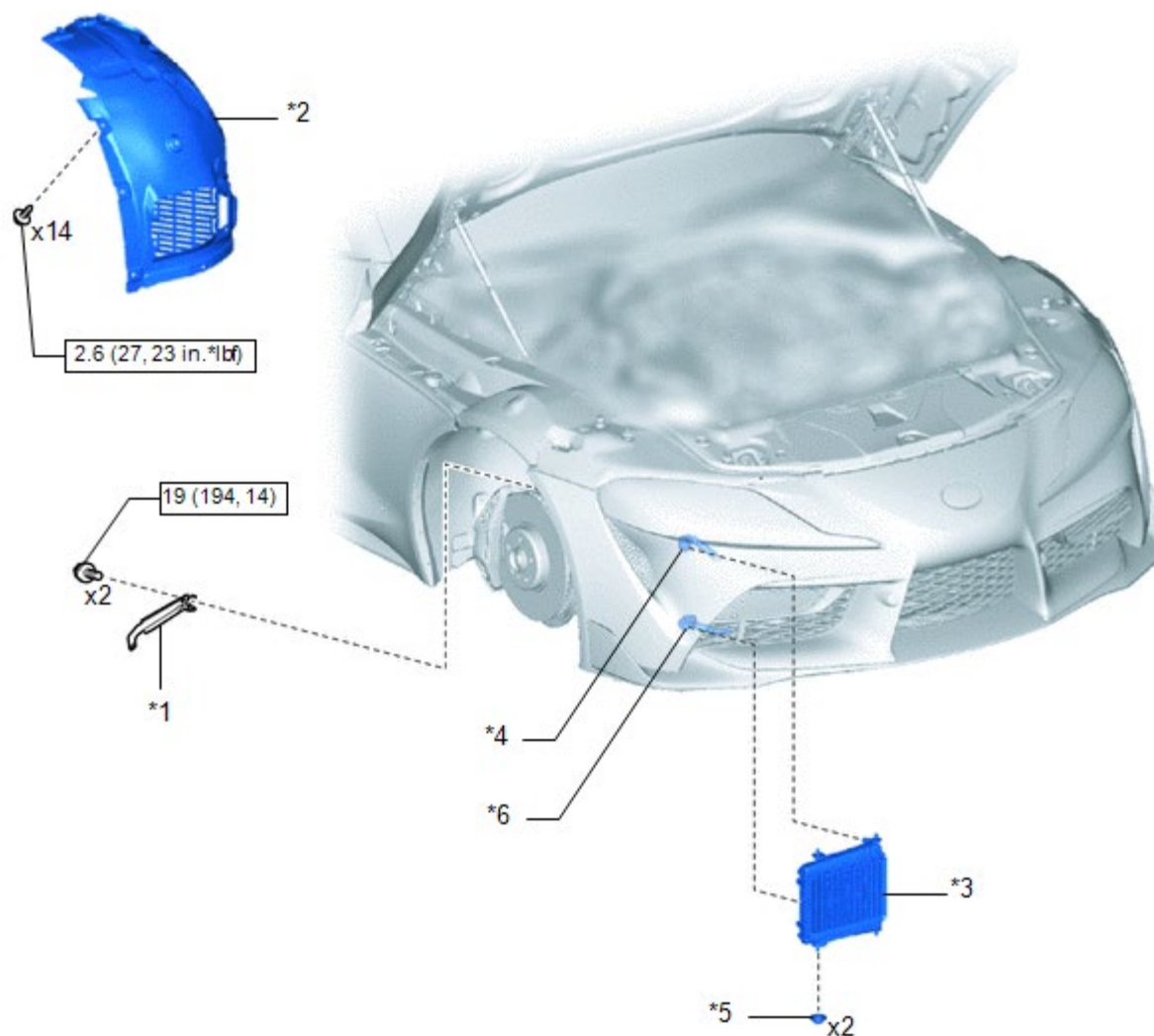
COMPONENTS


ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	FRONT BUMPER REINFORCEMENT SUPPORT RH	*2	FRONT FENDER LINER RH
*3	SUB RADIATOR	*4	NO. 1 RADIATOR HOSE
*5	SUB RADIATOR SUPPORT	*6	RADIATOR HOSE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for RH Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

3. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

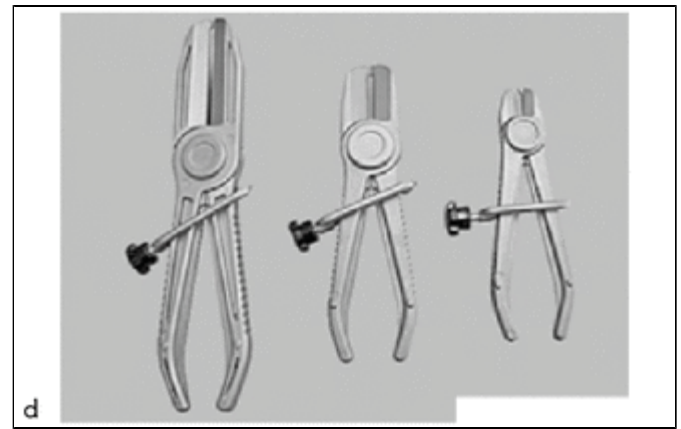
4. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

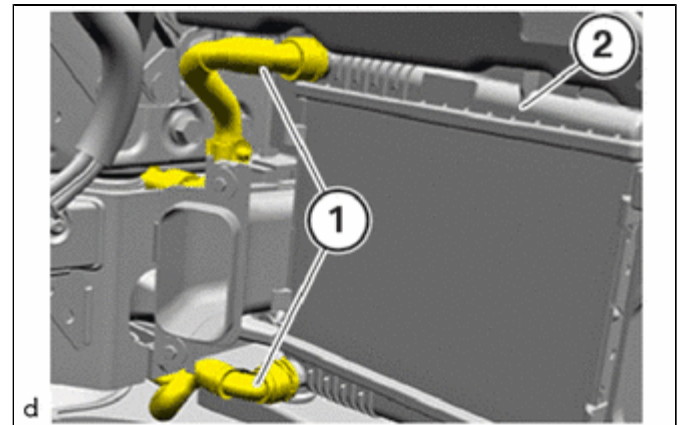
5. REMOVE SUB RADIATOR ASSEMBLY

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090

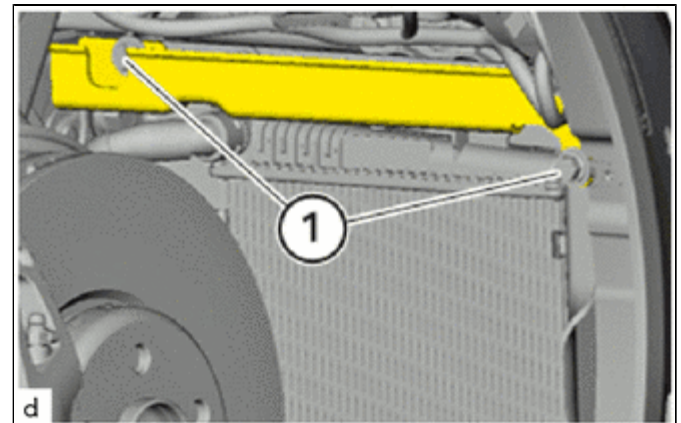


(b) Unlock the No. 1 radiator hose and radiator hose sub-assembly (1) and detach them from the sub radiator (2).

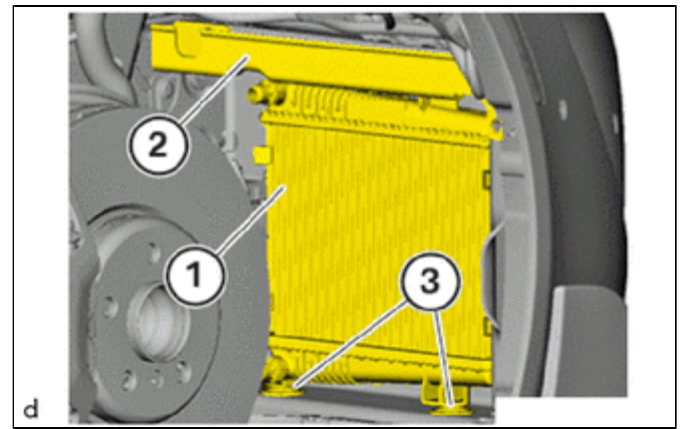


(c) Catch and dispose of escaping coolant.

(d) Loosen T45 bolts (1).



(e) Guide the sub radiator assembly (1) with the front bumper reinforcement support RH (2) out and remove it.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for RH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

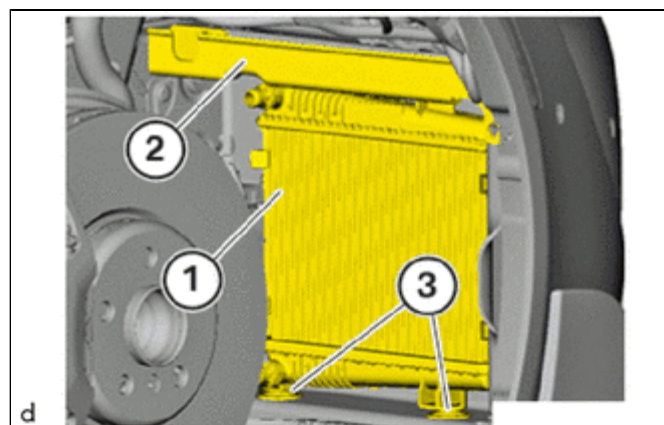
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in sub radiator assembly (1) with the front bumper reinforcement support RH (2) and install.

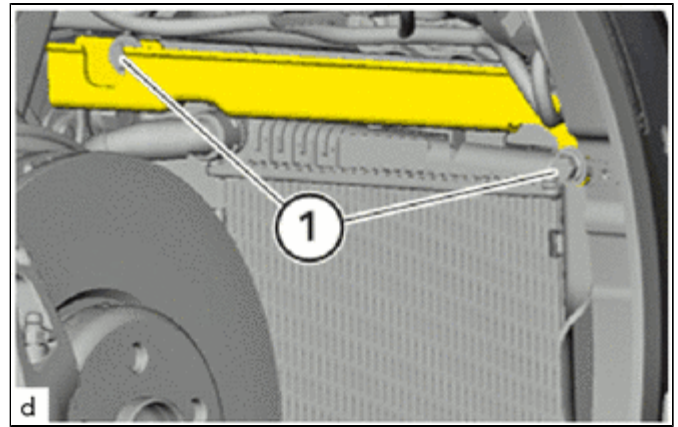


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

- (c) Tighten the T45 bolts (1).

Torque:

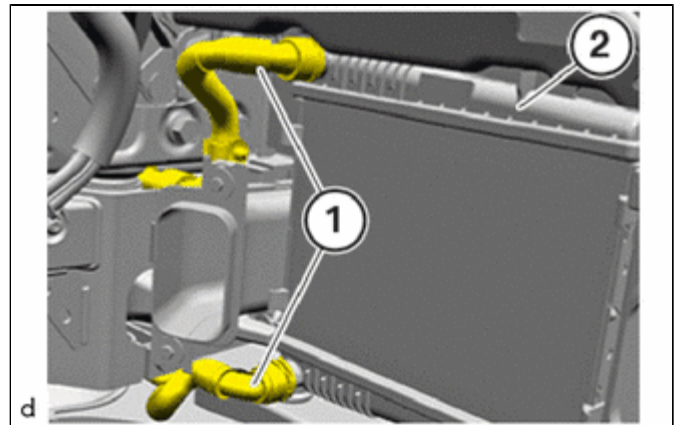
19 N·m {194 kgf·cm, 14 ft·lbf}



(d) Connect the No. 1 radiator hose and radiator hose sub-assembly (1) to the sub radiator (2) and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(e) Detach the special tool from the No. 1 radiator hose and radiator hose sub-assembly (1) and guide out.

2. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

[Click here](#) [INFO](#)

3. INSTALL WHEEL ASSEMBLY

[Click here](#) [INFO](#)

4. ADD ENGINE COOLANT (for High Temperature)

[Click here](#) [INFO](#)

5. INSPECT FOR COOLANT LEAK (for High Temperature)

[Click here](#) [INFO](#)

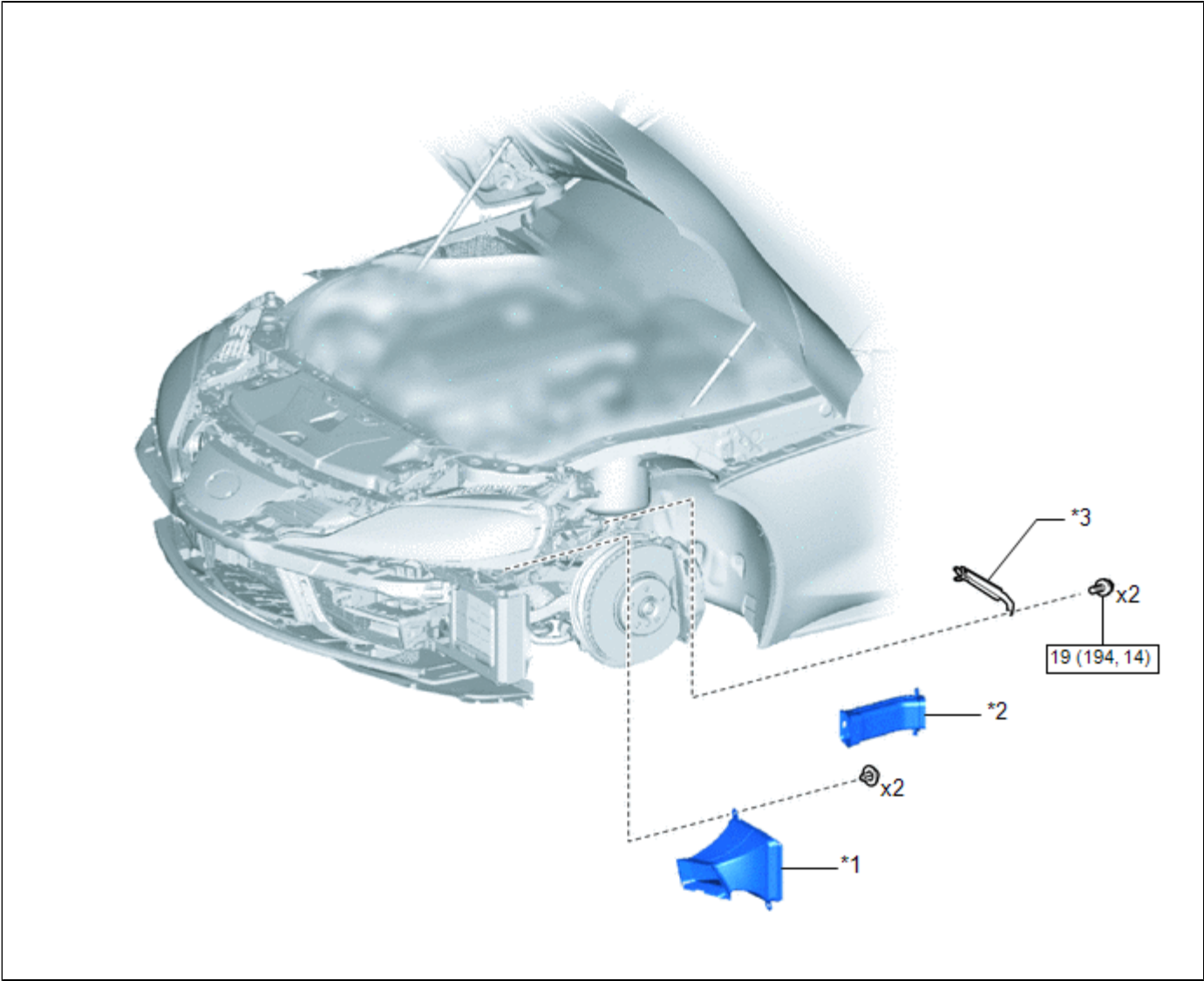
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR


[Click here](#) [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for LH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SUB RADIATOR AIR DUCT LH	*2	AIR INTAKE DUCT LH
*3	FRONT BUMPER REINFORCEMENT SUPPORT LH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for LH Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

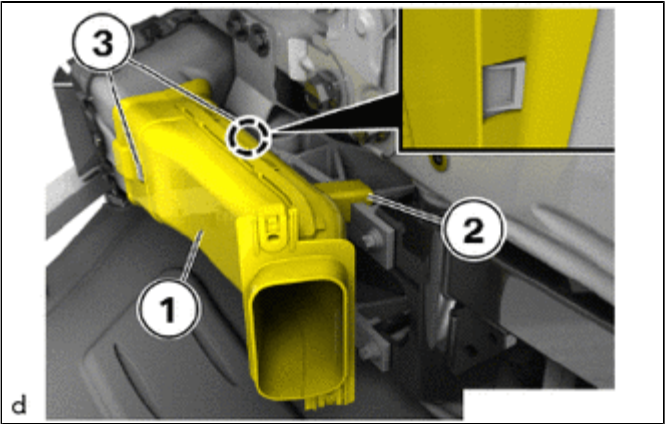
PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

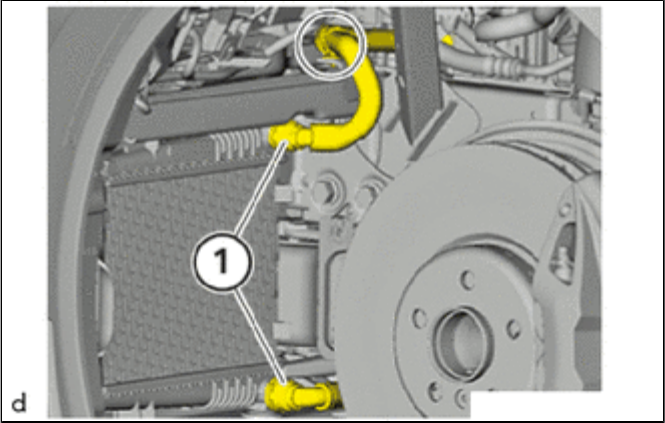
2. REMOVE AIR INTAKE DUCT LH

(a) Air intake duct LH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.



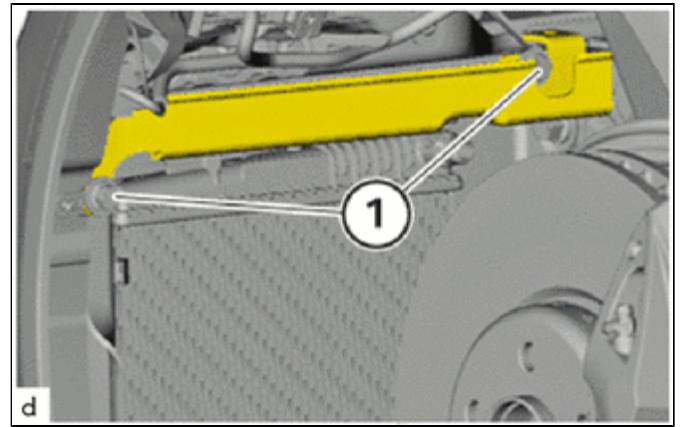
3. SEPARATE SUB RADIATOR ASSEMBLY

(a) Do not disconnect coolant lines (1).

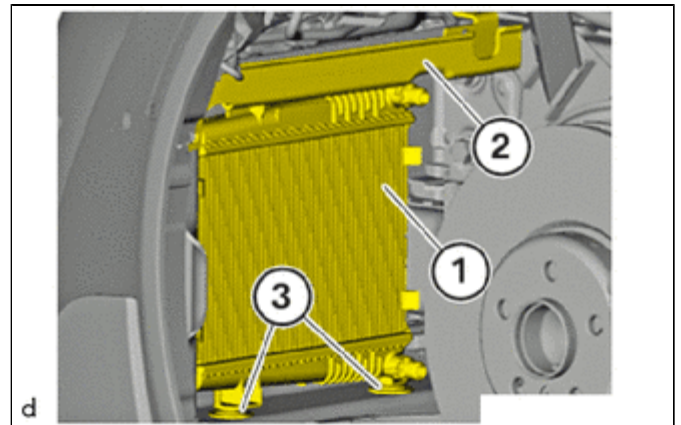


(b) Detach the clip in the marked area.

(c) Loosen T45 bolts (1).

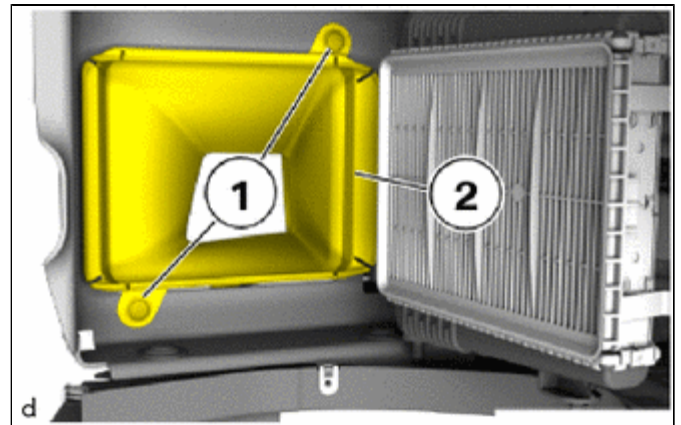


(d) Guide the sub radiator assembly (1) with the front bumper reinforcement support LH (2) out and tie it to the side.



4. REMOVE SUB RADIATOR AIR DUCT LH

(a) Detach expanding clips (1) and remove the sub radiator air duct LH (2).



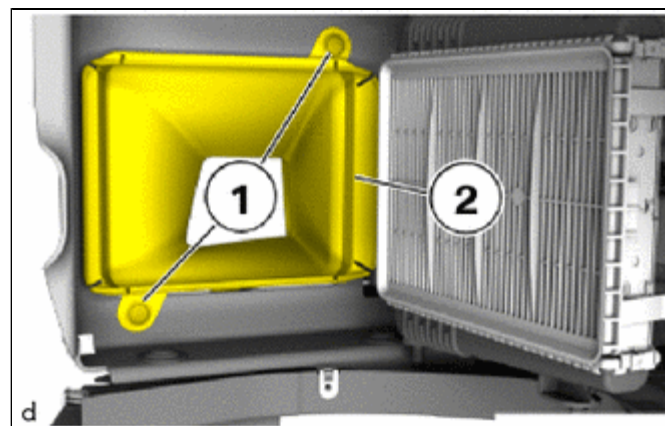
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for LH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

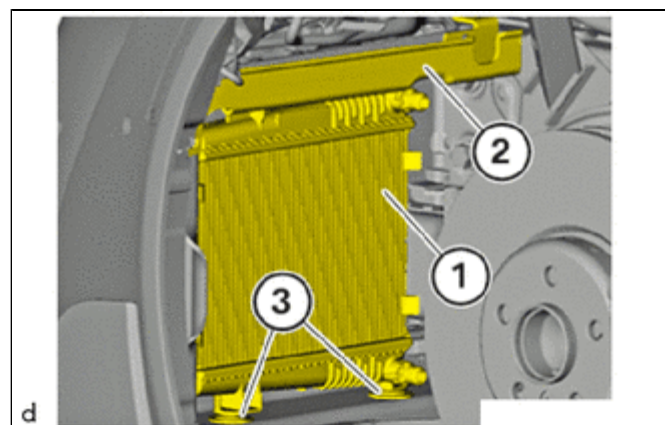
1. INSTALL SUB RADIATOR AIR DUCT LH

- (a) Position the air duct for sub radiator air duct LH (2) and fasten the expanding clips (1).



2. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in the sub radiator assembly (1) with the front bumper reinforcement support LH (2) and install.

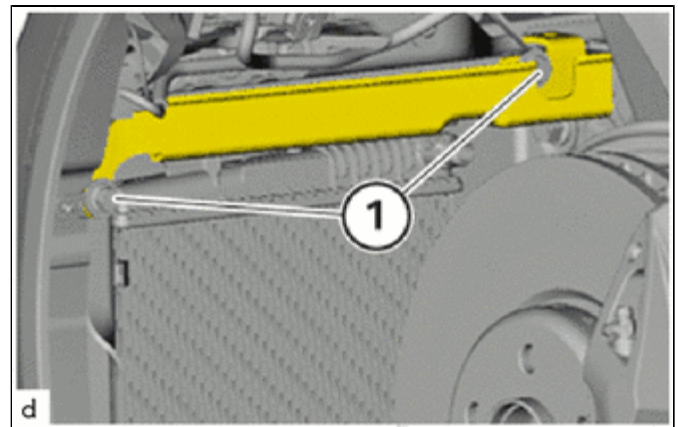


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

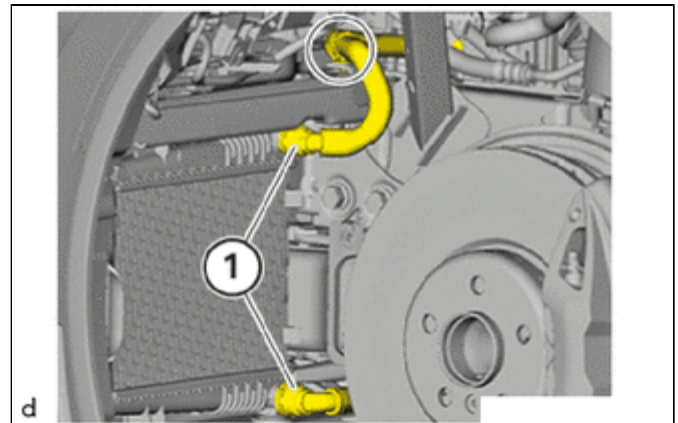
- (c) Tighten the T45 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



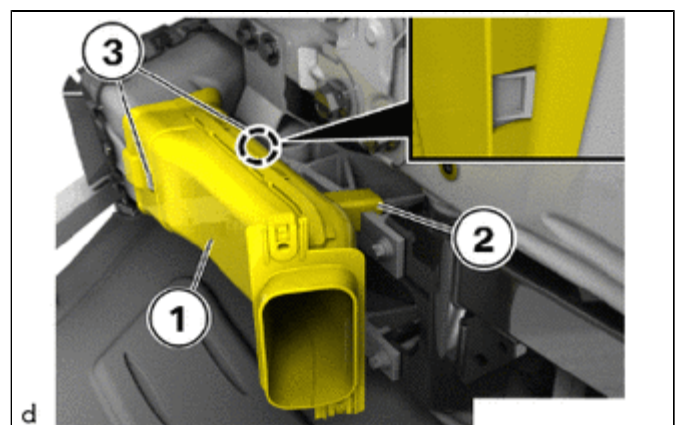
(d) Do not disconnect coolant lines (1).



(e) Mount the clip in the marked area.

3. INSTALL AIR INTAKE DUCT LH

(a) Position air intake duct LH (1) with the guide (2) correctly and clip into the latch mechanism (3).



4. INSTALL FRONT BUMPER ASSEMBLY

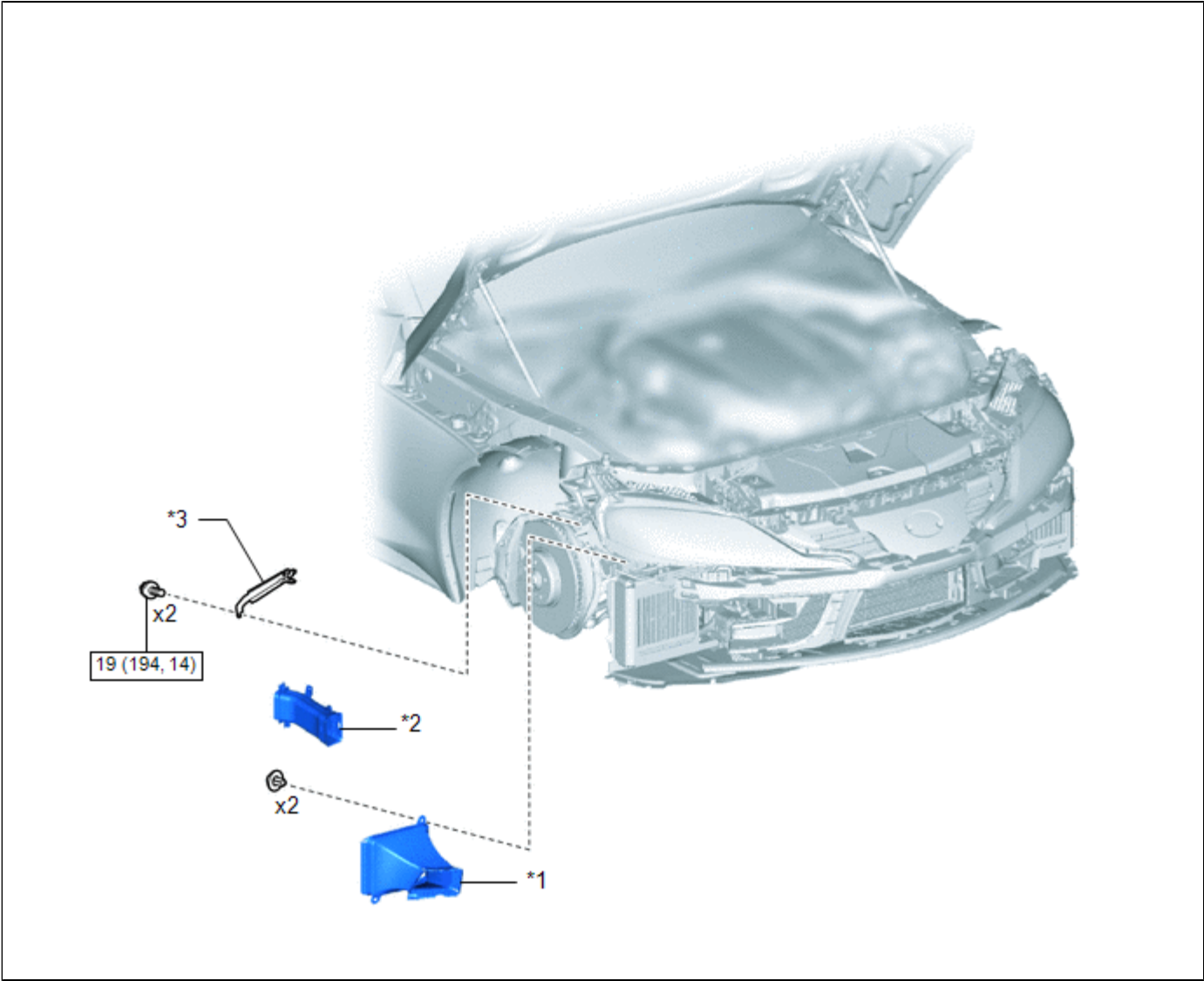
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for RH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SUB RADIATOR AIR DUCT RH	*2	AIR INTAKE DUCT RH
*3	FRONT BUMPER REINFORCEMENT SUPPORT RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for RH Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

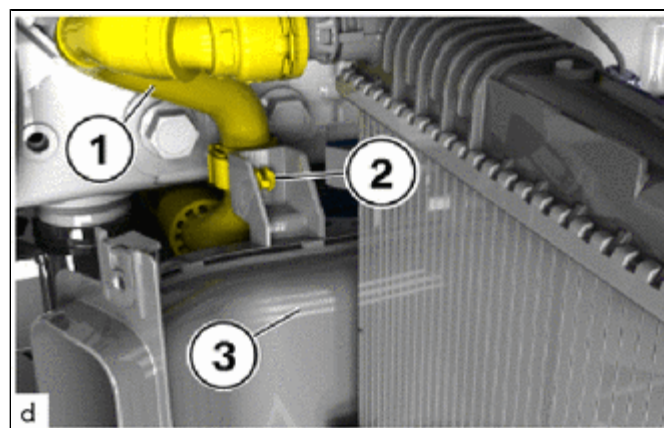
PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

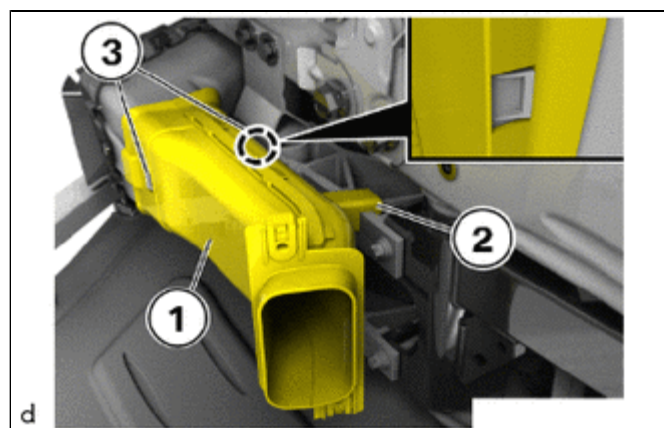
Click here [INFO](#)

2. REMOVE AIR INTAKE DUCT RH

(a) Unclip No. 1 radiator hose (1) and holder (2) from the air intake duct RH (3).

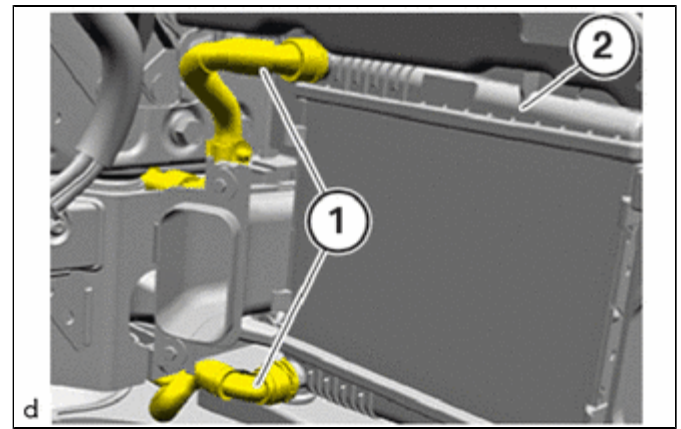


(b) Air intake duct RH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.

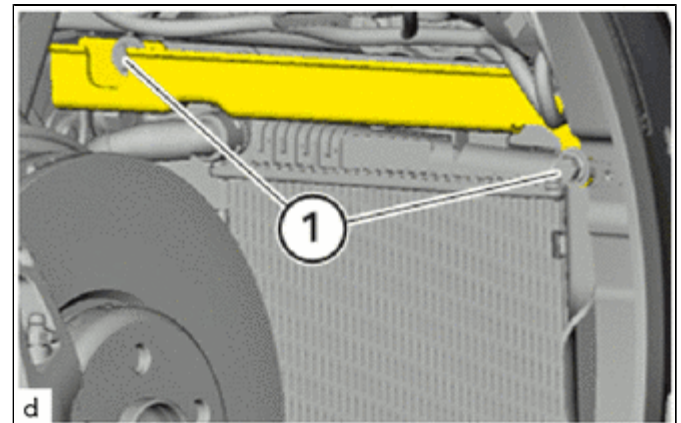


3. SEPARATE SUB RADIATOR ASSEMBLY

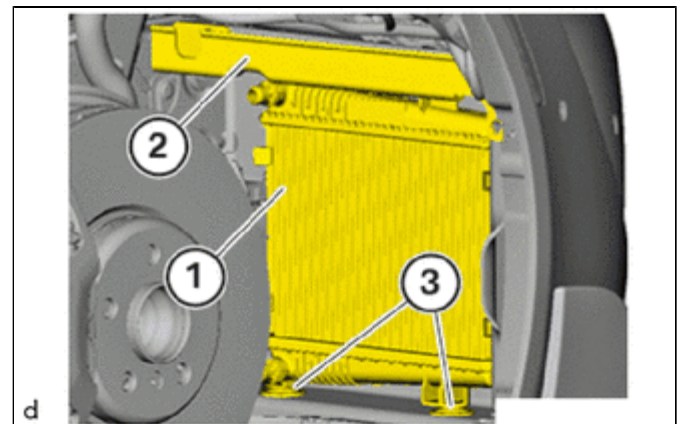
(a) Do not disconnect coolant lines (1) from the sub radiator (2).



(b) Loosen T45 bolts (1).

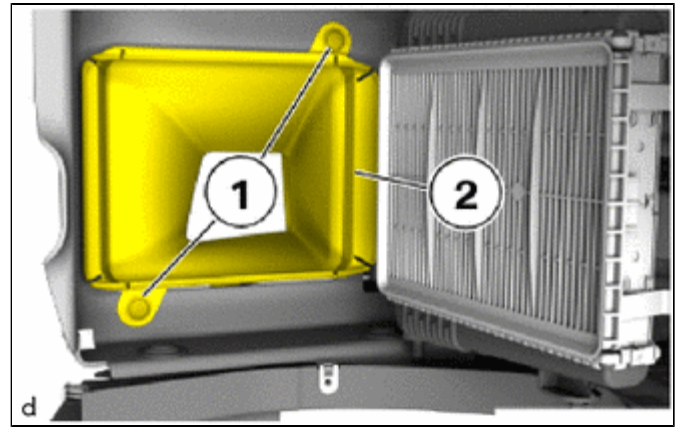


(c) Guide the sub radiator assembly (1) with the front bumper reinforcement support RH (2) out and tie it to the side.



4. REMOVE SUB RADIATOR AIR DUCT RH

(a) Remove the clips (1) and sub radiator air duct RH (2).



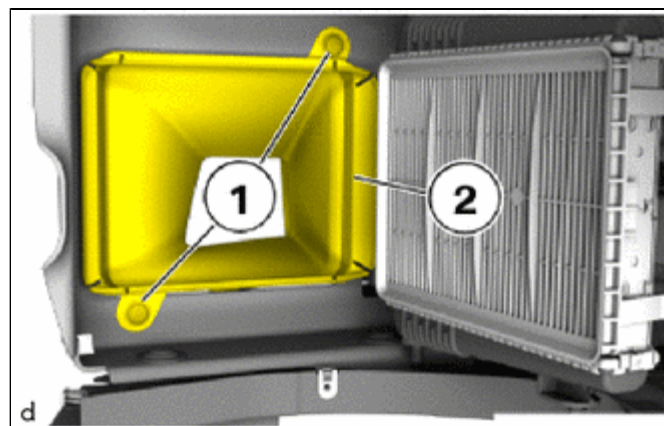
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for RH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

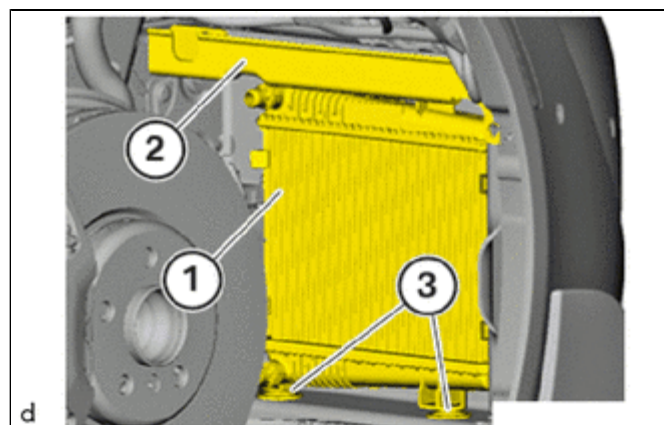
1. INSTALL SUB RADIATOR AIR DUCT RH

- (a) Position the air duct for the sub radiator air duct RH (2) and fasten the expanding clips (1).



2. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in the sub radiator assembly (1) with the front bumper reinforcement support RH (2) and install.

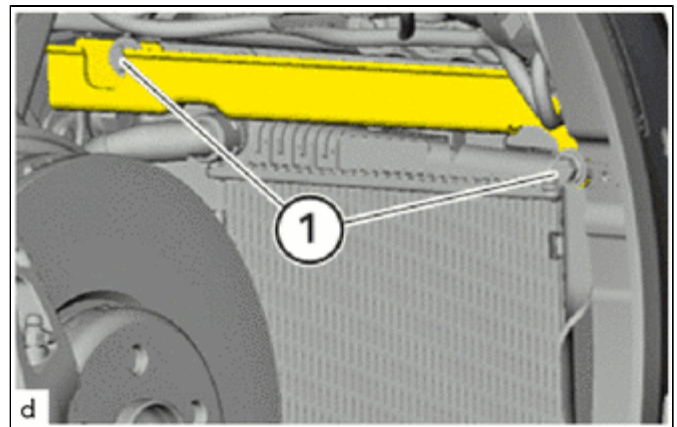


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

- (c) Tighten the T45 bolts (1).

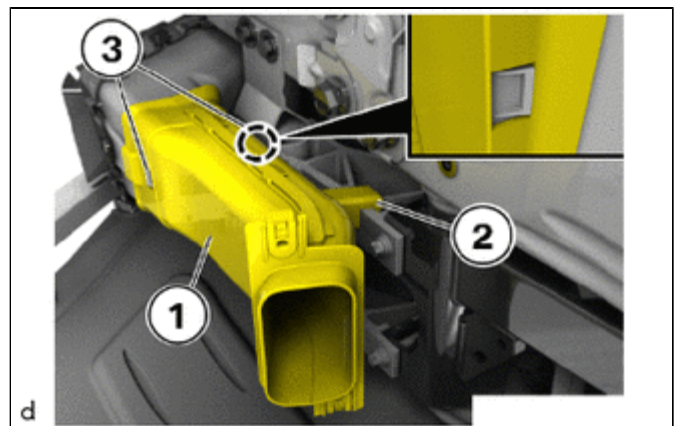
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

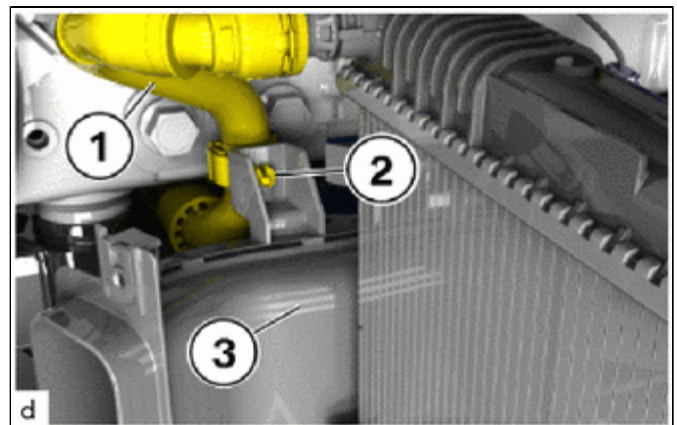


3. INSTALL AIR INTAKE DUCT RH

(a) Position air intake duct RH (1) with the guide (2) correctly and clip into the latch mechanisms (3).

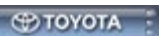


(b) Clip in No. 1 radiator hose (1) with the holder (2) in the air intake duct RH (3).



4. INSTALL FRONT BUMPER ASSEMBLY

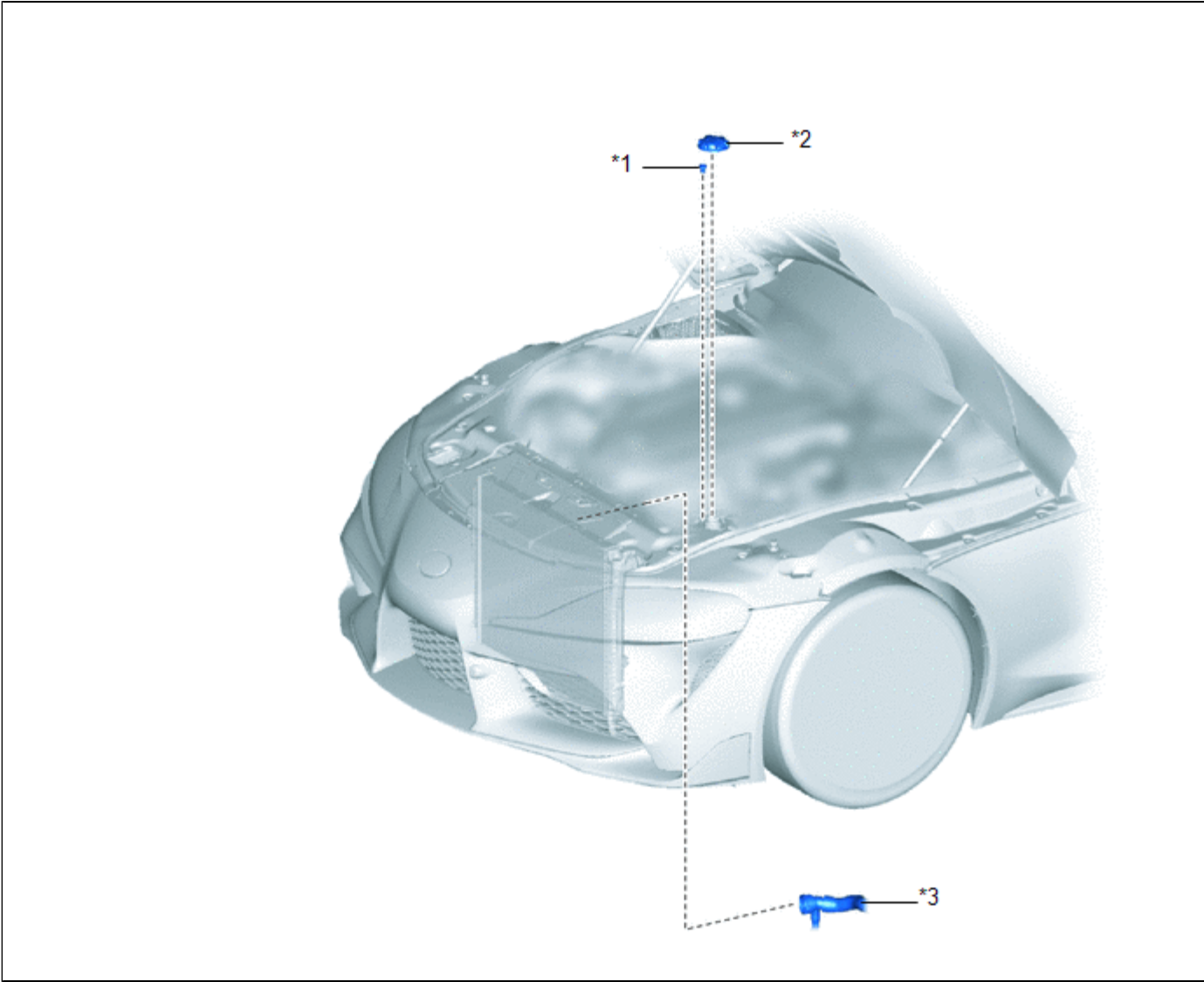
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: COMPONENTS; 2020 MY Supra [03/2019 -]		

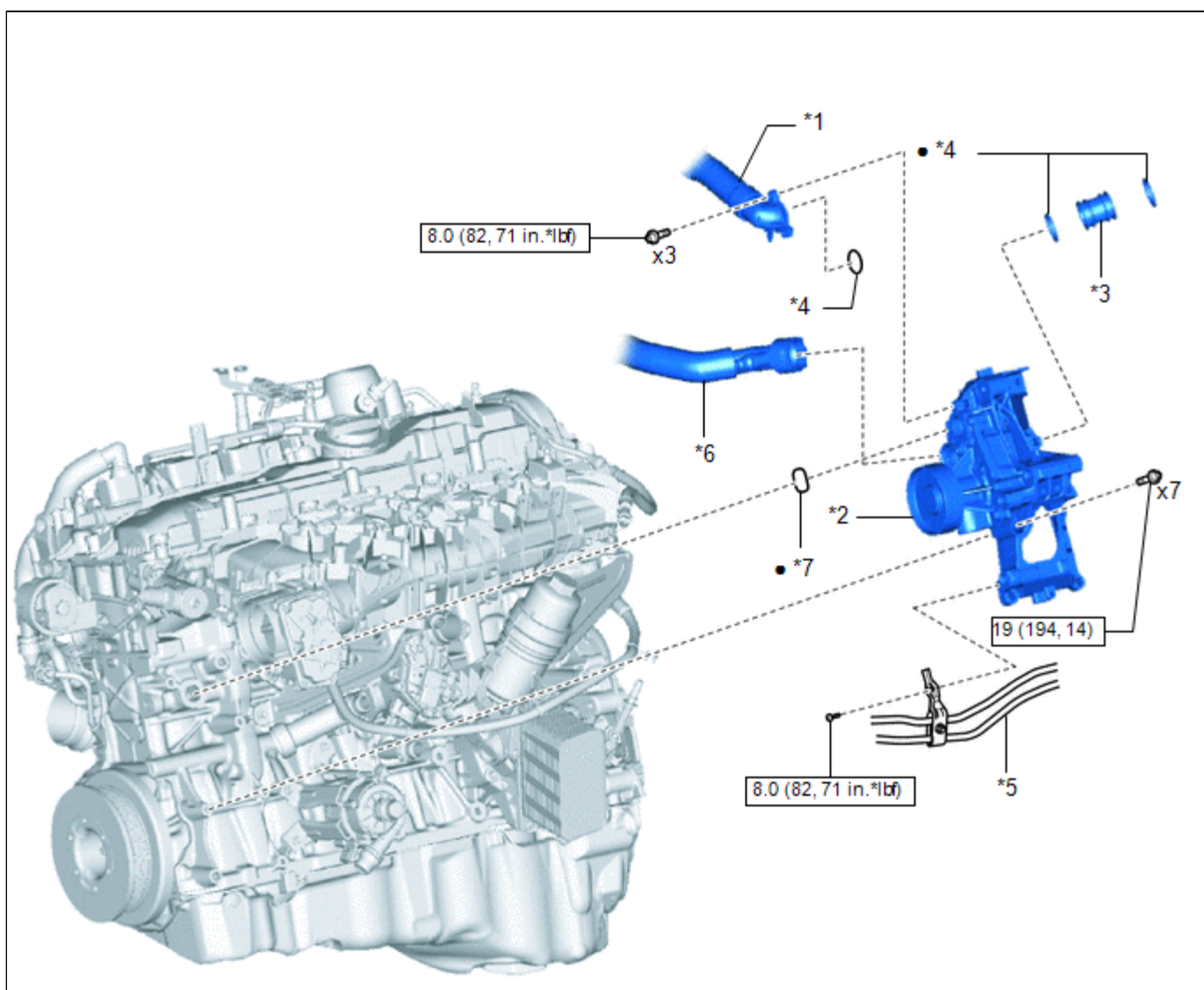
COMPONENTS


ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	NO. 2 WATER BY-PASS HOSE	*2	WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY
*3	WATER PIPE	*4	O-RING
*5	AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP	*6	NO. 1 RADIATOR HOSE
*7	GASKET	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE COMPRESSOR WITH PULLEY ASSEMBLY

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY

CAUTION:

- Hot fluids.

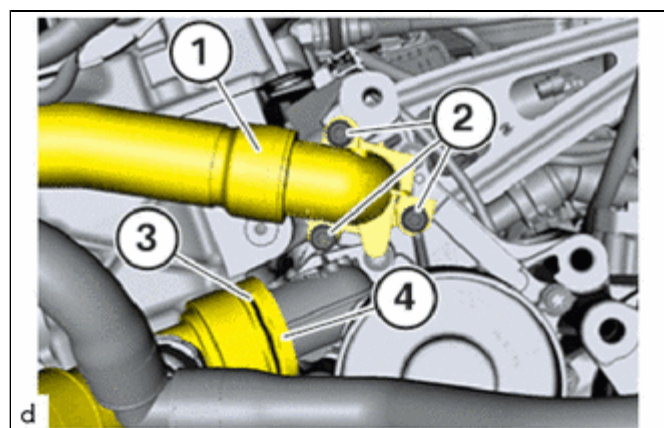
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 bolts (2).

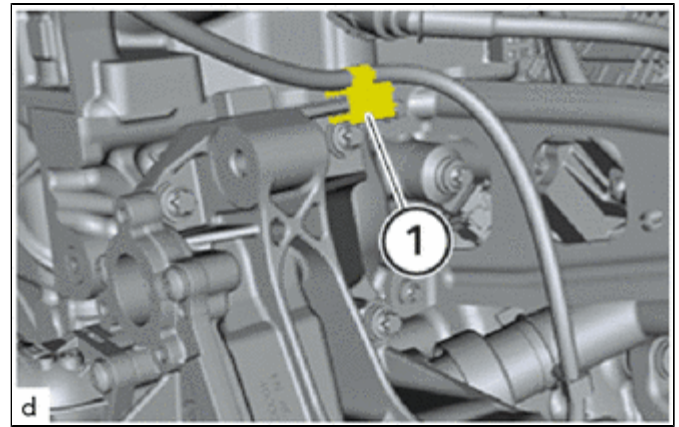


(b) Pull No. 2 water by-pass hose (1) out of the engine water pump assembly and set aside.

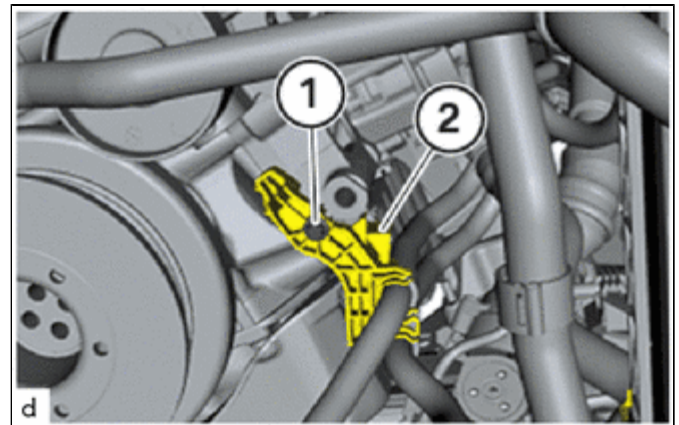
(c) Unlock the lock (3).

(d) Detach the No. 1 radiator hose (4) and set it aside.

(e) Loosen the cable clip (1).

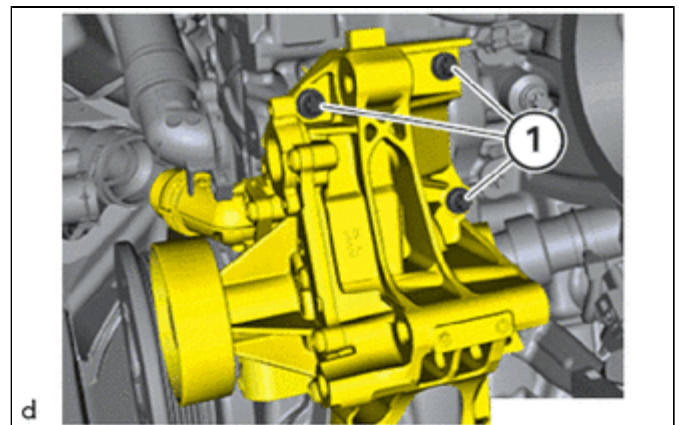


(f) Loosen E10 bolt (1).

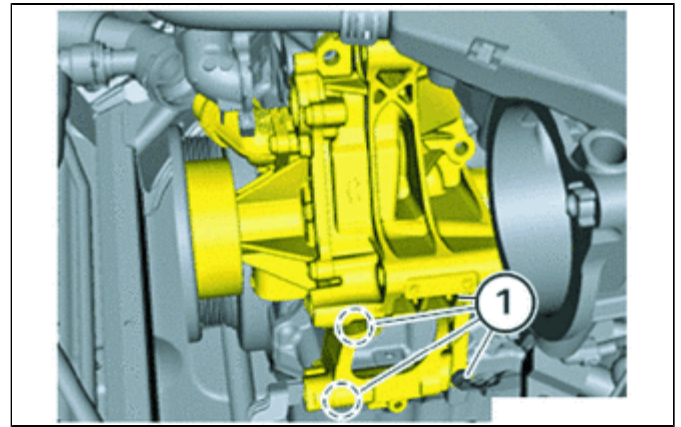


(g) Remove automatic transmission oil cooler tube clamp (2) and set aside.

(h) Loosen E10 bolts (1).

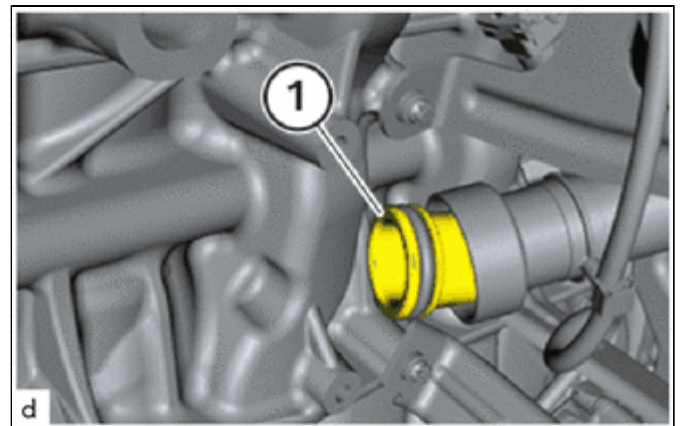


(i) Loosen E10 bolts (1).



(j) Guide out water inlet with water pump housing sub-assembly to the top.

(k) Remove water pipe (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE COMPRESSOR WITH PULLEY ASSEMBLY

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY

CAUTION:

- Hot fluids.

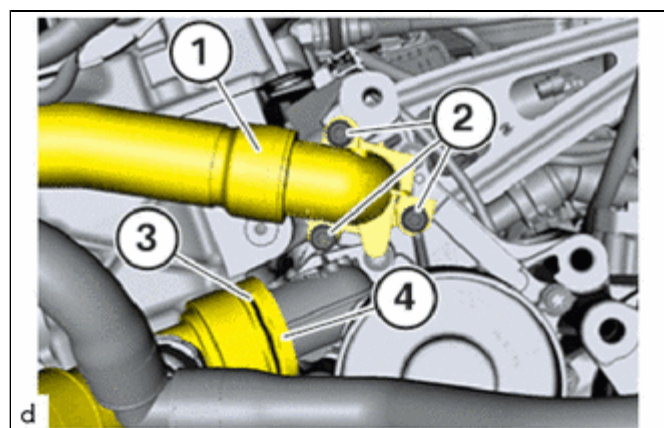
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 bolts (2).

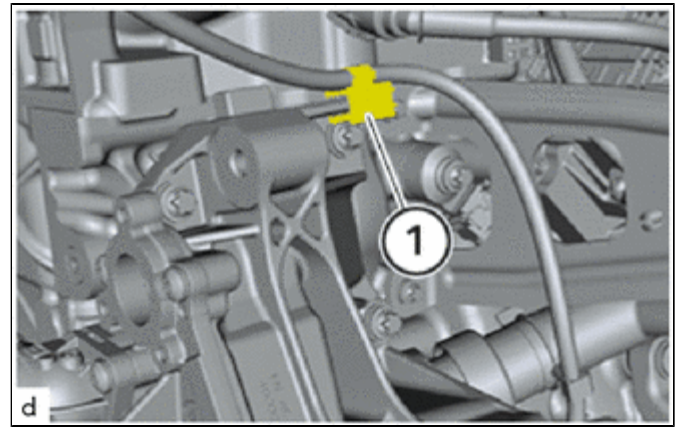


(b) Pull No. 2 water by-pass hose (1) out of the engine water pump assembly and set aside.

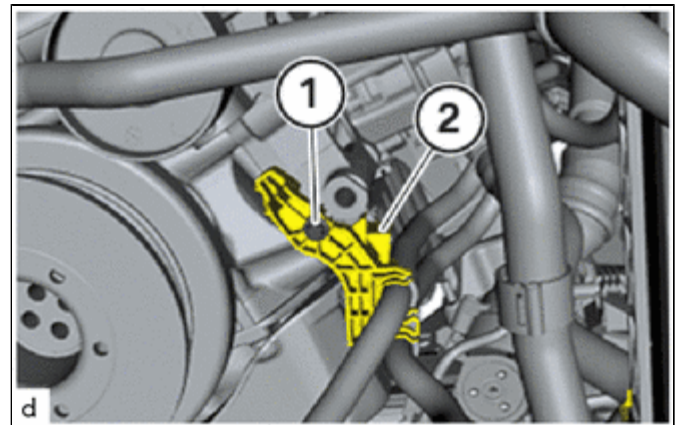
(c) Unlock the lock (3).

(d) Detach the No. 1 radiator hose (4) and set it aside.

(e) Loosen the cable clip (1).

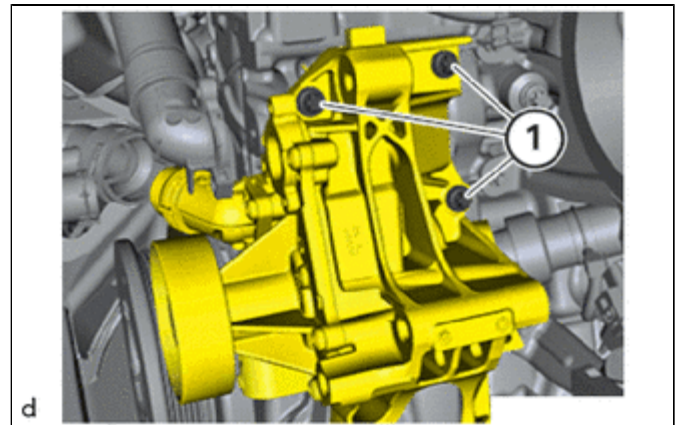


(f) Loosen E10 bolt (1).

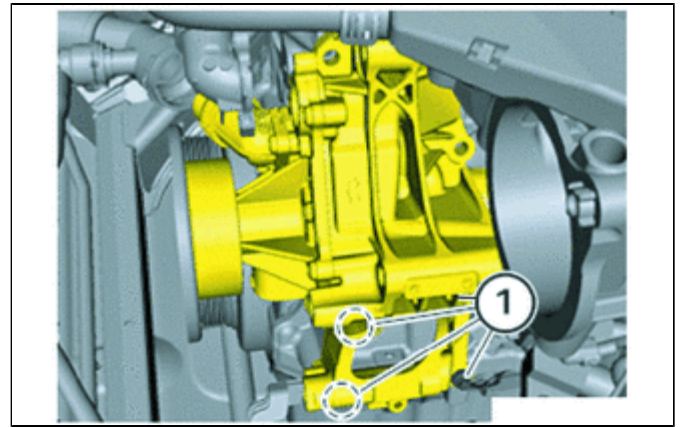


(g) Remove automatic transmission oil cooler tube clamp (2) and set aside.

(h) Loosen E10 bolts (1).

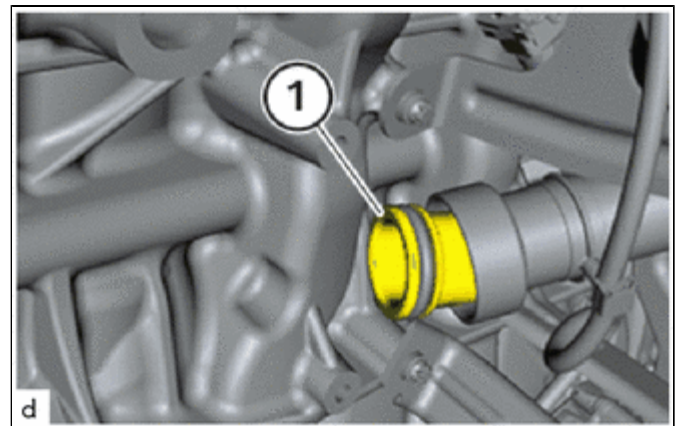


(i) Loosen E10 bolts (1).



(j) Guide out water inlet with water pump housing sub-assembly to the top.

(k) Remove water pipe (1).



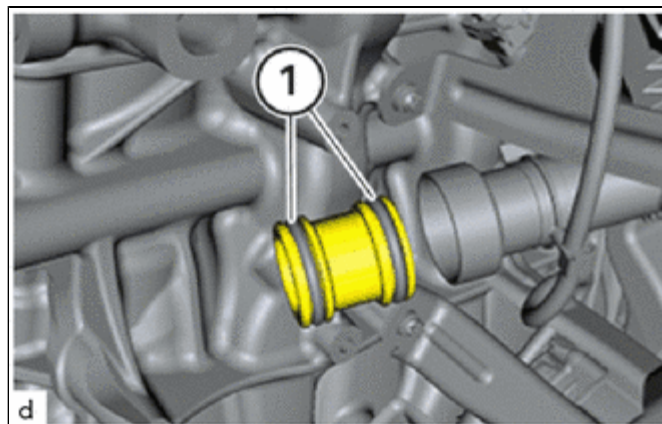
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

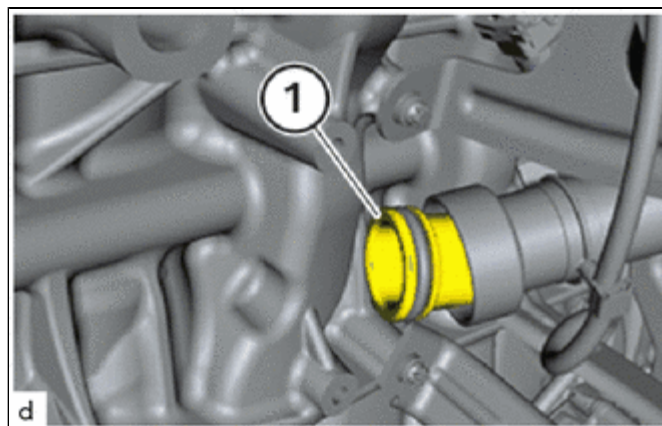
1. INSTALL WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY

(a) Replace the O-rings (1).

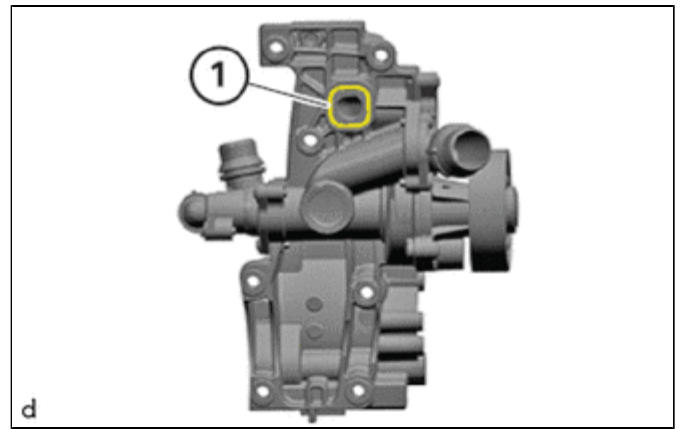


(b) Coat O-rings (1) with coolant for installation.

(c) Position water pipe (1) up at an angle.



(d) Replace the gasket (1).



(e) Insert and install the gasket (1) on the water inlet with water pump housing sub-assembly.

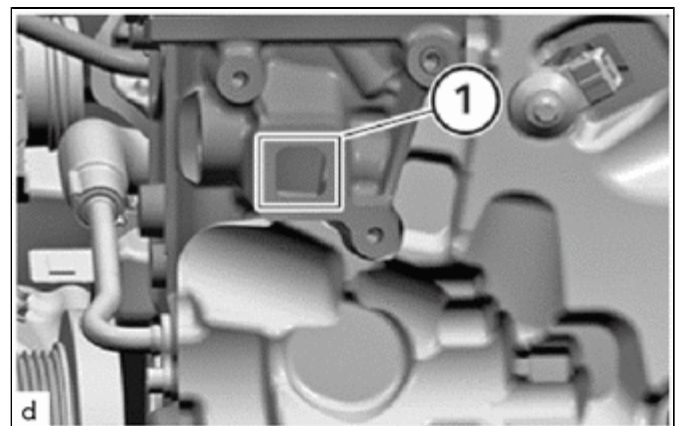
(f) Clean the sealing surface (1).

NOTICE:

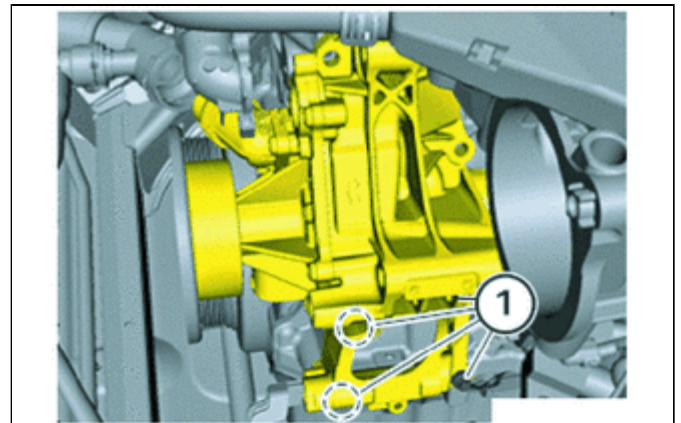
- Damage to the surface.

The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.



(g) Insert and install the water inlet with water pump housing sub-assembly.



(h) Tighten the E10 bolt (1).

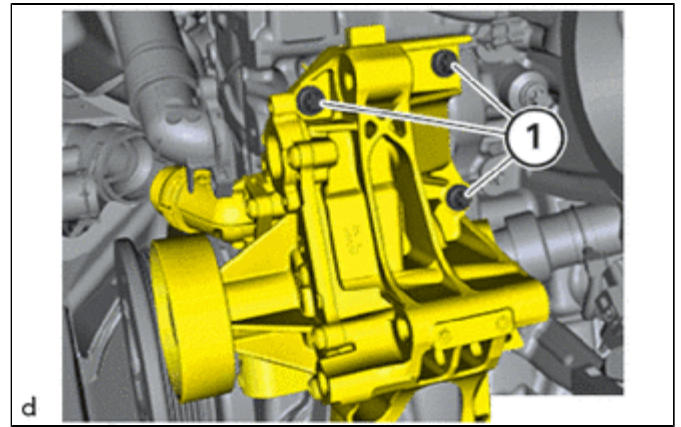
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

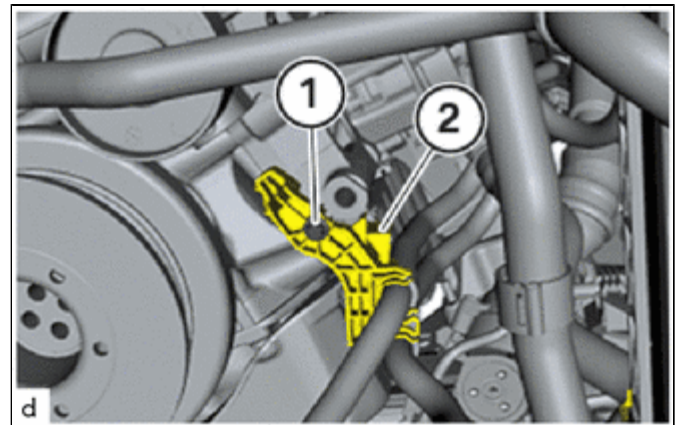
(i) Tighten the E10 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



(j) Position automatic transmission oil cooler tube clamp (2).



(k) Tighten the E10 bolts (1).

Torque:

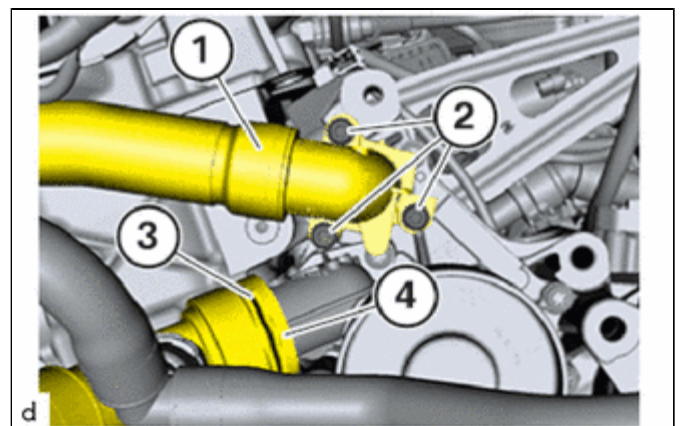
8.0 N·m {82 kgf·cm, 71 in·lbf}

(l) Mount cable clip.

(m) Connect No. 1 radiator hose (4).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(n) Connect No. 2 water by-pass hose (1) on the engine water pump assembly.

(o) Tighten down T30 bolts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL COMPRESSOR WITH PULLEY ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

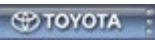
Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

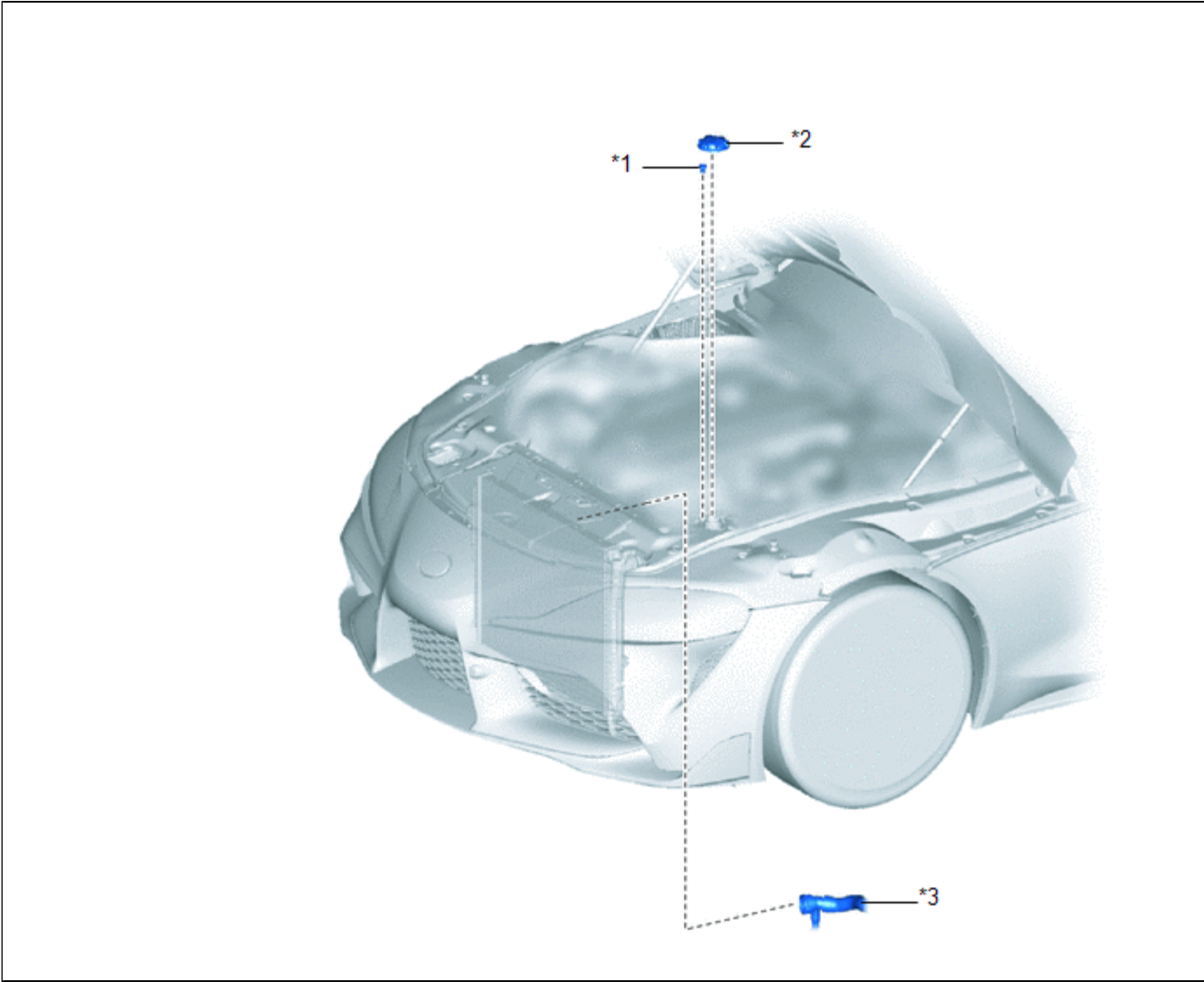
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER PUMP: COMPONENTS; 2020 MY Supra [03/2019 -]		

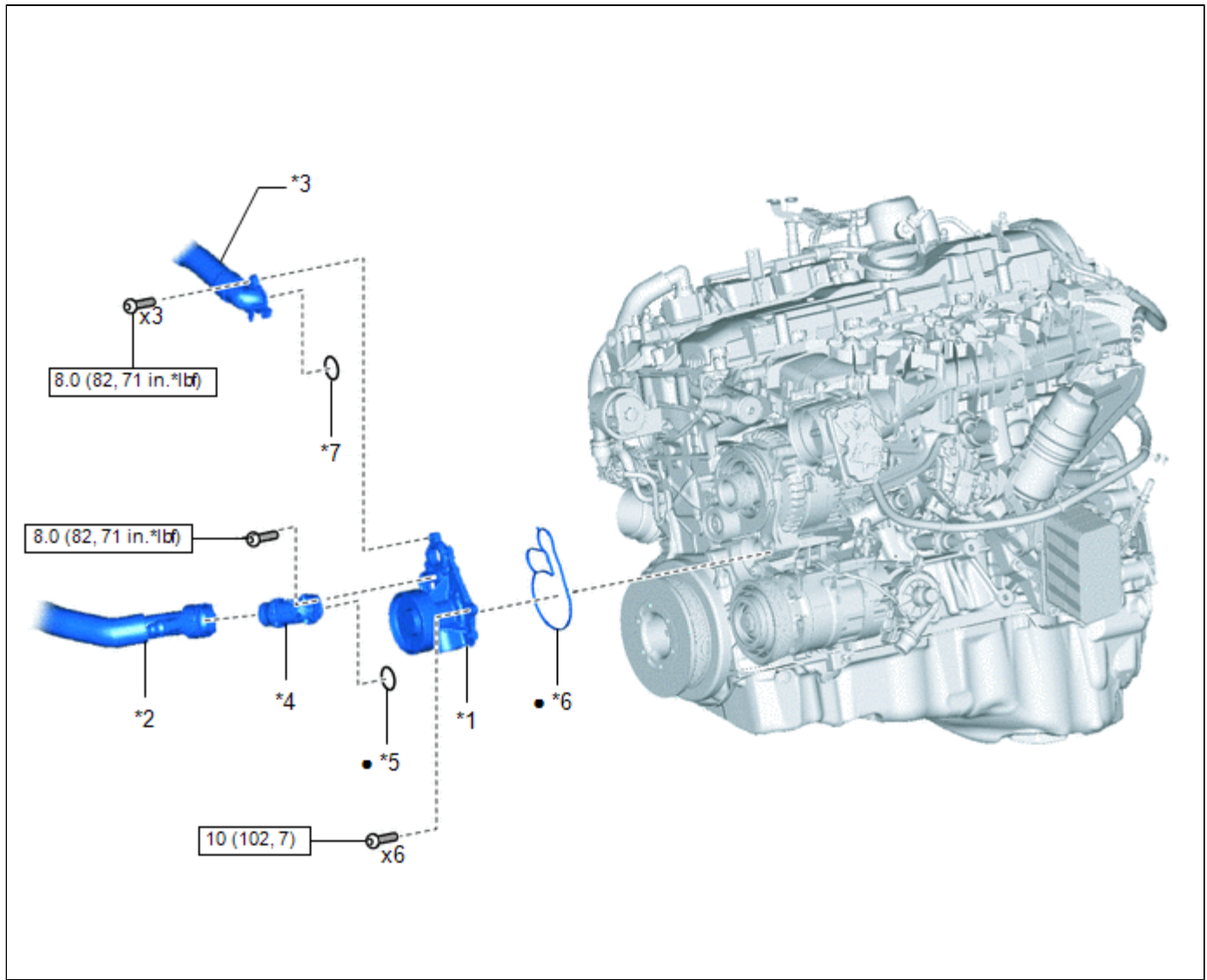
COMPONENTS


ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	ENGINE WATER PUMP ASSEMBLY	*2	NO. 1 RADIATOR HOSE
*3	NO. 2 WATER BY-PASS HOSE	*4	WATER INLET
*5	WATER INLET O-RING	*6	WATER PUMP GASKET
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER PUMP: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE FAN AND GENERATOR V BELT

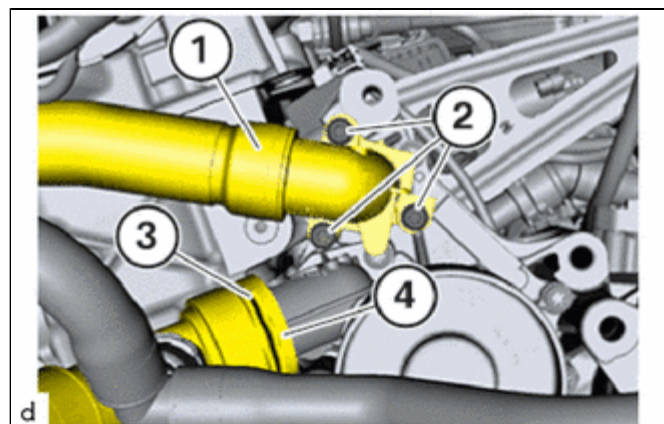
Click here [INFO](#)

5. REMOVE ENGINE WATER PUMP ASSEMBLY

NOTICE:

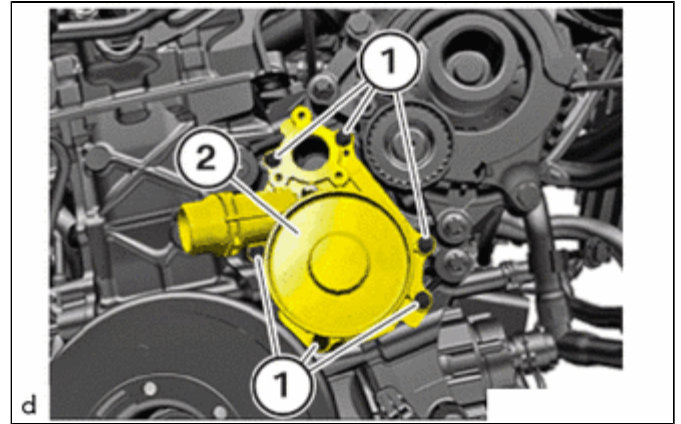
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 bolts (2).



- (b) Pull the No. 2 water by-pass hose (1) out of the engine water pump assembly and set aside.
- (c) Unlock the lock (3).
- (d) Detach the No. 1 radiator hose (4) and set it aside.

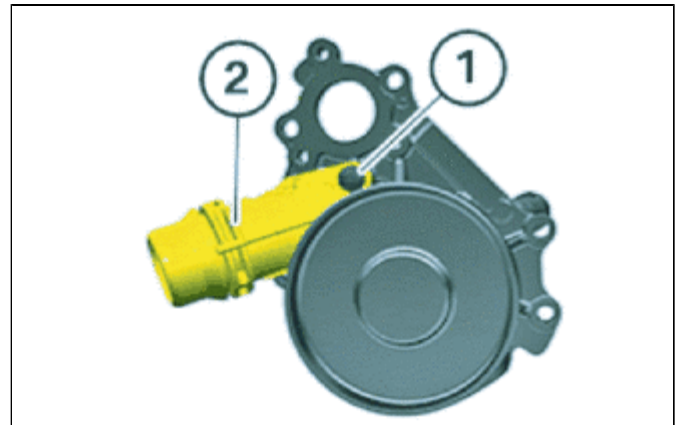
- (e) Loosen T30 bolts (1).



- (f) Pull the engine water pump assembly (2) out of the water inlet with water pump housing sub-assembly and remove to the top.

6. REMOVE WATER INLET

- (a) Loosen T30 bolt (1).



- (b) Remove water inlet (2).

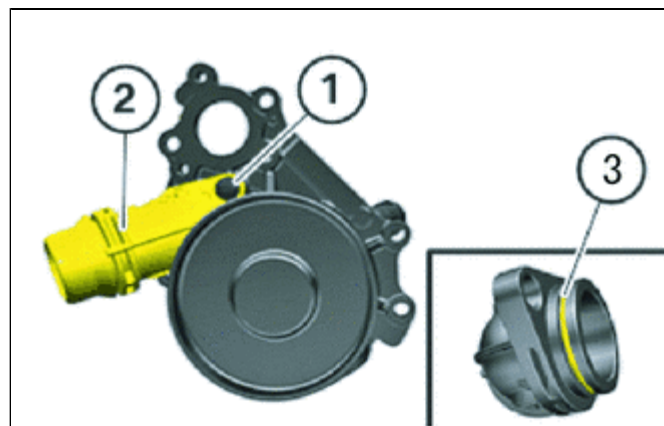
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER PUMP: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER INLET

(a) Replace the O-ring (3).



(b) Install water inlet (2) in the new engine water pump assembly

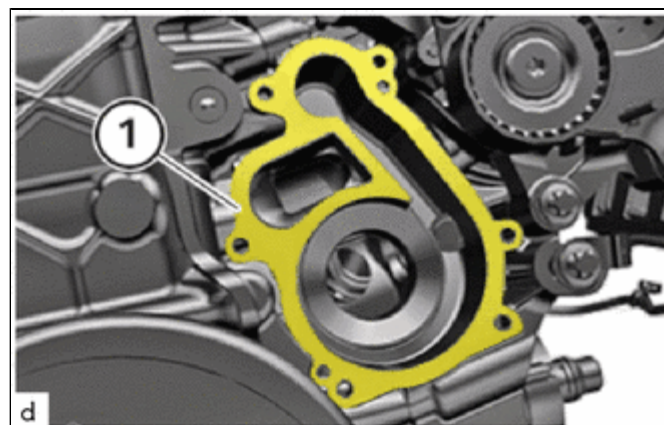
(c) Tighten down T30 bolt (1).

Torque:

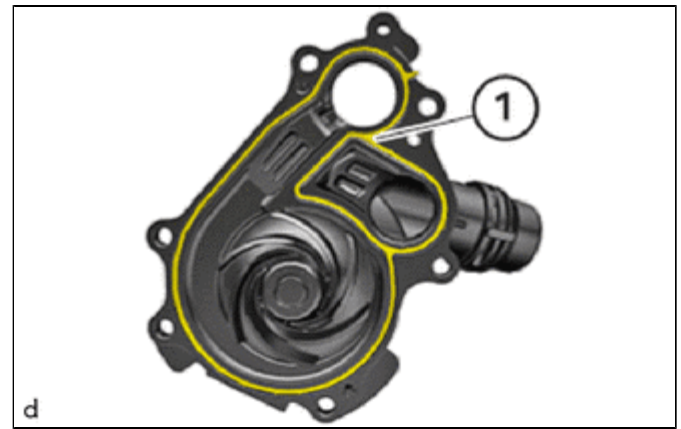
8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL ENGINE WATER PUMP ASSEMBLY

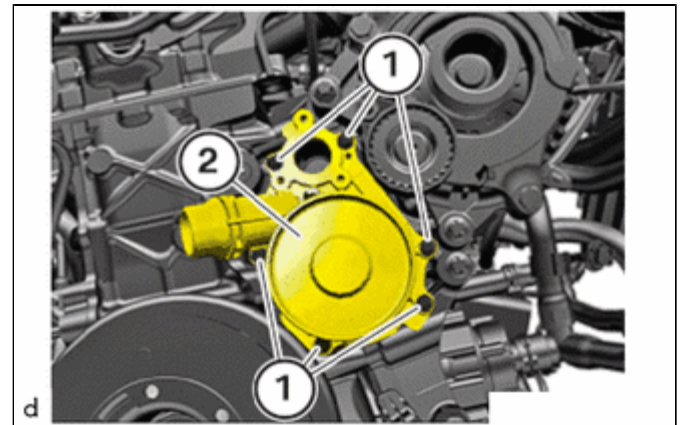
(a) Clean sealing surface (1).



(b) Replace the water pump gasket (1).



(c) Install engine water pump assembly (2) in the water inlet with water pump housing sub-assembly.

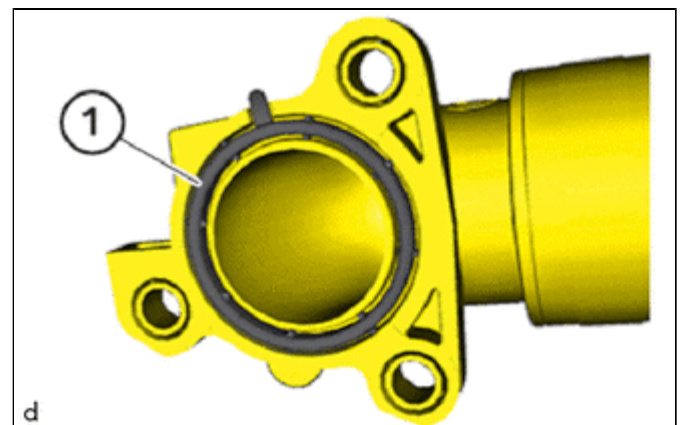


(d) Tighten the T30 bolts (1).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

(e) Replace the O-ring (1).

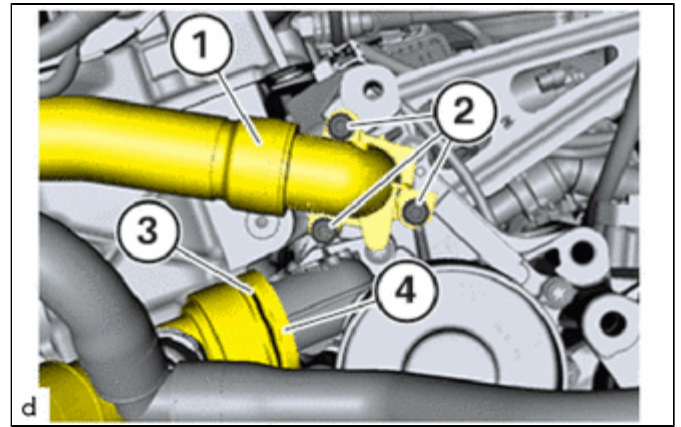


(f) Clean sealing surface of the engine water pump assembly.

(g) Connect No. 1 radiator hose (4).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(h) Connect No. 2 water by-pass hose (1) on the engine water pump assembly.

(i) Tighten down T30 bolts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

3. INSTALL FAN AND GENERATOR V BELT

Click here [INFO](#)

4. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

5. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

6. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

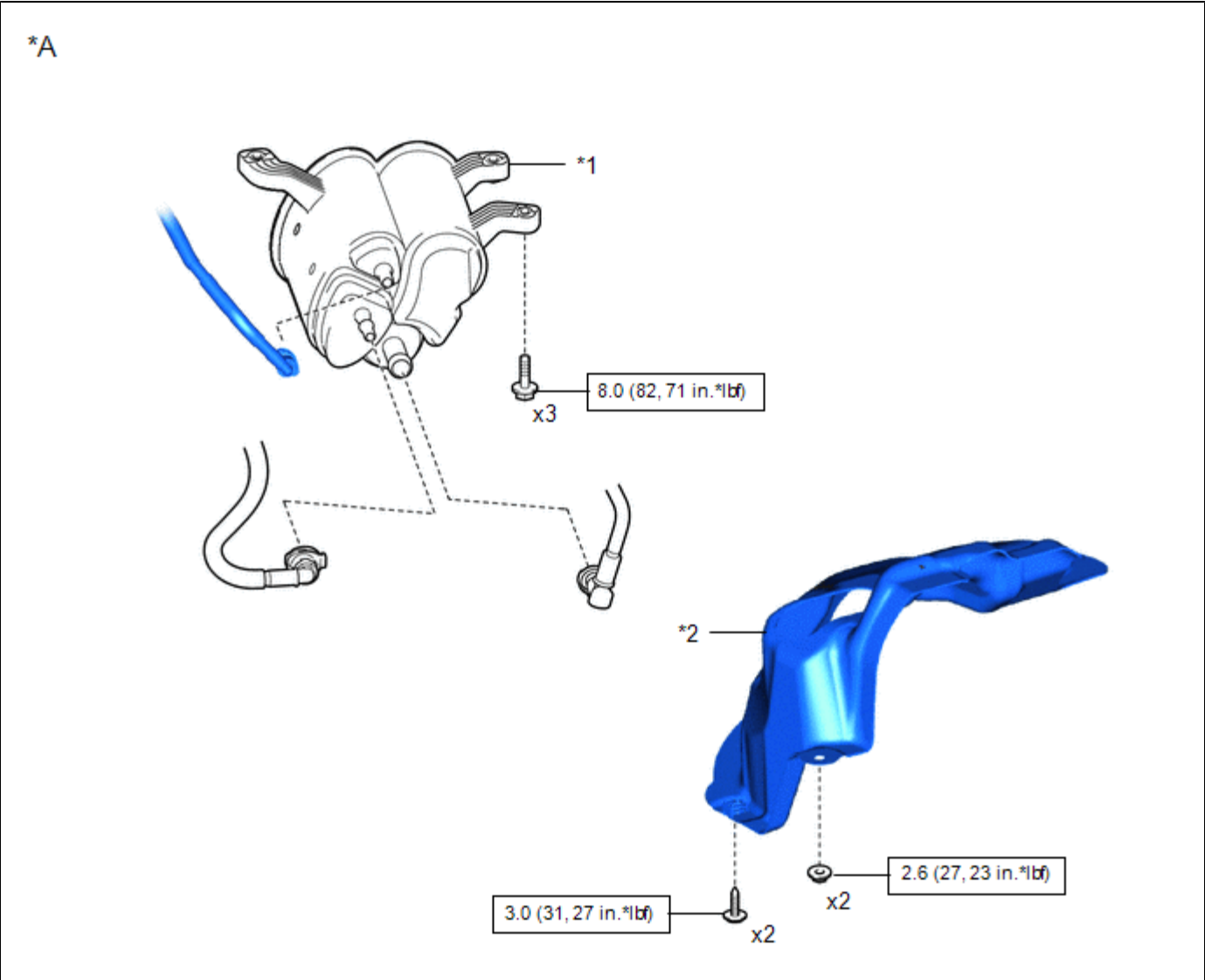
7. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): CANISTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

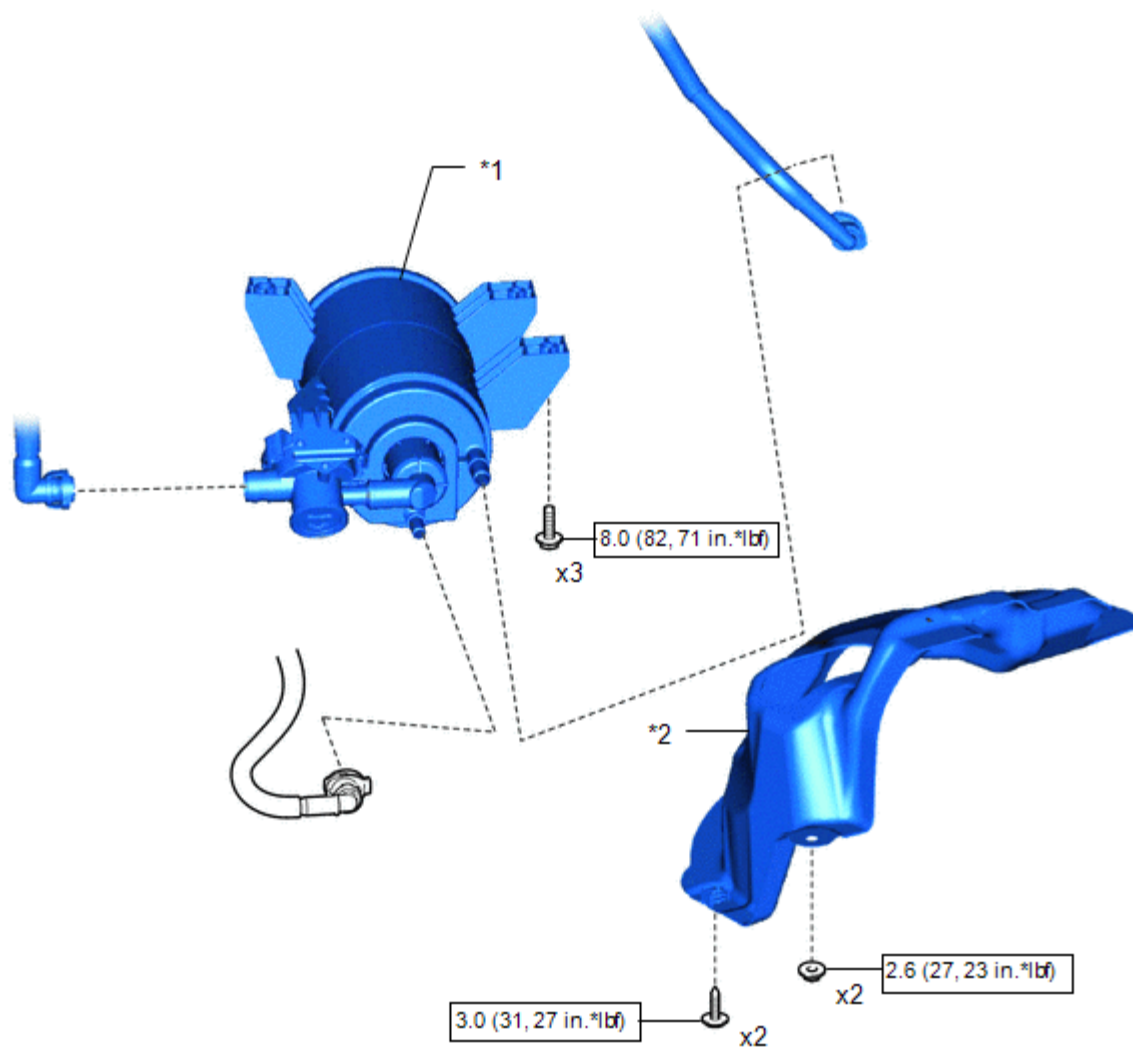
ILLUSTRATION




*A	for Type A	-	-
*1	CHARCOAL CANISTER SUB-ASSEMBLY	*2	MAIN MUFFLER HEAT INSULATOR RH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION

*A



*A	for Type B	-	-
*1	CHARCOAL CANISTER SUB-ASSEMBLY	*2	MAIN MUFFLER HEAT INSULATOR RH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7T
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): CANISTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE REAR RIGHT WHEEL

Click here [INFO](#)

2. REMOVE EXHAUST PIPE ASSEMBLY

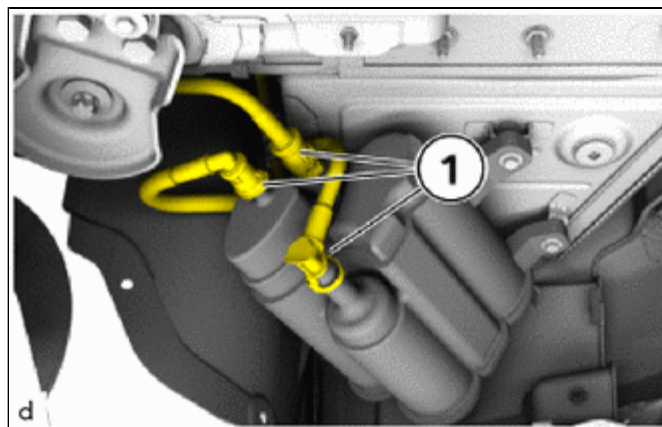
Click here [INFO](#)

3. REMOVE MAIN MUFFLER HEAT INSULATOR RH

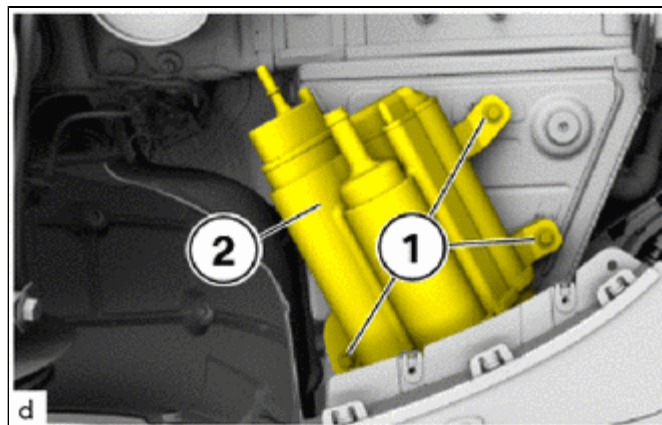
Click here [INFO](#)

4. REMOVE CHARCOAL CANISTER SUB-ASSEMBLY (for Type A)

(a) Unlock and pull off the snap fasteners (1).

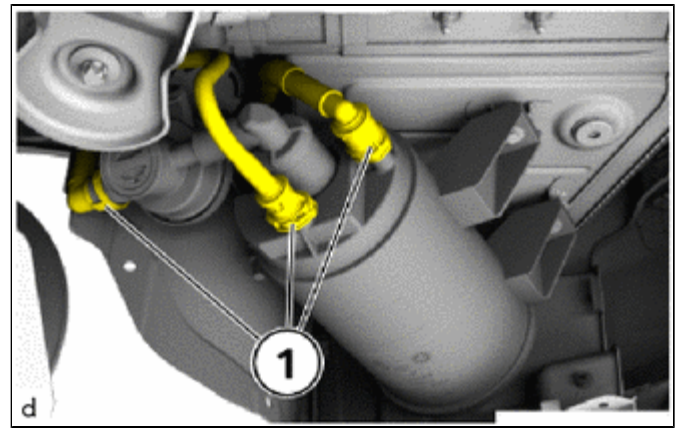


(b) Unscrew the screws (1) and remove the charcoal canister sub-assembly (2).

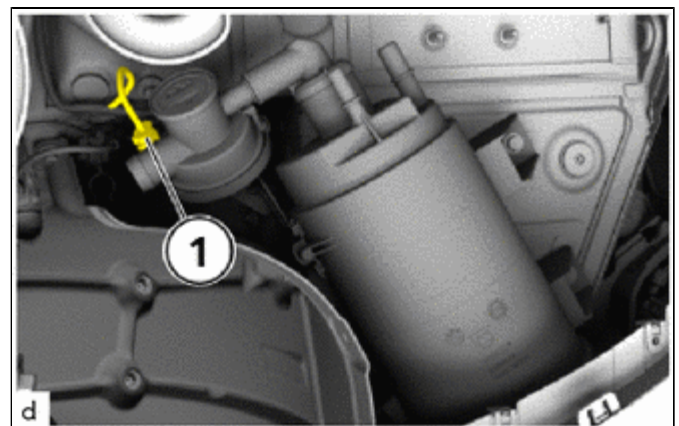


5. REMOVE CHARCOAL CANISTER SUB-ASSEMBLY (for Type B)

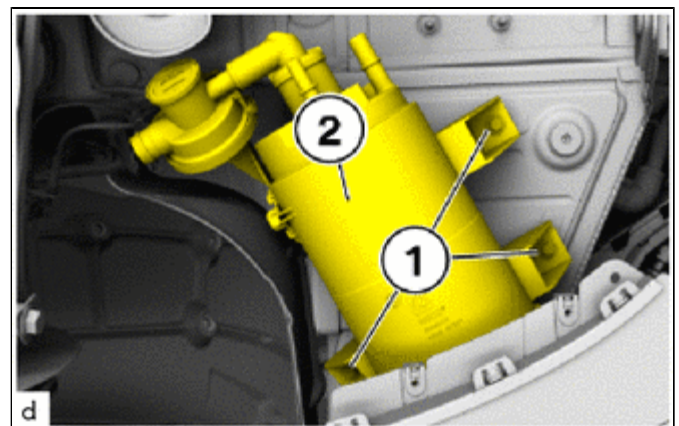
(a) Unlock and pull off the snap fasteners (1).



(b) Unlock plug connection (1) and disconnect.



(c) Unscrew the screws (1) and remove the charcoal canister sub-assembly (2).



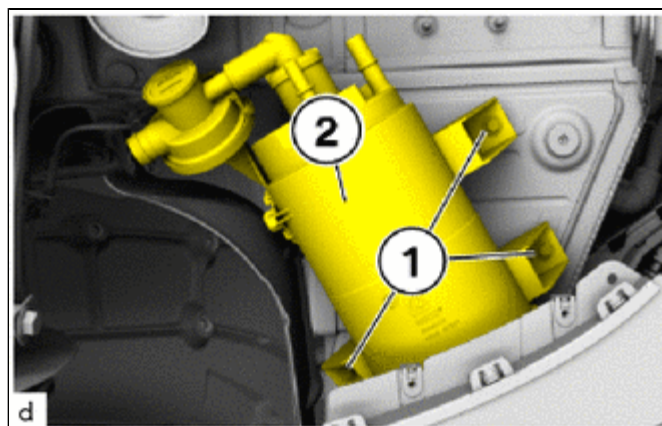
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7U
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): CANISTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL CHARCOAL CANISTER SUB-ASSEMBLY (for Type B)

(a) Position charcoal canister sub-assembly (2).



(b) Tighten the screws (1).

Torque:

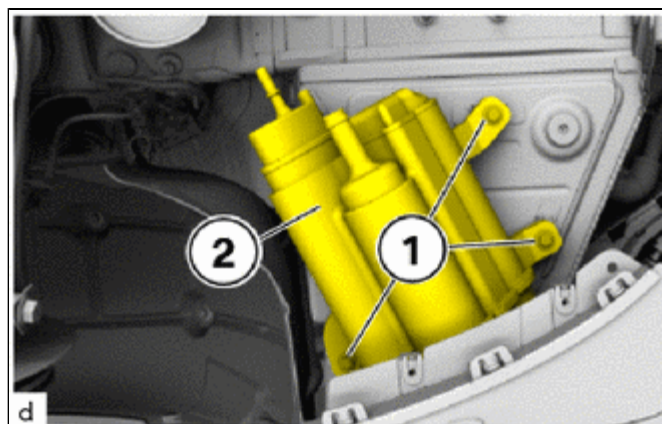
8.0 N·m {82 kgf·cm, 71 in·lbf}

(c) Connect connectors and lock.

(d) Connect and lock the snap fasteners.

2. INSTALL CHARCOAL CANISTER SUB-ASSEMBLY (for Type A)

(a) Position charcoal canister sub-assembly (2).



(b) Tighten the screws (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(c) Connect and lock the snap fasteners.

3. INSTALL MAIN MUFFLER HEAT INSULATOR RH

Click here [INFO](#)

4. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

5. INSTALL REAR RIGHT WHEEL

Click here [INFO](#)

6. CLEAN CONTACT SURFACES BETWEEN THE BRAKE DISC AND THE WHEEL RIM

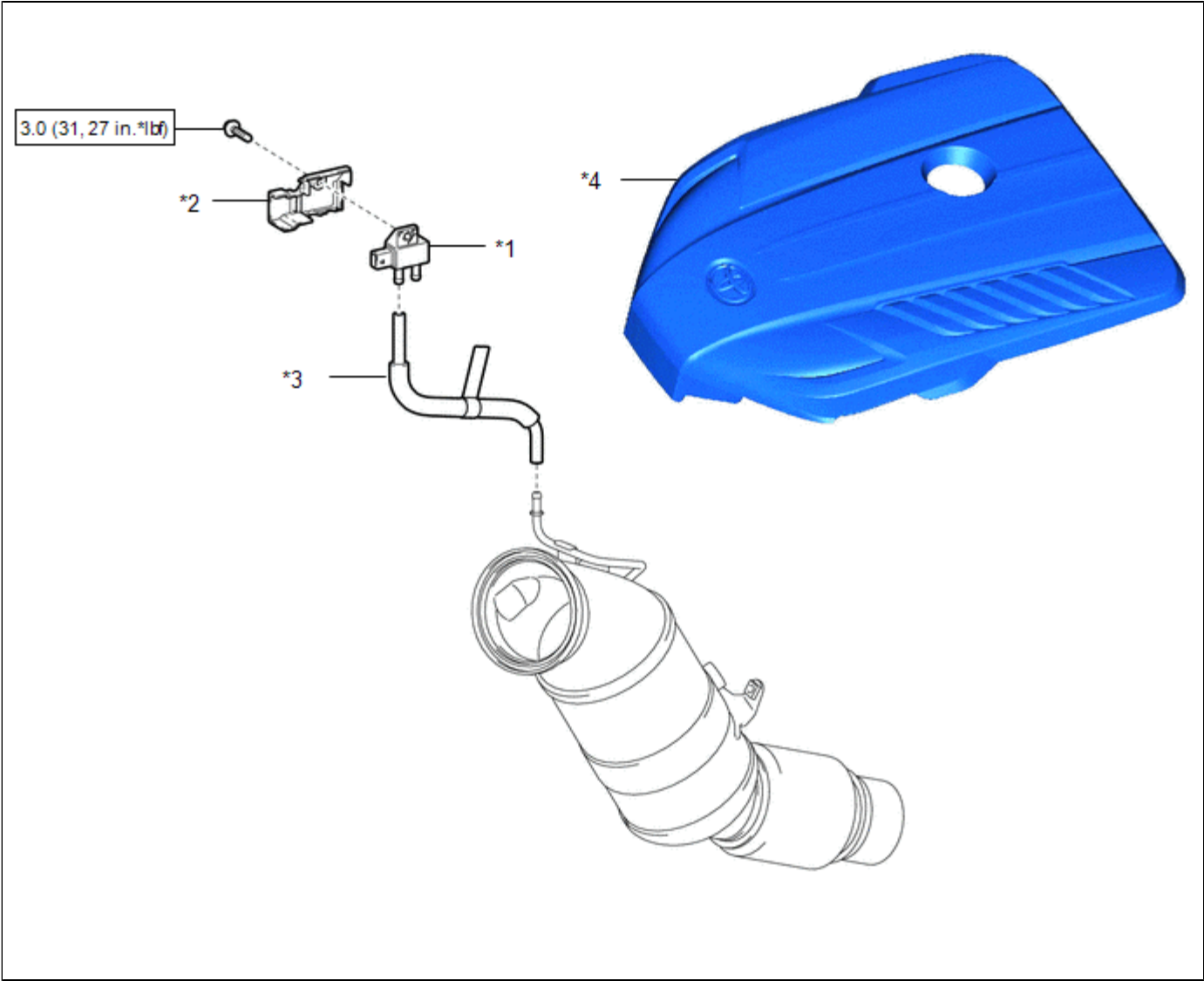
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7V
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): DIFFERENTIAL PRESSURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	DIFFERENTIAL PRESSURE SENSOR	*2	SENSOR COVER
*3	VACUUM TRANSMITTING HOSE ASSEMBLY	*4	NO. 1 ENGINE COVER SUB-ASSEMBLY
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): DIFFERENTIAL PRESSURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE DIFFERENTIAL PRESSURE SENSOR

NOTICE:

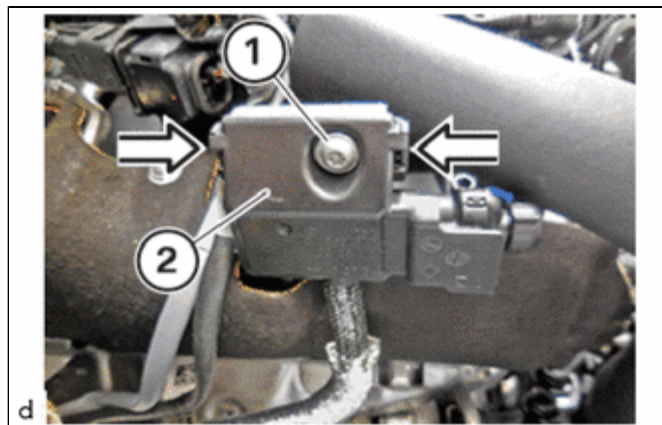
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

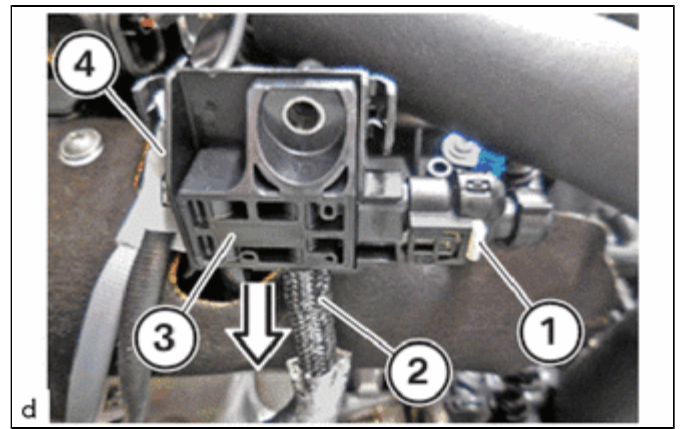
(a) Loosen E6 screw (1).



(b) Release the locks (arrows).

(c) Guide out and remove the sensor cover (2).

(d) Unlock and loosen connector (1).



- (e) Pull off the vacuum transmitting hose assembly (2) from the differential pressure sensor (3) in the direction of arrow and place it to one side.
- (f) Guide the differential pressure sensor (3) out of the holder (4) and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7X
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): DIFFERENTIAL PRESSURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL DIFFERENTIAL PRESSURE SENSOR

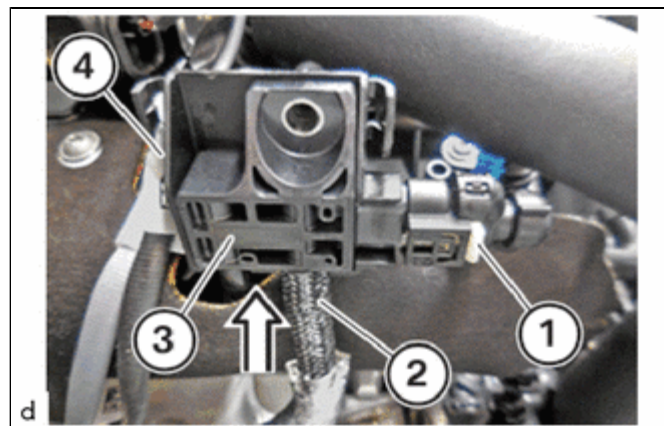
HINT:

Check the vacuum transmitting hose assembly on the pressure sensor and/or the differential pressure sensor. Replace hardened vacuum transmitting hose assembly. Check connection on pressure pipe and pressure sensor for leaks.

- (a) Thread in differential pressure sensor (3) on the holder (4) and install.

HINT:

The differential pressure sensor (3) must engage audibly.



- (b) Check the vacuum transmitting hose assembly (2) for damage and replace where required.

HINT:

The vacuum transmitting hose assembly (2) must not be hardened or damaged.

- (c) Push the vacuum transmitting hose assy (2) in the direction of arrow till the limit position on the differential pressure sensor (3).
 (d) Connect and lock the connector (1).

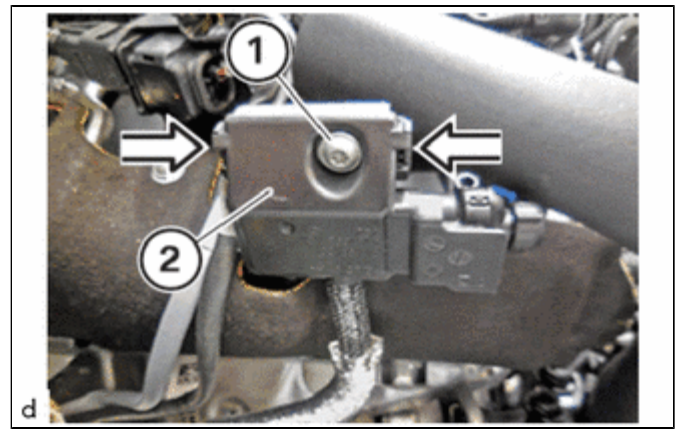
HINT:

The connector (1) must engage audibly.

- (e) Guide in and install sensor cover (2).

HINT:

The cover (2) must engage audibly into the locks (arrows).



(f) Tighten down E6 screw (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

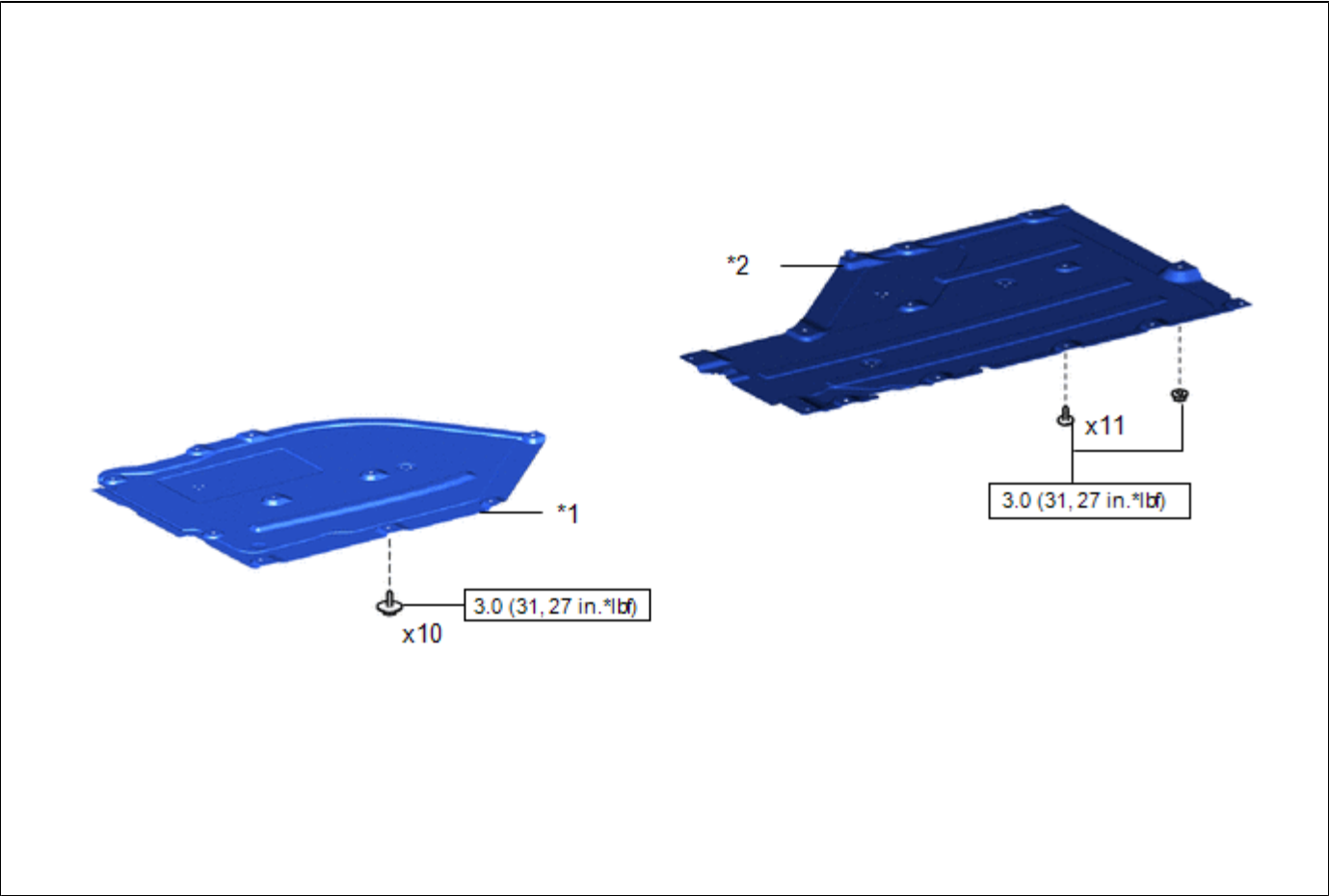
2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Center): COMPONENTS; 2020 MY Supra [03/2019 -]		

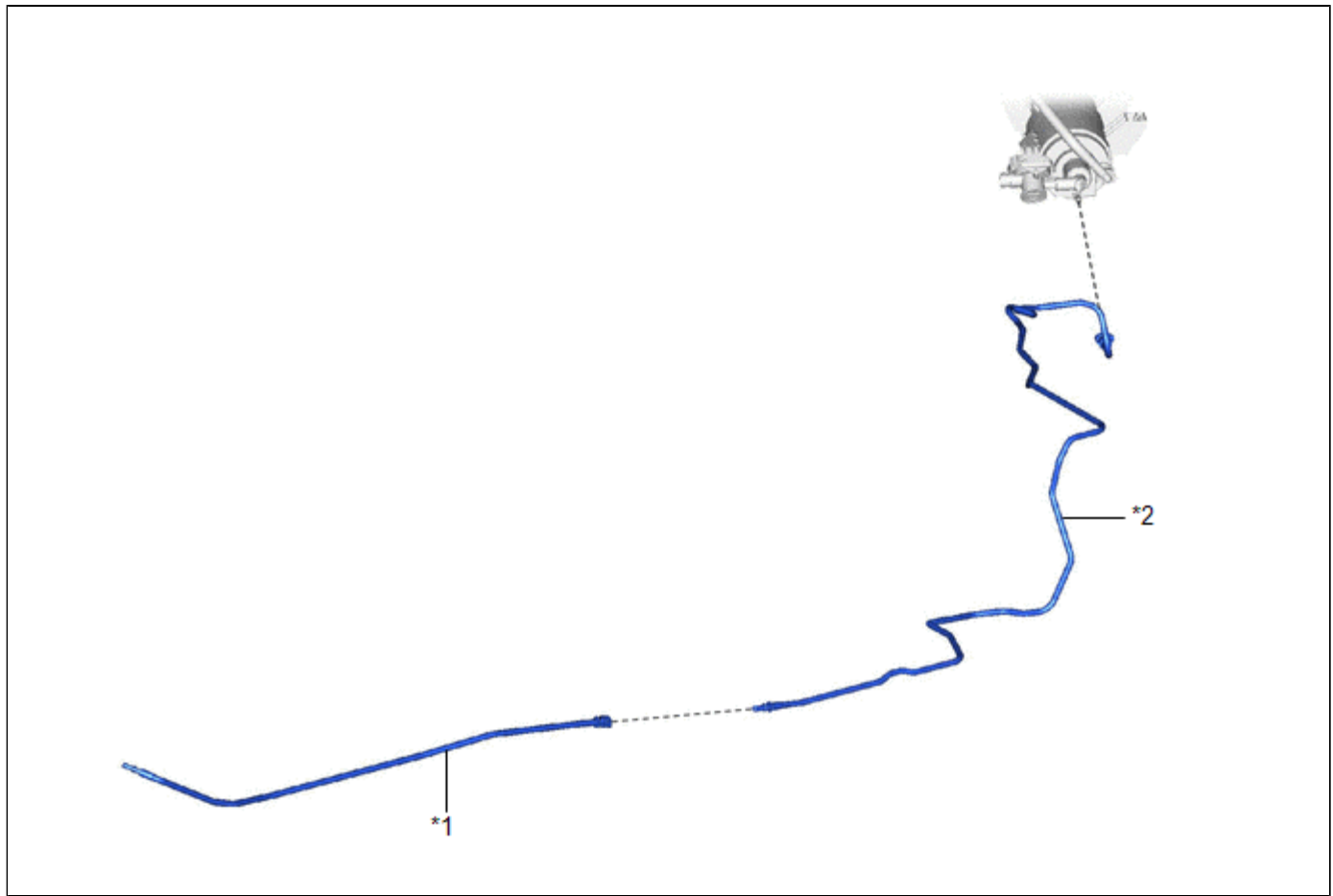
COMPONENTS

ILLUSTRATION



*1	FRONT FLOOR COVER	*2	FRONT FLOOR COVER LH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 2 FUEL EMISSION TUBE	*2	NO. 1 FUEL EMISSION TUBE
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Center): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

- Contact with hazardous fluids.

Hazardous to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

PROCEDURE

1. REMOVE FRONT FLOOR COVER LH

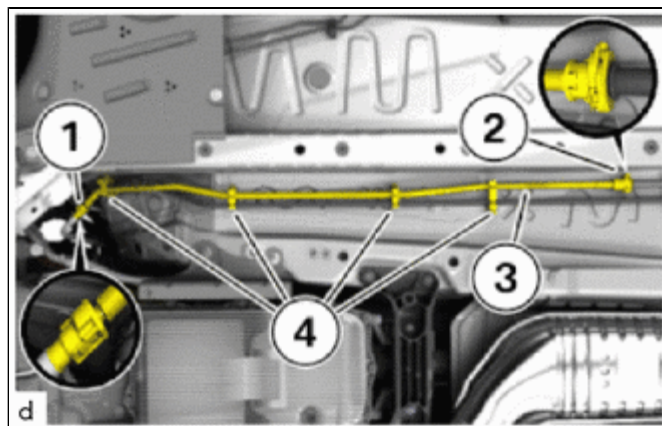
Click here [INFO](#)

2. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

3. REMOVE NO. 2 FUEL EMISSION TUBE

(a) Unlock and disconnect snap fastener (1).



(b) Unlock and disconnect snap fastener (2).

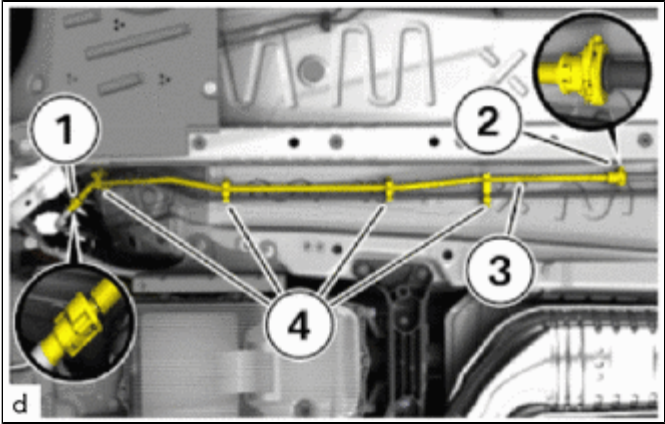
(c) Unclip No. 2 fuel emission tube (3) from the brackets (4) and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Center): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 FUEL EMISSION TUBE



- (a) Attach the No. 2 fuel emission tube and clip into the bracket.
- (b) Position snap fastener and lock.

2. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

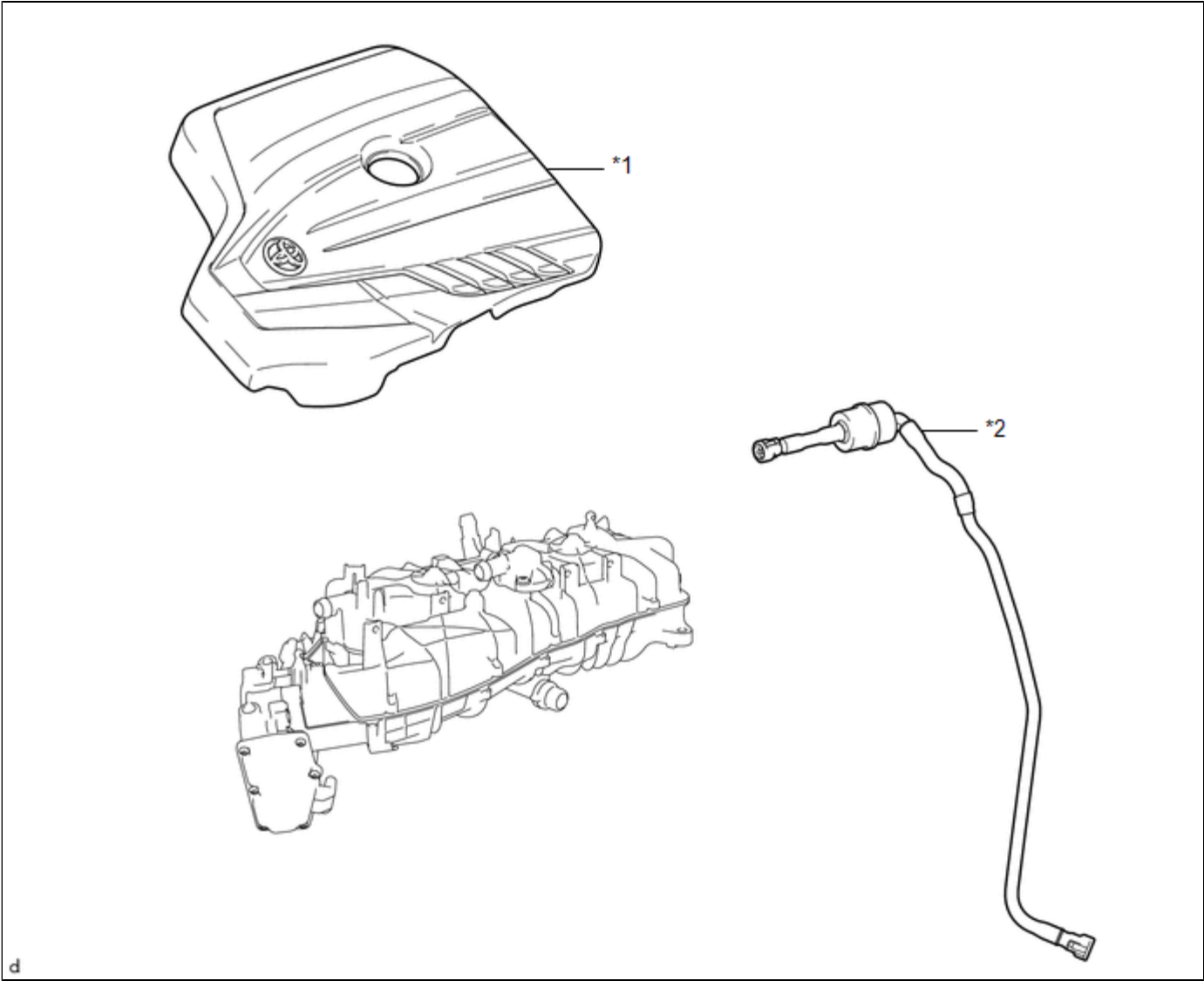
3. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD87
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Front): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	NO. 2 FUEL VAPOR FEED HOSE
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD88
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Front): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

2. REMOVE HOOD TO COWL TOP SEAL

Click here [INFO](#)

3. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

4. REMOVE NO.1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

6. REMOVE NO. 1 ENGINE COVER

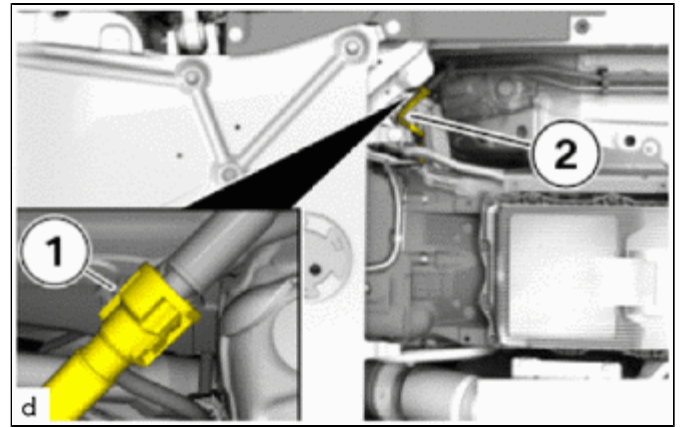
Click here [INFO](#)

7. REMOVE FRONT FLOOR COVER

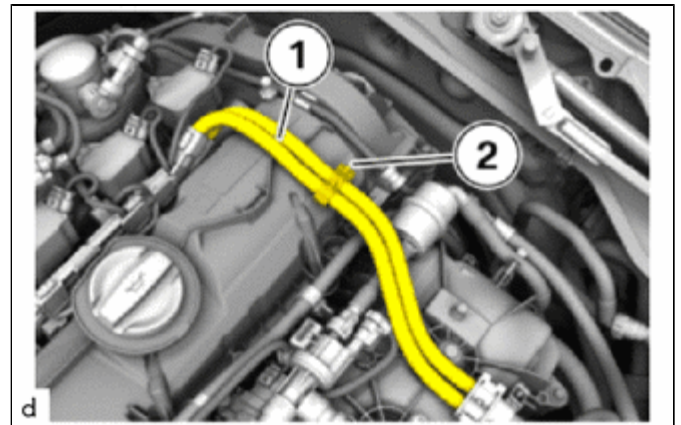
Click here [INFO](#)

8. REMOVE NO. 2 FUEL VAPOR FEED HOSE

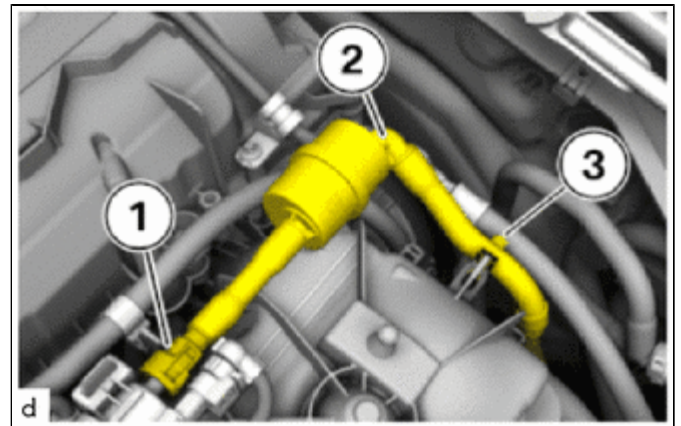
- (a) Unlock and disconnect snap fastener (1) of the No. 2 fuel vapor feed hose (2).



(b) Unclip the vehicle wiring harness (1) with the bracket (2) and place aside.



(c) Unlock and disconnect snap fastener (1) of the No. 2 fuel vapor feed hose (2).



(d) Unclip No. 2 fuel vapor feed hose (2) from the bracket (3).
 (e) Guide out No. 2 fuel vapor feed hose (2) upwards.

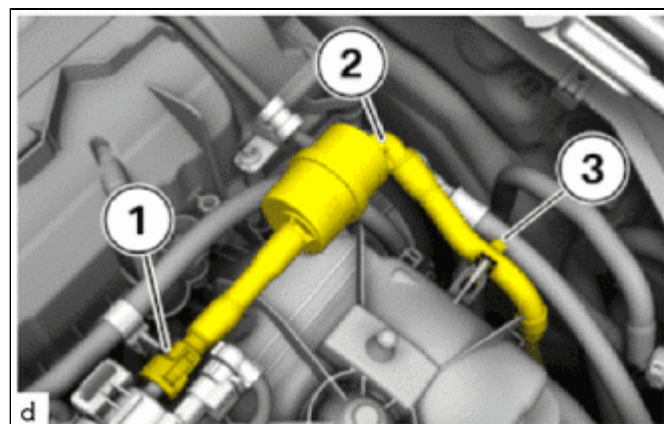
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD89
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Front): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 FUEL VAPOR FEED HOSE

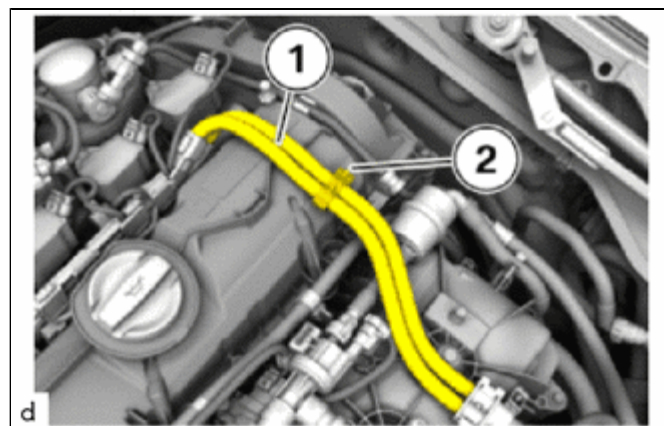
(a) Feed in the No. 2 fuel vapor feed hose from the top and position it.



(b) Clip the No. 2 fuel vapor feed hose into the bracket.

(c) Position snap fastener and lock.

(d) Position the wiring harness and clip into place with the bracket.



(e) Position snap fastener of the No. 2 fuel vapor feed hose and lock.

2. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

3. INSTALL NO.1 ENGINE COVER

Click here [INFO](#)

4. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

5. INSTALL NO.1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

6. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

7. INSTALL HOOD TO COWL TOP SEAL

Click here [INFO](#)

8. INSTALL FRONT WIPER MOTOR AND LINK ASSEMBLY

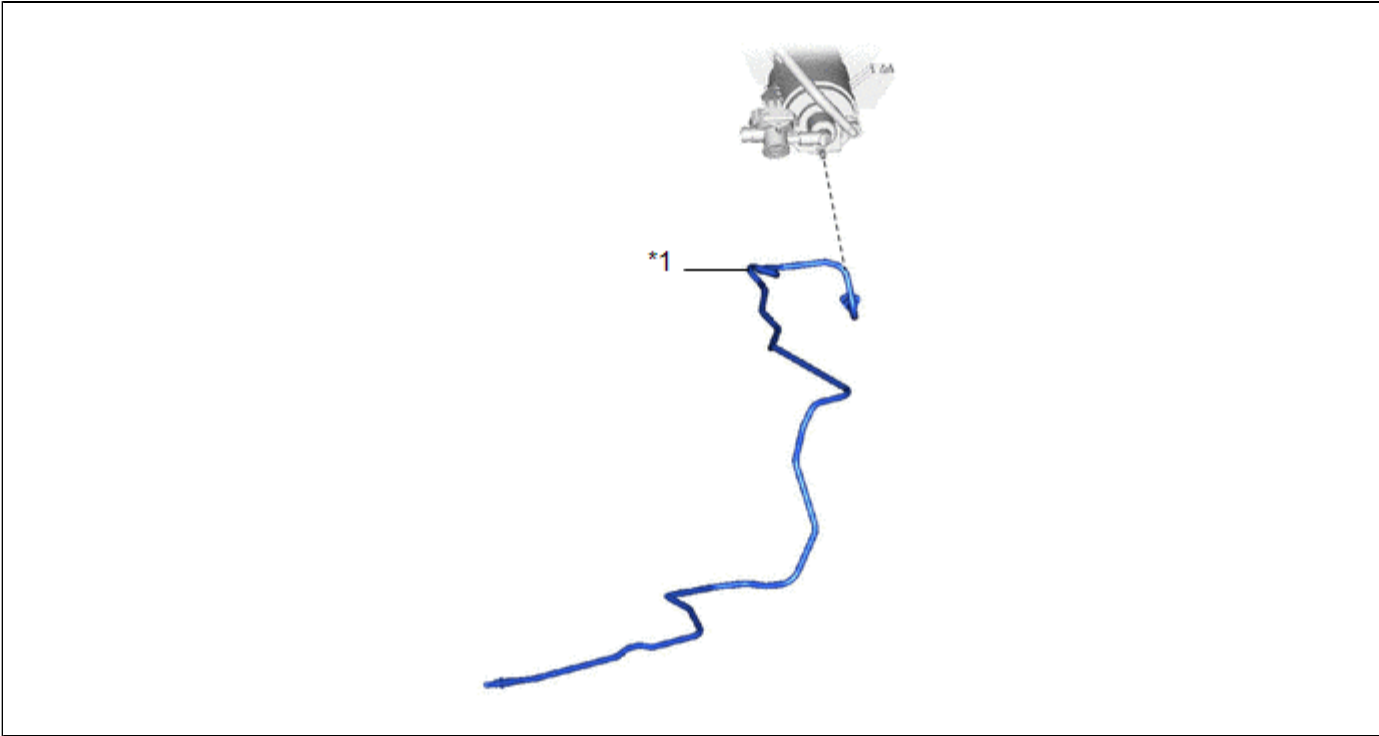
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Rear): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 FUEL EMISSION TUBE	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8E
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Rear): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle falling down from a vehicle lift.

Danger to life!

- Observe Owner's Handbook for vehicle hoist.
- Do not exceed the approved load-carrying capacity and weight distribution of the vehicle lift.
- Depending on the load situation of the vehicle: Perform weight compensation, particularly during removal of heavy components, e.g. engine.
- Make sure the vehicle lift complies with the relevant statutory or country-specific accident prevention regulations and is serviced according to the regulations.
- Observe the instructions of the repair instructions when positioning the swivel arms.

- Motor vehicle may slip off the vehicle hoist where components are supported.

Danger! Life-threatening injuries!

- Secure the vehicle hoist against lowering and lifting.

- Motor vehicle may slip off the vehicle hoist if the weight is distributed unevenly.

Danger! Life-threatening injuries!

- Ensure there is a specific weight compensation on the motor vehicle.

HINT:

Perform wheel alignment after installation.

PROCEDURE

1. REMOVE REAR SUSPENSION MEMBER SUB-ASSEMBLY

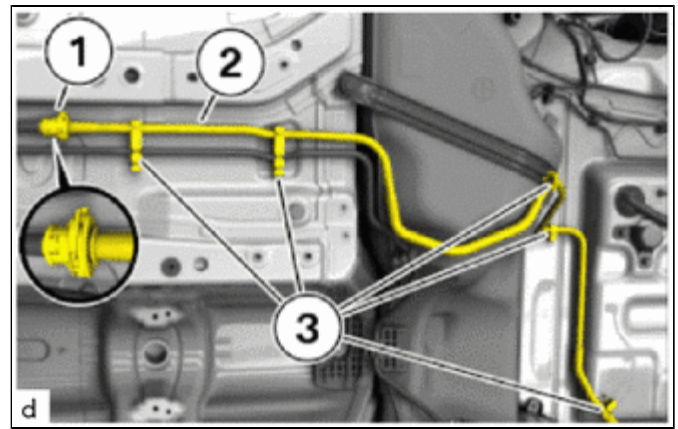
Click here [INFO](#)

2. REMOVE NO. 1 FUEL EMISSION TUBE (for Type A)

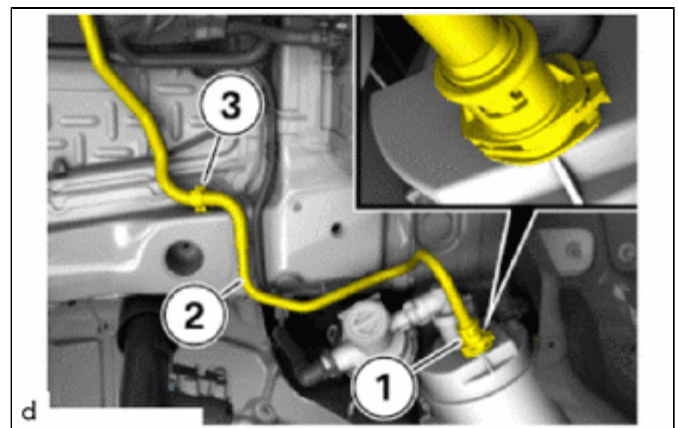
NOTICE:

Schematic diagram is for example purposes. Some parts may differ in certain details.

(a) Unlock and disconnect snap fastener (1).



(b) Unclip rear purge air line (2) from the holders (3).



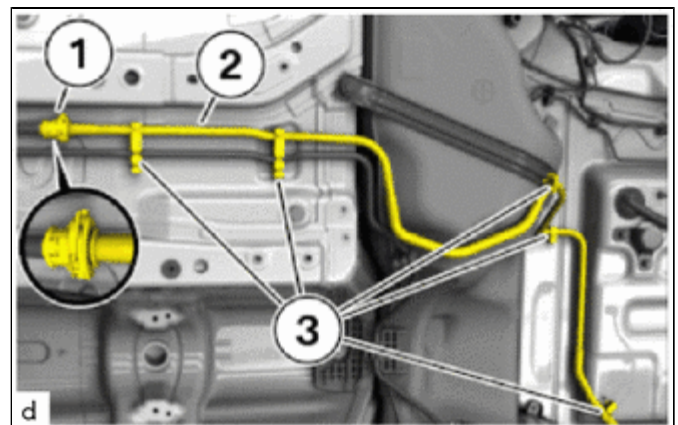
(c) Unlock and disconnect snap fastener (1).

(d) Feed out and remove No. 1 fuel emission tube (2) from the holder (3).

3. REMOVE NO. 1 FUEL EMISSION TUBE (for Type B)

NOTICE:

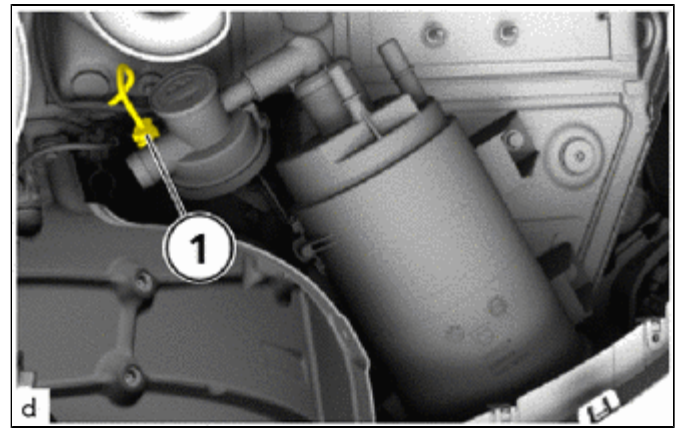
Schematic diagram is for example purposes. Some parts may differ in certain details.



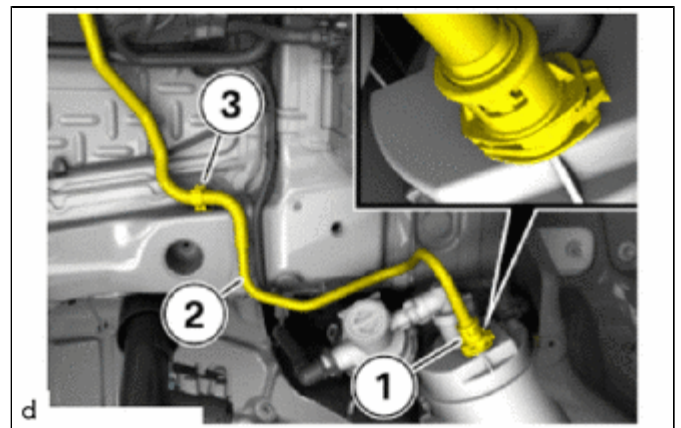
(a) Unlock and disconnect snap fastener (1).

(b) Unclip rear purge air line (2) from the holders (3).

(c) Unlock and disconnect the plug connection (1) (on the active carbon filter).



(d) Unlock and disconnect snap fastener (1).



(e) Feed out and remove No. 1 fuel emission tube (2) from the holder (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8F
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL EMISSION TUBE (for Rear): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

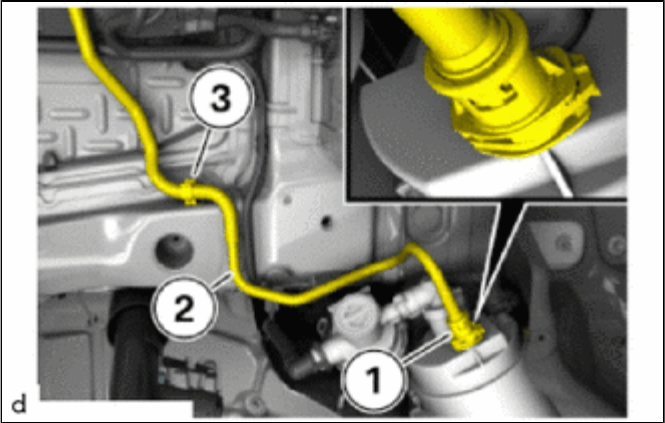
PROCEDURE

1. INSTALL NO. 1 FUEL EMISSION TUBE (for Type B)

NOTICE:

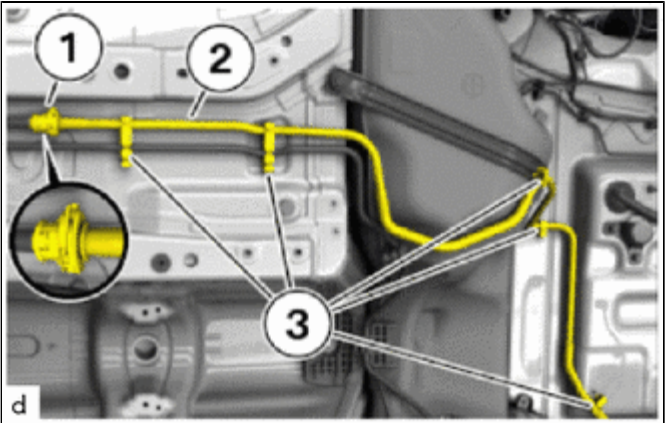
Schematic diagram is for example purposes. Some parts may differ in certain details.

(a) Feed in No. 1 fuel emission tube and clip it onto the holder.



- (b) Position snap fastener and lock.
- (c) Connect and lock connector (on the active carbon filter).

(d) Clip the purge air line into the holder.



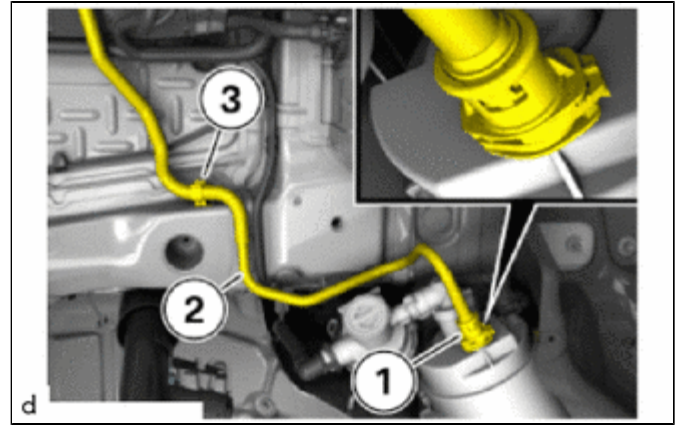
(e) Position snap fastener and lock.

2. INSTALL NO. 1 FUEL EMISSION TUBE (for Type A)

NOTICE:

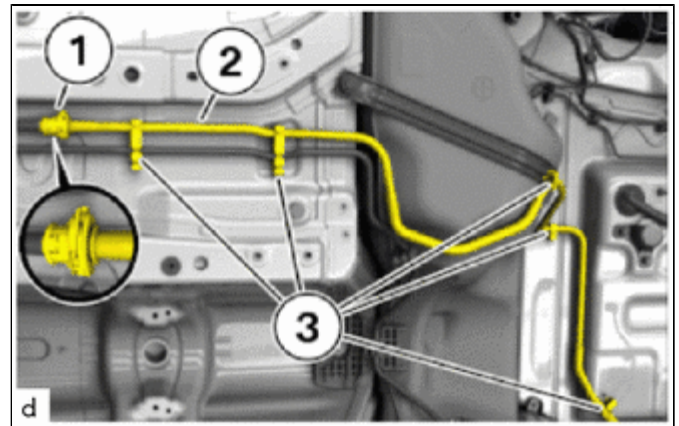
Schematic diagram is for example purposes. Some parts may differ in certain details.

(a) Feed in No. 1 fuel emission tube and clip it onto the holder.



(b) Position snap fastener and lock.

(c) Clip the purge air line into the holder.



(d) Position snap fastener and lock.

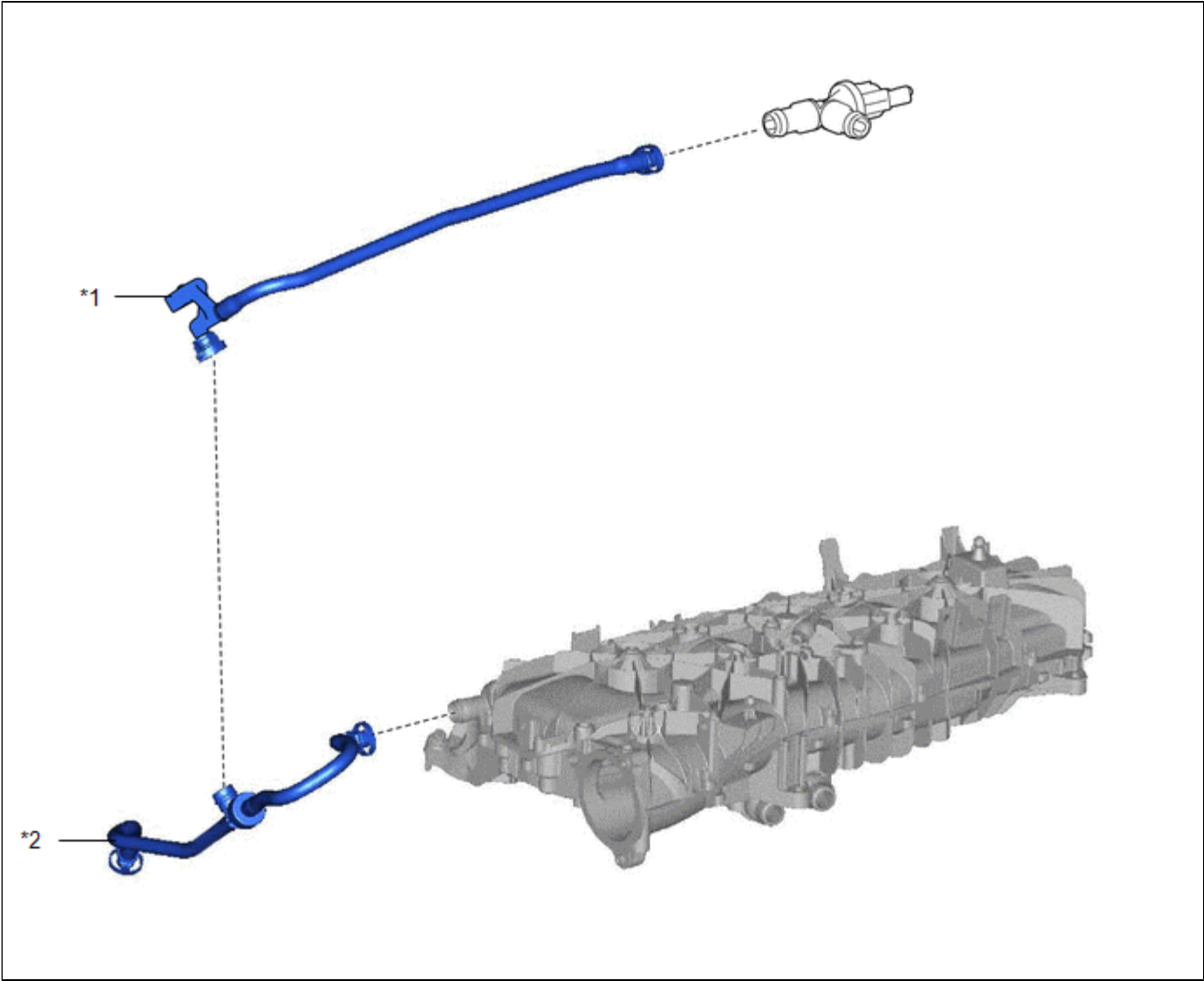
3. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8G
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL TANK VENTILATION HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO.1 FUEL VAPOR FEED HOSE	*2	NO.4 FUEL VAPOR FEED HOSE
----	---------------------------	----	---------------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL TANK VENTILATION HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

2. REMOVE TANK VENTILATION LINE

NOTICE:

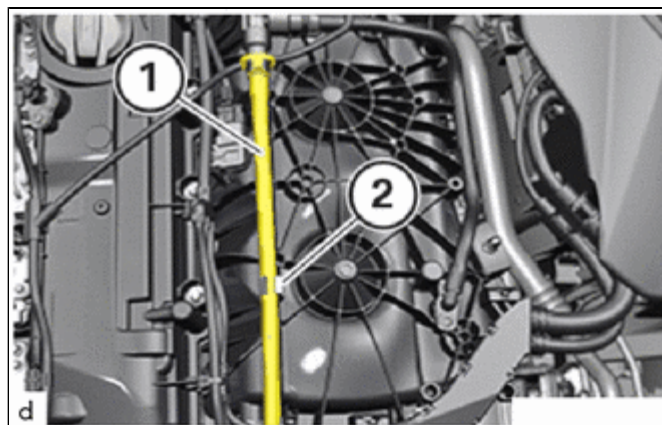
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

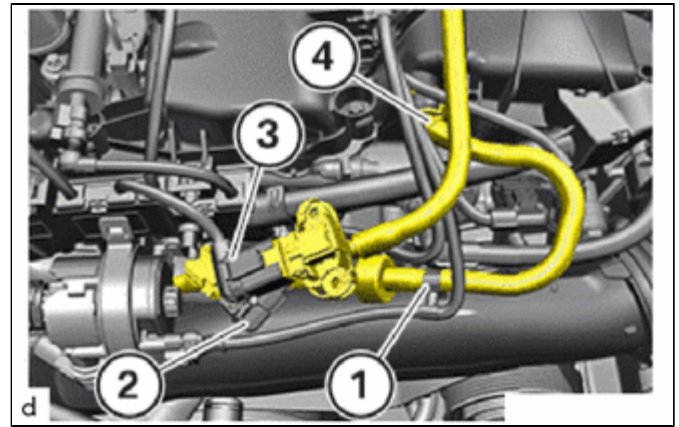
Click here [INFO](#)

(a) Unlock and disconnect the tank ventilation line (1).



(b) Loosen the tank ventilation line (1) from the clamp (2).

(c) Unclip clamp (1).



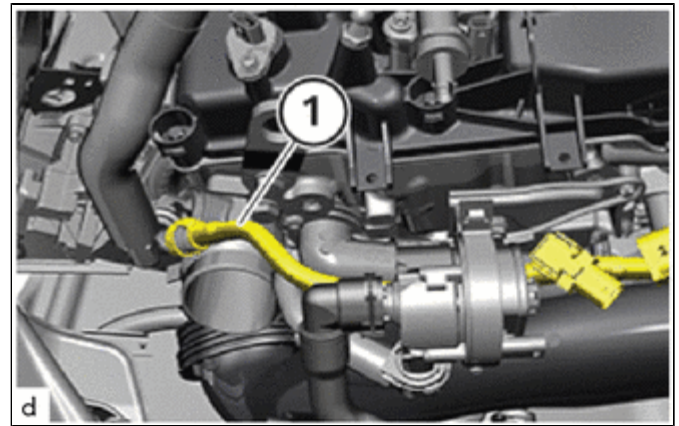
(d) Unlock plug connection (2) and disconnect.

(e) Unlock plug connection (3) and disconnect.

(f) Unlock and disconnect the tank ventilation line (4).

(g) Unlock and disconnect the tank ventilation line (1).

(h) Thread out and remove the tank ventilation line (1).



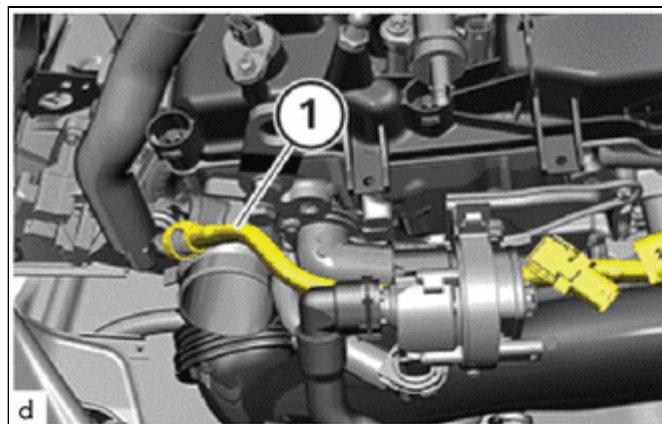
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL TANK VENTILATION HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TANK VENTILATION LINE

(a) Insert and install the tank ventilation line (1).



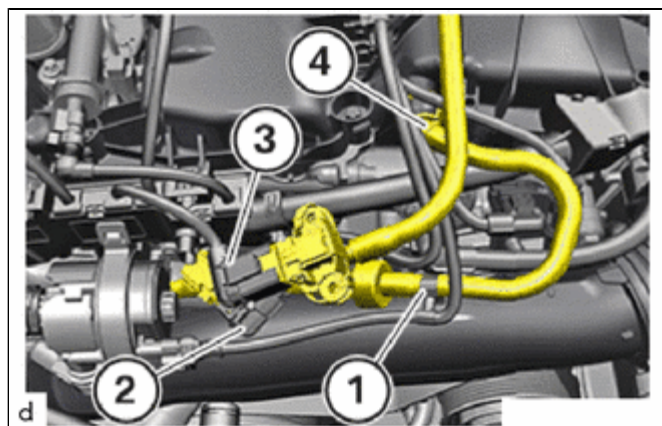
(b) Connect and lock the tank ventilation line (1).

HINT:

The tank ventilation line (1) must engage audibly.

(c) Connect and lock the tank ventilation line (4).

(1) The tank ventilation line (4) must engage audibly.



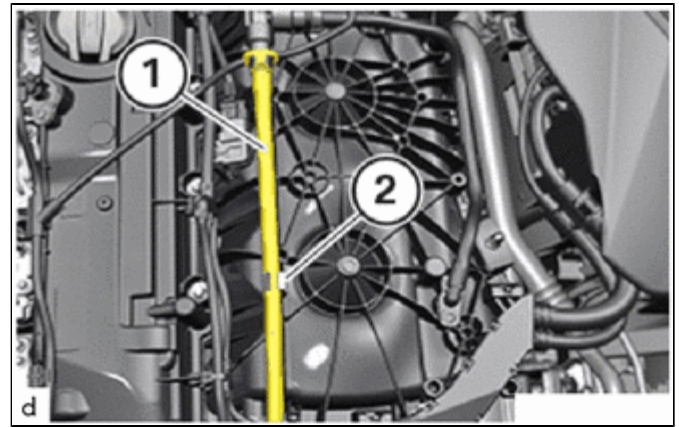
(d) Connect connectors (2) and (3) and lock.

HINT:

The connectors (2) and (3) must audibly engage.

(e) Secure the clamp (1).

(f) Insert and install the tank ventilation line (1) on the clamp (2).



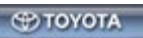
(g) Connect and lock the tank ventilation line (1).

HINT:

The tank ventilation line (1) must engage audibly.

2. INSTALL AIR CLEANER HOSE ASSEMBLY

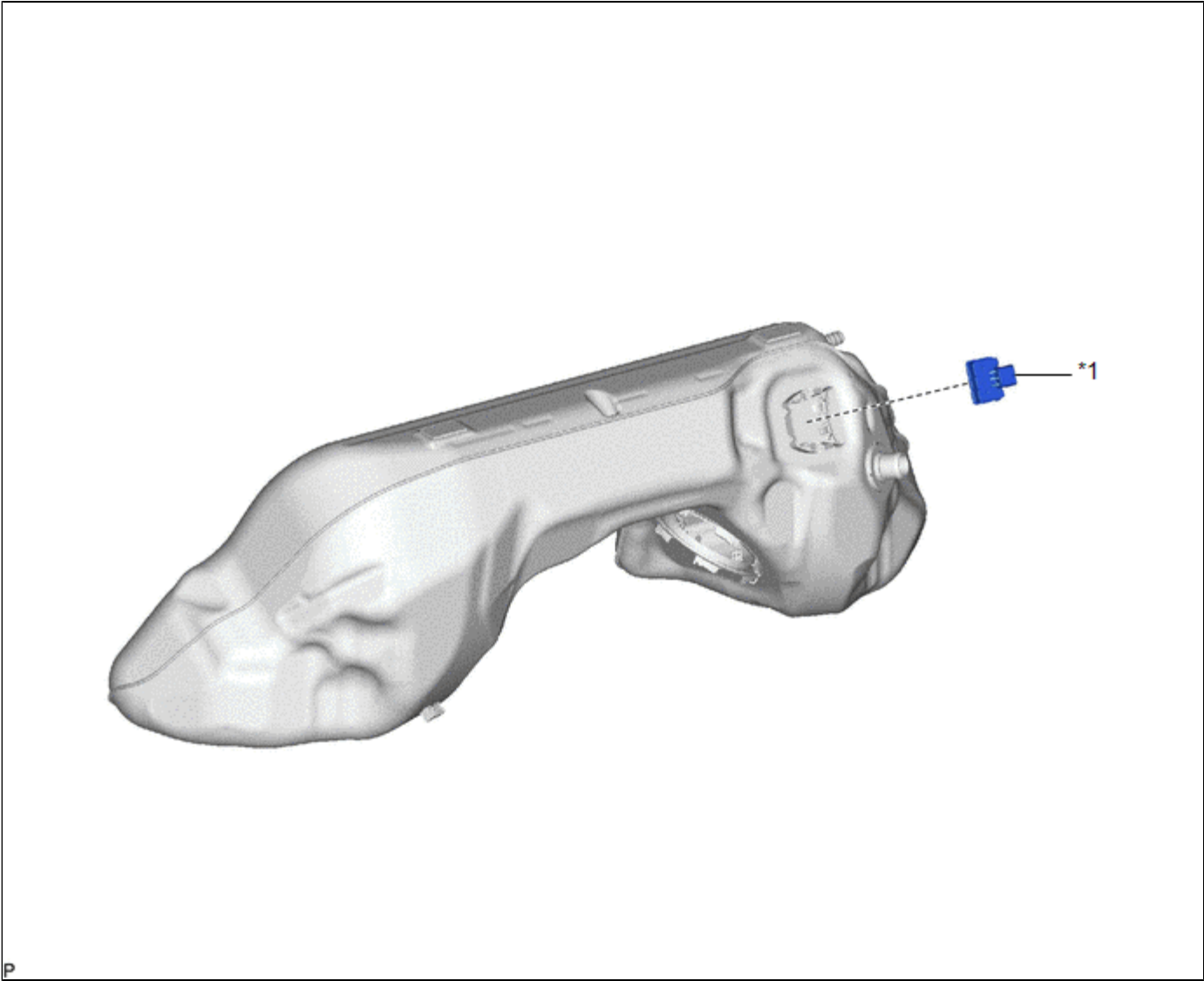
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7M
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL TEMPERATURE SENSOR	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7N
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

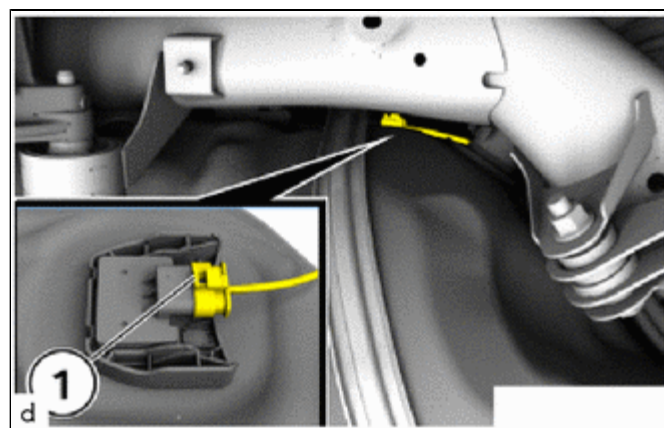
PROCEDURE

1. REMOVE FUEL TANK

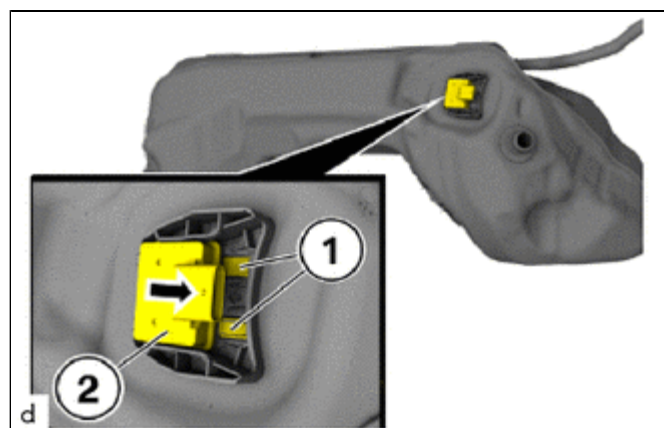
Click here [INFO](#)

2. REMOVE FUEL TEMPERATURE SENSOR

(a) Unlock plug connection (1) and disconnect.



(b) Unlock the locks (1).



(c) Push the fuel temperature sensor (2) out of the holder in the direction of the arrow.

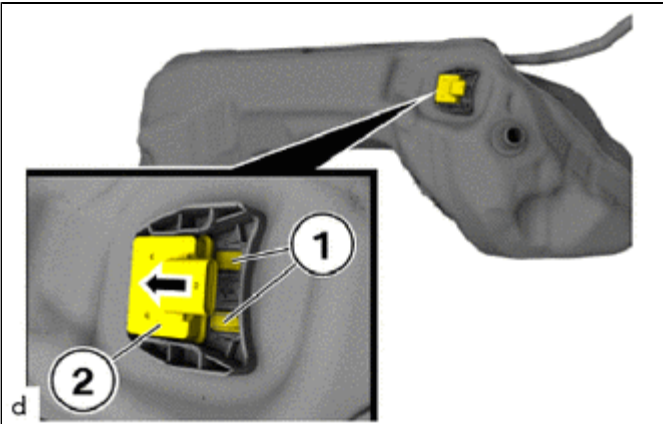
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD70
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): FUEL TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FUEL TEMPERATURE SENSOR

- (a) Push the fuel temperature sensor (2) in direction of arrow into the bracket until the locks (1) audibly engage.



- (b) Connect connectors and lock.

2. INSTALL FUEL TANK

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): MONOLITHIC CONVERTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE OXYGEN SENSOR

Click here [INFO](#)

2. REMOVE WIDE RANGE AIR FUEL RATIO SENSOR

Click here [INFO](#)

3. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

4. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

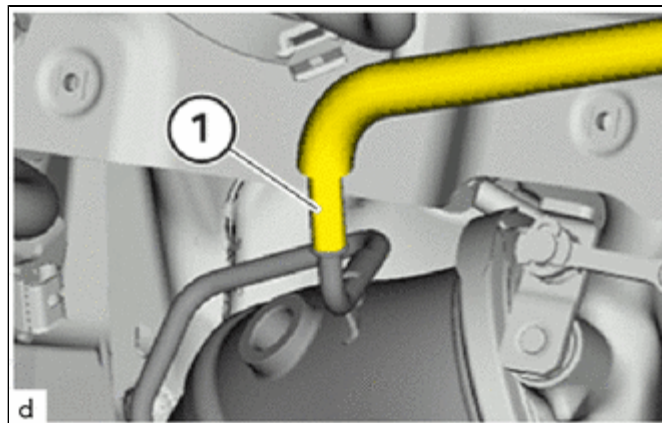
- Heavy component.

Heavy components can lead to injury or damage.

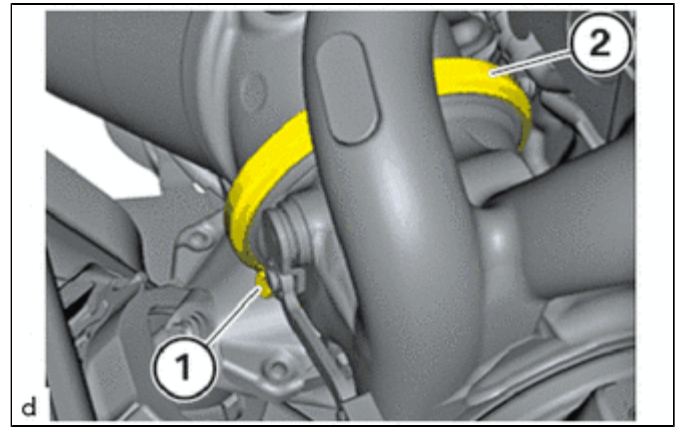
- Remove and install heavy components with the aid of another person/other persons.

(a) w/ Differential Pressure Sensor

(1) Pull off the vacuum transmitting hose assembly (1).

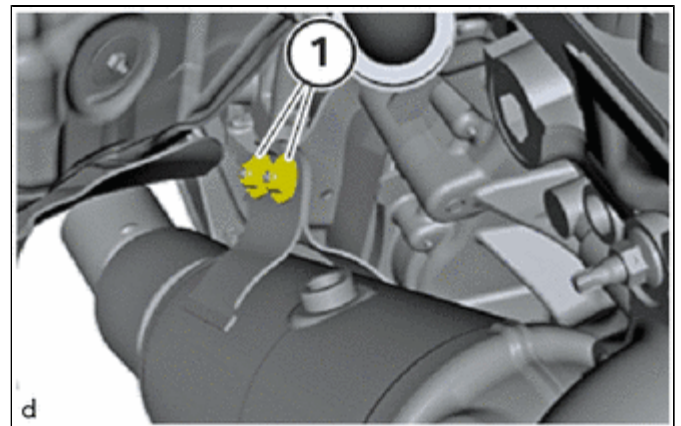


(b) Loosen screw (1).



(c) Bend up exhaust pipe clamp (2).

(d) Loosen nuts (1).



(e) Remove the exhaust manifold converter sub-assembly toward the bottom.

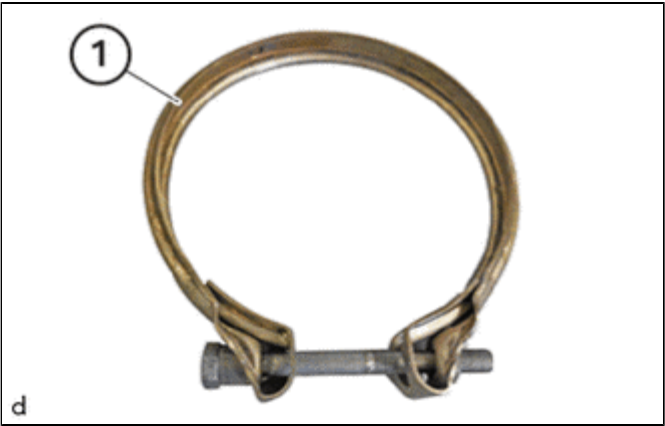
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD80
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): MONOLITHIC CONVERTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

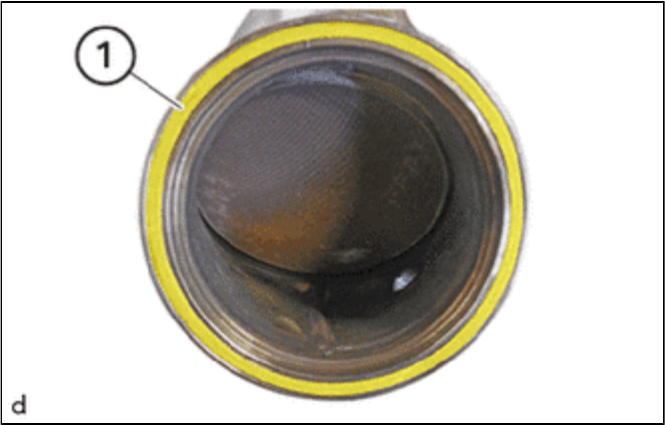
PROCEDURE

1. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

(a) Replace the exhaust pipe clamp (1).

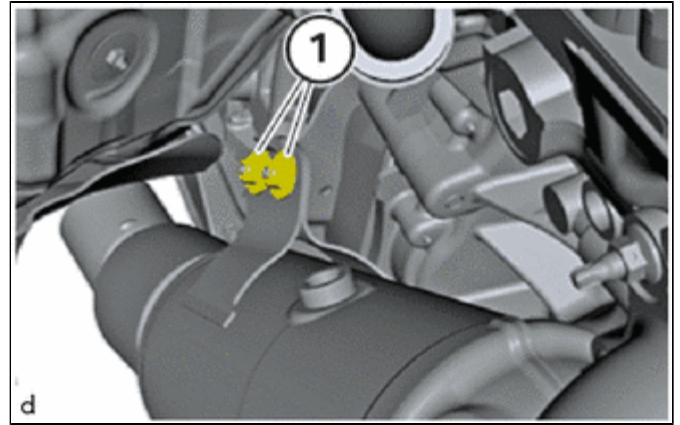


(b) Replace gasket (1).



(c) Feed in and install exhaust manifold converter sub-assembly together with the exhaust pipe clamp.

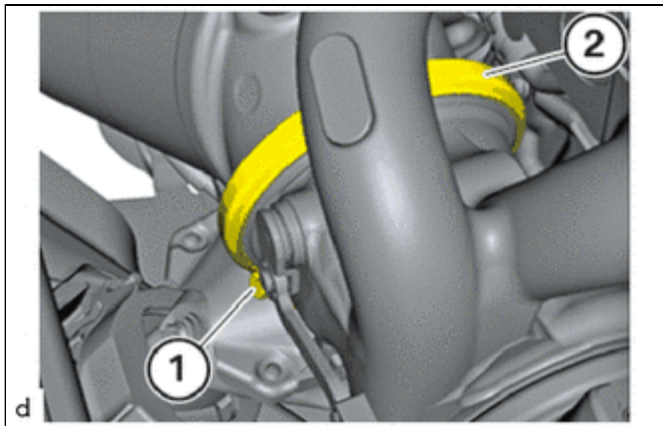
(d) Replace nuts (1).



(e) Screw on nuts (1) by a few turns.

HINT:

- Note the installation position of the component. The component may be installed in various installation positions.

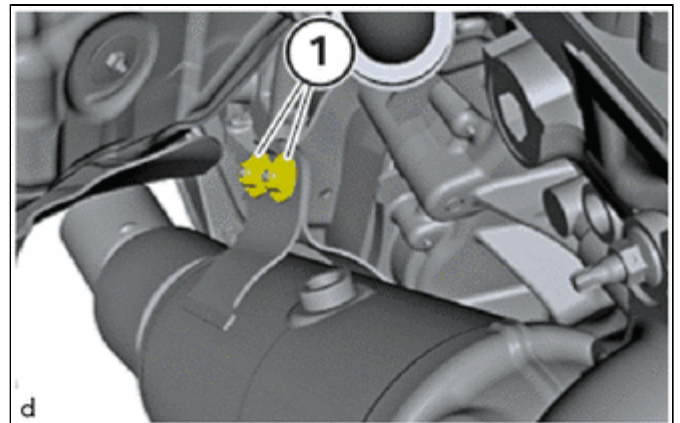


(f) Position exhaust pipe clamp (2).

(g) Tighten down screw (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



(h) Tighten nuts (1).

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

(i) w/ Differential Pressure Sensor

(1) Connect the vacuum transmitting hose assembly.

2. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

3. INSTALL WIDE RANGE AIR FUEL RATIO SENSOR

Click here [INFO](#)

4. INSTALL OXYGEN SENSOR

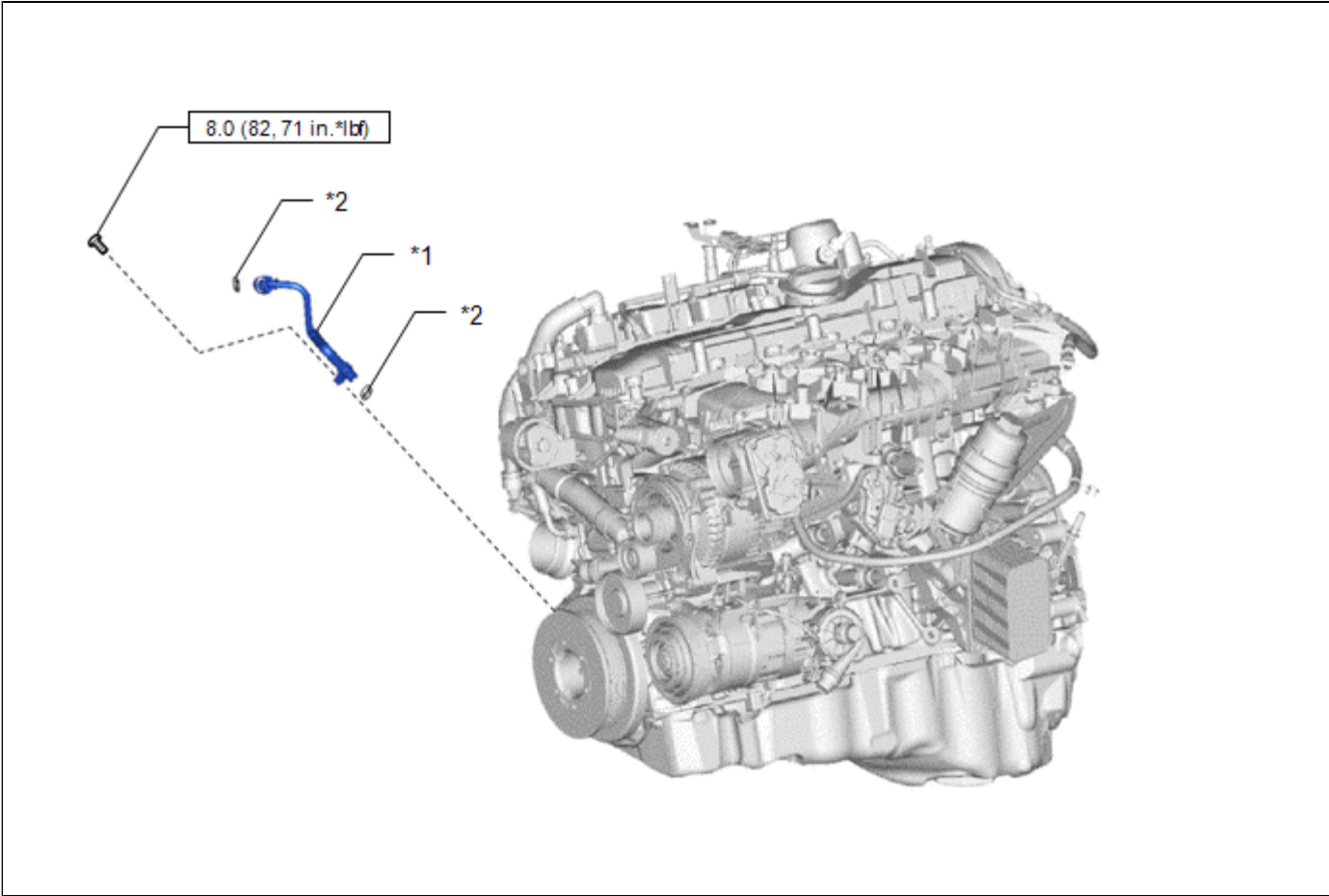
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD81
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PCV VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VENTILATION PIPE SUB-ASSEMBLY	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD82
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PCV VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE COMPRESSOR INLET ELBOW

Click here [INFO](#)

2. REMOVE VENTILATION PIPE SUB-ASSEMBLY

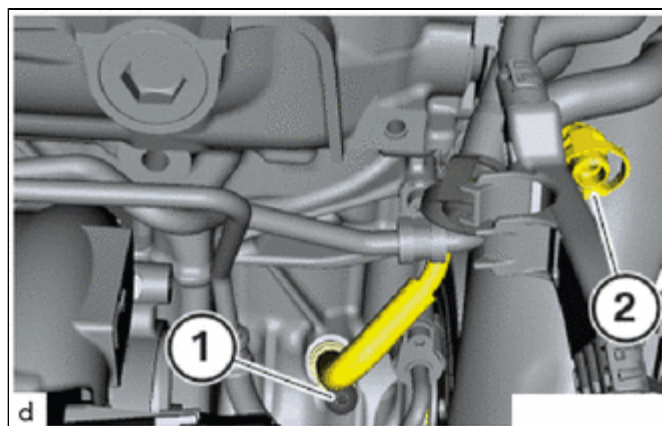
CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

(a) Loosen T30 bolt (1).



(b) Remove ventilation pipe sub-assembly for the crankcase ventilation (2).

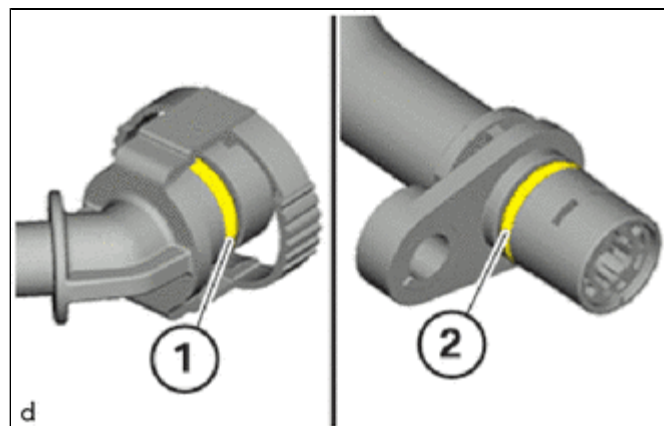
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD83
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PCV VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL VENTILATION PIPE SUB-ASSEMBLY

(a) Check the O-rings (1) and (2) for damage; replace if necessary.



(b) Position ventilation pipe sub-assembly for crankcase ventilation.

(c) Tighten down T30 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

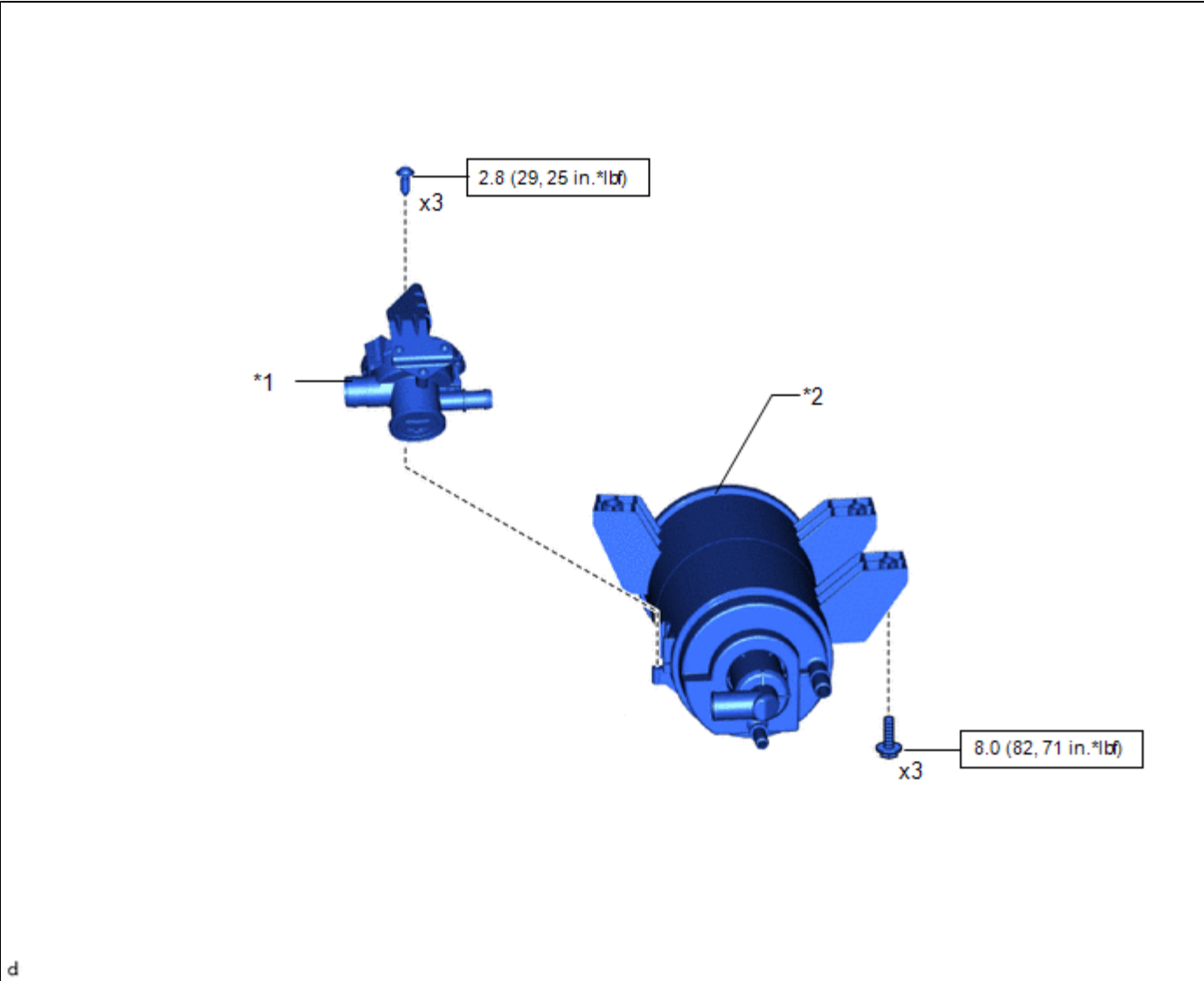
2. INSTALL COMPRESSOR INLET ELBOW

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7P
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PRESSURE SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	PRESSURE SWITCH	*2	CHARCOAL CANISTER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7Q
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PRESSURE SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

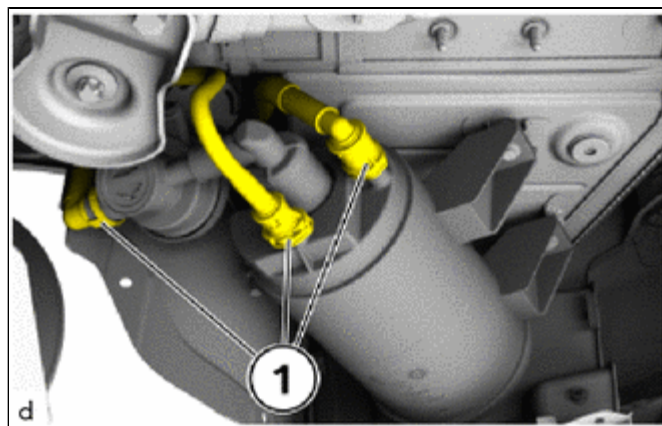
PROCEDURE

1. REMOVE MAIN MUFFLER HEAT INSULATOR RH

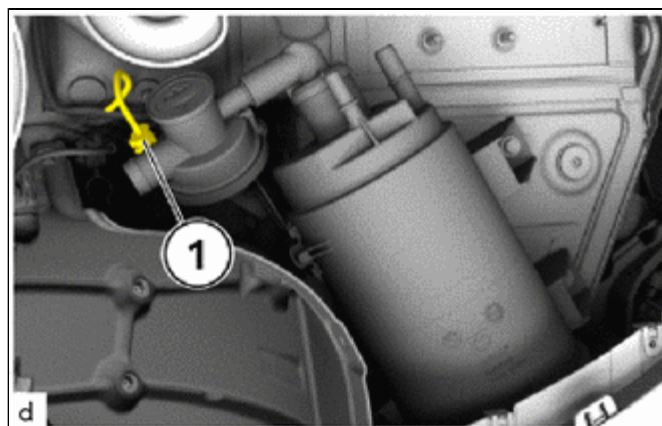
Click here [INFO](#)

2. REMOVE PRESSURE SWITCH

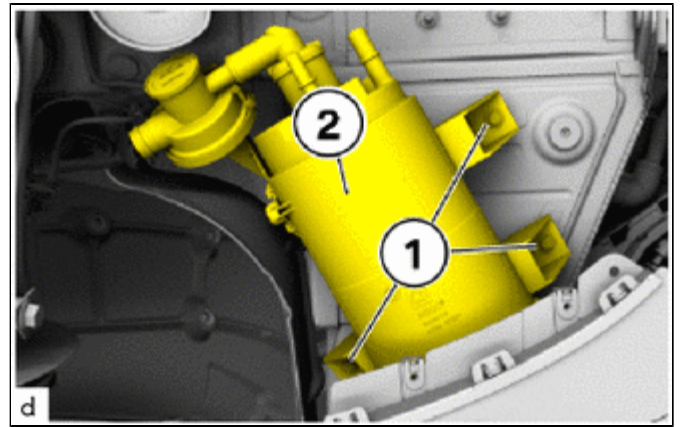
(a) Unlock and pull off the snap fasteners (1).



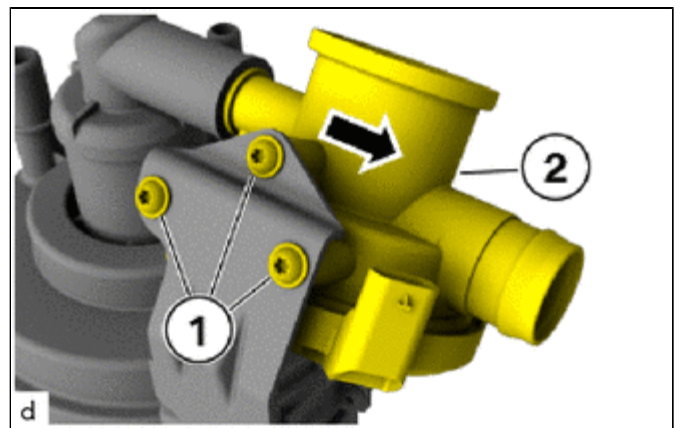
(b) Unlock plug connection (1) and disconnect.



(c) Loosen screws (1).



(d) Remove charcoal canister sub-assembly (2).



(e) Loosen screws (1).

(f) Pull off pressure switch (2) in direction of arrow.

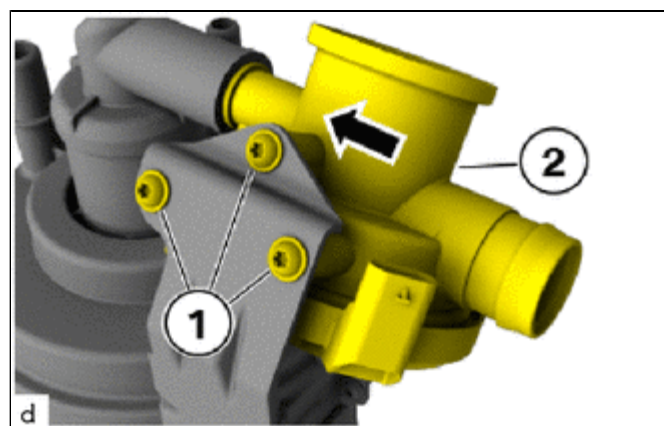
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD7R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PRESSURE SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL PRESSURE SWITCH

- (a) Push pressure switch (2) in direction of arrow into the fuel filter assembly.

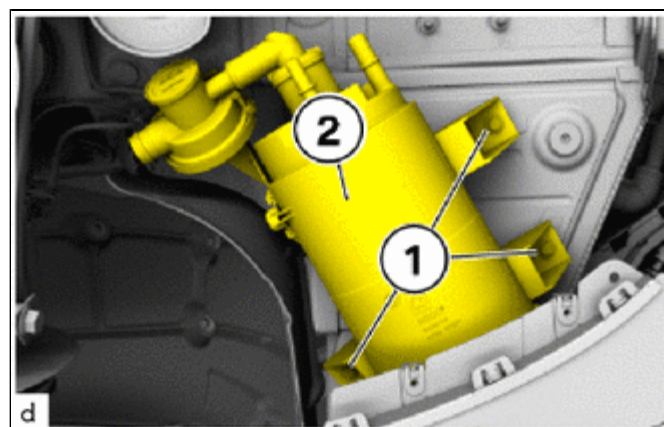


- (b) Tighten the screws (1).

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

- (c) Position charcoal canister sub-assembly (2).



- (d) Tighten the screws (1).

Torque:

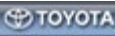
8.0 N·m {82 kgf·cm, 71 in·lbf}

- (e) Connect connectors and lock.

- (f) Connect and lock the snap fasteners.

2. INSTALL MAIN MUFFLER HEAT INSULATOR RH

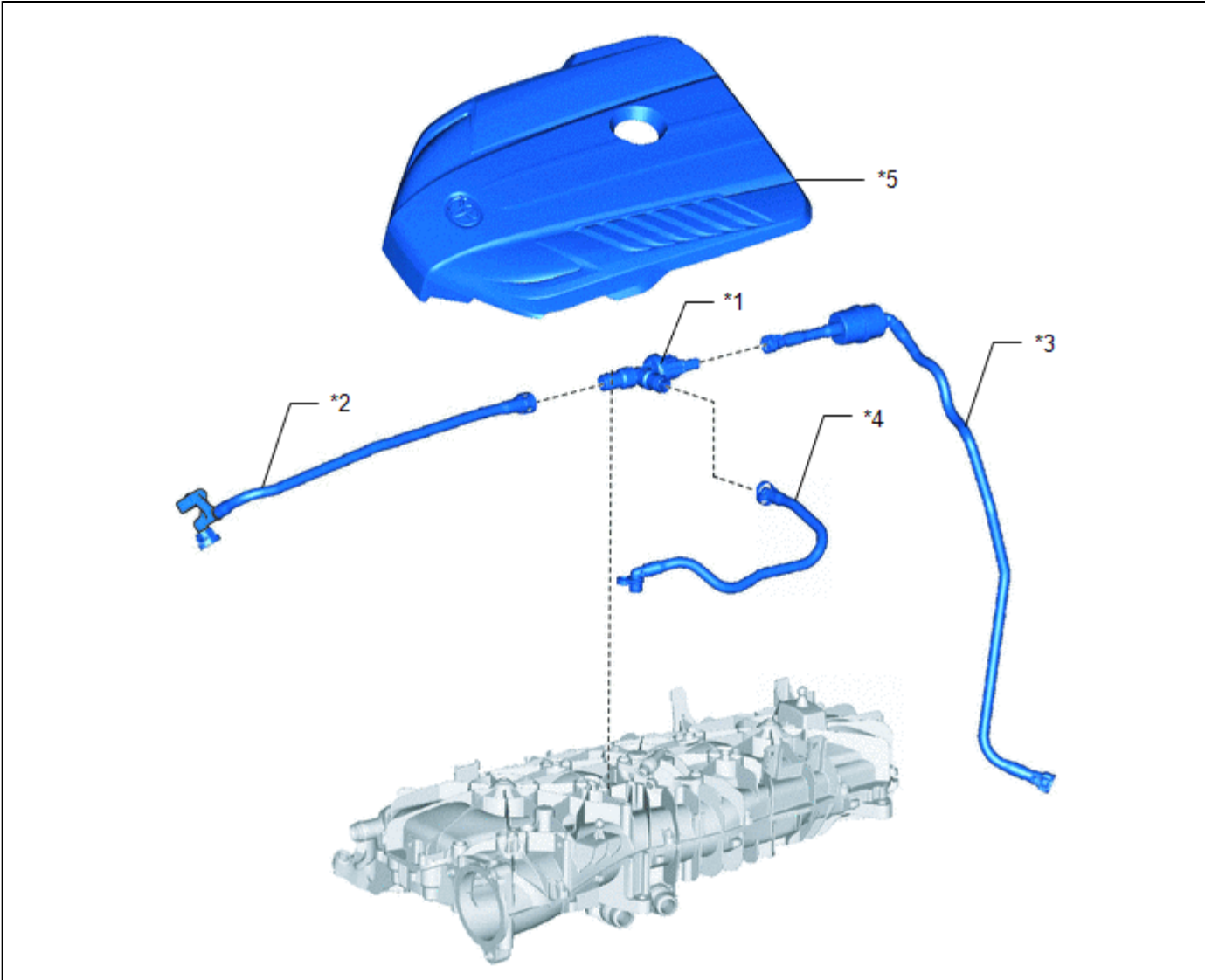
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD84
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PURGE VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 CHECK VALVE	*2	NO. 1 FUEL VAPOR FEED HOSE
*3	NO. 2 FUEL VAPOR FEED HOSE	*4	NO. 3 FUEL VAPOR FEED HOSE
*5	NO. 1 ENGINE COVER SUB-ASSEMBLY	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD85
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PURGE VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 CHECK VALVE

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

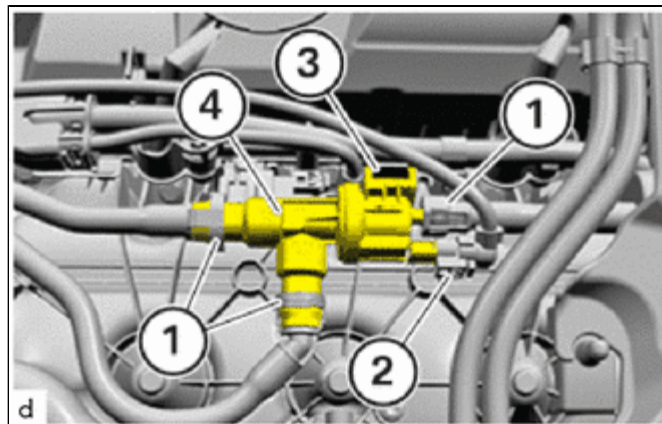
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Unlock and disconnect the tank ventilation lines (1).



(b) Unlock and loosen connector (2).

(c) Remove the No. 1 check valve (4) from the holder (3).



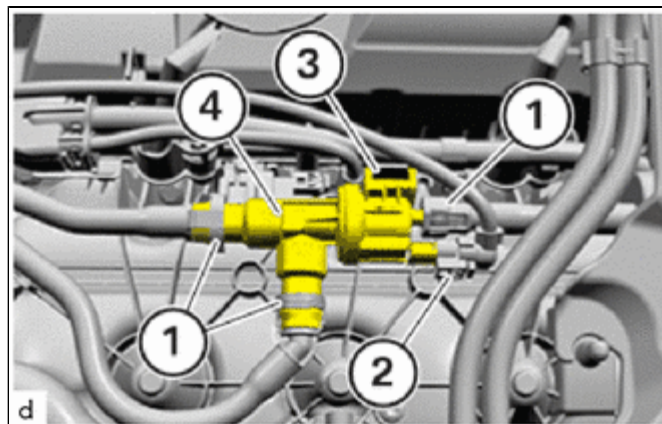
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD86
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): PURGE VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 CHECK VALVE

(a) Secure the No. 1 check valve (4) to the holder (3).



(b) Connect and lock the tank ventilation lines (1).

(1) Make sure you can hear the tank ventilation lines (1) engage.

(c) Connect and lock the connector (2).

(1) The connector (2) must engage audibly.

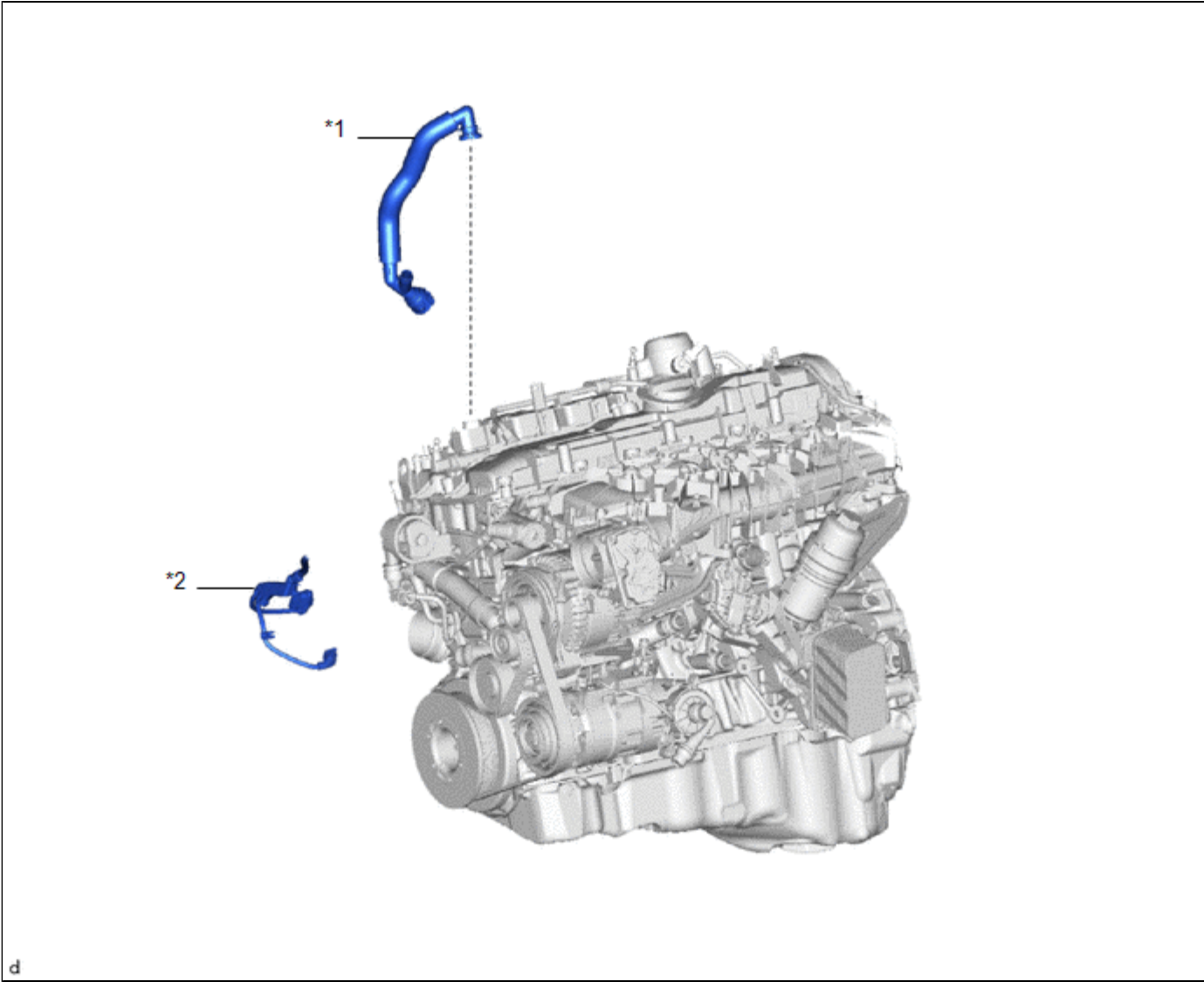
2. INSTALL NO.1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8J
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): VENTILATION HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VENTILATION HOSE	*2	NO. 2 ENGINE WIRE
----	------------------	----	-------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8K
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): VENTILATION HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

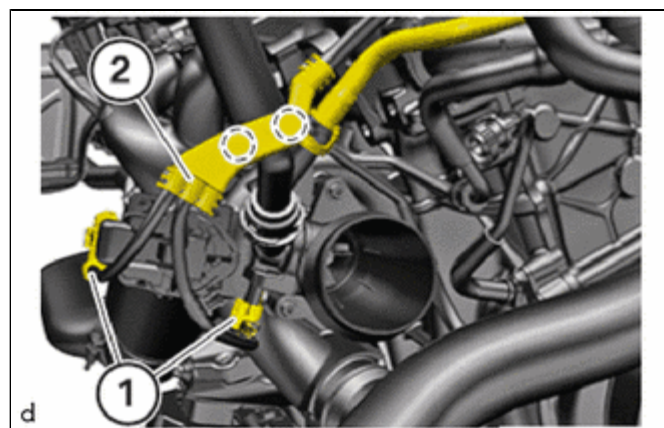
PROCEDURE

1. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

2. REMOVE VENTILATION HOSE

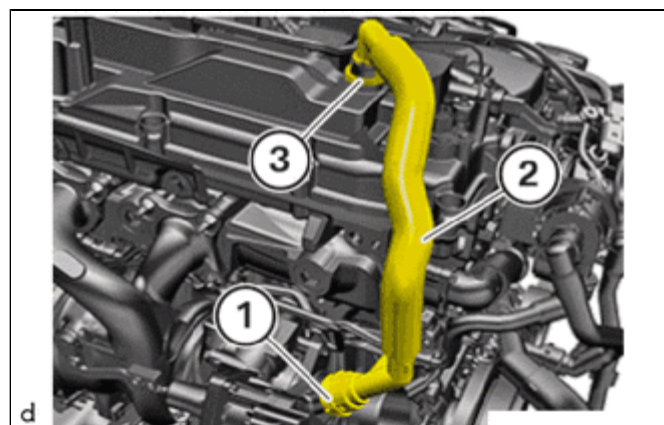
(a) Unlock and disconnect plug connections (1).



(b) Unclip the cable clips (2) from the ventilation hose in the marked areas.

(c) Unlock the lower ventilation line and pull it off the engine ventilation line.

(d) Unlock the lock (1) and disconnect the ventilation hose (2).



(e) Unlock the lock (3).

(f) Disconnect the engine ventilation line (2) from the cylinder head cover sub-assembly and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD8L
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (EMISSION CONTROL): VENTILATION HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

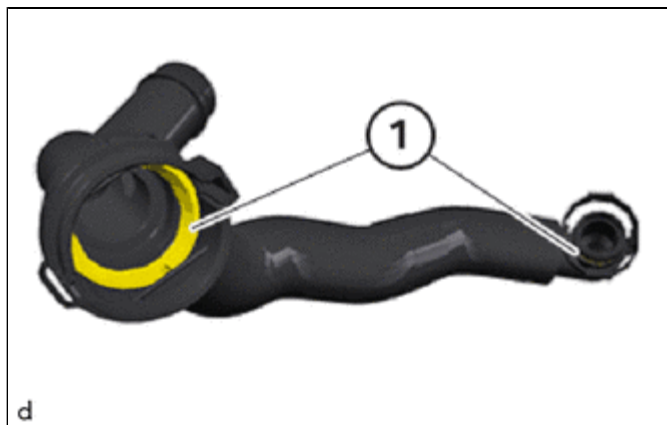
INSTALLATION

PROCEDURE

1. INSTALL VENTILATION HOSE

HINT:

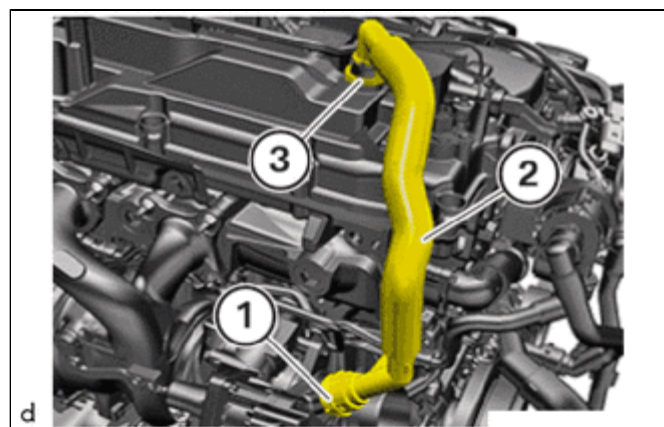
Latch mechanisms, guides and mounting elements must not be damaged or missing.



(a) Check the seals (1) for damage and replace the ventilation hose where required.

(b) Connect the ventilation hose (2) to the cylinder head cover and lock in place.

(1) The lock (3) must audibly engage.



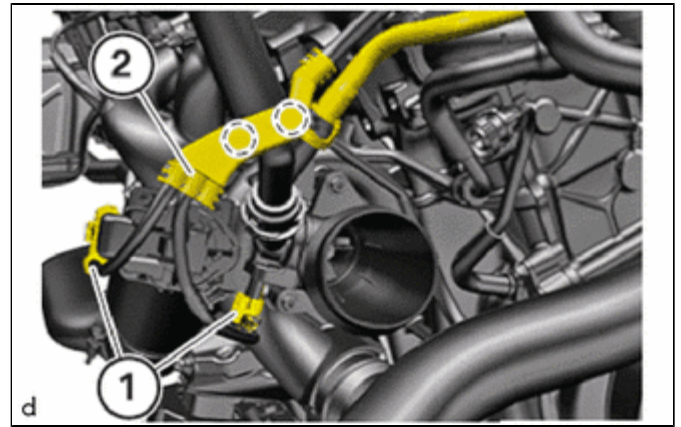
(c) Connect ventilation hose (2) at the connecting branch of the exhaust turbocharger and lock.

(1) The lock (1) must audibly engage.

(d) Connect the ventilation hose on the bottom to the

ventilation hose and lock.

(1) Lock must audibly engage.



(e) Clip in cable clips (2) where marked on the ventilation hose.

(f) Connect connectors (1) and lock.

(1) The locks must engage audibly.

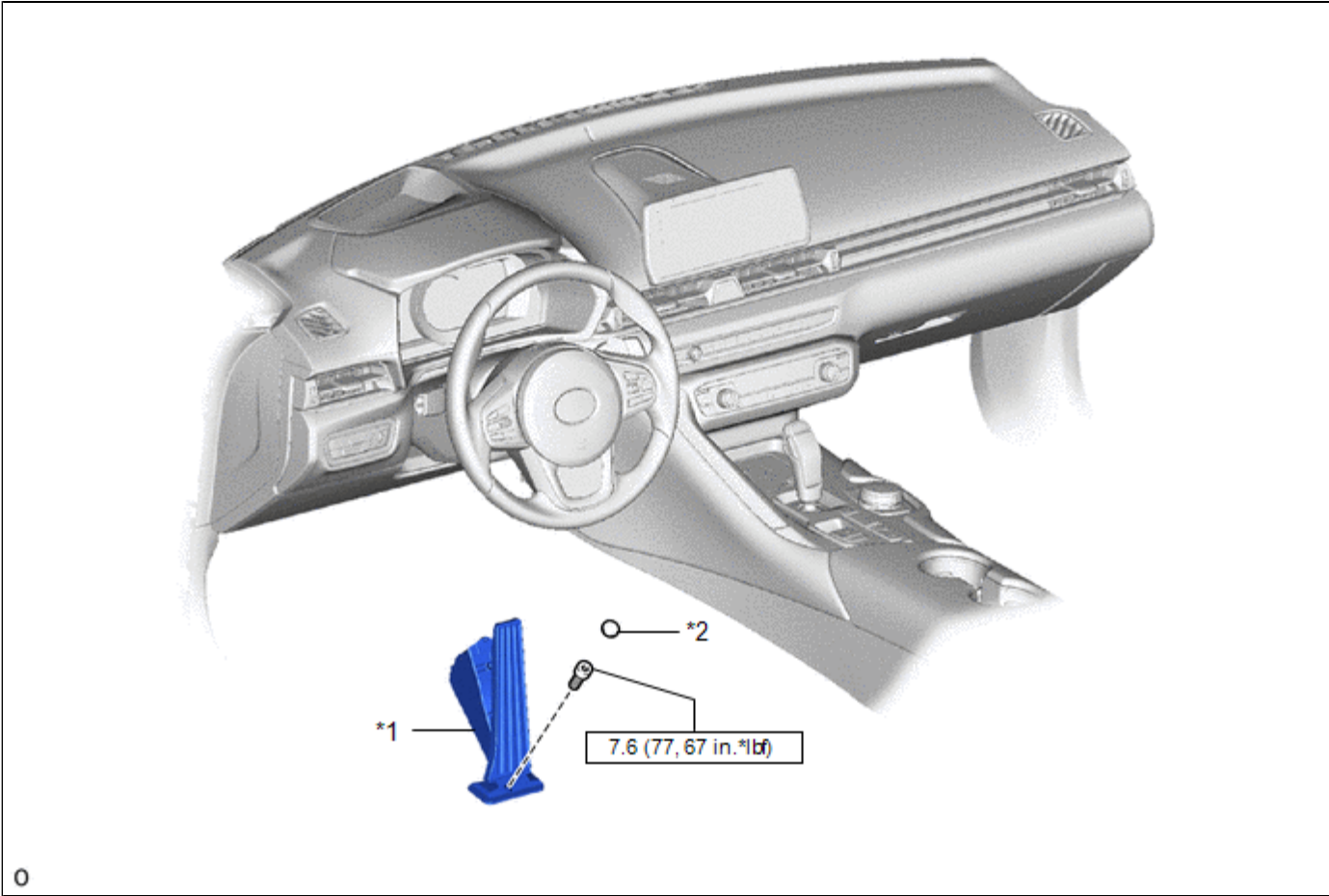
2. INSTALL AIR CLEANER ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ACCELERATOR PEDAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ACCELERATOR PEDAL SENSOR ASSEMBLY	*2	COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

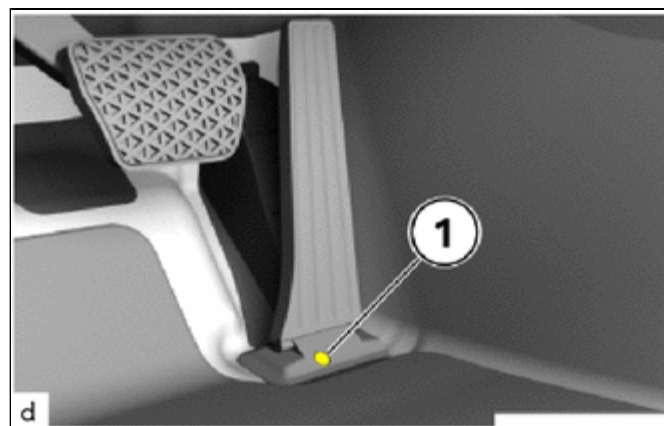
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ACCELERATOR PEDAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

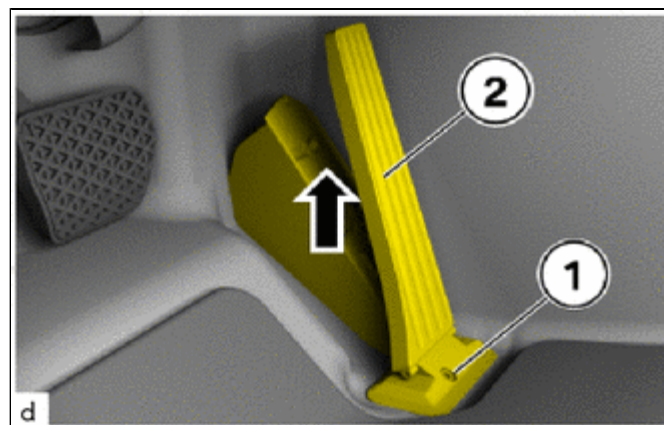
PROCEDURE

1. REMOVE ACCELERATOR PEDAL SENSOR ASSEMBLY

(a) Unclip the cover (1).

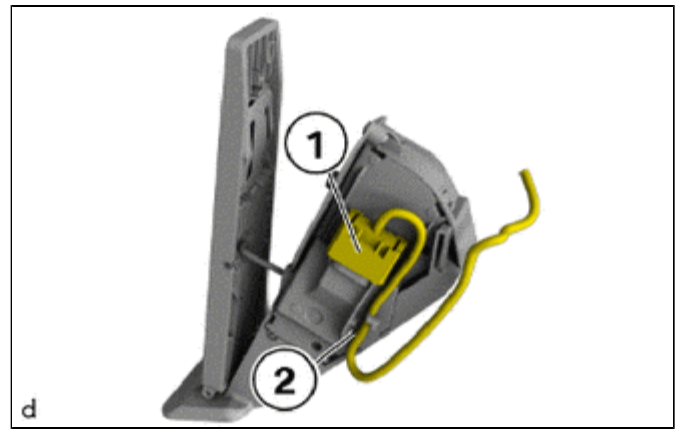


(b) Loosen T10 bolt (1).



(c) Feed out accelerator pedal sensor assembly (2) towards the top.

(d) Unlock plug connection (1) and disconnect.



(e) Feed the wiring harness out of the holder (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ACCELERATOR PEDAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

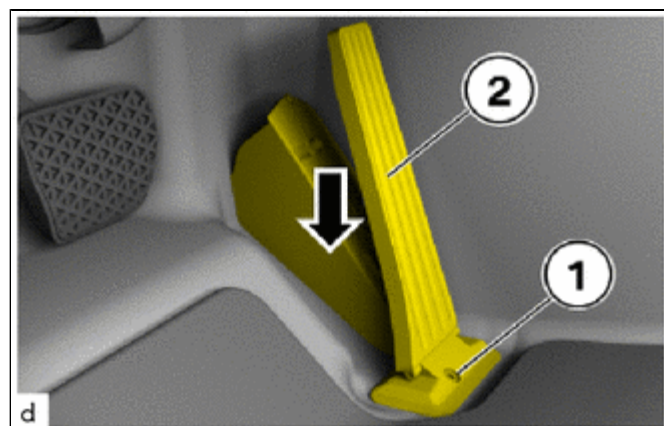
INSTALLATION

PROCEDURE

1. INSTALL ACCELERATOR PEDAL SENSOR ASSEMBLY

- (a) Connect connectors and lock.
- (b) Feed the wiring harness into the holder.

- (c) Feed the accelerator pedal sensor assembly (2) in to the bottom.



- (d) Tighten down T10 bolt (1).

Torque:

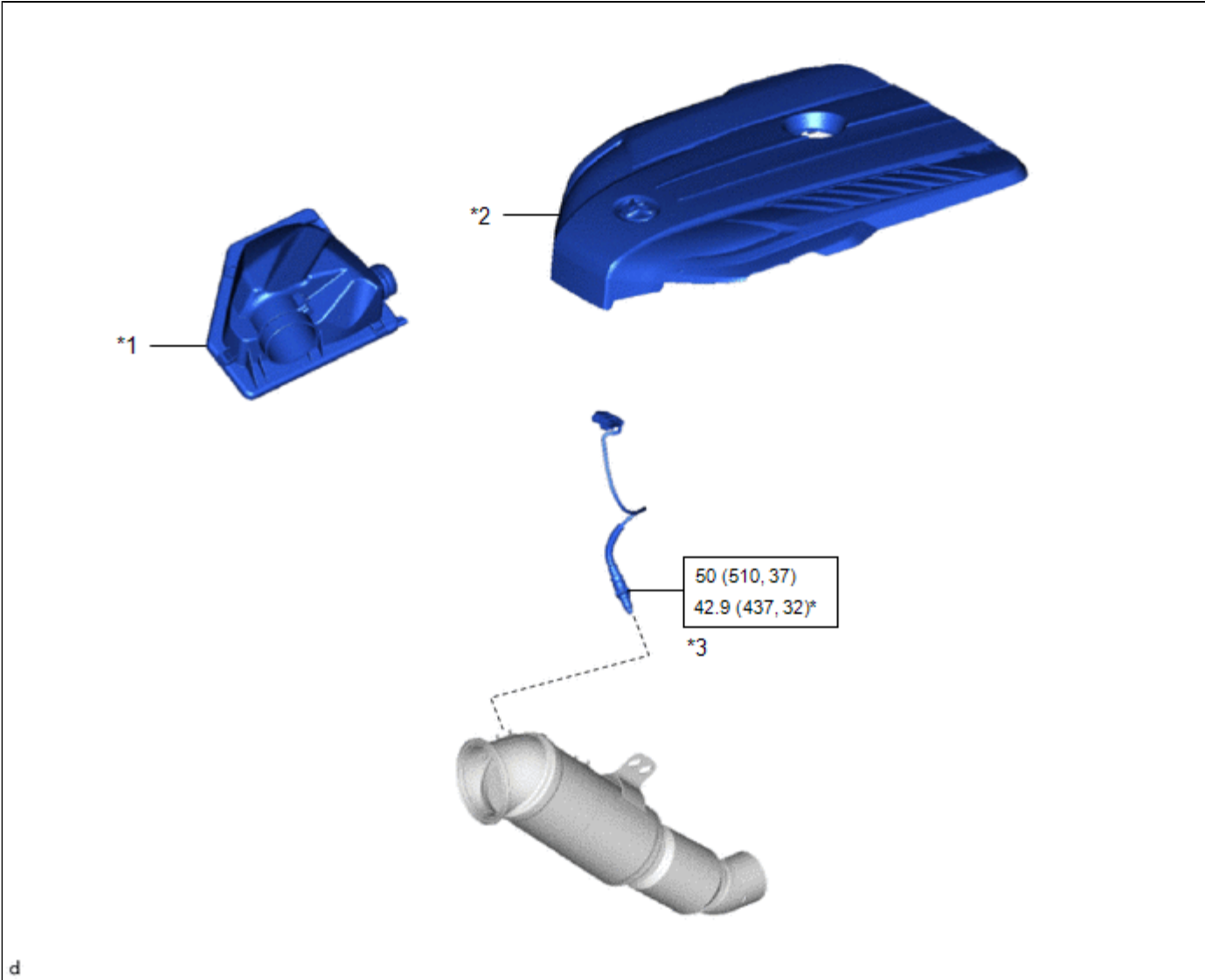
7.6 N·m {77 kgf·cm, 67 in·lbf}

- (e) Clip in the cover.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): AIR FUEL RATIO SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CLEANER CAP SUB-ASSEMBLY	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	WIDE RANGE AIR FUEL RATIO SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): AIR FUEL RATIO SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE AIR CLEANER CAP SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE WIDE RANGE AIR FUEL RATIO SENSOR

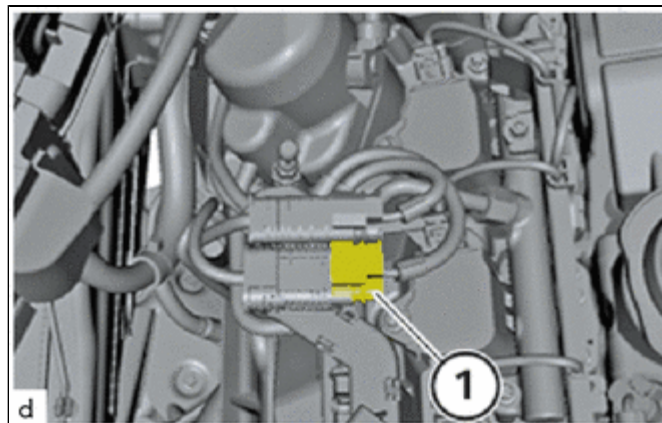
CAUTION:

- Hot surfaces.

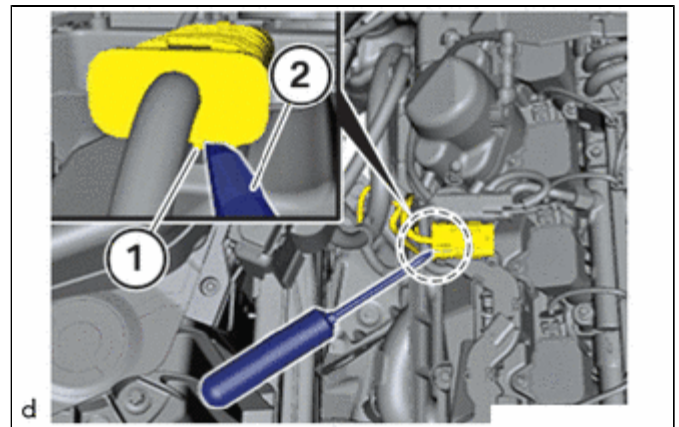
Risk of burning!

- Perform all work only on components that have cooled down.

(a) Unlock plug connection (1) and disconnect.

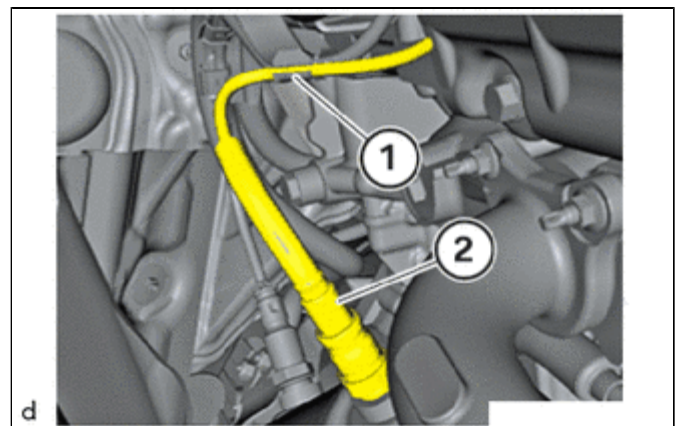


(b) Unlock the lock on the connector (1) with a suitable screwdriver (2).



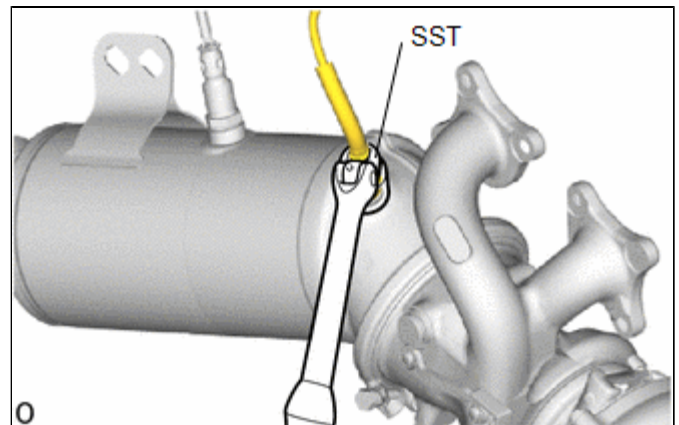
(c) Remove connector (1).

(d) Detach the line of the wide range air fuel ratio sensor (2) from the holder (1).



(e) Using SST, remove the wide range air fuel ratio sensor (1).

SST: 09224-00012



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): AIR FUEL RATIO SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

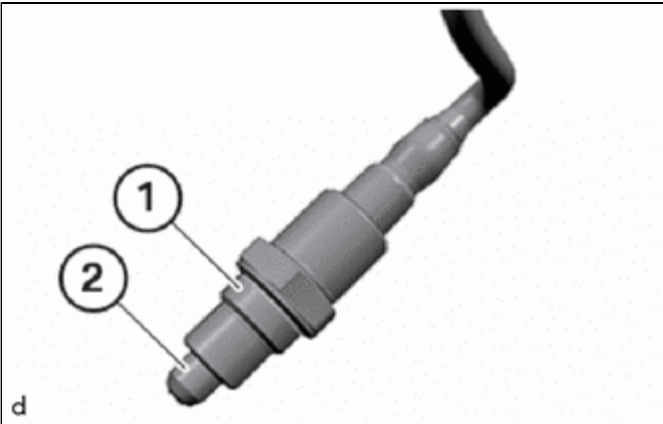
PROCEDURE

1. INSTALL WIDE RANGE AIR FUEL RATIO SENSOR

(a) Check the thread (1) and sensor ceramics (2) for damage and replace the wide range air fuel ratio sensor, if necessary.

NOTICE:

- For wide range air fuel ratio sensors that are reused, the following should be observed.
 - Do not clean the part of the wide range air fuel ratio sensor that does not protrude into the exhaust branch (sensor ceramics).



(b) Using SST, install the wide range air fuel ratio sensor (1).

SST: 09224-00012

Torque:

50 N·m {510 kgf·cm, 37 ft·lbf}

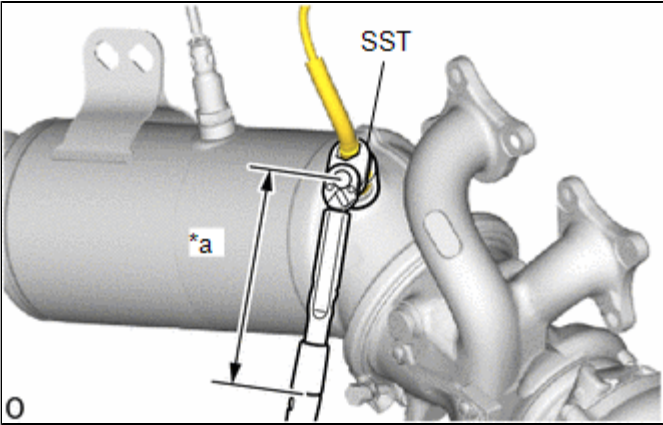
HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)

- When using SST (fulcrum length of 30 mm (1.18 in.)) + torque wrench (fulcrum length of 180 mm (7.09 in.)):

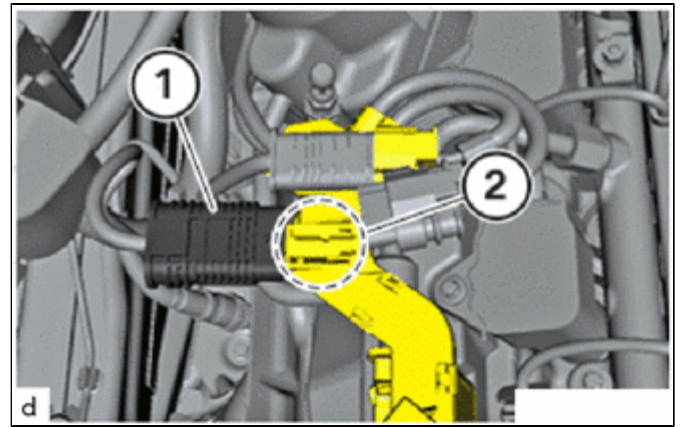
42.9 N*m (437 kgf*cm, 32 ft.*lbf)



*a	Torque Wrench Fulcrum Length
----	------------------------------

(c) Engage the line of the wide range air fuel ratio sensor in the holder.

(d) Engage connector (1) on the holder (2).



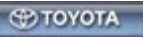
(e) Connect connectors and lock.

2. INSTALL AIR CLEANER CAP SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

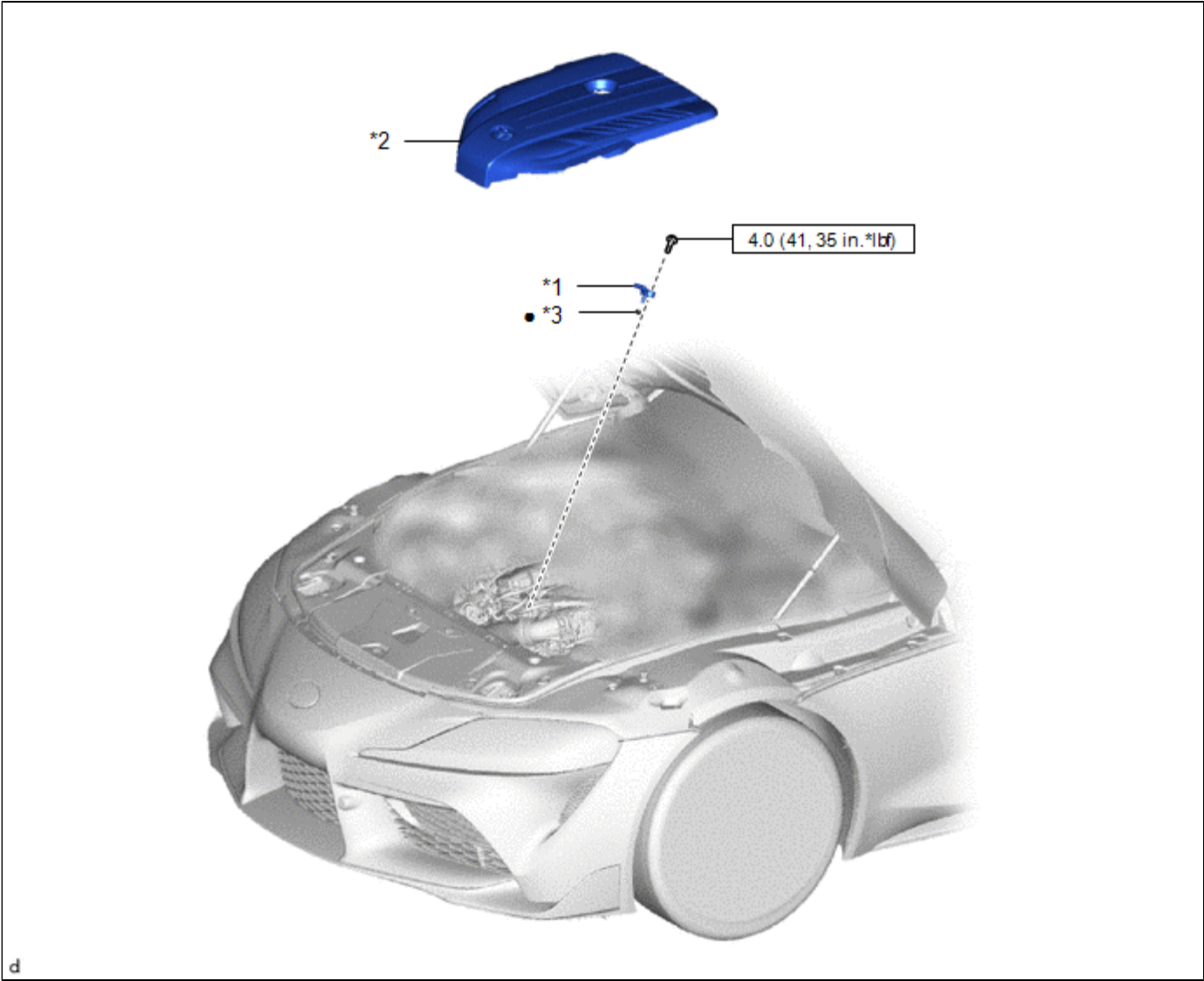
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): AIR PRESSURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR PRESSURE SENSOR	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): AIR PRESSURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE AIR PRESSURE SENSOR

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

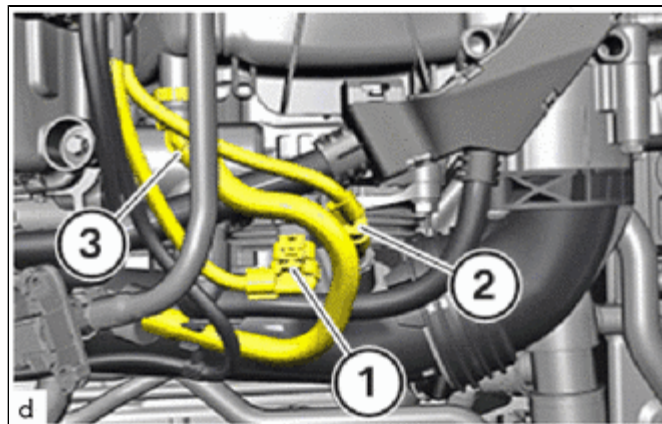
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

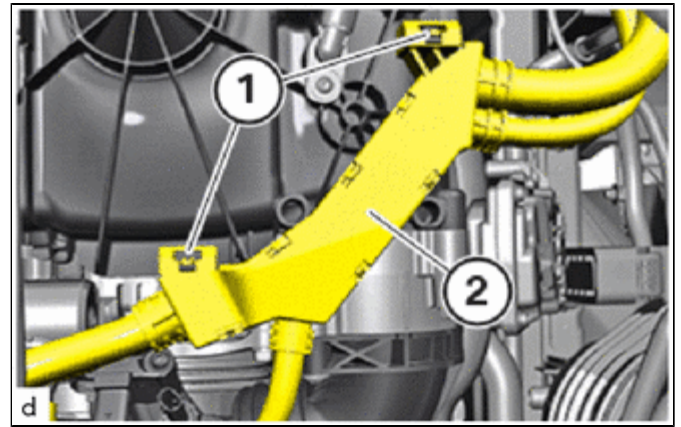
(a) Unlock plug connection (1) and disconnect.



(b) Unlock plug connection (2) and disconnect.

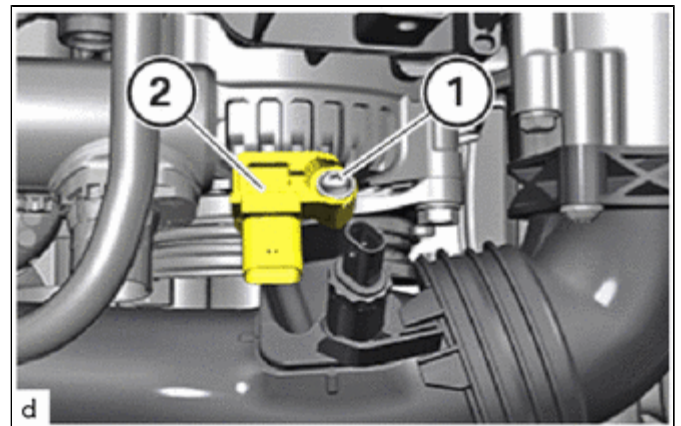
(c) Unlock the engine ventilation line (3) and set it aside.

(d) Unlock the locks (1).



(e) Feed out wiring harness section for the engine (2) slightly and set it aside.

(f) Loosen T25 screw (1).



(g) Remove the air pressure sensor (2).

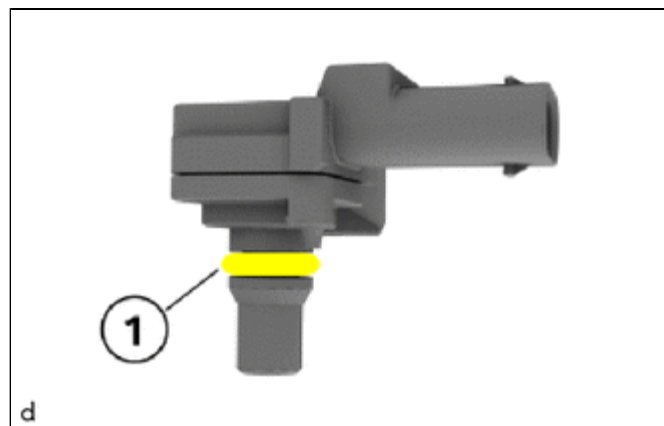
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): AIR PRESSURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR PRESSURE SENSOR

(a) Replace O-ring (1) of the air pressure sensor.



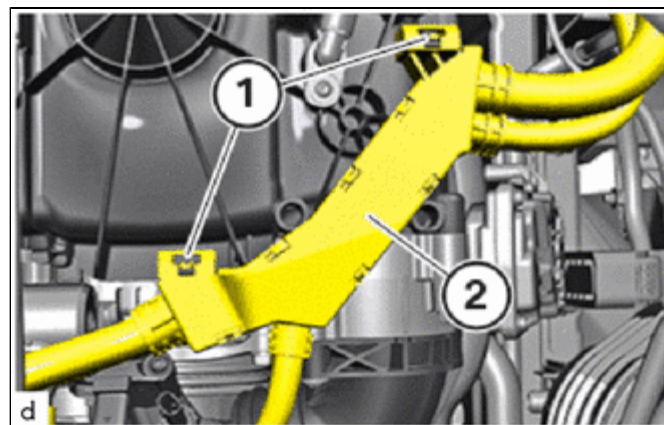
(b) Insert and install the air pressure sensor.

(c) Tighten down T25 screw.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(d) Insert the wiring harness section for the engine (2) and install.

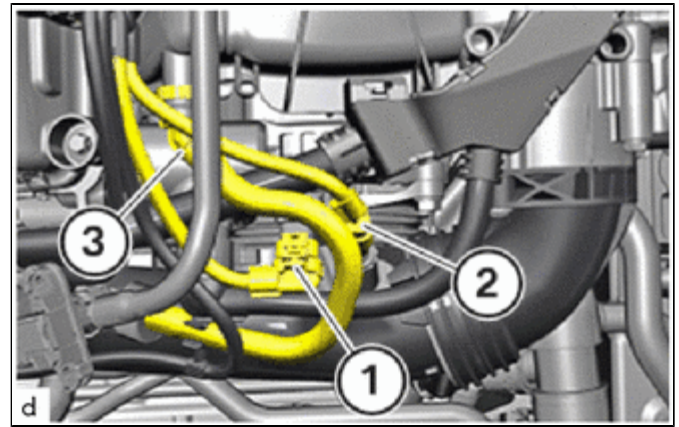


(e) Ensure that the locks (1) engage audibly.

(f) Insert and connect the engine ventilation line (3).

HINT:

The engine ventilation line (3) must engage audibly.



(g) Connect connectors (2) and lock.

HINT:

The connector (2) must engage audibly.

(h) Connect connectors (1) and lock.

HINT:

The connector (1) must engage audibly.

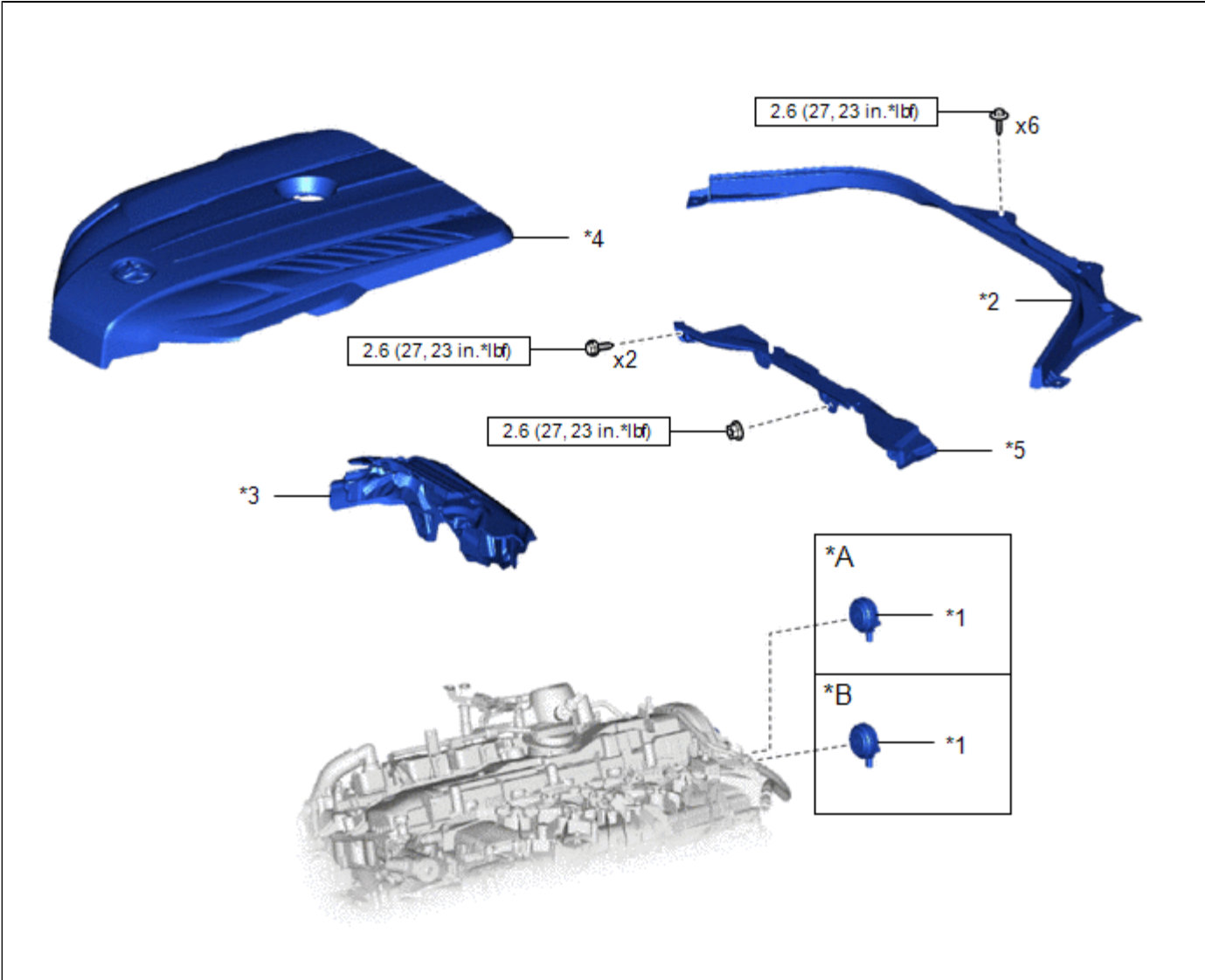
2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT OIL CONTROL SOLENOID: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Exhaust Side	*B	for Intake Side
*1	CAM TIMING OIL CONTROL SOLENOID ASSEMBLY	*2	COWL TOP VENTILATOR LOUVER PROTECTOR
*3	NO. 1 ENGINE COVER	*4	NO. 1 ENGINE COVER SUB-ASSEMBLY
*5	NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

<div></div>			
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT OIL CONTROL SOLENOID: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

2. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

3. REMOVE NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE NO. 1 ENGINE COVER

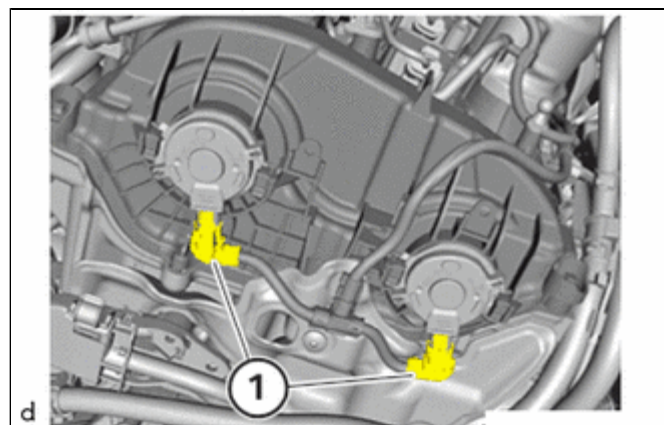
Click here [INFO](#)

6. REMOVE CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

(a) Unlock and disconnect both connectors (1).

HINT:

The figure shows the rear side of the engine.



(b) Position each SST correctly on the cam timing oil control solenoid assembly.

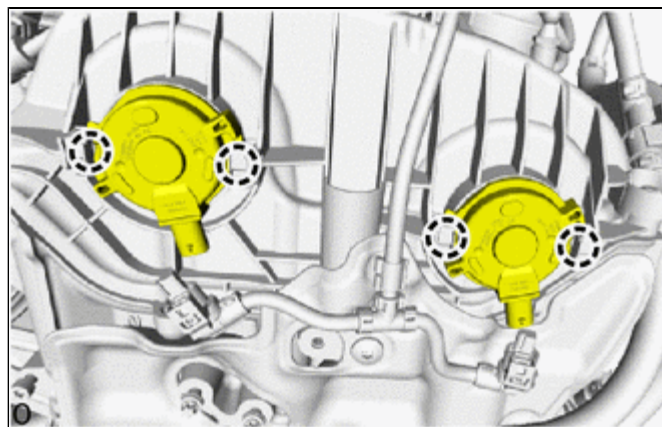
SST: 09960-10010

09962-01000

09963-00350

HINT:

The figure shows the rear side of the engine.

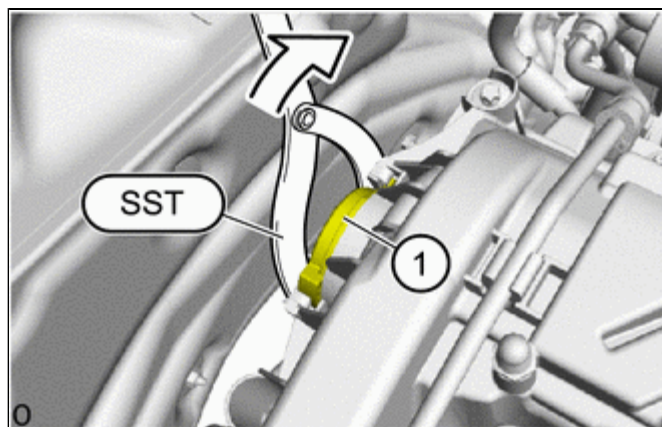


- (c) Using SST, turn the cam timing oil control solenoid assembly on intake adjuster (1) by approx. 50° in the direction of the arrow and remove it.

SST: 09960-10010

09962-01000

09963-00350

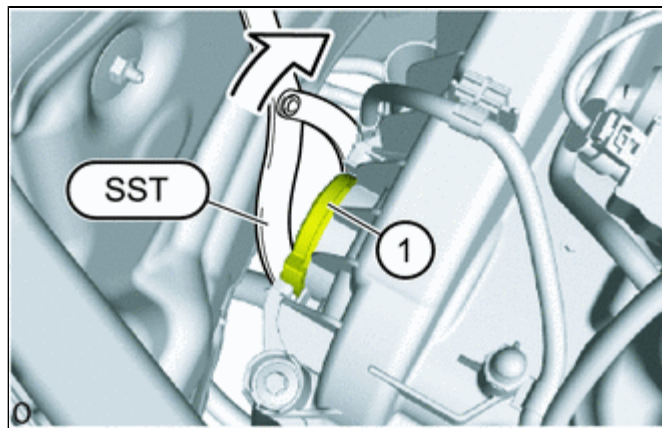


- (d) Using SST, turn the cam timing oil control solenoid assembly on exhaust camshaft adjuster (1) by approx. 50° in the direction of the arrow and remove it.

SST: 09960-10010

09962-01000

09963-00350



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT OIL CONTROL SOLENOID: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

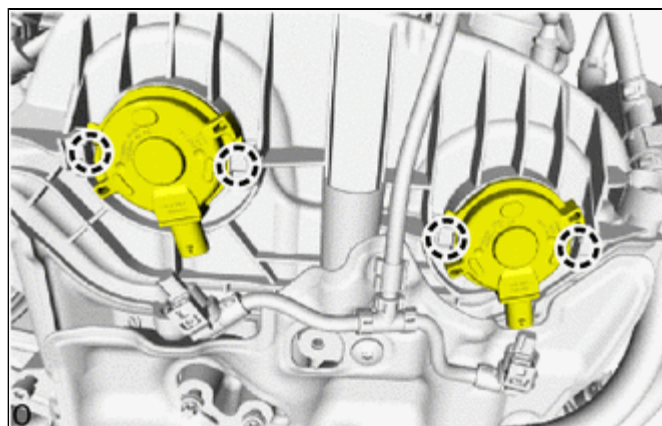
PROCEDURE

1. INSTALL CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

- (a) Position the cam timing oil control solenoid assemblies at the cylinder head cover.

HINT:

The figure shows the rear side of the engine.



- (b) Position each SST correctly on the cam timing oil control solenoid assembly.

SST: 09960-10010

09962-01000

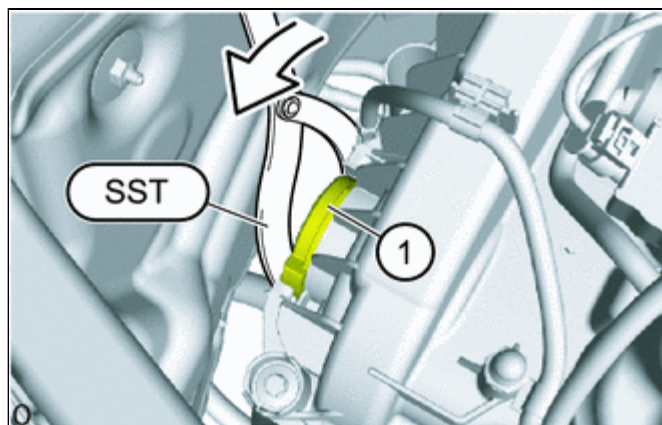
09963-00350

- (c) Using SST, turn the cam timing oil control solenoid assembly on the exhaust camshaft adjuster (1) in the direction of the arrow until the limit positions rest against the clamps.

SST: 09960-10010

09962-01000

09963-00350



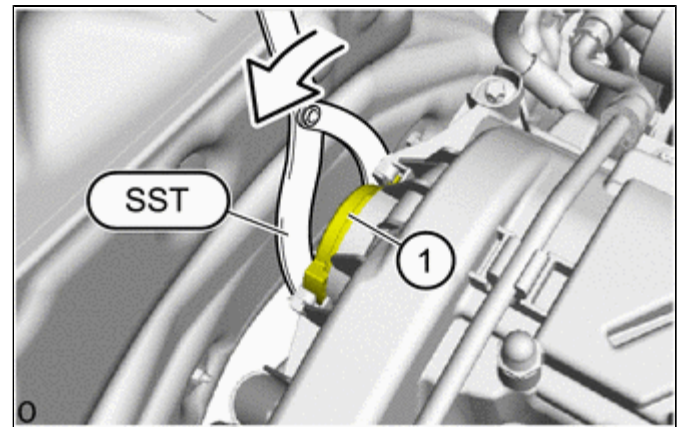
- (d) Using SST, turn the cam timing oil control solenoid assembly on the intake adjuster (1) in the direction of the

arrow until the limit positions rest against the clamps.

SST: 09960-10010

09962-01000

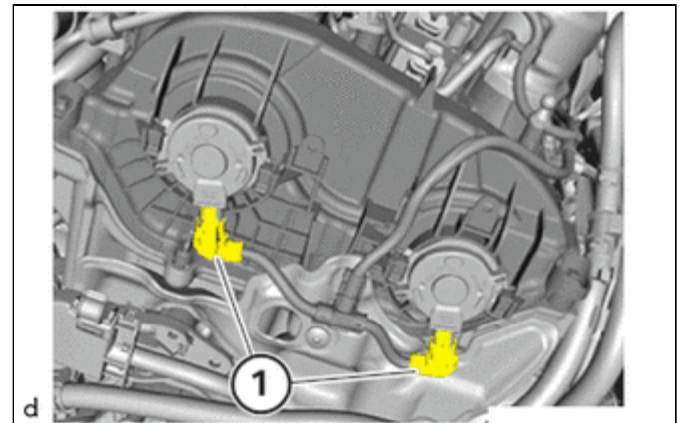
09963-00350



(e) Connect both connectors (1) to the cam timing oil control solenoid assemblies and route the cable correctly.

HINT:

The figure shows the rear side of the engine.



2. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

4. INSTALL NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

5. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

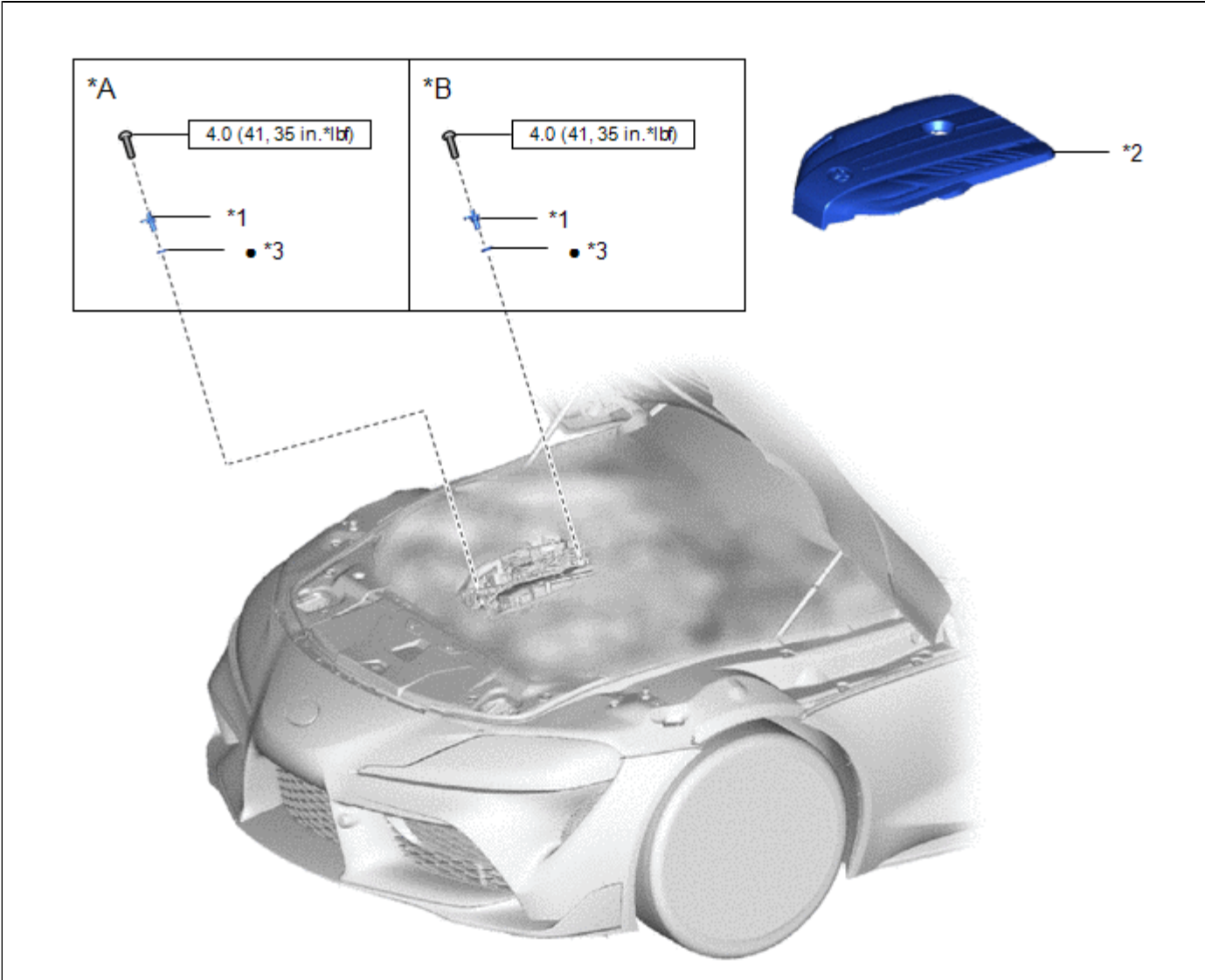
6. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT POSITION SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Exhaust Side	*B	for Intake Side
*1	CAMSHAFT POSITION SENSOR	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT POSITION SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE CAMSHAFT POSITION SENSOR (for Intake Side)

NOTICE:

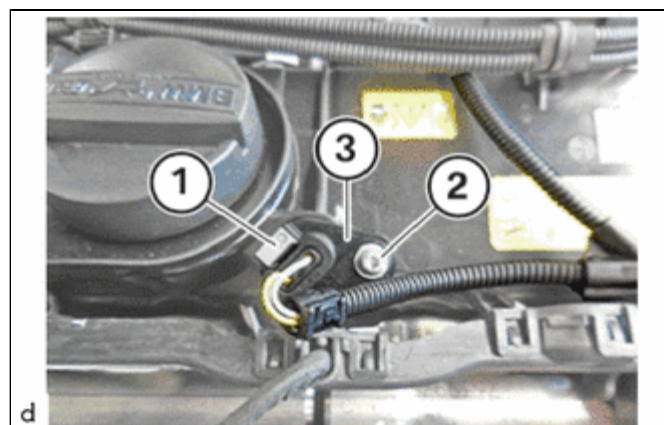
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Loosen T20 bolt (2).

(c) Thread out and remove the camshaft position sensor of the intake camshaft (3).

3. REMOVE CAMSHAFT POSITION SENSOR (for Exhaust Side)

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

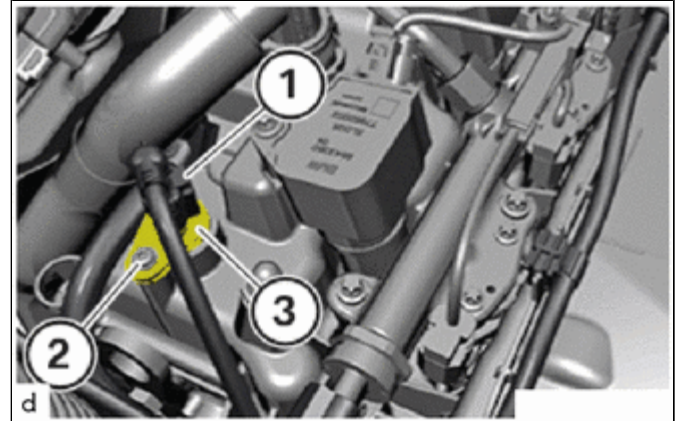
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Loosen T20 bolt (2).

(c) Guide the camshaft position sensor of the exhaust camshaft (3) out and remove.

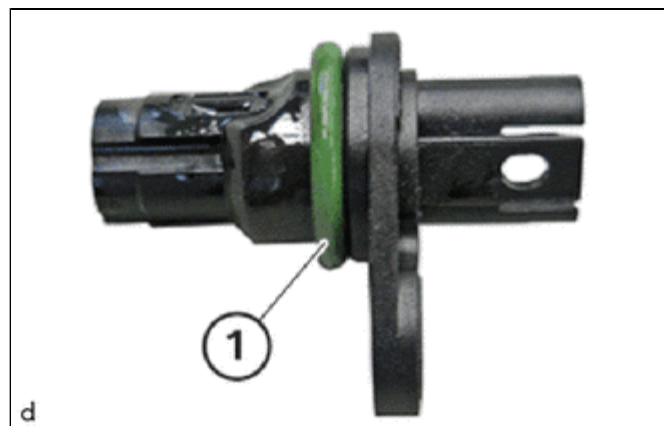
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT POSITION SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL CAMSHAFT POSITION SENSOR (for Exhaust Side)

(a) Replace O-ring (1).



(b) Guide the camshaft position sensor of the exhaust camshaft in and install.

(c) Tighten down T20 bolt.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

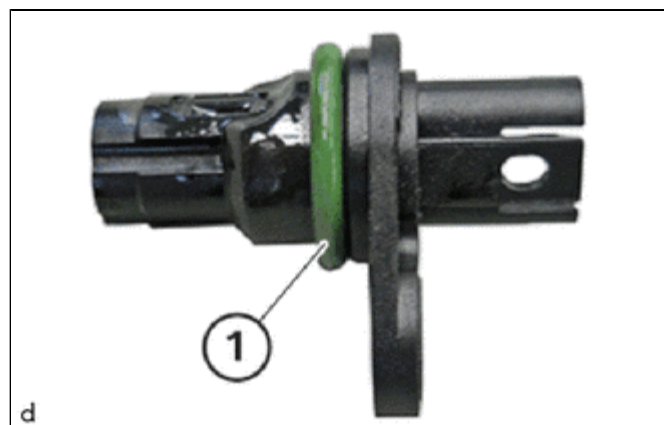
(d) Connect connectors and lock.

HINT:

The connector must engage audibly.

2. INSTALL CAMSHAFT POSITION SENSOR (for Intake Side)

(a) Replace O-ring (1).



(b) Thread in and install the camshaft position sensor of the intake camshaft.

(c) Tighten down T20 bolt.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(d) Connect and lock the connector.

HINT:

The connector must engage audibly.

3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here

INFO

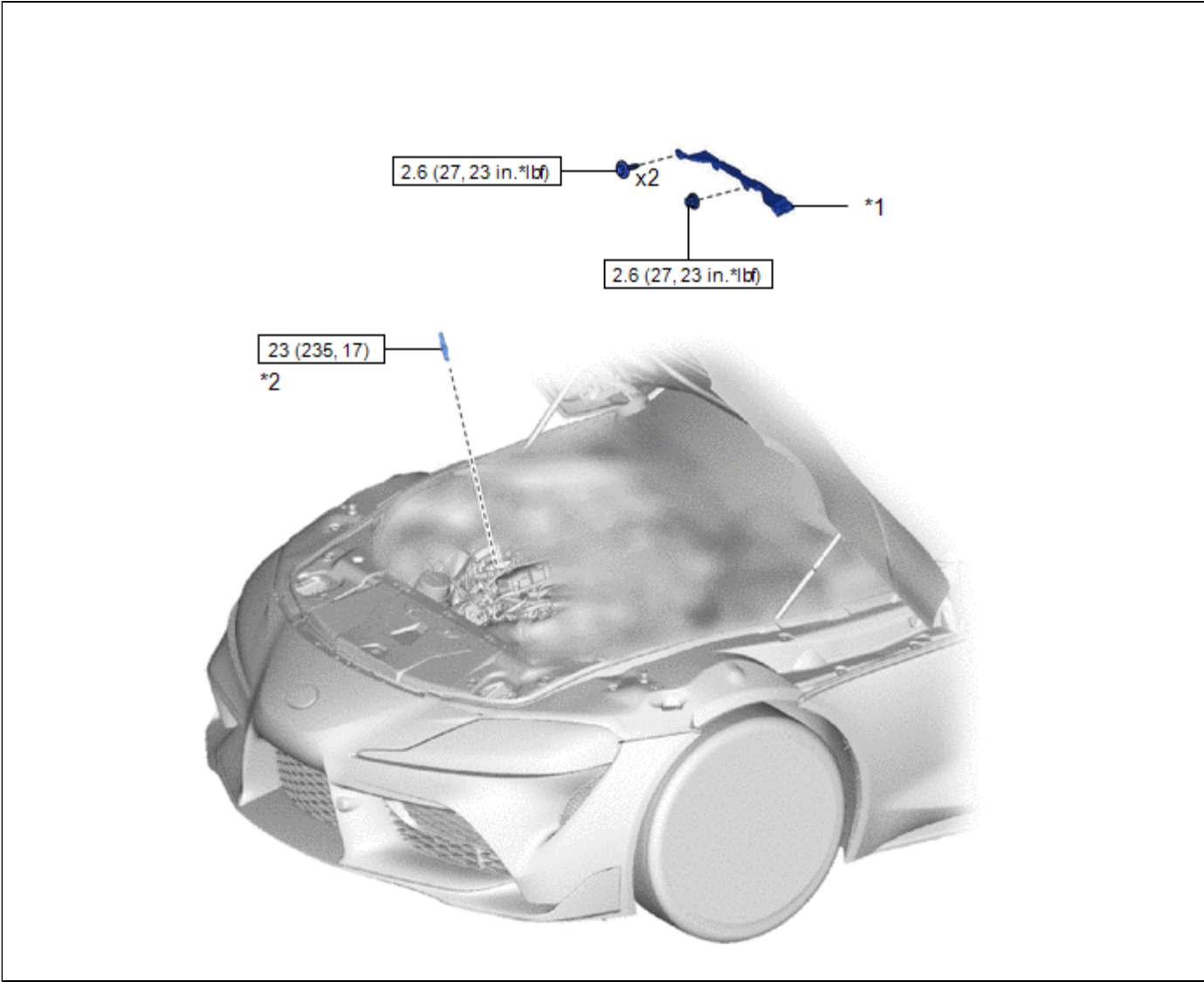


TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT TIMING GEAR BOLT: COMPONENTS; 2020 MY Supra [03/2019 -]		

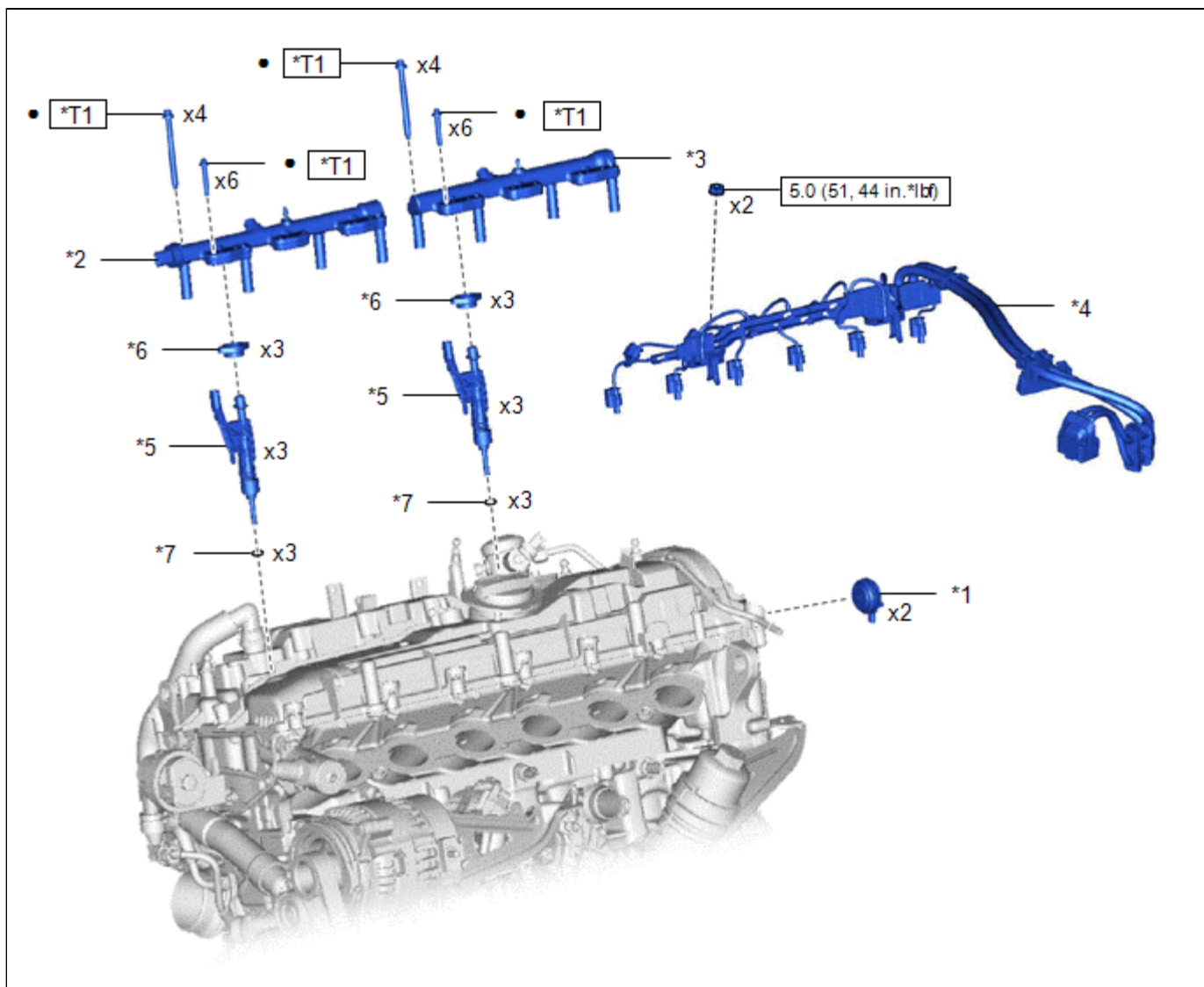
COMPONENTS


ILLUSTRATION



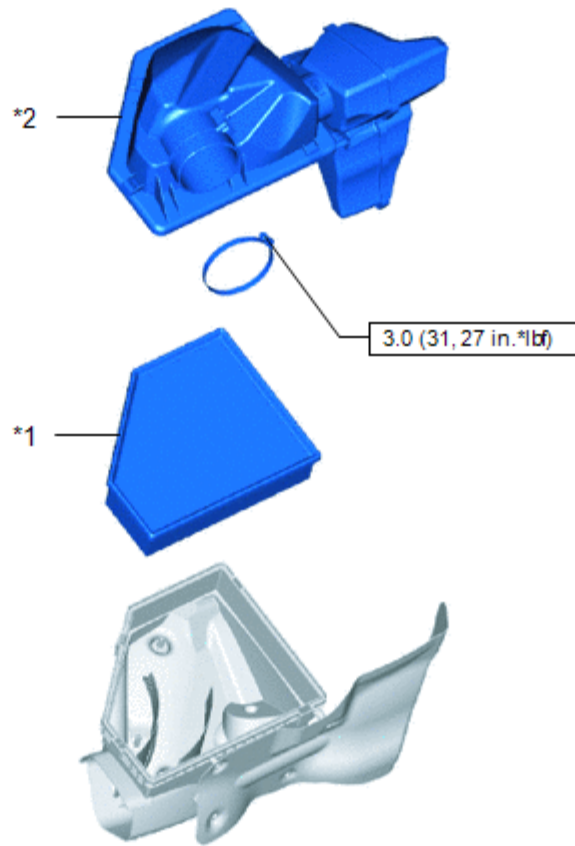
*1	NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR	*2	SPARK PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



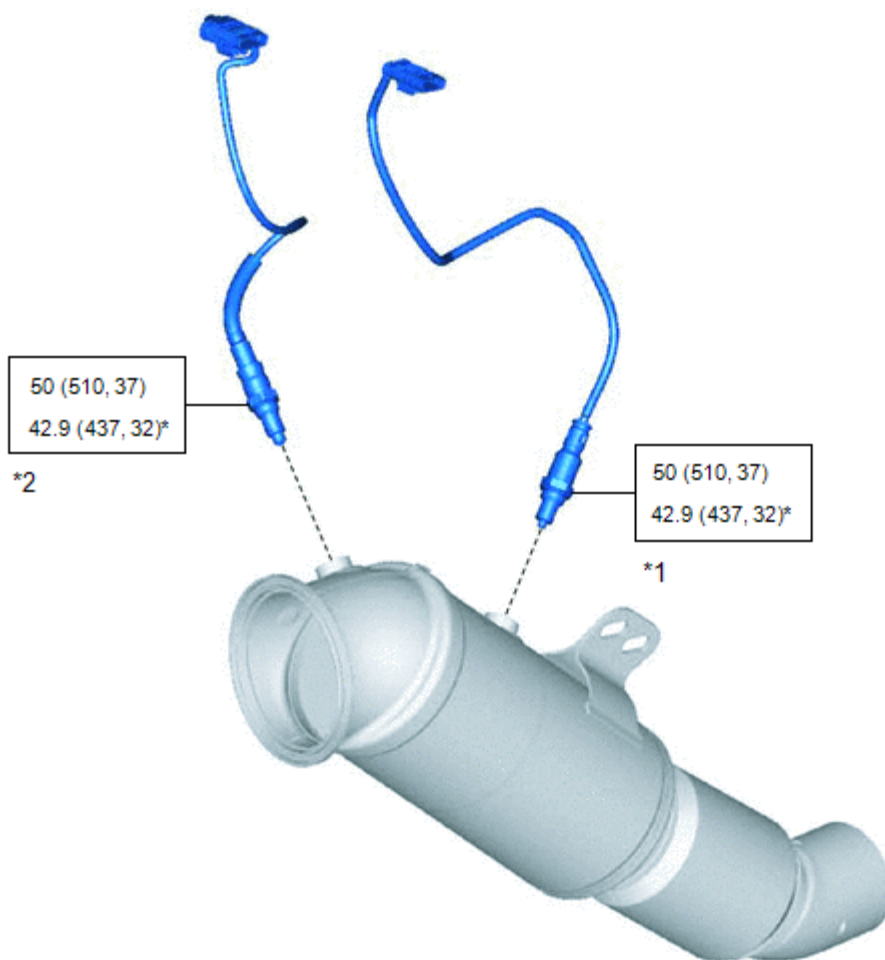
*1	CAM TIMING OIL CONTROL SOLENOID ASSEMBLY	*2	FUEL DELIVERY PIPE
*3	NO. 2 FUEL DELIVERY PIPE	*4	NO. 4 ENGINE WIRE
*5	FUEL INJECTOR ASSEMBLY	*6	INJECTOR BRACKET
*7	TEFLON RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°	-	-

ILLUSTRATION



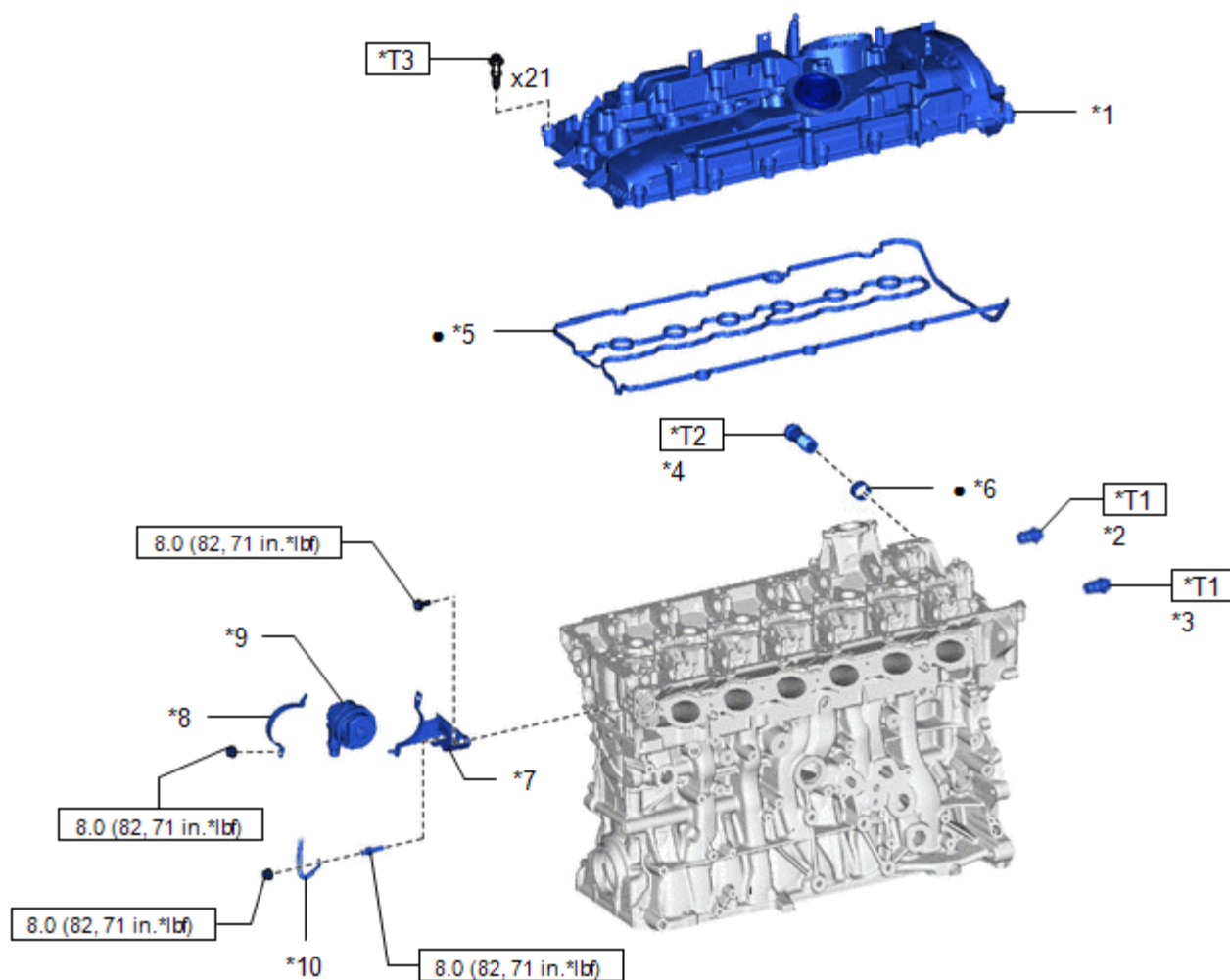
*1	AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY	*2	AIR CLEANER CAP SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



*1	OXYGEN SENSOR	*2	WIDE RANGE AIR FUEL RATIO SENSOR
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST

ILLUSTRATION



*1	CYLINDER HEAD COVER SUB-ASSEMBLY	*2	EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY
*3	INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY	*4	NO. 1 CHAIN TENSIONER ASSEMBLY
*5	CYLINDER HEAD COVER GASKET	*6	SEALING SLEEVE
*7	NO. 1 ELECTRIC WATER PUMP BRACKET SUB-ASSEMBLY	*8	NO. 2 ELECTRIC ENGINE WATER PUMP BRACKET SUB-ASSEMBLY
*9	ELECTRIC WATER PUMP ASSEMBLY	*10	NO. 2 ENGINE WIRE
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 10 (102, 7) 2nd: 30 (306, 22) 3rd : 50 (510, 37) 4th : Turn 35°	*T2	1st: 20 (204, 15) 2nd: Turn 40°
*T3	1st: 6.0 (61, 53 in.*lbf)	-	-

	2nd: 11 (112, 8)		
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TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT TIMING GEAR BOLT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. REMOVE FUEL PUMP ASSEMBLY

Click here [INFO](#)

4. REMOVE NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

5. REMOVE SPARK PLUG

Click here [INFO](#)

6. REMOVE FUEL DELIVERY PIPE

Click here [INFO](#)

7. REMOVE NO. 2 FUEL DELIVERY PIPE

Click here [INFO](#)

8. REMOVE CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

9. REMOVE AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY

Click here [INFO](#)

10. REMOVE OXYGEN SENSOR

Click here [INFO](#)

11. REMOVE WIDE RANGE AIR FUEL RATIO SENSOR

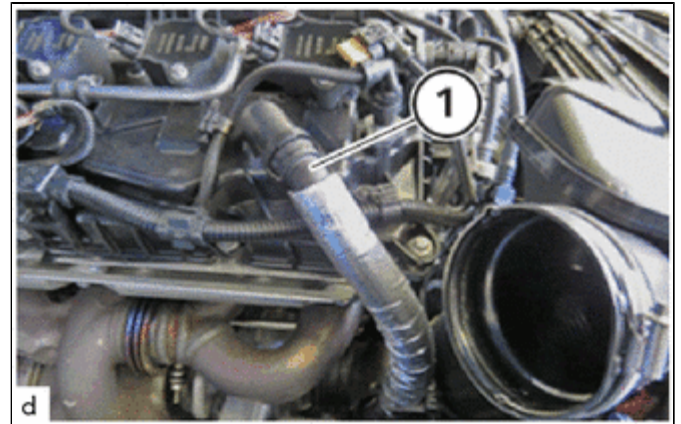
Click here [INFO](#)

12. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY

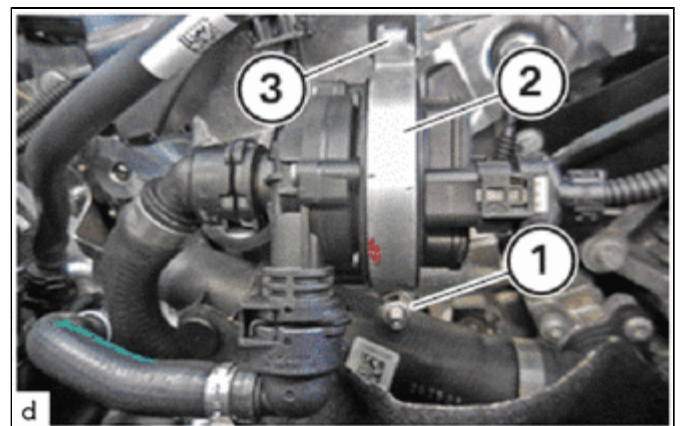
NOTICE:

- Damage to wires when disconnecting connectors and plug connections.
- Sheared wires can cause a short circuit.
 - Do not pull on the wires when disconnecting connectors and plug connections.

(a) Unlock and loosen ventilation hose (1).

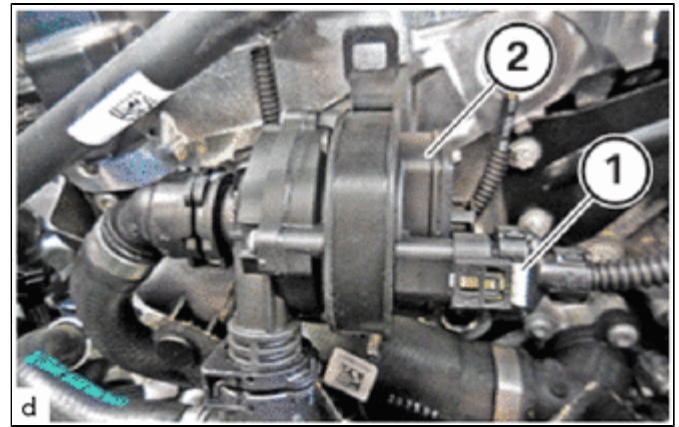


(b) Loosen nut (1).



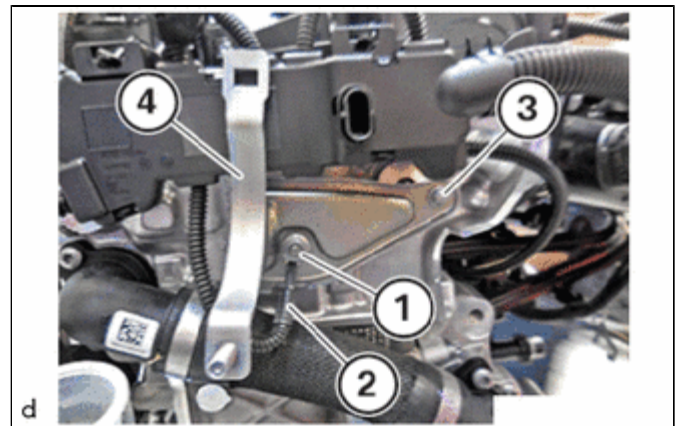
(c) Guide out and remove No. 2 electric engine water pump bracket sub-assembly (2) from holder (3).

(d) Unlock plug connection (1) and disconnect.



(e) Guide out electric water pump assembly (2) and place it aside.

(f) Loosen nut (1).



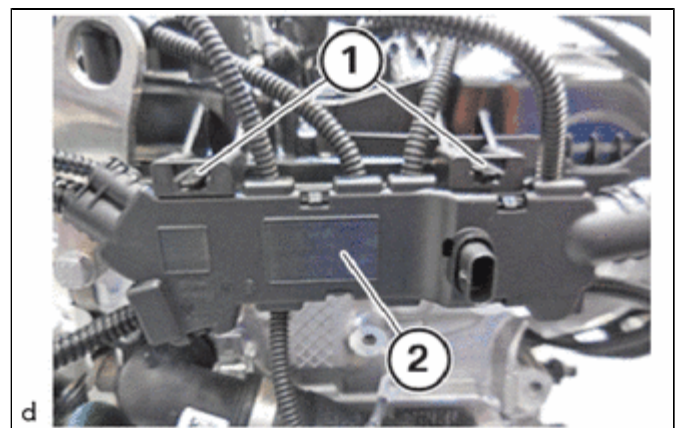
(g) Feed out No. 2 engine wire (2) and set it aside.

(h) Loosen stud bolt.

(i) Loosen bolt (3).

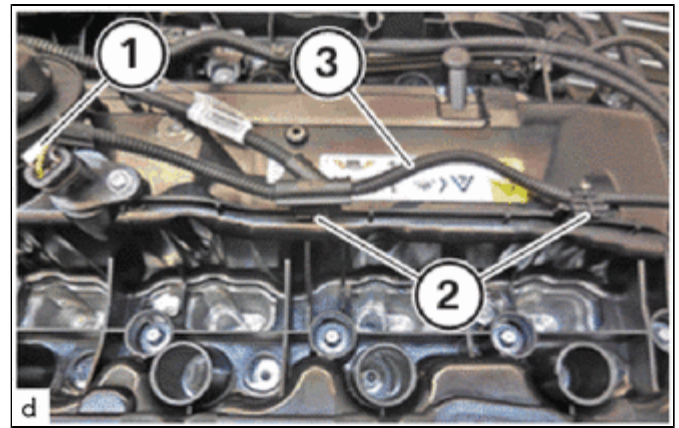
(j) Guide out and remove No. 1 electric water pump bracket sub-assembly (4).

(k) Unlock the locks (1).



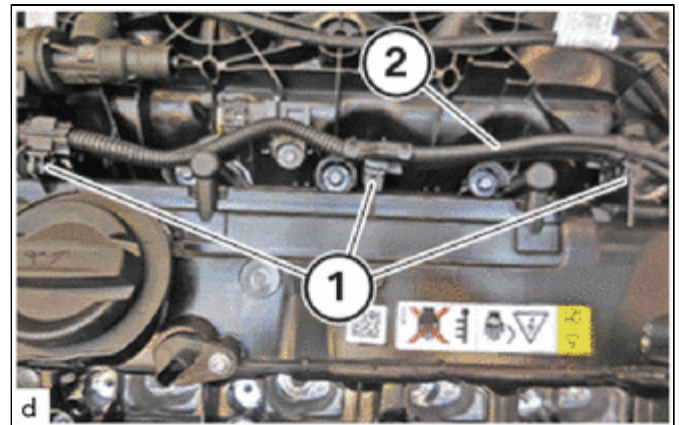
(l) Guide out the engine wiring harness for No. 2 engine wire (2) and place it aside.

(m) Unlock plug connection (1) and disconnect.



(n) Loosen clamps (2).

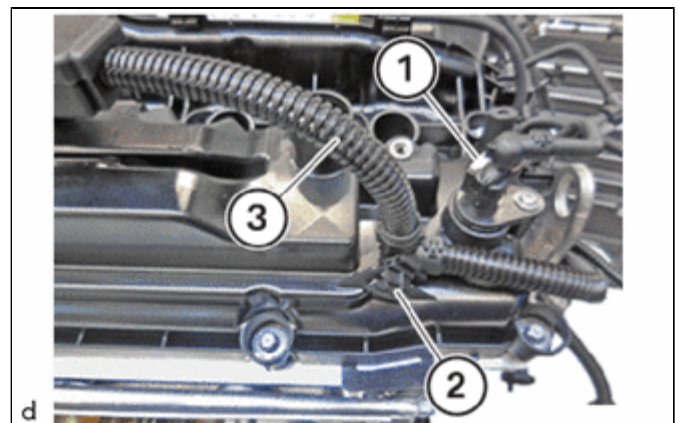
(o) Guide out the engine wiring harness for No. 2 engine wire (2) and place it aside.



(p) Loosen clamps (1).

(q) Guide out the engine wiring harness for engine wire (2) and place it aside.

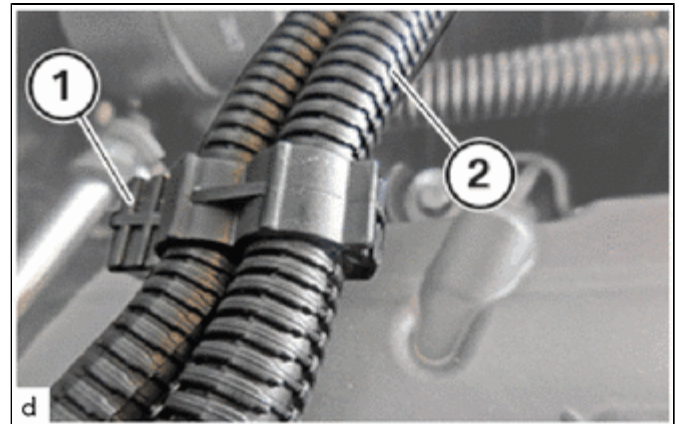
(r) Unlock plug connection (1) and disconnect.



(s) Loosen clamp (2).

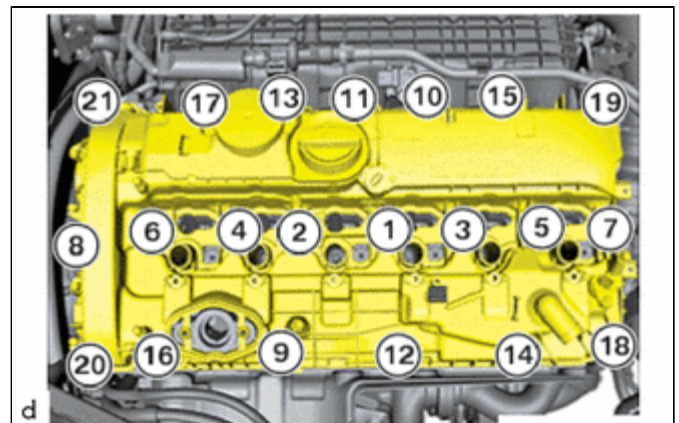
(t) Guide out the engine wiring harness for No. 2 engine wire (3) and place it aside.

(u) Loosen clamp (1).



(v) Thread out the wiring harness section (2) for the injectors and ignition coils and set it aside.

(w) Loosen all E10 bolts in sequence (21) to (1).



(x) Feed out and remove the cylinder head cover sub-assembly.

13. SET NO. 1 CYLINDER TO TDC (COMPRESSION)

Click here [INFO](#)

14. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY

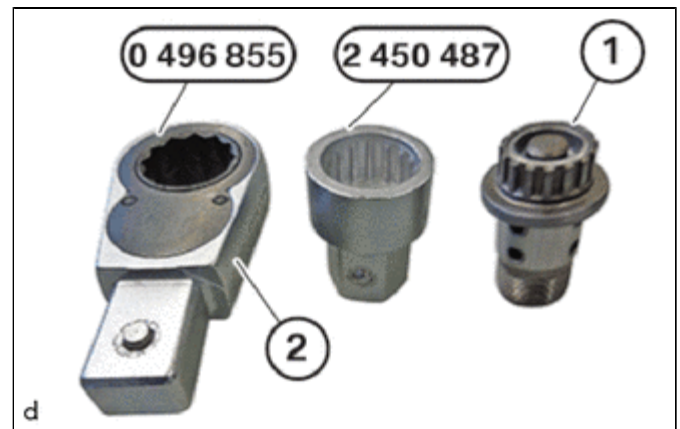
Click here [INFO](#)

15. LOOSEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

(a) To release the intake camshaft timing gear bolt assembly
(1) use the reversible ratchet (2) from the special tool 0 496855 with the special tool 2 450 487 .

SST: 09200-WA470

SST: 09200-WA800

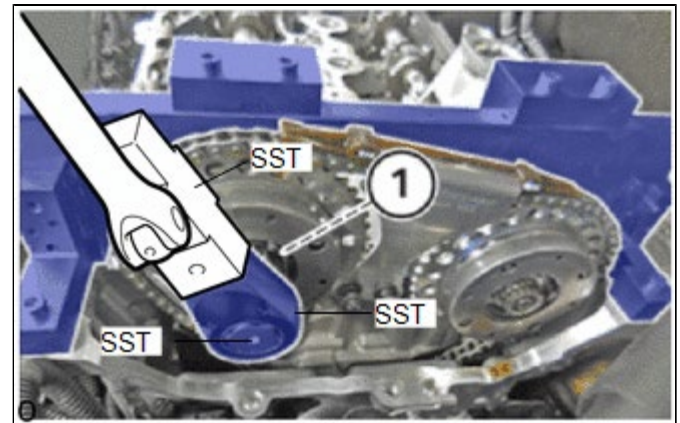


- (b) Release the intake camshaft timing gear bolt assembly of the intake camshaft adjuster (1) with the special tool 2 450 487.

SST: 09200-WA470

SST: 09200-WA800

SST: 09900-WA280

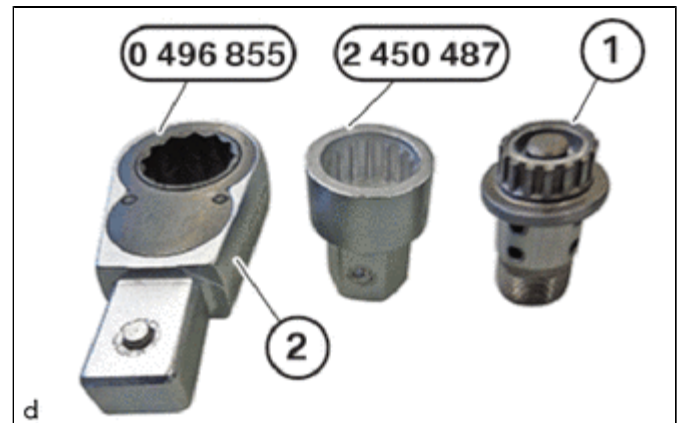


16. LOOSEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

- (a) To release the exhaust camshaft timing gear bolt assembly (1) use the reversible ratchet (2) from the special tool 0 496855 with the special tool 2 450 487 .

SST: 09200-WA470

SST: 09200-WA800



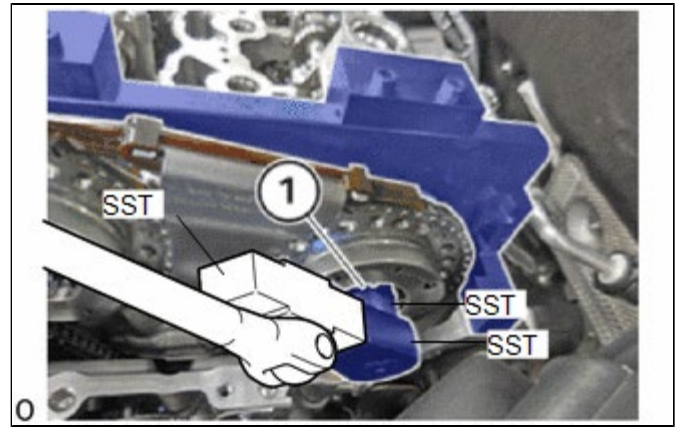
- (b) Release the exhaust camshaft timing gear bolt assembly of the exhaust camshaft adjuster (1) with the special tool 2

450 487.

SST: 09200-WA470

SST: 09200-WA800

SST: 09900-WA280

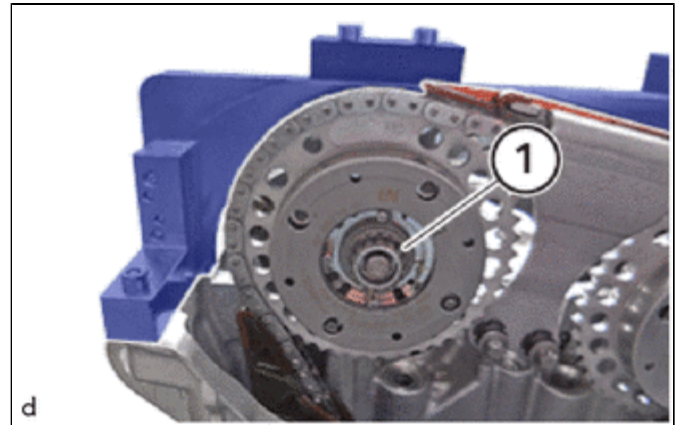


17. REMOVE INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

HINT:

The figure shows the rear side of the engine.

- (a) Guide out and remove the intake camshaft timing gear bolt assembly (1) of the intake adjuster.

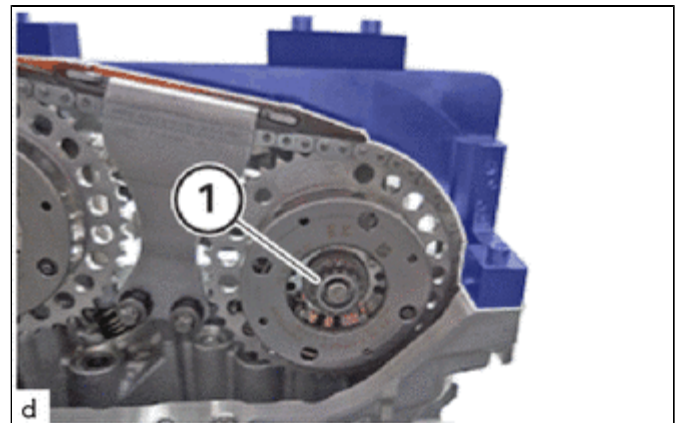


18. REMOVE EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

HINT:

The figure shows the rear side of the engine.

- (a) Guide out and remove the exhaust camshaft timing gear bolt assembly (1) of the exhaust camshaft adjuster.





Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CAMSHAFT TIMING GEAR BOLT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

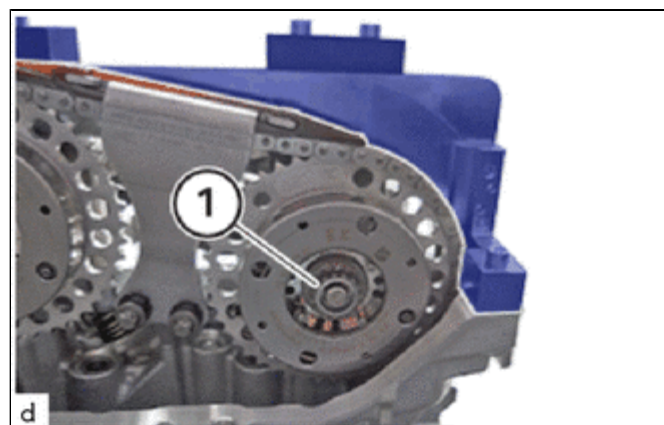
PROCEDURE

1. TEMPORARILY TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

HINT:

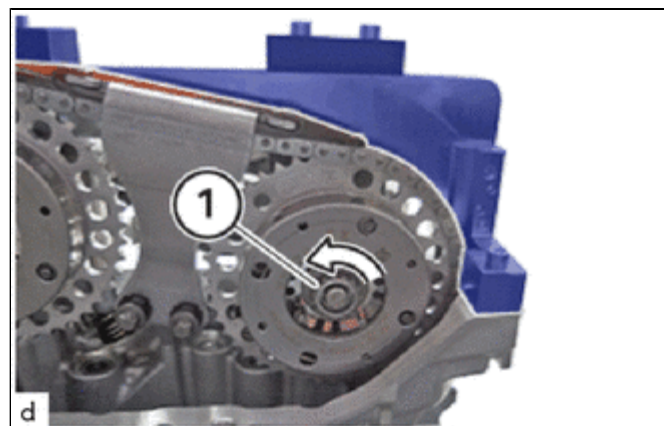
The figure shows the rear side of the engine.

- (a) Guide in the exhaust camshaft timing gear bolt assembly (1) of the exhaust camshaft adjuster and install.



- (b) Hand-tighten the exhaust camshaft timing gear bolt assembly (1) of the exhaust camshaft adjuster.

- (c) Release the exhaust camshaft timing gear bolt assembly (1) of the exhaust camshaft adjuster in the direction of arrow by 60°.

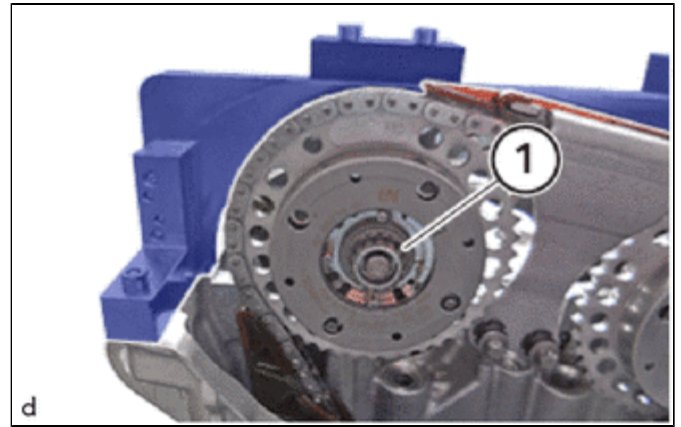


2. TEMPORARILY TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

HINT:

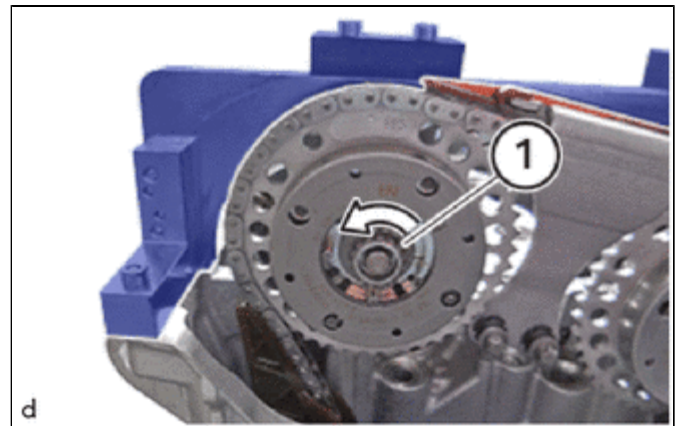
The figure shows the rear side of the engine.

- (a) Guide in the intake camshaft timing gear bolt assembly (1) of the intake adjuster and install.



- (b) Hand-tighten the intake camshaft timing gear bolt assembly (1) of the intake adjuster.

- (c) Release the intake camshaft timing gear bolt assembly (1) of the intake adjuster in the direction of arrow by 60 °.



3. REMOVE SST

Click here [INFO](#)

4. ADJUST CAMSHAFT

Click here [INFO](#)

5. TEMPORARILY INSTALL CHAIN SUB-ASSEMBLY

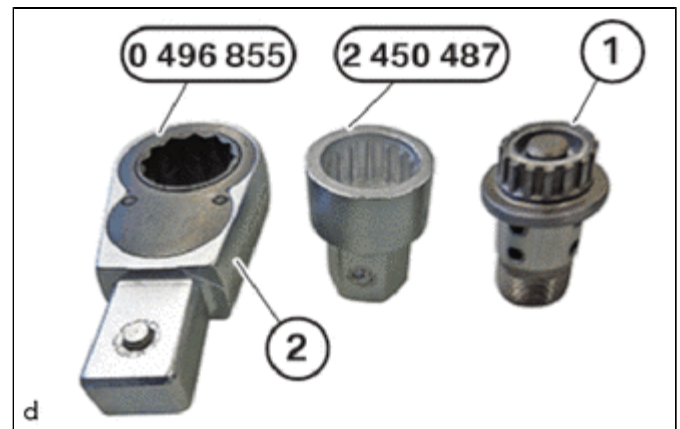
Click here [INFO](#)

6. TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

- (a) To tighten the exhaust camshaft timing gear bolt assembly (1) use the reversible ratchet (2) from the special tool 0 496855 with the special tool 2 450 487 .

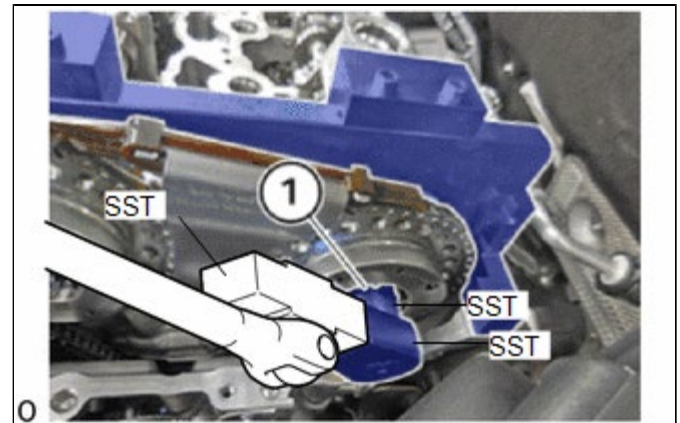
SST: 09200-WA470

SST: 09200-WA800



(b) Install the exhaust camshaft timing gear bolt assembly of the exhaust camshaft adjuster (1) with the special tool 2 450 487.

SST: 09200-WA470
SST: 09200-WA800
SST: 09900-WA280



(c) Tighten exhaust camshaft timing gear bolt assembly in 3 steps according to the table below.

Torque:

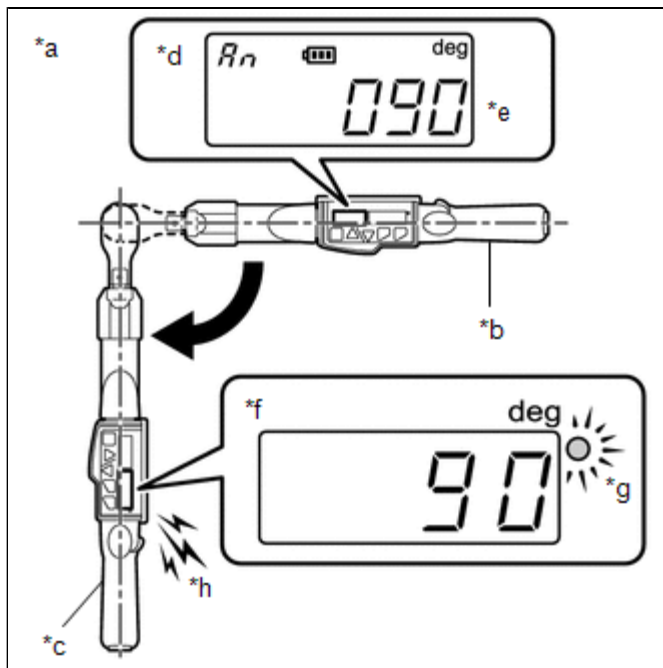
1st	10 N*m (102 kgf*cm, 7 ft.*lbf)
2nd	30 N*m (306 kgf*cm, 22 ft.*lbf)
3rd	50 N*m (510 kgf*cm, 37 ft.*lbf)

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

[Click here](#) **INFO**

(d) Using a digital angle torque wrench, tighten the exhaust camshaft timing gear bolt assembly an additional 35°.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Set Angle Display
*e	Setting the Specified Angle
*f	Tightening Angle Display
*g	LED Notification
*h	Buzzer Notification

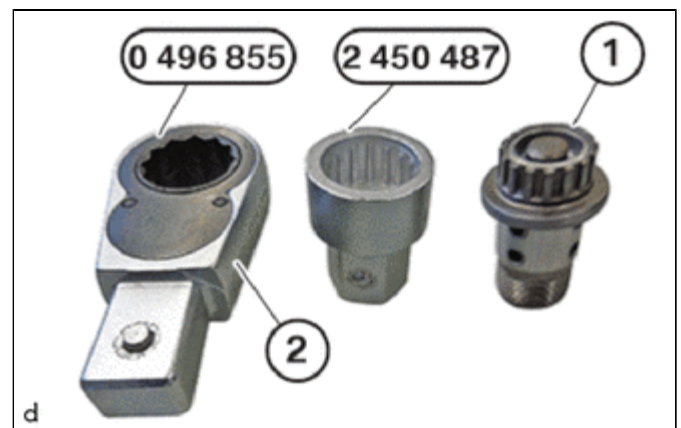
- When using the digital angle torque wrench, set the wrench to the specified tightening angle before use.
- When using the digital angle torque wrench, check the tightening angle display while performing the work.
- When tightening reaches the set angle, the buzzer will sound and a blue LED will illuminate.

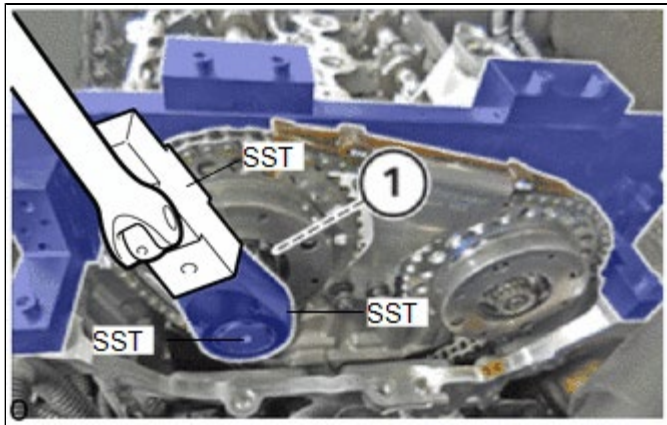
7. TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

(a) To tighten the intake camshaft timing gear bolt assembly (1) use the reversible ratchet (2) from the special tool 0 496 855 with the special tool 2 450 487 .

SST: 09200-WA470

SST: 09200-WA800





(b) Install the intake camshaft timing gear bolt assembly of the intake camshaft adjuster (1) with the special tool 2 450 487.

- SST: 09200-WA470
- SST: 09200-WA800
- SST: 09900-WA280

(c) Tighten intake camshaft timing gear bolt assembly in 3 steps according to the table below.

Torque:

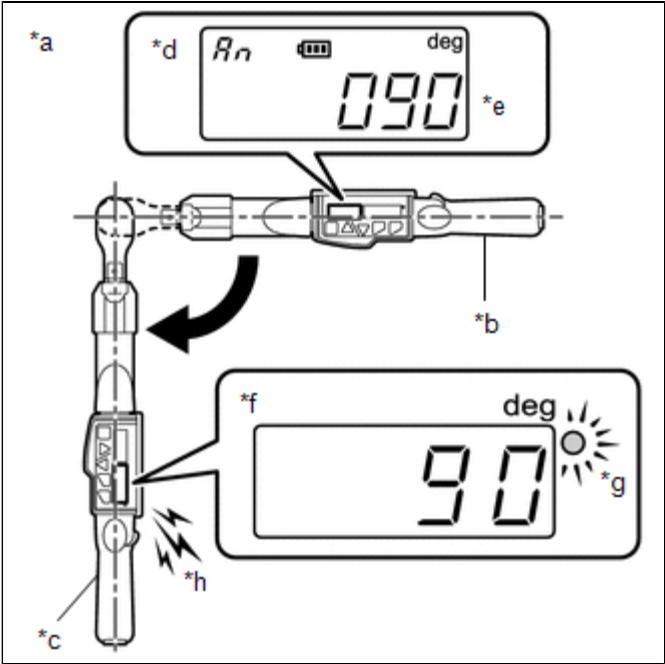
1st	10 N*m (102 kgf*cm, 7 ft.*lbf)
2nd	30 N*m (306 kgf*cm, 22 ft.*lbf)
3rd	50 N*m (510 kgf*cm, 37 ft.*lbf)

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

[Click here](#) **INFO**

(d) Using a digital angle torque wrench, tighten the intake camshaft timing gear bolt assembly an additional 35°.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Set Angle Display
*e	Setting the Specified Angle

*f	Tightening Angle Display
*g	LED Notification
*h	Buzzer Notification

- When using the digital angle torque wrench, set the wrench to the specified tightening angle before use.
- When using the digital angle torque wrench, check the tightening angle display while performing the work.
- When tightening reaches the set angle, the buzzer will sound and a blue LED will illuminate.

8. REMOVE SST

Click here [INFO](#)

9. INSTALL NO. 1 CHAIN TENSIONER ASSEMBLY

Click here [INFO](#)

10. INSPECT CAMSHAFT TIMING

Click here [INFO](#)

11. INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY

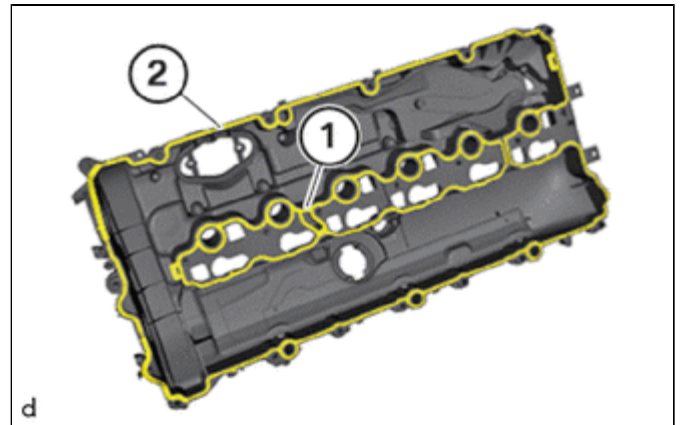
NOTICE:

- Improper routing of cables and wiring harnesses.
- Trapped, crushed or damaged cables may cause short circuits and malfunctions.
 - Route all cables without abrasions, do not trap and crush.

HINT:

Latch mechanisms, guides and mounting elements must not be damaged or missing.

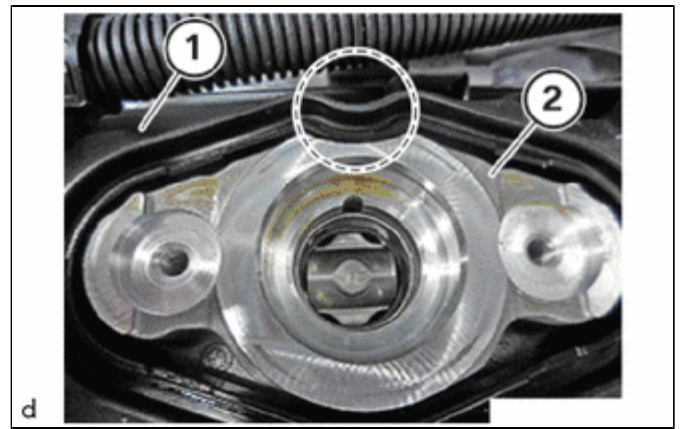
(a) Replace cylinder head cover gasket (1) and (2).



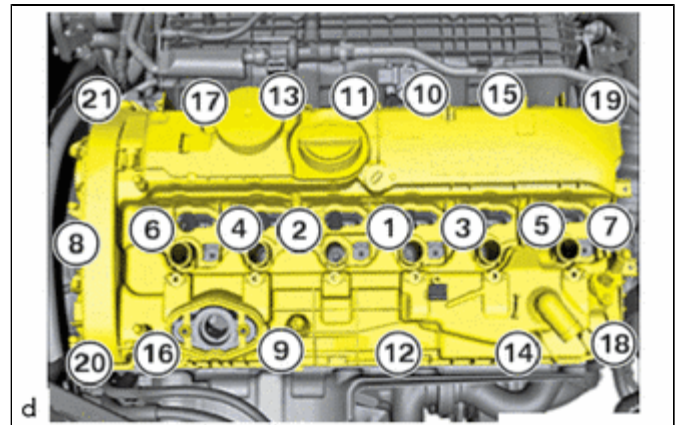
(b) Ensure that the cylinder head cover sub-assembly (1) is installed in the marked area correctly on the high pressure pump bracket (2).

NOTICE:

The cylinder head cover sub-assembly (1) must not touch the high pressure pump bracket (2) in the marked area.



(c) Position cylinder head cover sub-assembly.



(d) Make sure that the cylinder head cover sub-assembly does not touch the high pressure pump bracket!

(e) Tighten all E10 bolts in sequence (1) to (21).

Torque:

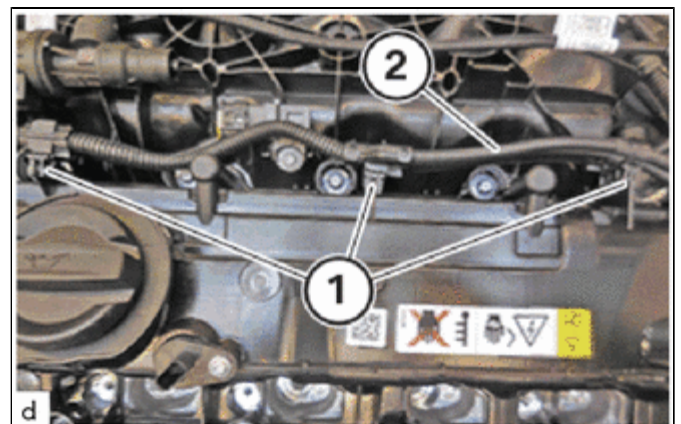
6.0 N·m {61 kgf·cm, 53 in·lbf}

(f) Tighten all E10 bolts in a sequence from (1) to (21).

Torque:

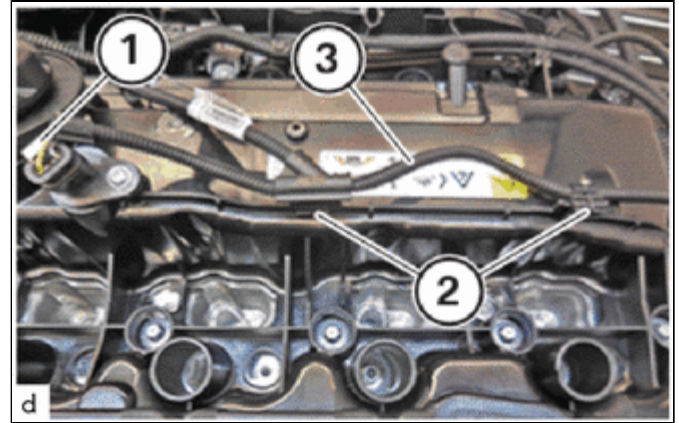
11 N·m {112 kgf·cm, 8 ft·lbf}

(g) Thread in and install the engine wiring harness for engine wire (2).



(h) Secure clamps (1).

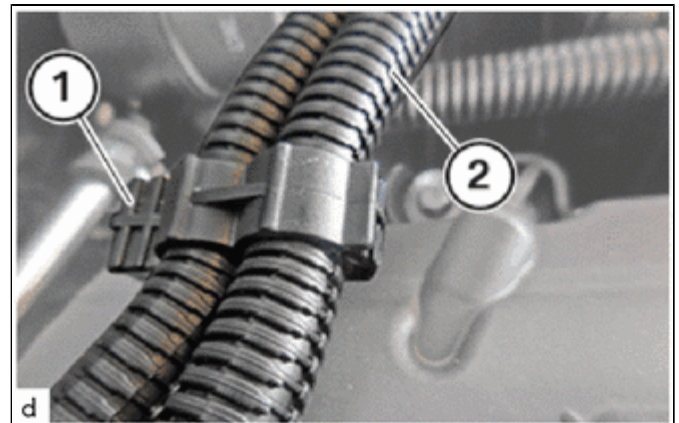
(i) Thread in and install the engine wiring harness for No. 2 engine wire (3).



(j) Secure clamps (2).

(k) Connect connectors (1) and lock.

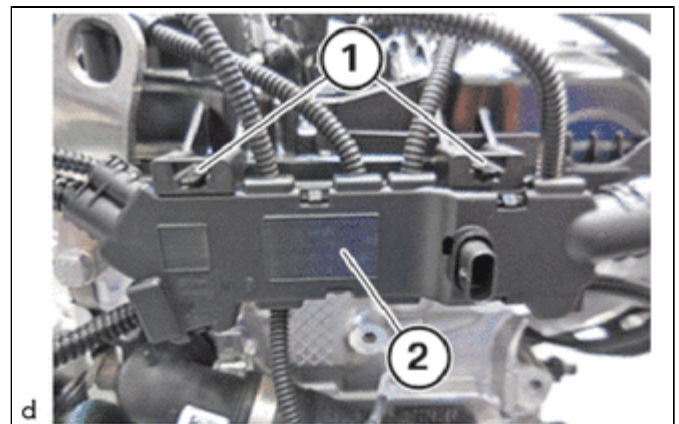
(l) Make sure the connector (1) engages audibly.



(m) Insert and install the wiring harness section (2) for the injectors and ignition coils.

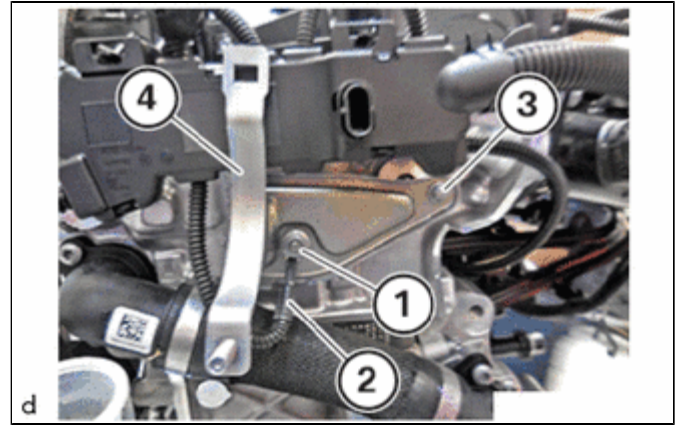
(n) Secure the clamp (1).

(o) Thread in and install the engine wiring harness for No. 2 engine wire (2).



(p) Ensure that the locks (1) engage audibly.

(q) Insert and install the No. 1 electric water pump bracket sub-assembly (4).



(r) Tighten down bolt (3).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(s) Tighten down stud bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

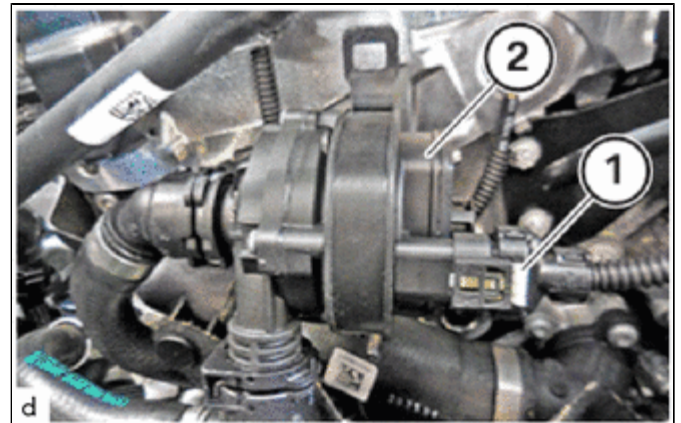
(t) Thread in No. 2 engine wire (2) and install.

(u) Tighten nut (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

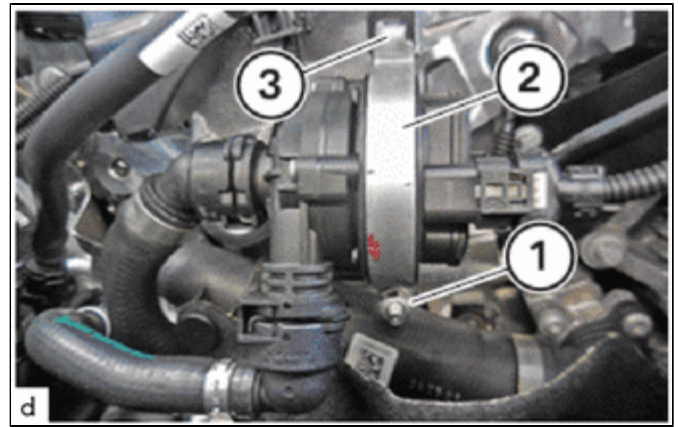
(v) Thread in electric water pump assembly (2) and install.



(w) Connect connectors (1) and lock.

(x) Make sure the connector (1) engages audibly.

(y) Thread in No. 2 electric engine water pump bracket sub-assembly (2) on holder (3) and install.

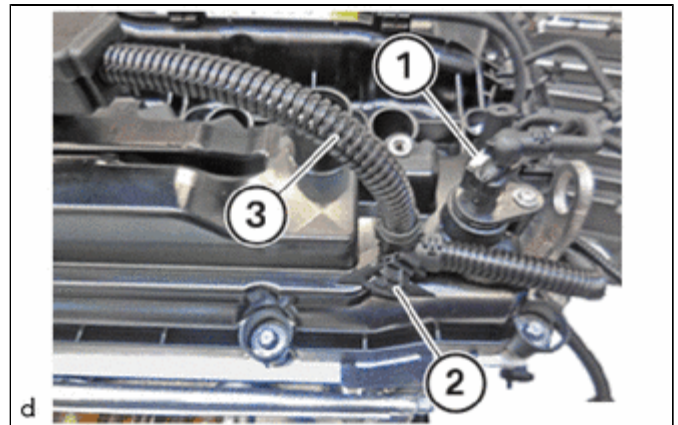


(z) Tighten nut (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(aa) Thread in and install the engine wiring harness for No. 2 engine wire (3).



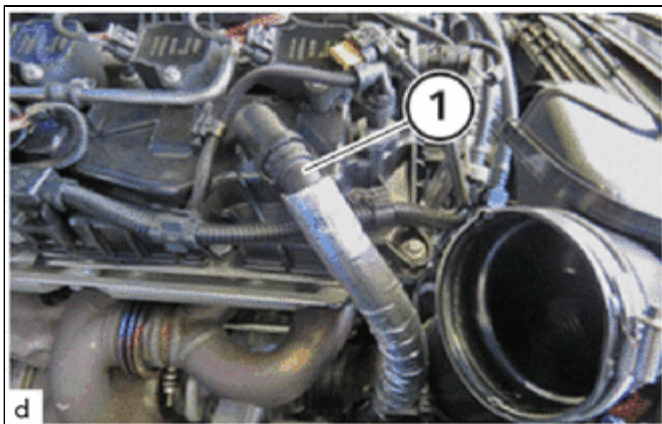
(ab) Secure clamps (2).

(ac) Connect connectors (1) and lock.

(ad) Make sure the connector (1) engages audibly.

HINT:

Latch mechanisms, guides and mounting elements must not be damaged or missing.



(ae) Connect ventilation hose (1) and lock.

(af) Make sure that the engine ventilation line (1) engages audibly.

12. INSTALL WIDE RANGE AIR FUEL RATIO SENSOR

Click here [INFO](#)

13. INSTALL OXYGEN SENSOR

Click here [INFO](#)

14. INSTALL AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY

Click here [INFO](#)

15. INSTALL CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

16. PREPARE INJECTORS FOR INSTALLATION

Click here [INFO](#)

17. INSTALL NO. 2 FUEL DELIVERY PIPE

Click here [INFO](#)

18. INSTALL FUEL DELIVERY PIPE

Click here [INFO](#)

19. INSTALL SPARK PLUG

Click here [INFO](#)

20. INSTALL NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

21. INSTALL FUEL PUMP ASSEMBLY

Click here [INFO](#)

22. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

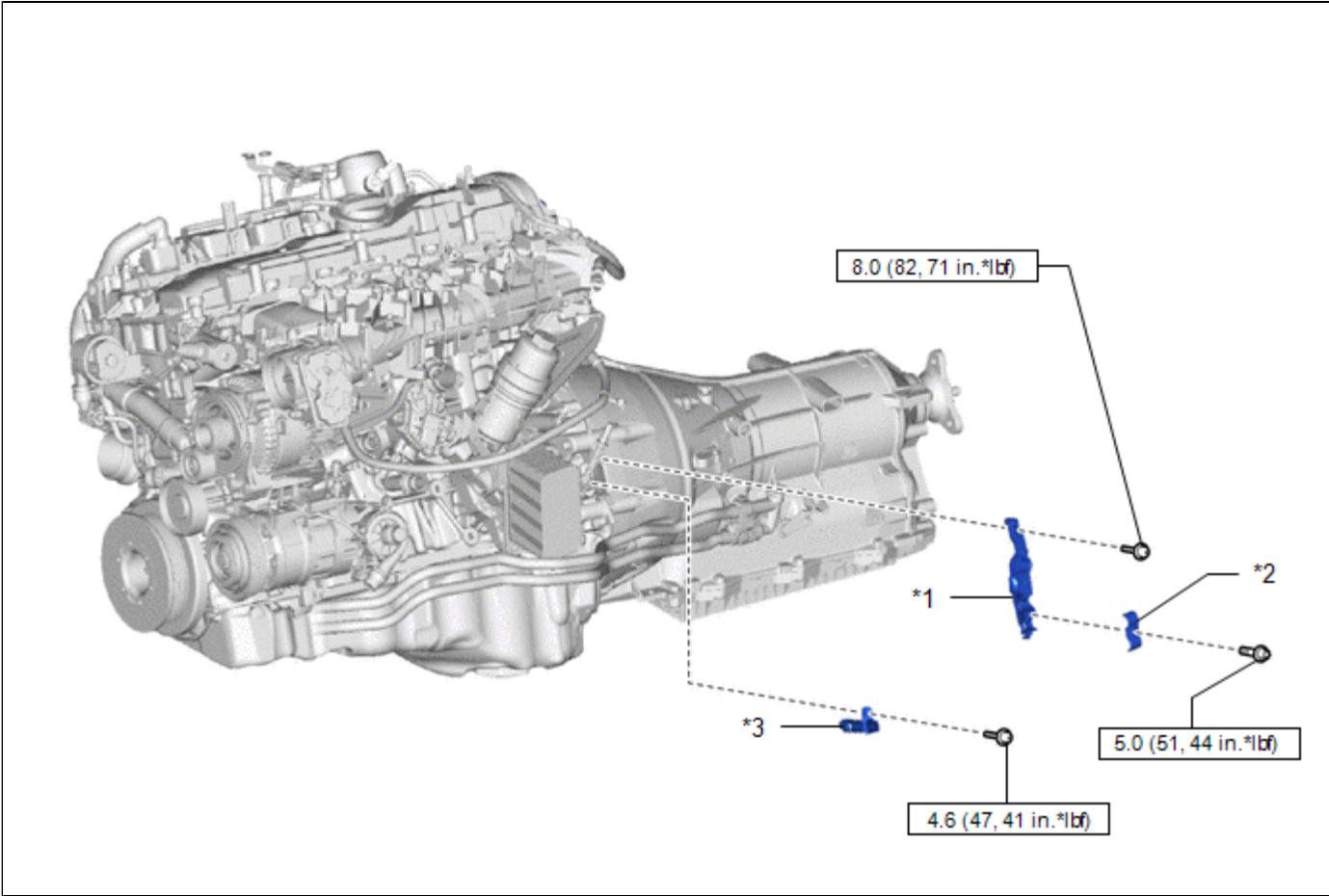
23. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CRANKSHAFT POSITION SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 2 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP	*2	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
*3	CRANKSHAFT POSITION SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CRANKSHAFT POSITION SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

Hot surfaces.

- Risk of burning!
- Perform all work only on components that have cooled down.

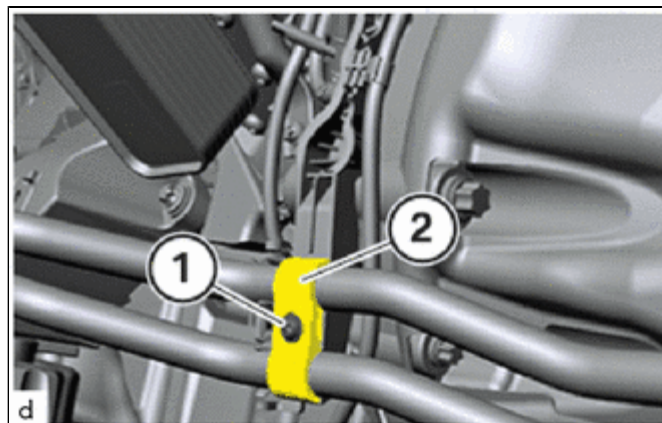
PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

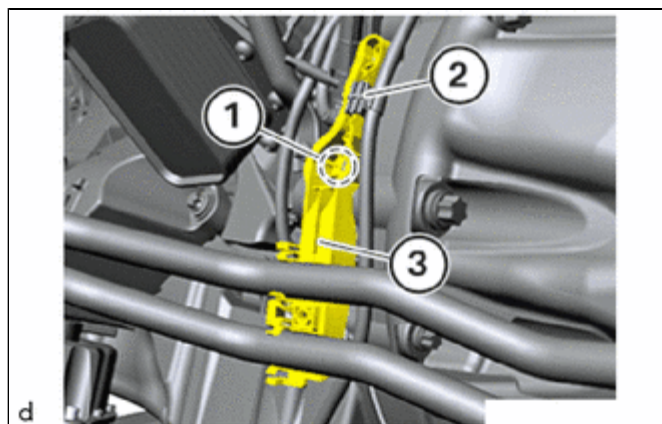
2. REMOVE NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP

- (a) Unscrew the T25 screw (1) and remove the upper section of the No. 3 automatic transmission oil cooler tube clamp (2) for the transmission oil lines.



3. REMOVE NO. 2 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP

- (a) Unclip the cable clip (2).



(b) Loosen E8 bolt (1).

(c) Unclip the transmission oil lines from the No. 2 automatic transmission oil cooler tube clamp (3) for the transmission oil lines.

(d) Remove the No. 2 automatic transmission oil cooler tube clamp (3) for the transmission oil lines.

4. REMOVE CRANKSHAFT POSITION SENSOR

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

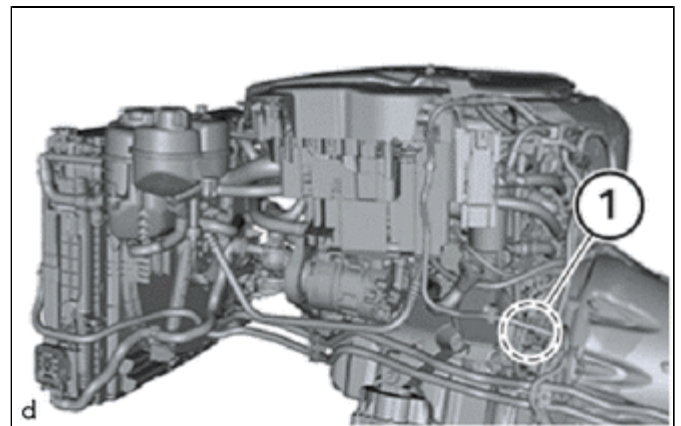
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

[Click here](#) [INFO](#)

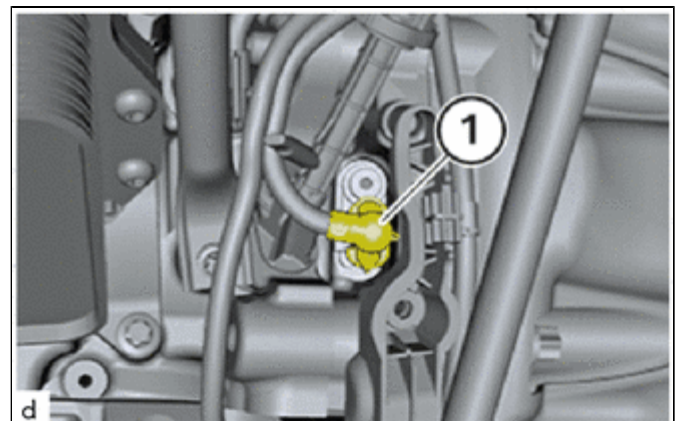
(a) Note the installation location of the crankshaft position sensor.

HINT:

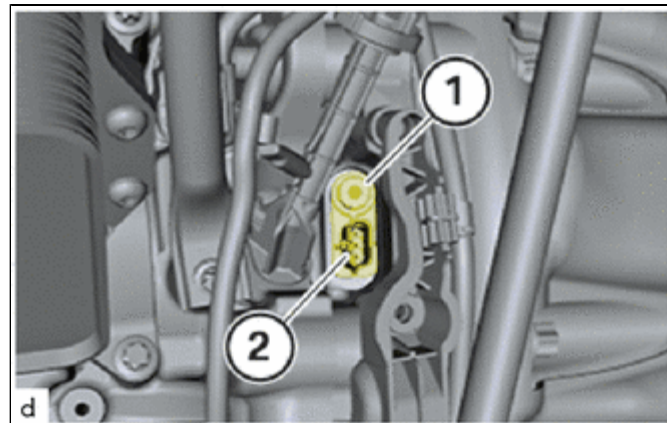
- To provide a better overview: Shown with engine removed.
- The crankshaft position sensor is located in the marked area (1) on the engine block.



(b) Unlock plug connection (1) and disconnect.



(c) Unscrew the 4 mm hexagon bolt (1) and remove the crankshaft position sensor (2).



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): CRANKSHAFT POSITION SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL CRANKSHAFT POSITION SENSOR

- (a) Guide in and install crankshaft position sensor and install.
- (b) Tighten down 4 mm hexagon bolt.

Torque:

4.6 N·m {47 kgf·cm, 41 in·lbf}

- (c) Connect connectors and lock.

HINT:

The connector must engage audibly.

2. INSTALL NO. 2 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP

- (a) Position the No. 2 automatic transmission oil cooler tube clamp for the transmission oil lines at the engine block and clip in the transmission oil lines.
- (b) Join and tighten the E8 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

- (c) Clip in the cable clip.

3. INSTALL NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP

- (a) Position the upper section of the No. 3 automatic transmission oil cooler tube clamp for the transmission oil lines and tighten the T25 screw.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

4. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ECM: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

Instructions for removal and replacement of ECM

NOTICE:

- Disconnecting the vehicle battery will cancel the fault memories of ECU. Consequently, before disconnecting the car's battery, always interrogate the fault memories. Investigate stored faults and, once any faults have been remedied, cancel the fault memory.
- ECU plugs should only ever be connected and disconnected while the ignition is turned off.
- The removal and installation of components, relays, fuses etc. can cause faults to be stored in fault memories capable of self diagnosis. Always interrogate the fault memories after completing work on the electrical system.
- Investigate stored faults and, once any faults have been remedied, cancel the fault memory.
- If necessary, initialize power windows unit.

Observe the following when exchanging the ECM:

- In every case, use the diagnosis system to read out the hardware/software version of the corresponding ECM.

Comply with the diagnosis system instructions for the encoding and programming operations.

On vehicles with an electronic immobilizer, comply with the diagnosis system instructions.

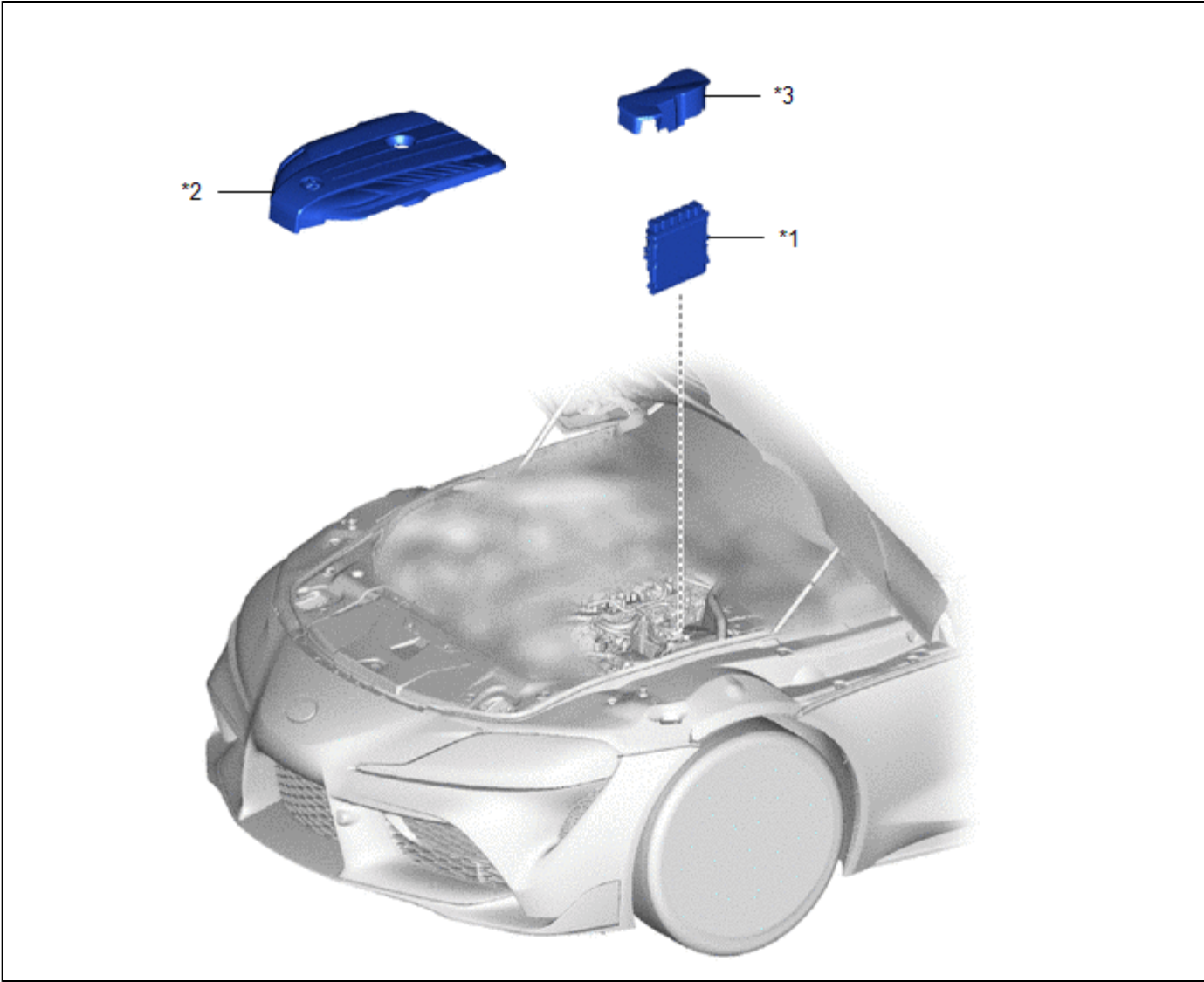
- In every ECU certain mean values are stored that are the basic values. The ECM receives different input values according to the engine condition. The teachable system compares the input values against the stored basic values and then forms the associated control commands. The control commands are forwarded to the corresponding actuators.
- When the ECM is de-energized for a long period (over one hour), the teachable system then loses the stored values. When a deleted ECM is returned to service or a new ECM is installed, the teachable system itself must read in and store the input value of the associated engine as new basic values.
- This process may cause uneven idle and faults in coasting mode after starting. Depending on the engine characteristics, it may take some time until all values have been compared with the engine condition.
- Therefore, comply with the following procedure before an exchange or reinstallation of a ECM is carried out:
 - a. If possible, bring the engine up to its operating temperature prior to replacement of the ECM.
 - b. Change ECM and drive the vehicle with changing engine speeds.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ECM: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ECM	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	COVER	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ECM: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE ECM

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

HINT:

- Follow instructions for removing and installing control units.

For additional information see:

Click here [INFO](#)

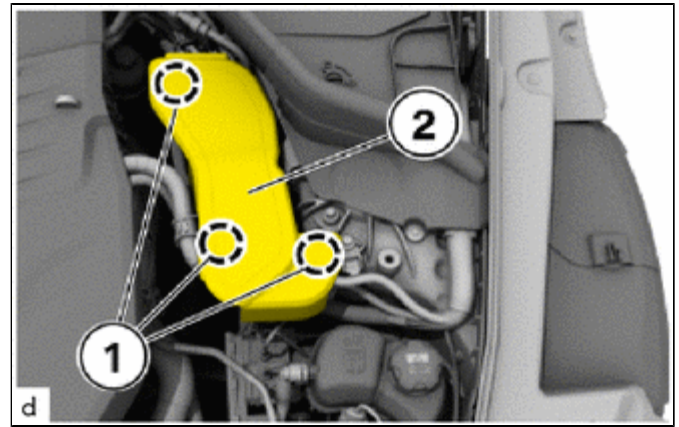
- In a warranty case, you must always provide a fault memory printout with the defective part, even if the fault memory does not contain an entry.
- Control unit must be programmed after it is replaced.

For additional information see:

Click here [INFO](#)

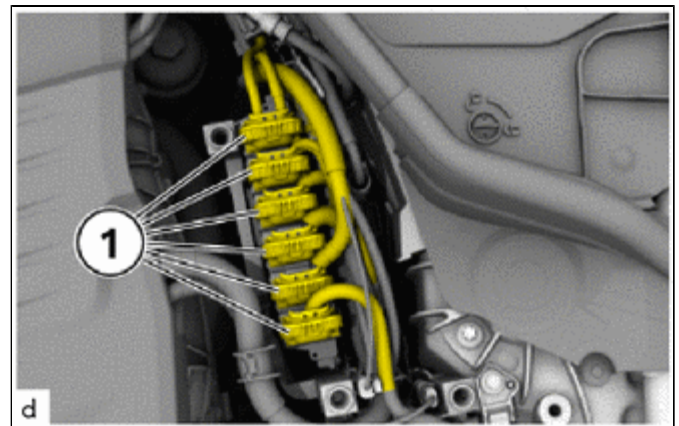
- Disconnecting control units may cause fault code entries and functional limitations. Fault code entries must be read out and deleted if necessary.

(a) Release snap-lock couplings (1).

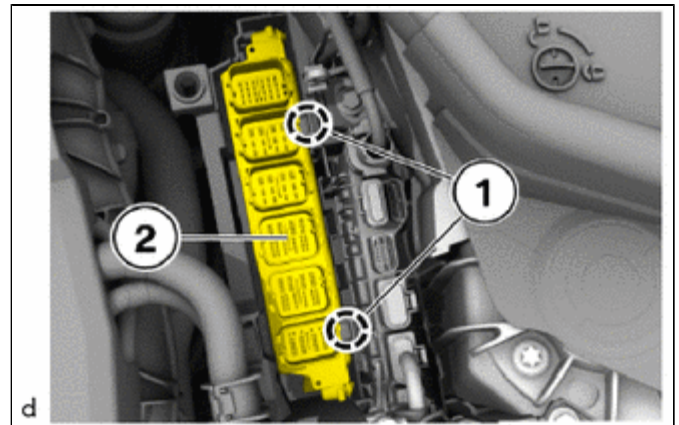


(b) Feed the cover (2) out toward the top and remove.

(c) Unlock and disconnect all plug connections (1).



(d) Unlock the locks (1).



(e) Guide out and remove ECM (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ECM: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

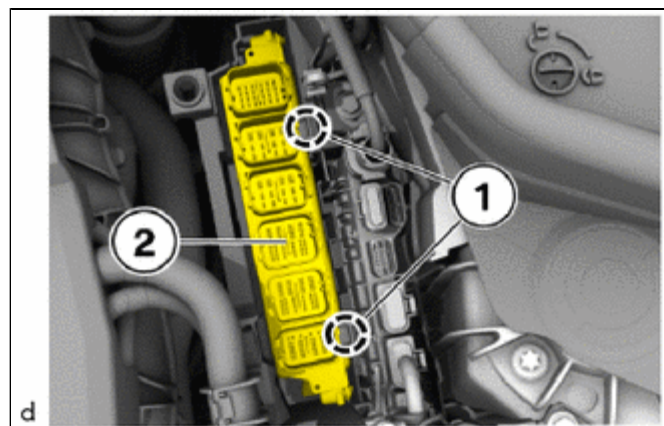
PROCEDURE

1. INSTALL ECM

(a) Feed in and install ECM (2).

HINT:

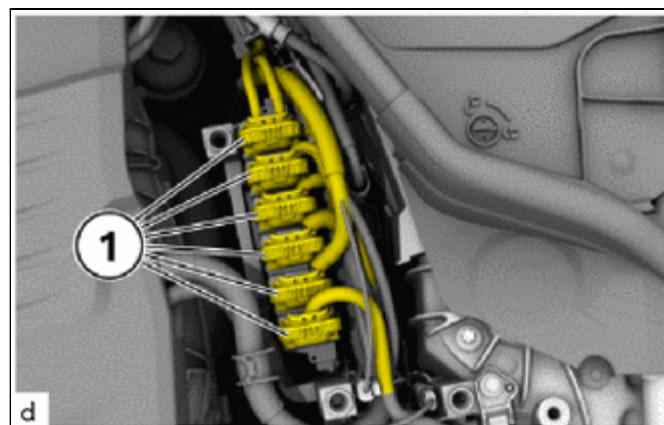
The locks (1) must engage audibly.



(b) Connect all connectors (1) and lock.

HINT:

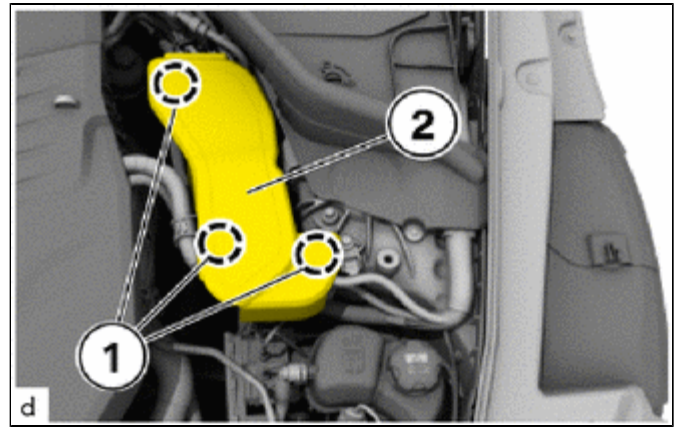
All connectors (1) must engage audibly.



(c) Install the cover (2).

HINT:

The snap-lock couplings (1) must engage audibly.



2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

4. PERFORM INITIALIZATION

- (a) Connect the diagnosis system to the vehicle and enter the following menus:

Vehicle management / Service functions / Drive / Engine electronics / Reset adaptations / ABL Reset adaptation values

5. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

- (a) Connect the battery charger to the vehicle.

- (b) Connect the diagnosis system with the vehicle.

- (c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

- (d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

- (e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

- (f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

- (g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

- (h) Disconnect the diagnosis system from the vehicle.

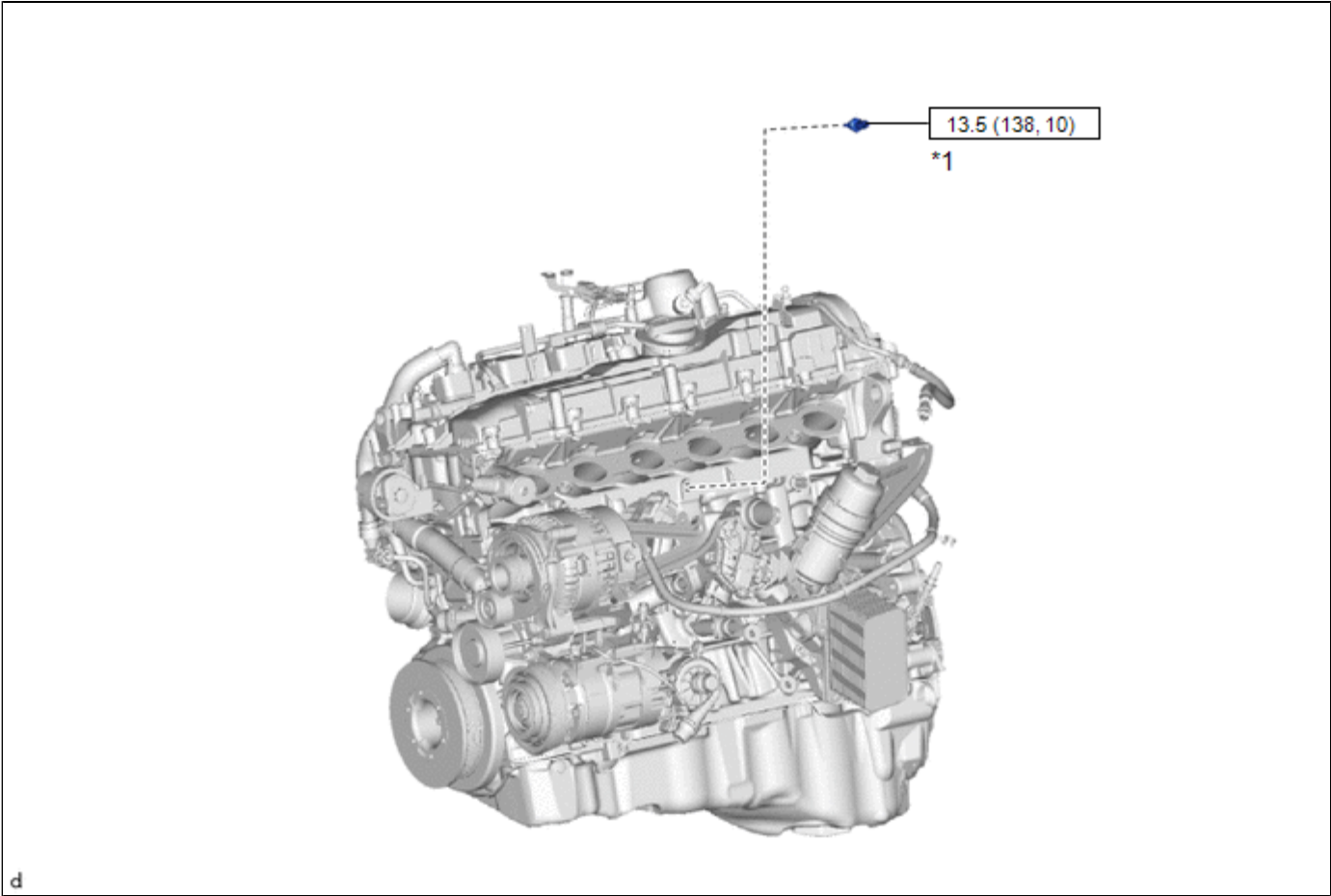
- (i) Disconnect the battery charger from the vehicle.




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE COOLANT TEMPERATURE SENSOR (for Engine): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ENGINE COOLANT TEMPERATURE SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE COOLANT TEMPERATURE SENSOR (for Engine): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

2. REMOVE ENGINE COOLANT TEMPERATURE SENSOR

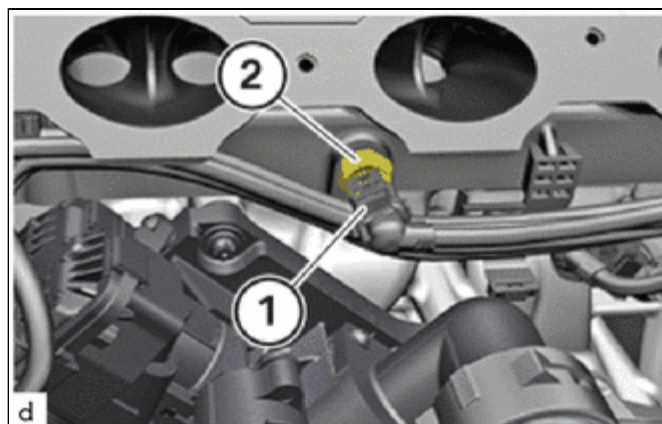
CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

(a) Unlock and disconnect connector (1).

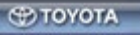


(b) Using a 17 mm deep socket wrench, unscrew the engine coolant temperature sensor (2) with the special tool 0 496 142 (11 8 850).

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(c) Guide out and remove the engine coolant temperature sensor (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE COOLANT TEMPERATURE SENSOR (for Engine): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL ENGINE COOLANT TEMPERATURE SENSOR

- (a) Insert and install the engine coolant temperature sensor.
- (b) Using a 17 mm deep socket wrench, tighten the engine coolant temperature sensor using the special tool 0 496 142 (11 8 850).

Torque:
13.5 N·m {138 kgf·cm, 10 ft·lbf}

- (c) Connect connectors and lock.

HINT:
The connector must engage audibly.

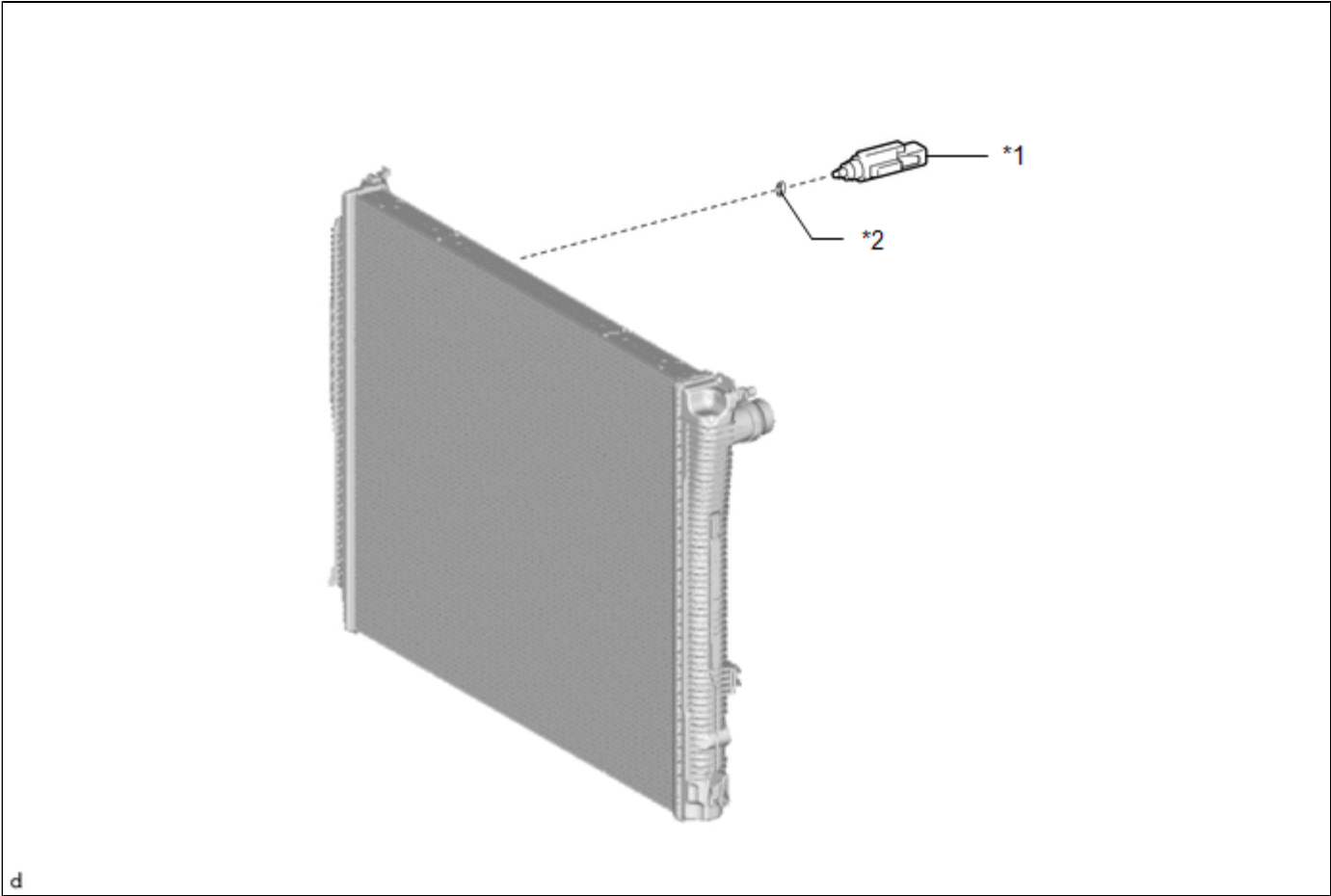
2. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE COOLANT TEMPERATURE SENSOR (for Radiator): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ENGINE COOLANT TEMPERATURE SENSOR	*2	O-RING
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE COOLANT TEMPERATURE SENSOR (for Radiator): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.
- Risk of burning!
- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE ENGINE COOLANT TEMPERATURE SENSOR

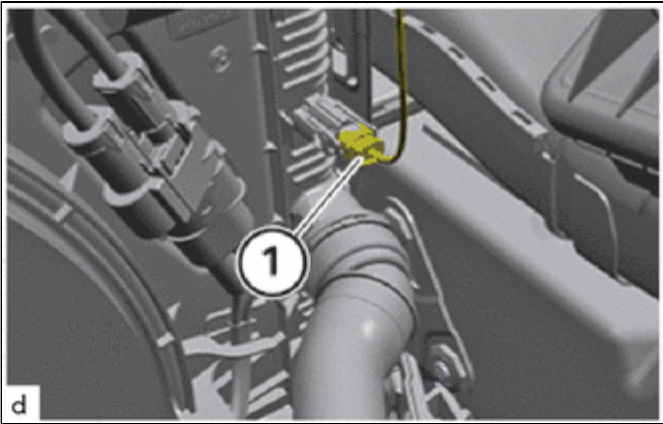
CAUTION:

- Hot fluids.
- Risk of scalding!
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

- Electrostatic discharge.
- Damage to or destruction of electrical components.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - For additional information see:

Click here [INFO](#)

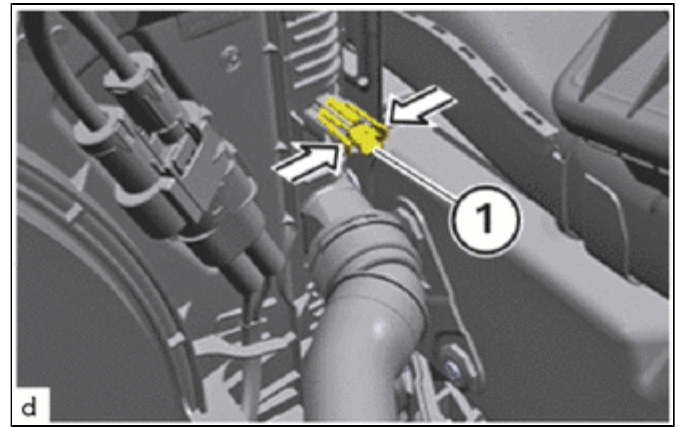


(a) Unlock plug connection (1) and disconnect.

(b) Unlock the locks (arrows), pull the engine coolant temperature sensor (1) out of the radiator and remove.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE COOLANT TEMPERATURE SENSOR (for Radiator): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL ENGINE COOLANT TEMPERATURE SENSOR

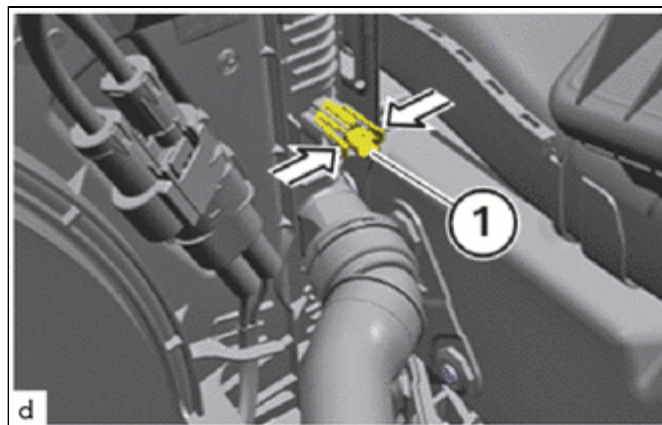
CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- (a) Check the O-ring on the engine coolant temperature sensor (1) for damage and replace the O-ring where required.



- (b) Install the engine coolant temperature sensor (1) in the radiator.
- (c) Lock the locks (arrows).
- (d) Connect connectors and lock.

HINT:

The connector must engage audibly.

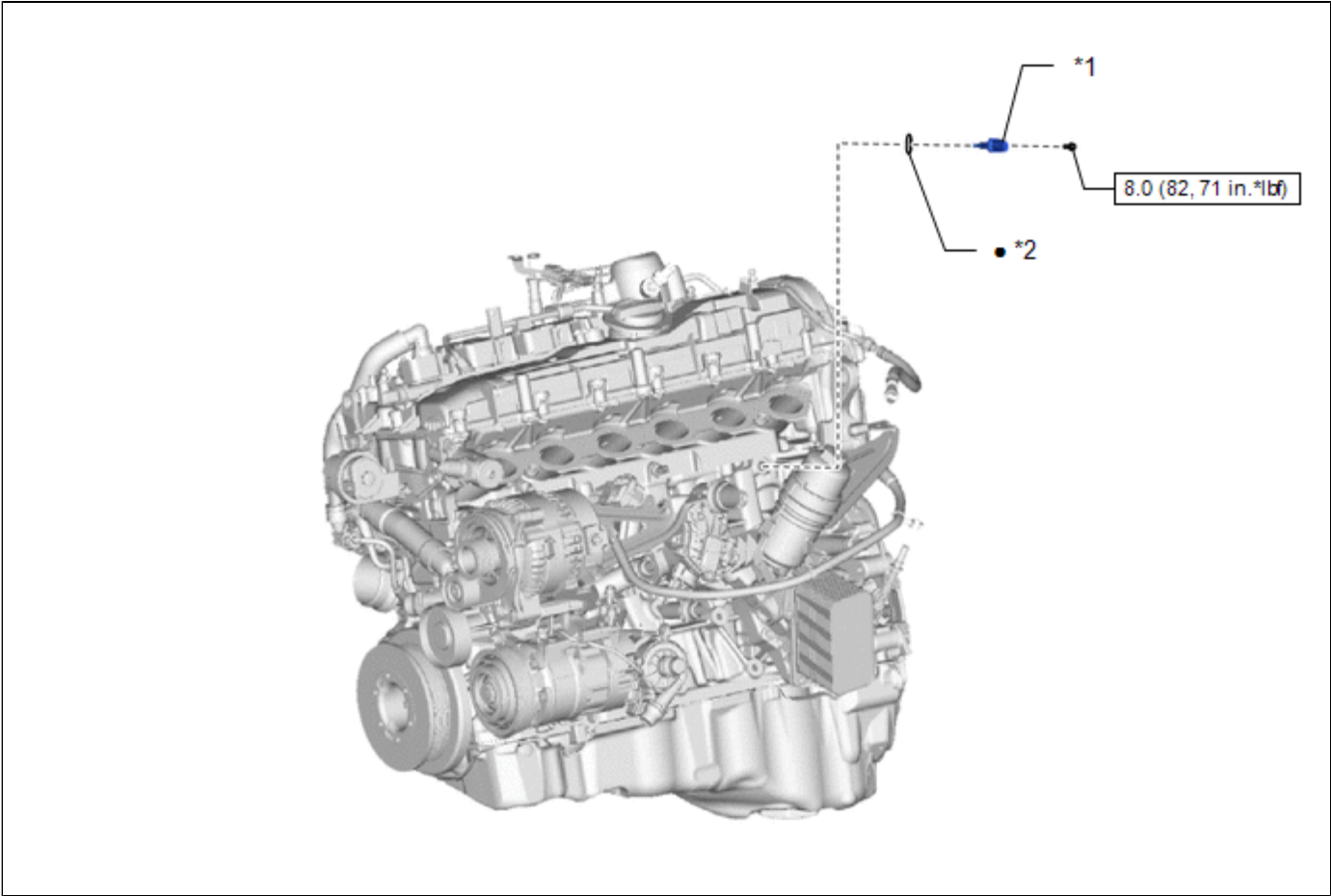
2. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE OIL TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL TEMPERATURE SENSOR	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE OIL TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

2. REMOVE OIL TEMPERATURE SENSOR

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

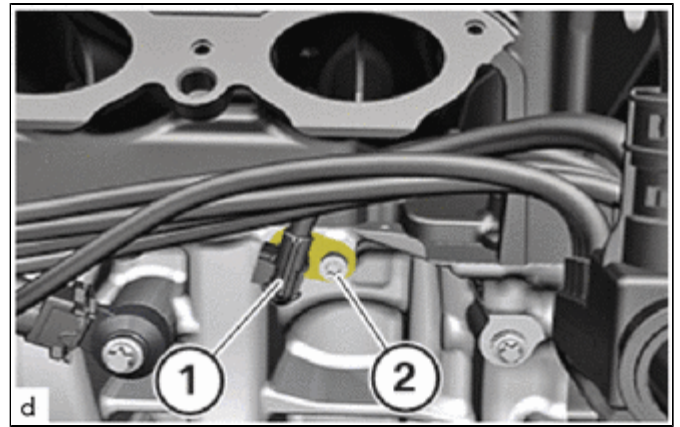
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.

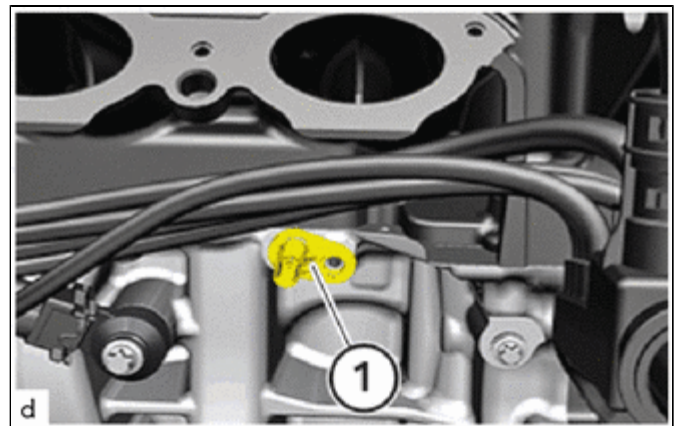


(b) Loosen T30 bolt (2).

(c) Guide out and remove oil temperature sensor (1).

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.



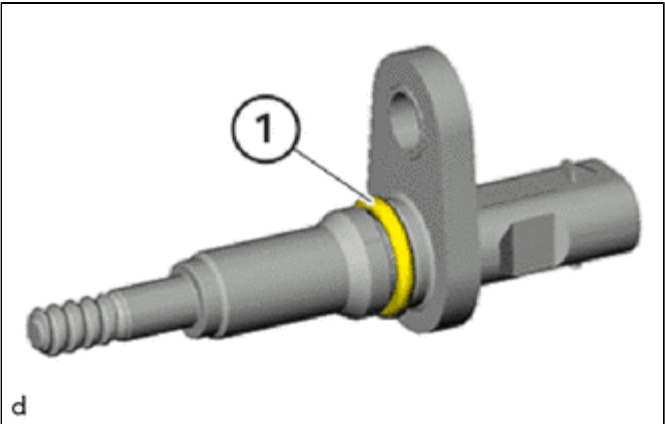
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE OIL TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OIL TEMPERATURE SENSOR

(a) Replace O-ring (1).



(b) Guide in and install oil temperature sensor.

(c) Tighten down T30 bolt.

Torque:
8.0 N·m {82 kgf·cm, 71 in·lbf}

(d) Connect connectors and lock.

HINT:
The connector must engage audibly.

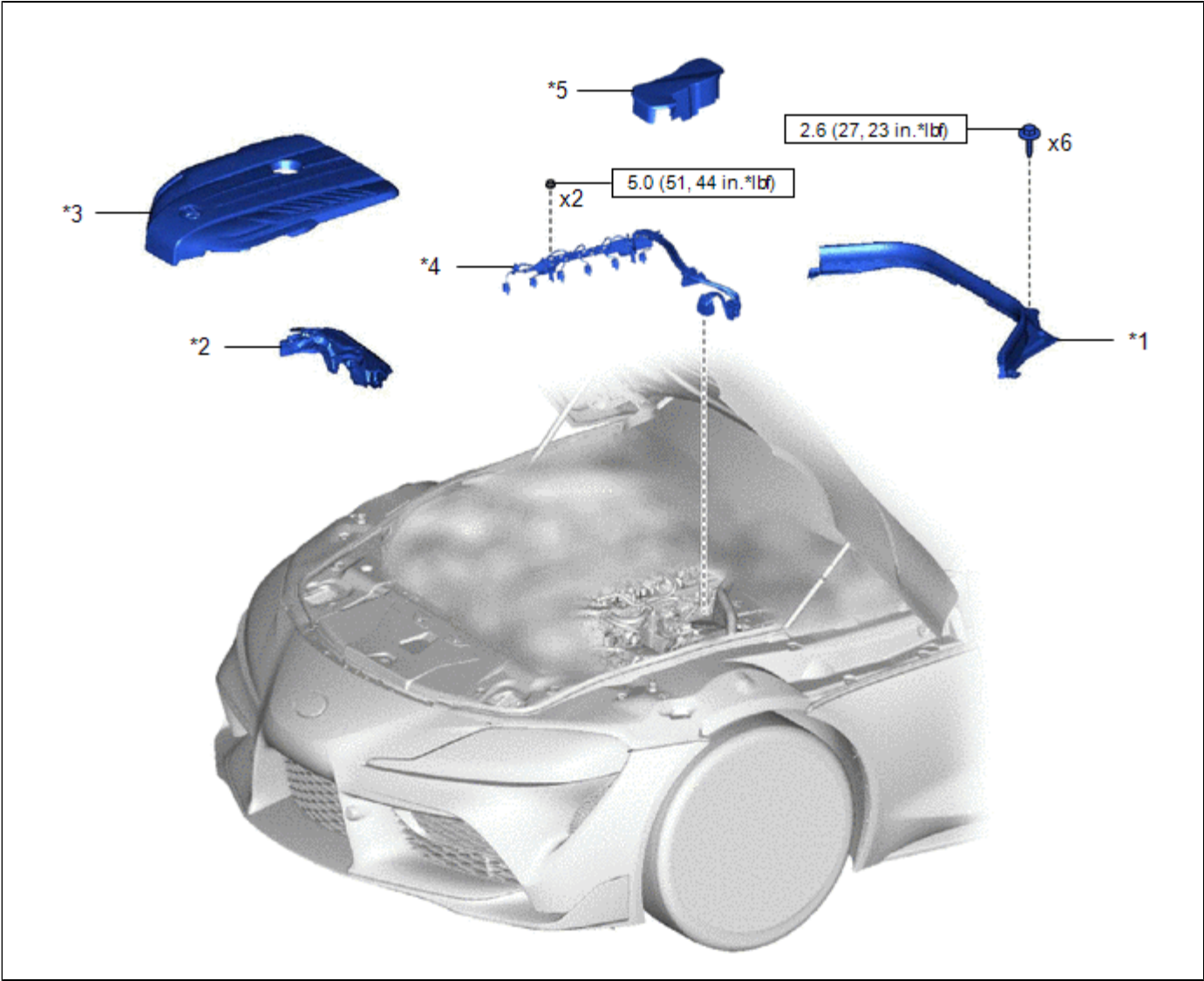
2. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCVY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE WIRE HARNESS: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	COWL TOP VENTILATOR LOUVER PROTECTOR	*2	NO. 1 ENGINE COVER
*3	NO. 1 ENGINE COVER SUB-ASSEMBLY	*4	NO. 4 ENGINE WIRE
*5	COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCVZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE WIRE HARNESS: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

3. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE NO. 1 ENGINE COVER

Click here [INFO](#)

6. REMOVE NO. 4 ENGINE WIRE

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

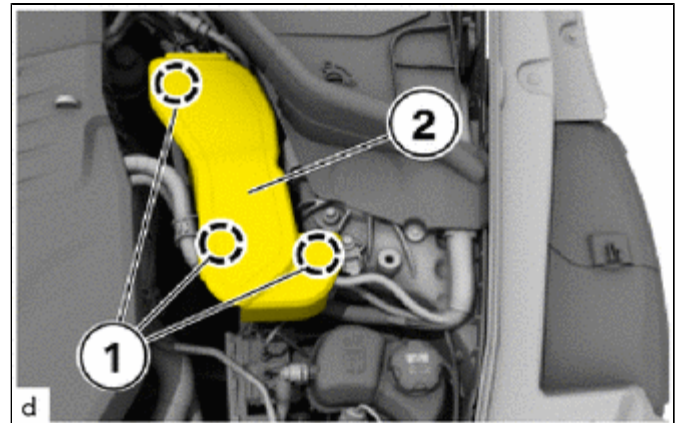
HINT:

- Follow instructions for removing and installing control units.
- For additional information see:

[Click here](#) INFO

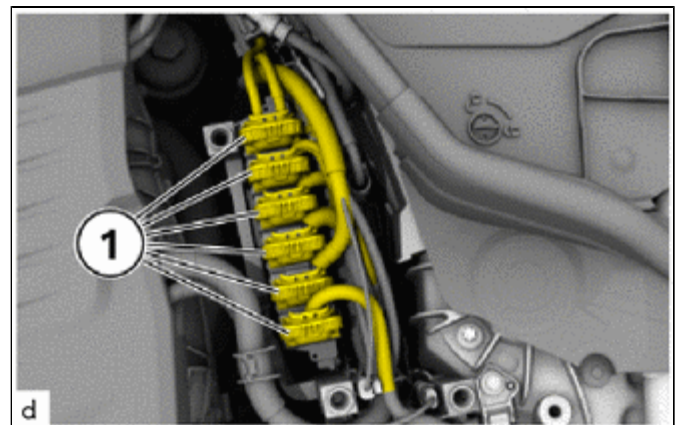
- Disconnecting control units may cause fault code entries and functional limitations. Fault code entries must be read out and deleted if necessary.

(a) Release snap-lock couplings (1).

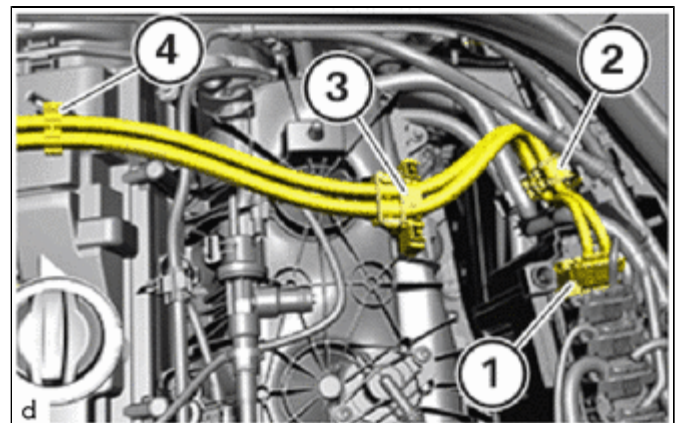


(b) Feed the cover (2) out toward the top and remove.

(c) Unlock and disconnect all plug connections (1).



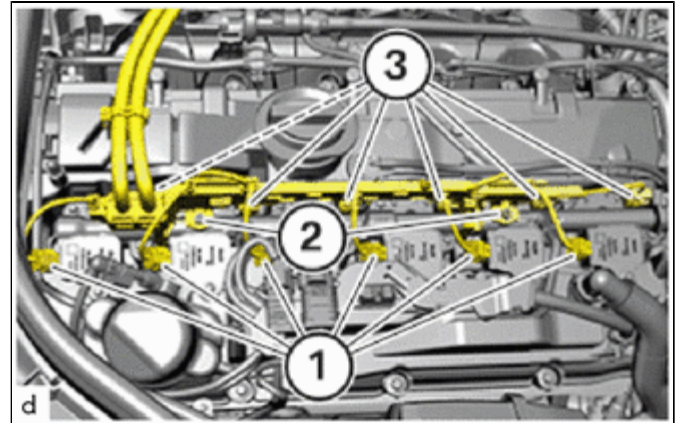
(d) Disconnect connector (1) from ECM.



(e) Release No. 4 engine wire from bracket (2).

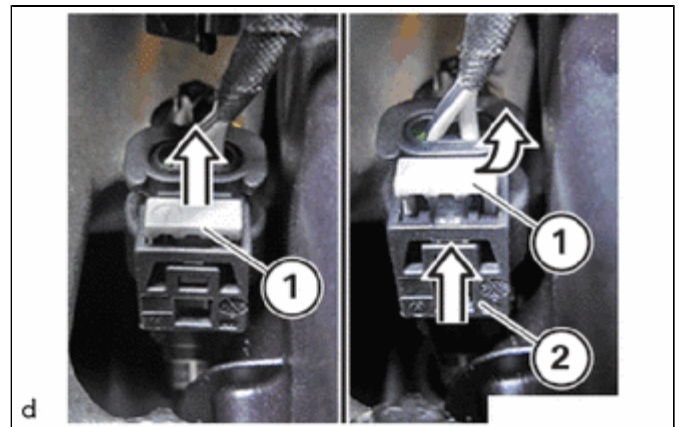
- (f) Release No. 4 engine wire from the clamp (3).
- (g) Release No. 4 engine wire from the clamp (4).

- (h) Unlock and disconnect all connectors (1) of the ignition coils.



- (i) Release nuts (2) and remove ground cable.
- (j) Unlock and pull off all connectors (3) of the injectors.

- (k) Push the lock (1) upward in the direction of the arrow.



- (l) Press lock (1) together and release.
- (m) Pull off the connector (2) from the injectors.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): ENGINE WIRE HARNESS: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 4 ENGINE WIRE

NOTICE:

- Improper routing of cables and wiring harnesses.

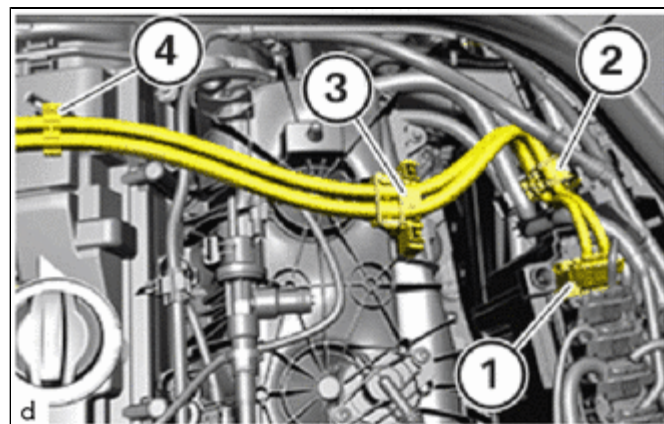
Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(a) Guide in and install the No. 4 engine wire section for the ignition and injectors.

(b) Connect connector (1) to ECM.

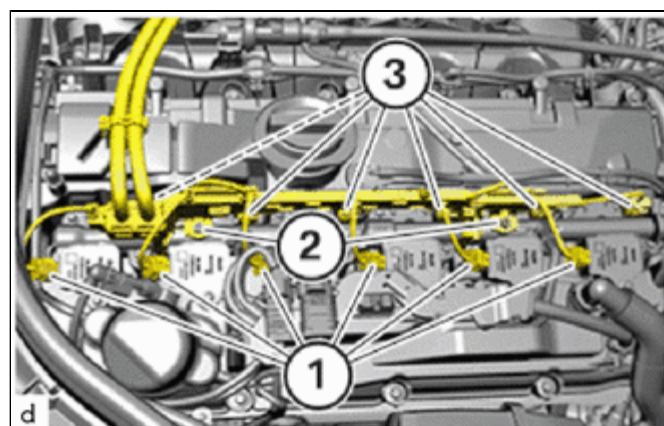
(c) Secure the No. 4 engine wire at the bracket (2).



(d) Fasten No. 4 engine wire with the clamp (3).

(e) Fasten No. 4 engine wire with the clamp (4).

(f) Connect and lock all connectors (1) on the ignition coils.



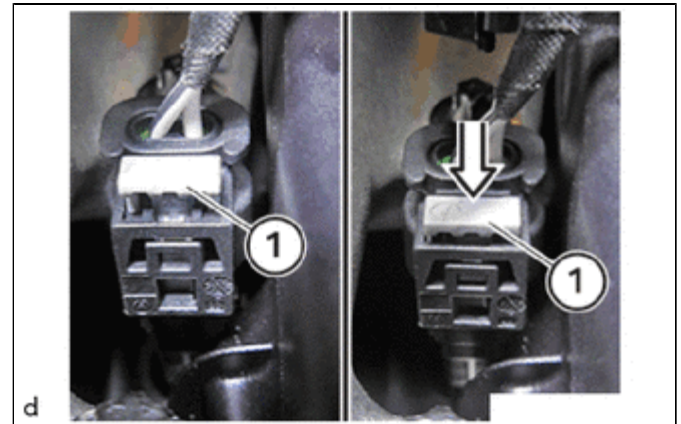
(g) Mount both ground cables and tighten the nuts (2).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(h) Connect and lock all connectors (3) to the injectors.

(i) Connect the connector to the injectors.

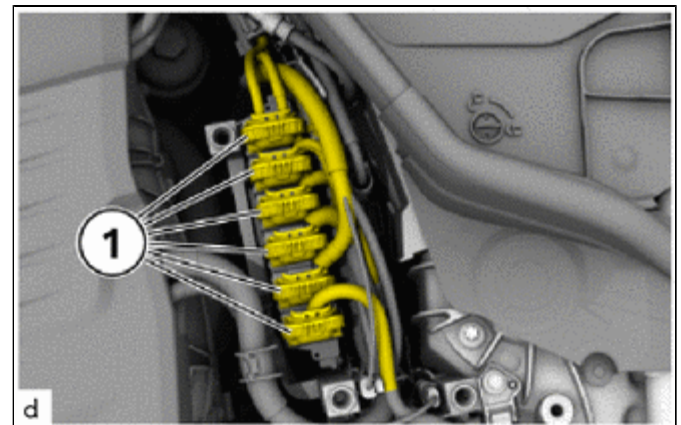


(j) Engage lock (1) in direction of arrow audibly.

(k) Connect all connectors (1) and lock.

HINT:

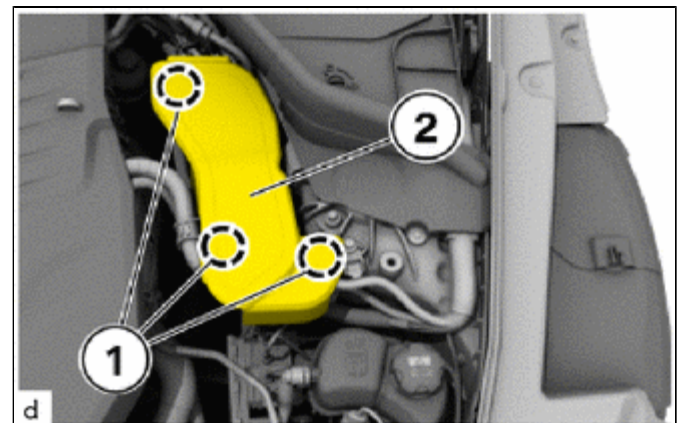
All connectors (1) must engage audibly.



(l) Install the cover (2).

HINT:

The snap-lock couplings (1) must engage audibly.



2. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

4. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

5. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

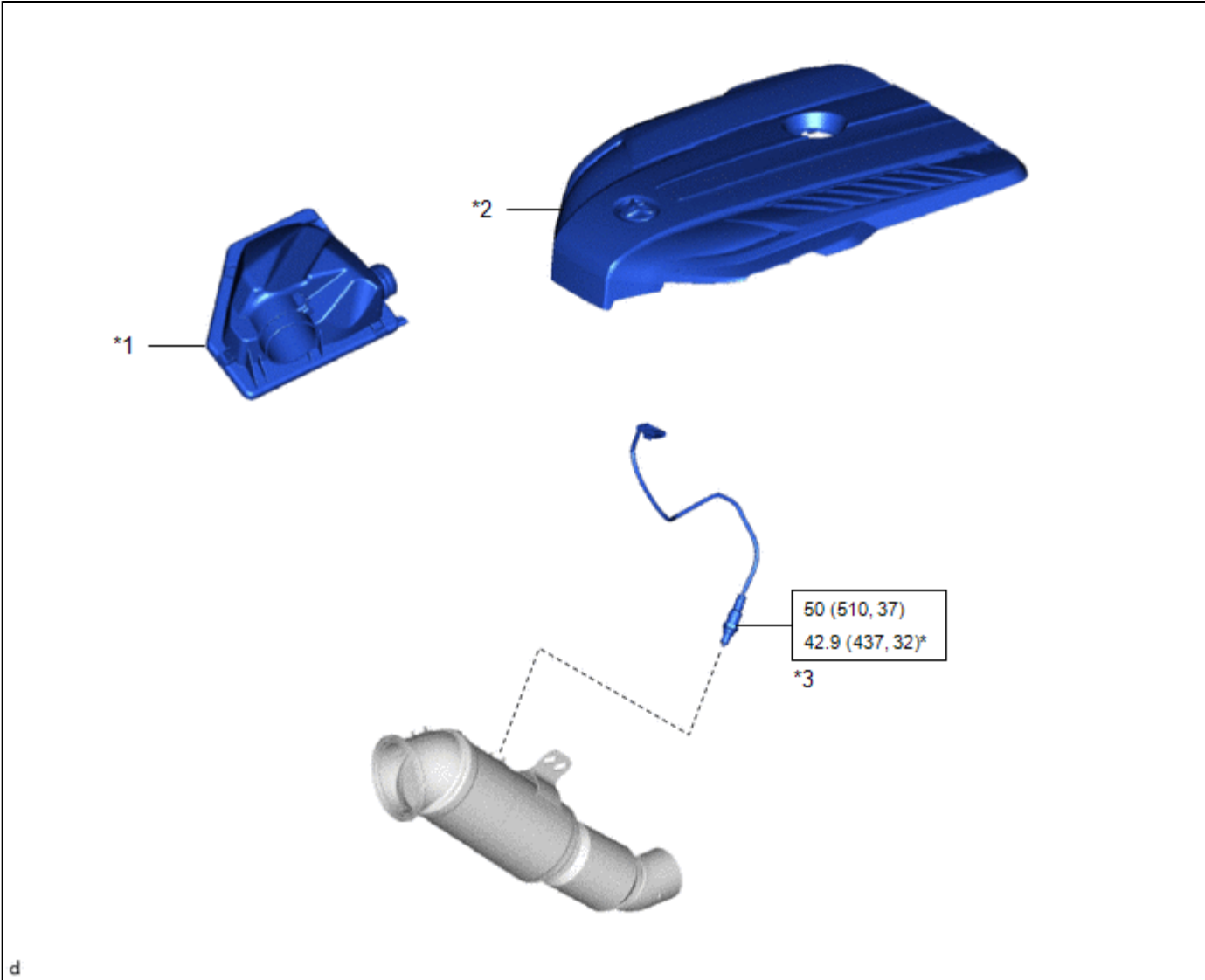
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): HEATED OXYGEN SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CLEANER CAP SUB-ASSEMBLY	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	OXYGEN SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): HEATED OXYGEN SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE AIR CLEANER CAP SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE OXYGEN SENSOR

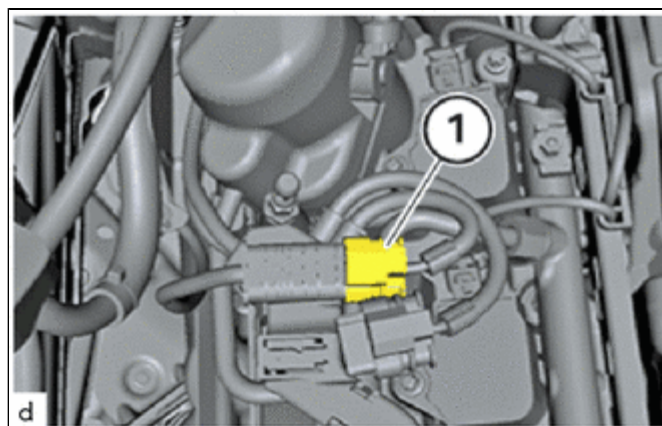
CAUTION:

- Hot surfaces.

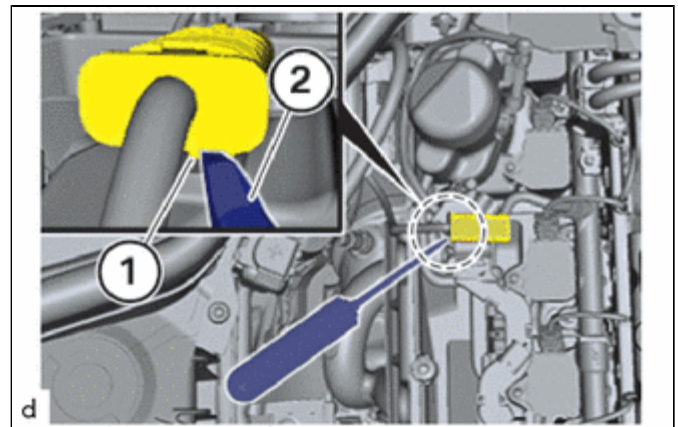
Risk of burning!

- Perform all work only on components that have cooled down.

(a) Unlock plug connection (1) and disconnect.

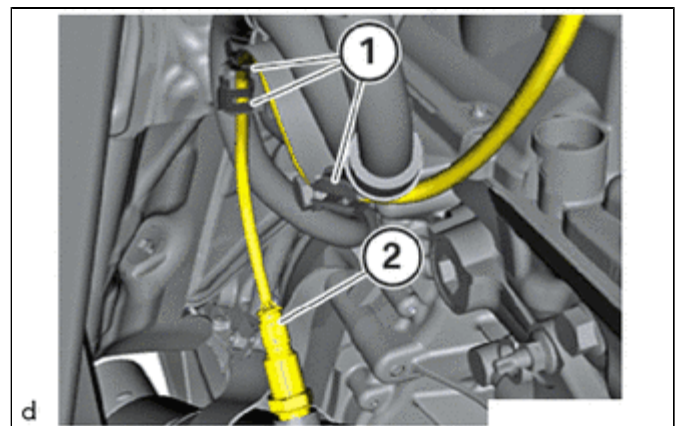


(b) Unlock the lock on the connector (1) with a suitable screwdriver (2).



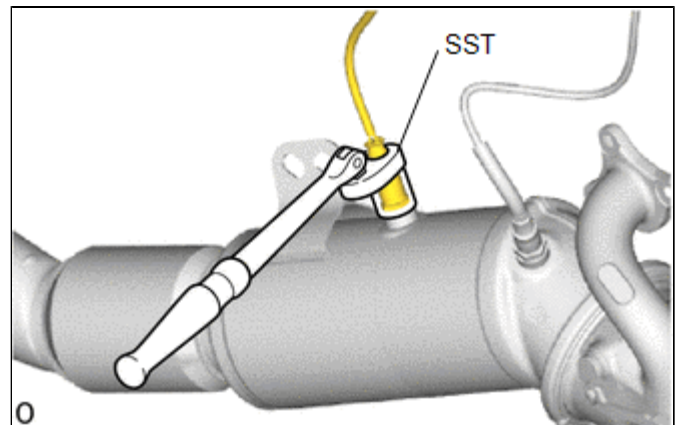
(c) Remove connector (1).

(d) Detach the line of the oxygen sensor (2) from the holder (1).



(e) Using SST, remove the oxygen sensor (1).

SST: 09224-00012



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): HEATED OXYGEN SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

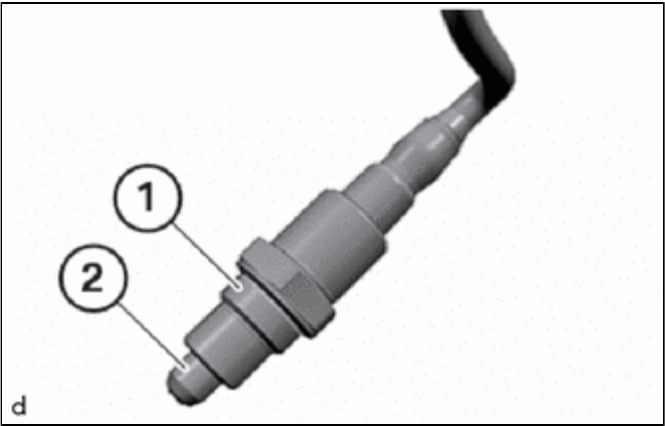
PROCEDURE

1. INSTALL OXYGEN SENSOR

(a) Check the thread (1) and sensor ceramics (2) for damage and replace the oxygen sensor, if necessary.

NOTICE:

- For oxygen sensors that are reused, the following should be observed.
 - Do not clean the part of the oxygen sensor that does not protrude into the exhaust branch (sensor ceramics).



(b) Using SST, install the oxygen sensor (1).

SST: 09224-00012

Torque:

50 N·m {510 kgf·cm, 37 ft·lbf}

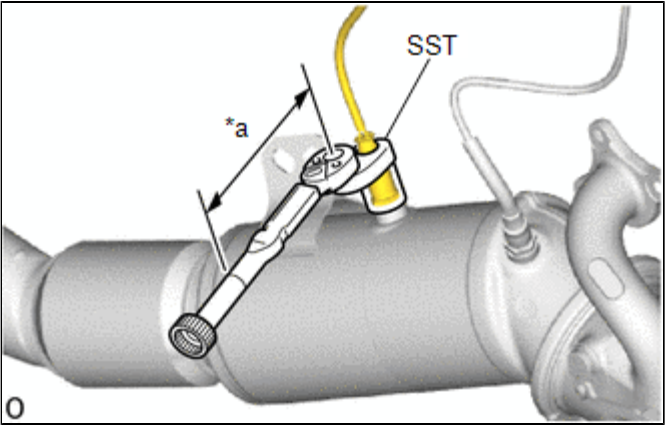
HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)

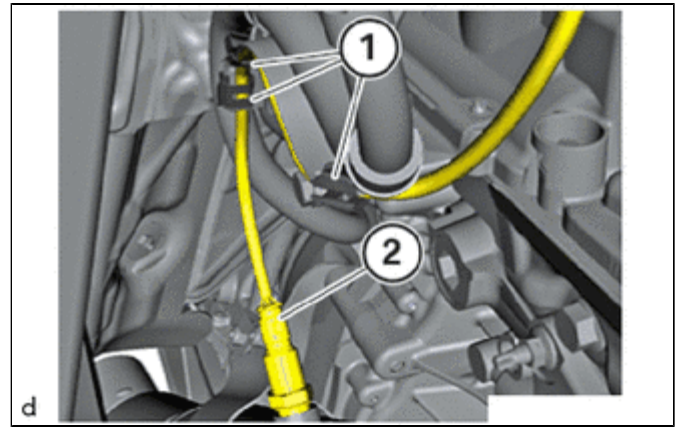
- When using SST (fulcrum length of 30 mm (1.18 in.)) + torque wrench (fulcrum length of 180 mm (7.09 in.)):

42.9 N*m (437 kgf*cm, 32 ft.*lbf)

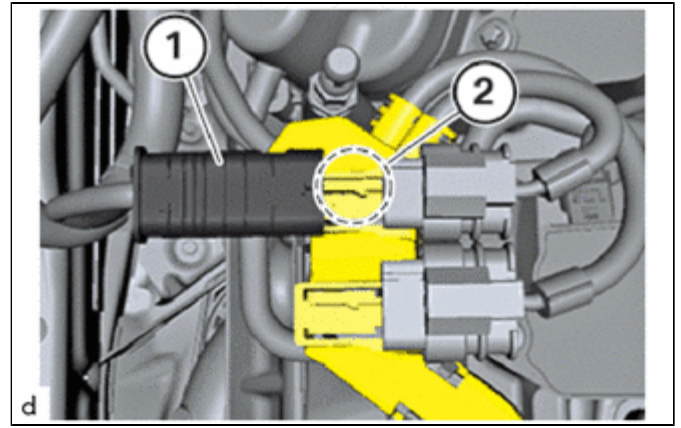


*a	Torque Wrench Fulcrum Length
----	------------------------------

(c) Engage the line of the oxygen sensor (2) in the holders (1).



(d) Engage connector (1) on the holder (2).



(e) Connect connectors and lock.

2. INSTALL AIR CLEANER CAP SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

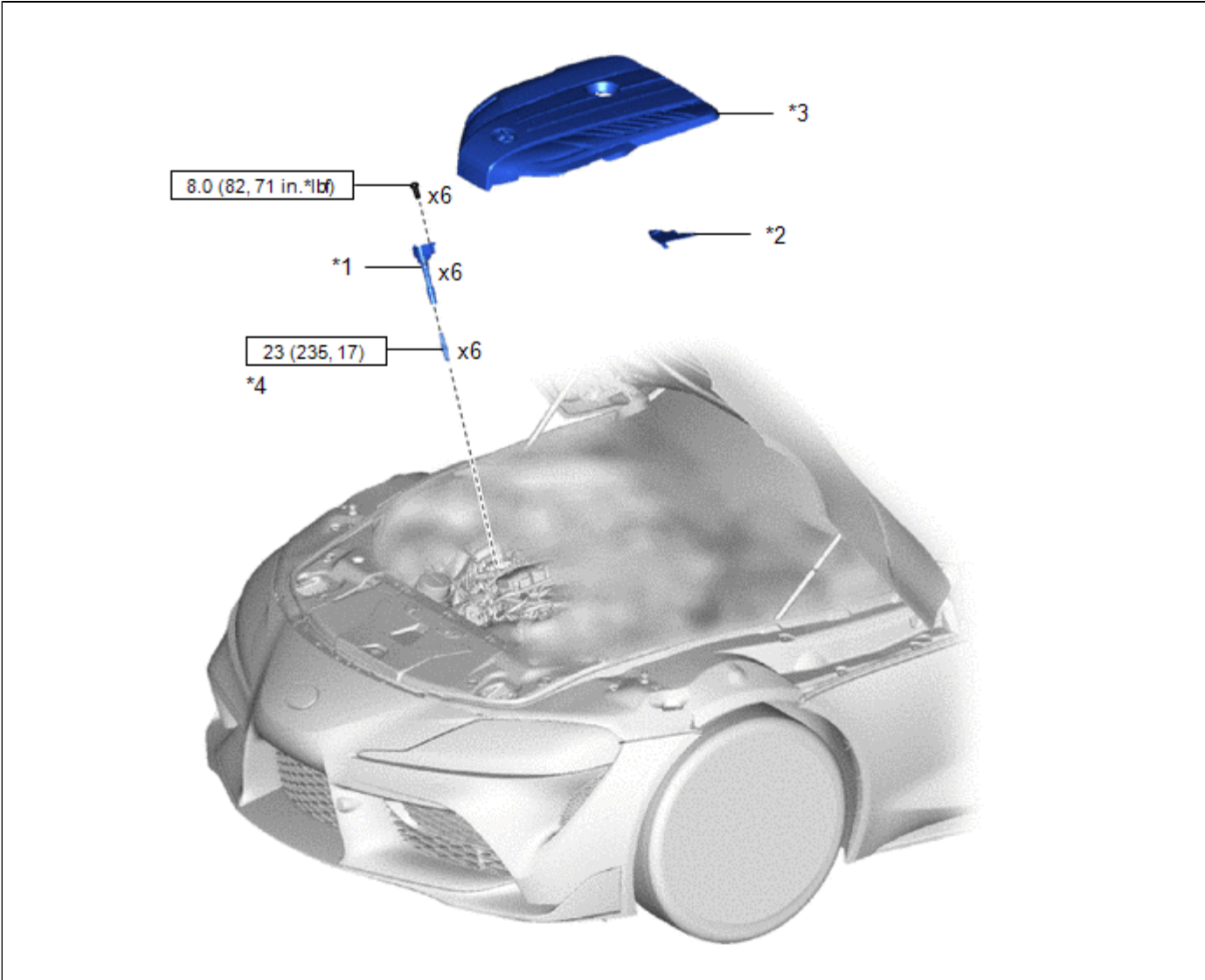
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): IGNITION COIL AND SPARK PLUG: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	IGNITION COIL	*2	NO. 1 ENGINE COVER
*3	NO. 1 ENGINE COVER SUB-ASSEMBLY	*4	SPARK PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): IGNITION COIL AND SPARK PLUG: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

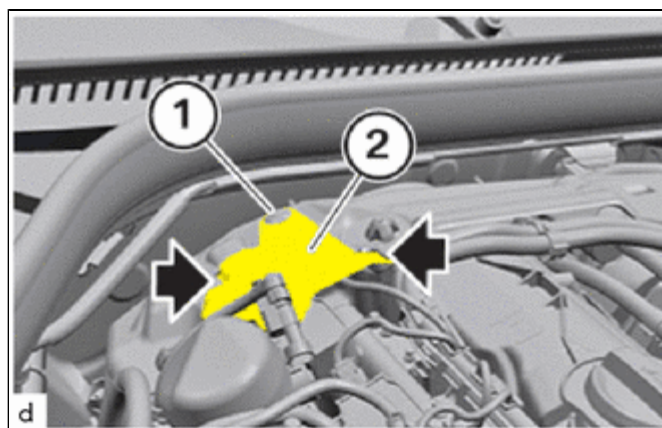
PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE COVER

- (a) Detach the No. 1 engine cover (2) in the marked areas (arrows) and twist it to the side at the pivot point (1).



3. REMOVE IGNITION COIL

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Damage to the ignition coil.

The silicone hose of the ignition coil must not be contaminated by fuel as this can lead to failure of the ignition coil.

- Cover ignition coils using suitable covers when working on the fuel system, if necessary remove them.
- Do not oil or grease the silicone tube of the spark plug connector. The silicone tube is coated with talc to reduce the pulling forces.

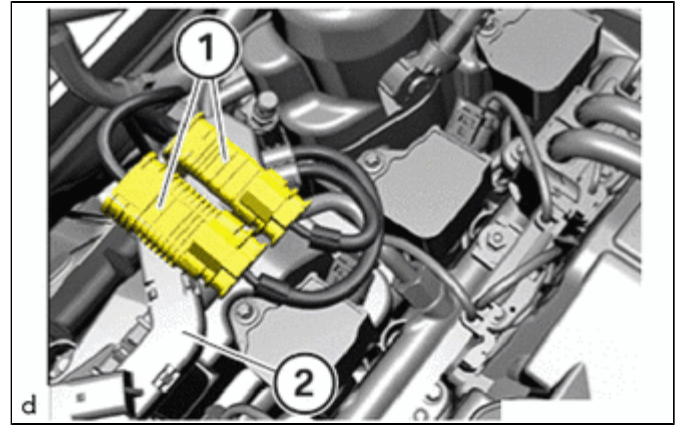
- Electrostatic discharge.

Damage to or destruction of electrical components.

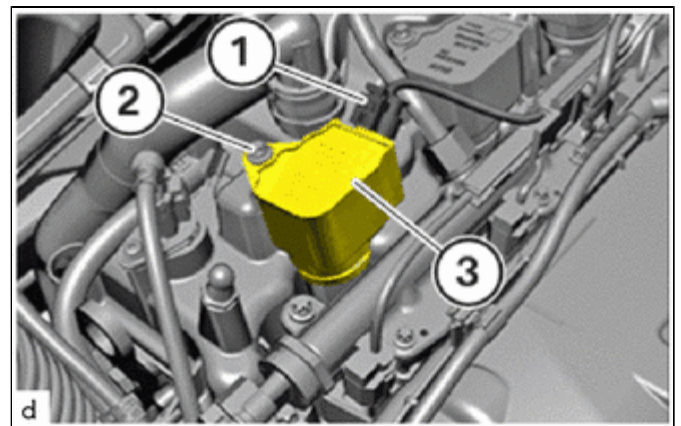
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

- (a) Disconnect the connectors (1) of the No. 2 oxygen sensor and the No. 2 air fuel ratio sensor from the cable channel (2) and set aside.



- (b) Unlock plug connection (1) and disconnect.



- (c) Loosen E8 bolt (2).

- (d) Remove ignition coil (3).

4. REMOVE SPARK PLUG

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): IGNITION COIL AND SPARK PLUG: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SPARK PLUG

Click here [INFO](#)

2. INSTALL IGNITION COIL

- (a) Install ignition coil.
- (b) Tighten down E8 bolt.

Torque:

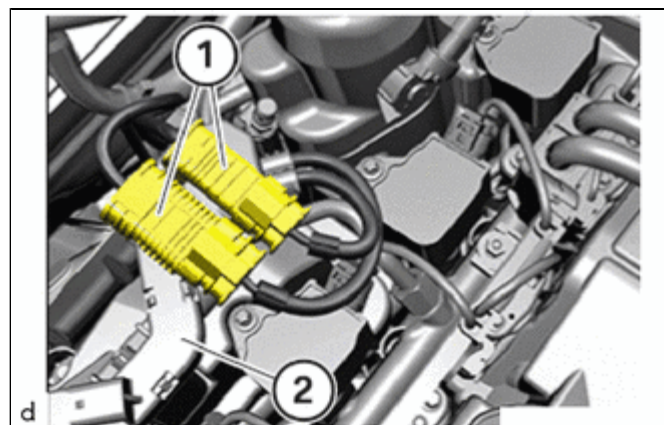
8.0 N·m {82 kgf·cm, 71 in·lbf}

- (c) Connect connectors and lock.

HINT:

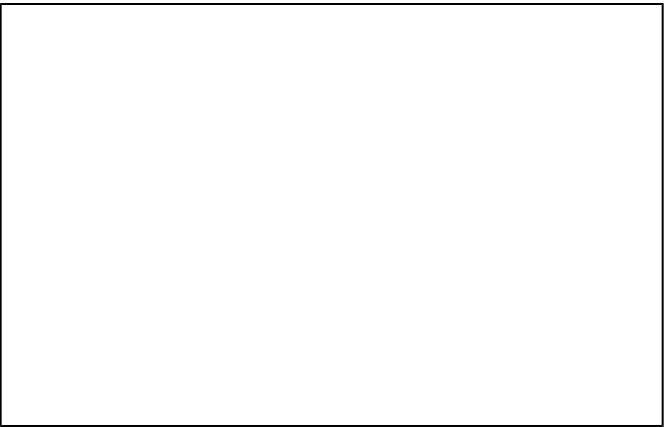
The connector must engage audibly.

- (d) Connect the connectors (1) of the No. 2 oxygen sensor and the No. 2 air fuel ratio sensor on the cable shaft (2).



3. INSTALL NO. 1 ENGINE COVER

- (a) Turn the No. 1 engine cover (2) at the pivot point (1) to the installation position and guide it in where marked (arrows).



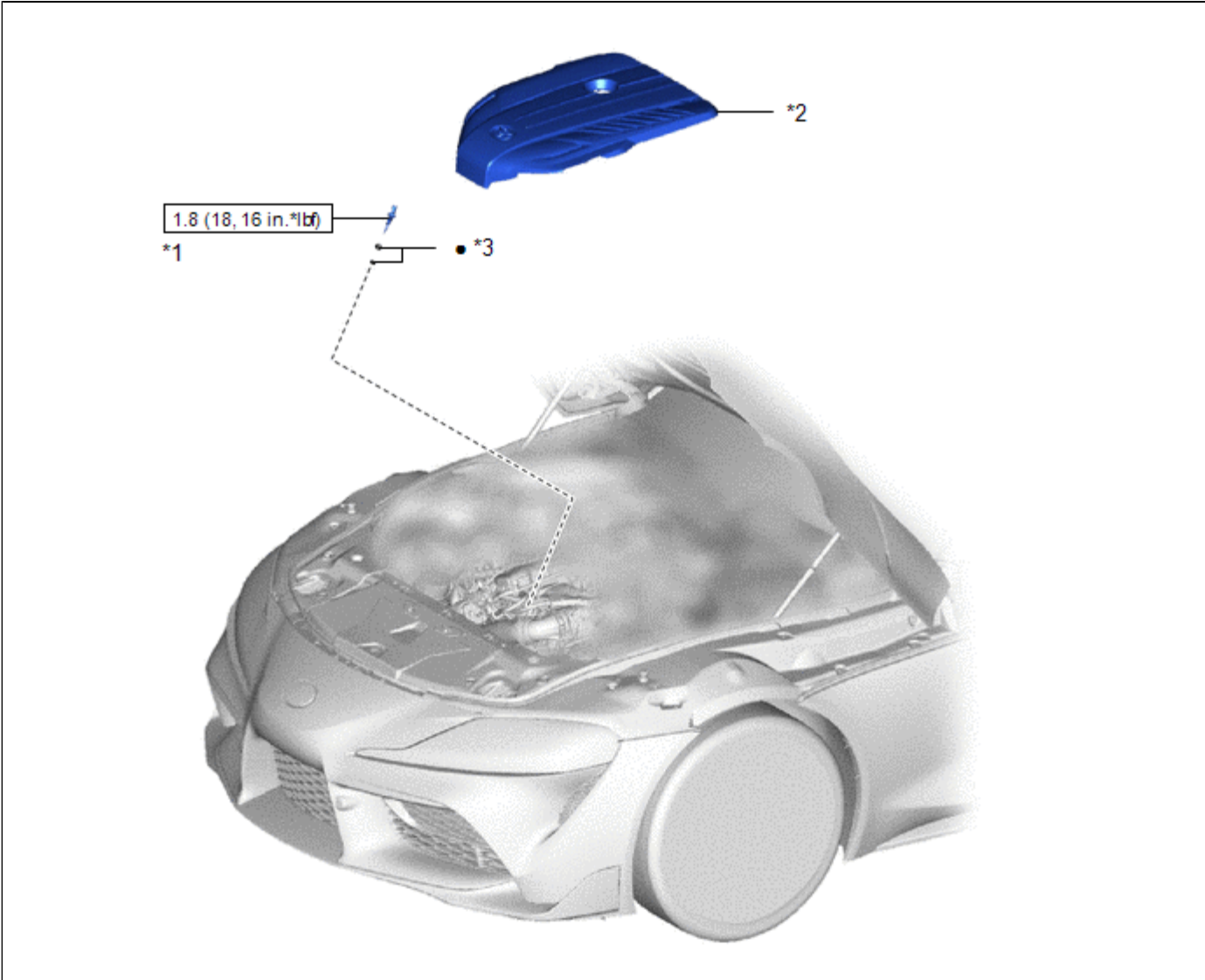
4. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): INTAKE AIR TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INTAKE AIR TEMPERATURE SENSOR	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): INTAKE AIR TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE INTAKE AIR TEMPERATURE SENSOR

NOTICE:

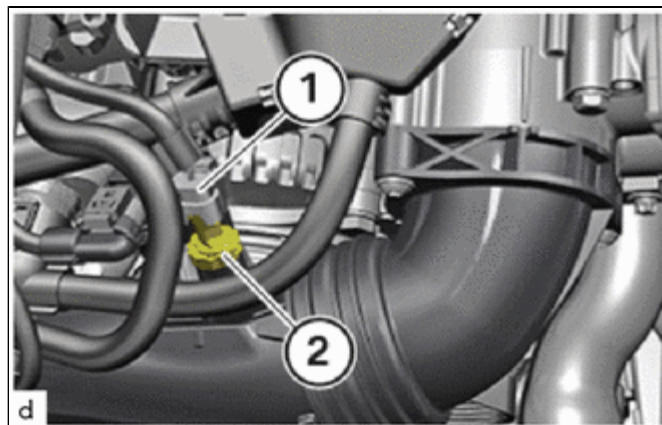
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Using a 17 mm deep socket wrench, unscrew the intake air temperature sensor (2) with the special tool 0 496 142 (11 8 850).

(c) Take out and remove intake air temperature sensor (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): INTAKE AIR TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL INTAKE AIR TEMPERATURE SENSOR

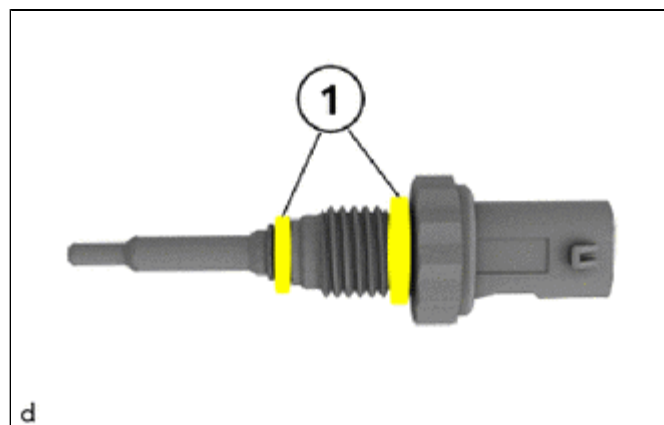
NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with O-rings plugs.

(a) Replace the O-rings (1) on the intake air temperature sensor.



(b) Insert and install the intake air temperature sensor.

(c) Using a 17 mm deep socket wrench, tighten the intake air temperature sensor with the special tool 0 496 142 (11 8 850).

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

(d) Connect connectors and lock.

HINT:

The connector must engage audibly.

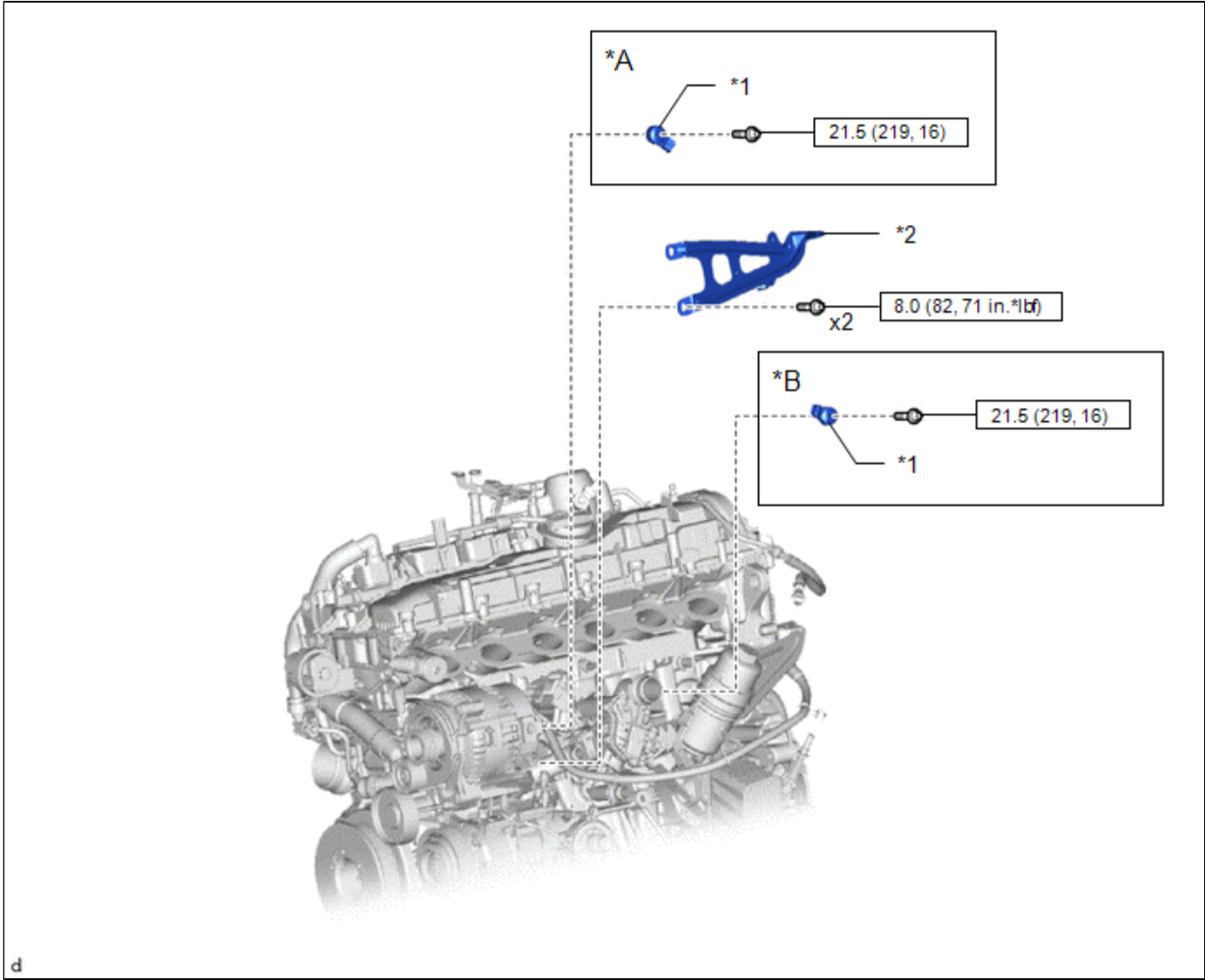
2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): KNOCK SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Bank 1	*B	for Bank 2
*1	KNOCK SENSOR	*2	INTAKE MANIFOLD STAY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCX9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): KNOCK SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

2. REMOVE KNOCK SENSOR (for Bank 1)

NOTICE:

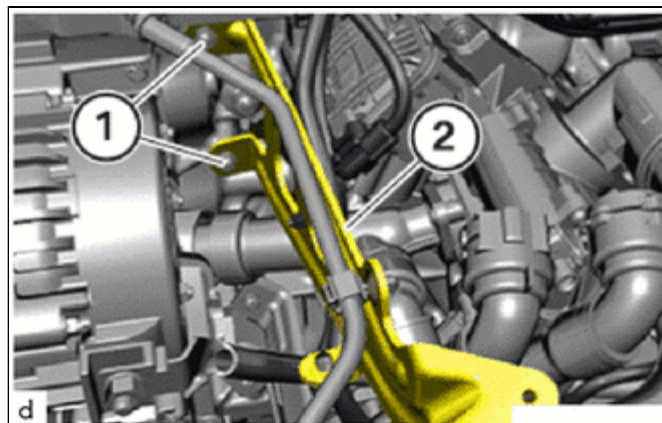
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

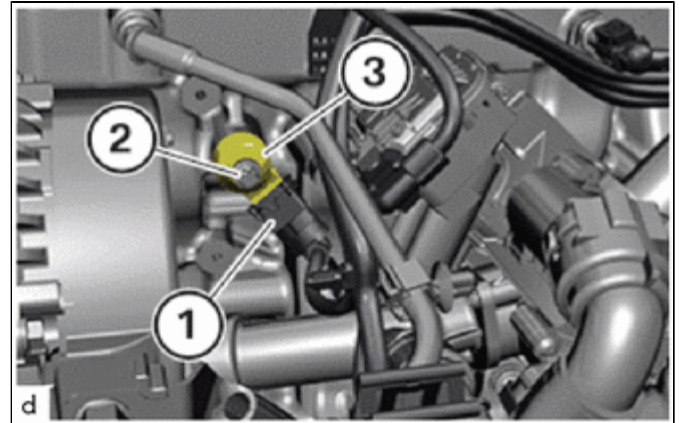
(a) Loosen E8 bolts (1).



(b) Detach coolant line and wiring harness from the intake manifold stay (2).

(c) Guide out and remove intake manifold stay (2).

(d) Unlock connector (1) and pull off.



(e) Loosen E10 bolt (2).

(f) Remove the knock sensor (3).

3. REMOVE KNOCK SENSOR (for Bank 2)

NOTICE:

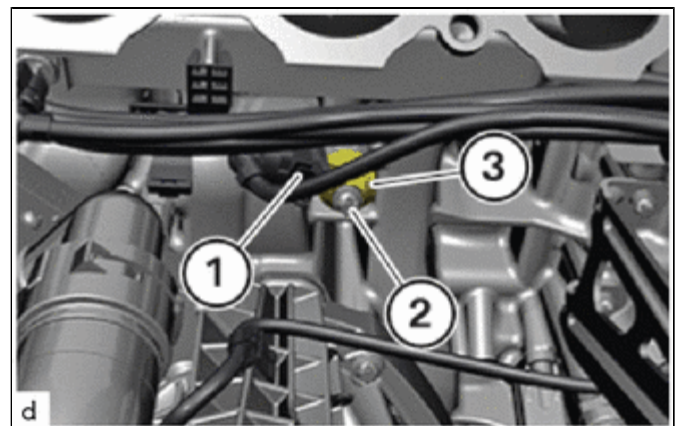
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

[Click here](#) **INFO**

(a) Unlock connector (1) and pull off.



(b) Loosen E10 bolt (2).

(c) Remove the knock sensor (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): KNOCK SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL KNOCK SENSOR (for Bank 2)

NOTICE:

When installing the knock sensor, the tightening torque must be observed.

Non-compliance with the tightening torque can lead to malfunction.

- (a) Clean the contact surface of the knock sensor at the crankcase.
- (b) Install knock sensor.
- (c) Tighten down E10 bolt.

Torque:

21.5 N·m {219 kgf·cm, 16 ft·lbf}

- (d) Connect the connector, it should lock audibly.

2. INSTALL KNOCK SENSOR (for Bank 1)

NOTICE:

When installing the knock sensor, the tightening torque must be observed.

Non-compliance with the tightening torque can lead to malfunction.

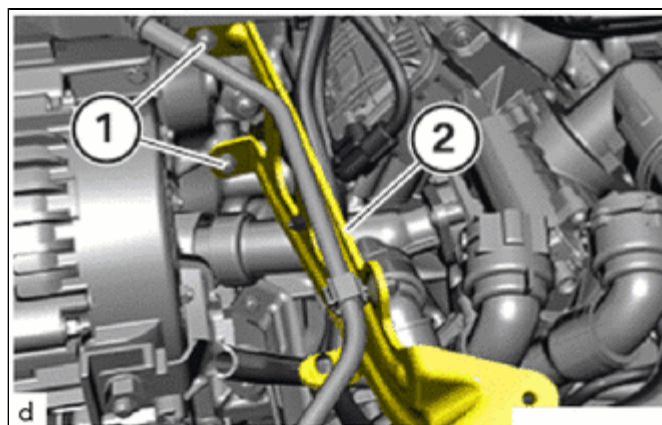
- (a) Clean the contact surface of the knock sensor at the crankcase.
- (b) Install knock sensor.
- (c) Tighten down E10 bolt.

Torque:

21.5 N·m {219 kgf·cm, 16 ft·lbf}

- (d) Connect the connector, it should lock audibly.

- (e) Insert and install the intake manifold stay (2).



- (f) Tighten the E8 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(g) Secure the wiring harness and the coolant lines on the intake manifold stay (2).

3. INSTALL INTAKE MANIFOLD

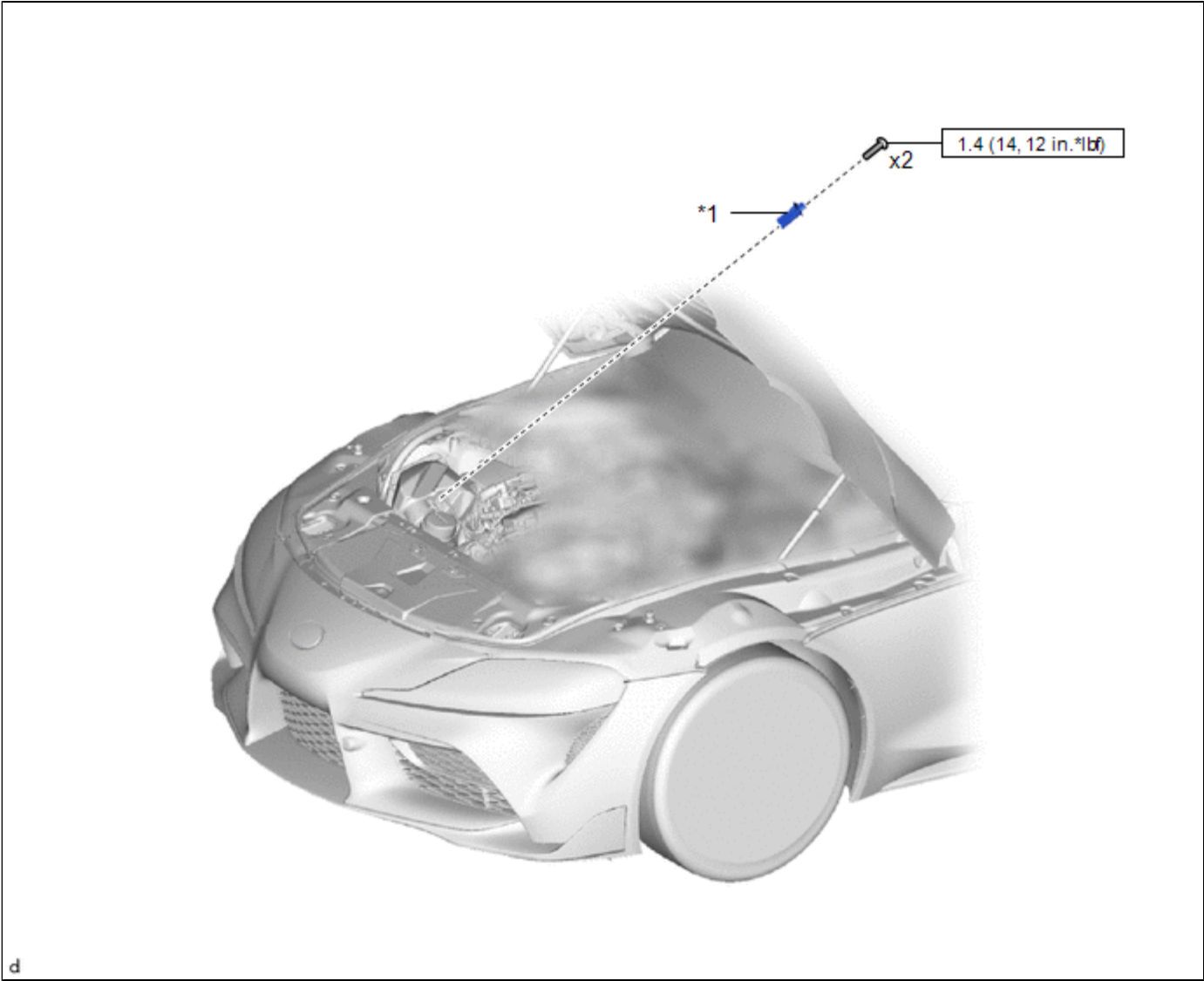
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): MASS AIR FLOW METER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INTAKE MASS AIR FLOW METER SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): MASS AIR FLOW METER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE INTAKE MASS AIR FLOW METER SUB-ASSEMBLY

NOTICE:

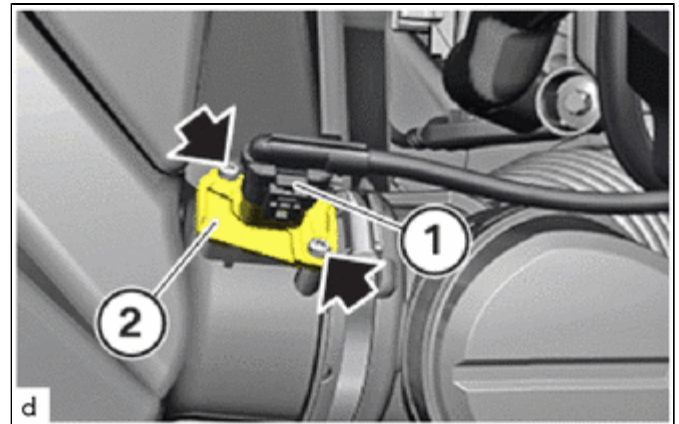
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

[Click here](#) [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Remove T20 screws (arrows).

(c) Remove the intake mass air flow meter sub-assembly (2).

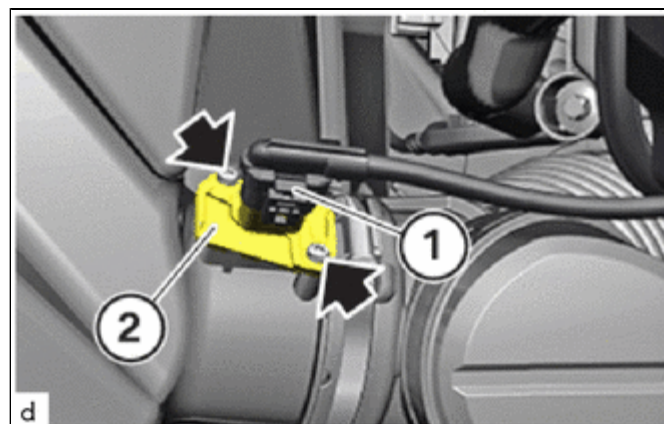
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCWJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): MASS AIR FLOW METER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL INTAKE MASS AIR FLOW METER SUB-ASSEMBLY

- (a) Insert and install the intake mass air flow meter sub-assembly (2).



- (b) Tighten T20 screws (arrows).

Torque:

1.4 N·m {14 kgf·cm, 12 in·lbf}

- (c) Connect connectors (1) and lock.

HINT:

The connector (1) must engage audibly.

2. PERFORM INITIALIZATION

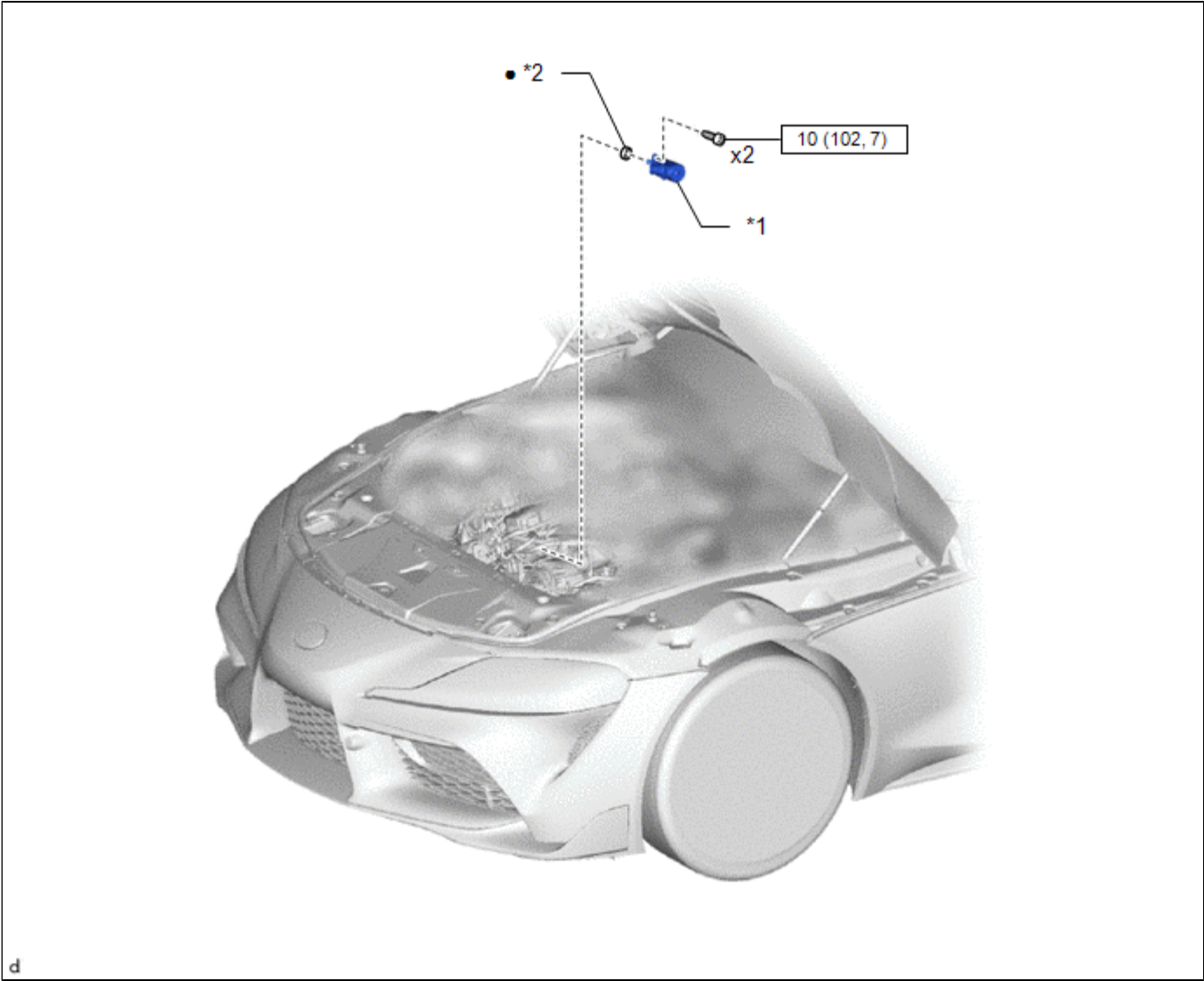
- (a) Connect the diagnosis system to the vehicle and enter the following menus:

Vehicle management / Service functions / Drive / Engine electronics / Reset adaptations / ABL Reset adaptation values

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): SERVO MOTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SERVO MOTOR	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): SERVO MOTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE THROTTLE BODY WITH MOTOR ASSEMBLY

Click here [INFO](#)

2. REMOVE SERVO MOTOR

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Contaminant or foreign body.

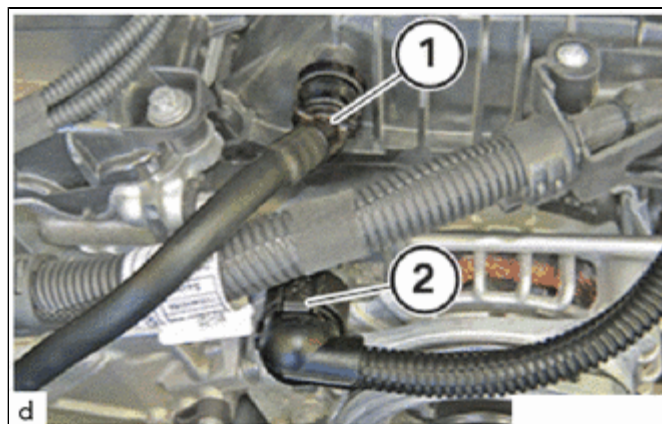
Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with O-rings plugs.

HINT:

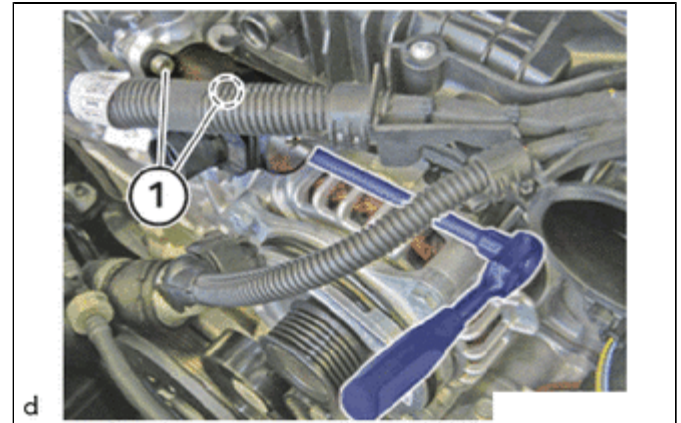
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock ventilation line (1) and pull off from intake manifold.



(b) Unlock connector (2) and pull off.

(c) Push wiring harness to the side and unclip where required.



(d) Have a cleaning cloth ready.

HINT:

Engine oil may emerge when pulling off the servo motor for the No. 3 camshaft sub-assembly.

(e) Loosen T30 bolts (1).

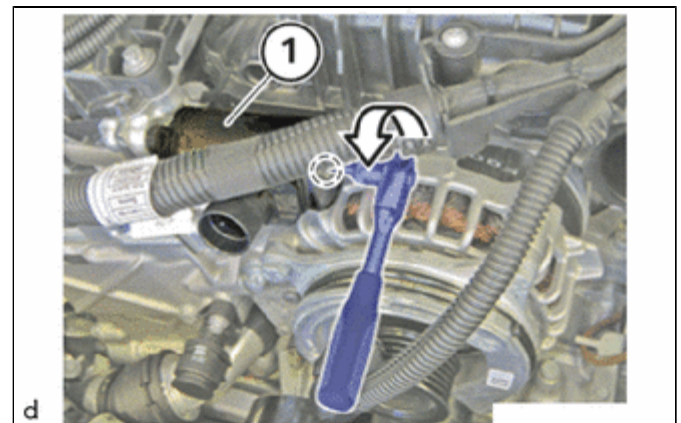
(f) Using a 4 mm hexagon wrench, turn servo motor for the No. 3 camshaft sub-assembly (1) to the left on the bolt in the marked area and pull off the cylinder head at the same time.

NOTICE:

Do not turn the No. 3 camshaft sub-assembly beyond the end stop.

HINT:

This releases the tension of the No. 3 camshaft sub-assembly.



(g) Removing the servo motor for the No. 3 camshaft sub-assembly (1).

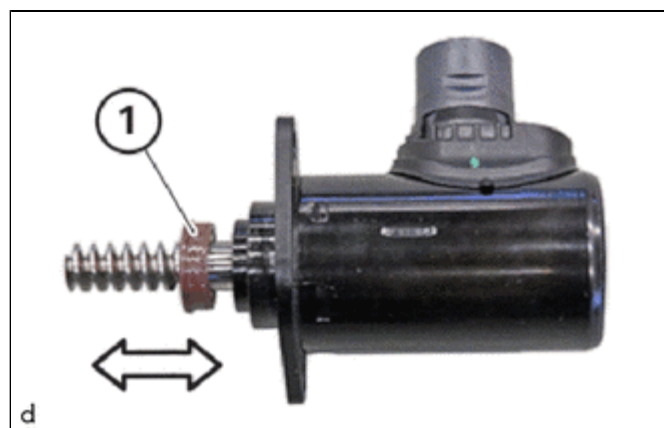
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): SERVO MOTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

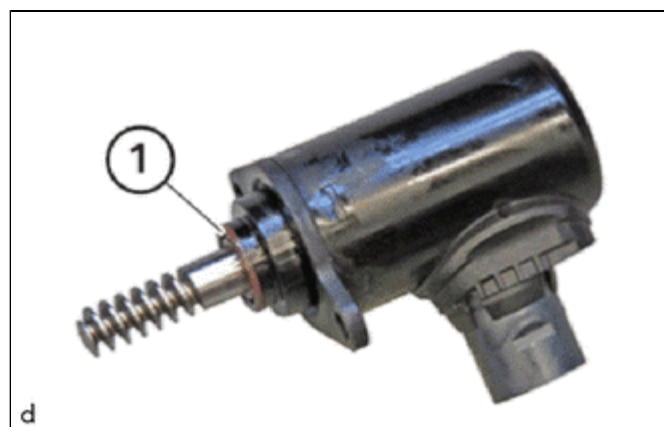
PROCEDURE

1. INSTALL SERVO MOTOR

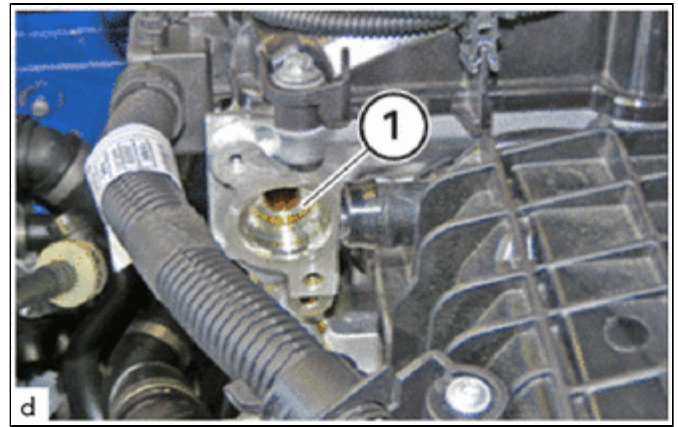
(a) Pull off O-ring (1) and replace.



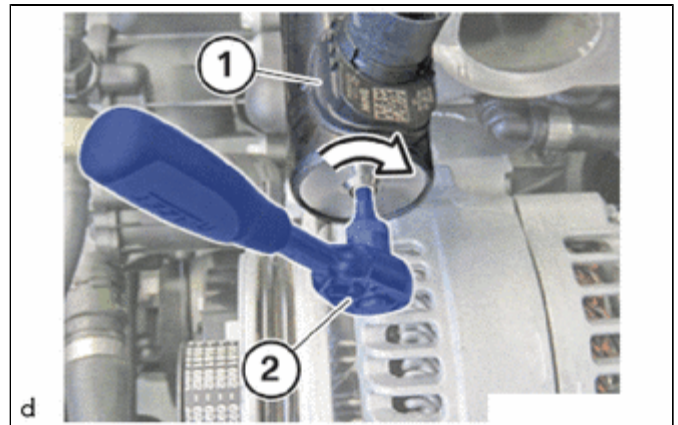
(b) Push the O-ring (1) onto the servo motor housing to the limit position.



(c) Clean sealing surface (1).



(d) Slide servo motor for eccentric shaft (1) up to the limit position.

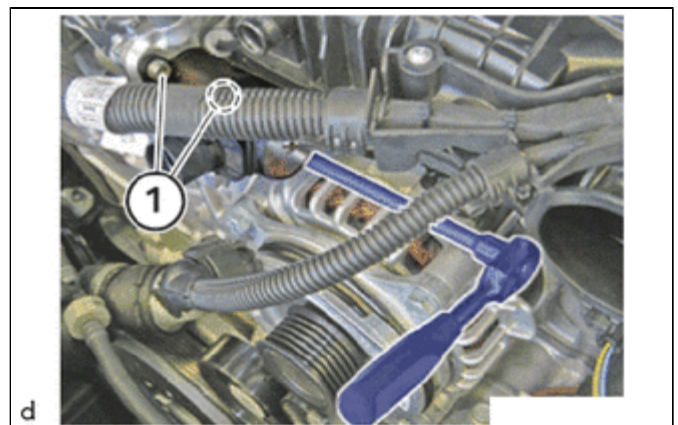


(e) Turn screw on the servo motor for the eccentric shaft (1) to the right with a 4 mm hexagon wrench (2) until the servo motor for the eccentric shaft rests against the cylinder head.

(f) Tighten the T30 bolts (1).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}



(g) Lock connector.

(h) Position the ventilation line on the intake manifold and lock.

2. INSTALL THROTTLE BODY WITH MOTOR ASSEMBLY

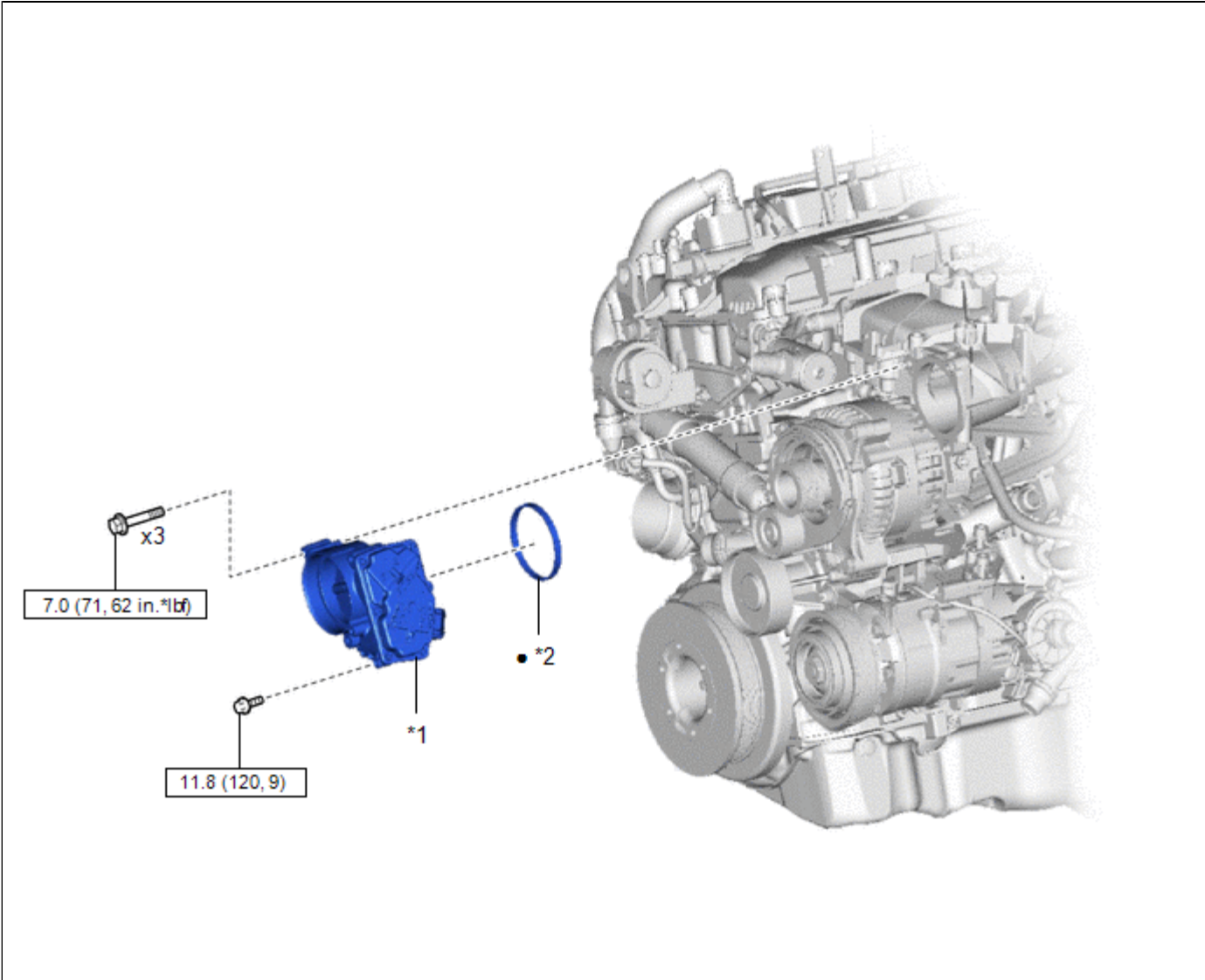
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): THROTTLE BODY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	THROTTLE BODY WITH MOTOR ASSEMBLY	*2	THROTTLE BODY GASKET
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): THROTTLE BODY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

2. REMOVE THROTTLE BODY WITH MOTOR ASSEMBLY

NOTICE:

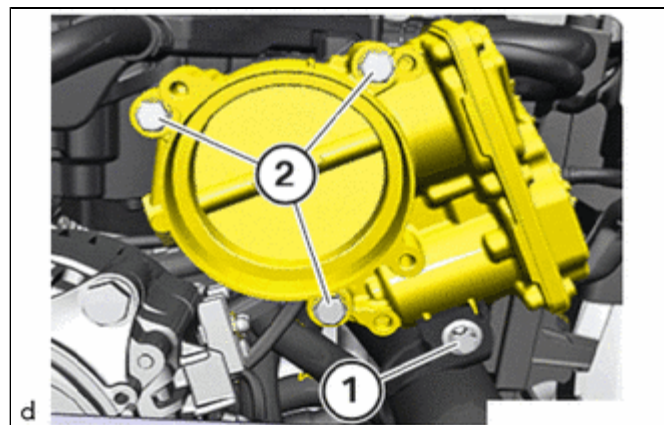
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

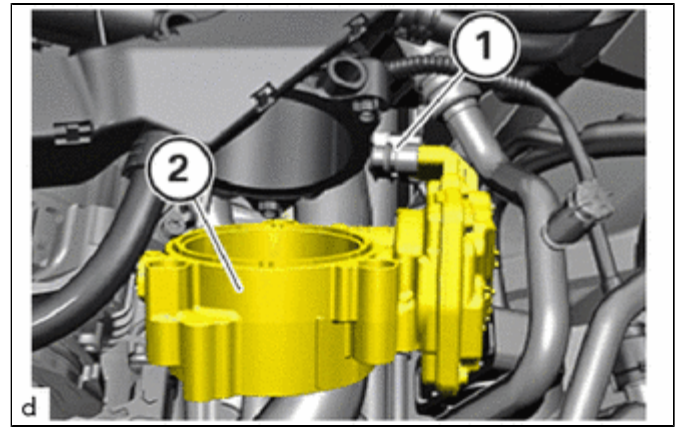
Click here [INFO](#)

(a) Loosen E10 bolt (1).



(b) Loosen bolts (2).

(c) Thread the throttle body with motor assembly (2) a little bit out to the front.



(d) Unlock plug connection (1) and disconnect.

(e) Remove throttle body with motor assembly (2).



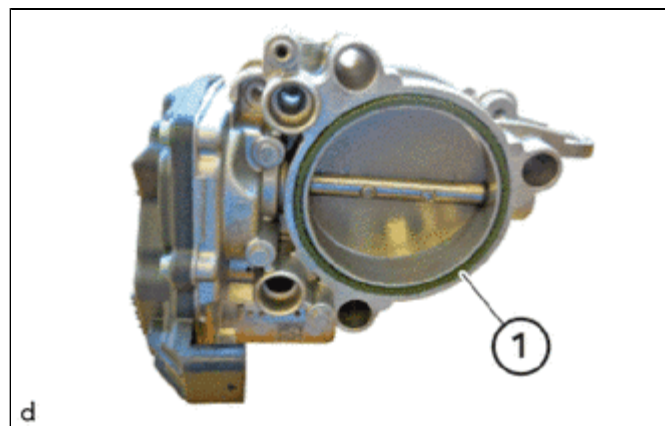
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCW9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): THROTTLE BODY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL THROTTLE BODY WITH MOTOR ASSEMBLY

- (a) Replace the throttle body gasket (1).



- (b) Position throttle body with motor assembly.

- (c) Connect connectors and lock.

HINT:

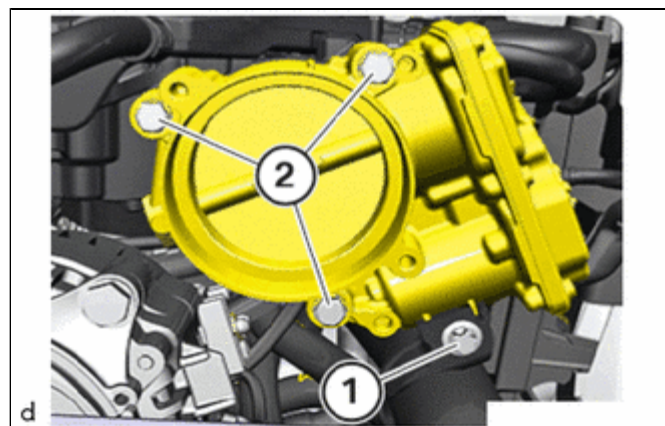
The connector must engage audibly.

- (d) Install throttle body with motor assembly.

- (e) Tighten down bolts (2).

Torque:

7.0 N·m {71 kgf·cm, 62 in·lbf}



- (f) Tighten down E10 bolt (1).

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

2. INSTALL NO. 2 AIR CLEANER HOSE

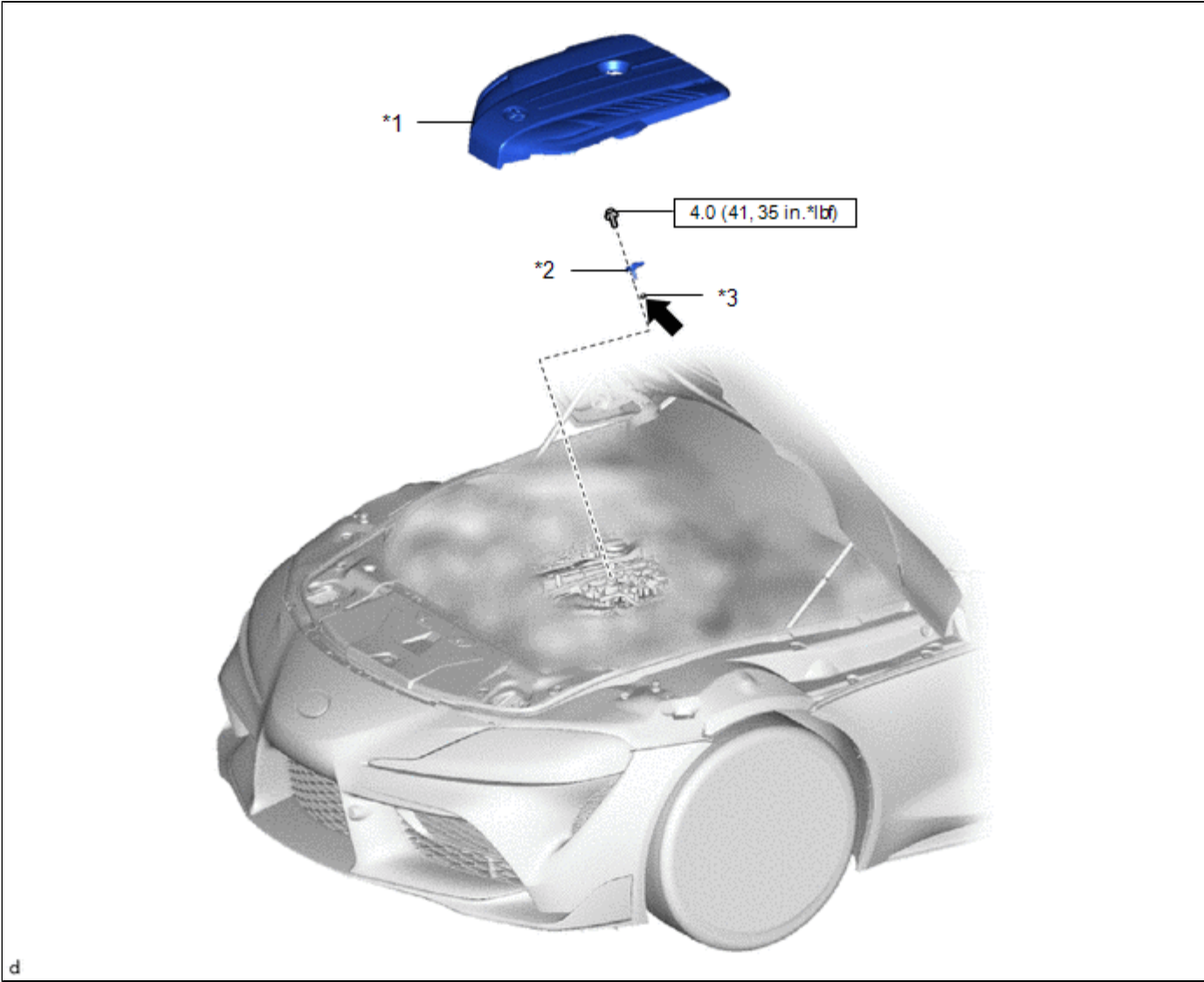
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): VACUUM SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	VACUUM SENSOR ASSEMBLY
*3	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		LUBRICANT

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): VACUUM SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE VACUUM SENSOR ASSEMBLY

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

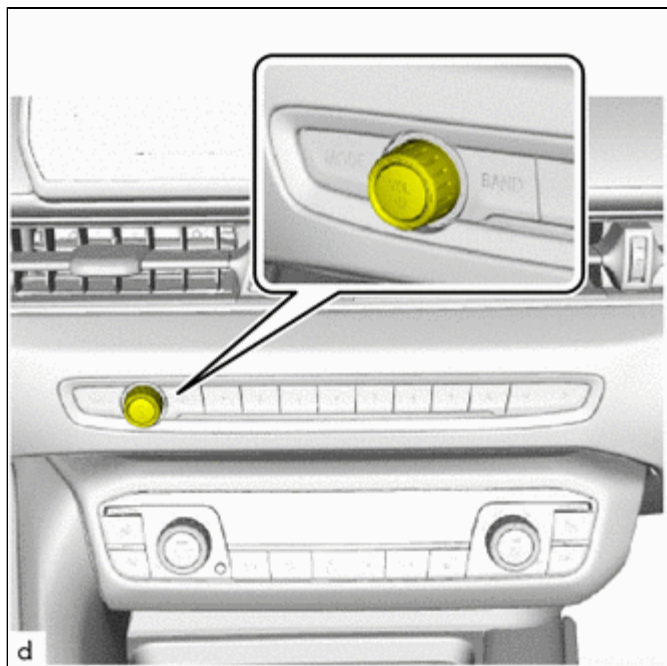
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

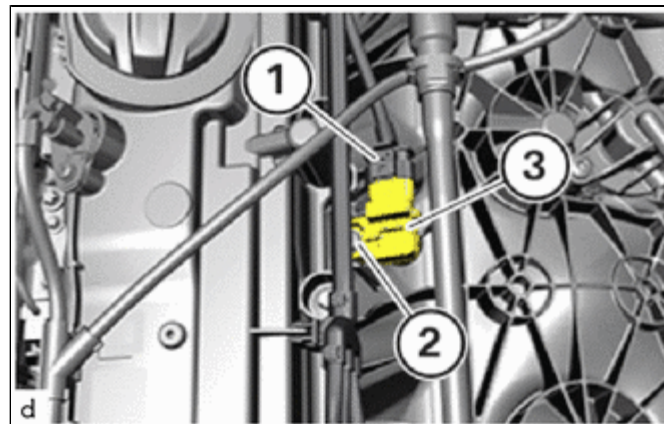
(a) Turn the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(b) Unlock plug connection (1) and disconnect.



(c) Loosen T25 bolt (2).

(d) Remove the vacuum sensor assembly (3).

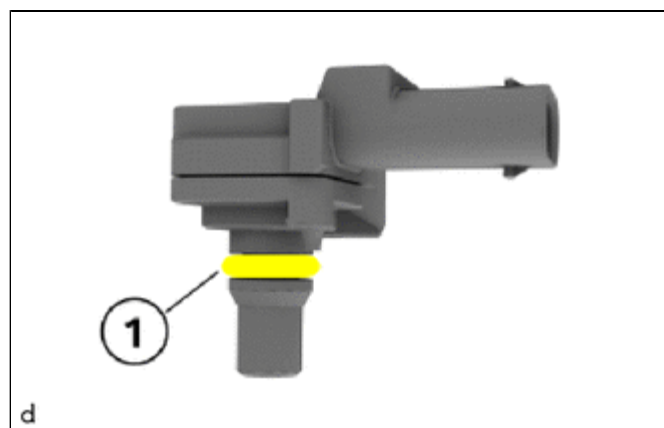
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCXD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE CONTROL): VACUUM SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL VACUUM SENSOR ASSEMBLY

(a) Check the O-ring for damage and replace where required.



(b) Apply a thin coat of lubricant to the O-ring (1).

(c) Install the vacuum sensor assembly.

(d) Tighten down T25 bolt.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(e) Connect connectors and lock.

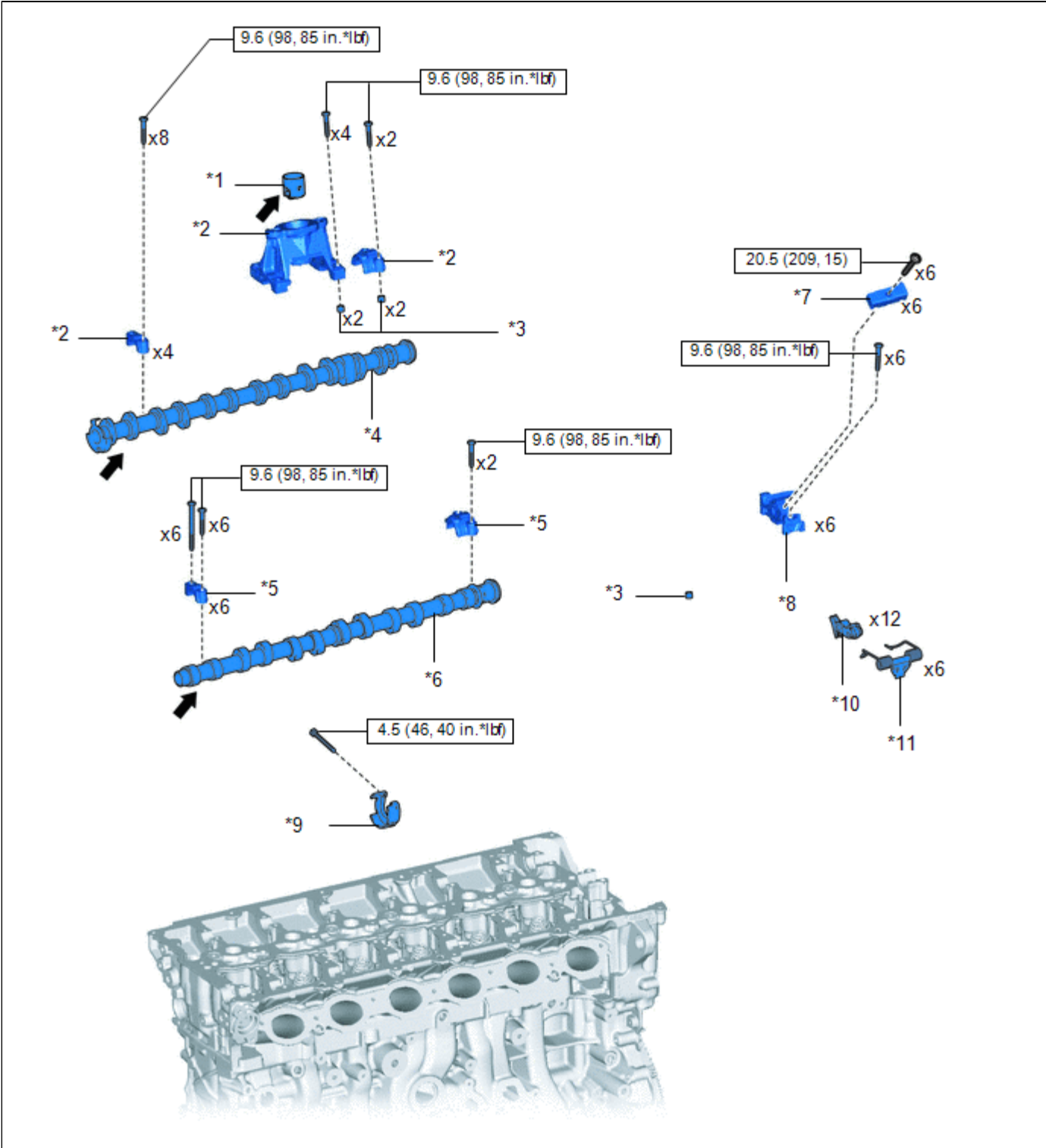
2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL PUMP LIFTER ASSEMBLY	*2	EXHAUST CAMSHAFT BEARING CAP
----	---------------------------	----	------------------------------

*3	RING PIN	*4	EXHAUST CAMSHAFT SUB-ASSEMBLY
*5	CAMSHAFT BEARING CAP	*6	INTAKE CAMSHAFT SUB-ASSEMBLY
*7	GATE	*8	BEARING CAP
*9	CAMSHAFT SENSOR WHEEL	*10	INTERMEDIATE LEVER
*11	TORSION SPRING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE CAMSHAFT TIMING GEAR ASSEMBLY

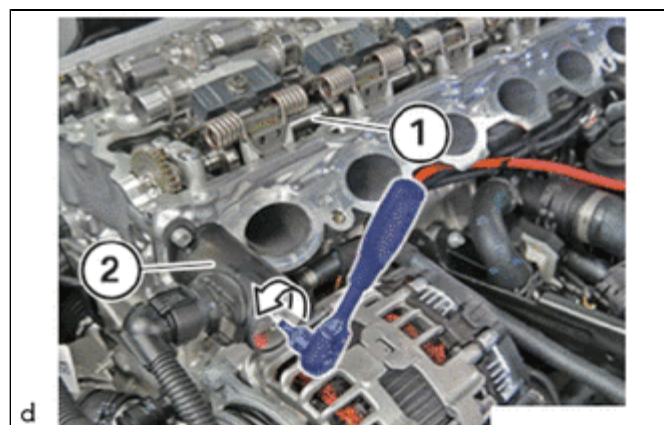
Click here [INFO](#)

2. REMOVE CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

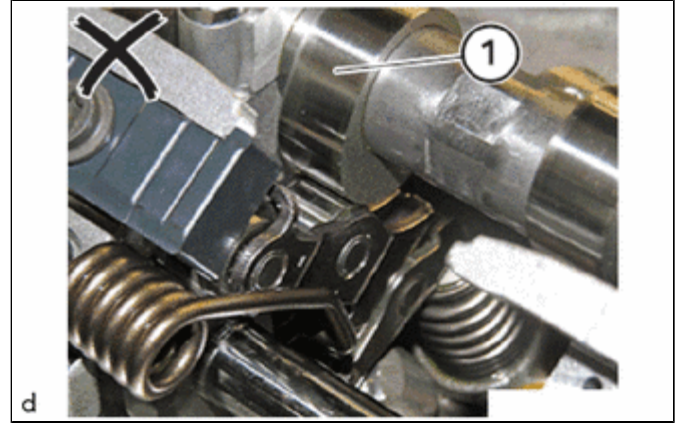
3. ADJUST SERVO MOTOR

- (a) Using 4 mm hexagon wrench, Use servo motor (2) to adjust No. 3 camshaft sub-assembly (1) slowly to minimum lift.



4. INSPECT AND ADJUST CAMSHAFT

- (a) Check position of the intake camshaft sub-assembly on the respective cylinders.



- (b) Cam (1) of the intake camshaft sub-assembly runs on the intermediate lever.

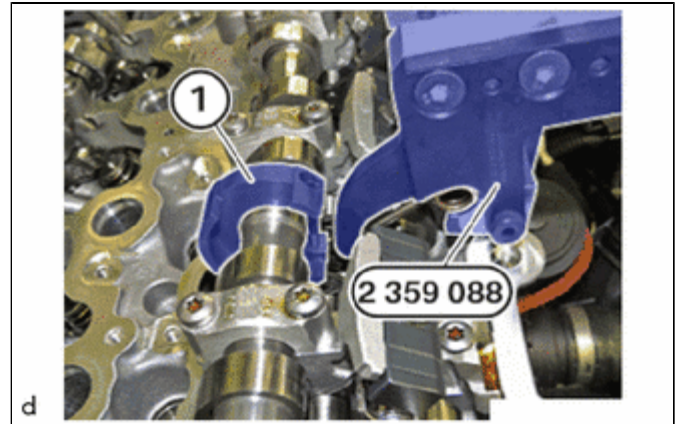
- (c) Continue to turn the engine at the crankshaft pulley assembly with the special tool 0 493 380 (11 6 480) in the direction of engine rotation.

SST: 09200-WA190

5. INSPECT AND ADJUST CAMSHAFT (CYLINDERS 3 AND 4)

- (a) Check the position of the intake camshaft sub-assembly at cylinders 3 and 4.

To remove the torsion spring on cylinder 3 and 4 the camshaft sensor wheel (1) of the intake camshaft sub-assembly must be positioned as shown.



- (b) Camshaft sensor wheel (1) of the intake camshaft sub-assembly is not in the indicated position.

- (c) Turn engine on the crankshaft pulley assembly using special tool 0 493 380 (11 6 480) till the camshaft sensor wheel (1) of the intake camshaft sub-assembly is positioned as shown.

SST: 09200-WA190

6. REMOVE TORSION SPRING

CAUTION:

- Spring preload.

Danger of injury!

- The use of the specified special tool (tool) is mandatory.
- The described operation must be carried out properly.
- Wear safety goggles.

NOTICE:

The description is for one component only. The procedure is identical for all further components.

(a) Have the set of special tools 2 359 088 ready.

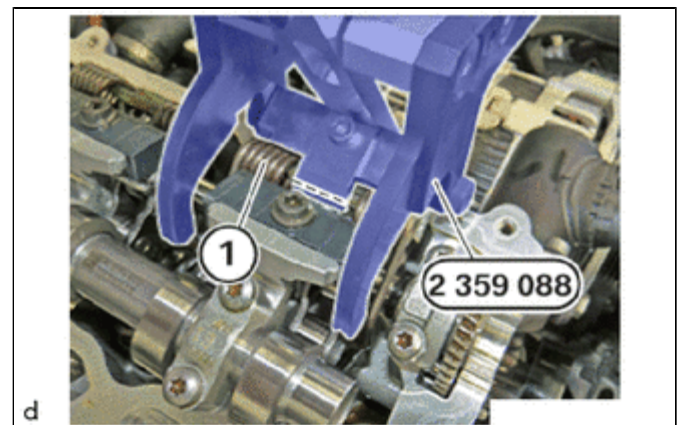
SST: 09200-WA410

Number	Description
1	Clamping lever
2	Mounting for clamping lever (fitting aid)



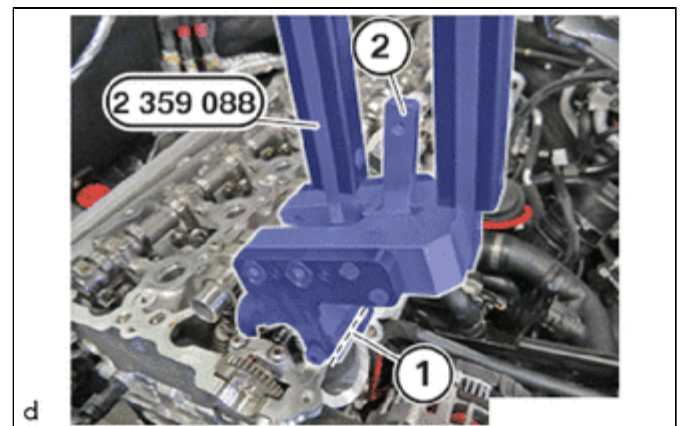
(b) Open the special tool 2 359 088 and position it at the torsion spring (1).

SST: 09200-WA410



(c) Make sure that the special tool 2 359 088 lies flat against the cylinder head in area (1).

SST: 09200-WA410

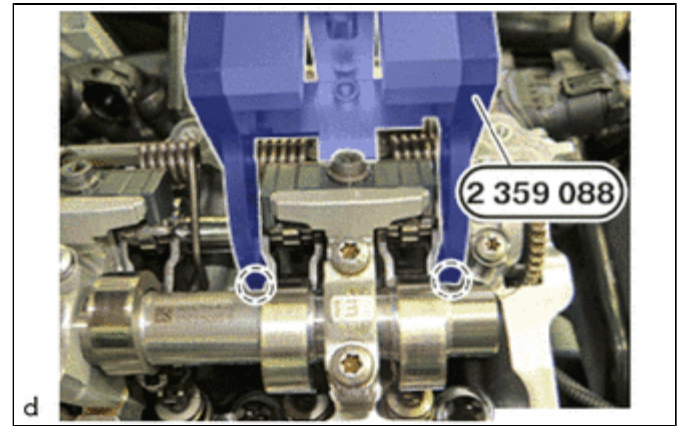


(d) Carefully close the clamping lever of the special tool 2 359 088 until the retaining hook (2) engages.

SST: 09200-WA410

- (e) Check if the special tool 2 359 088 is positioned correctly on the torsion spring.

SST: 09200-WA410



- (f) Special tool 2 359 088 is not positioned correctly on the torsion spring.

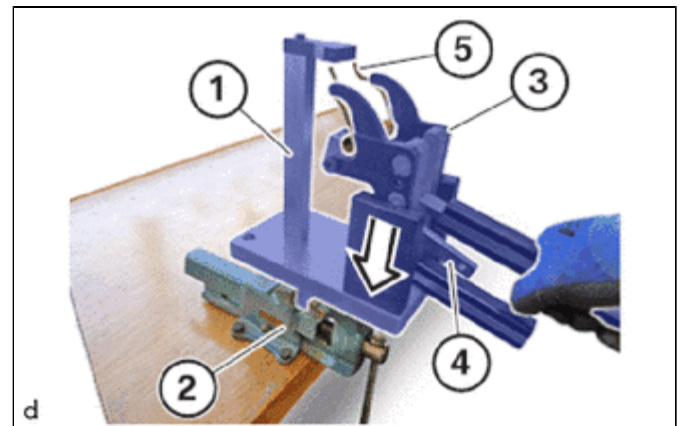
SST: 09200-WA410

- (g) Carefully release the clamping lever of the special tool 2 359 088 and repeat the process.

SST: 09200-WA410

- (h) Clamp fixture (1) of the special tool 2 359 088 in the vice (2).

SST: 09200-WA410



- (i) Position clamping lever (3) of special tool 2 359 088 with pre-tensioned torsion spring (5) in direction of arrow in the mounting (1) of the special tool 2 359 088.

SST: 09200-WA410

- (j) Carefully unlock retaining hook (4) of the special tool 2 359 088.

SST: 09200-WA410

- (1) The torsion spring (5) is relieved.

- (k) Slowly open clamping lever (3) and remove the torsion spring (5).

- (l) Repeat the operations for the remaining torsion spring.

7. REMOVE GATE

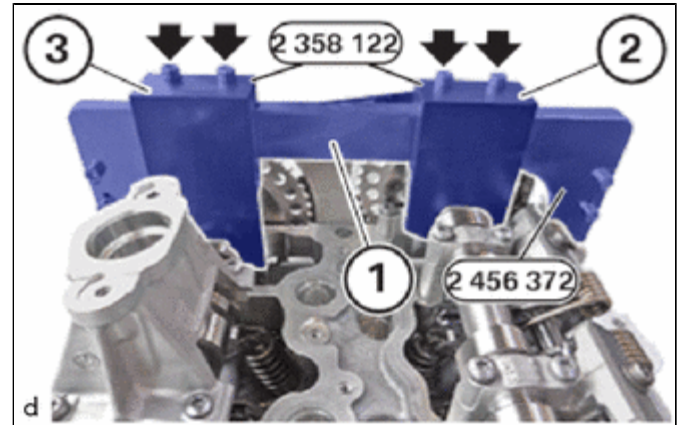
Click here [INFO](#)

8. REMOVE INTERMEDIATE LEVER

Click here [INFO](#)

9. REMOVE SST

(a) Remove bolts (arrows).



(b) Guide the test gauge (2) out of the set of special tools 2 358 122 between the intake camshaft sub-assembly and the basic carrier (1) of the set of special tools 2 456 372 and remove.

SST: 09200-WA380

SST: 09200-WA690

(c) Guide the test gauge (3) out of the set of special tools 2 358 122 between the exhaust camshaft and the basic carrier (1) of the set of special tools 2 456 372 and remove.

SST: 09200-WA380

SST: 09200-WA690

10. REMOVE INTAKE CAMSHAFT SUB-ASSEMBLY

NOTICE:

- Contaminant or foreign body.

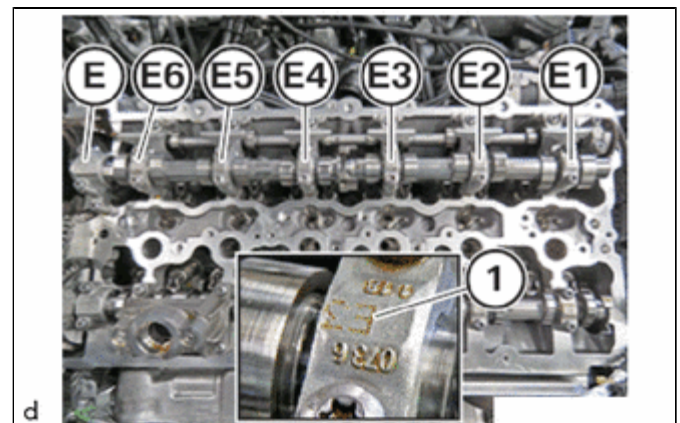
Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

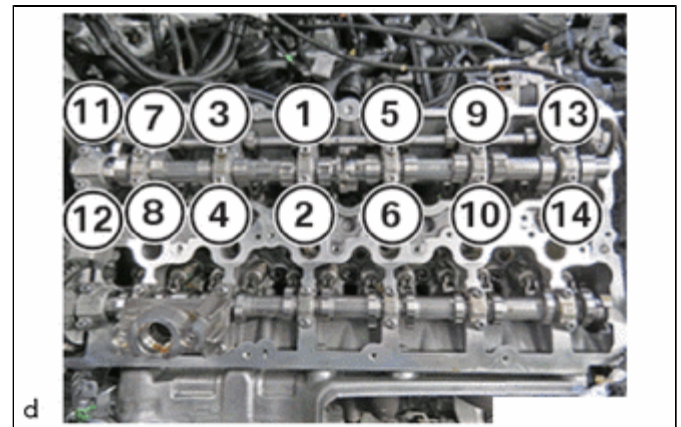
(a) Observe the numbering (1) of the camshaft bearing caps.

(1) The camshaft bearing caps are numbered from (E1) to (E6).

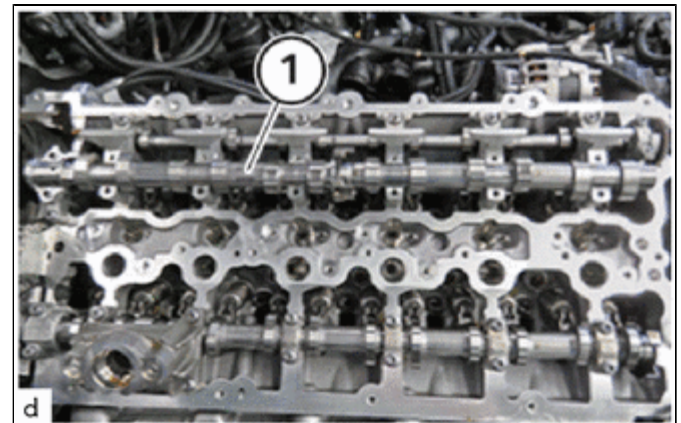
(2) The camshaft bearing cap (E) is a thrust bearing.



(b) Release T30 bolts in the right sequence (14) till (1) in semi circle pattern.



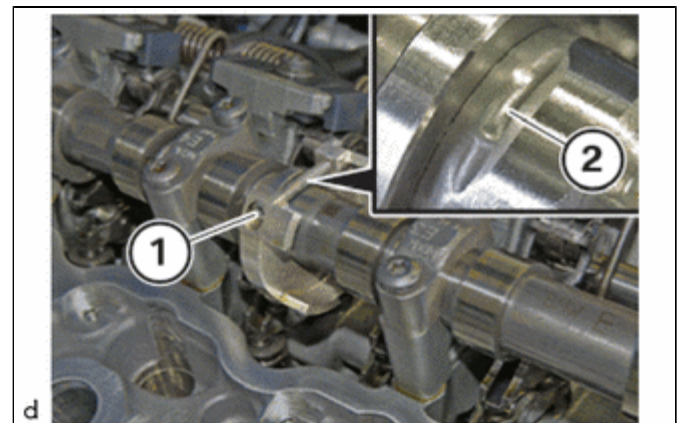
(c) Guide out intake camshaft sub-assembly (1) toward the top and remove it.



11. REMOVE CAMSHAFT SENSOR WHEEL

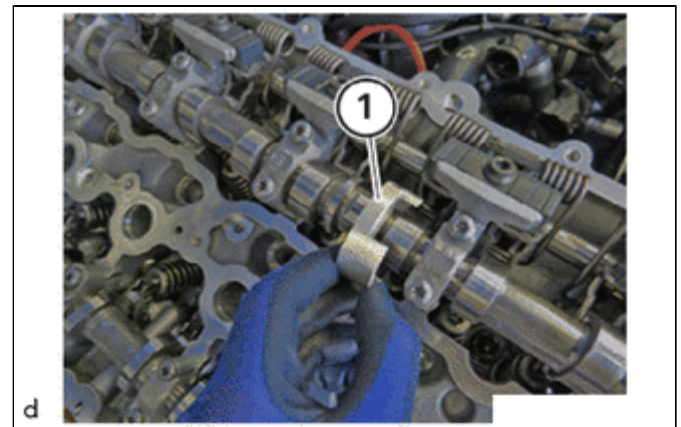
(a) Rotate intake camshaft sub-assembly, if necessary in the position shown.

(1) The recess (2) must point upwards.



(b) Using 3 mm hexagon wrench, Loosen bolt (1).

- (c) Slide camshaft sensor wheel (1) in the direction of cylinder 1 and guide it out from the intake camshaft sub-assembly.



12. REMOVE EXHAUST CAMSHAFT SUB-ASSEMBLY

NOTICE:

- Contaminant or foreign body.

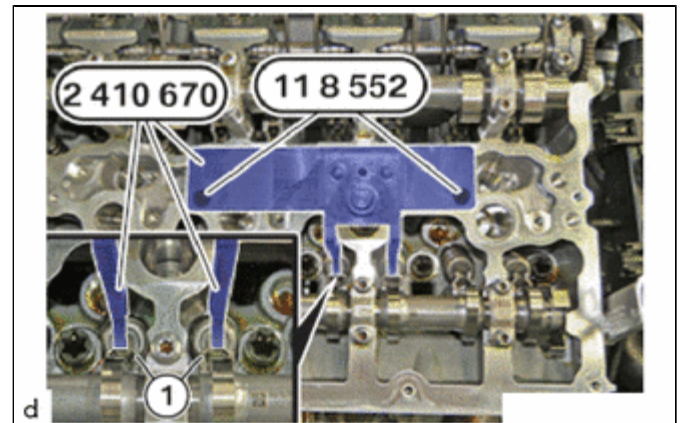
Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

- (a) Position the special tool 2 410 670 at cylinder 2 and apply it hand-tight with the special tool 0 495 741 (11 8 552) from the set of special tools 0 495 739 (11 8 550).

SST: 09200-WA500

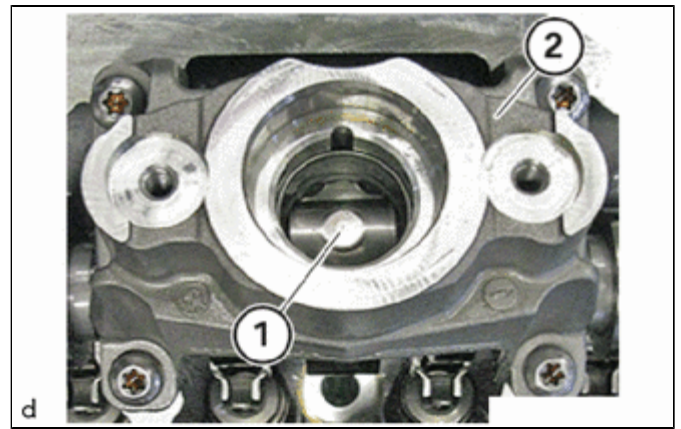
SST: 09200-WA510



- (b) Bolt in both roller cam followers (1) on the 2nd cylinder using the spindle nut of the special tool 2 410 670 up to the limit position.

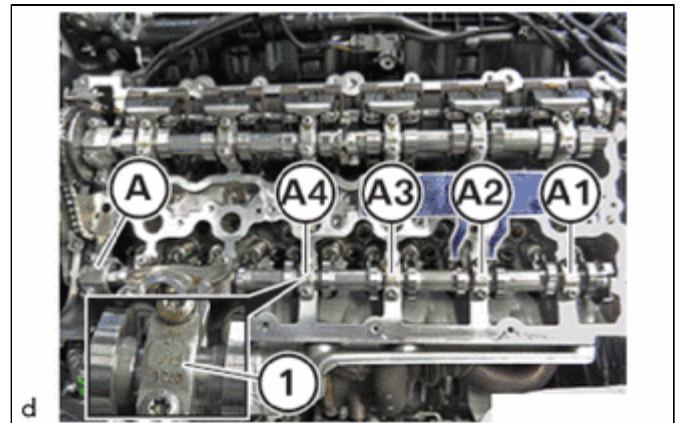
SST: 09200-WA500

- (c) Remove fuel pump lifter assembly (1) from exhaust camshaft bearing cap (2).

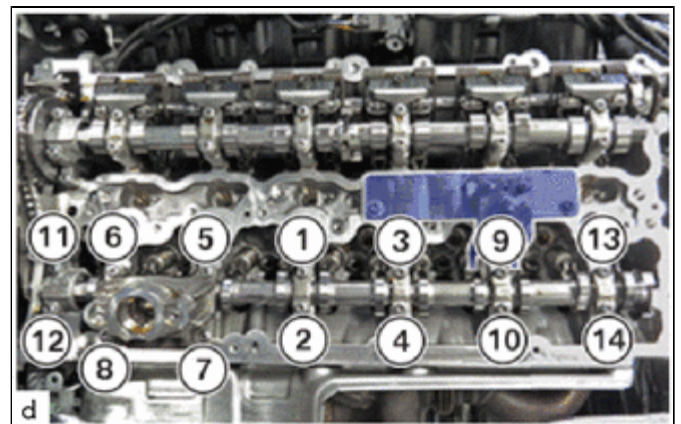


(d) Observe the numbering of the exhaust camshaft bearing caps.

- (1) The exhaust camshaft bearing caps are numbered from (A1) to (A4) and are laid down according to their numbering.
- (2) The exhaust camshaft bearing cap (A) is a thrust bearing.

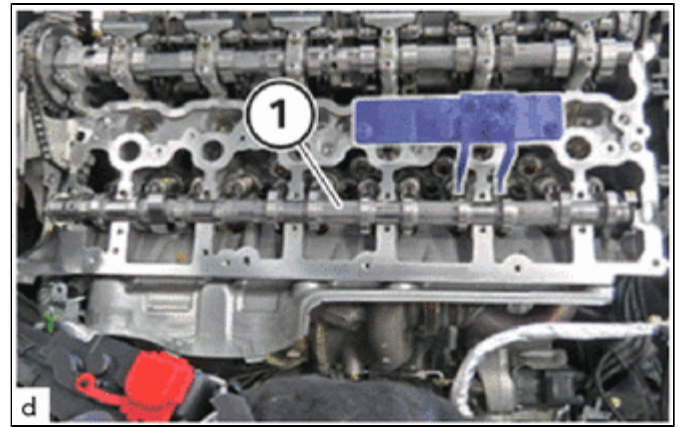


(e) Release T30 bolts in the right sequence (14) till (1) in semi circle pattern.



(f) Guide out and remove the exhaust camshaft bearing caps.

(g) Guide out exhaust camshaft sub-assembly (1) upwards and remove it.



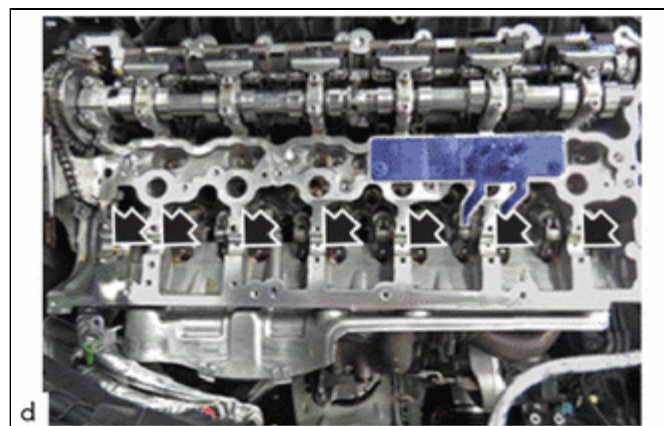
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

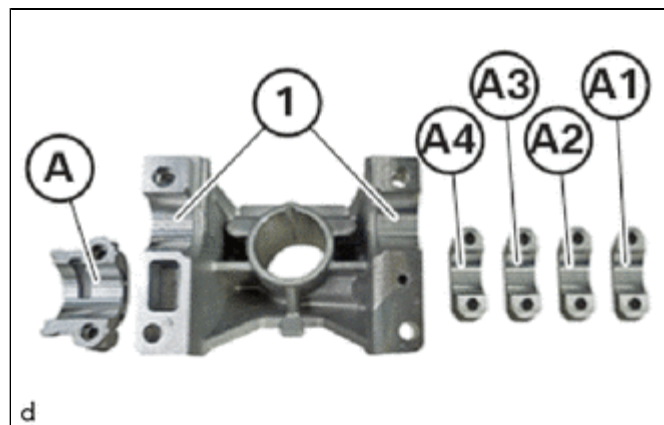
PROCEDURE

1. INSTALL EXHAUST CAMSHAFT SUB-ASSEMBLY

- (a) Clean all bearing positions (arrows) and coat with engine oil.

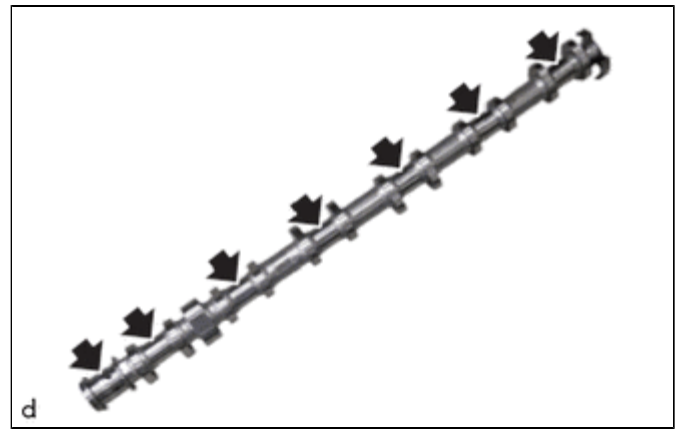


- (b) Clean all bearing positions of exhaust camshaft bearing caps (A1), (A2), (A3), (A4) and (A) and coat with engine oil.

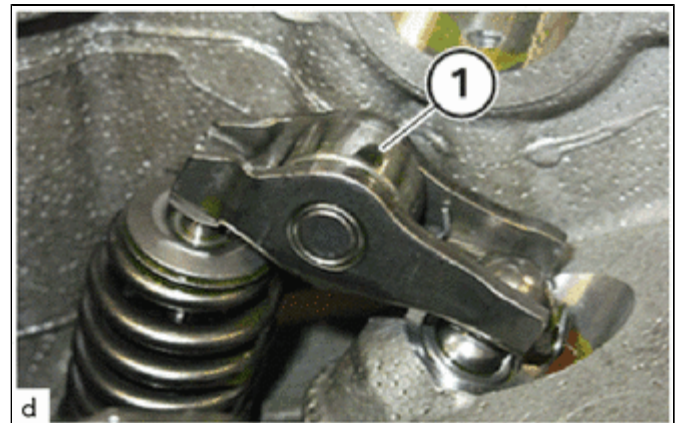


- (c) Clean bearing positions (1) of the exhaust camshaft bearing cap and coat with engine oil.

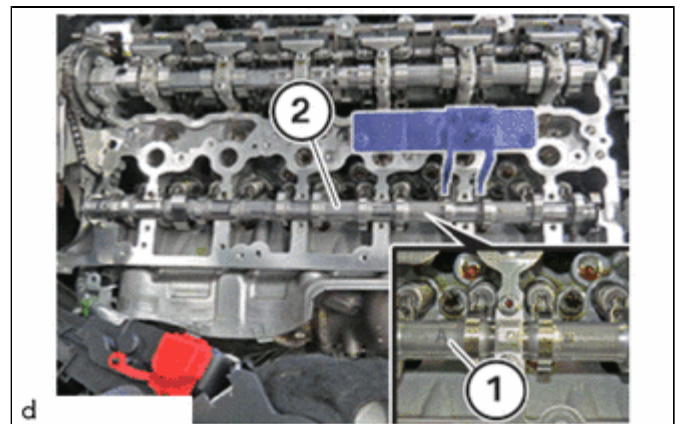
- (d) Clean all bearing positions (arrows) of the exhaust camshaft sub-assembly and coat with engine oil.



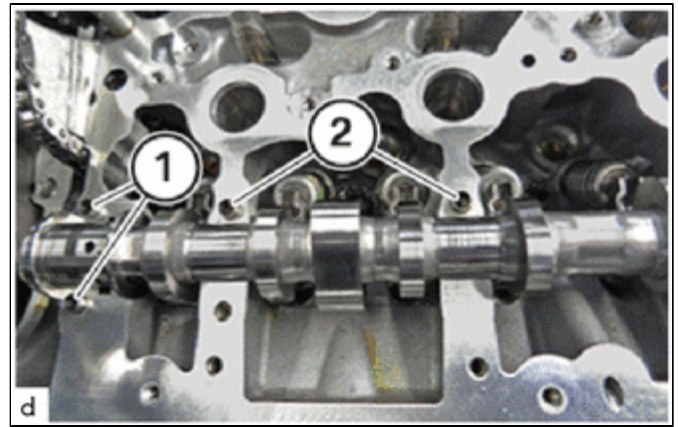
(e) Check all No. 1 valve rocker arm sub-assembly (1) of the exhaust side for correct fit.



(f) Insert exhaust camshaft sub-assembly (2) in the cylinder head sub-assembly, such that the mark (1) points upwards.



(g) Check the ring pins (1) of the thrust bearing for damage and replace if necessary.



(h) Check the ring pins (2) of the exhaust camshaft bearing cap for damage and replace if necessary.

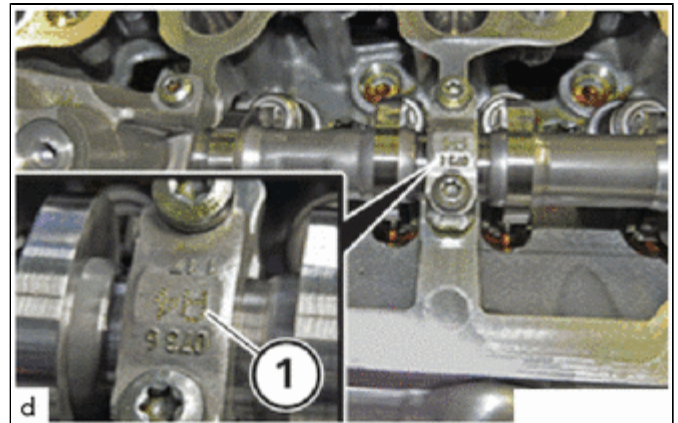
NOTICE:

- Engine damage caused by incorrectly installed bearing shells and bearing supports.

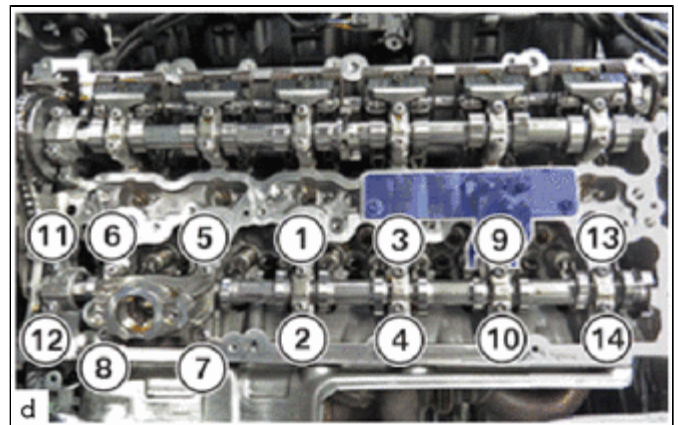
Engine damage may result from incorrectly installing bearing shells and bearing supports.

- Always install all bearing shells and bearing supports in the same position from which they were removed.

(i) Replace all exhaust camshaft bearing caps, so that the labelling (1) from the intake side is readable.



(j) Press down the exhaust camshaft bearing caps and hand-tighten the T30 bolts incrementally in the sequence (1) to (14).



(k) Move up all T30 bolts in the sequence (1) to (14) in half rotations.

Torque:

9.6 N·m {98 kgf·cm, 85 in·lbf}

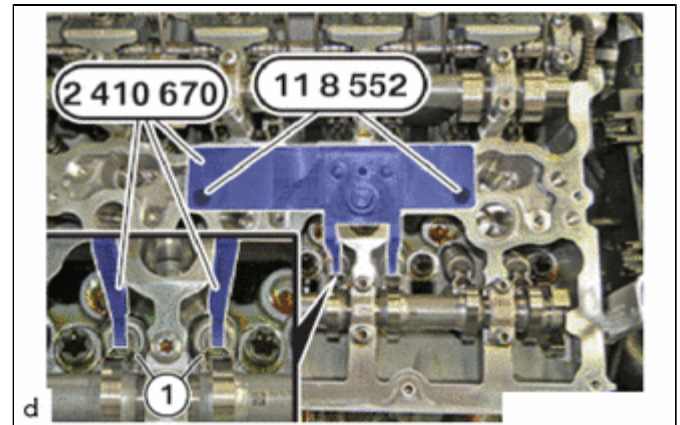
(l) Tighten all T30 bolts in sequence (1) to (14).

Torque:

9.6 N·m {98 kgf·cm, 85 in·lbf}

(m) Release special tool 2 410 670 using the spindle nut.

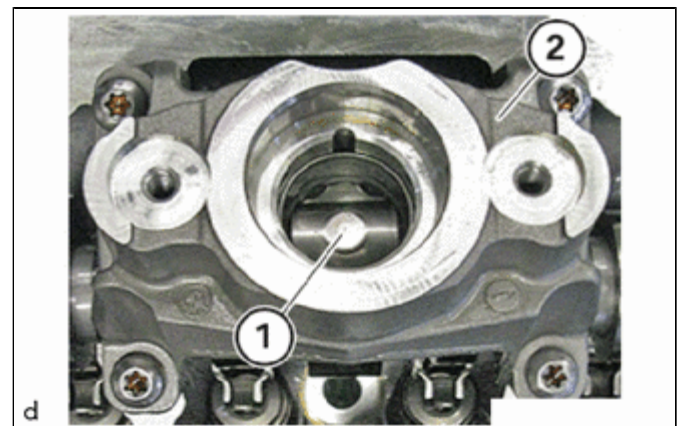
SST: 09200-WA500



(n) Release special tool 0 495 741 (11 8 552) and remove special tool 2 410 670 .

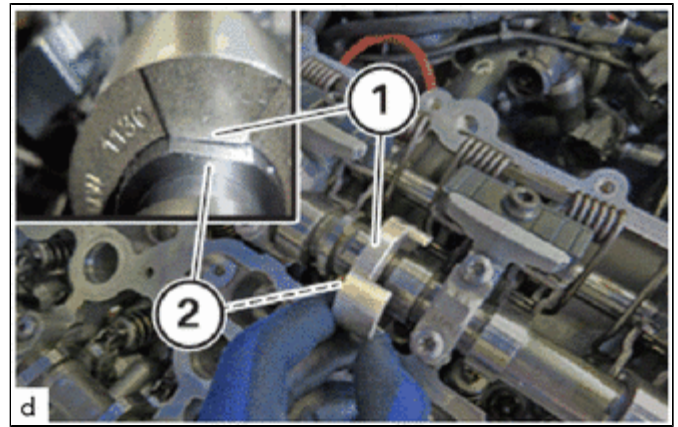
SST: 09200-WA500

(o) Install fuel pump lifter assembly (1) into the exhaust camshaft bearing cap (2).



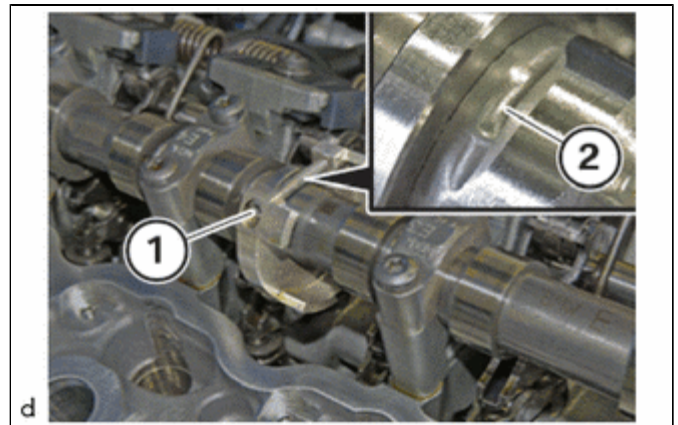
2. INSTALL INTAKE CAMSHAFT SUB-ASSEMBLY

(a) Feed in and position camshaft sensor wheel (1) on the intake camshaft sub-assembly (2).



(b) Rotate intake camshaft sub-assembly, if necessary in the position shown.

(1) The recess (2) must point upwards.

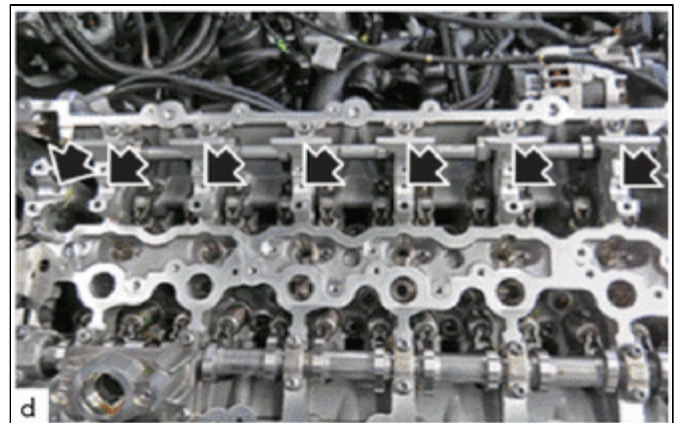


(c) Using 3 mm hexagon wrench, Tighten down bolt (1).

Torque:

4.5 N·m {46 kgf·cm, 40 in·lbf}

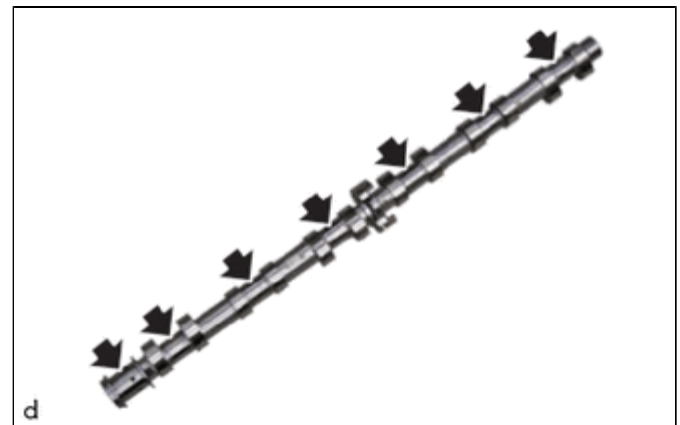
(d) Clean all bearing positions (arrows) and coat with engine oil.



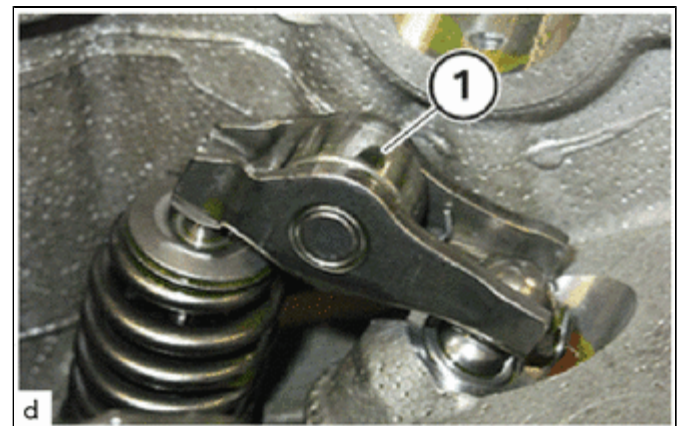
(e) Clean all bearing positions of camshaft bearing caps (E1), (E2), (E3), (E4), (E5), (E6) and (E) and coat with engine oil.



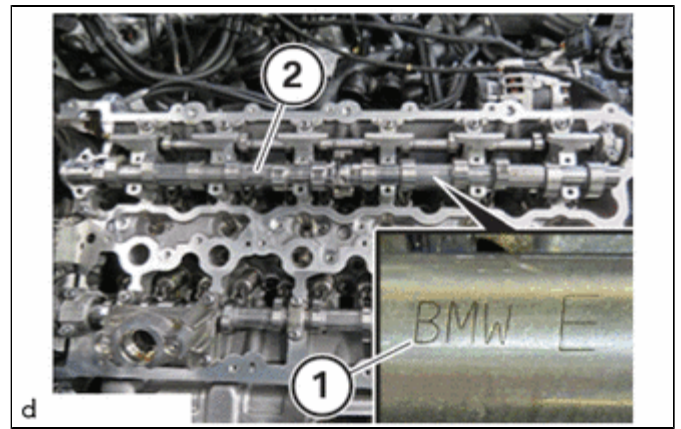
(f) Clean all bearing positions (arrows) of the intake camshaft sub-assembly and coat with engine oil.



(g) Check all roller cam followers(1) of the intake side for correct fit.



(h) Insert the intake camshaft sub-assembly (2) into the cylinder head sub-assembly so that the mark (1) points up.



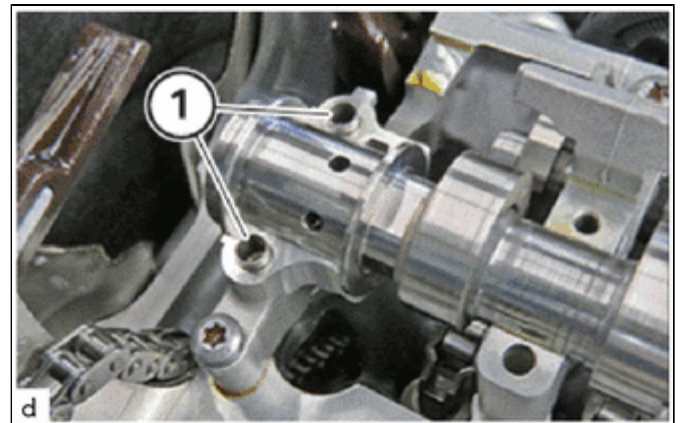
- (i) Check the ring pins (1) of the thrust bearing for damage and replace if necessary.

NOTICE:

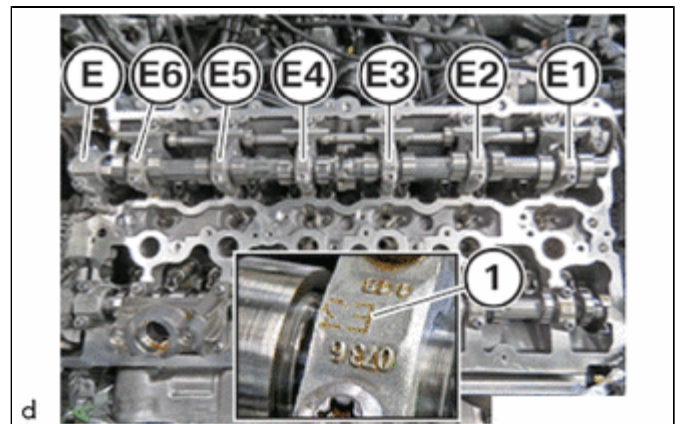
- Engine damage caused by incorrectly installed bearing shells and bearing supports.

Engine damage may result from incorrectly installing bearing shells and bearing supports.

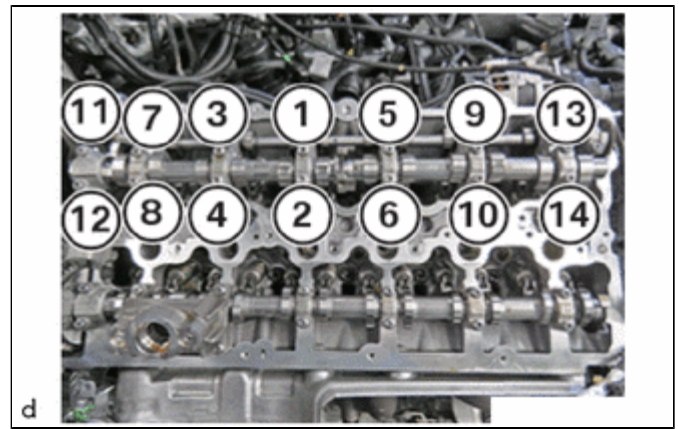
- Always install all bearing shells and bearing supports in the same position from which they were removed.



- (j) Pull in all camshaft bearing caps (E1) to (E6) and the intake camshaft sub-assembly bearing cap (E) and position.



- (k) Press down the camshaft bearing caps and hand-tighten the T30 bolts incrementally in the sequence (1) to (14).



(l) Move up all T30 bolts in the sequence (1) to (14) in half rotations.

Torque:

9.6 N·m {98 kgf·cm, 85 in·lbf}

(m) Tighten all T30 bolts in sequence (1) to (14).

Torque:

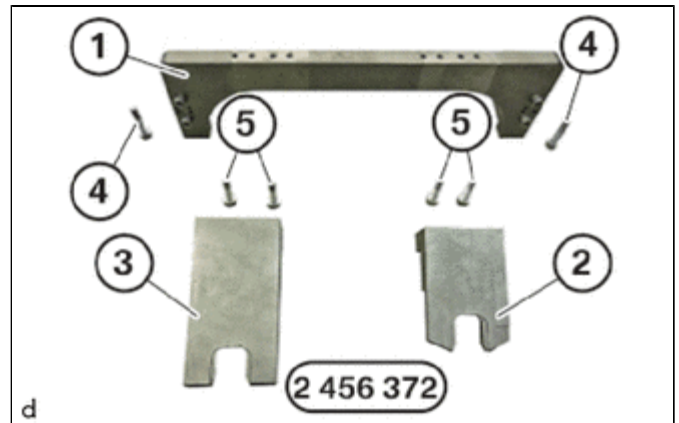
9.6 N·m {98 kgf·cm, 85 in·lbf}

3. ADJUST CAMSHAFT

(a) Have the set of special tools 2 456 372 ready.

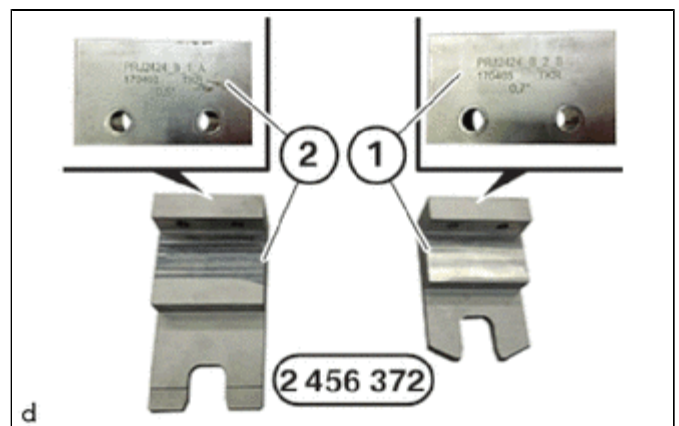
SST: 09200-WA690

Number	Description
1	Basic carrier
2	0.7° setting gauge to adjust the intake camshaft sub-assembly
3	0.5° setting gauge to adjust the exhaust camshaft sub-assembly
4	Basic carrier bolts on cylinder head
5	Bolt gauge on basic carrier



(b) Use the setting gauge 0.7 ° (1) from the set of special tools 2 456 372 to adjust the intake camshaft sub-assembly.

SST: 09200-WA690

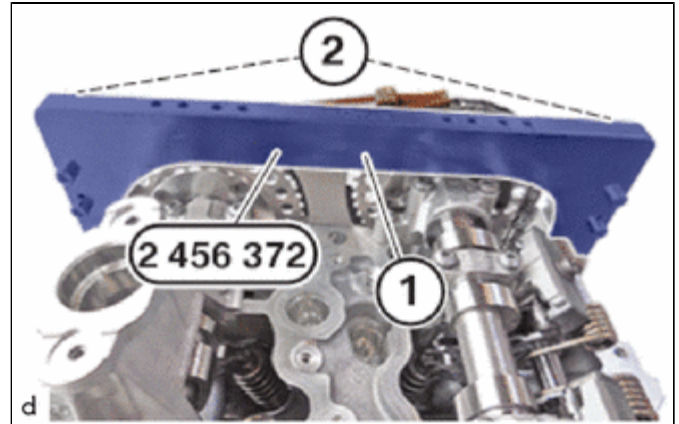


(c) Use the setting gauge 0.5 ° (2) from the set of special tools 2 456 372 to adjust the exhaust camshaft sub-assembly.

SST: 09200-WA690

(d) Position the basic carrier (1) from the set of special tools 2 456 372 on the cylinder head sub-assembly.

SST: 09200-WA690



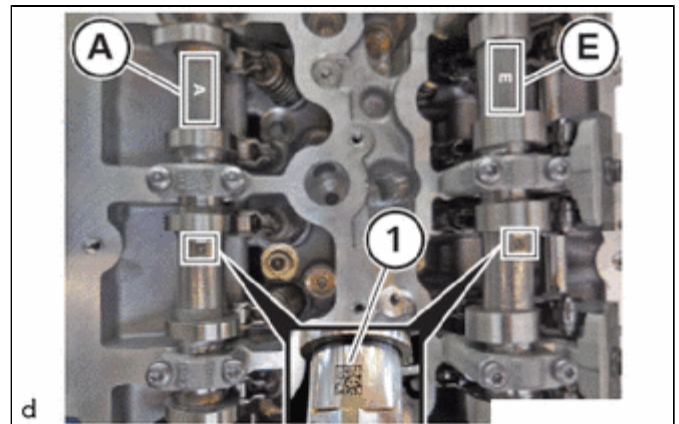
(e) Tighten the bolts (2) from the set of special tools 2 456 372 .

SST: 09200-WA690

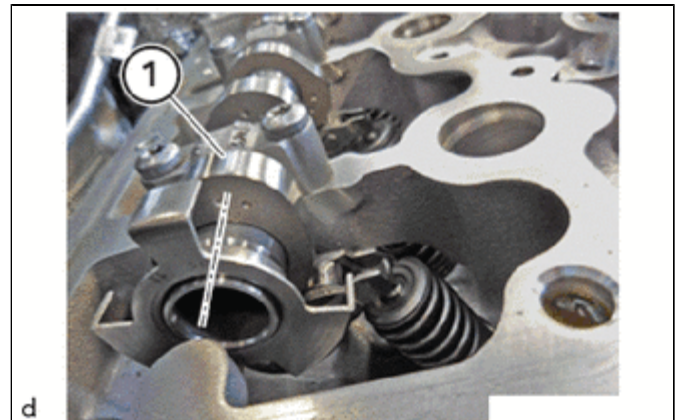
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

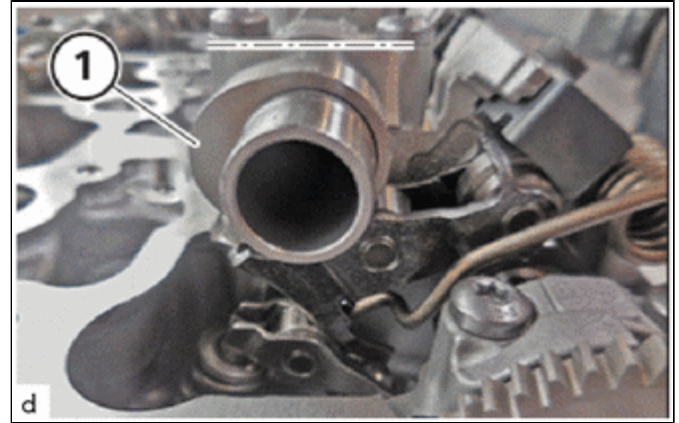
(f) Turn the intake camshaft sub-assembly (E) and the exhaust camshaft sub-assembly (A) until the marks (1) can be read from the top.



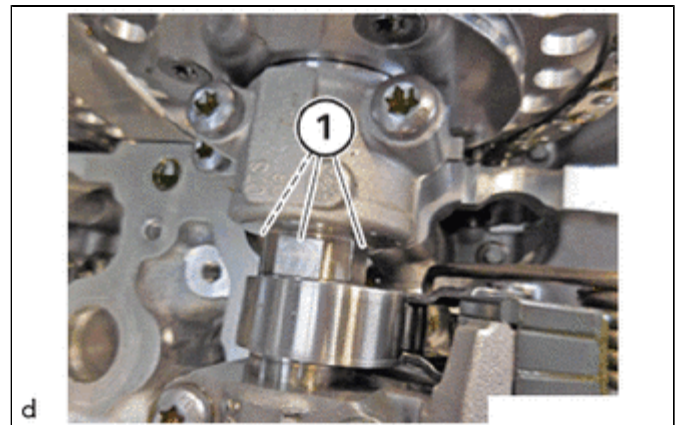
(g) Ensure that the cam (1) on the exhaust camshaft sub-assembly on cylinder 1 points to the inside right at a slight angle.



- (h) Ensure that the cam (1) on the intake camshaft sub-assembly on cylinder 1 points to the inside left at an angle.

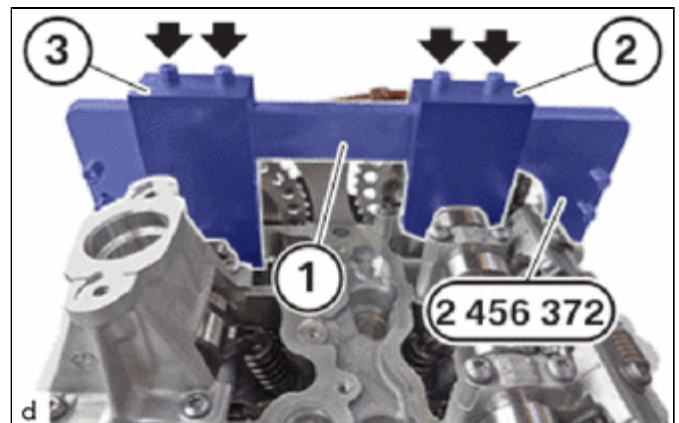


- (i) Ensure that the flattened areas (1) on the intake camshaft sub-assembly and the exhaust camshaft sub-assembly point upwards.



- (j) Position the setting gauge 0.5 ° (3) from the set of special tools 2 456 372 between the exhaust camshaft sub-assembly and the basic carrier (1) from the set of special tools 2 456 372 .

SST: 09200-WA690



- (k) Position the 0.7 setting gauge (2) from the set of special tools 2 456 372 between the intake camshaft sub-assembly and the basic carrier (1) from the set of special tools 2 456 372 .

SST: 09200-WA690

- (l) Tighten bolts (arrows).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

4. INSPECT INTERMEDIATE LEVER

Click here [INFO](#)

5. INSTALL INTERMEDIATE LEVER

Click here [INFO](#)

6. INSTALL GATE

Click here [INFO](#)

7. INSTALL TORSION SPRING

Click here [INFO](#)

8. INSTALL CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

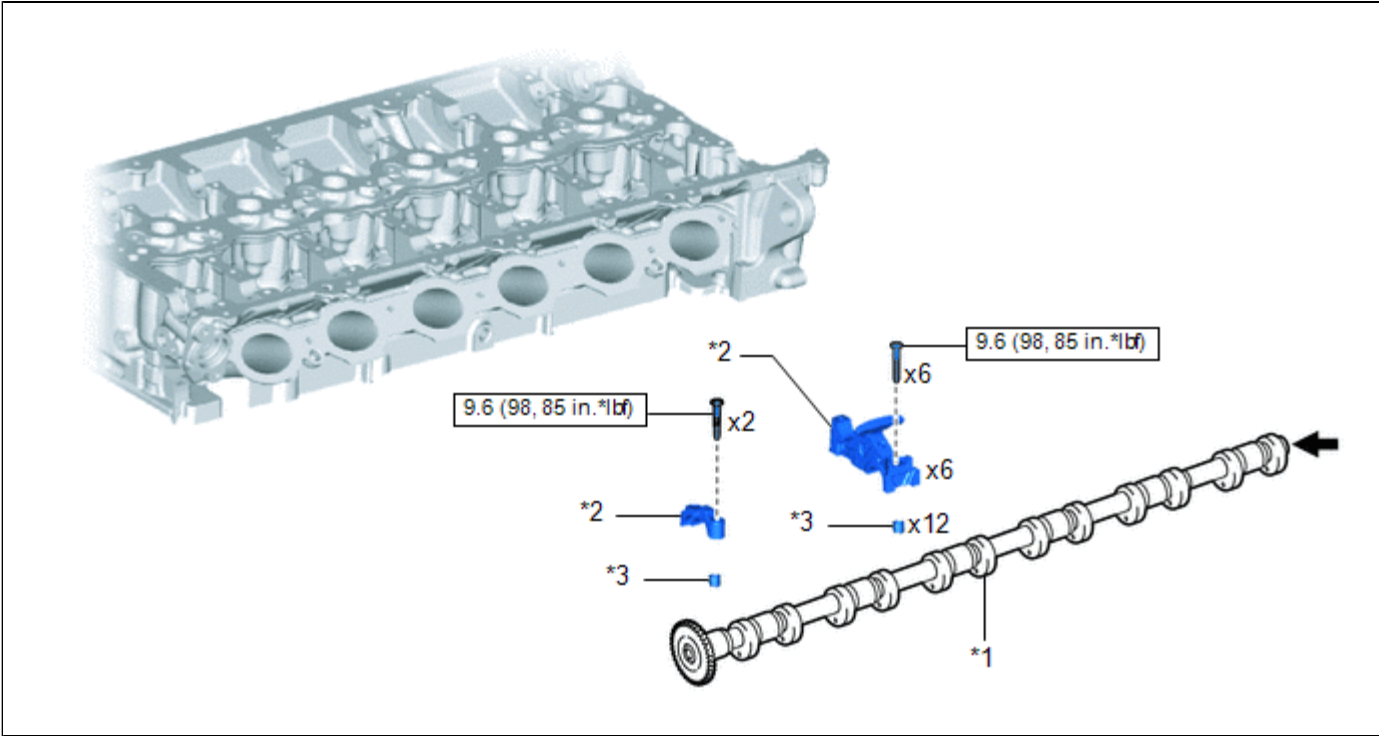
9. INSTALL CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY



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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT (for No. 3): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 3 CAMSHAFT SUB-ASSEMBLY	*2	BEARING CAP
*3	RING PIN	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Engine oil

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT (for No. 3): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE INTAKE CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 3 CAMSHAFT SUB-ASSEMBLY

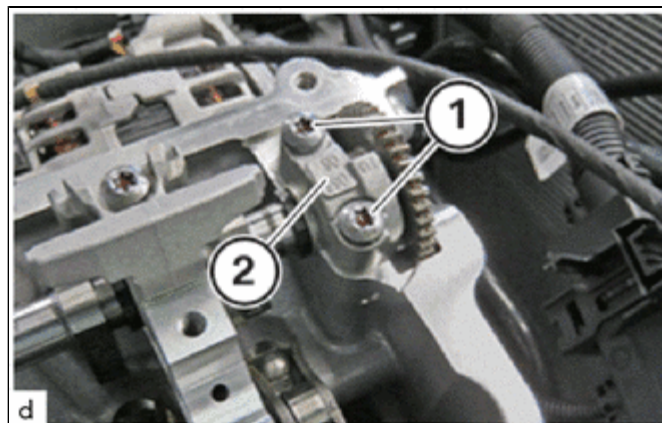
NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

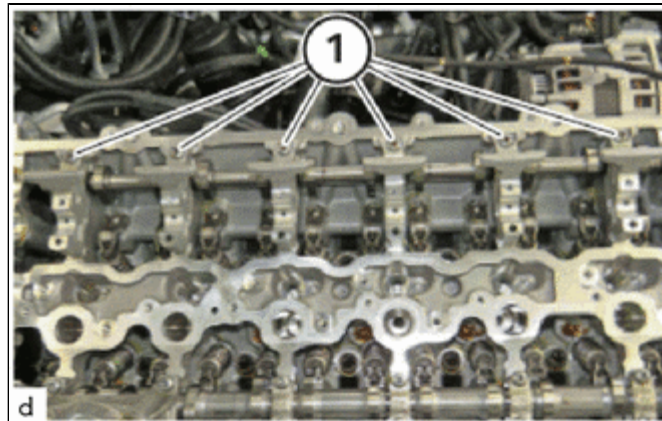
- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

(a) Loosen T30 bolts (1).



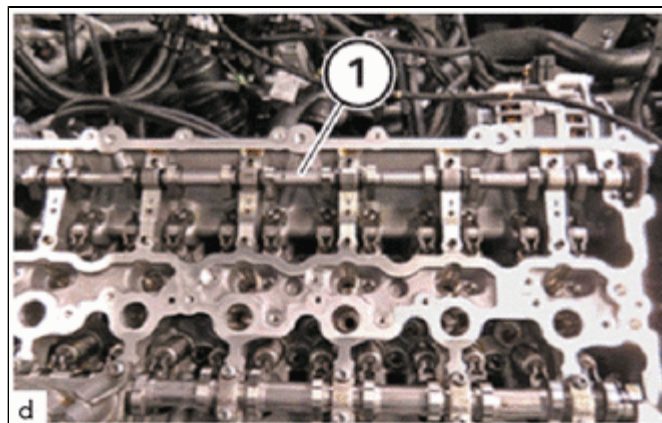
(b) Remove bearing cap (2).

(c) Loosen T30 bolts (1).



(d) Remove all bearing caps.

(e) Guide out the No. 3 camshaft sub-assembly (1) toward the top and remove it.



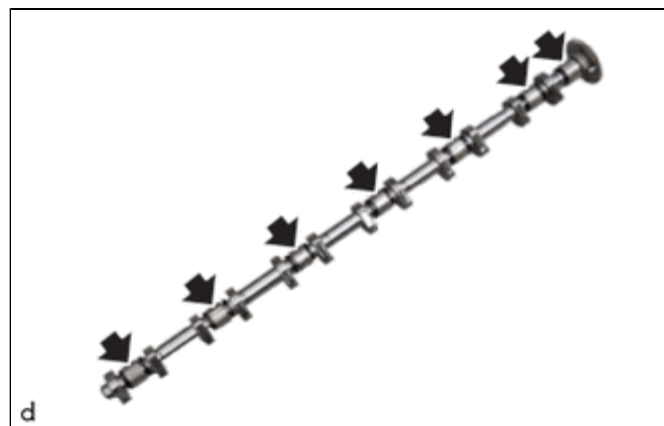
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT (for No. 3): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

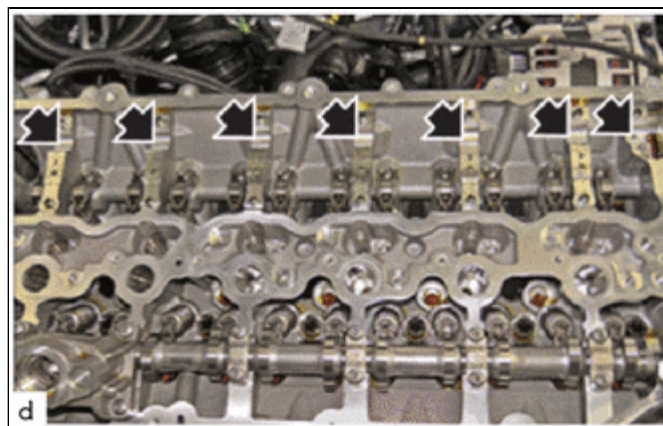
1. INSTALL NO. 3 CAMSHAFT SUB-ASSEMBLY

- (a) Check all the needle bearings (arrows) of the No. 3 camshaft sub-assembly for ease of movement.

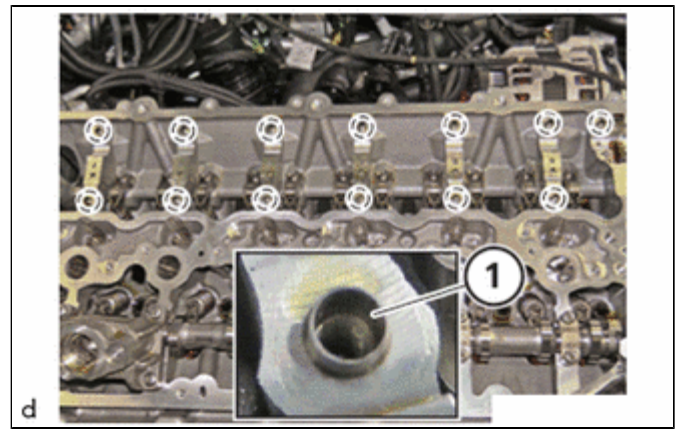


- (b) Replace the No. 3 camshaft sub-assembly in case of tight needle bearings.

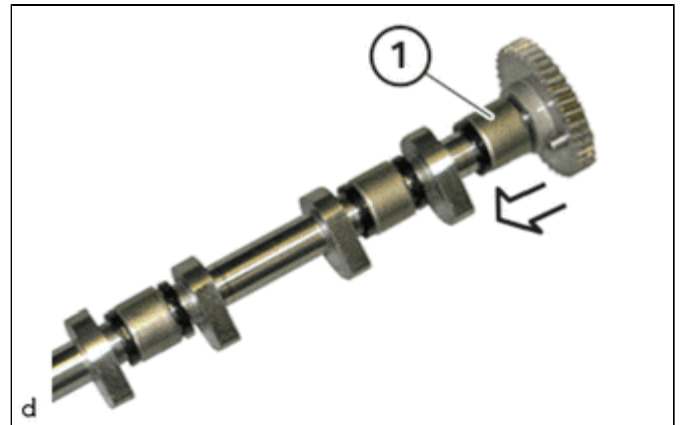
- (c) Clean all the bearing positions (arrows) in the cylinder head sub-assembly and coat them with engine oil.



- (d) Check all ring pins (marks) (1) for damage and replace them if necessary.

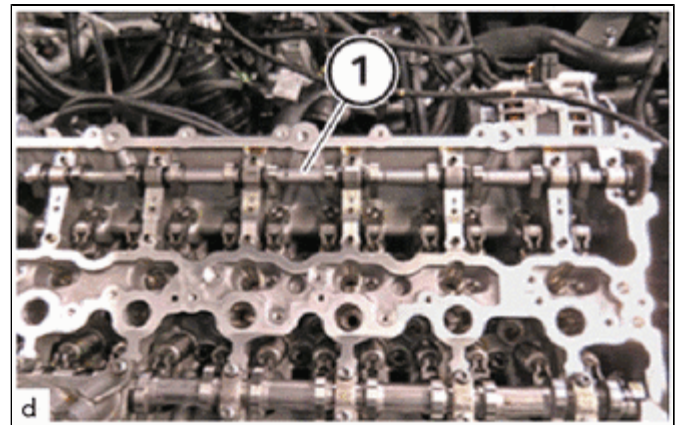


(e) Push needle bearing (1) up to the limit position in direction of arrow before installing the No. 3 camshaft sub-assembly.



(f) Oil all needle bearings of the No. 3 camshaft sub-assembly (1).

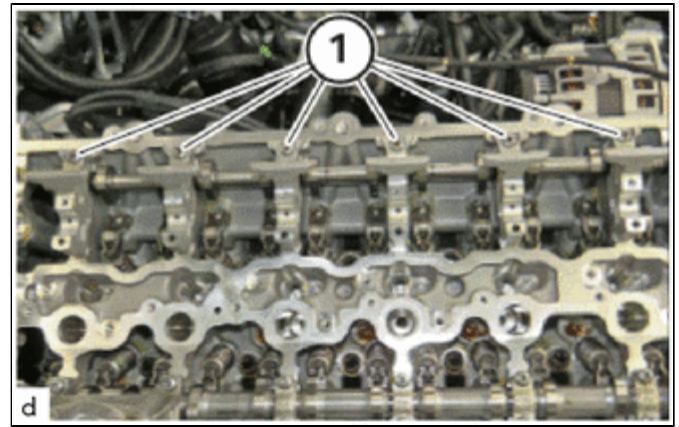
(g) Install No. 3 camshaft sub-assembly (1) in the cylinder head sub-assembly.



(h) Install the bearing caps.

HINT:

All the bearing caps must be installed again in the position from where the bearing caps were removed.

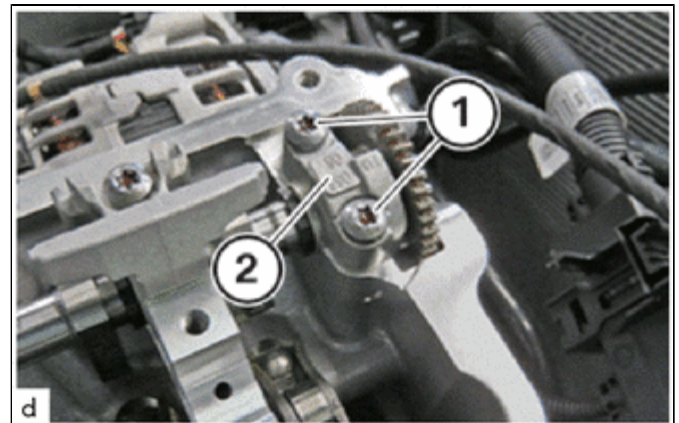


(i) Tighten the T30 bolts (1).

Torque:

9.6 N·m {98 kgf·cm, 85 in·lbf}

(j) Install bearing cap (1) provided with a limit position.



(k) Tighten the T30 bolts (1).

Torque:

9.6 N·m {98 kgf·cm, 85 in·lbf}

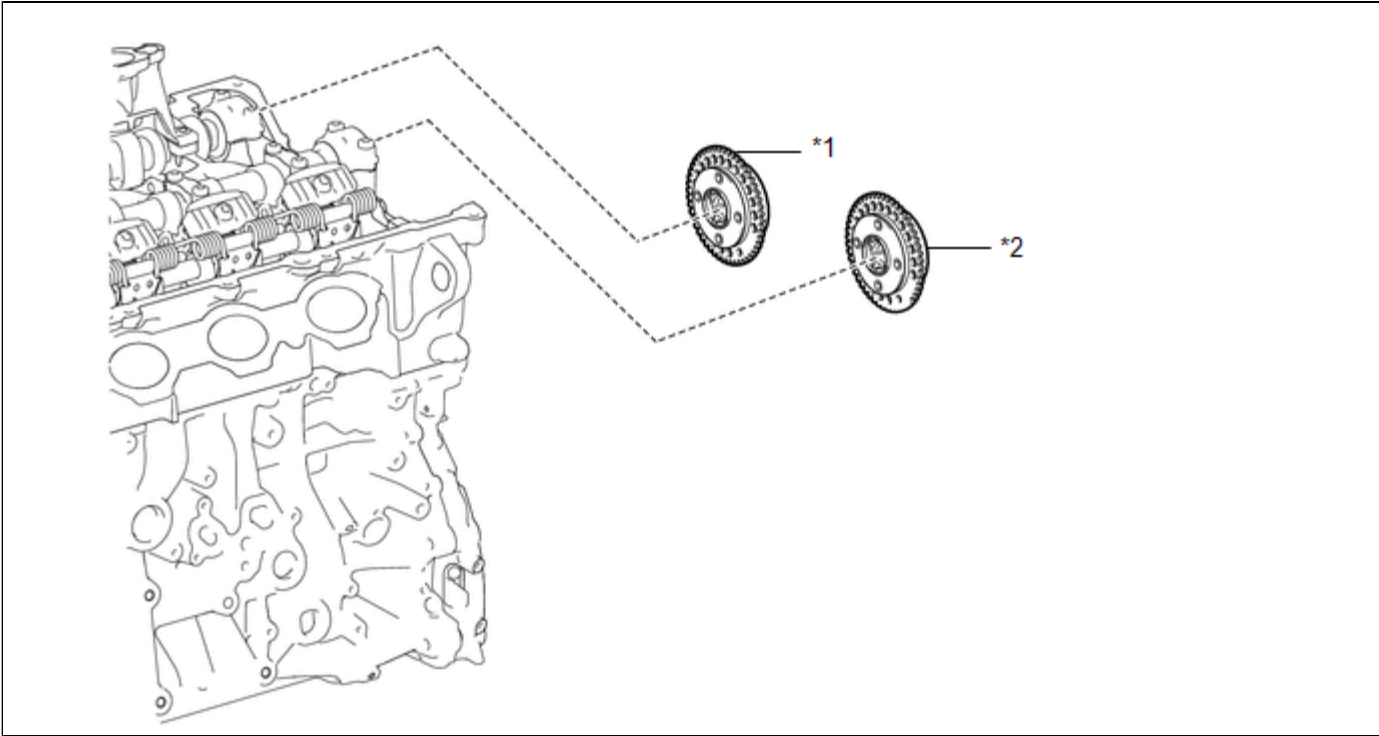
2. INSTALL INTAKE CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT TIMING GEAR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY	*2	CAMSHAFT TIMING GEAR ASSEMBLY
----	---------------------------------------	----	-------------------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDfD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT TIMING GEAR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

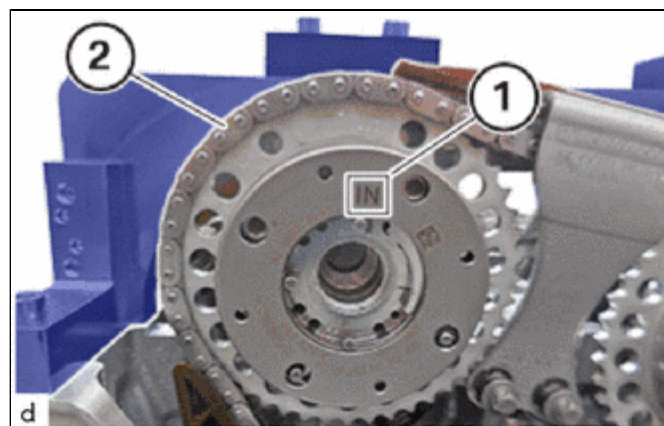
Click here [INFO](#)

2. REMOVE CAMSHAFT TIMING GEAR ASSEMBLY

HINT:

The figure shows the rear side of the engine.

- (a) Guide out the camshaft timing gear assembly (1) from the chain sub-assembly (2) and remove.

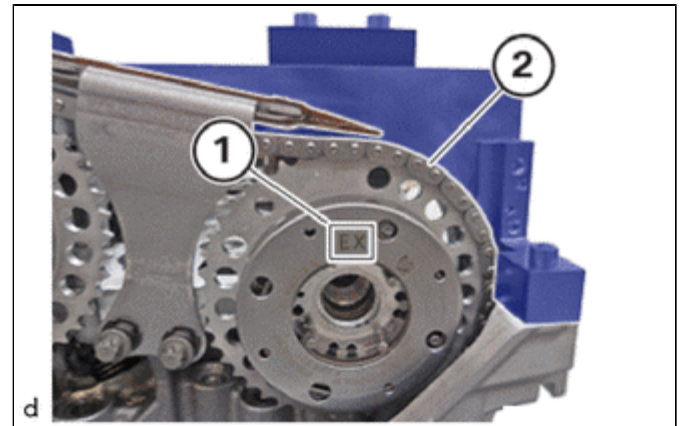


3. REMOVE CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

HINT:

The figure shows the rear side of the engine.

- (a) Guide out the camshaft timing exhaust gear assembly (1) from the chain sub-assembly (2) and remove.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD FE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CAMSHAFT TIMING GEAR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

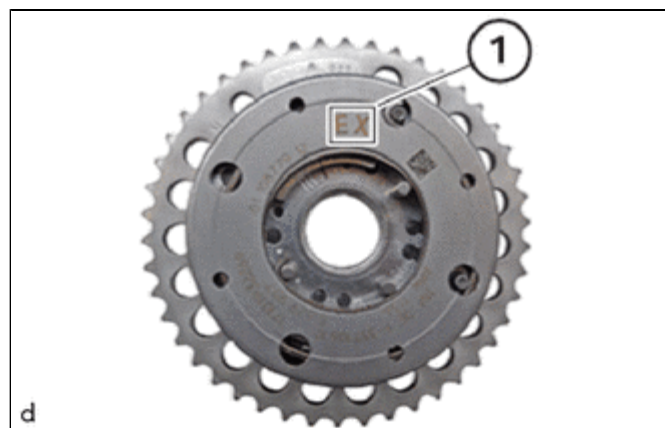
PROCEDURE

1. INSTALL CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

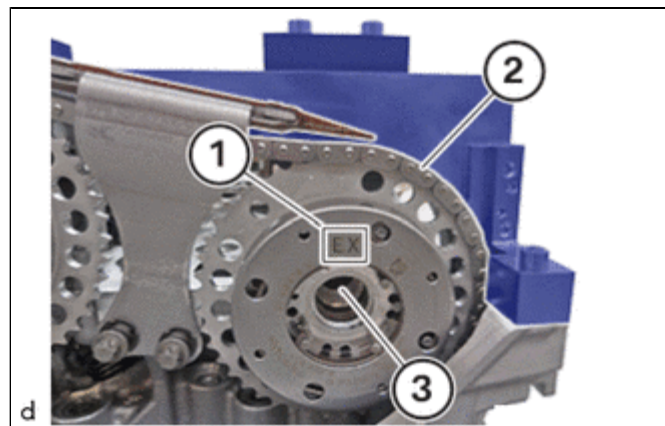
HINT:

The figure shows the rear side of the engine.

- (a) Keep camshaft timing exhaust gear assembly (1) marked EX ready.



- (b) Feed in camshaft timing exhaust gear assembly (1) in the chain sub-assembly (2) and position on the exhaust camshaft sub-assembly (3).

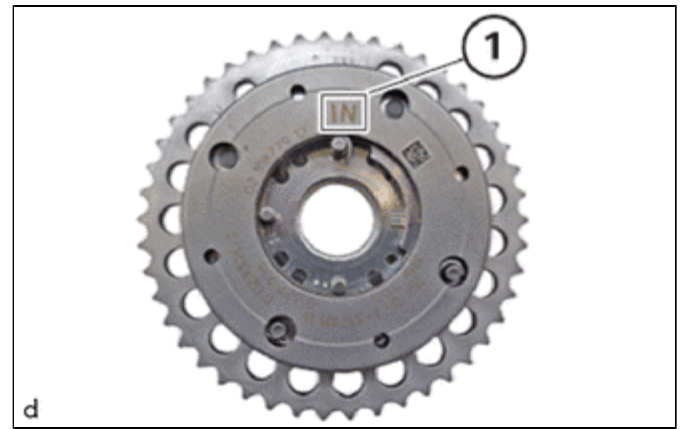


2. INSTALL CAMSHAFT TIMING GEAR ASSEMBLY

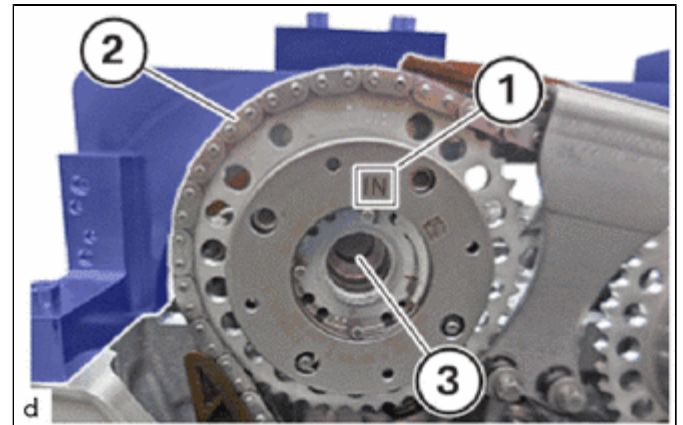
HINT:

The figure shows the rear side of the engine.

(a) Keep camshaft timing gear assembly (1) marked IN ready.



(b) Feed in camshaft timing gear assembly (1) in the chain sub-assembly (2) and position on the intake camshaft sub-assembly (3).



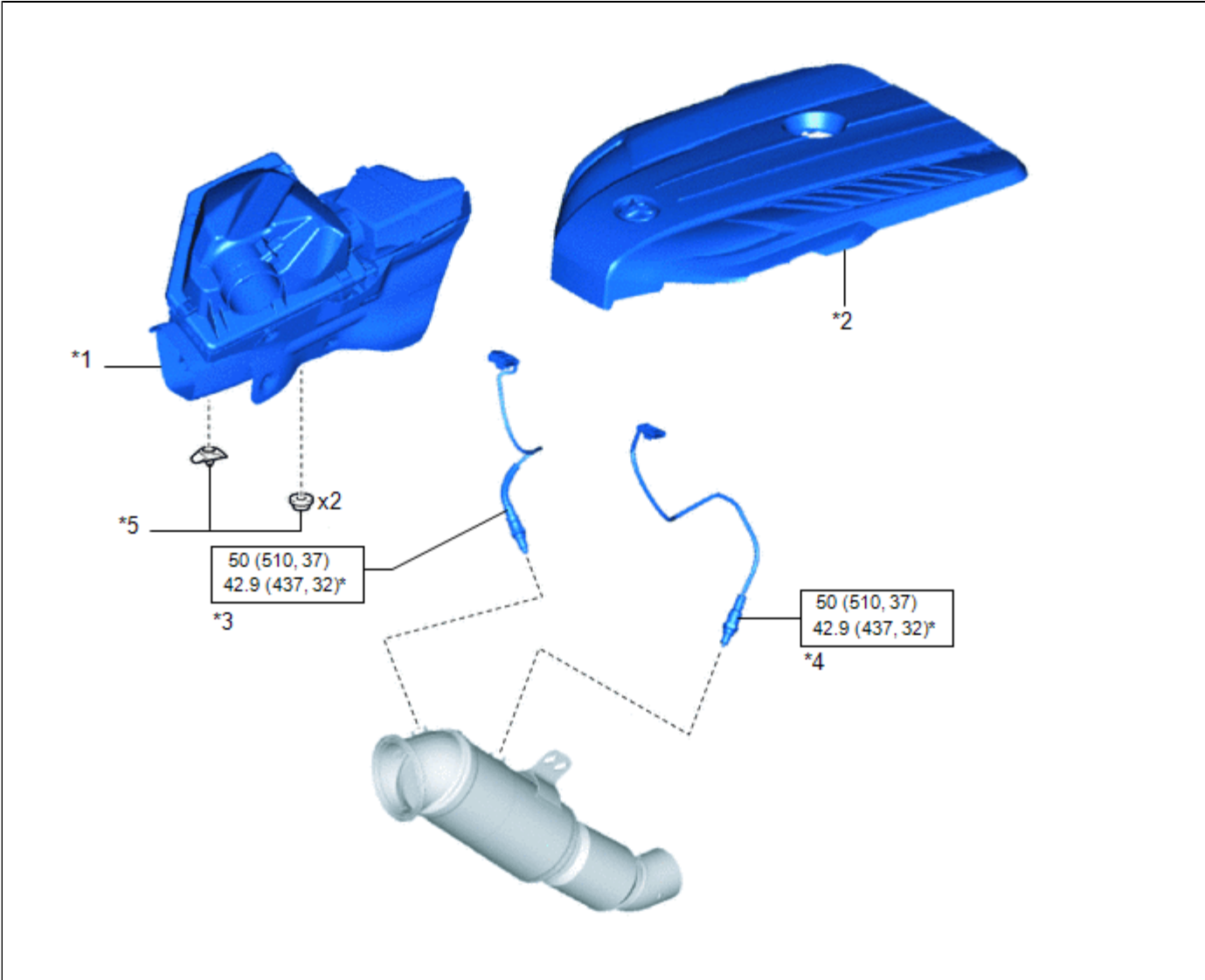
3. INSTALL CAMSHAFT TIMING GEAR BOLT ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CHAIN TENSIONER: COMPONENTS; 2020 MY Supra [03/2019 -]		

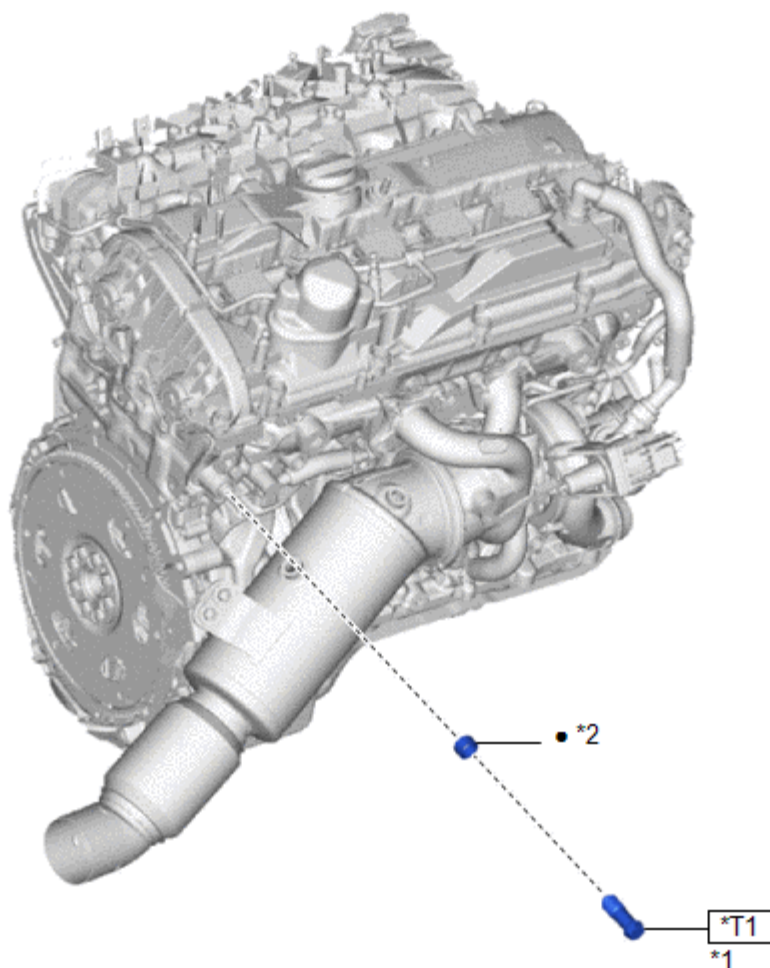
COMPONENTS

ILLUSTRATION



*1	AIR CLEANER ASSEMBLY	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	WIDE RANGE AIR FUEL RATIO SENSOR	*4	OXYGEN SENSOR
*5	AIR CLEANER SUPPORT	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST

ILLUSTRATION



d

*1	NO. 1 CHAIN TENSIONER ASSEMBLY	*2	SEALING SLEEVE
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 20 (204, 15) 2nd: Turn 40°	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CHAIN TENSIONER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

3. REMOVE WIDE RANGE AIR FUEL RATIO SENSOR

Click here [INFO](#)

4. REMOVE OXYGEN SENSOR

Click here [INFO](#)

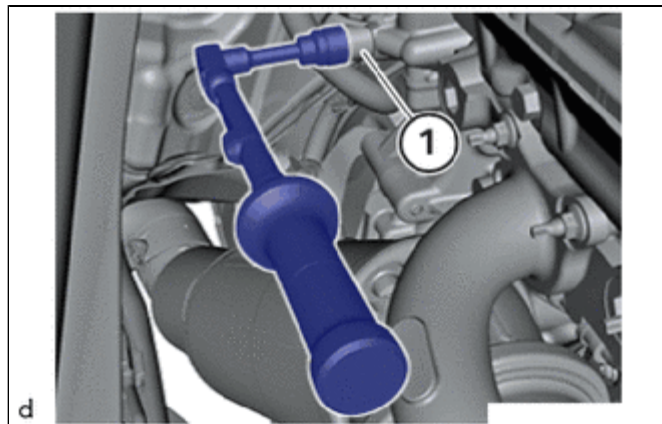
5. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Have a cloth ready.

- (1) A small amount of engine oil emerges during the removal of the No. 1 chain tensioner assembly (1).



(b) Release the No. 1 chain tensioner assembly (1).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CHAIN TENSIONER: INSTALLATION; 2020 MY Supra [03/2019 -]		

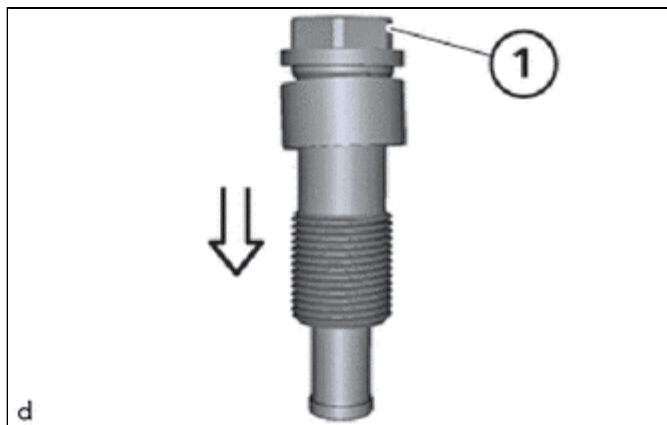
INSTALLATION

PROCEDURE

1. INSTALL NO. 1 CHAIN TENSIONER ASSEMBLY

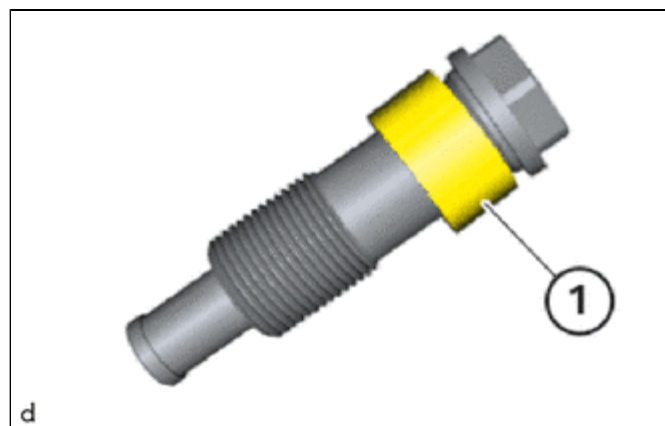
HINT:

The oil chamber must be drained for reuse of the No. 1 chain tensioner assembly.



- (a) Place No. 1 chain tensioner assembly (1) on a level support and slowly compress.
- (b) Repeat this procedure twice.

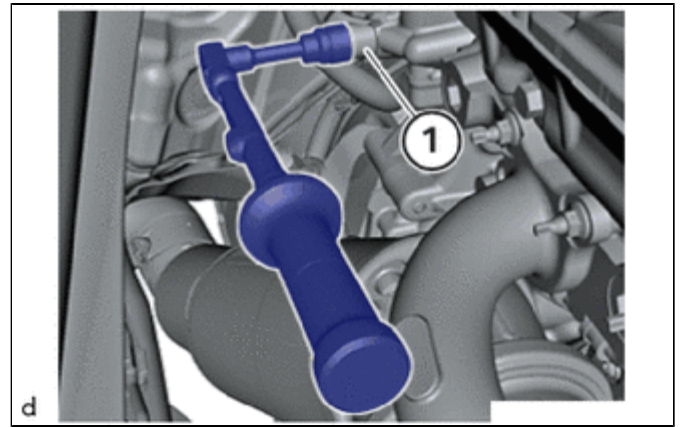
- (c) Replace the sealing sleeve (1).



- (d) Tighten the No. 1 chain tensioner assembly (1).

Torque:

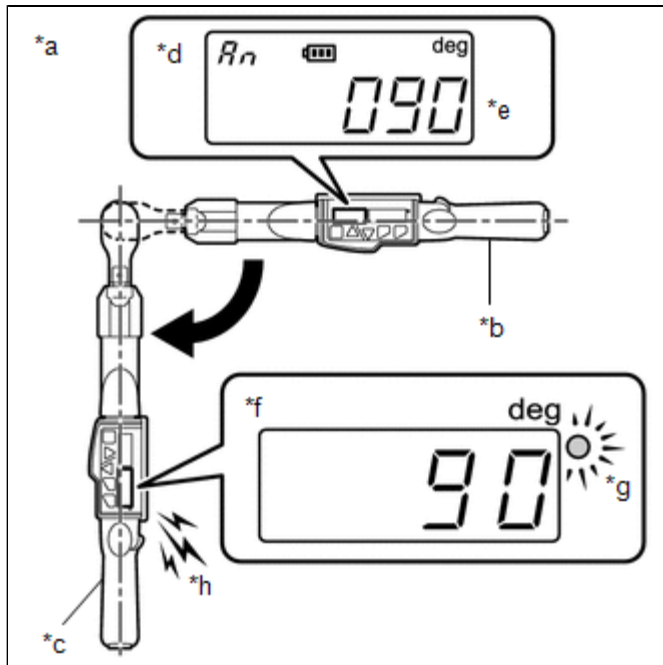
20 N·m {204 kgf·cm, 15 ft·lbf}



(e) Using a digital angle torque wrench, tighten the No. 1 chain tensioner assembly an additional 40°.

HINT:

- When using the digital angle torquewrench, set the wrench to the specifiedtightening angle before use.
- When using the digital angle torquewrench, check the tightening angledisplay while performing the work.
- When tightening reaches the set angle,the buzzer will sound and a blue LEDwill illuminate.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Set Angle Display
*e	Setting the Specified Angle
*f	Tightening Angle Display
*g	LED Notification
*h	Buzzer Notification

2. INSTALL OXYGEN SENSOR

Click here [INFO](#)

3. INSTALL WIDE RANGE AIR FUEL RATIO SENSOR

Click here [INFO](#)

4. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

5. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

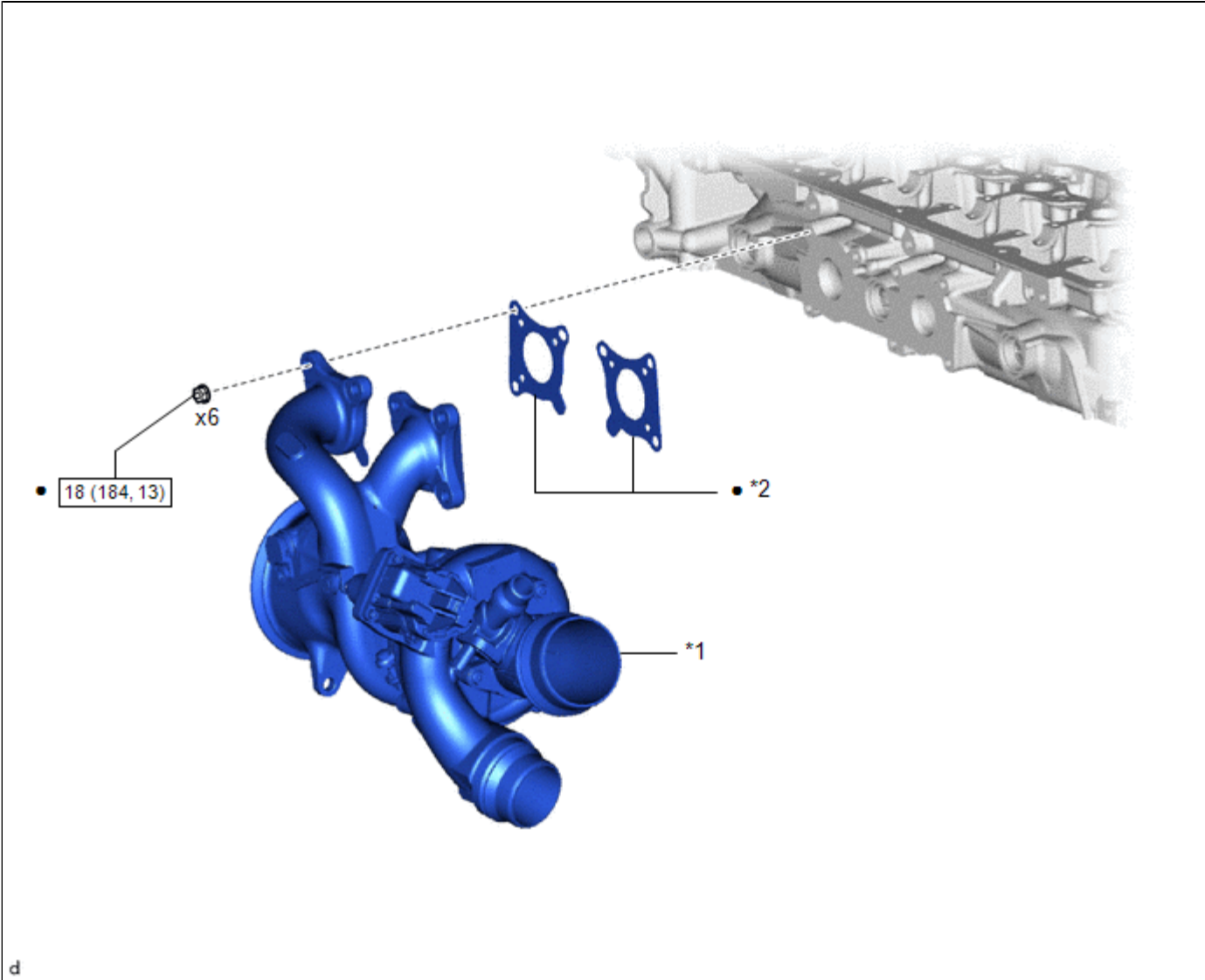
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): COMPRESSION SPRING: COMPONENTS; 2020 MY Supra [03/2019 -]		

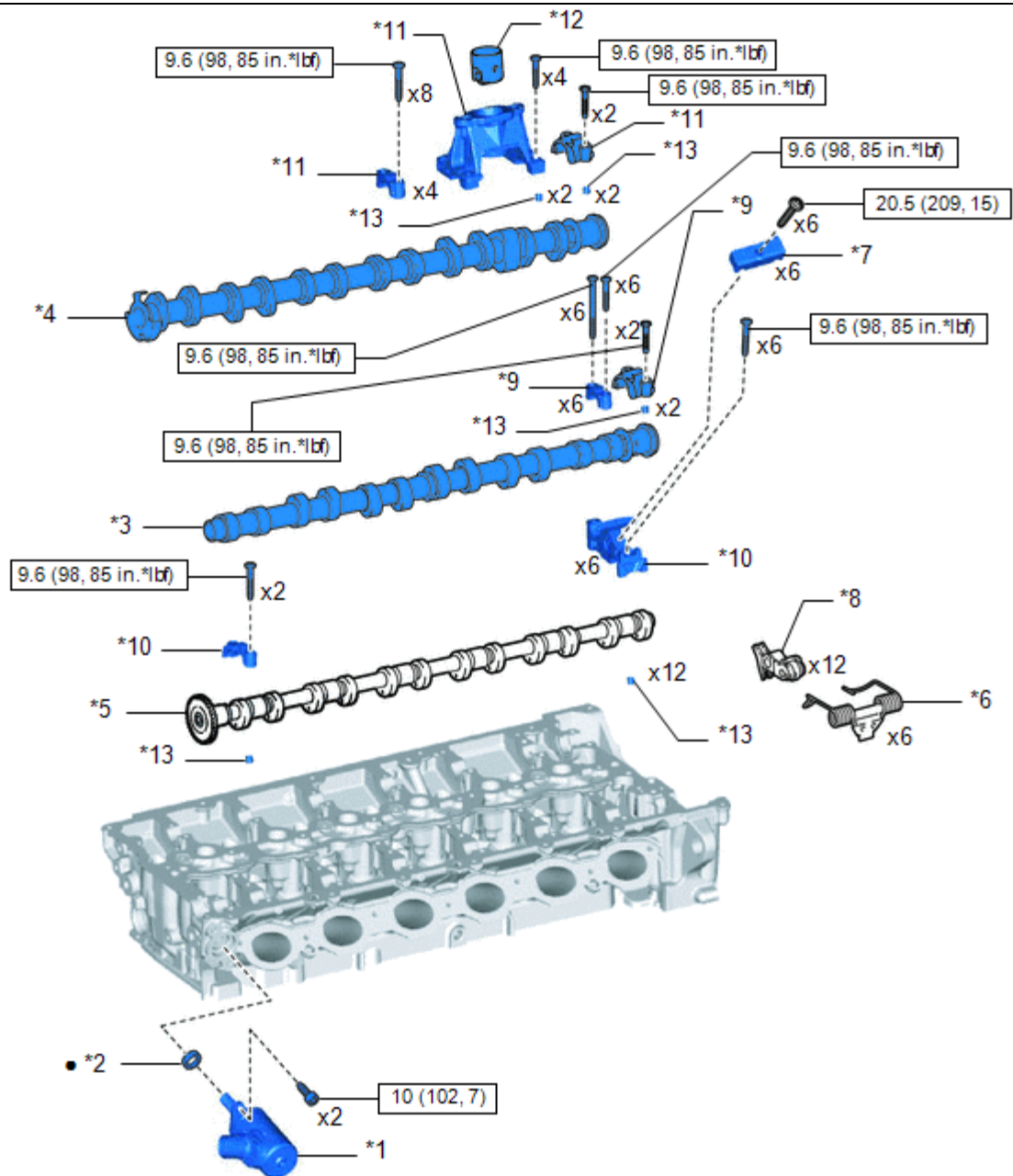
COMPONENTS



ILLUSTRATION



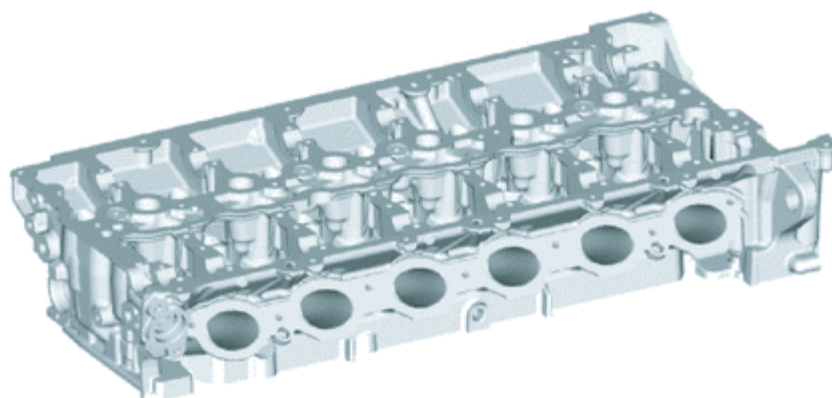
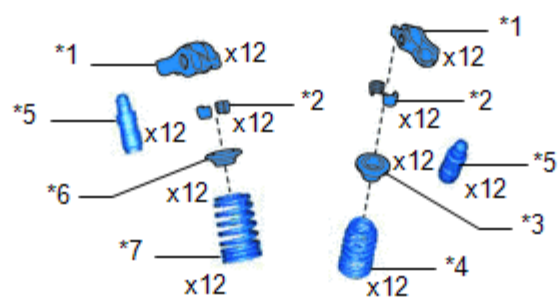
*1	TURBOCHARGER SUB-ASSEMBLY	*2	EXHAUST MANIFOLD TO HEAD GASKET
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	SERVO MOTOR	*2	O-RING
*3	INTAKE CAMSHAFT SUB-ASSEMBLY	*4	EXHAUST CAMSHAFT SUB-ASSEMBLY
*5	NO. 3 CAMSHAFT SUB-ASSEMBLY	*6	TORSION SPRING
*7	GATE	*8	INTERMEDIATE LEVER
*9	CAMSHAFT BEARING CAP	*10	BEARING CAP
*11	EXHAUST CAMSHAFT BEARING CAP	*12	FUEL PUMP LIFTER ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

ILLUSTRATION



*1	NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY	*2	VALVE SPRING RETAINER LOCK
*3	INTAKE VALVE SPRING RETAINER	*4	INTAKE VALVE COMPRESSION SPRING
*5	VALVE LASH ADJUSTER ASSEMBLY	*6	EXHAUST VALVE SPRING RETAINER
*7	EXHAUST VALVE COMPRESSION SPRING	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): COMPRESSION SPRING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE CYLINDER HEAD GASKET

Click here [INFO](#)

2. REMOVE TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

3. ADJUST NO. 3 CAMSHAFT SUB-ASSEMBLY TO MINIMUM LIFT

Click here [INFO](#)

4. REMOVE TORSION SPRING

Click here [INFO](#)

5. REMOVE GATE

Click here [INFO](#)

6. REMOVE INTERMEDIATE LEVER

Click here [INFO](#)

7. REMOVE INTAKE CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

8. REMOVE NO. 3 CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

9. REMOVE SERVO MOTOR

Click here [INFO](#)

10. REMOVE EXHAUST CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

11. REMOVE NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY

Click here [INFO](#)

12. REMOVE VALVE LASH ADJUSTER ASSEMBLY

Click here [INFO](#)

13. REMOVE INTAKE VALVE COMPRESSION SPRING

- (a) Using SST, compress each compression spring and remove the 12 intake valve spring retainer locks.

SST: 09202-70020

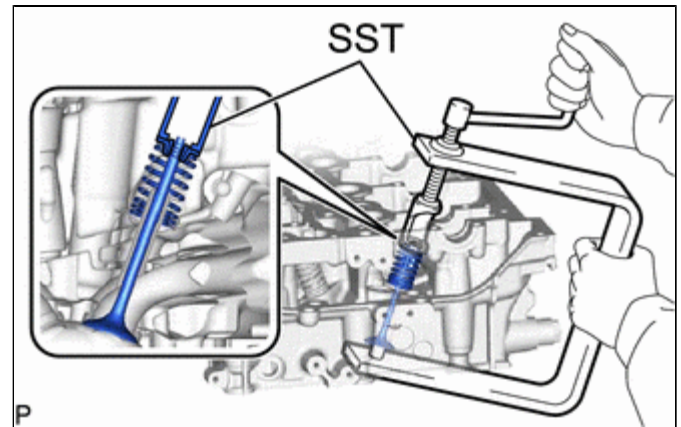
09202-01010

09202-01020

SST: 09202-00021

HINT:

Arrange the removed parts in such a way that they can be reinstalled to their original locations.

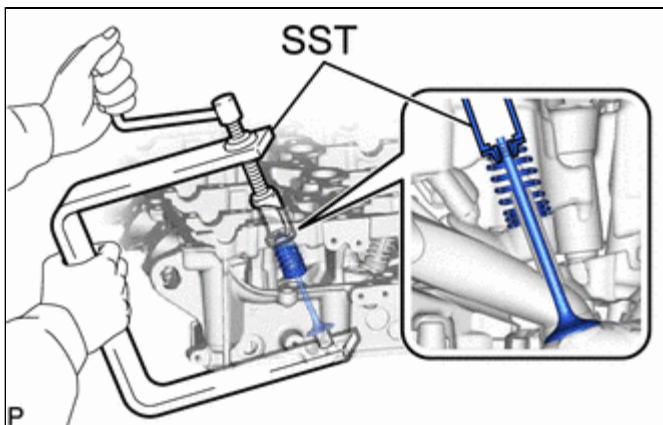


- (b) Remove the 12 intake valve spring retainers, 12 valve compression spring and from the cylinder head sub-assembly.

HINT:

Arrange the removed parts in such a way that they can be reinstalled to their original locations.

14. REMOVE EXHAUST VALVE COMPRESSION SPRING



- (a) Using SST, compress each compression spring and remove the 12 valve spring retainer locks.

SST: 09202-70020

09202-01010

09202-01020

SST: 09202-00021

HINT:

Arrange the removed parts in such a way that they can be reinstalled to their original locations.

- (b) Remove the 12 valve spring retainers, 12 exhaust valve compression spring and from the cylinder head sub-assembly.

HINT:

Arrange the removed parts in such a way that they can be reinstalled to their original locations.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): COMPRESSION SPRING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL EXHAUST VALVE COMPRESSION SPRING

CAUTION:

- Spring preload.

Danger of injury!

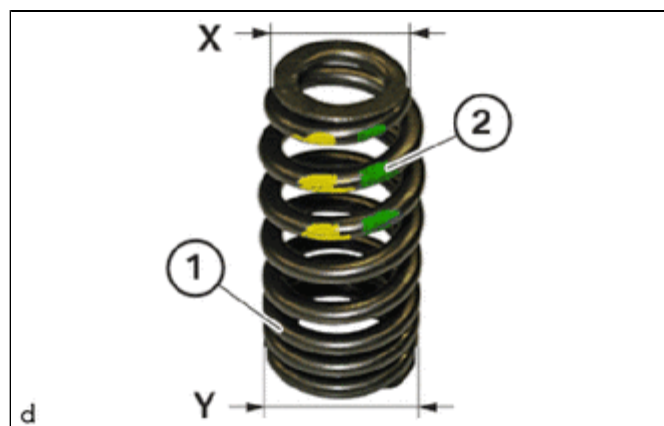
- The use of the specified special tool (tool) is mandatory.
- The described operation must be carried out properly.

HINT:

The description is for one component only. The procedure is identical for all further components.

(a) Note the installation position of the exhaust valve compression spring.

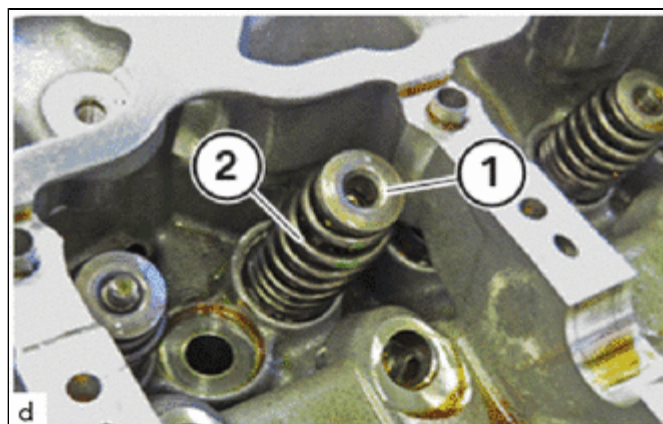
- (1) Install the exhaust valve compression spring that the larger diameter (Y) points to the lower spring cup.



(b) Make sure that the intake valve compression springs are not switched with the exhaust valve compression springs.

- (1) The exhaust valve compression springs (1) have been color-coded (2).
- (2) Color of the exhaust valve compression springs: green/yellow

(c) Install the exhaust valve compression spring (2) and the exhaust valve spring retainer (1).



(d) Using SST, compress each exhaust compression spring and install the 12 valve spring retainer locks.

SST: 09202-70020

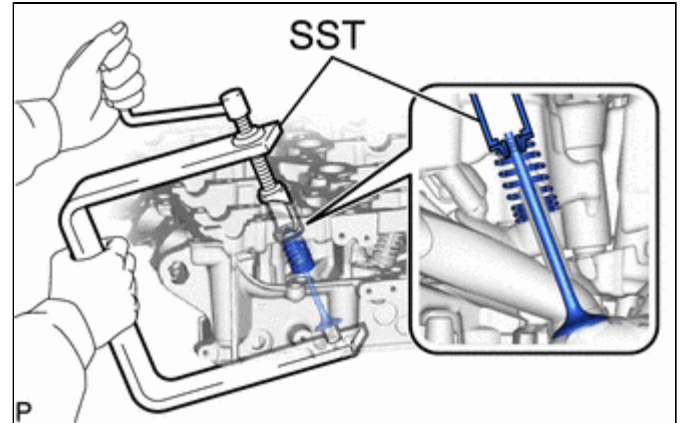
09202-01010

09202-01020

SST: 09202-00021

HINT:

Wear safety goggles.



2. INSTALL INTAKE VALVE COMPRESSION SPRING

CAUTION:

- Spring preload.

Danger of injury!

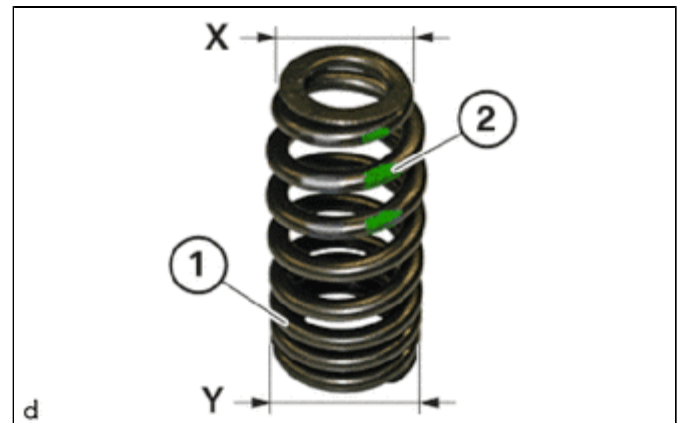
- The use of the specified special tool (tool) is mandatory.
- The described operation must be carried out properly.

HINT:

The description is for one component only. The procedure is identical for all further components.

(a) Note the installation position of the intake valve compression spring.

- (1) Install the intake valve compression spring such that the larger diameter (Y) points to the lower spring cup.

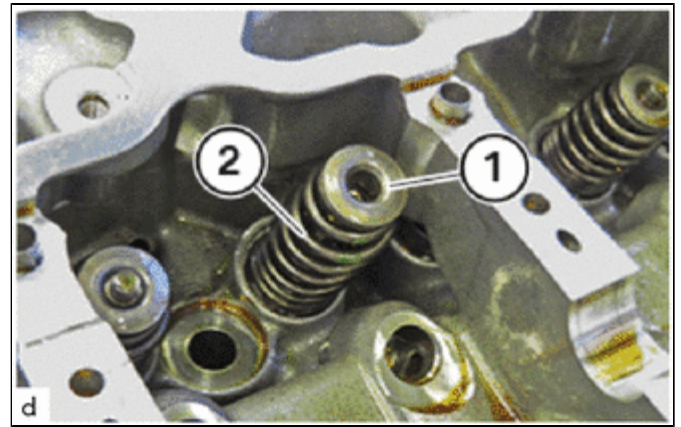


(b) Make sure that the intake valve compression springs are not switched with the exhaust valve compression springs.

- (1) The intake valve compression springs (1) have been color-coded (2).

- (2) Color of the intake valve compression springs: green

(c) Install the intake valve compression spring (2) and the intake valve spring retainer (1).



(d) Using SST, compress each intake compression spring and install the 12 valve spring retainer locks.

SST: 09202-70020

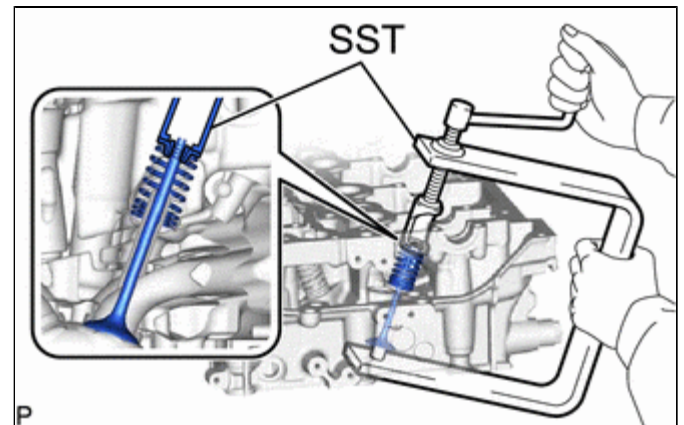
09202-01010

09202-01020

SST: 09202-00021

HINT:

Wear safety goggles.



3. INSTALL VALVE LASH ADJUSTER ASSEMBLY

Click here [INFO](#)

4. INSTALL NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY

Click here [INFO](#)

5. INSTALL EXHAUST CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

6. INSTALL NO. 3 CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

7. INSTALL INTAKE CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

8. INSTALL SERVO MOTOR

Click here [INFO](#)

9. INSPECT INTERMEDIATE LEVER

Click here [INFO](#)

10. INSTALL INTERMEDIATE LEVER

Click here [INFO](#)

11. INSTALL GATE

Click here [INFO](#)

12. ADJUST NO. 3 CAMSHAFT SUB-ASSEMBLY TO MINIMUM LIFT

Click here [INFO](#)

13. INSPECT AND ADJUST CAMSHAFT

Click here [INFO](#)

14. INSTALL TORSION SPRING

Click here [INFO](#)

15. INSTALL TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

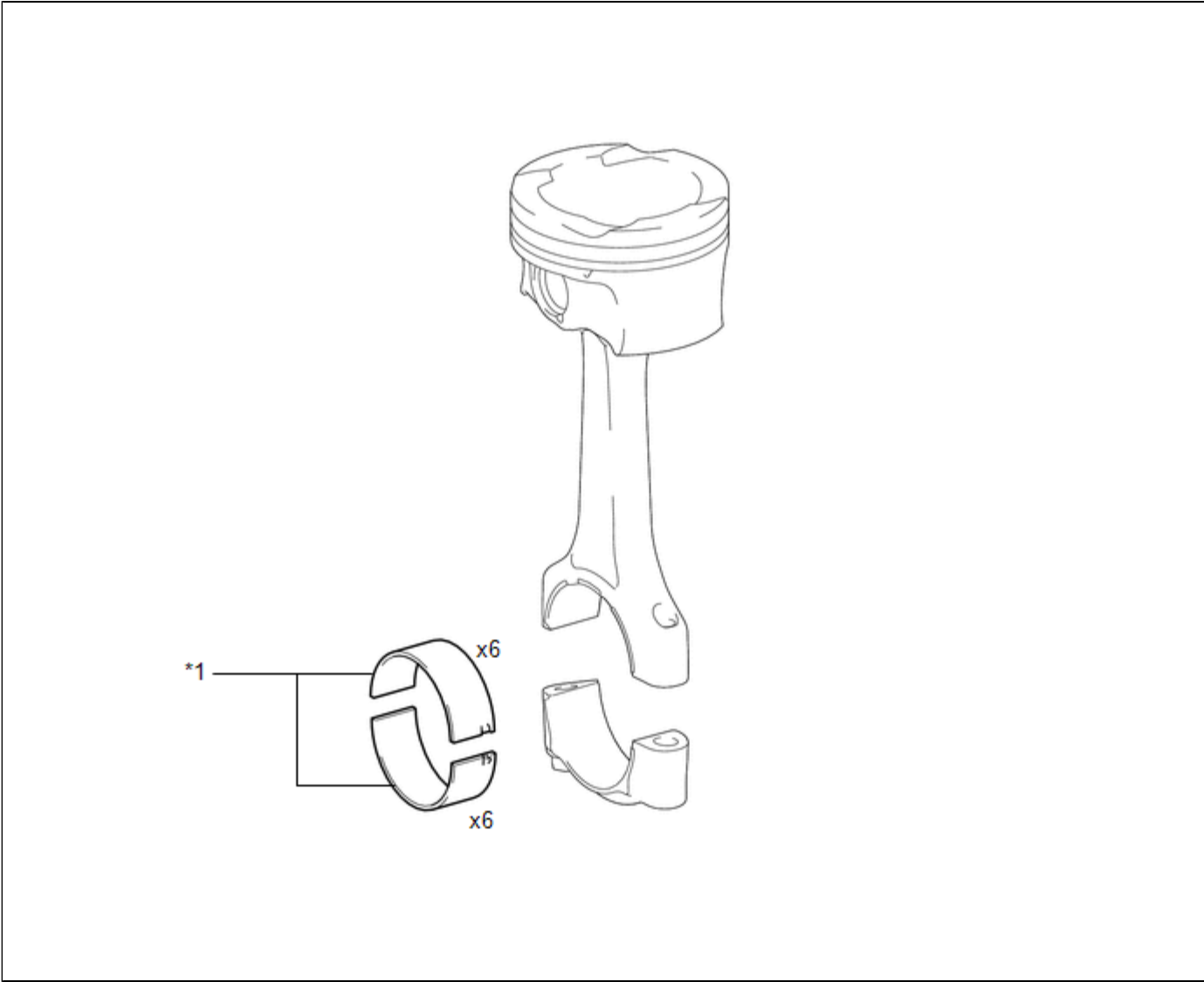
16. INSTALL CYLINDER HEAD GASKET

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CONNECTING ROD BEARING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONNECTING ROD BEARING	-	-
----	------------------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CONNECTING ROD BEARING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

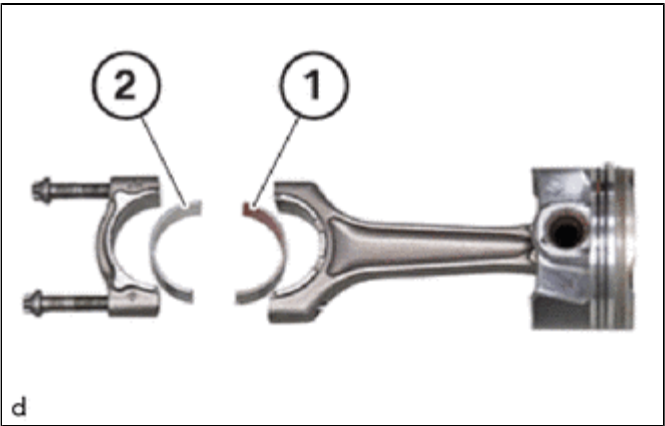
PROCEDURE

1. REMOVE CONNECTING ROD SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE CONNECTING ROD BEARING

(a) Remove the connecting rod bearings (1) and (2).



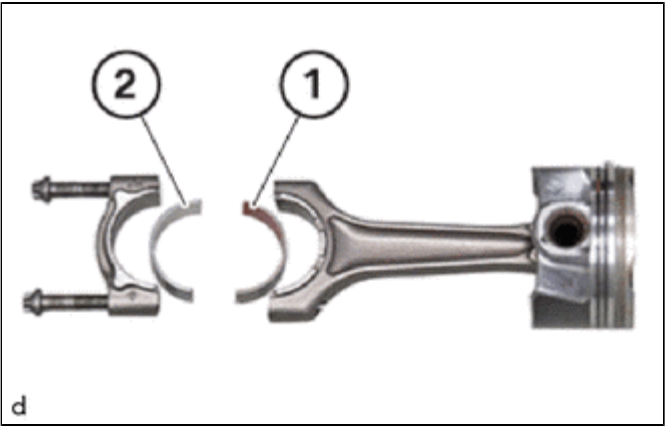
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CONNECTING ROD BEARING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL CONNECTING ROD BEARING

(a) Insert the connecting rod bearings (1) and (2).



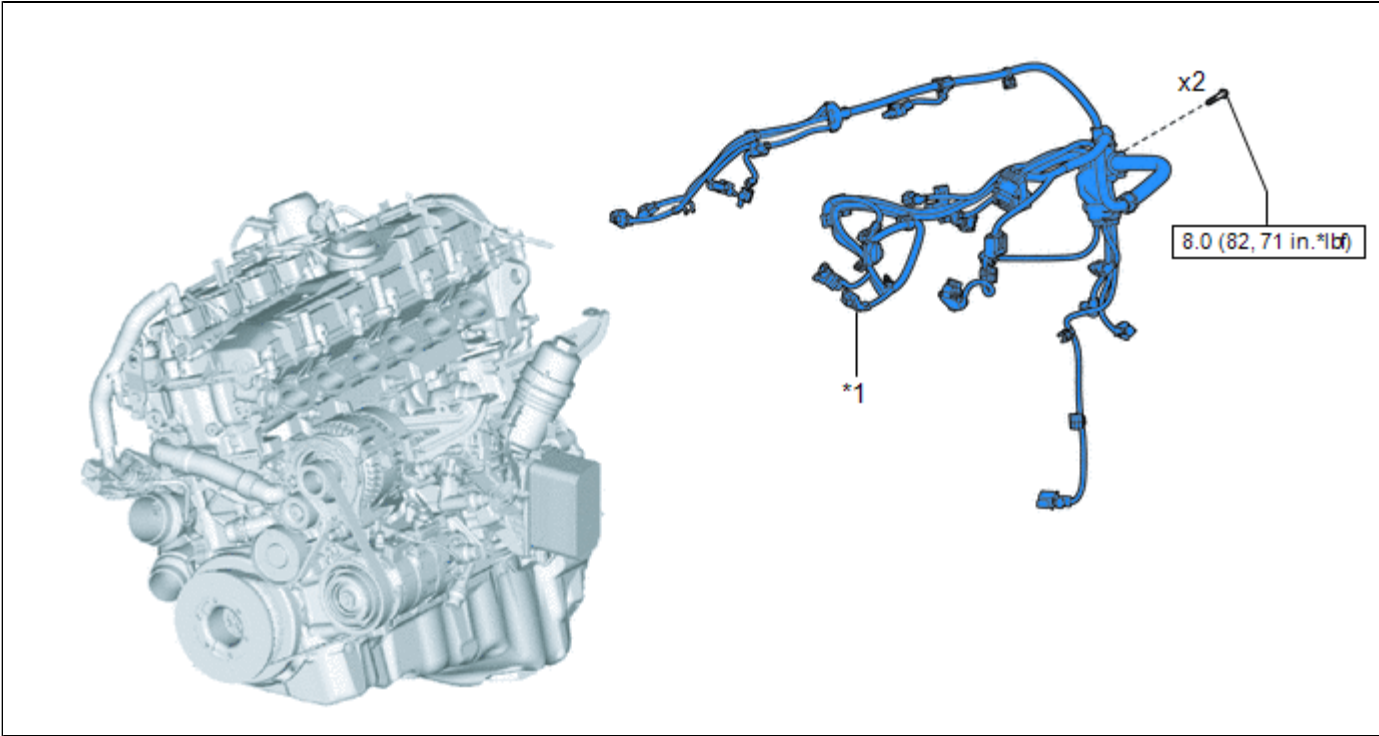
2. INSTALL CONNECTING ROD SUB-ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CRANKSHAFT: COMPONENTS; 2020 MY Supra [03/2019 -]		

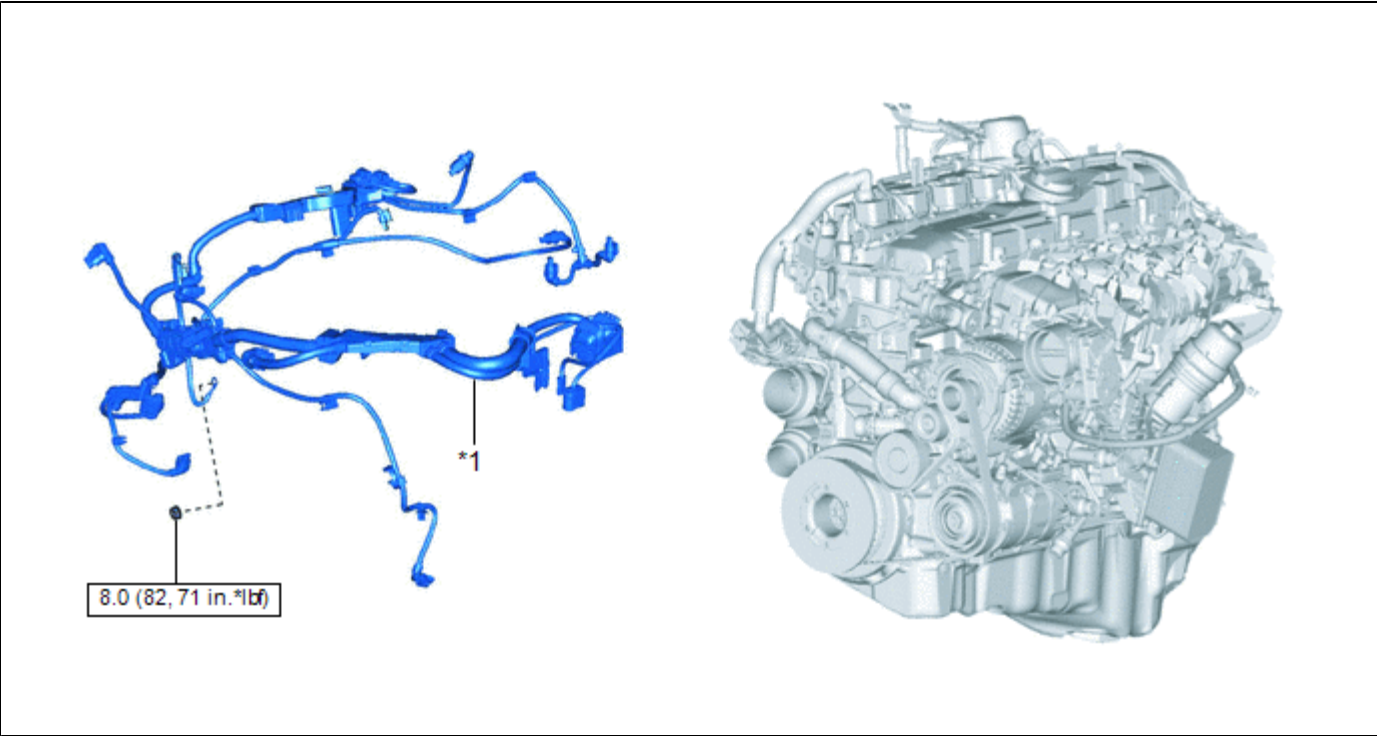
COMPONENTS


ILLUSTRATION



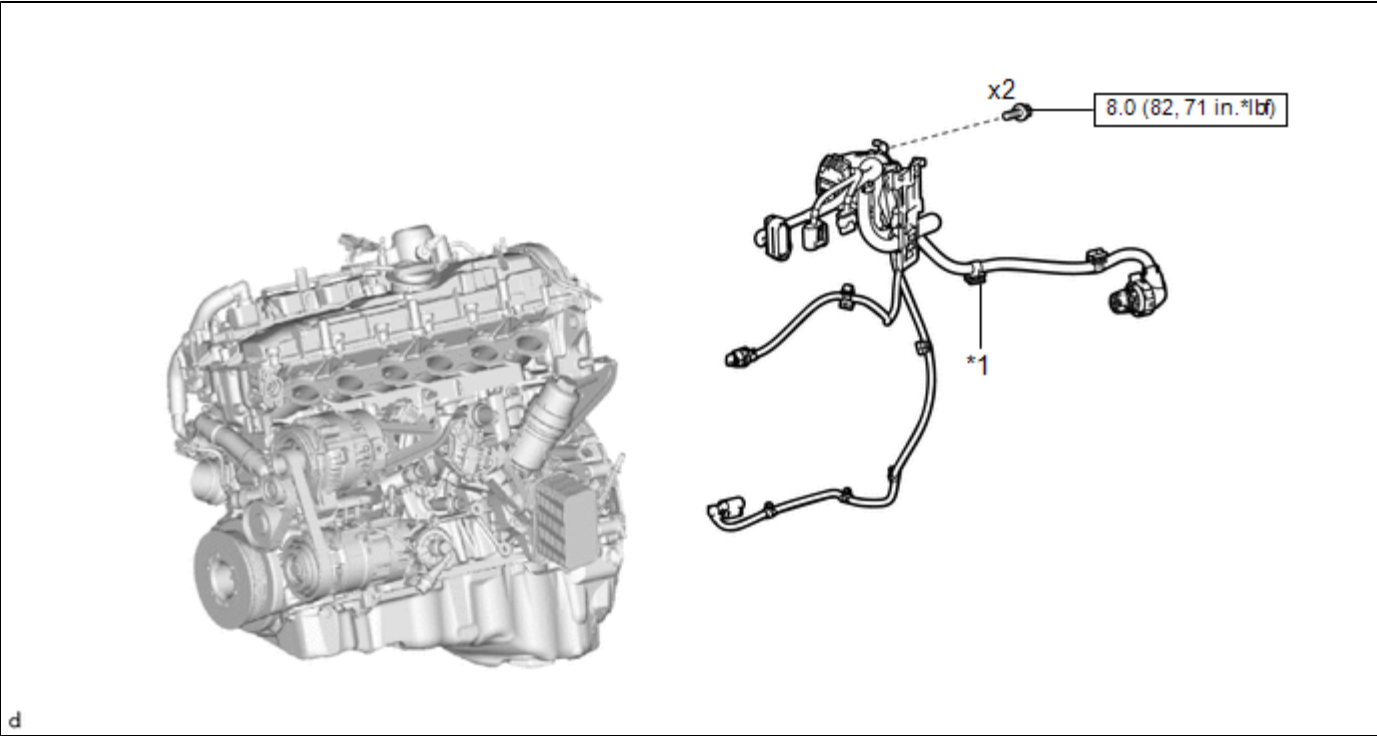
*1	ENGINE WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 2 ENGINE WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

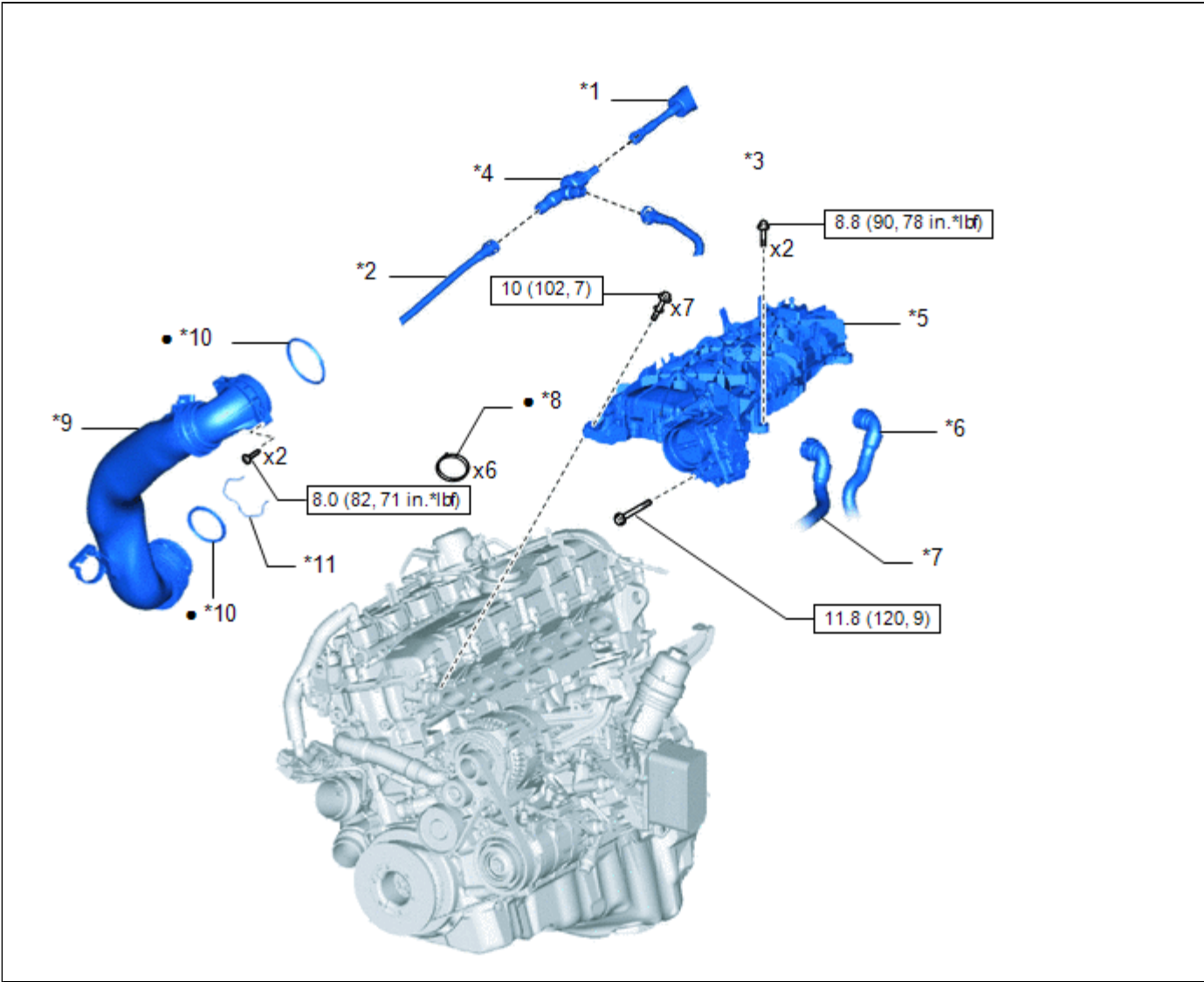
ILLUSTRATION



*1	TRANSMISSION WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified		

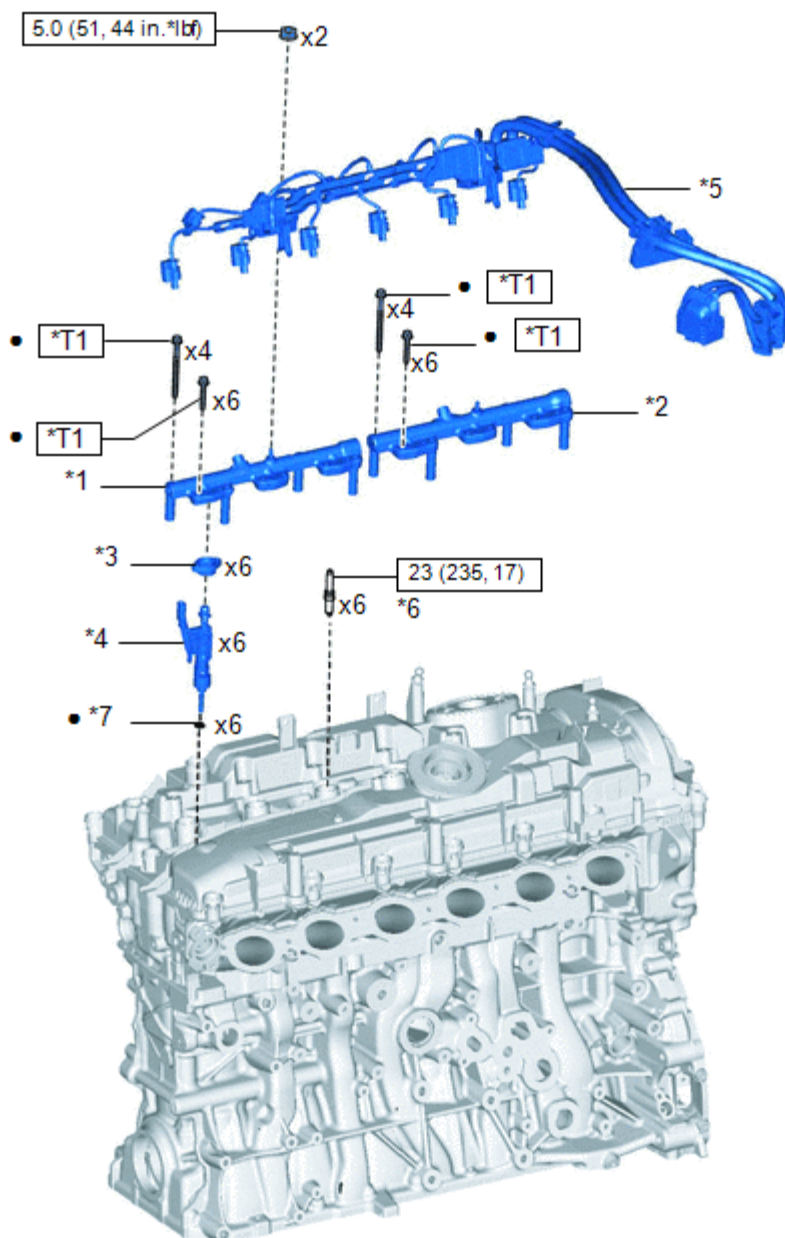
<div></div>	torque	-	-
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ILLUSTRATION



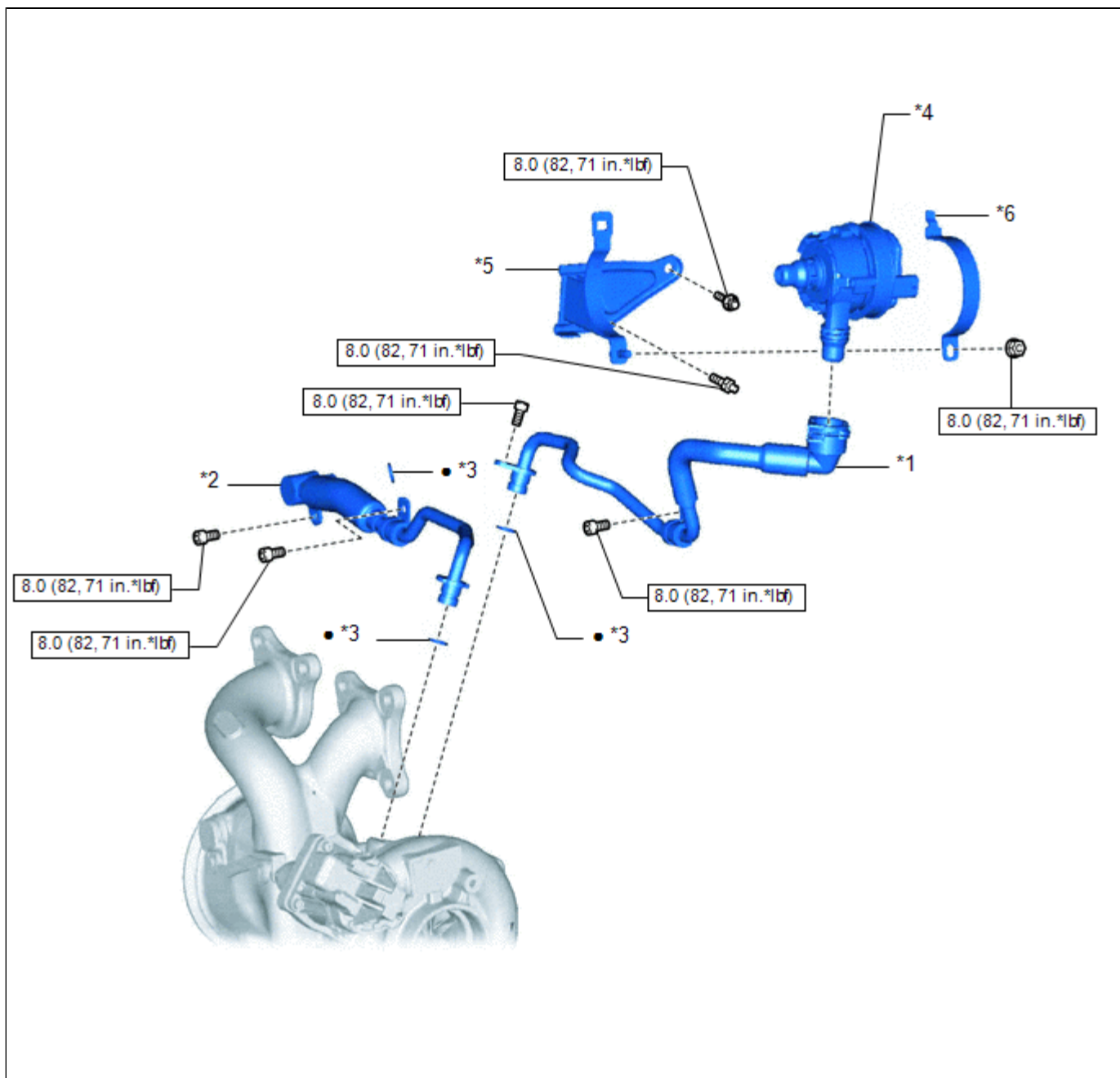
*1	NO. 2 FUEL VAPOR FEED HOSE	*2	NO. 1 FUEL VAPOR FEED HOSE
*3	NO. 3 FUEL VAPOR FEED HOSE	*4	NO. 1 CHECK VALVE
*5	INTAKE MANIFOLD	*6	NO. 5 WATER BY-PASS HOSE
*7	NO. 7 WATER BY-PASS HOSE	*8	NO. 1 INTAKE MANIFOLD TO HEAD GASKET
*9	NO. 2 AIR CLEANER HOSE	*10	SEALING RING
*11	AIR HOSE CLAMP	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part


ILLUSTRATION



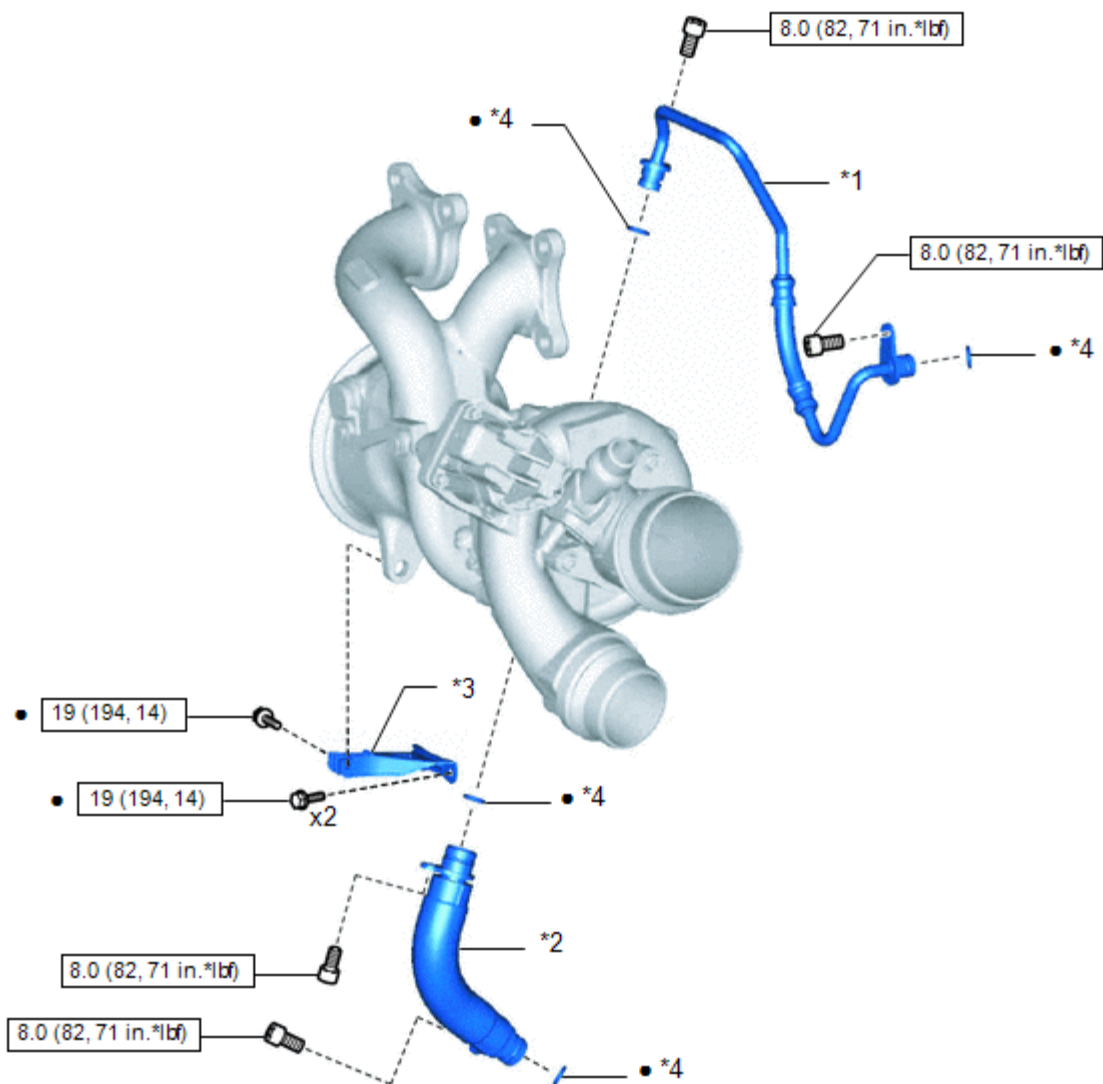
*1	FUEL DELIVERY PIPE	*2	NO. 2 FUEL DELIVERY PIPE
*3	HOLDER	*4	FUEL INJECTOR ASSEMBLY
*5	NO. 4 ENGINE WIRE	*6	SPARK PLUG
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°	-	-


ILLUSTRATION



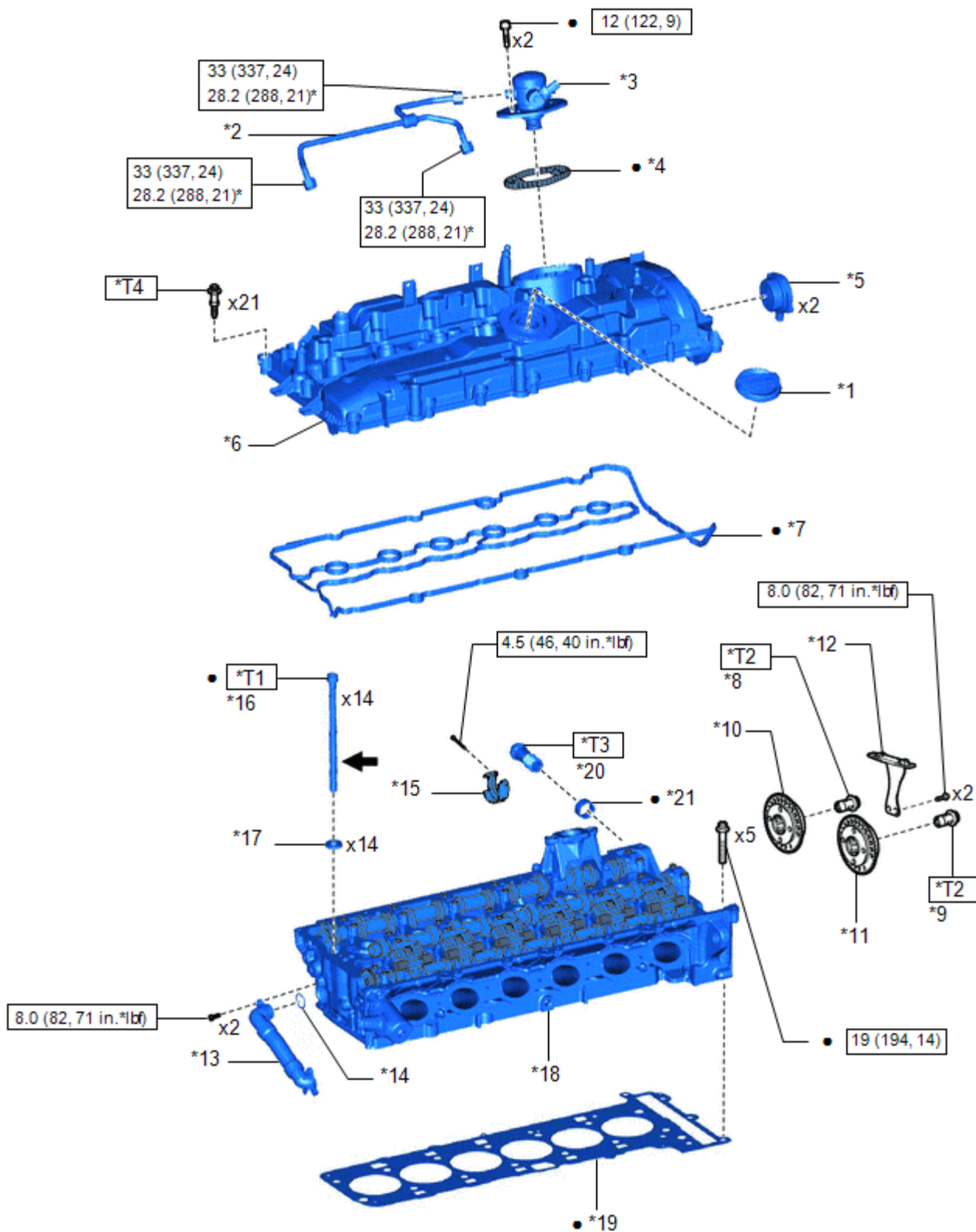
*1	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY	*2	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY
*3	O-RING	*4	WATER PUMP ASSEMBLY
*5	NO. 1 WATER PUMP BRACKET SUB-ASSEMBLY	*6	NO. 2 WATER PUMP BRACKET SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION





*1	TURBO OIL INLET PIPE SUB-ASSEMBLY	*2	TURBO OIL OUTLET PIPE
*3	TURBOCHARGER STAY	*4	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

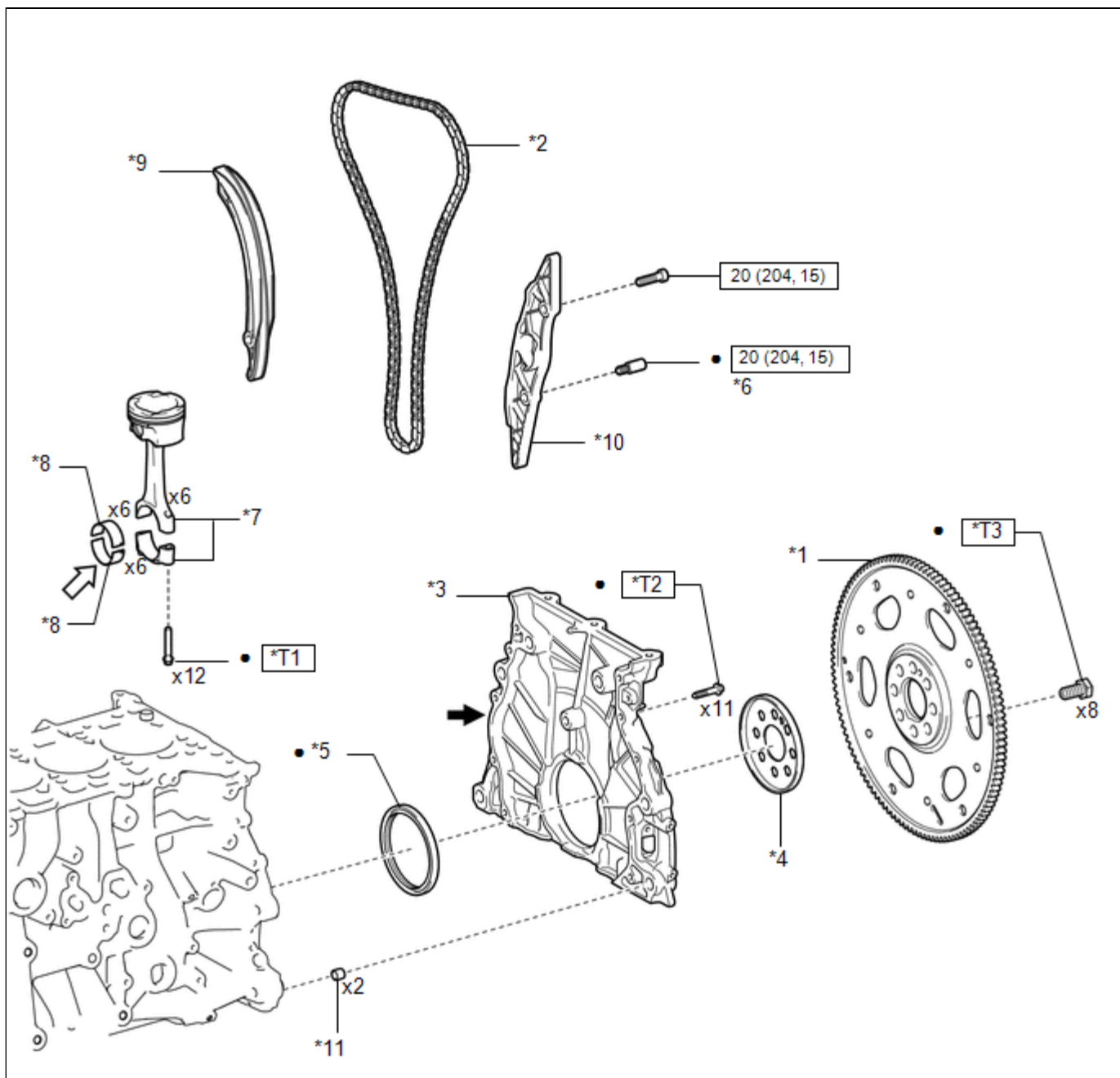



P



*1	OIL FILLER CAP ASSEMBLY	*2	NO. 1 FUEL PIPE SUB-ASSEMBLY
*3	FUEL PUMP ASSEMBLY	*4	FUEL PUMP SPACER GASKET
*5	CAM TIMING OIL CONTROL SOLENOID ASSEMBLY	*6	CYLINDER HEAD COVER SUB-ASSEMBLY
			EXHAUST CAMSHAFT TIMING GEAR

*7	CYLINDER HEAD COVER GASKET	*8	CENTER BOLT ASSEMBLY
*9	INTAKE CAMSHAFT TIMING GEAR CENTER BOLT ASSEMBLY	*10	CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY
*11	CAMSHAFT TIMING GEAR ASSEMBLY	*12	CHAIN DAMPER GUIDE
*13	NO. 2 WATER BY-PASS HOSE	*14	O-RING
*15	CAMSHAFT SENSOR WHEEL	*16	CYLINDER HEAD SET BOLT
*17	PLATE WASHER	*18	CYLINDER HEAD SUB-ASSEMBLY
*19	CYLINDER HEAD GASKET	*20	NO. 1 CHAIN TENSIONER ASSEMBLY
*21	SEALING SLEEVE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench
•	Non-reusable part		Engine oil
*T1	1st: 30 (306, 22) 2nd: Turn 90° 3rd: Turn 180°	*T2	1st: 10 (102, 7) 2nd: 30 (306, 22) 3rd : 50 (510, 37) 4th : Turn 35°
*T3	1st: 20 (204, 15) 2nd: Turn 40°	*T4	1st: 6.0 (61, 53 in.*lbf) 2nd: 11 (112, 8)

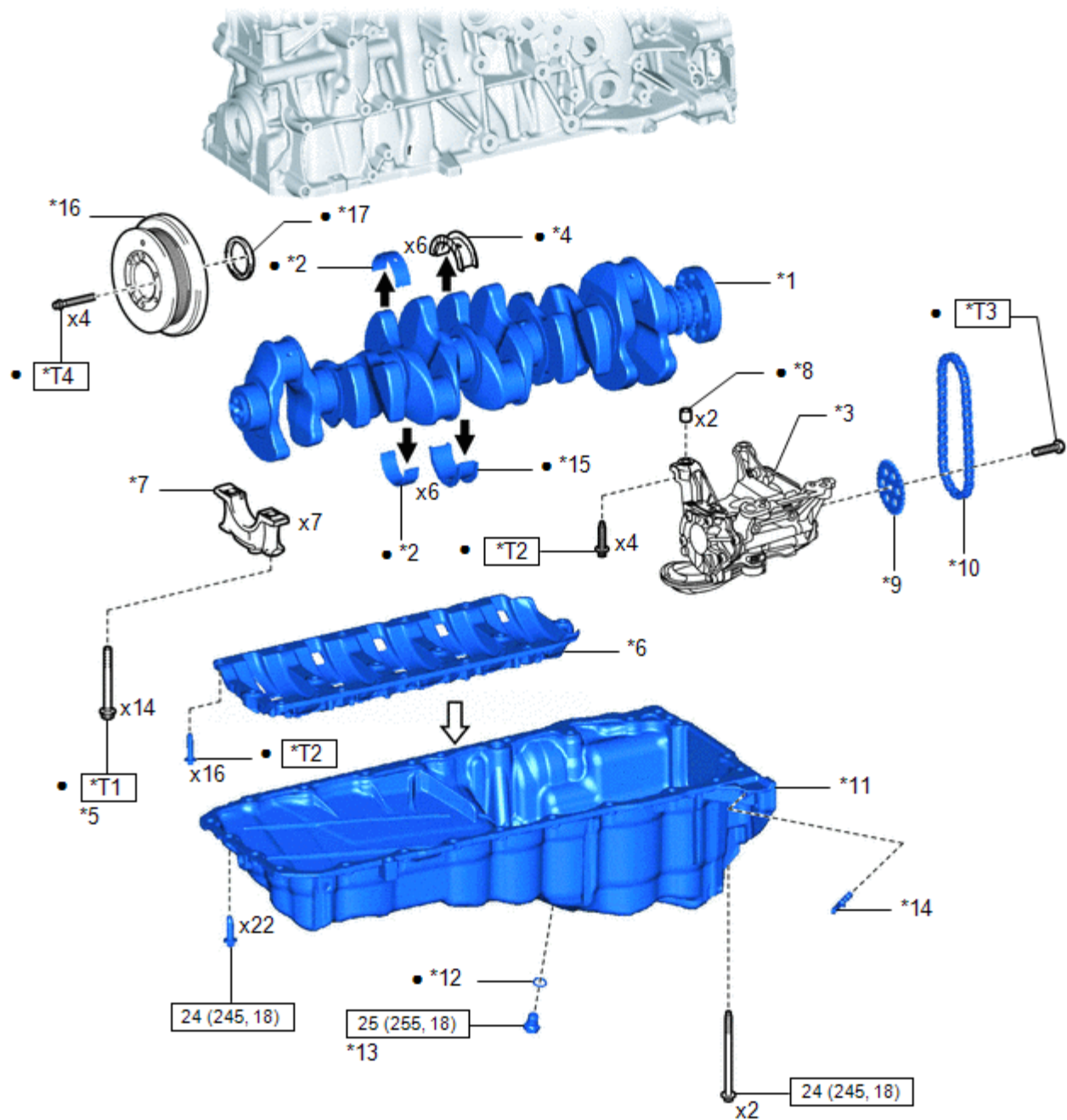
ILLUSTRATION



*1	FLYWHEEL SUB-ASSEMBLY	*2	CHAIN SUB-ASSEMBLY
*3	TIMING GEAR CASE	*4	NO. 1 CRANK ANGLE SENSOR PLATE
*5	TIMING CHAIN COVER OIL SEAL	*6	BEARING JOURNAL
*7	PISTON SUB-ASSEMBLY W/PIN	*8	CONNECTING ROD BEARING
*9	CHAIN TENSIONER SLIPPER	*10	NO. 1 CHAIN VIBRATION DAMPER
*11	RING PIN	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Loctite 5970 Flange Sealant		Engine oil




			
*T1	1st: 20 (204, 15) 2nd: Turn 70° 3rd: Turn 70°	*T2	1st: 8.0 (82, 71 in.*lbf) 2nd: Turn 90°
*T3	1st: 45 (459, 33) 2nd: Turn 40°	-	-

ILLUSTRATION



P

*1	CRANKSHAFT	*2	CRANKSHAFT BEARING
*3	OIL PUMP ASSEMBLY	*4	UPPER CRANKSHAFT THRUST WASHER
*5	CRANKSHAFT BEARING CAP SET BOLT	*6	NO. 1 OIL PAN BAFFLE PLATE
*7	CRANKSHAFT BEARING CAP	*8	OIL PUMP SET PIN
*9	CAMSHAFT SPROCKET	*10	OIL PUMP DRIVE CHAIN SUB-ASSEMBLY
*11	OIL PAN SUB-ASSEMBLY	*12	OIL PAN DRAIN PLUG GASKET

*13	OIL PAN DRAIN PLUG	*14	SEAL CAP
*15	LOWER CRANKSHAFT THRUST WASHER	*16	CRANKSHAFT PULLEY ASSEMBLY
*17	FRONT CRANKSHAFT OIL SEAL	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Engine oil		Loctite 5970 Flange Sealant
*T1	1st: 25 (255, 18) 2nd: Turn 65° 3rd: Turn 65°	*T2	1st: 15 (153, 11) 2nd: Turn 45°
*T3	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°	*T4	1st: 40 (408, 30) 2nd: Turn 120°



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CRANKSHAFT: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE ENGINE ASSEMBLY

Click here [INFO](#)

2. REMOVE SPARK PLUG

Click here [INFO](#)

3. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

4. REMOVE OIL PAN DRAIN PLUG

Click here [INFO](#)

5. INSTALL OIL PAN DRAIN PLUG

Click here [INFO](#)

6. REMOVE NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

7. REMOVE FUEL PUMP ASSEMBLY

Click here [INFO](#)

8. REMOVE FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

9. REMOVE FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

10. REMOVE CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

11. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

12. REMOVE INTAKE MANIFOLD

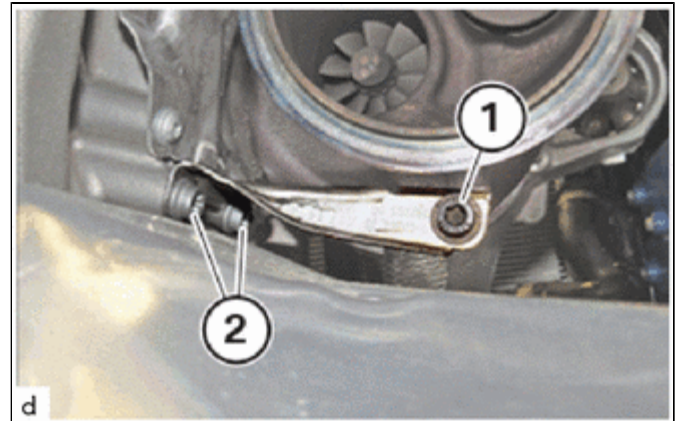
Click here [INFO](#)

13. REMOVE OUTLET TURBO OIL PIPE

Click here

14. REMOVE TURBOCHARGER STAY

(a) Loosen T45 bolt (1).



(b) Release T45 bolts (2) and remove the turbocharger stay.

15. SET NO. 1 CYLINDER TO TDC (COMPRESSION)

(a) Turn the engine with the special tool 0 493 380 (11 6 480) to the TDC firing position of cylinder 1.

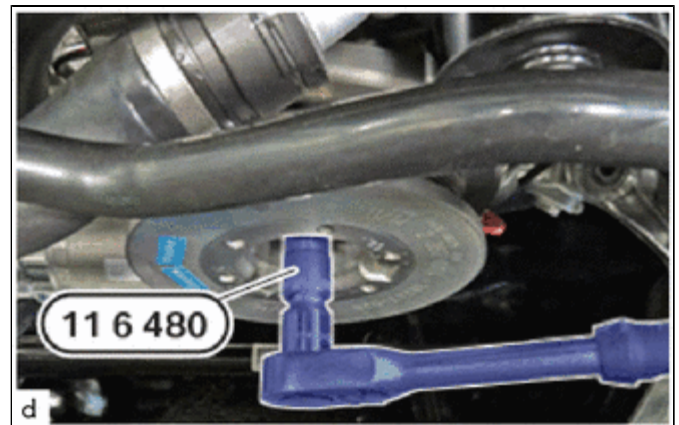
SST: 09200-WA190

NOTICE:

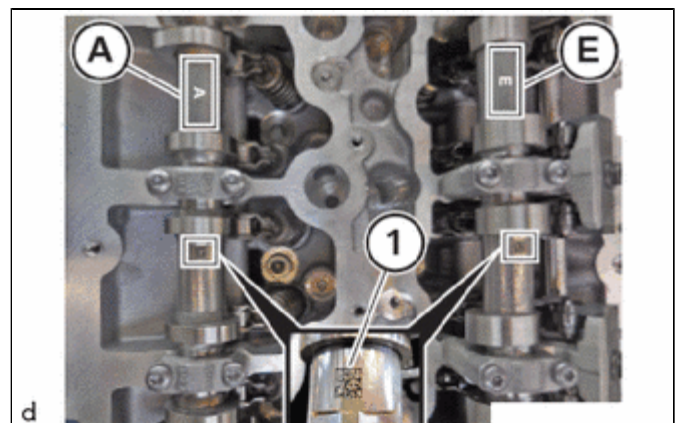
- Damage to the engine.

The engine may be damaged if it is manually rotated in the wrong direction.

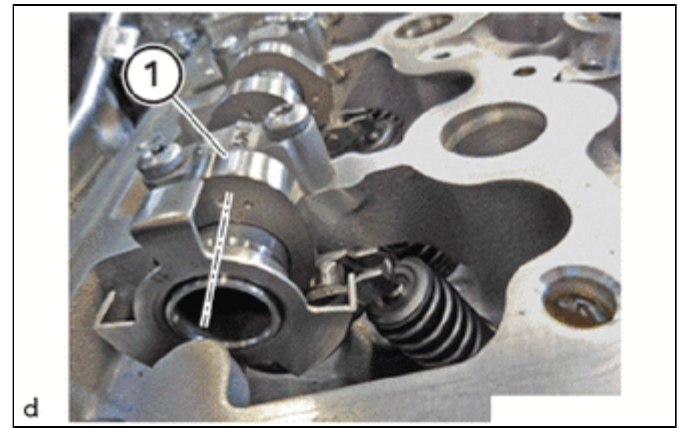
- Always rotate the engine in the correct direction of rotation by hand: a) Clockwise, facing the crankshaft pulley assembly or b) Counter-clockwise, facing the timing chain. (b) only applies when the chain sub-assembly is installed.



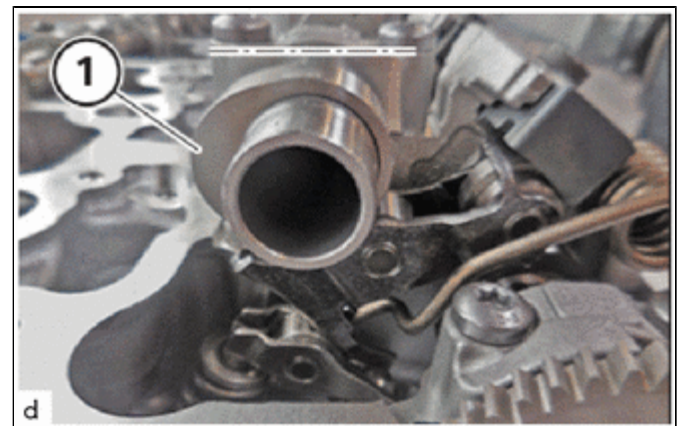
(b) Make sure that the marks (1) on the intake camshaft sub-assembly (E) and the exhaust camshaft sub-assembly (A) are legible from above.



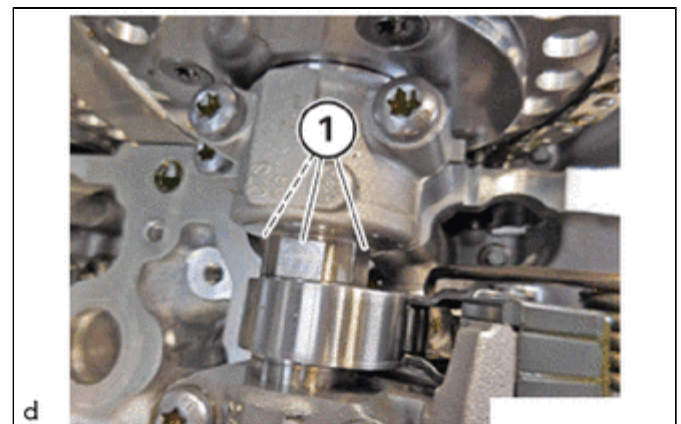
- (c) Ensure that the cam (1) on the exhaust camshaft sub-assembly on cylinder 1 points to the inside right at a slight angle.



- (d) Ensure that the cam (1) on the intake camshaft sub-assembly on cylinder 1 points to the inside left at an angle.

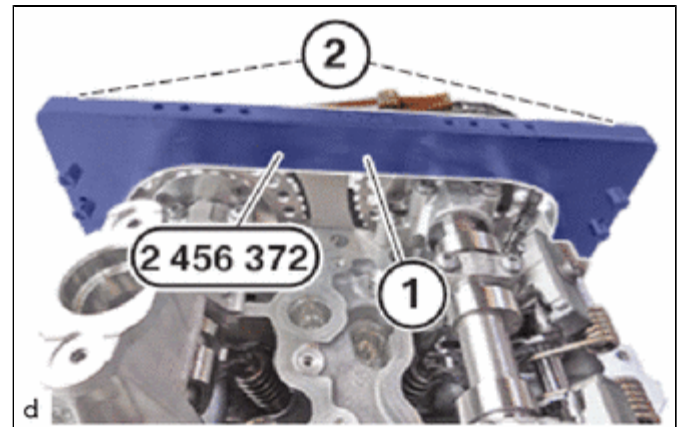


- (e) Ensure that the flattened areas (1) on the intake camshaft sub-assembly and the exhaust camshaft sub-assembly point upwards.



- (f) Position the basic carrier (1) from the set of special tools 2456 372 on the cylinder head sub-assembly.

SST: 09200-WA690



(g) Tighten the bolts (2) from the set of special tools 2 456 372 .

SST: 09200-WA690

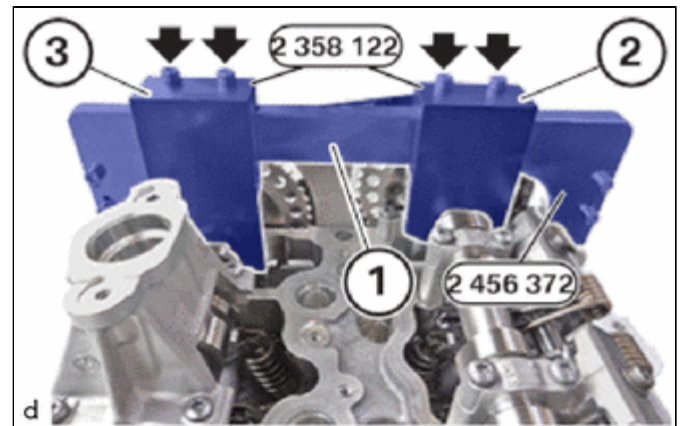
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(h) Position the test gauge (2) from the set of special tools 2 358 122 between the intake camshaft sub-assembly and the basic carrier (1) from the set of special tools 2 456 372 .

SST: 09200-WA380

SST: 09200-WA690



(i) Position the test gauge (3) from the set of special tools 2 358 122 between the exhaust camshaft sub-assembly and the basic carrier (1) from the set of special tools 2 456 372 .

SST: 09200-WA380

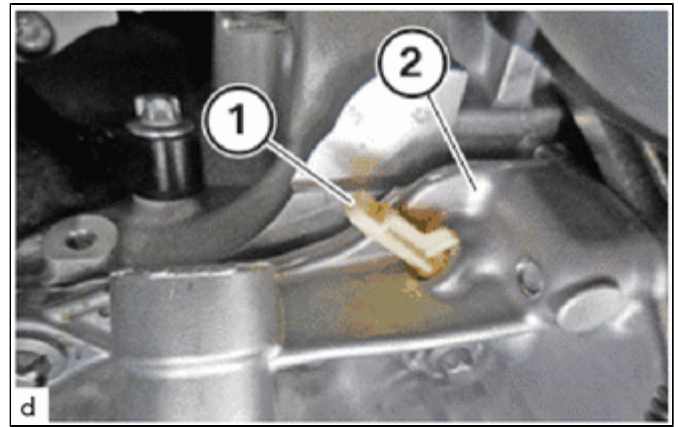
SST: 09200-WA690

(j) Tighten bolts (arrows).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

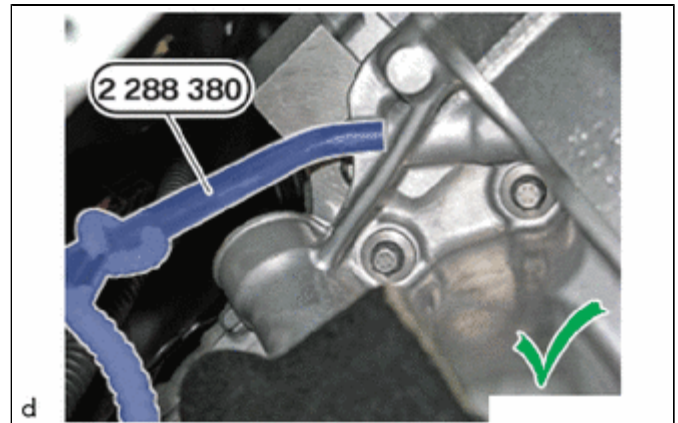
(k) Guide out and remove sealing cap (1) on oil pan sub-assembly (2).



(l) Position the special tool 2 288 380 correctly in the dowel hole .

SST: 09200-WA570

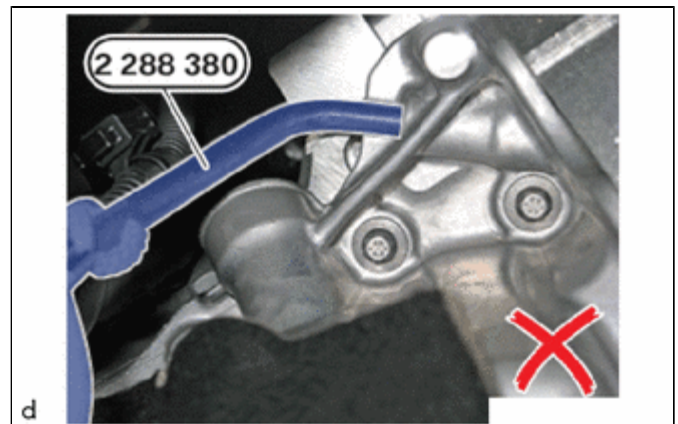
(1) The engine is in the TDC firing position of cylinder 1.



(m) Make sure that the special tool 2 288 380 is not positioned incorrectly.

SST: 09200-WA570

(1) The TDC firing position of cylinder 1 was not reached.



16. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY

Click here [INFO](#)

17. LOOSEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

18. LOOSEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

19. REMOVE INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

20. REMOVE EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

21. REMOVE CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

22. REMOVE CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

23. REMOVE SST

Click here [INFO](#)

24. REMOVE CYLINDER HEAD SUB-ASSEMBLY

Click here [INFO](#)

25. REMOVE CYLINDER HEAD GASKET

Click here [INFO](#)

26. REMOVE CRANKSHAFT PULLEY ASSEMBLY

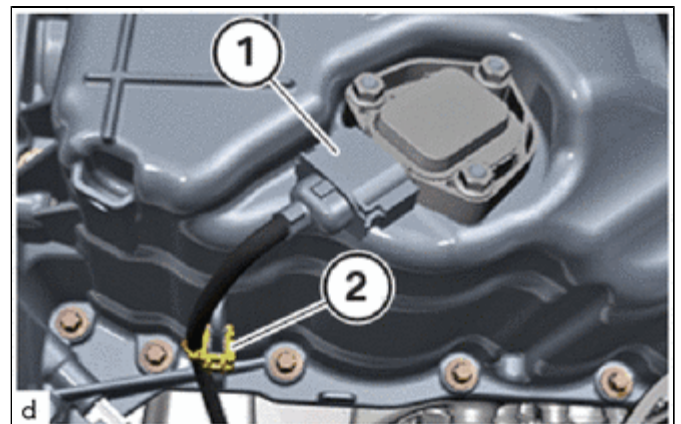
Click here [INFO](#)

27. REMOVE DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

Click here [INFO](#)

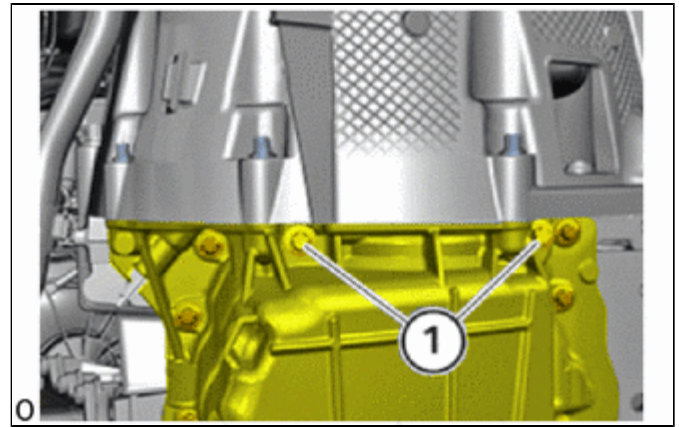
28. REMOVE OIL PAN SUB-ASSEMBLY

(a) Unlock and loosen connector (1).

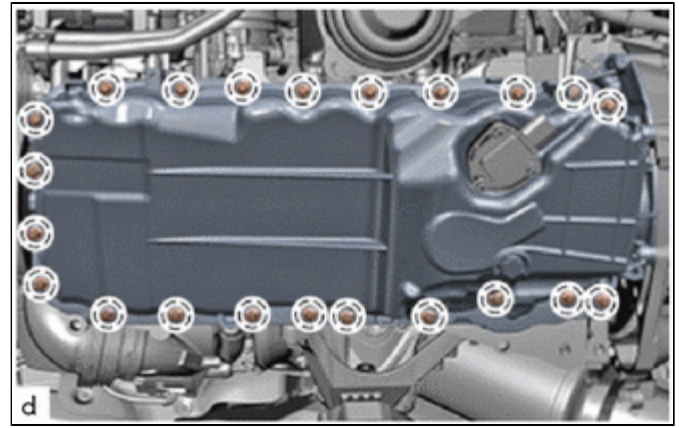


(b) Loosen clamp (2).

(c) Loosen E10 bolts (1).



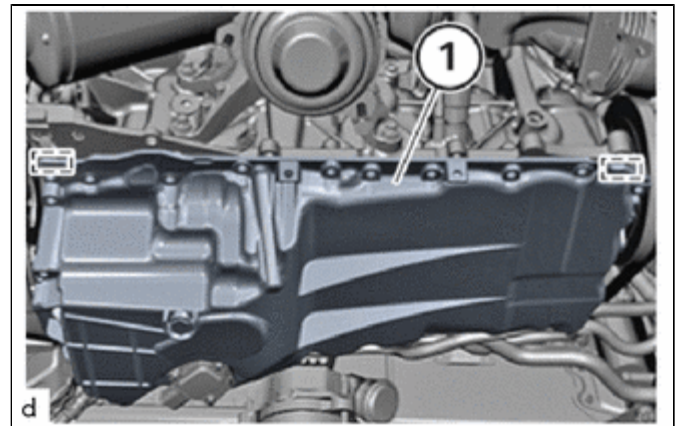
(d) Unscrew all of the E10 bolts (marks).



(e) Release the oil pan sub-assembly (1) in the marked areas.

HINT:

Increased force may be necessary during disassembly because the component is bonded with seal packing.

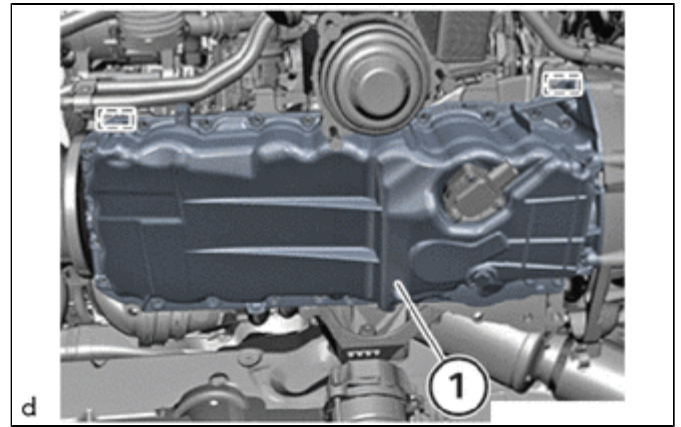


(f) Release the oil pan sub-assembly (1) in the marked areas.

HINT:

Increased force may be necessary during disassembly

because the component is bonded with seal packing.



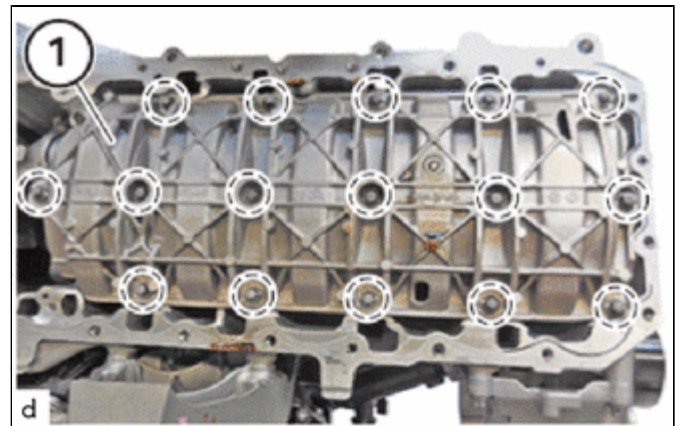
(g) Guide out oil pan sub-assembly (1) toward the bottom and remove.

29. REMOVE OIL PUMP ASSEMBLY

Click here [INFO](#)

30. REMOVE NO. 1 OIL PAN BAFFLE PLATE

(a) Unscrew all E10 bolts (markings).



(b) Guide out and remove the No. 1 oil pan baffle plate (1).

31. REMOVE CONNECTING ROD SUB-ASSEMBLY

Click here [INFO](#)

32. REMOVE TIMING GEAR CASE

Click here [INFO](#)

33. REMOVE TIMING CHAIN COVER OIL SEAL

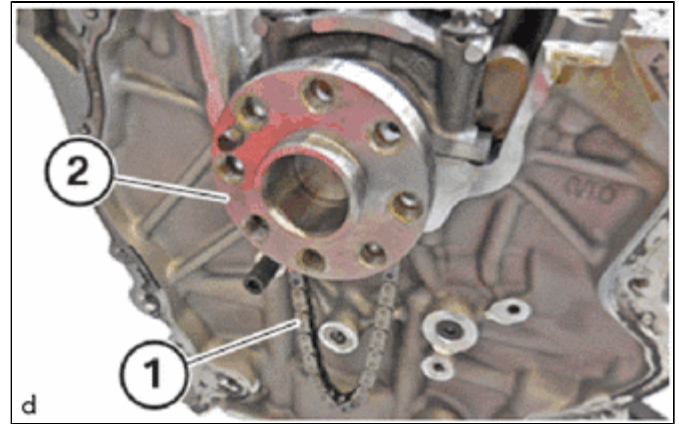
Click here [INFO](#)

34. REMOVE CHAIN SUB-ASSEMBLY

Click here [INFO](#)

35. REMOVE OIL PUMP DRIVE CHAIN SUB-ASSEMBLY

- (a) Guide out and remove oil pump drive chain sub-assembly (1) from crankshaft (2).



36. REMOVE CRANKSHAFT

NOTICE:

- Engine damage caused by incorrectly installed crankshaft bearings and crankshaft bearing caps.

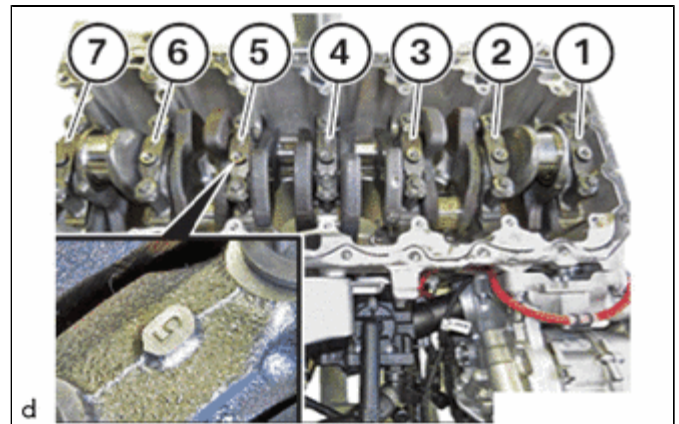
Engine damage may result from incorrectly installing crankshaft bearings and crankshaft bearing caps.

- Always install all crankshaft bearings and crankshaft bearing caps in the same position from which they were removed.

- (a) Observe the assignment and numbering (1) to (7) of the crankshaft bearing caps.

(1) (1) = Engine, front (vibration damper)

(2) (7) = Clutch side

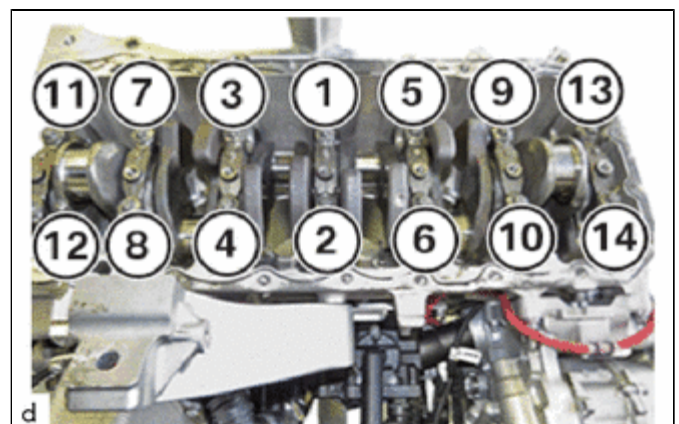


- (b) Loosen E14 bolts in the order (14) to (1).

HINT:

The crankshaft bearing cap, crankshaft bearing are aligned with each other.

Always install the crankshaft bearing cap, crankshaft bearing in the cylinder from which they were removed.



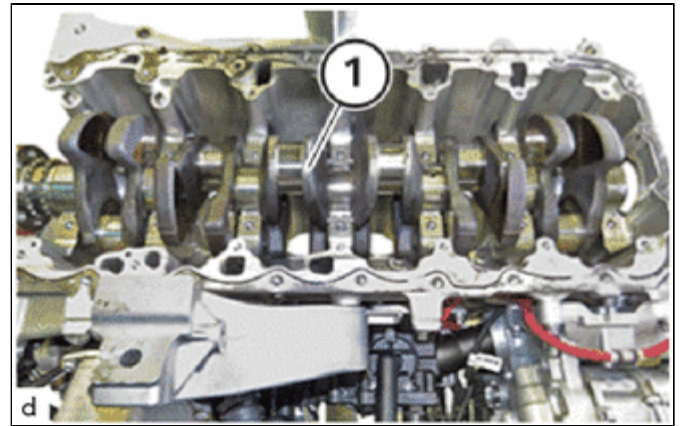
(c) Remove the crankshaft (1).

CAUTION:

- Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.



37. REMOVE CRANKSHAFT BEARING

NOTICE:

- Engine damage caused by incorrectly installed crankshaft bearings and crankshaft bearing caps.

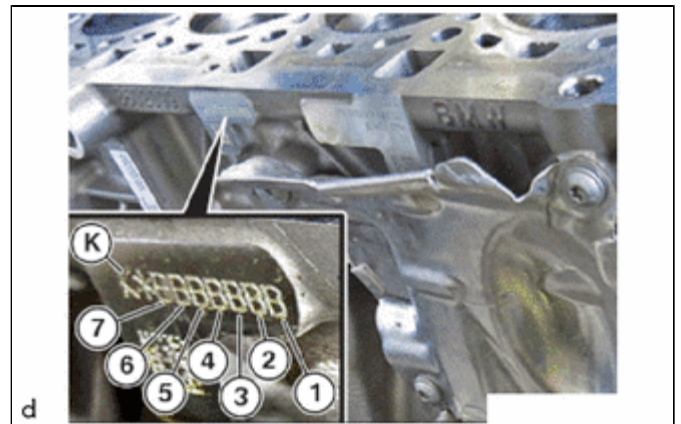
Engine damage may result from incorrectly installing crankshaft bearings and crankshaft bearing caps.

- Always install all crankshaft bearings and crankshaft bearing caps in the same position from which they were removed.

(a) Enter the code letter on the crankcase in the table.

(1) K = Clutch side

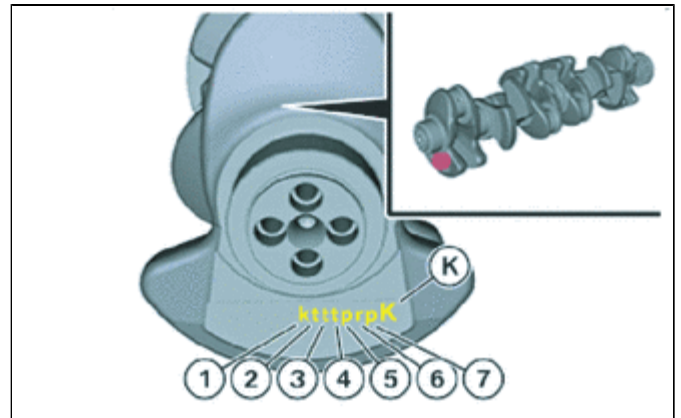
(2) The position numbers (7) to (1) describe the bearing seats 7 to 1. The identification number is always located on the crankshaft bearing caps.



(b) Enter the identification numbers on the crankshaft in the table.

(1) K = Clutch side

(2) The position numbers (1) to (7) describe the bearing seats 1 to 7. The identification number is always located on the crankshaft bearing



(c) Enter the code letters of the crankcase and the identification numbers of the crankshaft.

	Code letter on the crankcase	Key performance indicator on the crankshaft
Bearing seat 1		
Bearing seat 2		
Bearing seat 3		
Bearing seat 4		
Bearing seat 5		
Bearing seat 6		
Bearing seat 7		

(d) Use the table below to determine the number of the crankshaft bearings.

HINT:

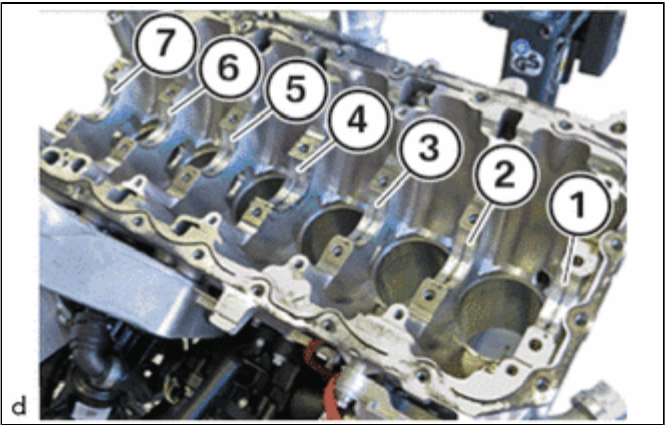
- Click PDF button.
- The following illustration is an example.

Table for the classification of crankshaft bearing 1, 2, 3, 5, 6

Crankshaft bearing (1) without lubrication groove in the crankshaft bearing cover.
Crankshaft bearing (2) with lubrication groove in the crankcase

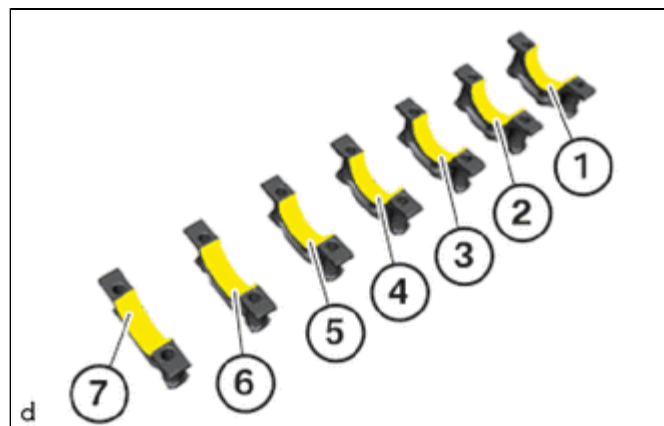
		Upper case letter on the crankcase																									
		A	B	C	D	E	H	J	K	L	M	N	P	R	T	U	V	W	X	Y	Z						
a→		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2

(e) Remove the crankshaft bearings with lubricating groove (1) to (3) and (5) to (7) from the crankcase.



(f) Remove the upper crankshaft thrust washer with lubricating groove (4) from the crankcase.

(g) Remove the crankshaft bearings (1) to (3) and (5) to (7) from the crankshaft bearing cap.



(h) Remove the lower crankshaft thrust washer (4) from the crankshaft bearing cap.

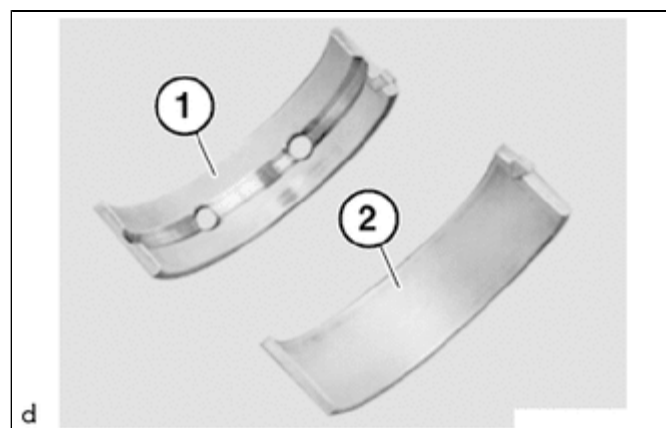
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CRANKSHAFT: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

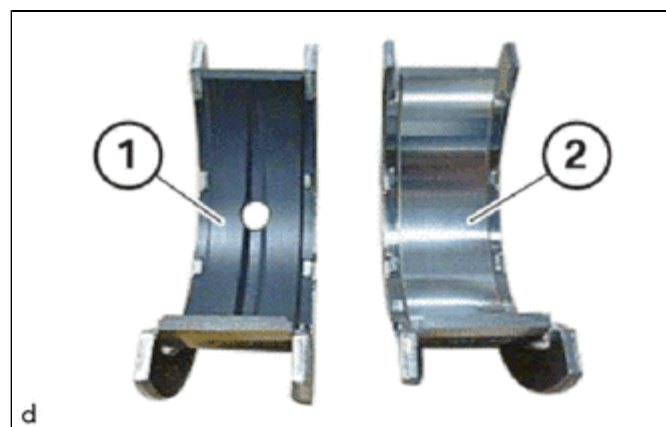
PROCEDURE

1. CRANKSHAFT BEARING

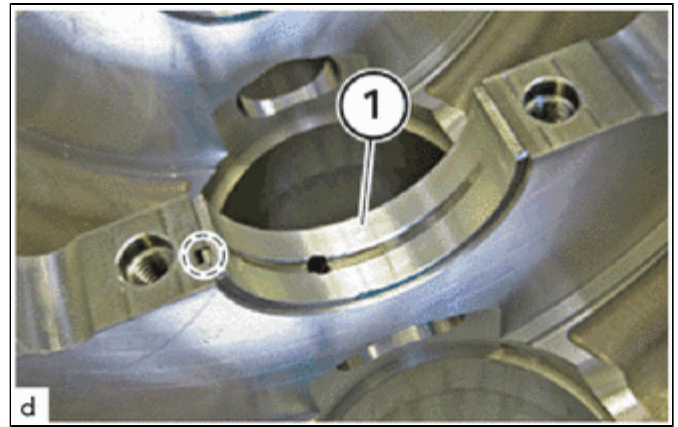
- (a) Replace crankshaft bearing with lubricating groove (1) and the crankshaft bearing (2).



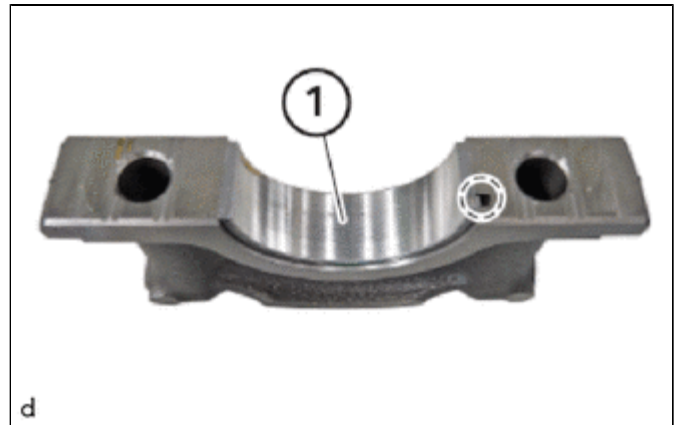
- (b) Replace upper crankshaft thrust washer (1) and the lower crankshaft thrust washer (2).



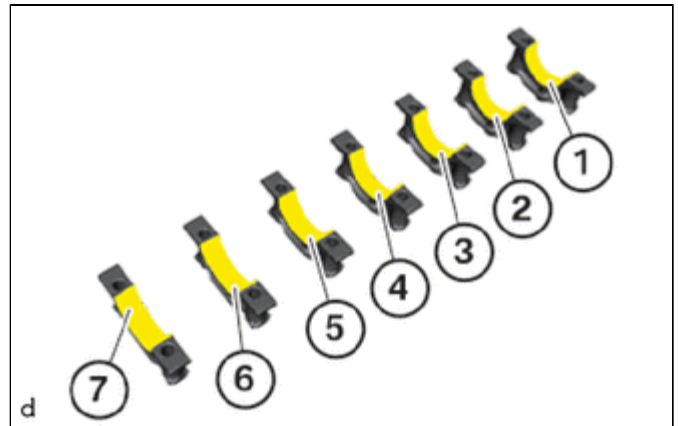
- (c) Make sure the crankshaft bearing (1) is correctly installed with the claw in the highlighted area.



(d) Make sure the crankshaft bearing (1) is correctly installed with the claw in the highlighted area.



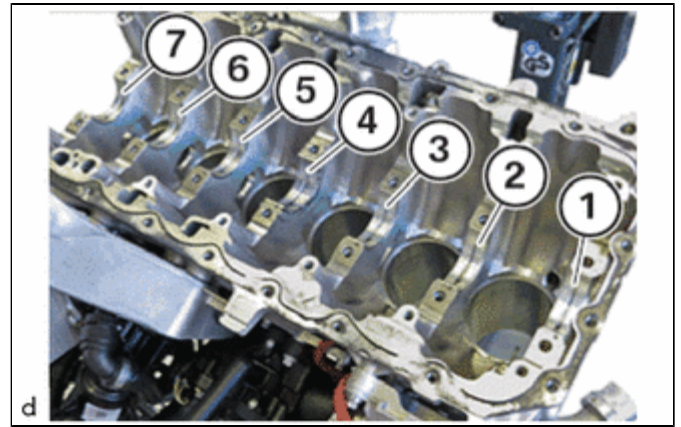
(e) Install crankshaft bearings (1) to (3) and (5) to (7) into the crankshaft bearing cap.



(f) Install the lower crankshaft thrust washer (4) in the crankshaft bearing cap.

(g) Oil all crankshaft bearings and guide bearings (1) to (7).

- (h) Install crankshaft bearings with lubricating groove (1) to (3) and (5) to (7) in the crankcase.



- (i) Install the upper crankshaft thrust washer with lubricating groove (4) in the crankcase.
(j) Oil all crankshaft bearings and guide bearing shells with lubricating groove (1) to (7).

2. INSTALL CRANKSHAFT

NOTICE:

- Engine damage caused by incorrectly installed crankshaft bearings and crankshaft bearing caps.

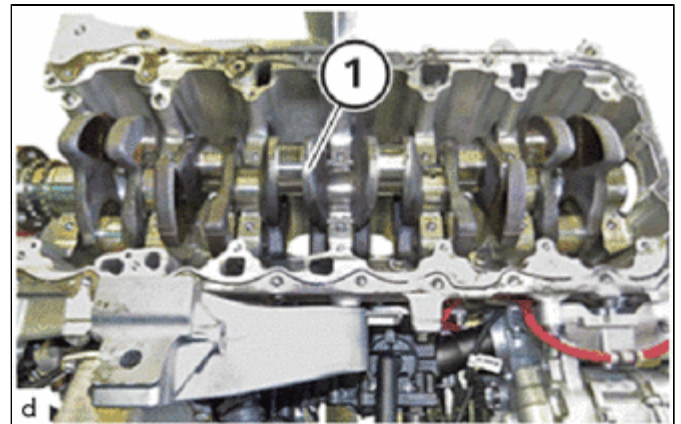
Engine damage may result from incorrectly installing crankshaft bearings and crankshaft bearing caps.

- Always install all crankshaft bearings and crankshaft bearing caps in the same position from which they were removed.

- (a) Install the crankshaft (1).

CAUTION:

- Heavy component.
Heavy components can lead to injury or damage.
- Remove and install heavy components with the aid of another person/other persons.



- (b) Observe the assignment and numbering (1) to (7) of the crankshaft bearing caps.

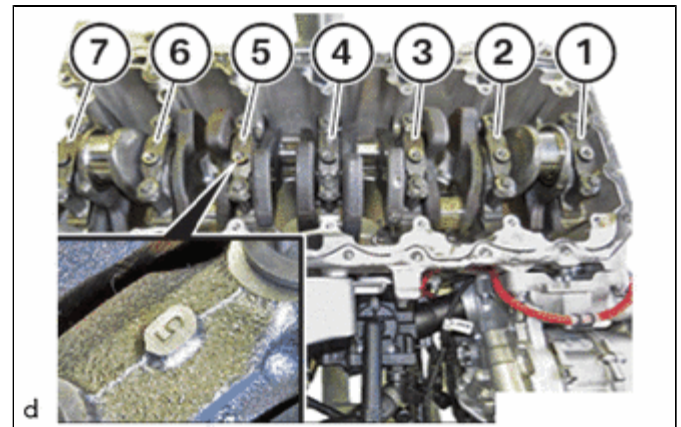
- (1) (1) = Engine, front (vibration damper)
(2) (7) = Clutch side

HINT:

The crankshaft bearing cap, main bearing shell and guide bearing shell are aligned with each other.

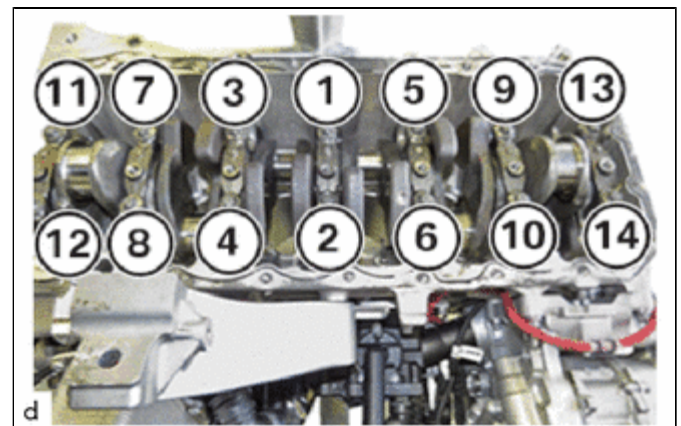
Always install the crankshaft bearing cap, main bearing shells and guide bearing shells in the cylinder from which

they were removed.



(c) Position the crankshaft bearing caps (1) to (7).

(d) Replace bolts (1) to (14).



(e) Step 1:

(1) Tighten the E14 bolts in sequence (1) to (14).

Torque:

25 N·m {255 kgf·cm, 18 ft·lbf}

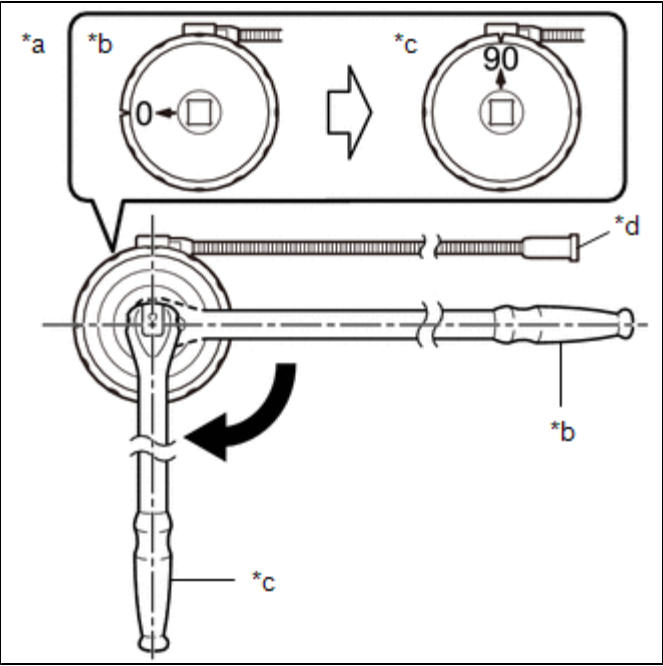
(f) Step 2:

(1) Tighten the bolts 65° in the order shown in step 1 with the special tool 0 490 504 (00 9 120).

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

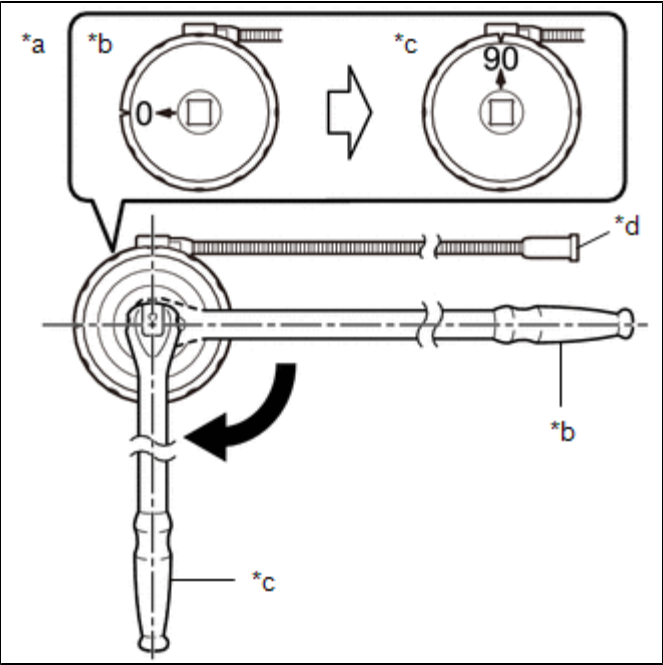
(g) Step 3:

(1) Tighten the bolts another 65° in the order shown in step 1 with the special tool 0 490 504 (00 9 120).

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
----	---------

*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

(h) Step 4:

(1) Release E14 bolts (1) to (14).

(i) Step 5:

(1) Tighten the E14 bolts in sequence (1) to (14).

Torque:

25 N·m {255 kgf·cm, 18 ft·lbf}

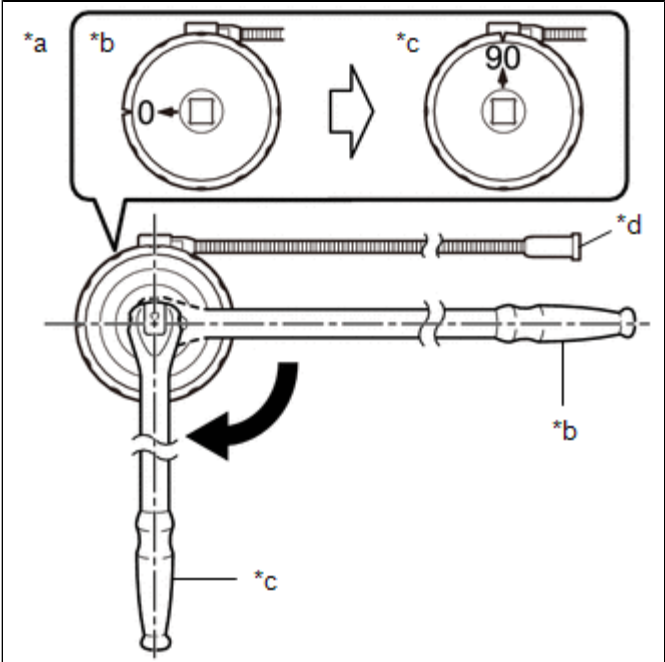
(j) Step 6:

(1) Tighten the bolts 65° in the order shown in step 1 with the special tool 0 490 504 (00 9 120).

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

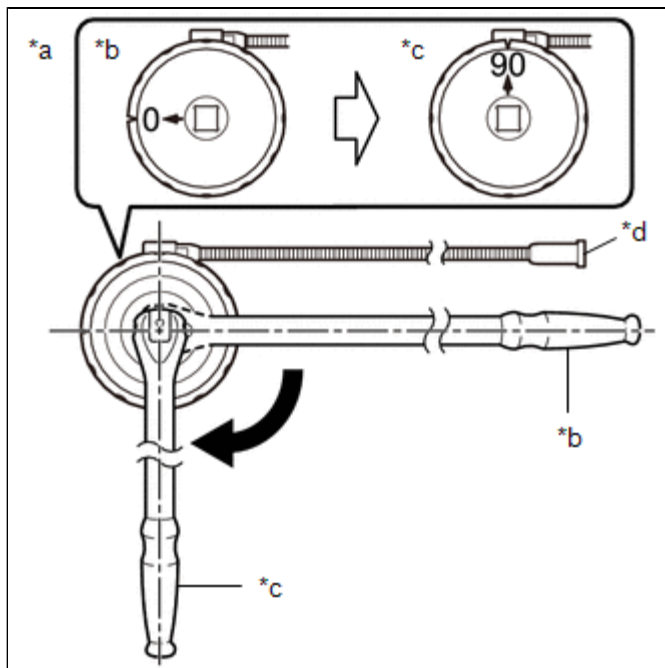
(k) Step 7:

(1) Tighten the bolts another 65° in the order shown in step 1 with the special tool 0 490 504 (00 9 120).

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

3. INSPECT CRANKSHAFT THRUST CLEARANCE

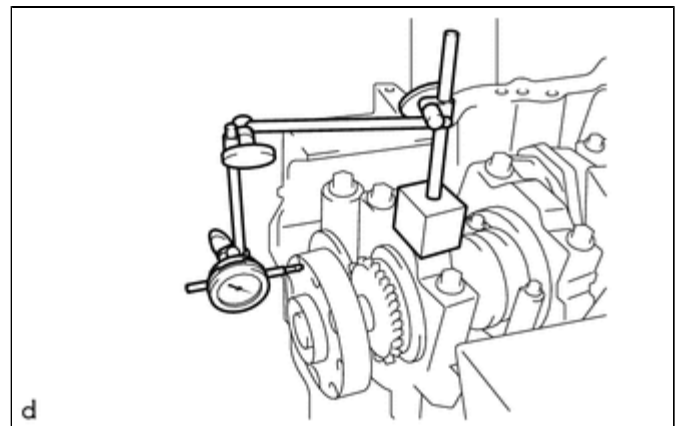
(a) Using a dial indicator, check crankshaft thrust clearance.

Axial play of crankshaft:

0.09 to 0.314 mm (0.00354 to 0.01236 in.)

HINT:

If the thrust clearance is not as specified, replace worn components.



4. INSPECT CRANKSHAFT

(a) Turn the crankshaft clockwise with the special tool 0 490 130 (00 2 010) and compare the reading on the scale to the maximum permitted torque.

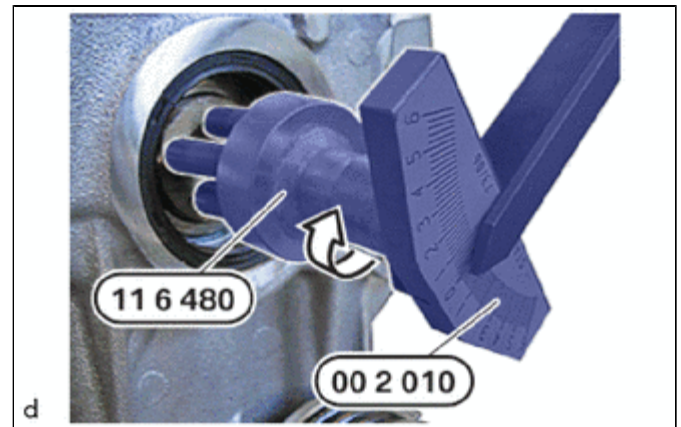
SST: 09200-WA190

Maximum permitted torque of the crankshaft:

12 N*m (122 kgf*cm, 9 ft.*lbf)

HINT:

If the maximum permitted torque is exceeded, correct the radial clearance.



5. INSPECT PISTON

Click here [INFO](#)

6. INSPECT CYLINDER BORE

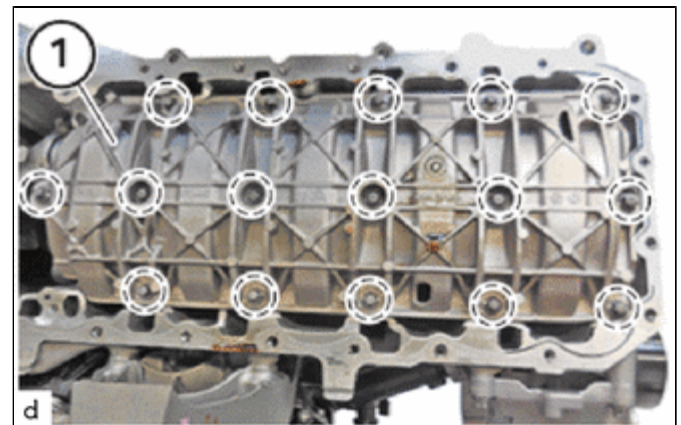
Click here [INFO](#)

7. INSTALL CONNECTING ROD SUB-ASSEMBLY

Click here [INFO](#)

8. INSTALL NO. 1 OIL PAN BAFFLE PLATE

(a) Replace bolts (markings).



(b) Insert No. 1 oil pan baffle plate (1) and position.

(c) Tighten the E10 bolts in a crosswise pattern.

Torque:

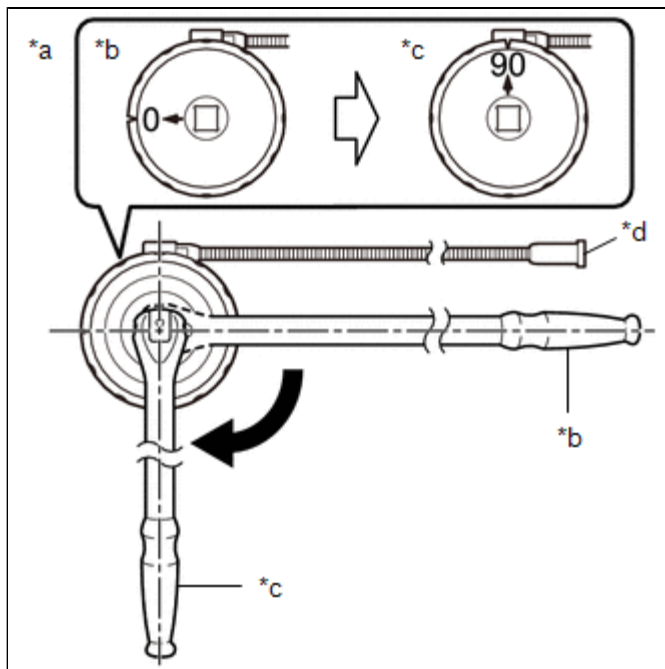
15 N·m {153 kgf·cm, 11 ft·lbf}

(d) Using SST, tighten the E10 bolts an additional 45°.

SST: 09900-WA010

HINT:

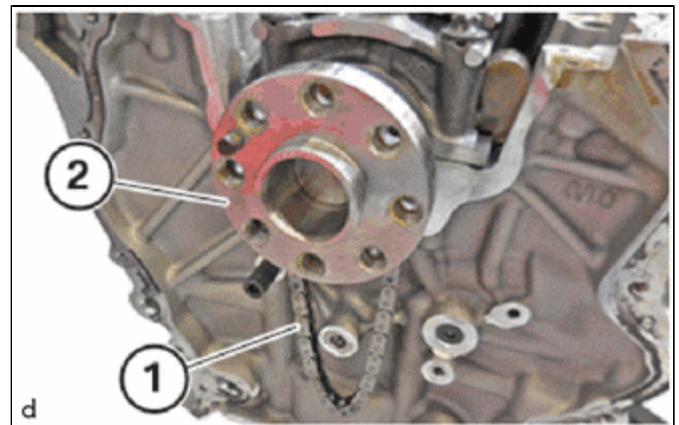
- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

9. INSTALL OIL PUMP DRIVE CHAIN SUB-ASSEMBLY

(a) Guide in and install oil pump drive chain sub-assembly (1) on crankshaft (2).



10. INSTALL OIL PUMP ASSEMBLY

Click here [INFO](#)

11. INSTALL CHAIN SUB-ASSEMBLY

Click here [INFO](#)

12. INSTALL TIMING GEAR CASE

Click here [INFO](#)

13. INSTALL TIMING CHAIN COVER OIL SEAL

14. INSTALL OIL PAN SUB-ASSEMBLY

NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

- Damage to the surface.

The use of metal-cutting tools (e.g. sandpaper) to clean the surfaces can damage them and lead to leaks or engine damage.

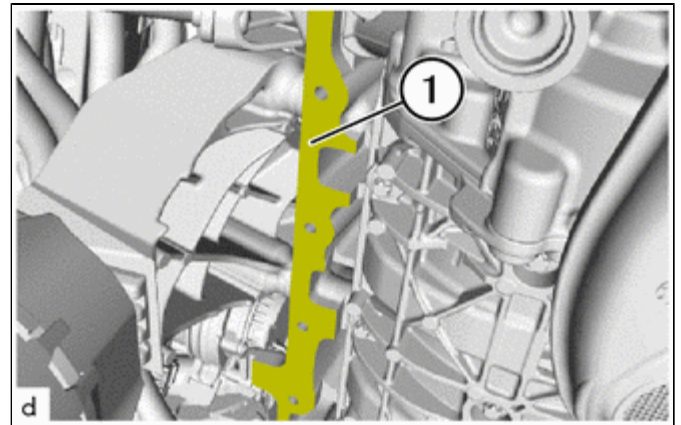
- Do not use any metal-cutting tools.

- (a) Remove coarse seal packing remains on the sealing surface of the cylinder block (1) and the sealing surface on the oil pan sub-assembly.

SST: 09900-WA030

NOTICE:

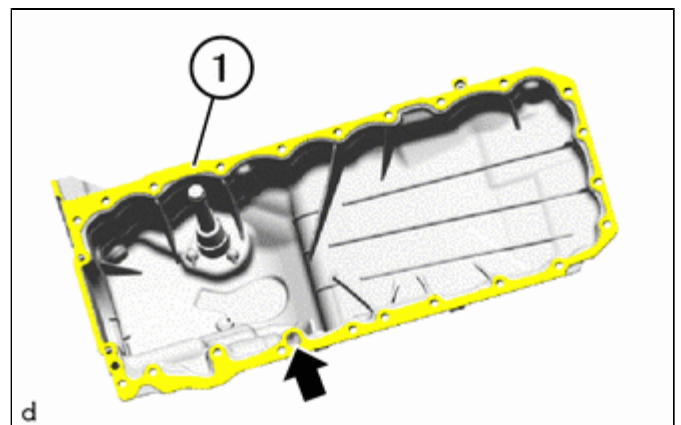
The sealing surfaces must be free from oils, grease and cleaning agents.



- (b) Remove fine seal packing remains on the sealing surface of the oil pan sub-assembly (1) and the sealing surface on the cylinder block.

NOTICE:

The sealing surfaces must be free from oils, grease and cleaning agents.



- (c) Load the sealer gun with the seal packing.

Seal Packing:

Loctite 5970 Flange Sealant

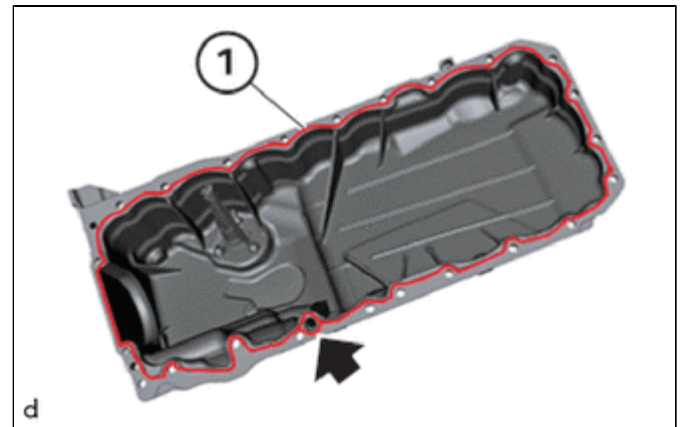
(d) Apply sealing bead (1) with the seal packing in the marked area along the inner edge.

Height of the sealing bead:

2.0 to 2.5 mm (0.0787 to 0.0984 in.)

NOTICE:

The maximum application time of the liquid seal packing is 12 minutes.

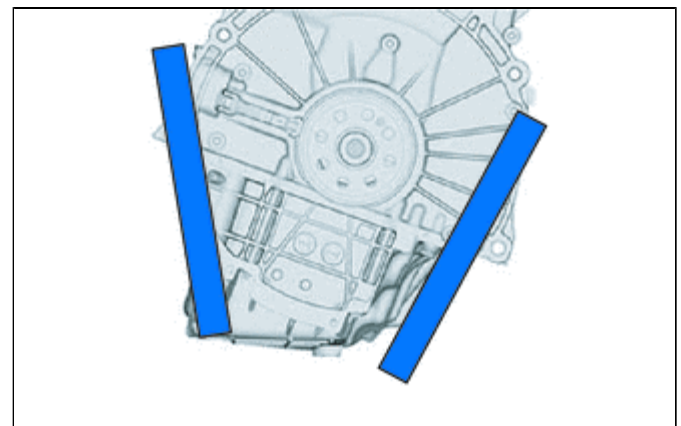


(e) Completely encircle the oil return orifice (arrow) with the seal packing.

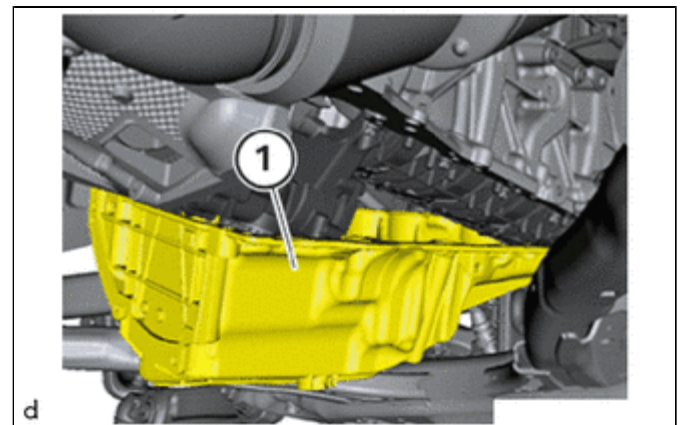
(f) Using a straightedge, position the oil pan sub-assembly and timing case cover so that their surfaces are aligned.

HINT:

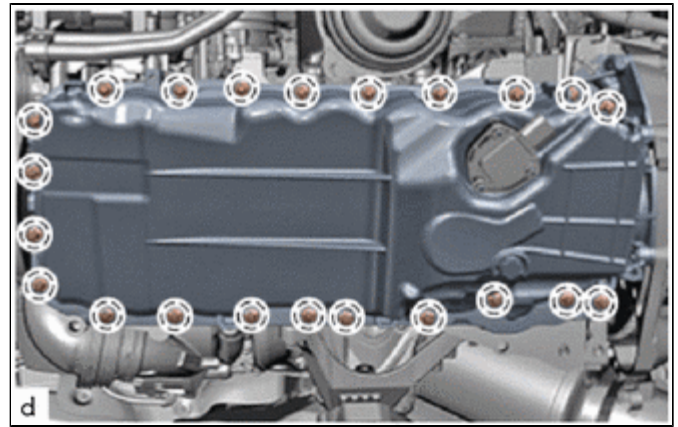
The straightedge is only required when the transmission is removed.



(g) Insert oil pan sub-assembly (1) upwards and forwards and position.



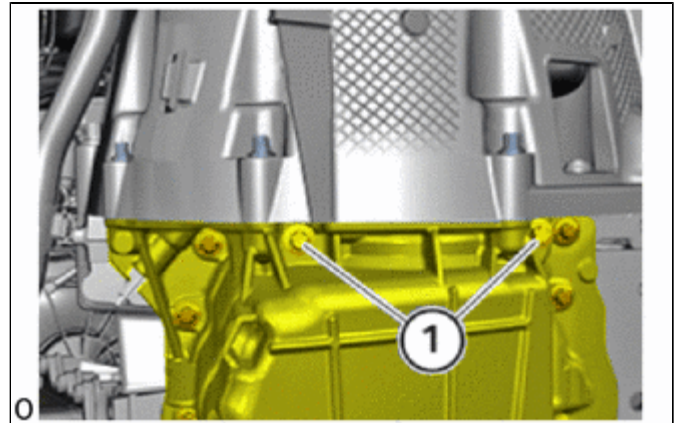
(h) Tighten all the oil pan sub-assembly E10 bolts (marks) hand-tight, do not yet tighten fully.



(i) Tighten the E10 bolts (1).

Torque:

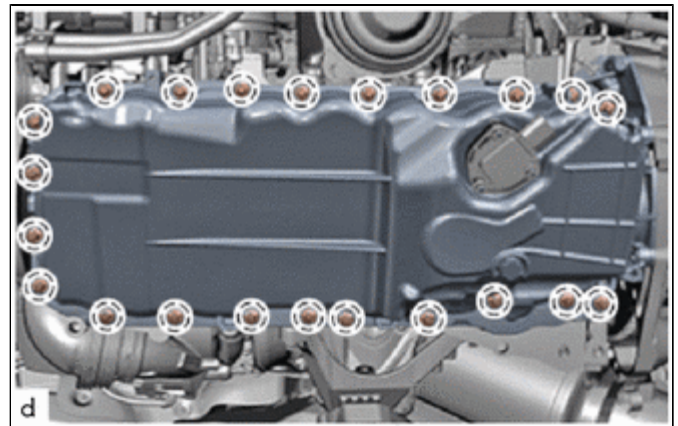
24 N·m {245 kgf·cm, 18 ft·lbf}



(j) Tighten all E10 bolts (marks).

Torque:

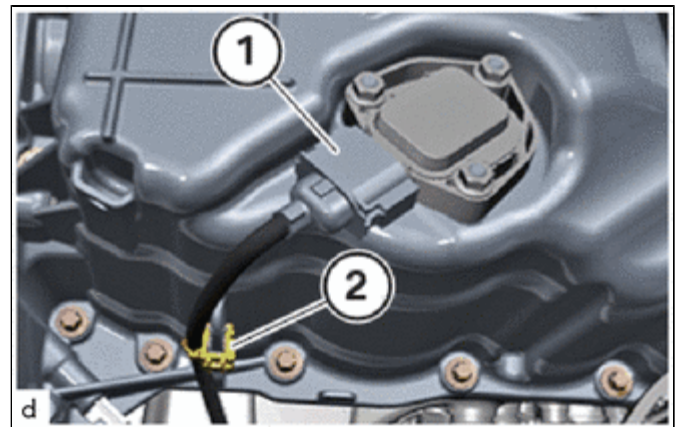
24 N·m {245 kgf·cm, 18 ft·lbf}



(k) Connect connectors (1) and lock.

HINT:

Make sure the connector engages audibly.



(l) Secure clamps (2).

15. INSTALL DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

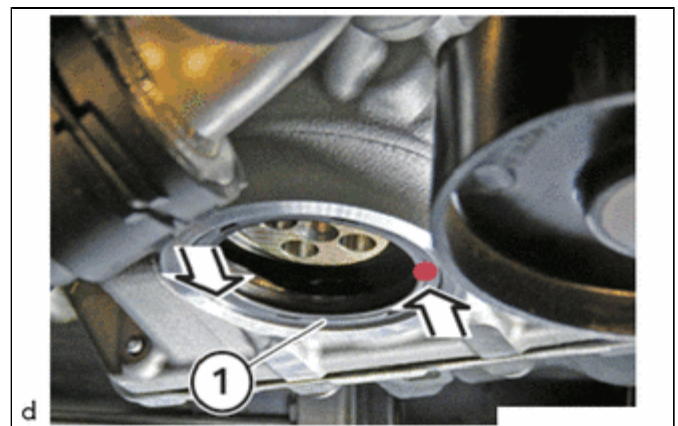
Click here [INFO](#)

16. REMOVE AND INSTALL FRONT CRANKSHAFT OIL SEAL

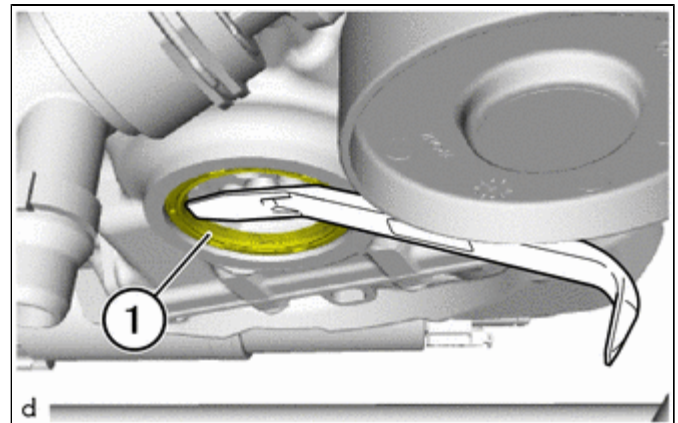
(a) Drive in the front crankshaft oil seal (1) in the marked area with a punch to approx. 1 cm deep.

HINT:

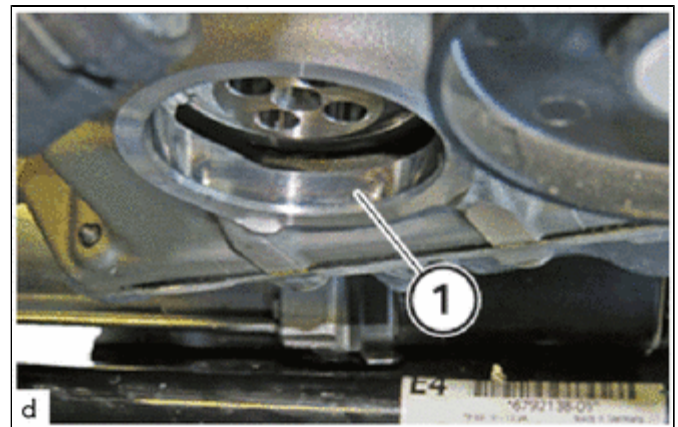
- Scratches.
 - Tools and sharp-edged components can cause scratches.
 - Protect working area.
 - Handle tools and components carefully.



(b) Carefully lever out and remove the front crankshaft oil seal (1).

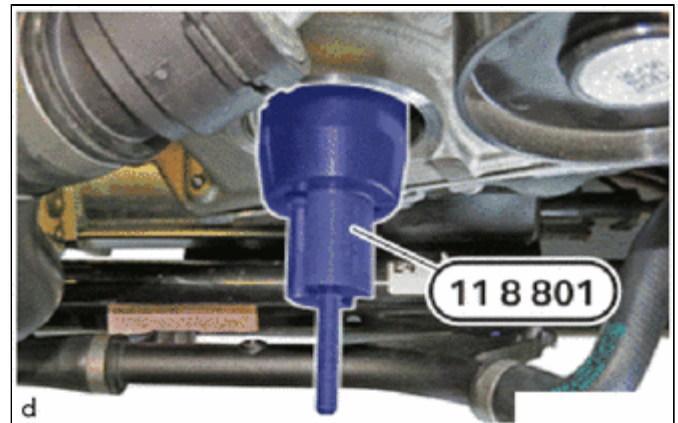


(c) Clean sealing surface (1).



(d) Clean the special tool 0 496 128 (11 8 801) from the set of special tools 0 496 127 (11 8 800) and coat it with fresh engine oil.

SST: 09200-WA080

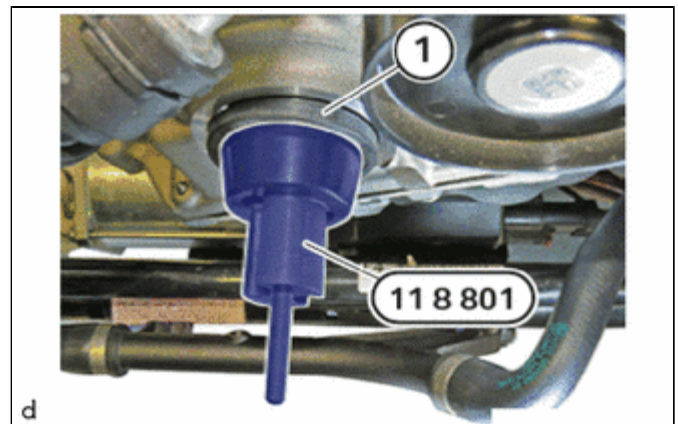


(e) Position the special tool 0 496 128 (11 8 801) from the set of special tools 0 496 127 (11 8 800) on the crankshaft and bolt it on.

SST: 09200-WA080

HINT:

- Front crankshaft oil seal damage. Touching the sealing lip (inner) and applying oil to the front crankshaft oil seal will lead to its destruction.
 - Do not touch the sealing lip (inner) of the front crankshaft oil seal.
 - Do not apply oil to the front crankshaft oil seal.
 - Install the front crankshaft oil seal dry.



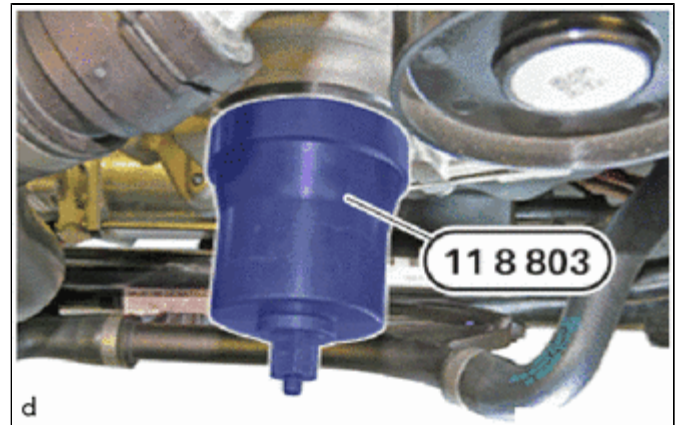
(f) Replace front crankshaft oil seal (1).

(g) Carefully slide the front crankshaft oil seal (1) straight in a rotational movement onto the special tool 0 496 128 (11 8 801) from the set of special tools 0 496 127 (11 8 800) until the front crankshaft oil seal is positioned flush against the cylinder block sub-assembly.

SST: 09200-WA080

- (h) Position the special tool 0 496 130 (11 8 803) from the set of special tools 0 496 127 (11 8 800) and bolt on hand-tight with the nut.

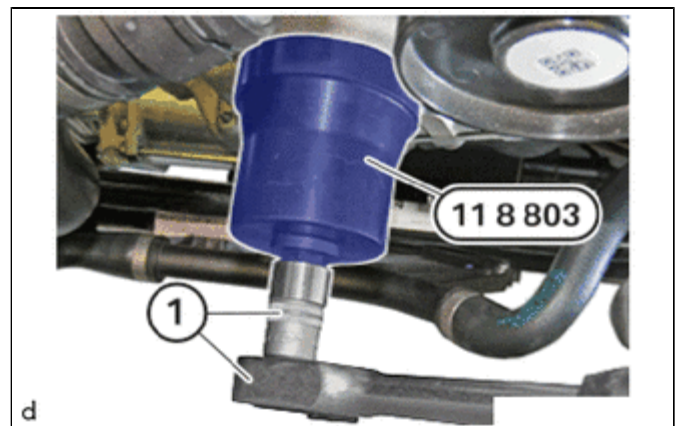
SST: 09200-WA080



- (i) Ensure that the front crankshaft oil seal moves evenly.

- (j) Bolt in the special tool (sleeve) 0 496 130 (11 8803) from the set of special tools 0 496 127 (11 8800) with the tool (1) until the special tool (sleeve) 0 496 130 (11 8 803) is flush with the cylinder block sub-assembly.

SST: 09200-WA080



17. INSTALL CRANKSHAFT PULLEY ASSEMBLY

Click here [INFO](#)

18. SEALING OIL DUCT

Click here [INFO](#)

19. CLEAN SEALING SURFACE

Click here [INFO](#)

20. INSTALL CYLINDER HEAD GASKET

Click here [INFO](#)

21. SET NO. 1 CYLINDER TO TDC (COMPRESSION)

NOTICE:

- Damage to the engine.

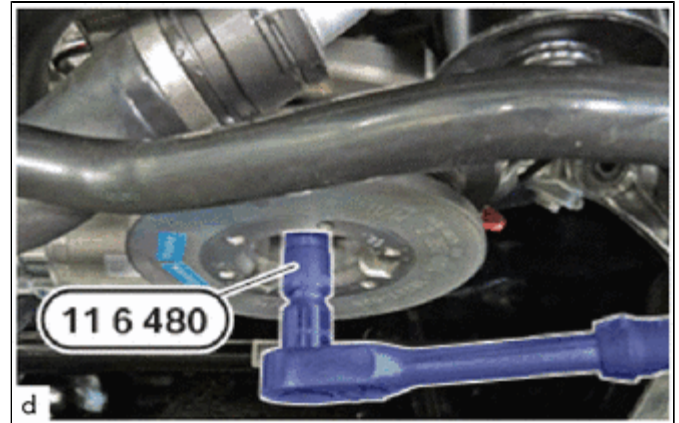
The engine may be damaged if it is manually rotated in the wrong direction.

- Always rotate the engine in the correct direction of rotation by hand: a) Clockwise, facing the vibration damper or b) Counter-clockwise, facing the timing chain. (b) only applies when the chain sub-assembly is

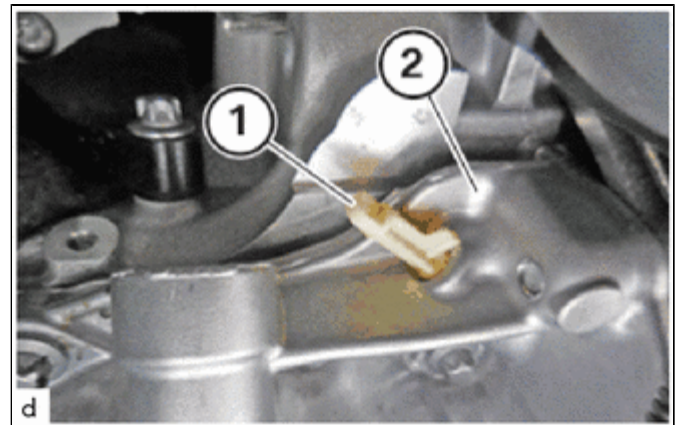
installed.

- (a) Turn the engine with the special tool 0 493 380 (11 6 480) to the TDC firing position of cylinder 1.

SST: 09200-WA190



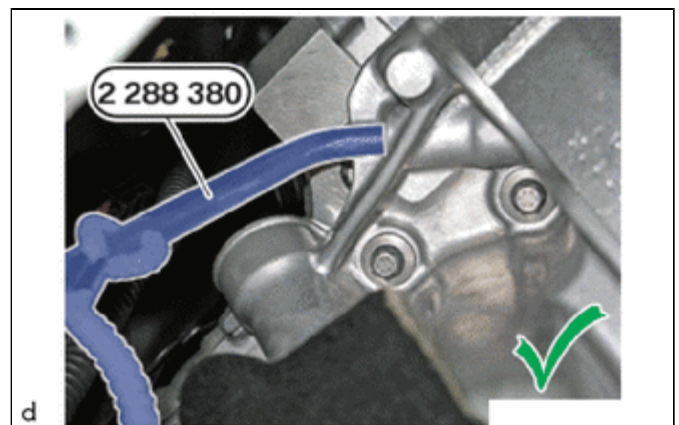
- (b) Guide out and remove sealing cap (1) on oil pan sub-assembly (2).



- (c) Make sure that the special tool 2 288 380 is positioned correctly .

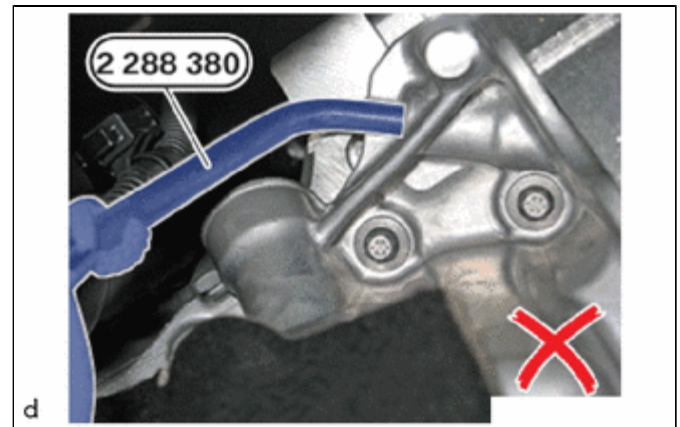
SST: 09200-WA570

- (1) The engine is in the TDC firing position of cylinder 1.



- (d) The TDC firing position of the 1st cylinder is not reached and the special tool 2 288 380 is positioned incorrectly: Position the special tool 2 288 380 again.

SST: 09200-WA570



22. INSTALL CYLINDER HEAD SUB-ASSEMBLY

Click here [INFO](#)

23. ADJUST CAMSHAFT

Click here [INFO](#)

24. INSTALL CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

25. TEMPORARILY TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

26. INSTALL CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

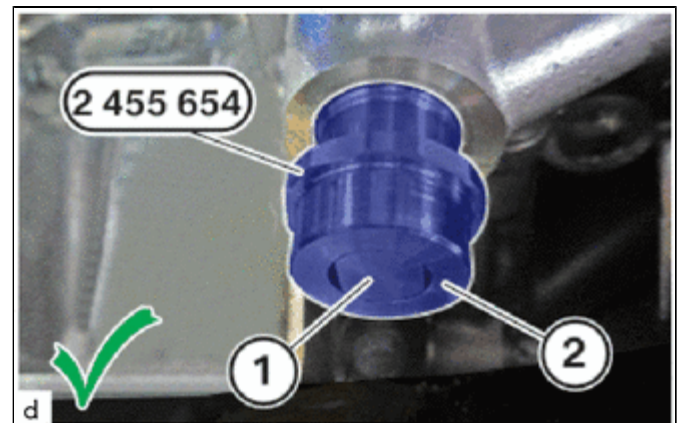
27. TEMPORARILY TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

28. TEMPORARILY INSTALL CHAIN SUB-ASSEMBLY

- (a) Pretension the timing chain correctly with the special tool 2 455 654 .

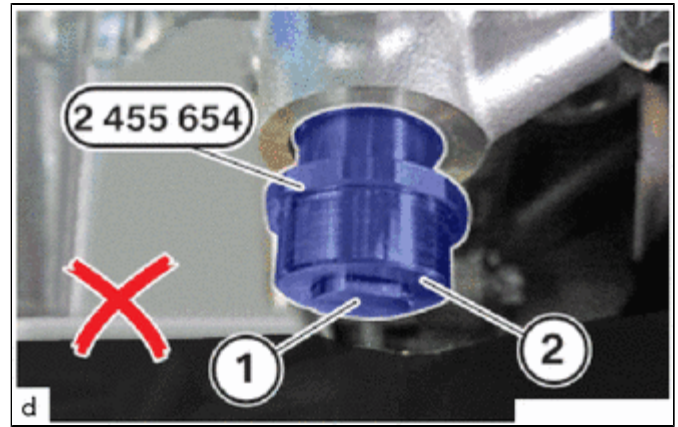
SST: 09200-WA810



- (b) Make sure that pin (1) is flush with housing (2).

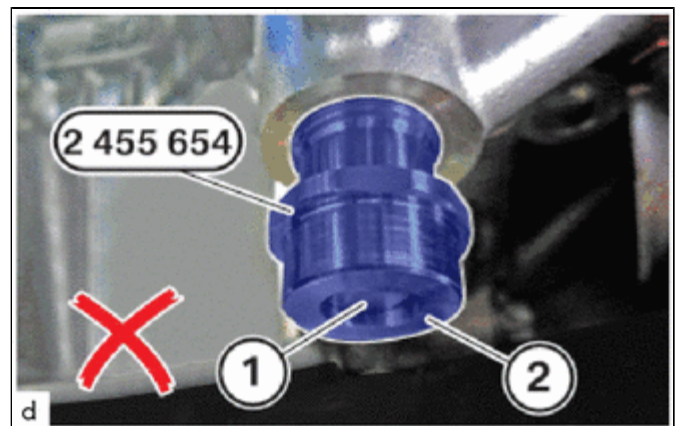
- (c) Make sure that the preload of the timing chain is not insufficient. The preload is insufficient when the pin (1) of the special tool 2 455 654 is not aligned flush with the housing (2). The timing chain is not correctly pre-tensioned.

SST: 09200-WA810



- (d) Make sure that the preload of the timing chain is not too high. The preload is too high when the pin (1) of the special tool 2 455 654 is not aligned flush with the housing (2). The timing chain is not correctly pre-tensioned.

SST: 09200-WA810



29. TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

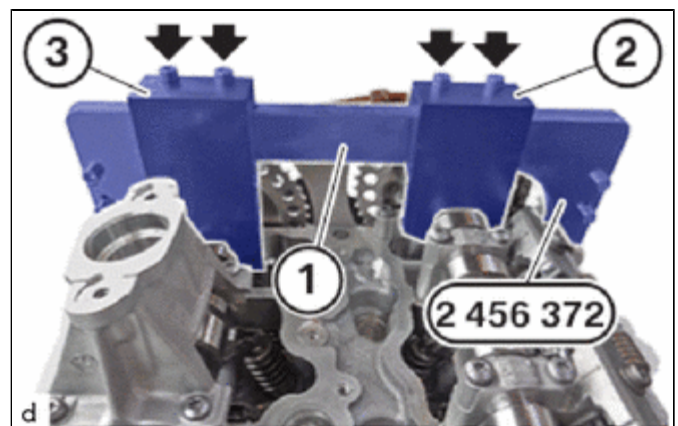
30. TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

31. REMOVE SST

- (a) Release the bolts (arrows) from the set of special tools 2 456 372 .

SST: 09200-WA690



(b) Guide the setting gauge 0.5 ° (3) out of the special tool 2 456 372 between the exhaust camshaft and basic carrier (1) and remove it.

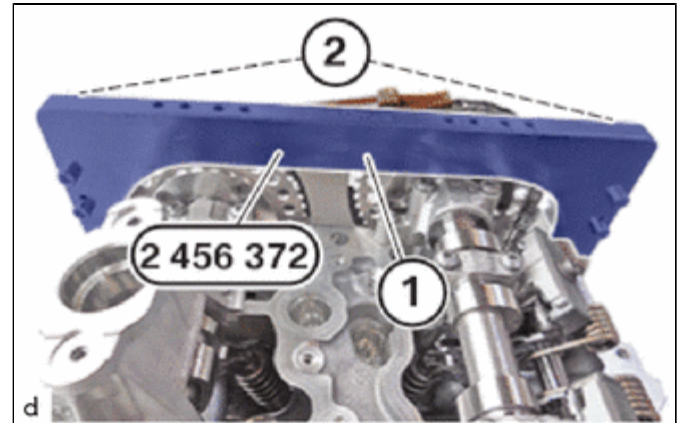
SST: 09200-WA690

(c) Guide setting gauge 0.7 ° (2) out of the special tool 2 456 372 between the intake camshaft and basic carrier (1) and remove it.

SST: 09200-WA690

(d) Unscrew the bolts (2) from the set of special tools 2 456 372 .

SST: 09200-WA690



(e) Thread the basic carrier (1) out of the special tool 2 456 372 and remove.

SST: 09200-WA690

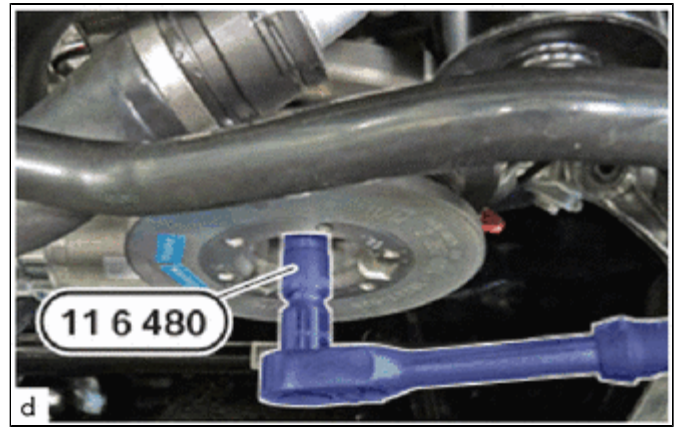
(f) Guide the special tool 2 288 380 out and remove.

SST: 09200-WA570



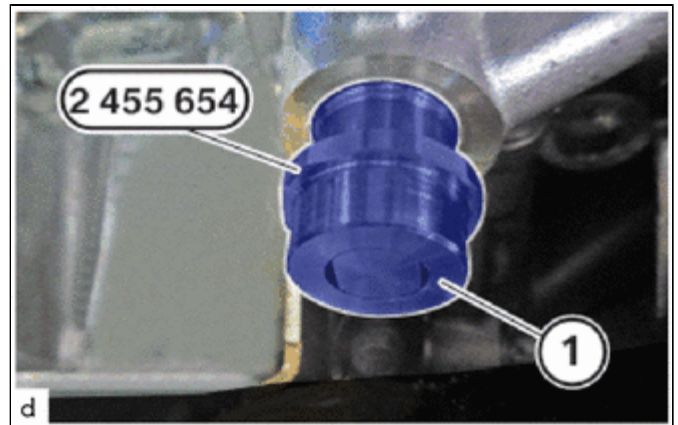
(g) Guide the special tool 0 493 380 (11 6 480) out and remove.

SST: 09200-WA190



(h) Guide the special tool 2 455 654 (1) out and remove.

SST: 09200-WA810



32. INSTALL NO. 1 CHAIN TENSIONER ASSEMBLY

Click here [INFO](#)

33. INSPECT CAMSHAFT TIMING

(a) Turn the engine with the special tool 0 493 380 (11 6 480) to the TDC firing position of cylinder 1.

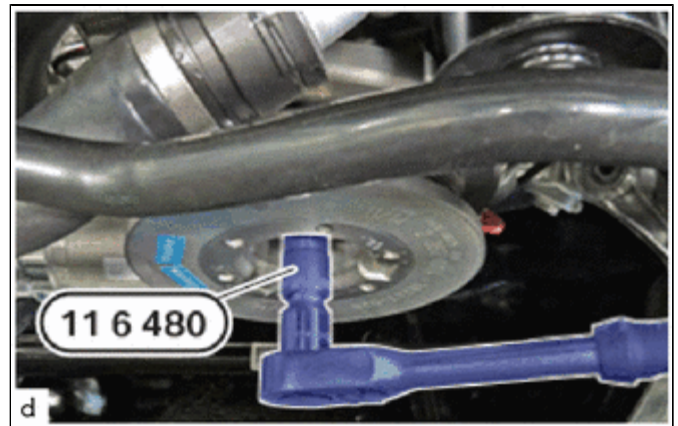
SST: 09200-WA190

NOTICE:

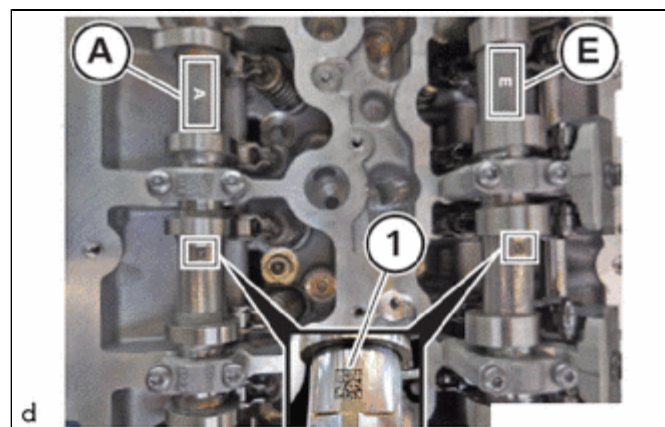
- Damage to the engine.

The engine may be damaged if it is manually rotated in the wrong direction.

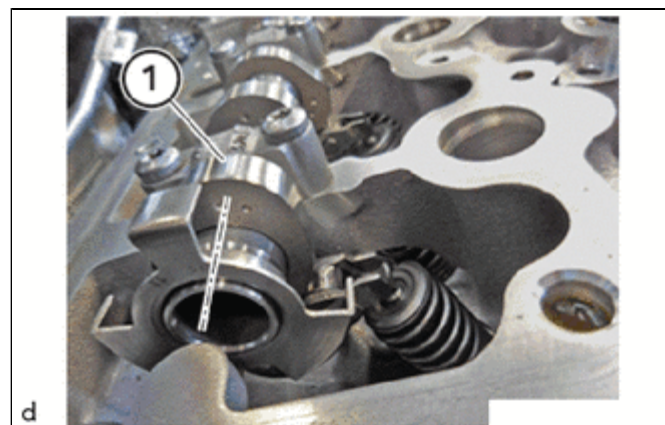
- Always rotate the engine in the correct direction of rotation by hand: a) Clockwise, facing the crankshaft pulley assembly or b) Counter-clockwise, facing the timing chain. (b) only applies when the chain sub-assembly is installed.



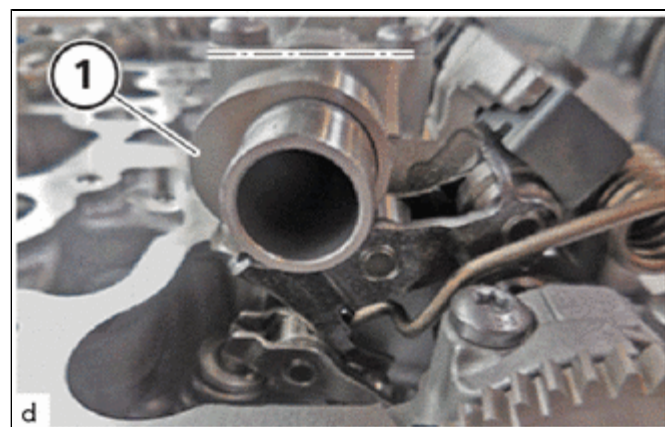
- (b) Make sure that the marks (1) on the intake camshaft sub-assembly (E) and the exhaust camshaft sub-assembly (A) are legible from above.



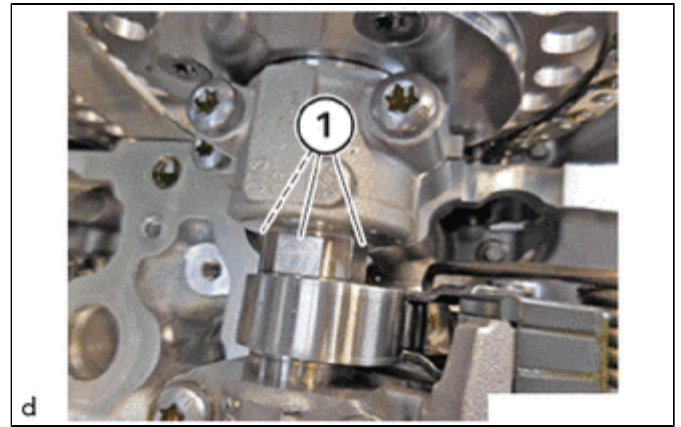
- (c) Ensure that the cam (1) on the exhaust camshaft sub-assembly on cylinder 1 points to the inside right at a slight angle.



- (d) Ensure that the cam (1) on the intake camshaft sub-assembly on cylinder 1 points to the inside left at an angle.

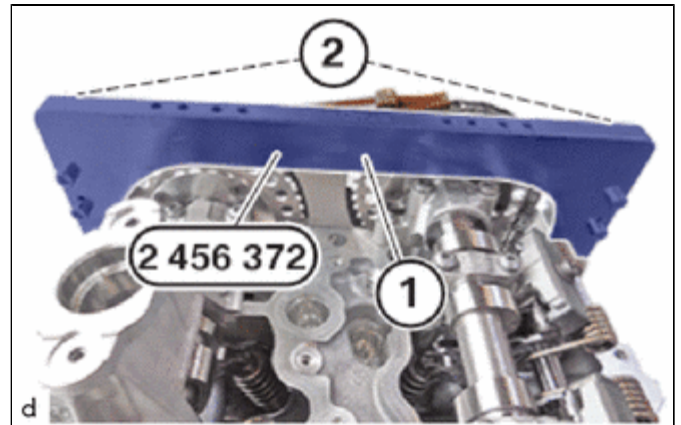


- (e) Ensure that the flattened areas (1) on the intake camshaft sub-assembly and the exhaust camshaft sub-assembly point upwards.



- (f) Position the basic carrier (1) from the set of special tools 2 456 372 on the cylinder head sub-assembly.

SST: 09200-WA690



- (g) Tighten the bolts (2) from the set of special tools 2 456 372 .

SST: 09200-WA690

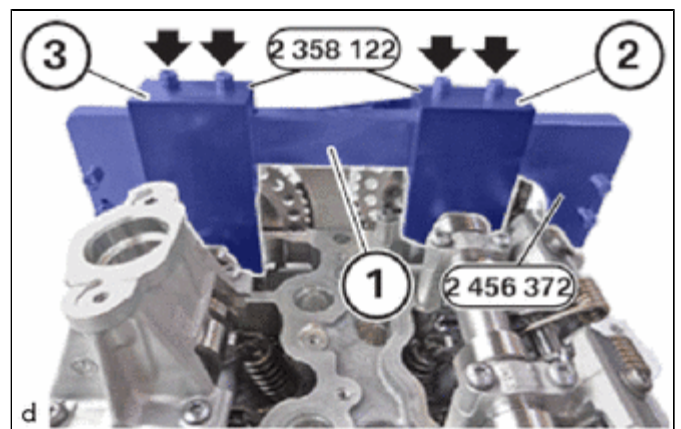
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

- (h) Position the test gauge (2) from the set of special tools 2 358 122 between the intake camshaft sub-assembly and the basic carrier (1) from the set of special tools 2 456 372 .

SST: 09200-WA380

SST: 09200-WA690



- (i) Position the test gauge (3) from the set of special tools 2 358 122 between the exhaust camshaft sub-assembly and the basic carrier (1) from the set of special tools 2 456 372 .

SST: 09200-WA380

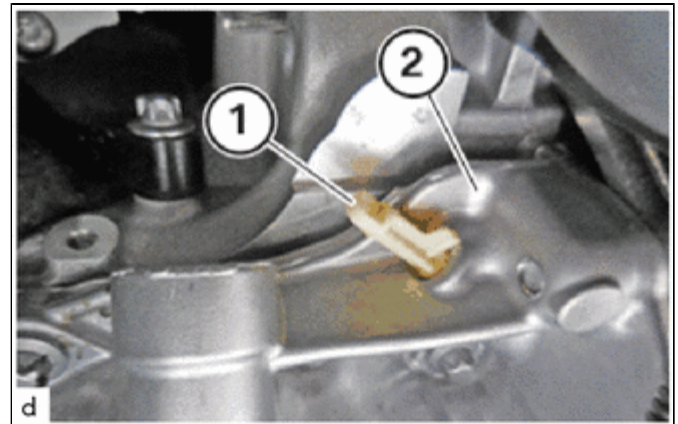
SST: 09200-WA690

(j) Tighten bolts (arrows).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

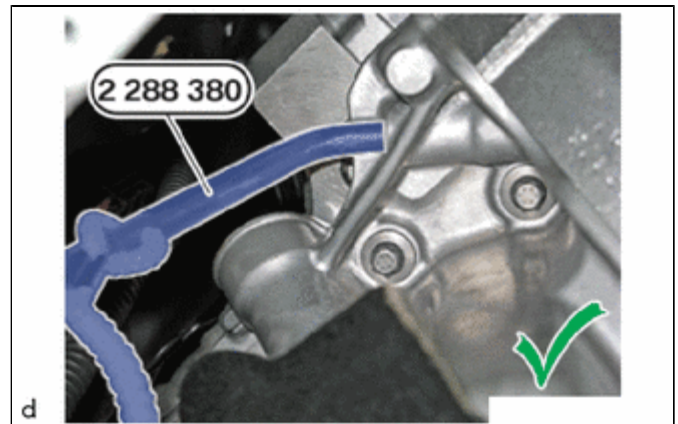
(k) Guide out and remove sealing cap (1) on oil pan sub-assembly (2).



(l) Position the special tool 2 288 380 correctly in the dowel hole .

SST: 09200-WA570

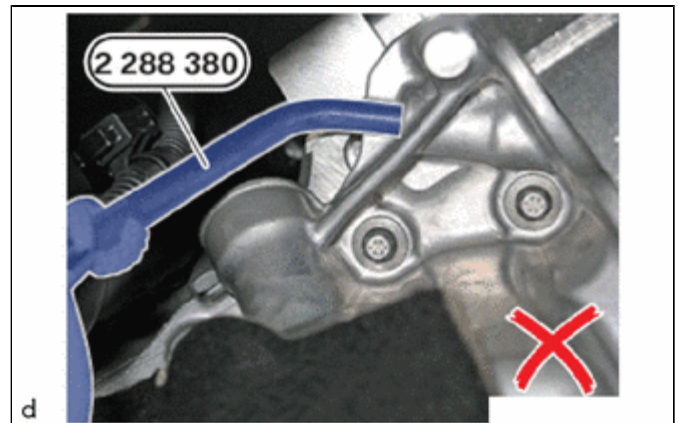
(1) The engine is in the TDC firing position of cylinder 1.



(m) Make sure that the special tool 2 288 380 is not positioned incorrectly.

SST: 09200-WA570

(1) The TDC firing position of cylinder 1 was not reached.

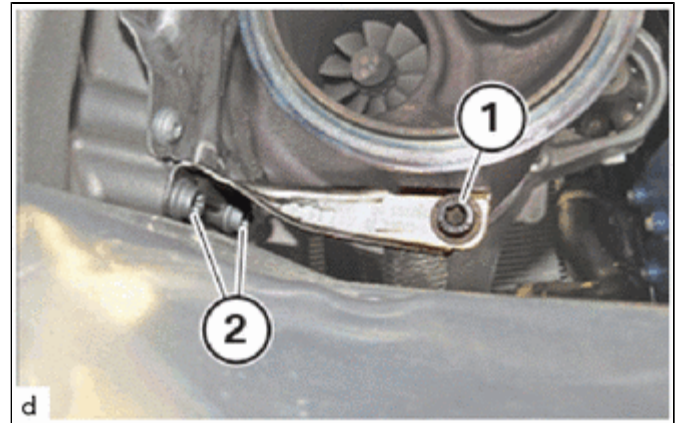


34. INSTALL SPARK PLUG

Click here [INFO](#)

35. INSTALL TURBOCHARGER STAY

(a) Replace bolts (2).



(b) Position support and tighten with the T45 bolt (2).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(c) Replace bolts (1).

(d) Tighten down T45 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

36. INSTALL OUTLET TURBO OIL PIPE

Click here [INFO](#)

37. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

38. INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

39. INSTALL CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

40. REPLACE FUEL INJECTOR SEAL

Click here [INFO](#)

41. INSTALL FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

42. INSTALL FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

43. ADJUST FUEL PUMP LIFTER ASSEMBLY

Click here [INFO](#)

44. INSTALL FUEL PUMP ASSEMBLY

Click here [INFO](#)

45. INSTALL NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

46. ADD ENGINE OIL

Click here [INFO](#)

47. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

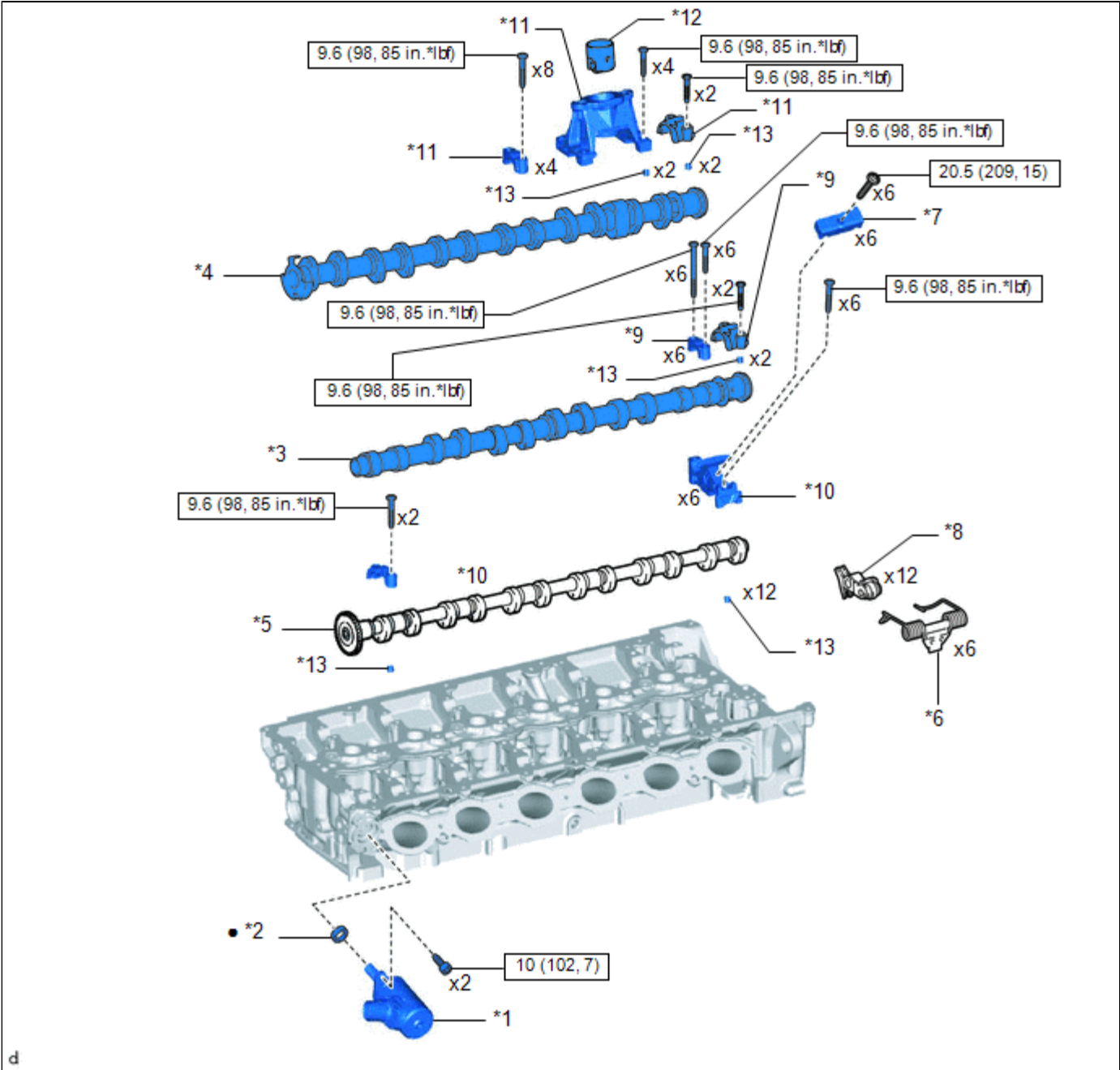
48. INSTALL ENGINE ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CYLINDER HEAD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

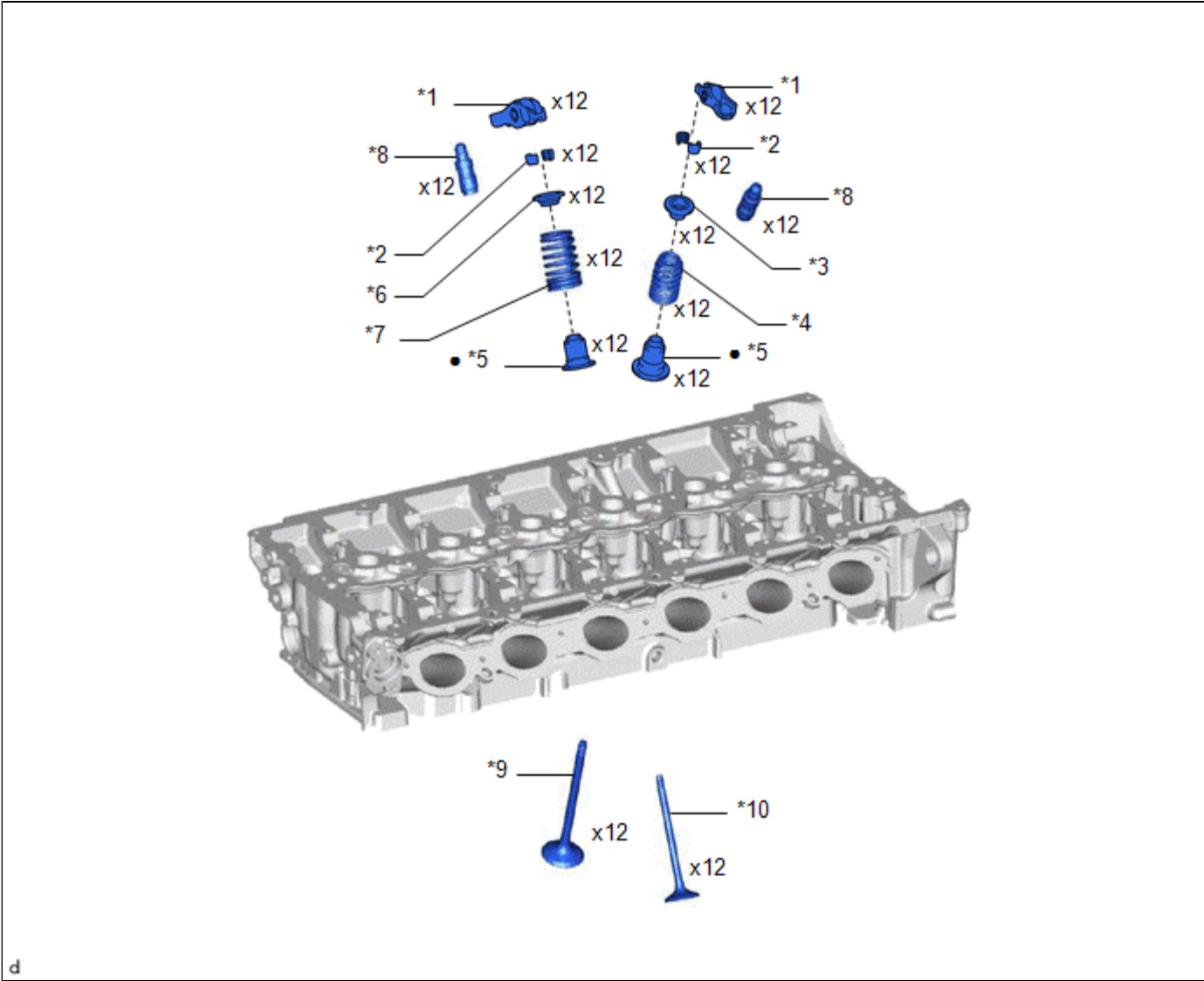
ILLUSTRATION



*1	SERVO MOTOR	*2	O-RING
*3	INTAKE CAMSHAFT SUB-ASSEMBLY	*4	EXHAUST CAMSHAFT SUB-ASSEMBLY
*5	NO. 3 CAMSHAFT SUB-ASSEMBLY	*6	TORSION SPRING
*7	GATE	*8	INTERMEDIATE LEVER
*9	CAMSHAFT BEARING CAP	*10	BEARING CAP

*11	EXHAUST CAMSHAFT BEARING CAP	*12	FUEL PUMP LIFTER ASSEMBLY
*13	RING PIN	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY	*2	VALVE SPRING RETAINER LOCK
*3	INTAKE VALVE SPRING RETAINER	*4	INTAKE VALVE COMPRESSION SPRING
*5	VALVE STEM OIL SEAL	*6	EXHAUST VALVE SPRING RETAINER
*7	EXHAUST VALVE COMPRESSION SPRING	*8	VALVE LASH ADJUSTER ASSEMBLY
*9	INTAKE VALVE	*10	EXHAUST VALVE

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CYLINDER HEAD: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

PROCEDURE

1. REMOVE CYLINDER HEAD GASKET

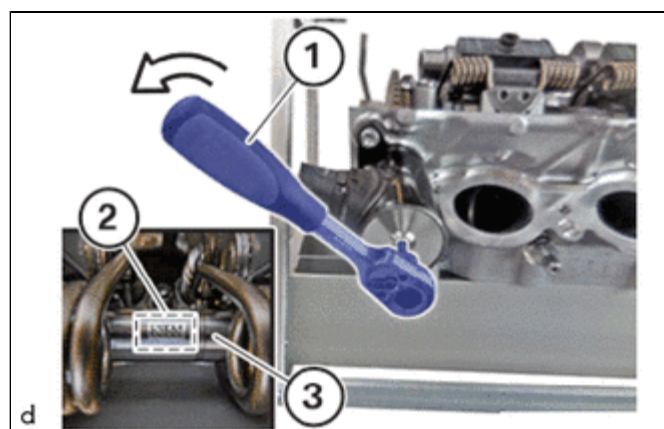
Click here [INFO](#)

2. REMOVE TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

3. ADJUST NO. 3 CAMSHAFT SUB-ASSEMBLY TO MINIMUM LIFT

- (a) With the help of the servo motor, use a 4 mm hexagon socket wrench (1) to slowly adjust No. 3 camshaft sub-assembly (3) to the minimum lift at 4 mm in the direction of the arrow.



- (b) Make sure that the mark (2) on the No. 3 camshaft sub-assembly (3) points upwards.

4. INSPECT AND ADJUST CAMSHAFT

Click here [INFO](#)

5. INSPECT AND ADJUST CAMSHAFT (CYLINDERS 3 AND 4)

Click here [INFO](#)

6. REMOVE TORSION SPRING

CAUTION:

- Spring preload.

Danger of injury!

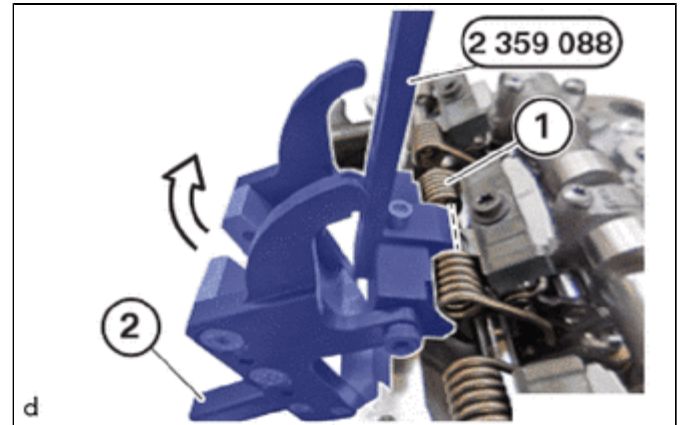
- The use of the specified special tool (tool) is mandatory.
- The described operation must be carried out properly.

HINT:

Wear safety goggles.

- (a) Open the special tool 2 359 088 and position it at the torsion spring (1).

SST: 09200-WA410

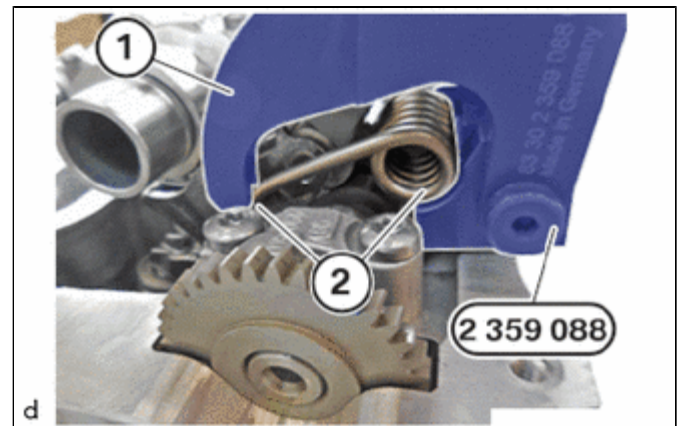


- (b) Position retaining hook (2) of the special tool 2 359 088 in the direction of arrow.

SST: 09200-WA410

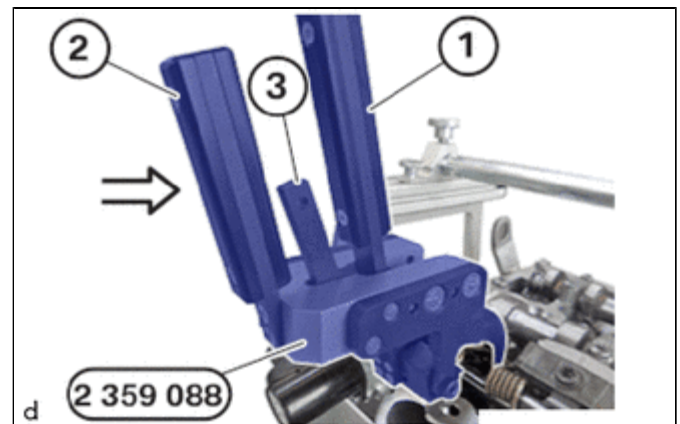
- (c) Make sure that the torsion spring (2) is correctly positioned in the clamping lever (1) of the special tool 2 359 088 .

SST: 09200-WA410



- (d) Hold down lever (1) of special tool 2 359 088 .

SST: 09200-WA410

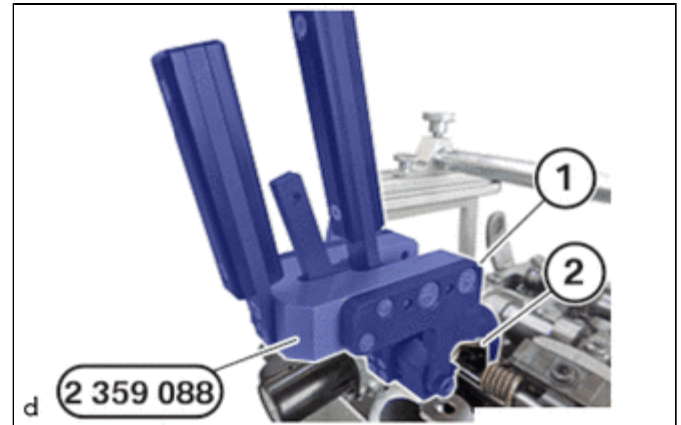


- (e) Close lever (2) of the special tool 2 359 088 carefully in the direction of arrow until the retaining hook (3) engages audibly.

SST: 09200-WA410

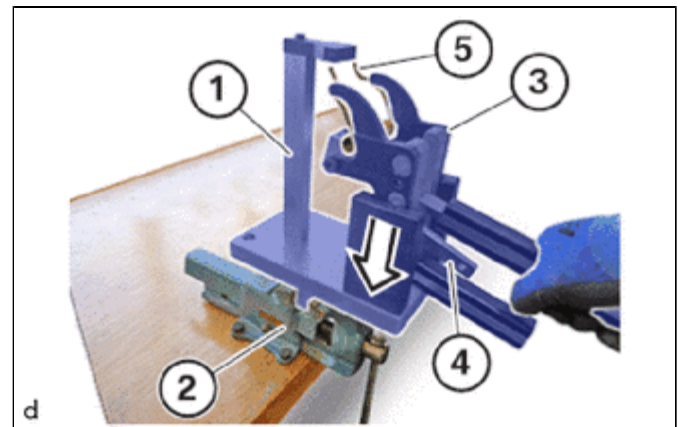
- (f) Thread out clamping lever (1) of special tool 2 359 088 with pre-tensioned torsion spring (2) carefully then remove.

SST: 09200-WA410



- (g) Clamp fixture (1) of the special tool 2 359 088 in the vice (2).

SST: 09200-WA410



- (h) Position clamping lever (3) of special tool 2 359 088 with pre-tensioned torsion spring (5) in direction of arrow in the mounting (1) of the special tool 2 359 088 .

SST: 09200-WA410

- (i) Carefully unlock retaining hook (4) of the special tool 2 359 088 .

(1) The torsion spring (5) is relieved.

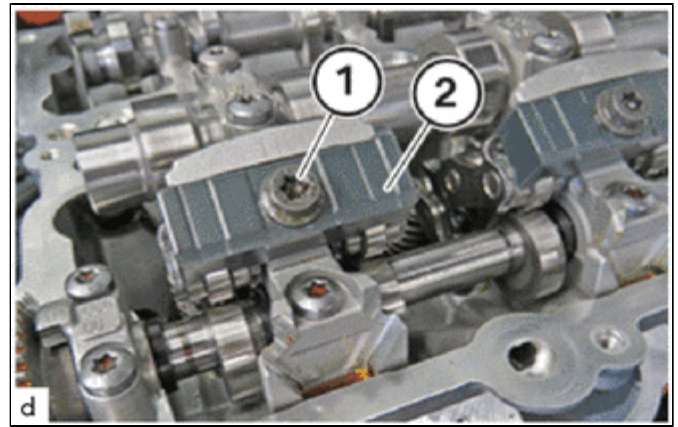
SST: 09200-WA410

- (j) Slowly open clamping lever (3) and remove the torsion spring (5).

- (k) Repeat the operations for the remaining torsion spring.

7. REMOVE GATE

- (a) Loosen T40 bolts (1).



(b) Remove the gate (2).

(c) Repeat the step for all the gate.

8. REMOVE INTERMEDIATE LEVER

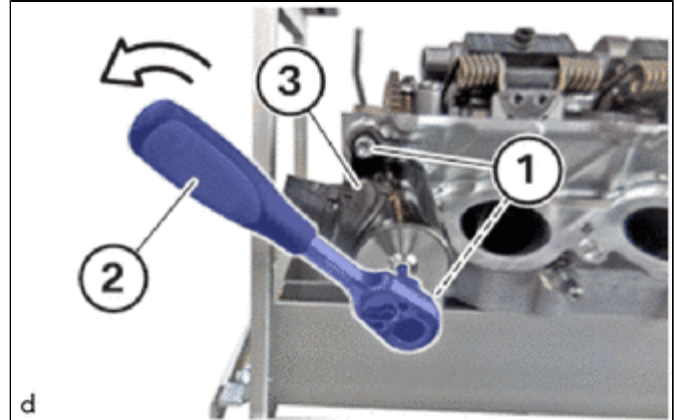
Click here [INFO](#)

9. REMOVE INTAKE CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

10. REMOVE SERVO MOTOR

(a) Loosen T30 bolts (1).



(b) Using a 4 mm hexagon wrench (2), turn servo motor for the No. 3 camshaft sub-assembly (3) to the left on the bolt in the marked area and pull off the cylinder head at the same time.

NOTICE:

Do not turn the No. 3 camshaft sub-assembly beyond the end stop.

HINT:

This releases the tension of the eccentric shaft.

(c) Removing the servo motor for the eccentric shaft (3).

11. REMOVE NO. 3 CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

12. REMOVE EXHAUST CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

13. REMOVE NO.1 VALVE ROCKER ARM SUB-ASSEMBLY

Click here [INFO](#)

14. REMOVE VALVE LASH ADJUSTER ASSEMBLY

Click here [INFO](#)

15. REMOVE INTAKE VALVE COMPRESSION SPRING

Click here [INFO](#)

16. REMOVE EXHAUST VALVE COMPRESSION SPRING

Click here [INFO](#)

17. REMOVE VALVE STEM OIL SEAL

Click here [INFO](#)

18. REMOVE INTAKE VALVE

Click here [INFO](#)

19. REMOVE EXHAUST VALVE

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CYLINDER HEAD: INSPECTION; 2020 MY Supra [03/2019 -]		

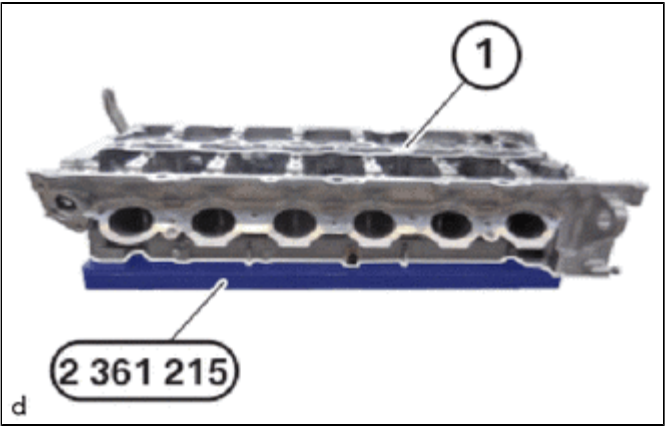
INSPECTION

PROCEDURE

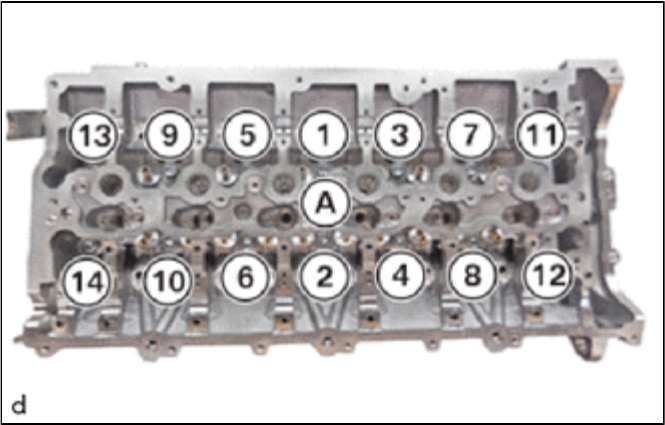
1. INSPECT WATER LEAK

- (a) Position the cylinder head sub-assembly (1) on the special tool 2 361 215 so that the rubber layer faces the cylinder head sub-assembly (1) and all water ducts at the cylinder head sub-assembly (1) are closed.

SST: 09200-WA430



- (b) Guide in bolts (1) to (14) on cylinder head sub-assembly (A).



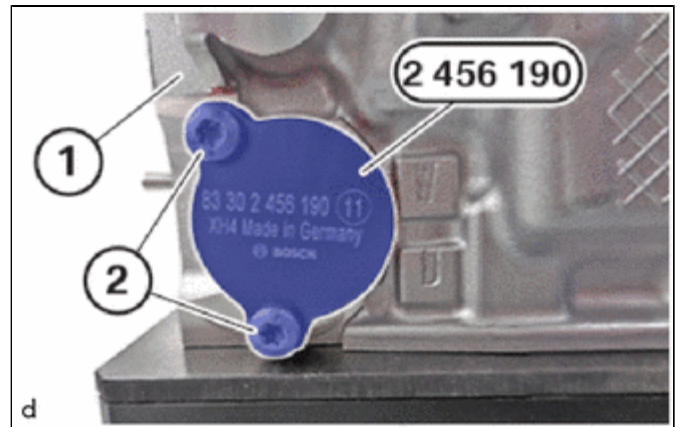
- (c) Tighten T60 bolts in the order (1) to (14).

Torque:
:

35 N·m {357 kgf·cm, 26 ft·lbf}

(d) Thread in and install the special tool 2 456 190 on the cylinder head sub-assembly (1).

SST: 09200-WA720

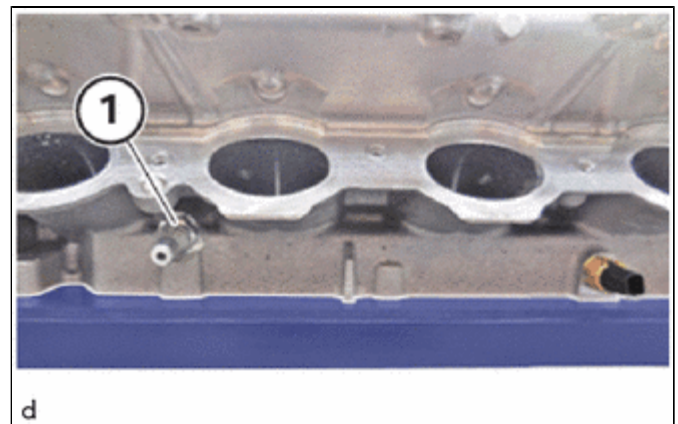


(e) Tighten down T30 bolts (2).

(1) Use the bolts of the No. 2 water by-pass hose between the cylinder head sub-assembly and the coolant pump assembly.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



(f) Release air by-pass valve assembly (1).

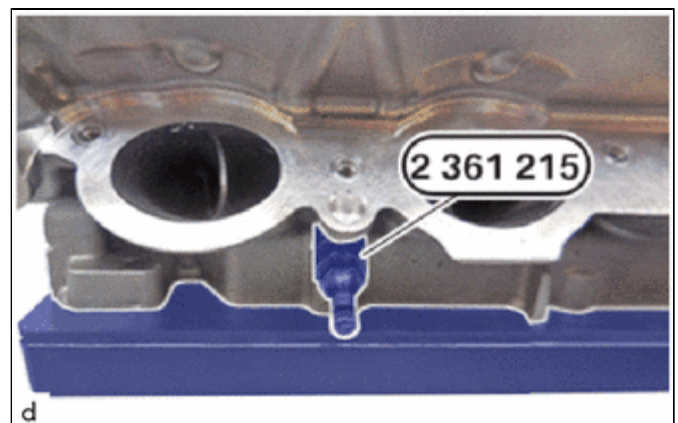
(g) Guide out and remove air by-pass valve assembly (1).

(h) Mount the valve of the special tool 2 361 215 on the cylinder head sub-assembly.

SST: 09200-WA430

Torque:

18 N·m {184 kgf·cm, 13 ft·lbf}



(i) Heat up the cylinder head sub-assembly.

Temperature of the cylinder head:

60 °C (140 °F)

(j) Connect compressed air.

Maximum Testing Pressure:

300 kPa (3.06 kgf/cm², 43.5 psi)

(k) Check the cylinder head sub-assembly in for tightness in a water bath.

(1) Air bubbles develop.

(2) Check the cylinder head sub-assembly for damage at the point of exit of the air bubbles.

(3) Repair or replace the cylinder head sub-assembly if necessary.

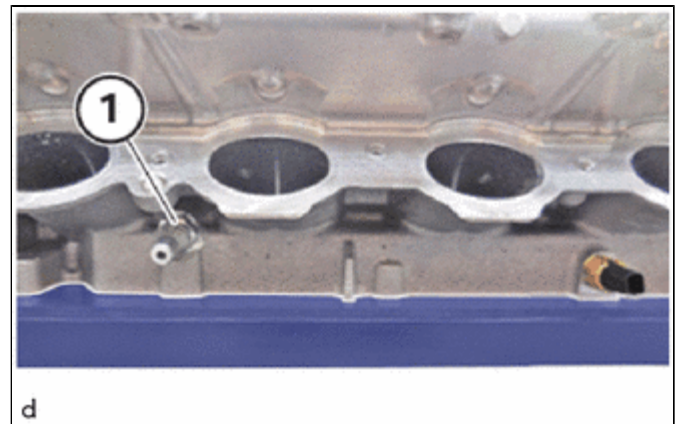
(l) Disassemble the valve of the special tool 2 361 215 .

SST: 09200-WA430

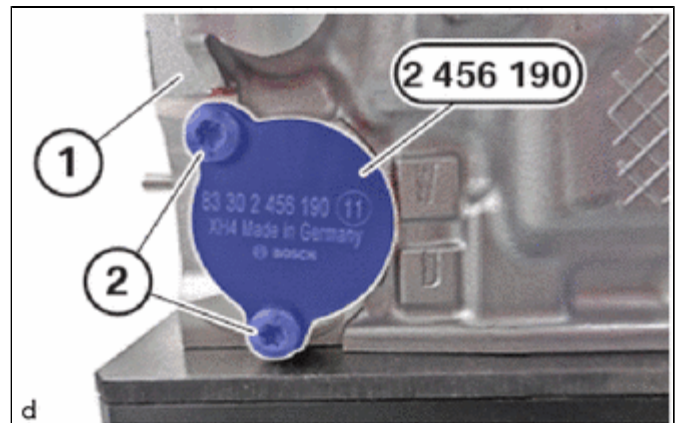
(m) Install air by-pass valve assembly (1).

Torque:

18 N·m {184 kgf·cm, 13 ft·lbf}



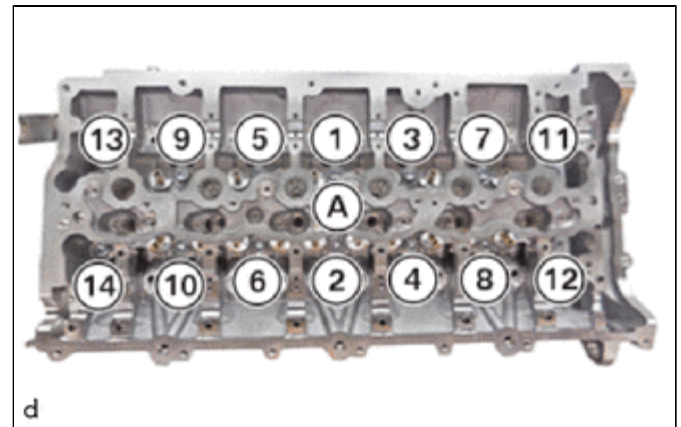
(n) Loosen bolts (2).



(o) Feed out the special tool 2 456 190 from the cylinder head sub-assembly (1) and remove.

SST: 09200-WA720

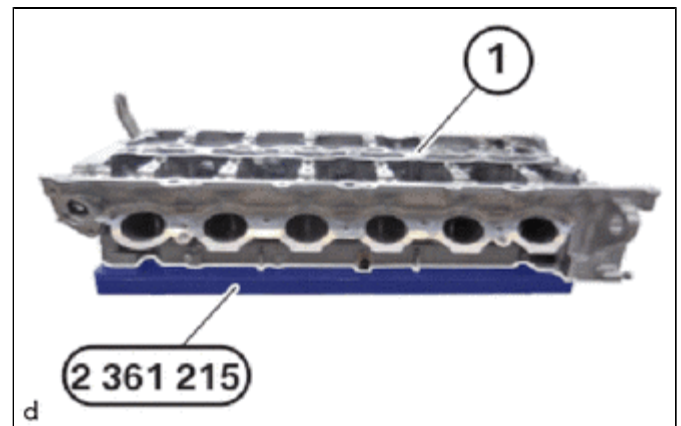
(p) Release the bolts in the order (14) to (1) from cylinder head sub-assembly (A).



(q) Guide out and remove T60 bolts (14) to (1).

(r) Guide out and remove cylinder head sub-assembly (1) from the special tool 2 361 215 .

SST: 09200-WA430



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CYLINDER HEAD: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL INTAKE VALVE

Click here [INFO](#)

2. INSTALL EXHAUST VALVE

Click here [INFO](#)

3. INSTALL VALVE STEM OIL SEAL

Click here [INFO](#)

4. INSTALL EXHAUST VALVE COMPRESSION SPRING

Click here [INFO](#)

5. INSTALL INTAKE VALVE COMPRESSION SPRING

Click here [INFO](#)

6. INSTALL VALVE LASH ADJUSTER ASSEMBLY

Click here [INFO](#)

7. INSTALL NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY

Click here [INFO](#)

8. INSTALL EXHAUST CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

9. INSTALL NO. 3 CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

10. INSTALL INTAKE CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

11. INSPECT INTERMEDIATE LEVER

Click here [INFO](#)

12. INSPECT NO.1 VALVE ROCKER ARM SUB-ASSEMBLY

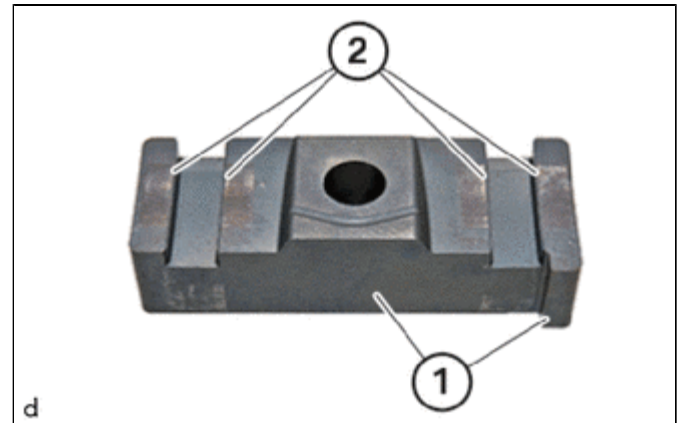
Click here [INFO](#)

13. INSTALL INTERMEDIATE LEVER

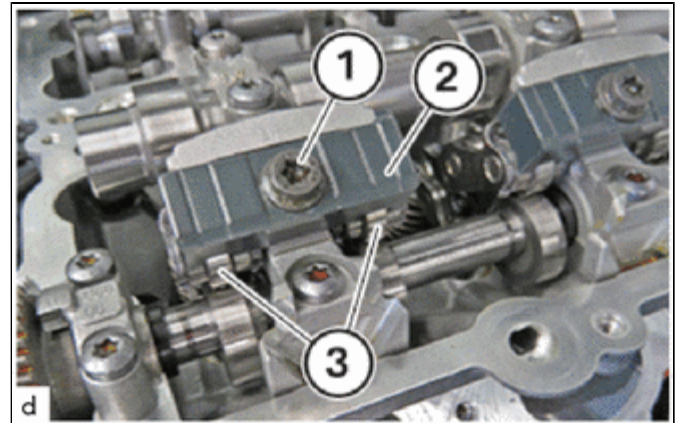
Click here

14. INSTALL GATE

(a) Clean contact surfaces (1) and (2) off oil, grease and dirt.



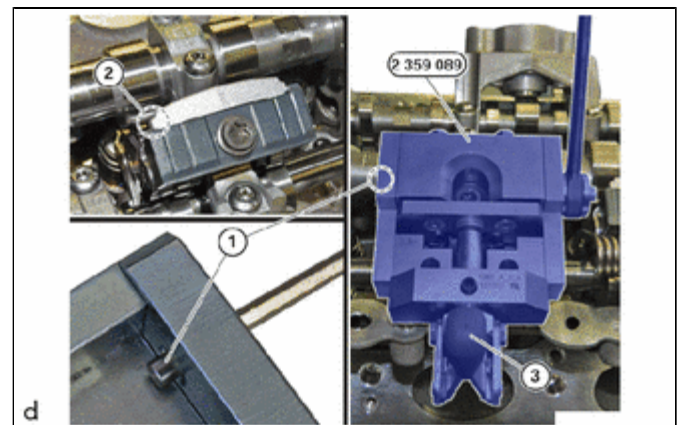
(b) Position the gate (2) and hand-tighten the bolt (1).



(c) Check that the intermediate lever (3) is in the correct mounting orientation.

(d) Position the special tool 2 359 089 on the cylinder head sub-assembly.

SST: 09200-WA420



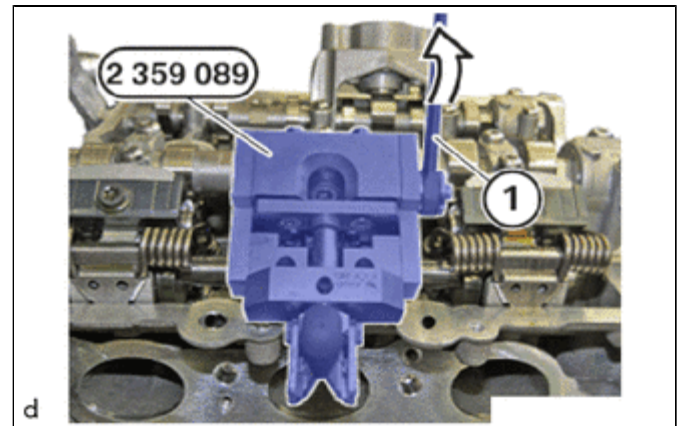
(e) Pre-tension the gate with the lever (3).

(f) Move bolt (1) against contact surface (2).

(g) Make sure that the special tool 2 359 089 does not rotate during this process.

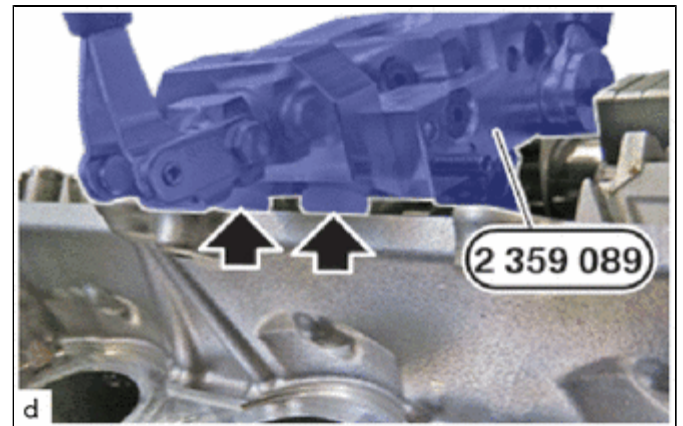
SST: 09200-WA420

(h) Secure the gate with the lever (1).



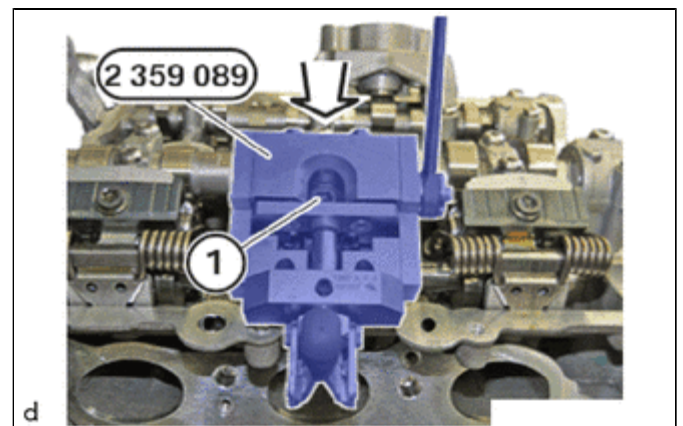
(i) Ensure that the special tool 2 359 089 lies flat on the cylinder head sub-assembly.

SST: 09200-WA420



(j) Press the special tool 2 359 089 onto the cylinder head sub-assembly.

SST: 09200-WA420



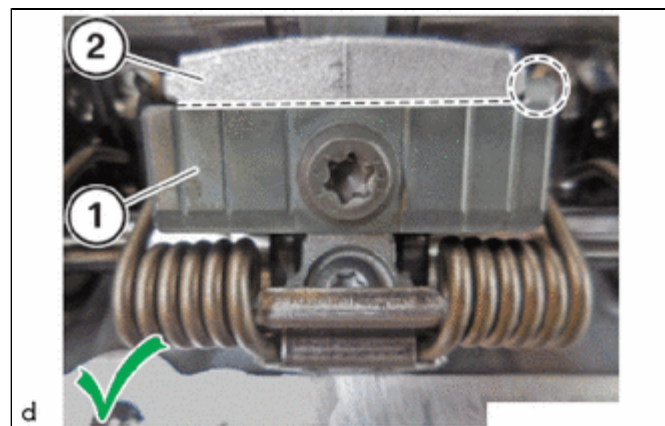
(k) Tighten the T40 bolt (1) at the same time.

Torque:

20.5 N·m {209 kgf·cm, 15 ft·lbf}

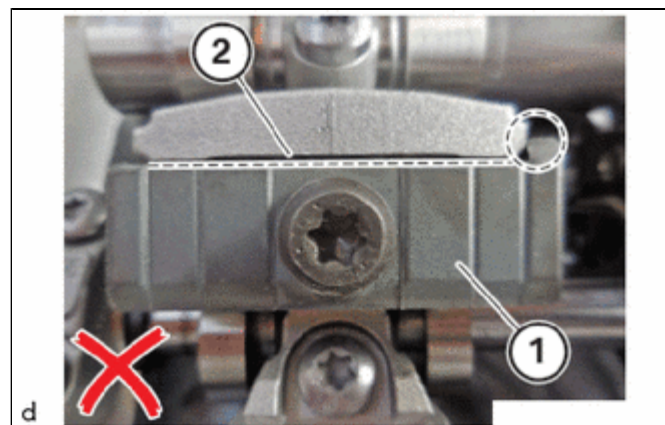
(l) Make sure that gate (1) rests correctly against bearing bracket (2).

(1) Gate (1) is installed correctly in the marked area.



(m) Make sure that gate (1) rests correctly against bearing bracket (2).

(1) Gate (1) is installed incorrectly in the marked area.



(n) Repeat the step for all the gates.

15. INSPECT AND ADJUST CAMSHAFT (CYLINDERS 3 AND 4)

Click here [INFO](#)

16. INSTALL TORSION SPRING

CAUTION:

- Spring preload.

Danger of injury!

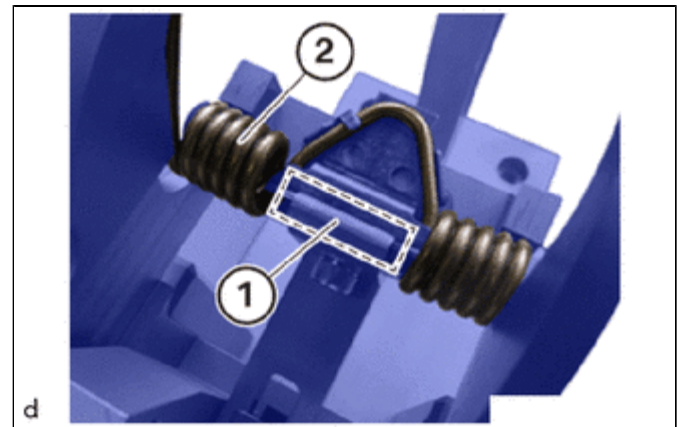
- The use of the specified special tool (tool) is mandatory.
- The described operation must be carried out properly.

HINT:

Wear safety goggles.

- (a) Insert the torsion spring (2) in the clamping lever of the special tool 2 359 088 .

SST: 09200-WA410

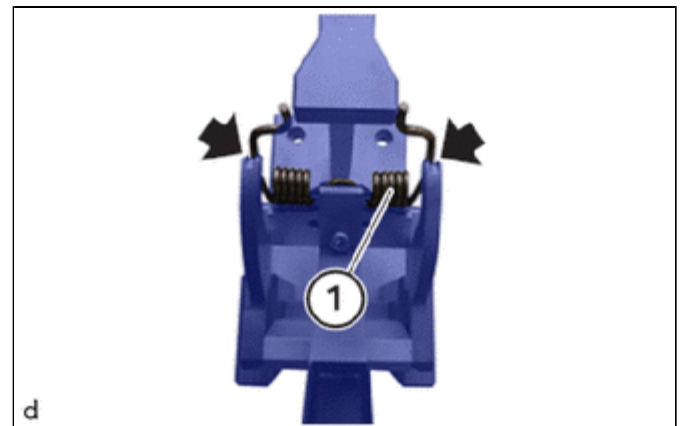


- (b) Make sure that the torsion spring (2) is correctly positioned in the marked area (1) of the special tool 2 359 088 .

SST: 09200-WA410

- (c) Carefully close the clamping lever of the special tool 2 359 088 in the accompanying fixture until the retaining hook engages.

SST: 09200-WA410



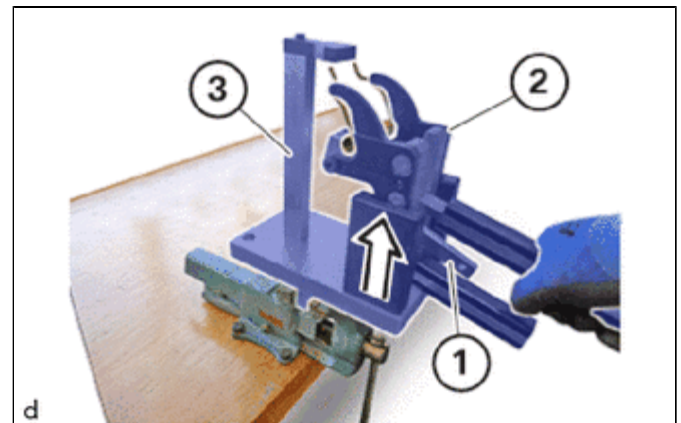
- (d) Ensure that the torsion spring (1) lies correctly in the lateral guides (arrows) of the special tool 2 359 088 during tensioning.

SST: 09200-WA410

- (e) Carefully close the clamping lever (2) of the special tool 2 359 088 in the fixture (3) until the retaining hook (1) audibly engages.

SST: 09200-WA410

- (1) The torsion spring is tensioned.



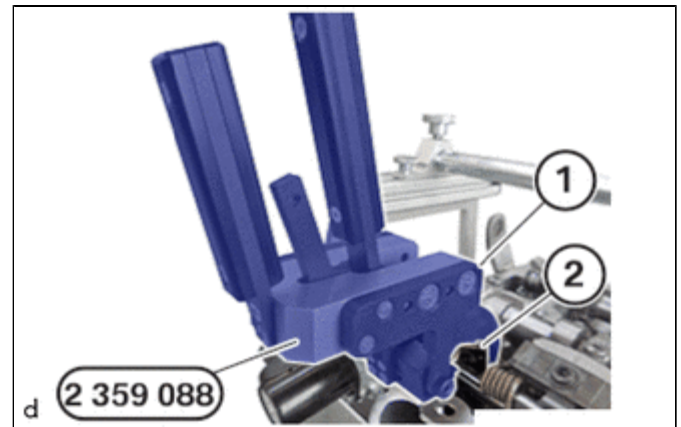
- (f) Carefully take the clamping lever (2) of the special tool 2 359 088 with the stretched torsion spring out of the fixture

(3) of the special tool 2 359 088 in the direction of arrow.

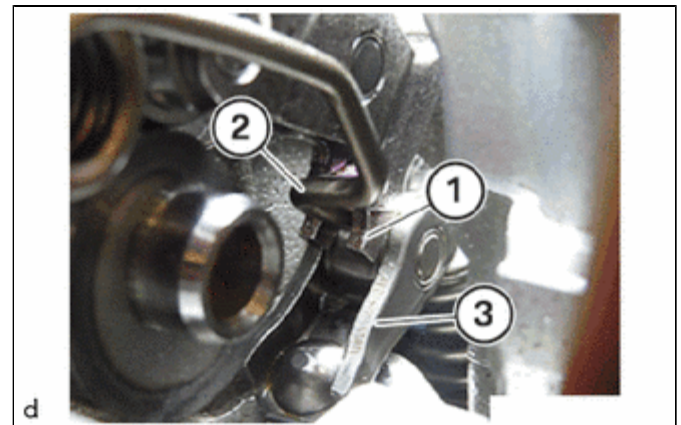
SST: 09200-WA410

(g) Feed in clamping lever (1) from the special tool 2 359 088 with the pre-tensioned torsion spring (2) and position it.

SST: 09200-WA410



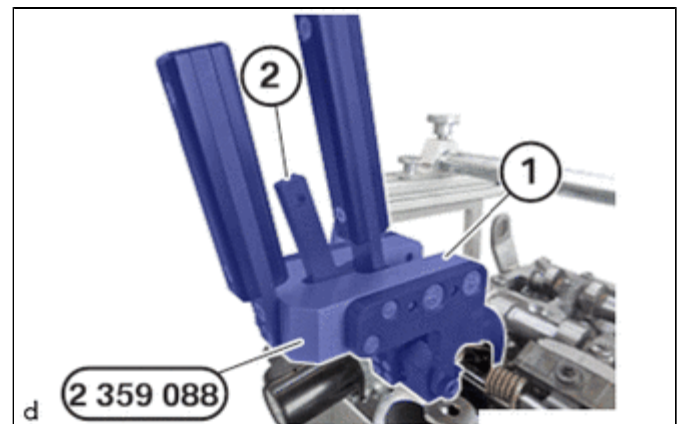
(h) Ensure that the torsion spring (2) is positioned correctly in the intermediate lever (1).



(i) Check all No. 1 valve rocker arm sub-assembly (3) for correct installation position.

(j) Press the clamping lever (1) of the special tool 2 359 088 together until the retaining hook (2) unlocks.

SST: 09200-WA410

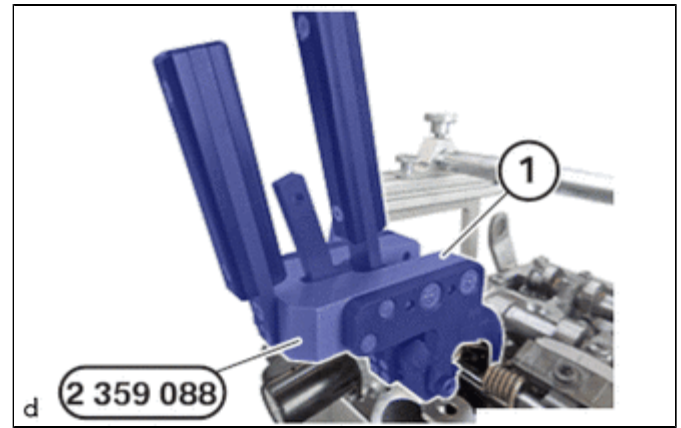


(k) Carefully open the clamping lever (1) of the special tool 2 359 088 until the torsion spring is completely relaxed.

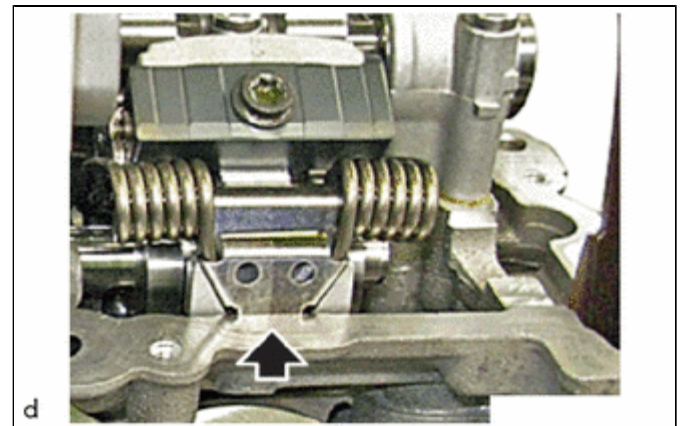
SST: 09200-WA410

(l) Guide out and remove the clamping lever (1) of the special tool 2 359 088 .

SST: 09200-WA410



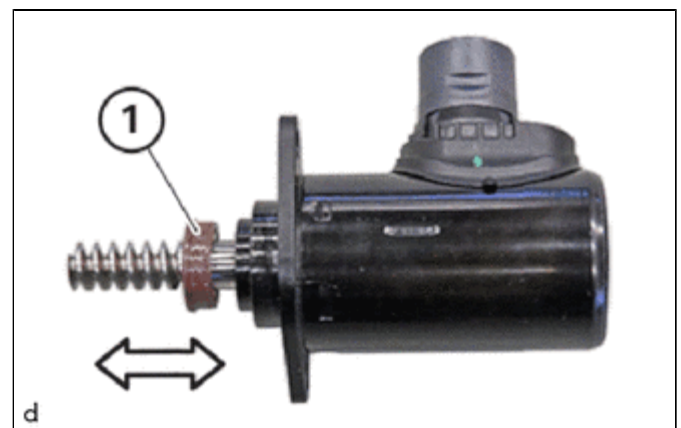
(m) Check for correct mounting orientation of the torsion spring (arrow) at the cylinder head sub-assembly.



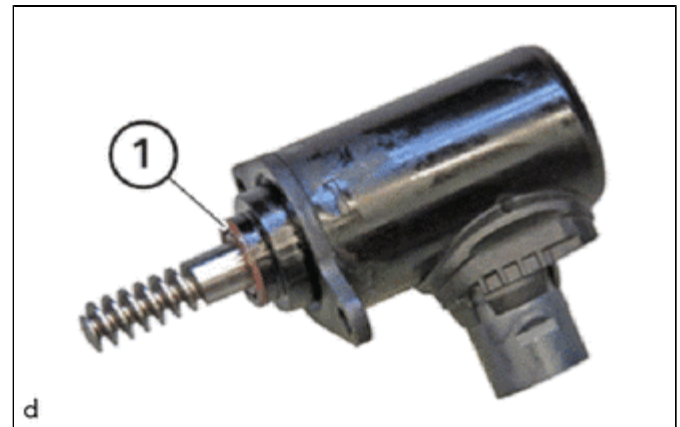
(n) Repeat the operations for the remaining torsion spring.

17. INSTALL SERVO MOTOR

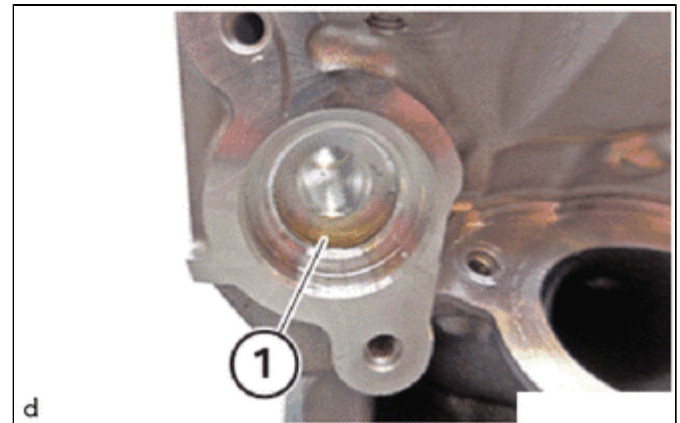
(a) Pull off O-ring (1) and replace.



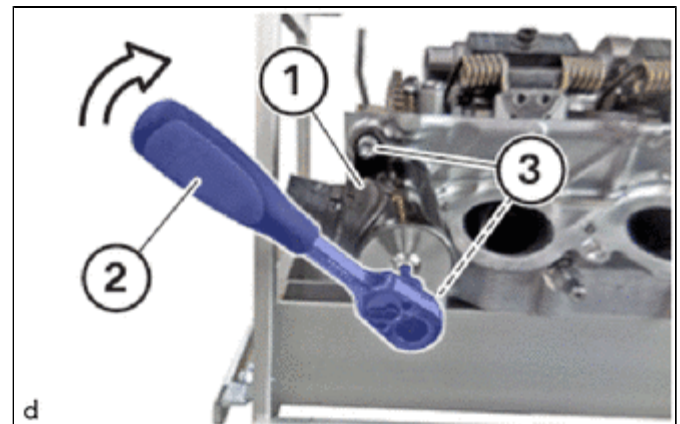
(b) Push the O-ring (1) onto the servo motor housing to the limit position.



(c) Clean sealing surface (1).



(d) Slide servo motor for eccentric shaft (1) up to the limit position.



(e) Turn screw on the servo motor for the eccentric shaft (1) to the right with a 4 mm hexagon wrench (2) until the servo motor for the eccentric shaft rests against the cylinder head.

(f) Tighten the T30 bolts (1).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

18. INSTALL TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

19. INSTALL CYLINDER HEAD GASKET

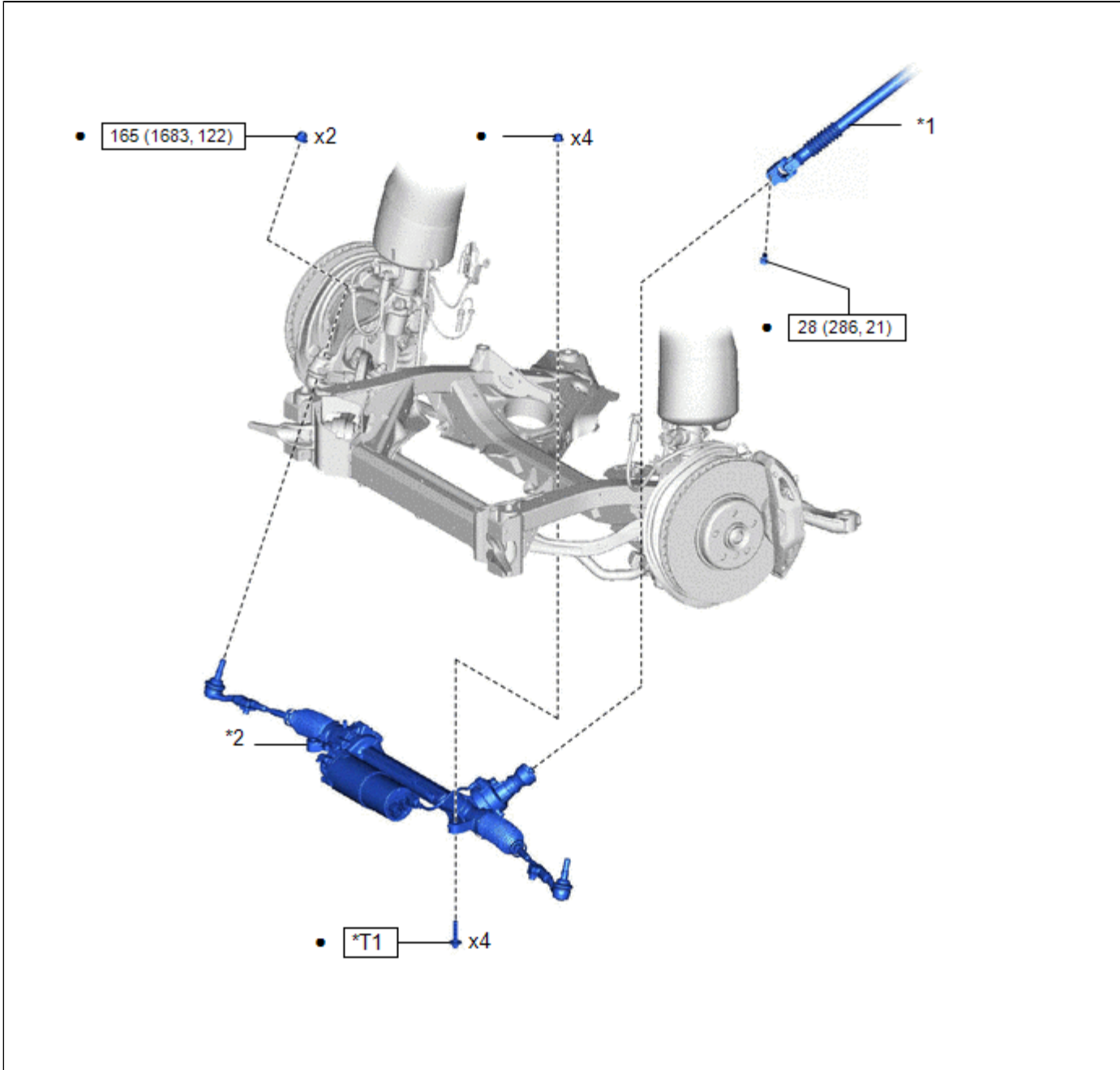
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CYLINDER HEAD GASKET: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

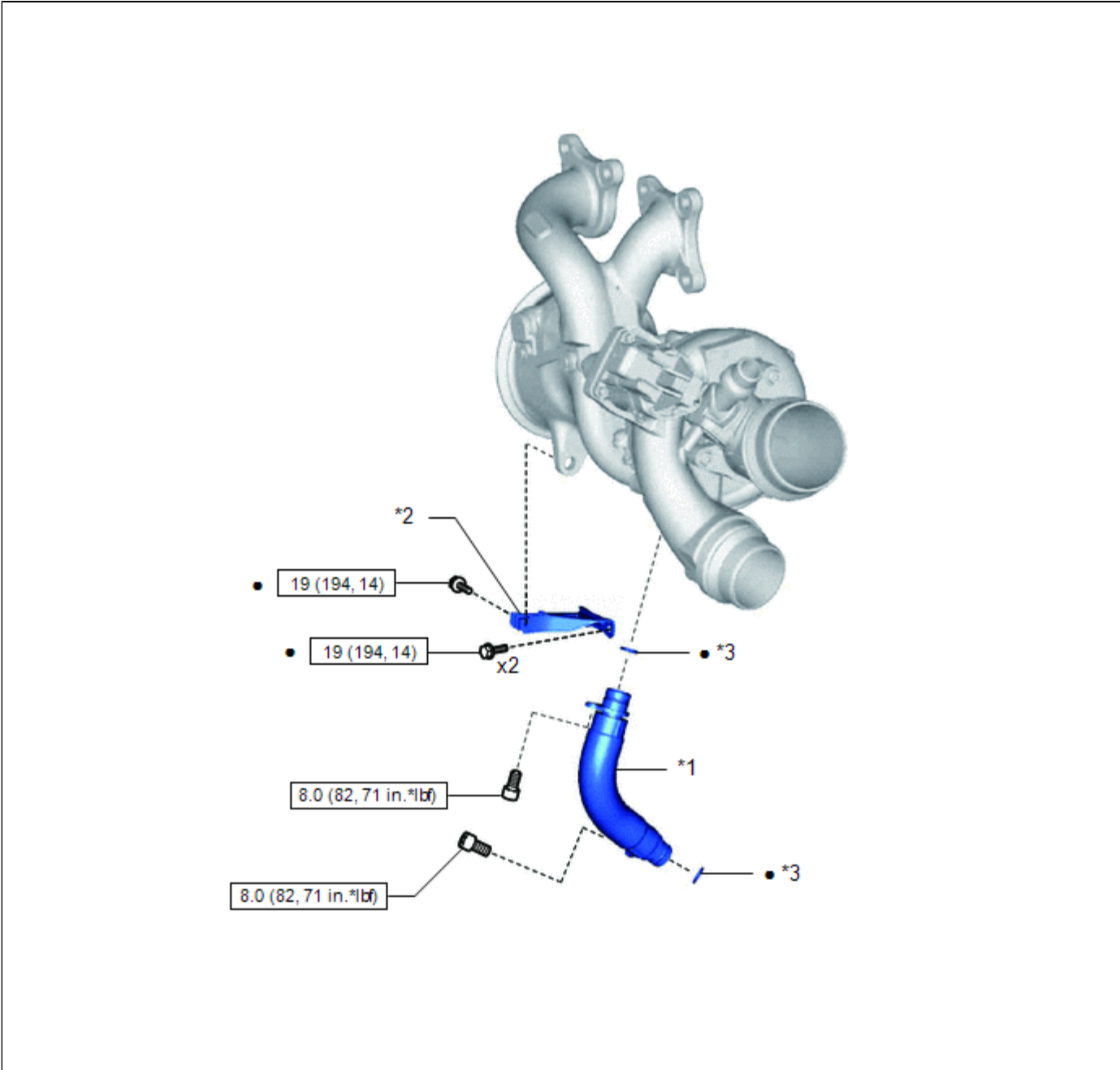
ILLUSTRATION



*1	STEERING INTERMEDIATE SHAFT ASSEMBLY	*2	STEERING LINK ASSEMBLY
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

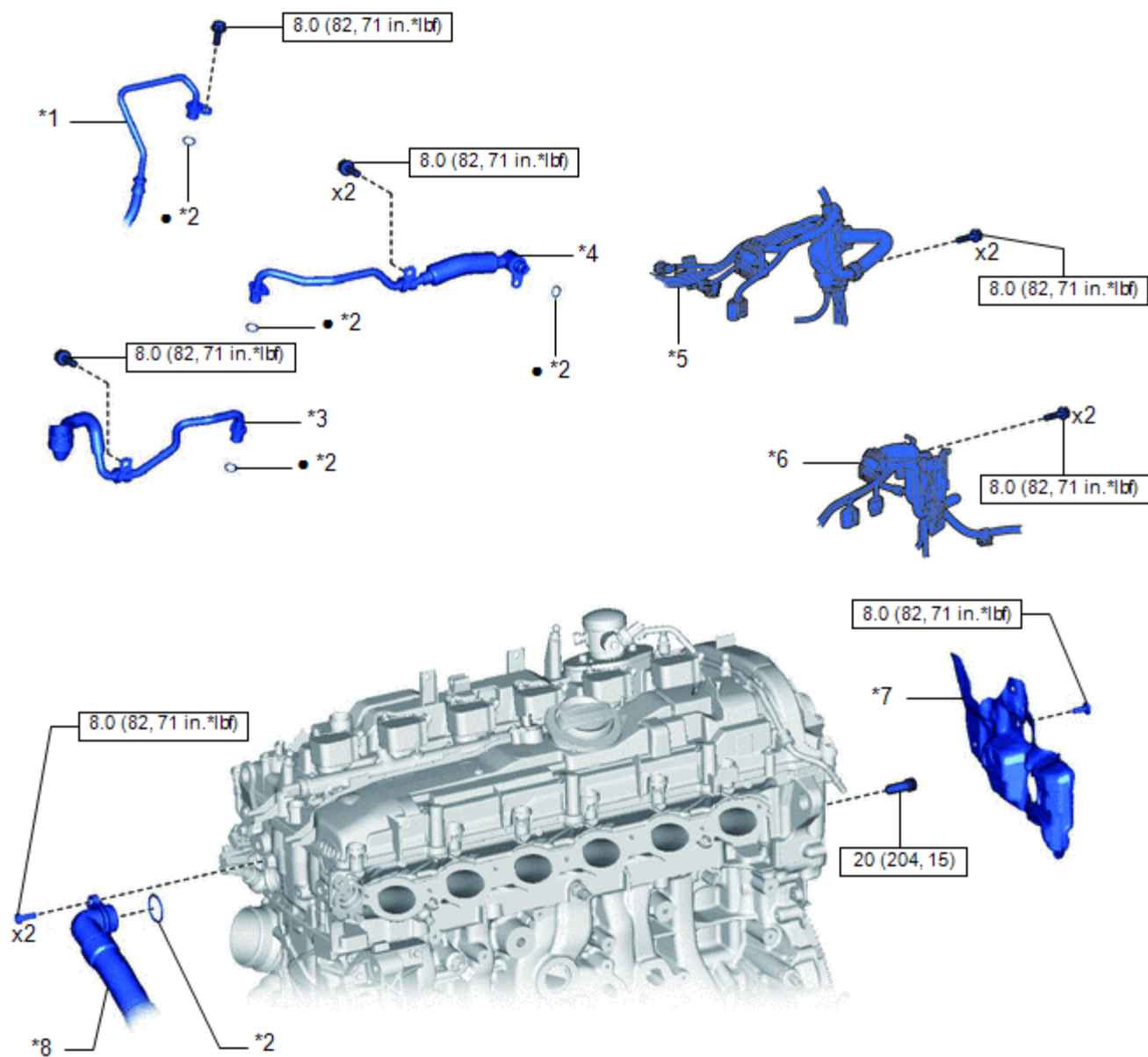
*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-
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
ILLUSTRATION



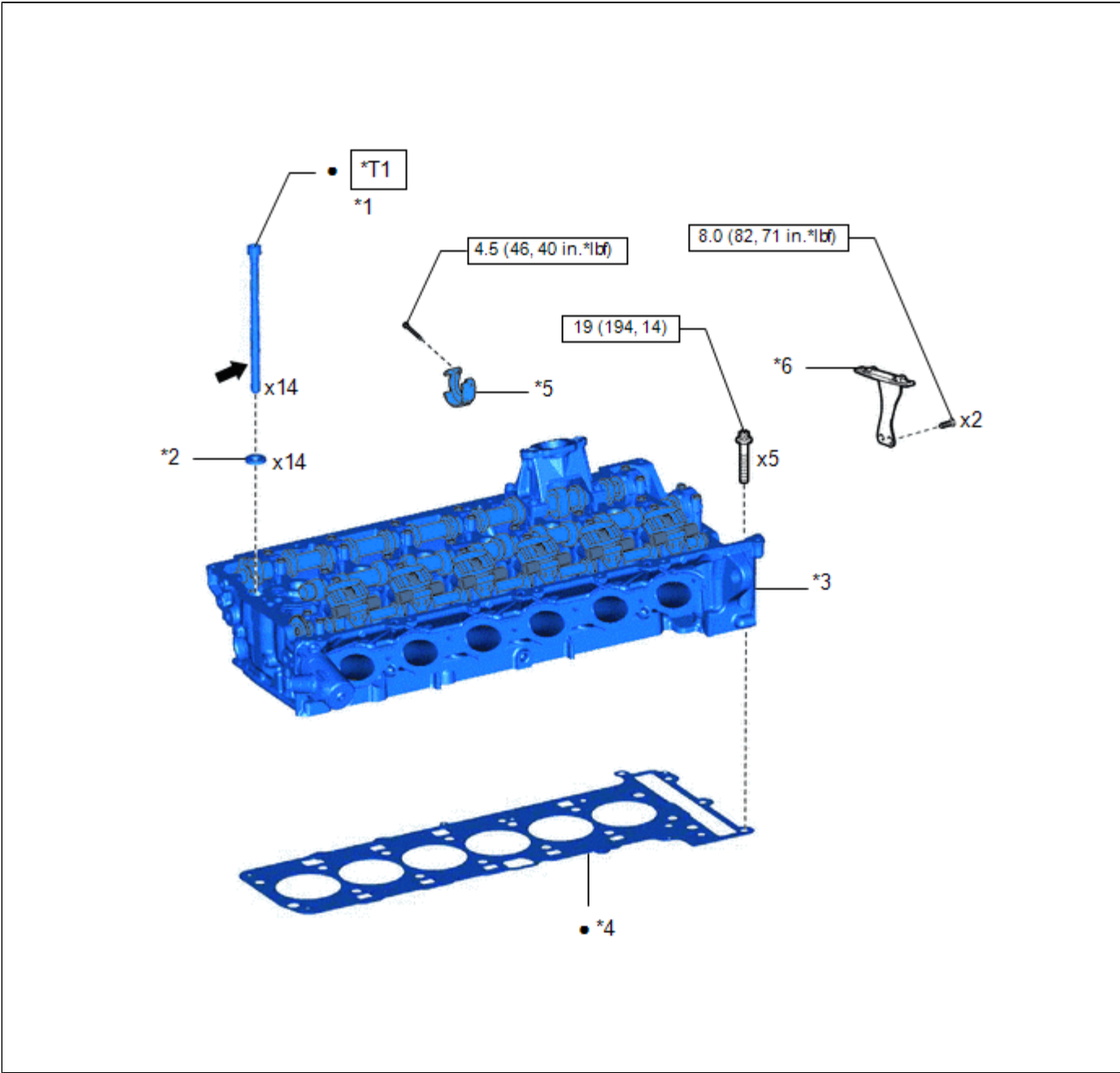
*1	OUTLET TURBO OIL PIPE	*2	TURBOCHARGER STAY
*3	O-RING	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part


ILLUSTRATION



*1	INLET TURBO OIL PIPE SUB-ASSEMBLY	*2	O-RING
*3	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY	*4	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY
*5	ENGINE WIRE	*6	TRANSMISSION WIRE
*7	NO. 4 ENGINE COVER	*8	NO. 2 WATER BY-PASS HOSE
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	CYLINDER HEAD SET BOLT	*2	CYLINDER HEAD SET PLATE WASHER
*3	CYLINDER HEAD SUB-ASSEMBLY	*4	CYLINDER HEAD GASKET
*5	CAMSHAFT SENSOR WHEEL	*6	CHAIN DAMPER GUIDE
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 30 (306, 22) 2nd: Turn 90° 3rd: Turn 180°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CYLINDER HEAD GASKET: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

2. REMOVE CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

3. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

4. DISCONNECT TIE ROD END SUB-ASSEMBLY LH

Click here [INFO](#)

5. DISCONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

6. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

7. REMOVE STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

8. REMOVE STEERING LINK ASSEMBLY

Click here [INFO](#)

9. REMOVE OUTLET TURBO OIL PIPE

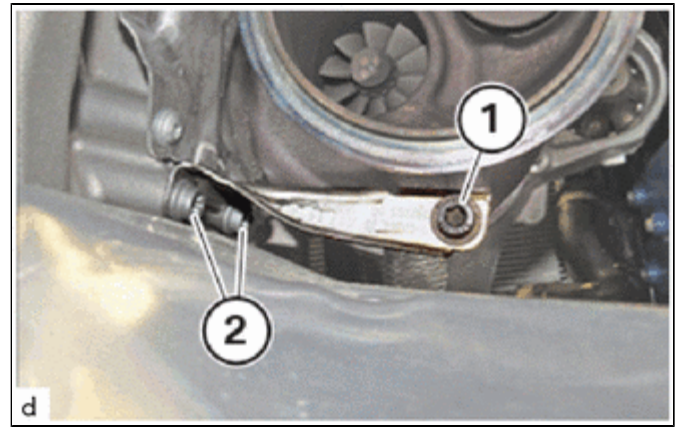
Click here [INFO](#)

10. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

11. REMOVE TURBOCHARGER STAY

(a) Loosen T40 bolt (1).



(b) Release T40 bolts (2) and remove the turbocharger stay.

12. REMOVE CYLINDER HEAD SUB-ASSEMBLY

CAUTION:

- Heavy component.

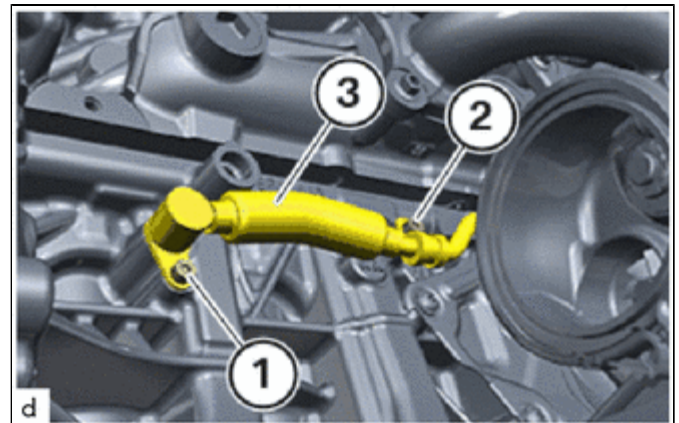
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

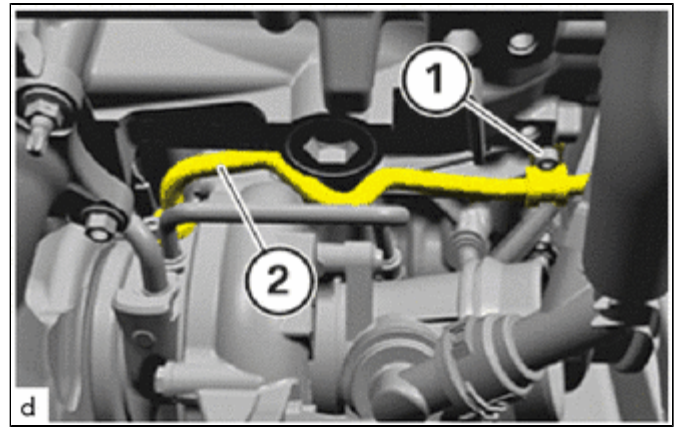
(a) Loosen T30 bolts (1) and (2).



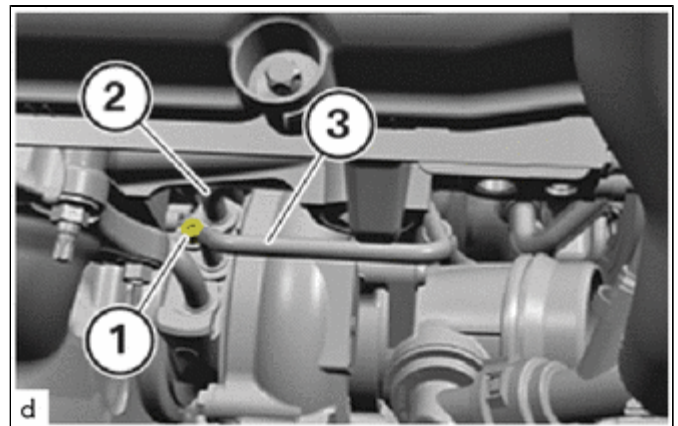
(b) Guide the No. 1 turbo water pipe sub-assembly for turbocharger sub-assembly (3) from the cylinder block sub-assembly and place it aside.

(c) Catch and dispose of escaping coolant.

(d) Release T30 bolt (1) on the holder of No. 2 turbo water pipe sub-assembly (2).



(e) Have a rag ready and catch any engine oil that may emerge.

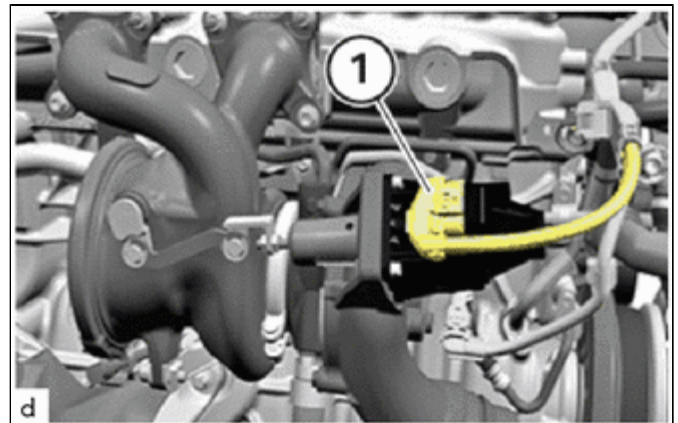


(f) Loosen T30 bolt (1).

(g) Guide out No. 2 turbo water pipe sub-assembly and No. 1 turbo water pipe sub-assembly (2) for the turbocharger sub-assembly and place it aside.

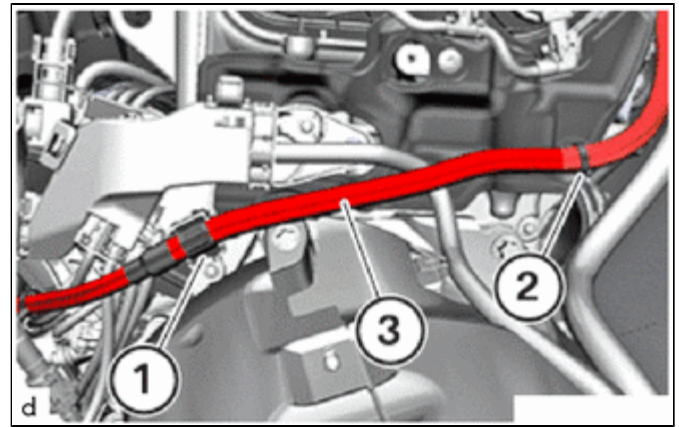
(h) Guide out turbo inlet turbo oil pipe sub-assembly (3) for the turbocharger sub-assembly and place it aside.

(i) Collect and dispose of emerging fluids.

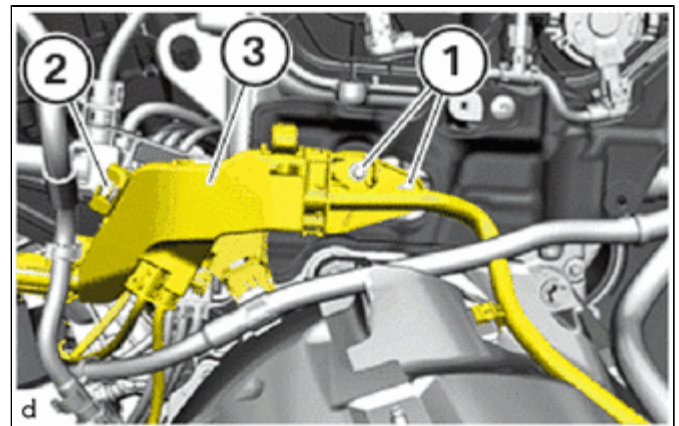


(j) Unlock plug connection (1) and disconnect.

(k) Unlock and release clamps (1) and (2).



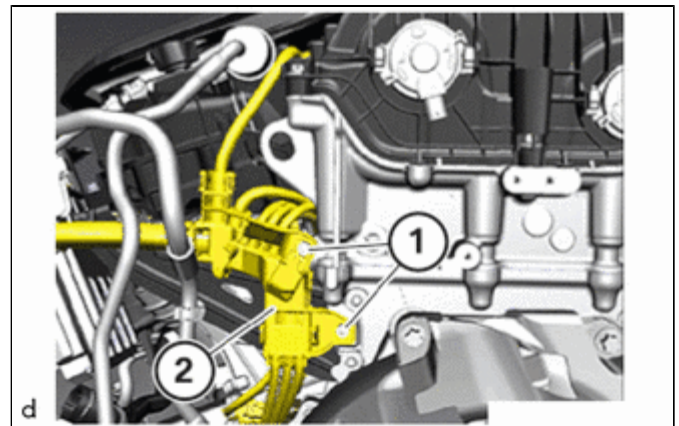
(l) Feed out alternator positive battery cable (3) and put to one side.



(m) Loosen E8 bolts (1).

(n) Unlock lock (2).

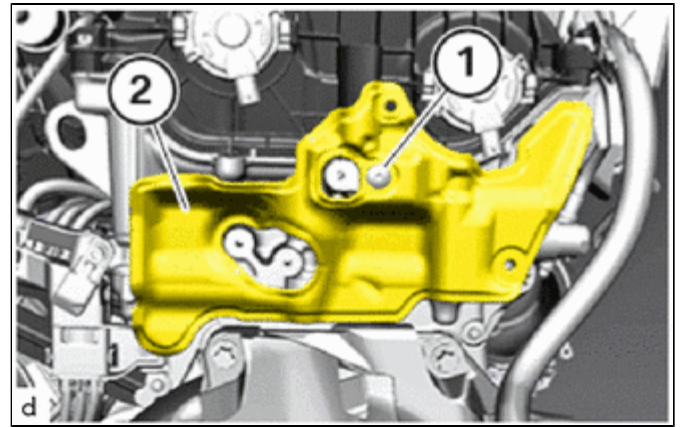
(o) Guide out transmission wire (3) and place it aside.



(p) Loosen T30 bolts (1).

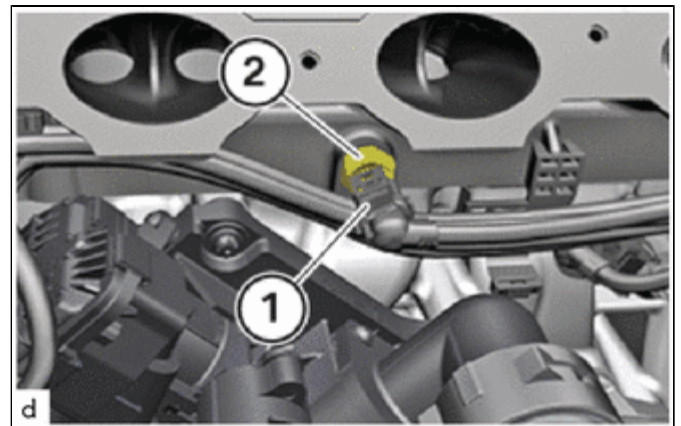
(q) Guide out the wiring harness section for engine wire (2) and place to one side.

(r) Loosen T30 bolt (1).

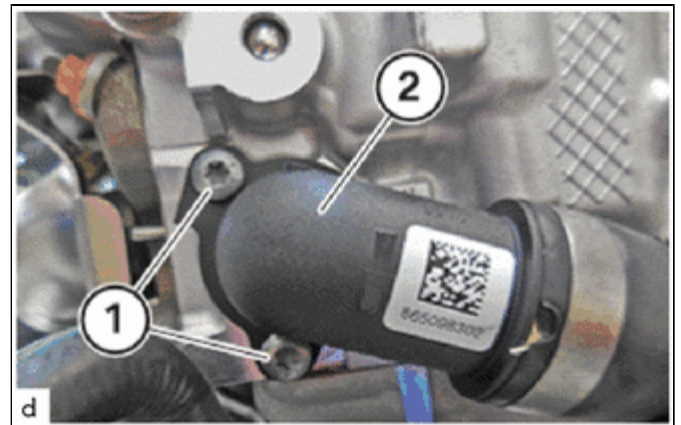


(s) Guide out and remove the No. 4 engine cover (2).

(t) Unlock and disconnect plug connection (1) on coolant temperature sensor (2).

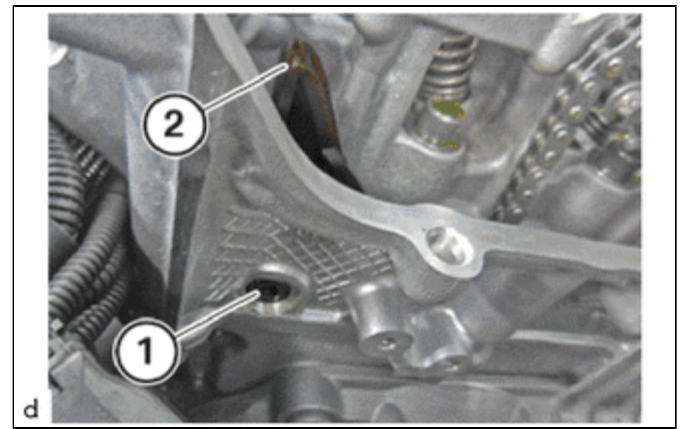


(u) Loosen T30 bolts (1).

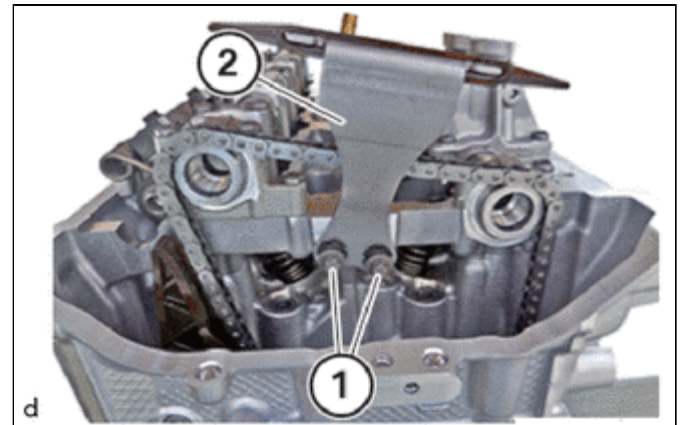


(v) Feed out No. 2 water by-pass hose (2) and place to one side.

(w) Release the T45 bearing journal (1) from the No. 1 chain vibration damper (2).



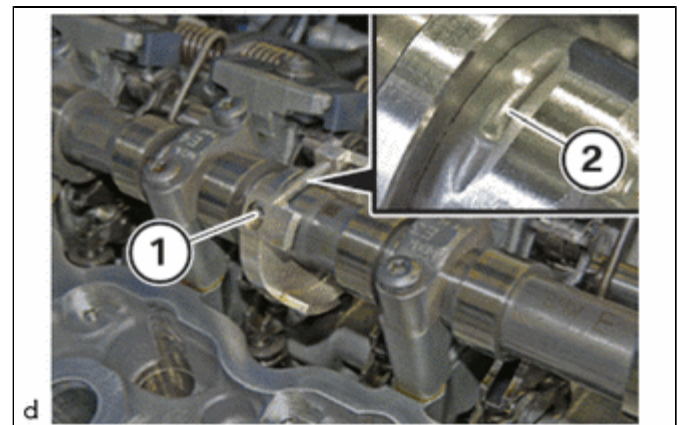
(x) Loosen E10 bolts (1).



(y) Guide out the chain damper guide (2) and remove.

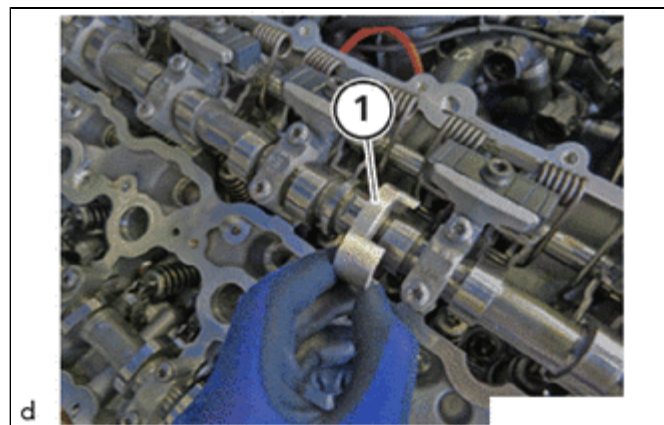
(z) Rotate intake camshaft sub-assembly, if necessary in the position shown.

(1) The recess (2) must point upwards.



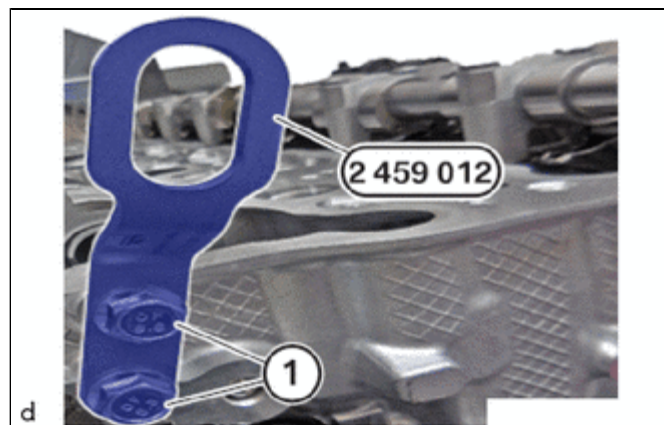
(aa) Loosen 3 mm hexagon bolt (1).

(ab) Slide camshaft sensor wheel (1) in the direction of cylinder 1 and guide it out from the intake camshaft sub-assembly.



(ac) Guide in and position special tool 2 459 012 on cylinder head sub-assembly.

SST: 09200-WA610



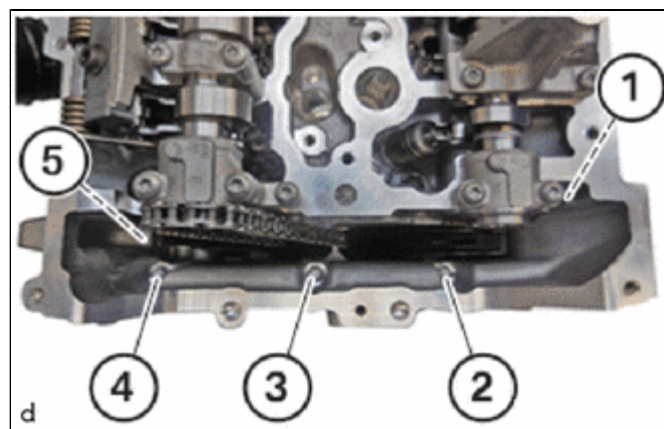
(ad) Tighten the bolts (1) of special tool 2 459 012 .

SST: 09200-WA610

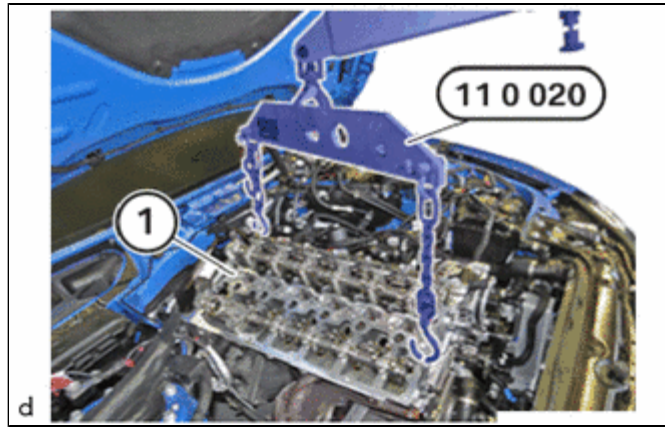
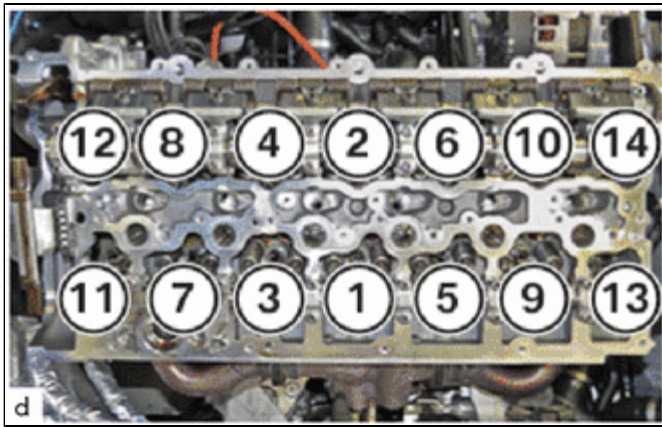
Torque:

21.5 N·m {219 kgf·cm, 16 ft·lbf}

(ae) Loosen E10 bolts (1) to (5).



(af) Undo the T60 bolts in the order (14) to (1) .



- Damage to the guide rails.

Large amounts of force may damage the guide rails of the timing chain.

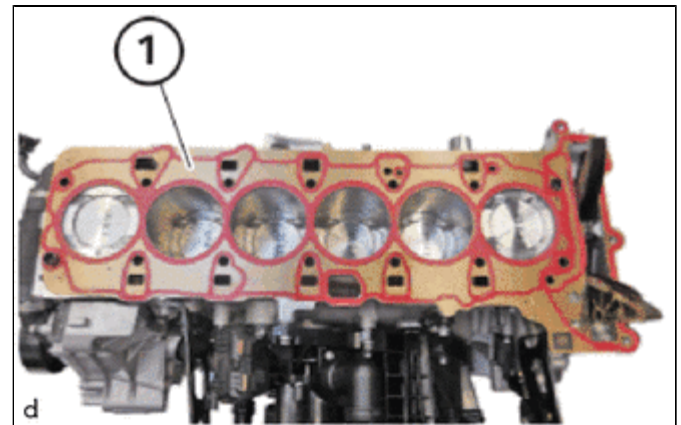
- Make sure not to damage the guide rail with the cylinder head sub-assembly when removing and installing the cylinder head sub-assembly.

(ag) Lift out cylinder head sub-assembly (1) and the turbocharger sub-assembly with an auxiliary person, the workshop crane and special tool 0 490 567 (11 0 020).

SST: 09200-WA860

13. REMOVE CYLINDER HEAD GASKET

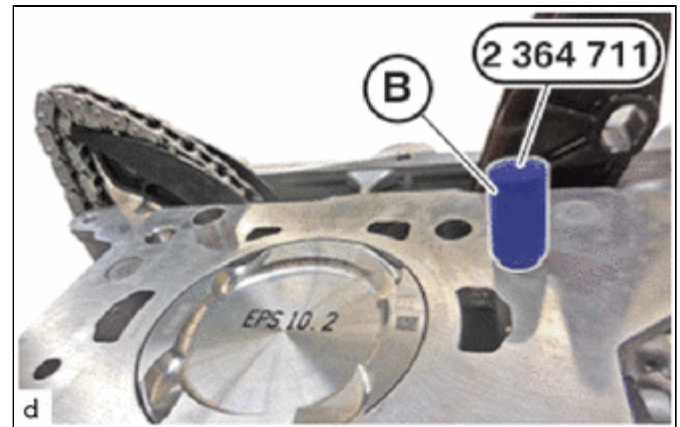
(a) Thread out and remove cylinder head gasket (1).



14. SEALING OIL DUCT

(a) Seal the oil duct using special tool (B) from the set of special tools 2 364 711 .

SST: 09200-WA530



15. CLEAN SEALING SURFACE

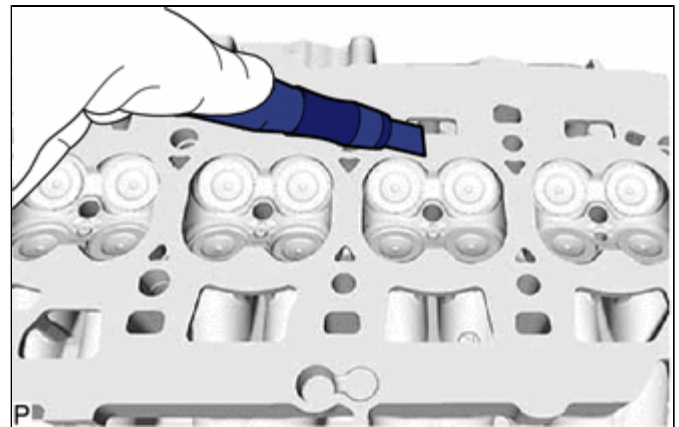
NOTICE:

- Damage to the surface.

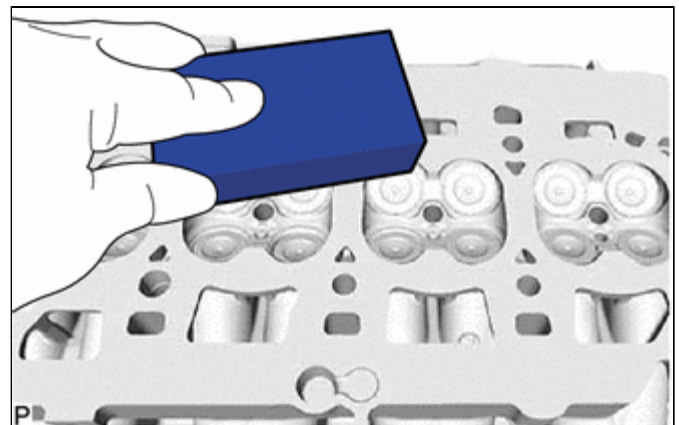
The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.

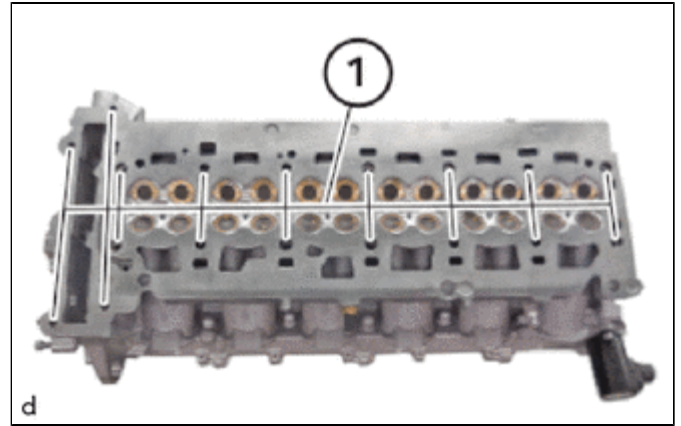
- (a) Remove coarse backlogs from the sealing surfaces of the cylinder head sub-assembly.



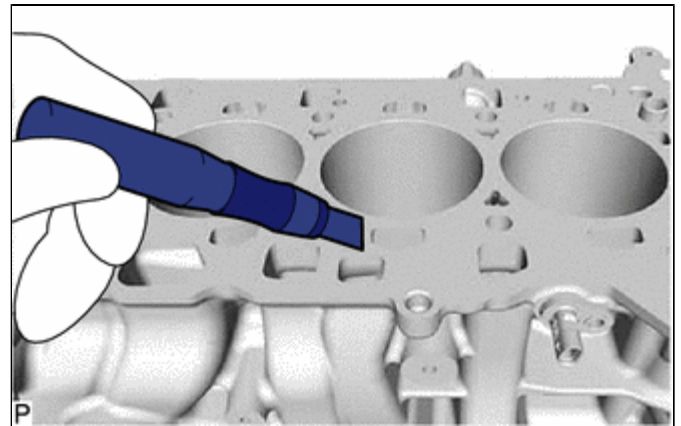
- (b) Remove fine backlogs from the sealing surfaces of the cylinder head sub-assembly.



(c) Clean all blind holes (1) of the cylinder head sub-assembly.



(d) Remove coarse backlogs from the sealing surfaces of the cylinder block sub-assembly.



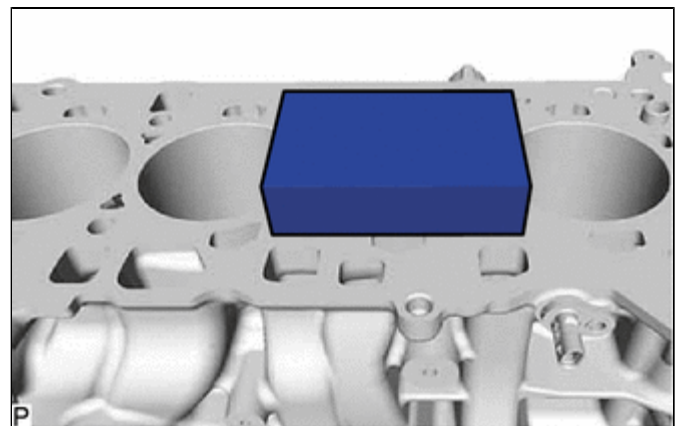
(e) Remove fine backlogs from the sealing surfaces of the cylinder block sub-assembly.

CAUTION:

- Swirling dirt particles caused by compressed air.

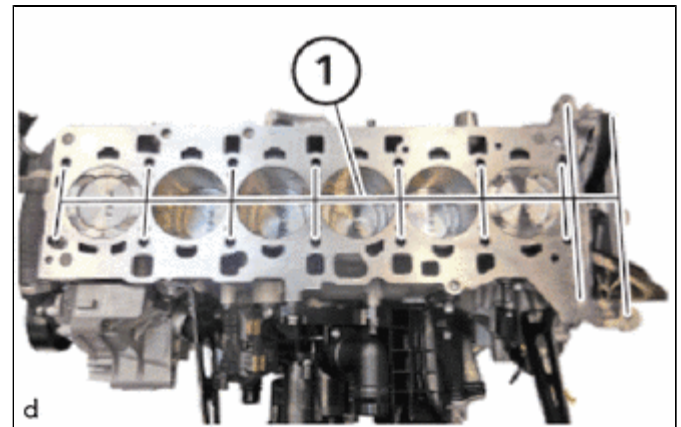
Danger of injury!

- Collect dirt particles, e.g. when blowing out, use cloth to do so.
- Wear safety goggles.



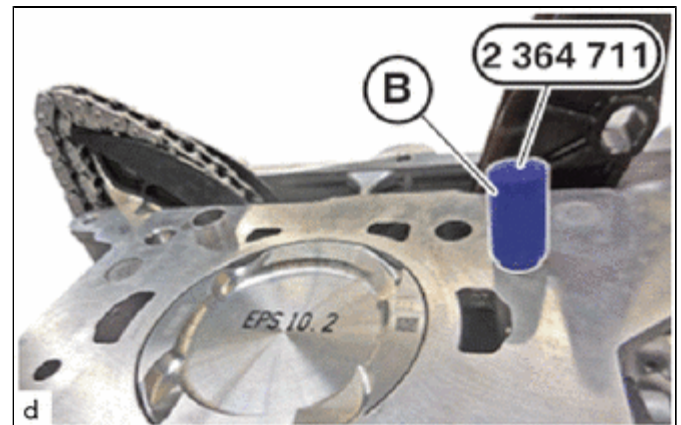
(f) Clean all threaded holes (1) of the cylinder block sub-

assembly with compressed air.



(g) Remove special tool (B) contained in the set of special tools 2 364 711 .

SST: 09200-WA530



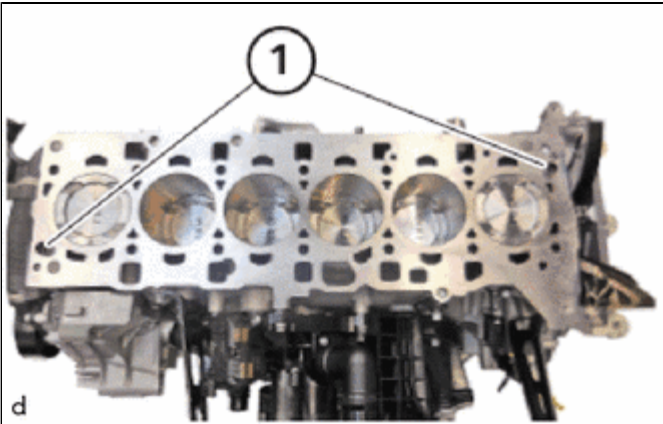
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): CYLINDER HEAD GASKET: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

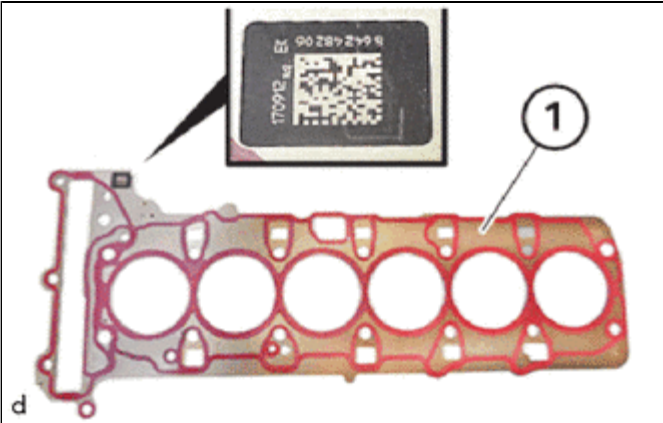
PROCEDURE

1. INSTALL CYLINDER HEAD GASKET

(a) Check the ring pins (1) for damage and replace if necessary.



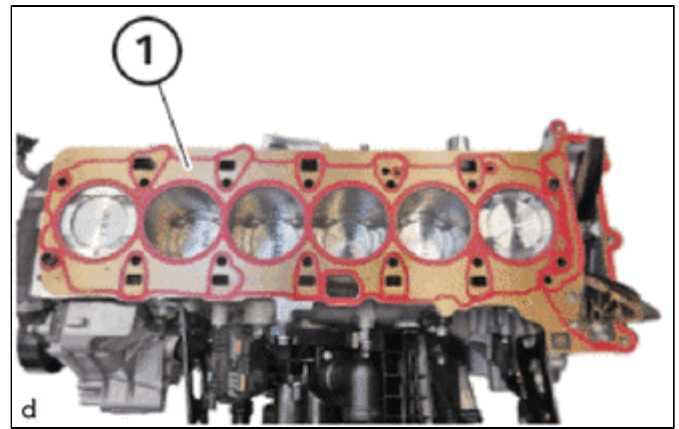
(b) Replace cylinder head gasket (1).



(c) Check cylinder head gasket (1) using the part number.

(1) If the cylinder head sub-assembly is reworked, an additional thicker 0.3 mm cylinder head gasket is available for service personnel.

(d) Guide in the cylinder head gasket (1) and install.



2. INSTALL CYLINDER HEAD SUB-ASSEMBLY

CAUTION:

- Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

NOTICE:

- Damage to threads.

Fluid in the threaded hole may damage the thread when bolts are tightened in the threads.

- Dry threaded holes (e.g. using compressed air).

HINT:

- Do not remove bolt coating.
- When replacing the cylinder head sub-assembly: The complete valve control and the Valvetronic servomotor are already pre-assembled for new cylinder head sub-assembly.

- (a) Feed in, position and install cylinder head sub-assembly (1) and turbocharger sub-assembly with the help of an auxiliary person and the special tool 0 490 567 (11 0 020).

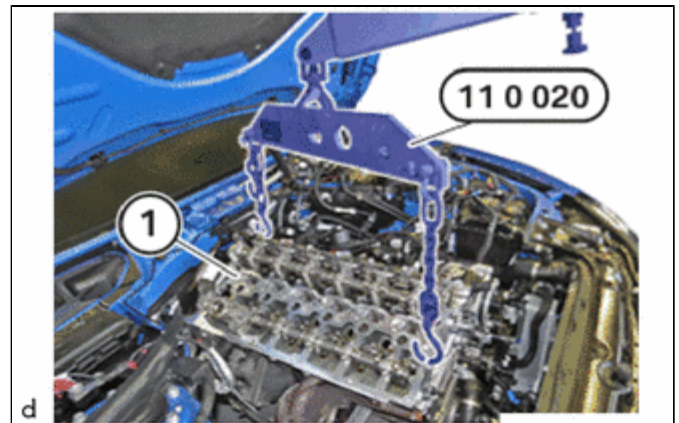
SST: 09200-WA860

NOTICE:

- Damage to the guide rails.

Large amounts of force may damage the guide rails of the timing chain.

- Make sure not to damage the guide rail with the cylinder head sub-assembly when removing and installing the cylinder head sub-assembly.



- (b) Replace cylinder head T60 bolts (1) to (14).

- (c) Do not wash off coating of cylinder head T60 bolts.

- (d) Lightly oil contact surfaces of cylinder head T60 bolts screw heads.

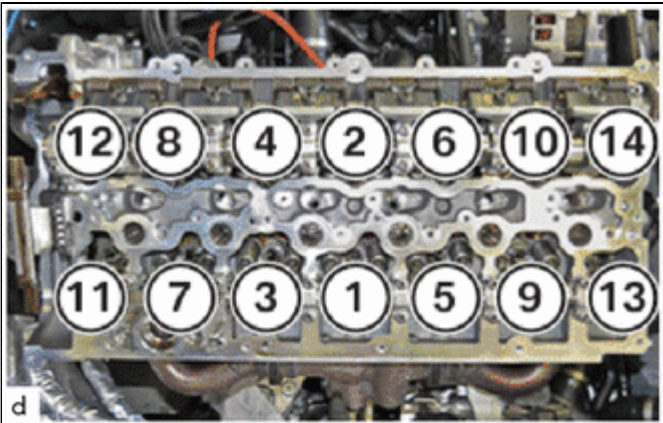
- (1) No coolant, water or engine oil must be present in threaded holes of engine block.

HINT:

When assembling, it is essential to observe bolting sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.

(e) Feed in cylinder head T60 bolts (1) to (14) and install.



(f) Bolt in cylinder head T60 bolts in sequence (1) to (14).

(g) Tighten the cylinder head T60 bolts using the special tool 0 490 504 (00 9 120) in the sequence (1) to (14).

SST: 09900-WA010

Torque:

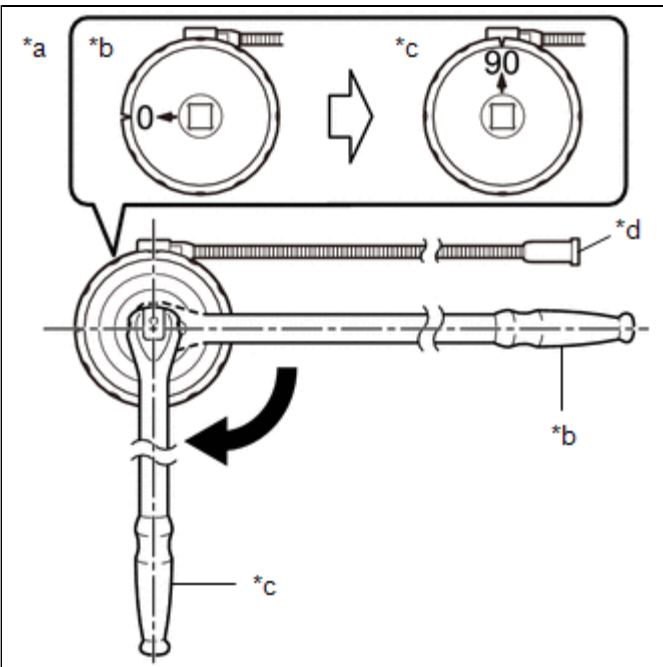
30 N·m {306 kgf·cm, 22 ft·lbf}

(h) Using SST, tighten the T60 bolts (1) to (14) an additional 90°.

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



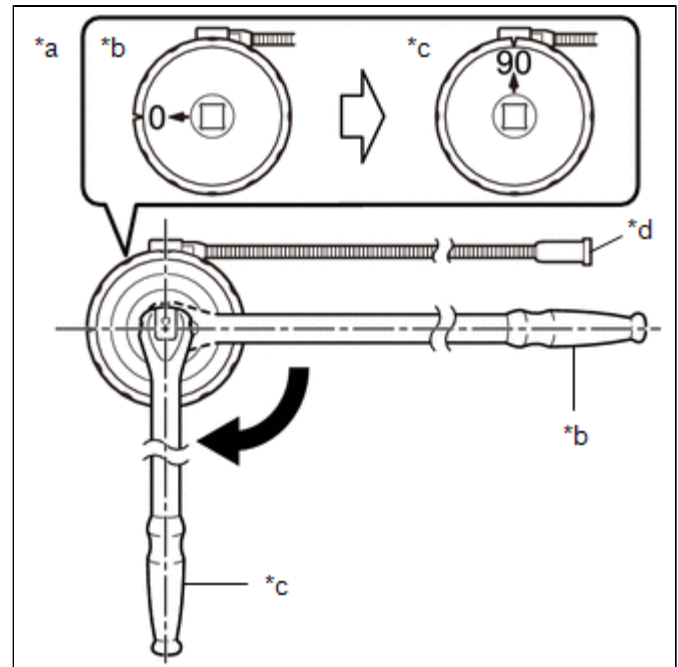
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- (i) Using SST, tighten the T60 bolts (1) to (14) an additional 180°.

SST: 09900-WA010

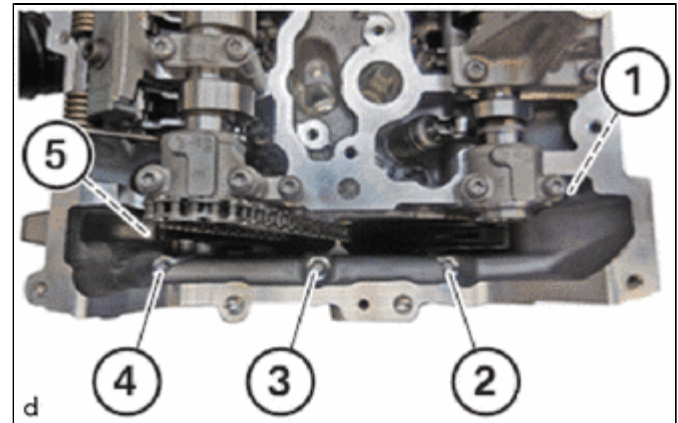
HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- (j) Replace cylinder head E10 bolts (1) to (5).



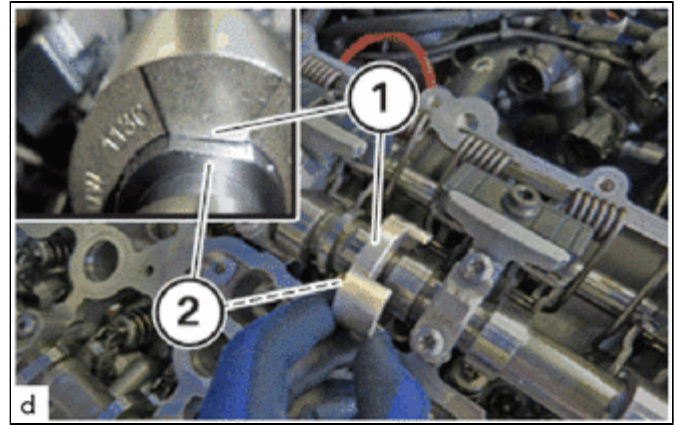
- (k) Make sure that there is no coolant, water or engine oil in the threaded holes of the timing case cover.

- (l) Tighten the E10 bolts (1) to (5).

Torque:

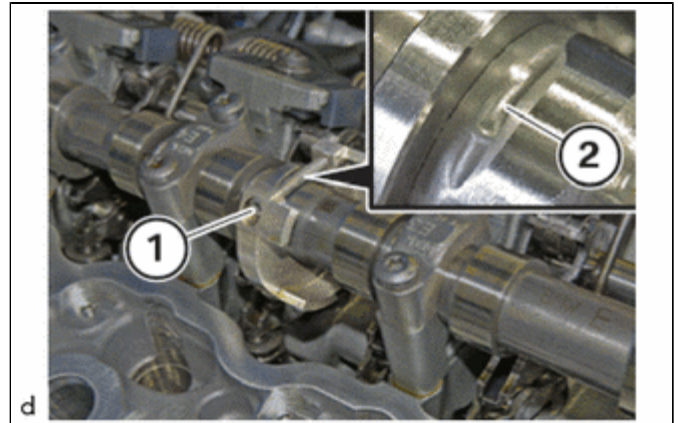
19 N·m {194 kgf·cm, 14 ft·lbf}

(m) Feed in and position camshaft sensor wheel (1) on the intake camshaft sub-assembly (2).



(n) Rotate intake camshaft sub-assembly, if necessary in the position shown.

(1) The recess (2) must point upwards.

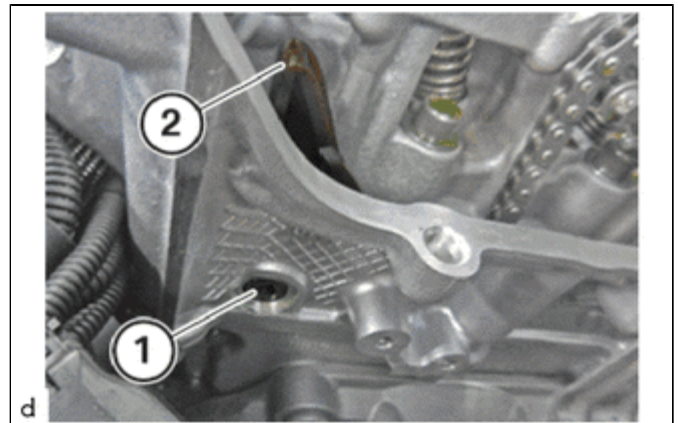


(o) Using 3 mm hexagon wrench, Tighten down bolt (1).

Torque:

4.5 N·m {46 kgf·cm, 40 in·lbf}

(p) Feed in and install T45 bearing journal (1) on the No. 1 chain vibration damper (2).

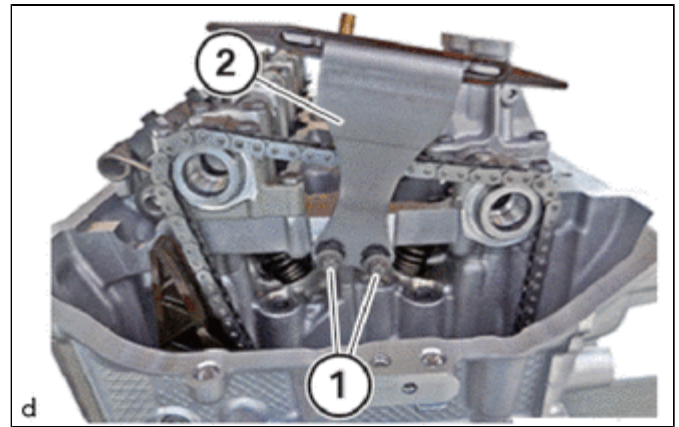


(q) Tighten the bearing journals (1).

Torque:

20 N·m {204 kgf·cm, 15 ft·lbf}

(r) Insert chain damper guide (2) and install.

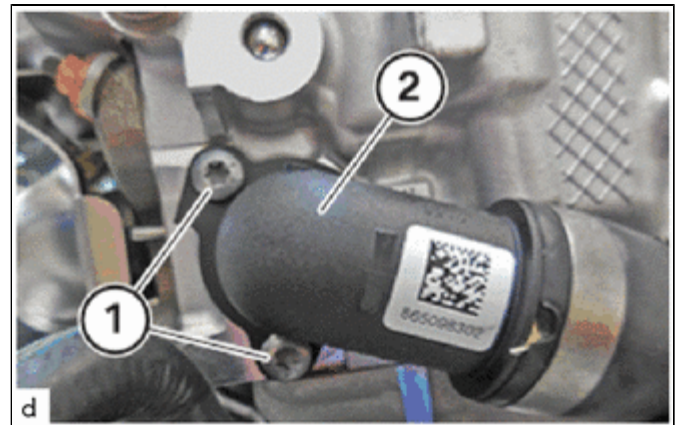


(s) Tighten the E10 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(t) Replace the sealing ring at the No. 2 water by-pass hose (2).



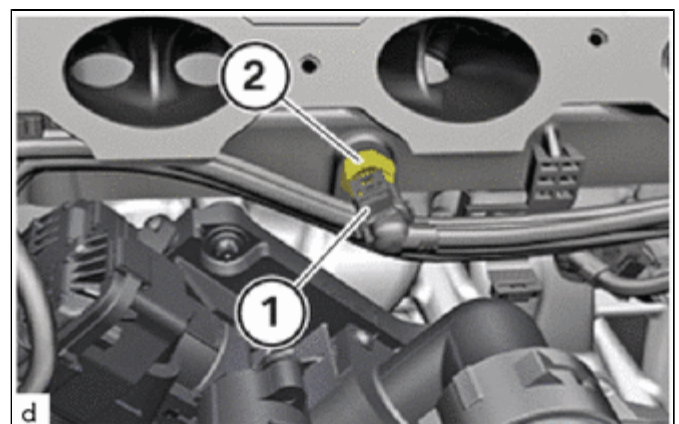
(u) Feed in and install No. 2 water by-pass hose (2).

(v) Tighten the T30 bolts (1).

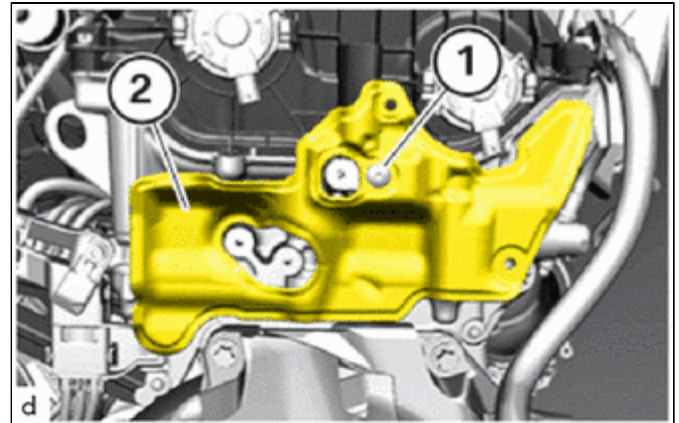
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(w) Connect connector (1) to the coolant temperature sensor (2) and lock.



(x) Make sure that the connector (1) engages audibly on the coolant temperature sensor (2).



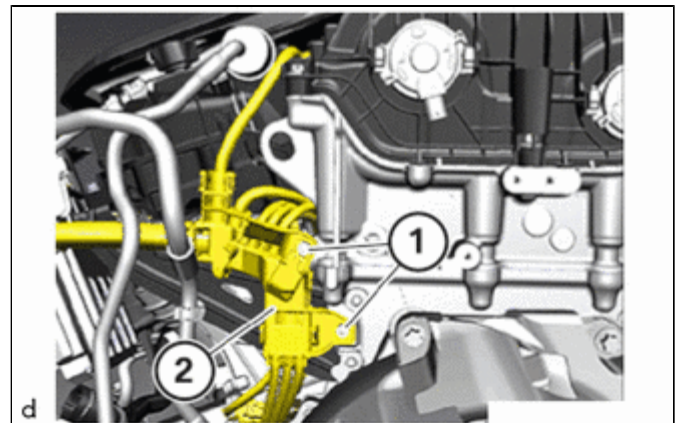
(y) Guide in and install No. 4 engine cover (2).

(z) Tighten the T30 bolt (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(aa) Insert and position the wiring harness section for the engine wire (2).



(ab) Tighten the T30 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

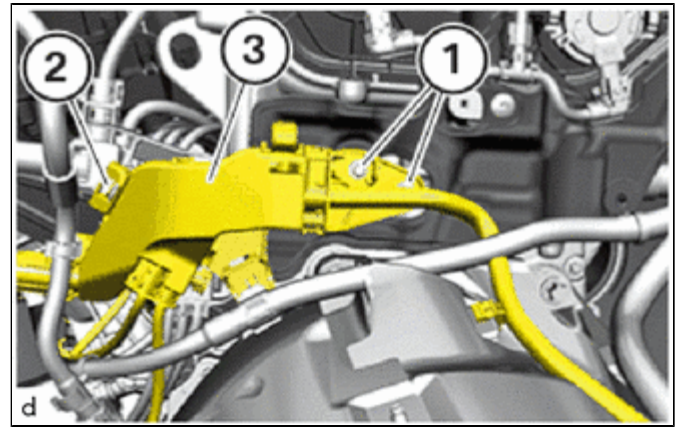
NOTICE:

- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(ac) Feed in and position transmission wire (3).



(ad) Ensure that the lock (2) engages audibly.

(ae) Tighten the E8 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

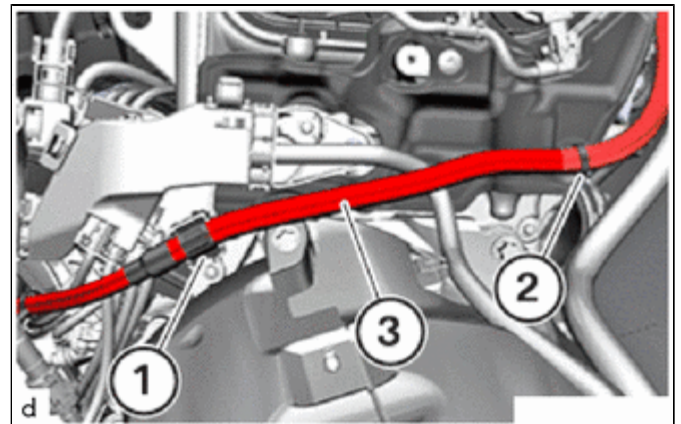
NOTICE:

- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(af) Insert and install the alternator positive battery cable (3).



(ag) Secure clamps (1) and (2).

CAUTION:

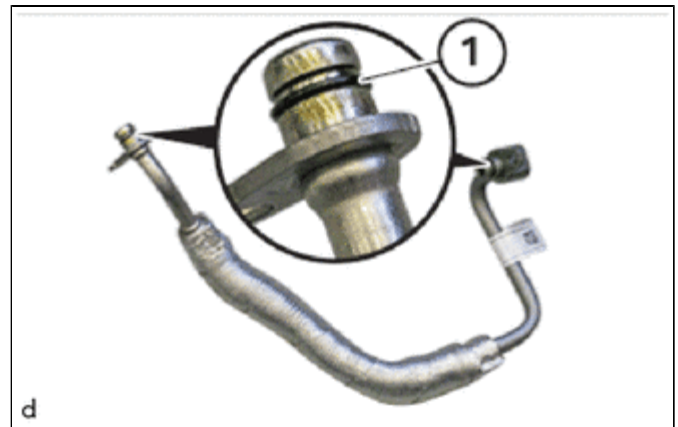
- Improper routing of cables and wiring harnesses.

Risk of short circuits!

- Route the alternator wire without abrasions and do not trap.

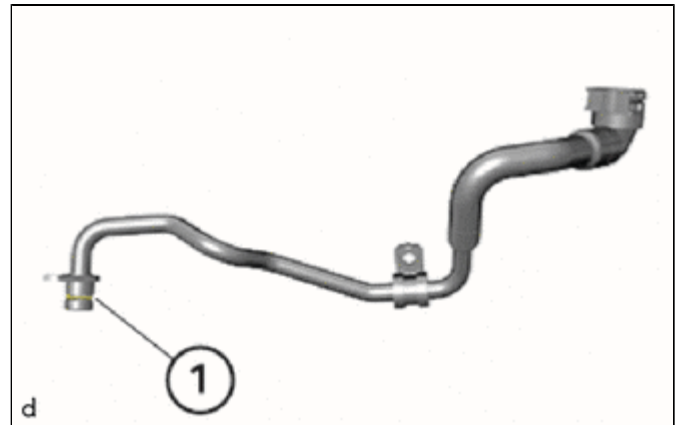
(ah) Replace the O-rings (1) using special tool 0 496 714 (00 9 030).

SST: 09800-WA010

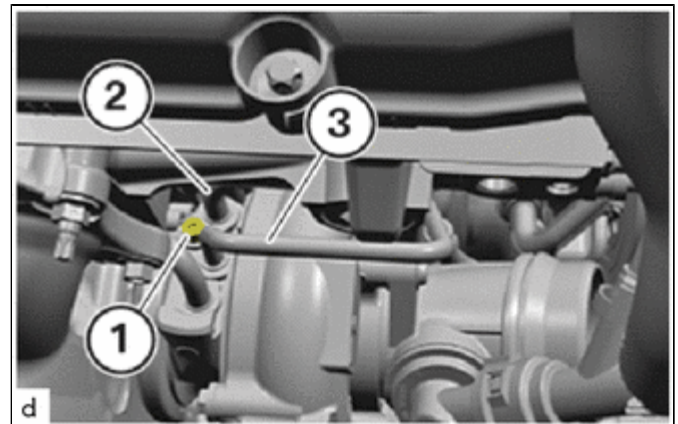


(ai) Replace the O-ring (1) using special tool 0 496 714 (00 9 030).

SST: 09800-WA010



(aj) Feed in and install the inlet turbo oil pipe sub-assembly (3) for the turbocharger sub-assembly.



(ak) Insert and install the No. 2 turbo water pipe sub-assembly (2) for the turbocharger sub-assembly.

(al) Tighten down T30 bolt (1).

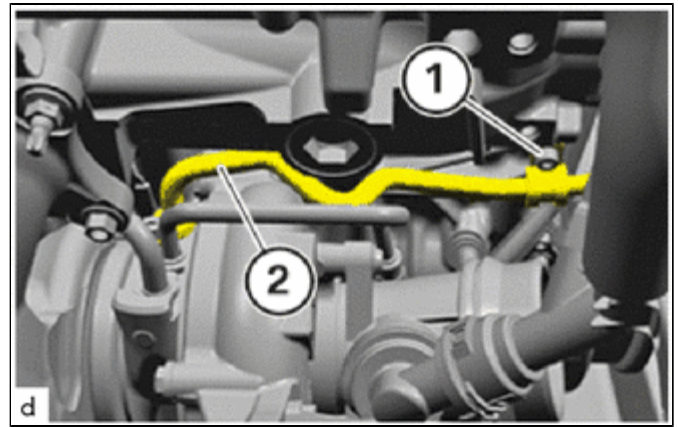
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(am) Tighten the T30 bolt (1) on the holder of the No. 2 turbo water pipe sub-assembly (2).

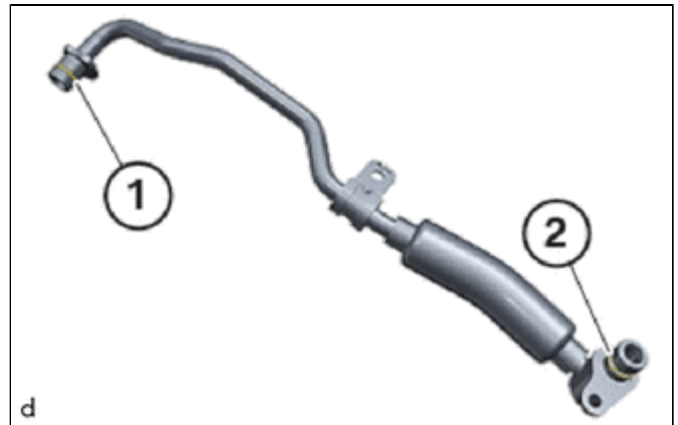
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



(an) Replace O-rings (1) and (2) with the special tool 0 496 714 (00 9 030).

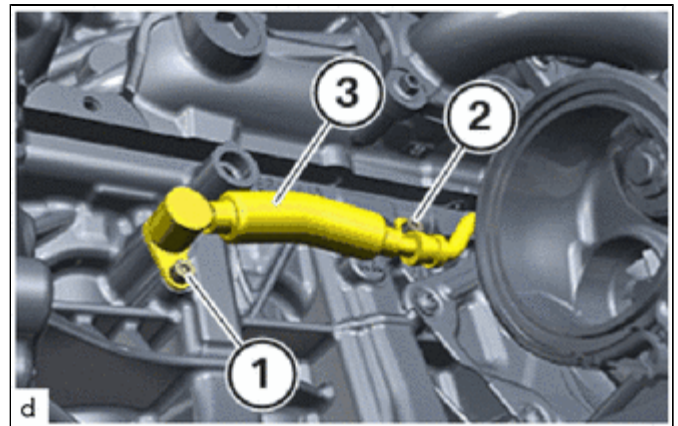
SST: 09800-WA010



(ao) Install the No. 1 turbo water pipe sub-assembly for the turbocharger sub-assembly (3) in the cylinder block sub-assembly and tighten the T30 bolt (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

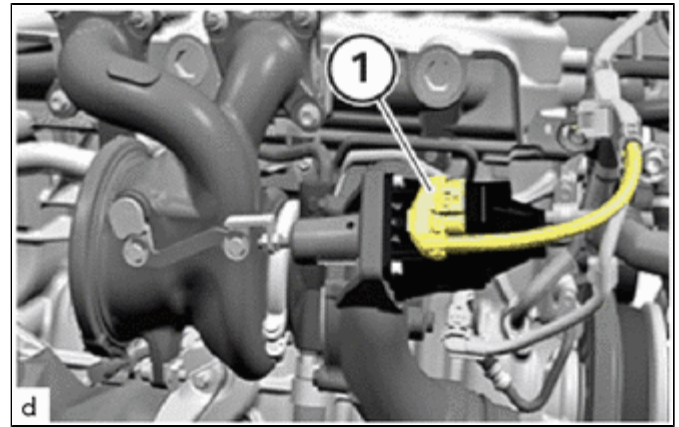


(ap) Tighten down T30 bolt (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

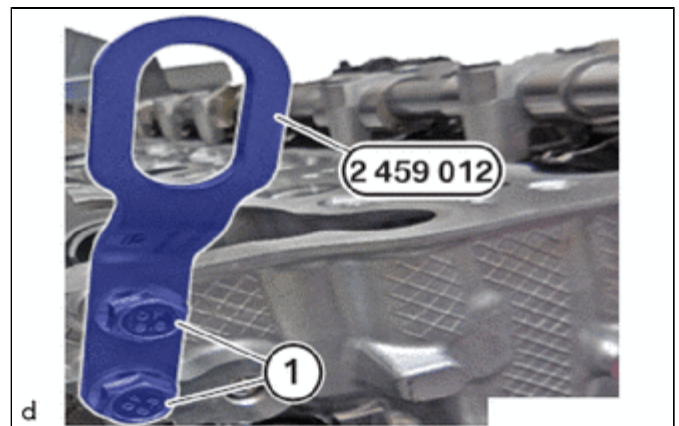
(aq) Connect connectors (1) and lock.



(ar) Make sure the connector (1) engages audibly.

(as) Unscrew the bolts (1) of the special tool 2 459 012 .

SST: 09200-WA610

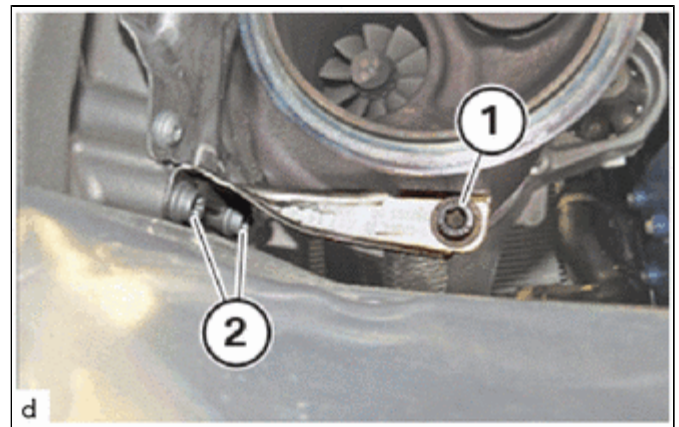


(at) Feed out the special tool 2 459 012 at the cylinder head sub-assembly and remove.

SST: 09200-WA610

3. INSTALL TURBOCHARGER STAY

(a) Replace the T40 bolts.



(b) Position support and tighten with the T40 bolts (2).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(c) Replace the T40 bolt.

(d) Tighten down bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

4. INSTALL OUTLET TURBO OIL PIPE

Click here [INFO](#)

5. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

6. INSTALL STEERING LINK ASSEMBLY

Click here [INFO](#)

7. INSTALL STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

8. CONNECT TIE ROD END SUB-ASSEMBLY LH

Click here [INFO](#)

9. CONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

10. INSTALL WHEEL ASSEMBLY

Click here [INFO](#)

11. INSTALL CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

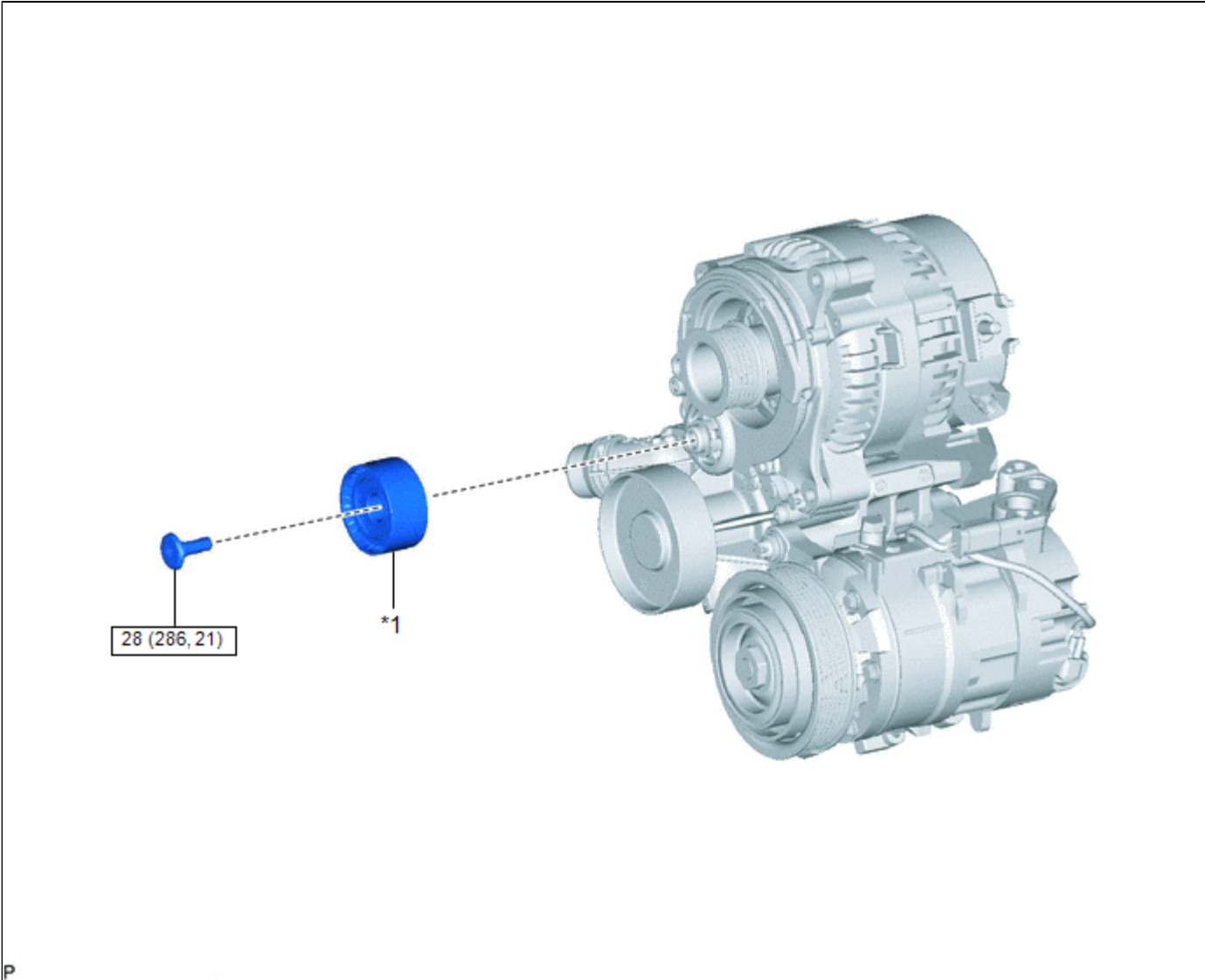
12. INSTALL CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): DEFLECTING ELEMENT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



P

*1	DEFLECTING ELEMENT	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): DEFLECTING ELEMENT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

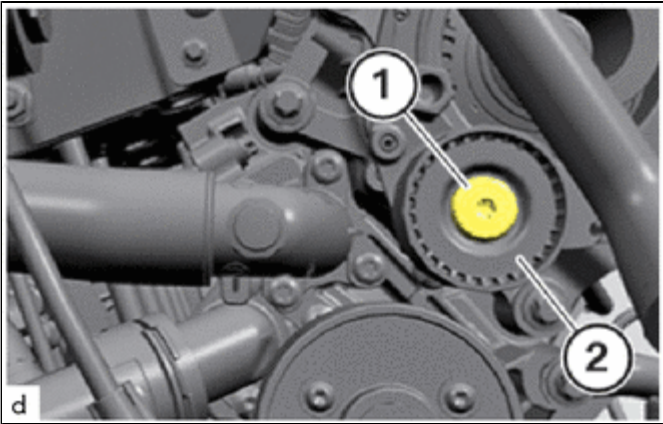
PROCEDURE

1. REMOVE FAN AND GENERATOR V BELT

Click here [INFO](#)

2. REMOVE DEFLECTING ELEMENT

(a) Loosen T40 bolt (1).



(b) Remove the deflecting element (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): DEFLECTING ELEMENT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL DEFLECTING ELEMENT

- (a) Position the deflecting element.
- (b) Tighten down T40 bolt.

Torque:
28 N·m {286 kgf·cm, 21 ft·lbf}

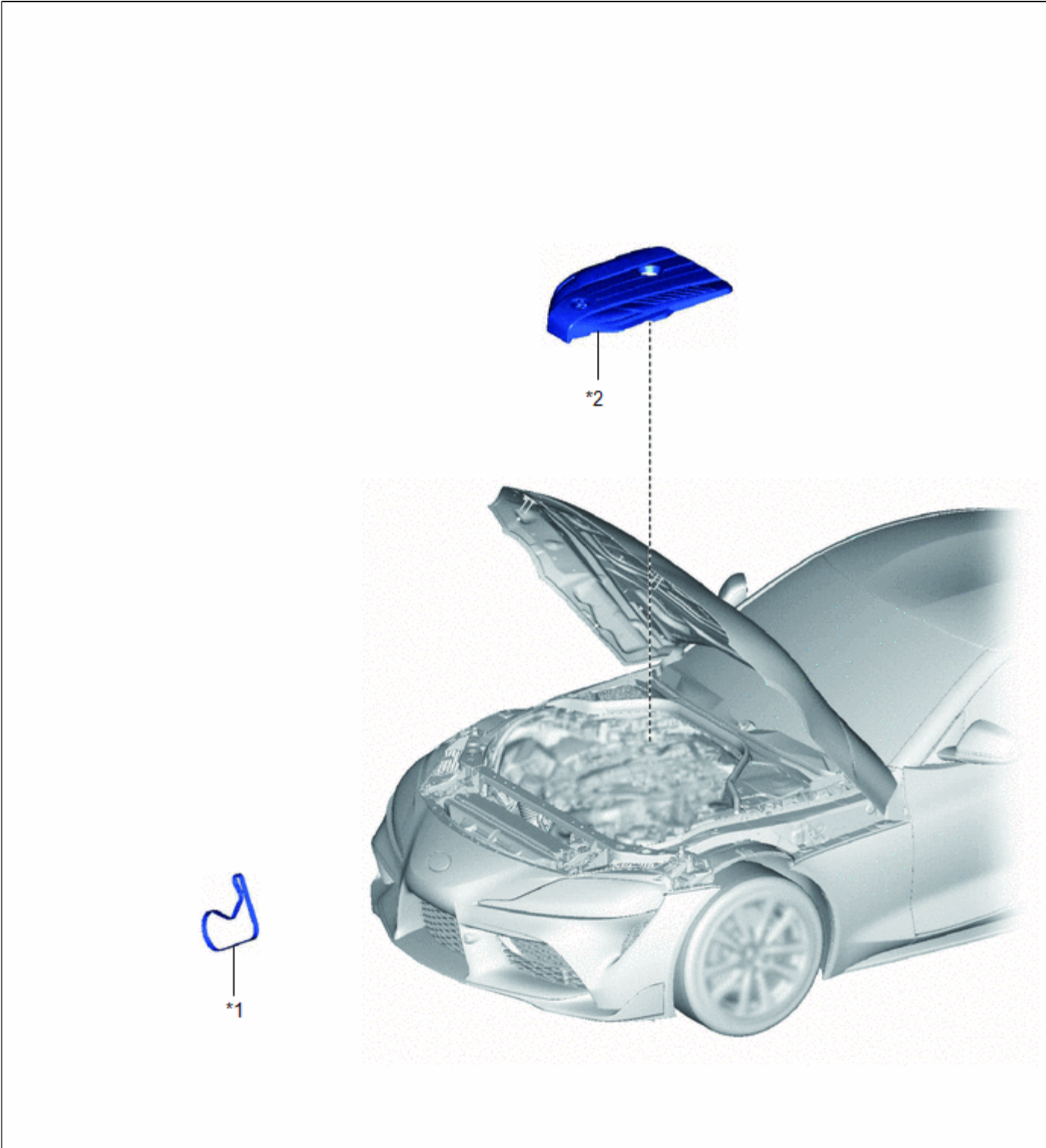
2. INSTALL FAN AND GENERATOR V BELT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDEZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): DRIVE BELT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FAN AND GENERATOR V BELT	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
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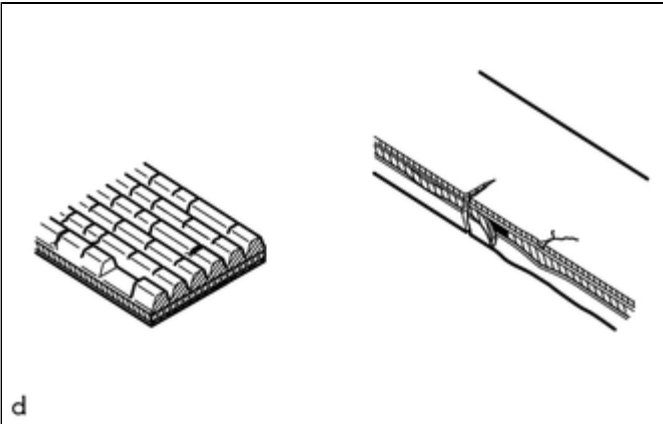
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): DRIVE BELT: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

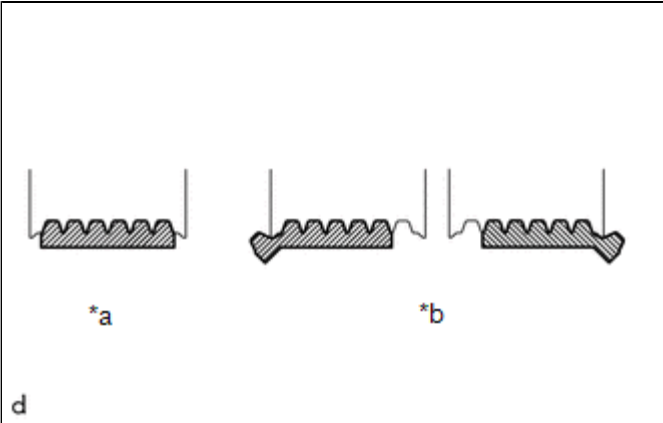
PROCEDURE

1. INSPECT FAN AND GENERATOR V BELT

- (a) Check the fan and generator V belt for wear, cracks or other signs of damage.
- If any of the following defects is found, replace the fan and generator V belt.
- The fan and generator V belt is cracked.
 - The fan and generator V belt is worn out to the extent that the cords are exposed.
 - The fan and generator V belt has chunks missing from the ribs.



- (b) Check that the fan and generator V belt fits properly in the ribbed grooves.
- HINT:**
- Check with your hand to confirm that the fan and generator V belt has not slipped out of the grooves on the bottom of the pulley. If it has slipped out, replace the fan and generator V belt. Install a new fan and generator V belt correctly.



*a	Correct
*b	Incorrect

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): DRIVE BELT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): DRIVE BELT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDEX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

PROCEDURE

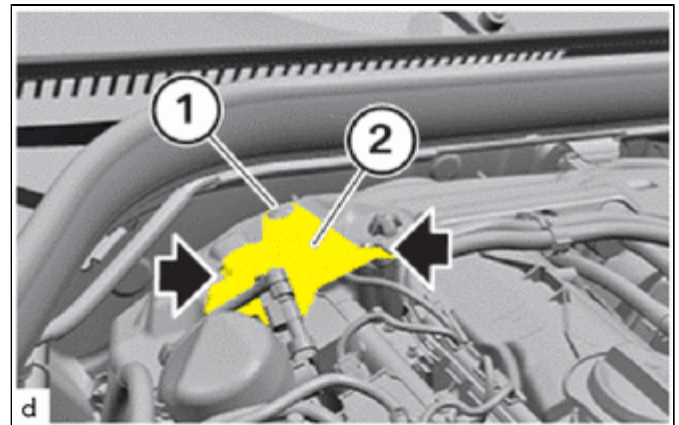
1. INSPECT COMPRESSION

(a) Remove No. 1 engine cover sub-assembly.

Click here [INFO](#)

(b) Remove No. 1 engine cover.

(1) Detach the service opening (2) in the marked areas (arrows) and twist it to the side at the pivot point (1).



(c) Remove ignition coil assembly.

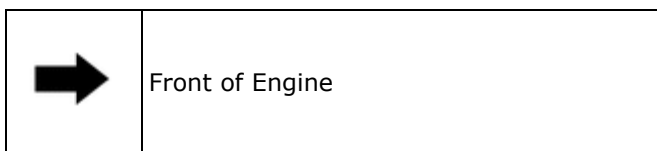
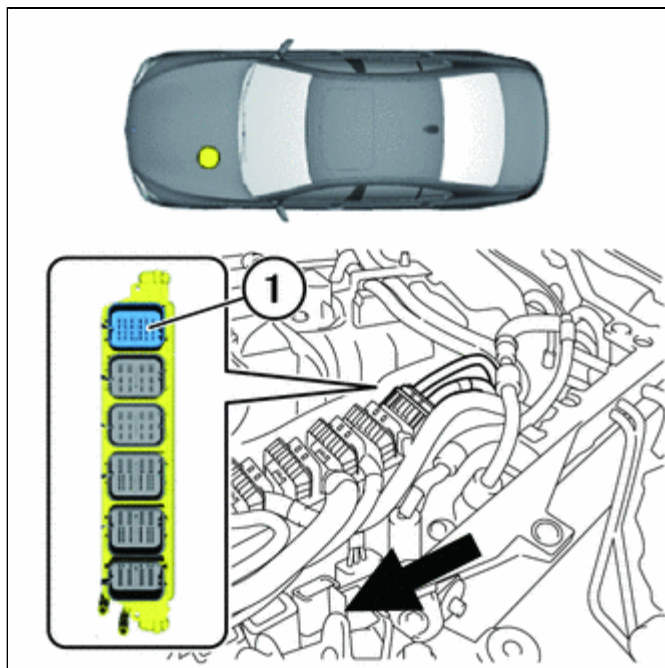
Click here [INFO](#)

(d) Remove spark plug.

Click here [INFO](#)

(e) Disconnect plug connection (1).

(1) Unlock and disconnect plug connection (1) from the ECM.



(f) Check compression of all cylinders.

(1) Desired state

- Compression pressures of the cylinders are above the minimum compression pressure. Compression pressure difference between two cylinders in comparison is below the limit.

Minimum Standard Compression Pressure:

900 kPa (9.2 kgf/cm², 131 psi)

Maximum Pressure Difference between Each Cylinder:

250 kPa (2.5 kgf/cm², 36 psi)



(2) Compression pressures of the cylinders are below the minimum compression pressure.

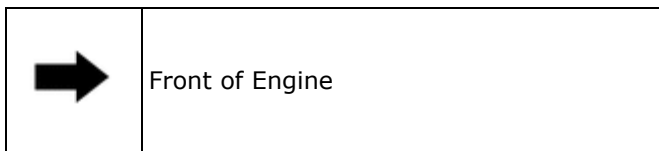
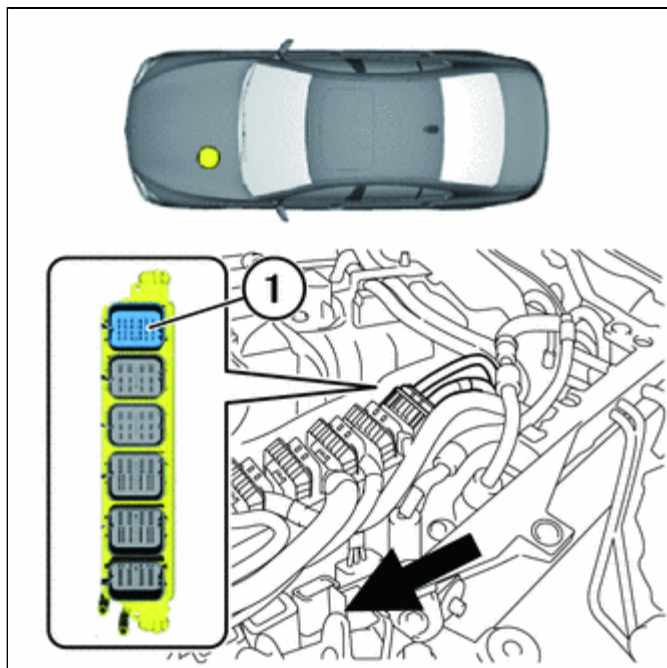
(3) Compression pressure difference between two cylinders in comparison is above the limit.

(4) Check the engine mechanics for damage.

(5) Remove compression gauge.

(g) Connect connector (1).

(1) Connect connector A46*6B to the ECM and lock.



(2) Make sure the connector engages audibly.

(h) Install spark plug.

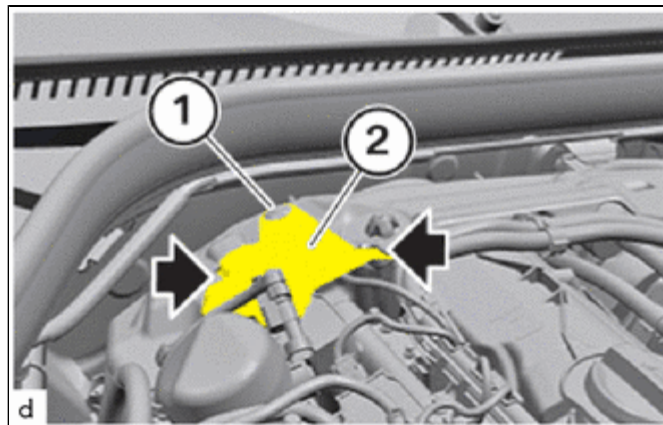
Click here [INFO](#)

(i) Install ignition coil assembly.

Click here [INFO](#)

(j) Install No. 1 engine cover.

(1) Turn the rear cylinder block cover (2) at the pivot point (1) to the installation position and guide it in where marked (arrows).



(k) Install No. 1 engine cover sub-assembly.

Click here [INFO](#)

2. INSPECT INTERNAL ENGINE PRESSURE

(a) Check engine oil level.

Click here [INFO](#)

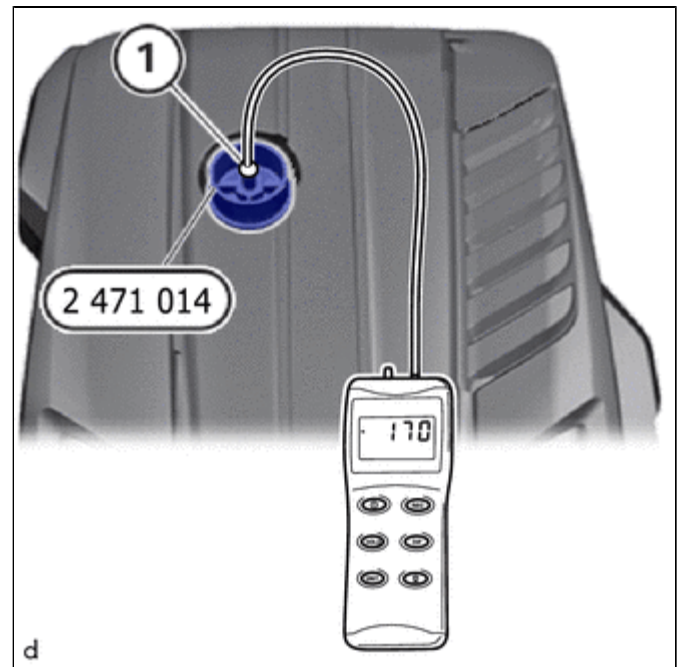
(b) Remove the oil filler cap assembly.

Click here [INFO](#)

(c) Checking the internal engine pressure.

(1) Insert special tool 2 471 014 into opening of oil filler neck and apply hand-tighten.

SST: 09200-WA960



(2) Connect the connecting hose to the connection (1) on the special tool 2 471 014.

SST: 09200-WA960

Testing equipment:

Connecting hose
Diameter = 8 x 13 mm, length = 70 mm

(3) Connect connecting hose using an appropriate pressure measuring device.

(4) Start engine and run at idle speed.

(5) Connect diagnosis system.

(6) Measuring the internal engine pressure.

(7) Enter measured values manually in the diagnostic system.

(8) Observe diagnosis instructions.

(d) Deviation between measured value and ambient pressure.

(e) Determine possible cause using table and rectify.

Deviation	Possible cause	Solution
Measured value < ambient pressure	Pressure control valve faulty	Replace the pressure control valve
Measured value > ambient pressure	Engine ventilation blocked	Clean the engine ventilation

(f) Install the oil filler cap assembly.

Click here [INFO](#)



TOYOTA

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE: ON-VEHICLE CLEANING; 2020 MY Supra [03/2019 -]		

ON-VEHICLE CLEANING

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE AND INSTALL BONNET HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

4. REMOVE HOOD TO COWL TOP SEAL

Click here [INFO](#)

5. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

6. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

7. REMOVE NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

8. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

9. REMOVE NO.1 ENGINE COVER

Click here [INFO](#)

10. REMOVE IGNITION COIL

Click here [INFO](#)

11. INSTALL NO.2 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

12. REMOVE NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

13. REMOVE NO. 2 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

14. REMOVE FUEL PUMP ASSEMBLY

Click here [INFO](#)

15. REMOVE FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

16. REMOVE FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

17. REMOVE CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

18. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

19. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

20. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

21. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

22. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

23. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

24. REMOVE NO. 1 CHECK VALVE

Click here [INFO](#)

25. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

26. DRAIN ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

27. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

28. CLEAN INTAKE PORT

CAUTION:

- Swirling dirt particles caused by compressed air.

Danger of injury!

- Collect dirt particles, e.g. when blowing out, use cloth to do so.
- Wear safety goggles.

NOTICE:

- Engine damage due to walnut granules in the combustion chamber.

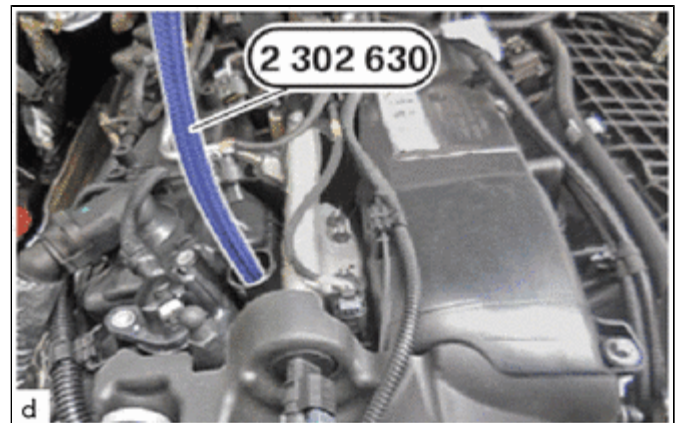
If walnut granules penetrate the combustion chamber while cleaning the intake ports, engine damage may occur.

- Always clean the intake port with valves of the relevant cylinder closed.
- Set the piston of the relevant cylinder to the top dead center.
- If walnut granules have entered the combustion chamber: Do not turn or start the engine by hand.

Disassemble the cylinder head sub-assembly and clean all components.

- (a) Screw the special tool 2 302 630 into the sparkplug thread by hand.

SST: 09200-WA660



- (b) Fit special tool 0 493 380 (11 6 480).

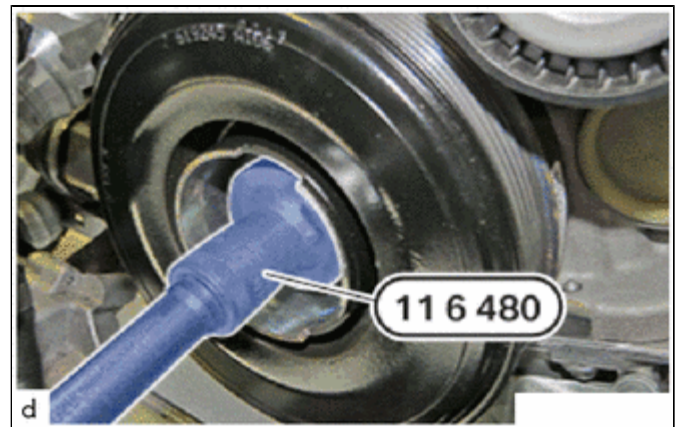
NOTICE:

- Damage to the engine.

The engine may be damaged if it is manually rotated in the wrong direction.

- Always rotate the engine in the correct direction of rotation by hand: a) Clockwise, facing the vibration damper or b) Counter-clockwise, facing the timing chain. (b) only applies when the rear chain sub-assembly is installed.

SST: 09200-WA190

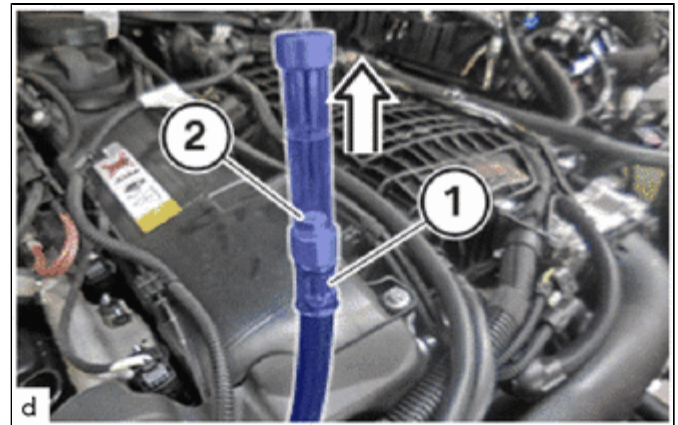


(c) Turn the engine by hand using special tool 0 493 380 (11 6 480).

SST: 09200-WA190

(d) Turn the engine by hand.

- (1) When the piston moves up, the journal (2) in the special tool (1) also moves up.



(e) Turn the piston to the top dead center.

- (1) In the top dead center, the piston as well as the journal (2) are positioned at the highest point in the special tool (1).

(2) The valves are now closed.

(f) Ensure that the engine is no longer turned further.

(g) Keep the special tool 2 208 034 , the walnut granules and a standard vacuum cleaner ready.

SST: 09200-WA330



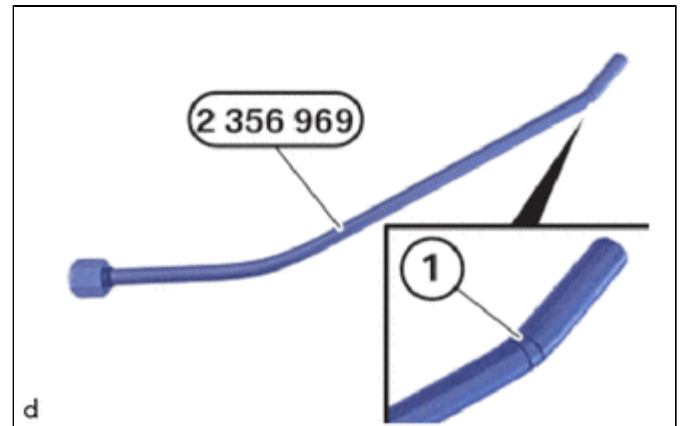
(h) Have the special tool 2 356 969 ready.

SST: 09200-WA670

HINT:

The front area of the blasting wand is marked with two notches. These may additionally be highlighted in color.

During the blasting process, only pull the blasting wand out of the vacuum adapter until the mark becomes visible.



(i) Observe the mark (1).

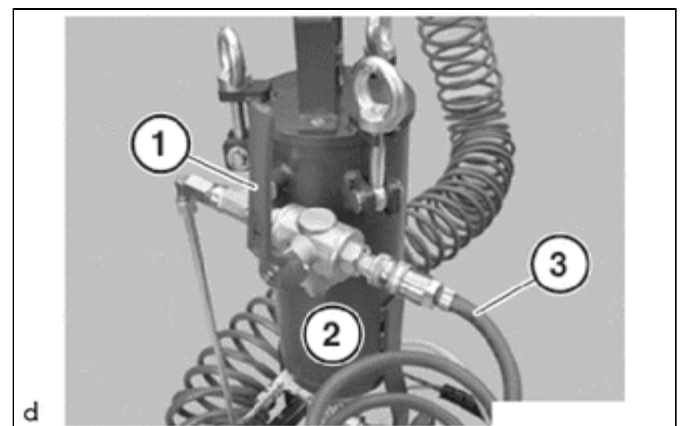


(j) Open blasting device (1).

(k) Fill in walnut granules (2).

Quantity For Each Blastingprocess:
2 liters (2.11 US qts, 1.76 Imp. qts)

(l) Close blasting device (1).



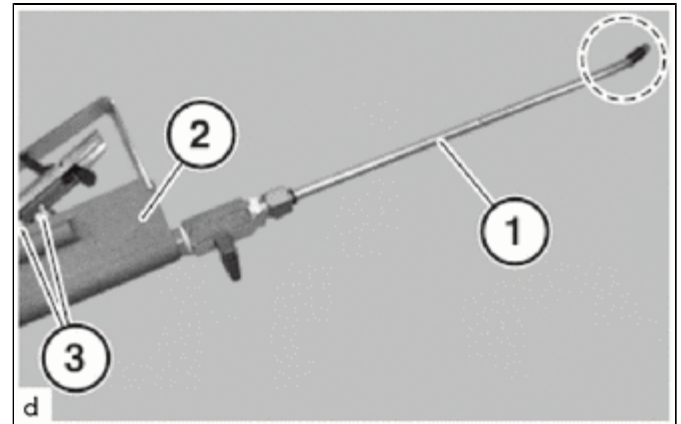
(m) Close the valve (1) on the blasting device (2).

(n) Connect compressed air (3).

Operating pressure:

600 to 800 kPa (6.12 to 8.16 kgf/cm², 87 to 116 psi)

(o) Attach the blasting wand (1) to the blasting device (2).

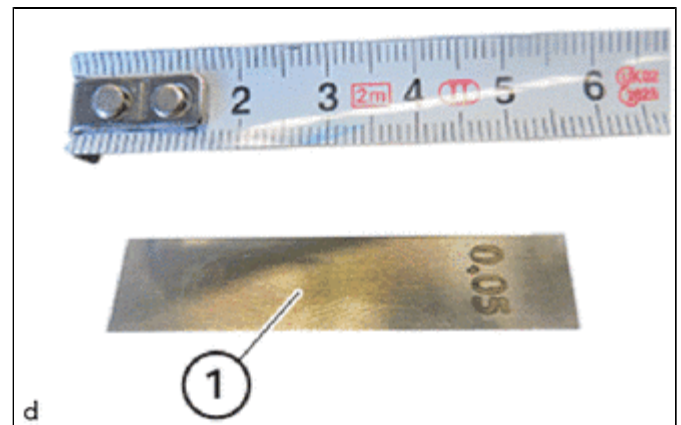


(p) Connect vacuum cleaner (1) with the special tool 2 410 274.

SST: 09200-WA340

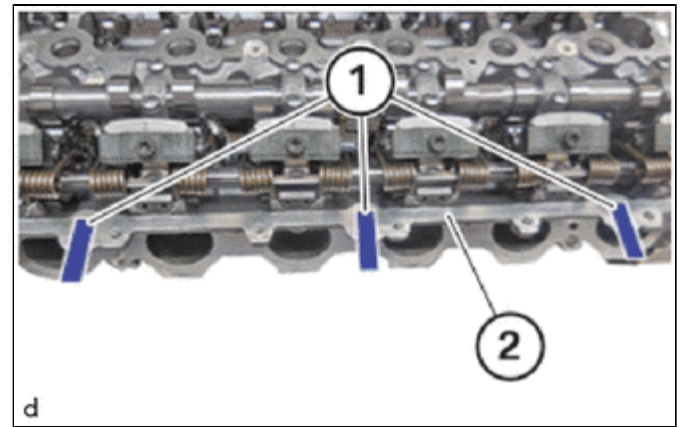


(q) Prepare 3 standard 0.05 mm feeler gauges (1).



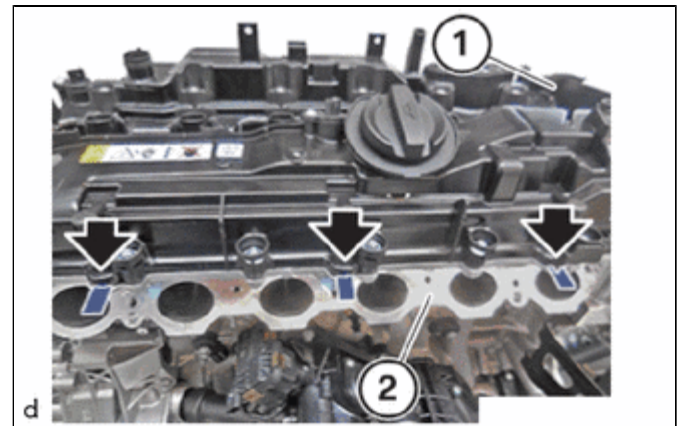
(r) Cut 3 feeler gauges (1) to a length of 25 mm.

(s) Position the prepared feeler gauges (1) on the blow-by channels of cylinder head cover sub-assembly (2).



(t) Make sure that the blow-by channels are locked on cylinder head sub-assembly (2) using feeler gauges (1).

(u) Guide the cylinder head cover sub-assembly (1) in and position it.

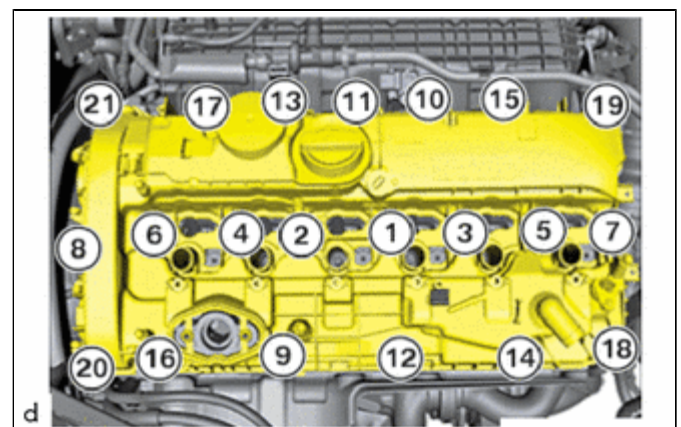


(v) Make sure that the feeler gauges (arrows) are positioned correctly between cylinder head cover sub-assembly (1) and the blow-by channels of cylinder head sub-assembly (2).

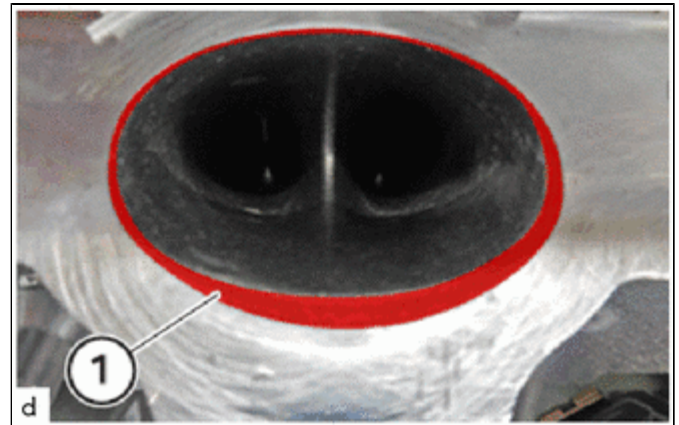
(w) Tighten all E10 bolts in sequence (1) to (21).

Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}



(x) Clean marked areas (1) with a brush.



(y) Insert the special tool 2 410 274 in tangential port (1) of the cylinder to be cleaned.

SST: 09200-WA340



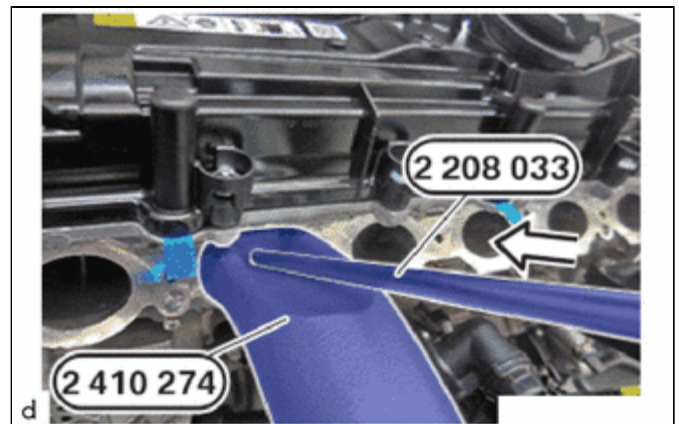
(z) Insert the special tool 2 208 033 in the special tool 2 410 274 in the direction of the arrow.

SST: 09200-WA340

SST: 09200-WA650

HINT:

Conduct the following operation with the assistance of a second person.

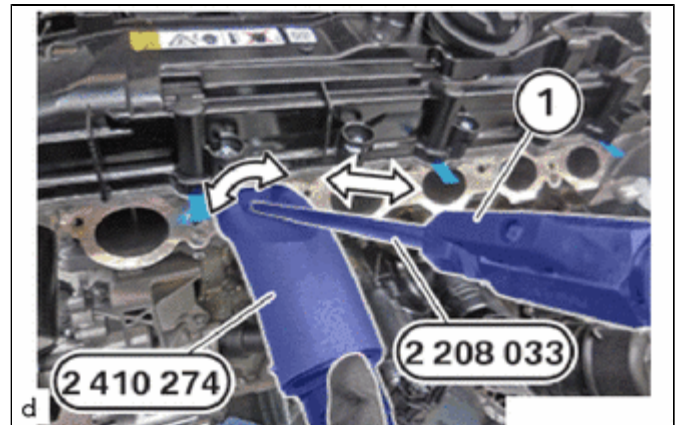


(aa) Switch on vacuum cleaner (1).



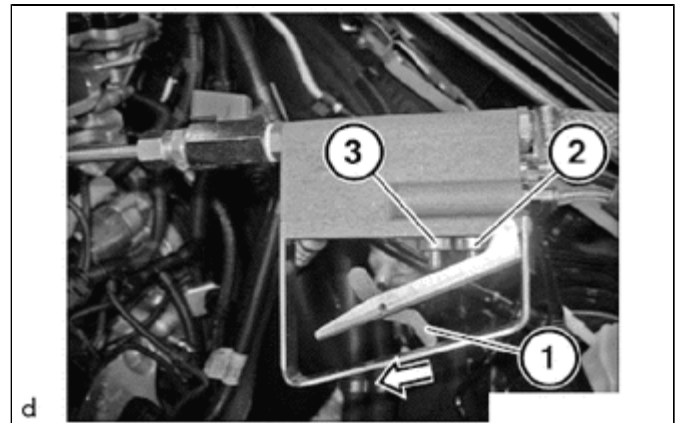
(ab) Move and turn the blasting wand in the direction of the arrow.

(1) This removes any dirt in the tangential port.



(ac) Open the valve (1).

(ad) Slide the locking lever (1) forward in the direction of the arrow.



(ae) To release the compressed air: Actuate valve (2).

(af) To release the walnut granules and the compressed air: Actuate valves (1) and (2).

(ag) Clean the intake port.

Blast duration with walnut granules:

Approx. 20 s

Blast duration with pure compressed air for the complete blowing out of walnut granules:

Approx. 10 s

(ah) Close the valve on the blasting wand.

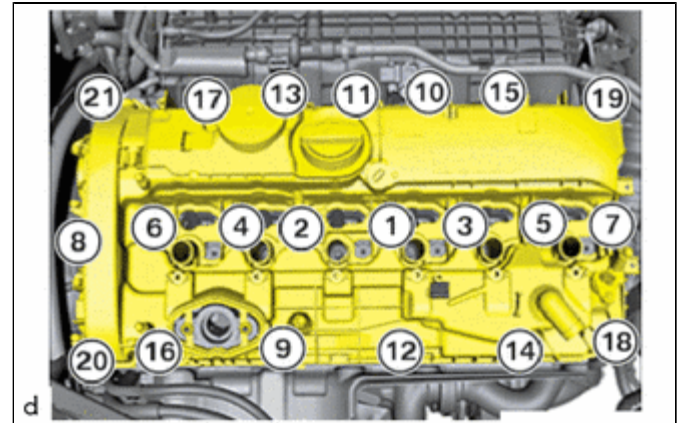
(1) Check the pressure drop at the pressure measuring device.

(ai) Repeat the following steps one after another on all the other cylinders:

(1) Turn the piston of the cylinder to be cleaned to the top dead center.

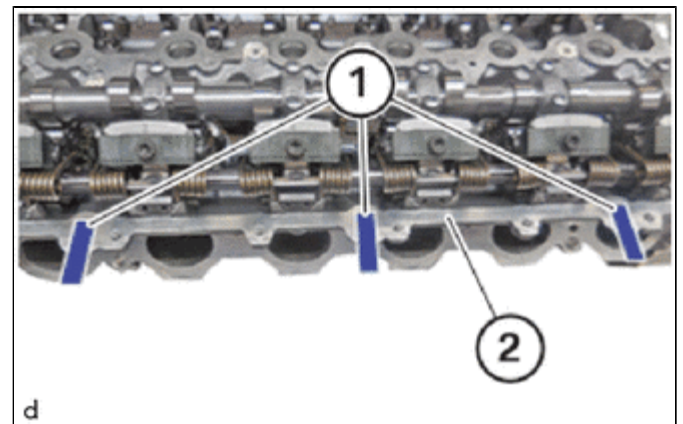
(2) Clean intake ports.

(aj) Loosen all E10 bolts in sequence (21) to (1).

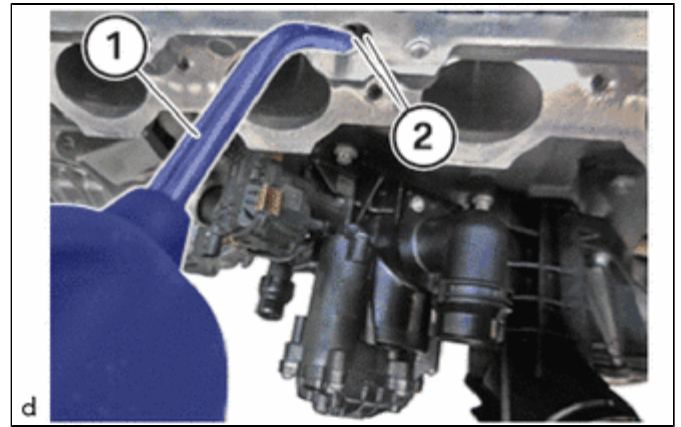


(ak) Feed out and remove the cylinder head cover sub-assembly.

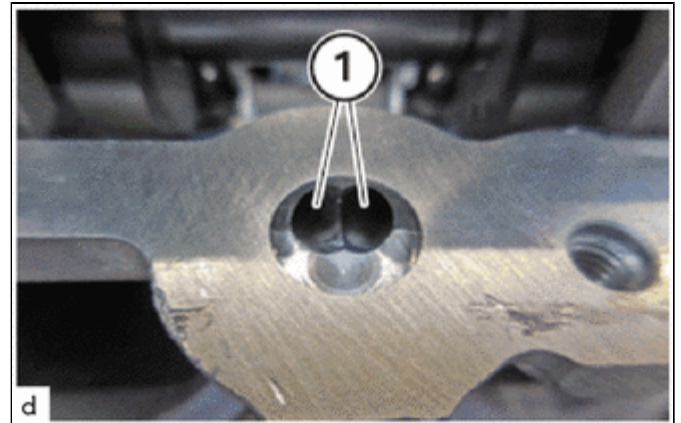
(al) Guide out feeler gauges (1) on the blow-by channels of cylinder head sub-assembly (2) and remove them.



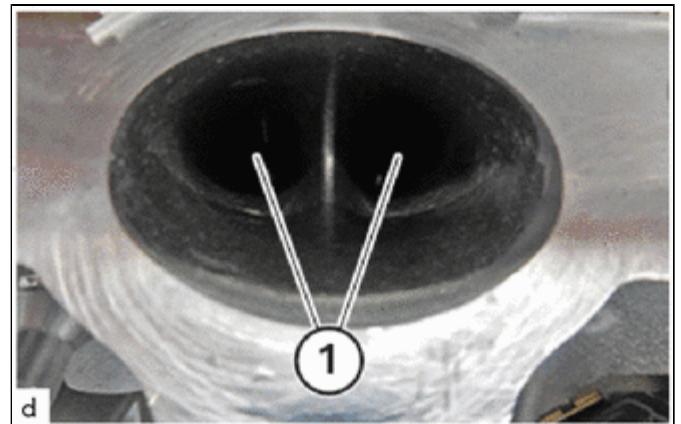
(am) Clean blow-by channels (2) with an air gun (1).



(an) Make sure that there are no walnut granules in the blow-up channels (1).



(ao) Make sure that there are no walnut granules in the intake ports (1).



29. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

30. INSTALL NO. 1 CHECK VALVE

Click here [INFO](#)

31. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

32. INSTALL AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

33. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

34. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

35. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

36. INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

37. INSTALL CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

38. REPLACE FUEL INJECTOR SEAL

Click here [INFO](#)

39. INSTALL FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

40. INSTALL FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

41. ADJUST FUEL PUMP LIFTER ASSEMBLY

Click here [INFO](#)

42. INSTALL FUEL PUMP ASSEMBLY

Click here [INFO](#)

43. INSTALL NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

44. INSTALL NO. 2 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

45. INSTALL IGNITION COIL

Click here [INFO](#)

46. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

47. ADD ENGINE COOLANT (for Low Pressure)

Click here [INFO](#)

48. INSPECT ENGINE COOLANT

Click here [INFO](#)

49. INSTALL NO.2 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

50. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

51. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

52. INSTALL NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

53. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

54. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

55. INSTALL HOOD TO COWL TOP SEAL

Click here [INFO](#)

56. INSTALL FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

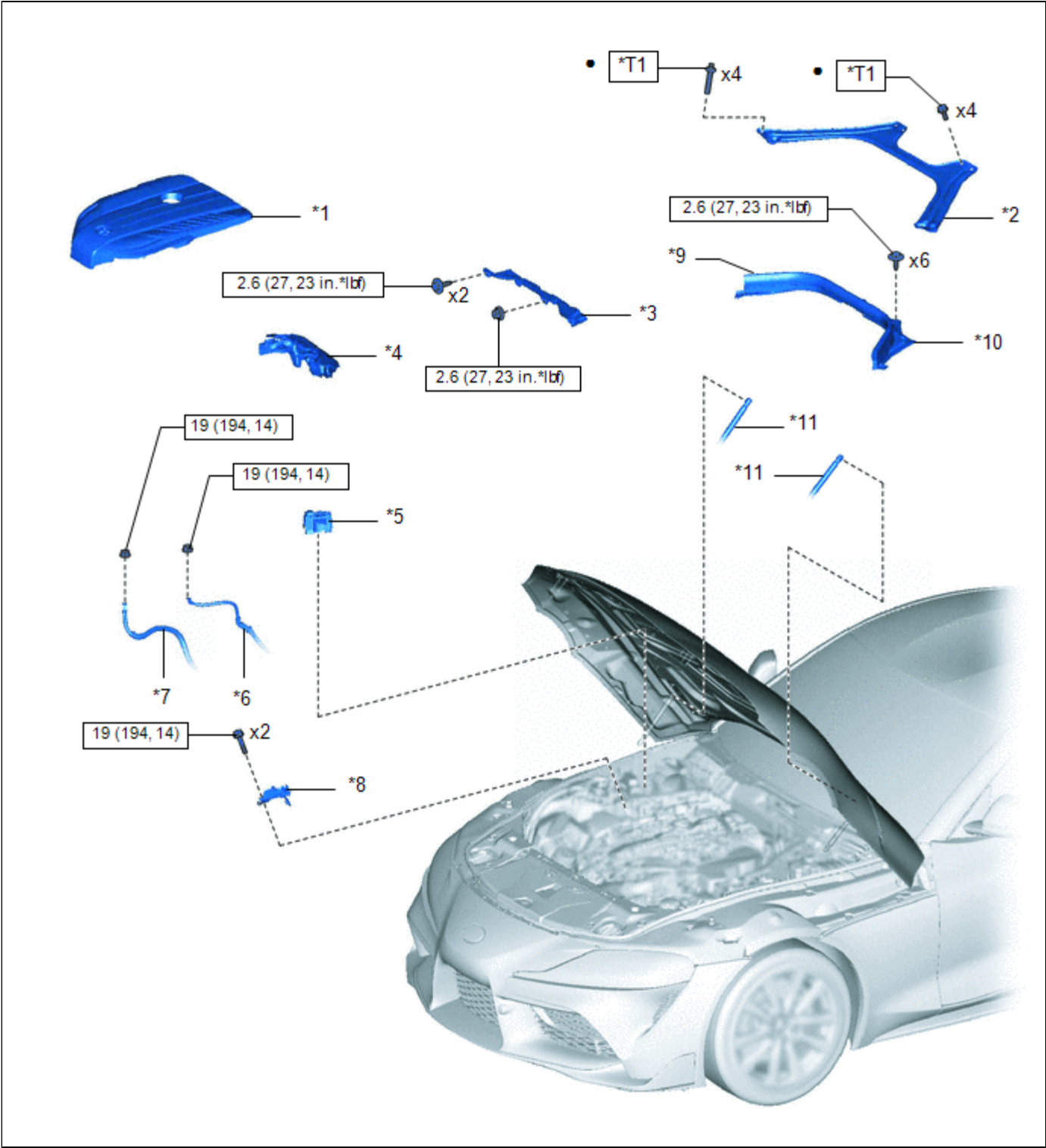
57. REMOVE AND INSTALL BONNET HOOD SUPPORT ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

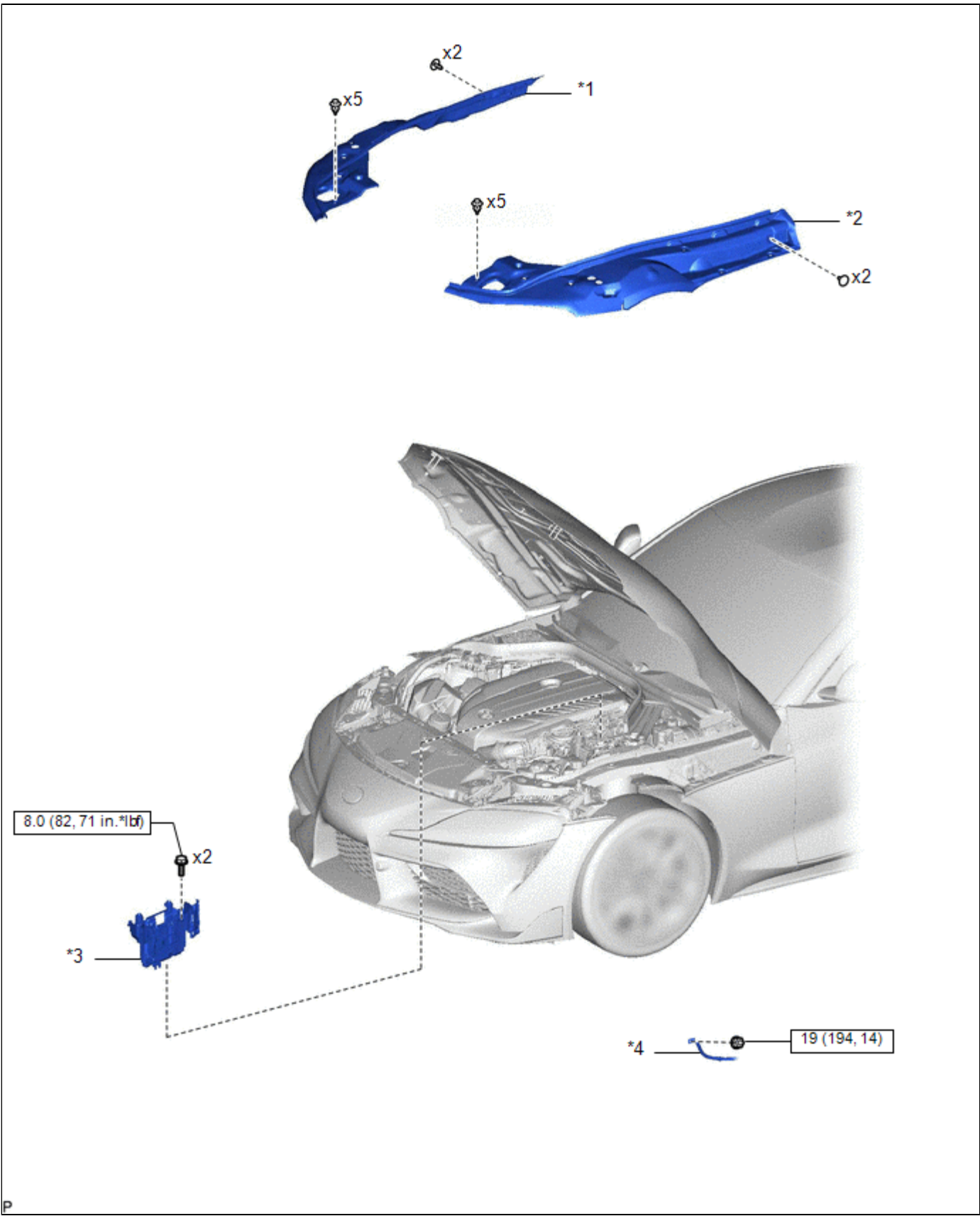
ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	FRONT SUSPENSION UPPER CENTER
----	---------------------------------	----	-------------------------------

			BRACE
*3	NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR	*4	NO. 1 ENGINE COVER
*5	COVER	*6	STARTER WIRE
*7	GENERATOR WIRE	*8	WIRE HARNESS CLAMP BRACKET
*9	HOOD TO COWL TOP SEAL	*10	COWL TOP VENTILATOR LOUVER PROTECTOR
*11	HOOD SUPPORT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 56 (571, 41) 2nd: Turn 90°	-	-

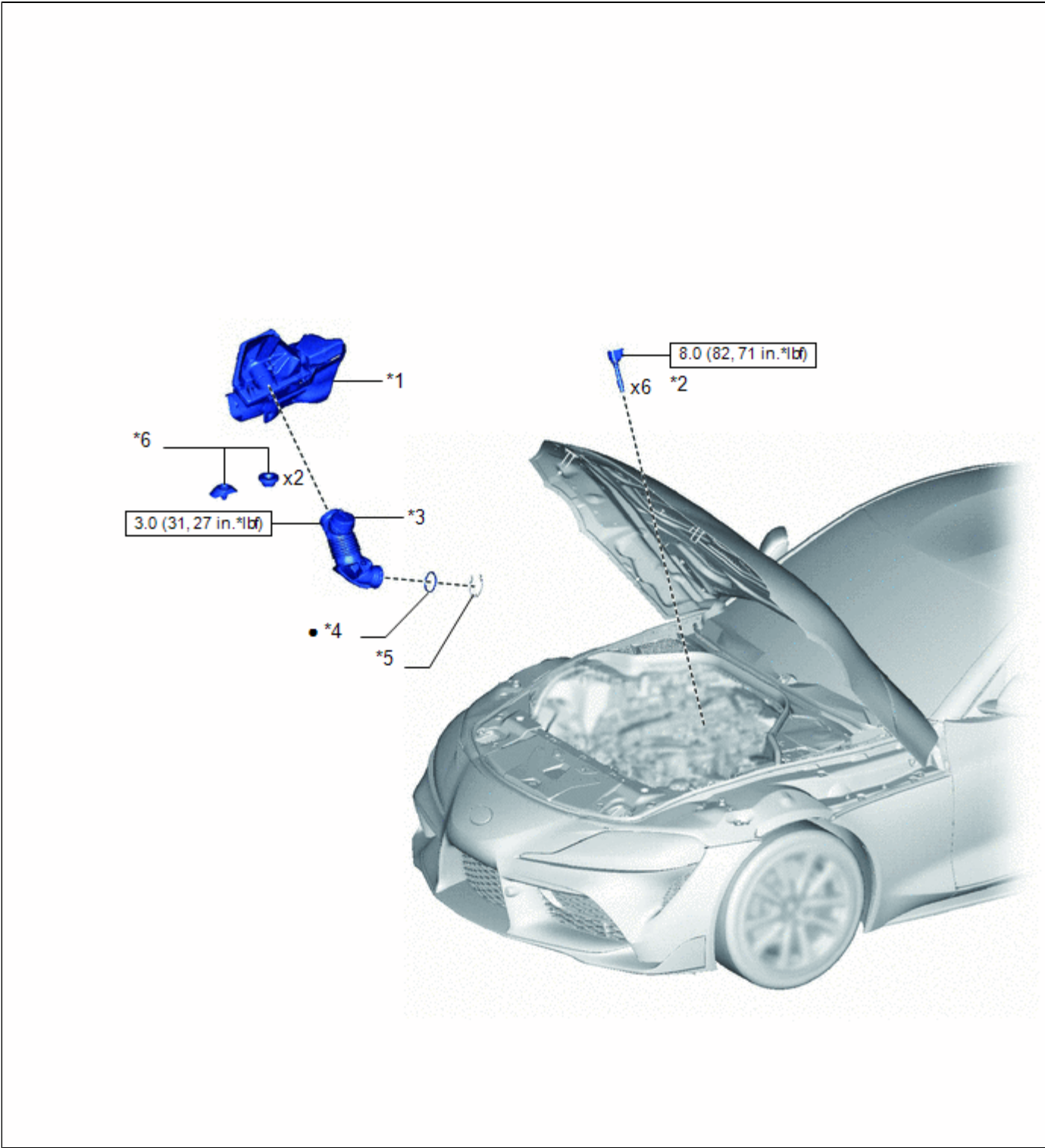
ILLUSTRATION



*1	FRONT UPPER FENDER PROTECTOR RH	*2	FRONT UPPER FENDER PROTECTOR LH
*3	ENGINE ROOM ECM BOX	*4	GENERATOR WIRE
	N*m (kgf*cm, ft.*lbf): Specified	-	-

<div></div>	torque		
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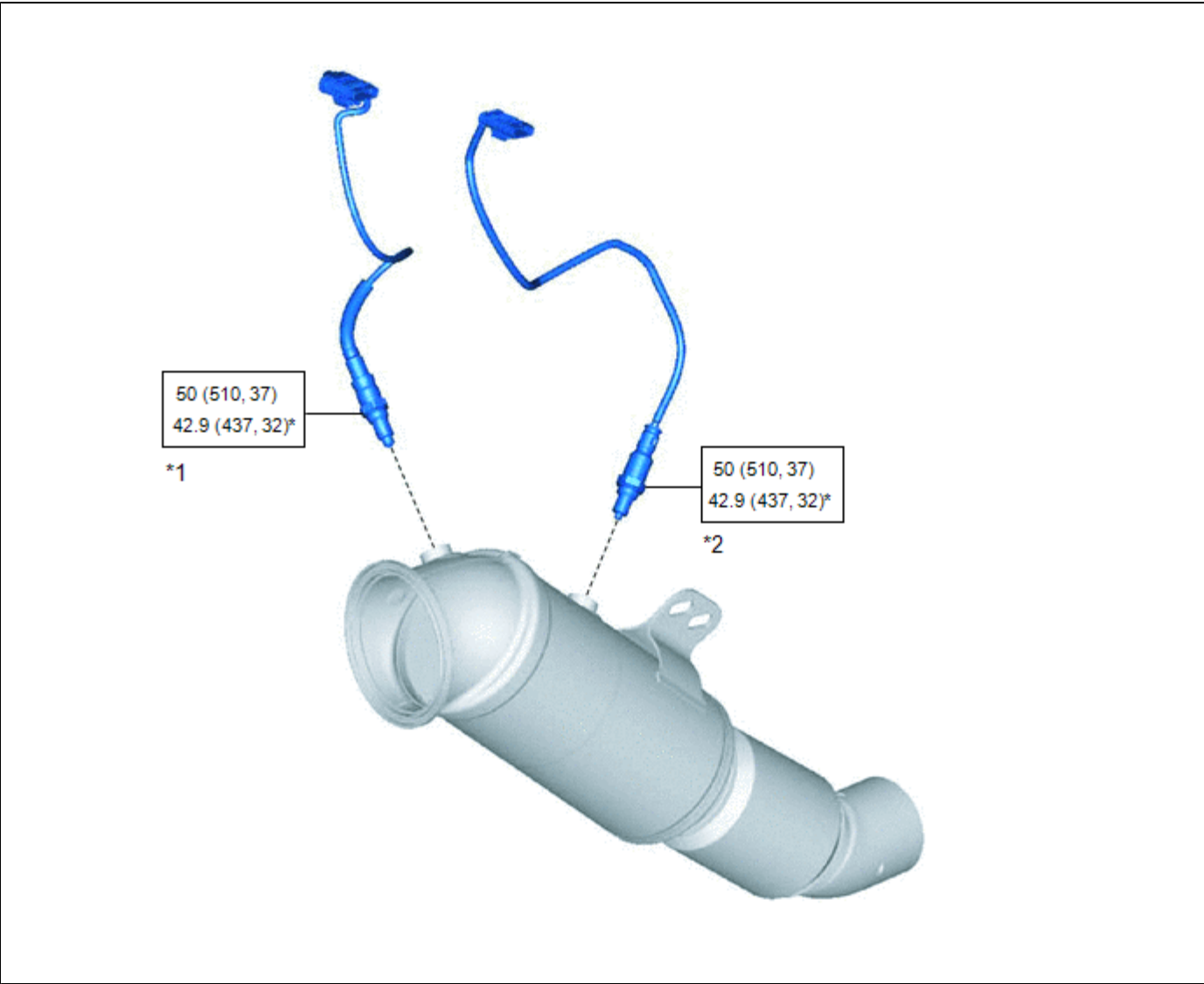
ILLUSTRATION



*1	AIR CLEANER ASSEMBLY	*2	IGNITION COIL ASSEMBLY
*3	AIR CLEANER HOSE ASSEMBLY	*4	GASKET
*5	CLAMP	*6	AIR CLEANER SUPPORT

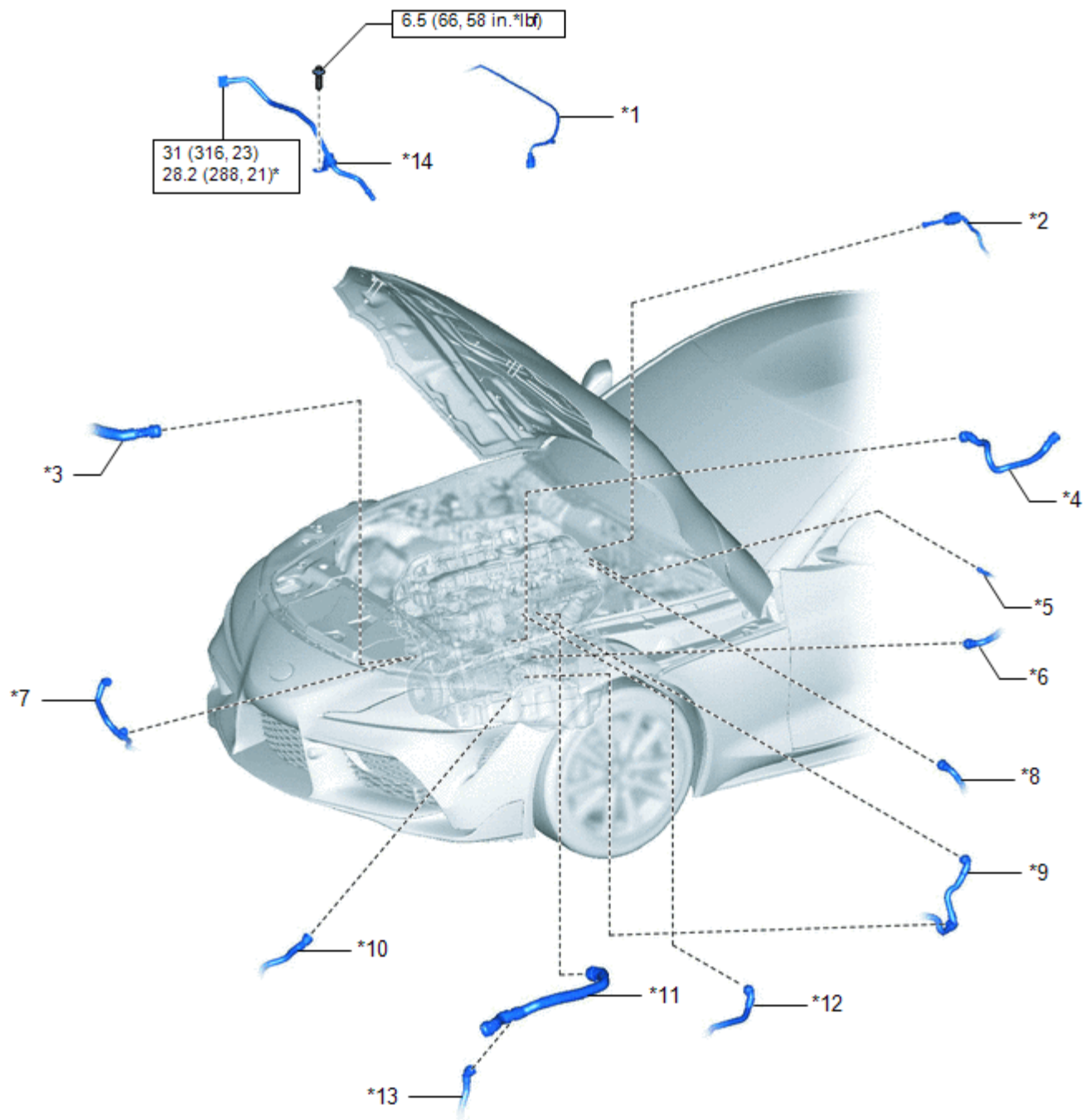
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
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ILLUSTRATION



*1	WIDE RANGE AIR FUEL RATIO SENSOR	*2	OXYGEN SENSOR
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST

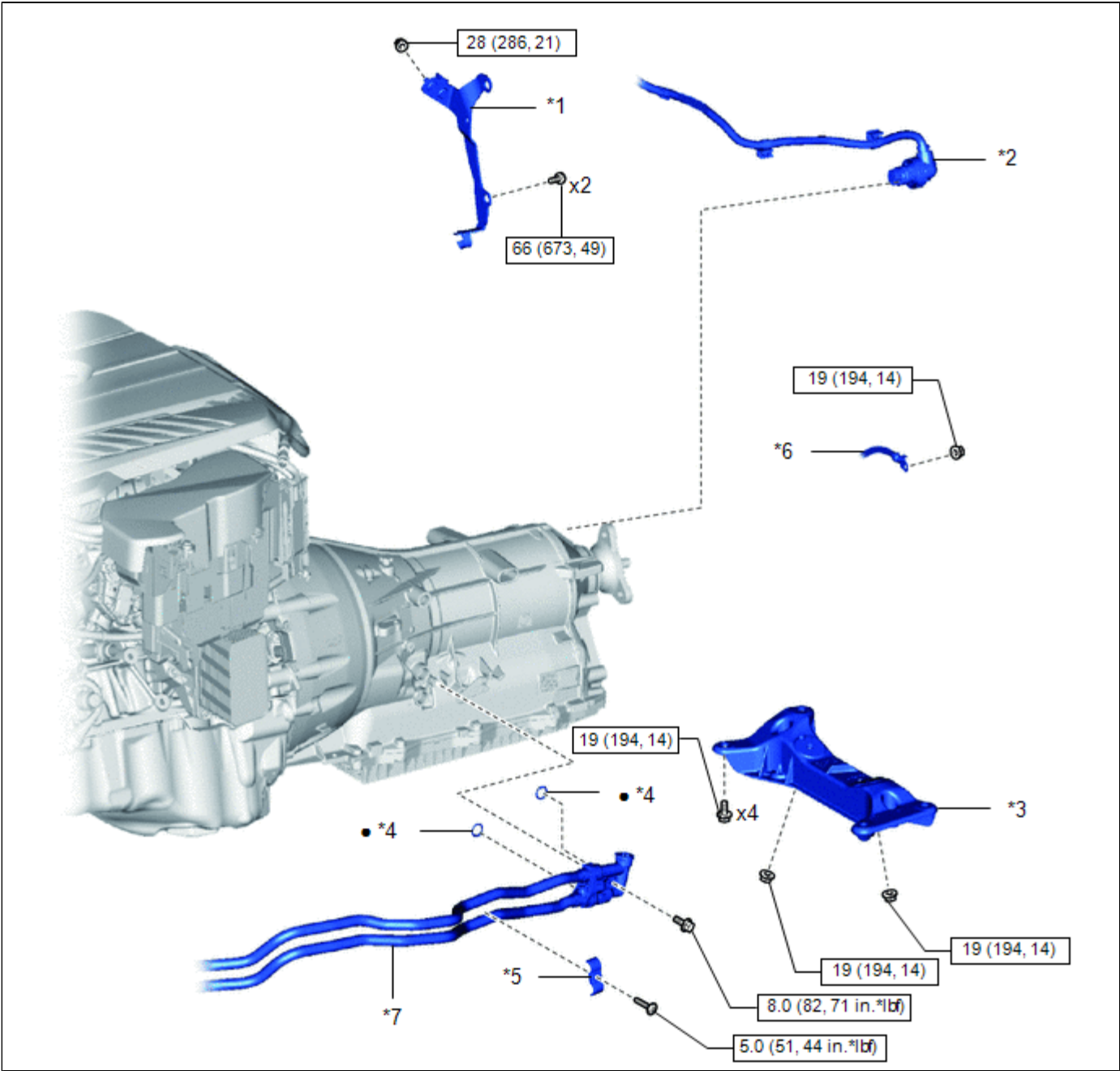
ILLUSTRATION



*1	FLOOR CABLE	*2	NO. 2 FUEL VAPOR FEED HOSE
*3	NO. 1 RADIATOR HOSE	*4	NO. 1 WATER BY-PASS HOSE
*5	FUEL TUBE SUB-ASSEMBLY	*6	HEATER WATER HOSE
*7	NO. 3 RADIATOR HOSE	*8	CONNECTOR TO BRAKE BOOSTER TUBE
*9	NO. 7 WATER BY-PASS HOSE	*10	NO. 6 RADIATOR HOSE
*11	NO. 2 RADIATOR HOSE	*12	NO. 5 WATER BY-PASS HOSE
*13	RADIATOR HOSE SUB-ASSEMBLY	*14	NO. 1 FUEL PIPE SUB-ASSEMBLY

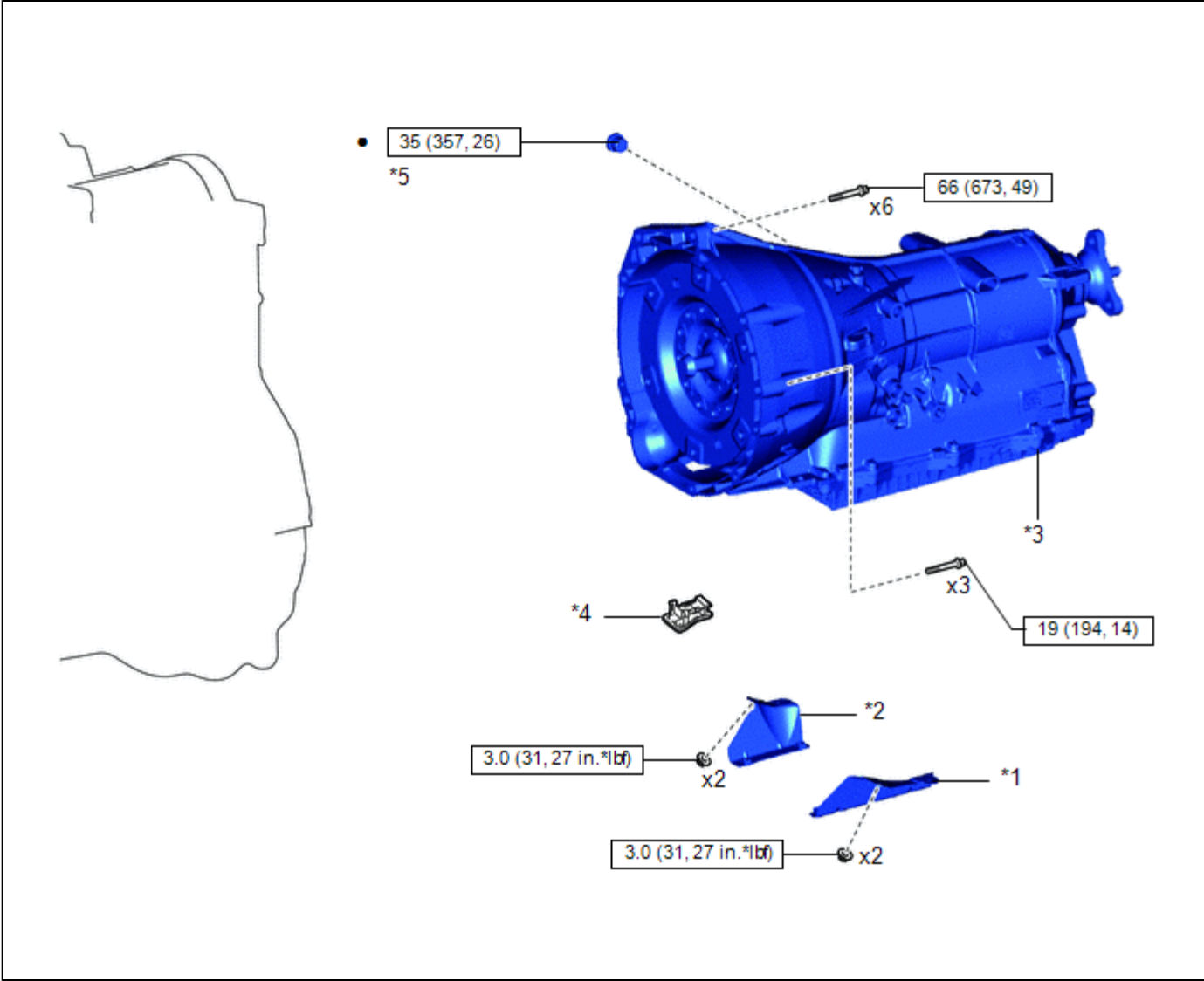
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench
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
ILLUSTRATION



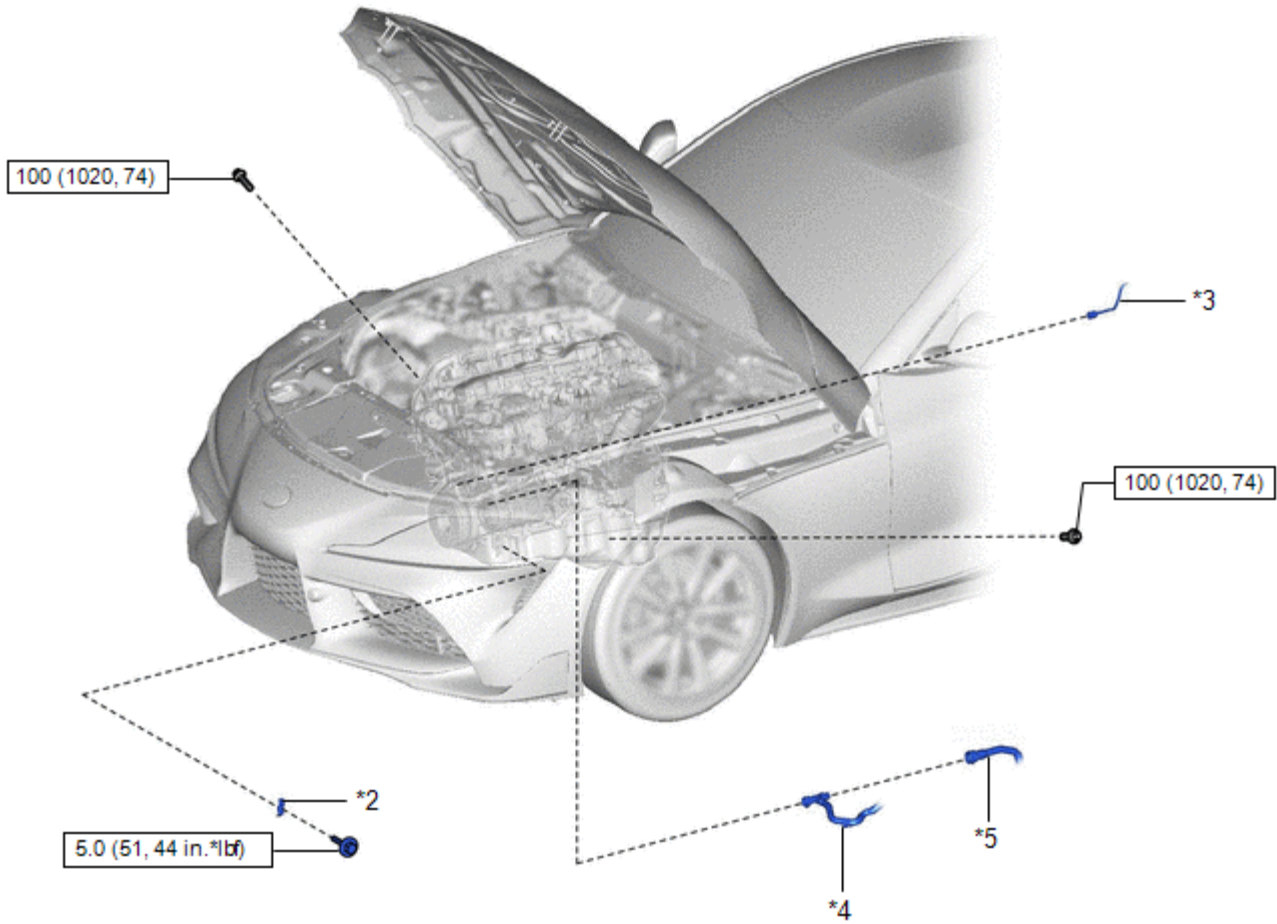
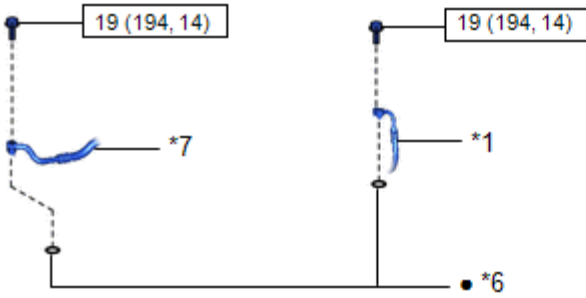
*1	NO. 2 MANIFOLD STAY	*2	WIRE HARNESS
*3	ENGINE REAR MOUNTING MEMBER	*4	O-RING
*5	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP	*6	NO. 2 EARTH WIRE
*7	OIL COOLER TUBE	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION




*1	NO. 1 FLOOR HEAT INSULATOR	*2	NO. 2 FLOOR HEAT INSULATOR
*3	AUTOMATIC TRANSMISSION ASSEMBLY	*4	TRANSMISSION HOUSING COVER
*5	FILLER PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

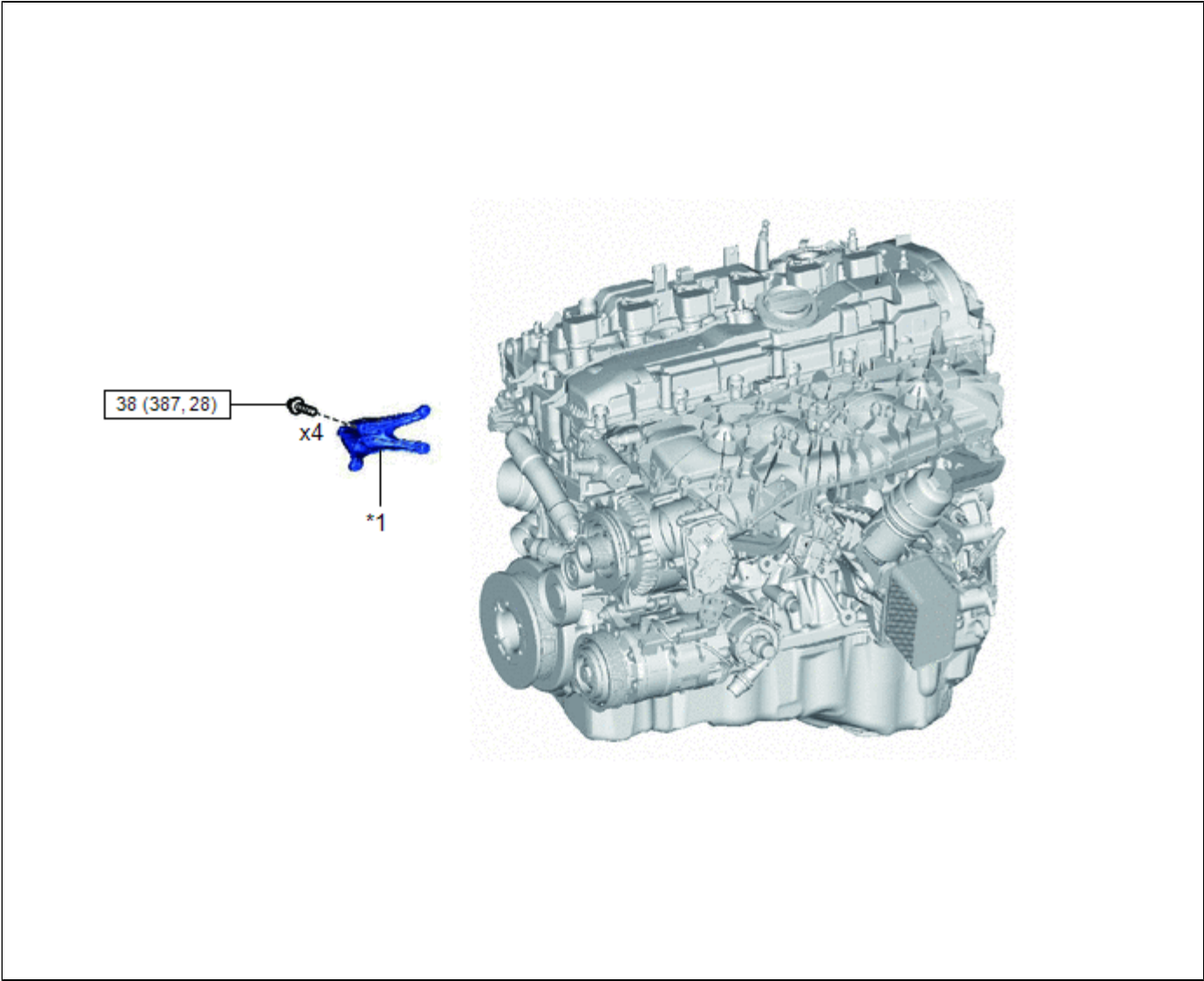
ILLUSTRATION



P

*1	AIR CONDITIONING TUBE ASSEMBLY	*2	NO. 1 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
*3	RADIATOR RESERVE TANK HOSE	*4	NO. 6 WATER BY-PASS HOSE
*5	NO. 7 WATER BY-PASS HOSE	*6	O-RING
*7	SUCTION PIPE SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	NO. 1 FRONT ENGINE MOUNTING BRACKET RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

3. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

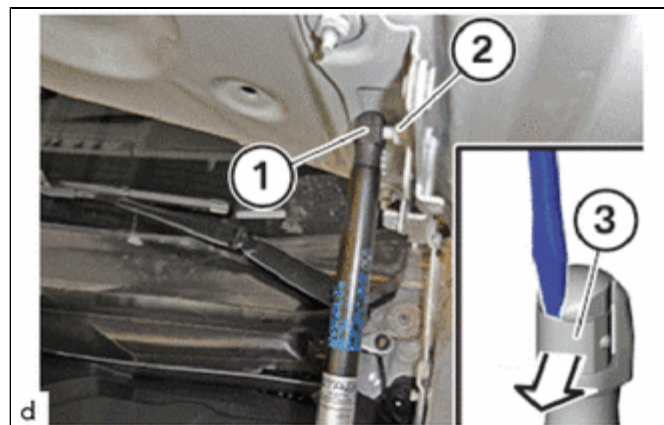
CAUTION:

- Shutting hood sub-assembly or tailgate.

Danger of injury!

- Support hood sub-assembly/tailgate in fully open position with the aid of a suitable device.

(a) Lift clamp (3) slightly using a screwdriver, in the direction of the arrow.



(b) Lift off ball socket (1) from ball pin (2).

(c) Repeat the operation on the other side of vehicle.

HINT:

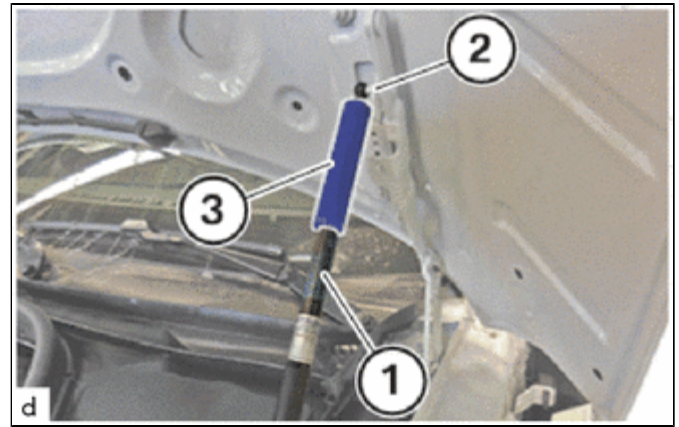
Conduct the following operation with the assistance of a second person.

(d) Remove the hood support assembly and open the hood sub-assembly further.

(e) Push special tool 0 493 647 (51 2 170)(3) over gas

pressure spring (1).

SST: 09800-WA030



(f) Position the special tool 0 493 647 (51 2 170) (3) on the ball pin (2) and apply force to engage it.

SST: 09800-WA030

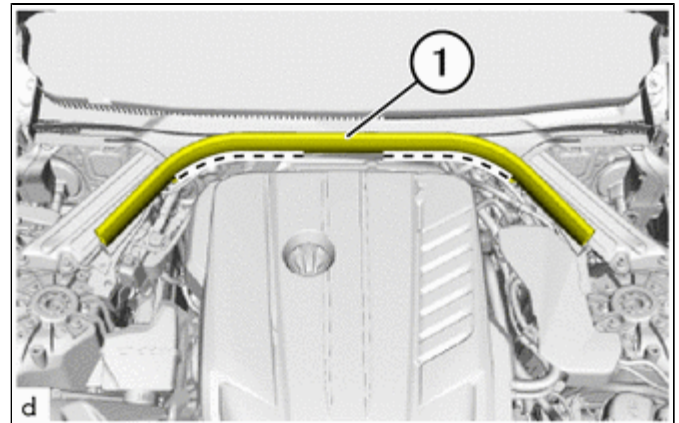
(g) Repeat the operation on the other side of vehicle.

4. REMOVE FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

5. REMOVE HOOD TO COWL TOP SEAL

(a) Feed the cable out from the brackets to the front in the marked area.



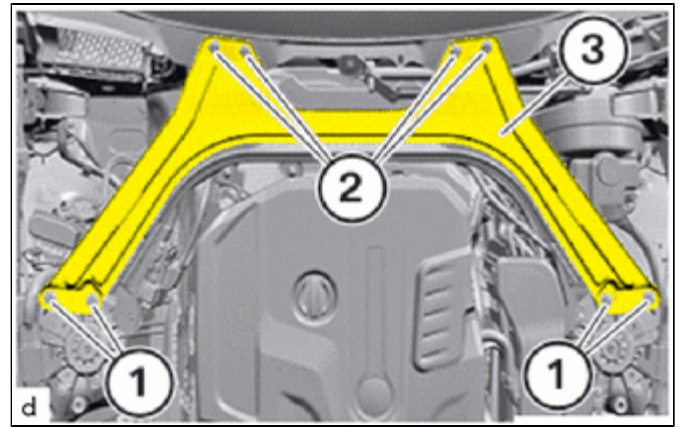
(b) Remove the hood to cowl top seal (1) inward from the guide.

6. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

NOTICE:

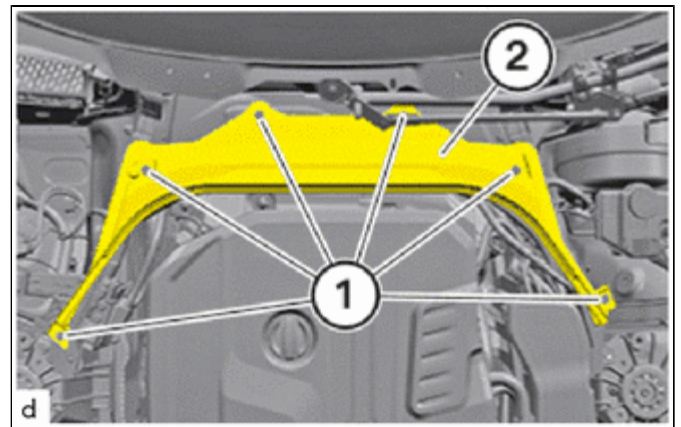
Driving without upper front suspension center brace is not permissible.

(a) Remove E14 bolts (1) and bolts (2).



(b) Remove the upper front suspension center brace (3).

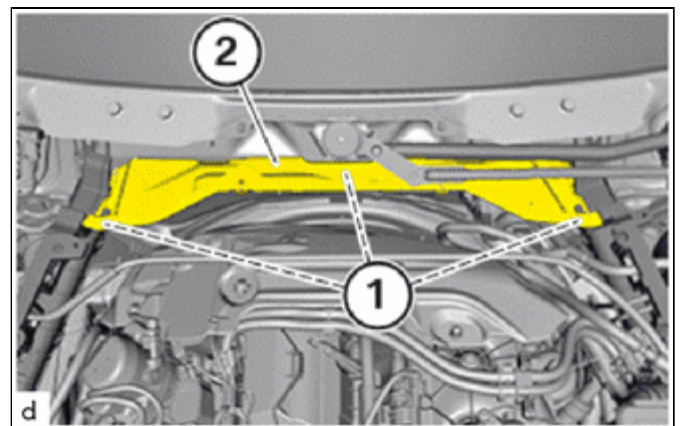
7. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR



(a) Loosen bolts (1).

(b) Remove the cowl top ventilator louver protector (2).

8. REMOVE NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR



(a) Loosen bolts and nut (1).

(b) Remove the No. 2 cowl top ventilator louver protector (2).

9. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

NOTICE:

- Damage to the No. 1 engine cover sub-assembly.

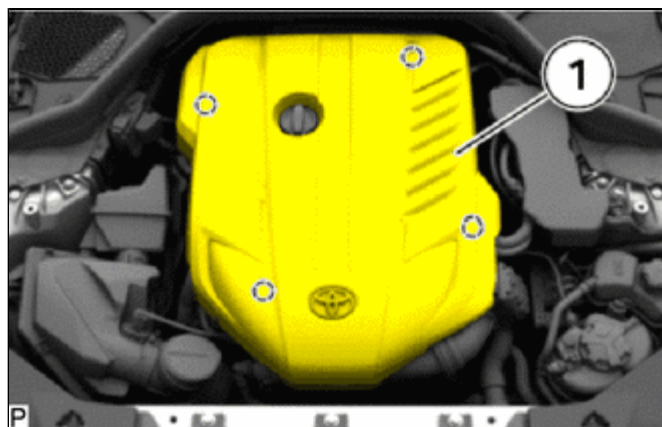
Jerky movements during disassembly and excessive application of force during installation may result in breakage of the No. 1 engine cover sub-assembly.

- Disassemble or mount the No. 1 engine cover sub-assembly carefully.
- Disassemble or mount snap-lock couplings of the ball pivots one after the other.
- Disassemble or mount No. 1 engine cover sub-assembly only at temperatures >20 °C.

Vehicle information / Control unit list / DME / Call up control unit functions / Diagnostic request /
Diagnostic request / 117 Ambient temperature

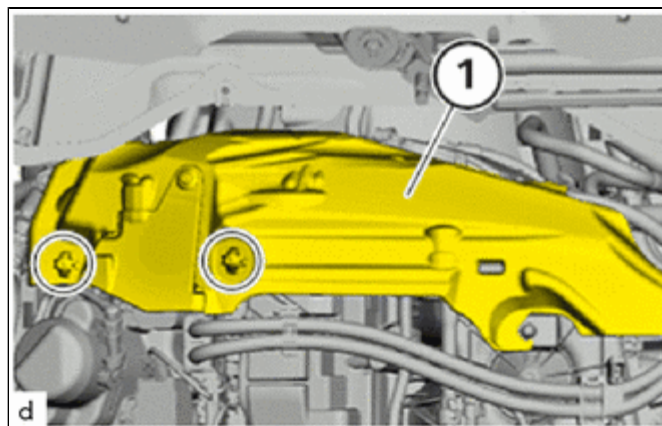
- Use only distilled water as an auxiliary material during installation, no lubricants.

- (a) Release the No. 1 engine cover sub-assembly (1) towards the top from the grommets (marks) and remove.



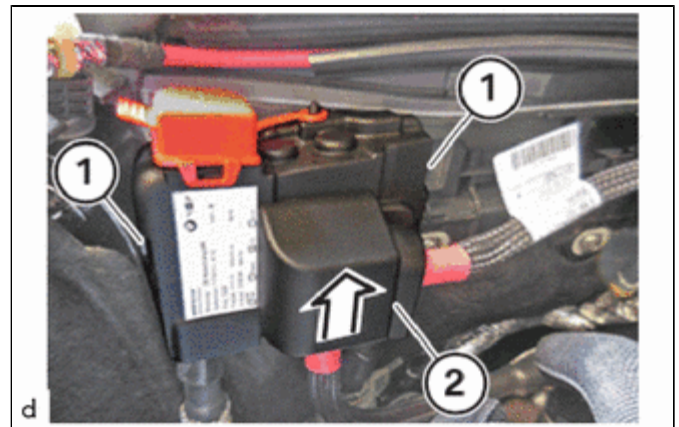
10. REMOVE NO. 1 ENGINE COVER

- (a) Unclip the No. 1 engine cover (1) at the grommets in the marked areas and remove it to the top.



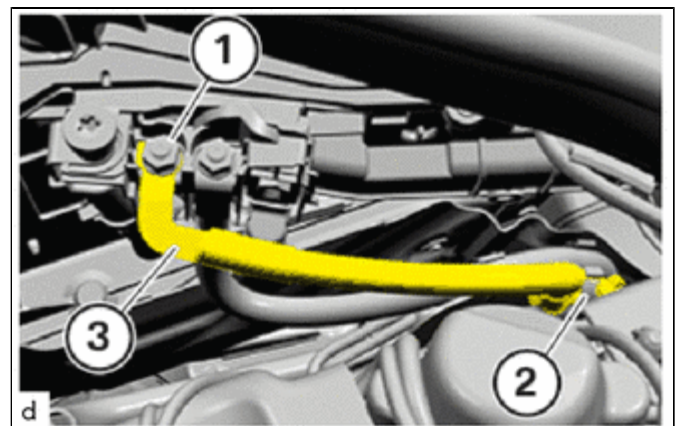
11. REMOVE POSITIVE BATTERY CABLE

(a) Unlock the locks (1).



(b) Guide and remove cover (2) in direction of arrow.

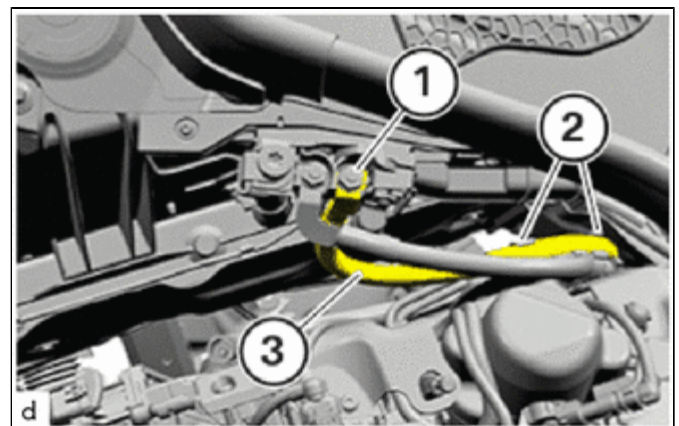
(c) Loosen nut (1).



(d) Loosen clamp (2).

(e) Feed out generator wire (3) and put to one side.

(f) Loosen nut (1).

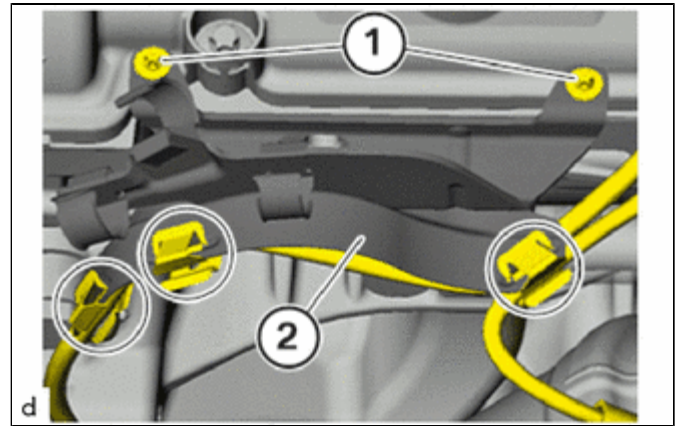


(g) Loosen clamps (2).

(h) Feed out starter wire (3) and put to one side.

12. REMOVE WIRE HARNESS CLAMP BRACKET

(a) Unclip the lines in the marked areas.



(b) Loosen E8 screws (1).

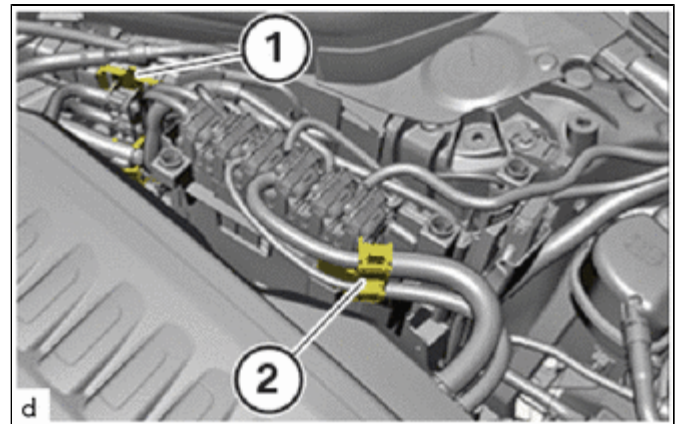
(c) Remove wire harness clamp bracket (2) for the generator wire.

13. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

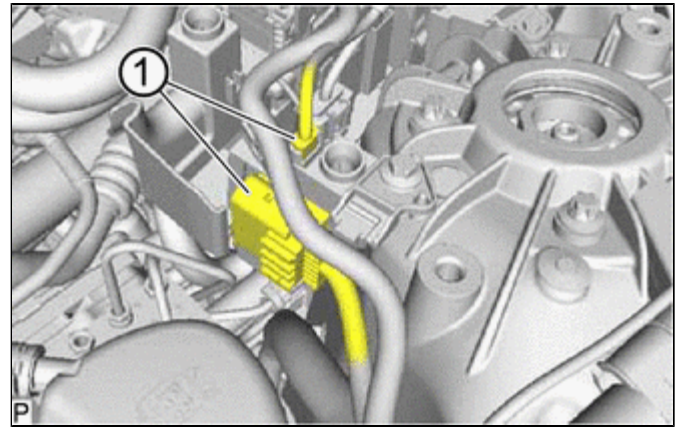
14. REMOVE ENGINE ROOM ECM BOX

(a) Unlock and loosen locks (1) and (2).

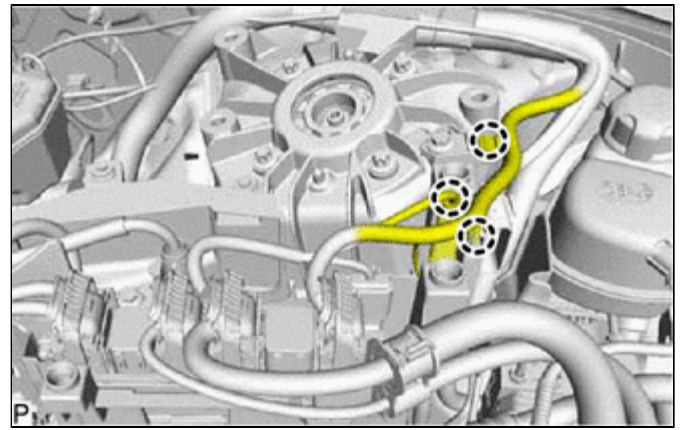


(b) Release the wiring harnesses from the engine room ECM box and set it aside.

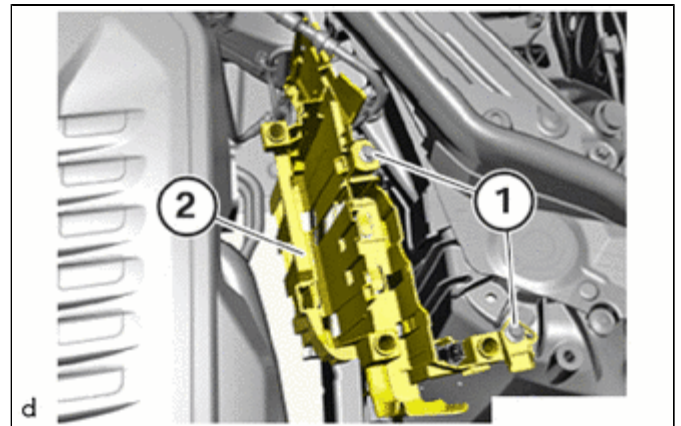
(c) Unlock plug connection (1) and disconnect.



(d) Unlock and loosen the 3 clamps (marks).



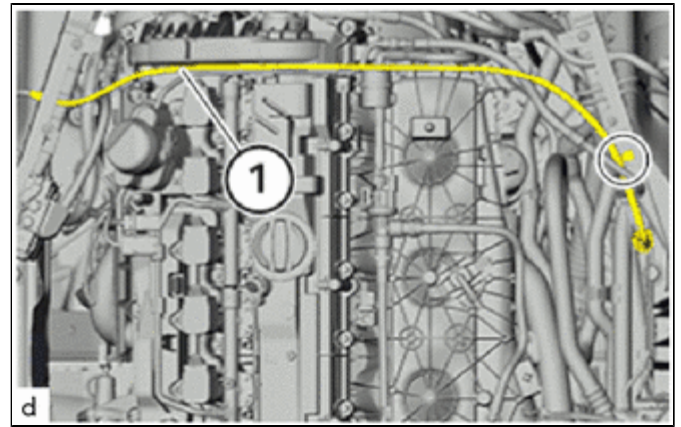
(e) Loosen bolts (1).



(f) Guide out and remove the engine room ECM box (2).

15. REMOVE FLOOR WIRE

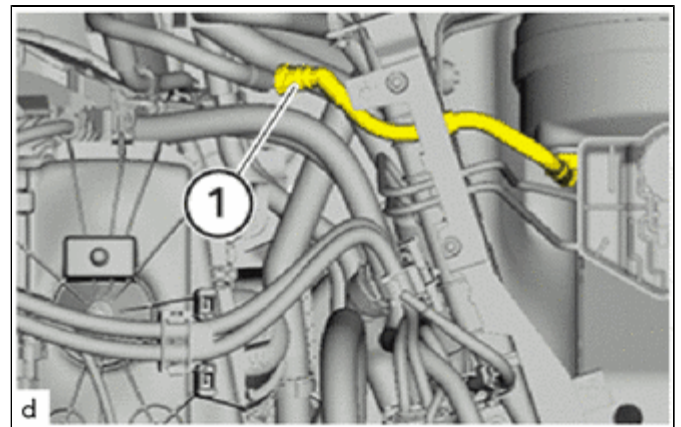
- (a) Unclip floor wire (1) for the voltage supply of the power distribution box in the marked area.



- (b) Set aside the floor wire (1) for the voltage supply of the power distribution box.

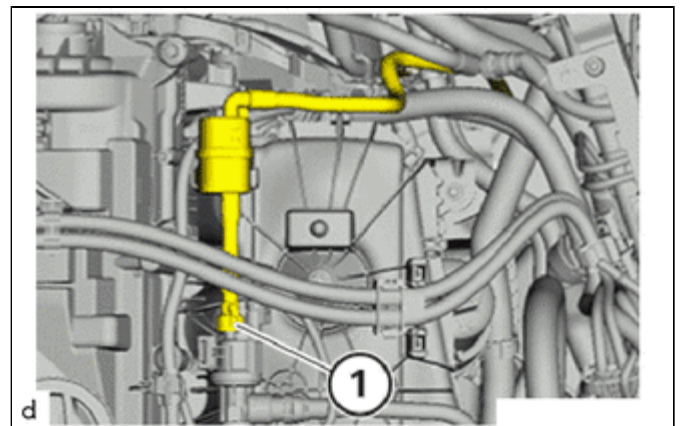
16. DISCONNECT CONNECTOR TO BRAKE BOOSTER TUBE

- (a) Unlock, disconnect and tie the connector to brake booster tube (1) to one side.



17. DISCONNECT NO. 2 FUEL VAPOR FEED HOSE

- (a) Disengage the clamp.



- (b) Unlock, disconnect and tie the No. 2 fuel vapor feed hose (1) to one side.

18. REMOVE FRONT UPPER FENDER PROTECTOR LH

Click here [INFO](#)

19. REMOVE FRONT UPPER FENDER PROTECTOR RH

HINT:

Use the same procedure described for the LH side.

20. REMOVE FAN SHROUD

Click here [INFO](#)

21. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

22. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

23. REMOVE WIDE RANGE AIR FUEL RATIO SENSOR

Click here [INFO](#)

24. REMOVE OXYGEN SENSOR

Click here [INFO](#)

25. REMOVE IGNITION COIL ASSEMBLY

Click here [INFO](#)

26. REMOVE NO. 2 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

27. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

28. DRAIN ENGINE COOLANT (for High Pressure)

Click here [INFO](#)

29. DRAIN ENGINE COOLANT (for Low Pressure)

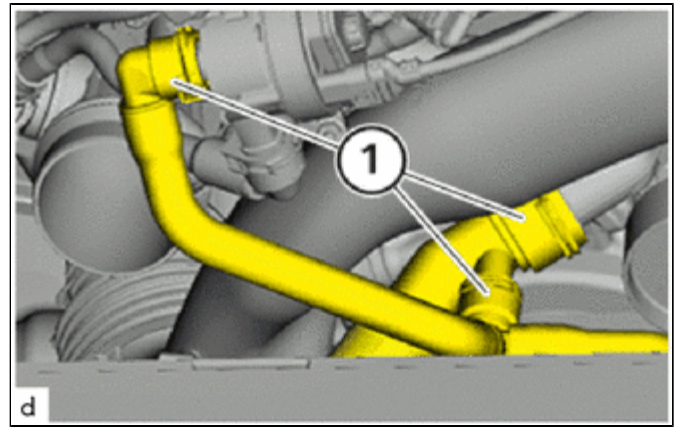
Click here [INFO](#)

30. DISCONNECT NO. 3 RADIATOR HOSE

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- (a) Unlock, disconnect and tie the No. 3 radiator hose (1) to one side.



31. REMOVE NO. 2 RADIATOR HOSE

Click here [INFO](#)

32. REMOVE STARTER ASSEMBLY

Click here [INFO](#)

33. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

34. REMOVE FLOOR HEAT INSULATOR

Click here [INFO](#)

35. REMOVE ENGINE REAR MOUNTING MEMBER

Click here [INFO](#)

36. SEPARATE PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

37. REMOVE NO. 2 MANIFOLD STAY

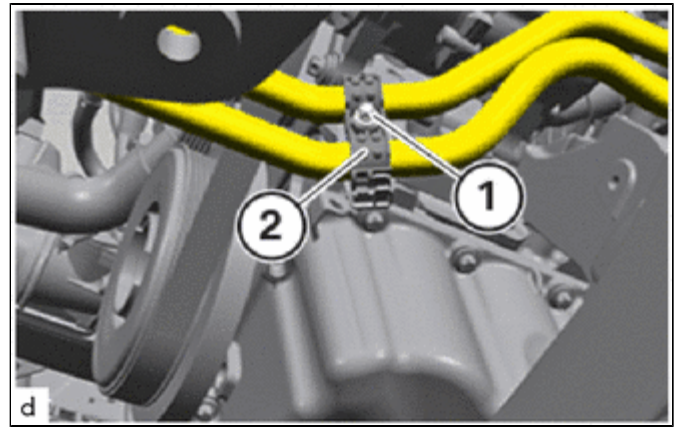
Click here [INFO](#)

38. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

39. SEPARATE OIL COOLER TUBE

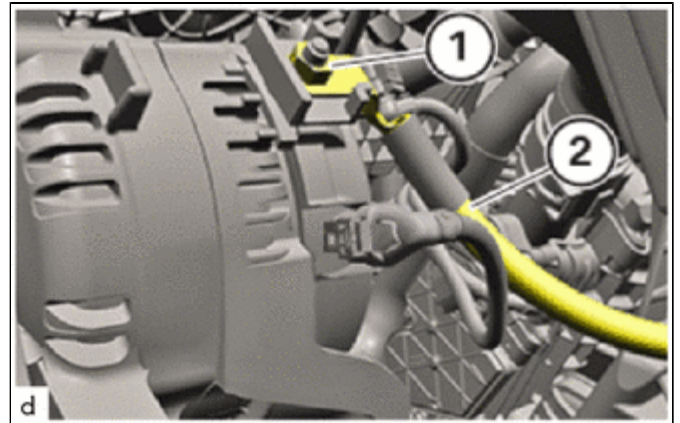
(a) Loosen T25 bolt (1).



(b) Loosen the No. 1 automatic transmission oil cooler tube clamp (2).

(c) Tie the oil cooler tube to the side.

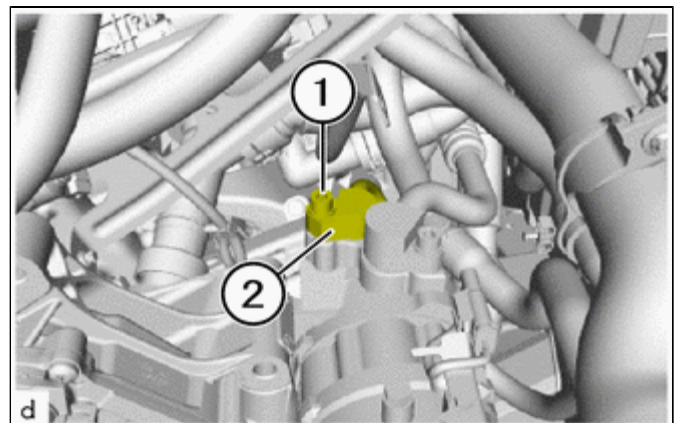
40. SEPARATE GENERATOR WIRE



(a) Unfasten nut (1).

(b) Thread out generator wire (2) and set it aside.

41. REMOVE AIR CONDITIONING TUBE ASSEMBLY

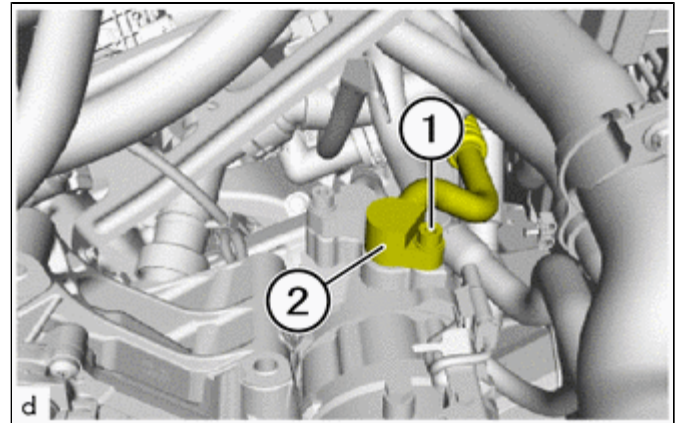


(a) Loosen T45 bolts (1).

(b) Remove air conditioning tube assembly (2) upwards.

42. REMOVE SUCTION PIPE SUB-ASSEMBLY

(a) Loosen T45 bolts (1).



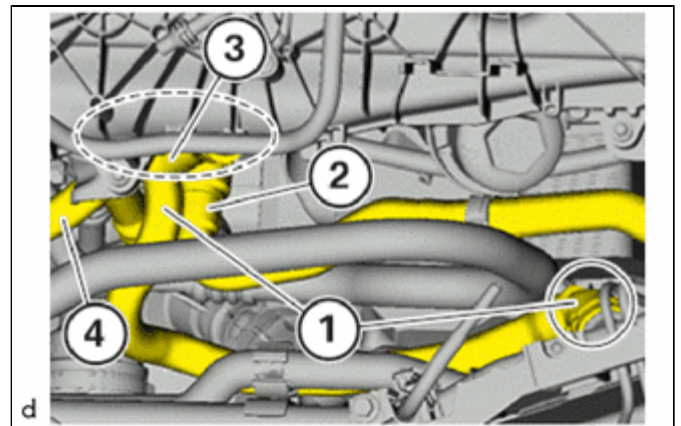
(b) Remove suction pipe sub-assembly (2) upwards.

43. DISCONNECT WATER HOSE

HINT:

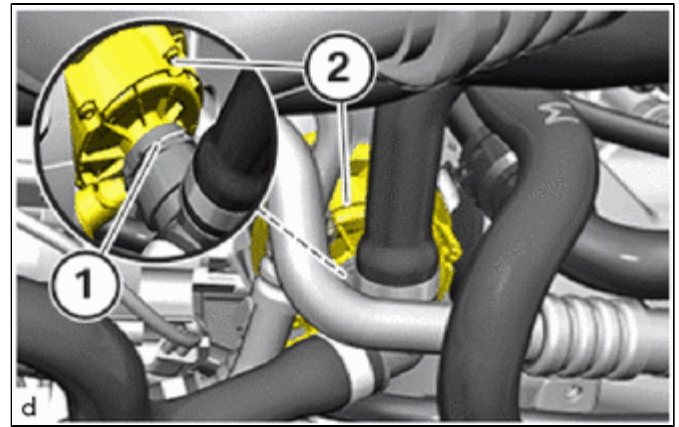
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock and disconnect No. 1 water by-pass hose (1), heater water hose (2), No. 7 water by-pass hose (3) and No. 5 water by-pass hose (4) in the marked areas.

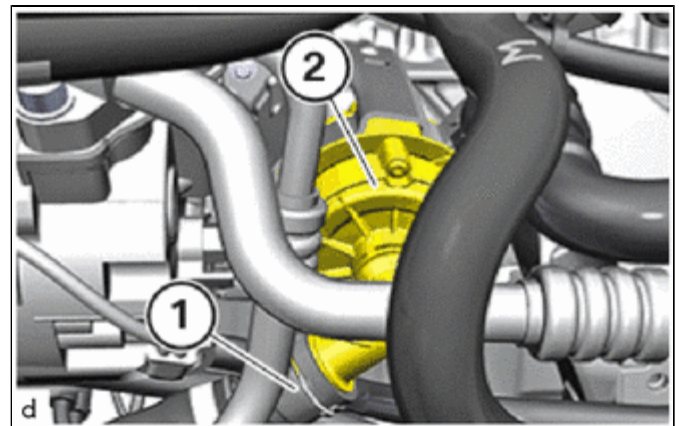


(b) Remove the No. 1 water by-pass hose (1).

(c) Unlock No. 7 water by-pass hose (1) and disconnect from the water pump sub-assembly (2).

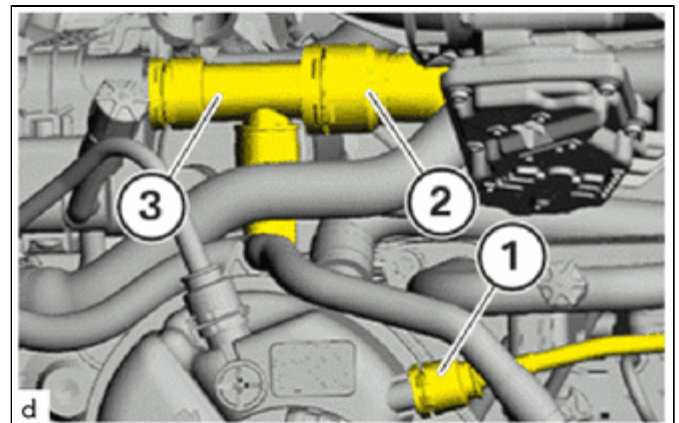


(d) Place the No. 7 water by-pass hose (1) aside.



(e) Unlock No. 6 radiator hose (1) and disconnect from the water pump sub-assembly (2).

(f) Place the No. 6 radiator hose (1) aside.



(g) Unlock and disconnect the radiator reserve tank hose (1) and No. 7 water by-pass hose (2) and lay to one side.

(h) Unlock and disconnect the No. 6 water by-pass hose (3) and set it aside.

44. REMOVE ENGINE ASSEMBLY

CAUTION:

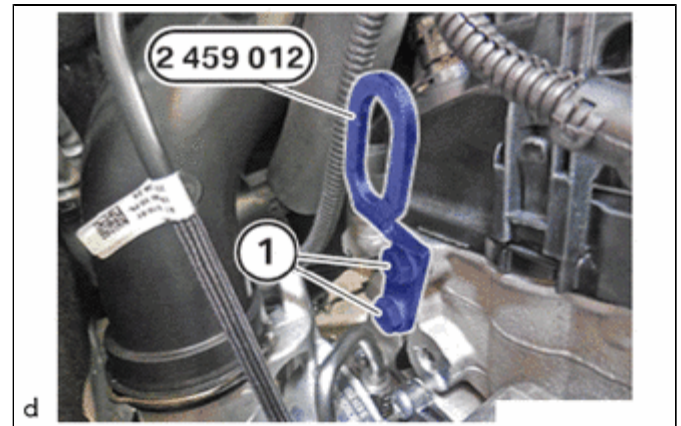
Components connected to the engine joint or cross member.

Danger of injury!

- Check lifting eyes and engine mounting brackets for damage, e.g. cracks.
- Attach the component to correctly mounted engine joints or cross members only.
- Exclusively lift the component, do not move it forwards, backwards or in transverse direction.

(a) Guide in and position special tool 2 459 012 on cylinder head.

SST: 09200-WA610



(b) Tighten the bolts (1) of special tool 2 459 012 .

SST: 09200-WA610

Torque:

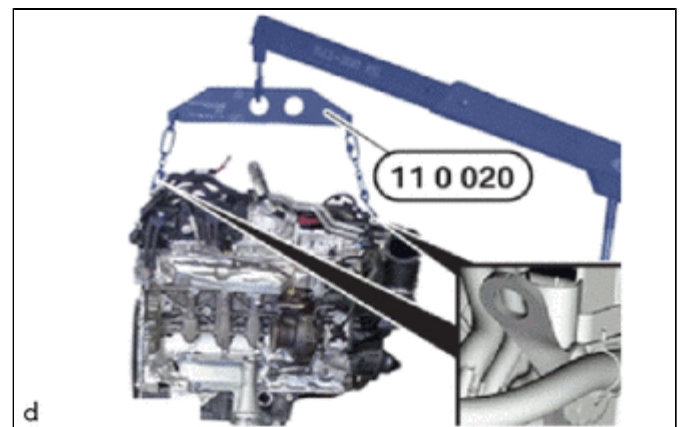
21.5 N·m {219 kgf·cm, 16 ft·lbf}

(c) Connect both hooks of the special tool 0 490 567 (11 0 020) to the front and back of the engine with the engine hangers.

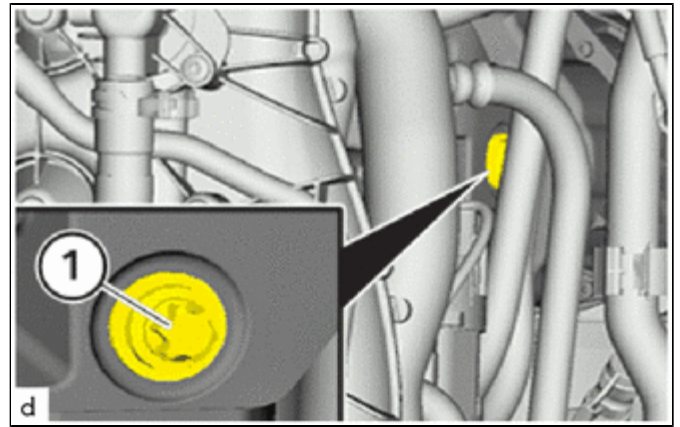
SST: 09200-WA860

HINT:

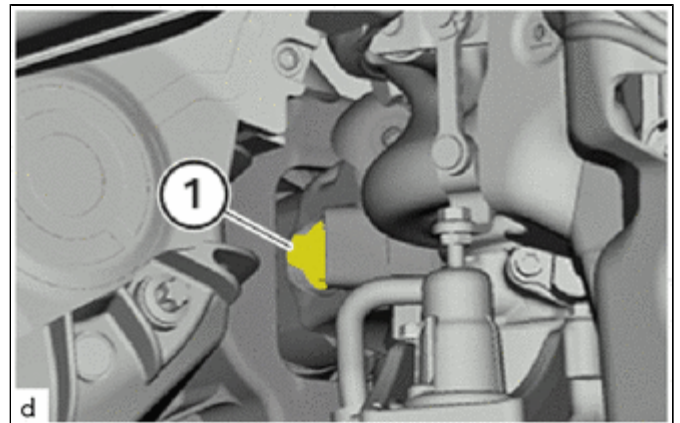
The workshop crane, lifting gear and the engine hangers on the engine must all be connected to each other so that the engine hangs straight upon lifting.



(d) Release the E14 bolt (1) from the top.



(e) Release the E14 bolt (1) from the top.



(f) Raise and remove the engine.

45. INSTALL ENGINE STAND

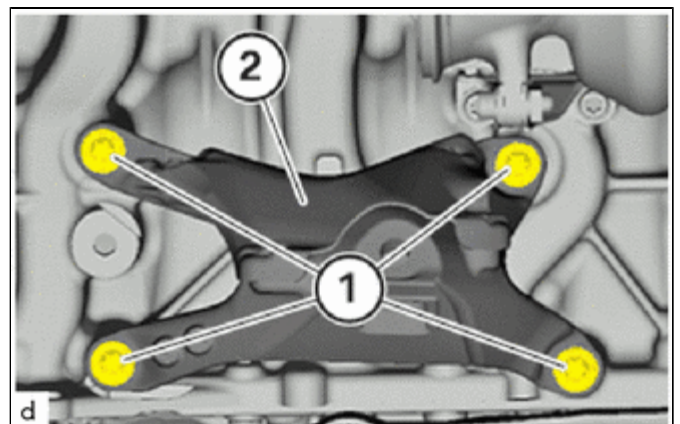
CAUTION:

- Heavy component.

Heavy components can lead to injury or damage.

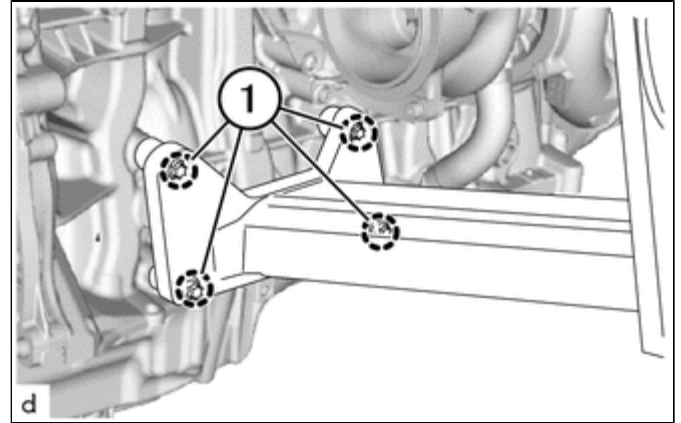
- Remove and install heavy components with the aid of another person/other persons.

(a) Loosen E12 bolts (1).



(b) Remove the No. 1 front engine mounting bracket RH (2).

(c) Position and secure engine stand attachment No. 2 on the engine.



(d) Tighten the bolts (1).

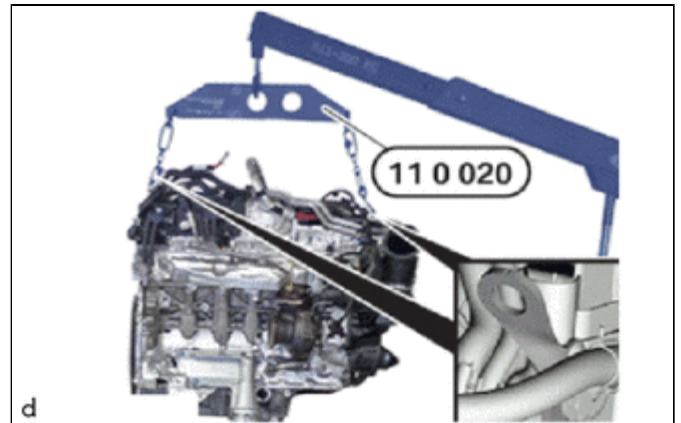
Torque:

38 N·m {387 kgf·cm, 28 ft·lbf}

(e) Lower engine slowly.

(f) Release both hooks of the special tool 0 490 567 (11 0 020) at the front and back of the engine from the engine hangers.

SST: 09200-WA860



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. REMOVE ENGINE STAND

HINT:

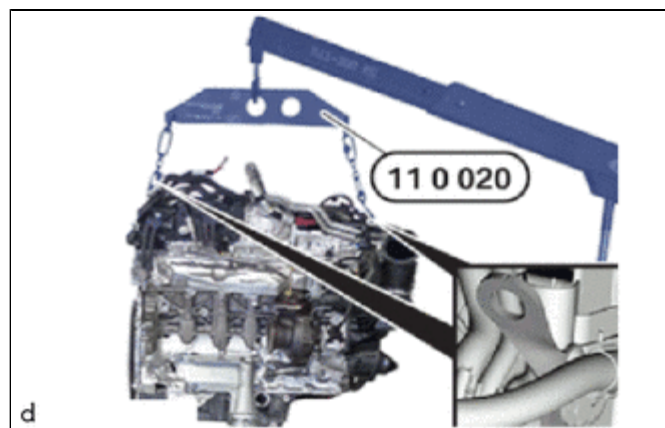
Conduct the following operation with the assistance of a second person.

- (a) Connect both hooks of the special tool 0 490 567 (11 0 020) to the front and back of the engine with the engine hangers.

SST: 09200-WA860

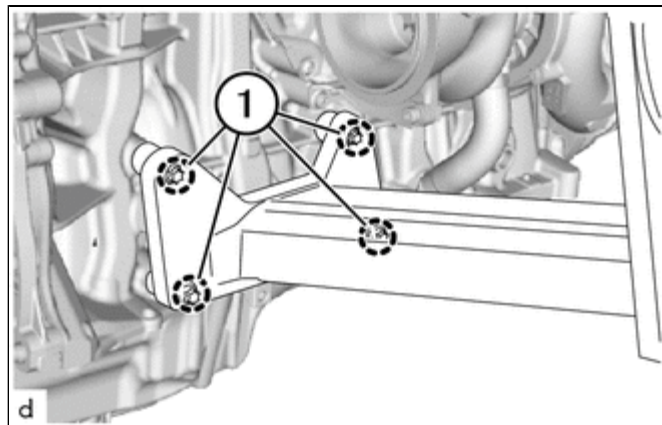
HINT:

The workshop crane, lifting gear and the engine hangers on the engine must all be connected to each other so that the engine hangs straight upon lifting.

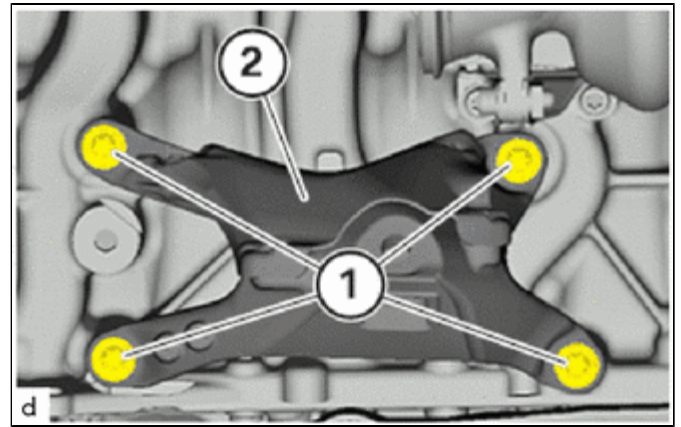


- (b) Raise the engine slowly.

- (c) Release the bolts (1) and remove the engine stand attachment No. 2.



(d) Install the No. 1 front engine mounting bracket RH (2).



(e) Tighten the E12 bolts (1).

Torque:

38 N·m {387 kgf·cm, 28 ft·lbf}

2. INSTALL ENGINE ASSEMBLY

CAUTION:

- Components connected to the engine joint or cross member.

Danger of injury!

- Check lifting eyes and engine mounting brackets for damage, e.g. cracks.
- Attach the component to correctly mounted engine joints or cross members only.
- Exclusively lift the component, do not move it forwards, backwards or in transverse direction.

(a) Install and lower the engine.

(b) Make sure that the No. 1 front engine mounting brackets rest completely on the front engine mounting insulators.

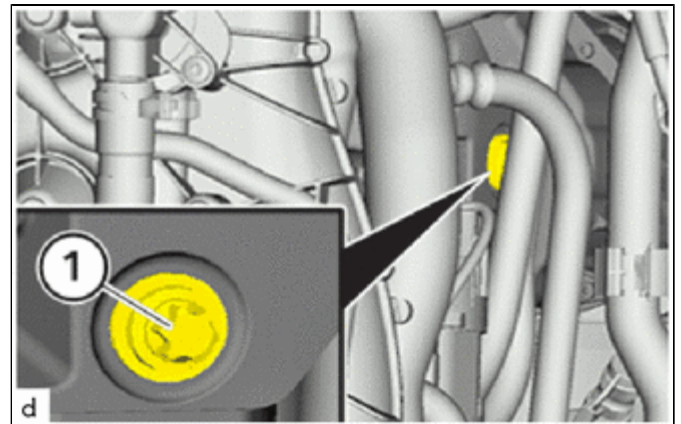
(c) Tighten down E14 bolt (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

NOTICE:

Lower the engine completely to prevent play before bolting down the front engine mounting insulator LH and front No. 1 engine mounting bracket LH.



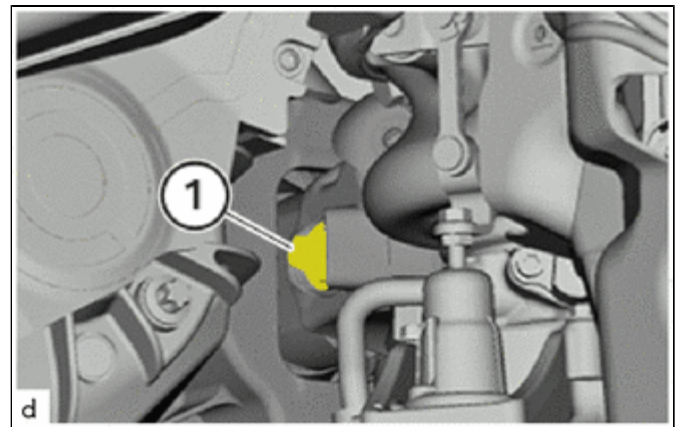
(d) Tighten down E14 bolt (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

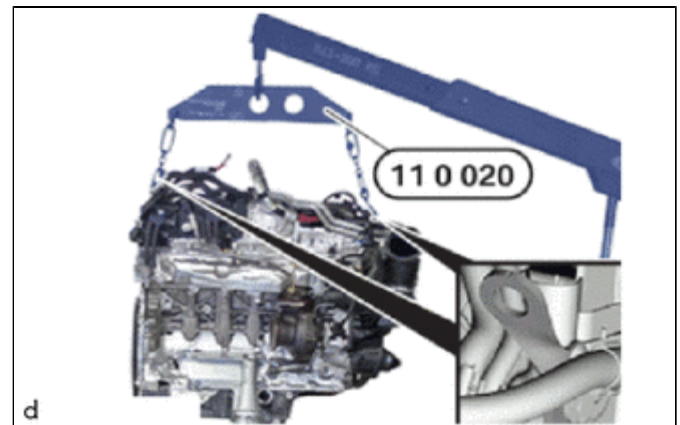
NOTICE:

Lower the engine completely to prevent play before bolting down the front engine mounting insulator RH and front No. 1 engine mounting bracket RH.



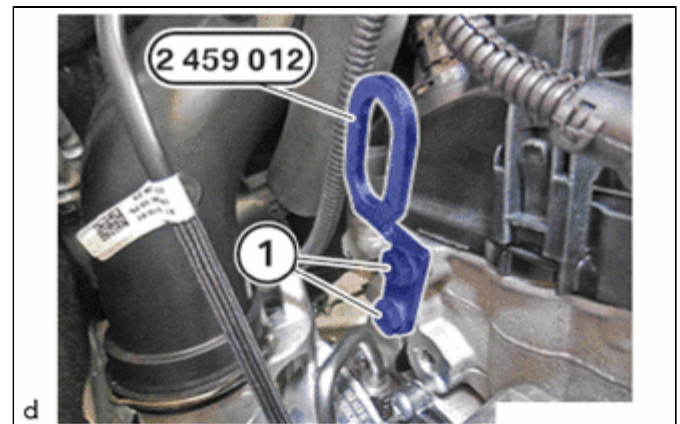
- (e) Release both hooks of the special tool 0 490 567 (11 0 020) at the front and back of the engine from the engine hangers.

SST: 09200-WA860



- (f) Unscrew the bolts (1) of the special tool 2 459 012 .

SST: 09200-WA610



- (g) Feed out the special tool 2 459 012 at the cylinder head and remove.

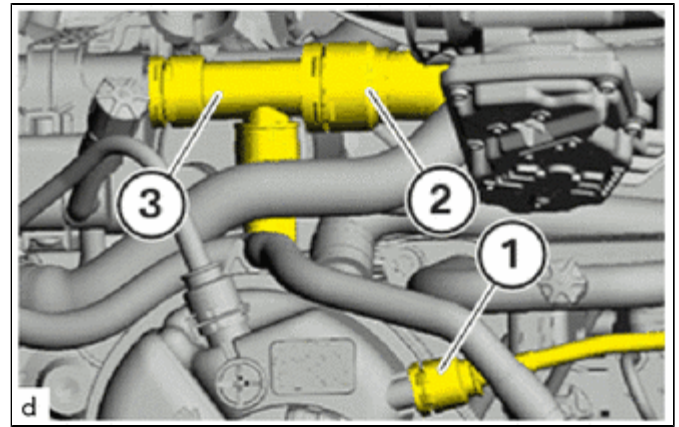
SST: 09200-WA610

3. CONNECT WATER HOSE

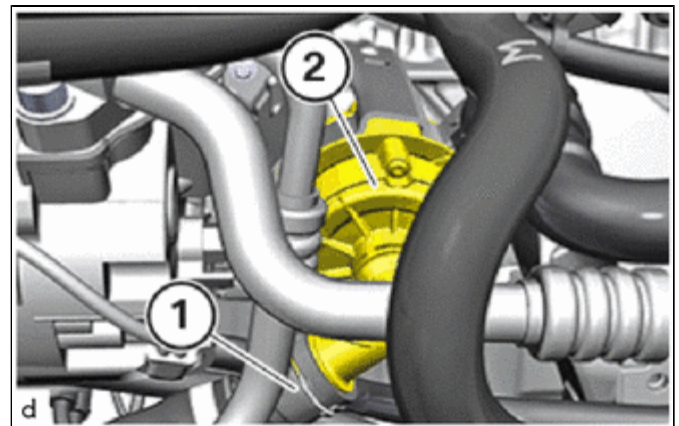
HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

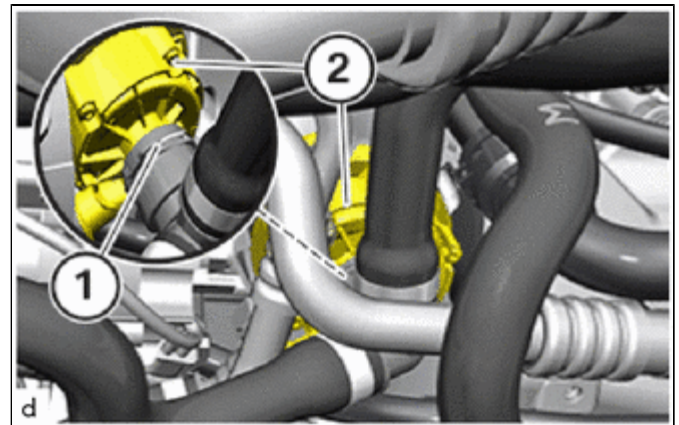
(a) Connect and lock No. 6 water by-pass hose (3).



(b) Connect and lock the radiator reserve tank hose (1) and No. 7 water by-pass hose (2).

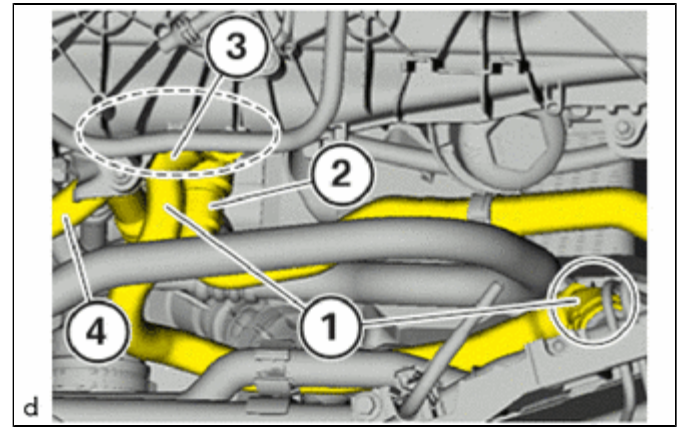


(c) Connect and lock the No. 6 radiator hose (1) to the water pump sub-assembly (2).



(d) Connect and lock the No. 7 water by-pass hose (1) to the water pump sub-assembly (2).

(e) Feed in and install No. 1 water by-pass hose (1).

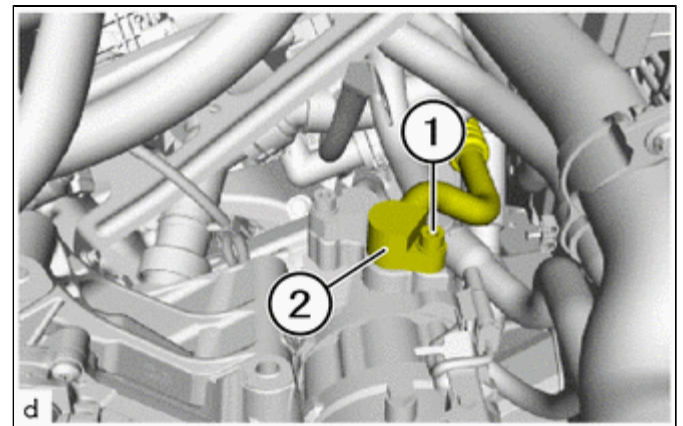


(f) Connect and lock No. 1 water by-pass hose (1), heater water hose (2), No. 7 water by-pass hose (3) and No. 5 water by-pass hose (4) in the marked areas.

4. INSTALL SUCTION PIPE SUB-ASSEMBLY

(a) Replace O-ring.

(b) Position suction pipe sub-assembly (2).



(c) Tighten the T45 bolts (1).

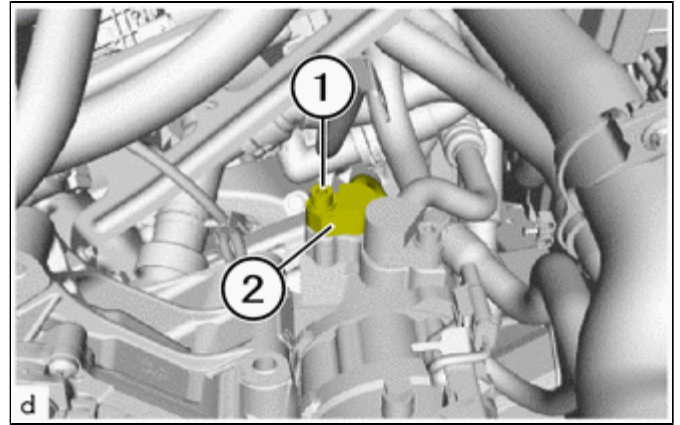
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

5. INSTALL AIR CONDITIONING TUBE ASSEMBLY

(a) Replace O-ring.

(b) Position air conditioning tube assembly (2).



(c) Tighten the T45 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

6. INSTALL GENERATOR WIRE

(a) Insert and install the generator wire.

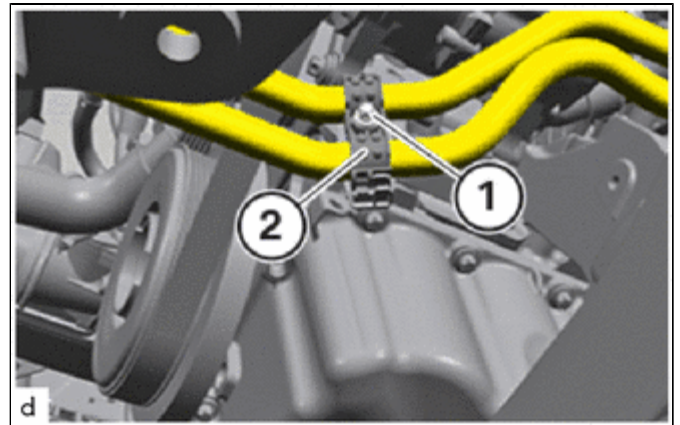
(b) Tighten nut.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

7. INSTALL OIL COOLER TUBE

(a) Position the oil cooler tube in the No. 1 automatic transmission oil cooler tube clamp (2).



(b) Tighten down T25 screw (1).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

8. TEMPORARILY TIGHTEN AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

9. FULLY TIGHTEN AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

10. INSTALL NO. 2 MANIFOLD STAY

Click here [INFO](#)

11. INSTALL PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

12. INSTALL ENGINE REAR MOUNTING MEMBER

Click here [INFO](#)

13. INSTALL FLOOR HEAT INSULATOR

Click here [INFO](#)

14. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

15. INSTALL STARTER ASSEMBLY

Click here [INFO](#)

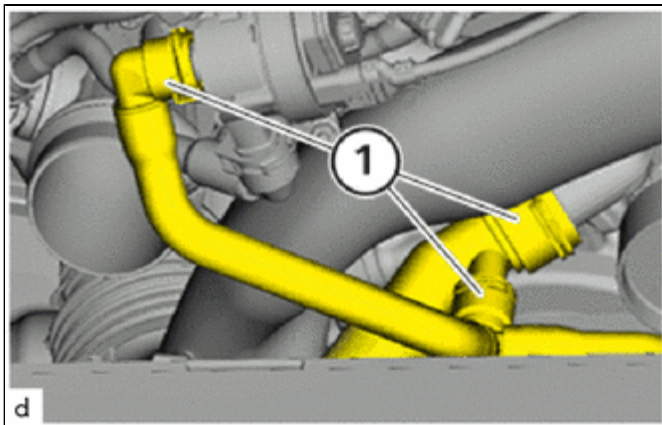
16. INSTALL NO. 2 RADIATOR HOSE

Click here [INFO](#)

17. CONNECT NO. 3 RADIATOR HOSE

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(a) Connect and lock the No. 3 radiator hose (1).

18. INSTALL NO. 2 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

19. INSTALL IGNITION COIL ASSEMBLY

Click here [INFO](#)

20. INSTALL OXYGEN SENSOR

Click here [INFO](#)

21. INSTALL WIDE RANGE AIR FUEL RATIO SENSOR

Click here [INFO](#)

22. INSTALL AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

23. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

24. INSTALL FAN SHROUD

Click here [INFO](#)

25. INSTALL FRONT UPPER FENDER PROTECTOR LH

Click here [INFO](#)

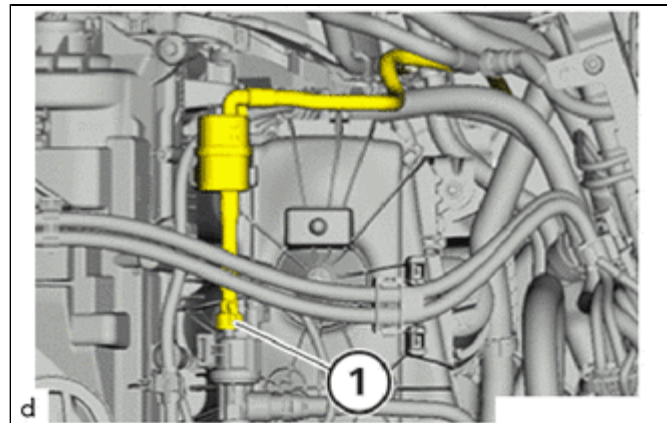
26. INSTALL FRONT UPPER FENDER PROTECTOR RH

HINT:

Use the same procedure described for the LH side.

27. CONNECT NO. 2 FUEL VAPOR FEED HOSE

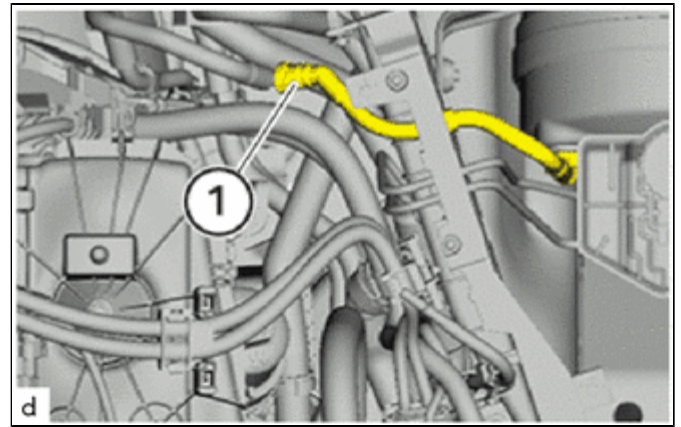
(a) Connect and lock the No. 2 fuel vapor feed hose (1).



(b) Engage the clamp.

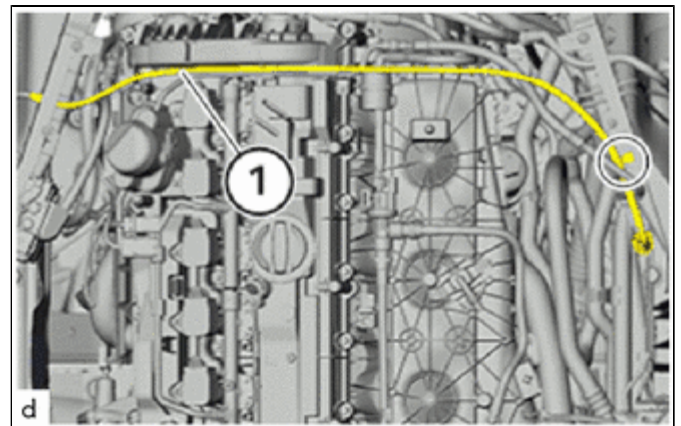
28. CONNECT CONNECTOR TO BRAKE BOOSTER TUBE

(a) Connect and lock the connector to brake booster tube (1).



29. INSTALL FLOOR WIRE

- (a) Clip in the floor cable (1) for the voltage supply of the power distribution box in the marked area.



30. INSTALL ENGINE ROOM ECM BOX

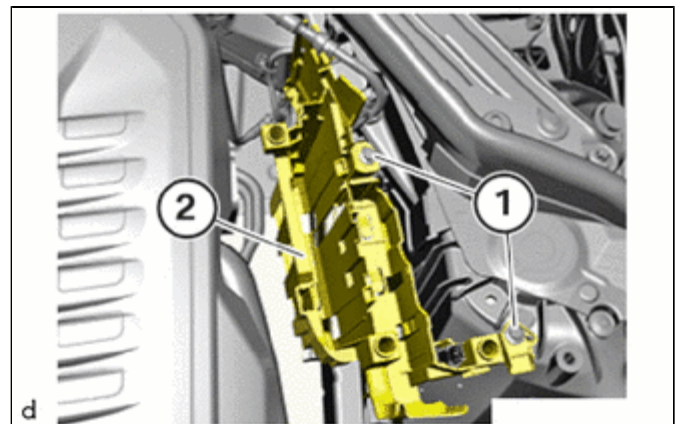
NOTICE:

- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

- (a) Feed the engine room ECM box (2) into the guide and install.



(b) Tighten the bolts (1).

Torque:

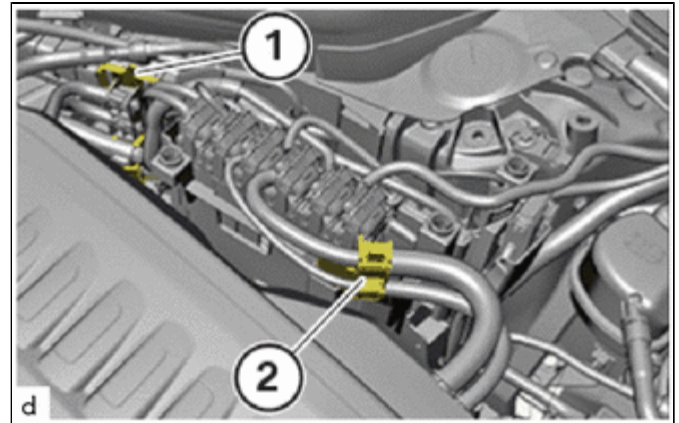
8.0 N·m {82 kgf·cm, 71 in·lbf}

(c) Feed the wiring harnesses into the holder at the engine room ECM box.

(d) Engage the 3 clamps

(e) Connect connectors (1) and lock.

(f) The locks (1) and (2) must engage audibly.

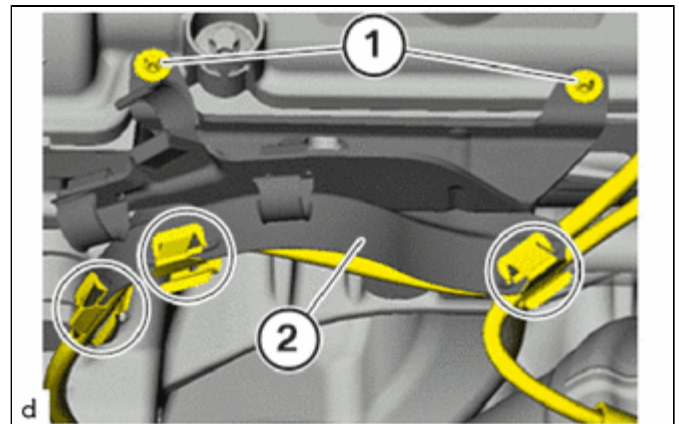


31. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

32. INSTALL WIRE HARNESS CLAMP BRACKET

(a) Install wire harness clamp bracket (2) for the generator wire.



(b) Tighten the E8 screws (1).

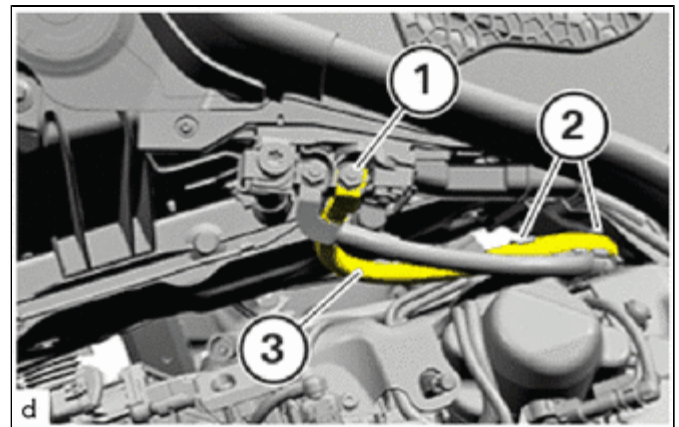
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(c) Clip in the lines in the marked areas.

33. POSITIVE BATTERY CABLE

(a) Position the starter wire (3).



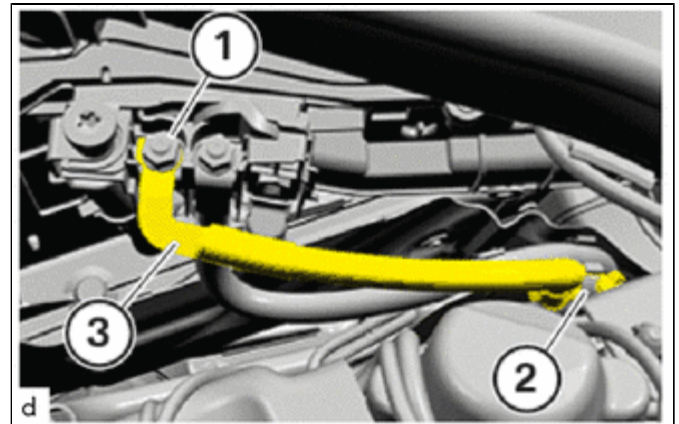
(b) Secure clamps (2).

(c) Tighten nut (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(d) Insert and install the generator wire (3).



(e) Secure clamps (2).

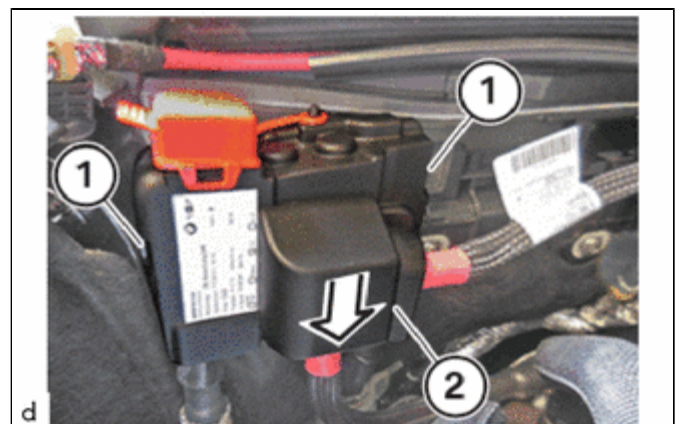
(f) Tighten nut (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

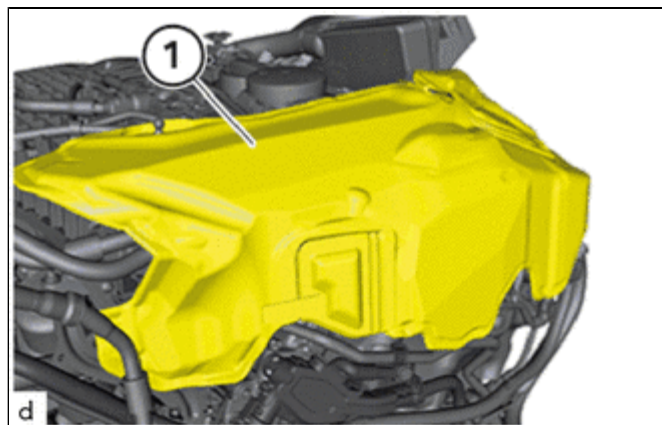
(g) Insert and install the cover (2) in the direction of the arrow.

(1) The locks (1) must engage audibly.

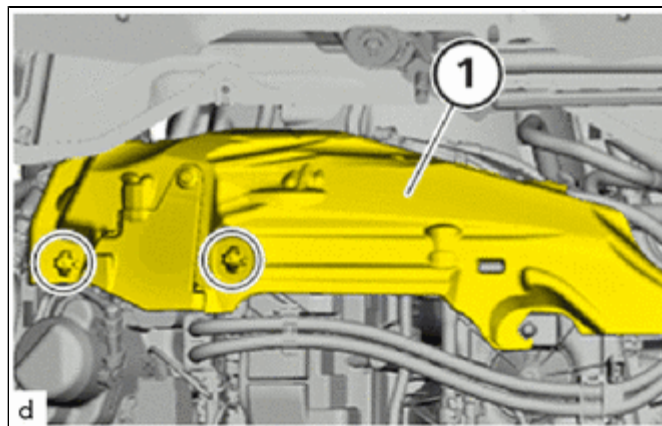


34. INSTALL NO. 1 ENGINE COVER

- (a) Make sure the No. 1 engine cover (1) is correctly positioned on the rear side of the engine.



- (b) Install the No. 1 engine cover (1) from the top and clip it in at the grommets into the marked areas.



35. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

NOTICE:

- Damage to the No. 1 engine cover sub-assembly.

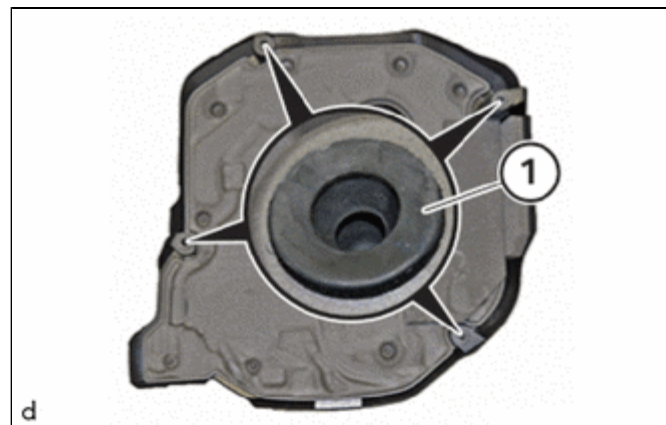
Jerky movements during disassembly and excessive application of force during installation may result in breakage of the No. 1 engine cover sub-assembly.

- Disassemble or mount the No. 1 engine cover sub-assembly carefully.
- Disassemble or mount snap-lock couplings of the ball pivots one after the other.
- Disassemble or mount No. 1 engine cover sub-assembly only at temperatures >20 °C.

Vehicle information / Control unit list / DME / Call up control unit functions / Diagnostic request /
Diagnostic request / 117 Ambient temperature

- Use only distilled water as an auxiliary material during installation, no lubricants.

- (a) Check the rubber mount (1) for correct fit in the No. 1 engine cover sub-assembly.

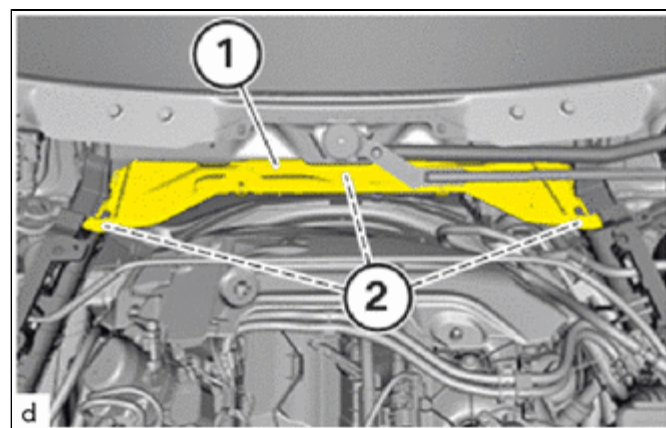


- (b) Install No. 1 engine cover sub-assembly (1) and fix in the grommets (marks).



36. INSTALL NO. 2 COWL TOP VENTILATOR LOUVER PROTECTOR

- (a) Position the No. 2 cowl top ventilator louver protector (1).



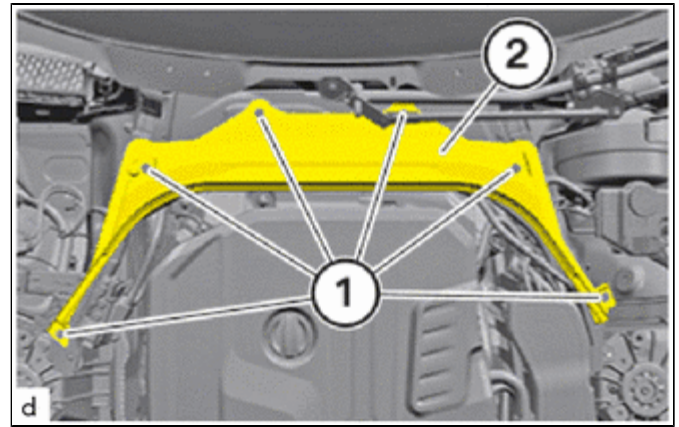
- (b) Tighten down bolts and nut (2).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

37. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

(a) Position the cowl top ventilator louver protector (2).



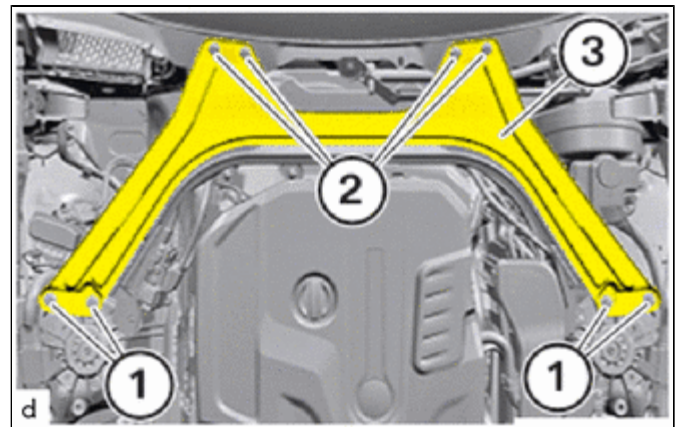
(b) Tighten the bolts (1).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

38. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

(a) Position upper front suspension center brace (3).



(b) Replace E14 bolts (1) and bolts (2).

(c) Tighten the E14 bolts (1).

Torque:

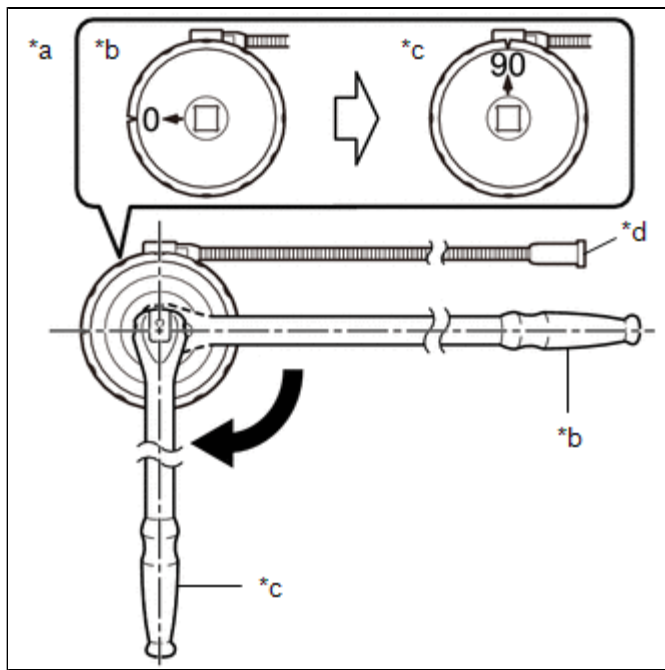
56 N·m {571 kgf·cm, 41 ft·lbf}

(d) Using SST, tighten the E14 bolts (1) an additional 90°.

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

(e) Tighten the bolts (2).

Torque:

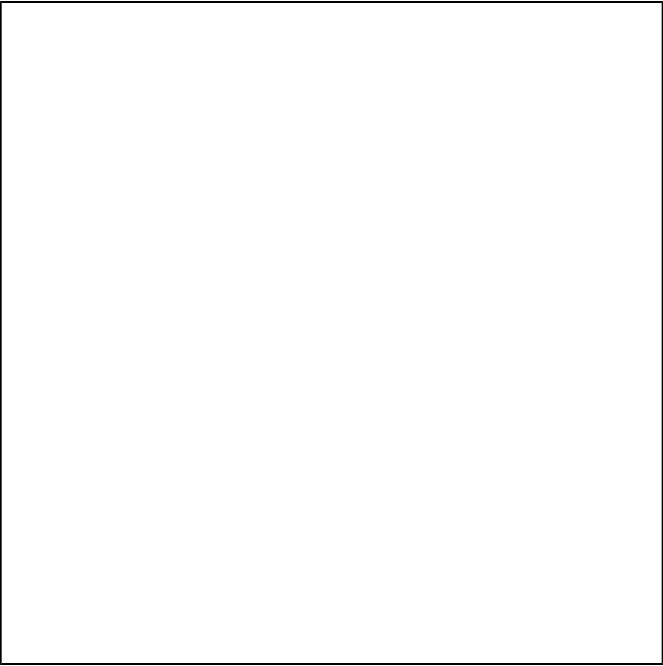
56 N·m {571 kgf·cm, 41 ft·lbf}

(f) Using SST, tighten the bolts (2) an additional 90°.

SST: 09900-WA010

HINT:

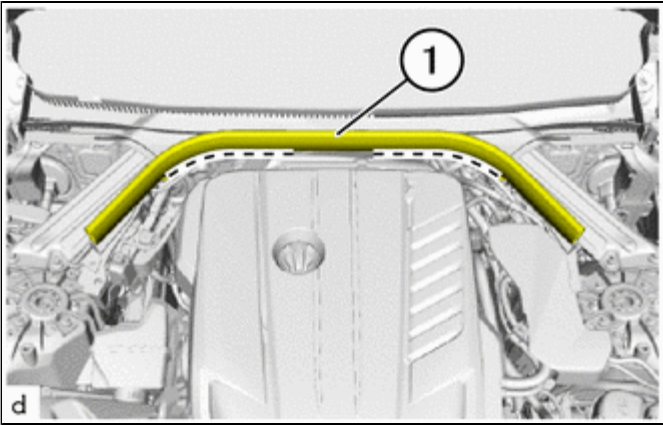
- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

39. INSTALL HOOD TO COWL TOP SEAL

(a) Press the hood to cowl top seal (1) into the guide.



- (b) Feed the cable into the brackets in the marked area.
- (c) Make sure that the hood to cowl top seal (1) and the cable are fitted correctly.

40. INSTALL FRONT WIPER MOTOR AND LINK ASSEMBLY

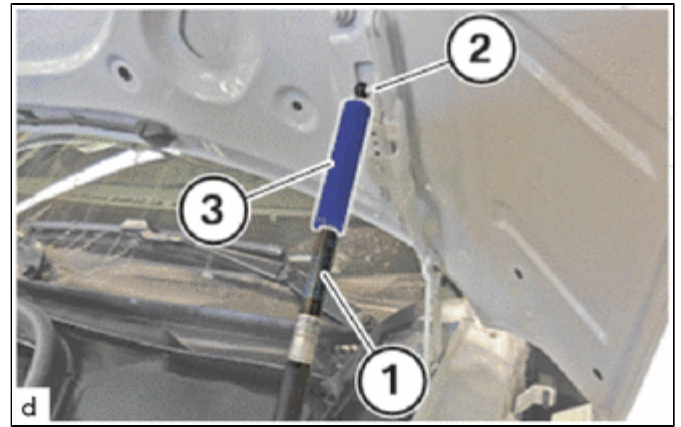
Click here [INFO](#)

41. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

- (a) Support the hood sub-assembly by hand.

(b) Remove the special tool 0 493 647 (51 2 170) (3) from the ball pin (2).

SST: 09800-WA030



(c) Pull off the special tool 0 493 647 (51 2 170) (3) from the gas pressure spring (1).

SST: 09800-WA030

(d) Continue to support the hood sub-assembly and repeat the operation on the other side of vehicle.

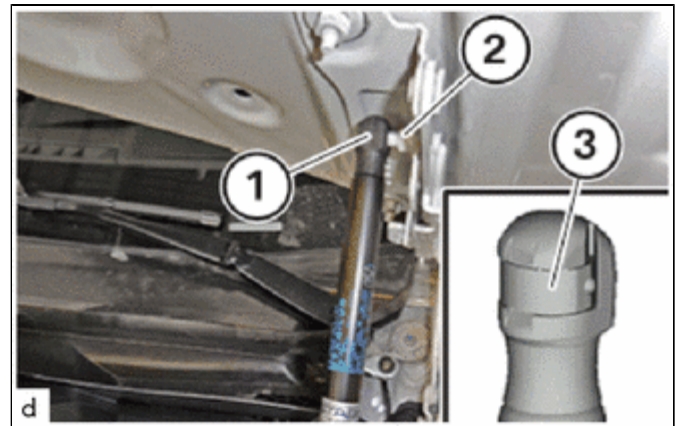
CAUTION:

- Shutting hood sub-assembly or tailgate.

Danger of injury!

- Support hood sub-assembly/tailgate in fully open position with the aid of a suitable device.

(e) Check the clamp (3) is fitted correctly.



(f) Connect ball socket (1) to ball pin (2).

(g) Continue to support the hood sub-assembly and repeat the operation on the other side of vehicle.

42. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

43. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

44. ADD ENGINE COOLANT (for High Pressure)

Click here [INFO](#)

45. ADD ENGINE COOLANT (for Low Pressure)

Click here [INFO](#)

46. INSPECT FOR COOLANT LEAK

Click here [INFO](#)

47. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

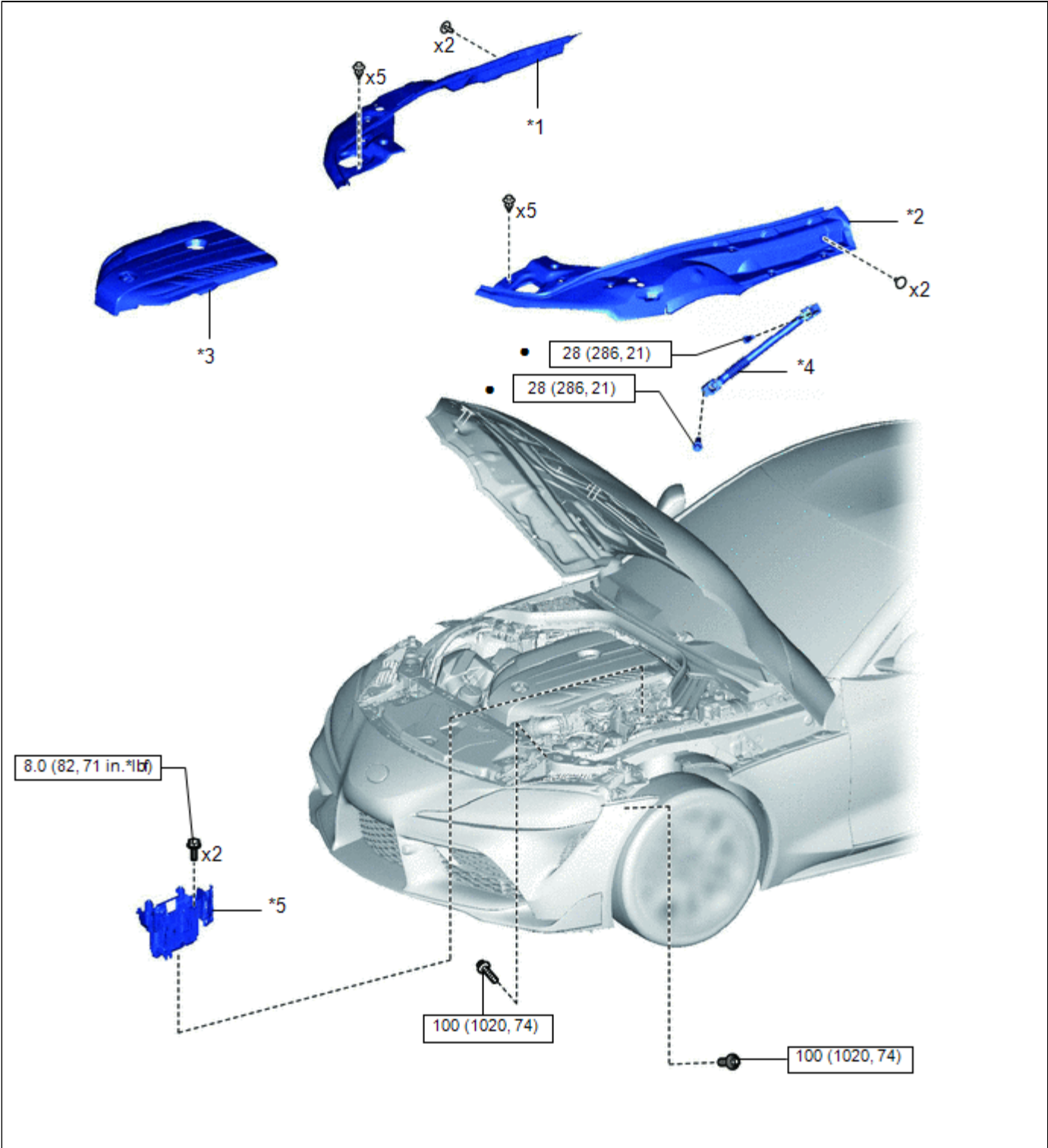
48. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE INSTALLATION POSITION: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT UPPER FENDER PROTECTOR	*2	FRONT UPPER FENDER PROTECTOR
----	------------------------------	----	------------------------------

	RH		LH
*3	NO. 1 ENGINE COVER SUB-ASSEMBLY	*4	STEERING INTERMEDIATE SHAFT ASSEMBLY
*5	ENGINE ROOM ECM BOX	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE INSTALLATION POSITION: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

4. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

5. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

6. REMOVE FRONT UPPER FENDER PROTECTOR LH

Click here [INFO](#)

7. REMOVE FRONT UPPER FENDER PROTECTOR RH

HINT:

Use the same procedure described for the LH side.

8. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

9. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

10. REMOVE STEERING INTERMEDIATE SHAFT ASSEMBLY

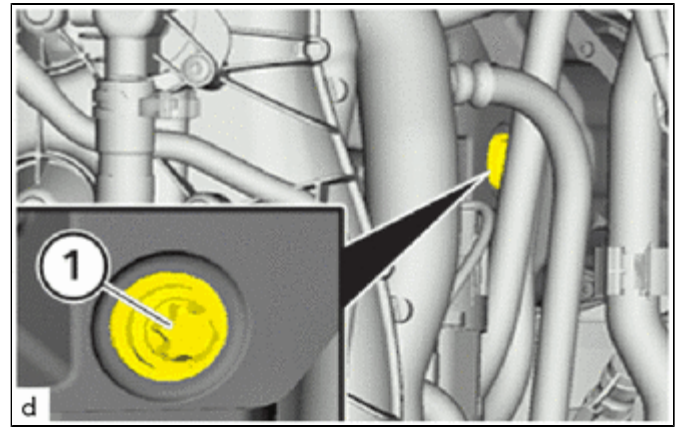
Click here [INFO](#)

11. INSTALL ENGINE SUPPORT BRIDGE

Click here [INFO](#)

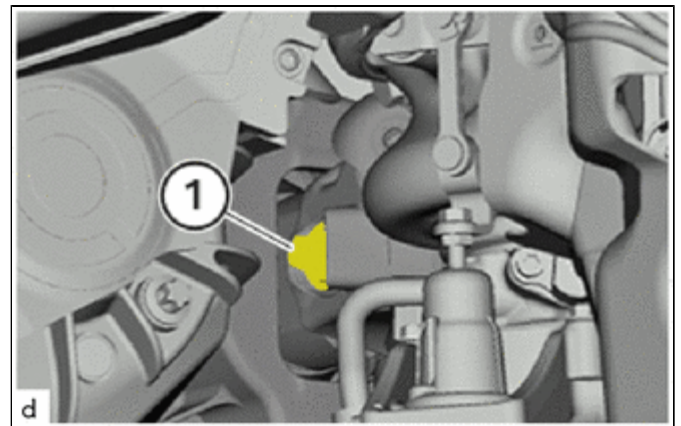
12. SEPARATE NO. 1 FRONT ENGINE MOUNTING BRACKET LH

(a) Release the E14 bolt (1) from the top.



13. SEPARATE NO. 1 FRONT ENGINE MOUNTING BRACKET RH

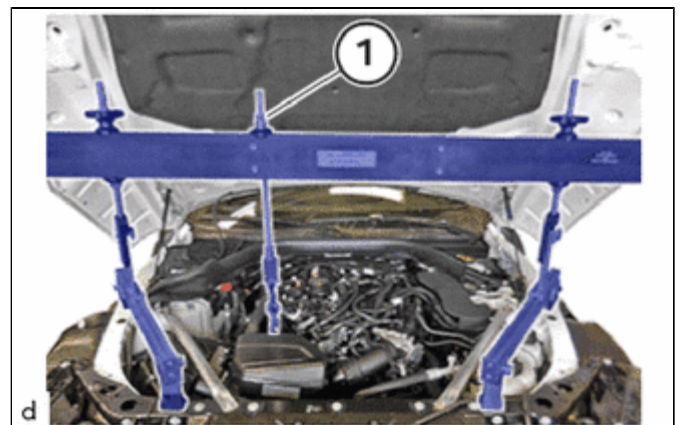
(a) Release the E14 bolt (1) from the top.



14. SUPPORT ENGINE ASSEMBLY

(a) for Type A:

(1) Raise the engine by turning the spindle (1) by 10 mm.



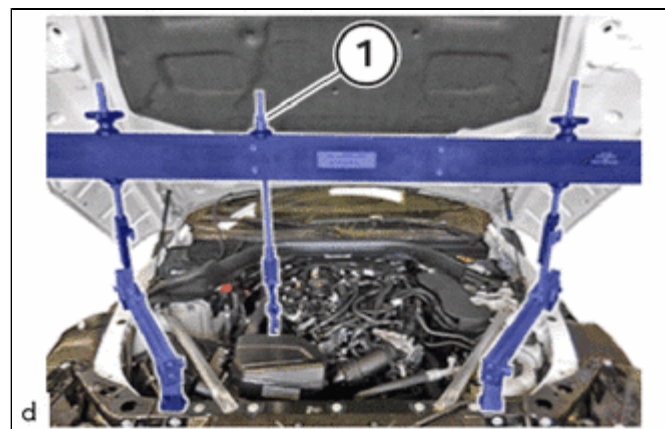
(b) for Type B:

(1) Raise the engine by turning the chain block by 10 mm.

15. REMOVE ENGINE SUPPORT BRIDGE

(a) for Type A:

- (1) Turn the spindle (1) to lower the engine until the engine support arms rest completely flat on the engine mounts.



- (2) Remove the engine bridge with the help from another person.

(b) for Type B:

- (1) Turn the chain block to lower the engine until the engine support arms rest completely flat on the engine mounts.
(2) Remove the engine support bridge with the help from another person.

NOTICE:

Prevent SST from contacting the vehicle body or windshield glass.

- (c) Unscrew the bolts (1) of the special tool 2 459 012.

SST: 09200-WA610



- (d) Feed out the special tool 2 459 012 at the cylinder head and remove.

SST: 09200-WA610

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE INSTALLATION POSITION: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 FRONT ENGINE MOUNTING BRACKET LH

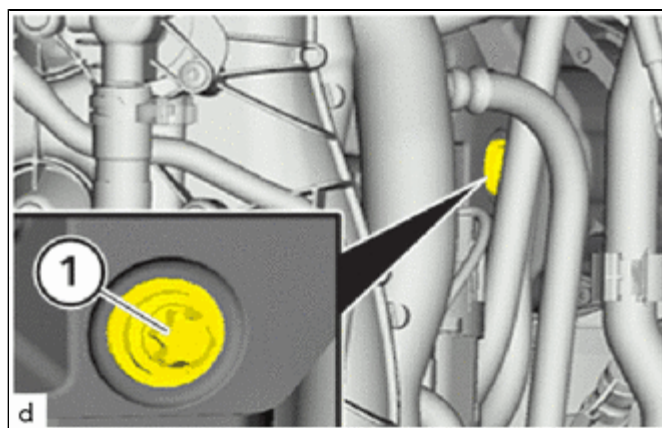
NOTICE:

Lower the engine completely to prevent play before bolting down the front engine mounting insulator LH and front No. 1 engine mounting bracket LH.

(a) Tighten down E14 bolt (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}



2. INSTALL NO. 1 FRONT ENGINE MOUNTING BRACKET RH

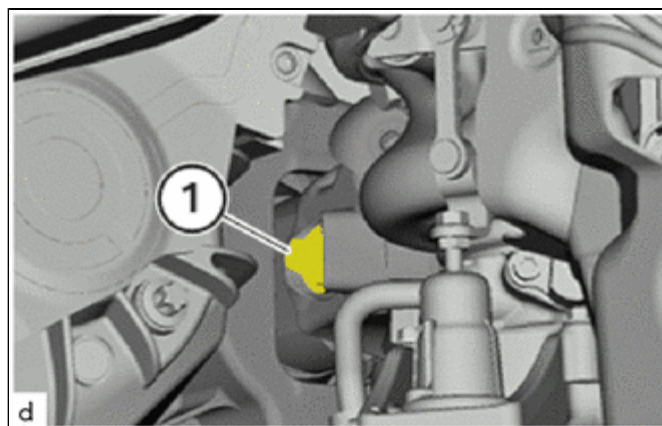
NOTICE:

Lower the engine completely to prevent play before bolting down the front engine mounting insulator RH and front No. 1 engine mounting bracket RH.

(a) Tighten down E14 bolt (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}



3. INSTALL STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

4. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

5. INSTALL WHEEL ASSEMBLY

Click here [INFO](#)

6. INSTALL FRONT UPPER FENDER PROTECTOR LH

Click here [INFO](#)

7. INSTALL FRONT UPPER FENDER PROTECTOR RH

HINT:

Use the same procedure described for the LH side.

8. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

9. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

10. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

11. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

13. INSPECT AIRBAG FOR FUNCTION

Click here [INFO](#)

14. START-UP OF ELECTROMECHANICAL STEERING

Click here [INFO](#)

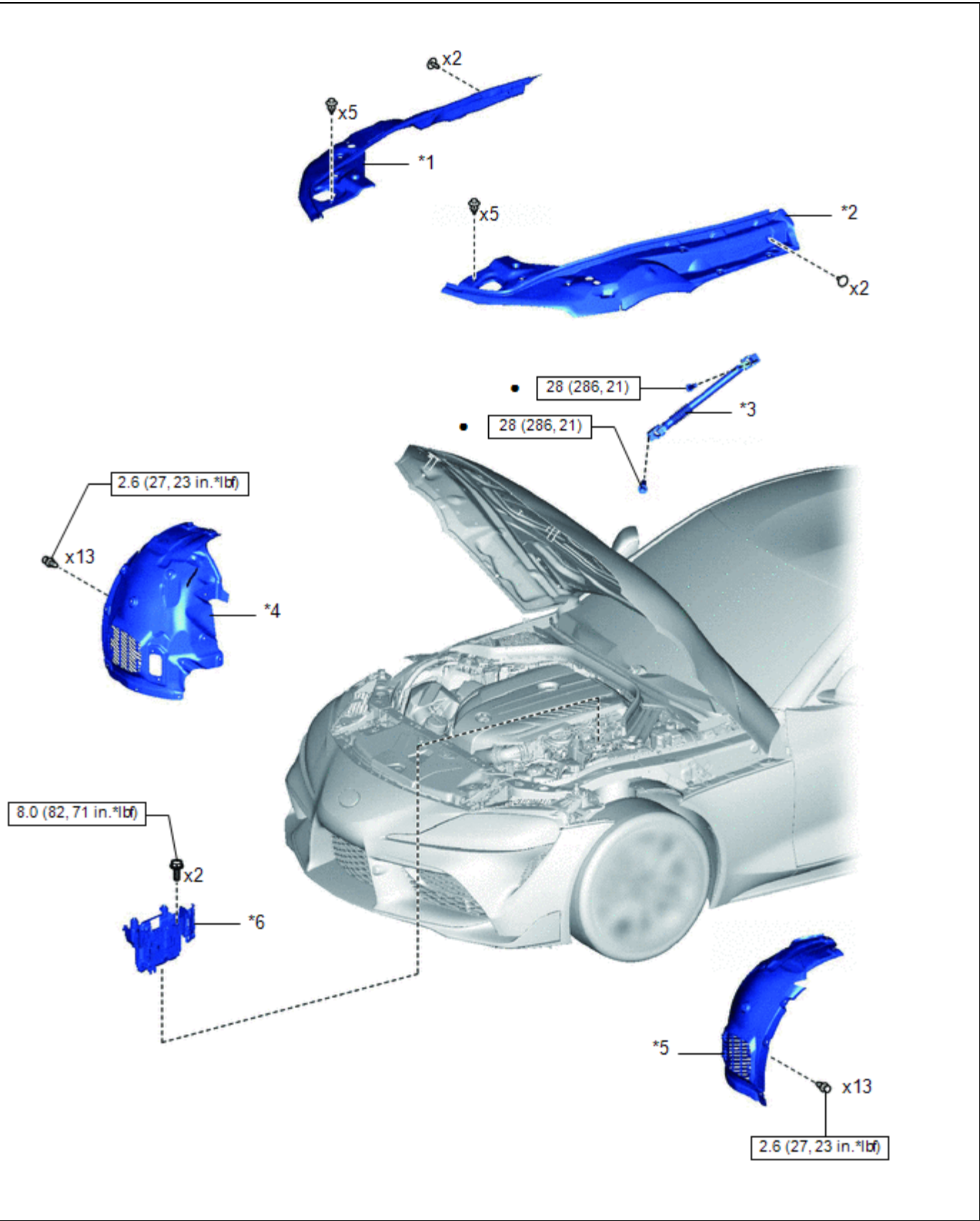
15. INSPECT STRAIGHT-AHEAD DRIVING POSITION OF THE STEERING WHEEL

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE MOUNTING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

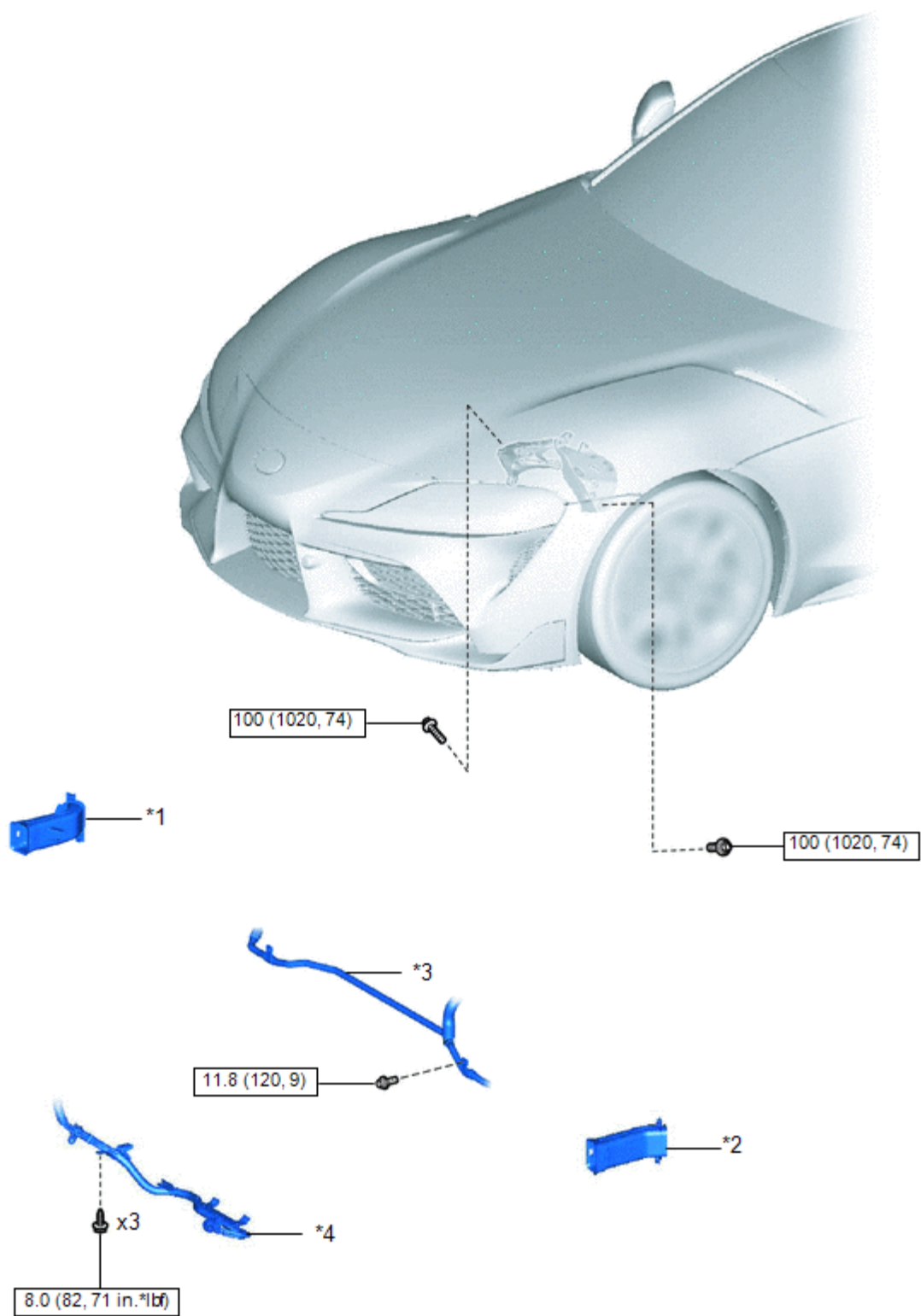
ILLUSTRATION




*1	FRONT UPPER FENDER PROTECTOR RH	*2	FRONT UPPER FENDER PROTECTOR LH
*3	STEERING INTERMEDIATE SHAFT ASSEMBLY	*4	FRONT FENDER LINER RH
*5	FRONT FENDER LINER LH	*6	ENGINE ROOM ECM BOX

	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
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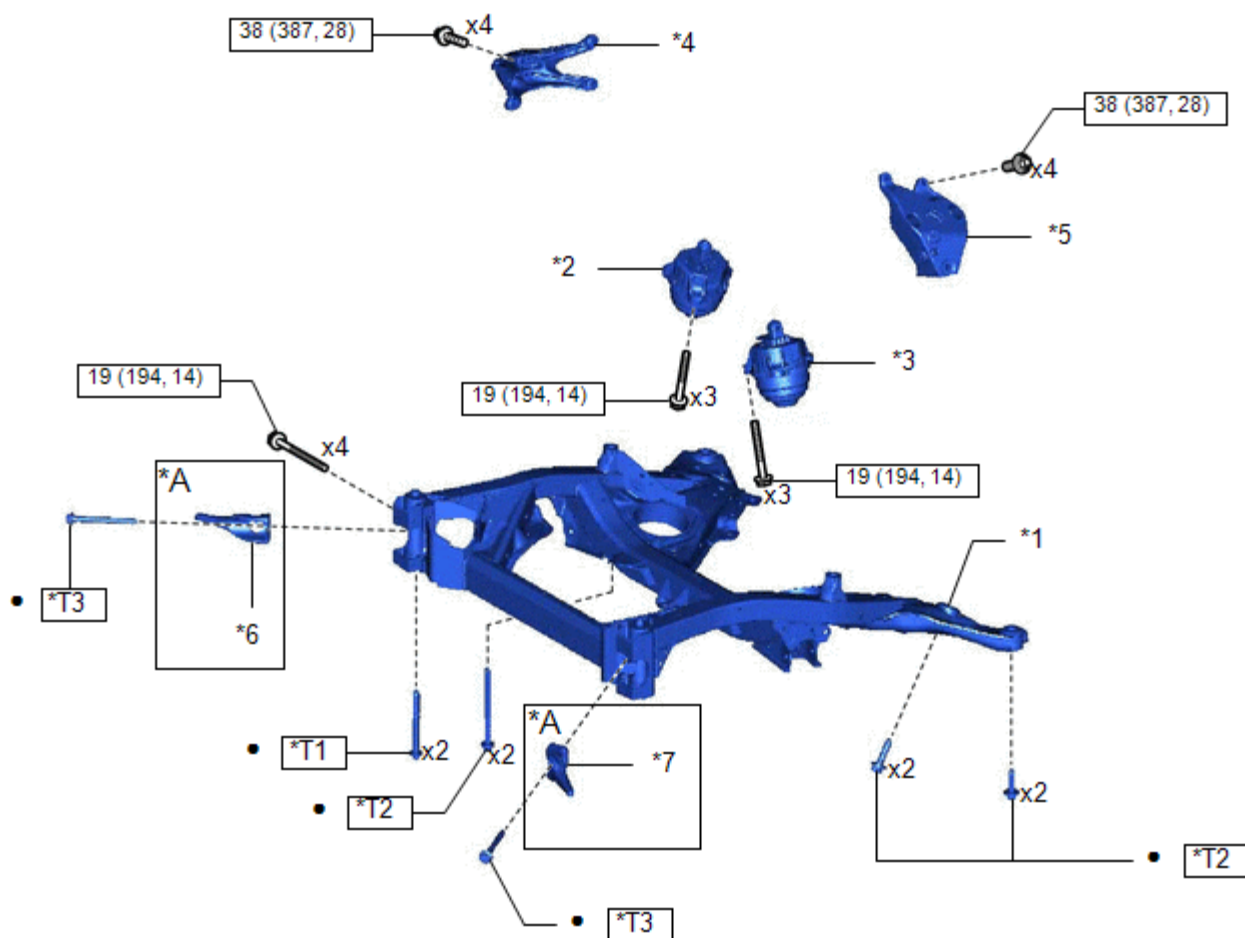
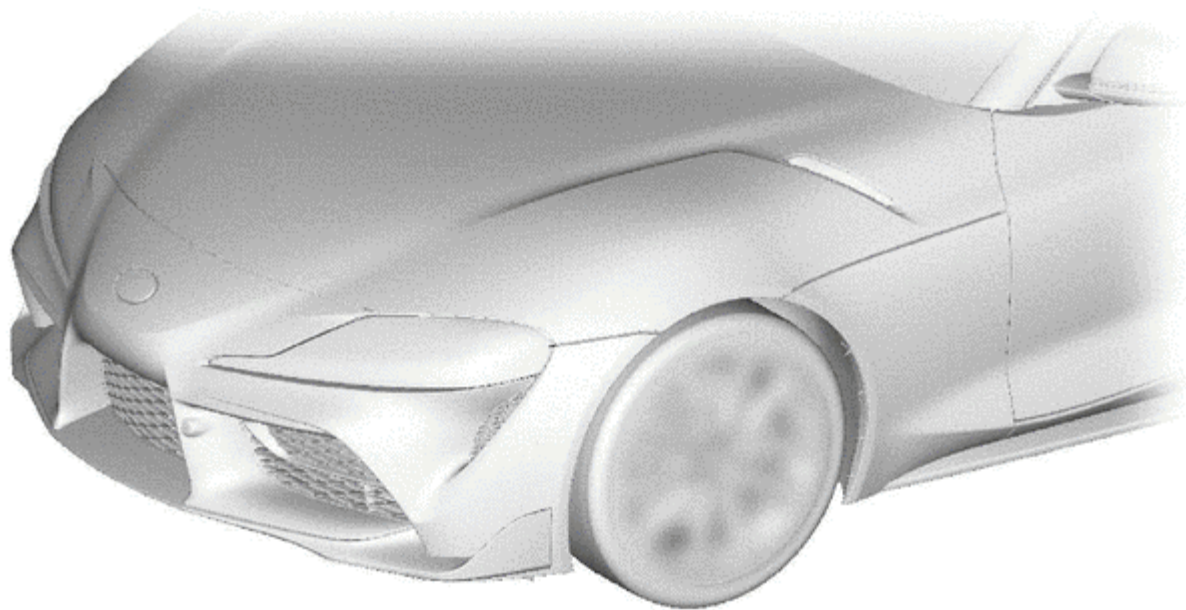
ILLUSTRATION



*1	AIR INTAKE DUCT RH	*2	AIR INTAKE DUCT LH
*3	COOLANT HOSE	*4	FLOOR WIRE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


			
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ILLUSTRATION



P

*A	w/ Front Suspension Member Bracket	-	-
*1	FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY	*2	FRONT ENGINE MOUNTING INSULATOR RH
*3	FRONT ENGINE MOUNTING INSULATOR LH	*4	FRONT NO. 1 ENGINE MOUNTING BRACKET RH

*5	FRONT NO. 1 ENGINE MOUNTING BRACKET LH	*6	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY RH
*7	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY LH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 56 (571, 41) 2nd: Turn 45°	*T2	1st: 108 (1101, 80) 2nd: Turn 45°
*T3	1st: 100 (1020, 74) 2nd: Turn 90°	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE MOUNTING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

- Motor vehicle may slip off the vehicle hoist if the weight is distributed unevenly.

Danger! Life-threatening injuries!

- Ensure there is a specific weight compensation on the motor vehicle.

- Motor vehicle may slip off the vehicle hoist where components are supported.

Danger! Life-threatening injuries!

- Secure the vehicle hoist against lowering and lifting.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE AND INSTALL BONNET HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

3. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

5. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

6. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

7. REMOVE FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

8. REMOVE FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

9. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

10. REMOVE FRONT FENDER LINER LH

Click here [INFO](#)

11. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

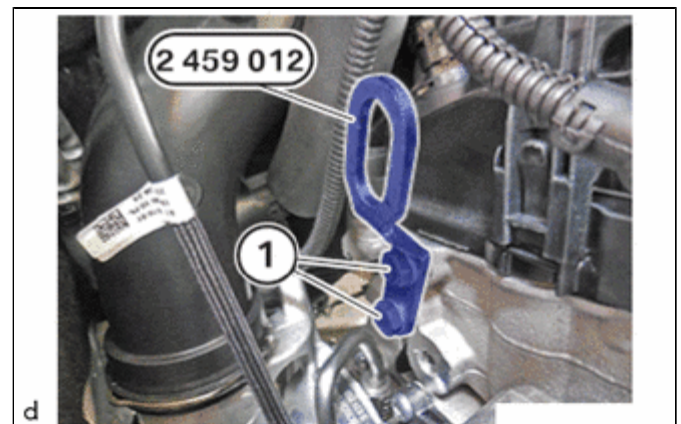
12. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

13. INSTALL ENGINE HANGER

- (a) Guide in and position special tool 2 459 012 on cylinder head.

SST: 09200-WA610



- (b) Tighten the screws (1) of special tool 2 459 012.

SST: 09200-WA610

Torque:

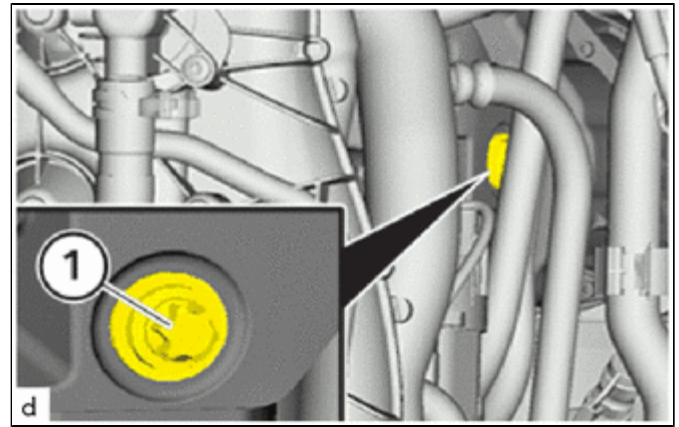
21.5 N·m {219 kgf·cm, 16 ft·lbf}

14. INSTALL ENGINE SUPPORT BRIDGE

Click here [INFO](#)

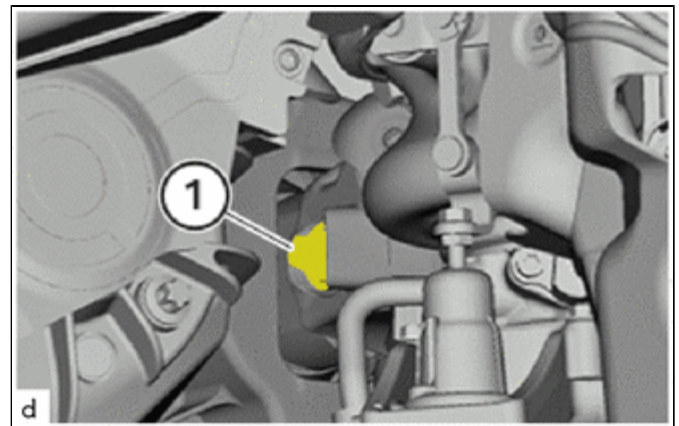
15. SEPARATE FRONT ENGINE MOUNTING INSULATOR LH

(a) Release the E14 bolt (1) from the top.



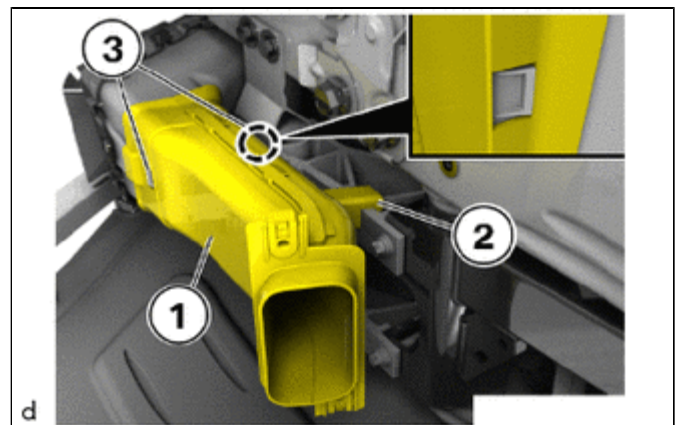
16. SEPARATE FRONT ENGINE MOUNTING INSULATOR RH

(a) Release the E14 bolt (1) from the top.



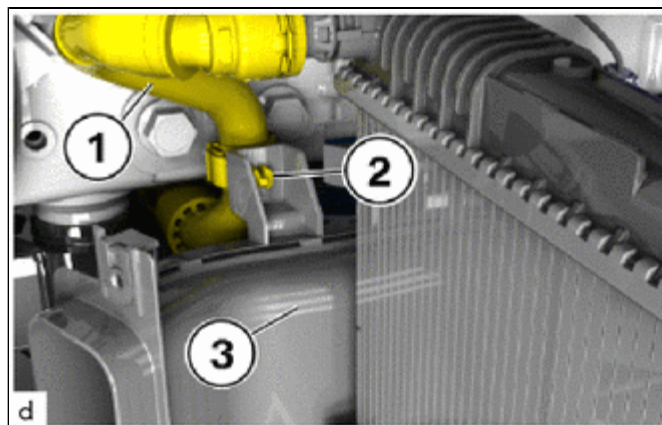
17. REMOVE AIR INTAKE DUCT LH

(a) Lift air intake duct LH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.

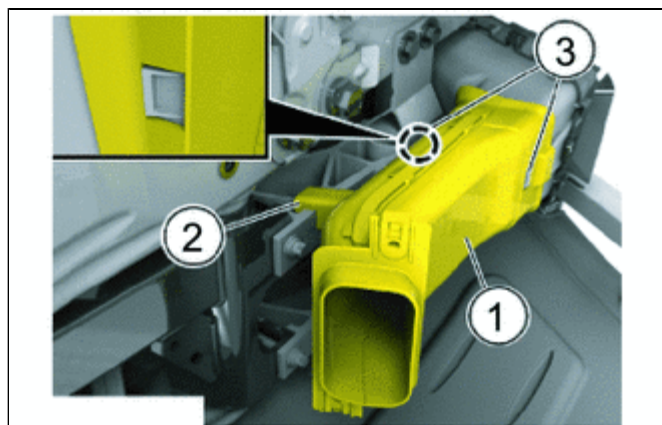


18. REMOVE AIR INTAKE DUCT RH

(a) Unclip coolant line (1) and bracket (2) from the air intake duct RH (3).



(b) Lift air intake duct RH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.

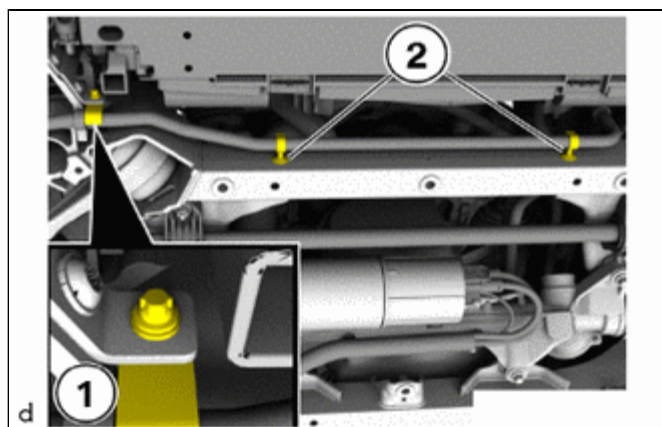


19. REMOVE STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

20. SEPARATE COOLANT HOSE

(a) Loosen E8 bolt (1).



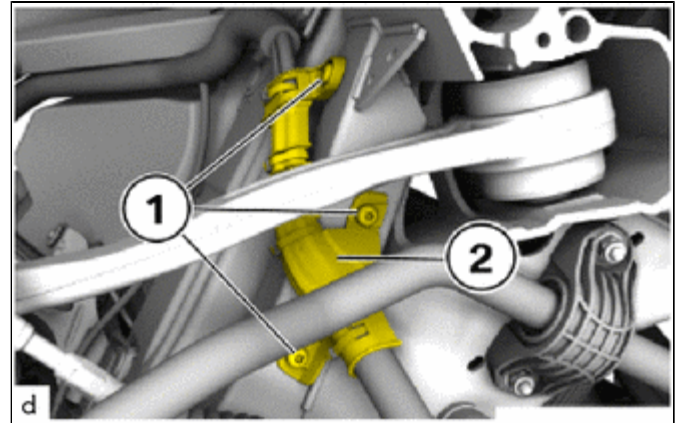
(b) Release both holders (2) from the front suspension crossmember sub-assembly.

NOTICE:

- The coolant hose is not removed.
- The coolant circuit is not opened.

21. SEPARATE FLOOR WIRE

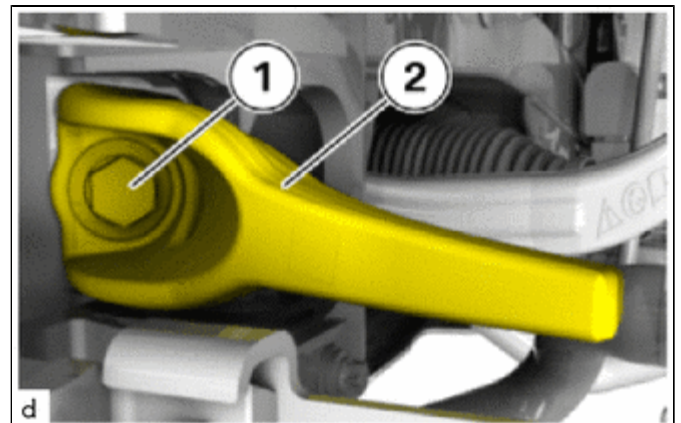
(a) Loosen T25 screws (1).



(b) Remove the wire harness mounting (2) with wire harness, move it to the side and secure it in place.

22. REMOVE FRONT UPPER SUSPENSION ARM ASSEMBLY LH (w/ Front Suspension Member Bracket)

(a) Loosen 18 mm bolt (1).



(b) Remove the front suspension member bracket sub-assembly LH (2).

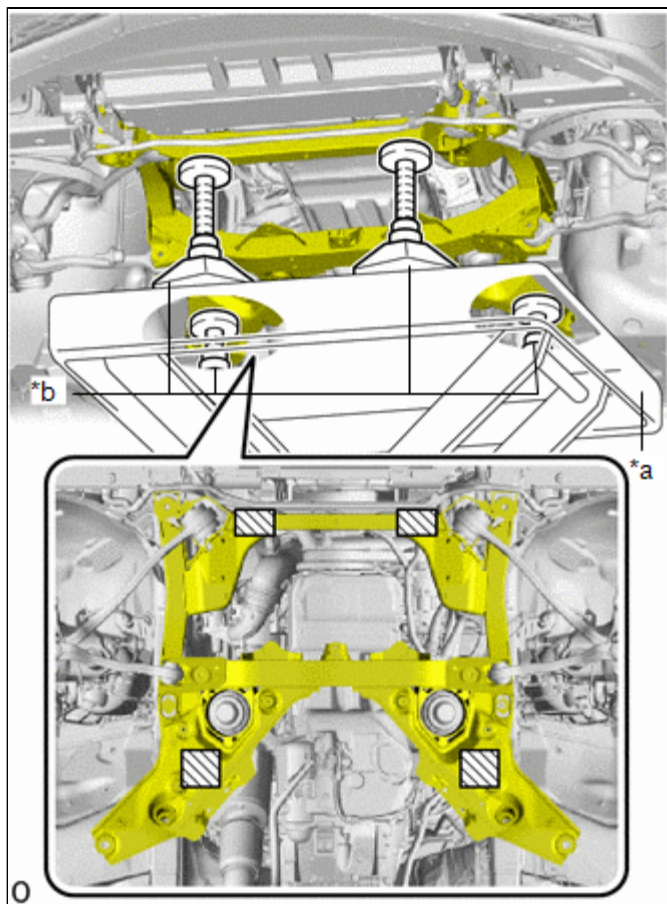
23. REMOVE FRONT UPPER SUSPENSION ARM ASSEMBLY RH (w/ Front Suspension Member Bracket)


HINT:

Use the same procedure as for the LH side.

24. SEPARATE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY

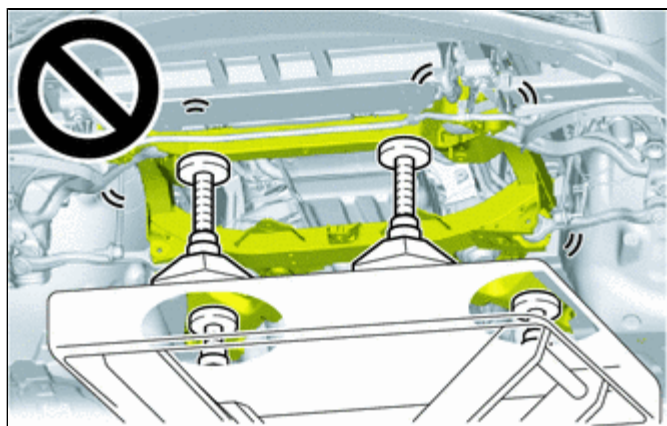
(a) Support the front suspension crossmember sub-assembly with an engine lifter using 4 attachments or equivalent tools as shown in the illustration.



*a	Engine Lifter
*b	Attachment
	Attachment placement location

CAUTION:

- The front suspension crossmember sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the front suspension crossmember sub-assembly is not securely supported, it may drop, resulting in serious injury.



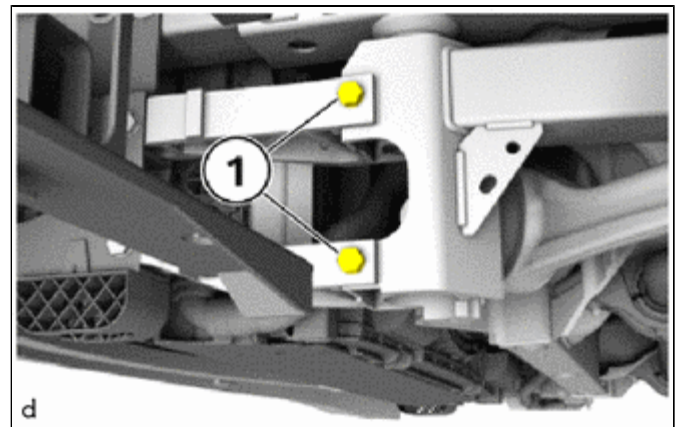
NOTICE:

Use attachments to keep the front suspension crossmember sub-assembly level.

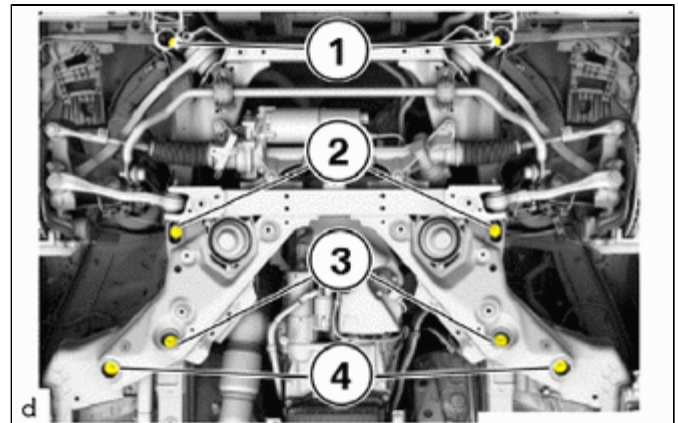
(b) Remove the E11 bolts (1).

HINT:

Perform the operations on the left and right side.



(c) Remove the E14 bolts (1), E18 bolts (2), bolts (3) and E18 bolts (4)

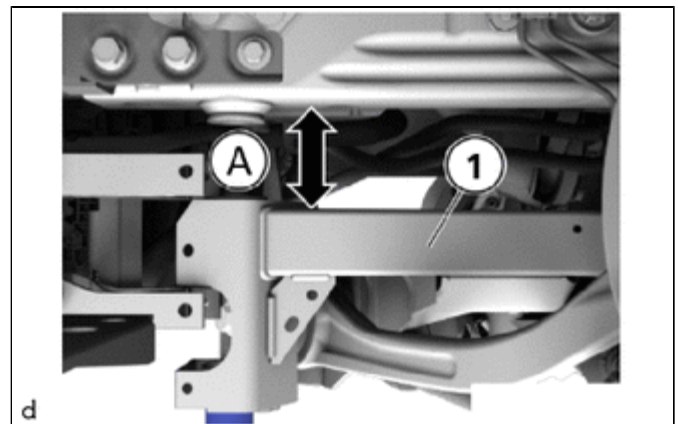


(d) Lower the front axle support (1) by dimension (A).

(1) Dimension (A) = maximum of 100 mm

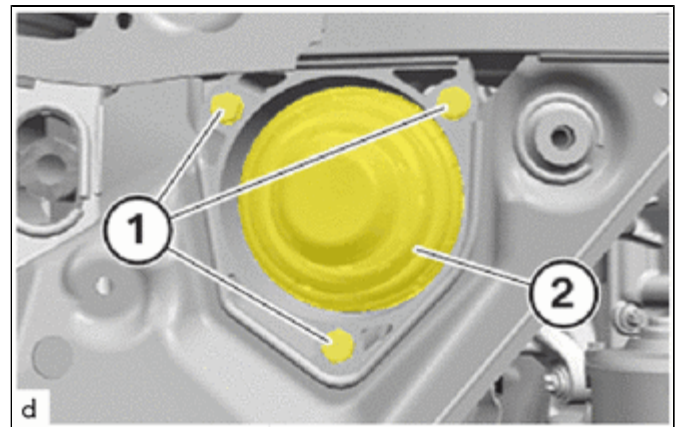
NOTICE:

When lowering the front suspension crossmember sub-assembly, be careful not to damage the vehicle body or other components installed to the vehicle.



25. REMOVE FRONT ENGINE MOUNTING INSULATOR LH

(a) Loosen bolts (1).



(b) Remove front engine mounting insulator LH (2).

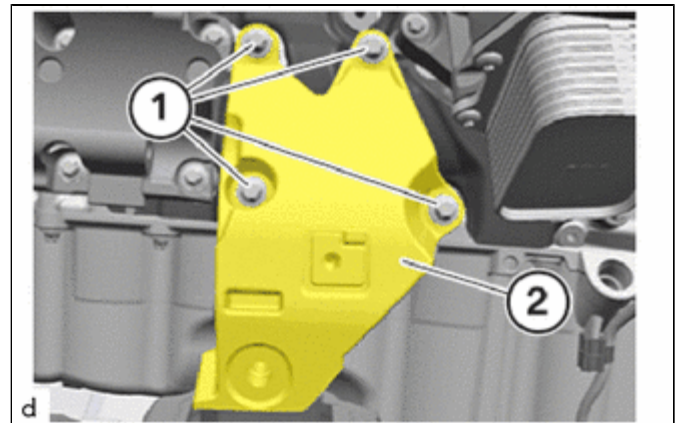
26. REMOVE FRONT ENGINE MOUNTING INSULATOR RH

HINT:

Use the same procedure as for the LH side.

27. REMOVE NO. 1 FRONT ENGINE MOUNTING BRACKET LH

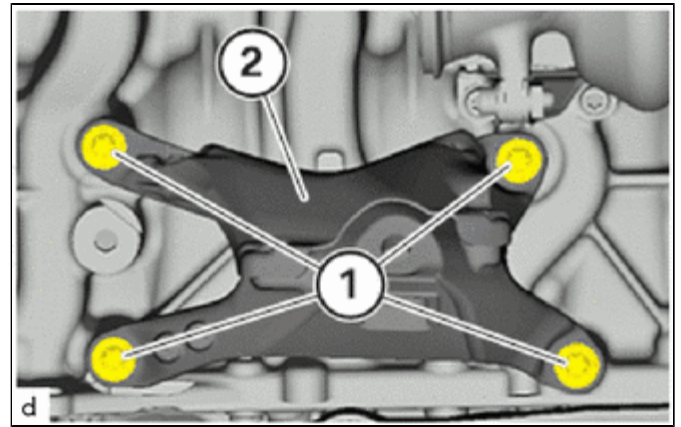
(a) Loosen E12 bolts (1).



(b) Remove the No. 1 front engine mounting bracket LH (2).

28. REMOVE NO. 1 FRONT ENGINE MOUNTING BRACKET RH

(a) Loosen E12 bolts (1).



(b) Remove the No. 1 front engine mounting bracket RH (2).

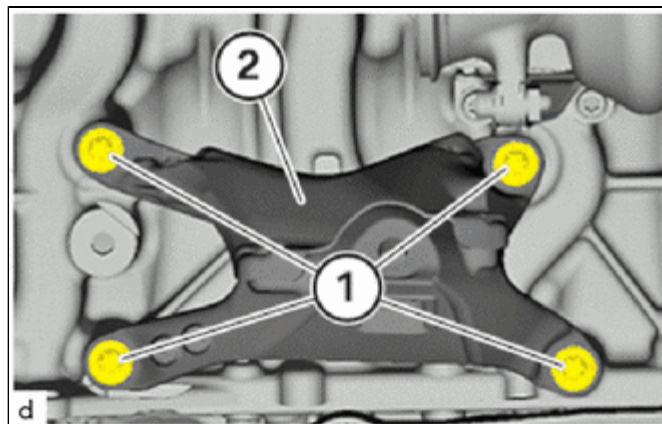
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE MOUNTING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 FRONT ENGINE MOUNTING BRACKET RH

(a) Install the No. 1 front engine mounting bracket RH (2).



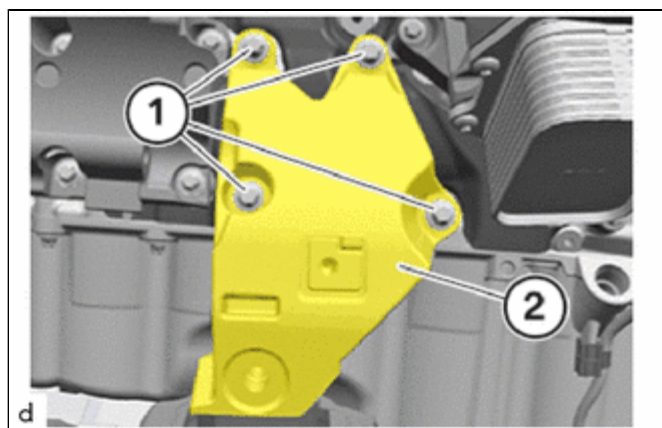
(b) Tighten the E12 bolts (1).

Torque:

38 N·m {387 kgf·cm, 28 ft·lbf}

2. INSTALL NO. 1 FRONT ENGINE MOUNTING BRACKET LH

(a) Install the No. 1 front engine mounting bracket LH (2).



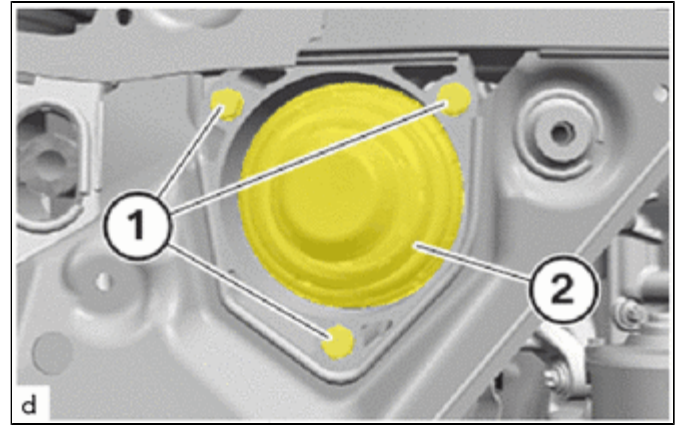
(b) Tighten the E12 bolts (1).

Torque:

38 N·m {387 kgf·cm, 28 ft·lbf}

3. INSTALL FRONT ENGINE MOUNTING INSULATOR LH

(a) Install the front engine mounting insulator LH (2).



(b) Tighten the bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

4. INSTALL FRONT ENGINE MOUNTING INSULATOR RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY

Click here [INFO](#)

6. INSTALL FRONT UPPER SUSPENSION ARM ASSEMBLY LH (w/ Front Suspension Member Bracket)

(a) Position front upper suspension arm assembly LH at the front suspension crossmember sub-assembly.

(b) Replace the 18 mm bolt.

(c) Tighten 18 mm bolt.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

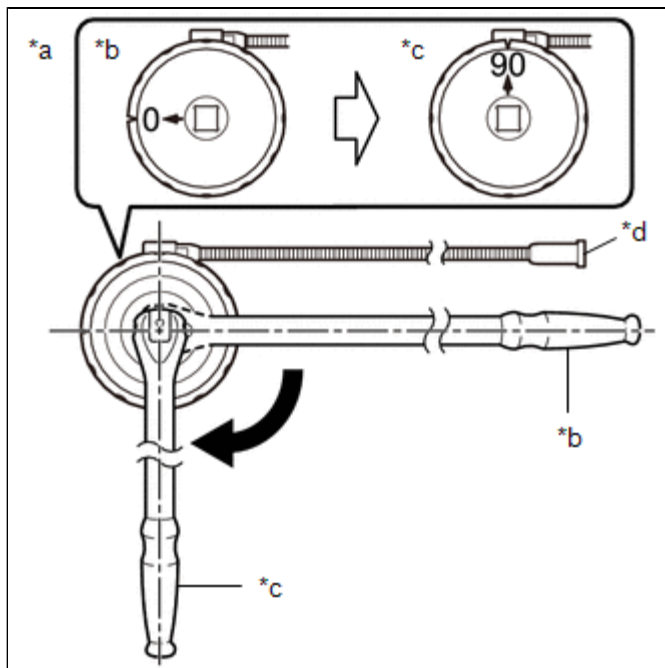
NOTICE:

Tighten the 18 mm bolt connection in the normal position.

(d) Using SST, tighten the 18 mm bolt an additional 90°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

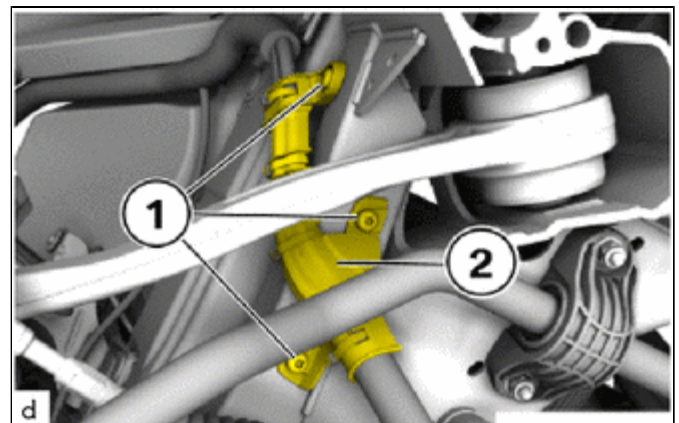
7. INSTALL FRONT UPPER SUSPENSION ARM ASSEMBLY RH (w/ Front Suspension Member Bracket)

HINT:

Use the same procedure as for the LH side.

8. INSTALL FLOOR WIRE

(a) Position the wire harness mounting (2) with the wire harness.



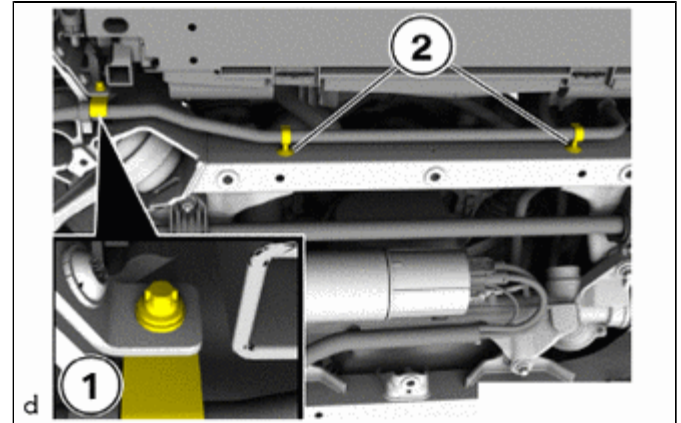
(b) Tighten the T25 screws (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

9. INSTALL COOLANT HOSE

- (a) Position both holders (2) at the front suspension crossmember sub-assembly.



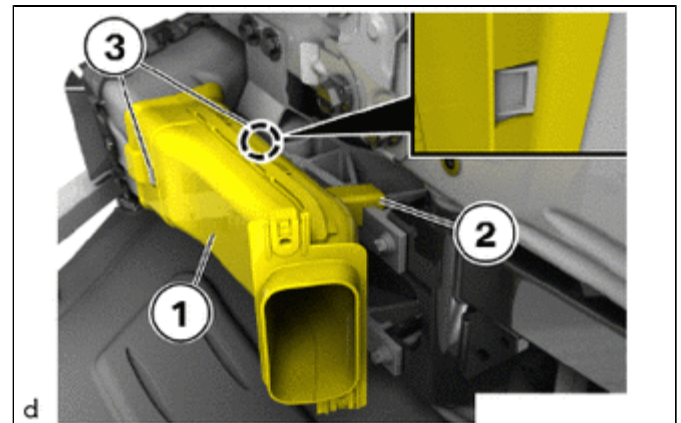
- (b) Tighten down E8 bolts (1).

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

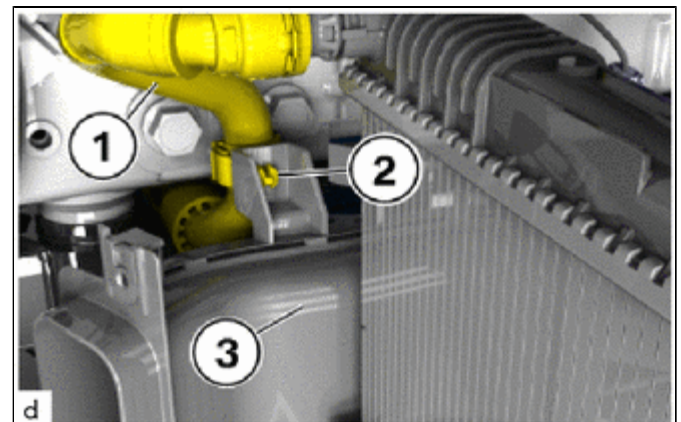
10. INSTALL AIR INTAKE DUCT LH

- (a) Position air intake duct LH (1) with the guide (2) correctly and clip into the latch mechanisms (3).

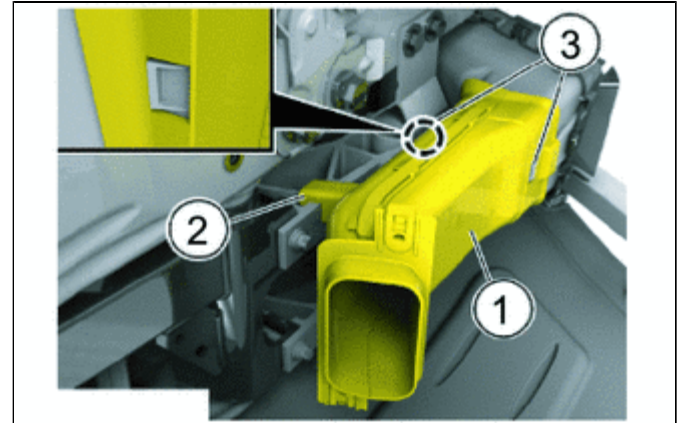


11. INSTALL AIR INTAKE DUCT RH

- (a) Clip in coolant line (1) with the bracket (2) in the air intake duct RH (3).



(b) Position brake air duct RH (1) with the guide (2) correctly and clip into the latch mechanisms (3).



12. INSTALL STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

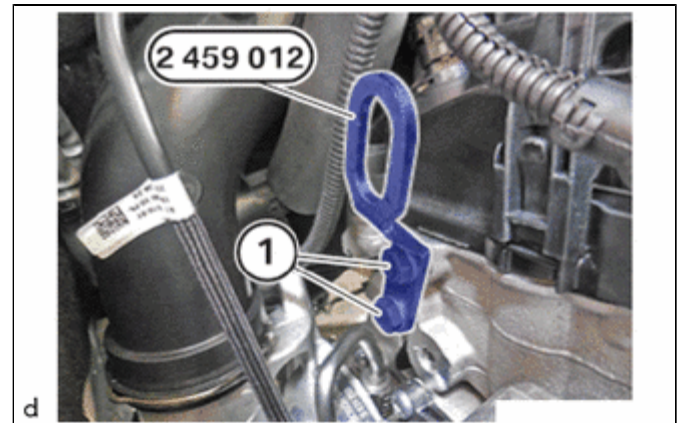
13. REMOVE ENGINE SUPPORT BRIDGE

Click here [INFO](#)

14. REMOVE ENGINE HANGER

(a) Unscrew the bolts of the special tool 2 459 012.

SST: 09200-WA610



(b) Feed out the special tool 2 459 012 at the cylinder head and remove.

SST: 09200-WA610

15. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

16. INSTALL FRONT ENGINE MOUNTING INSULATOR LH

NOTICE:

Lower the engine completely to prevent play before bolting down the No. 1 front engine mounting bracket LH and the front engine mounting insulator LH.

(a) Tighten down E14 bolt.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

17. INSTALL FRONT ENGINE MOUNTING INSULATOR RH

NOTICE:

Lower the engine completely to prevent play before bolting down the No. 1 front engine mounting bracket RH and the front engine mounting insulator RH.

(a) Tighten down E14 bolt.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

18. INSTALL FRONT FENDER LINER LH

Click here [INFO](#)

19. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

20. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

21. INSTALL FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

22. INSTALL FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

23. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

24. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

25. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

26. REMOVE AND INSTALL BONNET HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

27. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

28. INSPECT AIRBAG FOR FUNCTION

Click here [INFO](#)

29. START-UP OF ELECTROMECHANICAL STEERING

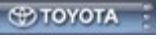
Click here [INFO](#)

30. INSPECT STRAIGHT-AHEAD DRIVING POSITION OF THE STEERING WHEEL

Click here [INFO](#)

31. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

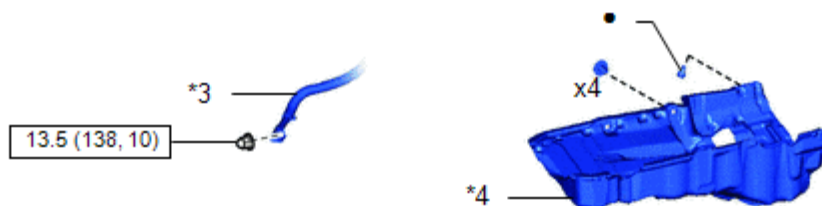
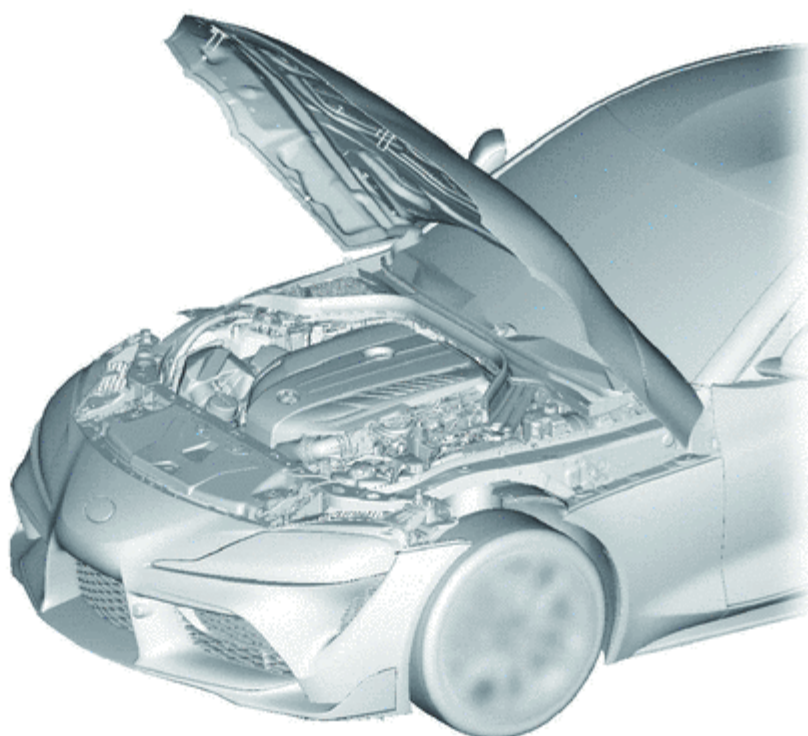
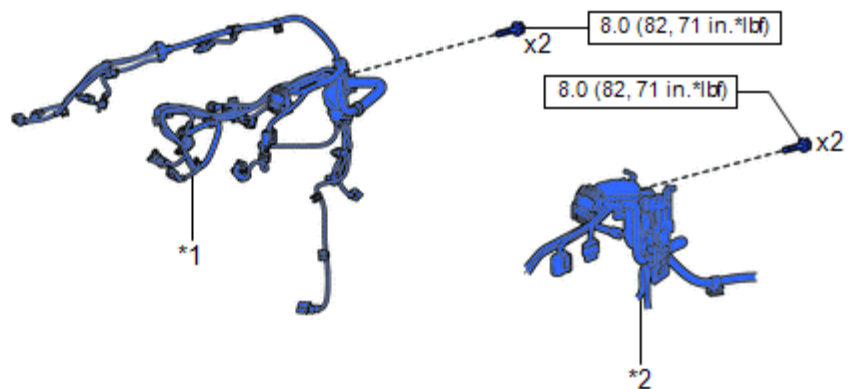
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE WIRE HARNESS (for No. 1): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ENGINE WIRE	*2	TRANSMISSION WIRE
*3	STARTER WIRE	*4	OIL PAN COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

<div></div>			
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE WIRE HARNESS (for No. 1): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!
 - Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.
 - Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE OIL PAN COVER

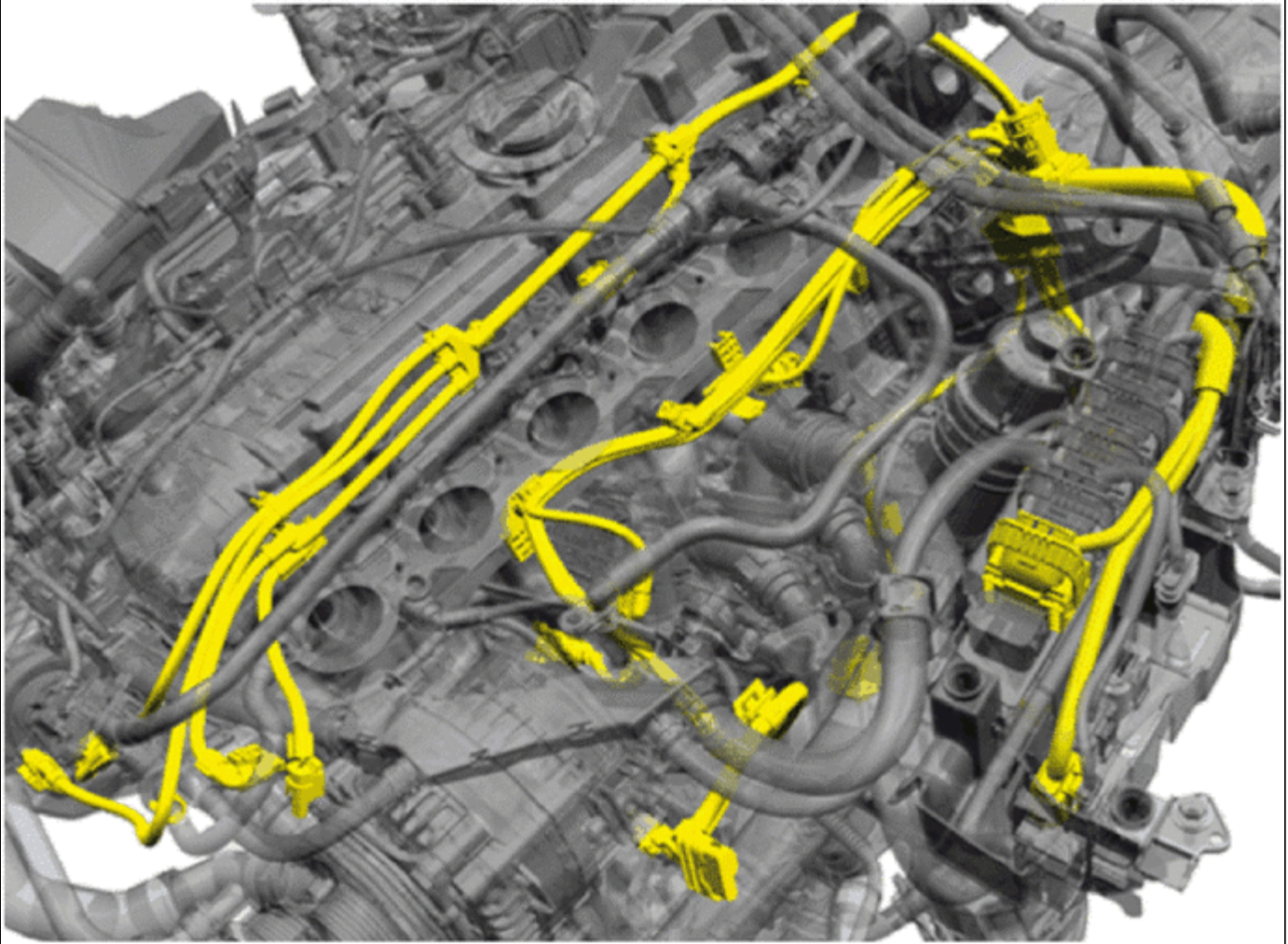
Click here [INFO](#)

3. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

4. REMOVE ENGINE WIRE

Overview: Engine wire



d

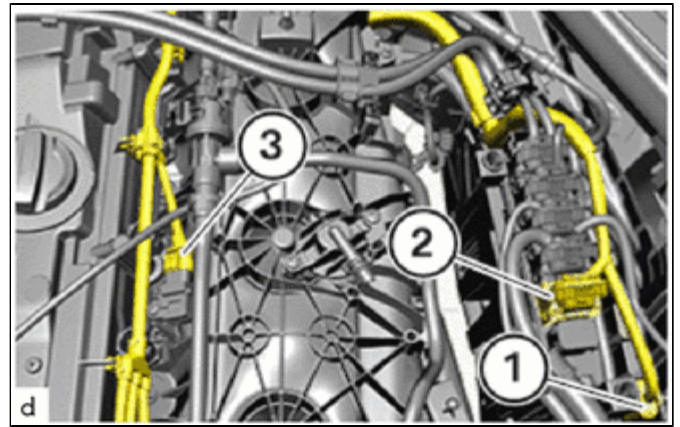
NOTICE:

- Damage to wires when disconnecting connectors and plug connections.

Sheared wires can cause a short circuit.

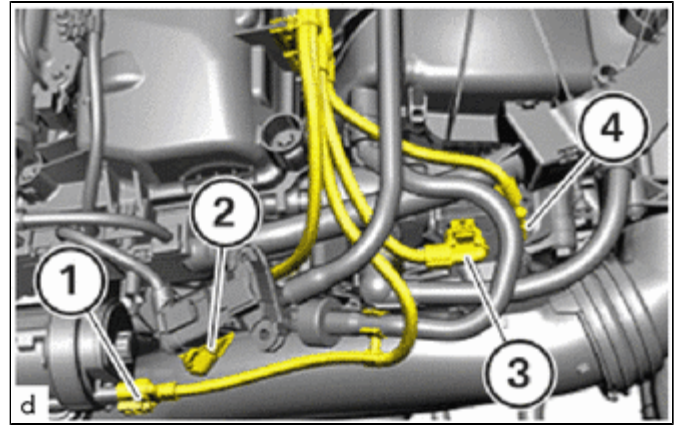
- Do not pull on the wires when disconnecting connectors and plug connections.

(a) Remove connector (1) from the No. 1 integration relay.



(b) Remove connector (2) from the ECM.

(c) Unlock and loosen the connector (3) of the vacuum sensor assembly.

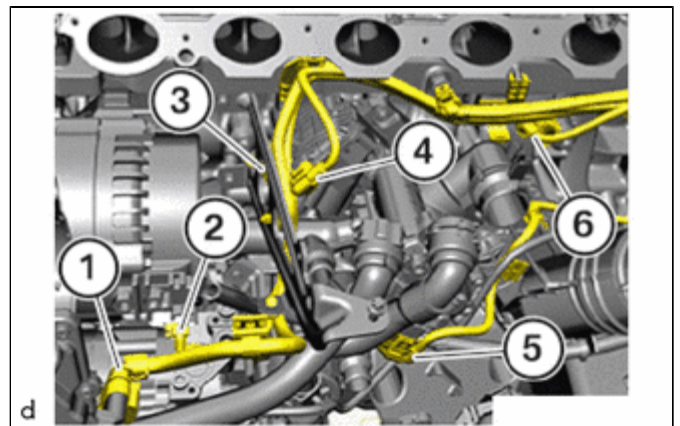


(d) Unlock and detach the connector (1) of the water pump assembly (for Turbo).

(e) Unlock and disconnect the connector (2) of the No. 2 engine wire.

(f) Unlock and loosen the connector (3) of the air pressure sensor.

(g) Unlock and disconnect the connector (4) of the inlet air temperature sensor.

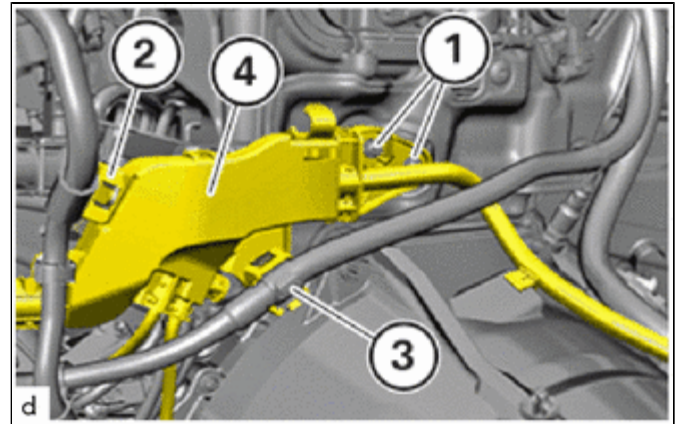


(h) Unlock and disconnect the connector (1) of the throttle body with motor assembly.

(i) Unlock and disconnect the connector (2) of the generator assembly.

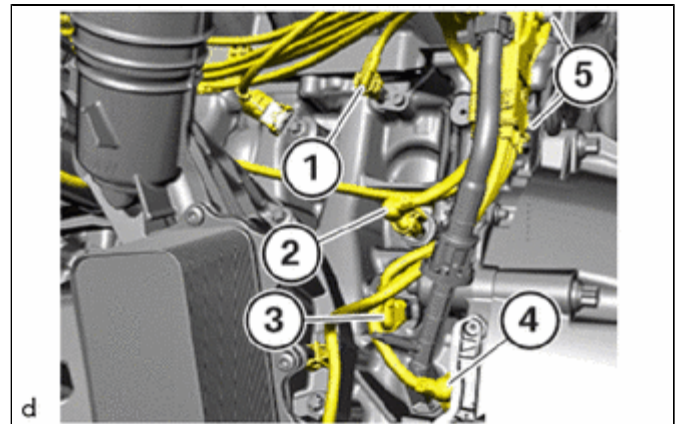
- (j) Unlock and disconnect the connector (3) of the knock sensor of cylinders 1 to 3.
- (k) Unlock and disconnect the connector (4) of the water valve with bracket assembly.
- (l) Unlock and disconnect the lower connector (5) of the water valve with bracket assembly.
- (m) Unlock and disconnect the connector (6) of the knock sensor of cylinders 4 to 6.

- (n) Loosen E8 bolts (1).



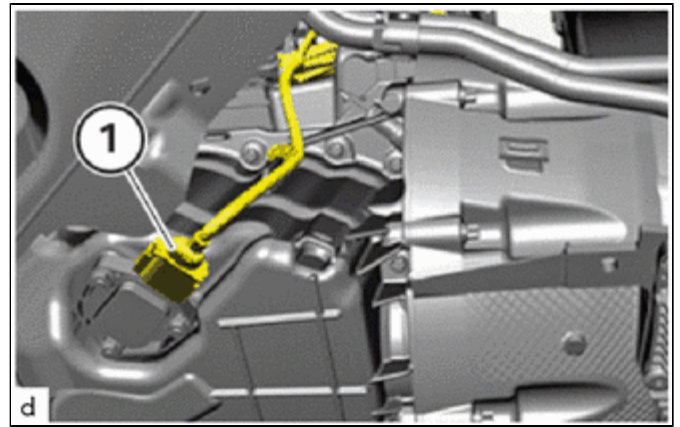
- (o) Loosen clamp (2).
- (p) Detach positive battery cable from bracket (3).
- (q) Release cable duct (4) and lay to one side.

- (r) Unlock and disconnect the connector (1) of the oil temperature sensor.



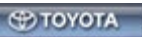
- (s) Unlock and disconnect the connector (2) of the oil pressure sensor.
- (t) Unlock and disconnect the connector (3) of the oil pressure control valve assembly.
- (u) Unlock and disconnect the connector (4) of the crankshaft position sensor.
- (v) Loosen T30 bolts (5).

(w) Unlock and disconnect the connector (1) of the engine oil level sensor.



(x) Unlock and detach all clamps.

(y) Feed out the engine wire and remove it.



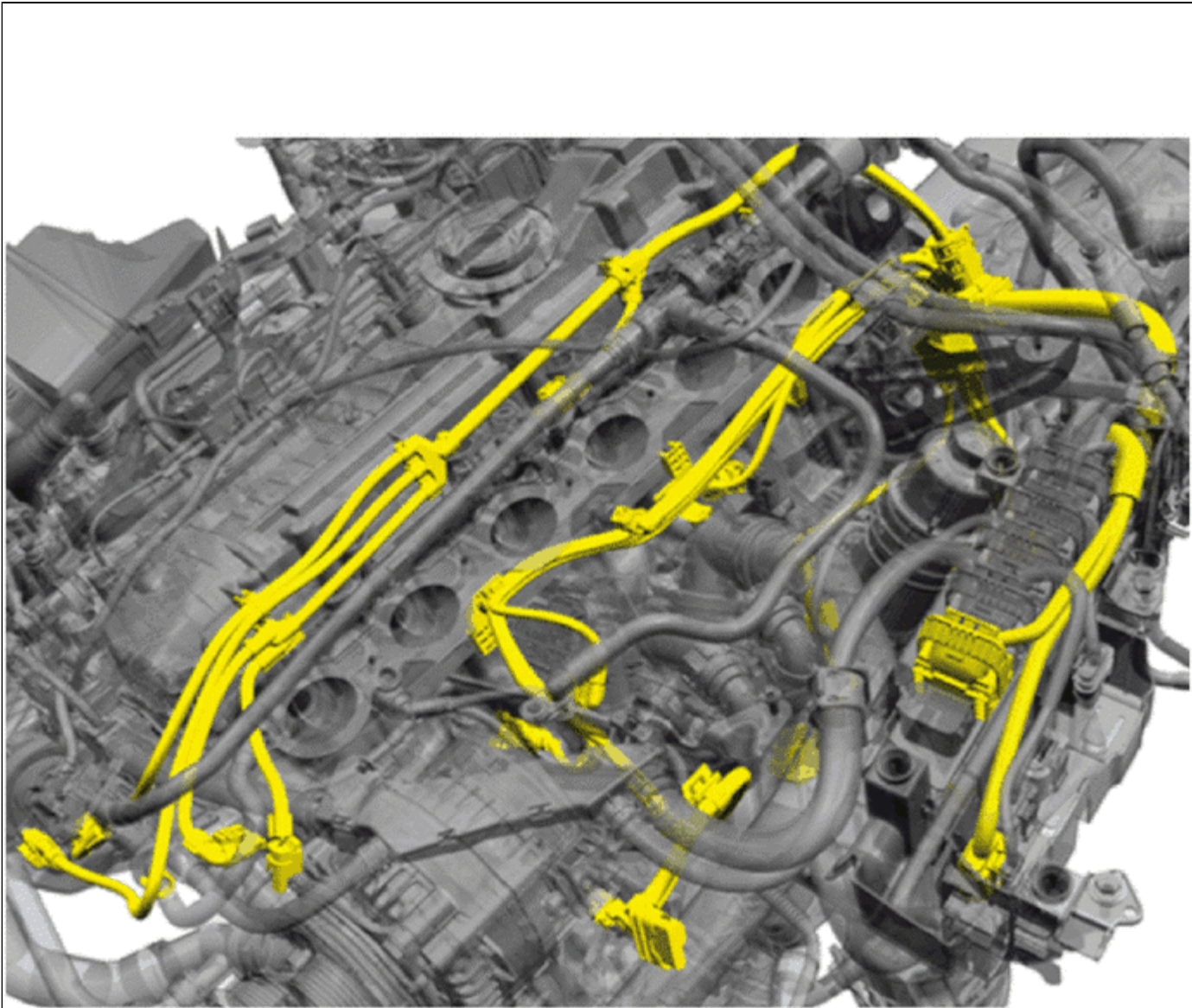
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE WIRE HARNESS (for No. 1): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL ENGINE WIRE

Overview: Engine wire



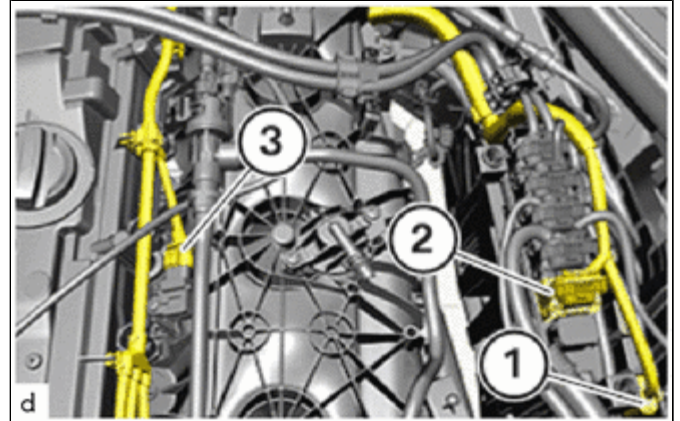
d

- NOTICE:**
- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(a) Thread in and install the engine wire.



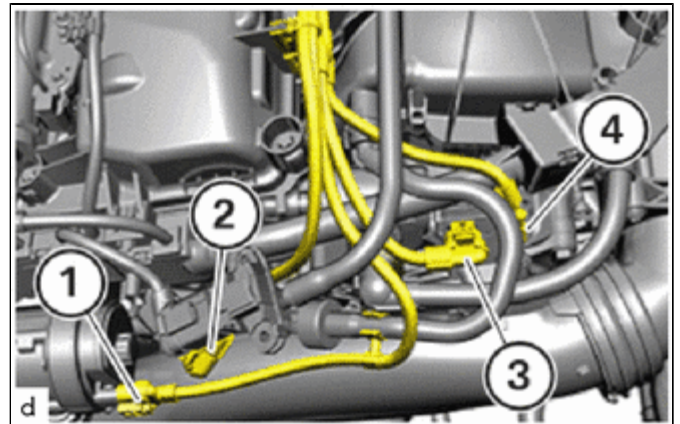
(b) Secure all clamps

(c) Route the connector (1) to the No. 1 integration relay.

(d) Route the connector (2) to the ECM.

(e) Connect and lock the connector (3) of the vacuum sensor assembly.

(f) Connect and lock the connector (1) of the water pump assembly (for Turbo).

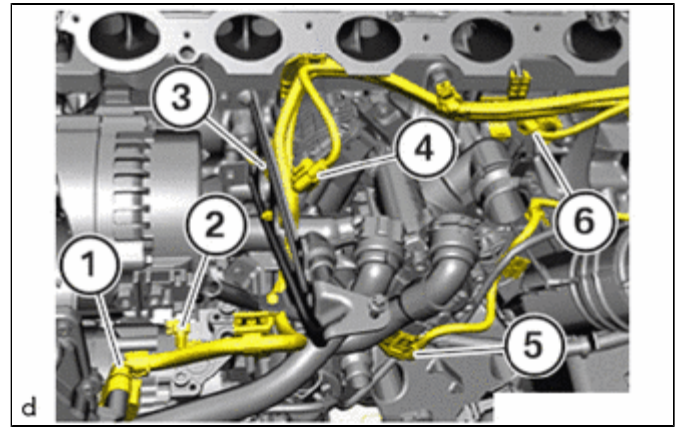


(g) Connect and lock the connector (2) of the No. 2 engine wire.

(h) Connect and lock the connector (3) of the air pressure sensor.

(i) Connect and lock the connector (4) for the inlet air temperature sensor.

(j) Connect and lock the connector (1) for the throttle body with motor assembly.



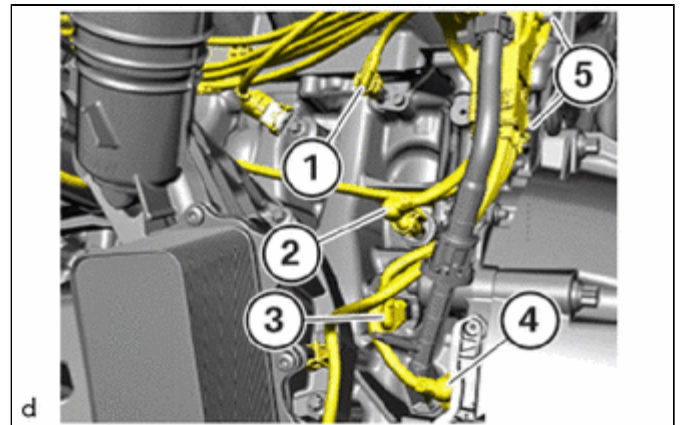
(k) Connect and lock the connector (2) for the generator assembly.

(l) Connect and lock the connector (3) of the knock sensor of cylinders 1 to 3.

(m) Connect and lock the connector (4) for the water valve with bracket assembly.

(n) Connect and lock the lower connector (5) of the water valve with bracket assembly.

(o) Connect and lock the connector (6) of the knock sensor of cylinders 4 to 6.



(p) Connect and lock the connector (1) of the oil temperature sensor.

(q) Connect and lock the connector (2) for the oil pressure sensor.

(r) Connect and lock the connector (3) of the oil pressure control valve assembly.

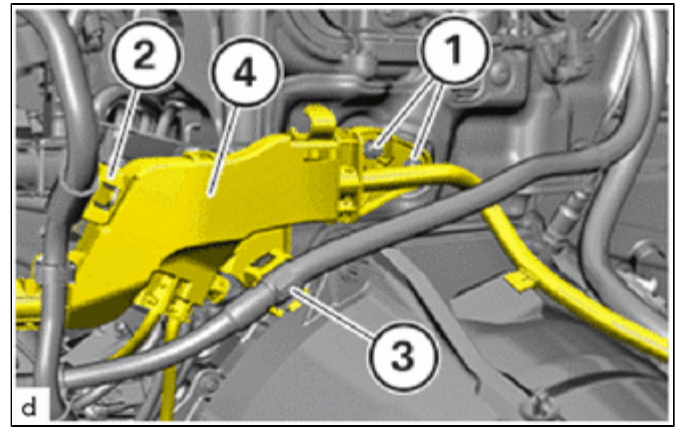
(s) Connect and lock the connector (4) for the crankshaft position sensor.

(t) Tighten the T30 bolts (5).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(u) Mount cable channel (4).



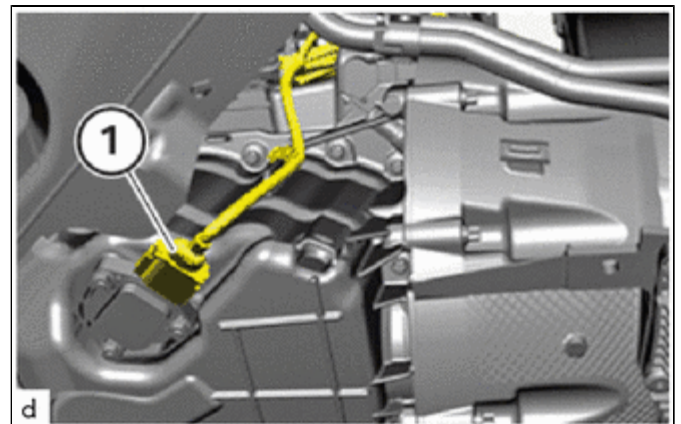
(v) Tighten the E8 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(w) Lock clamp (2).

(x) Secure positive battery cable at the clamp (3).



(y) Connect and lock the connector (1) of the engine oil level sensor.

2. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

3. INSTALL OIL PAN COVER

Click here [INFO](#)

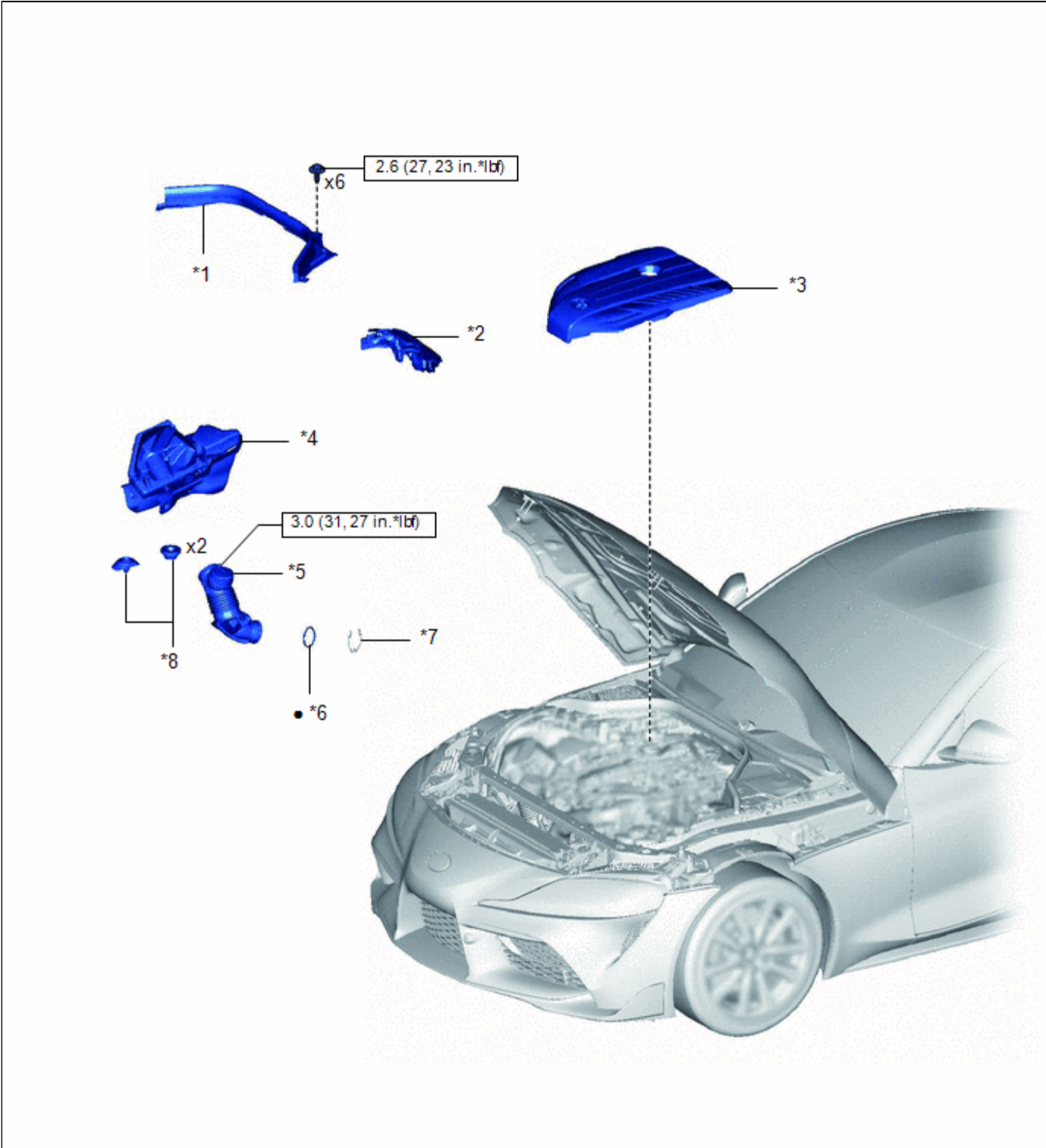
4. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE WIRE HARNESS (for No. 2): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

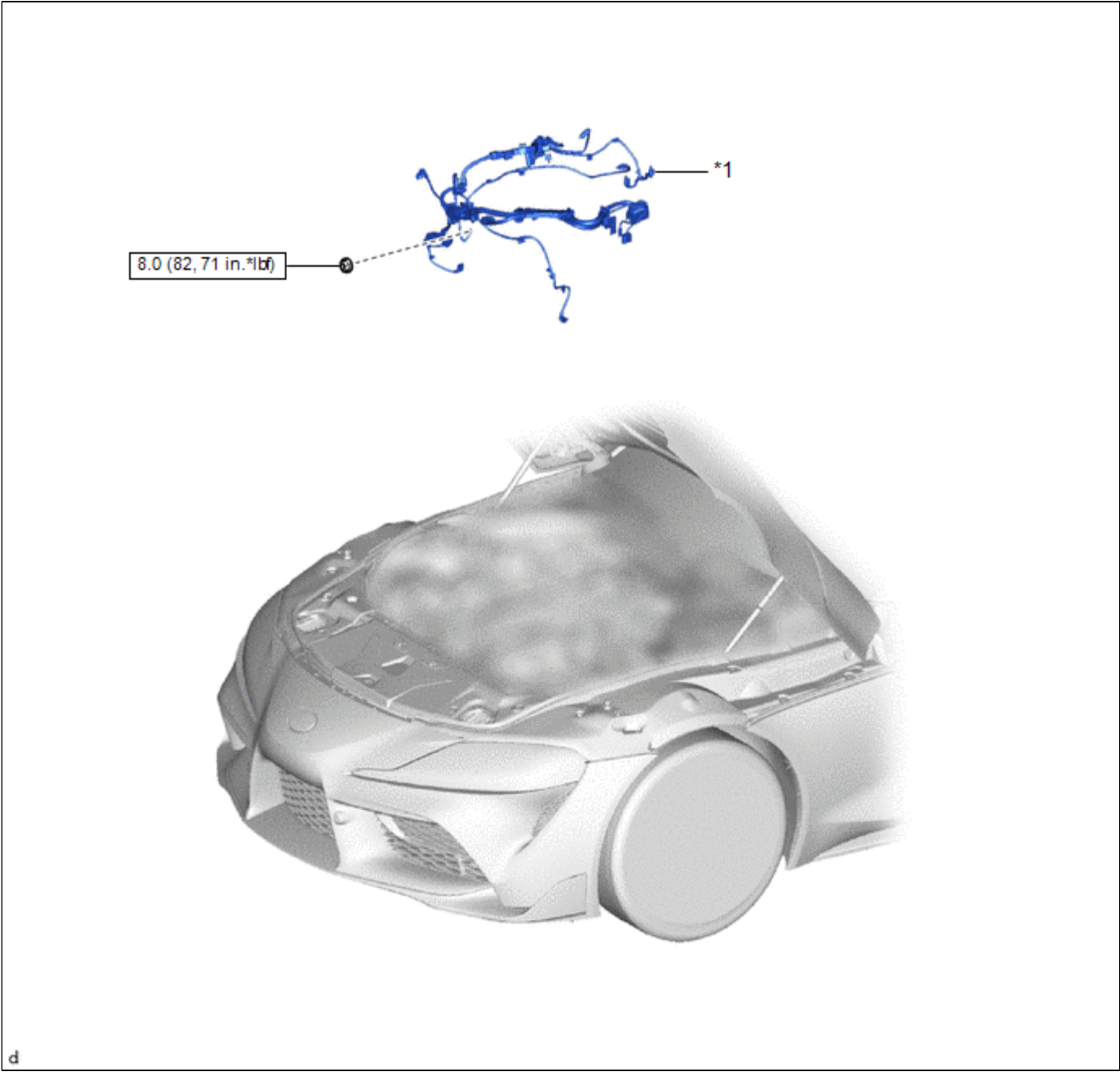
ILLUSTRATION




*1	COWL TOP VENTILATOR LOUVER	*2	NO. 1 ENGINE COVER
----	----------------------------	----	--------------------

	PROTECTOR		
*3	NO. 1 ENGINE COVER SUB-ASSEMBLY	*4	AIR CLEANER ASSEMBLY
*5	AIR CLEANER HOSE ASSEMBLY	*6	GASKET
*7	CLAMP	*8	AIR CLEANER SUPPORT
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

ILLUSTRATION



*1	NO. 2 ENGINE WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE WIRE HARNESS (for No. 2): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION BRACE UPPER CENTER

Click here [INFO](#)

3. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE NO. 1 ENGINE COVER

Click here [INFO](#)

6. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

7. REMOVE AIR CLEANER HOSE ASSEMBLY

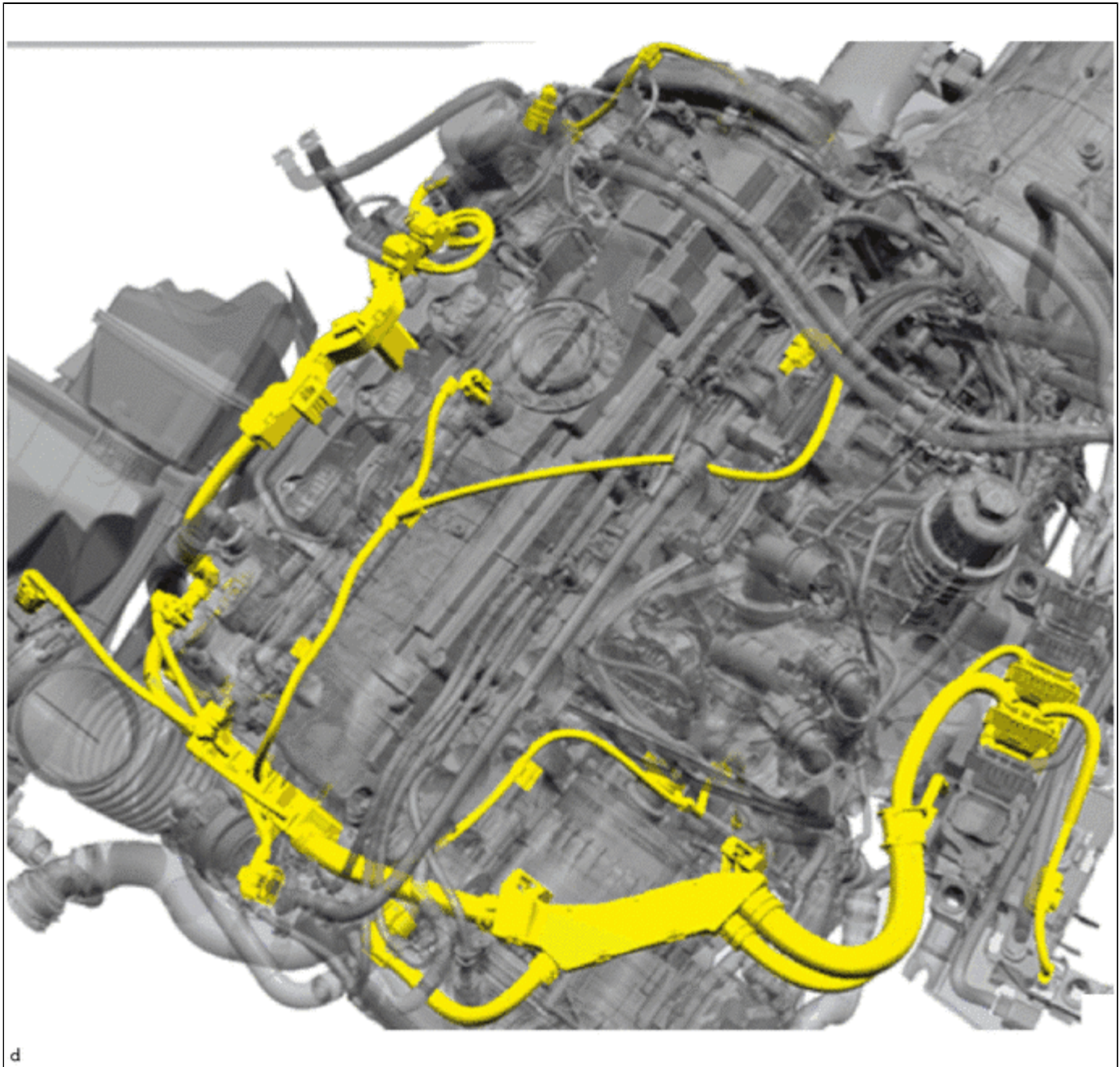
Click here [INFO](#)

8. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

9. REMOVE NO. 2 ENGINE WIRE

Overview: No. 2 engine wire



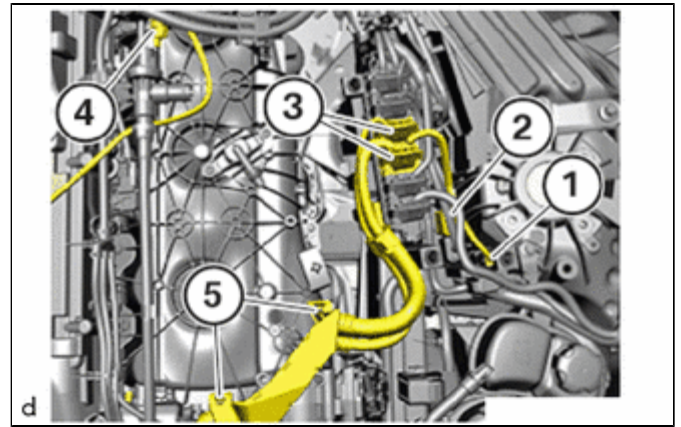
NOTICE:

- Damage to wires when disconnecting connectors and plug connections.

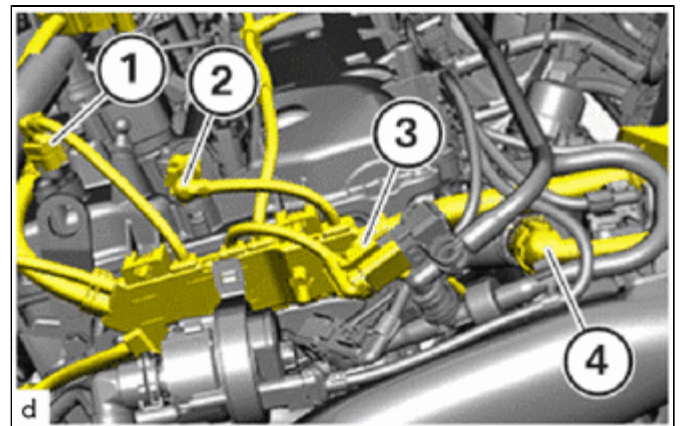
Sheared wires can cause a short circuit.

- Do not pull on the wires when disconnecting connectors and plug connections.

(a) Unlock connector (1) and pull off.

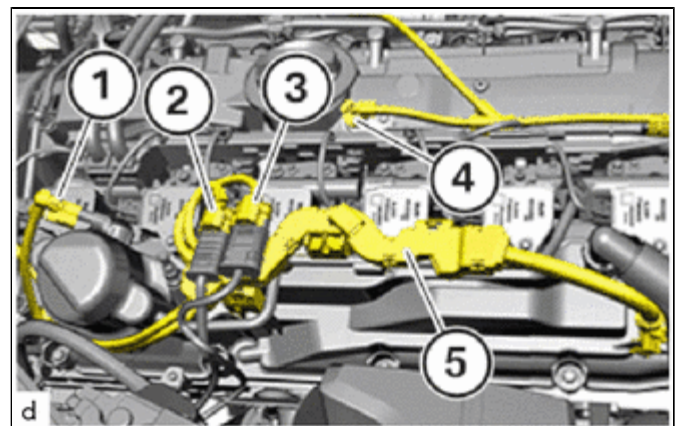


- (b) Disconnect connector (2) from the No. 1 integration relay.
- (c) Disconnect connector (3) from ECM.
- (d) Unlock and disconnect the connector (4) of the No. 1 check valve.
- (e) Loosen clamps (5).



- (f) Unlock and disconnect the connector (1) of the camshaft position sensor (for Exhaust Side).

- (g) Unlock and disconnect the connector (2) of the fuel delivery pipe.
- (h) Unlock and disconnect the connector (3) on the No. 1 fuel vapor feed hose.
- (i) Unlock and disconnect the connector (4) of the servo motor.



- (j) Unlock and disconnect the connector (1) of the fuel pump assembly (for High Pressure).

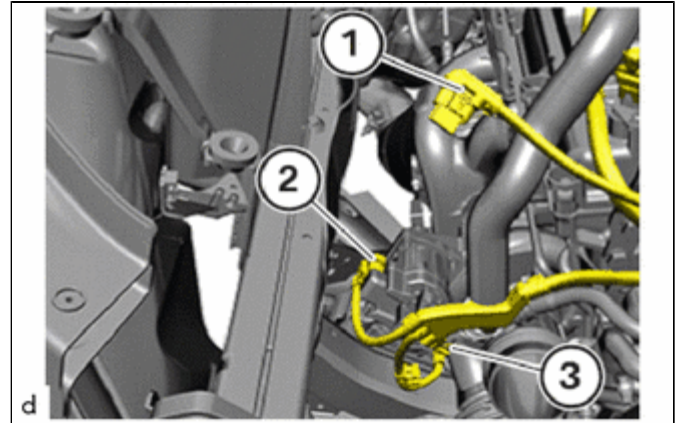
(k) Unlock and disconnect connector (2) of oxygen sensor.

(l) Unlock and disconnect the connector (3) of the wide range air fuel ratio sensor.

(m) Unlock and disconnect the connector (4) of the camshaft position sensor (for Intake Side).

(n) Unlock cable channel (5) and detach from cylinder head cover.

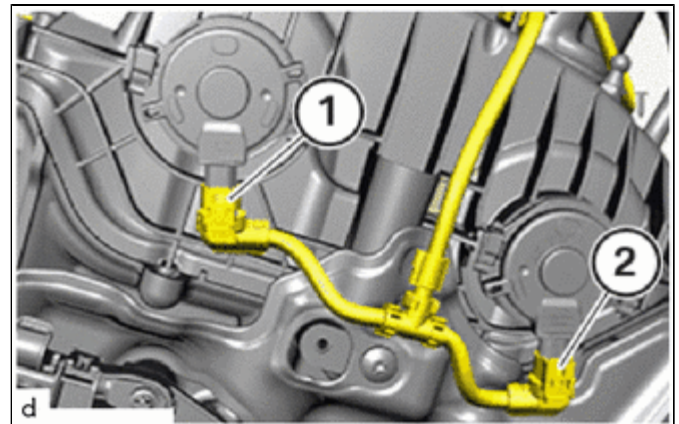
(o) Unlock and disconnect the connector (1) of the intake mass air flow meter sub-assembly.



(p) Unlock and disconnect the connector (2) of the turbocharger actuator and link assembly.

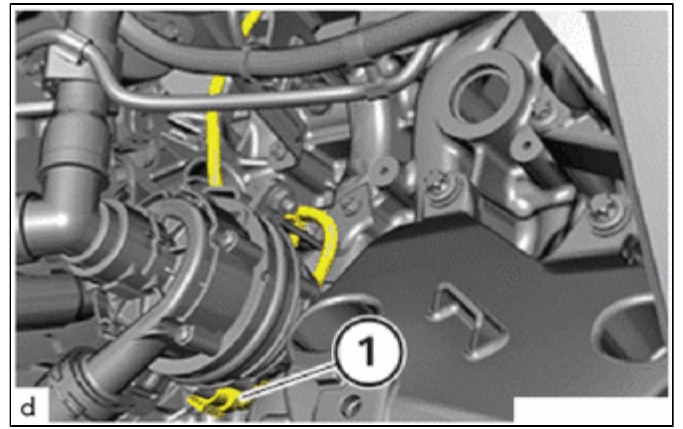
(q) Unlock and disconnect the connector (3) of the compressor inlet elbow.

(r) Unlock and disconnect the connector (1) of the vanos actuator (for Intake Side).



(s) Unlock and disconnect the connector (2) of the vanos actuator (for Exhaust Side).

(t) Unlock and disconnect the connector (1) of the water pump assembly (for Heater).



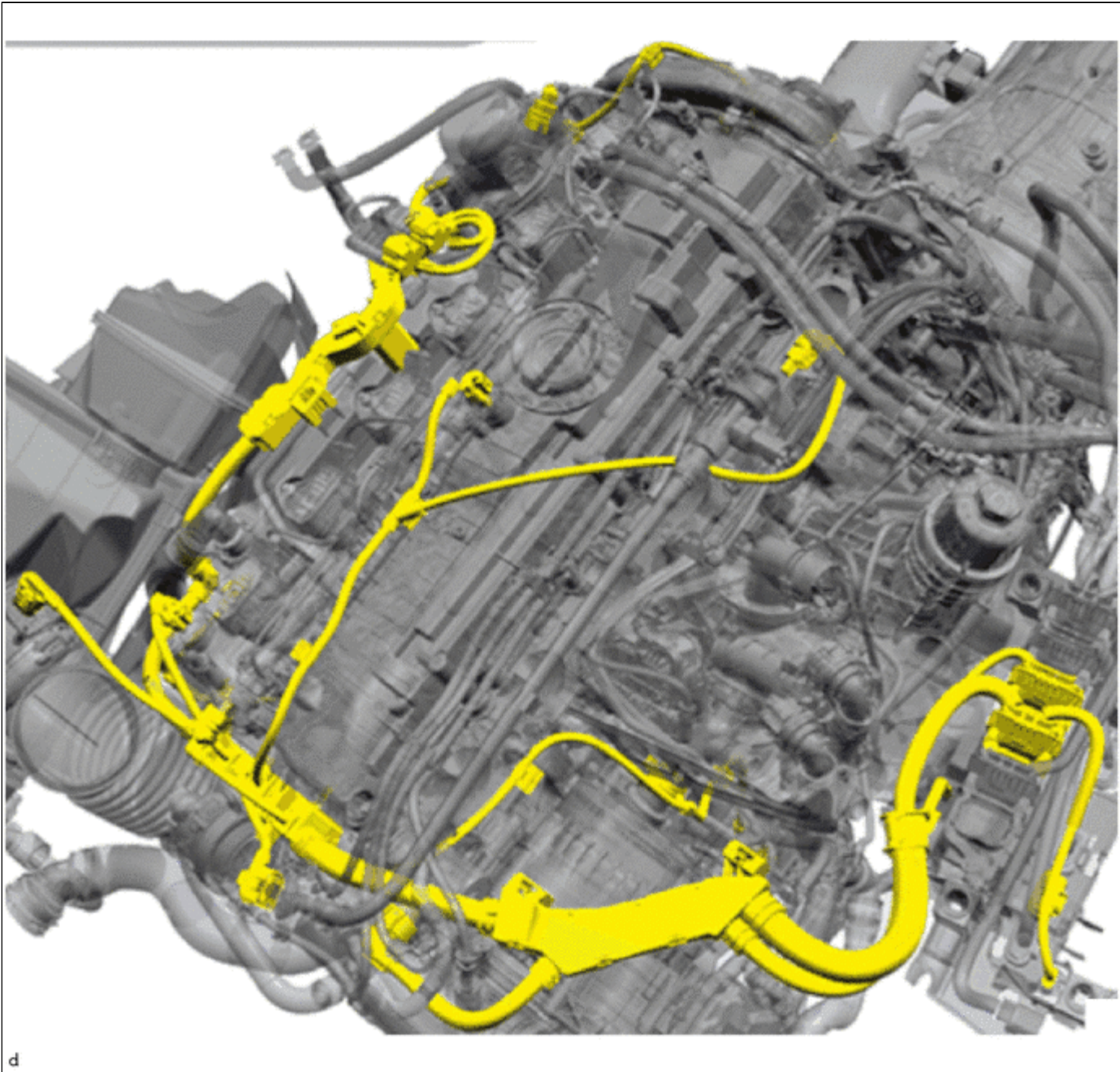
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ENGINE WIRE HARNESS (for No. 2): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 ENGINE WIRE

Overview: No. 2 engine wire

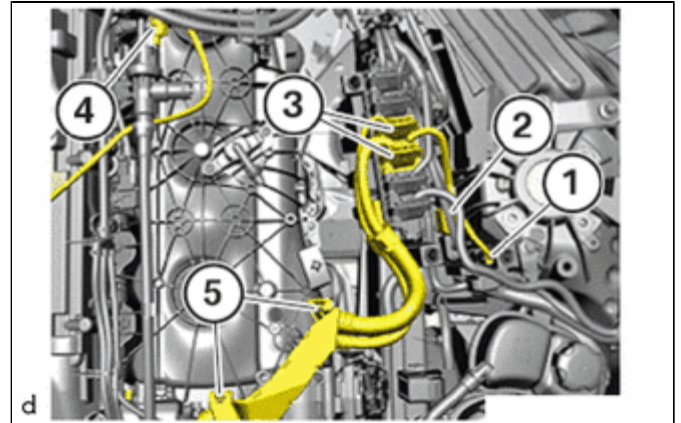


- NOTICE:**
- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(a) Thread in and install the No. 2 engine wire.



(b) Secure all clamps.

(c) Connect and lock the connector (1).

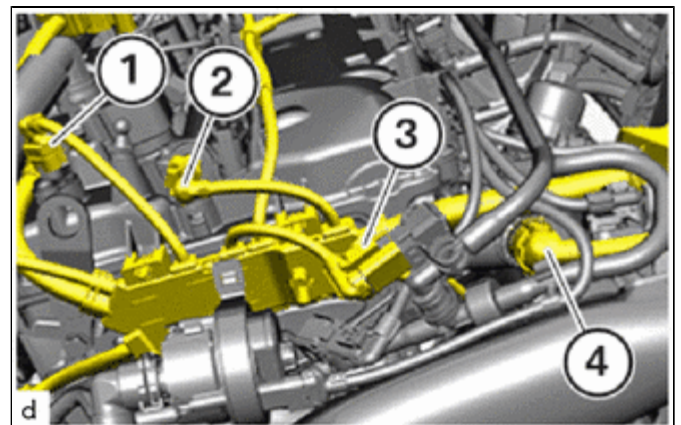
(d) Route the connector (2) to the No. 1 integration relay.

(e) Route the connector (3) to the ECM.

(f) Connect and lock the connector (4) for the No. 1 check valve.

(g) Secure clamps (5).

(h) Connect and lock the connector (1) of the camshaft position sensor (for Exhaust Side).

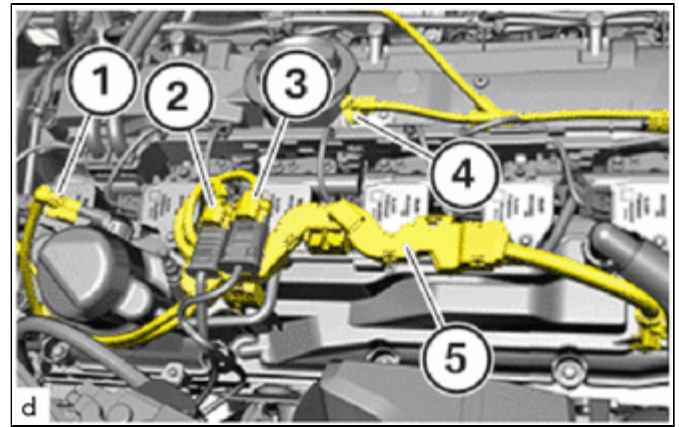


(i) Connect and lock the connector (2) of the fuel delivery pipe.

(j) Connect and lock the connector (3) on the No. 1 fuel vapor feed hose.

(k) Connect and lock the connector (4) of the servo motor.

- (l) Connect and lock the connector (1) of the fuel pump assembly (for High Pressure).



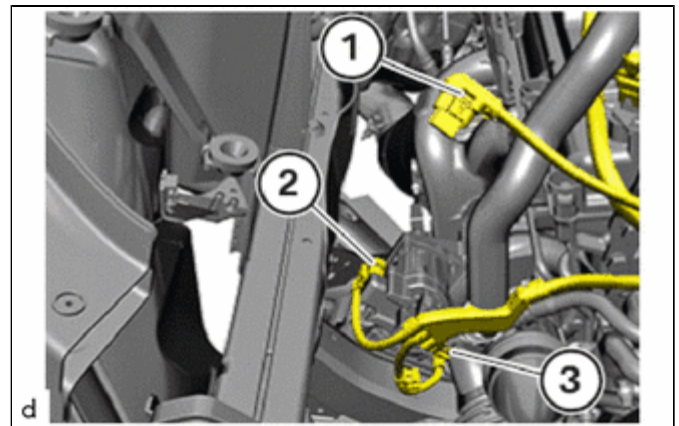
- (m) Connect and lock the connector (2) of the oxygen sensor.

- (n) Connect and lock the connector (3) of the wide range air fuel ratio sensor.

- (o) Connect and lock the connector (4) of the camshaft position sensor (for Intake Side).

- (p) Secure cable channel (5) on the cylinder head cover.

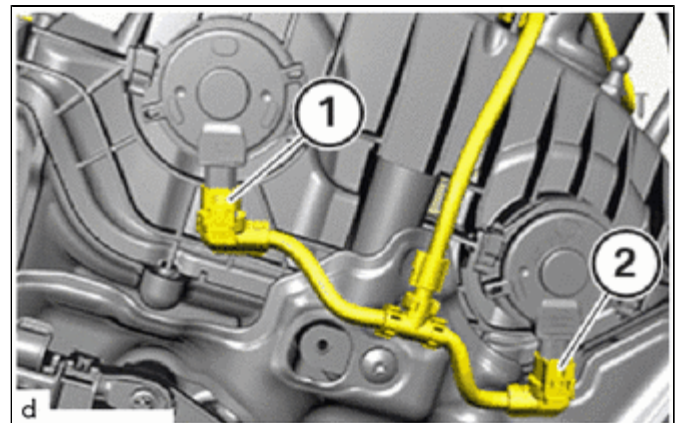
- (q) Connect and lock the connector (1) of the intake mass air flow meter sub-assembly.



- (r) Connect the connector (2) of the turbocharger actuator and link assembly and lock it.

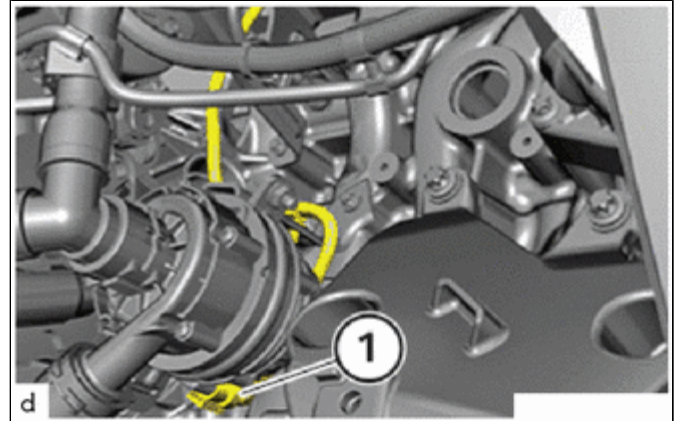
- (s) Connect and lock the connector (3) of the compressor inlet elbow.

- (t) Connect and lock the connector (1) of the vanos actuator (for Intake Side).



(u) Connect and lock the connector (2) of the vanos actuator (for Exhaust Side).

(v) Connect and lock the connector (1) of the water pump assembly (for Heater).



2. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

4. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

6. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

7. INSTALL AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

8. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

9. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): FRONT CRANKSHAFT OIL SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

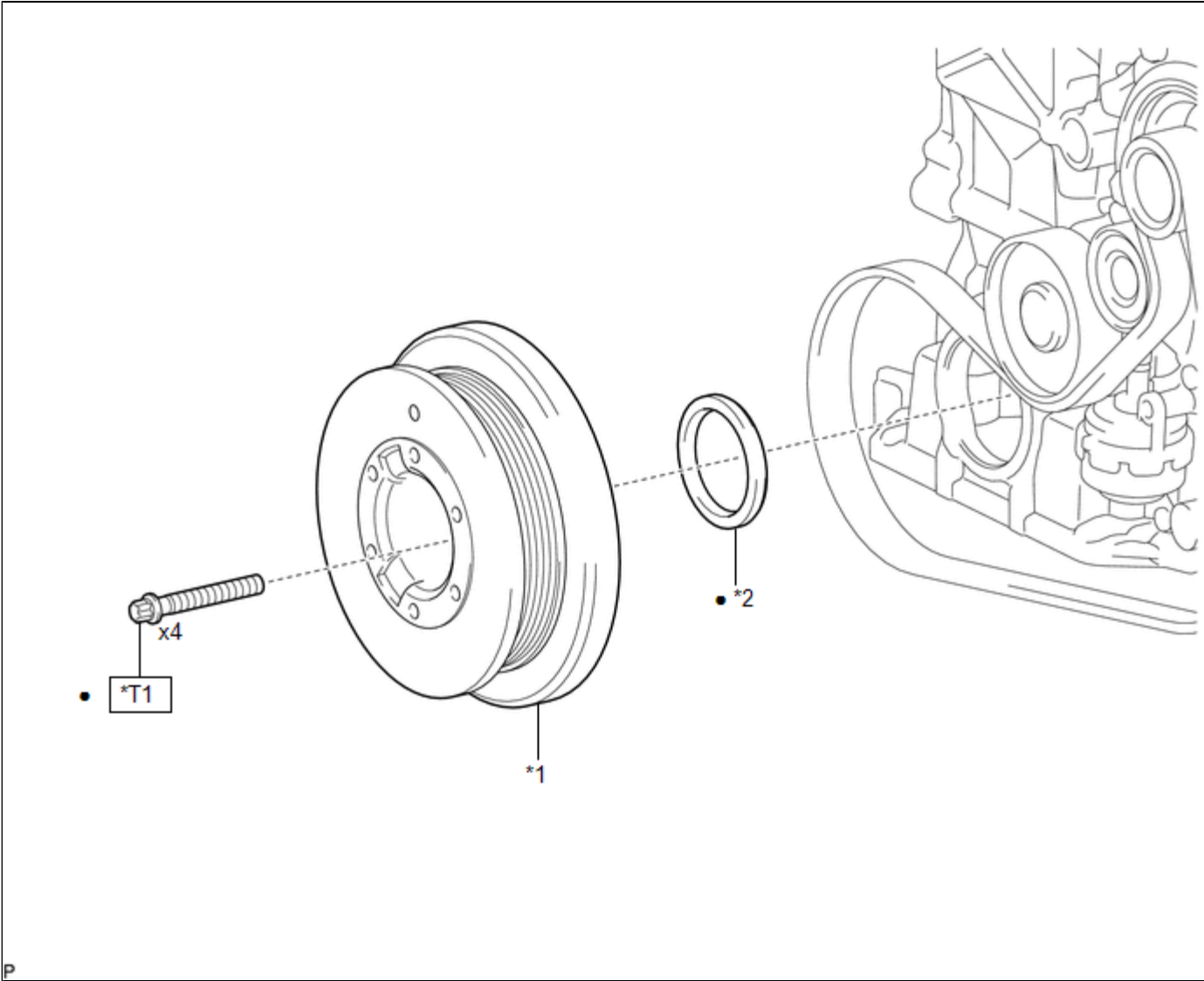
ILLUSTRATION




*1	FAN AND GENERATOR V BELT	*2	AIR CLEANER ASSEMBLY
----	--------------------------	----	----------------------

*3	AIR CLEANER HOSE ASSEMBLY	*4	NO. 1 ENGINE COVER SUB-ASSEMBLY
*5	GASKET	*6	CLIP
*7	AIR CLEANER SUPPORT	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	CRANKSHAFT PULLEY ASSEMBLY	*2	FRONT CRANKSHAFT OIL SEAL
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 40 (408, 30) 2nd: Turn 120°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): FRONT CRANKSHAFT OIL SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

4. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

5. REMOVE FAN SHROUD

Click here [INFO](#)

6. REMOVE FAN AND GENERATOR V BELT

Click here [INFO](#)

7. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

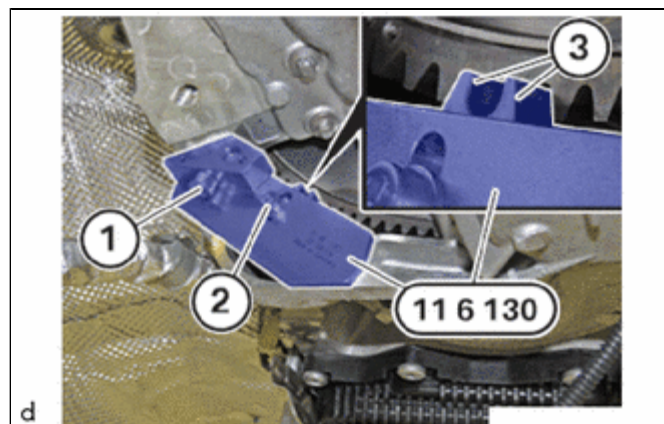
8. REMOVE STARTER ASSEMBLY

Click here [INFO](#)

9. REMOVE CRANKSHAFT PULLEY ASSEMBLY

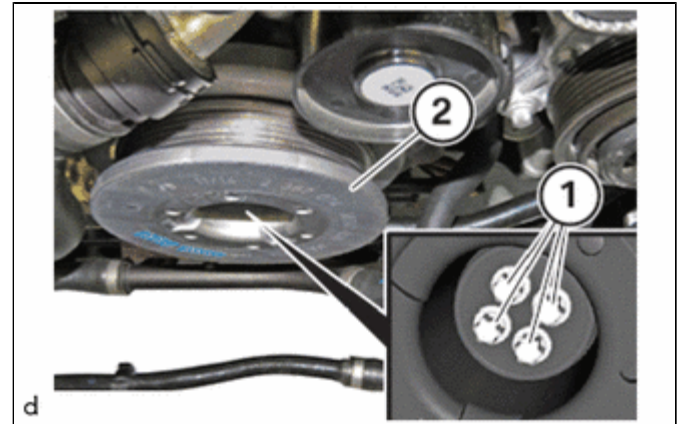
(a) Position special tool 0 496 595 (11 6 130) and fasten with bolt (1).

SST: 09700-WA040



- (b) Slide counter support on the bolt (2) in direction of flywheel sub-assembly and turn the engine on the crankshaft pulley assembly until the gearing (3) engages in the flywheel sub-assembly.
- (c) Tighten the bolt (2).

- (d) Release E12 bolts (1) and remove the crankshaft pulley assembly (2) from the top.

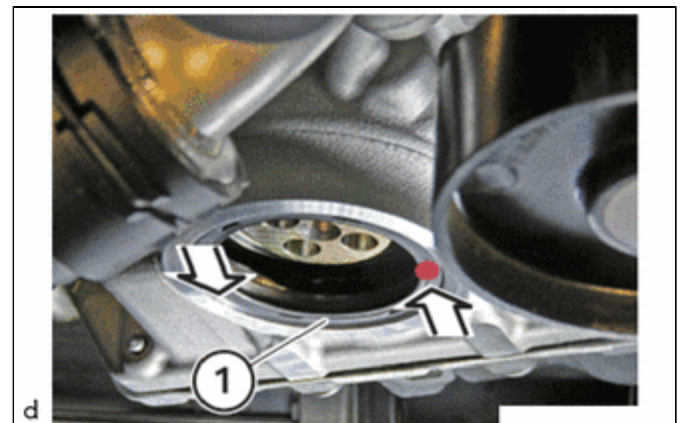


10. REMOVE FRONT CRANKSHAFT OIL SEAL

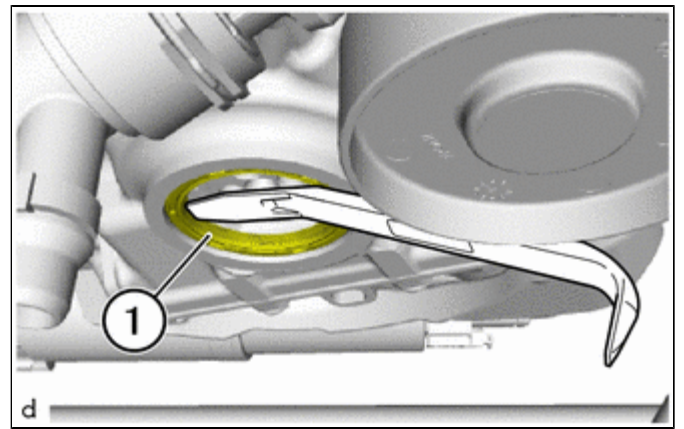
NOTICE:

- Scratches.
- Tools and sharp-edged components can cause scratches.
- Protect working area.
 - Handle tools and components carefully.

- (a) Drive in the front crankshaft oil seal (1) in the marked area with a punch to approx. 1 cm deep.



- (b) Carefully lever out and remove the front crankshaft oil seal (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): FRONT CRANKSHAFT OIL SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT CRANKSHAFT OIL SEAL

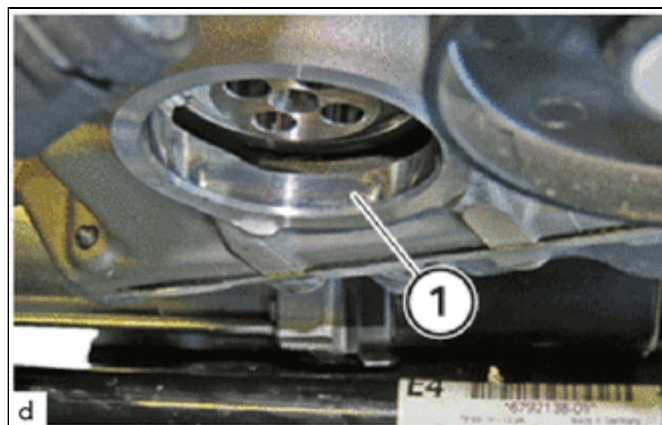
NOTICE:

- Front crankshaft oil seal damage.

Touching the sealing lip (inner) and applying oil to the front crankshaft oil seal will lead to its destruction.

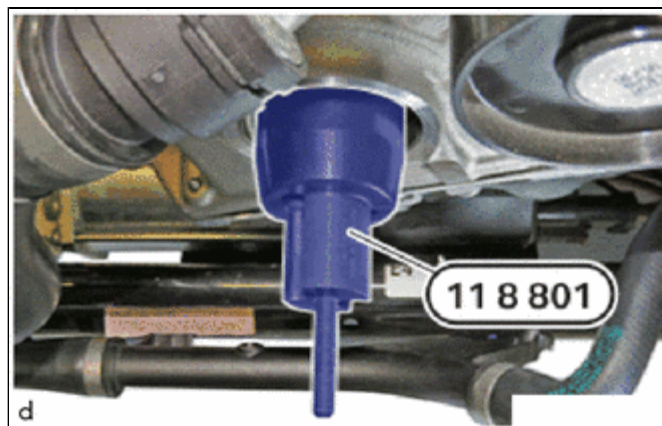
- Do not touch the sealing lip (inner) of the front crankshaft oil seal.
- Do not apply oil to the front crankshaft oil seal.
- Install the front crankshaft oil seal dry.

(a) Clean sealing surface (1).



(b) Clean the special tool 0 496 128 (11 8 801) from the set of special tools 0 496 127 (11 8 800) and coat it with fresh engine oil.

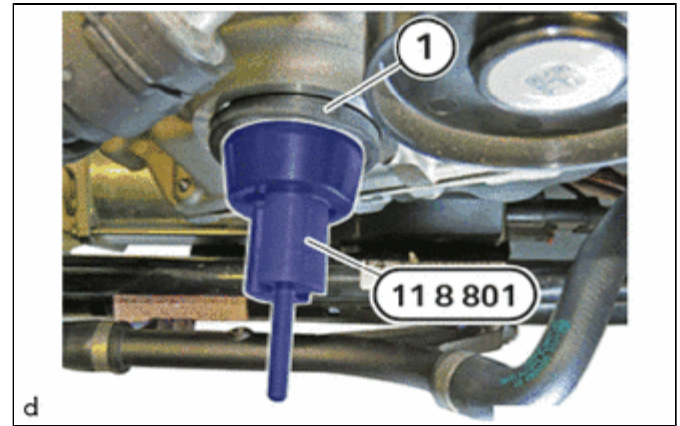
SST: 09200-WA080



(c) Position the special tool 0 496 128 (11 8 801) from the set of special tools 0 496 127 (11 8 800) on the crankshaft and bolt it on.

SST: 09200-WA080

(d) Replace front crankshaft oil seal (1).

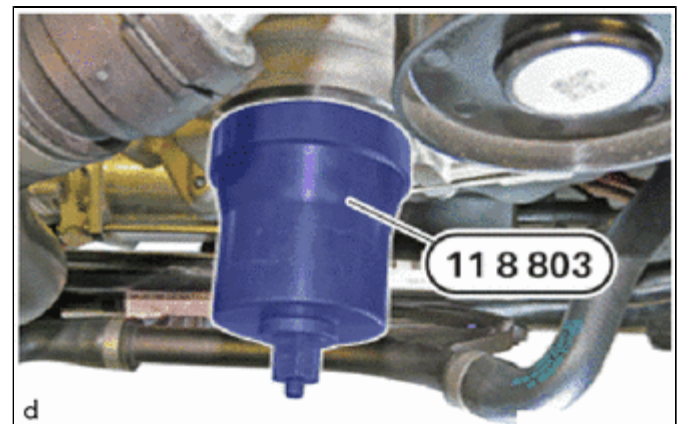


(e) Carefully slide the front crankshaft oil seal (1) straight in a rotational movement onto the special tool 0 496 128 (11 8 801) from the set of special tools 0 496 127 (11 8 800) until the front crankshaft oil seal is positioned flush against the cylinder block sub-assembly.

SST: 09200-WA080

(f) Position the special tool 0 496 130 (11 8 803) from the set of special tools 0 496 127 (11 8 800) and bolt on hand-tight with the nut.

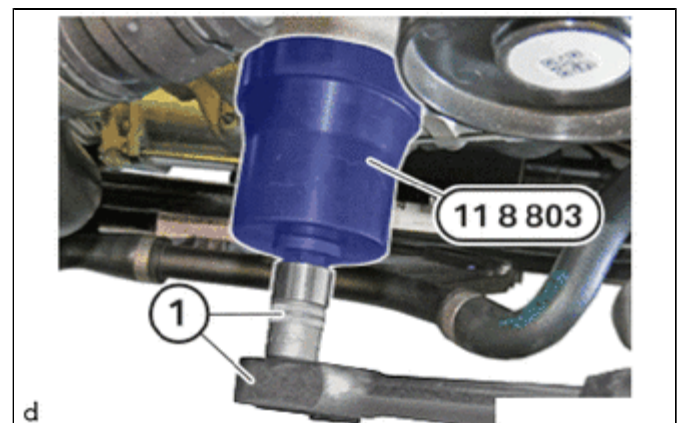
SST: 09200-WA080



(g) Ensure that the front crankshaft oil seal moves in evenly.

(h) Bolt in the special tool (sleeve) 0 496 130 (11 8 803) from the set of special tools 0 496 127 (11 8 800) with the tool (1) until the special tool (sleeve) 0 496 130 (11 8 803) is flush with the cylinder block sub-assembly.

SST: 09200-WA080

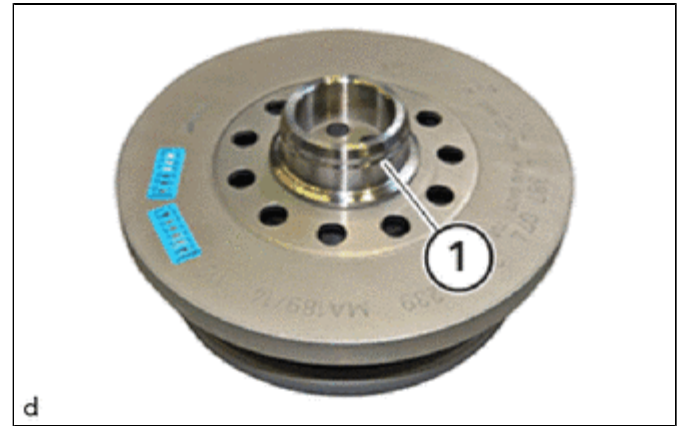


2. INSTALL CRANKSHAFT PULLEY ASSEMBLY

HINT:

When removing and installing or replacing the crankshaft pulley assembly, the front crankshaft oil seal must be replaced.

- (a) Clean the sealing surface (1) from oil and contamination.



- (b) Check if the special tool 0 496 595 (11 6 130) is installed and positioned correctly.

SST: 09700-WA040

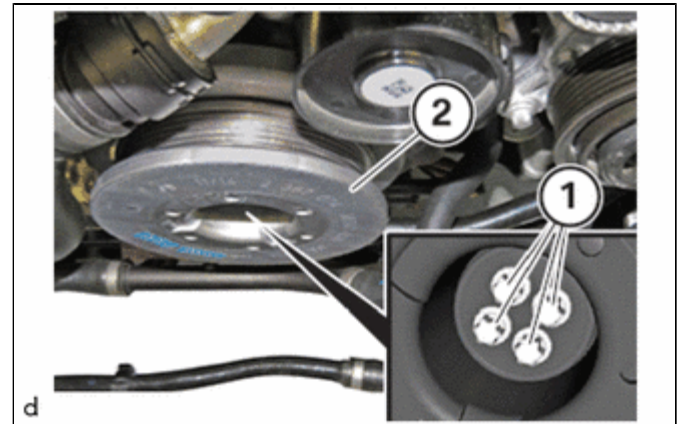
- (c) Special tool 0 496 595 (11 6 130) not installed.

SST: 09700-WA040

- (d) Install special tool 0 496 595 (11 6 130).

SST: 09700-WA040

- (1) Install crankshaft pulley assembly (2) from the top and position correctly.



- (2) Tighten the E12 bolts (1).

Torque:

40 N·m {408 kgf·cm, 30 ft·lbf}

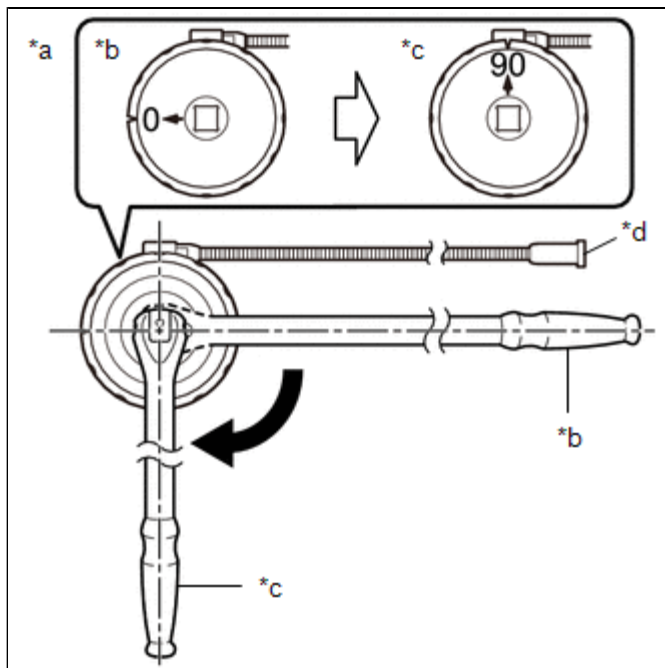
- (3) Using SST, tighten the bolts an additional 120°.

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.

- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

(4) Remove special tool 0 496 595 (11 6 130).

SST: 09700-WA040

3. INSTALL STARTER ASSEMBLY

Click here [INFO](#)

4. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

5. INSTALL FAN AND GENERATOR V BELT

Click here [INFO](#)

6. INSTALL FAN SHROUD

Click here [INFO](#)

7. INSTALL AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

8. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

9. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

10. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

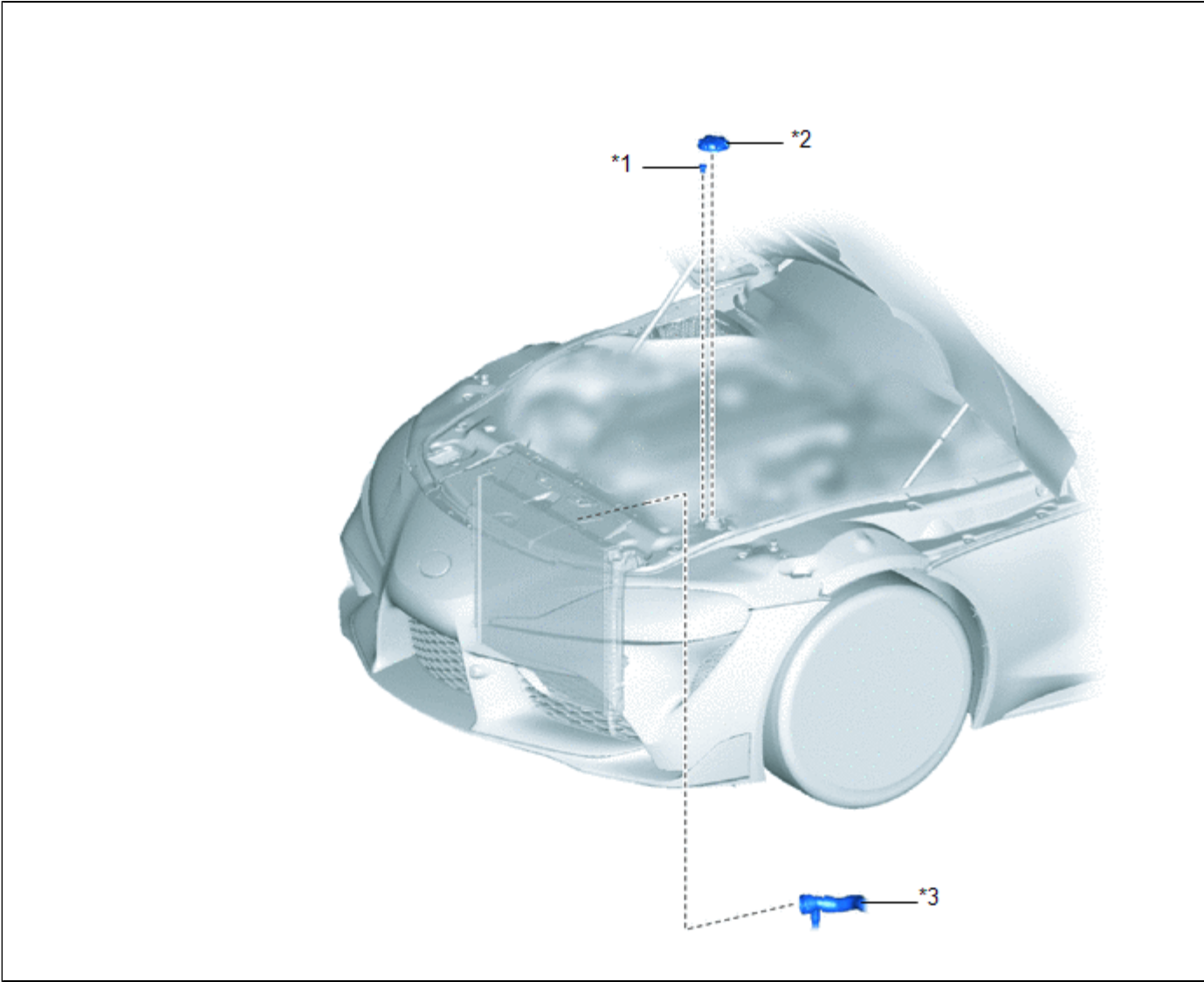
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): OIL FILTER BRACKET: COMPONENTS; 2020 MY Supra [03/2019 -]		

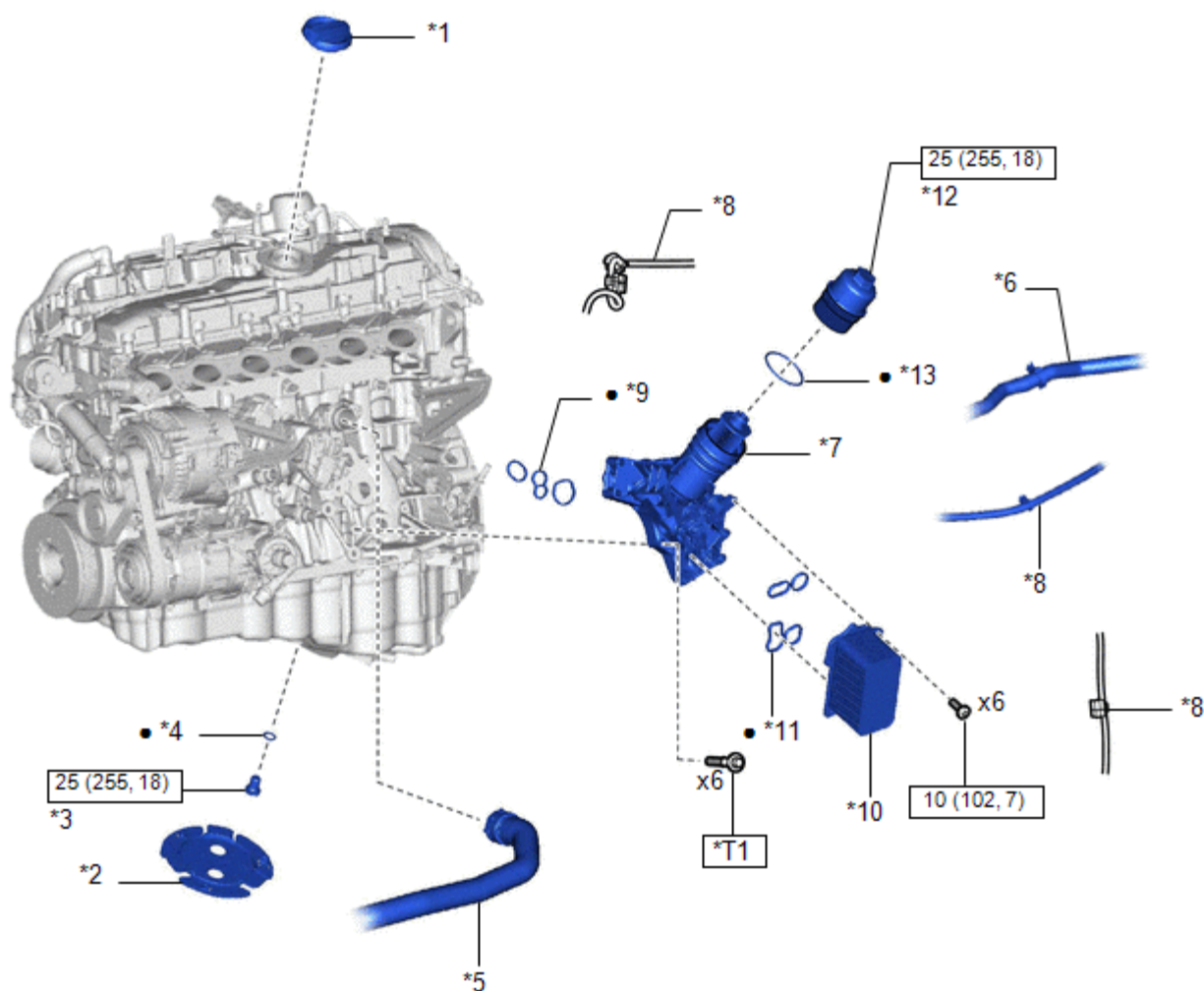
COMPONENTS

ILLUSTRATION




*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



d

*1	OIL FILLER CAP ASSEMBLY	*2	NO. 4 CENTER ENGINE UNDER COVER
*3	OIL PAN DRAIN PLUG	*4	OIL PAN DRAIN PLUG GASKET
*5	NO. 2 RADIATOR HOSE	*6	ALTERNATOR WIRE
*7	OIL FILTER BRACKET	*8	ENGINE WIRE
*9	OIL FILTER BRACKET GASKET	*10	OIL COOLER ASSEMBLY
*11	OIL COOLER GASKET	*12	OIL FILTER CAP ASSEMBLY
*13	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st : 4.0 (41, 35 in.*lbf) 2nd : 10 (102, 7)	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): OIL FILTER BRACKET: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

4. REMOVE OIL FILLER CAP ASSEMBLY

Click here [INFO](#)

5. REMOVE OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

6. DRAIN ENGINE COOLANT (for High Pressure)

Click here [INFO](#)

7. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

8. REMOVE OIL PAN DRAIN PLUG

Click here [INFO](#)

9. INSTALL OIL PAN DRAIN PLUG

Click here [INFO](#)

10. REMOVE OIL FILTER BRACKET

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

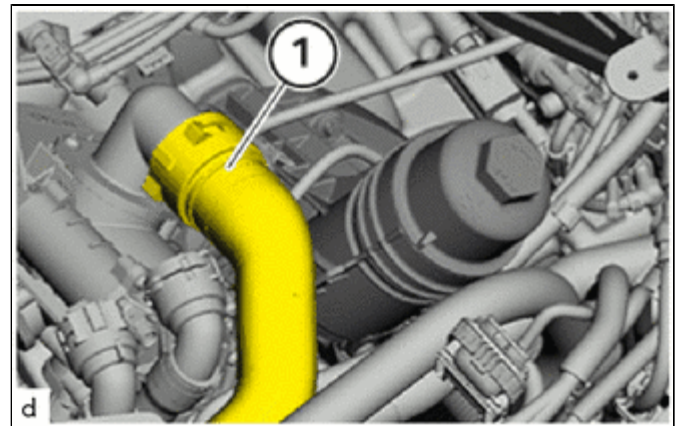
NOTICE:

To provide a better overview: Illustration of surrounding parts in removed state.

HINT:

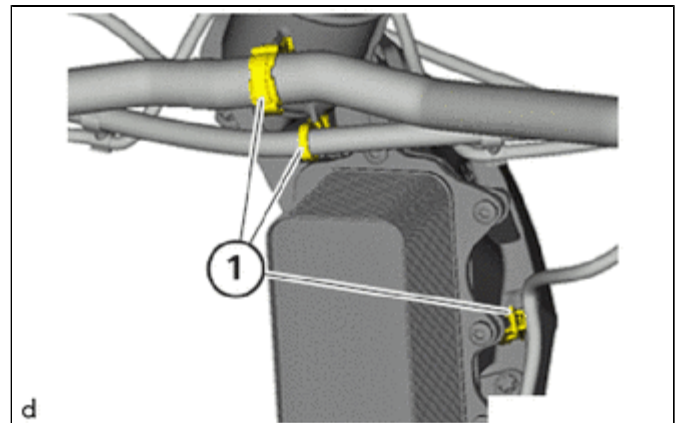
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock No. 2 radiator hose (1) and pull off.

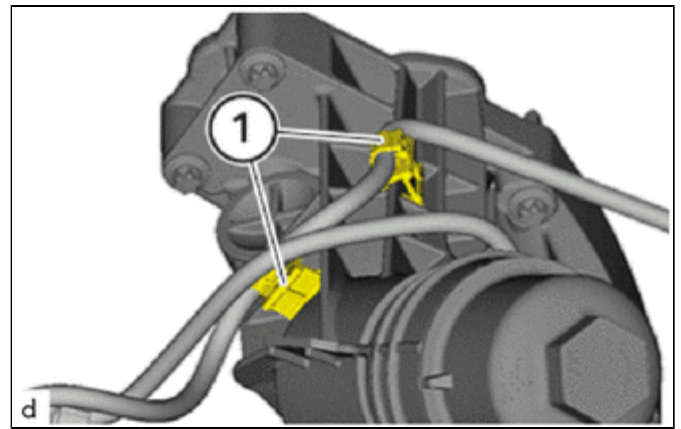


(b) Place No. 2 radiator hose (1) to one side.

(c) Unclip the alternator wire and engine wire (1).

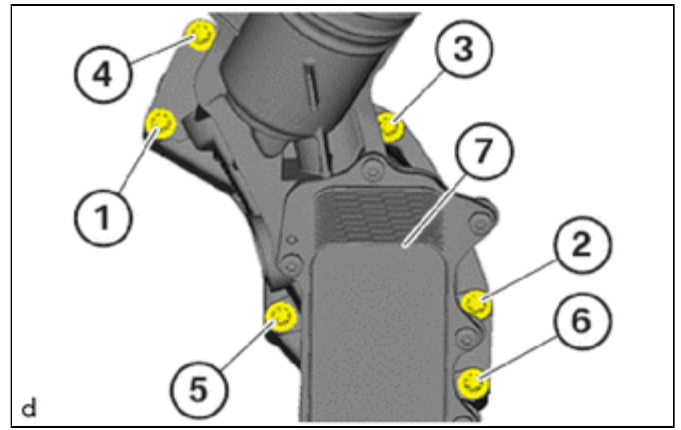


(d) Unclip the engine wire (1).



(e) Loosen E10 bolt (1) to (6).

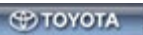
(1) The bolts (2) and (6) must be unscrewed from the bottom.



(f) Guide out the oil filter bracket (7) upwards and remove.

11. REMOVE OIL COOLER ASSEMBLY

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): OIL FILTER BRACKET: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OIL COOLER ASSEMBLY

Click here [INFO](#)

2. INSTALL OIL FILTER BRACKET

HINT:

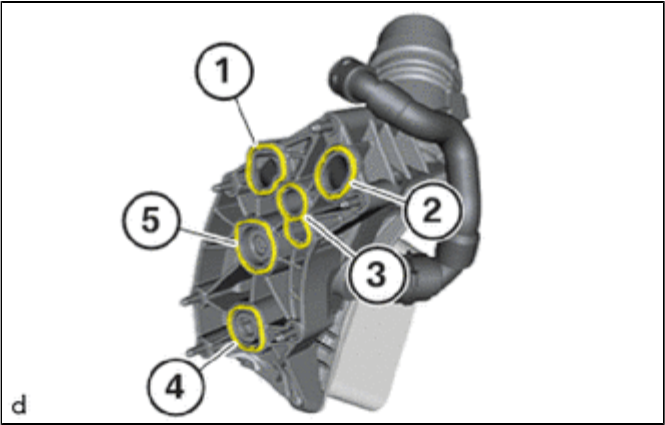
To provide a better overview: Illustration of surrounding parts in removed state.

(a) Clean the sealing surfaces on the engine block.

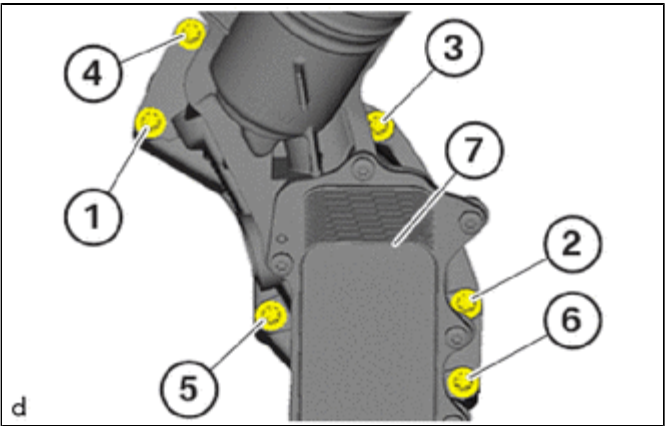
NOTICE:

- Damage to the surface.

The use of metal-cutting tools (e.g. sandpaper) to clean the surfaces can damage them and lead to leaks or engine damage.
- Do not use any metal-cutting tools.



(b) Replace oil filter bracket gasket (1) to (5).



(c) Insert and install the oil filter bracket (7) from the top.

(d) Tighten E10 bolts in the order (1) to (6).

(1) The bolts (2) and (6) must be tightened from the bottom.

Torque:

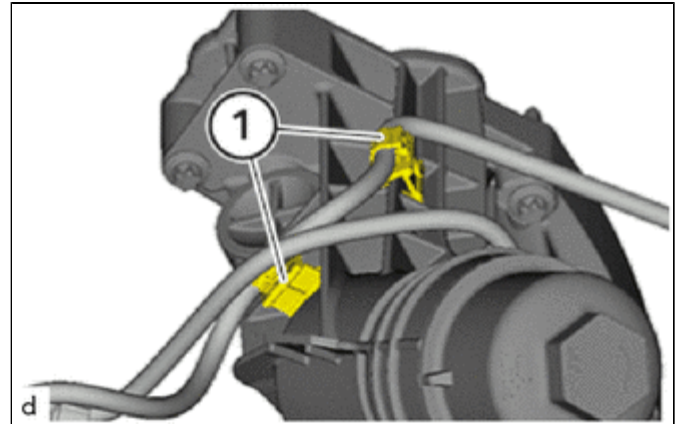
1st :

4.0 N·m {41 kgf·cm, 35 in·lbf}

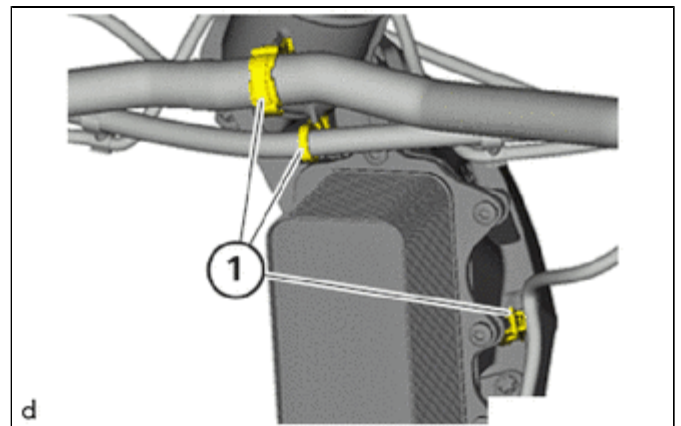
2nd :

10 N·m {102 kgf·cm, 7 ft·lbf}

(e) Clip in the engine wire (1).



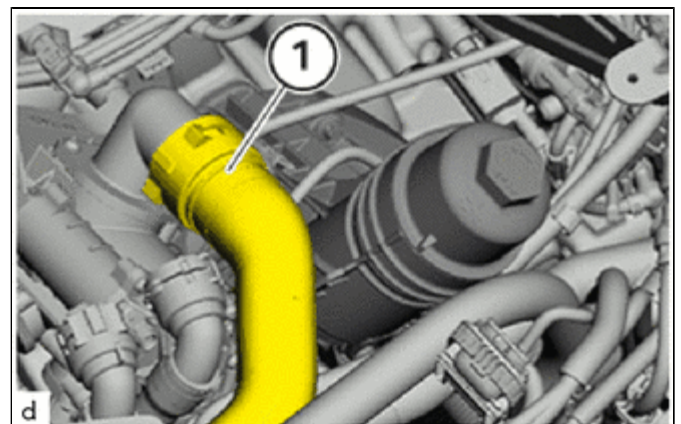
(f) Clip in the alternator wire and engine wire (1).



(g) Connect and lock the No. 2 radiator hose (1).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



3. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

4. INSTALL OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

5. ADD ENGINE OIL

Click here [INFO](#)

6. INSTALL OIL FILLER CAP ASSEMBLY

Click here [INFO](#)

7. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

8. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

9. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

10. ADD ENGINE COOLANT (for High Pressure)

Click here [INFO](#)

11. INSPECT ENGINE COOLANT

Click here [INFO](#)

12. INSPECT FOR ENGINE OIL LEAK

Click here [INFO](#)

13. CHECK ENGINE OIL LEVEL

Click here [INFO](#)

14. PERFORM CBS RESET

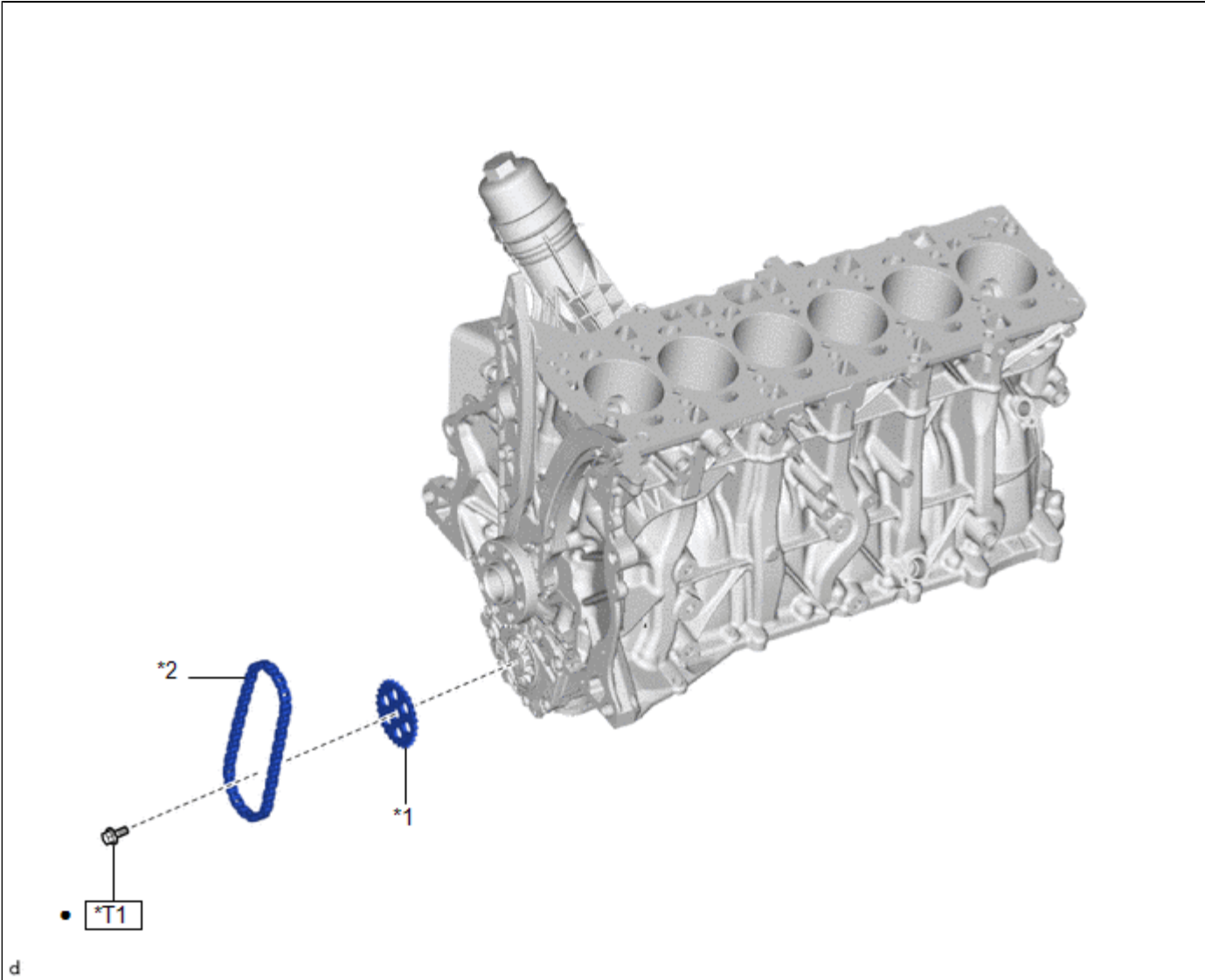
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): OIL PUMP DRIVE CHAIN: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL PUMP DRIVE SHAFT SPROCKET	*2	OIL PUMP DRIVE CHAIN SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): OIL PUMP DRIVE CHAIN: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE CHAIN SUB-ASSEMBLY

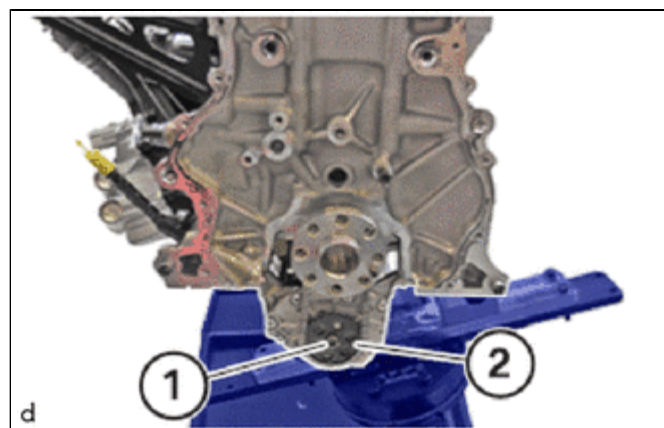
Click here [INFO](#)

2. REMOVE OIL PUMP DRIVE CHAIN SUB-ASSEMBLY

(a) Loosen T45 bolt (1).

HINT:

The thread is a left-hand thread.



(b) Use the SST to counter-hold the oil pump drive shaft sprocket.

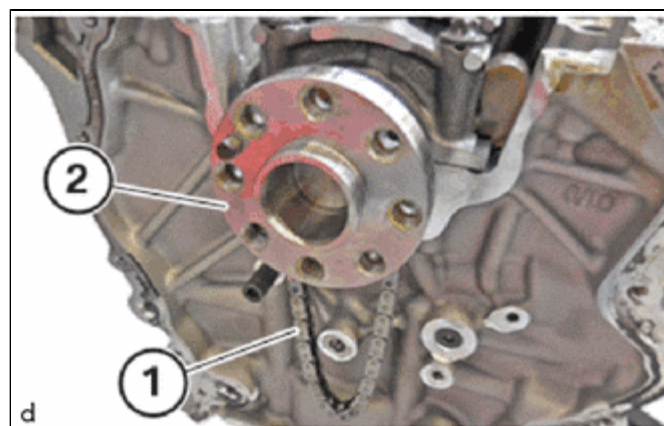
SST: 09960-10010

09962-01000

09963-00700

(c) Guide out and remove oil pump drive shaft sprocket (2).

(d) Guide out and remove oil pump drive chain sub-assembly (1) from crankshaft (2).



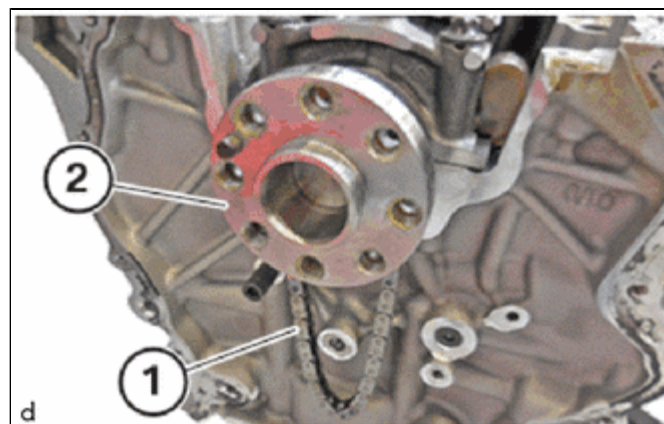
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDH0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): OIL PUMP DRIVE CHAIN: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OIL PUMP DRIVE CHAIN SUB-ASSEMBLY

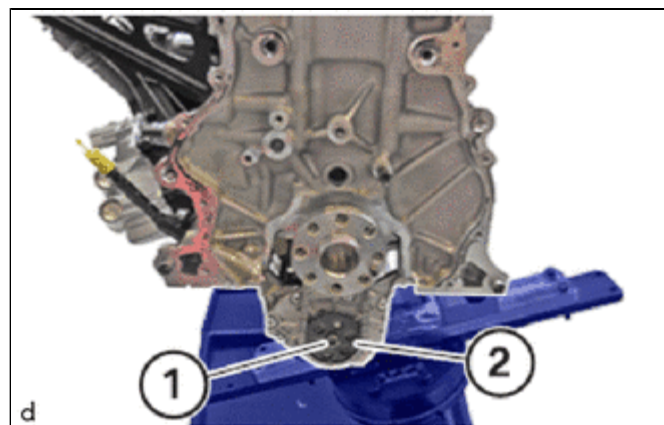
- (a) Guide in and install oil pump drive chain sub-assembly (1) on crankshaft (2).



- (b) Position oil pump drive shaft sprocket (2) on the oil pump assembly so that the labelling on the oil pump drive shaft sprocket (2) is facing away from the oil pump assembly.

HINT:

The thread is a left-hand thread.



- (c) Insert the oil pump drive shaft sprocket (2) in the oil pump drive chain sub-assembly.
 (d) Replace the bolt (1).
 (e) Hold the oil pump drive shaft sprocket (2), tighten the T45 bolt (1).

SST: 09960-10010

09962-01000

09963-00700

Torque:

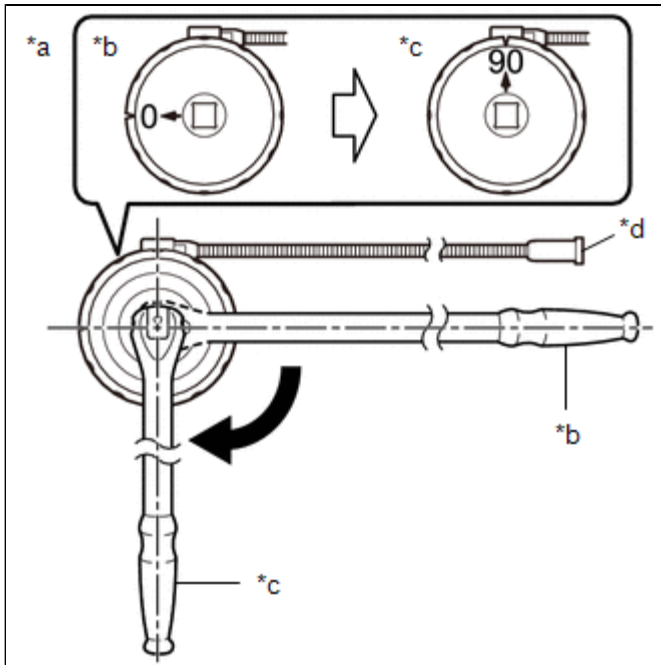
5.0 N·m {51 kgf·cm, 44 in·lbf}

- (f) Using SST, tighten the T45 bolt (1) an additional 90°.

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

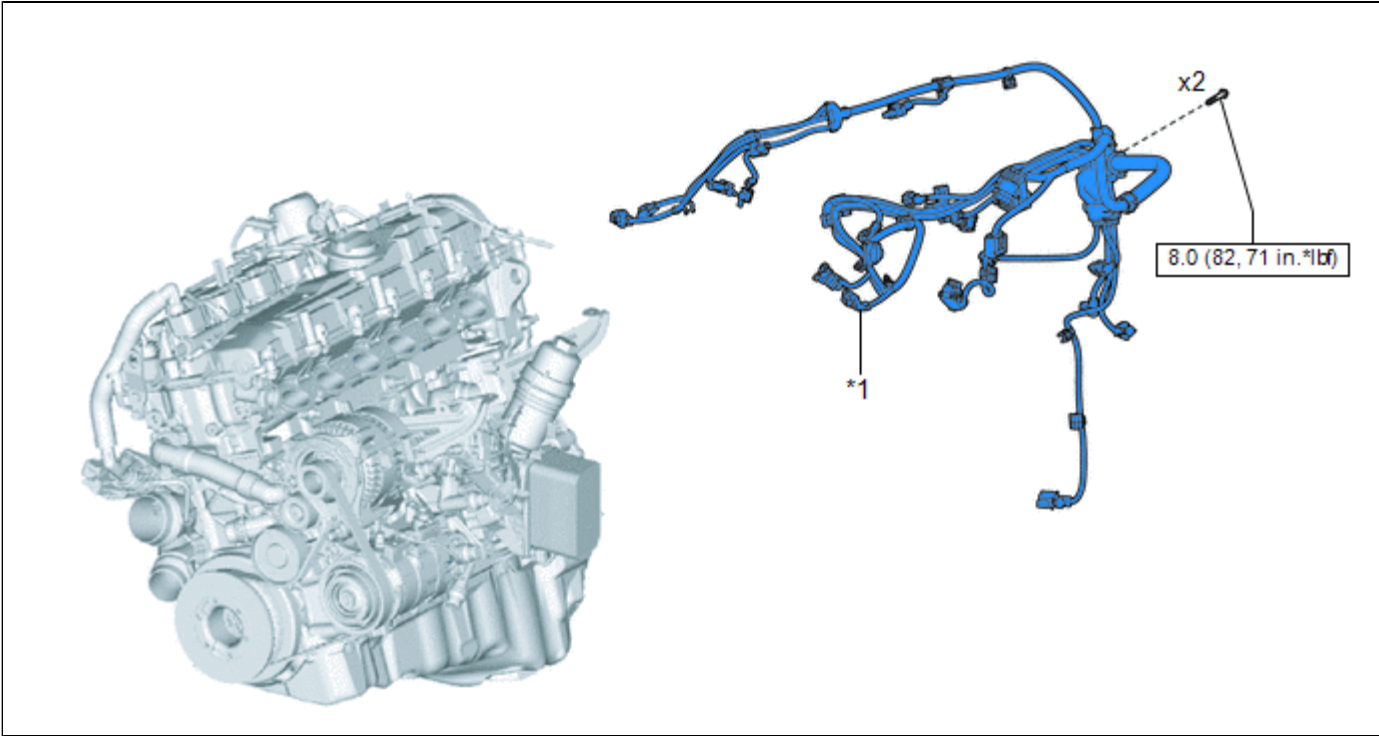
2. INSTALL CHAIN SUB-ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): PISTON: COMPONENTS; 2020 MY Supra [03/2019 -]		

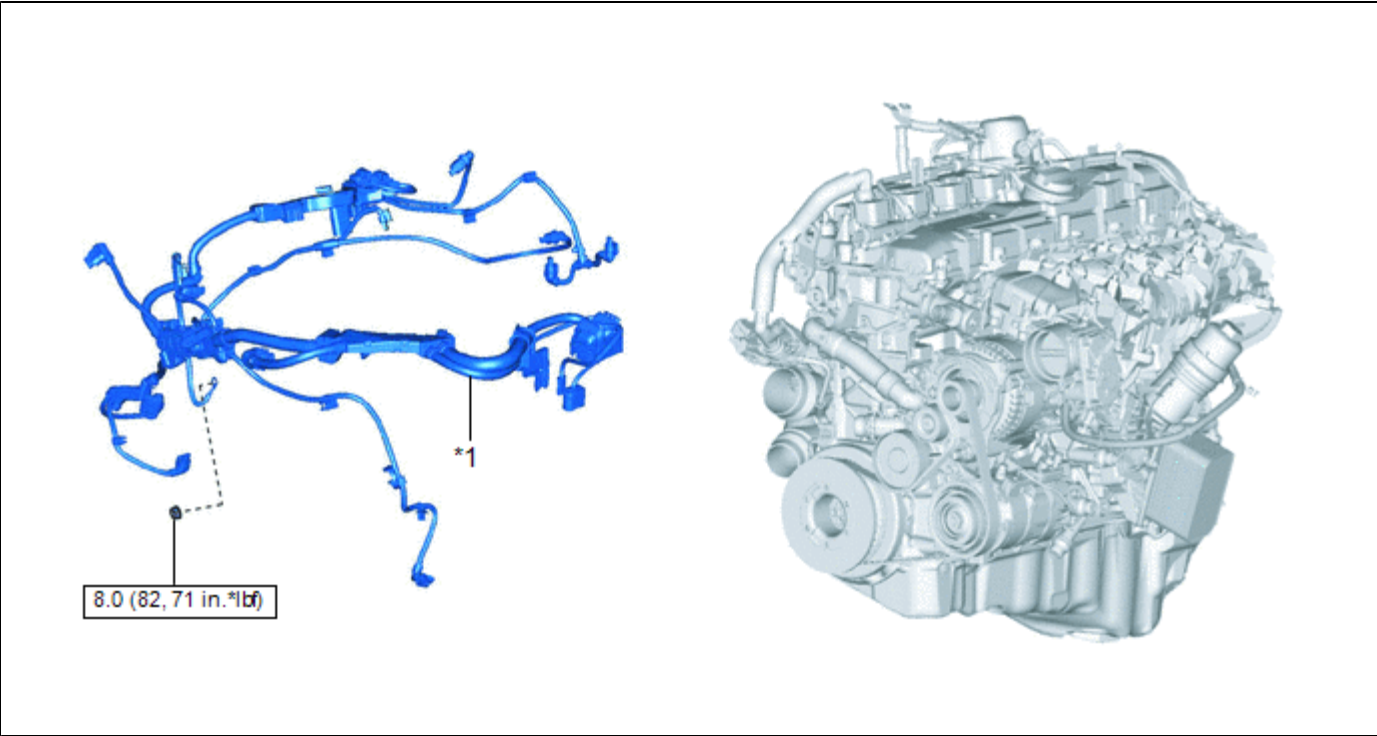
COMPONENTS

ILLUSTRATION



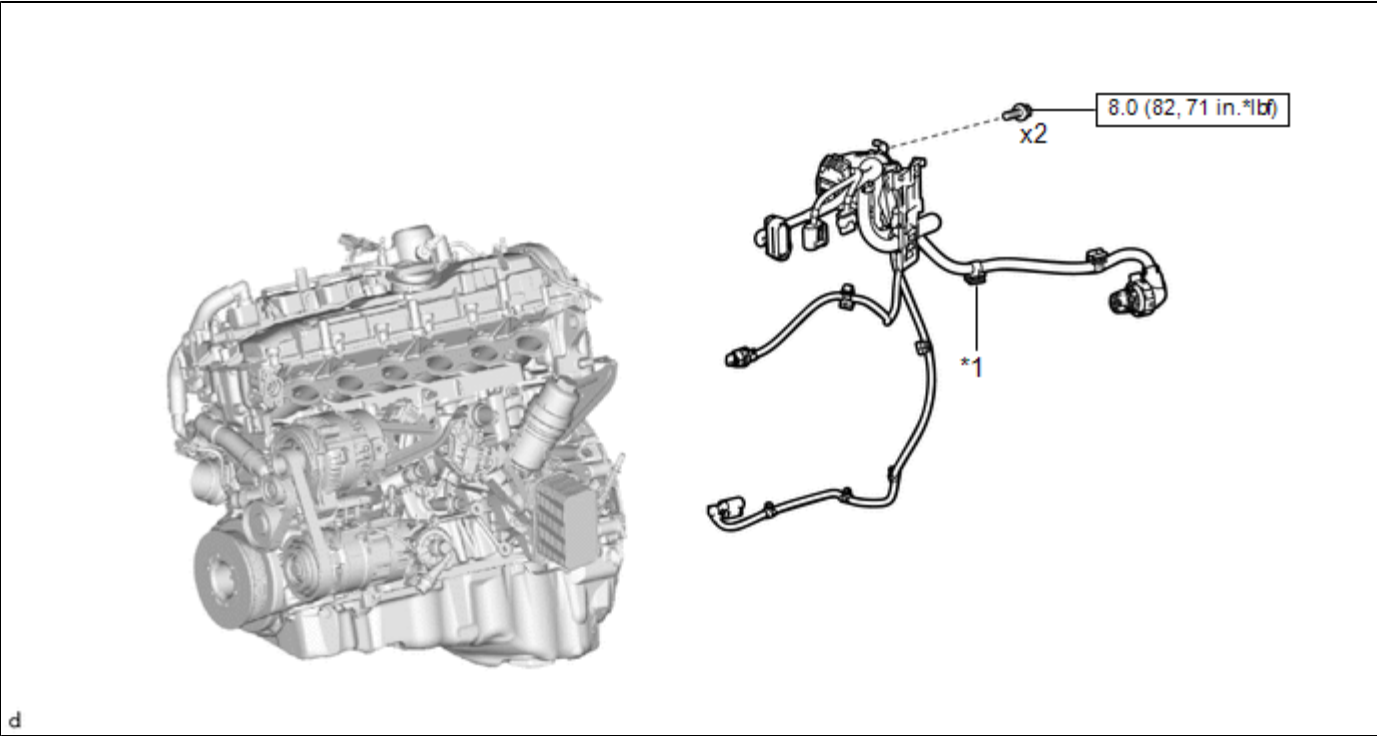
*1	ENGINE WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



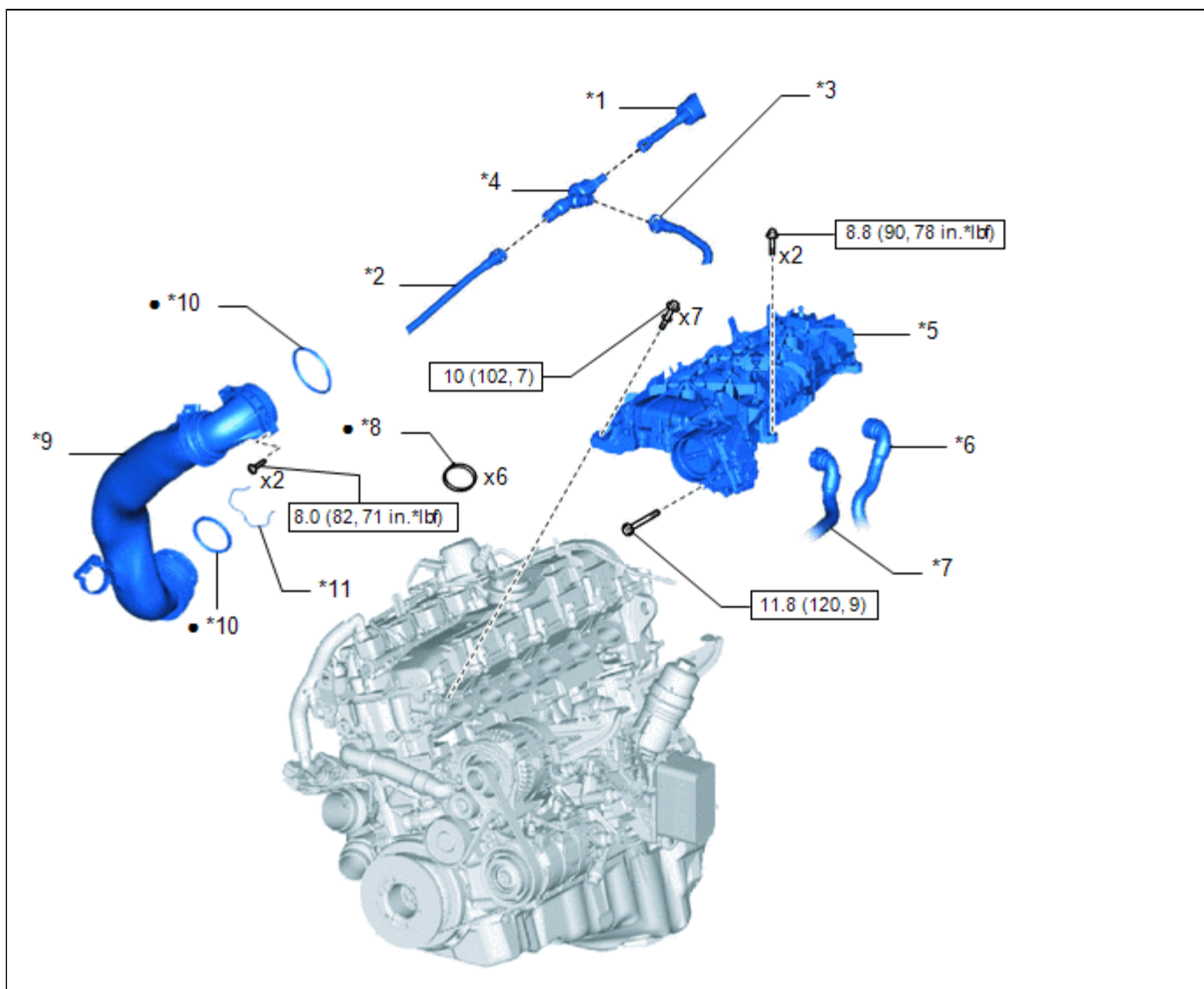
*1	NO. 2 ENGINE WIRE	-	-
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ILLUSTRATION



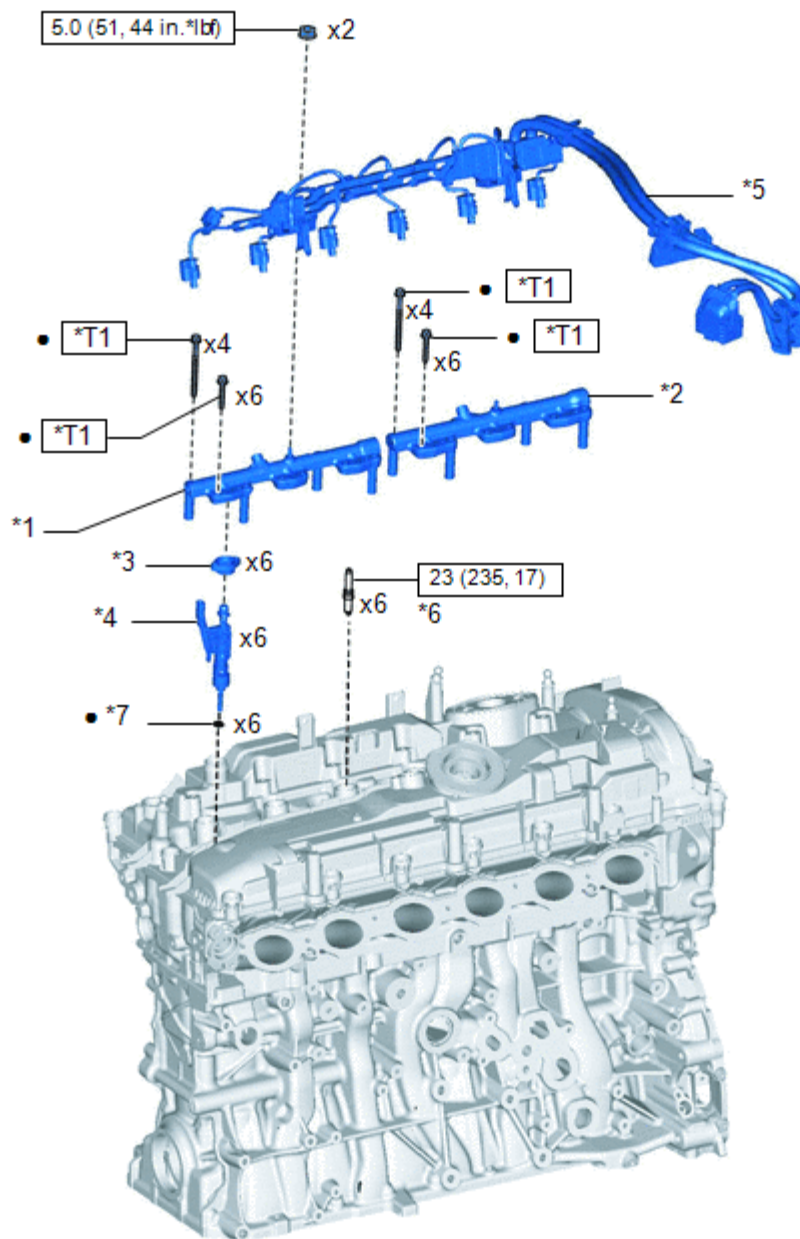
*1	TRANSMISSION WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



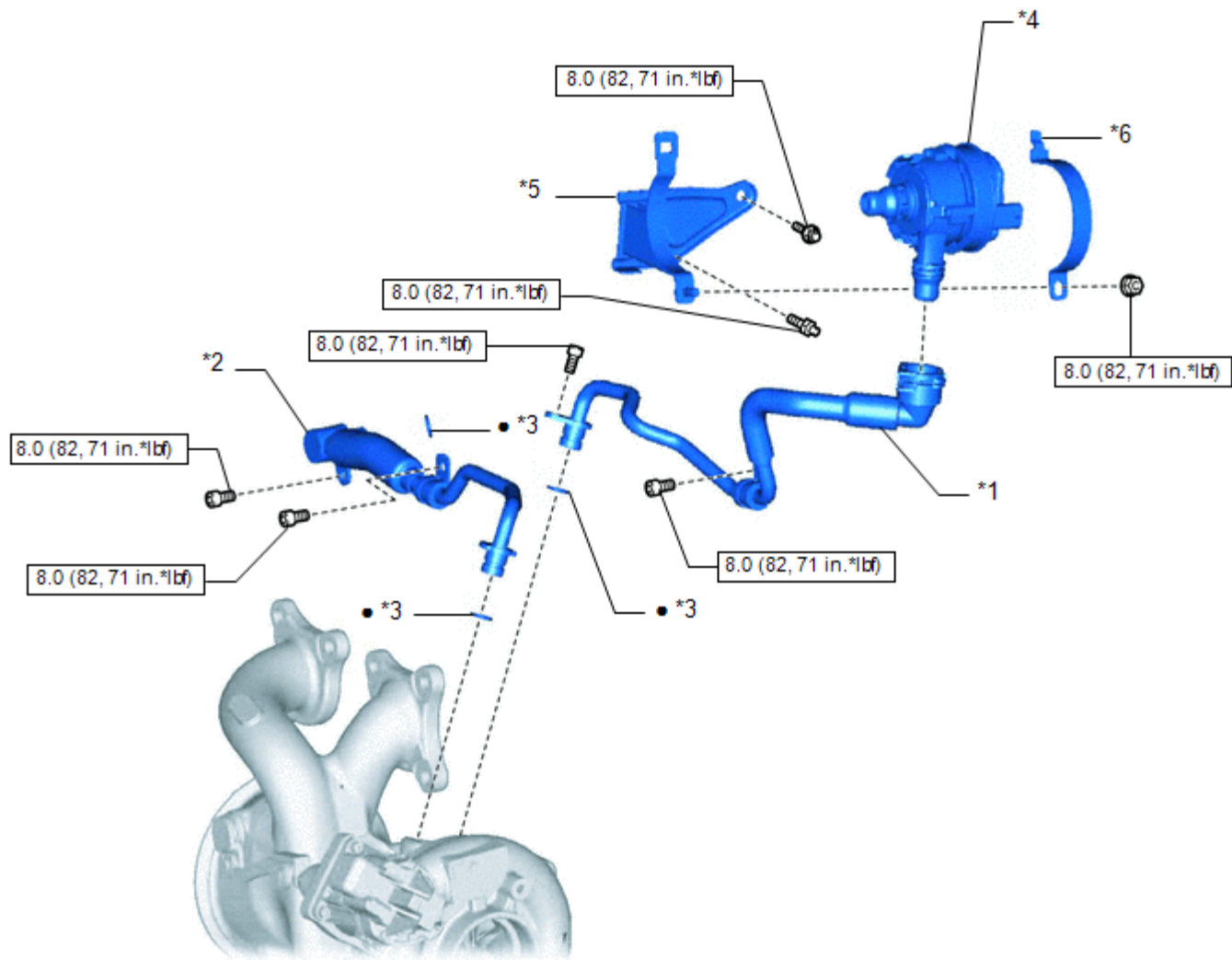
*1	NO. 2 FUEL VAPOR FEED HOSE	*2	NO. 1 FUEL VAPOR FEED HOSE
*3	NO. 3 FUEL VAPOR FEED HOSE	*4	NO. 1 CHECK VALVE
*5	INTAKE MANIFOLD	*6	NO. 5 WATER BY-PASS HOSE
*7	NO. 7 WATER BY-PASS HOSE	*8	NO. 1 INTAKE MANIFOLD TO HEAD GASKET
*9	NO. 2 AIR CLEANER HOSE	*10	SEALING RING
*11	AIR HOSE CLAMP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part


ILLUSTRATION



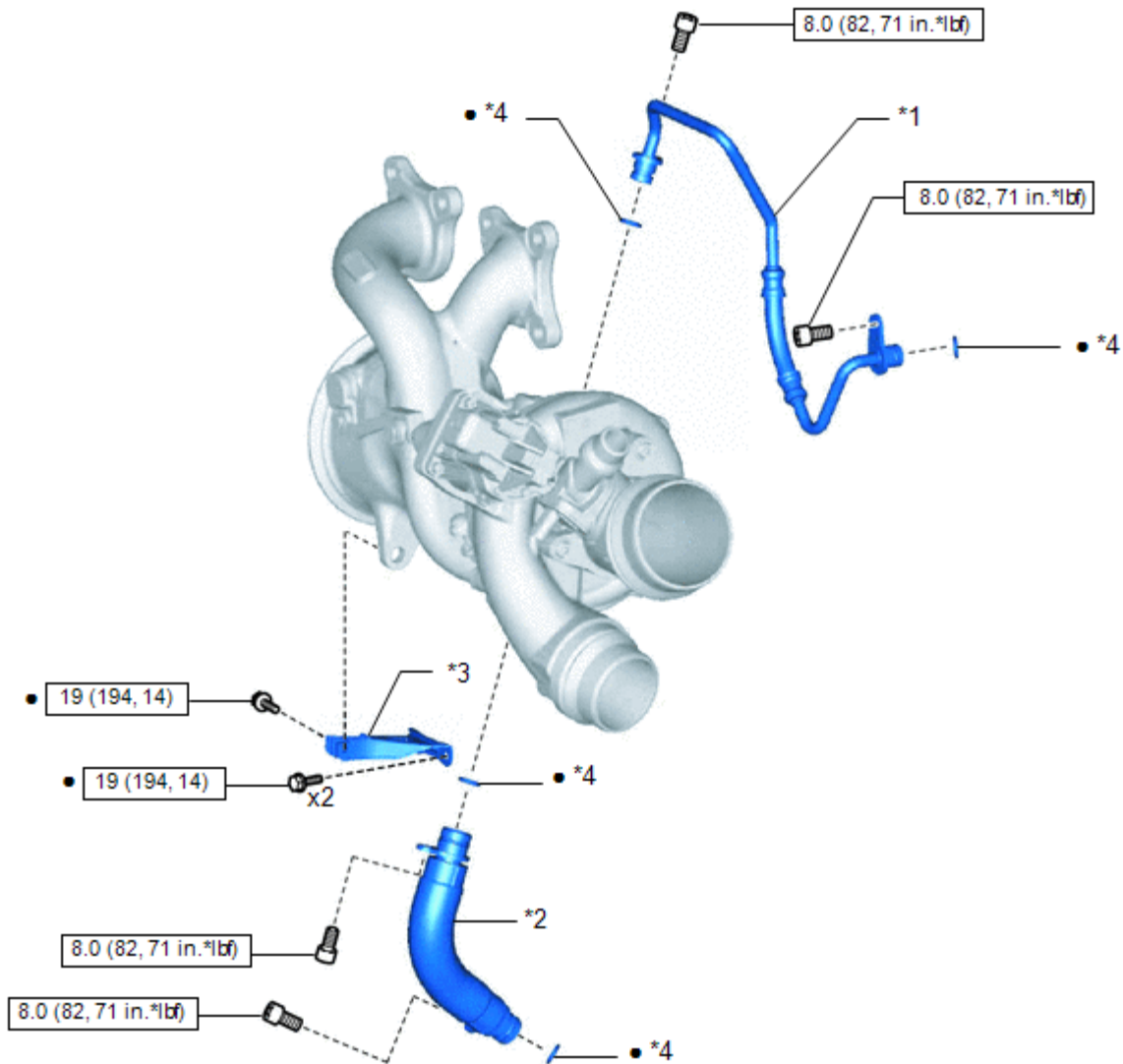
*1	FUEL DELIVERY PIPE	*2	NO. 2 FUEL DELIVERY PIPE
*3	HOLDER	*4	FUEL INJECTOR ASSEMBLY
*5	NO. 4 ENGINE WIRE	*6	SPARK PLUG
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°	-	-


ILLUSTRATION



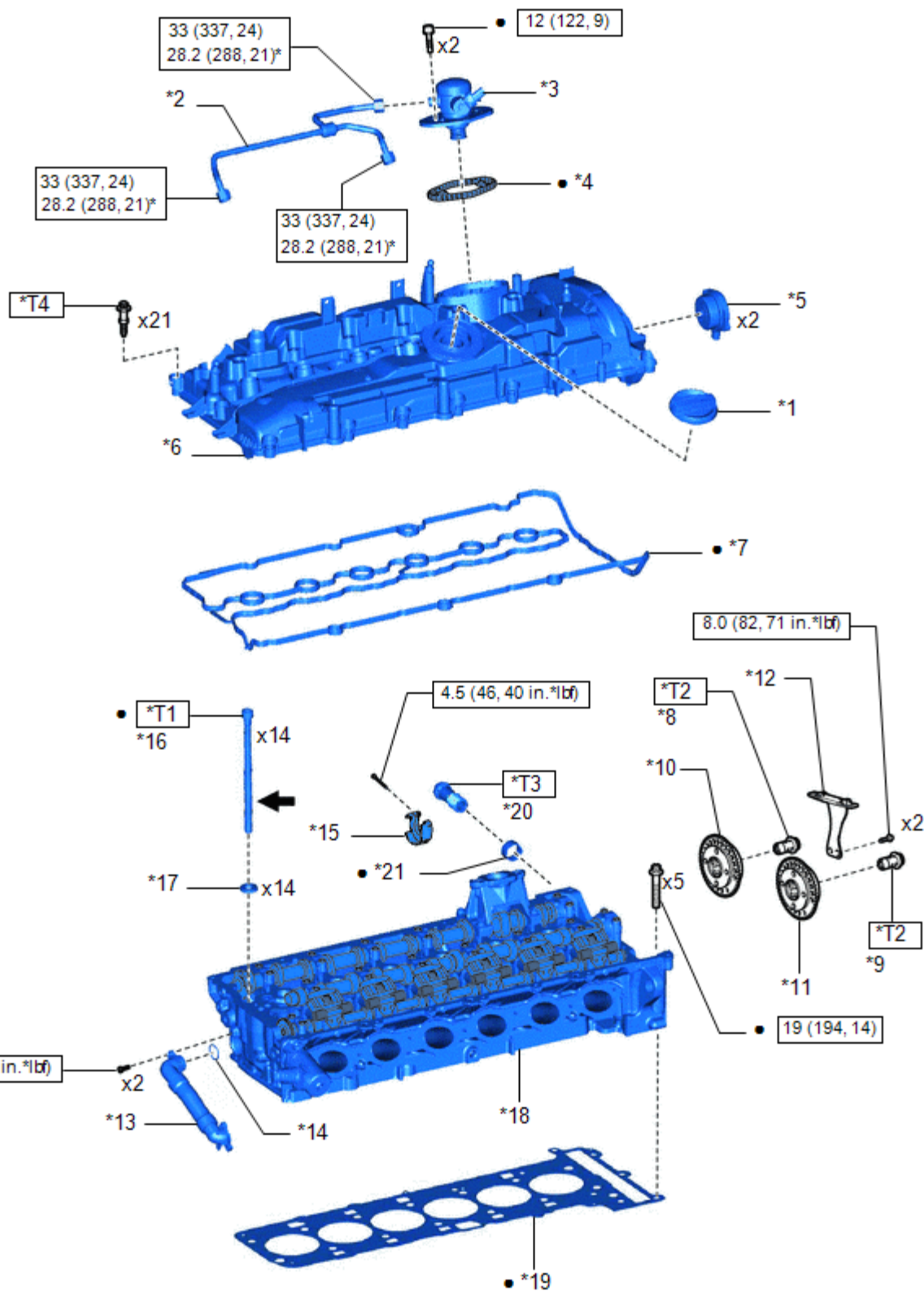
*1	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY	*2	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY
*3	O-RING	*4	WATER PUMP ASSEMBLY
*5	NO. 1 WATER PUMP BRACKET SUB-ASSEMBLY	*6	NO. 2 WATER PUMP BRACKET SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION





*1	TURBO OIL INLET PIPE SUB-ASSEMBLY	*2	TURBO OIL OUTLET PIPE
*3	TURBOCHARGER STAY	*4	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION






P

*1	OIL FILLER CAP ASSEMBLY	*2	NO. 1 FUEL PIPE SUB-ASSEMBLY
*3	FUEL PUMP ASSEMBLY	*4	FUEL PUMP SPACER GASKET
*5	CAM TIMING OIL CONTROL SOLENOID ASSEMBLY	*6	CYLINDER HEAD COVER SUB-ASSEMBLY
			EXHAUST CAMSHAFT TIMING GEAR

*7	CYLINDER HEAD COVER GASKET	*8	CENTER BOLT ASSEMBLY
*9	INTAKE CAMSHAFT TIMING GEAR CENTER BOLT ASSEMBLY	*10	CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY
*11	CAMSHAFT TIMING GEAR ASSEMBLY	*12	CHAIN DAMPER GUIDE
*13	NO. 2 WATER BY-PASS HOSE	*14	O-RING
*15	CAMSHAFT SENSOR WHEEL	*16	CYLINDER HEAD SET BOLT
*17	CYLINDER HEAD SET PLATE WASHER	*18	CYLINDER HEAD SUB-ASSEMBLY
*19	CYLINDER HEAD GASKET	*20	NO. 1 CHAIN TENSIONER ASSEMBLY
*21	SEALING SLEEVE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench
•	Non-reusable part		Engine oil
*T1	1st: 30 (306, 22) 2nd: Turn 90° 3rd: Turn 180°	*T2	1st: 10 (102, 7) 2nd: 30 (306, 22) 3rd : 50 (510, 37) 4th : Turn 35°
*T3	1st: 20 (204, 15) 2nd: Turn 40°	-	-

ILLUSTRATION

*5	OIL PUMP ASSEMBLY	*6	OIL PUMP DRIVE SHAFT GEAR
*7	OIL PUMP DRIVE CHAIN SUB-ASSEMBLY	*8	CONNECTING ROD BEARING
*9	SEALING CAP	*10	OIL PAN DRAIN PLUG GASKET
*11	OIL PUMP SET PIN	*12	PISTON SUB-ASSEMBLY W/PIN
*13	PISTON PIN HOLE SNAP RING	*14	PISTON PIN
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Loctite 5970 Flange Sealant		Engine oil
*T1	1st: 15 (153, 11) 2nd: Turn 45°	*T2	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°
*T3	1st: 20 (204, 15) 2nd: Turn 70° 3rd: Turn 70°	-	-



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Title: B58 (ENGINE MECHANICAL): PISTON: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE ENGINE ASSEMBLY

Click here [INFO](#)

2. REMOVE SPARK PLUG

Click here [INFO](#)

3. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

4. REMOVE OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

5. REMOVE OIL PAN DRAIN PLUG

Click here [INFO](#)

6. INSTALL OIL PAN DRAIN PLUG

Click here [INFO](#)

7. INSTALL OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

8. REMOVE NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

9. REMOVE FUEL PUMP ASSEMBLY

Click here [INFO](#)

10. REMOVE FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

11. REMOVE FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

12. REMOVE CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

13. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY

Click here

[INFO](#)

14. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

15. REMOVE OUTLET TURBO OIL PIPE

Click here [INFO](#)

16. REMOVE TURBOCHARGER STAY

Click here [INFO](#)

17. SET NO. 1 CYLINDER TO TDC (COMPRESSION)

Click here [INFO](#)

18. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY

Click here [INFO](#)

19. LOOSEN RELEASING INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

20. LOOSEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

21. REMOVE INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

22. REMOVE EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

23. REMOVE CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

24. REMOVE CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

25. REMOVE SST

Click here [INFO](#)

26. REMOVE CYLINDER HEAD SUB-ASSEMBLY

Click here [INFO](#)

27. REMOVE CYLINDER HEAD GASKET

Click here [INFO](#)

28. REMOVE OIL PAN SUB-ASSEMBLY

Click here [INFO](#)

29. REMOVE OIL PUMP ASSEMBLY

Click here [INFO](#)

30. REMOVE NO. 1 OIL PAN BAFFLE PLATE

Click here [INFO](#)

31. REMOVE CONNECTING ROD SUB-ASSEMBLY

NOTICE:

- Damage on the cylinder wall and oil spray nozzles.

Major force can scratch the cylinder wall and bend the oil spray nozzles.

- Carefully move the piston and connecting rod sub-assembly in the engine block.

- Piston, gudgeon pin, connecting rod sub-assembly and connecting rod bearings are matched to each other and balanced.

Always install the piston, gudgeon pin, connecting rod and connecting rod bearing shells in the cylinder from which they were removed.

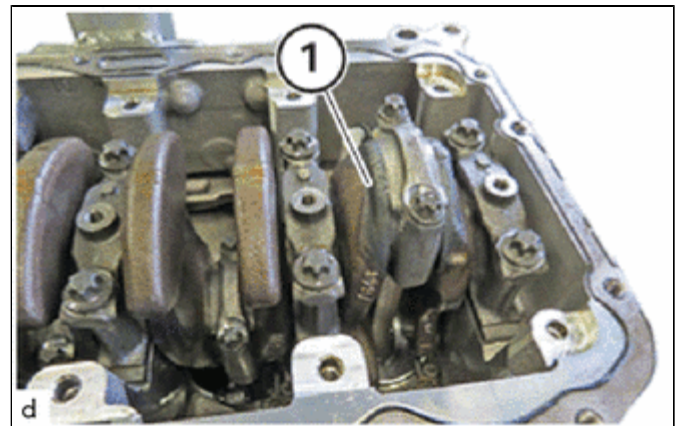
- The connecting rod sub-assemblies of the engine are balanced and are matched to each other.

A single connecting rod sub-assembly is not permitted to be replaced. Always replace all connecting rod sub-assemblies.

HINT:

The description is for one component only. The procedure is identical for all further components.

- (a) Turn the crankshaft until the connecting rod bearing journal (1) reaches a vertical position.



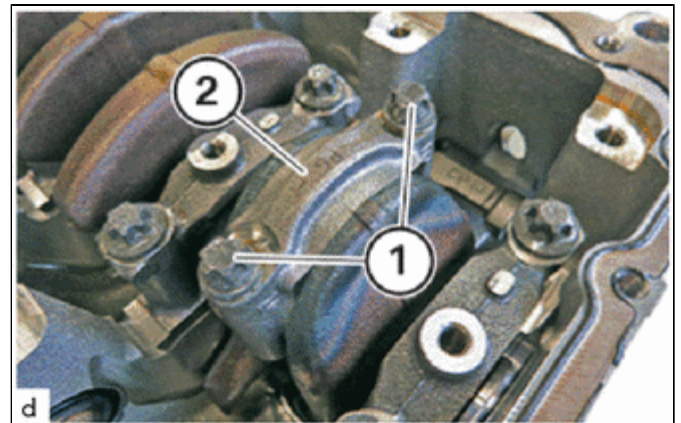
- (b) Loosen E12 bolts (1).

NOTICE:

- Engine damage caused by incorrectly installed connecting rod bearings and connecting rod bearing caps.

Engine damage may result from incorrectly installing connecting rod bearings and connecting rod bearing caps.

- Always install all connecting rod bearings and connecting rod bearing caps in the same position from which they were removed.



(c) Remove the connecting rod bearing cap (2) and put to one side in the correct order.

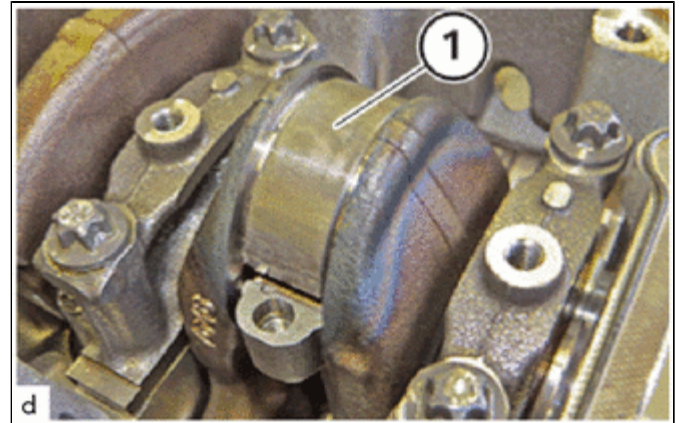
(d) Remove connecting rod bearing (1).

NOTICE:

- Engine damage caused by incorrectly installed connecting rod bearings and connecting rod bearing caps.

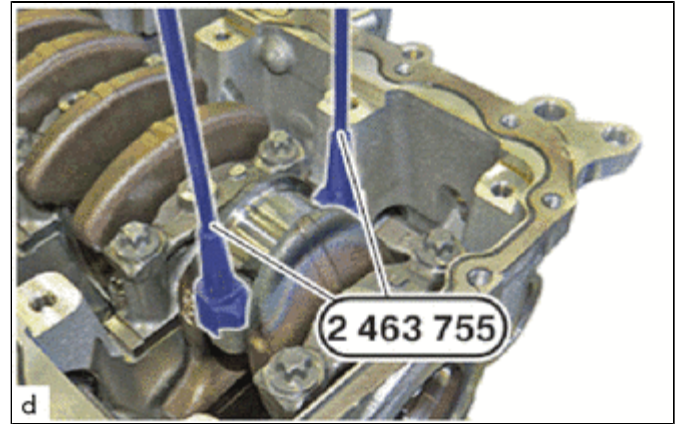
Engine damage may result from incorrectly installing connecting rod bearings and connecting rod bearing caps.

- Always install all connecting rod bearings and connecting rod bearing caps in the same position from which they were removed.

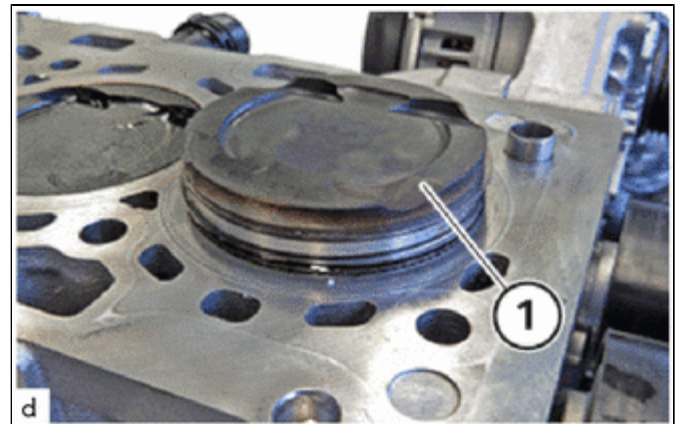


(e) Bolt special tool 2 463 755 in at large connecting rod eye.

SST: 09200-WA730



(f) Push the piston (1) and the connecting rod upwards out of the crankcase.



32. INSPECT PISTON

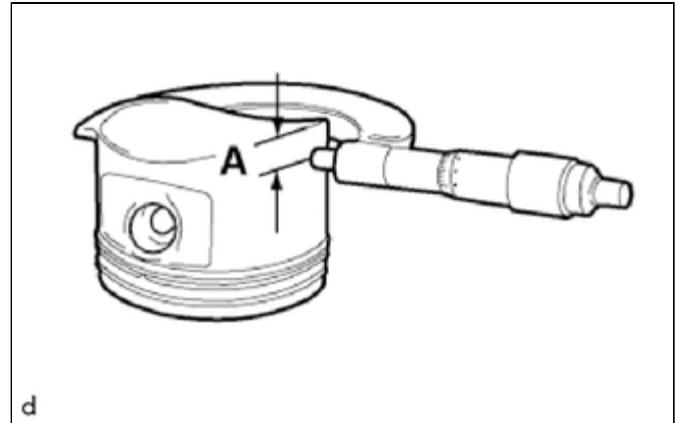
HINT:

The description is for one component only. The procedure is identical for all further components.

- (a) Position measuring bolt in area (A) and measure piston installation clearance transversely to gudgeon pin.

Piston diameter:

Distance (A) to the lower end of the piston skirt	Nominal dimension of piston diameter
14 mm (0.551 in.)	81.938 to 81.956 mm (3.226 to 3.227 in.)
26 mm (1.02 in.)	81.870 to 81.884 mm (3.223 to 3.224 in.)
49 mm (1.93 in.)	81.285 to 81.309 mm (3.200 to 3.201 in.)



HINT:

If the piston diameter is not as specified, replace the piston.

33. REMOVE PISTON PIN HOLE SNAP RING

NOTICE:

The description is for one component only. The procedure is identical for all further components.

HINT:

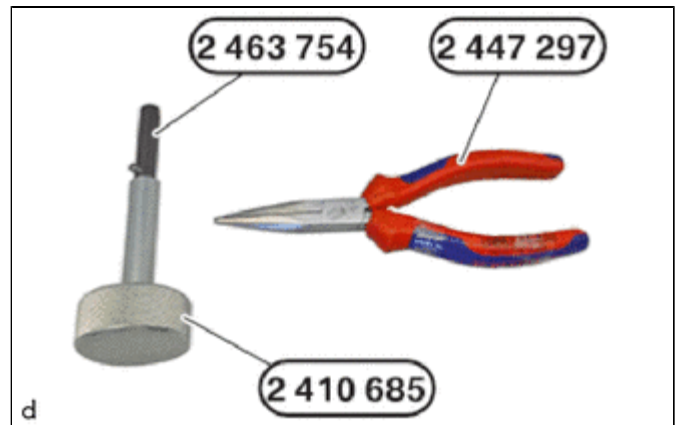
Wear safety goggles.

- (a) Use special tools 2 463 754 , 2 410 685 and 2 447 297 to remove the piston from the connecting rod sub-assembly.

SST: 09200-WA580

SST: 09200-WA750

SST: 09900-WA150



- (b) Use special tool 2 447 297 to remove the piston pin hole snap ring.

SST: 09900-WA150

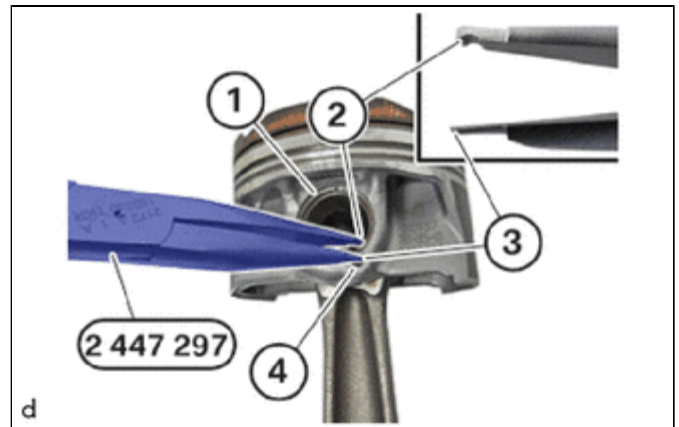
CAUTION:

- Spring preload.

Danger of injury!

- The use of the specified special tool for the

- disassembly or installation is mandatory.
- Wear safety goggles.



(c) Insert the flat side (3) of the special tool into the groove (4).

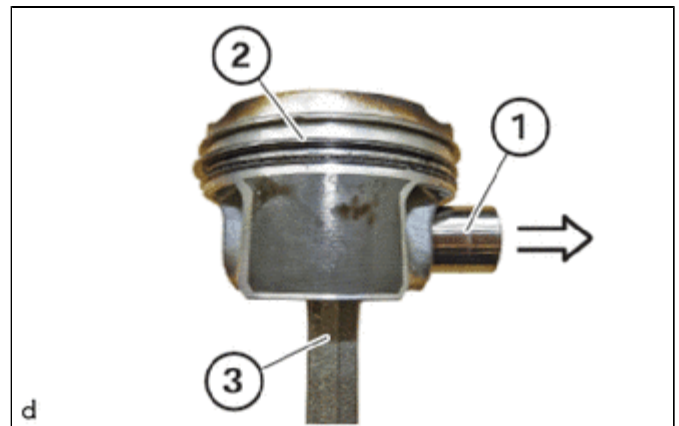
(d) Remove piston pin hole snap ring (1).

HINT:

Piston and piston pin are matched to each other.

Always install piston and piston pin together and do not switch by mistake.

(e) Check whether the piston pin (1) demonstrates tangible play in the piston.



(f) Check whether the piston pin (1) can be removed without excessive force.

(g) Removing the piston pin (1) is very difficult, or piston pin (1) has noticeable play.

(1) Replace the piston (2) and the Piston pin (1).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): PISTON: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

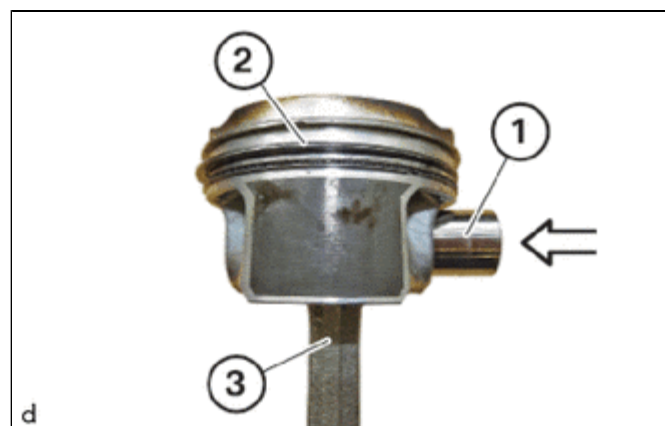
1. INSTALL PISTON

(a) Install piston pin (1) in piston (2) and connecting rod (3).

HINT:

Piston and piston pin are matched to each other.

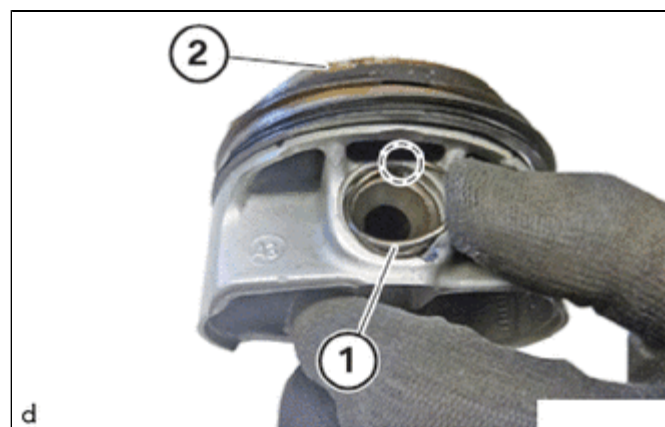
Always install piston and piston pin together and do not switch by mistake.



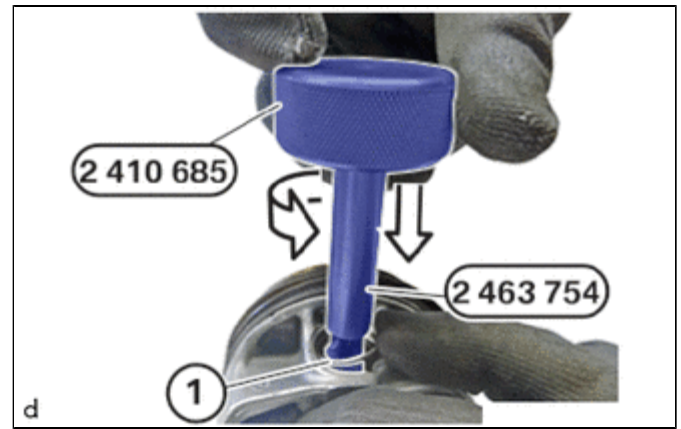
(b) Position the piston pin hole snap ring (1) such that the opening in the marked area of the piston pin hole snap ring points in the direction of the piston top side (2).

CAUTION:

- Piston pin hole snap ring with preload.
 - Danger of injury!
 - The use of the specified special tool for the disassembly or installation is mandatory.
 - Wear safety goggles.



(c) Preload the piston pin hole snap ring (1) using your thumb.



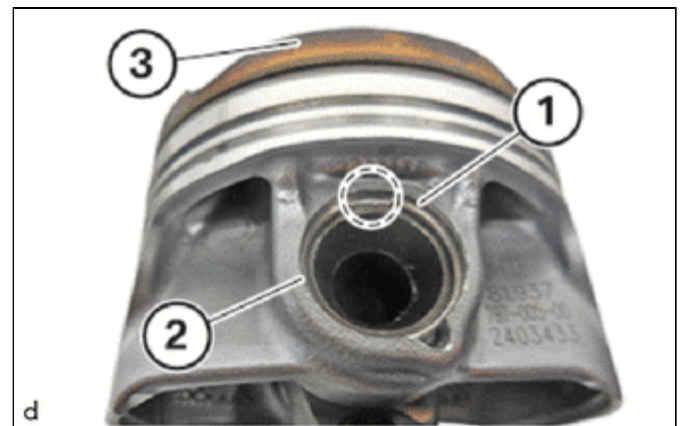
(d) Simultaneously press the piston pin hole snap ring into the piston using special tools 2 410 685 and 2 463 754.

SST: 09200-WA580

SST: 09200-WA750

(e) Twist and reposition special tool 2 410 685 and completely press the piston pin hole snap ring into the piston.

SST: 09200-WA580



(f) Check whether the piston pin hole snap ring (1) has been correctly positioned in the groove (2).

(g) Check whether the opening in the marked area of the piston pin hole snap ring is pointing towards the piston top side (3).

2. INSPECT CYLINDER BORE

HINT:

The description is for one component only. The procedure is identical for all further components.

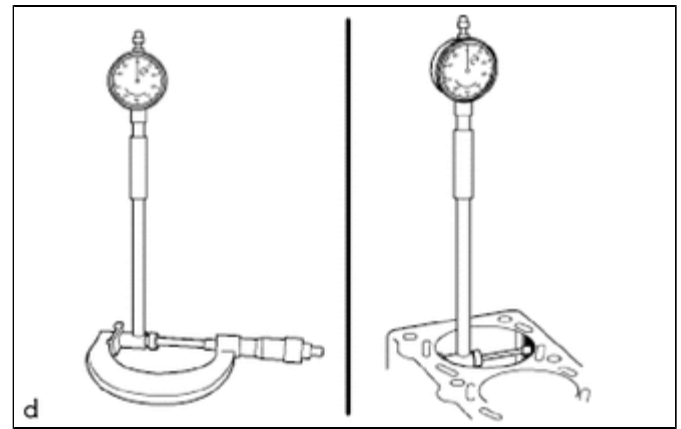
(a) Cylinder barrel is cleaned.

(b) Adjusting measuring bolt to nominal dimension of cylinder bore.

Cylinder bore:

Distance from the upper edge of the cylinder barrel to the measuring point	Diameter of cylinder bore	Permitted irregularity of the cylinder
--	---------------------------	--

		bore
0 to 60 mm (0 to 2.36 in.)	82.000 to 82.014 mm (3.228 to 3.229 in.)	0.007 mm (0.000276 in.)
60 to 80 mm (2.36 to 3.15 in.)	82.008 to 82.022 mm (3.2287 to 3.2292 in.)	0.007 mm (0.000276 in.)
80 to 115 mm (3.15 to 4.53 in.)	82.021 to 82.037 mm (3.2292 to 3.2298 in.)	0.007 mm (0.000276 in.)
115 to 135 mm (4.53 to 5.31 in.)	82.033 to 82.057 mm (3.230 to 3.231 in.)	0.010 mm (0.000394 in.)



(c) Insert internal measuring device into the micrometer and set to zero.

(d) With the internal measuring device, measure the cylinder at the following points and check the deviations from the nominal dimension.

- (1) Lower third of the cylinder bore in direction of travel,
- (2) Lower third of the cylinder bore transversely to direction of travel,
- (3) Middle third of the cylinder bore in direction of travel,
- (4) Middle third of the cylinder bore transversely to direction of travel,
- (5) Upper third of the cylinder bore in direction of travel,
- (6) Upper third of the cylinder bore transversely to direction of travel.

Cylinder bore:

Distance from the upper edge of the cylinder barrel to the measuring point	Diameter of cylinder bore	Permitted irregularity of the cylinder bore
0 to 60 mm (0 to 2.36 in.)	82.000 to 82.014 mm (3.228 to 3.229 in.)	0.007 mm (0.000276 in.)
60 to 80 mm (2.36 to 3.15 in.)	82.008 to 82.022 mm (3.2287 to 3.2292 in.)	0.007 mm (0.000276 in.)
80 to 115 mm (3.15 to 4.53 in.)	82.021 to 82.037 mm (3.2292 to 3.2298 in.)	0.007 mm (0.000276 in.)
115 to 135 mm (4.53 to 5.31 in.)	82.033 to 82.057 mm (3.230 to 3.231 in.)	0.010 mm (0.000394 in.)

HINT:

If the cylinder bore is not as specified, replace the crankcase.

3. INSTALL CONNECTING ROD SUB-ASSEMBLY

NOTICE:

- Damage on the cylinder wall and oil spray nozzles.

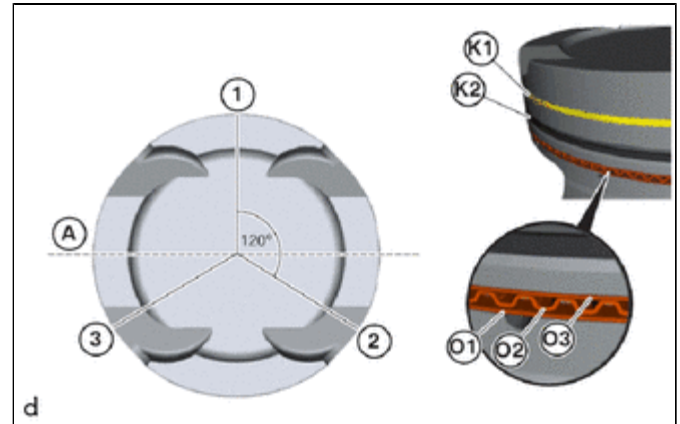
Major force can scratch the cylinder wall and bend the oil spray nozzles.

- Carefully move the piston and connecting rod in the engine block.

HINT:

The description is for one component only. The procedure is identical for all further components.

- (a) Align the contact points of all piston rings by 120° each.

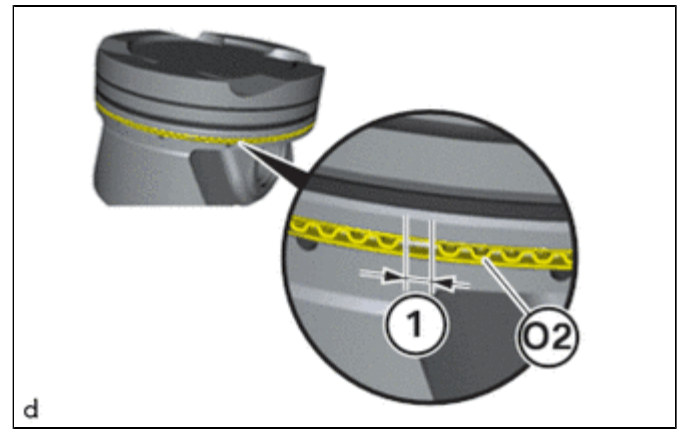


- (b) Do not position contact points over axis of piston pin (A).

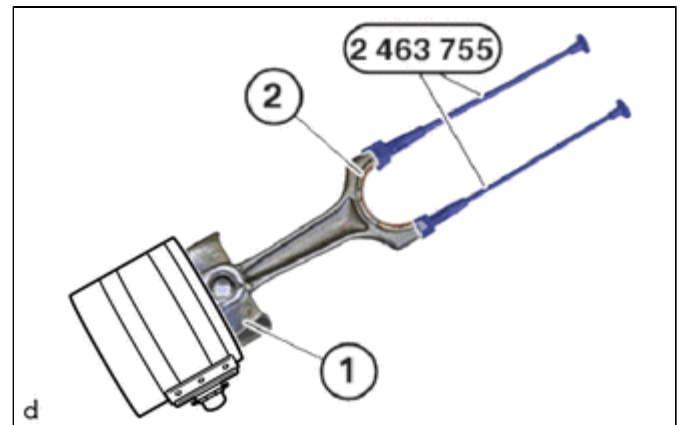
POSITION NUMBER	DESCRIPTION
1	12 o'clock position
2	4 o'clock position
3	8 o'clock position
A	Axis of piston pin
K1	1. Piston ring (plain rectangular compression ring)
K2	2. Piston ring (taper faced piston ring)
O1	Oil scraper ring below
O2	Spiral expander
O3	Oil scraper ring above

PISTON RING	ALIGN AT THE FOLLOWING POSITION
Upper oil scraper ring (O3)	Align at the 12 o'clock position (1)
Spiral expander (O2)	Align at the 4 o'clock position (2)
Lower oil scraper ring (O1)	Align at the 8 o'clock position (3)
Taper faced piston ring (K2)	Align at the 12 o'clock position (1)
Plain rectangular compression ring (K1)	Align at the 4 o'clock position (2)

(c) Make sure that contact point (1) does not overlap spring (O2).



(d) Coat the pistons (1) and piston rings lightly with oil.

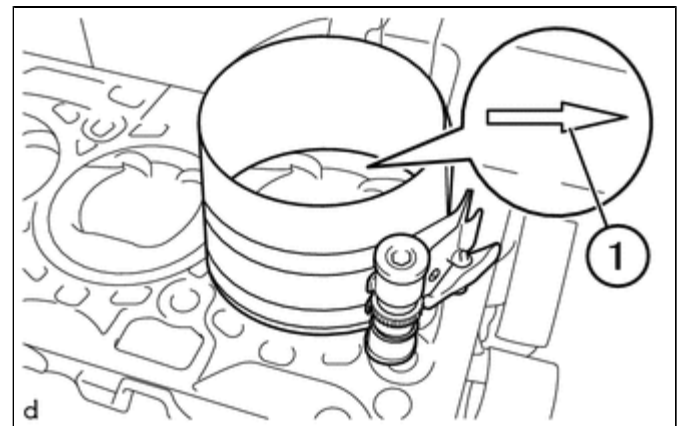


(e) Insert the piston (1) with the piston rings into the piston ring compressor.

(f) Bolt special tool 2 463 755 on at large connecting rod eye (2).

SST: 09200-WA730

(g) Align the piston so that the arrow (1) points to cylinder 1.



(h) Insert piston with the connecting rod into the piston ring compressor and guide it into the cylinder.

NOTICE:

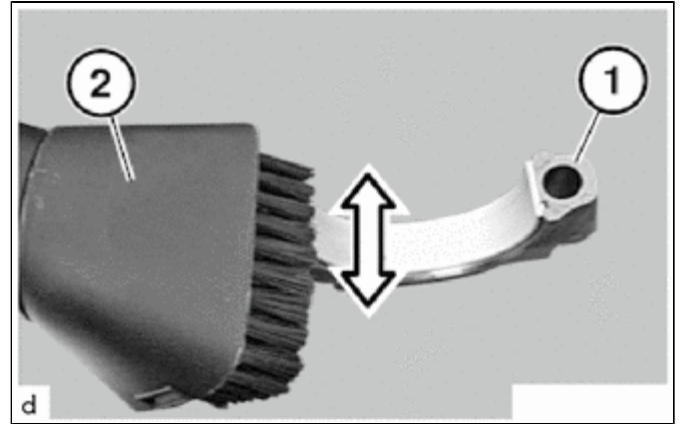
- Damage on the cylinder wall and oil spray nozzles.

Major force can scratch the cylinder wall and bend the oil spray nozzles.

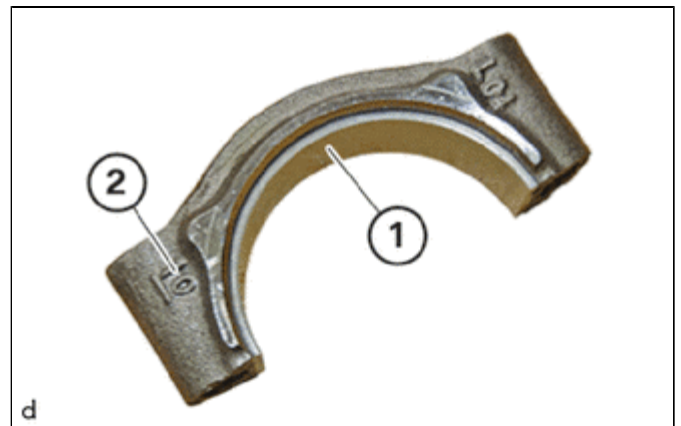
- Carefully move the piston and connecting rod in the engine block.

4. INSTALL CONNECTING ROD CAP

- (a) Vacuum the connecting rod bearing and cracked surface (1) with a vacuum cleaner (2).



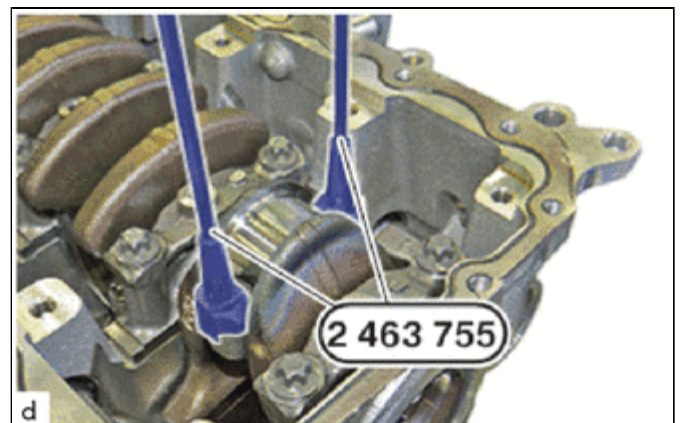
- (b) Insert the connecting rod bearing (1) into the connecting rod bearing cap (2).



- (c) Apply a light coat of oil to the connecting rod bearing (1).

- (d) If necessary, bolt the special tool (assembly tool) 2 463 755 into the large connecting rod eye.

SST: 09200-WA730



- (e) Pull the connecting rod up to the connecting rod bearing journal.

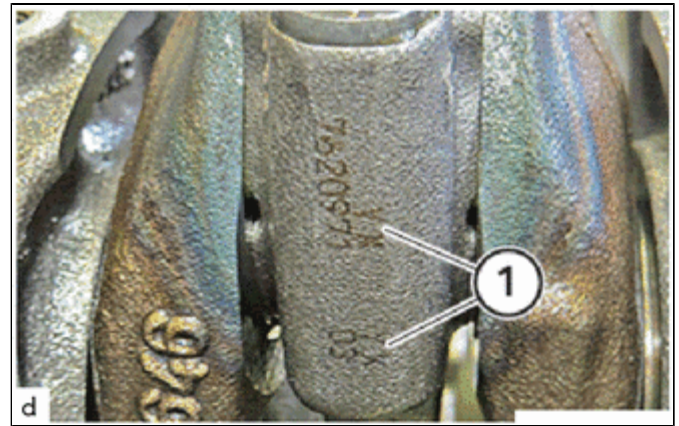
- (f) Attach the connecting rod bearing caps to the connecting rod until the designations (1) match.

NOTICE:

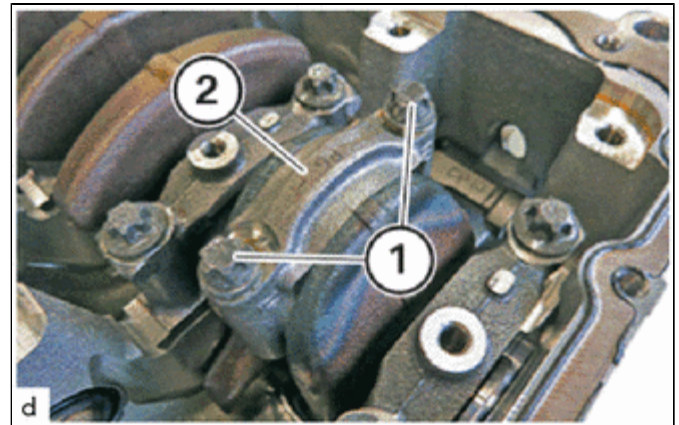
- Engine damage caused by incorrectly installed connecting rod bearings and connecting rod bearing caps.

Engine damage may result from incorrectly installing connecting rod bearings and connecting rod bearing caps.

- Always install all connecting rod bearings and connecting rod bearing caps in the same position from which they were removed.



- (g) Replace bolts (1).



- (h) Step 1:

- (1) Tighten the E12 bolts (1).

Torque:

20 N·m {204 kgf·cm, 15 ft·lbf}

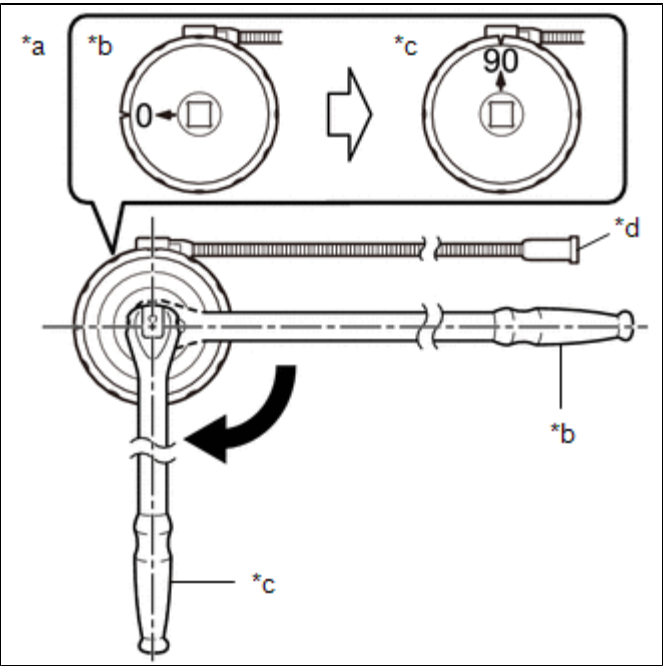
- (i) Step 2:

- (1) Tighten the bolts (1) 70° with the special tool 0 490 504 (00 9 120).

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

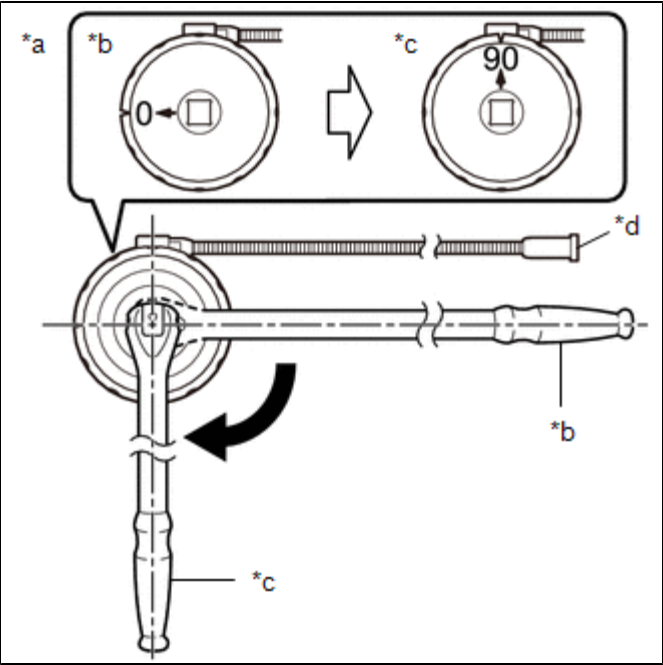
(j) Step 3:

(1) Tighten the bolts (1) another 70° with the special tool 0 490 504 (00 9 120).

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
----	---------

*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

5. INSTALL NO. 1 OIL PAN BAFFLE PLATE

Click here [INFO](#)

6. INSTALL OIL PUMP ASSEMBLY

Click here [INFO](#)

7. INSTALL OIL PAN SUB-ASSEMBLY

Click here [INFO](#)

8. SEALING OIL DUCT

Click here [INFO](#)

9. CLEAN SEALING SURFACES

Click here [INFO](#)

10. INSTALL CYLINDER HEAD GASKET

Click here [INFO](#)

11. SET NO. 1 CYLINDER TO TDC (COMPRESSION)

Click here [INFO](#)

12. INSTALL CYLINDER HEAD SUB-ASSEMBLY

Click here [INFO](#)

13. INSPECT AND ADJUST CAMSHAFT WITH SPECIAL TOOL

Click here [INFO](#)

14. INSTALL CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

15. TEMPORARILY TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

16. INSTALL CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

17. TEMPORARILY TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

18. PRETENSION TIMING CHAIN WITH SPECIAL TOOL

Click here [INFO](#)

19. TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

20. TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

21. REMOVE SST

Click here [INFO](#)

22. INSTALL NO. 1 CHAIN TENSIONER ASSEMBLY

Click here [INFO](#)

23. INSPECT AND ADJUST CAMSHAFT SUB-ASSEMBLY

Click here [INFO](#)

24. INSTALL SPARK PLUG

Click here [INFO](#)

25. INSTALL TURBOCHARGER STAY

Click here [INFO](#)

26. INSTALL OUTLET TURBO OIL PIPE

Click here [INFO](#)

27. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

28. INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

29. INSTALL CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

30. REPLACE FUEL INJECTOR SEAL

Click here [INFO](#)

31. INSTALL FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

32. INSTALL FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

33. ADJUST FUEL PUMP LIFTER ASSEMBLY

Click here [INFO](#)

34. INSTALL FUEL PUMP ASSEMBLY

Click here [INFO](#)

35. INSTALL NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

36. ADD ENGINE OIL

Click here [INFO](#)

37. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

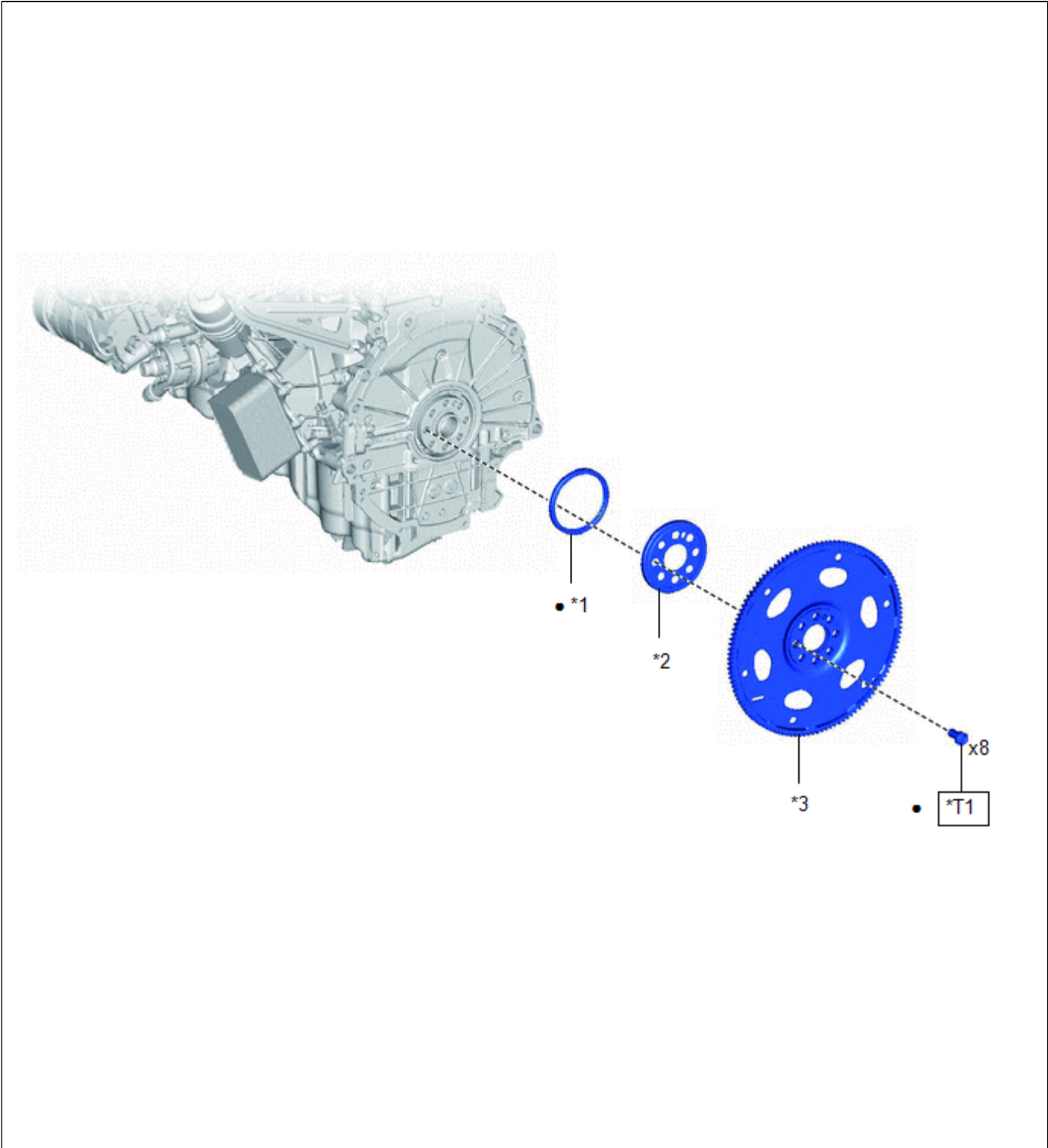
38. INSTALL ENGINE ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): REAR CRANKSHAFT OIL SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TIMING CHAIN COVER OIL SEAL	*2	NO. 1 CRANK ANGLE SENSOR PLATE
----	-----------------------------	----	--------------------------------

*3	DRIVE PLATE AND RING GEAR SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 45 (459, 33) 2nd: Turn 40°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): REAR CRANKSHAFT OIL SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

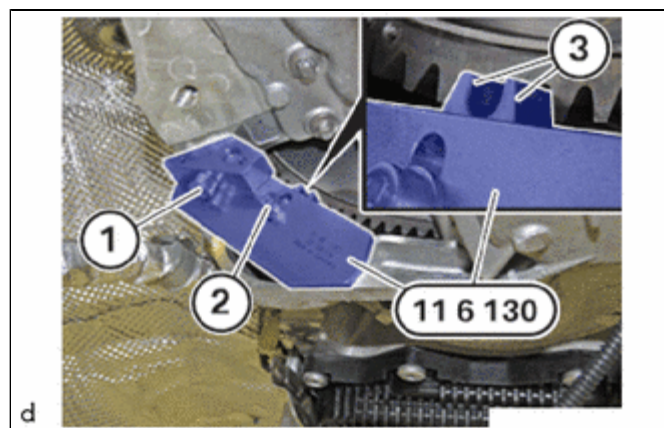
1. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

2. REMOVE DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

- (a) Position special tool 0 496 595 (11 6 130) and fasten with bolt (1).

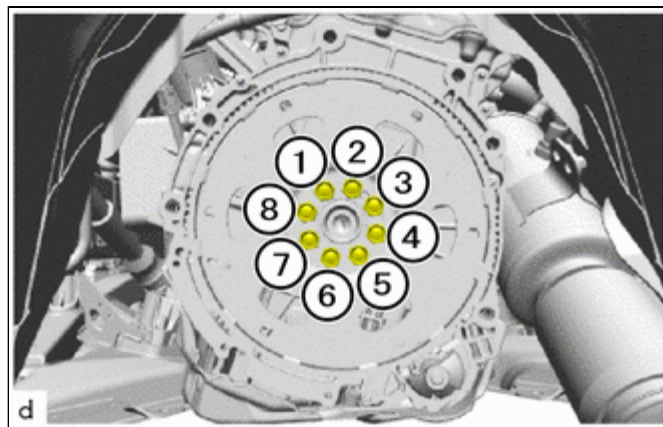
SST: 09700-WA040



- (b) Slide counter support on the bolt (2) in direction of drive plate and ring gear sub-assembly and turn the engine on the crankshaft pulley assembly until the gearing (3) engages in the drive plate and ring gear sub-assembly.

- (c) Tighten the bolt (2).

- (d) Loosen bolts (1) to (8).

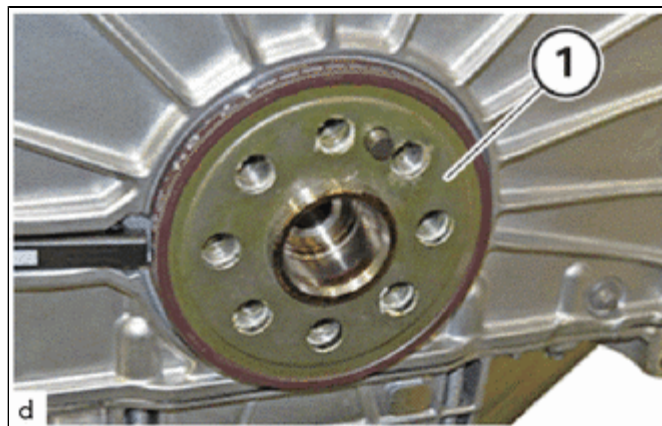


- (e) Remove special tool 0 496 595 (11 6 130).

SST: 09700-WA040

3. REMOVE TIMING CHAIN COVER OIL SEAL

(a) Remove the No. 1 crank angle sensor plate (1).

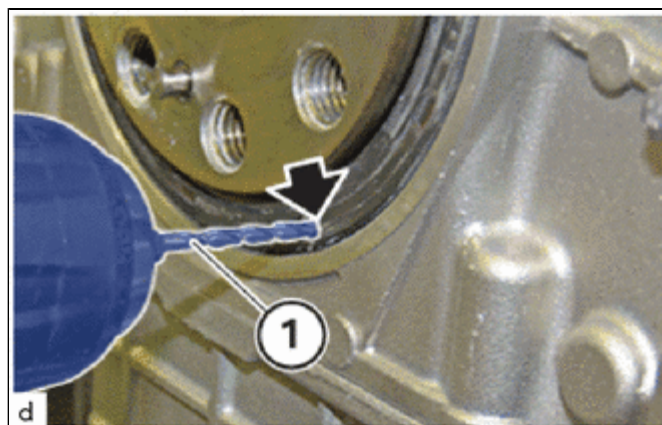


(b) Protect the No. 1 crank angle sensor plate from swarf with a plastic bag.

(1) The No. 1 crank angle sensor plate is magnetic.

(c) Drill a hole at the timing chain cover oil seal (arrow).

(1) For this purpose, use a drill (1) with a maximum diameter of 2.5 mm.

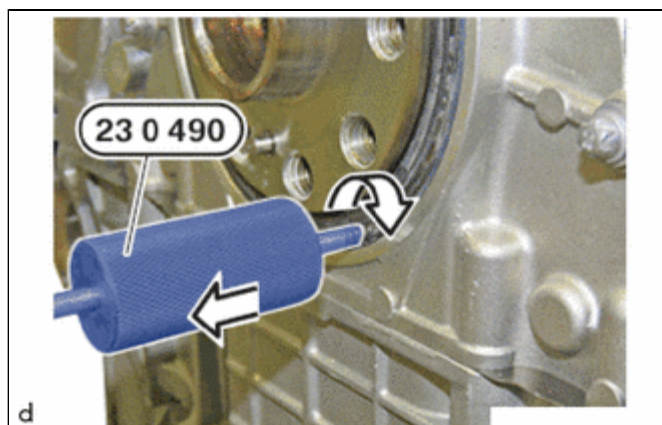


(d) Remove the swarf immediately with the vacuum cleaner.

(1) The swarf must not be removed with compressed air.

(e) Bolt in special tool 0 491 454 (23 0 490) in direction of arrow.

SST: 09200-WA140



(f) Drive out timing chain cover oil seal with the impact weight in direction of arrow.

(g) Replace the timing chain cover oil seal.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): REAR CRANKSHAFT OIL SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TIMING CHAIN COVER OIL SEAL

NOTICE:

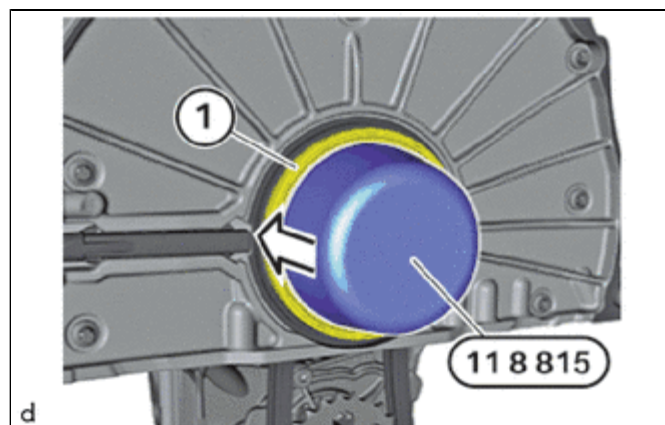
- Timing chain cover oil seal damage.

Touching the sealing lip (inner) and applying oil to the timing chain cover oil seal will lead to its destruction.

- Do not touch the sealing lip (inner) of the timing chain cover oil seal.
- Do not apply oil to the timing chain cover oil seal.
- Install the timing chain cover oil seal dry.

(a) Fit special tool 0 496 137 (11 8 815) on the crankshaft.

SST: 09200-WA090

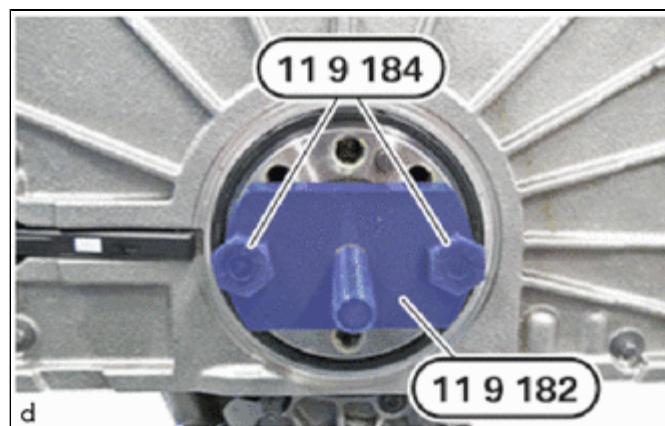


(b) Carefully remove the timing chain cover oil seal (1) with a rotational movement via special tool 0 496 137 (11 8 815) until the timing chain cover oil seal is in flush contact with the timing gear case.

SST: 09200-WA090

(1) The timing chain cover oil seal must not be tilted in the process.

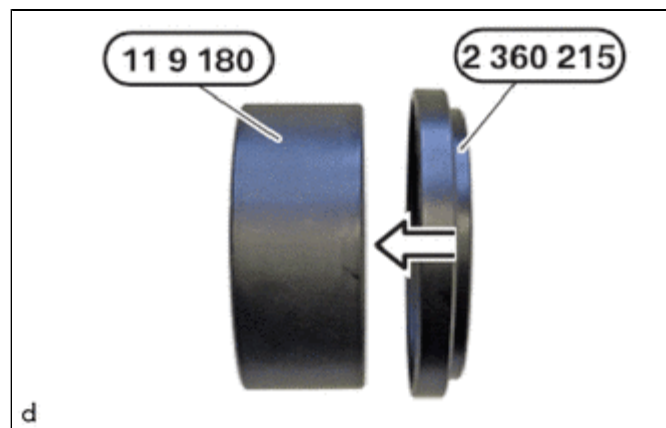
(c) Secure special tool 0 494 029 (11 9 182) to the crankshaft using special tool 0 494 031 (11 9 184).



(d) Connect special tool 2 360 215 to special tool 0 493 881 (11 9 180).

SST: 09200-WA060

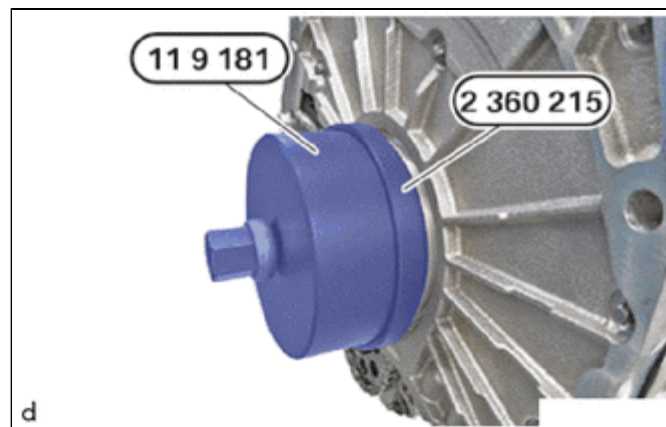
SST: 09200-WA070



(e) Draw in the timing chain cover oil seal using special tools 0 494 028 (11 9 181) and 2 360 215 in conjunction with special tool 0 494 030 (11 9 183).

SST: 09200-WA620

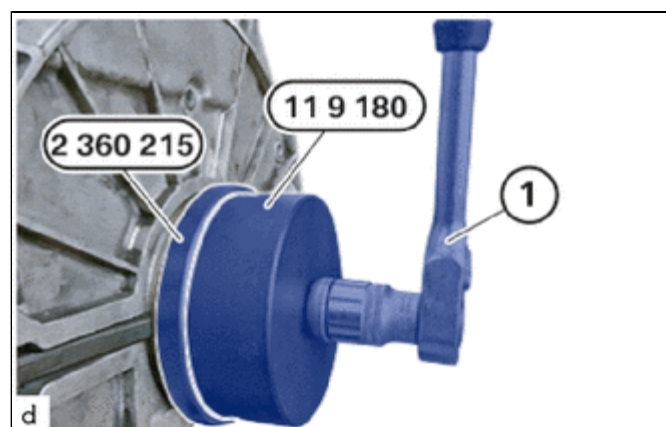
SST: 09200-WA060



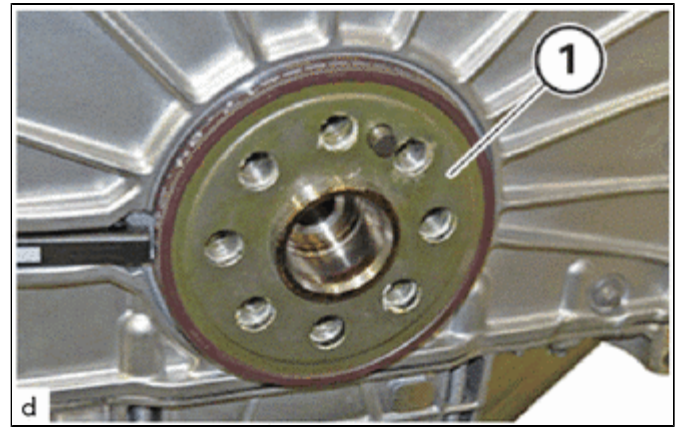
(f) Bolt in the timing chain cover oil seal using special tools 2 360 215 , 0 493 881 (11 9 180) and the tool (1) up to the stop.

SST: 09200-WA060

SST: 09200-WA070



- (g) Ensure the correct mounting orientation of the No. 1 crank angle sensor plate (1).



- (h) Position the No. 1 crank angle sensor plate (1) on the crankshaft.

2. INSTALL DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

- (a) Replace bolts (1) to (8).

HINT:

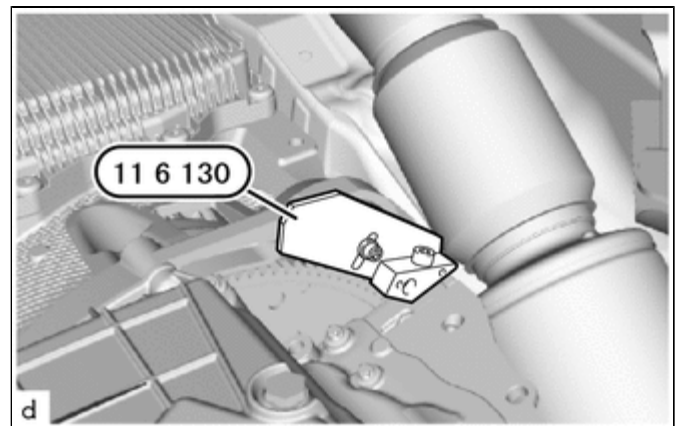
Clean bolt thread.



- (b) Position the drive plate and ring gear sub-assembly and apply the bolts (1) to (8) hand-tight.

- (c) Check if the special tool 0 496 595 (11 6 130) is installed and positioned correctly.

SST: 09700-WA040



- (d) Install special tool 0 496 595 (11 6 130).

SST: 09700-WA040

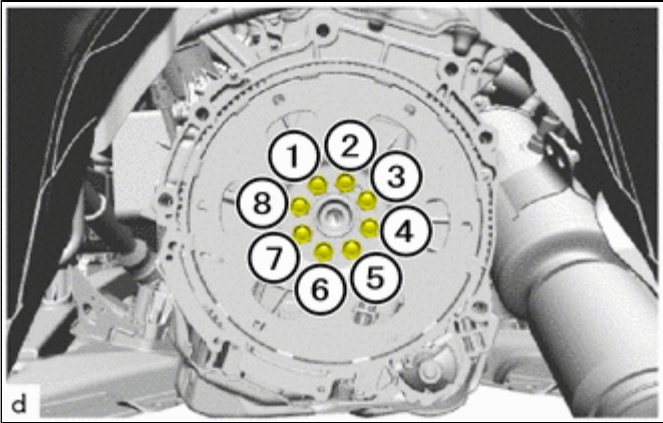
- (e) Secure drive plate and ring gear sub-assembly with special tool 0 496 595 (11 6 130).

SST: 09700-WA040

(f) Tighten bolts (1) to (8).

Torque:

45 N·m {459 kgf·cm, 33 ft·lbf}

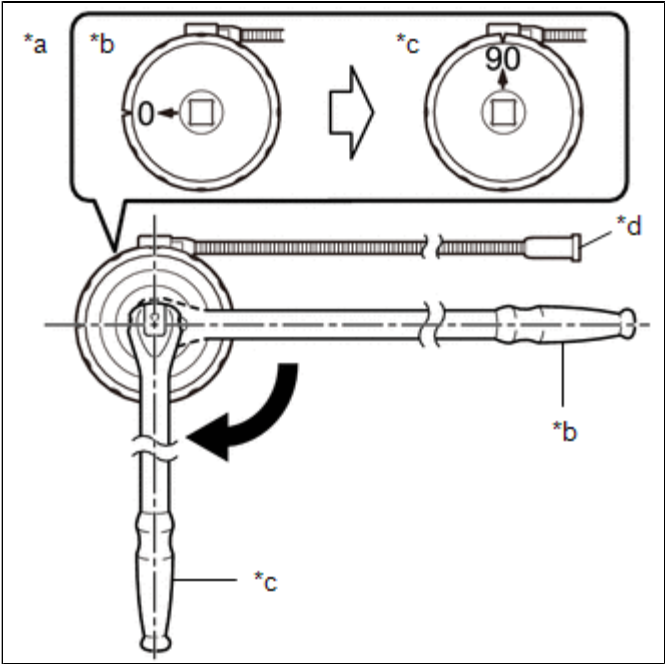


(g) Using SST, tighten the bolts an additional 40°.

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

(h) Remove special tool 0 493 938 (11 9 260).

SST: 09200-WA200

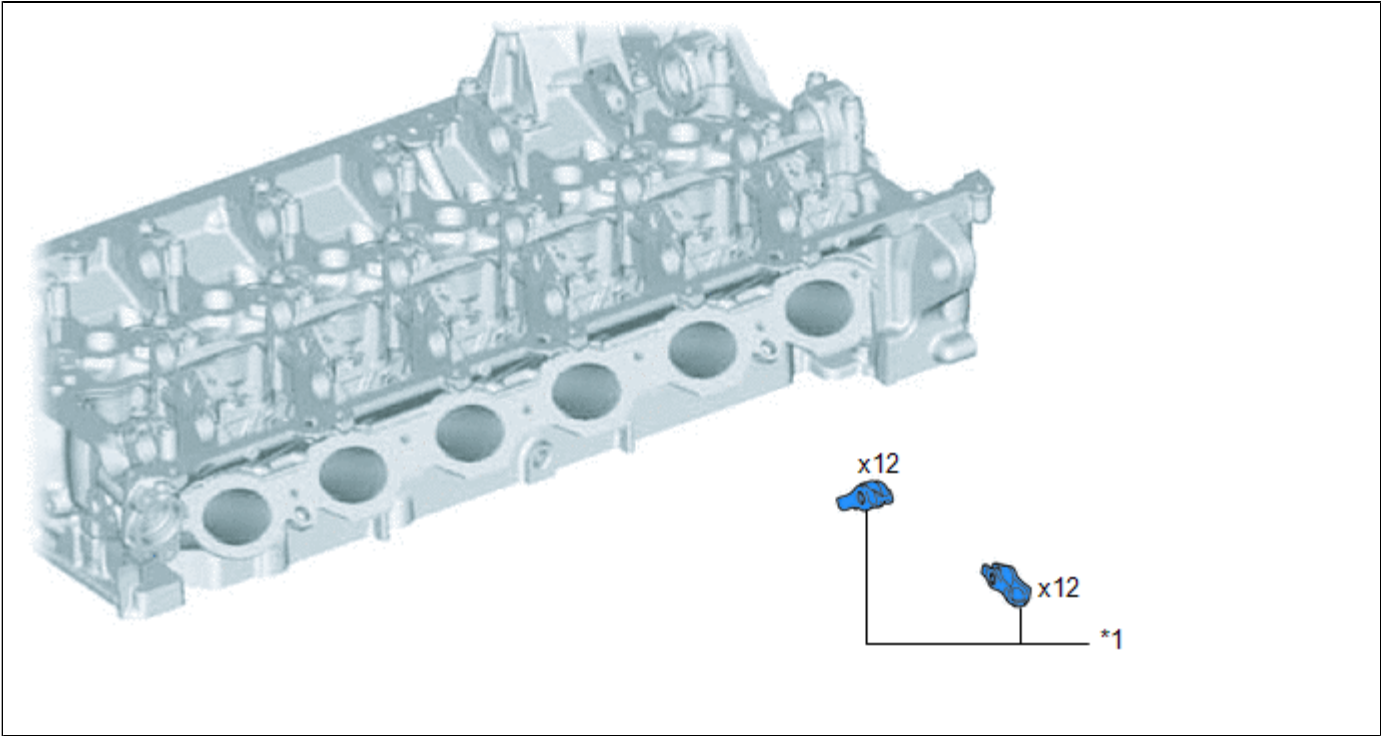
3. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ROCKER ARM: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY	-	-
----	-------------------------------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ROCKER ARM: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

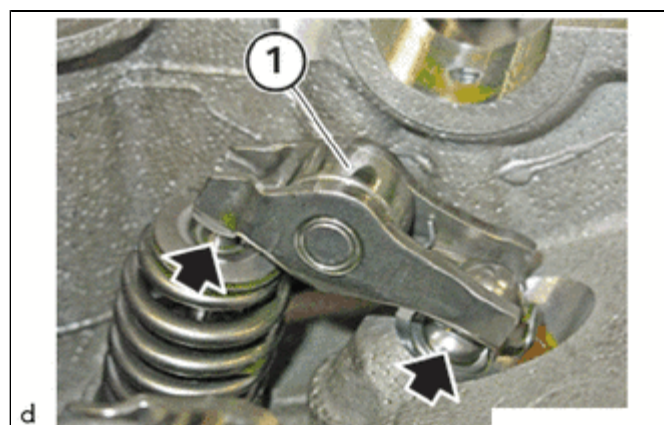
PROCEDURE

1. REMOVE CAMSHAFT

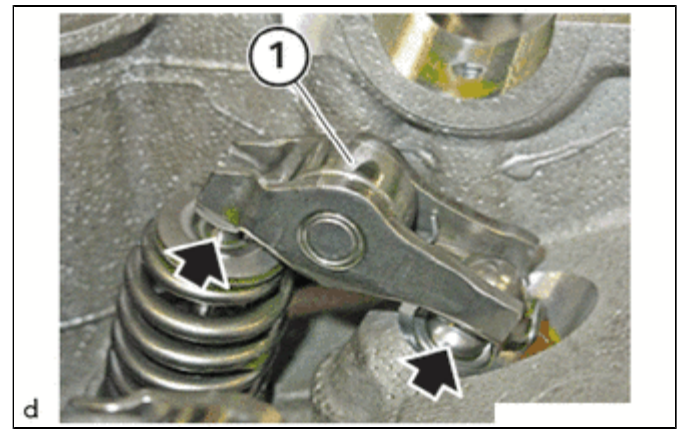
Click here [INFO](#)

2. REMOVE NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY

- (a) Detach and remove the No. 1 valve rocker arm sub-assemblies (1) on the intake side from the valve lash adjuster clearance compensating elements (arrows).



(b) Detach and remove the No. 1 valve rocker arm sub-assemblies (1) on the exhaust side from the valve lash adjuster clearance compensating elements (arrows).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): ROCKER ARM: INSTALLATION; 2020 MY Supra [03/2019 -]		

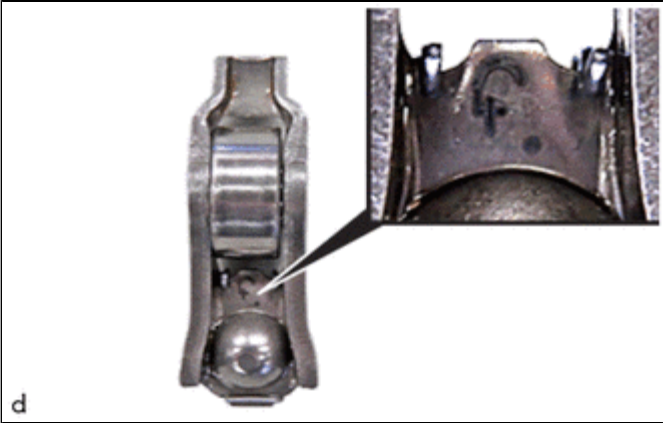
INSTALLATION

PROCEDURE

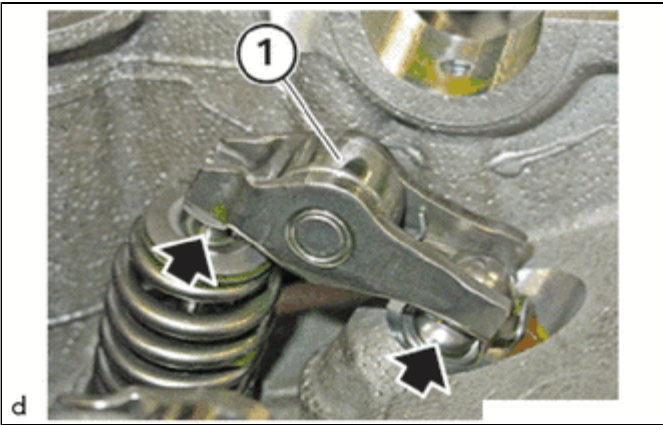
1. INSTALL NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY

- (a) Observe the classification of the No. 1 valve rocker arm sub-assembly.
- (1) The classification from 1 to 5 is printed on the respective No. 1 valve rocker arm sub-assembly.

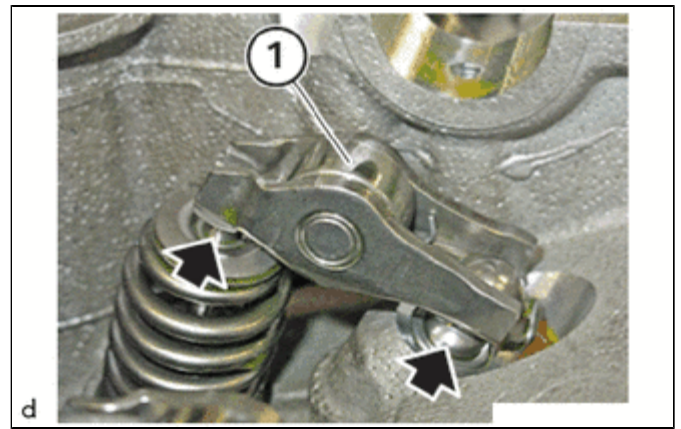
CLASSIFICATION	IDLE SPEED
1	Repair case - slow engine speed when idling
2	Installed as standard/initial installation
3	Installed as standard/initial installation
4	Installed as standard/initial installation
5	Repair case - high engine speed when idling



- (b) Install the No. 1 valve rocker arm sub-assemblies (1) on the intake side.



- (c) Make sure the No. 1 valve rocker arm sub-assemblies are correctly positioned on the valve lash adjuster clearance compensating elements (arrows) and on the intake valves.
- (d) Install the No. 1 valve rocker arm sub-assemblies (1) on the exhaust side.



(e) Make sure the No. 1 valve rocker arm sub-assemblies are correctly positioned on the valve lash adjuster clearance compensating elements (arrows) and on the exhaust valves.

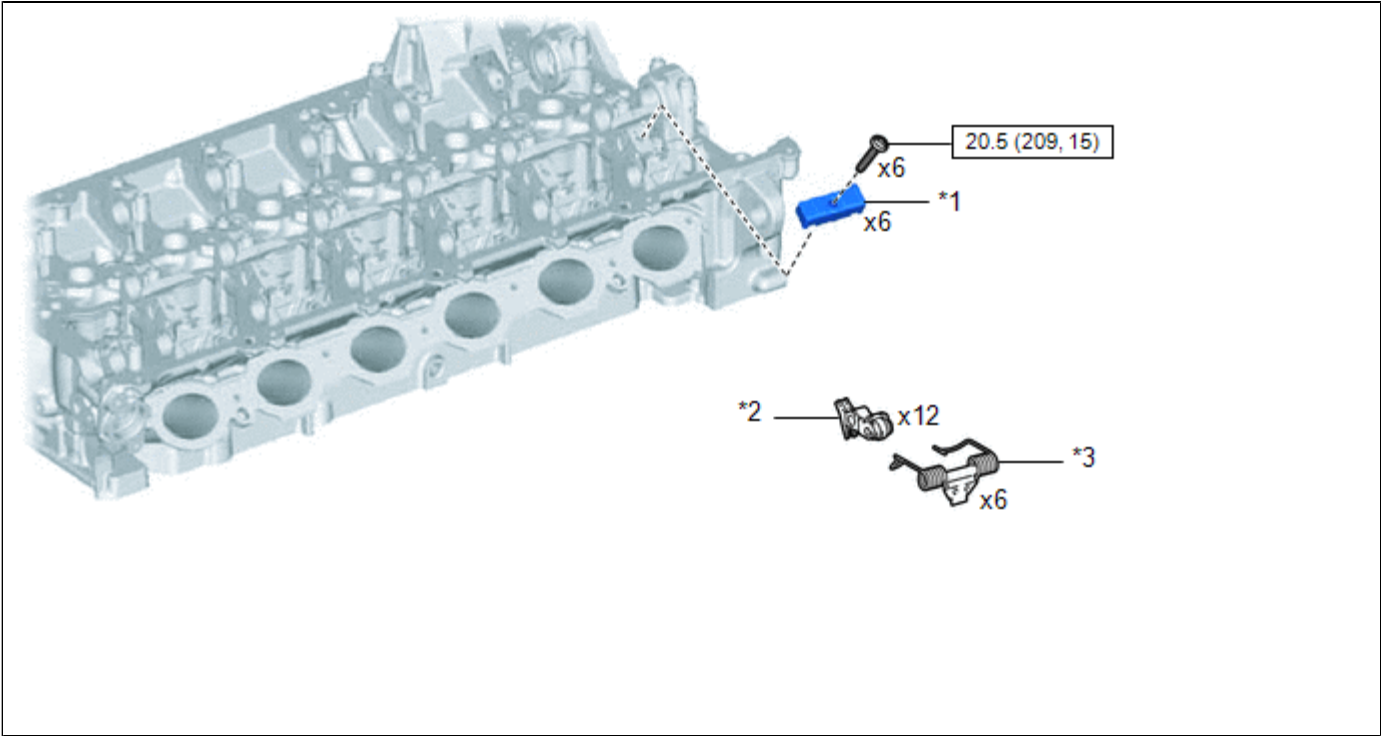
2. INSTALL CAMSHAFT


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): TENSION ARM: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	GATE	*2	INTERMEDIATE LEVER
*3	TORSION SPRING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDG8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): TENSION ARM: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

3. ADJUST SERVO MOTOR

Click here [INFO](#)

4. INSPECT AND ADJUST CAMSHAFT

Click here [INFO](#)

5. INSPECT AND ADJUST CAMSHAFT (CYLINDERS 3 AND 4)

Click here [INFO](#)

6. REMOVE TORSION SPRING

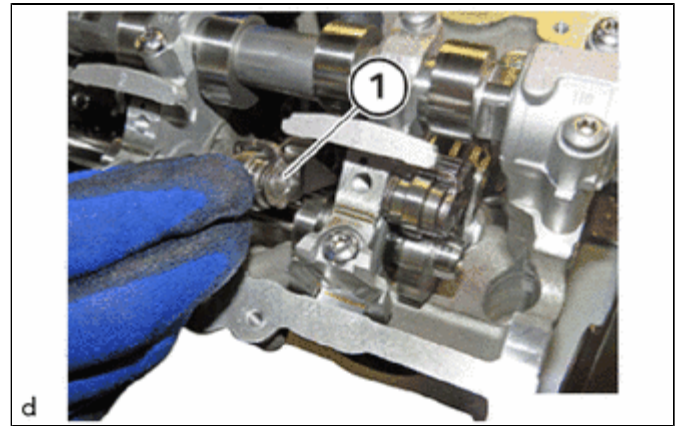
Click here [INFO](#)

7. REMOVE GATE

Click here [INFO](#)

8. REMOVE INTERMEDIATE LEVER

(a) Remove the intermediate lever (1).



(b) Repeat the step for all intermediate levers (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): TENSION ARM: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSPECT INTERMEDIATE LEVER

(a) Check the intermediate lever classification (arrows).

HINT:

- All intermediate levers are classified. Only one classification may be used per engine.

All intermediate levers must be installed in the same position in an engine which has already been in use.

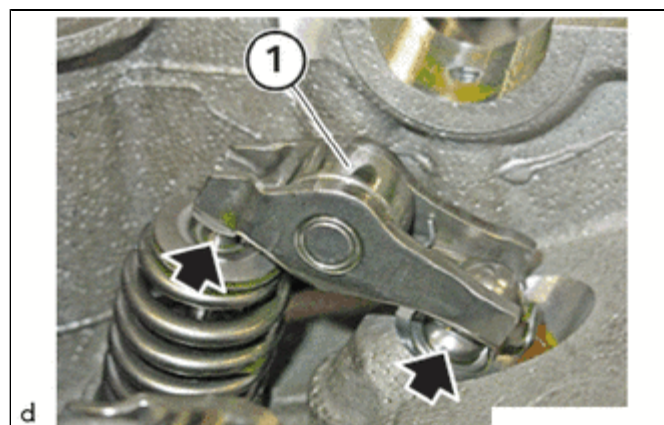


2. INSPECT NO.1 VALVE ROCKER ARM SUB-ASSEMBLY

(a) Make sure the mounting orientation (arrows) of the No. 1 valve rocker arm sub-assemblies (1) is correct.

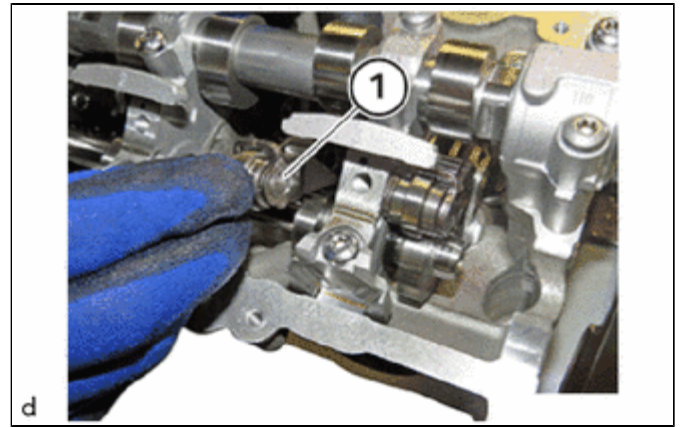
HINT:

The No. 1 valve rocker arm sub-assemblies may slip slightly when the camshaft is positioned. Make sure No. 1 valve rocker arm sub-assemblies are correctly positioned on the valve Lash adjuster assemblies and on valves.



3. INSTALL INTERMEDIATE LEVER

(a) Guide in and install intermediate lever (1).



(b) Repeat the step for all intermediate levers (1).

4. INSTALL GATE

Click here [INFO](#)

5. INSTALL TORSION SPRING

Click here [INFO](#)

6. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

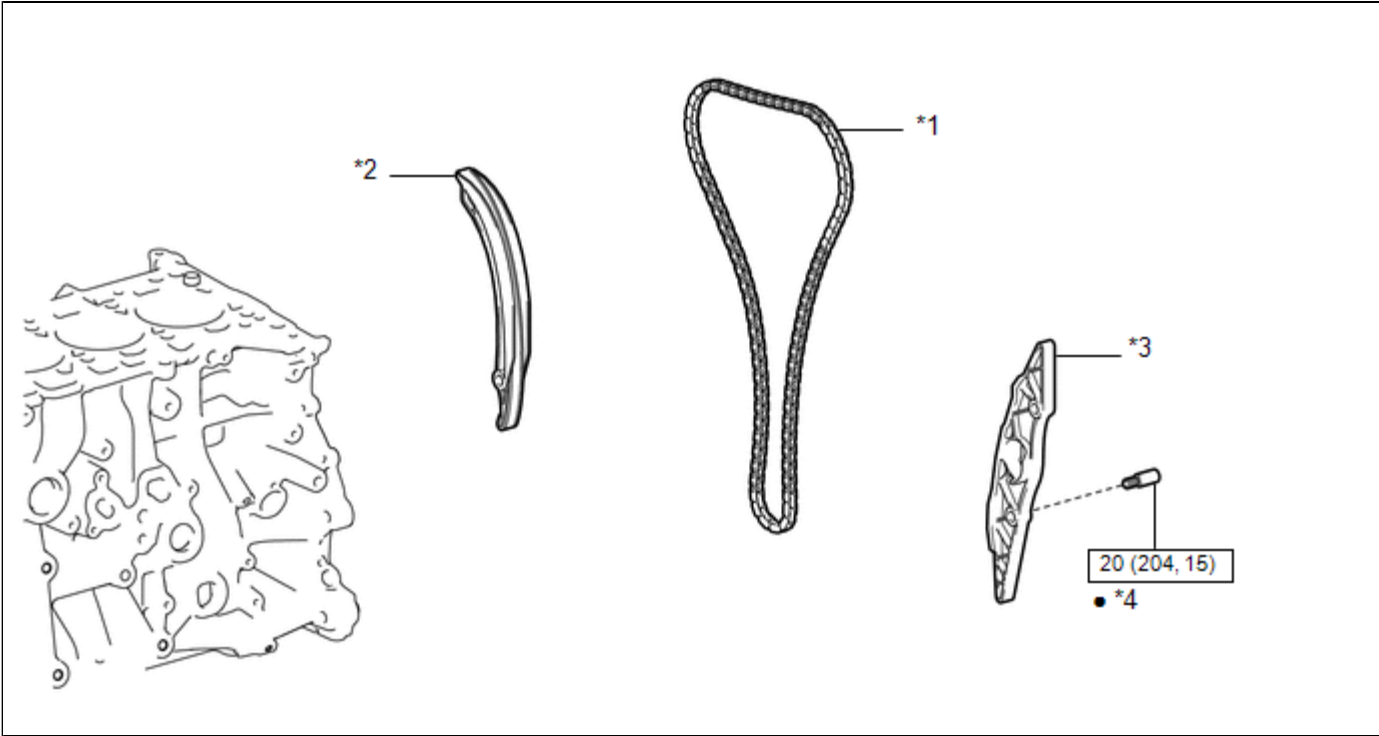
7. INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY



Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): TIMING CHAIN: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CHAIN SUB-ASSEMBLY	*2	CHAIN TENSIONER SLIPPER
*3	NO. 1 CHAIN VIBRATION DAMPER	*4	BEARING JOURNAL
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDFG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): TIMING CHAIN: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE TIMING GEAR CASE

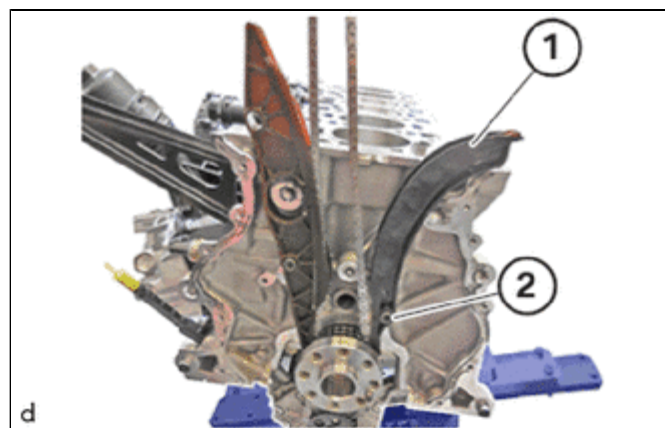
Click here [INFO](#)

2. REMOVE CHAIN SUB-ASSEMBLY

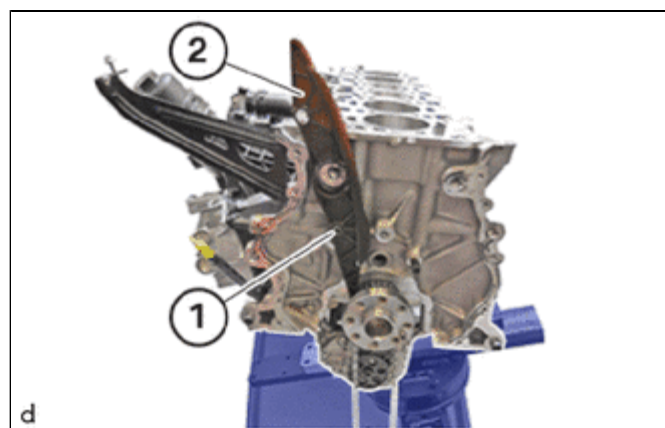
- (a) Thread the chain tensioner slipper (1) out of the bearing journal (2) and remove.

HINT:

The bearing journal (2) does not have to be removed.

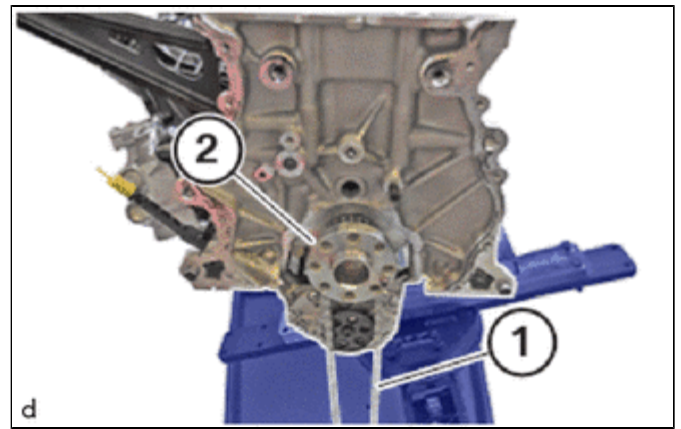


- (b) Using a T45 "TORX" socket wrench, loosen the bearing journals (1).



- (c) Guide out the No. 1 chain vibration damper (2) and remove.

(d) Pull chain sub-assembly (1) out from the crankshaft (2) and remove.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): TIMING CHAIN: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL CHAIN SUB-ASSEMBLY

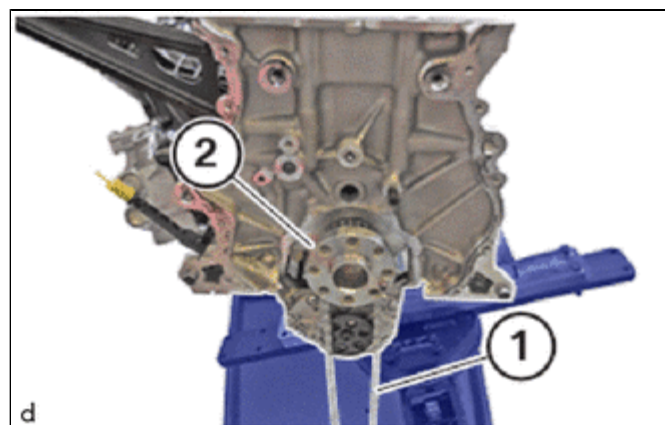
NOTICE:

- Contaminant or foreign body.

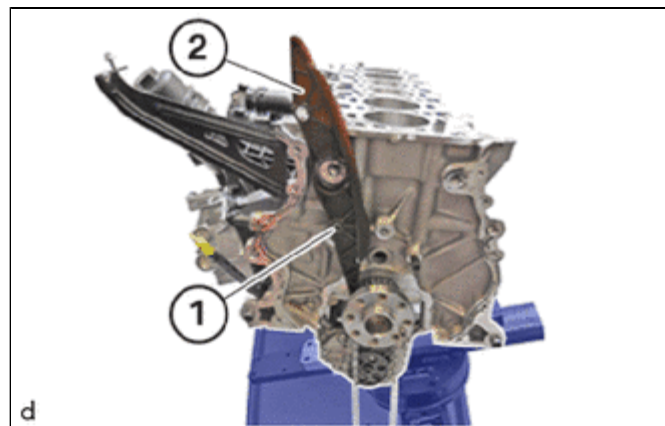
Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

(a) Pull chain sub-assembly (1) in on the crankshaft (2) and install.



(b) Replace bearing journal (1).



(c) Insert and position the No. 1 chain vibration damper (2).

HINT:

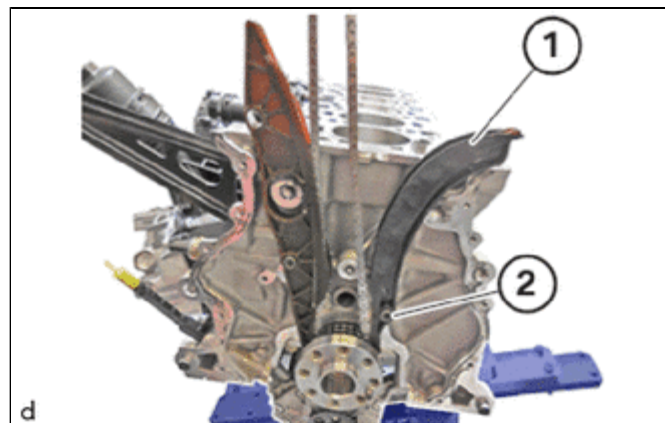
Clean bolt thread.

(d) Using a T45 "TORX" socket wrench, tighten the bearing journals (1).

Torque:

20 N·m {204 kgf·cm, 15 ft·lbf}

(e) Insert and install the chain tensioner slipper (1) on the bearing journal (2).



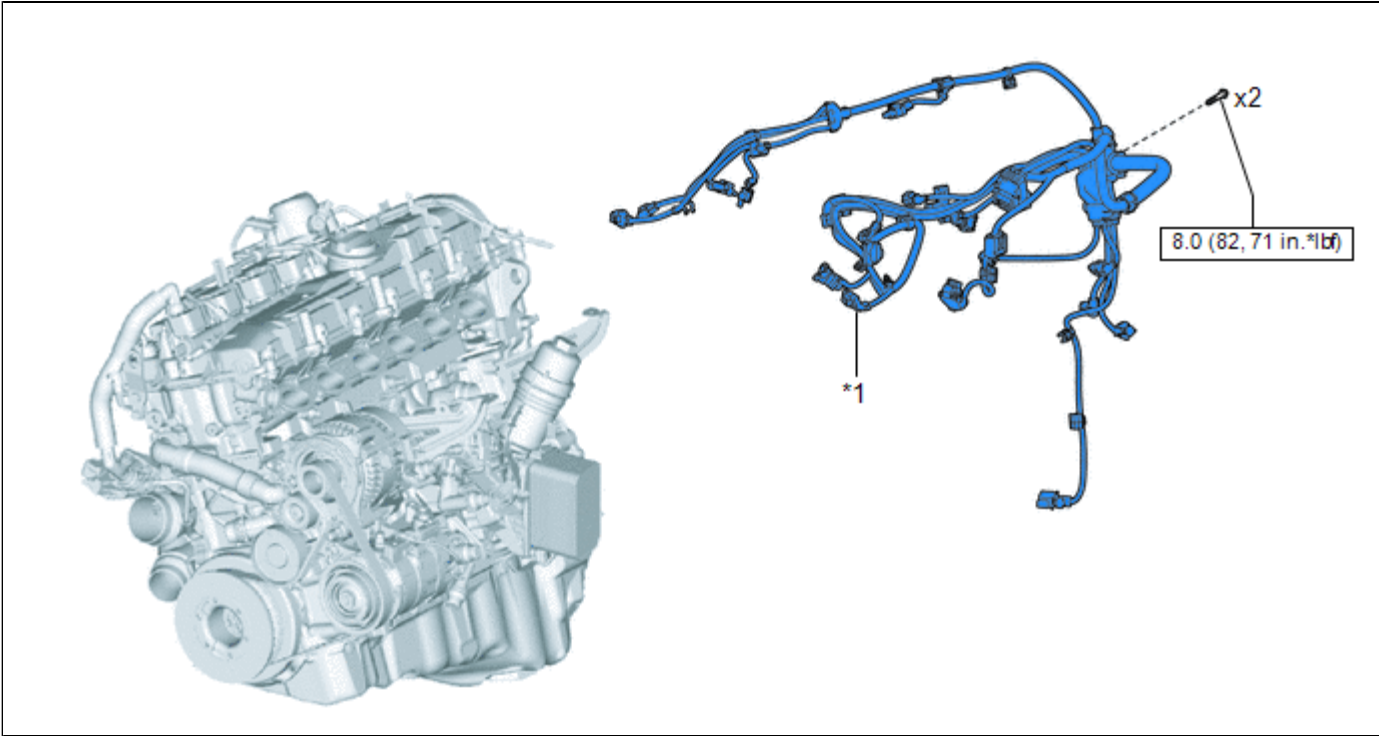
2. INSTALL TIMING GEAR CASE

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): TIMING GEAR CASE: COMPONENTS; 2020 MY Supra [03/2019 -]		

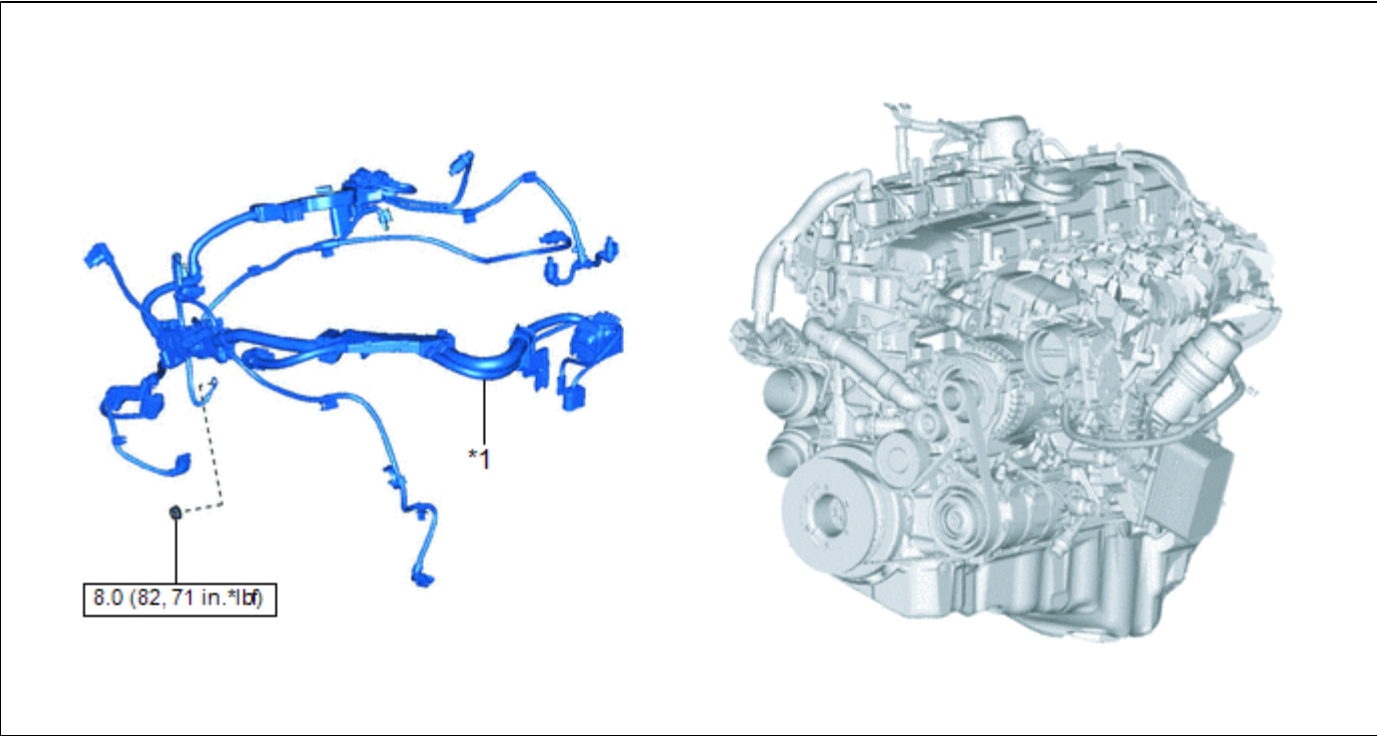
COMPONENTS

ILLUSTRATION



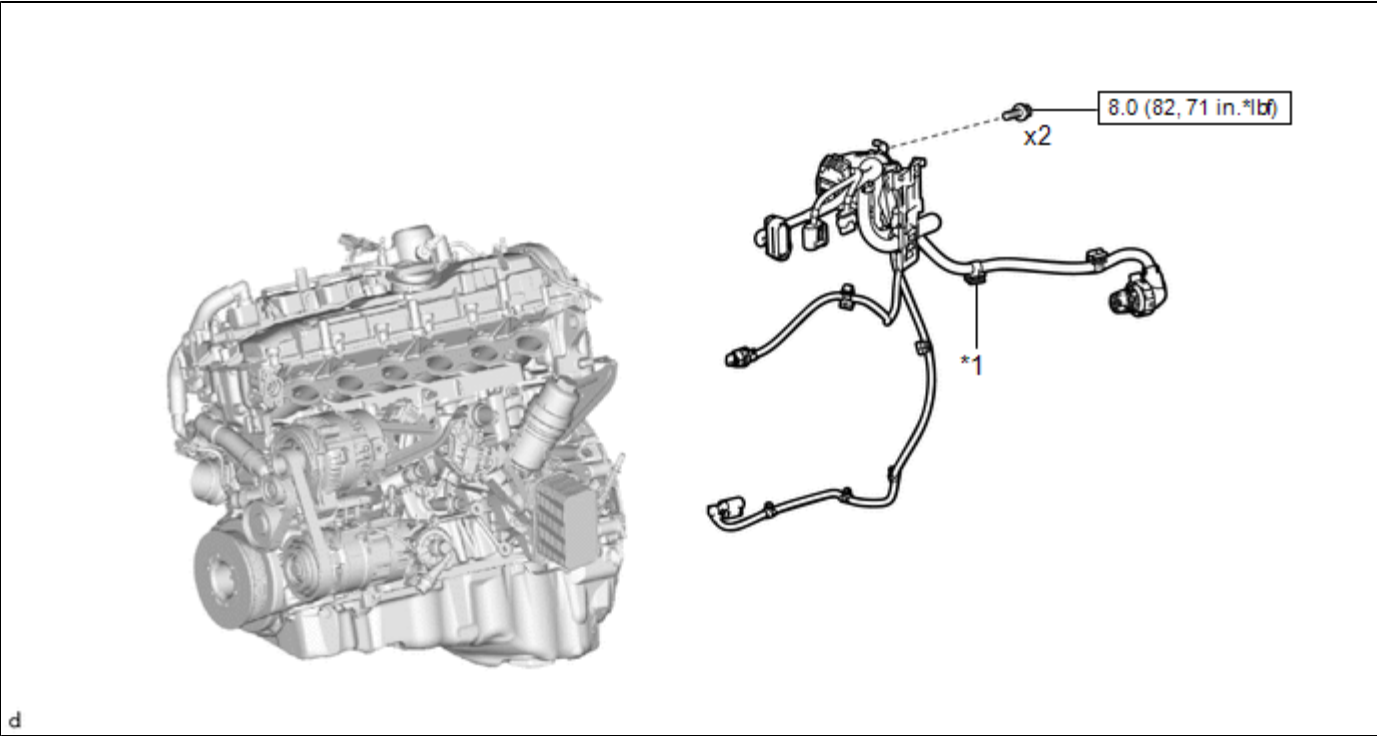
*1	ENGINE WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 2 ENGINE WIRE	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

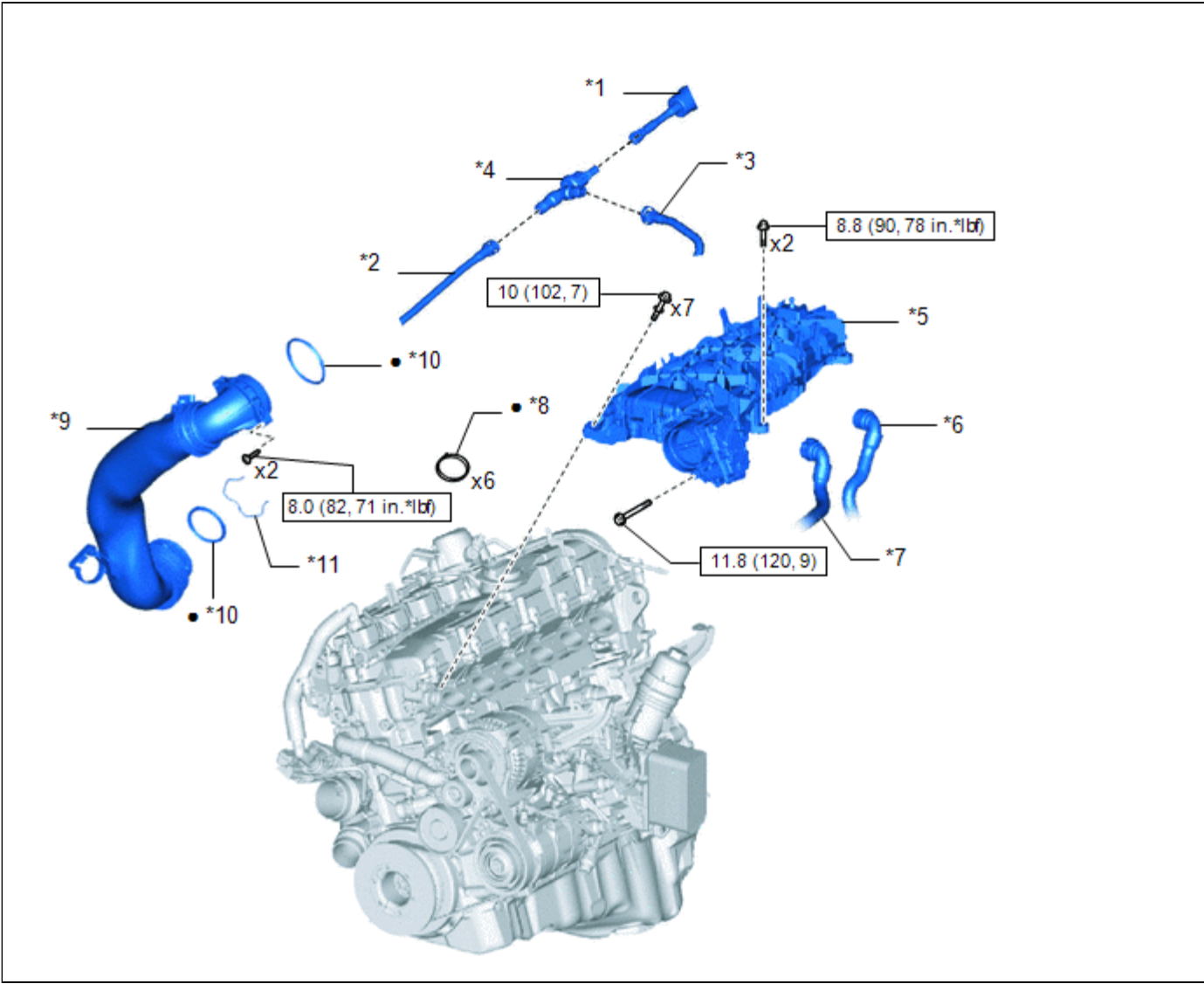
ILLUSTRATION



*1	TRANSMISSION WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified		

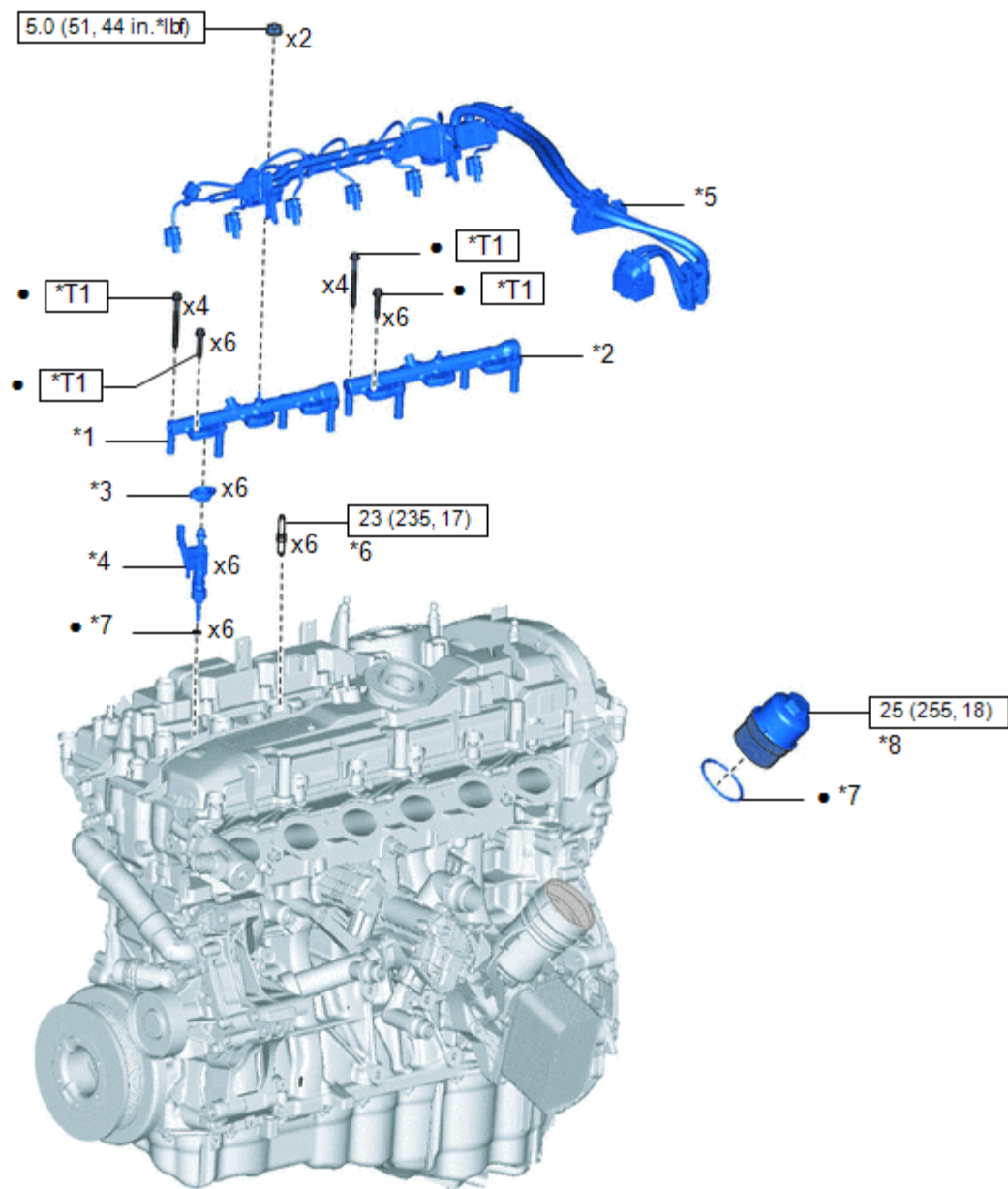
<div></div>	torque	-	-
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ILLUSTRATION



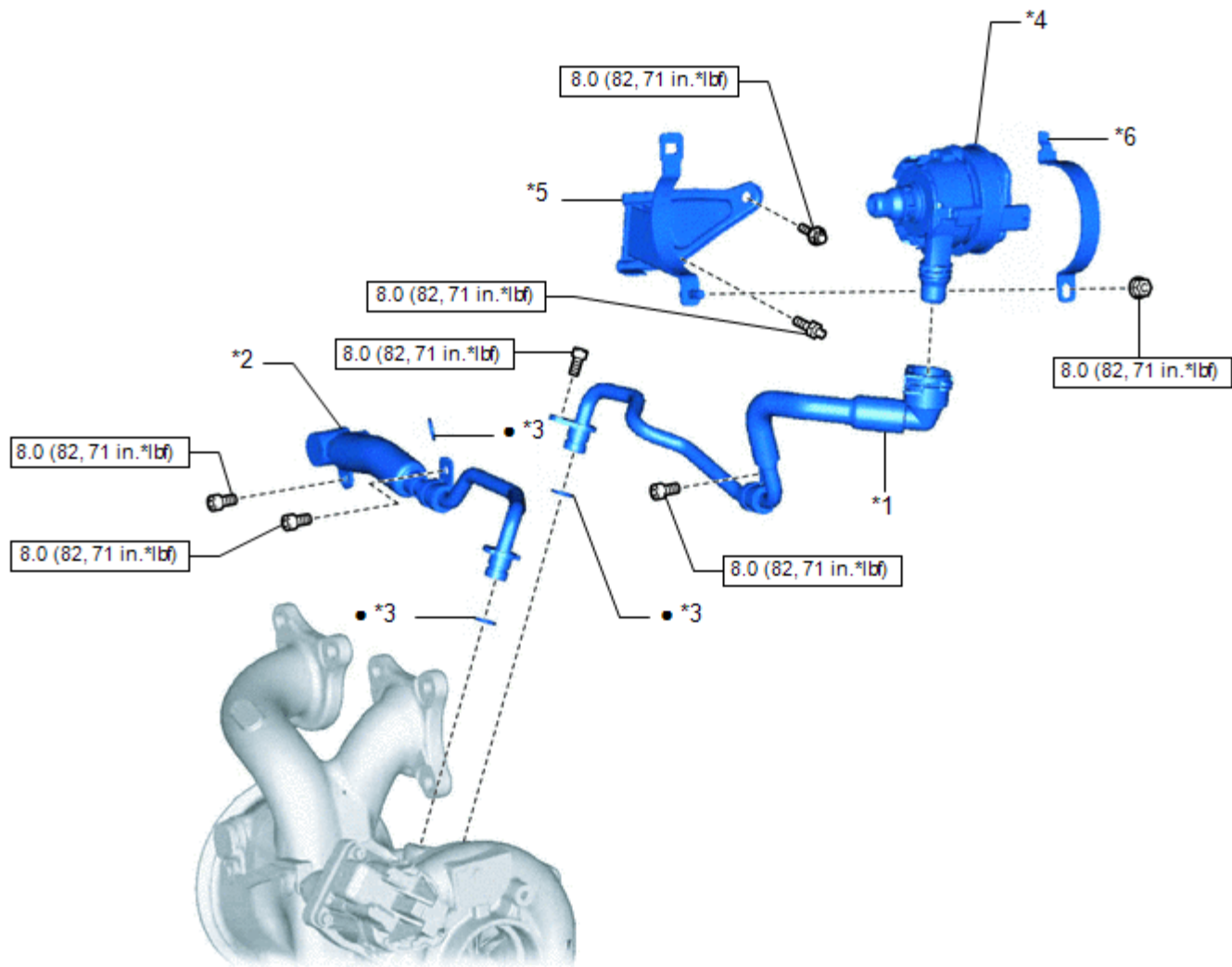
*1	NO. 2 FUEL VAPOR FEED HOSE	*2	NO. 1 FUEL VAPOR FEED HOSE
*3	NO. 3 FUEL VAPOR FEED HOSE	*4	NO. 1 CHECK VALVE
*5	INTAKE MANIFOLD	*6	NO. 5 WATER BY-PASS HOSE
*7	NO. 7 WATER BY-PASS HOSE	*8	NO. 1 INTAKE MANIFOLD TO HEAD GASKET
*9	NO. 2 AIR CLEANER HOSE	*10	SEALING RING
*11	AIR HOSE CLAMP	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



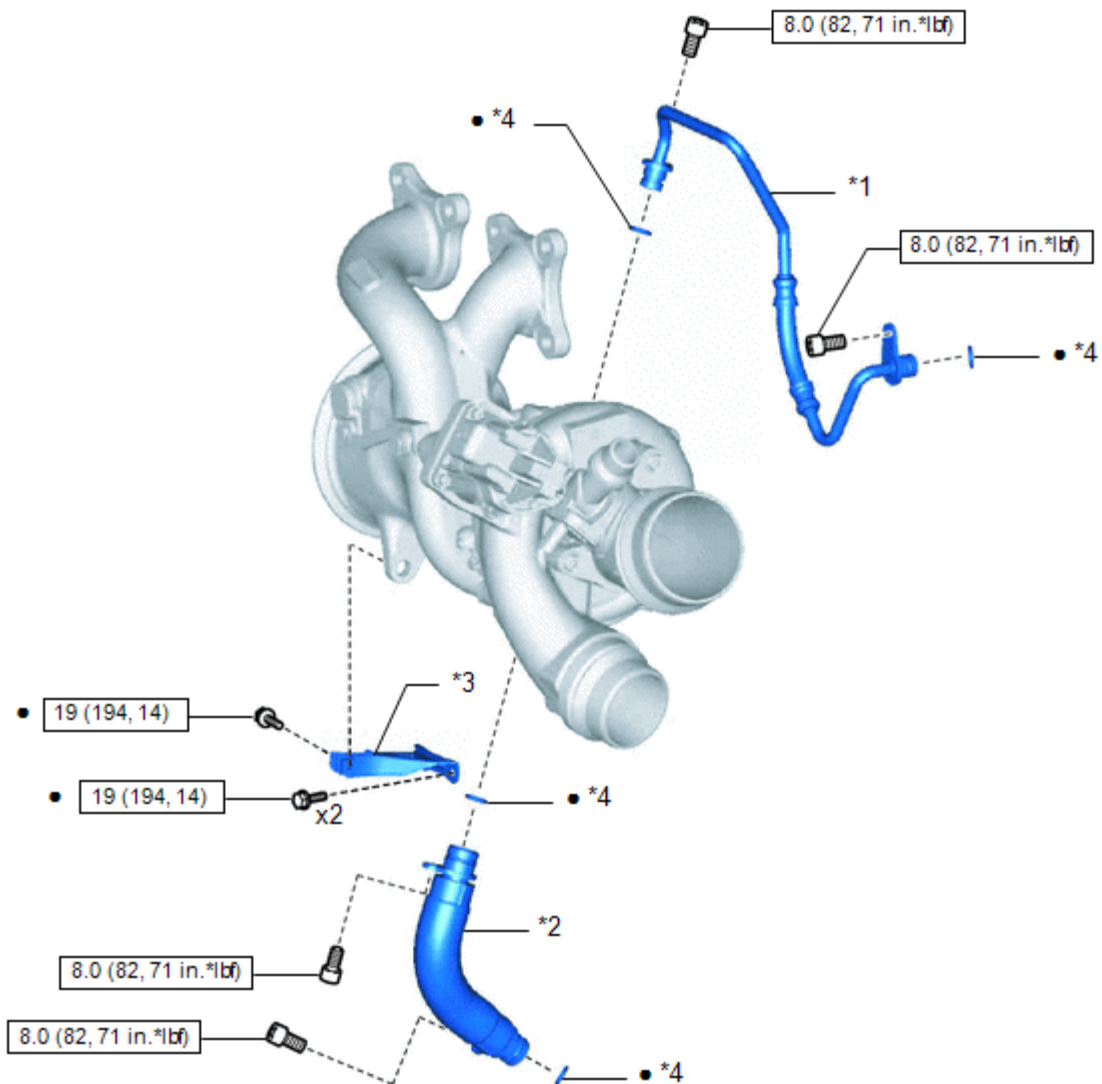
*1	FUEL DELIVERY PIPE	*2	NO. 2 FUEL DELIVERY PIPE
*3	HOLDER	*4	FUEL INJECTOR ASSEMBLY
*5	NO. 4 ENGINE WIRE	*6	SPARK PLUG
*7	O-RING	*8	OIL FILTER CAP ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°	-	-


ILLUSTRATION



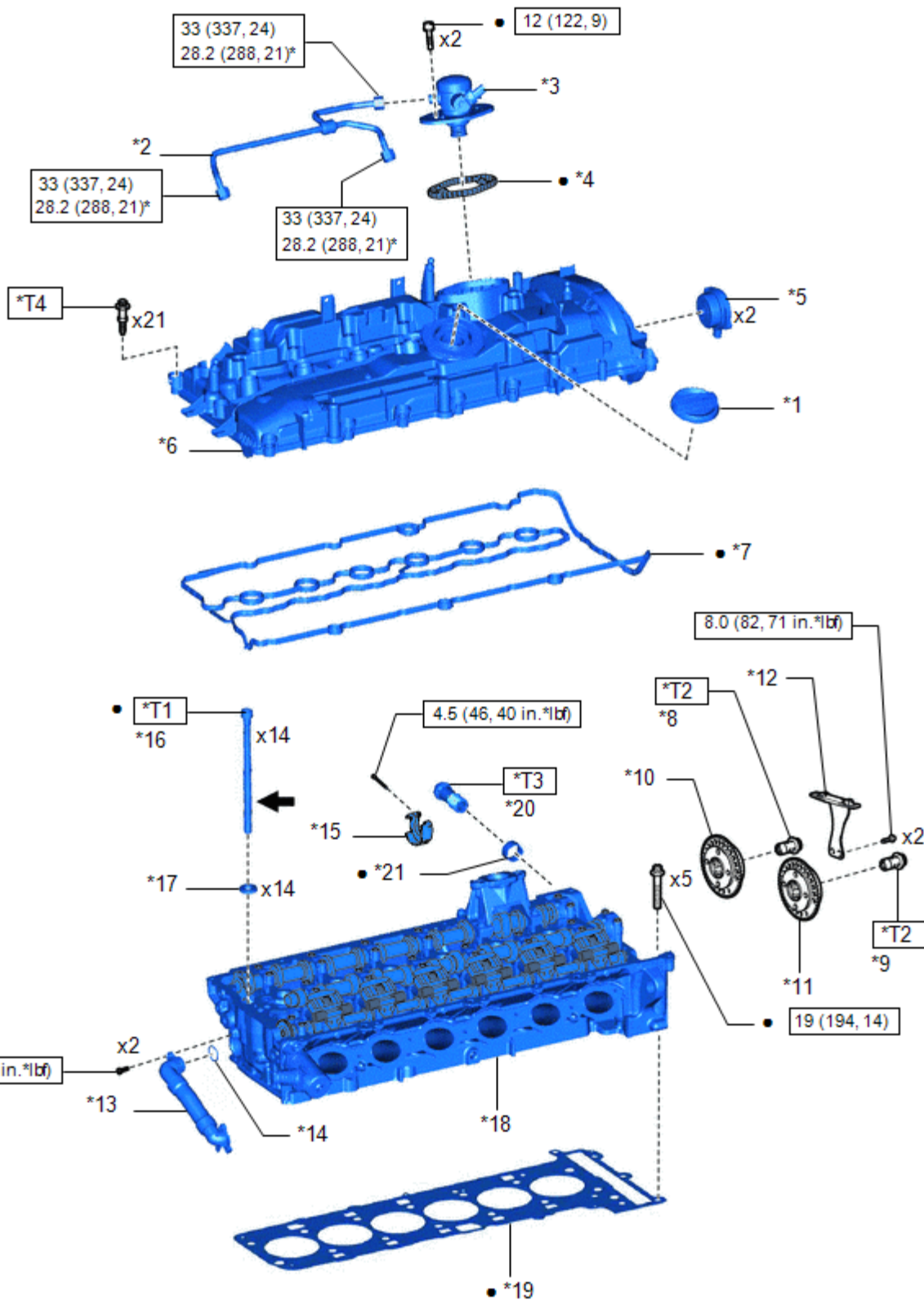
*1	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY	*2	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY
*3	O-RING	*4	WATER PUMP ASSEMBLY
*5	NO. 1 WATER PUMP BRACKET SUB-ASSEMBLY	*6	NO. 2 WATER PUMP BRACKET SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION





*1	TURBO OIL INLET PIPE SUB-ASSEMBLY	*2	TURBO OIL OUTLET PIPE
*3	TURBOCHARGER STAY	*4	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

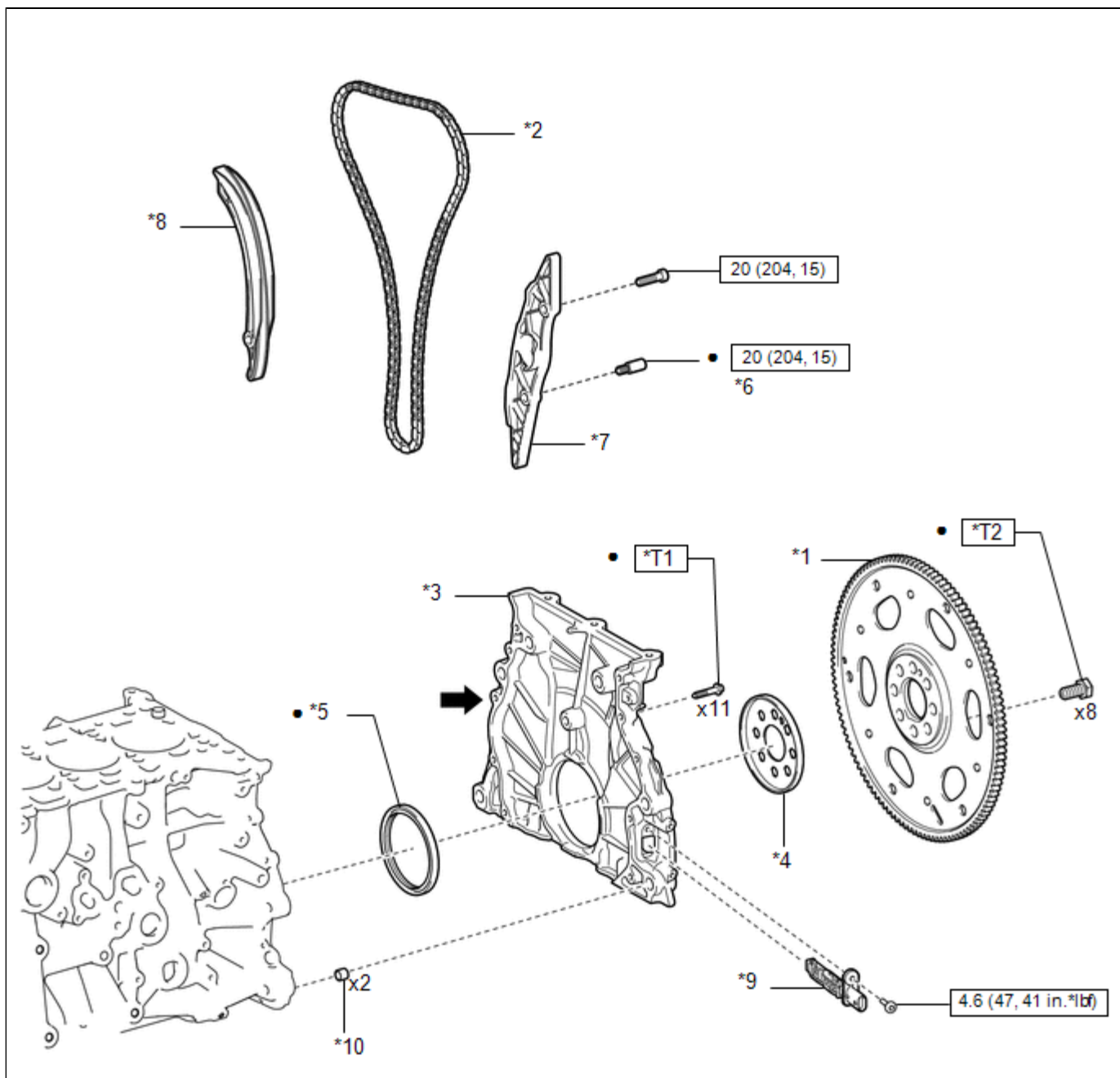





P

*1	OIL FILLER CAP ASSEMBLY	*2	NO. 1 FUEL PIPE SUB-ASSEMBLY
*3	FUEL PUMP ASSEMBLY	*4	FUEL PUMP SPACER GASKET
*5	CAM TIMING OIL CONTROL SOLENOID ASSEMBLY	*6	CYLINDER HEAD COVER SUB-ASSEMBLY
			EXHAUST CAMSHAFT TIMING GEAR

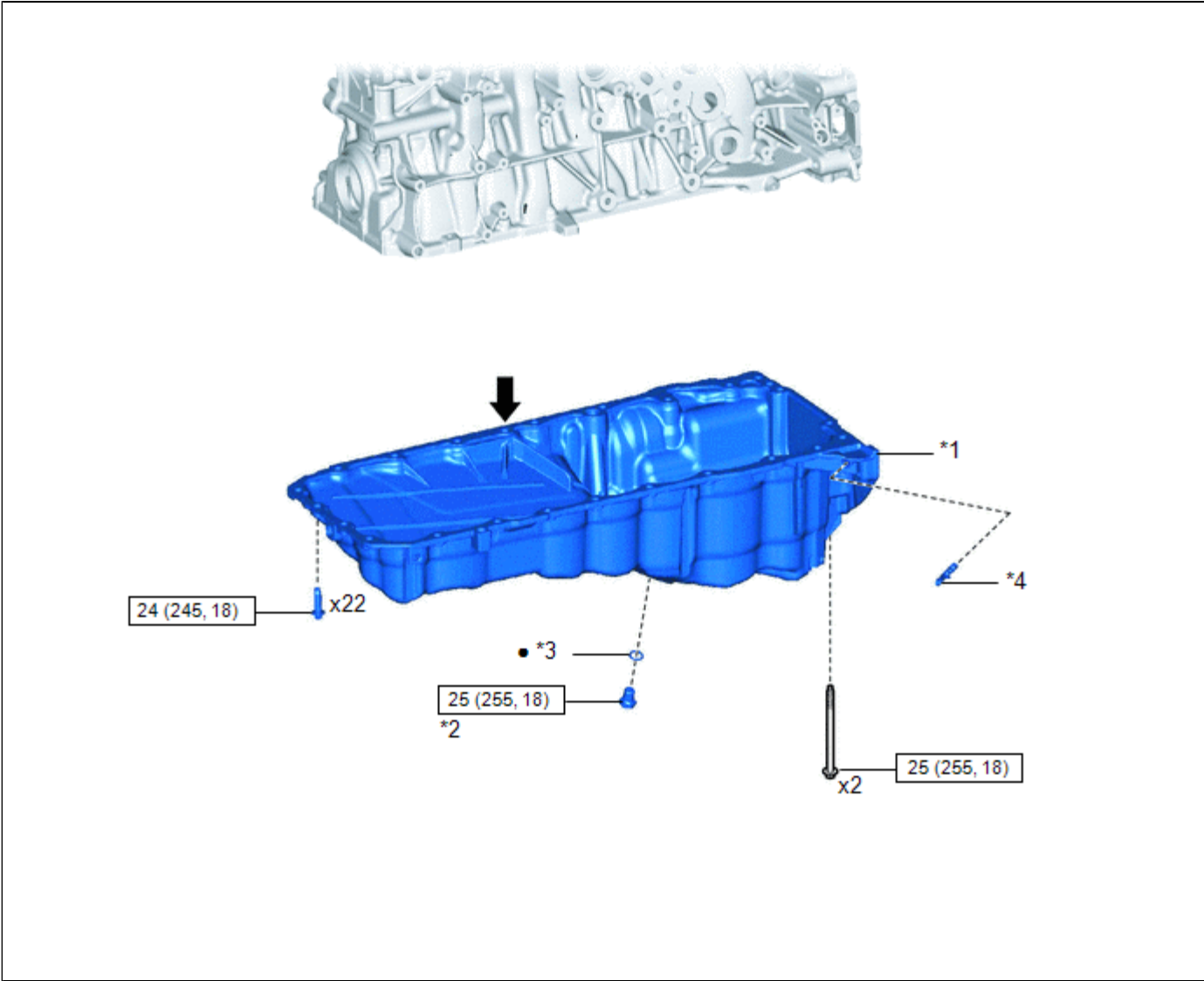
*7	CYLINDER HEAD COVER GASKET	*8	CENTER BOLT ASSEMBLY
*9	INTAKE CAMSHAFT TIMING GEAR CENTER BOLT ASSEMBLY	*10	CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY
*11	CAMSHAFT TIMING GEAR ASSEMBLY	*12	CHAIN DAMPER GUIDE
*13	NO. 2 WATER BY-PASS HOSE	*14	O-RING
*15	CAMSHAFT SENSOR WHEEL	*16	CYLINDER HEAD SET BOLT
*17	CYLINDER HEAD SET PLATE WASHER	*18	CYLINDER HEAD SUB-ASSEMBLY
*19	CYLINDER HEAD GASKET	*20	NO. 1 CHAIN TENSIONER ASSEMBLY
*21	SEALING SLEEVE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench
•	Non-reusable part		Engine oil
*T1	1st: 30 (306, 22) 2nd: Turn 90° 3rd: Turn 180°	*T2	1st: 10 (102, 7) 2nd: 30 (306, 22) 3rd : 50 (510, 37) 4th : Turn 35°
*T3	1st: 20 (204, 15) 2nd: Turn 40°	-	-

ILLUSTRATION



*1	FLYWHEEL SUB-ASSEMBLY	*2	CHAIN SUB-ASSEMBLY
*3	TIMING GEAR CASE	*4	NO. 1 CRANK ANGLE SENSOR PLATE
*5	TIMING CHAIN COVER OIL SEAL	*6	BEARING JOURNAL
*7	NO. 1 CHAIN VIBRATION DAMPER	*8	CHAIN TENSIONER SLIPPER
*9	CRANKSHAFT POSITION SENSOR	*10	RING PIN
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part
	Loctite 5970 Flange Sealant	-	-
*T1	1st: 8.0 (82, 71 in.*lbf) 2nd: Turn 90°	*T2	1st: 45 (459, 33) 2nd: Turn 40°

ILLUSTRATION



*1	OIL PAN SUB-ASSEMBLY	*2	OIL PAN DRAIN PLUG
*3	OIL PAN DRAIN PLUG GASKET	*4	SEAL CAP
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Loctite 5970 Flange Sealant	-	-

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Title: B58 (ENGINE MECHANICAL): TIMING GEAR CASE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE ENGINE ASSEMBLY

Click here [INFO](#)

2. REMOVE SPARK PLUG

Click here [INFO](#)

3. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

4. REMOVE OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

5. REMOVE OIL PAN DRAIN PLUG

Click here [INFO](#)

6. INSTALL OIL PAN DRAIN PLUG

Click here [INFO](#)

7. REMOVE NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

8. REMOVE FUEL PUMP ASSEMBLY

Click here [INFO](#)

9. REMOVE FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

10. REMOVE FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

11. REMOVE CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

12. REMOVE CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

13. INSTALL OIL FILTER CAP ASSEMBLY

Click here

[INFO](#)

14. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

15. REMOVE OUTLET TURBO OIL PIPE

Click here [INFO](#)

16. REMOVE TURBOCHARGER STAY

Click here [INFO](#)

17. SET NO. 1 CYLINDER TO TDC (COMPRESSION)

Click here [INFO](#)

18. REMOVE NO. 1 CHAIN TENSIONER ASSEMBLY

Click here [INFO](#)

19. LOOSEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

20. LOOSEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

21. REMOVE INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

22. REMOVE EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

23. REMOVE CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

24. REMOVE CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

25. REMOVE SST

Click here [INFO](#)

26. REMOVE CYLINDER HEAD SUB-ASSEMBLY

Click here [INFO](#)

27. REMOVE CYLINDER HEAD GASKET

Click here [INFO](#)

28. REMOVE DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

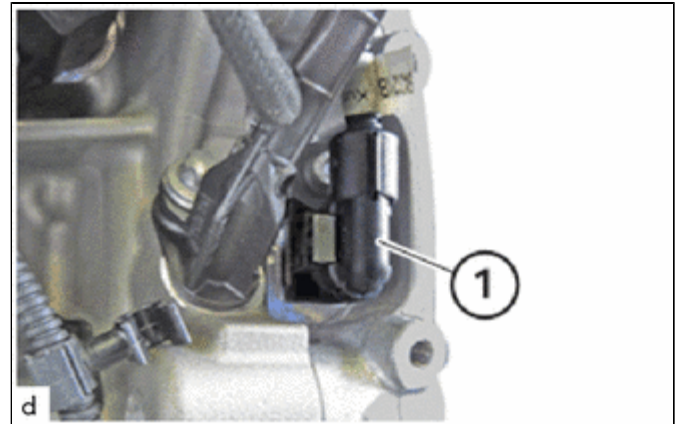
Click here [INFO](#)

29. REMOVE OIL PAN SUB-ASSEMBLY

Click here [INFO](#)

30. REMOVE TIMING GEAR CASE

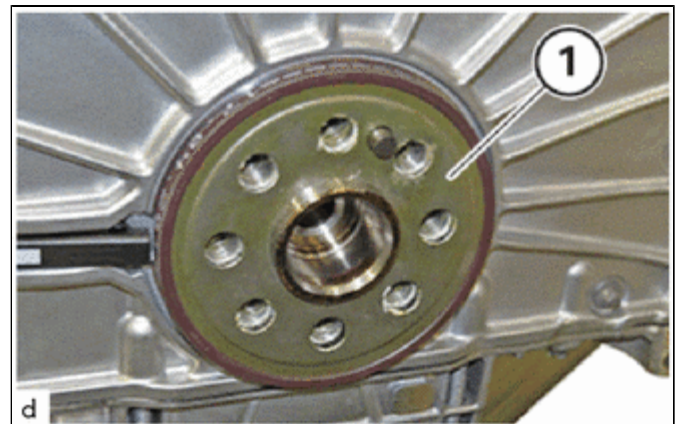
- (a) Unlock the connector (1) and pull it off the crank position sensor.



- (b) Remove the No. 1 crank angle sensor plate (1) from the crankshaft.

HINT:

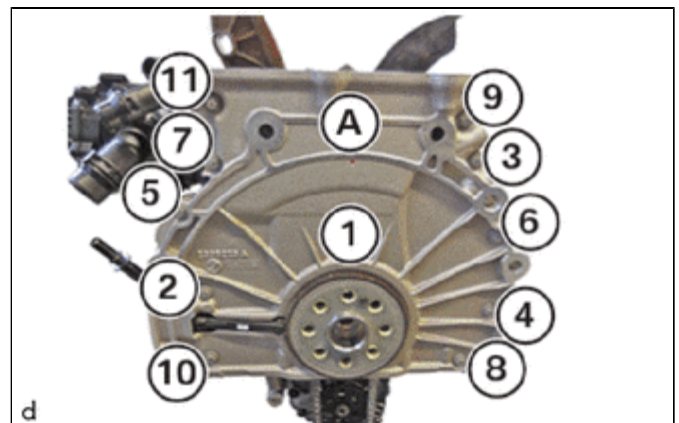
Increment wheel is magnetic. Protect the increment wheel from contact with metallic swarf after disassembly.



- (c) Loosen E8 bolts in the order (11) to (1).

HINT:

Increased force may be necessary during disassembly because the component is bonded with liquid seal packing.



- (d) Carefully loosen and remove the timing gear case (A).

31. REMOVE CRANKSHAFT POSITION SENSOR

NOTICE:

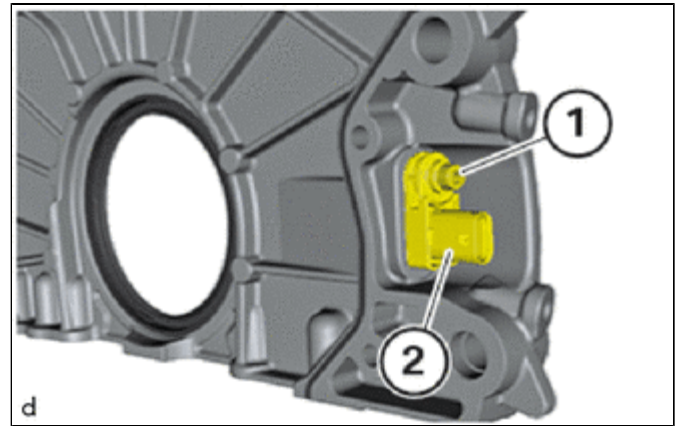
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

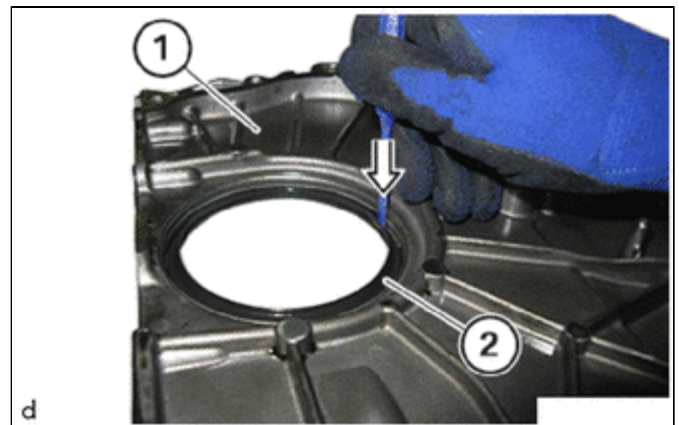
[Click here](#) 

- (a) Unscrew the 4 mm hexagon bolt (1) and remove the crank position sensor (2).



32. REMOVE TIMING CHAIN COVER OIL SEAL

- (a) Drive out the timing chain cover oil seal (2) from the timing gear case (1).



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Title: B58 (ENGINE MECHANICAL): TIMING GEAR CASE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL CRANKSHAFT POSITION SENSOR

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pinconnectors directly.
- For additional information

Click here [INFO](#)

(a) Guide in and install crank position sensor (2).

(b) Tighten down 4 mm hexagon bolt.

Torque:

4.6 N·m {47 kgf·cm, 41 in·lbf}

(c) Connect connectors and lock.

HINT:

The connector must engage audibly.

2. INSTALL TIMING GEAR CASE

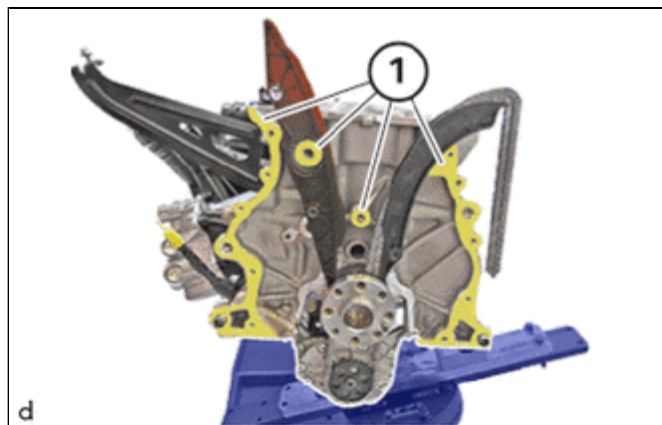
NOTICE:

- Damage to the surface.

The use of metal-cutting tools (e.g. sandpaper) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.

(a) Clean sealing surfaces (1).



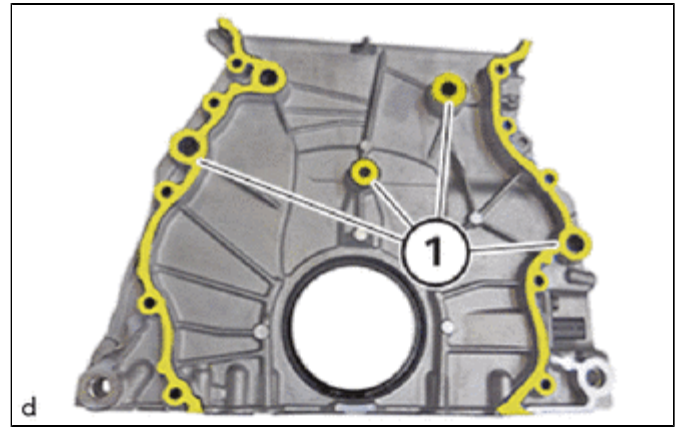
(b) Clean sealing surfaces (1).

NOTICE:

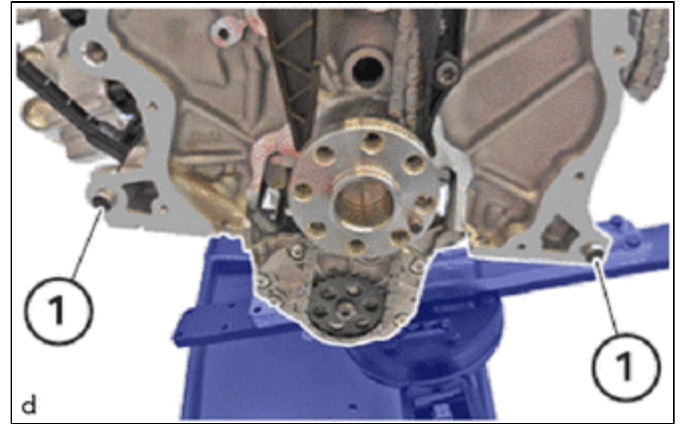
- Damage to the surface.

The use of metal-cutting tools (e.g. sandpaper) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.



(c) Check the ring pins (1) for damage and replace if necessary.



(d) Check for correct fit of ring pins(1).

(e) Load the sealer gun with the seal packing.

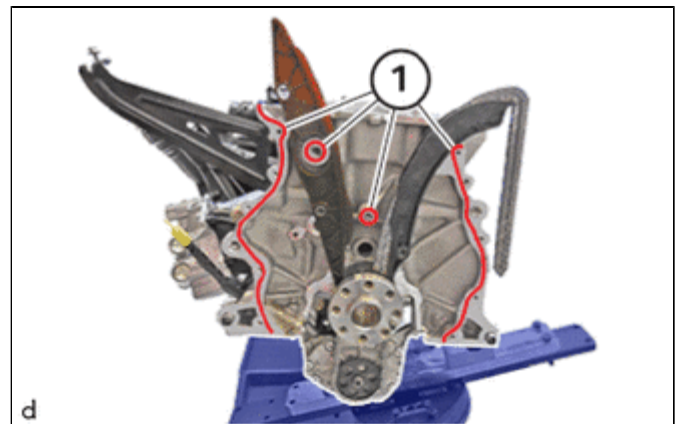
Seal Packing:

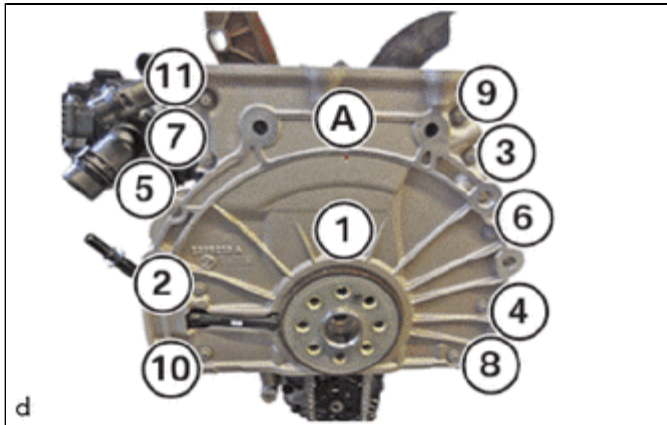
Loctite 5970 Flange Sealant

(f) Apply the seal packing in area (1) along the inner edge.

Height of the sealing bead:

2.0 to 2.5 mm (0.0787 to 0.0984 in.)





(g) Replace bolts (1) to (11).

(h) Carefully mount the timing gear case (A).

(i) Tighten the E8 bolts in sequence (1) to (11).

Torque:

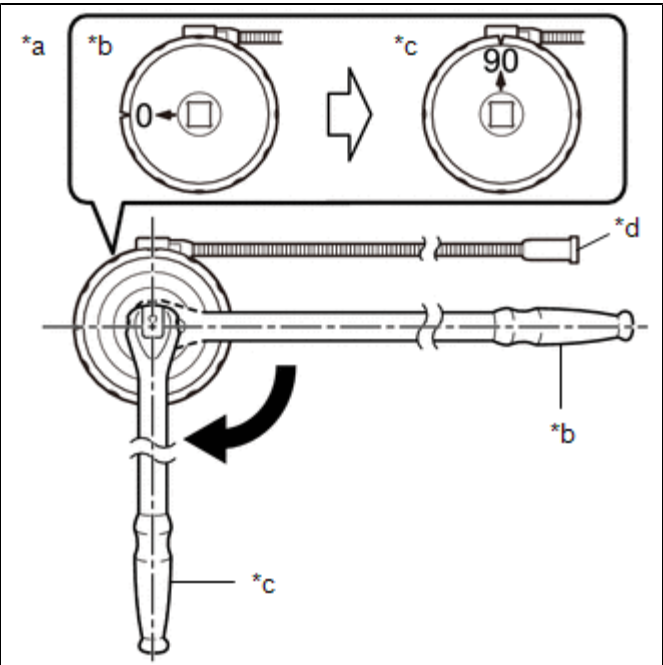
8.0 N·m {82 kgf·cm, 71 in·lbf}

(j) Using SST, tighten the E10 bolts an additional 90°.

SST: 09900-WA010

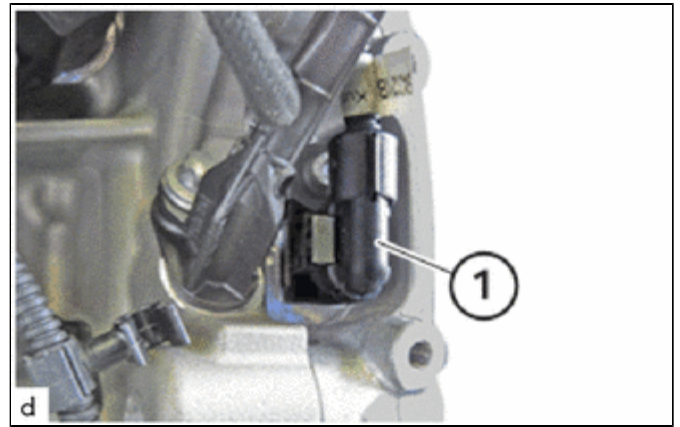
HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

(k) Connect connectors (1) and lock. The connector (1) must engage audibly.



3. INSTALL TIMING CHAIN COVER OIL SEAL

Click here [INFO](#)

4. INSTALL OIL PAN SUB-ASSEMBLY

Click here [INFO](#)

5. INSTALL DRIVE PLATE AND RING GEAR SUB-ASSEMBLY

Click here [INFO](#)

6. SEALING OIL DUCT

Click here [INFO](#)

7. CLEAN SEALING SURFACE

Click here [INFO](#)

8. INSTALL CYLINDER HEAD GASKET

Click here [INFO](#)

9. SET NO. 1 CYLINDER TO TDC (COMPRESSION)

Click here [INFO](#)

10. INSTALL CYLINDER HEAD SUB-ASSEMBLY

Click here [INFO](#)

11. ADJUST CAMSHAFT

Click here [INFO](#)

12. INSTALL CAMSHAFT TIMING EXHAUST GEAR ASSEMBLY

Click here [INFO](#)

13. TEMPORARILY TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

14. INSTALL CAMSHAFT TIMING GEAR ASSEMBLY

Click here [INFO](#)

15. TEMPORARILY TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

16. TEMPORARILY INSTALL CHAIN SUB-ASSEMBLY

Click here [INFO](#)

17. TIGHTEN EXHAUST CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

18. TIGHTEN INTAKE CAMSHAFT TIMING GEAR BOLT ASSEMBLY

Click here [INFO](#)

19. REMOVE SST

Click here [INFO](#)

20. INSTALL NO. 1 CHAIN TENSIONER ASSEMBLY

Click here [INFO](#)

21. INSPECT CAMSHAFT TIMING

Click here [INFO](#)

22. INSTALL SPARK PLUG

Click here [INFO](#)

23. INSTALL TURBOCHARGER STAY

Click here [INFO](#)

24. INSTALL OUTLET TURBO OIL PIPE

Click here [INFO](#)

25. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

26. INSTALL CYLINDER HEAD COVER SUB-ASSEMBLY

Click here [INFO](#)

27. INSTALL CAM TIMING OIL CONTROL SOLENOID ASSEMBLY

Click here [INFO](#)

28. REPLACE FUEL INJECTOR SEAL

Click here [INFO](#)

29. INSTALL FUEL INJECTOR ASSEMBLY (for Rear Side)

Click here [INFO](#)

30. INSTALL FUEL INJECTOR ASSEMBLY (for Front Side)

Click here [INFO](#)

31. ADJUST FUEL PUMP LIFTER ASSEMBLY

Click here [INFO](#)

32. INSTALL FUEL PUMP ASSEMBLY

Click here [INFO](#)

33. INSTALL NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

34. ADD ENGINE OIL

Click here [INFO](#)

35. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

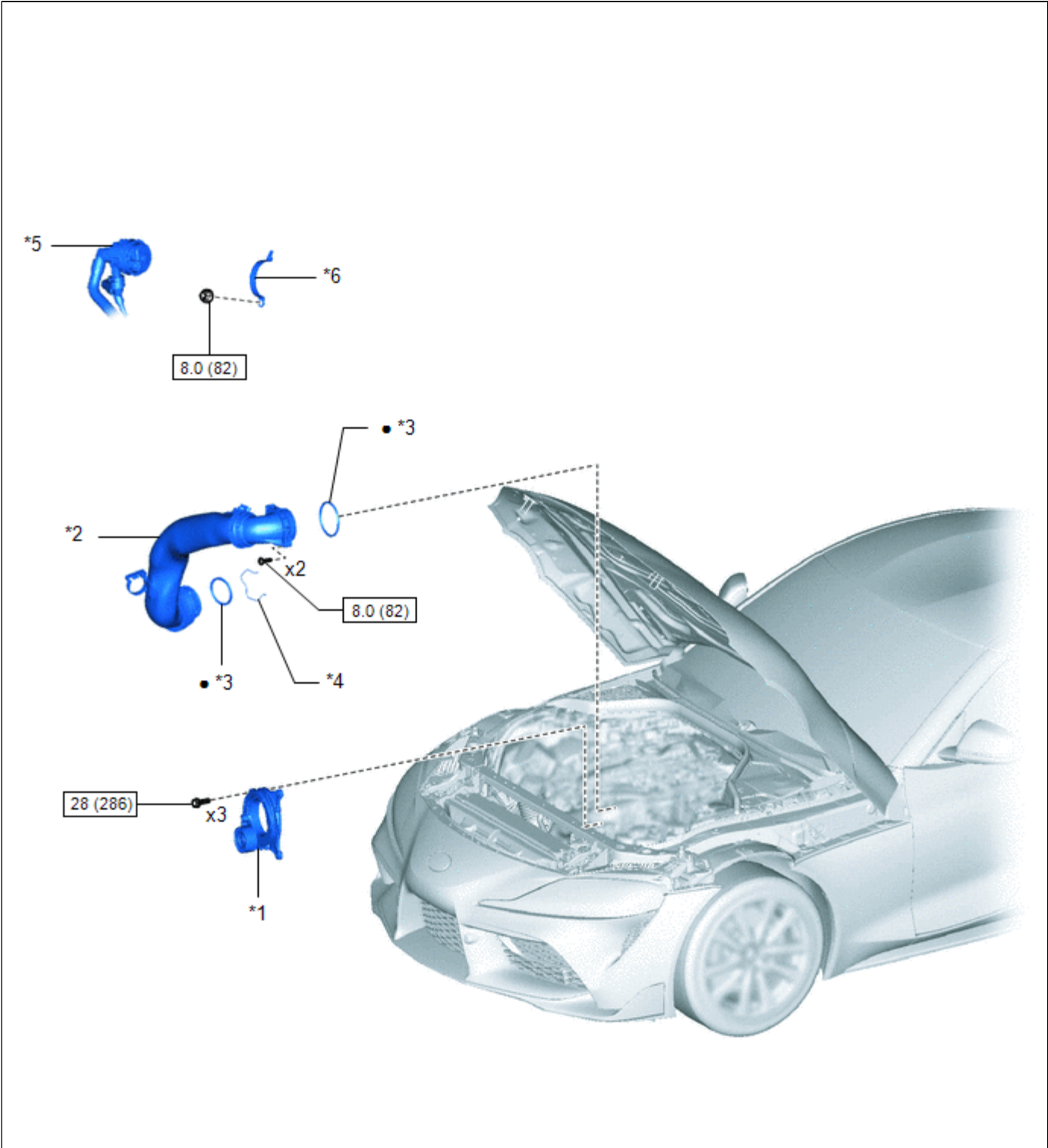
36. INSTALL ENGINE ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): V-RIBBED BELT TENSIONER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	V-RIBBED BELT TENSIONER	*2	NO. 2 AIR CLEANER HOSE
----	-------------------------	----	------------------------

	ASSEMBLY		
*3	SEALING RING	*4	AIR HOSE CLAMP OR CLIP
*5	WATER PUMP ASSEMBLY	*6	NO. 2 WATER PUMP BRACKET SUBASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): V-RIBBED BELT TENSIONER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FAN AND GENERATOR V BELT

Click here [INFO](#)

2. SEPARATE ELECTRIC WATER PUMP ASSEMBLY

Click here [INFO](#)

3. REMOVE NO. 2 AIR CLEANER HOSE

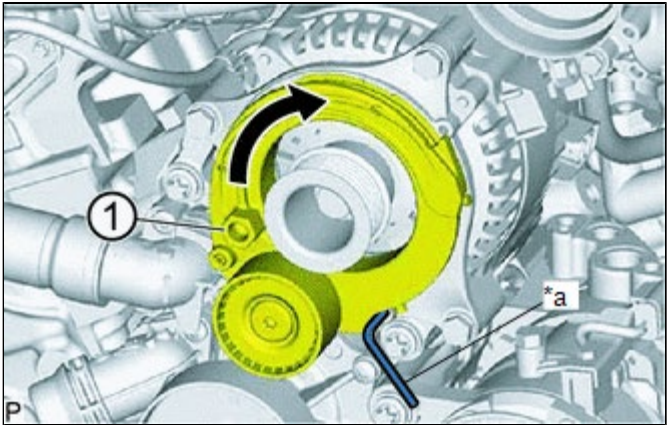
Click here [INFO](#)

4. REMOVE V-RIBBED BELT TENSIONER ASSEMBLY

CAUTION:

- Component with preload.
- Danger of injury!
- Reduce preload as far as possible before disassembly. Relieve component.

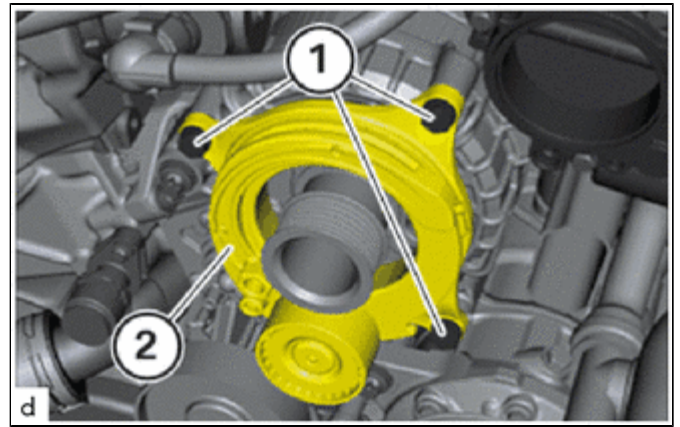
(a) Increase the preload of the v-ribbed belt tensioner assembly of the generator assembly on the hexagon head (1).



*a	4 mm Hexagon Wrench
----	---------------------

(b) Remove 4 mm hexagon wrench.

(c) Loosen bolts (1).



(d) Remove the v-ribbed belt tensioner assembly (2) of the generator assembly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDF5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): V-RIBBED BELT TENSIONER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL V-RIBBED BELT TENSIONER ASSEMBLY

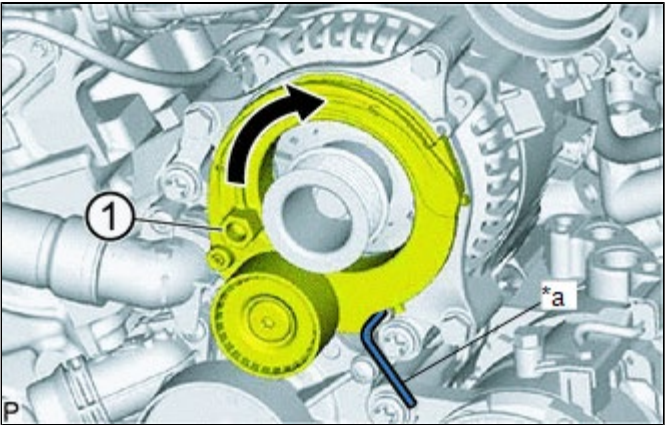
CAUTION:

- Component with preload.
- Danger of injury!
- Reduce preload as far as possible before disassembly. Relieve component.

- (a) Position the v-ribbed belt tensioner assembly of the generator assembly.
- (b) Tighten the bolts.

Torque:
28 N·m {286 kgf·cm, 21 ft·lbf}

- (c) Increase the preload of the v-ribbed belt tensioner assembly of the generator assembly on the hexagon head (1).



*a	4 mm Hexagon Wrench
----	---------------------

- (d) Secure the v-ribbed belt tensioner assembly of the generator assembly with the 4 mm hexagon wrench.

2. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

3. CONNECT ELECTRIC WATER PUMP ASSEMBLY

Click here [INFO](#)

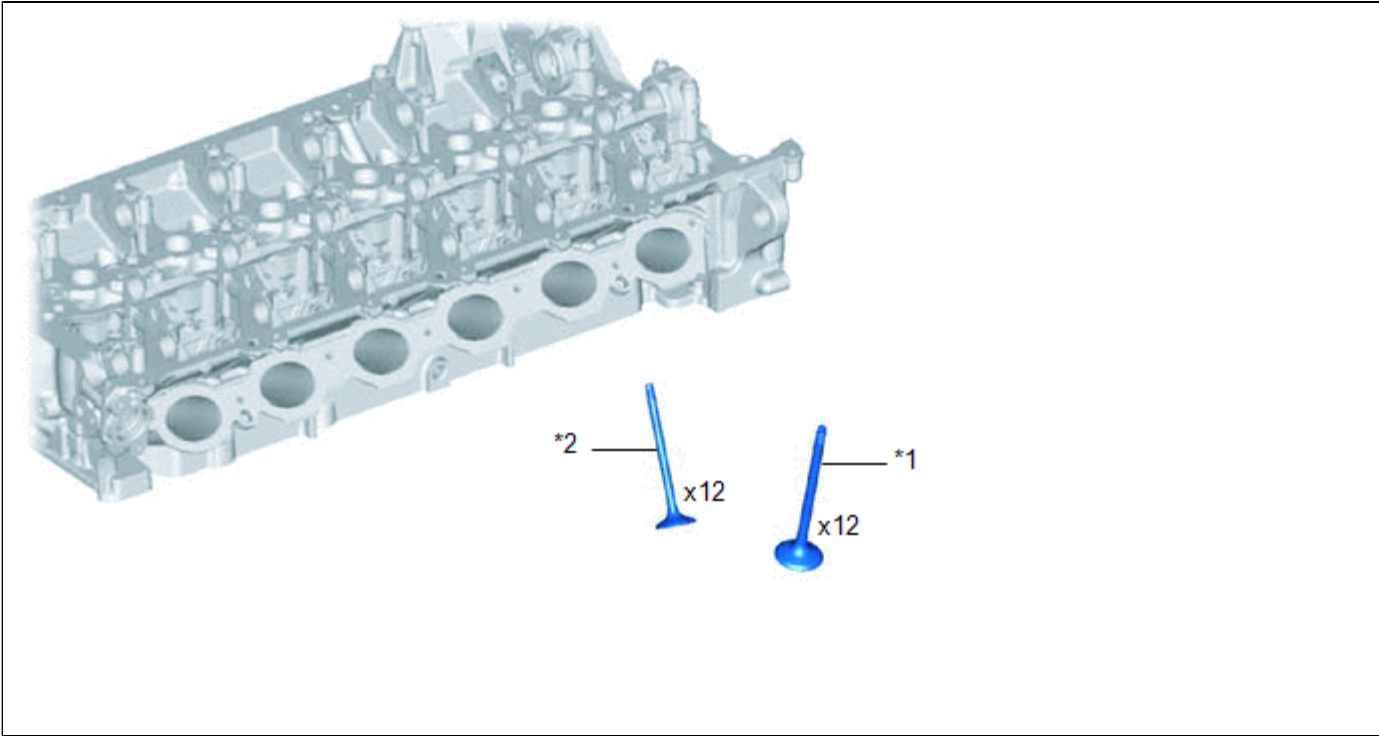
4. INSTALL FAN AND GENERATOR V BELT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INTAKE VALVE	*2	EXHAUST VALVE
----	--------------	----	---------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

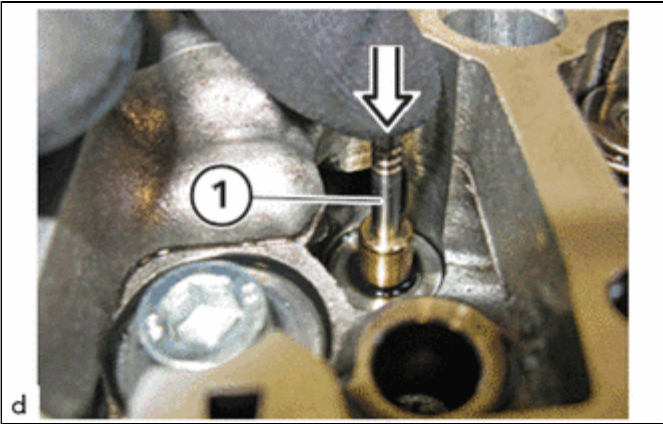
PROCEDURE

1. REMOVE VALVE STEM OIL SEAL

Click here [INFO](#)

2. REMOVE INTAKE VALVE

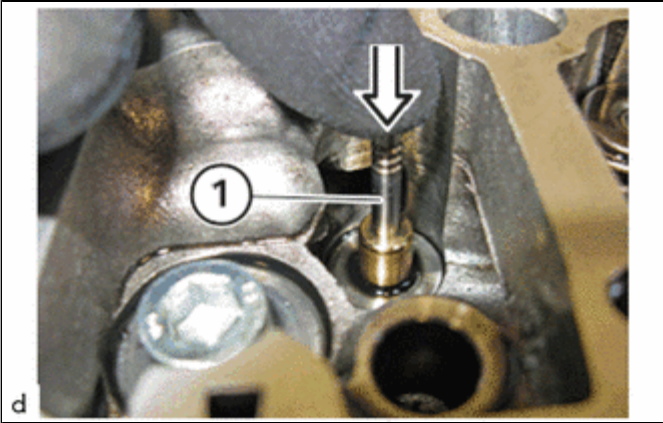
(a) Slide intake valve (1) in direction of arrow.



(b) Remove the intake valve (1).

3. REMOVE EXHAUST VALVE

(a) Slide exhaust valve (1) in direction of arrow.



(b) Remove the exhaust valve (1).

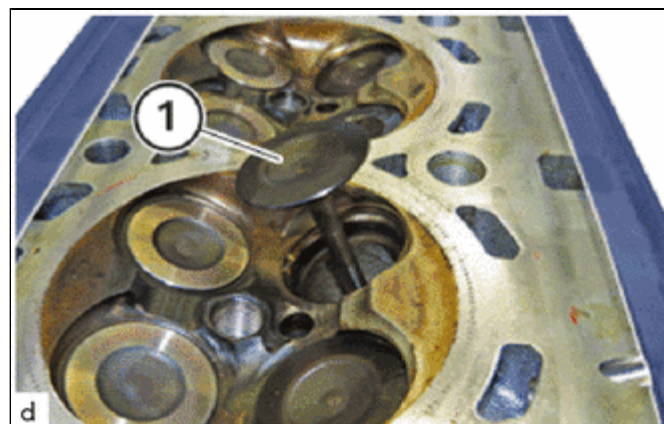
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

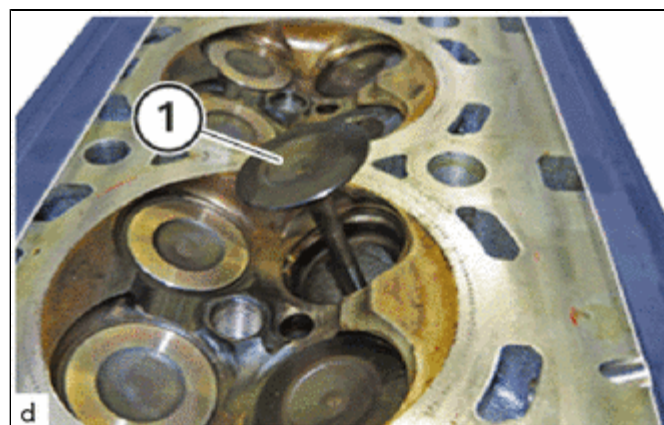
1. INSTALL INTAKE VALVE

- (a) Carefully push the intake valve (1) into the cylinder head sub-assembly.



2. INSTALL EXHAUST VALVE

- (a) Carefully push the exhaust valve (1) into the cylinder head sub-assembly.



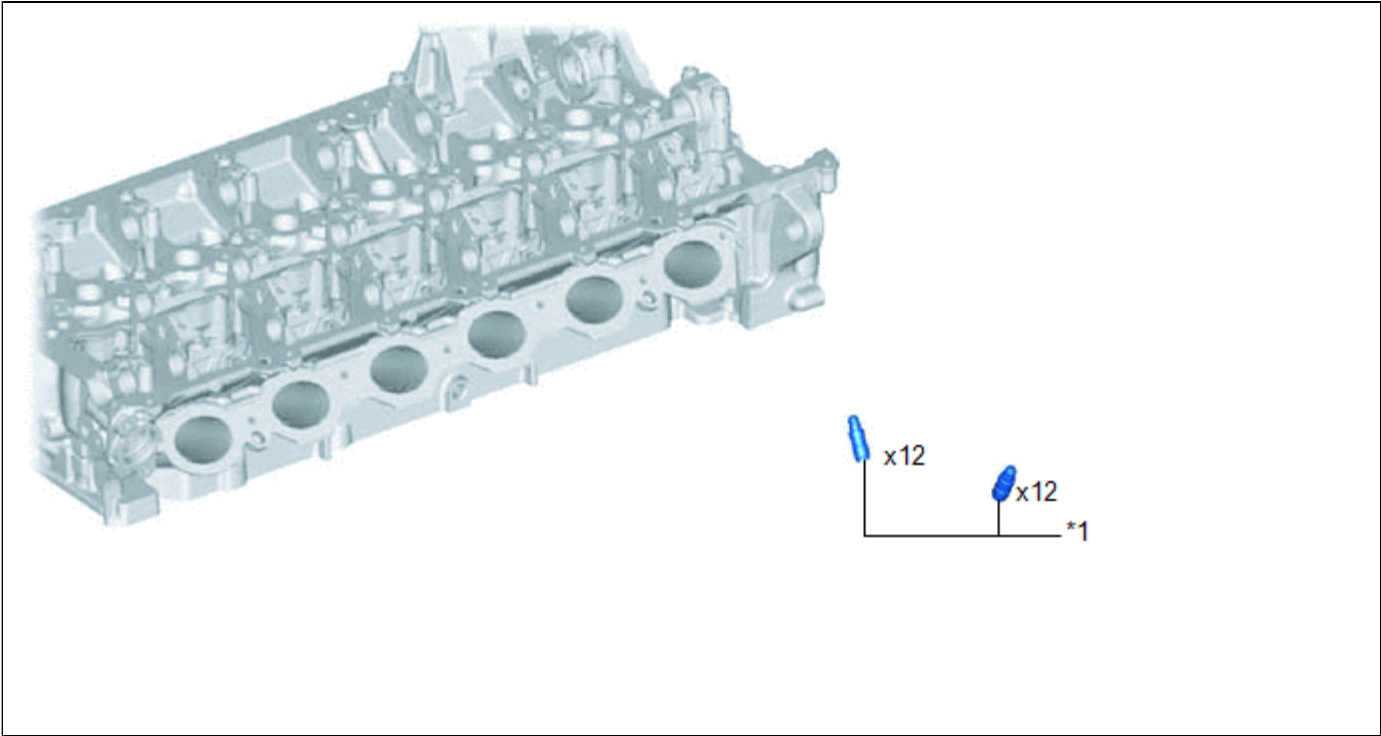
3. INSTALL VALVE STEM OIL SEAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE LASH ADJUSTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VALVE LASH ADJUSTER ASSEMBLY	-	-
----	------------------------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE LASH ADJUSTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY

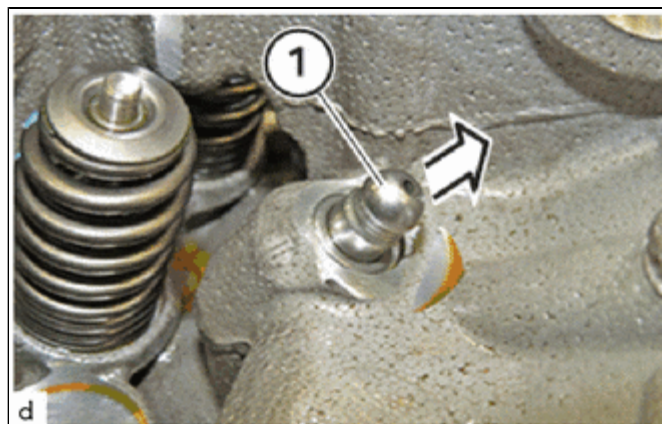
Click here [INFO](#)

2. REMOVE VALVE LASH ADJUSTER ASSEMBLY

NOTICE:

If the valve lash adjuster assemblies are reused, they must be reinstalled at the same position.

- (a) Remove all valve lash adjuster assemblies (1) in the direction of arrow to the top.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE LASH ADJUSTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

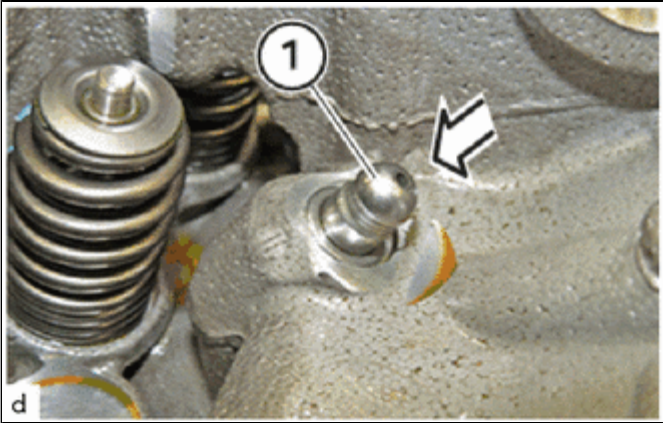
PROCEDURE

1. INSTALL VALVE LASH ADJUSTER ASSEMBLY

NOTICE:

If the valve lash adjuster assemblies are reused, they must be reinstalled at the same position.

(a) Insert and install all valve lash adjuster assemblies (1) in the direction of the arrow.



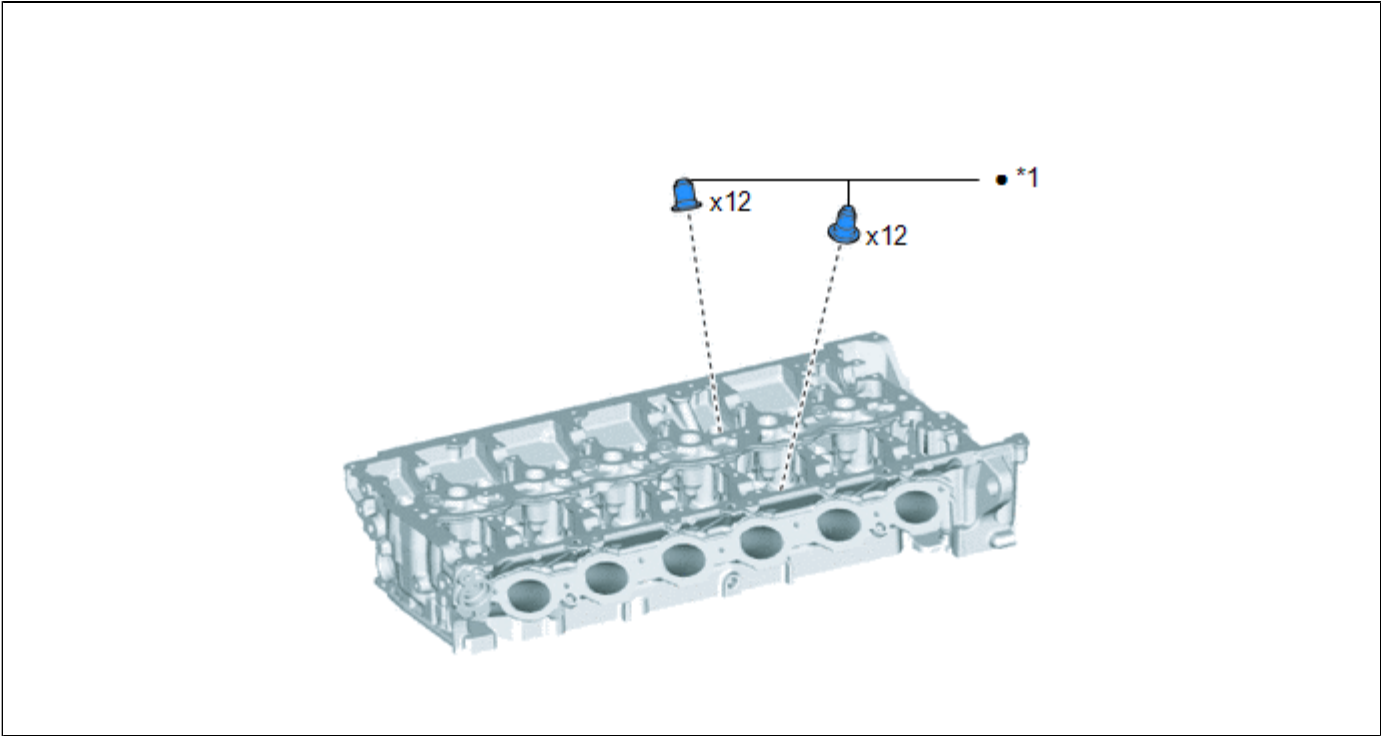
2. INSTALL NO. 1 VALVE ROCKER ARM SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE STEM OIL SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VALVE STEM OIL SEAL	-	-
●	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE STEM OIL SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE COMPRESSION SPRING

Click here [INFO](#)

2. REMOVE VALVE STEM OIL SEAL

NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

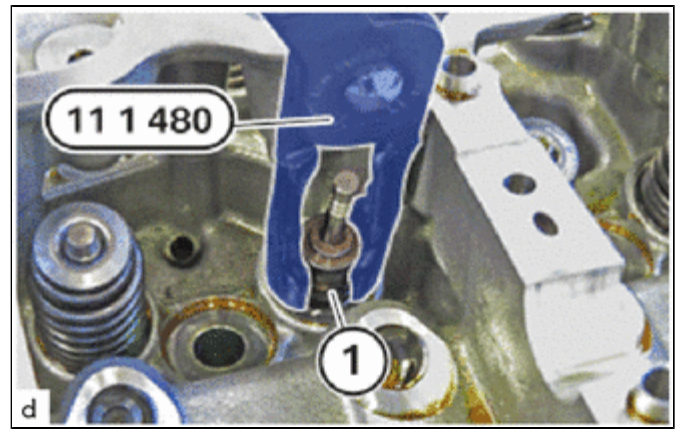
- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

HINT:

The description is for one component only. The procedure is identical for all further components.

- Remove the valve stem oil seal (1) using the special tool 0 490 796 (11 1 480).

SST: 09200-WA450



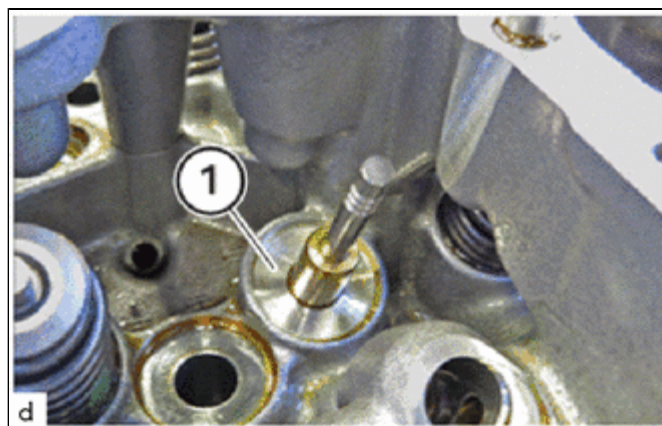
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDGI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (ENGINE MECHANICAL): VALVE STEM OIL SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL VALVE STEM OIL SEAL

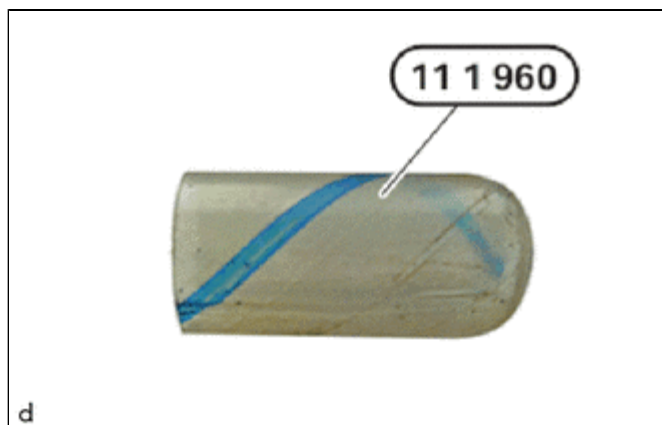
(a) Remove oil and dirt from the contact surface (1).



(b) Replace the valve stem oil seal (1).

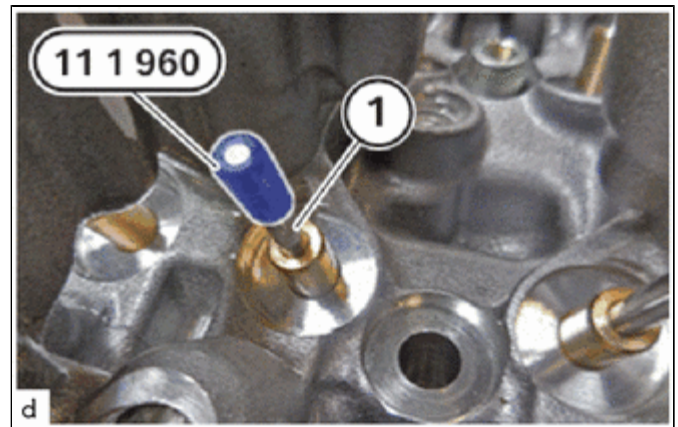
(c) Make sure that the special tool 0 490 797 (11 1 960) is used when installing the valve stem oil seal.

SST: 09200-WA710



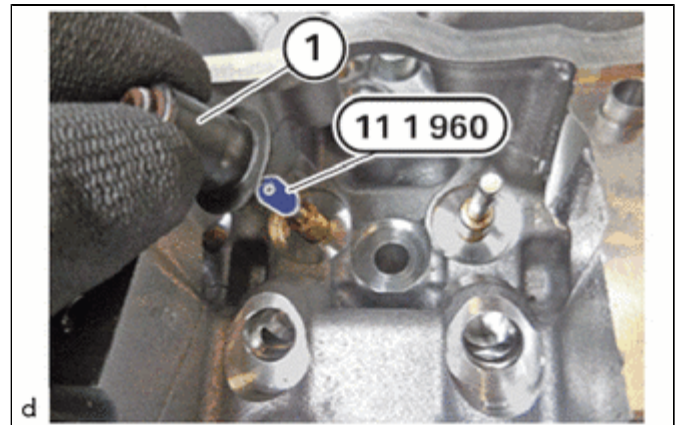
(d) Guide in and install the special tool 0 490 797 (11 1 960) on valve (1).

SST: 09200-WA710



(e) Guide in and install valve stem seal (1) on the special tool 0 490 797 (11 1 960).

SST: 09200-WA710



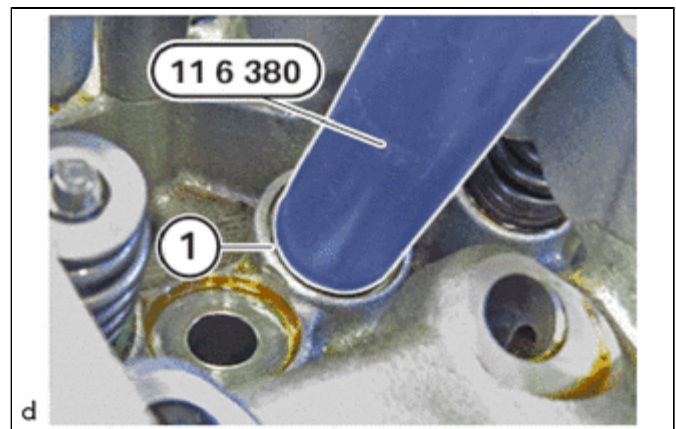
(f) Guide the special tool 0 490 797 (11 1 960) out and remove.

SST: 09200-WA710

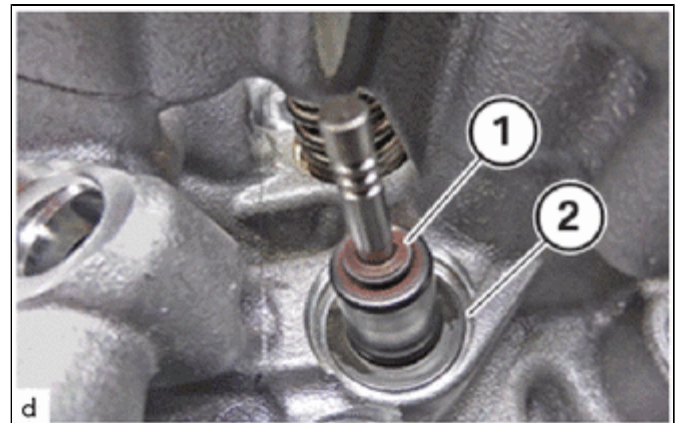


(g) Press the valve stem oil seal (1) onto the cylinder head till the limit position using special tool 0 493 249 (11 6 380).

SST: 09200-WA440



(h) Ensure that valve stem oil seal (1) is positioned correctly on cylinder head sub-assembly (2).



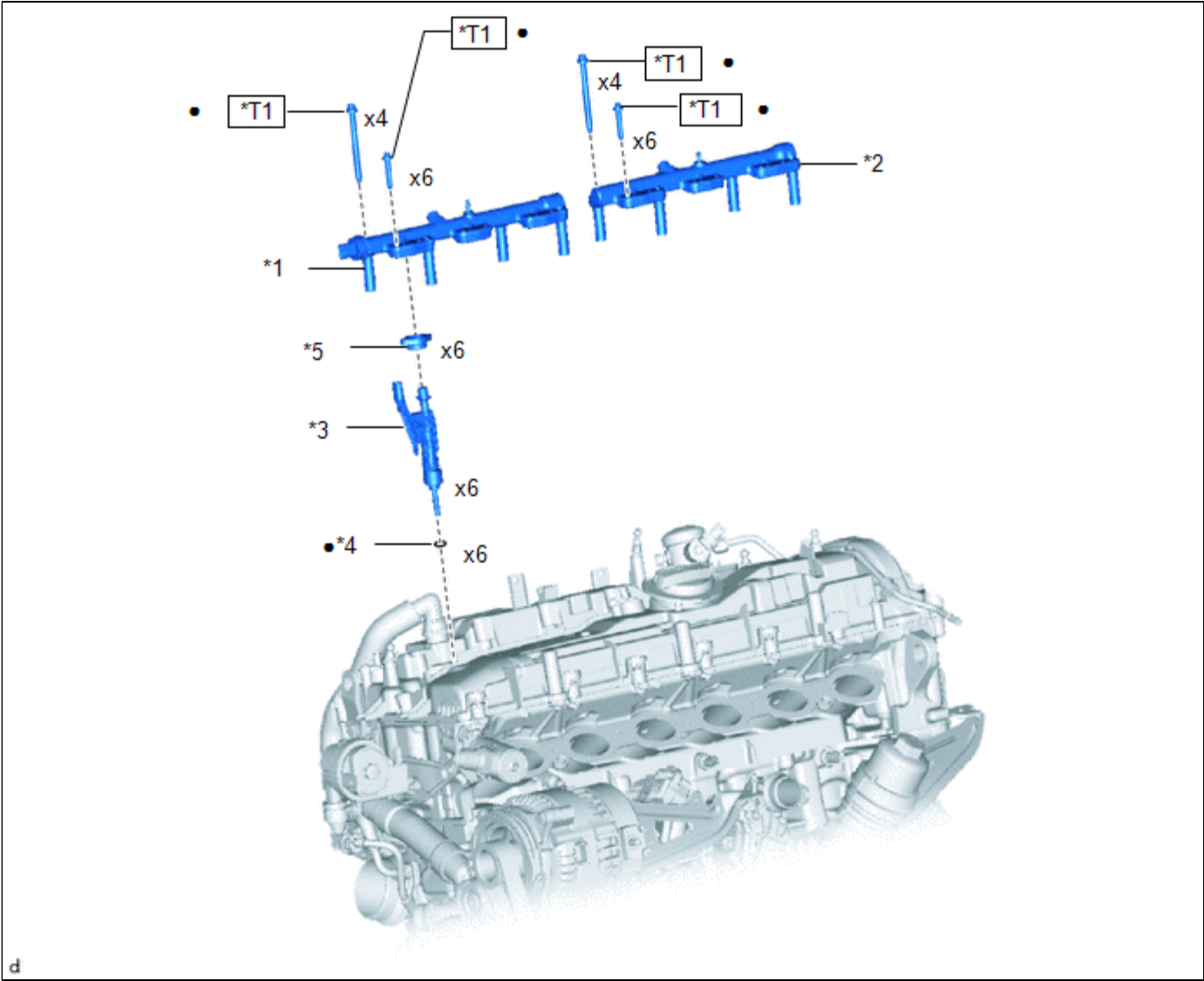
2. INSTALL COMPRESSION SPRING

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL DELIVERY PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL DELIVERY PIPE	*2	NO. 2 FUEL DELIVERY PIPE
*3	FUEL INJECTOR ASSEMBLY	*4	O-RING
*5	HOLDER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 N*m (51 kgf*cm, 44 in.*lbf) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL DELIVERY PIPE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL DELIVERY PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

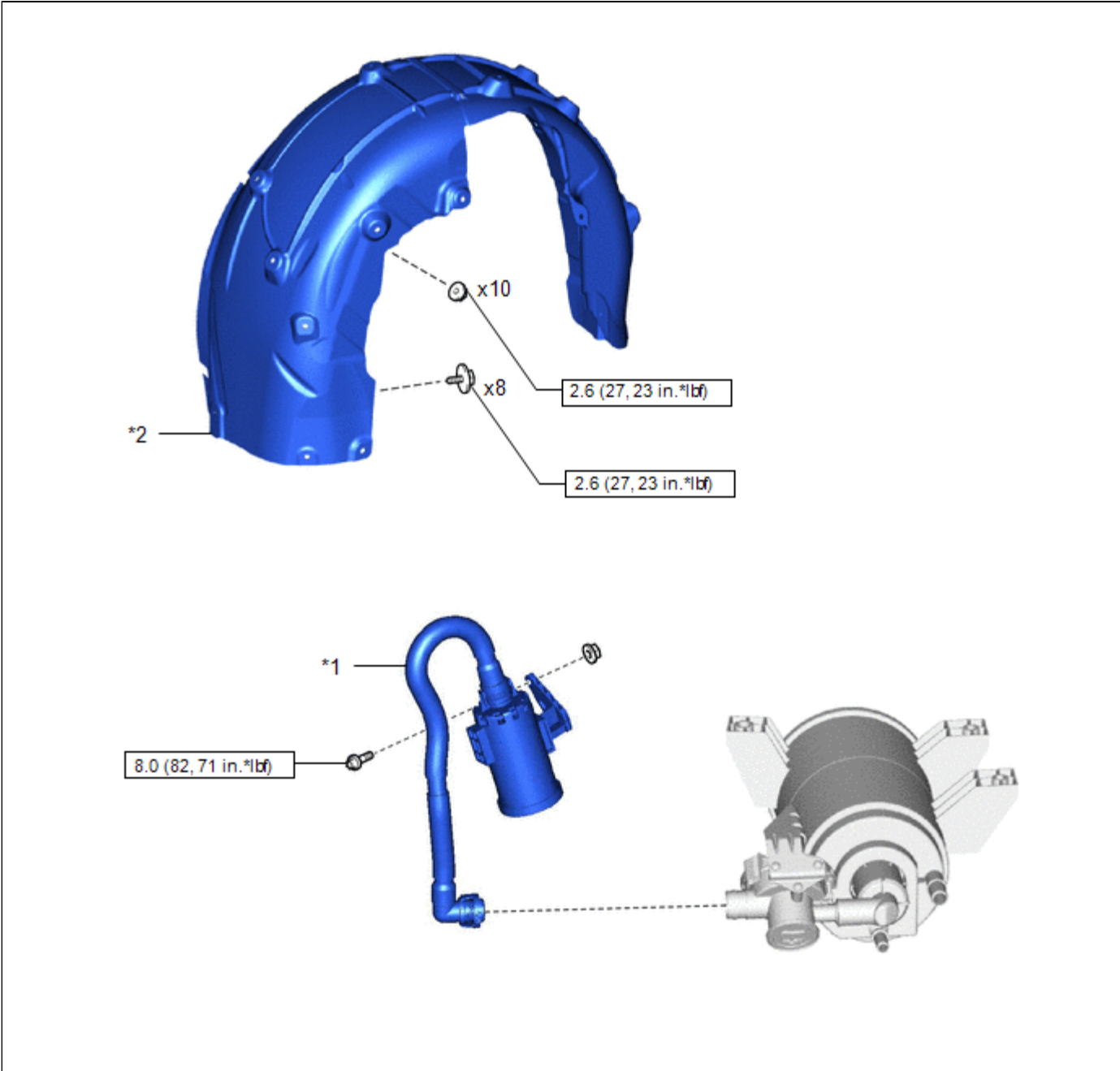
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5M
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL FILTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL FILTER ASSEMBLY	*2	REAR WHEEL HOUSE LINER RH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5N
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL FILTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

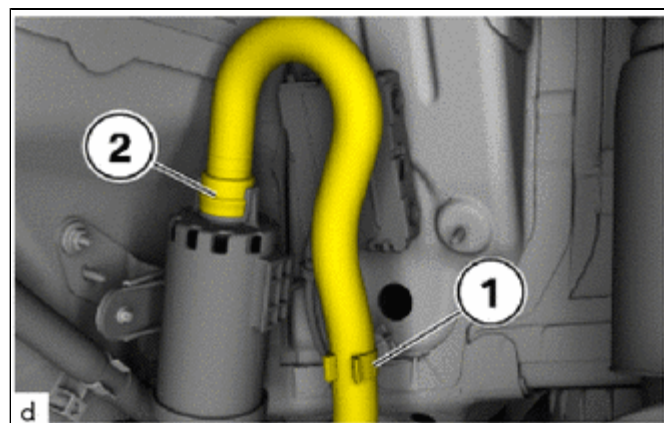
Click here [INFO](#)

2. REMOVE REAR WHEEL HOUSE LINER RH

Click here [INFO](#)

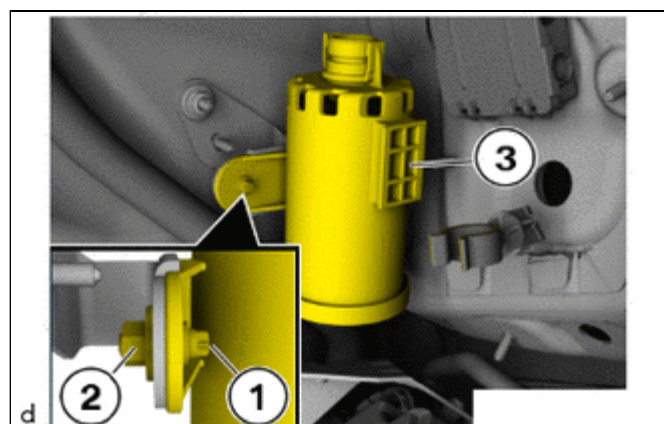
3. REMOVE FUEL FILTER ASSEMBLY

(a) Detach the tank ventilation line from the bracket (1).



(b) Unlock the snap fastener (2) and disconnect the tank ventilation line.

(c) Release the screw (1) and counter on the nut (2).



(d) Remove the fuel filter assembly (3).

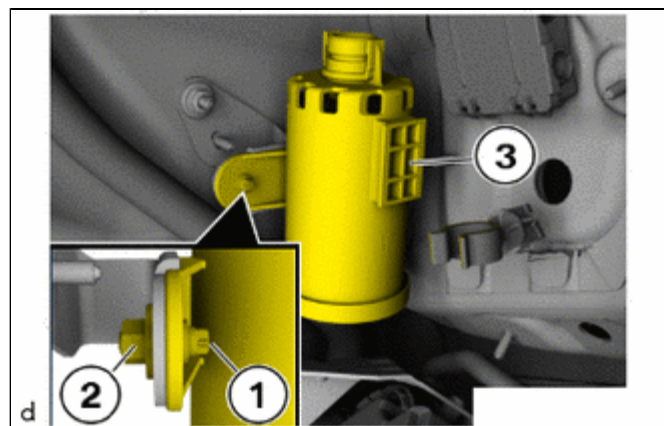
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD50
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL FILTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FUEL FILTER ASSEMBLY

(a) Install the fuel filter assembly (3).



(b) Tighten the screw (1) and counter on the nut (2).

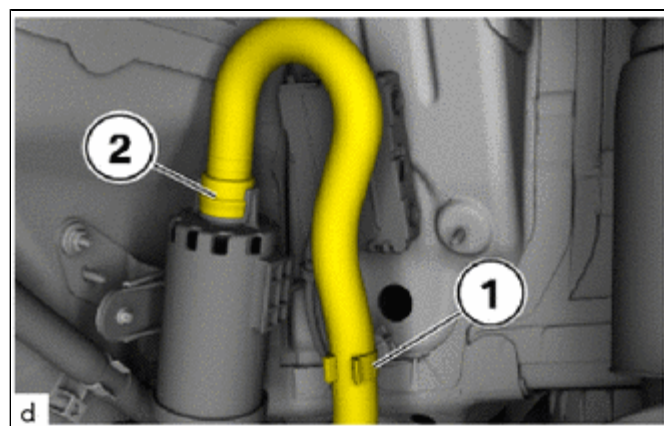
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(c) Connect and lock the snap fastener (2) of the tank ventilation line.

HINT:

The snap fastener (2) must engage audibly and noticeably.



(d) The snap fastener (2) must engage audibly and noticeably.

2. INSTALL REAR WHEEL HOUSE LINER RH

Click here [INFO](#)

3. INSTALL WHEEL ASSEMBLY

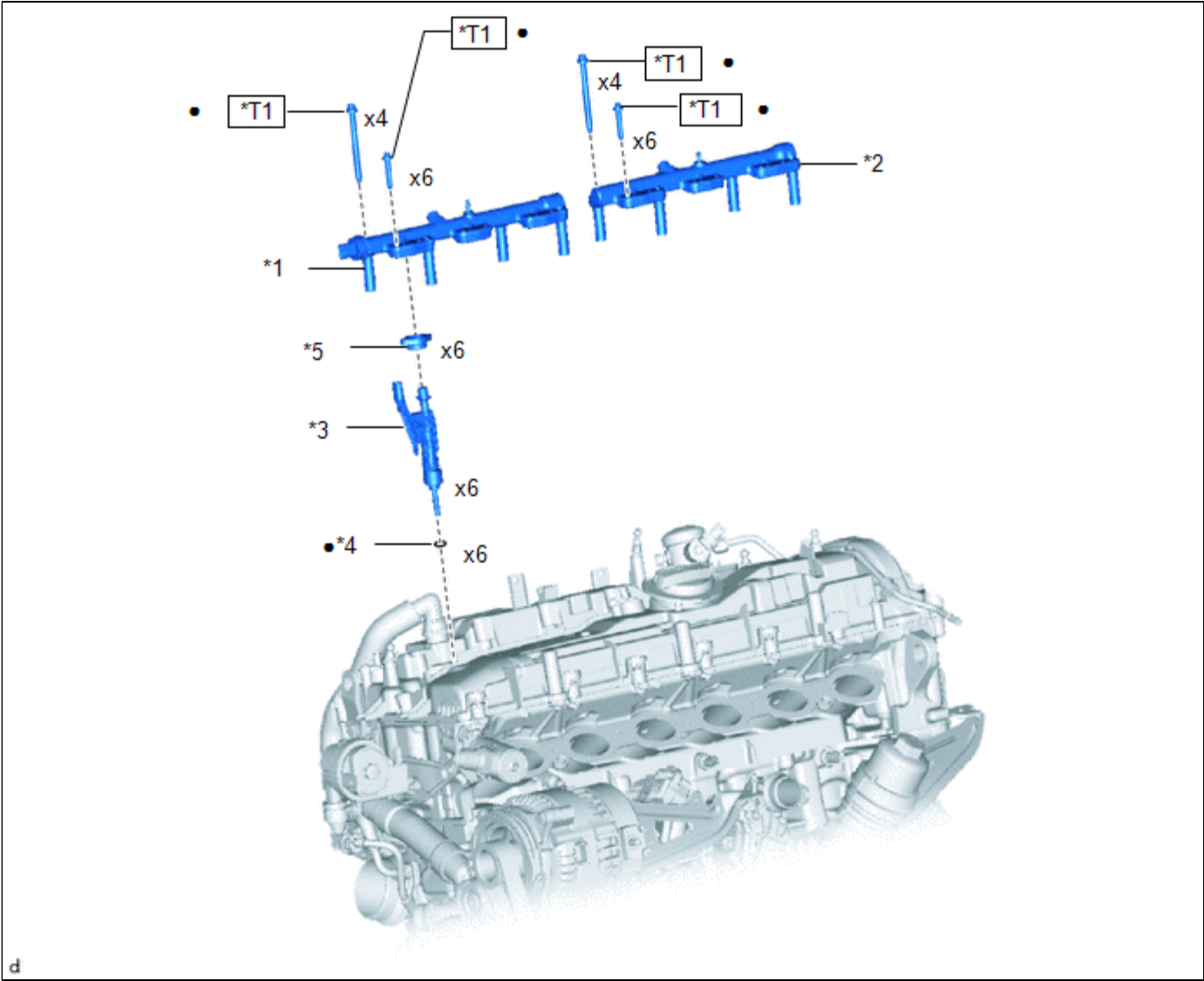
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5G
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL INJECTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL DELIVERY PIPE	*2	NO. 2 FUEL DELIVERY PIPE
*3	FUEL INJECTOR ASSEMBLY	*4	O-RING
*5	HOLDER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 N*m (51 kgf*cm, 44 in.*lbf) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL INJECTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).
- Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.
 - Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE FUEL INJECTOR ASSEMBLY (for Front Side)

NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

- Damage to the ignition coil.

The silicone hose of the ignition coil must not be contaminated by fuel as this can lead to failure of the ignition coil.

- Cover ignition coils using suitable covers when working on the fuel system, if necessary remove them.
- Do not oil or grease the silicone tube of the spark plug connector. The silicone tube is coated with talc to reduce the pulling forces.

- Damage to the injector tips and Teflon ring.

Improper handling of the injector tips and Teflon ring can lead to malfunctioning of the injector.

- Avoid mechanical contact with injector tip.
- When exchanging Teflon ring, hands and work surface must be clean and free of oil. Do not use any lubricating agents.
- Do not use fingernails to slide Teflon ring on.

- Electrostatic discharge.

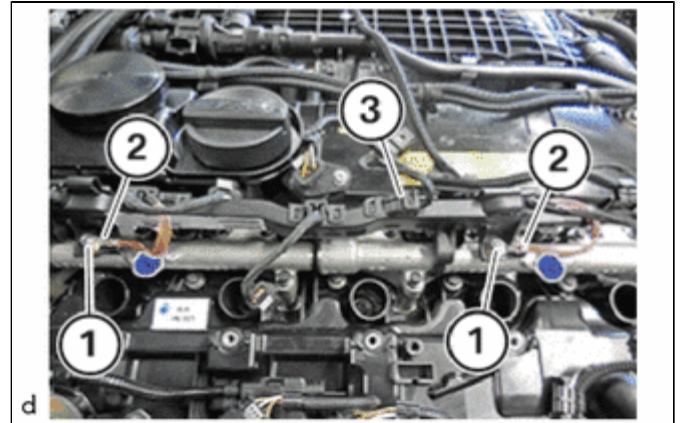
Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly

- For additional information see:

[Click here](#) 

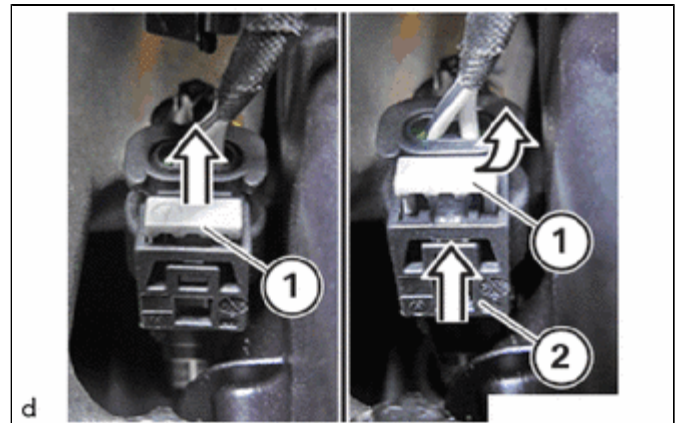
(a) Loosen nuts (1).



(b) Feed out ground cable (2) and set it aside.

(c) Feed out cable channel (3) and set it aside.

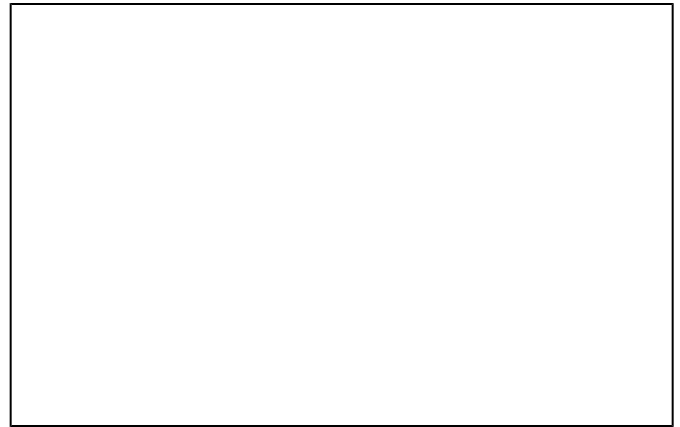
(d) Unlock lock (1) in direction of arrow from the top.



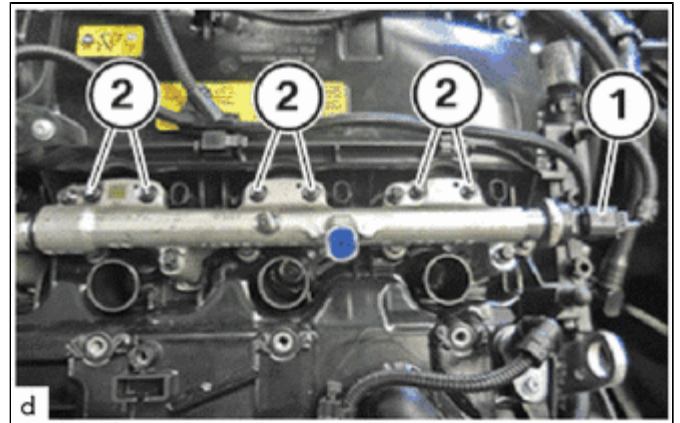
(e) Press the lock (1) together and release it in the direction of the arrow.

(f) Pull off the connector (2) from the injectors.

(g) Unlock all connectors (1) on injectors and detach.



(h) Unlock and loosen connector (1).



(i) Release E6 bolts (2).

NOTICE:

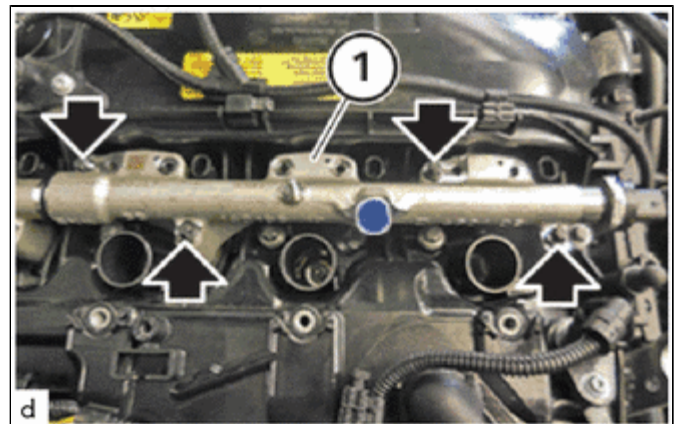
Do not reuse the bolts (2).

(j) Catch and dispose of escaping fuel with suitable materials.

(k) Unscrew the E8 bolts (arrows).

NOTICE:

Do not reuse the bolts.



(l) Remove the rail (1) in upward direction.

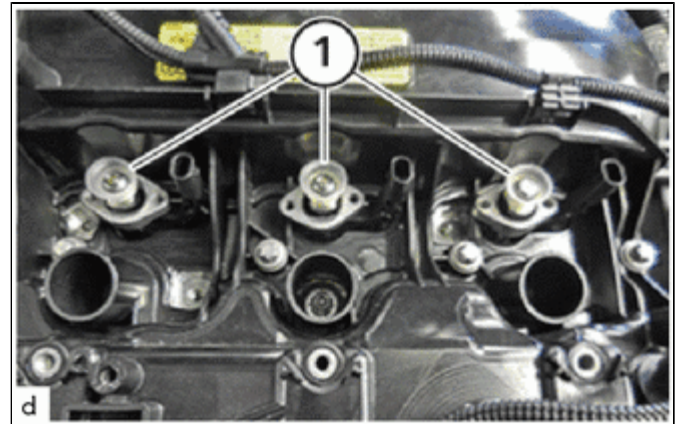
HINT:

The injectors remain in the cylinder head.

(m) Remove the gaskets (1).

HINT:

The gaskets (1) are required during first assembly with in the plant only and will not be installed again.



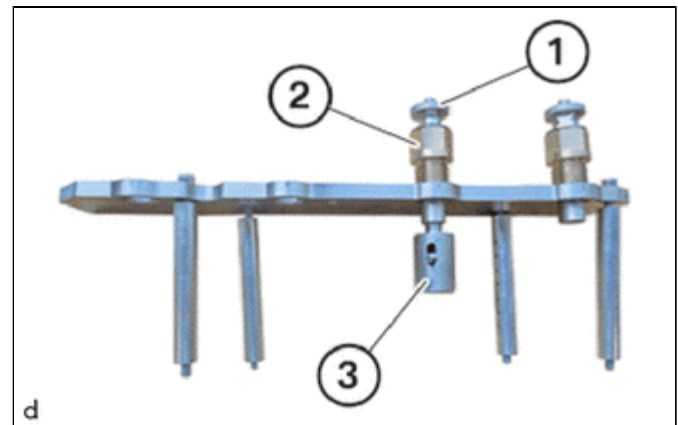
(n) If the specified value for the tensile force is exceeded:
Replace fuel injector

NOTICE:

- Damage to injectors.

Excessive force may damage the injector and this means having to replace the injector.

- Twist the injectors with a maximum torsional movement of 13 N*m (133 kgf*cm, 10 ft.*lbf).



(o) Use the special tool 2 358 417 to remove the injectors.

SST: 09200-WA520

(1) The special tool 2 358 417 is used to ensure that the tensile force is not exceeded.

SST: 09200-WA520

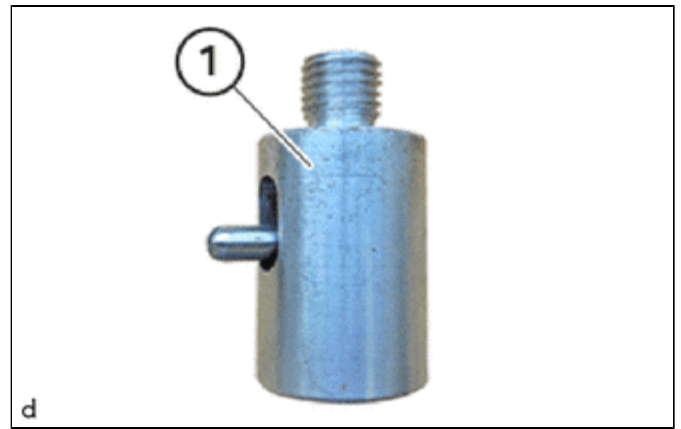
(2) The special tool 2 358 417 consists of:

SST: 09200-WA520

- (1) Threaded sleeves
- (2) Pull-out thread (left-hand thread)
- (3) Mounting for the injectors

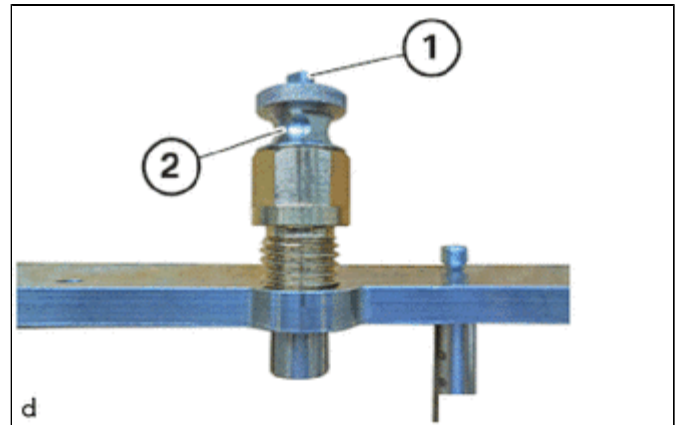
(p) Unscrew the fixture for the injectors (1) from the special tool 2 358 417 .

SST: 09200-WA520



(q) Press the lock (1) in and remove threaded sleeve (2) from the special tool 2 358 417 .

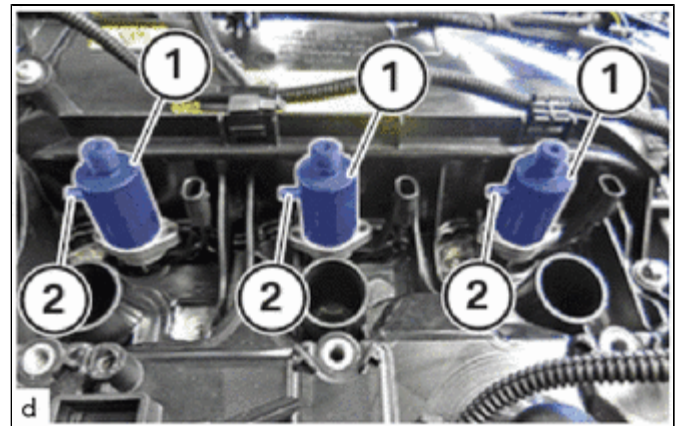
SST: 09200-WA520



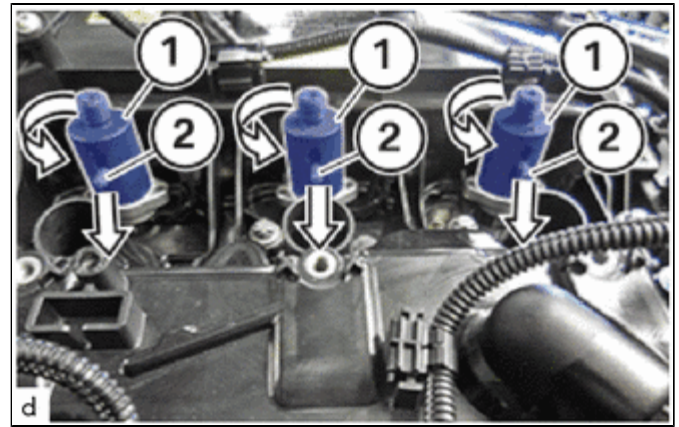
(r) Install all fixtures (1) for the injectors.

HINT:

The fixtures (1) are not locked when the levers (2) are up.



(s) Turn fixtures (1) by 90° and lock the lever (2) downwards.



(t) Prepare the panel (1) from the special tool 2 358 417 with the spacer sleeves 2 455 172 .

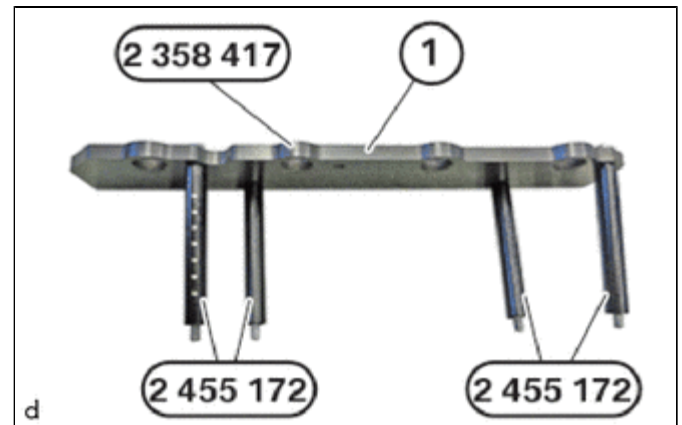
SST: 09200-WA520

NOTICE:

- Damage to injectors.

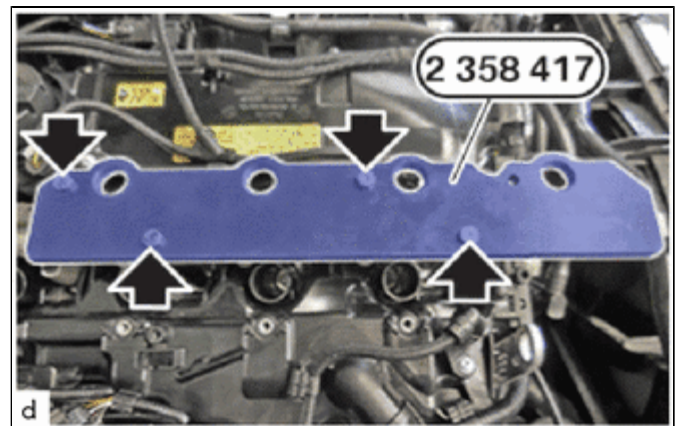
Excessive force may damage the injector and this means having to replace the injector.

- Do not use the puller plate as a support.



(u) Attach special tool 2 358 417 to cylinder head.

SST: 09200-WA520



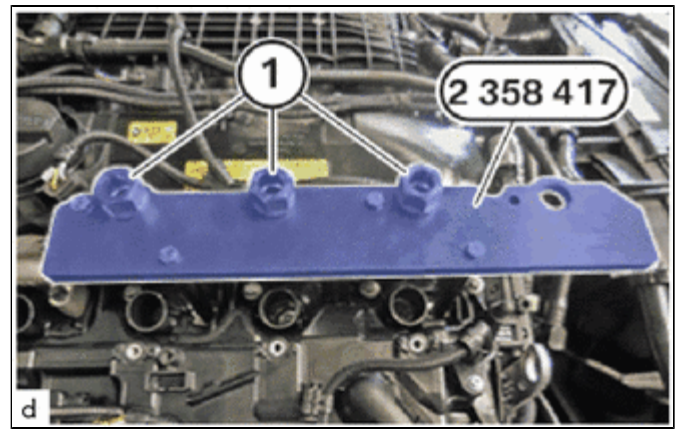
(v) Hand-tighten the bolts (arrows).

HINT:

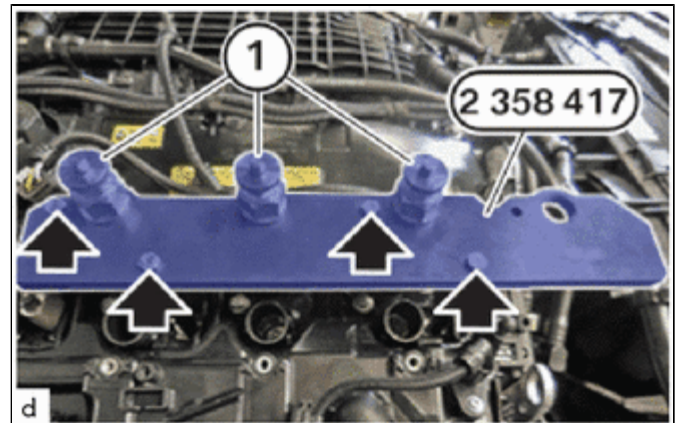
The extraction thread is a left-hand thread.

(w) Screw in pull-out thread (1) on the special tool 2 358 417 fully.

SST: 09200-WA520



(x) Insert threaded sleeves (1) and screw the threaded sleeves completely onto the fixtures for the injectors.

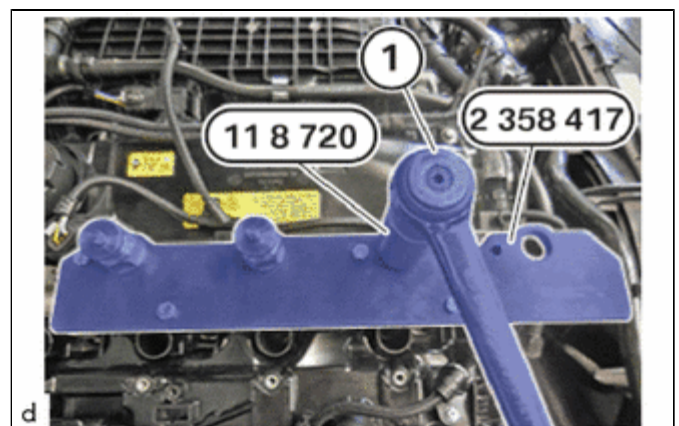


(y) Tighten the screws (arrows) on the special tool 2 358 417.

SST: 09200-WA520

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}



(z) Adjust the torque wrench to 13 N*m (133 kgf*cm, 10 ft.*lbf), clockwise rotation.

(aa) Turn torque wrench (1) in clockwise direction with 24 mm deep socket wrench until the injector is pulled out.

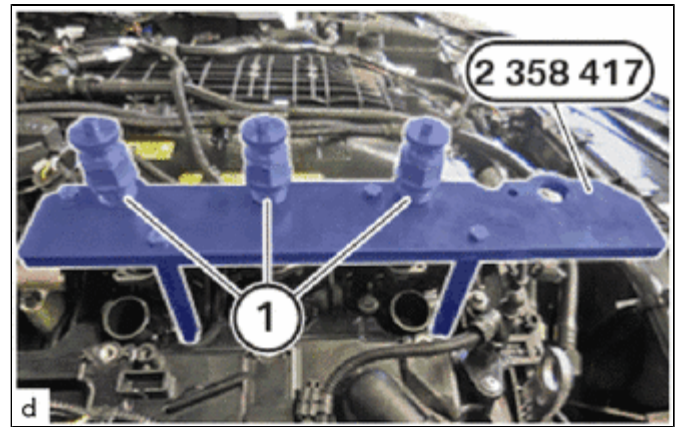
SST: 09200-WA180

(ab) Disassemble all injectors individually.

(ac) Before removing the special tool 2 358 417 with the injectors, check if all the injectors were completely pulled out of the cylinder head.

SST: 09200-WA520

(1) This can be recognised on the completely visible threads of the threaded sleeves (1).

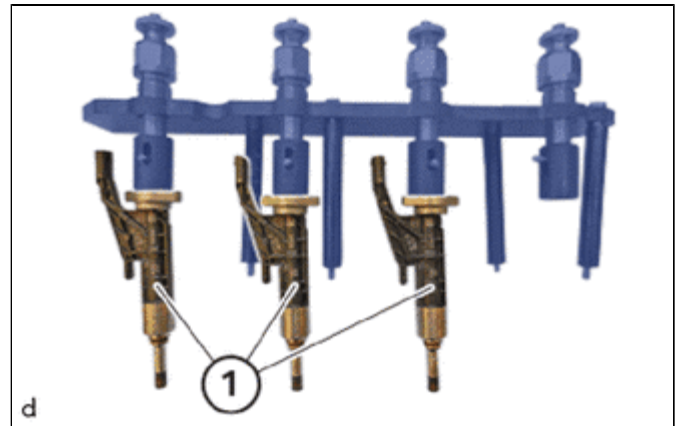


(ad) Loosen screws on special tool 2 358 417 .

SST: 09200-WA520

(ae) Carefully remove the special tool 2 358 417 with the injectors (1) vertically straight up from the cylinder head.

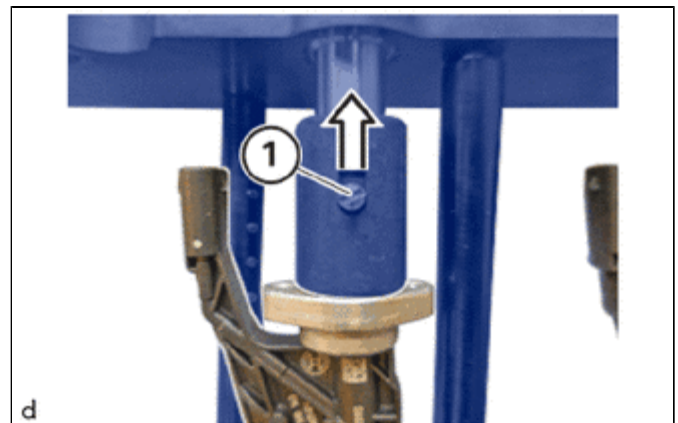
SST: 09200-WA520



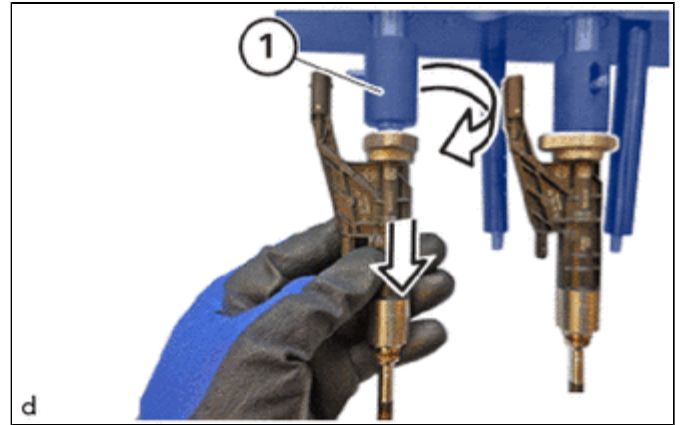
(af) Place the combination of the special tool 2 358 417 and the injectors (1) flat onto a clean table.

SST: 09200-WA520

(ag) Unlock the fixture lock (1) from the top.



(ah) Turn the unlocked fixture (1) by 90°.



(ai) Release and remove the injector downwards.

3. REMOVE FUEL INJECTOR ASSEMBLY (for Rear Side)

NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.

- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.
- Damage to the ignition coil.

The silicone hose of the ignition coil must not be contaminated by fuel as this can lead to failure of the ignition coil.

- Cover ignition coils using suitable covers when working on the fuel system, if necessary remove them.
- Do not oil or grease the silicone tube of the spark plug connector. The silicone tube is coated with talc to reduce the pulling forces.

- Damage to the injector tips and Teflon ring.

Improper handling of the injector tips and Teflon ring can lead to malfunctioning of the injector.

- Avoid mechanical contact with injector tip.
- When exchanging Teflon ring, hands and work surface must be clean and free of oil. Do not use any lubricating agents.
- Do not use fingernails to slide Teflon ring on.

- Damage to injectors.

Excessive force may damage the injector and this means having to replace the injector.

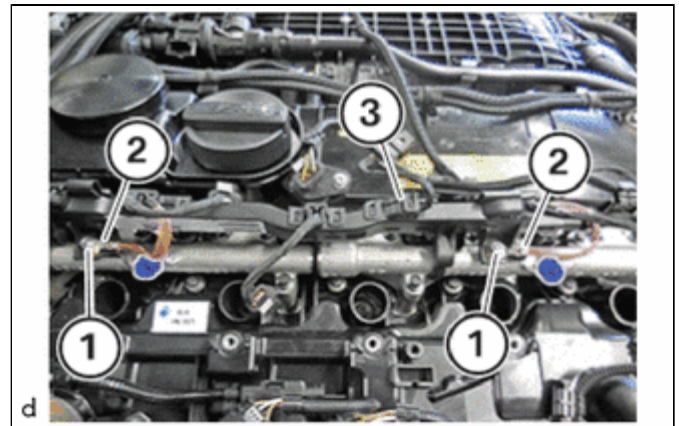
- Twist the injectors with a maximum torsional movement of 13 N*m (133 kgf*cm, 10 ft.*lbf).

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Read and comply with user information on using the associated special tool 12 7 060.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see: 61 35 Information on electrostatic discharge (ESD) protection.

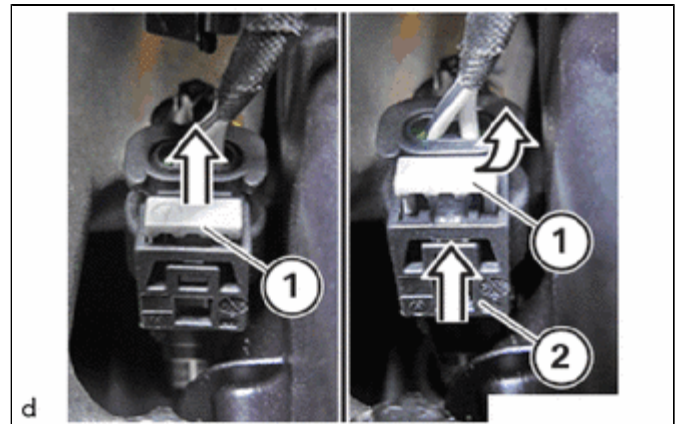
(a) Loosen nuts (1).



(b) Feed out ground cable (2) and set it aside.

(c) Feed out cable channel (3) and set it aside.

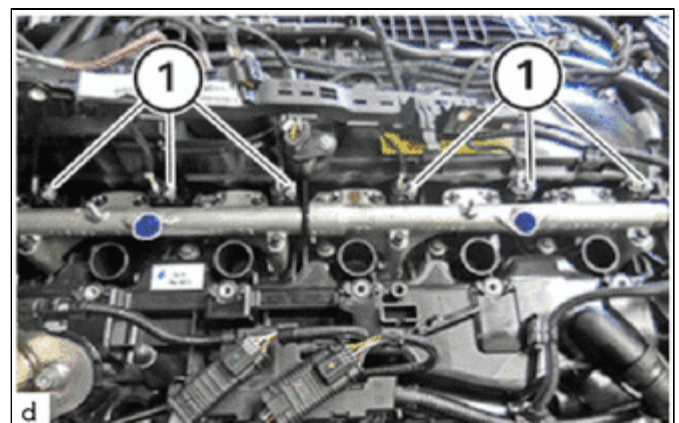
(d) Unlock lock (1) in direction of arrow from the top.



(e) Press the lock (1) together and release it in the direction of the arrow.

(f) Pull off the connector (2) from the injectors.

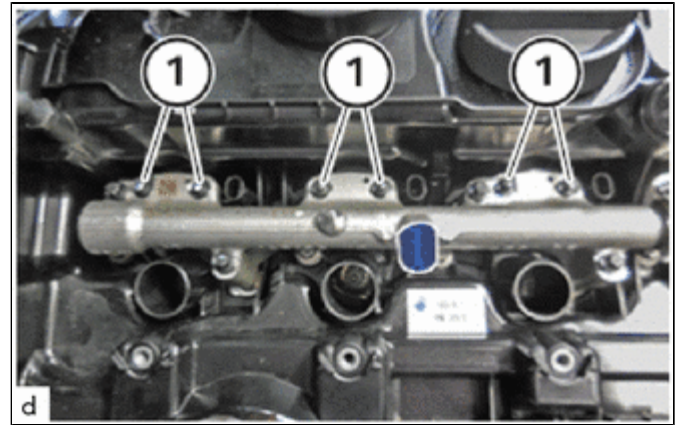
(g) Unlock all connectors (1) on injectors and detach.



(h) Release E6 bolts (1).

NOTICE:

Do not reuse the bolts (1).

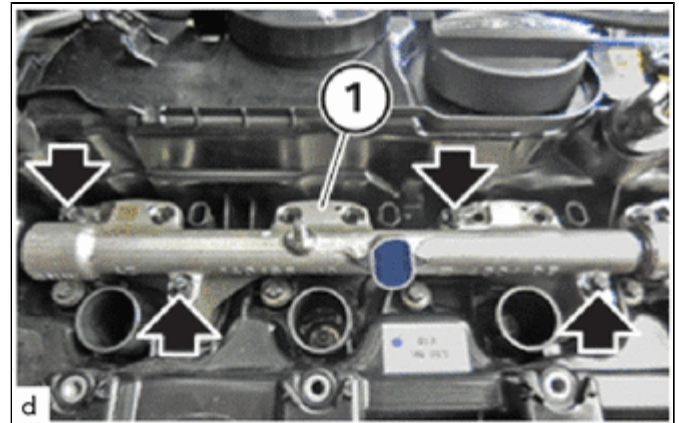


(i) Catch and dispose of escaping fuel with suitable materials.

(j) Unscrew the E8 bolts (arrows).

NOTICE:

Do not reuse the bolts.



(k) Remove the rail (1) in upward direction.

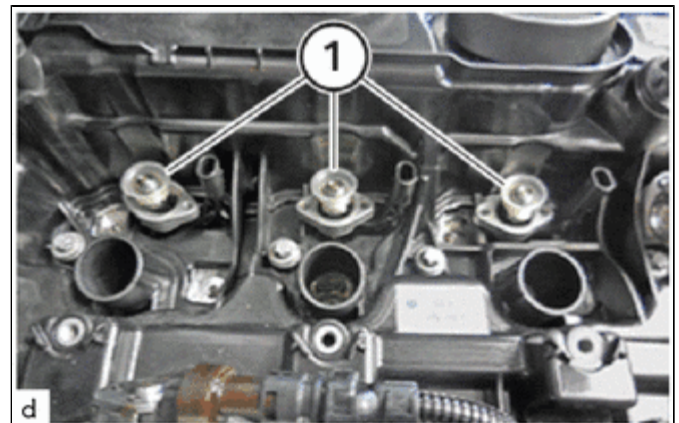
HINT:

The injectors remain in the cylinder head.

(l) Remove the gaskets (1).

HINT:

The seals (1) are required during first assembly within the plant only and will not be installed again.



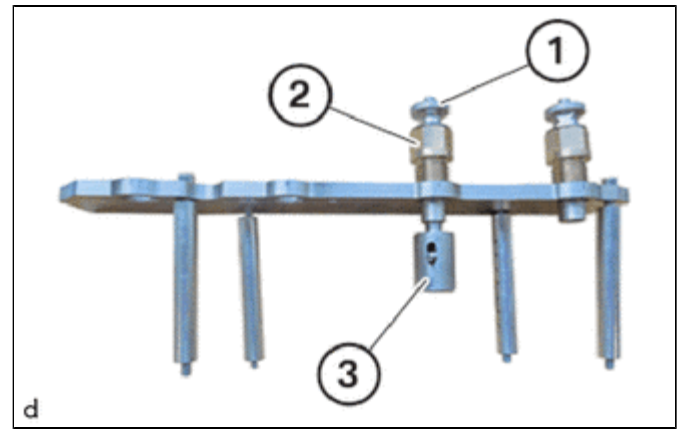
(m) If the specified value for the tensile force is exceeded:
Replace injectors.

NOTICE:

- Damage to injectors.

Excessive force may damage the injector and this means having to replace the injector.

- Twist the injectors with a maximum torsional movement of 13 N*m (133 kgf*cm, 10 ft.*lbf).



(n) Use the special tool 2 358 417 to remove the injectors.

SST: 09200-WA520

(1) The special tool 2 358 417 is used to ensure that the tensile force is not exceeded.

SST: 09200-WA520

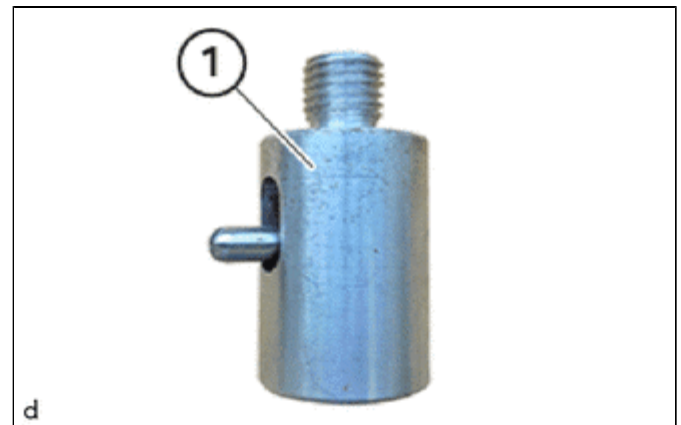
(2) The special tool 2 358 417 consists of:

SST: 09200-WA520

- (1) Threaded sleeves
- (2) Pull-out thread (left-hand thread)
- (3) Fixture for the injector

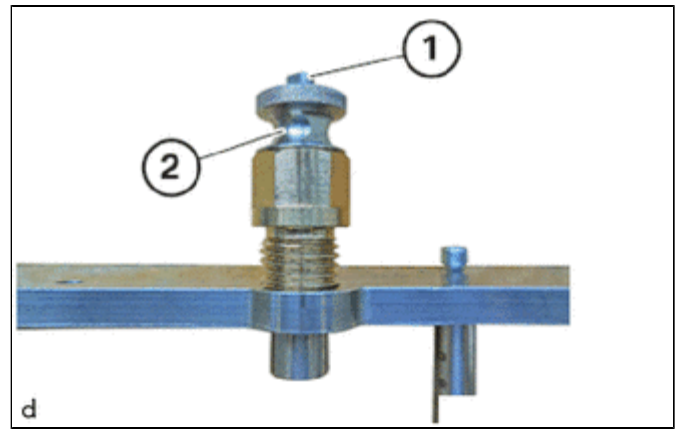
(o) Unscrew the fixture for the injectors (1) from the special tool 2 358 417.

SST: 09200-WA520



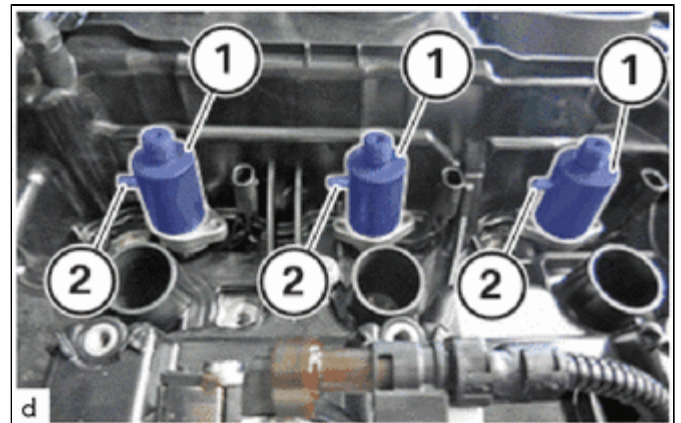
(p) Press the lock (1) in and remove threaded sleeve (2) from the special tool 2 358 417 .

SST: 09200-WA520

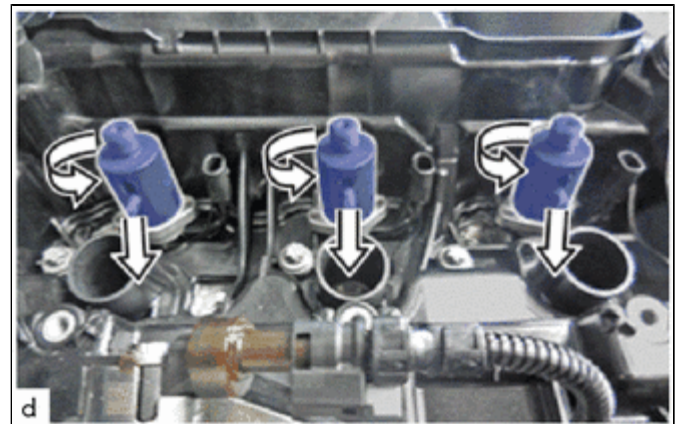


(q) Install all fixtures (1) for the injectors.

(1) The fixtures (1) are not locked when the levers (2) are up.

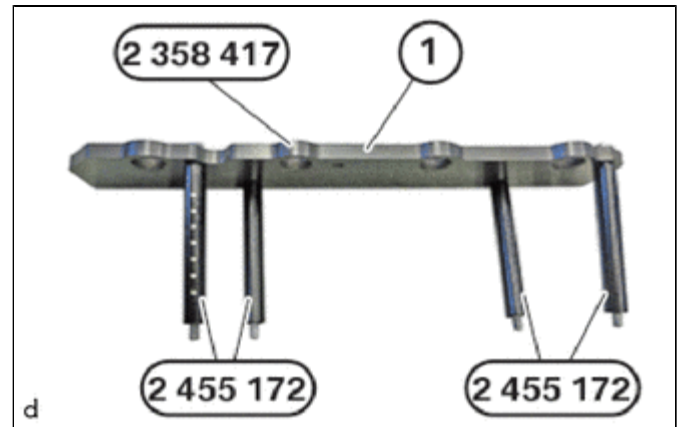


(r) Turn fixtures (1) by 90° and lock the lever (2) downwards.



(s) Prepare the panel (1) from the special tool 2 358 417 with the spacer sleeves 2 455 172 .

SST: 09200-WA520



(t) Attach special tool 2 358 417 to cylinder head.

SST: 09200-WA520

CAUTION:

- Damage to injectors.

Excessive force may damage the injector and this means having to replace the injector.

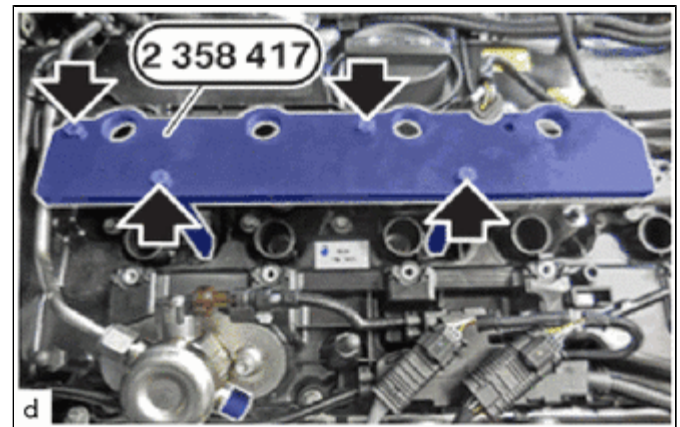
- Do not use the puller plate as a support.

NOTICE:

- Damage to injectors.

Excessive force may damage the injector and this means having to replace the injector.

- Do not use the puller plate as a support.



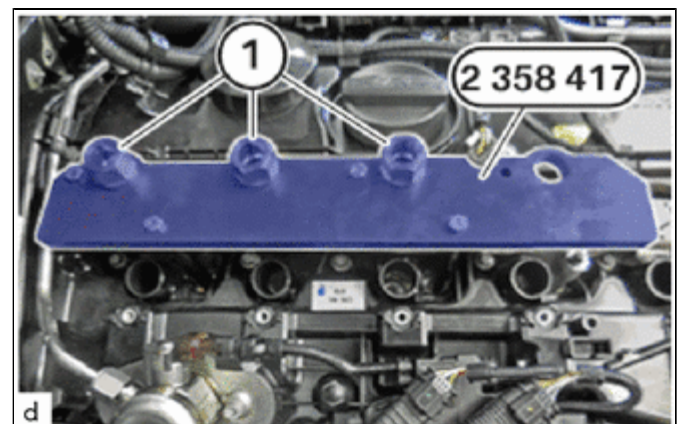
(u) Hand-tighten the bolts (arrows).

HINT:

The extraction thread is a left-hand thread.

(v) Screw in pull-out thread (1) on the special tool 2 358 417 fully.

SST: 09200-WA520



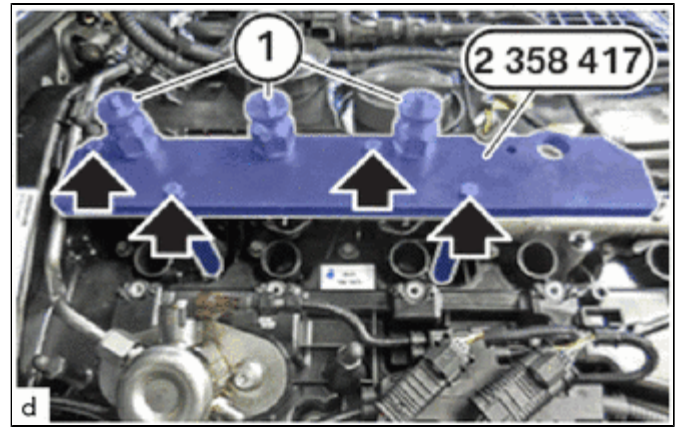
(w) Insert threaded sleeves (1) and screw the threaded sleeves completely onto the fixtures for the injectors.

(x) Tighten the screws (arrows) on the special tool 2 358 417.

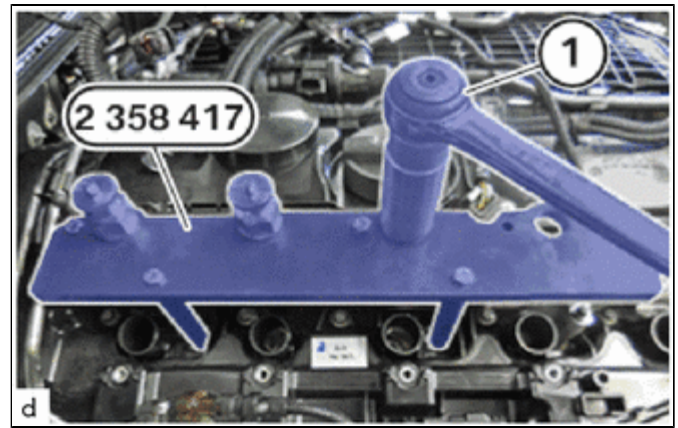
SST: 09200-WA520

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}



(y) Adjust the torque wrench to 13 N·m (133 kgf·cm, 10 ft.*lbf), clockwise rotation.



(z) Turn torque wrench (1) in clockwise direction with 24 mm deep socket wrench until the injector is pulled out.

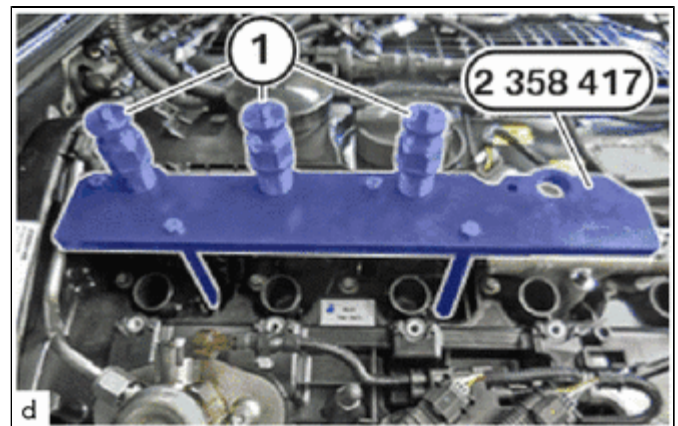
SST: 09200-WA180

(aa) Disassemble all injectors individually.

(ab) Before removing the special tool 2 358 417 with the injectors, check if all the injectors were completely pulled out of the cylinder head.

SST: 09200-WA520

(1) This can be recognised on the completely visible threads of the threaded sleeves (1).

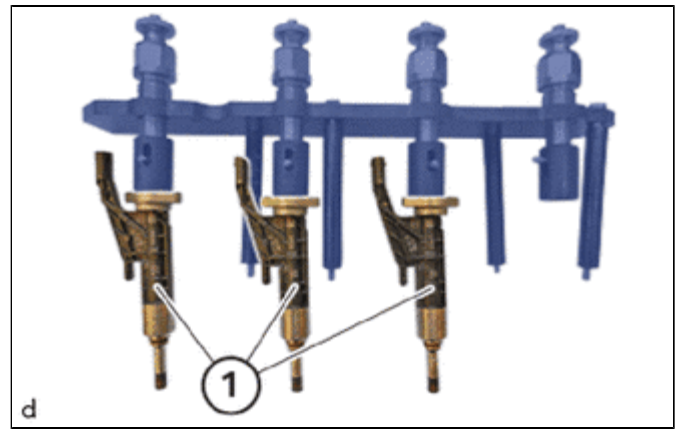


(ac) Loosen screws on special tool 2 358 417.

SST: 09200-WA520

(ad) Carefully remove the special tool 2 358 417 with the injectors (1) vertically straight up from the cylinder head.

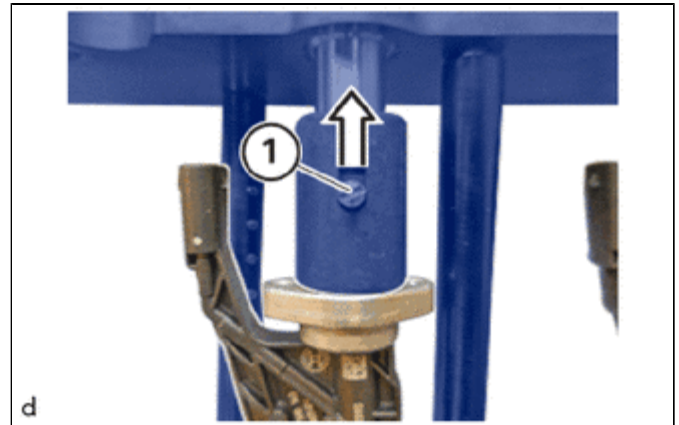
SST: 09200-WA520



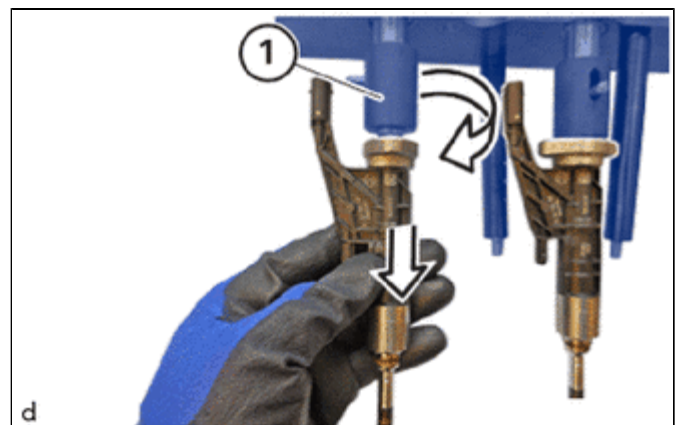
(ae) Place the combination of the special tool 2 358 417 and the injectors (1) flat onto a clean table.

SST: 09200-WA520

(af) Unlock the fixture lock (1) from the top.



(ag) Turn the unlocked fixture (1) by 90°.



(ah) Release and remove the injector downwards.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL INJECTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. REPLACE FUEL INJECTOR SEAL

NOTICE:

- Damage to the injector tips and Teflon ring.

Improper handling of the injector tips and Teflon ring can lead to malfunctioning of the injector.

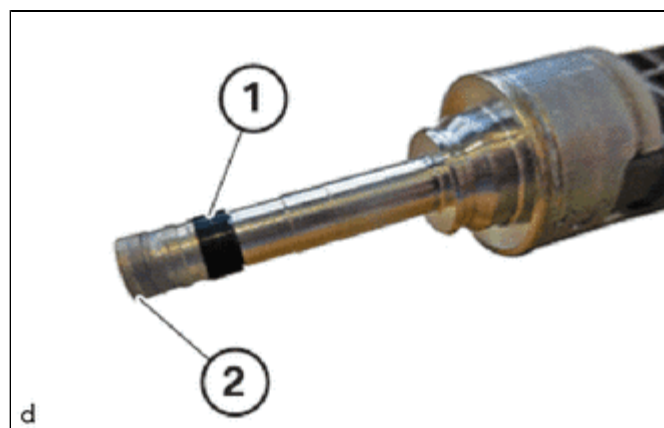
- Avoid mechanical contact with injector tip.
- When exchanging Teflon ring, hands and work surface must be clean and free of oil. Do not use any lubricating agents.
- Do not use fingernails to slide Teflon ring on.

HINT:

Before re-installing the injector, the Teflon ring must be replaced. Once a Teflon ring has been installed, it may not be re-used. New injectors are supplied with a new Teflon ring.

After the installation of a new Teflon ring on the injectors, the injector must be installed in the cylinder head within 10 minutes or protected with protective caps; otherwise, the Teflon ring will swell.

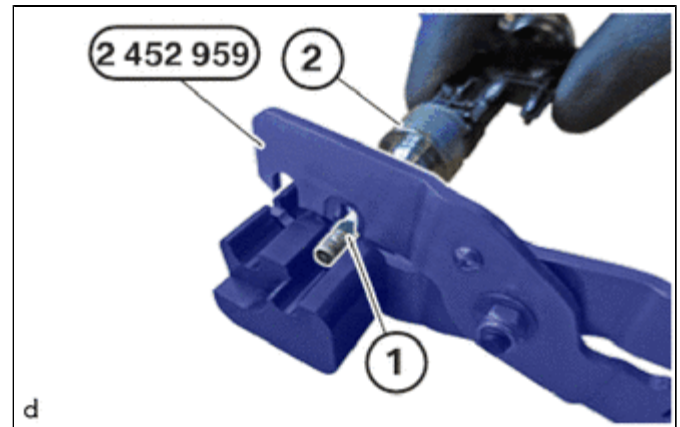
(a) Before installing the injectors: Replace the Teflon rings (1).



(b) Avoid mechanical contact with injector tip (2).

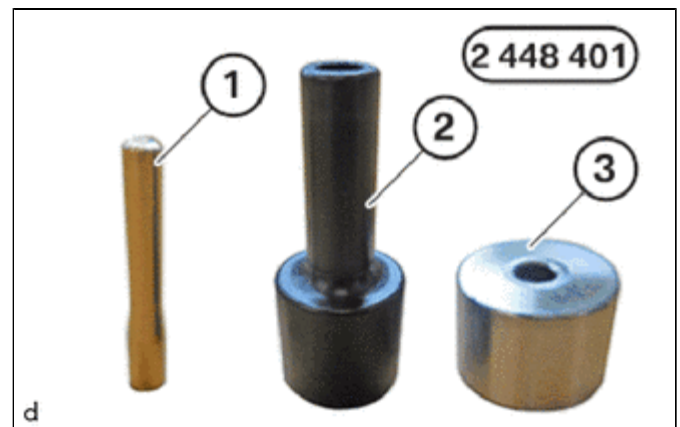
(c) Remove Teflon ring (1) by using special tool 2 452 959 from injector (2).

SST: 09902-WA020



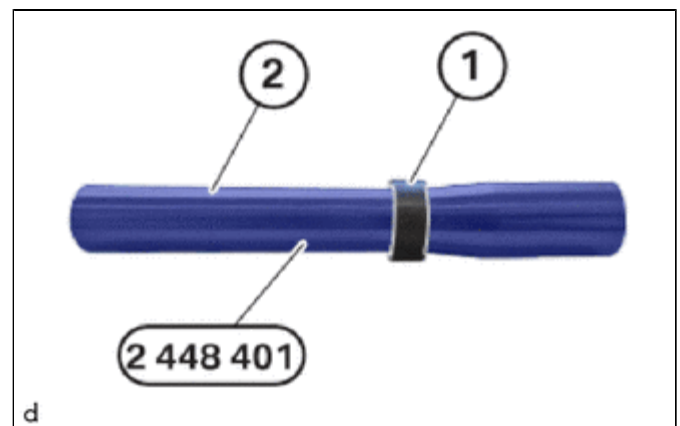
(d) If necessary, use a lint-free cloth to clean the cylindrical part of the injector tip. Do not use ultrasonic sound or other auxiliary materials.

(1) The injector tip must not be cleaned.



(e) For the installation of the new Teflon rings: Use the set of special tools 2 448 401:

SST: 09902-WA010



(f) Slide the new Teflon ring (1) onto the installation cone (2) from the set of special tools 2 448 401.

SST: 09902-WA010

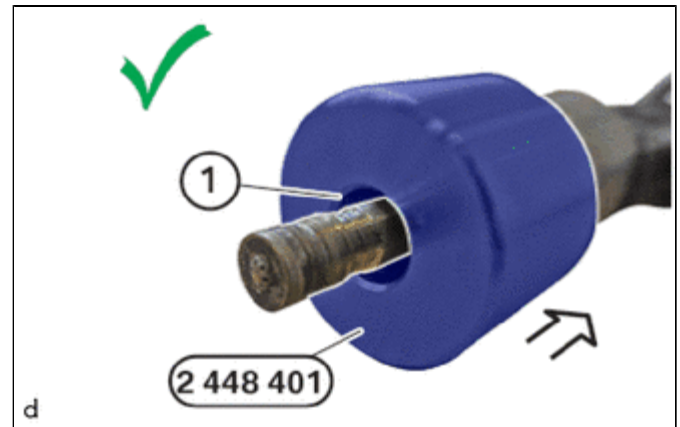
(g) Make sure that the installation position of the assembly

sleeve (1) from the set of special tools 2 448 401 is correct.

SST: 09902-WA010

HINT:

The larger diameter of the assembly sleeve (1) must point to the injector tip.

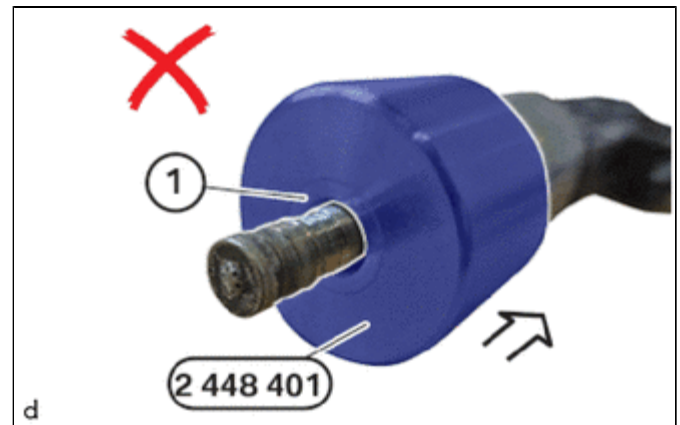


(h) Make sure that the installation position of the assembly sleeve (1) from the set of special tools 2 448 401 is correct.

SST: 09902-WA010

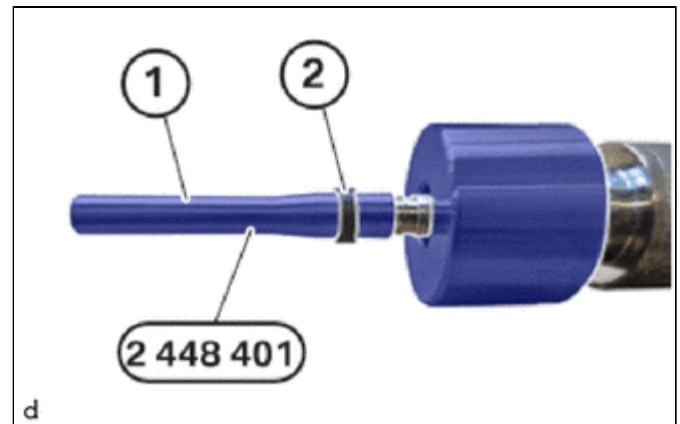
NOTICE:

The assembly sleeve (1) is not mounted correctly when the smaller diameter points to the injector tip.



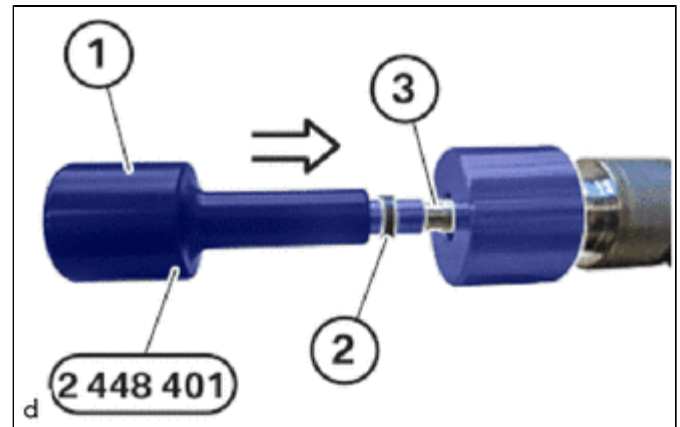
(i) Mount the Teflon ring (2) with the installation cone (1) from the set of special tools 2 448 401 on the injector tip.

SST: 09902-WA010



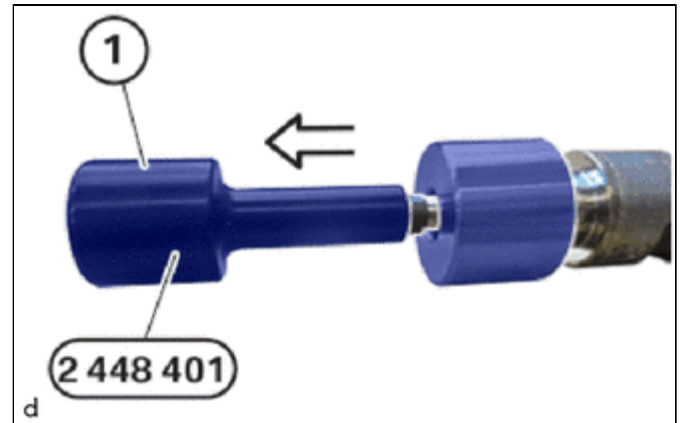
(j) Use the sliding sleeve (1) from the set of special tools 2 448 401 to push the Teflon ring (2) in to the groove (3) on the injector in the direction of arrow.

SST: 09902-WA010



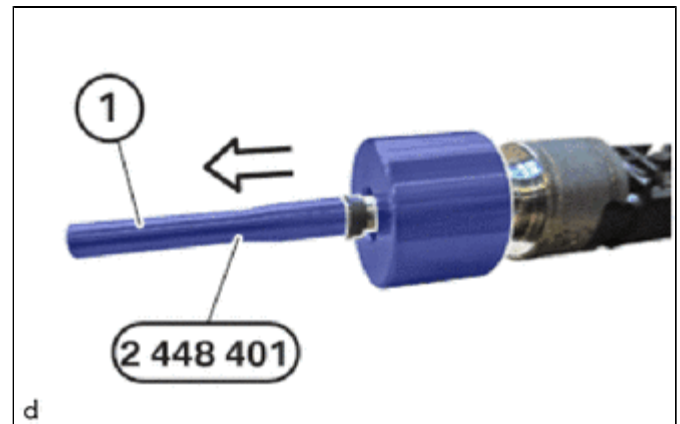
- (k) Thread out the sliding sleeve (1) from the set of special tools 2 448 401 in the direction of the arrow and remove.

SST: 09902-WA010

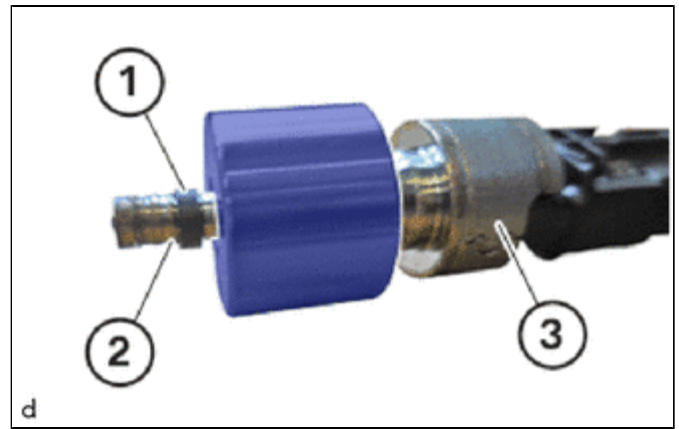


- (l) Thread out the installation cone (1) from the set of special tools 2 448 401 in the direction of the arrow and remove.

SST: 09902-WA010

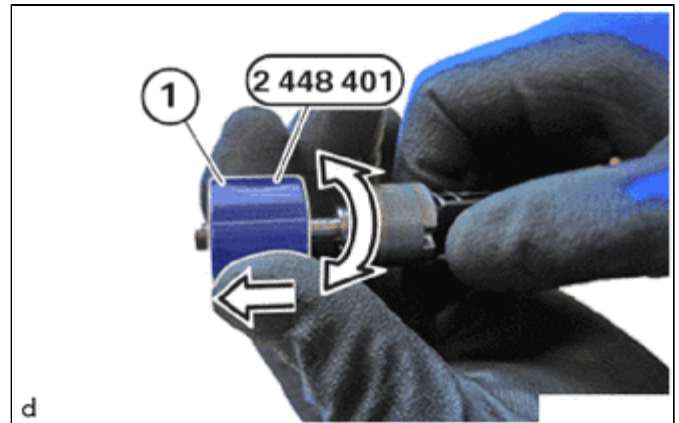


- (m) Make sure that the expanded Teflon ring (1) is properly inserted in the groove (2) of the injector (3) and can be moved easily with your fingers.



- (n) Calibrate the expanded Teflon ring with the assembly sleeve (1) from the set of special tools 2 448 401 to the installation dimension in the direction of the arrow.

SST: 09902-WA010



- (o) Perform rotational movements in increments of 180° in sync with the pull-off movement. Perform the movements slowly and not jerky.

HINT:

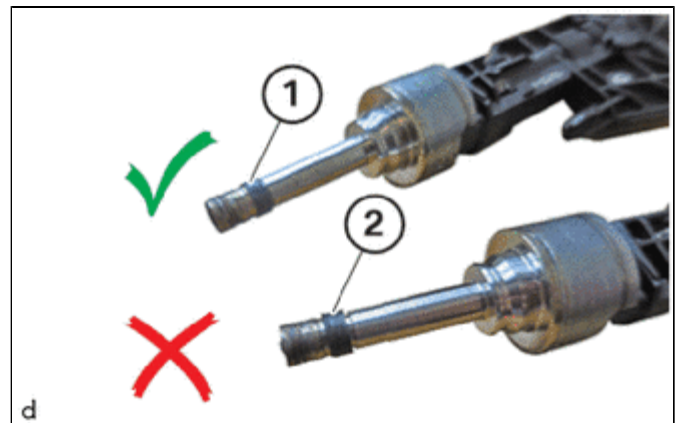
This calibrates the Teflon ring (1) to the installation dimension.

- (p) Thread out and remove the assembly sleeve (1).

- (q) Check for correct installation dimension of the Teflon ring (1).

HINT:

- indicates a correct installation dimension of the Teflon ring.
- indicates an incorrect installation dimension of the Teflon ring.



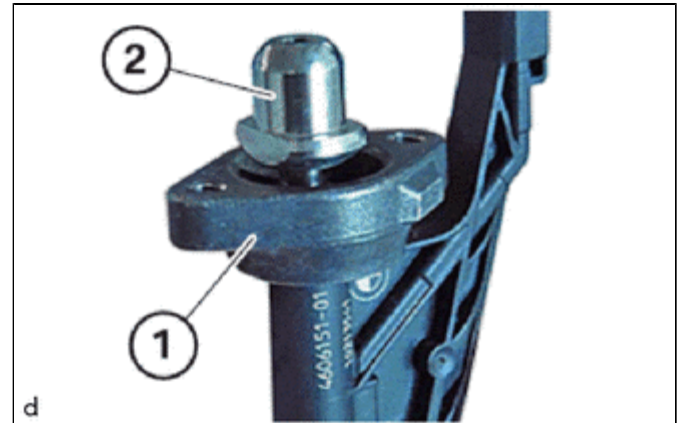
2. INSTALL FUEL INJECTOR ASSEMBLY (for Front Side)

NOTICE:

When assembling, it is essential to observe screwing sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.

- (a) Mount the holder (1) above the bayonet fitting (2) on the injector.

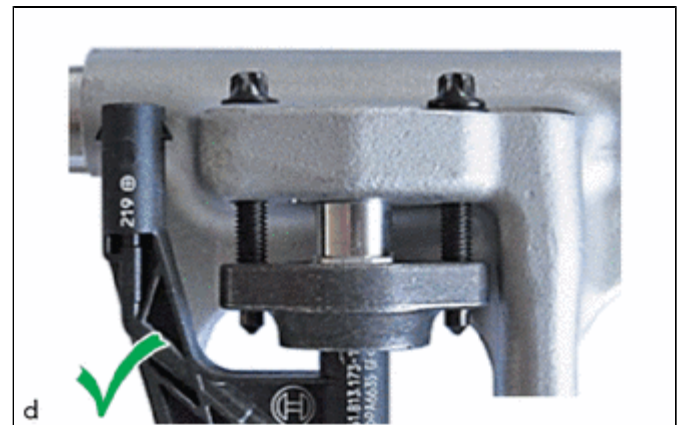


- (b) If the holder (1) has a cast lug: Make sure that the holder is installed in the correct position.

- (c) If applicable, note the position of the cast lug:

HINT:

The holder is mounted correctly when the cast lug is located at the rear.



- (d) If applicable, note the position of the cast lug:

HINT:

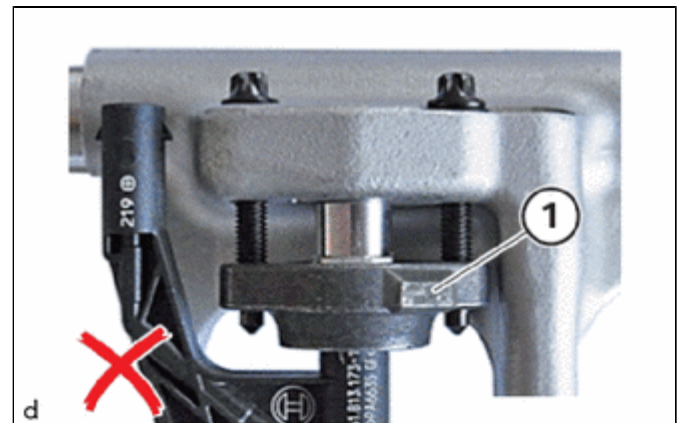
The holder is mounted incorrectly when the cast lug (1) is in front.

NOTICE:

- Damage to injectors.

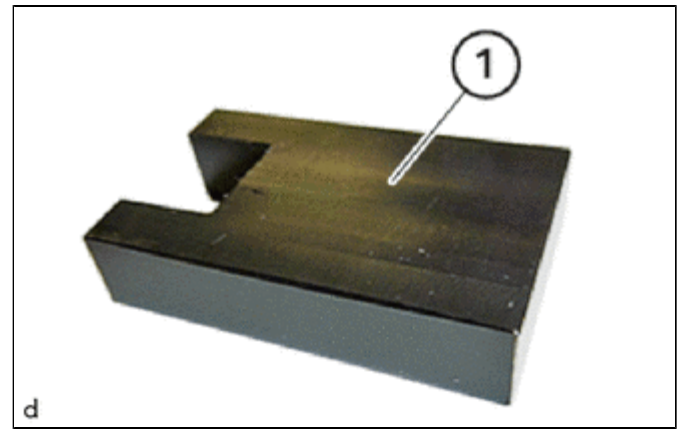
Weld seams on the injector may tear due to incorrect distances between the rail and injector so that the injector must be replaced.

- Insertion of the distance gauge is compulsory.
- Replace distance gauge, if a thickness of 8.5 mm is no longer given in the distance gauge.

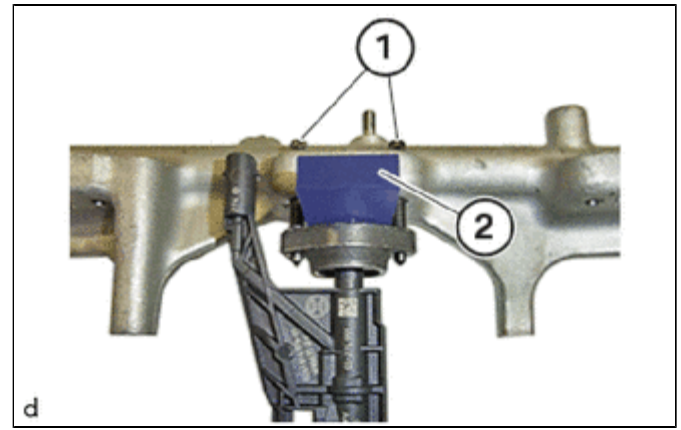


(e) Use the special tool (distance gauge) 2 358 022 (1).

SST: 09200-WA830



(f) Replace bolts.



(g) Mount the injectors with the holders and the bolts (1) on the rail.

(h) Keep the rail on a clean table in such a way that the openings on the rail for the injectors point upwards.

NOTICE:

The electrical injector connections must point to the fuel pressure sensor.

(i) Slide the special tool (distance gauge) 2 358 022 (2) between the holders and the rail onto the injector head.

SST: 09200-WA830

(j) Make sure that the special tool (distance gauge) 2 358 022 (2) rests flat on the retaining bridge.

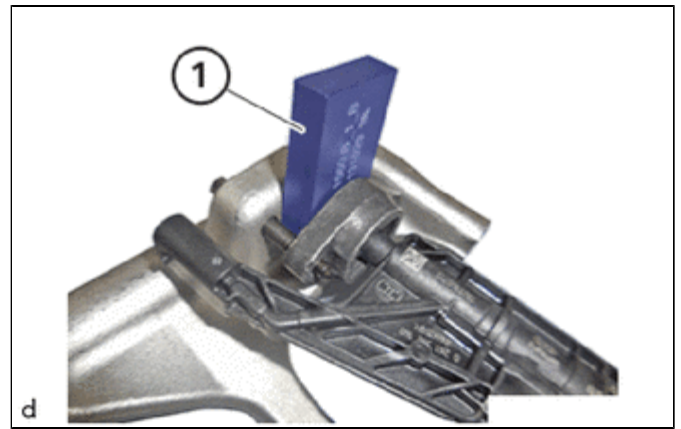
SST: 09200-WA830

(k) Tighten both screws (1) evenly by hand until the special tool (distance gauge) 2 358 022 (2) rests flat against the rail and the holder.

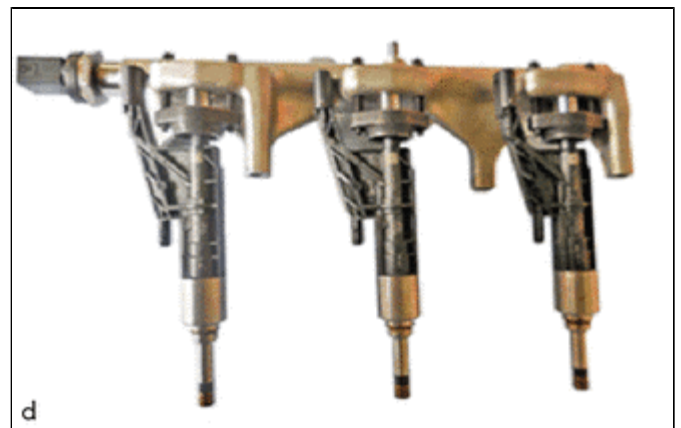
SST: 09200-WA830

(l) Remove the special tool (distance gauge) 2 358 022 (1).

SST: 09200-WA830



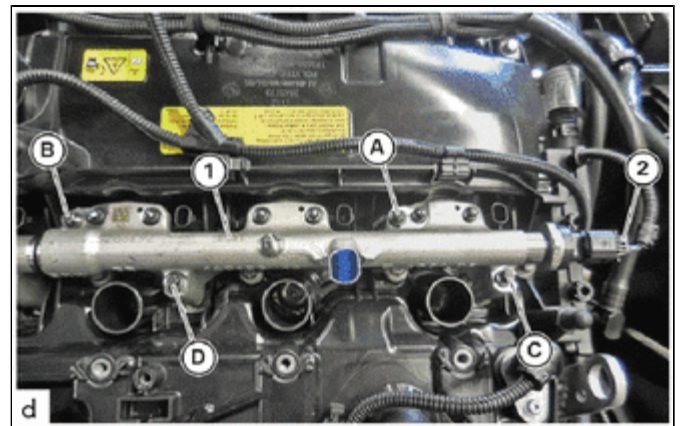
(m) Repeat this operation for all injectors.



(n) Check injectors for loose fit at the rail.

(o) Align the electrical injector connections parallel to the rail.

(1) The injectors must move freely.



(p) Replace screws (A) to (D).

(q) Attach the rail (1) with the injectors to the cylinder head from the top.

(r) Make sure the injector tips catch the corresponding holes for the injectors in the cylinder head.

(s) Make sure the guides on the injector are properly inserted into the guide bores in the cylinder head.

- (t) Press the rail (1) down until a resistance can be felt; join and hand-tighten the bolts (A) and (B).
- (u) Tighten the bolts (A) and (B) in alternating order by 180° each with the torque wrench until the rail is positioned flush on the cylinder head.
- (1) The figure shows the rail resting flat against the cylinder head.
- (v) Insert bolts (C) and (D).

HINT:

When assembling, it is essential to observe screwing sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.

- (w) Tighten E8 bolt (A).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

- (x) Tighten E8 bolt (D).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

- (y) Tighten E8 bolt (B).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

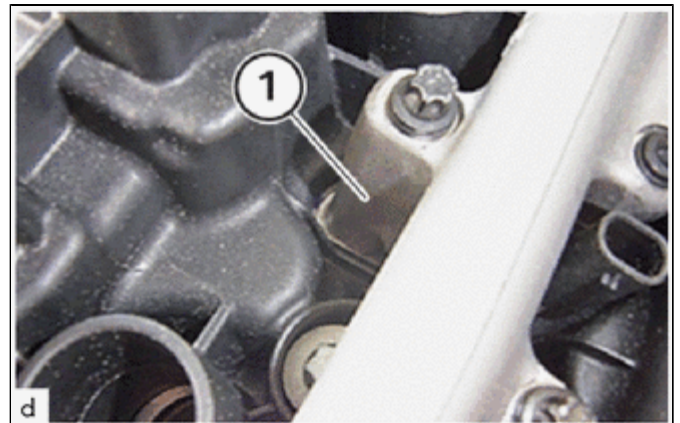
- (z) Tighten E8 bolt (C).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

- (aa) Connect and lock the connector (2).

- (1) The connector (2) must engage audibly.

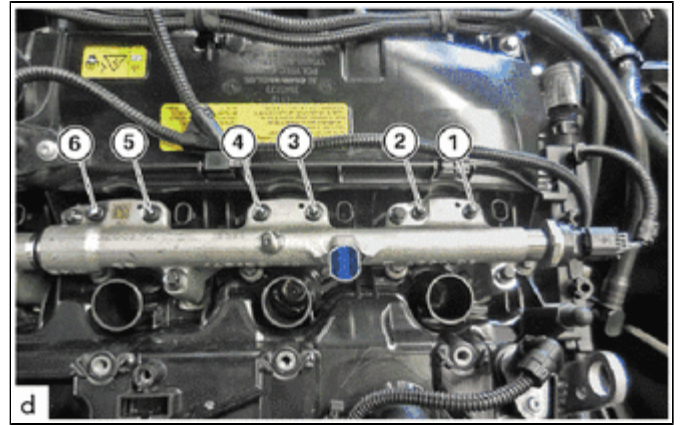


- (ab) Make sure that the rail (1) rests flat against the cylinder head.

- (ac) Attach a socket to an extension.

NOTICE:

Do not use a reversible ratchet or torque wrench.



(ad) Tighten the screws alternately in pairs ((1) with (2), (3) with (4), (5) with (6)) at 90° until hand-tight.

(ae) Set the torque wrench.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

HINT:

When assembling, it is essential to observe screwing sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.

(af) Screw the E6 bolts according to the following plan:

(1) Fuel injector 1:

(2) Tighten E6 bolts (1) at an angle of rotation of 90° +/- 15° with the torque wrench.

(3) Tighten E6 bolts (2) at an angle of rotation of 90° +/- 15° with the torque wrench.

(4) Repeat the operations for E6 bolts (1) and (2) until both bolts reach a torque.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(5) Fuel injector 2:

(6) Tighten E6 bolts (3) at an angle of rotation of 90° +/- 15° with the torque wrench.

(7) Tighten E6 bolts (4) at an angle of rotation of 90° +/- 15° with the torque wrench.

(8) Repeat the operations for E6 bolts (3) and (4) until both bolts reach a torque.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(9) Injector 3:

(10) Tighten E6 bolts (5) at an angle of rotation of 90° +/- 15° with the torque wrench.

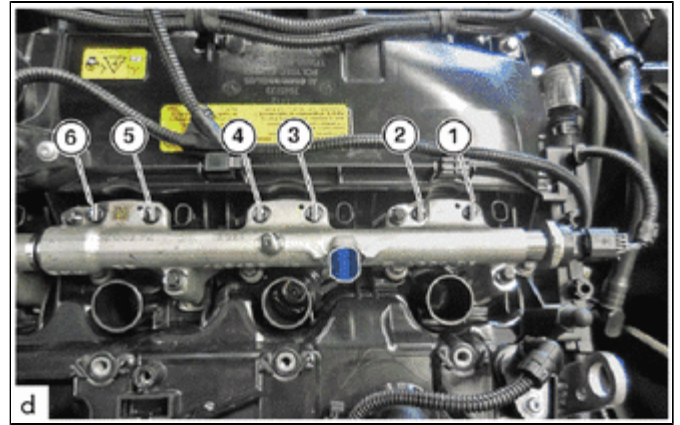
(11) Tighten E6 bolts (6) at an angle of rotation of 90° +/- 15° with the torque wrench.

(12) Repeat the operations for E6 bolts (5) and (6) until both bolts reach a torque.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(ag) Mark all bolts (1) to (6) with a vertical line (see figure).

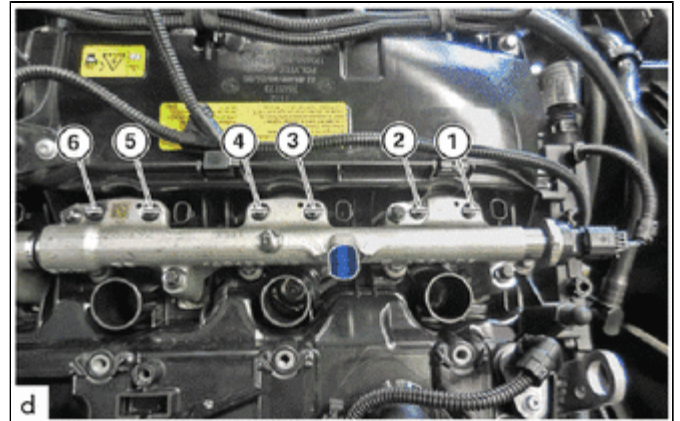


(ah) Tighten screws using an angle of rotation.

- (1) Tighten E6 bolts (1) at an angle of rotation of $90^\circ \pm 15^\circ$.
- (2) Tighten E6 bolts (2) at an angle of rotation of $90^\circ \pm 15^\circ$.
- (3) Tighten E6 bolts (3) at an angle of rotation of $90^\circ \pm 15^\circ$.
- (4) Tighten E6 bolts (4) at an angle of rotation of $90^\circ \pm 15^\circ$.
- (5) Tighten E6 bolts (5) at an angle of rotation of $90^\circ \pm 15^\circ$.
- (6) Tighten E6 bolts (6) at an angle of rotation of $90^\circ \pm 15^\circ$.

(ai) Check if all E6 bolts (1) to (6) have been tightened with a $90^\circ \pm 15^\circ$ angle of rotation.

- (1) All marks (lines) must be horizontal (see figure).



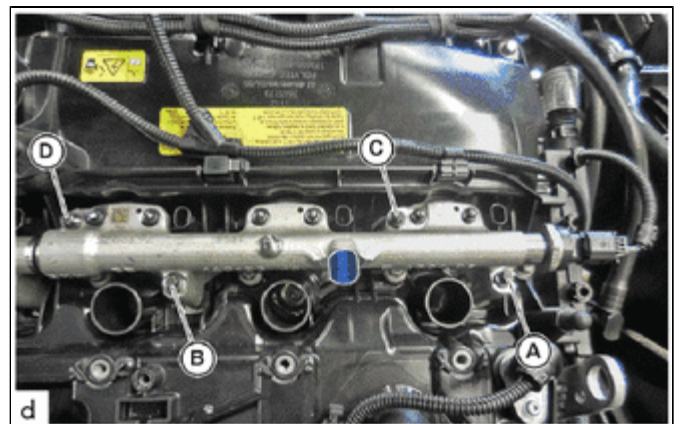
(aj) Unscrew the E8 bolts (A) to (D).

- (1) It is imperative that the bolts are unscrewed.

HINT:

When assembling, it is essential to observe screwing sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.



(ak) Tighten E8 bolts (A).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(al) Tighten E8 bolts (D).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(am) Tighten E8 bolts (B).

Torque:

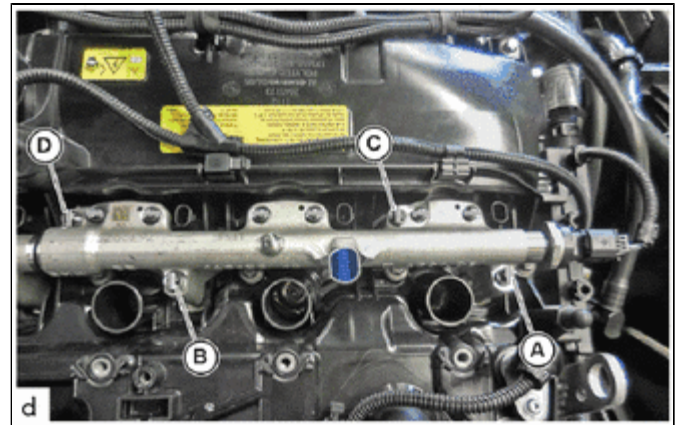
5.0 N·m {51 kgf·cm, 44 in·lbf}

(an) Tighten E8 bolts (C).

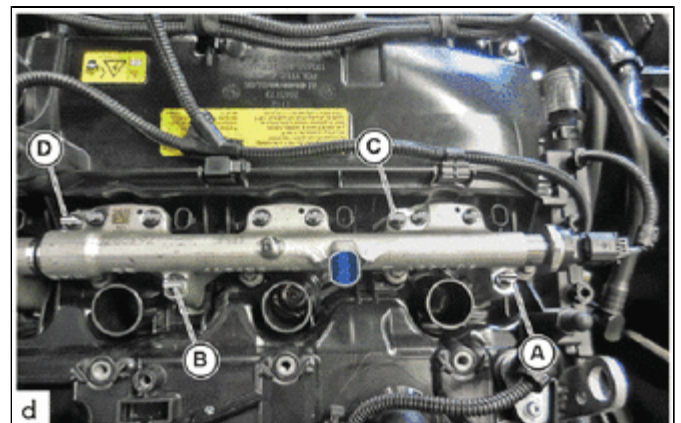
Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(ao) Mark all bolts (A) to (D) with a vertical line (see figure).



(ap) Tighten E8 bolts (A) to (D) to a 90° angle of rotation.

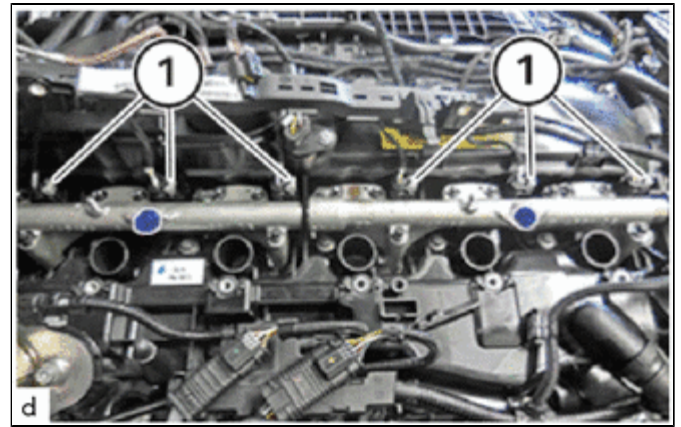


(aq) Check if all bolts (A) to (D) have been tightened with a 90° angle of rotation.

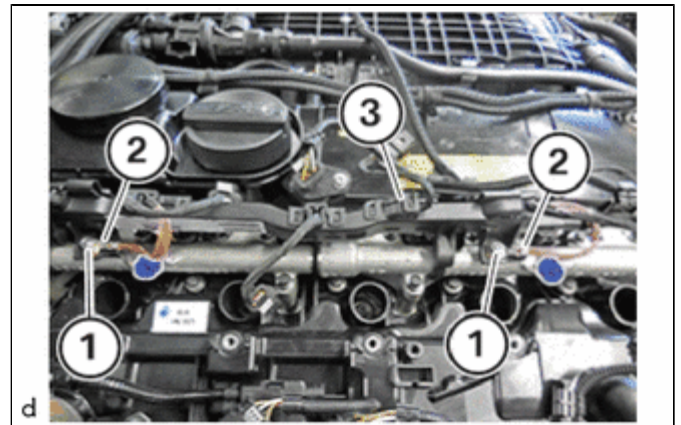
(1) All marks (lines) must be horizontal (see figure).

(ar) Connect and lock all connectors (1) to the injectors.

(1) All connectors (1) must engage audibly.



(as) Thread in cable channel (3) and install.



(at) Thread in ground cable (2) and install.

(au) Tighten nuts (1).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

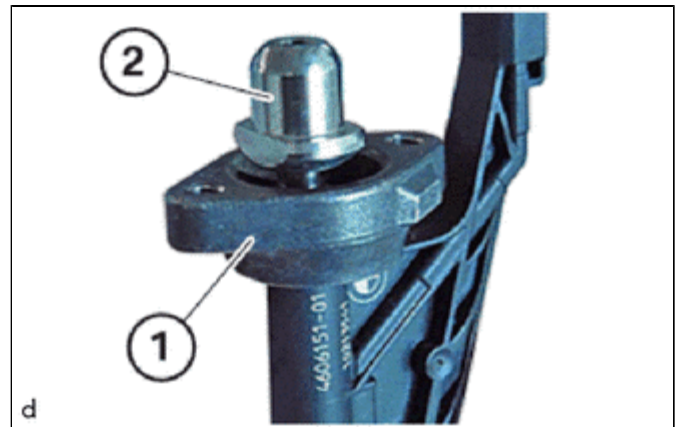
3. INSTALL FUEL INJECTOR ASSEMBLY (for Rear Side)

HINT:

When assembling, it is essential to observe screwing sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.

(a) Mount the holder (1) above the bayonet fitting (2) on the injector.

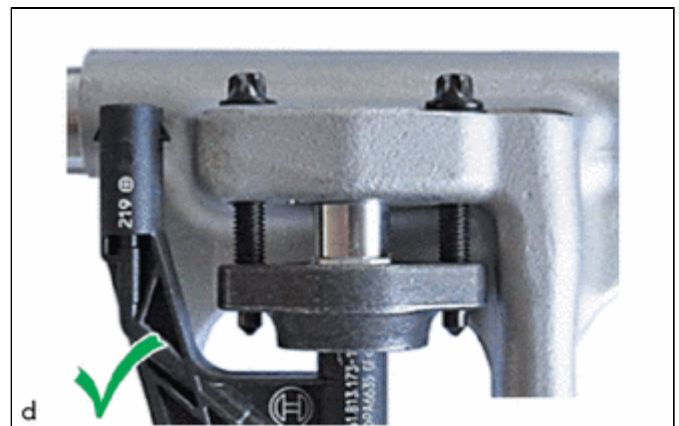


(b) If the holder(1) has a cast lug: Make sure that the holder is installed in the correct position.

(c) If applicable, note the position of the cast lug:

HINT:

The holder is mounted correctly when the cast lug is located at the rear.



(d) If applicable, note the position of the cast lug:

HINT:

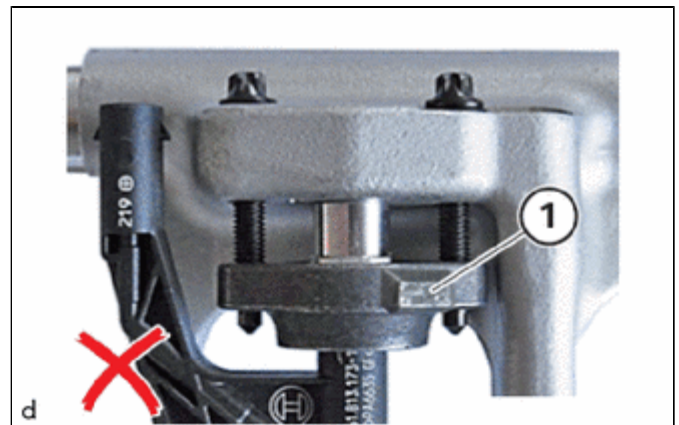
The holder is mounted incorrectly when the cast lug (1) is in front.

NOTICE:

- Damage to injectors.

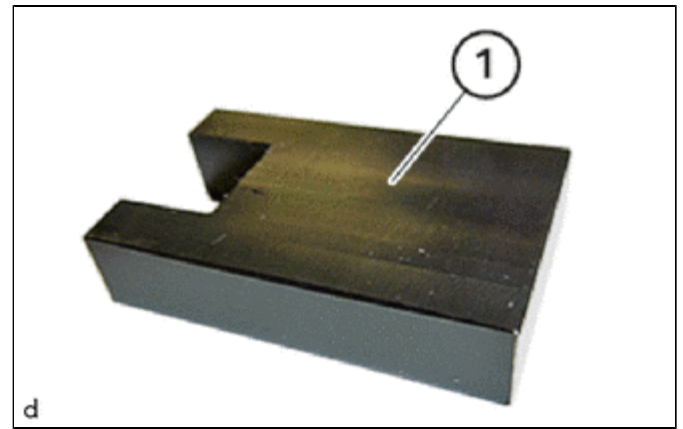
Weld seams on the injector may tear due to incorrect distances between the rail and injector so that the injector must be replaced.

- Insertion of the distance gauge is compulsory.
- Replace distance gauge, if a thickness of 8.5 mm is no longer given in the distance gauge.

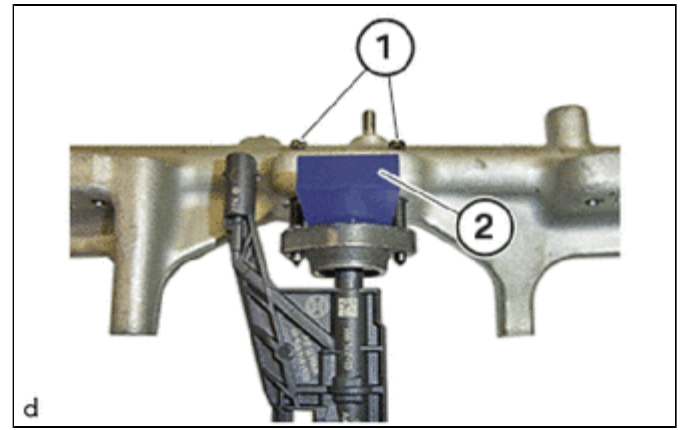


(e) Use the special tool (distance gauge) 2 358 022 (1).

SST: 09200-WA830



(f) Replace E6 bolts.



(g) Mount the injectors with the holders and the bolts (1) on the rail.

(h) Keep the rail on a clean table in such a way that the openings on the rail for the injectors point upwards.

NOTICE:

The electrical injector connections must point to the fuel pressure sensor.

(i) Slide the special tool (distance gauge) 2 358 022 (2) between the holders and the rail onto the injector head.

SST: 09200-WA830

(j) Make sure that the special tool (distance gauge) 2 358 022 (2) rests flat on the retaining bridge.

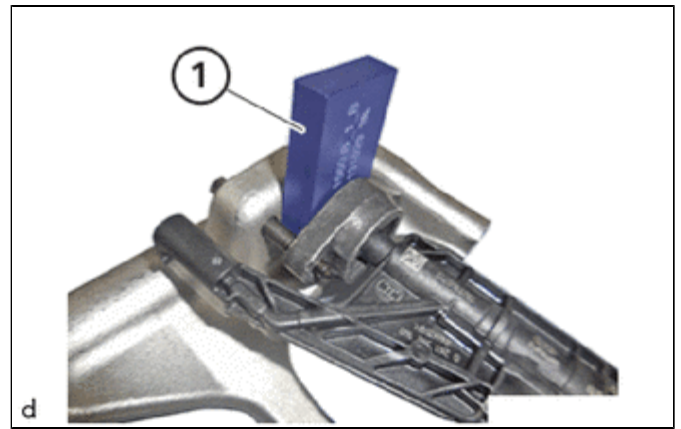
SST: 09200-WA830

(k) Hand-tighten both bolts (1) evenly until the special tool (distance gauge) 2 358 022 (2) rests flat against the rail and the holder.

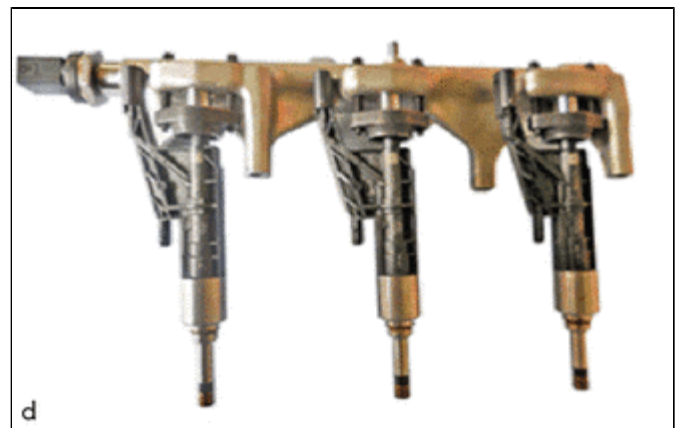
SST: 09200-WA830

(l) Remove the special tool (distance gauge) 2 358 022 (1).

SST: 09200-WA830



(m) Repeat this operation for all injectors.



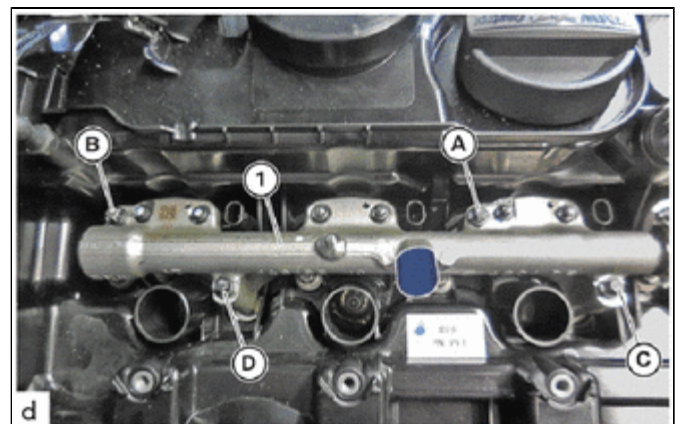
(n) Check injectors for loose fit at the rail.

(o) Align the electrical injector connections parallel to the rail.

HINT:

The injectors must move freely.

(p) Replace bolts (A) to (D).



(q) Attach the rail (1) with the injectors to the cylinder head from the top.

(r) Make sure the injector tips catch the corresponding bore holes in the cylinder head.

(s) Make sure the guides on the injector are properly inserted into the guide bores in the cylinder head.

(t) Press the rail (1) down until a resistance can be felt; join and hand-tighten the bolts (A) and (B).

(u) Set the torque wrench.

Torque:

2.0 N·m {20 kgf·cm, 1 ft·lbf}

(v) Tighten the bolts (A) and (B) in alternating order by 180° each with the torque wrench until the rail is positioned flush on the cylinder head.

HINT:

The figure shows the rail resting flat against the cylinder head.

(w) Insert bolts (C) and (D).

HINT:

When assembling, it is essential to observe screwing sequences and tightening torques

Non-observance of these requirements may result in leaks and damage.

(x) Tighten E8 bolt (A).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(y) Tighten E8 bolt (D).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(z) Tighten E8 bolt (B).

Torque:

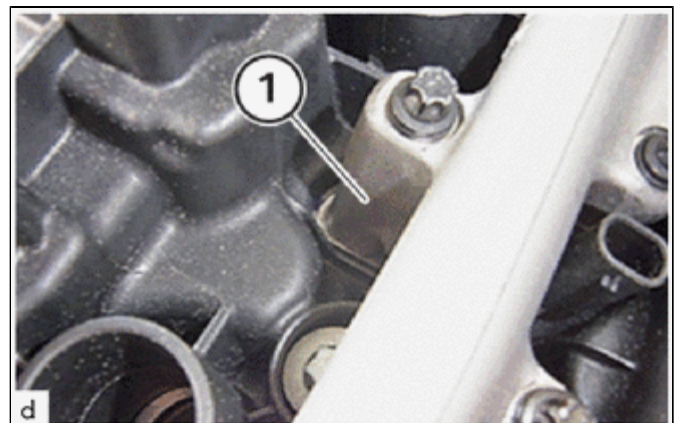
5.0 N·m {51 kgf·cm, 44 in·lbf}

(aa) Tighten E8 bolt (C).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

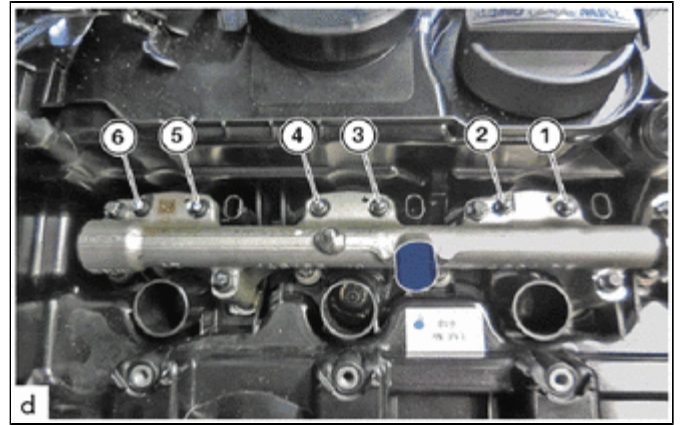
(ab) Make sure that the rail (1) rests flat against the cylinder head.



(ac) Attach a socket to an extension.

NOTICE:

Do not use a reversible ratchet or torque wrench.



(ad) Tighten the E6 bolts in pairs ((1) with (2), (3) with (4), (5) with (6)) in alternating order 90° hand-tight.

(ae) Set the torque wrench.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

HINT:

When assembling, it is essential to observe screwing sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.

(af) Screw the bolts according to the following plan:

(1) Fuel injector 4:

(2) Tighten E6 bolt (1) at an angle of rotation of 90° +/- 15° with the torque wrench.

(3) Tighten E6 bolt (2) at an angle of rotation of 90° +/- 15° with the torque wrench.

(4) Repeat the operations for bolts (1) and (2) until both bolts reach a torque.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(5) Fuel injector 5:

(6) Tighten E6 bolt (3) at an angle of rotation of 90° +/- 15° with the torque wrench.

(7) Tighten E6 bolt (4) at an angle of rotation of 90° +/- 15° with the torque wrench.

(8) Repeat the operations for bolts (3) and (4) until both bolts reach a torque.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(9) Fuel injector 6:

(10) Tighten E6 bolt (5) at an angle of rotation of 90° +/- 15° with the torque wrench.

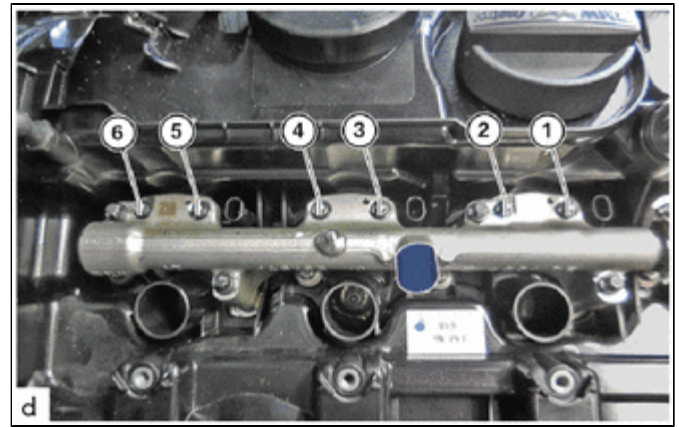
(11) Tighten E6 bolt (6) at an angle of rotation of 90° +/- 15° with the torque wrench.

(12) Repeat the operations for bolts (5) and (6) until both bolts reach a torque.

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(ag) Mark all bolts (1) to (6) with a vertical line (see figure).

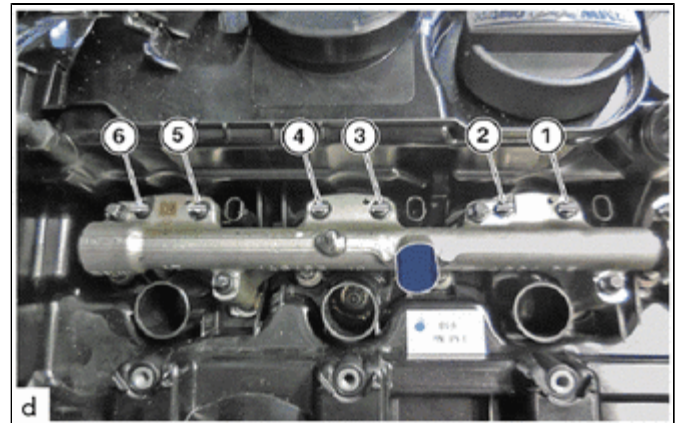


(ah) Tighten screws using an angle of rotation.

- (1) Tighten the E6 bolt (1) with an angle of rotation of $90^\circ \pm 15^\circ$.
- (2) Tighten the E6 bolt (2) with an angle of rotation of $90^\circ \pm 15^\circ$.
- (3) Tighten the E6 bolt (3) with an angle of rotation of $90^\circ \pm 15^\circ$.
- (4) Tighten the E6 bolt (4) with an angle of rotation of $90^\circ \pm 15^\circ$.
- (5) Tighten the E6 bolt (5) with an angle of rotation of $90^\circ \pm 15^\circ$.
- (6) Tighten the E6 bolt (6) with an angle of rotation of $90^\circ \pm 15^\circ$.

(ai) Check if all screws (1) to (6) have been tightened with a $90^\circ \pm 15^\circ$ angle of rotation.

- (1) All marks (lines) must be horizontal (see figure).



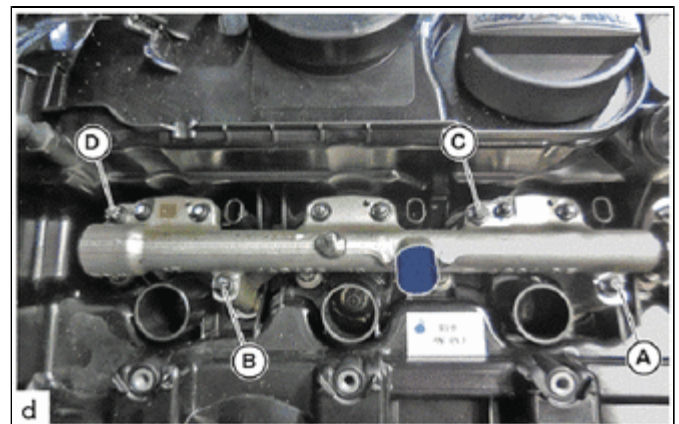
(aj) Unscrew the E8 bolts (A) to (D).

- (1) It is imperative that the bolts are unscrewed.

HINT:

When assembling, it is essential to observe screwing sequences and tightening torques.

Non-observance of these requirements may result in leaks and damage.



(ak) Tighten E8 bolt (A).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(al) Tighten E8 bolt (D).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(am) Tighten E8 bolt (B).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

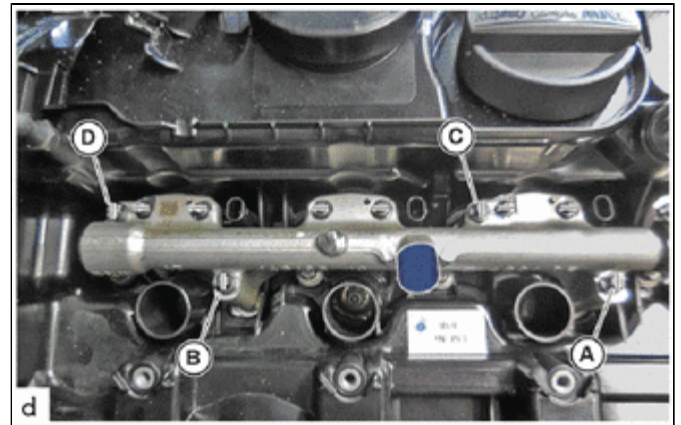
(an) Tighten E8 bolt (C).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

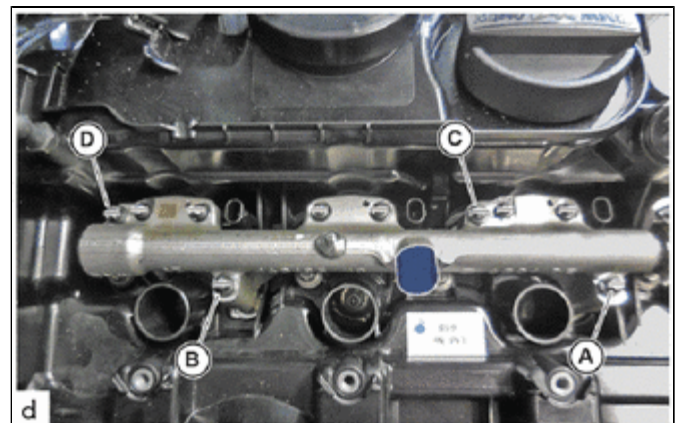
(ao) Mark all bolts (A) to (D) with a vertical line (see figure).

(ap) Tighten bolts (A) to (D) to a 90° angle of rotation.



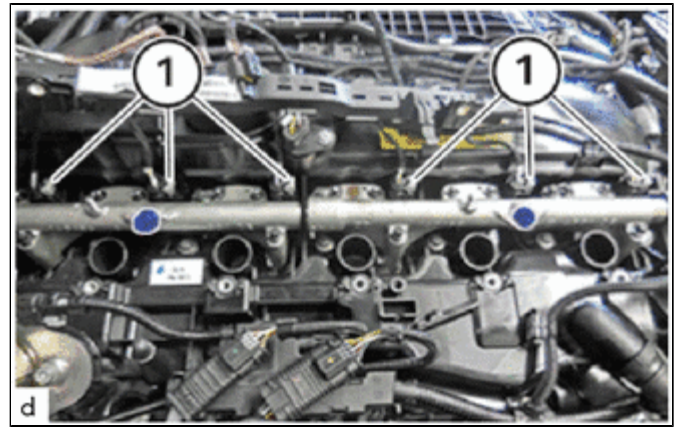
(aq) Check if all bolts (A) to (D) have been tightened with a 90° angle of rotation.

(1) All marks (lines) must be horizontal (see figure).

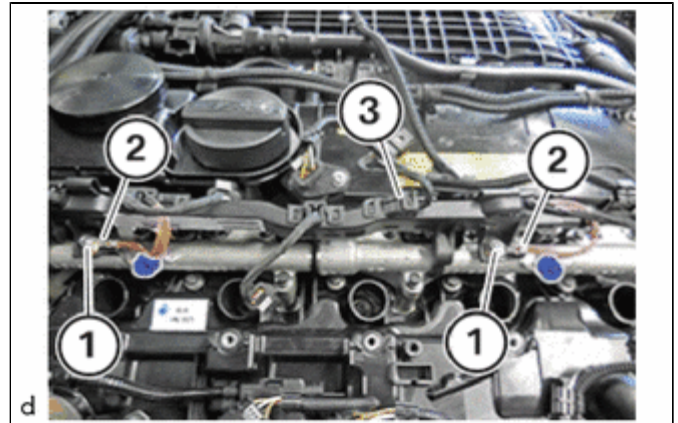


(ar) Connect and lock all connectors (1) to the injectors.

(1) All connectors (1) must engage audibly.



(as) Thread in cable channel (3) and install.



(at) Thread in ground cable (2) and install.

(au) Tighten nuts (1).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

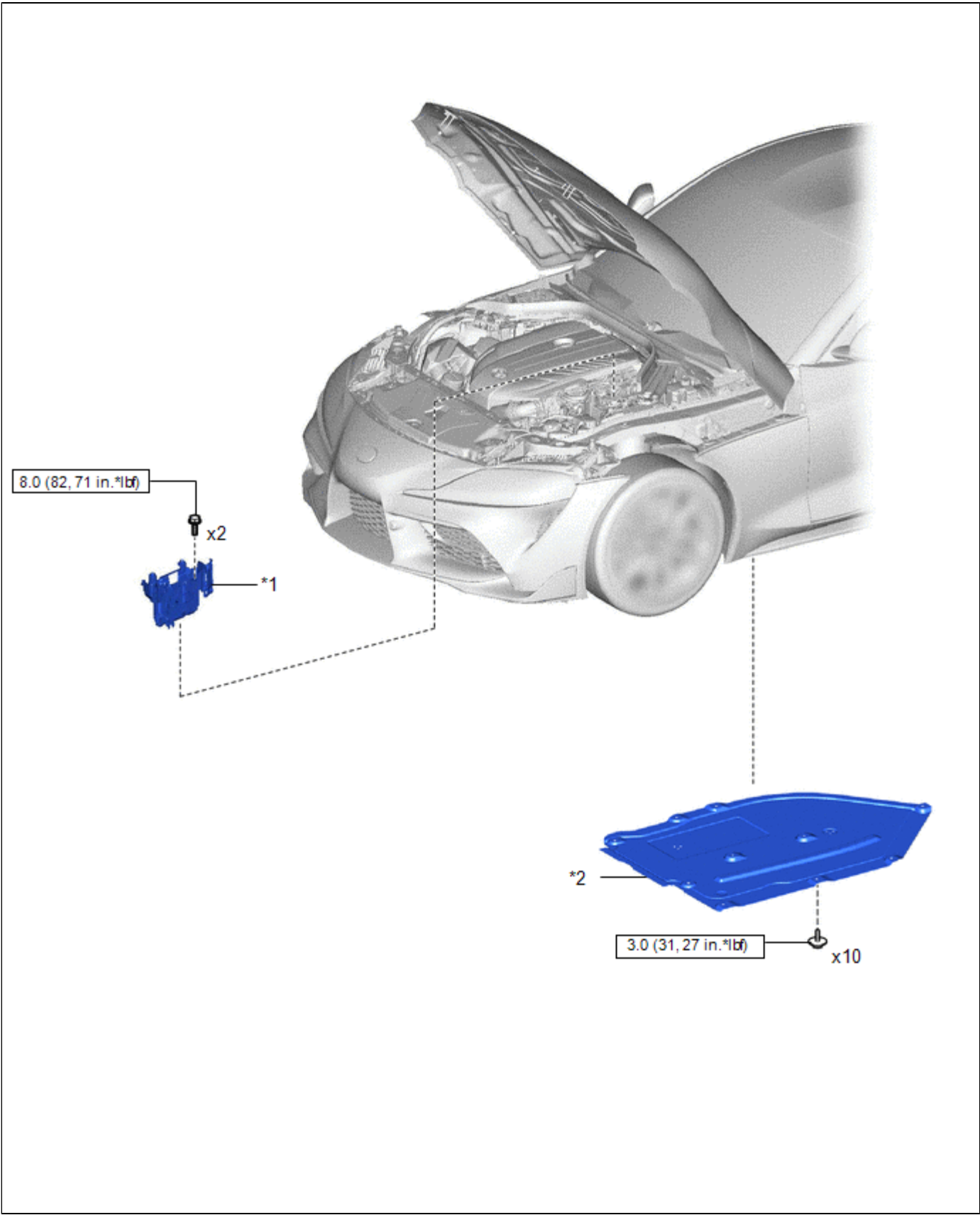
4. INSTALL NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6G
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL MAIN TUBE (for Front): COMPONENTS; 2020 MY Supra [03/2019 -]		

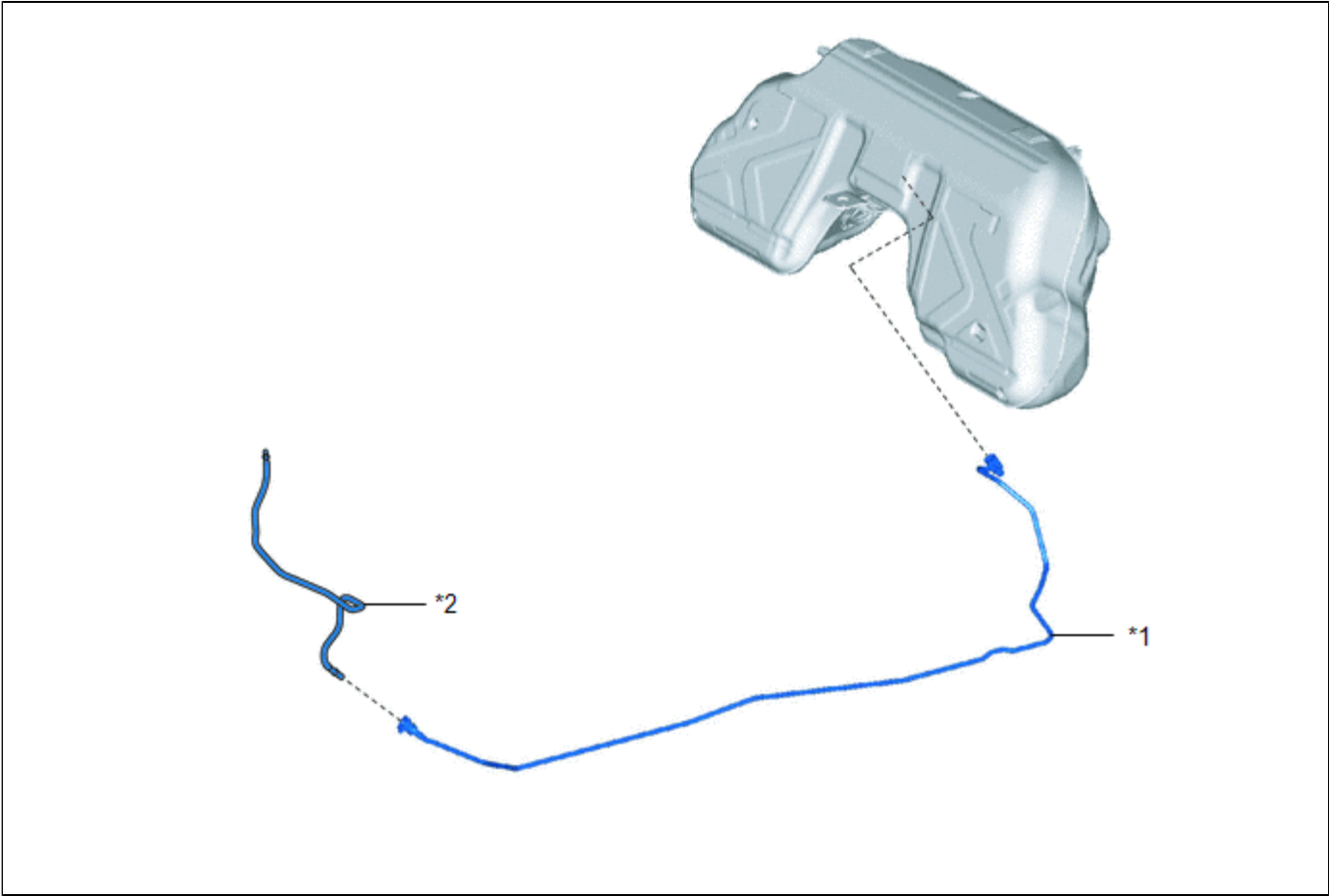
COMPONENTS

ILLUSTRATION



*1	ENGINE ROOM ECM BOX	*2	FRONT FLOOR COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 1 FUEL MAIN TUBE	*2	NO. 2 FUEL MAIN TUBE
----	----------------------	----	----------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL MAIN TUBE (for Front): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

2. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

3. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

4. REMOVE NO.2 FUEL MAIN TUBE

CAUTION:

Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

CAUTION:

On releasing high pressure line, fuel may emerge at high speed.

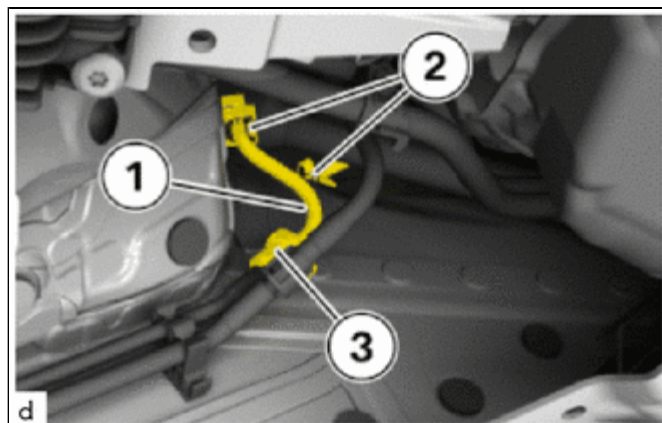
Danger of injury!

- Wear suitable personal protective equipment.
- Allow the cooling system to cool down to a temperature below 40°C before starting installation work.
- Note warnings on cylinder head cover.

HINT:

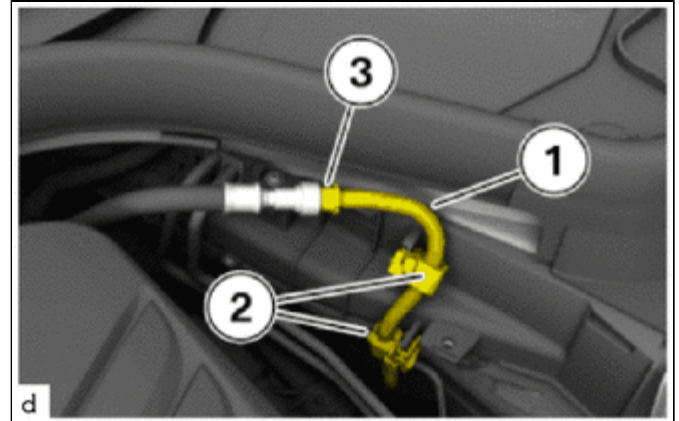
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unclip No.2 fuel main tube (1) from the holders (2).



(b) Unlock snap fastener (3) and pull off No.2 fuel main tube.

(c) Unclip front fuel feed line (1) from the holders (2).



(d) Unlock snap fastener (3) and pull off No.2 fuel main tube (2).

(e) Remove No.2 fuel main tube (1).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL MAIN TUBE (for Front): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO.2 FUEL MAIN TUBE

- (a) Install the No.2 fuel main tube.
- (b) Connect No.2 fuel main tube and lock snap fastener.
 - (1) Snap fastener must engage audibly.
- (c) Clip the No.2 fuel main tube into the holder.
- (d) Connect No.2 fuel main tube and lock snap fastener.
 - (1) Snap fastener must engage audibly.
- (e) Clip the No.2 fuel main tube into the holder.

2. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

3. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

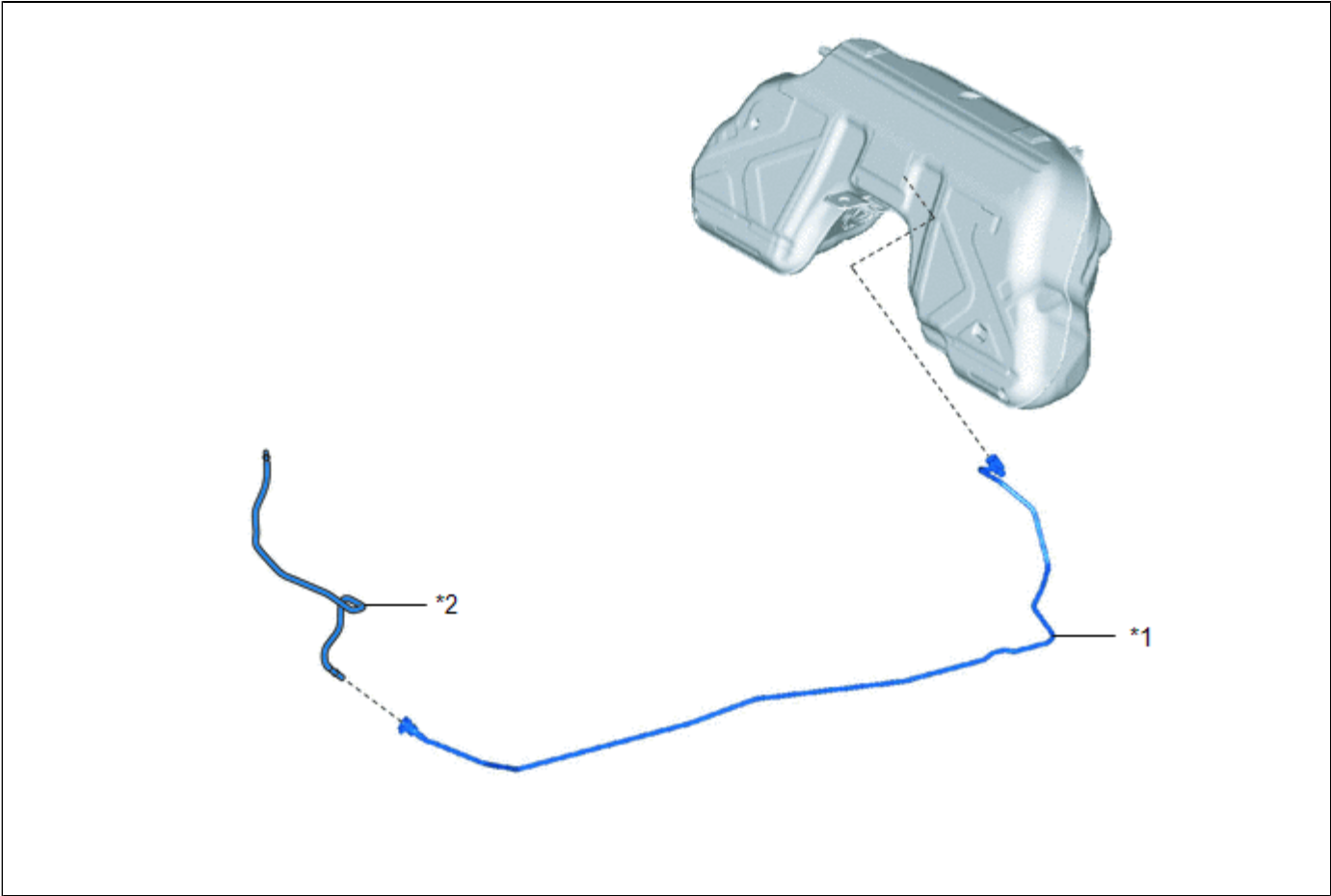
4. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6J
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL MAIN TUBE (for Rear): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 FUEL MAIN TUBE	*2	NO. 2 FUEL MAIN TUBE
----	----------------------	----	----------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6K
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL MAIN TUBE (for Rear): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

- Contact with hazardous fluids.

Hazardous to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

PROCEDURE

1. REMOVE FRONT NO.1 FLOOR HEAT INSULATOR

Click here [INFO](#)

2. REMOVE NO.1 FUEL MAIN TUBE

CAUTION:

- Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

- On releasing high pressure line, fuel may emerge at high speed.

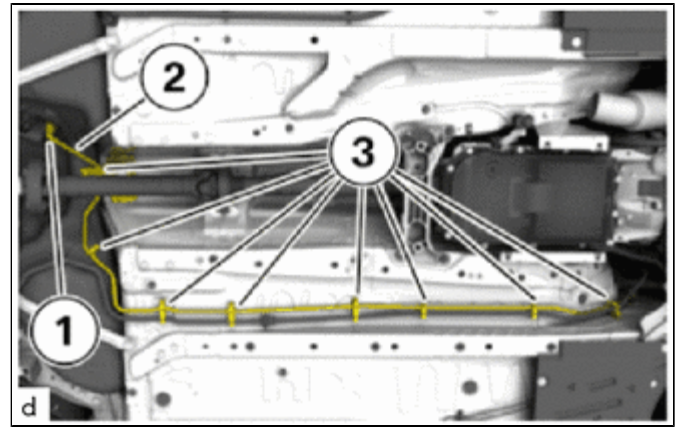
Danger of injury!

- Wear suitable personal protective equipment.
- Allow the cooling system to cool down to a temperature below 40°C before starting installation work.
- Note warnings on cylinder head cover.

HINT:

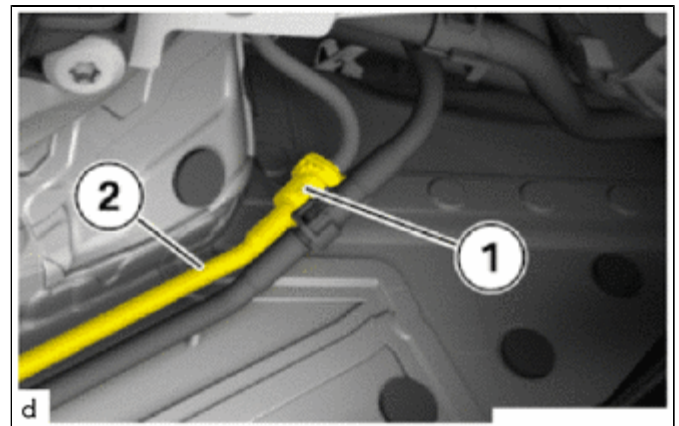
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock the snap fastener (1) and pull off the No.1 fuel main tube (2).



(b) Unclip No.1 fuel main tube (2) from the brackets (3).

(c) Unlock the snap fastener (1) and detach the No.1 fuel main tube (2).



(d) Remove the No.1 fuel main tube (2).



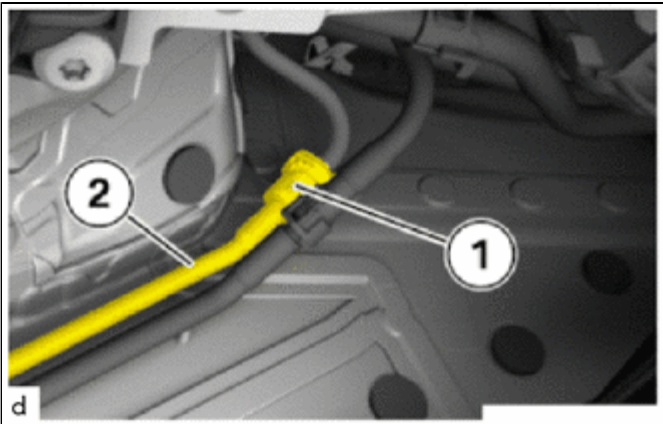
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6L
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL MAIN TUBE (for Rear): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

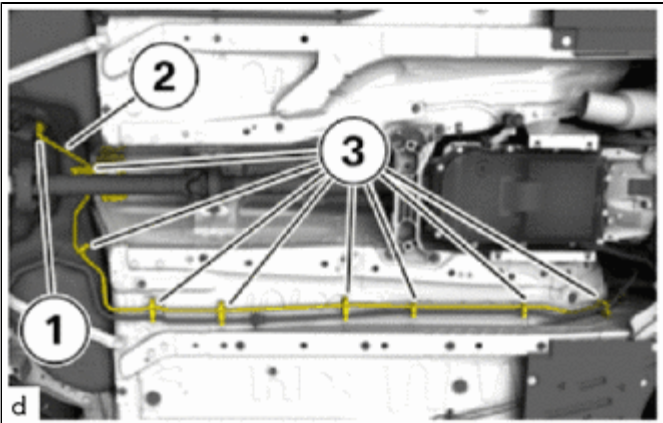
PROCEDURE

1. INSTALL NO.1 FUEL MAIN TUBE

(a) Install No.1 fuel main tube.



(b) Connect No.1 fuel main tube (2) and lock snap fastener (1).



(d) Clip the No.1 fuel main tube (2) into the holder (3).

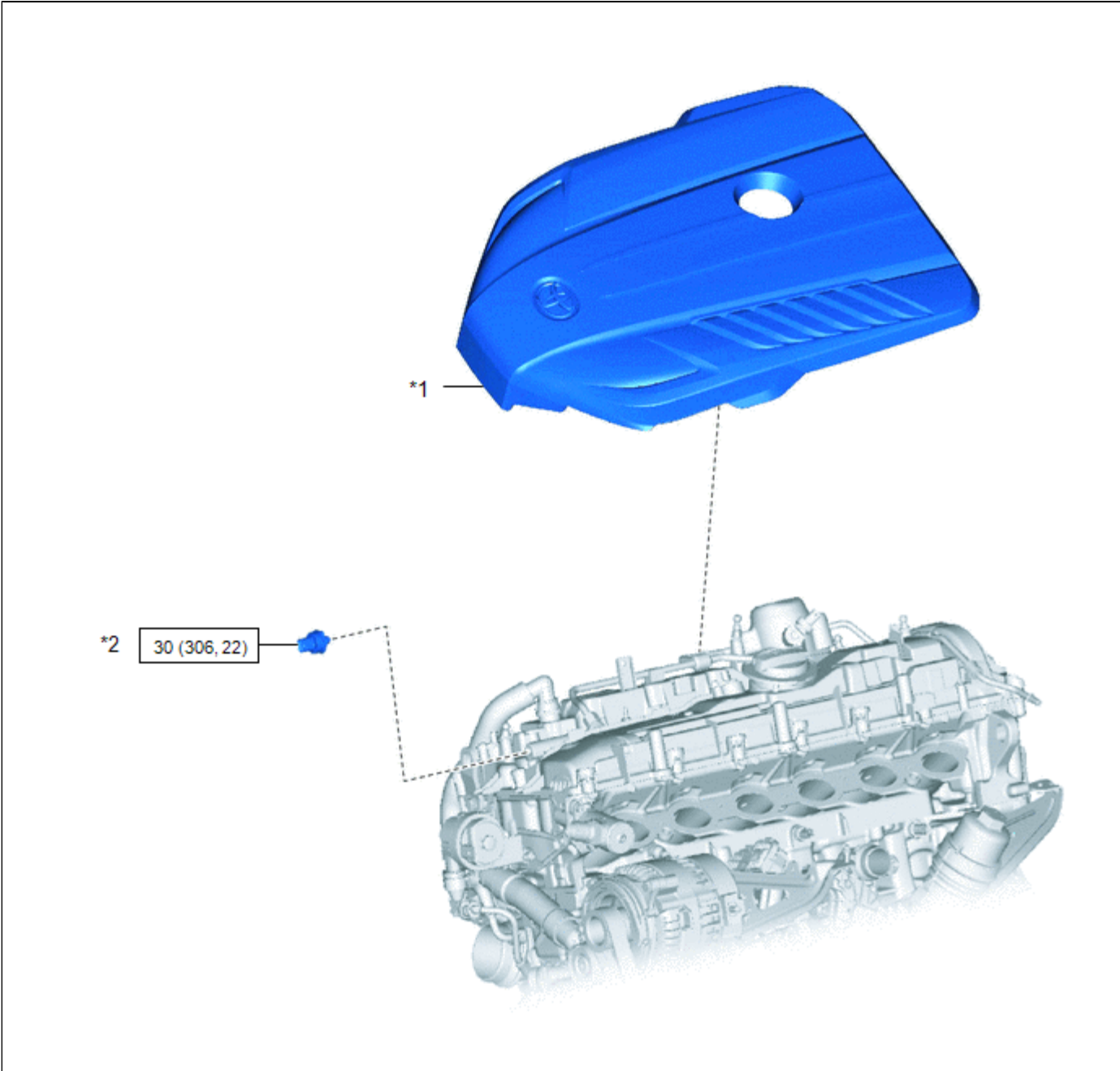
2. INSTALL NO.1 FRONT FLOOR HEAT INSULATOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PRESSURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	No. 1 ENGINE COVER SUB-ASSEMBLY	*2	FUEL PRESSURE SENSOR
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5T
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PRESSURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE FUEL PRESSURE SENSOR

CAUTION:

- Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

- On releasing high pressure line, fuel may emerge at high speed.

Danger of injury!

- Wear suitable personal protective equipment.
- Allow the cooling system to cool down to a temperature below 40°C before starting installation work.
- Note warnings on cylinder head cover.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

- Contaminant or foreign body.

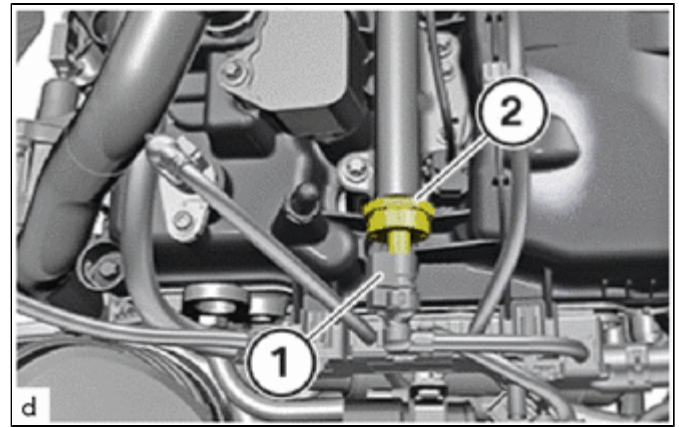
Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock plug connection (1) and disconnect.



(b) Release the fuel pressure sensor (2) with the special tool 0 492 027 (32 2 100) and remove.

(c) Catch and dispose of escaping fuel.



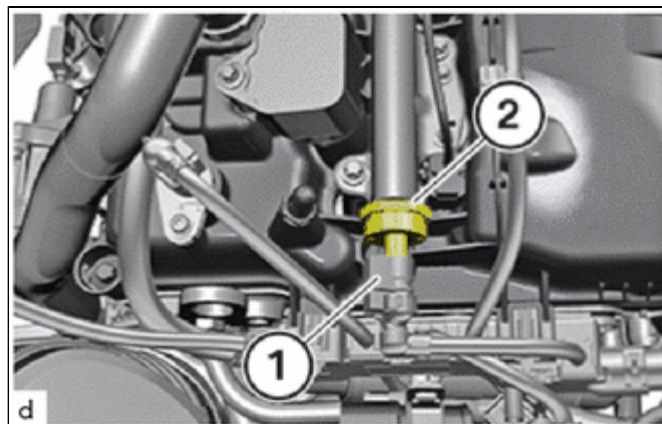
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5U
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PRESSURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FUEL PRESSURE SENSOR

(a) Install the fuel pressure sensor (2).



(b) Tighten fuel pressure sensor (2) with the special tool 0 492 027 (32 2 100).

Torque:

30 N·m {306 kgf·cm, 22 ft·lbf}

(c) Connect connectors (1) and lock.

HINT:

The connector (1) must engage audibly.

(d) Check fuel system for leak tightness.

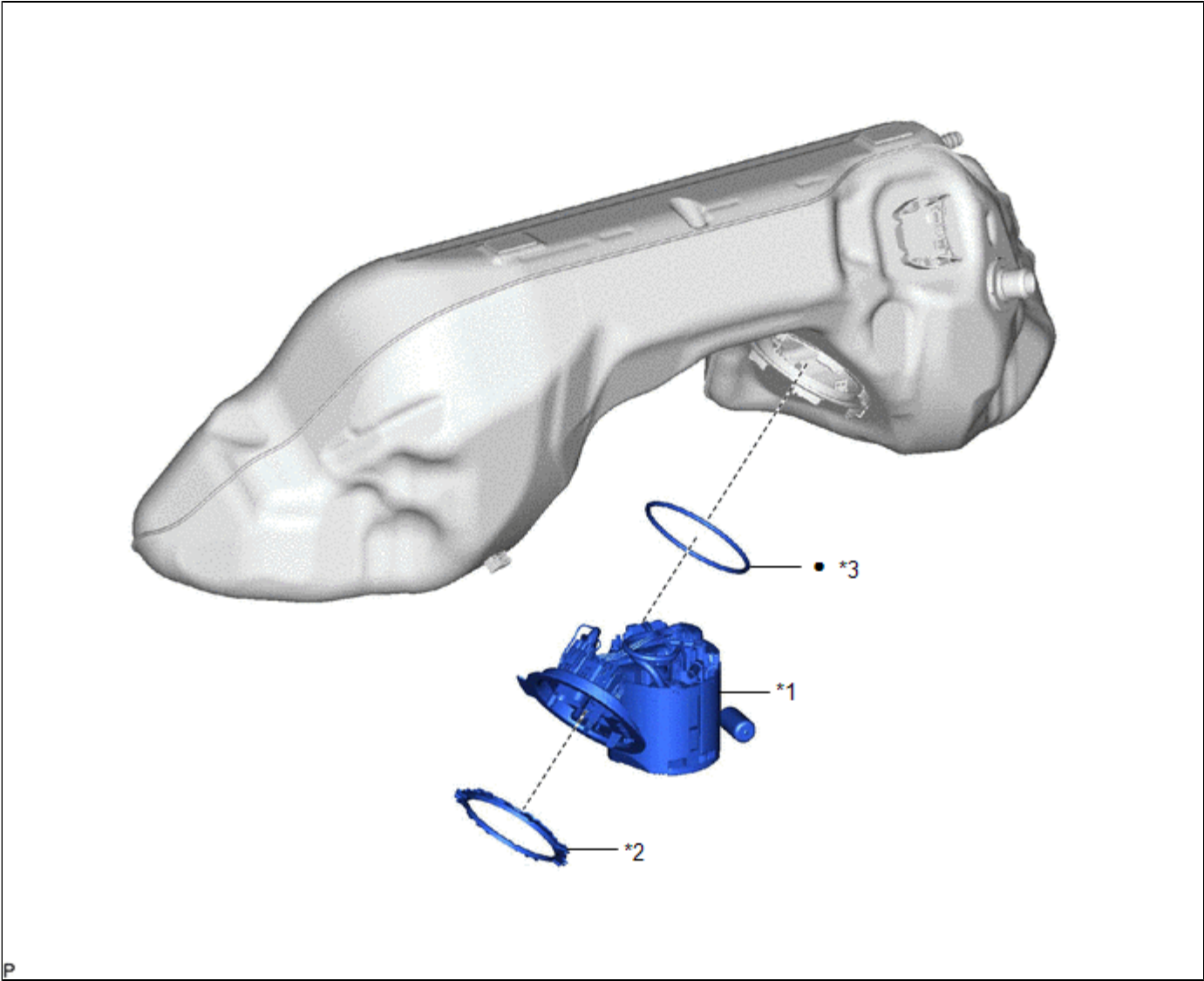
2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL SUCTION TUBE WITH PUMP AND GAGE ASSEMBLY	*2	FUEL PUMP GAUGE RETAINER
*3	FUEL SUCTION TUBE SET GASKET	-	-
●	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD6E
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any leakage fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE FRONT NO.1 FLOOR HEAT INSULATOR

Click here [INFO](#)

2. FUEL SUCTION TUBE WITH PUMP AND GAGE ASSEMBLY

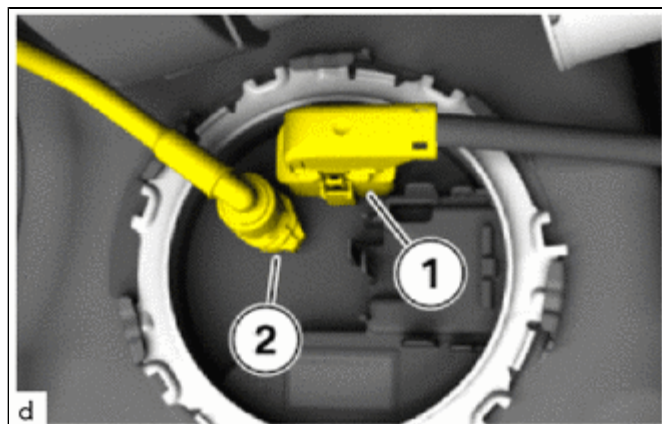
CAUTION:

Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any leakage fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

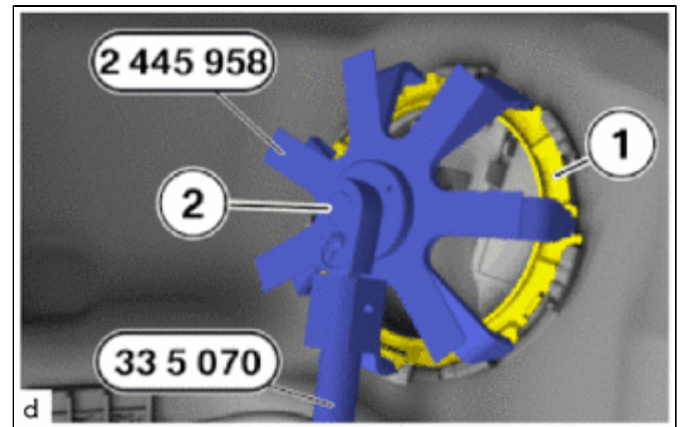
(a) Unlock and disconnect plug connection (1).



(b) Unlock and disconnect the fuel supply line (2).

(c) Place special tool 2 445 958 on the locking ring (1).

SST: 09800-WA290



(d) Connect special tool 0 495 554 (33 5 070) with the standard tool (2) and place on special tool 2 445 958.

standard tools:

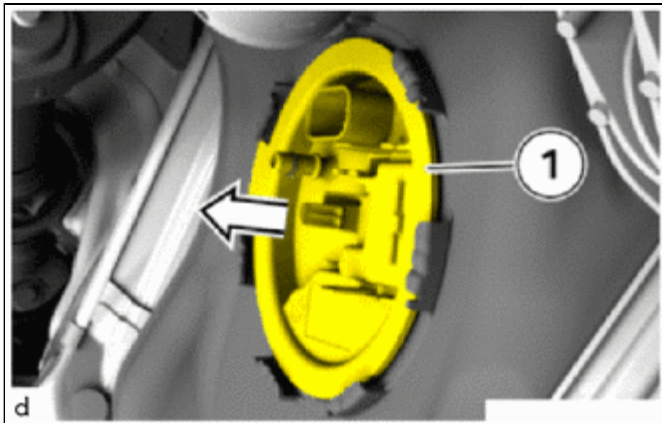
Plug-in reversible ratchet 1/2 inch

SST: 09800-WA290

SST: 09900-WA040

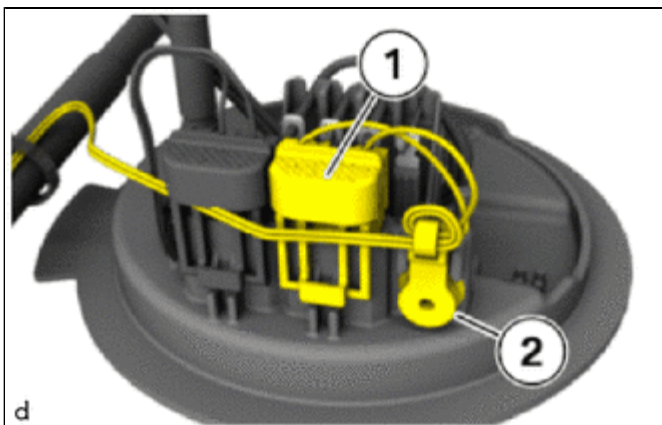
(e) Loosen locking ring (1) counterclockwise and remove.

(f) Lift the flange cover (1) in the direction of the arrow.



NOTICE:

To provide a better overview: Schematic diagram with partially hidden components.



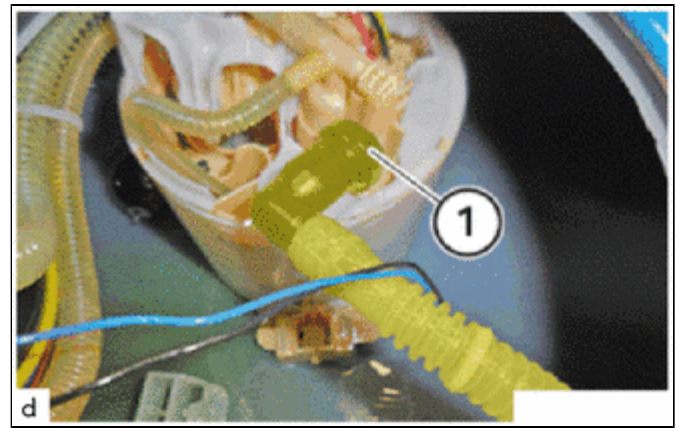
(g) Unlock and disconnect plug connection (1).

(h) Unclip the cable holder (2).

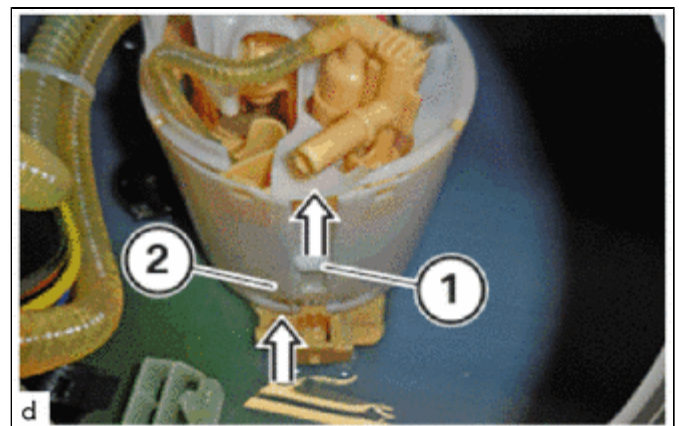
(i) Unlock and disconnect quick release (1).

NOTICE:

Schematic diagram is for example purposes. Some parts may differ in certain details.



(j) Release the lock (1) in the direction of the arrow upwards.



(k) Press the fuel delivery unit (2) slightly in the direction of the arrow and unthread upwards.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. FOR REPLACEMENT: PREPARING THE FUEL DELIVERY UNIT FOR INSTALLATION

HINT:

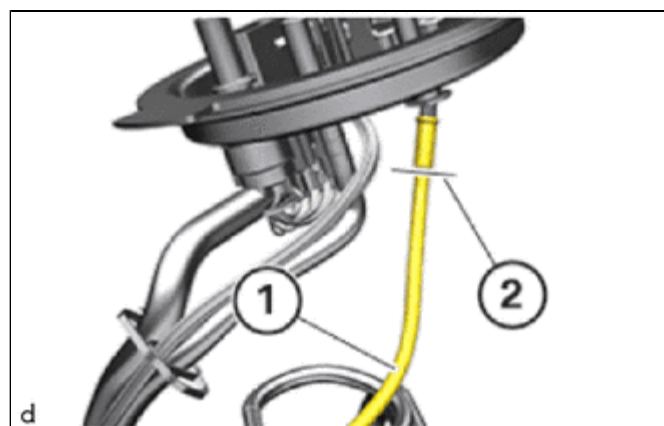
All new delivery units are delivered with the stationary heating system in the equipment specification.

For these vehicles, the connection on the flange lid must be closed with a locking coupling.

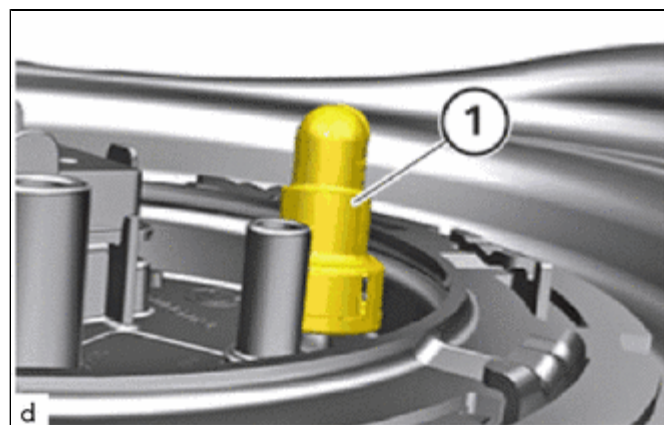
Locking coupling must be ordered separately, see Electronic Parts Catalog.

- (a) For vehicles without auxiliary heater, the intake manifold for the auxiliary heater must be removed.
- (b) Separate intake manifold for auxiliary heater (1) in the area (2) at the connection of the service cap using suitable tool (diagonal cutting pliers).

- (c) Separated intake manifold can be disposed of.



- (d) Place and lock the lock coupling (1) on the connection of the fuel line for the stationary heating system.



2. FUEL SUCTION TUBE WITH PUMP AND GAGE ASSEMBLY

CAUTION:

Working on fuel system.

Risk of fire! Danger of explosion!

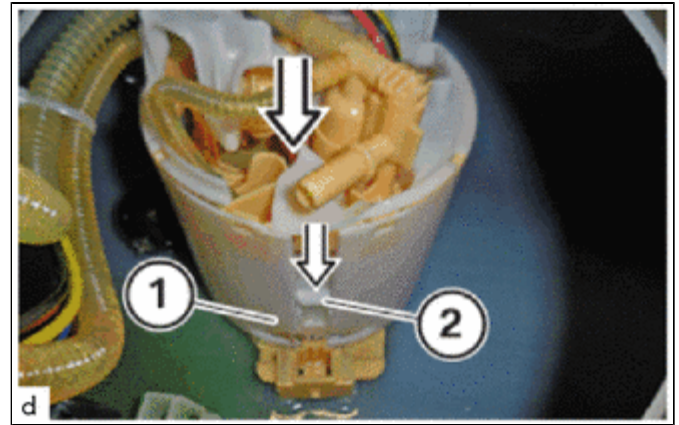
- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any leakage fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

HINT:

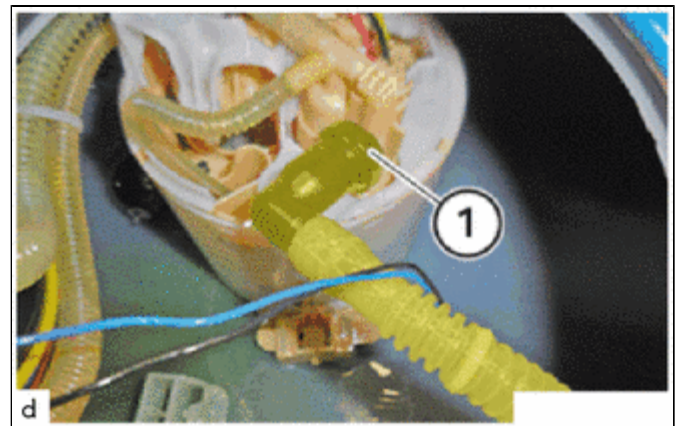
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Thread the fuel feed unit (1) in the direction of the arrow from above and lock it.

(1) Care must be taken to ensure correct locking of the fuel delivery unit in the receptacle!

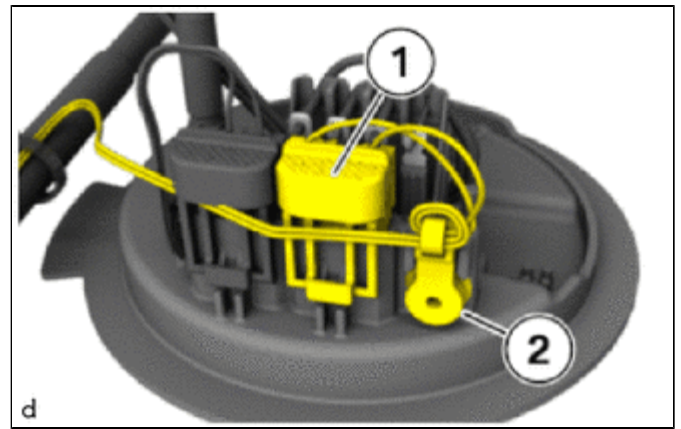


(b) Lock the lock (2) in the direction of the arrow downwards.



(c) Apply and lock the quick release (1).

(d) Connect and lock connector (1).



(e) Clip in the cable holder (2).

NOTICE:

To provide a better overview: Schematic diagram with partially hidden components.

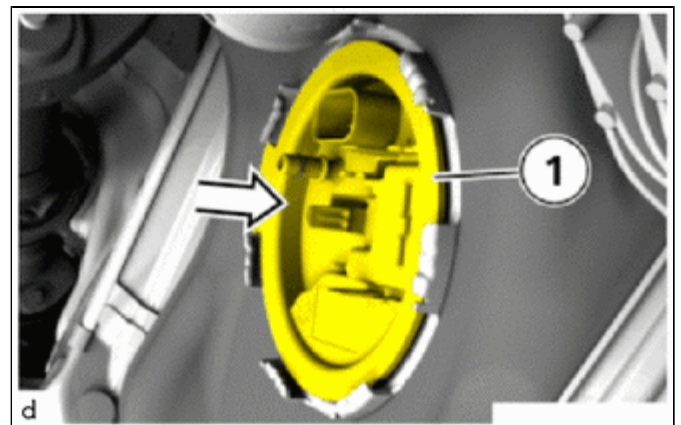
(f) Replace sealing ring (1).

NOTICE:

Schematic diagram is for example purposes. Some parts may differ in certain details.

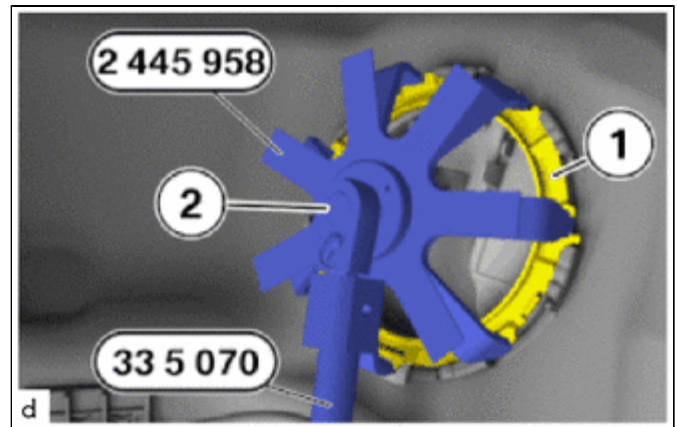


(g) Install flange cover (1) in direction of arrow.



(h) Place special tool 2 445 958 on lock ring (1).

SST: 09800-WA290



(i) Connect special tool 0 495 554 (33 5 070) with the standard tool (2) and place on special tool 2 445 958.

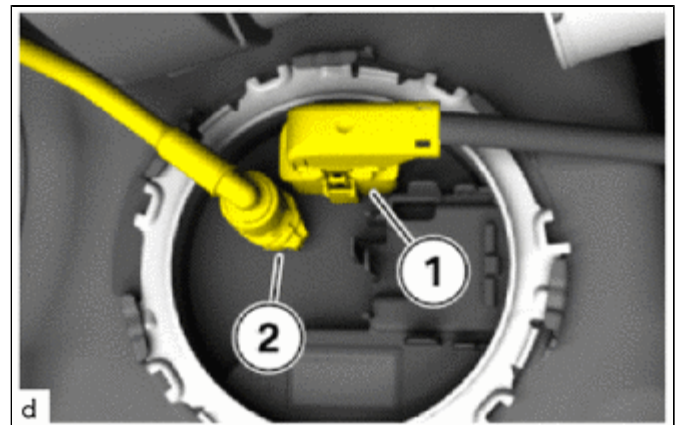
Standard tools:

Plug-in reversible ratchet 1/2 inch

SST: 09800-WA290

SST: 09900-WA040

(j) Tighten locking ring (1) clockwise.



(k) Connect and lock connector (1).

(l) Apply and lock fuel supply line (2).

3. INSTALL FRONT NO.1 FLOOR HEAT INSULATOR

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP (for High Pressure): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE NO. 1 FUEL PIPE SUB-ASSEMBLY

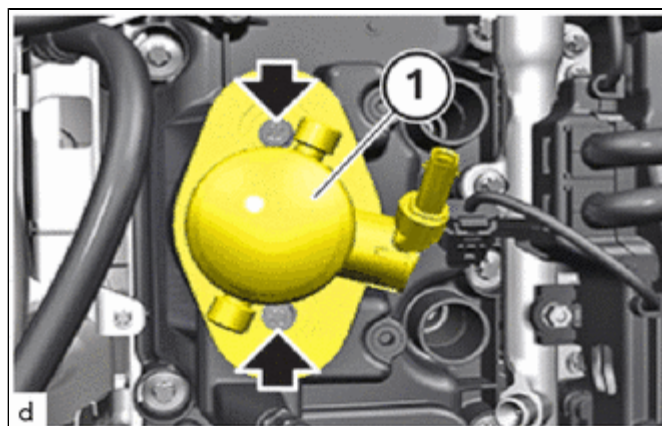
Click here [INFO](#)

2. REMOVE NO. 2 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE FUEL PUMP ASSEMBLY

(a) Unscrew the bolts (arrows) in alternating order.



(b) Have a cleaning cloth ready to catch any escaping engine oil.

(c) Feed out fuel pump assembly (1) and remove.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP (for High Pressure): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. ADJUST FUEL PUMP LIFTER ASSEMBLY

(a) Rotate the cam of the fuel pump assembly drive to the BDC position

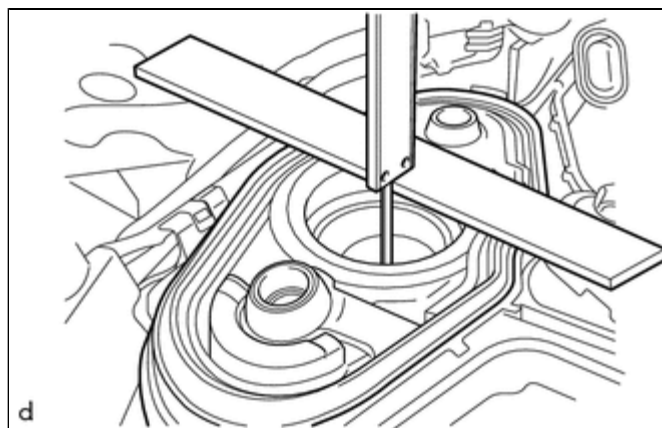
NOTICE:

- Damage to the engine.

The engine may be damaged if it is manually rotated in the wrong direction.

- Always rotate the engine in the correct direction of rotation by hand: a) Clockwise, facing the vibration damper or b) Counter-clockwise, facing the chain drive. (b) only applies when the rear timing chain is installed.

(b) Place the depth gauge (1) flat onto the fuel pump assembly flange.



(c) Turn the engine on the central bolt in the direction of engine rotation until the camshaft has reached the BDC position.

HINT:

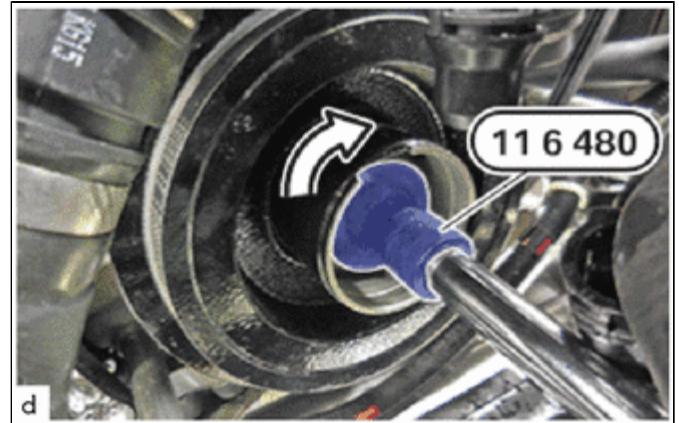
The depth gauge (1) is in the deepest position.

(d) Loosen cover (1).

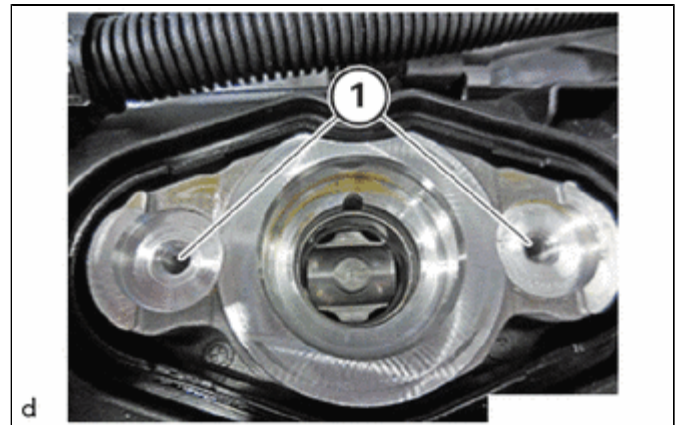


- (e) Rotate the engine with the special tool 0 493 380 (11 6 480) in the direction of the arrow until the cam of the fuel pump assembly drive is at the BDC position .

SST: 09200-WA190



- (f) Check the threads (1) on the fuel pump assembly flange for sealing compound residue: Remove sealing compound residue as needed.



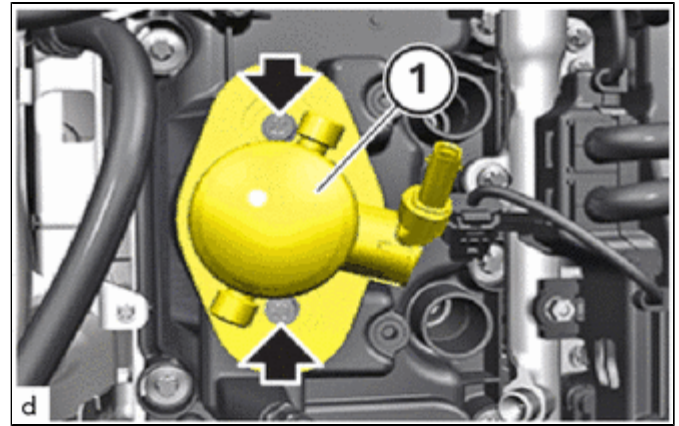
- (g) Clean the thread (1) with a thread cutter M6.
(h) Make sure that no contamination enters the engine.
(i) Cover opening at the fuel pump assembly flange with suitable materials.

- (j) Replace gasket (1).



2. INSTALL FUEL PUMP ASSEMBLY

(a) Feed in and install fuel pump assembly (1).



(b) Replace the bolts (arrows).

HINT:

Compliance with the specification is imperative to make sure that the piston will not break due to twisting.

(c) Position screws (arrows) of the fuel pump assembly (1) and tighten in alternating order in 90° increments.

Torque:

12 N·m {122 kgf·cm, 9 ft·lbf}

3. INSTALL NO. 2 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

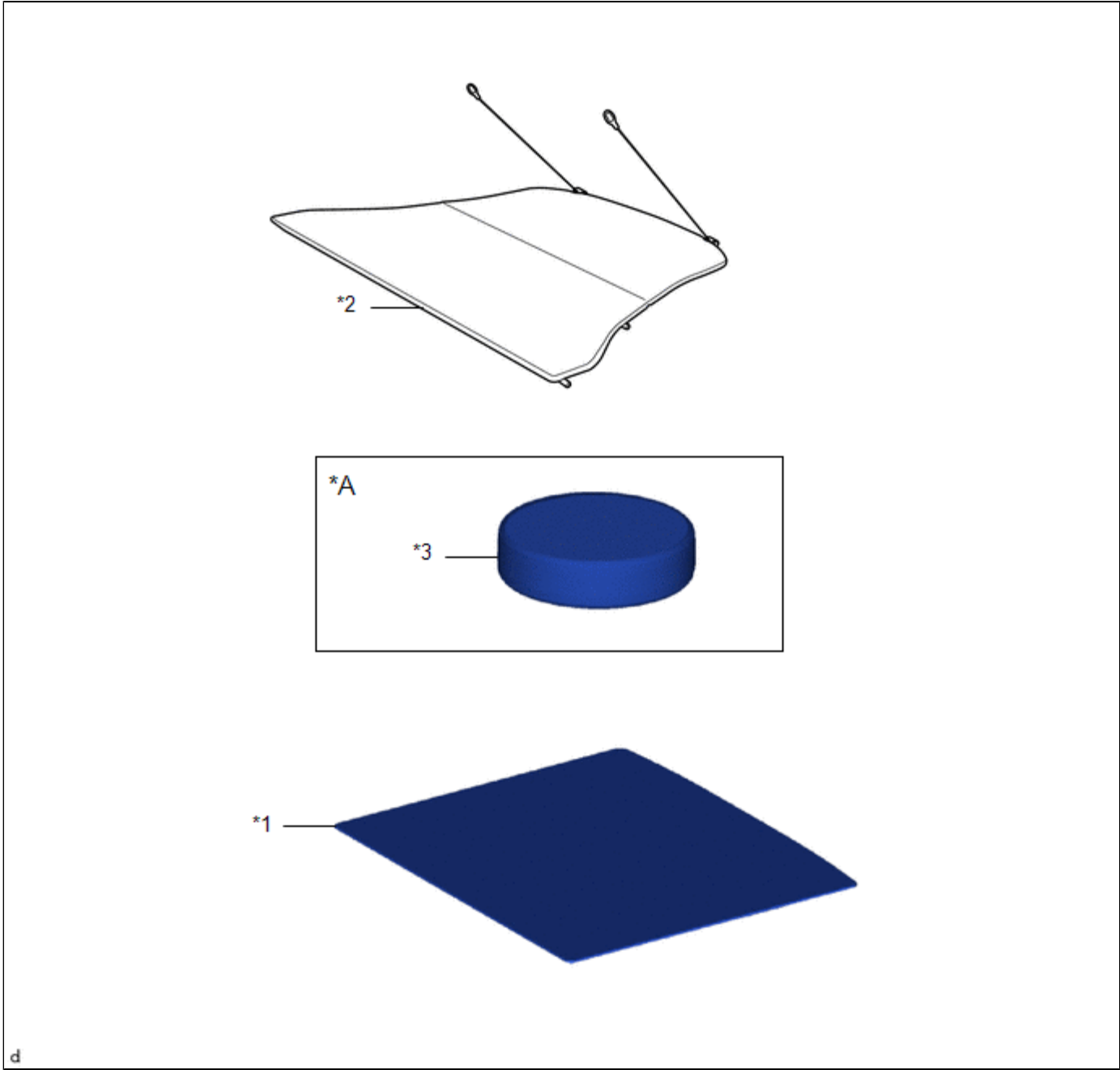
4. INSTALL NO. 1 FUEL PIPE SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

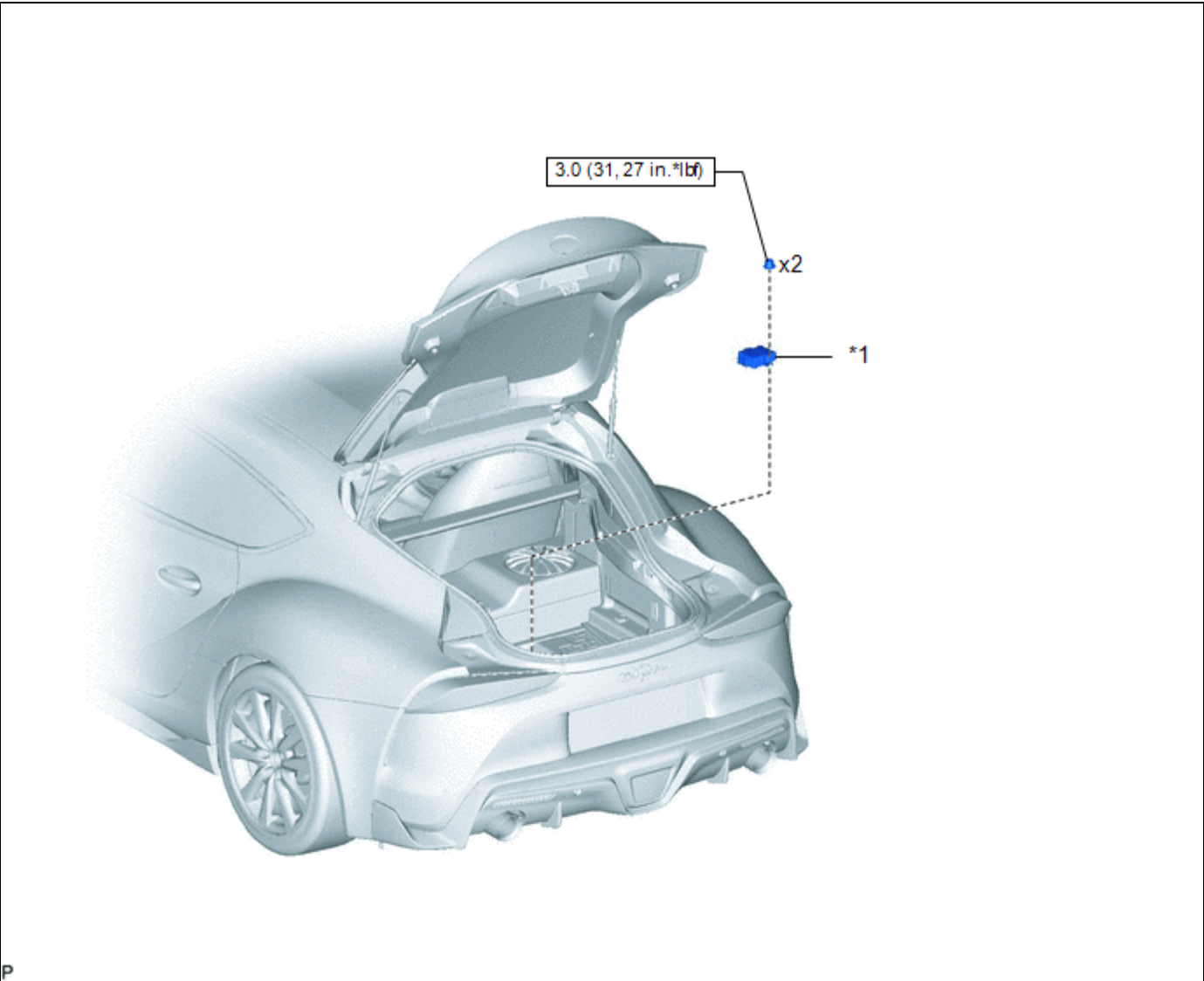
COMPONENTS

ILLUSTRATION




*A	w/ Spare Tire	-	-
*1	DECK BOARD ASSEMBLY	*2	PACKAGE TRAY TRIM PANEL ASSEMBLY
*3	SPARE TIRE	-	-

ILLUSTRATION



P

*1	FUEL PUMP CONTROL ECU	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

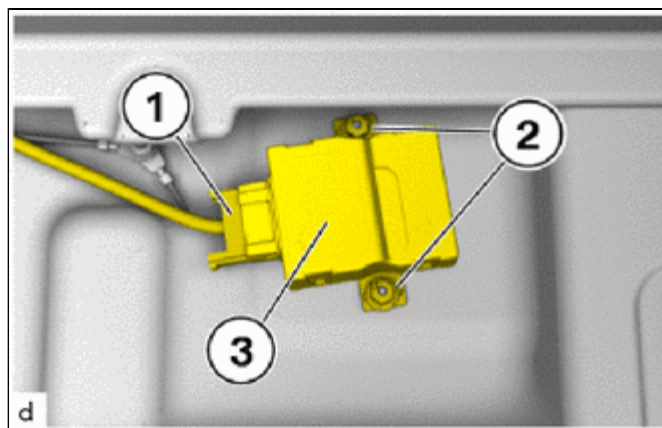
Click here [INFO](#)

2. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

3. REMOVE FUEL PUMP CONTROL ECU

(a) Unlock plug connection (1) and disconnect.



(b) Loosen nut (2).

(c) Remove the fuel pump control ECU (3).

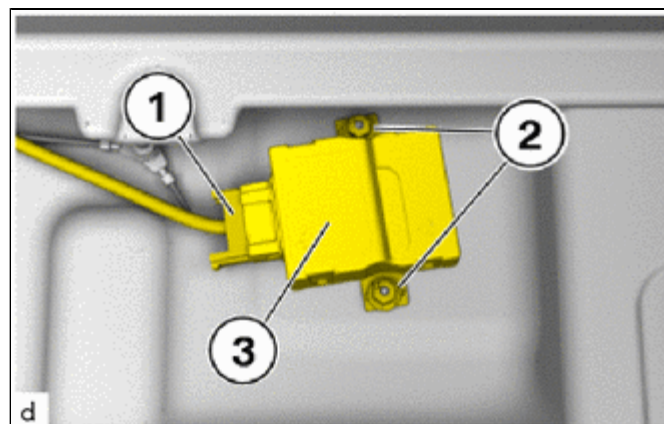
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD60
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL PUMP ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FUEL PUMP CONTROL ECU

(a) Install the fuel pump control ECU (3).



(b) Tighten nuts (2).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(c) Connect connectors (1) and lock.

2. INSTALL DECK BOARD ASSEMBLY

Click here [INFO](#)

3. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

4. PUTTING FUEL PUMP CONTROL COMPUTER INTO OPERATION

(a) Connect the diagnosis system to the vehicle and enter the following menus:

Vehicle information / Control unit list / DME / Call up control unit functions / Component actuation / General / Electric fuel pump

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5F
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL SYSTEM: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

PROCEDURE

1. CHECK FUEL DELIVERY PRESSURE

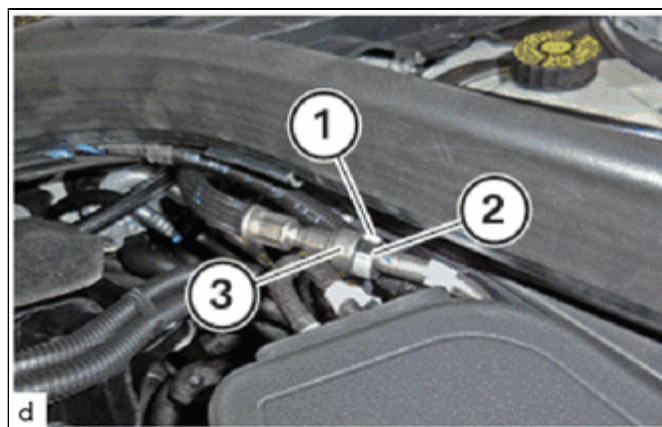
CAUTION:

- Working on fuel system.
- Risk of fire! Danger of explosion!
 - When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
 - Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
 - No fire, sparks, open flames or smoking.
- On releasing high pressure line, fuel may emerge at high speed.
- Danger of injury!
 - Wear suitable personal protective equipment.
 - Allow the cooling system to cool down to a temperature below 40°C before starting installation work.
 - Note warnings on cylinder head cover.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Detach the circlip (1).



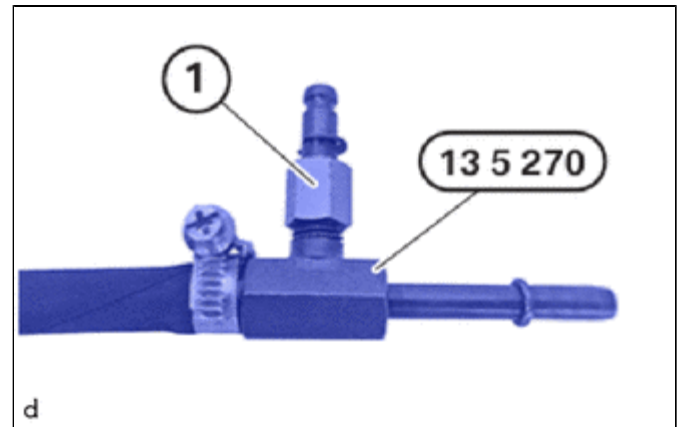
(b) Unlock lock (2).

(c) Detach the fuel hose (3) from fuel line.

(d) Catch and dispose of escaping fuel.

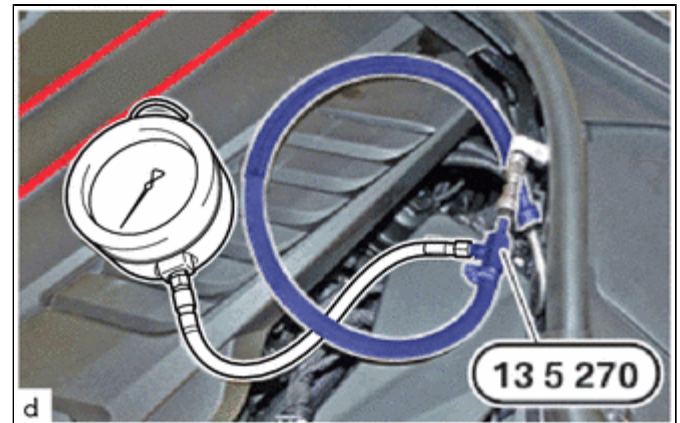
(e) Unscrew adapter (1) of the special tool 0 491 310 (13 5 270).

SST: 09200-WA020



(f) In the separate fuel supply line the special tool 0 491 310 (13 5 270).

SST: 09200-WA020



(g) Fuel pressure gauge on the Screw special tool 0 491 310 (13 5 270).

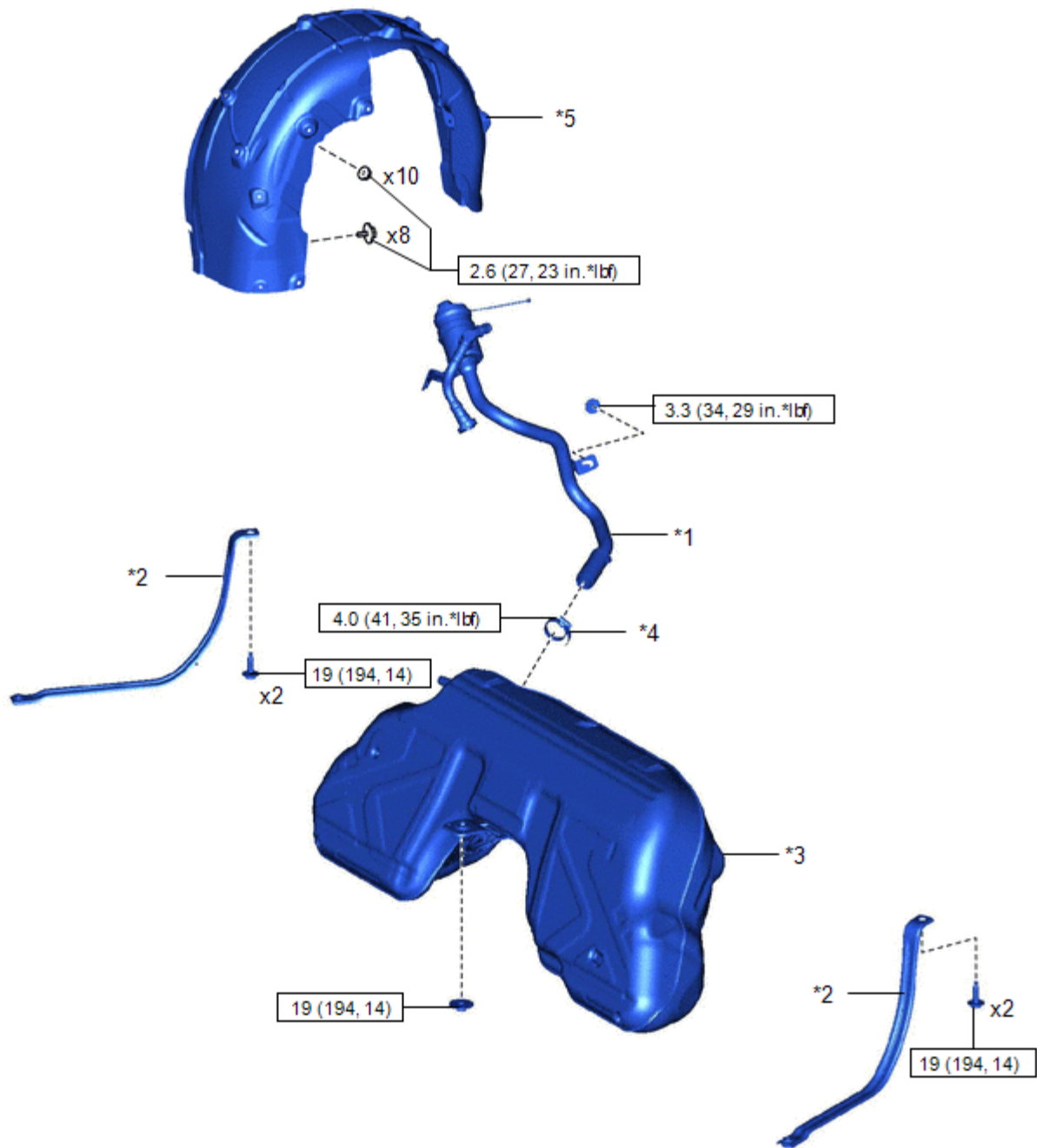
SST: 09200-WA020

- (h) Build up fuel supply pressure.
- (i) Read off fuel pressure at the pressure gauge.
- (j) Observe the diagnostic instructions.
- (k) After completing the measurement: Remove all special tools.
- (l) Collect and dispose of escaping fuel with suitable equipment.
- (m) Connect the fuel hose to the fuel line and lock
- (n) Collect and dispose of escaping fuel with suitable equipment.
- (o) Attach the circlip.


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD61
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TANK: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL TANK INLET PIPE SUB-	*2	FUEL TANK BAND SUB-ASSEMBLY
----	---------------------------	----	-----------------------------

	ASSEMBLY		
*3	FUEL TANK	*4	HOSE CLAMP
*5	REAR WHEEL HOUSE LINER RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD62
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TANK: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DRAWING OFF FUEL FROM THE FUEL TANK

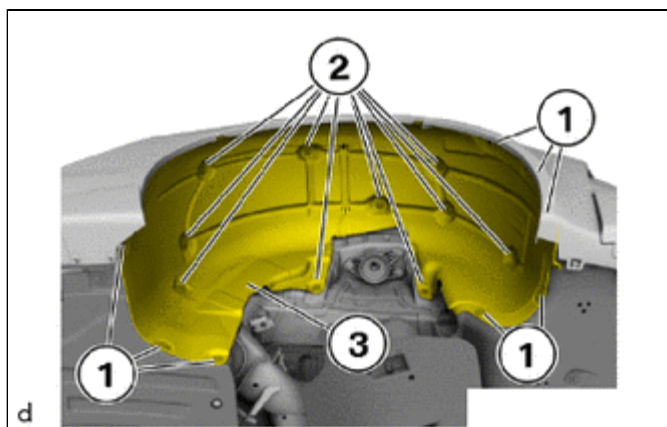
2. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

3. REMOVE REAR WHEEL HOUSE LINER RH

NOTICE:

To provide a better overview: Schematic diagram with partially hidden components.



(a) Loosen screws (1).

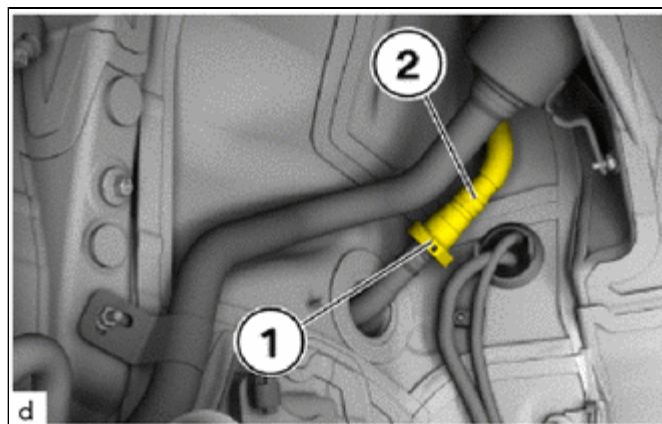
(b) Unscrew the nuts (2) and feed the rear wheel arch cover (3) out.

4. REMOVE PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING

Click here [INFO](#)

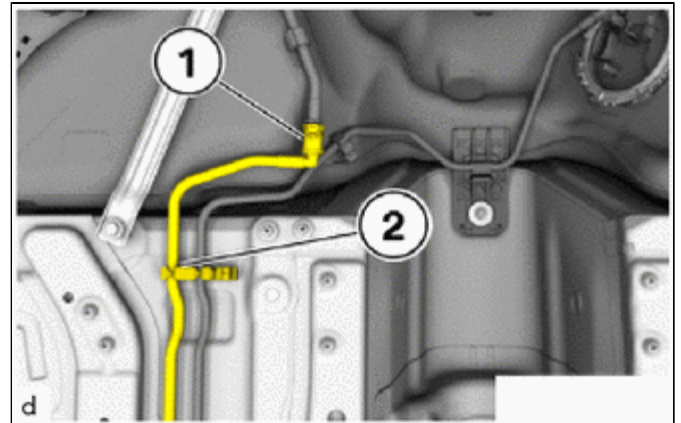
5. REMOVE FUEL TANK

(a) Unlock and pull off snap fastener (1).



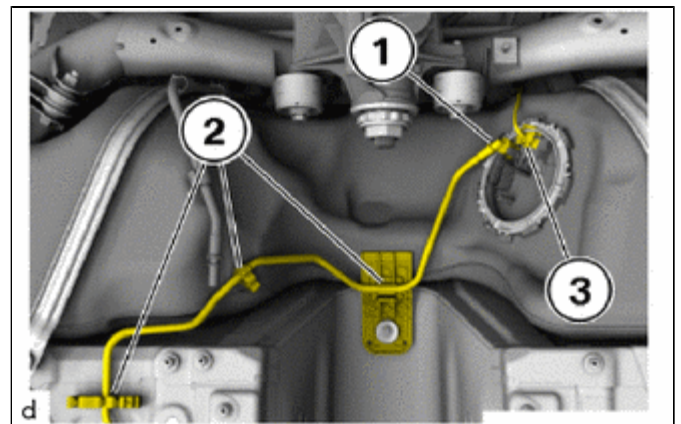
(b) Pull off the tank ventilation line (2).

(c) Unlock the snap fastener (1) and pull off the tank ventilation line.



(d) Unclip the tank ventilation line from the bracket (2).

(e) Unlock the snap fastener and pull off the fuel line (1).

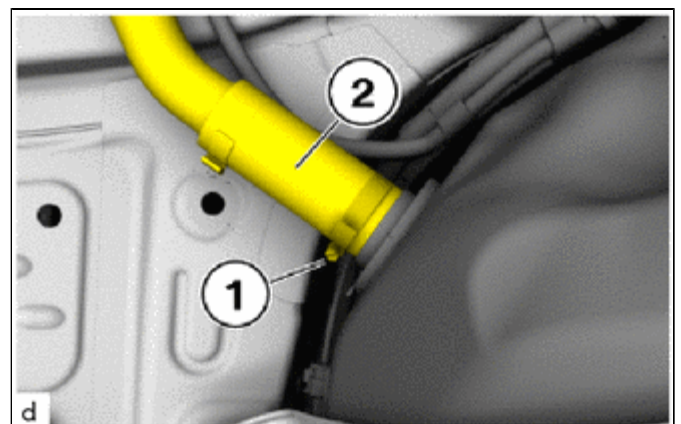


(f) Unclip fuel line (1) from the holders (2).

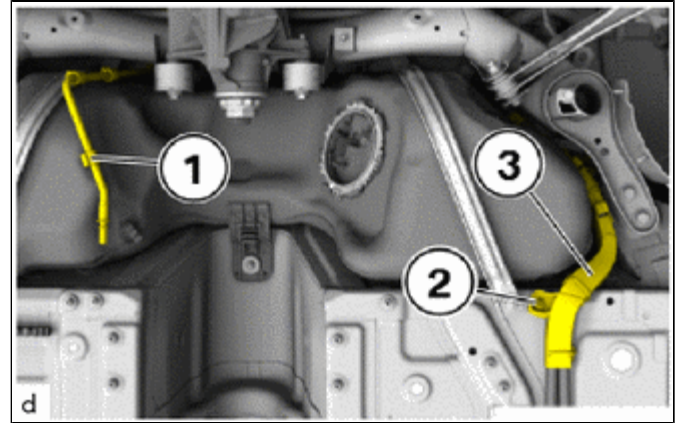
(g) Unlock plug connection (3) and disconnect.

(h) Loosen hose clamp (1).

(i) Pull the fuel tank inlet pipe sub-assembly (2) off the fuel tank.

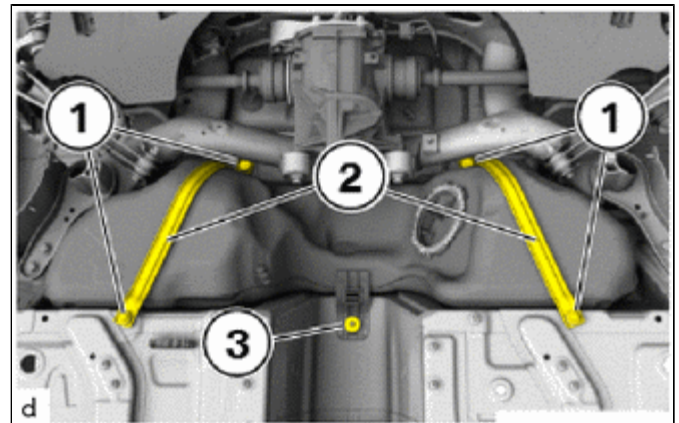


(j) Tie up the purge air line (1) to one side.



(k) Release the nut (2) and partially release the cable channel (3).

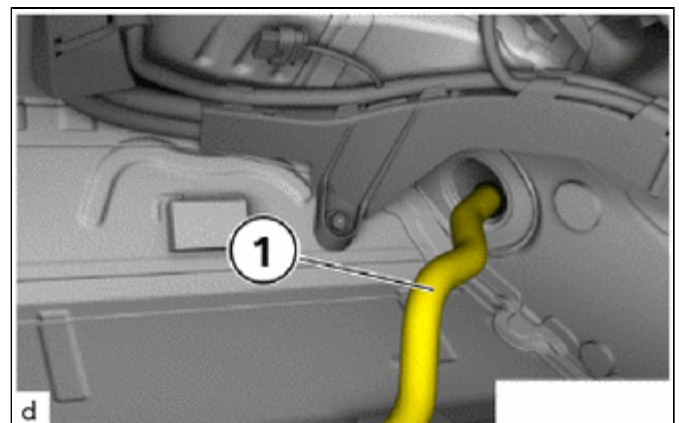
(l) Heavily support the fuel tank.



(m) Release the screws (1) and remove the fuel tank band sub-assembly (2).

(n) Release the nut (3) and lower as well as remove the fuel tank.

(o) Continue to support the fuel tank.



(p) Have an auxiliary person remove the tank ventilation line (1) towards the wheel arch.

(q) Remove the fuel tank towards the bottom.



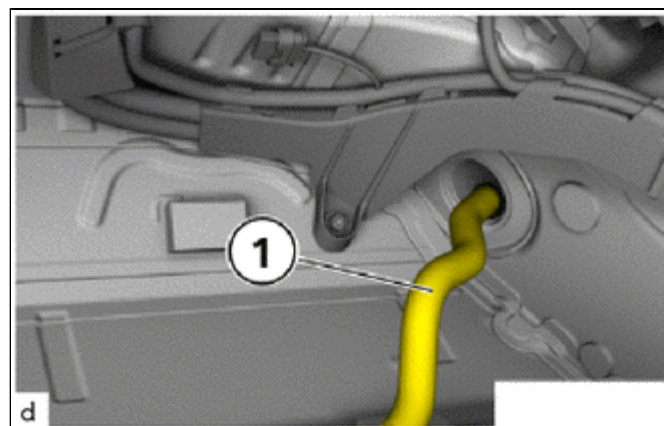
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD63
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TANK: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

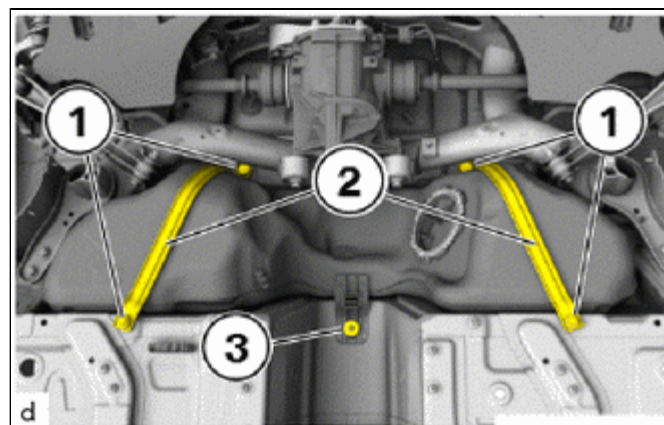
PROCEDURE

1. INSTALL FUEL TANK

- (a) Raise the fuel tank and, while doing so, thread the tank ventilation line (1) through the rear axle support.



- (b) Raise the fuel tank to the installation position, observing the installation position of the tank ventilation line while doing so.



- (c) Tighten nut (3).

Torque:

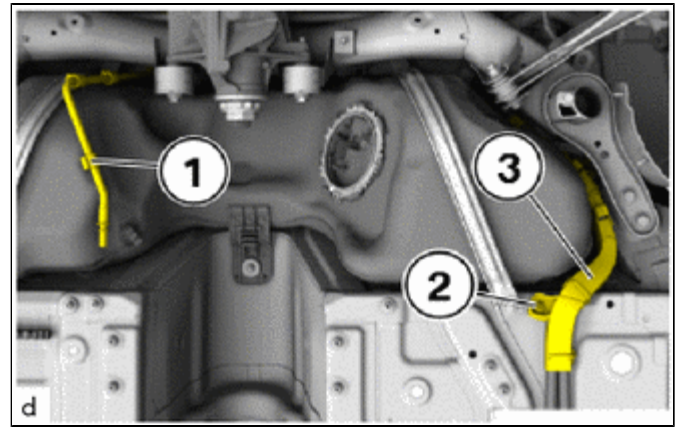
19 N·m {194 kgf·cm, 14 ft·lbf}

- (d) Position the fuel tank band sub-assembly (2) and tighten the screws (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(e) Position the purge air line (1).



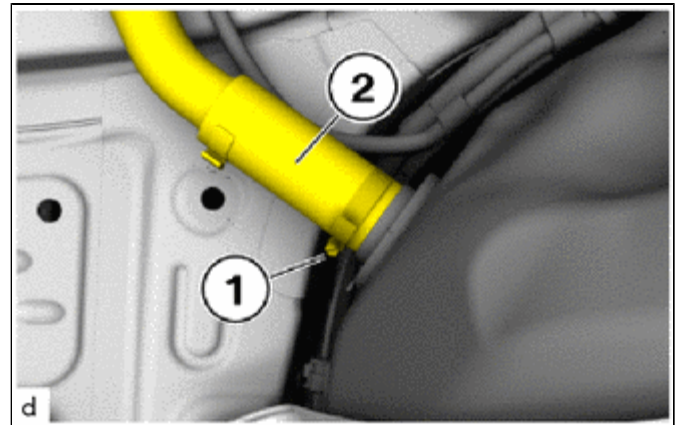
(f) Position the cable channel (3) and tighten the nut (2).

(g) Secure the fuel tank inlet pipe sub-assembly (2) on the fuel tank.

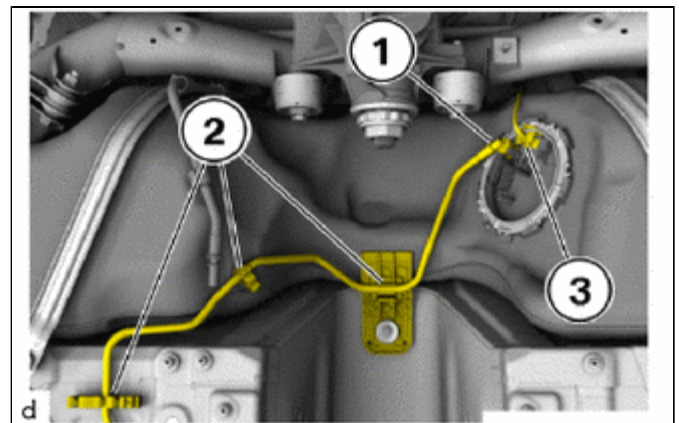
(h) Tighten the hose clamp (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



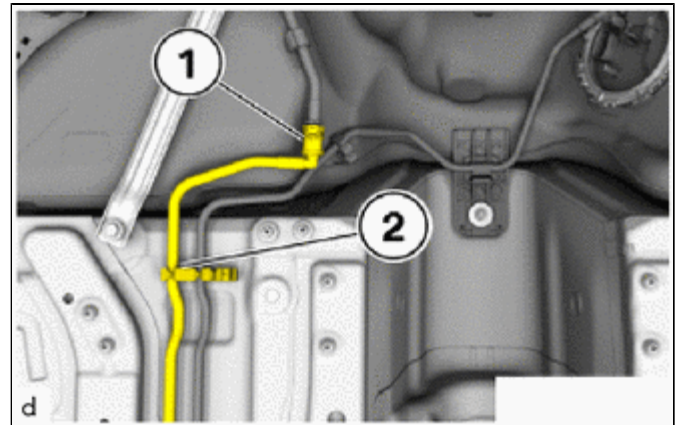
(i) Connect and lock the fuel line (1).



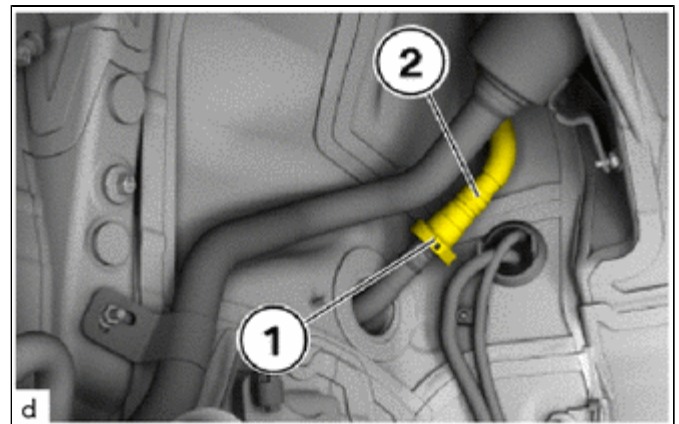
(j) Clip the fuel line (1) into the holder (2).

(k) Connect connectors (3) and lock.

(l) Connect and lock the snap fastener (1).



(m) Clip the tank ventilation line into the holder (2).



(o) Connect and lock the snap fastener (1).

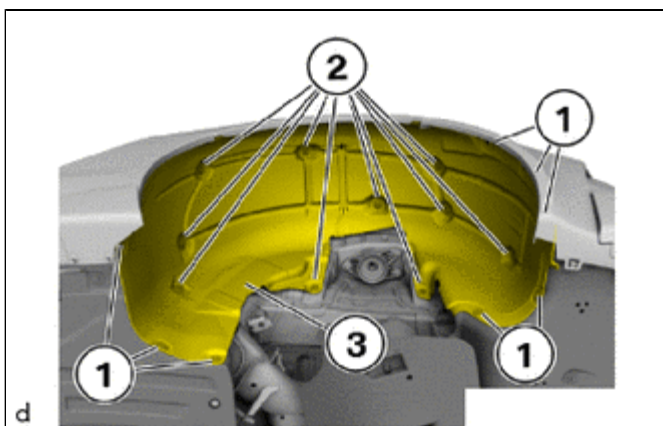
2. INSTALL PROPELLER SHAFT ASSEMBLY WITH CENTER BEARING

Click here [INFO](#)

3. INSTALL REAR WHEEL HOUSE LINER RH

NOTICE:

To provide a better overview: Schematic diagram with partially hidden components.



- (a) Guide the rear wheel arch cover (3) in.
- (b) Tighten the bolts (1) and nuts (2).

Torque:

Screw :

2.6 N·m {27 kgf·cm, 23 in·lbf}

Nut :

2.6 N·m {27 kgf·cm, 23 in·lbf}

4. INSTALL WHEEL ASSEMBLY

Click here [INFO](#)

5. FILLING FUEL TANK WITH FUEL

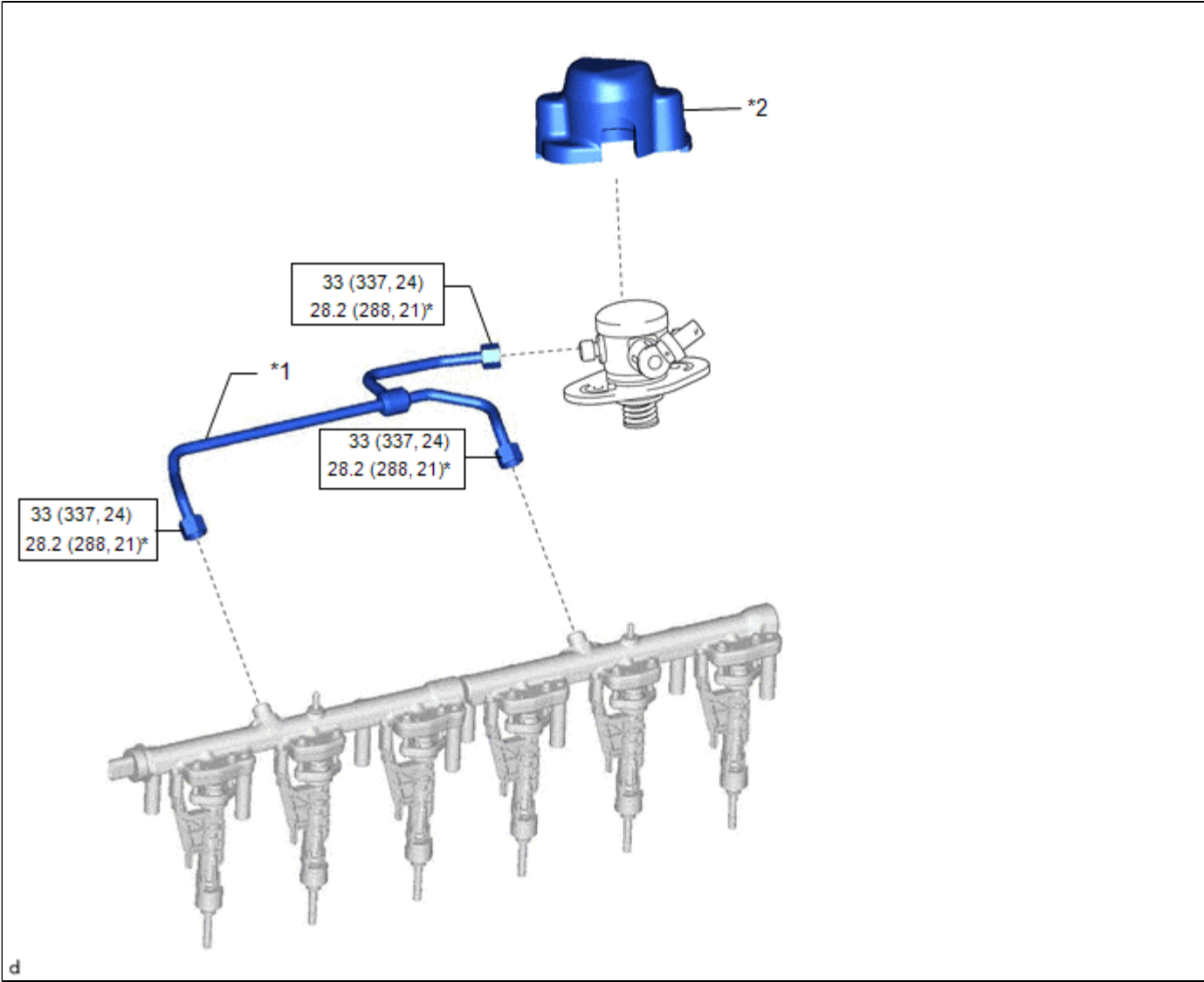
Click here



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5J
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TUBE (for Front): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 FUEL PIPE SUB-ASSEMBLY	*2	NO. 2 ENGINE COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5K
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TUBE (for Front): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

- On releasing high pressure line, fuel may emerge at high speed.

Danger of injury!

- Wear suitable personal protective equipment.
- Allow the cooling system to cool down to a temperature below 40°C before starting installation work.
- Note warnings on cylinder head cover.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

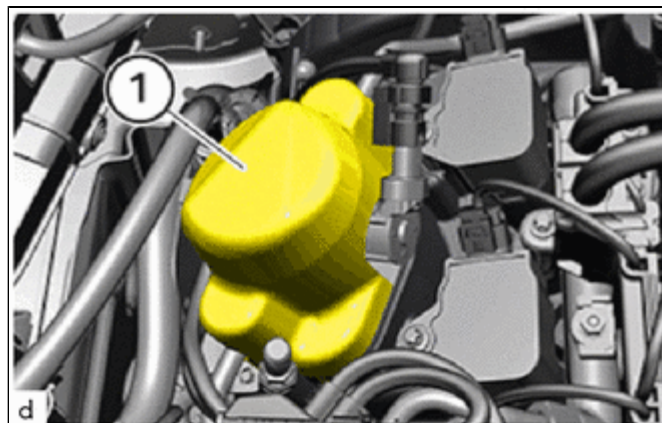
PROCEDURE

1. REMOVE IGNITION COIL ASSEMBLY

Click here [INFO](#)

2. REMOVE NO.2 ENGINE COVER SUB-ASSEMBLY

- (a) Guide out and remove the cover of the high pressure pump (1).



3. REMOVE NO. 1 FUEL PIPE SUB-ASSEMBLY

CAUTION:

- Working on fuel system.

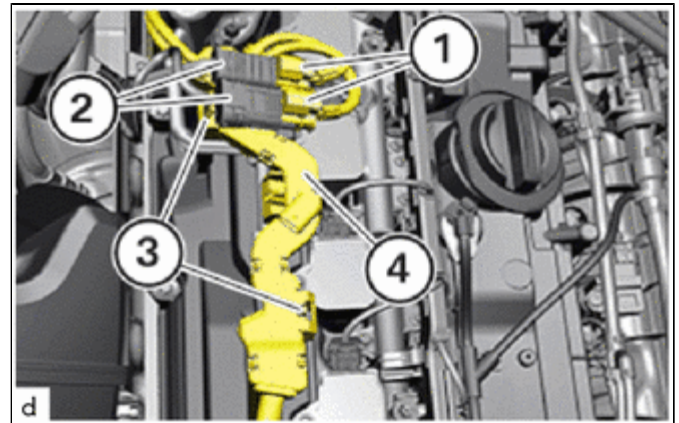
Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

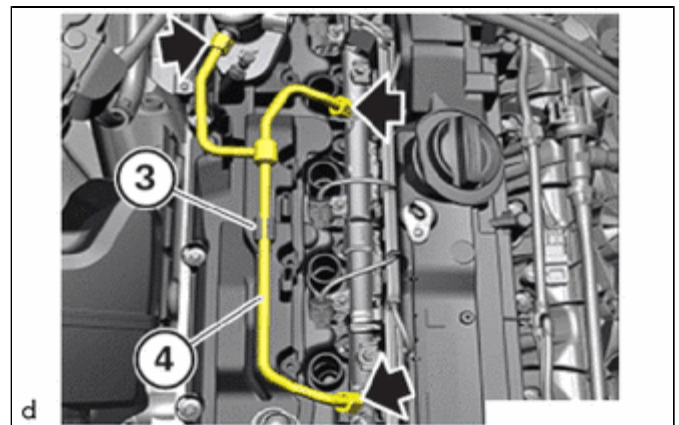
(a) Unlock and disconnect the plug connections (1) and (2).



(b) Unlock the locks (3).

(c) Guide out the wiring harness section of the engine wiring harness (4) and set it aside.

(d) Unscrew union nuts (arrows) with the 17 mm union nut wrench.



(e) Catch and dispose of escaping fuel.

(f) Thread out the No. 1 fuel pipe sub-assembly (4) from the bracket (3) and remove it.

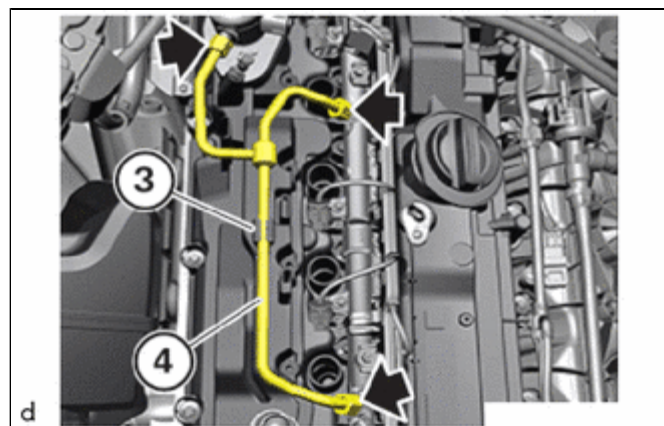
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5L
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TUBE (for Front): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 FUEL PIPE SUB-ASSEMBLY

- (a) Insert the No. 1 fuel pipe sub-assembly (4) into the holder (3) and install.



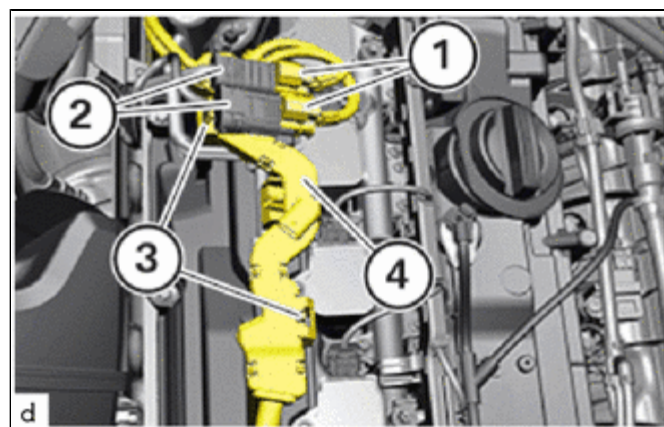
- (b) Tighten union nuts (arrows) with the 17 mm union nut wrench.

Torque:

33 N·m {337 kgf·cm, 24 ft·lbf}

- (c) Insert and install the wiring harness section of the engine wiring harness (4).

- (1) The locks (3) must engage audibly.

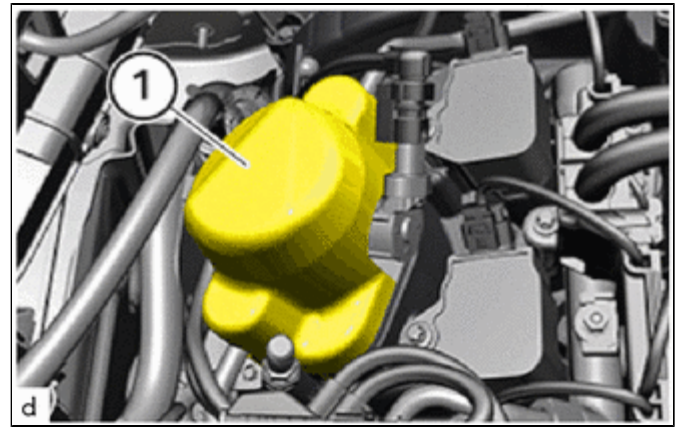


- (d) Connect connectors (1) and (2) and lock.

- (1) The connectors (1) and (2) must audibly engage.

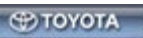
2. INSTALL NO.2 ENGINE COVER SUB-ASSEMBLY

(a) Guide in and install No.2 engine cover sub-assembly (1).



3. INSTALL IGNITION COIL ASSEMBLY

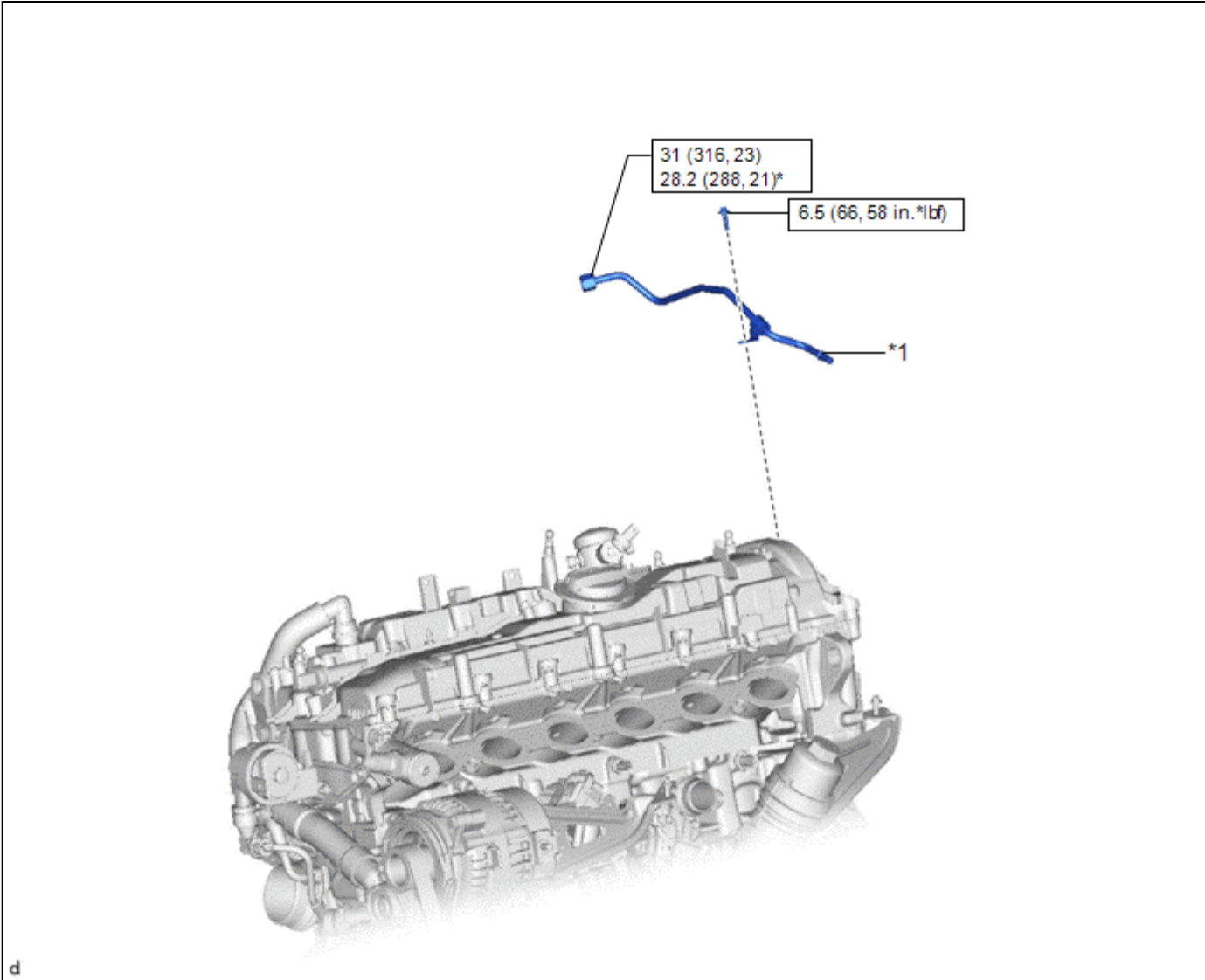
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD67
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TUBE (for Rear): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 2 FUEL PIPE SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD68
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TUBE (for Rear): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the intelligent battery sensor (IBS).

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. REMOVE NO.2 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 FUEL PIPE SUB-ASSEMBLY

CAUTION:

- Working on fuel system.

Risk of fire! Danger of explosion!

- When working on the fuel system, make sure that the workbay is sufficiently ventilated, e.g. using extraction unit.
- Tightly seal off open lines and connections; collect any escaping fuel directly at the point of exit.
- No fire, sparks, open flames or smoking.

- On releasing high pressure line, fuel may emerge at high speed.

Danger of injury!

- Wear suitable personal protective equipment.
- Allow the cooling system to cool down to a temperature below 40°C before starting installation work.
- Note warnings on cylinder head cover.

NOTICE:

- Electrostatic discharge.

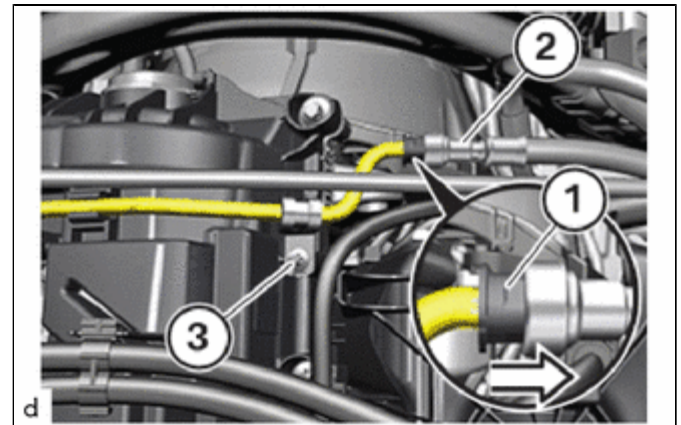
Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Read and comply with user information on using the associated special tool 12 7 060.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see: 61 35 Information on electrostatic discharge (ESD) protection.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock the snap fastener (1) in the direction of the arrow.

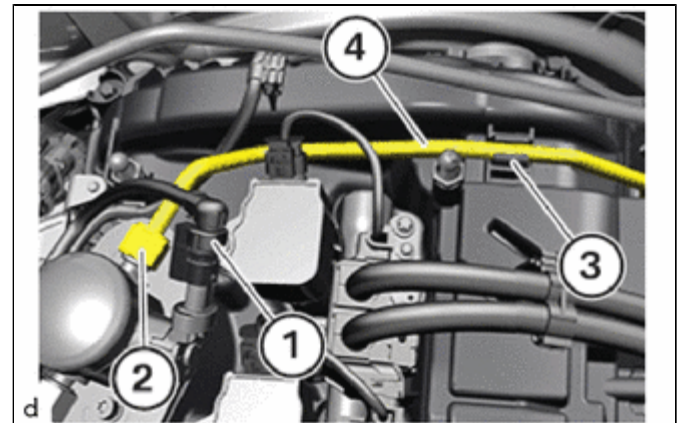


(b) Loosen fuel line (2) and place to one side.

(c) Catch and dispose of escaping fuel.

(d) Loosen screw (3).

(e) Unlock plug connection (1) and disconnect.



(f) Release the union nut (2) with the 17 mm union nut wrench on the high pressure pump.

(g) Catch and dispose of escaping fuel.

(h) Guide the No. 2 fuel pipe sub-assembly (4) out of the holder (3).

(i) Guide the No. 2 fuel pipe sub-assembly (4) out and remove.

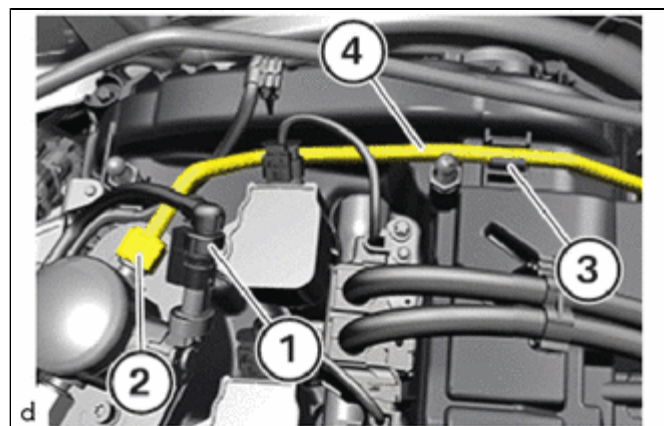
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD69
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL TUBE (for Rear): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 FUEL PIPE SUB-ASSEMBLY

(a) Guide the No. 2 fuel pipe sub-assembly (4) in and install.



(b) Insert the No. 2 fuel pipe sub-assembly (4) into the holder (3).

(c) Tighten the union nut (2) with the 17 mm union nut wrench.

Torque:

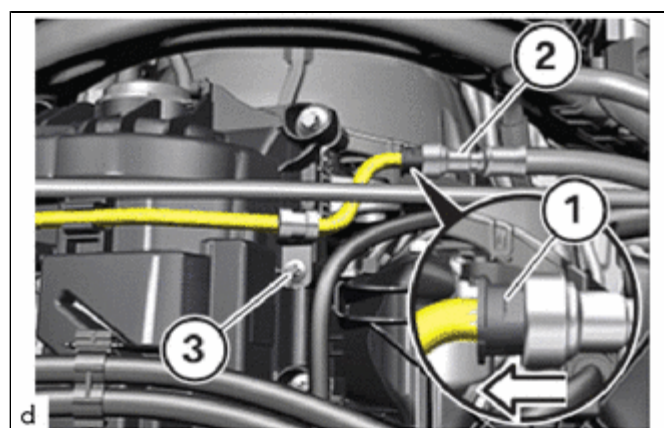
31 N·m {316 kgf·cm, 23 ft·lbf}

(d) Connect connectors (1) and lock.

(1) The connector (1) must engage audibly.

(e) Slide the fuel line (2) on and lock.

(1) The fuel feed line must engage audibly.



(f) Make sure the snap fastener (1) engages correctly.

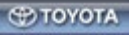
(g) Tighten down screw (3).

Torque:

6.5 N·m {66 kgf·cm, 58 in·lbf}

2. INSTALL NO.2 ENGINE COVER SUB-ASSEMBLY

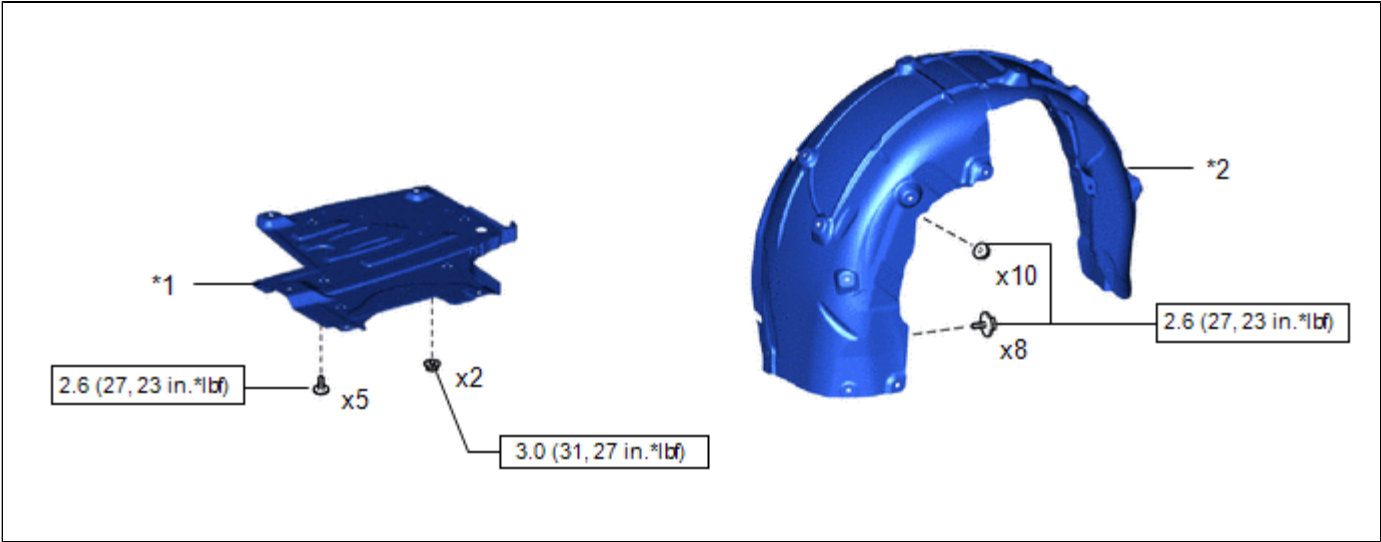
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5P
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL-FILLER PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

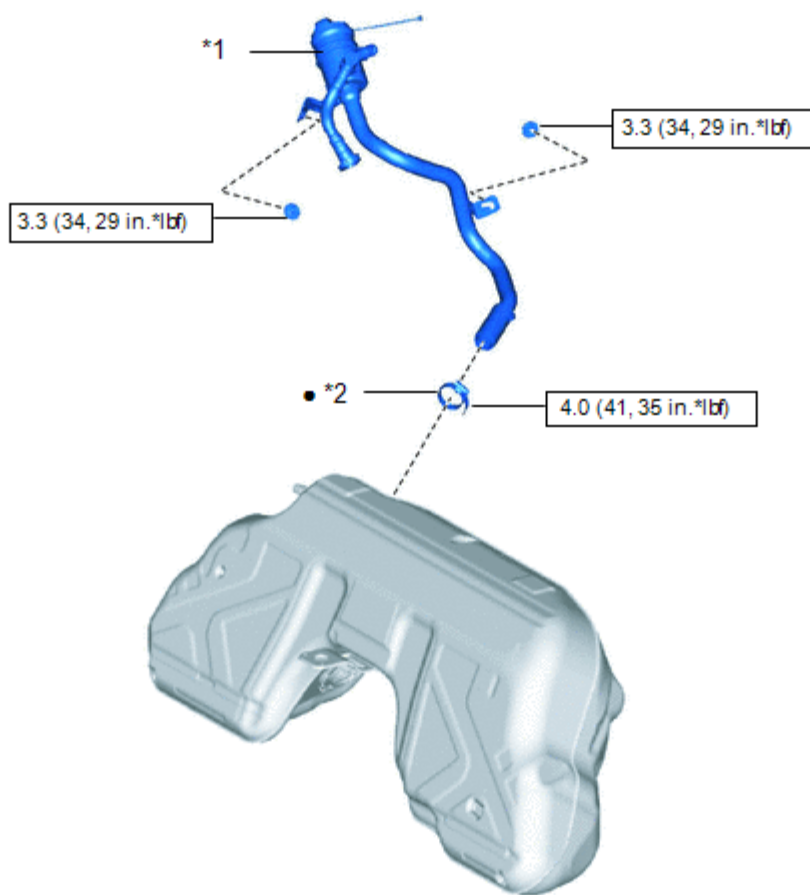
COMPONENTS



ILLUSTRATION



*1	REAR FLOOR SIDE MEMBER COVER LH	*2	REAR WHEEL HOUSE LINER RH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	FUEL FILLER PIPE	*2	HOSE CLAMP
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5Q
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL-FILLER PIPE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

2. REMOVE REAR WHEEL HOUSE LINER RH

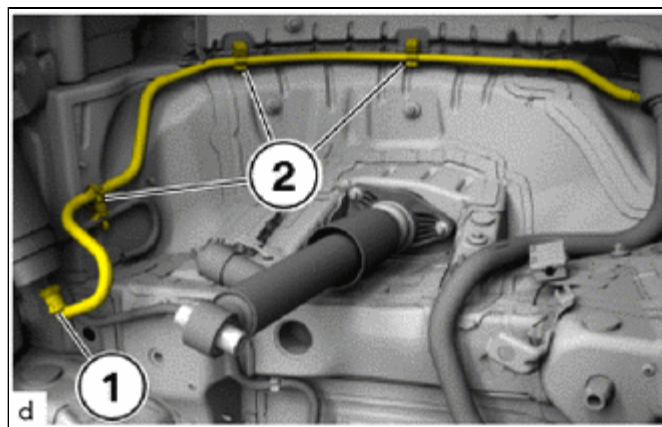
Click here [INFO](#)

3. REMOVE REAR FLOOR SIDE MEMBER COVER LH

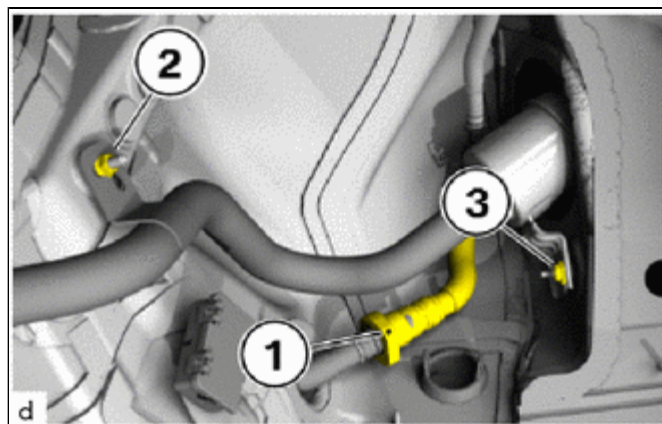
Click here [INFO](#)

4. REMOVE FUEL FILLER PIPE

(a) Unlock and pull off snap fastener (1).



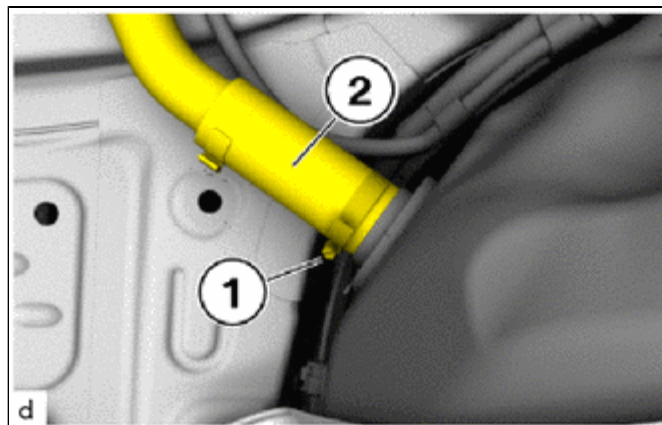
(b) Unclip tank ventilation line from brackets (2).



(c) Unlock and pull off snap fastener (1).

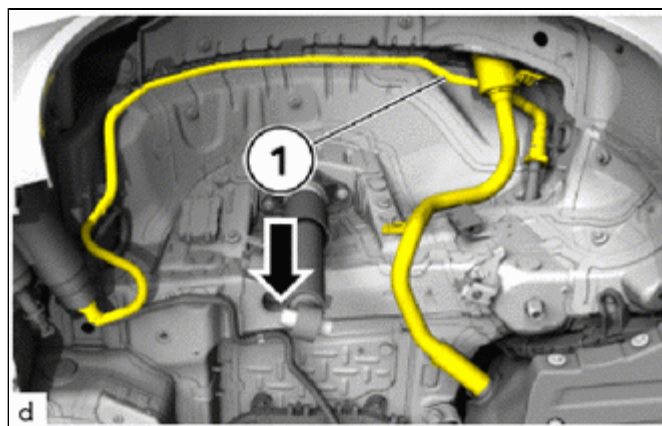
(d) Loosen nuts (2) and (3).

(e) Loosen hose clamp (1).



(f) Pull the rubber hose (2) off the fuel tank.

(g) Guide out fuel filler pipe (1) downwards with the corresponding tank ventilation line.



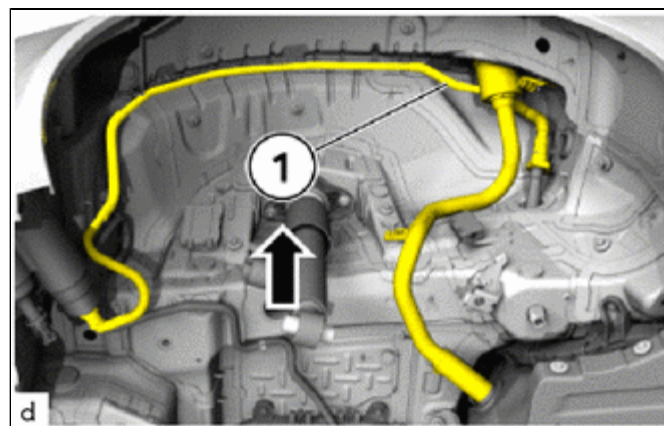
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD5R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (FUEL): FUEL-FILLER PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

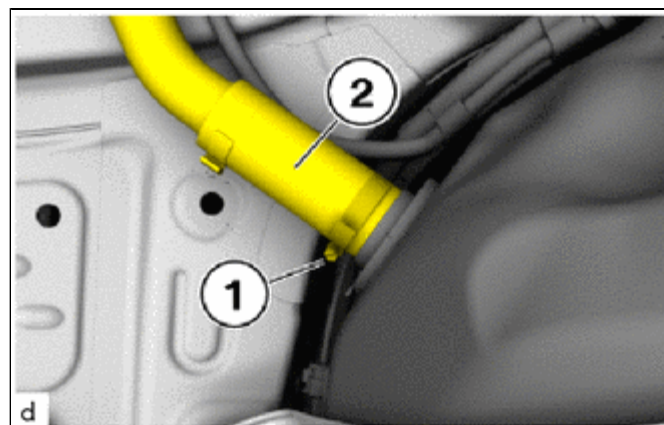
PROCEDURE

1. INSTALL THE FUEL FILLER PIPE

- (a) Thread the fuel filler pipe (1) with the associated tank ventilation line upward.



- (b) Connect the rubber hose (2) with the fuel tank.



- (c) Replace the hose clamp (1).

- (d) Tighten the hose clamp (1).

Torque:

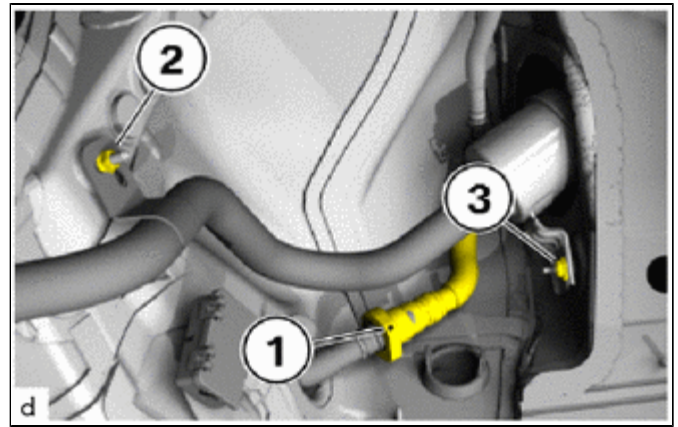
4.0 N·m {41 kgf·cm, 35 in·lbf}

- (e) Connect and lock the snap fastener (1).

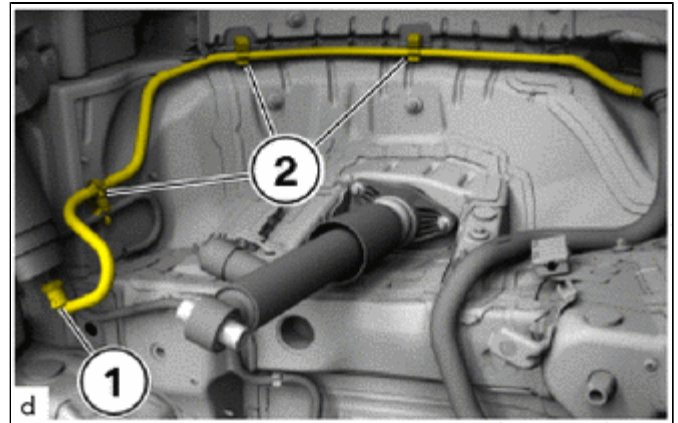
(f) Tighten nuts (2) and (3).

Torque:

3.3 N·m {34 kgf·cm, 29 in·lbf}

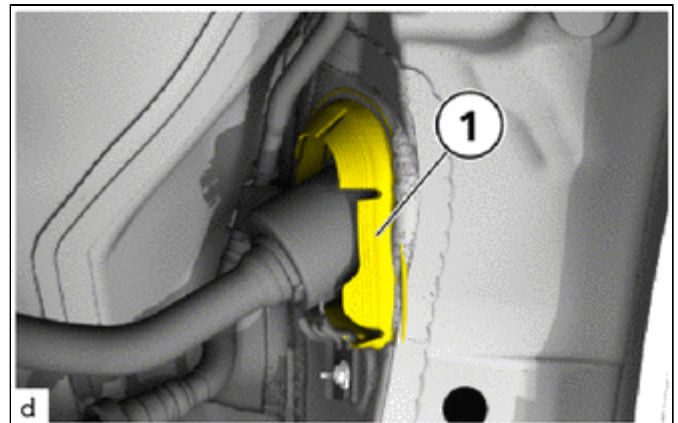


(g) Connect and lock the snap fastener (1).



(h) Clip the tank ventilation line into the brackets (2).

(i) Check the sealing lip (1) on the wheel arch for correct fit.



2. INSTALL REAR FLOOR SIDE MEMBER COVER LH

Click here [INFO](#)

3. INSTALL REAR WHEEL HOUSE LINER RH

Click here [INFO](#)

4. INSTALL WHEEL ASSEMBLY

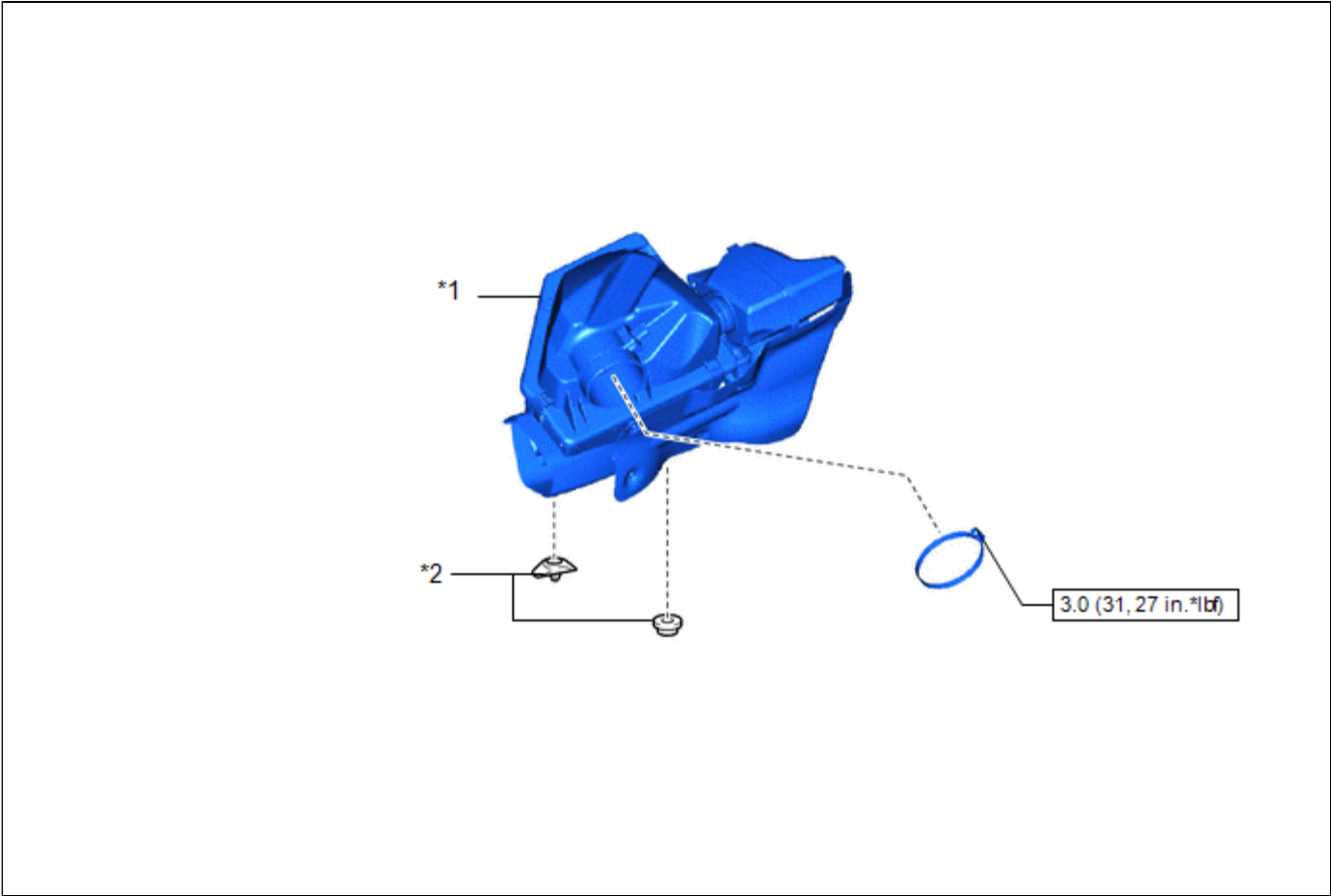
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CLEANER ASSEMBLY	*2	AIR CLEANER SUPPORT
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

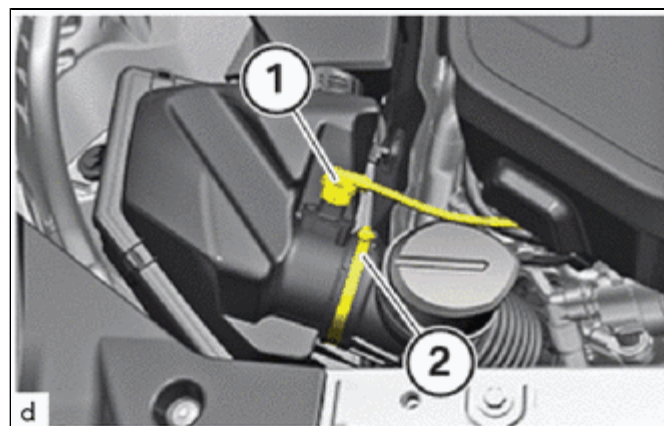
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

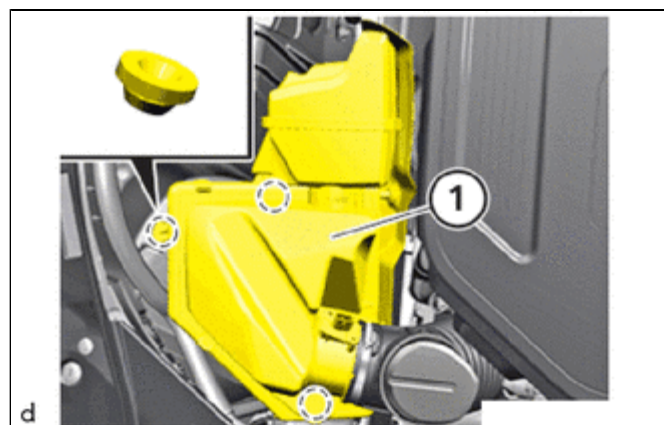
1. REMOVE AIR CLEANER ASSEMBLY

(a) Unlock plug connection (1) and disconnect.



(b) Unfasten clamp (2).

(c) Release the air cleaner assembly (1) towards the top from the air cleaner supports (marks) and remove.



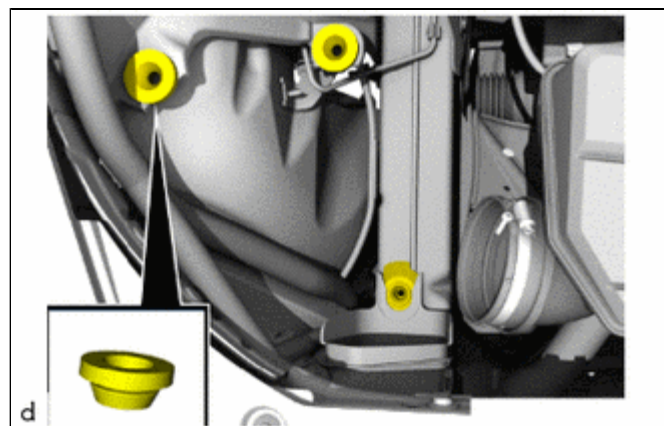
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR CLEANER ASSEMBLY

(a) Check the air cleaner support for correct fit.



(b) Feed the air cleaner assembly in and engage it in the air cleaner supports.

(c) Connect connectors and lock.

HINT:

- Note the installation position of the component. The component may be installed in various installation positions.
- The connector must engage audibly.

(d) Tighten clamp.

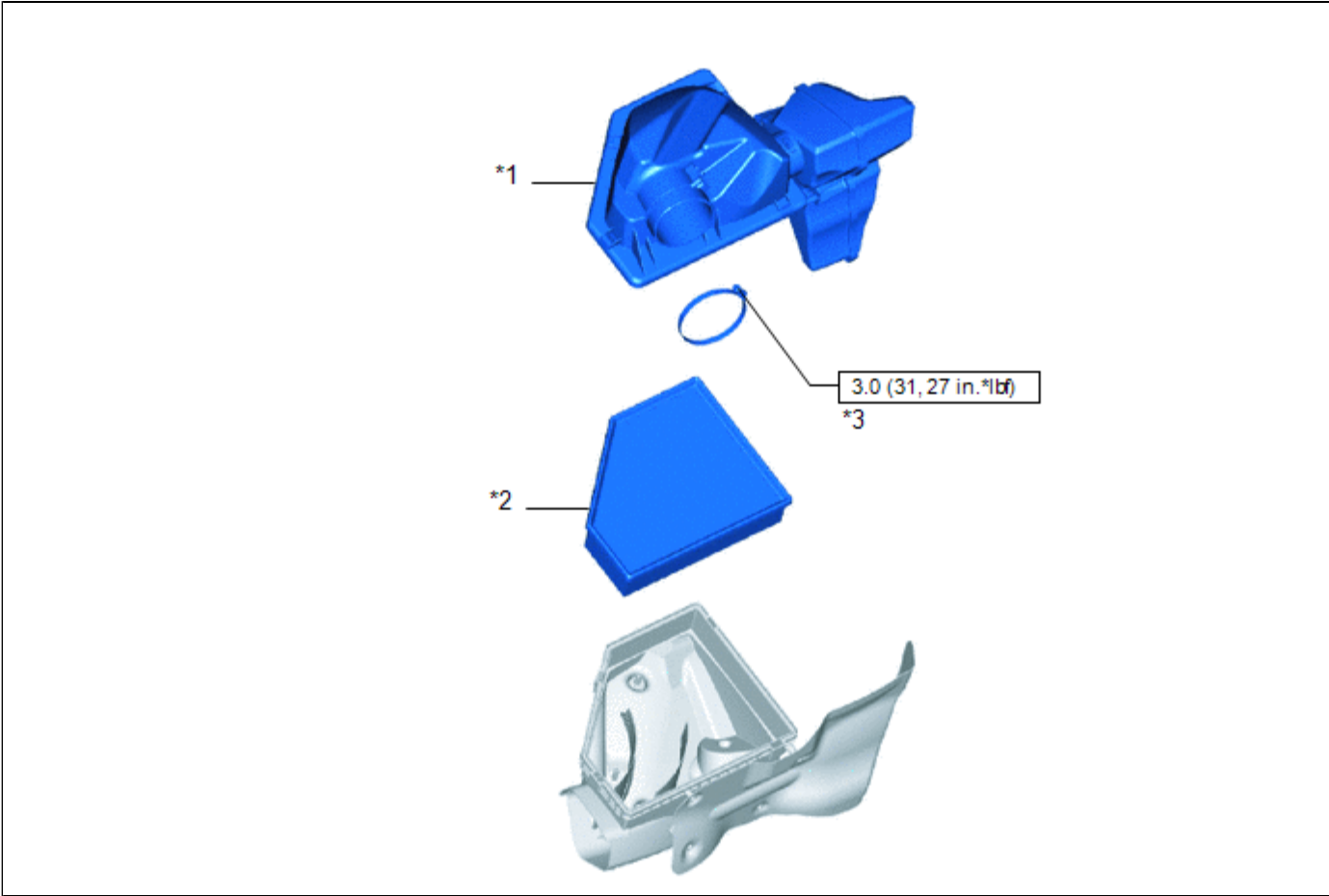
Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER FILTER ELEMENT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CLEANER CAP SUB-ASSEMBLY	*2	AIR CLEANER FILTER ELEMENT SUB-ASSEMBLY
*3	CLAMP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER FILTER ELEMENT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER FILTER ELEMENT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

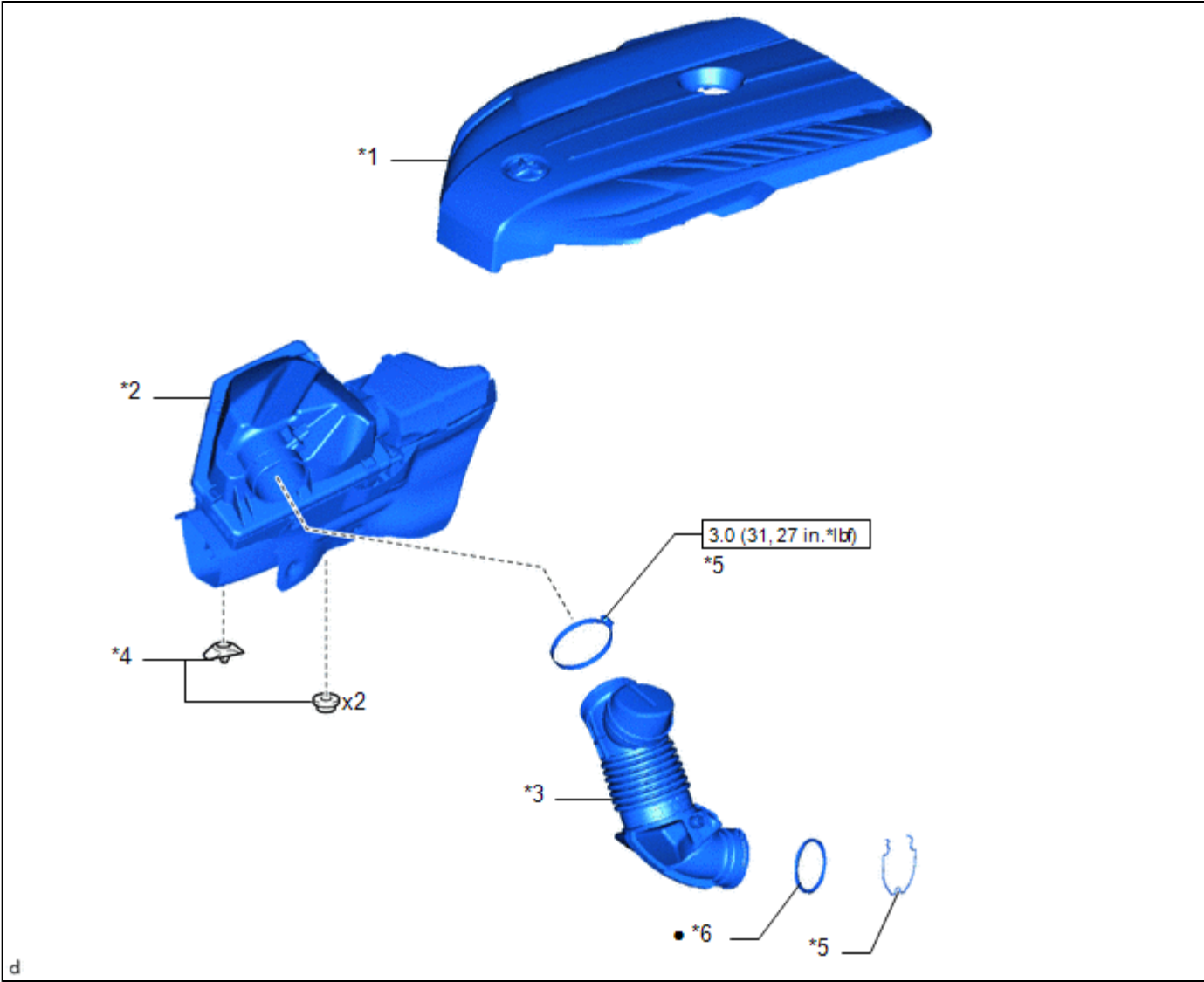
CAUTION / NOTICE / HINT


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	AIR CLEANER ASSEMBLY
*3	AIR CLEANER HOSE ASSEMBLY	*4	AIR CLEANER SUPPORT
*5	CLAMP	*6	GASKET
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

3. REMOVE AIR CLEANER HOSE ASSEMBLY

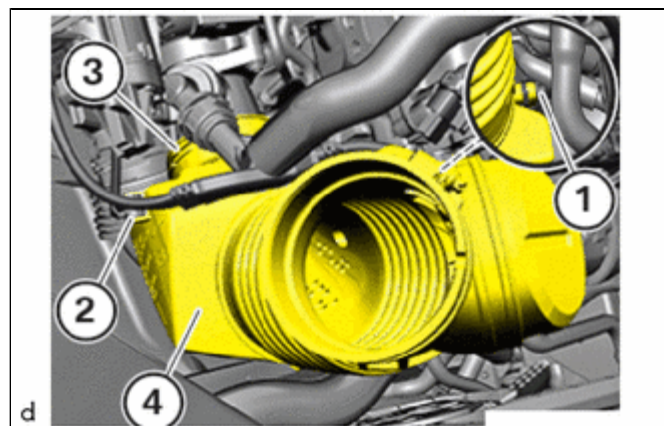
CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

(a) Unlock the ventilation pipe sub-assembly (1) and release from the air cleaner hose assembly.



(b) Loosen clamp (2).

(c) Unlock and loosen clamp (3).

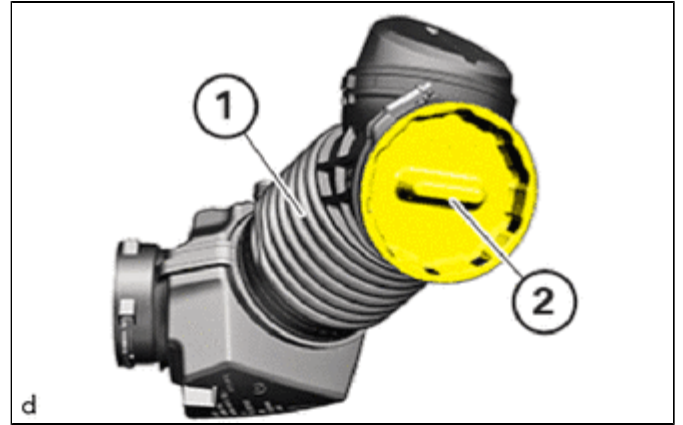
(d) Feed out air cleaner hose assembly (4) and remove.

4. REMOVE COVER CAP

HINT:

Perform this procedure only when reused of the air cleaner hose assembly is necessary.

- (a) Remove the cover cap (2) of the air cleaner hose assembly (1) before installation.



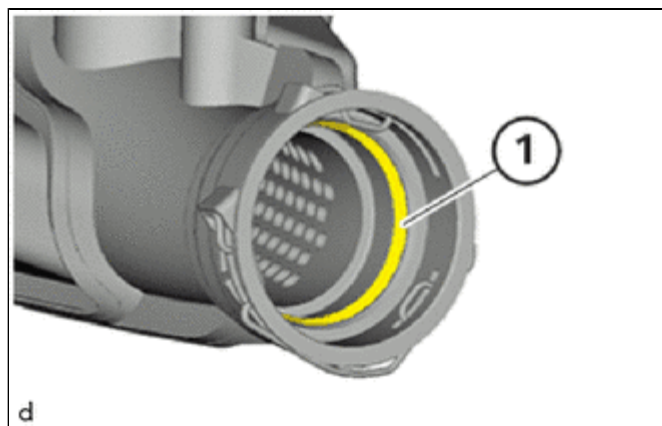
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): AIR CLEANER HOSE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR CLEANER HOSE ASSEMBLY

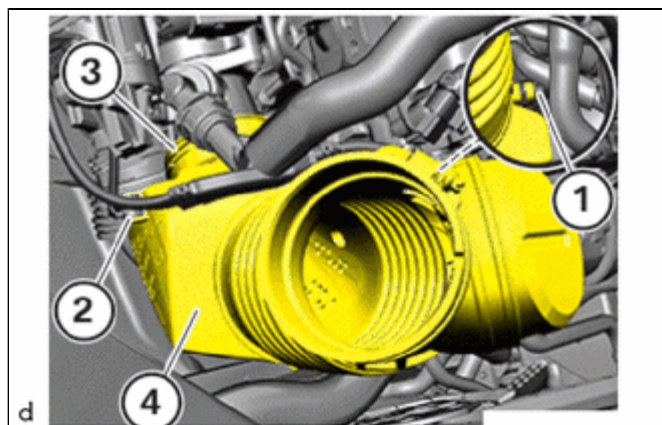
(a) Replace the gasket (1).



(b) Feed in air cleaner hose assembly (4) and install.

HINT:

The clamp must engage audibly.



(c) Secure clamps (2) and (3).

(d) Connect the ventilation pipe sub-assembly (1) on the air cleaner hose assembly and lock.

HINT:

The ventilation pipe sub-assembly (1) must engage audibly.

2. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

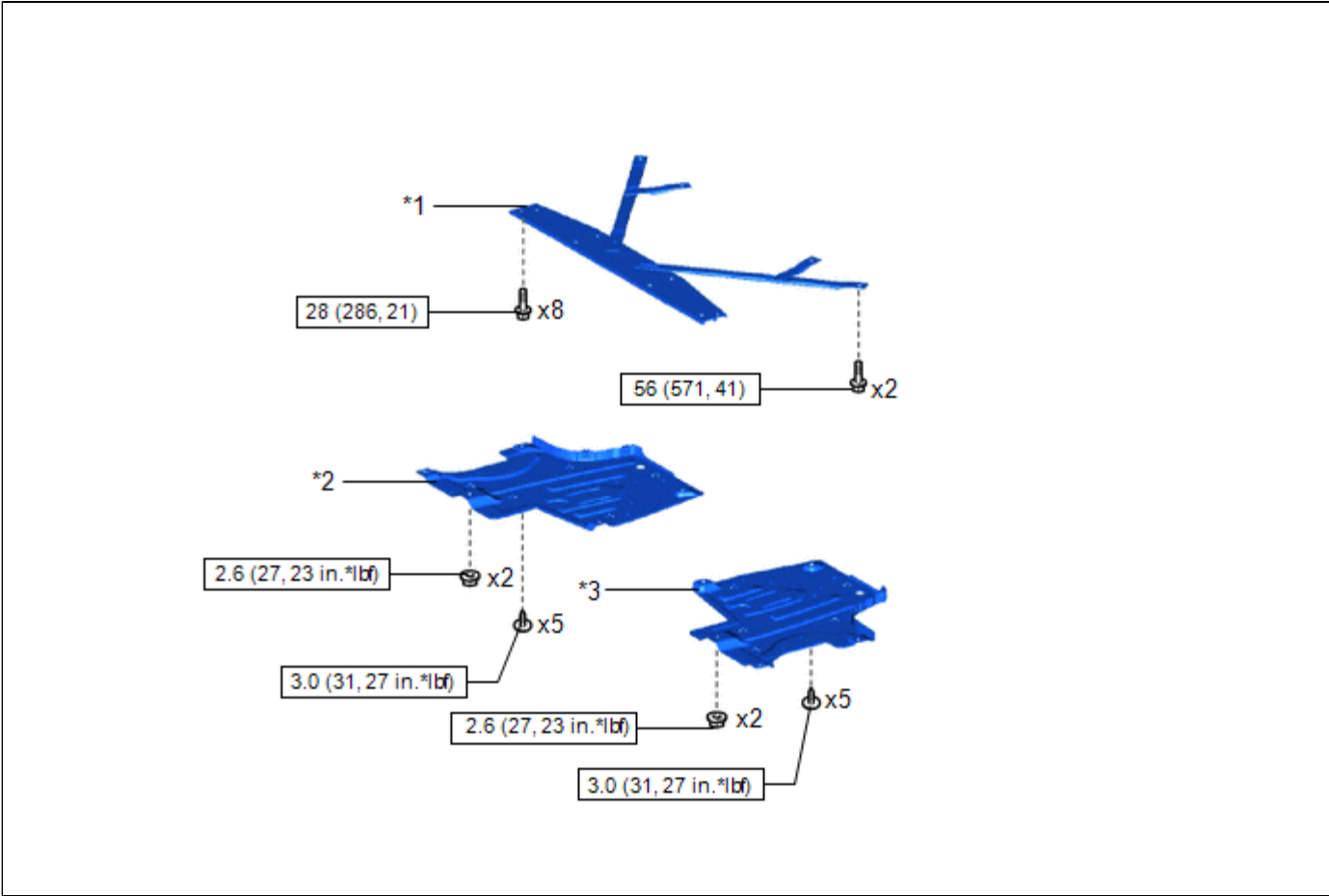
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): CENTER EXHAUST PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

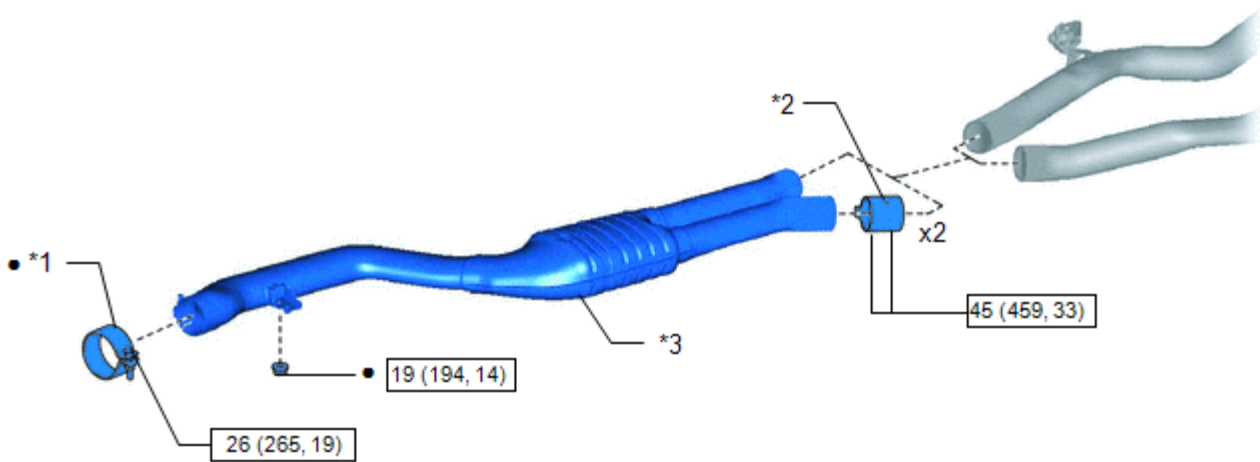
ILLUSTRATION




*1	REAR FLOOR PANEL BRACE	*2	REAR FLOOR SIDE MEMBER COVER LH
*3	REAR FLOOR SIDE MEMBER COVER RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION

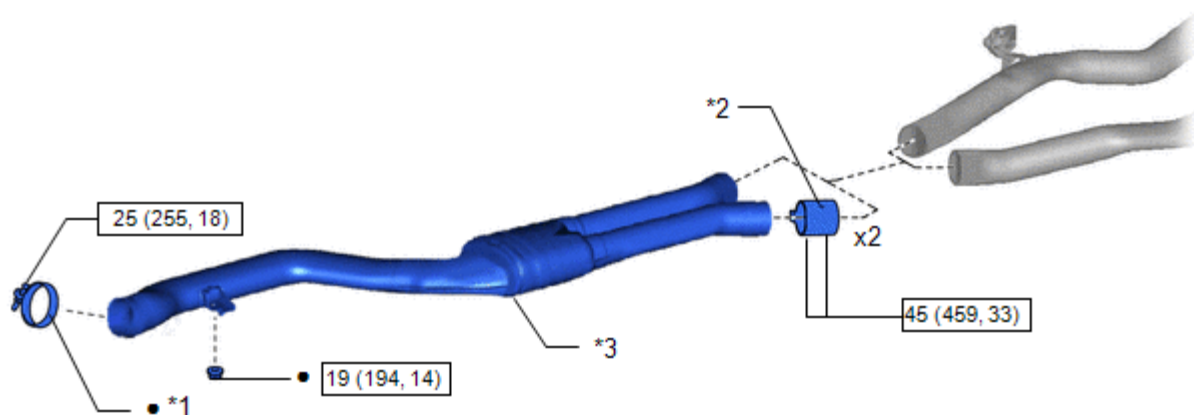
*A




*A	for Ribbon Clamp	-	-
*1	EXHAUST PIPE CLAMP	*2	FRONT NO. 1 EXHAUST PIPE CLAMP (for Rear)
*3	FRONT NO. 2 EXHAUST PIPE ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

*A



d

*A	for V-band Clamp	-	-
*1	EXHAUST PIPE CLAMP	*2	FRONT NO. 1 EXHAUST PIPE CLAMP (for Rear)
*3	FRONT NO. 2 EXHAUST PIPE ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): CENTER EXHAUST PIPE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot exhaust pipe assembly.

Risk of burning!

- Any work must exclusively be carried out with an exhaust pipe assembly that has cooled down.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Component with heavy weight.

Danger of injury!

- Note component's center of gravity.
- Support component using a jack.
- Secure component against falling off the jack.

- Swarf resulting from sawing or grinding components.

Danger of injury!

- Conduct all work in appropriate personal protective equipment only.
- Wear safety goggles and protective gloves.

PROCEDURE

1. REMOVE REAR FLOOR SIDE MEMBER COVER LH

Click here [INFO](#)

2. REMOVE REAR FLOOR SIDE MEMBER COVER RH

HINT:

Use the same procedure as for the LH side.

3. REMOVE REAR FLOOR PANEL BRACE

Click here [INFO](#)

4. REMOVE FRONT NO. 2 EXHAUST PIPE ASSEMBLY

CAUTION:

- Hot exhaust pipe assembly.

Risk of burning!

- Any work must exclusively be carried out with an exhaust pipe assembly that has cooled down.

- Heavy component.

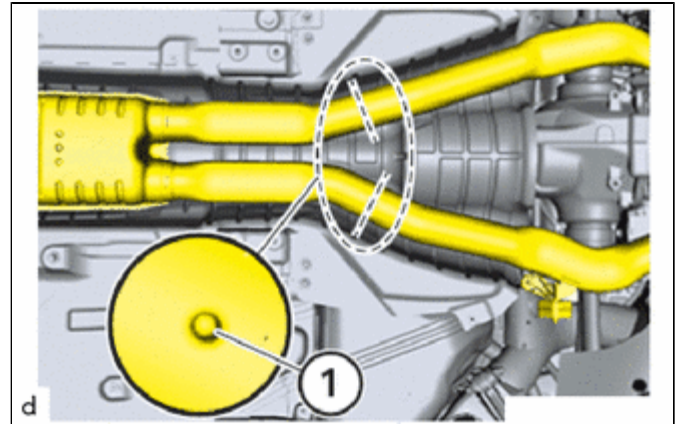
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

HINT:

- If the separation point is not marked by a punch mark in the pipe, determine the separation point by means of the pipe length on the new component.
- Transfer the separation point to the faulty component and mark.
- Cut through the faulty component at the marked point with a suitable tool.
- Deburr the separation point and remove any swarf. There is a risk of remaining metal chips at the joint between the two pipes and/or swarf in the rear silencer.
- Check the exhaust pipe assembly for tightness after installation.

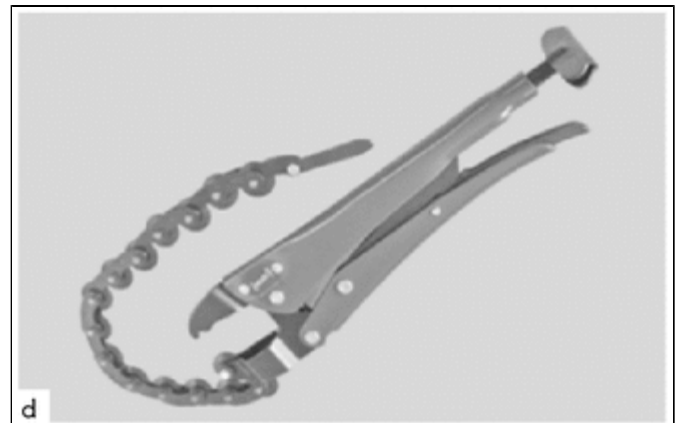
- (a) If the separation point (1) is not marked by a punch mark in the pipe, determine the separation point (1) by means of the pipe length on the new component.



- (b) Transfer the separation point (1) to the component to be replaced and mark.

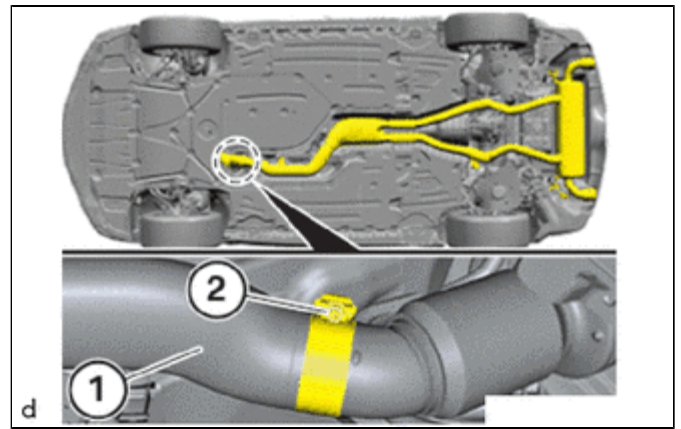
- (c) Detach the exhaust pipe with the special tool 0 496 469 (00 2 220) at the separation point.

SST: 09200-WA600

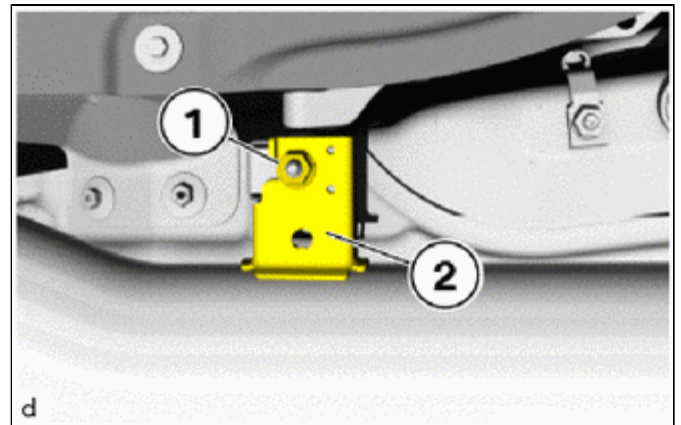


- (d) for Ribbon Clamp:

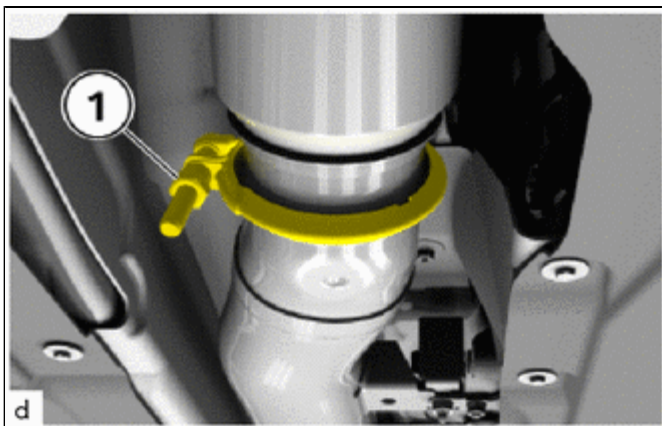
- (1) Unscrew nut (2) on the exhaust pipe assembly (1).



(2) Unscrew the nut (1) on the holder (2).

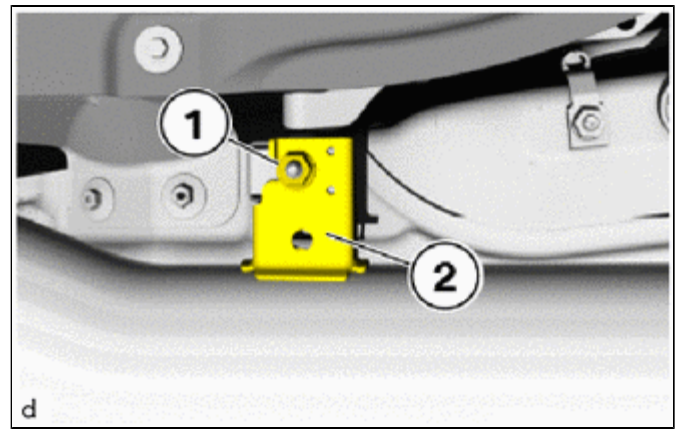


(e) for V-band Clamp:



(1) Using a 16 mm deep socket wrench, loosen exhaust pipe clamp (1).

(2) Unscrew the nut (1) on the holder (2).



(f) Have someone help you remove the catalytic converter with center silencer.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): CENTER EXHAUST PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT NO. 2 EXHAUST PIPE ASSEMBLY

CAUTION:

- Hot exhaust system.

Risk of burning!

- Any work must exclusively be carried out with an exhaust system that has cooled down.

- Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

HINT:

- If the separation point is not marked by a punch mark in the pipe, determine the separation point by means of the pipe length on the new component.
- Transfer the separation point to the faulty component and mark.
- Cut through the faulty component at the marked point with a suitable tool.
- Deburr the separation point and remove any swarf. There is a risk of remaining metal chips at the joint between the two pipes and/or swarf in the rear silencer.
- Check the exhaust system for tightness after installation.

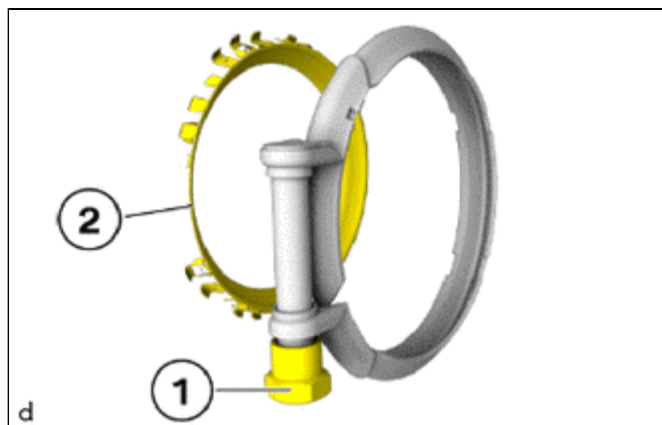
(a) for V-band Clamp:

- (1) Have someone help position the front No. 2 exhaust pipe assembly in the center.
- (2) Check the rubber mounts for damage and replace, if necessary.
- (3) Replace nut.
- (4) Tighten the nut on the holder.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

- (5) Release the nut (1) and remove the sealing ring (2).

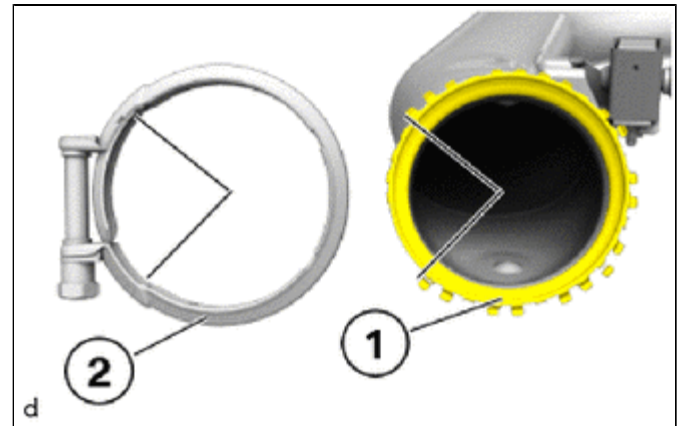


(6) Replace the exhaust pipe clamp.

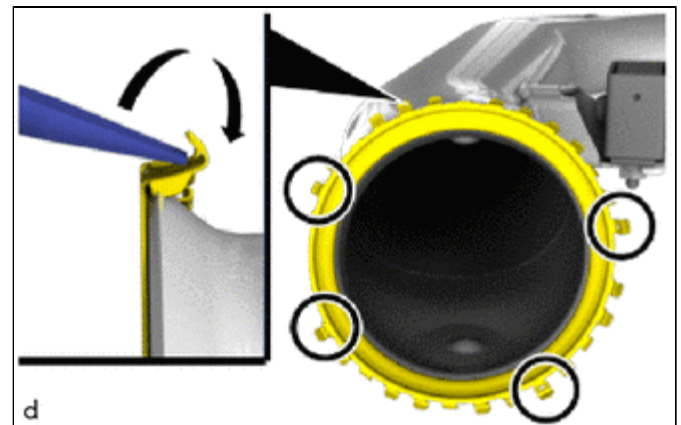
(7) Mount the sealing ring (1) on the exhaust pipe assembly.

NOTICE:

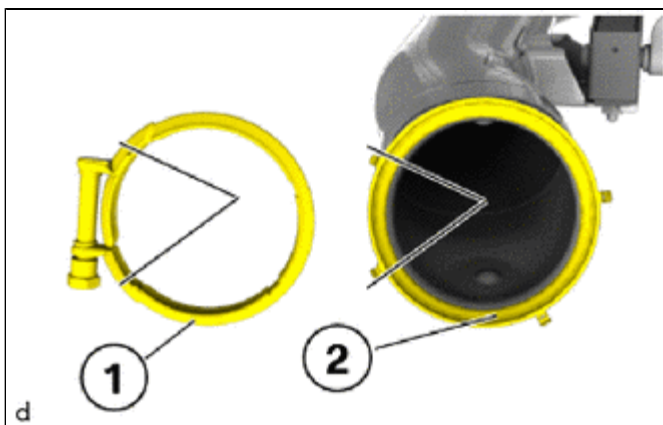
Ensure that the sealing ring (1) is correctly positioned for the exhaust pipe clamp (2).



(8) Bend all sheet metal tabs over with a suitable tool, except those in the marked areas.

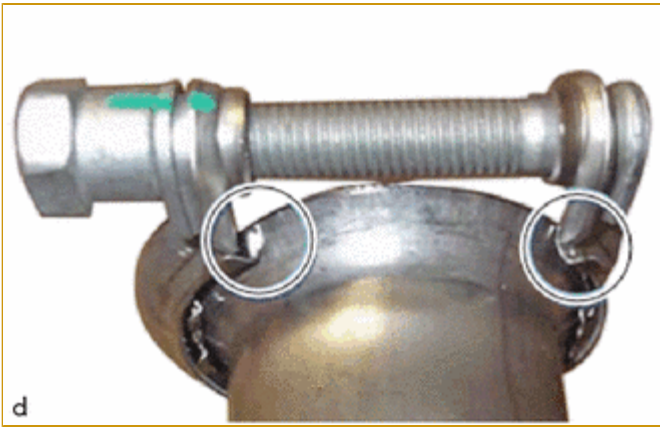


(9) Mount the exhaust pipe clamp (1) on the sealing ring (2).

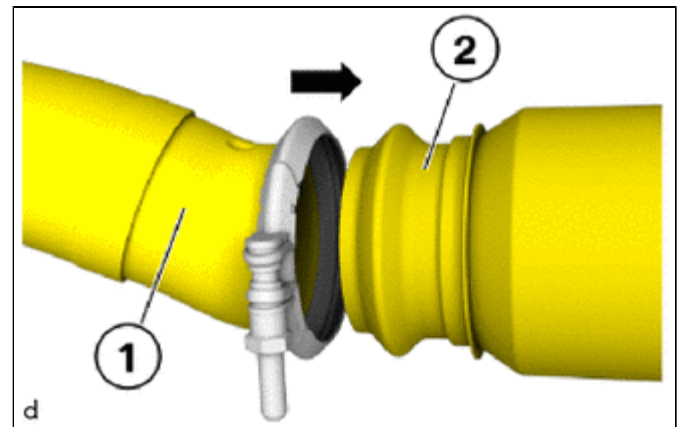


NOTICE:

- Make sure that the exhaust pipe clamp (1) is positioned correctly on the sealing ring (2).
- Make sure that the V-band clamprests against the sheet metal tabs after mounting (marks).



- (10) Connect the front No. 2 exhaust pipe assembly (1) with the exhaust manifold converter sub-assembly (2) and position correctly.



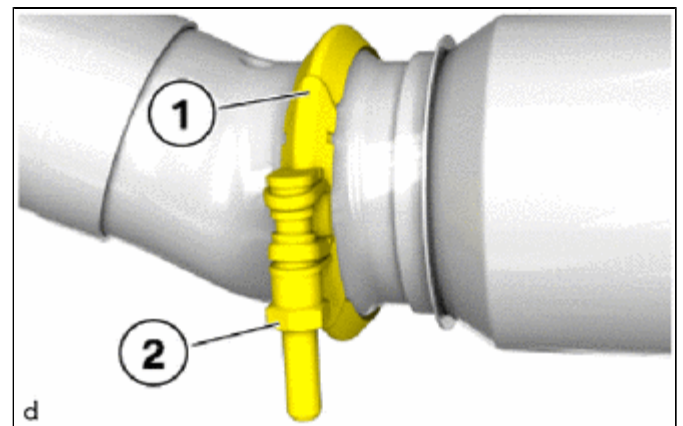
- (11) Using a 16 mm deep socket wrench, tighten down screw (2).

NOTICE:

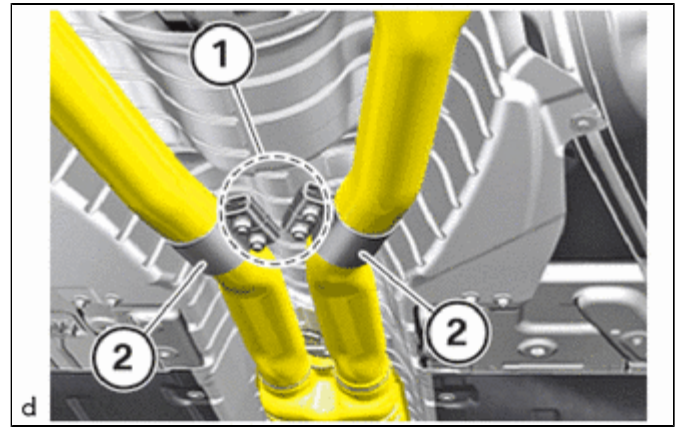
Make sure that exhaust pipe clamp (1) is fitted correctly.

Torque:

25 N·m {255 kgf·cm, 18 ft·lbf}



- (12) Connect the front No. 2 exhaust pipe assembly to the rear silencer with the front No. 1 exhaust pipe clamp (for Rear) (2).

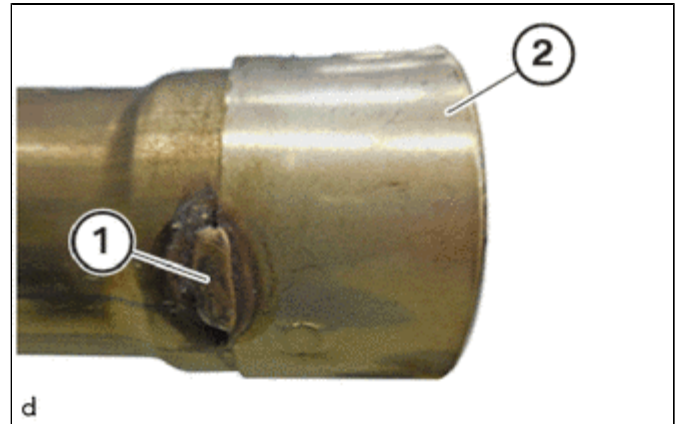


(13) Center the front No. 1 exhaust pipe clamp (for Rear) (2) and tighten the nuts (1).

Torque:

45 N·m {459 kgf·cm, 33 ft·lbf}

(b) for Ribbon Clamp:



(1) Open the weld seam (1) with a hacksaw.

(2) Remove the exhaust pipe clamp (2).

(3) Replace the exhaust pipe clamp.

(4) Have someone help insert the front No. 2 exhaust pipe assembly and position it at the front.

(5) Tighten the exhaust pipe clamp.

Torque:

26 N·m {265 kgf·cm, 19 ft·lbf}

(6) Have someone help position the front No. 2 exhaust pipe assembly in the center.

(7) Check the rubber mounts for damage and replace, if necessary.

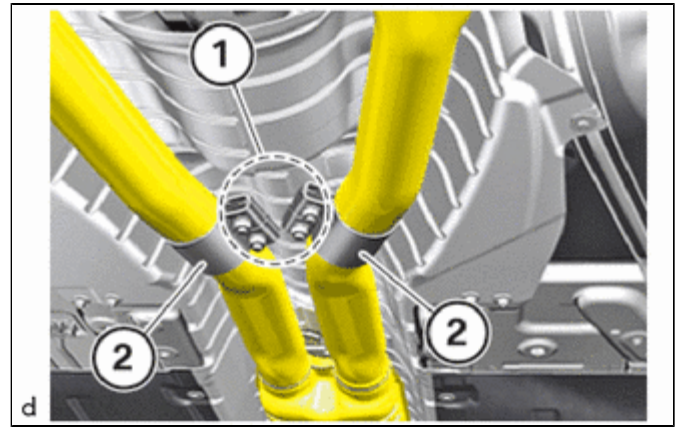
(8) Replace nut.

(9) Tighten the nut on the holder.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(10) Connect the front No. 2 exhaust pipe assembly to the rear silencer with the front No. 1 exhaust pipe clamp (for Rear) (2).



(11) Engage the front No. 1 exhaust pipe clamp (for Rear) (2) and tighten the nuts (1).

Torque:

45 N·m {459 kgf·cm, 33 ft·lbf}

2. INSTALL REAR FLOOR PANEL BRACE

Click here [INFO](#)

3. INSTALL REAR FLOOR SIDE MEMBER COVER LH

Click here [INFO](#)

4. INSTALL REAR FLOOR SIDE MEMBER COVER RH

HINT:

Use the same procedure as for the LH side.

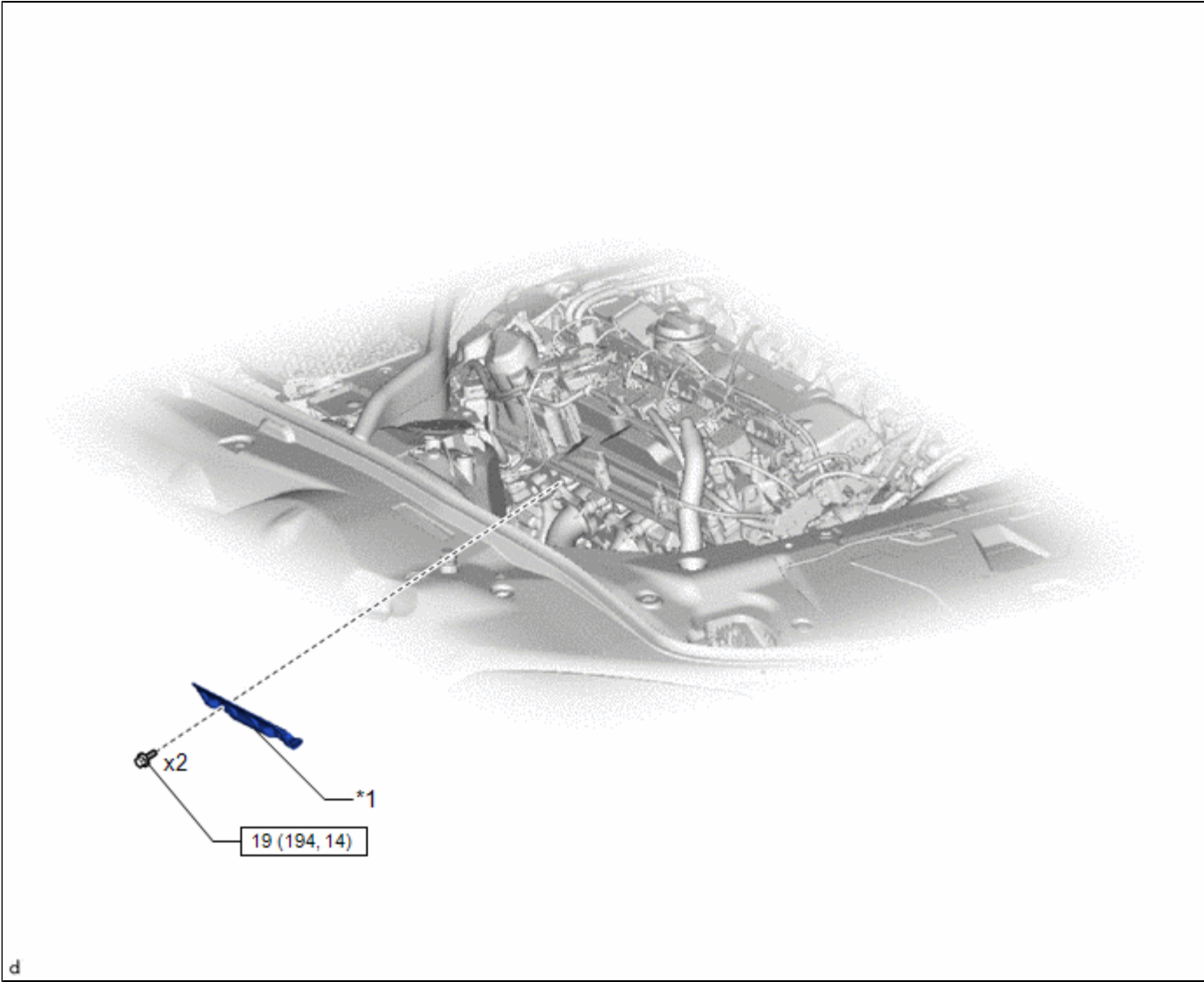
5. INSPECT FOR EXHAUST GAS LEAK


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST MANIFOLD HEAT INSULATOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 EXHAUST MANIFOLD HEAT INSULATOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST MANIFOLD HEAT INSULATOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 EXHAUST MANIFOLD HEAT INSULATOR

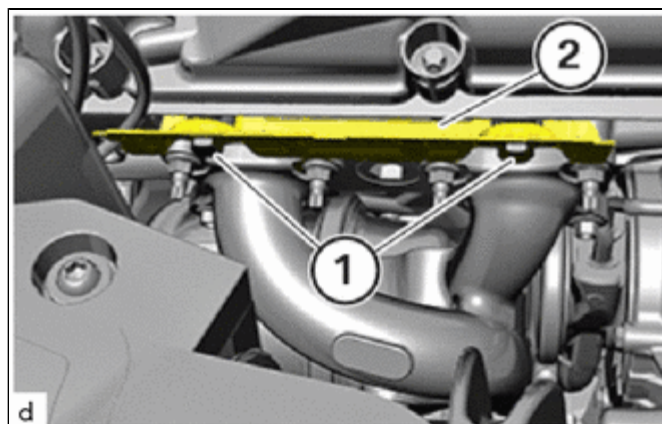
CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

(a) Loosen the bolts (1).



(b) Remove the No. 1 exhaust manifold heat Insulator (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST MANIFOLD HEAT INSULATOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 EXHAUST MANIFOLD HEAT INSULATOR

- (a) Position the No. 1 exhaust manifold heat Insulator.
- (b) Tighten the bolts.

Torque:
19 N·m {194 kgf·cm, 14 ft·lbf}

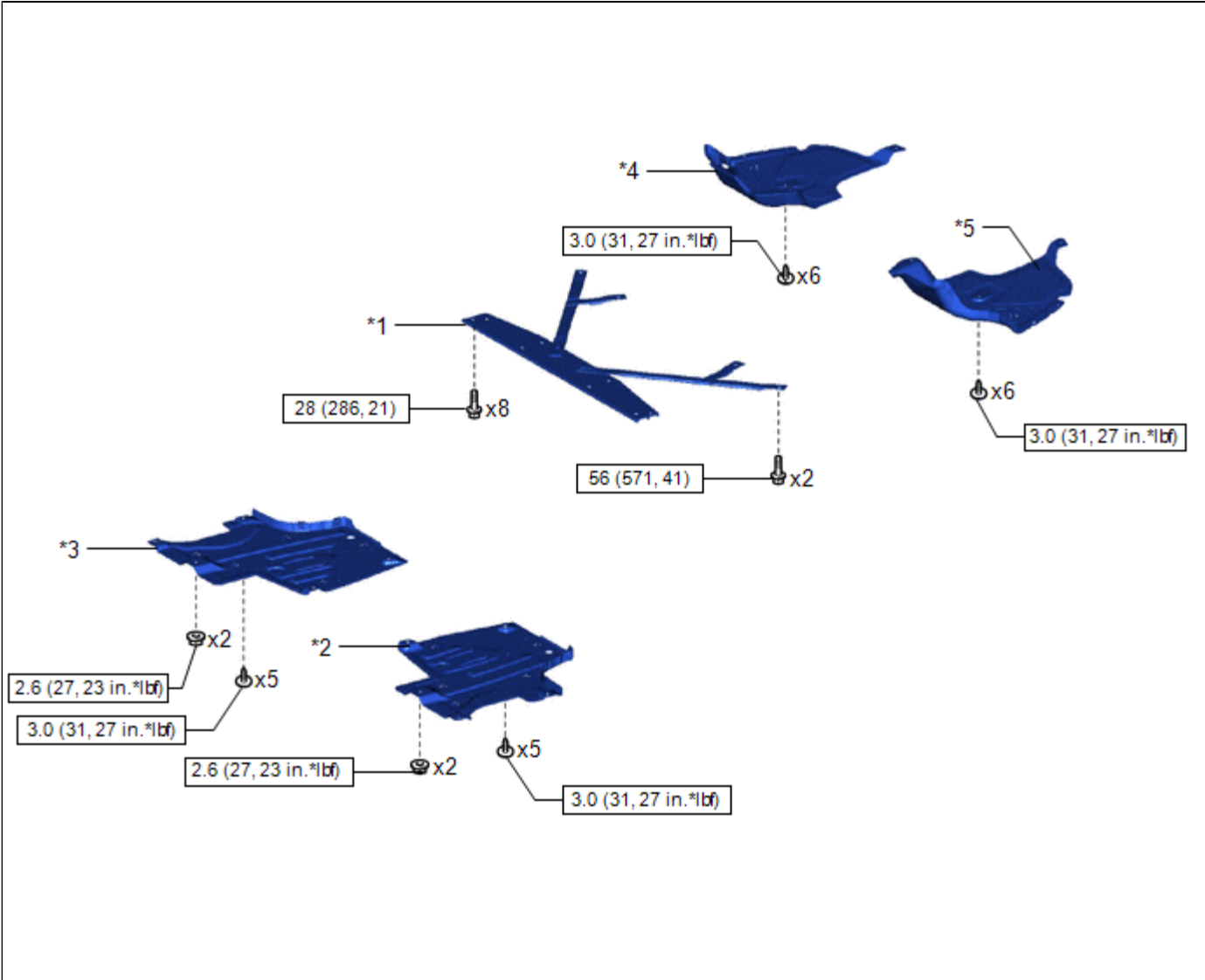
2. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

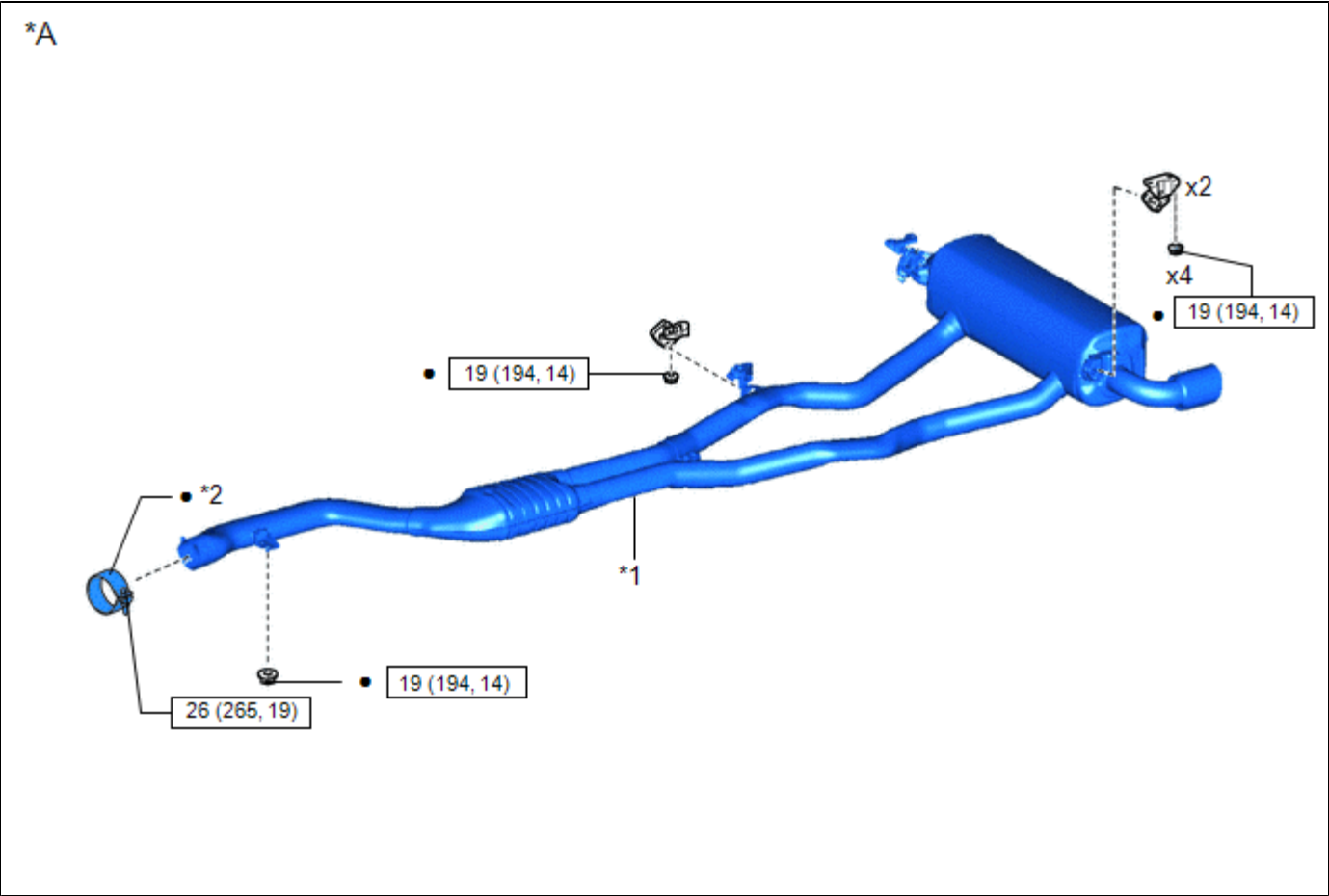
COMPONENTS

ILLUSTRATION



*1	REAR FLOOR PANEL BRACE	*2	REAR FLOOR SIDE MEMBER COVER LH
*3	REAR FLOOR SIDE MEMBER COVER RH	*4	REAR UNDERBODY PROTECTOR RH
*5	REAR UNDERBODY PROTECTOR LH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

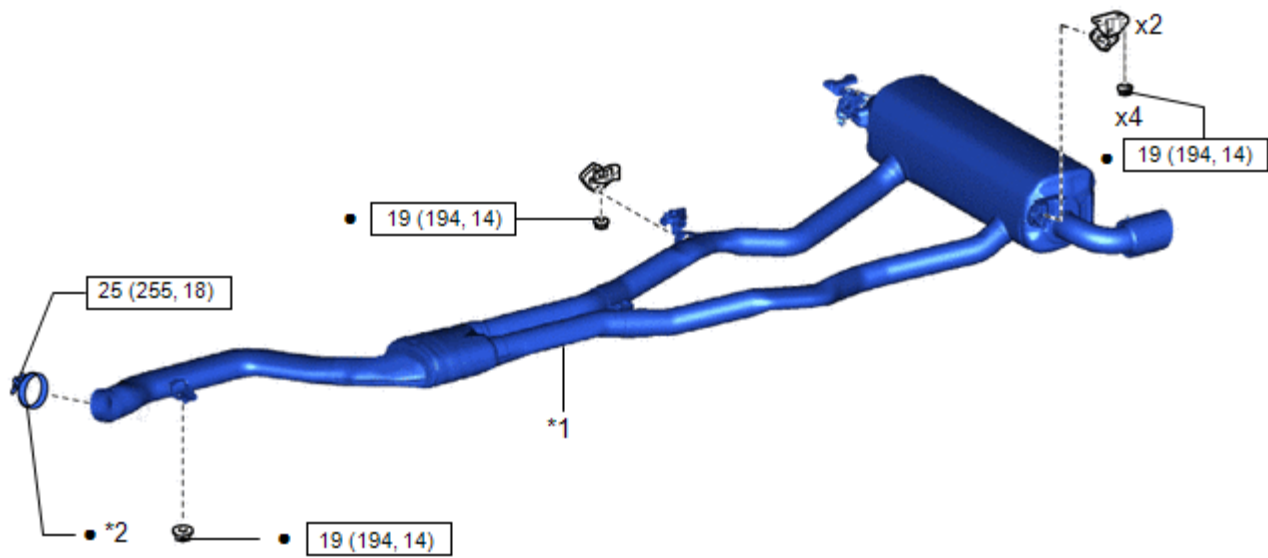
ILLUSTRATION




*A	for Ribbon Clamp	-	-
*1	EXHAUST PIPE ASSEMBLY	*2	EXHAUST PIPE CLAMP
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

*A



d

*A	for V-band Clamp	-	-
*1	EXHAUST PIPE ASSEMBLY	*2	EXHAUST PIPE CLAMP
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

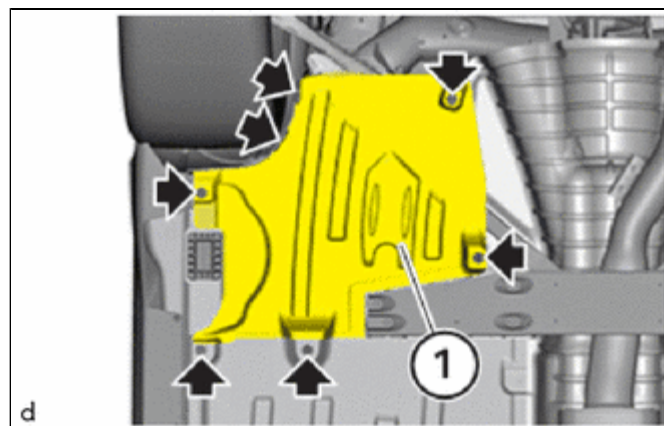
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST PIPE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE REAR FLOOR SIDE MEMBER COVER LH

(a) Remove screws and nuts (arrows).



(b) Guide the rear floor side member cover LH (1) out.

2. REMOVE REAR FLOOR SIDE MEMBER COVER RH

HINT:

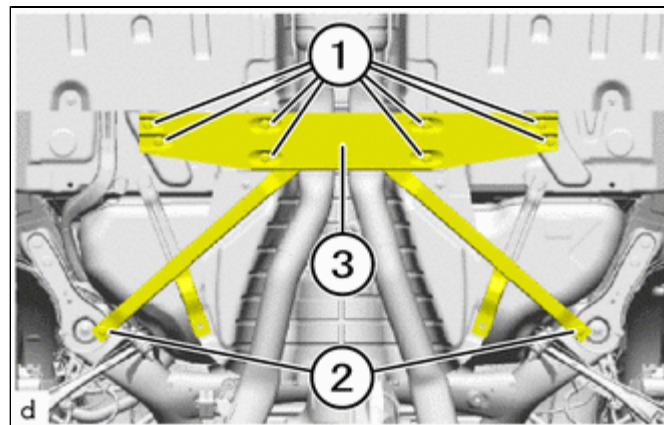
Use the same procedure as for the rear floor side member cover LH side.

3. REMOVE REAR FLOOR PANEL BRACE

CAUTION:

Driving without the rear floor panel brace or rear lower suspension member stopper is not permitted.

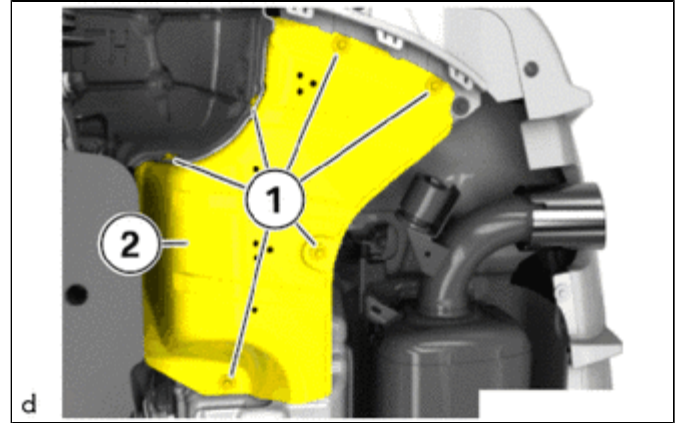
(a) Loosen the bolts (1).



(b) Unscrew the E14 bolts (2) on the rear lower suspension member stopper and remove the rear floor panel brace (3).

4. REMOVE REAR UNDERBODY PROTECTOR LH

(a) Loosen screws (1).



(b) Remove the rear underbody protector LH (2).

5. REMOVE REAR UNDERBODY PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

6. REMOVE EXHAUST PIPE ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Component with heavy weight.

Danger of injury!

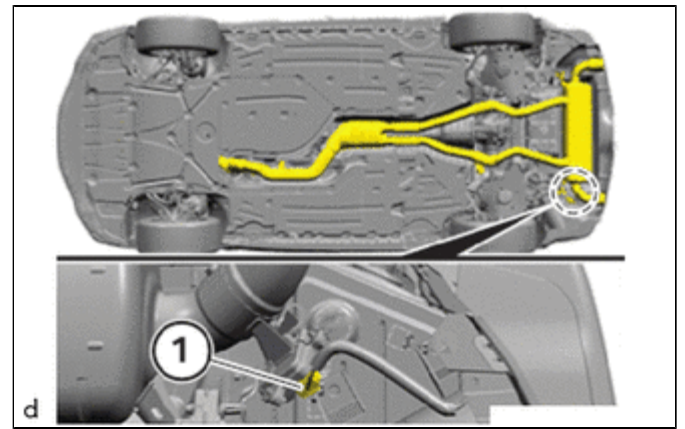
- Note component's center of gravity.
- Support component using a jack.
- Secure component against falling off the jack.

- Heavy component.

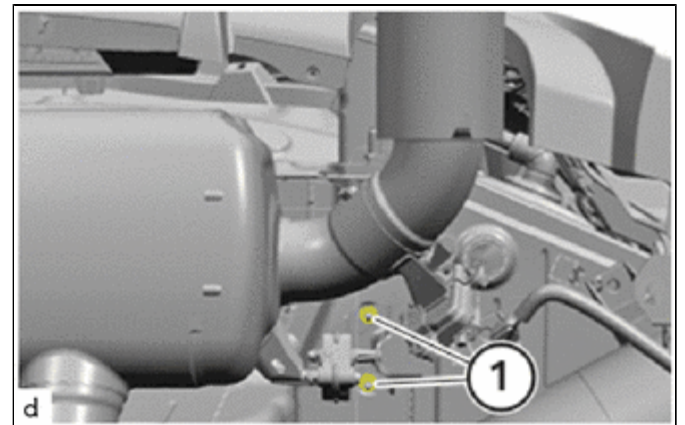
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

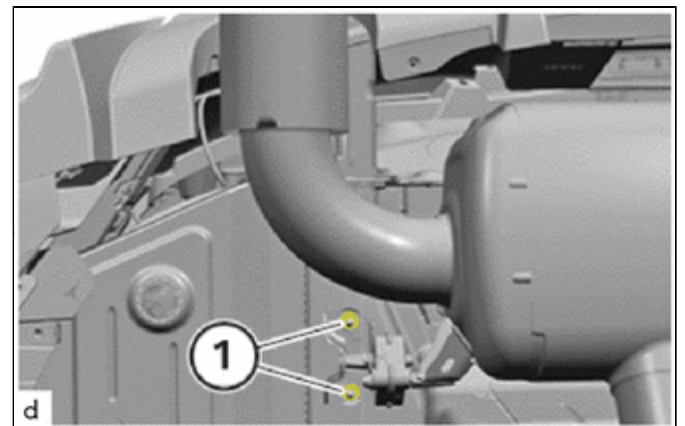
(a) Unlock plug connection (1) and disconnect.



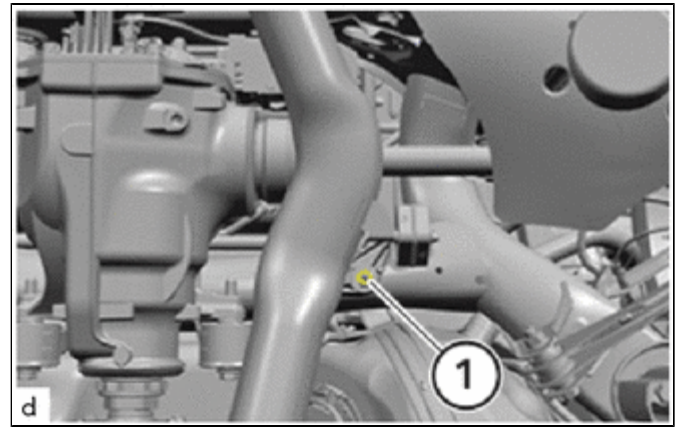
(b) Loosen nuts (1).



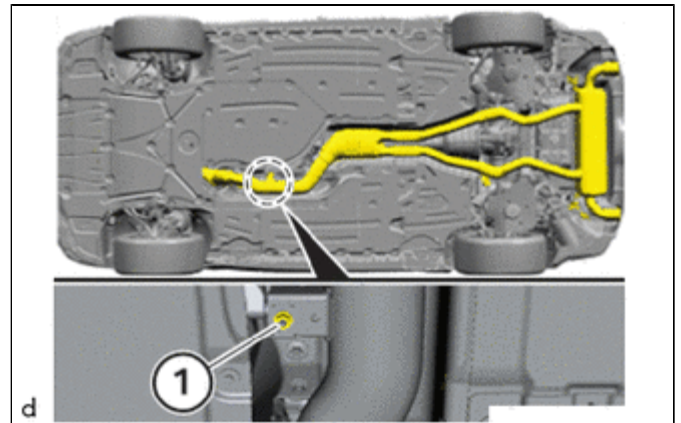
(c) Loosen nuts (1).



(d) Unfasten nut (1).

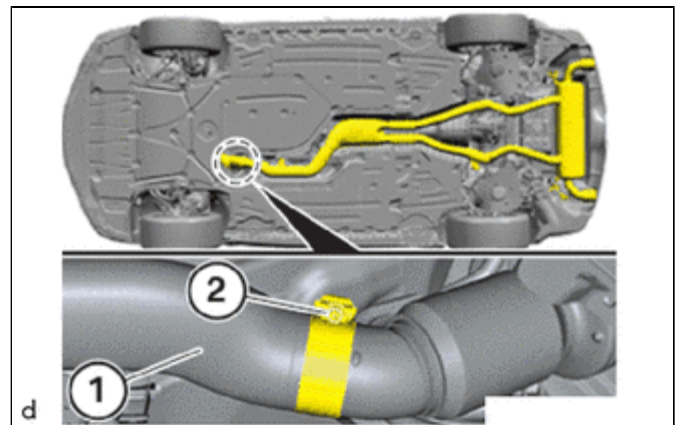


(e) Unfasten nut (1).



(f) for Ribbon Clamp:

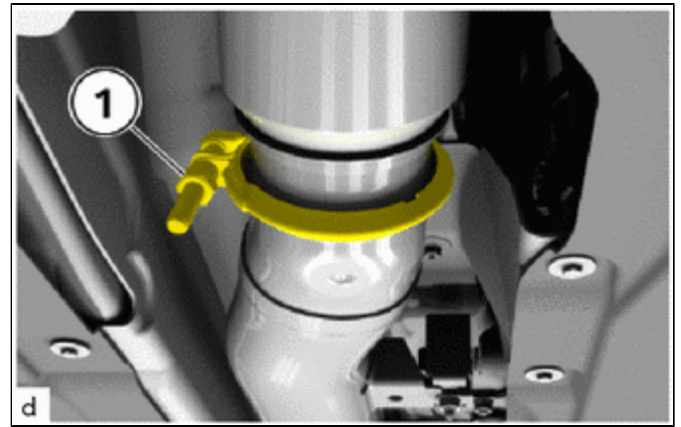
(1) Unscrew nut (2) on the exhaust pipe assembly (1).



(2) Lower the exhaust pipe assembly (1) with an auxiliary person, guide out and remove.

(g) for V-band Clamp:

- (1) Using a 16 mm deep socket wrench, loosen exhaust pipe clamp (1).
- (2) Lower the exhaust pipe assembly with an auxiliary person, guide out and remove.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL EXHAUST PIPE ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Component with heavy weight.

Danger of injury!

- Note component's center of gravity.
- Support component using a jack.
- Secure component against falling off the jack.

- Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

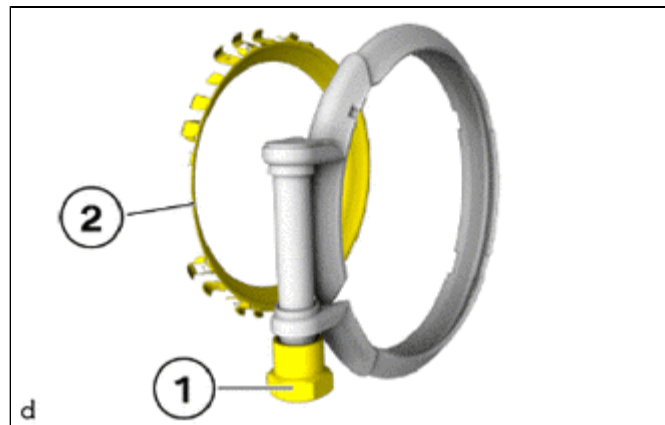
(a) for V-band Clamp:

- (1) Guide in the exhaust pipe assembly with the assistance of a second person and connect it to the catalytic converter.
- (2) Replace nut.
- (3) Tighten nut.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

- (4) Unscrew the nut (1) and remove the sealing ring (2).

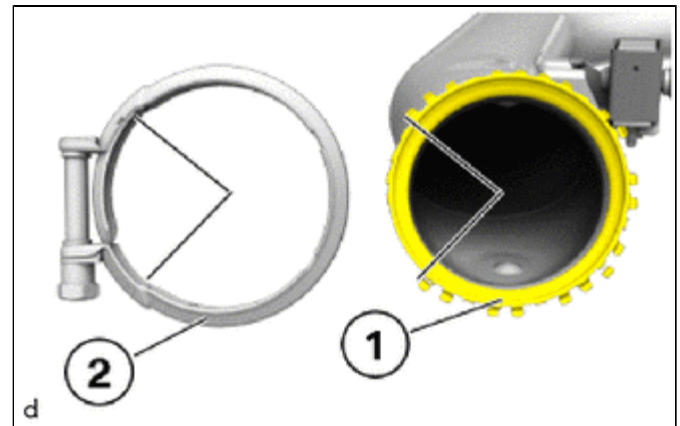


- (5) Replace the exhaust pipe clamp.

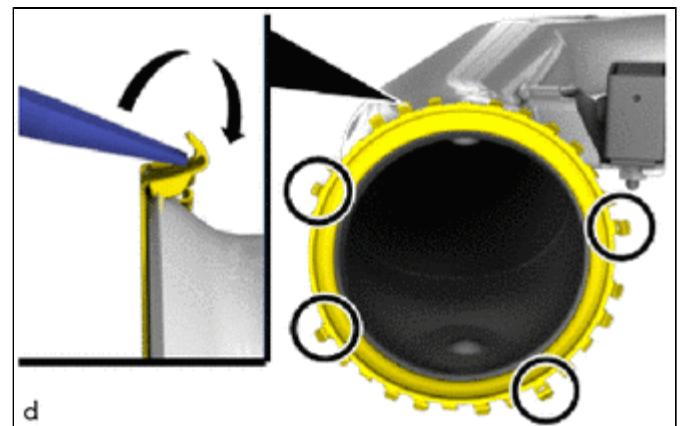
(6) Mount the sealing ring (1) on the exhaust pipe assembly.

NOTICE:

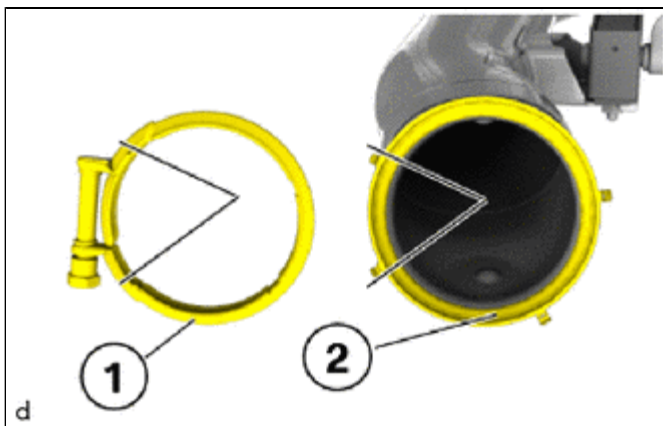
Make sure that the sealing ring (1) is correctly positioned for the exhaust pipe clamp (2).



(7) Bend all sheet metal tabs over with a suitable tool, except those in the marked areas.

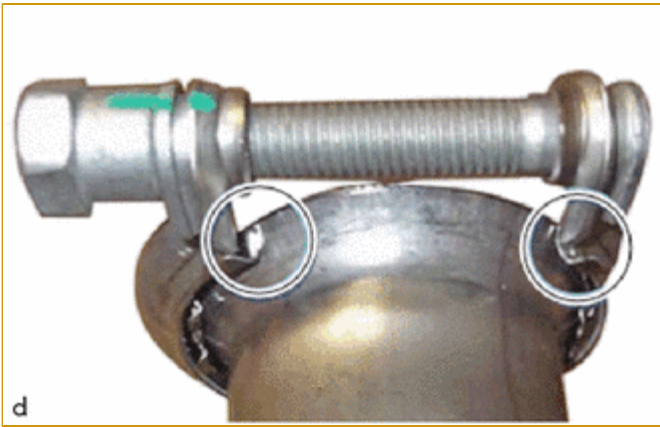


(8) Mount the exhaust pipe clamp (1) on the sealing ring (2).

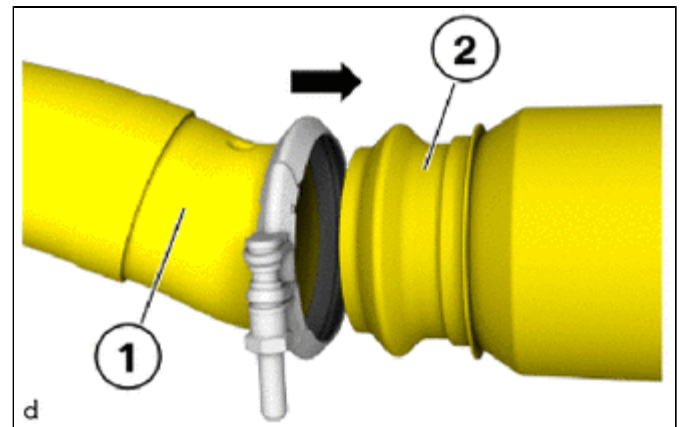


NOTICE:

- Make sure that the exhaust pipe clamp (1) is positioned correctly on the sealing ring (2).
- Make sure that the exhaust pipe clamp (1) rests against the sheet metal tabs after mounting (marks).



- (9) Connect the exhaust pipe assembly (1) with the exhaust manifold converter sub-assembly (2) and position correctly.



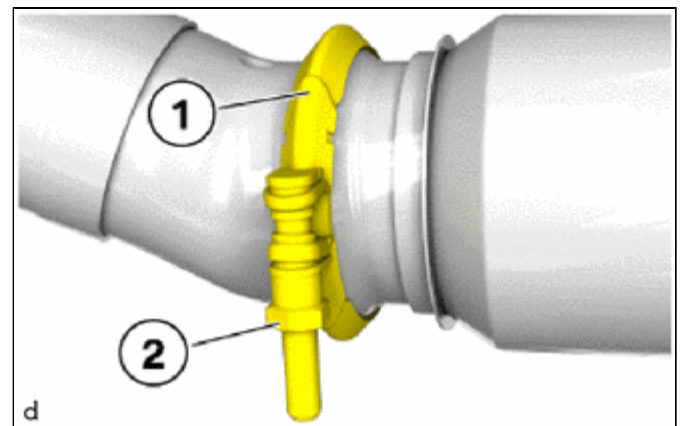
- (10) Using a 16 mm deep socket wrench, tighten down screw (2).

NOTICE:

Make sure that exhaust pipe clamp(1) is fitted correctly.

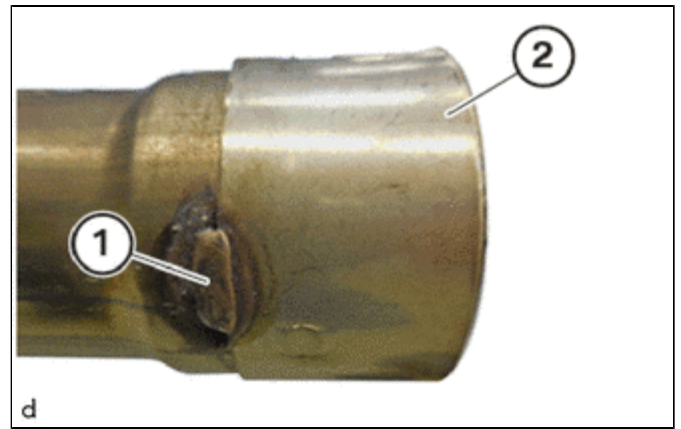
Torque:

25 N·m {255 kgf·cm, 18 ft·lbf}



(b) for Ribbon Clamp:

- (1) Open the weld seam (1) with a hacksaw.



(2) Remove the exhaust pipe clamp (2).

(3) Replace the exhaust pipe clamp.

(4) Guide in the exhaust pipe assembly with the assistance of a second person and connect it to the exhaust manifold converter sub-assembly.

(5) Tighten the exhaust pipe clamp.

Torque:

26 N·m {265 kgf·cm, 19 ft·lbf}

(6) Replace nut.

(7) Tighten nut.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

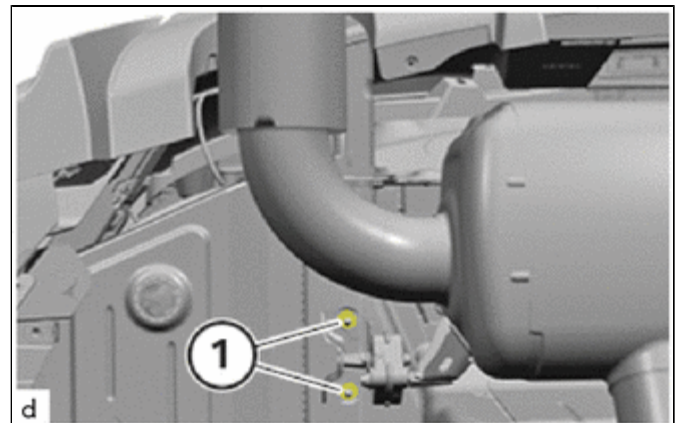
(c) Replace nut.

(d) Tighten nut.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(e) Replace nuts.

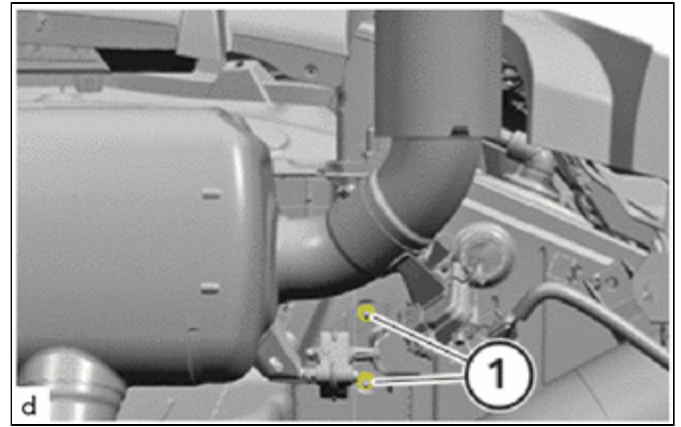


(f) Tighten nuts.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(g) Replace nuts.



(h) Tighten nuts.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(i) Connect connectors and lock.

2. INSTALL REAR UNDERBODY PROTECTOR LH

(a) Install the rear underbody protector LH.

(b) Tighten the screws.

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

3. INSTALL REAR UNDERBODY PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

4. INSTALL REAR FLOOR PANEL BRACE

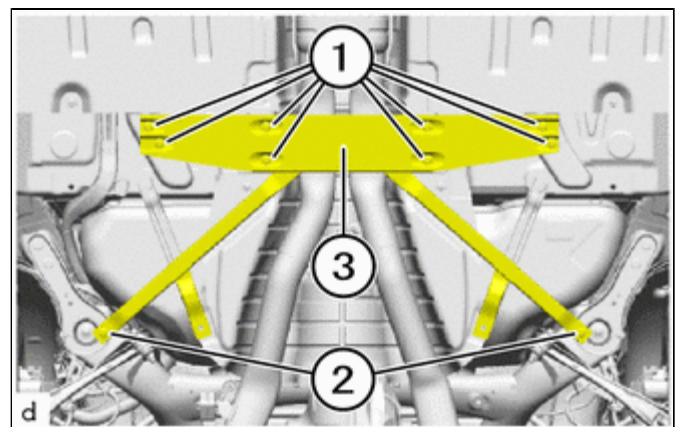
CAUTION:

Driving without the rear floor panel brace or rear lower suspension member stopper is not permitted.

(a) Position the rear floor panel brace (3) and tighten the E14 bolts (2) on the rear lower suspension member stopper.

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}



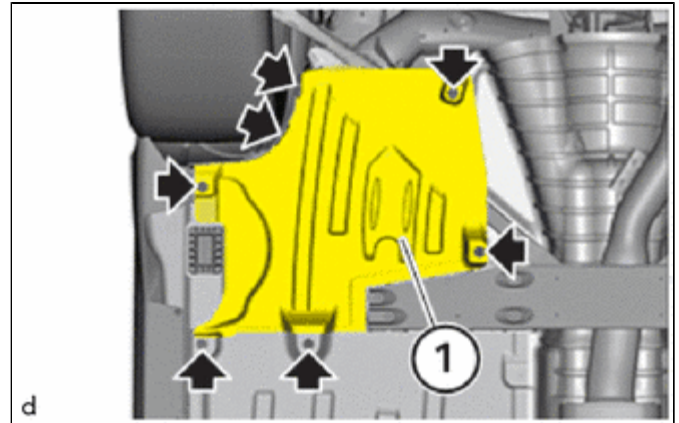
(b) Tighten the bolts (1).

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

5. INSTALL REAR FLOOR SIDE MEMBER COVER LH

(a) Insert the rear floor side member cover LH.



(b) Tighten the nuts and screws.

Torque:

Screw :

3.0 N·m {31 kgf·cm, 27 in·lbf}

Nut :

2.6 N·m {27 kgf·cm, 23 in·lbf}

6. INSTALL REAR FLOOR SIDE MEMBER COVER RH

HINT:

Use the same procedure as for the rear floor side member cover LH side.

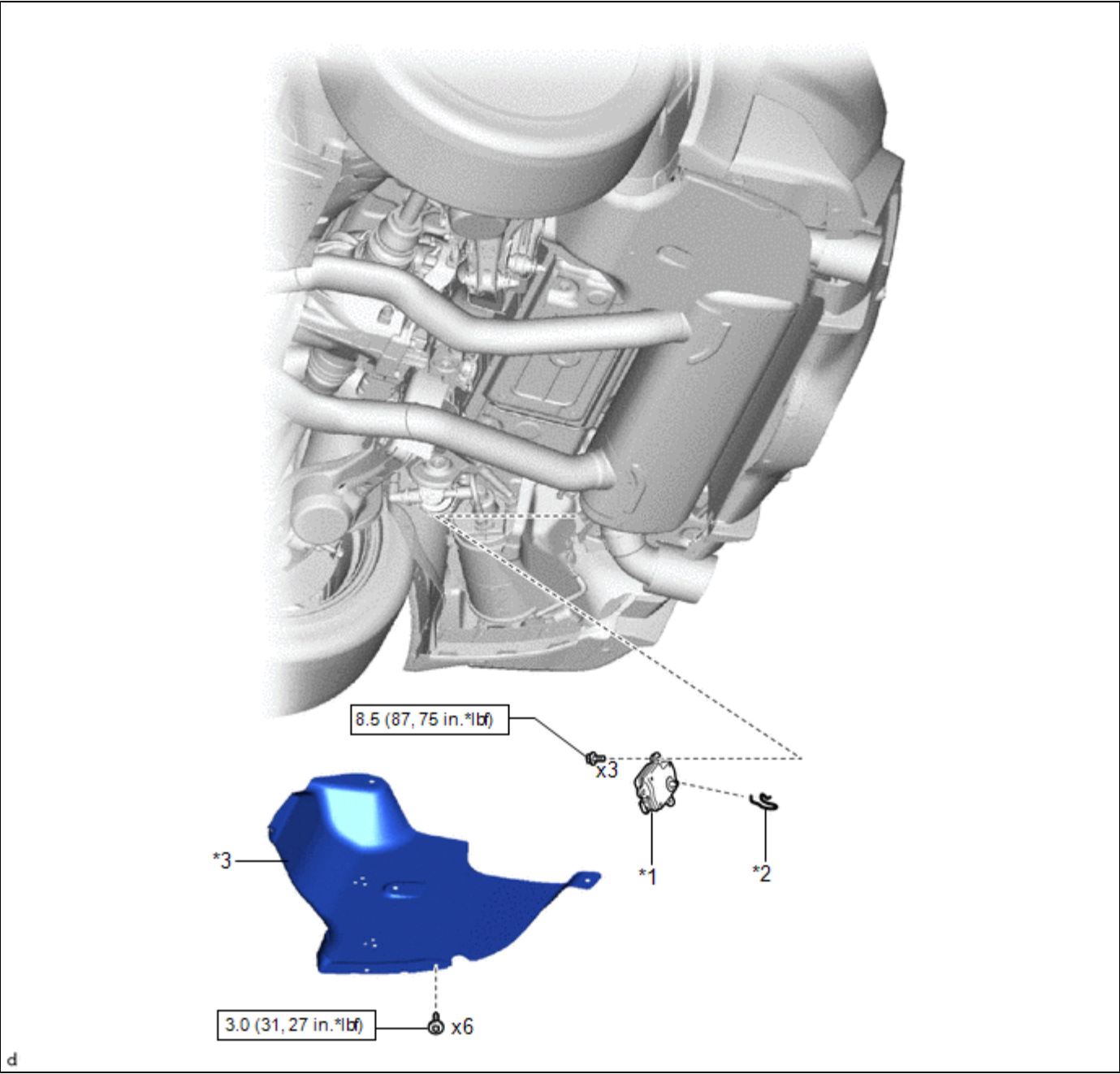
7. INSPECT FOR EXHAUST GAS LEAK

(a) If gas is leaking, tighten the areas necessary to stop the leak. Replace damaged parts as necessary.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST PIPE GAS CONTROL ACTUATOR SUB-ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ACTUATOR WITH BRACKET ASSEMBLY	*2	WIRE SPRING CLIP
*3	REAR UNDERBODY PROTECTOR RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCS4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST PIPE GAS CONTROL ACTUATOR SUB-ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE REAR UNDERBODY PROTECTOR RH

Click here [INFO](#)

2. REMOVE ACTUATOR WITH BRACKET ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

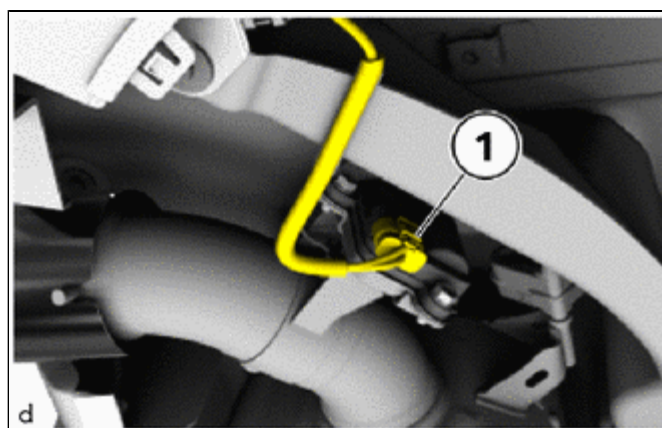
- Electrostatic discharge.

Damage to or destruction of electrical components.

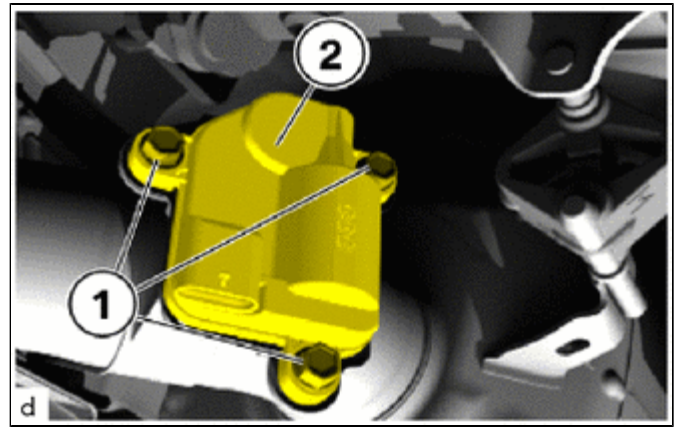
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Loosen the bolts (1).



(c) Remove the actuator with bracket assembly (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST PIPE GAS CONTROL ACTUATOR SUB-ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

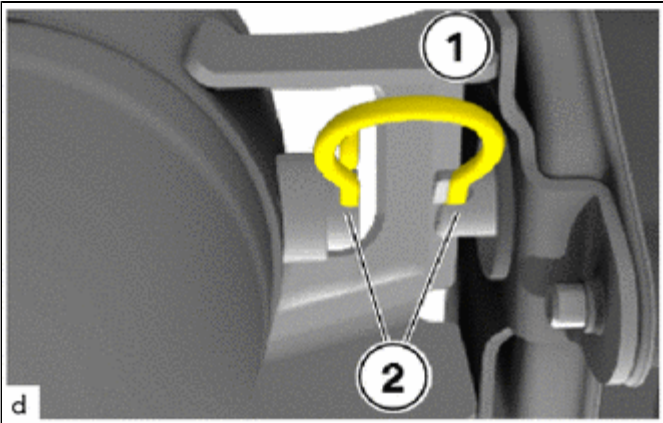
1. INSTALL ACTUATOR WITH BRACKET ASSEMBLY

- (a) Install the actuator with bracket assembly.
- (b) Tighten the bolts.

Torque:
8.5 N·m {87 kgf·cm, 75 in·lbf}

- (c) Connect connectors and lock.

- (d) Make sure that the wire spring clip (1) is correctly positioned in the guides (2).



2. INSTALL REAR UNDERBODY PROTECTOR RH

Click here [INFO](#)

3. INSPECT FOR EXHAUST GAS LEAK

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCS6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): EXHAUST SYSTEM: INSPECTION; 2020 MY Supra [03/2019 -]		

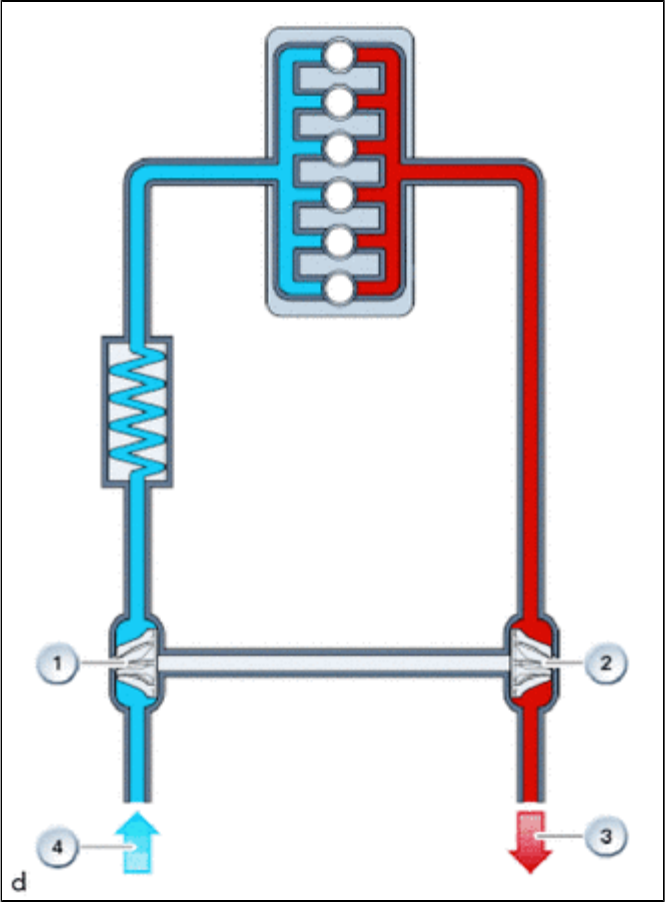
INSPECTION

PROCEDURE

1. TROUBLESHOOTING ON THE TURBOCHARGER SUB-ASSEMBLY

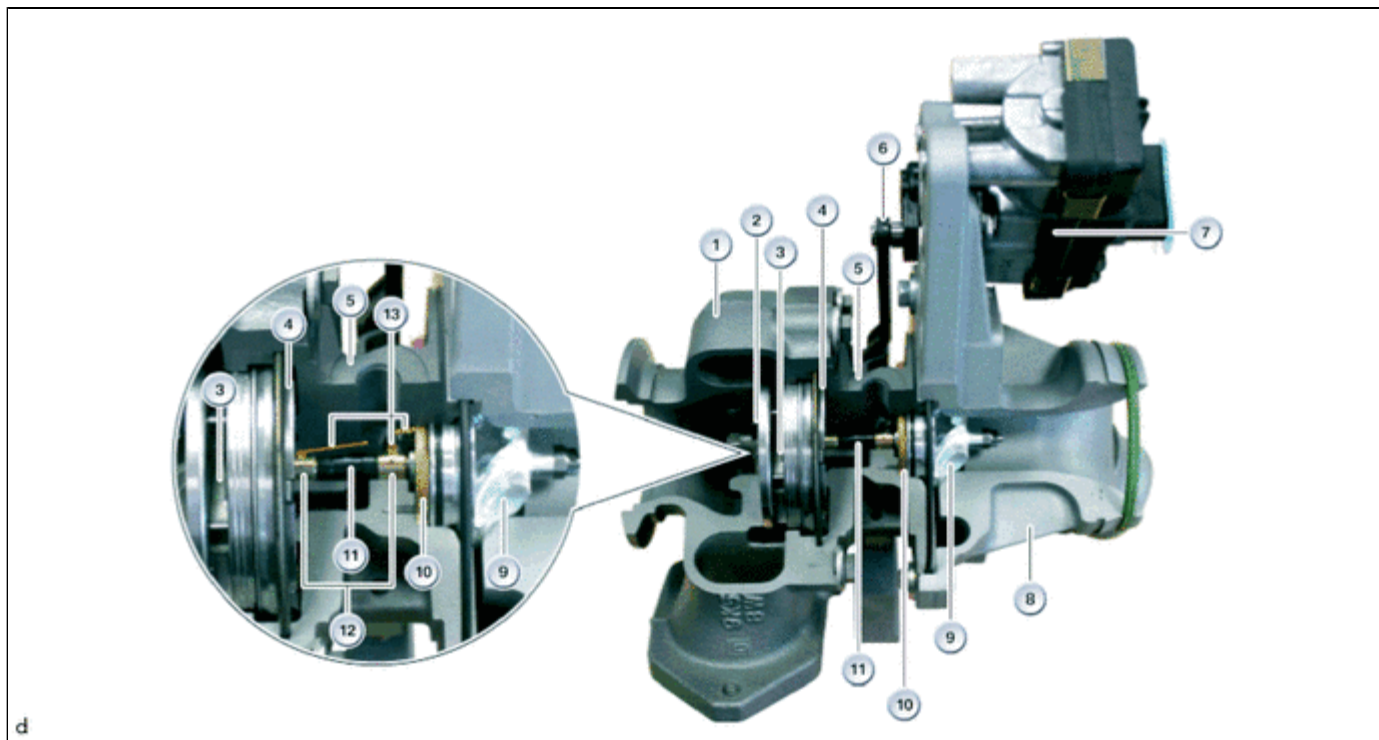
- (a) For charged engines, turbocharger sub-assemblies are of significant importance to the power development. The turbochargers deliver the charging pressure that is required by the engines. Depending on the system (one-phase or multi-phase), one or more turbochargers are installed. However, the function of the turbocharger sub-assembly greatly depends on the proper function of other components in the periphery.
- (b) This document describes the sources of fault on the actual turbocharger sub-assembly as well as the factors influencing and causing faults in the periphery.

(c) The following figures show examples of the schematic structure of one-stage or two-stage systems with the required actuators.



*1	Compressor
*2	Turbine
*3	Exhaust gas
*4	Fresh air

(d) Sectional view of turbocharger sub-assembly



*1	Turbine housing	*2	Turbine wheel
*3	Variable blades	*4	Adjusting ring
*5	Oil inlet journal	*6	Adjusting lever
*7	Turbocharger actuator and link assembly	*8	Compressor housing
*9	Compressor wheel	*10	Thrust bearing
*11	Shaft	*12	Radial bearing
*13	Oil supply	-	-

2. GENERAL NOTES ON TROUBLESHOOTING

- (a) The following notes must be observed in order to find the root cause of faults when problems are reported, and to prevent the unauthorized, i.e. inappropriate, replacement of the turbocharger sub-assembly:
- (1) Tracking down and verifying the complaint

If possible, any problem reported ('complaint') should be tracked down and verified on the vehicle. The parameters or marginal conditions prevailing at the time the problem was reported need to be noted down.
 - (2) Diagnosis

As a first procedural step, diagnosis must be performed using the diagnosis system.

Faults on sensors and actuators may be responsible for 'complaints', i.e. reported problems, which may also be associated with the turbocharger sub-assembly in some way. For this reason, faults on sensors and actuators must first be remedied if these are stored in the fault memory.

In addition, the engine ventilation is important for the oil supply to the turbocharger sub-assembly. If the pressure in the cylinder block sub-assembly is too high, the oil supply to the turbocharger sub-assembly is endangered, and oil leakage may occur at the turbocharger sub-assembly.

The stored charging pressure control faults must then be investigated or troubleshooting must take place on the turbocharger sub-assembly.
 - (3) Repair history

If possible, check to find out whether repairs have already been made on or near the turbocharger sub-assembly following similar reported problems.

(4) With any repeated complaint with different fault patterns, the problem could have arisen during the last repair.

Problems could have arisen in conjunction with installation, connections or the ingress of foreign bodies.

(5) In the event of identical complaints, it is highly probable that the actual cause of the fault has not been remedied.

3. NOTES ON THE INSTALLATION OF A TURBOCHARGER SUB-ASSEMBLY

(a) Before installation:

- (1) Prior to the installation of a turbocharger sub-assembly, fill engine oil in the oil inlet in the turbocharger sub-assembly. At the same time, rotate the shaft on the turbocharger sub-assembly.
- (2) Check the oil supply to the turbocharger sub-assembly and the oil return from the turbocharger sub-assembly for foreign bodies and oil sludging, clean if necessary.
- (3) Ensure that no dirt and no foreign bodies enter the openings.
- (4) Ensure that no dirt and no foreign bodies enter the openings.

Note: Do not leave any oil residue or foreign bodies in the charge air duct.

- (5) Replace gaskets, and ensure that the gaskets are installed correctly.
- (6) Observe tightening torques.

(b) After installation:

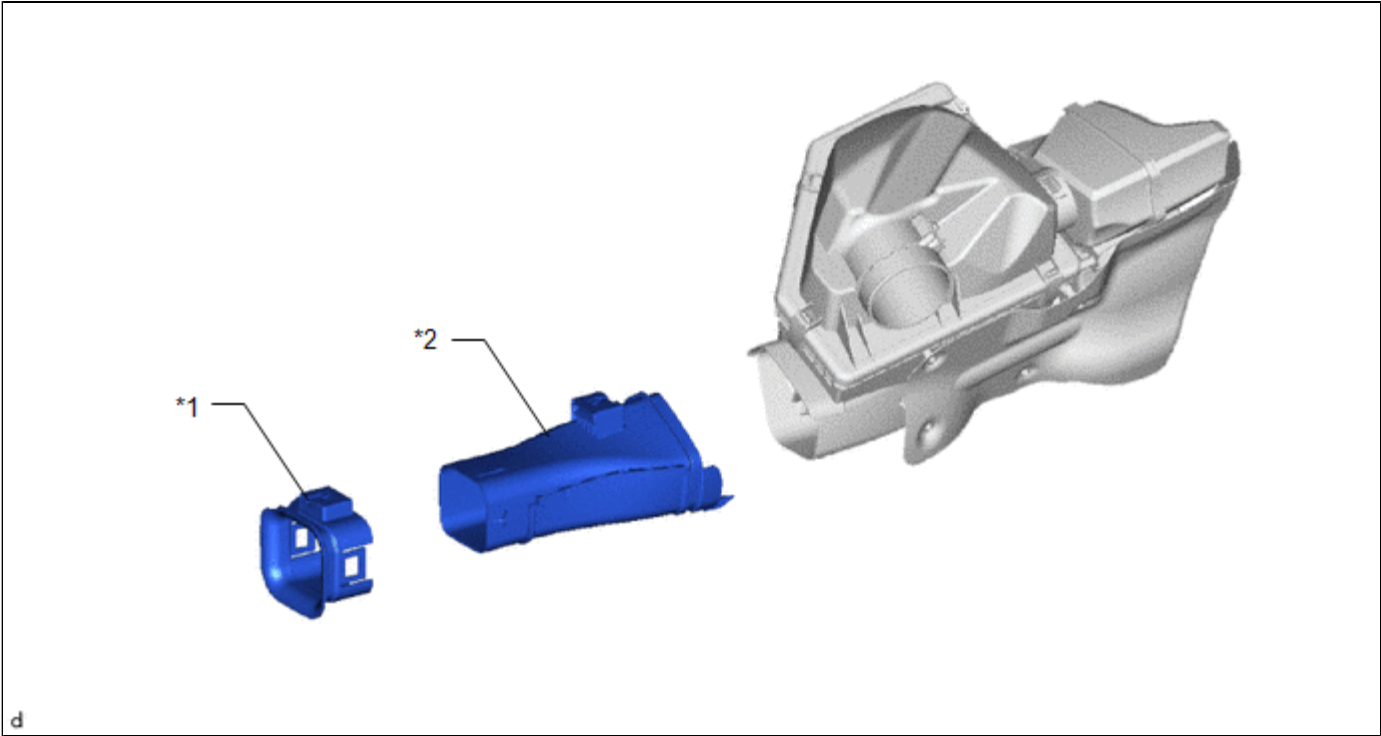
- (1) Start up engine and run it at idle speed for at least one minute to ensure that the turbocharger sub-assembly is receiving a proper oil supply. When the engine is cold and the ambient temperature is low, let the engine idle for approximately 2 minutes.
- (2) Check tightness of oil lines.
- (3) Stop engine, check oil level.

(c) We can assume no liability for printing errors or inaccuracies in this document and reserve the right to introduce technical modifications at any time.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET AIR DUCT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INLET NO. 1 AIR DUCT	*2	INLET NO. 2 AIR DUCT
----	----------------------	----	----------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET AIR DUCT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE AIR CLEANER ASSEMBLY

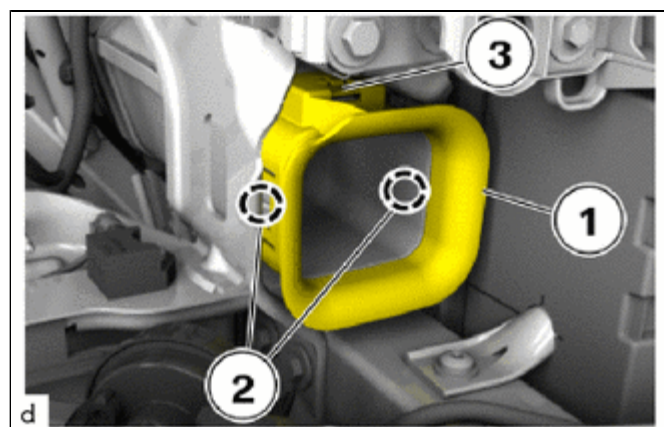
Click here [INFO](#)

2. REMOVE HEADLIGHT ASSEMBLY RH

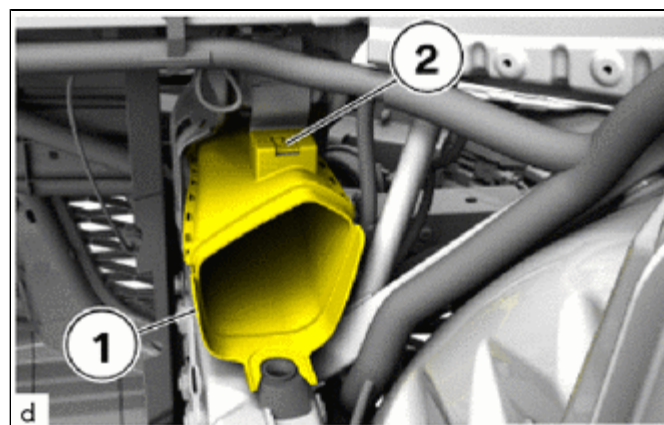
Click here [INFO](#)

3. REMOVE INLET NO. 2 AIR DUCT

(a) Detach the front section of the inlet No. 1 air duct (1) at clips (2) and work out of the guides (3).



(b) Work the rear section of the inlet No. 2 air duct (1) from the guide (2) and remove.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET AIR DUCT: INSTALLATION; 2020 MY Supra [03/2019 -]		

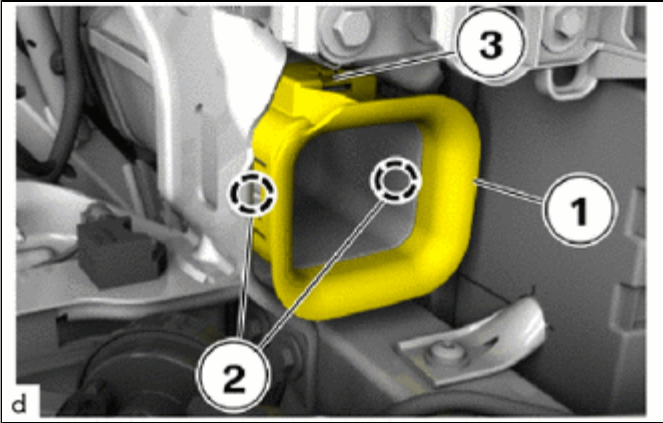
INSTALLATION

PROCEDURE

1. INSTALL INLET NO. 2 AIR DUCT

(a) Pull the rear section of the inlet No. 2 air duct into the guide.

(b) Pull the front section of the inlet No. 1 air duct (1) into the guide (3) and clip into the clips (2).



2. INSTALL HEADLIGHT ASSEMBLY RH

Click here [INFO](#)

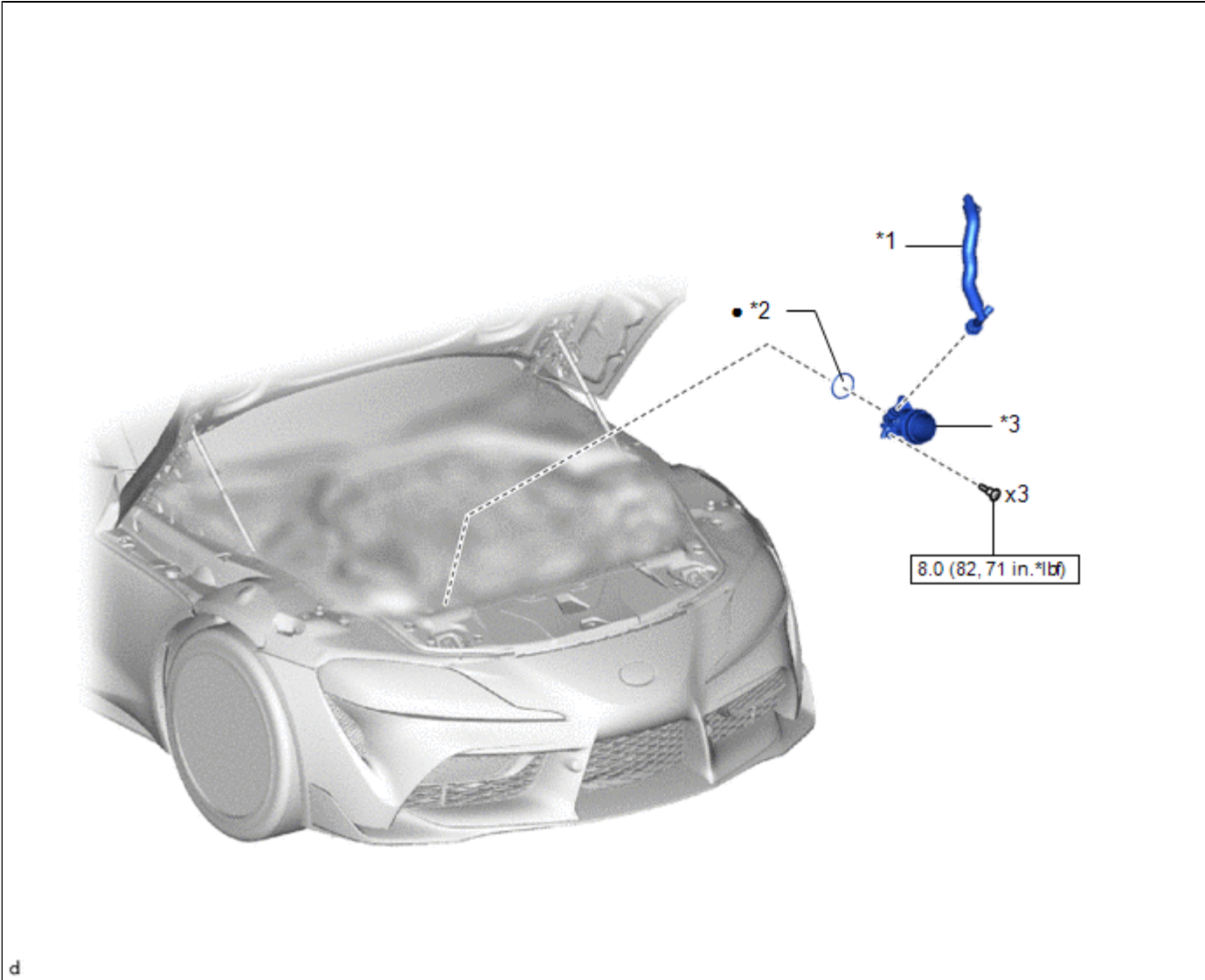
3. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET COMPRESSOR ELBOW: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VENTILATION HOSE	*2	COMPRESSOR INLET GASKET
*3	INLET COMPRESSOR ELBOW	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET COMPRESSOR ELBOW: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

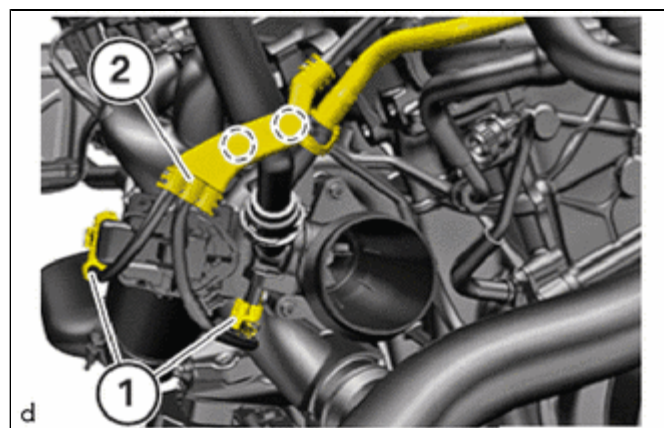
PROCEDURE

1. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

2. REMOVE VENTILATION HOSE

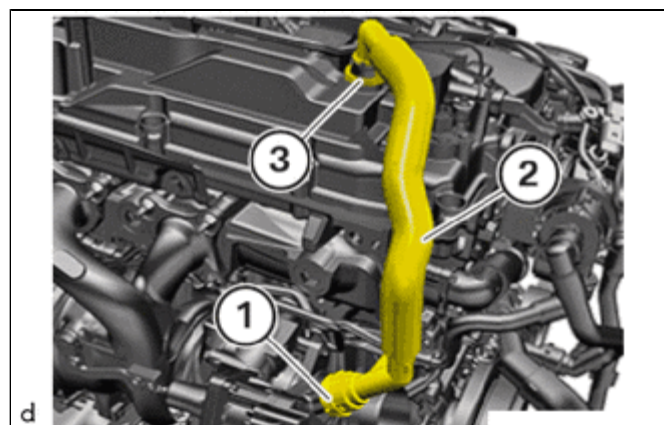
(a) Unlock and disconnect plug connections (1).



(b) Unclip the No. 2 engine wire (2) from the ventilation hose in the marked areas.

(c) Unlock the No. 2 ventilation hose and pull it off the ventilation hose.

(d) Unlock the lock (1) and disconnect the ventilation hose (2).



(e) Unlock the lock (3).

(f) Disconnect the ventilation hose (2) from the cylinder head cover sub-assembly and remove.

3. REMOVE INLET COMPRESSOR ELBOW

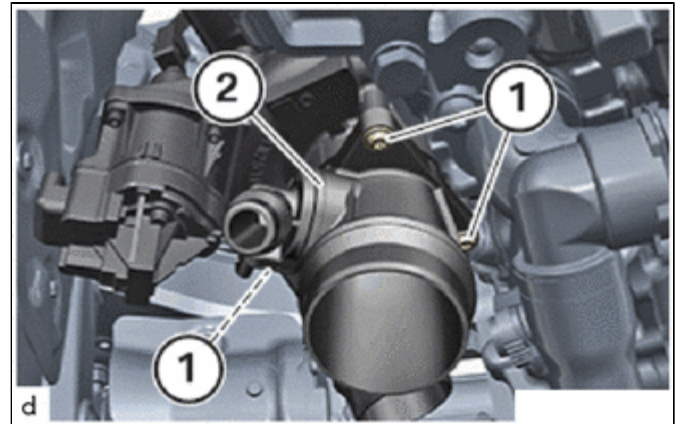
CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

(a) Loosen the T30 bolts (1).



(b) Guide out the inlet compressor elbow (2) on the turbocharger sub-assembly and remove.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET COMPRESSOR ELBOW: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL INLET COMPRESSOR ELBOW

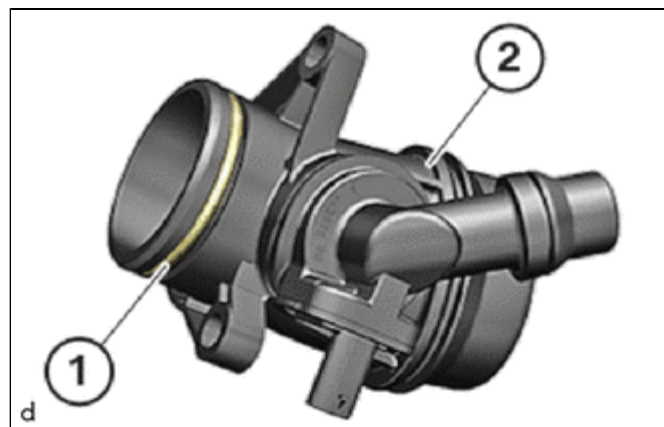
NOTICE:

- Damage to the turbocharger sub-assembly.

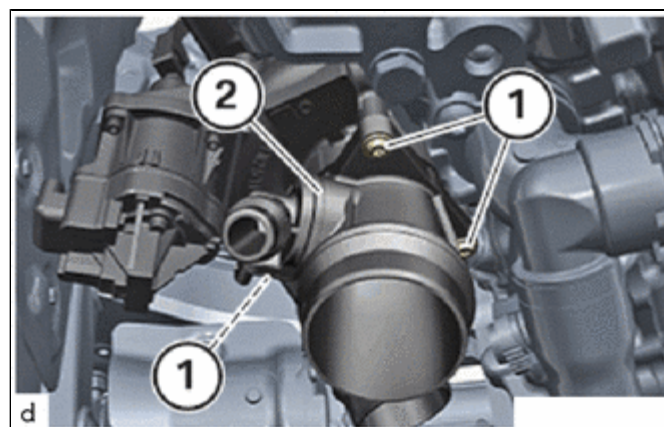
A leak at the pressure pipe can damage the turbocharger sub-assembly.

- Replace the compressor inlet gasket and compressor inlet elbow if necessary.

- (a) Replace compressor inlet gasket (1) on the inlet compressor elbow.



- (b) Install inlet compressor elbow (2) on turbocharger sub-assembly.



- (c) Tighten the T30 bolts.

Torque:

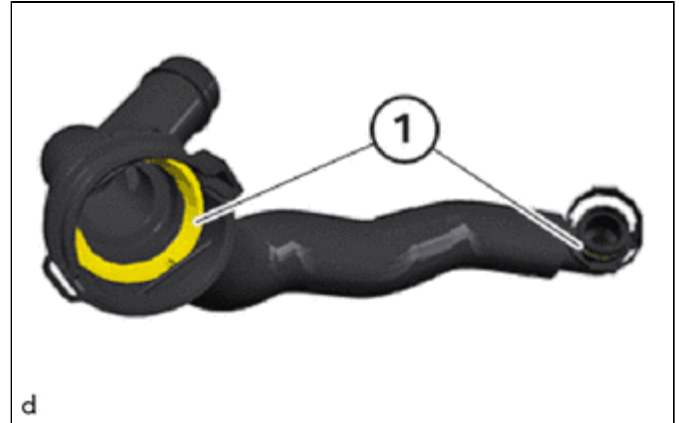
8.0 N·m {82 kgf·cm, 6 ft·lbf}

2. INSTALL VENTILATION HOSE

HINT:

Latch mechanisms, guides and mounting elements must not be damaged or missing.

- (a) Check the seals (1) for damage and replace the ventilation hose where required.



- (b) Connect the ventilation hose to the cylinder head cover sub-assembly and lock in place.

HINT:

The lock must audibly engage.

- (c) Connect ventilation hose at the compressor inlet elbow of the turbocharger sub-assembly and lock.

HINT:

The lock must audibly engage.

- (d) Connect the No. 2 ventilation hose on the bottom to the ventilation hose and lock.

HINT:

Lock must audibly engage.

- (e) Clip in the No. 2 engine wire where marked on the ventilation hose.

- (f) Connect connectors and lock.

HINT:

The locks must engage audibly.

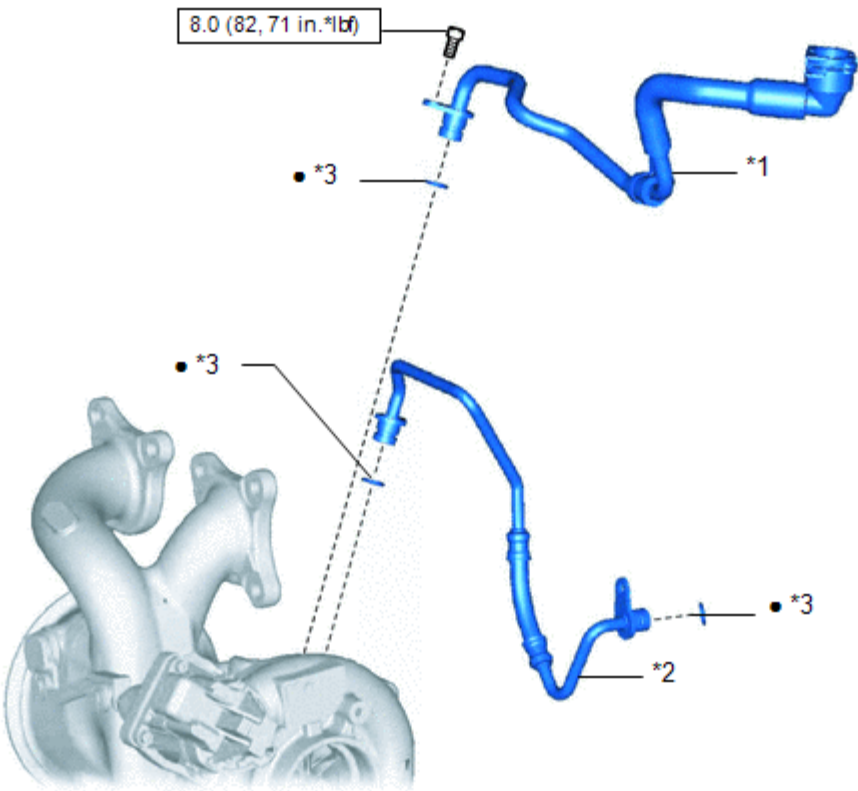
3. INSTALL AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET TURBO OIL PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY	*2	INLET TURBO OIL PIPE SUB-ASSEMBLY
*3	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET TURBO OIL PIPE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE INLET TURBO OIL PIPE SUB-ASSEMBLY

CAUTION:

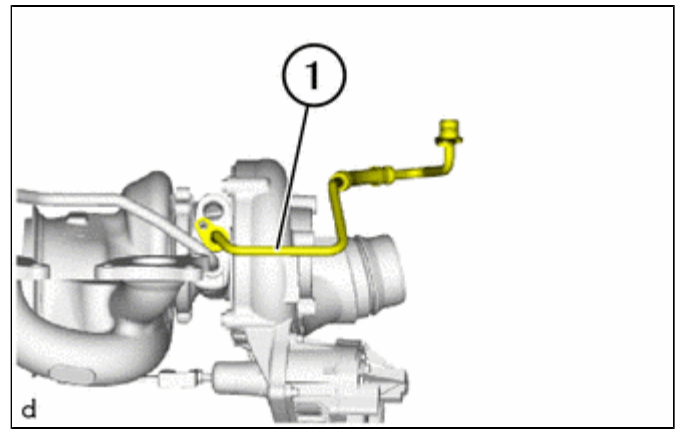
- Hot fluids.
- Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

HINT:

Have a rag ready and catch any engine oil that may emerge.

(a) Pull off the inlet turbo oil pipe sub-assembly (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INLET TURBO OIL PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL INLET TURBO OIL PIPE SUB-ASSEMBLY

(a) Fill turbocharger sub-assembly up to the top with engine oil using the inlet turbo oil pipe sub-assembly connection.

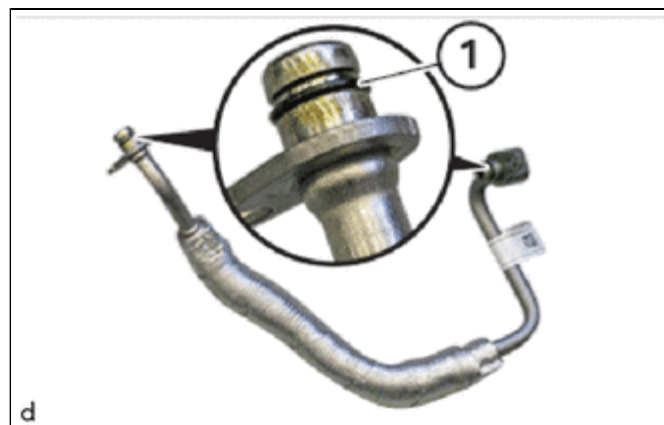
Engine oil:

Toyota Genuine Motor Oil SN 0W-20 C5 for GR Toyota Supra

HINT:

- Technically suitable engine oils for BMW Group engines
- Observe the sign in the engine compartment! Only pour in approved engine oil with the correct SAE viscosity classification.

(b) Replace O-rings (1).



(c) Position the inlet turbo oil pipe sub-assembly.

2. INSTALL NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

Click here [INFO](#)

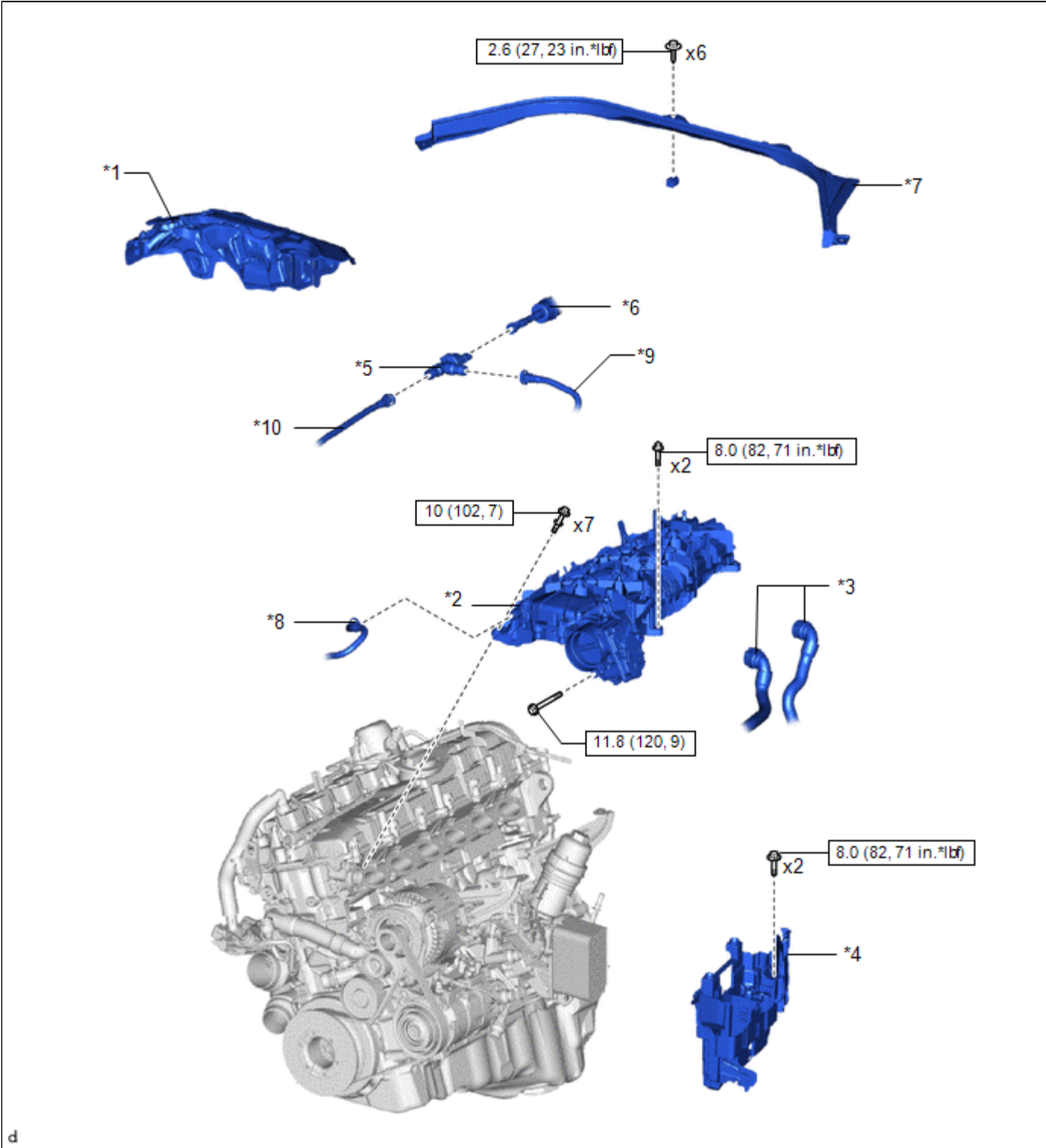
3. INSTALL TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INTAKE MANIFOLD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

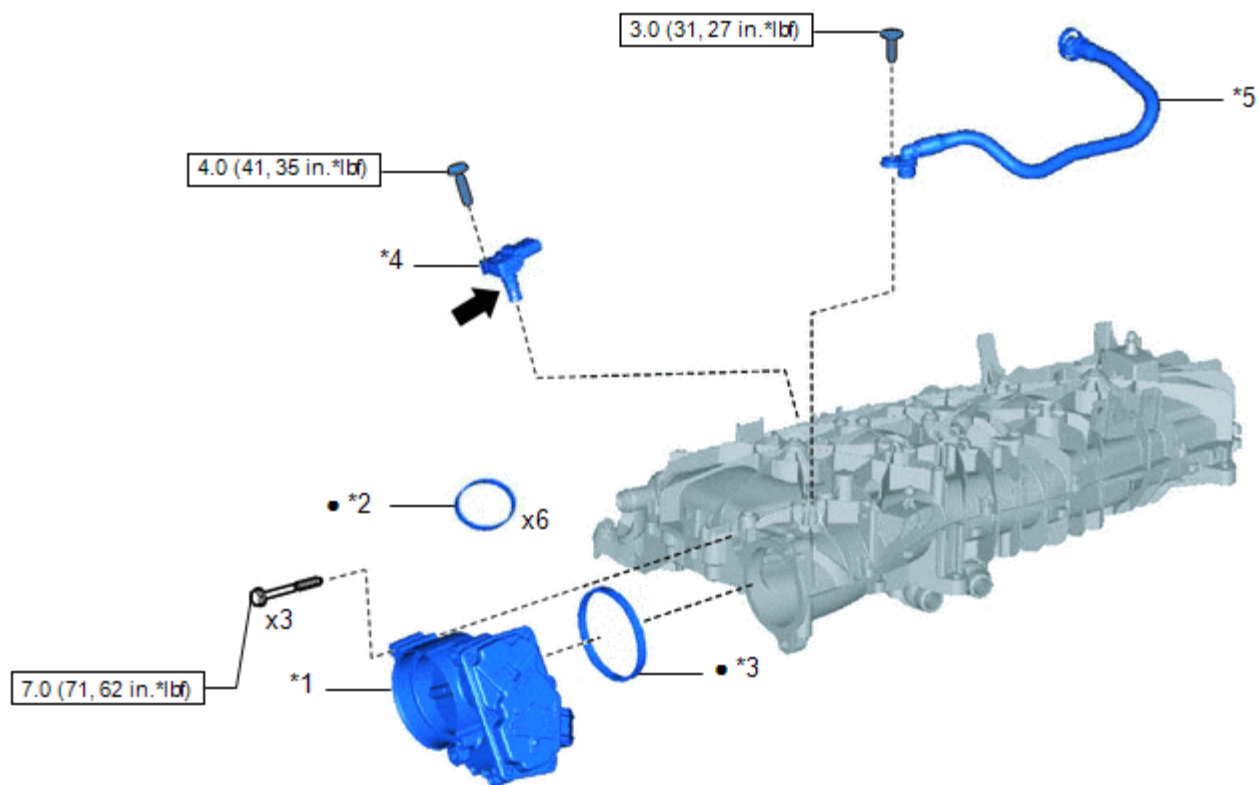
ILLUSTRATION




*1	NO. 1 ENGINE COVER	*2	INTAKE MANIFOLD
----	--------------------	----	-----------------

*3	WATER BY-PASS HOSE	*4	ENGINE ROOM ECU BOX
*5	NO. 1 CHECK VALVE	*6	NO. 2 FUEL VAPOR FEED HOSE
*7	COWL TOP VENTILATOR LOUVER PROTECTOR	*8	FUEL SUCTION TUBE SUB-ASSEMBLY
*9	NO. 3 FUEL VAPOR FEED HOSE	*10	NO. 1 FUEL VAPOR FEED HOSE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	THROTTLE BODY WITH MOTOR ASSEMBLY	*2	NO. 1 INTAKE MANIFOLD TO HEAD GASKET
*3	THROTTLE BODY GASKET	*4	VACUUM SENSOR
*5	NO. 3 FUEL VAPOR FEED HOSE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Syntheso glep 1 lubricating grease	-	-



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INTAKE MANIFOLD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

4. DRAIN ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

5. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

6. REMOVE FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

7. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

8. REMOVE NO. 1 ENGINE COVER

Click here [INFO](#)

9. REMOVE NO. 1 CHECK VALVE

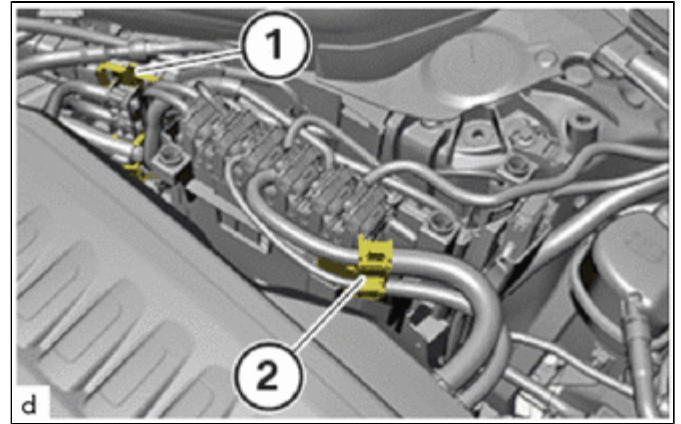
Click here [INFO](#)

10. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

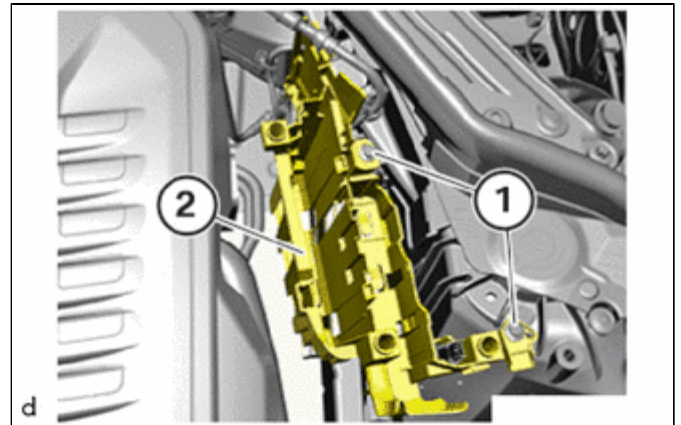
11. REMOVE ENGINE ROOM ECM BOX

(a) Unlock and loosen locks (1) and (2).



(b) Release the wiring harnesses from the engine room ECU box and set it aside.

(c) Loosen bolts (1).



(d) Guide out and remove the engine room ECU box (2).

12. REMOVE INTAKE MANIFOLD

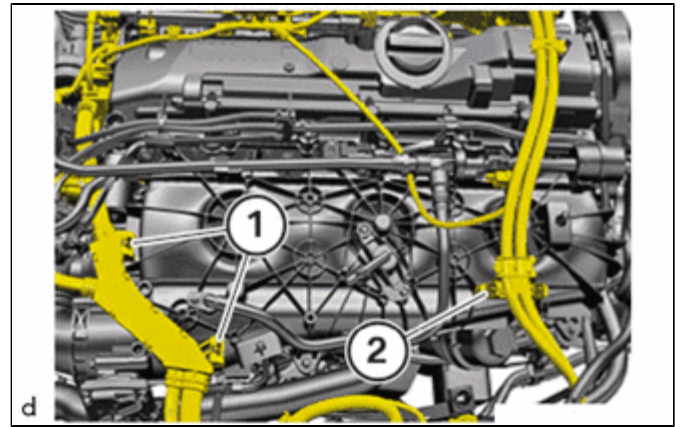
CAUTION:

- Hot fluids.

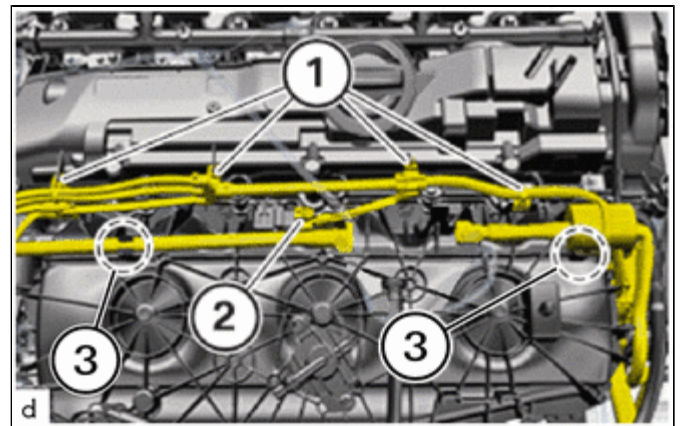
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

(a) Unlock the locks (1) and set the wiring harness aside.



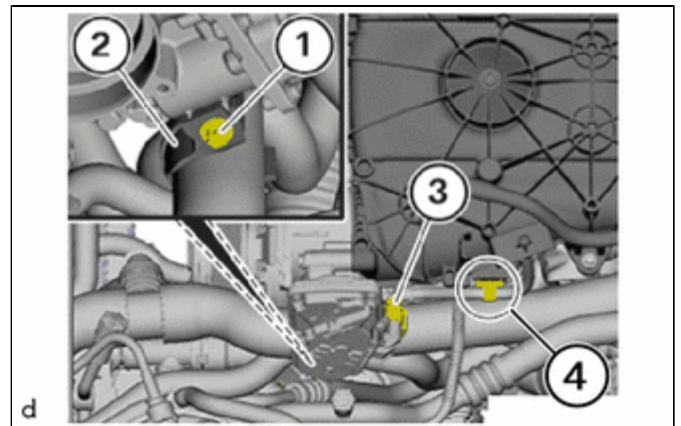
(b) Release wiring harness from holder (2) and lay to one side.



(c) Disconnect the wiring harness (1) from the cylinder head cover sub-assembly and set aside.

(d) Unlock and disconnect the connector (2) from the vacuum sensor.

(e) Disconnect the fuel tank breather tubes from the intake manifold where marked (3) and put to one side.



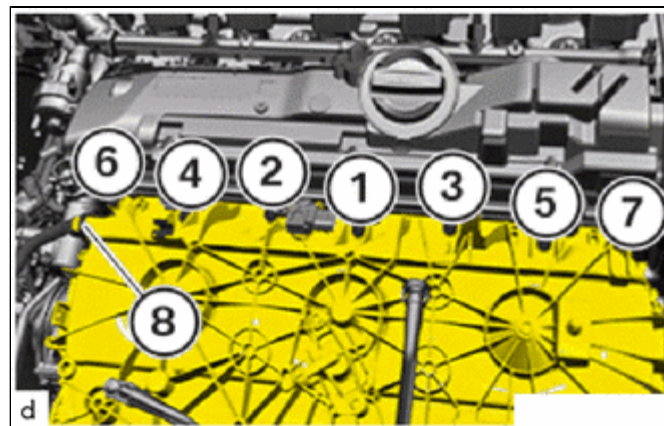
(f) Loosen the E10 bolt (1).

(g) Remove holder (2) from the throttle body with motor assembly and slide to the side.

(h) Unlock plug connection (3) and disconnect.

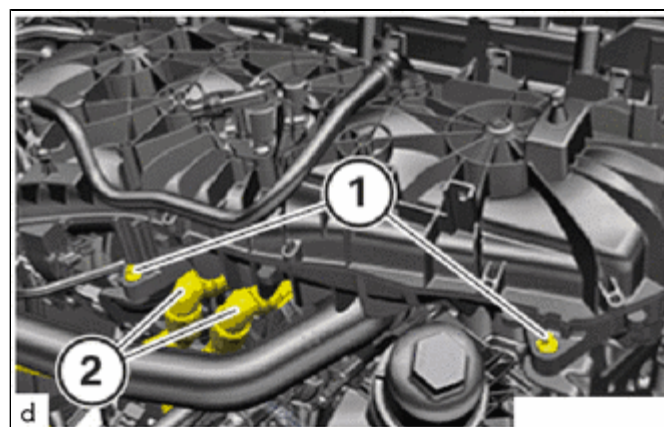
(i) Detach the clip in the marked area (4).

(j) Unlock and pull off the fuel suction tube sub-assembly (8).



(k) Loosen the bolts in the order (7) to (1).

(l) Loosen the E10 bolts (1).



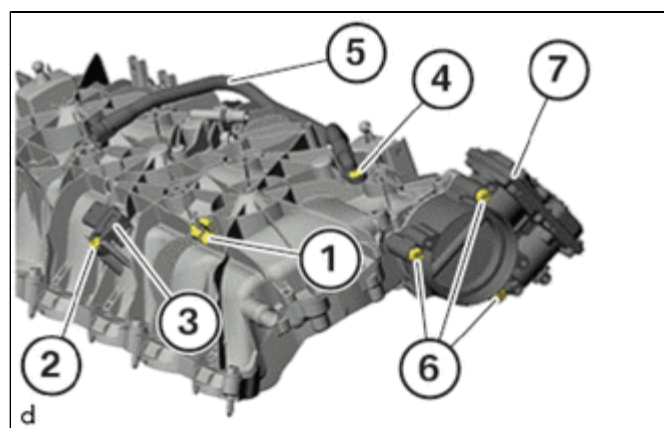
(m) Unlock the locks (2) of the coolant lines under the intake manifold and disconnect the water by-pass hoses.

HINT:

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.
- Slightly raise air intake header.

(n) Remove intake manifold.

(o) Remove clip (1).



- (p) Loosen the T25 bolt (2).
- (q) Remove the vacuum sensor (3).
- (r) Loosen the T20 bolt (4).
- (s) Remove the No. 3 fuel vapor feed hose (5).
- (t) Loosen the bolts (6).
- (u) Remove the throttle body with motor assembly (7).



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INTAKE MANIFOLD: INSTALLATION; 2020 MY Supra [03/2019 -]		

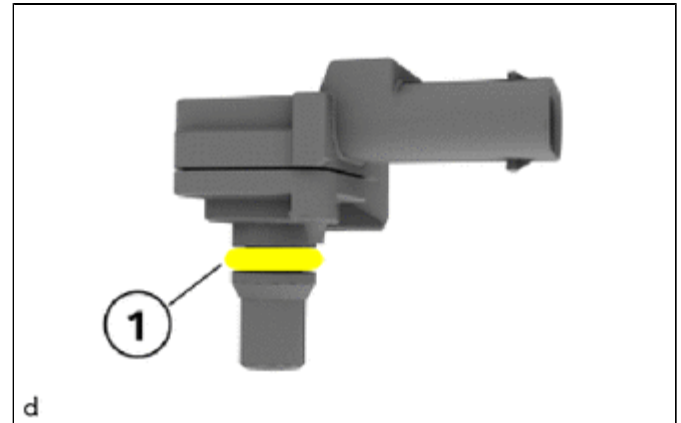
INSTALLATION

PROCEDURE

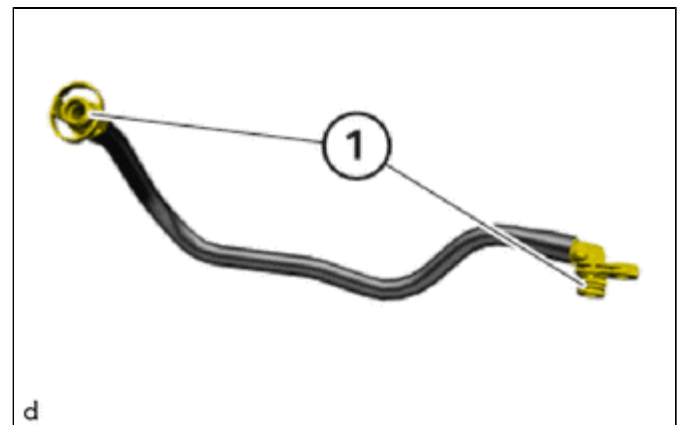
1. INSTALL INTAKE MANIFOLD

(a) Check the sealing ring for damage and replace where required.

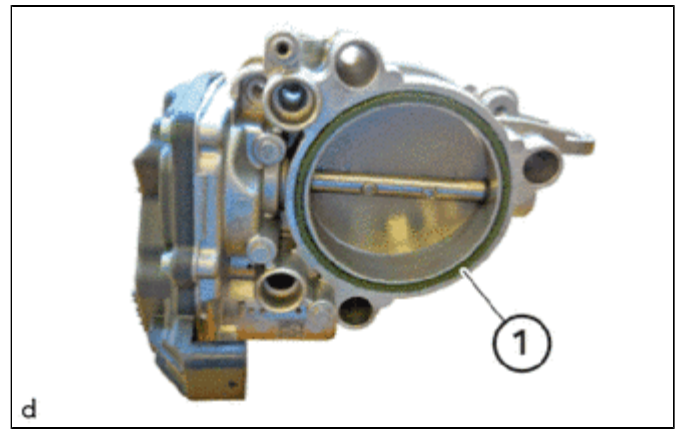
(b) Apply a thin coat of syntheso glep 1 lubricating grease to the O-ring (1).



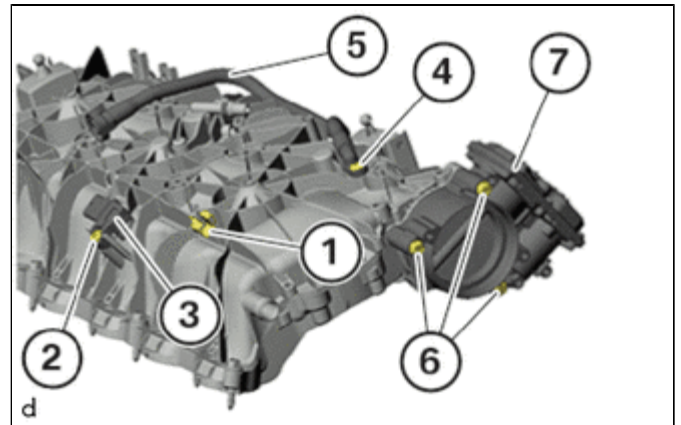
(c) Check sealing rings (1) and replace the No. 3 fuel vapor feed hose where required.



(d) Replace the throttle body gasket (1).



(e) Position the throttle body with motor assembly (7).



(f) Tighten down the bolts (6).

Torque:

7.0 N·m {71 kgf·cm, 62 in·lbf}

(g) Position the No. 3 fuel vapor feed hose (5).

(h) Tighten down the T20 bolt (4).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(i) Install the vacuum sensor (3).

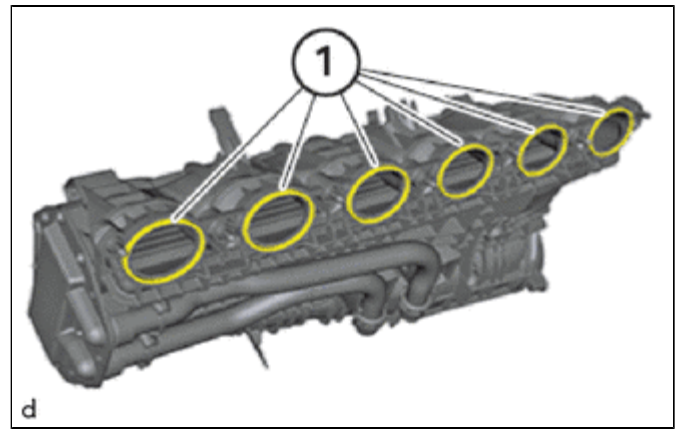
(j) Tighten down the T25 bolt.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(k) Mount the clip.

(l) Replace No. 1 intake manifold to head gaskets (1).

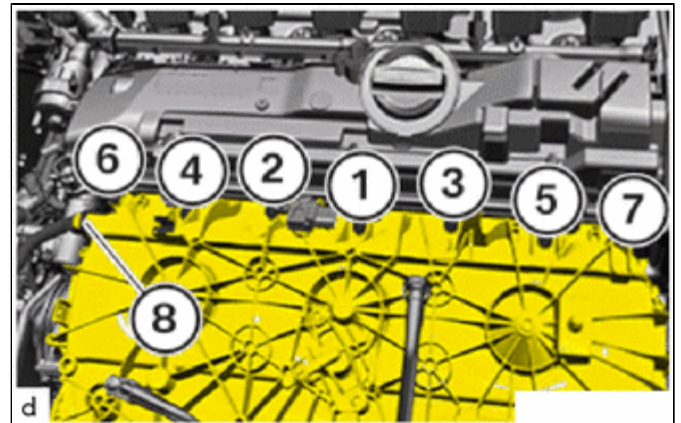


(m) Position the intake manifold.

HINT:
Additional coolant can escape. Make sure that no coolant enters the intake port of the cylinder head sub-assembly.

(n) Tighten the bolts in the order to (1) to (7).

Torque:
10 N·m {102 kgf·cm, 7 ft·lbf}



(o) Connect the fuel suction tube sub-assembly (8) and lock.

HINT:

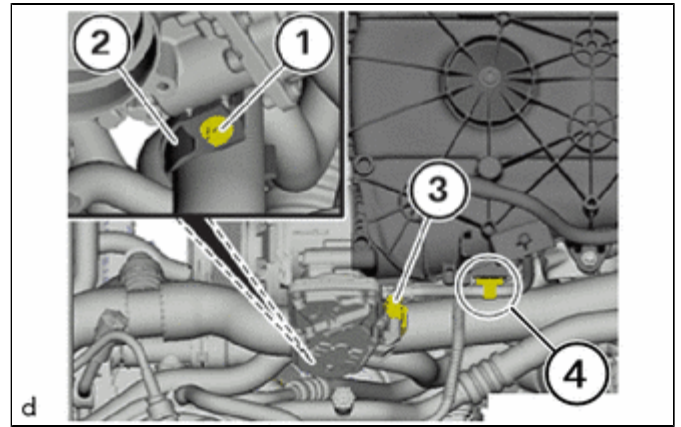
- Make sure that the connections are locked correctly. The locks must engage audibly.
- Lock must audibly engage.

(p) Lock the locks and connect the water by-pass hoses.

(q) Tighten the E10 bolts.

Torque:
8.0 N·m {82 kgf·cm, 71 in·lbf}

(r) Mount the clip in the marked area (4).



(s) Connect connectors (3) and lock.

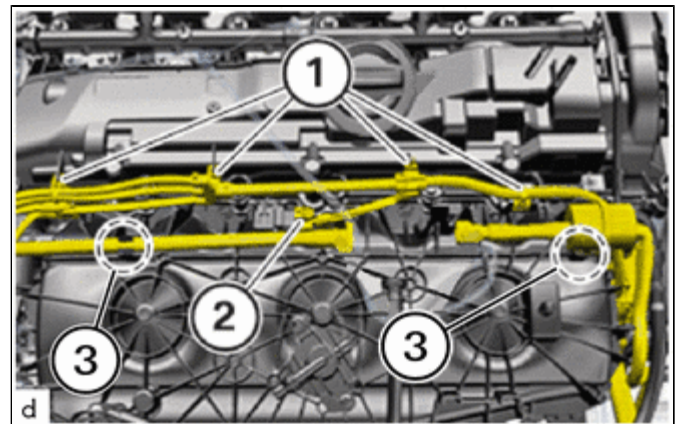
(t) Position holder (2).

(u) Tighten down the E10 bolt (1).

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

(v) Secure wiring harness (1) on the cylinder head cover sub-assembly.



(w) Connect and lock the connector (2) on the vacuum sensor.

HINT:

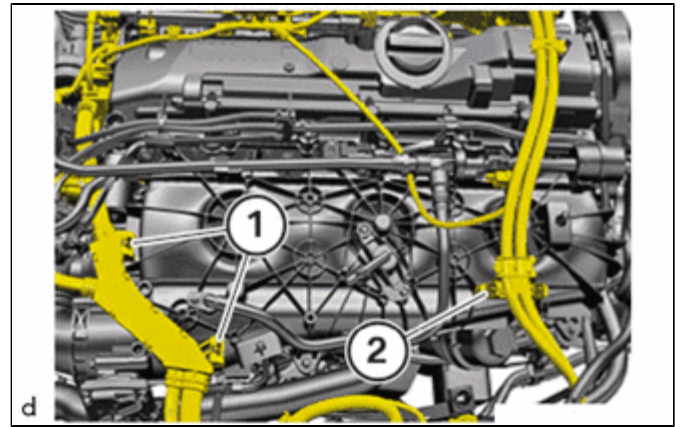
Lock must audibly engage.

(x) Secure fuel tank breather tubes on the intake manifold in the marked areas (3).

(y) Position wiring harness (1), (2) and fasten on the holders.

HINT:

The locks must engage audibly.



(z) Secure wiring harness (1), (2) in the holder and lock.

2. INSTALL ENGINE ROOM ECM BOX

NOTICE:

- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(a) Feed the engine room ECU box into the guide and install.

(b) Tighten down the bolts.

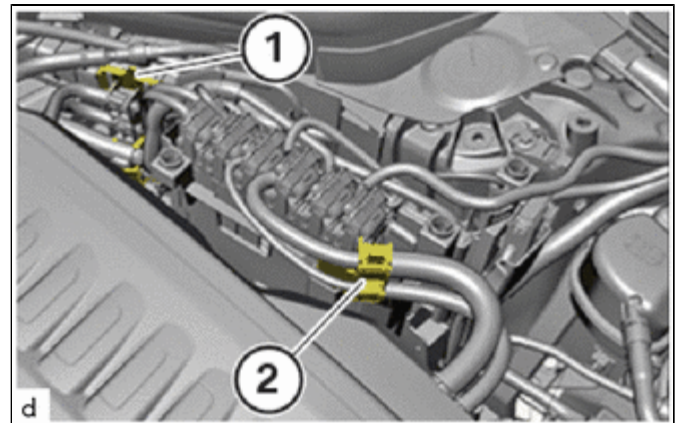
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(c) Feed the wiring harnesses (1), (2) into the holder at the engine room ECU box.

HINT:

The locks must engage audibly.



3. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

4. INSTALL NO. 1 CHECK VALVE

Click here [INFO](#)

5. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

6. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

7. INSTALL FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

8. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

9. INSTALL AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

10. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

11. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

12. ADD ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

13. INSPECT FOR COOLANT LEAK (for Low Temperature)

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): INTAKE SYSTEM: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

CAUTION / NOTICE / HINT

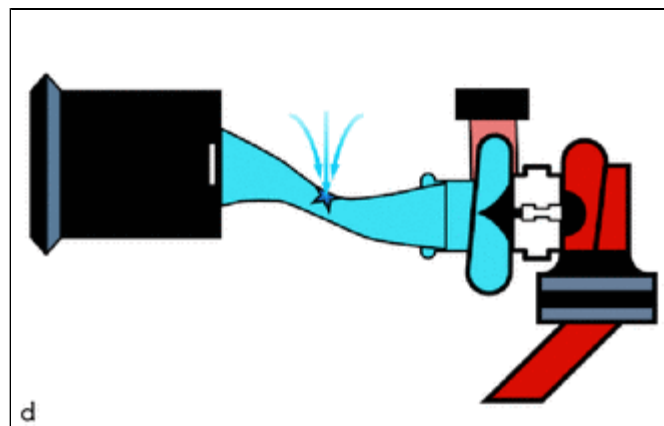
Typical turbocharger sub-assembly noise is particularly evident when powerful load reversals take place. If the noise occurs in other operating modes, it may be that the turbocharger sub-assembly is not the only cause of the noise.

PROCEDURE

1. AIR INTAKE DUCT LEAK

- (a) In the event of an air intake duct leak the sound of the operating turbocharger sub-assembly, which is normally dampened by the intake silencer, is easier to hear. The amount of noise that is generated depends on the size of the leak.

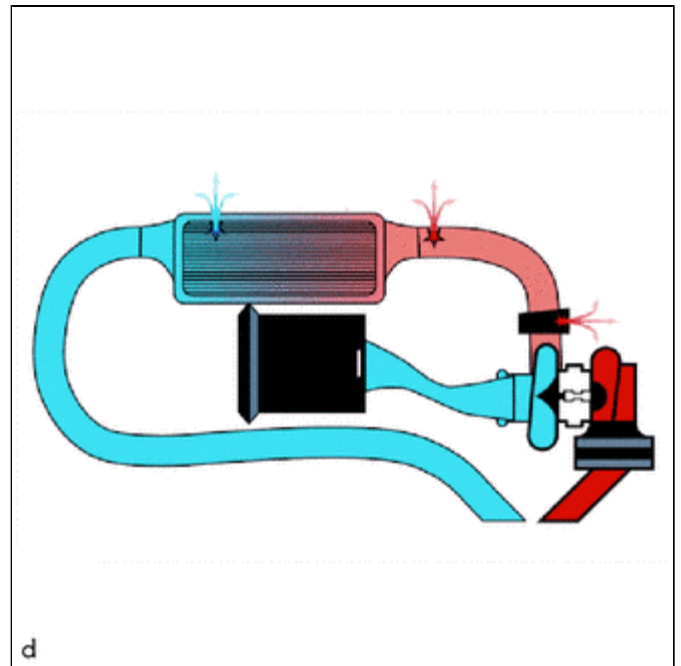
- (b) This defect can allow unfiltered air to enter the compressor and cause foreign body damage or vane erosion.



- (c) Air intake duct leak.

2. CHARGE AIR DUCT AND INTERCOOLER LEAK

- (a) A leak in the charge air duct generates a loud hissing noise or high-pitched whistling noise, which increases together with the turbocharger sub-assembly speed and charging pressure.



(b) Charge air duct leaks

3. EXHAUST LEAKAGE

(a) An exhaust leak at the exhaust manifold (e.g. because of a faulty gasket or distortion) almost always leads to a high-frequency whistling noise, which is often mistakenly thought to be turbocharger sub-assembly noise.

4. IMBALANCE CAUSED BY FOREIGN BODY DAMAGE

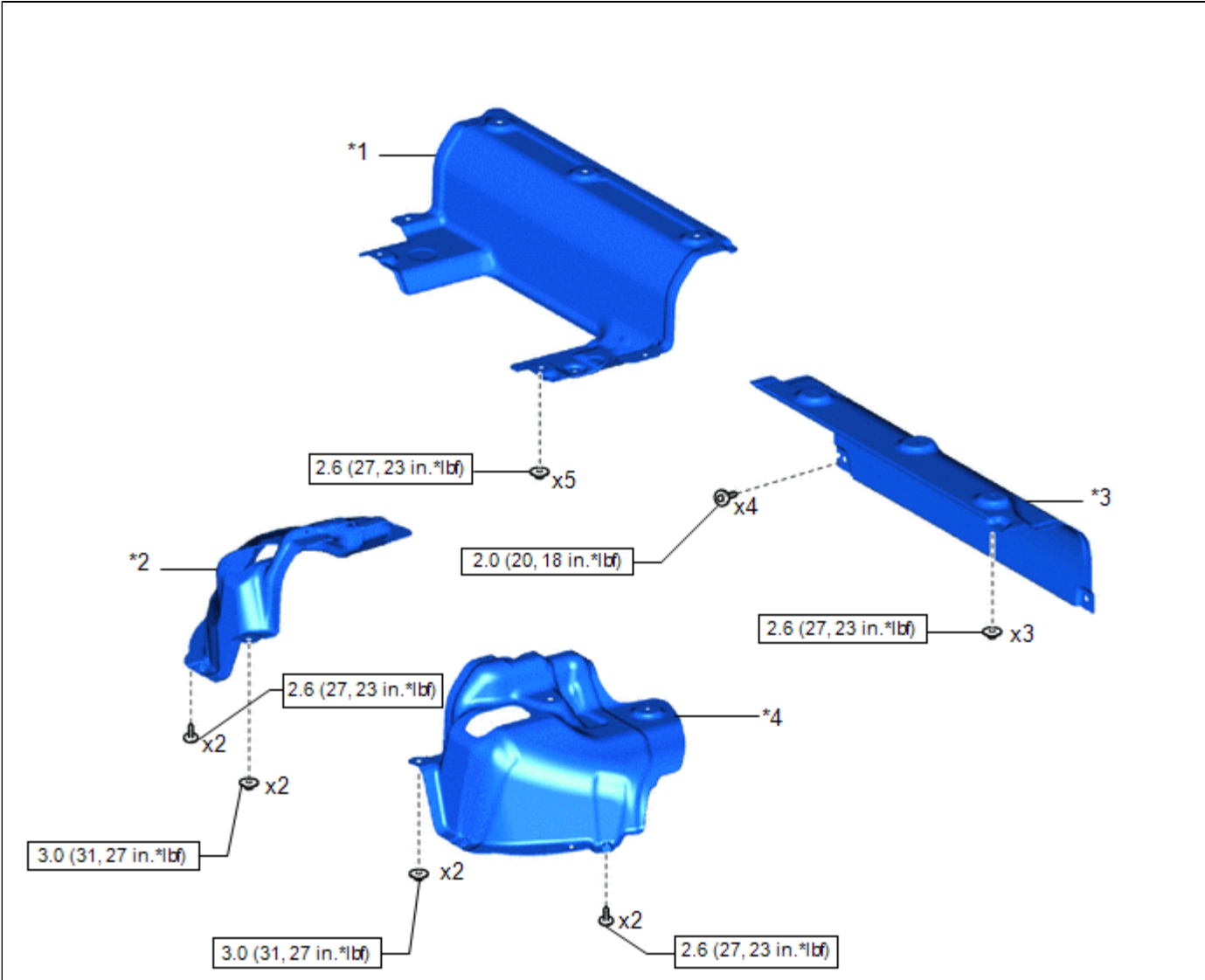
(a) Because of the fast turbocharger sub-assembly rotating speed, even small particles can damage the compressor or turbine wheel. The imbalance resulting from the damage leads to out-of-balance howling. Out-of-balance howling mostly occurs when the speed is quickly reduced after pressing on the accelerator.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCS0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): MAIN MUFFLER HEAT INSULATOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	MAIN MUFFLER HEAT INSULATOR	*2	MAIN MUFFLER HEAT INSULATOR RH
*3	REAR NO. 2 FLOOR HEAT INSULATOR SUB-ASSEMBLY	*4	MAIN MUFFLER HEAT INSULATOR LH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCS1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): MAIN MUFFLER HEAT INSULATOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

2. REMOVE MAIN MUFFLER HEAT INSULATOR LH

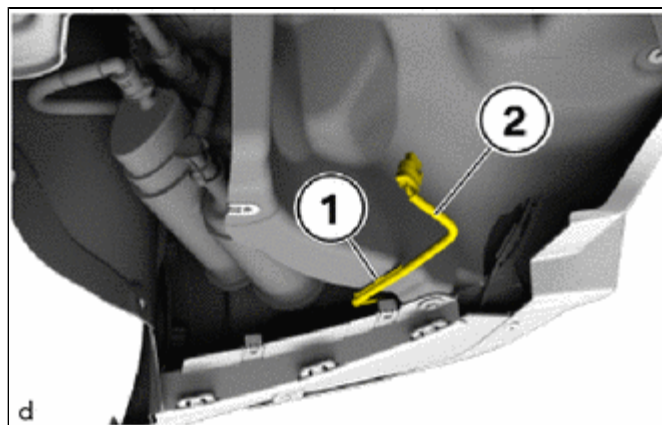
HINT:

Use the same procedure as for the RH side.

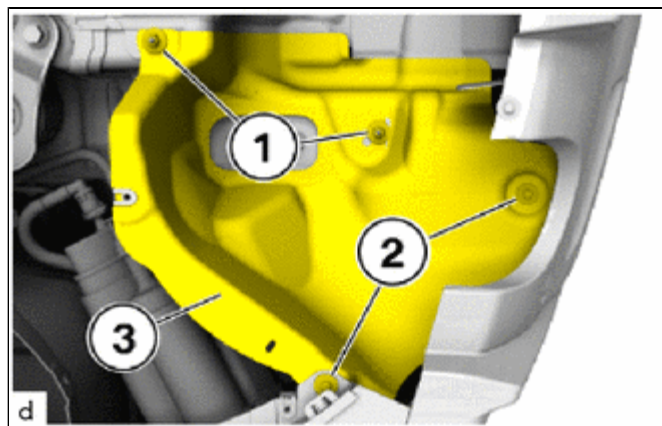
3. REMOVE MAIN MUFFLER HEAT INSULATOR RH

(a) for RH Side:

- (1) Unclip the holder (1).
- (2) Detach the cable (2) for the actuator with bracket assembly.



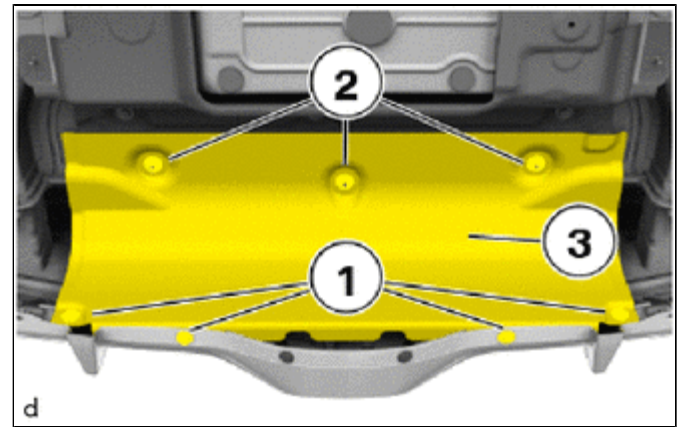
(b) Release nuts (1) and screws (2).



(c) Guide the main muffler heat Insulator RH (3).

4. REMOVE REAR NO. 2 FLOOR HEAT INSULATOR SUB-ASSEMBLY

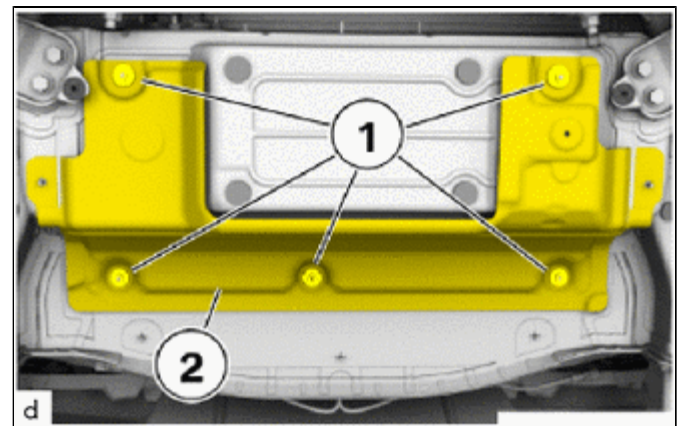
(a) Unscrew screws (1) and nuts (2).



(b) Remove the rear No. 2 floor heat Insulator sub-assembly (3).

5. REMOVE MAIN MUFFLER HEAT INSULATOR

(a) Loosen nuts (1).



(b) Remove the main muffler heat insulator (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCS2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): MAIN MUFFLER HEAT INSULATOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL MAIN MUFFLER HEAT INSULATOR

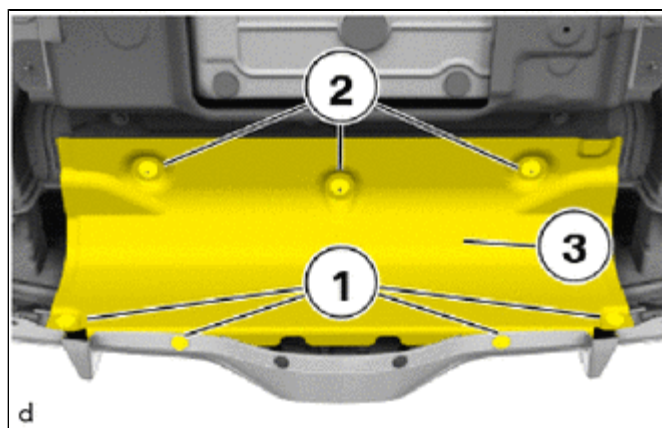
- (a) Position the main muffler heat insulator.
- (b) Tighten nuts.

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

2. INSTALL REAR NO. 2 FLOOR HEAT INSULATOR SUB-ASSEMBLY

- (a) Position the rear No. 2 floor heat Insulator sub-assembly.



- (b) Tighten screws (1) and nuts (2).

Torque:

Nut :

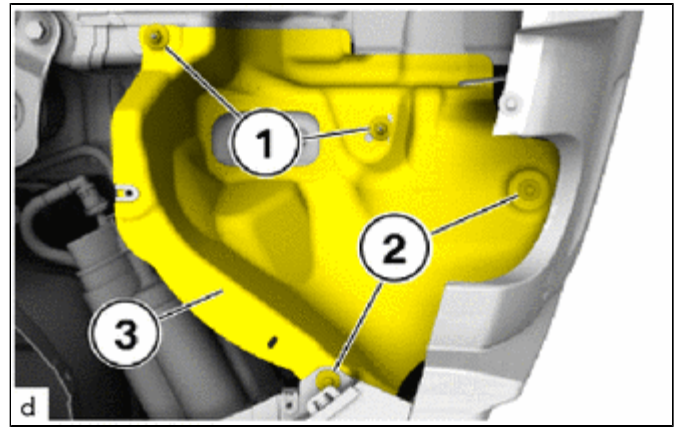
2.6 N·m {27 kgf·cm, 23 in·lbf}

Screw :

2.0 N·m {20 kgf·cm, 18 in·lbf}

3. INSTALL MAIN MUFFLER HEAT INSULATOR RH

- (a) Position the main muffler heat Insulator RH (3).



(b) Tighten nuts (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(c) Tighten down screws (2).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

(d) for RH Side:

(1) Clip in the holder.

(2) Attach the actuator with bracket assembly.

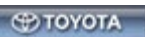
4. INSTALL MAIN MUFFLER HEAT INSULATOR LH

HINT:

Use the same procedure as for the RH side.

5. INSTALL EXHAUST PIPE ASSEMBLY

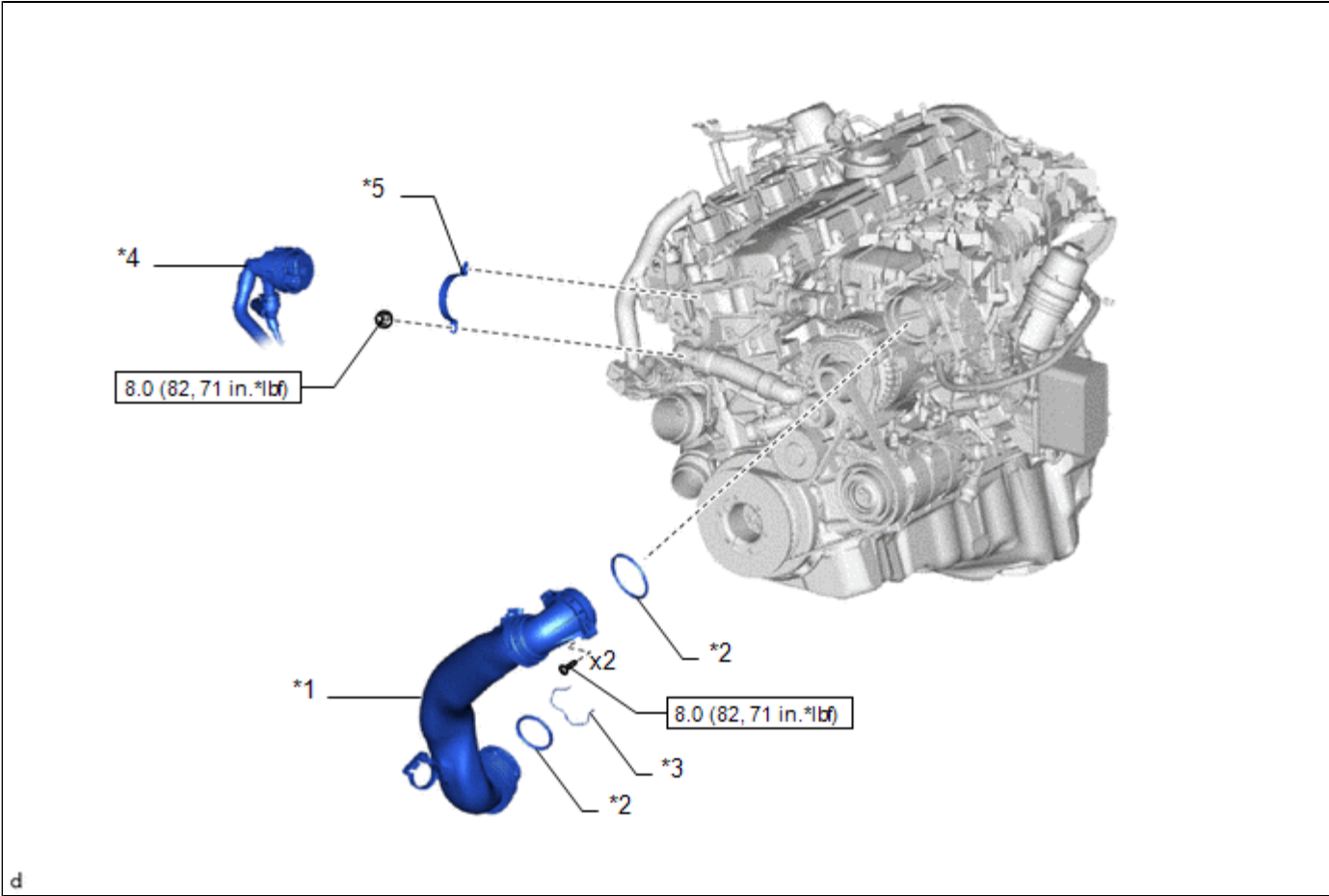
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): NO.2 AIR CLEANER HOSE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 2 AIR CLEANER HOSE	*2	SEALING RING
*3	CLAMP	*4	ELECTRIC WATER PUMP ASSEMBLY
*5	NO. 2 WATER PUMP BRACKET SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCR7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): NO.2 AIR CLEANER HOSE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

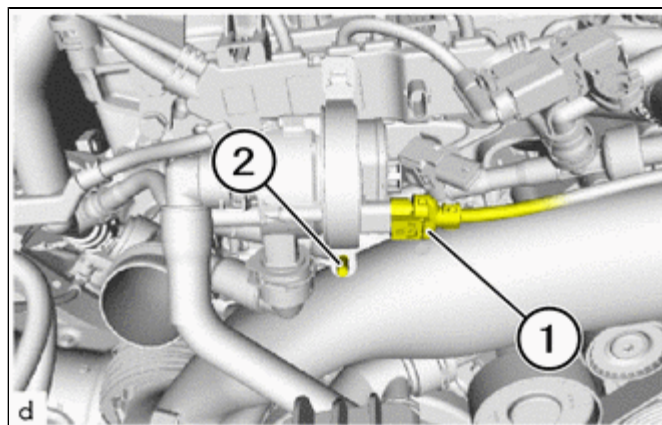
PROCEDURE

1. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

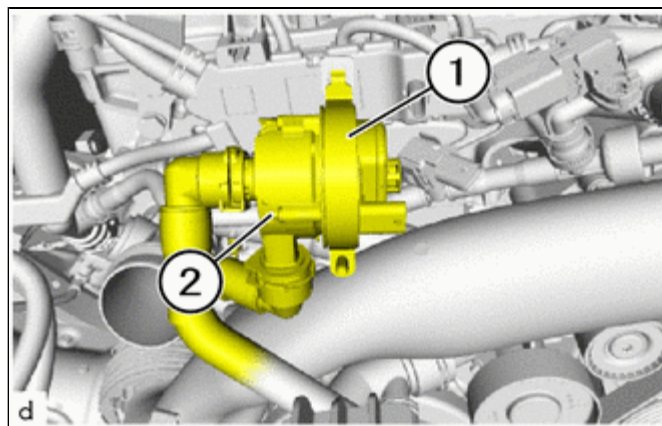
2. SEPARATE ELECTRIC WATER PUMP ASSEMBLY

(a) Unlock plug connection (1) and disconnect.



(b) Loosen nut (2).

(c) Guide the No. 2 water pump bracket sub-assembly (1) out and remove.



(d) Separate the electric water pump assembly (2).

3. REMOVE NO. 2 AIR CLEANER HOSE

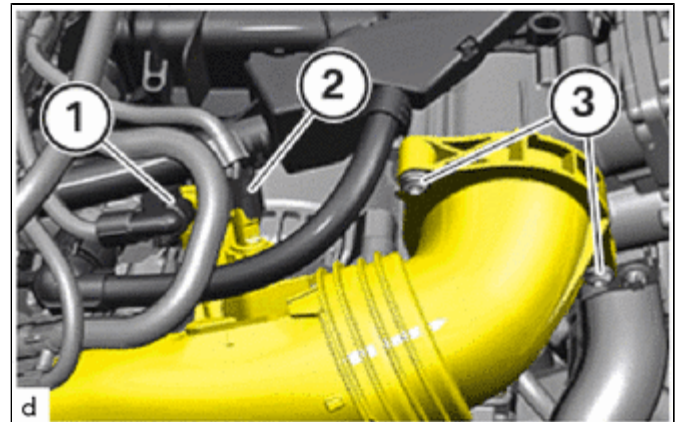
CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

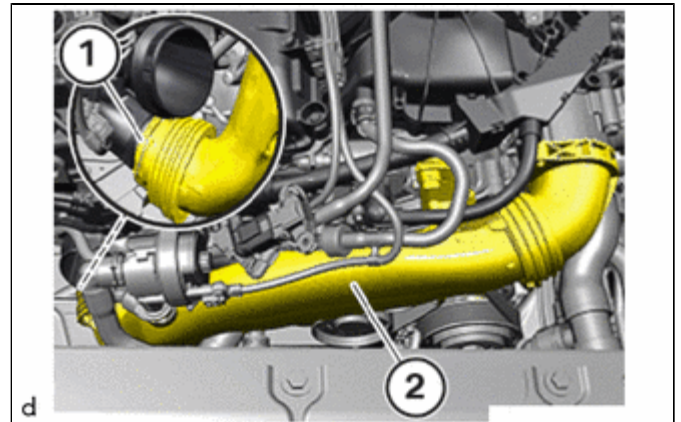
(a) Unlock plug connection (1) and disconnect.



(b) Unlock plug connection (2) and disconnect.

(c) Loosen the T30 bolts (3).

(d) Unlock and loosen clamp (1).

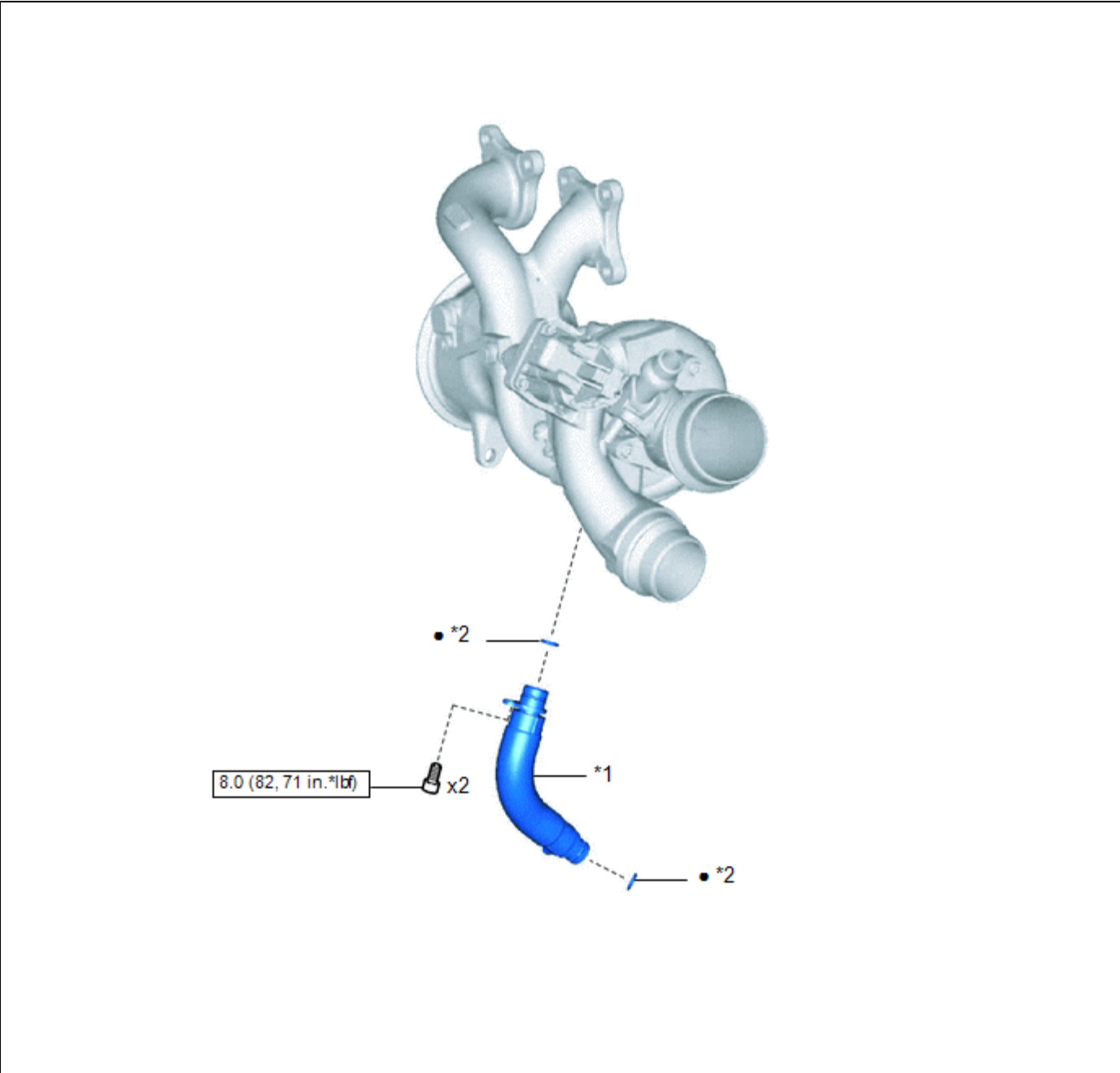




(e) Guide out and remove No. 2 air cleaner hose (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): OUTLET TURBO OIL PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OUTLET TURBO OIL PIPE	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): OUTLET TURBO OIL PIPE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Damage to spiral cable sub-assembly.

The spiral cable sub-assembly or the coil spring cassette can be damaged by twisting the steering wheel if the universal joint is disconnected from the steering gear or the steering shaft below or when the steering shaft is disconnected from the steering column below.

- Secure steering wheel from twisting.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE STEERING LINK ASSEMBLY

Click here [INFO](#)

3. REMOVE OUTLET TURBO OIL PIPE

CAUTION:

- Hot fluids.

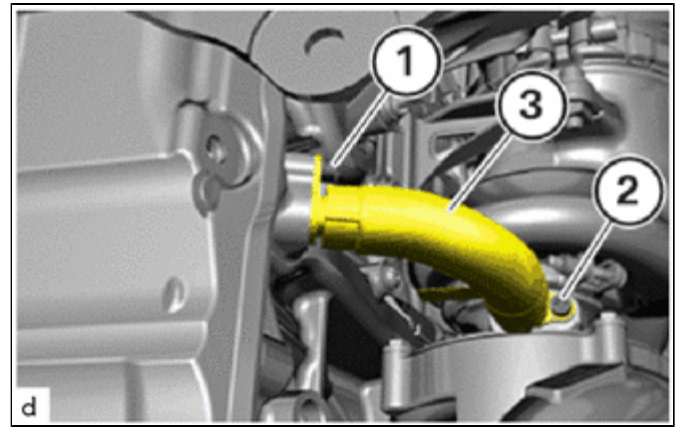
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

(a) Loosen the T30 bolts (1) and (2).

HINT:

Collect and dispose of emerging fluids. Observe country specific waste disposal regulations.



(b) Remove the outlet turbo oil pipe (3).



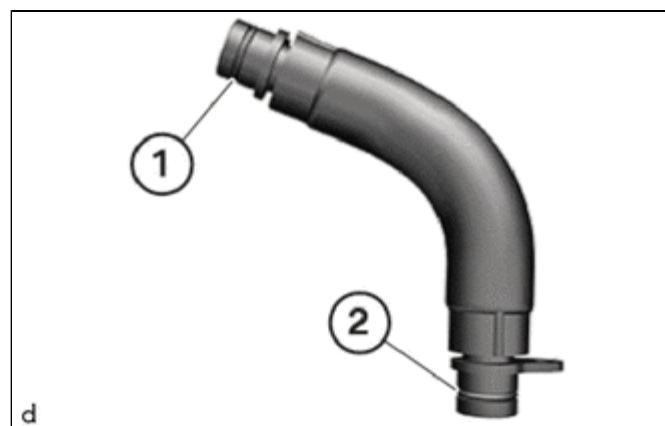
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): OUTLET TURBO OIL PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

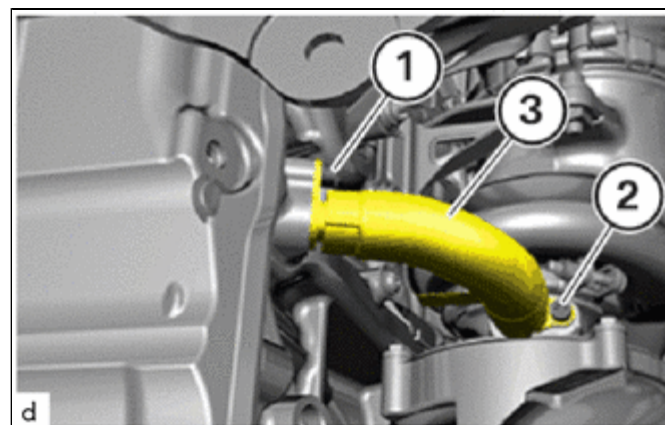
PROCEDURE

1. INSTALL OUTLET TURBO OIL PIPE

(a) Replace the O-rings (1) and (2).



(b) Position the outlet turbo oil pipe (3).



(c) Tighten down the T30 bolts (1) and (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL STEERING LINK ASSEMBLY

Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

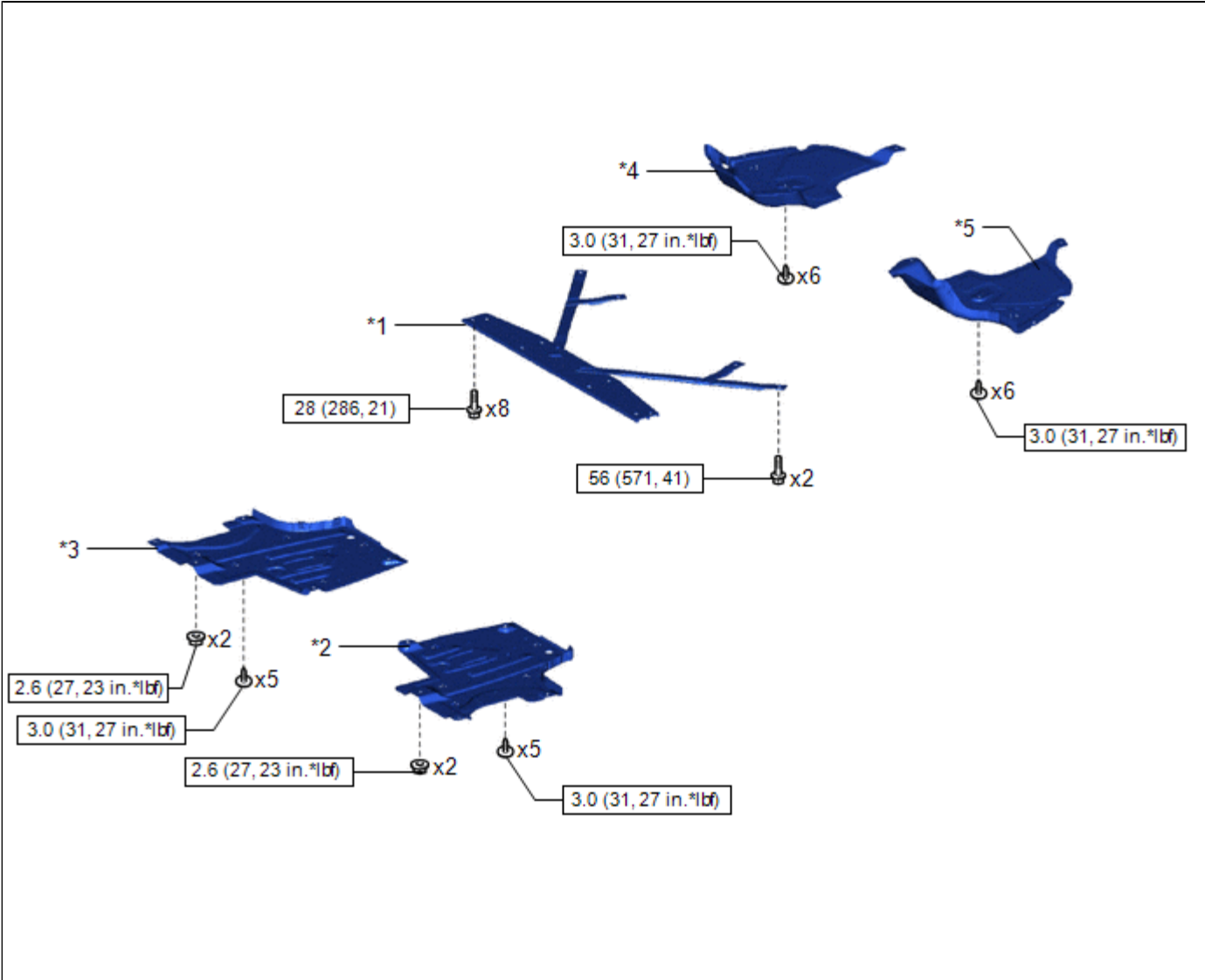
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TAIL EXHAUST PIPE ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

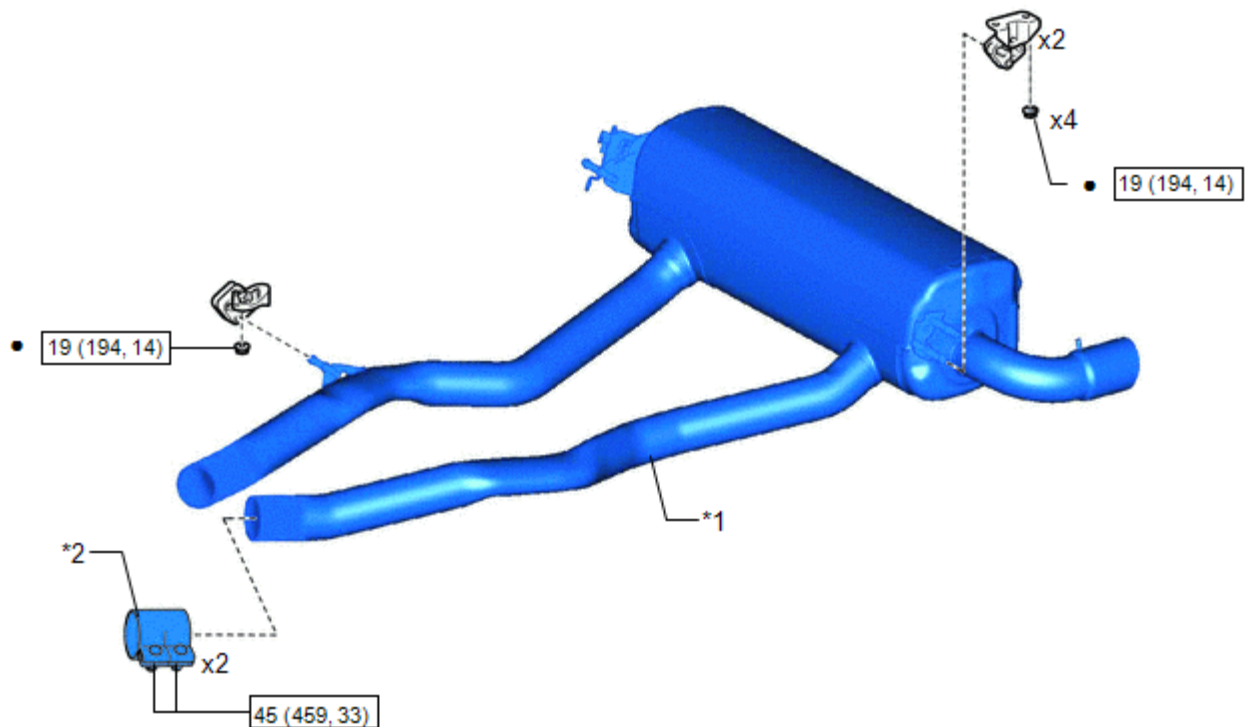
COMPONENTS

ILLUSTRATION



*1	REAR FLOOR PANEL BRACE	*2	REAR FLOOR SIDE MEMBER COVER LH
*3	REAR FLOOR SIDE MEMBER COVER RH	*4	REAR UNDERBODY PROTECTOR RH
*5	REAR UNDERBODY PROTECTOR LH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	EXHAUST TAIL PIPE ASSEMBLY	*2	REAR NO. 1 EXHAUST TAIL PIPE CLAMP
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TAIL EXHAUST PIPE ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Component with heavy weight.

Danger of injury!

- Note component's center of gravity.
- Support component using a jack.
- Secure component against falling off the jack.

- Swarf resulting from sawing or grinding components.

Danger of injury!

- Conduct all work in appropriate personal protective equipment only.
- Wear safety goggles and protective gloves.

PROCEDURE

1. REMOVE REAR FLOOR SIDE MEMBER COVER LH

Click here [INFO](#)

2. REMOVE REAR FLOOR SIDE MEMBER COVER RH

HINT:

Use the same procedure as for the LH side.

3. REMOVE REAR FLOOR PANEL BRACE

Click here [INFO](#)

4. REMOVE REAR UNDERBODY PROTECTOR LH

Click here [INFO](#)

5. REMOVE REAR UNDERBODY PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

6. REMOVE EXHAUST TAIL PIPE ASSEMBLY

CAUTION:

- Hot surfaces.

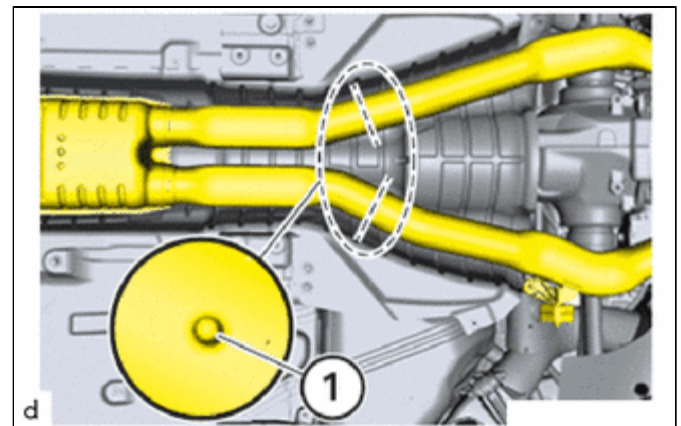
Risk of burning!

- Perform all work only on components that have cooled down.

HINT:

- If the separation point is not marked by a punch mark in the pipe, determine the separation point by means of the pipe length on the new component.
- Transfer the separation point to the faulty component and mark.
- Cut through the faulty component at the marked point with a suitable tool.
- Deburr the separation point and remove any swarf. There is a risk of remaining metal chips at the joint between the two pipes.
- Check the exhaust pipe assembly for tightness after installation.

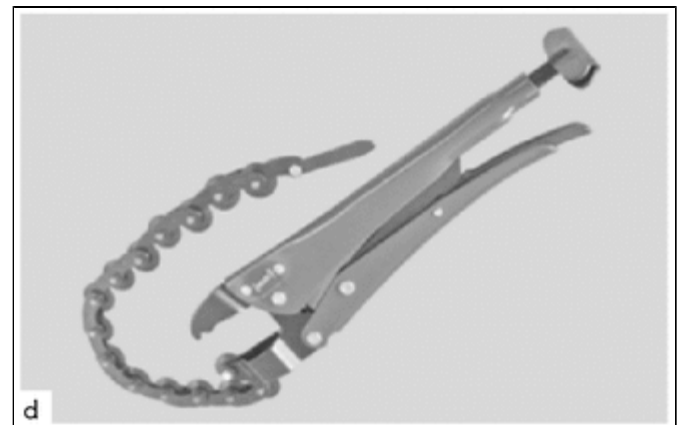
- (a) If the separation point (1) is not marked by a punch mark in the pipe, determine the separation point (1) by means of the pipe length on the new component.



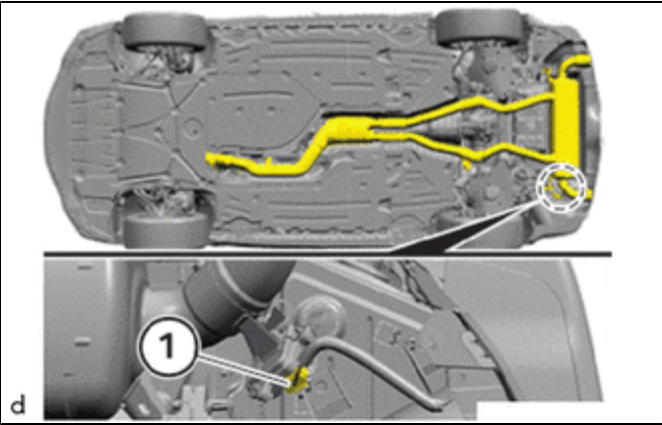
- (b) Transfer the separation point (1) to the component to be replaced and mark.

- (c) Cut through separation point at the marked point with the special tool 0 496 469 (00 2 220).

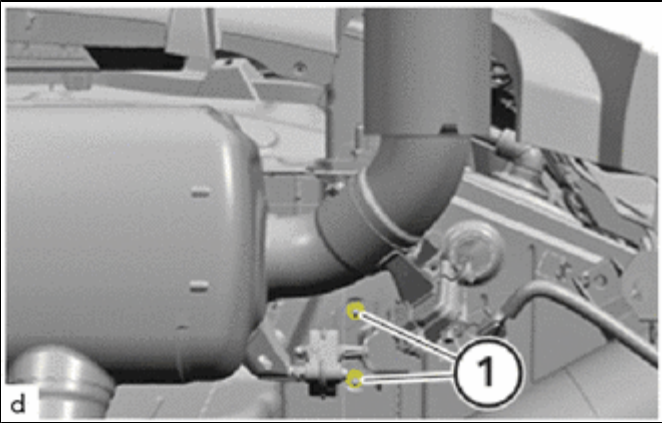
SST: 09200-WA600



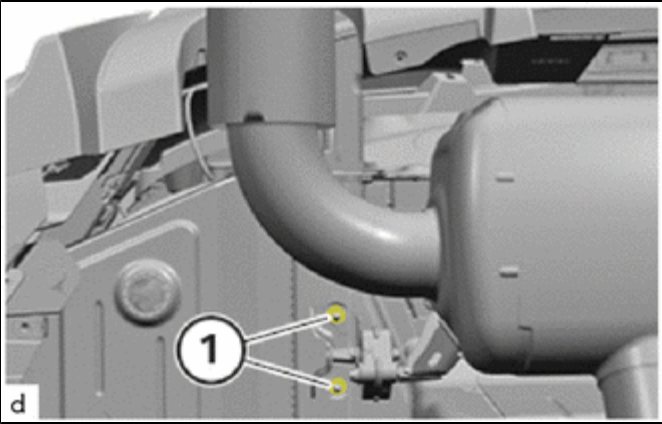
(d) Unlock plug connection (1) and disconnect.



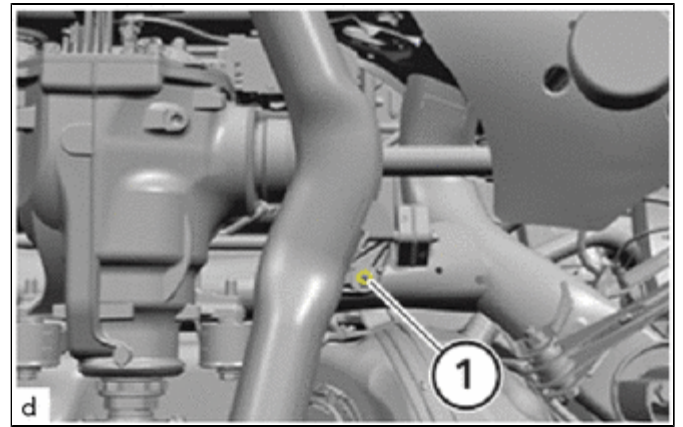
(e) Loosen nuts (1).



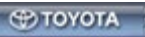
(f) Loosen nuts (1).



(g) Unfasten nut (1).



(h) Remove the exhaust tail pipe assembly.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TAIL EXHAUST PIPE ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL EXHAUST TAIL PIPE ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

HINT:

- If the separation point is not marked by a punch mark in the pipe, determine the separation point by means of the pipe length on the new component.
- Transfer the separation point to the faulty component and mark.
- Cut through the faulty component at the marked point with a suitable tool.
- Deburr the separation point and remove any swarf. There is a risk of remaining metal chips at the joint between the two pipes.
- Check the exhaust system for tightness after installation.

(a) Position the exhaust tail pipe assembly.

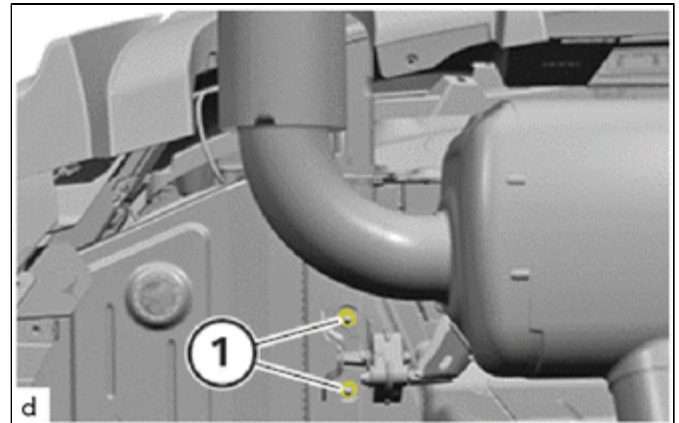
(b) Replace nut.

(c) Tighten nut.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(d) Replace nuts.

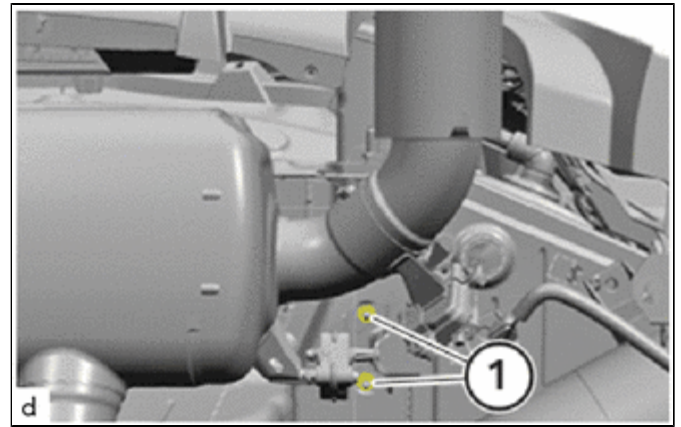


(e) Tighten nuts.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(f) Replace nuts.



(g) Tighten nuts.

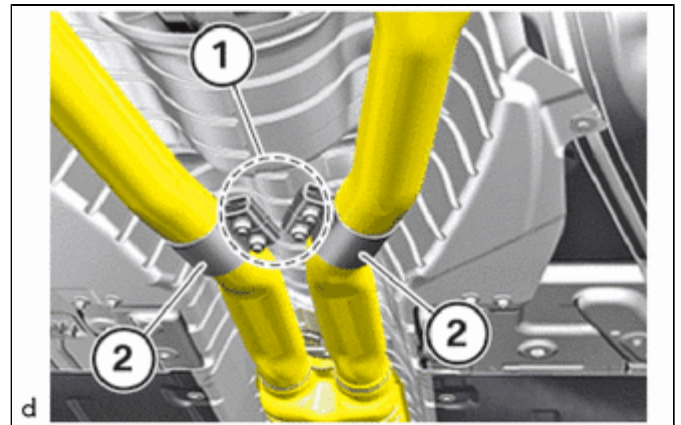
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(h) Tighten nuts in the area (1) at the rear No. 1 exhaust tail pipe clamps (2).

Torque:

45 N·m {459 kgf·cm, 33 ft·lbf}



(i) Connect connectors and lock.

2. INSTALL REAR UNDERBODY PROTECTOR LH

Click here [INFO](#)

3. INSTALL REAR UNDERBODY PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

4. INSTALL REAR FLOOR PANEL BRACE

Click here [INFO](#)

5. INSTALL REAR FLOOR SIDE MEMBER COVER LH

Click here [INFO](#)

6. INSTALL REAR FLOOR SIDE MEMBER COVER RH

HINT:

Use the same procedure as for the LH side.

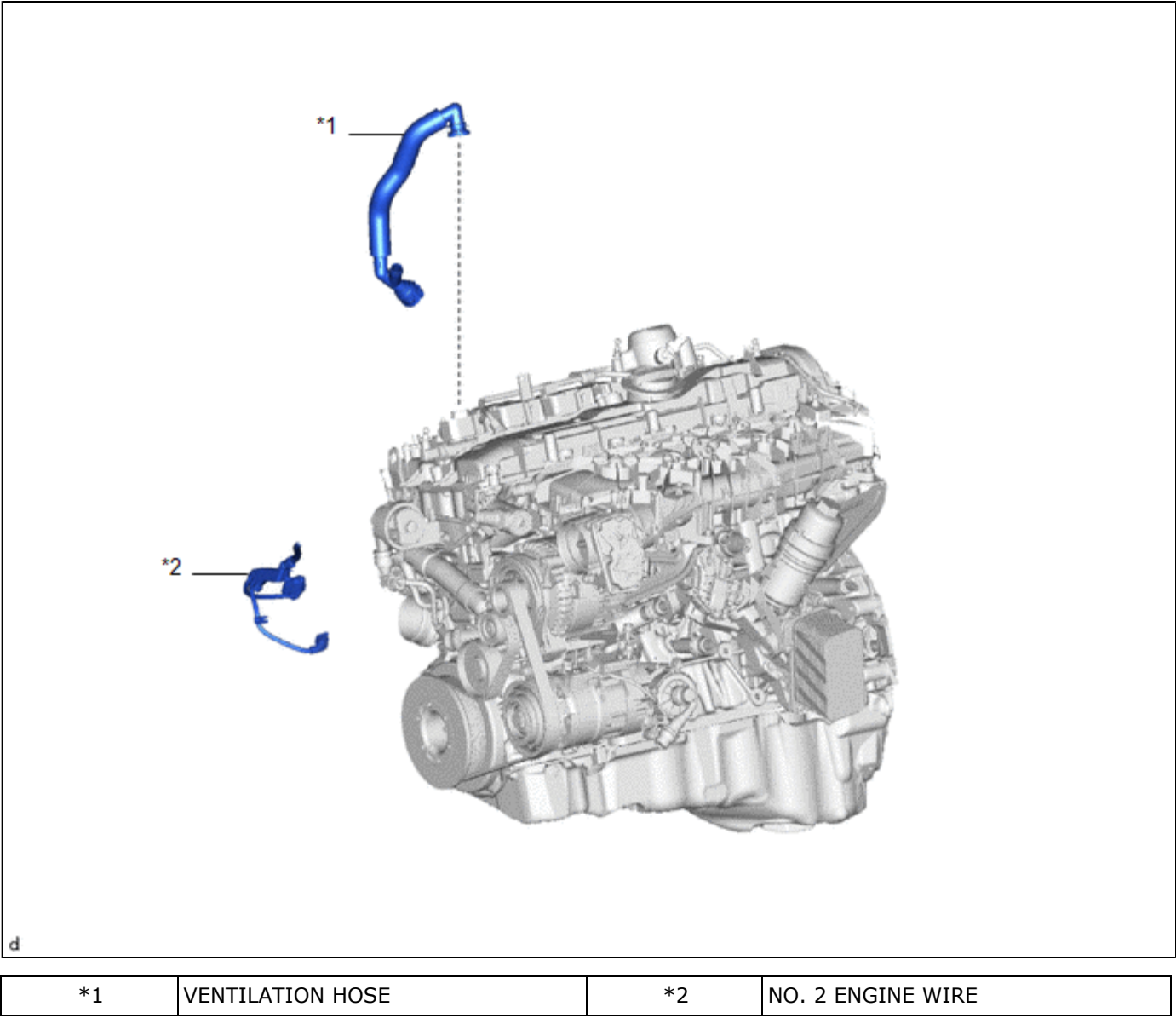
7. INSPECT FOR EXHAUST GAS LEAK

Click here [INFO](#)

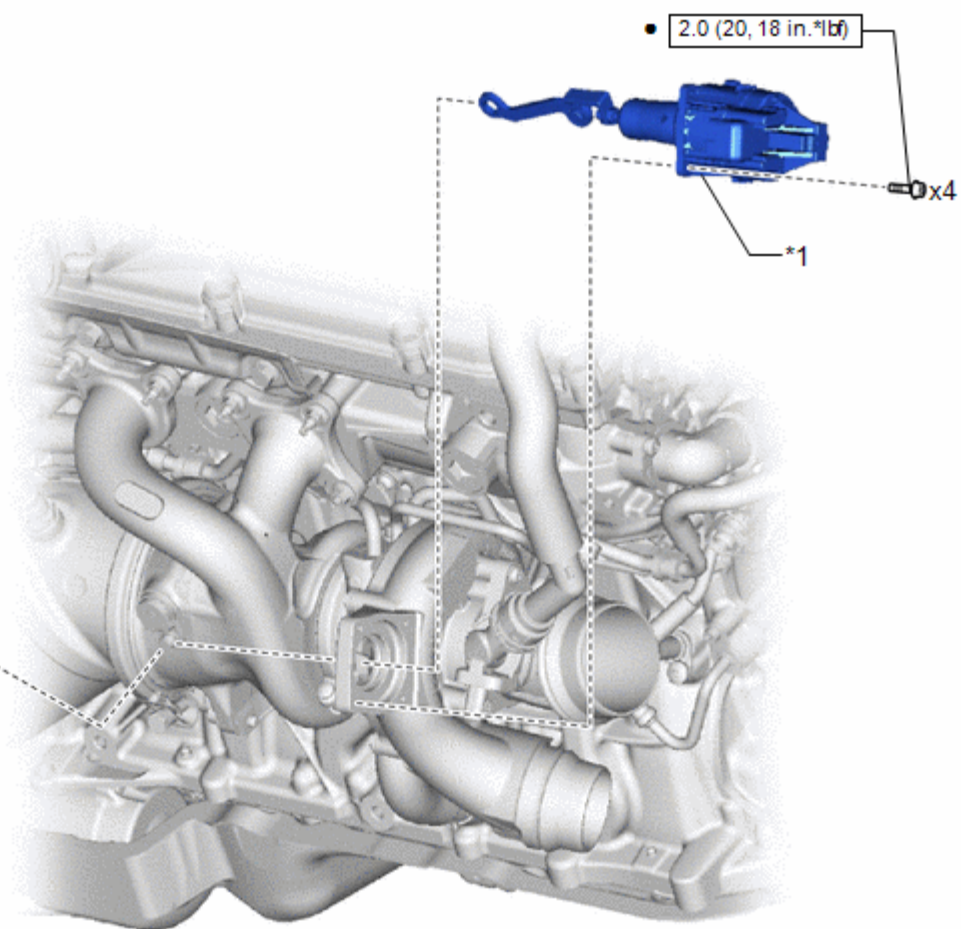
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO CHARGER ACTUATOR AND LINK: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



ILLUSTRATION



d

*1	TURBOCHARGER ACTUATOR AND LINK ASSEMBLY	*2	RETAINING CLIP
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO CHARGER ACTUATOR AND LINK: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. REMOVE AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

2. REMOVE VENTILATION HOSE

Click here [INFO](#)

3. REMOVE TURBOCHARGER ACTUATOR AND LINK ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Damage to the turbocharger actuator and link assembly and the mechanical connection.

Improper handling of the turbocharger actuator and link assembly can lead to malfunctions or failure of the turbocharger actuator and link assembly.

- Avoid exposure of lateral forces to the control rod of the turbocharger actuator and link assembly.

- Electrostatic discharge.

Damage to or destruction of electrical components.

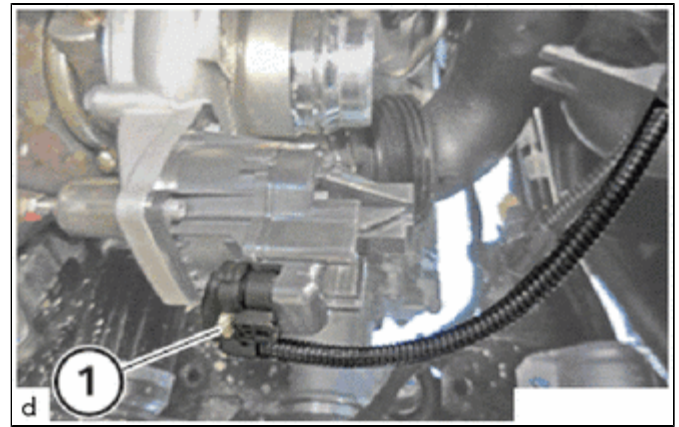
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

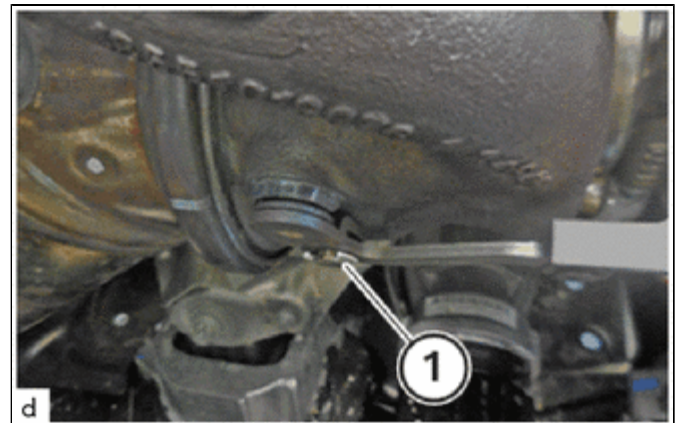
HINT:

It is not necessary to adjust the turbocharger actuator and link assembly after removing and installing or renewing.

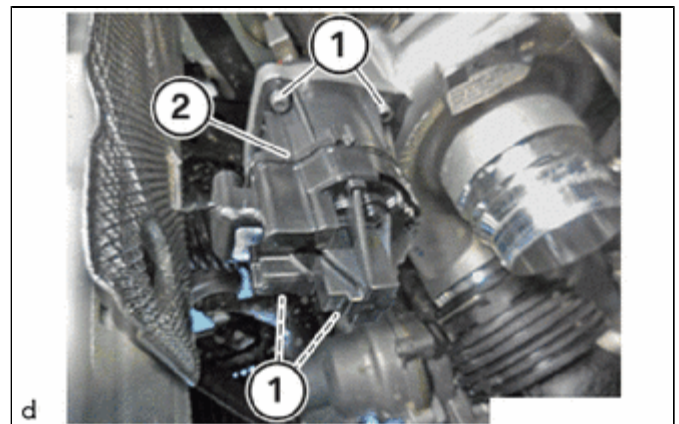
(a) Unlock and loosen connector (1).



(b) Unlock and detach retaining clip (1).



(c) Loosen the T25 bolts (1) on the turbocharger actuator and link assembly (2).



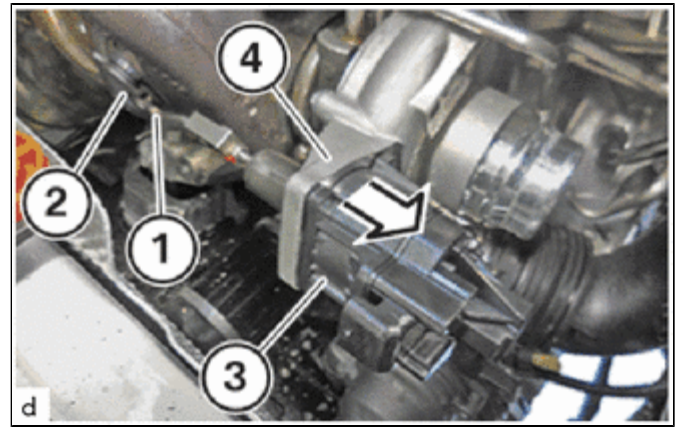
(d) Guide the turbocharger actuator and link assembly (3) out of the compressor housing bore hole (4) in the direction of arrow and remove it.

NOTICE:

- Carefully pull the control rod (1) of the turbocharger

actuator and link assembly (3) off the pin on the lever of the wastegate valve (2).

- Any effect of lateral force on the control rod (1) must be avoided.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO CHARGER ACTUATOR AND LINK: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

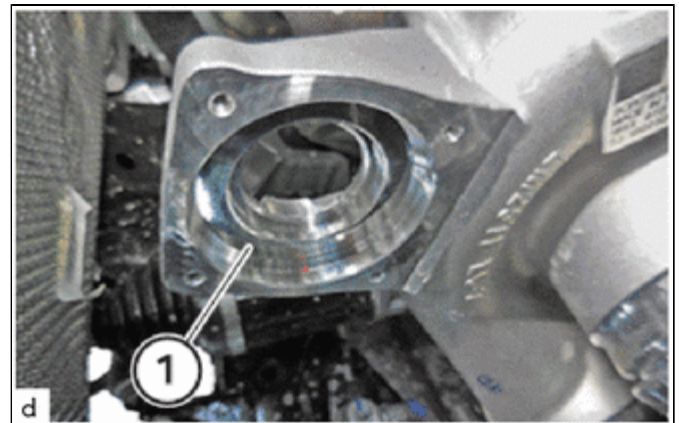
PROCEDURE

1. INSTALL TURBOCHARGER ACTUATOR AND LINK ASSEMBLY

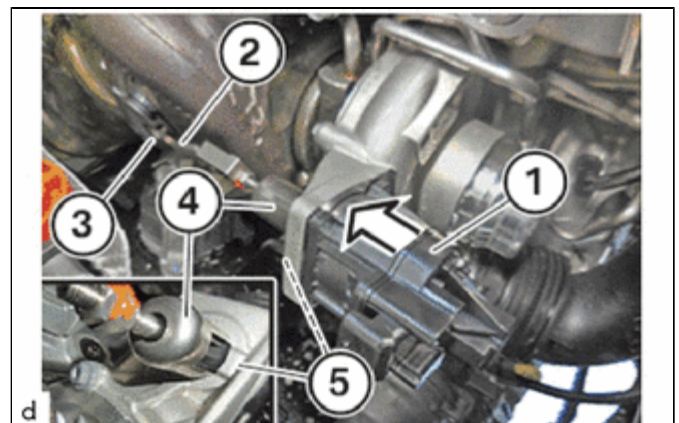
NOTICE:

- Damage to the turbocharger actuator and link assembly and the mechanical connection.
- Improper handling of the turbocharger actuator and link assembly can lead to malfunctions or failure of the turbocharger actuator and link assembly.
 - Avoid exposure of lateral forces to the control rod of the turbocharger actuator and link assembly.

- (a) Check contact surface (1) on turbocharger sub-assembly for contamination and clean if necessary.



- (b) Guide the turbocharger actuator and link assembly (1) into the bore hole of the compressor housing (5) in direction of arrow and position it.



- (c) Ensure that the heat shield (4) is positioned correctly on the compressor housing (5).
- (d) Carefully install the control rod (2) of the turbocharger actuator and link assembly (1) on the lever of the wastegate valve (3).

HINT:

Any effect of lateral force on the control rod (2) must be avoided.

(e) Replace the T25 bolts.

HINT:

The T25 bolts are included in the repair kit.

(f) Hand-tighten the bolts (1) on the turbocharger actuator and link assembly (2).

(g) Diagonally tighten the bolts (1) on the turbocharger actuator and link assembly (2).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

(h) Replace the retaining clip.

HINT:

The retaining clip is included in the repair kit.

(i) Mount the retaining clip.

HINT:

Make sure the retaining clip engages audibly.

(j) Connect and lock the connector.

HINT:

Make sure the connector engages audibly.

2. ADJUST TURBOCHARGER ACTUATOR AND LINK ASSEMBLY

(a) Connect the diagnosis system.

3. INSTALL VENTILATION HOSE

Click here [INFO](#)

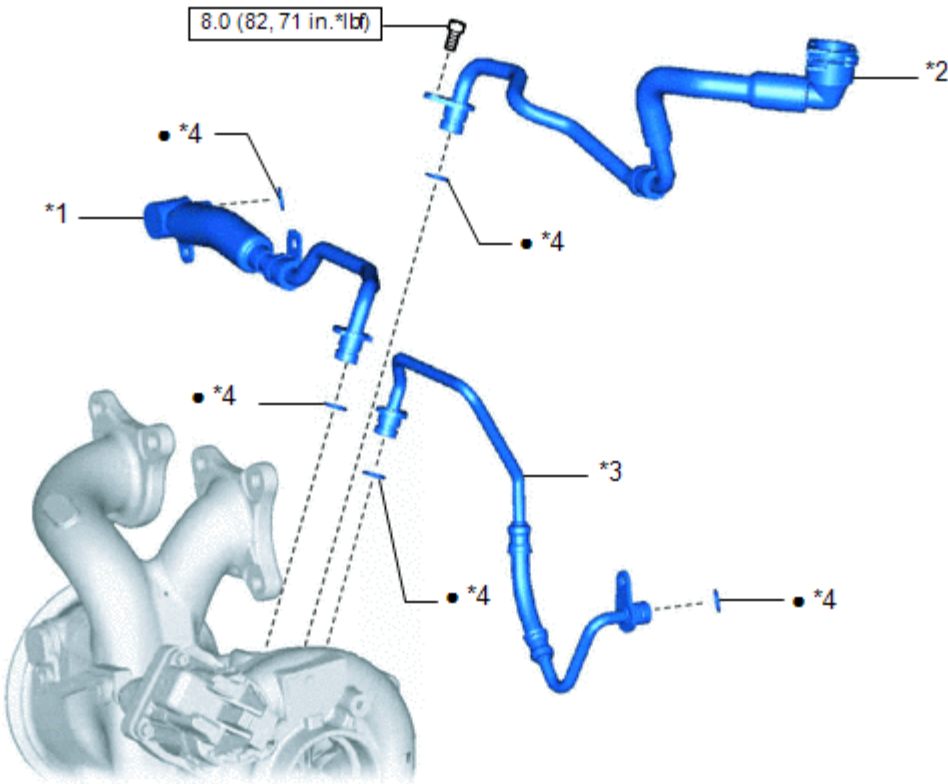
4. INSTALL AIR CLEANER HOSE ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO WATER PIPE (for Inlet Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

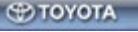
ILLUSTRATION



*1	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY	*2	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY
*3	INLET TURBO OIL PIPE SUB-ASSEMBLY	*4	O-RING
	N*m (kgf*cm, ft.*lbf): Specified	●	Non-reusable part



torque



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO WATER PIPE (for Inlet Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE INLET TURBO OIL PIPE SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE NO. 1 TURBO WATER PIPE SUB-ASSEMBLY

CAUTION:

- Hot fluids.

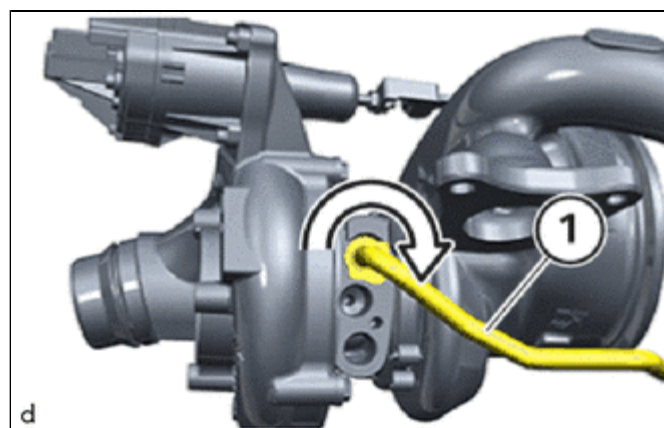
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

HINT:

Collect and dispose of emerging fluids. Observe country specific waste disposal regulations.

- (a) Turn the No. 1 turbo water pipe sub-assembly (1) in direction of arrow and remove to the top.



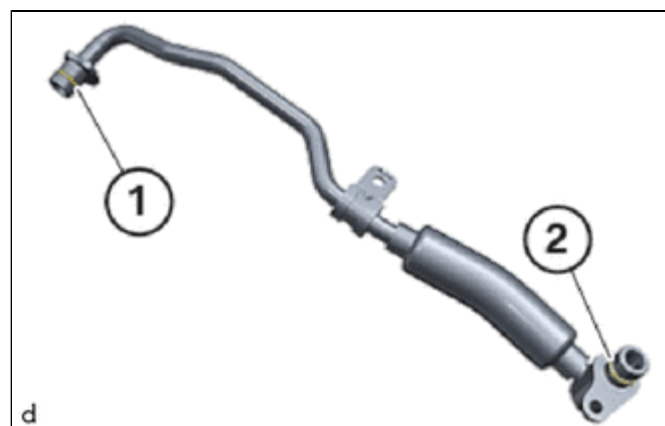
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO WATER PIPE (for Inlet Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

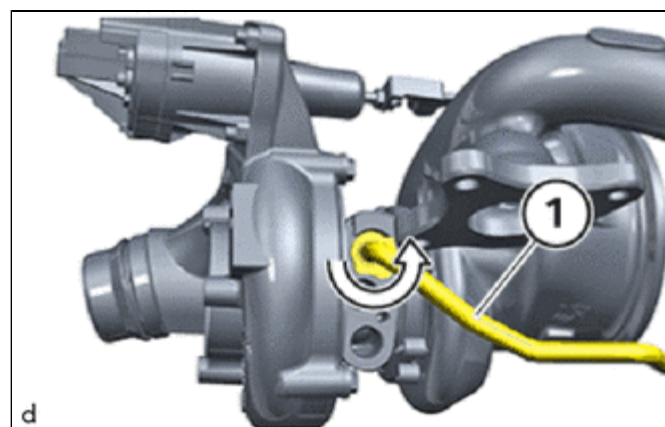
PROCEDURE

1. INSTALL NO. 1 TURBO WATER PIPE SUB-ASSEMBLY

(a) Replace O-rings (1) and (2).



(b) Insert the No. 1 turbo water pipe sub-assembly (1) into the turbocharger sub-assembly and turn it carefully in direction of arrow to the limit position.



2. INSTALL INLET TURBO OIL PIPE SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

Click here [INFO](#)

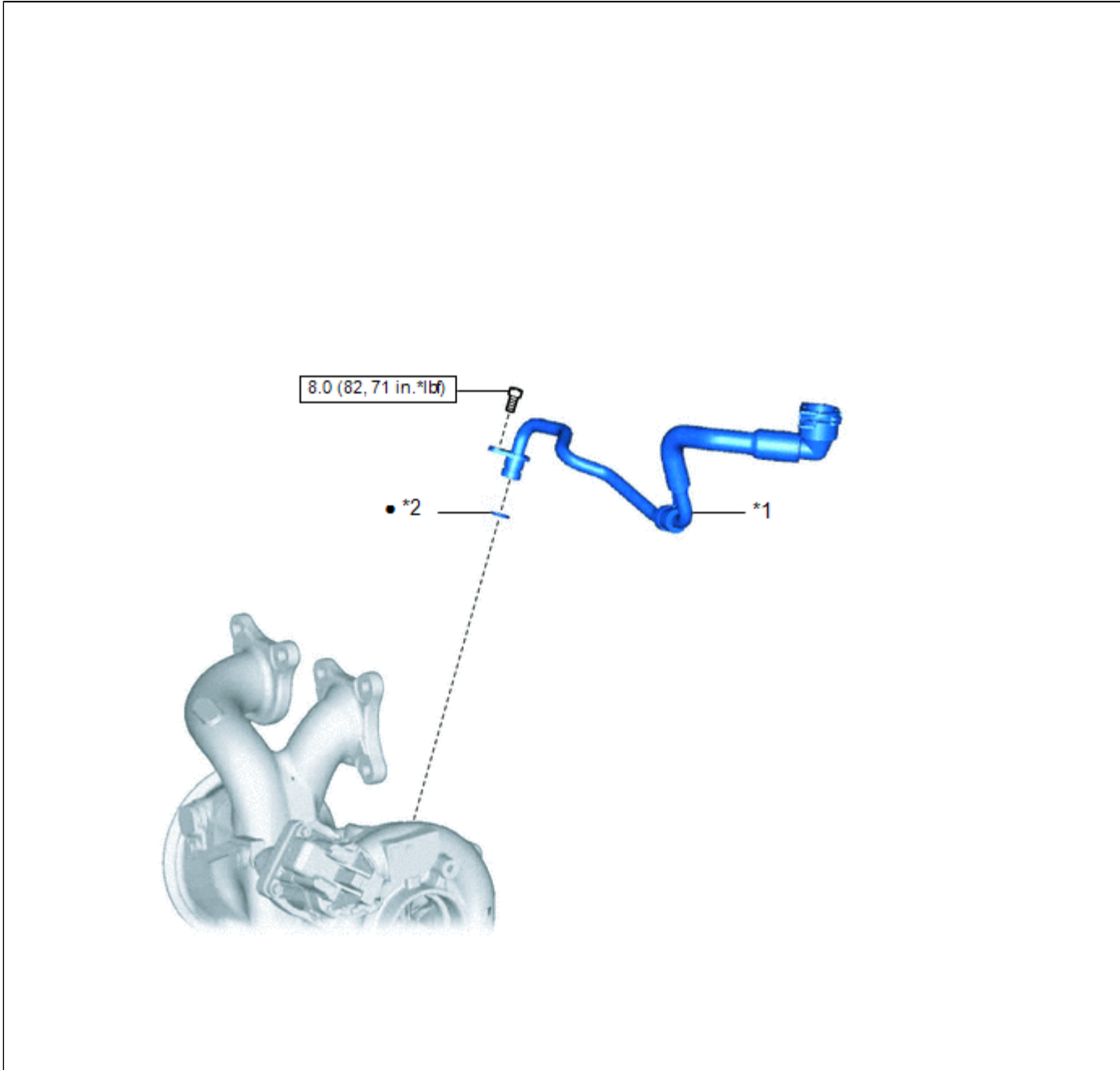
4. INSTALL TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO WATER PIPE (for Outlet Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO WATER PIPE (for Outlet Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.
 - Risk of scalding!
 - Conduct all work in the vehicle wearing appropriate personal protective equipment only.
- Hot surfaces.
 - Risk of burning!
 - Perform all work only on components that have cooled down.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

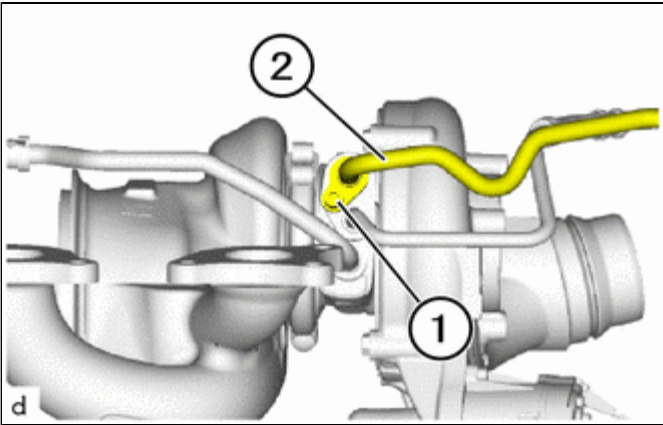
CAUTION:

- Hot fluids.
 - Risk of scalding!
 - Conduct all work in the vehicle wearing appropriate personal protective equipment only.

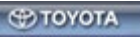
HINT:

Collect and dispose of emerging fluids. Observe country specific waste disposal regulations.

(a) Loosen the T30 bolt (1).



(b) Disconnect the No. 2 turbo water pipe sub-assembly (2).



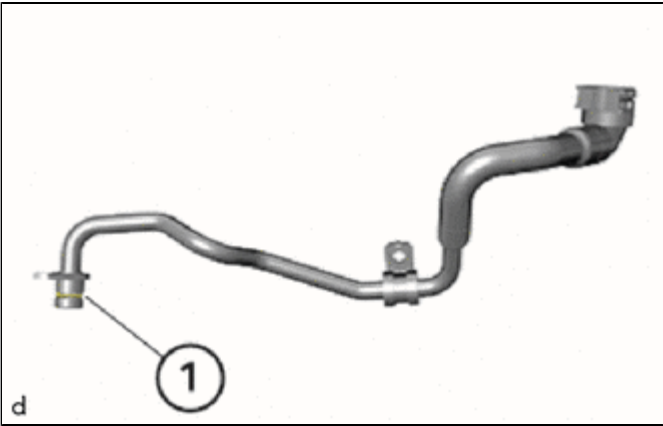
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCRN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBO WATER PIPE (for Outlet Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

(a) Replace the O-ring (1).



(b) Position the No. 2 turbo water pipe sub-assembly.

(c) Tighten down the T30 bolt.

Torque:
8.0 N·m {82 kgf·cm, 71 in·lbf}

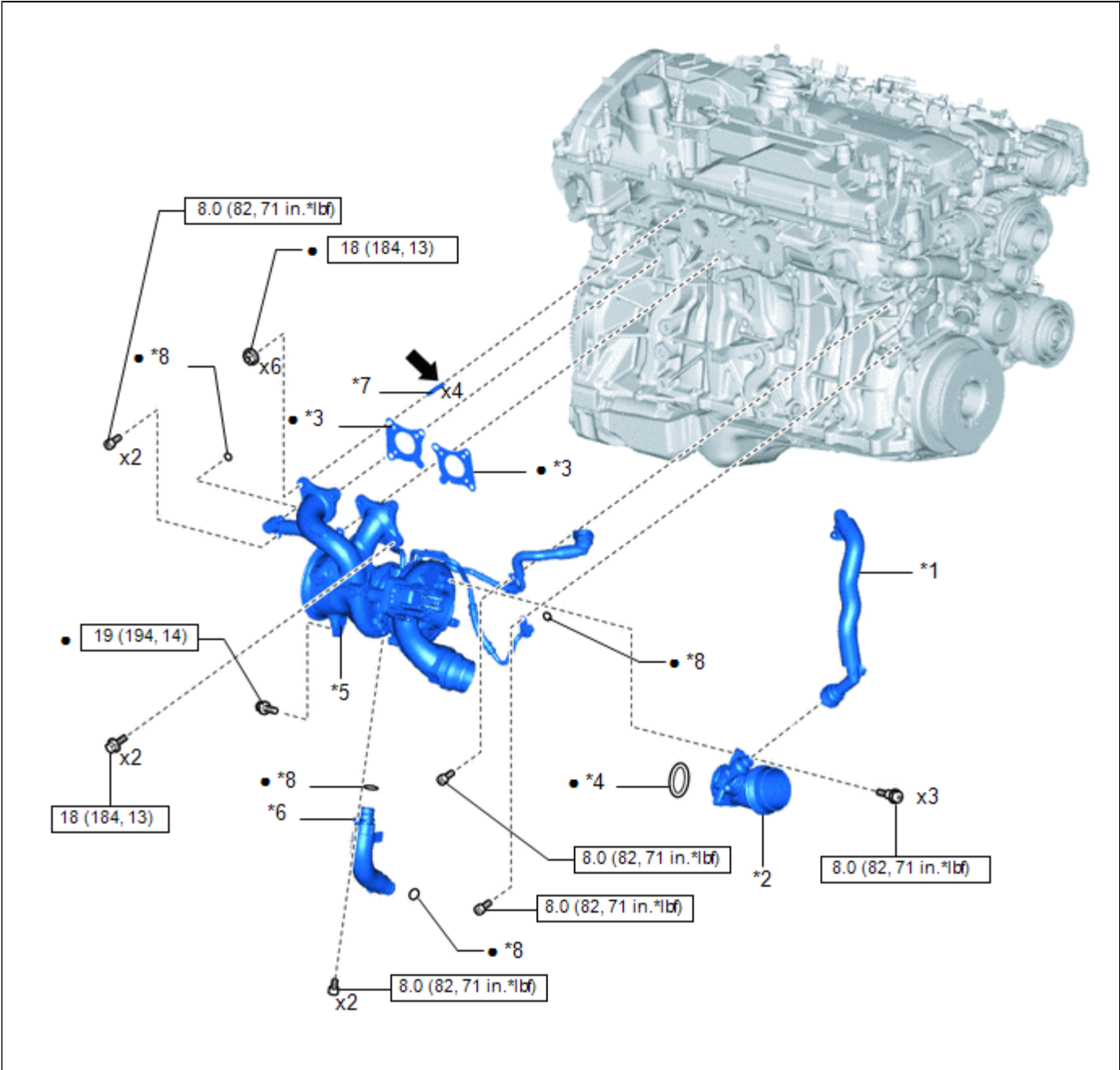
2. INSTALL TURBOCHARGER SUB-ASSEMBLY

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBOCHARGER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

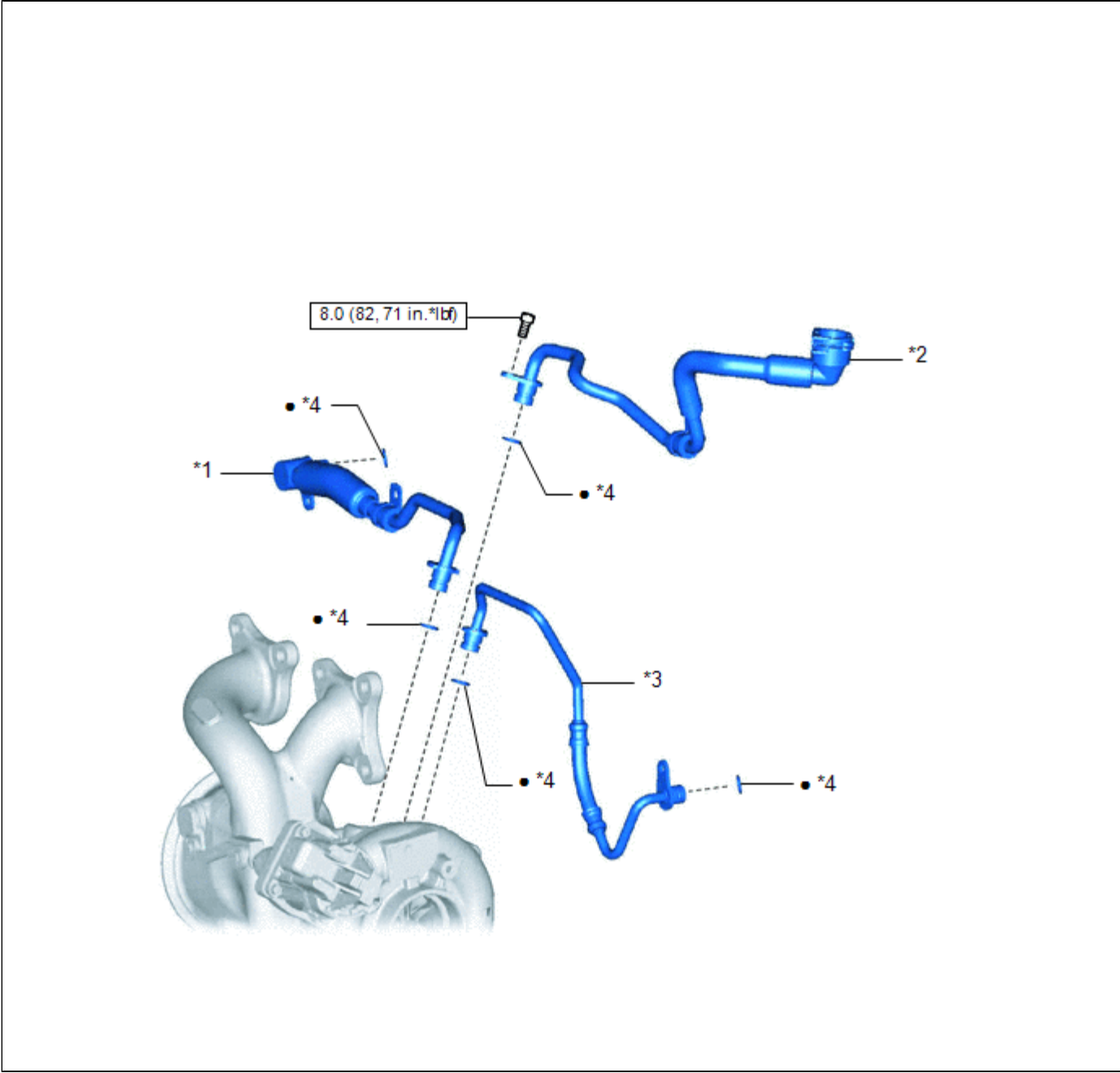
ILLUSTRATION



*1	VENTILATION HOSE	*2	INLET COMPRESSOR ELBOW
*3	EXHAUST MANIFOLD TO HEAD GASKET	*4	COMPRESSOR INLET GASKET
*5	TURBOCHARGER SUB-ASSEMBLY	*6	OUTLET TURBO OIL PIPE
*7	STUD BOLT	*8	O-RING

	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Screw Lock Loctite 273, High Strength	-	-

ILLUSTRATION



*1	NO. 1 TURBO WATER PIPE SUB-ASSEMBLY	*2	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY
*3	INLET TURBO OIL PIPE SUB-ASSEMBLY	*4	O-RING

<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	<div>•</div>	Non-reusable part
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBOCHARGER: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

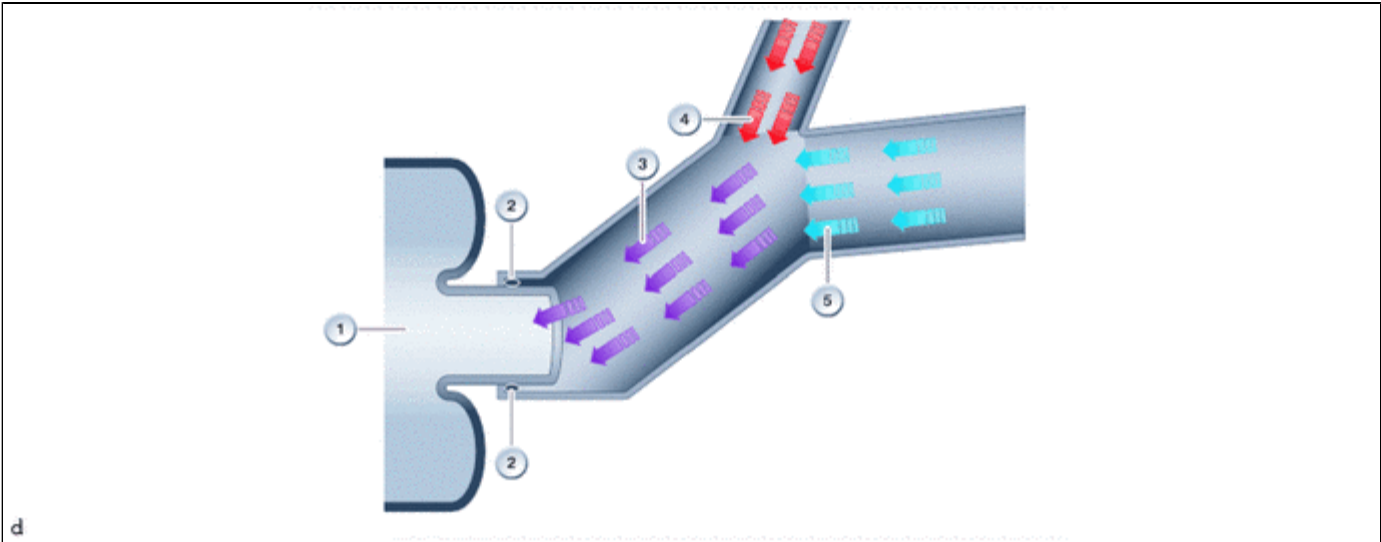
CAUTION / NOTICE / HINT

If there are signs of leakage, the cause should first be looked for in the vicinity of the turbocharger sub-assembly and eliminated if possible. The pressure in the turbine and compressor housing is greater than in the bearing housing, which means that an oil leak from the turbocharger sub-assembly in normal condition is physically impossible.

PROCEDURE

1. EXTERNAL OIL LEAK

- (a) Leakage on oil supply or oil return line:
 - (1) When leaks are detected at the oil supply or oil return, check the bolt connections for tightening torques and correctly installed gaskets.
- (b) Escaping blow-by oil



*1	Compressor housing	*2	Sealing ring
*3	Fresh air, enriched with blow-by oil	*4	Blow-by gas from ventilation hose
*5	Fresh air	-	-

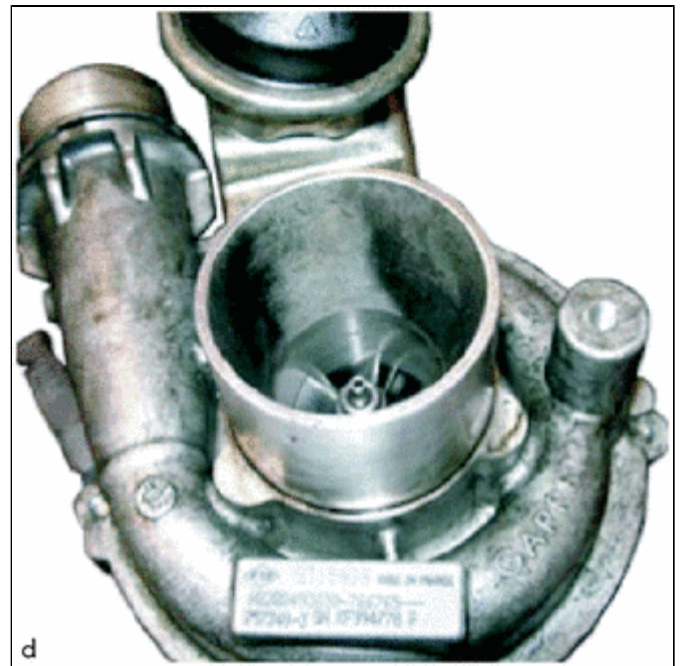
- (c) Oil can penetrate into the air intake duct via the ventilation hose.
- (d) If the gaskets of the air intake duct or charge air duct leak, blow-by oil can emerge there.
- (e) Check the following when blow-by oil emerges:

NOTICE:

When an excessive amount of blow-by oil is present in the air duct, the cause for that must be eliminated.

- (1) Ventilation hose (measure internal pressure of the engine!)
- (2) Gaskets of the air duct

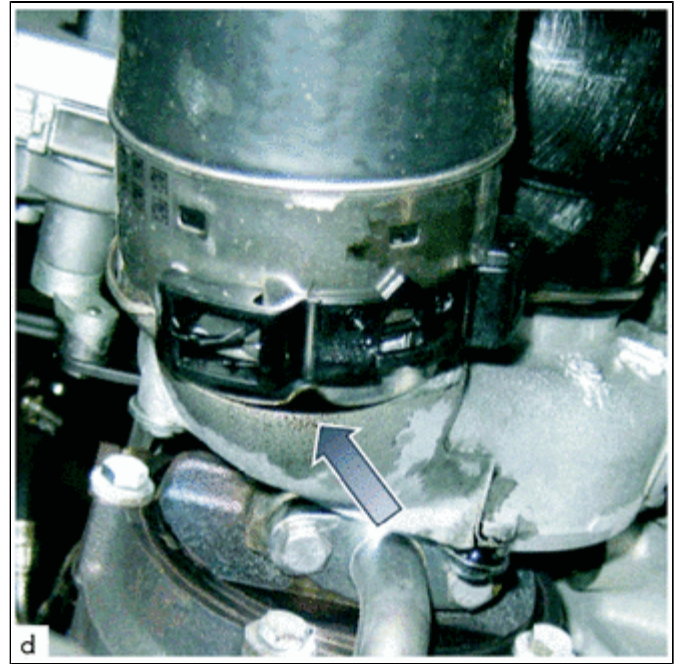
(f) Turbocharger sub-assembly with normal deposits.



(g) Oil deposits on the compressor housing.



(h) Unacceptable oil leakage at the hose connection.



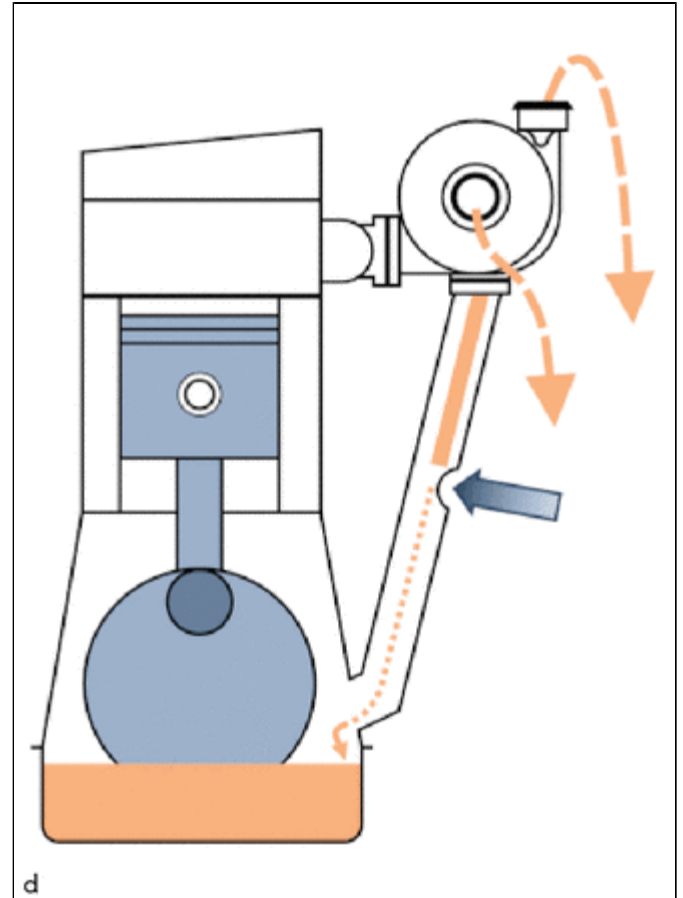
2. INTERNAL OIL LEAK

NOTICE:

The causes of the oil leaks described here are not caused by the turbocharger sub-assembly itself. If such oil leak occurs, the cause must be eliminated in the periphery!

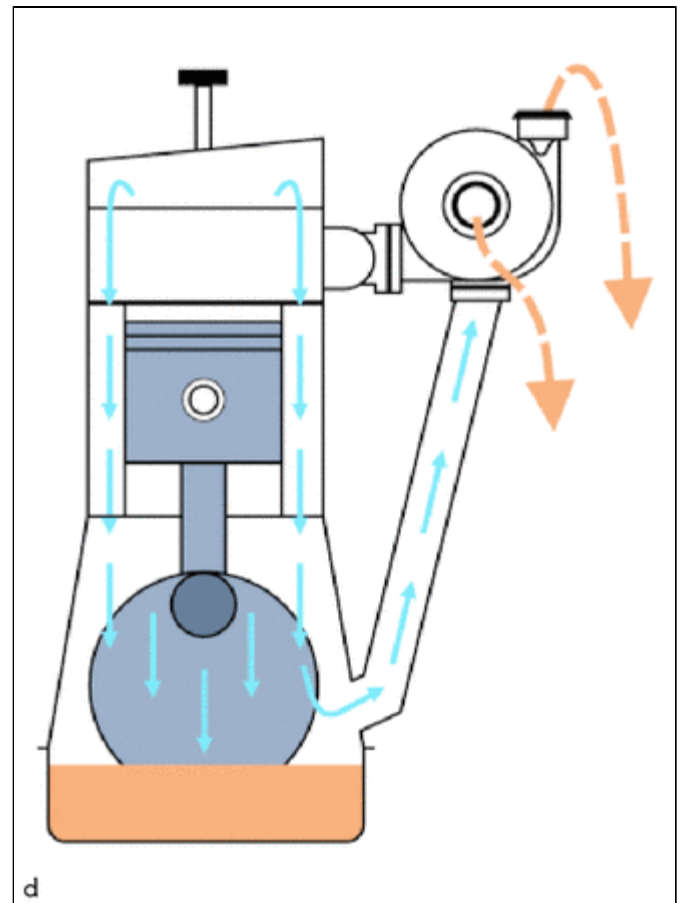
(a) Oil return restricted

- (1) If the oil return is restricted due to oil coking, the oil can no longer flow freely from the turbocharger sub-assembly bearing housing into the oil return. Excess pressure builds up in the bearing housing, and the oil is pressed out past the radial shaft seals and into the charge air duct and the turbine.



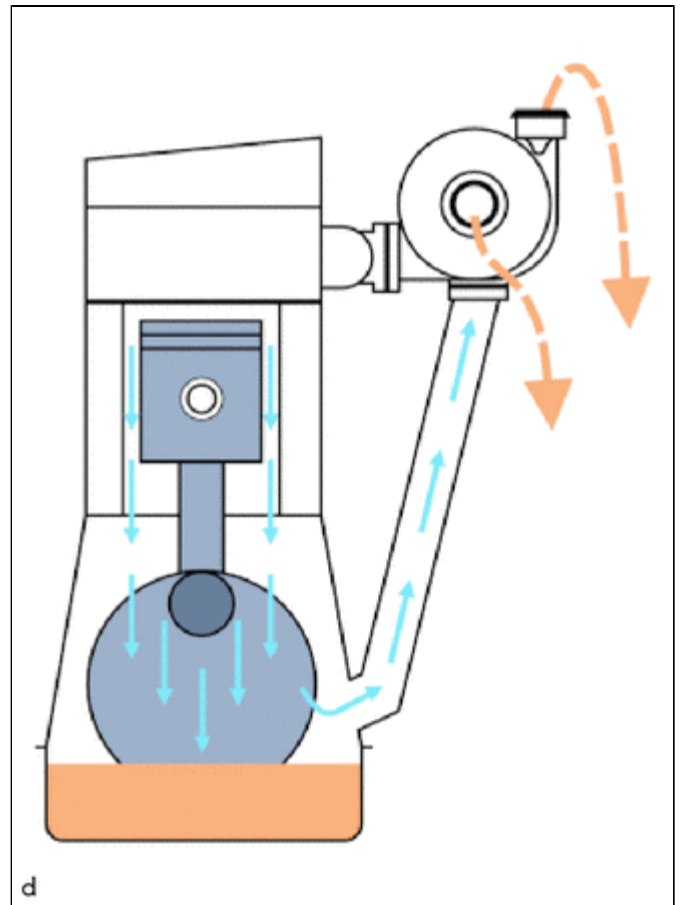
(b) Ventilation hose faulty

- (1) If the pressure inside the cylinder block sub-assembly is too high as a result of faulty ventilation hose, the oil can no longer flow freely from the turbocharger sub-assembly bearing housing into the oil return. Excess pressure builds up in the bearing housing, and the oil is pressed out past the radial shaft seals and into the charge air duct and the turbine.



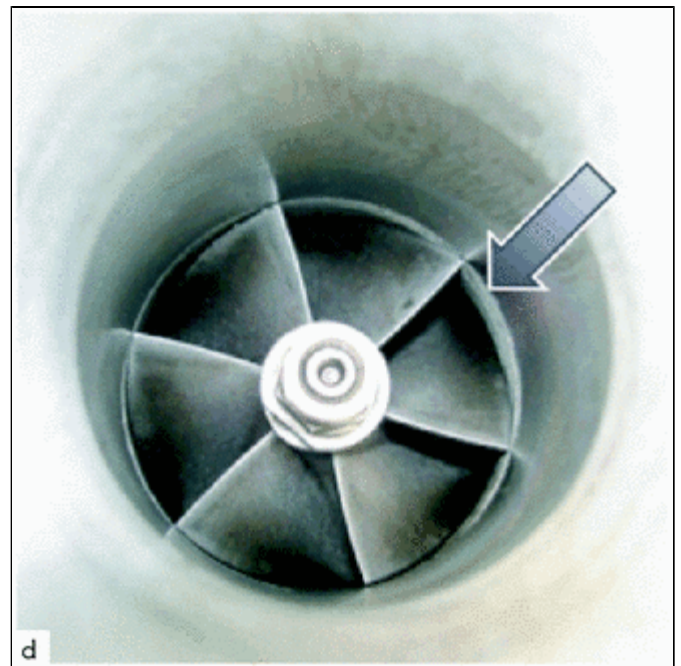
(c) Worn piston rings/increase in blow-by gas

- (1) If the pressure inside the cylinder block sub-assembly is too high as a result of faulty piston rings, the oil can no longer flow freely from the turbocharger sub-assembly bearing housing into the oil return. Excess pressure builds up in the bearing housing, and the oil is pressed out past the radial shaft seals and into the charge air duct and the turbine.



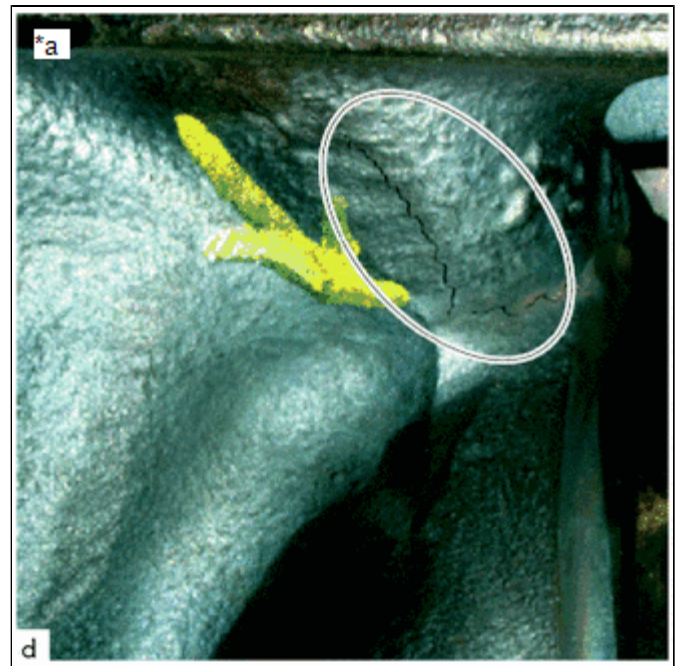
(d) Bearing damage, turbocharger sub-assembly

- (1) Impeller scraping against housing.
- (2) The turbocharger sub-assembly has a dynamic plain bearing which stabilizes itself in operation. This means that in rest state, play in the shaft is normal.
- (3) As long as the impeller does not scrape against the housing, play in the shaft bearing is OK and there is no bearing damage.
- (4) If the impeller scrapes against the housing, the shaft bearing of the turbocharger sub-assembly is damaged.
- (5) If the shaft bearing of the turbocharger sub-assembly is damaged, the radial shaft seals will no longer seal properly and oil flows from the bearing housing into the compressor and turbine.



3. CRACKS IN THE TURBINE HOUSING

- (a) In the event of tears in the turbine housing that have led to exhaust leaks (soot traces at surrounding components), the turbocharger sub-assembly must be replaced.



*a	External crack in turbine housing.
----	------------------------------------

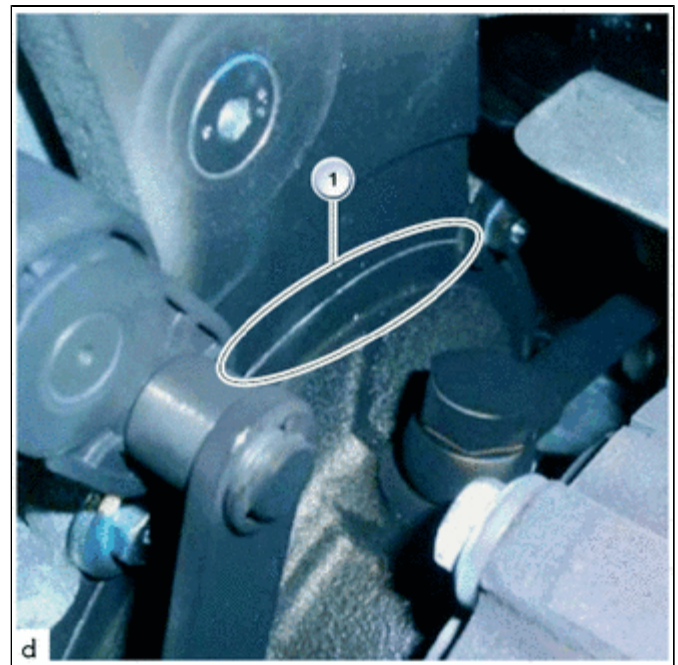
4. EXHAUST GAS LEAKS AT SCREW CONNECTIONS

- (a) Incorrect AZDs or tension can lead to leakage at the connection of the turbine housing to the exhaust manifold. The exhaust manifold must also be checked for leaks.

5. EXHAUST LEAKS BETWEEN TURBINE AND BEARING HOUSINGS

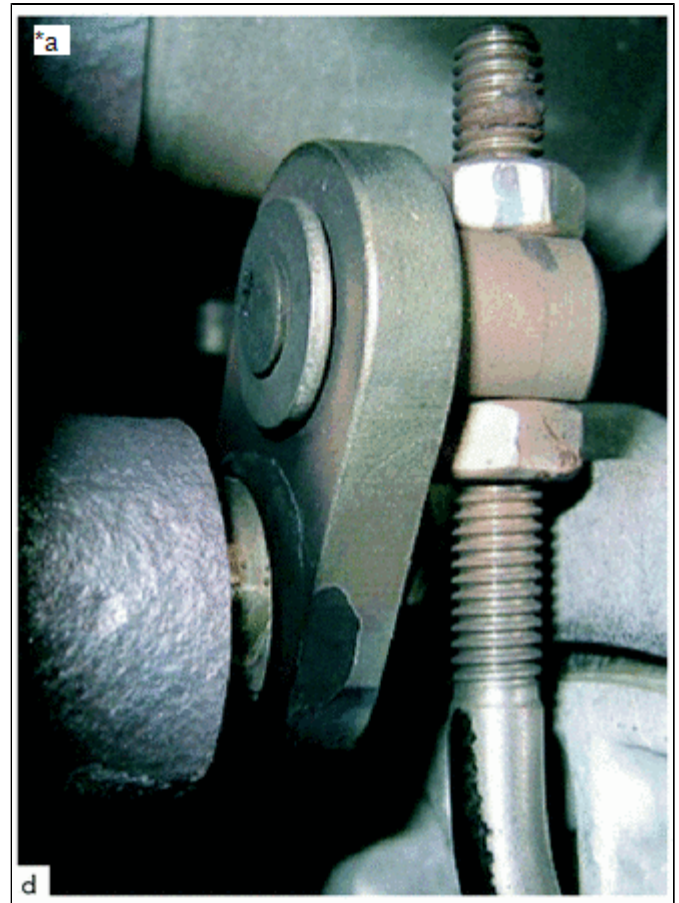
- (a) Leaks at the connection of turbine housing and bearing housing can lead to heavy soot accumulations on the surrounding components. In the event of such leaks the turbocharger sub-assembly must be replaced.

- (1) Exhaust leaks between turbine and bearing housings (1).



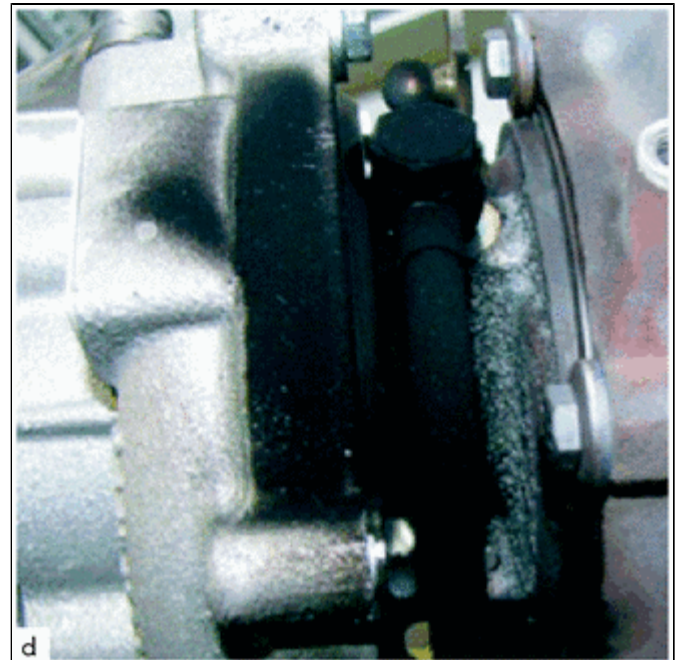
6. EXHAUST GAS ESCAPING AT THE ADJUSTING MECHANISM

(a) The adjusting mechanism is connected to the variable turbine geometry by the wall of the exhaust turbocharger housing. Limited leakage occurs at this point for design reasons. Such leaks may produce slight discoloration of the outer side of the turbocharger sub-assembly.



*a	Normal discoloration as a result of a leak.
----	---

(b) Excessive deposits.



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Title: B58 (INTAKE / EXHAUST): TURBOCHARGER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

HINT:

- Prior to replacing the turbocharger sub-assembly: Observe the notes on troubleshooting on the turbocharger sub-assembly.

Click here [INFO](#)

- For turbocharger sub-assembly damage: Check the pressure pipes, intercooler and intake manifold for foreign matter, damage and correct functionality.
- If the outlet turbo oil pipe is exchanged, then the connecting pipe to the oil pan sub-assembly must always be cleaned, as the connecting pipe can coke.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE STEERING LINK ASSEMBLY

Click here [INFO](#)

3. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

4. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

5. REMOVE VENTILATION HOSE

Click here [INFO](#)

6. REMOVE COMPRESSOR INLET ELBOW

Click here [INFO](#)

7. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

8. REMOVE EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

9. REMOVE OUTLET TURBO OIL PIPE

Click here [INFO](#)

10. DISCONNECT NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

CAUTION:

- Hot fluids.

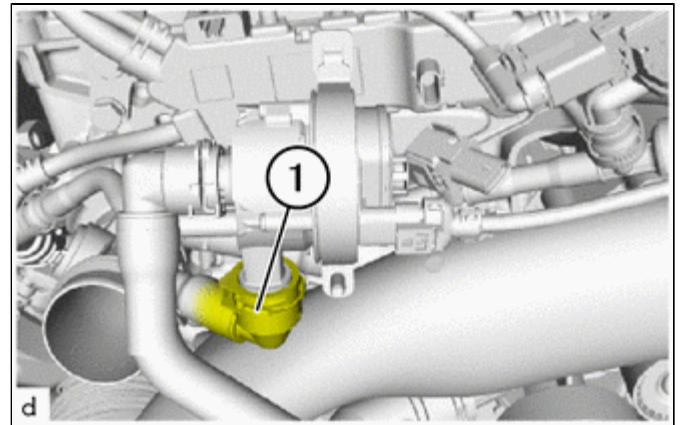
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

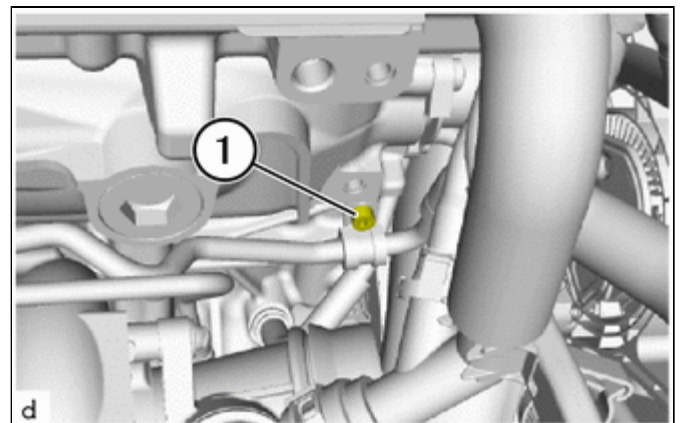
HINT:

Collect and dispose of emerging fluids. Observe country specific waste disposal regulations.

(a) Unlock and disconnect the coolant hose (1).



(b) Unscrew the T30 bolt (1) on the holder of the No. 2 turbo water pipe sub-assembly.



11. DISCONNECT INLET TURBO OIL PIPE SUB-ASSEMBLY

CAUTION:

- Hot fluids.

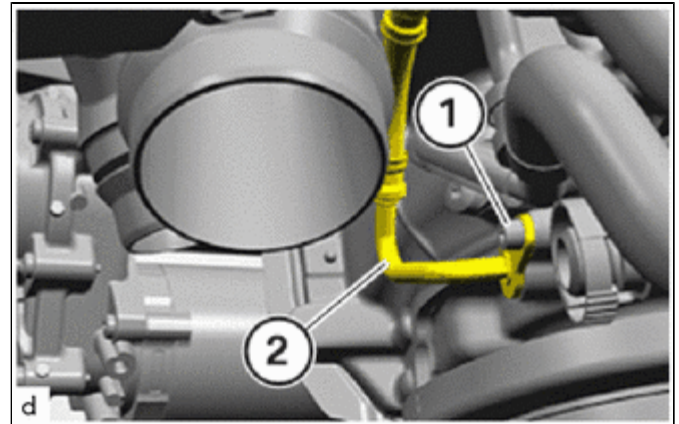
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

HINT:

- Have a rag ready and catch any engine oil that may emerge.
- Make sure no engine oil runs onto fan and generator v belt.

(a) Loosen the T30 bolt (1).



(b) Remove the inlet turbo oil pipe sub-assembly (2).

12. REMOVE TURBOCHARGER SUB-ASSEMBLY

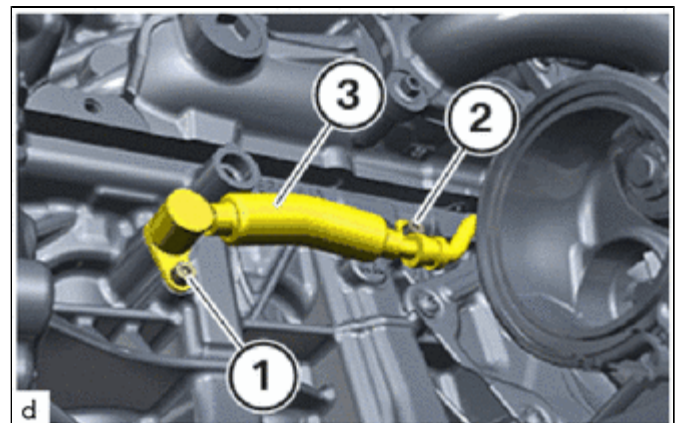
CAUTION:

- Hot surfaces.

Risk of burning!

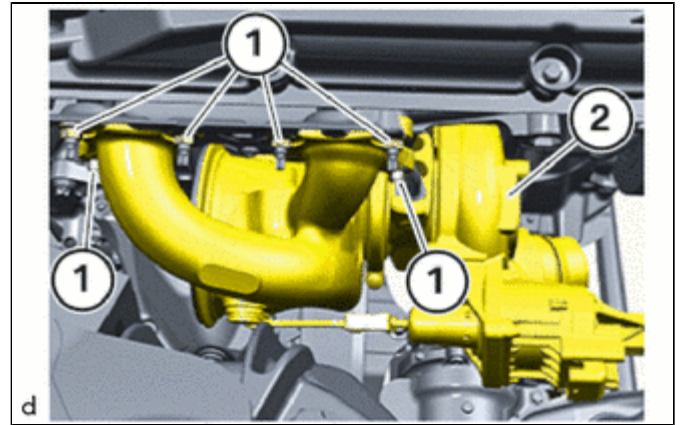
- Perform all work only on components that have cooled down.

(a) Loosen the T30 bolts (1) and (2).

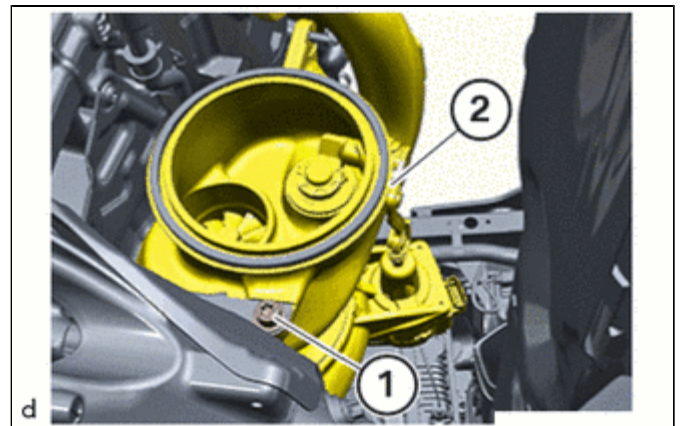


(b) Remove No. 1 turbo water pipe sub-assembly (3) from the cylinder block sub-assembly.

(c) Unscrew the nuts (1) from the turbocharger sub-assembly (2).



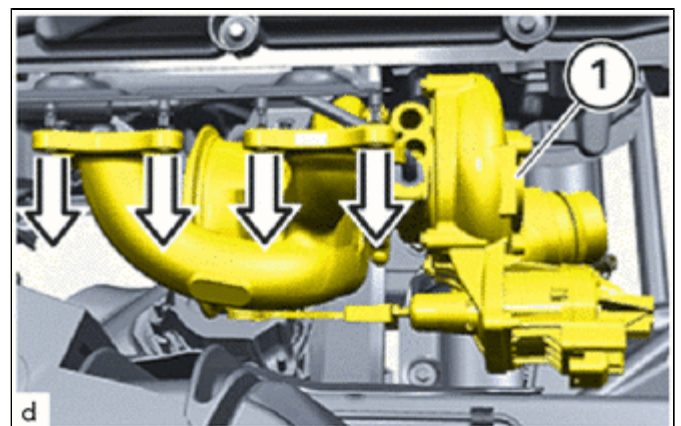
(d) Unscrew the T40 bolt (1) from the turbocharger sub-assembly (2).



(e) Remove the turbocharger sub-assembly (1) in the direction of the arrow.

CAUTION:

- Heavy component.
- Heavy components can lead to injury or damage.
 - Remove and install heavy components with the aid of another person/other persons.



13. REMOVE NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the turbocharger sub-assembly is necessary.

Click here [INFO](#)

14. REMOVE INLET TURBO OIL PIPE SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the turbocharger sub-assembly is necessary.

Click here [INFO](#)

15. REMOVE NO. 1 TURBO WATER PIPE SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the turbocharger sub-assembly is necessary.

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBOCHARGER: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

CAUTION / NOTICE / HINT

Complaints of a lack of power are usually connected with one or more fault entries in the engine control unit (charging pressure control deviation). These fault entries must be processed using the diagnosis system.

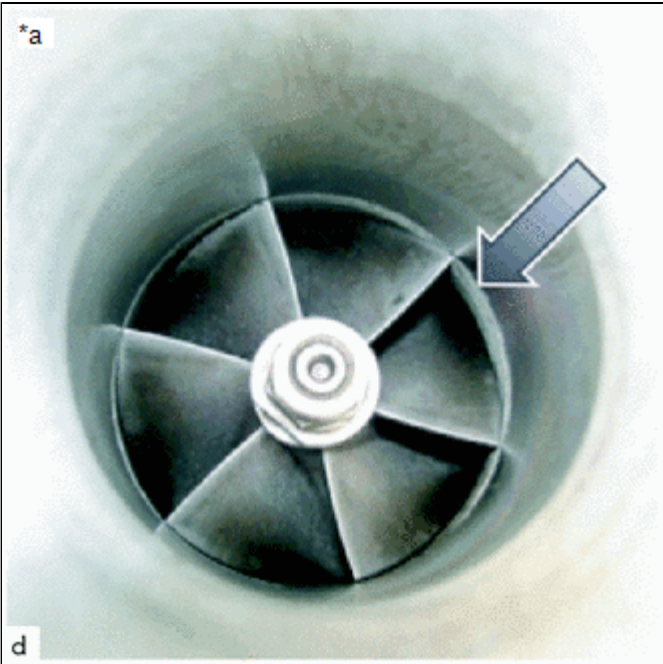
PROCEDURE

1. FAULT CAUSES ON THE TURBOCHARGER SUB-ASSEMBLY

(a) Back to main document

2. BEARING DAMAGE

(a) If the compressor or turbine wheel rub against the housing (see picture below), the turbocharger sub-assembly is faulty. This damage leads not only to a drop below the charging pressure but also noises.



*a	Traces left by the impeller grinding against the housing.
----	---

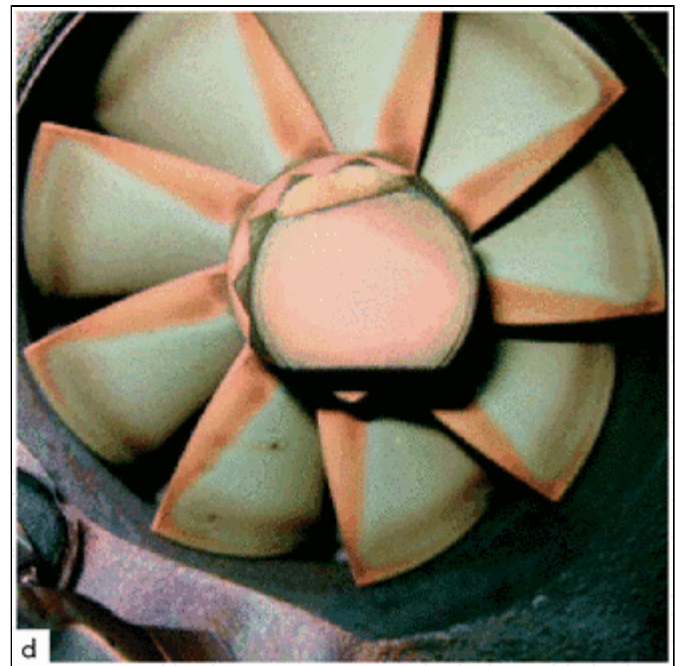
3. FOREIGN BODY ON THE TURBINE SIDE

- (a) If a foreign body damages the turbine wheel, the efficiency of the turbocharger sub-assembly is severely limited and the required charging pressure is no longer reached. Where a foreign body causes damage on the turbine side, the adjustment vanes are usually also damaged in addition to the turbine wheel, which often causes the adjusting mechanism to jam.
- (b) In the event of damage caused by a foreign body, it is imperative to establish how the foreign body penetrated the system and to remedy the cause, as otherwise the newly installed turbocharger sub-assembly may also be damaged.

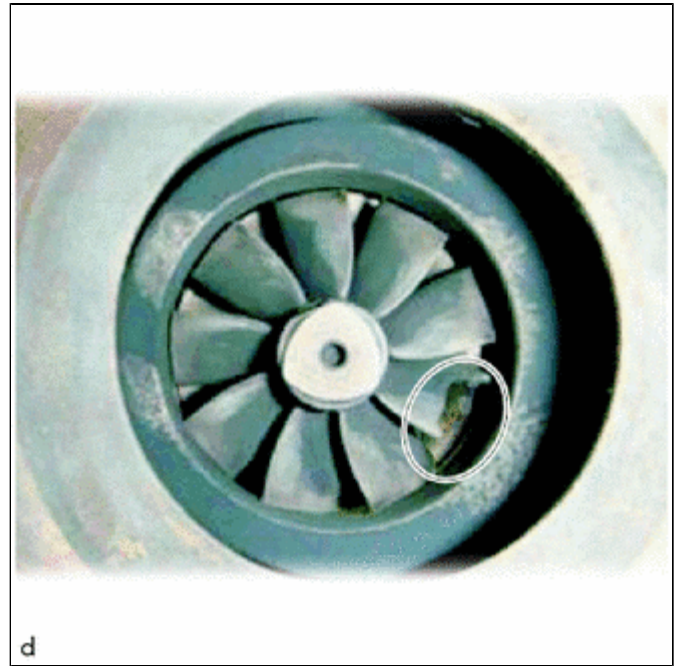
(c) Normal turbine wheel without damage.



(d) Normal turbine wheel without damage.



(e) Turbine vanes damaged by foreign bodies.



4. FOREIGN BODY ON THE COMPRESSOR SIDE

- (a) If a foreign body damages the impeller, the efficiency of the turbocharger sub-assembly is severely limited and the required charging pressure is no longer reached.
- (b) In the event of damage caused by a foreign body, it is imperative to establish how the foreign body penetrated the system and to remedy the cause, as otherwise the newly installed turbocharger sub-assembly may also be damaged.

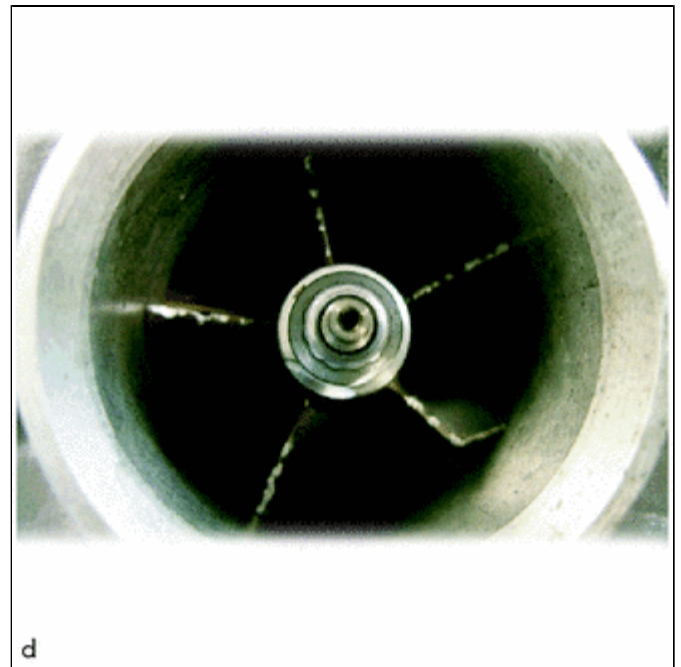
HINT:

Slight discoloration and shiny patches on the impeller arise normally during production and in operation, see the following image.

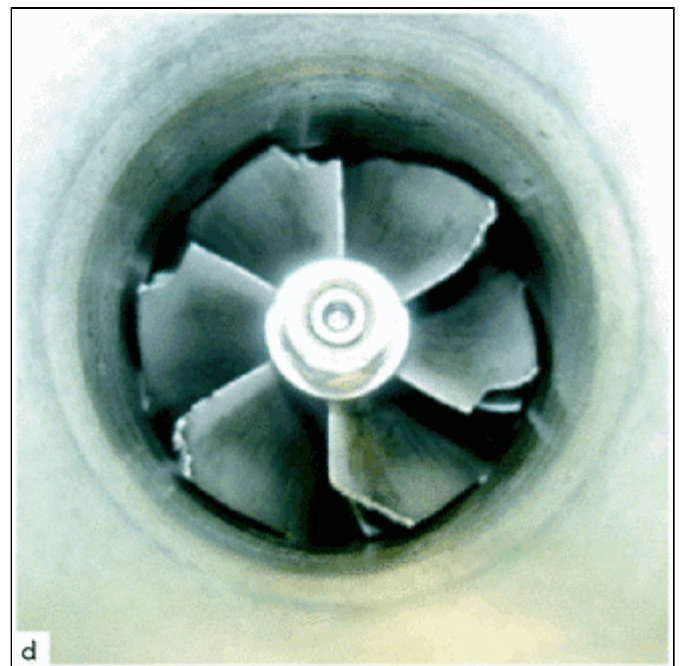


(c) Normal impeller without damage.

(d) Impeller damaged by foreign bodies.



(e) Impeller damaged by foreign bodies.



5. COMPRESSOR PUMPING

- (a) The phenomenon referred to as compressor pumping can occur if the charging pressure becomes too high where there is low air mass flow. The air current at the compressor is severed abruptly and a pulsating current develops. This current can damage the compressor and cause disruptive noises.
- (b) Charger pumping may occur due to defects that obstruct the air mass flow in the charge air guide or cause excessive charging pressure.

6. EXTERNAL CORROSION

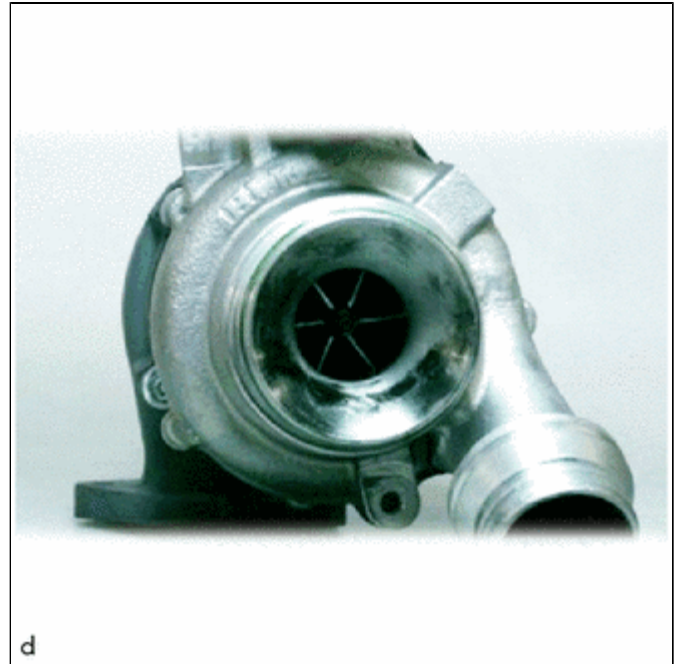
- (a) External corrosion on the turbine housing is not a cause for concern. External corrosion on the adjusting mechanism is also not a cause for concern as long as the function of the adjusting mechanism is OK. The function of the adjusting

mechanism must be checked through the diagnosis system.

7. OIL CRUSTING ON THE COMPRESSOR INTAKE

- (a) If the oil content in the blow-by gas is too high, heavy oil crusting may form on the compressor. In this case, the cause of the excessive oil content must be remedied.

- (b) Normal oil accumulations in the diffuser of the compressor.

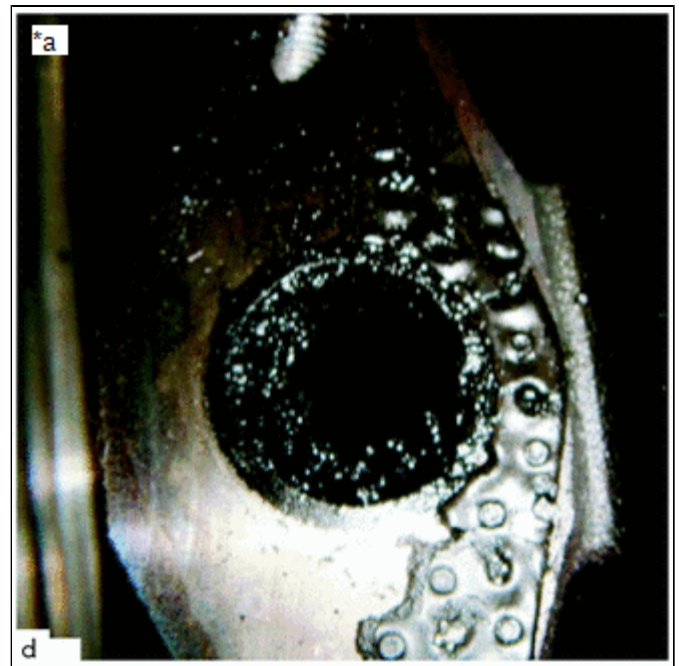


- (c) Heavy oil crusting in the diffuser of the compressor.



8. OIL GRADE

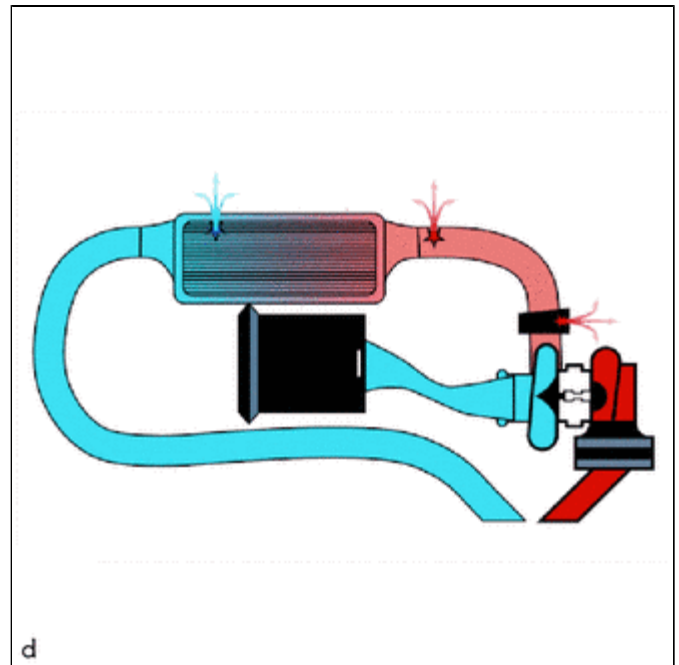
- (a) Oil of poor quality can break down and form deposits in the oil circuit. This can lead to insufficient lubrication of the turbocharger sub-assembly. Only BMW approved oil may be used.



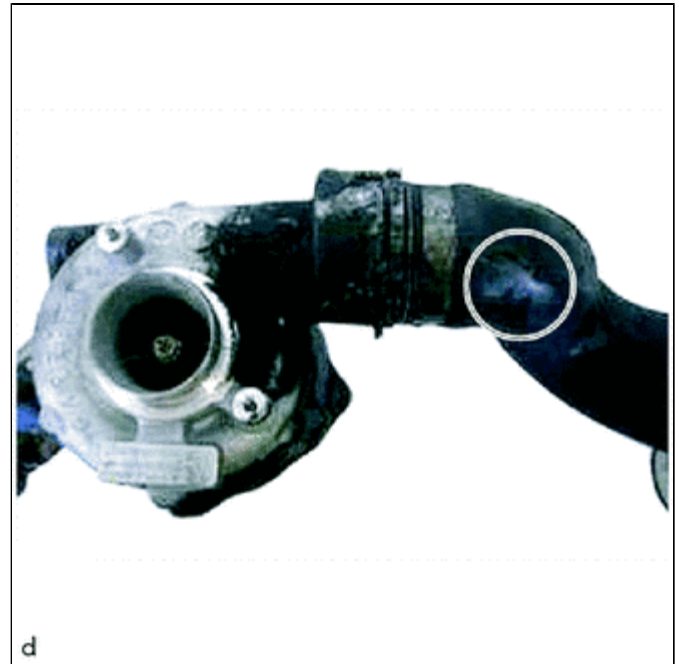
*a	Oil deposits in the oil return
----	--------------------------------

9. CHARGE AIR ROUTING HAS A LEAK

- (a) In the event of leakage in the charge air routing, the charging pressure and thus the power of the engine falls. Noises may also arise.



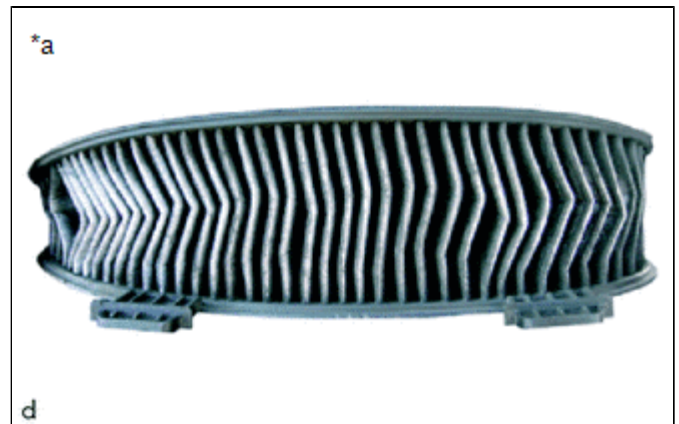
(b) Leaky charge air routing caused by a damaged hose.



10. AIR CLEANER CLOGGED/FAULTY OR SUCTION DUCT NARROWED

(a) If the air intake duct is blocked (for example the air cleaner is clogged/faulty or the air intake hose has collapsed etc.), this leads to a lack of air in the compressor. As a result, the compressor is not able to generate the charging pressure.

(b) This fault almost always results in serious overspeeding of the turbocharger sub-assembly.



*a

Example: Faulty air cleaner with damaged fins (air cleaner contracts under load and blocks the air intake duct).

11. WIRING OF THE TURBOCHARGER ACTUATOR AND LINK ASSEMBLY IS FAULTY

(a) If the wiring of the turbocharger actuator and link assembly is faulty, the engine control cannot activate the turbocharger actuator and link assembly properly. This can have various effects (excessively high charging pressure, excessively low charging pressure, poor response characteristics).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (INTAKE / EXHAUST): TURBOCHARGER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 TURBO WATER PIPE SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the turbocharger sub-assembly is necessary.

Click here [INFO](#)

2. INSTALL INLET TURBO OIL PIPE SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the turbocharger sub-assembly is necessary.

Click here [INFO](#)

3. INSTALL NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the turbocharger sub-assembly is necessary.

Click here [INFO](#)

4. INSPECT THE COMPONENTS PRIOR TO INSTALLATION OF THE TURBOCHARGER SUB-ASSEMBLY

- (a) Check the outlet turbo oil pipe and inlet turbo oil pipe sub-assembly for contamination, obstruction and damage: clean or replace if necessary.

HINT:

If the outlet turbo oil pipe and/or inlet turbo oil pipe sub-assembly are heavily contaminated, we recommend changing the engine oil and the oil filter.³

- (b) Check the No. 1 turbo water pipe sub-assembly and No. 2 turbo water pipe sub-assembly for the turbocharger sub-assembly for contamination, obstruction and damage: clean or replace if necessary.
- (c) Check all bolt connections and cable connections for correct fit.
- (d) Check air cleaner for contamination and clean or replace as needed.
- (e) Check correct functioning of ventilation hose.

5. INSTALL TURBOCHARGER SUB-ASSEMBLY

- (a) Check screw-in depth (A) of the E6 stud bolts (1); if necessary, screw the stud bolts in further or unscrew.

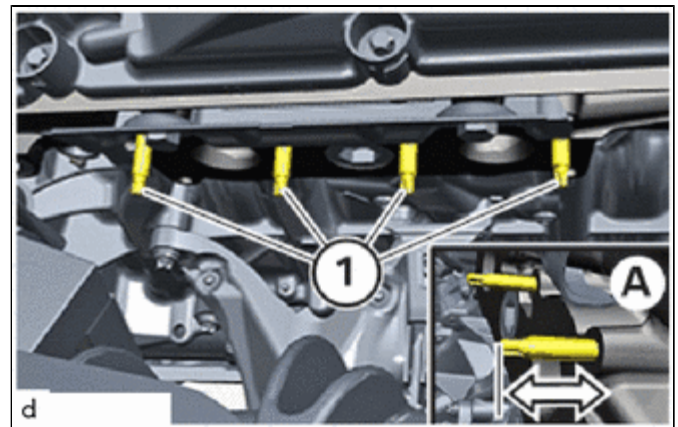
NOTICE:

Secure the E6 stud bolts (1) with screw locking.

Adhesive:

Screw Lock Loctite 273, High Strength

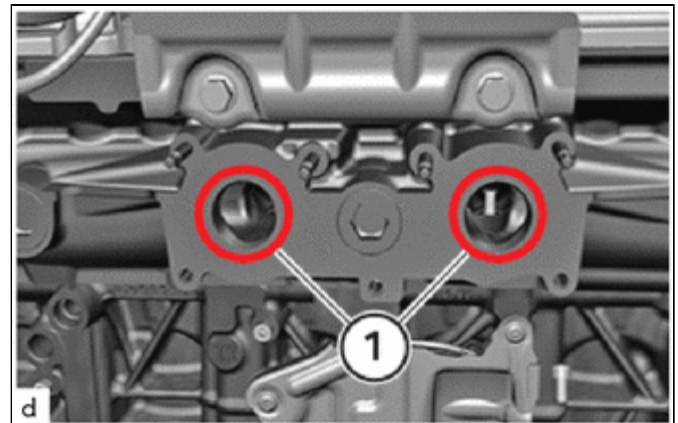
Standard:
Dimension (A) = 30 mm (1.18 in.)



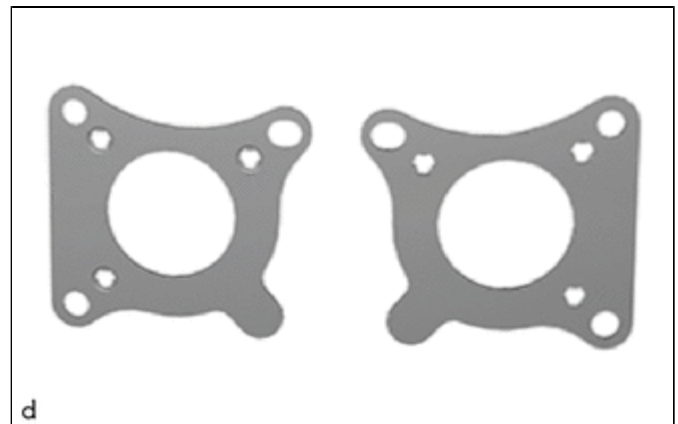
(b) Clean sealing surfaces (1) on the exhaust manifold and on the cylinder head sub-assembly.

NOTICE:

- Damage to the surface.
- The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.
 - Do not use any metal-cutting tools.



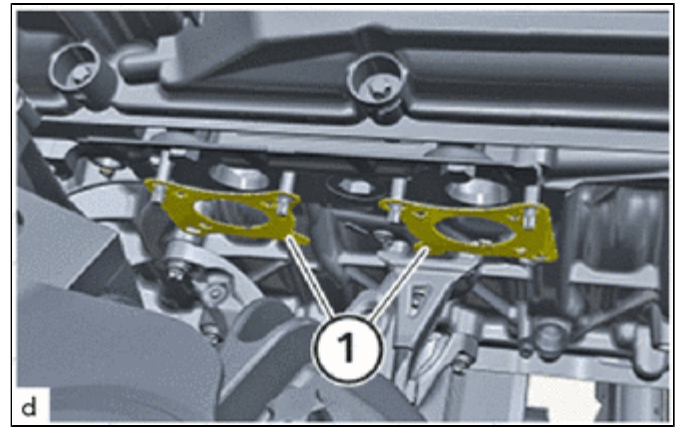
(c) Replace exhaust manifold to head gaskets.



(d) Position the exhaust manifold to head gaskets (1) on the cylinder head sub-assembly.

HINT:

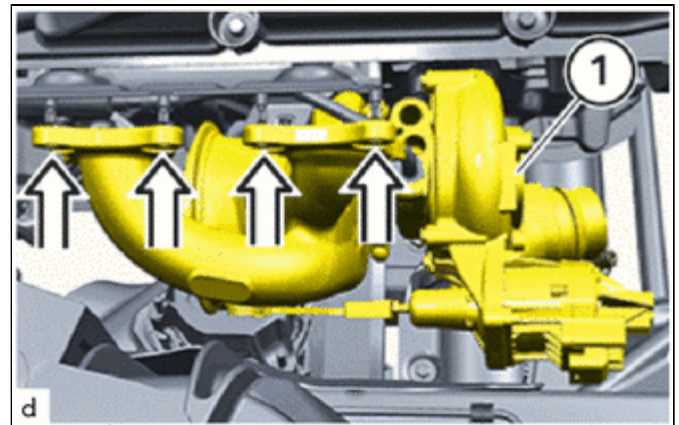
Make sure the exhaust manifold to head gaskets (1) are positioned correctly.



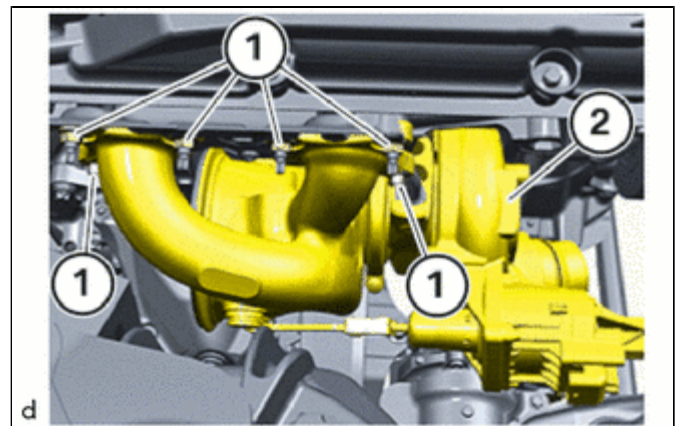
(e) Install turbocharger sub-assembly (1) in the direction of the arrow.

HINT:

Protect the turbocharger sub-assembly (1) from falling.



(f) Replace the nuts on the turbocharger sub-assembly.



(g) Tighten nuts.

Torque:

18 N·m {184 kgf·cm, 13 ft·lbf}

(h) Replace the T40 bolt.

(i) Tighten the T40 bolt on the turbocharger sub-assembly.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(j) Install the No. 1 turbo water pipe sub-assembly in the cylinder block sub-assembly and tighten the T30 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(k) Tighten down the T30 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(l) Fill turbocharger sub-assembly up to the top with engine oil using the inlet turbo oil pipe sub-assembly connection.

Engine oil:

Toyota Genuine Motor Oil SN 0W-20 C5 for GR Toyota Supra

HINT:

- Technically suitable engine oils for BMW Group engines
- Observe the sign in the engine compartment! Only pour in approved engine oil with the correct SAE viscosity classification.

6. CONNECT INLET TURBO OIL PIPE SUB-ASSEMBLY

(a) Position turbo oil inlet pipe sub-assembly.

(b) Tighten down the T30 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

7. CONNECT NO. 2 TURBO WATER PIPE SUB-ASSEMBLY

(a) Tighten the T30 bolt on the holder of the No. 2 turbo water pipe sub-assembly.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(b) Connect the coolant hose.

8. INSTALL OUTLET TURBO OIL PIPE

Click here [INFO](#)

9. INSTALL EXHAUST MANIFOLD CONVERTER SUB-ASSEMBLY

Click here [INFO](#)

10. INSTALL INLET COMPRESSOR ELBOW

Click here [INFO](#)

11. INSTALL VENTILATION HOSE

Click here [INFO](#)

12. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

13. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

14. INSTALL STEERING LINK ASSEMBLY

Click here [INFO](#)

15. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

16. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

17. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

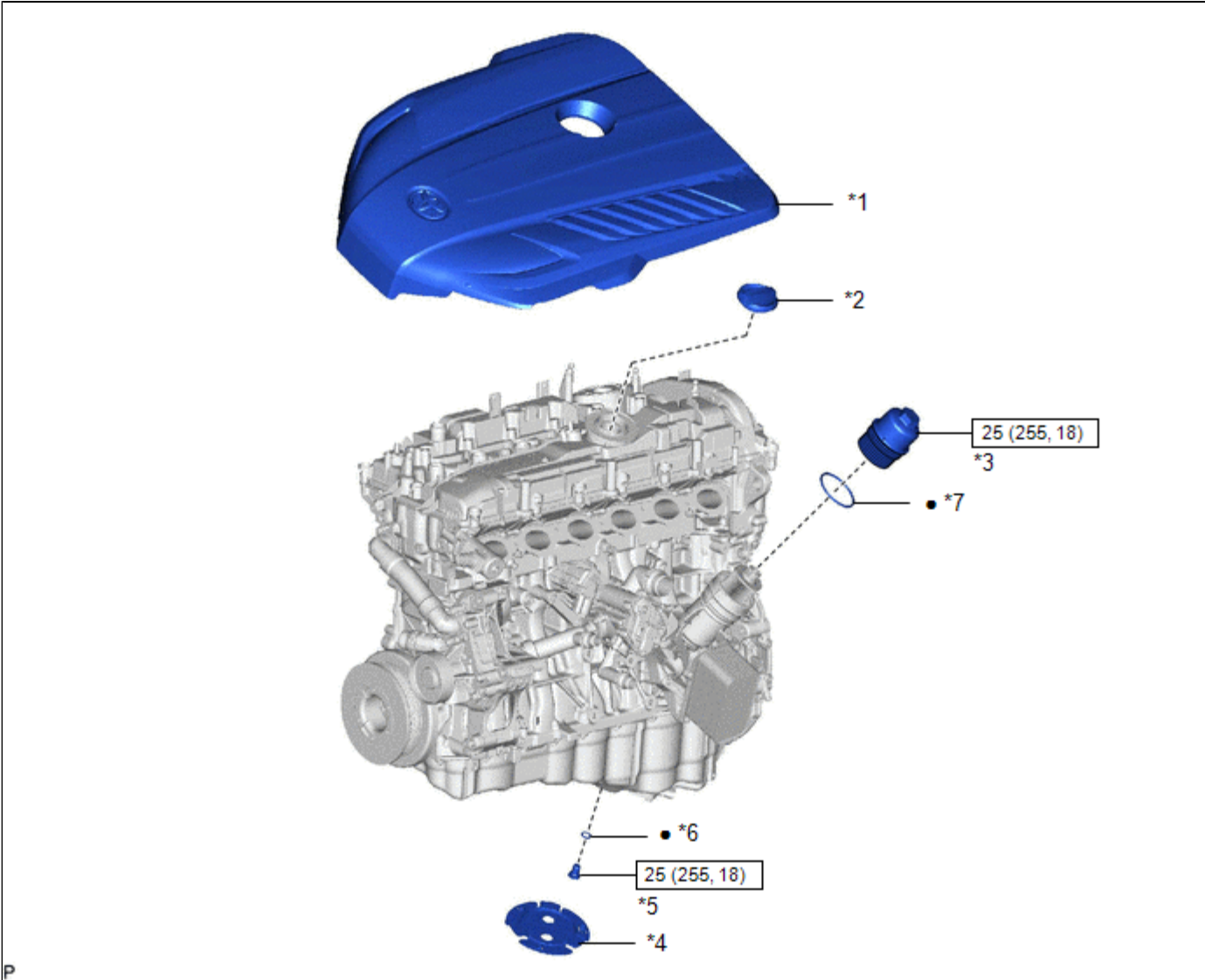
18. INSPECT FOR EXHAUST GAS LEAK



Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): ENGINE OIL COOLER: COMPONENTS; 2020 MY Supra [03/2019 -]		

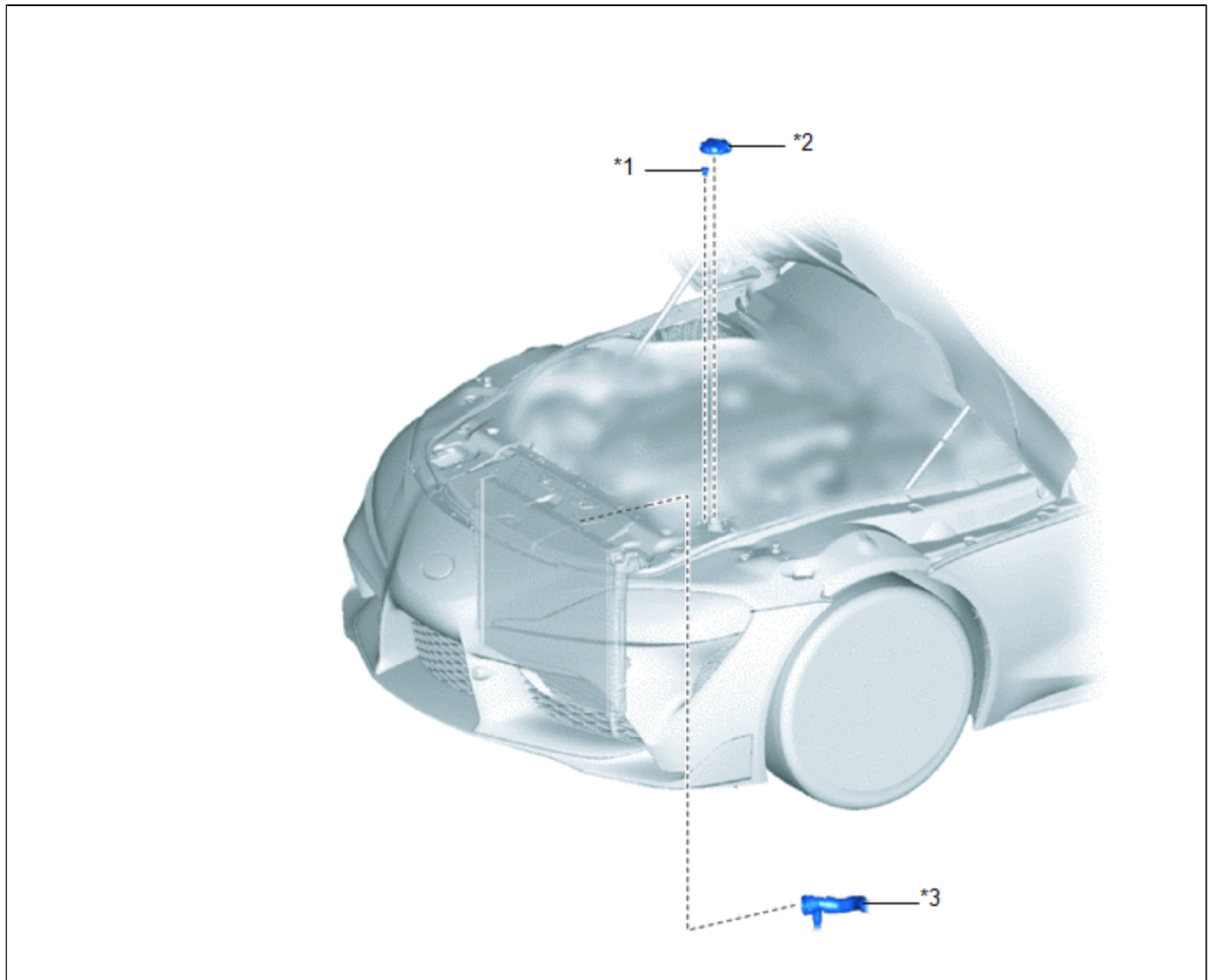
COMPONENTS

ILLUSTRATION



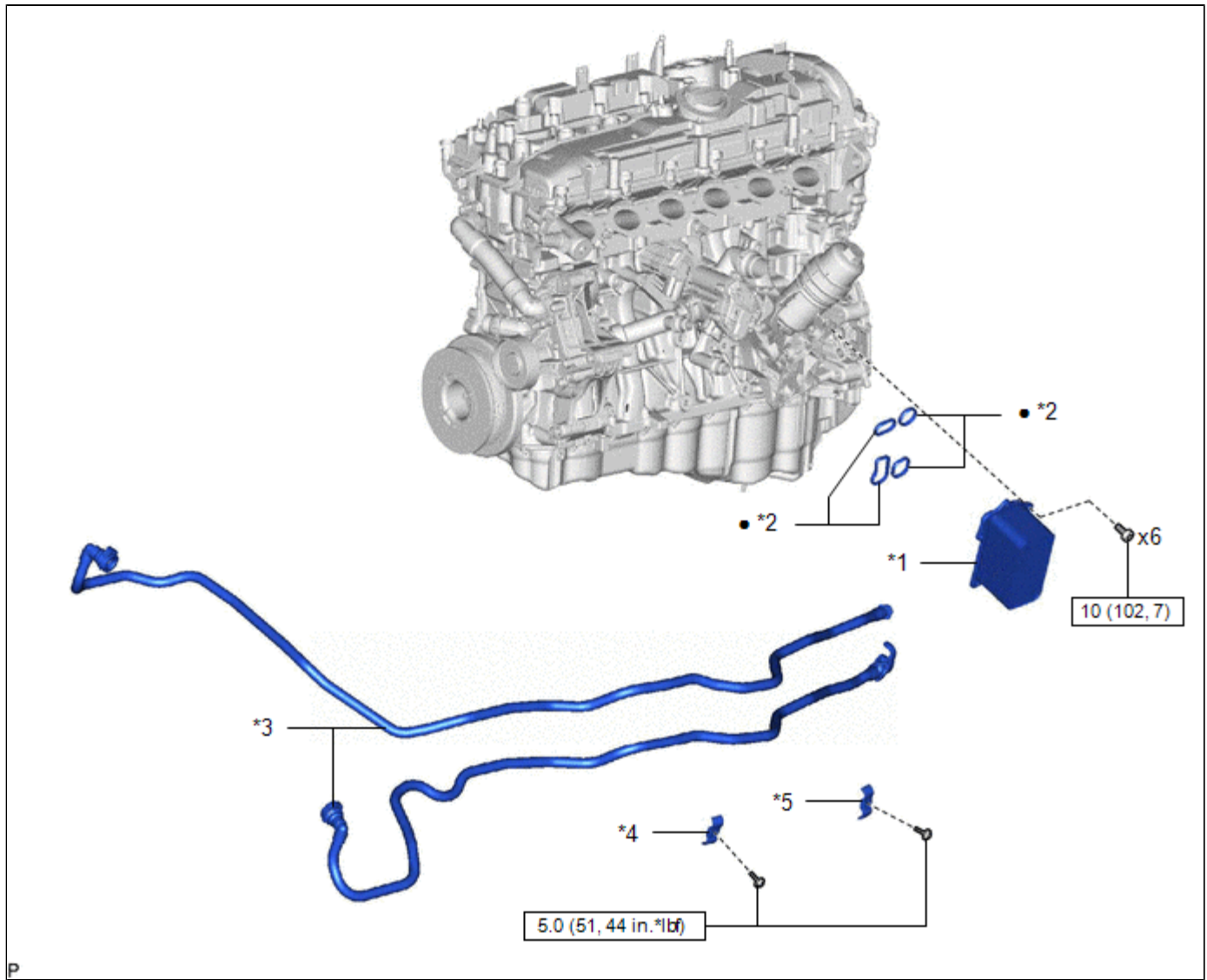
*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	OIL FILLER CAP ASSEMBLY
*3	OIL FILTER CAP ASSEMBLY	*4	CENTER NO. 4 ENGINE UNDER COVER
*5	OIL PAN DRAIN PLUG	*6	OIL PAN DRAIN PLUG GASKET
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part


ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	OIL COOLER ASSEMBLY	*2	OIL COOLER GASKET
*3	OIL COOLER TUBE	*4	NO. 1 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
*5	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): ENGINE OIL COOLER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE OIL FILLER CAP ASSEMBLY

Click here [INFO](#)

3. REMOVE OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

4. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

5. DRAIN ENGINE COOLANT (for High Pressure)

Click here [INFO](#)

6. REMOVE OIL PAN DRAIN PLUG

Click here [INFO](#)

7. INSTALL OIL PAN DRAIN PLUG

Click here [INFO](#)

8. SEPARATE OIL COOLER TUBE

Click here [INFO](#)

9. REMOVE OIL COOLER ASSEMBLY

CAUTION:

- Hot fluids.

Risk of scalding!

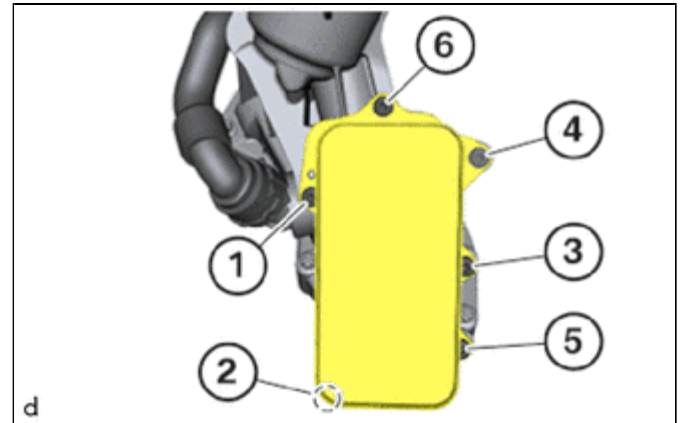
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

NOTICE:

Make sure that there are no particles or impurities in the medium openings. Coolant or foreign substances in the oil can cause engine damage such as damage to the connecting rod bearing.

(a) Loosen T30 bolts (1) to (6).



(b) Remove the oil cooler assembly from the oil filter bracket.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): ENGINE OIL COOLER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OIL COOLER ASSEMBLY

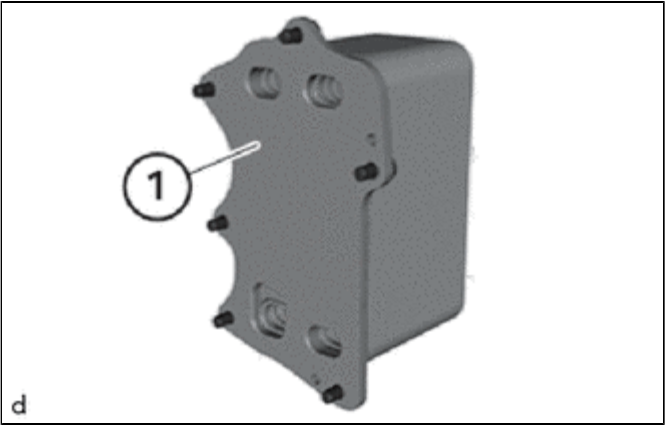
NOTICE:

- Make sure that there are no particles or impurities in the medium openings. Coolant or foreign substances in the oil can cause engine damage such as damage to the connecting rod bearing.
- Damage to the surface.

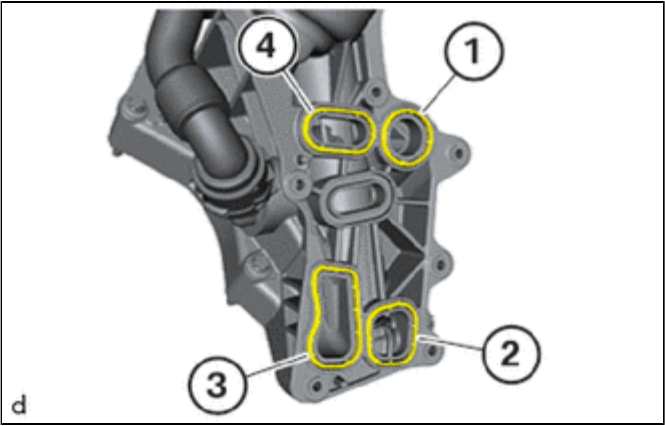
The use of metal-cutting tools (e.g. sandpaper) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.

(a) Clean sealing surface (1) on oil cooler assembly.

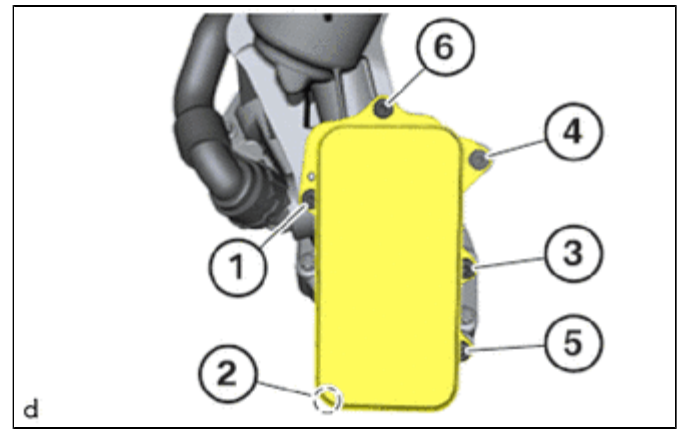


(b) Replace oil cooler gaskets (1) to (4).



(c) Install oil cooler gaskets (1) to (4).

(d) Position the oil cooler assembly on the oil filter bracket.



(e) Make sure oil cooler gaskets are correctly seated.

(f) Tighten T30 bolts in the order (1) to (6).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

2. INSTALL OIL COOLER TUBE

Click here [INFO](#)

3. INSTALL OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

4. ADD ENGINE OIL

Click here [INFO](#)

5. INSTALL OIL FILLER CAP ASSEMBLY

Click here [INFO](#)

6. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

7. ADD ENGINE COOLANT (for High Pressure)

Click here [INFO](#)

8. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

9. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

10. INSPECT FOR ENGINE OIL LEAK

Click here [INFO](#)

11. CHECK ENGINE OIL LEVEL

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCY8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): LUBRICATION SYSTEM: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. CHECK ENGINE OIL LEVEL

HINT:

Always check the engine oil level when the engine is at operating temperature (engine oil temperature > 70°C).

Vehicle information / Control unit list / DME / Call up control unit functions / Diagnostic request / Diagnostic request / 103 Engine oil temperature

- Park vehicle on a horizontal surface.
- Stop engine.
- Wait approximately 5 minutes.
- Read off the engine oil level in the combination meter assembly or on the multi-display assembly.
- Top up engine oil if necessary.

2. INSPECT OIL PRESSURE

- Remove the No. 1 engine cover sub-assembly.

Click here [INFO](#)

- Remove the oil filter cap assembly.

Click here [INFO](#)

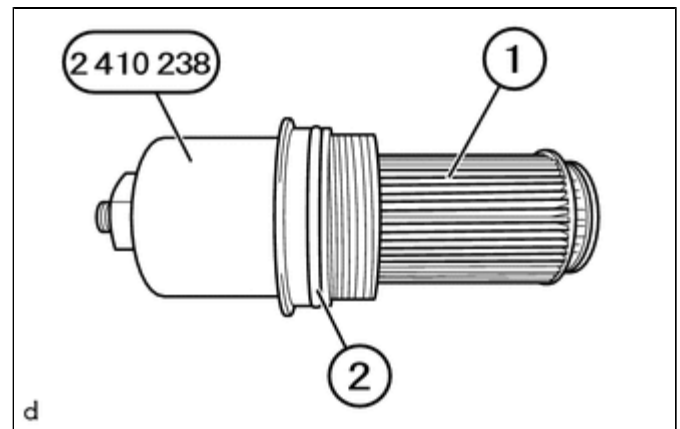
- Remove the oil filter element.

Click here [INFO](#)

- Remount the oil filter element (1) in the special tool 2 410

238.

SST: 09200-WA550



(e) If necessary, remount the O-ring (2).

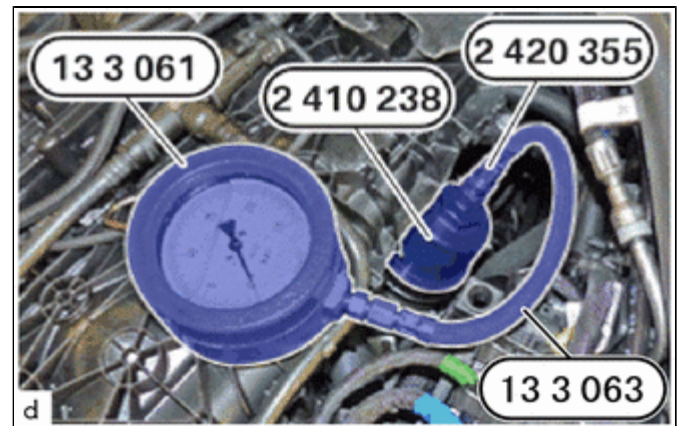
(f) Apply a small amount of engine oil to the O-ring.

(g) Using a 32 mm socket wrench, install and tighten the special tool 2 410 238.

SST: 09200-WA550

Torque:

25 N·m {255 kgf·cm, 18 ft·lbf}



(h) Connect special tool 0 491 260 (13 3 061) with special tools 0 491 262 (13 3 063), 2 420 355 and 2 410 238.

SST: 09200-WA550

SST: 09200-WA560

SST: 09200-WA930

SST: 09200-WA950

(i) Check oil pressure.

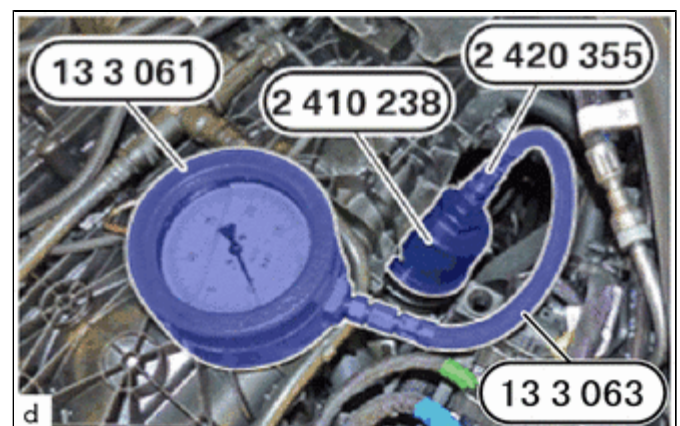
(j) Remove special tools 0 491 260 (13 3 061), 0 491 262 (13 3 063), 2 420 355 and 2 410 238.

SST: 09200-WA550

SST: 09200-WA560

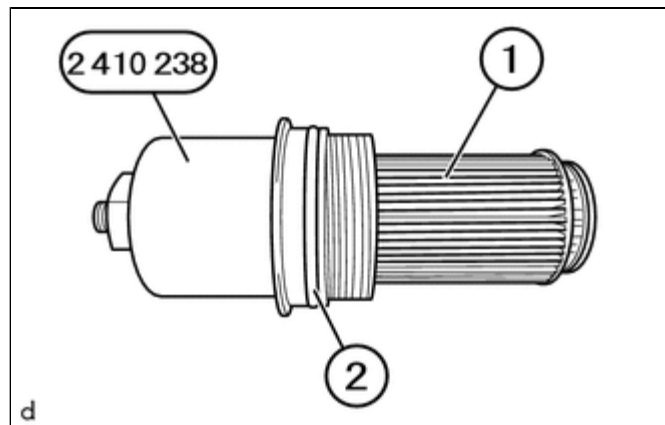
SST: 09200-WA930

SST: 09200-WA950



(k) Loosen the oil filter element (1) from the special tool 2 410 238.

SST: 09200-WA550



(l) If necessary, remount the O-ring (2).

(m) Install the oil filter element.

Click here [INFO](#)

(n) Install the oil filter cap assembly.

Click here [INFO](#)

(o) Install the No. 1 engine cover sub-assembly.

Click here [INFO](#)

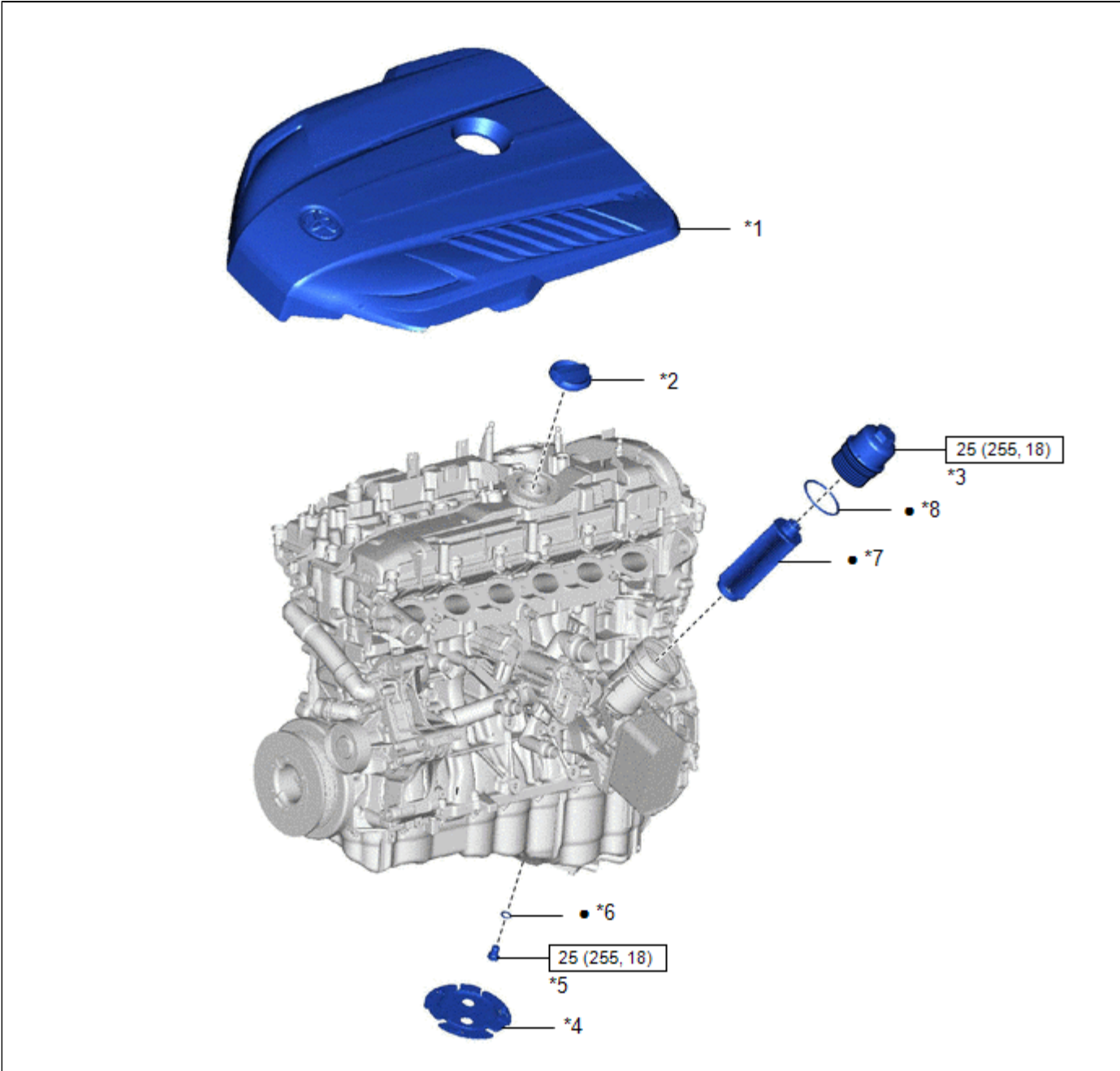
(p) Check engine oil level.

Click here

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCY9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL AND OIL FILTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	OIL FILLER CAP ASSEMBLY
*3	OIL FILTER CAP ASSEMBLY	*4	CENTER NO. 4 ENGINE UNDER COVER
*5	OIL PAN DRAIN PLUG	*6	OIL PAN DRAIN PLUG GASKET
*7	OIL FILTER ELEMENT	*8	O-RING
N*m (kgf*cm, ft.*lbf): Specified			



torque

•

Non-reusable part



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL AND OIL FILTER: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

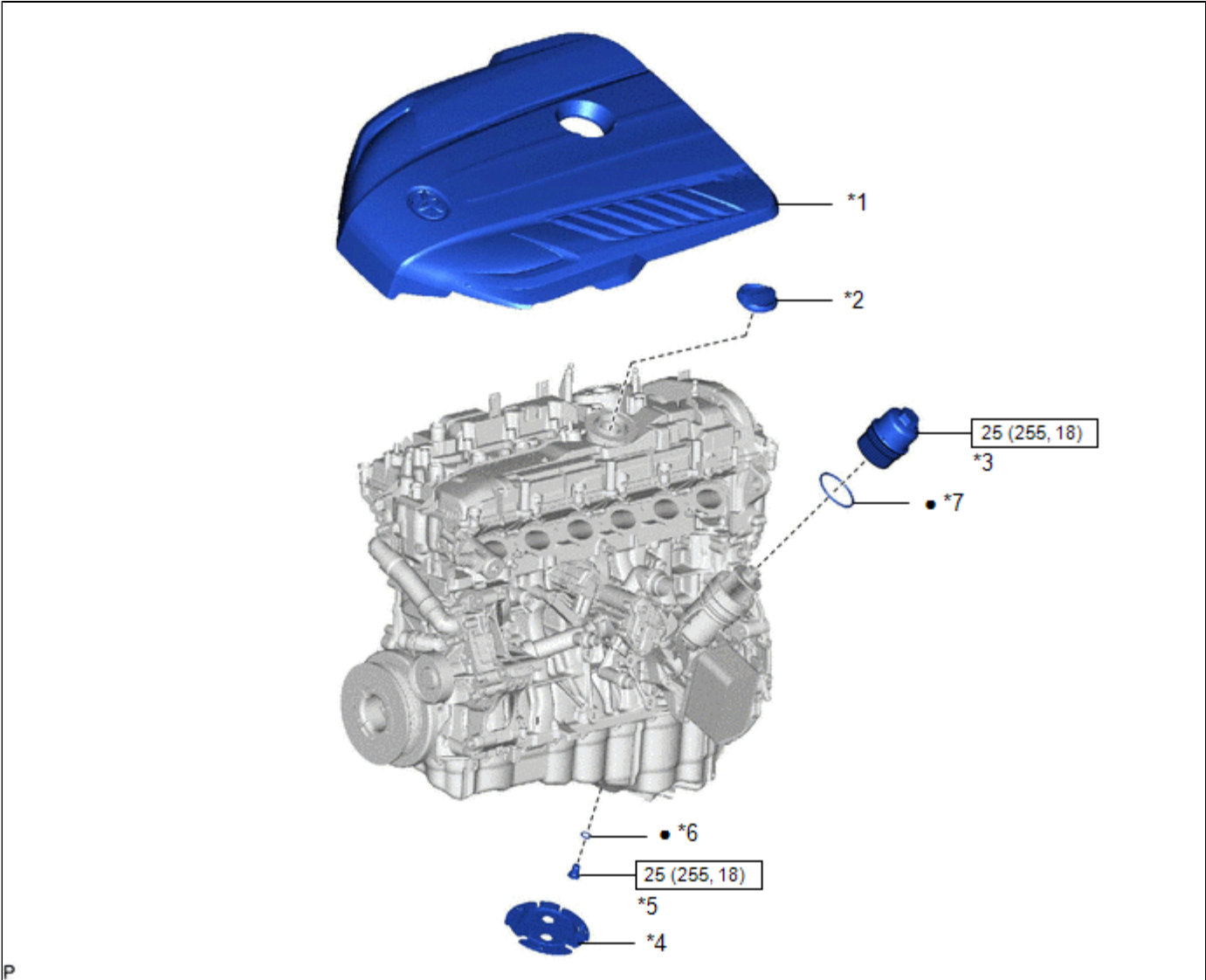
CAUTION / NOTICE / HINT



Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL LEVEL SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

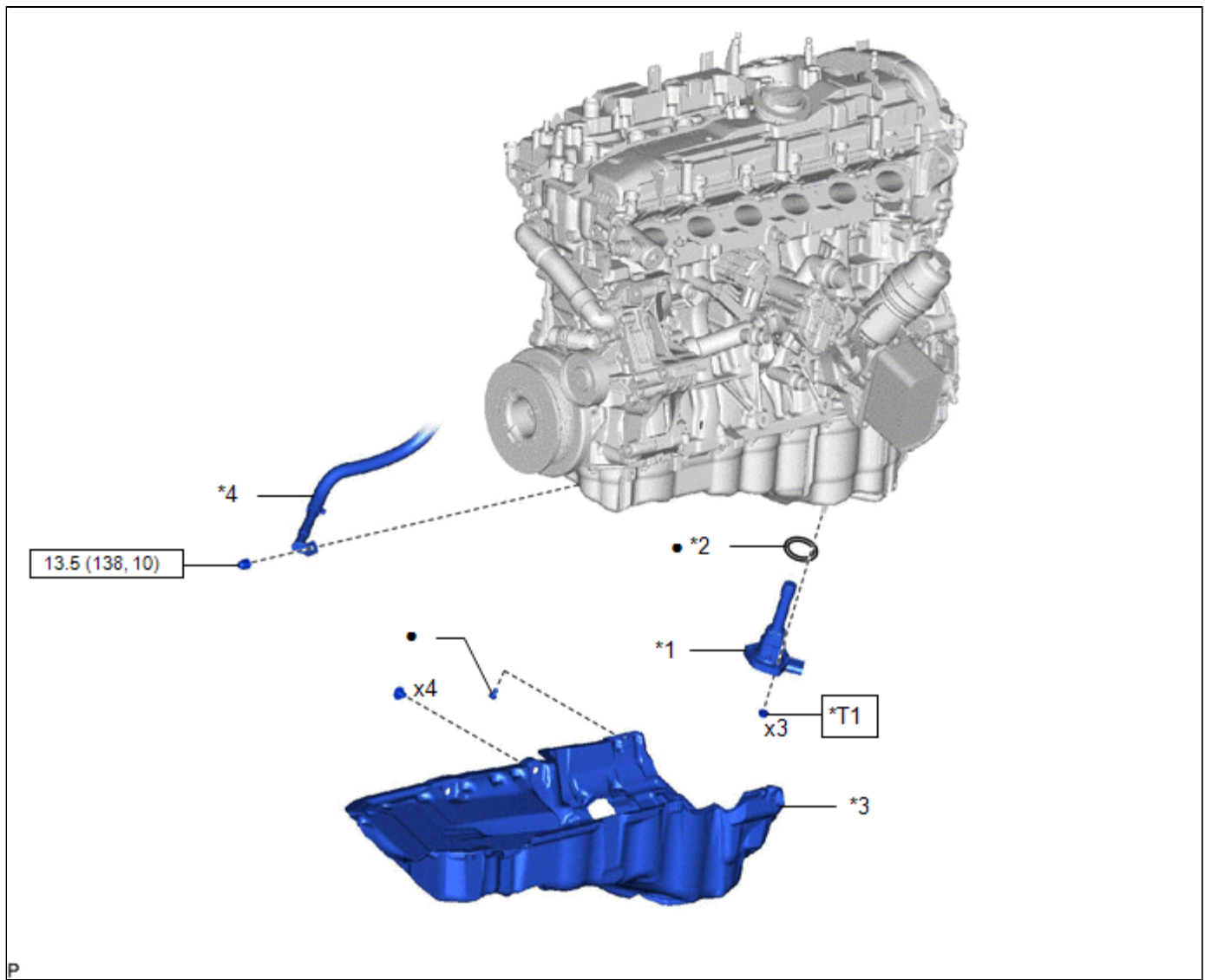
COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	OIL FILLER CAP ASSEMBLY
*3	OIL FILTER CAP ASSEMBLY	*4	CENTER NO. 4 ENGINE UNDER COVER
*5	OIL PAN DRAIN PLUG	*6	OIL PAN DRAIN PLUG GASKET
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

ILLUSTRATION



P

*1	ENGINE OIL LEVEL SENSOR	*2	ENGINE OIL LEVEL SENSOR GASKET
*3	OIL PAN COVER	*4	POSITIVE BATTERY CABLE
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 2.0 (20, 18 in.*lbf) 2nd: 8.0 (82, 71 in.*lbf)	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL LEVEL SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

 - Perform all work only on components that have cooled down.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE OIL FILLER CAP ASSEMBLY

Click here [INFO](#)

4. REMOVE OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

5. REMOVE OIL PAN DRAIN PLUG

Click here [INFO](#)

6. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

7. INSTALL OIL PAN DRAIN PLUG

Click here [INFO](#)

8. REMOVE OIL PAN COVER

Click here [INFO](#)

9. REMOVE ENGINE OIL LEVEL SENSOR

CAUTION:

- Hot surfaces.

Risk of burning!

 - Perform all work only on components that have cooled down.
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

NOTICE:

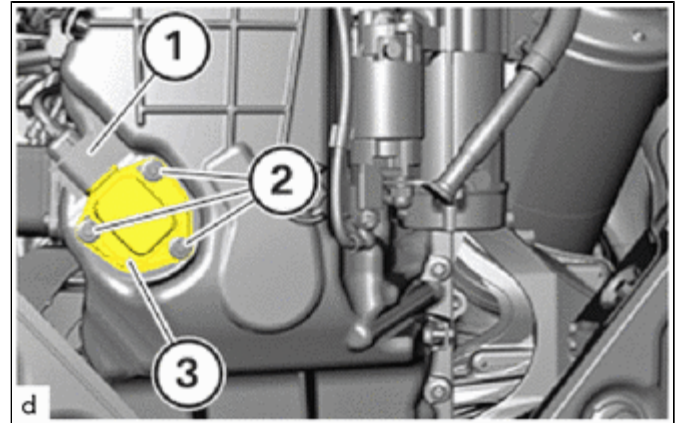
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Loosen nuts (2).

(c) Remove the engine oil level sensor (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL LEVEL SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

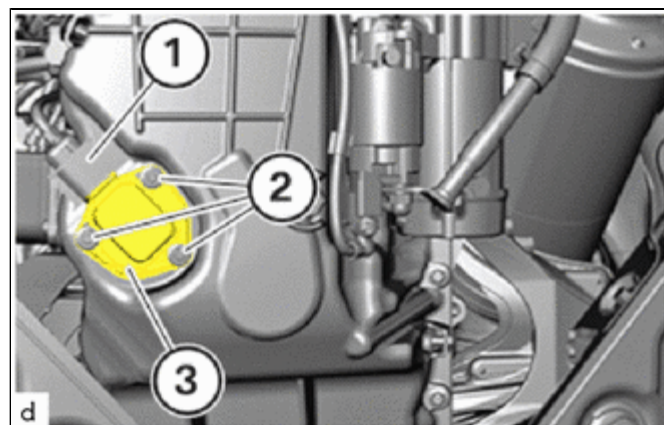
PROCEDURE

1. INSTALL ENGINE OIL LEVEL SENSOR

(a) Replace engine oil level sensor gasket (1).



(b) Install the engine oil level sensor (3).



(c) Temporarily tighten nuts (2).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

(d) Fully tighten nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Connect and lock the connector (1).

HINT:

The connector (1) must engage audibly.

2. INSTALL OIL PAN COVER

Click here [INFO](#)

3. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

4. INSTALL OIL FILTER CAP ASSEMBLY

Click here [INFO](#)

5. ADD ENGINE OIL

Click here [INFO](#)

6. INSTALL OIL FILLER CAP ASSEMBLY

Click here [INFO](#)

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

8. INSPECT FOR ENGINE OIL LEAK

Click here [INFO](#)

9. CHECK ENGINE OIL LEVEL

Click here [INFO](#)

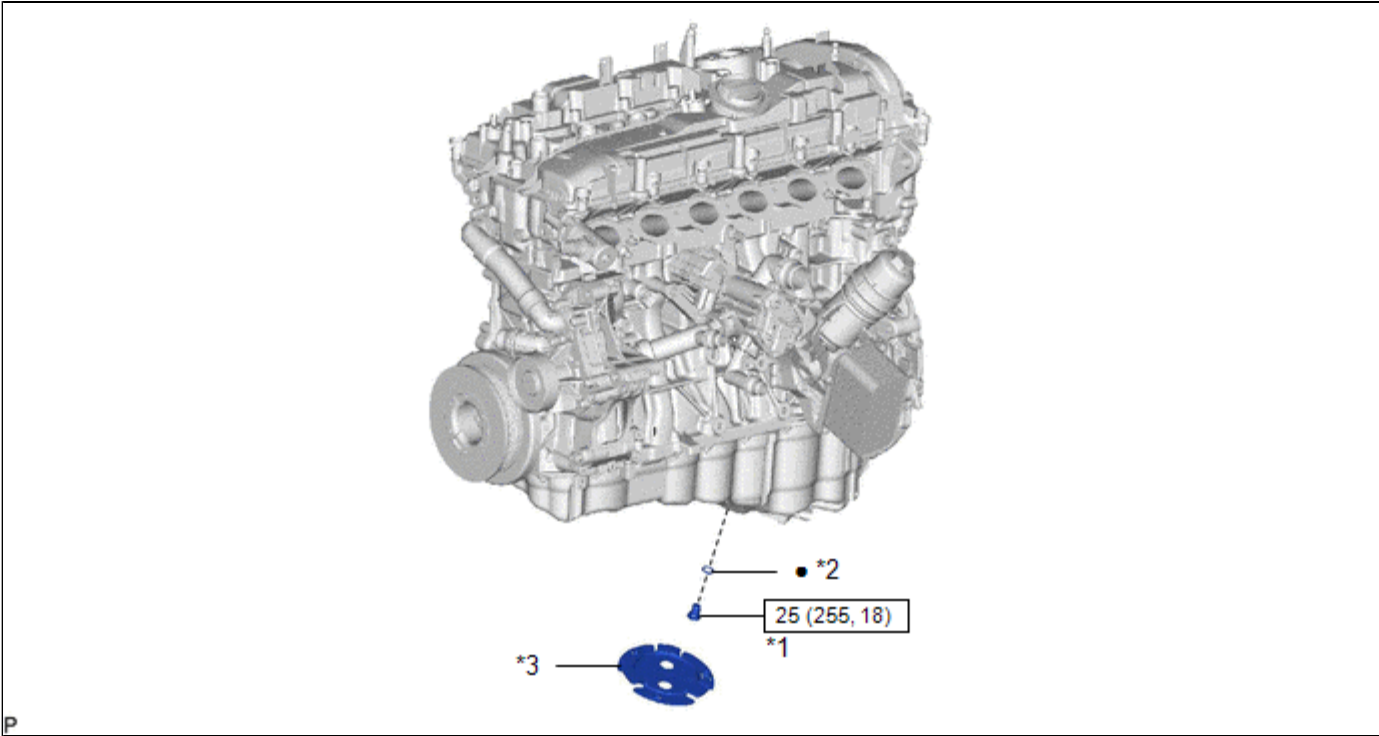
10. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PAN: COMPONENTS; 2020 MY Supra [03/2019 -]		

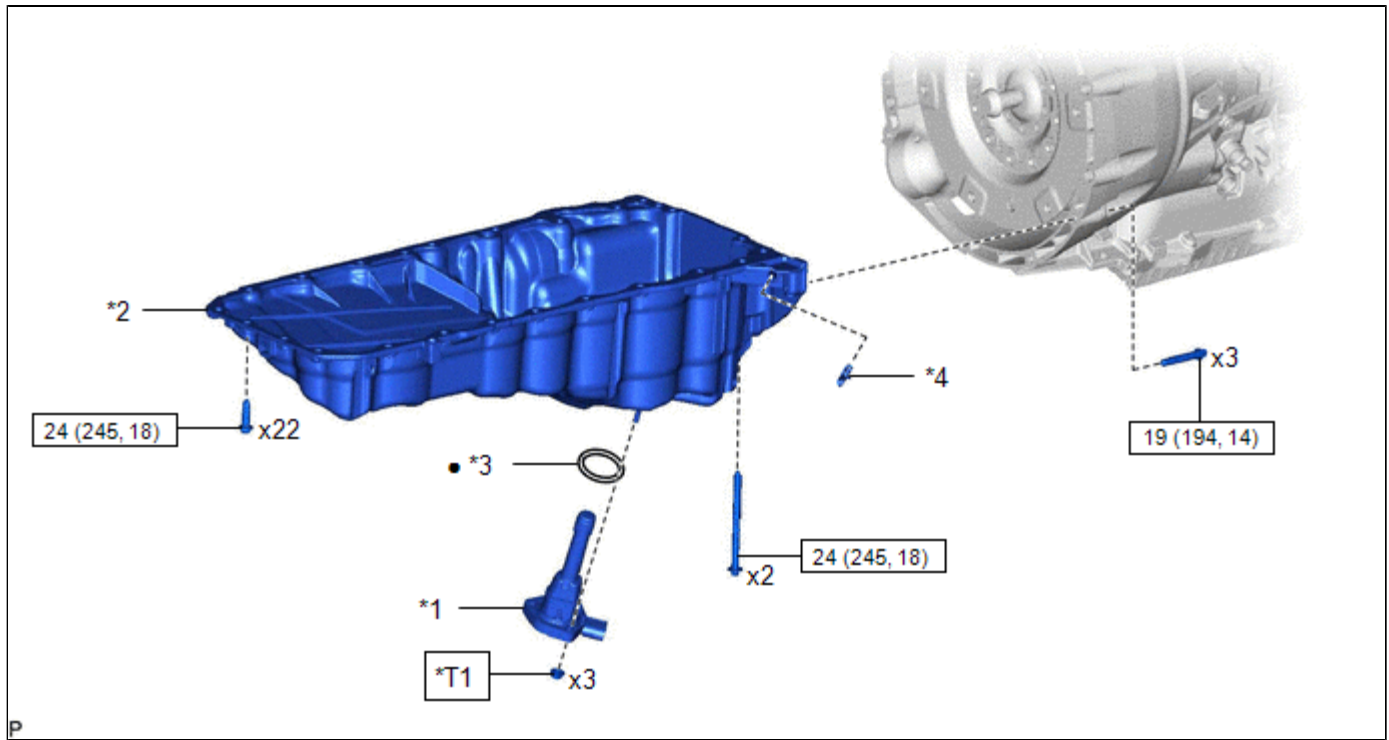
COMPONENTS

ILLUSTRATION



*1	OIL PAN DRAIN PLUG	*2	OIL PAN DRAIN PLUG GASKET
*3	CENTER NO. 4 ENGINE UNDER COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	ENGINE OIL LEVEL SENSOR	*2	OIL PAN SUB-ASSEMBLY
*3	ENGINE OIL LEVEL SENSOR GASKET	*4	SEAL PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 2.0 (20, 18 in.*lbf) 2nd: 8.0 (82, 71 in.*lbf)	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PAN: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

Perform wheel alignment after installation.

PROCEDURE

1. SEPARATE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE OIL PAN DRAIN PLUG

Click here [INFO](#)

3. INSTALL OIL PAN DRAIN PLUG

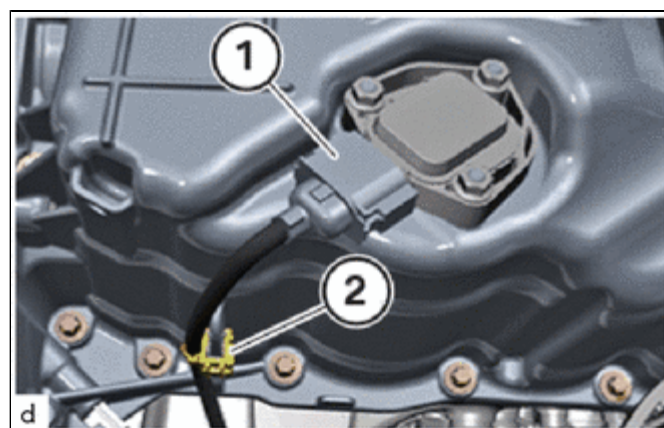
Click here [INFO](#)

4. REMOVE STARTER ASSEMBLY

Click here [INFO](#)

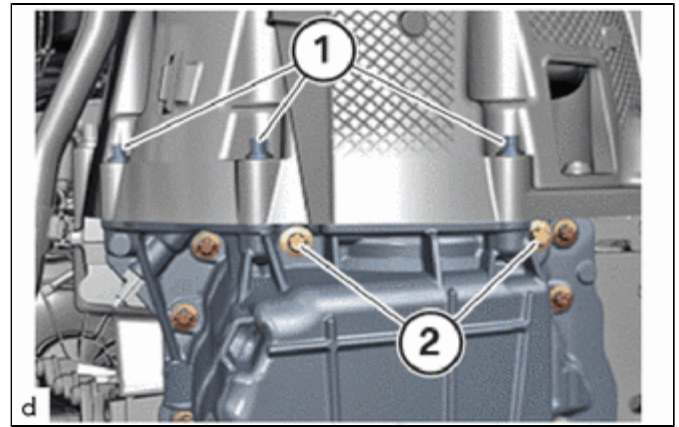
5. REMOVE OIL PAN SUB-ASSEMBLY

(a) Unlock and loosen connector (1).



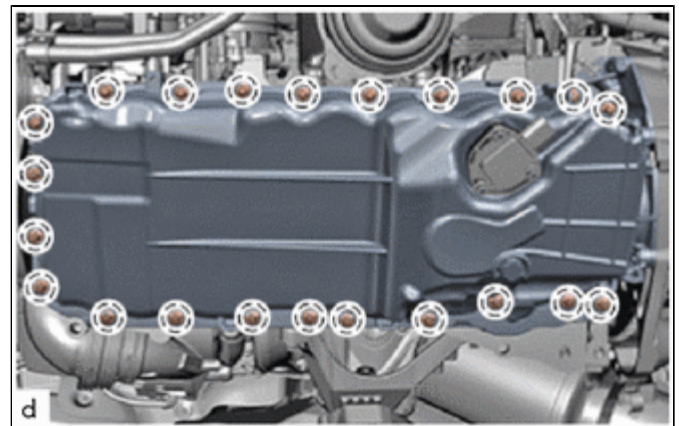
(b) Loosen clamp (2).

(c) Loosen E10 bolts (1).



(d) Loosen E10 bolts (2).

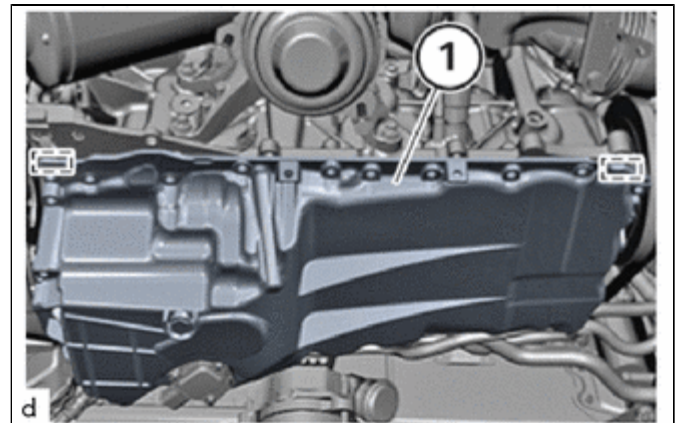
(e) Unscrew all of the E10 bolts (marks).



(f) Release the oil pan sub-assembly (1) in the marked areas.

HINT:

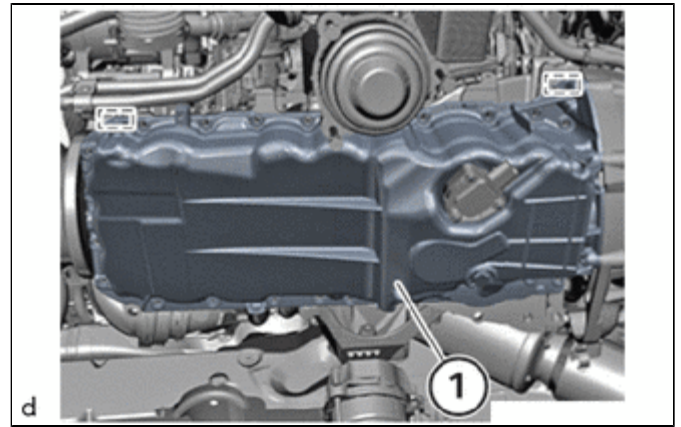
Increased force may be necessary during disassembly because the component is bonded with seal packing.



(g) Release the oil pan sub-assembly (1) in the marked areas.

HINT:

Increased force may be necessary during disassembly because the component is bonded with seal packing.



(h) Guide out oil pan sub-assembly (1) toward the bottom and remove.

6. REPLACE OIL PAN SUB-ASSEMBLY**CAUTION:**

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

NOTICE:

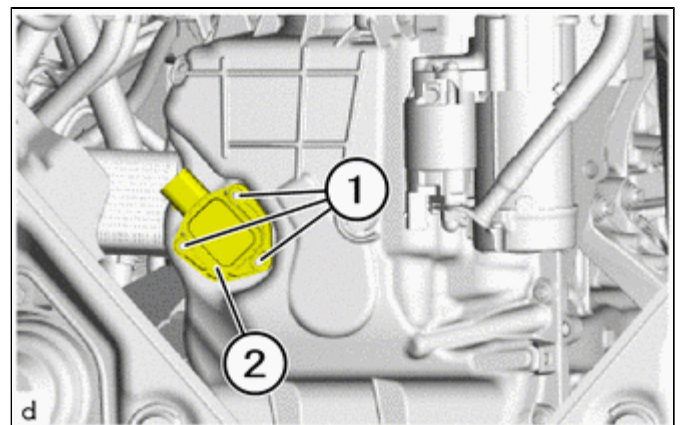
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

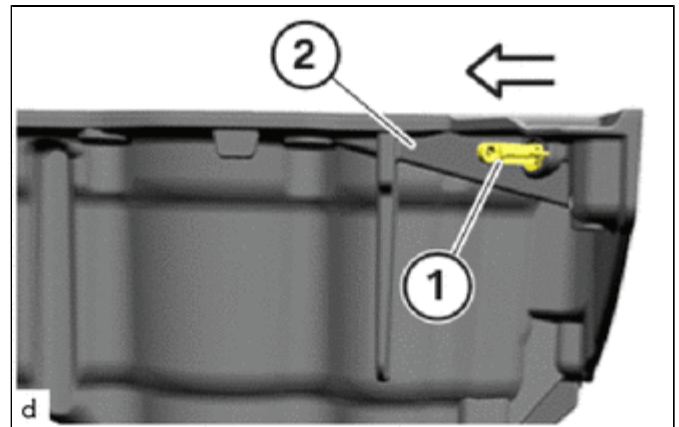
Click here [INFO](#)

(a) Loosen nuts (1).



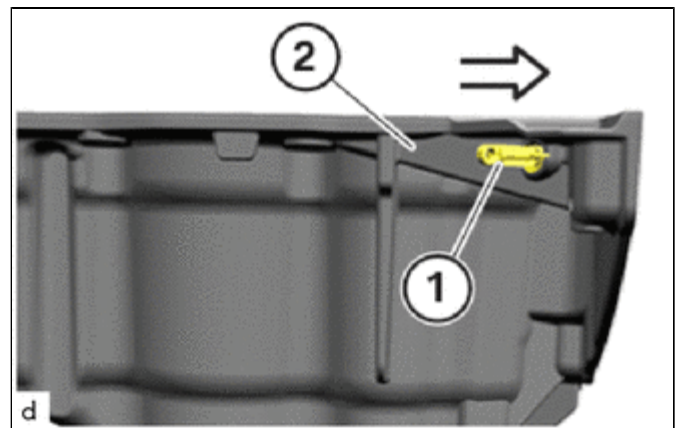
(b) Remove the engine oil level sensor (2).

(c) Guide the seal plug (1) out of the oil pan sub-assembly (2) in the direction of the arrow and remove.



(d) Replace oil pan sub-assembly.

(e) Guide the seal plug (1) into the oil pan sub-assembly (2) in the direction of the arrow and install.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PAN: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

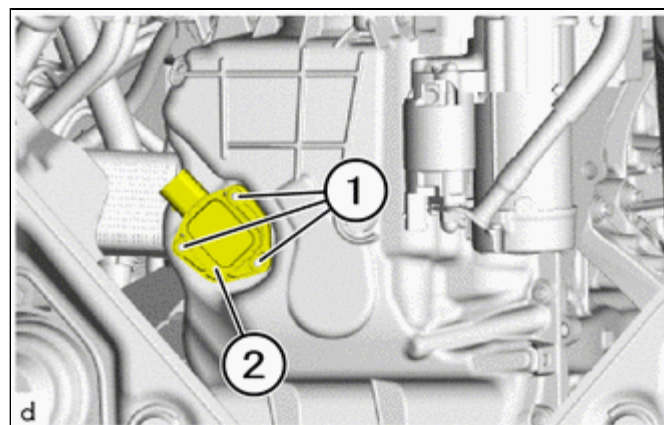
PROCEDURE

1. INSTALL ENGINE OIL LEVEL SENSOR

(a) Replace engine oil level sensor gasket (1).



(b) Install the engine oil level sensor (2).



(c) Temporarily tighten nuts (1).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

(d) Fully tighten nuts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL OIL PAN SUB-ASSEMBLY

NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

- Damage to the surface.

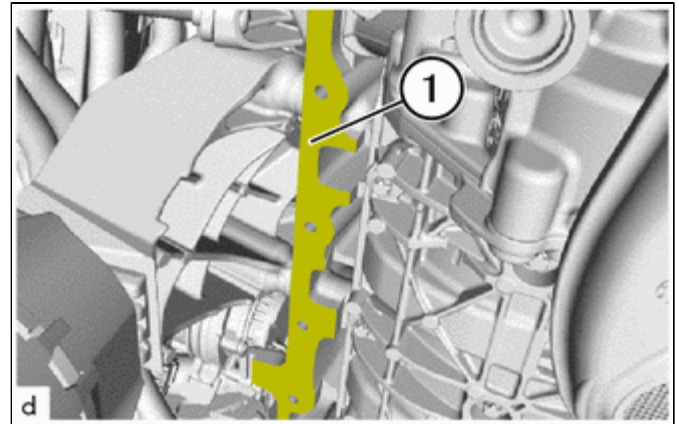
The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.

- (a) Remove coarse seal packing remains on the sealing surface of the cylinder block (1) and the sealing surface on the oil pan sub-assembly.

NOTICE:

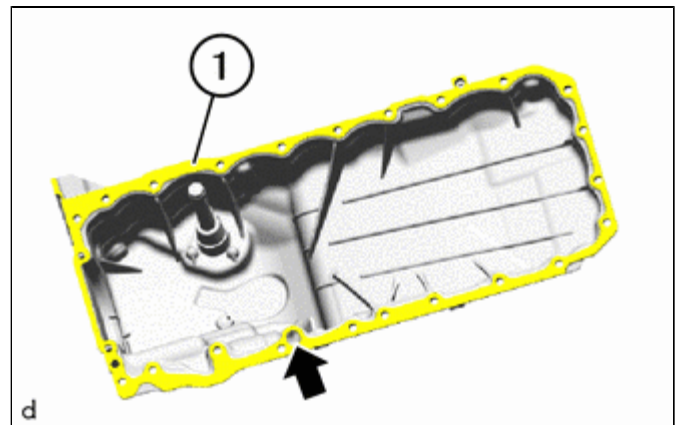
The sealing surfaces must be free from oils, grease and cleaning agents.



- (b) Remove fine seal packing remains on the sealing surface of the oil pan sub-assembly (1) and the sealing surface on the cylinder block.

NOTICE:

The sealing surfaces must be free from oils, grease and cleaning agents.



- (c) Load the sealer gun with the seal packing.

Seal Packing:

Loctite 5970 Flange Sealant

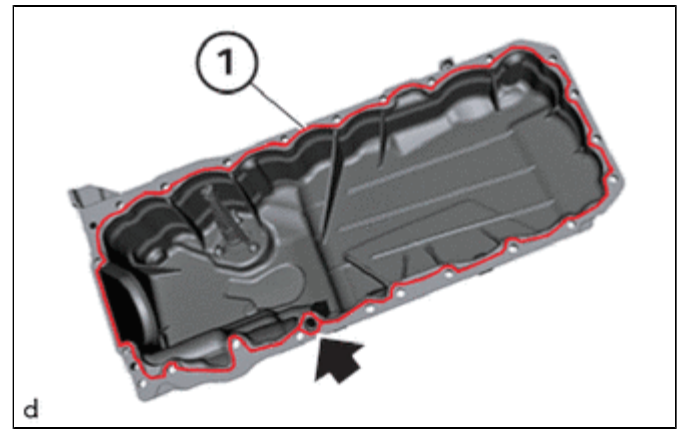
- (d) Apply sealing bead (1) with the seal packing in the marked area along the inner edge.

Height of the Sealing Bead:

2.0 to 2.5 mm (0.0787 to 0.0984 in.)

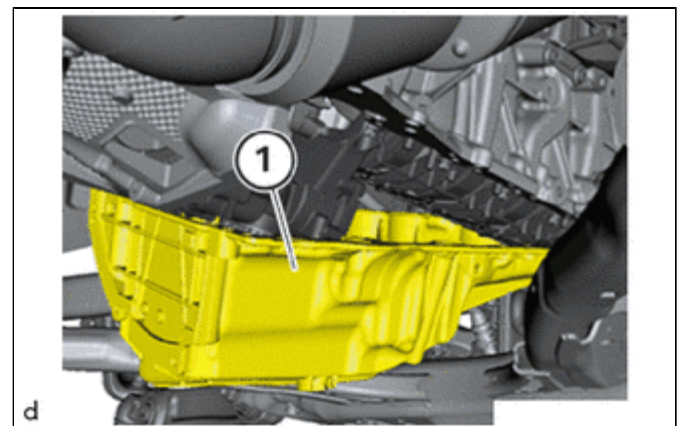
NOTICE:

The maximum application time of the seal packing is 12 minutes.

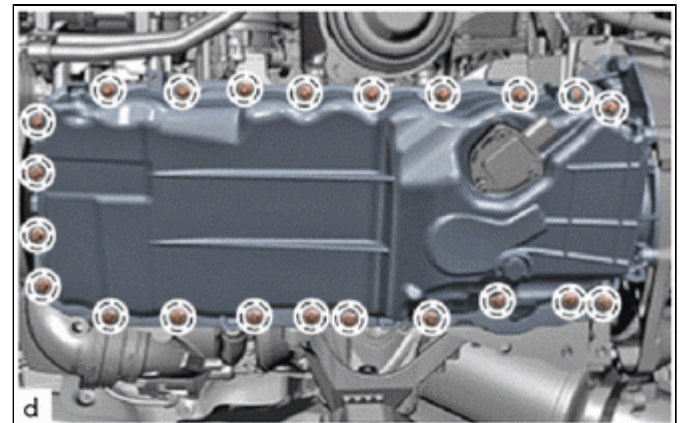


(e) Completely encircle the oil return orifice (arrow) with the sealing compound.

(f) Insert oil pan sub-assembly (1) upwards and forwards and position.



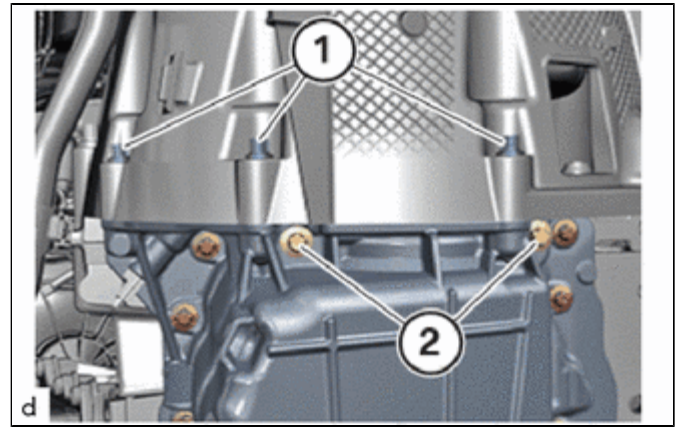
(g) Tighten all the oil pan sub-assembly E10 bolts (marks) hand-tight, do not yet tighten fully.



(h) Tighten the E10 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



(i) Tighten down E10 bolts (2).

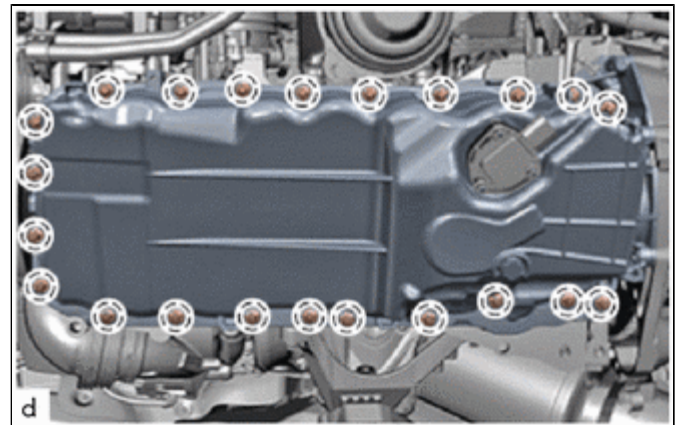
Torque:

24 N·m {245 kgf·cm, 18 ft·lbf}

(j) Tighten all E10 bolts (marks).

Torque:

24 N·m {245 kgf·cm, 18 ft·lbf}



(k) Connect connector and lock.

HINT:

Make sure the connector engages audibly.

(l) Secure clamp.

3. INSTALL STARTER ASSEMBLY

Click here [INFO](#)

4. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY

Click here [INFO](#)

5. ADD ENGINE OIL

Click here [INFO](#)

6. INSPECT FOR ENGINE OIL LEAK

Click here [INFO](#)

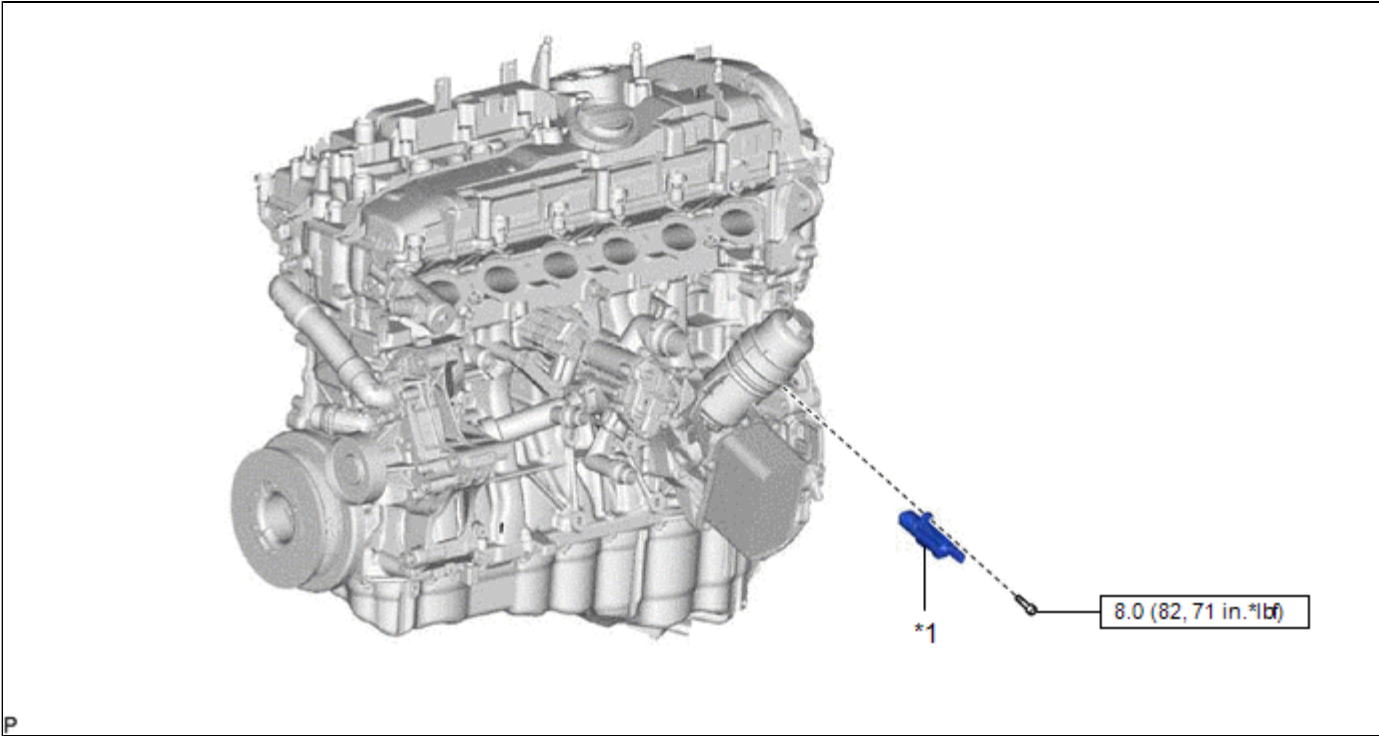
7. CHECK ENGINE OIL LEVEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PRESSURE CONTROL VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL PRESSURE CONTROL VALVE ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PRESSURE CONTROL VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.

Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE INTAKE MANIFOLD

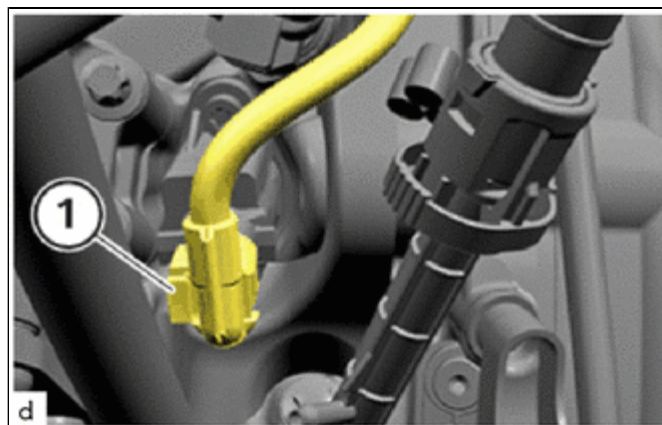
Click here [INFO](#)

2. REMOVE OIL PRESSURE CONTROL VALVE ASSEMBLY

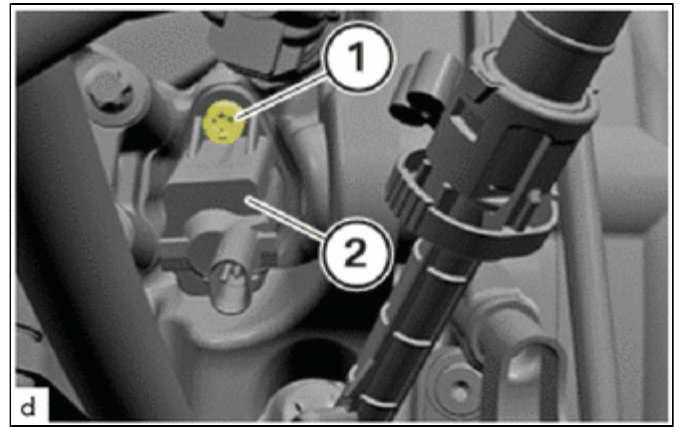
CAUTION:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock plug connection (1) and disconnect.



(b) Loosen T30 bolt (1).



(c) Removing the oil pressure control valve assembly (2).

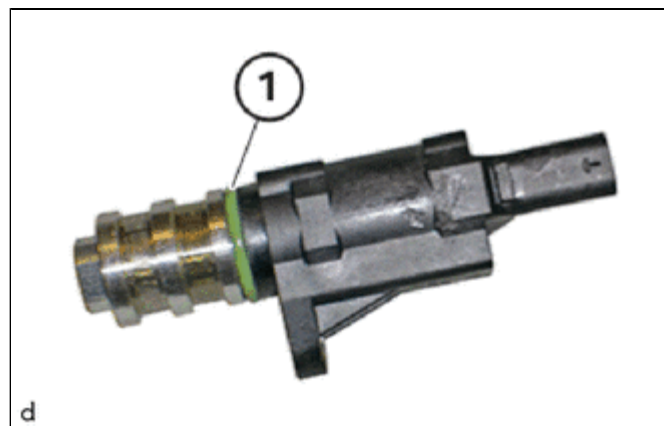
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PRESSURE CONTROL VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OIL PRESSURE CONTROL VALVE ASSEMBLY

- (a) Check the O-ring (1) for damage and replace the oil pressure control valve assembly as needed.



- (b) Install the oil pressure control valve assembly.
(c) Tighten down T30 bolt.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

- (d) Connect and lock the connector.

2. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

3. INSPECT FOR ENGINE OIL LEAK

Click here [INFO](#)

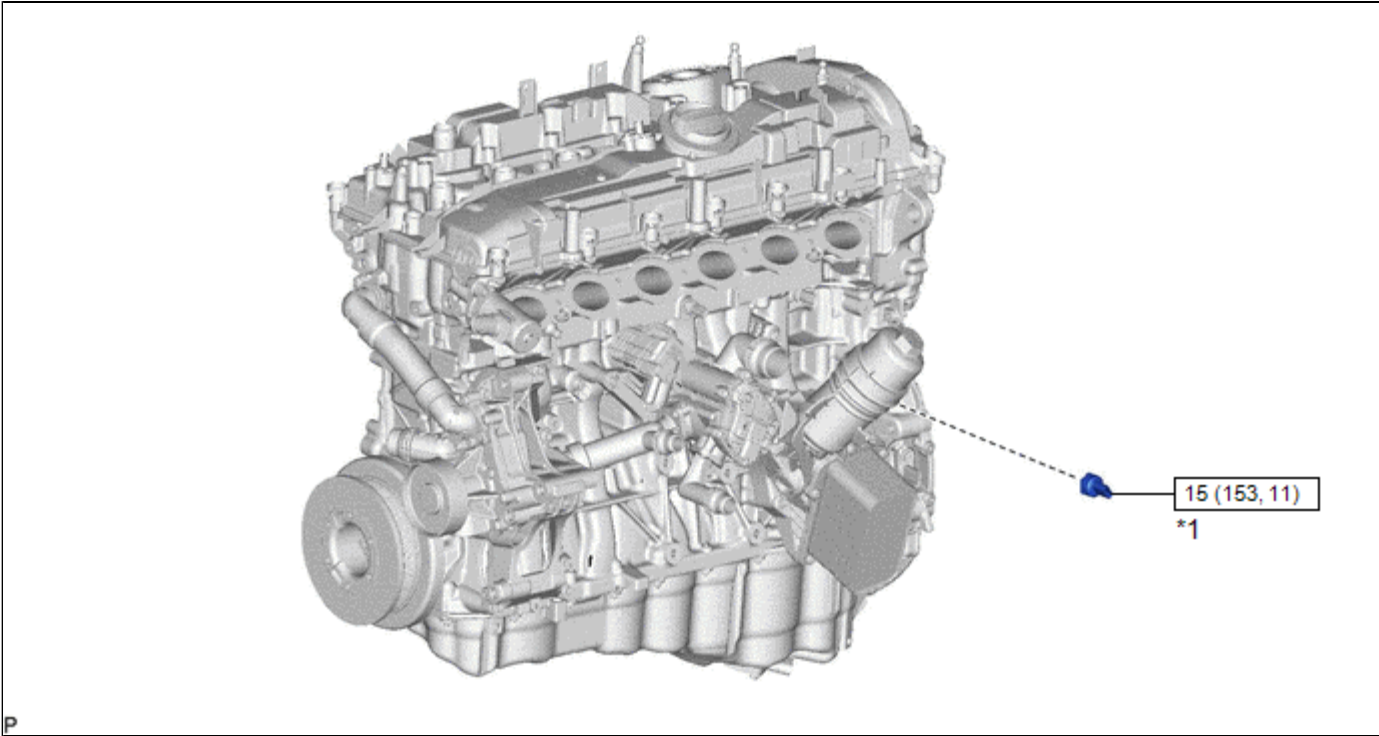
4. CHECK ENGINE OIL LEVEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PRESSURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL PRESSURE SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PRESSURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.
- Risk of short circuits! Risk of fire!
- Detach battery earth lead from battery.

PROCEDURE

1. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

2. REMOVE OIL PRESSURE SENSOR

CAUTION:

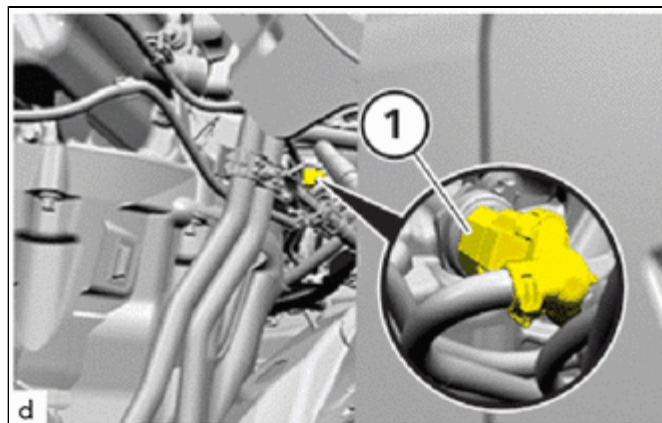
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

NOTICE:

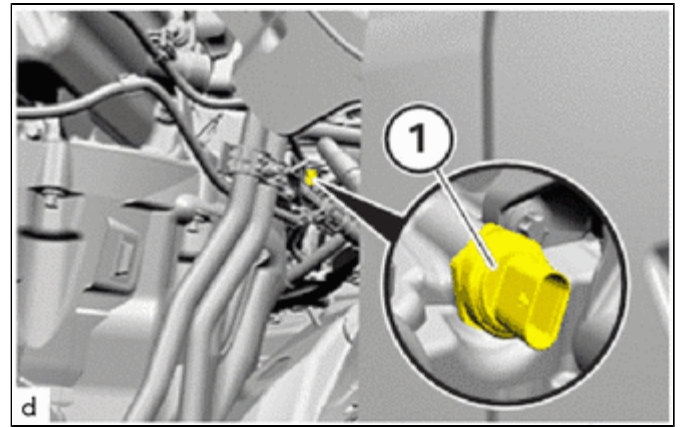
- Electrostatic discharge.
- Damage to or destruction of electrical components.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Using a 24 mm deep socket wrench, detach and remove the oil pressure sensor (1).



(c) Catch and dispose of emerging engine oil.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PRESSURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OIL PRESSURE SENSOR

- (a) Guide in and install the oil pressure sensor.
- (b) Using a 24 mm deep socket wrench, tighten the oil pressure sensor.

Torque:
15 N·m {153 kgf·cm, 11 ft·lbf}

- (c) Connect and lock the connector.

HINT:
The connector must engage audibly.

2. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

3. INSPECT FOR ENGINE OIL LEAK

Click here [INFO](#)

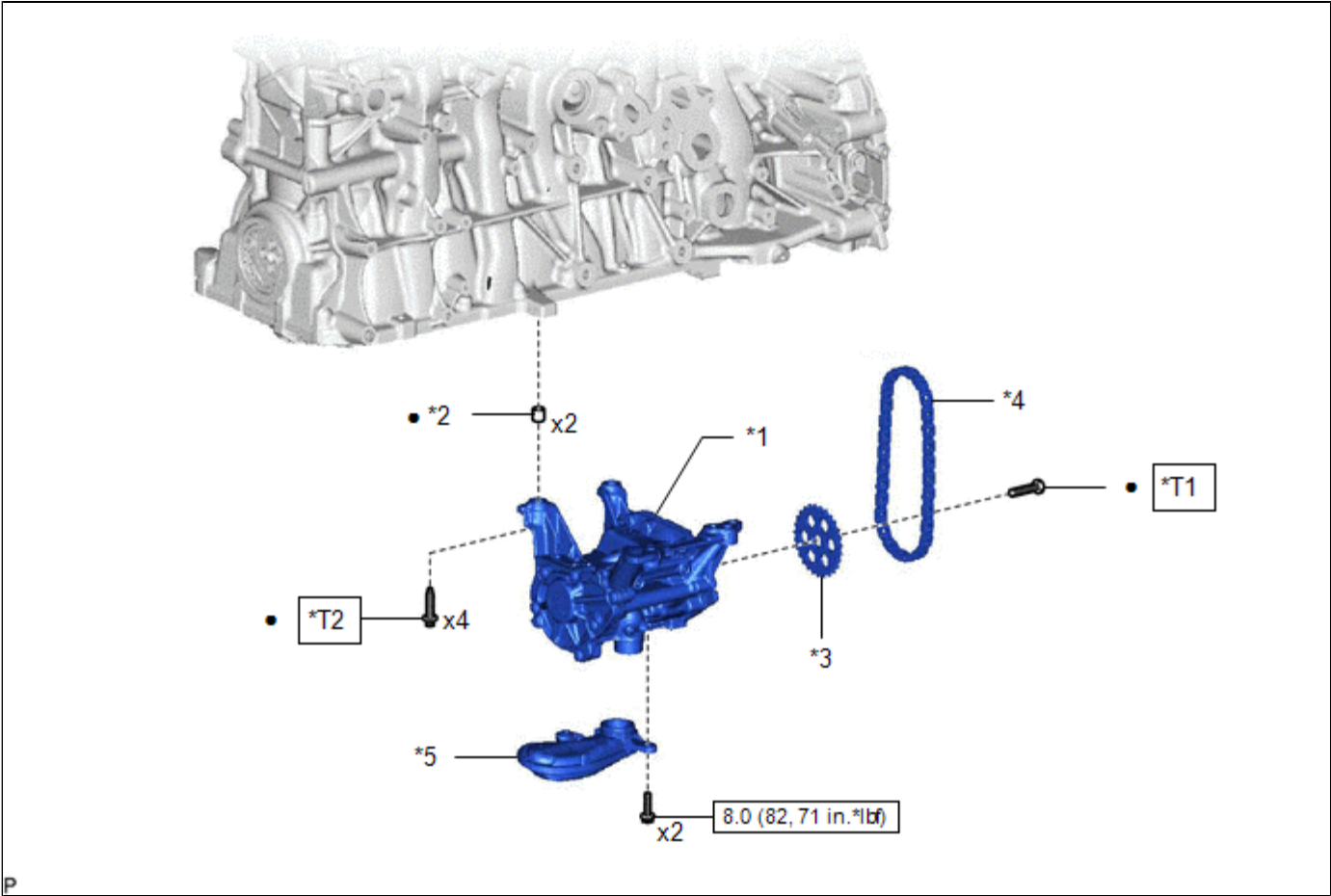
4. CHECK ENGINE OIL LEVEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PUMP: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL PUMP ASSEMBLY	*2	OIL PUMP SET PIN
*3	OIL PUMP DRIVE SHAFT GEAR	*4	OIL PUMP DRIVE CHAIN SUB-ASSEMBLY
*5	OIL STRAINER SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 5.0 (51, 44 in.*lbf) 2nd: Turn 90°	*T2	1st: 15 (153, 11) 2nd: Turn 45°

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PUMP: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

Perform wheel alignment after installation.

PROCEDURE

1. REMOVE OIL PAN SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE OIL PUMP ASSEMBLY

CAUTION:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

NOTICE:

- Contaminant or foreign body.

Contamination can result in malfunctions, operating failure or leaks.

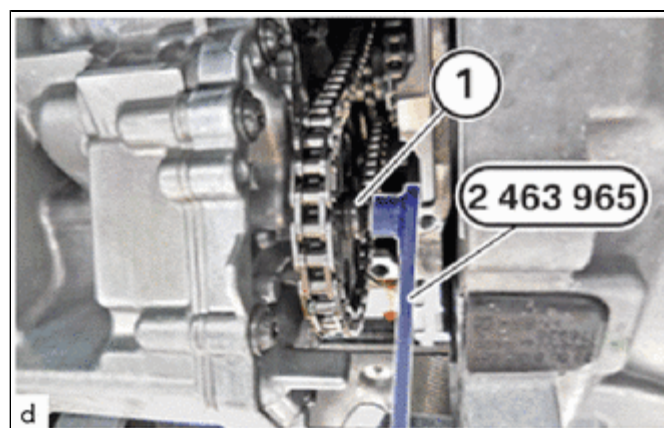
- Adhere to the utmost cleanliness.
- Protect components from contamination e.g. by covering.
- Close off line connections with seal plugs.

(a) Release T45 bolt (1) with the special tool 2 463 965.

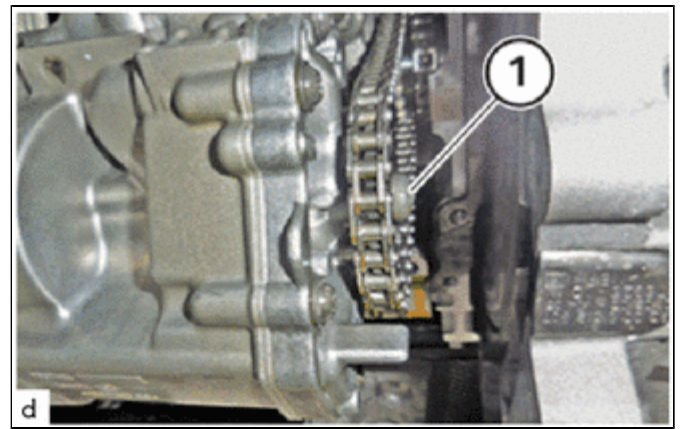
SST: 09900-WA180

HINT:

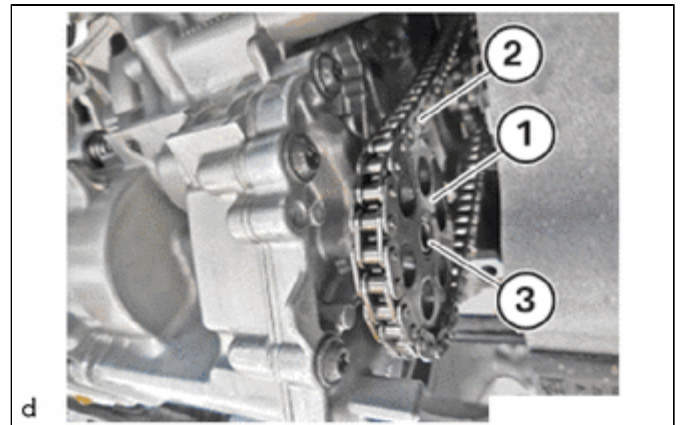
The thread is a left-hand thread.



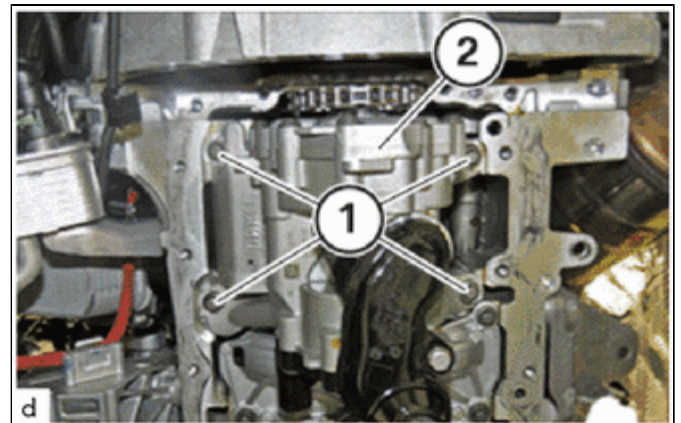
(b) Thread out the T45 bolt (1) and remove it.



(c) Detach the oil pump drive shaft gear (1) from the oil pump assembly (3).



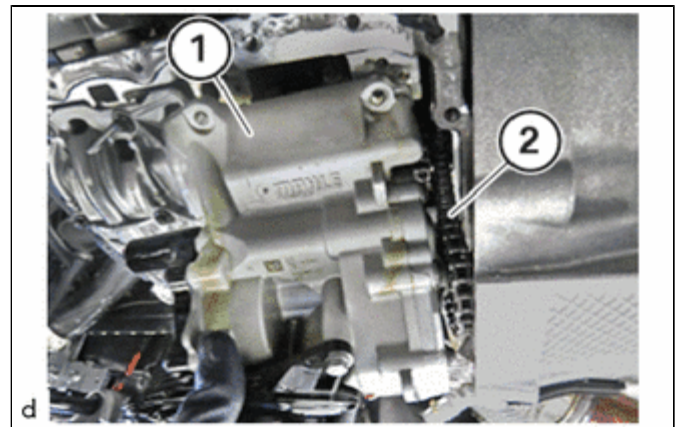
(d) Feed the oil pump drive shaft gear (1) out of the oil pump drive chain sub-assembly (2) and remove it.



(e) Loosen E10 bolts (1) of the oil pump assembly (2).

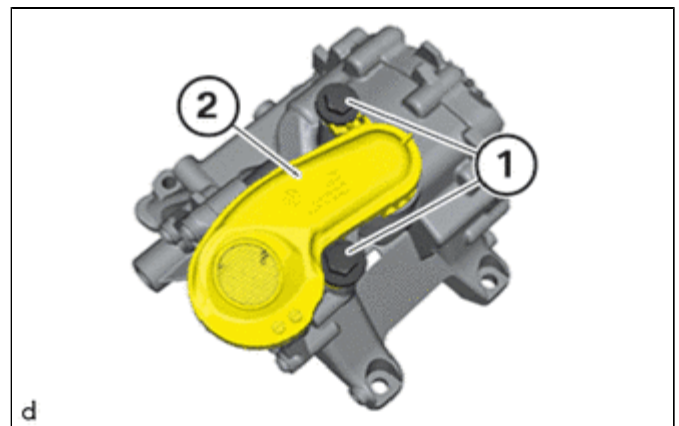
(f) Pull the oil pump assembly (1) down slightly, work it out

from the oil pump drive chain sub-assembly (2) and remove.



3. REPLACE OIL STRAINER SUB-ASSEMBLY

(a) Loosen bolts (1).

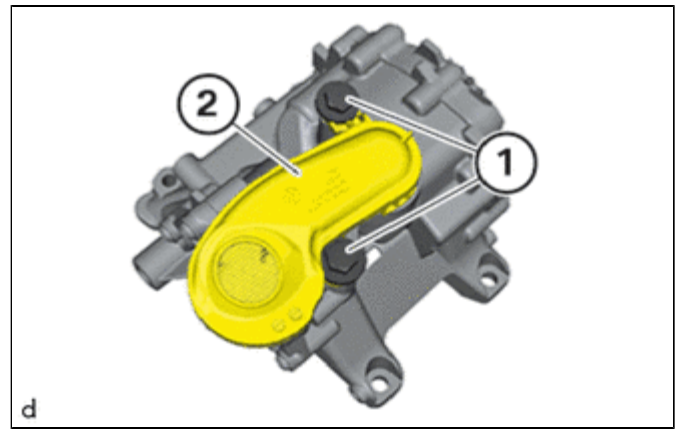


(b) Feed out and remove oil strainer sub-assembly (2) from the oil pump assembly.

(c) Check the O-ring for damage and replace the oil strainer sub-assembly if needed.



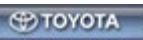
(d) Feed in and position oil strainer sub-assembly (2).



(e) Tighten the bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



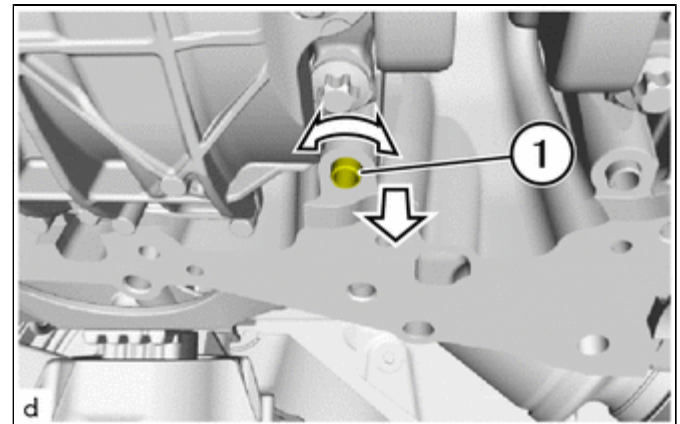
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCYJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (LUBRICATION): OIL PUMP: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

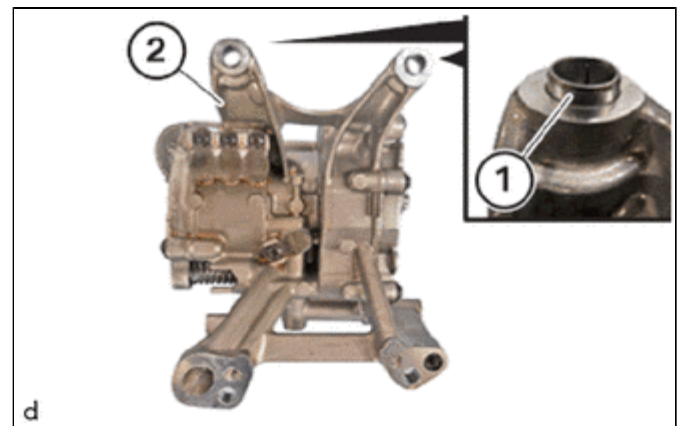
1. INSTALL OIL PUMP ASSEMBLY

- (a) Work oil pump set pins (1) out of the crankcase in the direction of the arrow and remove.



- (b) Replace the oil pump set pins (1).

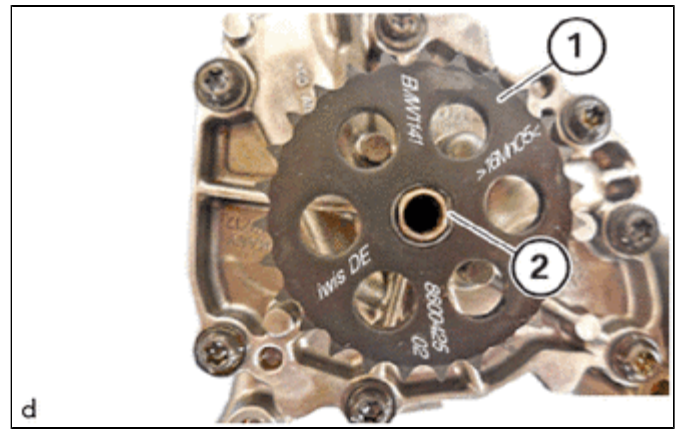
- (c) Insert oil pump set pins (1) in to the oil pump assembly (2) and install.



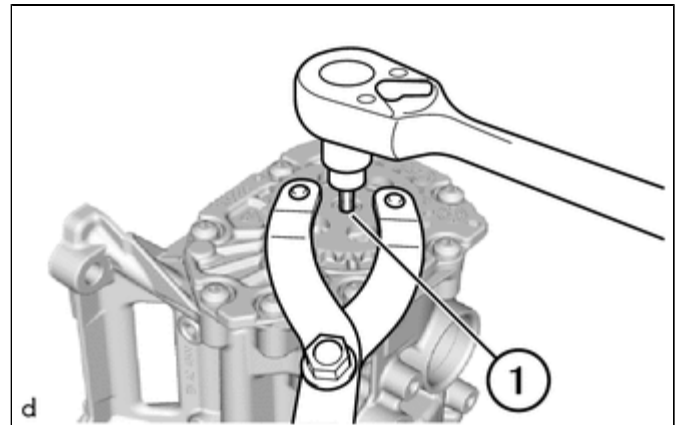
- (d) Position oil pump drive shaft gear (1) on the oil pump assembly (2).

NOTICE:

The labelling on the oil pump drive shaft gear (1) must face away from the oil pump assembly (2).



(e) Replace the T45 bolt (1).



(f) Insert T45 bolt (1) and fit.

HINT:

The thread is a left-hand thread.

(g) Hold oil pump drive shaft gear with SST and tighten T45 bolt (1).

SST: 09960-10010

09962-01000

09963-00700

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

HINT:

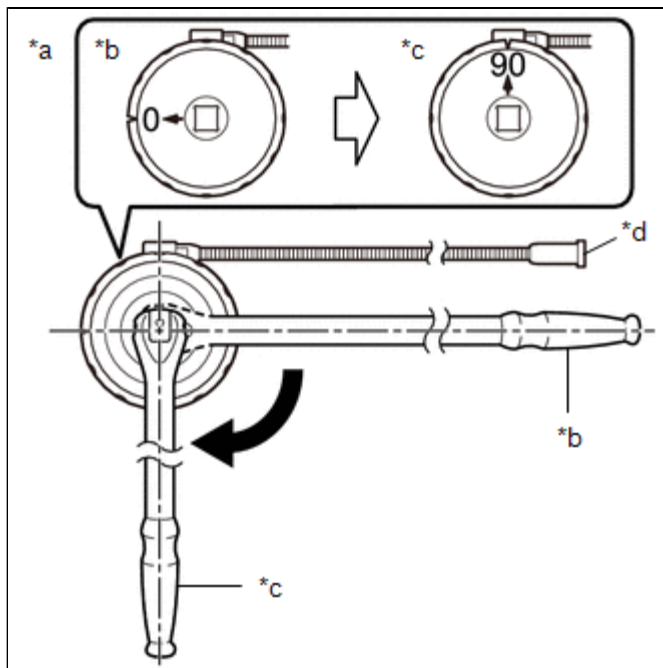
Conduct the following operation with the assistance of a second person.

(h) Using SST, tighten the T45 bolt (1) an additional 90°.

SST: 09900-WA010

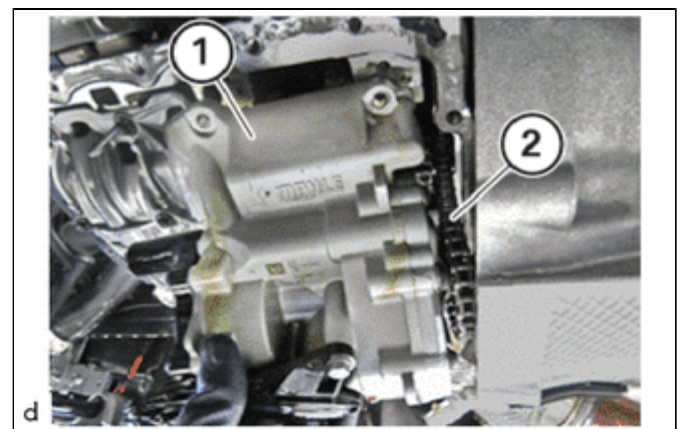
HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

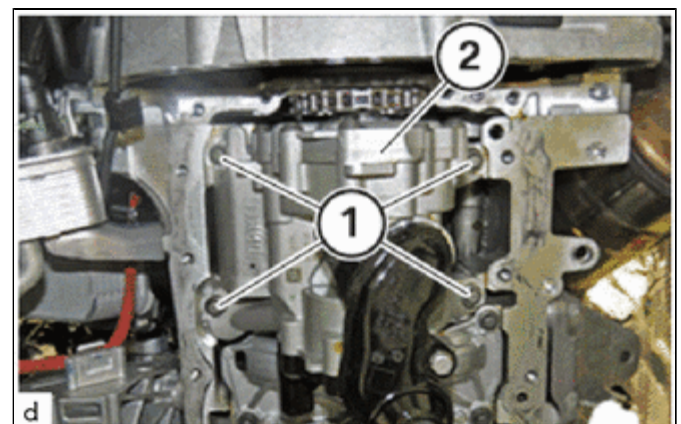


*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

(i) Feed the oil pump assembly (1) into the oil pump drive chain sub-assembly (2) and position it.



(j) Replace E10 bolts (1).



(k) Tighten the E10 bolts (1).

Torque:

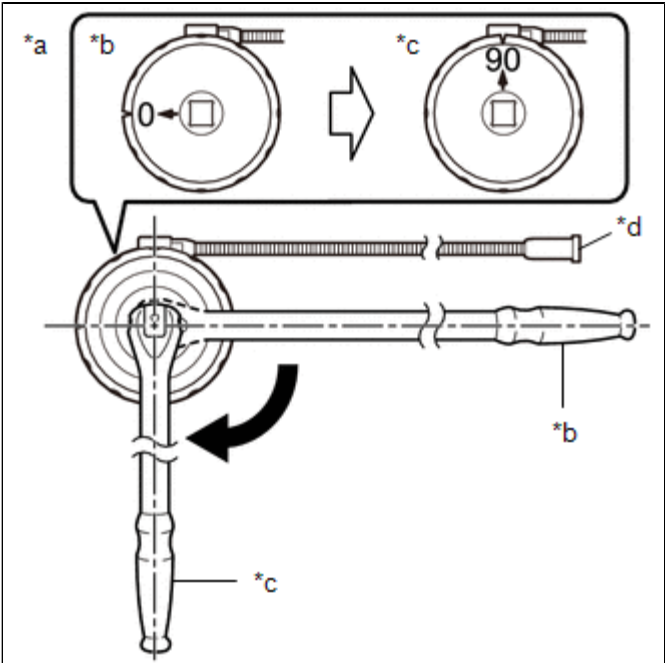
15 N·m {153 kgf·cm, 11 ft·lbf}

(l) Using SST, tighten the E10 bolts (1) an additional 45°.

SST: 09900-WA010

HINT:

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

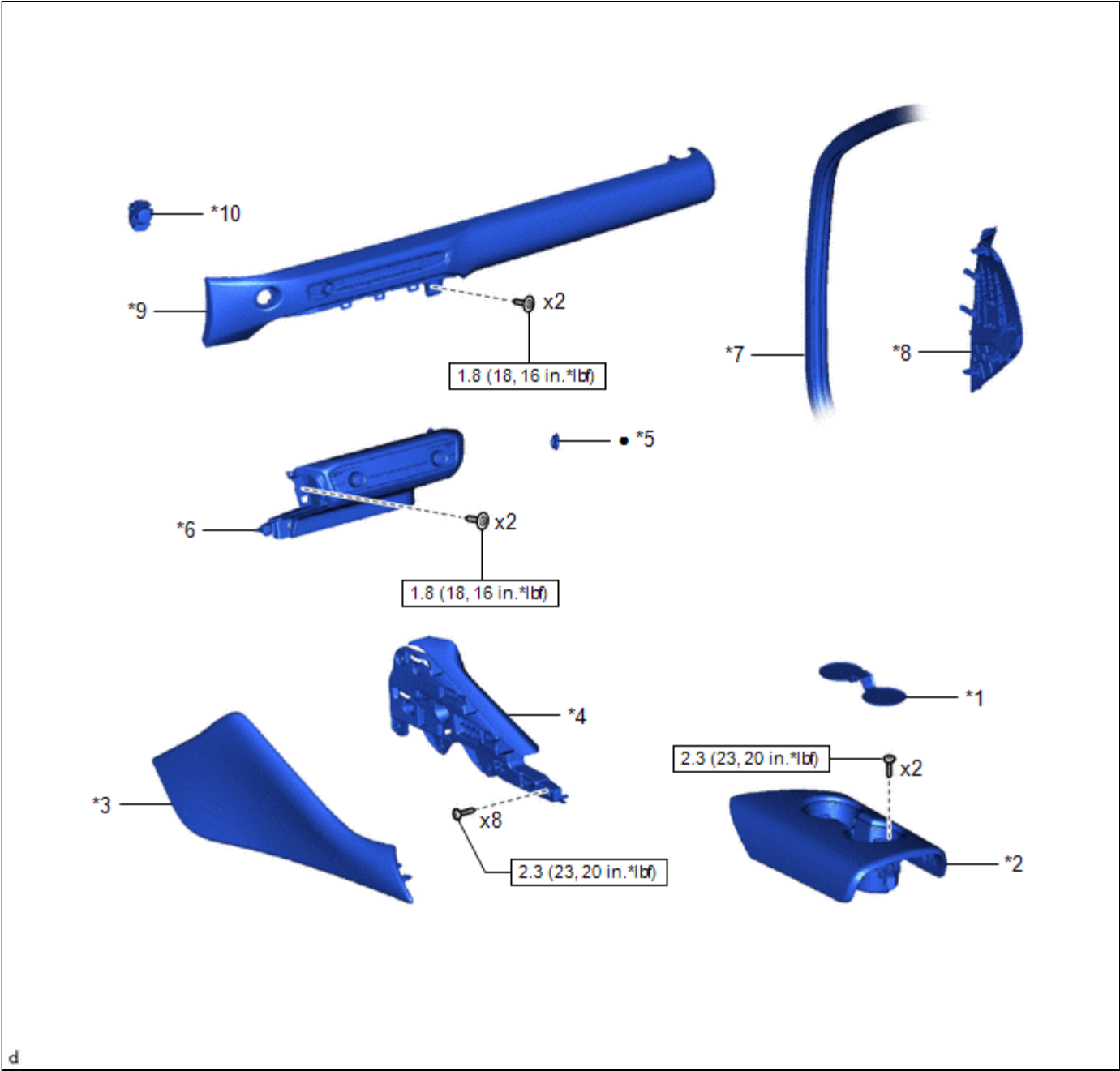
2. INSTALL OIL PAN SUB-ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD22
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): ENGINE SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 CONSOLE BOX SILENCER PAD	*2	FRONT CONSOLE ARMREST ASSEMBLY
*3	CONSOLE SIDE PANEL	*4	CONSOLE PANEL AND CONSOLE PANEL RETAINER
*5	RUBBER PLUG	*6	INSTRUMENT PANEL FINISH LOWER PANEL

*7	FRONT DOOR OPENING TRIM WEATHERSTRIP	*8	NO. 2 INSTRUMENT SIDE PANEL
*9	NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY	*10	PUSH START SWITCH
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD23
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): ENGINE SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

NOTICE:

- Electrostatic discharge.
- Damage to or destruction of electrical components.
 - Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
 - Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
 - For additional information see:

Click here 

PROCEDURE

1. REMOVE FRONT CONSOLE ARMREST ASSEMBLY

Click here 

2. REMOVE CONSOLE SIDE PANEL

Click here 

3. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here 

4. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

Click here 

5. REMOVE NO. 2 INSTRUMENT SIDE PANEL

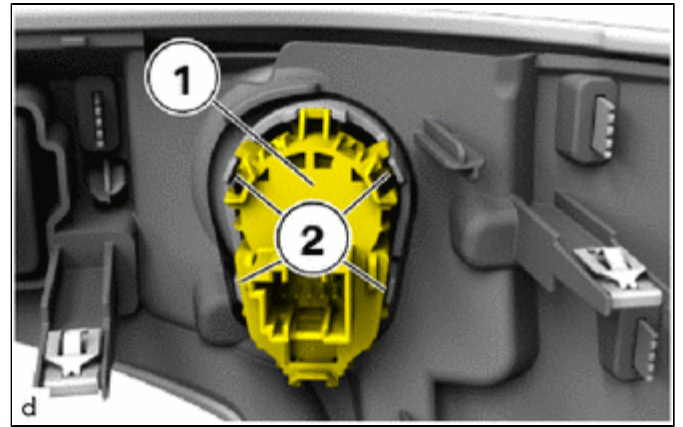
Click here 

6. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here 

7. REMOVE PUSH START SWITCH

(a) Detach push start switch (1) at the latch mechanisms (2) and remove.



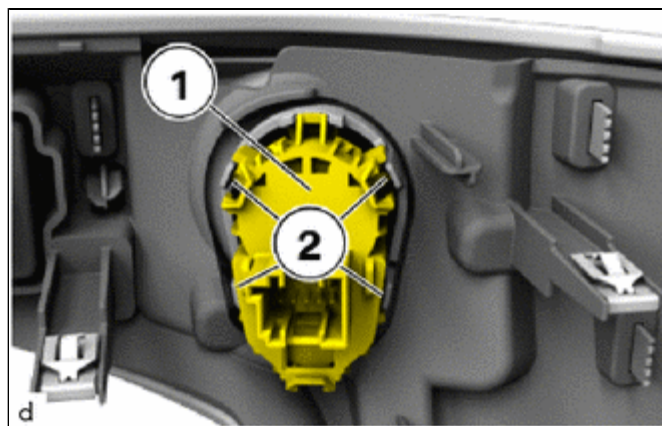
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD24
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): ENGINE SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL PUSH START SWITCH

(a) Position push start switch (1) and engage in the latch mechanisms (2).



2. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL NO. 2 INSTRUMENT SIDE PANEL

Click here [INFO](#)

4. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

5. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

6. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

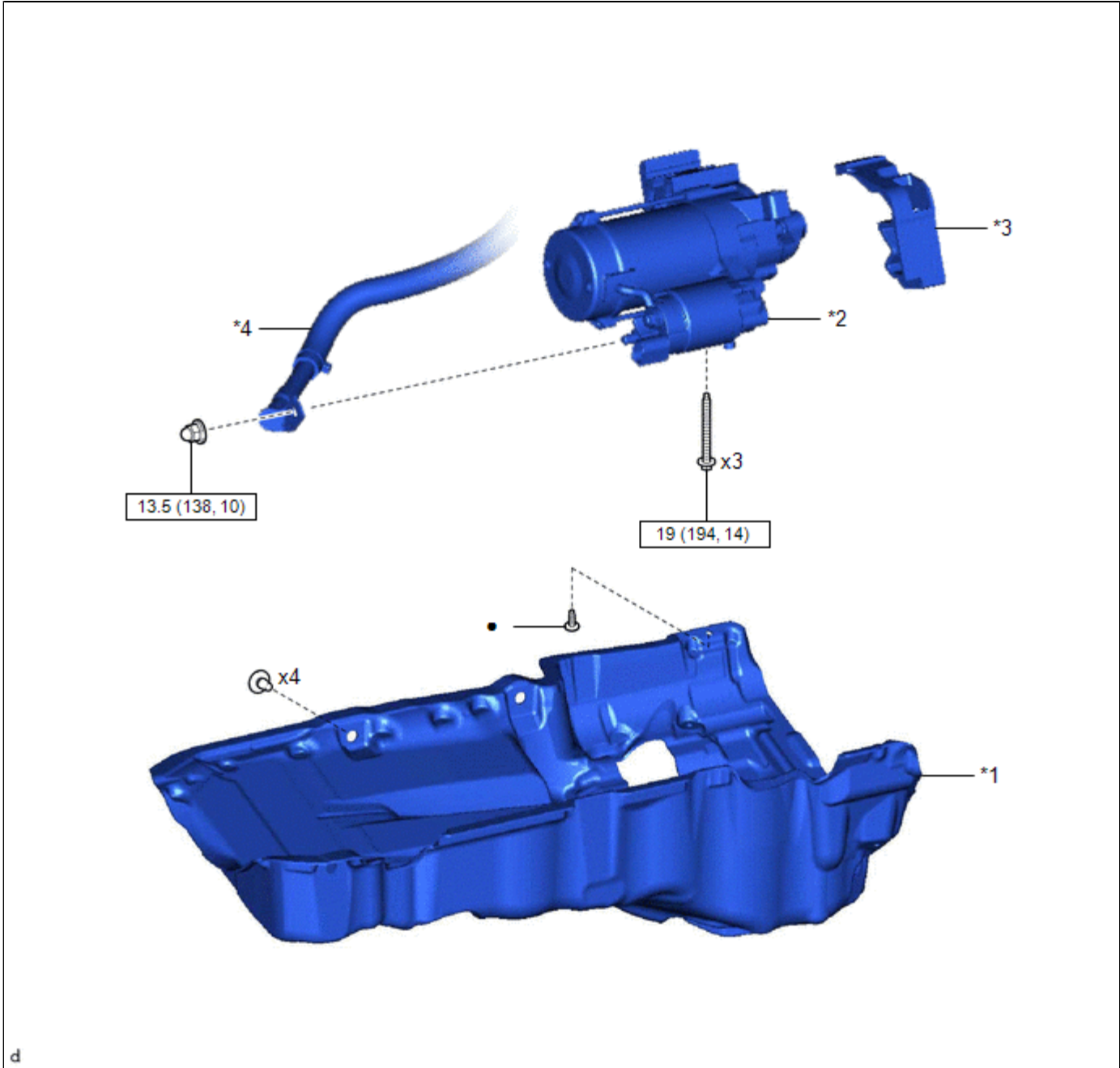
7. INSTALL FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD1Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): STARTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OIL PAN COVER	*2	STARTER ASSEMBLY
*3	STARTER COVER	*4	STARTER WIRING ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD1W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): STARTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

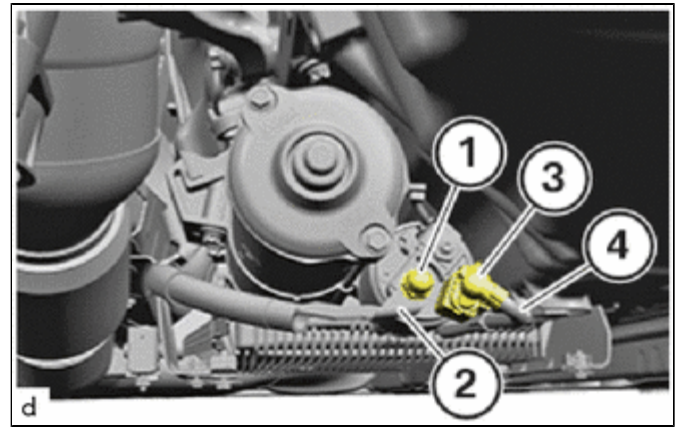
3. REMOVE OIL PAN COVER

NOTICE:

- Electrostatic discharge.
- Damage to or destruction of electrical components.
 - Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
 - Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
 - For additional information see:

Click here [INFO](#)

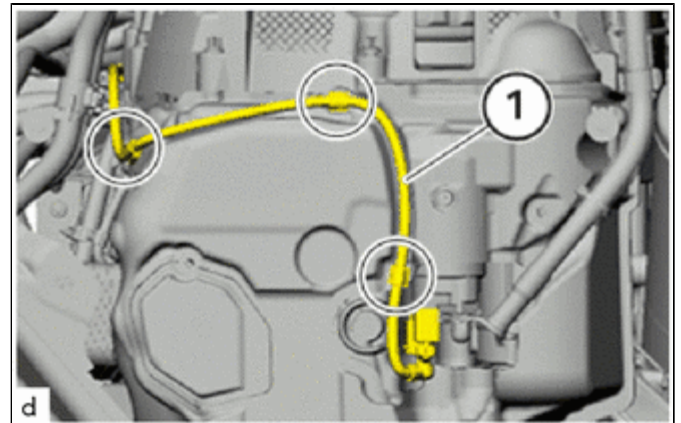
(a) Unfasten nut (1).



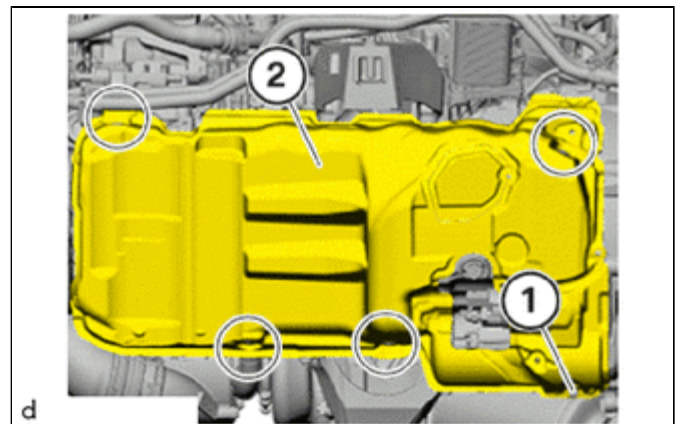
(b) Remove starter wiring assembly (2) from starter assembly.

(c) Unlock connector (3) and disconnect.

(d) Remove the transmission wire (4) for terminal 50 from the starter assembly.



(e) Unclip the transmission wire (1) from the oil pan cover in the marked areas.



(f) Remove the clip (1).

(g) Remove the clips in the marked areas.

NOTICE:

- Bending of plastic parts.

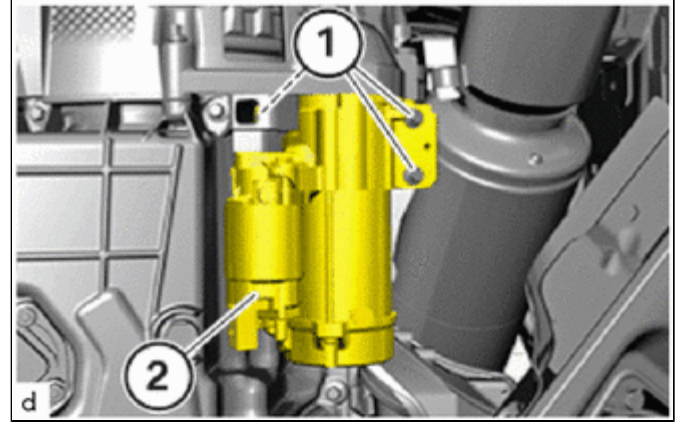
Application of too much force can lead to bending of plastic parts.

- Place special tool directly beside the mounting clip.
- Continue unclipping the part without using the tool if possible.

(h) Slightly lower the oil pan cover (2), slide forward and place it on the front axle support.

4. REMOVE STARTER ASSEMBLY

(a) Loosen E10 bolts (1).



(b) Remove the starter assembly (2).

5. REMOVE STARTER COVER

(a) Remove the starter cover from the starter assembly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD1X
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): STARTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

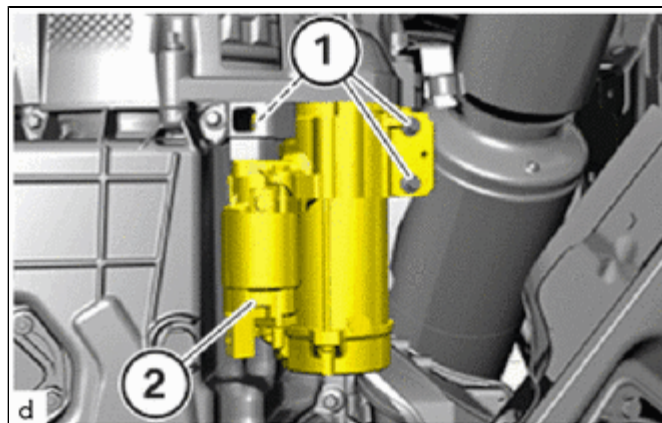
PROCEDURE

1. INSTALL STARTER COVER

(a) Install the starter cover to the starter assembly.

2. INSTALL STARTER ASSEMBLY

(a) Insert and install the starter assembly (2).



(b) Tighten the E10 bolts (1).

Torque:

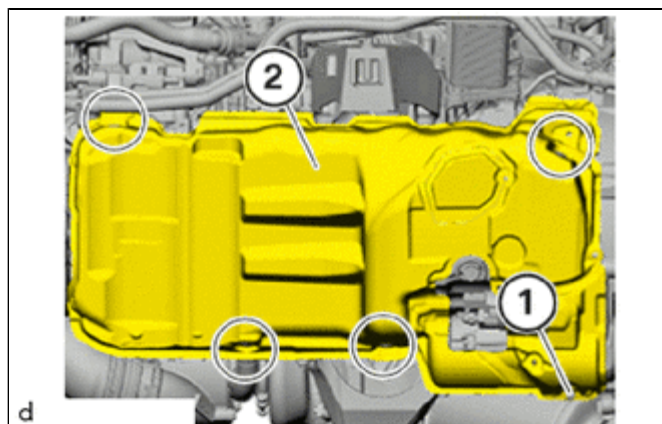
19 N·m {194 kgf·cm, 14 ft·lbf}

3. INSTALL OIL PAN COVER

CAUTION:

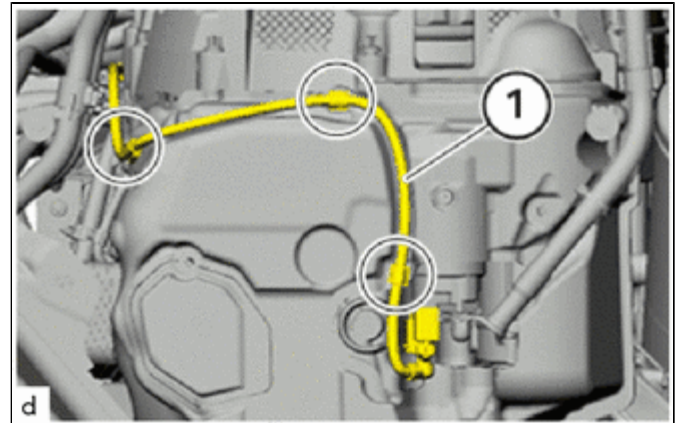
- Improper routing of the positive battery cable.
- Risk of short circuits!
 - Route the positive battery cable without abrasions and do not trap.

(a) Position the oil pan cover (2).

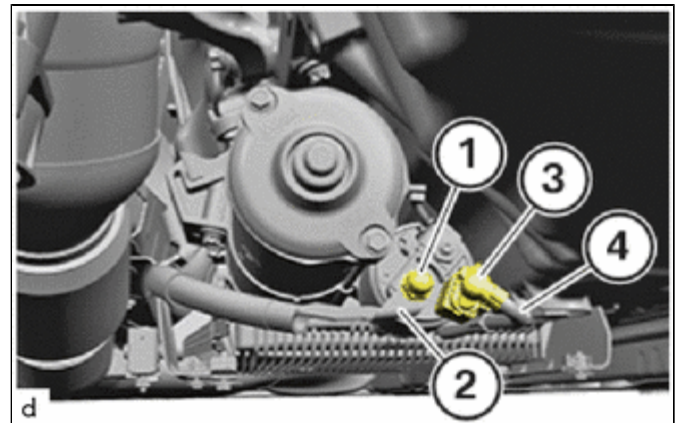


- (b) Replace the clip (1).
- (c) Install the clip (1).
- (d) Install the clips in the marked areas.

- (e) Clip the transmission wire (1) into the marked areas at the oil pan cover.



- (f) Connect the transmission wire (4) for the terminal 50 to the starter assembly.



- (g) Connect the connector (3).

HINT:

The connector must engage audibly.

- (h) Position starter wiring assembly (2) on the starter assembly.
- (i) Tighten nut (1).

Torque:

13.5 N·m {138 kgf·cm, 10 ft·lbf}

4. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD21
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): STARTER WIRING ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

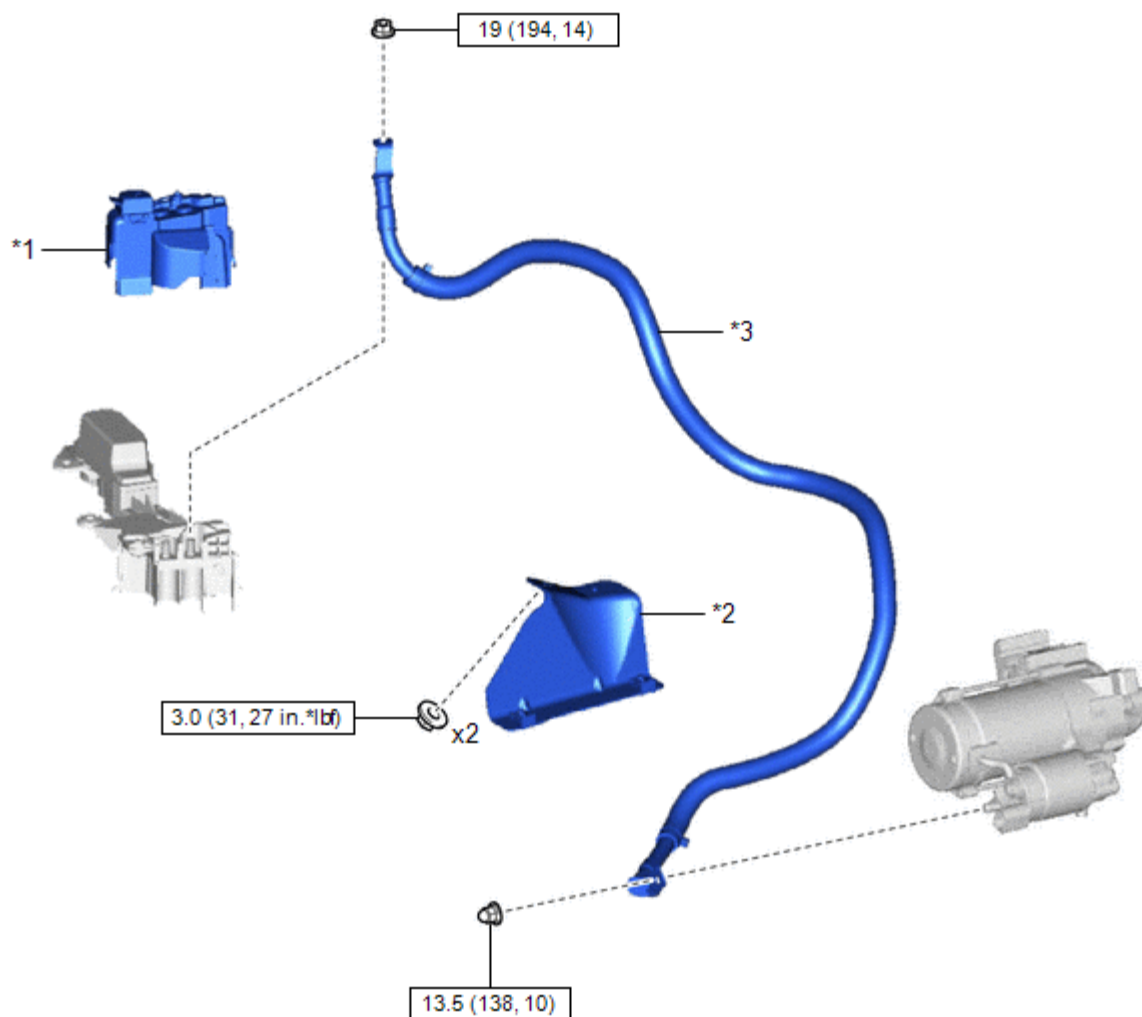
COMPONENTS

ILLUSTRATION




*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	-	-
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ILLUSTRATION



d

*1	TERMINAL COVER	*2	NO. 2 FRONT FLOOR HEAT INSULATOR
*3	STARTER WIRING ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD1Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): STARTER WIRING ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.
 - Risk of short circuits! Risk of fire!
 - Disconnect the cable from the negative (-) battery terminal.
- Hot surfaces.
 - Risk of burning!
 - Perform all work only on components that have cooled down.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

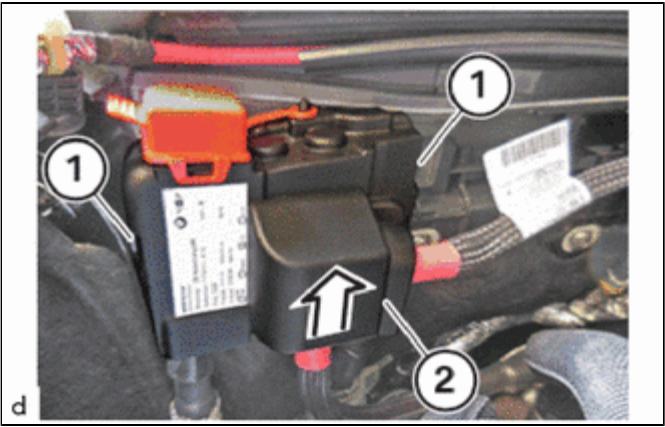
Click here [INFO](#)

3. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

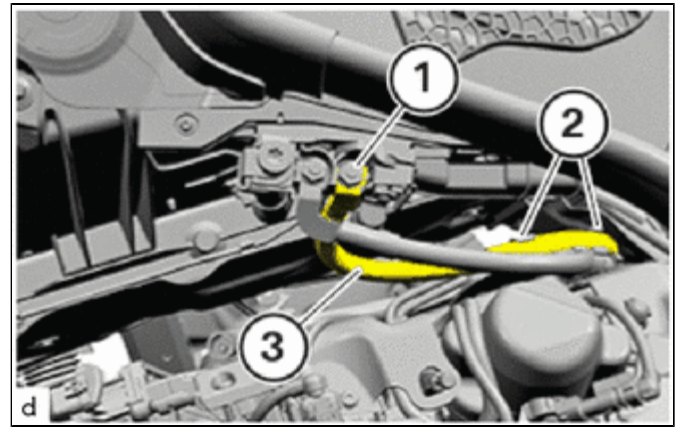
4. REMOVE STARTER WIRING ASSEMBLY

(a) Unlock the locks (1).



(b) Guide and remove terminal cover (2) in the direction of the arrow.

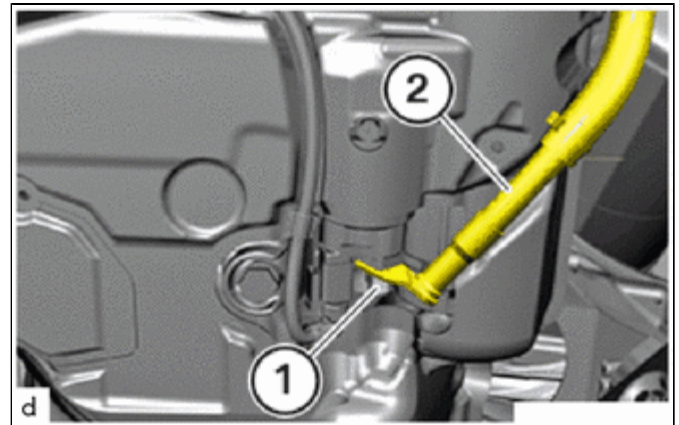
(c) Unfasten nut (1).



(d) Loosen clamps (2).

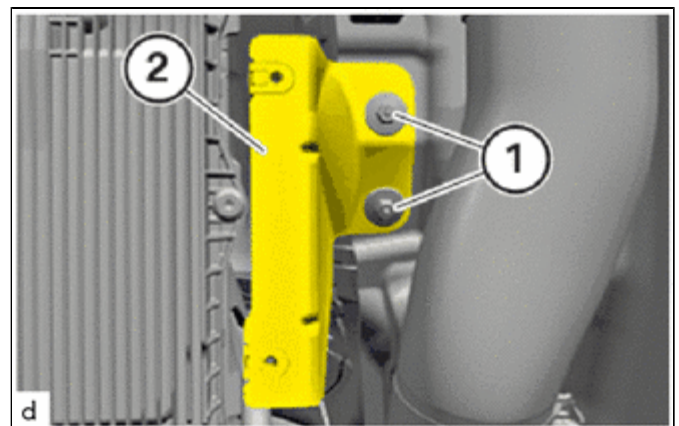
(e) Feed out starter wiring assembly (3) and put to one side.

(f) Unfasten nut (1).



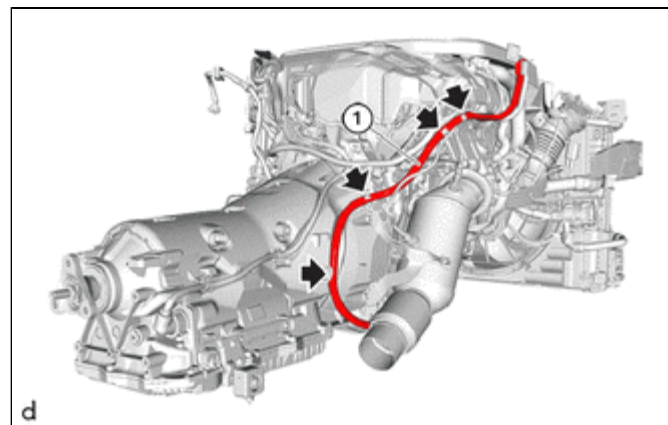
(g) Thread out starter wiring assembly (2) and set it aside.

(h) Loosen nuts (1).



(i) Guide the No. 2 front floor heat Insulator (2) out and remove it.

(j) Release the clamps (arrows).



(k) Remove starter wiring assembly (1).



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD20
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (STARTING): STARTER WIRING ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

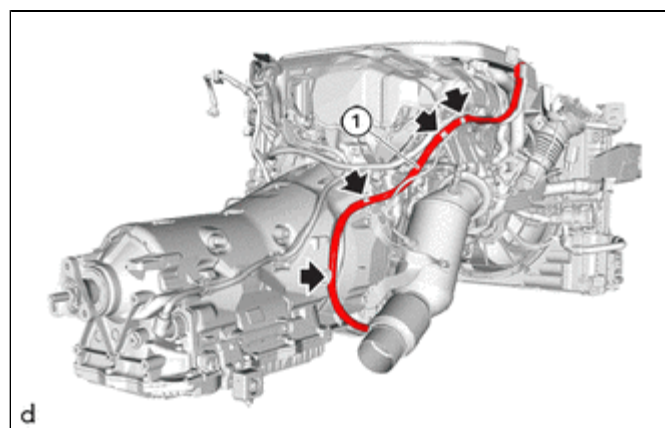
PROCEDURE

1. INSTALL STARTER WIRING ASSEMBLY

CAUTION:

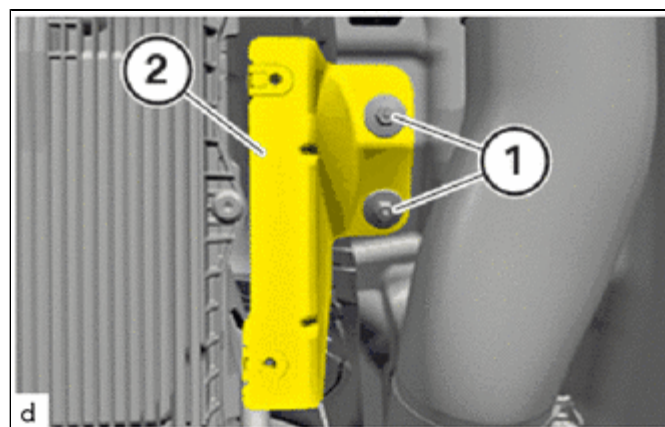
- Improper routing of the positive battery cable.
- Risk of short circuits!
- Route the positive battery cable without abrasions and do not trap.

(a) Insert and install the starter wiring assembly (1).



(b) Secure the clamps (arrows).

(c) Insert and install the No. 2 front floor heat Insulator (2).

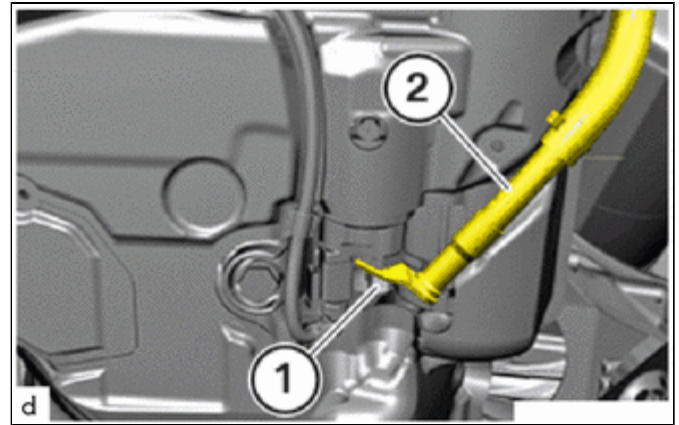


(d) Tighten nuts (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

- (e) Position the starter wiring assembly (2) to the starter assembly.

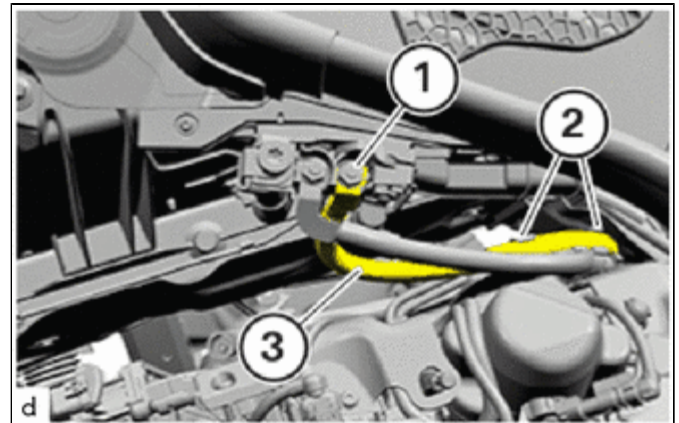


- (f) Tighten nut (1).

Torque:

13.5 N·m {138 kgf·cm, 10 ft·lbf}

- (g) Position the starter wiring assembly (3) to the positive battery terminal.



- (h) Secure clamps (2).

- (i) Tighten nut (1).

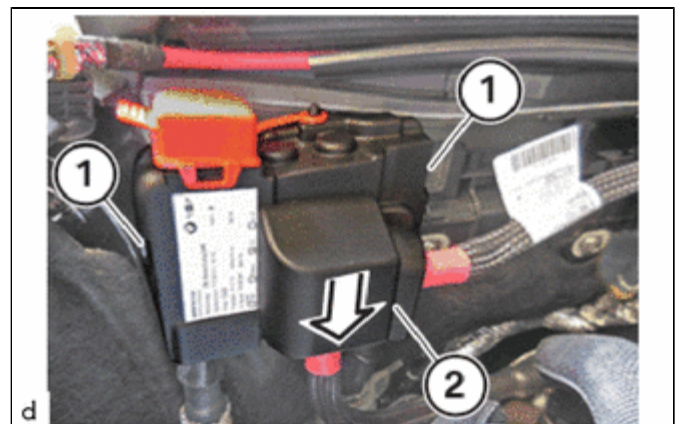
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

- (j) Insert and install the terminal cover (2) in the direction of the arrow.

HINT:

The locks (1) must engage audibly.



2. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

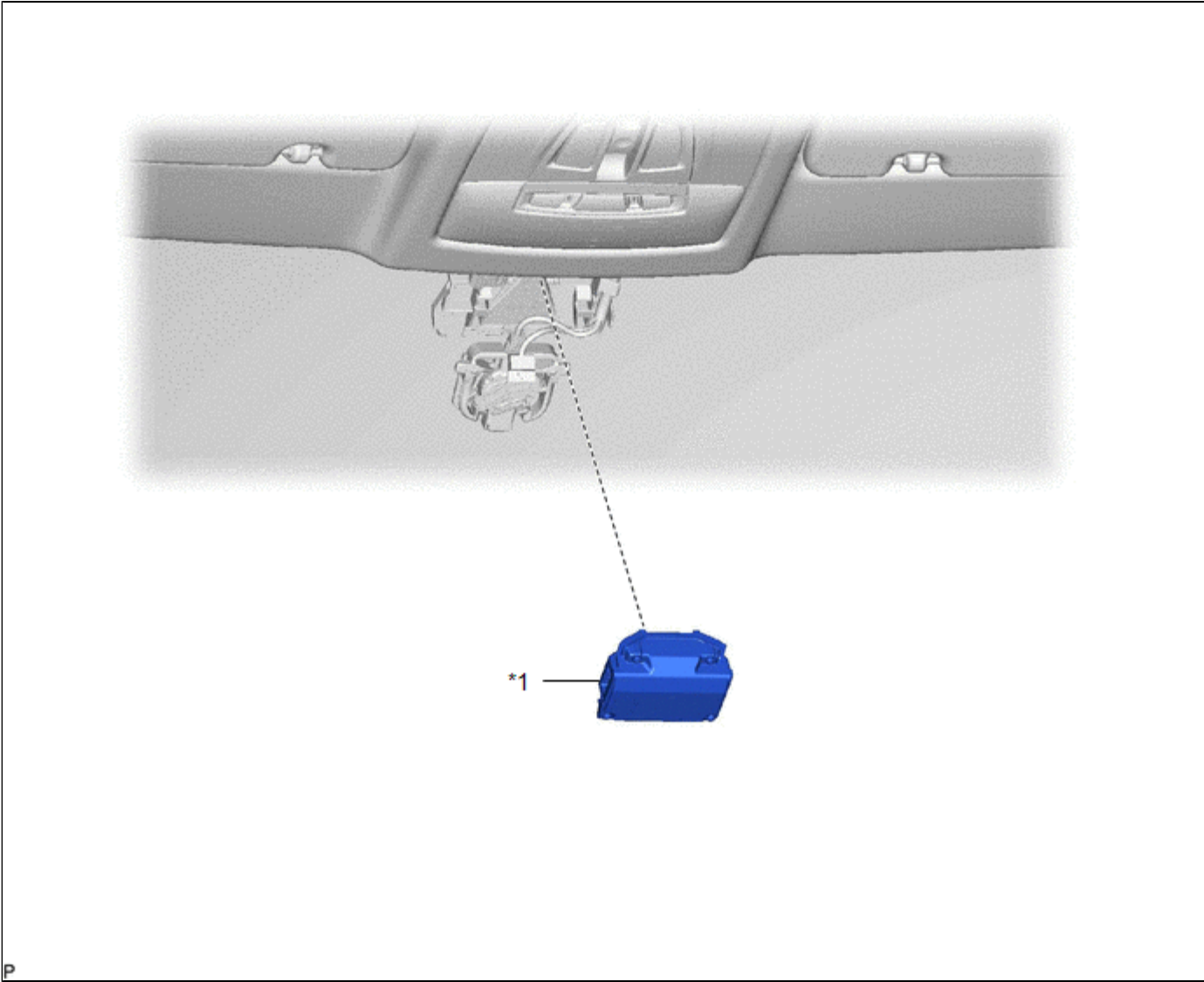
4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: FRONT CAMERA: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FORWARD RECOGNITION CAMERA	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001L1M6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: FRONT CAMERA: INITIALIZATION; 2020 MY Supra [03/2019 -]		

INITIALIZATION

HINT:

- The forward recognition camera performs learning automatically, so calibration is not necessary when the forward recognition camera is removed or replaced.
- The following procedures should be performed only when the windshield glass has been replaced with a new one.

RESET FORWARD RECOGNITION CAMERA

HINT:

Perform this procedure to reset the forward recognition camera and enter learning mode.

(a) Using the diagnosis system, enter the following menus:

Vehicle management / Service functions / Driver assistance / Camera-based driver support systems / Reset calibration / ABL KAFAS: Reset calibration

(b) Follow the instructions on the screen to reset the calibration.

DRIVE VEHICLE TO PERFORM FORWARD RECOGNITION CAMERA LEARNING

CAUTION:

- During calibration, the lane departure warning function cannot be used.
- The automatic high beam, frontal collision warning and speed limit information systems are only partially functional.

HINT:

- A new calibration can only be performed by driving the vehicle.
- By driving the vehicle, the forward recognition camera learning can be completed.

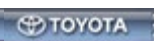
(a) Start the engine and drive the vehicle for a certain period of time to complete the forward recognition camera learning.

(b) When driving the vehicle at a meter speed of 60 km/h or more, confirm that the lane departure warning indicator in the combination meter assembly illuminates in green.



(c) When driving the vehicle at a meter speed of 60 km/h or more and a lane departure occurs, confirm that steering force is applied in the opposite direction of the lane departure, and that indicator display and steering wheel vibration operate.

(d) Stop the engine.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: FRONT CAMERA: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.
 - Damage to or destruction of electrical components.
 - Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - For additional information see:

Click here [INFO](#)

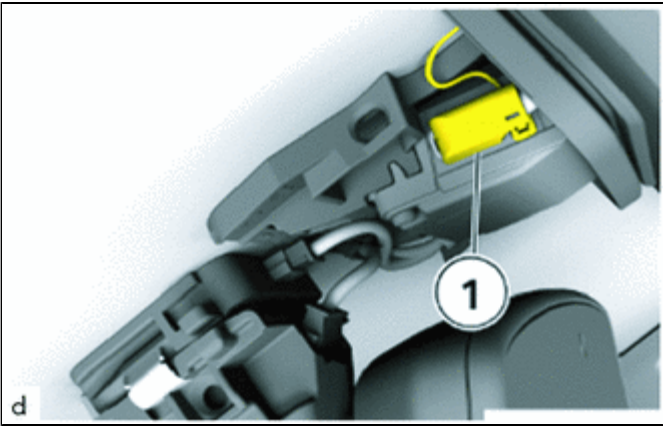
PROCEDURE

1. REMOVE INNER REAR VIEW MIRROR ASSEMBLY

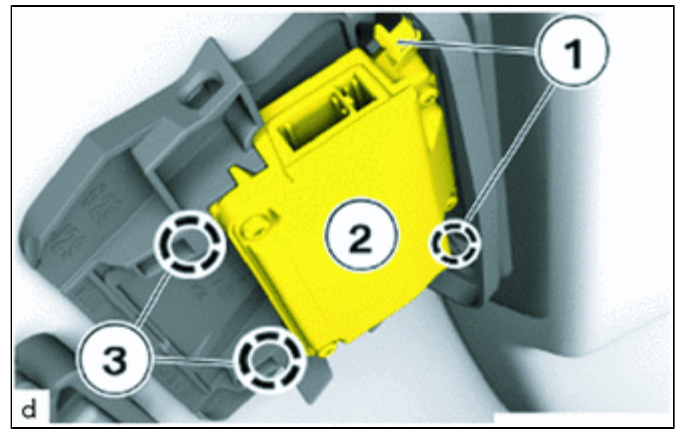
Click here [INFO](#)

2. REMOVE FORWARD RECOGNITION CAMERA

(a) Unlock plug connection (1) and disconnect.



(b) Unlock latch mechanisms (1) and remove the forward recognition camera (2) from the guides (3).



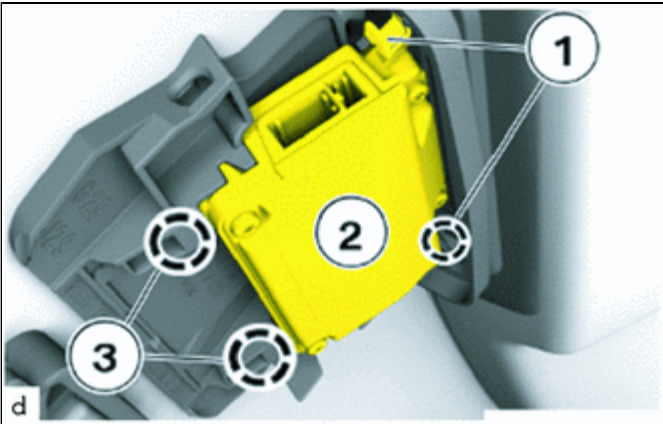
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: FRONT CAMERA: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FORWARD RECOGNITION CAMERA

- (a) Slide forward recognition camera (2) into the guides (3) and engage at the latch mechanisms (1).



- (b) Connect connector and lock.

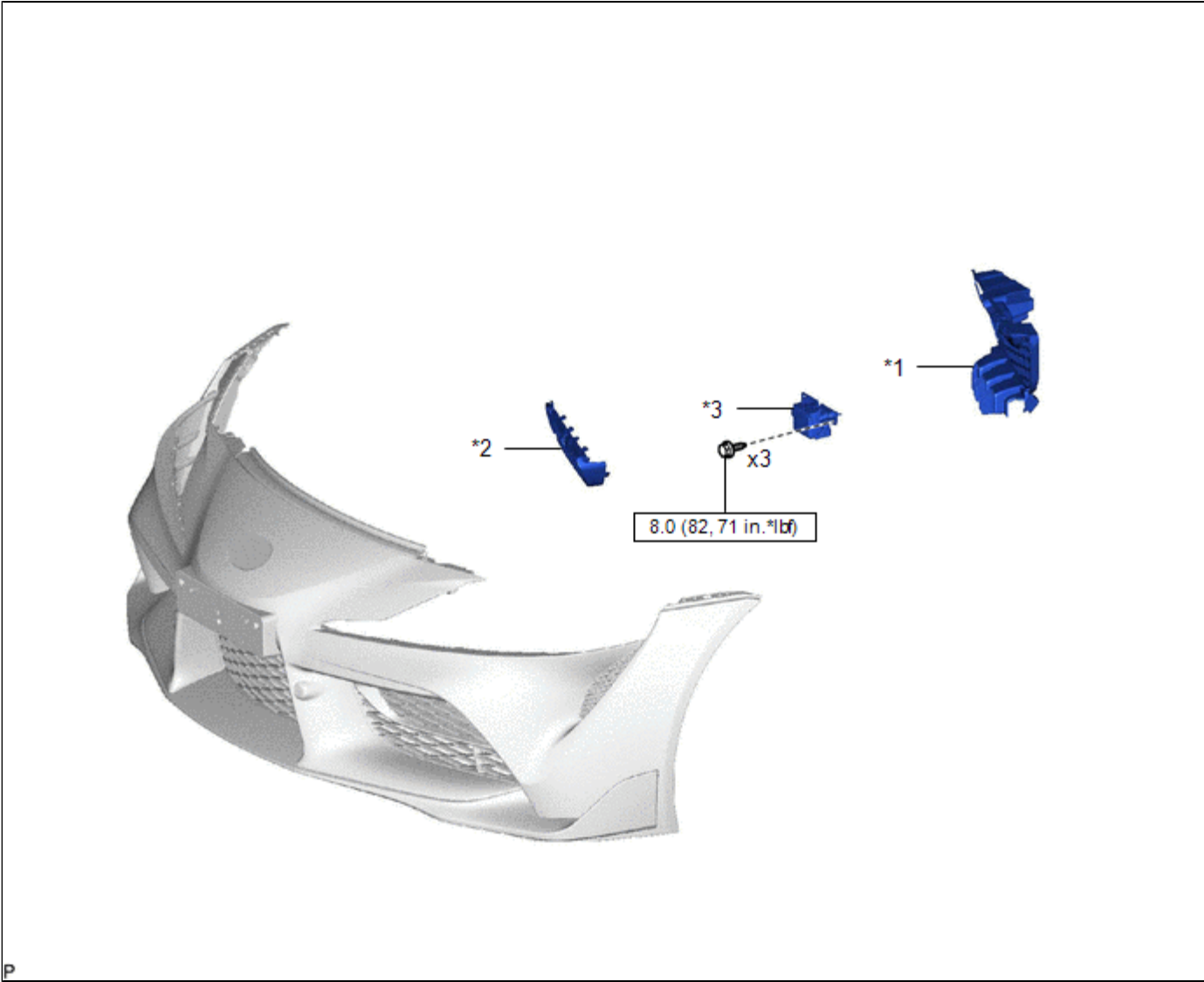
2. INSTALL INNER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: MILLIMETER WAVE RADAR SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LOWER RADIATOR GRILLE RH	*2	LOWER SIDE RADIATOR GRILLE RH
*3	MILLIMETER WAVE RADAR SENSOR ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDID
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: MILLIMETER WAVE RADAR SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

2. REMOVE LOWER RADIATOR GRILLE RH

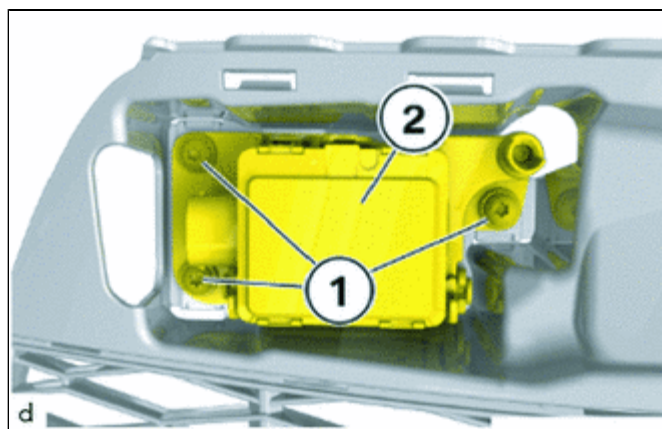
Click here [INFO](#)

3. REMOVE LOWER SIDE RADIATOR GRILLE RH

Click here [INFO](#)

4. REMOVE MILLIMETER WAVE RADAR SENSOR ASSEMBLY

(a) Unscrew T25 screws (1) and remove the millimeter wave radar sensor assembly (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDIF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: MILLIMETER WAVE RADAR SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

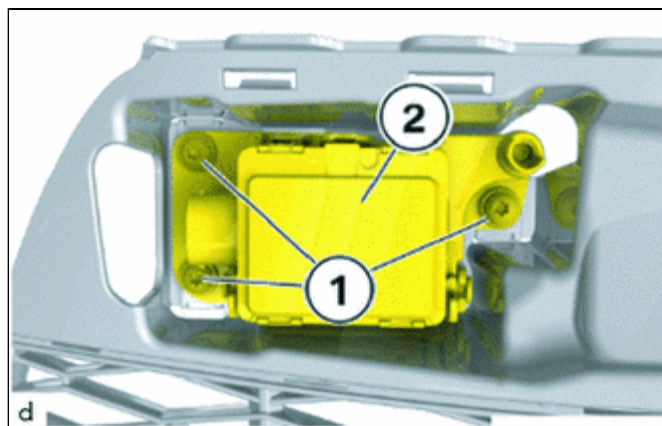
PROCEDURE

1. INSTALL MILLIMETER WAVE RADAR SENSOR ASSEMBLY

- (a) Install the millimeter wave radar sensor assembly (2) with the T25 screws (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



2. INSTALL LOWER SIDE RADIATOR GRILLE RH

Click here [INFO](#)

3. INSTALL LOWER RADIATOR GRILLE RH

Click here [INFO](#)

4. INSTALL FRONT BUMPER ASSEMBLY

Click here [INFO](#)

5. ADJUST MILLIMETER WAVE RADAR SENSOR ASSEMBLY

- Before starting adjustment:

Click here [INFO](#)

- Adjustment:

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001L1M7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: MILLIMETER WAVE RADAR SENSOR: BEFORE STARTING ADJUSTMENT; 2020 MY Supra [03/2019 -]		

BEFORE STARTING ADJUSTMENT

PROCEDURE

1. PRECAUTIONS

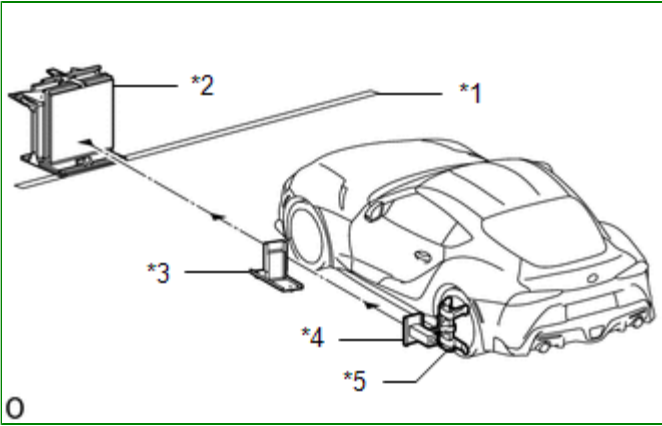
NOTICE:

- Careful attention is necessary when adjusting the millimeter wave radar sensor assembly.
- If the adjustment value of the millimeter wave radar sensor assembly deviates as little as 0.2° relative to the dynamic driving axis, the entire system may be impaired.

2. OVERVIEW OF ADJUSTMENT

HINT:

- In order to adjust the millimeter wave sensor assembly, the mirror surface of the setting device must be positioned so that it is aligned horizontally and vertically with the center line of the vehicle.



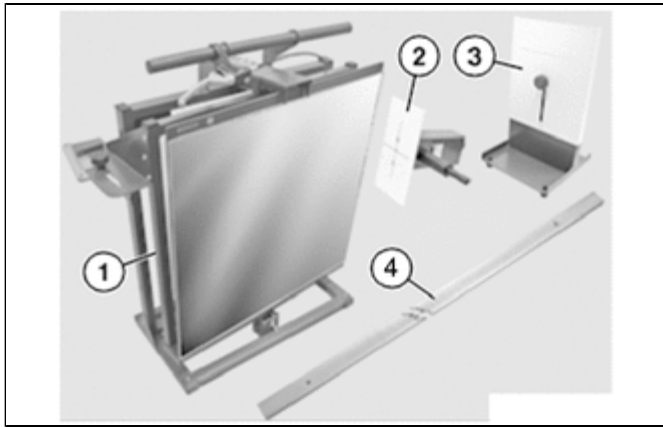
*1	Rail
*2	Setting Device
*3	Slotted Cover
*4	Wheel Laser
*5	Self-Centering Wheel Adapter

- If the setting device cannot be accurately positioned horizontally or vertically relative to the vehicle, the work area itself may not be level. Use the setting device to confirm these deviations.
- The setting device adjustment must be performed for both sides of the vehicle.
- Based on the measured values for both sides of the vehicle, the diagnosis system calculates the correct adjustment values for the setting device.
- By configuring the setting device using the values calculated by diagnosis system, adjustment of the millimeter wave radar sensor assembly can be performed.

3. DESCRIPTION OF SST FUNCTION

(a) Components of SST:

SST: 09800-WA150



*1	Setting Device
*2	Wheel Laser
*3	Slotted Cover
*4	Rail

(1) Setting Device:

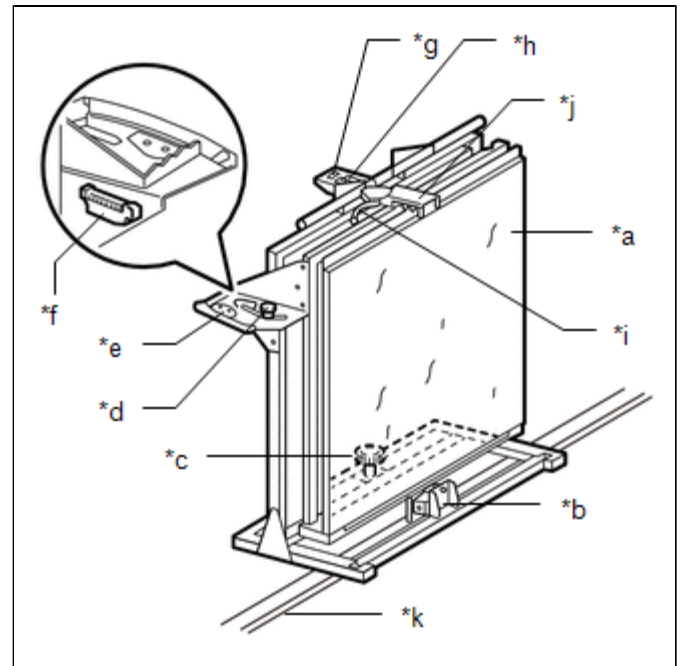
HINT:

Installing the rail enables the setting device to be set up at a right angle to the vehicle.

- Purpose:
 1. Confirming the horizontal and vertical alignment of the vehicle.
 2. Adjusting the millimeter wave radar sensor assembly.
- How to install to rail:
 1. Pull the clamp release locking lever to open the clamp.
 2. With the clamp open, place the setting device on the rail.
 3. Release the locking lever to secure the setting device to the rail.
- Usage Method:
 1. Setting device main unit angle adjustment:
 - i. Use the knurled screw for vertical alignment of the setting device to adjust the setting device main unit so that it is level with the floor.

HINT:

- Use the spirit level to confirm the angle of the main unit.
- Adjust the unit so that the bubble is



in the center of
the spirit level.

2. Mirror angle adjustment:

- i. Use the knurled screw for vertical mirror adjustment to adjust the vertical angle of the mirror.

HINT:

Check the vertical
position value of
the mirror using
the mirror vertical
alignment scale.

- ii. Loosen the setscrew for horizontal mirror adjustment to adjust the horizontal angle of the mirror.

HINT:

Check the
horizontal position
value of the mirror
using the mirror
horizontal
alignment scale.

*a	Mirror
*b	Clamp
*c	Knurled Screw for Vertical Adjustment of Setting Device
*d	Setscrew for Horizontal Mirror Alignment
*e	Mirror Horizontal Alignment Scale
*f	Spirit Level
*g	Knurled Screw for Vertical Mirror Adjustment
*h	Mirror Vertical Alignment Scale
*i	Clamp Release Locking Lever
*j	Tilting Mechanism
*k	Rail

3. Changing the mirror angle:

- i. Using the tilting mechanism, the mirror angle can be changed through 3 positions.

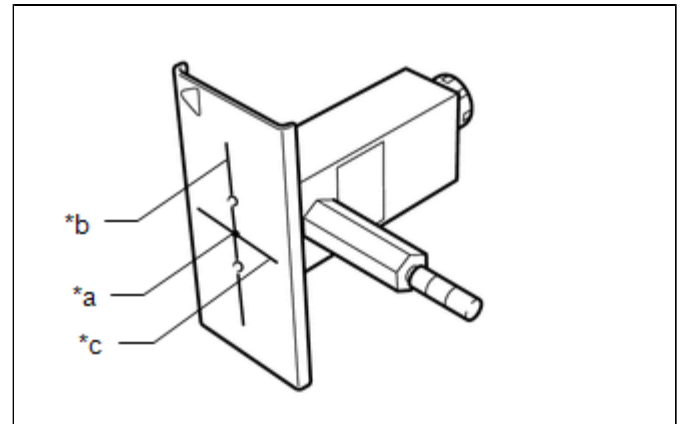
- Purpose:
 - a. Placed perpendicular to the vehicle, and secures the setting device in place.
- Installation Method:
 - a. Secure the rail to the floor using duct tape.

HINT:

Secure the rail with duct tape on both sides of the center hole and at both ends of the rail.

(3) Wheel Laser:

- Purpose:
 1. The laser beam is projected parallel to the vehicle, and is used in combination with the slotted cover to adjust the mirror angle of the setting device.
- Installation Method:
 1. The wheel laser is installed to the rear wheel of the vehicle together with the self-centering wheel adapter.
- Usage Method:
 1. Turning on the switch on the back of the unit will project the laser beam.



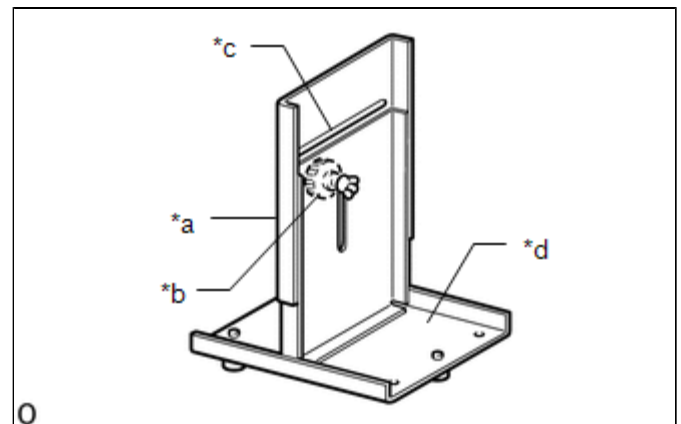
*a	Laser Beam Emitter Opening
*b	Vertical Line
*c	Horizontal Line

CAUTION:

Do not look directly into the laser beam.

(4) Slotted Cover:

- Purpose:
 1. Adjusting the laser beam of the wheel laser so that it is parallel to the floor.
- Usage Method:
 1. Placed in front of the wheel laser, the height-adjustable cover and setscrew for cover are adjusted to a height at which the laser beam passes through the slot.
 2. After adjusting the slot height, the slotted cover is moved to a position in front of the front wheel and the laser is passed through the slot again to achieve a laser beam that is parallel to the floor.

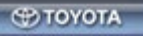


*a	Height-adjustable Cover
*b	Setscrew for Cover
*c	Slot

NOTICE:

When moving the slotted cover, hold it by the baseplate portion to prevent the adjusted height from becoming misaligned.

*d	Baseplate
----	-----------



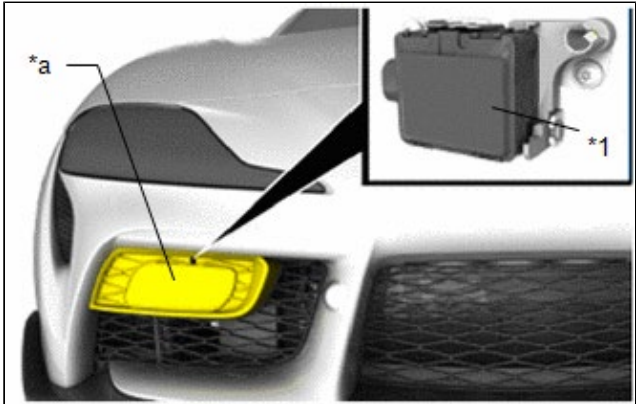
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001L1M8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CRUISE CONTROL: MILLIMETER WAVE RADAR SENSOR: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT **PROCEDURE**

1. BEFORE ADJUSTING MILLIMETER WAVE RADAR SENSOR ASSEMBLY

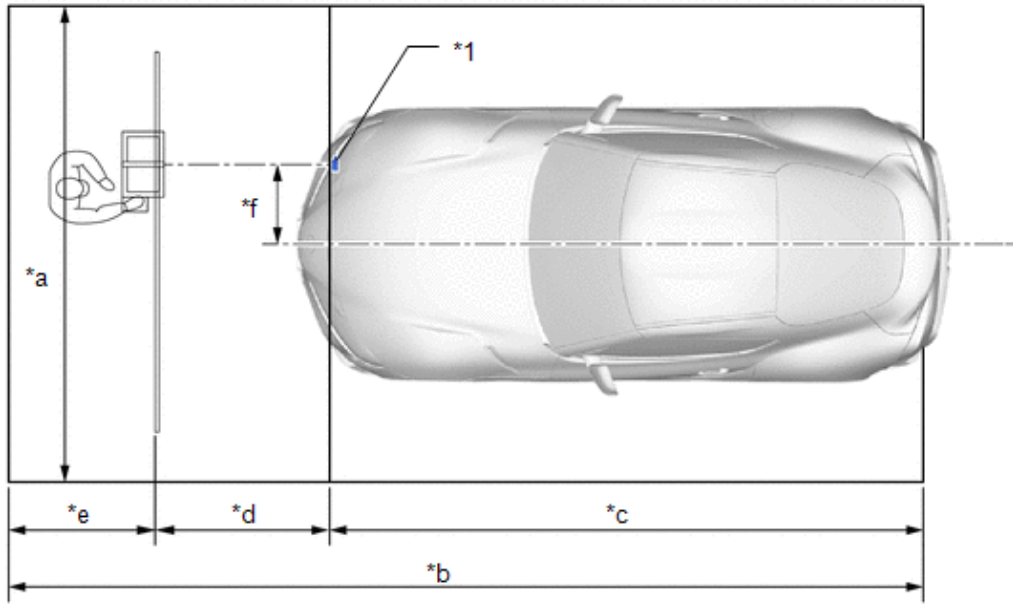
- (a) Preparation:
 - (1) Check tire pressure and adjust as necessary.

- (2) Clean away any dirt or foreign matter adhering to the cover of the millimeter wave radar sensor assembly.



*1	Millimeter Wave Radar Sensor Assembly
*a	Cover Portion

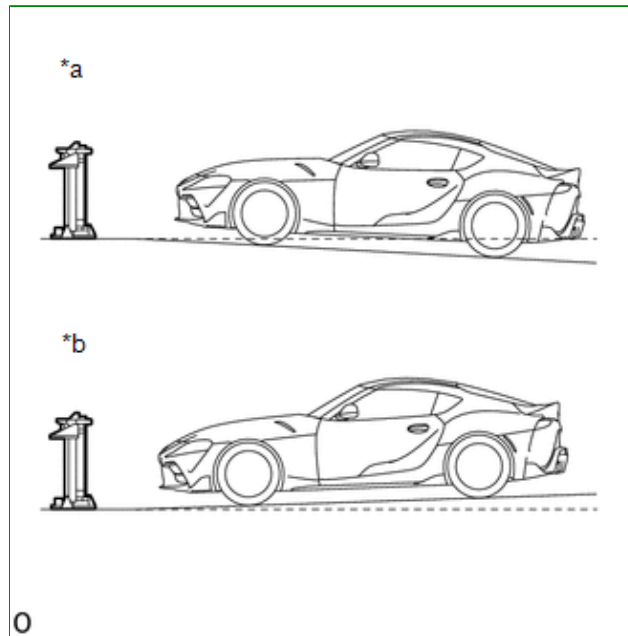
- (3) Check that there is no damage or deformation around the front exterior area of the vehicle.
 - (4) Make sure the cover of the millimeter wave radar sensor assembly is clean and has no dirt, snow, or other matter adhering to its surface.
 - (5) Check that the front bumper assembly and millimeter wave radar sensor assembly installation areas have no damage or deformation.
- (b) Secure a work area with a level surface as shown in the illustration.



0

*1	Millimeter Wave Radar Sensor Assembly	-	-
*a	400 cm (13.12 ft.)	*b	675 cm (22.14 ft.)
*c	500 cm (16.4 ft.)	*d	95 cm (3.12 ft.)
*e	80 cm (2.62 ft.)	*f	54 cm (1.77 ft.)

HINT:



- Maximum allowable tilt of work area:

*a	Tilt angle of inclined vehicle work area
*b	Tilt angle of declined vehicle work area

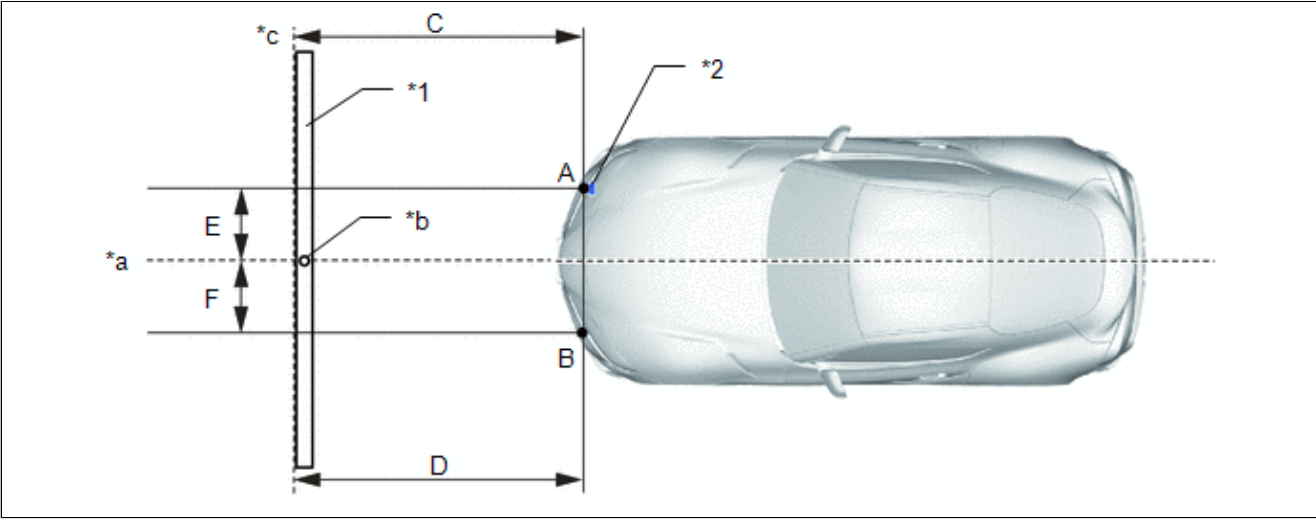
Standard:

CONDITION	ANGLE
Maximum allowable tilt on an incline	3°
Maximum allowable tilt on a decline	1°

(c) Install the rail:

SST: 09800-WA150

(1) Set the rail on the floor so that its center hole is aligned with the vehicle centerline.



*1	Rail	*2	Millimeter Wave Radar Sensor Assembly
*a	Vehicle Centerline	*b	Rail Center Hole
*c	Rail Front Edge	-	-

NOTICE:

The distance (C) from the rail front edge to the millimeter wave radar sensor assembly (A) must be within the range of 95 +/- 10 cm (3.12 +/- 0.33 ft.).

HINT:

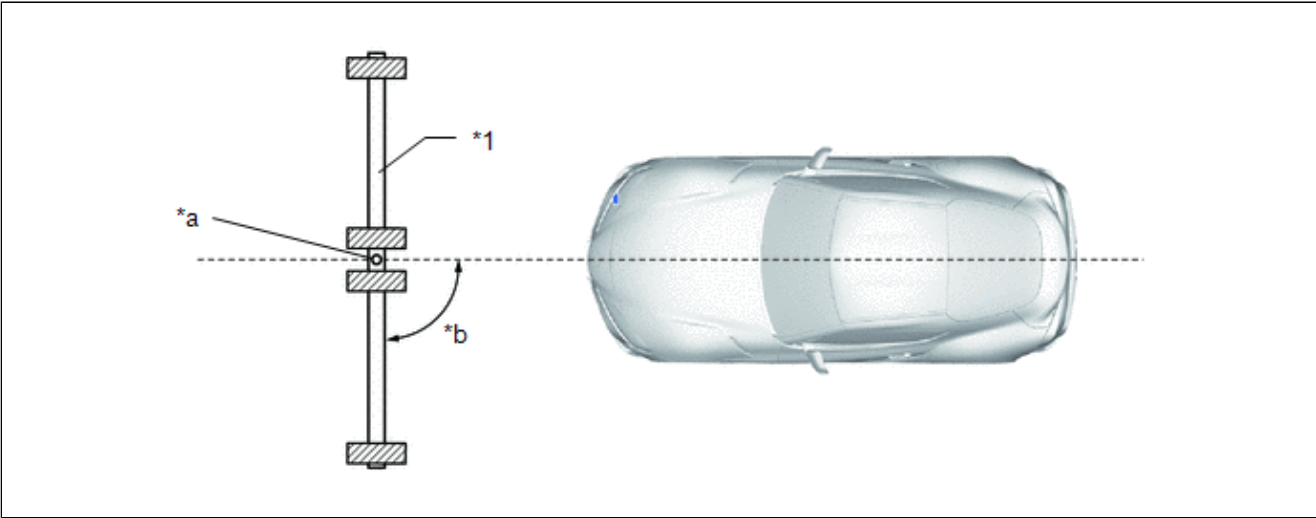
The distance (E) from the vehicle centerline to the millimeter wave radar sensor assembly (A) is 54 cm (1.77 ft.).

(2) On the opposite side of the vehicle from point (A), adjust the rail so that the distance (D) from point (B) to the rail front edge is the same as distance (C).


NOTICE:

- Distance (C) and distance (D) must be the same length.
- Distance (E) and distance (F) must be the same length.

(3) Secure the rail with duct tape on both sides of the center hole and at both ends of the rail.



*1	Rail	-	-
----	------	---	---

*a	Rail Center Hole	*b	90°
	Duct Tape	-	-

NOTICE:

- The rail must be at a right angle to the vehicle.
- If the angle of the rail deviates by 5° or more relative to the vehicle, it will not be possible to adjust the sensors.

HINT:

When securing the rail, clean the surface to which the duct tape will be applied.

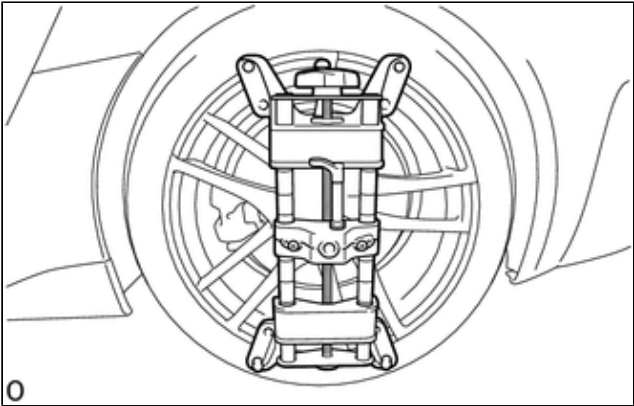
2. ADJUST SETTING DEVICE (LEFT SIDE)

(a) Install self-centering wheel adapter:

(1) Install the self-centering wheel adapter to the rear left wheel.

HINT:

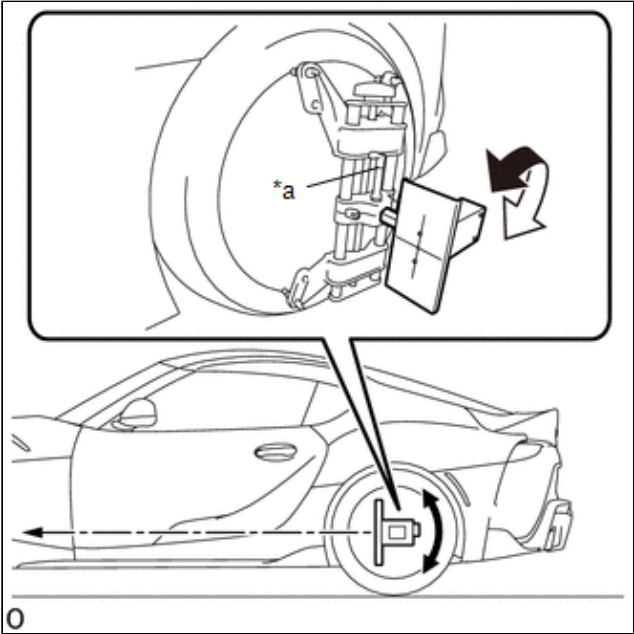
Check that the center of the self-centering wheel adapter is in the center of the wheel.



(b) Install the wheel laser:

SST: 09800-WA150

(1) Insert the wheel laser into the self-centering wheel adapter.



*a	Setscrew
----	----------

(2) Adjust the wheel laser so that it is parallel to the floor as much as possible, then tighten the setscrew.

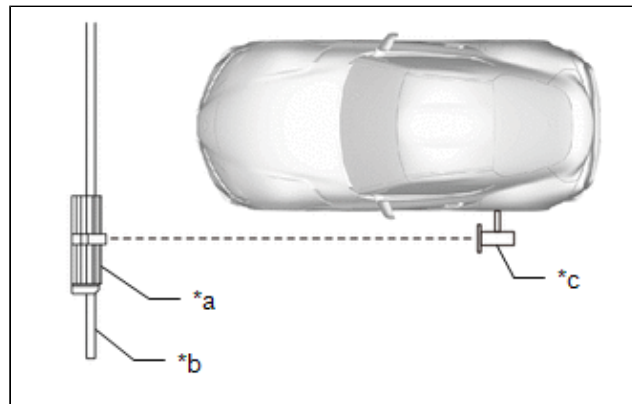
(c) Install the setting device:

SST: 09800-WA150

(1) Install the setting device onto the rail directly in front of the wheel laser.

HINT:

Make sure that the setting device is properly secured to the rail.

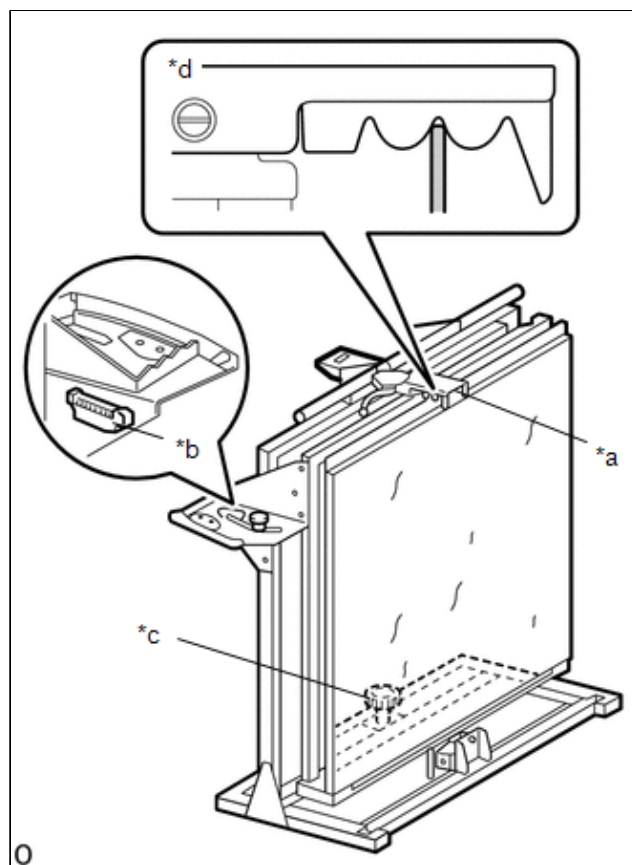


*a	Setting Device
*b	Rail
*c	Wheel Laser

(2) Align the mirror with the center position of the tilting mechanism.

HINT:

The tilt angle can be changed through 3 positions.



*a	Tilting Mechanism
*b	Spirit Level
*c	Knurled Screw for Vertical Adjustment of

	Setting Device
*d	Center Position

(3) Adjust the knurled screw for vertical adjustment of the setting device so that the bubble of the spirit level attached to the setting device is in the center area.

HINT:

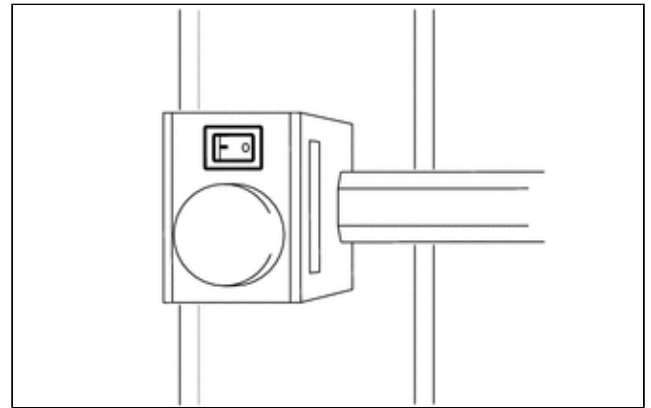
The bubble must be in the center area of the spirit level.

(d) Laser beam vertical position adjustment:

(1) Turn the wheel laser switch on.

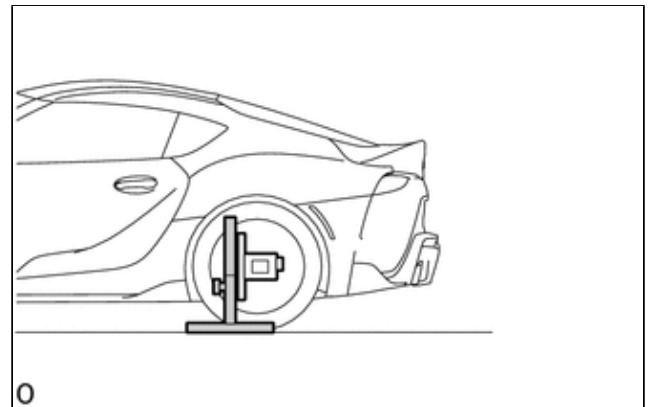
CAUTION:

Do not look directly into the laser beam.

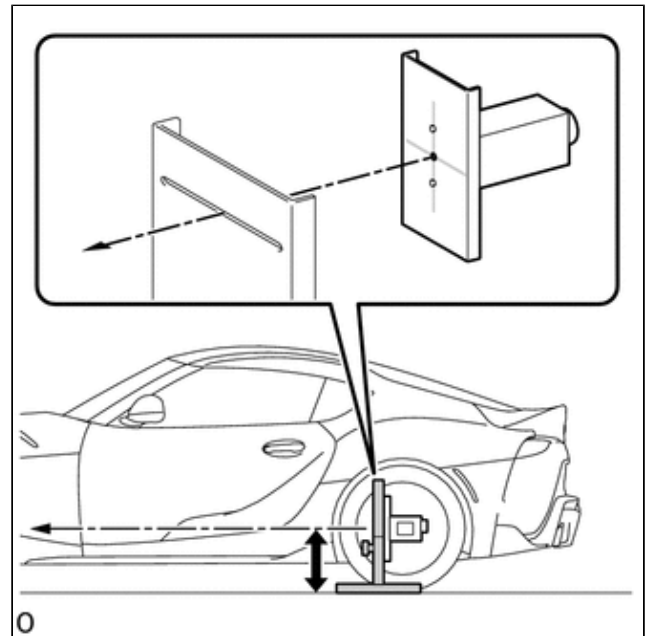


(2) Place the slotted cover on the floor directly in front of the wheel laser.

SST: 09800-WA150



(3) Loosen the setscrew of the slotted cover, adjust the cover height until the laser beam passes through the center of the slot, then tighten the setscrew again.



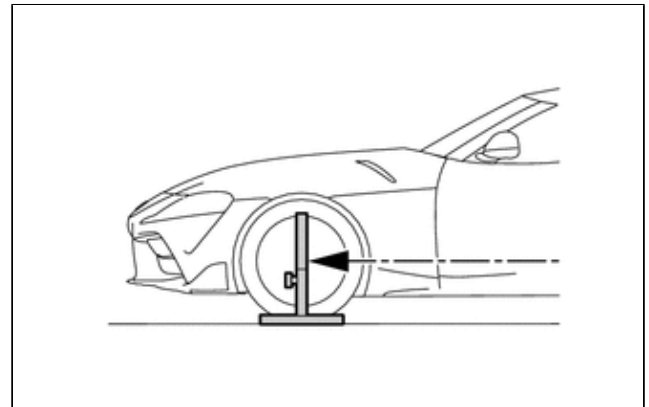
- (4) Place the slotted cover on the floor at the center of the front left wheel.

NOTICE:

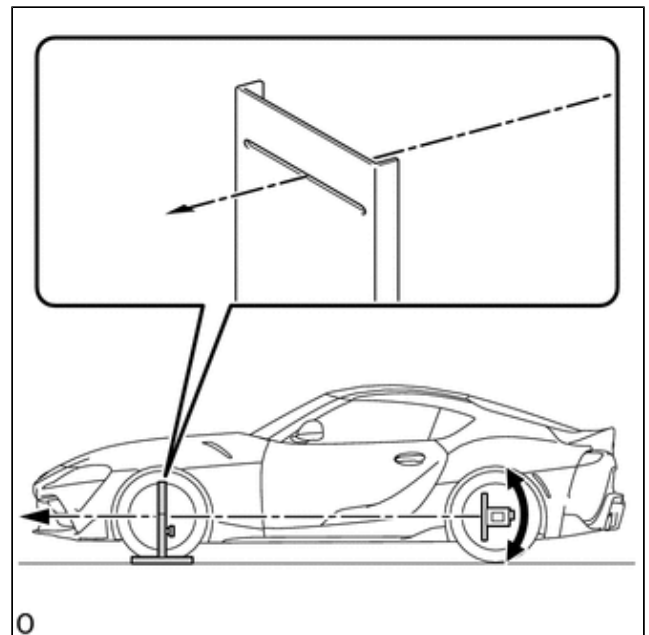
When moving the slotted cover, hold it by the baseplate portion to prevent the adjusted height from becoming misaligned.

HINT:

Place it within the area where the laser beam is projecting.

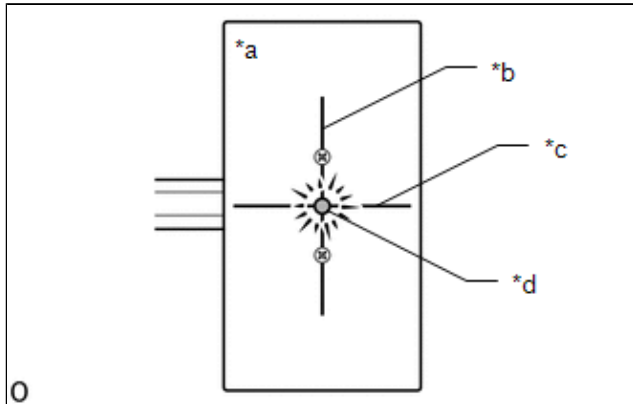


- (5) Loosen the setscrew of the wheel laser, adjust the aim of the laser so that the laser beam passes through the center of the slot in the slotted cover, then tighten the setscrew again.



(e) Adjust setting device:

- (1) Use the following procedure to adjust the angle of the mirror so that the wheel laser beam reflected by the mirror is reflected back close to the laser beam emitter opening.



*a	Projection Surface
*b	Vertical Line
*c	Horizontal Line
*d	Laser Beam Emitter Opening

Standard:

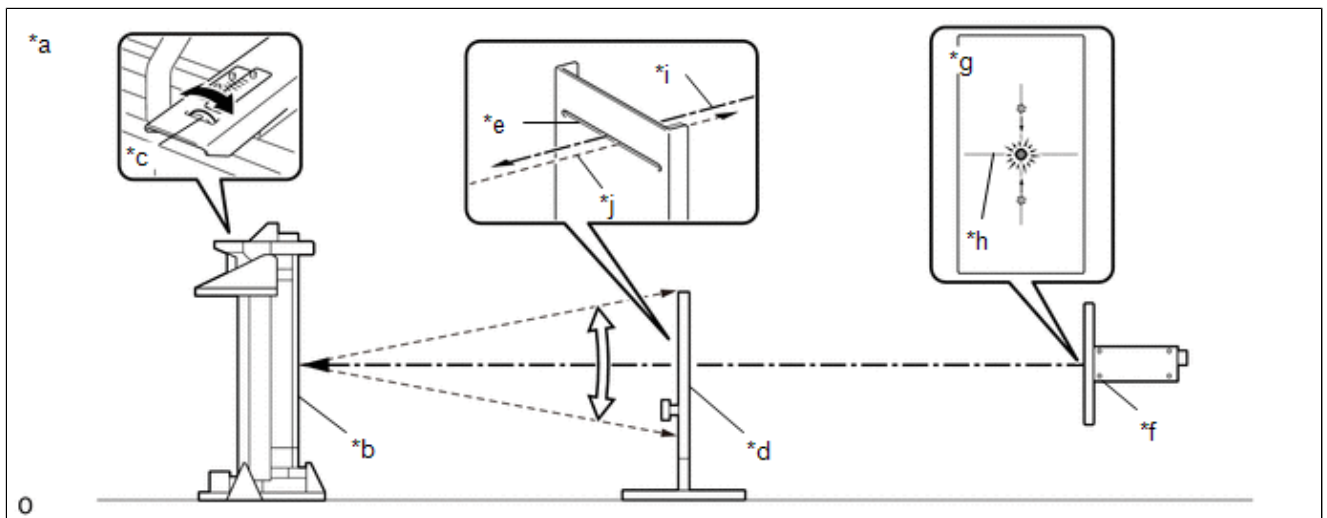
-1.0 to 1.0 mm (-0.0393 to 0.0393 in.)

HINT:

If the laser beam of the wheel laser is dim, replace the batteries.

1. Vertical Adjustment:

Using the knurled screw for vertical mirror adjustment, move the mirror vertically so that the reflected laser beam is projected onto the horizontal line of the wheel laser projection surface.



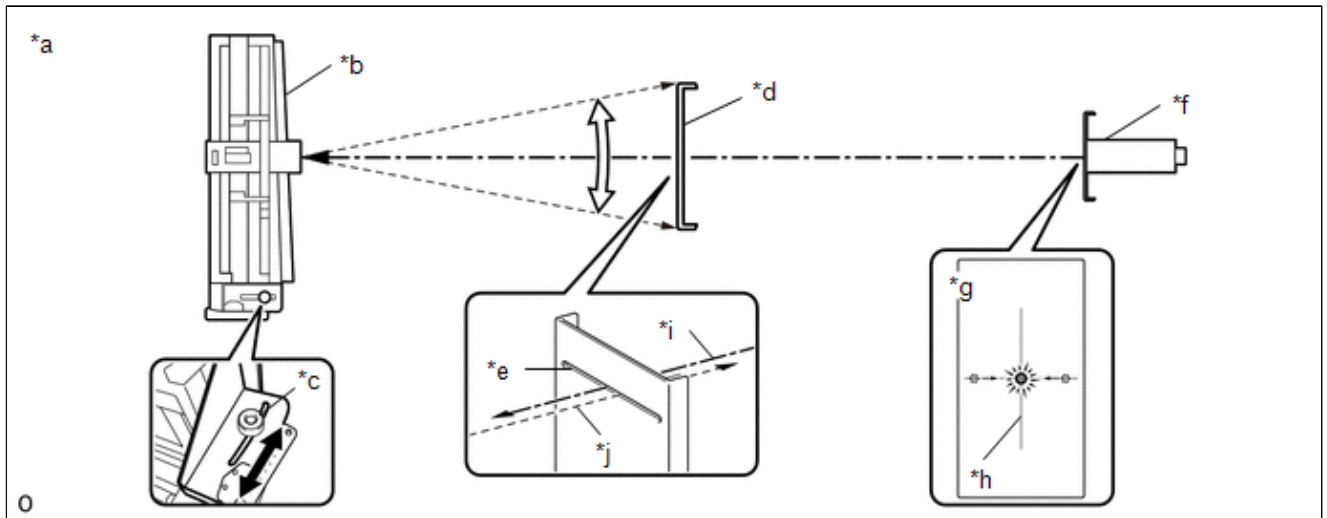
*a	Side View	*b	Mirror
*c	Knurled Screw for Vertical Mirror Adjustment	*d	Slotted Cover
*e	Slot	*f	Wheel Laser
*g	Projection Surface	*h	Horizontal Line
*i	Emitted Laser Beam	*j	Reflected Laser Beam

HINT:

Adjust the mirror so that the reflected laser beam passes through the slot of the slotted cover again.

2. Horizontal Adjustment:

Loosen the setscrew for horizontal mirror adjustment, move the mirror horizontally so that the reflected laser beam is projected onto the vertical line of the wheel laser projection surface, then tighten the setscrew again.



*a	Top View	*b	Mirror
*c	Setscrew for Horizontal Mirror Adjustment	*d	Slotted Cover
*e	Slot	*f	Wheel Laser
*g	Projection Surface	*h	Vertical Line
*i	Emitted Laser Beam	*j	Reflected Laser Beam

HINT:

Adjust the mirror so that the reflected laser beam passes through the slot of the slotted cover again.

(f) Acquire mirror horizontal / vertical values:

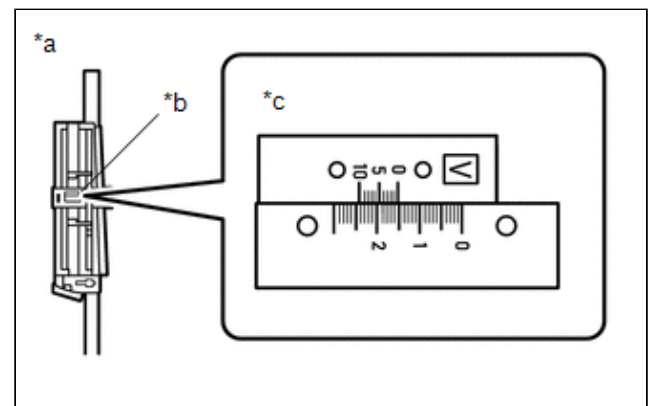
(1) Using the mirror vertical alignment scale, read the vertical position value (V) and write it down.

NOTICE:

When performing the millimeter wave radar sensor assembly adjustment using the diagnosis system the vertical position value must be input, so make sure to write it down.

HINT:

By entering the numerical value that was written down into the diagnosis system, the diagnosis system calculates the necessary vertical values for adjustment of the millimeter wave radar sensor assembly.



*a	Example
*b	Mirror Vertical Alignment Scale
*c	V = 15.2

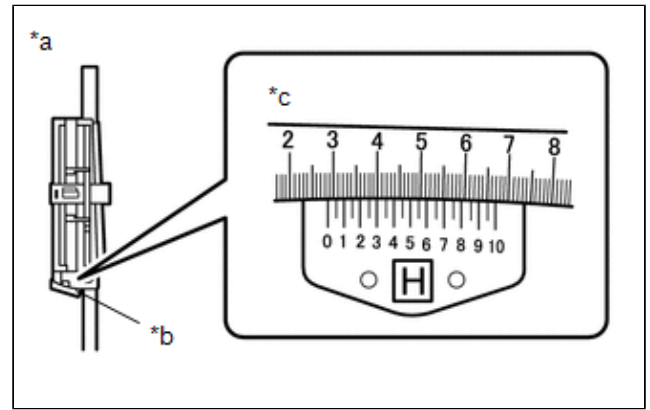
(2) Using the mirror horizontal alignment scale, read the horizontal position value (H) and write it down.

NOTICE:

When performing the millimeter wave radar sensor assembly adjustment using the diagnosis system the horizontal position value must be input, so make sure to write it down.

HINT:

By entering the numerical value that was written down into the diagnosis system, the diagnosis system calculates the necessary horizontal values for adjustment of the millimeter wave radar sensor assembly.



*a	Example
*b	Mirror Horizontal Alignment Scale
*c	H = 28.9

(g) Remove Wheel Laser:

- (1) Turn the wheel laser switch off.
- (2) Loosen the setscrew and remove the wheel laser.

(h) Remove self-centering wheel adapter:

- (1) Remove the self-centering wheel adapter from the rear left wheel.

3. ADJUST SETTING DEVICE (RIGHT SIDE)

HINT:

Use the same procedure as for the LH side.

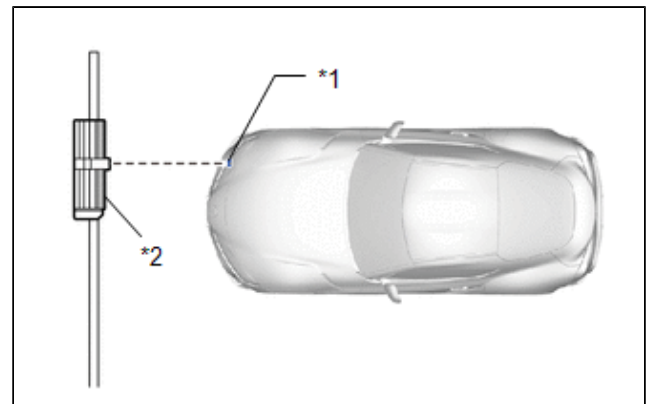
4. ADJUST MILLIMETER WAVE RADAR SENSOR ASSEMBLY

(a) Install the setting device:

- (1) Install the setting device onto the rail, centered directly in front of the millimeter wave radar sensor assembly.

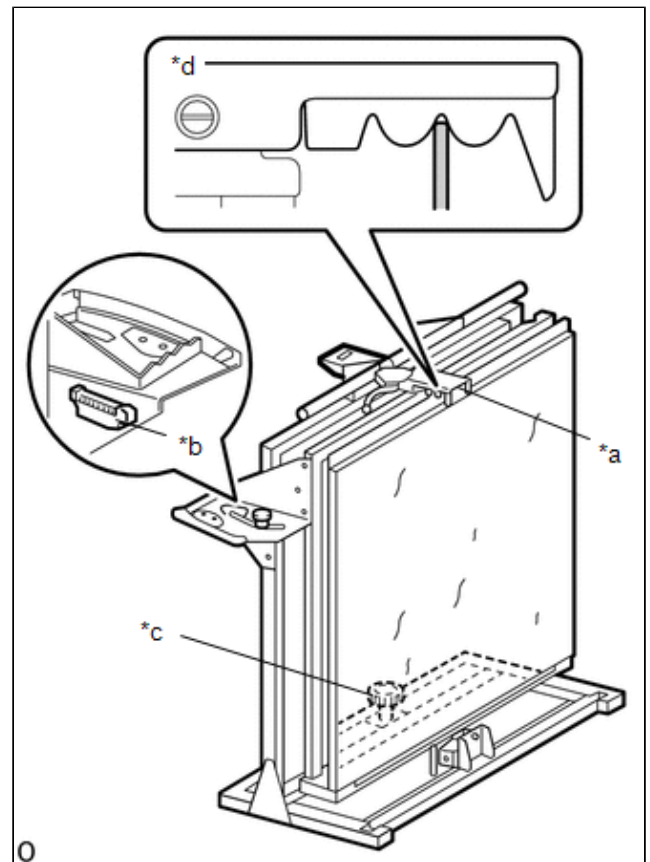
HINT:

Make sure that the setting device is properly secured to the rail.



*1	Millimeter Wave Radar Sensor Assembly
*2	Setting Device

(2) Make sure that the mirror is in the center position of the tilting mechanism.



*a	Tilting Mechanism
*b	Spirit Level
*c	Knurled Screw for Vertical Adjustment of Setting Device
*d	Center Position

(3) Adjust the knurled screw for vertical adjustment of the setting device so that the bubble of the spirit level attached to the setting device is in the center area.

HINT:

The bubble must be in the center area of the spirit level.

(b) Using the diagnosis system, enter the following menus:

Vehicle management / Service functions / Driver assistance / Front radar sensor / Front radar sensor: Start-up / ABL Front radar sensor: Start-up

- Select [Display].

(c) Following the instructions on the diagnosis system screen, operate the front radar sensor.

- Select [Put the front radar sensor (FRS) into operation.] and [Next].

(d) Continue with the steps until [Entering the adjusted vertical value for the left side of vehicle] is displayed on the diagnosis system screen.

- At each step, select [Next].

(e) Diagnosis system display: [Entering the adjusted vertical value for the left side of vehicle]

- After entering the vertical value measured for the vehicle LH side, select [Next].

HINT:

- Enter the vertical value that was written down when adjusting the setting device.
- Enter the value to a precision of 0.1 mm (0.0393 in.).

(f) Diagnosis system display: [Confirmation of the entry for the vertical mirror adjustment]

- Select [Confirm the entered value.] and [Next].

(g) Diagnosis system display: [Entering the adjusted horizontal value for the left side of vehicle]

- After entering the horizontal value measured for the vehicle LH side, select [Next].

HINT:

- Enter the horizontal value that was written down when adjusting the setting device.
- Enter the value to a precision of 0.1 mm (0.0393 in.).

(h) Diagnosis system display: [Confirmation of the entry for the horizontal mirror adjustment]

- Select [Confirm the entered value.] and [Next].

(i) Diagnosis system display: [Base setting of the mirror for the right side of vehicle]

- At each step, select [Next].

(j) Diagnosis system display: [Setting the laser pointer for the right side of vehicle]

- Select [Next].

(k) Diagnosis system display: [Mirror adjustment for the right side of vehicle]

- Select [Next].

(l) Diagnosis system display: [Entering the adjusted vertical value for the right side of vehicle]

- After entering the vertical value measured for the vehicle RH side, select [Next].

HINT:

- Enter the vertical value that was written down when adjusting the setting device.
- Enter the value to a precision of 0.1 mm (0.0393 in.).

(m) Diagnosis system display: [Confirmation of the entry for the vertical mirror adjustment]

- Select [Confirm the entered value.] and [Next].

(n) Diagnosis system display: [Entering the adjusted horizontal value for the right side of vehicle]

- After entering the horizontal value measured for the vehicle RH side, select [Next].

HINT:

- Enter the horizontal value that was written down when adjusting the setting device.
- Enter the value to a precision of 0.1 mm (0.0393 in.).

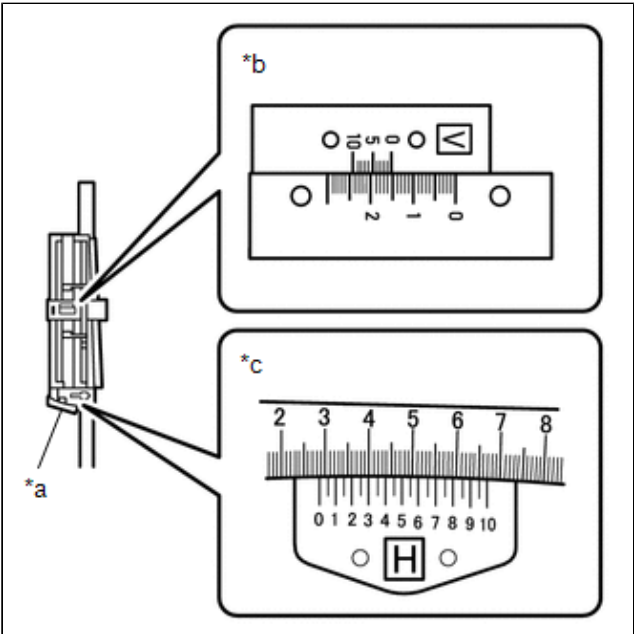
(o) Diagnosis system display: [Confirmation of the entry for the horizontal mirror adjustment]

- Select [Confirm the entered value.] and [Next].

(p) Diagnosis system display: [Setting the mirror in front of the front radar sensor (FRS)]

- Select [Next].

- (1) Using the mirror vertical alignment scale and mirror horizontal alignment scale on the setting device, adjust the mirror to the vertical (up/down) and horizontal (left/right) values displayed on the diagnosis system.
- After adjusting the mirror, select [Next].



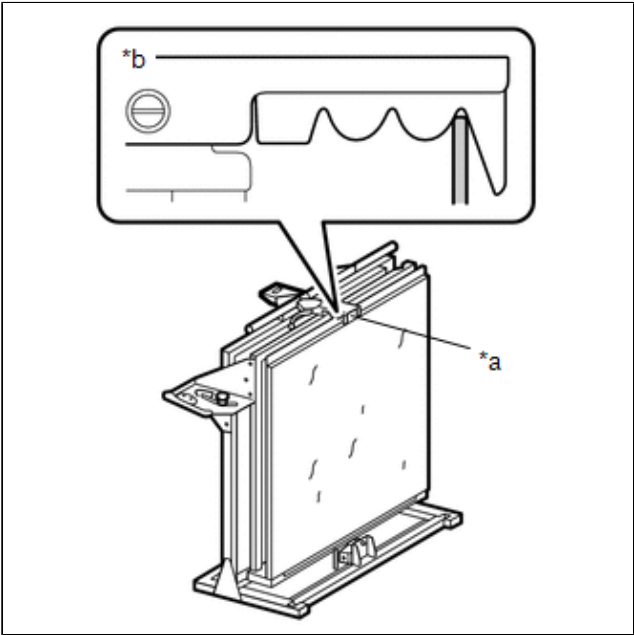
*a	Setting Device
*b	Mirror Vertical Alignment Scale
*c	Mirror Horizontal Alignment Scale

(q) Diagnosis system display: [Mirror alignment completed]

- Select [Next].

(r) Diagnosis system display: [Commissioning via the first detent position of the mirror]

- (1) Adjust the mirror tilting mechanism to the front position.
- At each step, select [Next].



*a	Tilting Mechanism
*b	Front Position

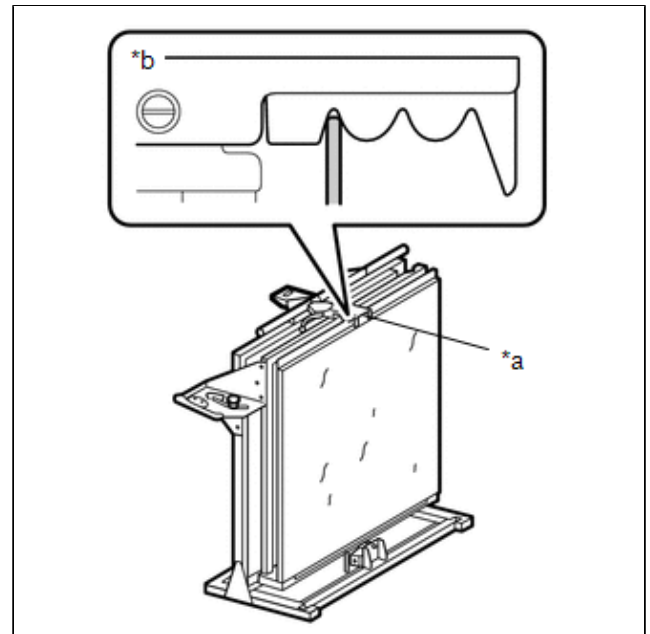
(s) Diagnosis system display: [The commissioning for the first detent position was successful.]

- Select [Next].

(t) Diagnosis system display: [Commissioning via the second detent position of the mirror]

(1) Adjust the mirror tilting mechanism to the rear position.

- At each step, select [Next].



*a	Tilting Mechanism
*b	Rear Position

(u) When setup has completed:

Diagnosis system display: [The commissioning for the front radar sensor (FRS) was successful]

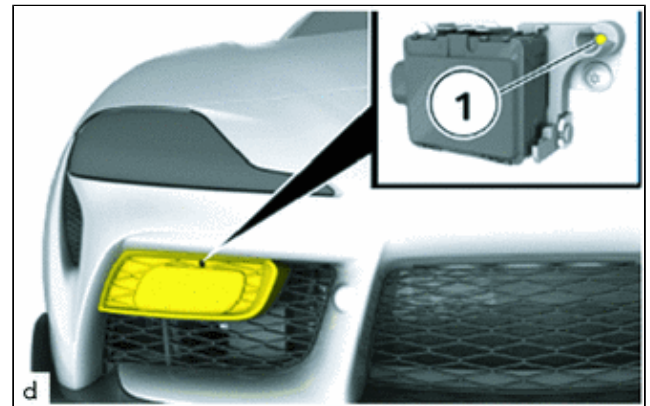
- Select [Next].

(v) When setup does not complete:

(1) Re-confirm the setting device installation location and work procedures when the adjustments were performed.

If setup still does not complete, perform the following procedures.

1. Following the instructions on the diagnosis system, use a hexagon wrench (width between flats 3 mm (0.118 in.)) to turn the screw (1) and adjust the millimeter wave radar sensor assembly.
2. Following the instructions on the diagnosis system, perform the setup again.



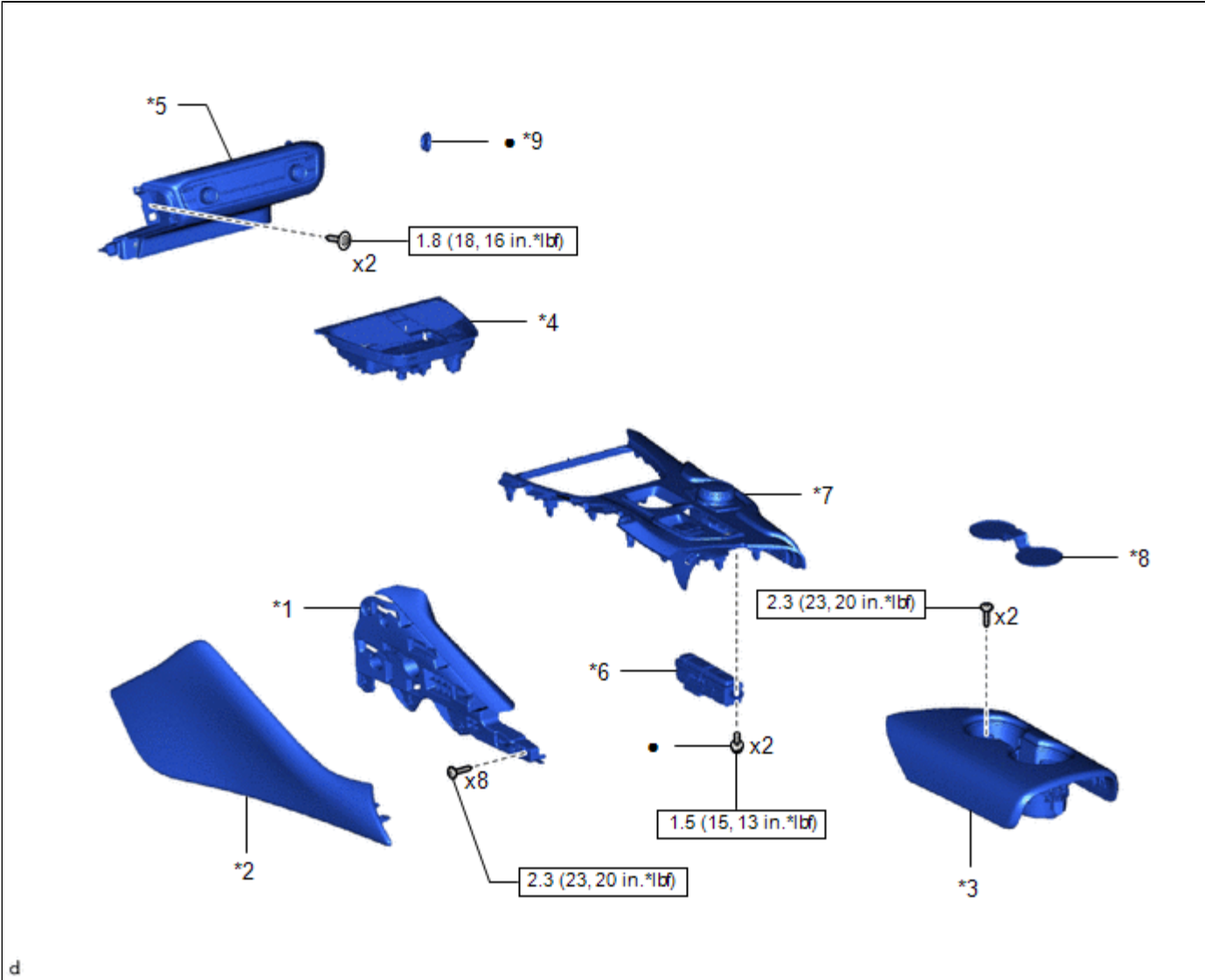
(w) Diagnosis system display: [Service function finished]

- Select [Next].

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STOP AND START: STOP AND START SYSTEM CANCEL SWITCH ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*2	CONSOLE SIDE PANEL
*3	FRONT CONSOLE BOX COVER	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	STOP AND START SYSTEM CANCEL SWITCH (PATTERN SELECT SWITCH ASSEMBLY)	*6	FRONT CONSOLE ARMREST ASSEMBLY
*7	UPPER CONSOLE PANEL SUB-ASSEMBLY	*8	NO. 1 CONSOLE BOX SILENCER PAD
*9	RUBBER PLUG	-	-

<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	<div>•</div>	Non-reusable part
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STOP AND START: STOP AND START SYSTEM CANCEL SWITCH ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STOP AND START: STOP AND START SYSTEM CANCEL SWITCH ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2E
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): BATTERY: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

BATTERY PRECAUTION

- Do not exceed the maximum charging voltage of 14.8 V when charging an battery!
- Do not use rapid-charging!
- Recommended temperature for charging 15 to 25°C
- The battery is sufficiently charged when the charge current drops below 2.5 amperes.
- Do not connect the battery charger to the 12 V power socket!
- Only charge the battery via the jump starting positive battery terminal point.

Note for Service:

- Do not open battery.

Caution! Danger of destruction to battery state sensor assembly and wiring upon battery replacement:

- Do not introduce any additional connections at the battery negative terminal.
- Do not modify the earth wire.
- Do not use force when disconnecting the earth wire from the battery terminal.
- Do not place any tools under the battery state sensor assembly to lever off the earth wire.
- Do not use battery state sensor assembly connections as levers.
- Avoid contact between battery state sensor assembly and ground.

HINT:

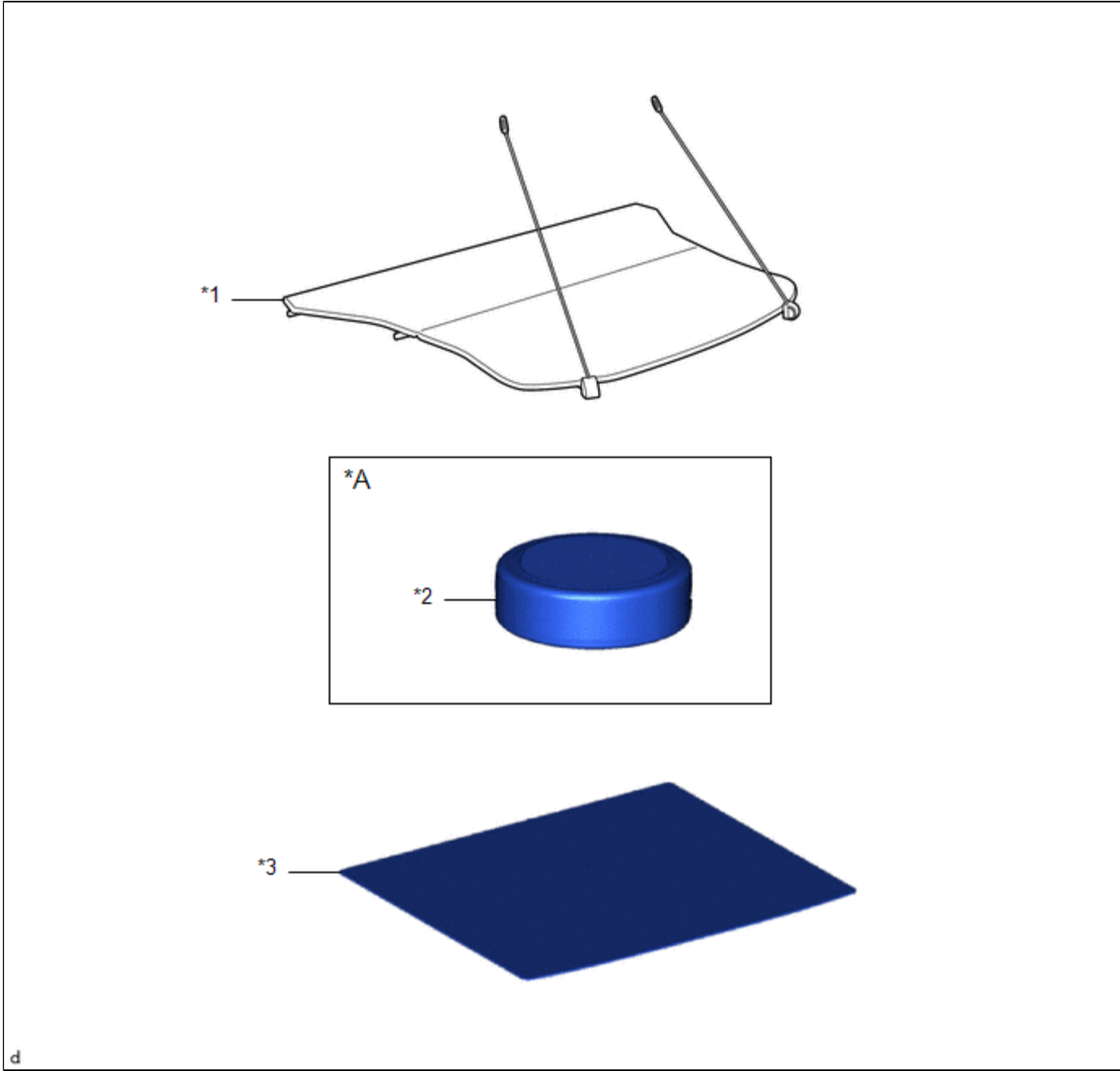
Only exchange the battery state sensor assembly when there is a corresponding fault code entry!



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): BATTERY: COMPONENTS; 2020 MY Supra [03/2019 -]		

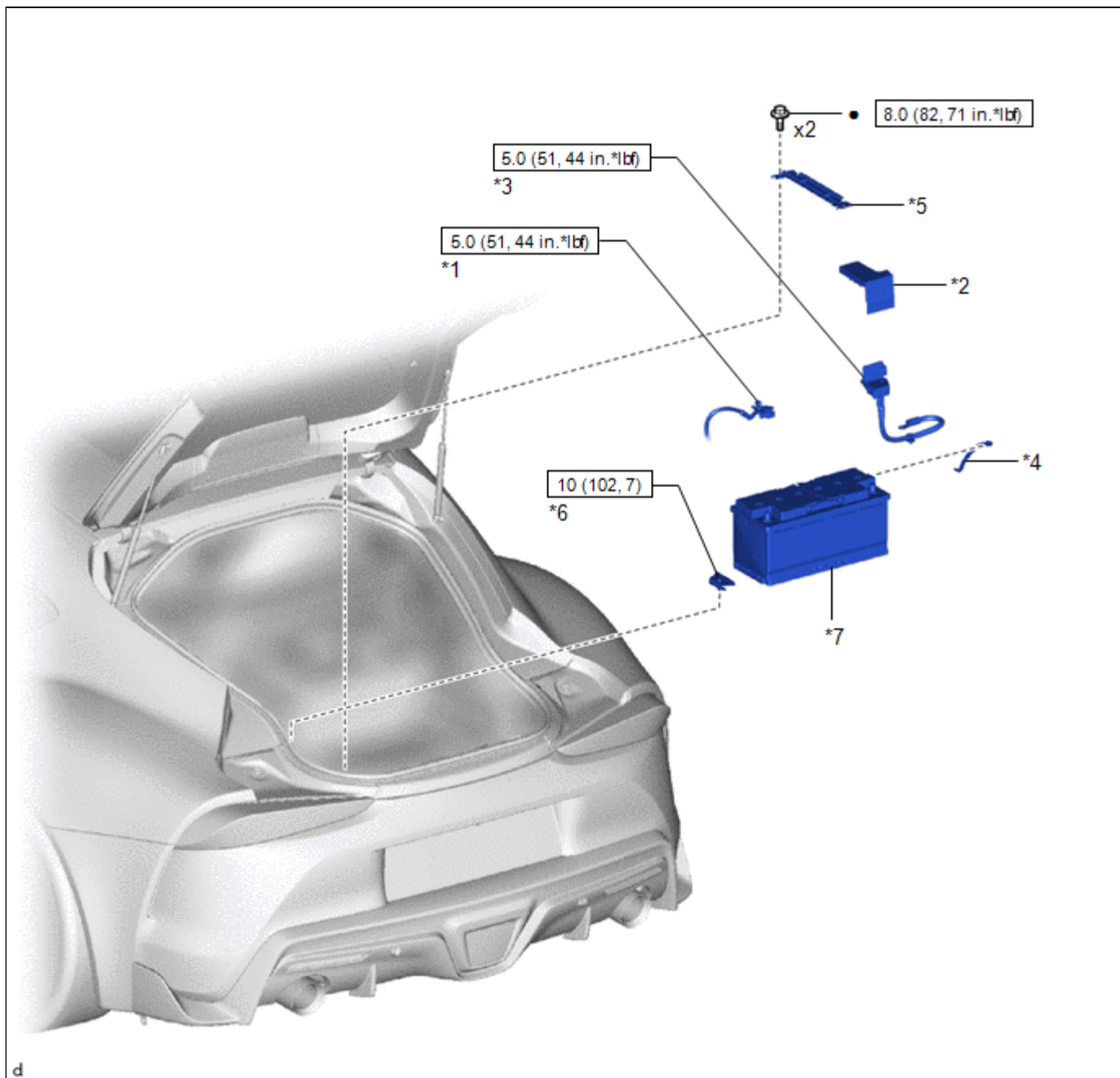
COMPONENTS

ILLUSTRATION




*A	w/ Spare Tire	-	-
*1	TONNEAU COVER ASSEMBLY	*2	SPARE TIRE
*3	LUGGAGE COMPARTMENT FLOOR CARPET	-	-

ILLUSTRATION



d

*1	NO. 3 EARTH WIRE	*2	CONNECTOR COVER
*3	SAFETY BATTERY TERMINAL	*4	BATTERY HOSE
*5	BRACKET	*6	BATTERY HOLDER
*7	BATTERY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): BATTERY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): BATTERY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

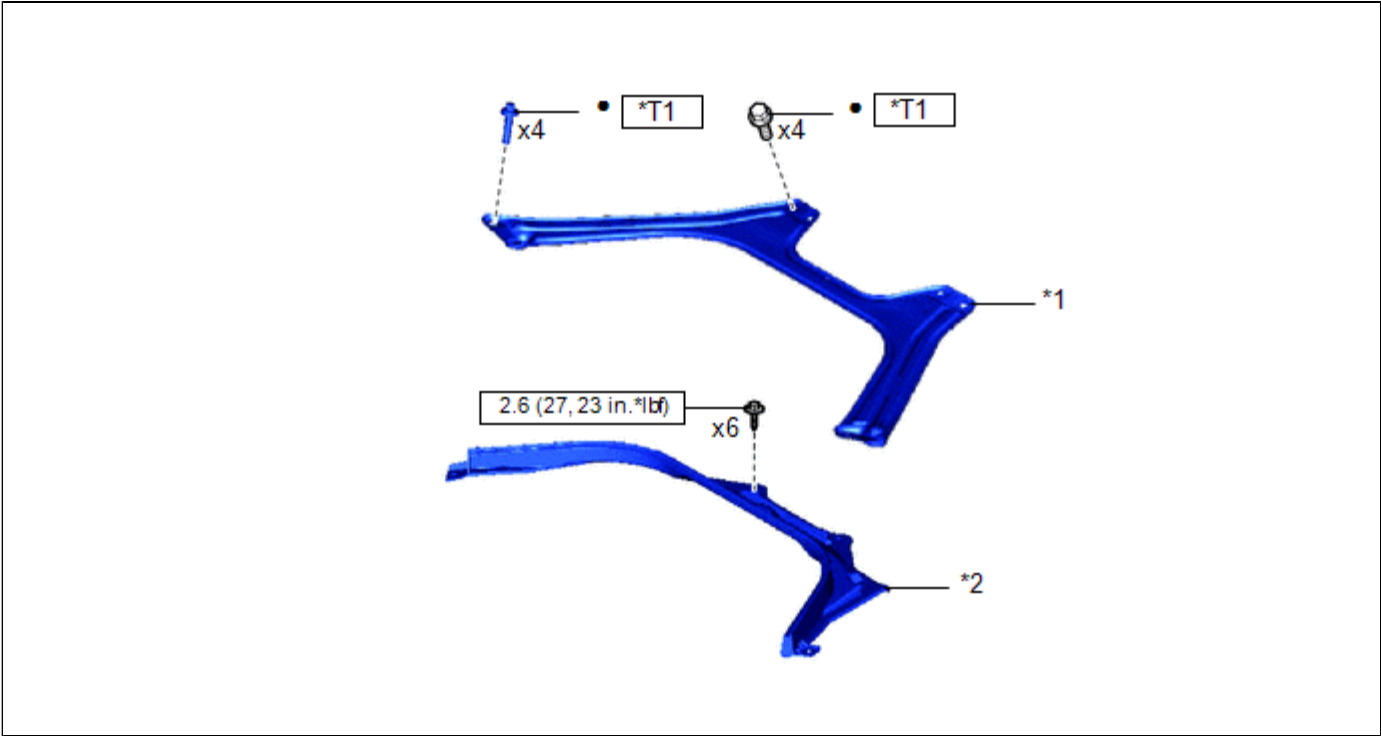
CAUTION / NOTICE / HINT


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2M
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): FRONT POWER DISTRIBUTION BOX: COMPONENTS; 2020 MY Supra [03/2019 -]		

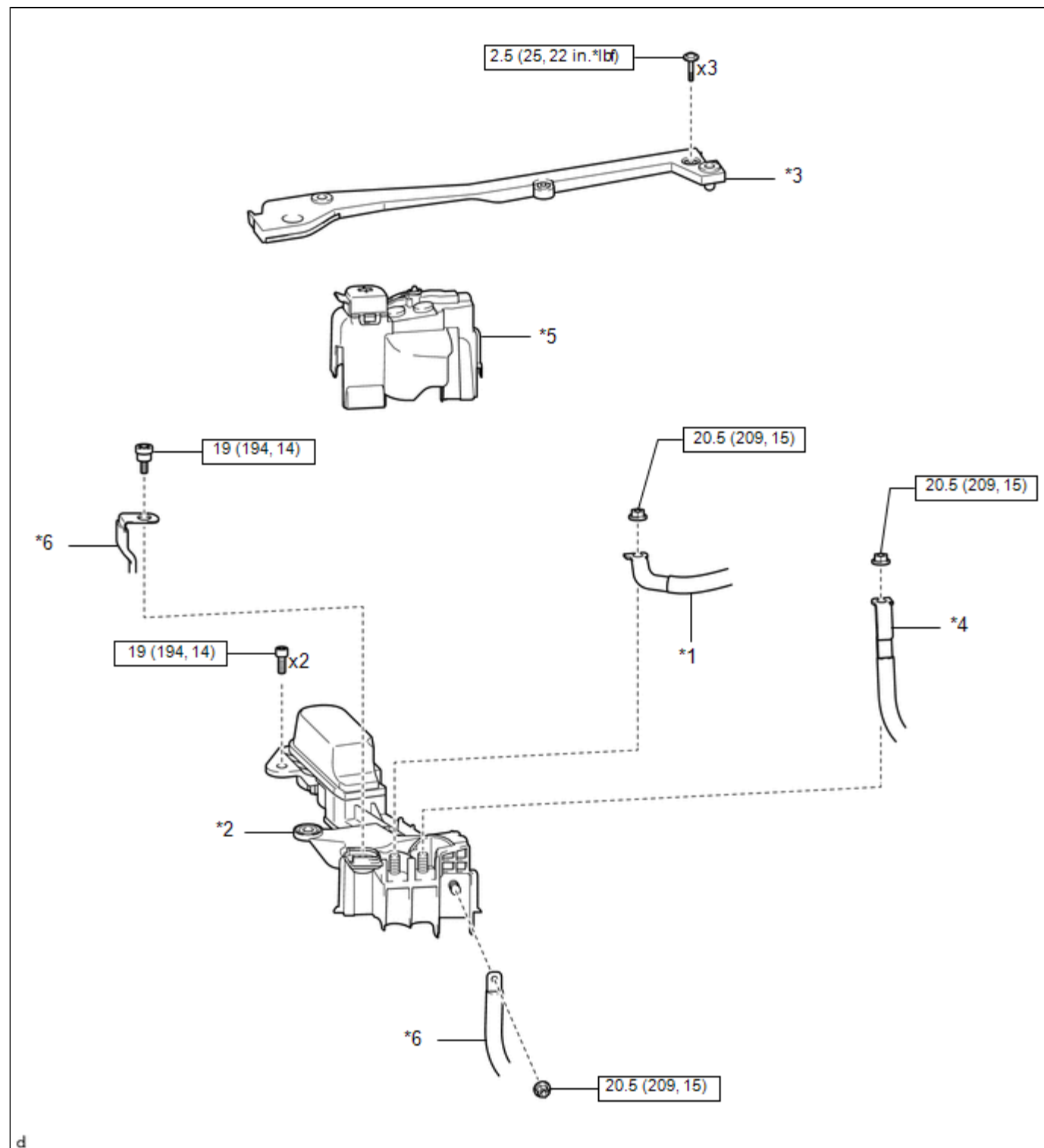
COMPONENTS


ILLUSTRATION



*1	FRONT SUSPENSION UPPER CENTERBRACE	*2	COWL TOP VENTILATOR LOUVERPROTECTOR
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 56 (571, 41) 2nd: Turn 90°	-	-

ILLUSTRATION



*1	GENERATOR WIRE	*2	FRONT POWER DISTRIBUTION BOX
*3	SEALING FRAME	*4	STARTER WIRING ASSEMBLY
*5	TERMINAL COVER	*6	NO. 5 FLOOR WIRE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2N
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): FRONT POWER DISTRIBUTION BOX: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION BRACE UPPER CENTER

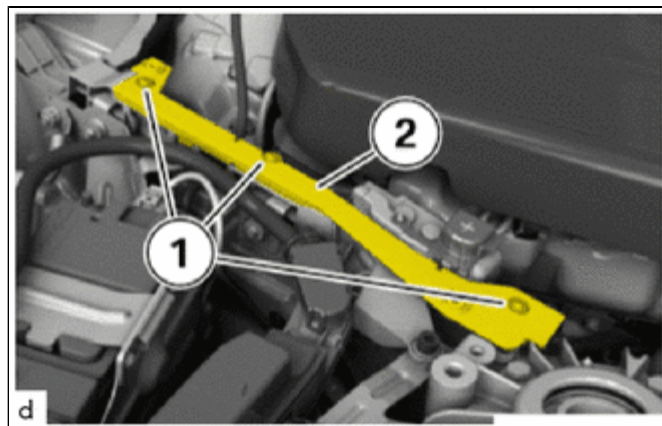
Click here [INFO](#)

3. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. REMOVE SEALING FRAME

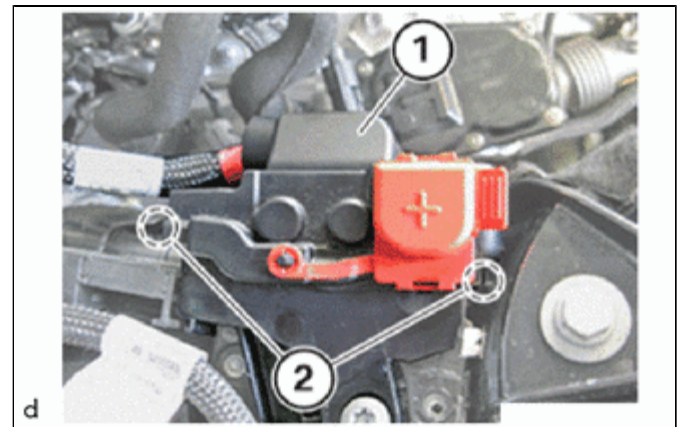
(a) Loosen T25 screws (1).



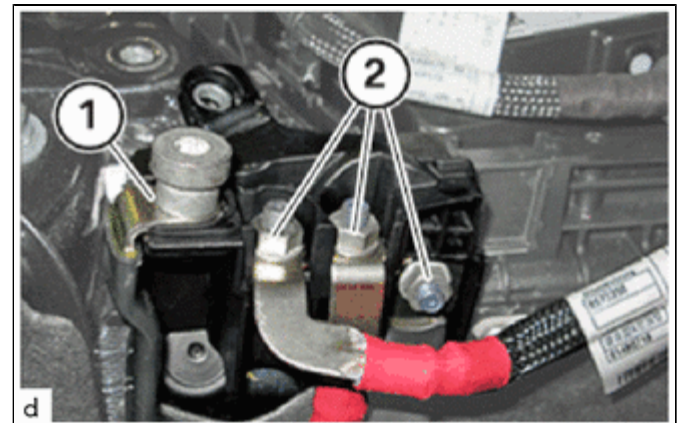
(b) Guide out sealing frame (2) upwards.

5. REMOVE FRONT POWER DISTRIBUTION BOX

(a) Loosen the cover for the jump start point (1) with the latch mechanisms (2) and remove upwards.

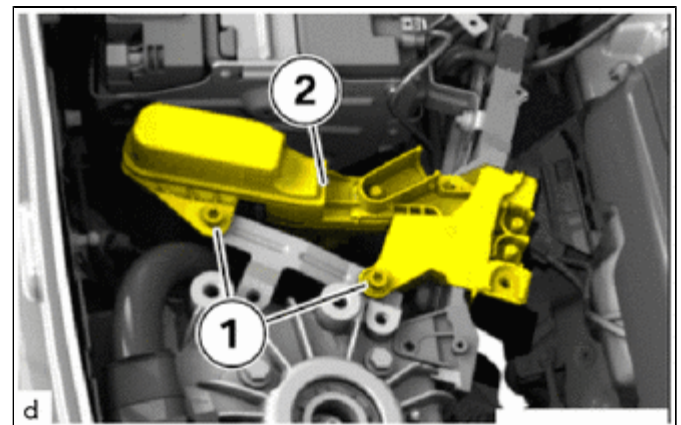


(b) Loosen the T50 bolt (1) and guide out the No.5 floor wire.



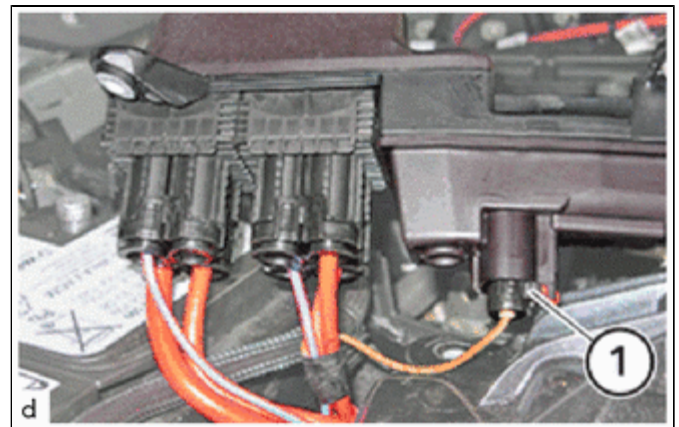
(c) Loosen the nuts (2) and guide out the generator wire, starter wiring assembly and No. 5 front wire.

(d) Loosen T45 bolts (1).

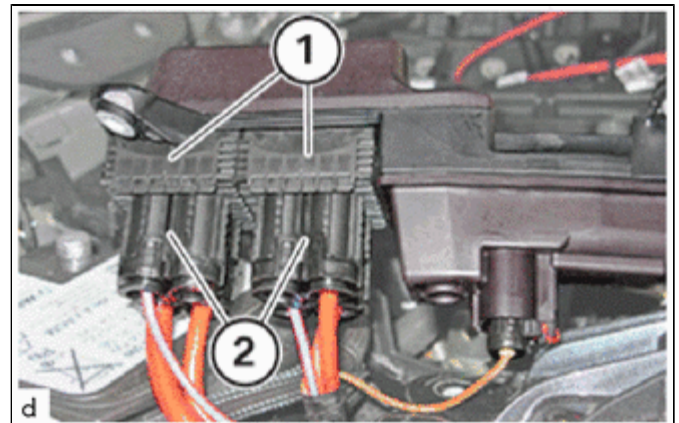


(e) Guide out the front power distribution box (2) of the positive battery cable.

(f) Unlock and disconnect connector (1).



(g) Lever out the latch mechanisms (1) at the connectors (2).



(h) Pull off the connectors (2).

(i) Remove the front power distribution box of the positive battery cable.

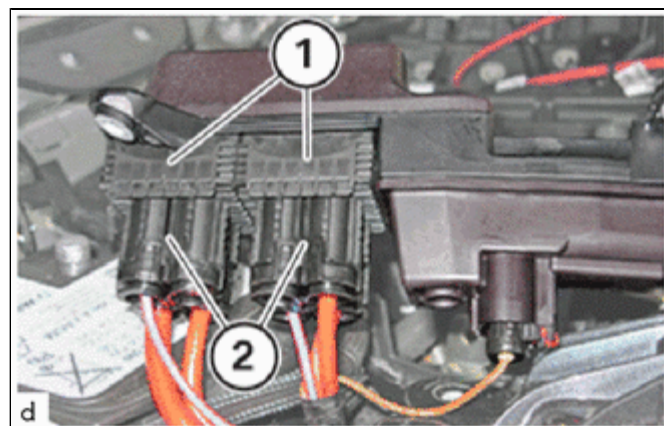
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD20
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): FRONT POWER DISTRIBUTION BOX: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT POWER DISTRIBUTION BOX

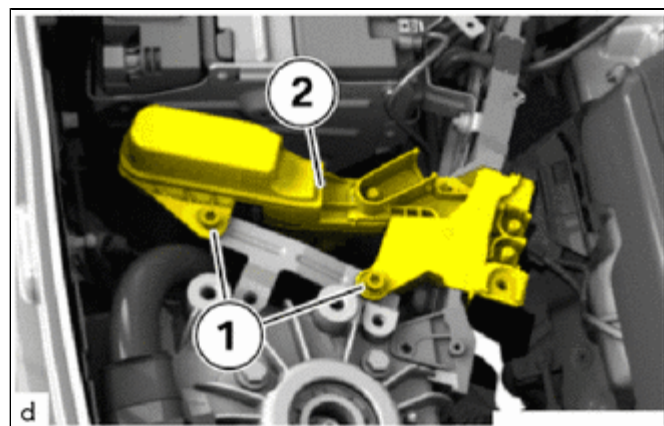
- (a) Position front power distribution box to the positive battery cable.



- (b) Connect connector (2) and close the lock (1).

- (c) Connect connector and lock.

- (d) Feed in front power distribution box (2) downward.



- (e) Tighten the T45 bolts (1).

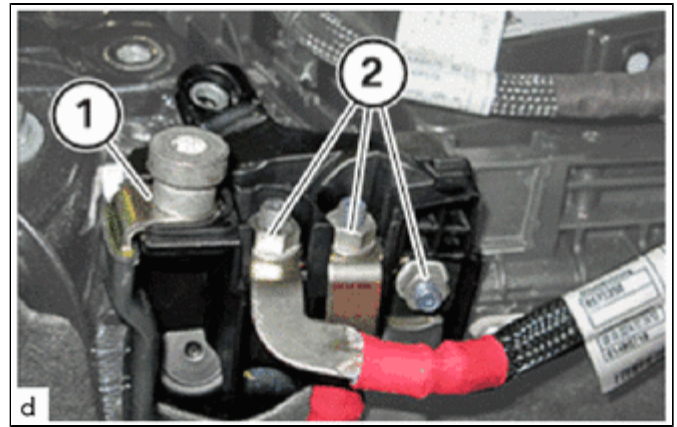
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(f) Insert the No.5 floor wire and tighten the T50 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

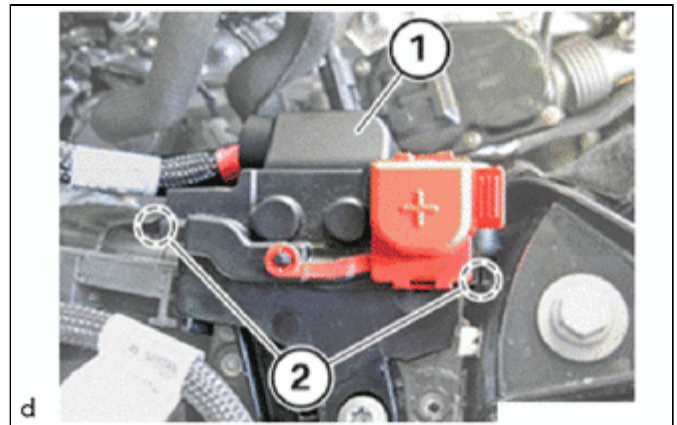


(g) Feed in generator wire, starter wiring assembly and No. 5 front wire and tighten nuts (2).

Torque:

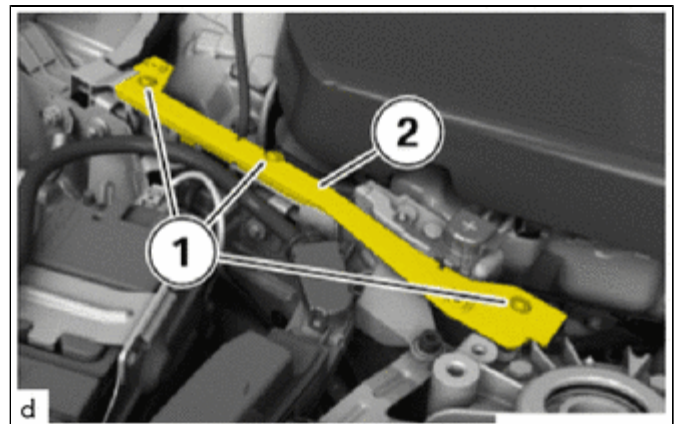
20.5 N·m {209 kgf·cm, 15 ft·lbf}

(h) Position cover for the jump start point (1) and clip it with the latch mechanisms (2).



2. INSTALL SEALING FRAME

(a) Feed in sealing frame (2).



(b) Tighten the T25 screws (1).

Torque:

2.5 N·m {25 kgf·cm, 22 in·lbf}

3. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

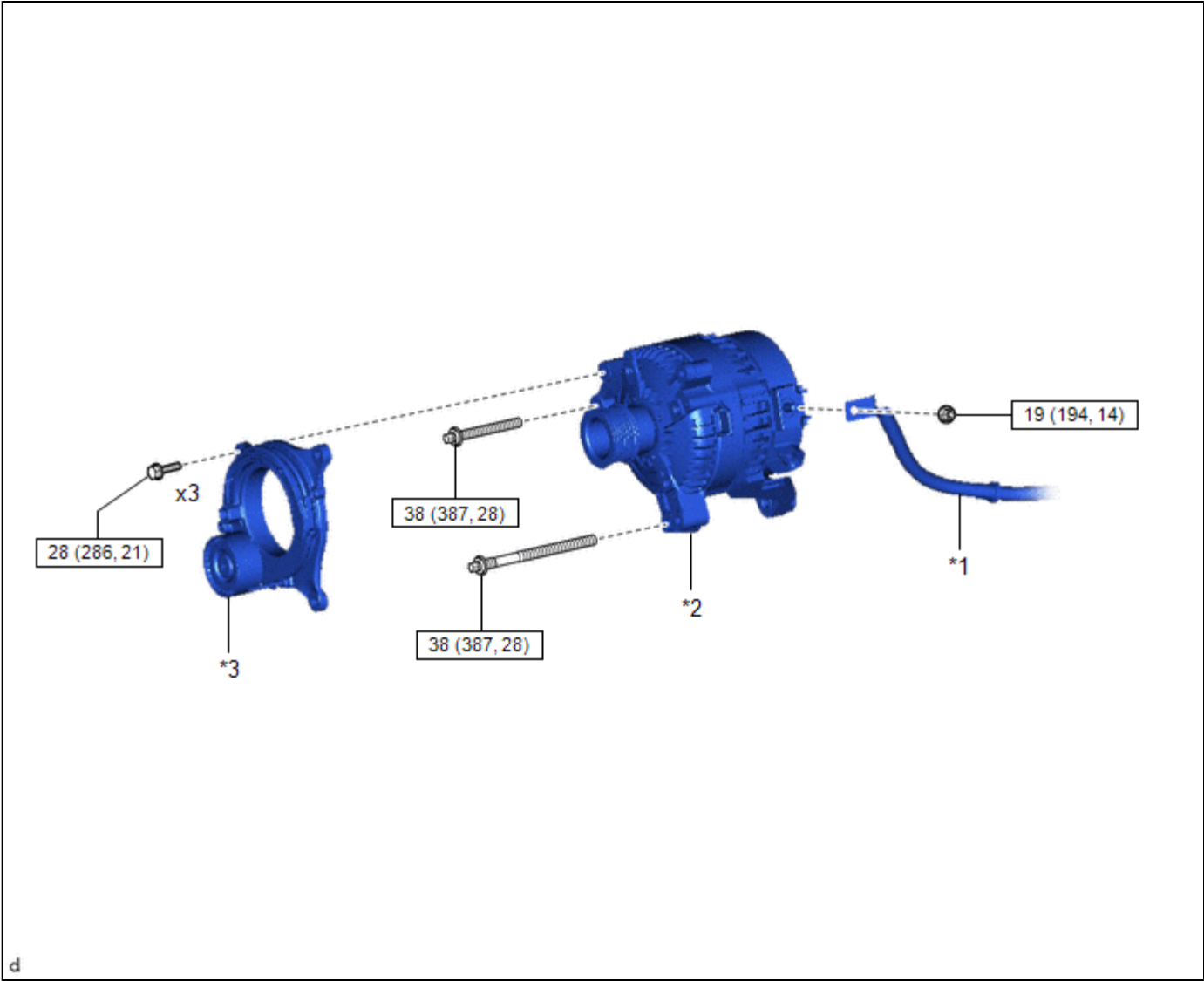
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD25
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): GENERATOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	GENERATOR WIRE	*2	GENERATOR ASSEMBLY
*3	V-RIBBED BELT TENSIONER ASSEMBLY	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD26
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): GENERATOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FAN AND GENERATOR V BELT

Click here [INFO](#)

3. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

4. REMOVE GENERATOR ASSEMBLY

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

- Hot surfaces.

Risk of burning!

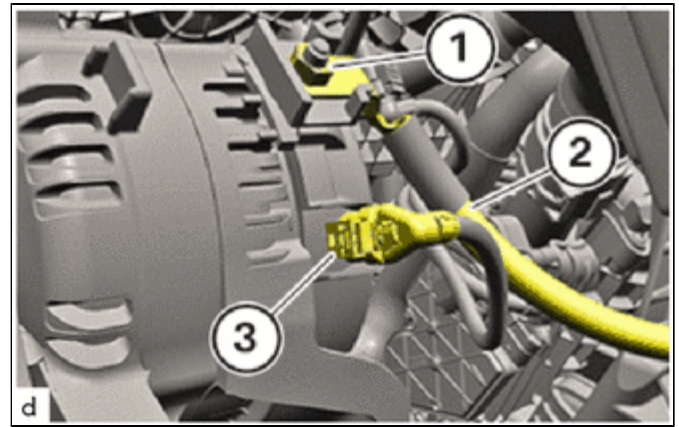
- Perform all work only on components that have cooled down.

NOTICE:

- Electrostatic discharge.
- Damage to or destruction of electrical components.
 - Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
 - Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
 - For additional information see:

Click here [INFO](#)

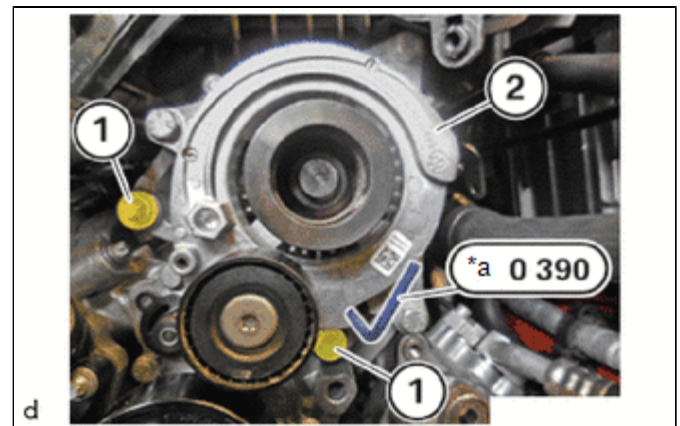
(a) Unfasten nut (1).



(b) Thread out generator wire (2) and set it aside.

(c) Unlock and loosen connector (3).

(d) Make sure that the 4 mm hexagon wrench is fitted correctly.



*a	4 mm Hexagon Wrench
----	---------------------

(e) Loosen E12 bolts (1).

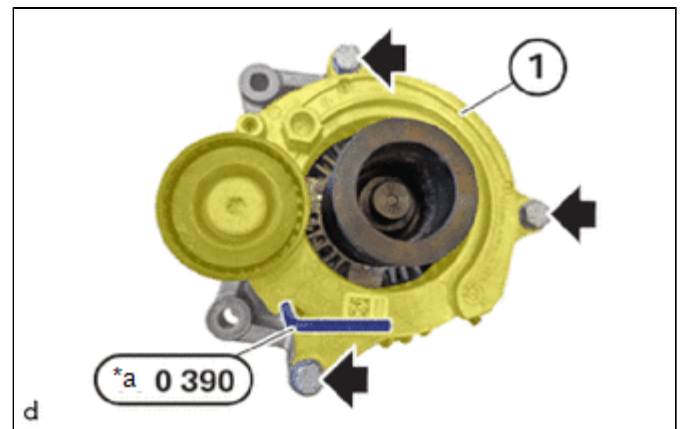
(f) Guide out generator assembly (2) and remove.

5. REMOVE V-RIBBED BELT TENSIONER ASSEMBLY

CAUTION:

- Danger of injury!
 - Reduce preload as far as possible before disassembly. Relieve component.

(a) Remove bolts (arrows).



*a	4 mm Hexagon Wrench
----	---------------------

- (b) Guide out v-ribbed belt tensioner assembly (1) and remove.
- (c) Make sure that the 4 mm hexagon wrench is fitted correctly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD27
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): GENERATOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

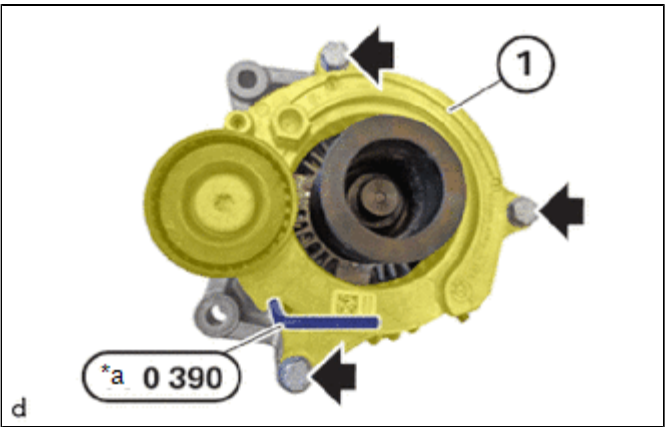
PROCEDURE

1. INSTALL V-RIBBED BELT TENSIONER ASSEMBLY

CAUTION:

- Danger of injury!
 - Reduce preload as far as possible before disassembly. Relieve component.

(a) Guide in and install the V-ribbed belt tensioner assembly (1).



*a	4 mm Hexagon Wrench
----	---------------------

(b) Tighten bolts (arrows).

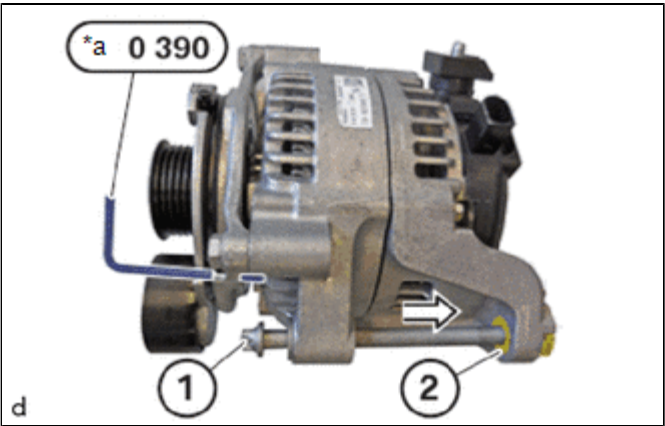
Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

(c) Make sure that the 4 mm hexagon wrench is fitted correctly.

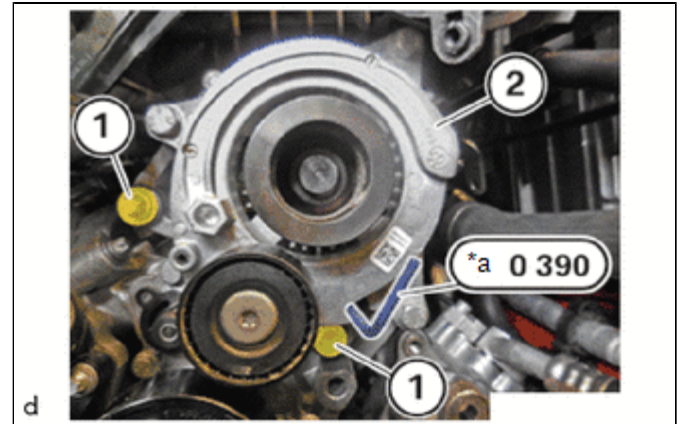
2. INSTALL GENERATOR ASSEMBLY

(a) Make sure that the 4 mm hexagon wrench is fitted correctly.



*a	4 mm Hexagon Wrench
----	---------------------

- (b) Slightly push back the threaded support sleeve (2) in the direction of the arrow to facilitate the installation of the generator assembly.
- (c) Screw bolt (1) into the threaded support sleeve (2).
- (d) Press back the threaded support sleeve (2) using the bolt (1).
- (e) Once again unscrew the bolt (1) from the threaded support sleeve (2).



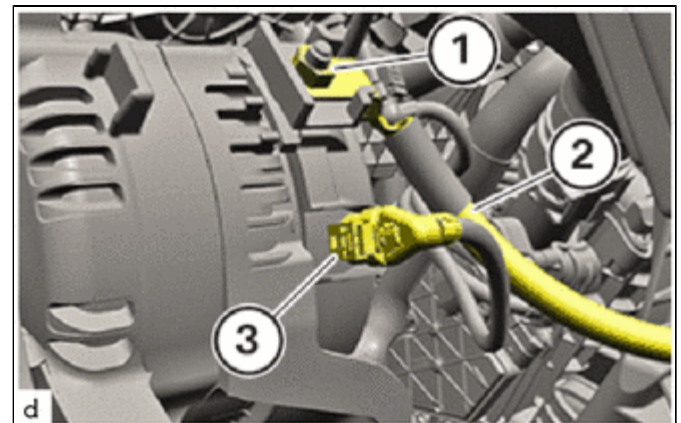
*a	4 mm Hexagon Wrench
----	---------------------

- (g) Tighten the E12 bolts (1).

Torque:

38 N·m {387 kgf·cm, 28 ft·lbf}

- (h) Insert and install the generator wire (2).



- (i) Tighten nut (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

- (j) Connect and lock the connector (3).

HINT:

The connector (3) must engage audibly.

3. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

4. INSTALL FAN AND GENERATOR V BELT

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

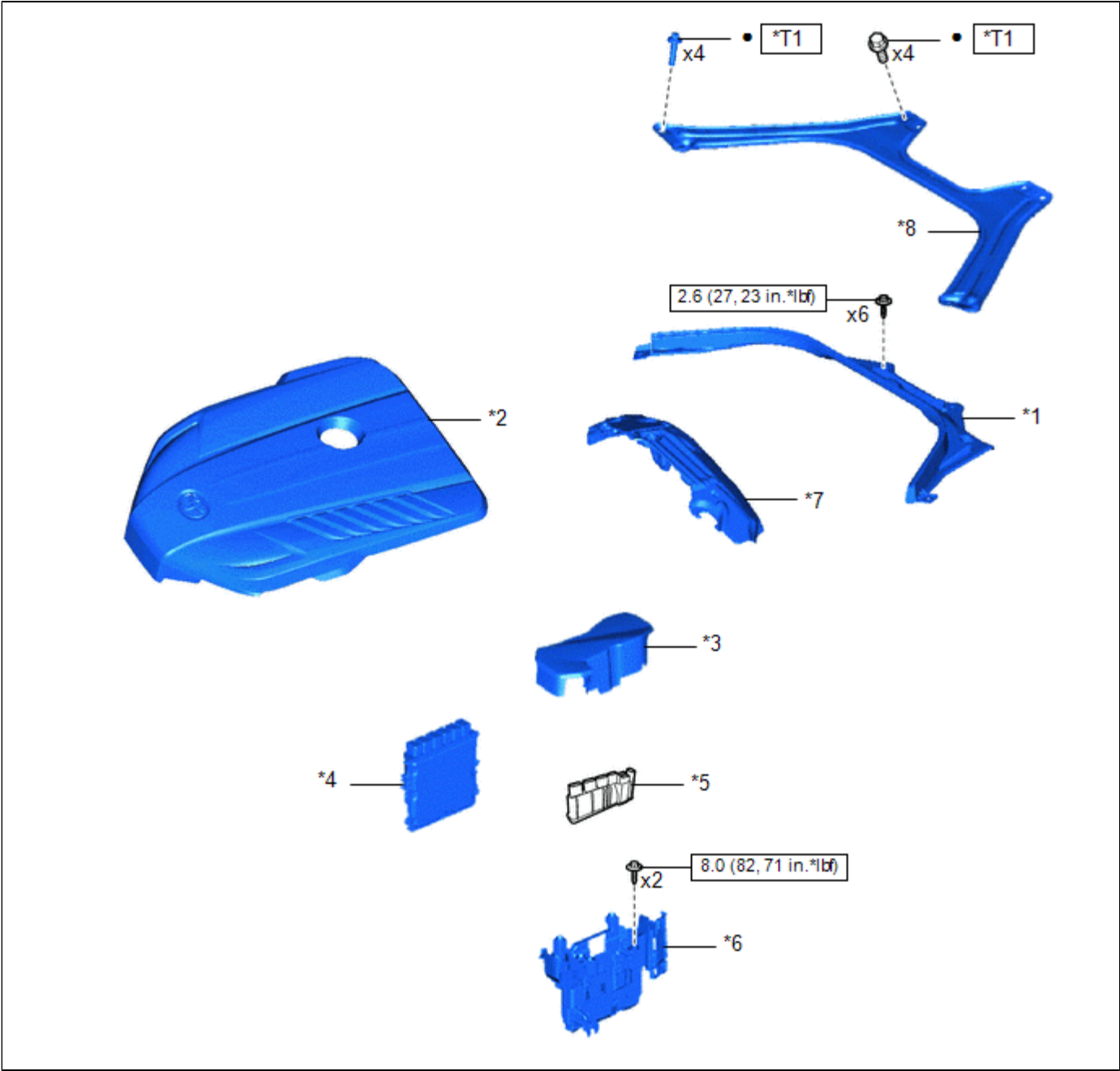
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD28
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): GENERATOR WIRE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

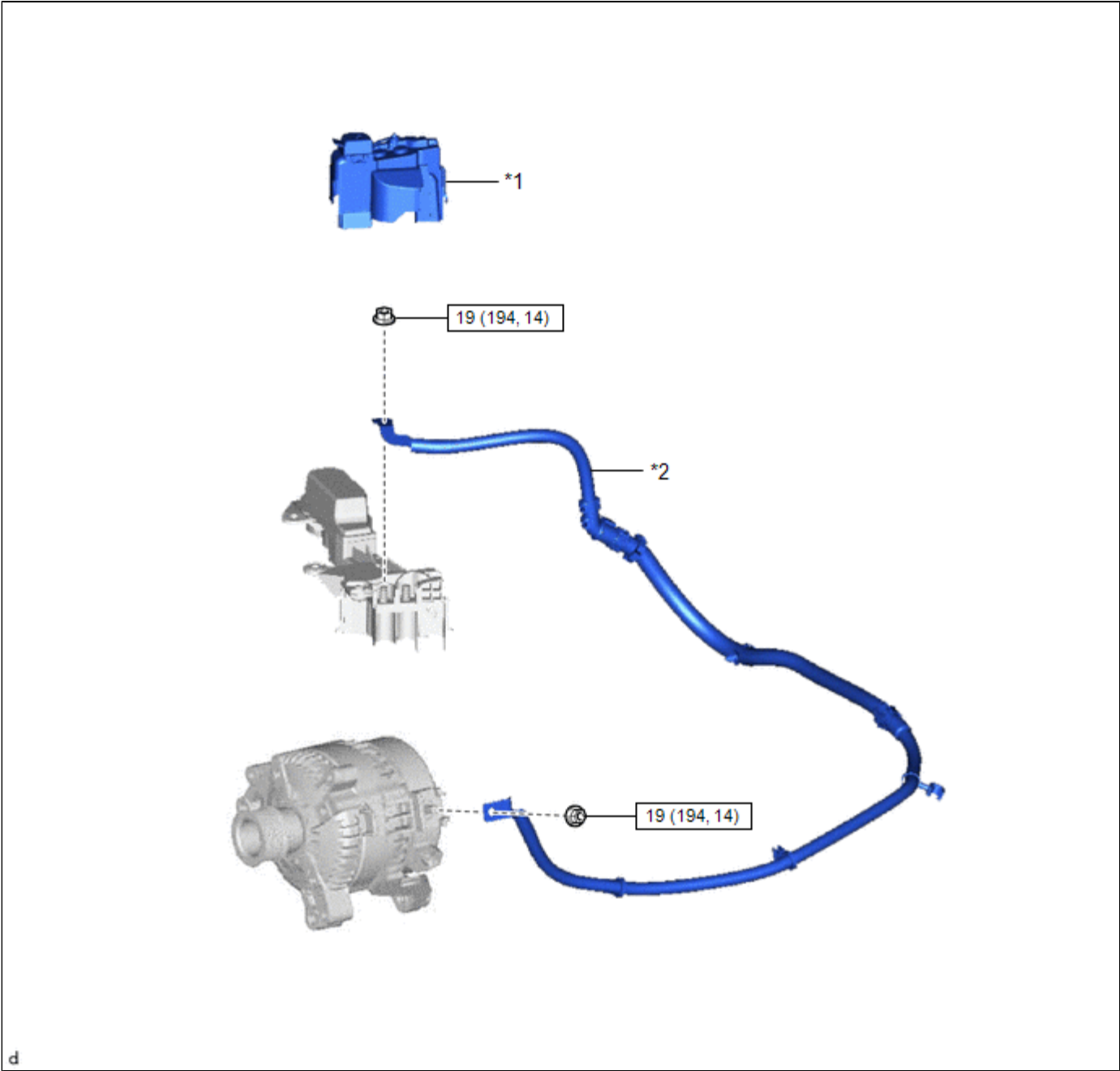
ILLUSTRATION




*1	COWL TOP VENTILATOR LOUVER PROTECTOR	*2	NO. 1 ENGINE COVER SUB-ASSEMBLY
*3	ENGINE ROOM ECU COVER	*4	ECM
*5	NO. 1 INTEGRATION RELAY	*6	ENGINE ROOM ECM BOX
*7	NO. 1 ENGINE COVER	*8	FRONT SUSPENSION UPPER CENTER BRACE

	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 56 (571, 41) 2nd: Turn 90°	-	-

ILLUSTRATION



*1	TERMINAL COVER	*2	GENERATOR WIRE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD29
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): GENERATOR WIRE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

3. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE ECM

Click here [INFO](#)

6. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

7. REMOVE ENGINE ROOM ECM BOX

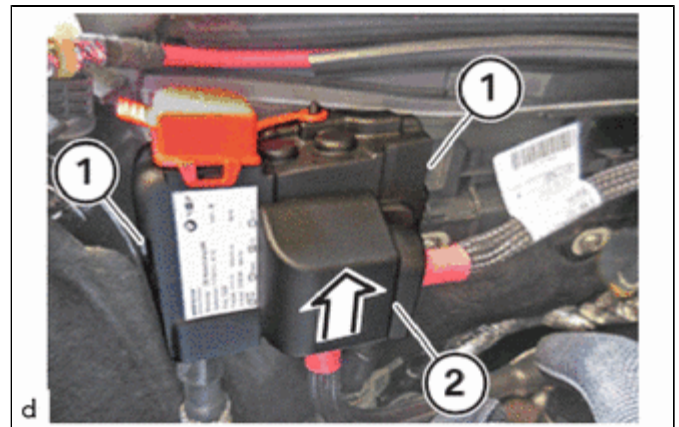
Click here [INFO](#)

8. REMOVE NO. 1 ENGINE COVER

Click here [INFO](#)

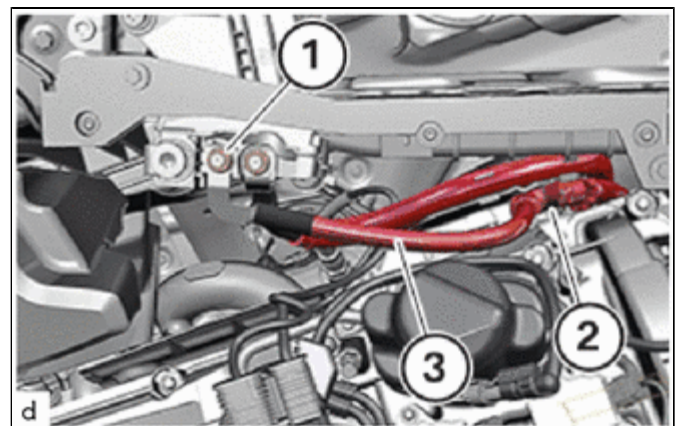
9. REMOVE GENERATOR WIRE

(a) Unlock the locks (1).



(b) Guide and remove terminal cover (2) in direction of arrow.

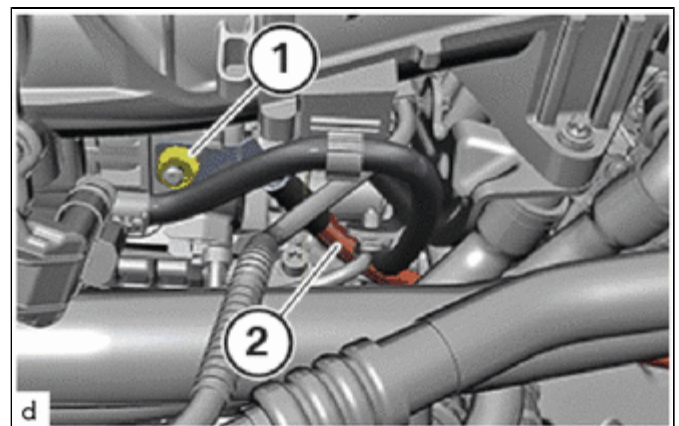
(c) Unfasten nut (1).



(d) Loosen clamp (2).

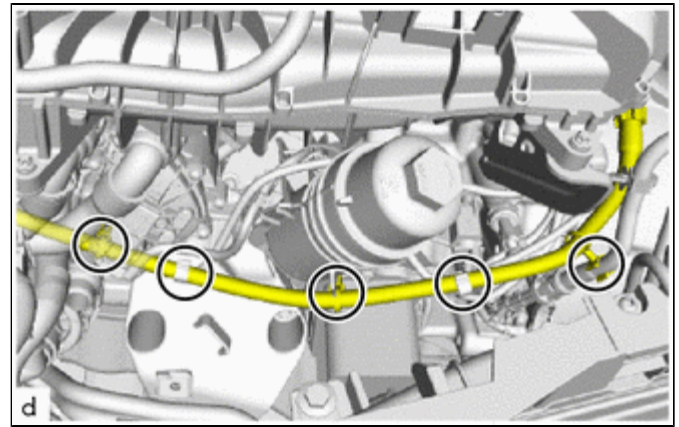
(e) Feed out generator wire (3) and put to one side.

(f) Unfasten nut (1).

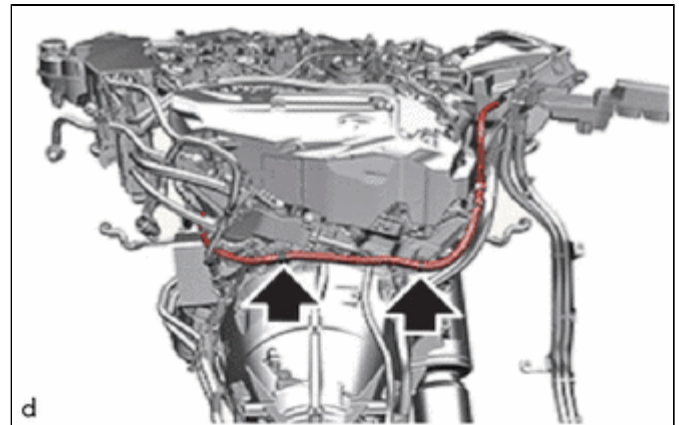


(g) Thread out generator wire (2) and set it aside.

(h) Unclip generator wire in the marked areas.



(i) Release the clamps (arrows).



(j) Remove generator wire.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): GENERATOR WIRE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

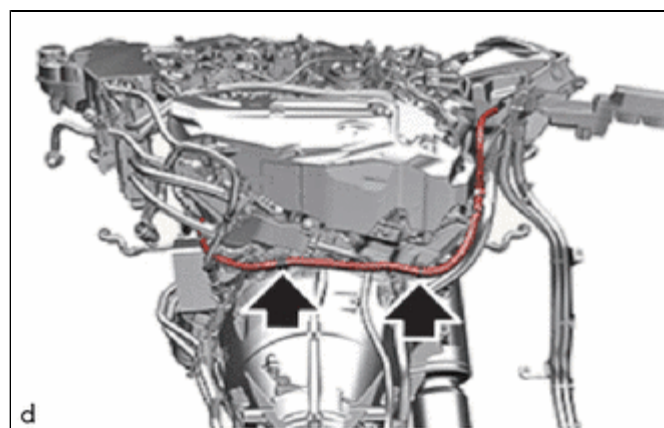
PROCEDURE

1. INSTALL GENERATOR WIRE

CAUTION:

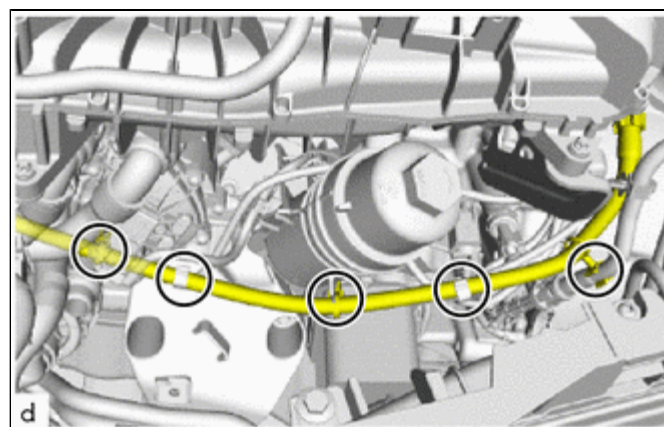
- Improper routing of the generator wire.
- Risk of short circuits!
 - Route the generator wire without abrasions and do not trap.

(a) Insert and install the generator wire.

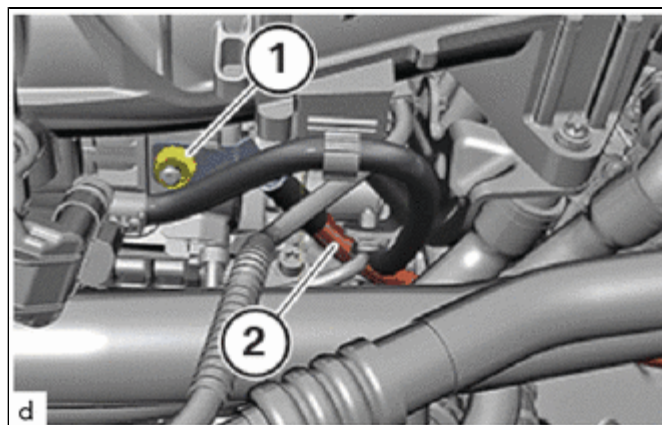


(b) Secure the clamps(arrows).

(c) Clip in the generator wire in the marked areas.



(d) Insert and install the generator wire (2) to the generator assembly.

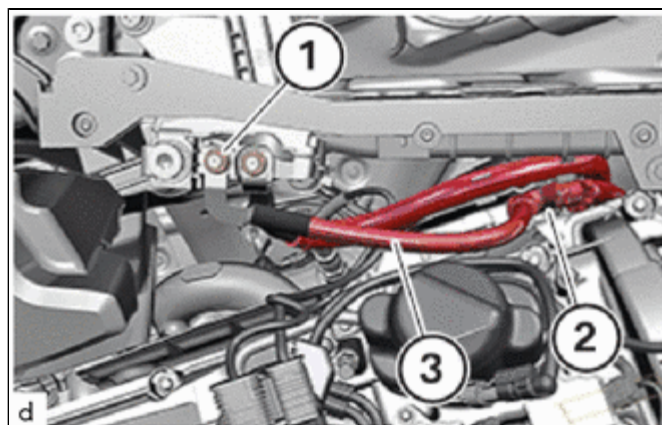


(e) Tighten nut (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(f) Insert and install the generator wire (3) to the positive battery terminal.



(g) Secure clamp (2).

(h) Tighten nut (1).

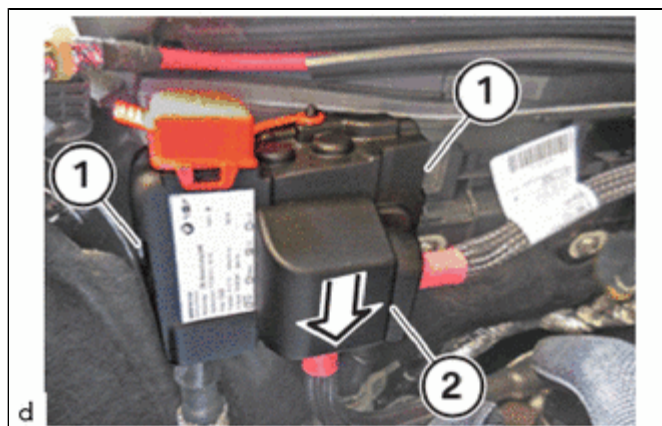
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(i) Insert and install the terminal cover (2) in the direction of the arrow.

HINT:

The locks (1) must engage audibly.



2. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

3. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

4. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

5. INSTALL ECM

Click here [INFO](#)

6. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

7. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

8. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

9. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

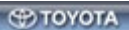
Click here [INFO](#)

10. RESET ADAPTATIONS

Click here [INFO](#)

11. ENCODE/PROGRAM CONTROL UNIT(S)

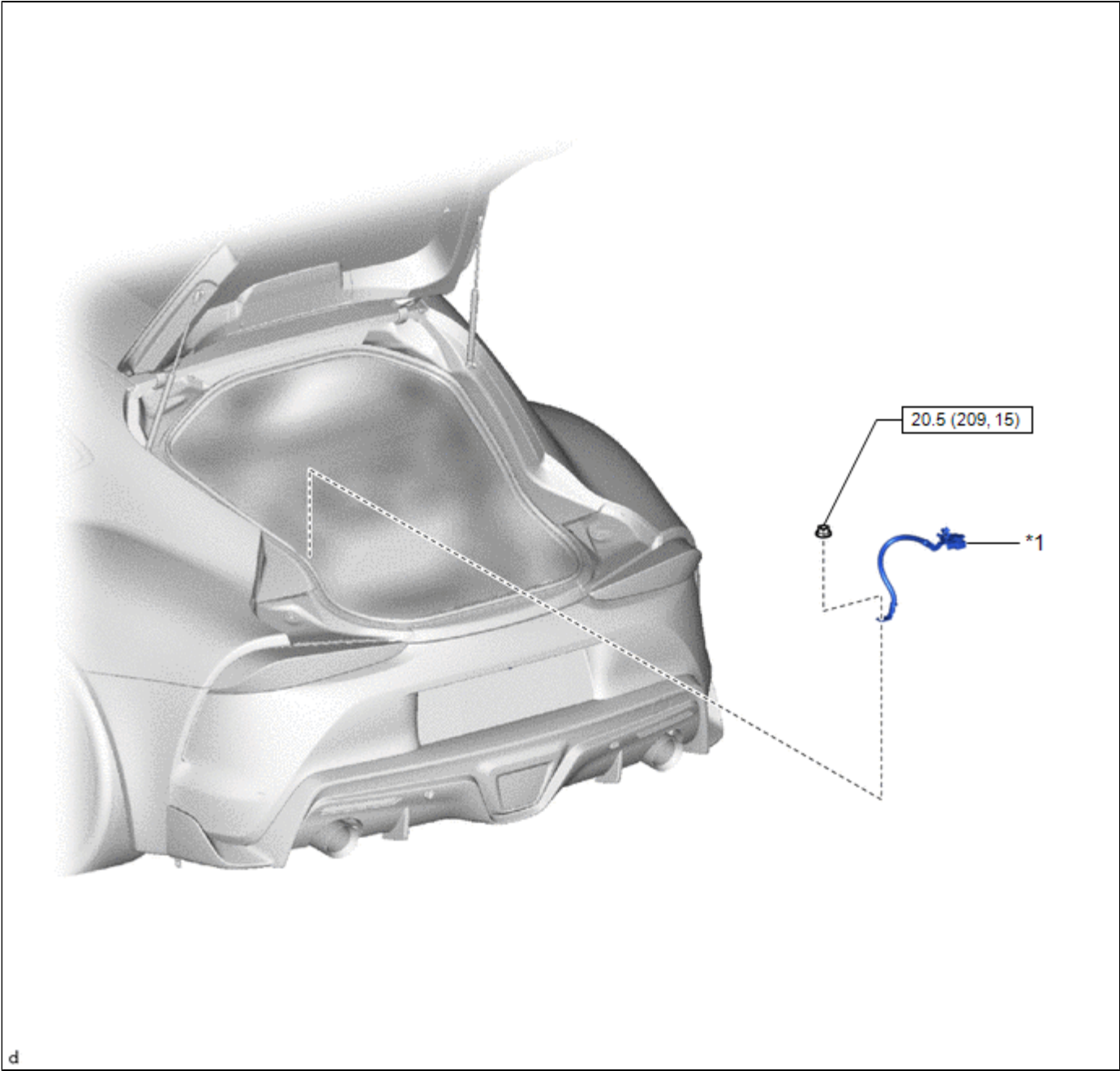
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2F
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): NEGATIVE BATTERY CABLE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 3 EARTH WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2G
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): NEGATIVE BATTERY CABLE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

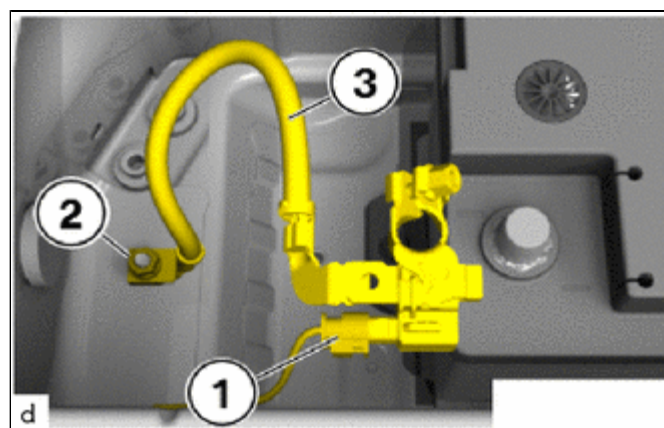
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO.3 EARTH WIRE

(a) Unlock connector (1) and disconnect.



(b) Loosen nut (2).

(c) Remove the No. 3 earth wire (3).

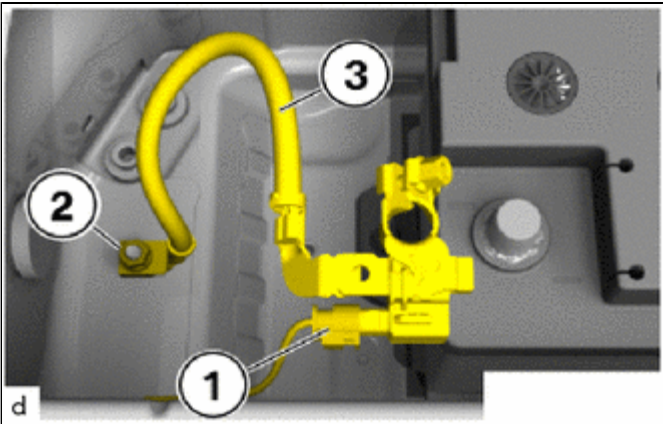
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): NEGATIVE BATTERY CABLE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 3 EARTH WIRE

(a) Position No. 3 earth wire (3) on the bolt.



(b) Tighten nut (2).

Torque:
20.5 N·m {209 kgf·cm, 15 ft·lbf}

(c) Connect connector (1) and lock.

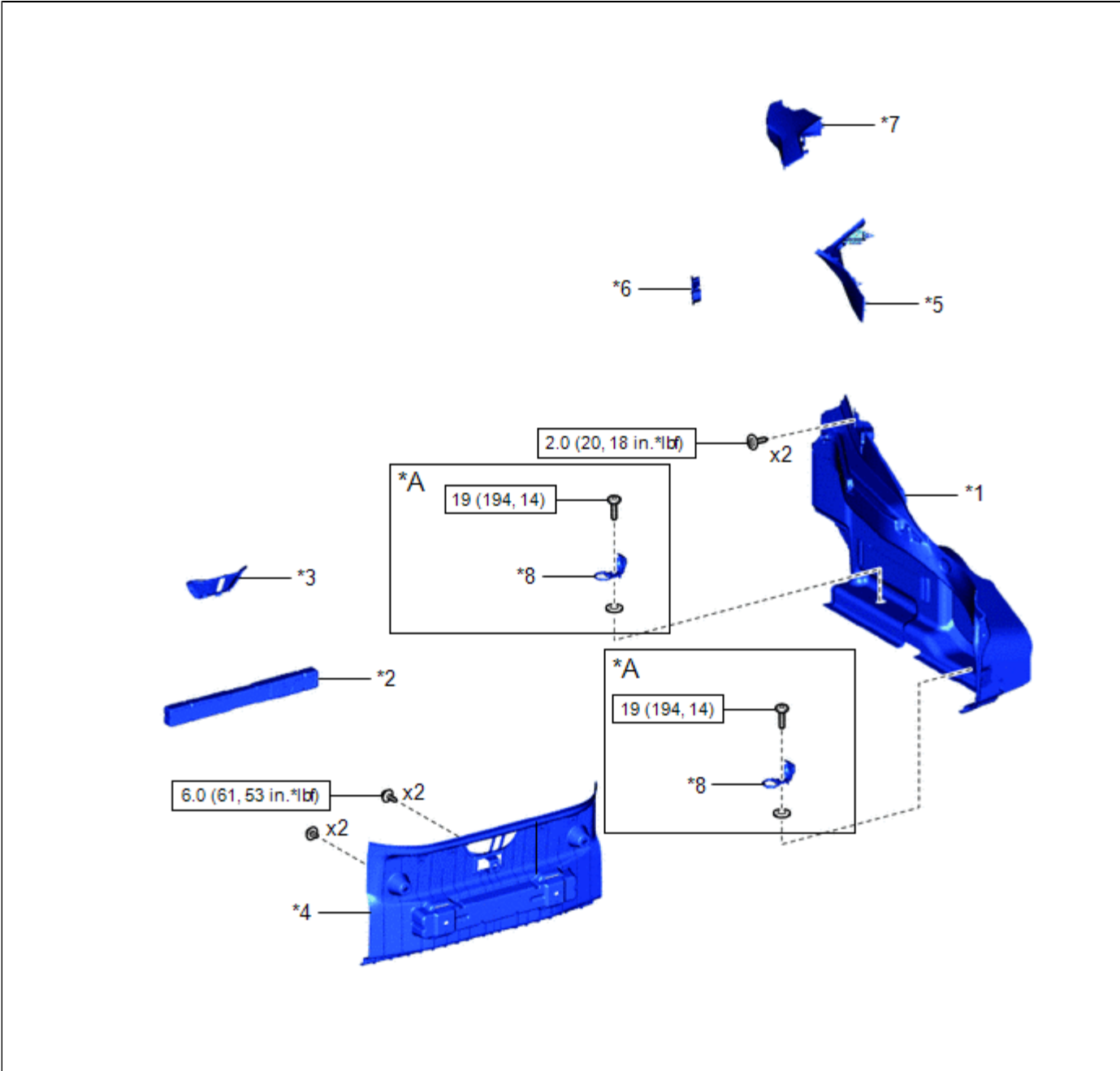
2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2P
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): REAR POWER DISTRIBUTION BOX: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH	*2	TRIANGLE REFLECTOR SET
*3	BACK DOOR LOCK STRIKER COVER	*4	DECK TRIM REAR COVER
*5	ROOF SIDE INNER GARNISH ASSEMBLY RH	*6	TRANSVERSE PIPE TRIM

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2Q
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): REAR POWER DISTRIBUTION BOX: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Disconnect the cable from the negative (-) battery terminal.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE TRIANGLE REFLECTOR SET

Click here [INFO](#)

3. REMOVE DECK TRIM REAR COVER

Click here [INFO](#)

4. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

Click here [INFO](#)

5. REMOVE TRANSVERSE PIPE TRIM

Click here [INFO](#)

6. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

Click here [INFO](#)

7. REMOVE ROPE HOOK (w/ Courtesy Light)

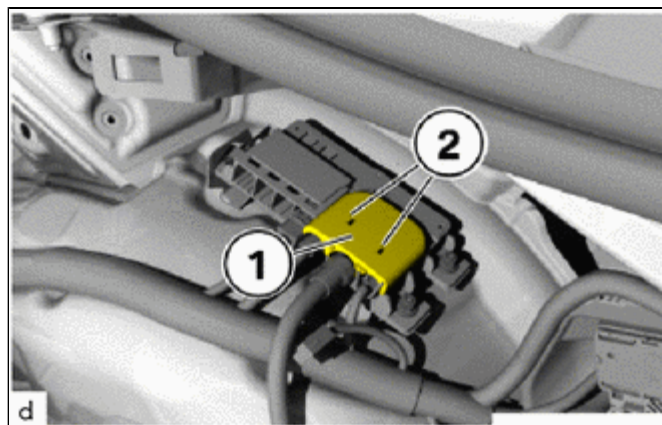
Click here [INFO](#)

8. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

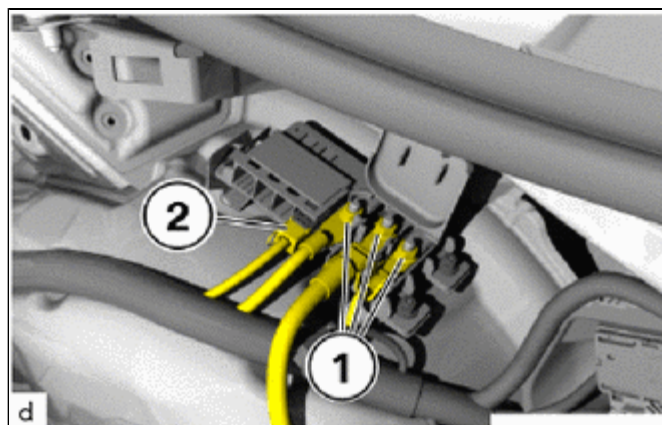
Click here [INFO](#)

9. REMOVE REAR POWER DISTRIBUTION BOX

(a) Remove the cover (1) from the latch mechanisms (2) and fold open.

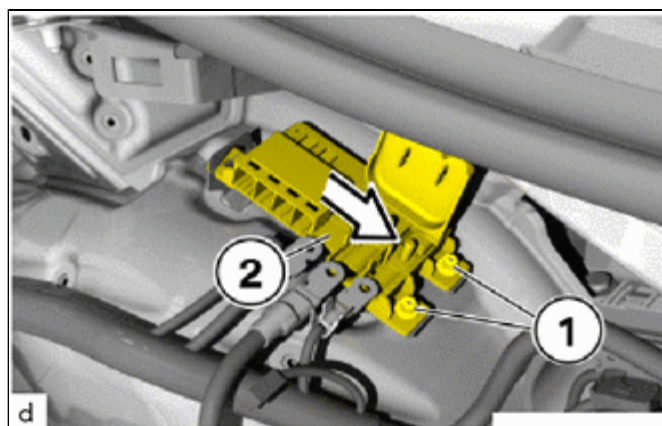


(b) Unscrew nuts (1), thread out the positive battery cables below it and set aside.



(c) Unlock and disconnect connector (2).

(d) Loosen nuts (1).



(e) Lift the rear power distribution box (2) in the rear off the threaded bolts and remove in direction of arrow.

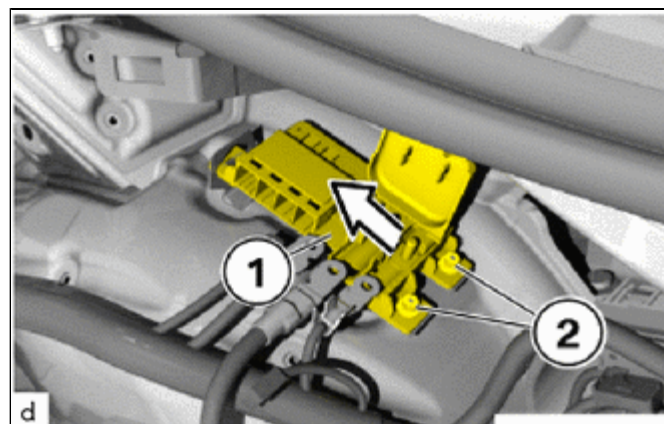
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): REAR POWER DISTRIBUTION BOX: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL REAR POWER DISTRIBUTION BOX

- (a) Insert the rear power distribution box (1) in direction of arrow and position on the threaded bolt.

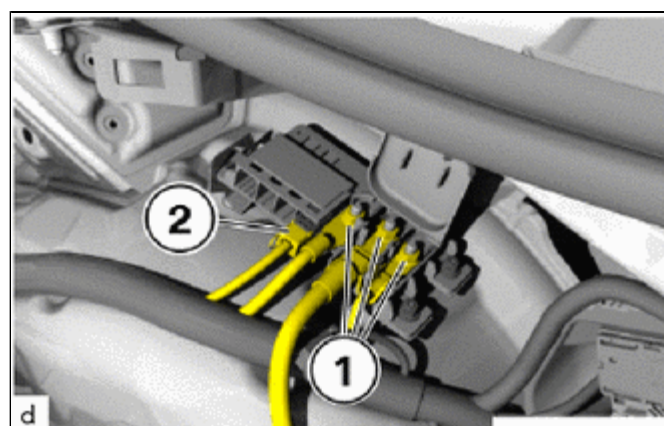


- (b) Tighten nuts (2).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

- (c) Connect connector (2) and lock.

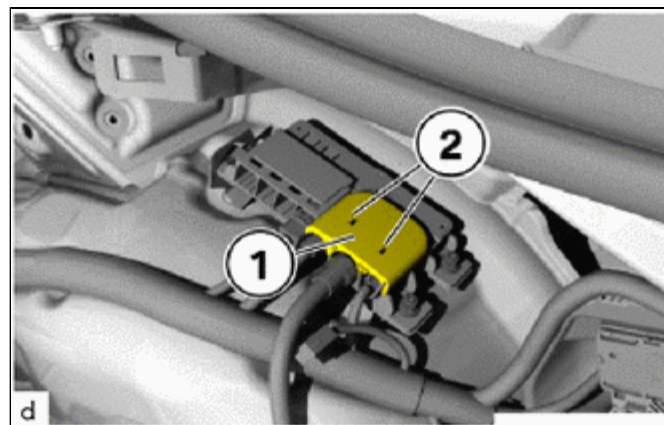


- (d) Position positive battery cables according to their encoding and tighten the nuts (1).

Torque:

15 N·m {153 kgf·cm, 11 ft·lbf}

(e) Close the cover (1) and clip in at the latch mechanisms (2).



2. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

3. INSTALL ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

4. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

Click here [INFO](#)

5. INSTALL TRANSVERSE PIPE TRIM

Click here [INFO](#)

6. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

Click here [INFO](#)

7. INSTALL DECK TRIM REAR COVER

Click here [INFO](#)

8. INSTALL TRIANGLE REFLECTOR SET

Click here [INFO](#)

9. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

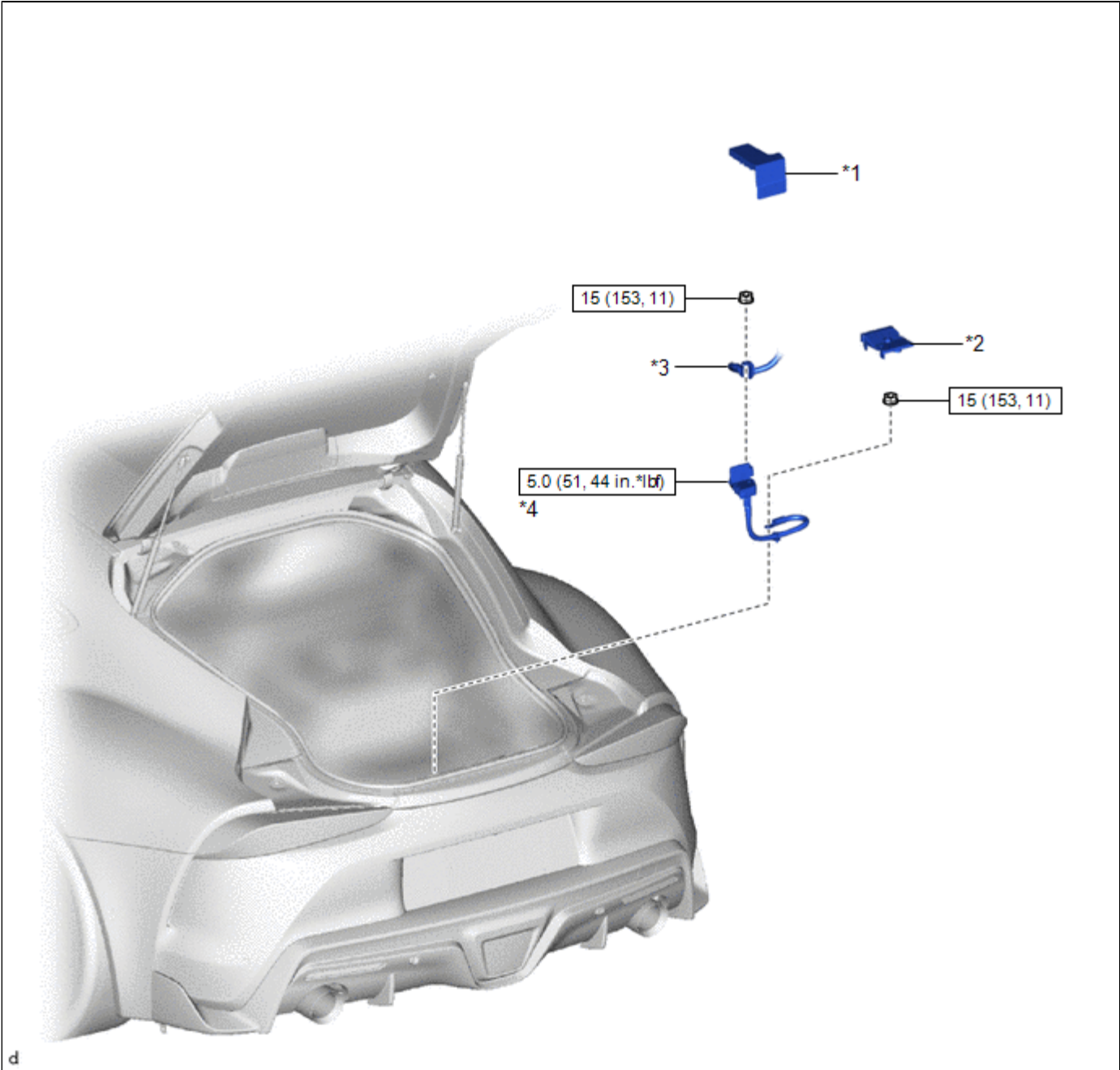
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): SAFETY BATTERY TERMINAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONNECTOR COVER	*2	COVER
*3	NO. 4 FLOOR WIRE	*4	SAFETY BATTERY TERMINAL
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2J
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): SAFETY BATTERY TERMINAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE SAFETY BATTERY TERMINAL

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

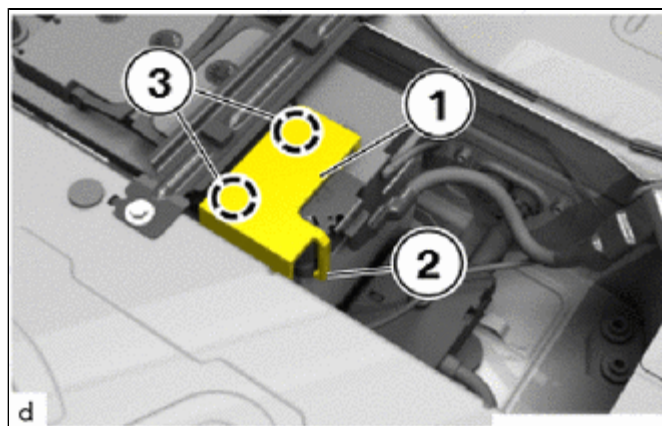
- Disconnect the cable from the negative (-) battery terminal.

NOTICE:

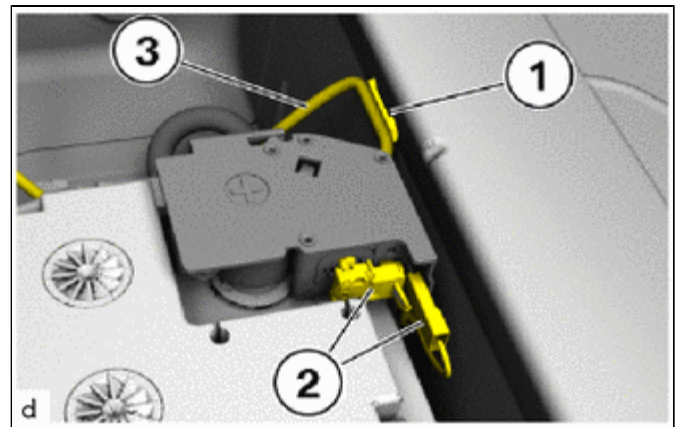
- Damage to battery terminal, the safety battery terminal or the battery state sensor.
- Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.
 - Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.
- Electrostatic discharge.
- Damage to or destruction of electrical components.
 - Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
 - Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
 - For additional information see:

Click here [INFO](#)

- (a) Release latch mechanism (2) and thread the connector cover (1) out the guides (3) to the top and remove.



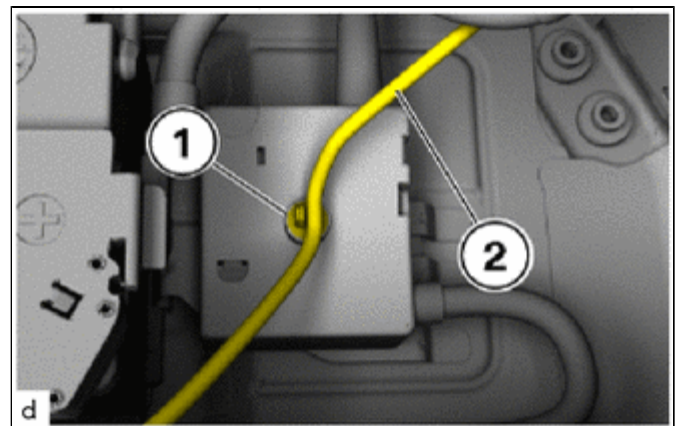
(b) Loosen the holder (1).



(c) Unlock and disconnect connectors (2).

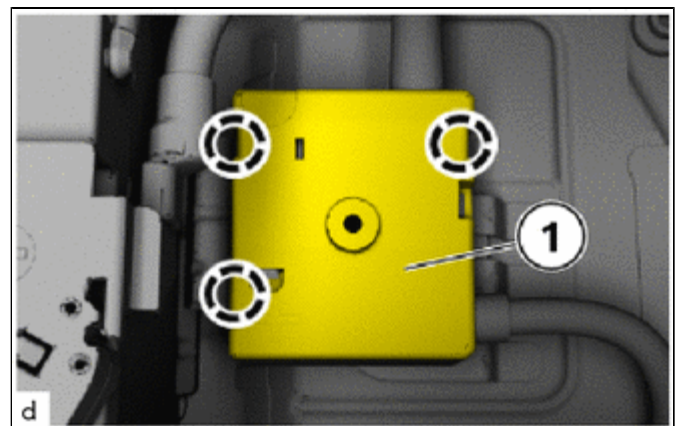
(d) Put the cable (3) to one side.

(e) Loosen the holder (1).



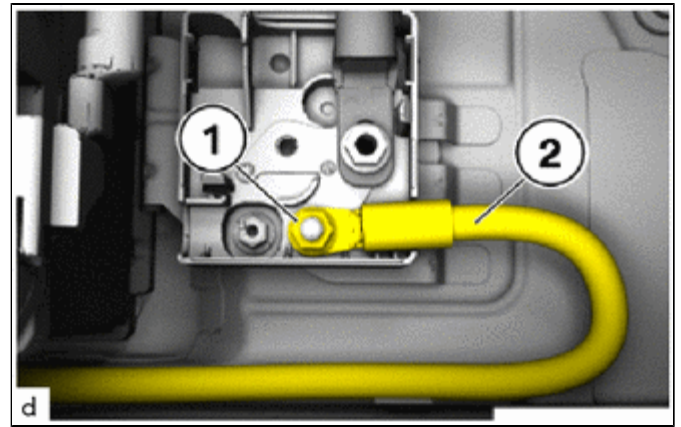
(f) Put the cable (2) to one side.

(g) Unclip the cover (1) in the marked areas.



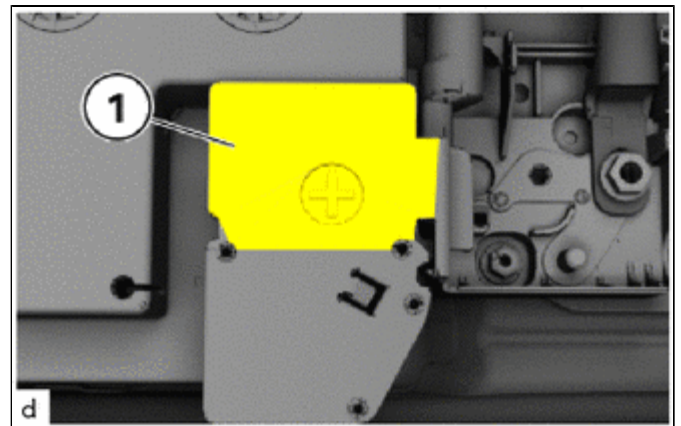
(h) Release and remove the cover (1).

(i) Unfasten nut (1).

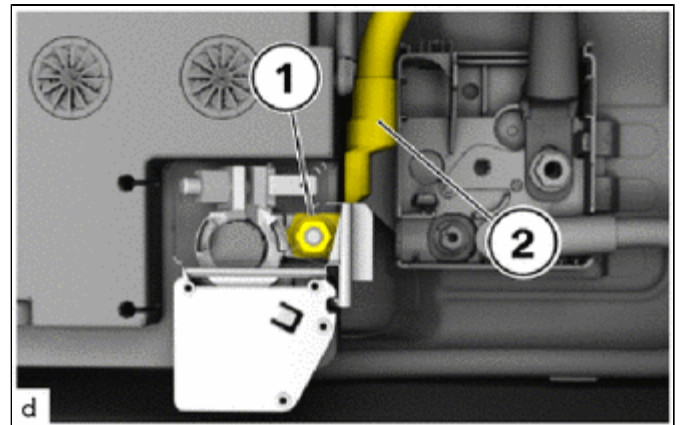


(j) Remove No. 4 floor wire (2).

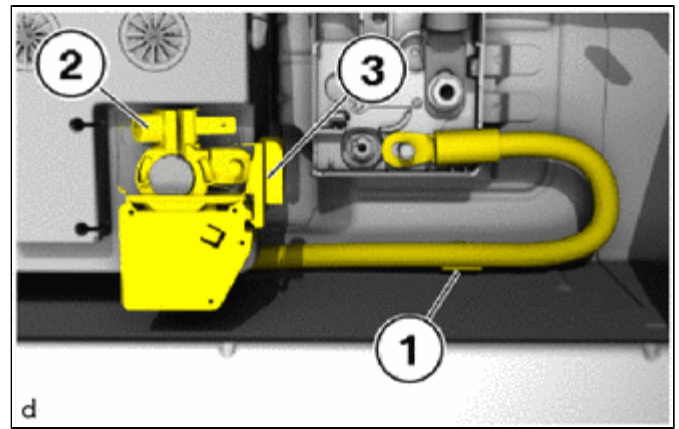
(k) Open the cover (1) of the safety battery terminal.



(l) Release the nut (1) and put the No. 4 floor wire (2) aside.



(m) Loosen the holder (1).



(n) Release nut (2) and remove the safety battery terminal (3).

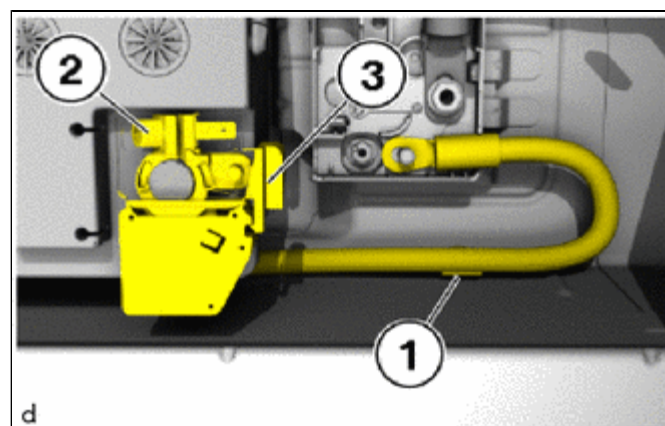
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD2K
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (BATTERY / CHARGING): SAFETY BATTERY TERMINAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SAFETY BATTERY TERMINAL

- (a) Install the safety battery terminal (3) and position on the positive battery terminal.



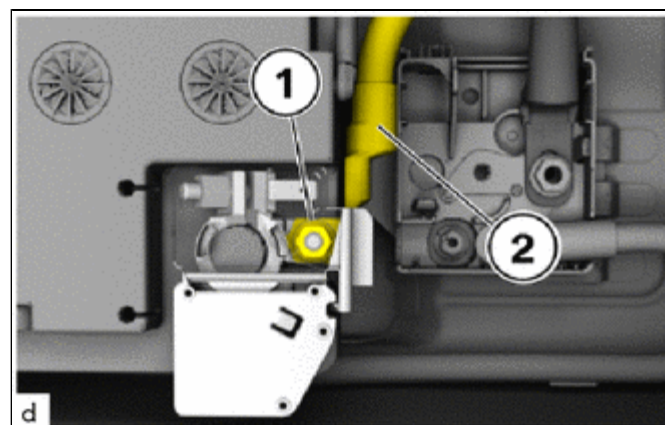
- (b) Secure the holder (1).

- (c) Tighten nut (2).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

- (d) Position the No. 4 floor wire (2) on the safety battery terminal.



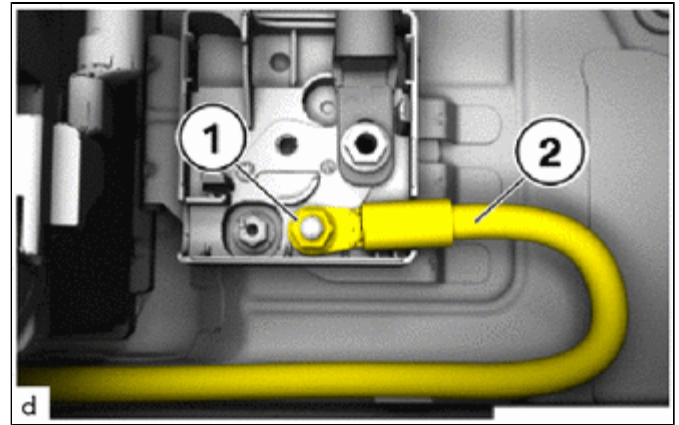
- (e) Tighten nut (1).

Torque:

15 N·m {153 kgf·cm, 11 ft·lbf}

- (f) Close the cover of the safety battery terminal.

(g) Position the No. 4 floor wire (2) on the power distribution box.

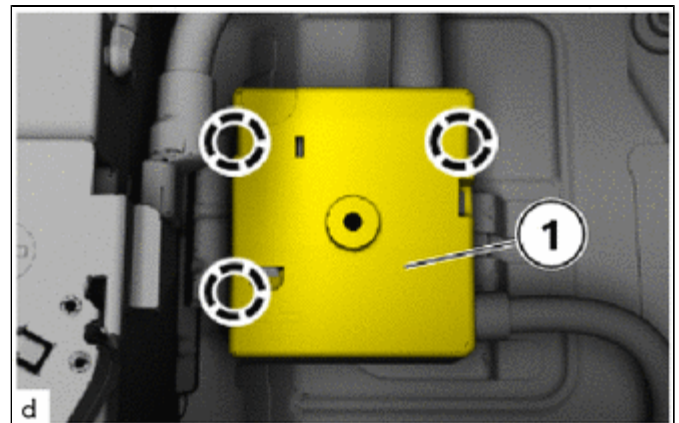


(h) Tighten nut (1).

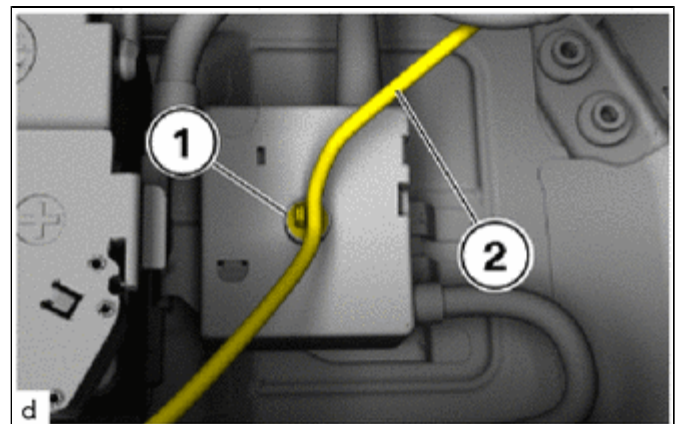
Torque:

15 N·m {153 kgf·cm, 11 ft·lbf}

(i) Position the cover (1) and clip into the marked areas.

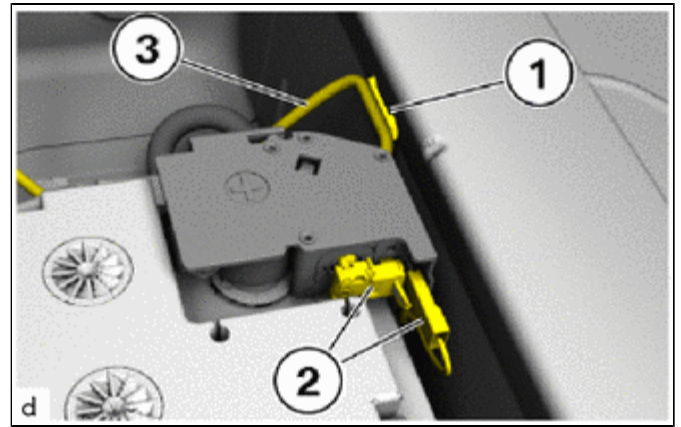


(j) Position cable (2).



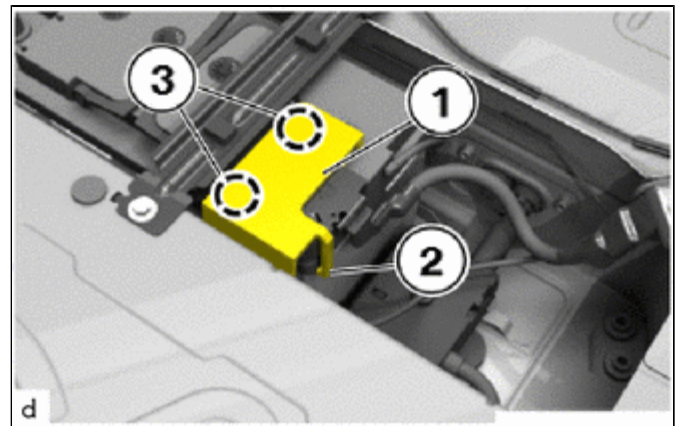
(k) Clip in the holder (1).

(l) Position the cable (3) and clip in the holder (1).



(m) Connect connectors (2) and lock.

(n) Insert the connector cover (1) at the guides (3) and engage in the latch mechanism (2).



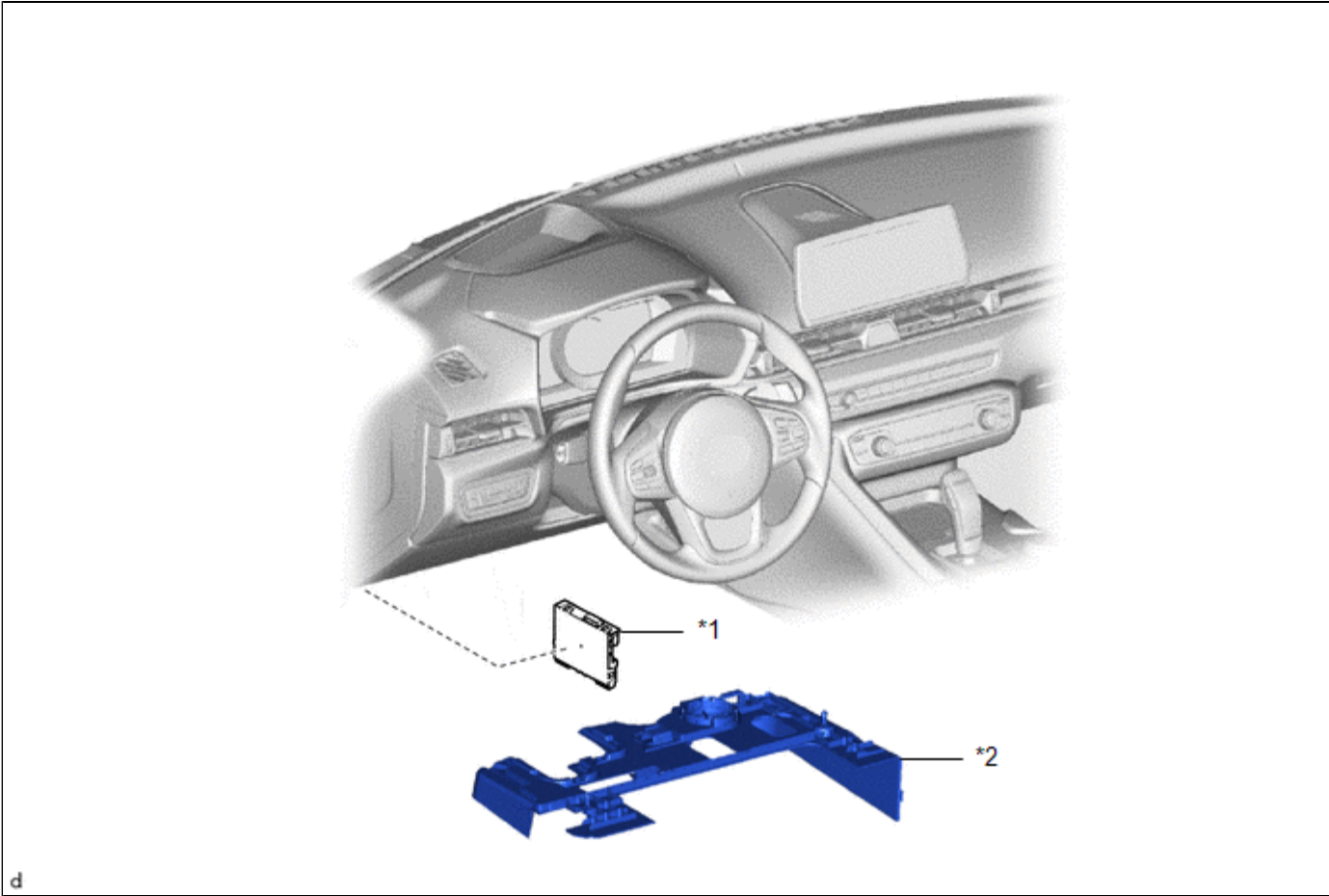
2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NETWORKING: NETWORK GATEWAY ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ETHERNET SWITCH	*2	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
----	-----------------	----	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NETWORKING: NETWORK GATEWAY ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE ETHERNET SWITCH

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

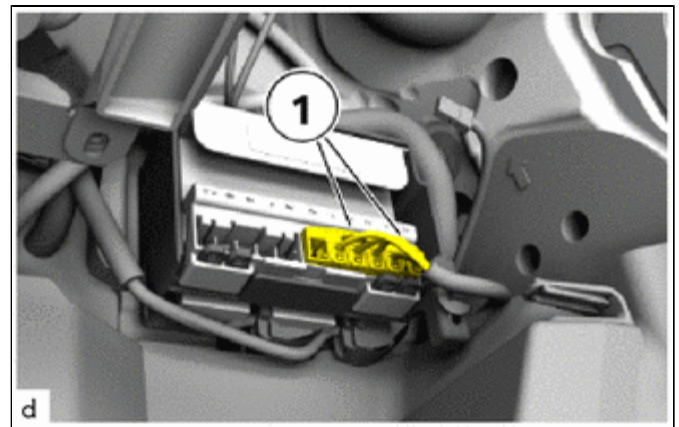
Click here [INFO](#)

- Damage to wires when disconnecting connectors and plug connections.

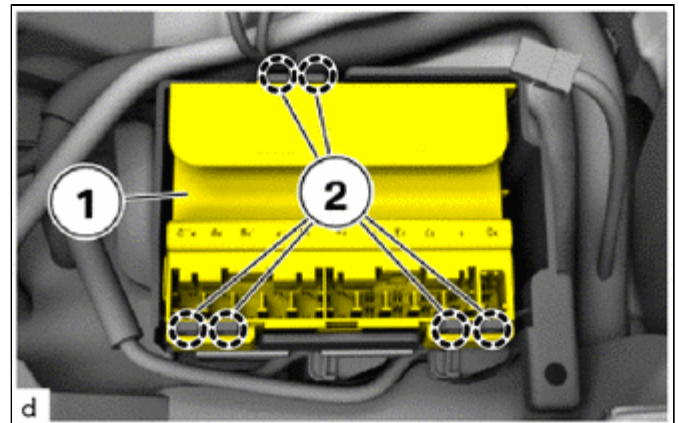
Sheared wires can cause a short circuit.

- Do not pull on the wires when disconnecting connectors and plug connections

(a) Unlock plug connections (1) and disconnect.



(b) Detach the guides (2) to remove the ethernet switch (1).



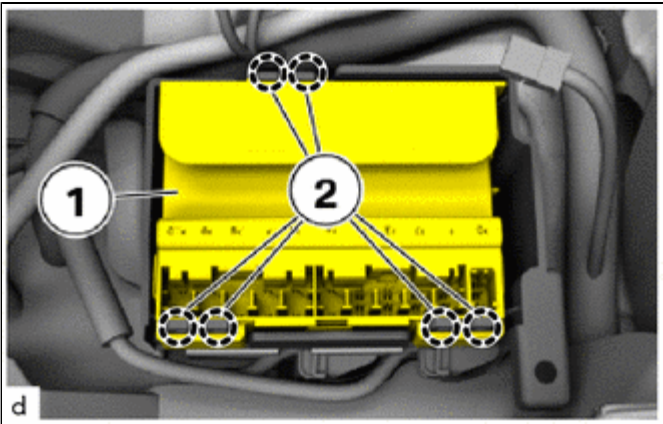
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDJF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NETWORKING: NETWORK GATEWAY ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

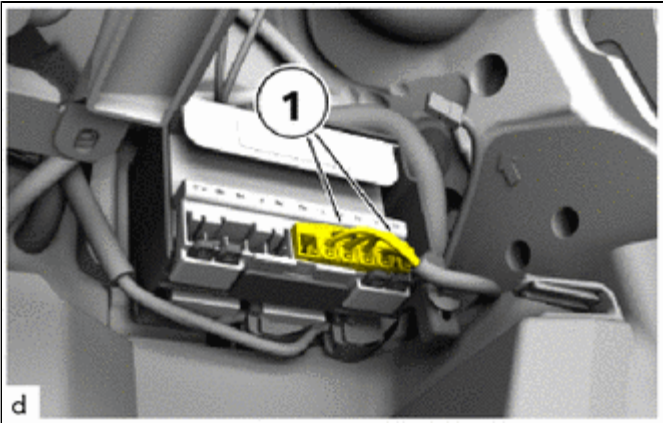
PROCEDURE

1. INSTALL ETHERNET SWITCH

(a) Attach the guides (2) to install the ethernet switch (1).



(b) Connect connectors and lock.



2. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

4. EXECUTE A PORT CONFIGURATION WITH THE DIAGNOSIS SYSTEM

(a) Connect the diagnosis system to the vehicle and enter the following menus:


Vehicle management / Service functions / Body / Ethernet / Port configuration



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCET
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: FUSE BOX: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION

*5	DECK TRIM REAR COVER	*6	REAR POWER DISTRIBUTION BOX
*7	ROOF SIDE INNER GARNISH ASSEMBLY RH	*8	ROPE HOOK
*9	SEAT BELT HOLE COVER SUB- ASSEMBLY RH	*10	TRIANGLE REFLECTOR SET
*11	TUBELESS TIRE REPAIR KIT	*12	SCREWDRIVER
*13	TRANSPORT HOOK	*14	BACK DOOR STRIKER COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: FUSE BOX: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

3. REMOVE TRIANGLE REFLECTOR SET

Click here [INFO](#)

4. REMOVE DECK TRIM REAR COVER

Click here [INFO](#)

5. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

6. SEPARATE TRANSVERSE PIPE TRIM

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

7. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

[Click here](#) [INFO](#)

8. REMOVE ROPE HOOK (w/ Courtesy Light)

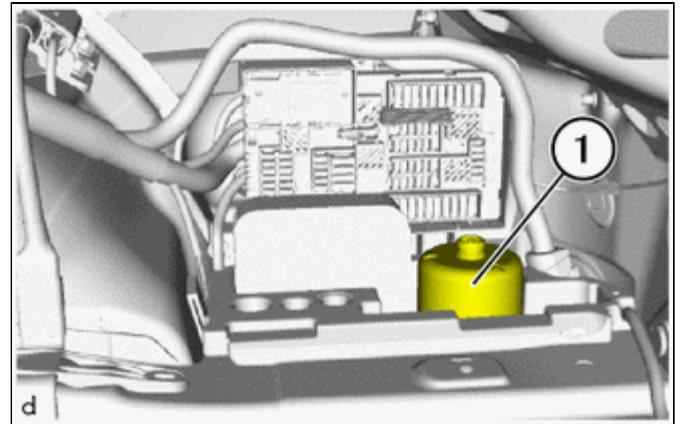
[Click here](#) [INFO](#)

9. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

[Click here](#) [INFO](#)

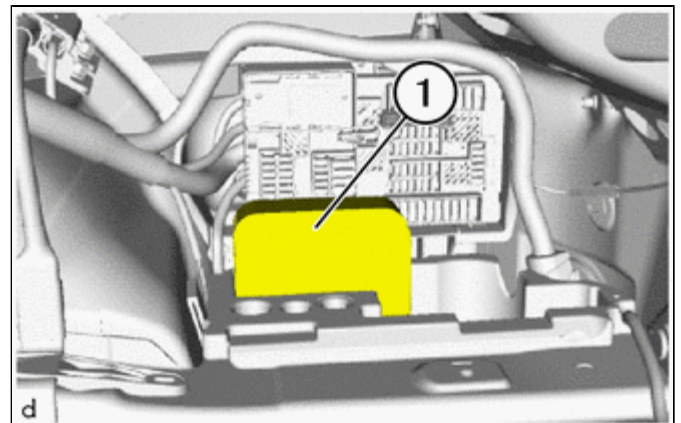
10. REMOVE TUBELESS TIRE REPAIR KIT (w/ Repair Kit)

(a) Remove the tubeless tire repair kit (1).



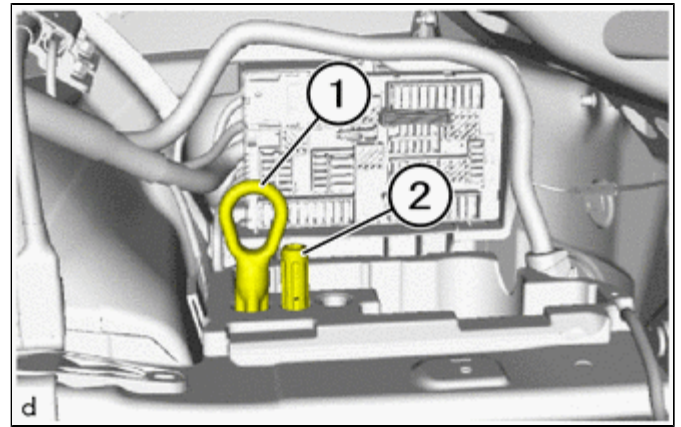
11. REMOVE AIR COMPRESSOR ASSEMBLY (w/ Repair Kit)

(a) Remove the air compressor assembly (1).

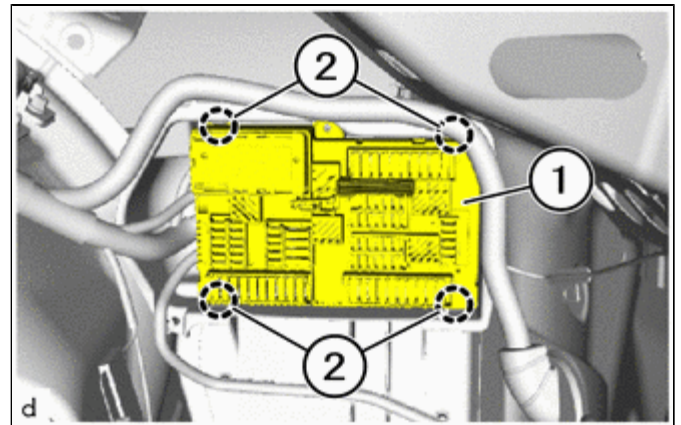


12. REMOVE REAR POWER DISTRIBUTION BOX

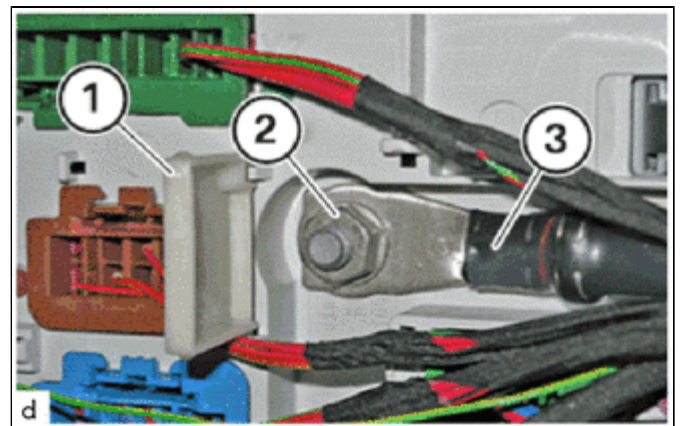
(a) Remove the transport hook (1) and screwdriver (2).



(b) Detach the claws (2) to remove the rear power distribution box (1).



(c) Open the cover (1).

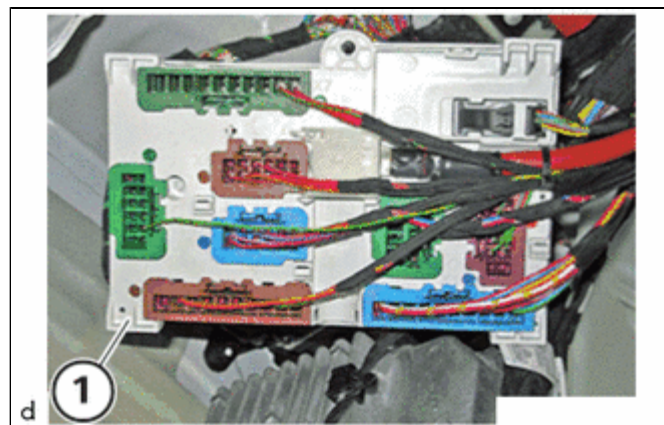


(d) Loosen the nut (2).

(e) If applicable, loosen the tie band on the positive battery cable (3).

(f) Remove the positive battery cable (3).

(g) Disconnect all the connectors to remove the rear power distribution box (1).



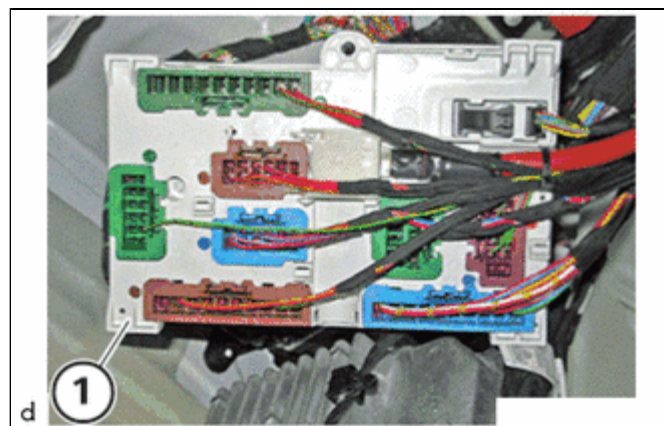
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: FUSE BOX: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

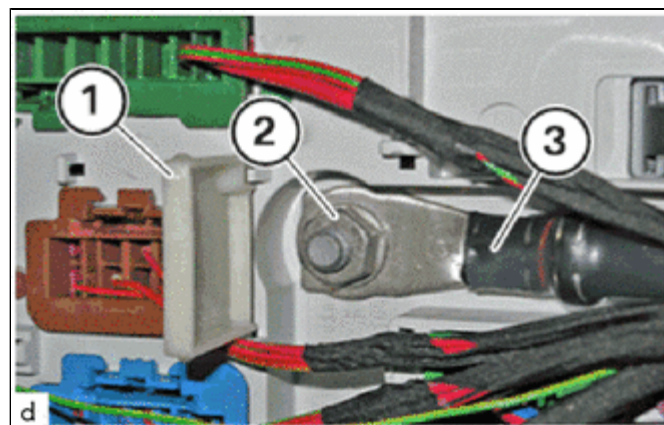
PROCEDURE

1. INSTALL REAR POWER DISTRIBUTION BOX

- (a) Connect all the connectors to the rear power distribution box (1).



- (b) Install the positive battery cable (3).



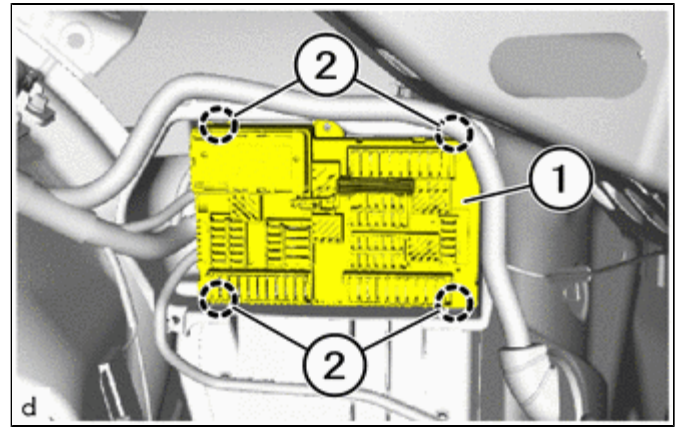
- (c) Tighten the nut (2).

Torque:

15 N·m {153 kgf·cm, 11 ft·lbf}

- (d) If applicable, replace the tie band on the positive battery cable (3).
 (e) Close the cover (1).

- (f) Attach the claws (2) to install the rear power distribution box (1) correctly.



- (g) Install the screwdriver and transport hook.

2. INSTALL AIR COMPRESSOR ASSEMBLY (w/ Repair Kit)

- (a) Install the air compressor assembly.

3. INSTALL TUBELESS TIRE REPAIR KIT (w/ Repair Kit)

- (a) Install the tubeless tire repair kit.

4. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

5. INSTALL ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

6. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

7. CONNECT TRANSVERSE PIPE TRIM

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

8. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

9. INSTALL DECK TRIM REAR COVER

Click here [INFO](#)

10. INSTALL TRIANGLE REFLECTOR SET

Click here [INFO](#)

11. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

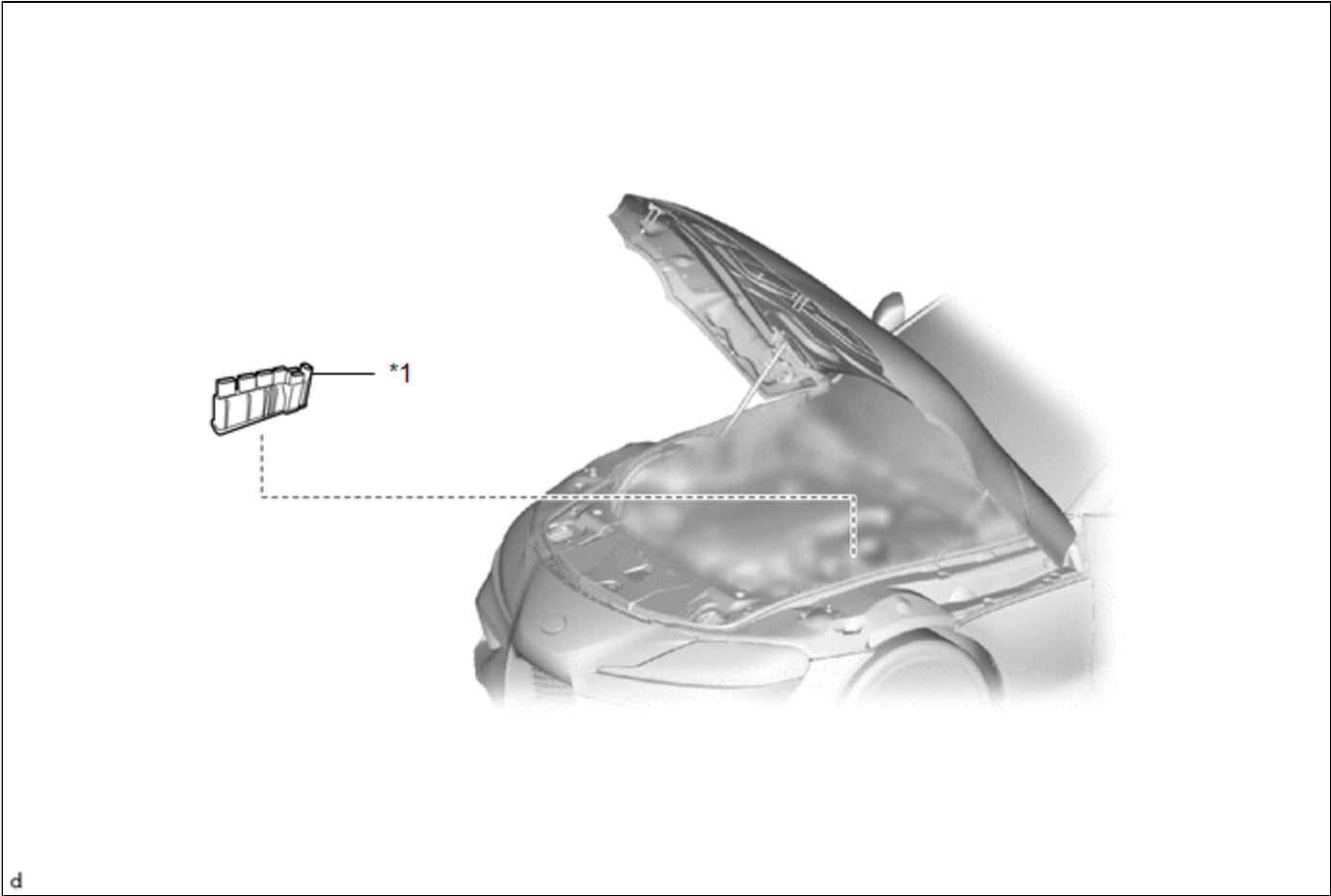
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: INTEGRATION RELAY (for Engine Room Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 INTEGRATION RELAY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: INTEGRATION RELAY (for Engine Room Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE ECM

Click here [INFO](#)

2. REMOVE NO. 1 INTEGRATION RELAY

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

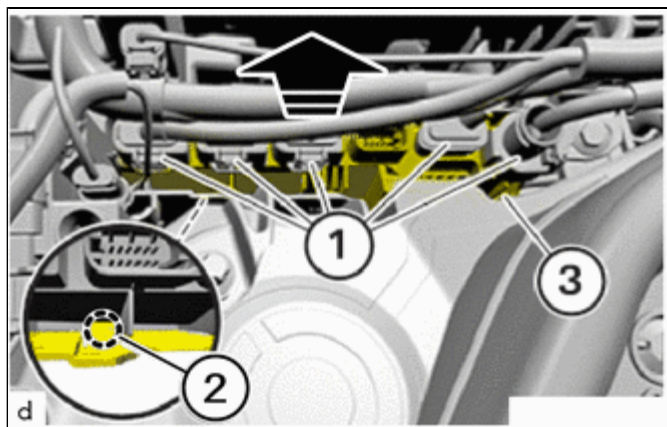
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Disconnect all the connectors (1).



Remove in this Direction

(b) Detach the claw (2).

(c) Remove the No.1 integration relay (3) as shown in the illustration.



TOYOTA

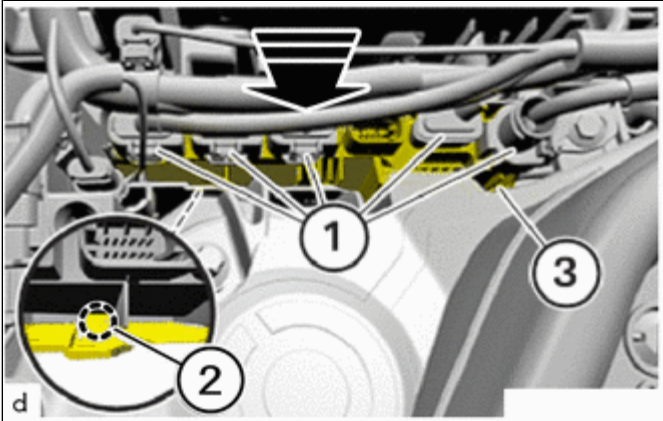
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: INTEGRATION RELAY (for Engine Room Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 INTEGRATION RELAY

(a) Attach the claw (2) to install the No.1 integration relay (3) as shown in the illustration.



Install in this Direction

NOTICE:
 Check the attaching sound of the claw (2).

(b) Connect all the connectors (1).

NOTICE:
 Check the connecting sound of all the connectors (1).

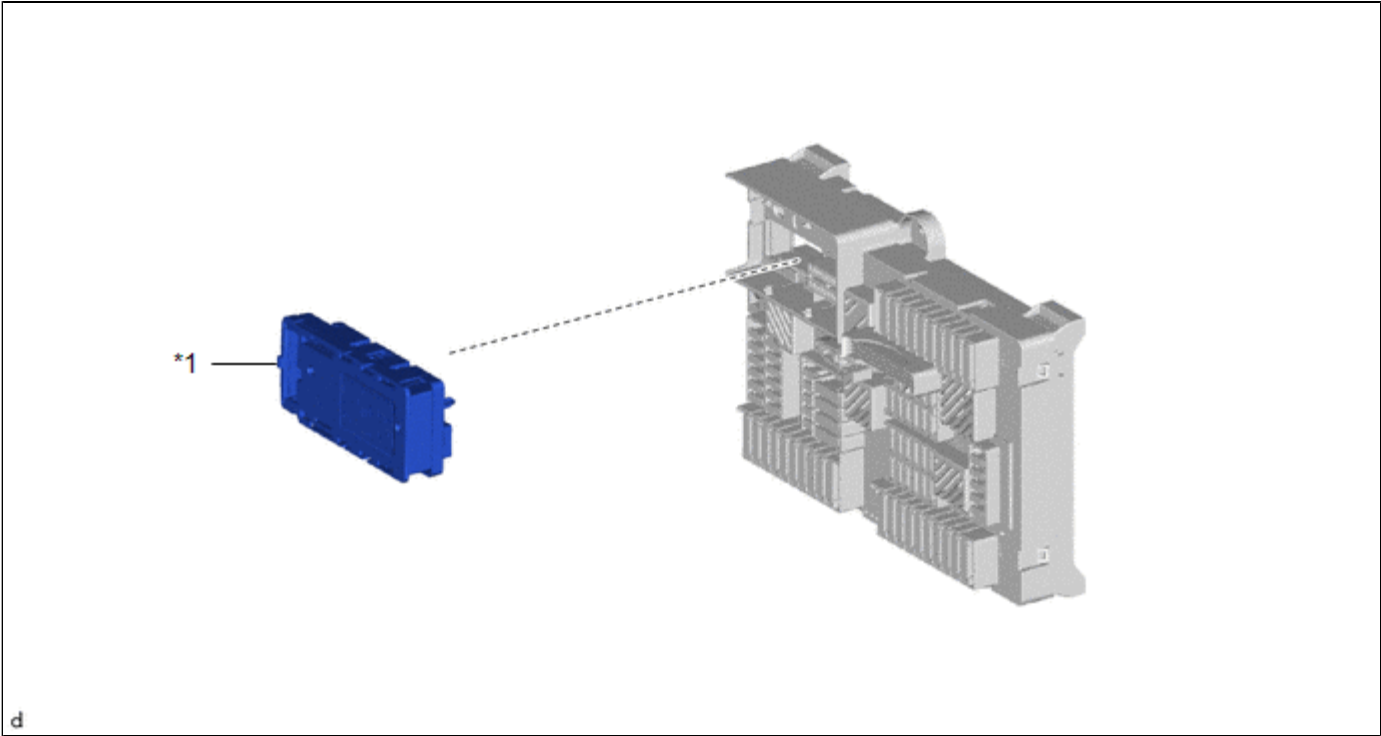
2. INSTALL ECM

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: INTEGRATION RELAY (for Luggage Compartment): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SEMICONDUCTOR POWER INTEGRATION ECU	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCER
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: INTEGRATION RELAY (for Luggage Compartment): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.
- Risk of short circuits! Risk of fire!
- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

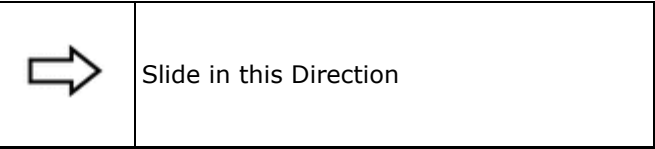
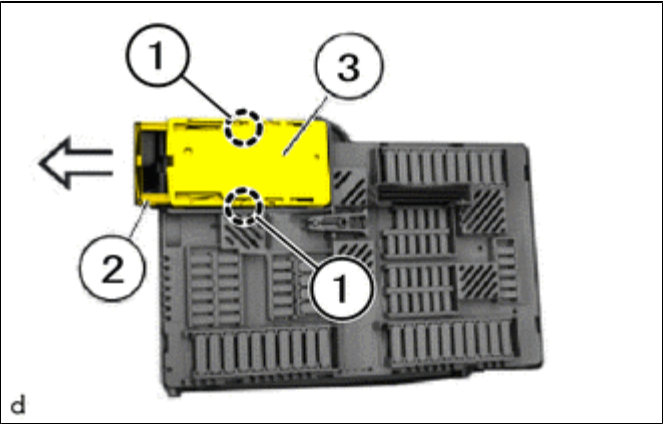
PROCEDURE

1. REMOVE REAR POWER DISTRIBUTION BOX

Click here [INFO](#)

2. REMOVE SEMICONDUCTOR POWER INTEGRATION ECU

(a) Press the marked area (1) to slide the locking bracket (2) in the direction of the arrow.



(b) Remove the semiconductor power integration ECU (3) from the rear power distribution box.

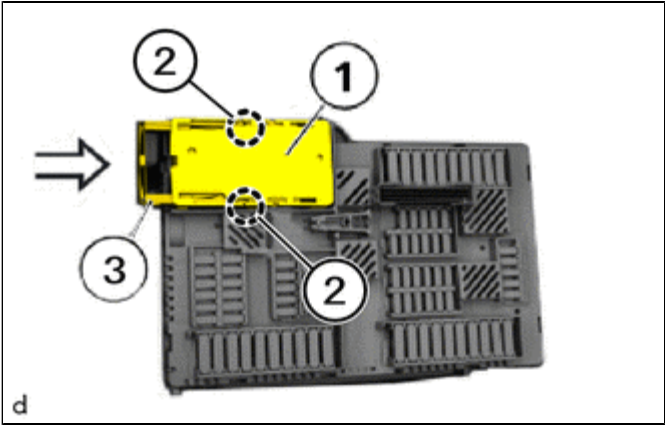
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCES
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: INTEGRATION RELAY (for Luggage Compartment): INSTALLATION; 2020 MY Supra [03/2019 -]		


INSTALLATION

PROCEDURE

1. INSTALL SEMICONDUCTOR POWER INTEGRATION ECU

(a) Install the semiconductor power integration ECU (1) correctly.





Slide in this Direction

(b) Press the marked area (2) to slide the locking bracket (3) in the direction of the arrow.

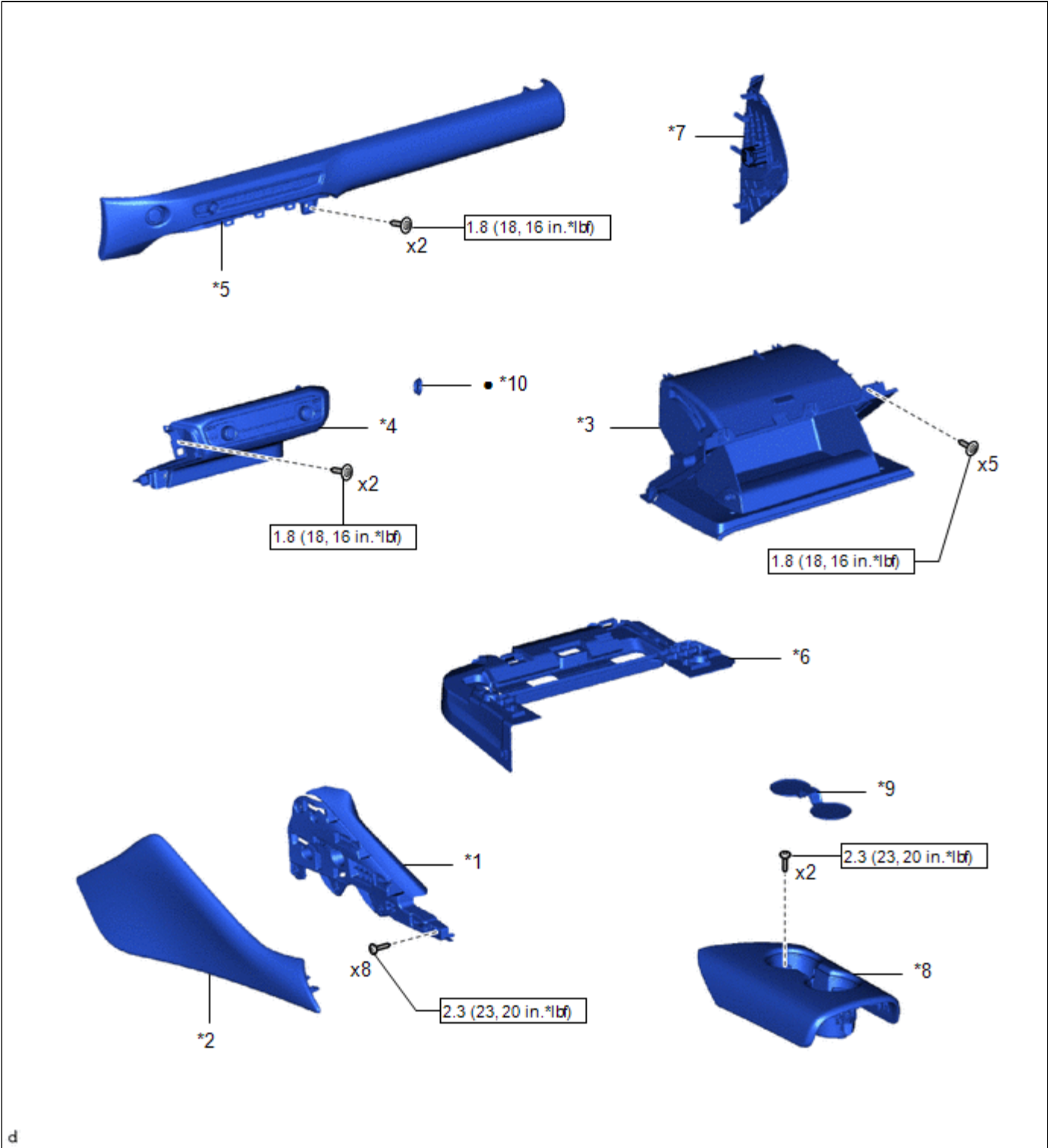
2. INSTALL REAR POWER DISTRIBUTION BOX

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: MAIN BODY ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

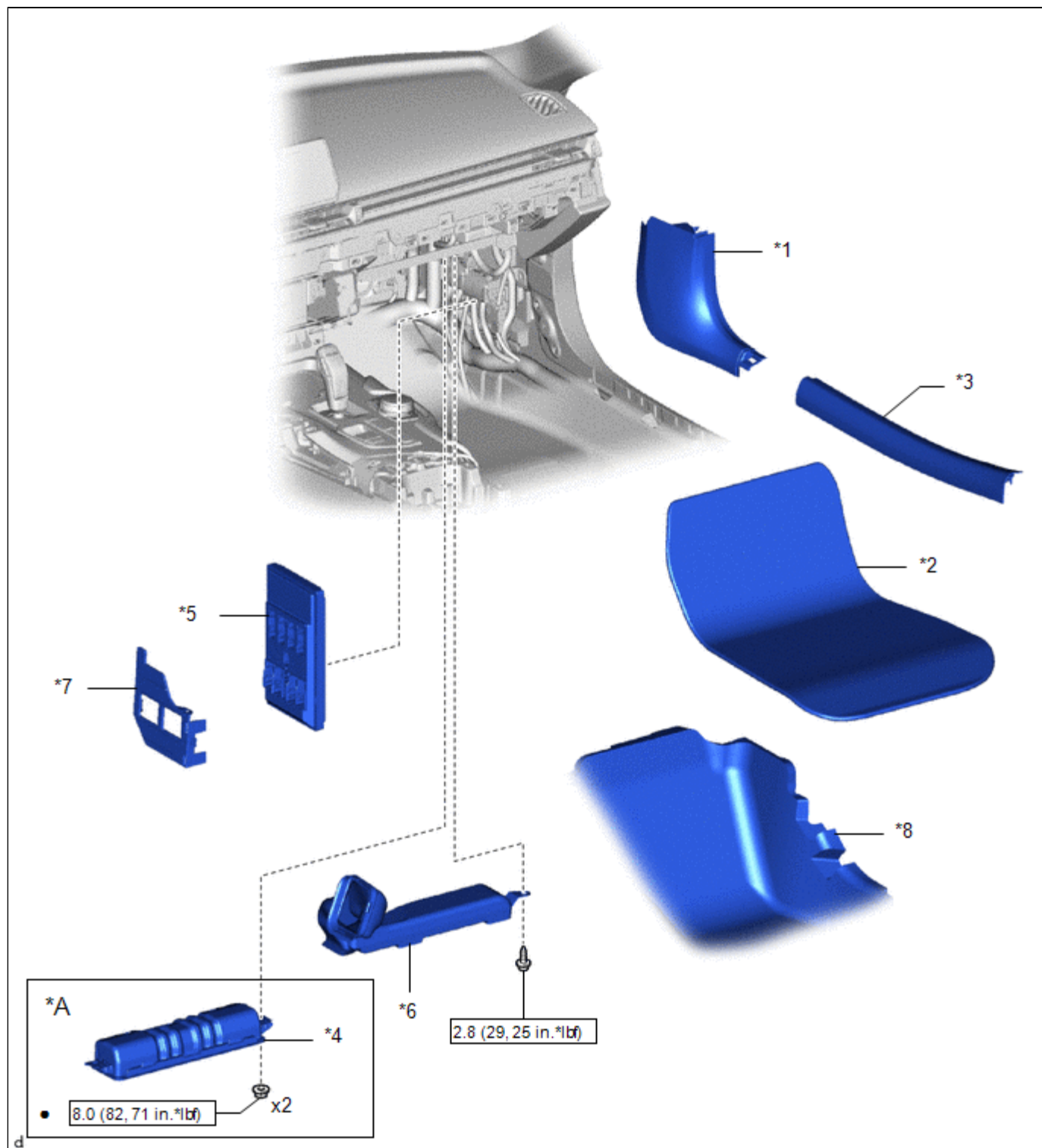
ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE	*2	CONSOLE SIDE PANEL
----	---------------------------	----	--------------------

	PANEL RETAINER		
*3	GLOVE COMPARTMENT DOOR ASSEMBLY	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY	*6	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
*7	NO. 1 INSTRUMENT SIDE PANEL	*8	FRONT CONSOLE ARMREST ASSEMBLY
*9	NO. 1 CONSOLE BOX SILENCER PAD	*10	RUBBER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*A	w/ Knee Airbag	-	-
*1	COWL SIDE TRIM BOARD RH	*2	FLOOR MAT ASSEMBLY
*3	FRONT DOOR SCUFF PLATE RH	*4	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY
*5	MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)	*6	NO. 2 AIR DUCT
*7	COVER	*8	FRONT FLOOR CARPET ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

<div></div>			
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: MAIN BODY ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

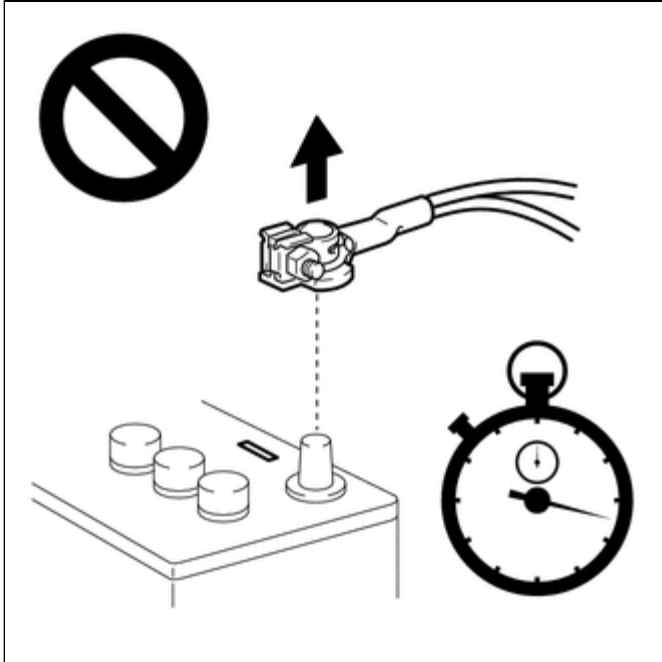
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



2. REMOVE FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

3. REMOVE CONSOLE SIDE PANEL

Click here [INFO](#)

4. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

5. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

6. REMOVE NO. 1 INSTRUMENT SIDE PANEL

Click here [INFO](#)

7. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

8. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

9. REMOVE NO.2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

10. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Knee Airbag)

Click here [INFO](#)

11. REMOVE NO. 2 AIR DUCT

Click here [INFO](#)

12. REMOVE FLOOR MAT ASSEMBLY

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

13. REMOVE FRONT DOOR SCUFF PLATE RH

HINT:

Use the same procedure as for the LH side.

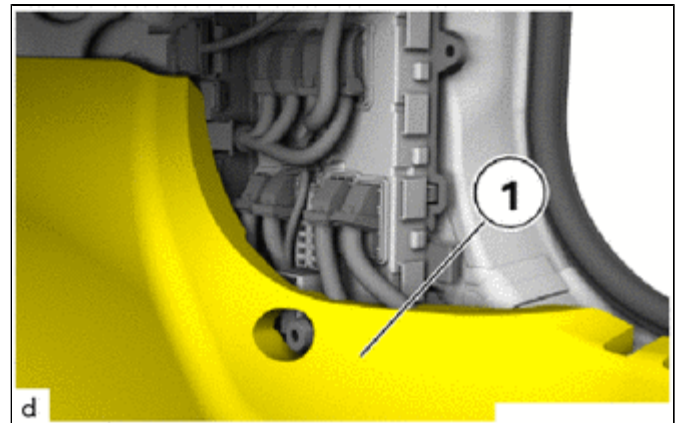
Click here [INFO](#)

14. REMOVE COWL SIDE TRIM BOARD RH

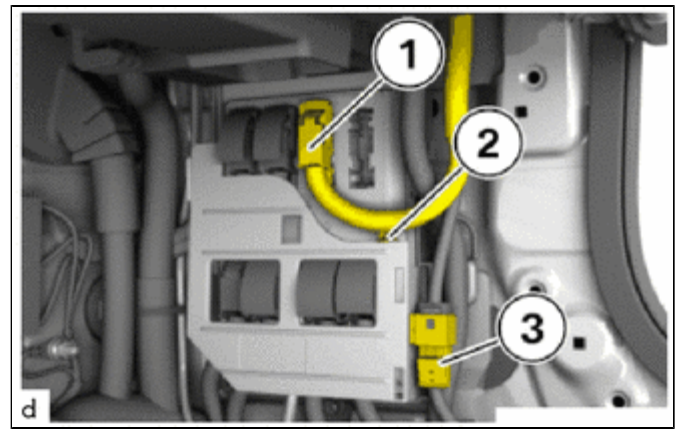
Click here [INFO](#)

15. REMOVE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)

(a) Fold the front floor carpet assembly (1) to the side.

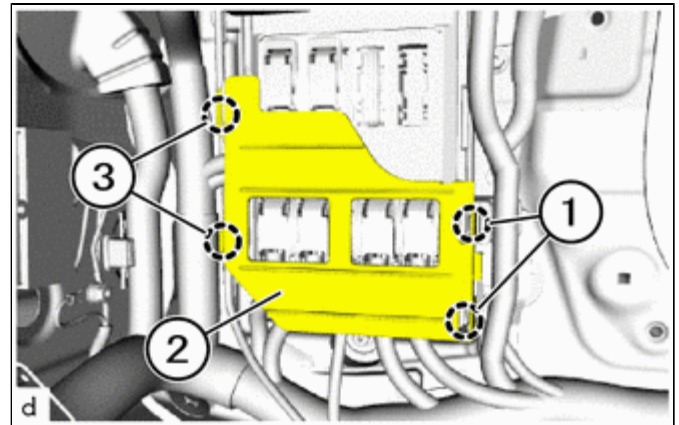


(b) Disconnect the connector (1).



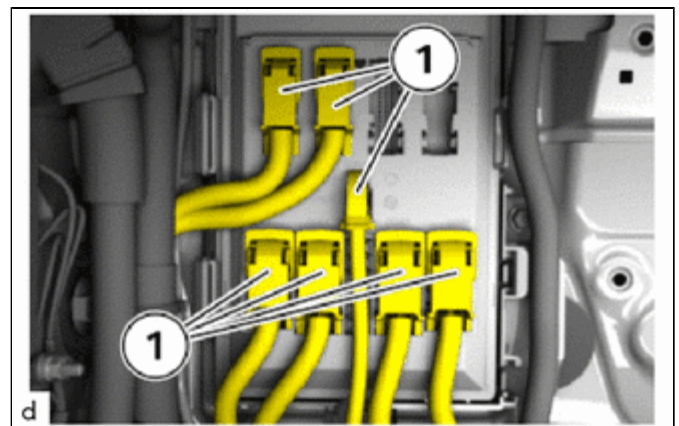
(c) Detach the clamp (2).

(d) Detach the connector housing (3).



(e) Detach the claws (1).

(f) Feed out the cover (2) of main body ECU (multiplex network body ECU) at the guides (3).

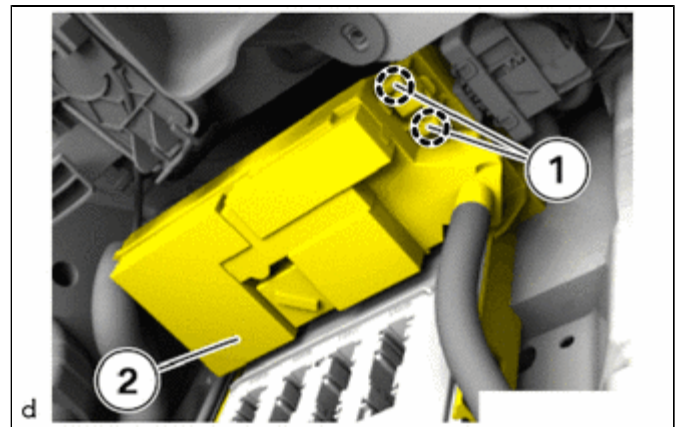


(g) Disconnect all the connectors (1).

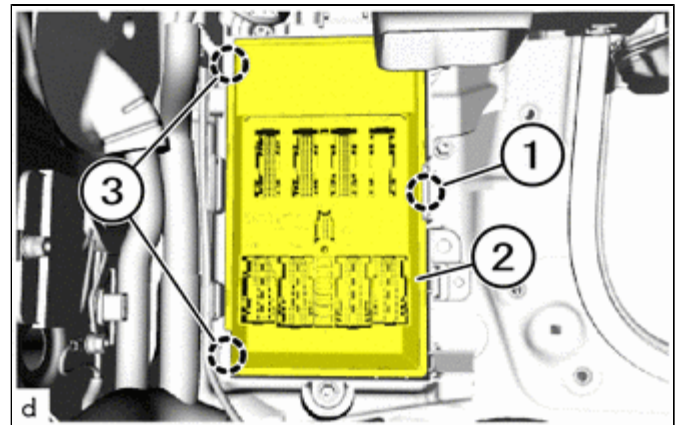
(h) Release the claws (1) to feed out the fuse box (2) from the holder.

HINT:

Fuse box (2) remains in the vehicle.



(i) Detach the claw (1).



(j) Feed out and remove the main body ECU (multiplex network body ECU) (2) from the guides (3).

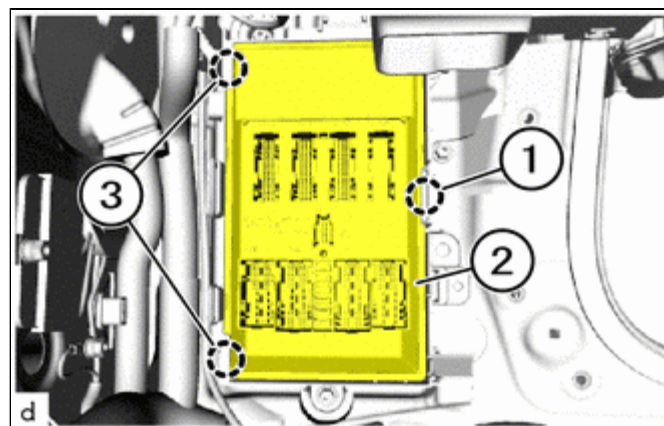
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCEY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER DISTRIBUTION: MAIN BODY ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

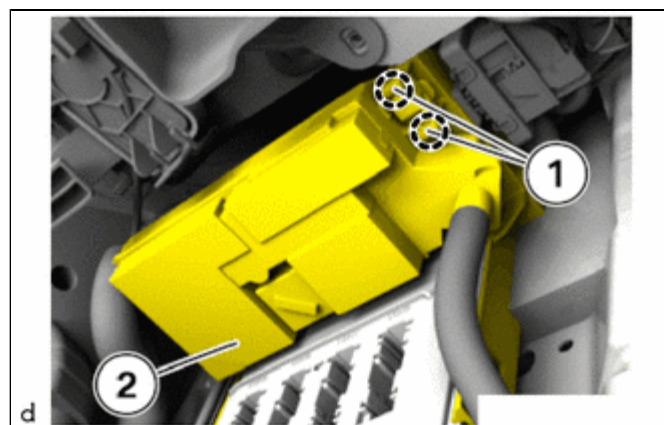
1. INSTALL MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)

- (a) Position the main body ECU (multiplex network body ECU) (2) and thread into the guides (3).

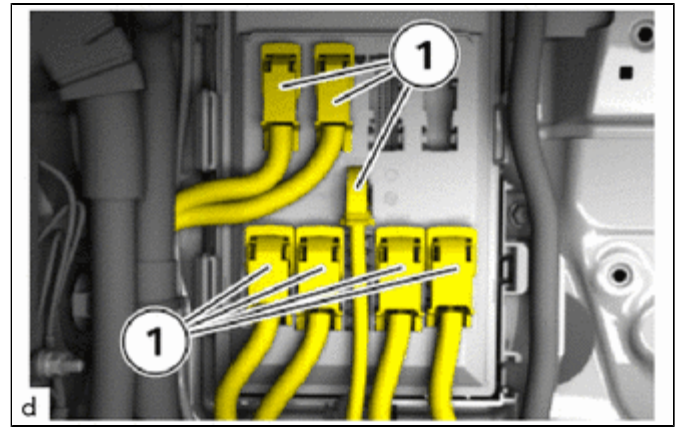


- (b) Attach the claw (1).

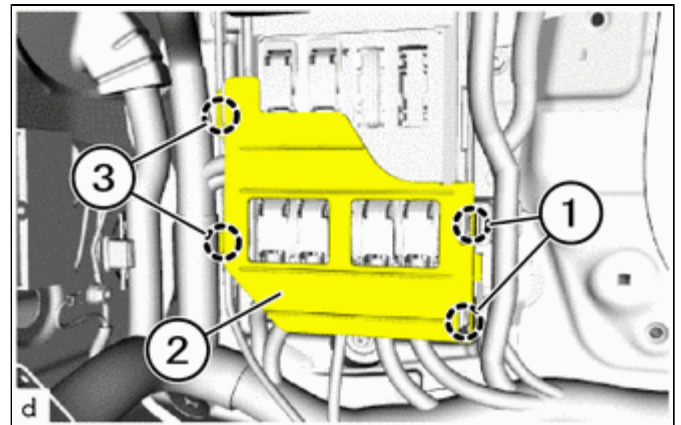
- (c) Correctly position the fuse box (2) and clip into the claws (1).



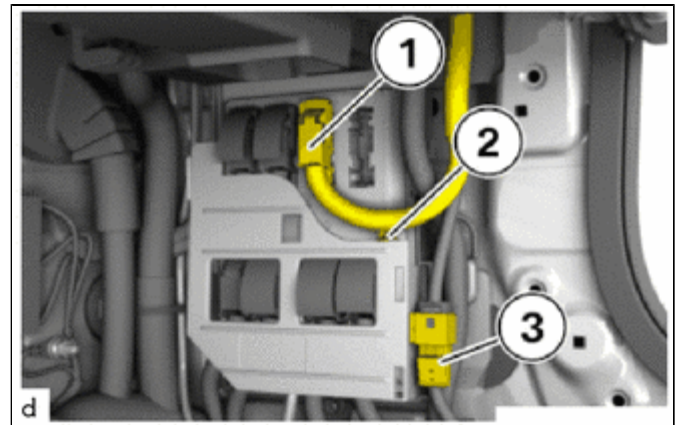
- (d) Connect all the connectors (1).



(e) Feed the cover (2) of main body ECU (multiplex network body ECU) onto the guides (3).



(f) Attach the claws (1).

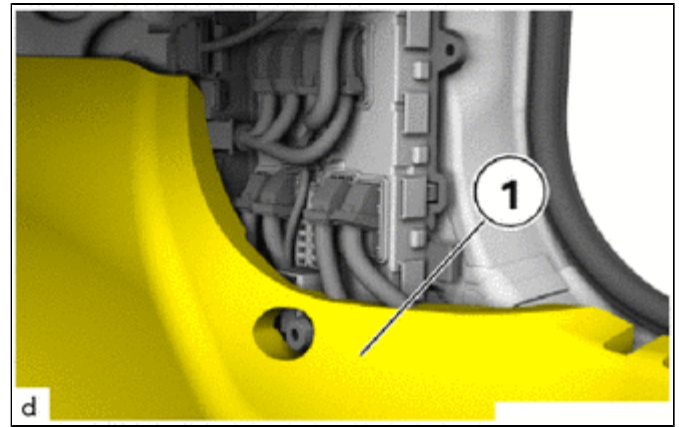


(g) Attach the connector housing (3).

(h) Attach the clamp (2).

(i) Connect the connector (1).

- (j) Fold back the front floor carpet assembly (1) and ensure it is positioned correctly.



2. INSTALL COWL SIDE TRIM BOARD RH

Click here [INFO](#)

3. INSTALL FRONT DOOR SCUFF PLATE RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

4. INSTALL FLOOR MAT ASSEMBLY

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

5. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

6. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Knee Airbag)

Click here [INFO](#)

7. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

8. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

9. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

10. INSTALL NO. 1 INSTRUMENT SIDE PANEL

Click here [INFO](#)

11. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

12. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

13. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

14. INSTALL FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

15. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

16. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

- (a) Connect the battery charger to the vehicle.
- (b) Connect the diagnosis system with the vehicle.
- (c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

- (d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

- (e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

- (f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

- (g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

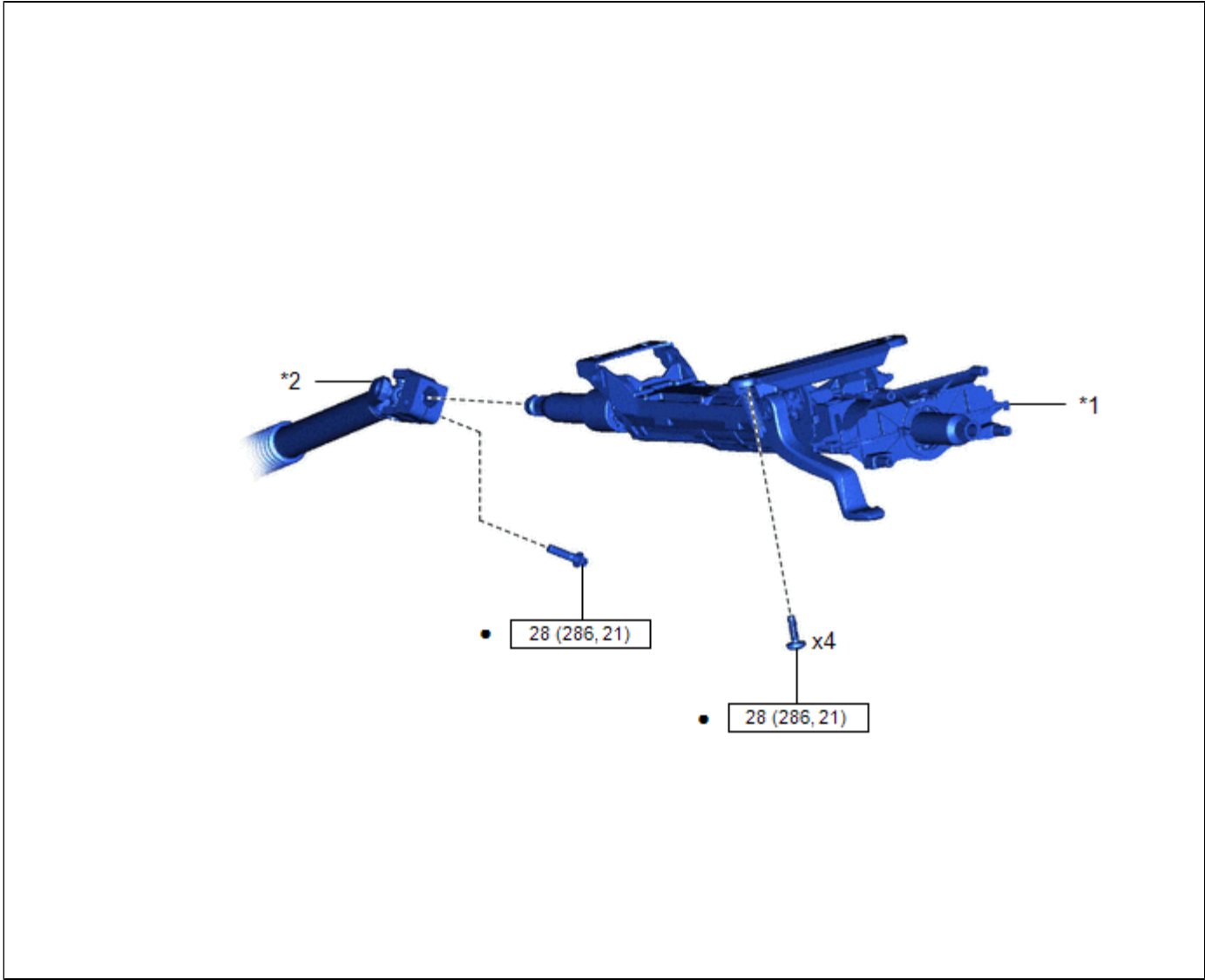
- (h) Disconnect the diagnosis system from the vehicle.

- (i) Disconnect the battery charger from the vehicle.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	STEERING COLUMN ASSEMBLY	*2	STEERING INTERMEDIATE SHAFT ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards



	Cushion (Airbag Itself)
---	-------------------------

- For additional information see:

[Click here](#) [INFO](#)

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

[Click here](#) [INFO](#)

2. DISCONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

[Click here](#) [INFO](#)

3. REMOVE TURN SIGNAL SWITCH ASSEMBLY

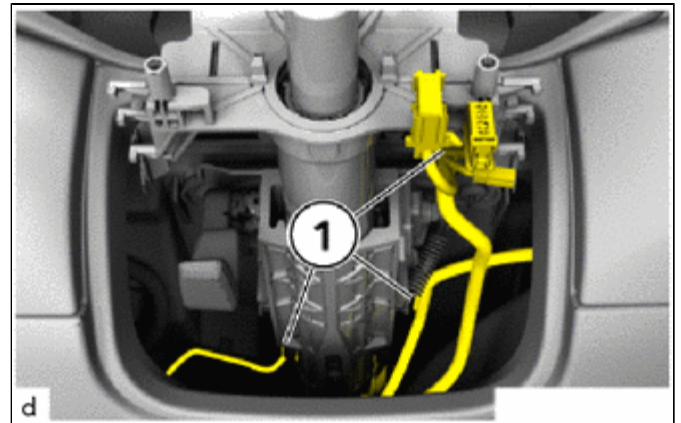
[Click here](#) [INFO](#)

4. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

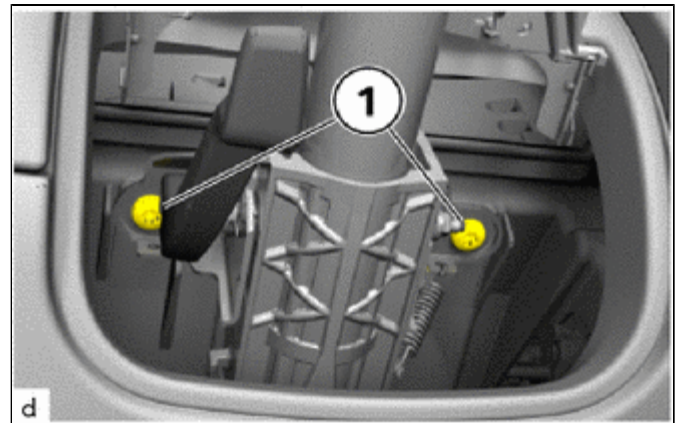
[Click here](#) [INFO](#)

5. REMOVE STEERING COLUMN ASSEMBLY

- (a) Release the vehicle wiring harness from the brackets (1) and put to one side.



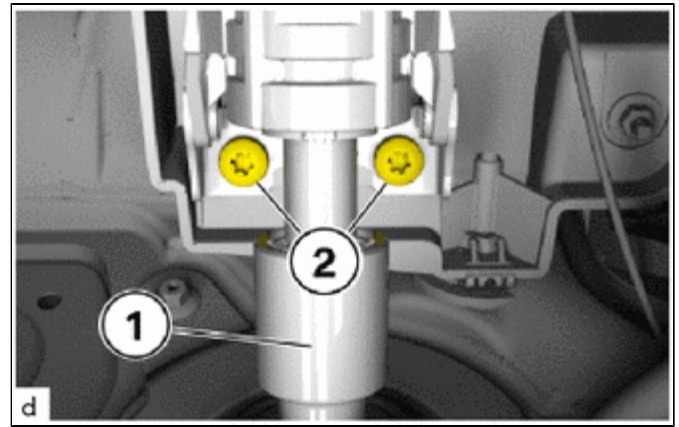
- (b) Loosen T45 bolts (1).



(c) Release the T45 bolts (2) and remove the steering column assembly (1).

NOTICE:

Secure the steering column (1) against dropping.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001LYGJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN ASSEMBLY: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

PROCEDURE

1. NOTES ON REPLACEMENT OF STEERING COLUMN AND STEERING INTERMEDIATE SHAFT ASSEMBLY FOLLOWING ACCIDENT DAMAGE

- (a) In the event of accidents or driving conditions similar to accidents, shock-like loads can cause different types of damage to the steering intermediate shaft assembly and steering column. In case no external damaged of the steering column and the steering intermediate shaft assembly can be noticed, it is sometimes only possible to identify damage with great difficulty and with great effort.

2. PROCEDURE FOR STEERING COLUMN AND STEERING INTERMEDIATE SHAFT ASSEMBLY

- (a) The steering column and steering intermediate shaft assembly must be renewed if one or more of the following points apply.
- (1) Visible or noticeable damage, deformation or breakage of the steering column or steering intermediate shaft assembly
 - (2) Damage, permanent deformation or breakages on tie rod end sub-assemblies
 - (3) Unacceptable torque increase and jamming when the steering column is cranked from limit position to limit position (without electrical assistance)
- (b) Positive check for activated crash system of the steering column

HINT:

If no damage is visible on the steering column, mechanical steering columns must be checked for an activated crash system.

- (1) Open steering column lock
- (2) Pull steering wheel out towards the driver (towards the body) until the physical limit position is reached, but do not use excessive force
- (3) Push steering wheel towards engine compartment (approx. 20 to 30 mm (0.79 to 1.18 in.) away from body) into the comfort position and lock

HINT:

If no end stop is present when pulling out the steering column or the gaiter of the steering column shroud has tension, the crash system has activated and the steering column is to be renewed.

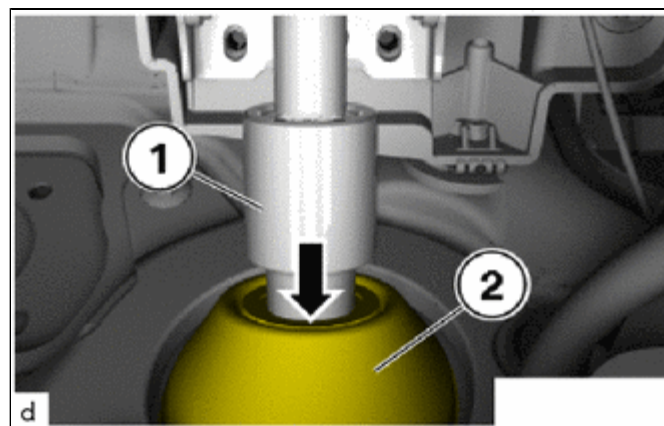
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

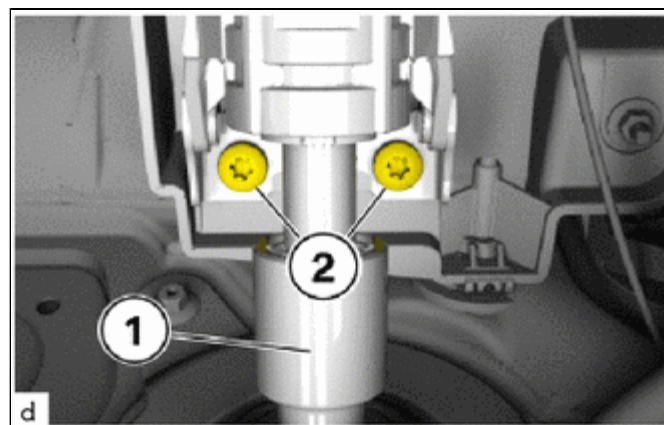
PROCEDURE

1. INSTALL STEERING COLUMN ASSEMBLY

- (a) Guide steering column assembly (1) into No. 1 steering column hole cover sub-assembly (2) during positioning.



- (b) Replace T45 bolts (2).

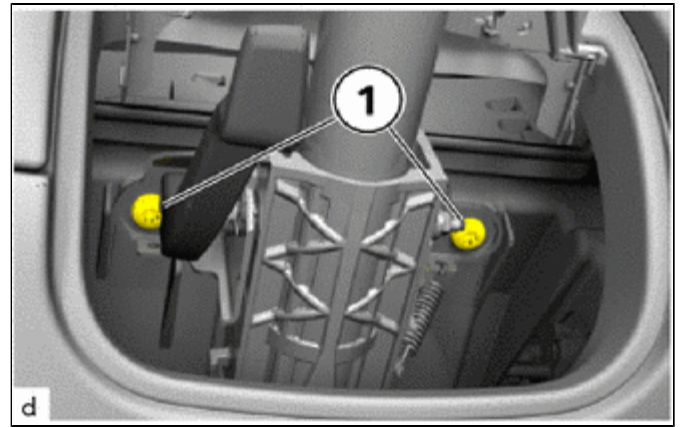


- (c) Position T45 bolts (2) on the steering column assembly (1).

HINT:

Do not tighten the bolts yet.

(d) Replace T45 bolts (1).



(e) Position T45 bolts (1) on the steering column assembly at the top.

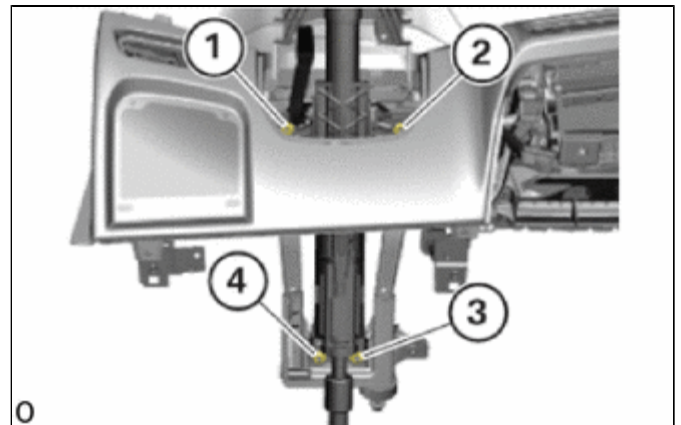
HINT:

Tightening occurs in the sequence in the next work step.

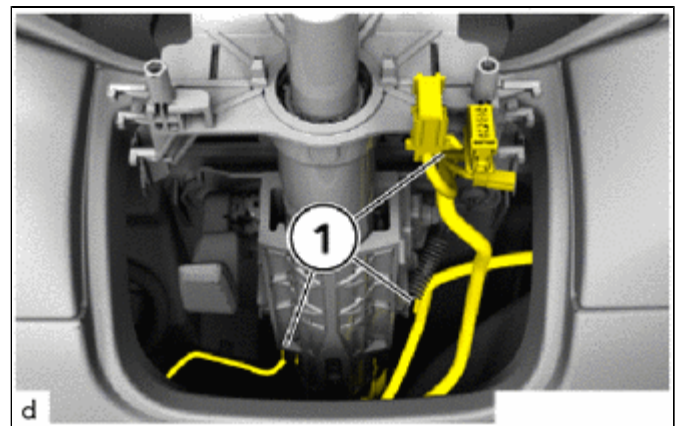
(f) The bolts must be tightened in the order (1) to (4).

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}



(g) Clip in the vehicle wiring harness into the bracket (1).



2. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

Click here [INFO](#)

3. INSTALL TURN SIGNAL SWITCH ASSEMBLY

Click here [INFO](#)

4. CONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

6. INSPECT AIRBAG FOR FUNCTION

- (a) Turn the steering wheel in both directions to the limit position.
- (b) The airbag indicator light lights up:
 - (1) Replace the spiral cable sub-assembly.

7. START-UP OF ELECTROMECHANICAL STEERING

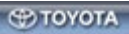
- (a) Connect the diagnosis system to the vehicle and enter the following menus:
Vehicle management / Service functions / Chassis / Electromechanical power steering / EPS: Steering start-up

8. INSPECT STRAIGHT-AHEAD DRIVING POSITION OF THE STEERING WHEEL

- (a) During straight-ahead driving:
 - (1) Check for correct straight-ahead driving position of the steering wheel.
- (b) The steering wheel has an inclination:
 - (1) Move the steering shaft on the bottom at the steering column.

HINT:

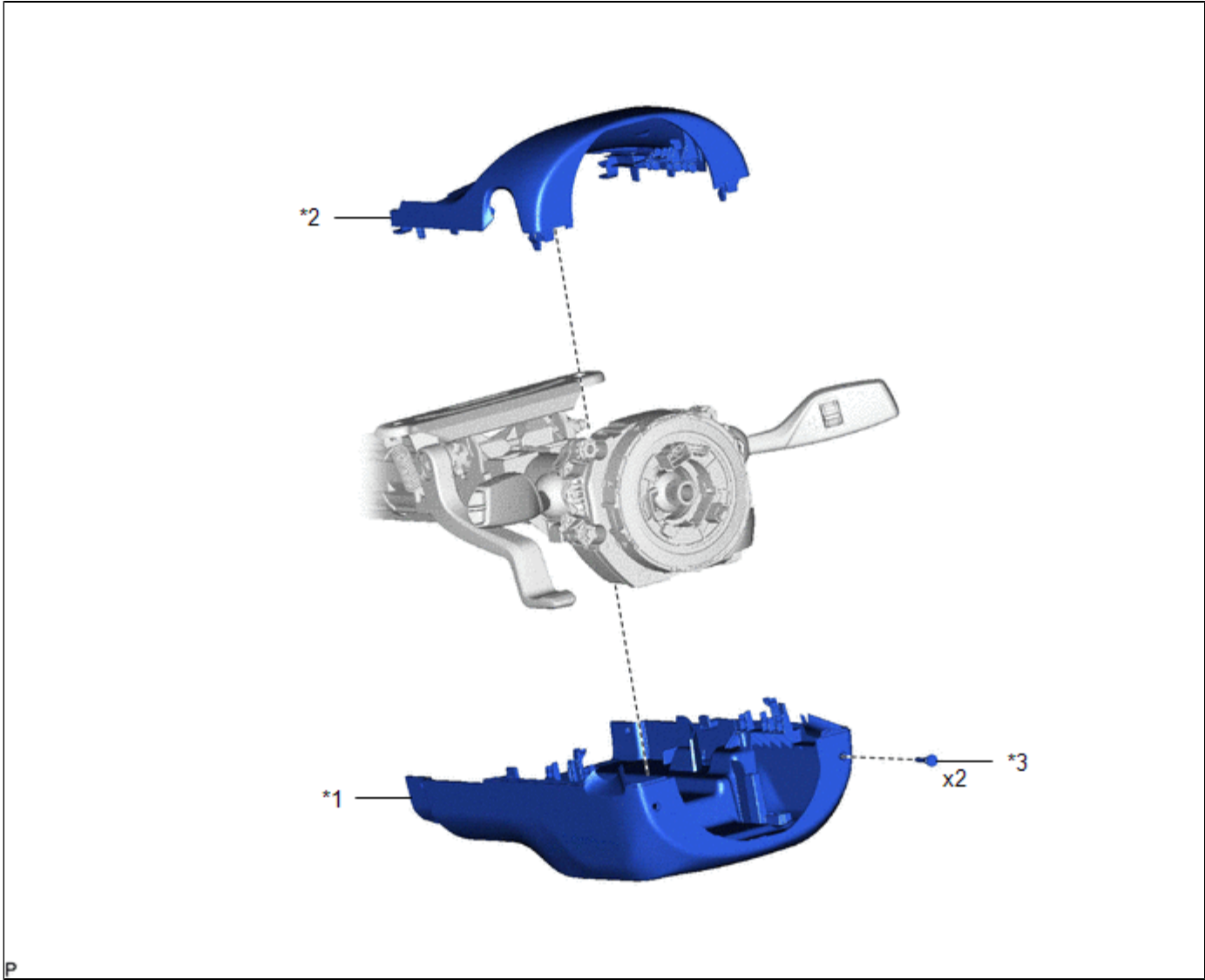
If the steering wheel continues to have an inclination, carry out a toe adjustment at the front axle.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN COVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LOWER STEERING COLUMN COVER	*2	UPPER STEERING COLUMN COVER
*3	RUBBER PLUG	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN COVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

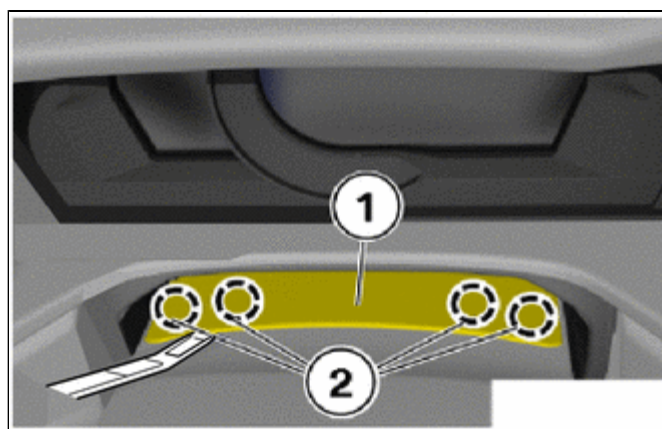
PROCEDURE

1. ADJUST STEERING COLUMN POSITION

- Adjust the length of the steering column to the maximum length.
- Move the steering column to the lowest steering column position.

2. REMOVE UPPER STEERING COLUMN COVER

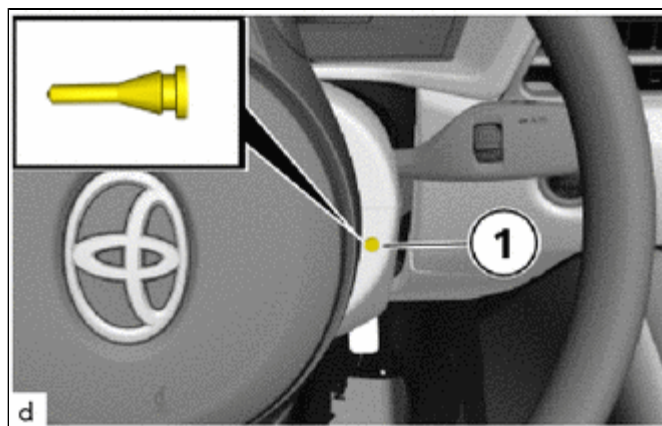
- Using a moulding remover A, unclip the gap cover (1) from the clips (2) to the top.



- Turn the steering wheel until the rubber plug (1) in the lower steering column cover becomes visible.

HINT:

Use the same procedure for the opposite side.



- Press in the rubber plug (1) with the T15 "TORX" driver to the inside and into the lower steering column cover.

HINT:

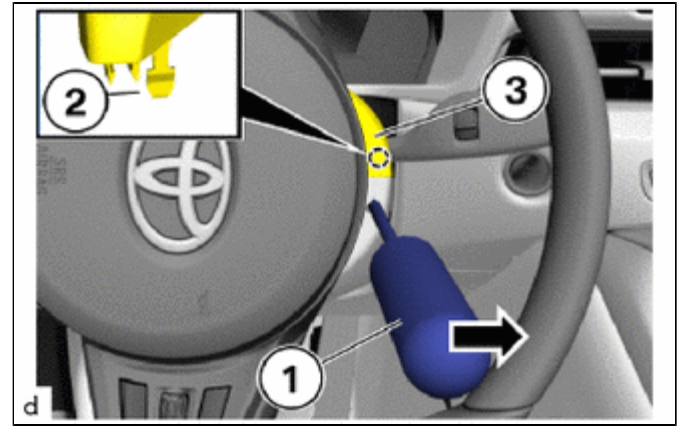
- Use the same procedure for the opposite side.
- The rubber plugs are reusable.
- Process to reuse the rubber plug:

Remove the steering column shroud lower section and remove the rubber plug.

(d) Press the "TORX" driver (1) in the direction of the arrow and lever the tab (2) to the inside.

HINT:

Use the same procedure for the opposite side.

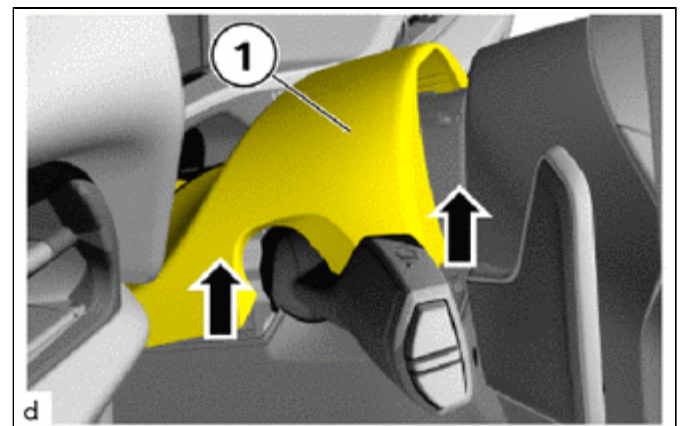


(e) Press the upper steering column cover (3) to the top at the same time.

HINT:

Use the same procedure for the opposite side.

(f) Guide the upper steering column cover (1) out to the top.

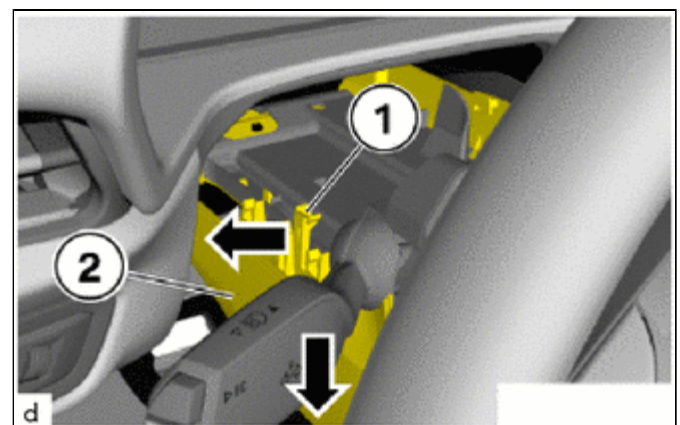


3. REMOVE LOWER STEERING COLUMN COVER

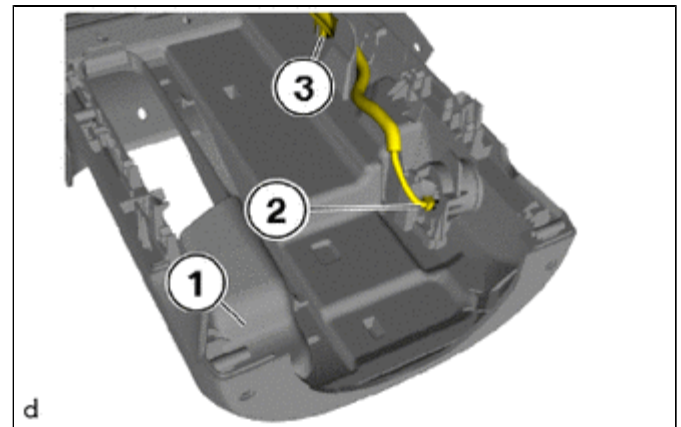
(a) Push the retaining lug (1) to the outside in the direction of the arrow and unclip the lower steering column cover (2) in the direction of the arrow to the bottom.

HINT:

Use the same procedure for the opposite side.



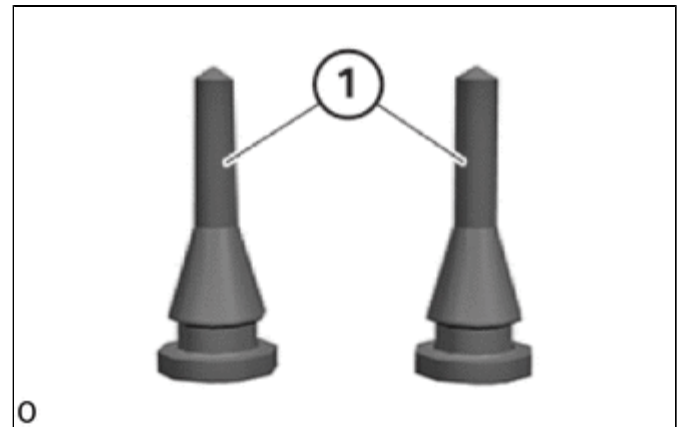
(b) Tilt the lower steering column cover (1) down.



(c) Unlock plug connection (2) and disconnect.

(d) Disconnect the cable clip (3) and remove the lower steering column cover (1).

(e) Remove rubber plugs (1) from the lower steering column cover.



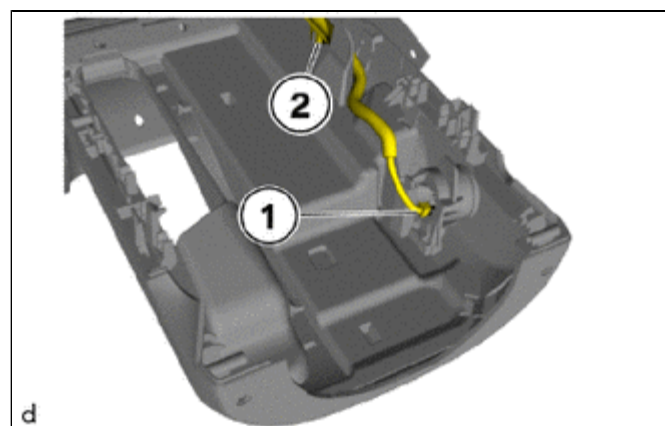
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN COVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL LOWER STEERING COLUMN COVER

(a) Connect connectors (1) and lock.

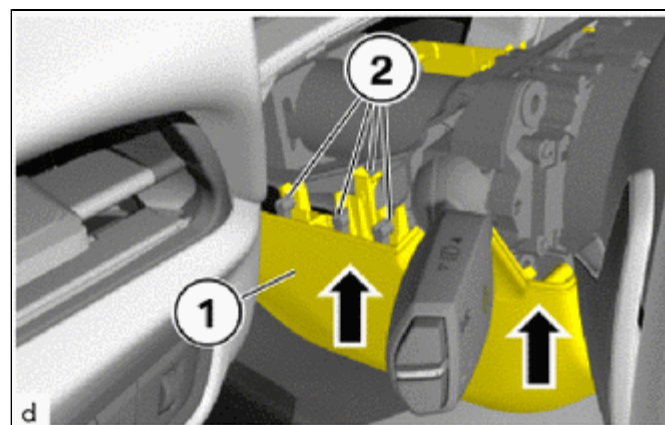


(b) Engage the cable clip (2).

(c) Align the lower steering column cover (1) at the retaining lugs (2) to the steering column.

HINT:

Use the same procedure for the opposite side.



(d) Press the lower steering column cover (1) upwards in direction of arrow until the retaining lugs (2) engage.

HINT:

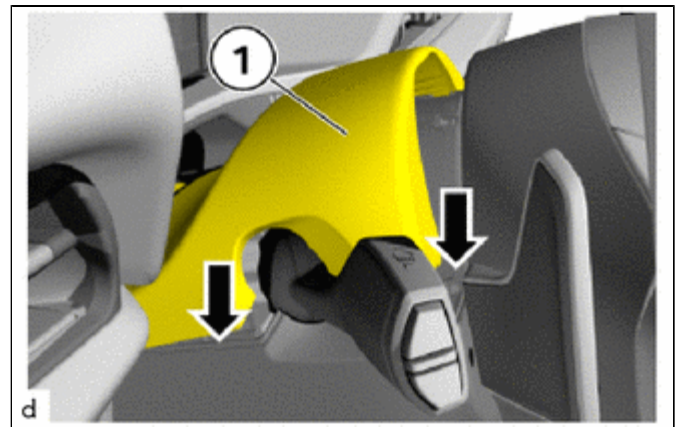
Use the same procedure for the opposite side.

2. INSTALL UPPER STEERING COLUMN COVER

(a) Guide in the upper steering column cover (1).

HINT:

Use the same procedure for the opposite side.



(b) Press the upper steering column cover (1) down and engage.

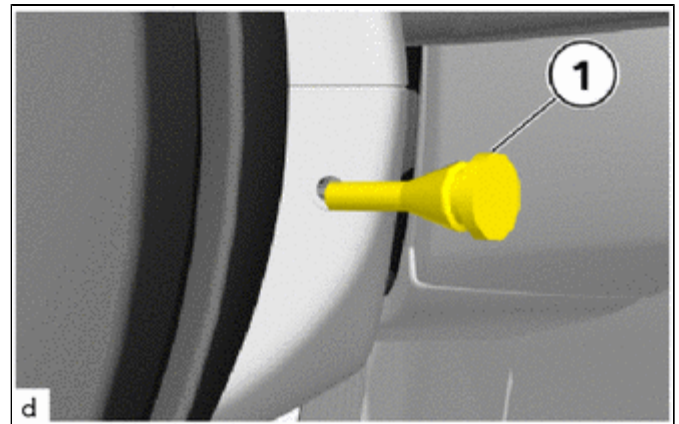
HINT:

- Use the same procedure for the opposite side.
- The upper steering column cover (1) must engage audibly and perceptibly.

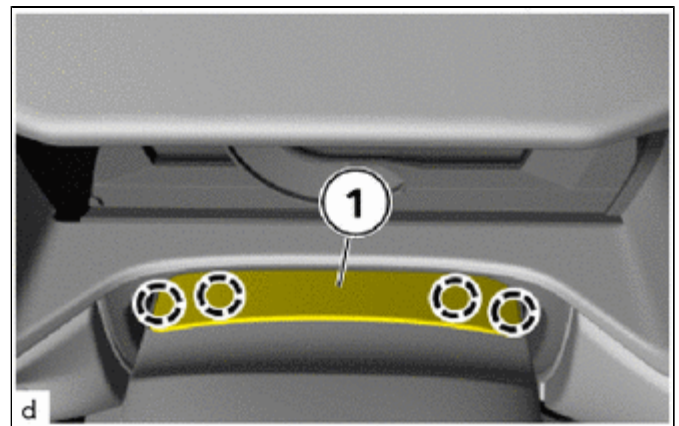
(c) Seal the bore hole using a rubber plug (1).

HINT:

Use the same procedure for the opposite side.



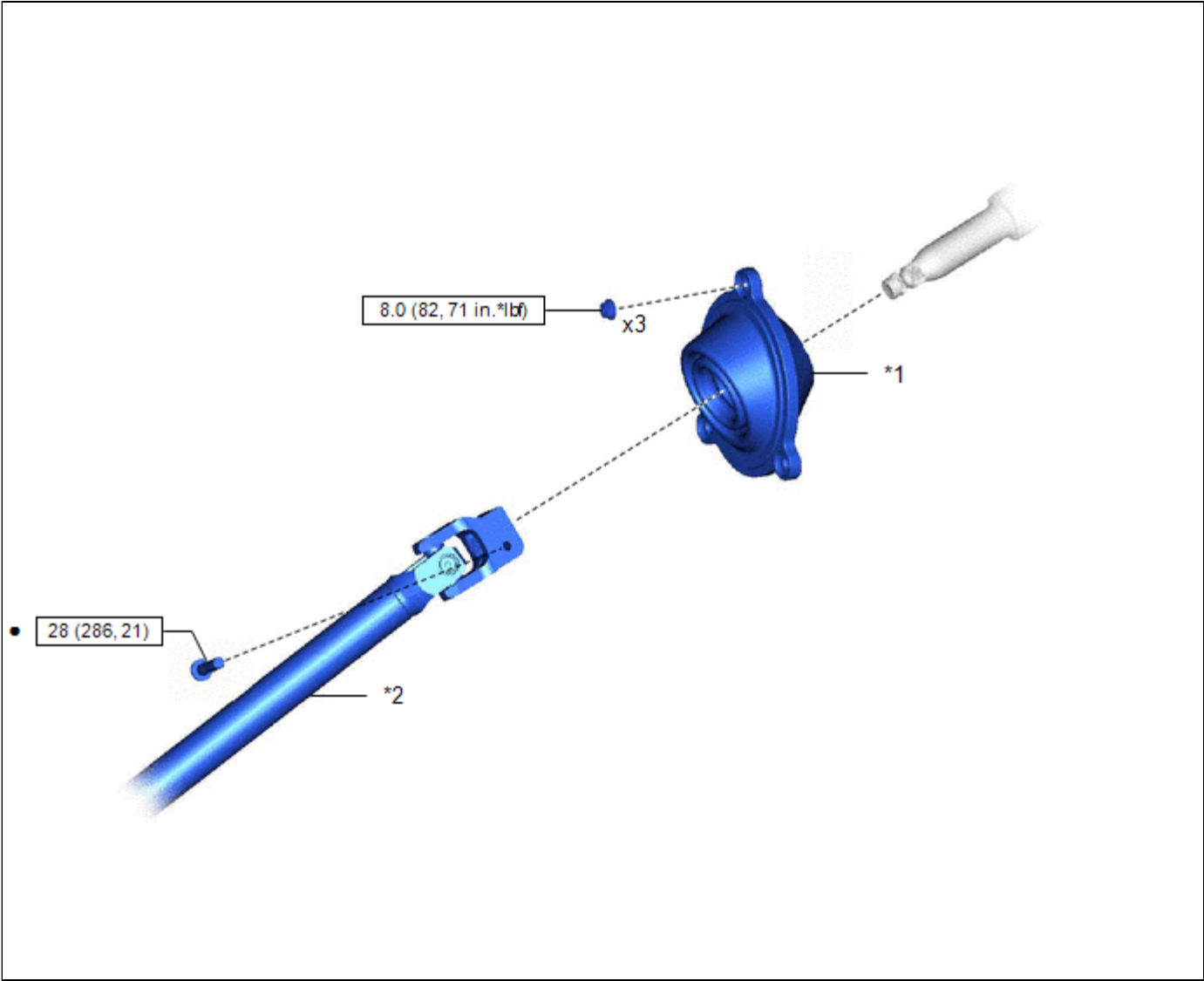
(d) Clip the gap cover (1) into the clips (marks).





Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN HOLE COVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY	*2	STEERING INTERMEDIATE SHAFT ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN HOLE COVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Damage to spiral cable sub-assembly.

The spiral cable sub-assembly can be damaged by twisting the steering wheel if the universal joint is disconnected from the steering gear or the steering shaft below or when the steering shaft is disconnected from the steering column below.

- Secure steering wheel from twisting.

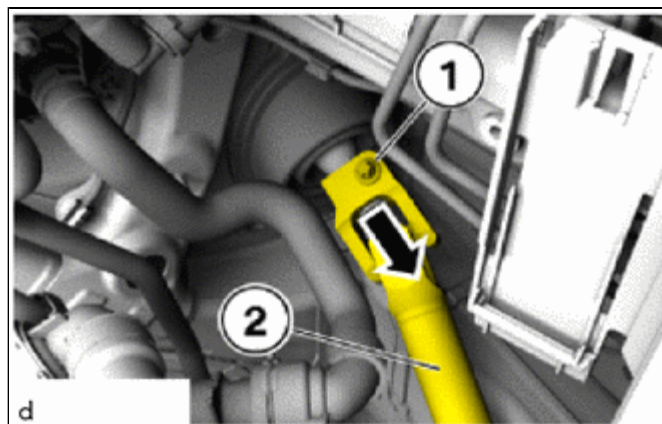
PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. DISCONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

- (a) Pull the steering intermediate shaft assembly (2) in the direction of the arrow until the clamping bolt (1) is accessible with the tool (reversible ratchet and extension).

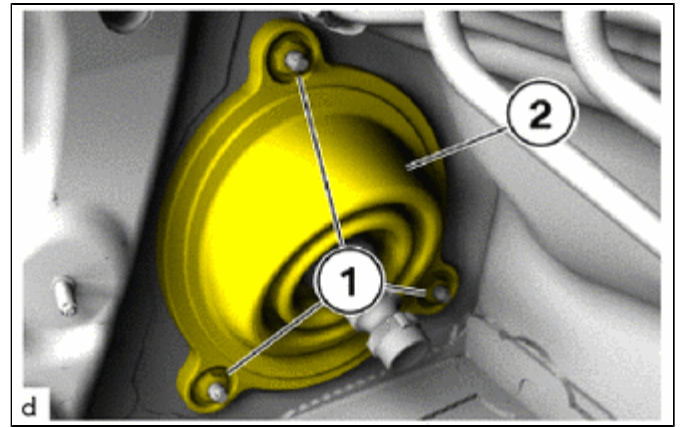


- (b) Loosen the E10 bolt (1).

- (c) Pull the steering intermediate shaft assembly (2) off the steering column assembly in the direction of the arrow.

3. REMOVE NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY

- (a) Unfasten nut (1).



(b) Pull off the No. 1 steering column hole cover sub-assembly (2) via the steering column assembly.

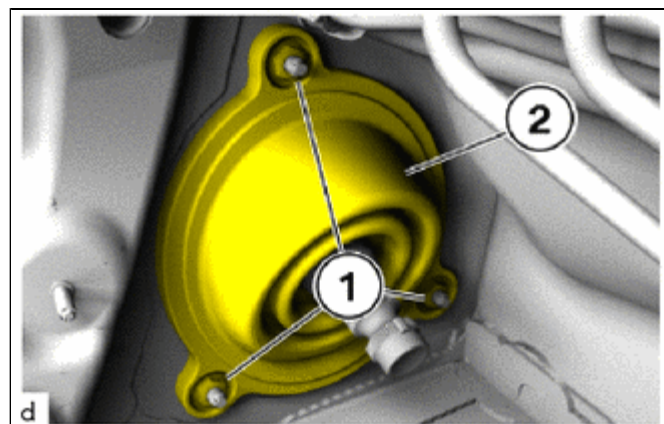
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD15
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING COLUMN HOLE COVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 STEERING COLUMN HOLE COVER SUB-ASSEMBLY

- (a) Push the No. 1 steering column hole cover sub-assembly (2) up to the limit position via the steering column assembly.



- (b) Tighten nut (1).

Torque:

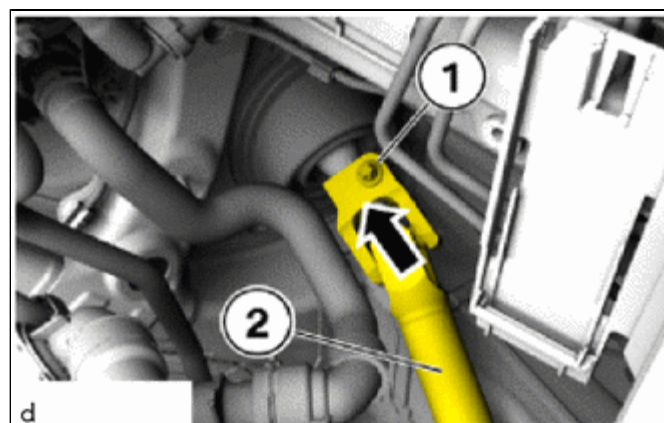
8.0 N·m {82 kgf·cm, 71 in·lbf}

2. CONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

HINT:

- The steering intermediate shaft assembly can only be installed in one position.
- The steering intermediate shaft assembly is encoded for the steering column assembly and the steering gear assembly. The clamping bolt must be positioned in the groove of the steering gear assembly or the steering column assembly.

- (a) Position the steering intermediate shaft assembly (2) at the steering column.



- (b) Slide the steering intermediate shaft assembly (2) in the direction of the arrow onto the steering column assembly.
- (c) Replace the E10 bolt (1).
- (d) Tighten down E10 bolt (1).

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

3. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

4. INSPECT AIRBAG FOR FUNCTION

Click here [INFO](#)

5. START-UP OF ELECTROMECHANICAL STEERING

Click here [INFO](#)

6. INSPECT STRAIGHT-AHEAD DRIVING POSITION OF THE STEERING WHEEL

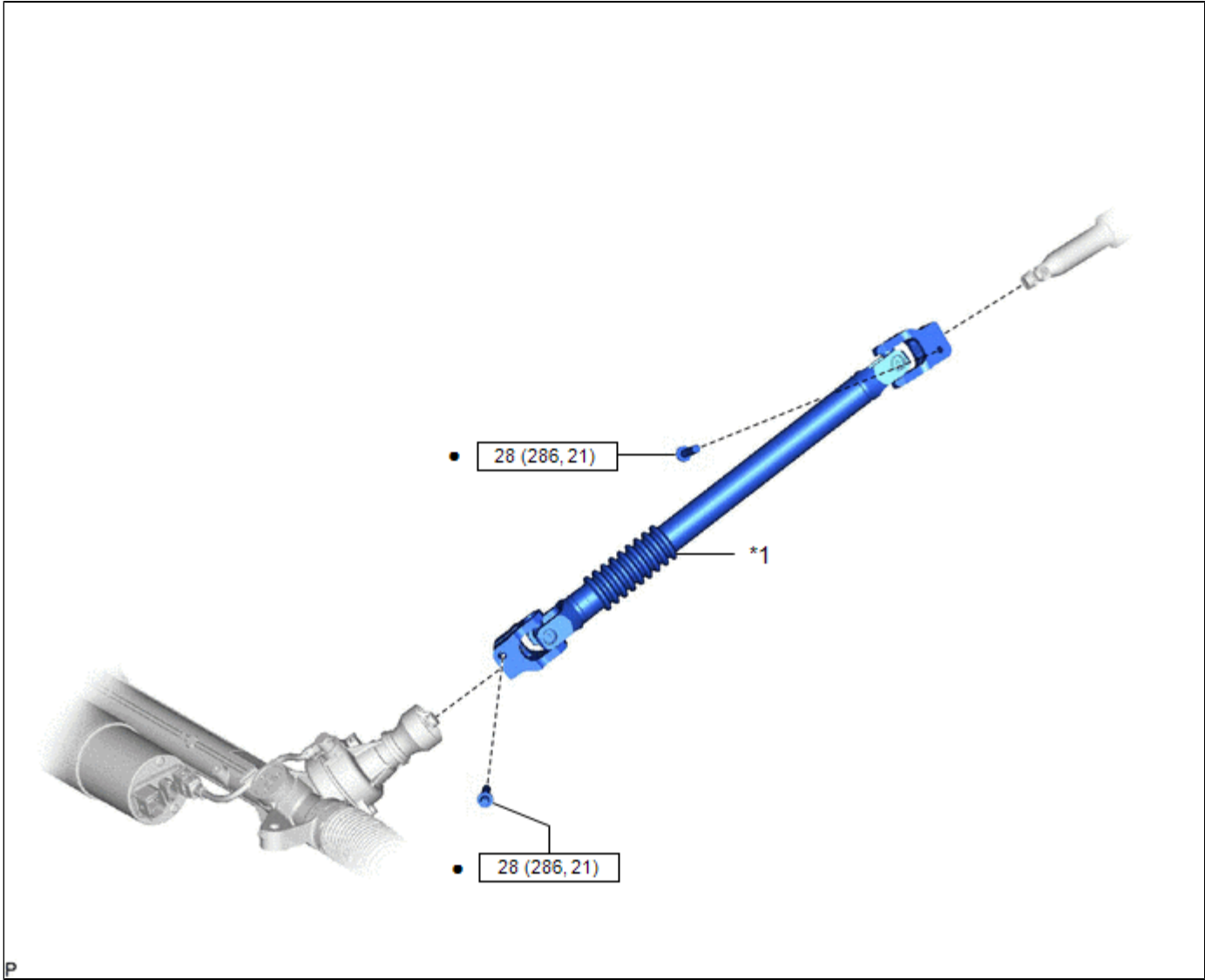
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING INTERMEDIATE SHAFT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	STEERING INTERMEDIATE SHAFT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING INTERMEDIATE SHAFT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Damage to spiral cable sub-assembly.

The spiral cable sub-assembly can be damaged by twisting the steering wheel if the universal joint is disconnected from the steering gear or the steering shaft below or when the steering shaft is disconnected from the steering column below.

- Secure steering wheel from twisting.

PROCEDURE

1. REMOVE FRONT WHEEL LH

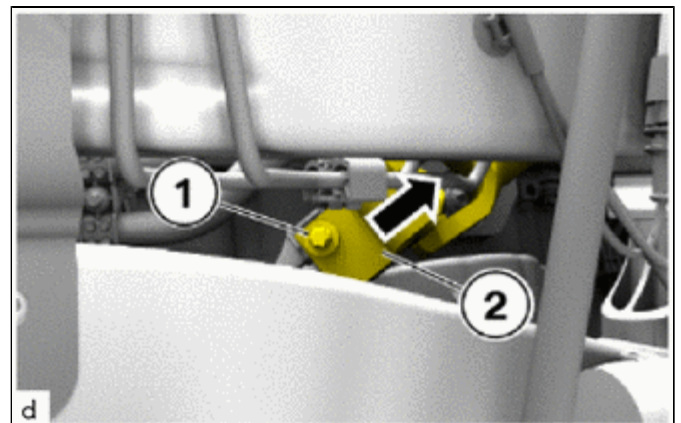
Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

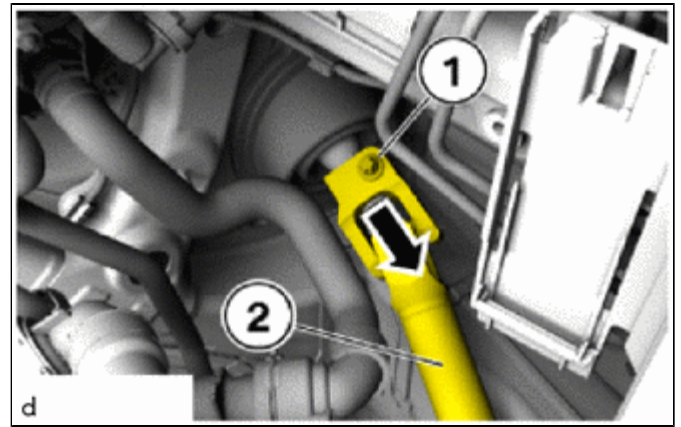
3. REMOVE STEERING INTERMEDIATE SHAFT ASSEMBLY

(a) Loosen E10 bolt (1).



(b) Detach the steering intermediate shaft assembly (2) from the steering gear assembly in the direction of the arrow.

(c) Pull the steering intermediate shaft assembly (2) in the direction of arrow until the clamping bolt (1) can be accessed with the tool (reversible ratchet with extension).



(d) Loosen the E10 bolt (1).

(e) Pull the steering intermediate shaft assembly (2) off the steering column assembly in the direction of the arrow.

(f) Remove the steering intermediate shaft assembly (2) toward the bottom.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING INTERMEDIATE SHAFT: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

PROCEDURE

1. NOTES ON REPLACEMENT OF STEERING COLUMN AND STEERING INTERMEDIATE SHAFT ASSEMBLY FOLLOWING ACCIDENT DAMAGE

- (a) In the event of accidents or driving conditions similar to accidents, shock-like loads can cause different types of damage to the steering intermediate shaft assembly and steering column. In case no external damaged of the steering column and the steering intermediate shaft assembly can be noticed, it is sometimes only possible to identify damage with great difficulty and with great effort.

2. PROCEDURE FOR STEERING COLUMN AND STEERING INTERMEDIATE SHAFT ASSEMBLY

- (a) The steering column and steering intermediate shaft assembly must be renewed if one or more of the following points apply.
- (1) Visible or noticeable damage, deformation or breakage of the steering column or steering intermediate shaft assembly
 - (2) Damage, permanent deformation or breakages on tie rod end sub-assemblies
 - (3) Unacceptable torque increase and jamming when the steering column is cranked from limit position to limit position (without electrical assistance)
- (b) Positive check for activated crash system of the steering column

HINT:

If no damage is visible on the steering column, mechanical steering columns must be checked for an activated crash system.

- (1) Open steering column lock
- (2) Pull steering wheel out towards the driver (towards the body) until the physical limit position is reached, but do not use excessive force
- (3) Push steering wheel towards engine compartment (approx. 20 to 30 mm (0.79 to 1.18 in.) away from body) into the comfort position and lock

HINT:

If no end stop is present when pulling out the steering column or the gaiter of the steering column shroud has tension, the crash system has activated and the steering column is to be renewed.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING INTERMEDIATE SHAFT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

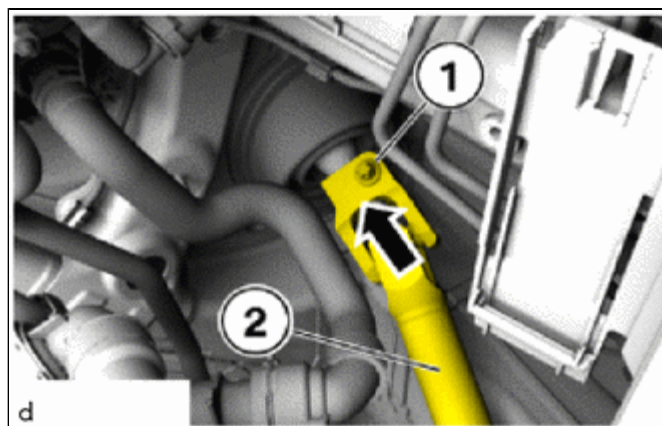
PROCEDURE

1. INSTALL STEERING INTERMEDIATE SHAFT ASSEMBLY

HINT:

- The steering intermediate shaft assembly can only be installed in one position.
- The steering intermediate shaft assembly is encoded for the steering column assembly and the steering gear assembly. The clamping bolt must be positioned in the groove of the steering gear assembly or the steering column assembly.

- (a) Position the steering intermediate shaft assembly (2) at the steering column assembly.

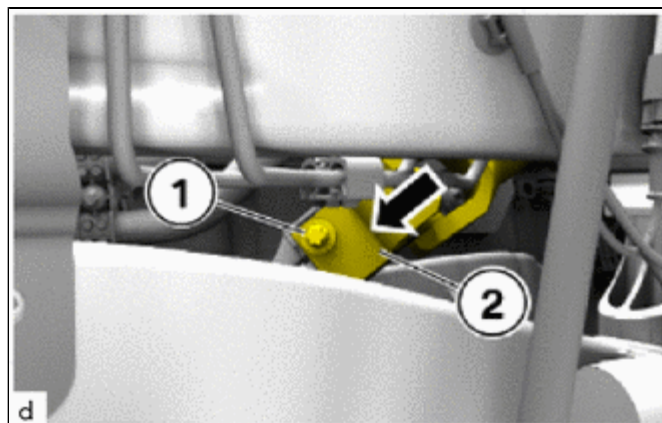


- (b) Slide the steering intermediate shaft assembly (2) in the direction of the arrow onto the steering column assembly.
- (c) Replace the E10 bolt (1).
- (d) Tighten the E10 bolt (1).

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

- (e) Slide the steering intermediate shaft assembly (2) in the direction of the arrow onto the steering gear assembly.



(f) Replace the E10 bolt (1).

(g) Tighten the E10 bolt (1).

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

2. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. INSTALL FRONT WHEEL LH

Click here [INFO](#)

4. INSPECT AIRBAG FOR FUNCTION

Click here [INFO](#)

5. START-UP OF ELECTROMECHANICAL STEERING

Click here [INFO](#)

6. INSPECT STRAIGHT-AHEAD DRIVING POSITION OF THE STEERING WHEEL

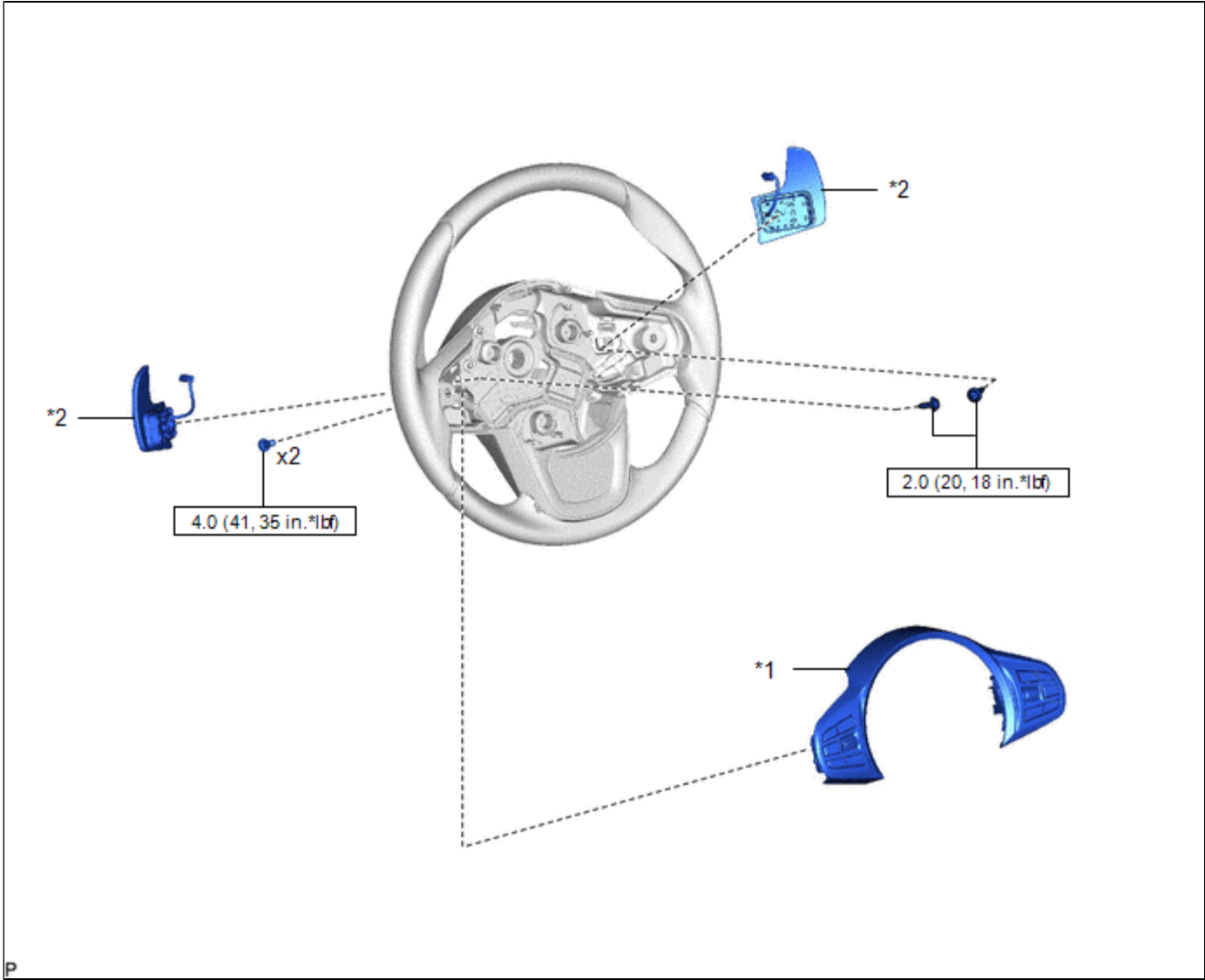
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD10
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING PAD SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	STEERING PAD SWITCH ASSEMBLY	*2	TRANSMISSION SHIFT SWITCH ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING PAD SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE HORN BUTTON ASSEMBLY

Click here [INFO](#)

2. REMOVE TRANSMISSION SHIFT SWITCH ASSEMBLY

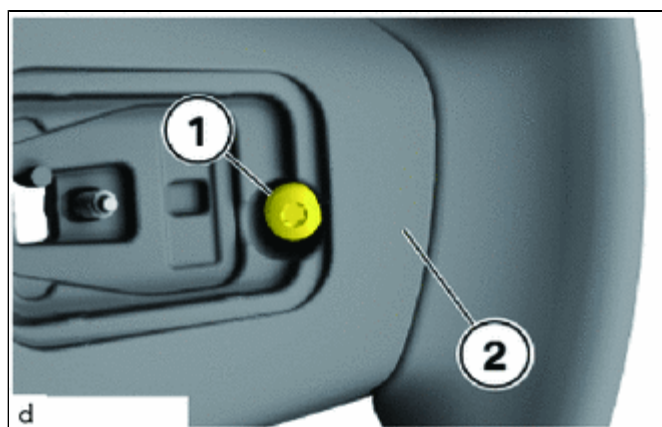
Click here [INFO](#)

3. REMOVE STEERING PAD SWITCH ASSEMBLY

- (a) Release the T25 bolt (1) on the rear side of the steering wheel (2).

HINT:

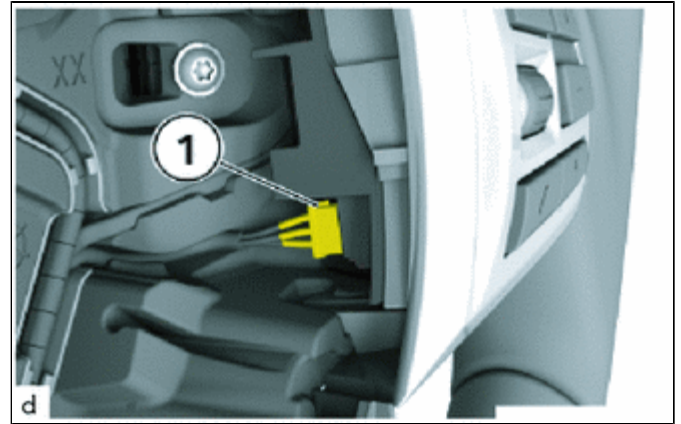
Use the same procedure for the opposite side.



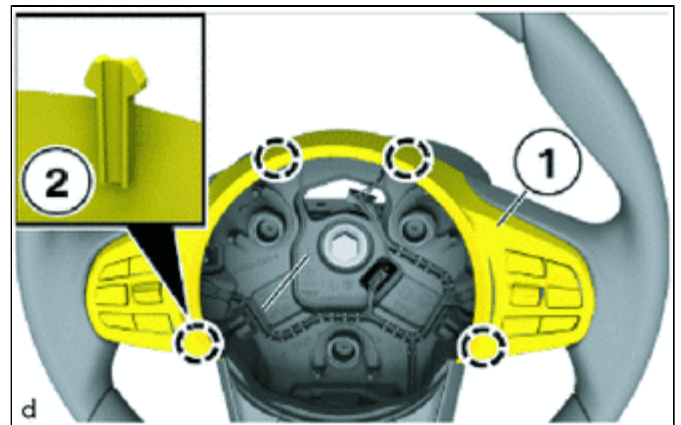
(b) Unlock plug connection (1) and disconnect.

HINT:

Use the same procedure for the opposite side.



(c) Carefully release and remove the steering pad switch assembly (1) from the latch mechanisms (2).



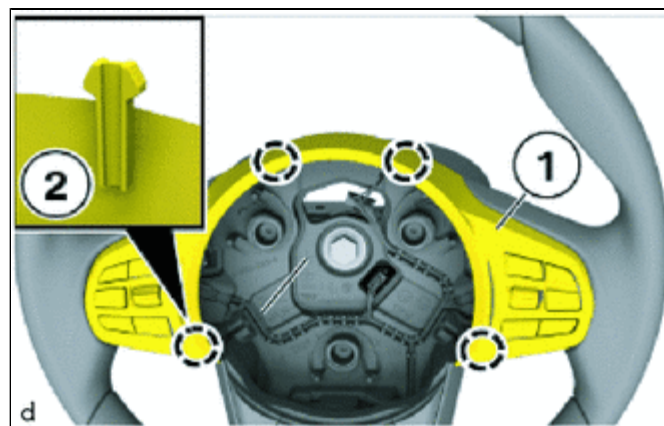
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDI2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING PAD SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL STEERING PAD SWITCH ASSEMBLY

- (a) Carefully clip in the steering pad switch assembly (1) at the latch mechanisms (2).



- (b) Connect connectors and lock.
(c) Tighten T25 bolt on the rear side of the steering wheel.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

HINT:

Use the same procedure for the opposite side.

2. INSTALL TRANSMISSION SHIFT SWITCH ASSEMBLY

Click here [INFO](#)

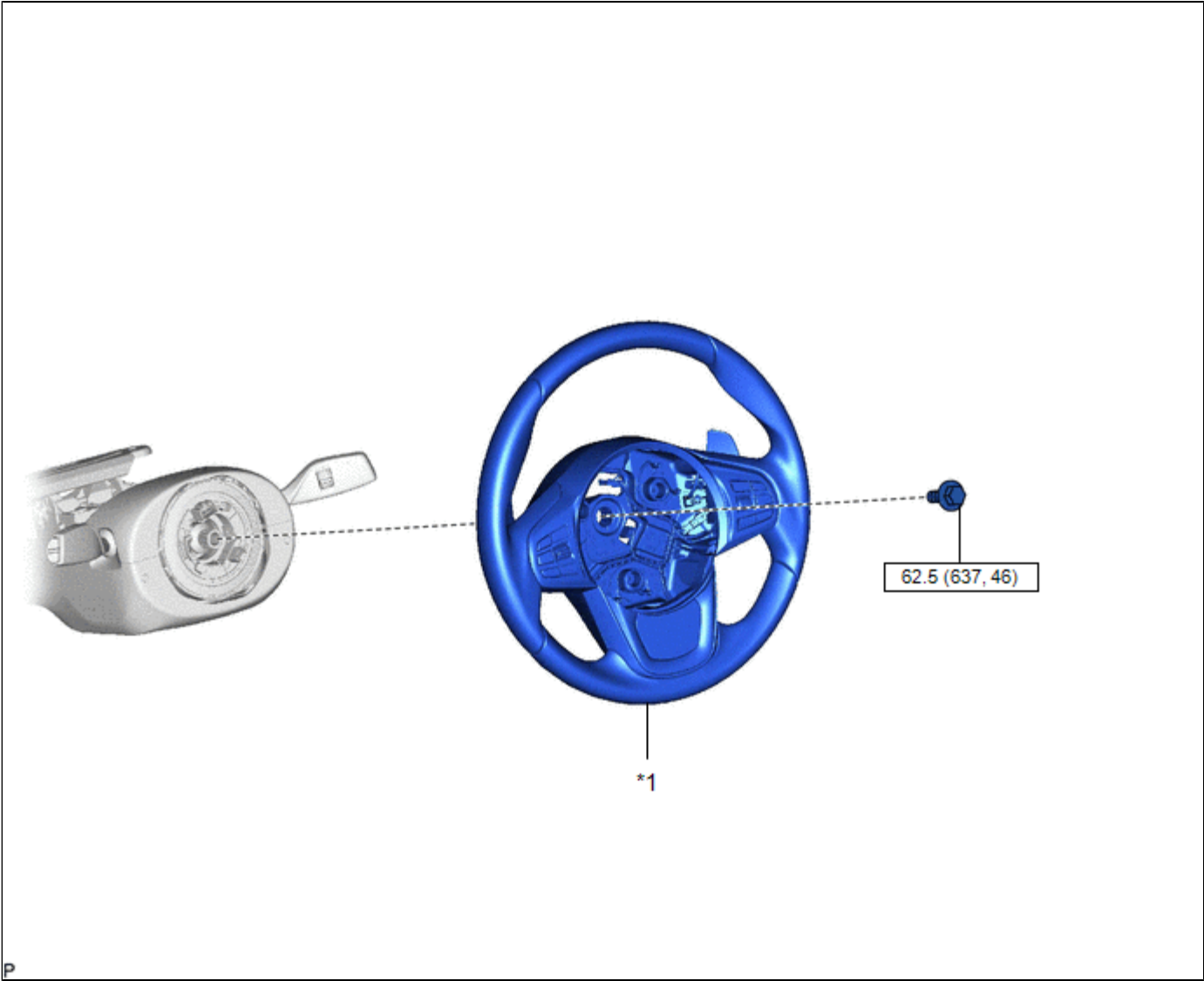
3. INSTALL HORN BUTTON ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING WHEEL: COMPONENTS; 2020 MY Supra [03/2019 -]		

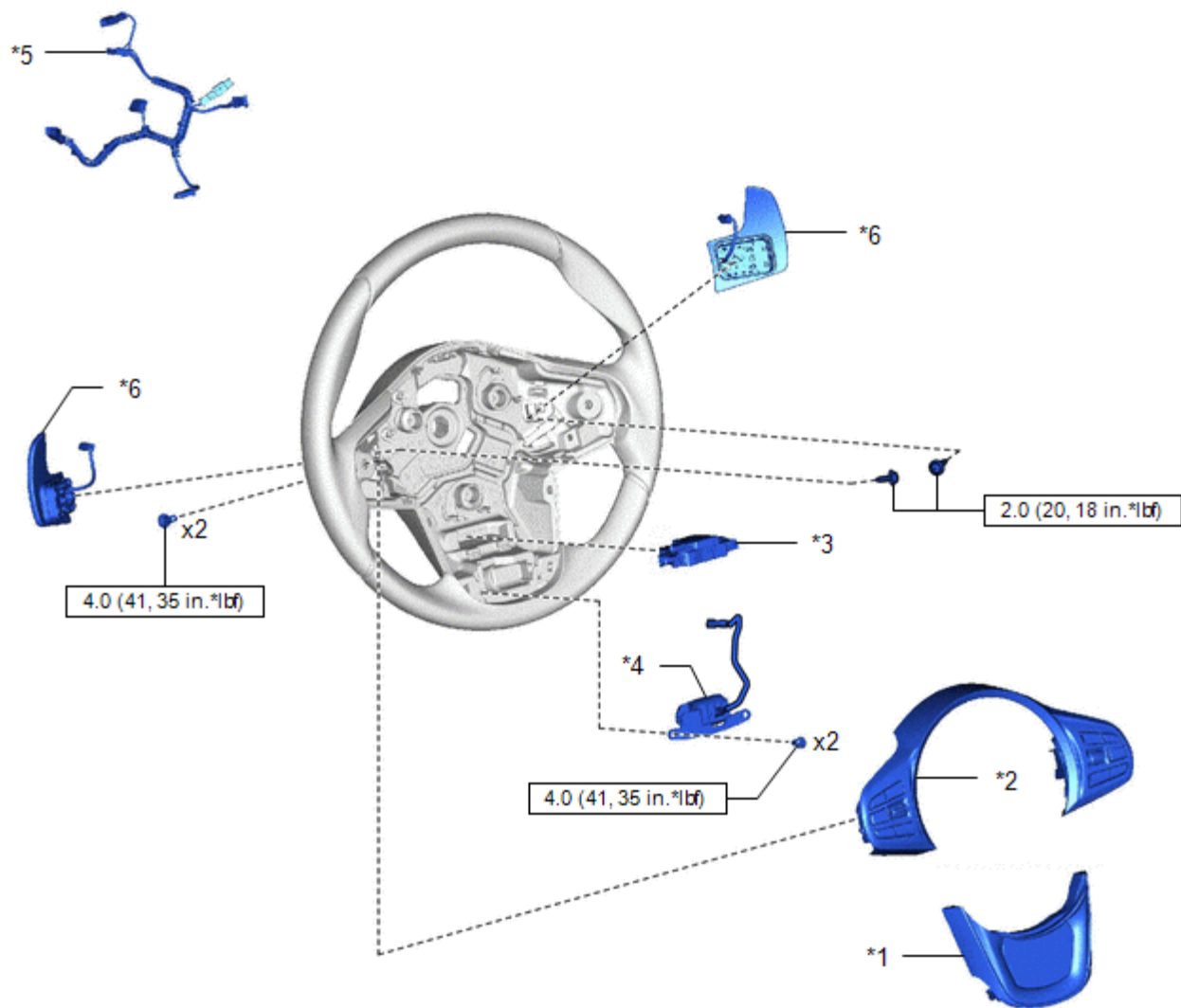
COMPONENTS

ILLUSTRATION



*1	STEERING WHEEL ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



P

*1	NO. 1 STEERING WHEEL ORNAMENT	*2	STEERING PAD SWITCH ASSEMBLY
*3	STEERING WHEEL HEATER CONTROL ASSEMBLY	*4	STEERING WHEEL MOTOR
*5	STEERING WHEEL WIRING HARNESS	*6	TRANSMISSION SHIFT SWITCH ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING WHEEL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

HINT:

- A wheel alignment is not necessary after the removal, installation or replacement.
- Steering wheel must be replaced if airbag unit has been deployed.

Only with M Sport steering wheel: Impact plate must be replaced if airbag unit has been deployed.

For additional information see:

Click here [INFO](#)

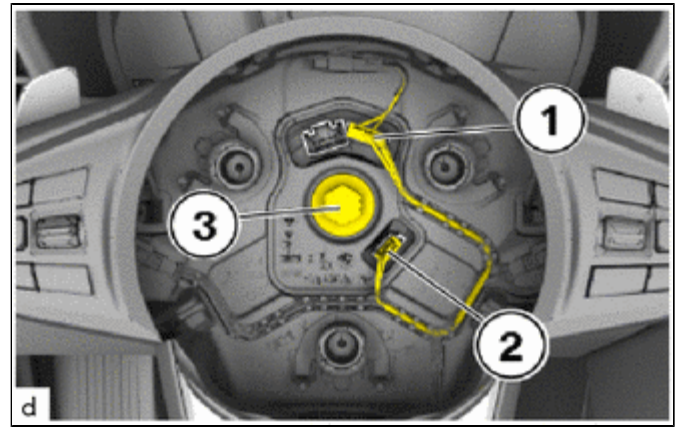
PROCEDURE

1. REMOVE HORN BUTTON ASSEMBLY

Click here [INFO](#)

2. REMOVE STEERING WHEEL ASSEMBLY

- Move wheels/steering wheel into straight-ahead driving position.



(b) Unlock and disconnect the plug connections (1) and (2).

(c) Release the 16 mm bolt (3) and pull off the steering wheel assembly.

3. REMOVE TRANSMISSION SHIFT SWITCH ASSEMBLY

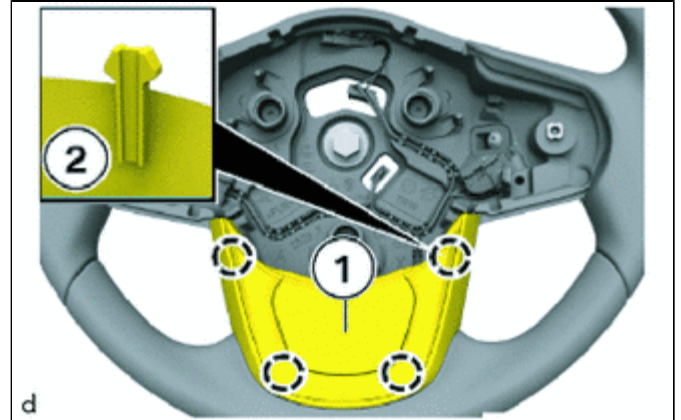
Click here [INFO](#)

4. REMOVE STEERING PAD SWITCH ASSEMBLY

Click here [INFO](#)

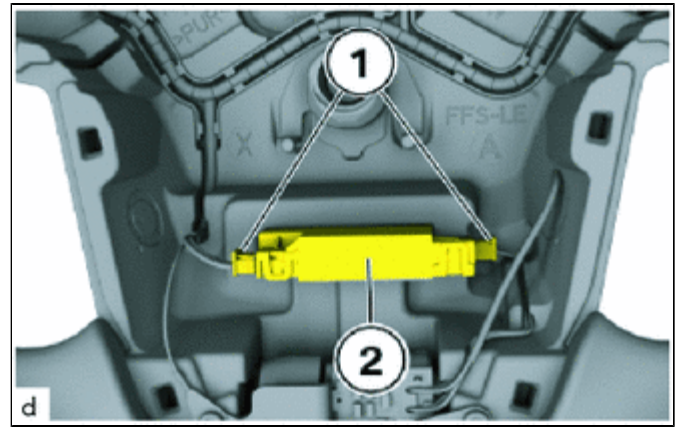
5. REMOVE NO. 1 STEERING WHEEL ORNAMENT

(a) Carefully release and remove the No. 1 steering wheel ornament (1) from the latch mechanisms (2).



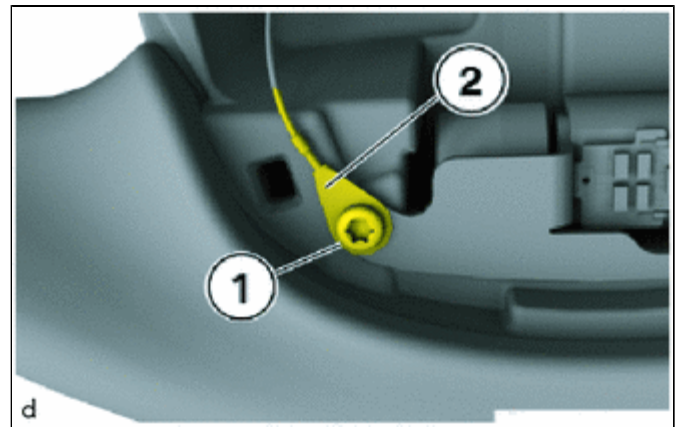
6. REMOVE STEERING WHEEL HEATER CONTROL ASSEMBLY

(a) Unlock and disconnect the two plug connections (1).



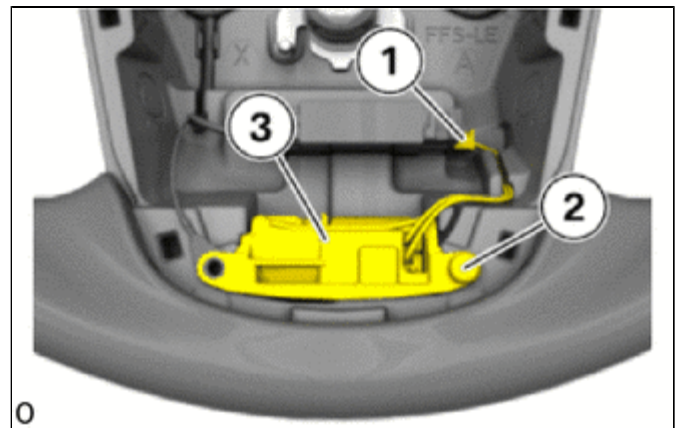
(b) Removing the steering wheel heater control assembly (2).

7. REMOVE STEERING WHEEL MOTOR



(a) Loosen T20 screw (1).

(b) Put the cable (2) to one side.



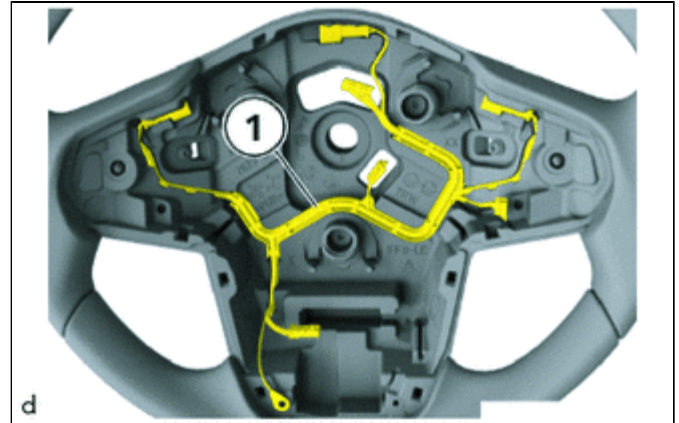
(c) Unlock plug connection (1) and disconnect.

(d) Loosen T20 screw (2).

(e) Remove steering wheel motor (3).

8. REMOVE STEERING WHEEL WIRING HARNESS

(a) Feed out the steering wheel wiring harness (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING COLUMN: STEERING WHEEL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL STEERING WHEEL WIRING HARNESS

- (a) Insert the steering wheel wiring harness.

2. INSTALL STEERING WHEEL MOTOR

- (a) Install steering wheel motor.
- (b) Tighten down T20 screw.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

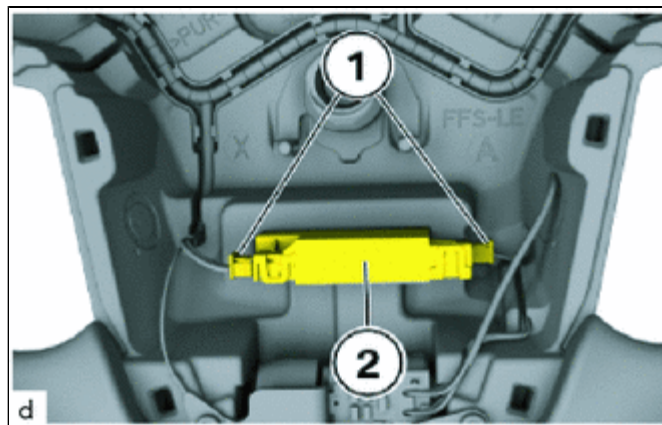
- (c) Connect connectors and lock.
- (d) Position cable.
- (e) Tighten down T20 screw.

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

3. INSTALL STEERING WHEEL HEATER CONTROL ASSEMBLY

- (a) Position the steering wheel heater control assembly (2).

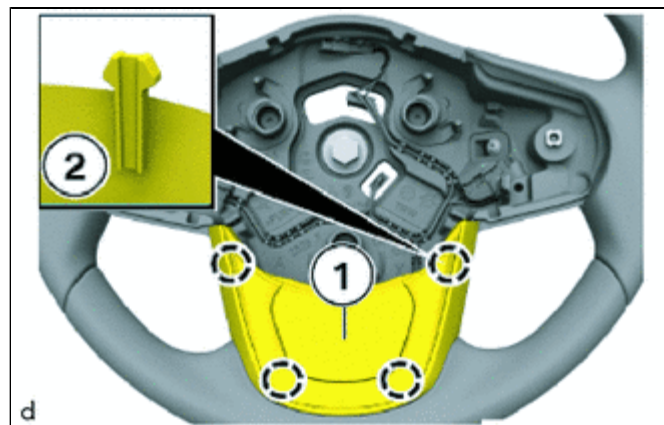


- (b) Connect and lock both connectors (1).

4. INSTALL NO. 1 STEERING WHEEL ORNAMENT

- (a) Carefully clip the No. 1 steering wheel ornament (1) into

the latch mechanisms (2).



5. INSTALL STEERING PAD SWITCH ASSEMBLY

Click here [INFO](#)

6. INSTALL TRANSMISSION SHIFT SWITCH ASSEMBLY

Click here [INFO](#)

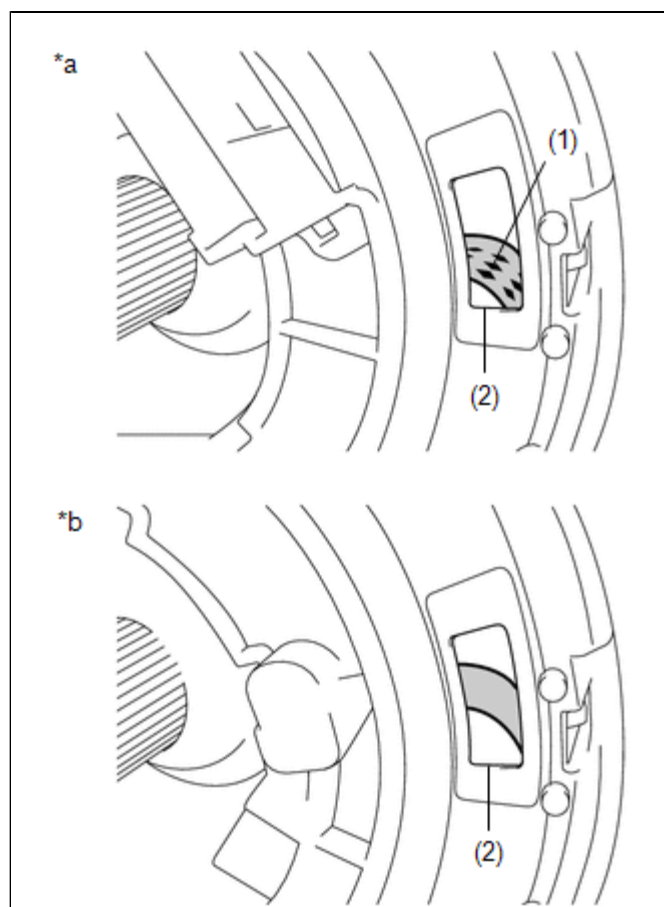
7. INSPECT SPIRAL CABLE WITH SENSOR SUB-ASSEMBLY

(a) Check the neutral position of the spiral cable:

(1) Check the correct mark (1) in the inspection glass (2).

NOTICE:

If the no correct mark (1) is visible, turn the spiral cable until the right mark (1) becomes visible.



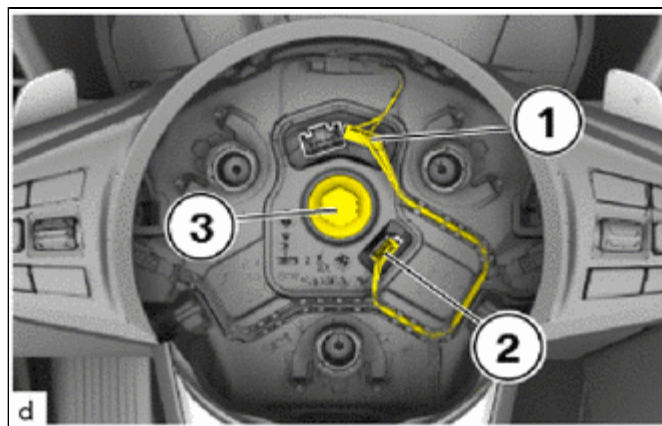
*a	Correct
*b	Incorrect

8. INSTALL STEERING WHEEL ASSEMBLY

- (a) Align and connect the steering wheel assembly according to the mark (1) with the steering column mark (2).



- (b) Connect connectors (1) and (2) and lock.



- (c) Tighten down 16 mm bolt (3).

Torque:

62.5 N·m {637 kgf·cm, 46 ft·lbf}

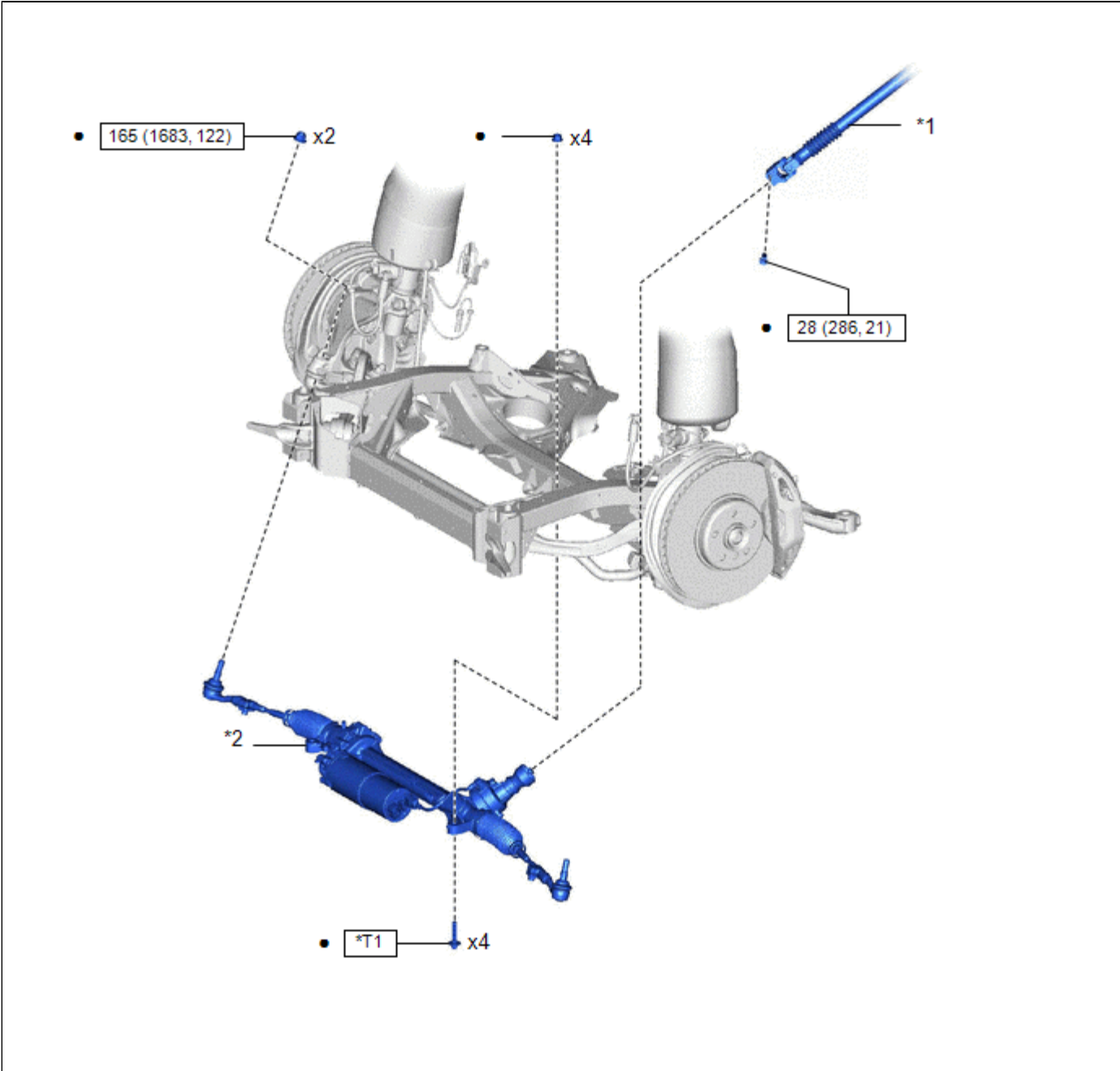
9. INSTALL HORN BUTTON ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: STEERING GEAR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

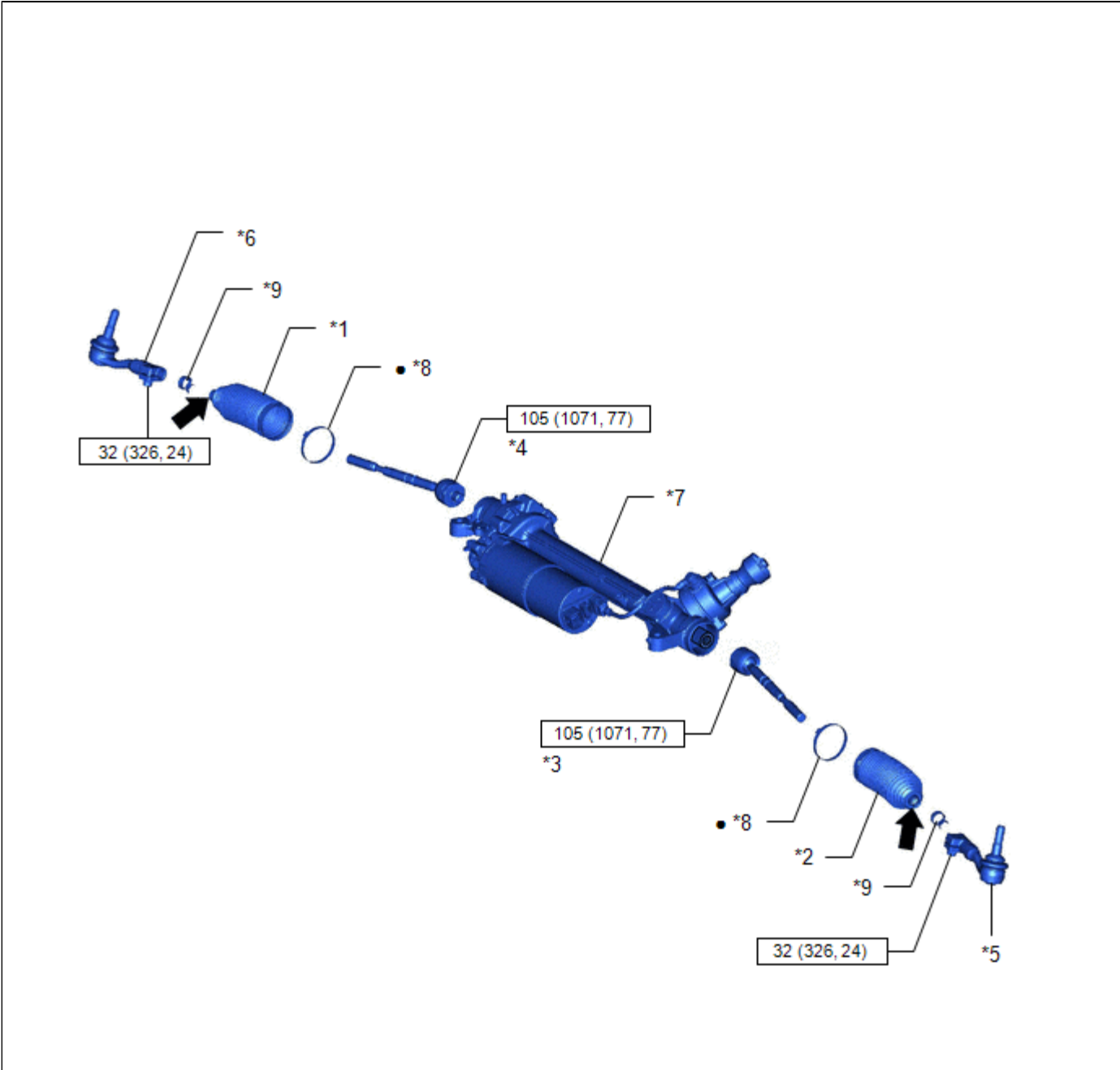
ILLUSTRATION



*1	STEERING INTERMEDIATE SHAFT ASSEMBLY	*2	STEERING LINK ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-
-----	--------------------------------------	---	---

ILLUSTRATION



*1	NO. 1 STEERING RACK BOOT	*2	NO. 2 STEERING RACK BOOT
*3	TIE ROD ASSEMBLY LH	*4	TIE ROD ASSEMBLY RH
*5	TIE ROD END SUB-ASSEMBLY LH	*6	TIE ROD END SUB-ASSEMBLY RH
*7	STEERING GEAR ASSEMBLY	*8	CLAMP
*9	CLIP	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Lubricating Grease FB-1

-

-



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: STEERING GEAR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- In a warranty case, you must always provide a fault memory printout with the defective part, even if the fault memory does not contain an entry.
- Vehicle programming/coding must be performed after installation.

For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE FRONT WHEELS

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

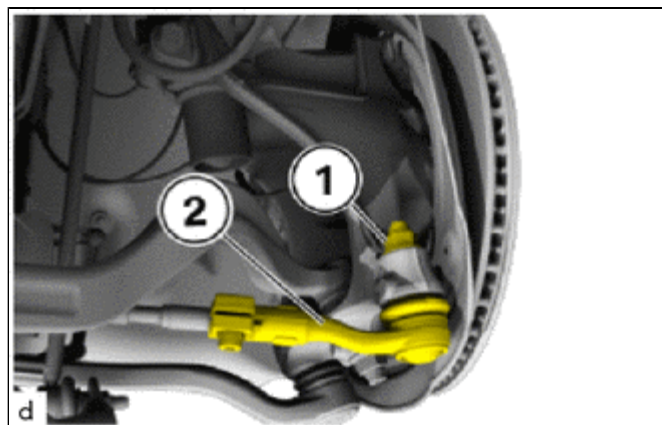
Click here [INFO](#)

3. DISCONNECT TIE ROD END SUB-ASSEMBLY LH

(a) Loosen the nut (1).

HINT:

If necessary, counter-hold the T40 "TORX" socket wrench.



(b) Pull the tie rod end sub-assembly LH (2) off the steering knuckle LH.

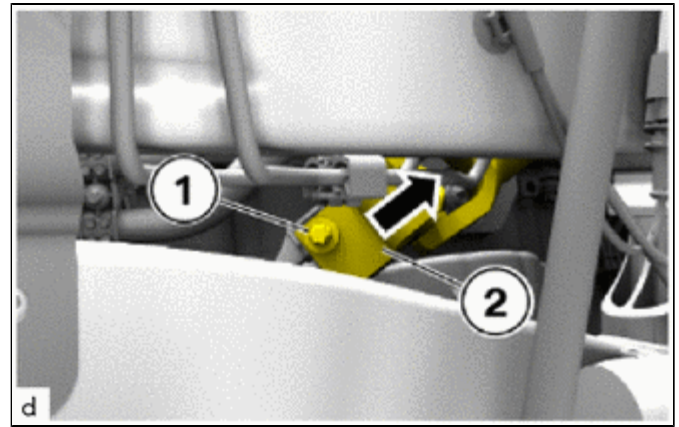
4. DISCONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

5. DISCONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

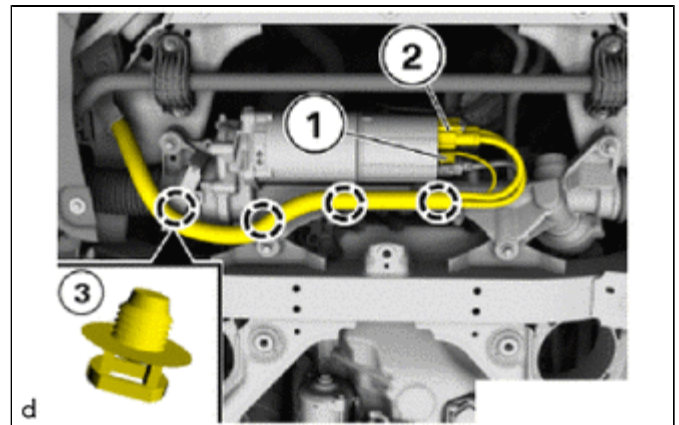
(a) Loosen E10 bolt (1).



(b) Detach the steering intermediate shaft assembly (2) from the steering gear assembly in the direction of the arrow.

6. REMOVE STEERING LINK ASSEMBLY

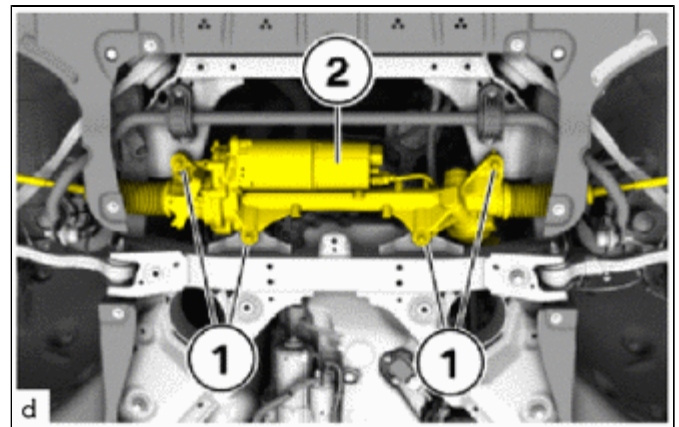
(a) Unlock and disconnect the plug connections (1) and (2).



(b) Loosen the wiring harness from the holder (3).

(c) Put the vehicle wiring harness to one side and secure it.

(d) Loosen E14 bolts (1). In this process, counter support at the 18 mm nuts.



(e) Remove the steering link assembly (2) towards the bottom.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: STEERING GEAR: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE TIE ROD END SUB-ASSEMBLY LH

Click here [INFO](#)

2. REMOVE TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

3. REMOVE NO. 2 STEERING RACK BOOT

Click here [INFO](#)

4. REMOVE NO. 1 STEERING RACK BOOT

HINT:

Perform the same procedure as for the No. 2 steering rack boot side.

5. REMOVE TIE ROD ASSEMBLY LH

Click here [INFO](#)

6. REMOVE TIE ROD ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: STEERING GEAR: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

PROCEDURE

1. NOTES ON REPLACEMENT OF STEERING GEAR FOLLOWING ACCIDENT DAMAGE

- (a) In the event of accidents or driving conditions similar to accidents, shock-like loads can cause different types of damage to steering gear assembly. When a steering gear assembly is externally undamaged, it is sometimes only possible to identify damage with great difficulty and with great effort. However, damage of this nature poses an unacceptable risk to the vehicle because it can result in failure of the steering system. Because of the disproportionate amount of effort involved, it is generally not sensible to check thoroughly all the individual components of the steering gear assembly and as an alternative it is necessary to take into account other components which can be checked more easily.

2. PROCEDURE FOR STEERING GEAR

- (a) The steering gear assembly must be renewed if one or more of the following points apply.
- (1) Visible or noticeable damage to the steering gear assembly, the associated plug connections or the control unit
 - (2) Impermissible increase in torque and clamping when cranking the steering gear assembly from limit position to limit position (without electrical support)
 - (3) Fire damage
 - (4) Damage, permanent deformation or breakages on wheel rims
 - (5) Damage, permanent deformation or breakages on shock absorber assemblies, steering knuckles or axle hubs
 - (6) Damage, permanent deformation or breakages on suspension arms, rear floor panel brace or on the stabiliser
 - (7) Damage, permanent deformation or breakages on body side attachment points of wheel guide parts
 - (8) Damage, permanent deformation or breakages on front suspension crossmember sub-assembly
 - (9) Damage, permanent deformation or breakages on tie rod end sub-assemblies
 - (10) Damage, permanent deformation or breakages on steering gear mounting
 - (11) Damage, permanent deformation or breakages on steering column
- (b) A lopsided steering wheel, significant deviations of camber/track values and noises when cranking the steering can be additional indications for the damage/deformations listed here.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: STEERING GEAR: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL TIE ROD ASSEMBLY LH

Click here [INFO](#)

2. INSTALL TIE ROD ASSEMBLY RH

HINT:
Perform the same procedure as for the LH side.

3. INSTALL NO. 2 STEERING RACK BOOT

Click here [INFO](#)

4. INSTALL NO. 1 STEERING RACK BOOT

HINT:
Perform the same procedure as for the No. 2 steering rack boot side.

5. INSTALL TIE ROD END SUB-ASSEMBLY LH

Click here [INFO](#)

6. INSTALL TIE ROD END SUB-ASSEMBLY RH

HINT:
Perform the same procedure as for the LH side.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: STEERING GEAR: INSTALLATION; 2020 MY Supra [03/2019 -]		

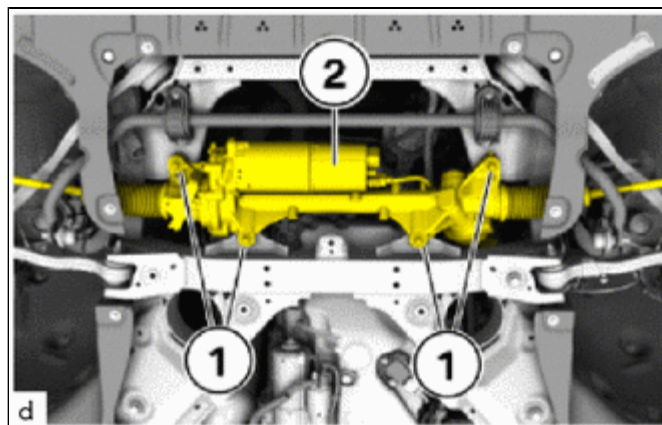
INSTALLATION

CAUTION / NOTICE / HINT

PROCEDURE

1. INSTALL STEERING LINK ASSEMBLY

(a) Install the steering link assembly (2).



(b) Replace the E14 bolts (1) and 18 mm nuts.

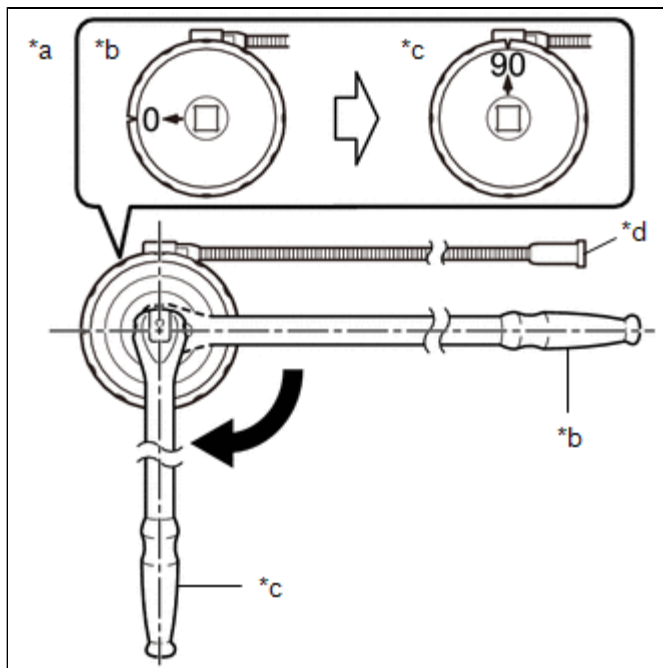
(c) Tighten the E14 bolts (1). In this process, counter support at the 18 mm nuts.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(d) Using SST, tighten the E14 bolts (1) an additional 90°.

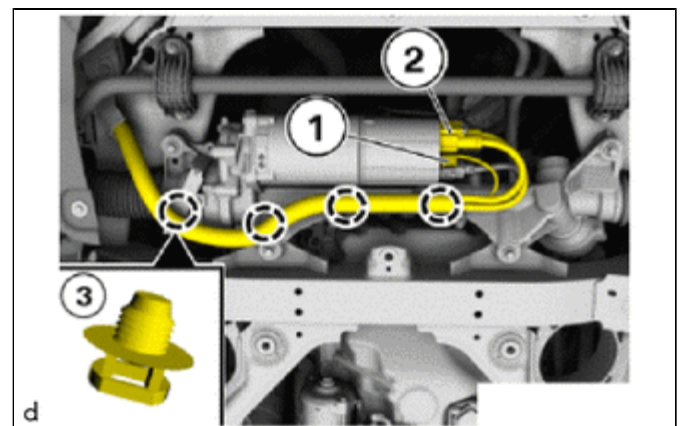
SST: 09900-WA010



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) Connect connectors (1) and (2) and lock.



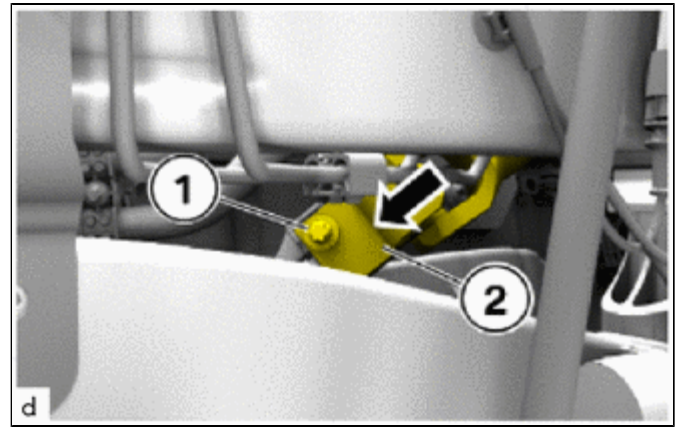
(f) Clip the wiring harness into the holder (3).

2. CONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

HINT:

- The steering intermediate shaft assembly can only be installed in one position.
- The steering intermediate shaft assembly is encoded for the steering column and the steering gear. The clamping bolt must be positioned in the groove of the steering gear or the steering column.

- (a) Slide the steering intermediate shaft assembly (2) in the direction of the arrow onto the steering gear assembly.



- (b) Replace the E10 bolt (1).
(c) Tighten down E10 bolt (1).

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

3. CONNECT TIE ROD END SUB-ASSEMBLY LH

- (a) Install the tie rod end sub-assembly LH on the steering knuckle LH.
(b) Replace nut.
(c) Tighten the nut.

Torque:

165 N·m {1683 kgf·cm, 122 ft·lbf}

HINT:

If necessary, counter support the T40 "TORX" socket wrench.

4. CONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Perform the same procedure as for the LH side.

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

6. INSTALL FRONT WHEELS

Click here [INFO](#)

7. INSPECT AIRBAG FOR FUNCTION

Click here [INFO](#)

8. START-UP OF ELECTROMECHANICAL STEERING

Click here [INFO](#)

9. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

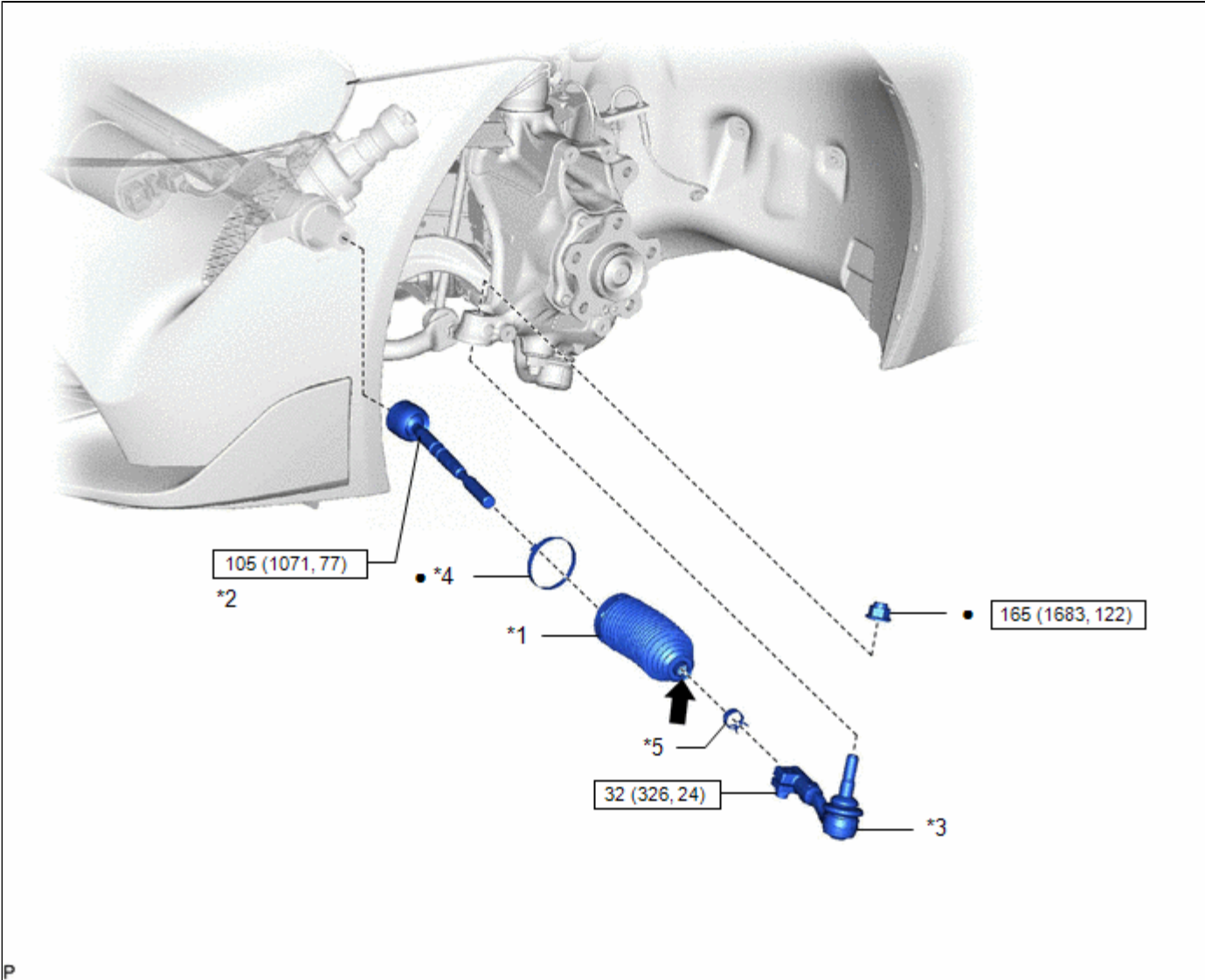
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: TIE ROD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	STEERING RACK BOOT	*2	TIE ROD ASSEMBLY
*3	TIE ROD END SUB-ASSEMBLY	*4	CLAMP
*5	CLIP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Lubricating Grease FB-1	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: TIE ROD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

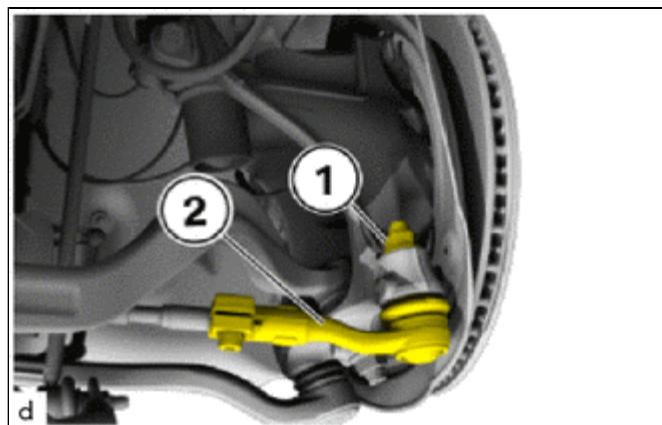
Click here [INFO](#)

3. REMOVE TIE ROD END SUB-ASSEMBLY

(a) Loosen the nut (1).

HINT:

If necessary, counter-hold the T40 "TORX" socket wrench.

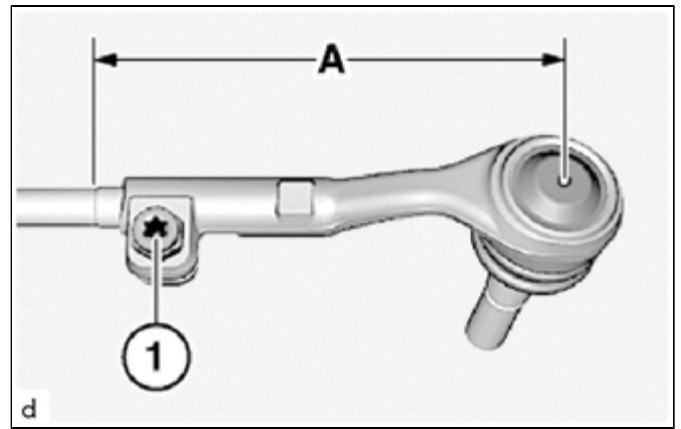


(b) Pull the tie rod end sub-assembly (2) off the steering knuckle LH.

(c) Determine and write down the dimension (A).

HINT:

The dimension (A) is needed to simplify the toe adjustment at the front axle.



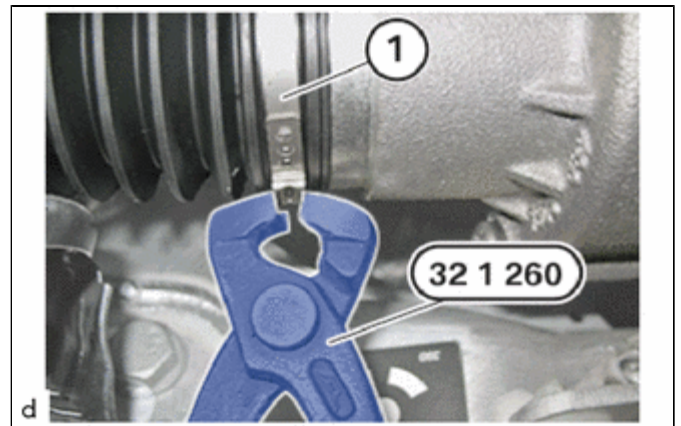
(d) Slacken T50 bolt (1).

(e) Unscrew tie rod end sub-assembly.

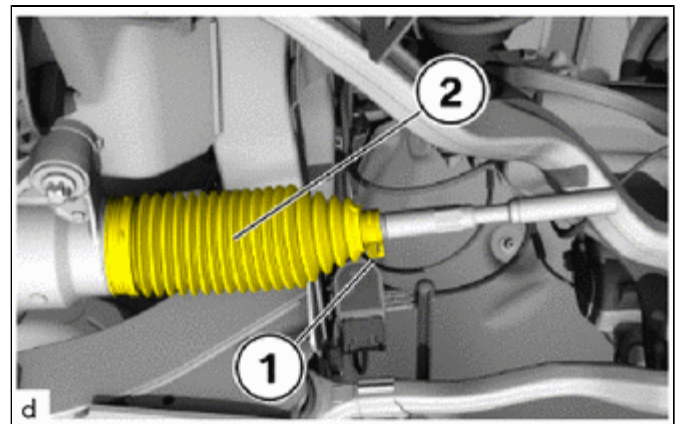
4. REMOVE STEERING RACK BOOT

(a) Cut diagonally across the clamp (1) using special tool 0 494 152 (32 1 260).

SST: 09200-WA590



(b) Remove the clip (1).



(c) Pull steering rack boot (2) off the steering gear assembly.

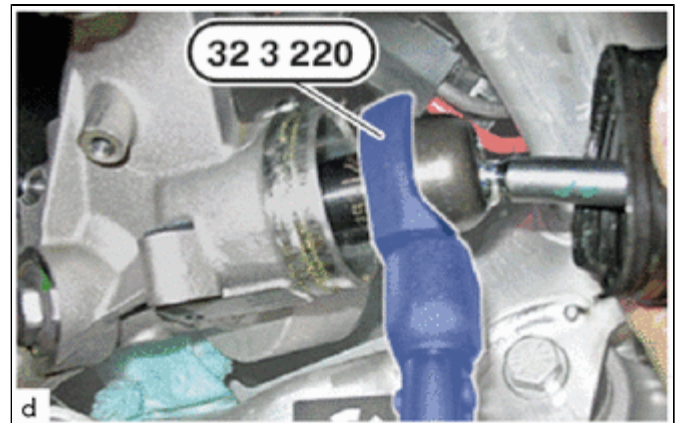
5. REMOVE TIE ROD ASSEMBLY

NOTICE:

In order to avoid damage of the steering shaft and its bearing, the steering shaft must be positioned in the steering gear assembly far as possible.

- (a) Release the tie rod assembly from the steering shaft of the steering gear assembly using special tool 0 496 483 (32 3 220).

SST: 09600-WA040



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDHQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: STEERING GEAR / LINKAGE: TIE ROD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL TIE ROD ASSEMBLY

NOTICE:

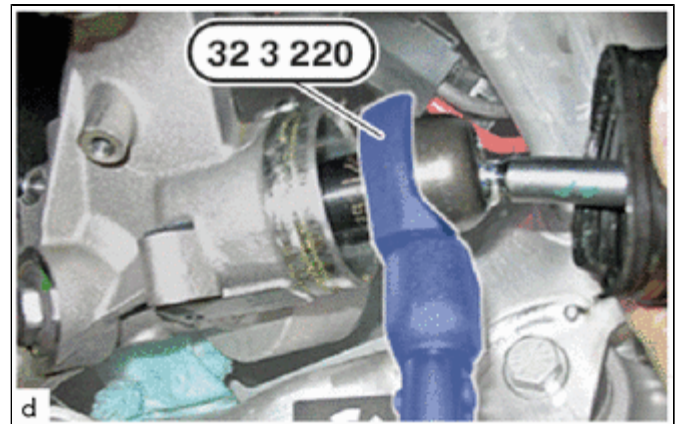
In order to avoid damage of the steering shaft and its bearing, the steering shaft must be positioned in the steering gear as far as possible.

- (a) Screw on and tighten the tie rod assembly to the steering shaft with the special tool 0 496 483 (32 3 220).

SST: 09600-WA040

Torque:

105 N·m {1071 kgf·cm, 77 ft·lbf}



2. INSTALL STEERING RACK BOOT

- (a) Coat the tie rod assembly at the taper with lubricating grease FB-1.

HINT:

This ensures that the steering rack boot is not rotated when the tie rod assembly is rotated.

- (b) Push on the steering rack boot.
(c) Attach the clip.

- (d) Replace clamp (1).



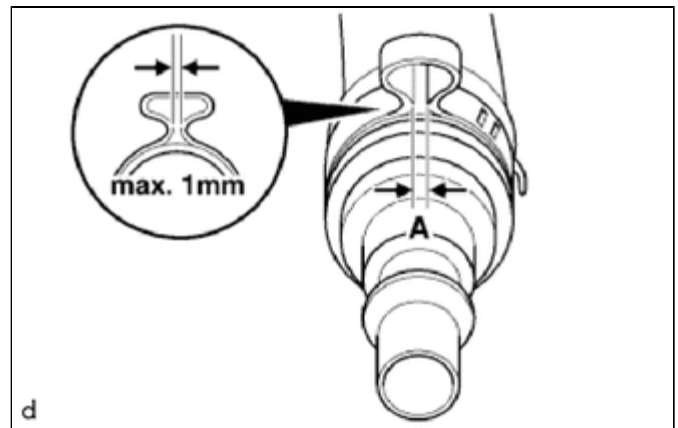
(e) Attach the hook lock and press together the clamp (1) using special tool 0 494 152 (32 1 260).

SST: 09200-WA590

(f) Check the clearance.

Standard Measurement:

AREA	MEASUREMENT
A	Max. 1 mm (0.0393 in.)

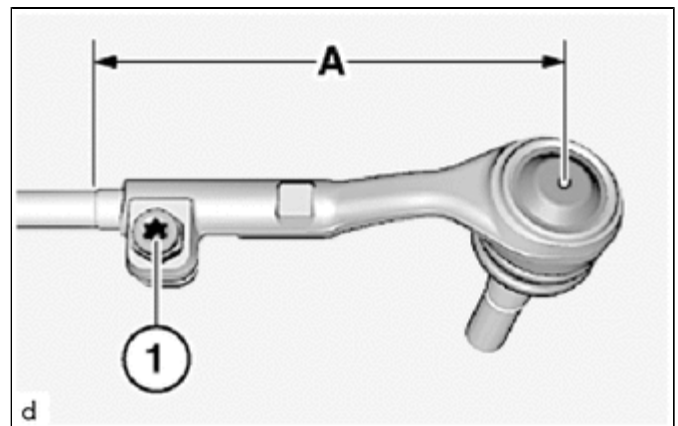


3. INSTALL TIE ROD END SUB-ASSEMBLY

(a) Screw the tie rod end sub-assembly onto the tie rod assembly until the dimension (A) is reached.

HINT:

- The dimension (A) was determined during the removal.
- If necessary, use an open-end spanner for counter support at the tie rod assembly.



(b) Tighten down T50 bolt (1).

Torque:

32 N·m {326 kgf·cm, 24 ft·lbf}

- (c) Install the tie rod end sub-assembly on the steering knuckle.
- (d) Replace nut.
- (e) Tighten the nut.

Torque:

165 N·m {1683 kgf·cm, 122 ft·lbf}

HINT:

If necessary, counter support the T40 "TORX" socket wrench.

4. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

5. INSTALL FRONT WHEEL

Click here [INFO](#)

6. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD00
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: ALIGNMENT / HANDLING DIAGNOSIS: FRONT WHEEL ALIGNMENT: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

CAUTION / NOTICE / HINT

NOTICE:

Before inspecting the wheel alignment, adjust the vehicle height to the specified value.

HINT:

Camber and toe-in influence each other. Adjust the toe-in first in order to simplify the adjustment procedure.

PROCEDURE

1. INSPECT TIRES

Click here [INFO](#)

2. PREPARATION FOR INSPECTION AND ADJUSTMENT

NOTICE:

- Before inspecting the wheel alignment, adjust the vehicle height to the specified value.
- Be sure to perform measurement on a level surface.
- If it is necessary to go under the vehicle for measurement, confirm that the parking brake is applied and the vehicle is secured with chocks.

(a) Check vehicle interior and luggage compartment for load status, if applicable, unload vehicle.

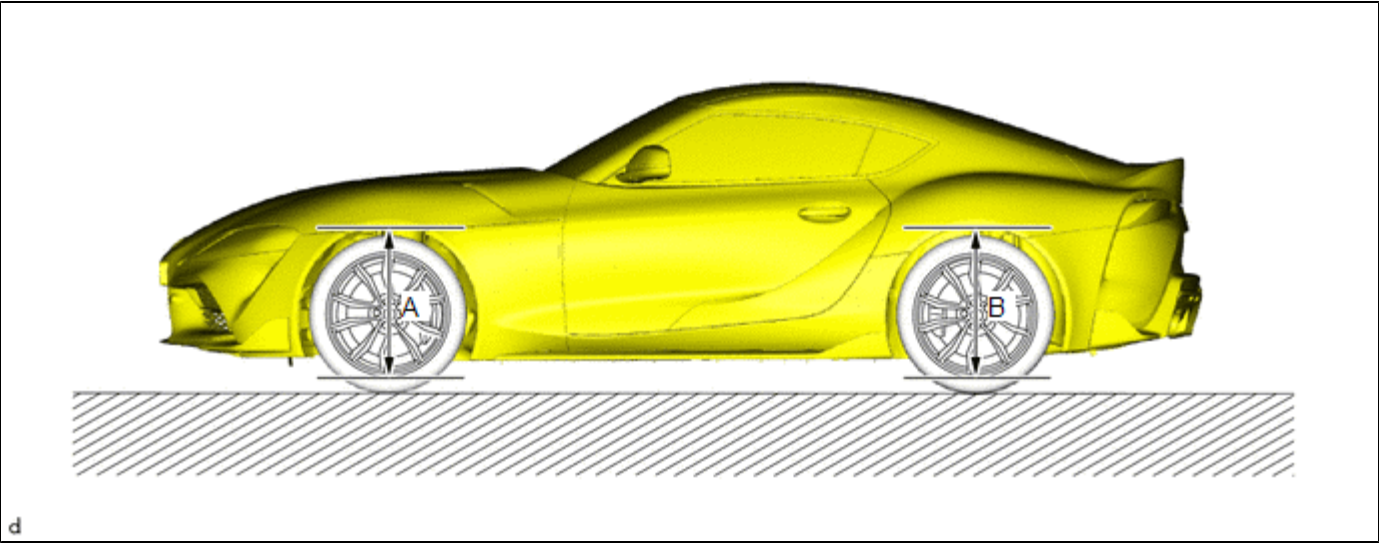
(b) Place specified load into the vehicle.

- Driver seat center position: 68 kg (149.9 lb)
- Passenger seat center position: 68 kg (149.9 lb)
- Luggage compartment center position: 14 kg (30.9 lb)
- Fuel tank: full tank

(c) Position weights in the luggage compartment until the nominal ride-level height of the vehicle is reached.

(d) Position weights in the footwell as far as possible in the direction of front axle until the nominal ride-level height of the vehicle is reached.

(e) Measure the vehicle height.



Vehicle Height:

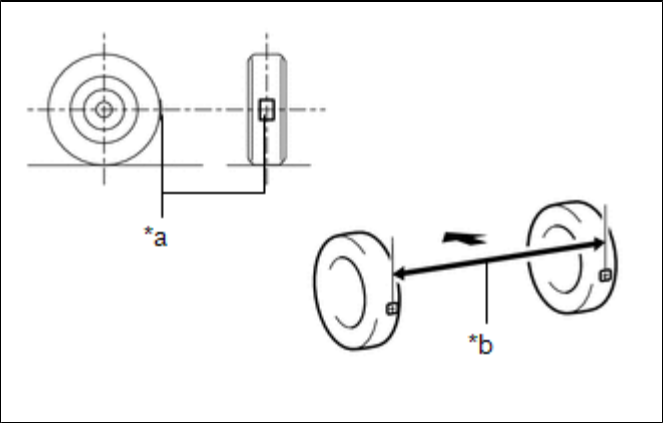
TIRE SIZE	EQUIPMENT	FRONT (A)	REAR (B)
18 inch	w/o AVS	621 mm (2.04 ft.)	619 mm (2.03 ft.)
	w/ AVS	614 mm (2.01 ft.)	612 mm (2.01 ft.)
19 inch	w/o AVS	634 mm (2.08 ft.)	632 mm (2.07 ft.)
	w/ AVS	627 mm (2.06 ft.)	625 mm (2.05 ft.)

NOTICE:


- Height is measured vertically through wheel center from lower rim flank to wheel arch edge.
- The tolerance for the vehicle height is 2 mm (0.0787 in.) or less.
- The difference between the left and right is 2 mm (0.0787 in.) or less.

3. INSPECT TOE-IN

- (a) Bounce the vehicle up and down at the corners to stabilize the suspension.
- (b) Release the parking brake and move the shift position to N.
- (c) Push the vehicle straight ahead approximately 5 m (16.4 ft.). (Step C)
- (d) Put tread center marks on the rearmost points of the front wheels and measure the distance between the marks (dimension B).



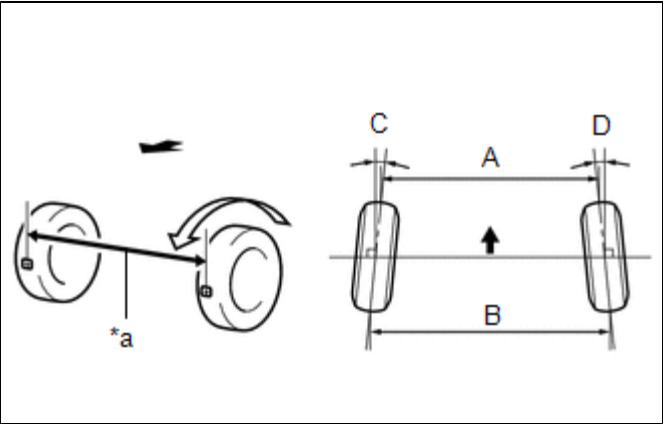
*a	Tread Center Mark
*b	Dimension B


	Front of the Vehicle
--	----------------------

(e) Slowly push the vehicle straight ahead to cause the front wheels to rotate 180°. Use the front tire valve as a reference point.

HINT:
Do not allow the wheels to rotate more than 180°. If the wheels rotate more than 180°, perform the procedure from step C again.

(f) Measure the distance between the tread center marks on the front of the wheels (dimension A).



*a	Dimension A
	Front of the Vehicle

Toe-in:

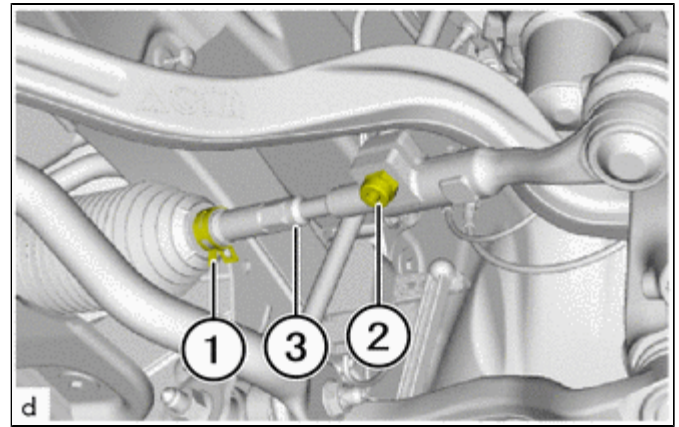
SPECIFIED CONDITION
C + D: 0°16' +/- 0°12' (0.27° +/- 0.20°)
B - A: 3.1 +/- 2.3 mm (0.1220 +/- 0.0906 in.)

HINT:
Measure "B - A" only when "C + D" cannot be measured.

4. ADJUST TOE-IN

HINT:
Camber and toe-in influence each other. Adjust the toe-in first in order to simplify the adjustment procedure.

(a) Separate the steering rack boot clips (1) from the steering rack boot.



(b) Loosen the T50 lock bolts (2) on the tie rod end.

(c) Turn the right and left tie rods (3) by an equal amount to adjust the toe-in.

(d) Tighten the T50 lock bolts (2) on the tie rod end.

Torque:

32 N·m {326 kgf·cm, 24 ft·lbf}

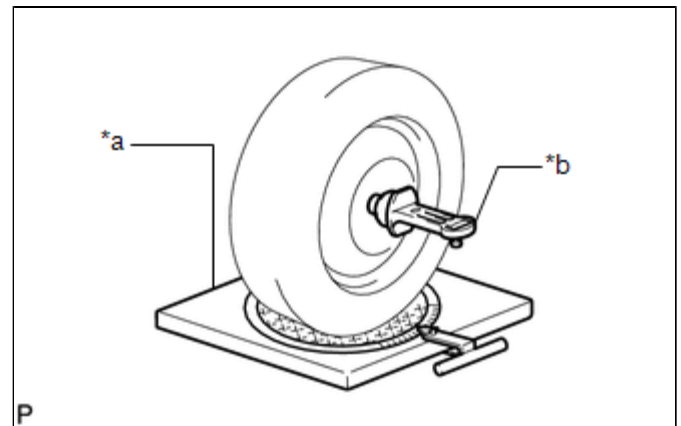
(e) Place the steering rack boots on the seats and install the steering rack boot clips (1).

HINT:

Make sure that the steering rack boots are not twisted.

5. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

(a) Install a camber-caster-kingpin gauge and place the front wheels on the center of a turning radius gauge.



*a	Turning Radius Gauge
*b	Camber-caster-kingpin Gauge

(b) Inspect the camber, caster and steering axis inclination.

Camber:

EQUIPMENT	CAMBER INCLINATION	RIGHT-LEFT DIFFERENCE
w/o AVS	-1°38' +/- 0°30' (-1.63° +/- 0.50°)	0°30' (0.50°) or less
w/ AVS	-1°45' +/- 0°30' (-1.75° +/- 0.50°)	

Caster:

CASTER INCLINATION	RIGHT-LEFT DIFFERENCE
7°35' +/- 0°30' (7.58° +/- 0.50°)	0°30' (0.50°) or less

Steering Axis Inclination:

STEERING AXIS INCLINATION REFERENCE
17°21' (17.35°)

6. ADJUST CAMBER

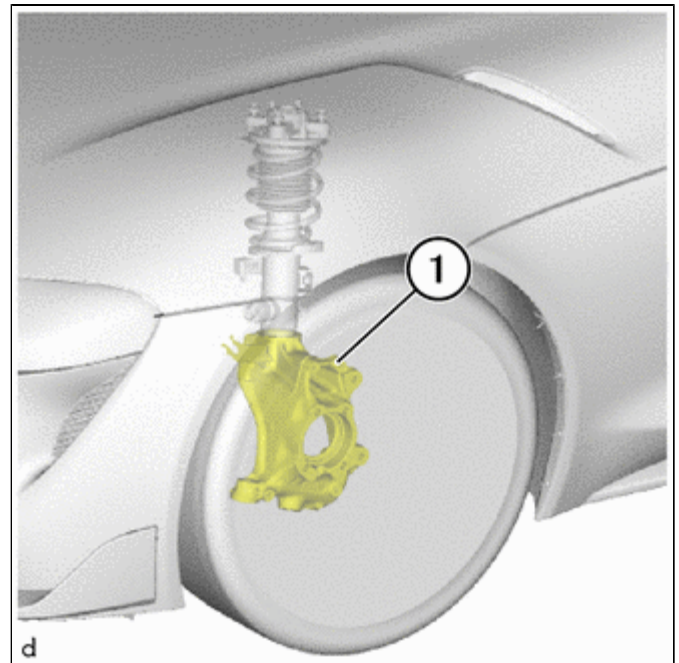
HINT:

Camber and toe-in influence each other. Adjust the toe-in first in order to simplify the adjustment procedure.

- (a) Adjust camber by changing steering knuckle (1) to service steering knuckle.

Service Steering Knuckle:

POSITION	TOYOTA PART NO. (BMW PART NO.)	CORRECTION VALUE
LH side	43212-WAA01 (6 878 613)	Standard
	43212-WAA02 (6 877 201)	-30' (-0.50°)
	43212-WAA03 (6 877 203)	+30' (+0.50°)
RH side	43211-WAA01 (6 878 614)	Standard
	43211-WAA02 (6 877 202)	-30' (-0.50°)
	43211-WAA03 (6 877 204)	+30' (+0.50°)



- (b) Remove the steering knuckle.

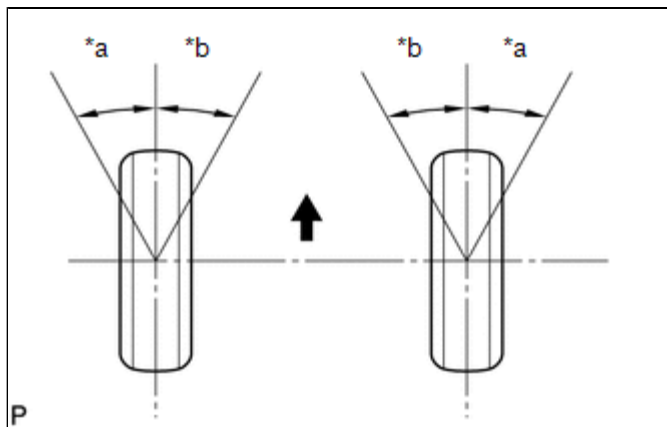
Click here [INFO](#)


- (c) Install the service steering knuckle.

Click here [INFO](#)

7. INSPECT WHEEL ANGLE

- (a) Put tread center marks on the rearmost points of a turning radius gauge.



*a	Inside
*b	Outside
	Front of the Vehicle

(b) Turn the steering wheel fully to the left and right and measure the turning angle.

Wheel Turning Angle:

INSIDE WHEEL	OUTSIDE WHEEL
38°23' (38.38°)	29°09' (29.15°)

If the right and left inside wheel angles differ from the specified value, check and adjust the right and left tie rod lengths.

8. START-UP OF ELECTROMECHANICAL STEERING

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0P
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: ALIGNMENT / HANDLING DIAGNOSIS: REAR WHEEL ALIGNMENT: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

CAUTION / NOTICE / HINT

- NOTICE:
Before inspecting the wheel alignment, adjust the vehicle height to the specified value.
- HINT:
When adjusting the camber, the toe is also always changed. The camber must therefore be adjusted first.

PROCEDURE

1. INSPECT TIRES

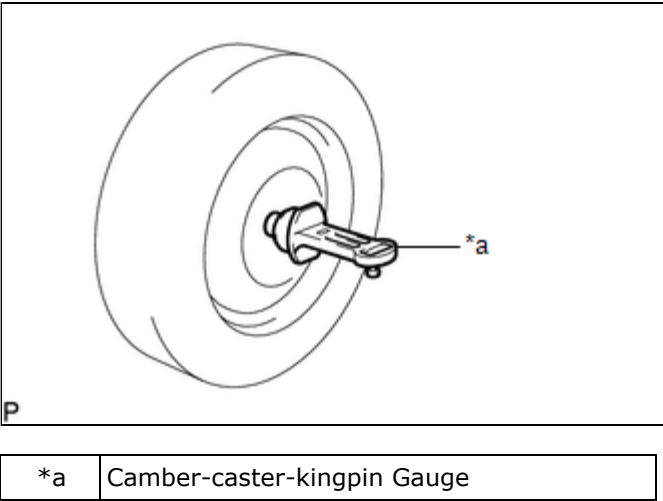
Click here [INFO](#)

2. PREPARATION FOR INSPECTION AND ADJUSTMENT

Click here [INFO](#)

3. INSPECT CAMBER

(a) Install a camber-caster-kingpin gauge.



(b) Inspect the camber.

Camber:

EQUIPMENT	CAMBER INCLINATION	RIGHT-LEFT DIFFERENCE
w/o AVS	-1°50' +/- 0°25' (-1.83° +/- 0.42°)	0°30' (0.50°) or less
w/ AVS	-2°00' +/- 0°25' (-2.00° +/- 0.42°)	

4. ADJUST CAMBER

HINT:

When adjusting the camber, the toe is also always changed. The camber must therefore be adjusted first.

(a) Remove the rear suspension arm cover.

Click here [INFO](#)

(b) Remove the stoneguard.

Click here [INFO](#)

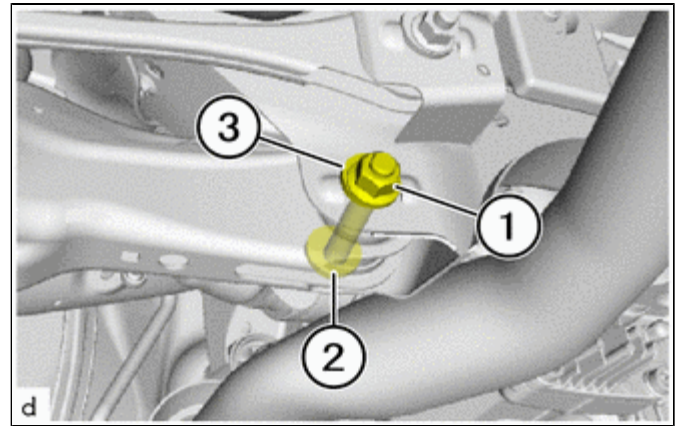
(c) Remove the rear coil spring.

Click here [INFO](#)

(d) Loosen the nut (1) of the rear No. 2 suspension arm (on the rear suspension member side).

NOTICE:

Hold the 18 mm camber adjust bolt (2) while rotating the nut (1).



(e) Replace the nut (1), camber adjust bolt (2) and camber adjust washer (3).

CAUTION:

Do not pull out the camber adjustment bolt (2) before removing the rear coil spring.

NOTICE:

During installation, position camber adjust bolt (2) and camber adjust washer (3) in such a way that the eccentric points upward vertically.

(f) Install the rear coil spring.

Click here [INFO](#)

(g) Rotate the 18 mm camber adjust bolt (2) to adjust the camber.

(h) Tighten the nut (1) of the rear No. 2 suspension arm (on the rear suspension member side).

Torque:

175 N·m {1785 kgf·cm, 129 ft·lbf}

NOTICE:

Hold the 18 mm camber adjust bolt (2) while rotating the nut (1).

(i) Install the stoneguard.

Click here [INFO](#)

(j) Install the rear suspension arm cover.

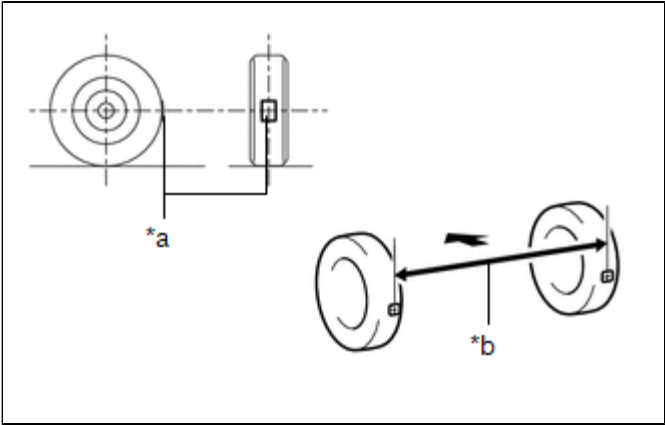
Click here [INFO](#)


5. INSPECT TOE-IN

(a) Bounce the vehicle up and down at the corners to stabilize the suspension.

(b) Release the parking brake and move the shift position to N.

- (c) Push the vehicle straight ahead approximately 5 m (16.4 ft.). (Step C)
- (d) Put tread center marks on the rearmost points of the rear wheels and measure the distance between the marks (dimension B).

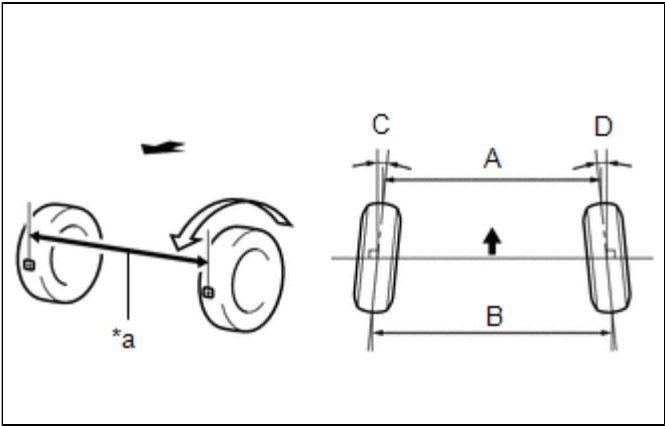



*a	Tread Center Mark
*b	Dimension B
	Front of the Vehicle

- (e) Slowly push the vehicle straight ahead to cause the rear wheels to rotate 180°. Use the rear tire valve as a reference point.

HINT:
 Do not allow the wheels to rotate more than 180°. If the wheels rotate more than 180°, perform the procedure from step C again.

- (f) Measure the distance between the tread center marks on the front of the rear wheels (dimension A).



*a	Dimension A
	Front of the Vehicle

Toe-in:

SPECIFIED CONDITION
C + D: 0°14' +/- 0°12' (0.23° +/- 0.20°)

HINT:

Measure "B - A" only when "C + D" cannot be measured.

6. ADJUST TOE-IN

HINT:

When adjusting the camber, the toe is also always changed. The camber must therefore be adjusted first.

- (a) Remove the rear suspension arm cover.

Click here [INFO](#)

- (b) Remove the stoneguard.

Click here [INFO](#)

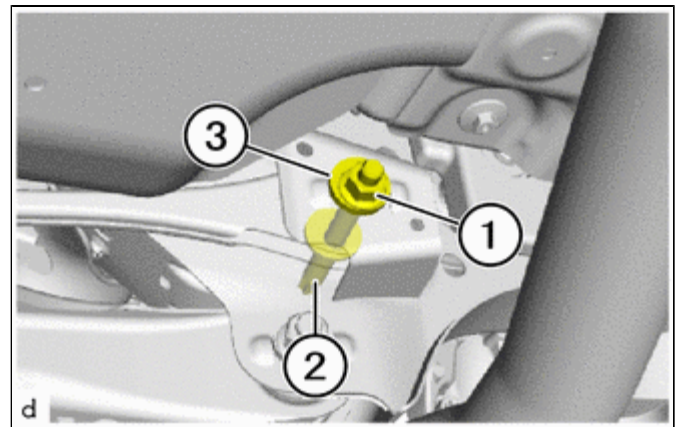
- (c) Remove the rear wheel.

Click here [INFO](#)

- (d) Loosen the 18 mm nut (1) of the toe control link (on the rear suspension member side).

NOTICE:

Hold the E14 toe adjust bolt (2) while rotating the 18 mm nut (1).



- (e) Replace the nut (1), toe adjust bolt (2) and toe adjust washer (3).

CAUTION:

Do not pull out the toe adjustment bolt (2) before removing the rear wheel.

NOTICE:

During installation, position toe adjust bolt (2) and toe adjust washer (3) in such a way that the eccentric points upward vertically.

- (f) Install the rear wheel.

Click here [INFO](#)

- (g) Rotate the E14 toe adjust bolt (2) to adjust the toe-in.

- (h) Tighten the 18 mm nut (1) of the toe control link (on the rear suspension member side).

Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

NOTICE:

Hold the E14 toe adjust bolt (2) while rotating the 18 mm nut (1).

- (i) Install the stoneguard.

Click here

INFO

(j) Install the rear suspension arm cover.

Click here

INFO

7. ADJUST MILLIMETER WAVE RADAR SENSOR

- Before starting adjustment:

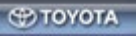
Click here

INFO

- Adjustment:

Click here

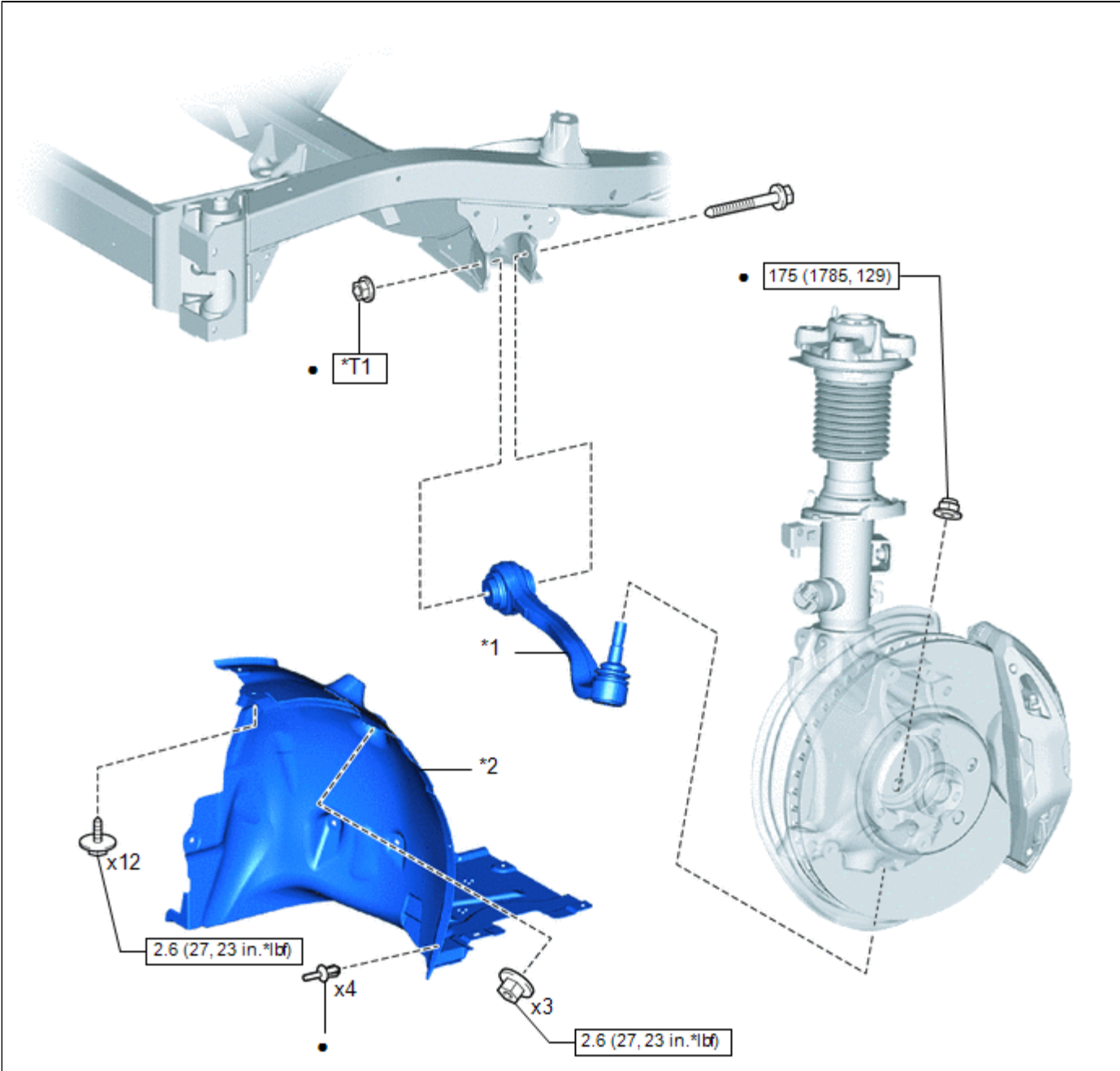
INFO



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT LOWER SUSPENSION ARM ASSEMBLY	*2	FRONT NO. 2 FENDER LINER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

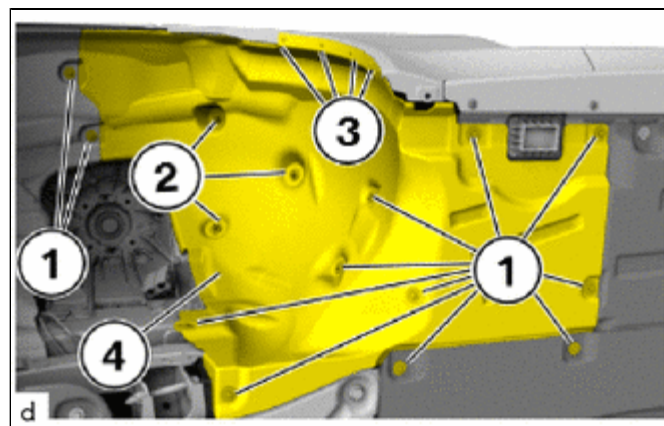
PROCEDURE

1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. REMOVE FRONT NO. 2 FENDER LINER

(a) Loosen screws (1).



(b) Loosen nuts (2).

(c) Release the plastic rivet (3) and remove the front No. 2 fender liner (4).

3. REMOVE FRONT LOWER SUSPENSION ARM ASSEMBLY

NOTICE:

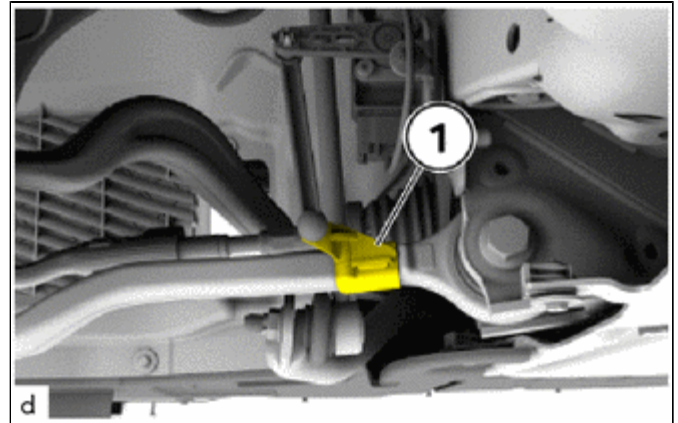
- Component damage caused by striking tools.

Brute force can result in component damage.

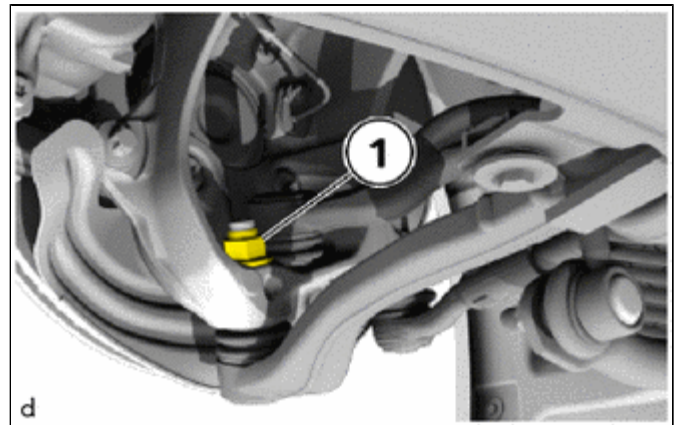
- o Only use those tools intended for the work.

(a) for LH Side:

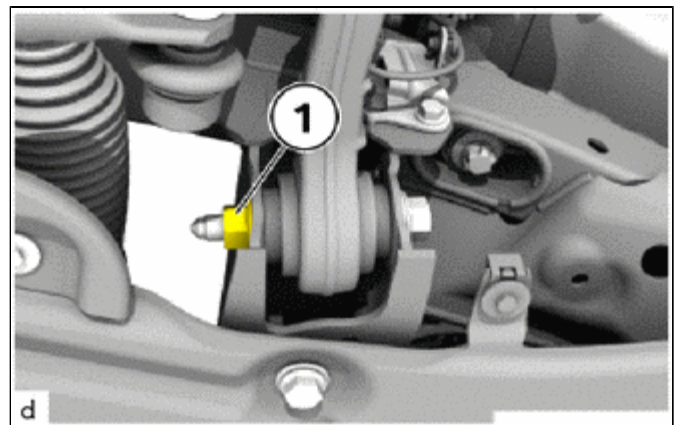
- (1) Release the front height control sensor link sub-assembly (1) on the front lower suspension arm assembly.



- (b) Loosen the nut (1), if necessary, counter-hold the T40 "TORX" socket wrench.



- (c) Using a 18 mm deep socket wrench, unscrew the nut (1) and remove the 18 mm bolt to the rear.



- (d) Remove the front lower suspension arm assembly.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT LOWER SUSPENSION ARM: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL FRONT LOWER SUSPENSION ARM ASSEMBLY

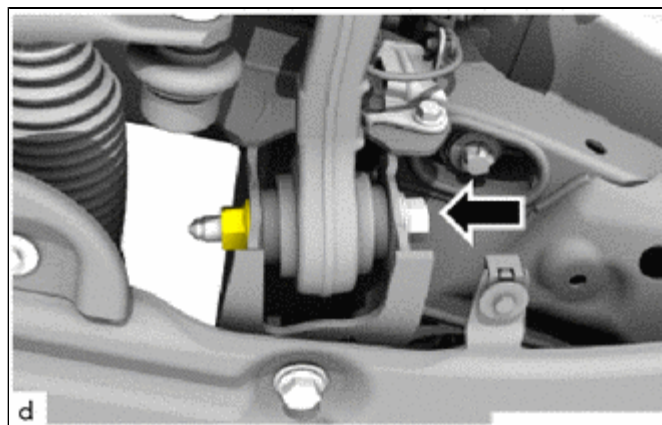
NOTICE:

- Component damage caused by striking tools.

Brute force can result in component damage.

- Only use those tools intended for the work.

(a) Install front lower suspension arm assembly.



(b) Replace the 18 mm bolt and the 18 mm nut.

(c) Using a 18 mm deep socket wrench, tighten the 18 mm nut in the normal position.

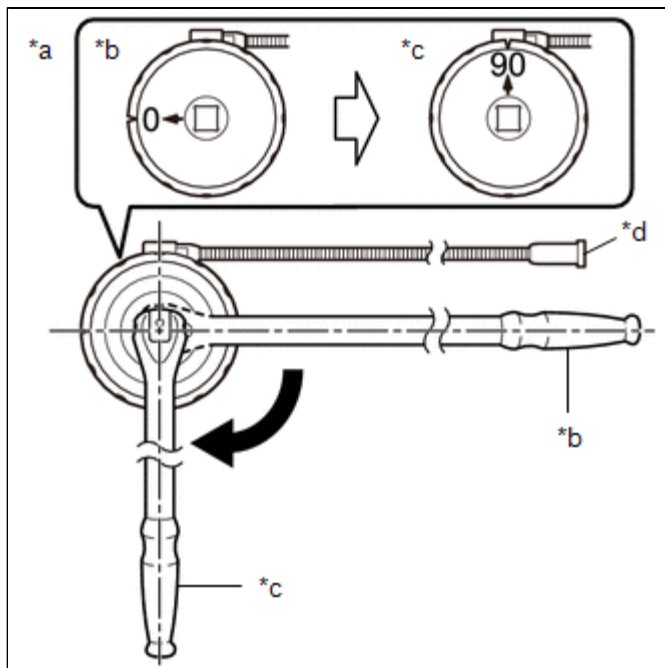
Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(d) Using SST and 18 mm deep socket wrench, tighten the 18 mm nut an additional 90°.

SST: 09900-WA010

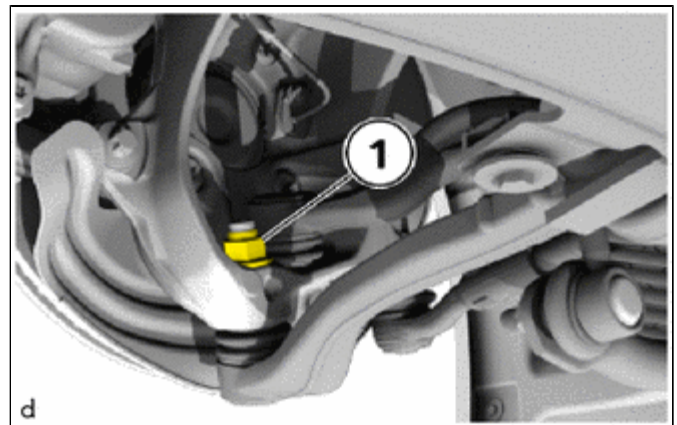
HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) Replace nut (1).



(f) Tighten the nut (1), if necessary, counter support the T40 "TORX" socket wrench.

Torque:

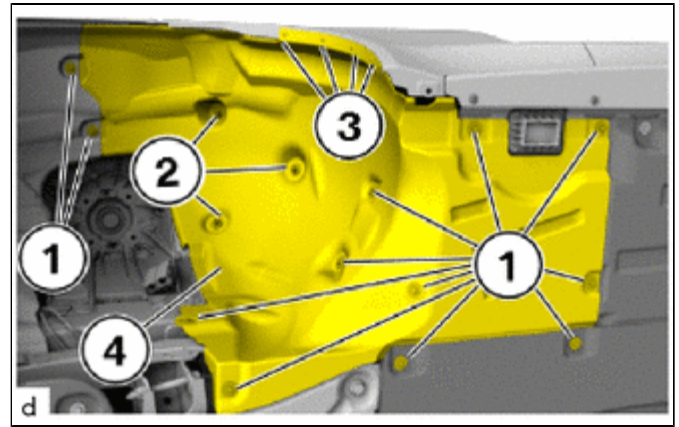
175 N·m {1785 kgf·cm, 129 ft·lbf}

(g) for LH Side:

(1) Clip in the front height control sensor link sub-assembly.

2. INSTALL FRONT NO. 2 FENDER LINER

(a) Insert the front No. 2 fender liner (4).



(b) Tighten the screws (1) and nuts (2).

Torque:

Screw :

2.6 N·m {27 kgf·cm, 23 in·lbf}

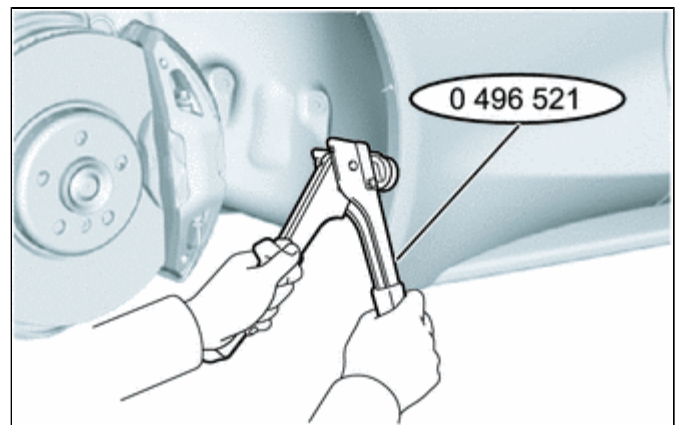
Nut :

2.6 N·m {27 kgf·cm, 23 in·lbf}

(c) Replace the plastic rivet (3).

(d) Set the plastic rivet with the special tool 0 496 521 (00 2 230).

SST: 09900-WA100



3. INSTALL FRONT WHEEL

Click here [INFO](#)

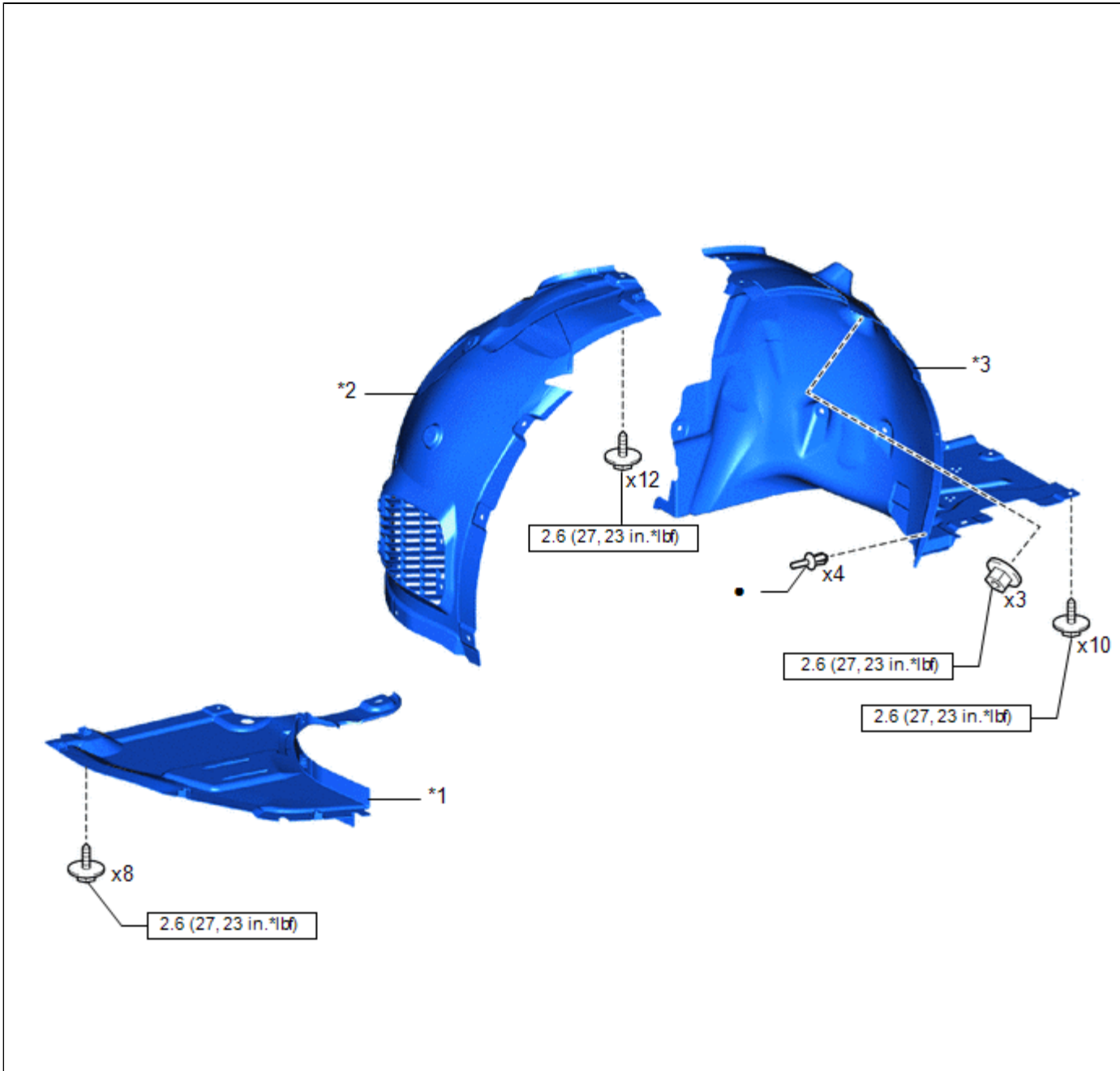
4. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: COMPONENTS; 2020 MY Supra [03/2019 -]		

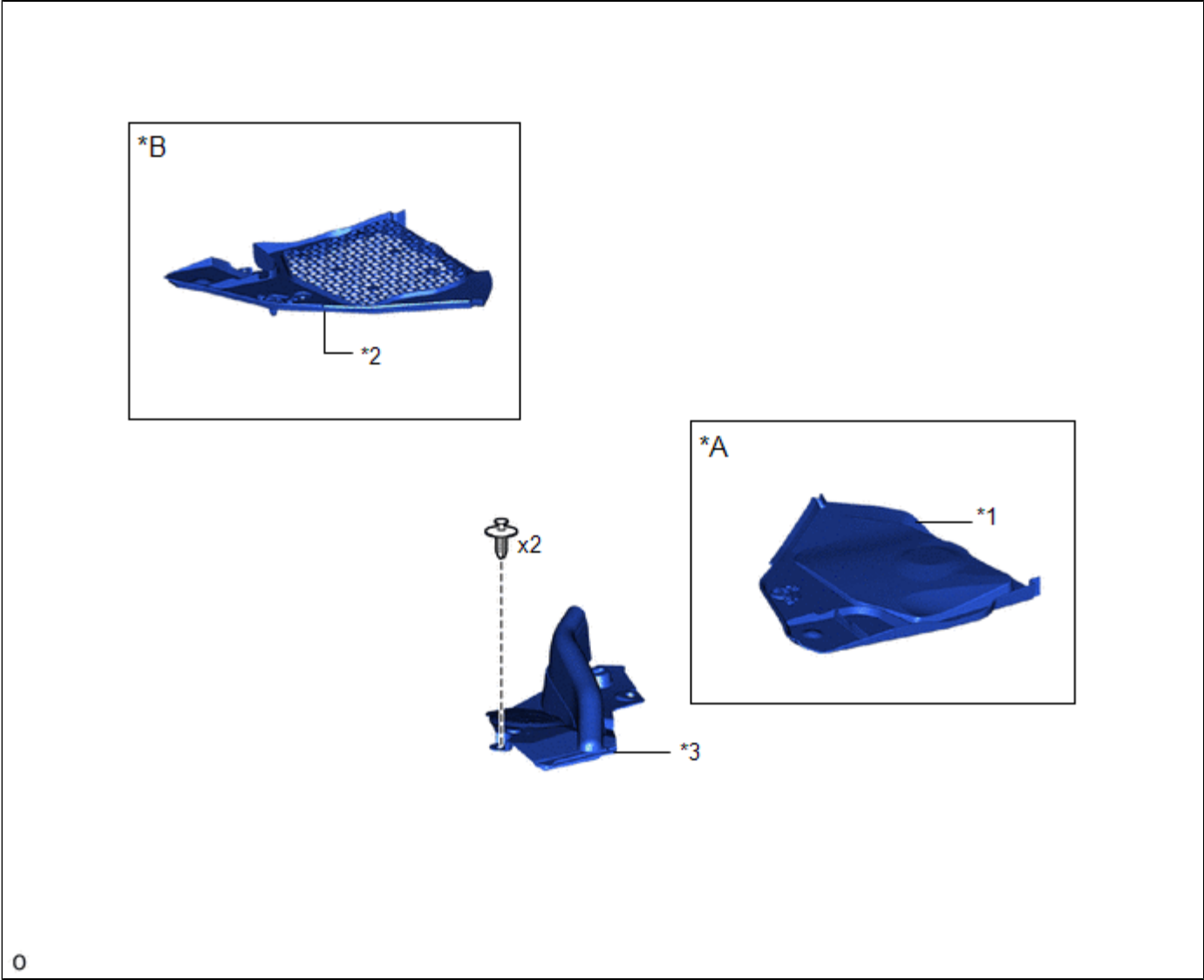
COMPONENTS

ILLUSTRATION



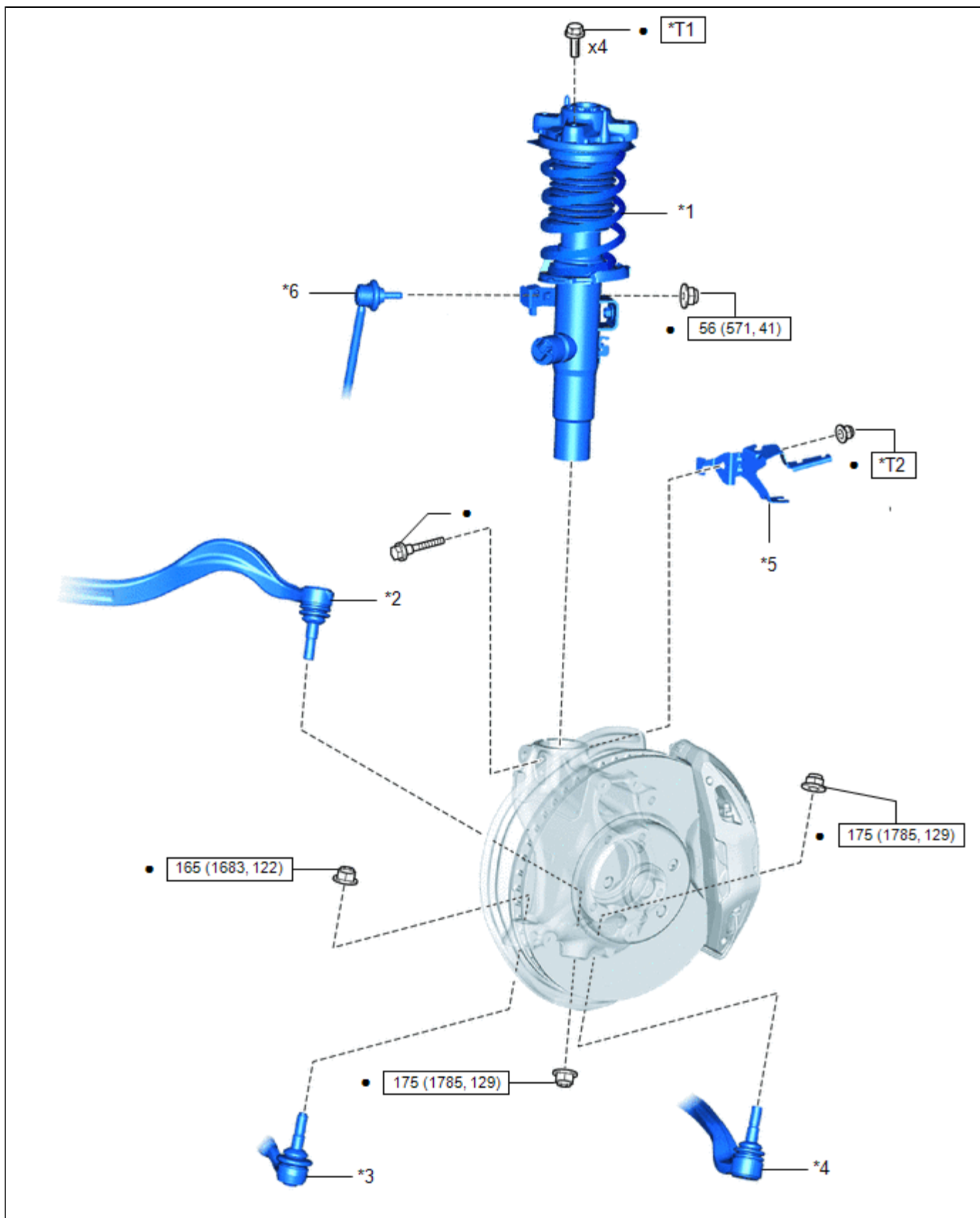
*1	FRONT FENDER SPLASH FRONT SHIELD	*2	FRONT FENDER LINER
*3	FRONT NO. 2 FENDER LINER	-	-
□	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*A	for LH Side	*B	for RH Side
*1	COWL VENT COVER LH	*2	COWL VENT COVER RH
*3	FRONT FENDER TO COWL SIDE SEAL	-	-

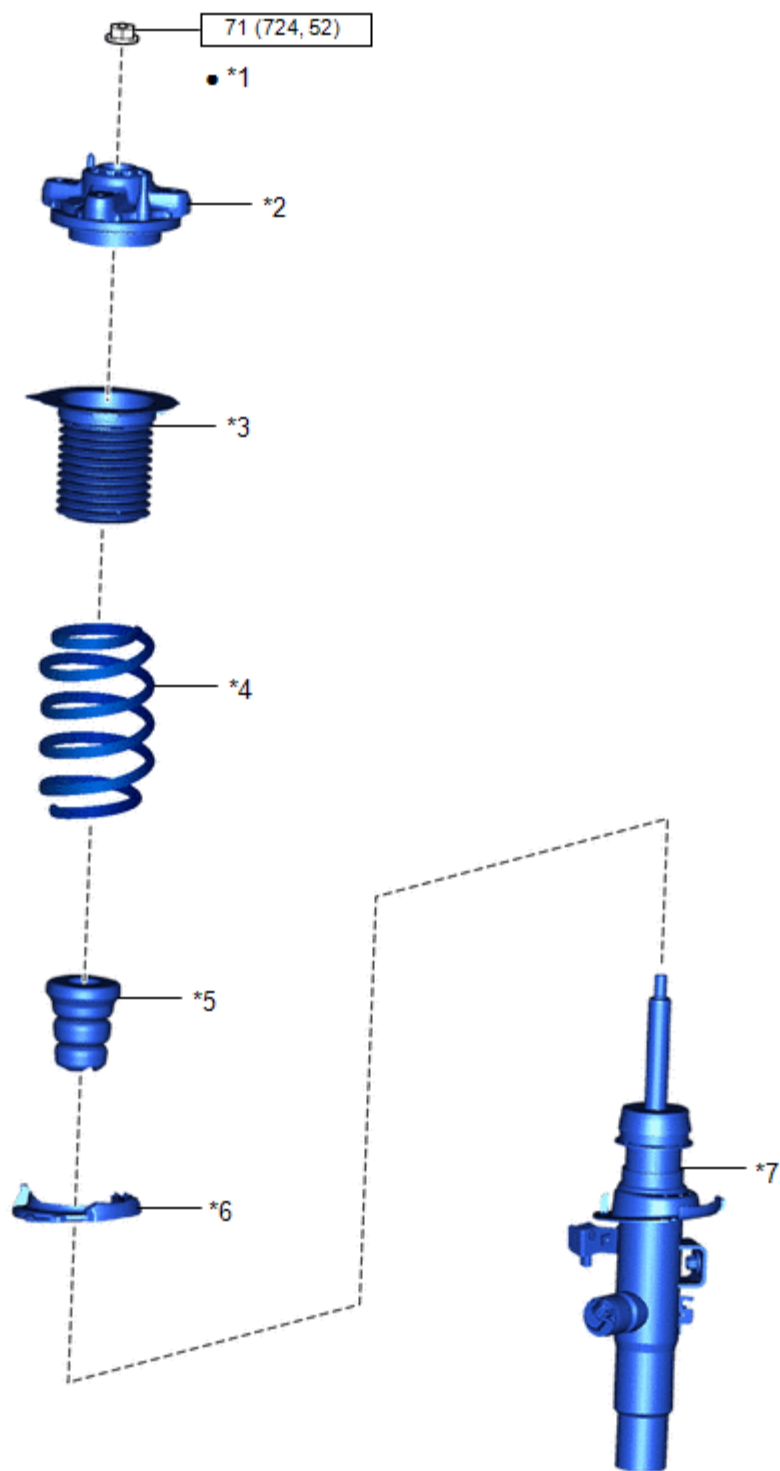
ILLUSTRATION



*1	FRONT SHOCK ABSORBER WITH COIL SPRING	*2	FRONT UPPER SUSPENSION ARM ASSEMBLY
*3	TIE ROD END SUB-ASSEMBLY	*4	FRONT LOWER SUSPENSION ARM ASSEMBLY
*5	HOLDER	*6	FRONT STABILIZER LINK ASSEMBLY


<div> <div></div> </div>	N*m (kgf*cm, ft.*lbf): Specified torque	<div> <div></div> </div>	Non-reusable part
*T1	1st: 28 (286, 21) 2nd: Turn 90°	*T2	1st: 56 (571, 41) 2nd: Turn 90°

ILLUSTRATION



0

*1	FRONT SUPPORT TO FRONT SHOCK ABSORBER NUT	*2	FRONT SUSPENSION SUPPORT SUB- ASSEMBLY
*3	FRONT NO. 1 SHOCK ABSORBER DUST COVER	*4	FRONT COIL SPRING
			FRONT LOWER COIL SPRING

*5	FRONT SPRING BUMPER	*6	INSULATOR
*7	FRONT SHOCK ABSORBER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0E
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

- Spring preload.

Danger of injury!

- The use of the specified special tool (tool) is mandatory.
- The described operation must be carried out properly.

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

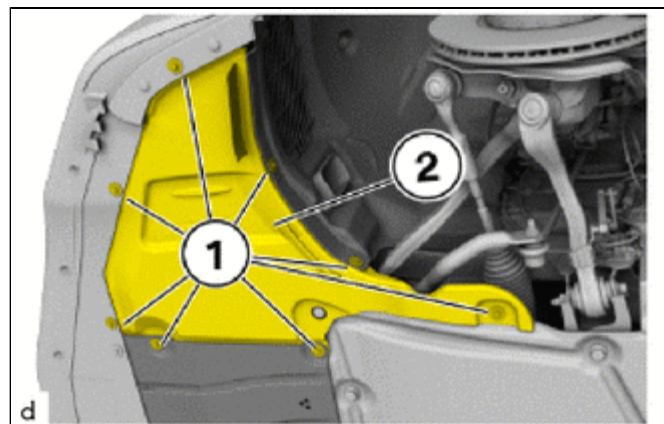
PROCEDURE

1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. REMOVE FRONT FENDER SPLASH FRONT SHIELD

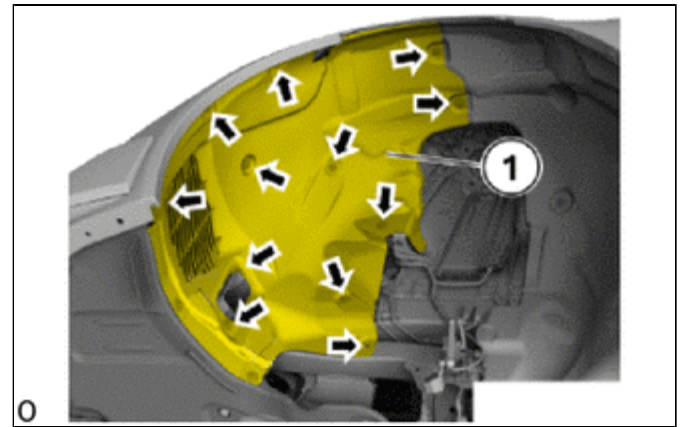
(a) Loosen screws (1).



(b) Feed out the front fender splash front shield (2) to the side.

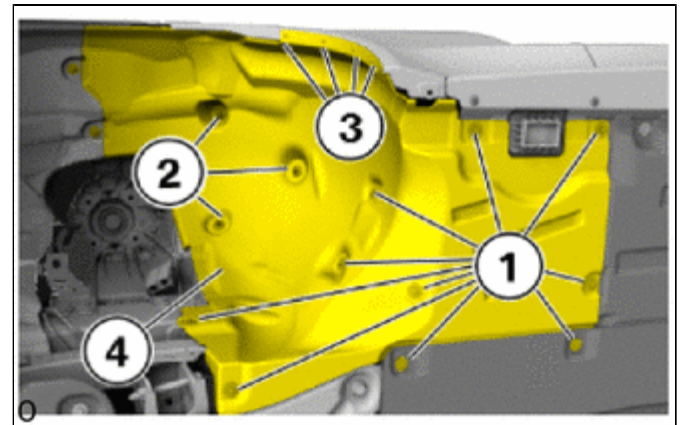
3. REMOVE FRONT FENDER LINER

(a) Unscrew the screws (arrows) and remove the front fender liner (1).



4. REMOVE FRONT NO. 2 FENDER LINER

(a) Loosen screws (1).

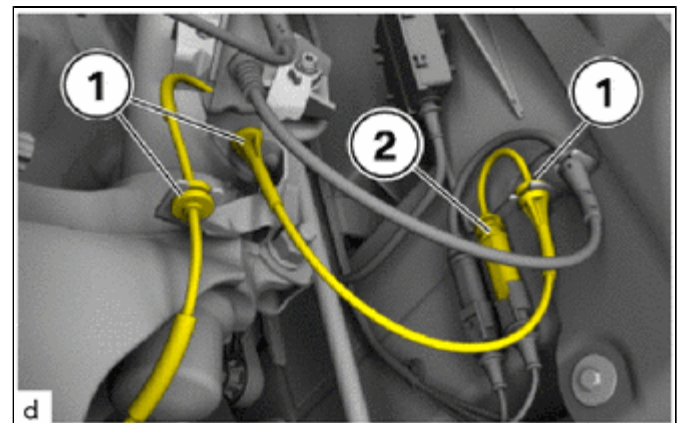


(b) Loosen nuts (2).

(c) Release the plastic rivet (3) and remove the front No. 2 fender liner (4).

5. SEPARATE FRONT SKID CONTROL SENSOR WIRE

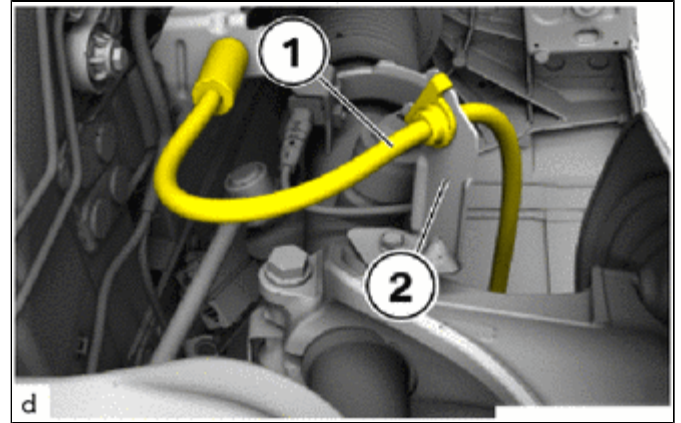
(a) Detach the front skid control sensor wire from the brackets (1).



(b) Unlock the plug connection (2) and disconnect.

6. SEPARATE FRONT FLEXIBLE HOSE

(a) Release the front flexible hose (1) from the bracket (2).

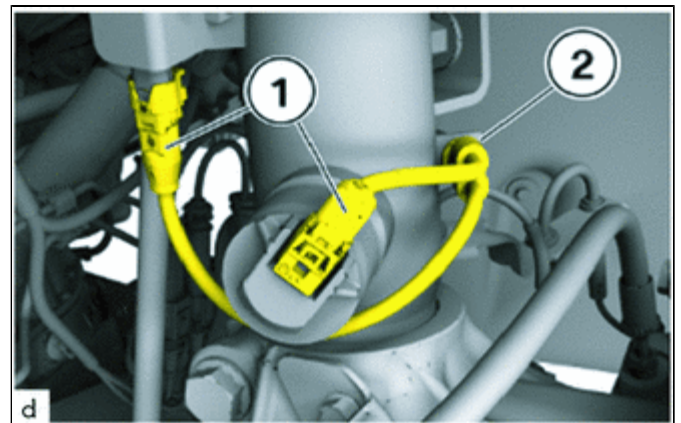


7. REMOVE FRONT BRAKE DISC

Click here [INFO](#)

8. DISCONNECT SENSOR WIRE (w/ AVS)

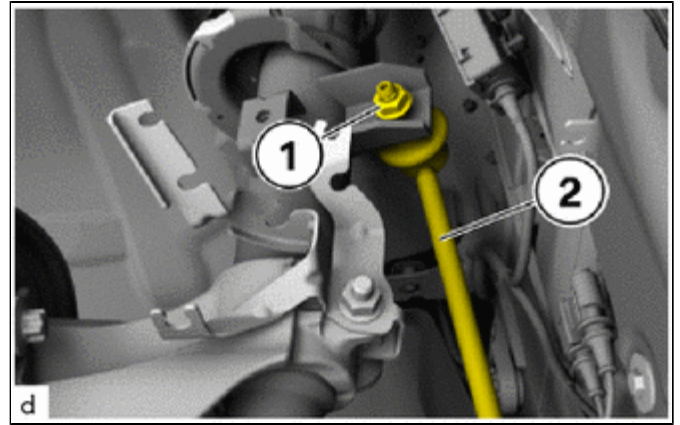
(a) Unlock and disconnect the plug connections (1).



(b) Detach the sensor wire from the holder (2).

9. SEPARATE FRONT STABILIZER LINK ASSEMBLY

(a) Loosen the 16 mm nut (1), if necessary, counter-hold the T30 "TORX" socket wrench.



(b) Release the front stabilizer link assembly (2) from the front shock absorber assembly.

10. DISCONNECT TIE ROD END SUB-ASSEMBLY

Click here [INFO](#)

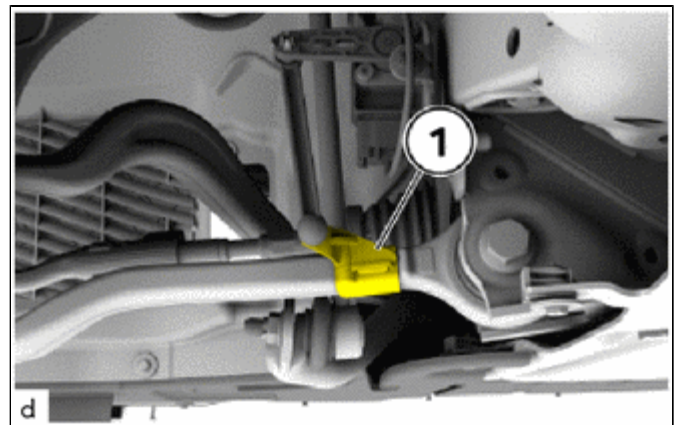
11. SEPARATE FRONT LOWER SUSPENSION ARM ASSEMBLY

NOTICE:

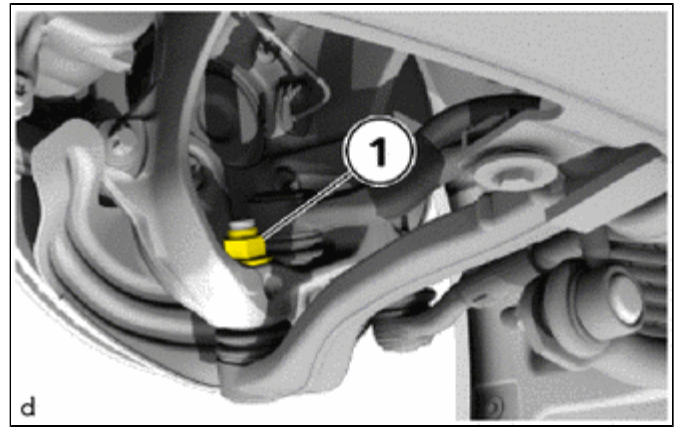
- Component damage caused by striking tools.
 - Brute force can result in component damage.
 - Only use those tools intended for the work.

(a) for LH Side:

- (1) Release the front height control sensor link sub-assembly (1) from the front lower suspension arm assembly.



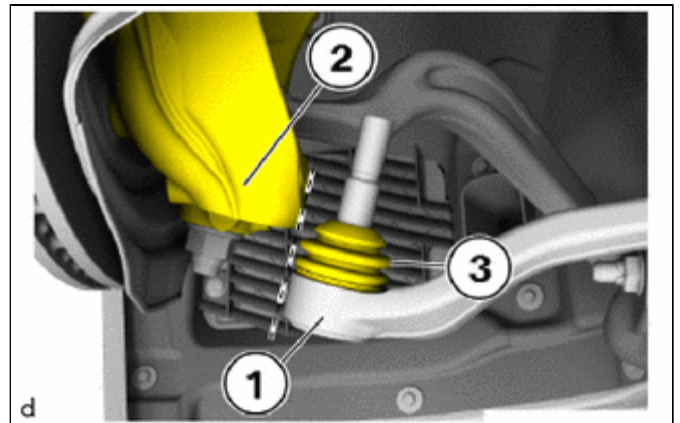
(b) Loosen the nut (1), if necessary, counter-hold the T40 "TORX" socket wrench.



(c) Make sure that the front lower suspension arm assembly (1) is not in contact with the steering knuckle (2).

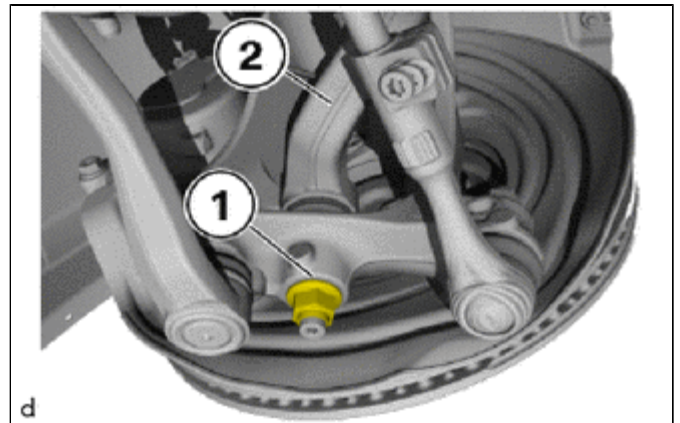
NOTICE:

- Otherwise, the rubber grommet (3) can be damaged. The components must not be touching.
- The rubber grommet (3) may be damaged by the steering knuckle (2).



12. SEPARATE FRONT UPPER SUSPENSION ARM ASSEMBLY

(a) Loosen the nut (1), if necessary, counter-hold the T40 "TORX" socket wrench.



(b) Release the front upper suspension arm assembly (2) from the steering knuckle.

13. REMOVE COWL VENT COVER LH (for LH Side)

Click here [INFO](#)

14. REMOVE COWL VENT COVER RH (for RH Side)

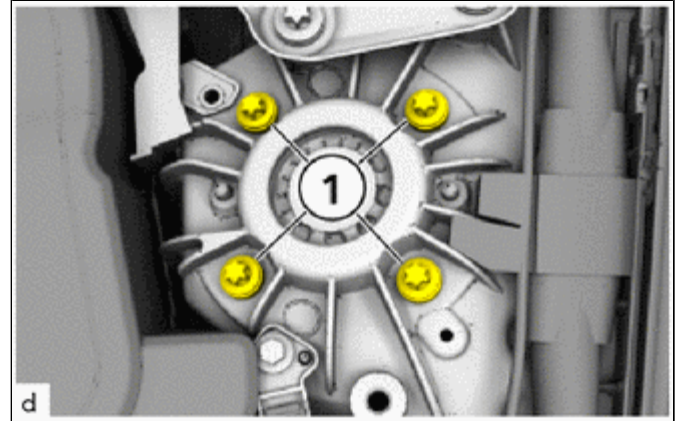
Click here [INFO](#)

15. REMOVE FRONT FENDER TO COWL SIDE SEAL

Click here [INFO](#)

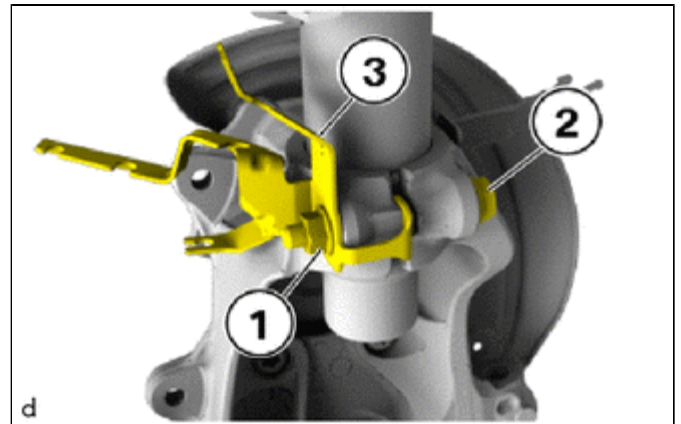
16. REMOVE FRONT SHOCK ABSORBER WITH COIL SPRING

(a) Loosen the bolts (1).



(b) Remove the front shock absorber with coil spring towards the bottom.

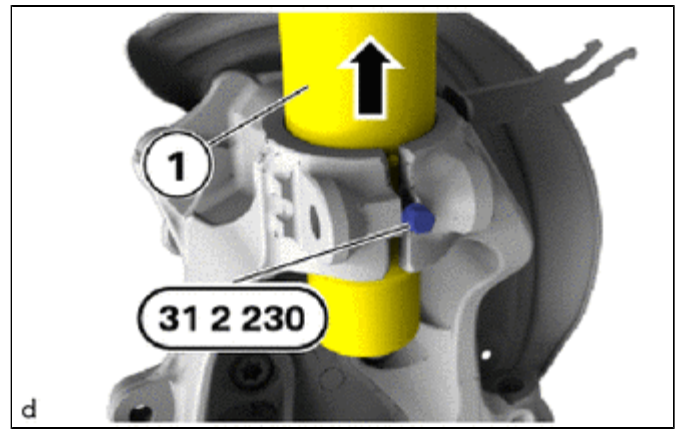
(c) Release the 16 mm nut (1) and 18 mm bolt (2).



(d) Remove the holder (3).

(e) Spread the steering knuckle with the special tool 0 494 541 (31 2 230).

SST: 09600-WA030



(f) Pull the front shock absorber with coil spring (1) from the steering knuckle in the direction of the arrow.

17. REMOVE FRONT COIL SPRING

NOTICE:

- Damage of the front coil spring.

Any use of faulty protections leads to front coil spring damage. Faulty protections may lead to a cracked front coil spring (corrosion).

- Check the protection for wear or damage and if necessary, replace the protections.

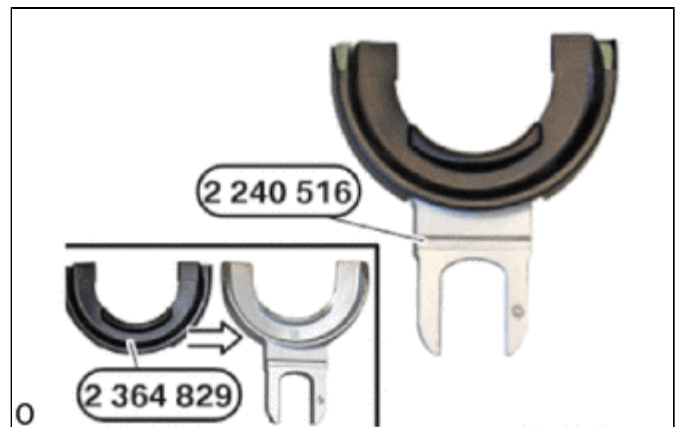
(a) Mount special tool 2 364 829 on special tool 2 240 516.

SST: 09700-WA230

SST: 09700-WA240

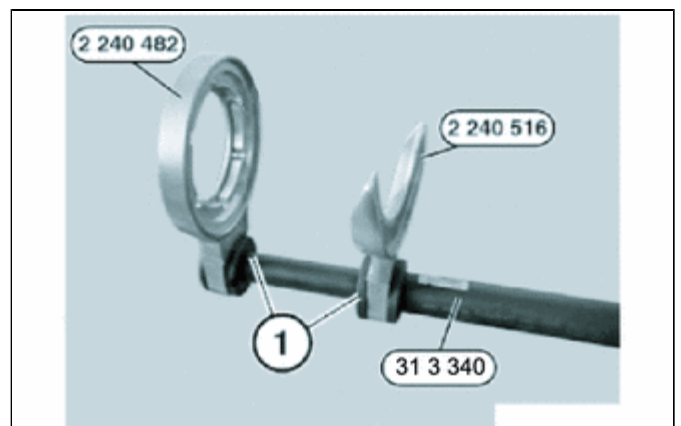
NOTICE:

The plate must be used with the protection.



(b) Clamp special tool 2 213 022 (31 3 340) into the vise.

SST: 09700-WA190



- (c) Position special tools 2 240 482 and 2 240 516 from above on special tool 2 213 022 (31 3 340) until the locking bolts (1) engage tactilely and audibly.

SST: 09700-WA200

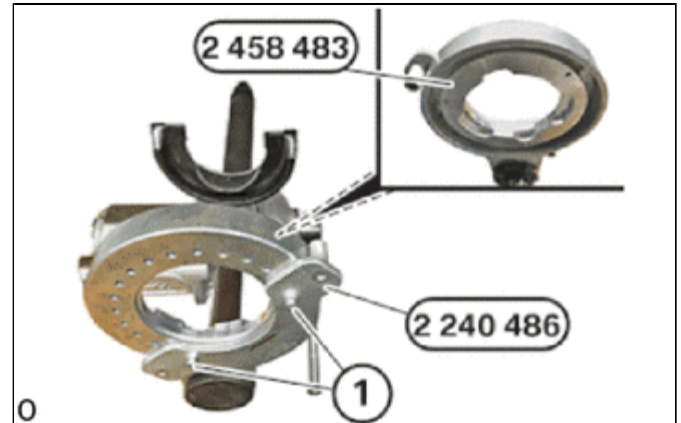
SST: 09700-WA230

HINT:

Check positions of special tools 2 240 482 and 2 240 516, and correct if necessary.

- (d) Position centering mount 2 458 483 in the mounting plate.

SST: 09700-WA220



- (e) Position counter holder 2 240 486 on the mounting plate.

SST: 09700-WA200

HINT:

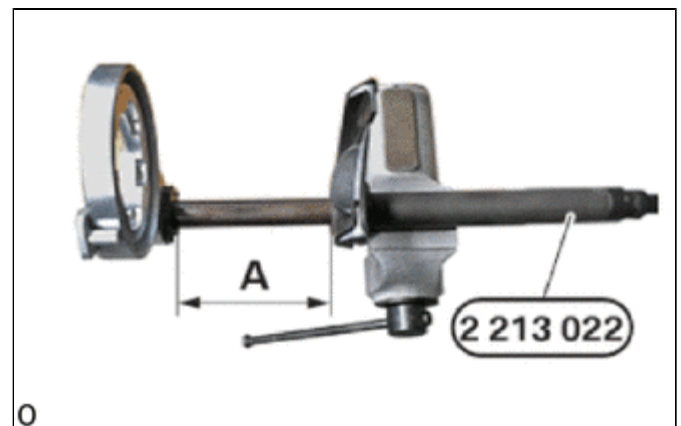
The parts will be screwed together via holes 4 and 16.

- (f) Turn centering mount 2 458 483 until the counter holder 2 240 486 can be attached by screws in the specified position.
- (g) Install and hand-tighten the screws (1) into the specified holes to attach counter holder 2 240 486 to the centering mount 2 458 483.

- (h) Set special tool 2 213 022 (31 3 340) to dimension (A).

Dimension (A):

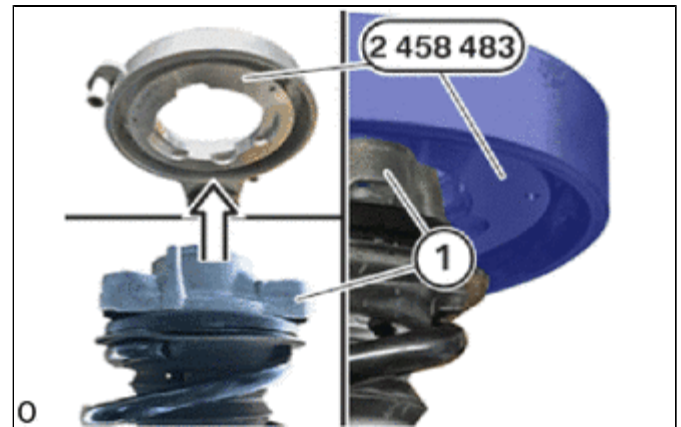
220 mm (8.66 in.)



- (i) Clean away any dirt or foreign matter from the front coil spring.

- (j) Insert front shock absorber with coil spring into spring tensioner and position front suspension support sub-assembly (1) on centering mount 2 458 483.

SST: 09700-WA220



- (k) The front suspension support sub-assembly (1) must rest completely on the centering mount 2 458 483, if necessary, tighten the spring tensioner by hand.

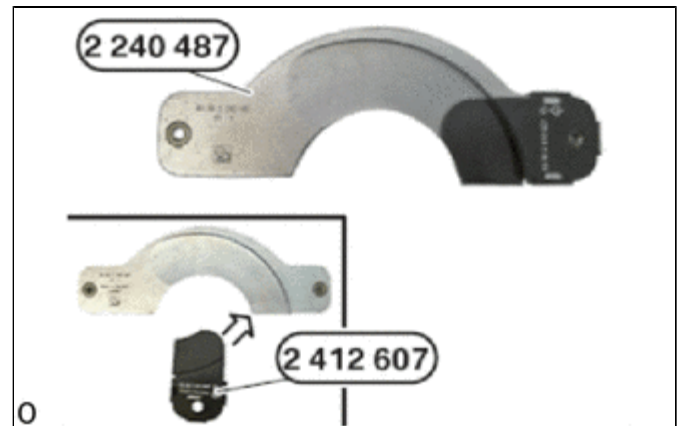
NOTICE:

The lower turn of the front coil spring must lie completely in the recess of the special tool 2 240 516.

- (l) The plate 2 240 487 must be used with the protection 2 412 607.

SST: 09700-WA200

SST: 09700-WA210

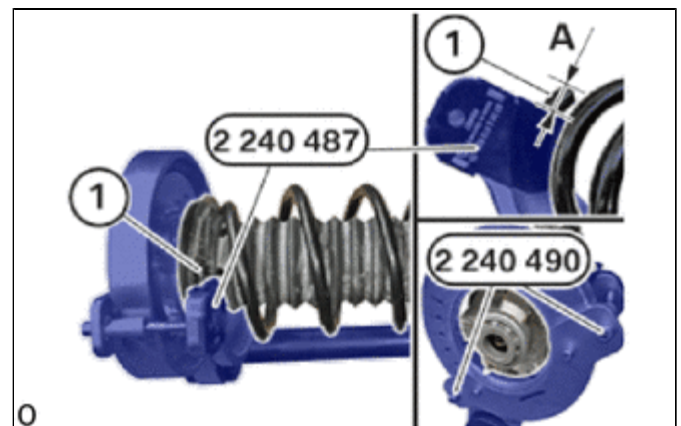


- (m) Position the plate 2 240 487 with the screws 2 240 490.

SST: 09700-WA200

NOTICE:

The rubberized side of the plate 2 240 487 must rest against the upper turn of the front coil spring.



- (n) Position the front shock absorber with coil spring so that the front coil spring end (1) protrudes with dimension (A) on the plate 2 240 487.

Dimension (A):

5.0 mm (0.197 in.)

(o) Tighten screws 2 240 490 evenly.

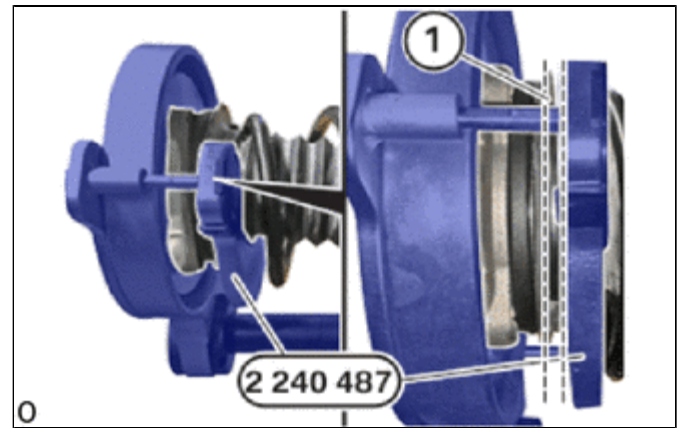
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(p) plate 2 240 487 must rest parallel to (1) the upper turn of the front coil spring.

NOTICE:

- The clamping process must be stopped immediately if the front coil spring end begins to rotate relative to the plate 2 240 487.
- The correct seating of the plate 2 240 487 must be checked and the rubberized protection and the plate 2 240 487 checked for wear.



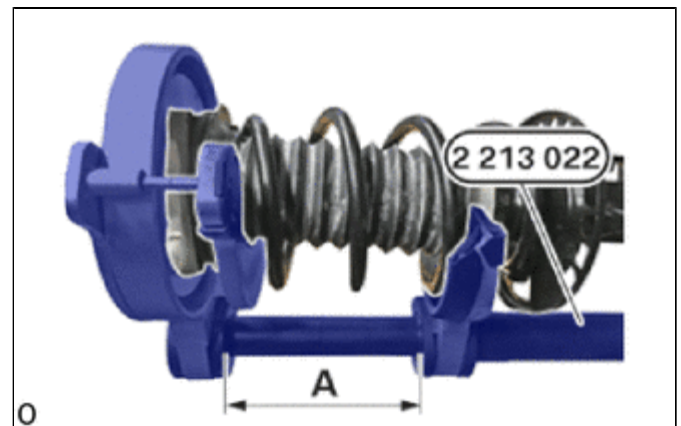
(q) Apply tension to the front coil spring until dimension (A) on special tool 2 213 022 (31 3 340) is reached.

Dimension (A):

120 mm (4.72 in.)

NOTICE:

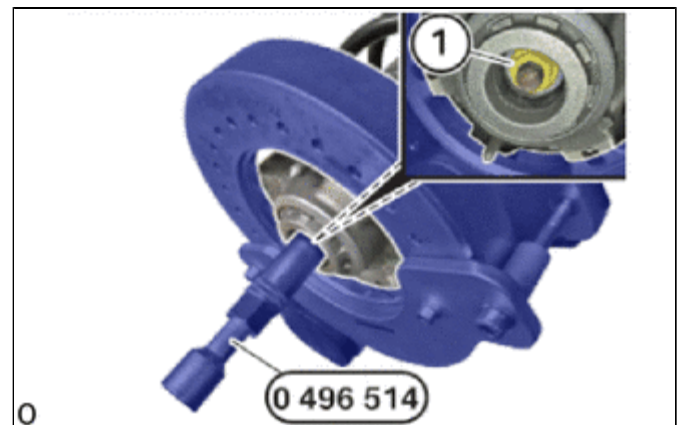
It is imperative to ensure that dimension (A) is not undershot.



(r) Release the front support to front shock absorber nut (1) with special tool 0 496 514 (33 0 040).

NOTICE:

Do not operate special tool with an impact wrench.



(s) Feed front shock absorber with front lower coil spring insulator and front spring bumper out of the tensioned front coil spring and remove.

(t) Relieve tension on front coil spring.

NOTICE:

Do not operate special tool with an impact wrench.

(u) Release spring tensioner.

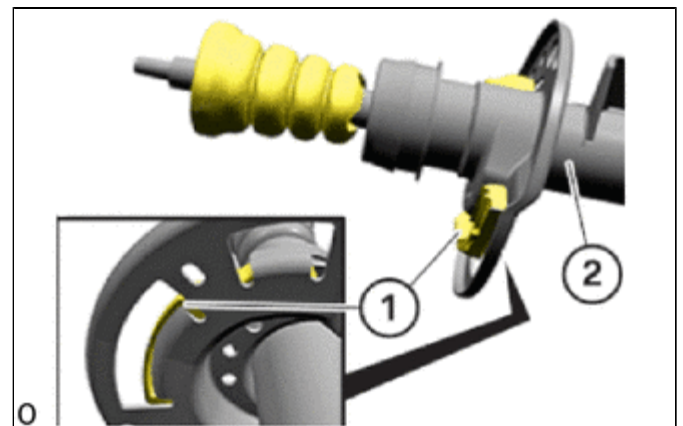
18. REMOVE FRONT SPRING BUMPER

(a) Remove the front spring bumper (1).



19. REMOVE FRONT LOWER COIL SPRING INSULATOR

(a) Remove front lower coil spring insulator (1) from the front shock absorber assembly (2).



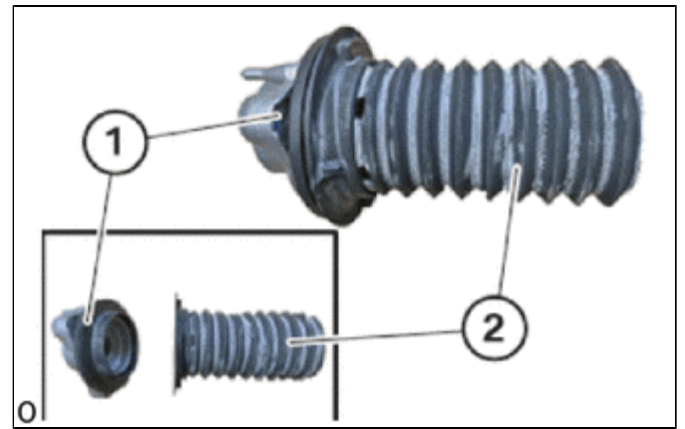
20. REMOVE FRONT SUSPENSION SUPPORT SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the front suspension support sub-assembly and front No. 1 shock absorber dust cover is necessary.

(a) Pull down and remove front suspension support sub-assembly (1) from the front No. 1 shock absorber dust

cover (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0F
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL FRONT SUSPENSION SUPPORT SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the front suspension support sub-assembly and front No. 1 shock absorber dust cover is necessary.

- Check front No. 1 shock absorber dust cover and replace if necessary.
- Slide front No. 1 shock absorber dust cover onto the front suspension support sub-assembly.

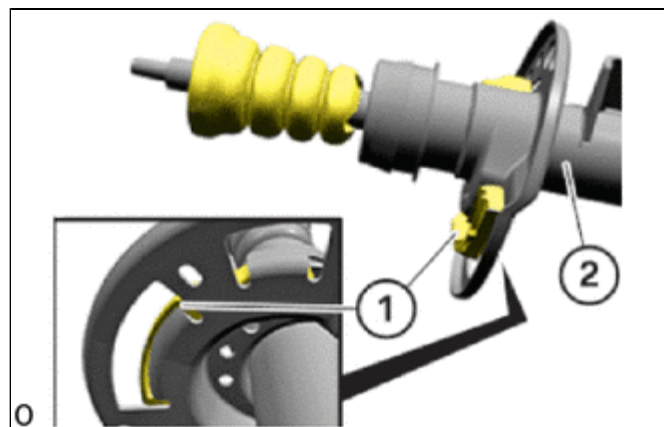
2. INSTALL FRONT LOWER COIL SPRING INSULATOR

- Check front lower coil spring insulator and replace if necessary.

- Mount front lower coil spring insulator (1) on the front shock absorber assembly (2).

HINT:

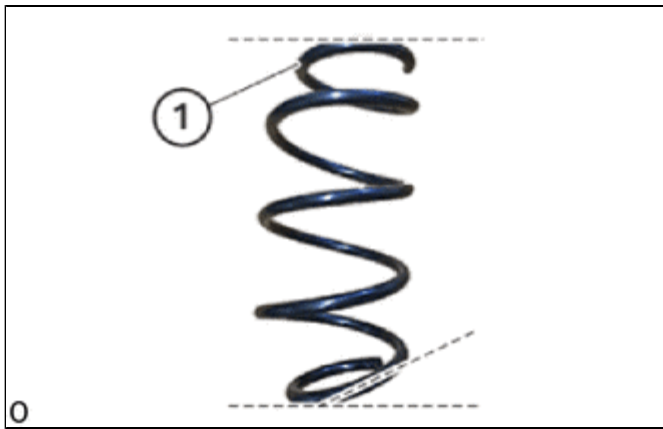
Make sure the front lower coil spring insulator (1) is positioned correctly.



3. INSTALL FRONT SPRING BUMPER

- Check front spring bumper and replace if necessary.
- Mount the front spring bumper on the front shock absorber assembly.

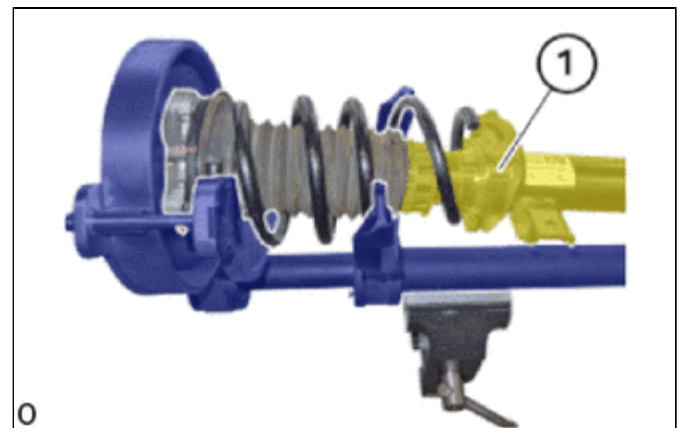
4. INSTALL FRONT COIL SPRING



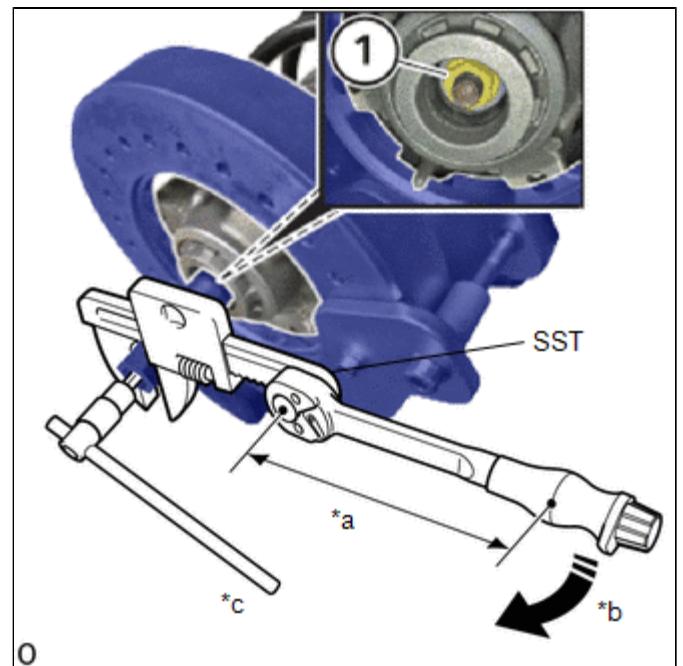
NOTICE:

Flattened end (1) of the front coil spring lies on the front suspension support sub-assembly.

- (a) Feed front shock absorber (1) with front lower coil spring insulator and front spring bumper thread into the tensioned front coil spring and remove.



- (b) Replace front support to front shock absorber nut (1).



*a	Torque Wrench Fulcrum Length
*b	Turn

*c	Hold
----	------

(c) Using SST, tighten front support to front shock absorber nut (1).

SST: 09922-10010

Torque:

Specified tightening torque :

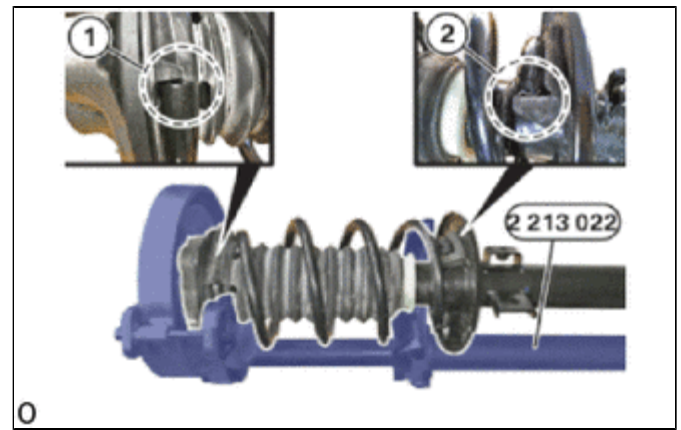
71 N·m {724 kgf·cm, 52 ft·lbf}

HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

[Click here](#) **INFO**

(d) Upper front coil spring end (1) abuts against the front upper coil spring insulator.



(e) Align front shock absorber with front lower coil spring insulator to lower front coil spring end (2).

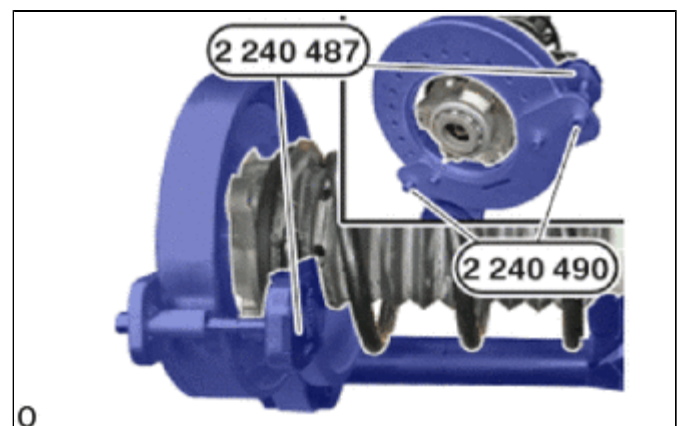
(f) Relax front coil spring tension with special tool 2 213 022 (31 3 340).

SST: 09700-WA190

(g) Check position of lower front coil spring end (2), and correct if necessary.

(h) Loosen the screws 2 240 490.

SST: 09700-WA200



(i) Remove the plate 2 240 487.

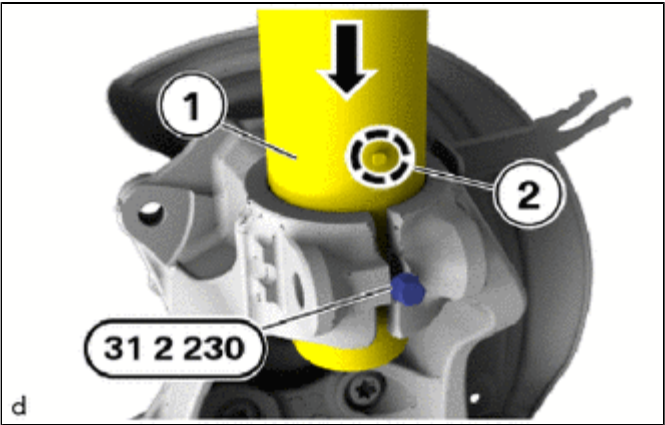
SST: 09700-WA200

(j) Remove the front shock absorber with coil spring from the spring tensioner.

5. INSTALL FRONT SHOCK ABSORBER WITH COIL SPRING

(a) Spread the steering knuckle with the special tool 0 494 541 (31 2 230).

SST: 09600-WA030



(b) Correctly align the positioning pin (2) on the front shock absorber with coil spring (1) with the steering knuckle and push it on up to the limit position in the direction of arrow.

(c) Position the holder on the steering knuckle.

(d) Replace the 18 mm bolt and 16 mm nut.

(e) Insert the 18 mm bolt and tighten the 16 mm nut.

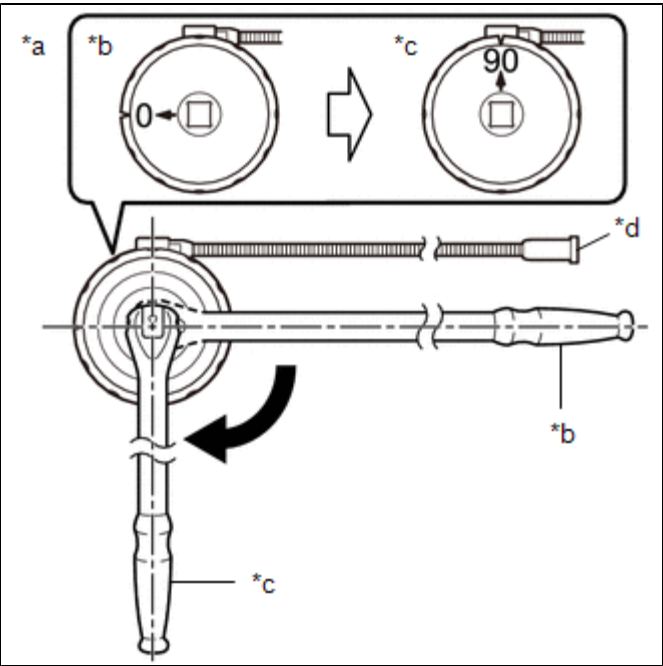
Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

(f) Using SST, tighten the 16 mm nut an additional 90°.

SST: 09900-WA010

HINT:

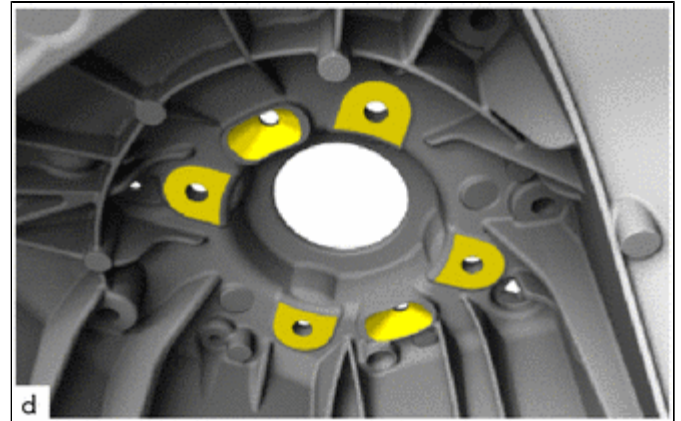


*a	Example
*b	Before Tightening

*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

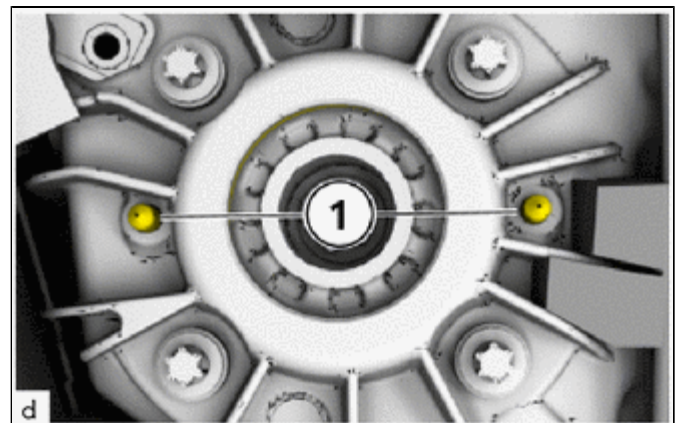
(g) Clean the inner contact surfaces on the front shock absorber dome.

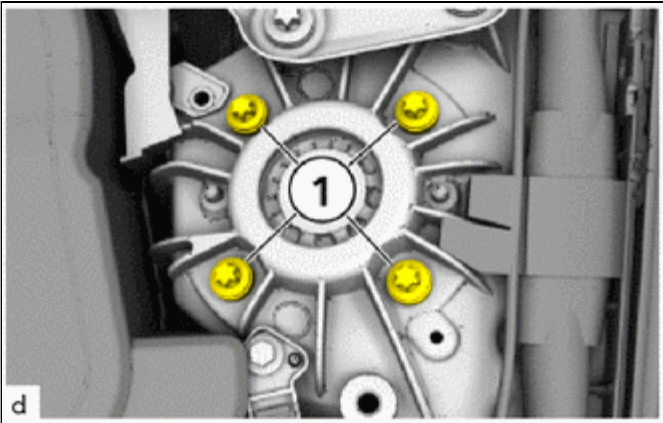


(h) Clean the inner contact surface on the front suspension support sub-assembly.



(i) Correctly align the front shock absorber with coil spring including steering knuckle with the bore holes on the front shock absorber dome using the centering pins (1) and insert towards the top.





(j) Replace the bolts (1).

(k) Tighten the bolts (1).

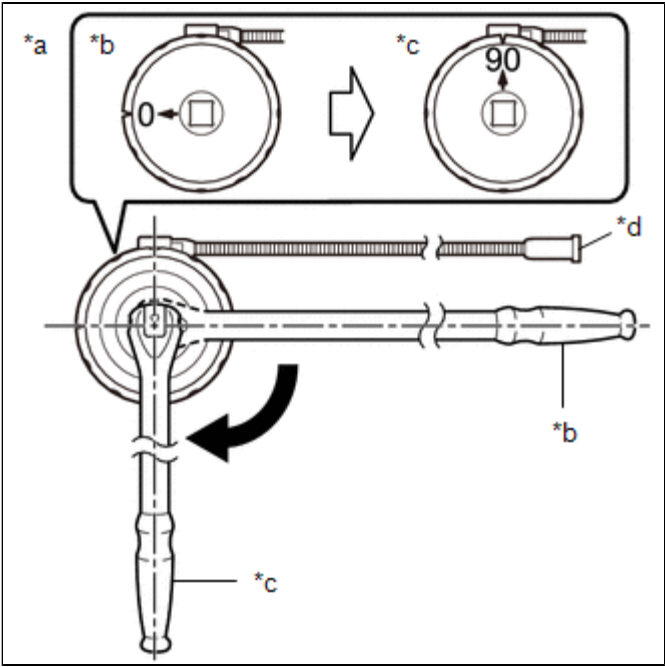
Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

(l) Using SST, tighten the bolts an additional 90°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

6. INSTALL FRONT FENDER TO COWL SIDE SEAL

Click here [INFO](#)

7. INSTALL COWL VENT COVER LH (for LH Side)

Click here [INFO](#)

8. INSTALL COWL VENT COVER RH (for RH Side)

Click here [INFO](#)

9. INSTALL FRONT UPPER SUSPENSION ARM ASSEMBLY

- (a) Position the front upper suspension arm assembly to the steering knuckle.
- (b) Replace nut.
- (c) Tighten the nut, if necessary, counter support the T40 "TORX" socket wrench.

Torque:

175 N·m {1785 kgf·cm, 129 ft·lbf}

10. INSTALL FRONT LOWER SUSPENSION ARM ASSEMBLY

- (a) Replace nut.
- (b) Tighten the nut, if necessary, counter support the T40 "TORX" socket wrench.

Torque:

175 N·m {1785 kgf·cm, 129 ft·lbf}

- (c) for LH Side:

- (1) Clip in the front height control sensor link sub-assembly.

11. CONNECT TIE ROD END SUB-ASSEMBLY

Click here [INFO](#)

12. INSTALL FRONT STABILIZER LINK ASSEMBLY

- (a) Position the front stabilizer link assembly at the front shock absorber assembly.
- (b) Replace 16 mm nut.
- (c) Tighten the 16 mm nut, if necessary, counter support the T30 "TORX" socket wrench.

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

13. INSTALL FRONT BRAKE DISC

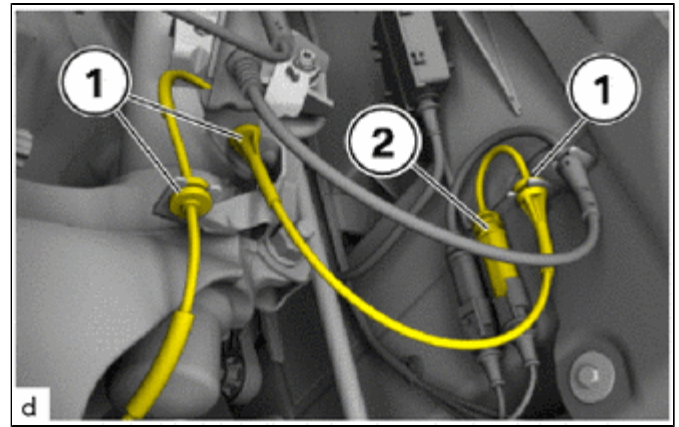
Click here [INFO](#)

14. INSTALL FRONT FLEXIBLE HOSE

- (a) Attach the front flexible hose to the holder.

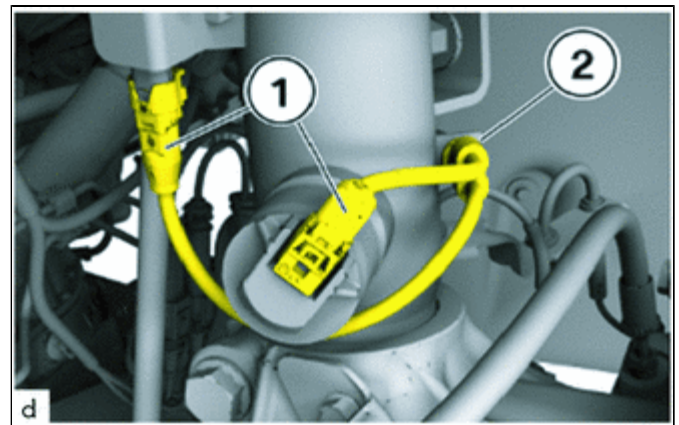
15. INSTALL FRONT SKID CONTROL SENSOR WIRE

- (a) Connect the front skid control sensor wire in the brackets
(1).



(b) Connect the connector (2) and lock.

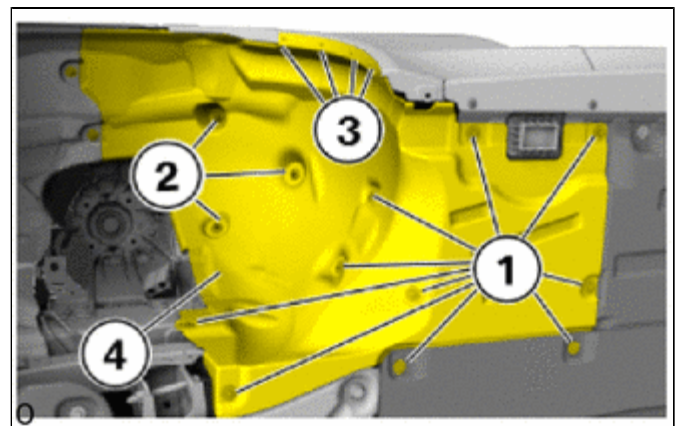
16. CONNECT SENSOR WIRE (w/ AVS)



(a) Attach the sensor wire in the holder (2).

(b) Connect the connectors (1) and lock.

17. INSTALL FRONT NO. 2 FENDER LINER



(a) Insert the front No. 2 fender liner (4).

(b) Tighten the screws (1) and nuts (2).

Torque:

Screw :

2.6 N·m {27 kgf·cm, 23 in·lbf}

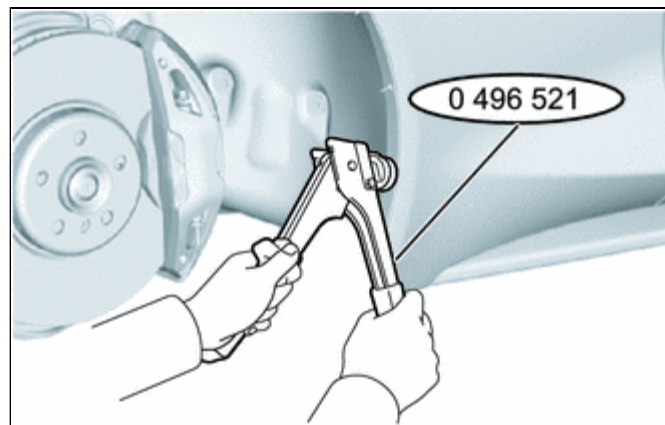
Nut :

2.6 N·m {27 kgf·cm, 23 in·lbf}

(c) Replace the plastic rivet (3).

(d) Set the plastic rivet with the special tool 0 496 521 (00 2 230).

SST: 09900-WA100

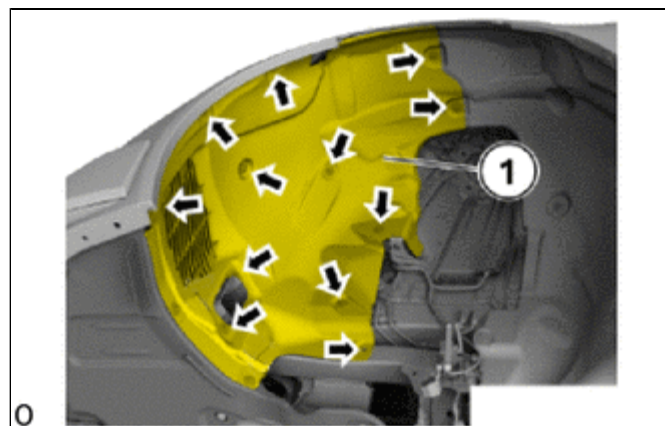


18. INSTALL FRONT FENDER LINER

(a) Position the front fender liner (1) and tighten the screws (arrows).

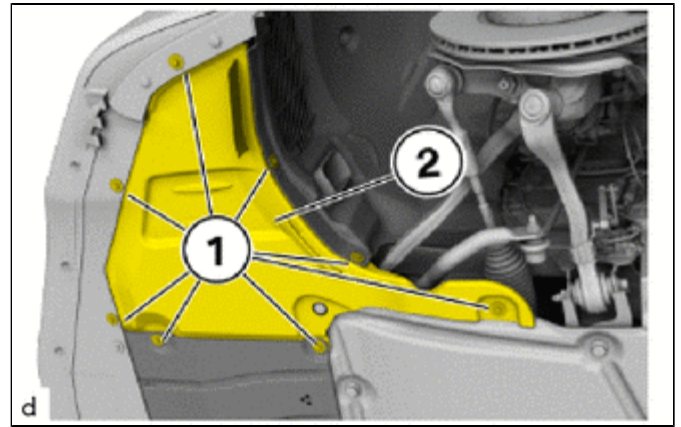
Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}



19. INSTALL FRONT FENDER SPLASH FRONT SHIELD

(a) Insert the front fender splash front shield (2) at the side.



(b) Tighten the screws (1).

Torque:

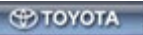
2.6 N·m {27 kgf·cm, 23 in·lbf}

20. INSTALL FRONT WHEEL

Click here [INFO](#)

21. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SHOCK ABSORBER: DISPOSAL; 2020 MY Supra [03/2019 -]		

DISPOSAL

CAUTION / NOTICE / HINT

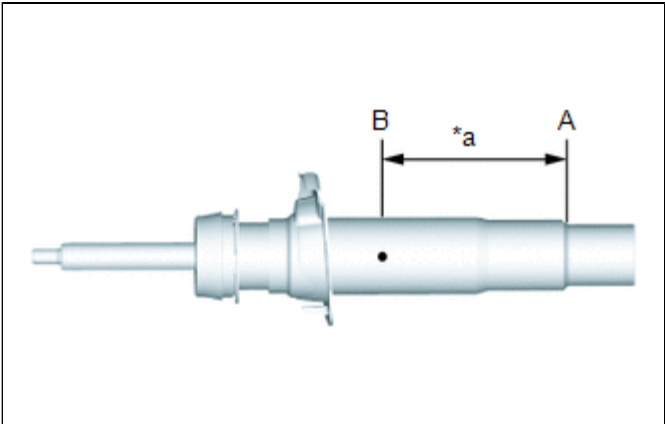
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. DISPOSE OF FRONT SHOCK ABSORBER ASSEMBLY

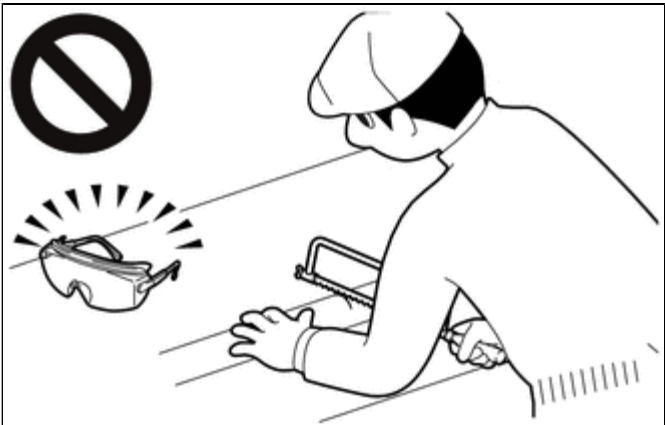
- (a) Fully extend the front shock absorber assembly.
- (b) Secure the front shock absorber assembly horizontally in a vise with the piston rod pulled out.
- (c) Wearing protective glasses, extend the piston rod and cover it with a cloth. At position B, located 140 mm (5.51 in.) from position A shown in the illustration, use a metal saw to cut a hole and release the gas.



*a	140 mm (5.51 in.)
----	-------------------

CAUTION:

Always use proper safety equipment and be careful when drilling because shards of metal way fly about.



HINT:

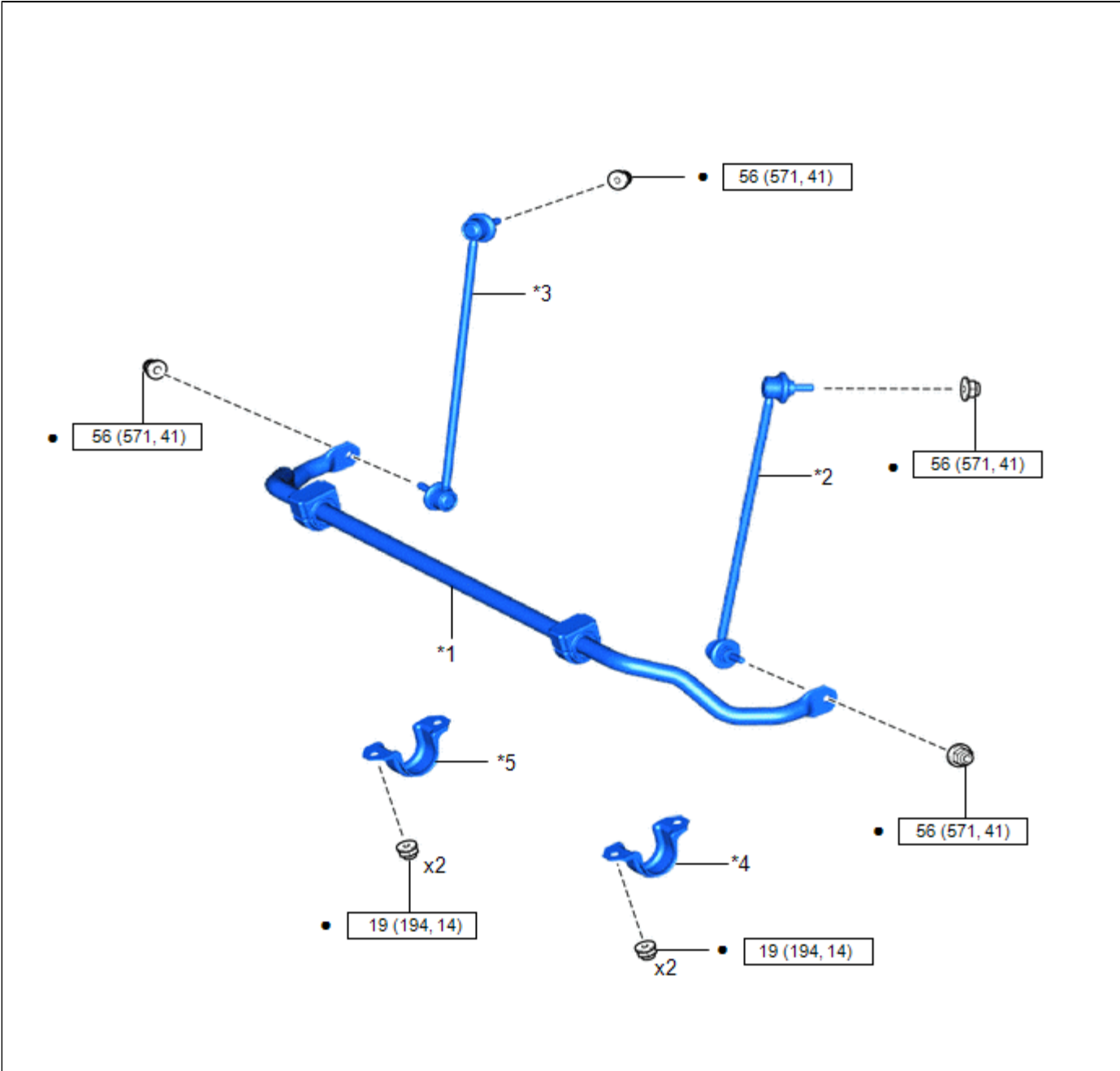
The gas is colorless, odorless and non-poisonous.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT STABILIZER BAR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT STABILIZER BAR	*2	FRONT STABILIZER LINK ASSEMBLY LH
*3	FRONT STABILIZER LINK ASSEMBLY RH	*4	FRONT NO. 1 STABILIZER BRACKET LH
*5	FRONT NO. 1 STABILIZER BRACKET RH	-	-

<div> </div>	N*m (kgf*cm, ft.*lbf): Specified torque	<div> </div>	Non-reusable part
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC00
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT STABILIZER BAR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

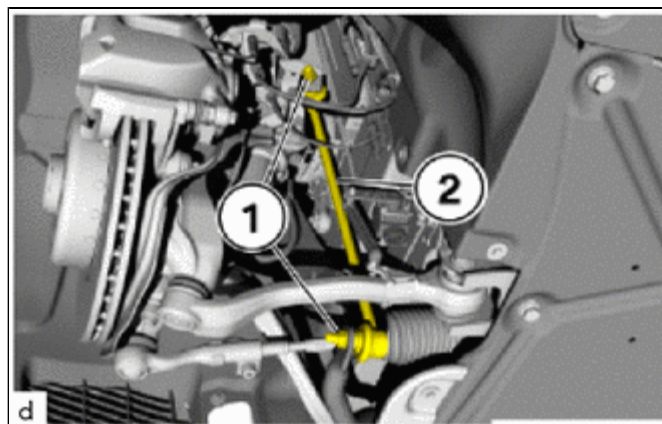
PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE FRONT STABILIZER LINK ASSEMBLY LH

- (a) Unscrew the 16 mm nuts (1) and use the T30 "TORX" socket wrench for counter support as needed.



- (b) Remove the front stabilizer link assembly LH (2).

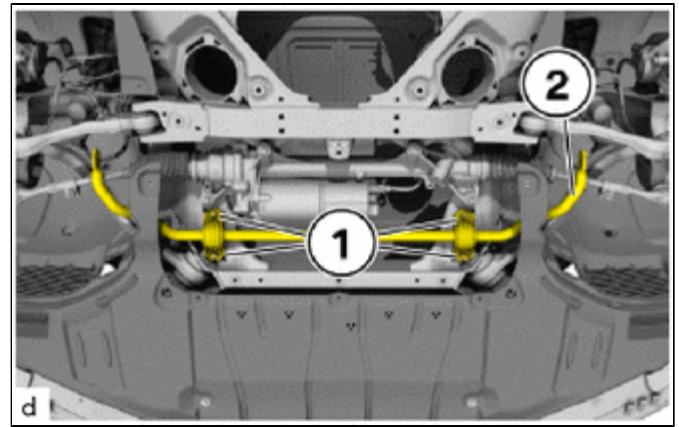
3. REMOVE FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE FRONT STABILIZER BAR

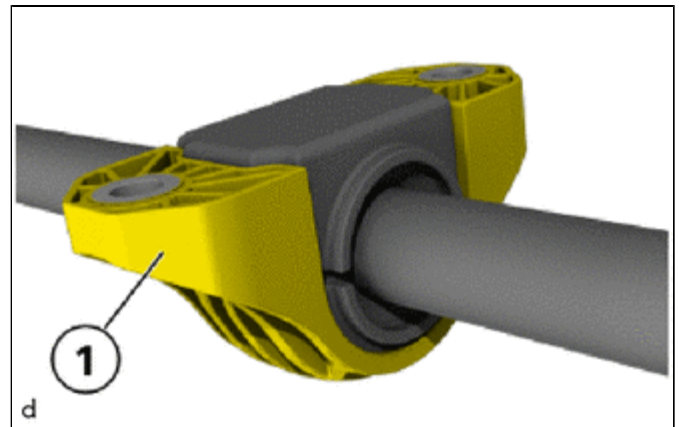
(a) Loosen nuts (1).



(b) Guide out and remove the front stabilizer bar (2).

5. REMOVE FRONT NO. 1 STABILIZER BRACKET LH

(a) Remove the front No. 1 stabilizer bracket LH (1).



6. REMOVE FRONT NO. 1 STABILIZER BRACKET RH

HINT:

Use the same procedure as for the LH side.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0P
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT STABILIZER BAR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT NO. 1 STABILIZER BRACKET LH

- (a) Mount the front No. 1 stabilizer bracket LH on the front stabilizer bar.

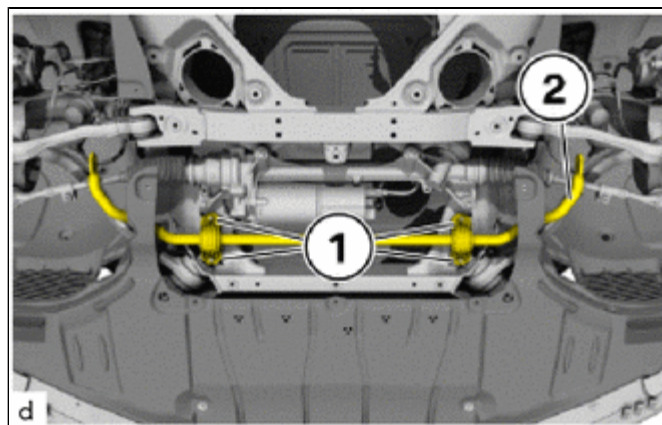
2. INSTALL FRONT NO. 1 STABILIZER BRACKET RH

HINT:

Use the same procedure as for the LH side.

3. INSTALL FRONT STABILIZER BAR

- (a) Guide in the front stabilizer bar (2).



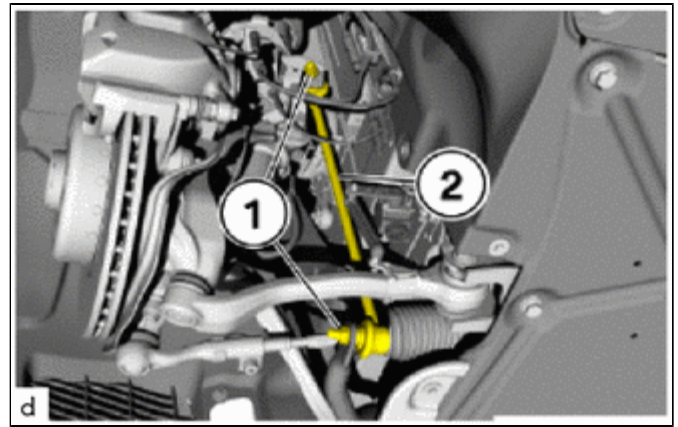
- (b) Replace nuts (1).
(c) Tighten nuts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

4. INSTALL FRONT STABILIZER LINK ASSEMBLY LH

- (a) Position the front stabilizer link assembly LH (2) on the front stabilizer bar and front shock absorber assembly.



(b) Replace the 16 mm nuts (1).

(c) Tighten the 16 mm nuts (1) and use the T30 "TORX" socket wrench for counter support as needed.

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

5. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

7. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

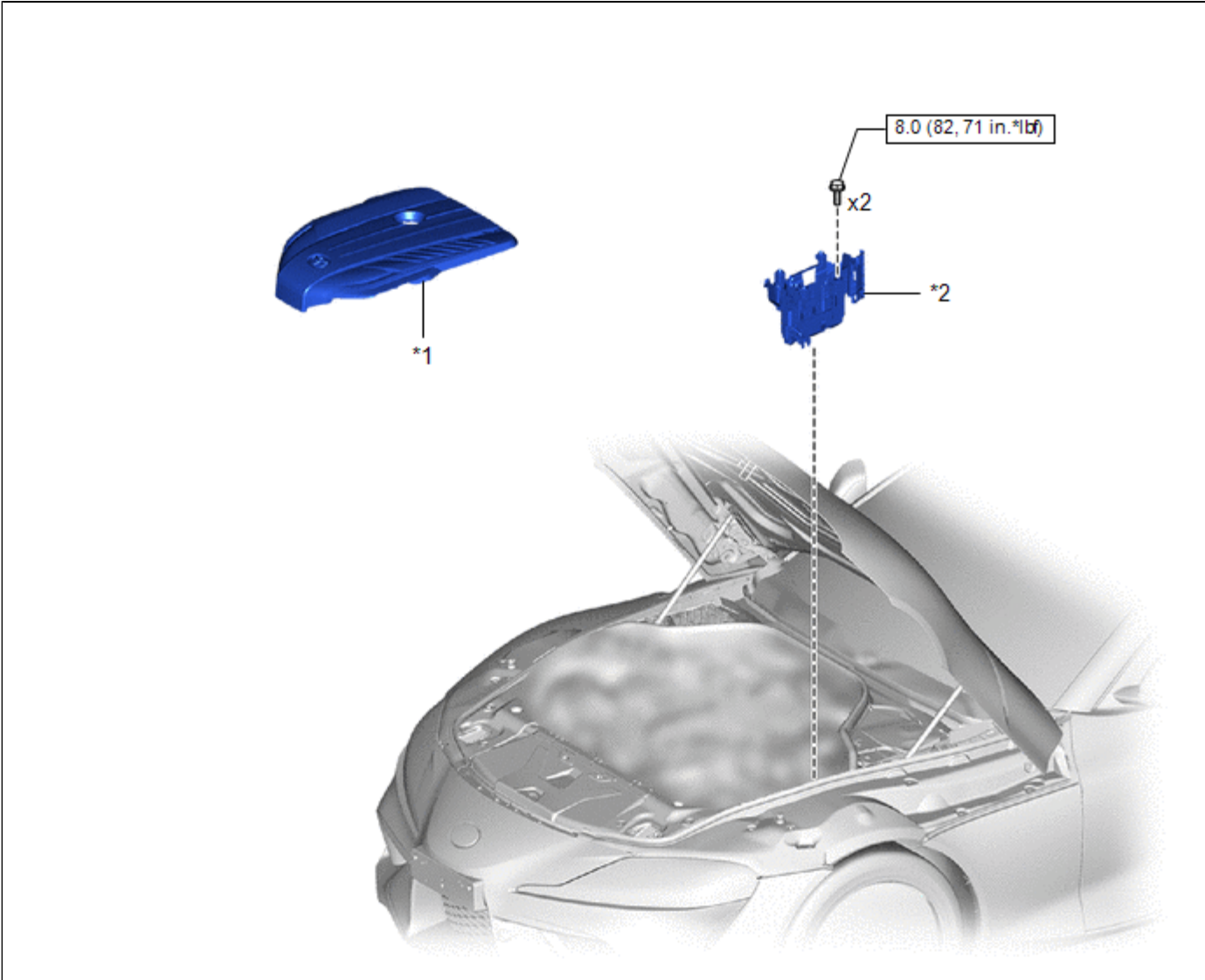
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER: COMPONENTS; 2020 MY Supra [03/2019 -]		

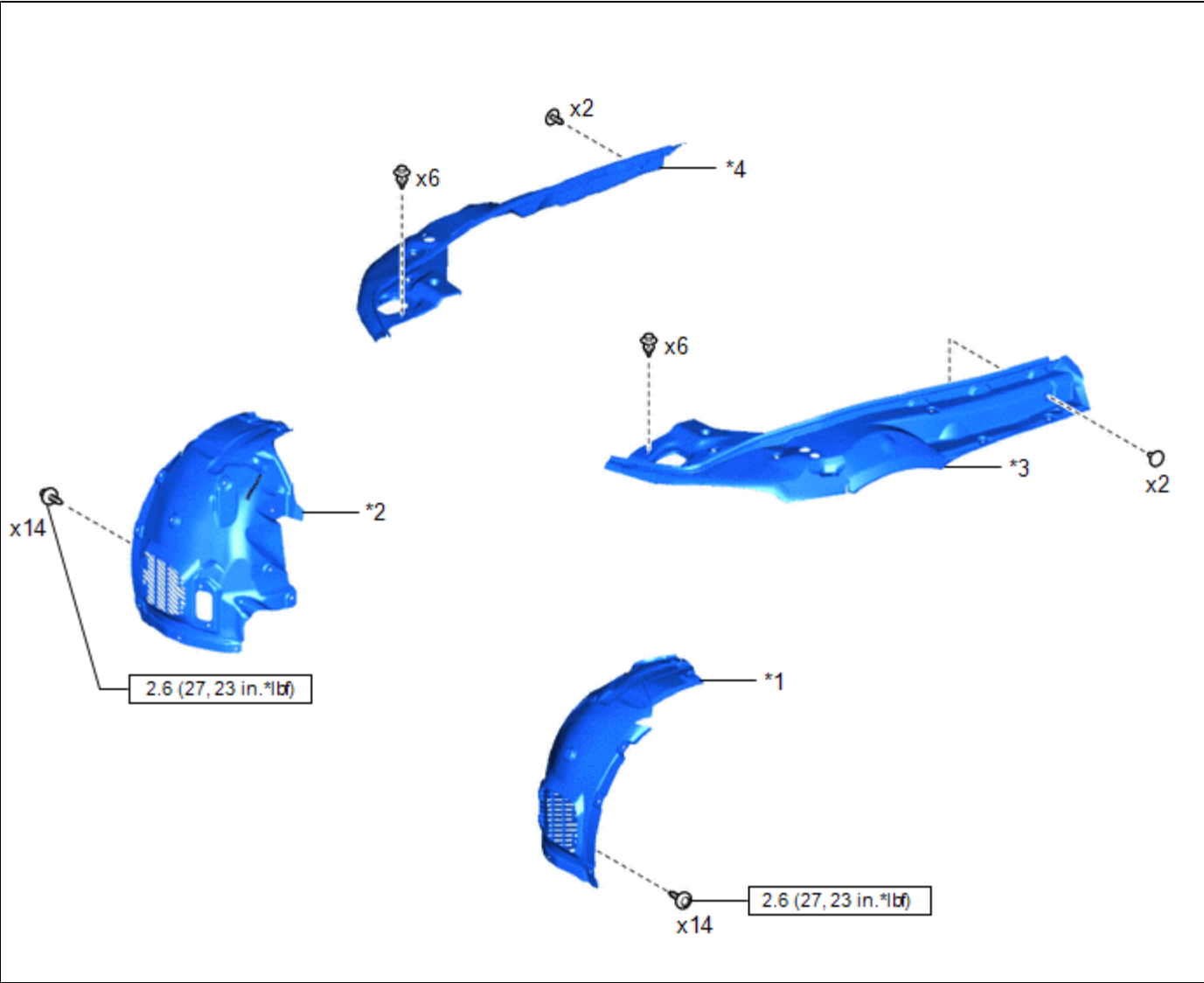
COMPONENTS

ILLUSTRATION



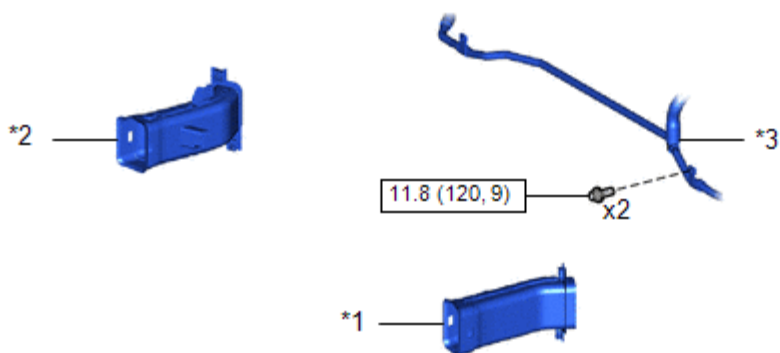
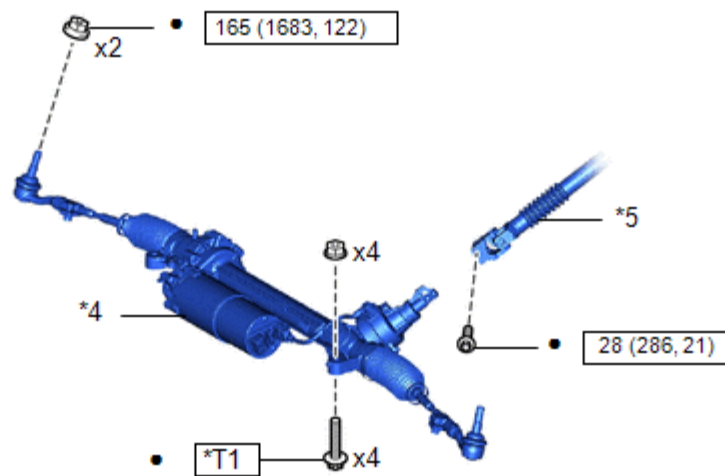
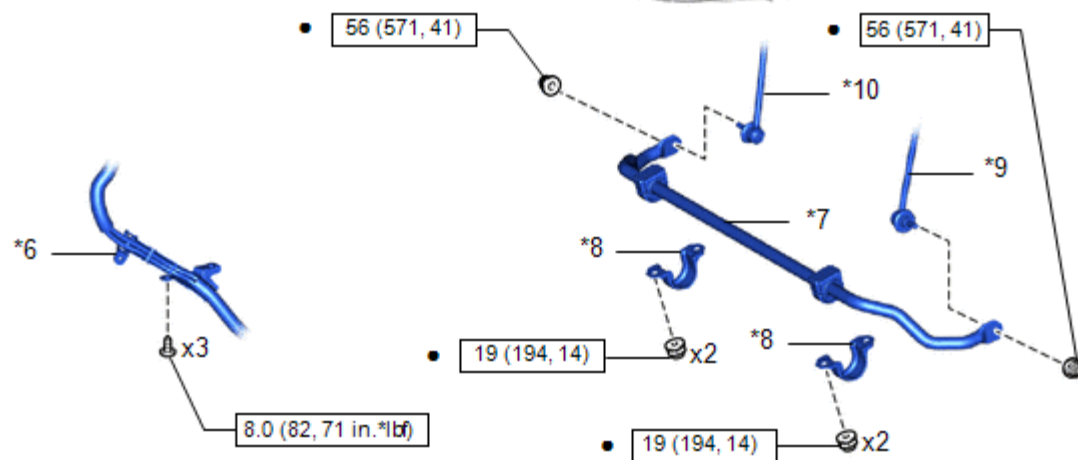
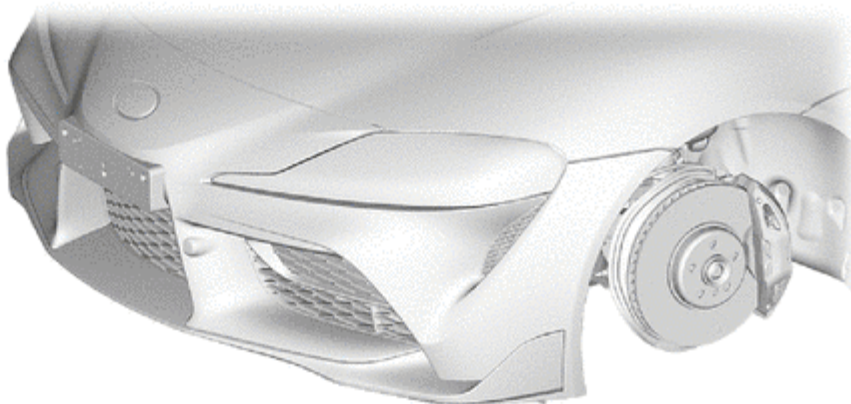
*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	ENGINE ROOM ECU BOX
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ILLUSTRATION



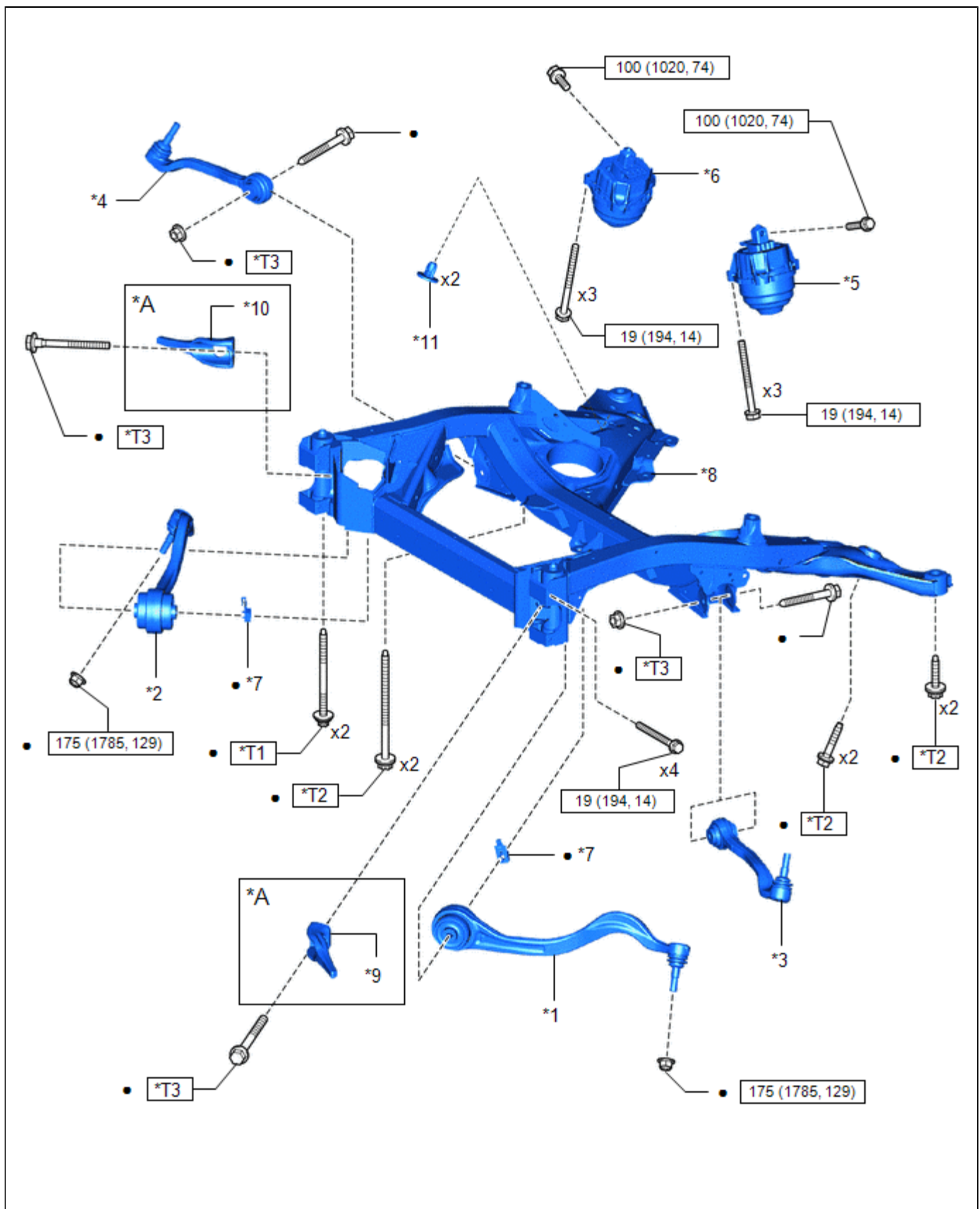
*1	FRONT FENDER LINER LH	*2	FRONT FENDER LINER RH
*3	FRONT FENDER UPPER PROTECTOR LH	*4	FRONT FENDER UPPER PROTECTOR RH
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION




*1	AIR INTAKE DUCT LH	*2	AIR INTAKE DUCT RH
*3	COOLANT HOSE	*4	STEERING LINK ASSEMBLY
*5	STEERING INTERMEDIATE SHAFT ASSEMBLY	*6	WIRE HARNESS
*7	FRONT STABILIZER BAR	*8	FRONT NO. 1 STABILIZER BRACKET
*9	FRONT STABILIZER LINK ASSEMBLY LH	*10	FRONT STABILIZER LINK ASSEMBLY RH
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-

ILLUSTRATION



*A	w/ Front Suspension Member Bracket	-	-
*1	FRONT UPPER SUSPENSION ARM ASSEMBLY LH	*2	FRONT UPPER SUSPENSION ARM ASSEMBLY RH
*3	FRONT LOWER SUSPENSION ARM ASSEMBLY LH	*4	FRONT LOWER SUSPENSION ARM ASSEMBLY RH

*5	FRONT ENGINE MOUNTING INSULATOR LH	*6	FRONT ENGINE MOUNTING INSULATOR RH
*7	CLIP NUT	*8	FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY
*9	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY LH	*10	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY RH
*11	CLIP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 56 (571, 41) 2nd: Turn 45°	*T2	1st: 108 (1101, 80) 2nd: Turn 45°
*T3	1st: 100 (1020, 74) 2nd: Turn 90°	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Motor vehicle may slip off the vehicle hoist where components are supported.

Danger! Life-threatening injuries!

- Secure the vehicle hoist against lowering and lifting.

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

- Motor vehicle may slip off the vehicle hoist if the weight is distributed unevenly.

Danger! Life-threatening injuries!

- Ensure there is a specific weight compensation on the motor vehicle.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE AND INSTALL BONNET HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

3. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE INTEGRATION RELAY (for Engine Room Side)

Click here [INFO](#)

5. REMOVE ENGINE ROOM ECU BOX

Click here [INFO](#)

6. REMOVE FRONT WHEEL

Click here [INFO](#)

7. REMOVE FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

8. REMOVE FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

9. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

10. REMOVE FRONT FENDER LINER LH

Click here [INFO](#)

11. REMOVE FRONT FENDER LINER RH

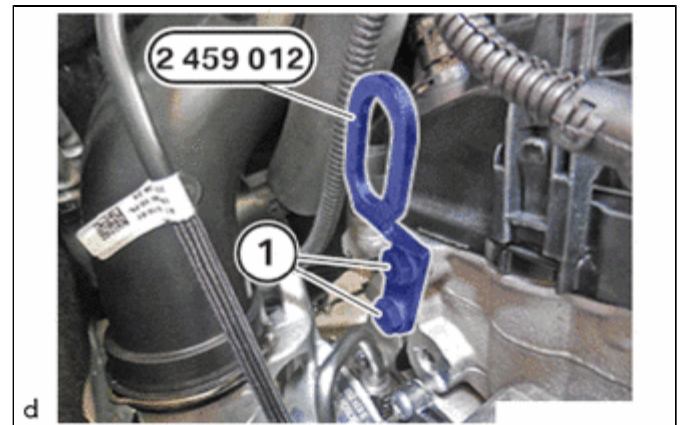
HINT:

Use the same procedure as for the LH side.

12. INSTALL ENGINE HANGER

- (a) Guide in and position special tool 2 459 012 on cylinder head sub-assembly.

SST: 09200-WA610



- (b) Tighten the bolts (1) of special tool 2 459 012.

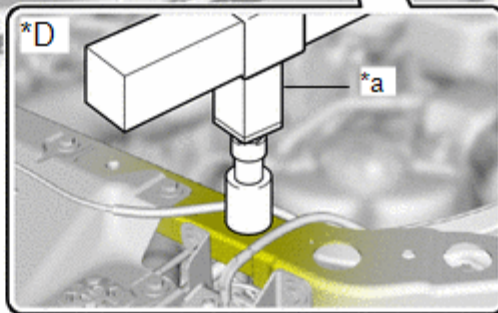
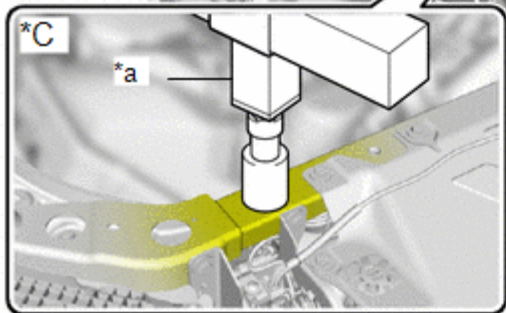
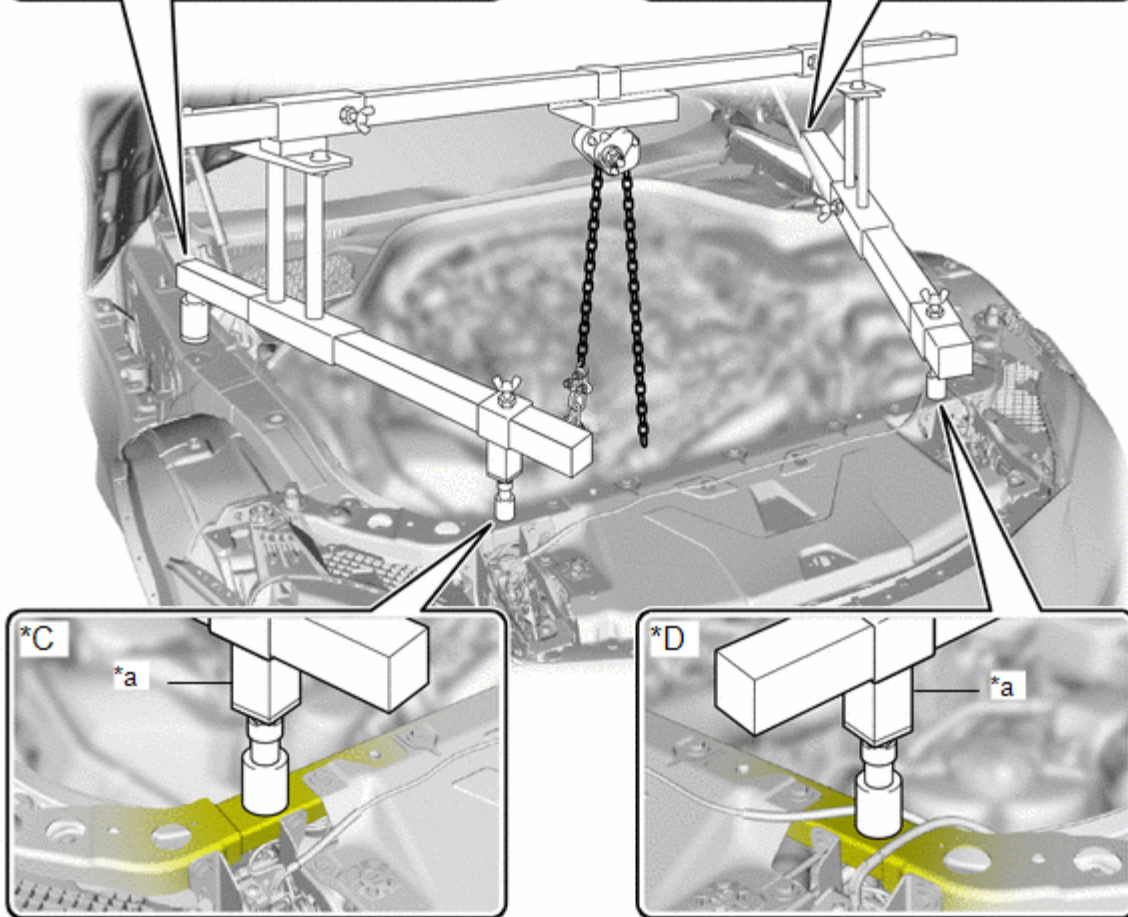
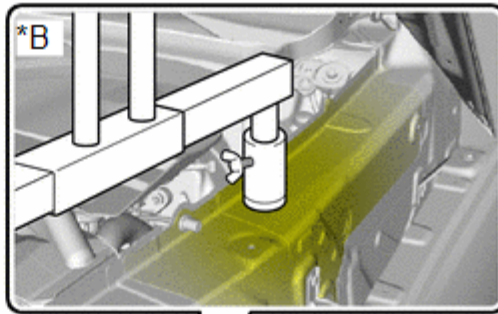
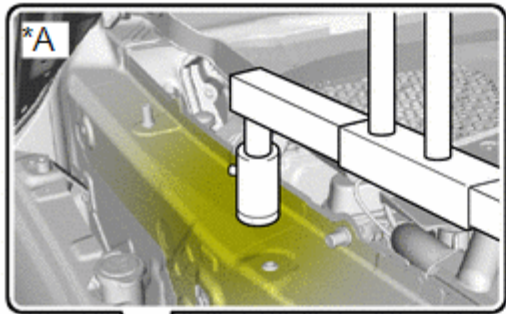
SST: 09200-WA610

Torque:

21.5 N·m {219 kgf·cm, 16 ft·lbf}

13. INSTALL ENGINE SUPPORT BRIDGE

- (a) Install SST to the vehicle body as shown in the illustration.



0

*A	Area A	*B	Area B
*C	Area C	*D	Area D
*a	Support Shaft	-	-

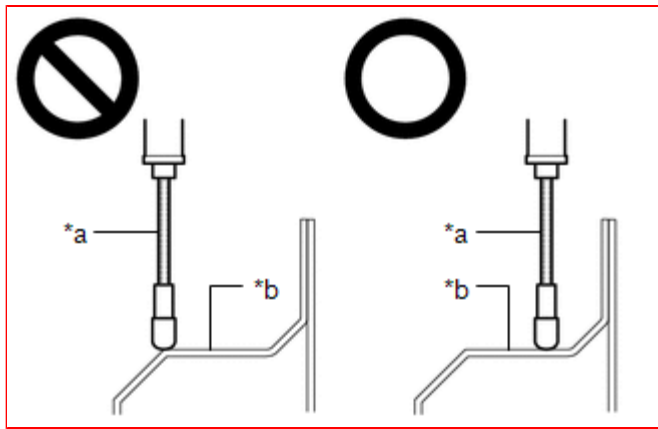
SST: 09940-10020

SST: 09940-10040

SST: 09940-10050

CAUTION:

- Make sure that no oil or grease is on the area A, B, C and D, and set the engine support bridge on the level surface of



the area A, B, C and D.

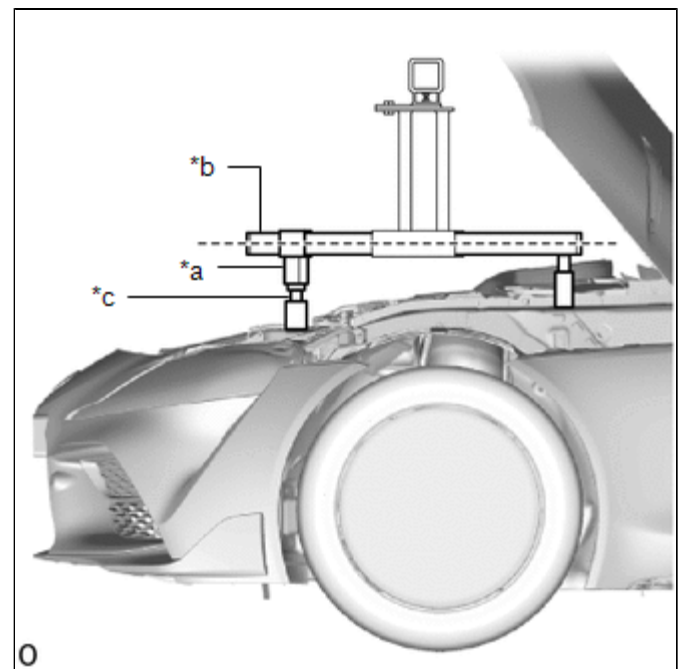
*a	Support Shaft
*b	Area A, B, C and D

- The engine support bridge may fall off if any oil or grease is still on or it is installed on the unlevel surface.

NOTICE:

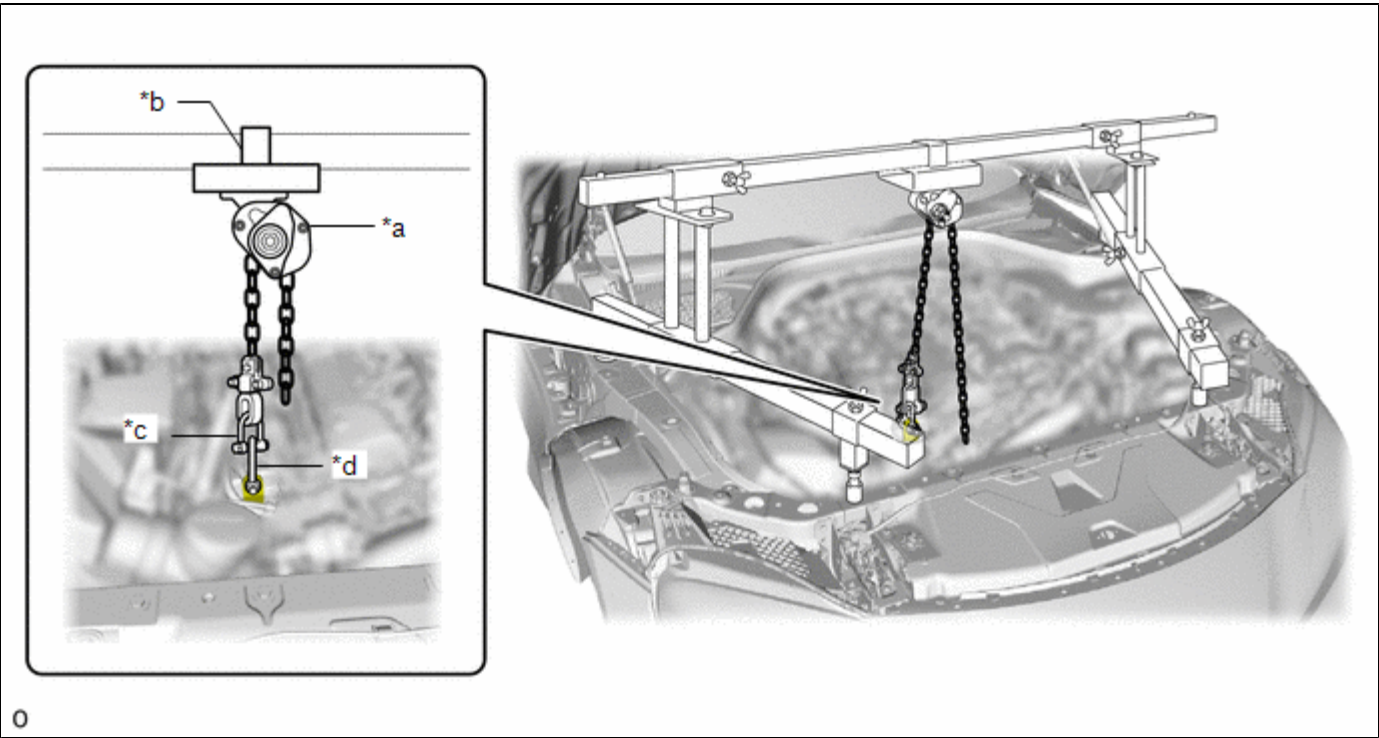
- Prevent SST from contacting the vehicle body exterior and windshield glass.
- To prevent damage to the engine hood, place pieces of cloth between the engine hood and SST.
- Lightly shake SST by hand to make sure it is securely installed before performing work.

(b) Turn the threaded portion of each support shaft to adjust its height until the sub beams are parallel to the ground.



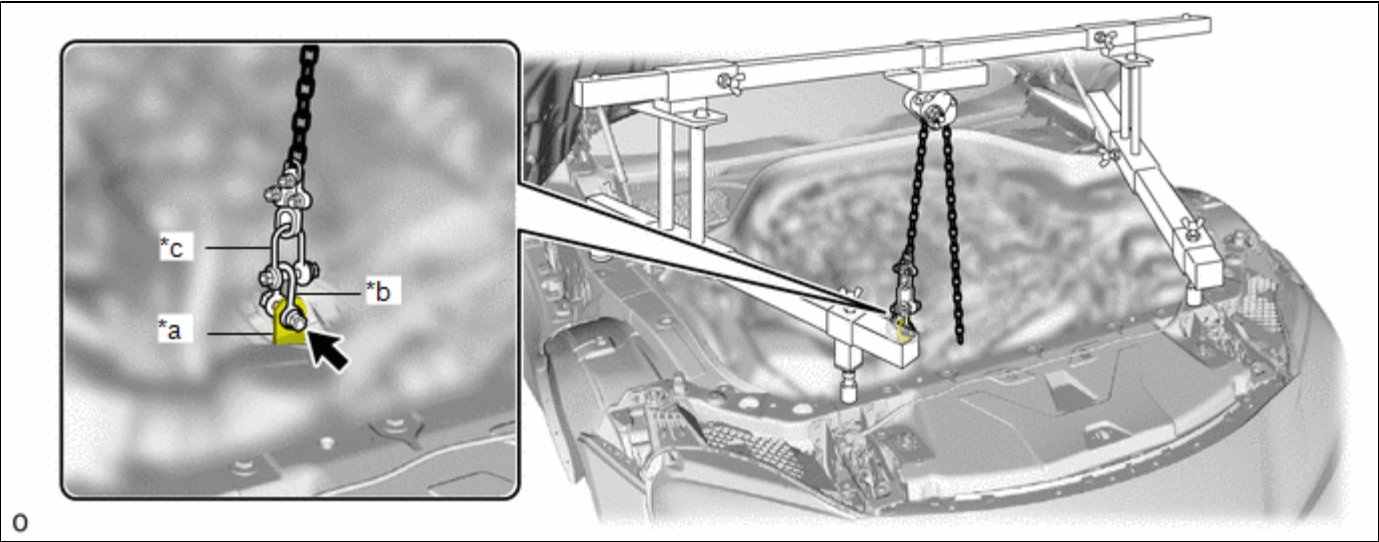
*a	Support Shaft
*b	Sub Beam
*c	Threaded Portion

(c) Install the chain block to the sling bracket.



*a	Chain Block	*b	Sling Bracket
*c	Fuse Shackle	*d	Shackle

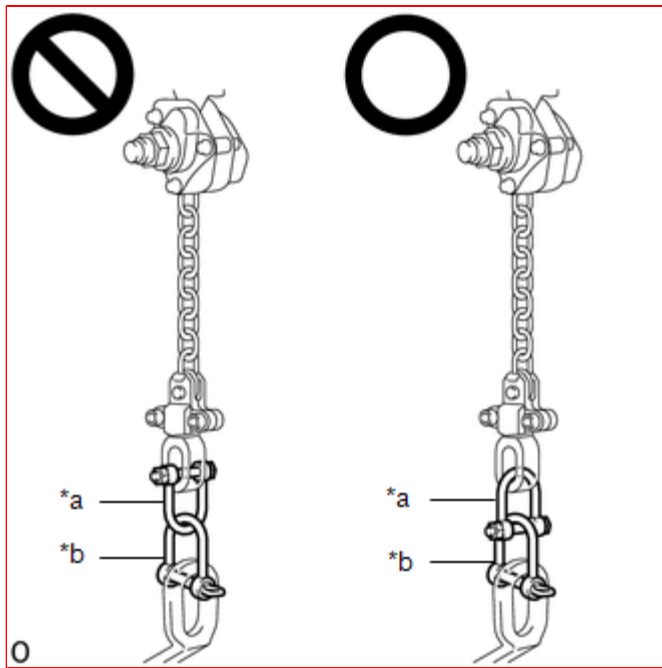
(d) Connect the shackle to the engine hanger.



*a	Engine Hanger	*b	Shackle
*c	Fuse Shackle	-	-

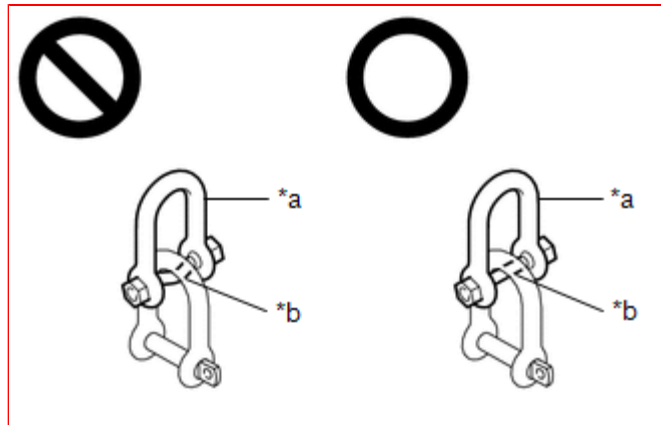
CAUTION:

- Make sure the fuse shackle is on the chain block side and the shackle is on the engine hanger side as shown in the illustration so that the fuse bolt is visible and can be checked for deformation easily.



*a	Fuse Shackle
*b	Shackle

- If the fuse shackle is installed upside down, deformation of the fuse bolt will not be visible and cannot be used to tell if the load capacity of the engine support bridge has been exceeded. If the load capacity is exceeded, it may cause the engine support bridge to damage the vehicle and the engine assembly with automatic transmission assembly may fall.
- Make sure that the fuse bolt of the fuse shackle is free of damage, such as deformation or cracks. If damaged, replace

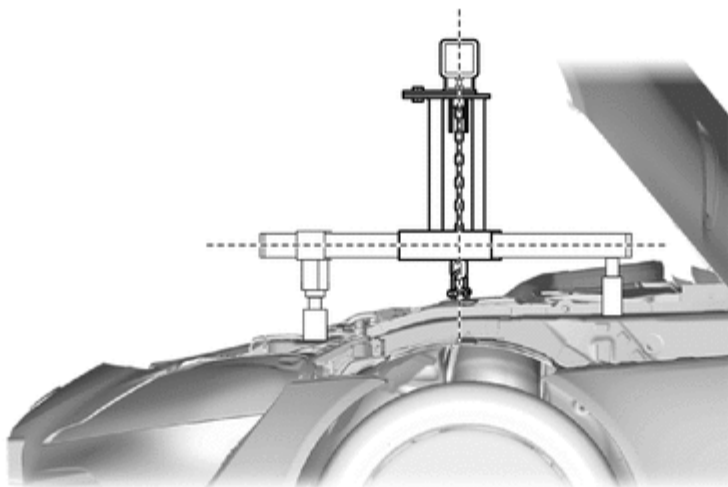
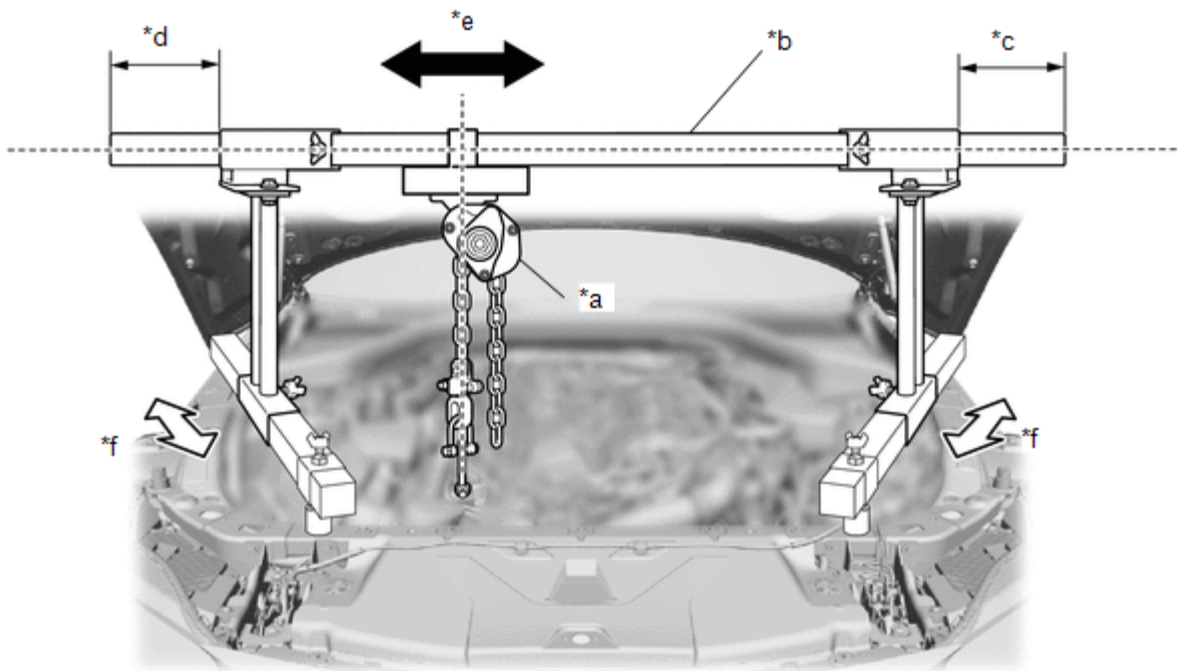


the fuse shackle.

*a	Fuse Shackle
*b	Fuse Bolt

- If a deformed fuse bolt is used, it cannot be used to tell if the load capacity of the engine support bridge has been exceeded. If the load capacity is exceeded, it may cause the engine support bridge to damage the vehicle and the engine assembly with automatic transmission assembly may fall.

(e) Adjust the positions of the chain block assembly, support brackets and main beam so that the chain of the chain block assembly is perpendicular to the main beam and the length of the main beam on the outer side of the support bracket LH and RH is the same as shown in the illustration.

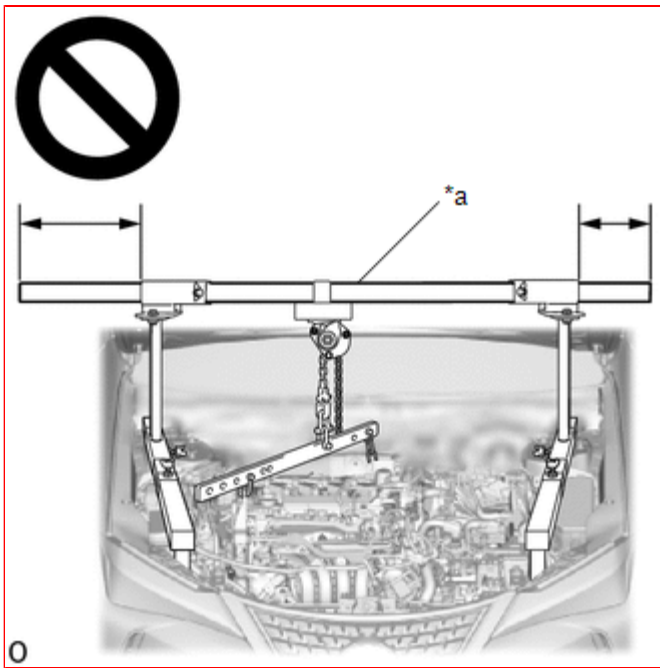


0

*a	Chain Block	*b	Main Beam
*c	Dimension (A)	*d	Dimension (B)
*e	Right to Left Adjustment	*f	Front to Rear Adjustment

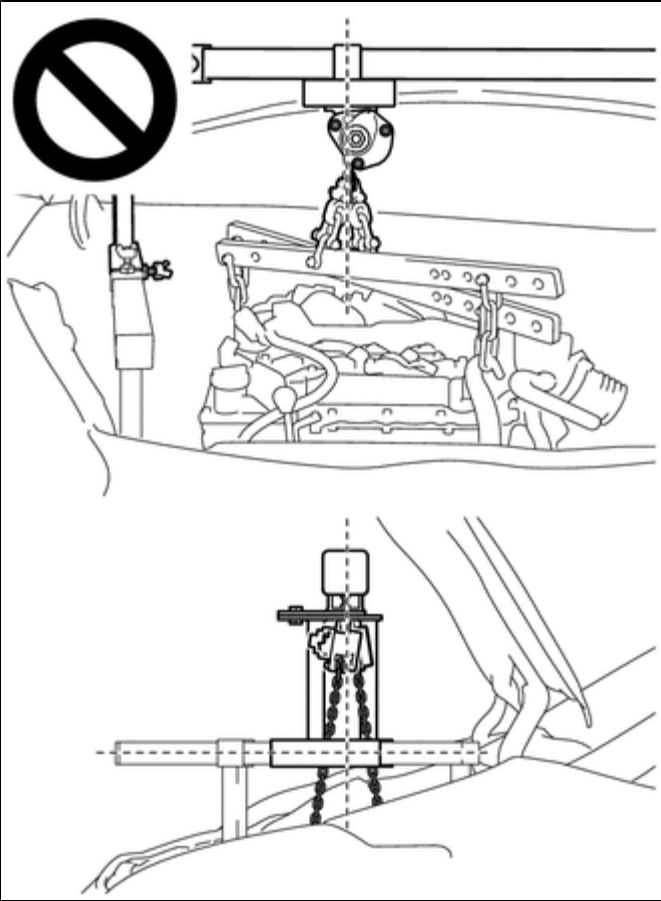
CAUTION:

- To prevent the engine assembly with automatic transmission assembly from falling, make sure that the length of dimension (A) and dimension (B) are equal.
- Do not perform any procedures if the length of dimension (A) and dimension (B) are not equal.



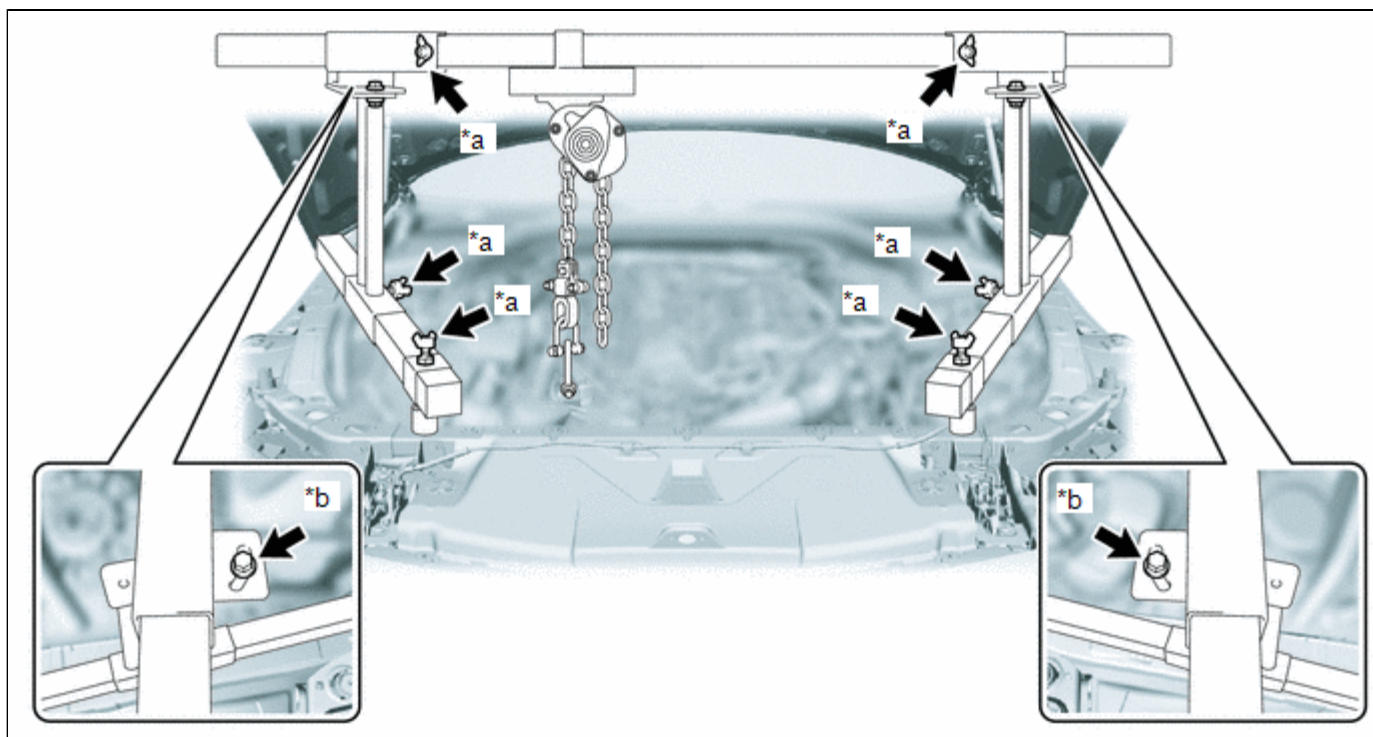
*a	Main Beam
----	-----------

- Performing any procedure when the length of dimension (A) and dimension (B) are not equal may cause the engine assembly with automatic transmission assembly and engine support bridge to fall, possibly causing serious injury.



- Do not perform any procedures if the chain of the chain block assembly is not straight.
- When removing the engine mount, if the chain of the chain block assembly is not straight, the engine assembly or automatic transmission assembly may contact the vehicle body.

(f) Confirm the appropriate installation state of the engine support bridge and tighten the 6 wing bolts and 2 bolts.



*a	Wing Bolt	*b	Bolt
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Torque:

Bolt :

30 N·m {306 kgf·cm, 22 ft·lbf}

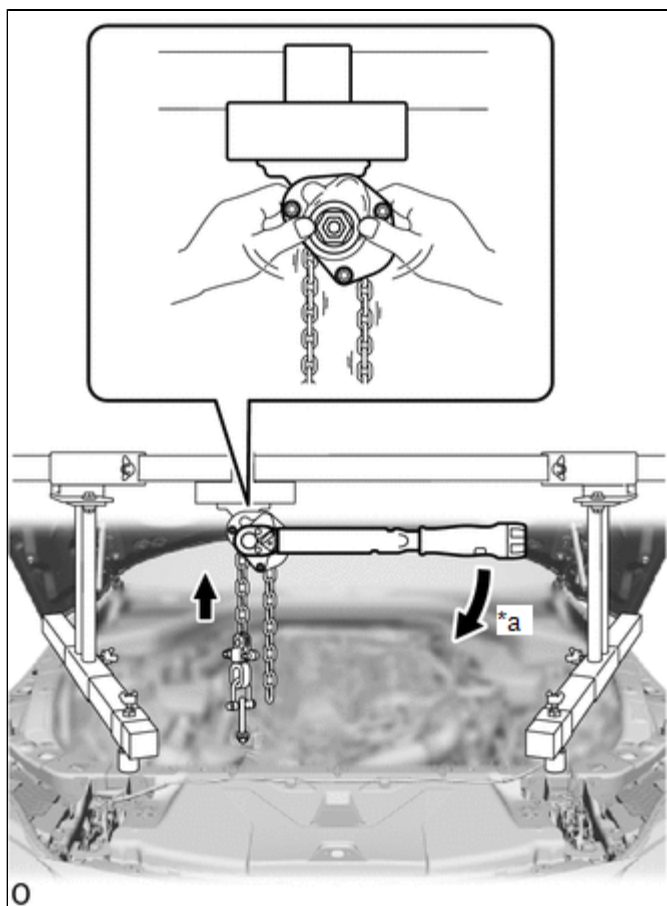
CAUTION:

- Do not perform any procedures before tightening the bolts to the specified torque.

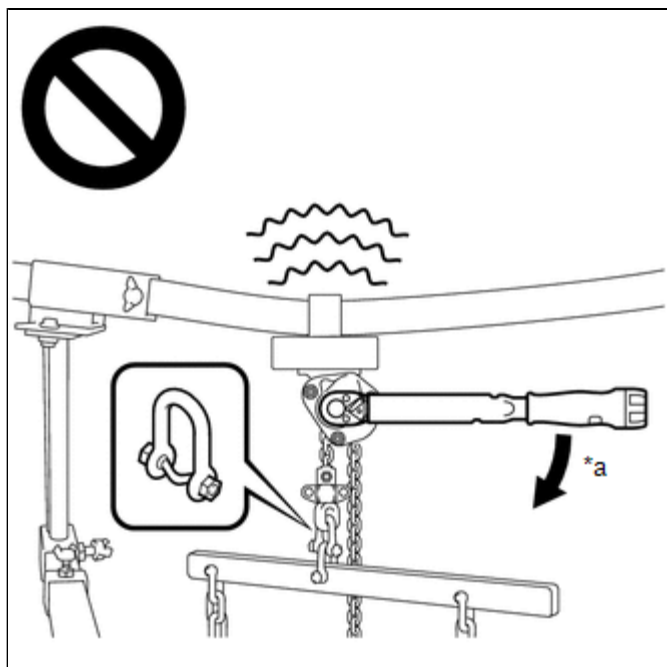


- Performing procedures without tightening the bolts to the specified torque, may cause the engine support bridge to fall.

(g) Tighten the chain block assembly until it cannot be moved any further by hand.



*a	Turn
----	------

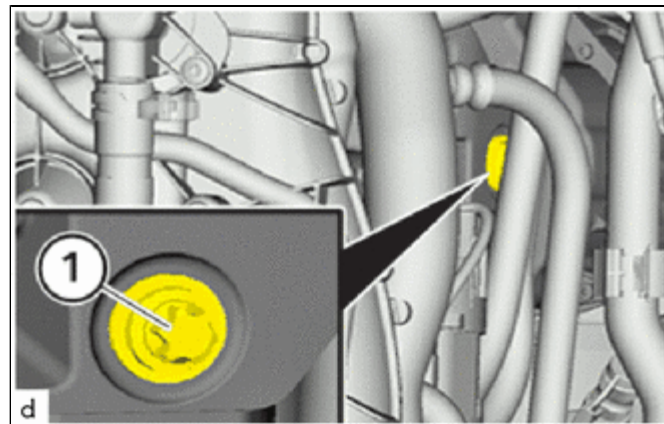


*a	41 N*m (418 kgf*cm, 30 ft.*lbf) or more
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- When suspending the engine assembly with automatic transmission assembly, do not tighten the chain block assembly more than 41 N*m (418 kgf*cm, 30 ft.*lbf).
- Tightening the chain block assembly more than 41 N*m (418 kgf*cm, 30 ft.*lbf) will cause the load capacity (400 kg (881.8 lb.)) to be exceeded and may cause damage to the engine support bridge and vehicle body.

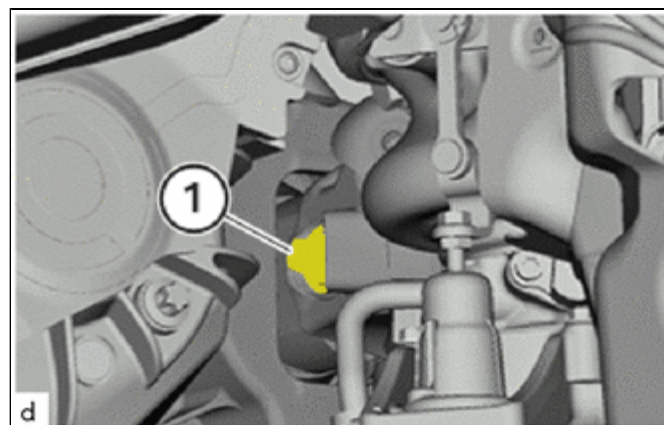
14. SEPARATE FRONT ENGINE MOUNTING INSULATOR LH

(a) Release the E14 bolt (1) from the top.



15. SEPARATE FRONT ENGINE MOUNTING INSULATOR RH

(a) Release the E14 bolt (1) from the top.

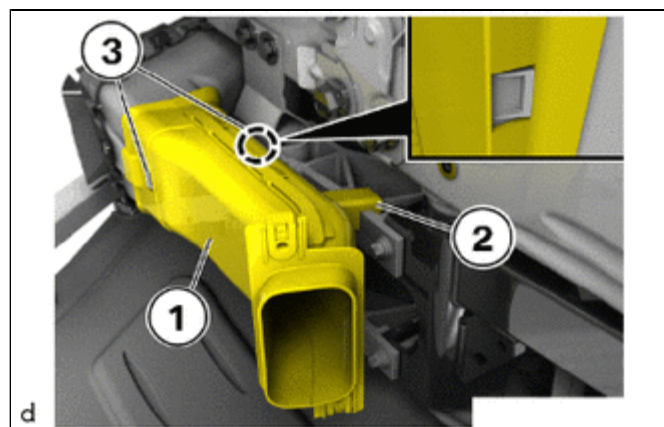


16. SUPPORT ENGINE ASSEMBLY

(a) Raise the engine by turning the chain block by 10 mm.

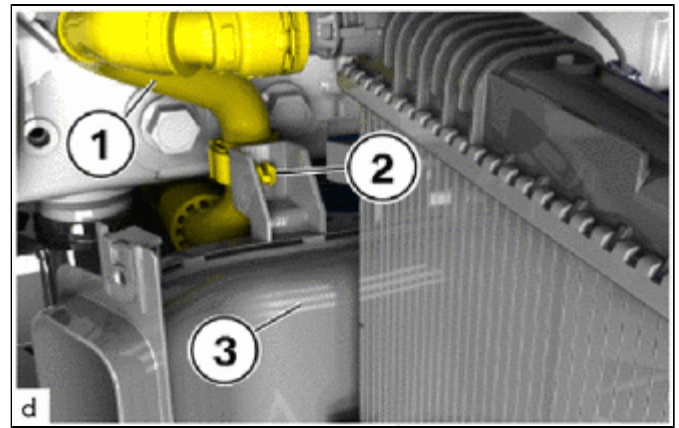
17. REMOVE AIR INTAKE DUCT LH

(a) Lift air intake duct LH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.

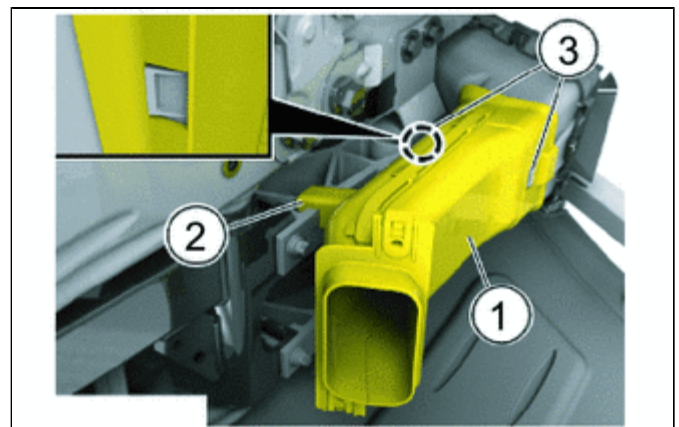


18. REMOVE AIR INTAKE DUCT RH

(a) Unclip coolant line (1) and bracket (2) from the air intake duct RH (3).



(b) Lift air intake duct RH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.

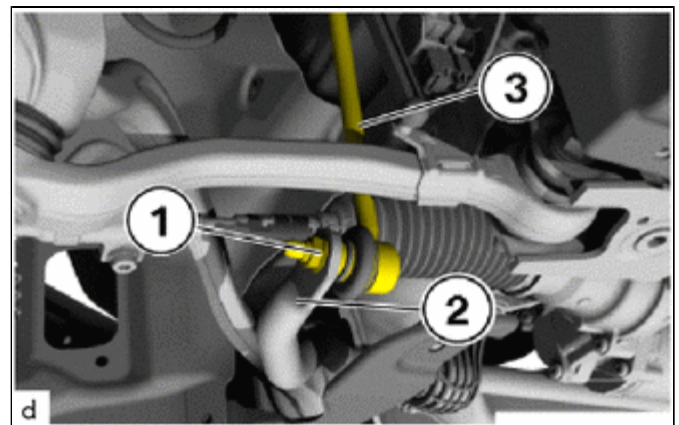


19. DISCONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

20. SEPARATE FRONT STABILIZER LINK ASSEMBLY LH

(a) Loosen the 16 mm nut (1), if necessary, counter hold the T30 "TORX" socket wrench.



(b) Loosen the front stabilizer link assembly LH (3) from the front stabilizer bar (2).

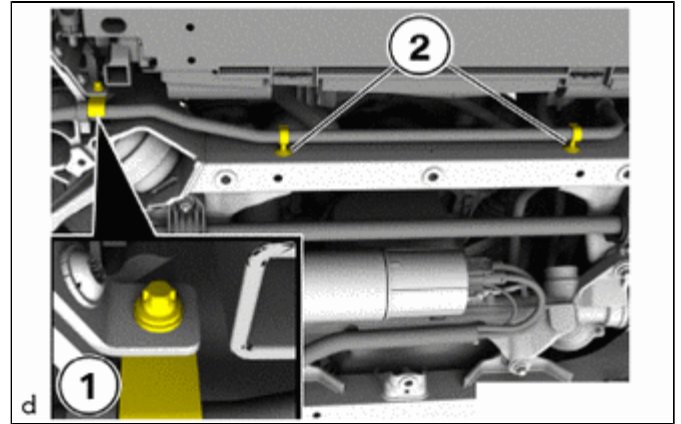
21. SEPARATE FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

22. SEPARATE COOLANT HOSE

(a) Loosen E8 bolts (1).



(b) Release both holders (2) from the front suspension crossmember sub-assembly.

NOTICE:

- The coolant hose is not removed.
- The coolant circuit is not opened.

23. DISCONNECT TIE ROD END SUB-ASSEMBLY LH

Click here [INFO](#)

24. DISCONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

25. REMOVE FRONT STABILIZER BAR

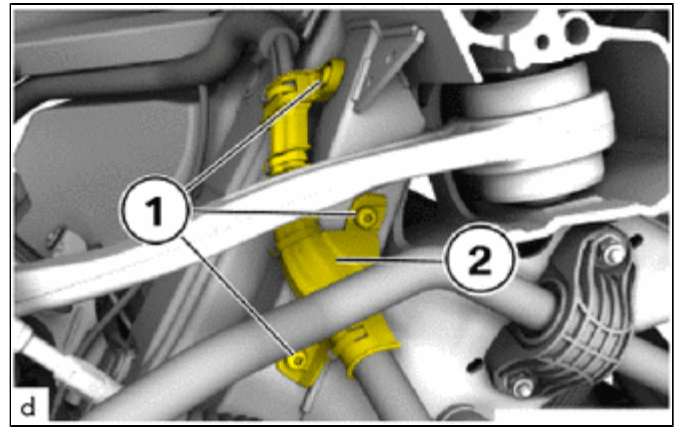
Click here [INFO](#)

26. REMOVE STEERING LINK ASSEMBLY

Click here [INFO](#)

27. SEPARATE WIRE HARNESS

(a) Loosen T25 screws (1).



(b) Remove the wire harness mounting (2) with wire harness, move it to the side and secure it in place.

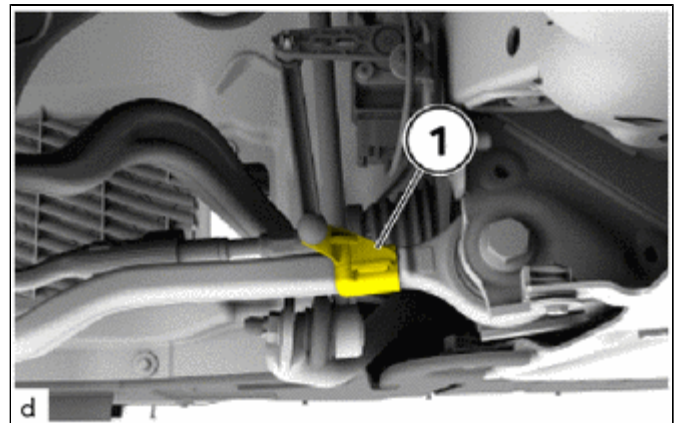
28. SEPARATE FRONT LOWER SUSPENSION ARM ASSEMBLY LH

NOTICE:

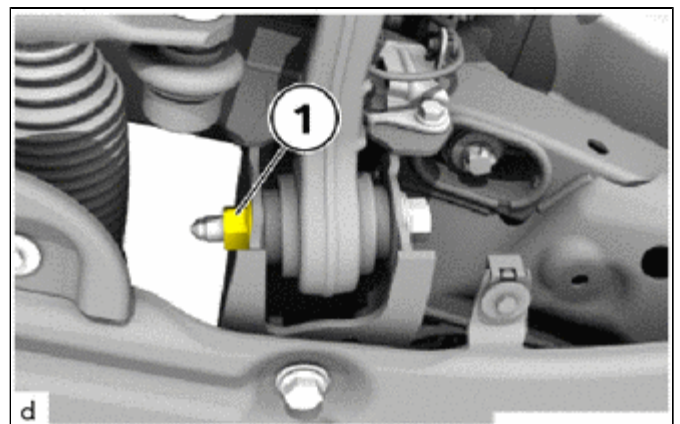
- Component damage caused by striking tools.
- Brute force can result in component damage.
- Only use those tools intended for the work.

(a) w/ Height Control Sensor:

- (1) Release the front height control sensor link sub-assembly (1) on the front lower suspension arm assembly LH.



(b) Using a 18 mm deep socket wrench, unscrew the nut (1) and remove the 18 mm bolt to the rear.



(c) Release the front lower suspension arm assembly LH from the front suspension crossmember sub-assembly.

29. SEPARATE FRONT LOWER SUSPENSION ARM ASSEMBLY RH

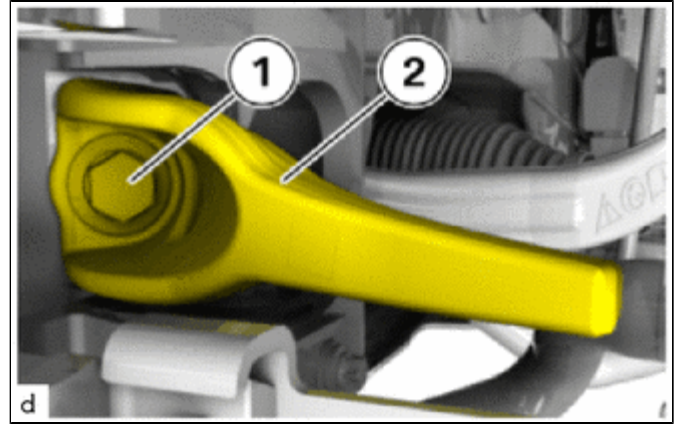
HINT:

Use the same procedure as for the LH side.

30. REMOVE FRONT UPPER SUSPENSION ARM ASSEMBLY LH

(a) w/ Front Suspension Member Bracket:

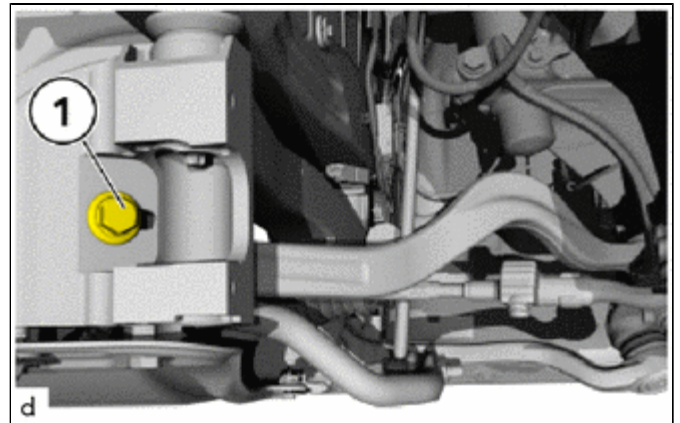
(1) Loosen 18 mm bolt (1).



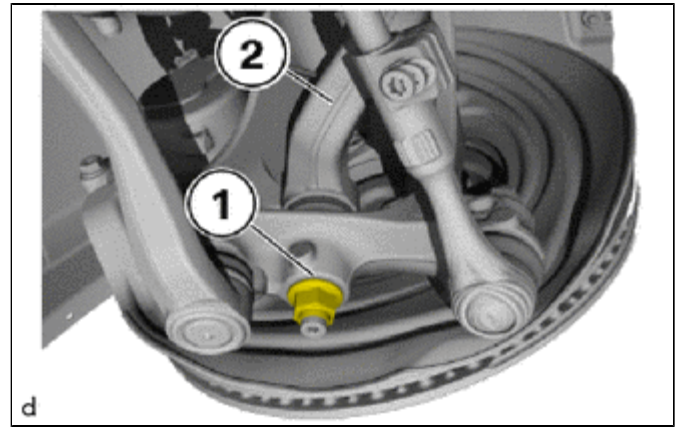
(2) Remove the front suspension member bracket sub-assembly LH (2).

(b) w/o Front Suspension Member Bracket:

(1) Loosen 18 mm bolt (1).



(c) Loosen the nut (1), if necessary, counter-hold the T40 "TORX" socket wrench.



(d) Remove front upper suspension arm assembly LH (2).

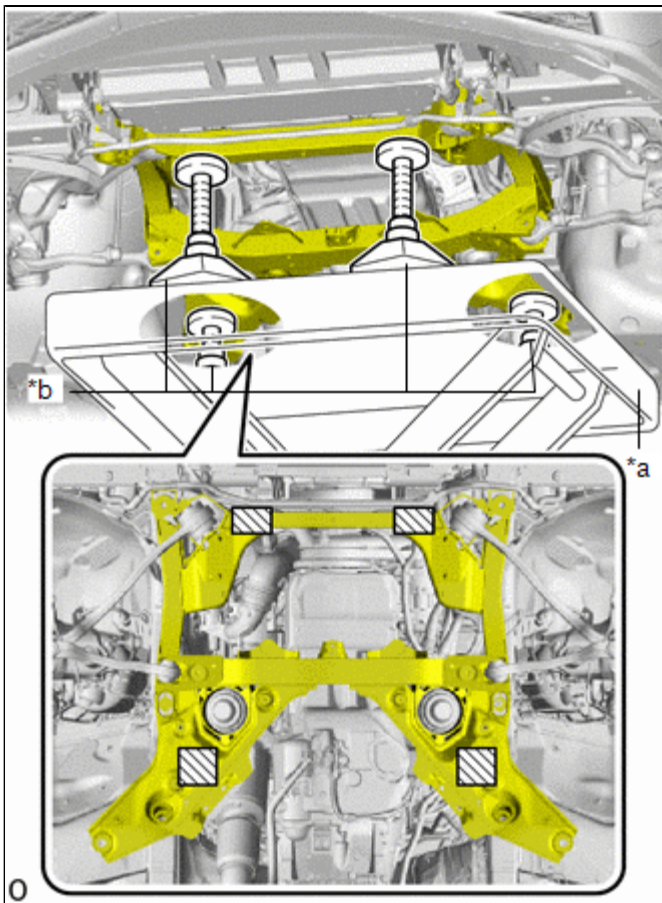
31. REMOVE FRONT UPPER SUSPENSION ARM ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

32. REMOVE FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY

(a) Support the front suspension crossmember sub-assembly with an engine lifter using 4 attachments or equivalent tools as shown in the illustration.



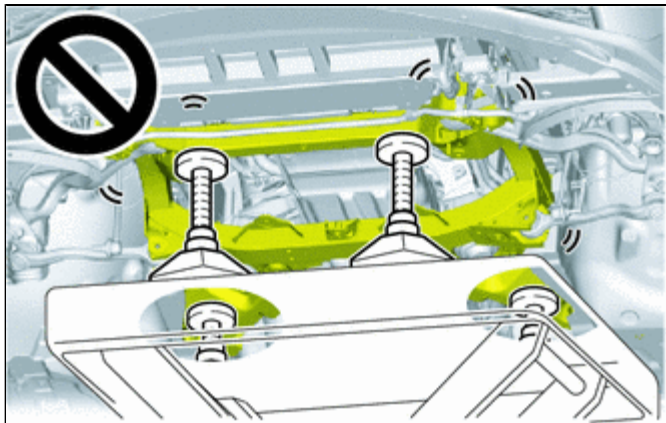
*a	Engine Lifter
*b	Attachment



Attachment placement location

CAUTION:

- The front suspension crossmember sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the front suspension crossmember sub-assembly is not securely supported, it may drop, resulting in serious injury.



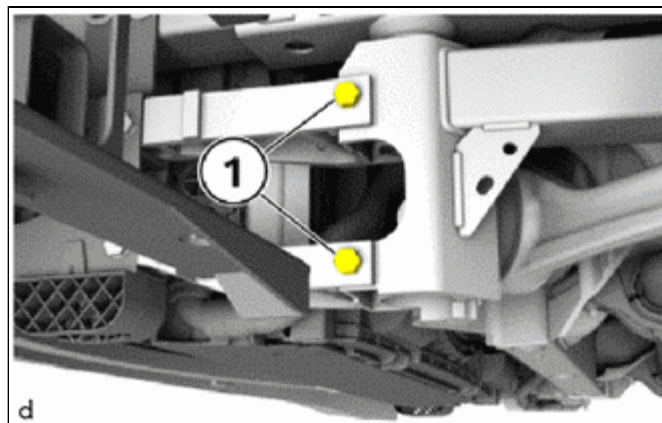
NOTICE:

Use attachments to keep the front suspension crossmember sub-assembly level.

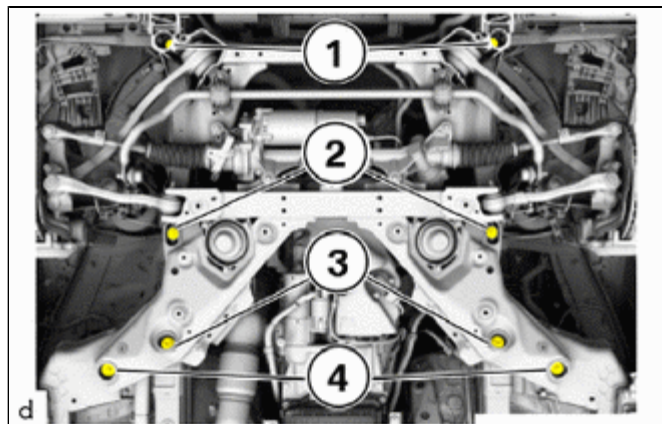
(b) Remove the E11 bolts (1).

HINT:

Perform the operations on the left and right side.



(c) Remove the E14 bolts (1), E18 bolts (2), bolts (3) and E18 bolts (4)



(d) Slowly lower the front suspension crossmember sub-assembly.

NOTICE:

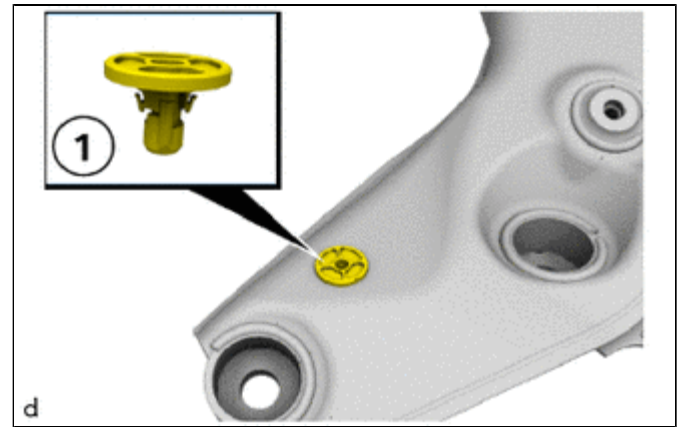
When lowering the front suspension crossmember sub-assembly, be careful not to damage the vehicle body or other components installed to the vehicle.

33. REMOVE CLIP

HINT:

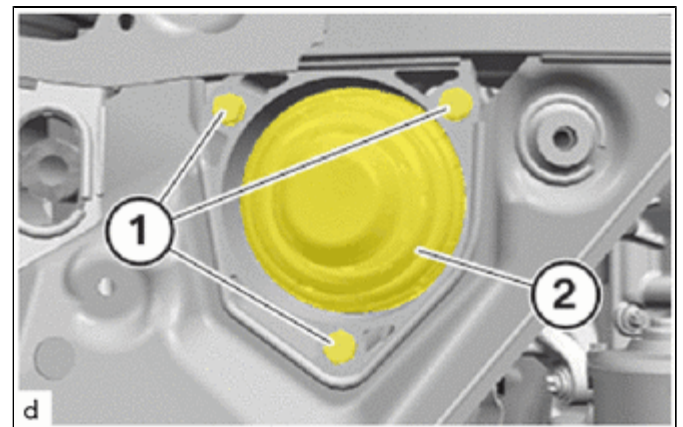
Perform the operations on the left and right side.

(a) Remove the clip (1).



34. REMOVE FRONT ENGINE MOUNTING INSULATOR LH

(a) Loosen the bolts (1).



(b) Remove the front engine mounting insulator LH (2).

35. REMOVE FRONT ENGINE MOUNTING INSULATOR RH

HINT:

Use the same procedure as for the LH side.

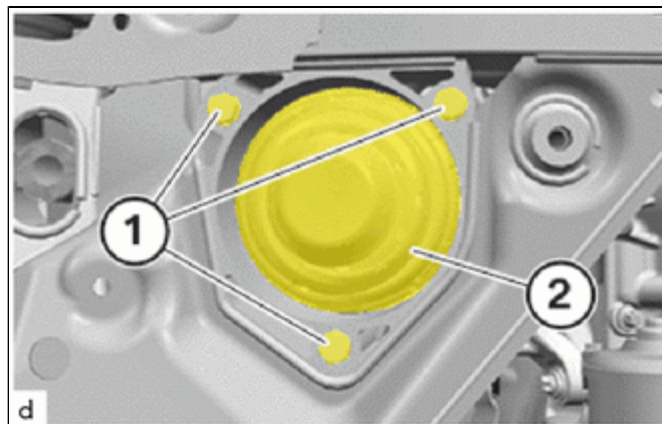
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT ENGINE MOUNTING INSULATOR LH

(a) Install the front engine mounting insulator LH (2).



(b) Tighten the bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

2. INSTALL FRONT ENGINE MOUNTING INSULATOR RH

HINT:

Use the same procedure as for the LH side.

3. INSTALL CLIP

HINT:

Perform the operations on the left and right side.

(a) Replace the clip.

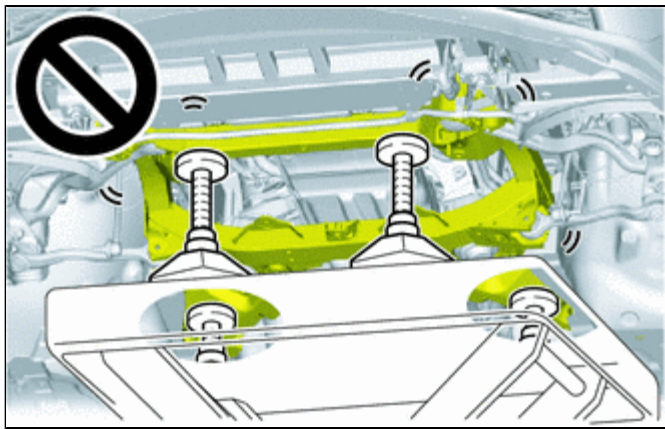
(b) Install clip.

4. INSTALL FRONT SUSPENSION CROSSMEMBER SUB-ASSEMBLY

(a) Slowly jack up the front suspension crossmember sub-assembly with an engine lifter using 4 attachments or equivalent tools.

CAUTION:

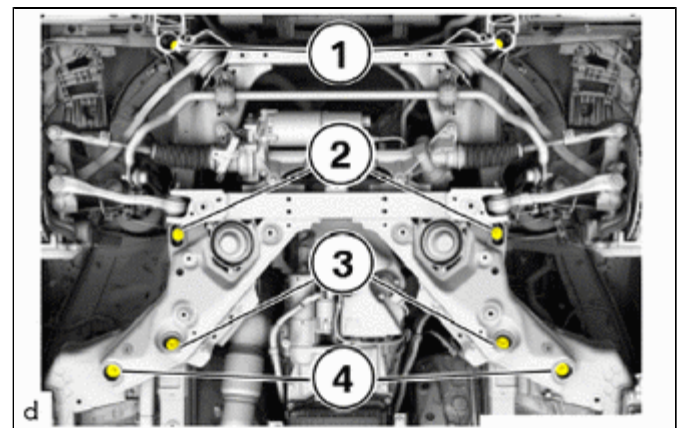
- The front suspension crossmember sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the front suspension crossmember sub-assembly is not securely supported, it may drop, resulting in serious injury.



NOTICE:

Use attachments to keep the front suspension crossmember sub-assembly level.

(b) Replace bolts (1) to (4).



(c) Tighten the E14 bolts (1).

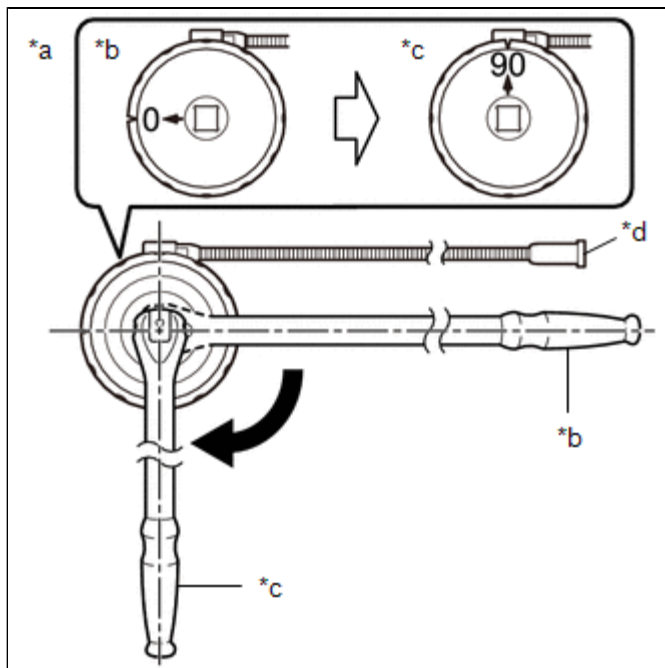
Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

(d) Using SST, tighten the E14 bolts (1) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) Tighten down E18 bolts (2).

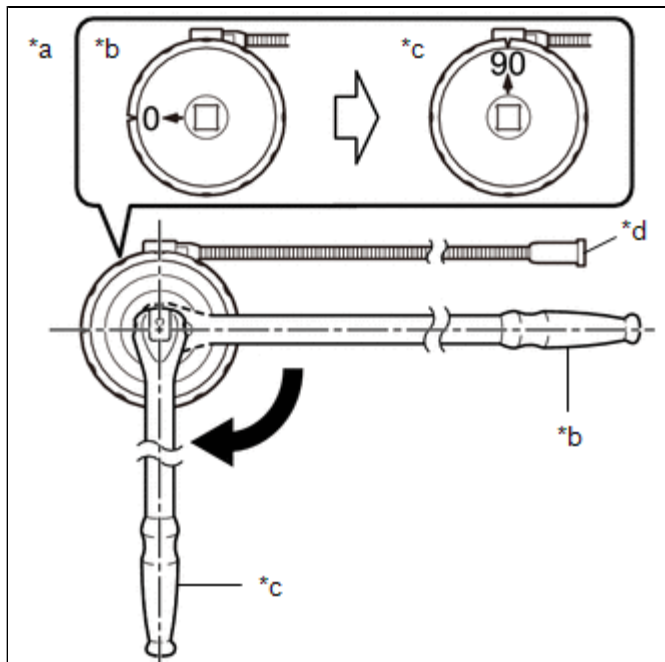
Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

(f) Using SST, tighten the E18 bolts (2) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(g) Tighten down bolts (3).

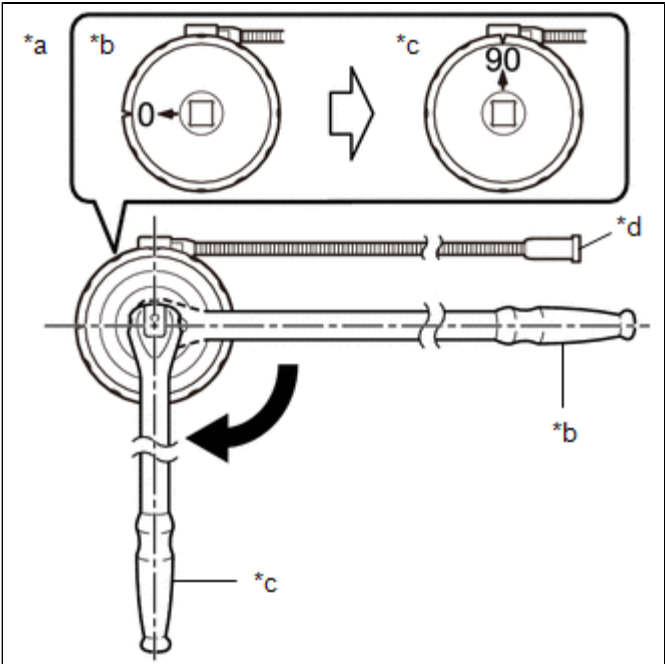
Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

(h) Using SST, tighten the bolts (3) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(i) Tighten down E18 bolts (4).

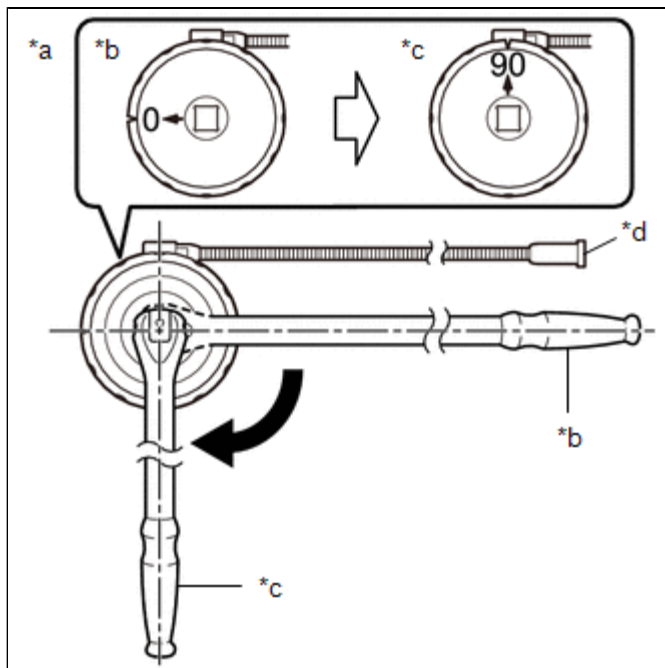
Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

(j) Using SST, tighten the E18 bolts (4) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

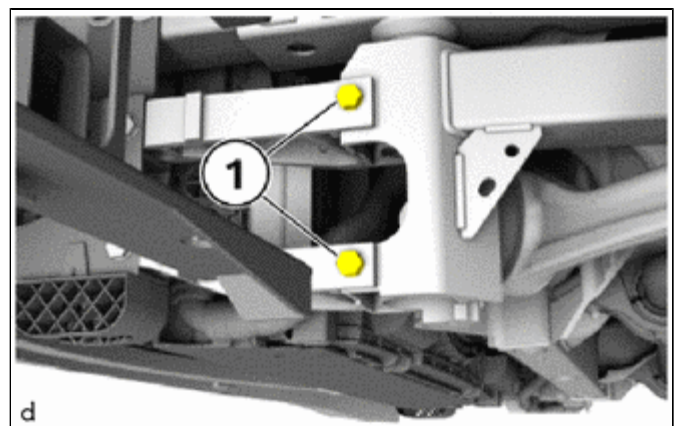
(k) Tighten the E11 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

HINT:

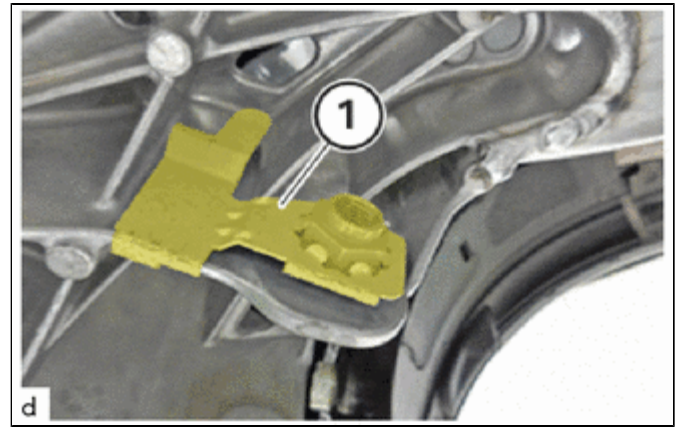
Perform the operations on the left and right side.



(l) Lower the engine lifter.

5. INSTALL FRONT UPPER SUSPENSION ARM ASSEMBLY LH

(a) Replace the clip nut (1).



(b) Position front upper suspension arm assembly LH at the front suspension crossmember sub-assembly.

(c) Replace the 18 mm bolt.

(d) w/ Front Suspension Member Bracket:

(1) Position the front suspension member bracket sub-assembly LH and screw the 18 mm bolt in a few turns but do not tighten.

(e) w/o Front Suspension Member Bracket:

(1) Screw the 18 mm bolt in a few turns but do not tighten.

(f) Position front upper suspension arm assembly LH on steering knuckle.

(g) Replace nut.

(h) Tighten the nut, if necessary, counter support the T40 "TORX" socket wrench.

Torque:

175 N·m {1785 kgf·cm, 129 ft·lbf}

(i) Tighten 18 mm bolt.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

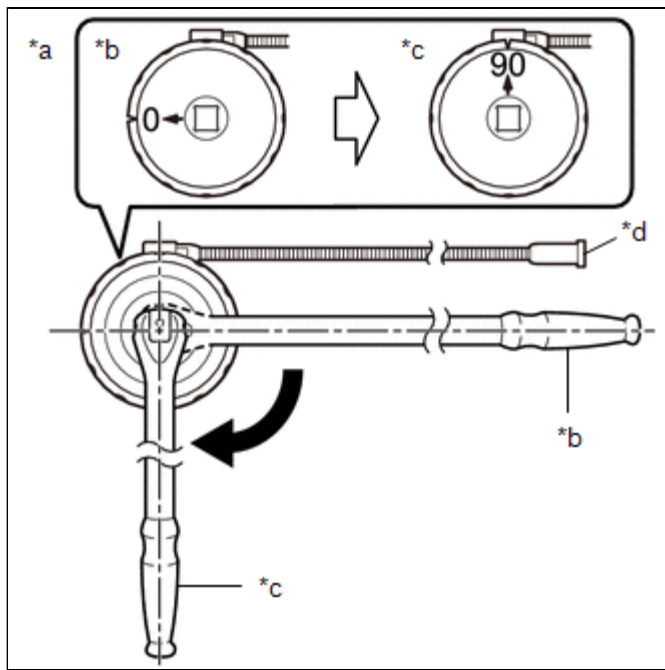
NOTICE:

Tighten the 18 mm bolt connection in the normal position.

(j) Using SST, tighten the 18 mm bolt an additional 90°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

6. INSTALL FRONT UPPER SUSPENSION ARM ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

7. INSTALL FRONT LOWER SUSPENSION ARM ASSEMBLY LH

CAUTION:

- Component damage caused by striking tools.

Brute force can result in component damage.

- Only use those tools intended for the work.

(a) Install the front lower suspension arm assembly LH.

(b) Replace the 18 mm bolt and the 18 mm nut.

(c) Using a 18 mm deep socket wrench, tighten the 18 mm nut in the normal position.

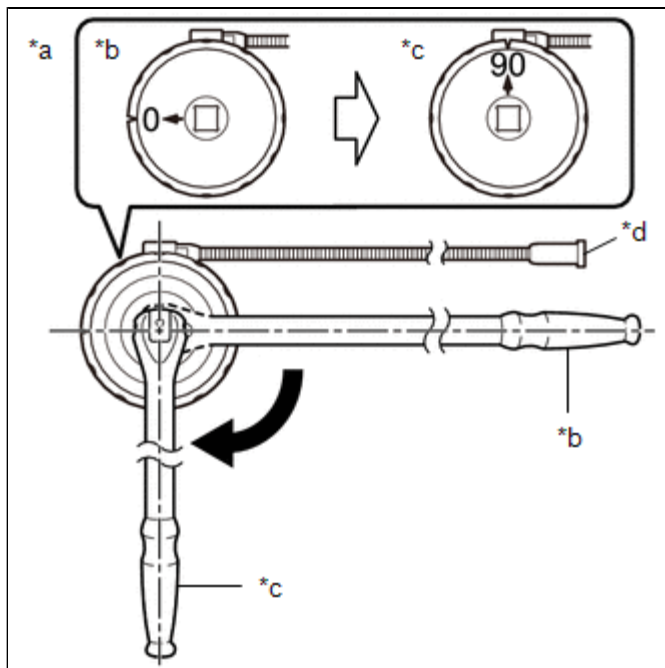
Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(d) Using SST and 18 mm deep socket wrench, tighten the 18 mm nut an additional 90°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) w/ Height Control Sensor:

(1) Clip in the front height control sensor link sub-assembly.

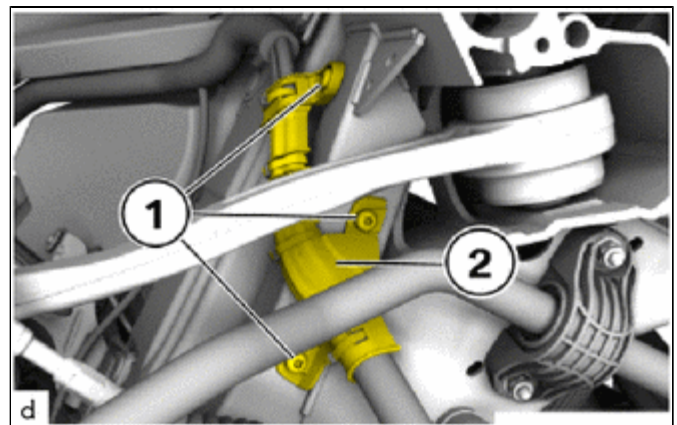
8. INSTALL FRONT LOWER SUSPENSION ARM ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

9. INSTALL WIRE HARNESS

(a) Position the wire harness mounting (2) with the wire harness.



(b) Tighten the T25 screws (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

10. INSTALL STEERING LINK ASSEMBLY

Click here [INFO](#)

11. CONNECT TIE ROD END SUB-ASSEMBLY LH

Click here [INFO](#)

12. CONNECT TIE ROD END SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

13. INSTALL FRONT STABILIZER BAR

Click here [INFO](#)

14. INSTALL FRONT STABILIZER LINK ASSEMBLY LH

- (a) Position the front stabilizer link assembly LH on the front stabilizer bar.
- (b) Replace 16 mm nut.
- (c) Tighten the 16 mm nut, if necessary, counter support the T30 "TORX" socket wrench.

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

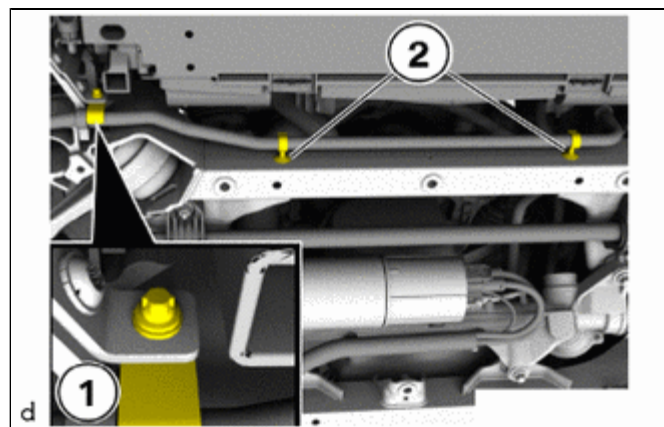
15. INSTALL FRONT STABILIZER LINK ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

16. INSTALL COOLANT HOSE

- (a) Position both holders (2) at the front suspension crossmember sub-assembly.



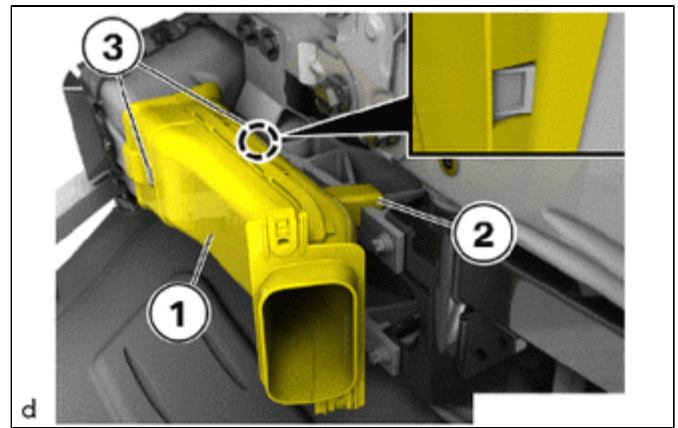
- (b) Tighten down E8 bolts (1).

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

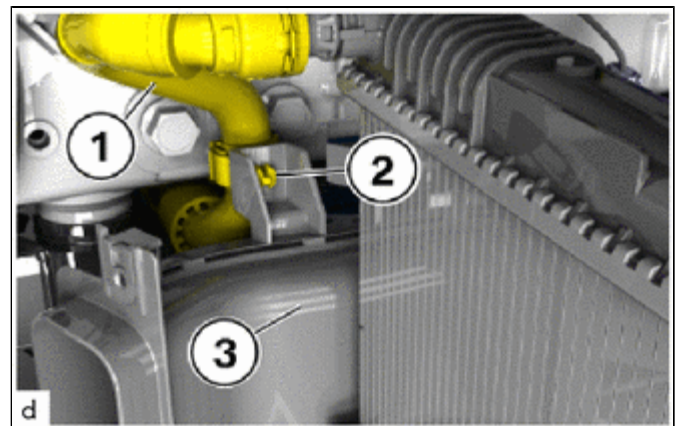
17. INSTALL AIR INTAKE DUCT LH

- (a) Position air intake duct LH (1) with the guide (2) correctly and clip into the latch mechanisms (3).

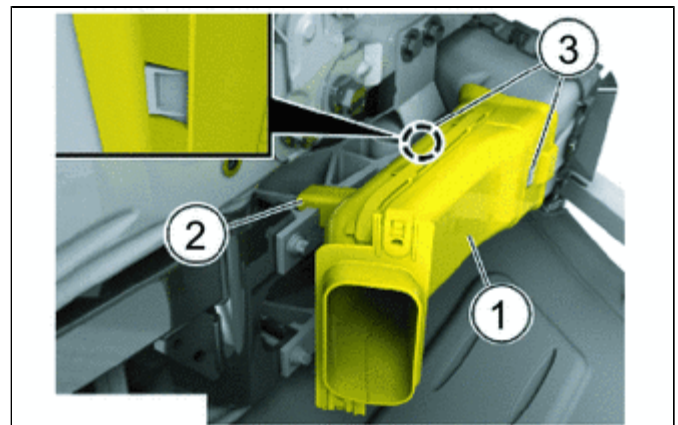


18. INSTALL AIR INTAKE DUCT RH

- (a) Clip in coolant line (1) with the bracket (2) in the air intake duct RH (3).



- (b) Position brake air duct RH (1) with the guide (2) correctly and clip into the latch mechanisms (3).



19. CONNECT STEERING INTERMEDIATE SHAFT ASSEMBLY

Click here [INFO](#)

20. REMOVE ENGINE SUPPORT BRIDGE

- (a) Turn the chain block to lower the engine until the engine support arms rest completely flat on the engine mounts.

(b) Remove the engine support bridge with the help from another person.

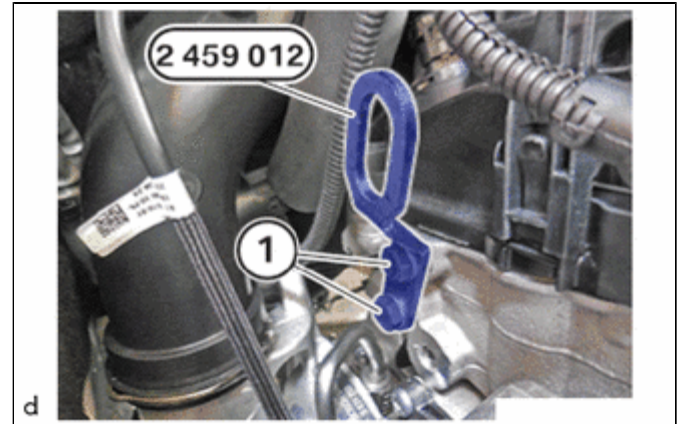
NOTICE:

Prevent SST from contacting the vehicle body or windshield glass.

21. REMOVE ENGINE HANGER

(a) Unscrew the bolts (1) of the special tool 2 459 012.

SST: 09200-WA610



(b) Feed out the special tool 2 459 012 at the cylinder head sub-assembly and remove.

SST: 09200-WA610

22. CONNECT FRONT ENGINE MOUNTING INSULATOR LH

NOTICE:

Lower the engine completely to prevent play before bolting down the front engine mounting insulator LH and front No. 1 engine mounting bracket LH.

(a) Tighten down E14 bolt.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

23. CONNECT FRONT ENGINE MOUNTING INSULATOR RH

NOTICE:

Lower the engine completely to prevent play before bolting down the front engine mounting insulator RH and front No. 1 engine mounting bracket RH.

(a) Tighten down E14 bolt.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

24. INSTALL FRONT FENDER LINER LH

Click here [INFO](#)

25. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

26. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

27. INSTALL FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

28. INSTALL FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

29. INSTALL ENGINE ROOM ECU BOX

Click here [INFO](#)

30. INSTALL INTEGRATION RELAY (for Engine Room Side)

Click here [INFO](#)

31. REMOVE AND INSTALL BONNET HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

32. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

33. INSTALL FRONT WHEEL

Click here [INFO](#)

34. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

35. INSPECT AIRBAG FOR FUNCTION

Click here [INFO](#)

36. START-UP OF ELECTROMECHANICAL STEERING

Click here [INFO](#)

37. INSPECT STRAIGHT-AHEAD DRIVING POSITION OF THE STEERING WHEEL

Click here [INFO](#)

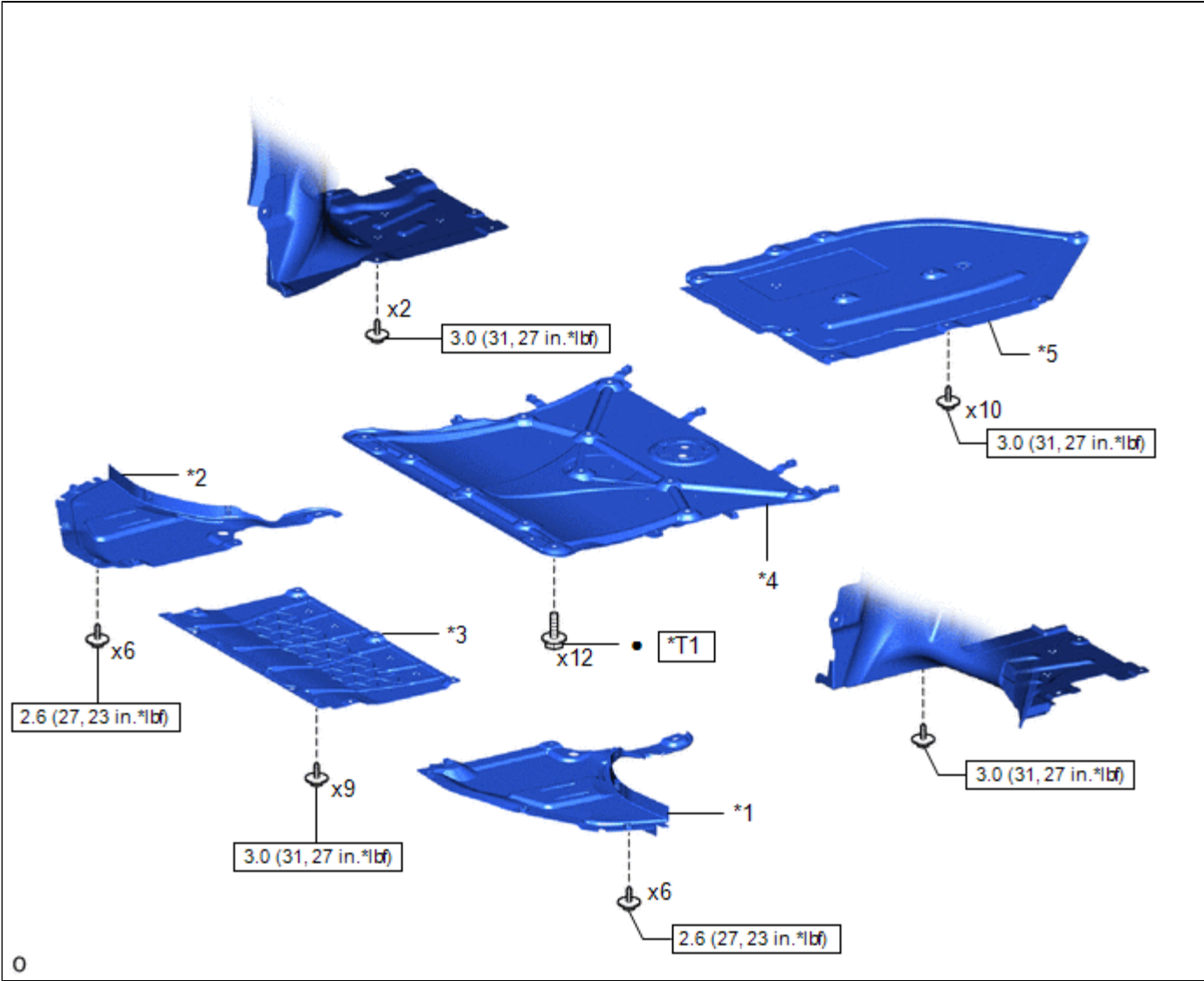
38. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0Q
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT FENDER SPLASH FRONT SHIELD LH	*2	FRONT FENDER SPLASH FRONT SHIELD RH
*3	NO. 1 ENGINE UNDER COVER ASSEMBLY	*4	FRONT SUSPENSION MEMBER LOWER PROTECTOR
*5	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 56 (571, 41)	-	-

2nd: Turn 45°



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

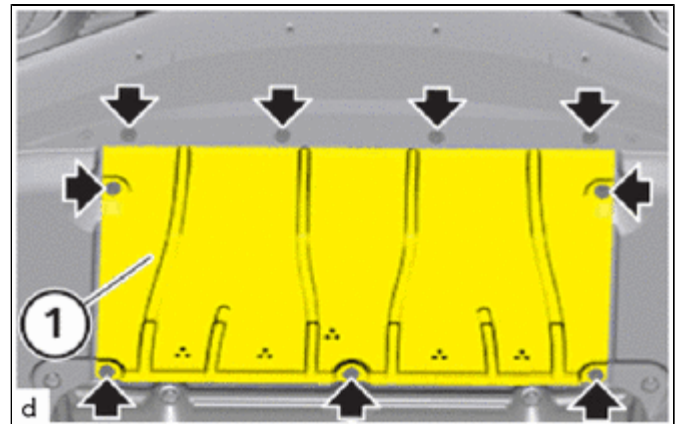
NOTICE:

Driving without front suspension member lower protector is not permissible.

PROCEDURE

1. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

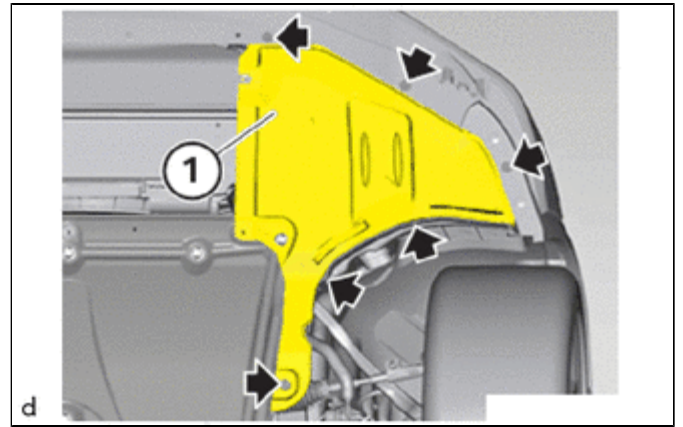
(a) Remove screws (arrows).



(b) Remove the No. 1 engine under cover assembly (1).

2. REMOVE FRONT FENDER SPLASH FRONT SHIELD LH

(a) Remove screws (arrows).



(b) Feed out the front fender splash front shield LH (1) to the side and remove.

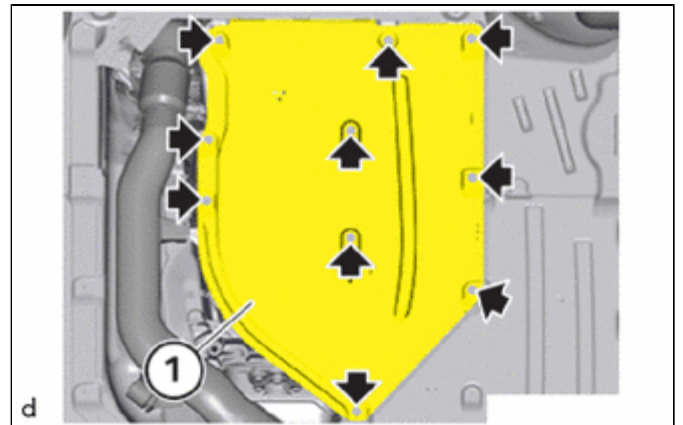
3. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE FRONT FLOOR COVER

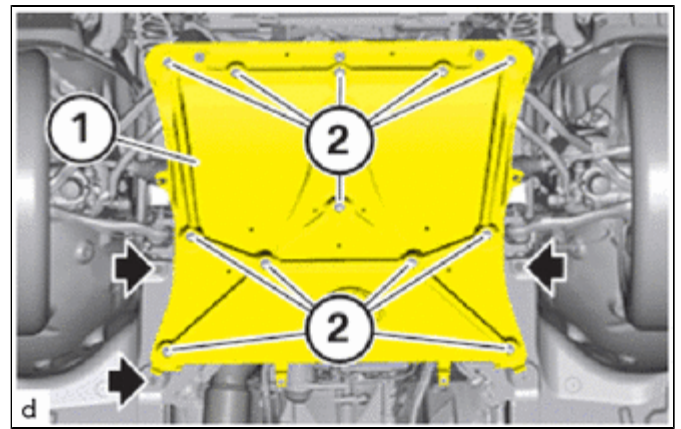
(a) Remove screws (arrows).



(b) Remove the front floor cover (1).

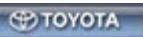
5. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

(a) Remove screws (arrows).



(b) Loosen the 16 mm bolts (2).

(c) Remove the front suspension member lower protector (1).



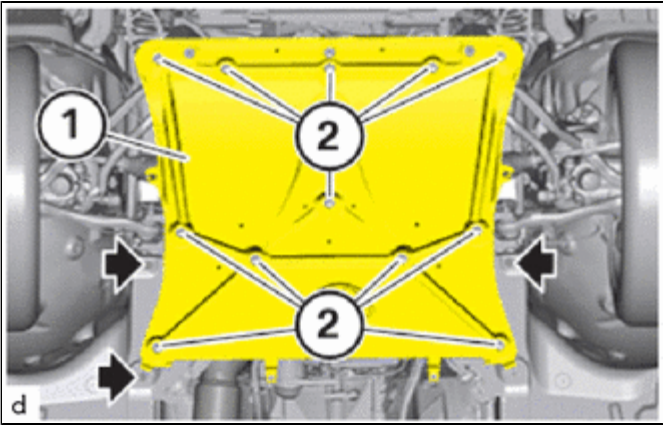
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT SUSPENSION MEMBER LOWER PROTECTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

(a) Position front suspension member lower protector (1).



(b) Replace 16 mm bolts (2).

(c) Tighten the 16 mm bolts (2).

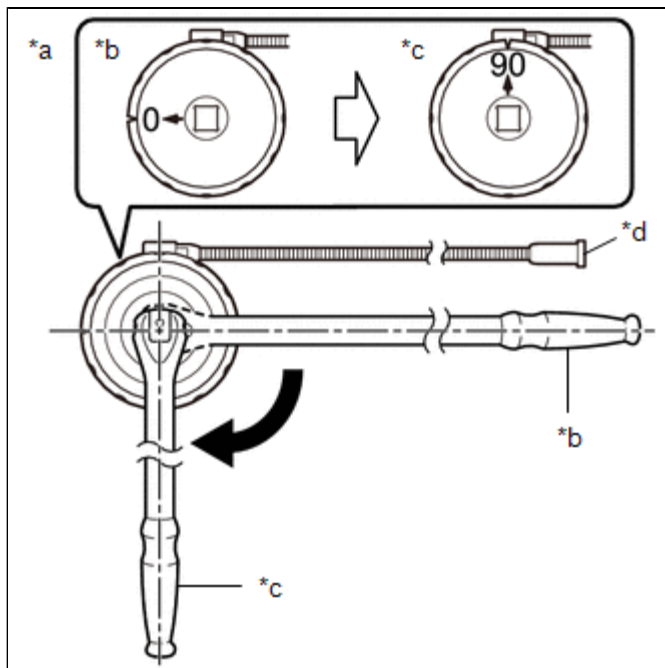
Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

(d) Using SST, tighten the 16 mm bolts (2) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

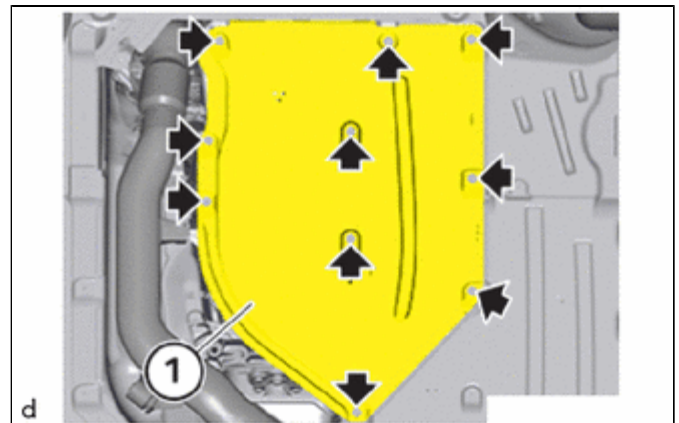
(e) Tighten screws (arrows).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

2. INSTALL FRONT FLOOR COVER

(a) Position front floor cover (1).



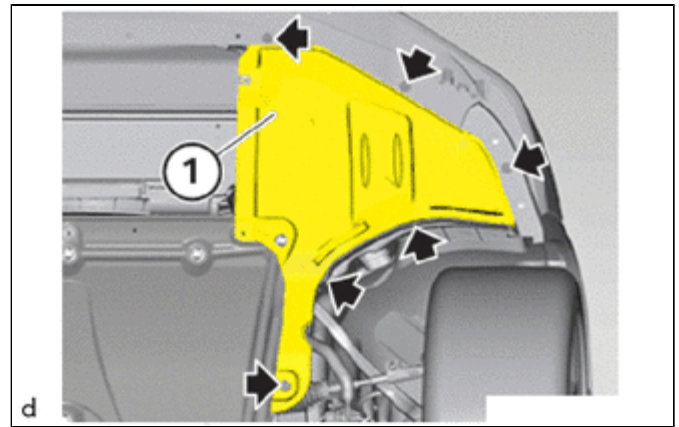
(b) Tighten screws (arrows).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

3. INSTALL FRONT FENDER SPLASH FRONT SHIELD LH

(a) Insert the front fender splash front shield LH (1) at the side.



(b) Tighten screws (arrows).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

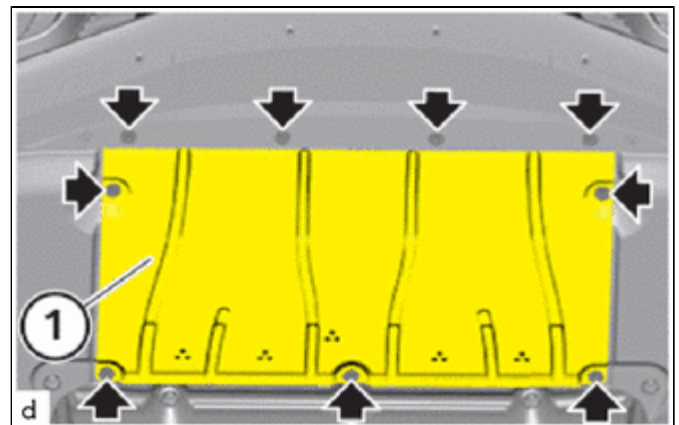
4. INSTALL FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

(a) Guide the No. 1 engine under cover assembly (1) in and position it.



(b) Tighten screws (arrows).

Torque:

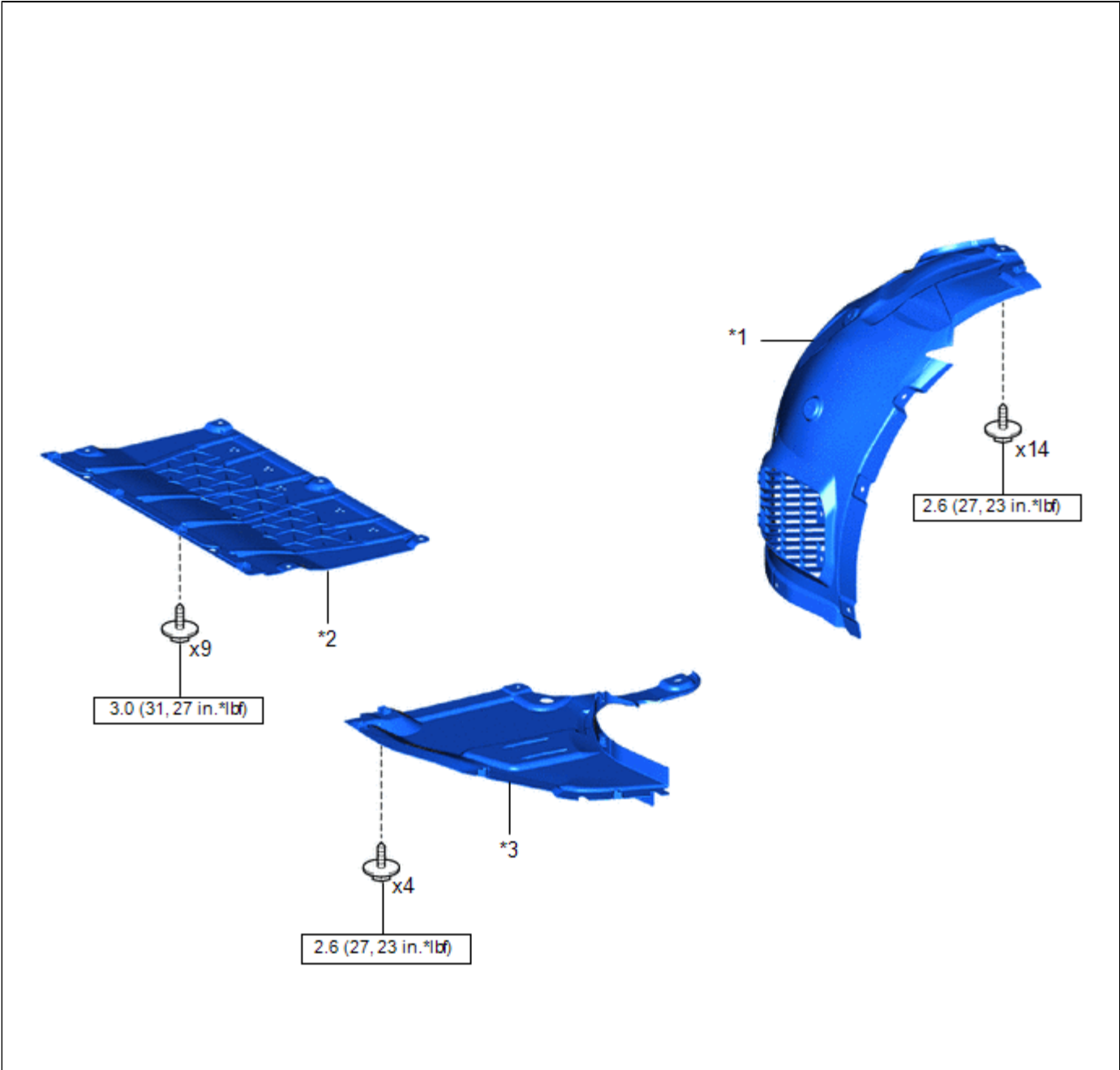
3.0 N·m {31 kgf·cm, 27 in·lbf}



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0K
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT UPPER SUSPENSION ARM: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

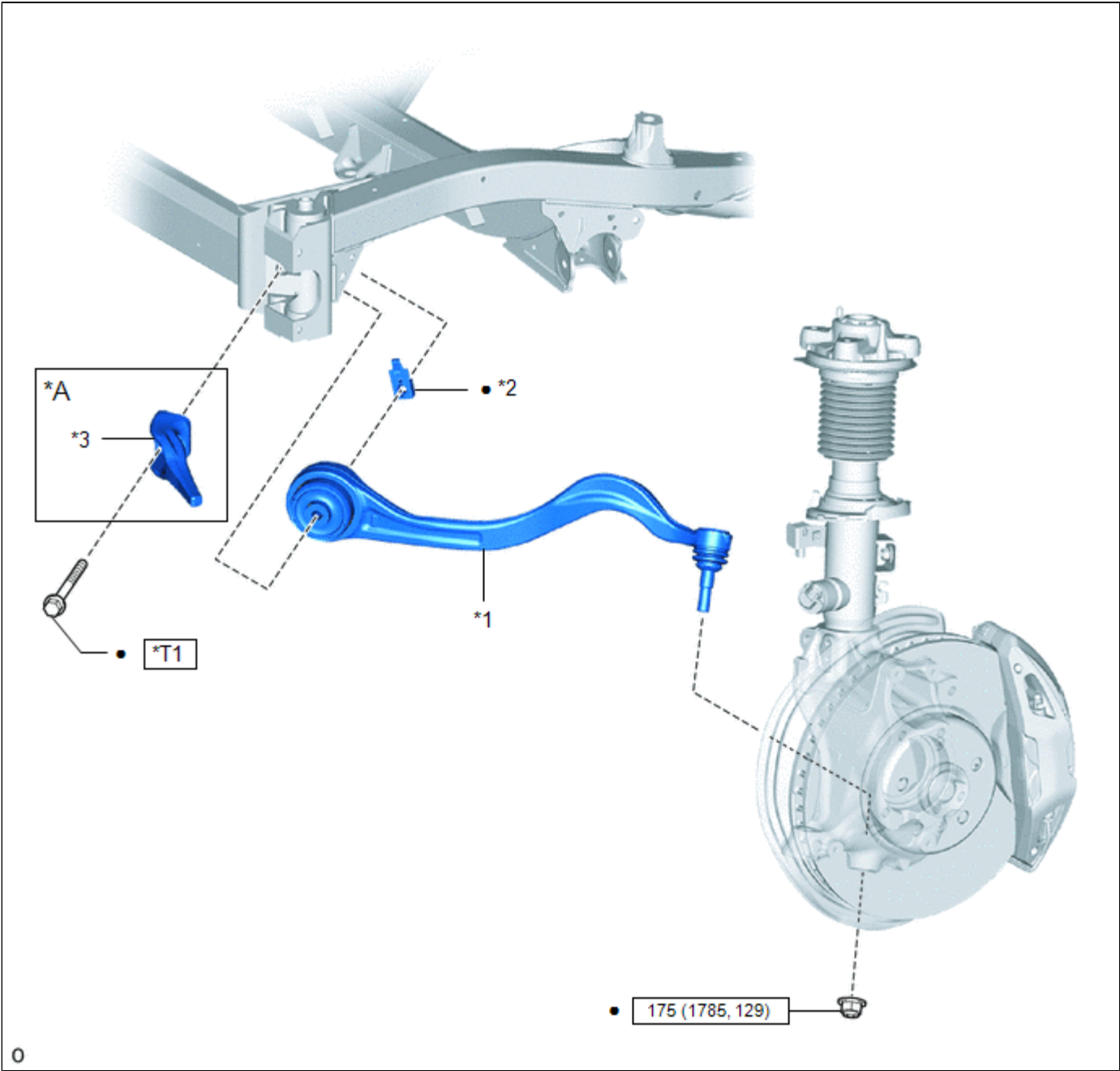
ILLUSTRATION



*1	FRONT FENDER LINER	*2	NO. 1 ENGINE UNDER COVER ASSEMBLY
*3	FRONT FENDER SPLASH FRONT SHIELD	-	-
	N*m (kgf*cm, ft.*lbf): Specified	-	-

<div></div>	torque		
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ILLUSTRATION



*A	w/ Front Suspension Member Bracket	-	-
*1	FRONT UPPER SUSPENSION ARM ASSEMBLY	*2	CLIP NUT
*3	FRONT SUSPENSION MEMBER BRACKET	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-
-----	--------------------------------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0L
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT UPPER SUSPENSION ARM: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Do not mix up the left and right.
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE FRONT WHEEL

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER

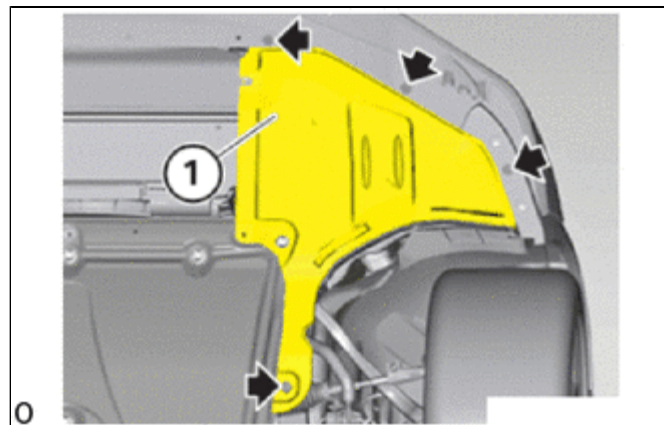
Click here [INFO](#)

3. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

4. REMOVE FRONT FENDER SPLASH FRONT SHIELD

(a) Remove screws (arrows).

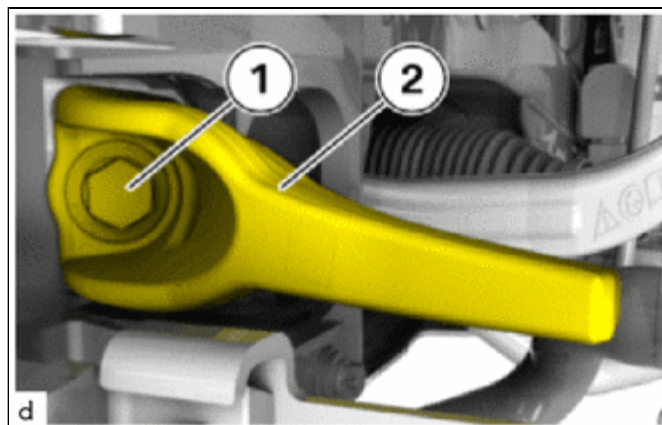


(b) Feed out the front fender splash front shield (1) to the side and remove.

5. REMOVE FRONT UPPER SUSPENSION ARM ASSEMBLY

(a) w/ Front Suspension Member Bracket:

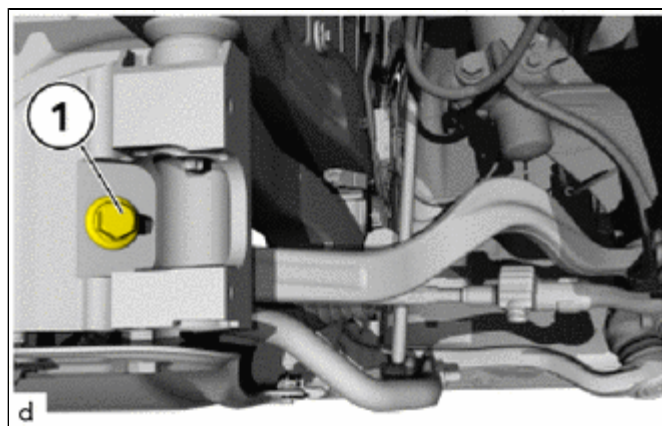
(1) Loosen 18 mm bolt (1).



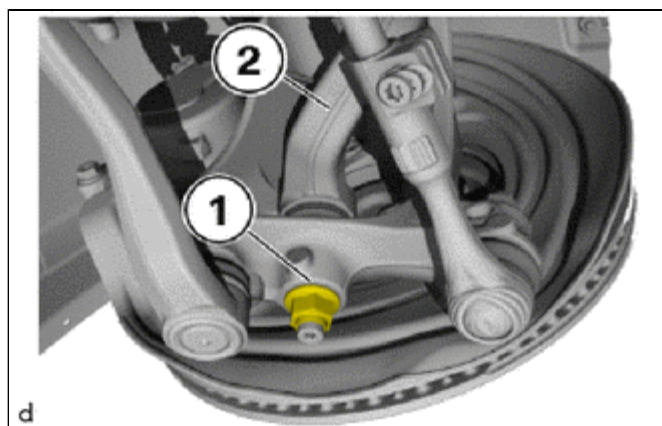
(2) Remove the front suspension member bracket sub-assembly (2).

(b) w/o Front Suspension Member Bracket:

(1) Loosen 18 mm bolt (1).



(c) Loosen the nut (1), if necessary, counter-hold the T40 "TORX" socket wrench.



(d) Remove front upper suspension arm assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0M
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: FRONT SUSPENSION: FRONT UPPER SUSPENSION ARM: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

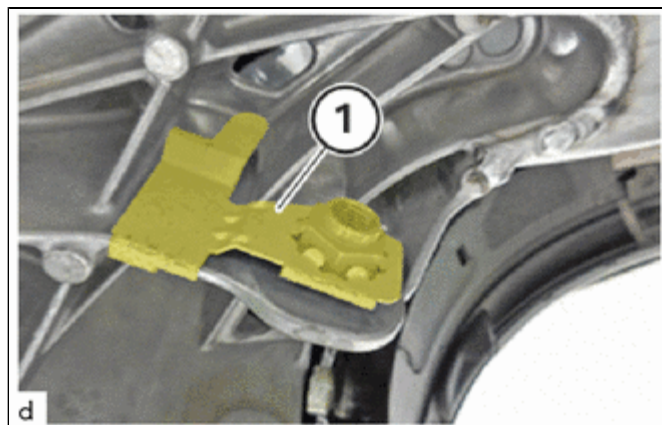
HINT:

- Do not mix up the left and right.
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL FRONT UPPER SUSPENSION ARM ASSEMBLY

(a) Replace the clip nut (1).



(b) Position front upper suspension arm assembly at the front suspension crossmember sub-assembly.

(c) Replace the 18 mm bolt.

(d) w/ Front Suspension Member Bracket:

(1) Position the front suspension member bracket sub-assembly and screw the 18 mm bolt in a few turns but do not tighten.

(e) w/o Front Suspension Member Bracket:

(1) Screw the 18 mm bolt in a few turns but do not tighten.

(f) Position front upper suspension arm assembly on steering knuckle.

(g) Replace nut.

(h) Tighten the nut, if necessary, counter support the T40 "TORX" socket wrench.

Torque:

175 N·m {1785 kgf·cm, 129 ft·lbf}

(i) Tighten 18 mm bolt.

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

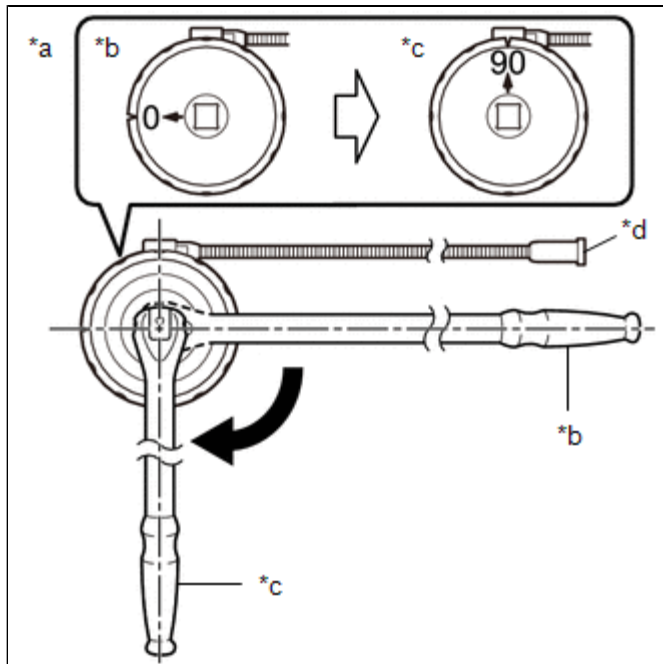
NOTICE:

Tighten the 18 mm bolt connection in the normal position.

(j) Using SST, tighten the 18 mm bolt an additional 90°.

SST: 09900-WA010

HINT:

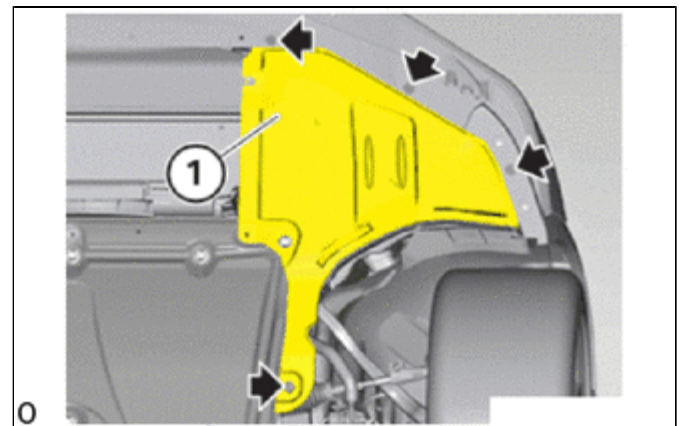


*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

2. INSTALL FRONT FENDER SPLASH FRONT SHIELD

(a) Insert the front fender splash front shield (1) at the side.



(b) Tighten screws (arrows).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

3. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

4. INSTALL FRONT FENDER LINER

Click here [INFO](#)

5. INSTALL FRONT WHEEL

Click here [INFO](#)

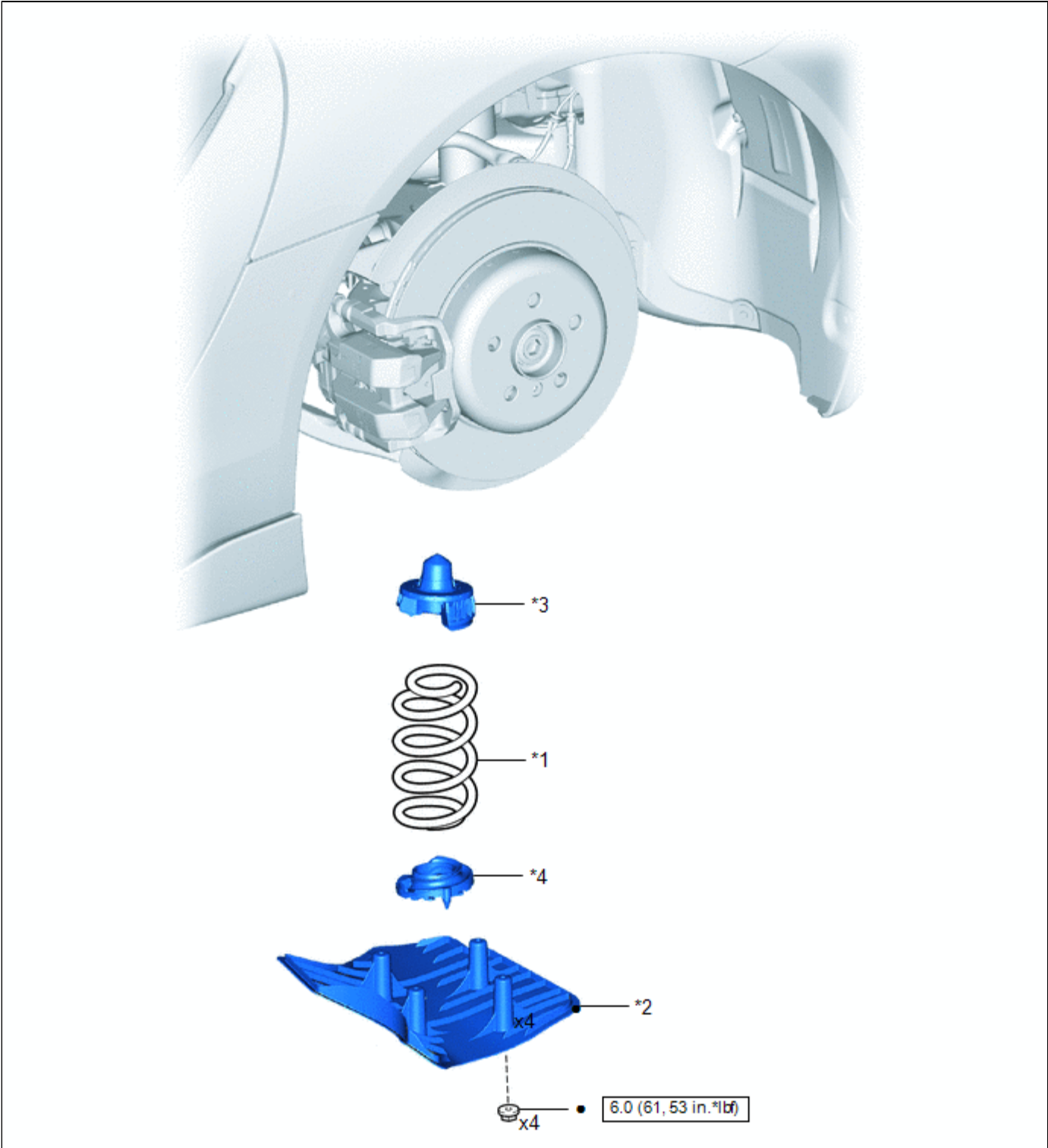
6. INSPECT AND ADJUST FRONT WHEEL ALIGNMENT

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR COIL SPRING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR COIL SPRING	*2	REAR SUSPENSION ARM COVER
----	------------------	----	---------------------------

*3	REAR UPPER COIL SPRING INSULATOR	*4	REAR LOWER COIL SPRING INSULATOR
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR COIL SPRING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

2. REMOVE REAR SUSPENSION ARM COVER

Click here [INFO](#)

3. REMOVE REAR COIL SPRING

CAUTION:

- Spring preload.

Danger! Life-threatening injuries!

- Secure coil spring with special tool 2 213 022 (31 3 340).
- Use special tool as per owner's handbook and always observe the safety information.

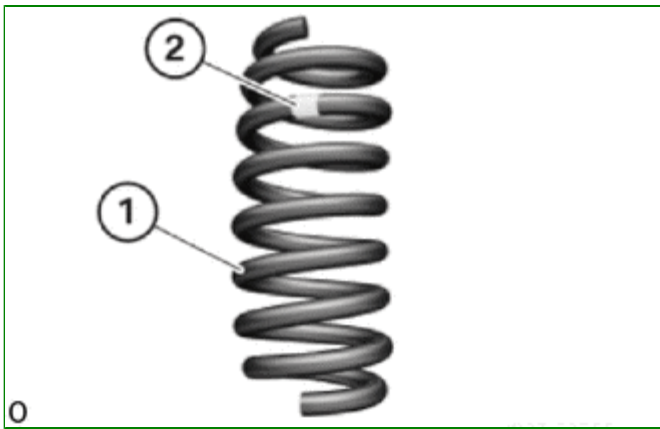
NOTICE:

- Do not operate special tool with an impact screwdriver.
- Incorrect assembly is possible.

Ensure correct installation position.

HINT:

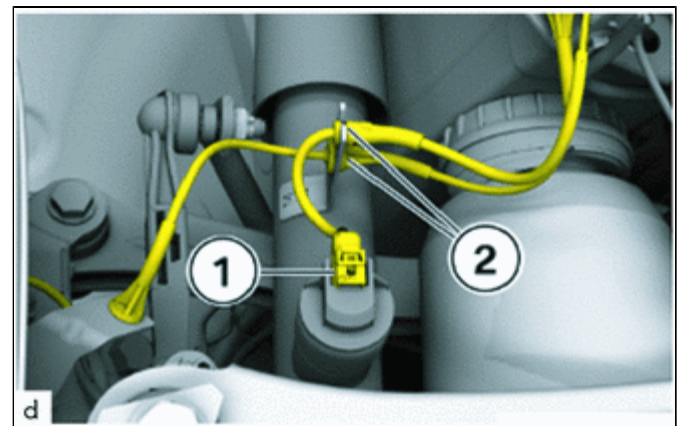
- The installation position of the rear coil spring (1) is marked with a label (2).



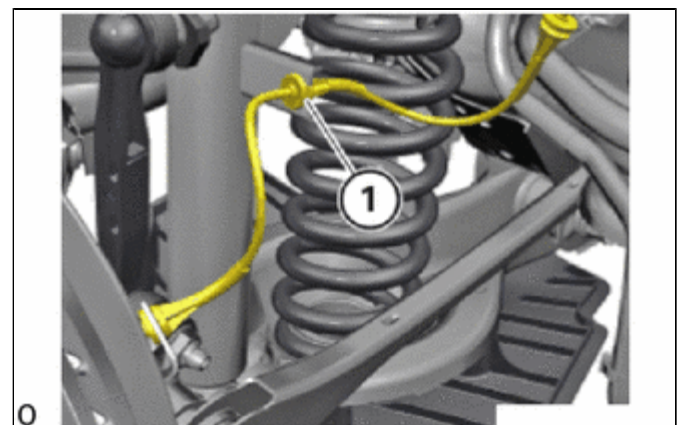
- The label (2) is attached at the top end of the rear coil spring (1) and is marked as "top".
- Check rear coil spring (1) for availability of label (2).
 - If the label (2) on the installed rear coil spring (1) is missing and it has to be fixed after repair, then the installation position of the rear coil spring (1) must be marked necessarily.

(a) w/ AVS:

- (1) Unlock plug connection (1) and disconnect.
- (2) Detach lines (2) from the holder.

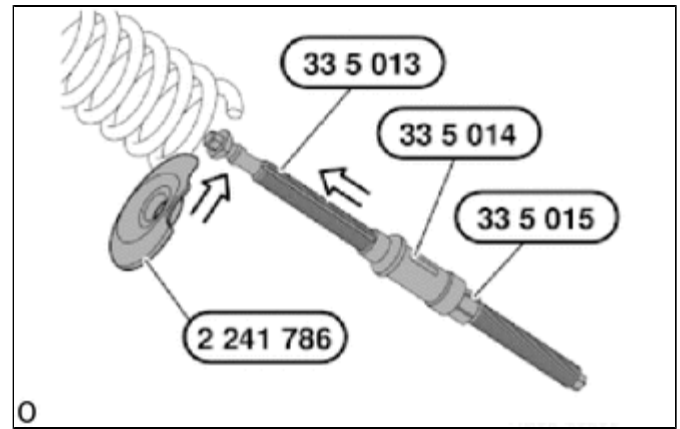


- (b) Release the rear skid control sensor wire (1) from the holder on rear shock absorber assembly.



- (c) Insert lower spring cup 2 241 786 centrally into rear coil spring and turn to lowest winding.

SST: 09700-WA180



- (d) Drive spindle 0 494 994 (33 5 013), 0 494 995 (33 5 014), 0 494 996 (33 5 015) from below through the rear No. 2 suspension arm assembly and the bottom spring cup 2 241 786.

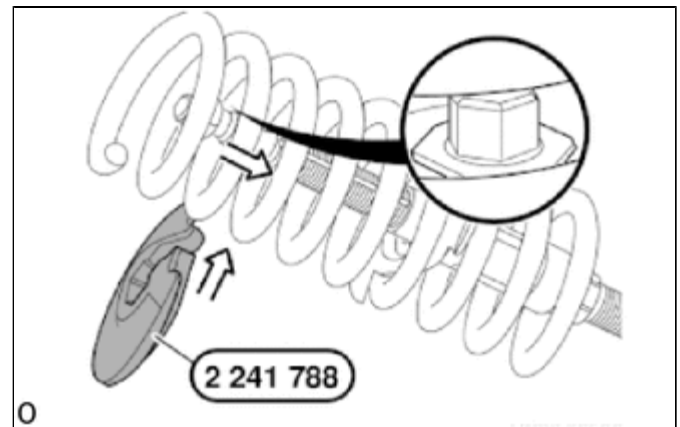
SST: 09700-WA160

- (e) Insert top spring cup 2 241 788 sideways into rear coil spring and turn to the uppermost winding.

SST: 09700-WA180

NOTICE:

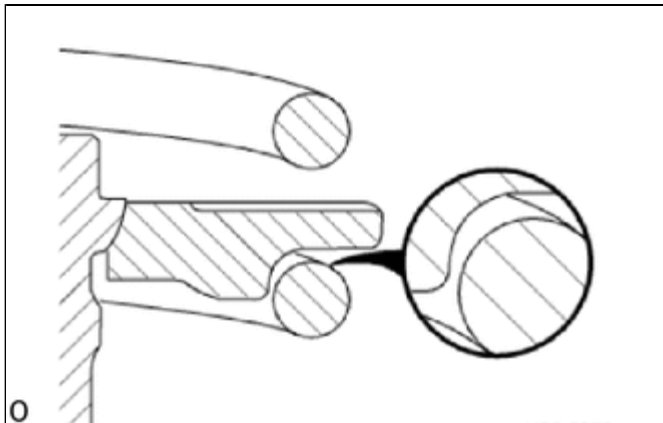
Make sure spindle (hexagonal) is correctly seated in upper spring cup 2 241 788.



- (f) Pull spindle 0 494 994 (33 5 013) down.

NOTICE:

Make sure rear coil spring is correctly positioned in spring cups.



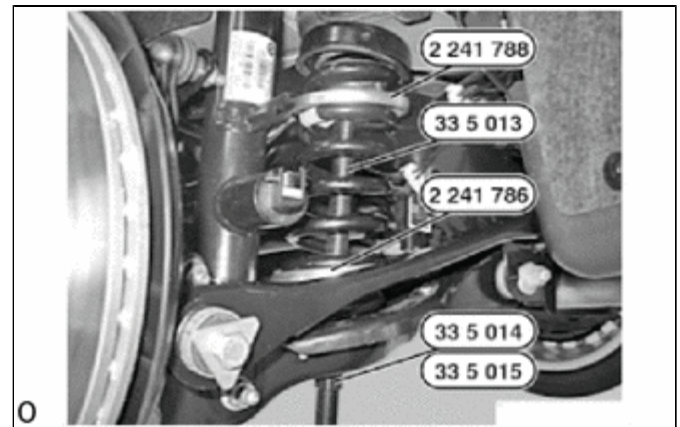
- (g) Check and correct the position of the special tools 2 241 786, 2 241 788 and 0 494 994 (33 5 013), 0 494 995 (33 5 014), 0 494 996 (33 5 015) and correct if required.

SST: 09700-WA160

SST: 09700-WA180

NOTICE:

The special tools must be aligned centrally, in order to obtain the largest possible contact surface on the rear coil spring.



- (h) Tensioning the rear coil spring using the special tools 0 494 997 (33 5 016) and 0 494 934 (33 5 020).

SST: 09700-WA160

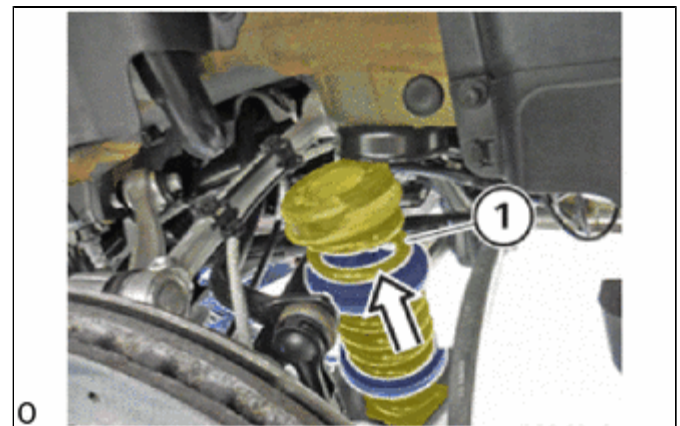
SST: 09700-WA180

HINT:

Counter support the spindle of the spring tensioner with the special tool 0 494 998 (33 5 017).



- (i) Remove rear coil spring (1) upwards.



- (j) Relieve tension on special tool 0 494 933 (33 5 010).

SST: 09700-WA160

- (k) Remove rear coil spring.

- (l) Remove the rear upper coil spring insulator from the rear coil spring.

- (m) Remove the rear lower coil spring insulator from the rear No. 2 suspension arm assembly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR COIL SPRING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

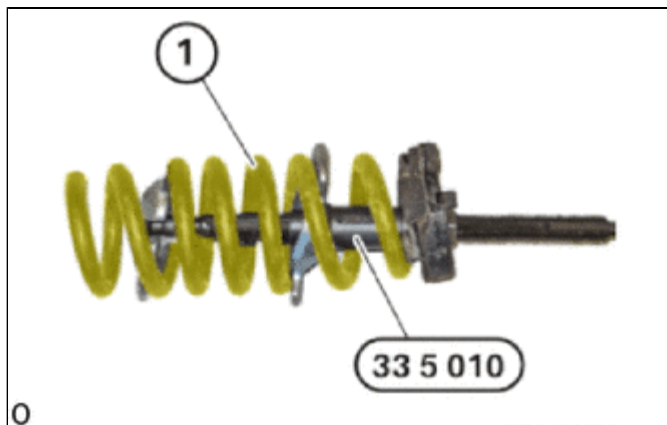
1. INSTALL REAR COIL SPRING

NOTICE:

- Do not operate special tool with an impact wrench.
- Incorrect assembly is possible.

Ensure correct installation position.

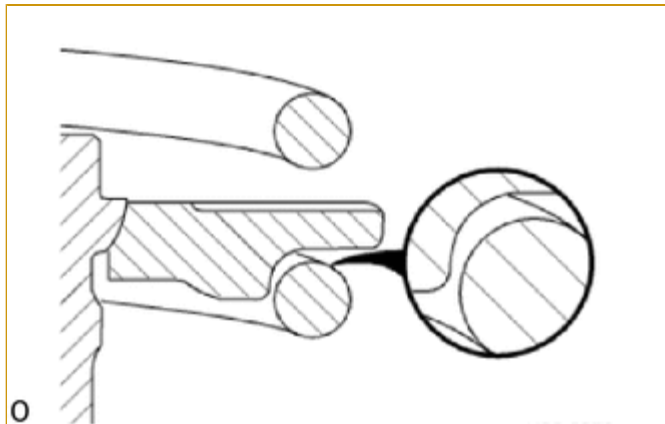
(a) Screw in rear coil spring (1) into the special tool 0 494 933 (33 5 010) and tighten.



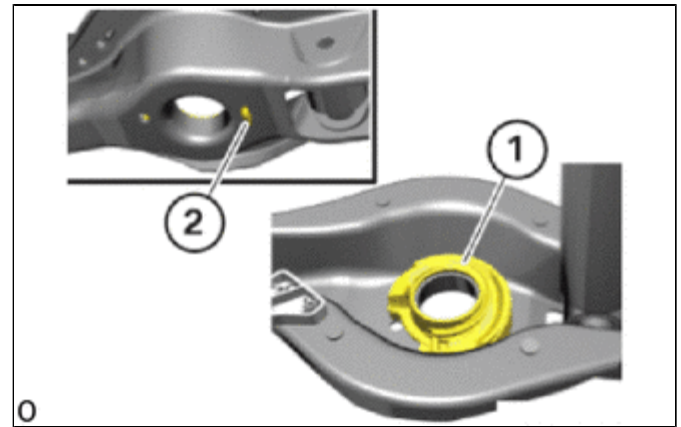
SST: 09700-WA160

NOTICE:

- Make sure rear coil spring (1) is in correct installation position.
- Make sure rear coil spring (1) is correctly positioned in spring cups.



(b) Check rear lower coil spring insulator (1) for damage, replace if necessary.

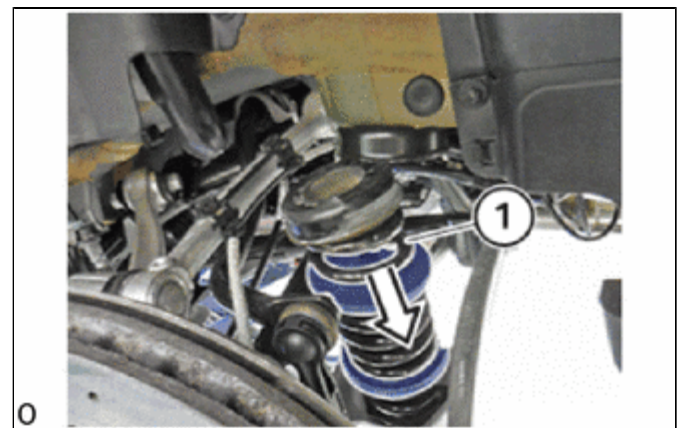


(c) Check rear lower coil spring insulator (1) for correct position on the rear No. 2 suspension arm assembly, correct the position if necessary.

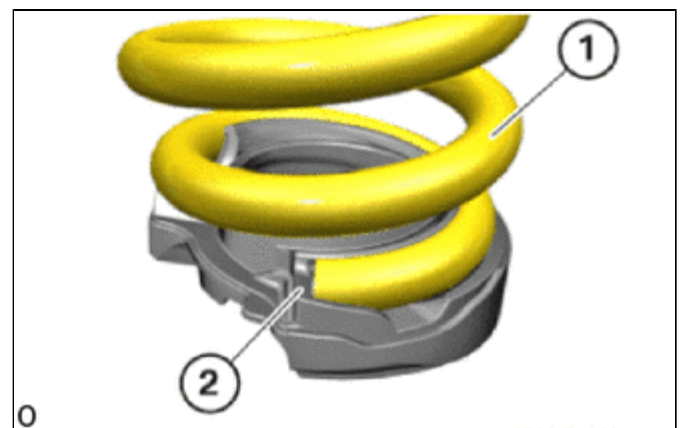
HINT:

The plastic tab (2) must be positioned in the bore hole.

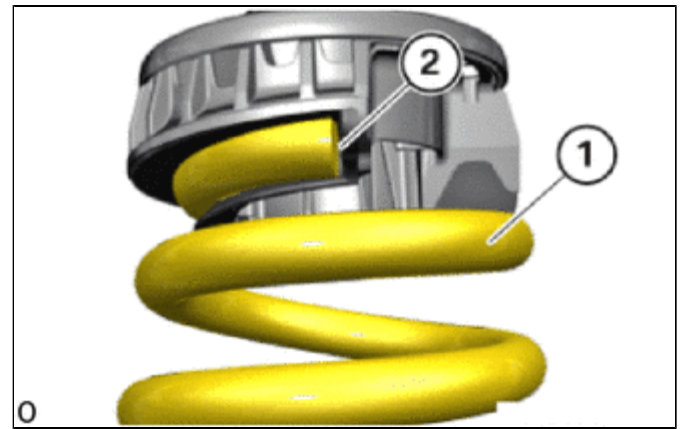
(d) Install rear coil spring (1) from the top and position it.



(e) Move the rear coil spring (1) of the rear lower coil spring insulator (2) so that they are positively locked to the system.



- (f) Position the rear upper coil spring insulator such that the end of the rear coil spring (1) moves to the system at the base (2).



- (g) Release the tension on the rear coil spring using the special tools 0 494 997 (33 5 016) and 0 494 934 (33 5 020).

SST: 09700-WA160

SST: 09700-WA180

NOTICE:

Note the installation position of the rear coil spring while releasing the tension.

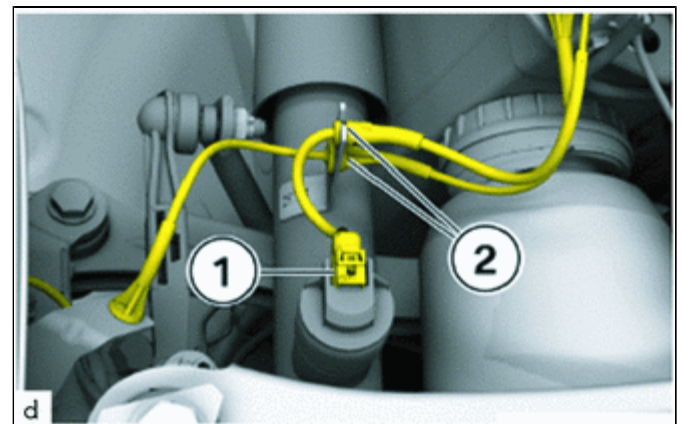
HINT:

Counter-hold the spindle of the spring tensioner using special tool 0 494 998 (33 5 017).



- (h) Remove special tools.
- (i) Fasten the rear skid control sensor wire on the holder on the rear shock absorber assembly.
- (j) w/ AVS:

- (1) Connect connectors (1) and lock.



- (2) Attach the lines (2) to the holder.

2. INSTALL REAR SUSPENSION ARM COVER

Click here [INFO](#)

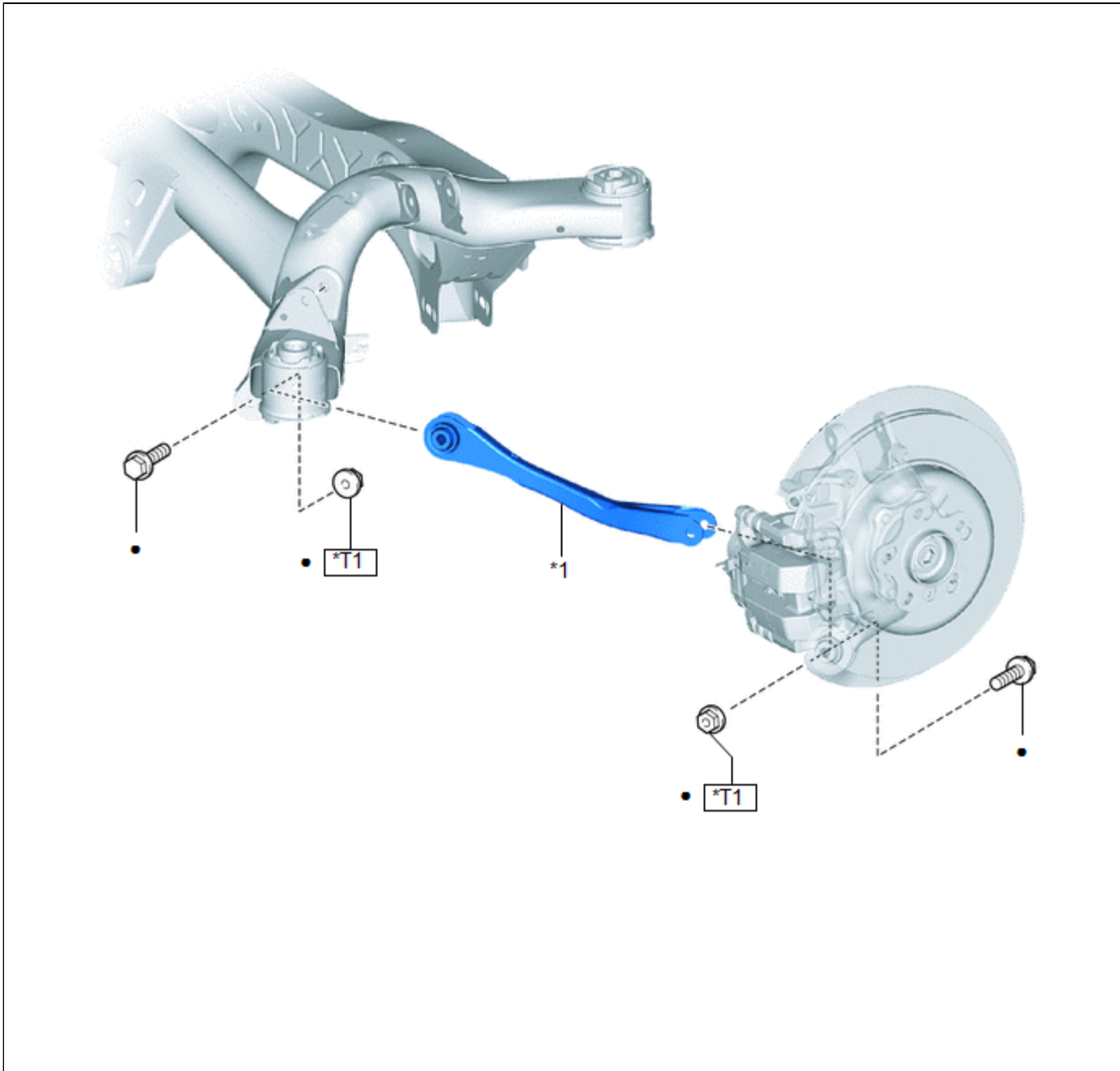
3. INSTALL REAR WHEEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR LOWER ARM (for No. 1 Arm): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR NO. 1 SUSPENSION ARM ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR LOWER ARM (for No. 1 Arm): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

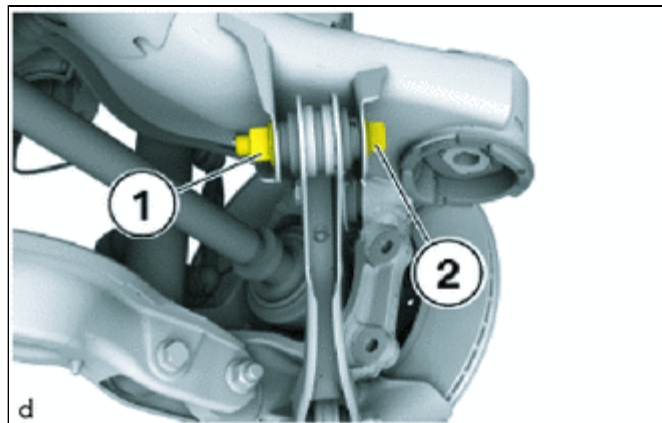
PROCEDURE

1. REMOVE FUEL TANK

Click here [INFO](#)

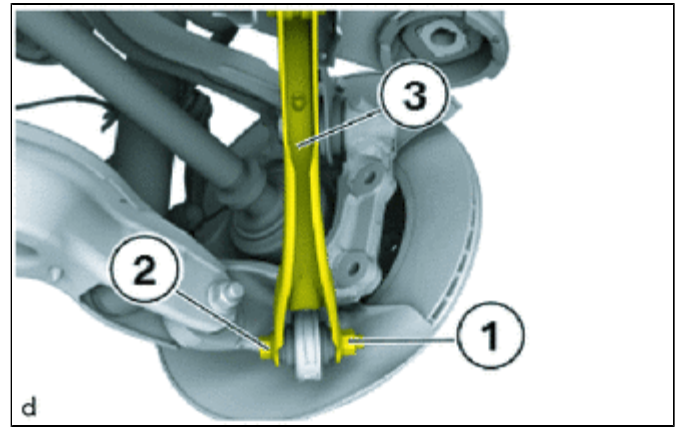
2. REMOVE REAR NO. 1 SUSPENSION ARM ASSEMBLY

(a) Unfasten 18 mm nut (1).



(b) Remove the 16 mm bolt (2).

(c) Unfasten 18 mm nut (1).



(d) Remove the 16 mm bolt (2) and rear No. 1 suspension arm assembly (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR LOWER ARM (for No. 1 Arm): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

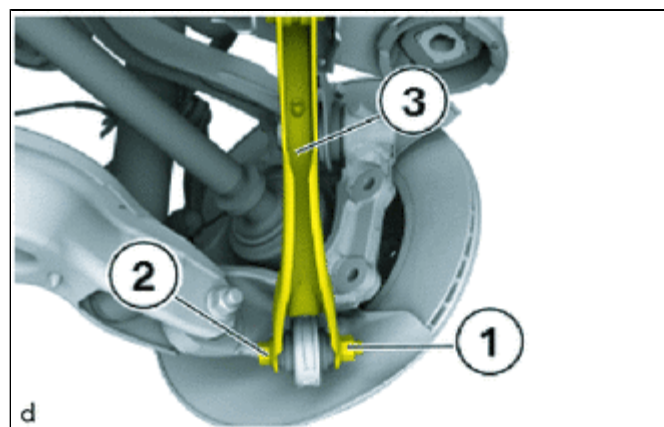
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.
- Tighten the bolt connection in the normal position.

PROCEDURE

1. INSTALL REAR NO. 1 SUSPENSION ARM ASSEMBLY

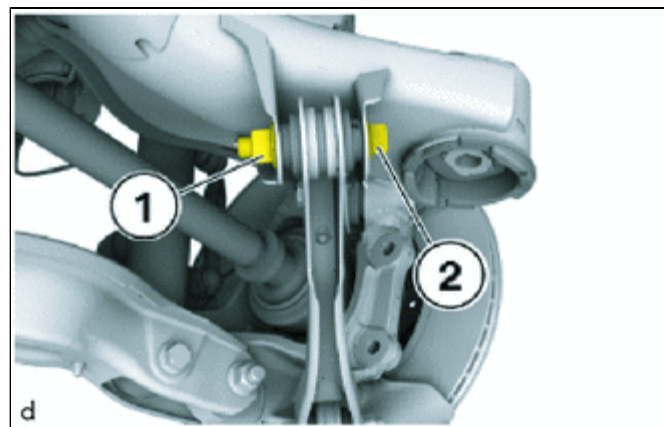
(a) Position the rear No. 1 suspension arm assembly (3).



(b) Replace the 16 mm bolt (2) and 18 mm nut (1).

(c) Screw on 18 mm nut (1) and tighten hand-tight.

(d) Replace the 16 mm bolt (2) and 18 mm nut (1).

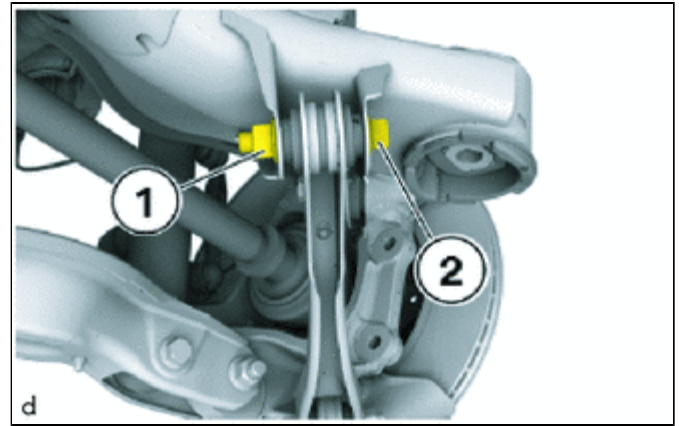


(e) Screw on 18 mm nut (1) and tighten hand-tight.

(f) Tighten the 18 mm nut (1) and use the 16 mm bolt (2) for counter support.

Torque:

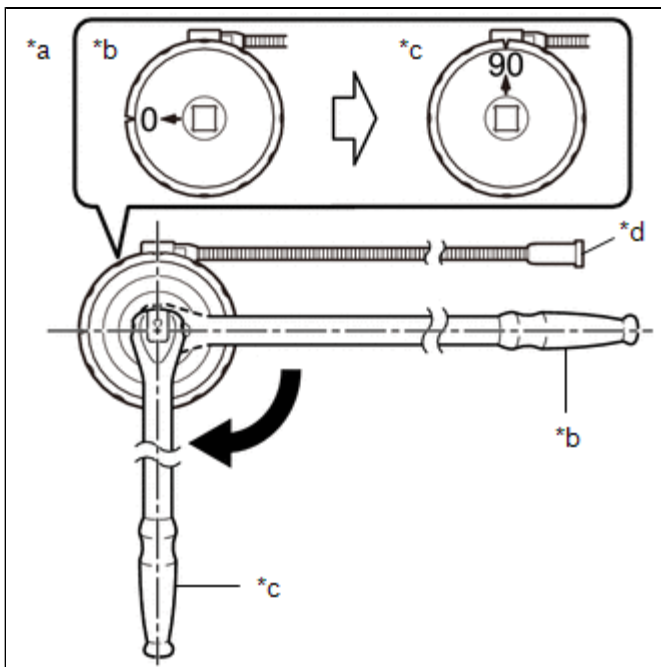
100 N·m {1020 kgf·cm, 74 ft·lbf}



(g) Using SST, tighten the 18 mm nut (1) an additional 90° and use the 16 mm bolt (2) for counter support.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

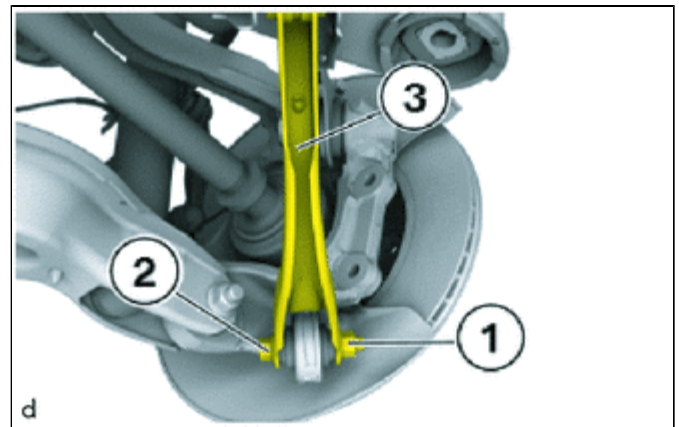
- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(h) Tighten the 18 mm nut (1) and use the 16 mm bolt (2) for

counter support.

Torque:

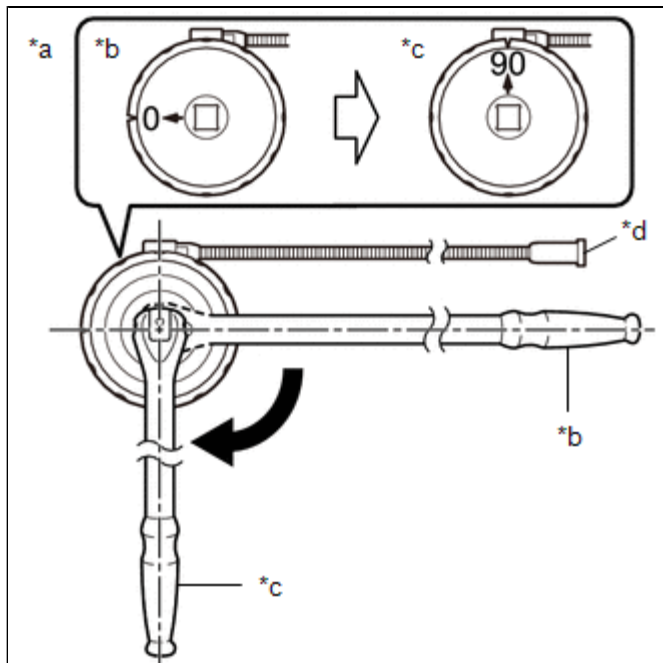
100 N·m {1020 kgf·cm, 74 ft·lbf}



(i) Using SST, tighten the 18 mm nut (1) an additional 90° and use the 16 mm bolt (2) for counter support.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

2. INSTALL FUEL TANK

Click here [INFO](#)

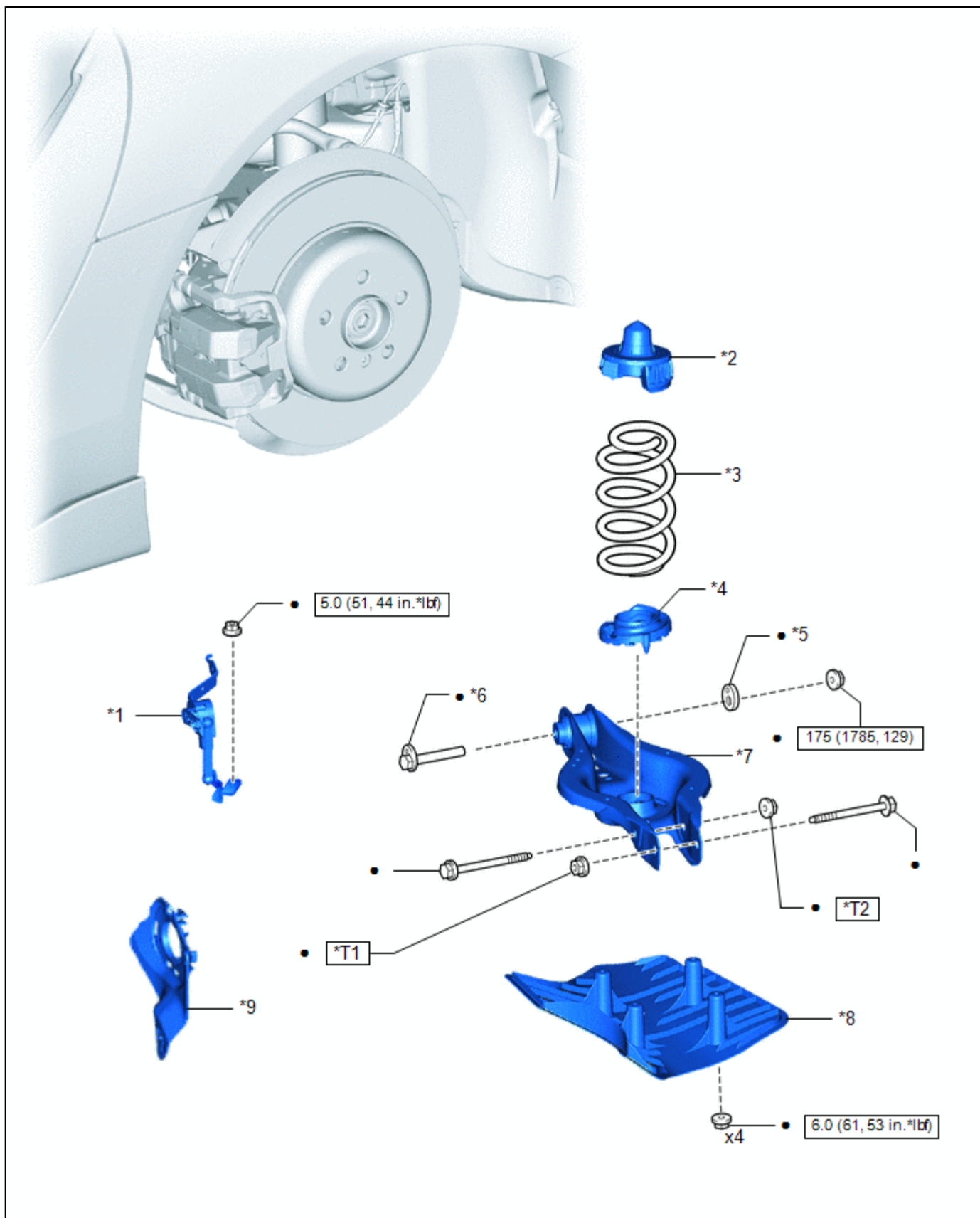
3. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR LOWER ARM (for No. 2 Arm): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY	*2	REAR UPPER COIL SPRING INSULATOR
*3	REAR COIL SPRING	*4	REAR LOWER COIL SPRING INSULATOR
*5	CAMBER ADJUST WASHER	*6	CAMBER ADJUST BOLT

*7	REAR NO. 2 SUSPENSION ARM ASSEMBLY	*8	REAR SUSPENSION ARM COVER
*9	STONEGUARD	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 165 (1683, 122) 2nd: Turn 90°	*T2	1st: 100 (1020, 74) 2nd: Turn 90°

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR LOWER ARM (for No. 2 Arm): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE REAR WHEEL

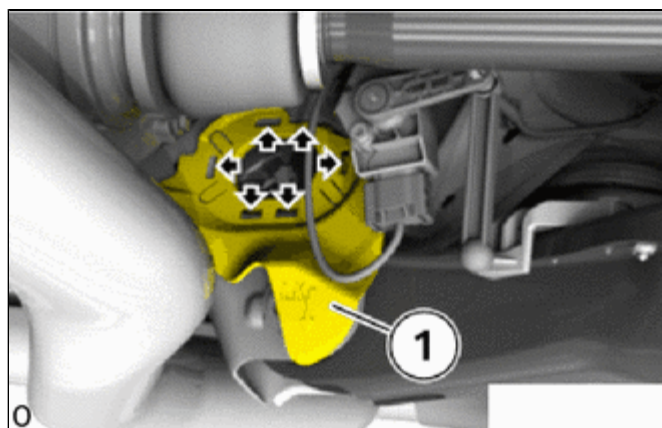
Click here [INFO](#)

2. REMOVE REAR SUSPENSION ARM COVER

Click here [INFO](#)

3. REMOVE STONEGUARD

- (a) Loosen the stoneguard (1) at the latch mechanisms (arrows) and remove.



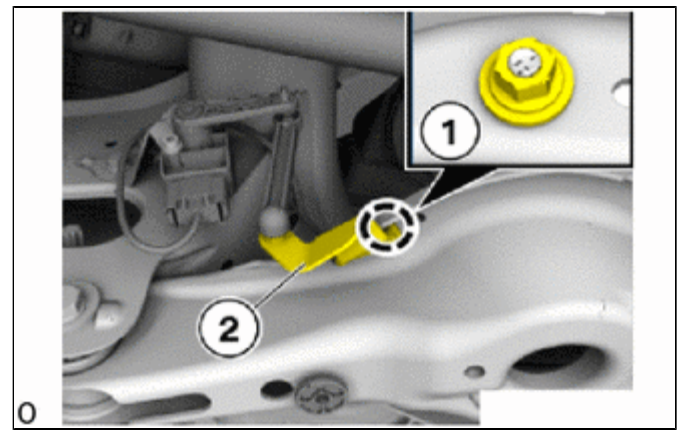
4. REMOVE REAR COIL SPRING

Click here [INFO](#)

5. REMOVE REAR NO. 2 SUSPENSION ARM ASSEMBLY

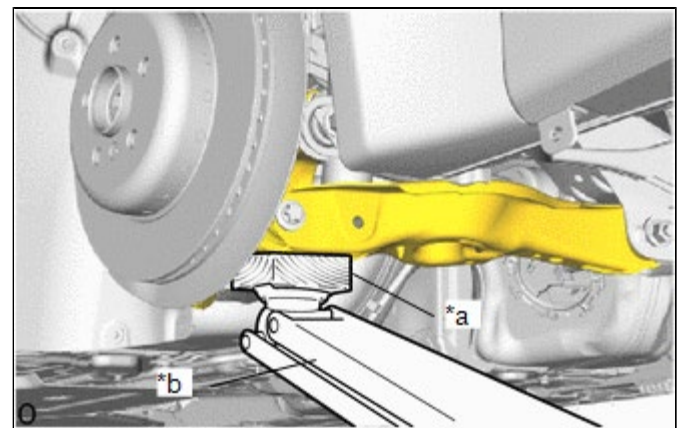
- (a) for LH Side:

(1) Unfasten nut (1).



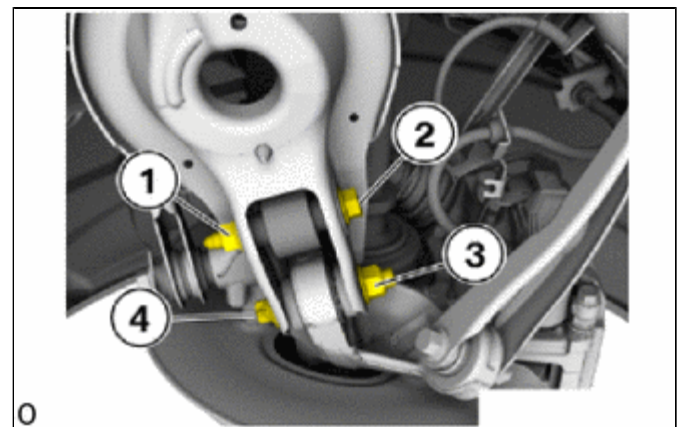
(2) Remove bracket (2) with the jointed rod.

(b) Support the rear axle carrier sub-assembly with the jack and wooden block.



*a	Wooden Block
*b	Jack

(c) Using an 18 mm deep socket wrench, unfasten nut (1).



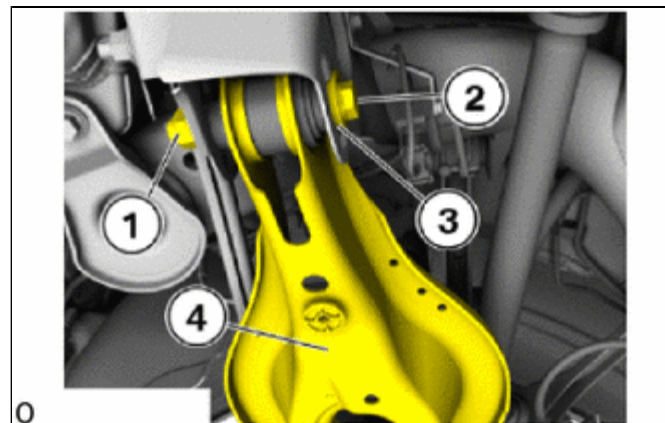
(d) Lift the rear axle carrier sub-assembly with the jack and wooden block to the point where the 18 mm bolt can be removed.

(e) Pull out 18 mm bolt (2).

(f) Loosen nut (3).

(g) Pull out E20 bolt (4).

(h) Unfasten nut (1).



(i) Pull out the 18 mm camber adjust bolt (2).

(j) Remove the camber adjust washer (3) and rear No. 2 suspension arm assembly (4).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR LOWER ARM (for No. 2 Arm): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

- HINT:**
- Use the same procedure for the RH side and LH side.
 - The following procedure is for the LH side.

PROCEDURE

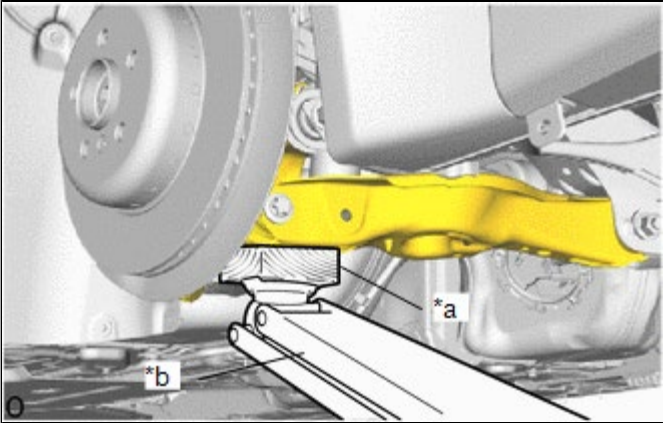
1. INSTALL REAR NO. 2 SUSPENSION ARM ASSEMBLY

- (a) Replace nut, camber adjust washer and 18 mm camber adjust bolt.
- (b) Position the rear No. 2 suspension arm assembly to the rear suspension member sub-assembly.
- (c) Position camber adjust washer.
- (d) Tighten nut.

Torque:
175 N·m {1785 kgf·cm, 129 ft·lbf}

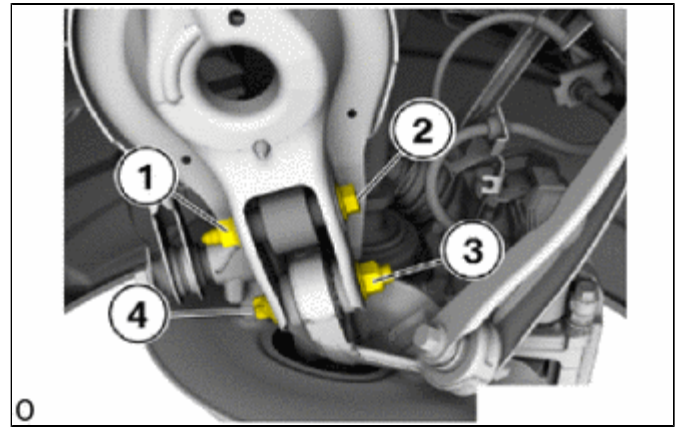
- HINT:**
Tighten the bolt connection in the normal position.

- (e) Support the rear axle carrier sub-assembly with the jack and wooden block.



*a	Wooden Block
*b	Jack

- (f) Replace the 18 mm nut (1) and 18 mm bolt (2).



(g) Lift the rear axle carrier sub-assembly with the jack and wooden block to the point where the 18 mm bolt (2) can be inserted.

(h) Replace the nut (3) and E20 bolt (4).

(i) Tighten the nut (3) and E20 bolt (4).

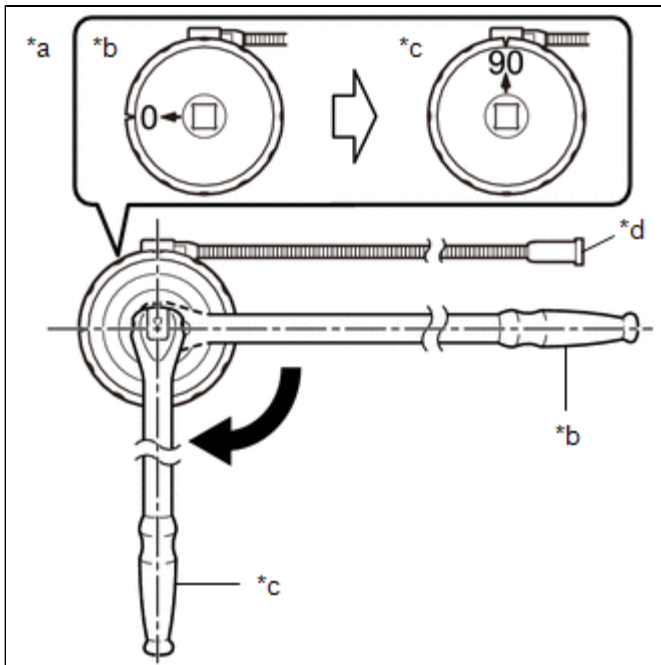
Torque:

165 N·m {1683 kgf·cm, 122 ft·lbf}

(j) Using SST, tighten the nut (3) an additional 90°.

SST: 09900-WA010

HINT:



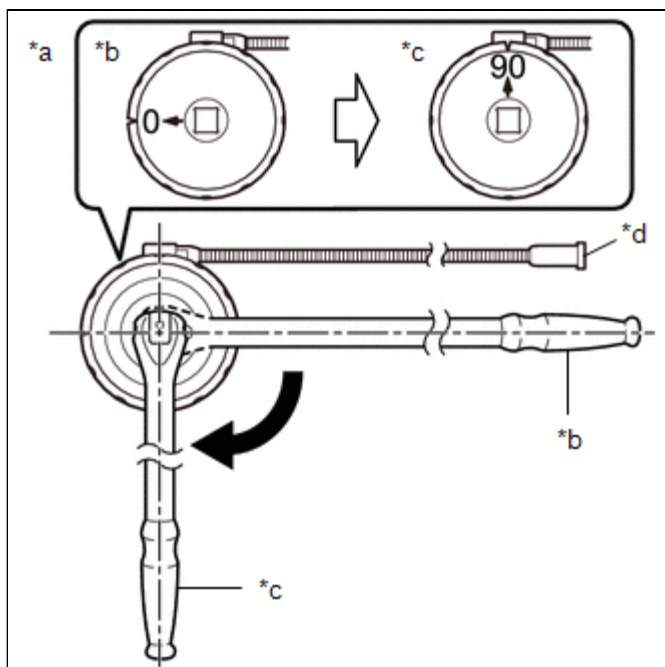
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(k) Using an 18 mm deep socket wrench, tighten the 18 mm nut (1) and 18 mm bolt (2).

Torque:**100 N·m {1020 kgf·cm, 74 ft·lbf}**

(l) Using SST, tighten the nut (1) an additional 90°.

SST: 09900-WA010**HINT:**

*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(m) for LH Side:

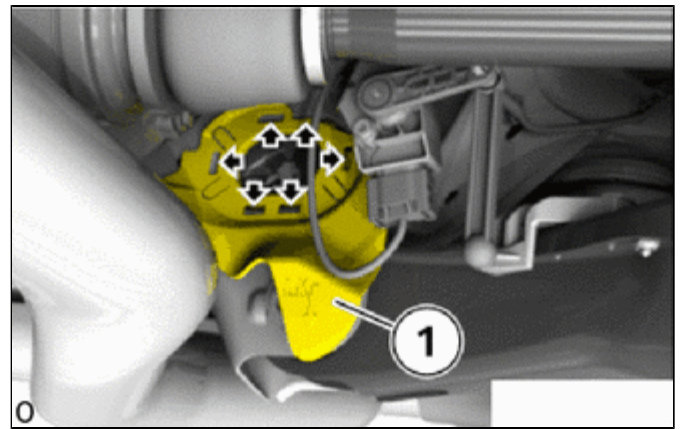
- (1) Replace nut.
- (2) Position bracket with the jointed rod.
- (3) Tighten nut.

Torque:**5.0 N·m {51 kgf·cm, 44 in·lbf}****2. INSTALL REAR COIL SPRING**Click here [INFO](#)**3. INSTALL STONEGUARD**

- (a) Install the stoneguard (1) and clip into the latch mechanisms (arrows).

HINT:

- Observe the marking of the installation location on the stoneguard (1).
- The arrow on the stoneguard (1) is pointing downwards.



4. INSTALL REAR SUSPENSION ARM COVER

Click here [INFO](#)

5. INSTALL REAR WHEEL

Click here [INFO](#)

6. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

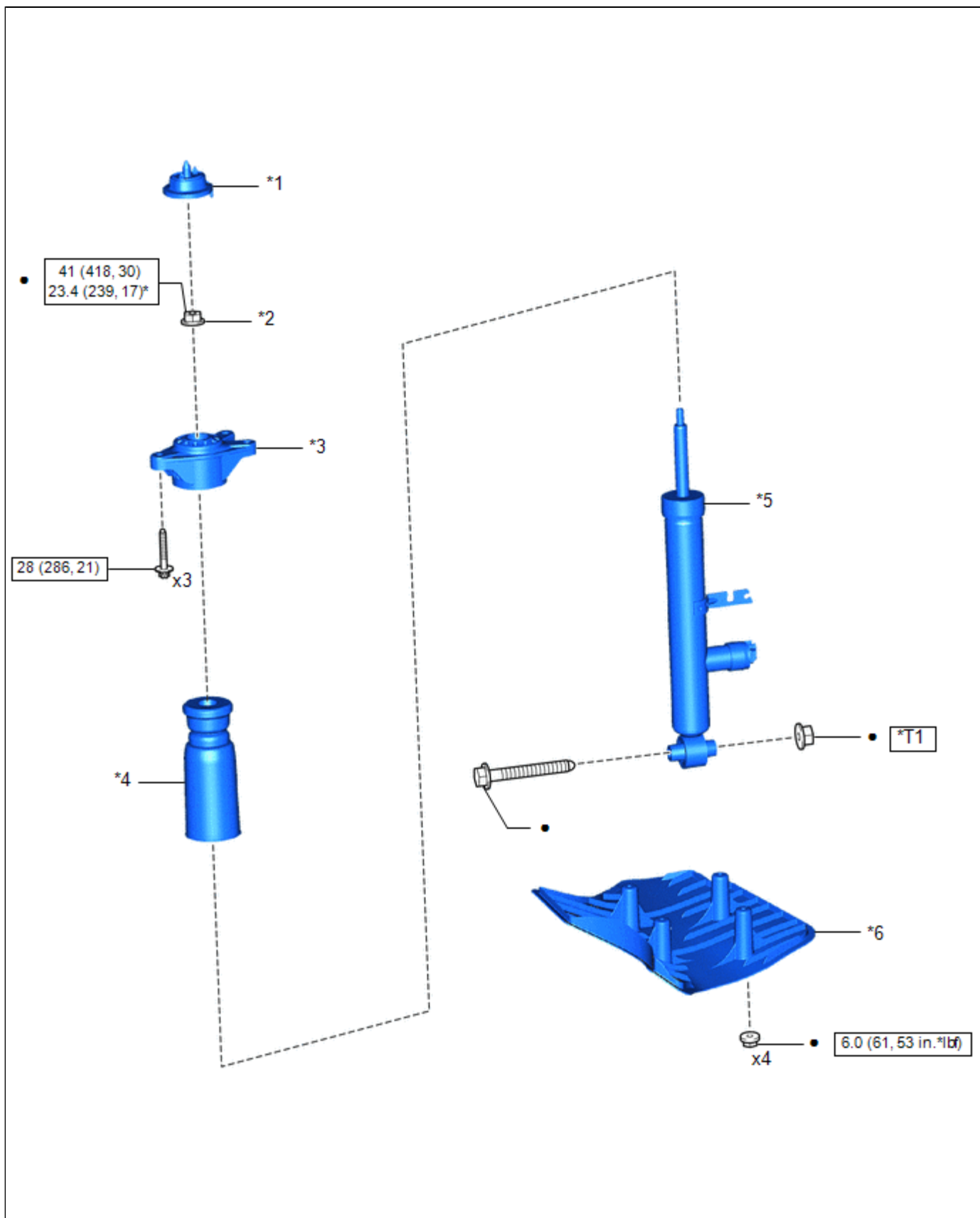
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SHOCK ABSORBER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR NO. 1 SHOCK ABSORBER CUSHION	*2	REAR SUPPORT TO REAR SHOCK ABSORBER NUT
*3	REAR SUSPENSION SUPPORT ASSEMBLY	*4	REAR NO. 1 SPRING BUMPER
*5	REAR SHOCK ABSORBER ASSEMBLY	*6	REAR SUSPENSION ARM COVER

	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST
•	Non-reusable part	-	-
*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SHOCK ABSORBER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

2. REMOVE REAR SUSPENSION ARM COVER

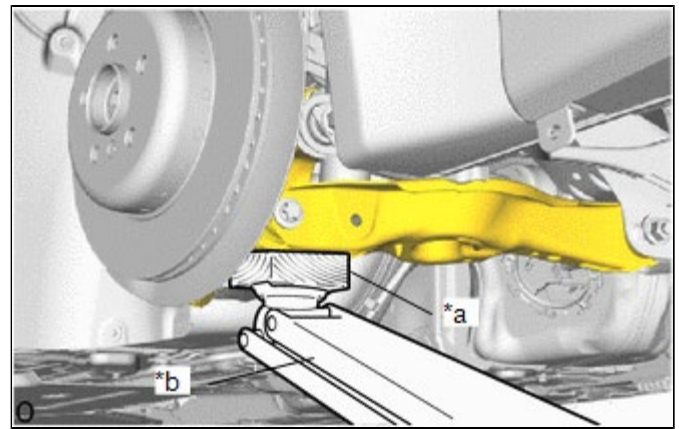
(a) Loosen nuts (1).



(b) Remove the rear suspension arm cover (2).

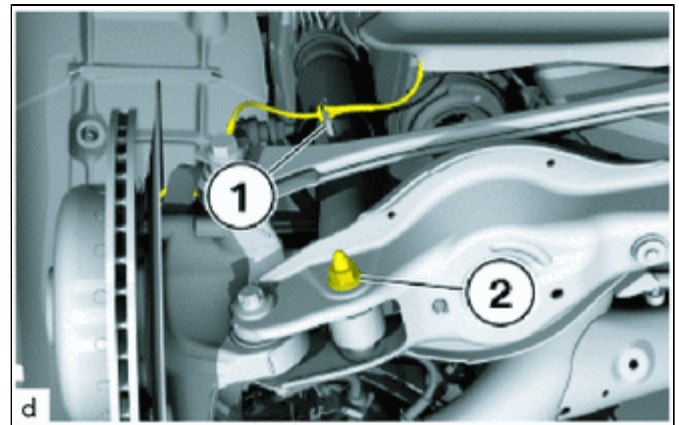
3. REMOVE REAR SHOCK ABSORBER ASSEMBLY

- (a) Support the rear axle carrier sub-assembly with the jack and wooden block.



*a	Wooden Block
*b	Jack

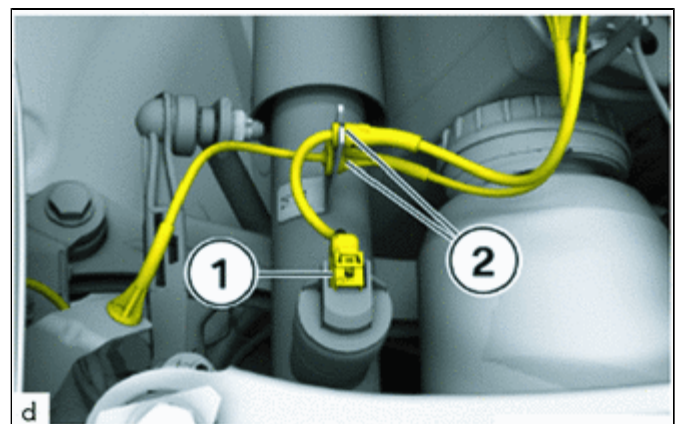
- (b) Unclip the cable from the holder (1).



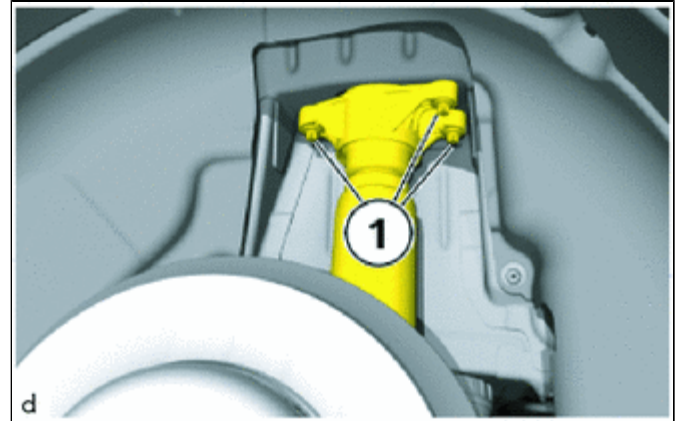
- (c) Using an 18 mm deep socket wrench, loosen nut (2).
- (d) Lift the rear axle carrier sub-assembly with the jack and wooden block to the point where the 18 mm bolt can be removed.
- (e) Pull out 18 mm bolt.
- (f) Slowly lower jack until rear axle carrier sub-assembly is freely suspended.
- (g) Remove the jack and wooden block from under the vehicle.

- (h) w/ AVS:

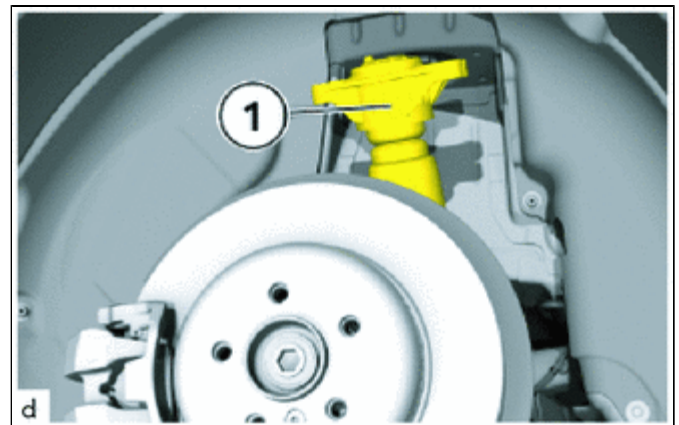
- (1) Unlock plug connection (1) and disconnect.
- (2) Detach lines (2) from the holder.



(i) Loosen E14 bolts (1).

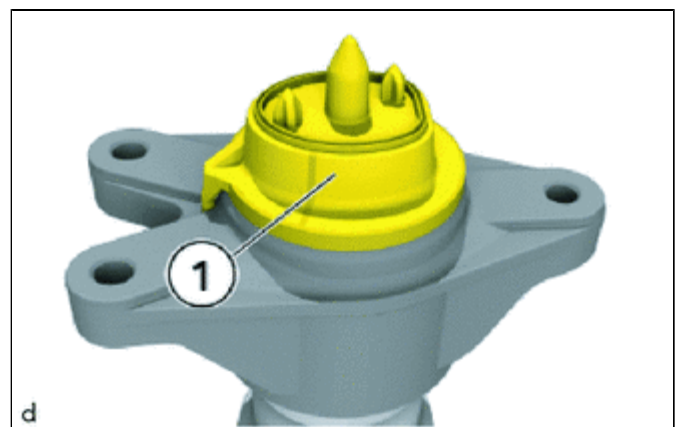


(j) Press the rear shock absorber assembly (1) together and guide upwards from the wheel arch.



4. REMOVE REAR SUSPENSION SUPPORT ASSEMBLY

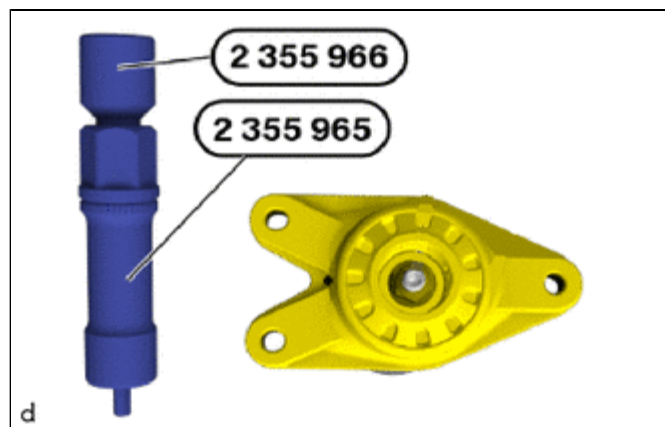
(a) Remove the rear No. 1 shock absorber cushion.



(b) Set the special tools 2 355 965 and 2 355 966 .

SST: 09700-WA010

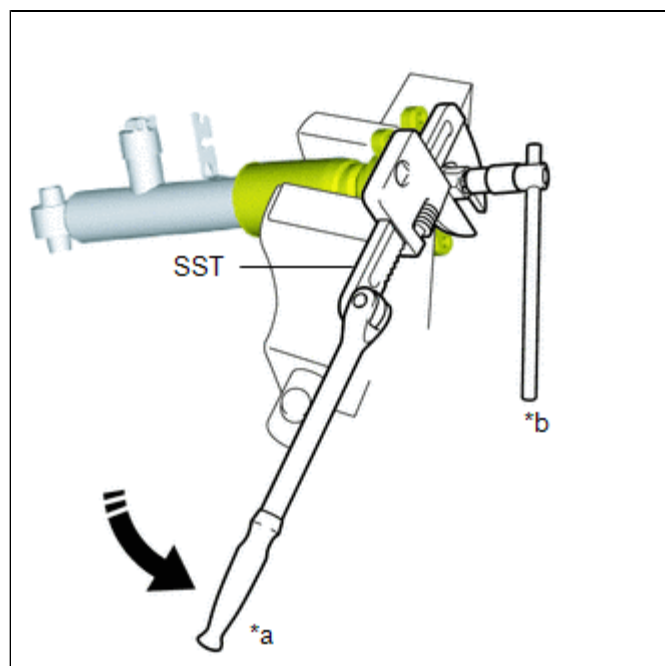
SST: 09700-WA020



(c) Secure the rear shock absorber assembly in a vise using aluminum plates.

NOTICE:

Do not overtighten the vise.



*a	Turn
*b	Hold

(d) Using SST, hold the rear shock absorber rod and remove the rear support to rear shock absorber nut.

SST: 09700-WA010

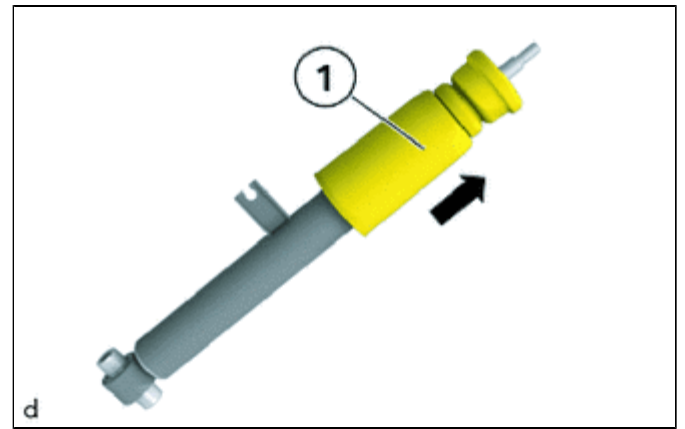
SST: 09700-WA020

SST: 09922-10010

(e) Remove rear suspension support assembly.

5. REMOVE REAR NO. 1 SPRING BUMPER

(a) Remove rear No. 1 spring bumper (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SHOCK ABSORBER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL REAR NO. 1 SPRING BUMPER

- (a) Mount rear No. 1 spring bumper.

2. INSTALL REAR SUSPENSION SUPPORT ASSEMBLY

- (a) Secure the rear suspension support assembly in a vise using aluminum plates.

NOTICE:

Do not overtighten the vise.

- (b) Install the rear suspension support assembly to the rear shock absorber assembly.
- (c) Replace the rear support to rear shock absorber nut.

- (d) Using SST, hold the rear shock absorber rod and tighten the rear support to rear shock absorber nut.

SST: 09700-WA010

SST: 09700-WA020

SST: 09922-10010

Torque:

Specified tightening torque :

41 N·m {418 kgf·cm, 30 ft·lbf}

NOTICE:

Securely insert SST into the rear shock absorber rod to prevent damage to the rear shock absorber assembly when tightening the rear support to rear shock absorber nut.

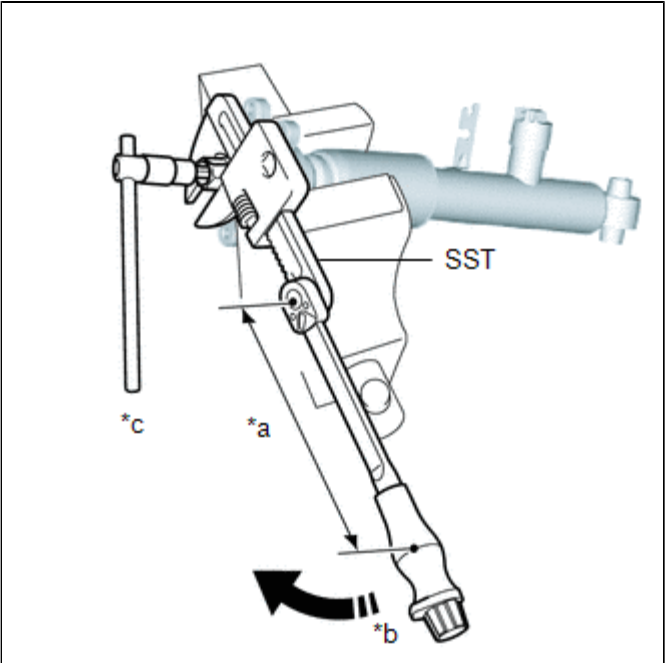
HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)

- When using SST (fulcrum length of 136 mm (5.35 in.)) + torque wrench (fulcrum length of 180 mm (7.09 in.)):

23.4 N*m (239 kgf*cm, 17 ft.*lbf)



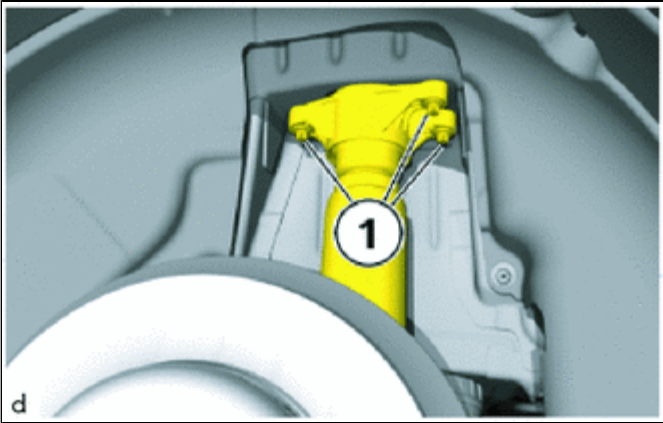
*a	Torque Wrench Fulcrum Length
*b	Turn
*c	Hold

3. INSTALL REAR SHOCK ABSORBER ASSEMBLY

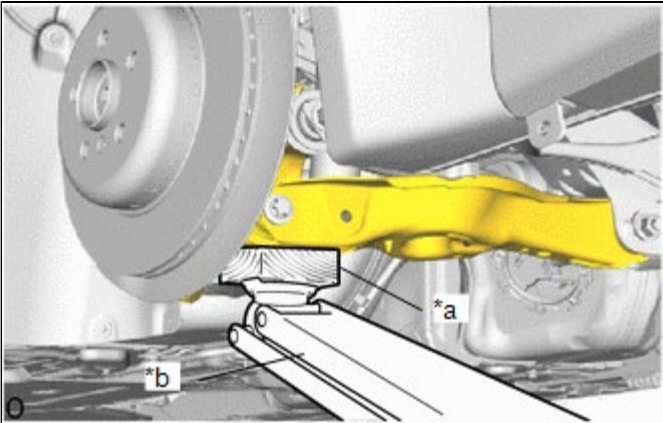
- (a) Install the rear No. 1 shock absorber cushion.
- (b) Press the rear shock absorber assembly together and guide downwards into the wheel arch.

- (c) Tighten the E14 bolts (1).

Torque:
28 N·m {286 kgf·cm, 21 ft·lbf}



- (d) Clip in cable into the holder.



- (e) Support the rear axle carrier sub-assembly with the jack and wooden block.

*a	Wooden Block
*b	Jack

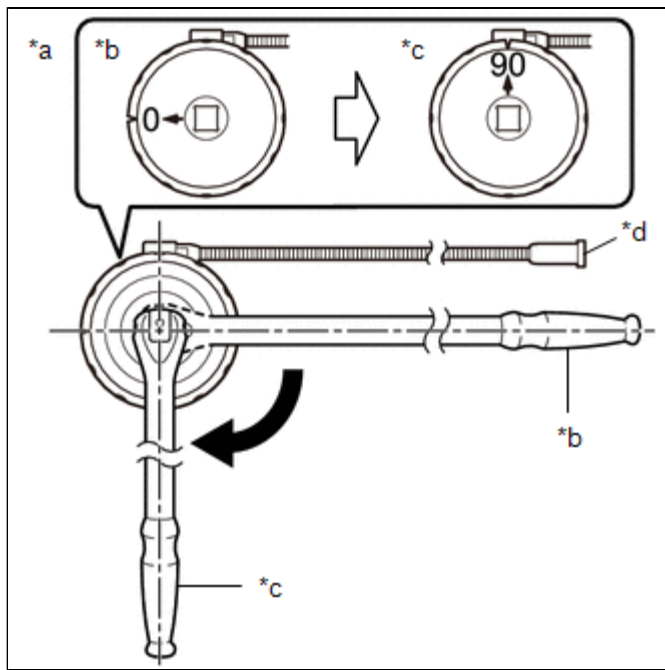
- (f) Lift the rear axle carrier sub-assembly with the jack and wooden block to the point where the 18 mm bolt can be inserted.
- (g) Replace 18 mm bolt and 18 mm nut.
- (h) Using an 18 mm deep socket wrench, tighten nut.

Torque:
100 N·m {1020 kgf·cm, 74 ft·lbf}

- (i) Using SST and 18 mm deep socket wrench, tighten the nut an additional 90°.

SST: 09900-WA010

HINT:



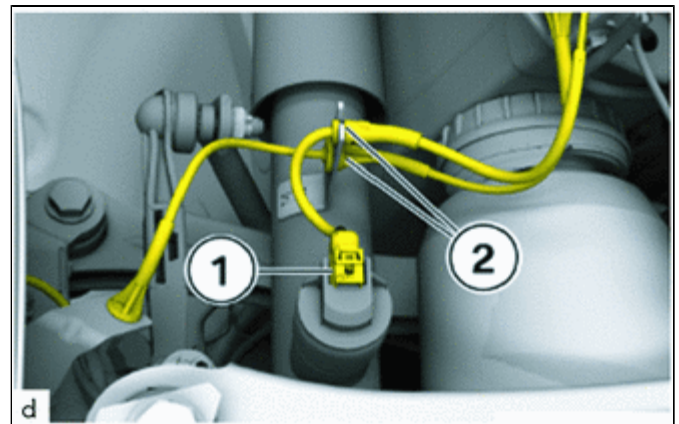
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(j) Remove the jack and wooden block from under the vehicle.

(k) w/ AVS:

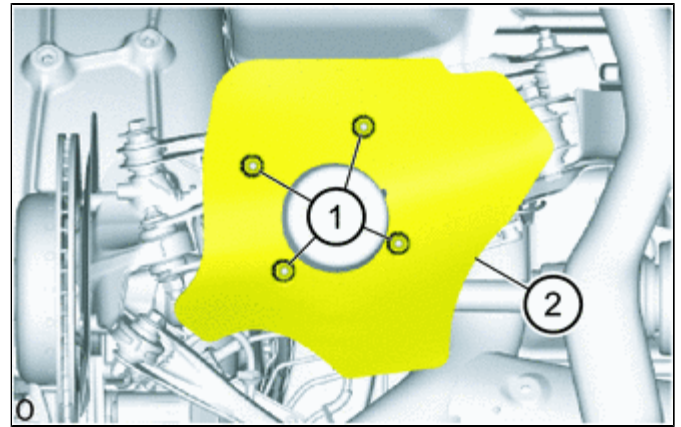
(1) Connect connectors (1) and lock.



(2) Attach the lines (2) to the holder.

4. INSTALL REAR SUSPENSION ARM COVER

(a) Install the rear suspension arm cover (2).



(b) Replace the nuts (1).

(c) Tighten down nuts (1).

Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}

5. INSTALL REAR WHEEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SHOCK ABSORBER: DISPOSAL; 2020 MY Supra [03/2019 -]		

DISPOSAL

CAUTION / NOTICE / HINT

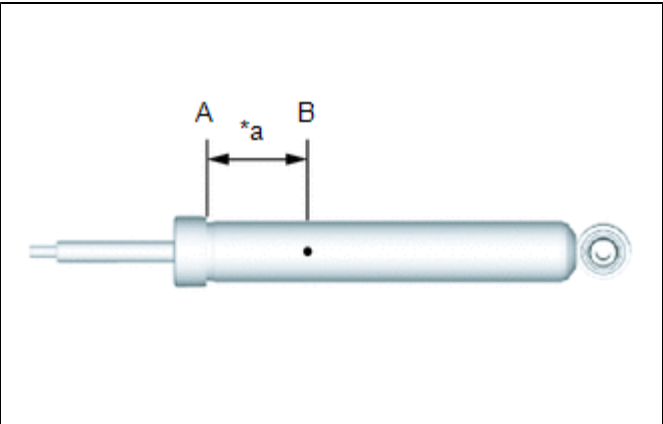
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. DISPOSE OF REAR SHOCK ABSORBER ASSEMBLY

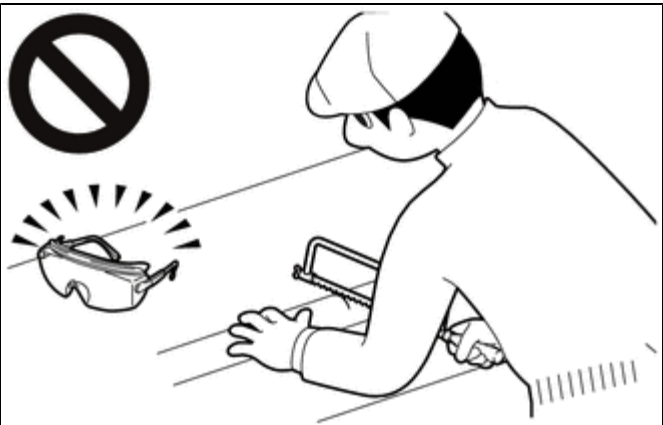
- Fully extend the rear shock absorber assembly.
- Secure the rear shock absorber assembly horizontally in a vise with the piston rod pulled out.
- Wearing protective glasses, extend the piston rod and cover it with a cloth. At position B, located 50.0 mm (1.97 in.) from position A shown in the illustration, use a metal saw to cut a hole and release the gas.



*a	50.0 mm (1.97 in.)
----	--------------------

CAUTION:


Always use proper safety equipment and be careful when drilling because shards of metal way fly about.



HINT:

The gas is colorless, odorless and non-poisonous.



	Assembly Aid	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR STABILIZER BAR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

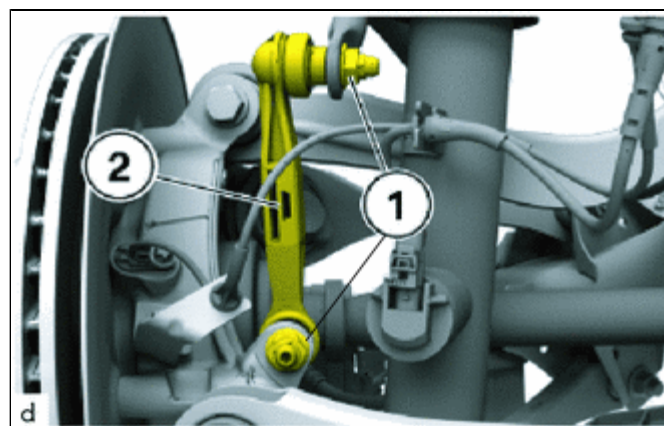
PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

2. REMOVE REAR STABILIZER LINK ASSEMBLY LH

- (a) Unscrew the 16 mm nuts (1) and use the T30 "TORX" socket wrench for counter support as needed.



- (b) Remove the rear stabilizer link assembly LH (2).

3. REMOVE REAR STABILIZER LINK ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE REAR SUSPENSION MEMBER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE REAR STABILIZER BAR

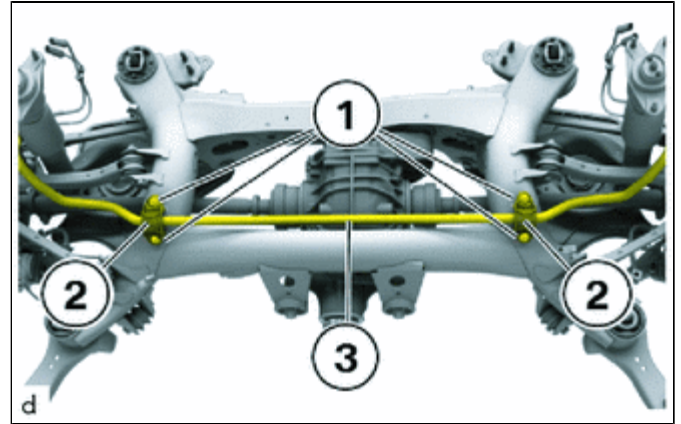
CAUTION:

- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

NOTICE:

Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.

(a) Loosen E12 bolts (1).



(b) Detach both rear No. 1 stabilizer bar brackets (2).

(c) Remove the rear stabilizer bar (3).

NOTICE:

Keep the rear stabilizer bar clean and free of oil and grease.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR STABILIZER BAR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL REAR STABILIZER BAR

CAUTION:

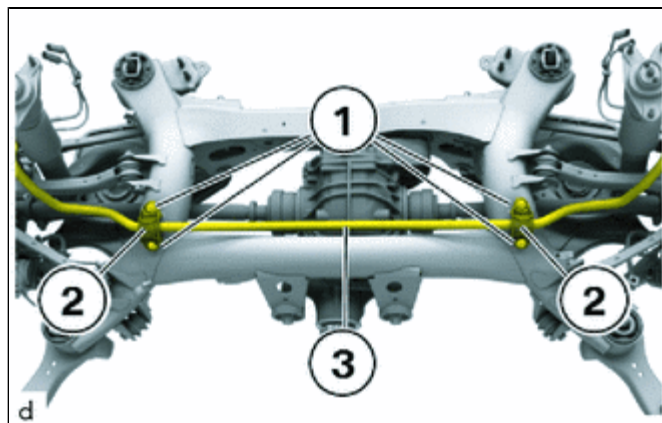
- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

NOTICE:

Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.

(a) Coat the outer sides of the rubber mounts with assembly aid.

(b) Install the rear stabilizer bar (3).



(c) Position both rear No. 1 stabilizer bar brackets (2).

(d) Replace E12 bolts (1).

(e) Tighten the E12 bolts (1).

Torque:

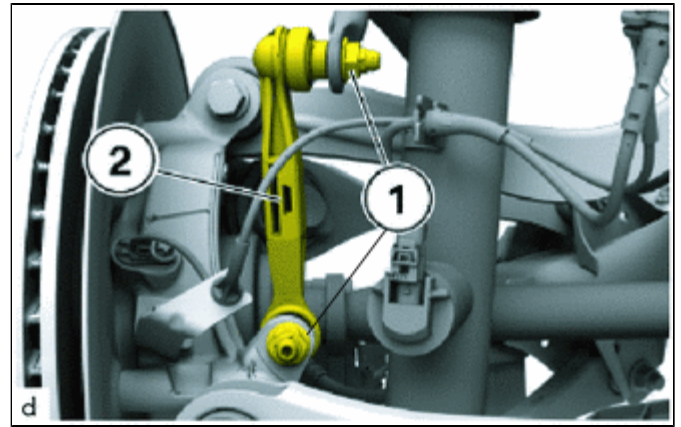
21.4 N·m {218 kgf·cm, 16 ft·lbf}

2. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL REAR STABILIZER LINK ASSEMBLY LH

(a) Position rear stabilizer link assembly LH (2).



(b) Replace 16 mm nuts (1).

(c) Tighten the 16 mm nuts (1), if necessary, counter support the T30 "TORX" socket wrench.

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

4. INSTALL REAR STABILIZER LINK ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

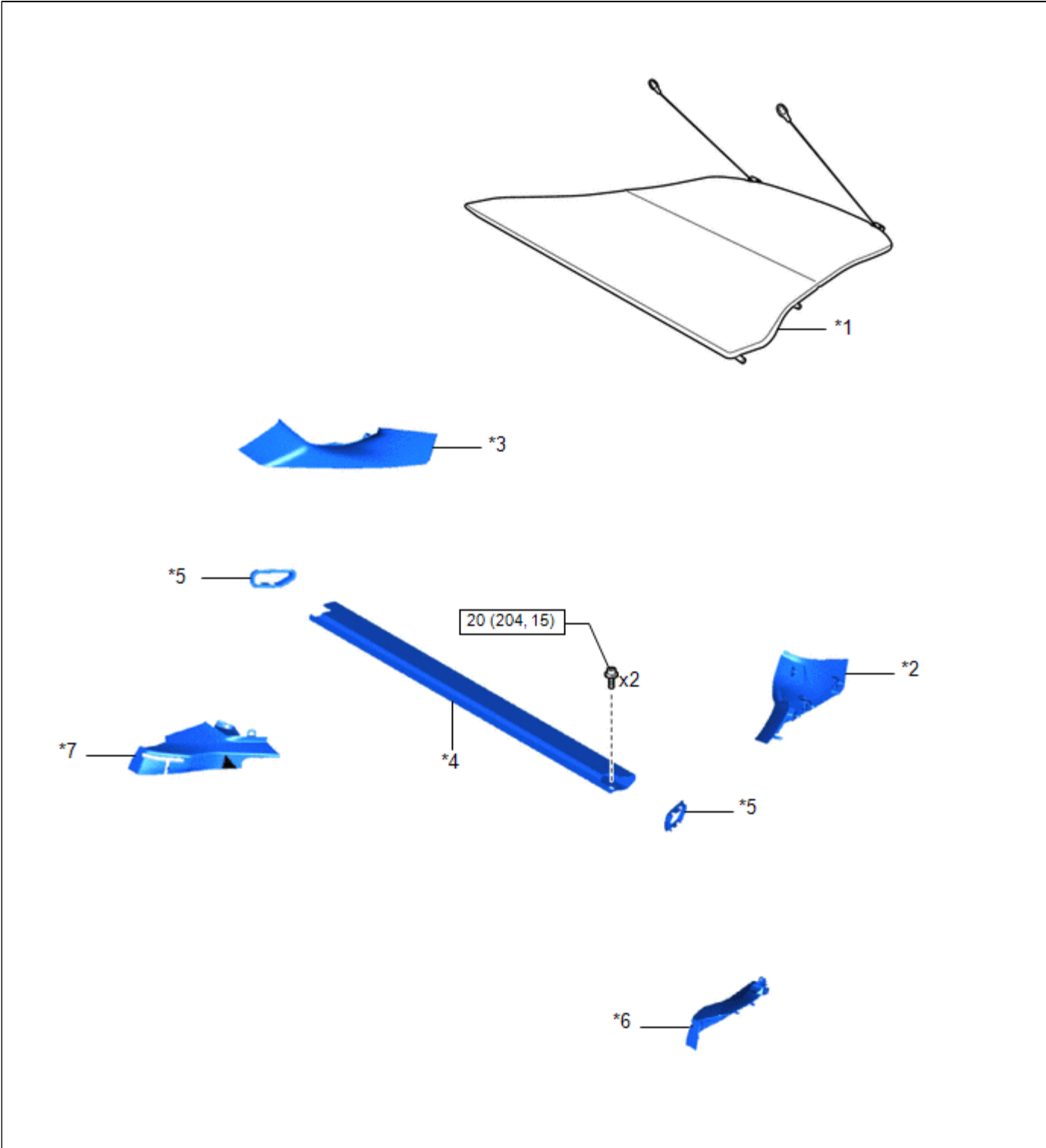
5. INSTALL REAR WHEEL

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR STRUT BAR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	PACKAGE TRAY TRIM PANEL	*2	ROOF SIDE INNER GARNISH ASSY LH
----	-------------------------	----	---------------------------------

	ASSEMBLY		
*3	ROOF SIDE INNER GARNISH ASSY RH	*4	TRANSVERS PIPE
*5	TRANSVERS PIPE TRIM	*6	SEAT BELT HOLE COVER SUB- ASSEMBLY LH
*7	SEAT BELT HOLE COVER SUB- ASSEMBLY RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR STRUT BAR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

3. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

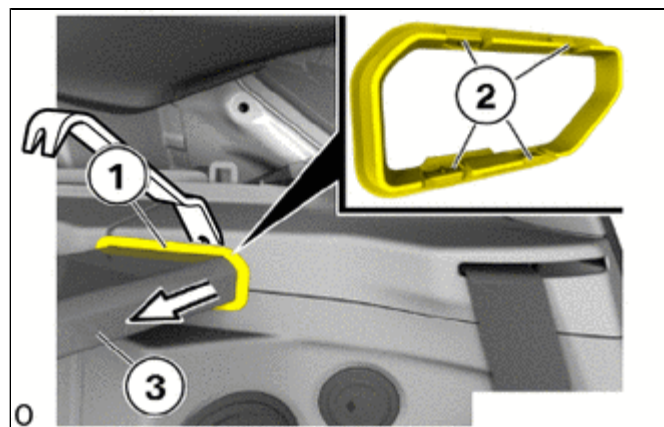
Use the same procedure as for the LH side.

4. SEPARATE TRANSVERSE PIPE TRIM

(a) Using a molding remover B, detach the claws (2) and separate the transverse pipe trim (1).

HINT:

Use the same procedure for both sides.



5. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

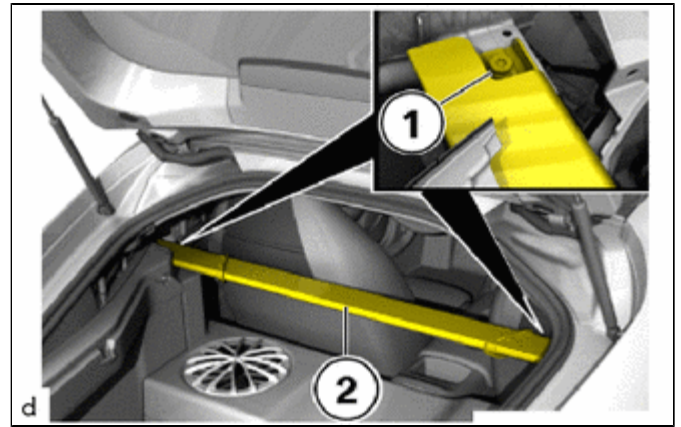
6. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

7. REMOVE TRANSVERSE PIPE

(a) Loosen T50 bolts (1).



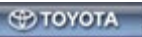
(b) Slide out the transverse pipe (2) to the top under the trim panels of the deck side trim cover.

8. REMOVE TRANSVERSE PIPE TRIM

(a) Remove the transverse pipe trim from the transverse pipe.

HINT:

Use the same procedure for both sides.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR STRUT BAR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSVERSE PIPE TRIM

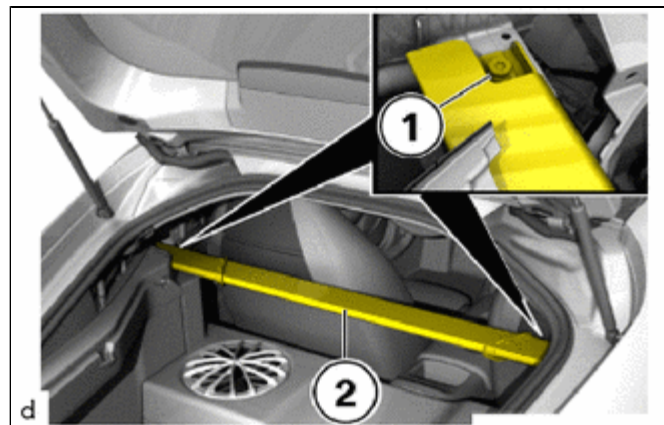
- (a) Install the transverse pipe trim to the tonneau cover holder.

HINT:

Use the same procedure for both sides.

2. INSTALL TRANSVERSE PIPE

- (a) Thread the transverse pipe (2) from the top under the trim panels of the deck side trim cover and position.



- (b) Tighten down T50 bolts (1).

Torque:

20 N·m {204 kgf·cm, 15 ft·lbf}

3. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

4. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

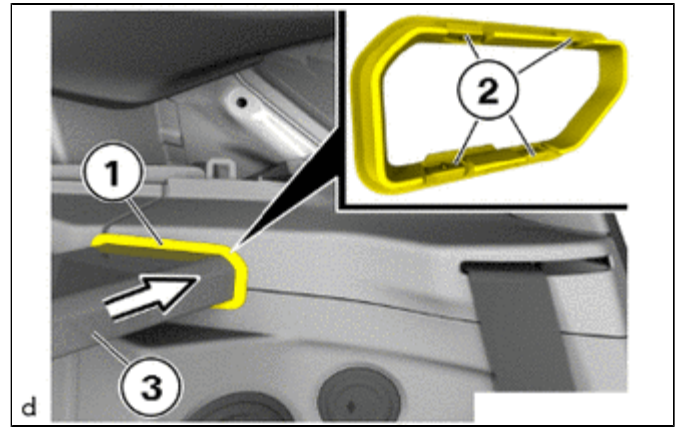
Use the same procedure as for the LH side.

5. INSTALL TRANSVERSE PIPE TRIM

- (a) Move the transverse pipe trim (1) in direction of arrow on the transverse pipe (3) and clip in with the claws (2).

HINT:

Use the same procedure for both sides.



6. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

7. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

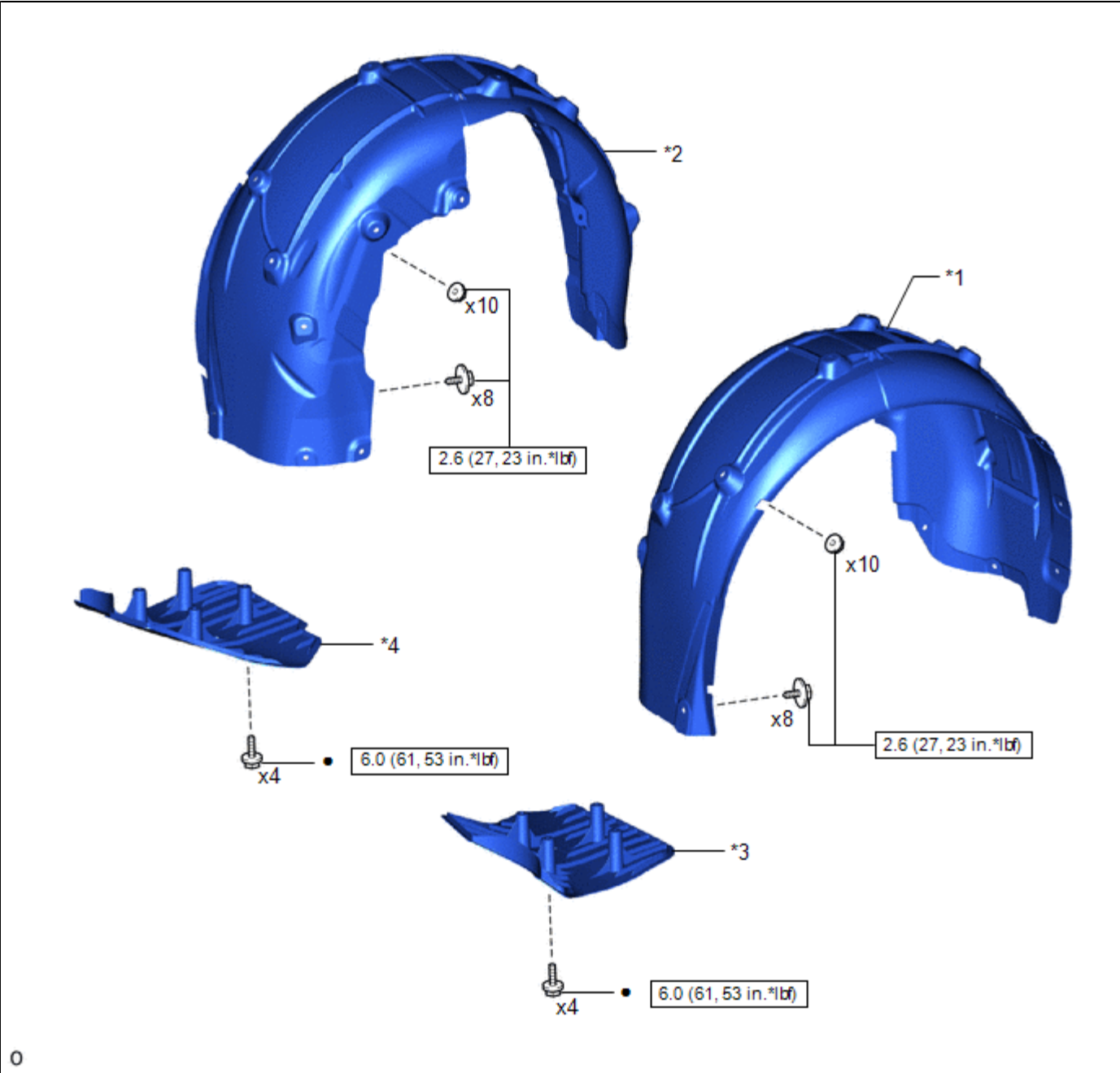
8. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY



Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER: COMPONENTS; 2020 MY Supra [03/2019 -]		

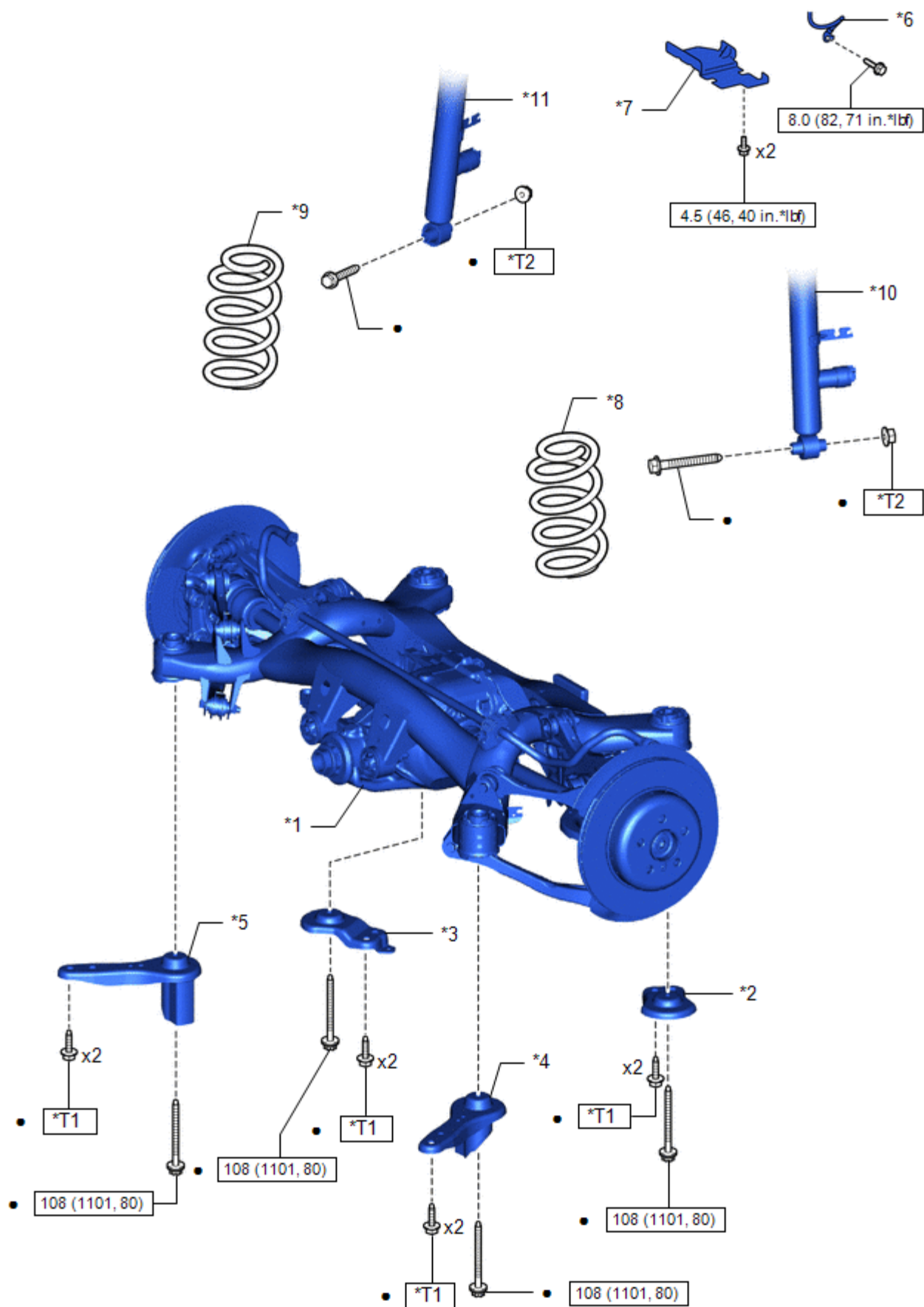
COMPONENTS


ILLUSTRATION



*1	REAR WHEEL HOUSE LINER LH	*2	REAR WHEEL HOUSE LINER RH
*3	REAR SUSPENSION ARM COVER LH	*4	REAR SUSPENSION ARM COVER RH
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

ILLUSTRATION



*1	REAR SUSPENSION MEMBER SUB-ASSEMBLY	*2	REAR SUSPENSION MEMBER REAR LOWER BRACE LH
*3	REAR SUSPENSION MEMBER REAR LOWER BRACE RH	*4	REAR LOWER SUSPENSION MEMBER STOPPER LH
*5	REAR LOWER SUSPENSION MEMBER STOPPER RH	*6	GROUND WIRE
*7	REAR DIFFERENTIAL PROTECTOR	*8	REAR COIL SPRING LH
*9	REAR COIL SPRING RH	*10	REAR SHOCK ABSORBER LH
*11	REAR SHOCK ABSORBER RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 47 (479, 35) 2nd: Turn 45°	*T2	1st: 100 (1020, 74) 2nd: Turn 90°



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Motor vehicle may slip off the vehicle hoist where components are supported.

Danger! Life-threatening injuries!

- Secure the vehicle hoist against lowering and lifting.

- Motor vehicle may slip off the vehicle hoist if the weight is distributed unevenly.

Danger! Life-threatening injuries!

- Ensure there is a specific weight compensation on the motor vehicle.

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

2. REMOVE REAR WHEEL HOUSE LINER LH

HINT:

Use the same procedure as for the RH side.

3. REMOVE REAR WHEEL HOUSE LINER RH

Click here [INFO](#)

4. REMOVE REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

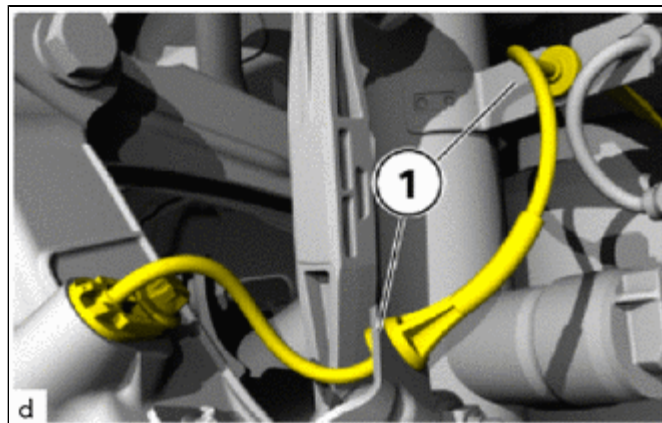
5. REMOVE REAR SUSPENSION ARM COVER RH

HINT:

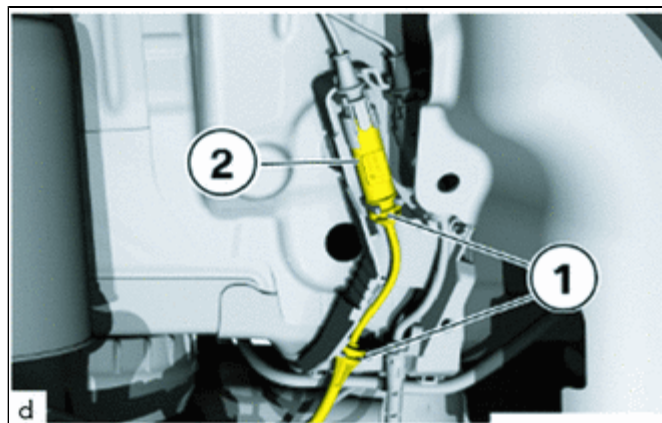
Use the same procedure as for the LH side.

6. SEPARATE REAR SKID CONTROL SENSOR WIRE LH

(a) Detach the rear skid control sensor wire LH from the brackets (1).



(b) Detach the rear skid control sensor wire LH from the brackets (1).



(c) Unlock plug connection (2) and disconnect.

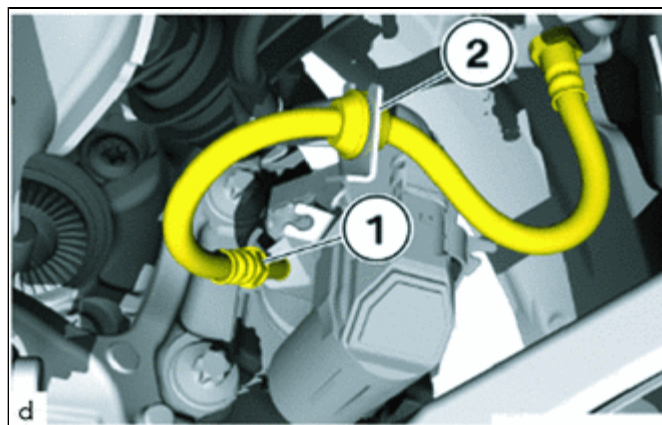
7. SEPARATE REAR SKID CONTROL SENSOR WIRE RH

HINT:

Use the same procedure as for the LH side.

8. SEPARATE REAR FLEXIBLE HOSE LH

(a) Feed out rear flexible hose LH (1) from the holder (2).



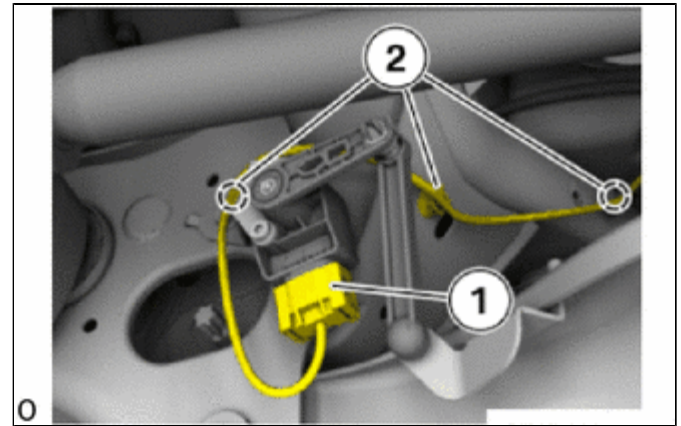
9. SEPARATE REAR FLEXIBLE HOSE RH

HINT:

Use the same procedure as for the LH side.

10. SEPARATE WIRE HARNESS

(a) Unlock plug connection (1) and disconnect.



(b) Detach wire harness of the rear height control sensor sub-assembly from the brackets (2) and lay to one side.

11. REMOVE REAR DISC BRAKE PAD

Click here [INFO](#)

12. REMOVE PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

13. REMOVE REAR COIL SPRING LH

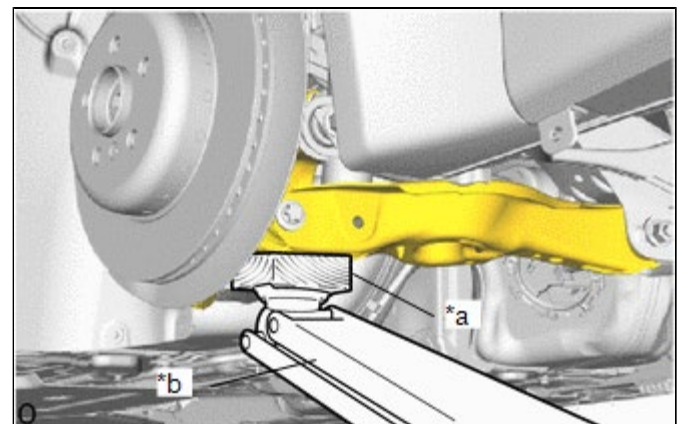
Click here [INFO](#)

14. REMOVE REAR COIL SPRING RH**HINT:**

Use the same procedure as for the LH side.

15. SEPARATE REAR SHOCK ABSORBER ASSEMBLY LH

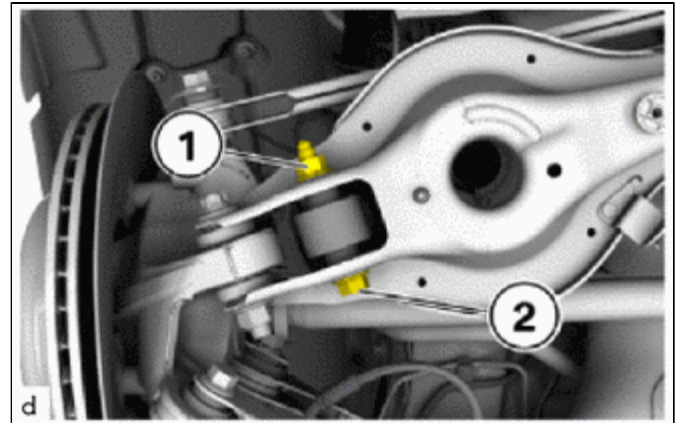
(a) Support the rear axle carrier sub-assembly LH with the jack and wooden block.



*a	Wooden Block
----	--------------

*b	Jack
----	------

(b) Using an 18 mm deep socket wrench, unfasten nut (1).



(c) Lift the rear axle carrier sub-assembly LH with the jack and wooden block to the point where the 18 mm bolt (2) can be removed.

(d) Slowly lower jack until rear axle carrier sub-assembly LH is freely suspended.

(e) Remove the jack and wooden block from under the vehicle.

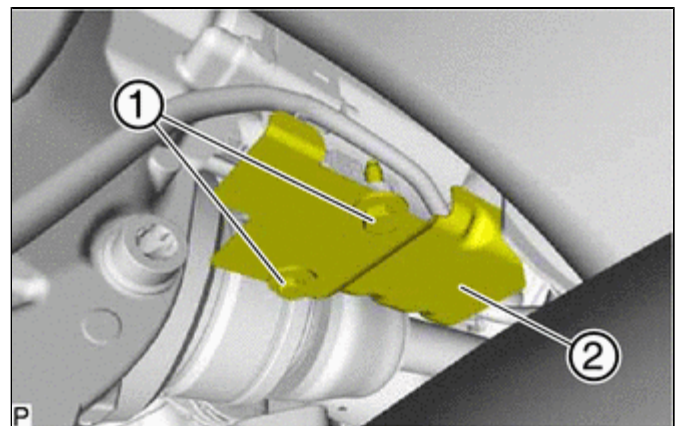
16. SEPARATE REAR SHOCK ABSORBER ASSEMBLY RH

HINT:

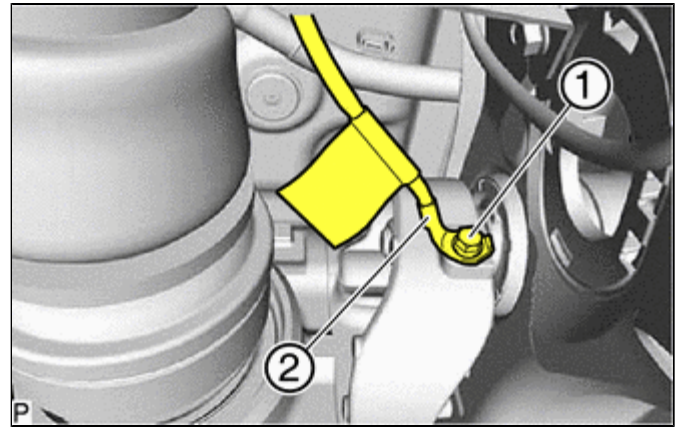
Use the same procedure as for the LH side.

17. REMOVE REAR SUSPENSION MEMBER SUB-ASSEMBLY

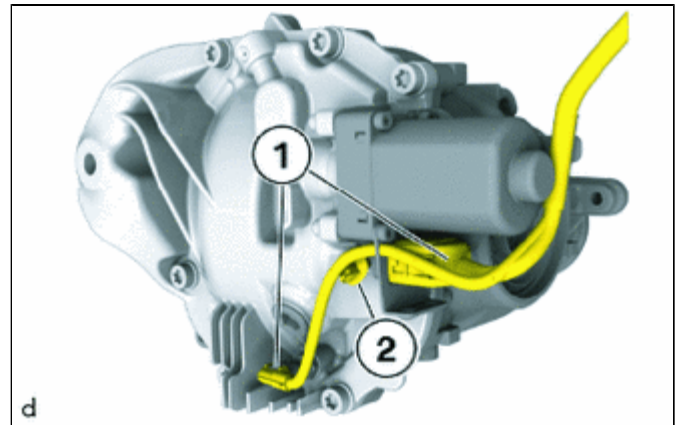
(a) Remove the bolts (1) and rear differential protector (2).



(b) Remove the bolt (1) to disconnect the ground wire (2).



(c) Unlock and disconnect plug connections (1).

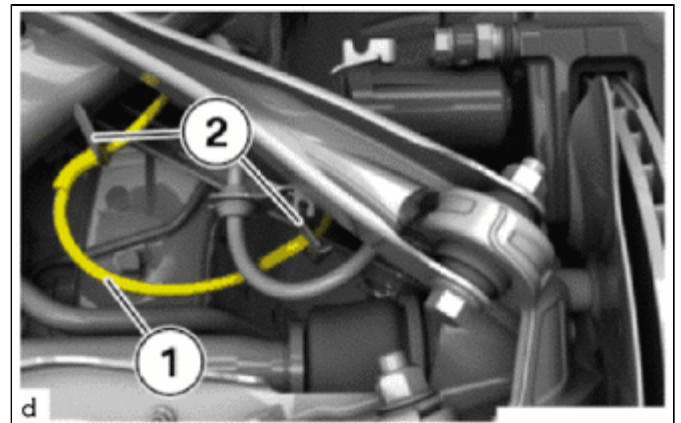


(d) Loosen the cable clip (2).

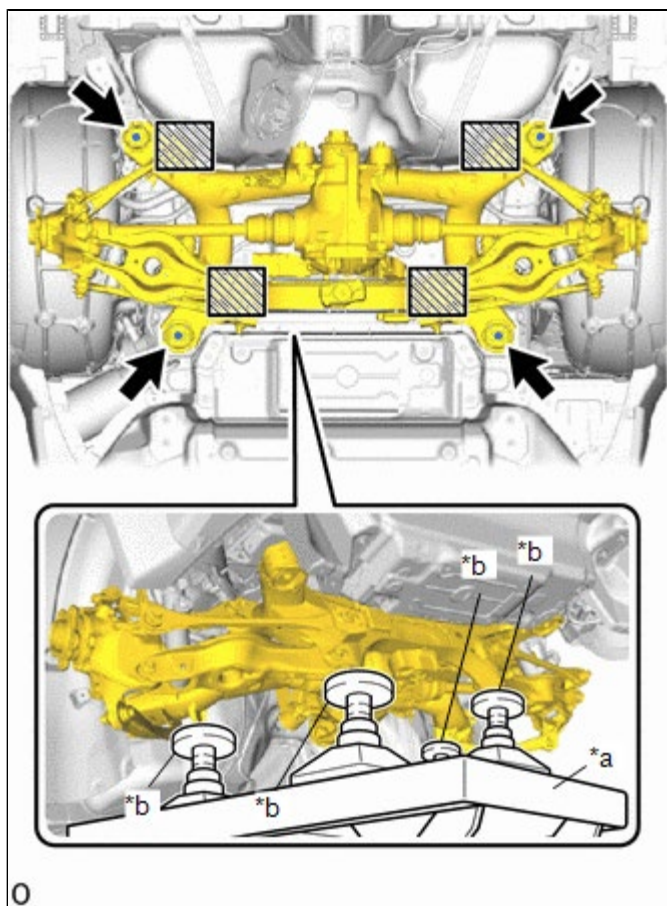
(e) Detach the cable of the parking brake (1) from the holders (2).


HINT:

Perform the operations on the left and right side.



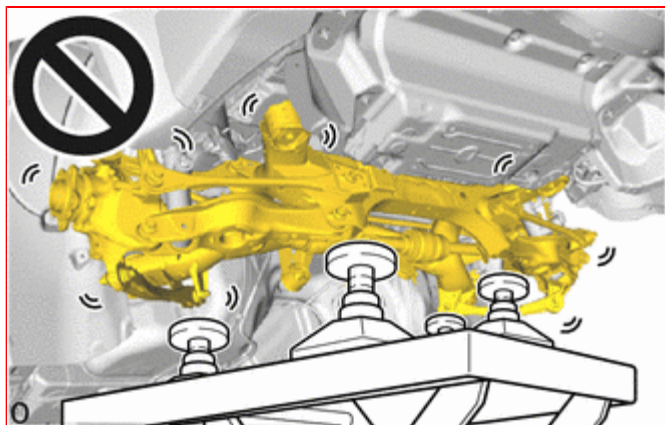
(f) Using an engine lifter and 4 attachments or equivalent tools, support the rear suspension member sub-assembly as shown in the illustration.



*a	Engine Lifter
*b	Attachment
	Attachment and Wooden Block Placement Location

CAUTION:

- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.

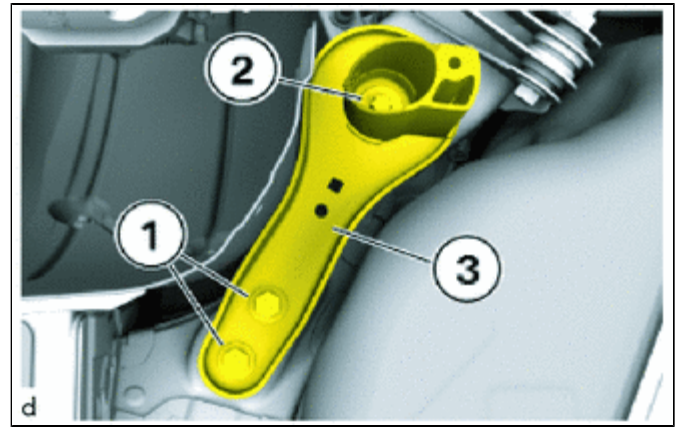


- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

NOTICE:

Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.

(g) Loosen 16 mm bolts (1).



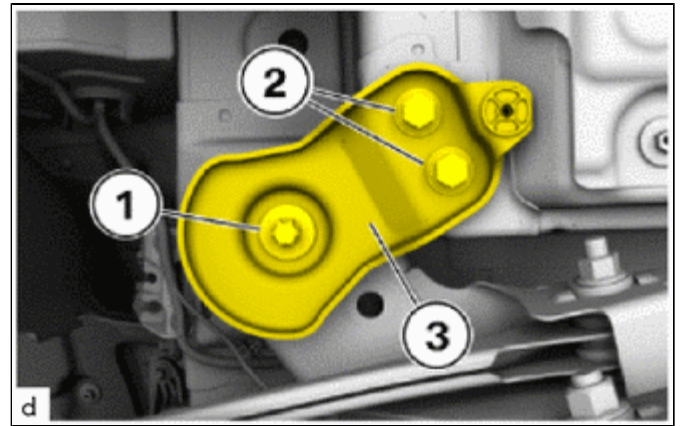
(h) Loosen E18 bolt (2).

(i) Remove rear lower suspension member stopper LH (3).

HINT:

Perform the operations on the left and right side.

(j) Loosen E18 bolt (1).



(k) Loosen 16 mm bolts (2).

(l) Remove rear suspension member rear lower brace LH (3).

HINT:

Perform the operations on the left and right side.

(m) Slowly lower the rear suspension member sub-assembly.

NOTICE:

When lowering the rear suspension member sub-assembly, be careful not to damage the vehicle body or other components installed to the vehicle.

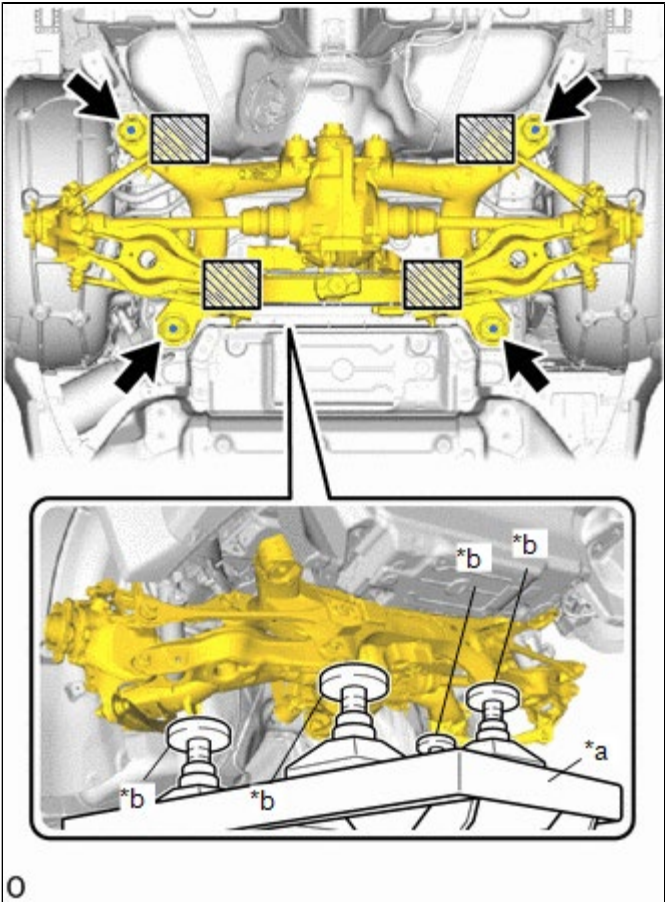
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCM9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER: INSTALLATION; 2020 MY Supra [03/2019 -]		


INSTALLATION

PROCEDURE

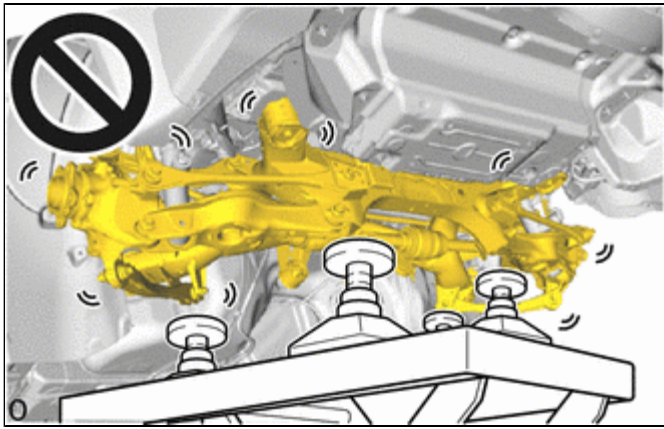
1. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY

- HINT:
- Perform the operations on the left and right side.
- (a) Using an engine lifter and 4 attachments or equivalent tools, support the rear suspension member sub-assembly as shown in the illustration.



*a	Engine Lifter
*b	Attachment
	Attachment and Wooden Block Placement Location

CAUTION:



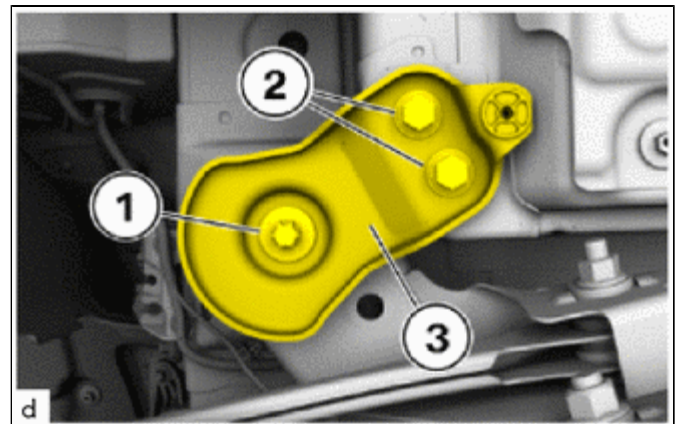
- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

NOTICE:

- Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.
- Keep supporting the rear suspension member sub-assembly until the installation has been completed.

(b) Raise the rear suspension member sub-assembly until there is no clearance between the rear suspension member sub-assembly and vehicle.

(c) Position rear suspension member rear lower brace LH (3).



(d) Replace E18 (1) bolt and 16 mm bolts (2).

(e) Tighten down 16 mm bolts (2).

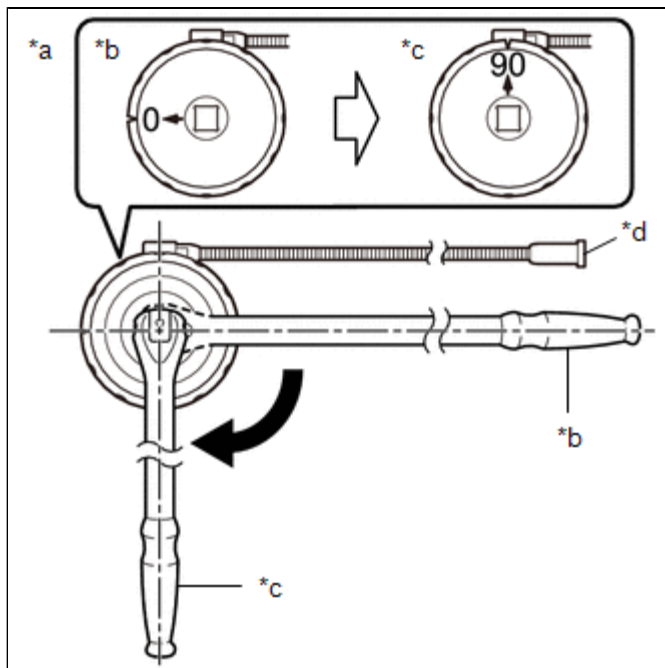
Torque:

47 N·m {479 kgf·cm, 35 ft·lbf}

(f) Using SST, tighten the 16 mm bolt (2) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

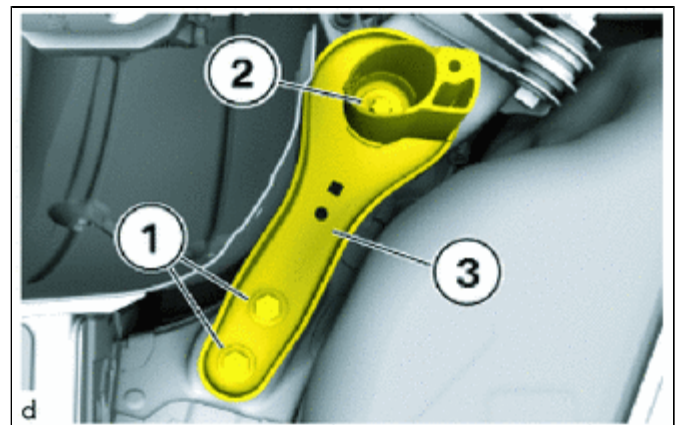
- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(g) Tighten down E18 bolt (1).

Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

(h) Position rear lower suspension member stopper LH (3).



(i) Replace 16 mm bolts (1) and E18 bolt (2).

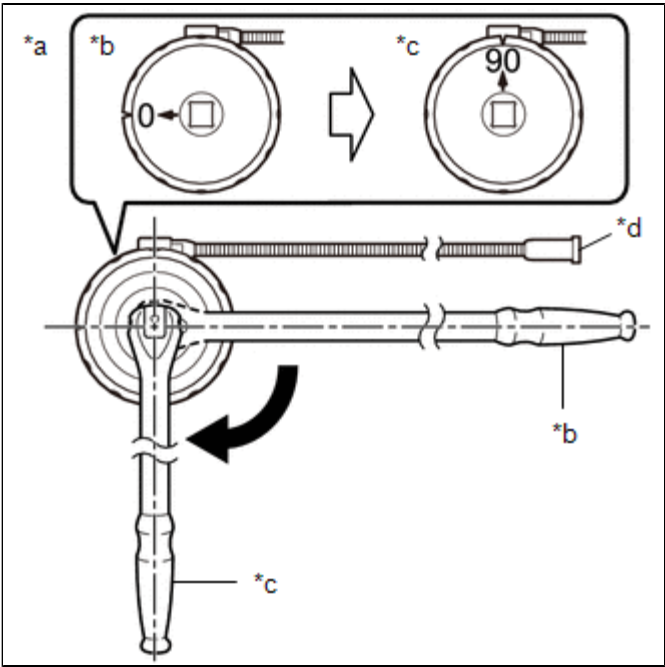
(j) Tighten the 16 mm bolts (1).

Torque:

47 N·m {479 kgf·cm, 35 ft·lbf}

(k) Using SST, tighten the 16 mm bolt (1) an additional 45°.

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

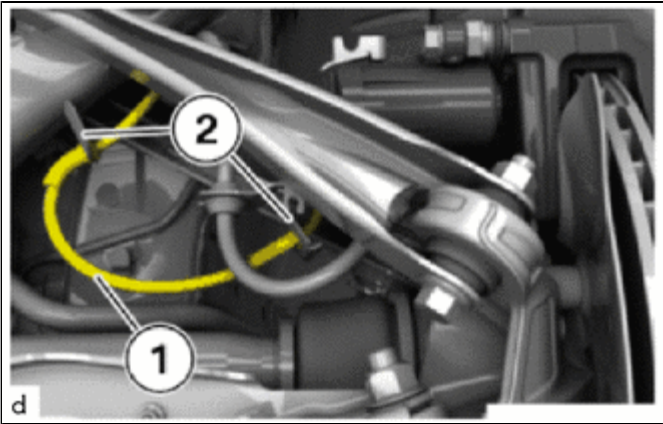
- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(l) Tighten down E18 bolt (2).

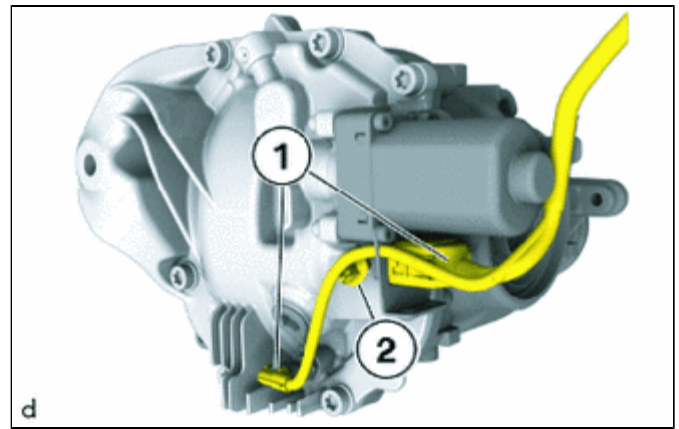
Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

(m) Attach the cable of the parking brake (1) in the holders (2).



(n) Connect connectors (1) and lock.



(o) Attach the cable clip (2).

(p) Connect the ground wire with the bolt.

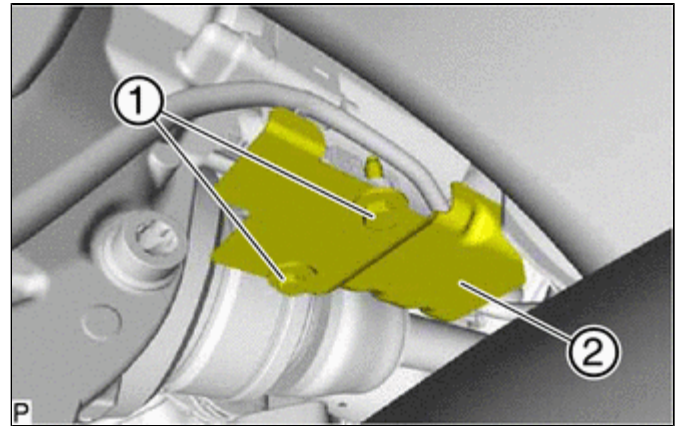
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(q) Install the rear differential protector (2) with the bolts (1).

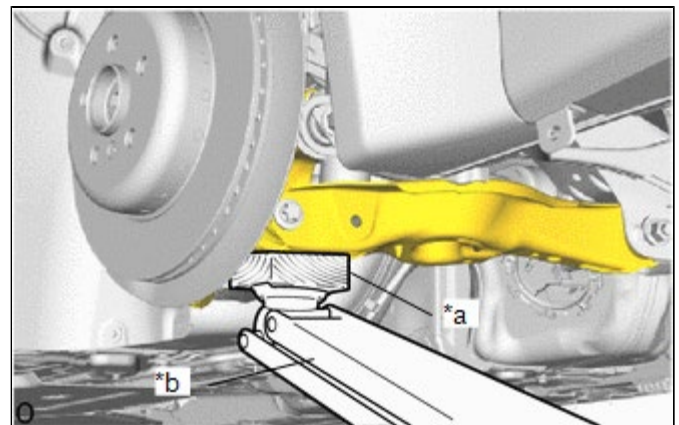
Torque:

4.5 N·m {46 kgf·cm, 40 in·lbf}



2. INSTALL REAR SHOCK ABSORBER ASSEMBLY LH

(a) Support the rear axle carrier sub-assembly LH with the jack and wooden block.



*a	Wooden Block
*b	Jack

- (b) Lift the rear axle carrier sub-assembly LH with the jack and wooden block to the point where the 18 mm bolt can be inserted.
- (c) Replace 18 mm nut and the 18 mm bolt.
- (d) Using an 18 mm deep socket wrench, tighten nut.

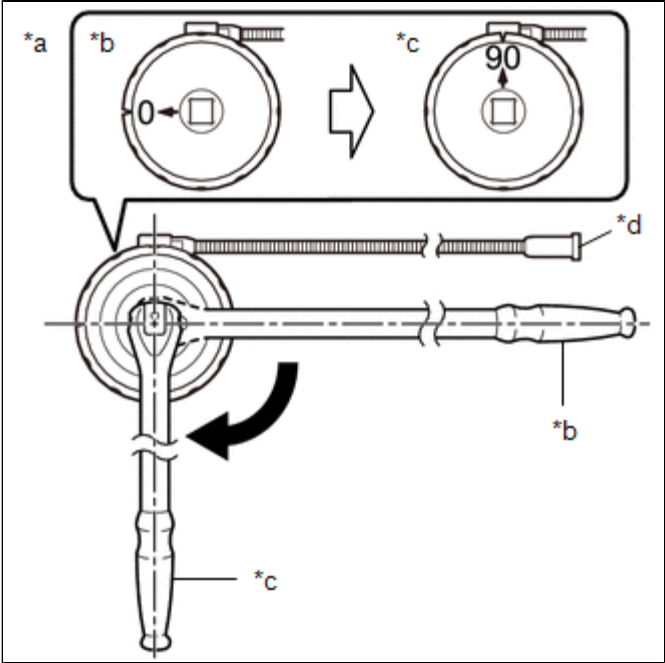
Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

- (e) Using SST and 18 mm deep socket wrench, tighten the nut an additional 90°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

- (f) Remove the jack and wooden block from under the vehicle.

3. INSTALL REAR SHOCK ABSORBER ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

4. INSTALL REAR COIL SPRING LH

Click here [INFO](#)

5. INSTALL REAR COIL SPRING RH

HINT:

Use the same procedure as for the LH side.

6. INSTALL PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

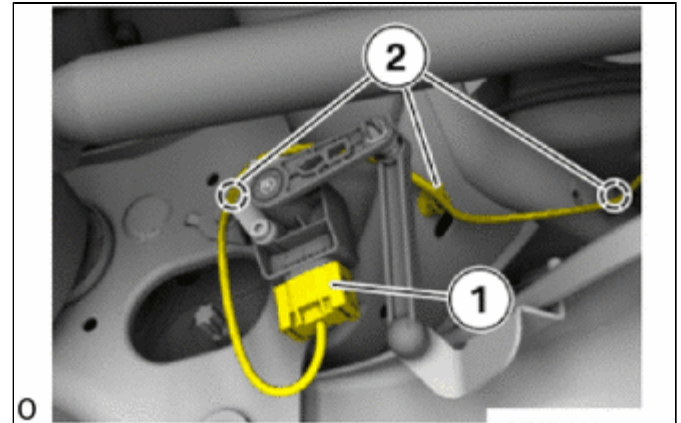
Click here [INFO](#)

7. INSTALL REAR DISC BRAKE PAD

Click here [INFO](#)

8. INSTALL WIRE HARNESS

(a) Connect connector (1) and lock.



(b) Route wire harness of the rear height control sensor sub-assembly through brackets (2).

9. INSTALL REAR FLEXIBLE HOSE LH

(a) Feed rear flexible hose LH into the holder.

NOTICE:

Make sure that the rear flexible hose LH does not rest against the components fixed to the body and that it is not twisted.

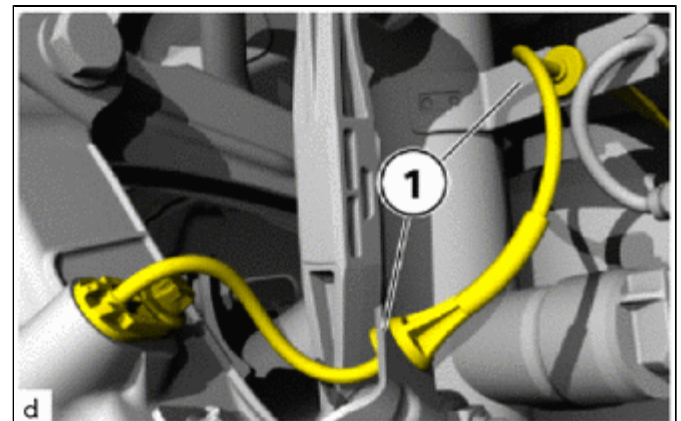
10. INSTALL REAR FLEXIBLE HOSE RH

HINT:

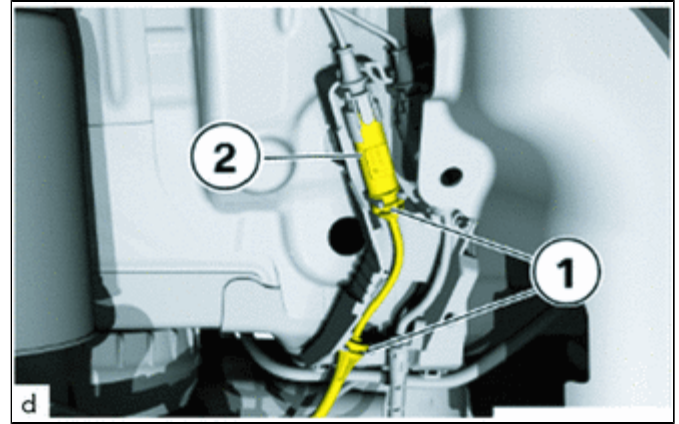
Use the same procedure as for the LH side.

11. INSTALL REAR SKID CONTROL SENSOR WIRE LH

(a) Connect the cable of the rear skid control sensor wire LH in the brackets (1).



(b) Connect the cable of the rear skid control sensor wire LH in the brackets (1).



(c) Connect connector (2) and lock.

12. INSTALL REAR SKID CONTROL SENSOR WIRE RH

HINT:

Use the same procedure as for the LH side.

13. INSTALL REAR WHEEL HOUSE LINER LH

HINT:

Use the same procedure as for the RH side.

14. INSTALL REAR WHEEL HOUSE LINER RH

Click here [INFO](#)

15. INSTALL REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

16. INSTALL REAR SUSPENSION ARM COVER RH

HINT:

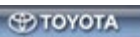
Use the same procedure as for the LH side.

17. INSTALL REAR WHEEL

Click here [INFO](#)

18. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

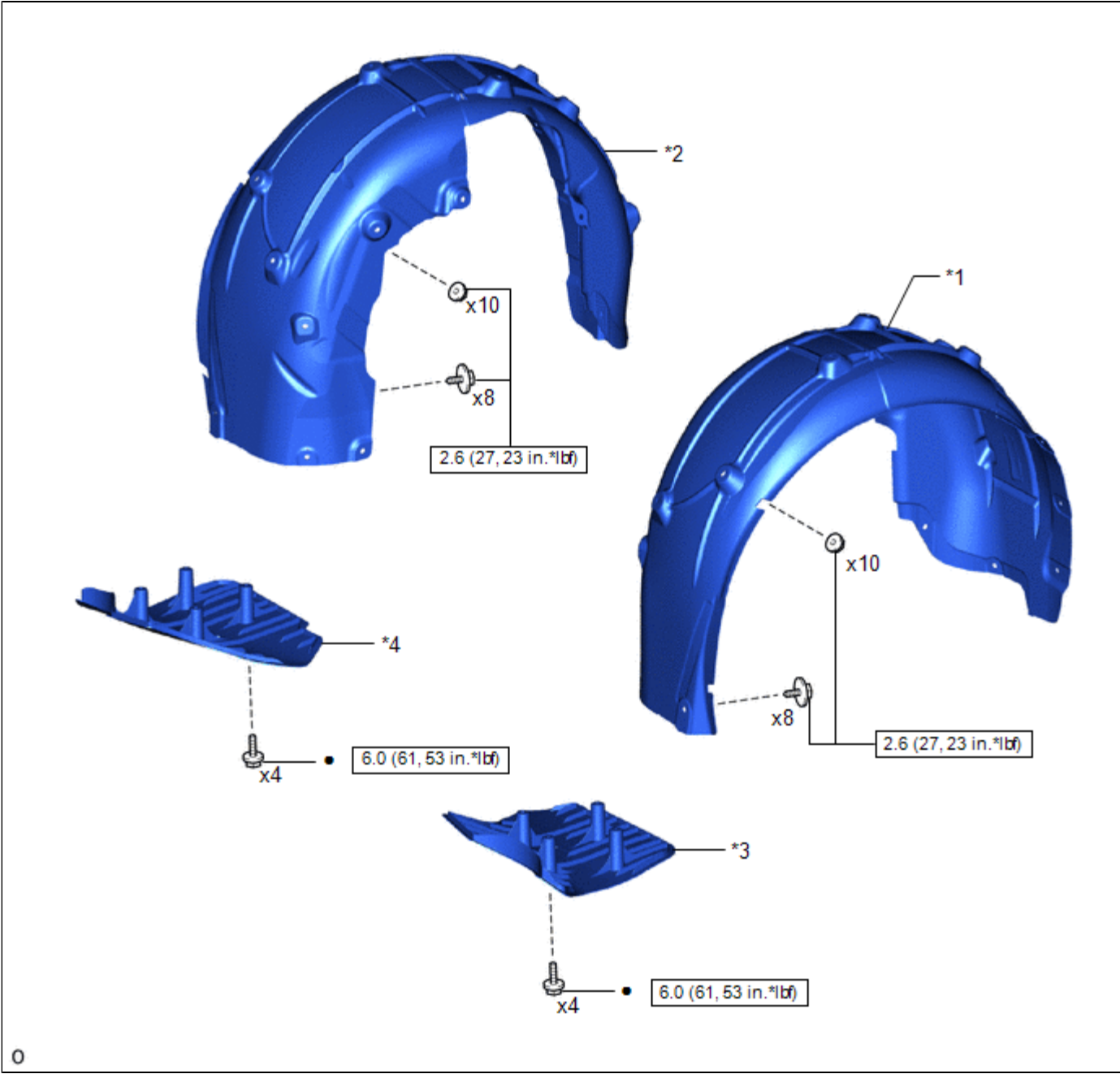
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER BODY MOUNTING CUSHION: COMPONENTS; 2020 MY Supra [03/2019 -]		

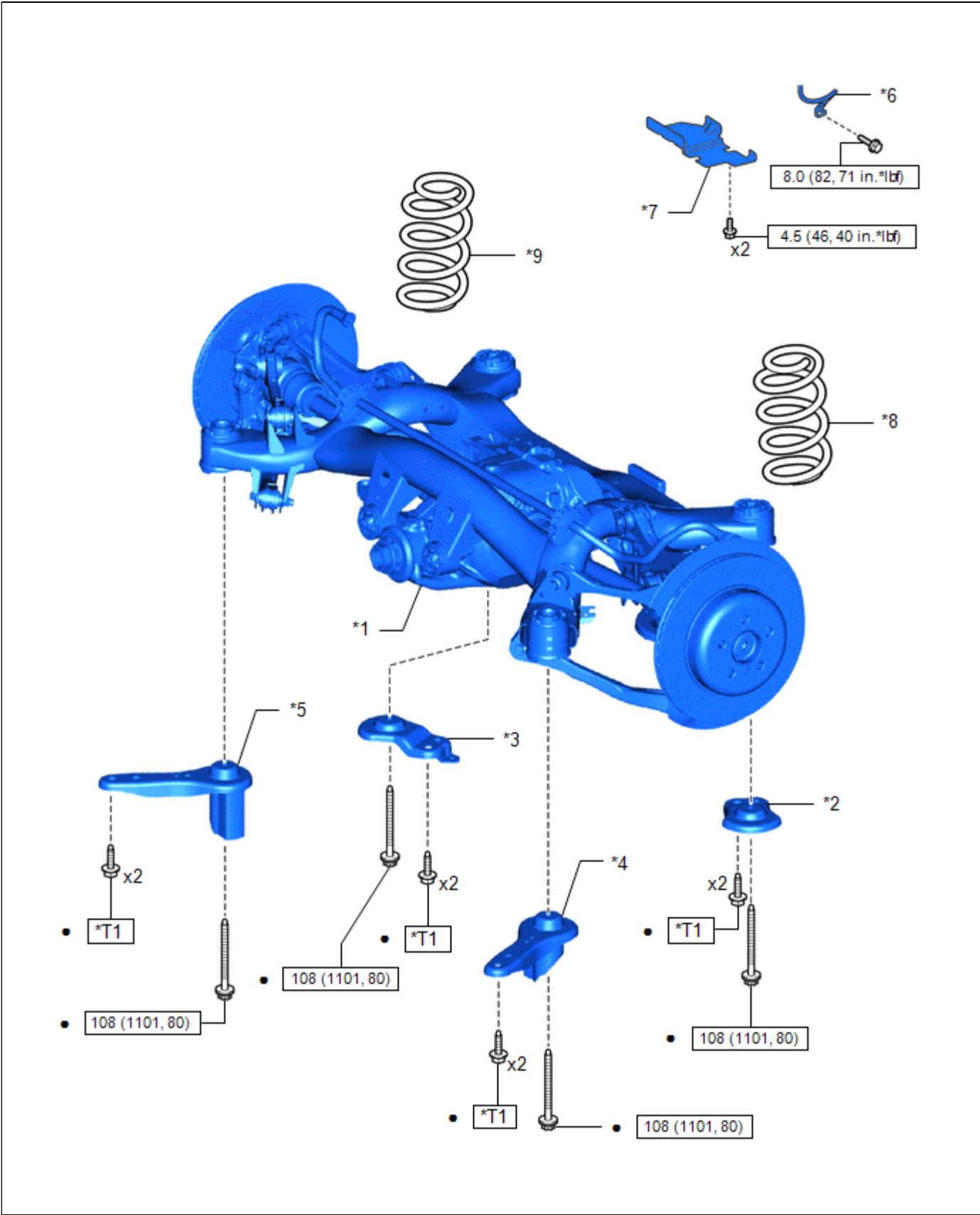
COMPONENTS

ILLUSTRATION




*1	REAR WHEEL HOUSE LINER LH	*2	REAR WHEEL HOUSE LINER RH
*3	REAR SUSPENSION ARM COVER LH	*4	REAR SUSPENSION ARM COVER RH
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	<div></div>	Non-reusable part

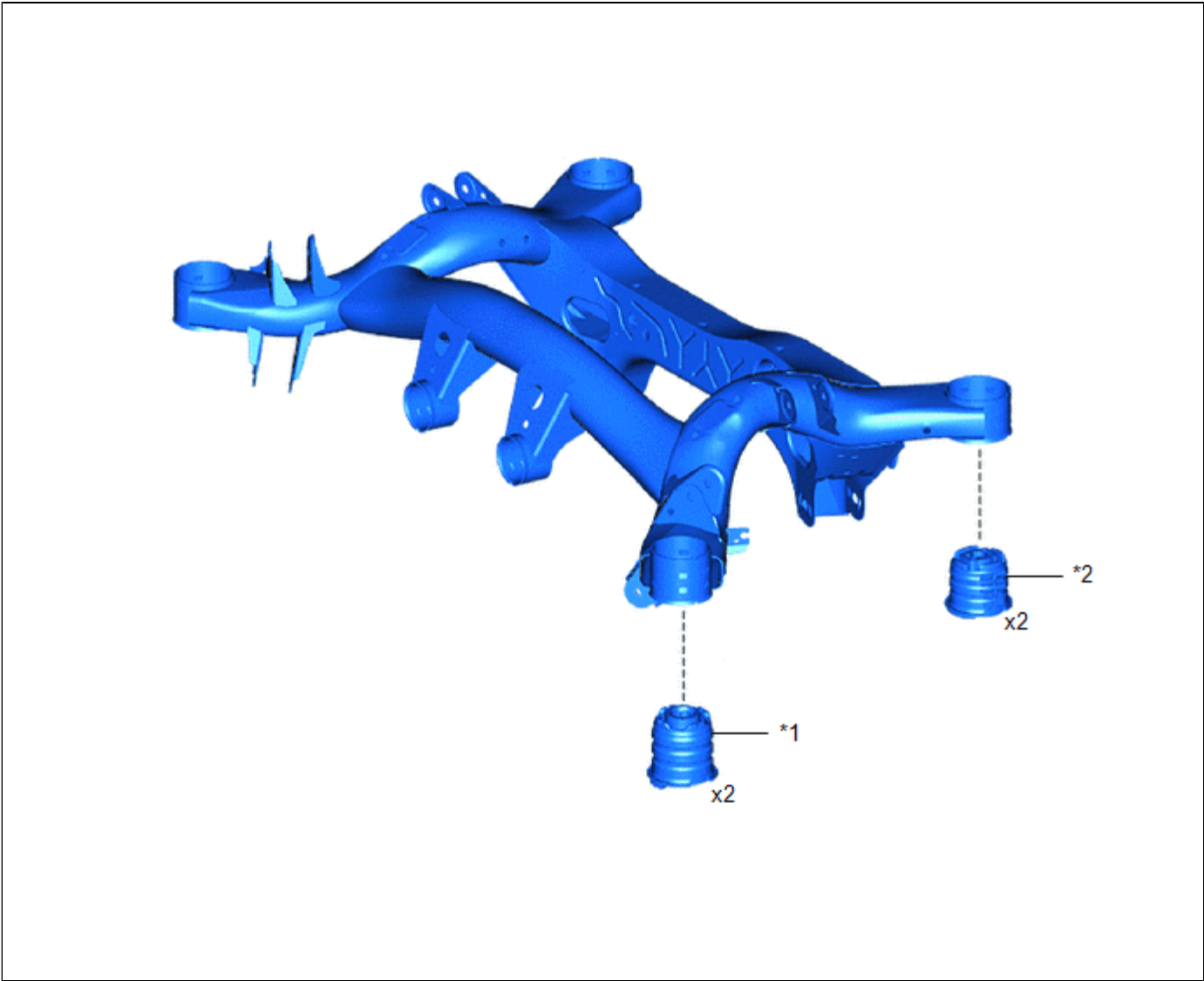
ILLUSTRATION



*1	REAR SUSPENSION MEMBER SUB-ASSEMBLY	*2	REAR SUSPENSION MEMBER REAR LOWER BRACE LH
----	-------------------------------------	----	--

*3	REAR SUSPENSION MEMBER REAR LOWER BRACE RH	*4	REAR LOWER SUSPENSION MEMBER STOPPER LH
*5	REAR LOWER SUSPENSION MEMBER STOPPER RH	*6	GROUND WIRE
*7	REAR DIFFERENTIAL PROTECTOR	*8	REAR COIL SPRING LH
*9	REAR COIL SPRING RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 47 (479, 35) 2nd: Turn 45°	-	-

ILLUSTRATION



*1	REAR SUSPENSION MEMBER BODY MOUNTING FRONT CUSHION	*2	REAR SUSPENSION MEMBER CUSHION
----	--	----	--------------------------------



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCME
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER BODY MOUNTING CUSHION: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Motor vehicle may slip off the vehicle hoist where components are supported.

Danger! Life-threatening injuries!

- Secure the vehicle hoist against lowering and lifting.

- Motor vehicle may slip off the vehicle hoist if the weight is distributed unevenly.

Danger! Life-threatening injuries!

- Ensure there is a specific weight compensation on the motor vehicle.

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE REAR WHEEL

Click here [INFO](#)

2. REMOVE REAR WHEEL HOUSE LINER LH

HINT:

Use the same procedure as for the RH side.

3. REMOVE REAR WHEEL HOUSE LINER RH

Click here [INFO](#)

4. REMOVE REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

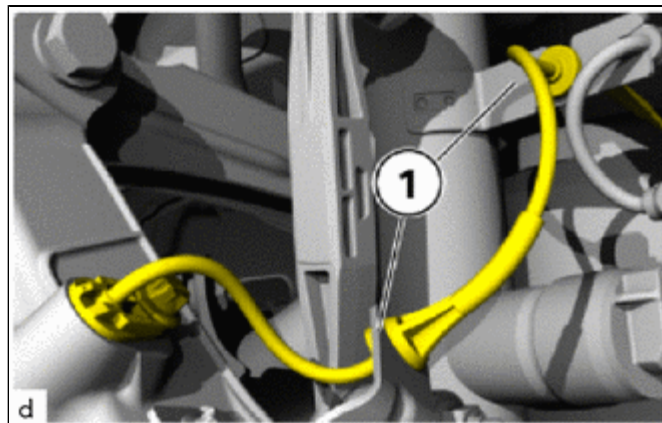
5. REMOVE REAR SUSPENSION ARM COVER RH

HINT:

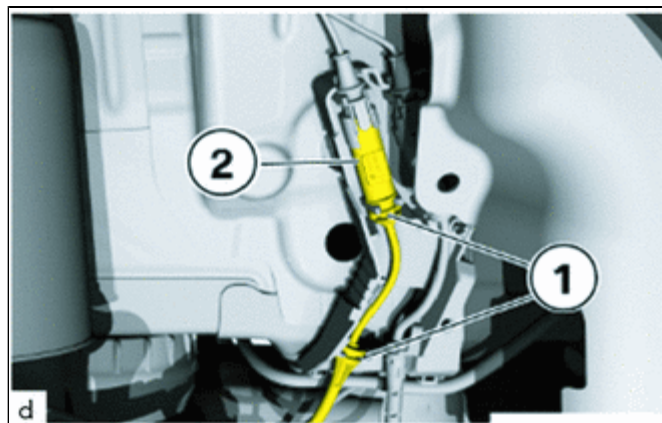
Use the same procedure as for the LH side.

6. SEPARATE REAR SKID CONTROL SENSOR WIRE LH

- (a) Detach the rear skid control sensor wire LH from the brackets (1).



- (b) Detach the rear skid control sensor wire LH from the brackets (1).



- (c) Unlock plug connection (2) and disconnect.

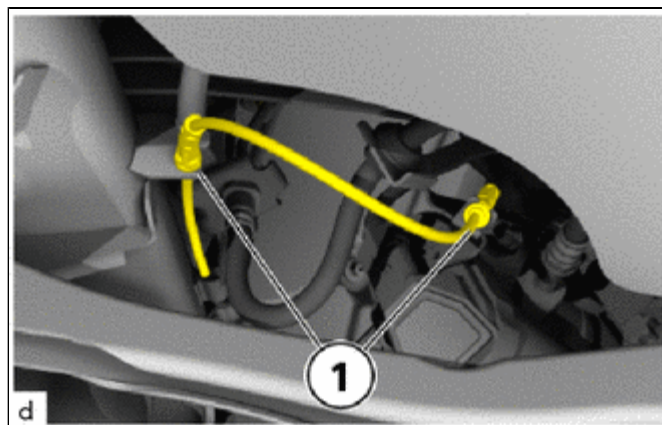
7. SEPARATE REAR SKID CONTROL SENSOR WIRE RH

HINT:

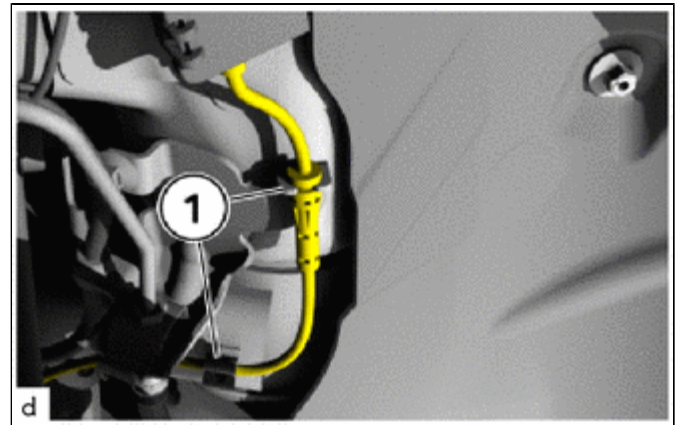
Use the same procedure as for the LH side.

8. SEPARATE PAD WEAR INDICATOR WIRE ASSEMBLY (for RH Side)

- (a) Detach the cable of the pad wear indicator wire assembly from the holders (1).

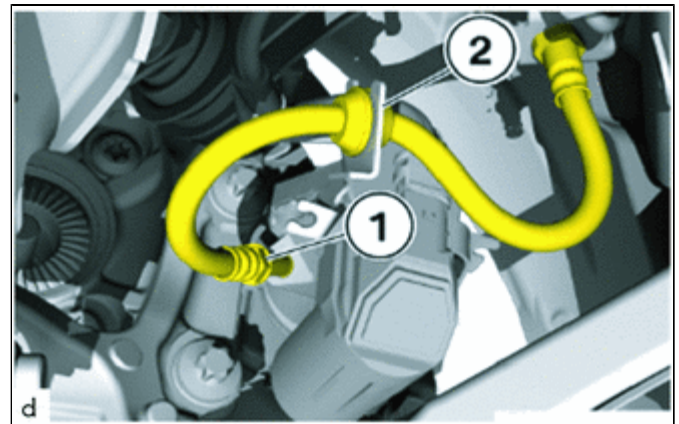


(b) Detach the cable of the pad wear indicator wire assembly from the holders (1).



9. SEPARATE REAR FLEXIBLE HOSE LH

(a) Feed out rear flexible hose LH (1) from the holder (2).



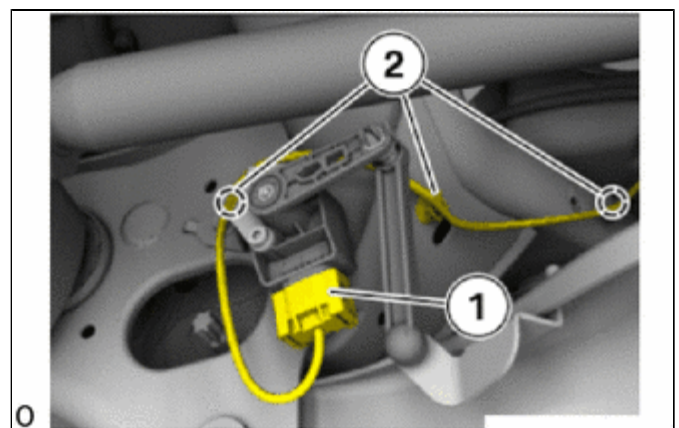
10. SEPARATE REAR FLEXIBLE HOSE RH

HINT:

Use the same procedure as for the LH side.

11. SEPARATE WIRE HARNESS

(a) Unlock plug connection (1) and disconnect.



(b) Detach wire harness of the rear height control sensor sub-assembly from the brackets (2) and lay to one side.

12. REMOVE PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

13. REMOVE REAR COIL SPRING LH

Click here [INFO](#)

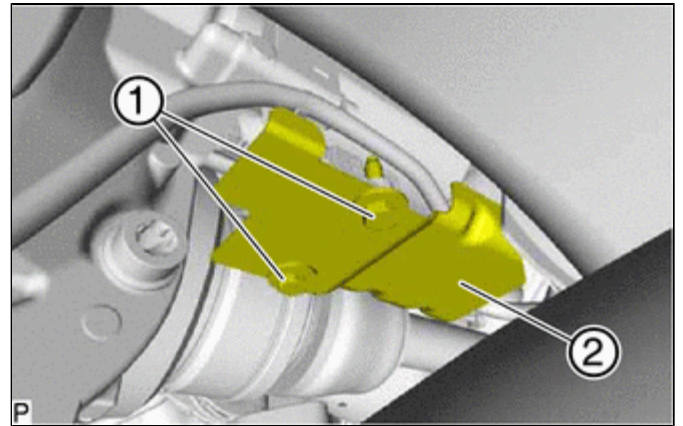
14. REMOVE REAR COIL SPRING RH

HINT:

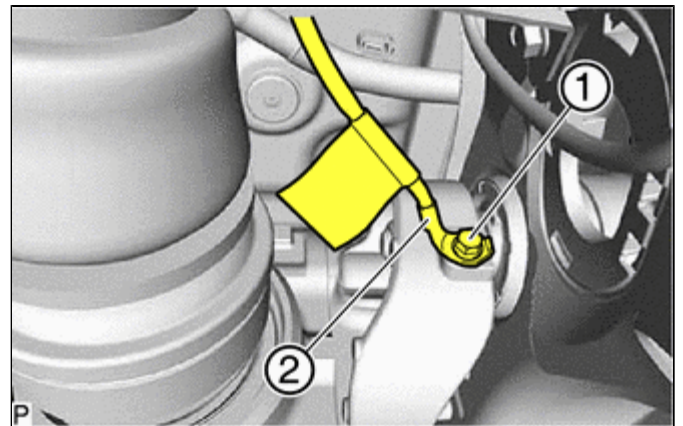
Use the same procedure as for the LH side.

15. SEPARATE REAR SUSPENSION MEMBER SUB-ASSEMBLY

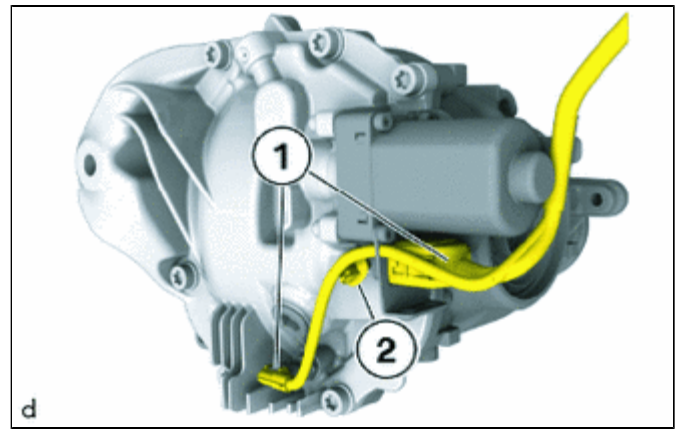
(a) Remove the bolts (1) and rear differential protector (2).



(b) Remove the bolt (1) to disconnect the ground wire (2).



(c) Unlock and disconnect plug connections (1).

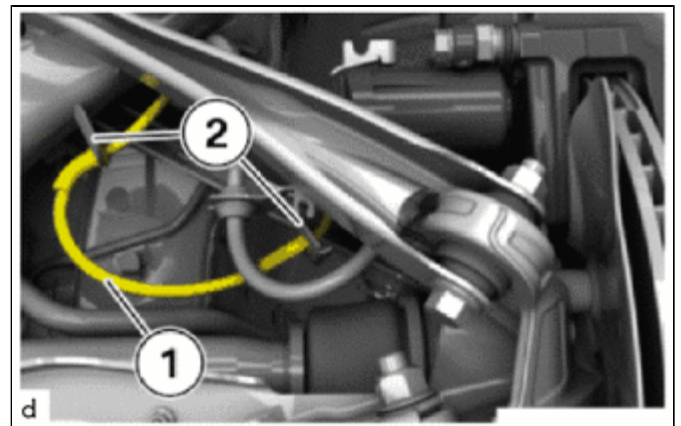


(d) Loosen the cable clip (2).

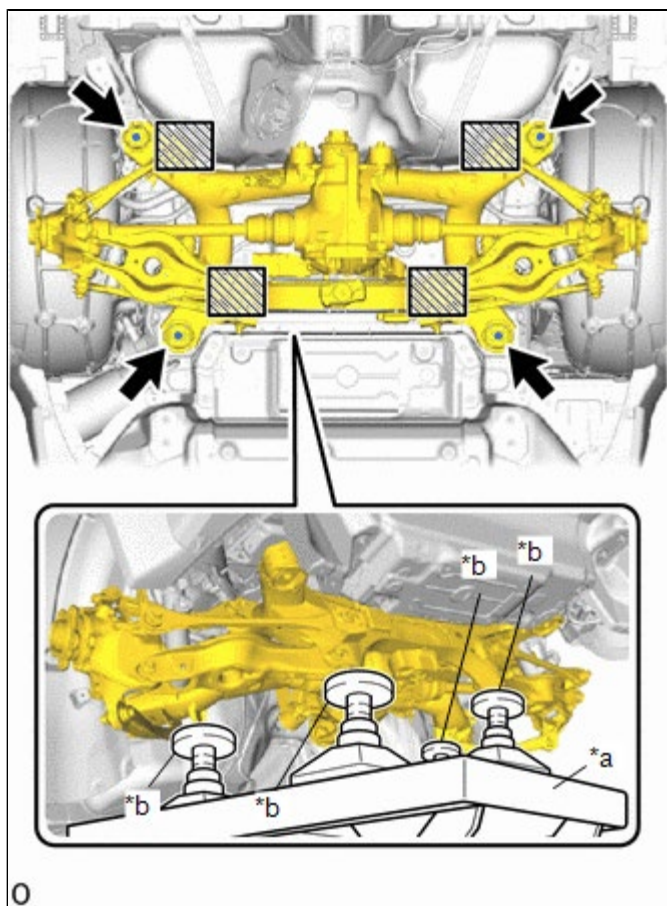
(e) Detach the cable of the parking brake (1) from the holders (2).


HINT:

Perform the operations on the left and right side.



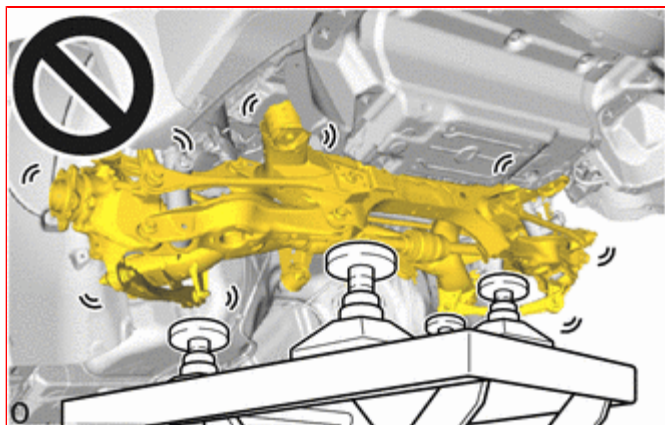
(f) Using an engine lifter and 4 attachments or equivalent tools, support the rear suspension member sub-assembly as shown in the illustration.



*a	Engine Lifter
*b	Attachment
	Attachment and Wooden Block Placement Location

CAUTION:

- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.

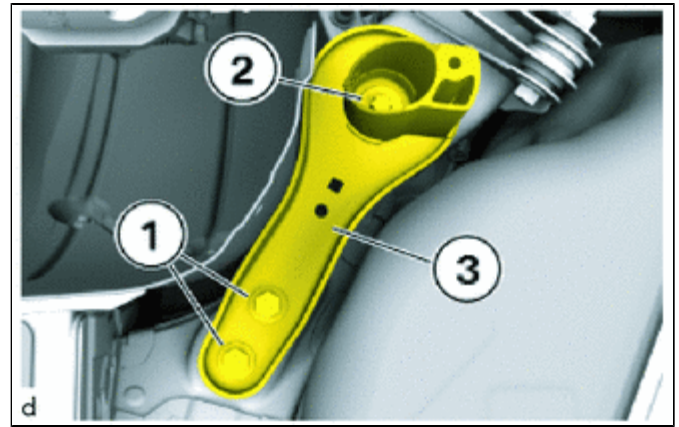


- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

NOTICE:

Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.

(g) Loosen 16 mm bolts (1).



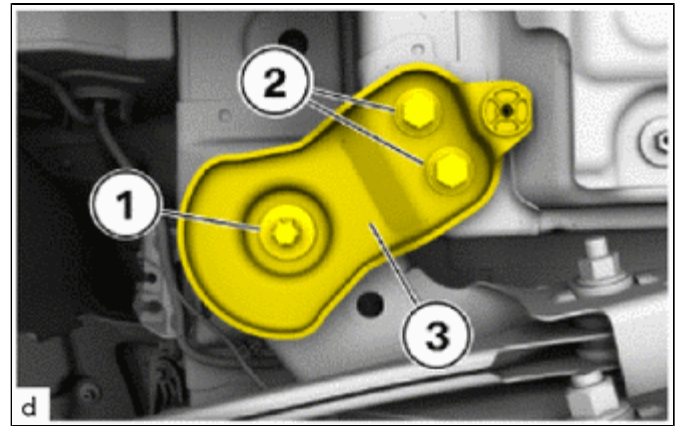
(h) Loosen E18 bolt (2).

(i) Remove rear lower suspension member stopper LH (3).

HINT:

Perform the operations on the left and right side.

(j) Loosen E18 bolt (1).



(k) Loosen 16 mm bolts (2).

(l) Remove rear suspension member rear lower brace LH (3).

HINT:

Perform the operations on the left and right side.

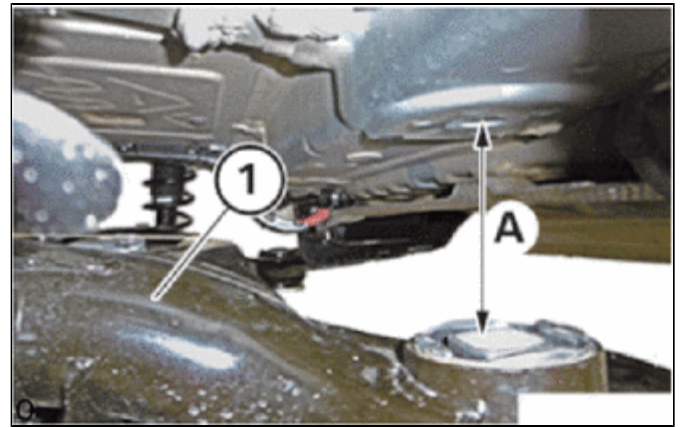
(m) Lower the rear suspension member sub-assembly (1) by the distance (A).

Distance (A):

Max. 100 mm (3.94 in.)

HINT:

Distance (A) between rear suspension member sub-assembly and body after lowering.

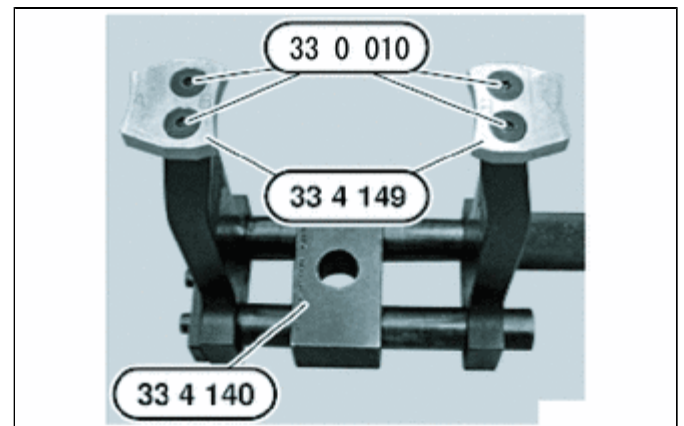


16. REMOVE REAR SUSPENSION MEMBER CUSHION

- (a) Assemble special tool 0 492 397 (33 4 140) in conjunction with 0 496 403 (33 0 012) and 0 492 406 (33 4 149).

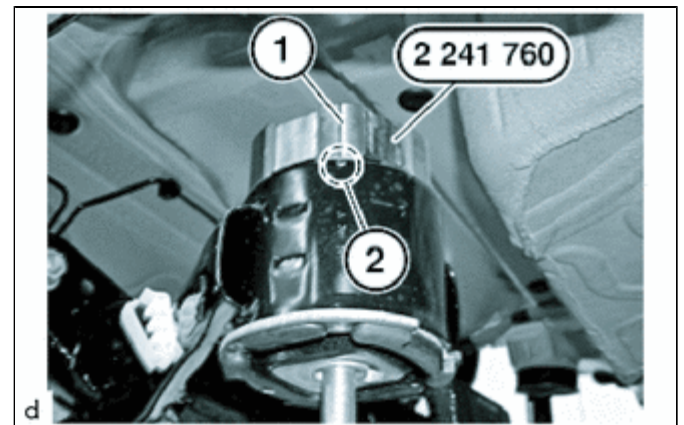
SST: 09500-WA100

SST: 09500-WA270



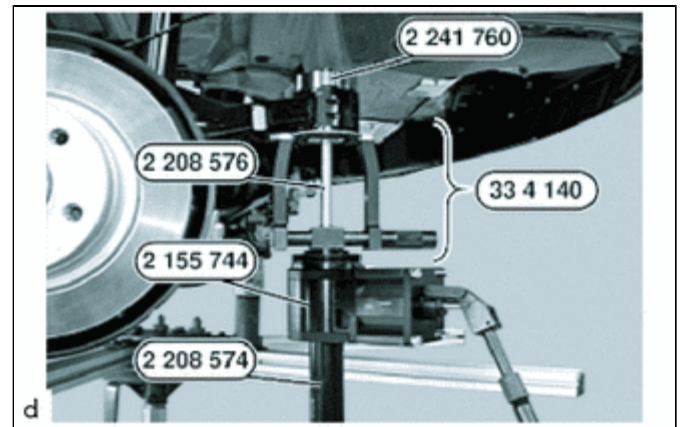
- (b) Align the notch (1) on the special tool 2 241 760 with the notch (2) on the rear suspension member sub-assembly.

SST: 09500-WA120



- (c) Pull the rear suspension member cushion with the special tools 2 241 760, 0 492 397 (33 4 140), 2 208 576, 2 155 744 and 2 208 574 out of the rear suspension member sub-assembly.

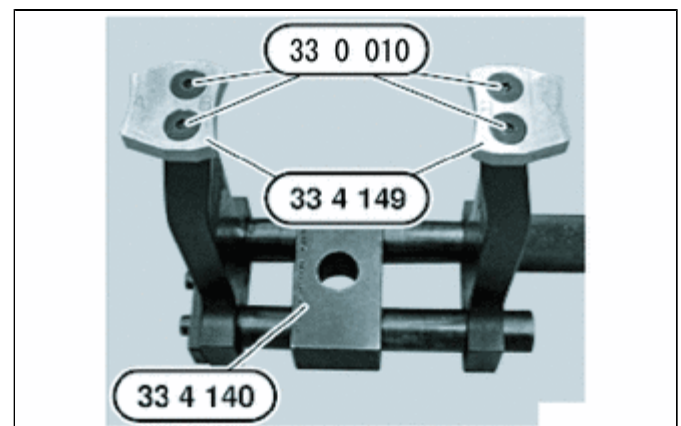
SST: 09500-WA100
SST: 09500-WA120
SST: 09500-WA220
SST: 09500-WA270
SST: 09600-WA020



17. REMOVE REAR SUSPENSION MEMBER BODY MOUNTING FRONT CUSHION

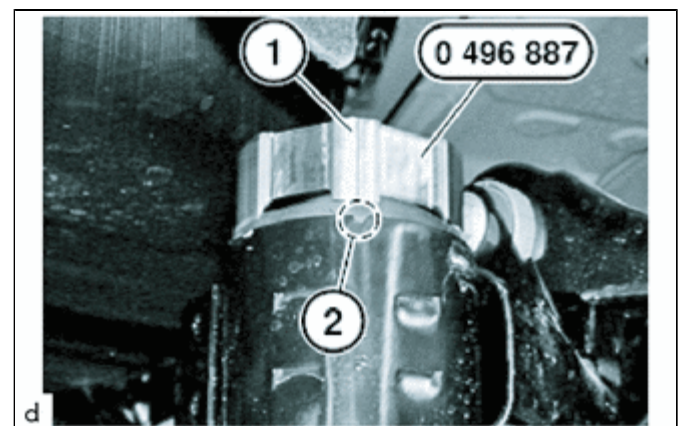
- (a) Assemble special tool 0 492 397 (33 4 140) in conjunction with 0 496 403 (33 0 012) and 0 492 406 (33 4 149).

SST: 09500-WA100
SST: 09500-WA270



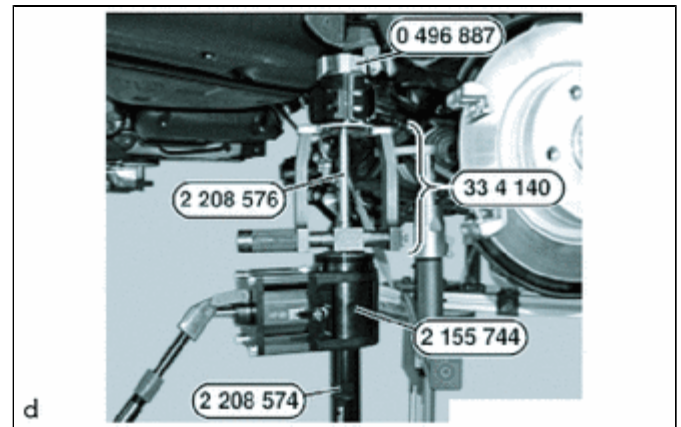
- (b) Align the notch (1) on the special tool 0 496 887 with the notch (2) on the rear suspension member sub-assembly.

SST: 09500-WA110



- (c) Pull the rear suspension member body mounting front cushion with the special tools 0 496 887, 0 492 397 (33 4 140), 2 208 576, 2 155 744 and 2 208 574 out of the rear suspension member sub-assembly.

SST: 09500-WA100
SST: 09500-WA110
SST: 09500-WA220
SST: 09500-WA270
SST: 09600-WA020



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER BODY MOUNTING CUSHION: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

NOTICE:

- Damage to the rear suspension member sub-assembly.

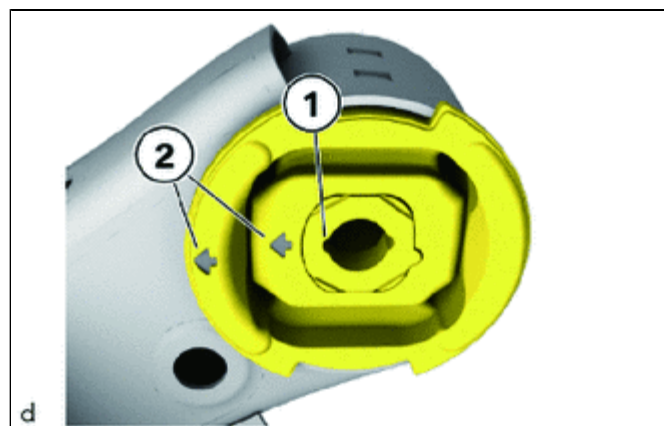
Non-observance of the pull-out and pull-in direction of the rear suspension member body mounting cushion will damage the rear suspension member sub-assembly.

- Adherence to the pull-out and pull-in direction is absolutely mandatory.

PROCEDURE

1. INSTALL REAR SUSPENSION MEMBER CUSHION

- (a) Make sure that the notch (1) and the arrows (2) of the rear suspension member cushion point in the direction of travel.



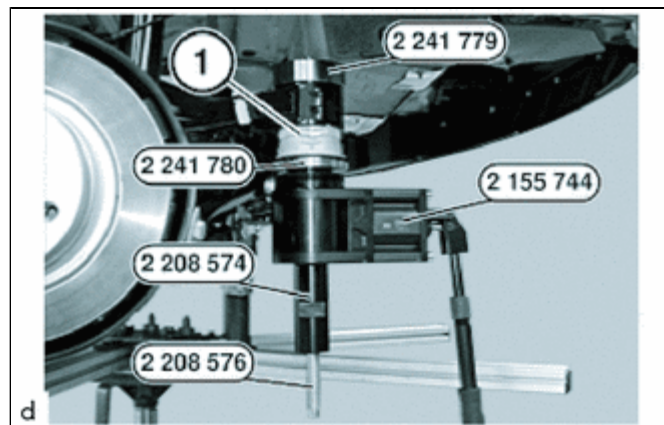
- (b) Insert the rear suspension member cushion (1) up to the limit position with the special tools 2 241 779, 2 155 744, 2 241 780, 2 208 574 and 2 208 576 .

SST: 09500-WA130

SST: 09500-WA140

SST: 09500-WA220

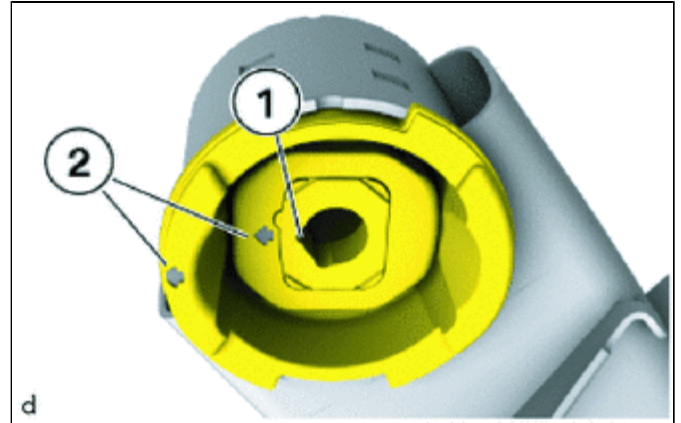
SST: 09600-WA020



- (c) Remove special tools for inserting rear suspension member cushion (1).

2. INSTALL REAR SUSPENSION MEMBER BODY MOUNTING FRONT CUSHION

- (a) Make sure that the notch (1) and the arrows (2) of the rear suspension member body mounting front cushion point in the direction of travel.

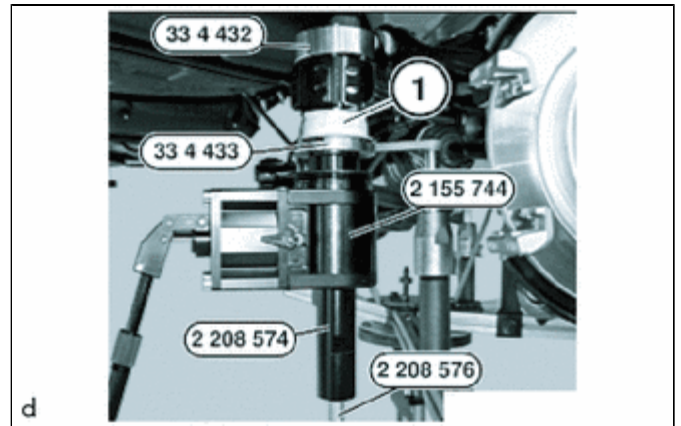


- (b) Insert the rear suspension member body mounting front cushion (1) up to limit position with the special tools 0 494 971 (33 4 432), 0 494 972 (33 4 433), 2 155 744, 2 208 574 and 2 208 576.

SST: 09500-WA220

SST: 09500-WA250

SST: 09600-WA020



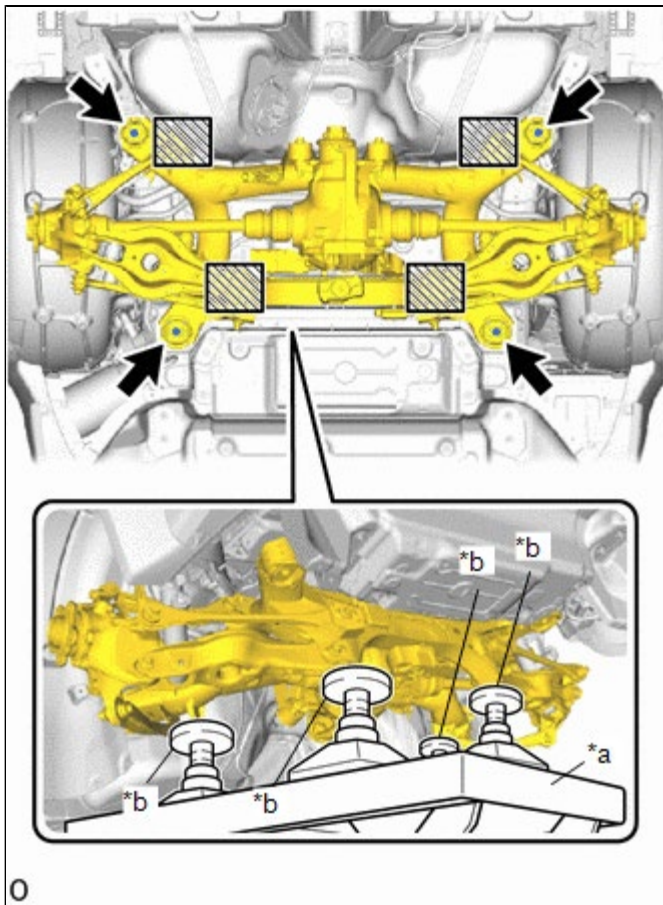
- (c) Remove special tools for inserting rear suspension member body mounting front cushion (1).


3. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY

HINT:

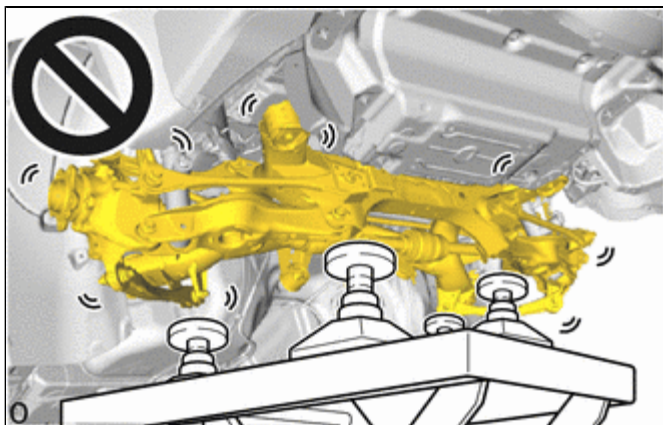
Perform the operations on the left and right side.

- (a) Using an engine lifter and 4 attachments or equivalent tools, support the rear suspension member sub-assembly as shown in the illustration.



*a	Engine Lifter
*b	Attachment
	Attachment and Wooden Block Placement Location

CAUTION:



- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

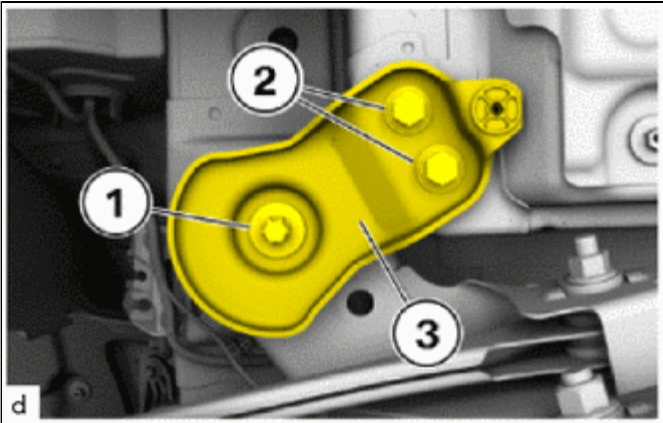
NOTICE:

- Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.
- Keep supporting the rear suspension member sub-assembly until the installation has been completed.

(b) Raise the rear suspension member sub-assembly until there is no clearance between the rear suspension member

sub-assembly and vehicle.

(c) Position rear suspension member rear lower brace LH (3).



(d) Replace E18 (1) bolt and 16 mm bolts (2).

(e) Tighten down 16 mm bolts (2).

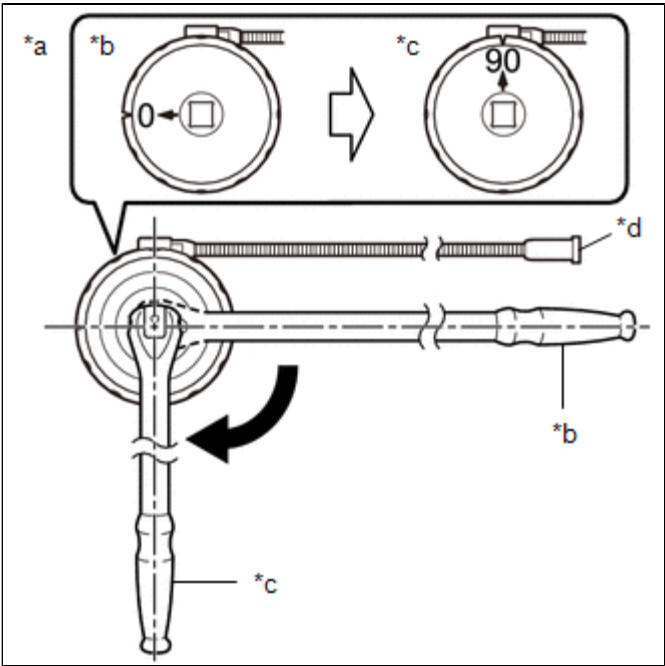
Torque:

47 N·m {479 kgf·cm, 35 ft·lbf}

(f) Using SST, tighten the 16 mm bolt (2) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

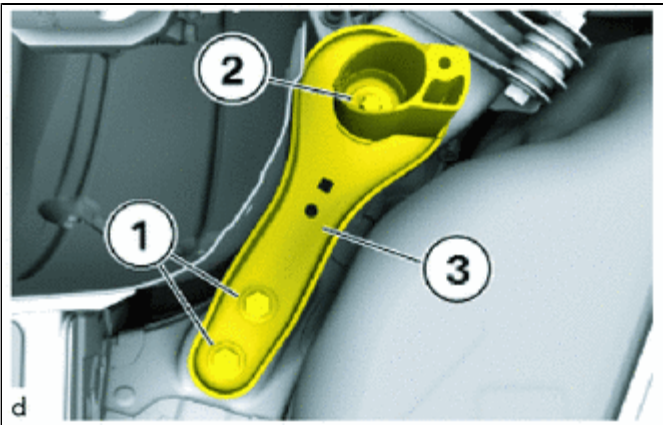
- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(g) Tighten down E18 bolt (1).

Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

(h) Position rear lower suspension member stopper LH (3).



(i) Replace 16 mm bolts (1) and E18 bolt (2).

(j) Tighten the 16 mm bolts (1).

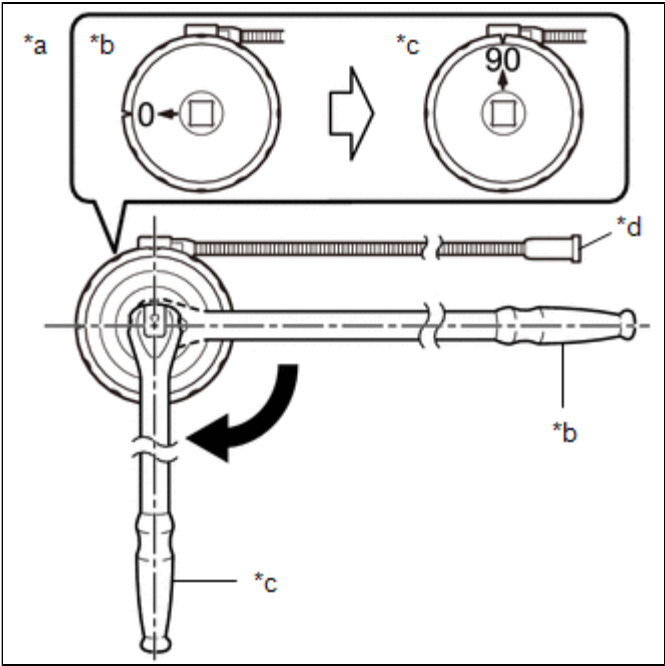
Torque:

47 N·m {479 kgf·cm, 35 ft·lbf}

(k) Using SST, tighten the 16 mm bolt (1) an additional 45°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.

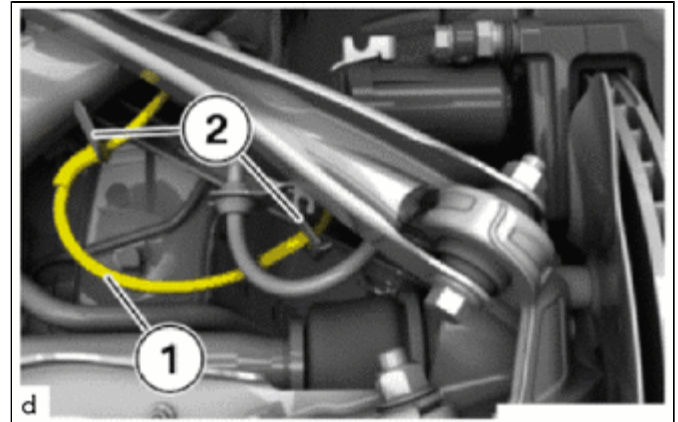
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(l) Tighten down E18 bolt (2).

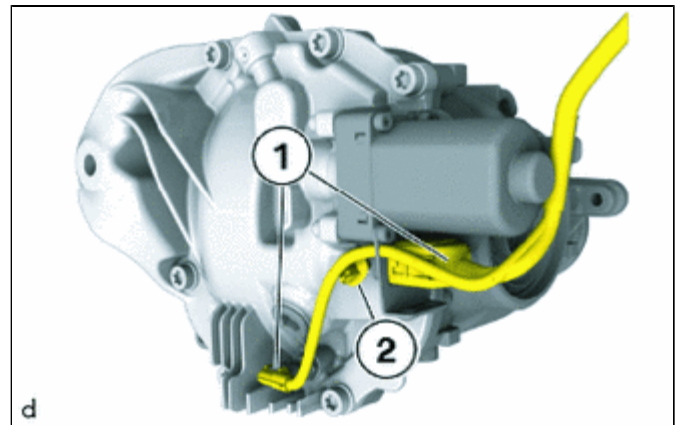
Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

(m) Attach the cable of the parking brake (1) in the holders (2).



(n) Connect connectors (1) and lock.



(o) Attach the cable clip (2).

(p) Connect the ground wire with the bolt.

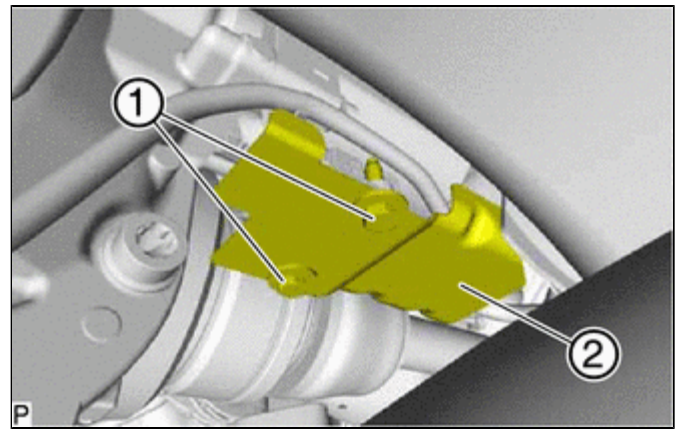
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(q) Install the rear differential protector (2) with the bolts (1).

Torque:

4.5 N·m {46 kgf·cm, 40 in·lbf}



4. INSTALL REAR COIL SPRING LH

Click here [INFO](#)

5. INSTALL REAR COIL SPRING RH

HINT:

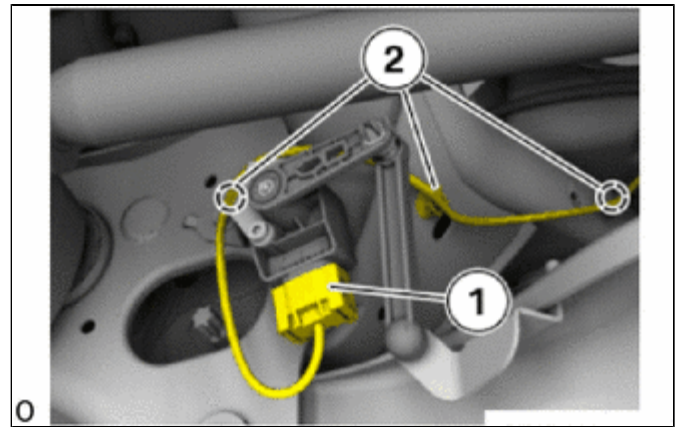
Use the same procedure as for the LH side.

6. INSTALL PROPELLER SHAFT WITH CENTER BEARING ASSEMBLY

Click here [INFO](#)

7. INSTALL WIRE HARNESS

(a) Connect connector (1) and lock.



(b) Route wire harness of the rear height control sensor sub-assembly through brackets (2).

8. INSTALL REAR FLEXIBLE HOSE LH

(a) Feed rear flexible hose LH into the holder.

NOTICE:

Make sure that the rear flexible hose LH does not rest against the components fixed to the body and that it is not twisted.

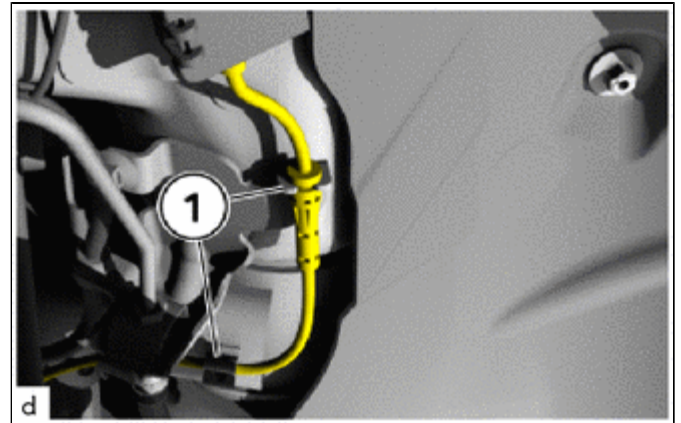
9. INSTALL REAR FLEXIBLE HOSE RH

HINT:

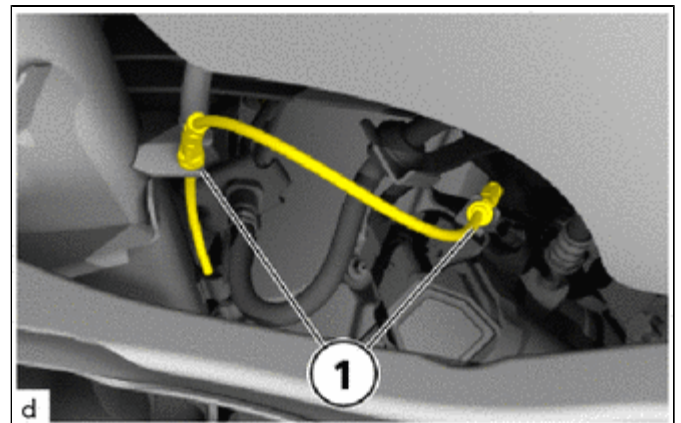
Use the same procedure as for the LH side.

10. INSTALL PAD WEAR INDICATOR WIRE ASSEMBLY (for RH Side)

- (a) Attach cable of pad wear indicator wire assembly in the holders (1).

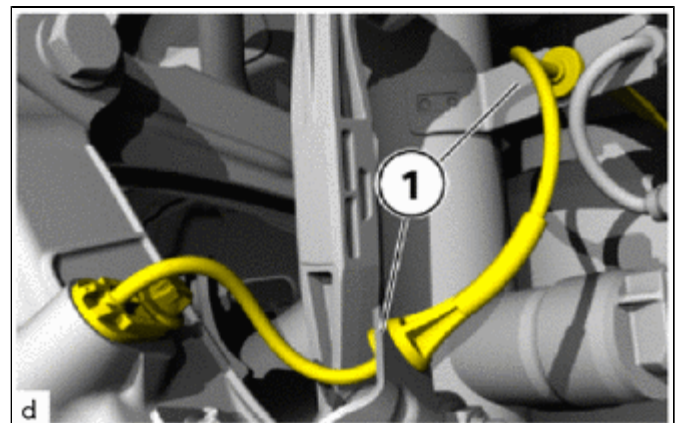


- (b) Attach cable of pad wear indicator wire assembly in the holders (1).

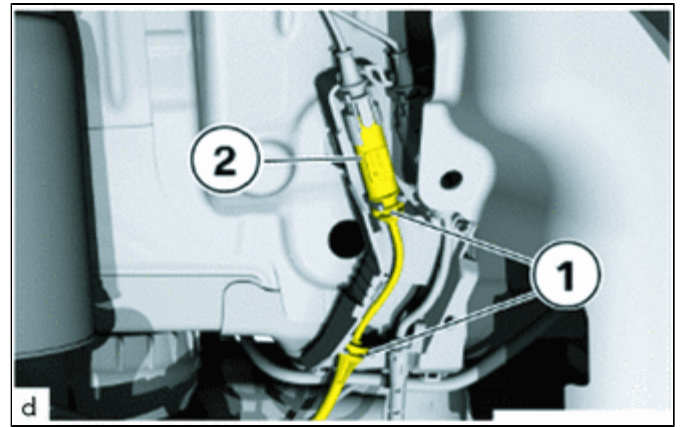


11. INSTALL REAR SKID CONTROL SENSOR WIRE LH

- (a) Connect the cable of the rear skid control sensor wire LH in the brackets (1).



(b) Connect the cable of the rear skid control sensor wire LH in the brackets (1).



(c) Connect connector (2) and lock.

12. INSTALL REAR SKID CONTROL SENSOR WIRE RH

HINT:

Use the same procedure as for the LH side.

13. INSTALL REAR WHEEL HOUSE LINER LH

HINT:

Use the same procedure as for the RH side.

14. INSTALL REAR WHEEL HOUSE LINER RH

Click here [INFO](#)

15. INSTALL REAR SUSPENSION ARM COVER LH

Click here [INFO](#)

16. INSTALL REAR SUSPENSION ARM COVER RH

HINT:

Use the same procedure as for the LH side.

17. INSTALL REAR WHEEL

Click here [INFO](#)

18. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

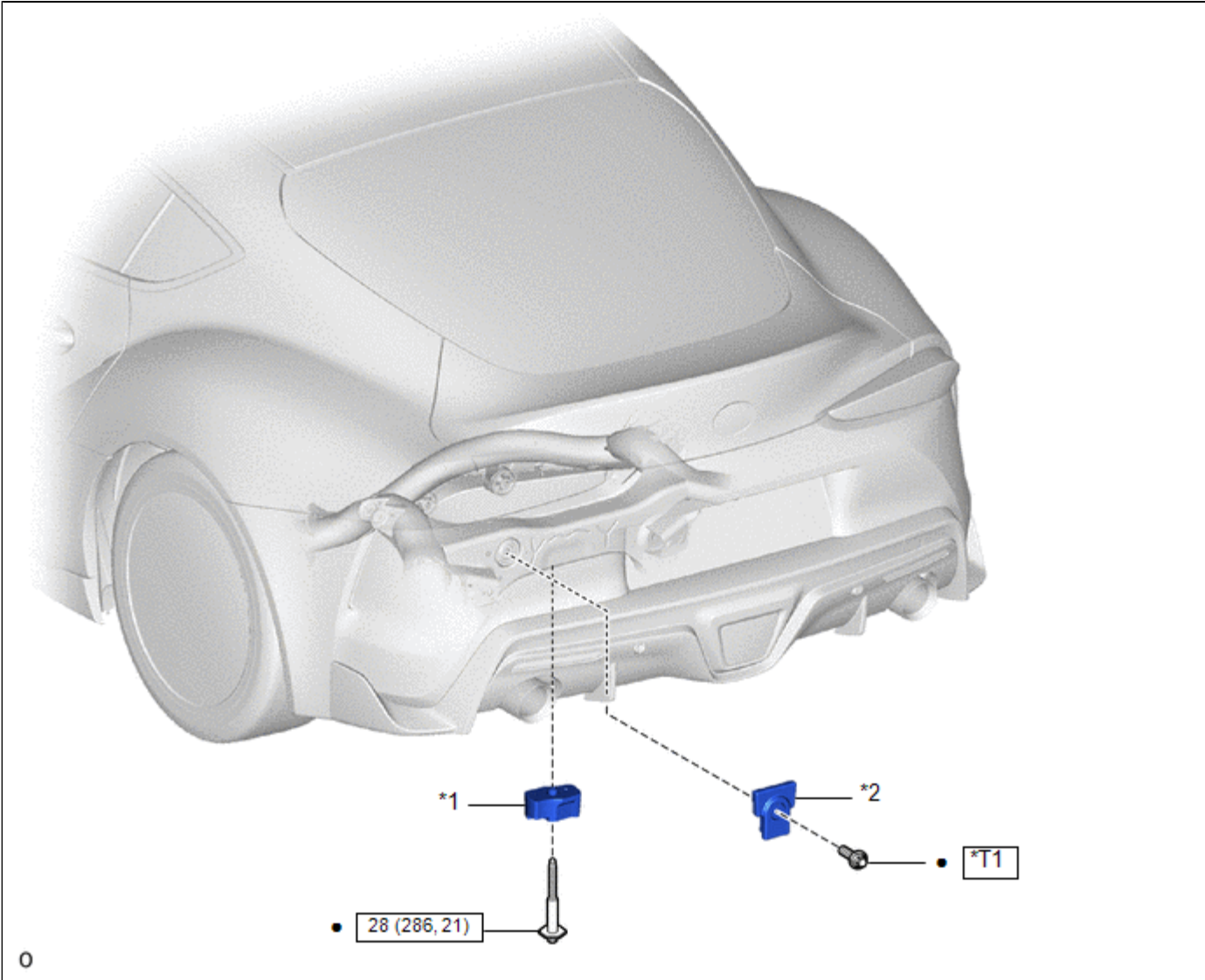
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER DAMPER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REAR SUSPENSION MEMBER DAMPER	*2	VIBRATION ABSORBER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st (For use without a union nut wrench and SST): 56 (571, 41) 1st (For use with a union nut wrench and SST): 28 (286, 21) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER DAMPER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

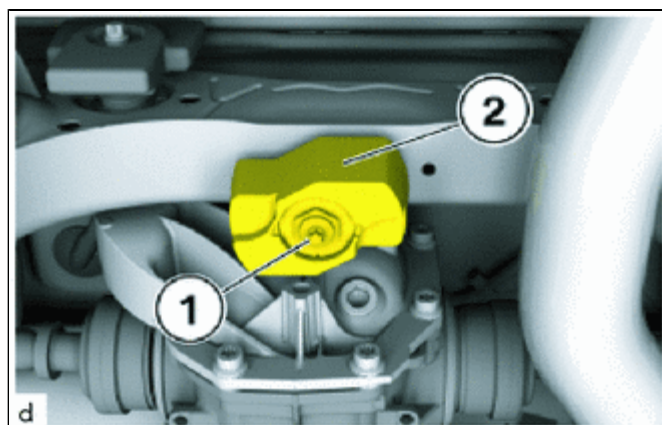
- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE REAR SUSPENSION MEMBER DAMPER

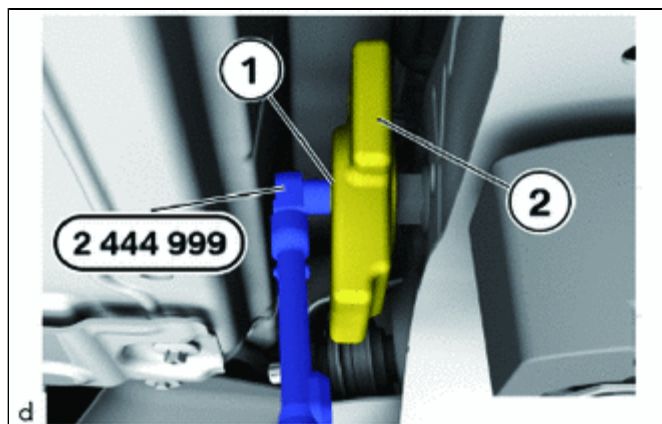
- (a) Unscrew the E12 bolt (1) and remove the rear suspension member damper (2).



2. REMOVE VIBRATION ABSORBER

- (a) Unscrew the bolt (1) on the vibration absorber (2) with the special tool 2 444 999.

SST: 09700-WA140



(b) Remove the vibration absorber (2).



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR SUSPENSION MEMBER DAMPER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL REAR SUSPENSION MEMBER DAMPER

- (a) Replace the E12 bolt.
- (b) Position the rear suspension member damper and tighten the E12 bolt.

Torque:
28 N·m {286 kgf·cm, 21 ft·lbf}

2. INSTALL VIBRATION ABSORBER

- (a) Position the vibration absorber.
- (b) Replace the bolt.

- (c) Tighten the bolt (1) with the special tool 2 444 999, SST and 13 mm union nut wrench.

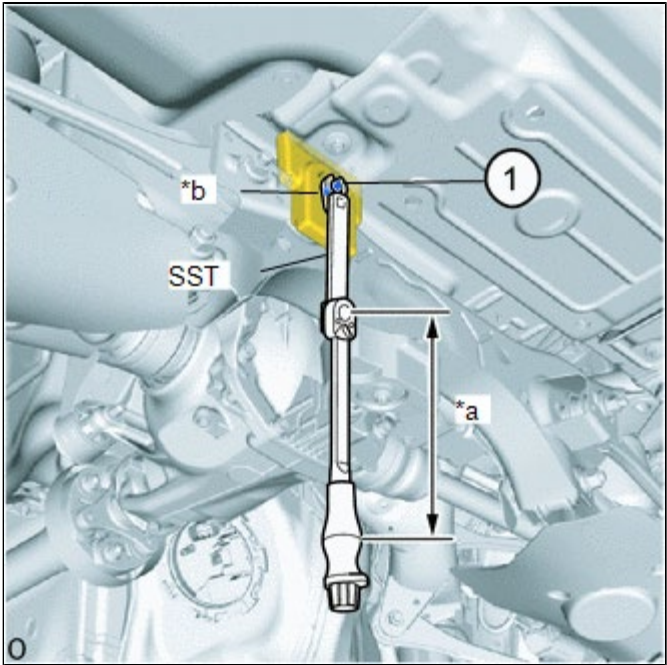
SST: 09961-00950
SST: 09700-WA140

Torque:
Specified tightening torque :
56 N·m {571 kgf·cm, 41 ft·lbf}

HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.
- Click here [INFO](#)
- When using a 13 mm union nut wrench (fulcrum length of 30 mm (1.18 in.)) + SST (fulcrum length of 150 mm (5.91 in.)) + torque wrench (fulcrum length of 180 mm (7.09 in.)):

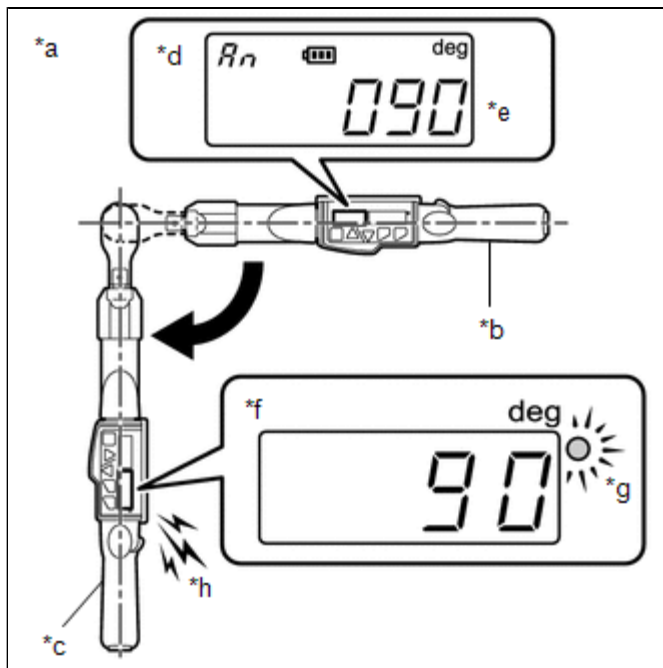
28 N*m (286 kgf*cm, 21 ft.*lbf)



*a	Torque Wrench Fulcrum Length
*b	13 mm Union Nut Wrench

- (d) Using a digital angle torque wrench, tighten the bolt an additional 90°.

HINT:



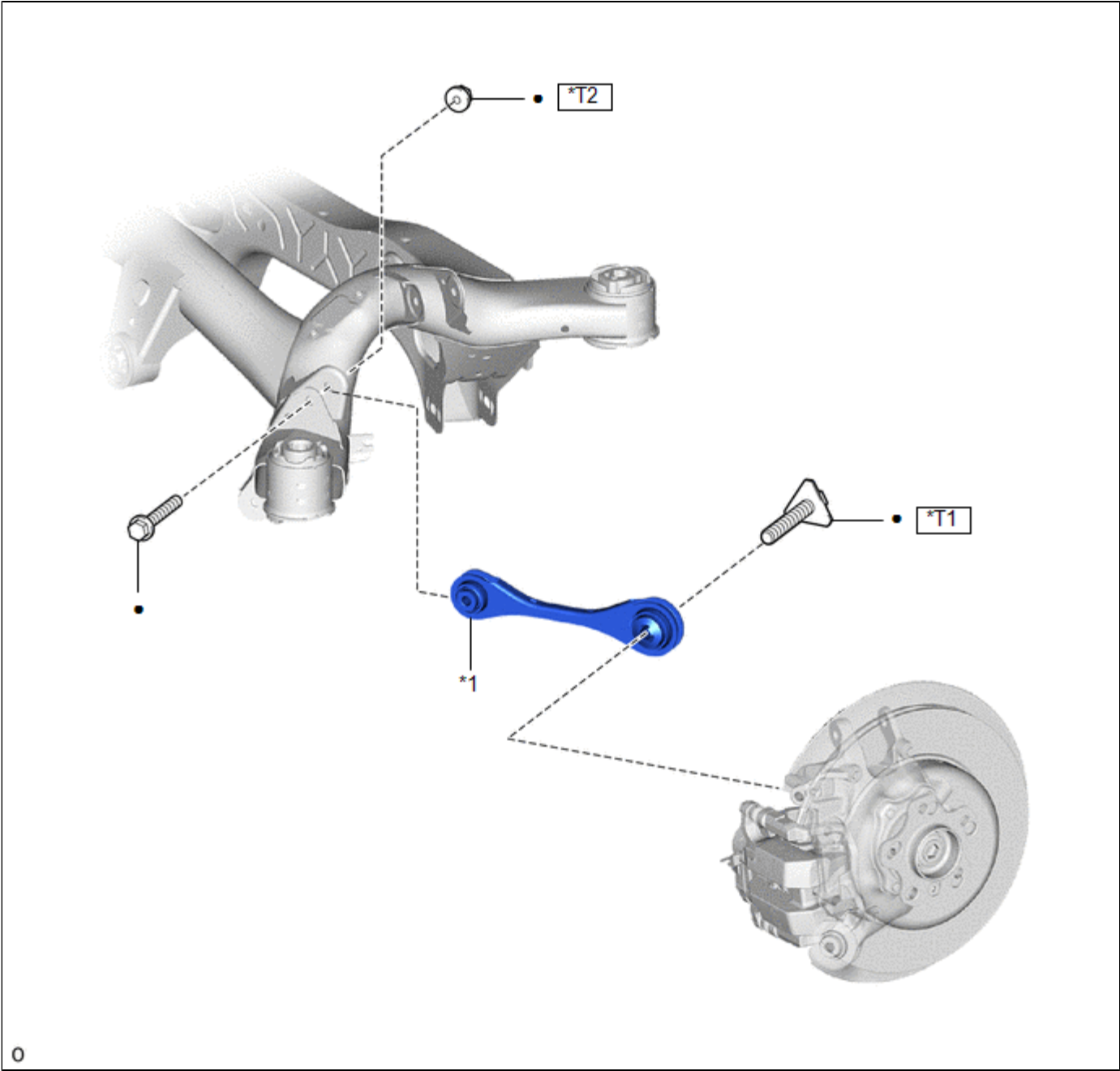
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Set Angle Display
*e	Setting the Specified Angle
*f	Tightening Angle Display
*g	LED Notification
*h	Buzzer Notification

- When using the digital angle torque wrench, set the wrench to the specified tightening angle before use.
- When using the digital angle torque wrench, check the tightening angle display while performing the work.
- When tightening reaches the set angle, the buzzer will sound and a blue LED will illuminate.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR UPPER ARM: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

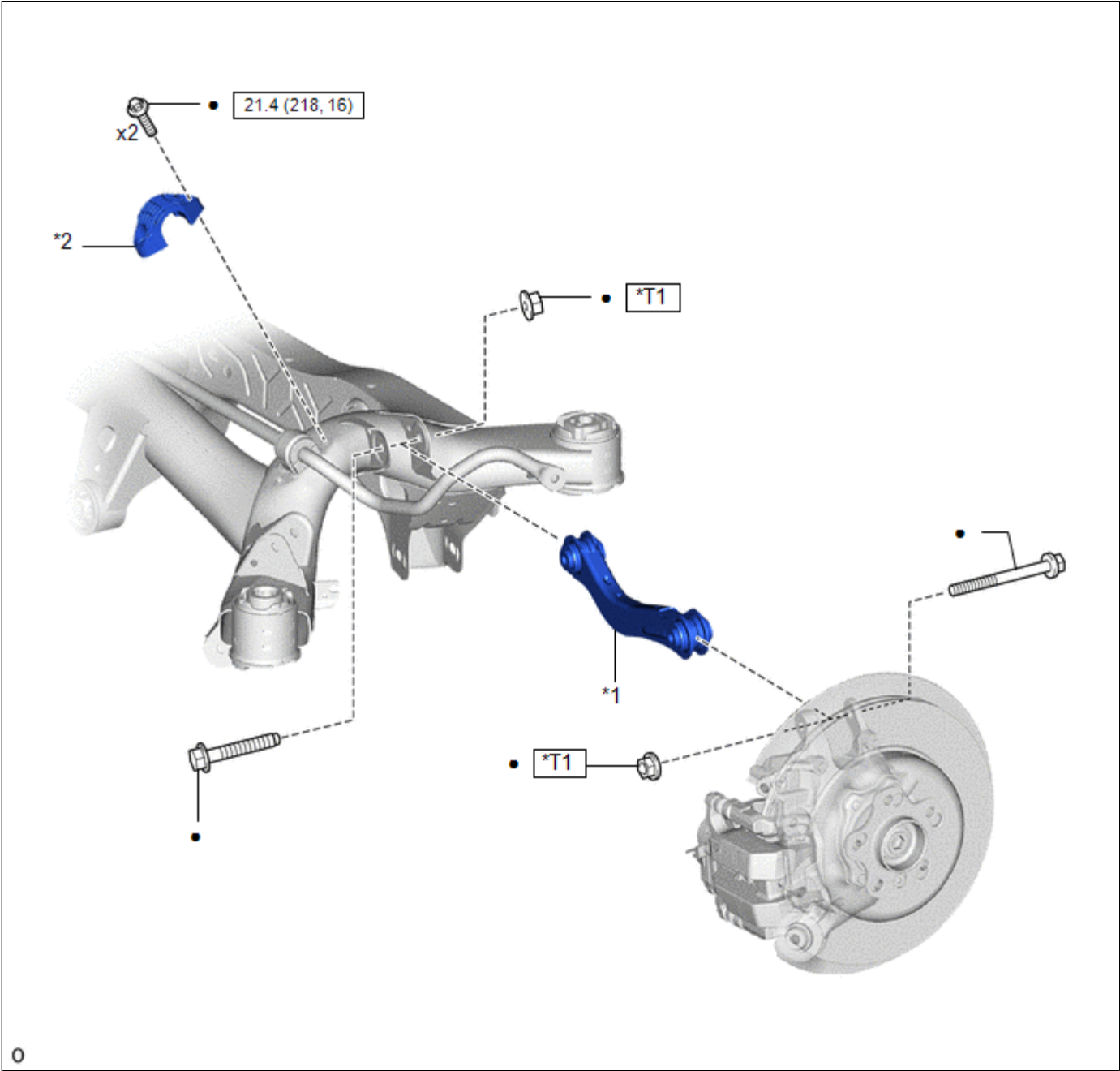
ILLUSTRATION



*1	REAR UPPER CONTROL ARM ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

*T1	1st: 165 (1683, 122) 2nd: Turn 90°	*T2	1st: 100 (1020, 74) 2nd: Turn 90°
-----	---------------------------------------	-----	--------------------------------------

ILLUSTRATION



*1	REAR NO. 2 UPPER CONTROL ARM ASSEMBLY	*2	REAR NO. 1 STABILIZER BAR BRACKET
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR UPPER ARM: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Motor vehicle may slip off the vehicle hoist where components are supported.

Danger! Life-threatening injuries!

- Secure the vehicle hoist against lowering and lifting.

- Motor vehicle may slip off the vehicle hoist if the weight is distributed unevenly.

Danger! Life-threatening injuries!

- Ensure there is a specific weight compensation on the motor vehicle.

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE REAR SUSPENSION MEMBER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE REAR UPPER CONTROL ARM ASSEMBLY

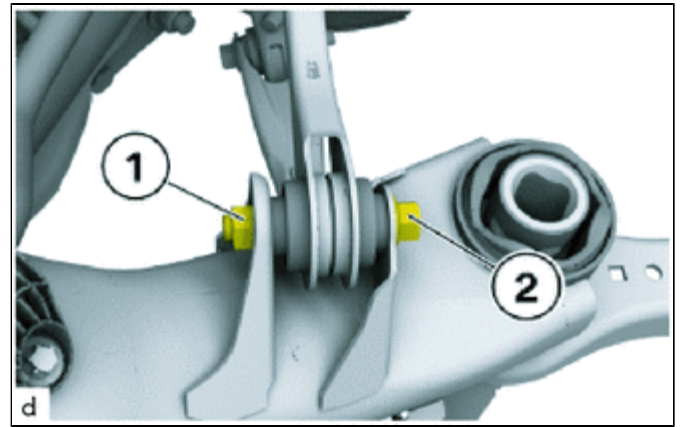
CAUTION:

- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

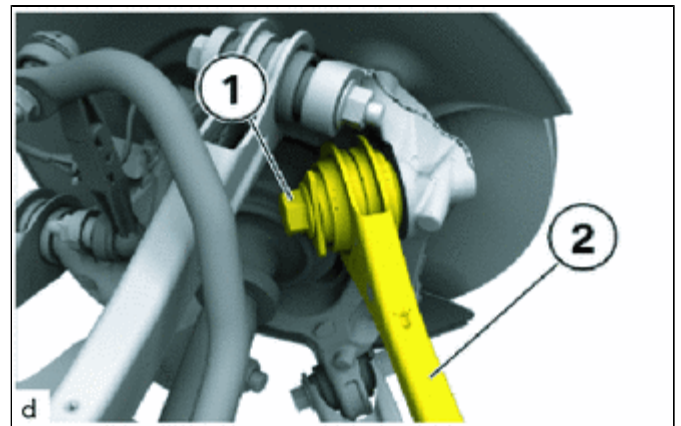
NOTICE:

Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.

(a) Unfasten 18 mm nut (1).



(b) Remove the 16 mm bolt (2).



(c) Release bolt (1) and remove the rear upper control arm assembly (2).

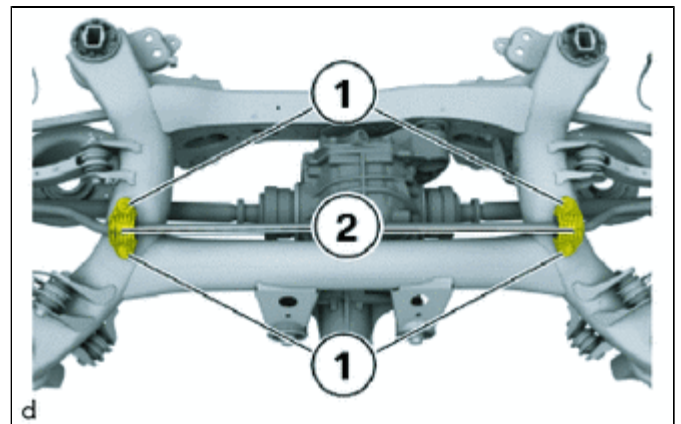
3. REMOVE REAR NO. 2 UPPER CONTROL ARM ASSEMBLY

CAUTION:

- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

NOTICE:

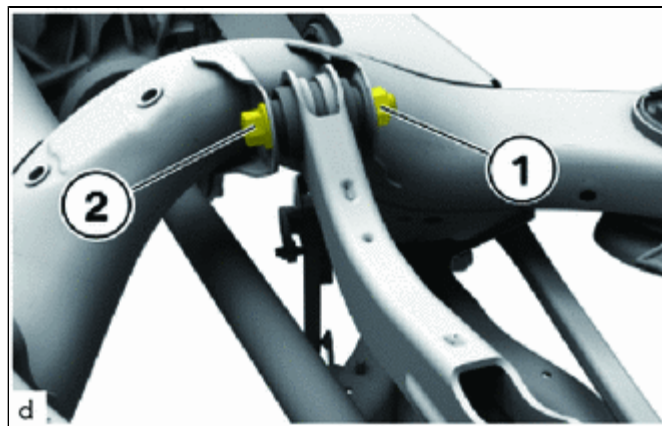
Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.



(a) Loosen E12 bolts (1).

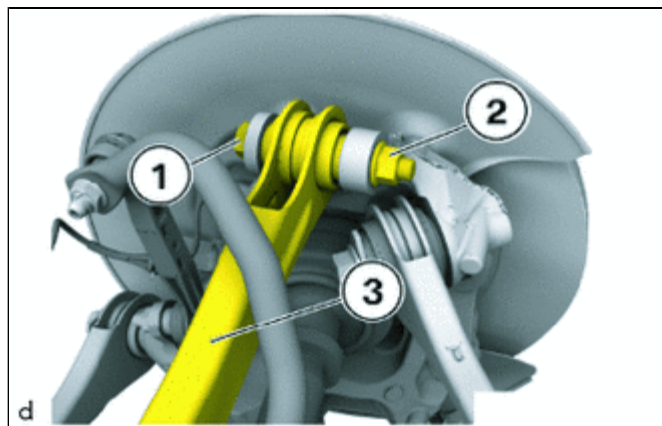
(b) Remove rear No. 1 stabilizer bar bracket (2) from the rear stabilizer bar.

(c) Unfasten 18 mm nut (1).



(d) Remove the 16 mm bolt (2).

(e) Loosen 18 mm nut (2).



(f) Remove the 18 mm bolt (1).

(g) Remove rear No. 2 upper control arm assembly (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: REAR UPPER ARM: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL REAR NO. 2 UPPER CONTROL ARM ASSEMBLY

CAUTION:

- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

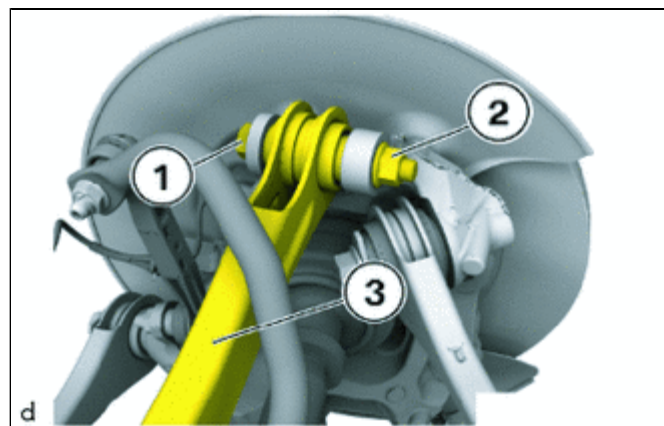
NOTICE:

Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.

HINT:

Tighten the bolt connection in the normal position.

(a) Position the rear No. 2 upper control arm assembly (3).



(b) Replace the 18 mm bolt (1) and the 18 mm nut (2).

(c) Position 18 mm bolt (1).

(d) Tighten 18 mm nut (2).

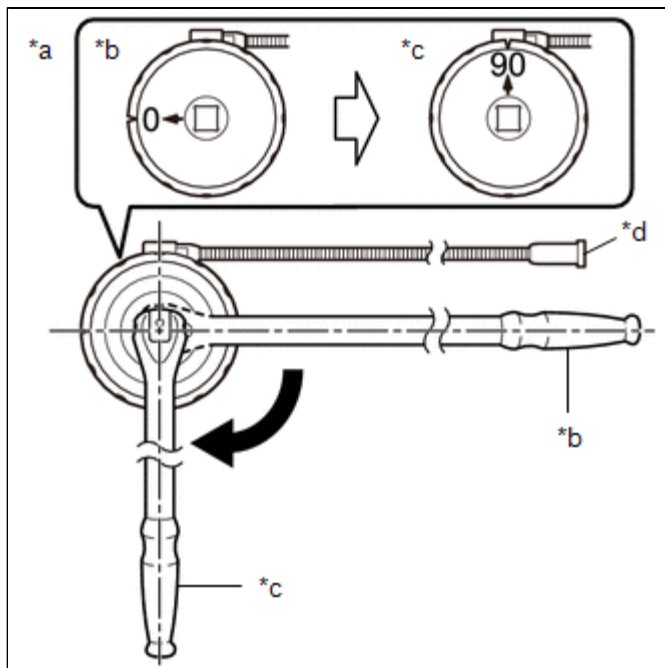
Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(e) Using SST, tighten the nut (2) an additional 90°.

SST: 09900-WA010

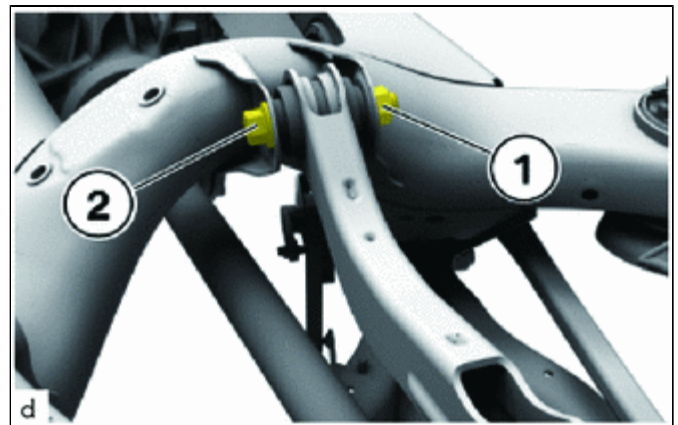
HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(f) Replace the 18 mm nut (1) and 16 mm bolt (2).



(g) Position 16 mm bolt (2).

(h) Tighten 18 mm nut (1).

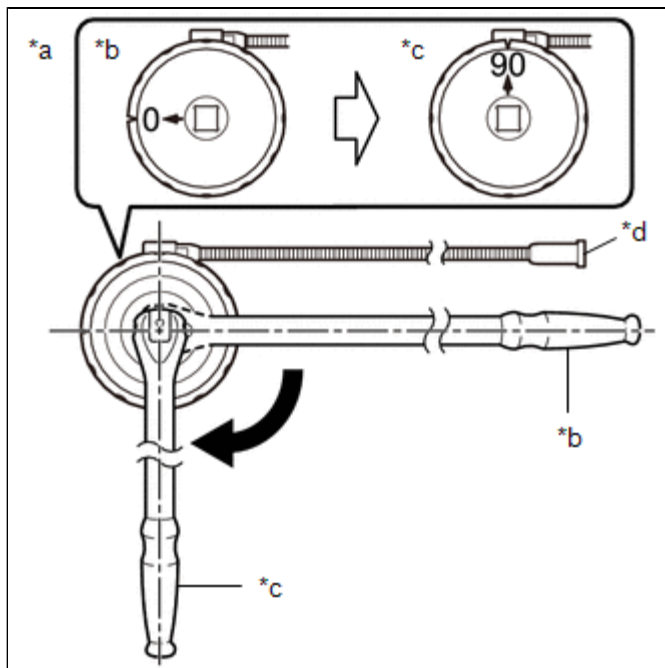
Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(i) Using SST, tighten the nut (1) an additional 90°.

SST: 09900-WA010

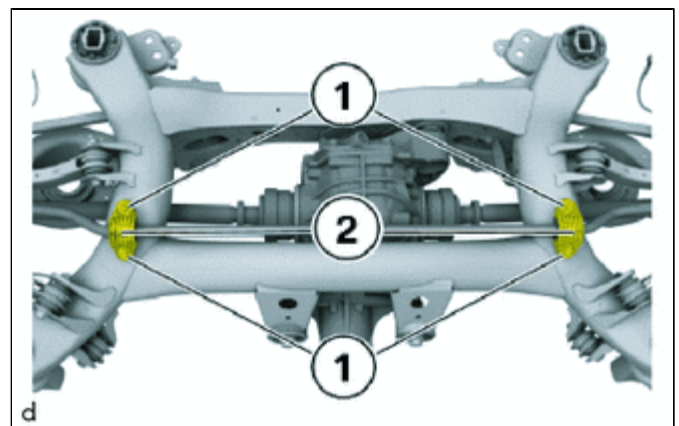
HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(j) Position rear No. 1 stabilizer bar bracket (2) on the rear stabilizer bar.



(k) Replace E12 bolts (1).

(l) Tighten the E12 bolts (1).

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

2. INSTALL REAR UPPER CONTROL ARM ASSEMBLY

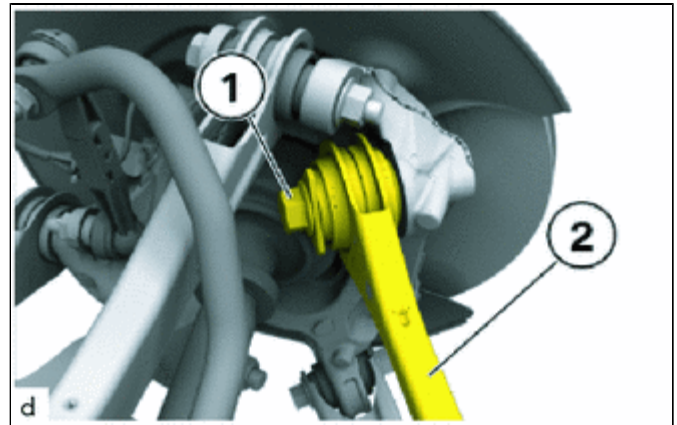
CAUTION:

- The rear suspension member sub-assembly is a very heavy component. Make sure that it is supported securely.
- If the rear suspension member sub-assembly is not securely supported, it may drop, resulting in serious injury.

NOTICE:

Use attachments and wooden blocks to keep the rear suspension member sub-assembly level.

(a) Position the rear upper control arm assembly (2).



(b) Replace the bolt (1).

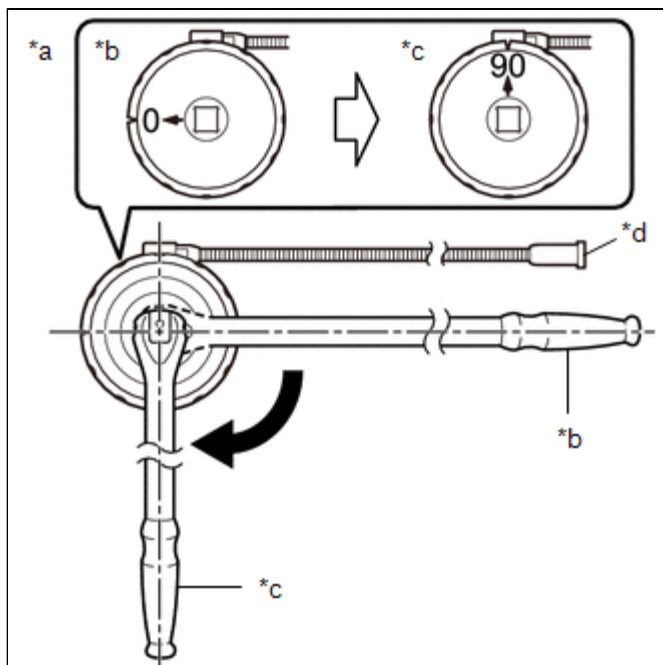
(c) Tighten down bolt (1).

Torque:

165 N·m {1683 kgf·cm, 122 ft·lbf}

(d) Using SST, tighten the bolt (1) an additional 90°.

SST: 09900-WA010

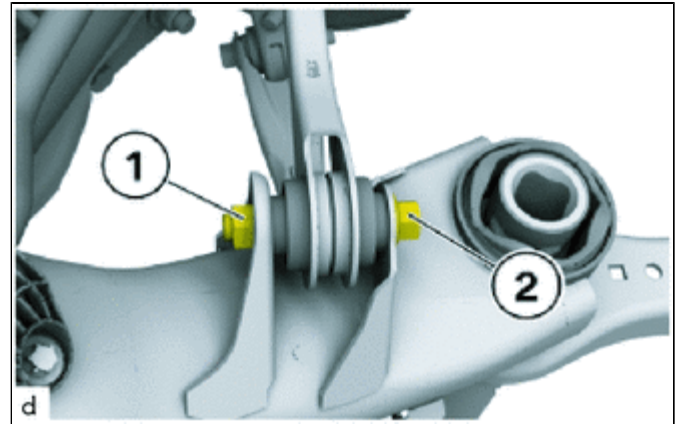
HINT:

*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.

- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) Replace the 16 mm bolt (2) and the 18 mm nut (1).



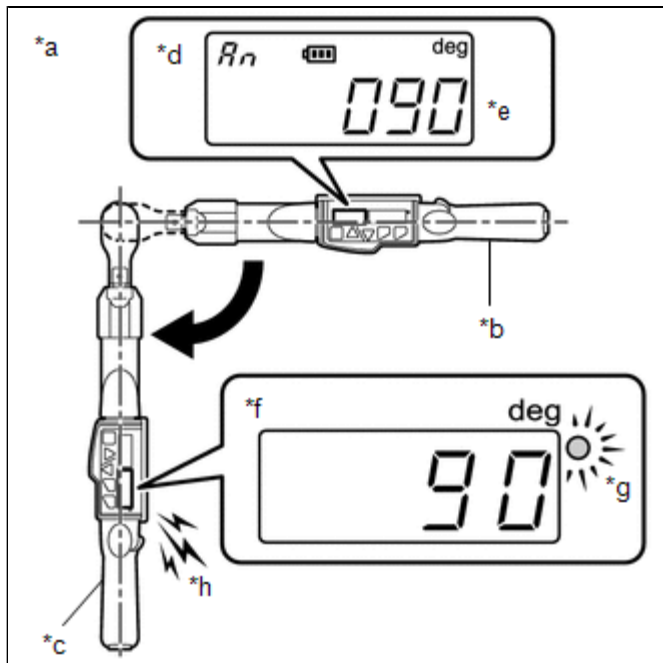
(f) Tighten 18 mm nut (1).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

(g) Using a digital angle torque wrench, tighten the 18 mm nut (1) an additional 90°.

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Set Angle Display
*e	Setting the Specified Angle
*f	Tightening Angle Display
*g	LED Notification
*h	Buzzer Notification

- When using the digital angle torque wrench, set the wrench to the specified tightening angle before use.

- When using the digital angle torque wrench, check the tightening angle display while performing the work.
- When tightening reaches the set angle, the buzzer will sound and a blue LED will illuminate.

3. INSTALL REAR SUSPENSION MEMBER SUB-ASSEMBLY

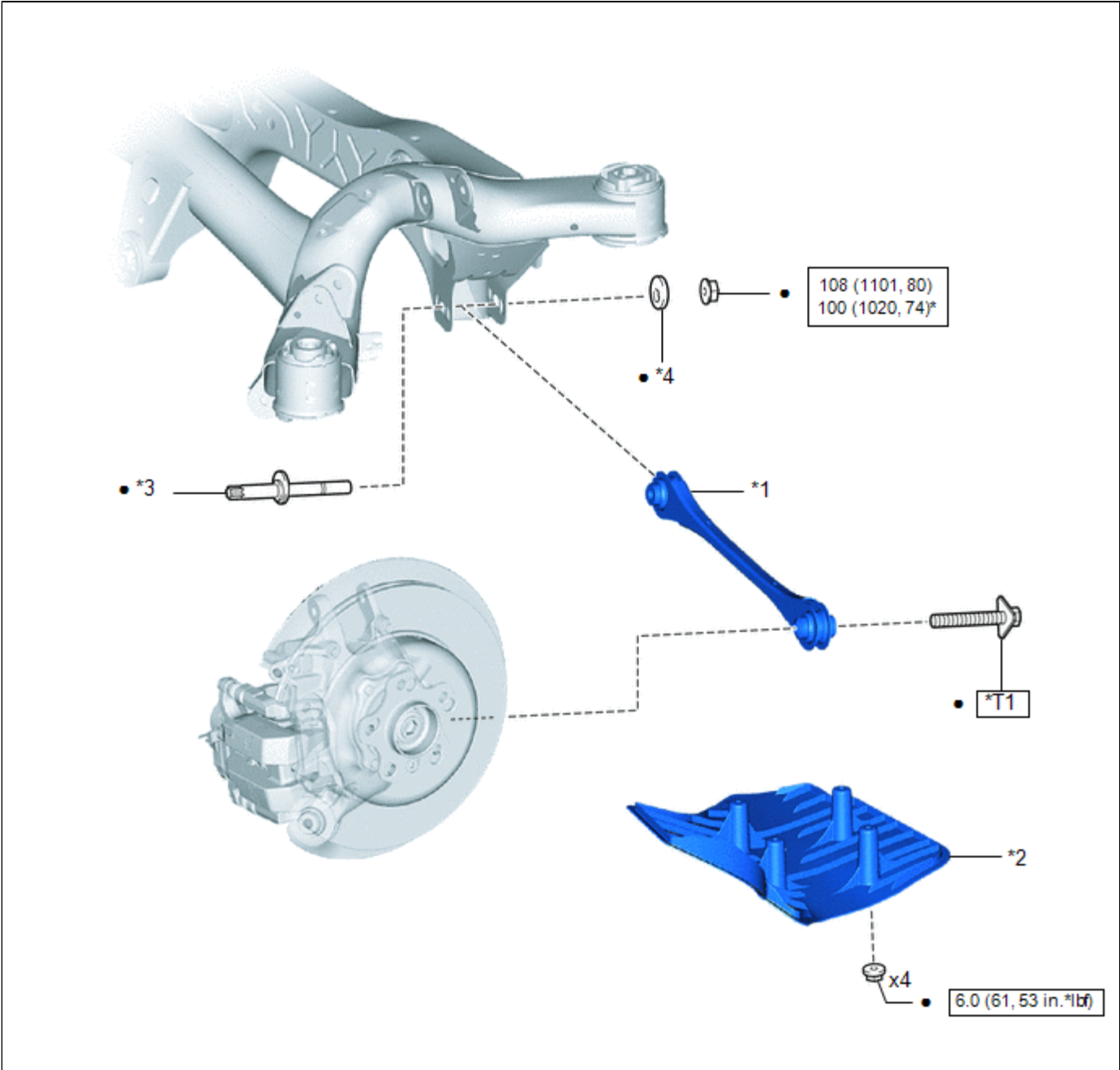
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: TOE CONTROL LINK: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TOE CONTROL LINK SUB-ASSEMBLY	*2	REAR SUSPENSION ARM COVER
*3	TOE ADJUST BOLT	*4	TOE ADJUST WASHER
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with a union nut wrench

•	Non-reusable part	-	-
*T1	1st: 100 (1020, 74) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: TOE CONTROL LINK: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE REAR WHEEL

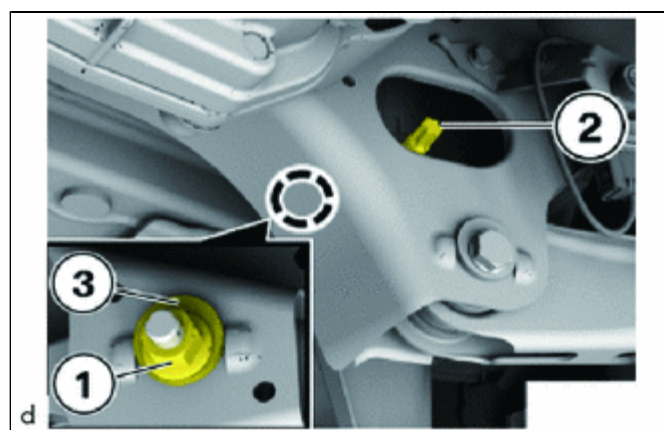
Click here [INFO](#)

2. REMOVE REAR SUSPENSION ARM COVER

Click here [INFO](#)

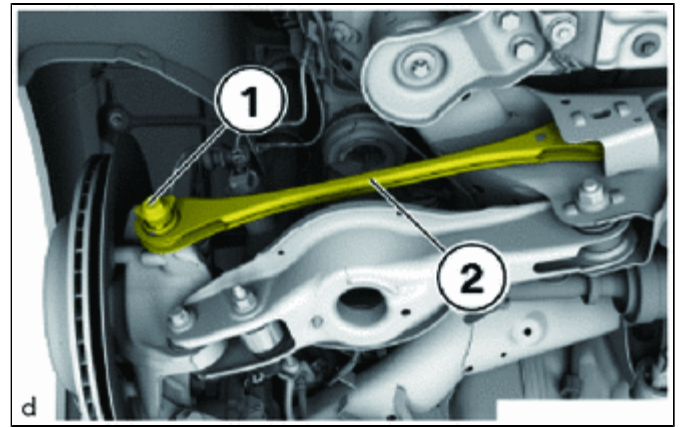
3. REMOVE TOE CONTROL LINK SUB-ASSEMBLY

- (a) Release 18 mm nut (1) and counter-hold on toe adjust bolt (2).



- (b) Remove the toe adjust bolt (2) and toe adjust washer (3).

(c) Unscrew the bolt (1) and remove the toe control link sub-assembly (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: REAR SUSPENSION: TOE CONTROL LINK: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

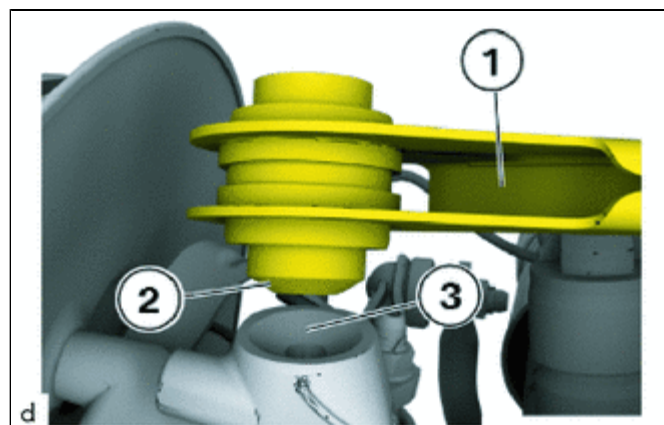
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.
- Tighten the bolt connection in the normal position.

PROCEDURE

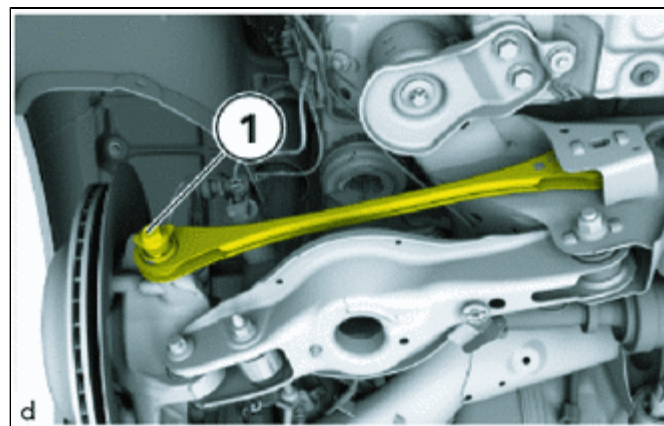
1. INSTALL TOE CONTROL LINK SUB-ASSEMBLY

(a) Position the toe control link sub-assembly.

(b) When installing the toe control link sub-assembly (1), make sure that the tapered side (2) of the rubber mount points in the direction of the rear axle carrier sub-assembly (3).

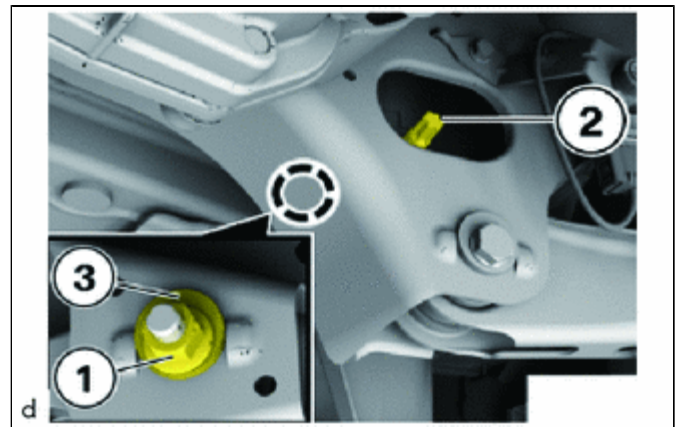


(c) Replace the bolt (1).



(d) Hand-tighten the bolt (1).

(e) Replace the 18 mm nut (1), toe adjust bolt (2) and toe adjust washer (3).



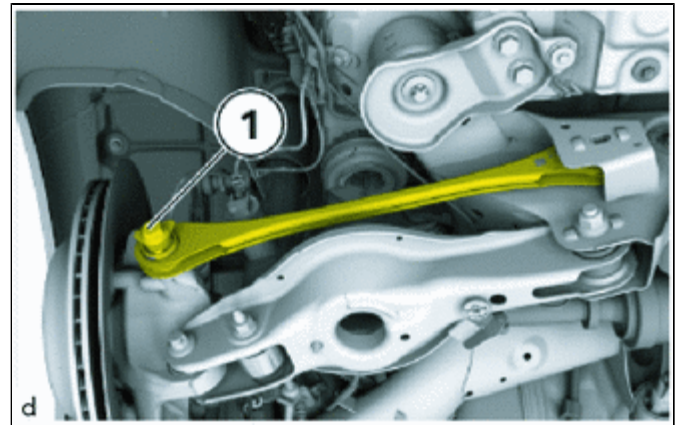
(f) Position the 18 mm nut (1) and toe adjust washer (3).

(g) Hand-tighten the toe adjust bolt (2).

(h) Tighten down bolt (1).

Torque:

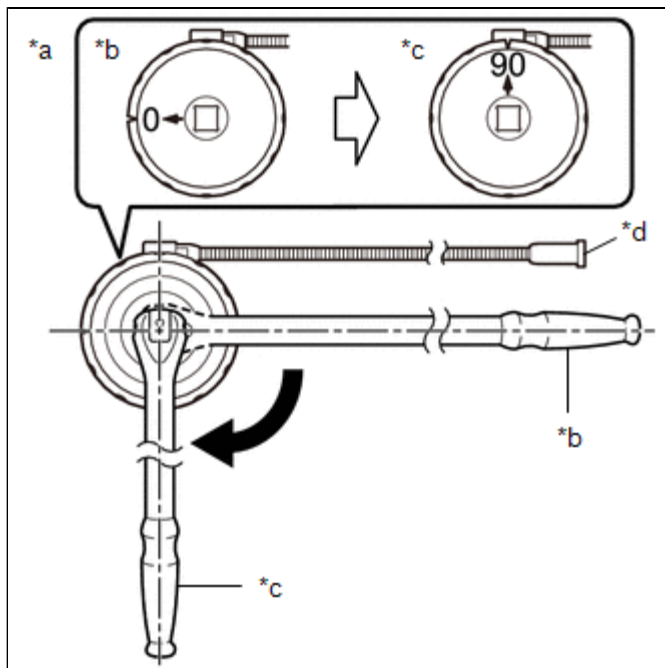
100 N·m {1020 kgf·cm, 74 ft·lbf}



(i) Using SST, tighten the bolt (1) an additional 90°.

SST: 09900-WA010

HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(j) Using an 18 mm union nut wrench, tighten the 18 mm nut (1).

Torque:

Specified tightening torque :

108 N·m {1101 kgf·cm, 80 ft·lbf}

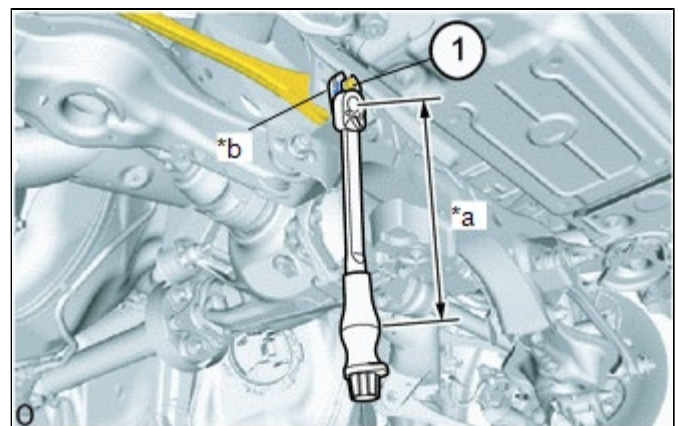
HINT:

- If necessary, counter support the toe adjust bolt.
- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)

- When using an 18 mm union nut wrench (fulcrum length of 30 mm (1.18 in.)) + torque wrench (fulcrum length of 400 mm (15.7 in.)):

100 N·m (1020 kgf·cm, 74 ft·lbf)



*a	Torque Wrench Fulcrum Length
*b	18 mm Union Nut Wrench

2. INSTALL REAR SUSPENSION ARM COVER

Click here [INFO](#)

3. INSTALL REAR WHEEL

Click here [INFO](#)

4. INSPECT AND ADJUST REAR WHEEL ALIGNMENT

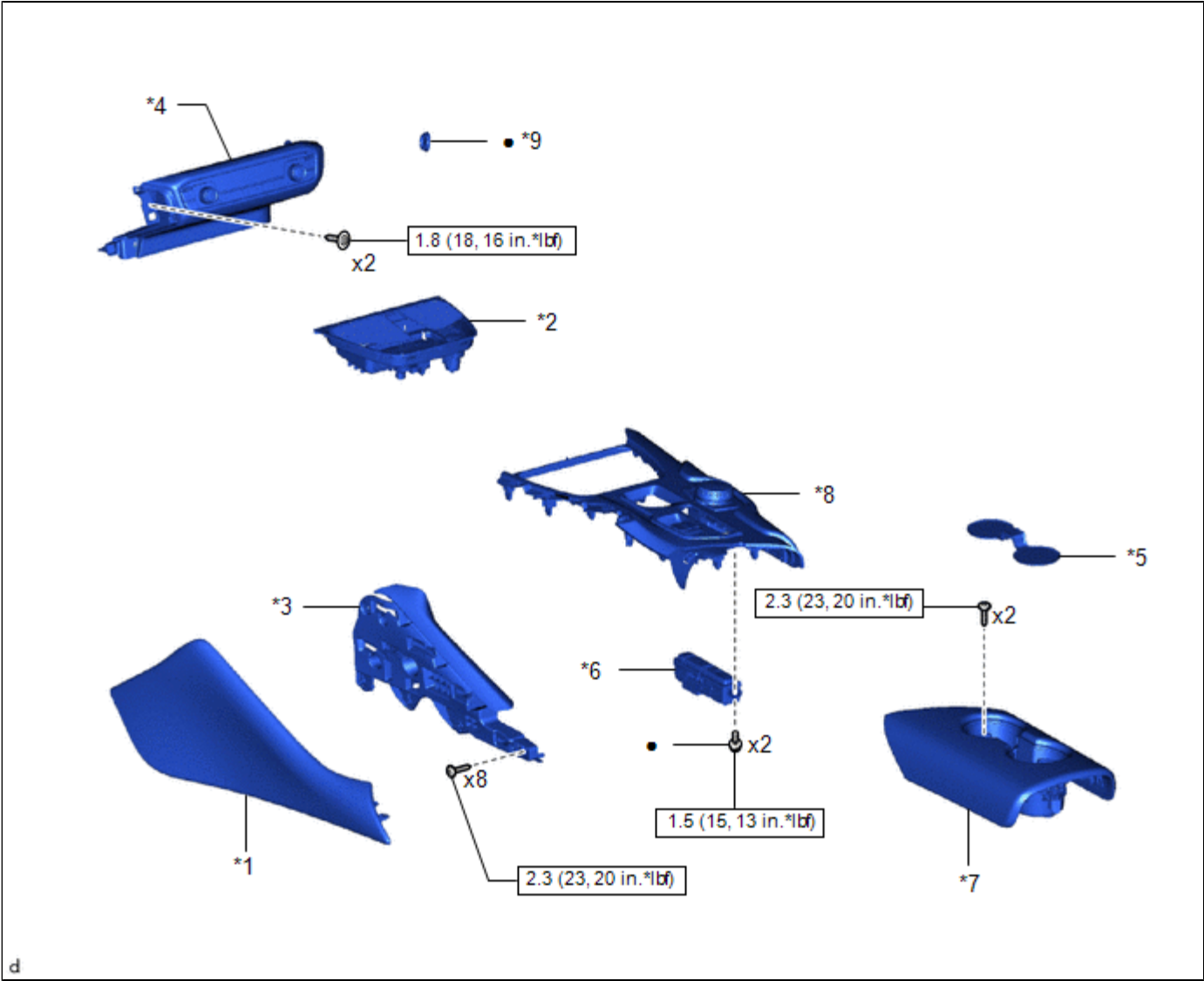
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: ABSORBER CONTROL SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONSOLE SIDE PANEL	*2	FRONT CONSOLE BOX COVER
*3	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	NO. 1 CONSOLE BOX SILENCER PAD	*6	ABSORBER CONTROL SWITCH (PATTERN SELECT SWITCH ASSEMBLY)
*7	REAR CONSOLE ARMREST ASSEMBLY	*8	UPPER CONSOLE PANEL SUB-ASSEMBLY
*9	RUBBER PLUG	-	-
N*m (kgf*cm, ft.*lbf): Specified			



torque

•

Non-reusable part



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: ABSORBER CONTROL SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE ABSORBER CONTROL SWITCH (PATTERN SELECT SWITCH ASSEMBLY)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: ABSORBER CONTROL SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

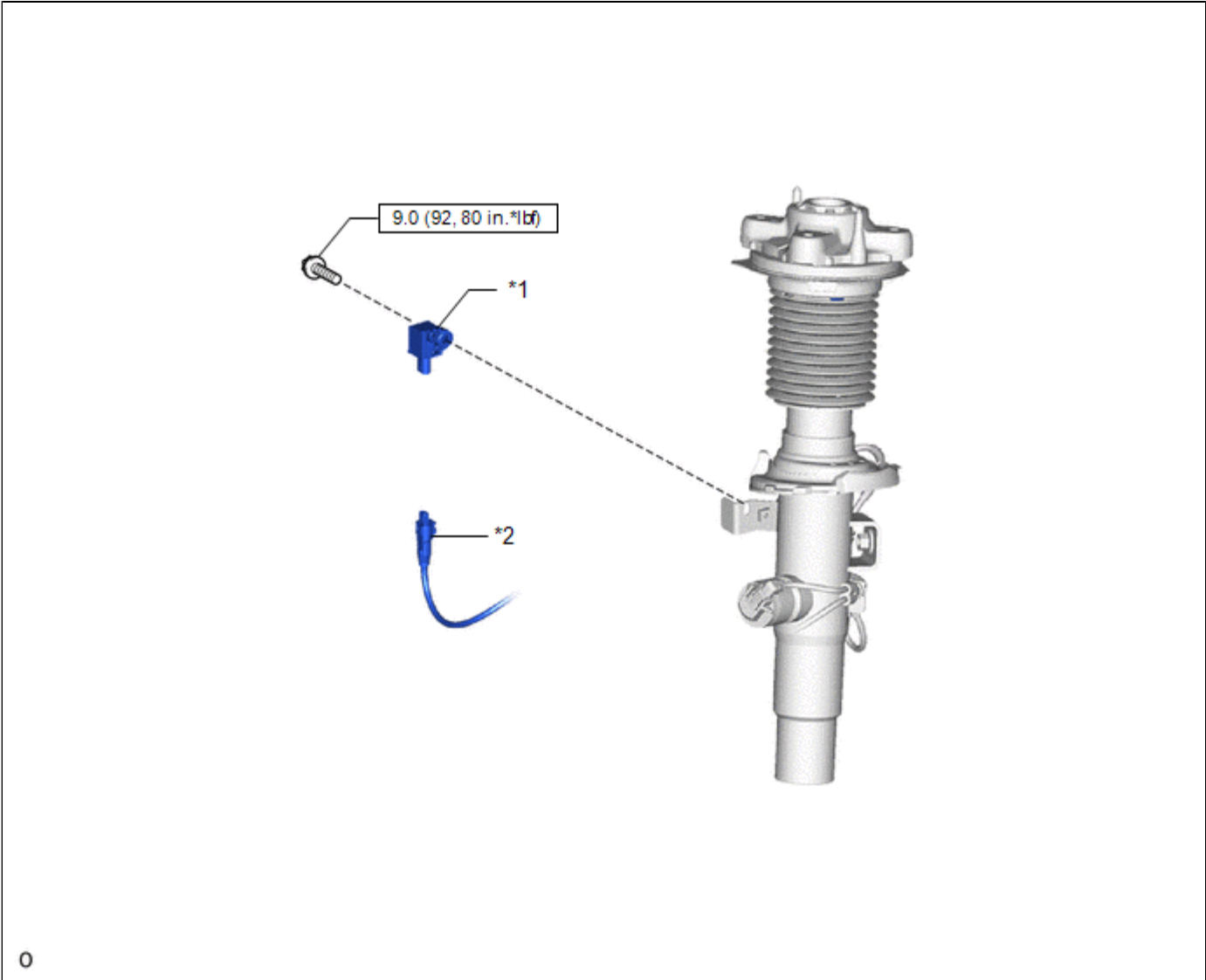
1. INSTALL ABSORBER CONTROL SWITCH (PATTERN SELECT SWITCH ASSEMBLY)


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: FRONT ACCELERATION SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ACCELERATION SENSOR ASSEMBLY	*2	CONNECTOR
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: FRONT ACCELERATION SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

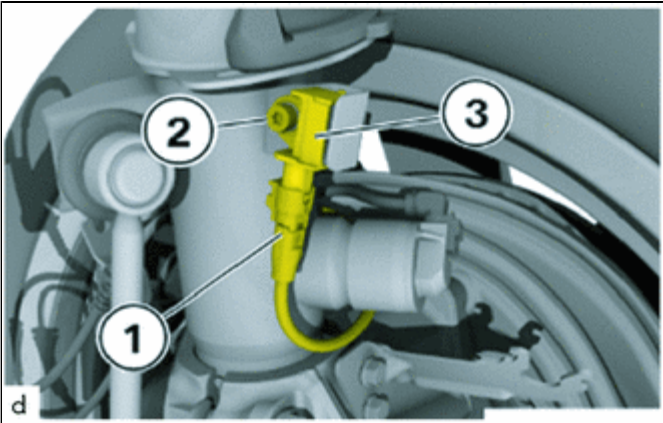
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE ACCELERATION SENSOR ASSEMBLY

(a) Unlock plug connection (1) and disconnect.



(b) Loosen E10 bolt (2).

(c) Remove the acceleration sensor assembly (3).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: FRONT ACCELERATION SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

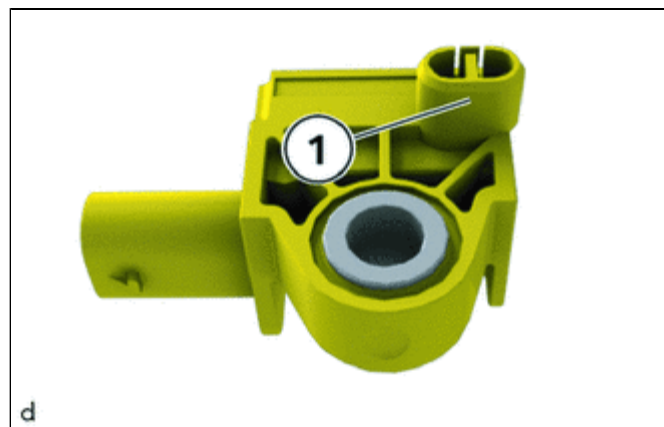
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL ACCELERATION SENSOR ASSEMBLY

- (a) Install the acceleration sensor assembly with the retaining pin (1) in the bore hole at the front shock absorber assembly.



- (b) Attach the acceleration sensor assembly.
- (c) Tighten down E10 bolt.

Torque:

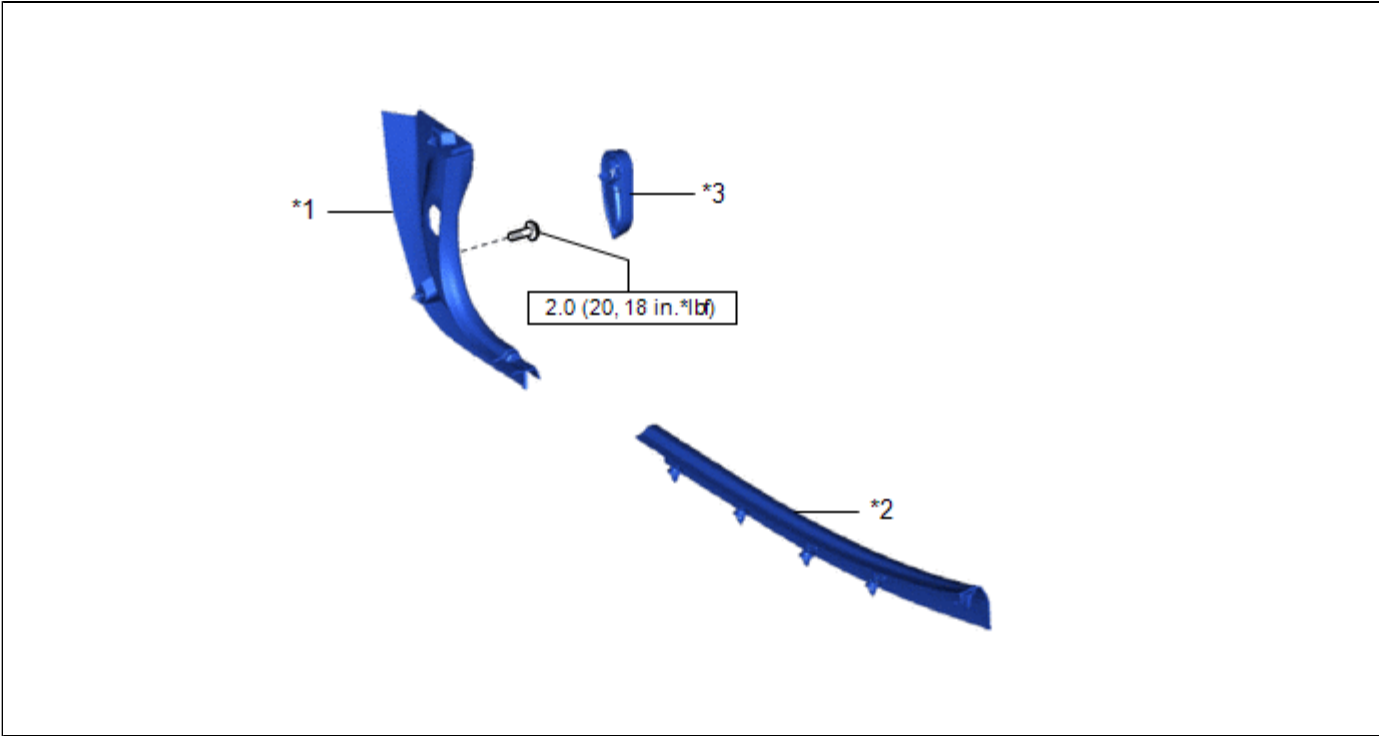
9.0 N·m {92 kgf·cm, 80 in·lbf}


- (d) Connect connectors and lock.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: SUSPENSION CONTROL ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

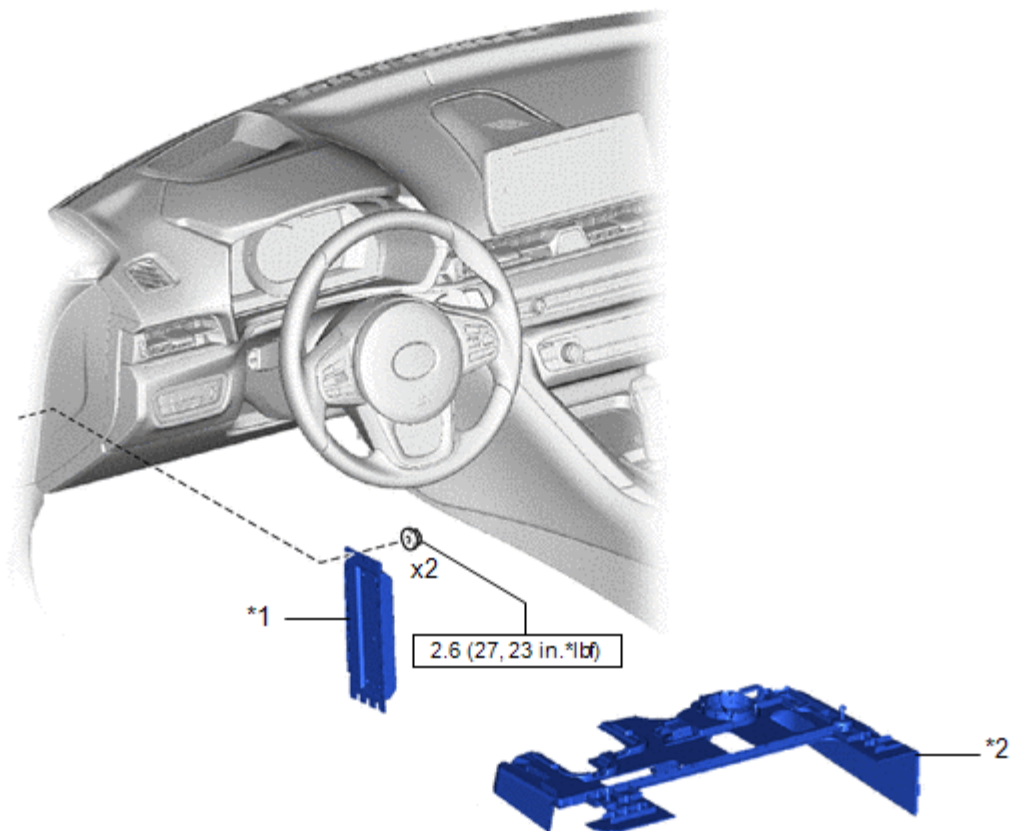
COMPONENTS

ILLUSTRATION



*1	COWL SIDE TRIM SUB-ASSEMBLY LH	*2	FRONT DOOR SCUFF PLATE LH
*3	HOOD LOCK CONTROL LEVER SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



0

*1	ABSORBER CONTROL ECU	*2	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: SUSPENSION CONTROL ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT DOOR SCUFF PLATE LH

Click here [INFO](#)

3. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH

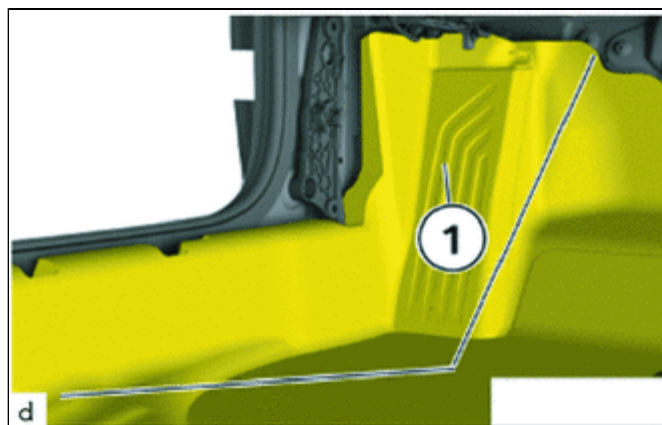
Click here [INFO](#)

4. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

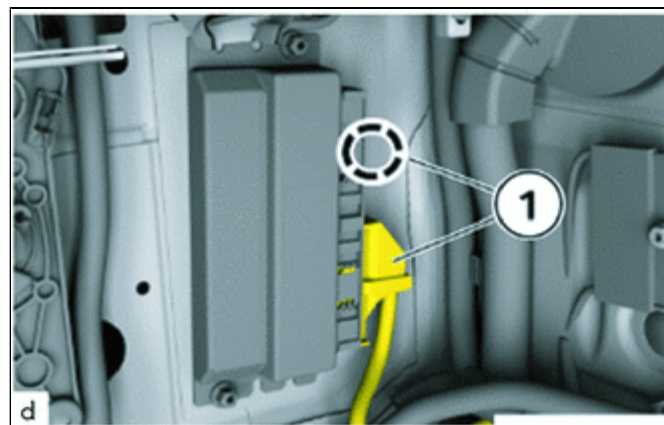
Click here [INFO](#)

5. REMOVE ABSORBER CONTROL ECU

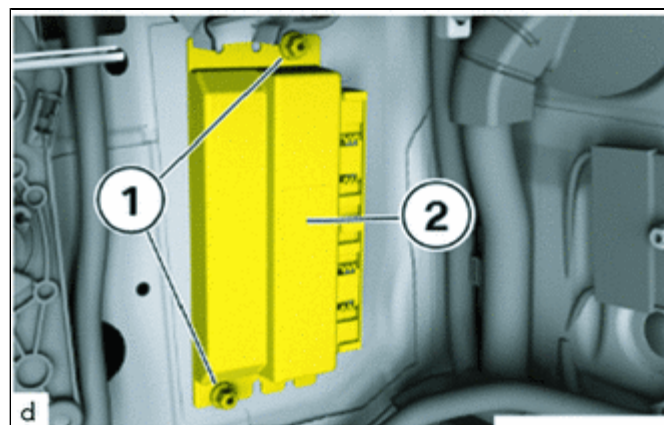
(a) Fold the carpet (1) to the inside in the marked area.



(b) Unlock and disconnect plug connections (1).



(c) Unscrew the plastic nuts (1) and remove the absorber control ECU (2).



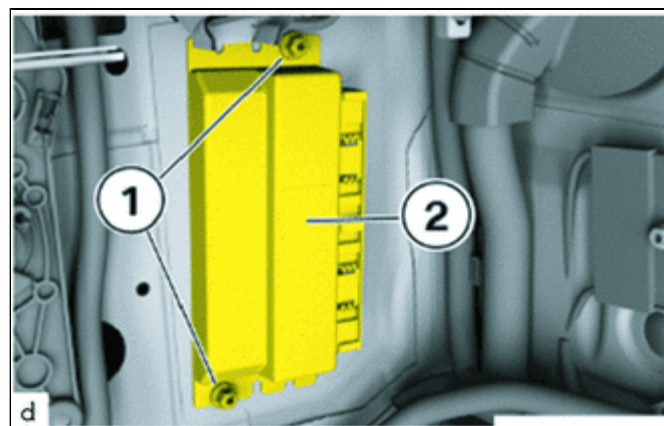
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUSPENSION CONTROL: SUSPENSION CONTROL ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL ABSORBER CONTROL ECU

(a) Install the absorber control ECU (2).



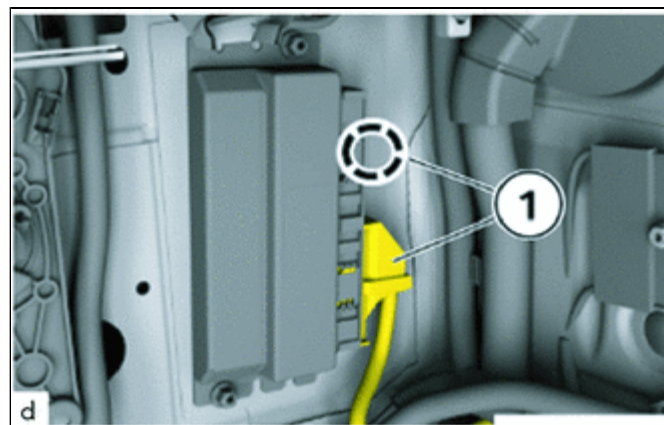
(b) Replace the plastic nuts (1).

(c) Tighten plastic nuts (1).

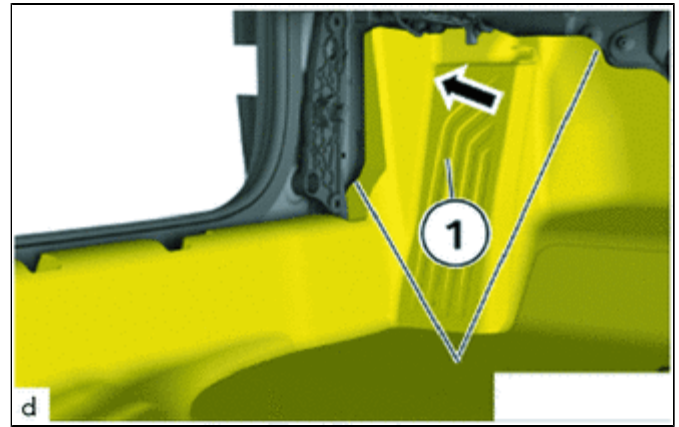
Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

(d) Connect connectors (1) and lock.



- (e) Fold the carpet (1) in the marked area in the direction of the arrow.



2. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH

Click here [INFO](#)

4. INSTALL FRONT DOOR SCUFF PLATE LH

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

6. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

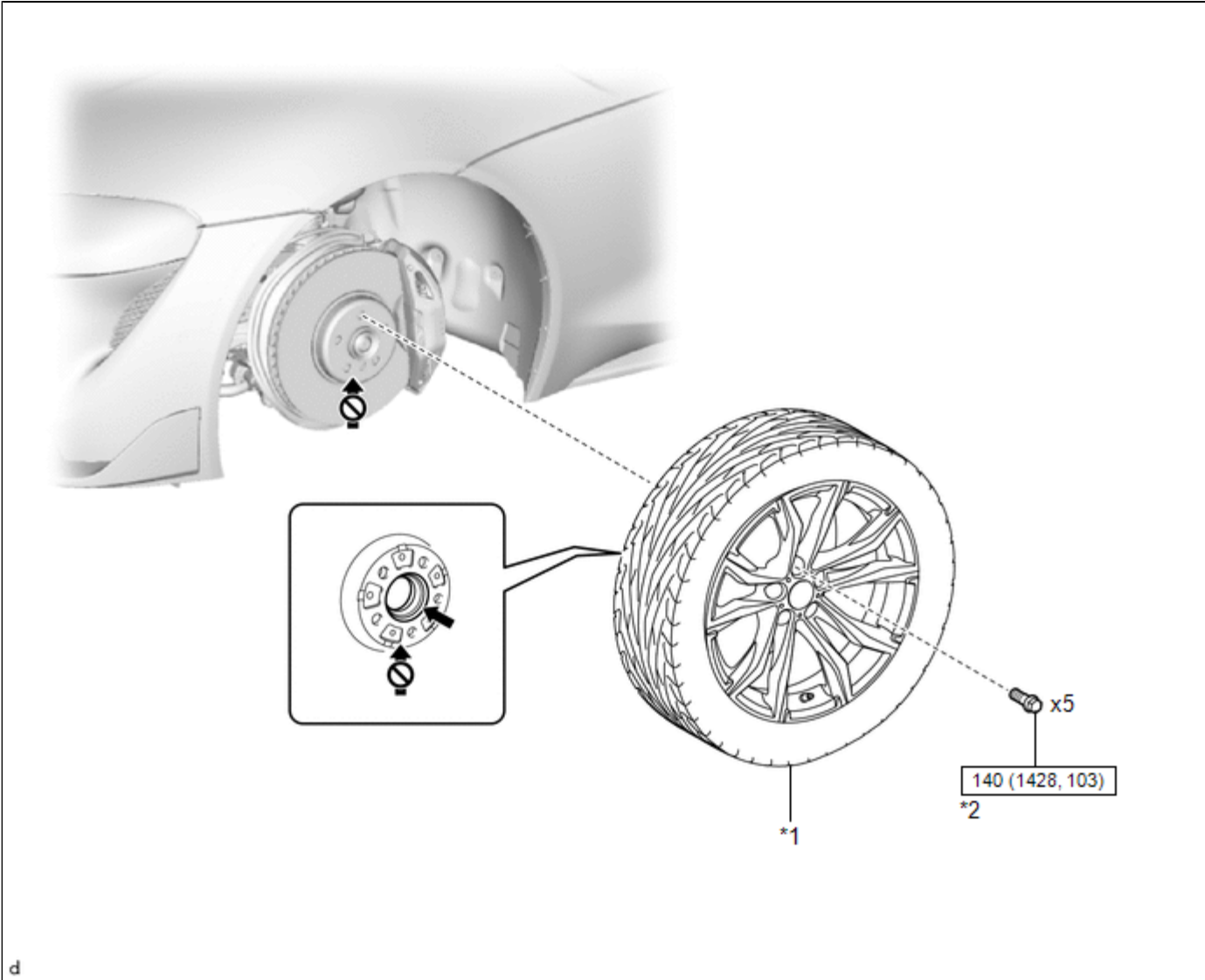
- (h) Disconnect the diagnosis system from the vehicle.
- (i) Disconnect the battery charger from the vehicle.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD10
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE / WHEEL: TIRE AND WHEEL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	WHEEL ASSEMBLY	*2	AXLE HUB BOLT
	N*m (kgf*cm, ft.*lbf): Specified torque		Brake Pad Paste
	Do not apply lubricants	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD11
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE / WHEEL: TIRE AND WHEEL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD12
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE / WHEEL: TIRE AND WHEEL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE / WHEEL: TIRE AND WHEEL SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING; 2020 MY Supra [03/2019 -]		

HOW TO PROCEED WITH TROUBLESHOOTING

PROCEDURE

1.	CHECK TIRE AND WHEEL SYSTEM
----	-----------------------------

DIAGNOSIS OF IRREGULAR TIRE WEAR

▶ GO TO STEP 11

DIAGNOSIS OF TIRE VIBRATION



2.	TIGHTEN WHEEL BOLTS
----	---------------------

Click here [INFO](#)

NEXT



3.	INSPECT TIRES
----	---------------

Click here [INFO](#)

OK ▶ GO TO STEP 5

NG



4.	REPAIR OR REPLACE TIRE(S)
----	---------------------------

NEXT



5.	INSPECT AND/OR ADJUST WHEEL BALANCE
----	-------------------------------------

Click here [INFO](#)

NEXT



6.	INSPECT FRONT AXLE HUB BEARING LOOSENESS AND AXLE HUB RUNOUT
----	--

OK **GO TO STEP 8**

NG



7.	REPAIR FRONT AXLE HUB BEARING LOOSENESS AND AXLE HUB RUNOUT
----	---

Click here [INFO](#)

NEXT



8.	INSPECT REAR AXLE HUB BEARING LOOSENESS AND AXLE HUB RUNOUT
----	---

OK **GO TO STEP 10**

NG



--	--

9.	REPAIR REAR AXLE HUB BEARING LOOSENESS AND AXLE HUB RUNOUT
----	--

Click here [INFO](#)

NEXT



10.	PERFORM ROAD TEST
-----	-------------------

NEXT  RETURN VEHICLE TO CUSTOMER

11.	INSPECT TIRES
-----	---------------

Click here [INFO](#)

NEXT



12.	REPAIR OR REPLACE TIRE(S)
-----	---------------------------

NEXT



13.	INSPECT AND/OR ADJUST FRONT WHEEL ALIGNMENT
-----	---

Click here [INFO](#)

NEXT



14.	INSPECT AND/OR ADJUST REAR WHEEL ALIGNMENT
-----	--

Click here [INFO](#)

NEXT



15.	PERFORM ROAD TEST
-----	-------------------

NEXT ▶ RETURN VEHICLE TO CUSTOMER

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE / WHEEL: TIRE AND WHEEL SYSTEM: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

PROCEDURE

1. INSPECT TIRES

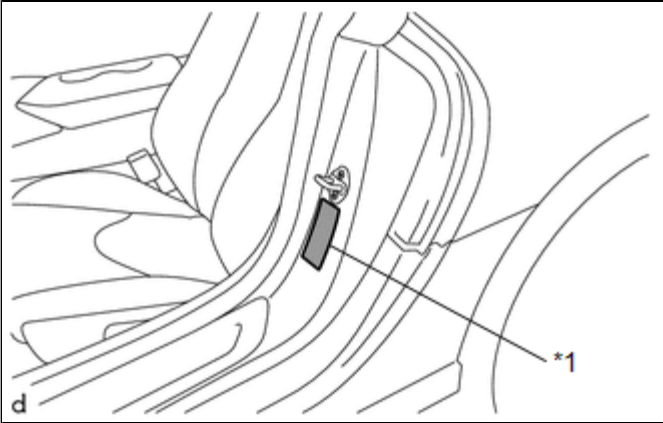
- (a) Inspect the wear of the tires.

HINT:
 If the wear level of a tire exceeds the limit, replace the tire.

- (b) Inspect the tire inflation pressure.

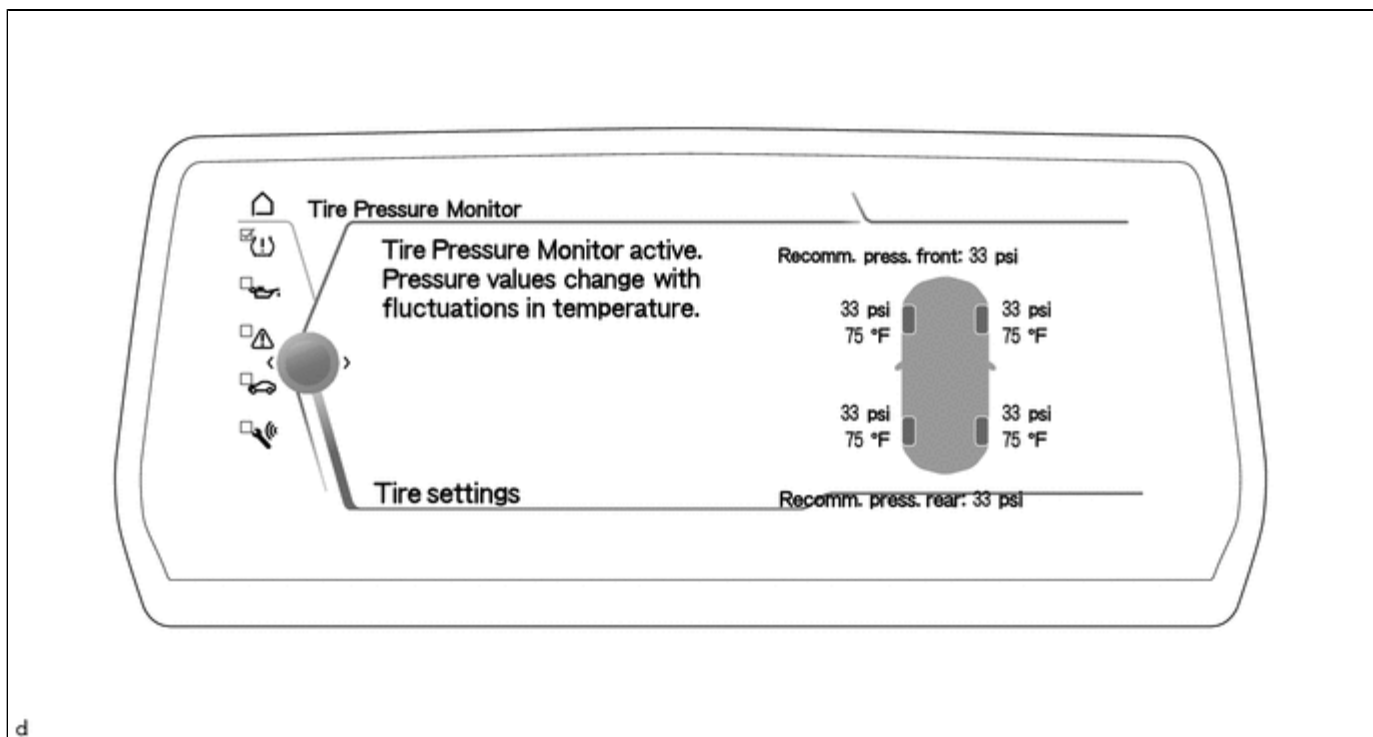
- (1) Inspect the tire inflation pressure based on the values specified on the tire pressure information label located on the driver seat door pillar.

HINT:
 The values specified on the tire pressure information label are only applicable for a tire that is cold or at ambient temperature.



*1	Tire Pressure Information Label
----	---------------------------------

- (2) Inspect the tire inflation pressure based on the recommended pressure on the tire pressure monitor of the multi-display.



HINT:

- To display the tire pressure monitor, use Toyota Supra Command to enter the following menus: "My vehicle" / "Vehicle status" / "Tire Pressure Monitor".
- The recommended pressure of the tire pressure monitor that are displayed are appropriate values which take into account the effects of driving conditions and ambient temperature, so they may not match the values from the tire pressure information label on the driver seat door pillar.

(3) If any of the following procedures have been performed, initialize the tire pressure monitor.

Click here [INFO](#)

- Changed tire inflation pressure
- Changed between summer tires and winter tires
- Changed the vehicle load state
- Replaced a tire or disc wheel
- Replaced a tire pressure warning valve and transmitter

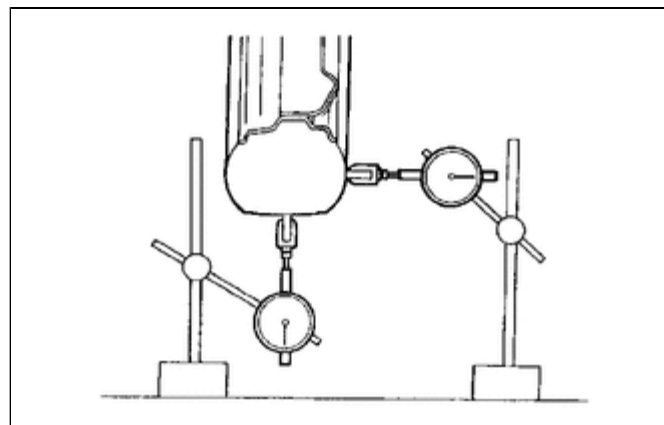
(c) Using a dial indicator, check the runout of the tires.

Maximum Tire Runout:

Vertical	1.1 mm (0.0433 in.) or less
Lateral	1.3 mm (0.0512 in.) or less

HINT:

Remove the wheel assembly from the vehicle, and measure the wheel assembly alone.



2. ROTATE TIRES

HINT:

Tire rotation cannot be performed on this vehicle.

3. INSPECT AND ADJUST WHEEL BALANCE

(a) Inspect and adjust the off-the-car balance.

Maximum Wheel Imbalance:

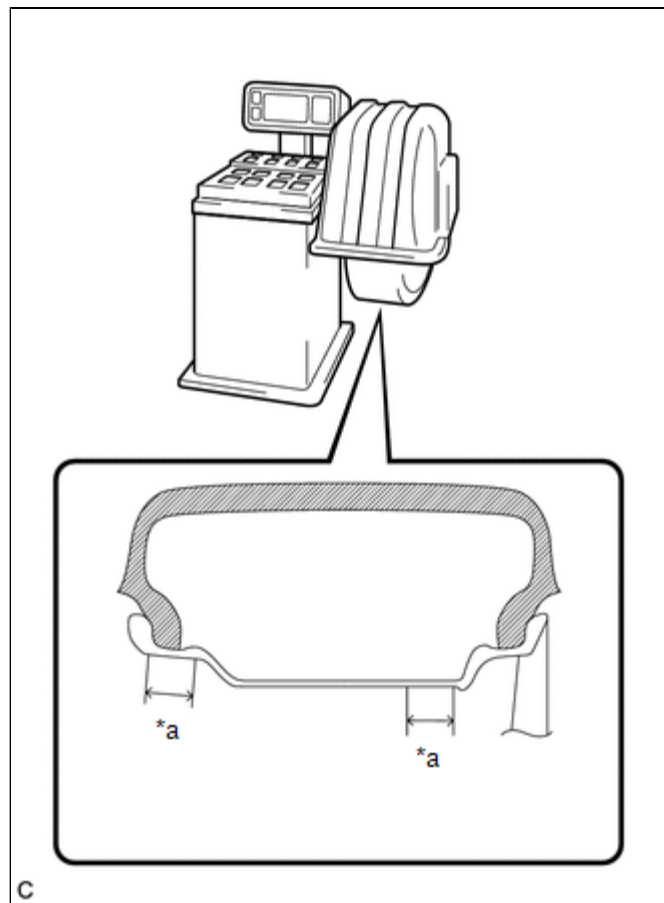
4.0 g (0.0088 lb)

NOTICE:

- Use a cleaning detergent to remove dirt, oil and water from the surface where the balance weight is to be adhered.
- Do not touch the adhesive surface of the balance weight.
- Adhere a stick-on type balance weight to the flat surface*a shown in the illustration.
- Push the balance weight with your finger to securely adhere it to the desired position.
- Do not reuse balance weights.
- Please use the genuine stick-on type balance weight.

HINT:

- Use stick-on type balance weights for both the inner and outer side.
- If the tires vibrate even after off-the-car balance adjustment, adjust the wheel balance with on-the-car balancing as necessary.



C

*a	25 mm (0.984 in.)
----	-------------------



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD13
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE / WHEEL: TIRE REPAIR SEAL: DISPOSAL; 2020 MY Supra [03/2019 -]		

DISPOSAL

PROCEDURE

1. DISPOSE OF TIRE REPAIR SEAL

HINT:

Confirm the expiration date on the side of the repair seal bottle.

(a) Dispose of the retrieved seal by consigning disposal to a waste disposal firm.

NOTICE:

- The valve and valve core cannot be reused.
- Do not reuse items such as cloths that were used to wipe off seal or gloves soiled with the seal. Dispose of such items as burnable waste.

(b) Dispose of the empty repair seal bottle as plastic waste.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD14
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE / WHEEL: TIRE REPAIR SEAL: RECOVERY; 2020 MY Supra [03/2019 -]		

RECOVERY

PROCEDURE

1. RECOVERY OF TIRE REPAIR SEAL

NOTICE:

- Try not to spill the tire repair seal in the tire while performing service.
- Wipe off any spilt seal with a cloth or equivalent.

(a) Using a tire changer, remove the tire from the wheel by following the same procedure as for a regular tire change.

NOTICE:

Do not raise the tire rapidly as the seal may spill out.

(b) Retrieve the tire repair seal from the removed tire.

HINT:

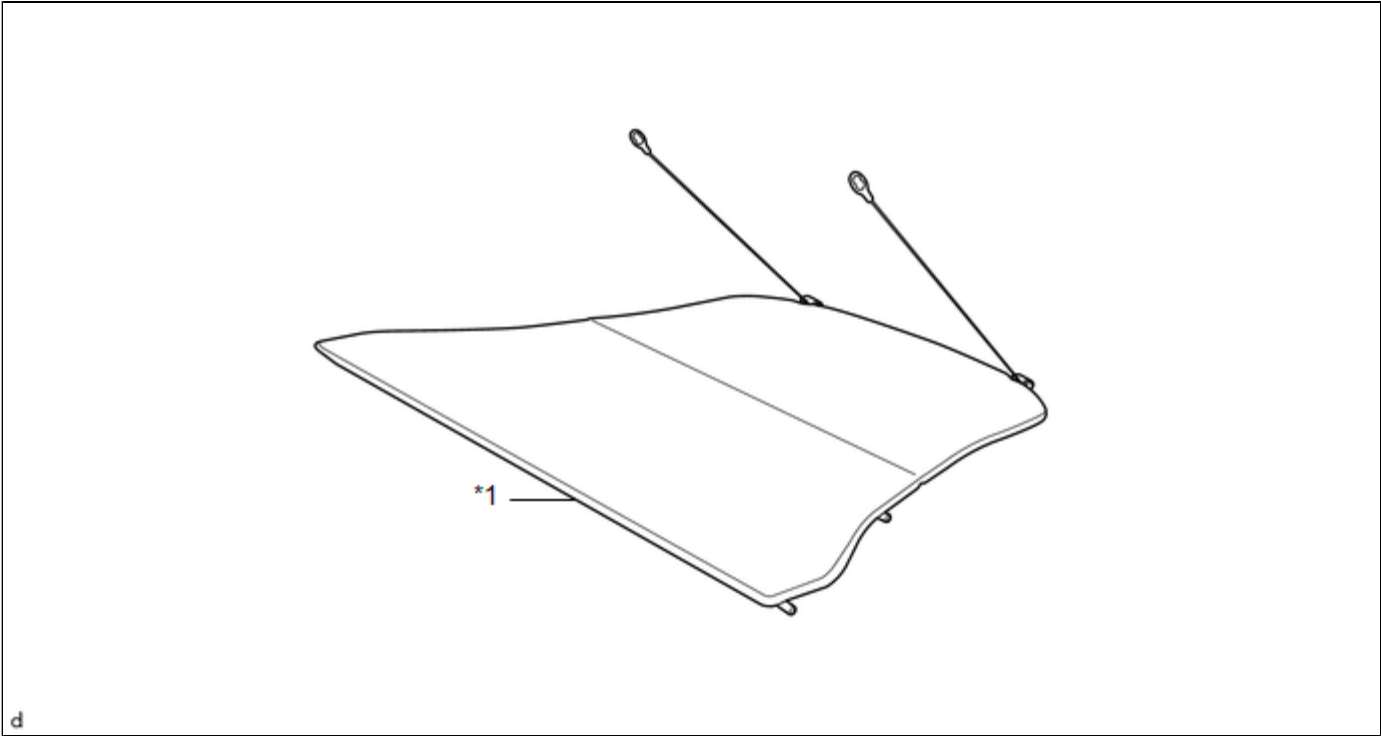
Using a cloth or equivalent, wipe off any seal spilt on the tire, wheel, tire changer or floor.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0U
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING RECEIVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

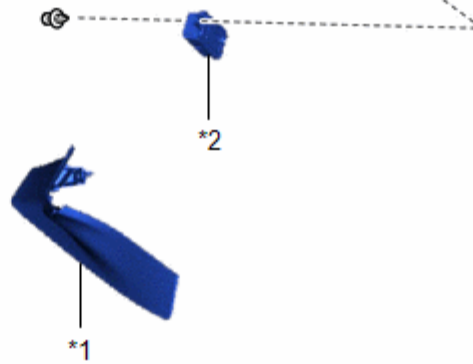
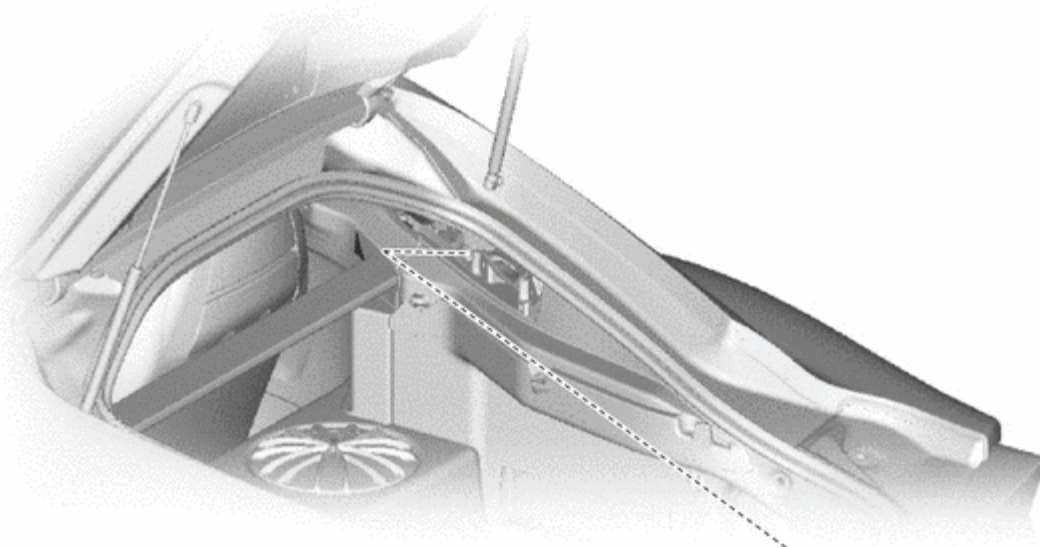
COMPONENTS

ILLUSTRATION



*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	-	-
----	----------------------------------	---	---

ILLUSTRATION



d

*1	ROOF SIDE INNER GARNISH ASSEMBLY RH	*2	TIRE PRESSURE WARNING RECEIVER (REMOTE CONTROLLER ASSEMBLY)
----	--	----	--

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0V
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING RECEIVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING RECEIVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0X
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING SYSTEM: INITIALIZATION; 2020 MY Supra [03/2019 -]		

INITIALIZATION

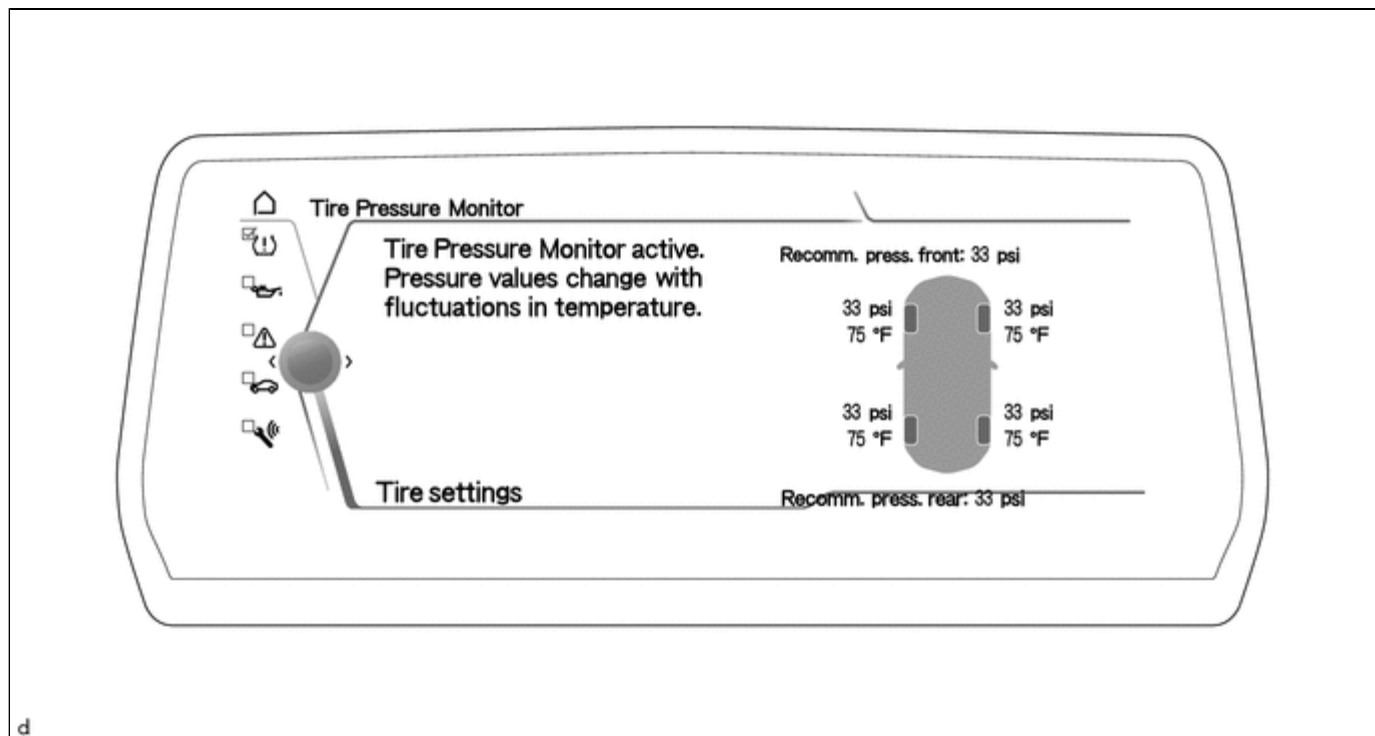
NOTICE:

If any of the following procedures have been performed, initialize the tire pressure monitor.

- Changed tire inflation pressure
- Changed between summer tires and winter tires
- Changed the vehicle load state
- Replaced a tire or disc wheel
- Replaced a tire pressure warning valve and transmitter

INITIALIZATION OF TIRE PRESSURE MONITOR

- Start the engine.
- In Toyota Supra Command, enter the following menus: "My vehicle" / "Vehicle status" / "Tire Pressure Monitor" / "Tire settings"



- Set "Tire selection" to "Manual".
- Select the type of tire using the items "Summer tires" or "Winter tires/all-season tires".
- Select the size of the tires installed to the rear axle.
- According to the load state of the vehicle, select "Partially loaded" or "Fully loaded".
- Perform "Confirm settings".
- Drive the vehicle until the tire inflation pressure measurement is completed.

HINT:

- Setup progress information is shown on the multi-display.
- Setup will complete after driving at 20 km/h (12 mph) or more for approximately 9 minutes.

- Driving can be interrupted at any time. When the vehicle is driven again, the setup will resume automatically.

(i) When setup is completed, the tire display color changes to green and the tire pressures are displayed.

HINT:

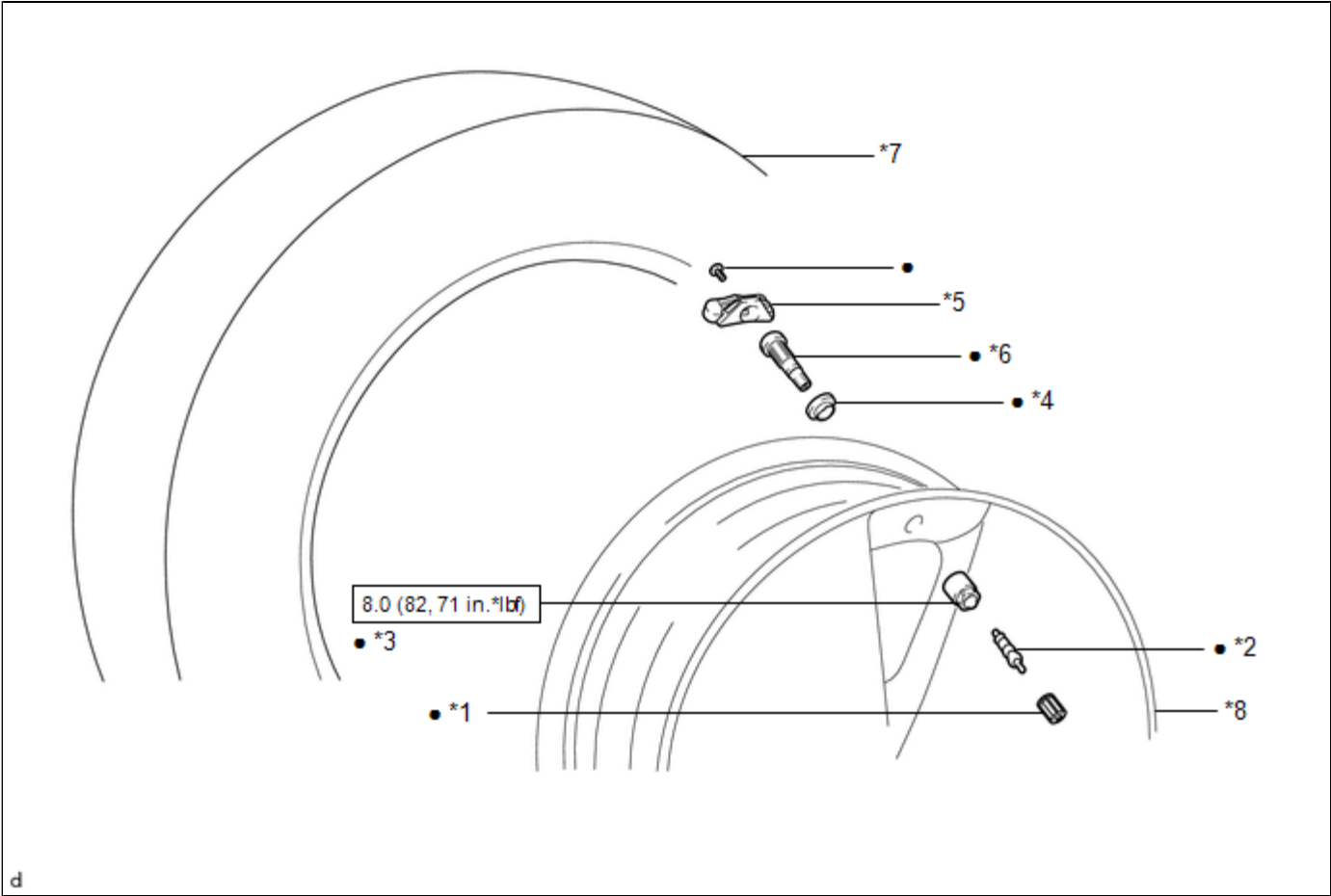
- The actual tire inflation pressure changes depending on driving conditions, ambient temperature, etc.
- The specified tire inflation pressures that are displayed are appropriate values which take into account the effects of driving conditions and ambient temperature, so they may not match the values from the tire pressure information label on the driver's door pillar.





Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VALVE CAP	*2	VALVE CORE
*3	NUT	*4	GROMMET
*5	TIRE PRESSURE WARNING VALVE AND TRANSMITTER	*6	VALVE FITTING
*7	TIRE	*8	DISC WHEEL
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0T
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

2. REMOVE TIRE PRESSURE WARNING VALVE AND TRANSMITTER

(a) Remove the valve cap.

NOTICE:

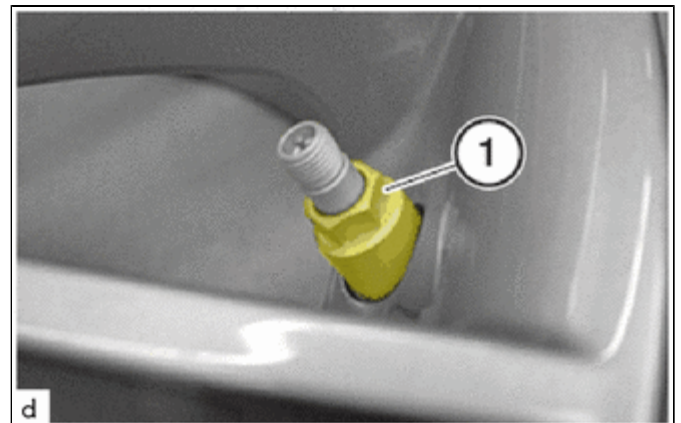
Keep the removed valve cap.

(b) Remove the valve core to release the air from the tire.

NOTICE:

Make sure that a sufficient amount of air has been released.

(c) Using an 11 mm deep socket wrench, remove the nut (1).



(d) Drop the tire pressure warning valve and transmitter with grommet into the tire.

HINT:

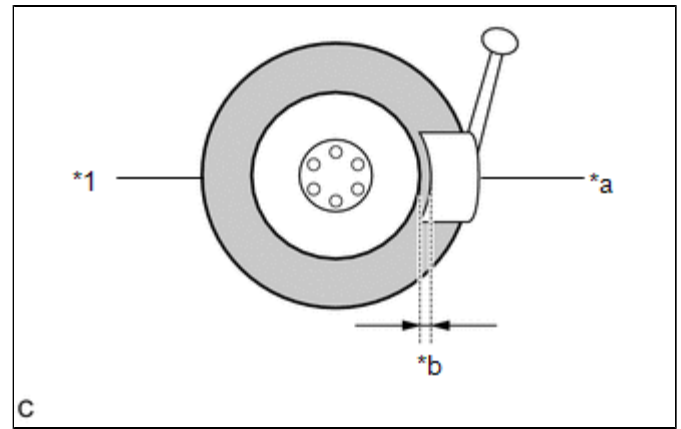
The grommet may remain attached to the rim.

(e) Using a tire remover, remove the tire from the disc wheel.

NOTICE:

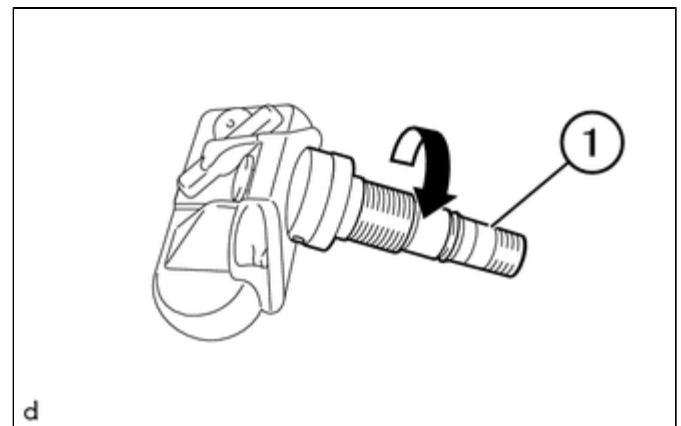
- Be careful not to damage the tire pressure warning valve and transmitter due to interference between the valve and

- the tire bead.
- Set the tire remover shoe as shown in the illustration.



*1	Tire
*a	Shoe
*b	10 to 20 mm (0.394 to 0.787 in.)

- (f) Take out the tire pressure warning valve and transmitter with grommet from the tire.



- (g) Remove the valve fitting (1) from the tire pressure warning valve and transmitter.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

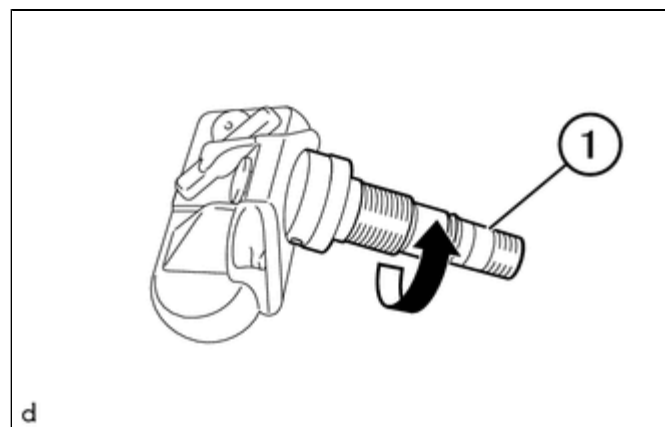
NOTICE:

- Always use a new valve fitting kit when installing the tire pressure warning valve and transmitter.
- Check that there is no oil, water or lubricant around the rim hole, tire pressure warning valve and transmitter, grommet and nut. Failing to do so may result in improper installation.

PROCEDURE

1. INSTALL TIRE PRESSURE WARNING VALVE AND TRANSMITTER

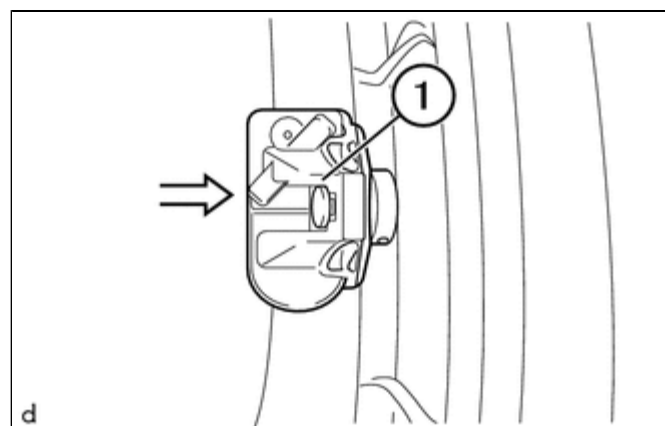
- (a) Install a new valve fitting (1) to the tire pressure warning valve and transmitter.

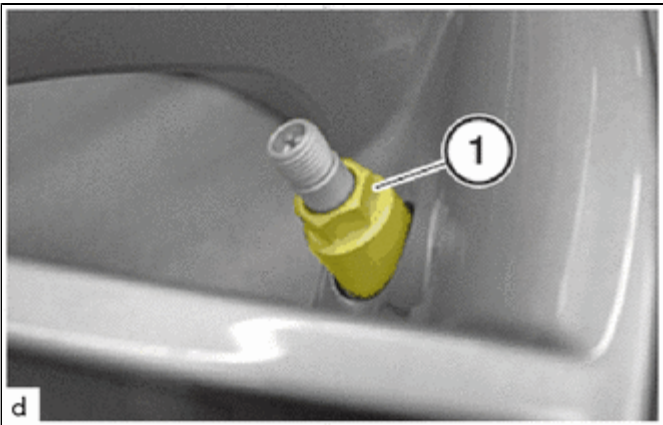


- (b) Insert the tire pressure warning valve and transmitter (1) into the rim hole.

NOTICE:

- Make sure that the tire pressure warning valve and transmitter is installed so that the printed surface can be seen. If the tire pressure warning valve and transmitter is installed upside down, it may be damaged or fail to transmit signals when driving at high speeds.
- Check that there is no deformation or damage to the tire pressure warning valve and transmitter.
- Check that there is no foreign matter on the grommet and around the rim hole.





(c) Install a new nut (1) by hand until it abuts.

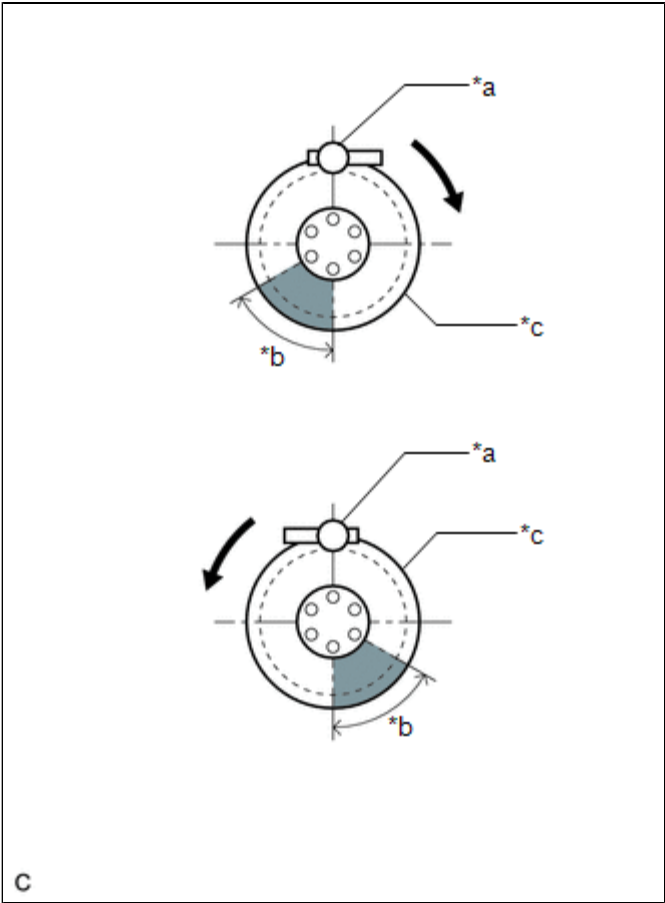
(d) Press the tire pressure warning valve and transmitter evenly into the rim hole.

(e) Using an 11 mm deep socket wrench, tighten the nut (1).



Torque:
8.0 N·m {82 kgf·cm, 71 in·lbf}

NOTICE:
 No further tightening is required once the nut is tightened to the specified torque.

(f) Set the tire and disc wheel onto the mounting machine as shown in the illustration.



*a	Mount Tool of the Mounting Machine
*b	60°
*c	Rim

	Rim Rotating Direction
	Area for Tire Pressure Warning Valve and Transmitter

NOTICE:

- Position the main body of the tire pressure warning valve and transmitter in the area shown in the illustration.
- If the tire pressure warning valve and transmitter is positioned outside this area, it will interfere with the tire bead and may be damaged.

(g) Apply a sufficient coat of soapy water or equivalent to the tire bead and rim.

NOTICE:

Do not apply soapy water or equivalent directly to the tire pressure warning valve and transmitter.

(h) Using a mounting machine, install the tire to the disc wheel.

NOTICE:

- Make sure that the tire bead and mount tool do not interfere with the tire pressure warning valve and transmitter.
- Make sure that the tire pressure warning valve and transmitter is not clamped by the bead and rim.

(i) Install a new valve core.

(j) Inflate the tire to the specified tire inflation pressure.

Click here [INFO](#)

(k) Check the surroundings of the tire pressure warning valve and transmitter for air leaks with soapy water or equivalent.

(1) If air is leaking from the valve core, press the valve core several times to remove foreign matter. Replace the valve core as necessary.

(2) If air is leaking from around the tire pressure warning valve and transmitter, check if the grommet and nut are not deformed, damaged or contaminated with foreign matter. Replace the grommet or nut as necessary.

(l) Install a new valve cap.

2. INSTALL WHEEL ASSEMBLY

Click here [INFO](#)

3. INSPECT TIRES

Click here [INFO](#)

4. INITIALIZATION OF TIRE PRESSURE MONITOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD0Q
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: TIRE PRESSURE MONITORING: TIRE PRESSURE WARNING VALVE: DISPOSAL; 2020 MY Supra [03/2019 -]		

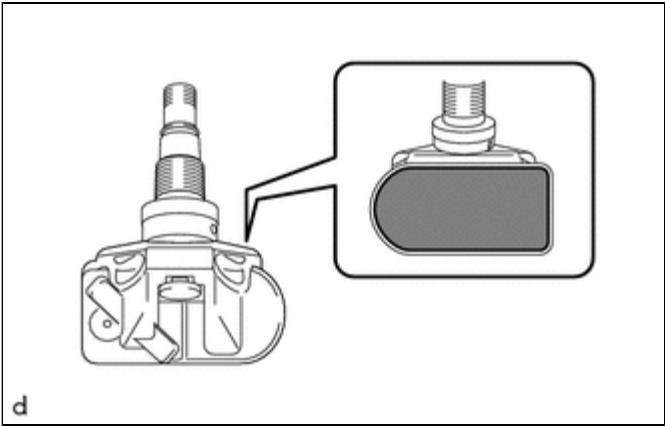
DISPOSAL

CAUTION / NOTICE / HINT

HINT:
The tire pressure warning valve and transmitter is powered by a lithium battery. When disposing of the tire pressure warning valve and transmitter, remove the battery and dispose of it properly.

PROCEDURE

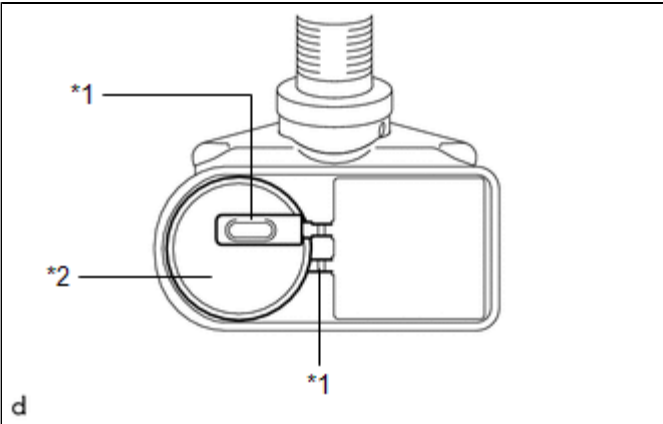
1. DISPOSE OF TIRE PRESSURE WARNING VALVE AND TRANSMITTER



	Urethane
--	----------

(a) Remove the urethane that protects the lithium battery and the circuit board.

(b) Cut the 2 terminals to remove the lithium battery from the tire pressure warning valve and transmitter.



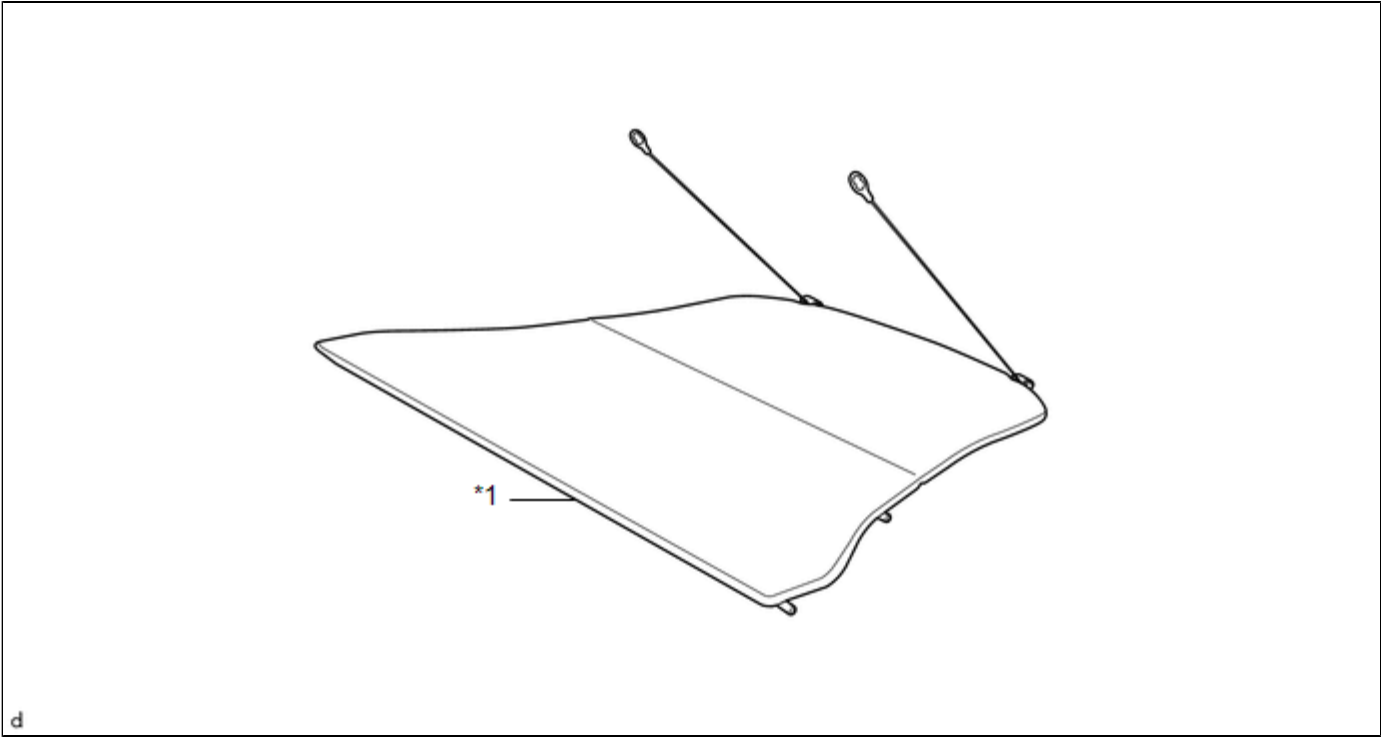
*1	Terminal
*2	Lithium Battery



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

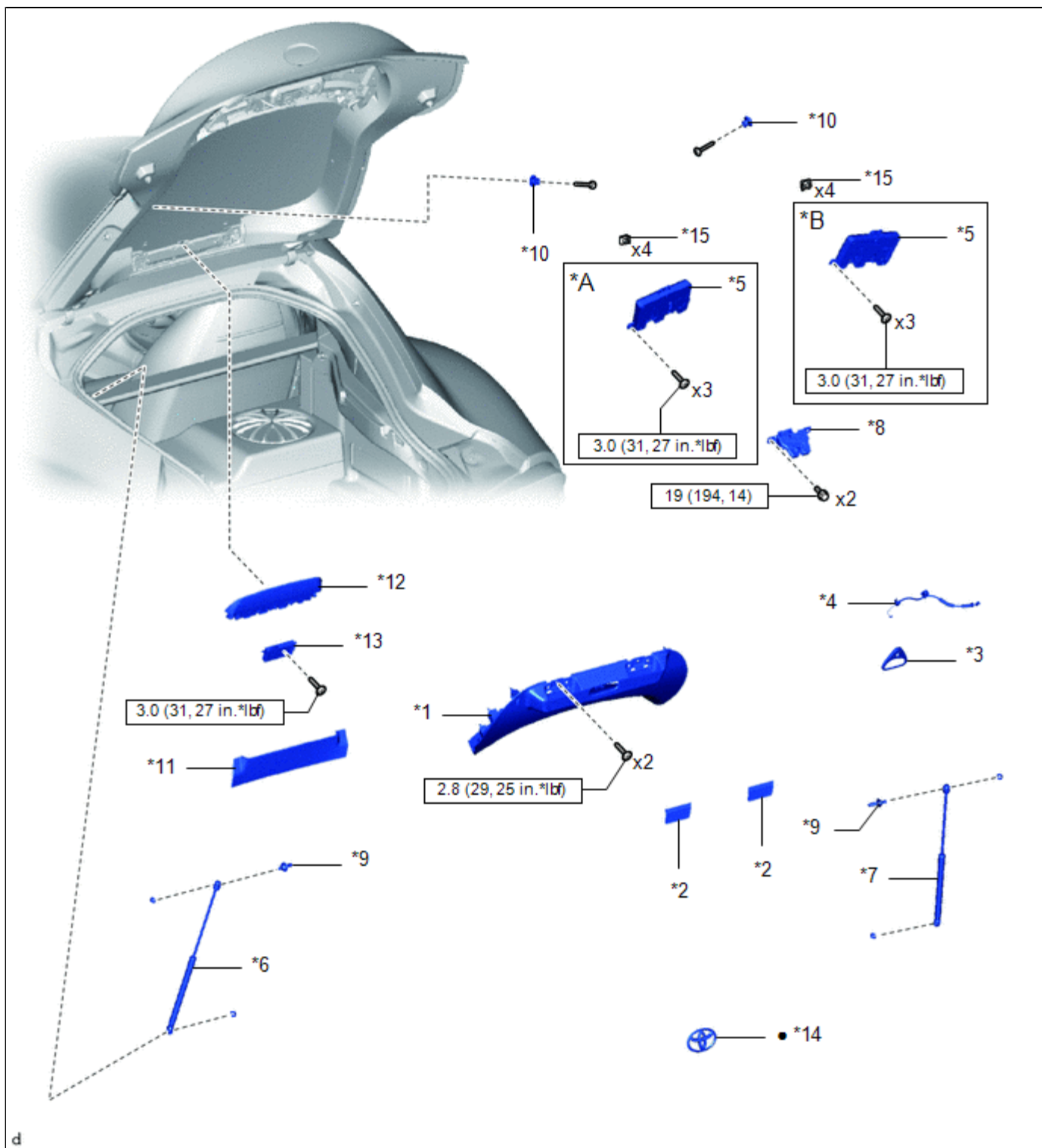
COMPONENTS

ILLUSTRATION




*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	-	-
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ILLUSTRATION



*A	for Toyota Supra Connect	*B	for Navigation System
*1	BACK DOOR TRIM BOARD	*2	BACK DOOR TRIM COVER
*3	EMERGENCY RELEASE HANDLE	*4	BACK DOOR LOCK CONTROL CABLE ASSEMBLY
*5	MULTIPLE-BAND AERIAL	*6	BACK DOOR STAY ASSEMBLY LH
*7	BACK DOOR STAY ASSEMBLY RH	*8	BACK DOOR LOCK ASSEMBLY
*9	BACK DOOR STAY BOLT	*10	PIN
*11	UPPER BACK DOOR TRIM	*12	CENTER STOP LIGHT ASSEMBLY
	NO. 1 AMPLIFIER ANTENNA		

*13	ASSEMBLY	*14	NO. 1 BACK DOOR EMBLEM
*15	SHEET METAL NUT	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

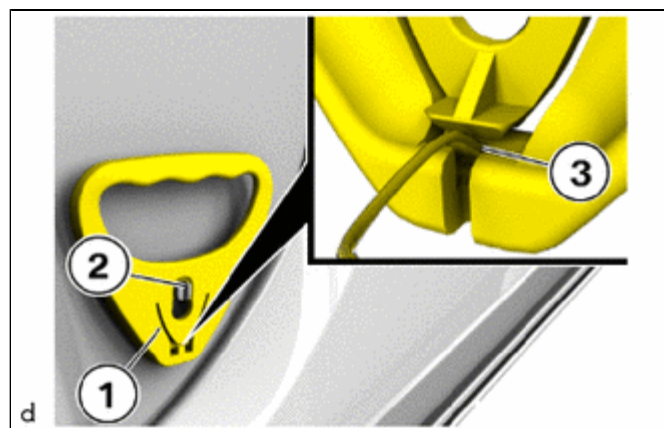
PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE EMERGENCY RELEASE HANDLE

(a) Disconnect emergency release handle (1) from the holding clip (2).



(b) Disconnect the back door lock control cable assembly (3) from the emergency release handle.

3. REMOVE BACK DOOR TRIM BOARD

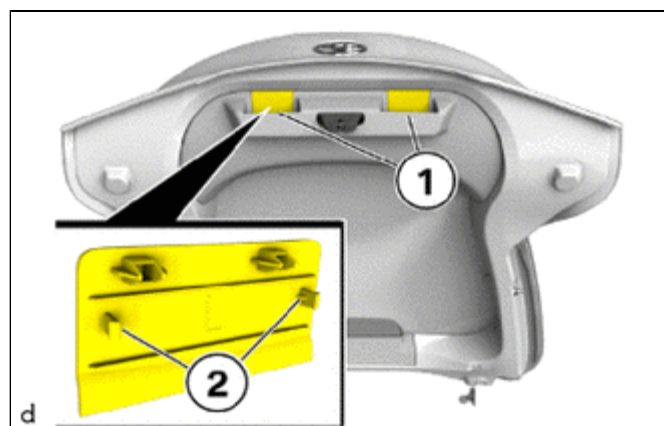
NOTICE:

- Scratches.

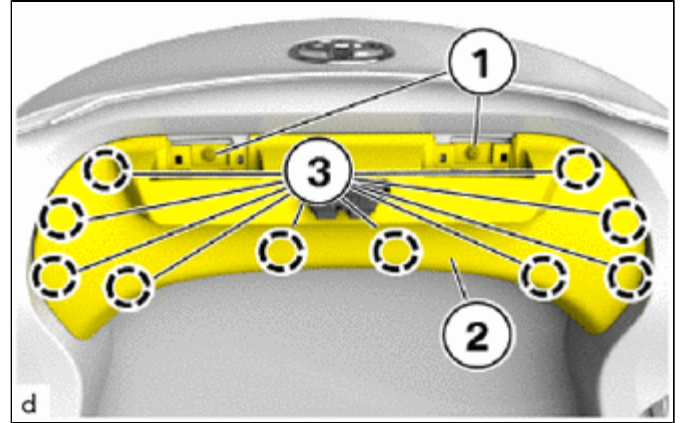
Tools and sharp-edged components can cause scratches.

- Protect working area.
- Handle tools and components carefully.

(a) Disconnect back door trim covers of the screw points (1) with a suitable tool from the claws (2) and remove.



(b) Loosen T25 screws (1).



(c) Unclip the back door trim board (2) at the clips (3) and remove.

4. DISCONNECT BACK DOOR LOCK CONTROL CABLE ASSEMBLY

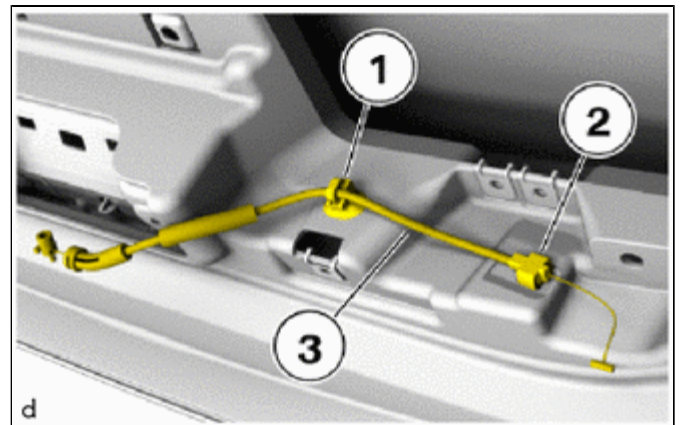
Click here [INFO](#)

5. REMOVE BACK DOOR LOCK ASSEMBLY

Click here [INFO](#)

6. REMOVE BACK DOOR LOCK CONTROL CABLE ASSEMBLY

(a) Disengage clips (1) and (2) to remove the back door lock control cable assembly (3).

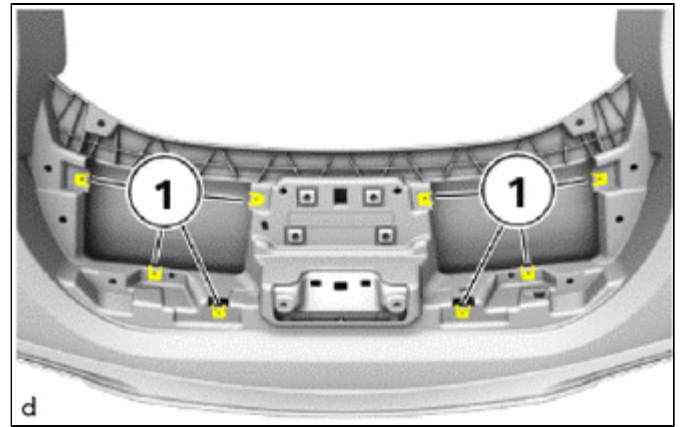


7. REMOVE MULTIPLE-BAND AERIAL

Click here [INFO](#)

8. REMOVE SHEET METAL NUT

(a) Remove sheet metal nuts (1).

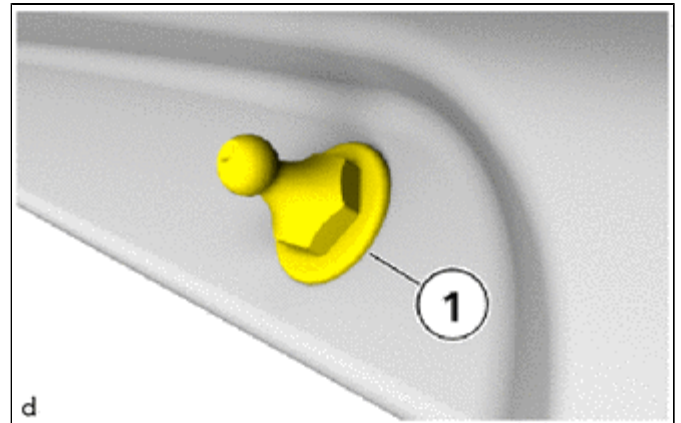


9. REMOVE BACK DOOR STAY BOLT

HINT:

Perform the operations on the left and right side.

(a) Using a deep socket wrench 16 mm, loosen back door stay bolt (1) and remove.

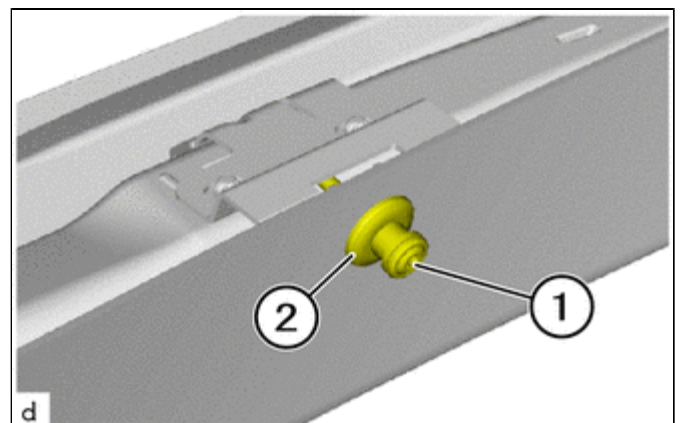


10. REMOVE PIN

HINT:

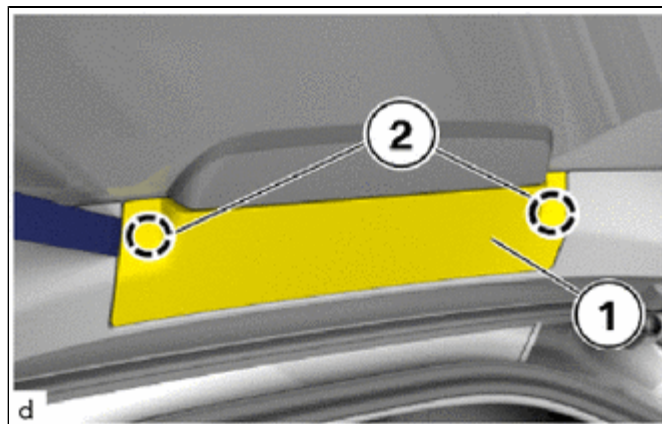
Perform the operations on the left and right side.

(a) Remove T20 screw (1) and pin (2).



11. REMOVE UPPER BACK DOOR TRIM

(a) Using a moulding remover A, disengage the clamps (2) to remove the the upper back door trim on top (1).



12. REMOVE CENTER STOP LIGHT ASSEMBLY

Click here [INFO](#)

13. REMOVE NO. 1 AMPLIFIER ANTENNA ASSEMBLY

Click here [INFO](#)

14. REMOVE BACK DOOR STAY ASSEMBLY LH

Click here [INFO](#)

15. REMOVE BACK DOOR STAY ASSEMBLY RH

HINT:

Perform the operations on the left and right side.

16. REMOVE NO. 1 BACK DOOR EMBLEM

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

CAUTION / NOTICE / HINT

CAUTION:

- Shutting hood sub-assembly or back door panel sub-assembly.
- Danger of injury!
- Support hood sub-assembly / back door panel sub-assembly in fully open position with the aid of a suitable device.

PROCEDURE

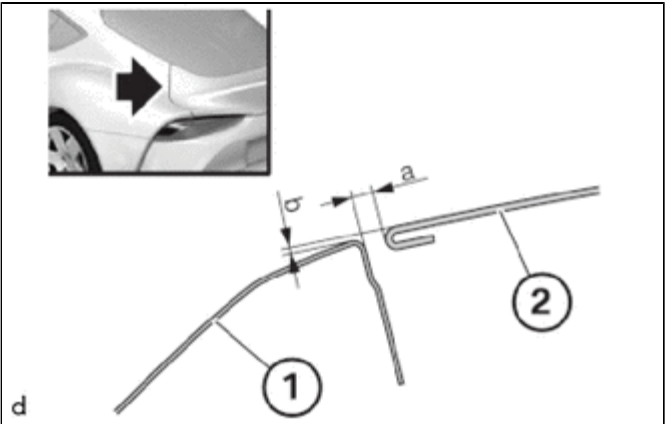
1. INSPECT BACK DOOR PANEL SUB-ASSEMBLY

(a) Check gap dimension of the rear side panel (1) for the back door panel sub-assembly (2).

Gap dimension rear side panel to back door panel sub-assembly:

AREA	MEASUREMENT
a	2.3 to 4.7 mm (0.091 to 0.185 in.)
b	-1.5 to 0.9 mm (-0.059 to 0.035 in.)

- Gap dimension a does not correspond to the specifications.
- Adjust back door panel sub-assembly on the back door hinge.
- Dimension b does not correspond to the specifications.
- Adjust the striker for the back door catch.



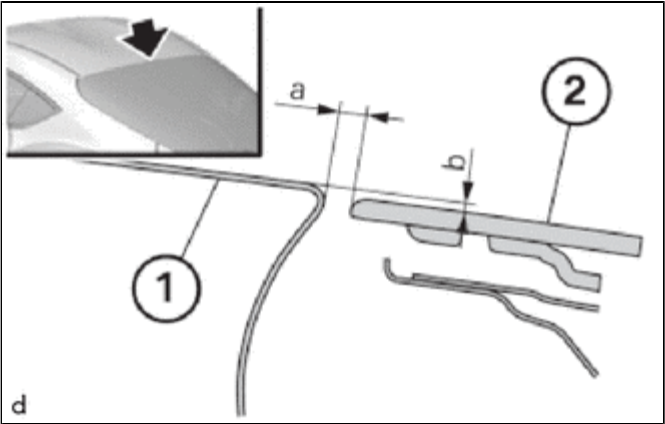
(1)	Rear Side Panel
(2)	Back Door Panel Sub-assembly

(b) Check gap dimension of the roof outer skin (1) for the rear window (2).

Gap dimension rear window to roof outer skin:

AREA	MEASUREMENT
a	5.8 to 9.1 mm (0.228 to 0.358 in.)
b	0.6 to 4.2 mm (0.024 to 0.165 in.)

- Gap dimension a does not correspond to the specifications.
- Adjust back door panel sub-assembly on the back door hinge.



- (3) Dimension b does not correspond to the specifications.
- (4) Adjust back door hinge to body.

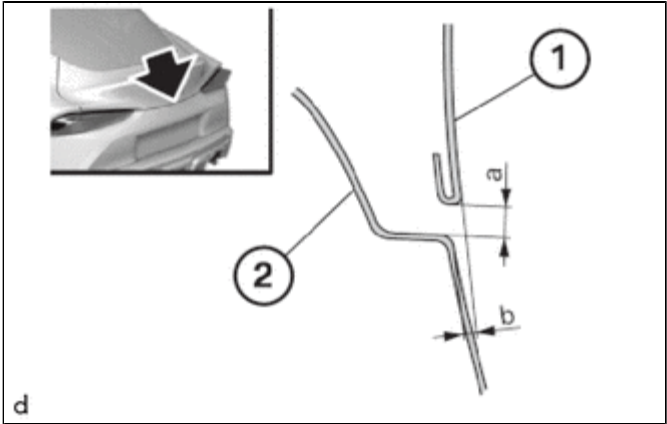
(1)	Roof Outer Skin
(2)	Rear Window

- (c) Check gap dimension of the back door panel sub-assembly
 - (1) for the rear bumper panel (2).

Gap dimension back door panel sub-assembly to rear bumper panel:

AREA	MEASUREMENT
a	3.6 to 6.6 mm (0.142 to 0.260 in.)
b	0.5 to 4.1 mm (0.020 to 0.161 in.)

- (1) Gap dimension a does not correspond to the specifications.
- (2) Gap dimension a does not correspond to the specifications.
- (3) Dimension b does not correspond to the specifications.
- (4) Adjust back door panel sub-assembly to back door hinge.



(1)	Back Door Panel Sub-assembly
(2)	Rear Bumper Panel

2. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

3. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

4. REMOVE TRIANGLE REFLECTOR SET

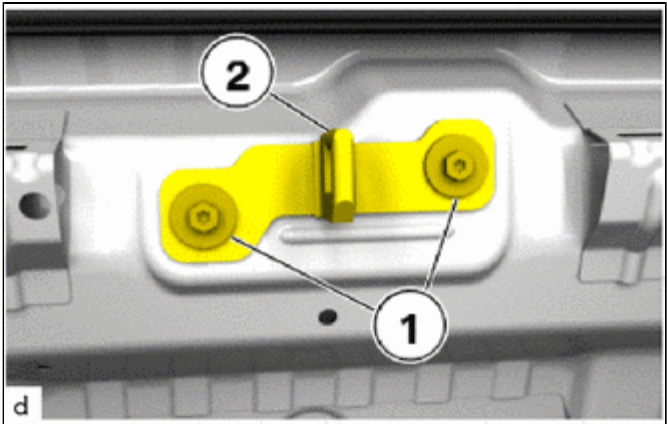
Click here [INFO](#)

5. REMOVE DECK TRIM REAR COVER

Click here [INFO](#)

6. ADJUST BACK DOOR PANEL SUB-ASSEMBLY

- (a) Loosen the 11 mm bolts (1) until the back door lock striker assembly for back door catch (2) can still be moved to the top and self-centers itself.



- (b) Close back door panel sub-assembly.
- (c) Open back door panel sub-assembly.
- (d) Tighten the 11 mm bolts (1).

Torque:

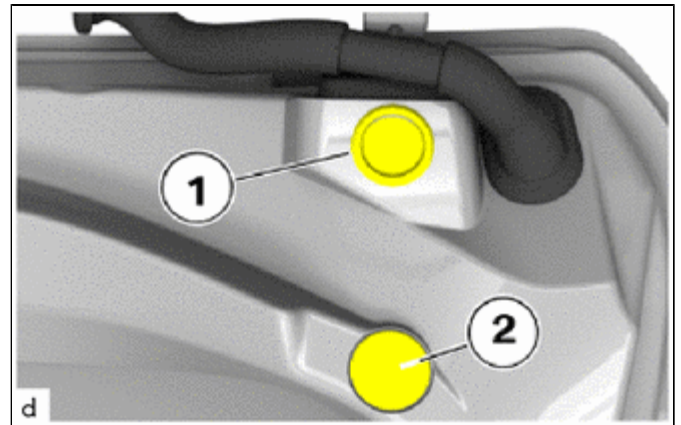
19.0 N·m {194 kgf·cm, 14 ft·lbf}

HINT:

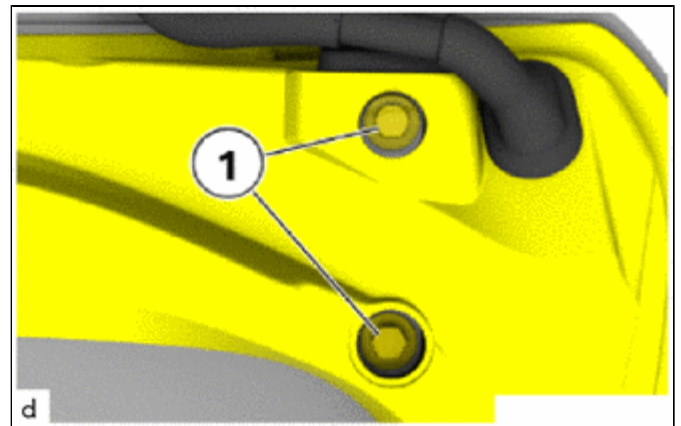
When the back door panel sub-assembly is closed, the back door lock striker assembly for back door catch must not touch or scrape against the back door lock assembly.

- (e) Look for scratch marks and readjust back door lock striker assembly for back door catch (2) if needed.

- (f) Remove the plug (1) and the cover (2).



- (g) Loosen bolts (1) until the back door panel sub-assembly can be moved.

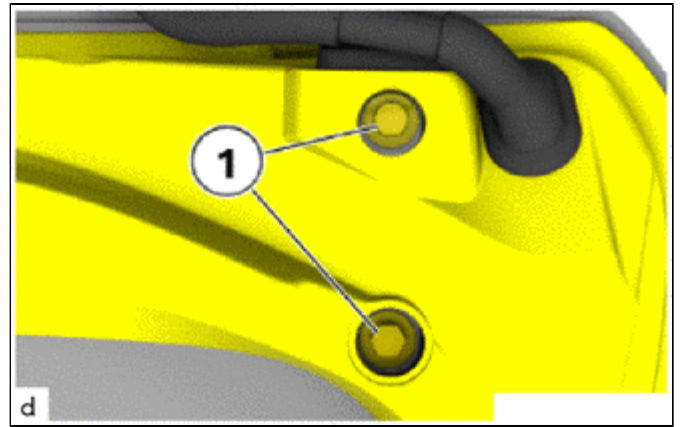


- (h) Adjust back door panel sub-assembly laterally and longitudinally to the correct gap dimension.

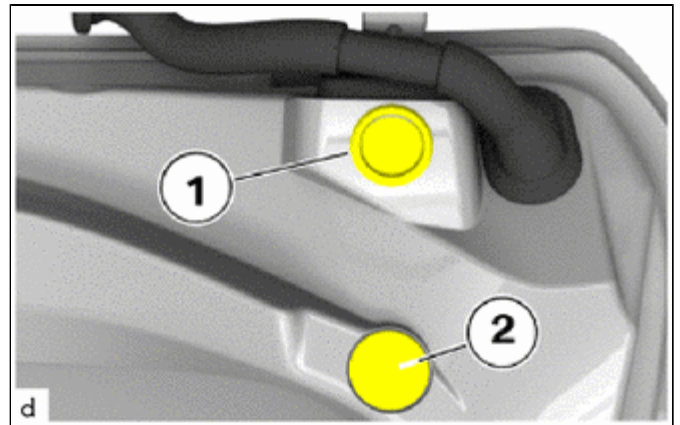
- (i) Tighten the bolts (1).

Torque:

28.0 N·m {286 kgf·cm, 21 ft·lbf}



(j) Insert the plug (1) and the cover (2).



7. INSTALL DECK TRIM REAR COVER

Click here [INFO](#)

8. INSTALL TRIANGLE REFLECTOR SET

Click here [INFO](#)

9. INSTALL DECK BOARD ASSEMBLY

Click here [INFO](#)

10. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL NO. 1 BACK DOOR EMBLEM

Click here [INFO](#)

2. INSTALL BACK DOOR STAY ASSEMBLY LH

Click here [INFO](#)

3. INSTALL BACK DOOR STAY ASSEMBLY RH

HINT:

Perform the operations on the left and right side.

4. INSTALL NO. 1 AMPLIFIER ANTENNA ASSEMBLY

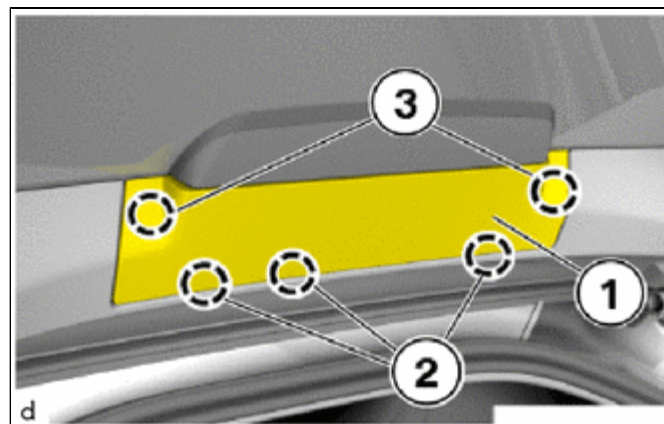
Click here [INFO](#)

5. INSTALL CENTER STOP LIGHT ASSEMBLY

Click here [INFO](#)

6. INSTALL UPPER BACK DOOR TRIM

(a) Insert the upper back door trim (1) at the guides (2) and secure it with the clamps (3).

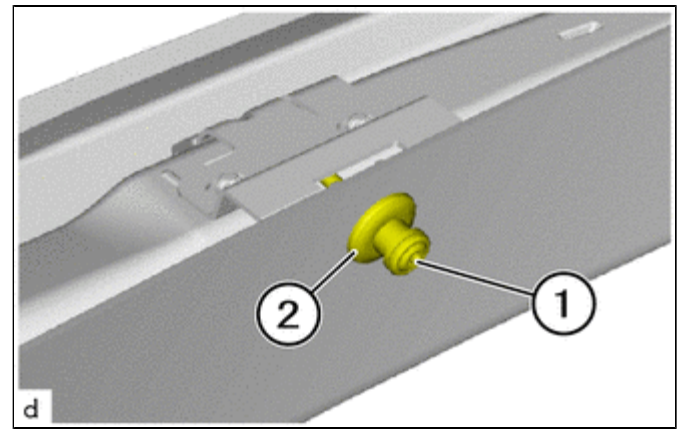


7. INSTALL PIN

HINT:

Perform the operations on the left and right side.

(a) Position the pin (2).



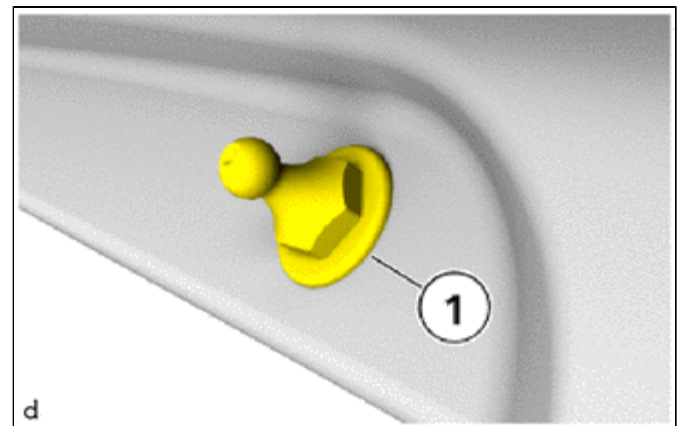
(b) Tighten the T20 screw (1).

8. INSTALL BACK DOOR STAY BOLT

HINT:

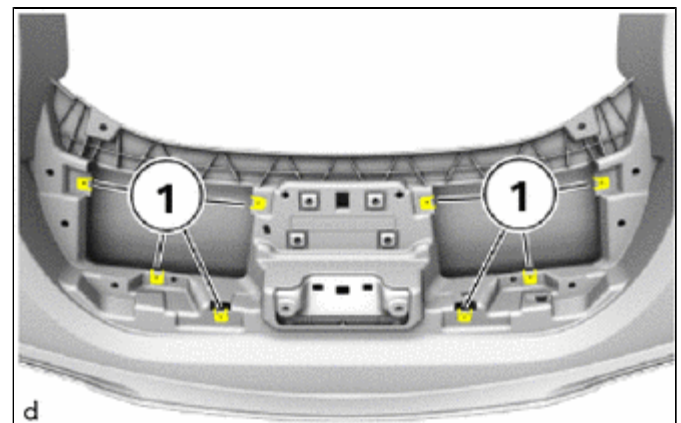
Perform the operations on the left and right side.

(a) Using a deep socket wrench 16 mm, position and tighten back door stay bolt (1).



9. INSTALL SHEET METAL NUT

(a) Install sheet metal nuts (1).

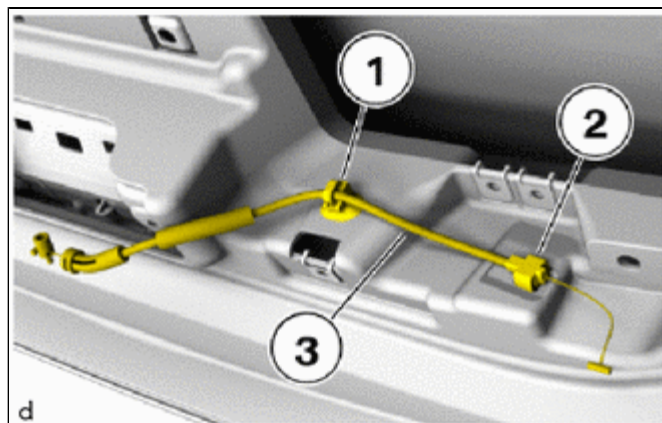


10. INSTALL MULTIPLE-BAND AERIAL

Click here [INFO](#)

11. INSTALL BACK DOOR LOCK CONTROL CABLE ASSEMBLY

(a) Install back door lock control cable assembly (3) and fasten with the clips (1) and (2).



12. INSTALL BACK DOOR LOCK ASSEMBLY

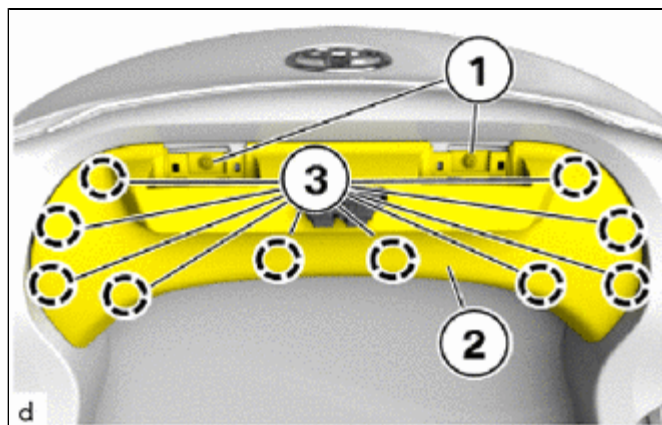
Click here [INFO](#)

13. CONNECT BACK DOOR LOCK CONTROL CABLE ASSEMBLY

Click here [INFO](#)

14. INSTALL BACK DOOR TRIM BOARD

(a) Clip in the back door trim board (2) with the clips (3).

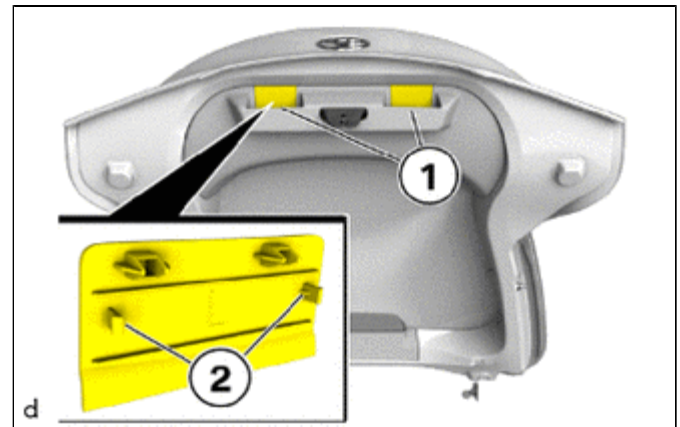


(b) Tighten the T25 screws (1) at the back door trim board (2).

Torque:

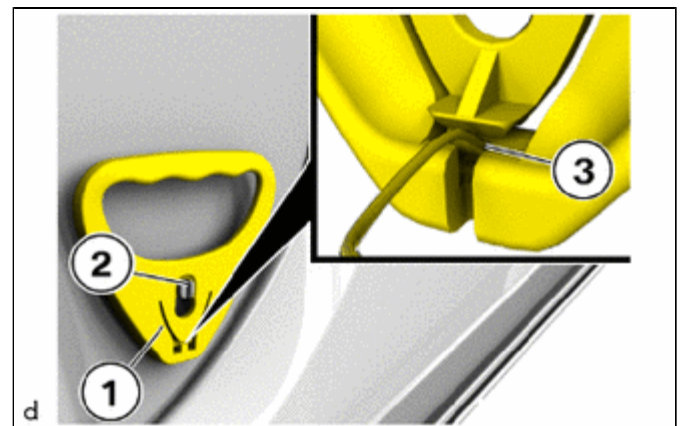
2.8 N·m {29 kgf·cm, 25 in·lbf}

(c) Clip in the back door trim covers of the screw points (1) in the claws (2).



15. INSTALL EMERGENCY RELEASE HANDLE

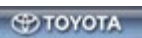
(a) Connect emergency release handle (1) in the back door lock control cable assembly (3).



(b) Fasten emergency release handle (1) on the holding clip (2).

16. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

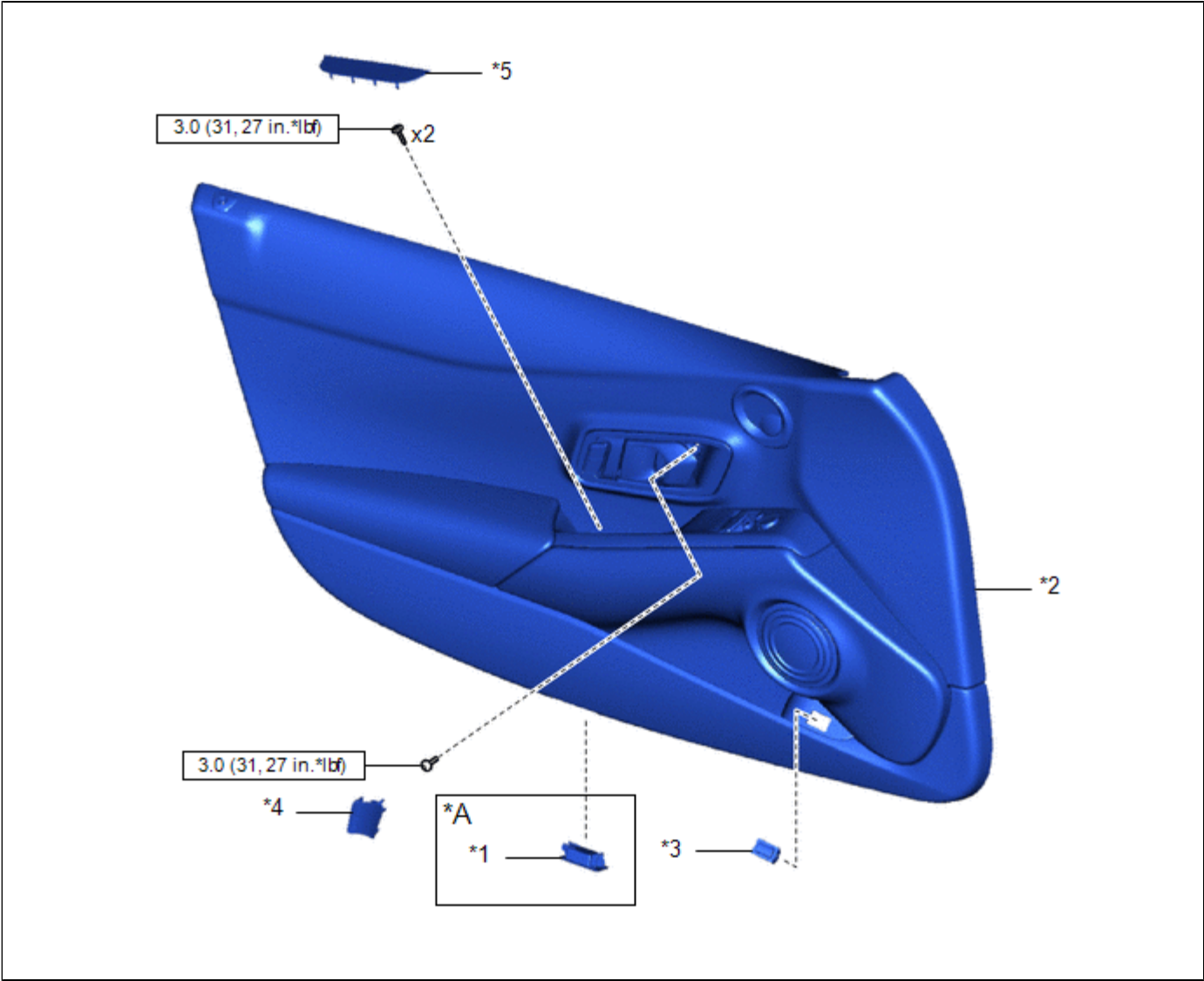
Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR OPENER SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	COURTESY LIGHT ASSEMBLY	*2	FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH
*3	LUGGAGE COMPARTMENT DOOR OPENING SWITCH ASSEMBLY	*4	NO. 2 DOOR INSIDE HANDLE BEZEL LH
*5	DOOR TRIM COVER LH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

<div></div>			
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR OPENER SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

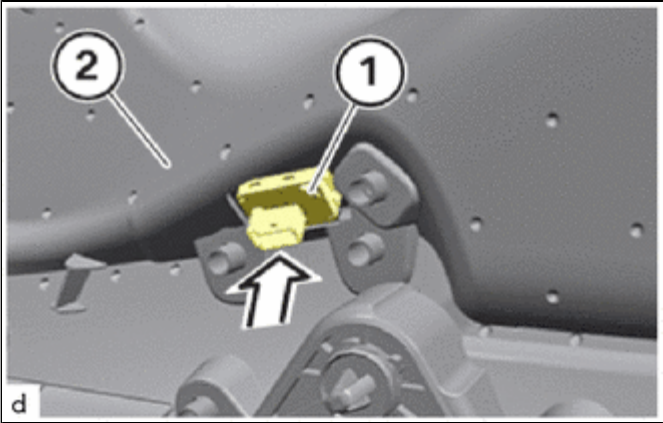
Click here [INFO](#)

2. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH

Click here [INFO](#)

3. REMOVE LUGGAGE COMPARTMENT DOOR OPENING SWITCH ASSEMBLY

- (a) Press the luggage compartment door opening switch assembly (1) from the front door trim board sub-assembly (2) in the direction of arrow.



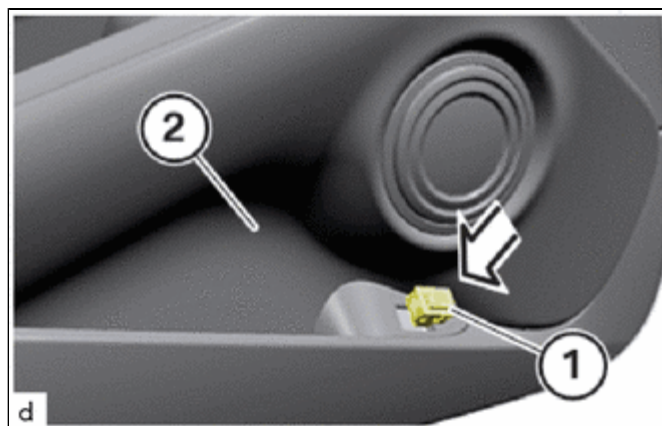
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR OPENER SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL LUGGAGE COMPARTMENT DOOR OPENING SWITCH ASSEMBLY

- (a) Press the luggage compartment door opening switch assembly (1) into the front door trim board sub-assembly (2) in the direction of the arrow.



2. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH

Click here [INFO](#)

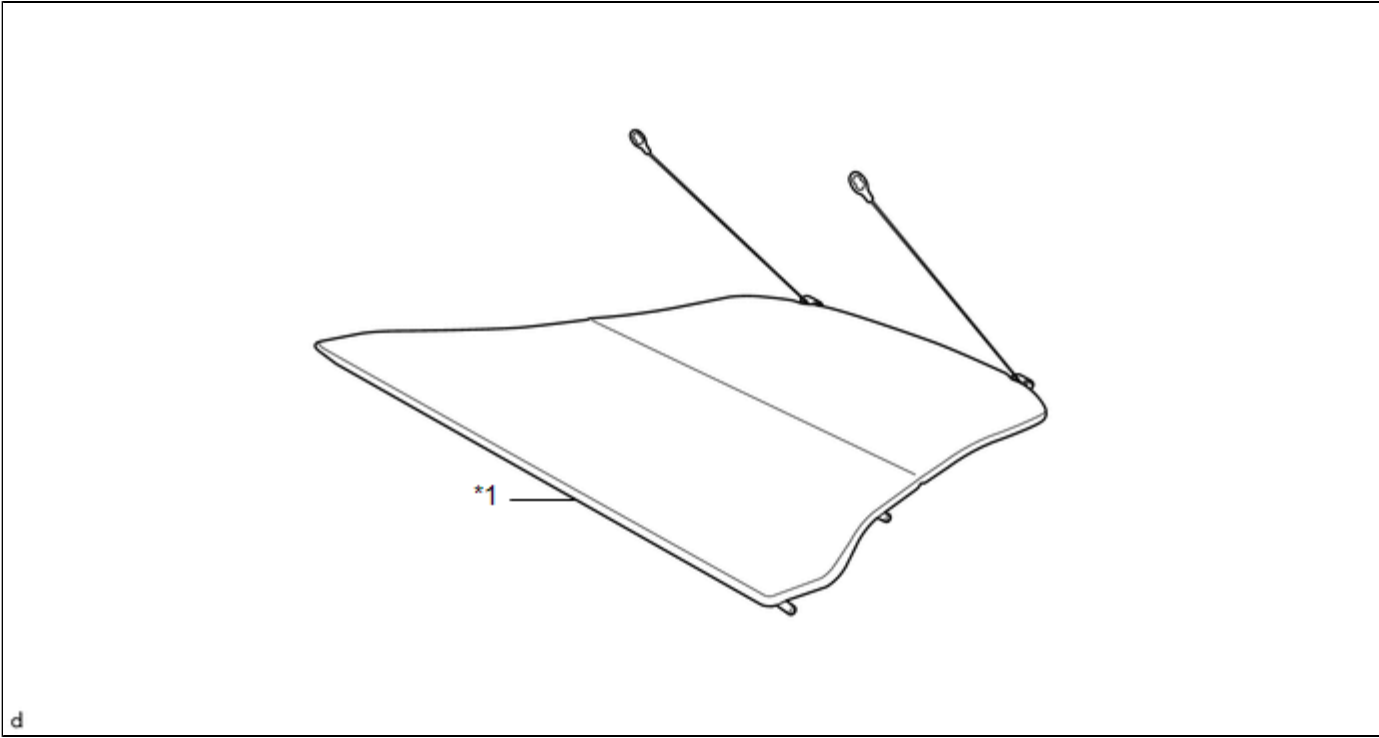
3. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR SUPPORT: COMPONENTS; 2020 MY Supra [03/2019 -]		

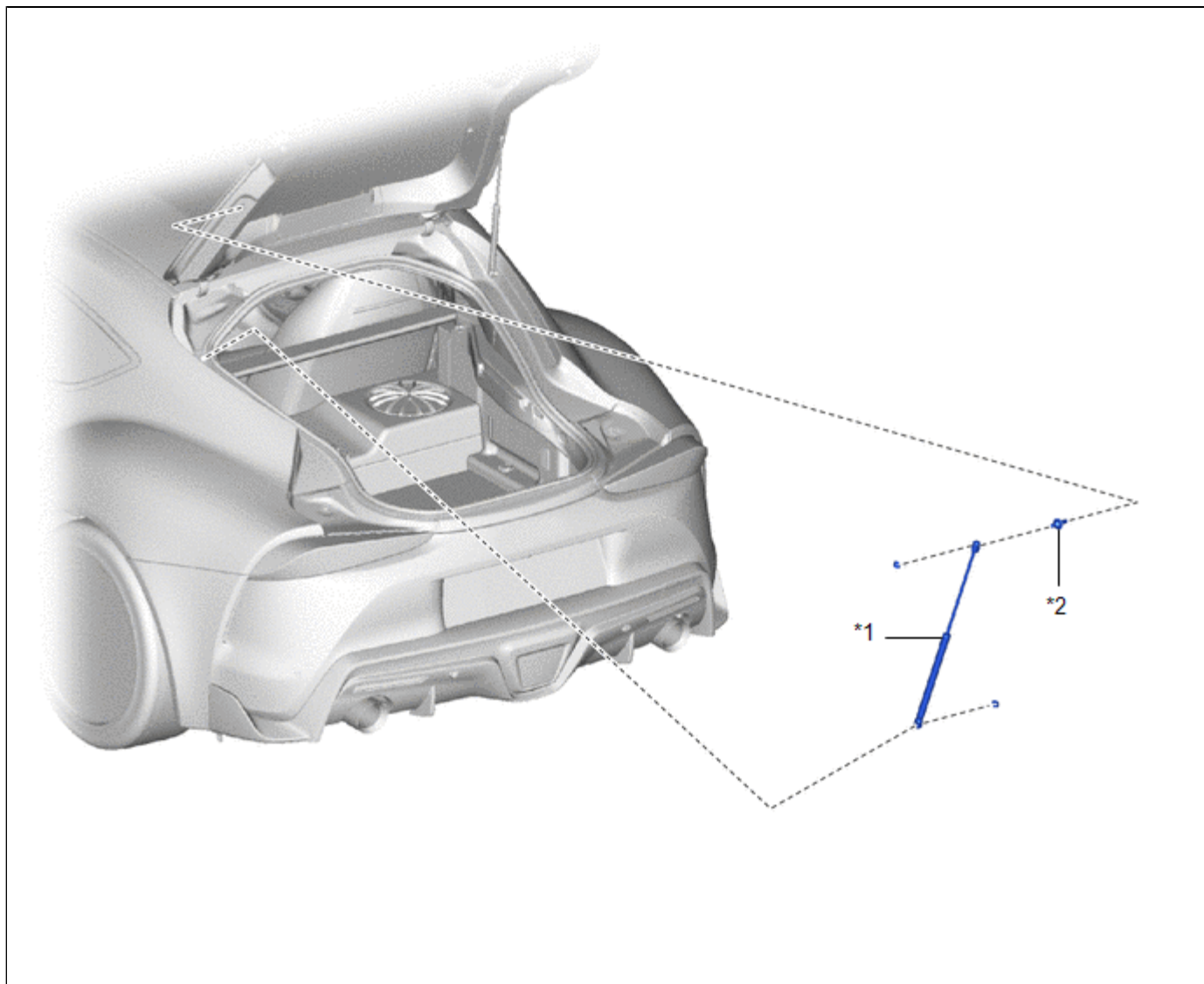
COMPONENTS

ILLUSTRATION



*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	-	-
----	----------------------------------	---	---

ILLUSTRATION



*1	BACK DOOR STAY ASSEMBLY	*2	BACK DOOR STAY BOLT
----	-------------------------	----	---------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR SUPPORT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

Perform the operations on the left and right side.

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

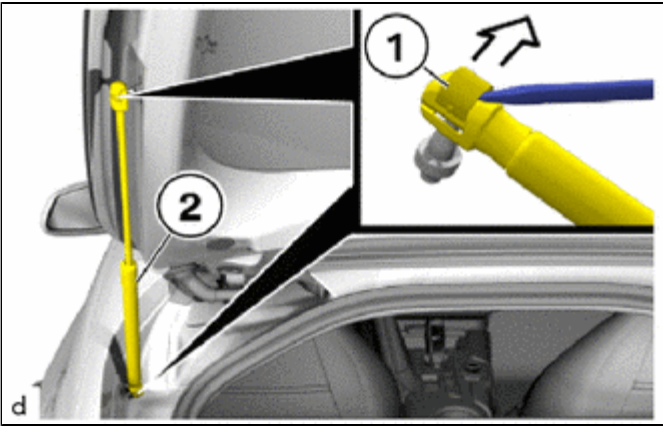
Click here [INFO](#)

2. REMOVE BACK DOOR STAY ASSEMBLY

CAUTION:

- Component with preload.
 - Danger of injury!
 - Reduce preload as far as possible before disassembly. Relieve component.
- Shutting hood sub-assembly or back door panel sub-assembly.
 - Danger of injury!
 - Support hood sub-assembly / back door panel sub-assembly in fully open position with the aid of a suitable device.

(a) Push clamps (1) open with a screwdriver in the direction of arrow.



(b) Pull off ball socket of the back door stay assembly (2), top and bottom in the direction of arrow from the back door stay bolt.

(c) Remove back door stay assembly (2).

3. REMOVE BACK DOOR STAY BOLT

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR SUPPORT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

Perform the operations on the left and right side.

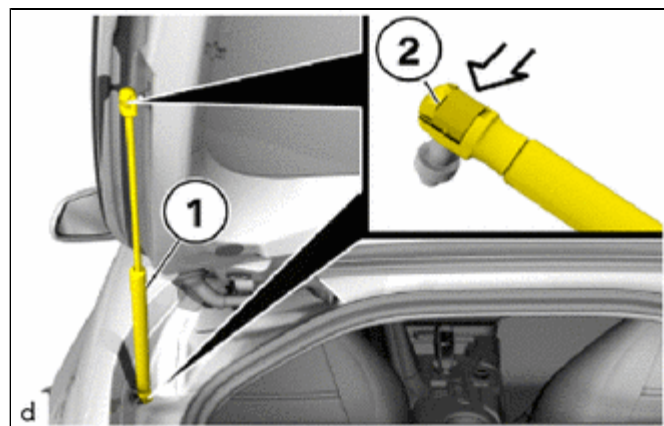
PROCEDURE

1. INSTALL BACK DOOR STAY BOLT

Click here [INFO](#)

2. INSTALL BACK DOOR STAY ASSEMBLY

- (a) Position the back door stay assembly (1) on the back door stay bolt on the top and bottom.



- (b) Position the ball sockets of the back door stay assembly (1) each on the top and bottom in the direction of arrow on the back door stay bolt and engage.

- (c) Make sure the clamps (2) are engaged correctly on the top and bottom.

3. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

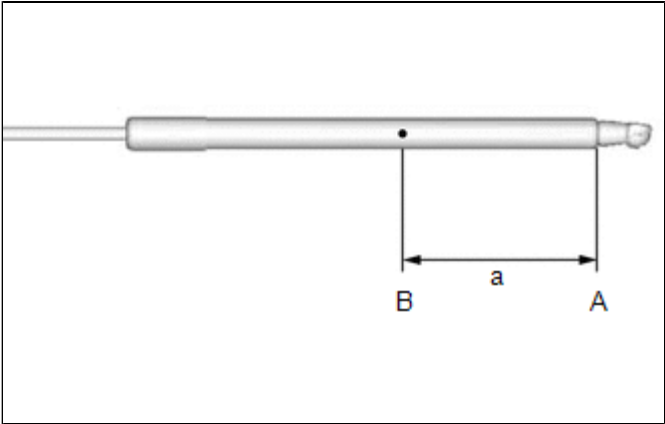
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR SUPPORT: DISPOSAL; 2020 MY Supra [03/2019 -]		

DISPOSAL

PROCEDURE

1. DISPOSE OF BACK DOOR STAY ASSEMBLY

- (a) Fully extend the back door stay assembly.
- (b) Secure the back door stay assembly horizontally in a vise with the piston rod pulled out.
- (c) Wearing protective glasses, extend the piston rod and cover it with a cloth. At position B, located 50.0 mm (1.97 in.) from position A shown in the illustration, use a metal saw to cut a hole and release the gas.

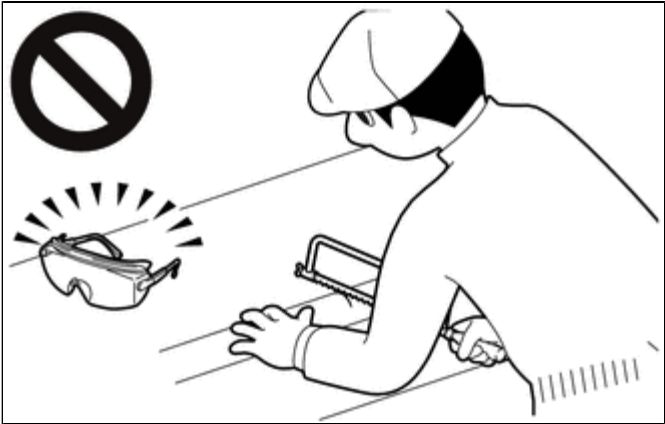


Specification:

AREA	MEASUREMENT
a	50.0 mm (1.97 in.)

CAUTION:

Always use proper safety equipment and be careful when drilling because shards of metal way fly about.



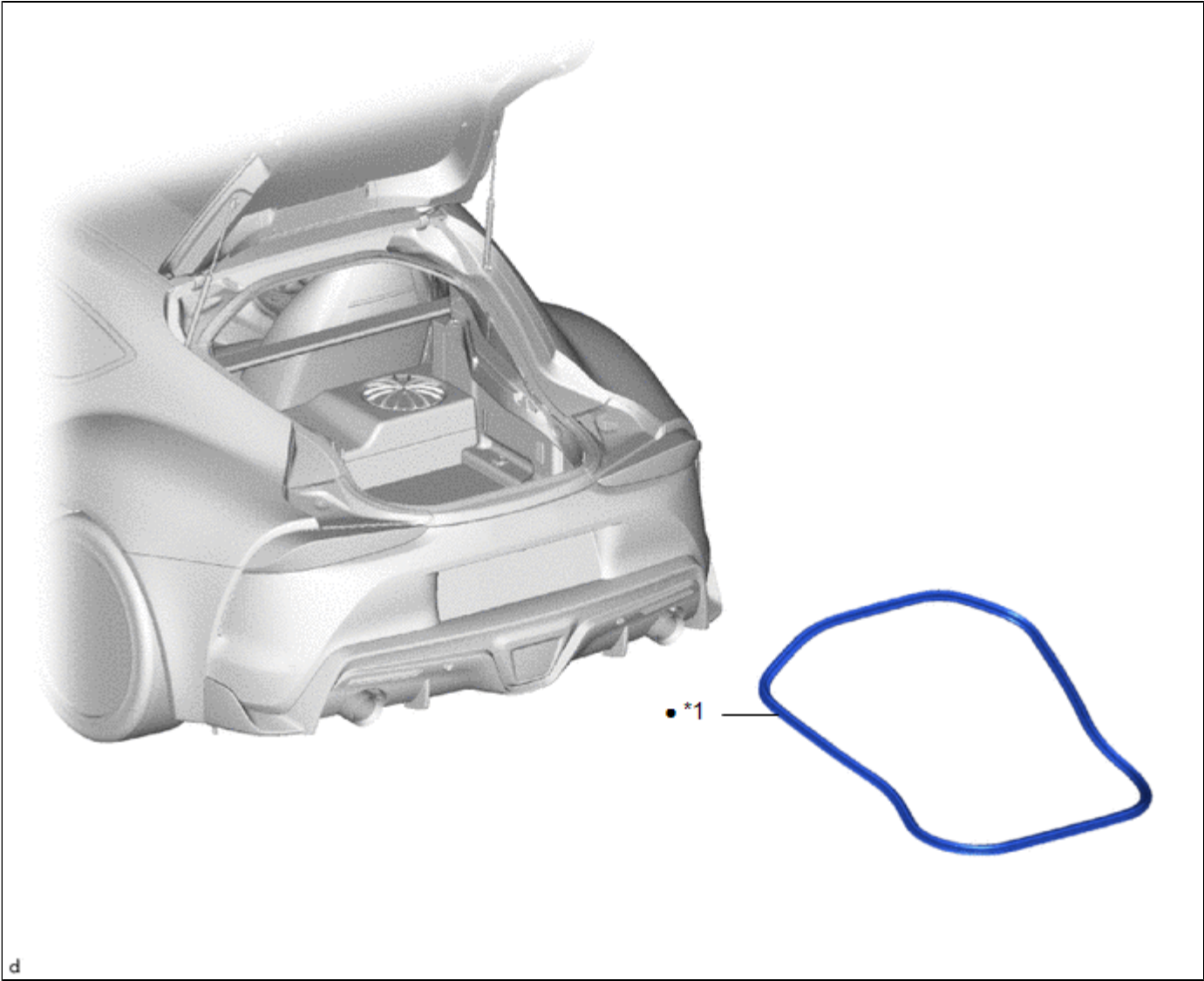
HINT:

The gas is colorless, odorless and non-poisonous.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR WEATHERSTRIP: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BACK DOOR WEATHERSTRIP	-	-
•	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR WEATHERSTRIP: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

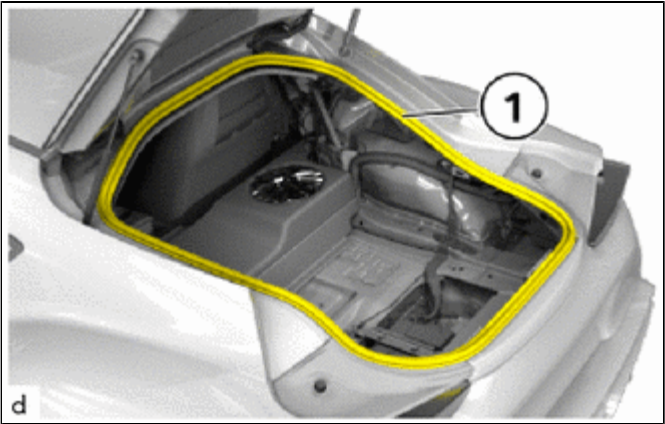
PROCEDURE

1. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

2. REMOVE BACK DOOR WEATHERSTRIP

(a) Pull off the back door weatherstrip (1) from the body beginning from the center and remove.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: BACK DOOR WEATHERSTRIP: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BACK DOOR WEATHERSTRIP

- (a) Remove remnants of the sealant from the sheet metal flange.
- (b) Clean the sheet metal flange.
- (c) Replace the back door weatherstrip.
- (d) Mount the back door weatherstrip beginning from the top center.
- (e) Check the closing function of the back door panel sub-assembly.
- (f) The back door panel sub-assembly is not closing correctly.
- (g) Make sure that the back door weatherstrip is positioned correctly against adjacent trim panel components.

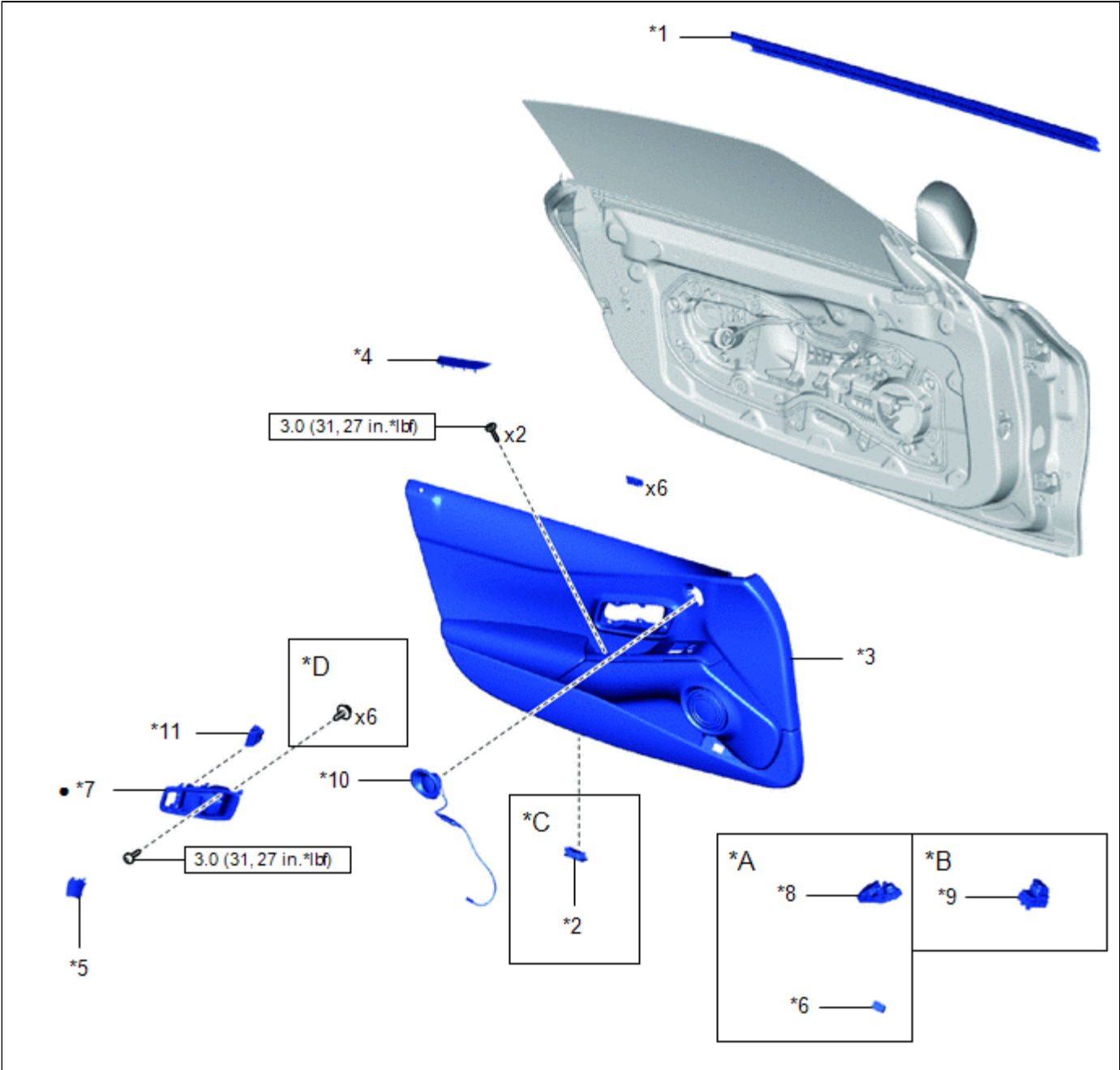
2. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FRONT DOOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

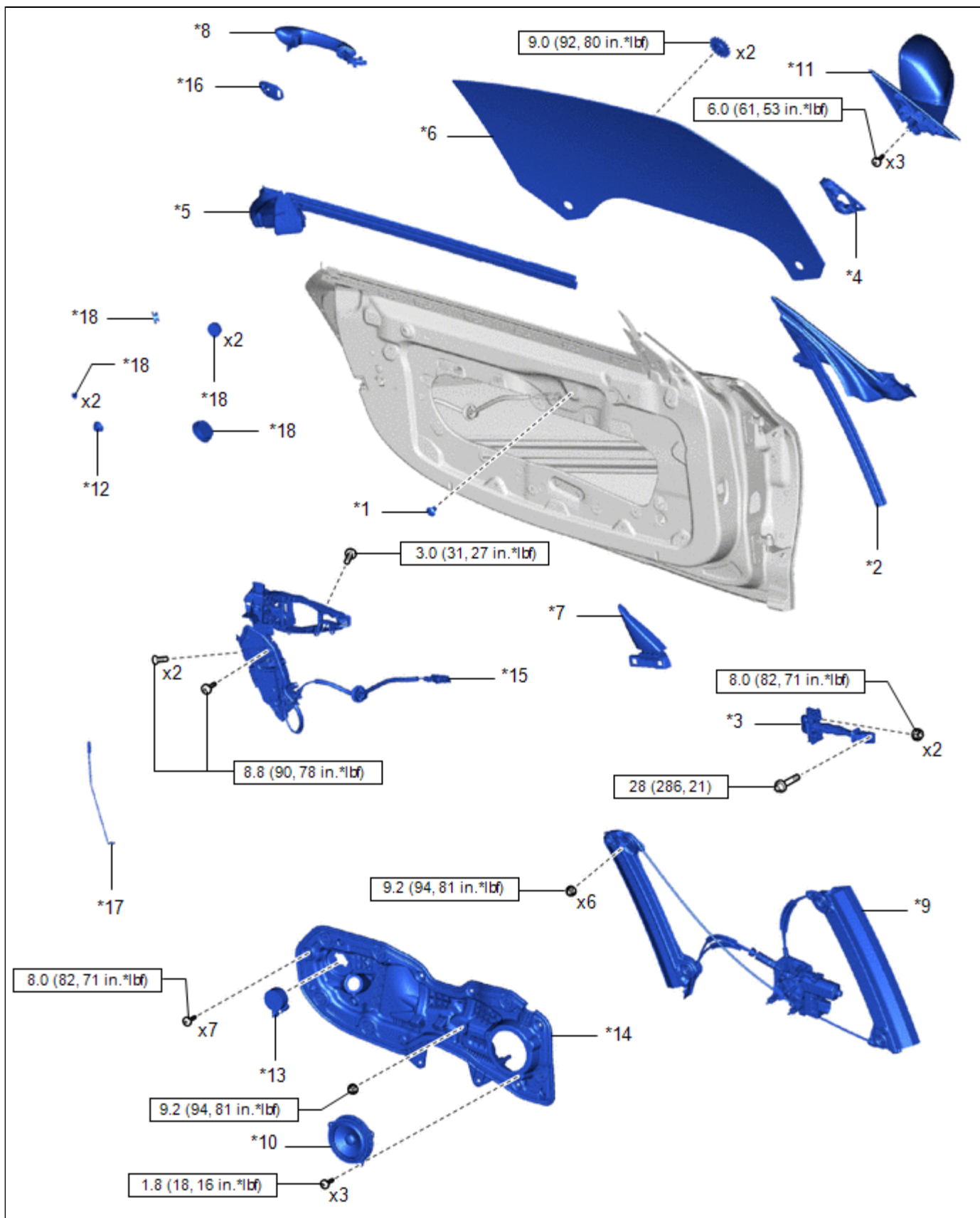
ILLUSTRATION




*A	for Driver Side	*B	for Front Passenger Side
*C	w/ Courtesy Light	*D	Replacing
*1	FRONT DOOR BELT MOULDING ASSEMBLY	*2	COURTESY LIGHT ASSEMBLY
*3	FRONT DOOR TRIM BOARD SUB-ASSEMBLY	*4	DOOR TRIM COVER

*5	NO. 2 DOOR INSIDE HANDLE BEZEL	*6	LUGGAGE COMPARTMENT DOOR OPENING SWITCH ASSEMBLY
*7	FRONT DOOR INSIDE HANDLE	*8	POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
*9	POWER WINDOW REGULATOR SWITCH ASSEMBLY	*10	FRONT NO. 2 SPEAKER ASSEMBLY
*11	DOOR CONTROL SWITCH ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

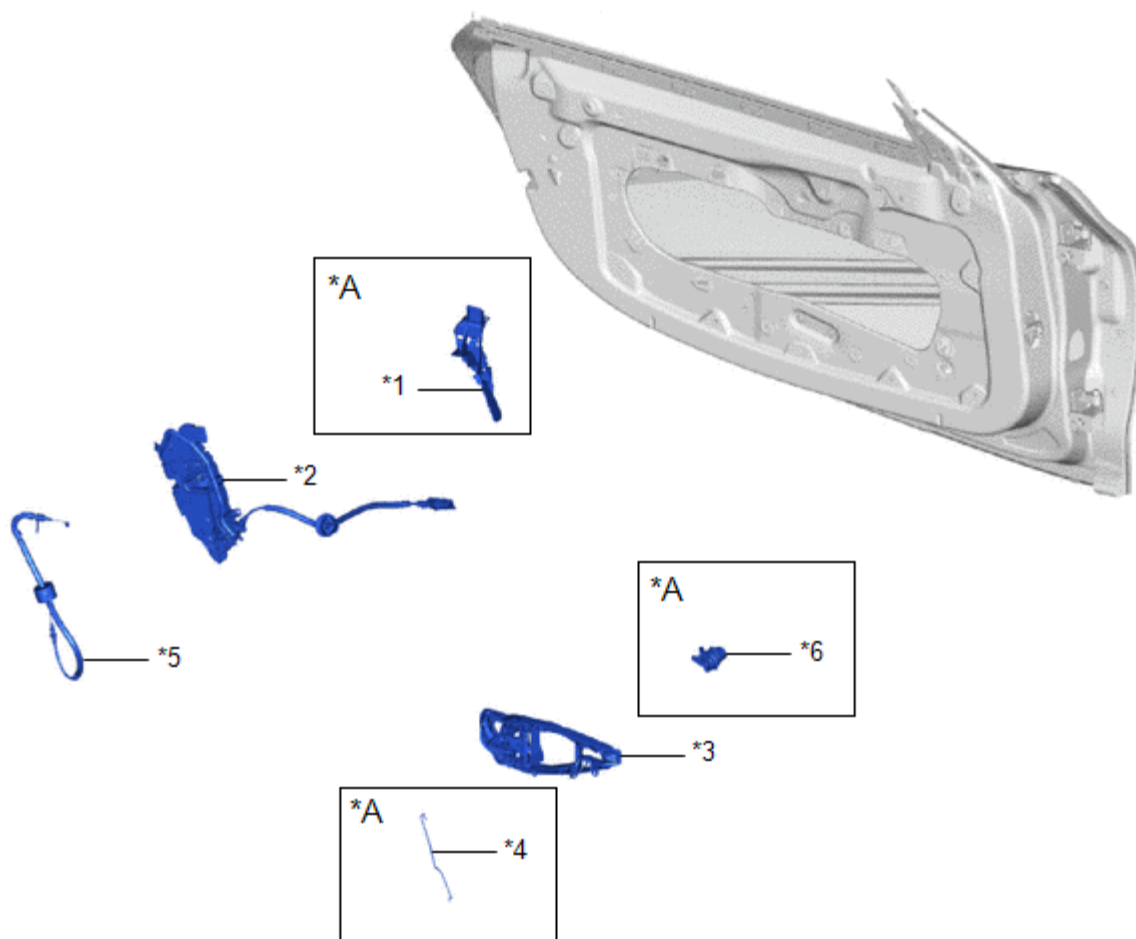
ILLUSTRATION



*1	EXPANSION NUT	*2	FRONT DOOR BELT FRONT SEAL
*3	FRONT DOOR CHECK ASSEMBLY	*4	FRONT DOOR FRONT LOWER FRAME UPPER COVER

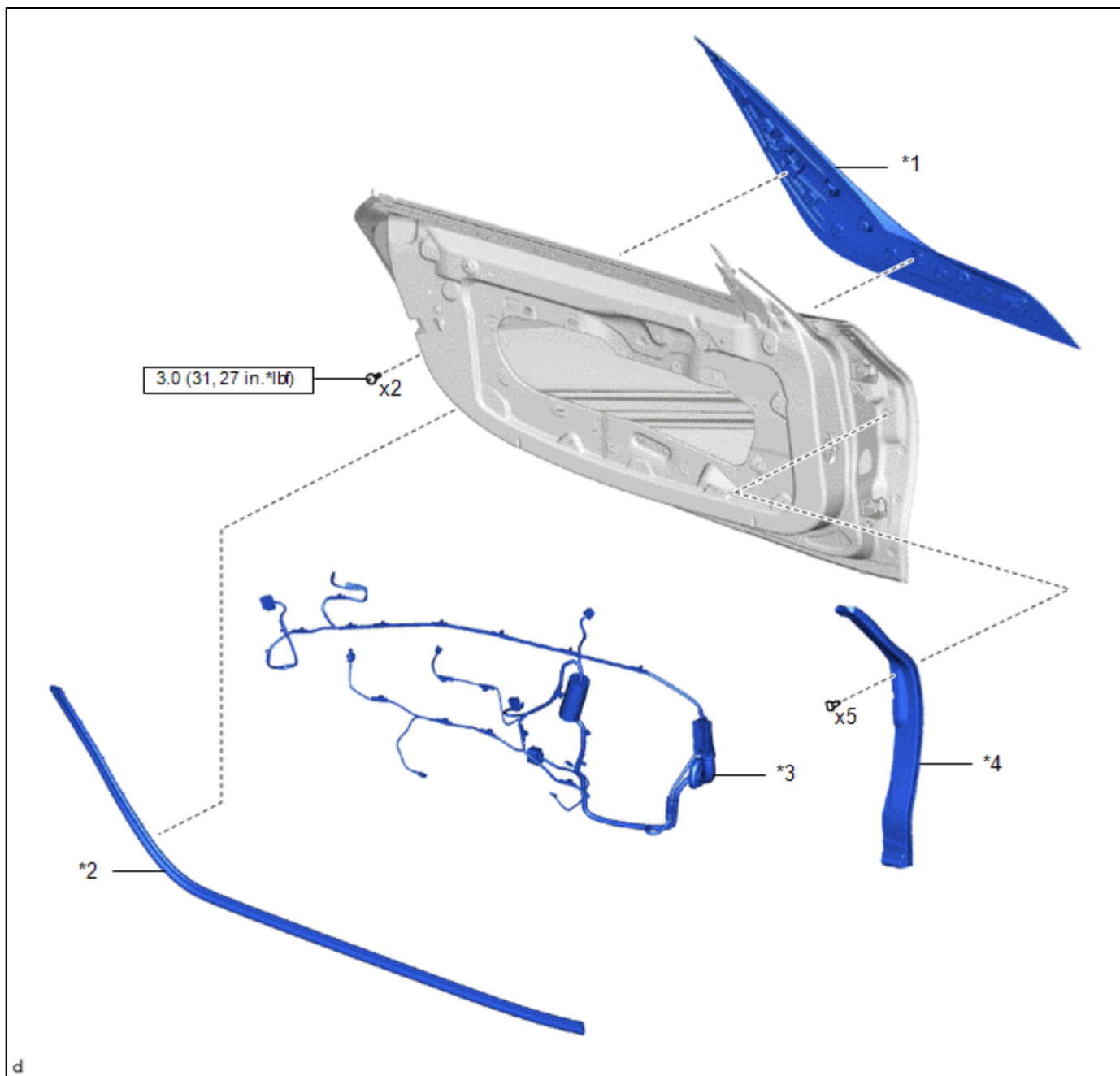
*5	FRONT DOOR GLASS INNER WEATHERSTRIP	*6	FRONT DOOR GLASS SUB-ASSEMBLY
*7	FRONT DOOR LOWER FRAME BRACKET GARNISH	*8	FRONT DOOR OUTSIDE HANDLE ASSEMBLY
*9	FRONT DOOR WINDOW REGULATOR ASSEMBLY	*10	FRONT NO. 1 SPEAKER ASSEMBLY
*11	OUTER REAR VIEW MIRROR ASSEMBLY	*12	PROTECTIVE CAP
*13	SIDE AIRBAG PRESSURE SENSOR	*14	SOUND INSULATION
*15	FRONT DOOR LOCK WITH MOTOR ASSEMBLY WITH FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY	*16	FRONT DOOR OUTSIDE HANDLE COVER
*17	FRONT DOOR LOCK OPEN ROD	*18	SEAL PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



*A	for Driver Side	-	-
*1	DOOR LOCK SPACER	*2	FRONT DOOR LOCK WITH MOTOR ASSEMBLY
*3	FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY	*4	FRONT DOOR LOCK CONTROL LINK SUB-ASSEMBLY
*5	FRONT DOOR LOCK REMOTE CONTROL OPEN LEVER CABLE	*6	LOCK CYLINDER

ILLUSTRATION



*1	FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY	*2	FRONT DOOR WEATHERSTRIP
*3	FRONT DOOR WIRE	*4	NO. 3 FRONT DOOR WEATHERSTRIP
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FRONT DOOR: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

- Airbag unit.

Danger! Immobilization period-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

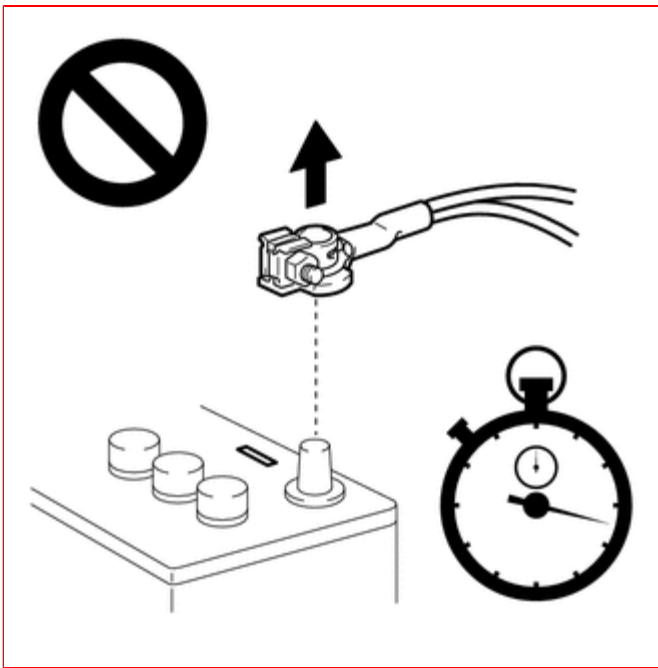
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS

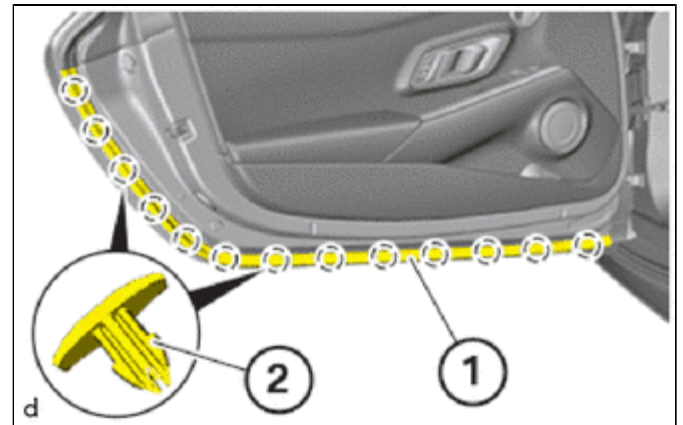


system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE FRONT DOOR WEATHERSTRIP

- (a) Disconnect the front door weatherstrip (1) from the front door panel sub-assembly at the clips (2) marked and remove.



3. REMOVE FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE FRONT DOOR BELT MOULDING ASSEMBLY

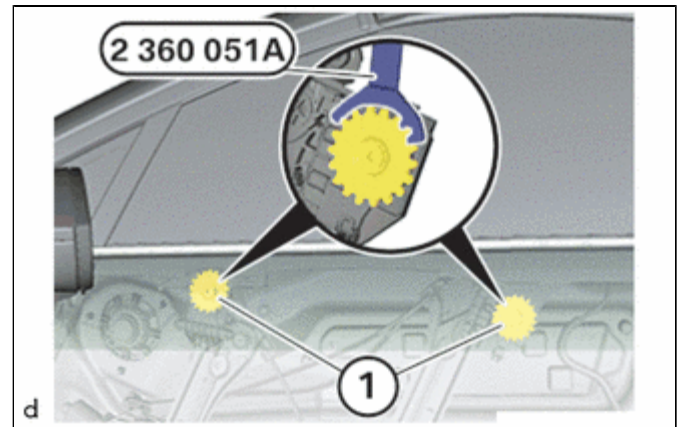
Click here [INFO](#)

5. LOOSEN FRONT DOOR GLASS SUB-ASSEMBLY

- (a) Loosen multi-tooth screws (1) on front door glass sub-assembly by turning 2 to 3 rotations using the special tool 2

360 051 (A).

SST: 09800-WA130

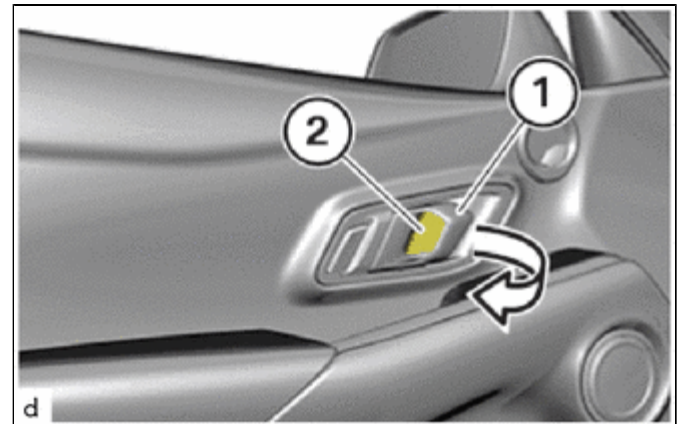


6. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

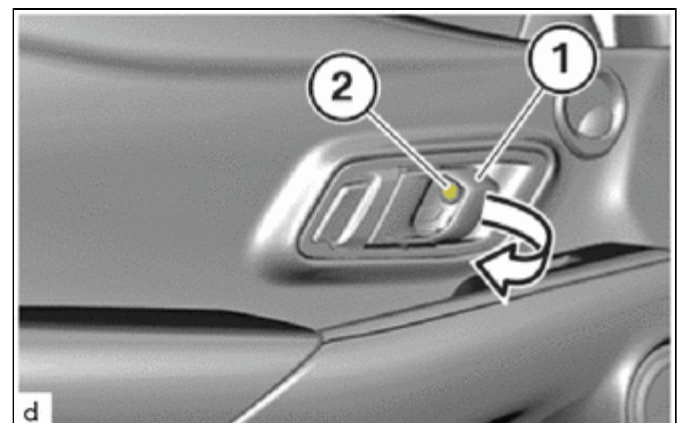
7. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY

(a) Press and hold door opener (1) in the arrow direction.



(b) Use the special tool 0 493 681 (64 1 020) to remove the No. 2 door inside handle bezel (2).

SST: 09200-WA280

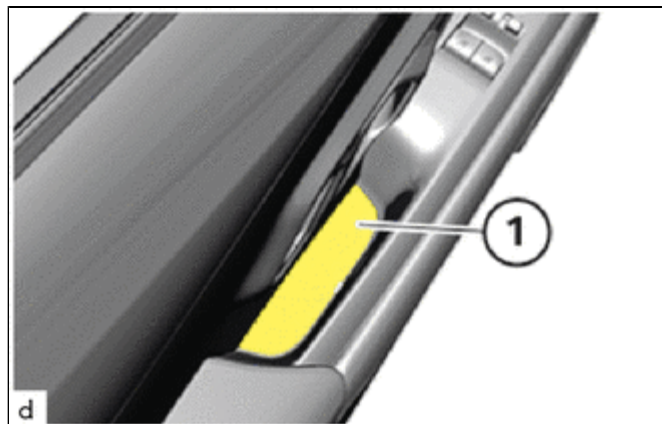


(c) Press and hold door opener (1) in the arrow direction.

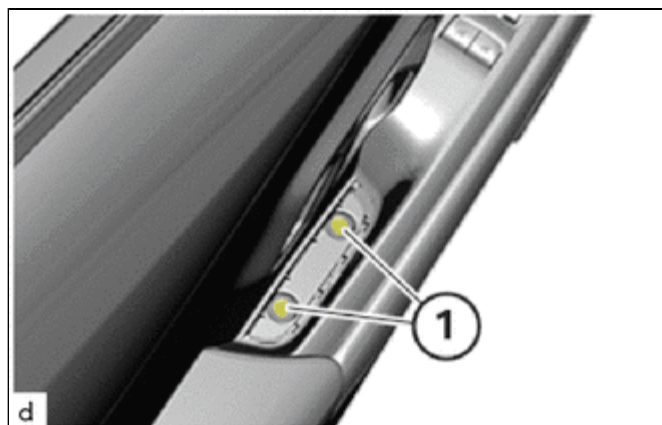
(d) Loosen T20 screw (2).

(e) Remove the door trim cover (1) using the special tool 0 493 681 (64 1 020).

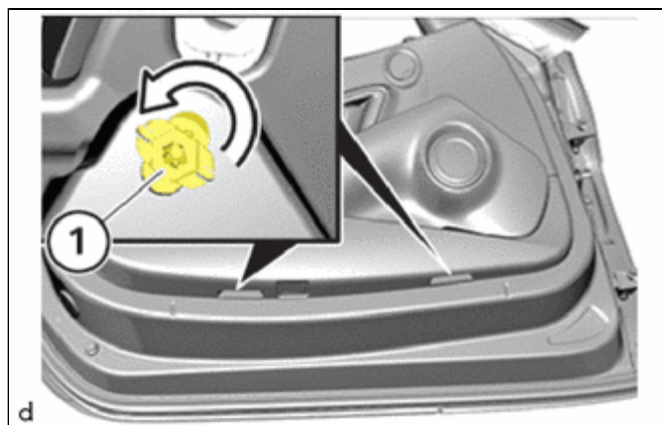
SST: 09200-WA280



(f) Loosen T20 screws (1).

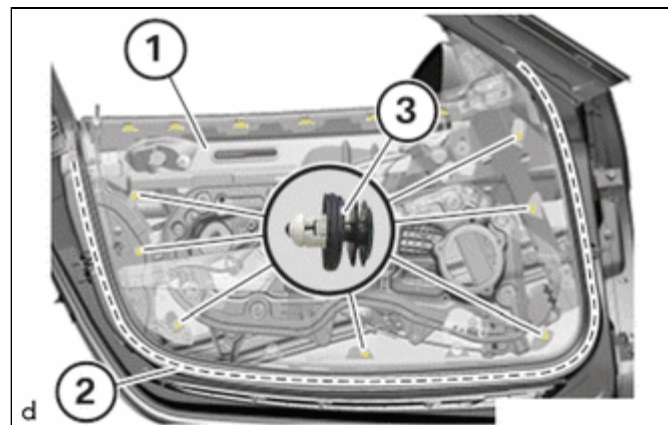


(g) Unlock the locks (1) in the direction of the arrow.

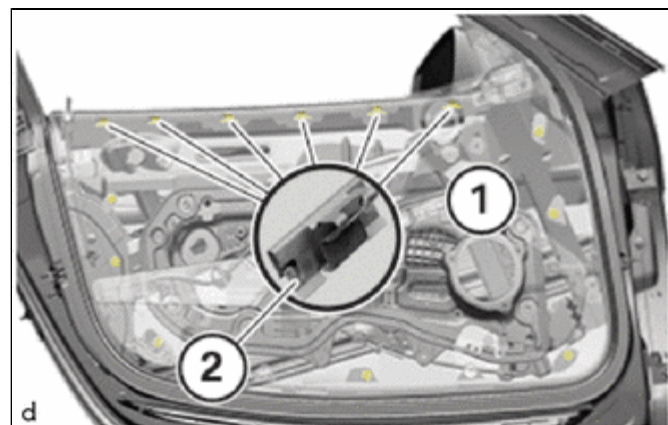


- (h) Unclip the front door trim board sub-assembly (1) from the clips (3) in the marked area (2) with the special tool 0 496 569 (00 9 325).

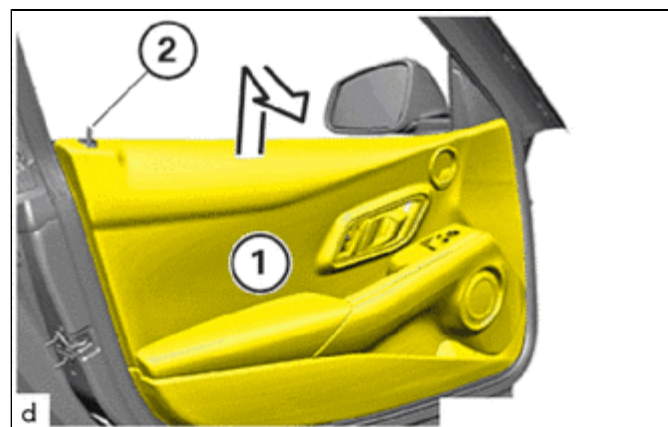
SST: 09900-WA230



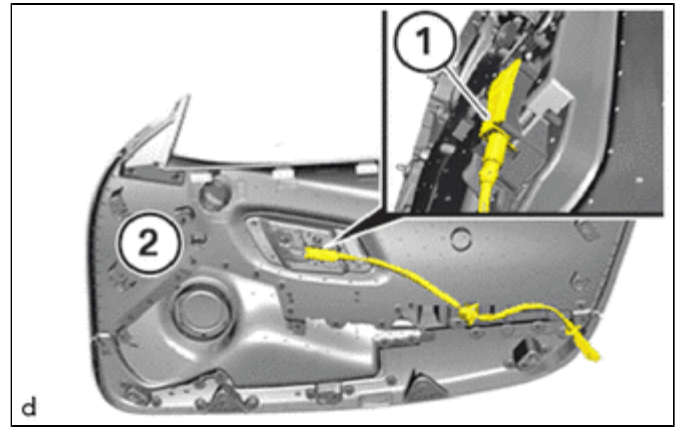
- (i) Remove front door trim board sub-assembly (1) from the clamps (2).



- (j) Slide front door trim board sub-assembly (1) over the front door lock open rod (2) and then tilt it in the direction of arrow.



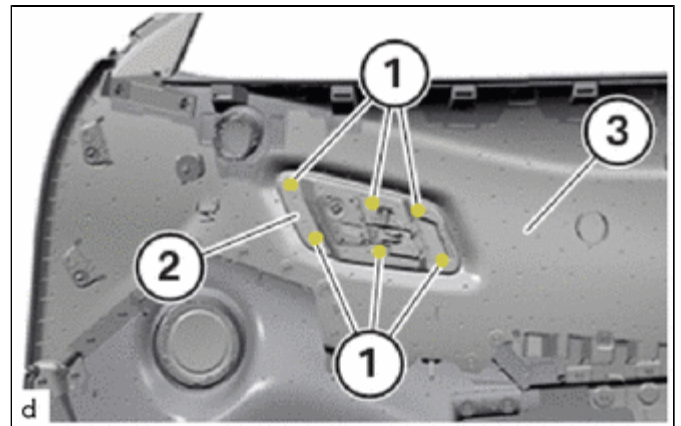
- (k) Release and remove the front door inside locking lock and unlock knob cable (1).



(l) Unlock and disconnect all related plug connections for the front door trim board sub-assembly (2).

(m) Remove front door trim board sub-assembly (2).

8. REMOVE FRONT DOOR INSIDE HANDLE



(a) Drill out or grind down all marked spot-welds (1).

(b) Remove front door inside handle (2) from front door trim board sub-assembly (3).

9. REMOVE DOOR CONTROL SWITCH ASSEMBLY

Click here [INFO](#)

10. REMOVE LUGGAGE COMPARTMENT DOOR OPENING SWITCH ASSEMBLY (for Driver Side)

Click here [INFO](#)

11. REMOVE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (for Driver Side)

Click here [INFO](#)

12. REMOVE POWER WINDOW REGULATOR SWITCH ASSEMBLY (for Front Passenger Side)

Click here [INFO](#)

13. REMOVE FRONT NO. 2 SPEAKER ASSEMBLY

Click here [INFO](#)

14. REMOVE SIDE AIRBAG PRESSURE SENSOR

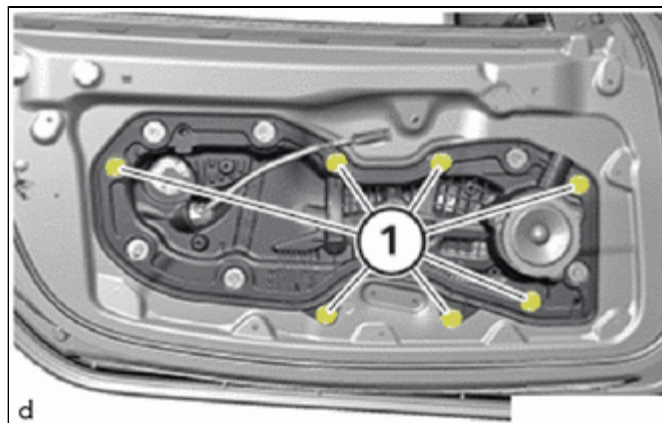
Click here [INFO](#)

15. REMOVE FRONT NO. 1 SPEAKER ASSEMBLY

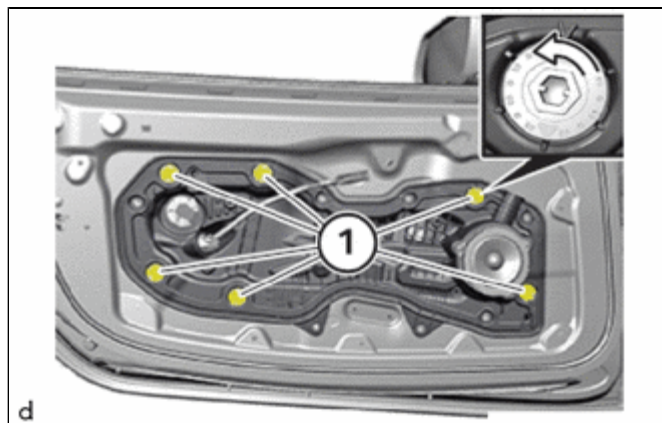
Click here [INFO](#)

16. REMOVE SOUND INSULATION

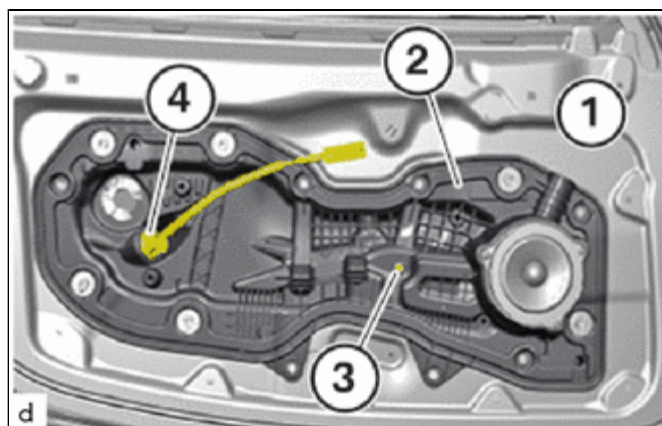
(a) Loosen T30 bolts (1).



(b) Unlock the locks (1) in the direction of the arrow.



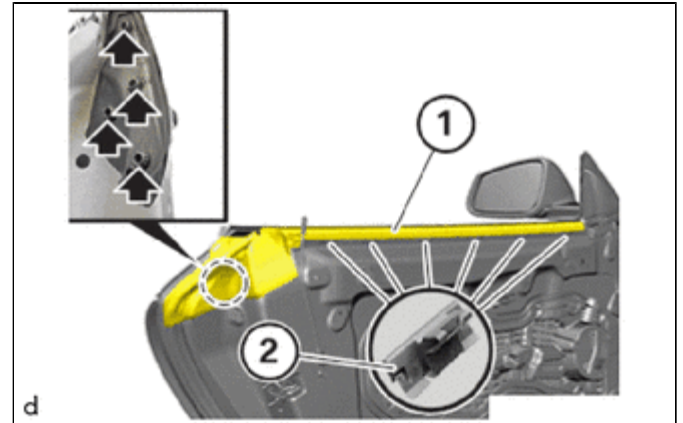
(c) Loosen nut (3).



- (d) Remove the front door inside locking lock and unlock knob cable (4) from the sound insulation (2).
- (e) Unlock and disconnect all associated plug connections.
- (f) Release the mounting clips of the vehicle wiring harness from the sound insulation.
- (g) Remove the sound insulation (2) from the front door panel sub-assembly (1).

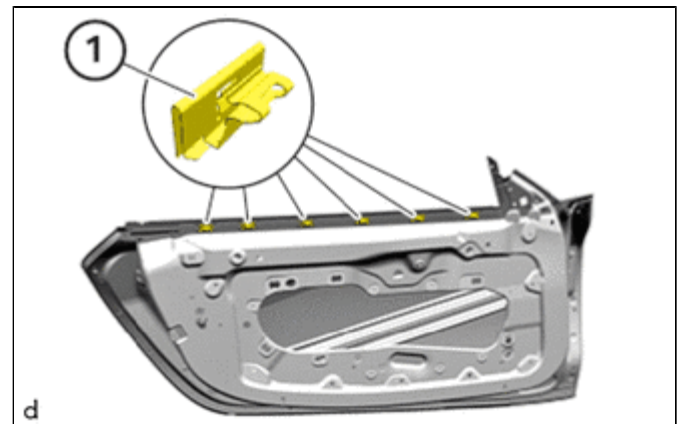
17. REMOVE FRONT DOOR GLASS INNER WEATHERSTRIP

- (a) Release the mounting elements (arrows).



- (b) Release the front door glass inner weatherstrip (1) from the clamps (2) and remove upwards.

- (c) Remove the clamps (1).

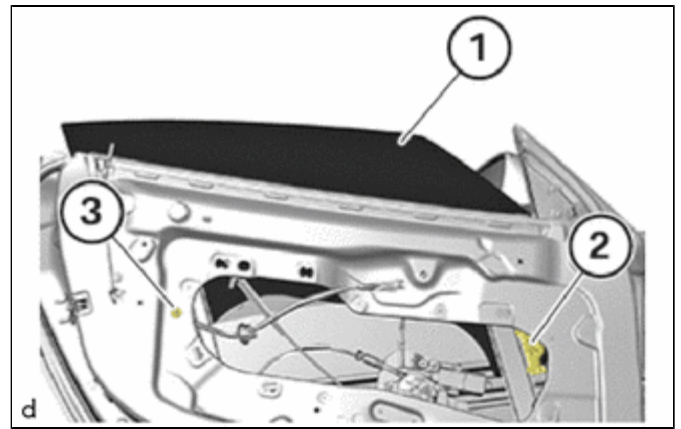


18. REMOVE FRONT DOOR GLASS SUB-ASSEMBLY

- (a) Position front door glass sub-assembly (1) as shown.

NOTICE:

The attachment points (2) and (3) must be accessible.

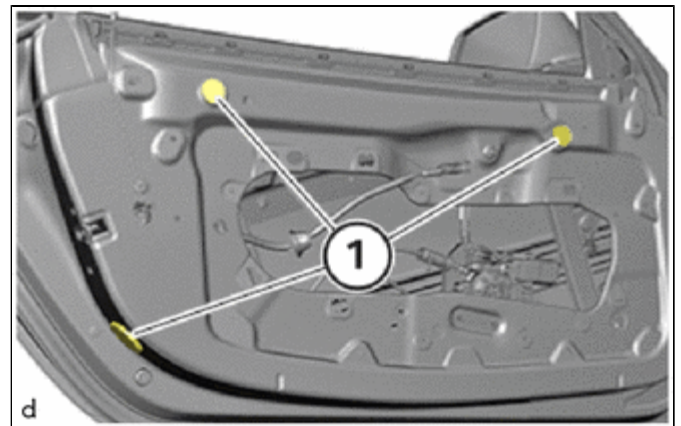


(b) Completely unscrew and remove multi-tooth screws (2) and (3) from the front door glass sub-assembly (1).

(c) Guide the front door glass sub-assembly (1) out of the door to the top.

19. REMOVE FRONT DOOR WINDOW REGULATOR ASSEMBLY

(a) Remove the seal plug (1).

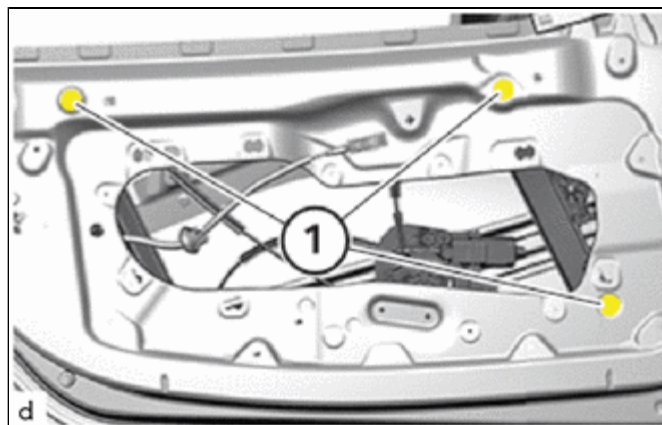


(b) Loosen nut (1).

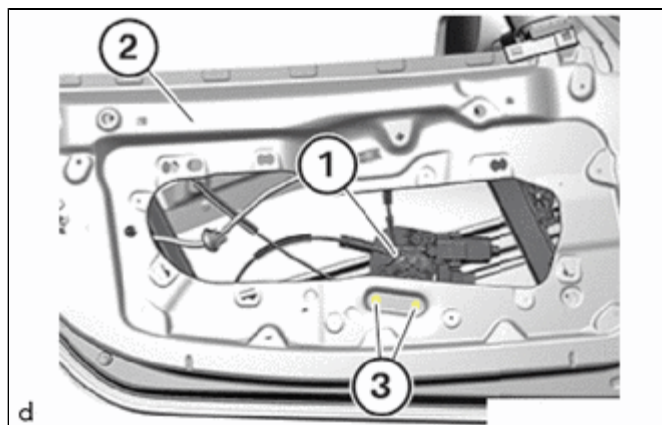


(c) Remove nuts (1) with the special tool 0 496 726 (51 0 400). While doing so, counter support at the bolt.

SST: 09800-WA110



(d) Loosen nuts (3).

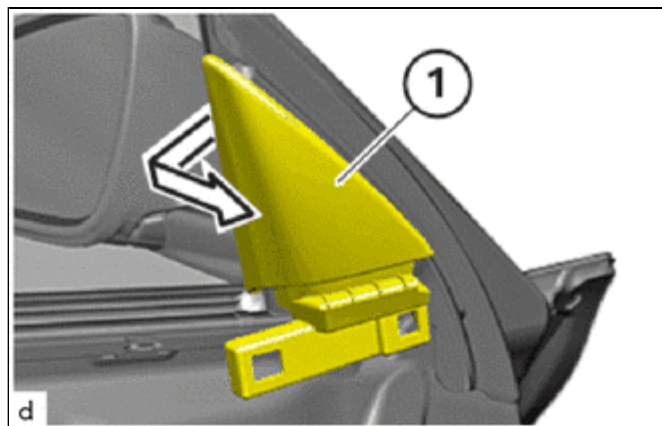


(e) Unlock and disconnect all associated plug connections for the front door window regulator assembly (1).

(f) Guide out and remove front door window regulator assembly (1) from the front door panel sub-assembly (2).

20. REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH

(a) Release, guide out and remove front door lower frame bracket garnish (1) from the front door panel sub-assembly in the direction of the front door panel sub-assembly.

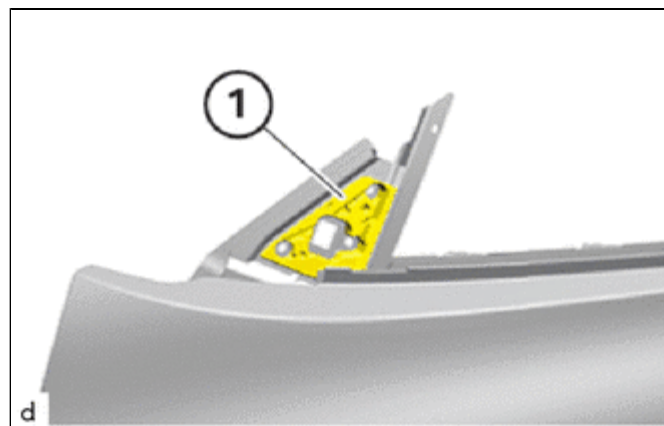


21. REMOVE OUTER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)

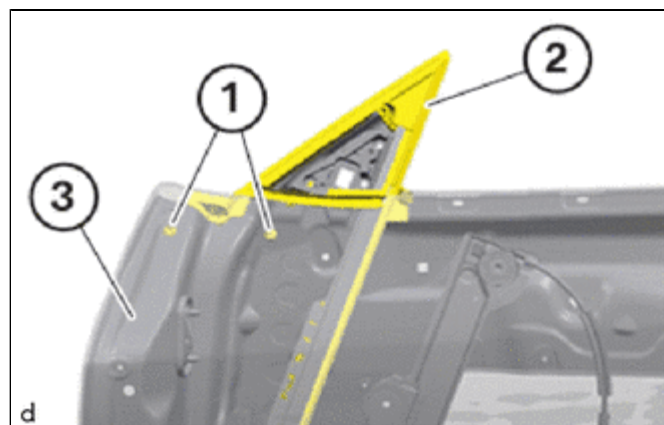
22. REMOVE FRONT DOOR FRONT LOWER FRAME UPPER COVER

(a) Remove the front door front lower frame upper cover (1).

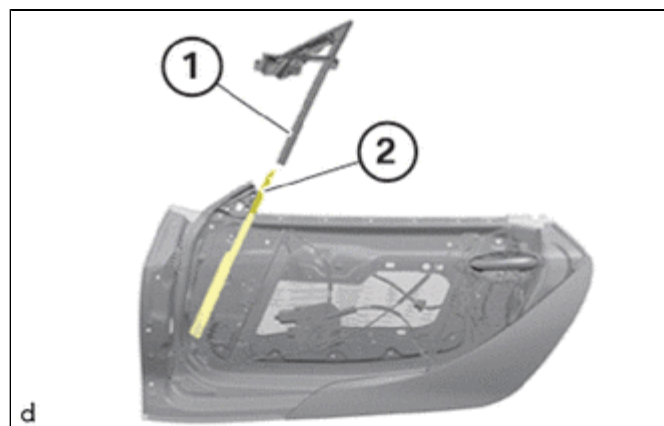


23. REMOVE FRONT DOOR BELT FRONT SEAL

(a) Remove the mounting elements (1) for the front door belt front seal (2) from the inner door panel (3).

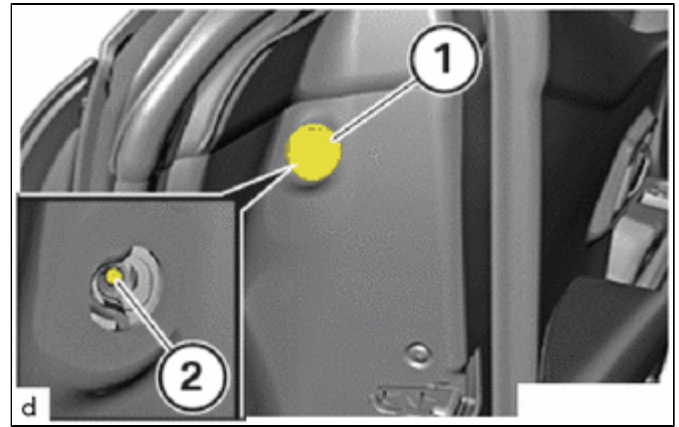


(b) Pull up the front door belt front seal (1) out of the window guide rail (2).



24. REMOVE FRONT DOOR OUTSIDE HANDLE ASSEMBLY

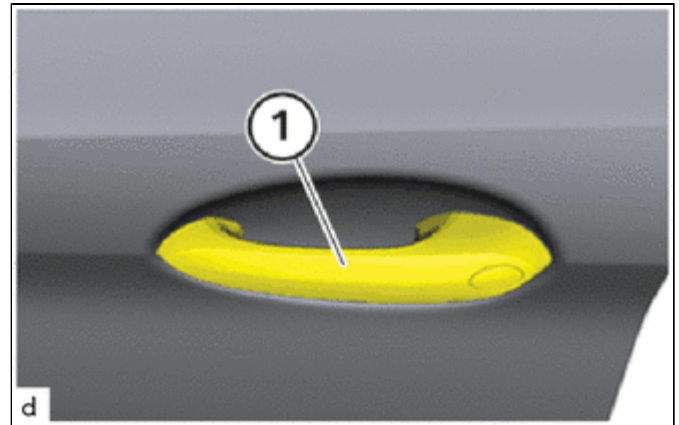
(a) Remove the seal plug (1).



(b) Release the clamping bolt (2) from the front door outside handle frame sub-assembly with the special tool 2 450 364.

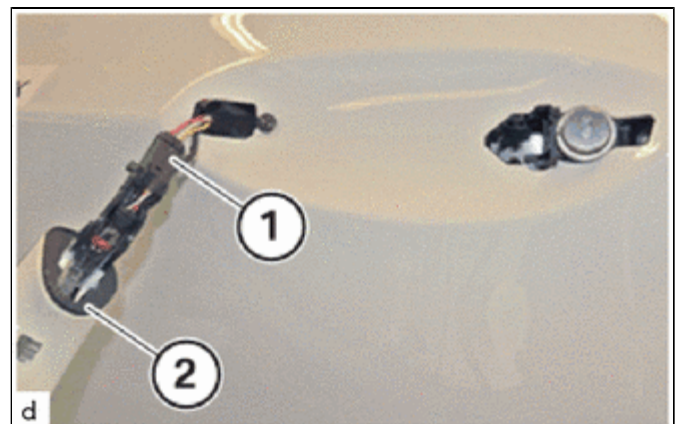
SST: 09800-WA230

(c) Pull the front door outside handle assembly (1) to the outside and remove it in the process.



(d) Pivot the front door outside handle assembly (1) further towards the outside and in this process, remove it at the front.

(e) Unlock and disconnect connector (1).



(f) Remove the front door outside handle assembly (2).

25. REMOVE FRONT DOOR LOCK WITH MOTOR ASSEMBLY

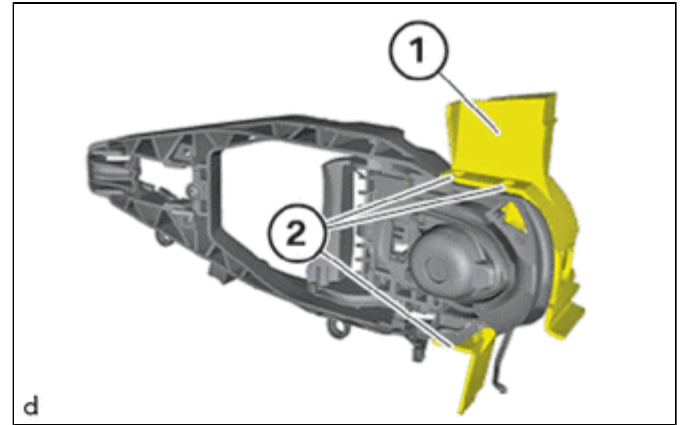
Click here [INFO](#)

26. REMOVE FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY

Click here [INFO](#)

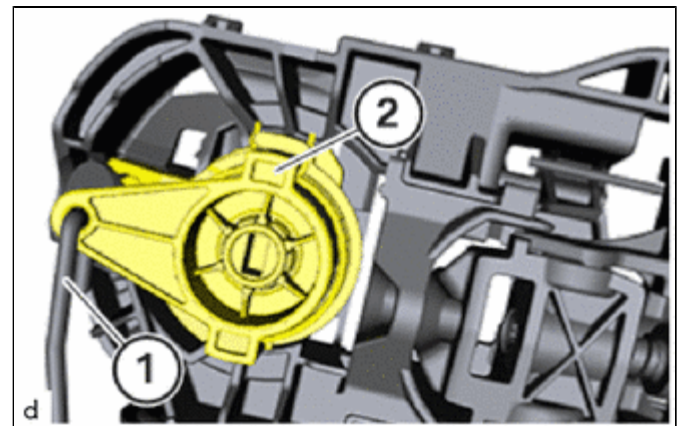
27. REMOVE DOOR LOCK SPACER (for Driver Side)

(a) Release door lock spacer (1) at detents (2).



(b) Remove the door lock spacer (1).

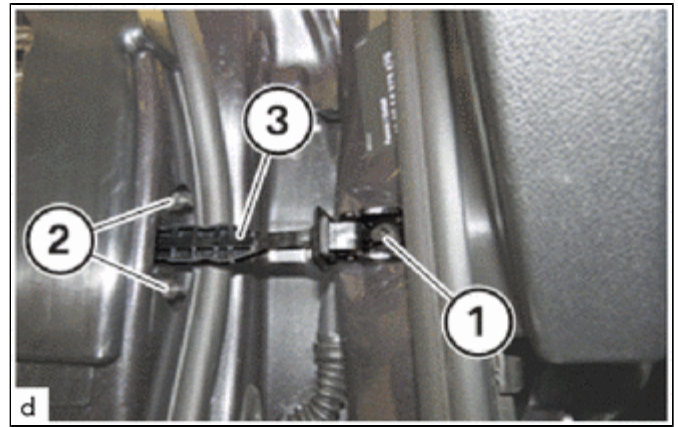
(c) Disconnect the front door lock control link sub-assembly (1).



(d) Twist lock cylinder (2) in clockwise direction and remove it.

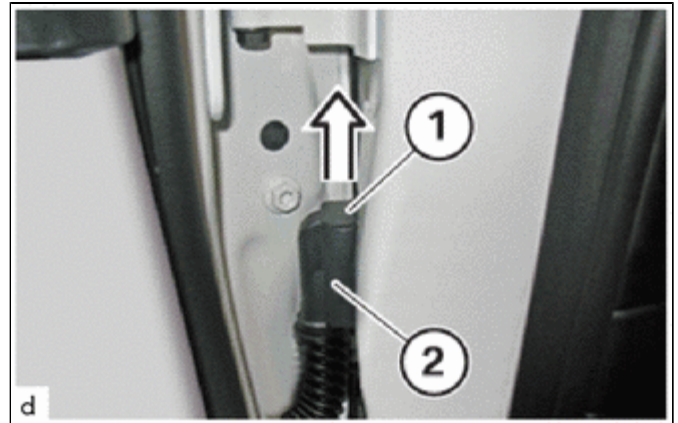
28. REMOVE FRONT DOOR CHECK ASSEMBLY

(a) Loosen E10 bolt (1).

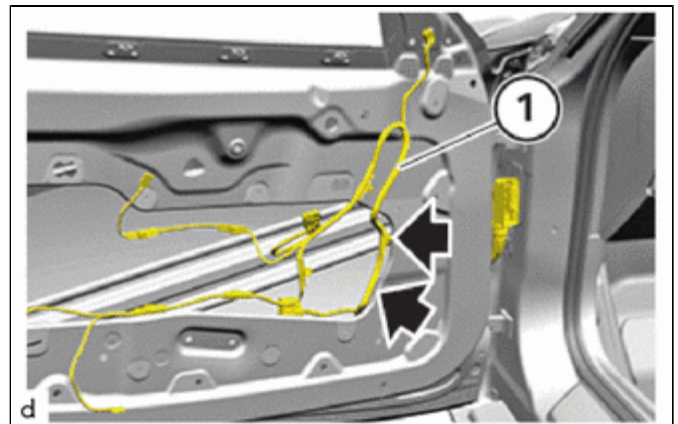


- (b) Loosen nuts (2).
- (c) Slide out front door check assembly (3).

29. REMOVE FRONT DOOR WIRE

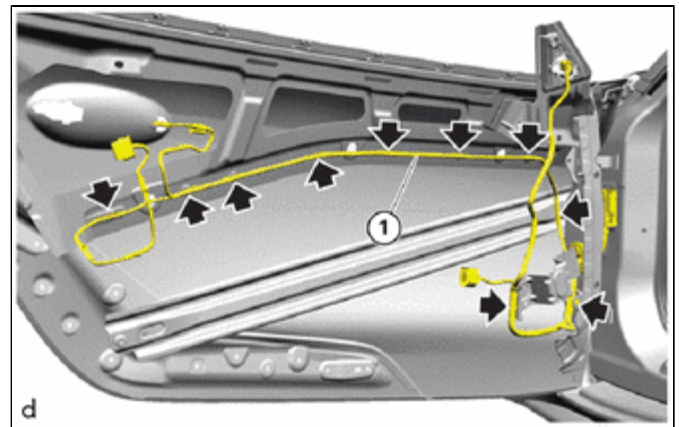


- (a) Pull the lock (1) upward in the arrow direction and disconnect the plug connection (2).



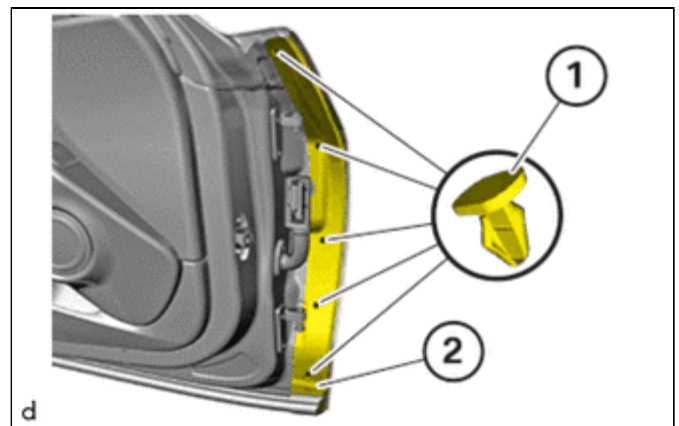
- (b) Unclip the front door wire (1) at the marked positions (arrows).

(c) Unclip the front door wire (1) at the marked positions (arrows).



30. REMOVE NO. 3 FRONT DOOR WEATHERSTRIP

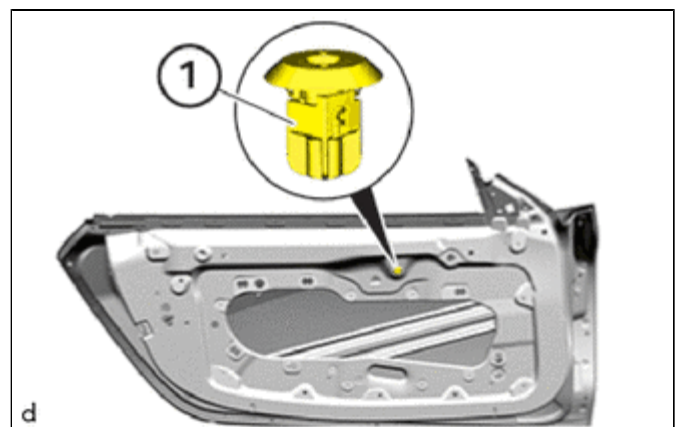
(a) Remove clips (1).



(b) Feed out and remove No. 3 front door weatherstrip (2).

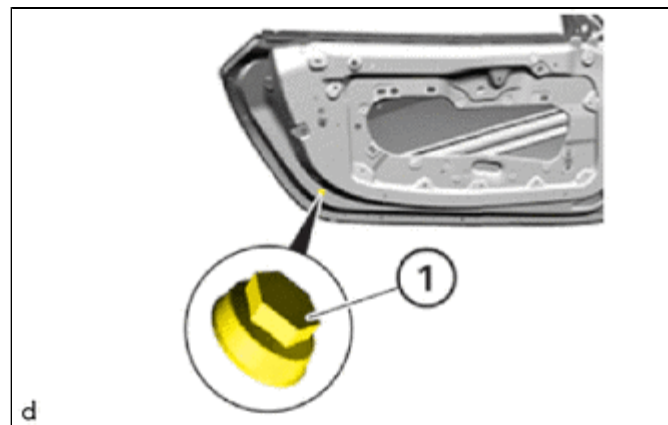
31. REMOVE EXPANSION NUT

(a) Remove the expansion nut (1).



32. REMOVE PROTECTIVE CAP

(a) Remove the protective cap (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FRONT DOOR: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

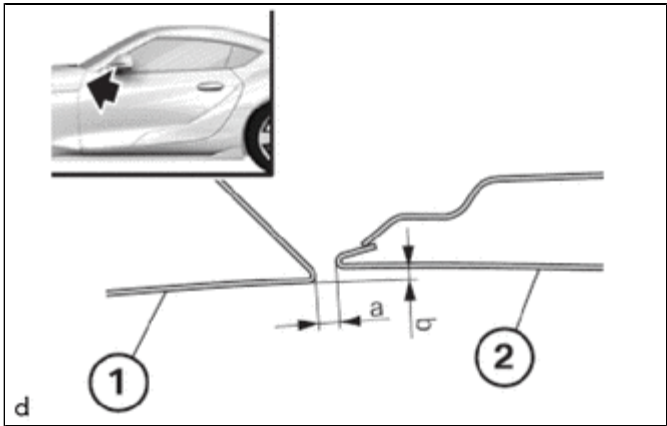
PROCEDURE

1. INSPECT FRONT DOOR PANEL SUB-ASSEMBLY

HINT:

- The dimensions stated in this document apply at an object temperature of 20°C (68°F).
 - The aim of adjustment is to achieve a uniform gap.
 - Symmetry of the gaps between left and right sides of the vehicle has top priority.
 - In terms of door gaps the maximum deviation between the front and rear door gap must be 1.0 mm (0.039 in.).
 - No gap dimension are specified for components which cannot be adjusted.
- Gap dimension hood sub-assembly to front door panel sub-assembly.
Standard Clearance:

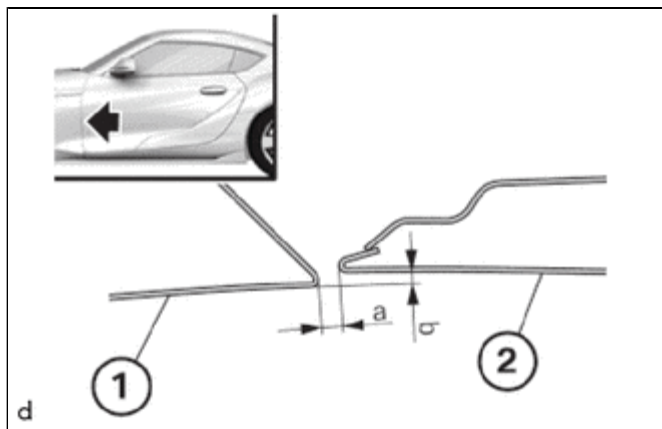
AREA	DIMENSION
a	3.0 to 5.6 mm (0.118 to 0.220 in.)
b	-0.7 to 1.7 mm (-0.028 to 0.067 in.)



(1)	Hood Sub-assembly
(2)	Front Door Panel Sub-assembly

- Gap dimension front side panel to front door panel sub-assembly.
Standard Clearance:

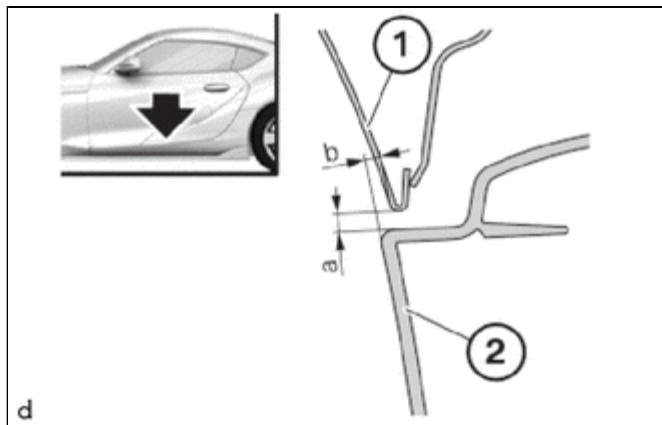
AREA	DIMENSION
a	3.3 to 5.3 mm (0.130 to 0.209 in.)
b	-0.5 to 1.5 mm (-0.020 to 0.059 in.)



(1)	Front Side Panel
(2)	Front Door Panel Sub-assembly

- Gap dimension front door panel sub-assembly to side sill trim panel.
Standard Clearance:

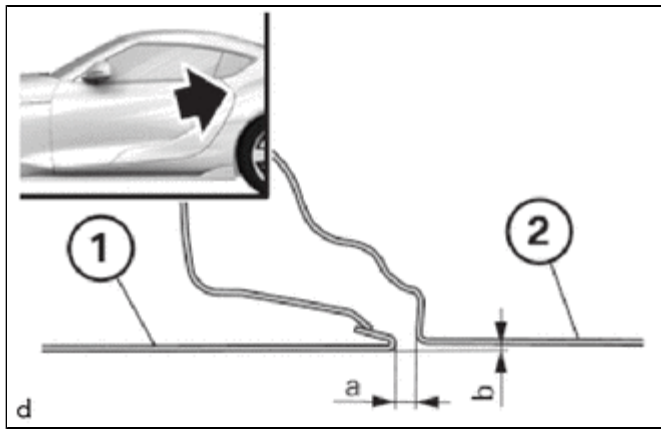
AREA	DIMENSION
a	2.5 to 5.1 mm (0.098 to 0.201 in.)
b	-0.4 to 2.4 mm (-0.016 to 0.094 in.)



(1)	Front Door Panel Sub-assembly
(2)	Side Sill Trim Panel

- Gap dimension from front door panel sub-assembly to rear side panel.
Standard Clearance:

AREA	DIMENSION
a	2.8 to 4.8 mm (0.110 to 0.189 in.)
b	-0.3 to 1.3 mm (-0.012 to 0.051 in.)



(1)	Front Door Panel Sub-assembly
(2)	Rear Side Panel

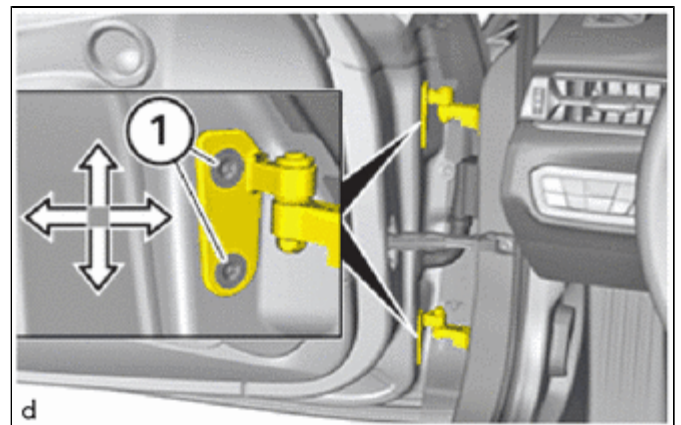
2. ADJUST FRONT DOOR PANEL SUB-ASSEMBLY

HINT:

- Description is for left component only. Procedure on the right side is identical.
- The gap dimensions form the basis for these repair instructions and must be observed without fail.

(a) Open front door.

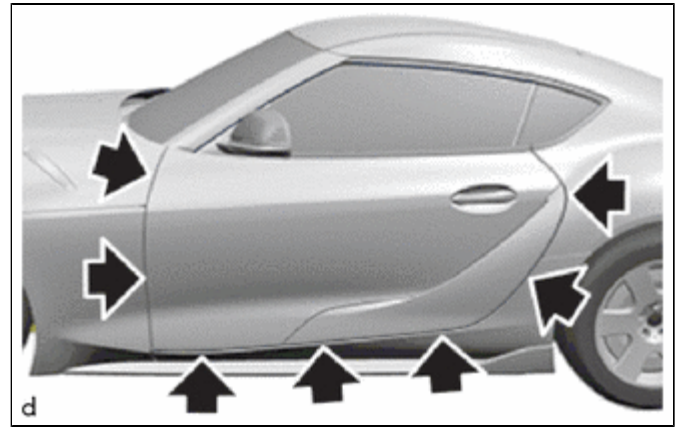
(b) Loosen T40 bolts (1) until the front door can be moved.



(c) Adjust height of front door.

(d) Adjust the width of the front door.

(e) Check the gap dimensions between the front door and the adjacent body components.



(f) Gap dimensions do not correspond to the specifications.

(g) Adjust front door.

(h) Tighten the T40 bolts.

Torque:

19.0 N·m {194 kgf·cm, 14 ft·lbf}

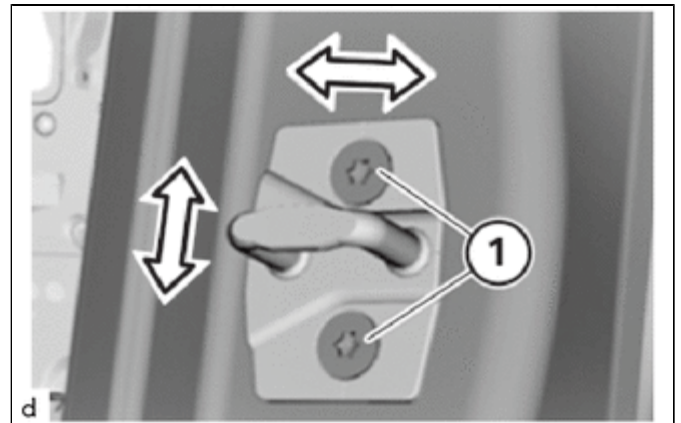
3. ADJUST FRONT DOOR LOCK STRIKER PLATE ASSEMBLY

HINT:

- The gap dimensions form the basis for these repair instructions and must be observed without fail.
- The bolts on front door lock striker plate assembly are loosened so far that the front door lock striker plate assembly can still be moved.

(a) Adjust height of the front door lock striker plate assembly. The door lock may not jolt or slip.

(b) Move front door lock striker plate assembly sideways in order to adjust the gap dimensions between front door and rear side panel.

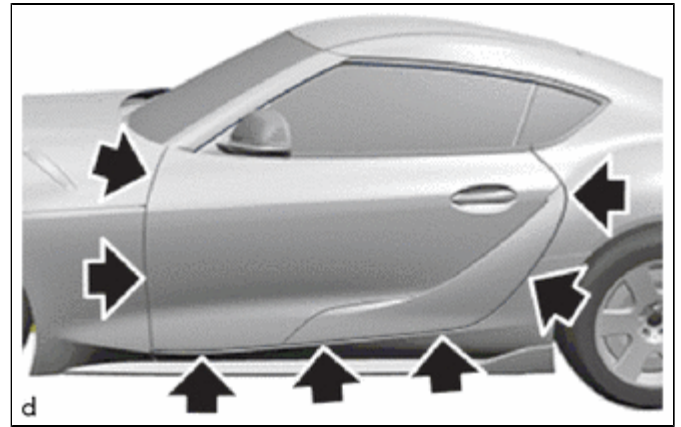


(c) Tighten the T40 bolts (1).

Torque:

21.0 N·m {214 kgf·cm, 15 ft·lbf}

(d) Check the gap dimensions between the front door and the adjacent body components.



(e) If necessary, adjust the front door again.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FRONT DOOR: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

CAUTION / NOTICE / HINT

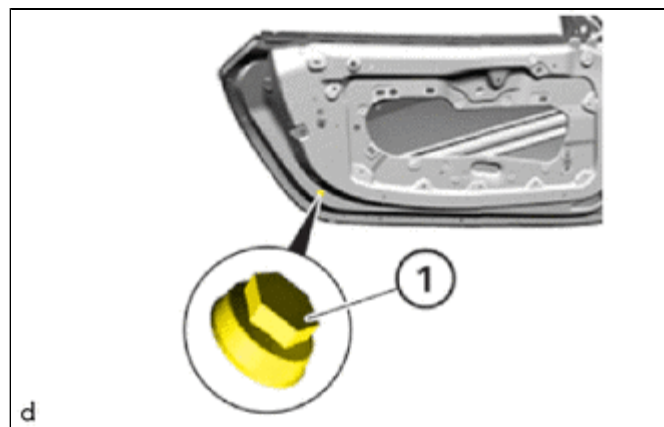
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

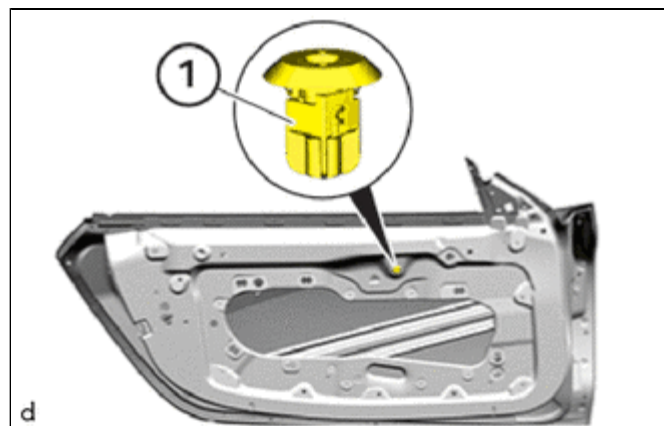
1. INSTALL PROTECTIVE CAP

(a) Install the protective cap (1).



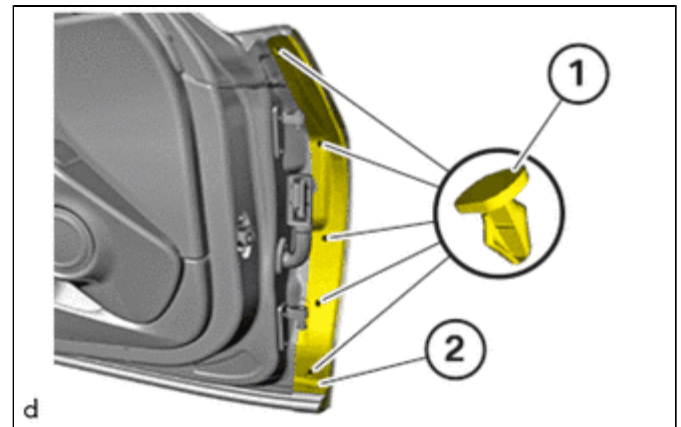
2. INSTALL EXPANSION NUT

(a) Install the expansion nut (1).



3. INSTALL NO. 3 FRONT DOOR WEATHERSTRIP

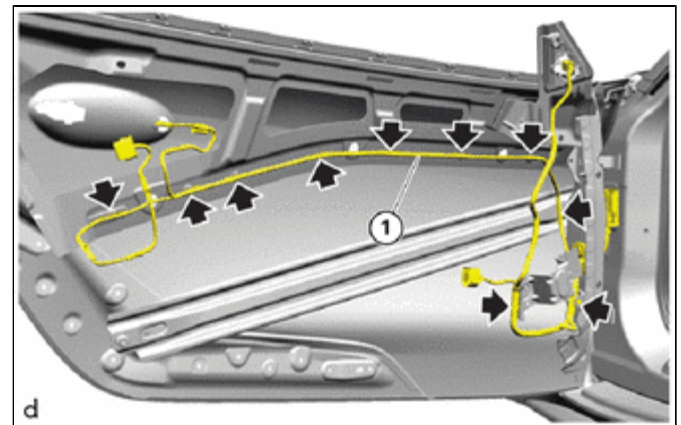
(a) Insert No. 3 front door weatherstrip (2) and position correctly.



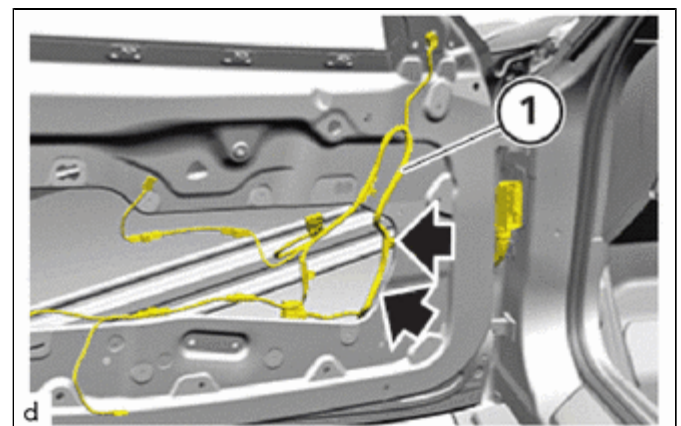
(b) Mount clips (1).

4. INSTALL FRONT DOOR WIRE

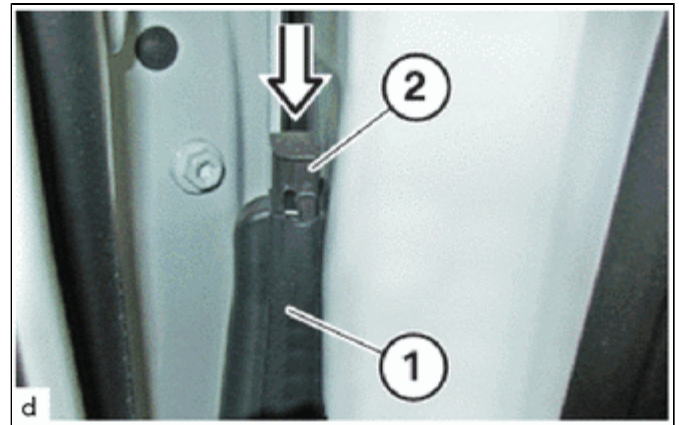
(a) Clip in the front door wire (1) at the marked positions (arrows).



(b) Clip in the front door wire (1) at the marked positions (arrows).



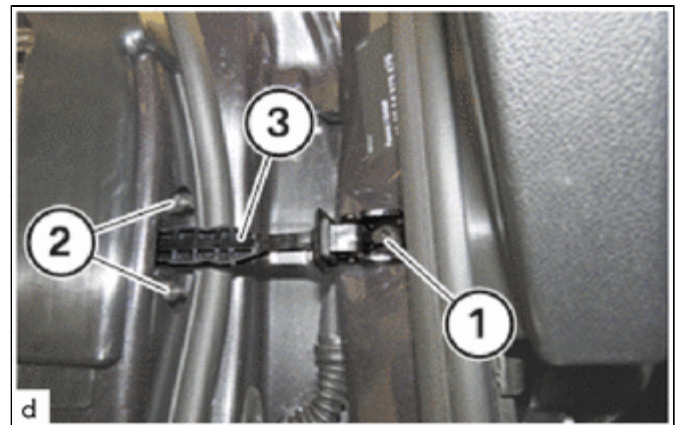
(c) Connect connector (2) and lock.



(d) Engage lock (1) in direction of arrow.

5. INSTALL FRONT DOOR CHECK ASSEMBLY

(a) Slide in front door check assembly (3).



(b) Tighten nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

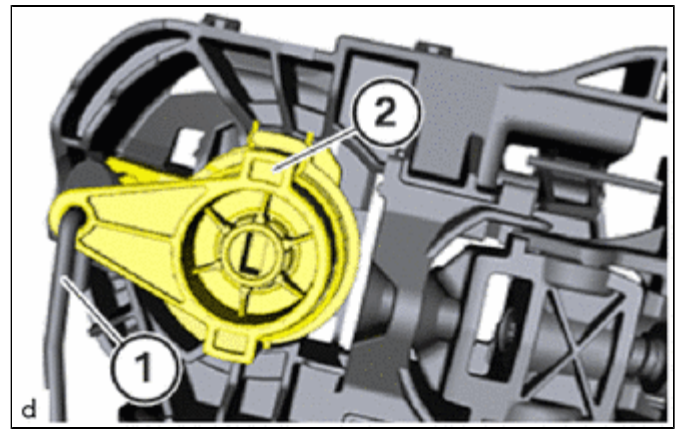
(c) Tighten down E10 bolt (1).

Torque:

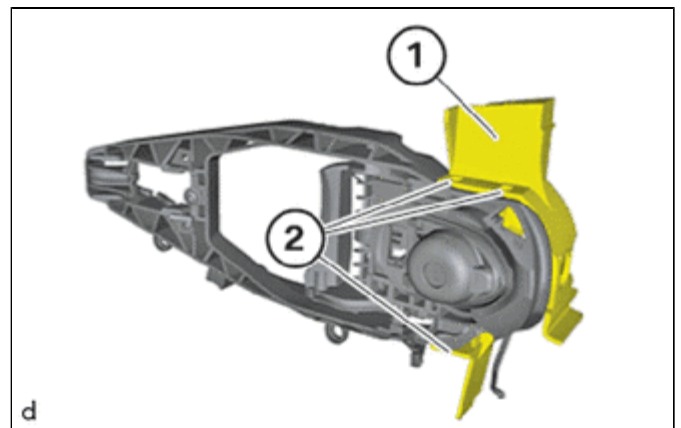
28.0 N·m {286 kgf·cm, 21 ft·lbf}

6. INSTALL DOOR LOCK SPACER (for Driver Side)

(a) Connect the front door lock control link sub-assembly (1).



(b) Install the lock cylinder (2) and turn it counter-clockwise.



(d) Engage door lock spacer (1) at the detents (2).

7. INSTALL FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY

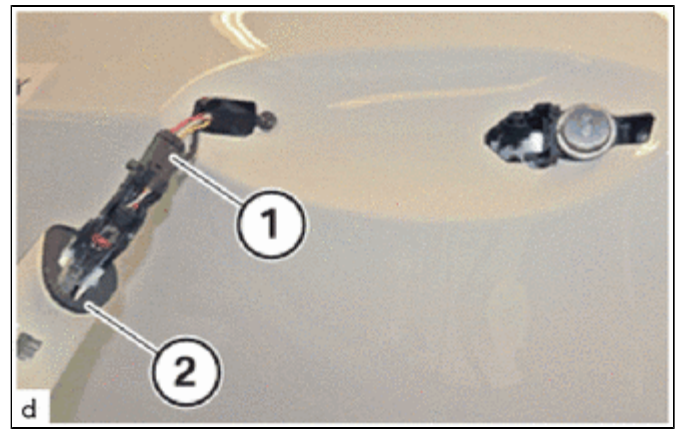
Click here [INFO](#)

8. INSTALL FRONT DOOR LOCK WITH MOTOR ASSEMBLY

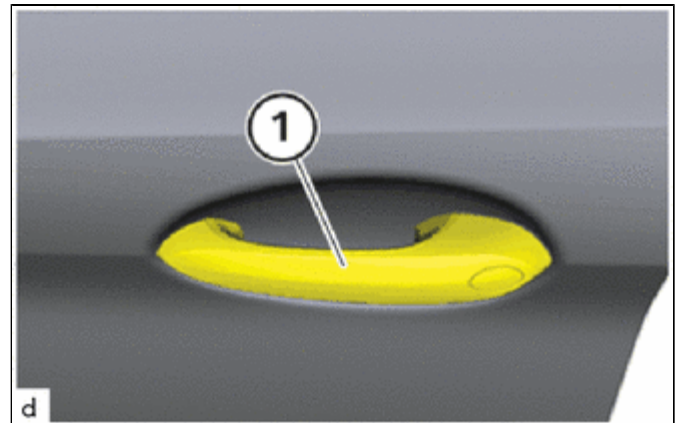
Click here [INFO](#)

9. INSTALL FRONT DOOR OUTSIDE HANDLE ASSEMBLY

(a) Connect connector (1) and lock.

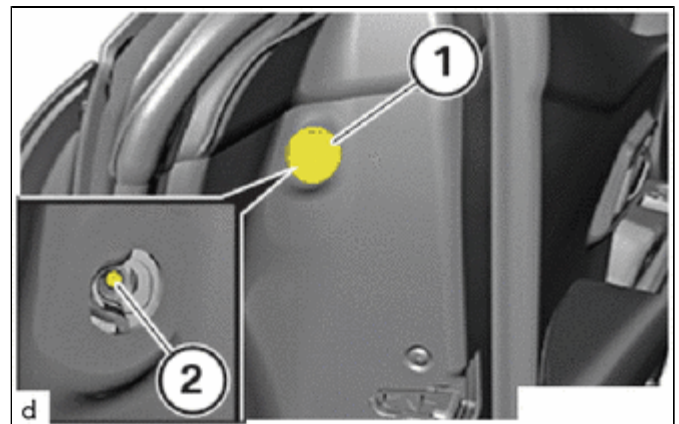


(b) Insert the front door outside handle assembly (1).



(c) Tighten the clamping bolt (2) on the front door outside handle frame sub-assembly with the special tool 2 450 364.

SST: 09800-WA230

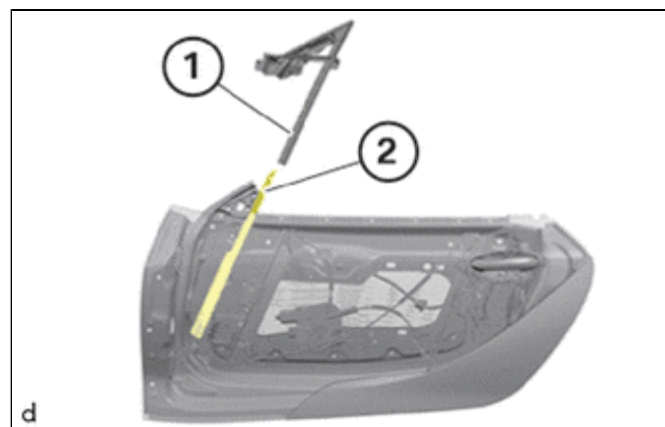


(d) Install seal plug (1).

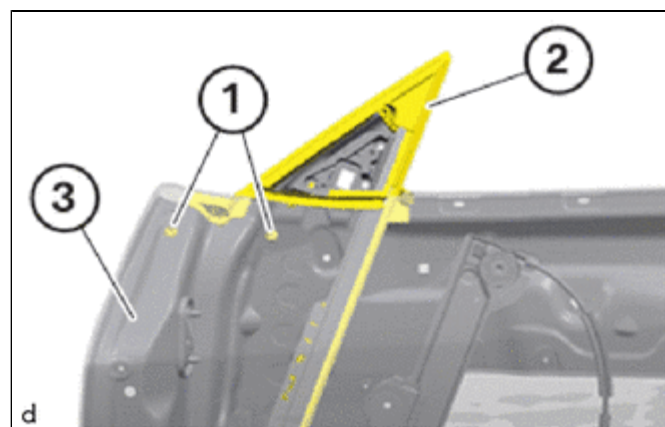
10. INSTALL FRONT DOOR BELT FRONT SEAL

(a) Lightly coat the front door belt front seal with water.

(b) From above, insert the front door belt front seal (1) into the window guide rail (2).



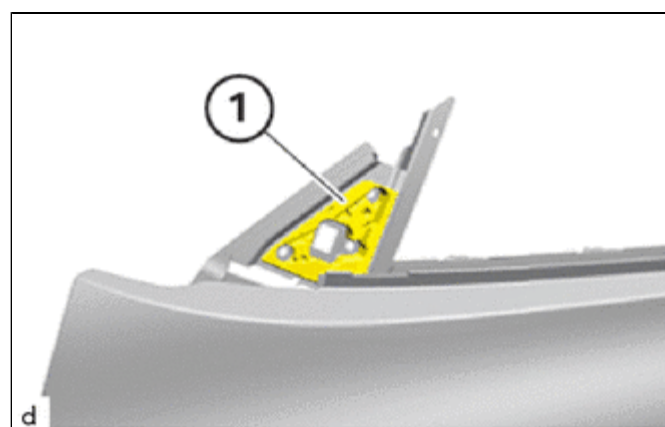
(c) Clip the mounting elements (1) for the front door belt front seal (2) into the front door panel sub-assembly (3).



(d) Make sure the front door belt front seal (2) is correctly seated.

11. INSTALL FRONT DOOR FRONT LOWER FRAME UPPER COVER

(a) Install the front door front lower frame upper cover (1).

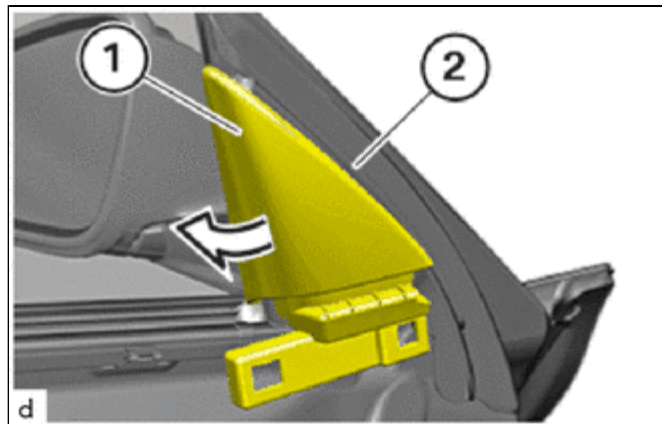


12. INSTALL OUTER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)

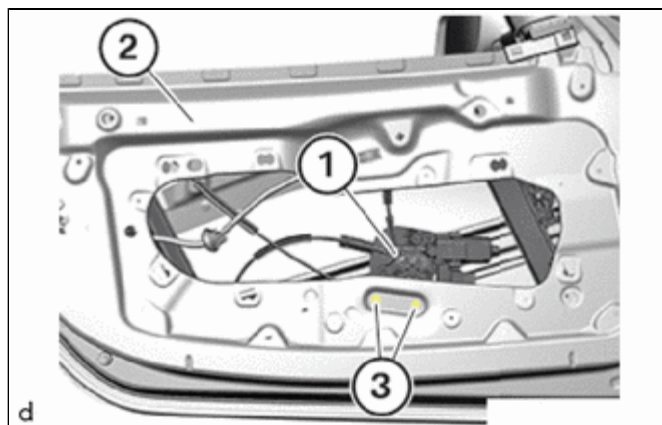
13. INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH

- (a) Install front door front door lower frame bracket garnish (1) on door (2) and connect it in the direction of the arrow.



14. INSTALL FRONT DOOR WINDOW REGULATOR ASSEMBLY

- (a) Thread front door window regulator assembly (1) into the front door panel sub-assembly (2) and position correctly.



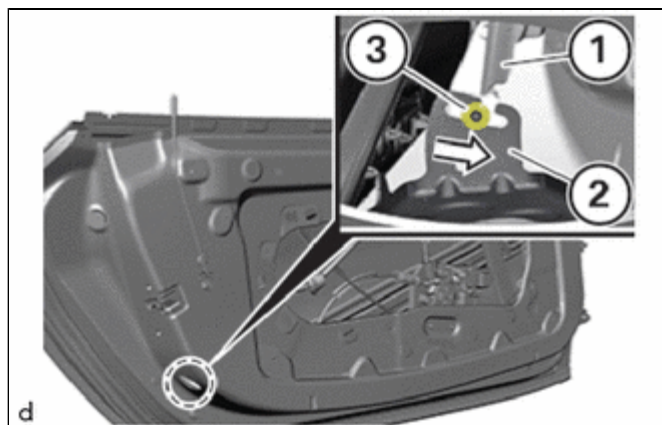
- (b) Tighten nuts (3).

Torque:

9.2 N·m {94 kgf·cm, 81 in·lbf}

- (c) Connect front door window regulator assembly (1) to relevant plug connections and lock.

- (d) Push front door window regulator assembly (1) in arrow direction up to the stop onto the retaining plate (2).



(e) Tighten nut (3).

Torque:

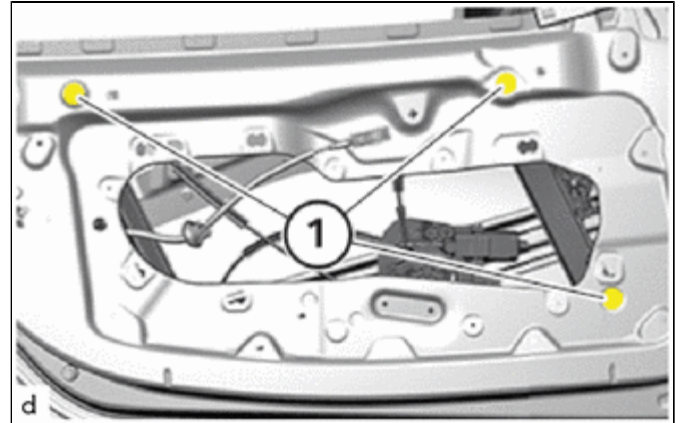
9.2 N·m {94 kgf·cm, 81 in·lbf}

(f) Tighten nuts (1) with special tool 0 496 726 (51 0 400).
While doing so, hold the bolt.

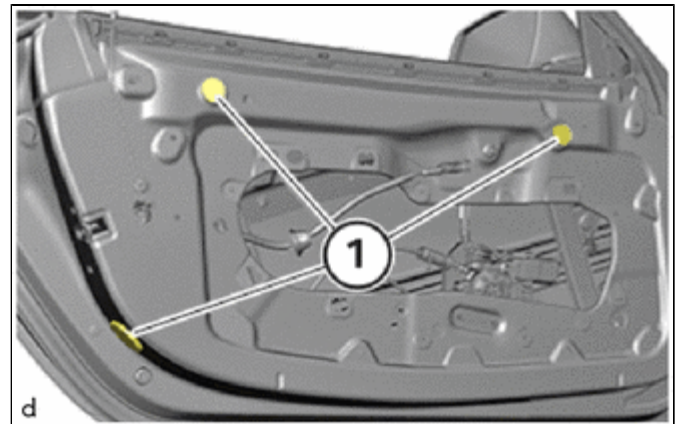
SST: 09800-WA110

Torque:

9.2 N·m {94 kgf·cm, 81 in·lbf}

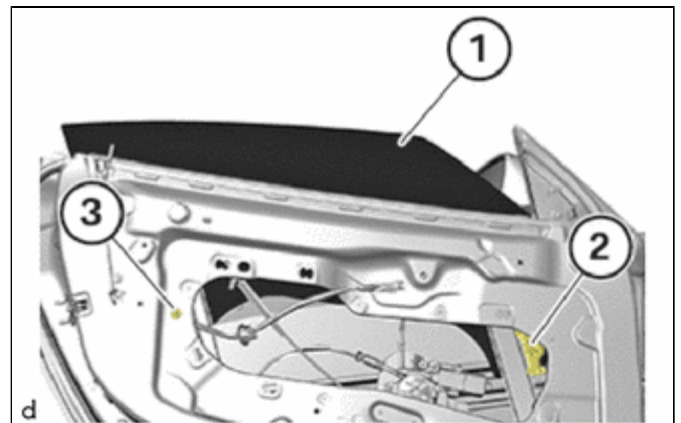


(g) Install seal plug (1).



15. INSTALL FRONT DOOR GLASS SUB-ASSEMBLY

(a) Guide the front door glass sub-assembly (1) from above into the front door panel sub-assembly.



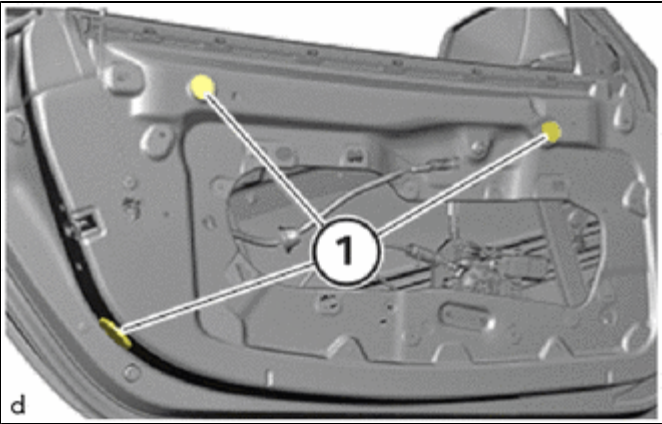
(b) Screw in and tighten multi-tooth screws (2) and (3) on the front door glass sub-assembly (1) so the front door glass

sub-assembly can still be moved.

16. ADJUST FRONT DOOR GLASS SUB-ASSEMBLY

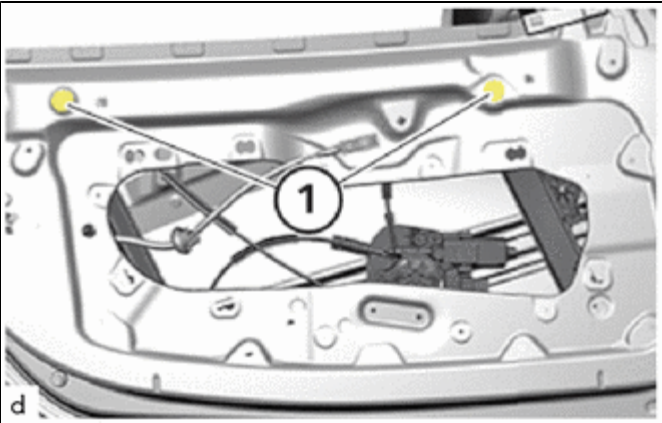
- (a) The front door glass sub-assembly is all the way up.
- (b) Open front door.

(c) Remove the seal plug (1).



(d) Release the nuts (1) on the front door glass sub-assembly with the special tool 0 496 726 (51 0 400). While doing so, hold the bolt.

SST: 09800-WA110



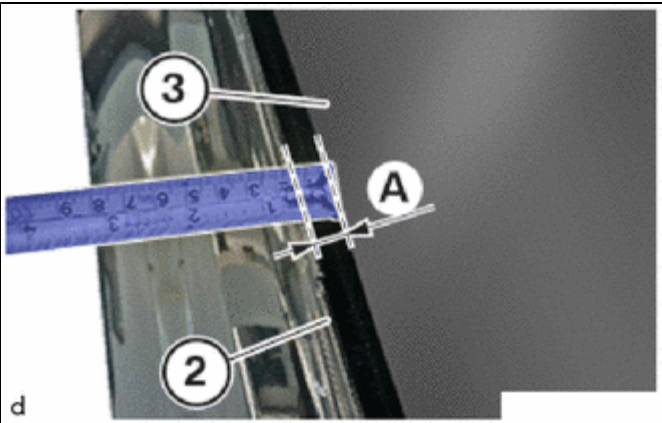
(e) Measure the window cavity dimension (A) between the front door glass sub-assembly (3) and the door outer skin (2) at inner.

Front door glass sub-assembly:

AREA	MEASUREMENT
(A)	10.8 mm (0.425 in.)

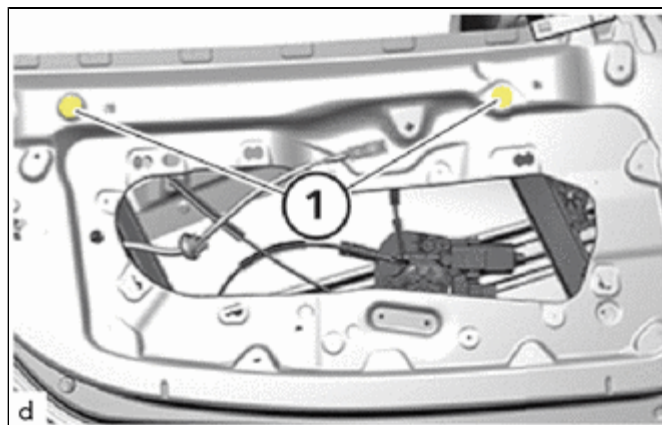
HINT:

Adjust the front door glass sub-assembly parallel to the door outer skin.



- (f) Adjust window cavity dimension by turning the bolt (1) on the power window using special tool 0 496 726 (51 0 400).

SST: 09800-WA110

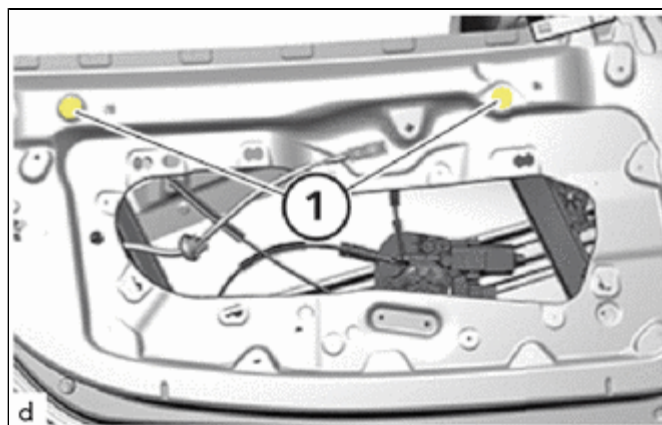


- (g) Tighten the nuts (1) on the front door glass sub-assembly with the special tool 0 496 726 (51 0 400). While doing so, hold the bolt.

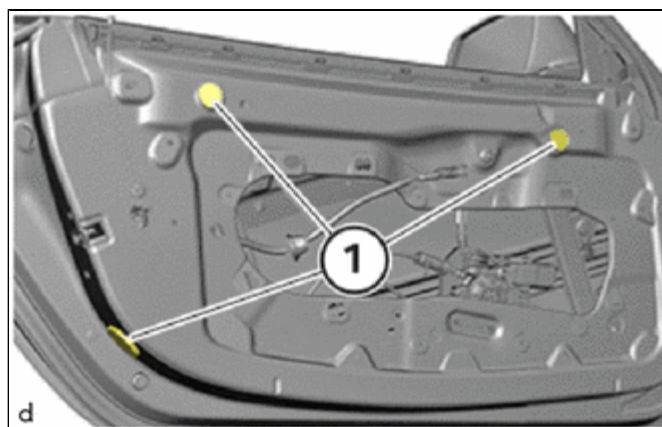
SST: 09800-WA110

Torque:

9.2 N·m {94 kgf·cm, 81 in·lbf}

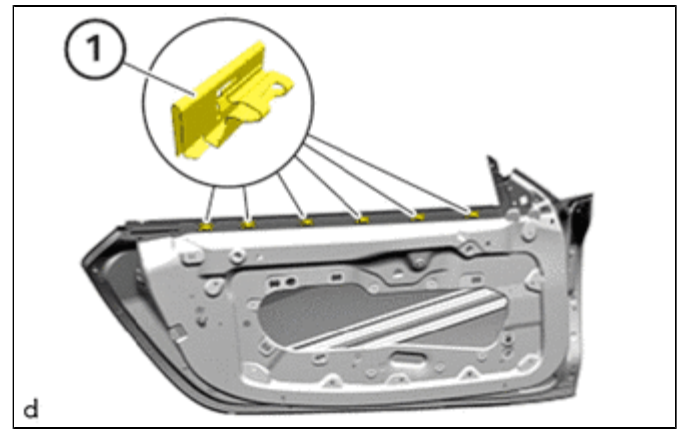


- (h) Install seal plug (1).

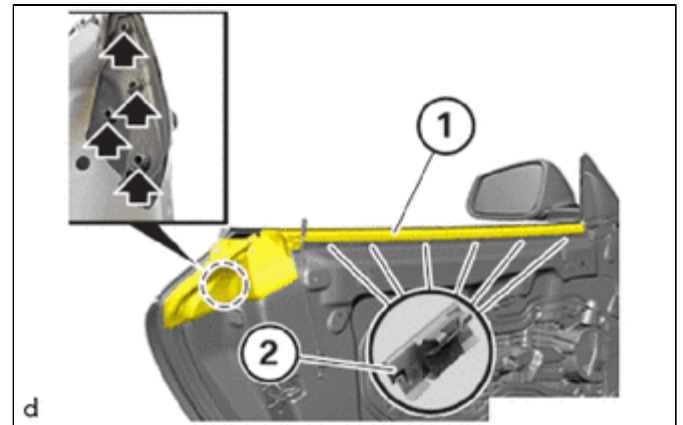


17. INSTALL FRONT DOOR GLASS INNER WEATHERSTRIP

(a) Install the clamps (1).



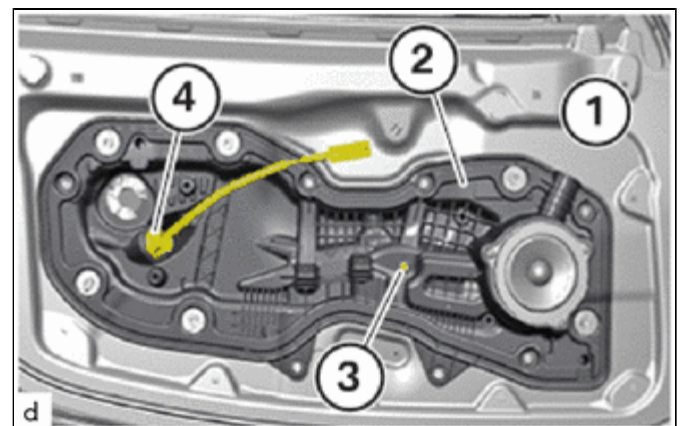
(b) Correctly position the front door glass inner weatherstrip (1) and engage in the clamps (2).



(c) Clip in the mounting elements (arrows).

18. INSTALL SOUND INSULATION

(a) Correctly position the front door inside locking lock and unlock knob cable (4) in the sound insulation (2) and install.



(b) Correctly position the sound insulation (2) on the front door panel sub-assembly (1).

(c) Tighten nut (3).

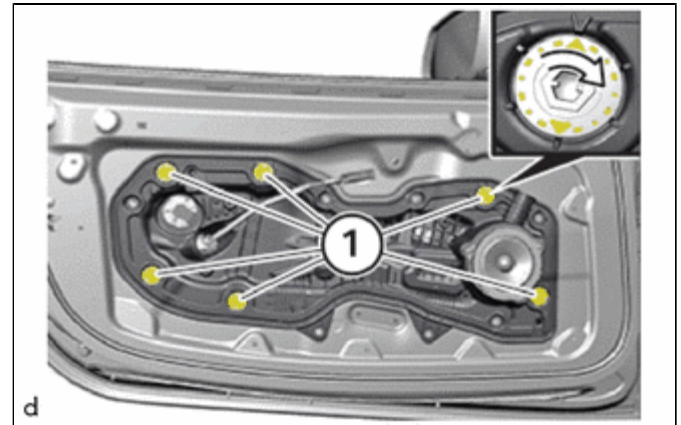
Torque:

9.2 N·m {94 kgf·cm, 81 in·lbf}

(d) Connect and lock all the corresponding connectors.

(e) Fasten the mounting clip of the vehicle wiring harness on the sound insulation (2).

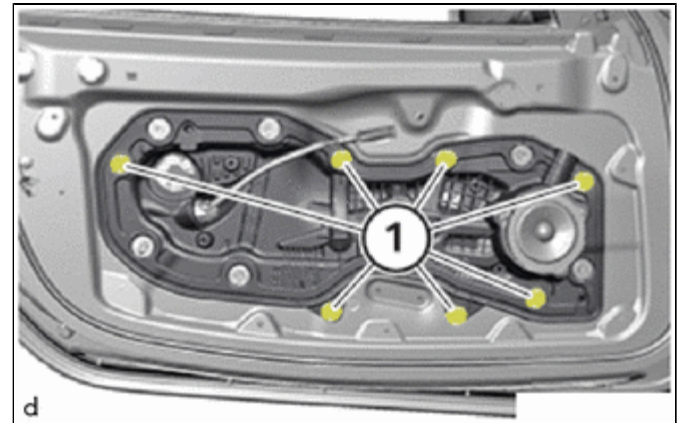
(f) Lock the locks (1) in the direction of the arrow.



(g) Tighten the T30 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



19. INSTALL FRONT NO. 1 SPEAKER ASSEMBLY

Click here [INFO](#)

20. INSTALL SIDE AIRBAG PRESSURE SENSOR

Click here [INFO](#)

21. INSTALL FRONT NO. 2 SPEAKER ASSEMBLY

Click here [INFO](#)

22. INSTALL POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (for Driver Side)

Click here [INFO](#)

23. INSTALL POWER WINDOW REGULATOR SWITCH ASSEMBLY (for Front Passenger Side)

Click here [INFO](#)

24. INSTALL LUGGAGE COMPARTMENT DOOR OPENING SWITCH ASSEMBLY (for Driver Side)

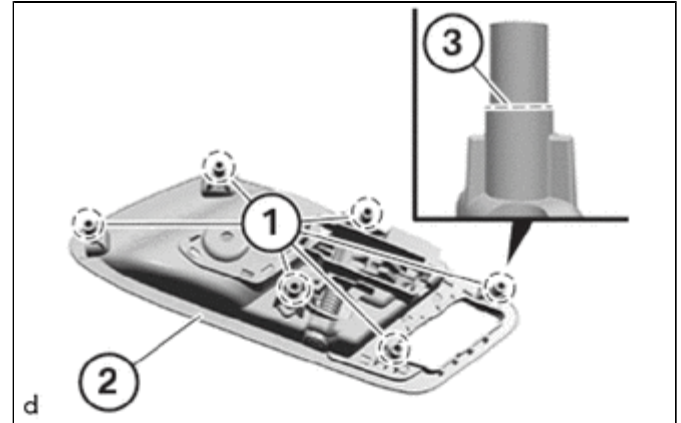
Click here [INFO](#)

25. INSTALL DOOR CONTROL SWITCH ASSEMBLY

Click here [INFO](#)

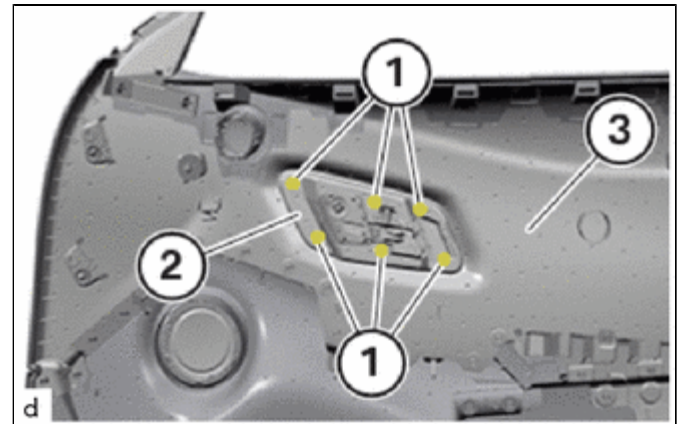
26. INSTALL FRONT DOOR INSIDE HANDLE

- (a) Saw off all the marked welding pins (1) on front door inside handle (2) along moulding (3).



- (b) Remove the welding residue on front door trim board sub-assembly with a scalpel.

- (c) Position front door inside handle (2) correctly in front door trim board sub-assembly (3).



- (d) Make sure that the welding pins do not protrude through the front door trim board sub-assembly.
(e) Tighten repair T20 screws (1) on front door inside handle (2).

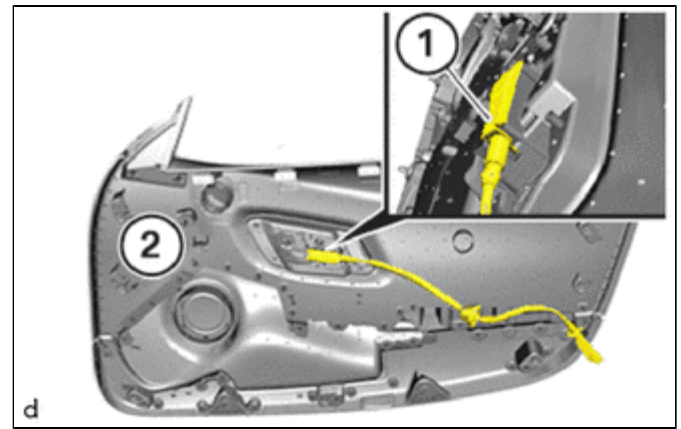
Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}

27. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY

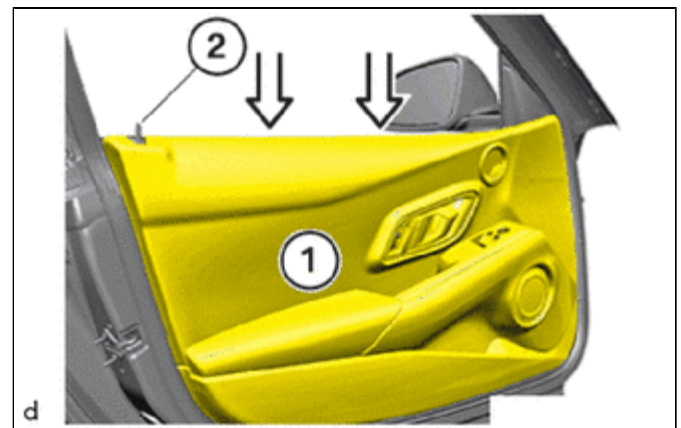
- (a) Correctly position the front door inside locking lock and

unlock knob cable (1) on the front door trim board sub-assembly (2) and lock in.



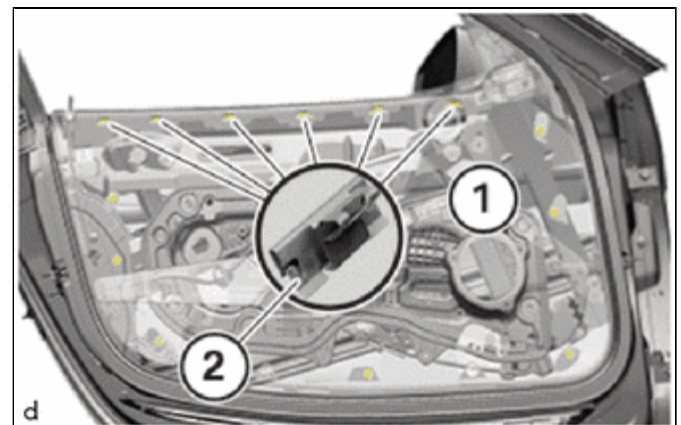
(b) Connect and engage all related plug connections for the front door trim board sub-assembly (2).

(c) Insert the lock button (2) in the guide of the front door trim board sub-assembly (1).

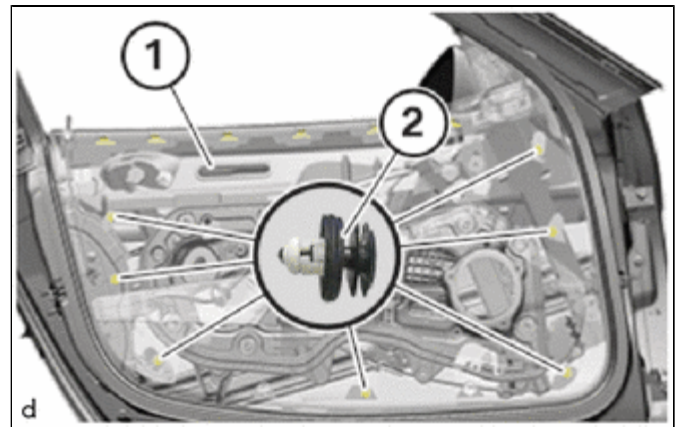


(d) Insert front door trim board sub-assembly (1) and position correctly.

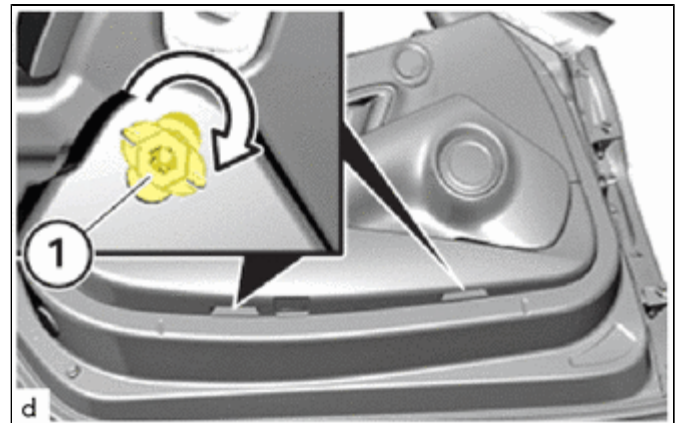
(e) Correctly position front door trim board sub-assembly (1) and clip into the clamps (2).



(f) Correctly position front door trim board sub-assembly (1) and clip into the clips (2).



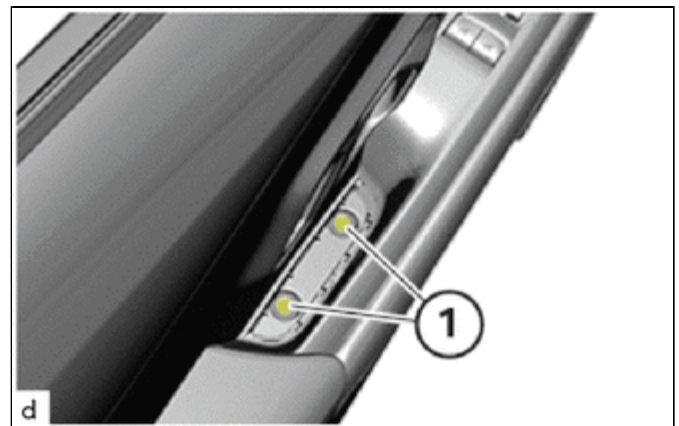
(g) Lock the locks (1) in the direction of the arrow.



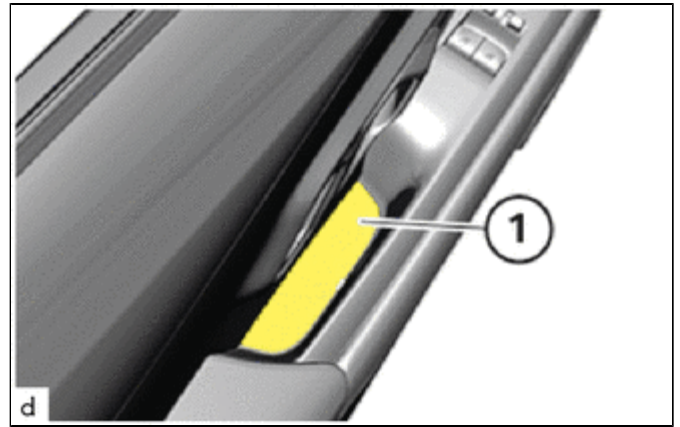
(h) Tighten the T20 screws (1).

Torque:

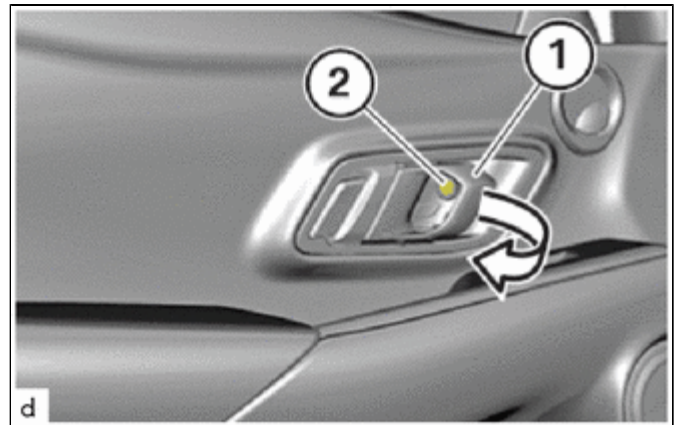
3.0 N·m {31 kgf·cm, 27 in·lbf}



(i) Correctly position and install door trim cover (1).



(j) Press and hold door opener (1) in the arrow direction.

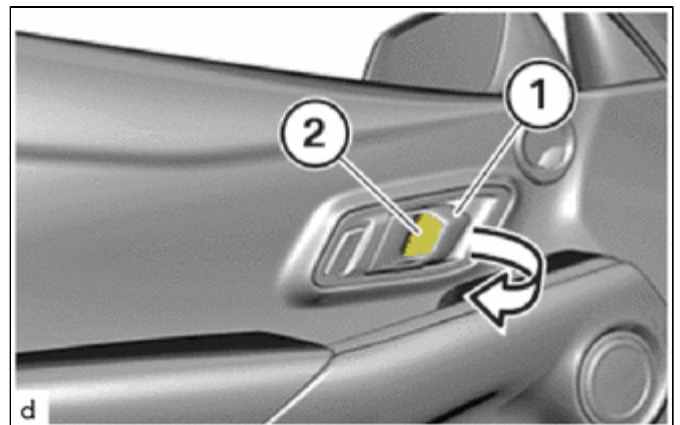


(k) Tighten down T20 screw (2).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(l) Press and hold door opener (1) in the arrow direction.



(m) Correctly position and install No. 2 door inside handle bezel (2).

28. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

29. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

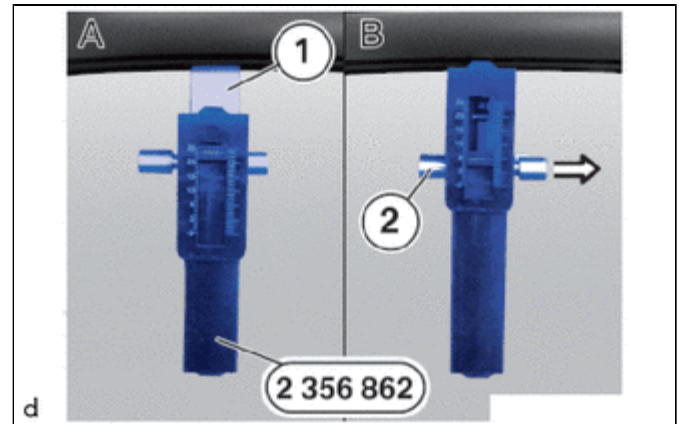
30. ADJUST FRONT DOOR GLASS SUB-ASSEMBLY

(a) Have the special tool 2 356 862 ready.

SST: 09800-WA220

HINT:

- Illustration (A): locked state. This is how special tool 2 356 862 is connected to the front door glass sub-assembly with the bracket (1).
- Illustration (B): After closing the front door, the lock (2) is disengaged.



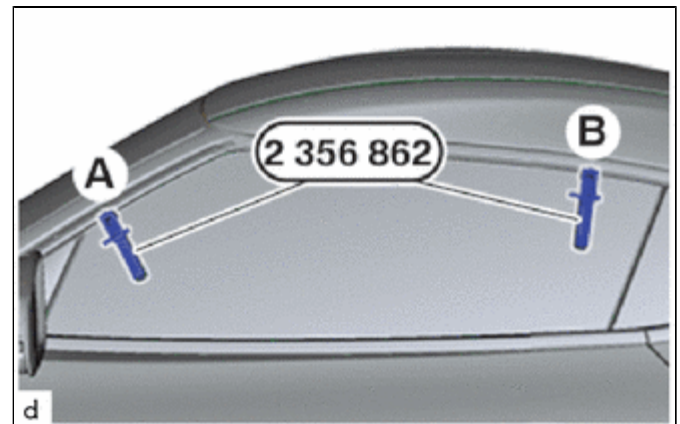
(b) Open front door.

(c) Connect special tool 2 356 862 to front door glass sub-assembly.

SST: 09800-WA220

(d) Position special tool (A) approx. 30 mm (1.181 in.) behind the mirror triangle.

SST: 09800-WA220



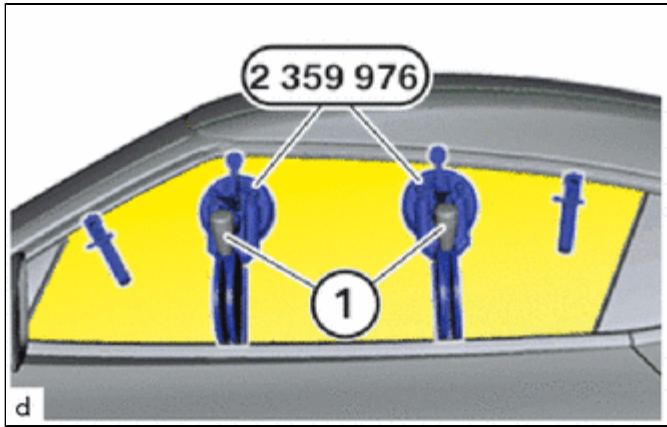
(e) Position special tool (B) approx. 100 mm (3.937 in.) in front of the corner of the side glass sub-assembly.

SST: 09800-WA220

(f) Close front door.

(g) Loosen the lock.

(h) Measure retraction depth with special tools (A) and (B).



- (i) Mount special tool 2 359 976 on the front door glass sub-assembly leaving access to the multi-tooth screws of the front door glass sub-assembly.

SST: 09800-WA120

- (j) Release the adjustment lever (1) by rotating it.
 (k) Shift the adjustment lever (1) to adjust the retraction depth of the front door glass sub-assembly.

Front door glass sub-assembly:

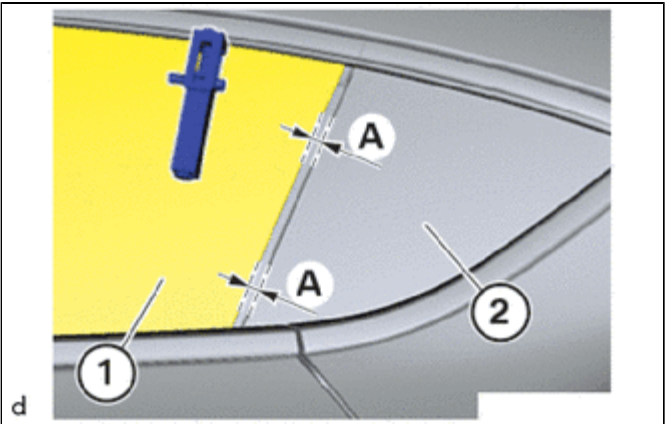
AREA	MEASUREMENT
Retraction depth (A)	3.2 to 5.2 mm (0.126 to 0.205 in.)
Retraction depth (B)	3.0 to 5.0 mm (0.118 to 0.197 in.)

- (l) Tighten adjustment lever (1).

- (m) Adjust front door glass sub-assembly (1) parallel to the quarter window assembly (2).

Front door glass sub-assembly:

AREA	MEASUREMENT
(A)	7.0 to 9.0 mm (0.276 to 0.354 in.)



31. TIGHTEN FRONT DOOR GLASS SUB-ASSEMBLY

- (a) Tighten multi-tooth bolts (1) on the front door glass sub-assembly with the special tool 2 360 051 (B) and SST, a torque wrench.

SST: 09800-WA130

SST: 09900-WA280

Torque:

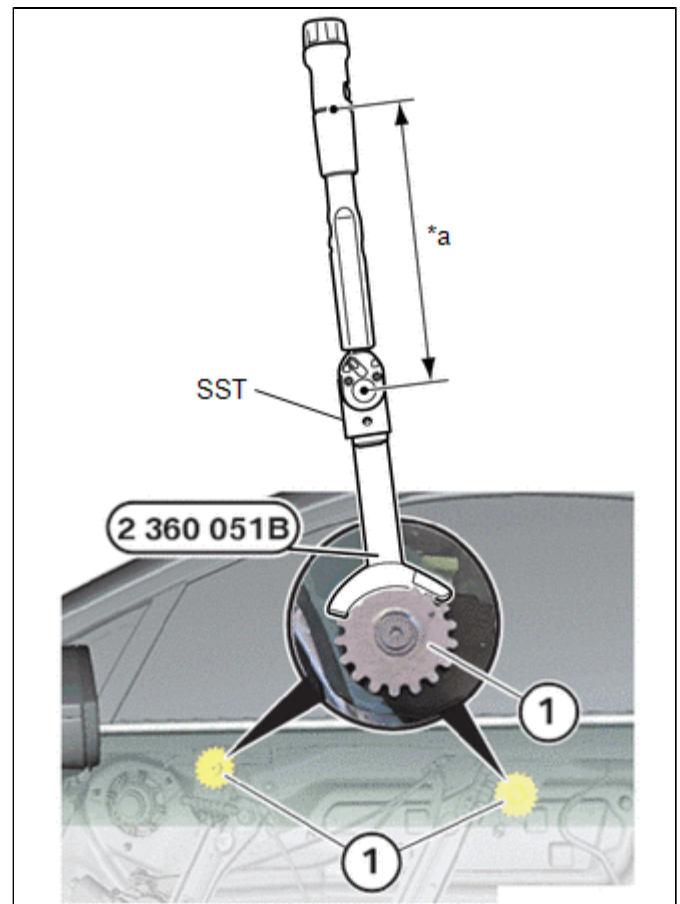
Specified tightening torque: :

9.0 N·m {92 kgf·cm, 80 in·lbf}

HINT:

Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)



*a	Torque Wrench Fulcrum Length
----	------------------------------

32. INSTALL FRONT DOOR BELT MOULDING ASSEMBLY

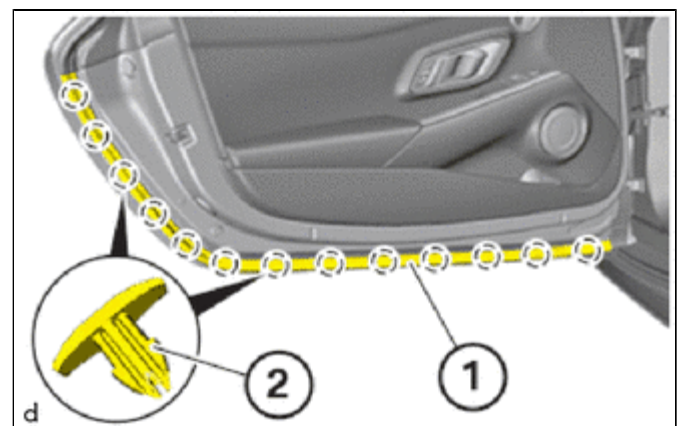
Click here [INFO](#)

33. INSTALL FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY

Click here [INFO](#)

34. INSTALL FRONT DOOR WEATHERSTRIP

(a) Position the front door weatherstrip (1) on the front door panel sub-assembly and clip in at the clips (2).

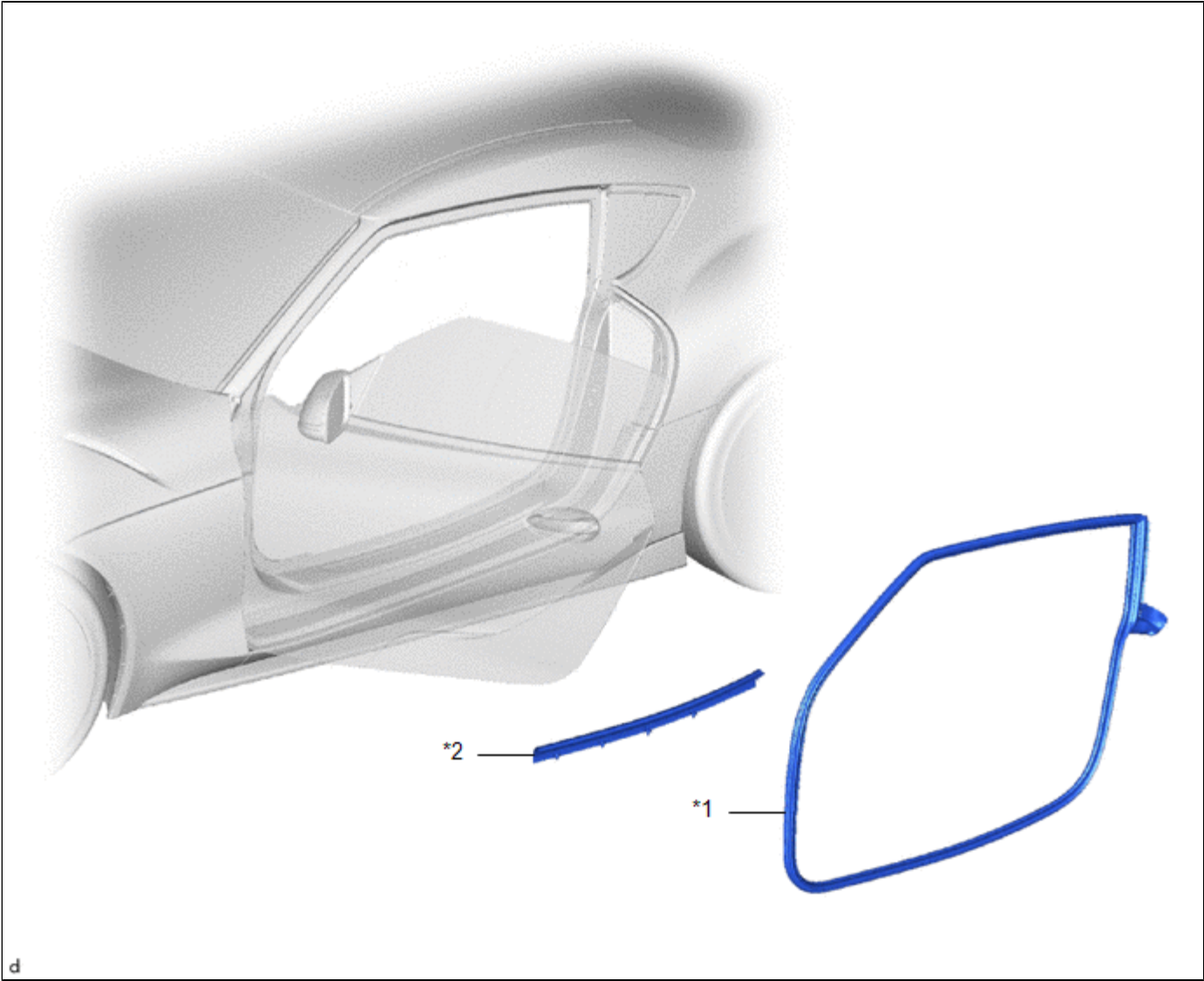




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FRONT DOOR OPENING TRIM WEATHERSTRIP: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT DOOR OPENING TRIM WEATHERSTRIP	*2	FRONT DOOR SCUFF PLATE
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FRONT DOOR OPENING TRIM WEATHERSTRIP: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

- HINT:**
- Use the same procedure for the RH side and LH side.
 - The following procedure is for the LH side.

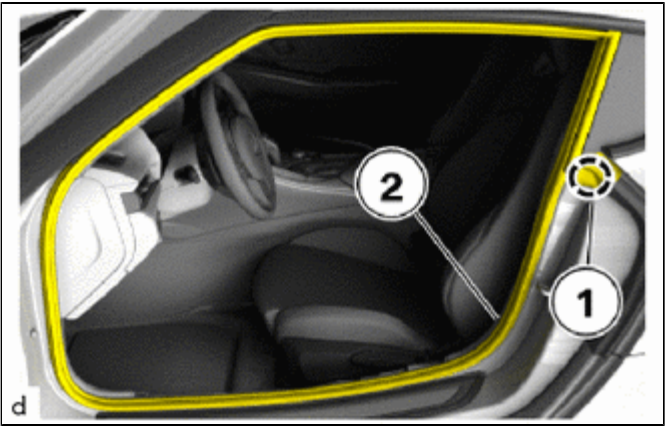
PROCEDURE

1. REMOVE FRONT DOOR SCUFF PLATE

Click here [INFO](#)

2. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP

(a) Release clip (1) and pull off the front door opening trim weatherstrip (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCT7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FRONT DOOR OPENING TRIM WEATHERSTRIP: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

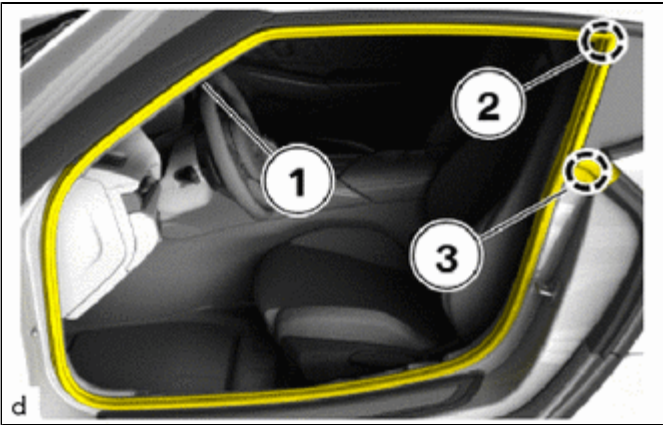
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP

(a) Mount front door opening trim weatherstrip (1) starting in the area (2).



(b) Clip in the front door opening trim weatherstrip with the clip (3).

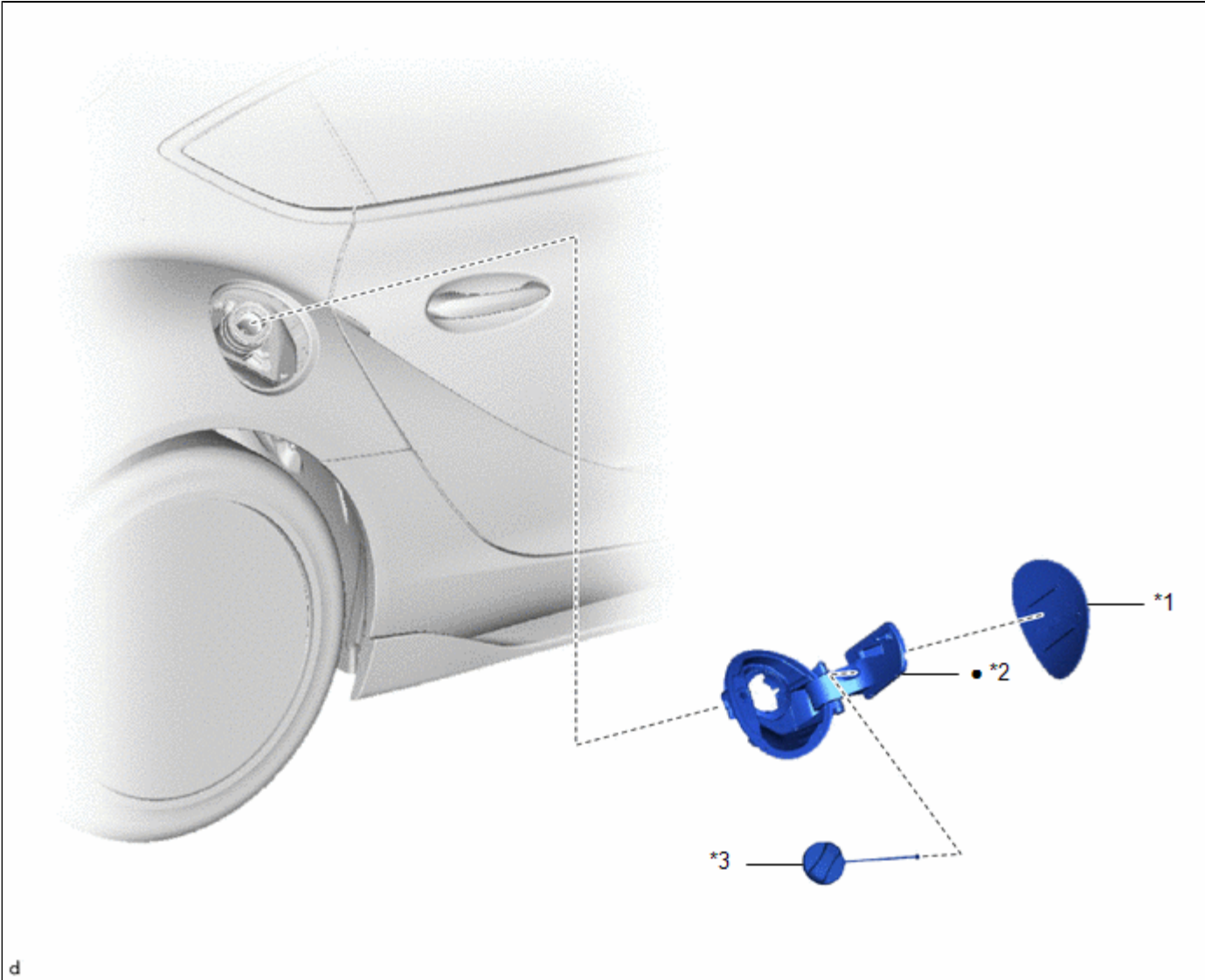
2. INSTALL FRONT DOOR SCUFF PLATE

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FUEL LID OPENER UNIT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FUEL FILLER OPENING LID ASSEMBLY	*2	FUEL FILLER OPENING LID SUB-ASSEMBLY
*3	FUEL TANK CAP ASSEMBLY	-	-
•	Non-reusable part	-	-

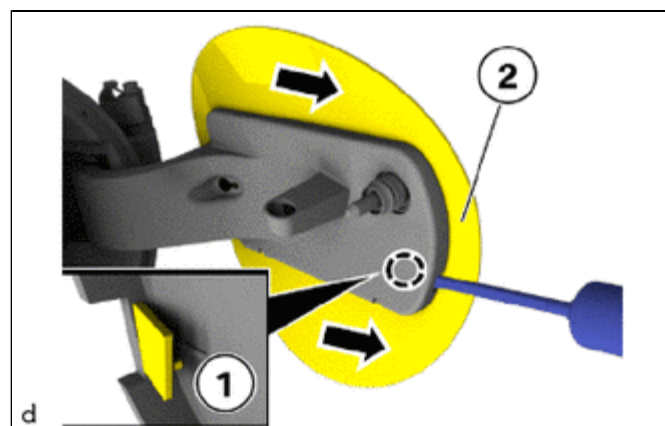
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FUEL LID OPENER UNIT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FUEL FILLER OPENING LID ASSEMBLY

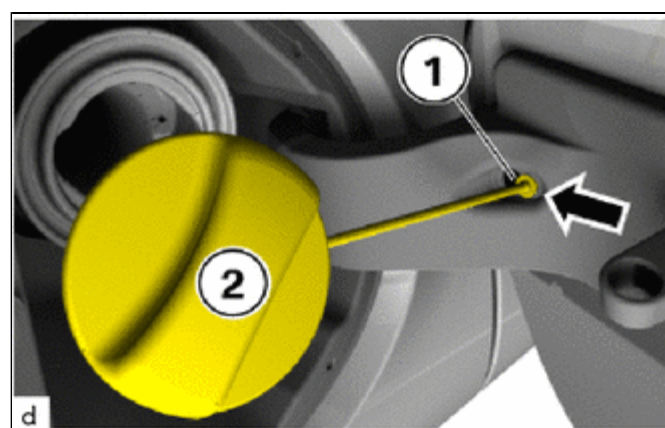
(a) Unlock the latch mechanism (1) with a screwdriver.



(b) Remove the fuel filler opening lid assembly (2) from the hinge in the direction of the arrow.

2. REMOVE FUEL FILLER OPENING LID SUB-ASSEMBLY

(a) Disconnect the retaining strap (1) in the direction of the arrow.

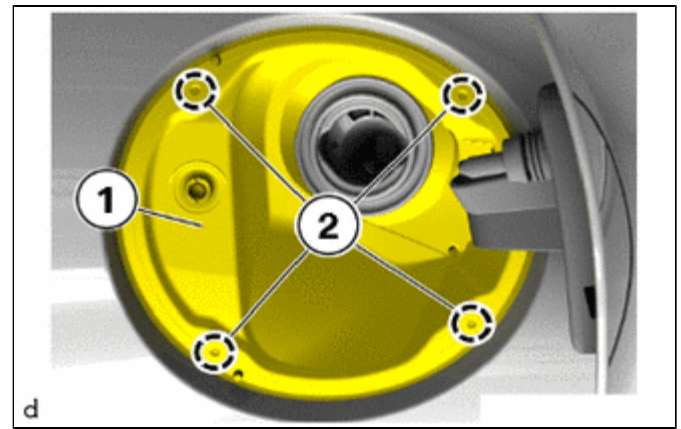


(b) Remove fuel tank cap assembly (2).

(c) Pierce the fuel filler opening lid sub-assembly (1) in the highlighted areas (2) using a small screwdriver.

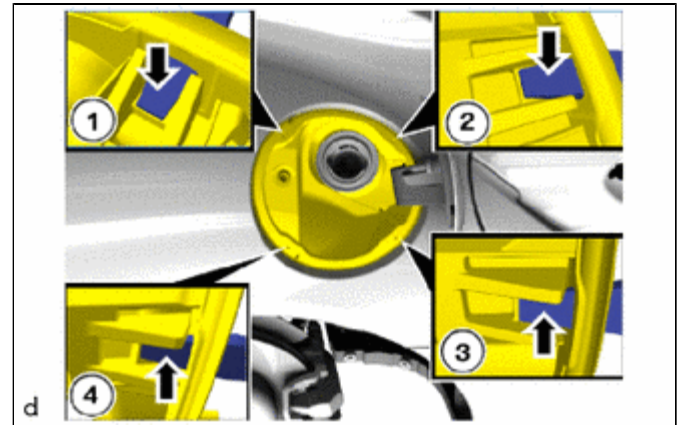
NOTICE:

The fuel filler opening lid sub-assembly (1) will not be reused.



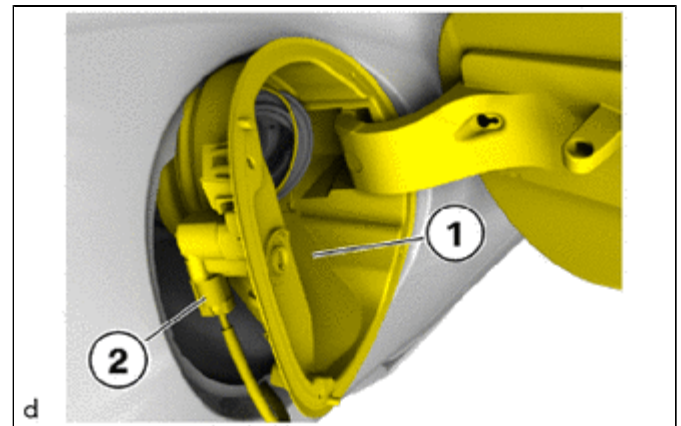
(d) Use pliers to hold the cover bowl under tension.

(e) Insert the screwdriver no more than 10 mm (0.394 in.) deep.



(f) Unlock the claws in a sequence from (1) to (4) with a screwdriver in the direction of the arrows.

(g) Remove the fuel filler opening lid sub-assembly from the rear side panel.



(h) Unlock connector (2) and disconnect.

(i) Close the fuel filler flap and remove the fuel filler opening lid sub-assembly (1).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: FUEL LID OPENER UNIT: INSTALLATION; 2020 MY Supra [03/2019 -]		

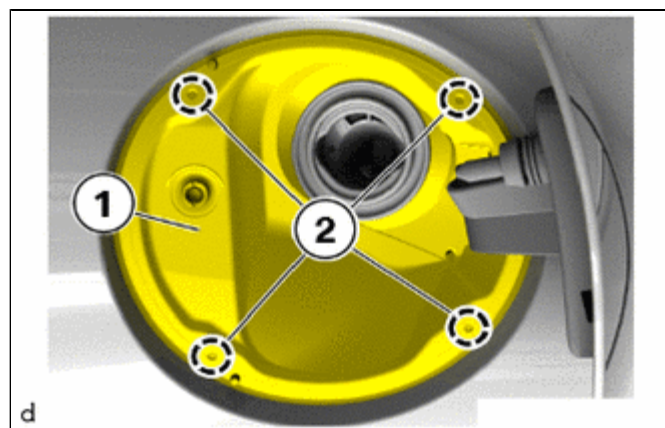
INSTALLATION

PROCEDURE

1. INSTALL FUEL FILLER OPENING LID SUB-ASSEMBLY

- (a) Connect connector and lock.
- (b) Push the fuel filler opening lid sub-assembly toward the front at an angle into the rear side panel.

- (c) Replace the fuel filler opening lid sub-assembly (1).

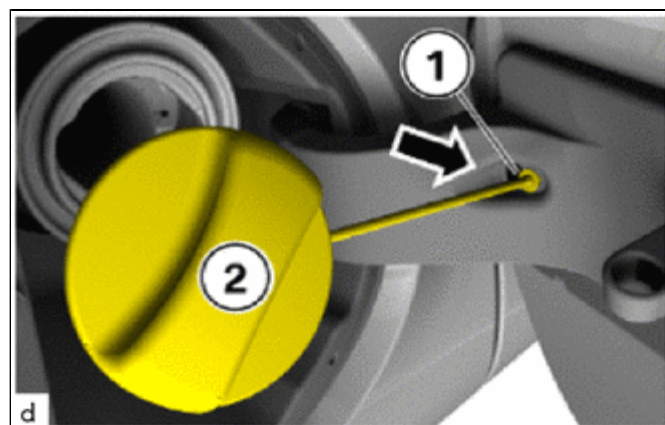


- (d) Clip in the fuel filler opening lid sub-assembly (1) into the rear side panel.

NOTICE:

The claws (2) must engage audibly.

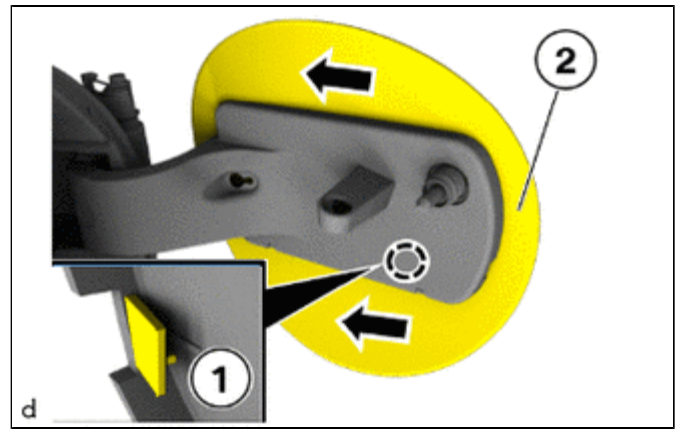
- (e) Connect the retaining strap (1) in the direction of the arrow.



- (f) Close the fuel tank cap assembly (2).

2. INSTALL FUEL FILLER OPENING LID ASSEMBLY

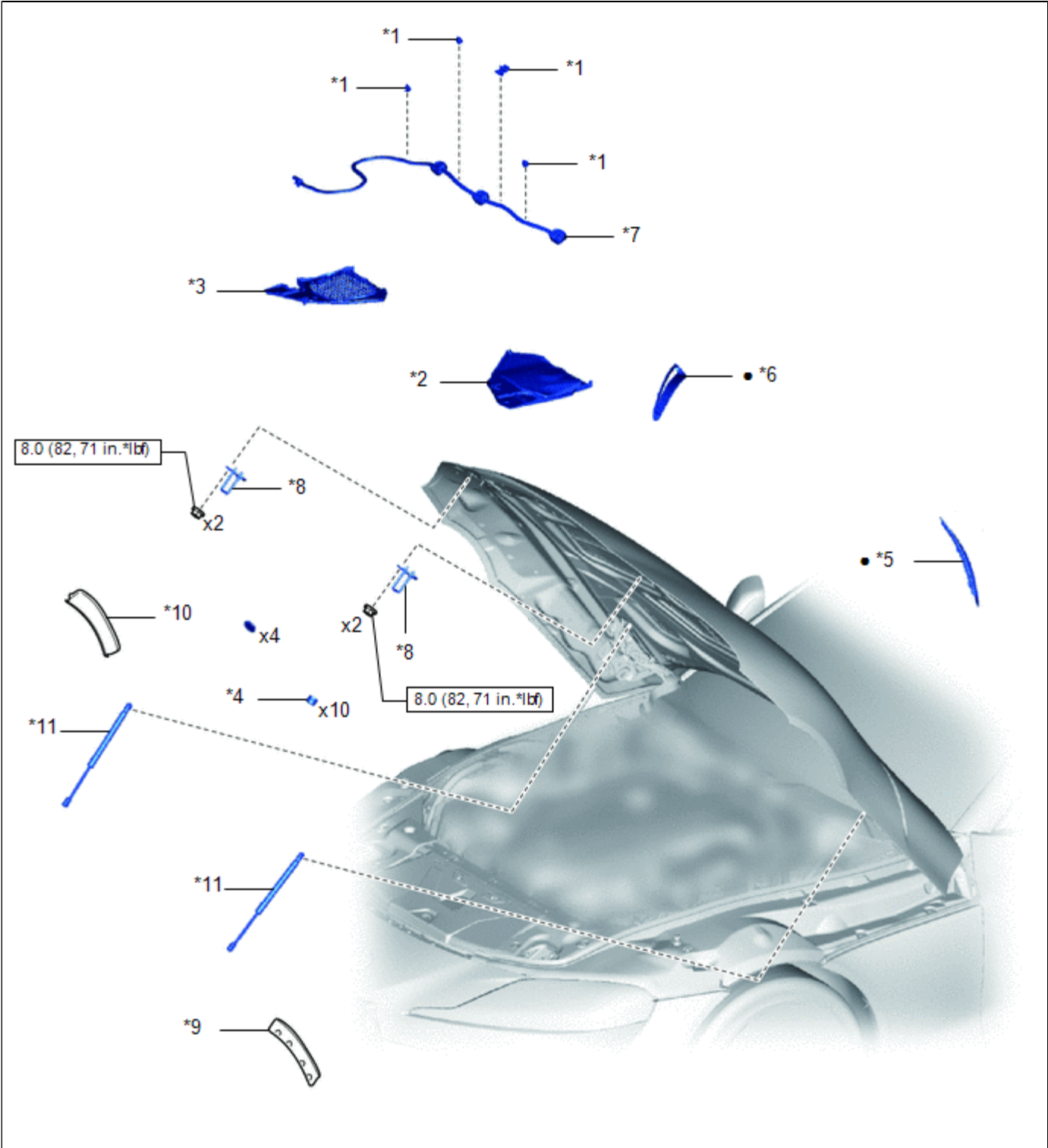
(a) Slide the fuel filler opening lid assembly (2) in the direction of the arrow onto the hinge until you can hear the lock (1) engage.




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BRACKET FOR JET CHAIN	*2	COWL VENT COVER LH
----	-----------------------	----	--------------------

*3	COWL VENT COVER RH	*4	CUSHION
*5	FRONT SIDE AIR GUIDE SUB- ASSEMBLY LH	*6	FRONT SIDE AIR GUIDE SUB- ASSEMBLY RH
*7	FRONT WASHER NOZZLE AND HOSE ASSEMBLY	*8	HOOD LOCK STRIKER
*9	HOOD MOULDING LH	*10	HOOD MOULDING RH
*11	HOOD SUPPORT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCST
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

PROCEDURE

1. INSPECT HOOD SUB-ASSEMBLY

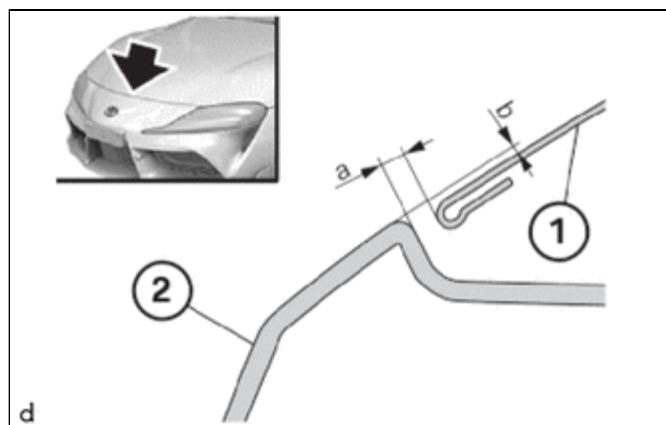
HINT:

- The dimensions stated in this document apply at an object temperature of 20°C (68°F).
- The aim of adjustment is to achieve a uniform gap.
- Symmetry of the gaps between left and right sides of the vehicle has top priority.
- In terms of door gaps the maximum deviation between the front and rear door gap must be 1.0 mm (0.039 in.).
- No gap dimension are specified for components which cannot be adjusted.

- Gap dimension hood sub-assembly to front bumper assembly at center.

Standard Clearance:

AREA	DIMENSION
a	2.6 to 4.6 mm (0.102 to 0.181 in.)
b	-0.5 to 2.5 mm (-0.020 to 0.098 in.)

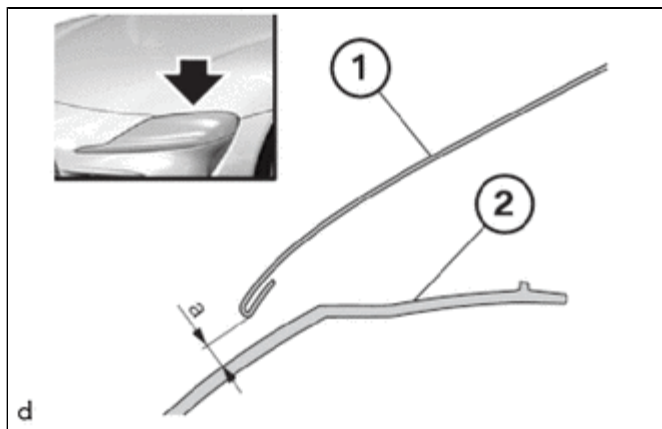


(1)	Hood Sub-assembly
(2)	Front Bumper Assembly

- Gap dimension hood sub-assembly to headlight assembly.

Standard Clearance:

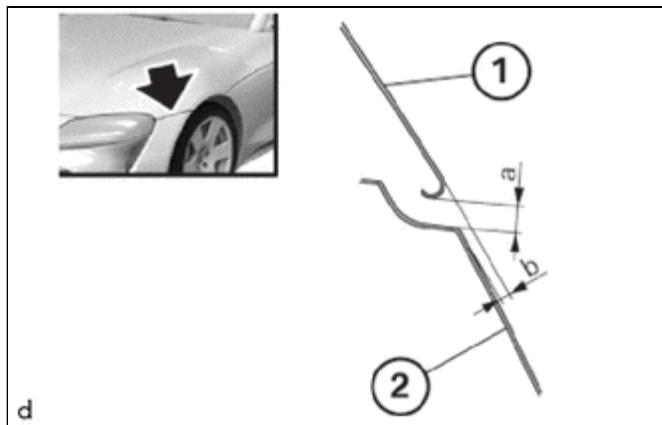
AREA	DIMENSION
a	4.5 to 8.1 mm (0.177 to 0.319 in.)



(1)	Hood Sub-assembly
(2)	Headlight Assembly

- Gap dimension hood sub-assembly to front bumper assembly at side.
Standard Clearance:

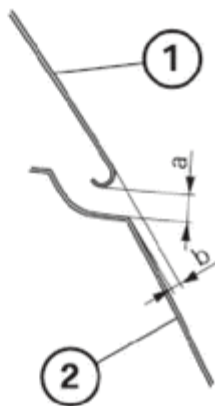
AREA	DIMENSION
a	2.6 to 6.4 mm (0.102 to 0.252 in.)
b	0.1 to 3.1 mm (0.004 to 0.122 in.)



(1)	Hood Sub-assembly
(2)	Front Bumper Assembly

- Gap dimension hood sub-assembly to front side panel.
Standard Clearance:

AREA	DIMENSION
a	3.1 to 5.9 mm (0.122 to 0.232 in.)
b	0.4 to 3.6 mm (0.016 to 0.142 in.)



d

(1)	Hood Sub-assembly
(2)	Front Side Panel



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE HOOD MOULDING LH

Click here [INFO](#)

2. REMOVE HOOD MOULDING RH

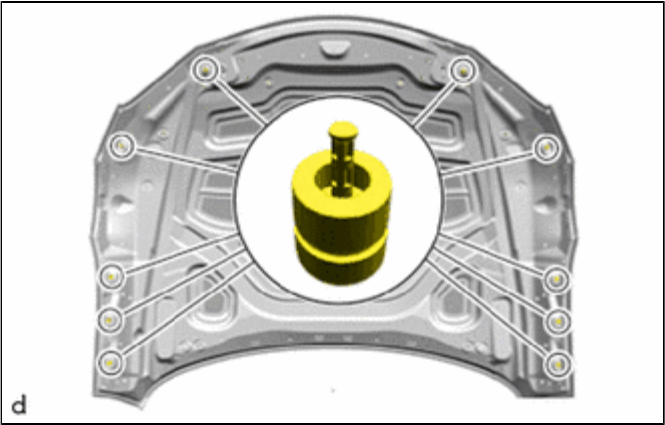
HINT:
 Use the same procedure as for the LH side.

3. REMOVE FRONT WASHER NOZZLE AND HOSE ASSEMBLY

Click here [INFO](#)

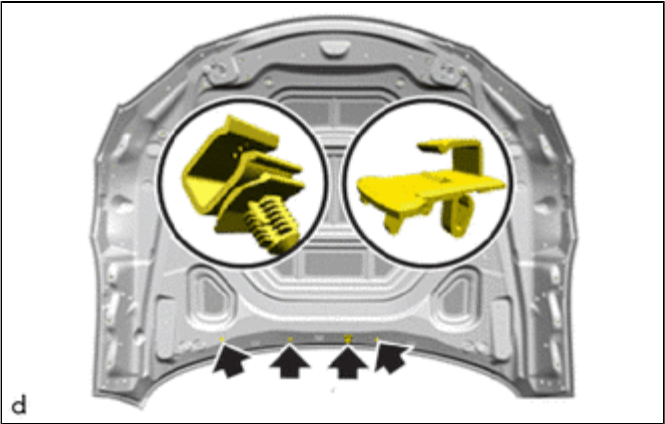
4. REMOVE CUSHION

(a) Remove all cushions.



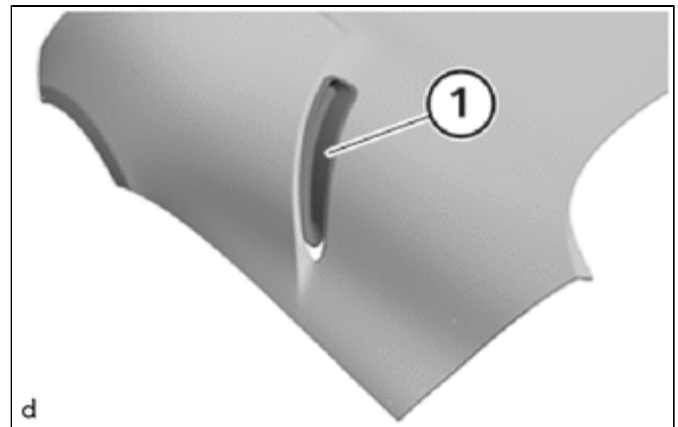
5. REMOVE BRACKET FOR JET CHAIN

(a) Remove all brackets for jet chain.



6. REMOVE FRONT SIDE AIR GUIDE SUB-ASSEMBLY LH

(a) Remove the front side air guide sub-assembly LH (1).



7. REMOVE FRONT SIDE AIR GUIDE SUB-ASSEMBLY RH

HINT:

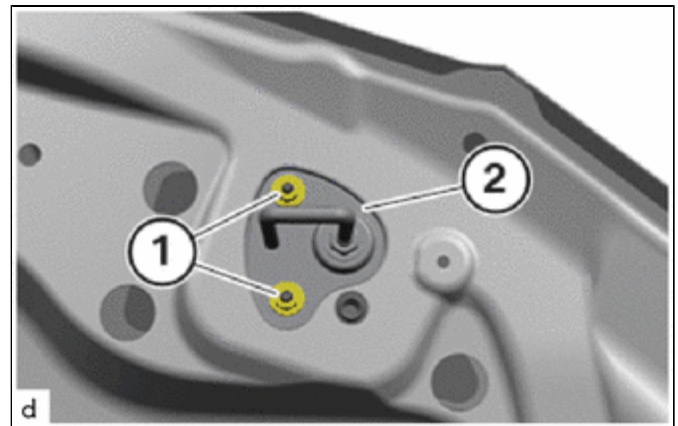
Perform the operations on the left and right side.

8. REMOVE HOOD LOCK STRIKER

HINT:

Perform the operations on the left and right side.

(a) Loosen nuts (1).



(b) Remove hood lock striker (2).

9. REMOVE COWL VENT COVER LH

Click here [INFO](#)

10. REMOVE COWL VENT COVER RH

Click here [INFO](#)

11. REMOVE HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

CAUTION / NOTICE / HINT

HINT:

Perform the operations on the left and right side.

PROCEDURE

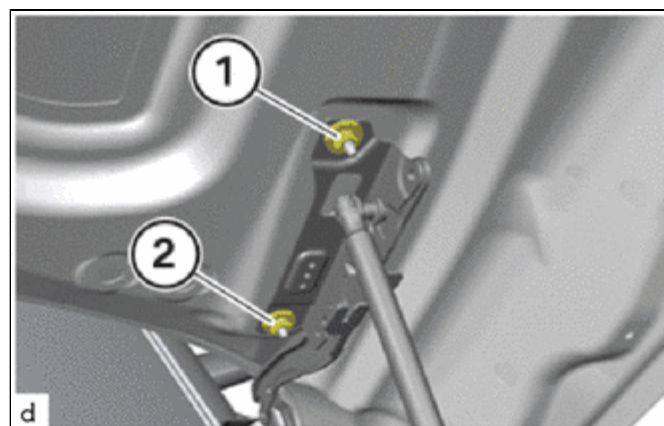
1. ADJUST HOOD SUB-ASSEMBLY

- (a) Loosen nut (1) and (2) until the hood sub-assembly can be pushed.

HINT:

- The gap dimensions form the basis for these repair instructions and must be observed without fail.
- For more information see:

Click here [INFO](#)

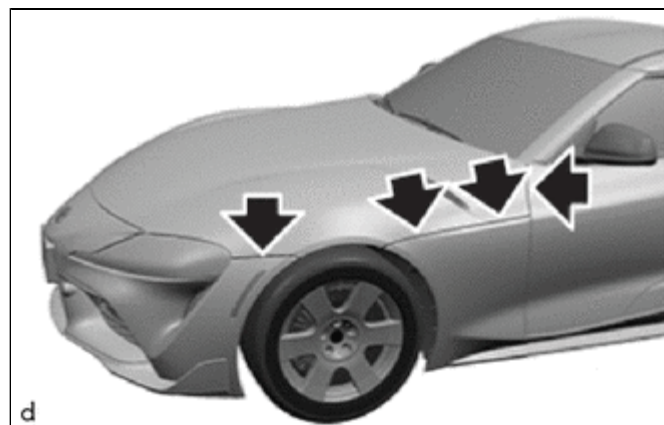


- (b) Adjust gap dimensions.

HINT:

- Gap dimensions do not correspond to the specifications.
- Adjust the front compartment lid correctly.

- (1) Check the gap dimensions (arrow) between the hood sub-assembly and the front doors.



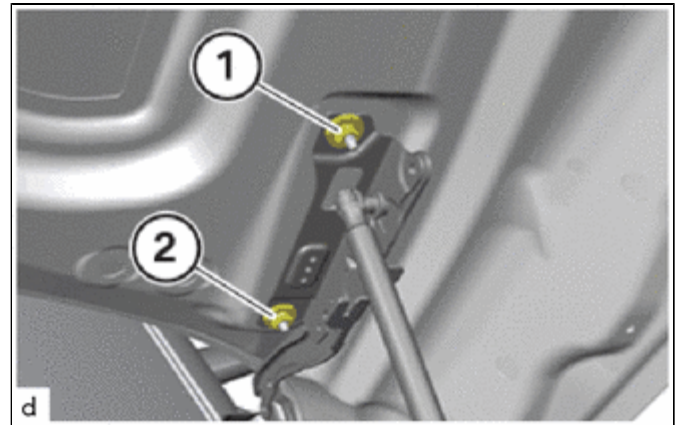
- (2) Check the gap dimensions (arrows) between the hood sub-assembly and the front side panels.

(3) Check the gap dimensions (arrow) between the hood sub-assembly and the front bumper assembly.

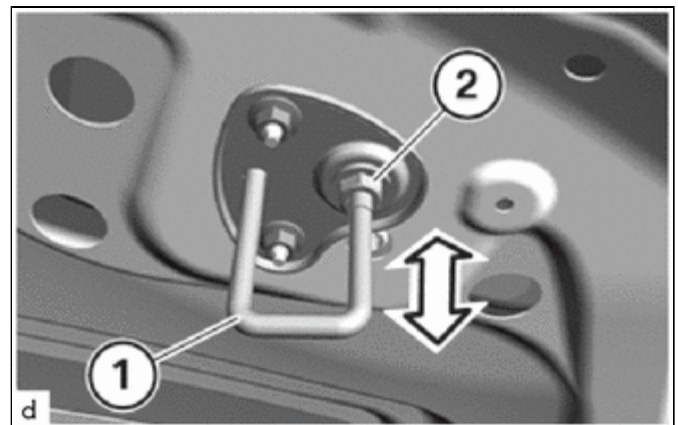
(c) Tighten the nut (1) and (2).

Torque:

19.0 N·m {194 kgf·cm, 14 ft·lbf}



(d) Adjust hood lock striker (1) by turning nut (2).



(e) Check the gap dimensions (arrows) between the hood sub-assembly and the front bumper assembly.



(f) Check the gap dimensions (arrows) between the hood sub-assembly and the headlight assemblies.

HINT:

- Gap dimensions do not correspond to the specifications.
- Adjust the hood sub-assembly catch correctly.

(g) Screw in fender to hood bumpers (1) fully until the pin (2) can be pulled out.



(h) Pull the pin (2) out approx. 15 mm (0.591 in.).

(i) Slowly close hood sub-assembly.

HINT:

Pin (2) will be pressed into fender to hood bumper (1) while doing so.

(j) Raise hood sub-assembly.

(k) Unscrew fender to hood bumpers (1) until the fender to hood bumper (1) is flush with the upper edge of pin (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

2. INSTALL COWL VENT COVER LH

Click here [INFO](#)

3. INSTALL COWL VENT COVER RH

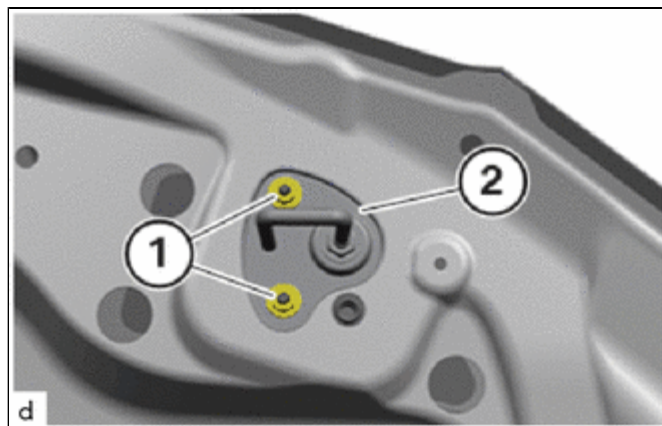
Click here [INFO](#)

4. INSTALL HOOD LOCK STRIKER

HINT:

Perform the operations on the left and right side.

(a) Install hood lock striker (2) on the hood sub-assembly.



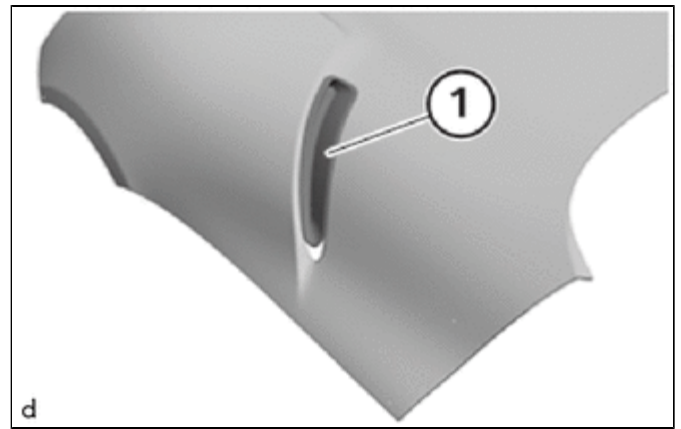
(b) Tighten nuts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

5. INSTALL FRONT SIDE AIR GUIDE SUB-ASSEMBLY LH

(a) Install a new front side air guide sub-assembly LH (1).



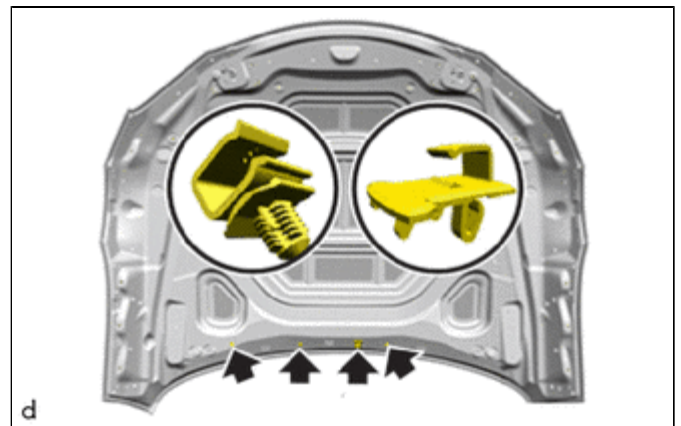
6. INSTALL FRONT SIDE AIR GUIDE SUB-ASSEMBLY RH

HINT:

Perform the operations on the left and right side.

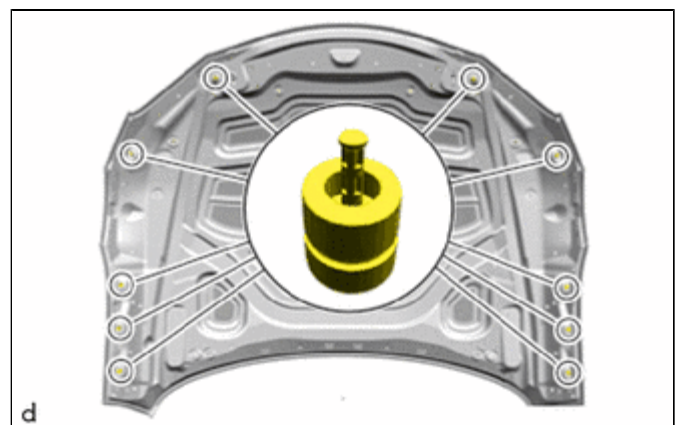
7. INSTALL BRACKET FOR JET CHAIN

(a) Install all brackets for jet chain.



8. INSTALL CUSHION

(a) Install all cushions.



9. ADJUST HOOD SUB-ASSEMBLY

Click here [INFO](#)

10. INSTALL FRONT WASHER NOZZLE AND HOSE ASSEMBLY

Click here [INFO](#)

11. INSTALL HOOD MOULDING LH

Click here [INFO](#)

12. INSTALL HOOD MOULDING RH

HINT:

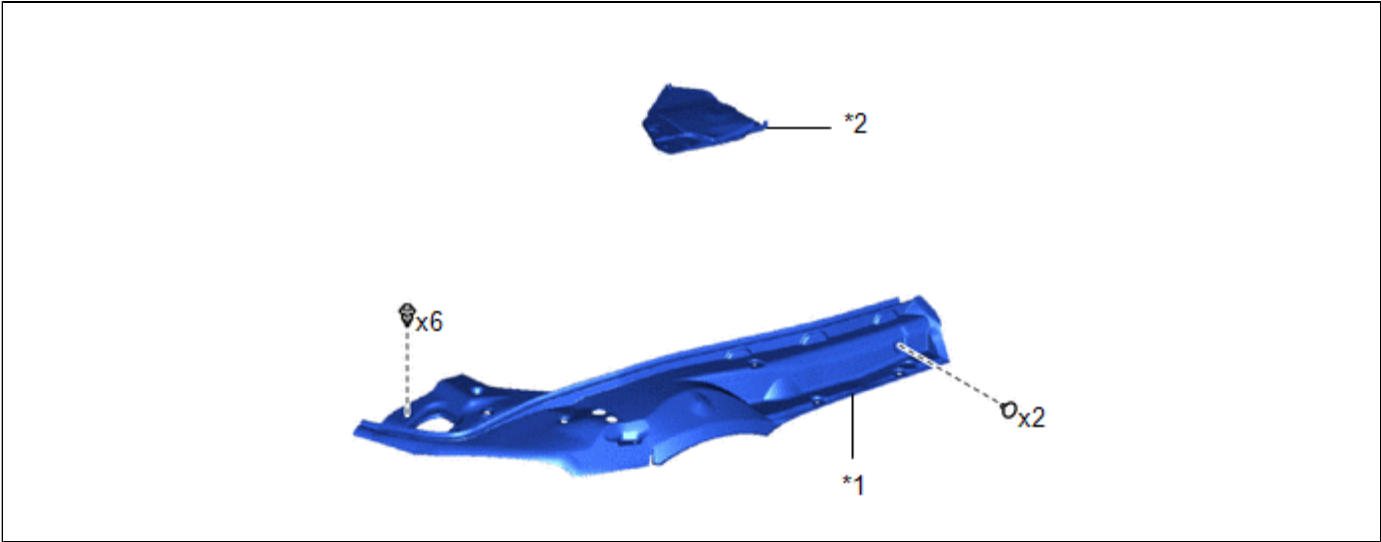
Use the same procedure as for the LH side.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD LOCK CONTROL CABLE ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

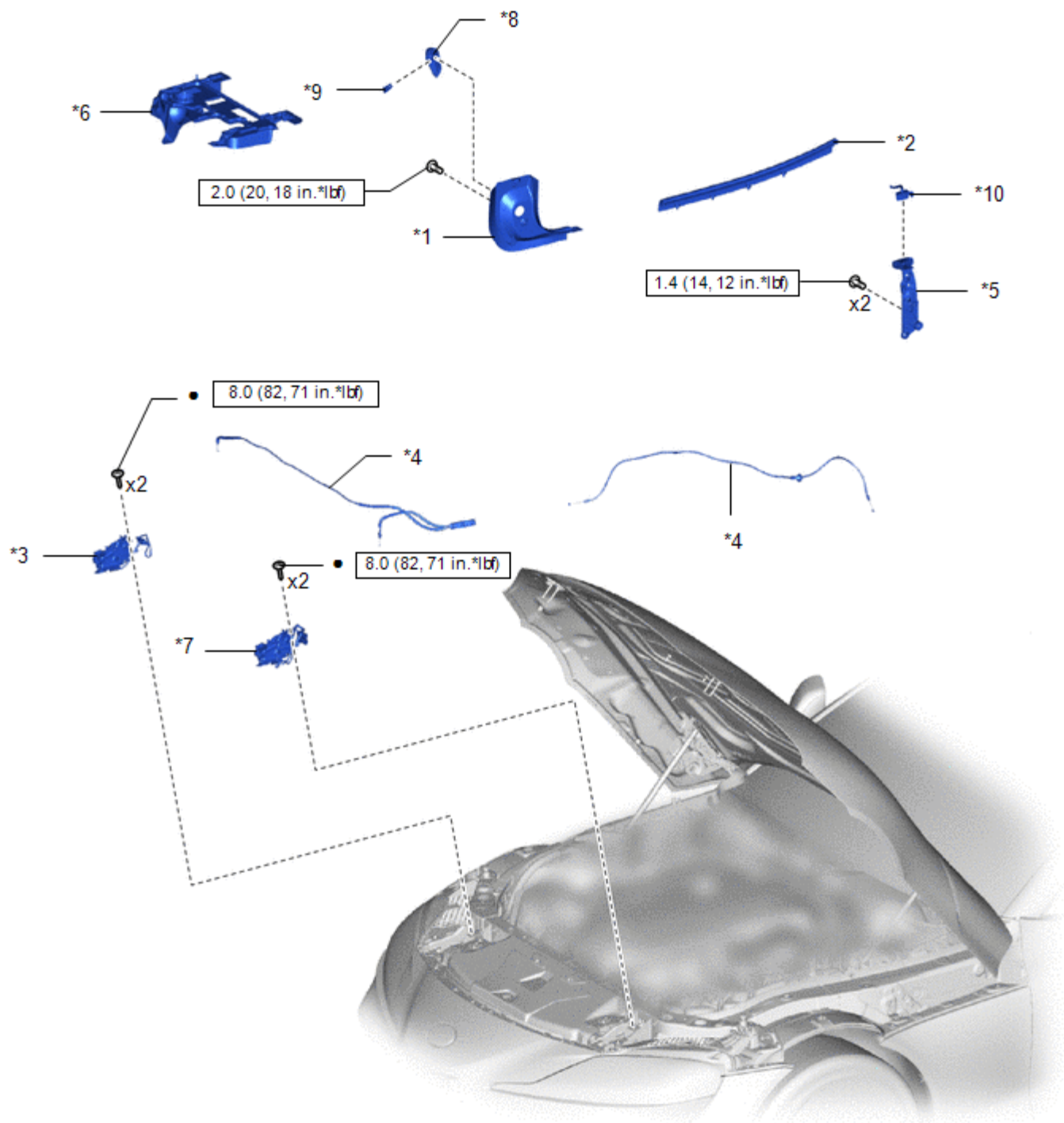
COMPONENTS

ILLUSTRATION





*1	FRONT FENDER UPPER PROTECTOR LH	*2	COWL VENT COVER LH
----	------------------------------------	----	--------------------

ILLUSTRATION



d

*1	COWL SIDE TRIM SUB-ASSEMBLY LH	*2	FRONT DOOR SCUFF PLATE LH
*3	HOOD LOCK ASSEMBLY	*4	HOOD LOCK CONTROL CABLE ASSEMBLY
*5	HOOD SUPPORT BRACKET	*6	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
*7	ENGINE HOOD COURTESY SWITCH	*8	HOOD LOCK RELEASE LEVER

	(HOOD LOCK ASSEMBLY)		PROTECTOR
*9	LOCKING WEDGE	*10	DIAGNOSTIC SOCKET
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD LOCK CONTROL CABLE ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.
- Risk of short circuits! Risk of fire!
- Disconnect battery earth lead from battery.

NOTICE:

After the engine switch off, the radio receiver assembly records various types of memory and settings. As a result, after turning the engine switch off, be sure to wait for the time specified in the following table before disconnecting the cable from the negative (-) battery terminal.

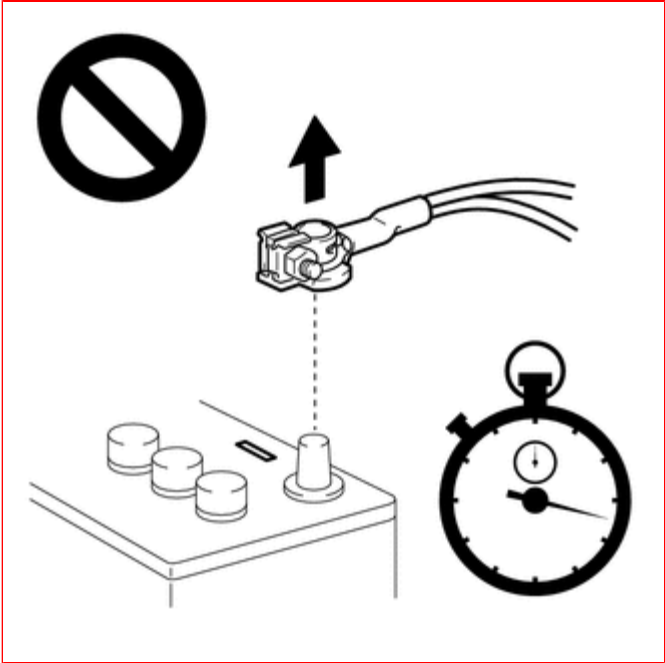
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

3. REMOVE COWL VENT COVER LH

Click here [INFO](#)

4. REMOVE ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

Click here [INFO](#)

5. REMOVE HOOD LOCK ASSEMBLY

(a) w/ Pop Up Hood:

CAUTION:



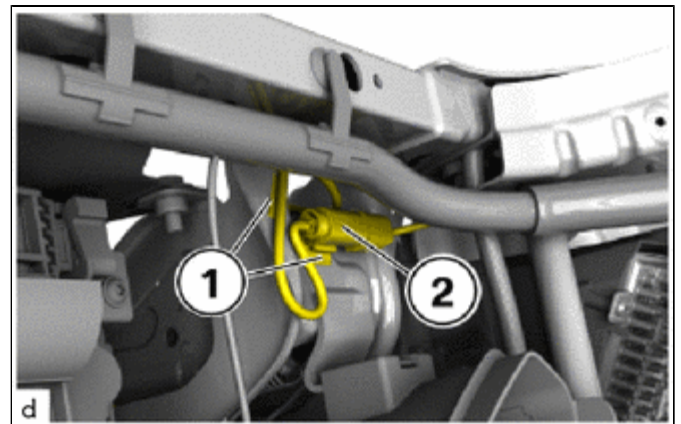
- Airbag unit.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: Safety regulations on handling components with gas generators.

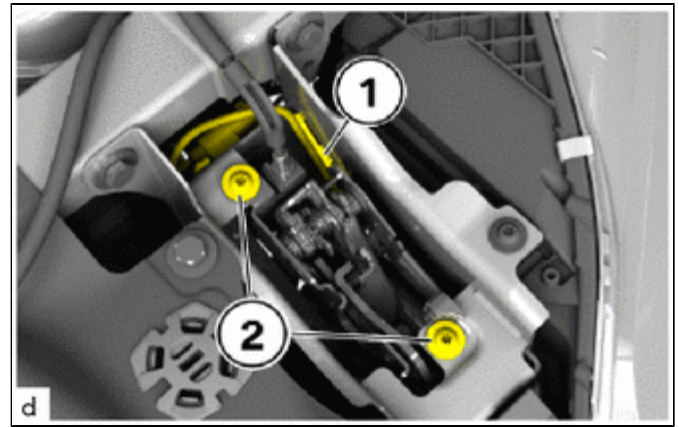
Click here [INFO](#)

(1) Unclip cable with the holder (1).



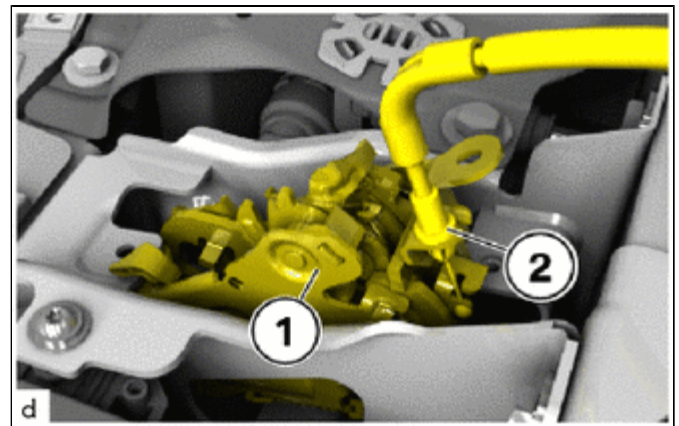
(2) Unlock connector (2) and disconnect.

(b) Unclip cable with the holder (1).



(c) Loosen T30 screws (2).

(d) Feed out the hood lock assembly (1) in an upward direction.



(e) Disconnect hood lock control cable assembly linkage (2) and remove the hood lock assembly (1).

6. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

7. REMOVE FRONT DOOR SCUFF PLATE LH

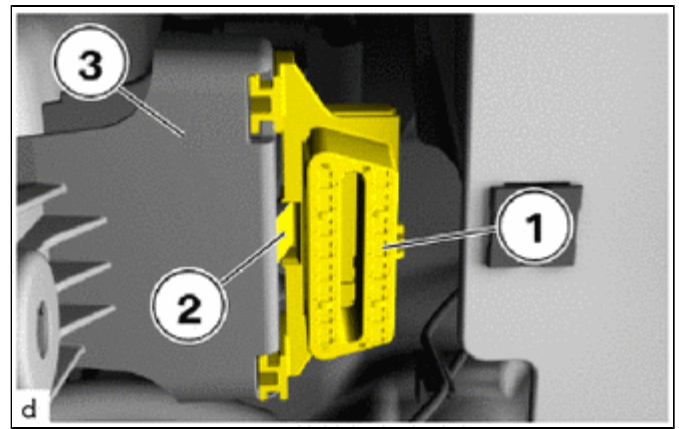
Click here [INFO](#)

8. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH

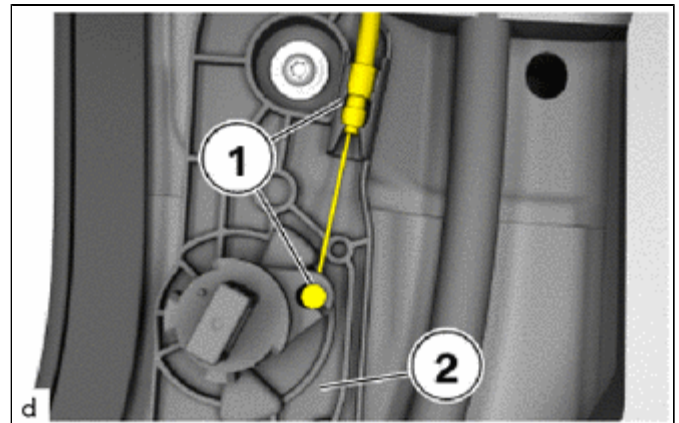
Click here [INFO](#)

9. REMOVE HOOD SUPPORT BRACKET

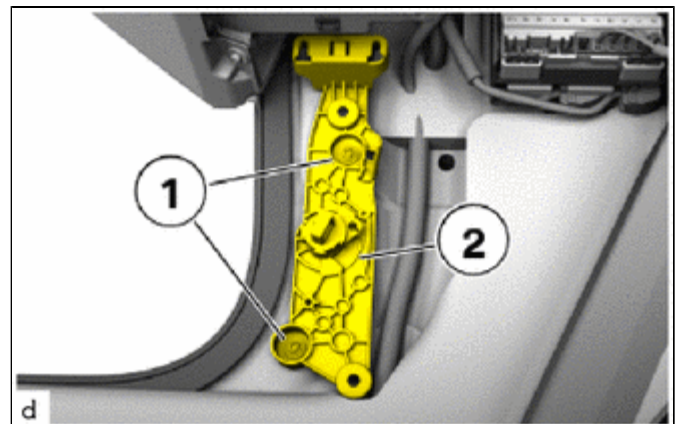
(a) Release diagnostic socket (1) on the retaining clip (2) and pull the hood support bracket (3) down and out.



(b) Unclip the hood lock control cable assembly (1) on the hood support bracket (2) and disconnect.

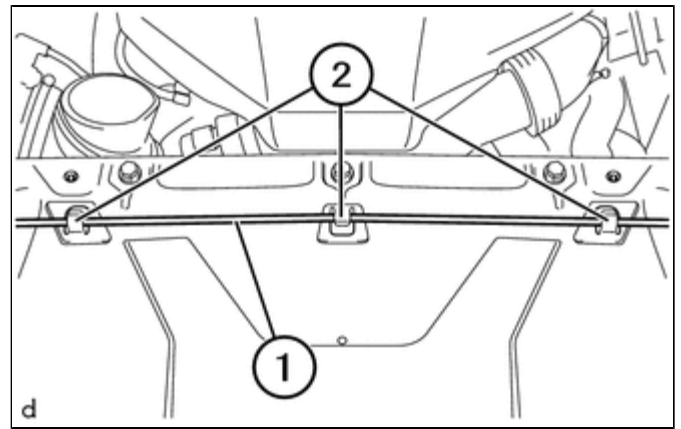


(c) Release the T25 screws (1) and remove the hood support bracket (2).

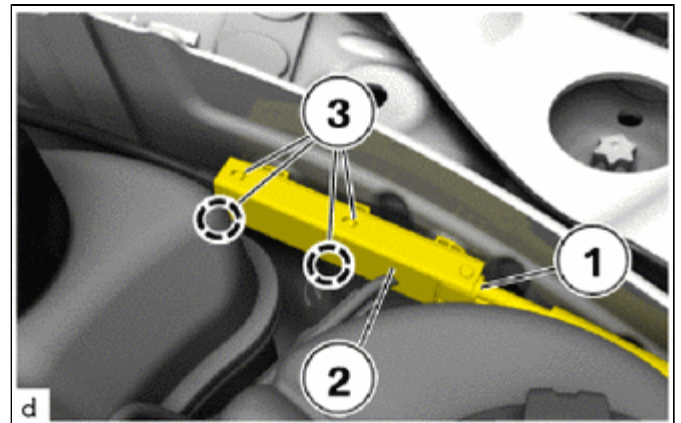


10. REMOVE HOOD LOCK CONTROL CABLE ASSEMBLY

(a) Disconnect hood lock control cable assembly (1) from the guides (2).

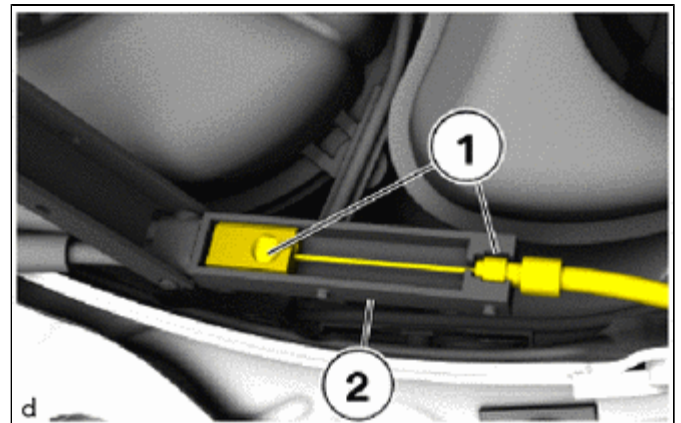


(b) Unclip hood lock control cable bracket (1) from the body.

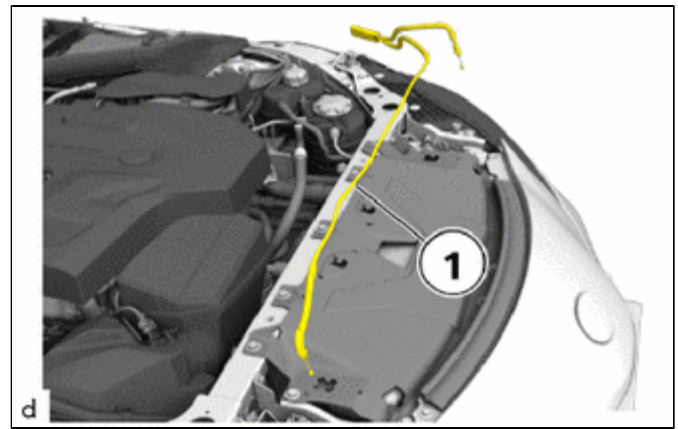


(c) Loosen lid (2) on retaining lugs (3) and fold up and to the front.

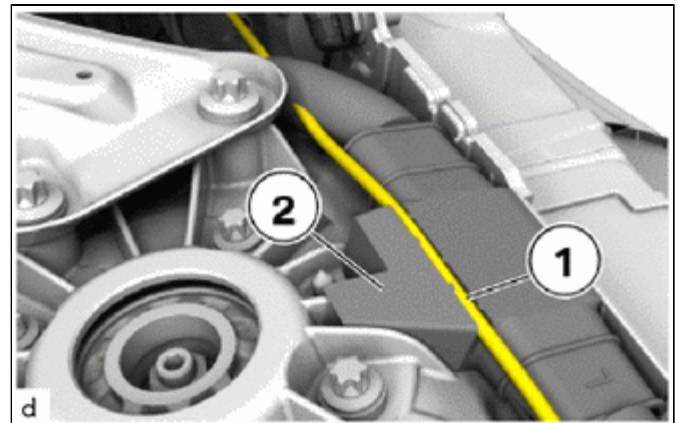
(d) Disconnect hood lock control cable assembly (1) from the hood lock control cable bracket (2).



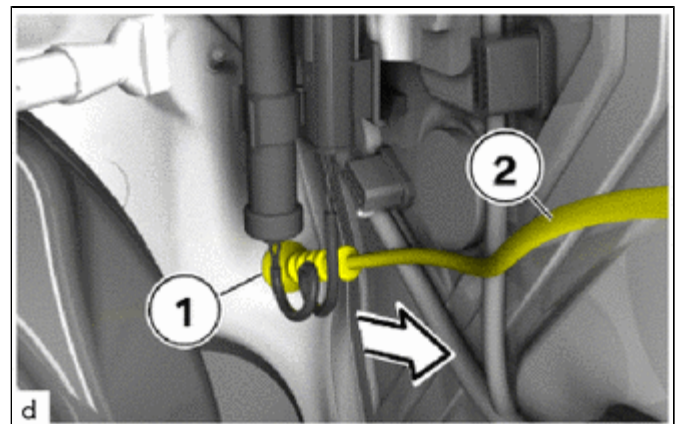
(e) Remove hood lock control cable assembly (1) together with the hood lock control cable bracket.



(f) Disconnect the hood lock control cable assembly (1) from the guide (2).



(g) Remove rubber grommet (1) and work the hood lock control cable assembly (2) out in the direction of the arrow and remove.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD LOCK CONTROL CABLE ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.
- Risk of short circuits! Risk of fire!
- Disconnect battery earth lead from battery.

NOTICE:

After the engine switch off, the radio receiver assembly records various types of memory and settings. As a result, after turning the engine switch off, be sure to wait for the time specified in the following table before disconnecting the cable from the negative (-) battery terminal.

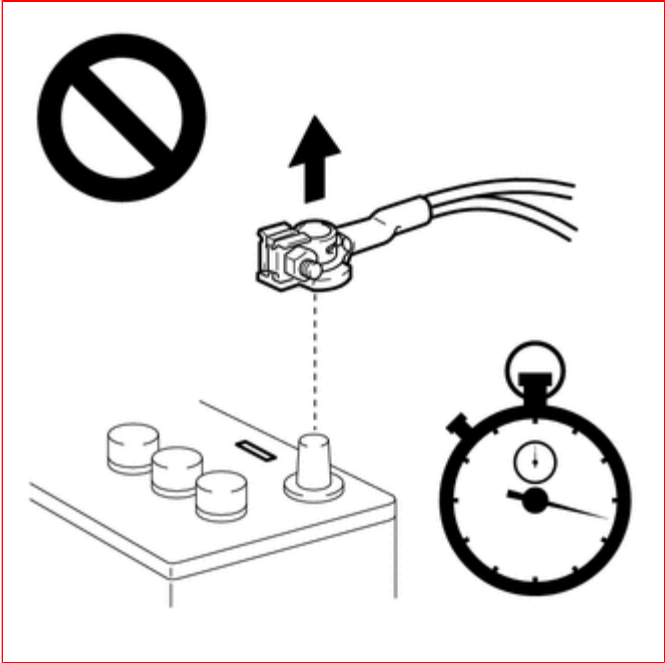
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

3. REMOVE COWL VENT COVER LH

Click here [INFO](#)

4. REMOVE ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

Click here [INFO](#)

5. REMOVE HOOD LOCK ASSEMBLY

(a) w/ Pop Up Hood:

CAUTION:



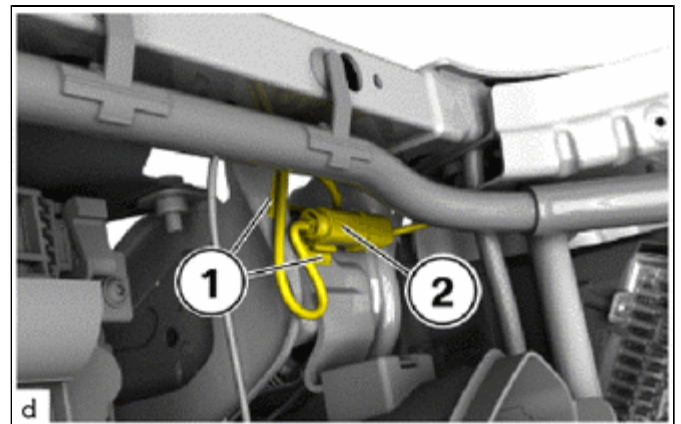
- Airbag unit.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: Safety regulations on handling components with gas generators.

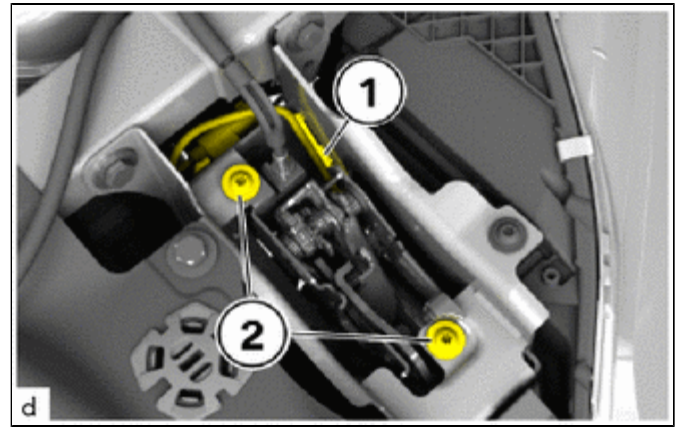
Click here [INFO](#)

(1) Unclip cable with the holder (1).



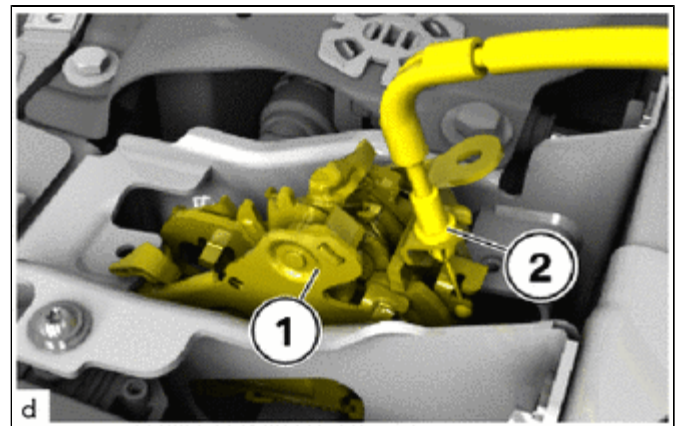
(2) Unlock connector (2) and disconnect.

(b) Unclip cable with the holder (1).



(c) Loosen T30 screws (2).

(d) Feed out the hood lock assembly (1) in an upward direction.



(e) Disconnect hood lock control cable assembly linkage (2) and remove the hood lock assembly (1).

6. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

7. REMOVE FRONT DOOR SCUFF PLATE LH

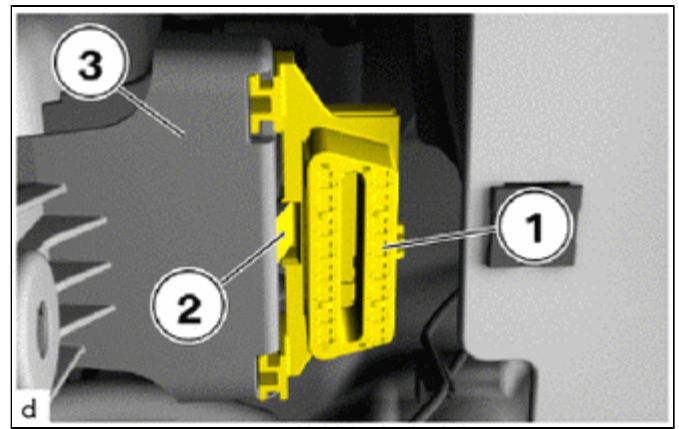
Click here [INFO](#)

8. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH

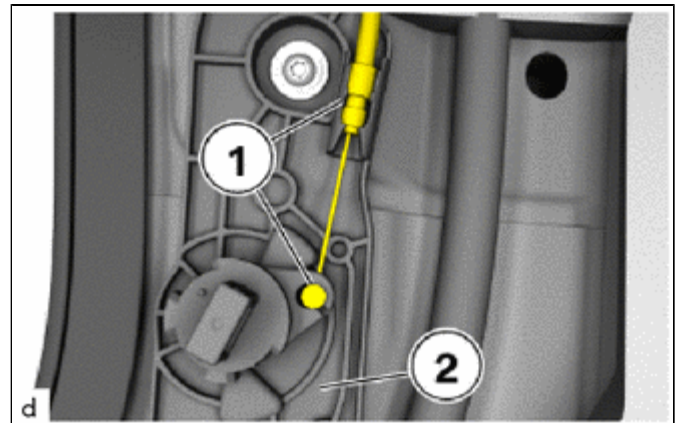
Click here [INFO](#)

9. REMOVE HOOD SUPPORT BRACKET

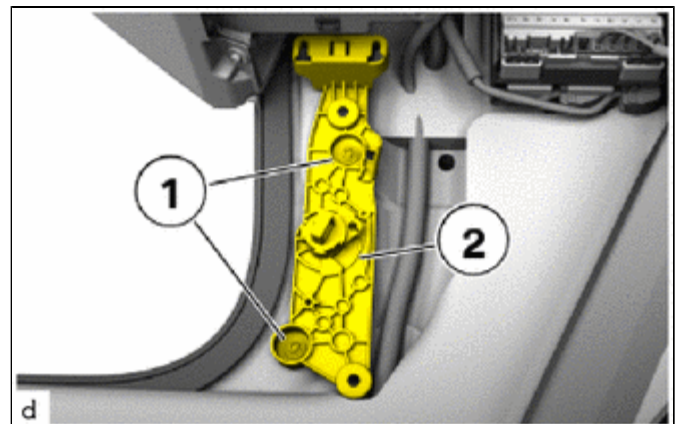
(a) Release diagnostic socket (1) on the retaining clip (2) and pull the hood support bracket (3) down and out.



(b) Unclip the hood lock control cable assembly (1) on the hood support bracket (2) and disconnect.

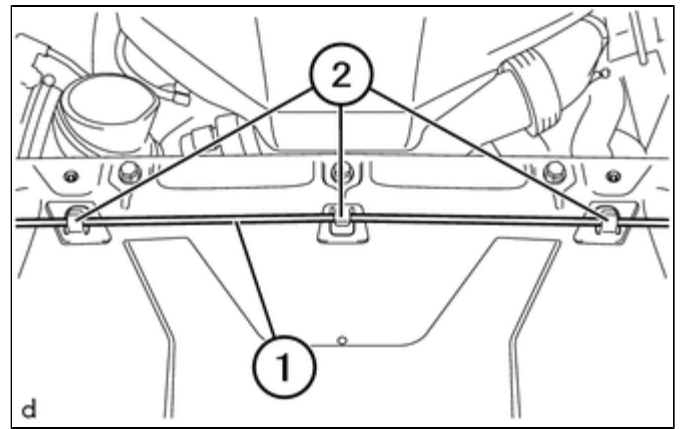


(c) Release the T25 screws (1) and remove the hood support bracket (2).

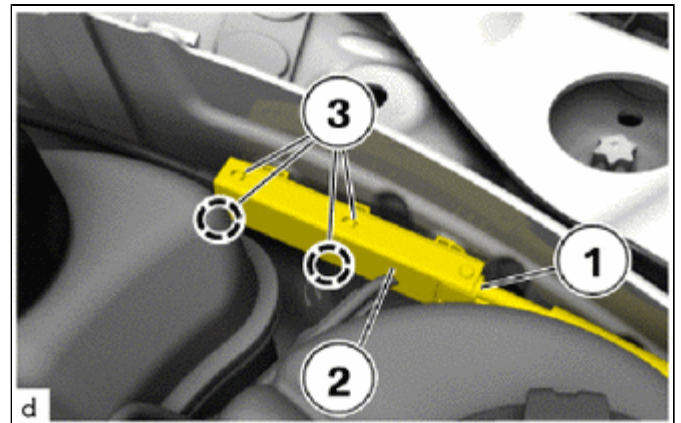


10. REMOVE HOOD LOCK CONTROL CABLE ASSEMBLY

(a) Disconnect hood lock control cable assembly (1) from the guides (2).

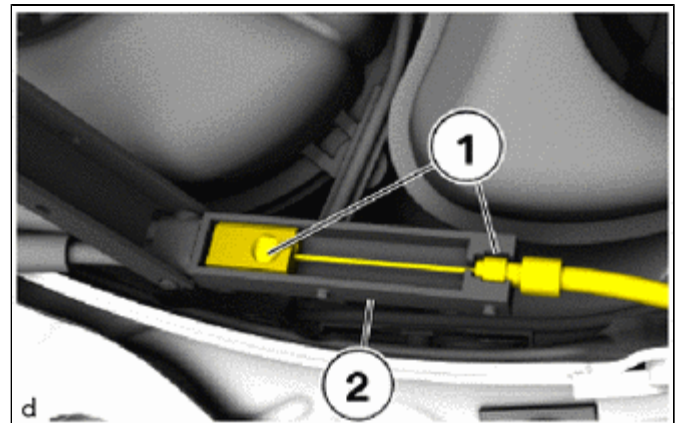


(b) Unclip hood lock control cable bracket (1) from the body.

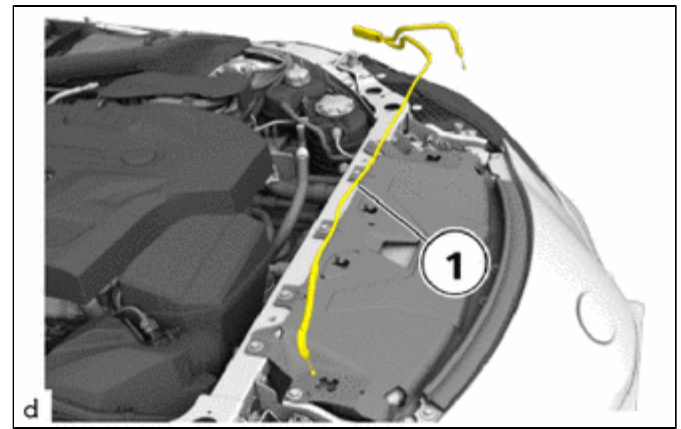


(c) Loosen lid (2) on retaining lugs (3) and fold up and to the front.

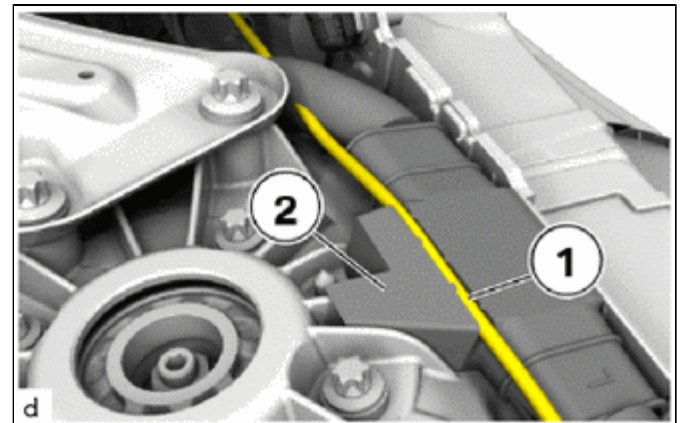
(d) Disconnect hood lock control cable assembly (1) from the hood lock control cable bracket (2).



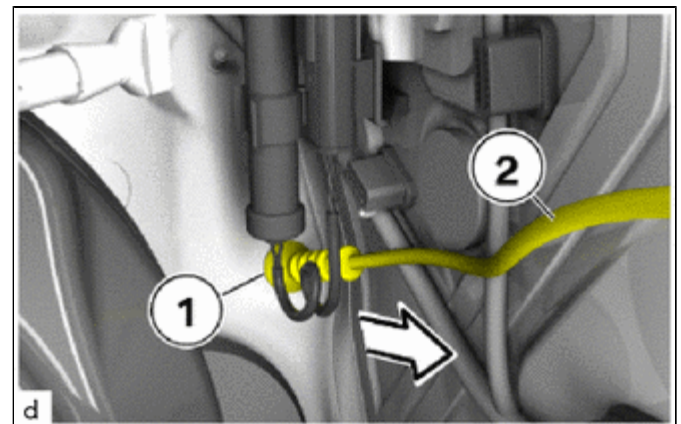
(e) Remove hood lock control cable assembly (1) together with the hood lock control cable bracket.



(f) Disconnect the hood lock control cable assembly (1) from the guide (2).



(g) Remove rubber grommet (1) and work the hood lock control cable assembly (2) out in the direction of the arrow and remove.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD LOCK CONTROL CABLE ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

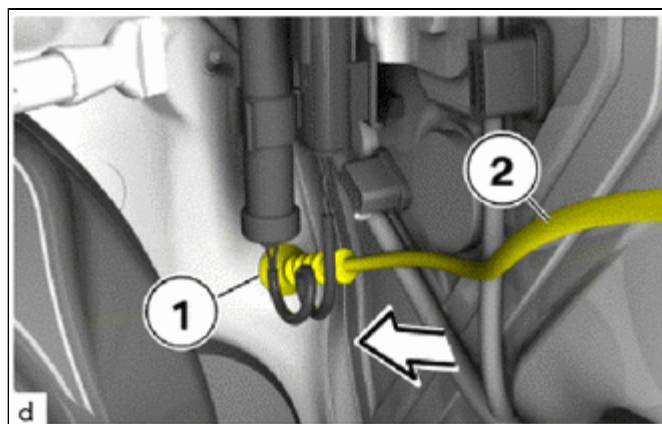
PROCEDURE

1. INSTALL HOOD LOCK CONTROL CABLE ASSEMBLY

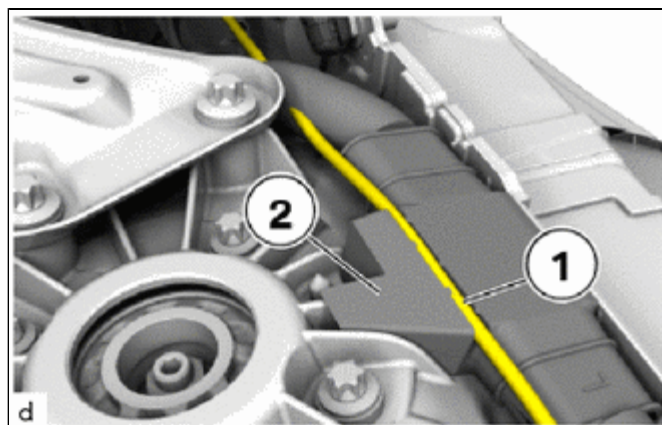
- (a) Insert hood lock control cable assembly (2) in the direction of the arrow and secure with the rubber grommet (1).

HINT:

Make sure that the rubber grommet (1) is correctly seated.

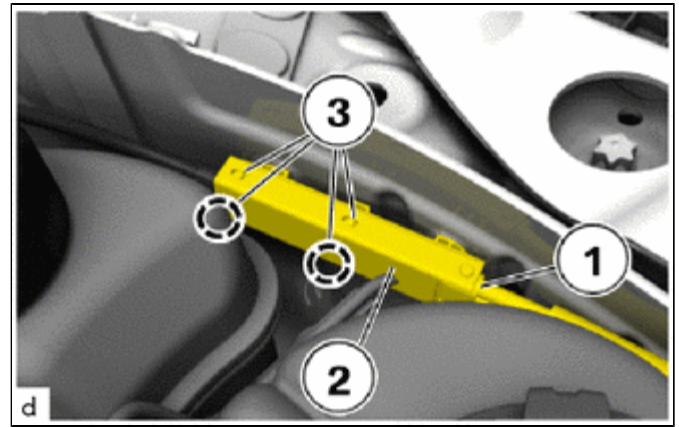


- (b) Connect the hood lock control cable assembly (1) in the guide (2).

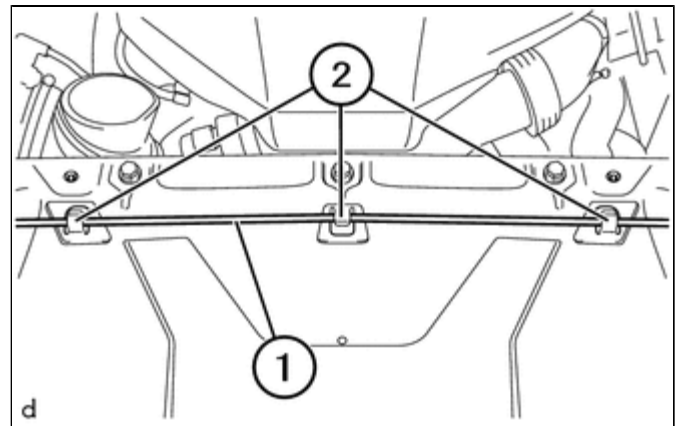


- (c) Position hood lock control cable assembly.
- (d) Connect hood lock control cable assembly in the hood lock control cable bracket.

- (e) Close the lid (2) and engage with the retaining lugs (3).

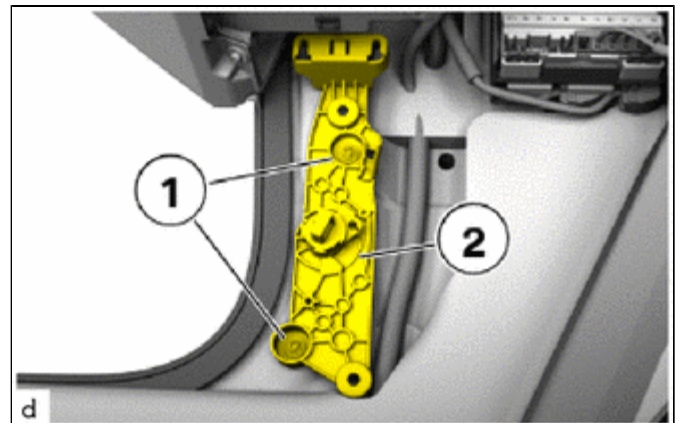


(f) Clip in the hood lock control cable assembly (1) into the body.



(g) Connect hood lock control cable assembly (1) in the guides (2).

2. INSTALL HOOD SUPPORT BRACKET



(a) Position hood support bracket (2).

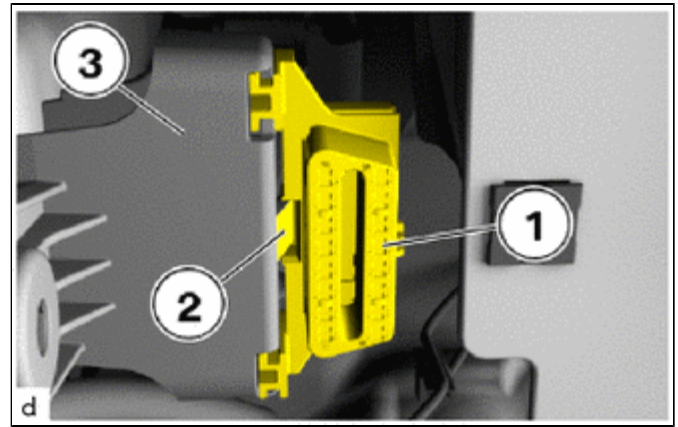
(b) Tighten the T25 screws (1).

Torque:

1.4 N·m {14 kgf·cm, 12 in·lbf}

(c) Clip in and connect hood lock control cable assembly on hood support bracket and on hood release lever.

(d) Feed diagnostic socket (1) into hood support bracket (3) until retaining clip (2) engages.



3. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH

Click here [INFO](#)

4. INSTALL FRONT DOOR SCUFF PLATE LH

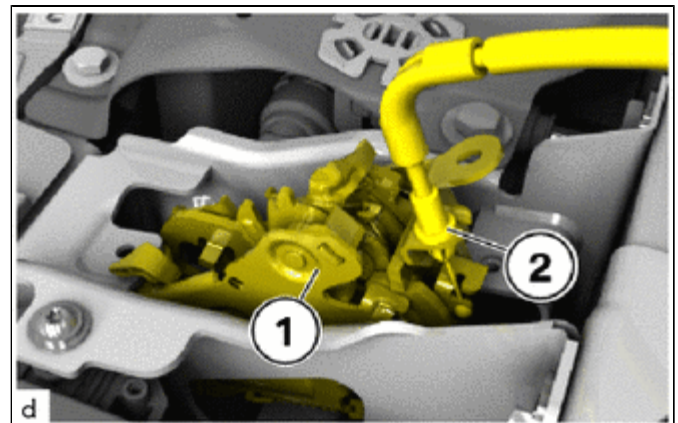
Click here [INFO](#)

5. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

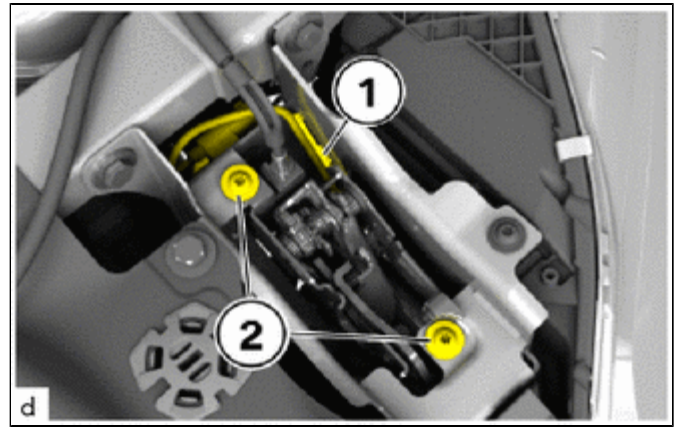
6. INSTALL HOOD LOCK ASSEMBLY

(a) Connect hood lock control cable assembly linkage (2) to the hood lock assembly (1).



(b) Guide in hood lock assembly (1) and position.

(c) Replace T30 screws (2).



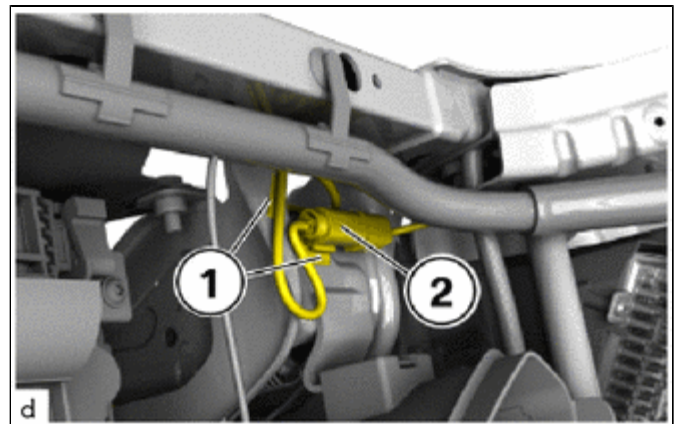
(d) Tighten T30 screws (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Clip in cable with the holder (1).

(f) w/ Pop Up Hood:



(1) Connect connector (2) and lock.

(2) Clip in cable with the holder (1).

7. INSTALL ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

Click here [INFO](#)

8. INSTALL COWL VENT COVER LH

Click here [INFO](#)

9. INSTALL FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

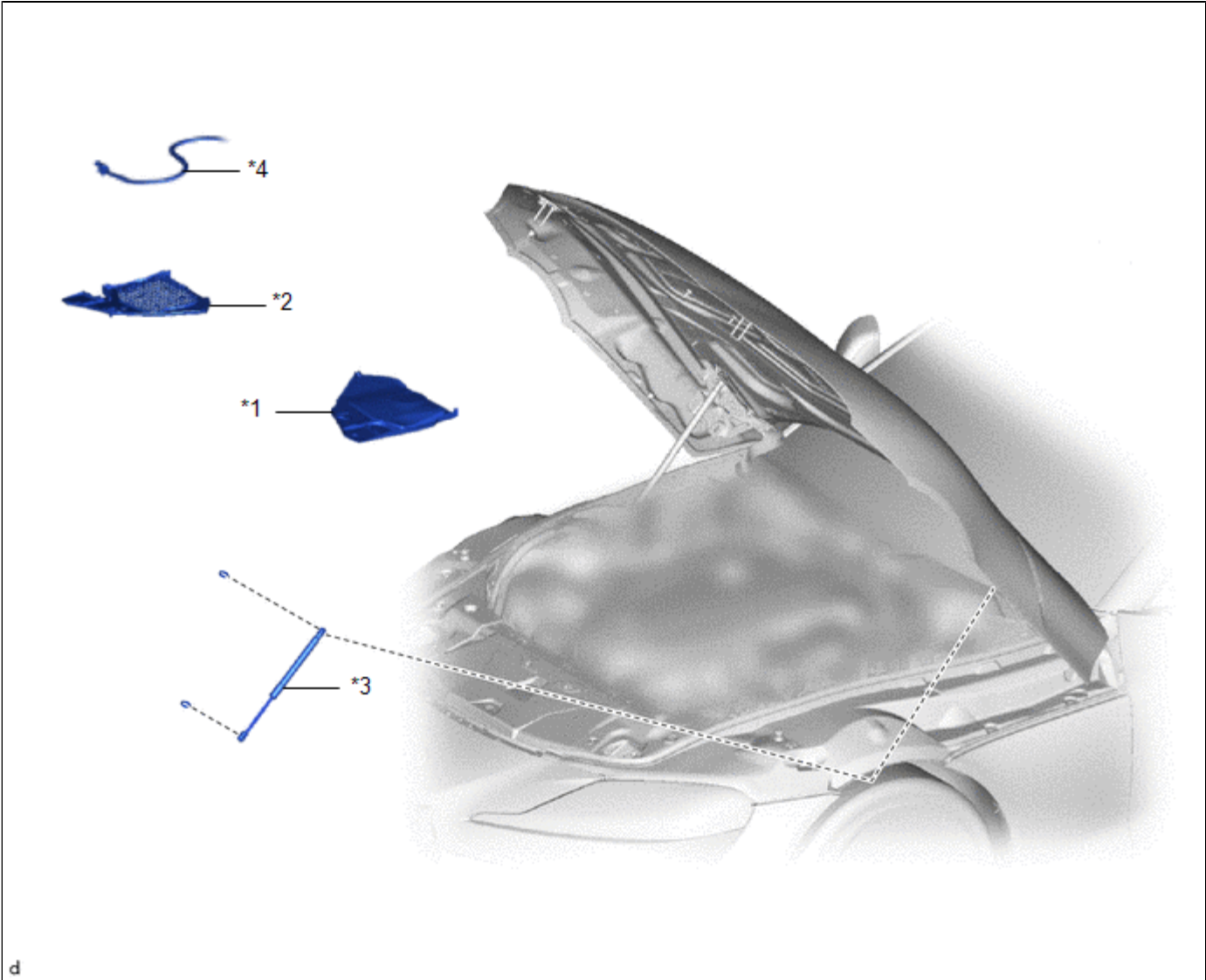
10. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD SUPPORT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	COWL VENT COVER LH	*2	COWL VENT COVER RH
*3	HOOD SUPPORT ASSEMBLY	*4	FRONT WASHER NOZZLE AND HOSE ASSEMBLY

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD SUPPORT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. REMOVE COWL VENT COVER LH

Click here [INFO](#)

2. REMOVE COWL VENT COVER RH

Click here [INFO](#)

3. REMOVE HOOD SUPPORT ASSEMBLY

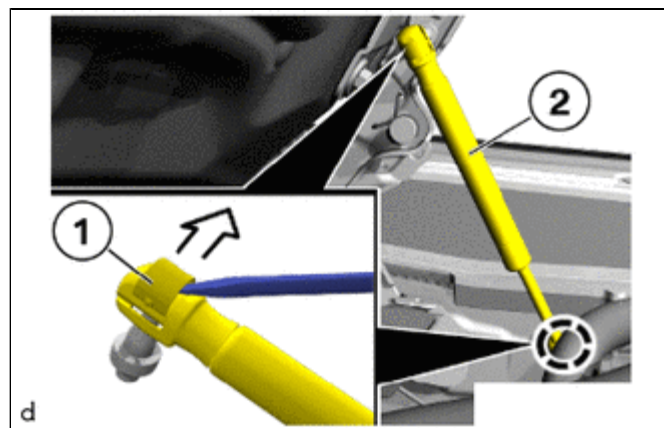
CAUTION:

- Shutting hood sub-assembly or back door panel sub-assembly.

Danger of injury!

- Support hood sub-assembly / back door panel sub-assembly in fully open position with the aid of a suitable device.

(a) Lift the clamp (1) with a screwdriver slightly in the direction of arrow.



(b) Pull ball sockets off from ball studs and remove the hood support assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD SUPPORT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

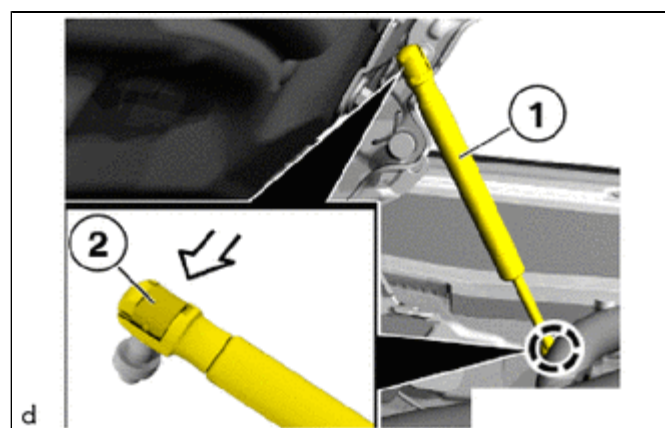
HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. INSTALL HOOD SUPPORT ASSEMBLY

- (a) Fit the hood support assembly (1) with the ball sockets on the ball studs and engage with force.



- (b) Make sure clamps (2) lock correctly.

2. INSTALL COWL VENT COVER LH

Click here [INFO](#)

3. INSTALL COWL VENT COVER RH

Click here [INFO](#)

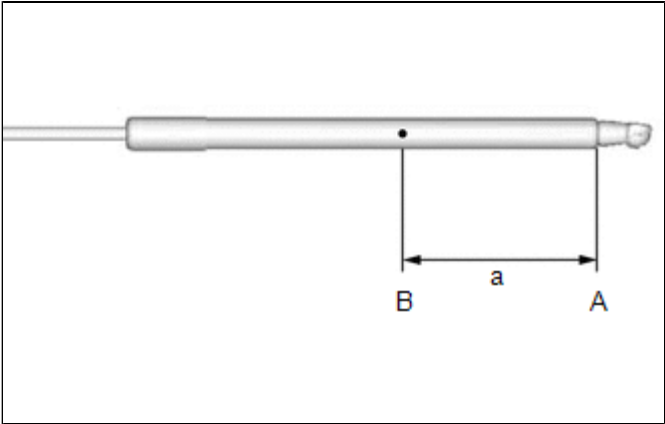
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR / HATCH: HOOD SUPPORT: DISPOSAL; 2020 MY Supra [03/2019 -]		

DISPOSAL

PROCEDURE

1. DISPOSE OF HOOD SUPPORT ASSEMBLY

- (a) Fully extend the hood support assembly.
- (b) Secure the hood support assembly horizontally in a vise with the piston rod pulled out.
- (c) Wearing protective glasses, extend the piston rod and cover it with a cloth. At position B, located 50.0 mm (1.97 in.) from position A shown in the illustration, use a metal saw to cut a hole and release the gas.

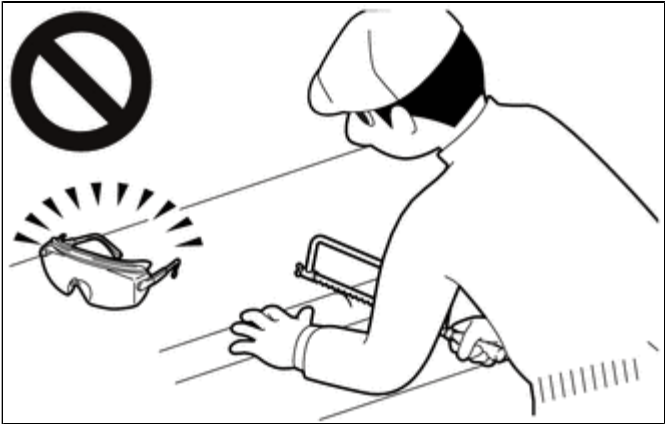


Specification:

AREA	MEASUREMENT
a	50.0 mm (1.97 in.)

CAUTION:

Always use proper safety equipment and be careful when drilling because shards of metal way fly about.



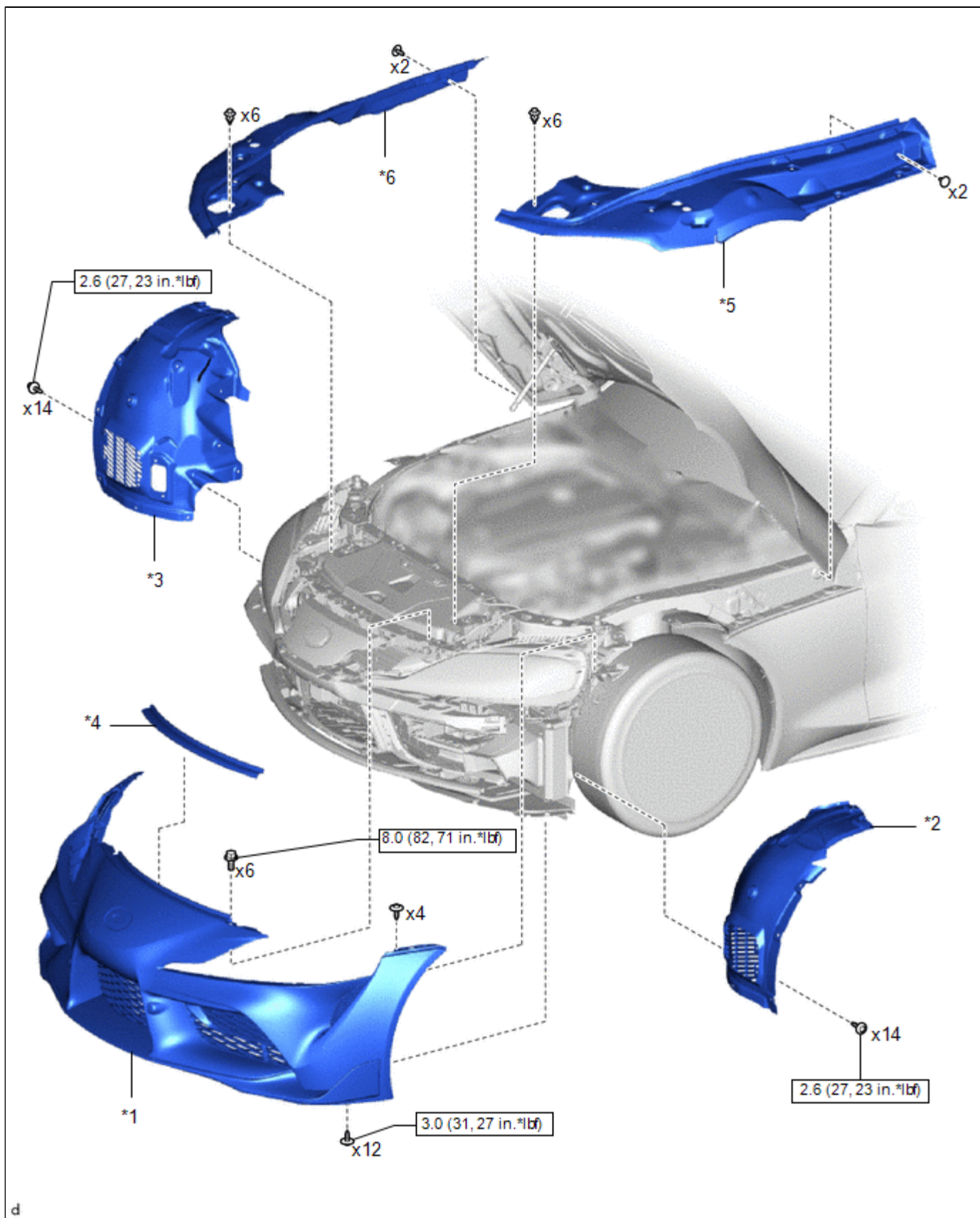
HINT:

The gas is colorless, odorless and non-poisonous.


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT BUMPER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

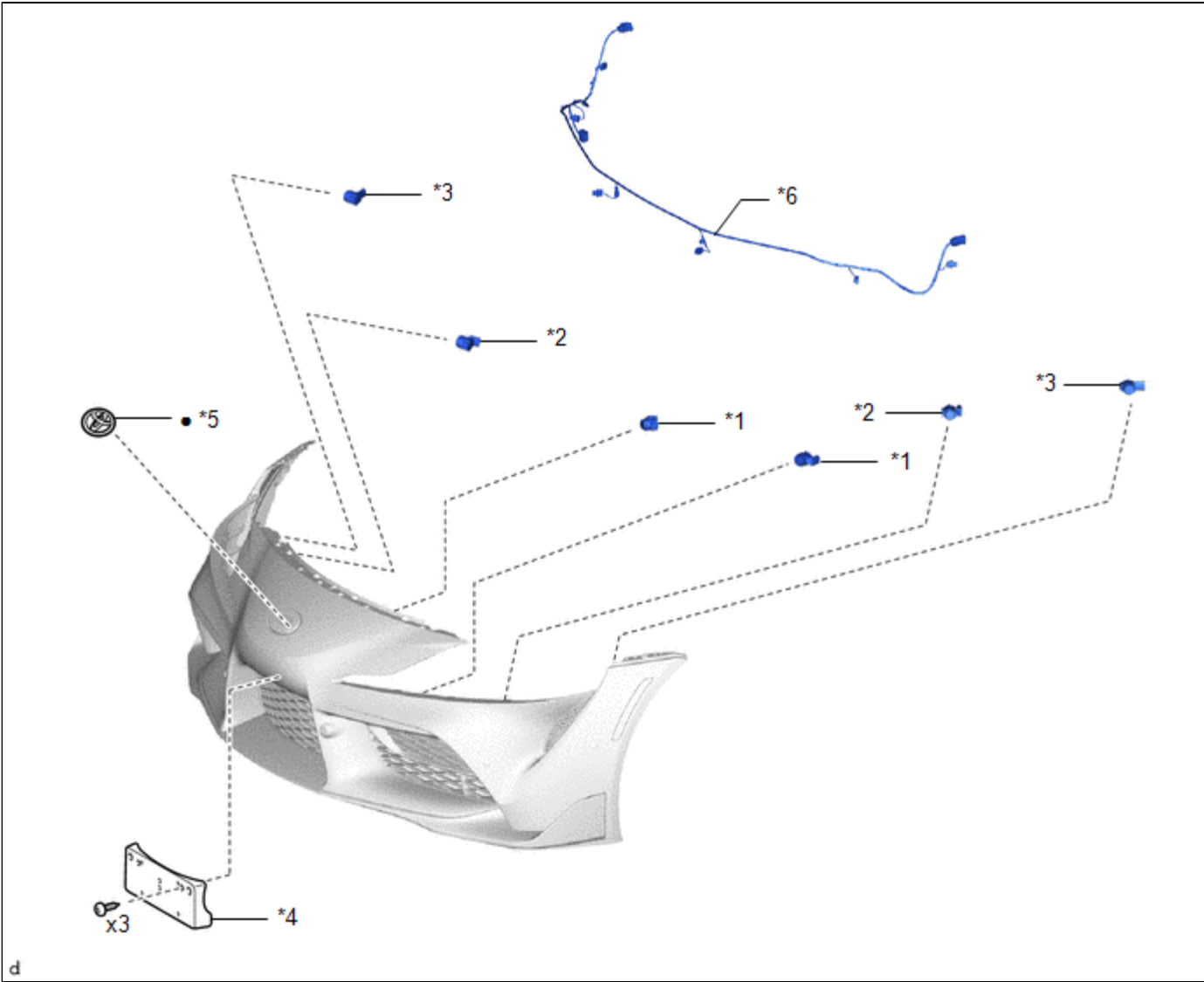
ILLUSTRATION



*1	FRONT BUMPER ASSEMBLY	*2	FRONT FENDER LINER LH
*3	FRONT FENDER LINER RH	*4	HOOD TO RADIATOR SUPPORT SEAL
*5	FRONT FENDER UPPER PROTECTOR LH	*6	FRONT FENDER UPPER PROTECTOR RH

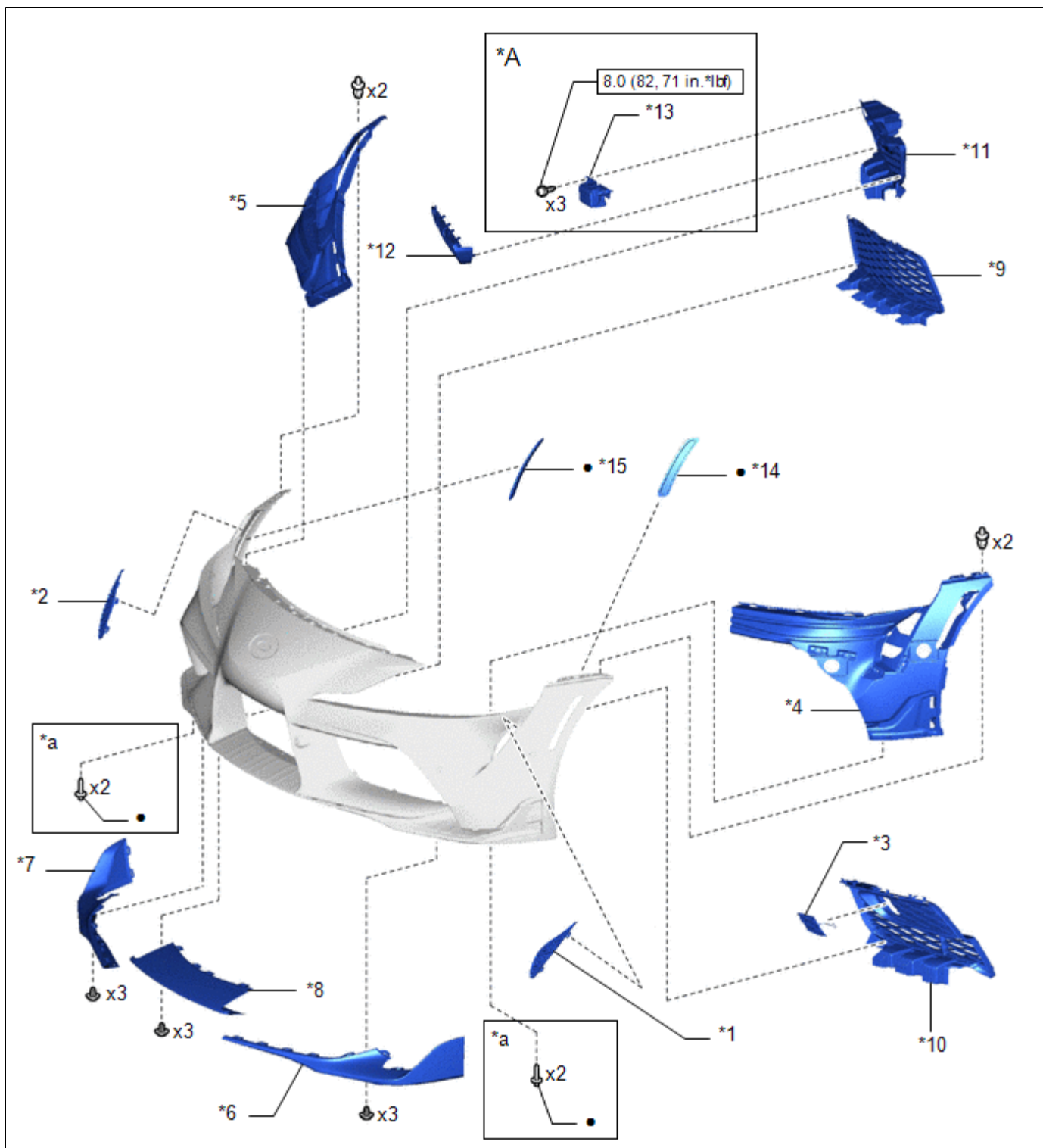
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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ILLUSTRATION




*1	FRONT CENTER ULTRASONIC SENSOR	*2	FRONT CORNER ULTRASONIC SENSOR
*3	FRONT SIDE ULTRASONIC SENSOR	*4	FRONT BUMPER EXTENSION MOUNTING BRACKET
*5	FRONT BUMPER EMBLEM SUB-ASSEMBLY	*6	NO. 4 ENGINE ROOM WIRE
●	Non-reusable part	-	-

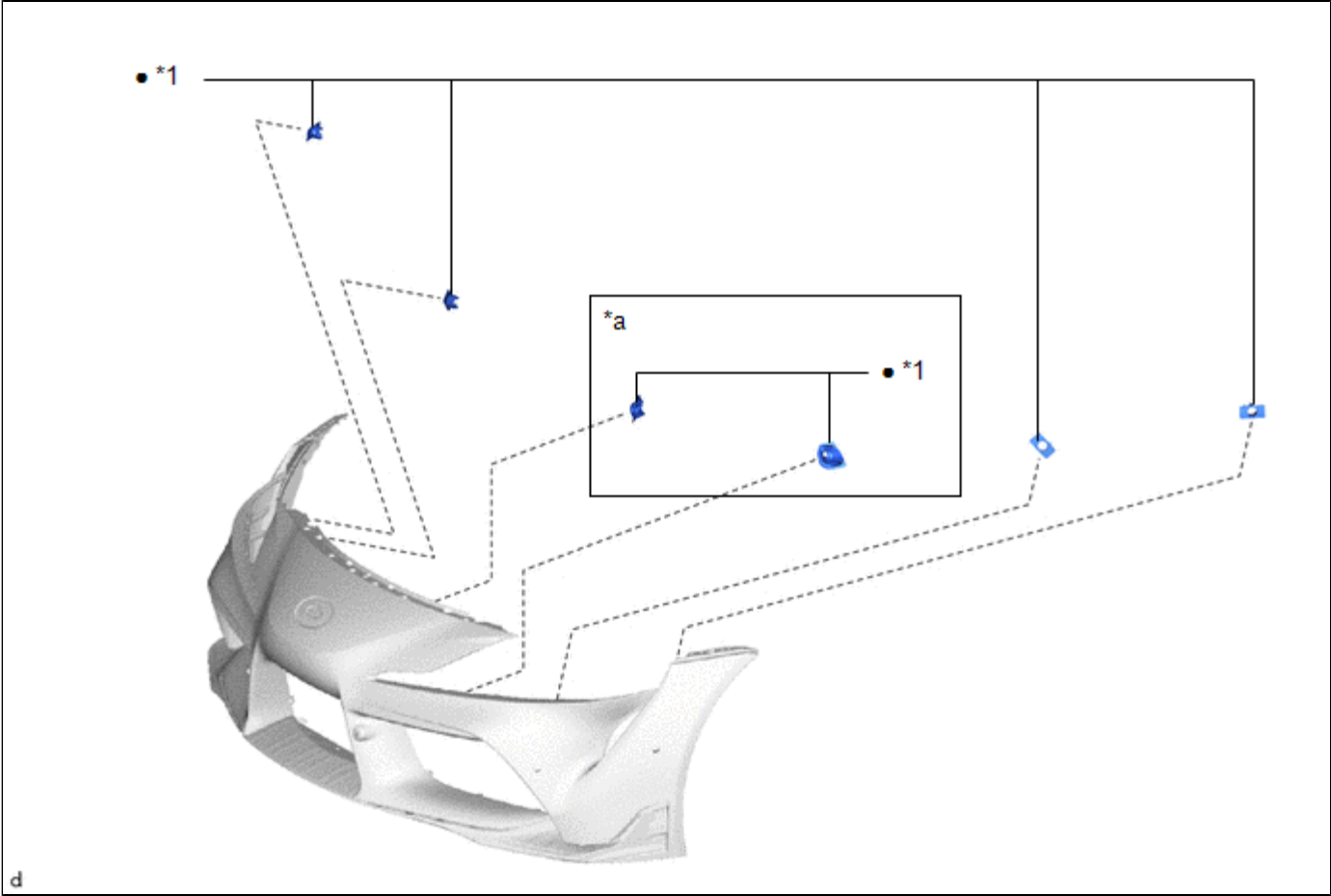
ILLUSTRATION



*A	w/ Toyota Supra Safety	-	-
*1	COOL AIR INTAKE GRILLE LH	*2	COOL AIR INTAKE GRILLE RH
*3	FRONT BUMPER HOLE COVER	*4	FRONT BUMPER SIDE RETAINER LH
*5	FRONT BUMPER SIDE RETAINER RH	*6	FRONT SIDE SPOILER LH
*7	FRONT SIDE SPOILER RH	*8	FRONT SPOILER SUB-ASSEMBLY

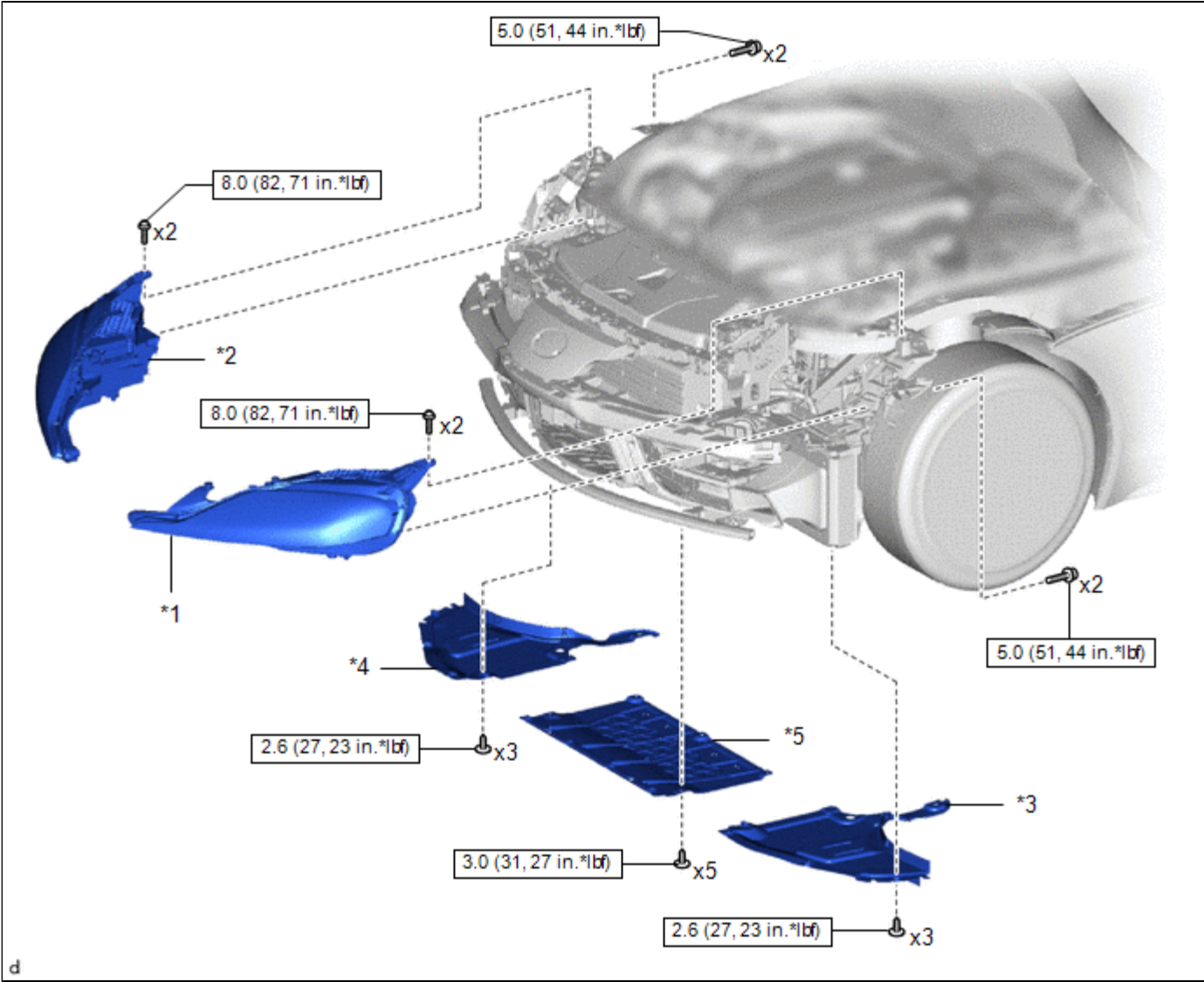
*9	LOWER NO. 1 RADIATOR GRILLE	*10	LOWER RADIATOR GRILLE LH
*11	LOWER RADIATOR GRILLE RH	*12	LOWER SIDE RADIATOR GRILLE RH
*13	MILLIMETER WAVE RADAR SENSOR	*14	REFLEX REFLECTOR ASSEMBLY LH
*15	REFLEX REFLECTOR ASSEMBLY RH	-	-
*a	Front Bumper Side Retainer for Repair	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part


ILLUSTRATION



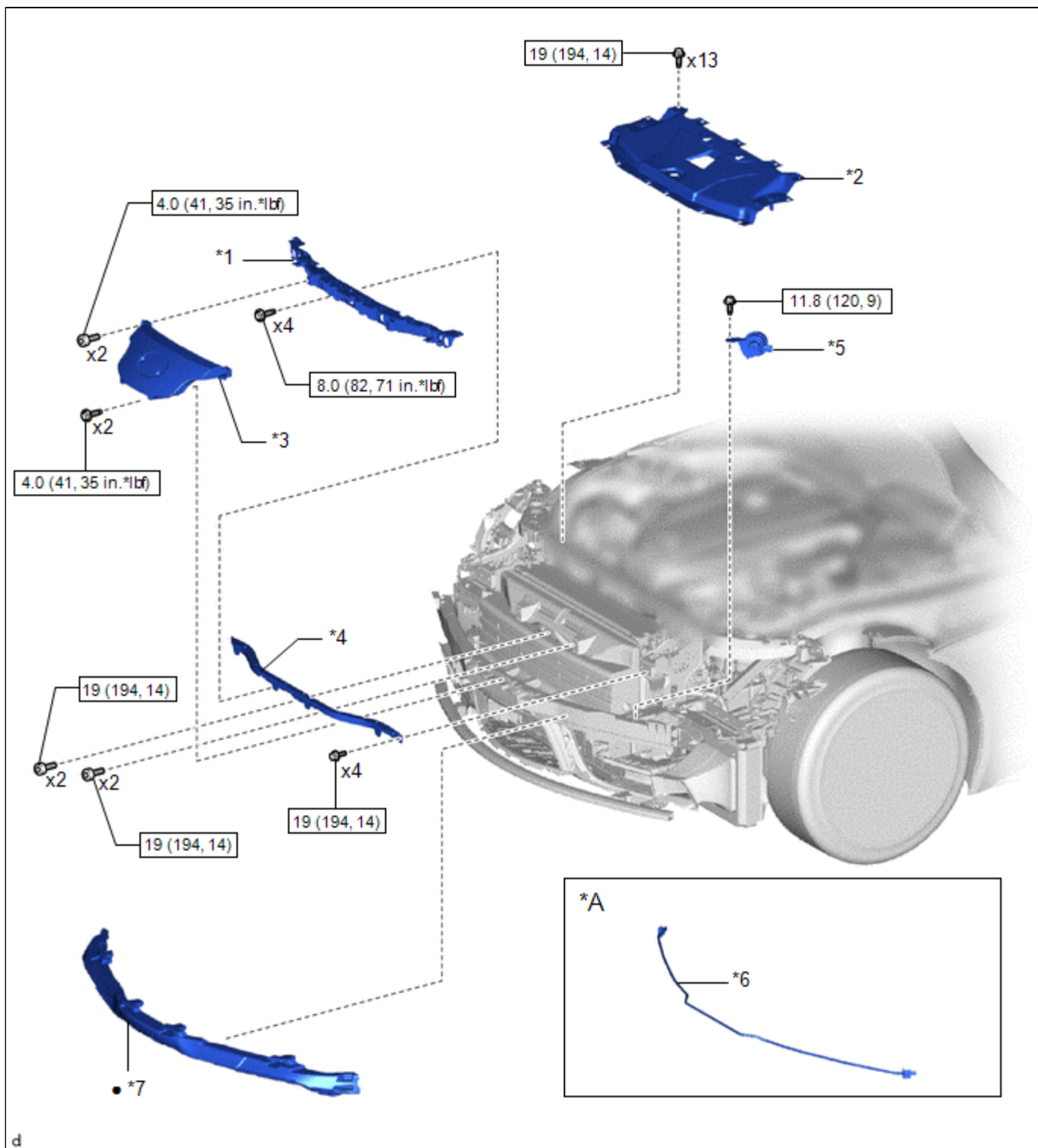
*1	NO. 1 ULTRASONIC SENSOR RETAINER	-	-
*a	The No. 1 ultrasonic sensor retainer of the front center ultrasonic sensor is welded to the front bumper assembly and cannot be removed.	-	-
●	Non-reusable part	-	-

ILLUSTRATION



*1	HEADLIGHT ASSEMBLY LH	*2	HEADLIGHT ASSEMBLY RH
*3	FRONT FENDER FRONT SPLASH SHIELD LH	*4	FRONT FENDER FRONT SPLASH SHIELD RH
*5	NO. 1 ENGINE UNDER COVER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

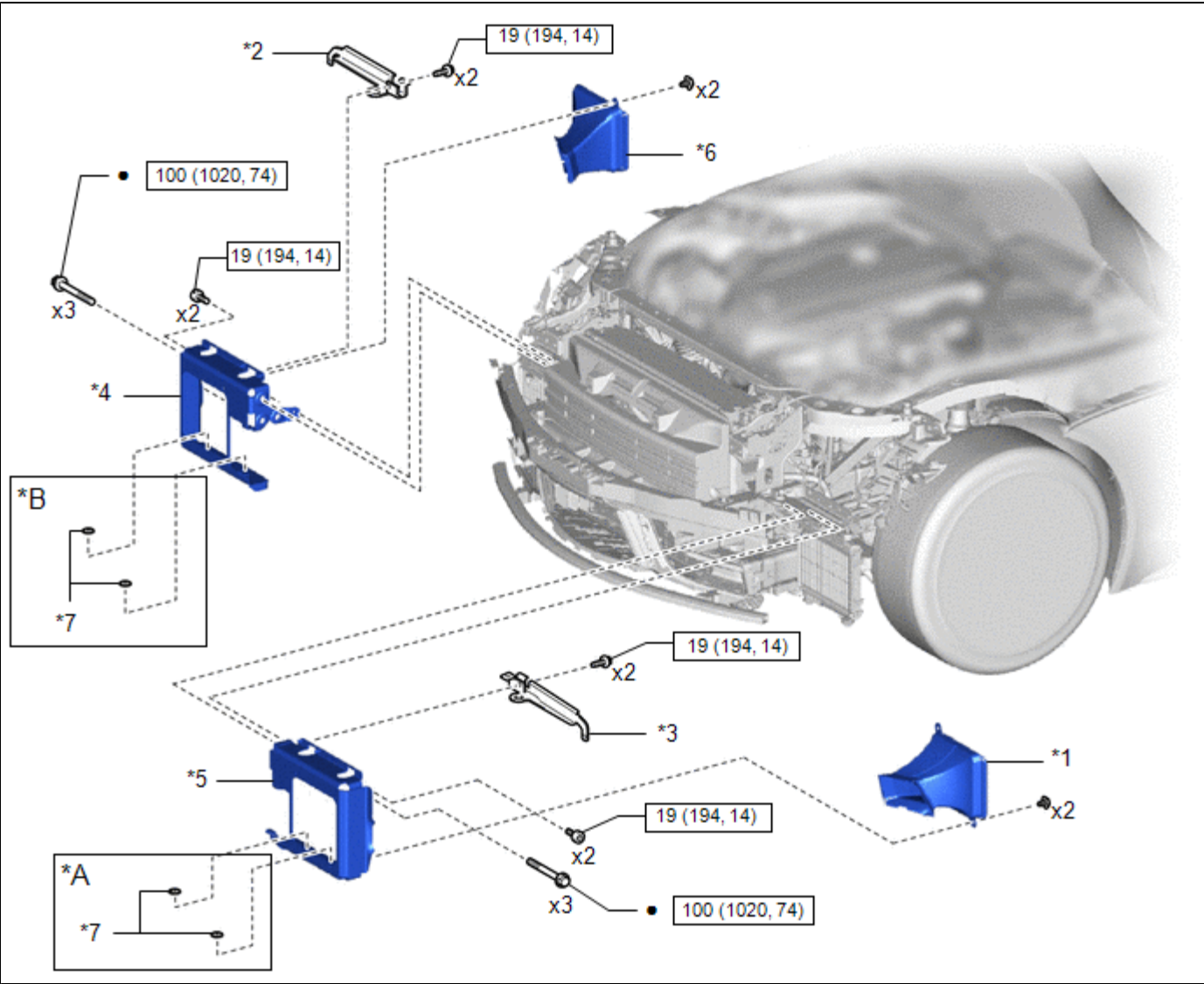
ILLUSTRATION



*A	w/ Pedestrian Detection Chamber Assembly	-	-
*1	FRONT BUMPER UPPER RETAINER	*2	RADIATOR UPPER AIR DEFLECTOR
*3	FRONT BUMPER INNER SUPPORT	*4	FRONT CROSSMEMBER
*5	HIGH PITCHED HORN ASSEMBLY	*6	PEDESTRIAN DETECTION CHAMBER ASSY
*7	FRONT BUMPER ENERGY ABSORBER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

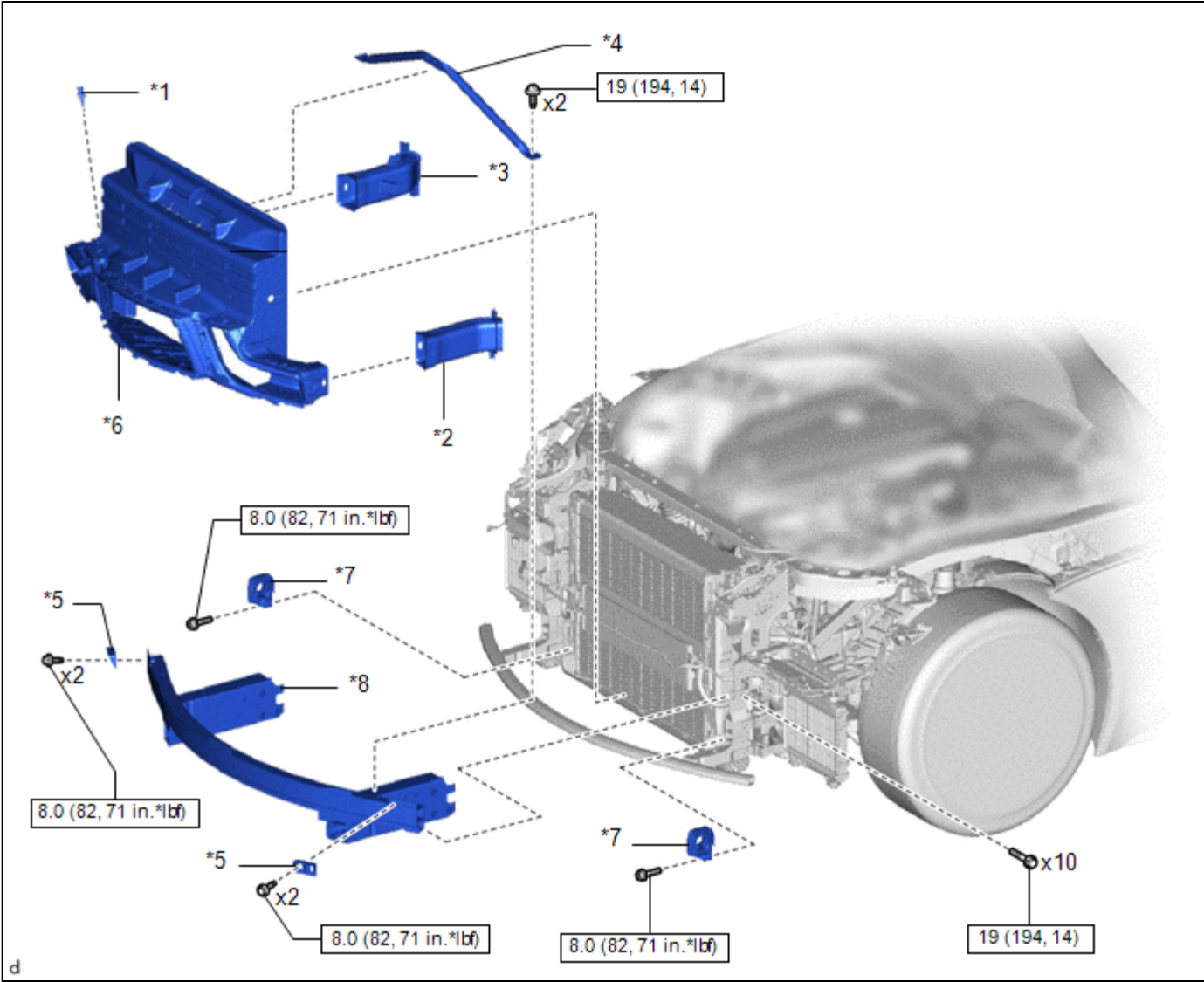
<div></div>			
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ILLUSTRATION



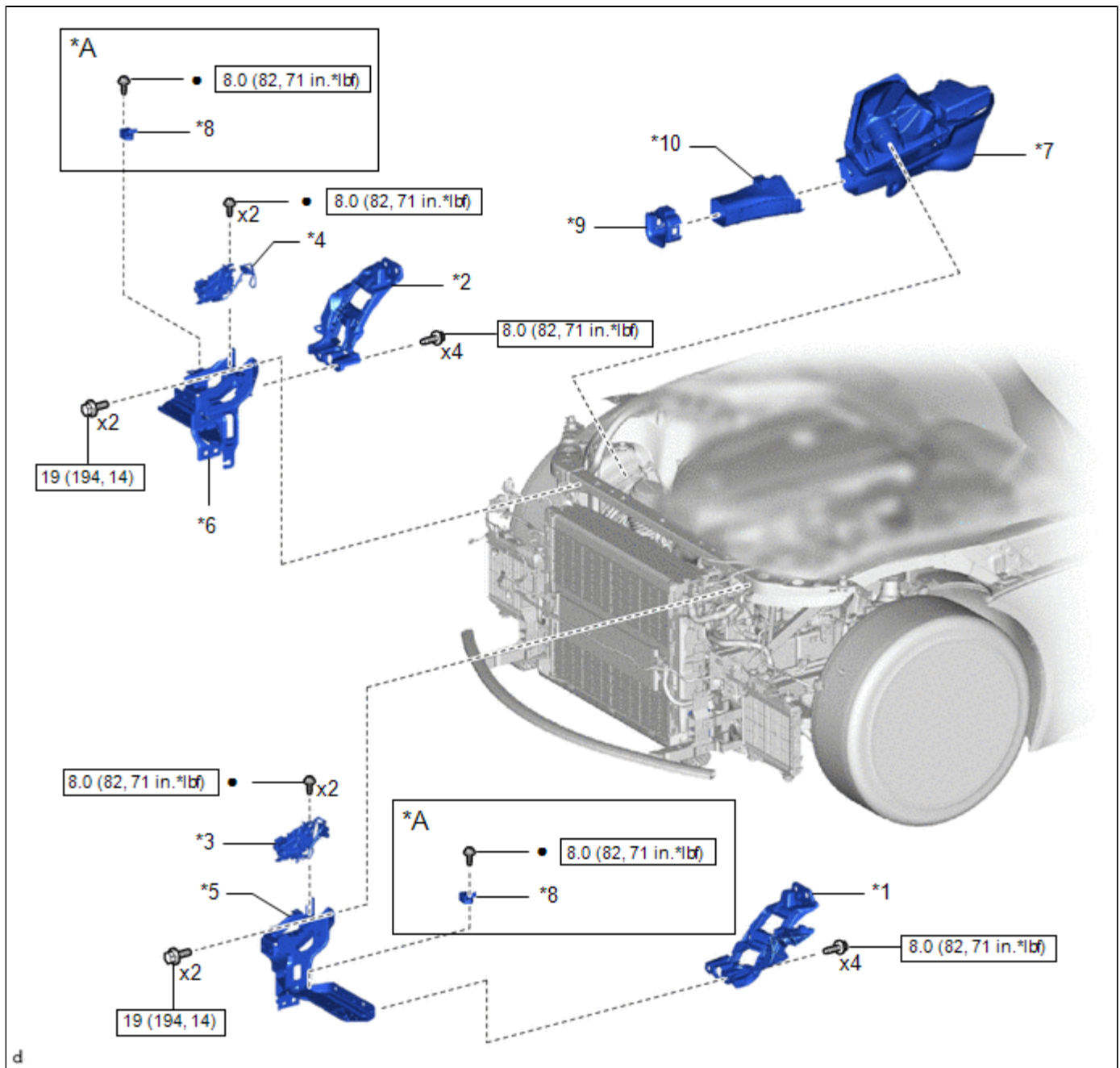
*A	for LH SIDE	*B	for RH SIDE
*1	SUB RADIATOR AIR DUCT LH	*2	FRONT BUMPER REINFORCEMENT SUPPORT RH
*3	FRONT BUMPER REINFORCEMENT SUPPORT LH	*4	FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY RH
*5	FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY LH	*6	SUB RADIATOR AIR DUCT RH
*7	SUB RADIATOR SUPPORT	-	-
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

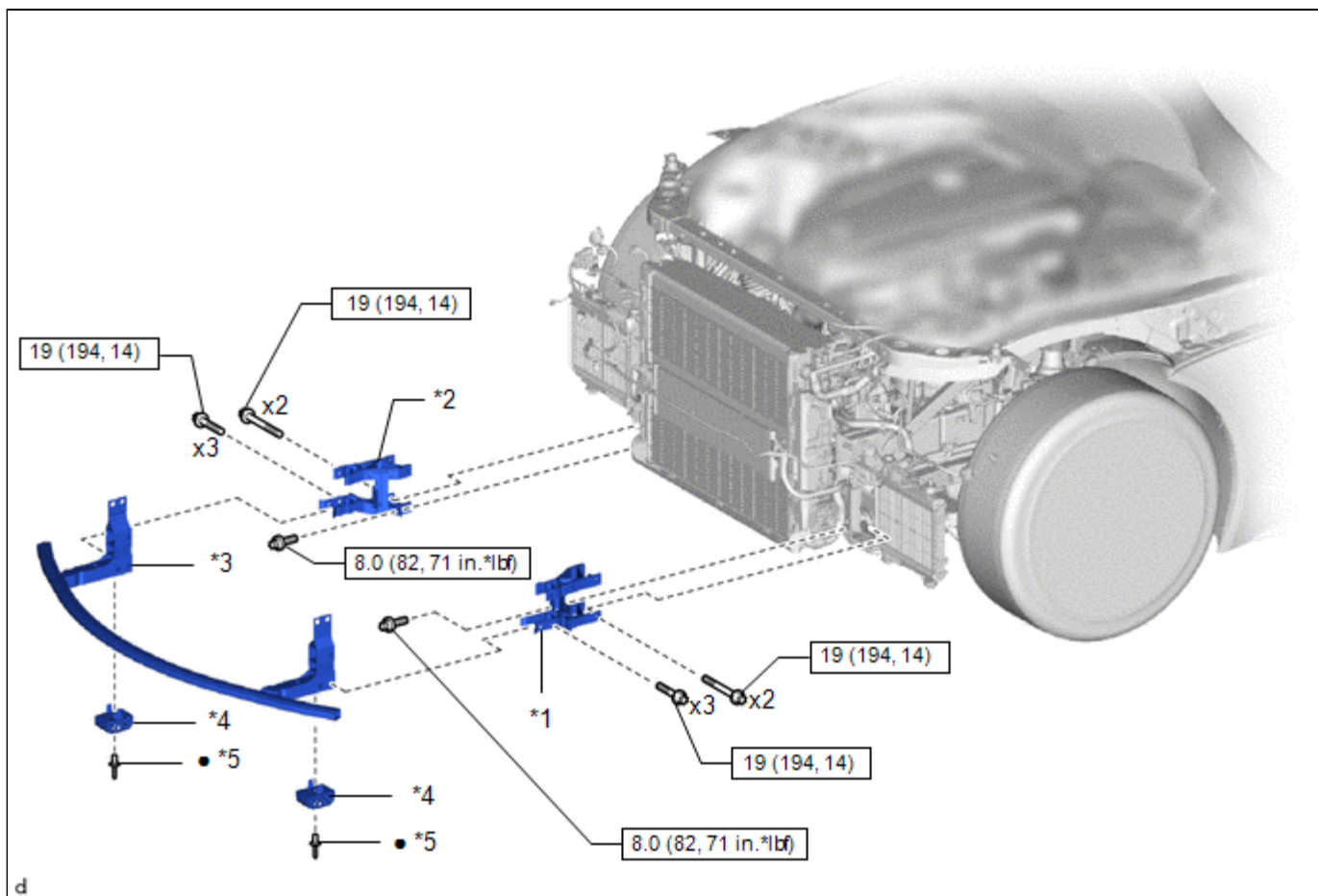


*1	TEMPERATURE SENSOR ASSEMBLY	*2	AIR INTAKE DUCT LH
*3	AIR INTAKE DUCT RH	*4	RADIATOR BRACE ROD SUB-ASSEMBLY
*5	FRONT BUMPER SIDE SUPPORT	*6	NO. 1 COOL AIR INTAKE DUCT
*7	BOTTOM COOLER MODULE MOUNT	*8	FRONT BUMPER REINFORCEMENT
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



ILLUSTRATION



*1	FRONT BUMPER LOWER SIDE SUPPORT LH	*2	FRONT BUMPER LOWER SIDE SUPPORT RH
*3	LOWER FRONT BUMPER REINFORCEMENT	*4	IMPACT ABSORBER
*5	RIVET	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT BUMPER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

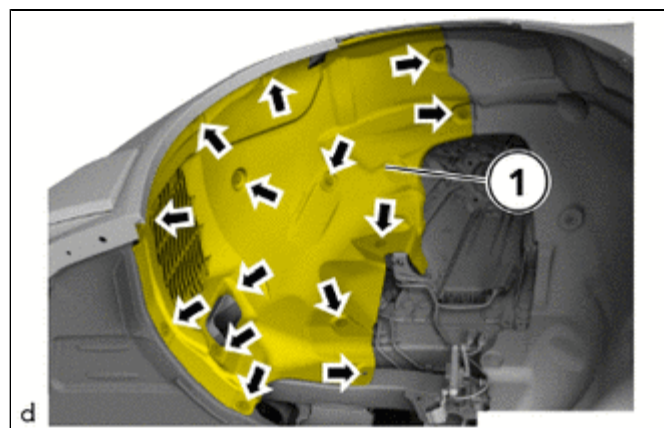
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER LH

(a) Remove the screws (arrows) and front fender liner LH (1).



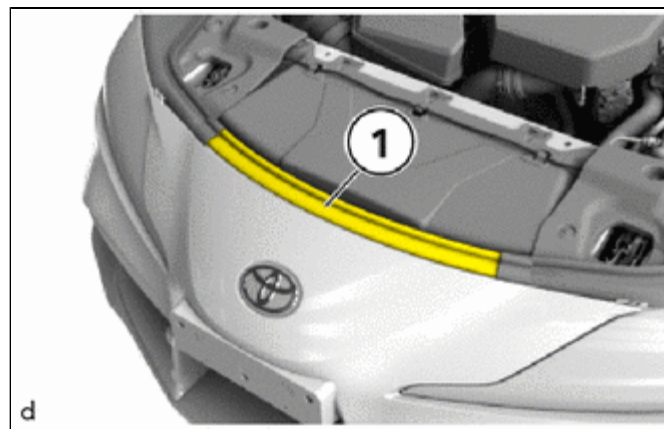
3. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

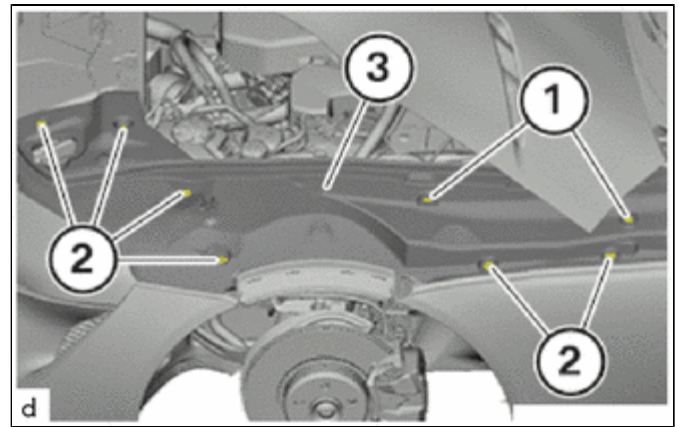
4. REMOVE HOOD TO RADIATOR SUPPORT SEAL

(a) Remove the hood to radiator support seal (1).



5. REMOVE FRONT FENDER UPPER PROTECTOR LH

(a) Remove the clips (1) and clips (2).



(b) Remove the front fender upper protector LH (3).

6. REMOVE FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

7. REMOVE FRONT BUMPER ASSEMBLY

(a) Apply protective tape as shown in the illustration.

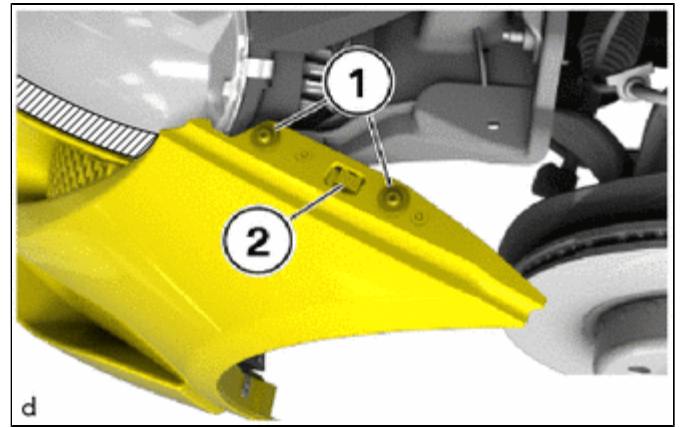


Protective Tape

(b) Remove the T20 screws (1).

HINT:

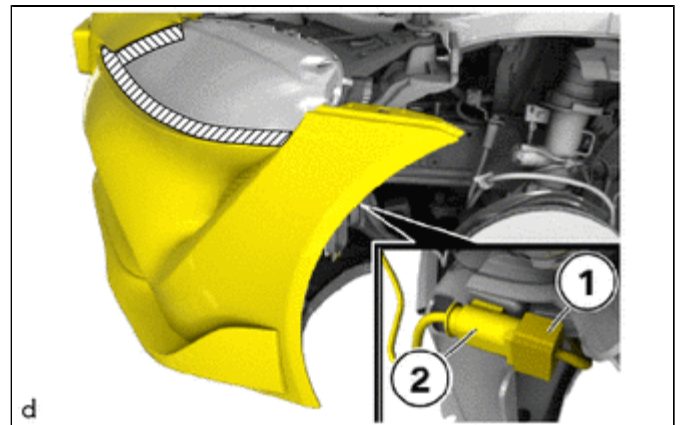
Perform the operations on the left and right side.



(c) Disengage front bumper assembly from the clamp (2).

HINT:

Perform the operations on the left and right side.



(d) Disconnect the connector (1).

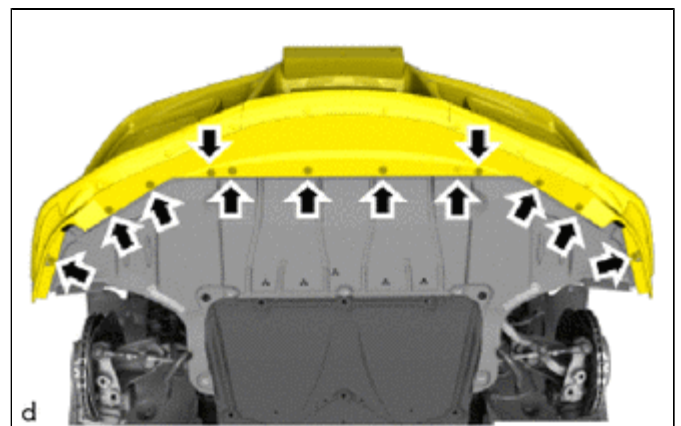
HINT:

Perform the operations on the left and right side.

(e) Disengage the clamp (2).

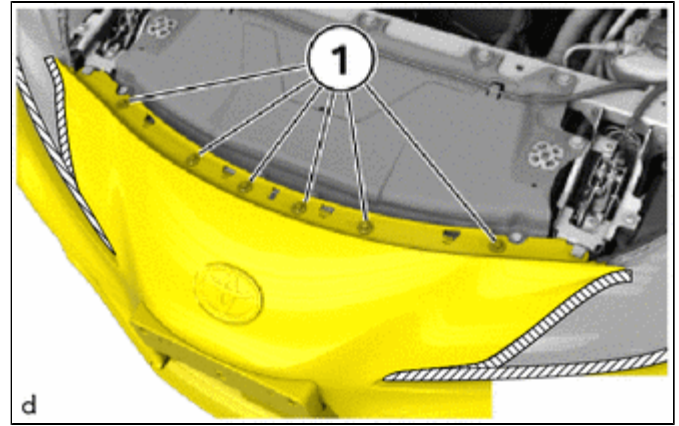
HINT:

Perform the operations on the left and right side.

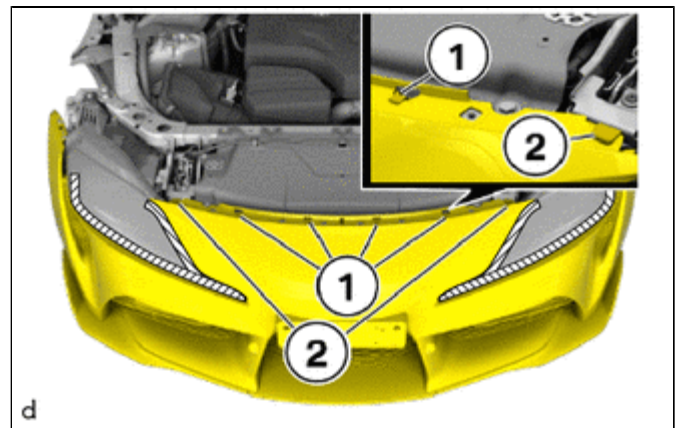


(f) Remove the screws (arrows) on the front bumper assembly.

(g) Remove the bolts (1).



(h) Disengage the clamps (1).



(i) Disengage the guides (2) to remove the front bumper assembly.

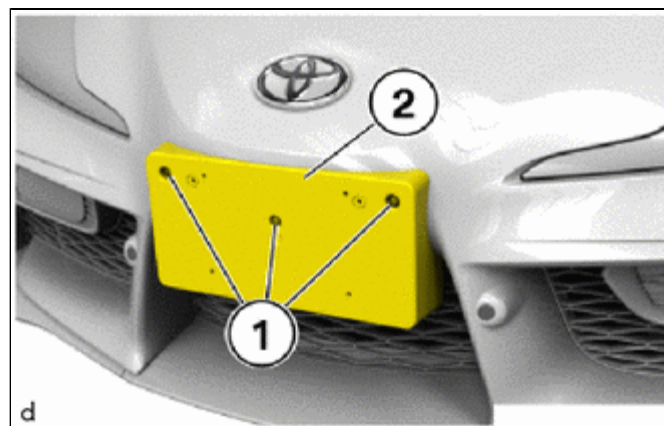
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCML
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT BUMPER: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE FRONT BUMPER EXTENSION MOUNTING BRACKET

- (a) Remove the screws (1) and front bumper extension mounting bracket (2).



2. REMOVE FRONT BUMPER EMBLEM SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT CORNER ULTRASONIC SENSOR

Click here [INFO](#)

4. REMOVE FRONT CENTER ULTRASONIC SENSOR

HINT:

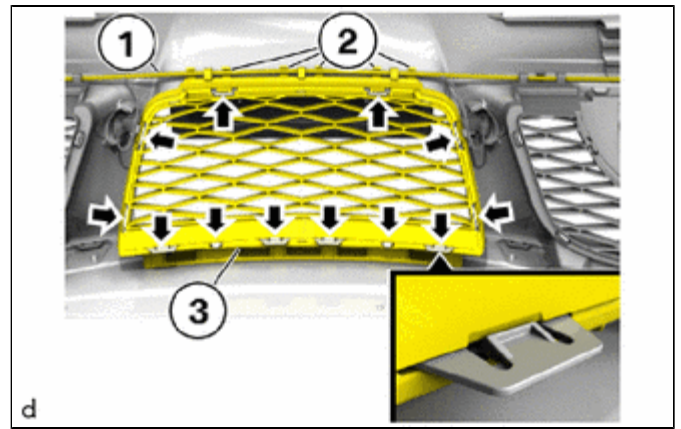
Use the same procedure as for the front corner ultrasonic sensor.

5. REMOVE FRONT SIDE ULTRASONIC SENSOR

Click here [INFO](#)

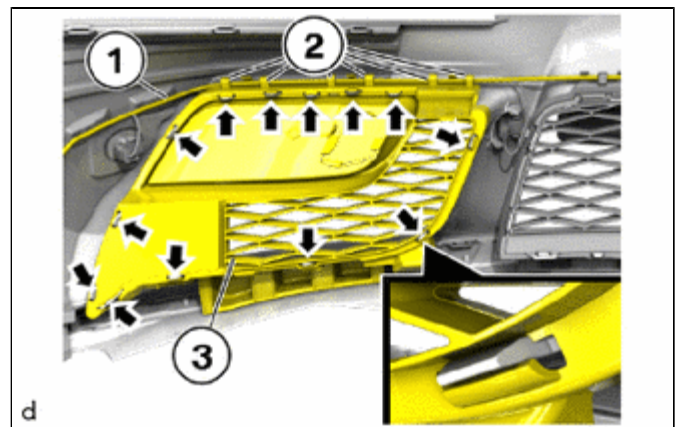
6. REMOVE LOWER NO. 1 RADIATOR GRILLE

- (a) Disconnect the No. 4 engine room wire (1) from the guides (2) on the lower No. 1 radiator grille (3).



(b) Disengage the claws to remove the lower No. 1 radiator grille (3).

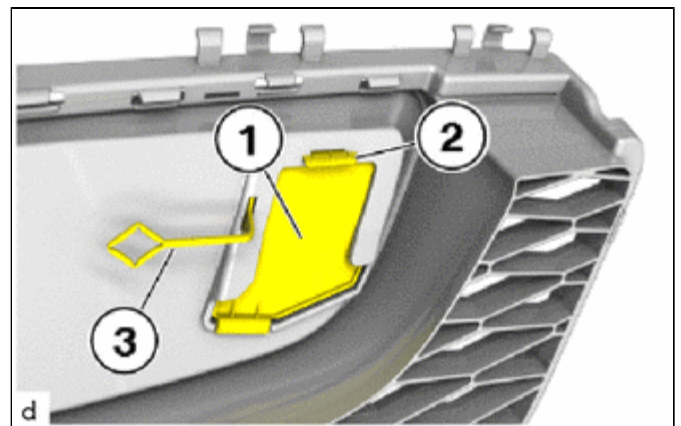
7. REMOVE LOWER RADIATOR GRILLE LH



(a) Disconnect the No. 4 engine room wire (1) from the guides (2) on the lower radiator grille LH (3).

(b) Disengage the claws to remove the lower radiator grille LH (3).

8. REMOVE FRONT BUMPER HOLE COVER



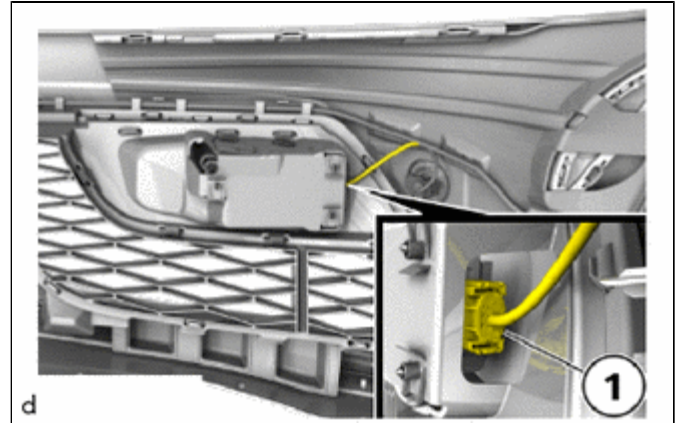
(a) Disengage the claw (2).

(b) Disengage the hook (3) to remove the front bumper hole cover (1).

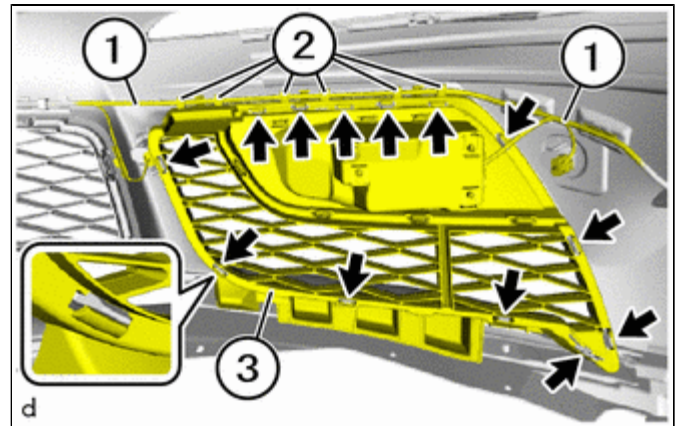
9. REMOVE LOWER RADIATOR GRILLE RH

(a) w/ Toyota Supra Safety:

(1) Disconnect the connector (1).



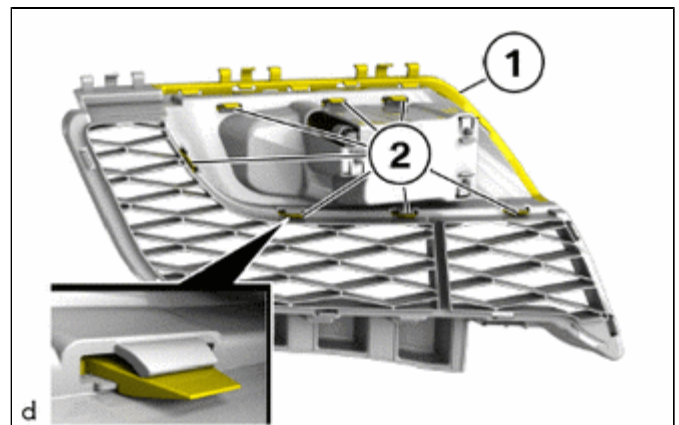
(b) Disconnect No. 4 engine room wire (1) from the guides (2) on the lower radiator grille RH (3).



(c) Disengage the claws to remove the lower radiator grille RH (3).

10. REMOVE LOWER SIDE RADIATOR GRILLE RH

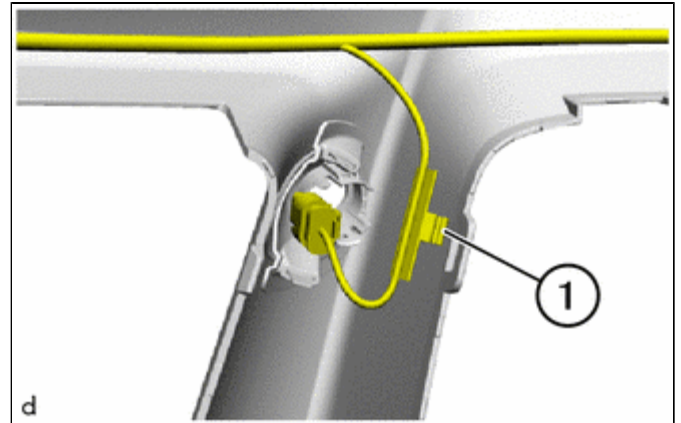
(a) Disengage the claws (2) to remove the lower side radiator grille RH (1).



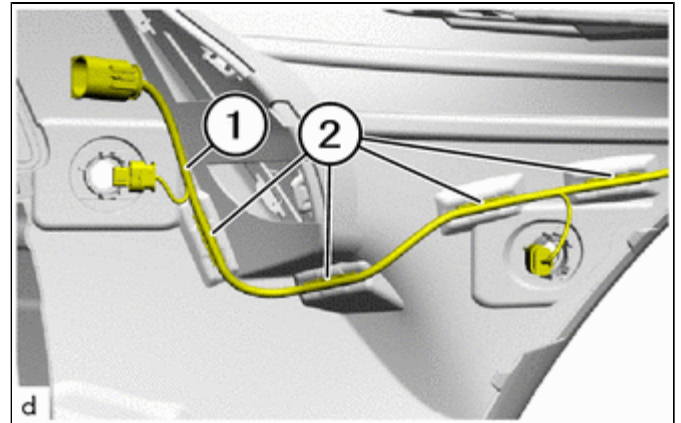
11. REMOVE MILLIMETER WAVE RADAR SENSOR (w/ Toyota Supra Safety)

12. REMOVE FRONT BUMPER SIDE RETAINER LH

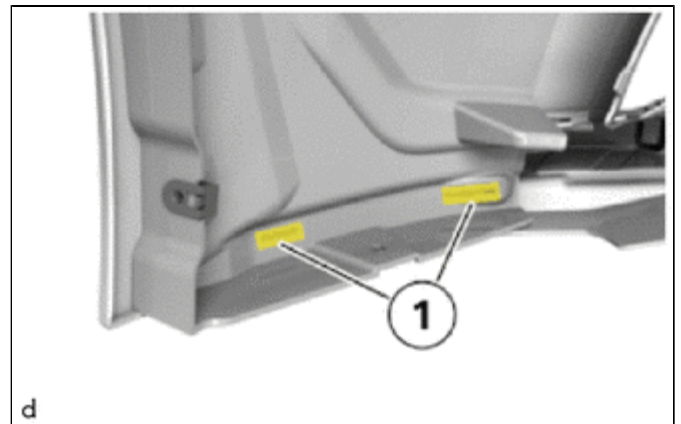
(a) Disengage the clamp (1).



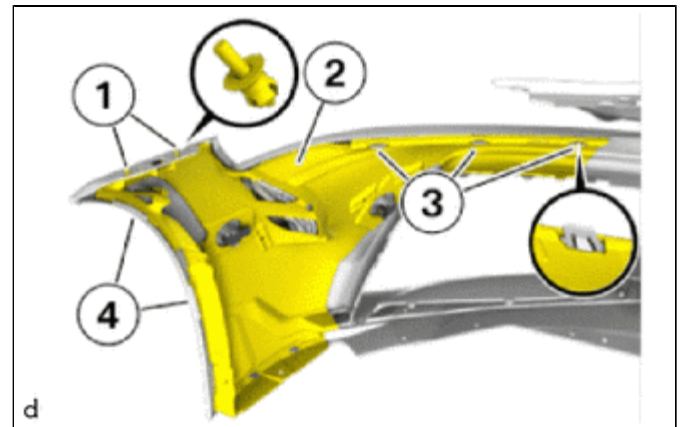
(b) Disengage the clamps (2) to disconnect the No. 4 engine room wire (1).



(c) Disengage the welded connections (1).



(d) Remove the clips (1).



(e) Disengage the claws (3).

(f) Feed out and remove the front bumper side retainer LH (2) towards the inside on the guides (4).

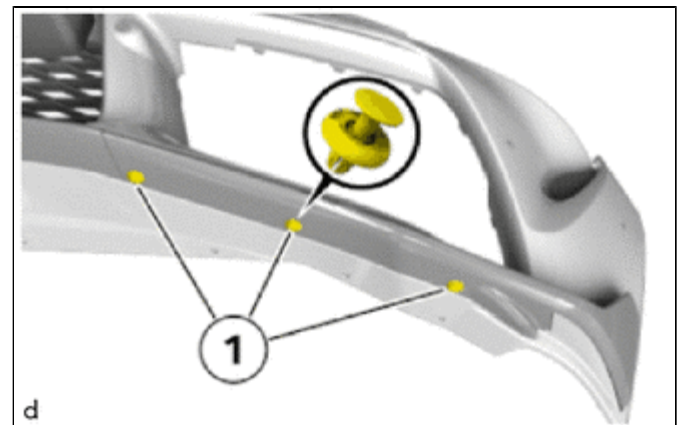
13. REMOVE FRONT BUMPER SIDE RETAINER RH

HINT:

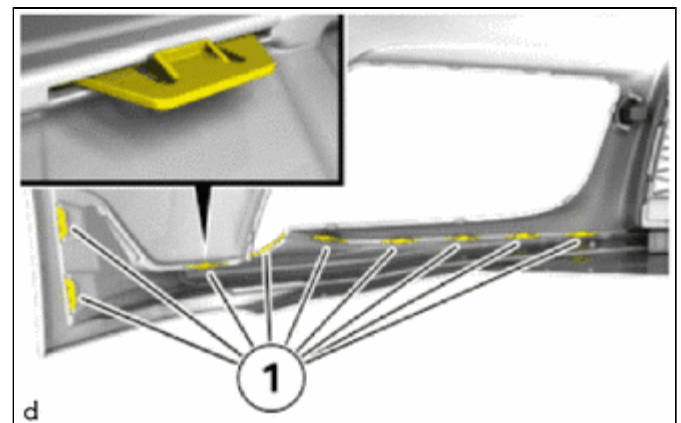
Use the same procedure as for the LH side.

14. REMOVE FRONT SIDE SPOILER LH

(a) Remove the clips.



(b) Disengage the claws (1) to remove the front side spoiler LH.



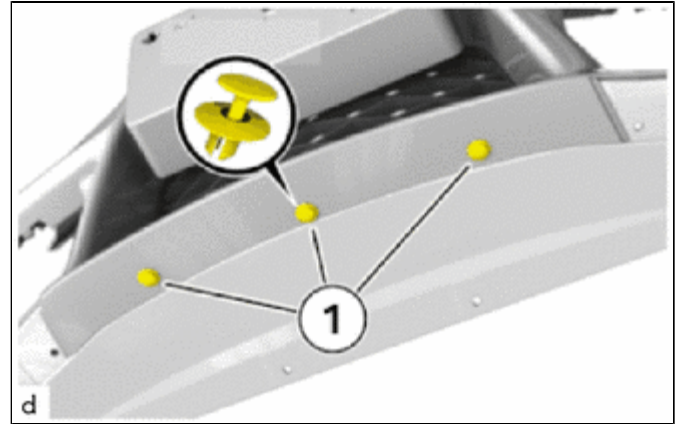
15. REMOVE FRONT SIDE SPOILER RH

HINT:

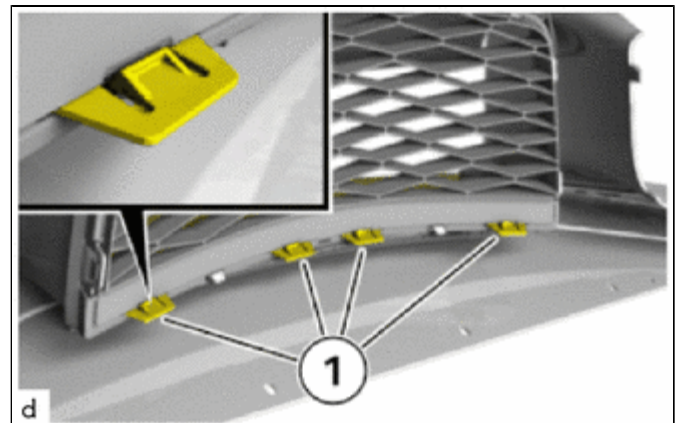
Use the same procedure as for the LH side.

16. REMOVE FRONT SPOILER SUB-ASSEMBLY

(a) Remove the clips (1).

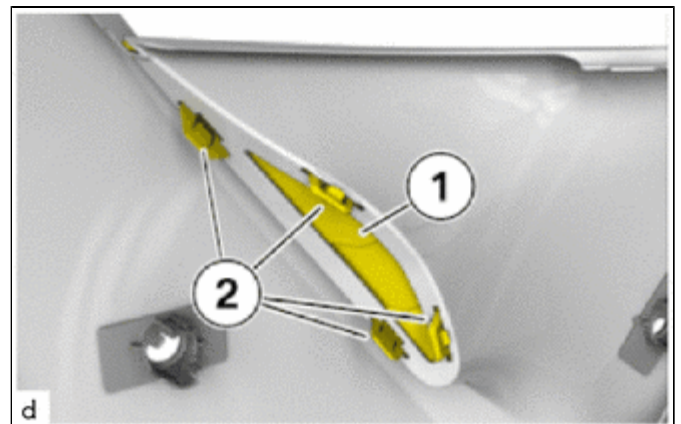


(b) Disengage the claws (1) to remove the front spoiler sub-assembly.



17. REMOVE COOL AIR INTAKE GRILLE LH

(a) Disengage the claws (2) to remove the cool air intake grille LH (1).



18. REMOVE COOL AIR INTAKE GRILLE RH

HINT:

Use the same procedure as for the LH side.

19. REMOVE REFLEX REFLECTOR ASSEMBLY LH

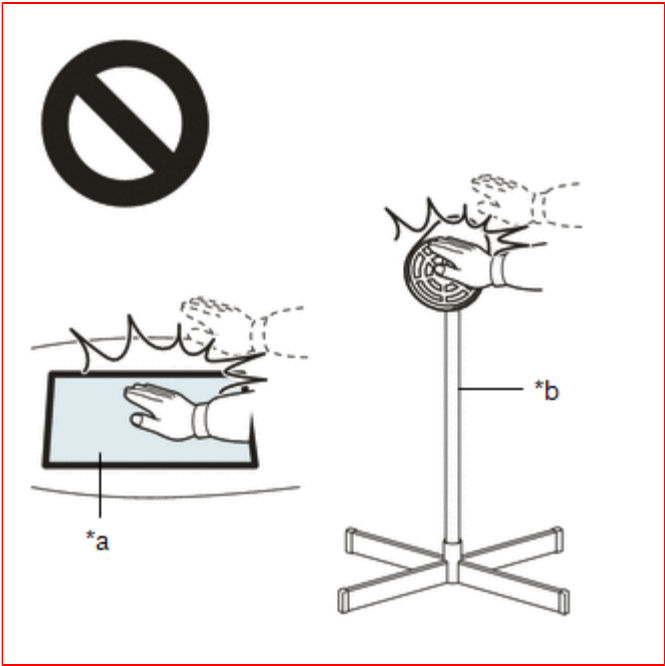
HINT:

When removing the reflex reflector assembly LH, heat the reflex reflector assembly LH using a heat light.

Standard:

ITEM	TEMPERATURE
Reflex Reflector Assembly LH	40 to 50 °C (104 to 122 °F)

CAUTION:



- Touching heated parts for a long time may result in burns.

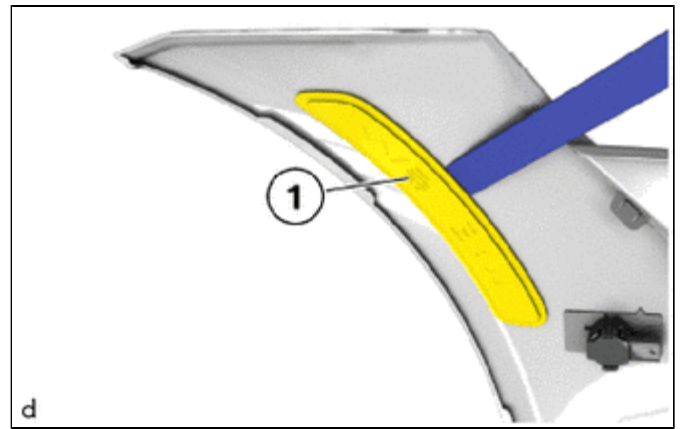
*a	Heated Part
*b	Heat Light

- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the reflex reflector assembly LH excessively.

(a) Using a moulding remover A, remove the reflex reflector assembly LH (1).



20. REMOVE REFLEX REFLECTOR ASSEMBLY RH

HINT:

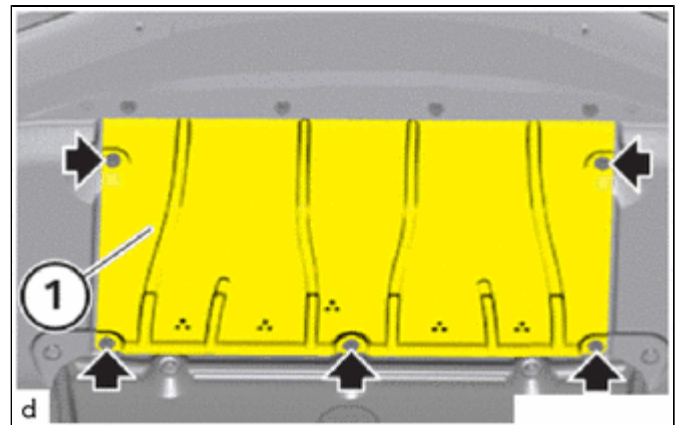
Use the same procedure as for the LH side.

21. REMOVE NO. 1 ULTRASONIC SENSOR RETAINER

Click here [INFO](#)

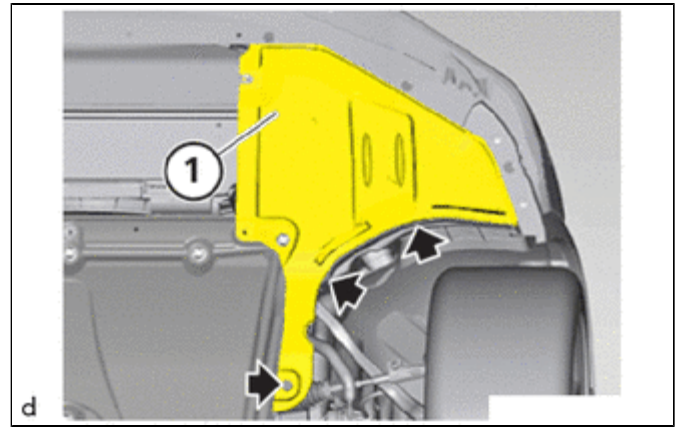
22. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

- (a) Remove the screws (arrows) and No. 1 engine under cover assembly (1).



23. REMOVE FRONT FENDER FRONT SPLASH SHIELD LH

- (a) Remove the screws (arrows) and front fender front splash shield LH (1).



24. REMOVE FRONT FENDER FRONT SPLASH SHIELD RH

HINT:

Use the same procedure as for the LH side.

25. REMOVE HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

26. REMOVE HEADLIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

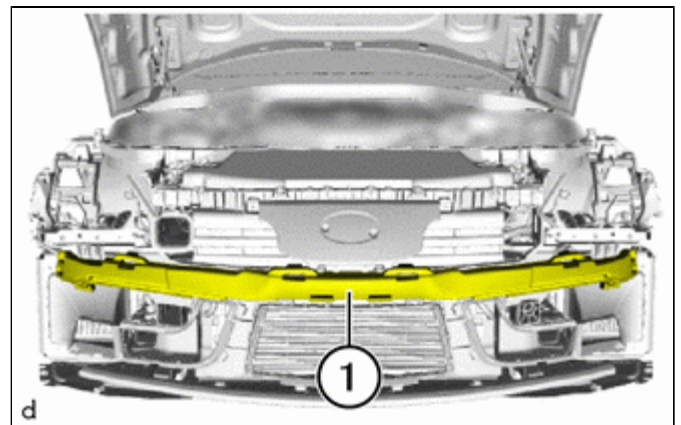
27. REMOVE HIGH PITCHED HORN ASSEMBLY

Click here [INFO](#)

28. REMOVE FRONT BUMPER ENERGY ABSORBER

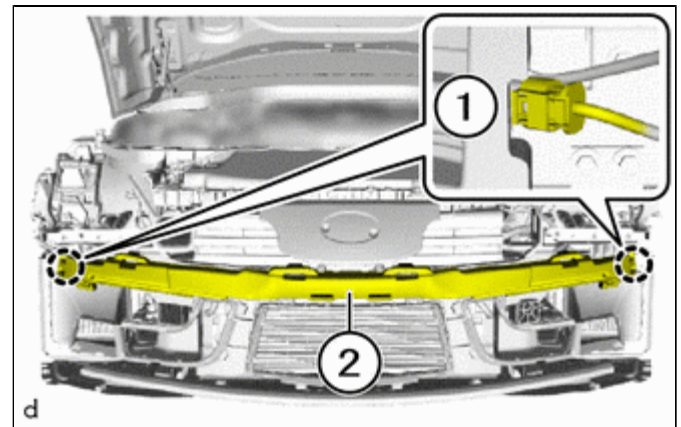
(a) w/o Pedestrian detection chamber assembly:

(1) Remove the front bumper energy absorber (1).



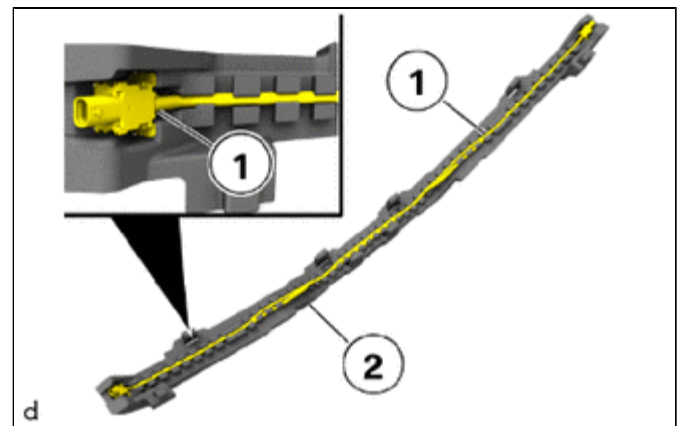
(b) w/ Pedestrian detection chamber assembly:

(1) Disconnect the connectors (1).



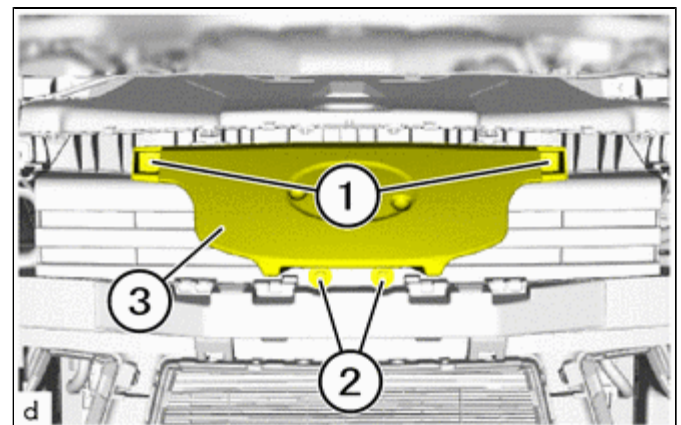
(2) Remove the front bumper energy absorber with pedestrian detection chamber assembly (2).

(3) Remove the pedestrian detection chamber assembly (1) from front bumper energy absorber (2).



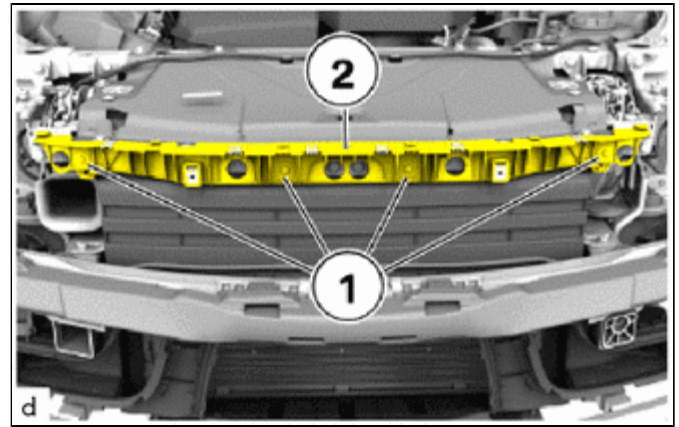
29. REMOVE FRONT BUMPER INNER SUPPORT

(a) Remove the T30 bolts (1), bolts (2) and front bumper inner support (3).



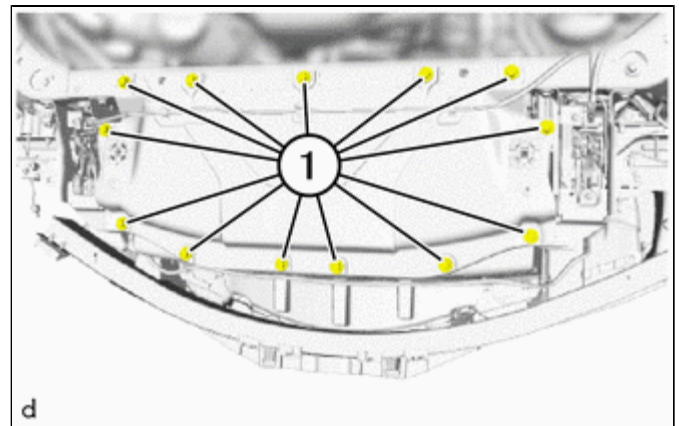
30. REMOVE FRONT BUMPER UPPER RETAINER

(a) Remove the bolts (1) and front bumper upper retainer (2).

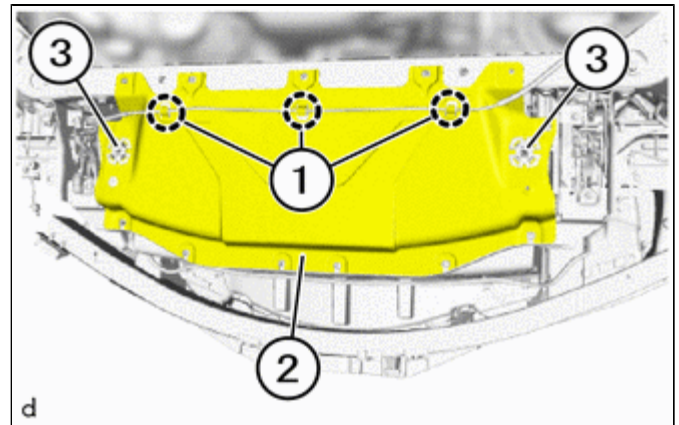


31. REMOVE RADIATOR UPPER AIR DEFLECTOR

(a) Remove the bolts (1).



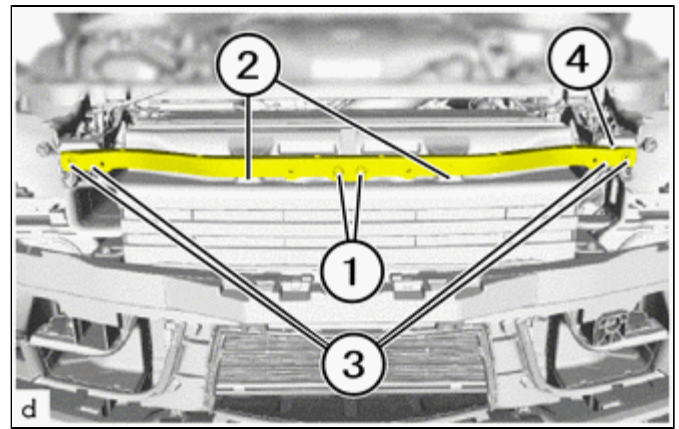
(b) Disconnect the hood lock control cable assembly from the guides(1).



(c) Disengage guides (3) to remove the radiator upper air deflector (2).

32. REMOVE FRONT CROSSMEMBER

(a) Remove the T50 bolts (1) and T30 bolts (2).



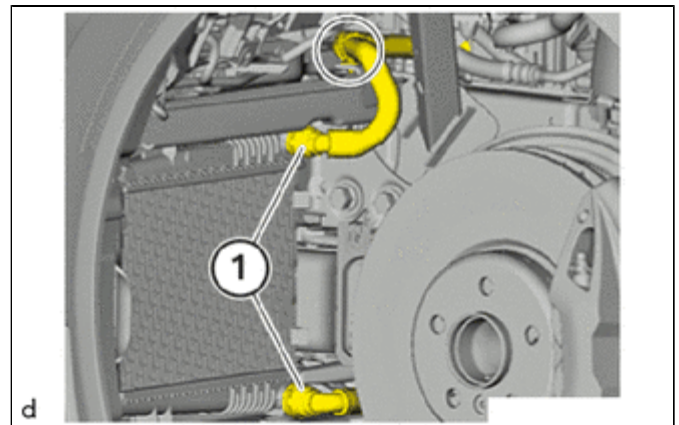
(b) Remove the bolts (3) and front crossmember (4).

33. REMOVE SUB RADIATOR SUPPORT (for LH Side)

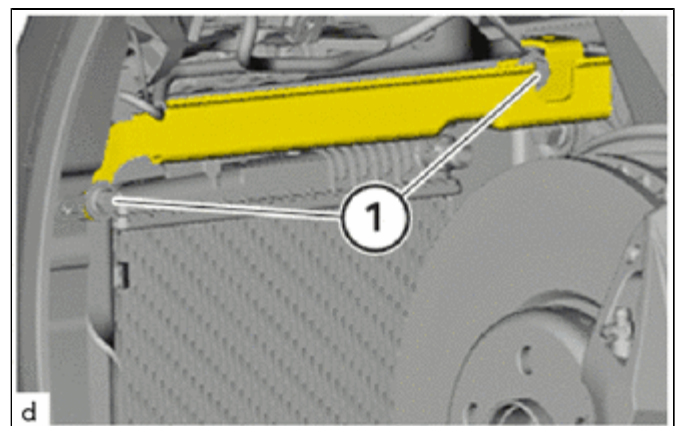
(a) Disengage the clip in the marked area.

NOTICE:

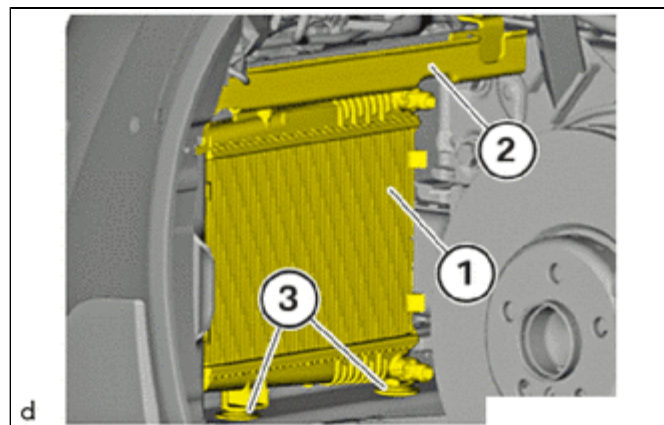
Do not disengage the No.3 radiator hose (1) and radiator hose sub-assembly (1).



(b) Remove the T45 bolts (1).



(c) Remove the front bumper reinforcement support LH (2) to separate the sub radiator (1).

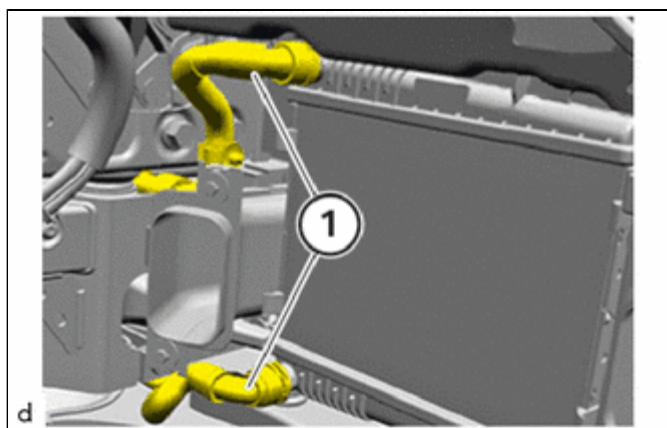


(d) Carefully remove the sub radiator support (3) from the body.

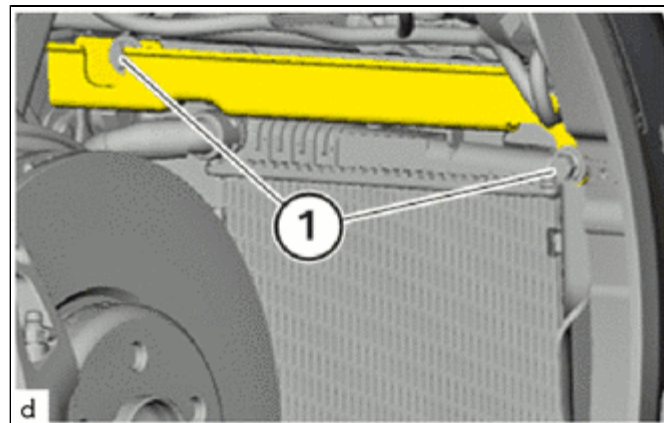
34. REMOVE SUB RADIATOR SUPPORT (for RH Side)

NOTICE:

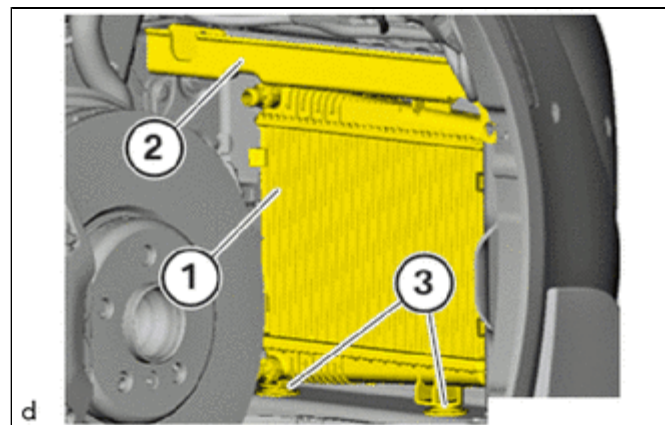
Do not disengage the No.1 radiator hose (1) and radiator hose sub-assembly (1).



(a) Remove the T45 bolts (1).



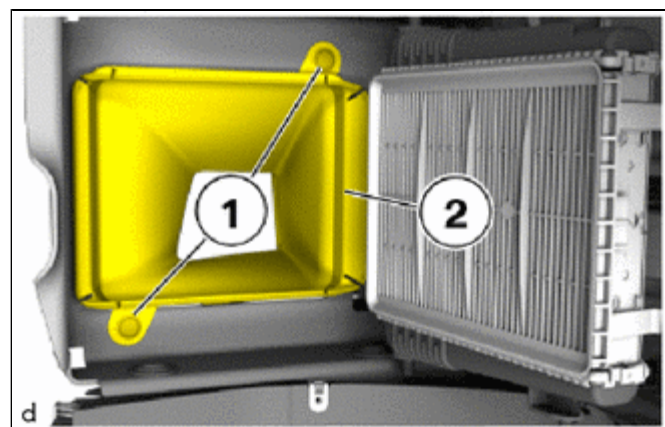
(b) Remove the front bumper reinforcement support RH (2) to separate the sub radiator (1).



(c) Carefully remove the sub radiator support (3) from the body.

35. REMOVE SUB RADIATOR AIR DUCT LH

(a) Remove the clips (1) and sub radiator air duct LH (2).



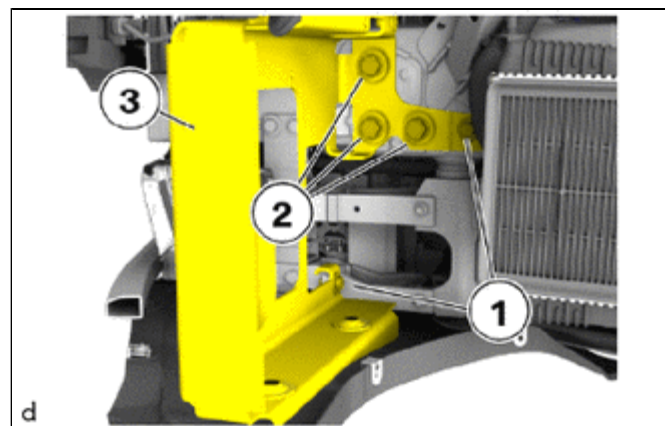
36. REMOVE SUB RADIATOR AIR DUCT RH

HINT:

Use the same procedure as for the LH side.

37. REMOVE FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY LH

(a) Remove the T45 bolts (1).



- (b) Using a deep socket wrench 18 mm, remove the 18 mm bolts (2) and front bumper reinforcement sub-assembly LH (3).

38. REMOVE FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY RH

HINT:

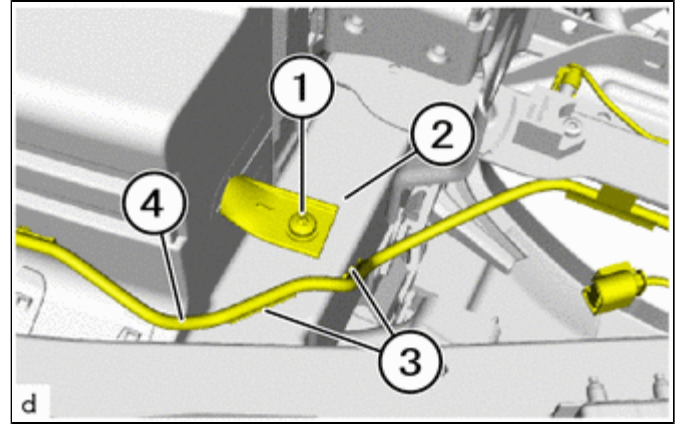
Use the same procedure as for the LH side.

39. REMOVE FRONT BUMPER REINFORCEMENT

- (a) Remove the T30 bolt (1) to disengage the radiator brace rod sub-assembly (2).

HINT:

Perform the operations on the left and right side.

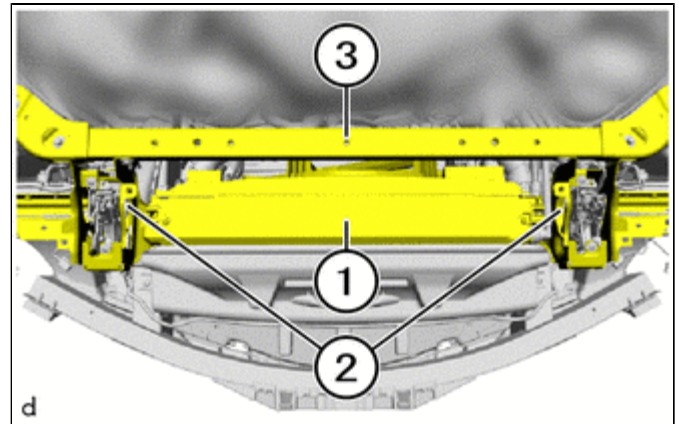


- (b) Disengage the clamps (3) to disconnect the No. 4 engine room wire (4).

HINT:

Perform the operations on the left and right side.

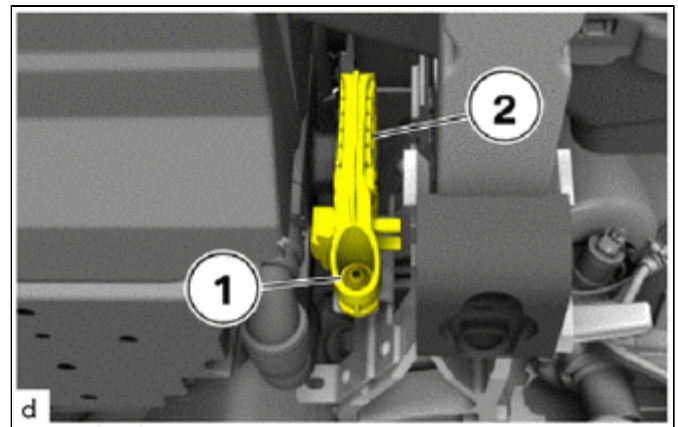
- (c) Secure radiator assembly (1) on the radiator support (2) and the upper radiator support sub-assembly (3) with suitable auxiliary materials.



- (d) Remove the T30 bolt (1) and bottom cooler module mount (2).

HINT:

Perform the operations on the left and right side.

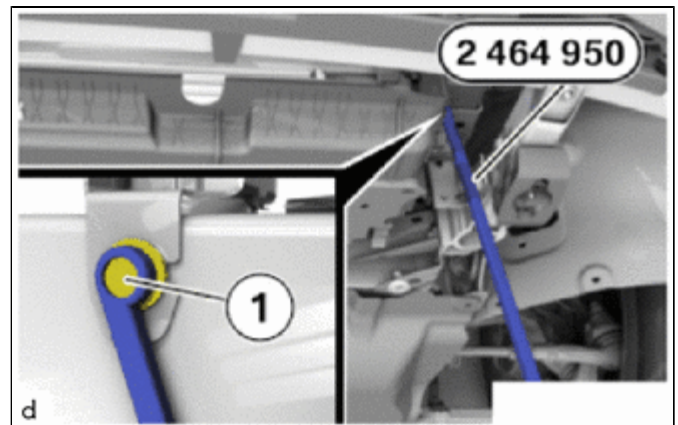


(e) Loosen bolt (1) with the special tool 2 464 950 a few revolutions.

SST: 09800-WA310

HINT:

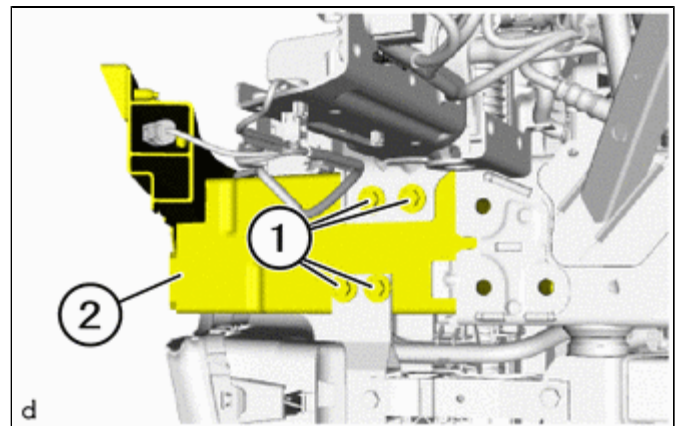
- Guide through the special tool from below, between the radiator assembly (1) and the support for the front bumper.
- Perform the operations on the left and right side.



(f) Remove the bolts (1).

HINT:

Perform the operations on the left and right side.



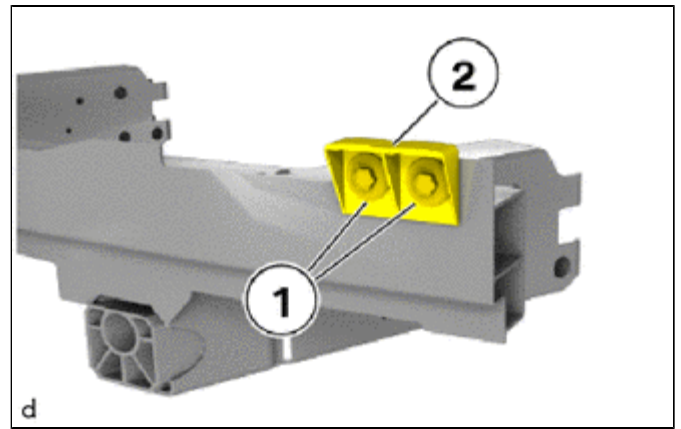
(g) Remove the front bumper reinforcement (2) toward the front.

40. REMOVE FRONT BUMPER SIDE SUPPORT

HINT:

Description is for left component only. Procedure on the right side is identical.

- (a) Remove the T30 bolts (1) and front bumper side support (2).



41. REMOVE AIR INTAKE DUCT LH

Click here [INFO](#)

42. REMOVE AIR INTAKE DUCT RH

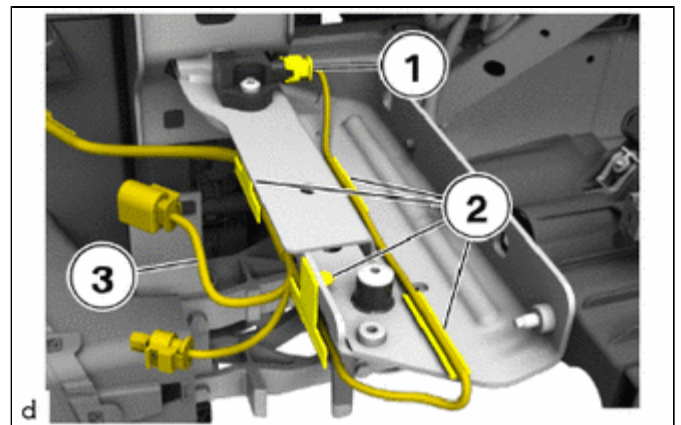
Click here [INFO](#)

43. REMOVE TEMPERATURE SENSOR ASSEMBLY

Click here [INFO](#)

44. REMOVE NO. 1 COOL AIR INTAKE DUCT

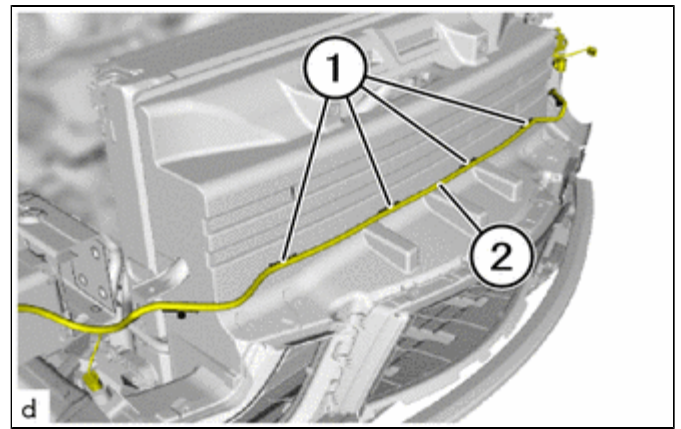
- (a) w/ Airbag Sensor:



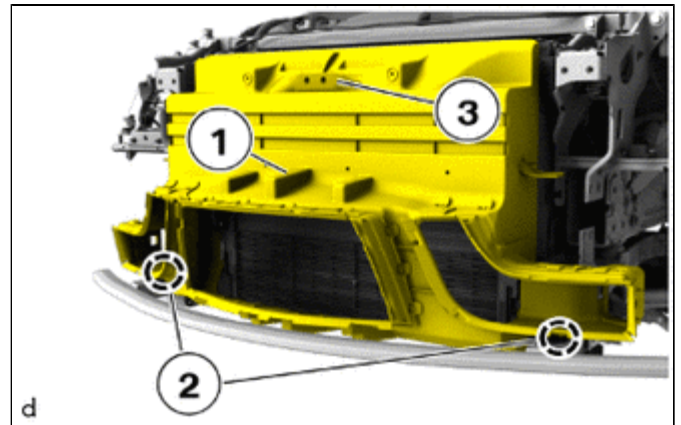
- (1) Disconnect the connector (1).

- (b) Disengage the clamps (2) to disconnect the No. 4 engine room wire (3).

- (c) Disengage the clamps (1) to disconnect the No. 4 engine room wire (2).

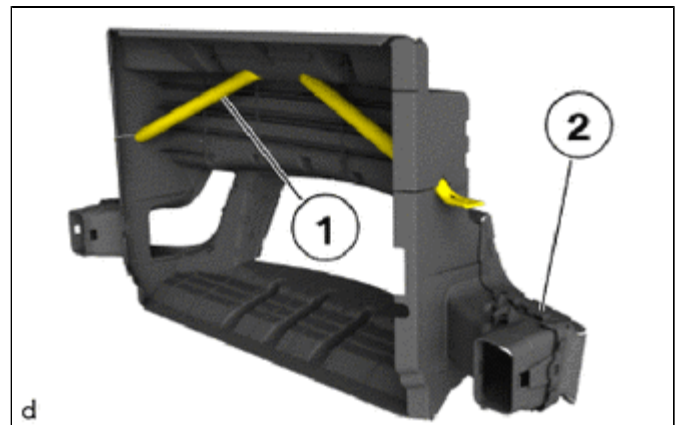


(d) Disengage the guides (2) to remove the No. 1 cool air intake duct (1).



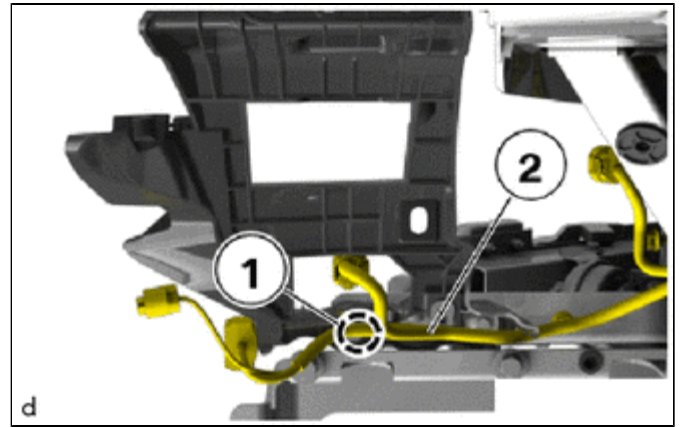
45. REMOVE RADIATOR BRACE ROD SUB-ASSEMBLY

(a) Remove the radiator brace rod sub-assembly (1) out of the No. 1 cool air intake duct (2).

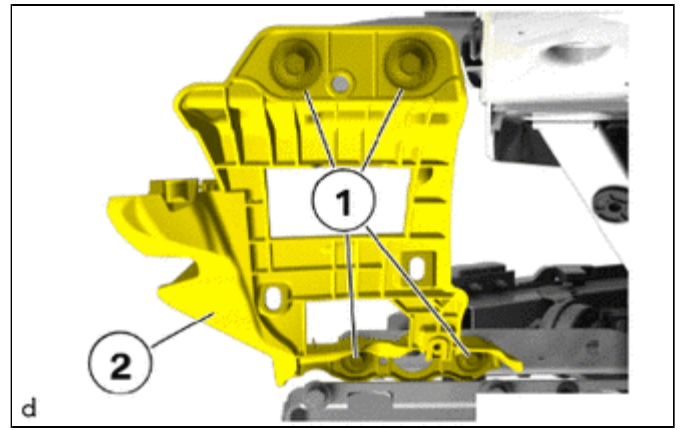


46. REMOVE FRONT BUMPER RETAINER LH

(a) Disengage the clamp (1) to disconnect the No. 4 engine room wire (2).



(b) Remove the bolts (1) and front bumper retainer LH (2).



47. REMOVE FRONT BUMPER RETAINER RH

HINT:

Use the same procedure as for the LH side.

48. REMOVE ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

Click here [INFO](#)

49. REMOVE HOOD LOCK ASSEMBLY

Click here [INFO](#)

50. REMOVE AIR CLEANER ASSEMBLY

Click here [INFO](#)

51. REMOVE INLET NO. 2 AIR DUCT

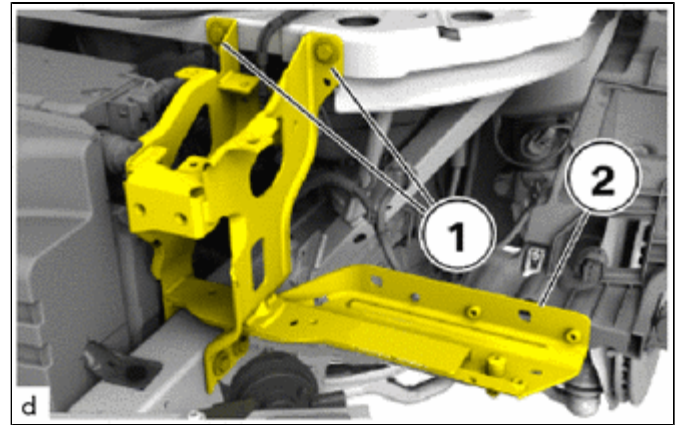
Click here [INFO](#)

52. REMOVE AIRBAG SENSOR (w/ Airbag Sensor)

Click here [INFO](#)

53. REMOVE RADIATOR SUPPORT LH

(a) Remove the bolts (1) and radiator support LH (2).



54. REMOVE RADIATOR SUPPORT RH

HINT:

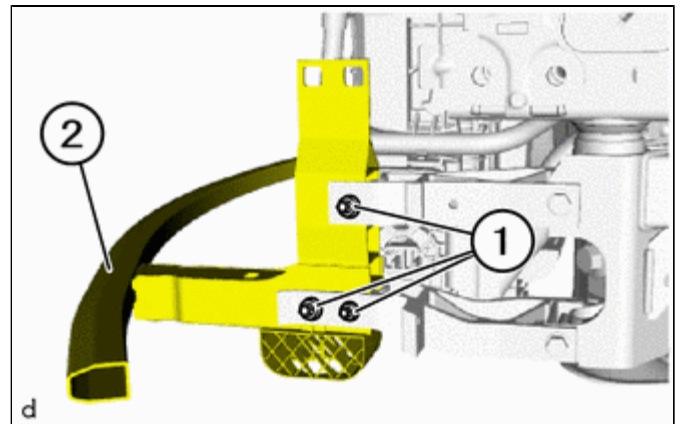
Use the same procedure as for the LH side.

55. REMOVE LOWER FRONT BUMPER REINFORCEMENT

(a) Remove the E10 bolts (1).

HINT:

Perform the operations on the left and right side.

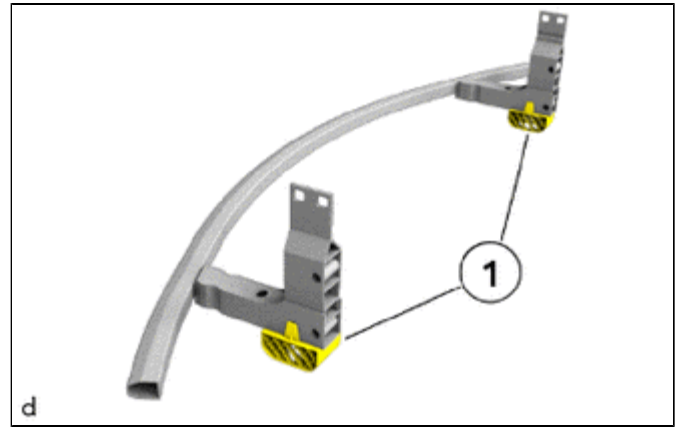


(b) Remove the lower front bumper reinforcement (2) to the bottom.

56. REMOVE IMPACT ABSORBER

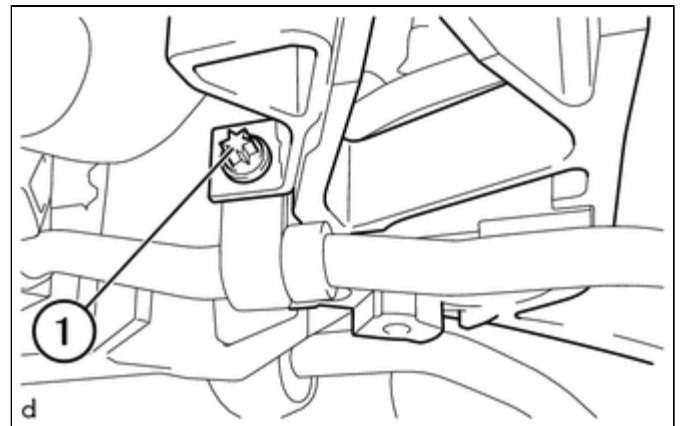
(a) Drill out the blind rivet.

(b) Remove both impact absorbers (1).

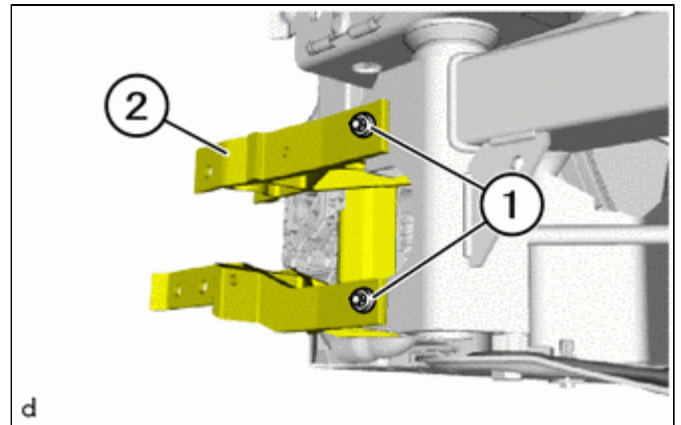


57. REMOVE FRONT BUMPER LOWER SIDE SUPPORT LH

(a) Remove the E8 bolt (1).



(b) Remove the E10 bolts (1) and front bumper lower side support LH (2).



58. REMOVE FRONT BUMPER LOWER SIDE SUPPORT RH

HINT:

Use the same procedure as for the LH side.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT BUMPER: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

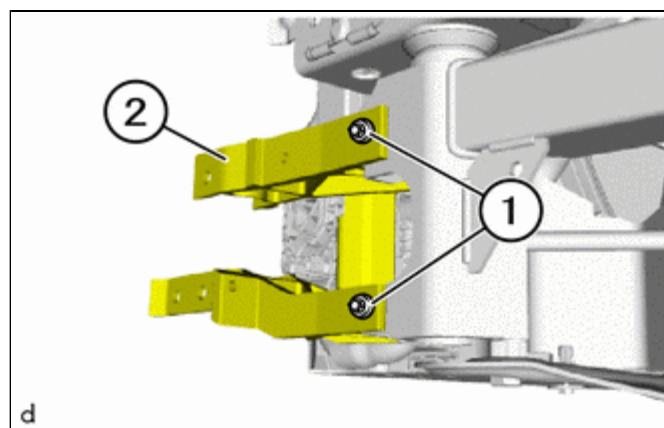
PROCEDURE

1. INSTALL FRONT BUMPER LOWER SIDE SUPPORT LH

- (a) Install the front bumper lower side support LH (2) with E10 bolts (1).

Torque:

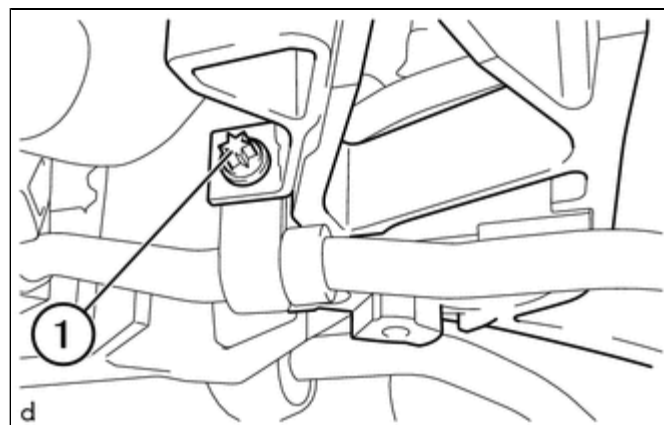
19 N·m {194 kgf·cm, 14 ft·lbf}



- (b) Install the E8 bolt (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



2. INSTALL FRONT BUMPER LOWER SIDE SUPPORT RH

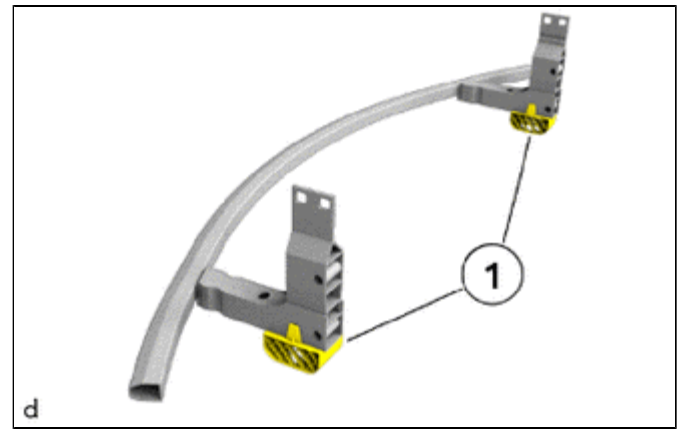
HINT:

Use the same procedure as for the LH side.

3. INSTALL IMPACT ABSORBER

- (a) Replace the blind rivet.

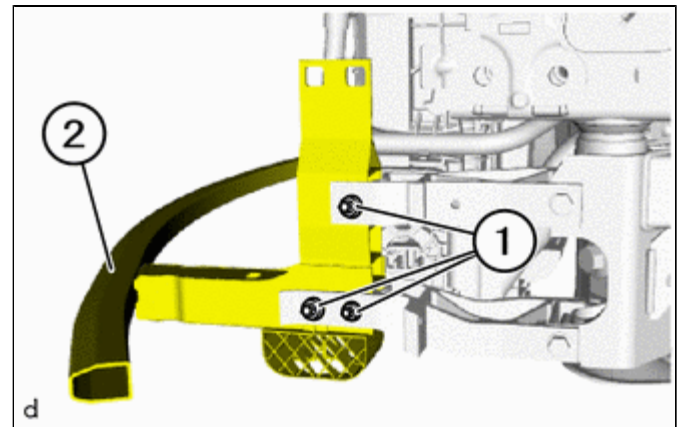
(b) Set the impact absorbers (1).



(c) Mount blind rivets.

4. INSTALL LOWER FRONT BUMPER REINFORCEMENT

(a) Install the lower front bumper reinforcement (2).



(b) Install the E10 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

HINT:

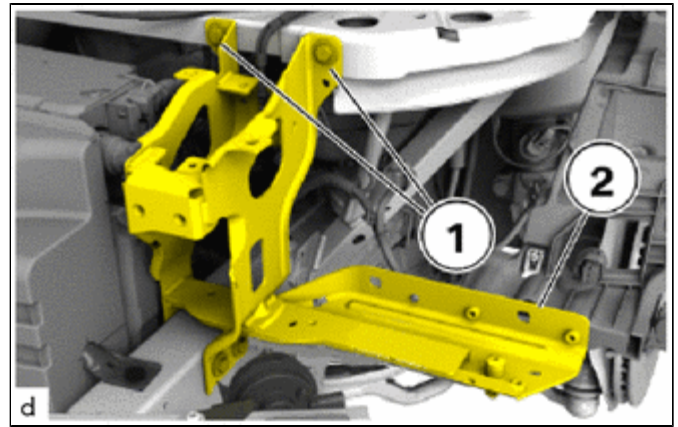
Perform the operations on the left and right side.

5. INSTALL RADIATOR SUPPORT LH

(a) Install the radiator support LH (2) with bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



6. INSTALL RADIATOR SUPPORT RH

HINT:

Use the same procedure as for the LH side.

7. INSTALL AIRBAG SENSOR (w/ Airbag Sensor)

Click here [INFO](#)

8. INSTALL INLET NO. 2 AIR DUCT

Click here [INFO](#)

9. INSTALL AIR CLEANER ASSEMBLY

Click here [INFO](#)

10. INSTALL ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

Click here [INFO](#)

11. INSTALL HOOD LOCK ASSEMBLY

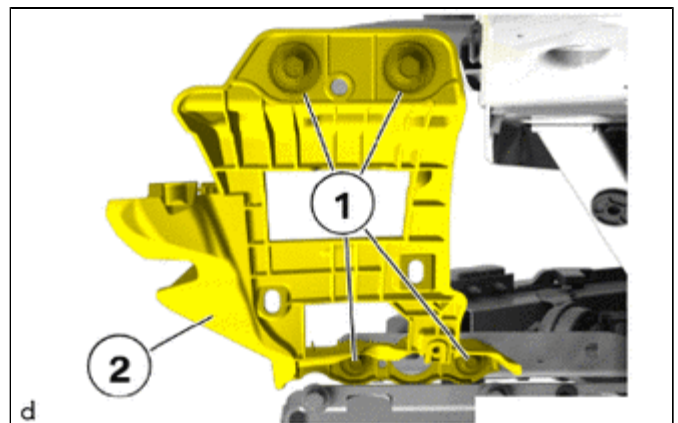
Click here [INFO](#)

12. INSTALL FRONT BUMPER RETAINER LH

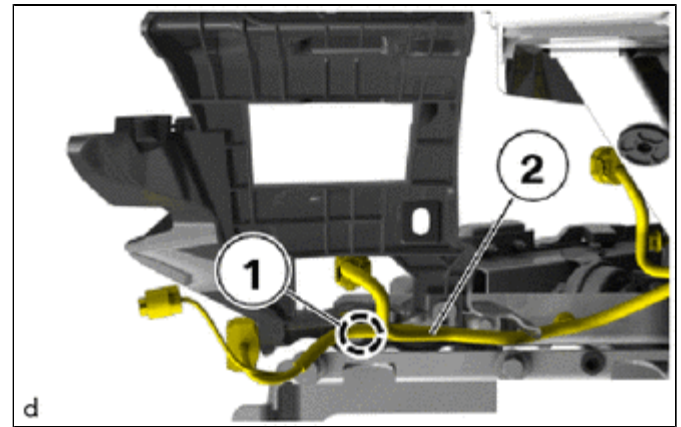
(a) Install the front bumper retainer LH (2) with bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



- (b) Engage the clamp (1) to connect the No. 4 engine room wire (2).



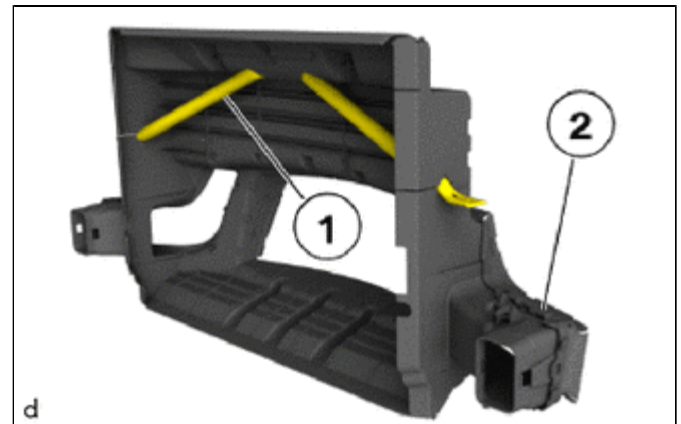
13. INSTALL FRONT BUMPER RETAINER RH

HINT:

Use the same procedure as for the LH side.

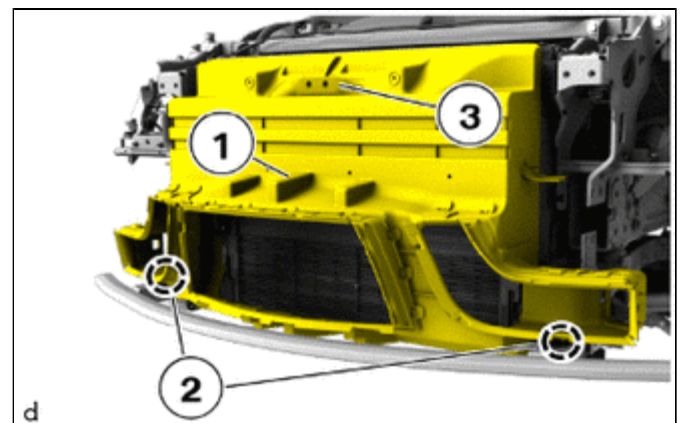
14. INSTALL RADIATOR BRACE ROD SUB-ASSEMBLY

- (a) Install the radiator brace rod sub-assembly (1) into the No. 1 cool air intake duct (2).

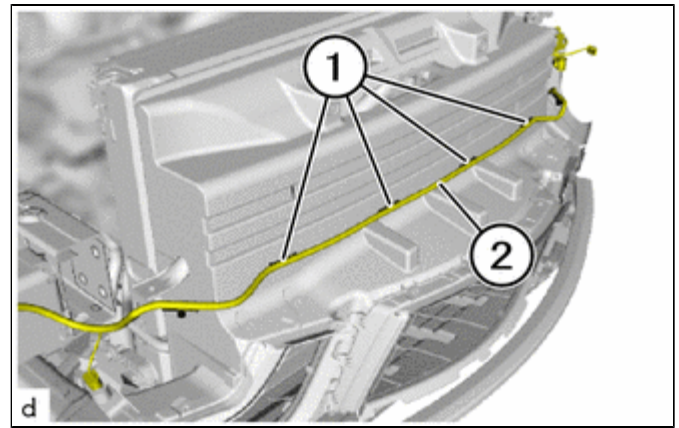


15. INSTALL NO. 1 COOL AIR INTAKE DUCT

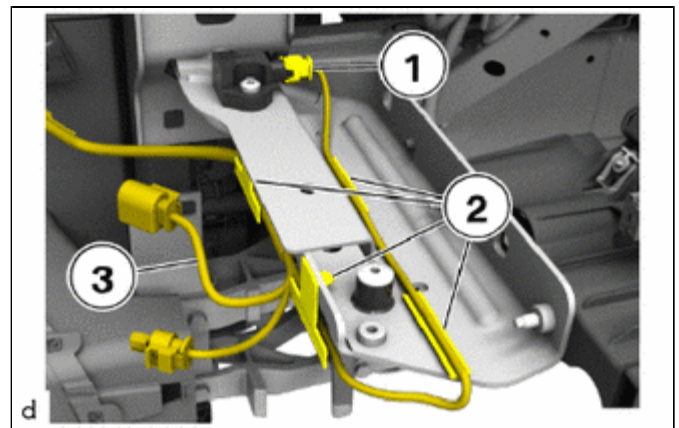
- (a) Install the No. 1 cool air intake duct (1) together with the radiator brace rod sub-assembly (3) into the guides (2) and position.



(b) Engage the clamps (1) to connect the No. 4 engine room wire (2).



(c) Engage the clamps (2) to connect the No. 4 engine room wire (3).



(d) w/ Airbag Sensor:

(1) Connect the connector (1).

16. INSTALL TEMPERATURE SENSOR ASSEMBLY

Click here [INFO](#)

17. INSTALL AIR INTAKE DUCT LH

Click here [INFO](#)

18. INSTALL AIR INTAKE DUCT RH

Click here [INFO](#)

19. INSTALL FRONT BUMPER SIDE SUPPORT

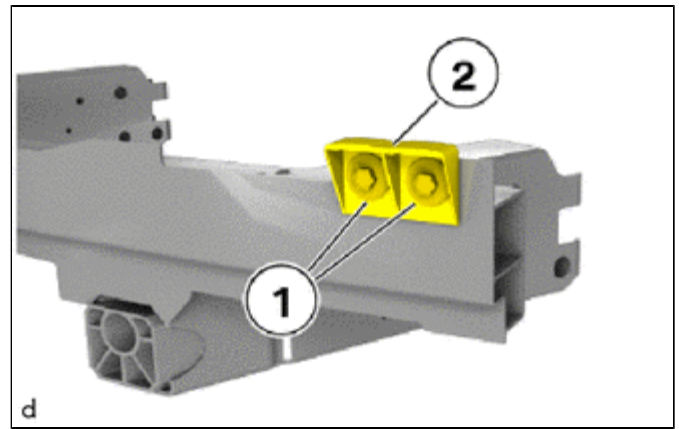
HINT:

Description is for left component only. Procedure on the right side is identical.

- (a) Install the front bumper side support (2) with the T30 bolts (1).

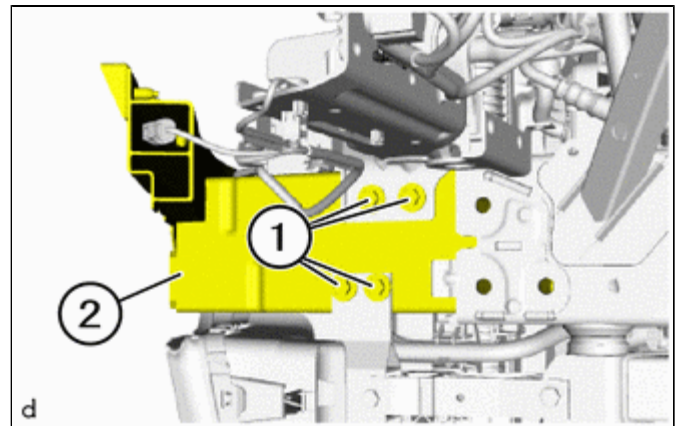
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



20. INSTALL FRONT BUMPER REINFORCEMENT

- (a) Install the front bumper reinforcement (2).



- (b) Install the bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

HINT:

Perform the operations on the left and right side.

- (c) Tighten the bolt (1) with special tool 2 464 950 and SST, a torque wrench.

SST: 09800-WA310

SST: 09900-WA280

Torque:

Specified tightening torque :

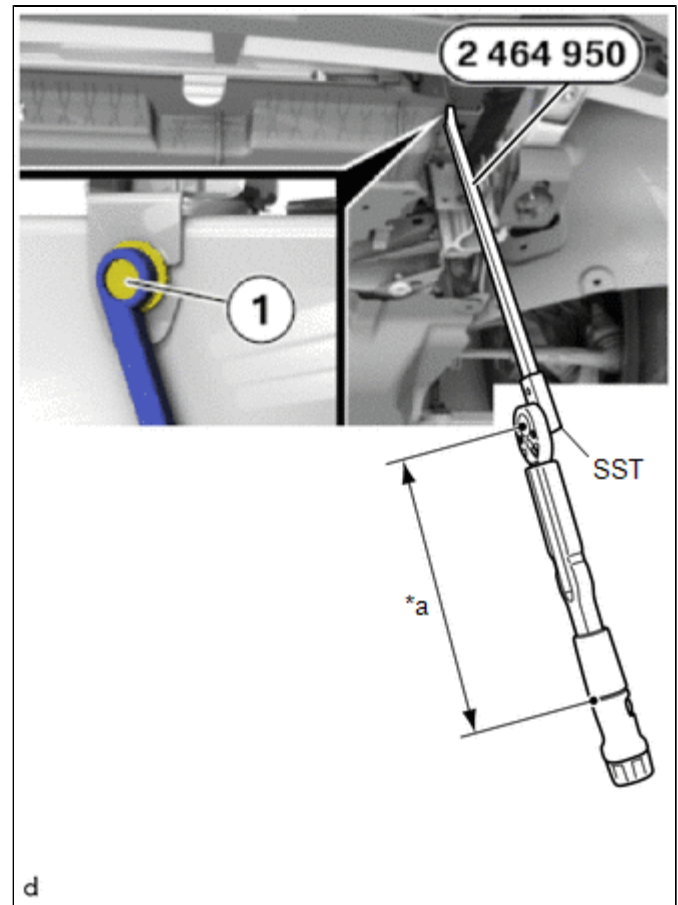
19 N·m {194 kgf·cm, 14 ft·lbf}

HINT:

- Calculate the torque wrench reading when changing the fulcrum length of the torque wrench.

Click here [INFO](#)

- Perform the operations on the left and right side.



*a	Torque Wrench Fulcrum Length
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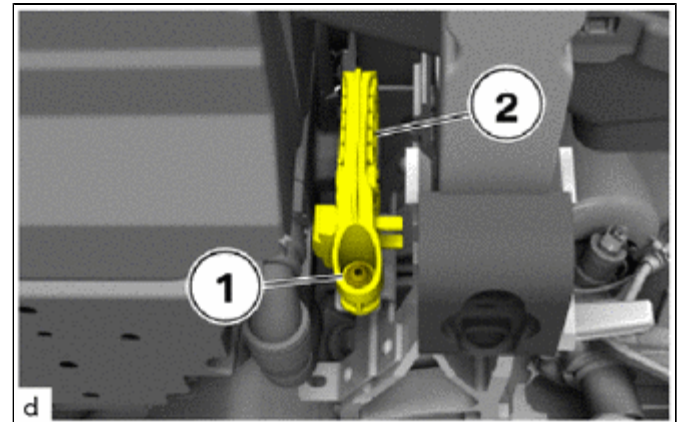
(d) Install the bottom cooler module mount (2) with T30 bolt (1).

Torque:

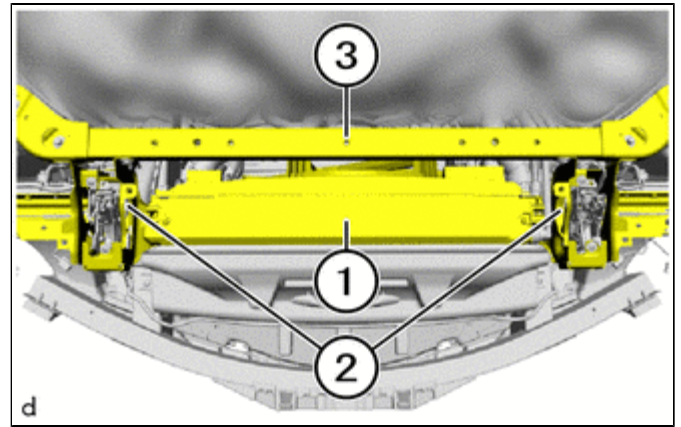
8.0 N·m {82 kgf·cm, 71 in·lbf}

HINT:

Perform the operations on the left and right side.



(e) Remove suitable auxiliary materials to disengage the radiator assembly (1) from the upper radiator support sub-assembly (3) and radiator support (2).



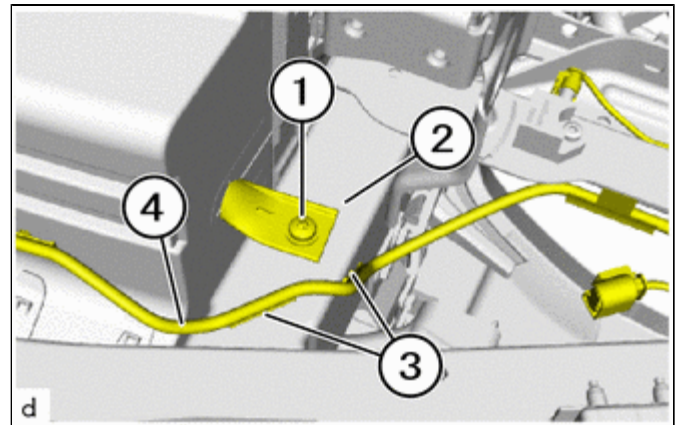
(f) Install the radiator brace rod sub-assembly (2) with T50 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

HINT:

Perform the operations on the left and right side.



(g) Engage the clamps (3) to connect the No. 4 engine room wire (4).

HINT:

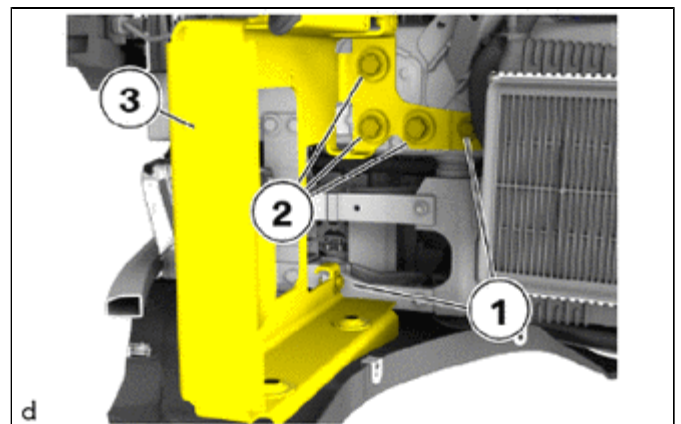
Perform the operations on the left and right side.

21. INSTALL FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY LH

(a) Install the front bumper reinforcement sub-assembly (3) with the T45 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



(b) Using a deep socket wrench 18 mm, install the replace 18 mm bolts (2).

Torque:

100 N·m {1020 kgf·cm, 74 ft·lbf}

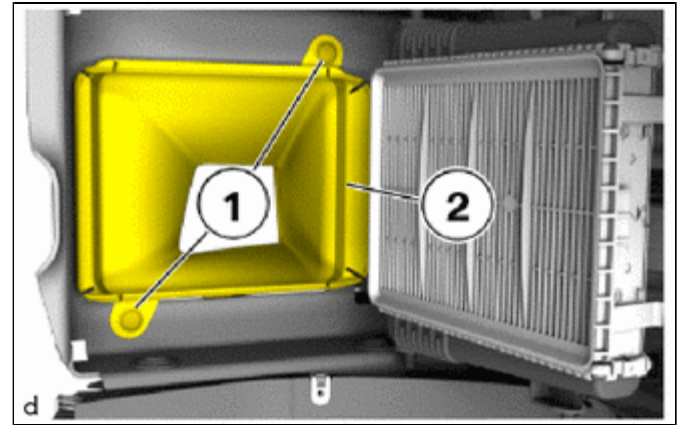
22. INSTALL FRONT BUMPER REINFORCEMENT SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

23. INSTALL SUB RADIATOR AIR DUCT LH

(a) Install the sub radiator air duct LH (2) with clips (1).



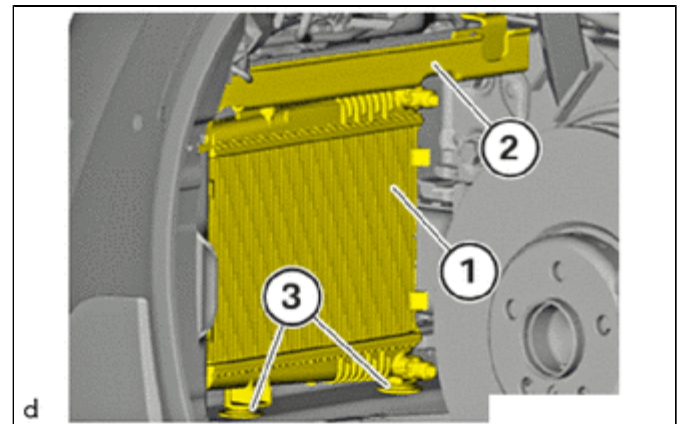
24. INSTALL SUB RADIATOR AIR DUCT RH

HINT:

Use the same procedure as for the LH side.

25. INSTALL SUB RADIATOR SUPPORT (for LH Side)

(a) Install the sub radiator support (3).

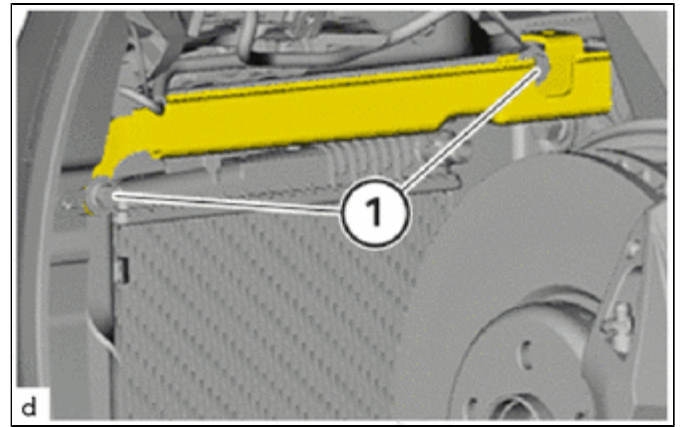


(b) Connect the sub radiator LH (1) to install the front bumper reinforcement support LH (2).

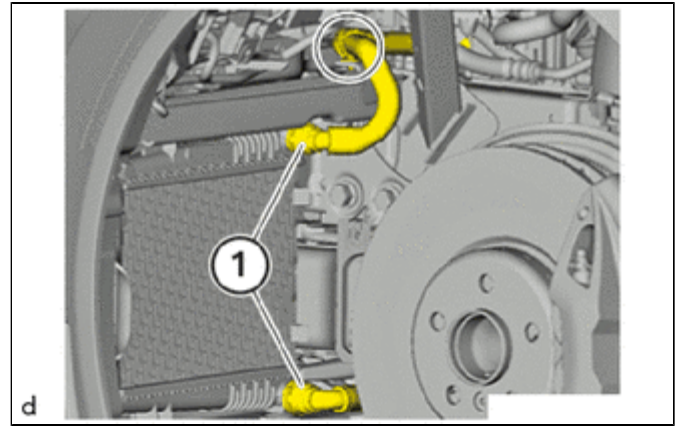
(c) Install the T45 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

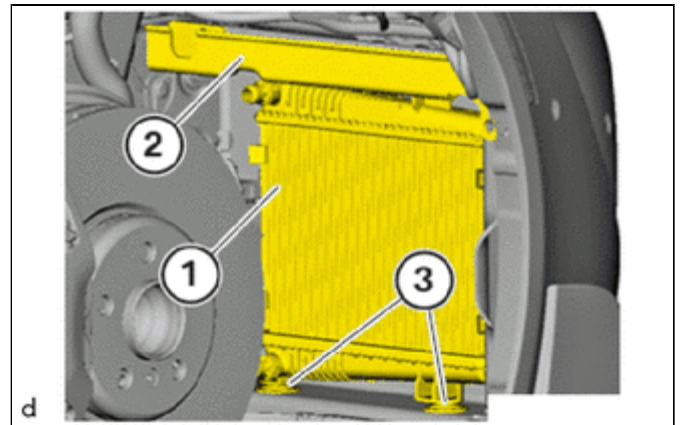


(d) Engage the clip in the marked area.



26. INSTALL SUB RADIATOR SUPPORT (for RH Side)

(a) Install the sub radiator support (3).

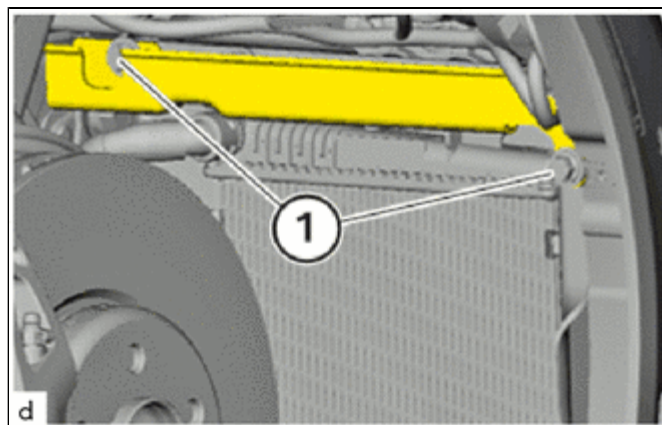


(b) Connect the sub radiator RH (1) to install the front bumper reinforcement support RH (2).

(c) Install the T45 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

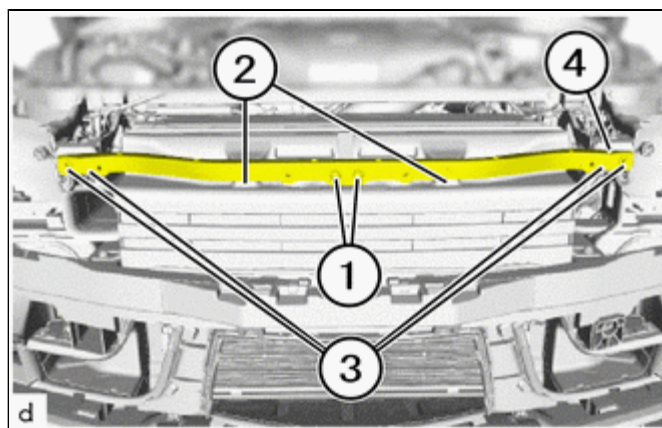


27. INSTALL FRONT CROSSMEMBER

(a) Install the front crossmember (4) with bolts (3).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



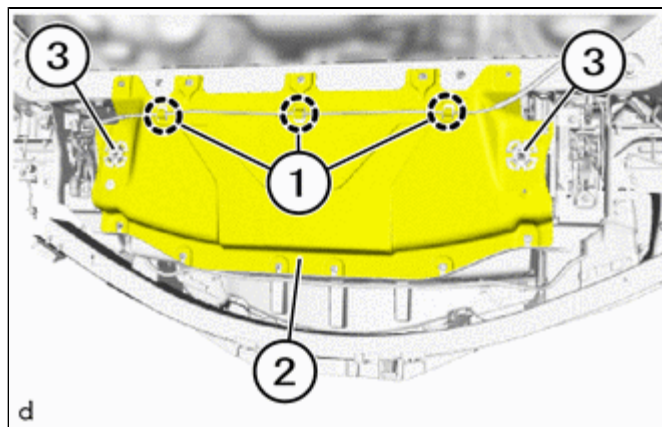
(b) Install the T50 bolts (1) and T30 bolts (2).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

28. INSTALL RADIATOR UPPER AIR DEFLECTOR

(a) Engage the guides (3) to install the radiator upper air deflector (2).

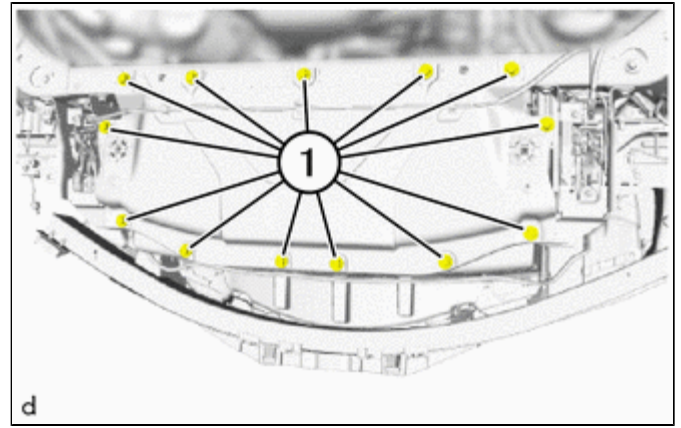


(b) Connect the hood lock control cable assembly on the guides(1).

(c) Install the bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



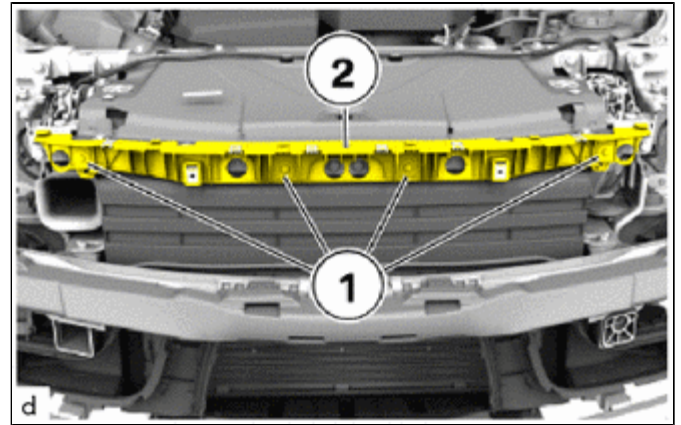
29. INSTALL FRONT BUMPER UPPER RETAINER

(a) Install the front bumper upper retainer (2) with bolts (1).

Torque:

:

8.0 N·m {82 kgf·cm, 71 in·lbf}

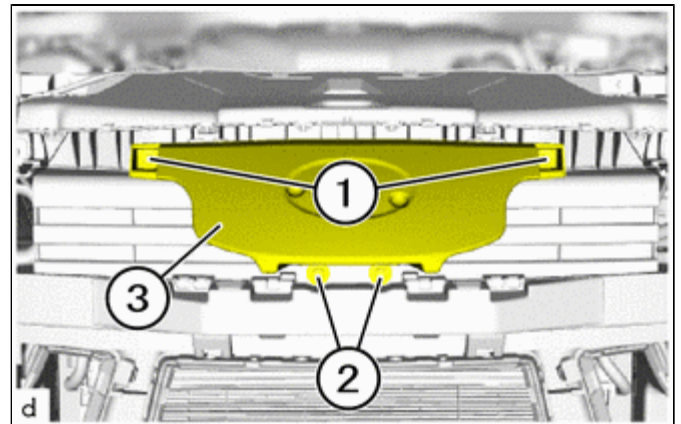


30. INSTALL FRONT BUMPER INNER SUPPORT

(a) Install the front bumper inner support (3) with T30 bolts (1) and bolts (2).

Torque:

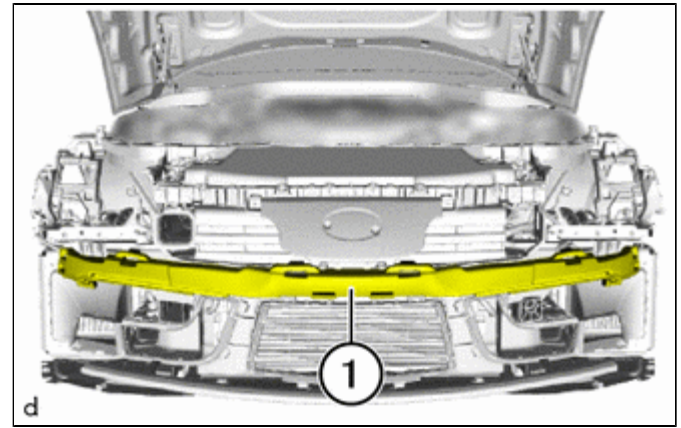
4.0 N·m {41 kgf·cm, 35 in·lbf}



31. INSTALL FRONT BUMPER ENERGY ABSORBER

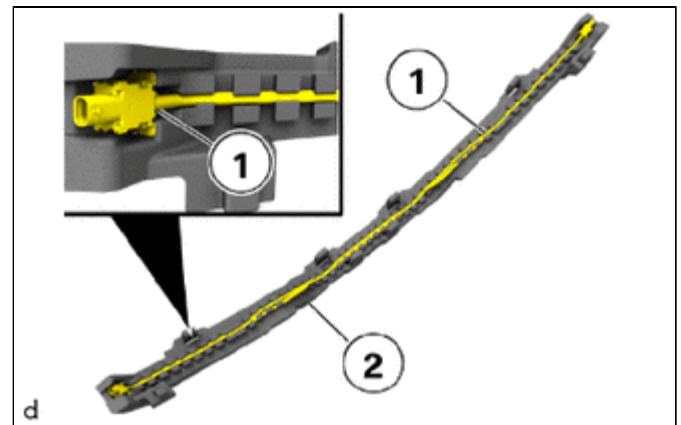
(a) w/o Pedestrian detection chamber assembly:

(1) Replace the front bumper energy absorber(1).



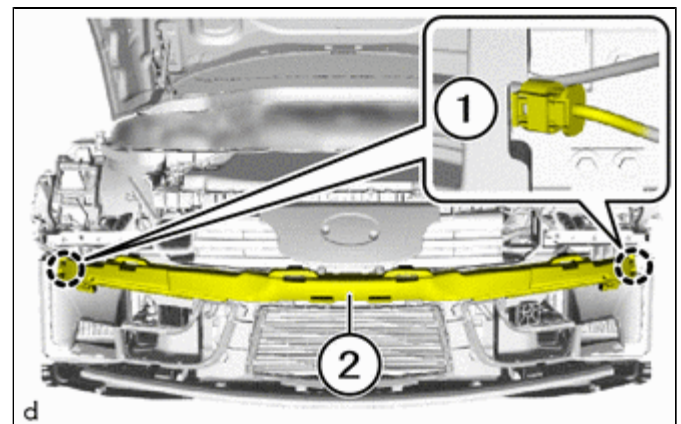
(2) Install the front bumper energy absorber (1).
(b) w/ Pedestrian detection chamber assembly:

(1) Replace the front bumper energy absorber (1).



(2) Carefully install the pedestrian detection chamber assembly (1) into the front bumper energy absorber (2).

(3) Install the front bumper energy absorber with
pedestrian detection chamber assembly (2).



(4) Connect the connectors (1).

32. INSTALL HIGH PITCHED HORN ASSEMBLY

Click here [INFO](#)

33. INSTALL HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

34. INSTALL HEADLIGHT ASSEMBLY RH

HINT:

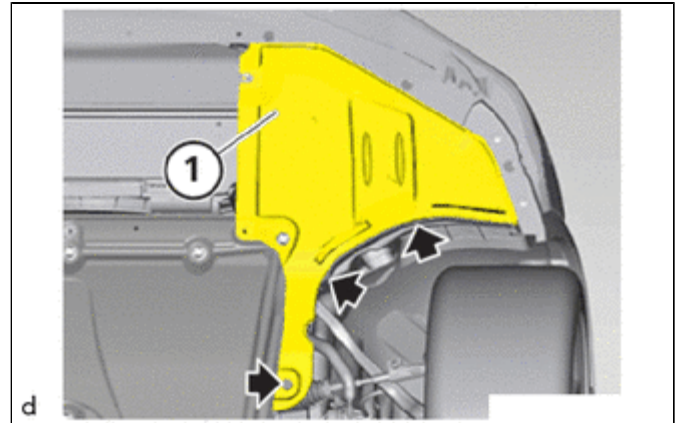
Use the same procedure as for the LH side.

35. INSTALL FRONT FENDER FRONT SPLASH SHIELD LH

- (a) Install the front fender front splash shield LH (1) with screws (arrows).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}



36. INSTALL FRONT FENDER FRONT SPLASH SHIELD RH

HINT:

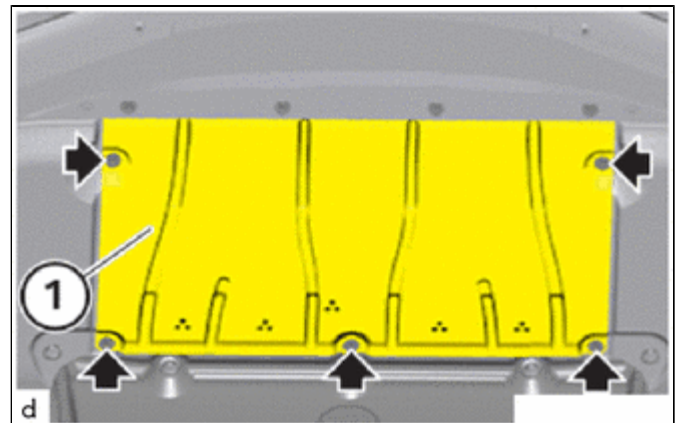
Use the same procedure as for the LH side.

37. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

- (a) Install the No. 1 engine under cover assembly (1) with screws (arrows).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

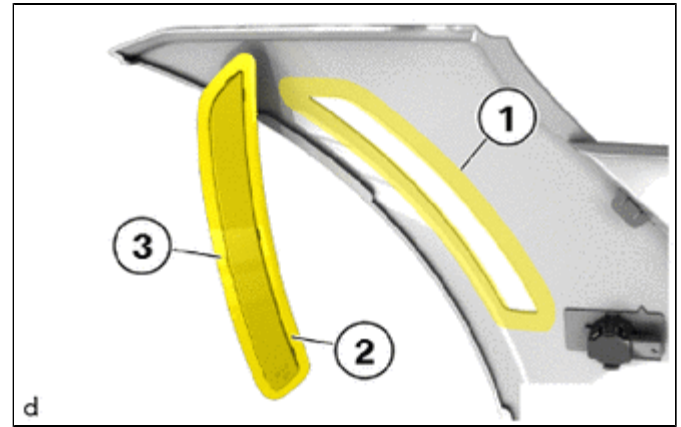


38. INSTALL NO. 1 ULTRASONIC SENSOR RETAINER

Click here [INFO](#)

39. INSTALL REFLEX REFLECTOR ASSEMBLY LH

(a) Replace the reflex reflector assembly LH (3).



(b) Remove adhesive residue on the bumper panel and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2

(c) Peel off the liner (2) from the adhesive tape.

(d) Install the reflex reflector assembly LH (3) in the designated area and press it on tightly.

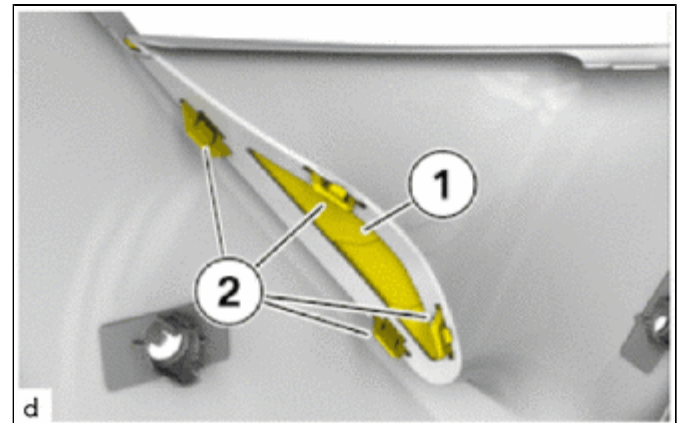
40. INSTALL REFLEX REFLECTOR ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

41. INSTALL COOL AIR INTAKE GRILLE LH

(a) Engage the claws (2) to install the cool air intake grille LH (1).



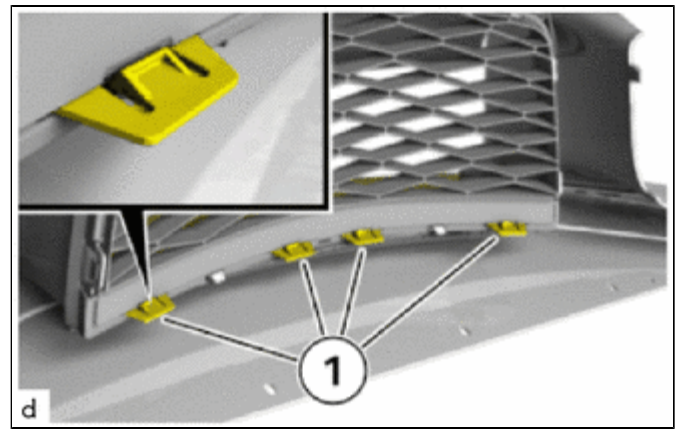
42. INSTALL COOL AIR INTAKE GRILLE RH

HINT:

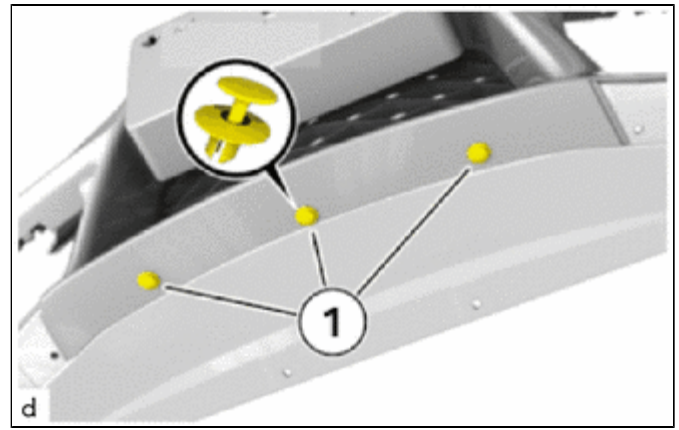
Use the same procedure as for the LH side.

43. INSTALL FRONT SPOILER SUB-ASSEMBLY

(a) Engage the claws (1) to install the front spoiler sub-assembly.

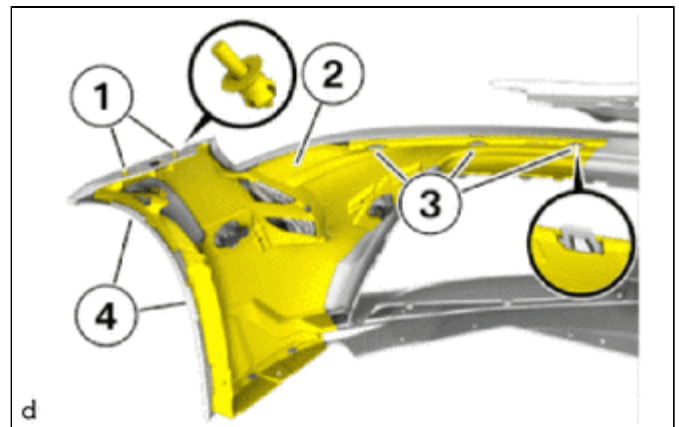


(b) Install the clips (1).



44. INSTALL FRONT BUMPER SIDE RETAINER LH

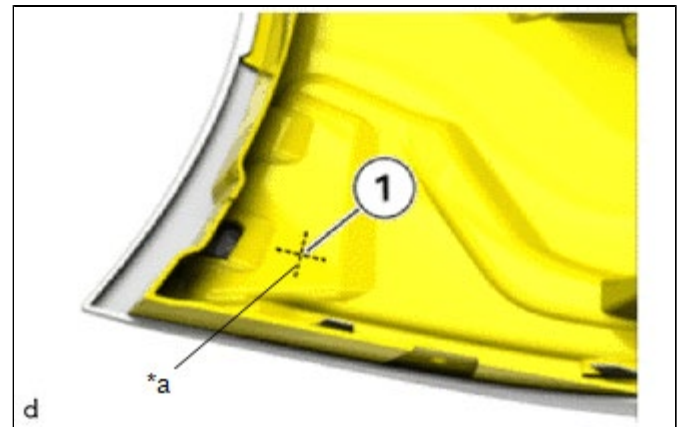
(a) Engage the guides (4) to install the front bumper side retainer LH (2).



(b) Engage the claws (3).

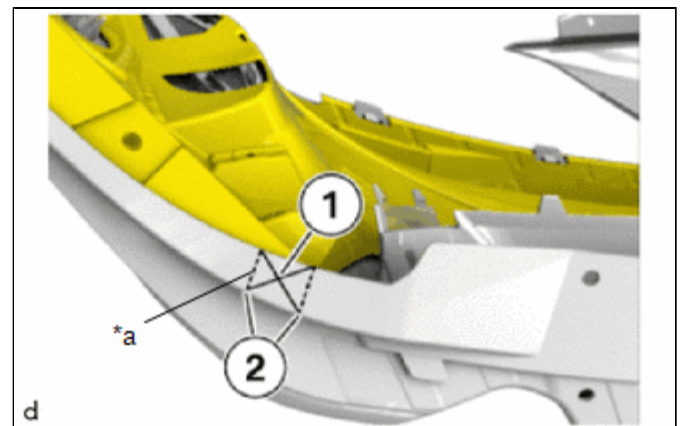
(c) Install the clips (1).

(d) In central point (1) of the crack lines, drill a 6.0 mm (0.236 in.) bore hole for plastic rivet.



*a	Scribed Line
----	--------------

(e) Determine the central point (1) between the crack lines (2).

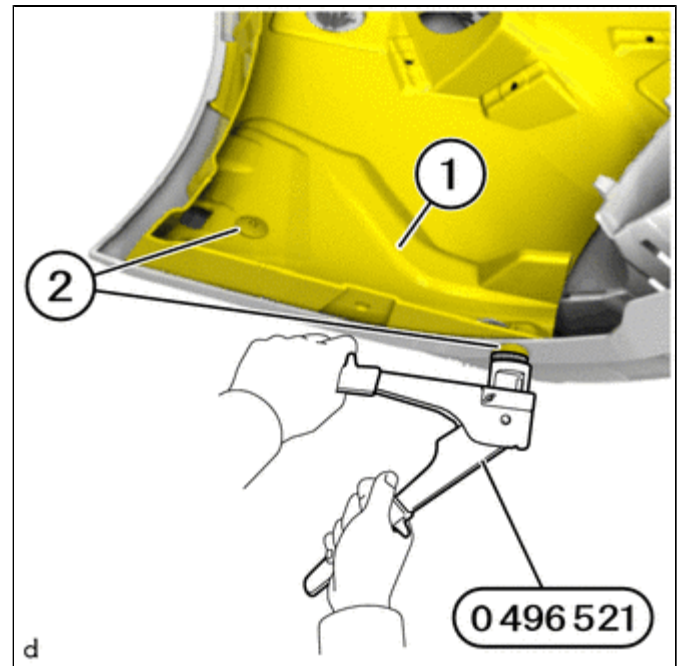


*a	Scribed Line
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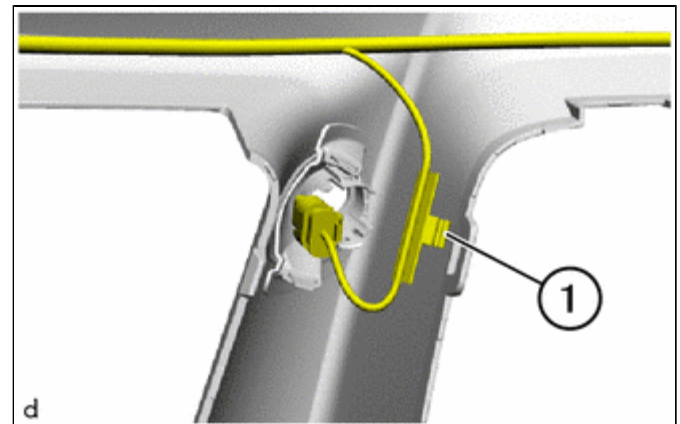
(f) In the area (1) drill out a 6.0 mm (0.236 in.) bore hole for plastic rivet.

(g) Using a special tool 0 496 521 (00 2 230), install the front bumper side retainer LH (1) with plastic rivets (2).

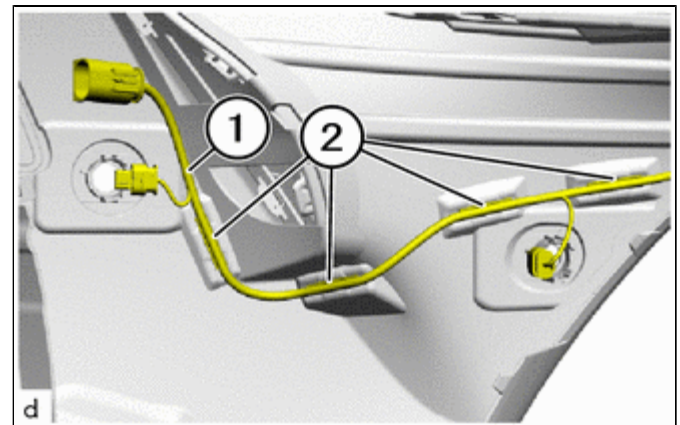
SST: 09900-WA100



(h) Engage the clamp (1).



(i) Engage the clamps (2) to connect the No. 4 engine room wire (1).



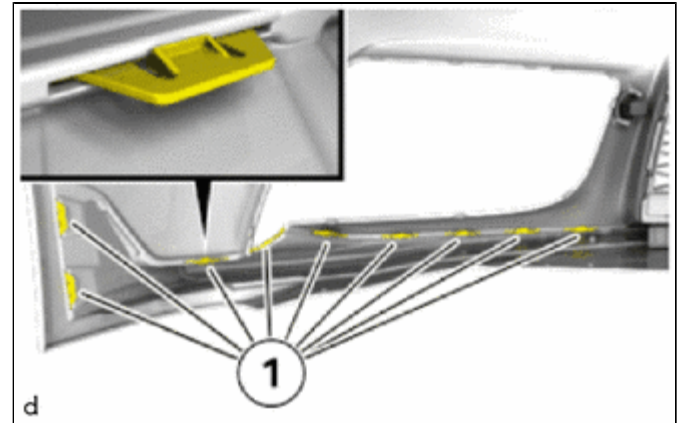
45. INSTALL FRONT BUMPER SIDE RETAINER RH

HINT:

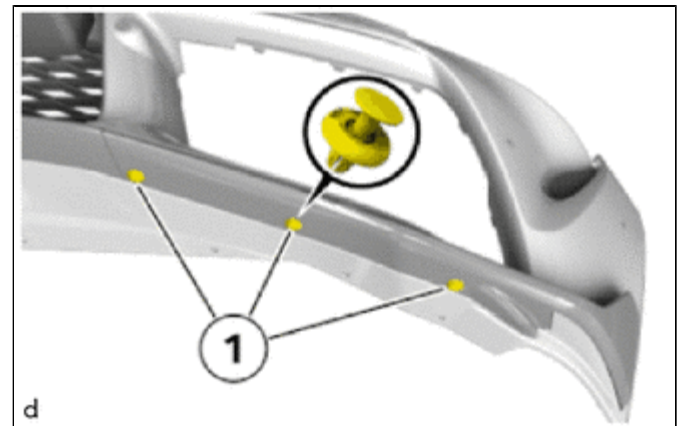
Use the same procedure as for the LH side.

46. INSTALL FRONT SIDE SPOILER LH

(a) Engage the claws (1) to install the front side spoiler LH.



(b) Install the clips (1).



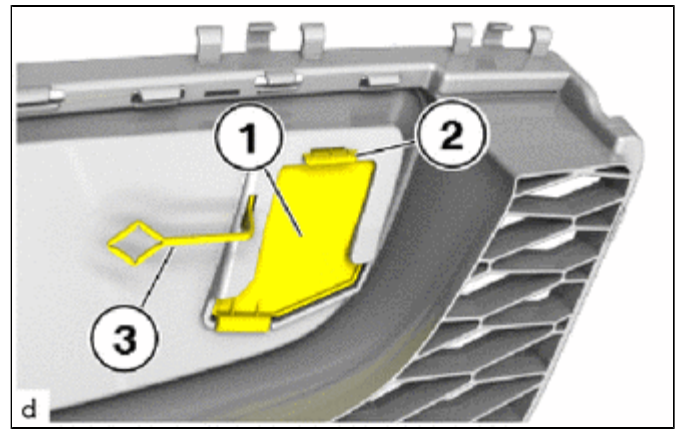
47. INSTALL FRONT SIDE SPOILER RH

HINT:

Use the same procedure as for the LH side.

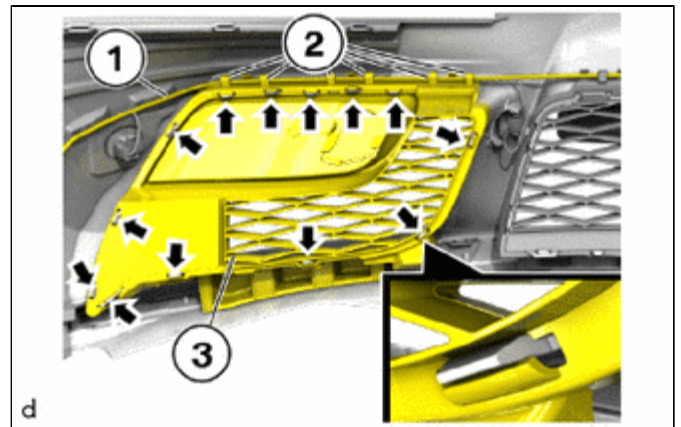
48. INSTALL FRONT BUMPER HOLE COVER

(a) Engage the hook (3).



(b) Engage the claw (2) to install the front bumper hole cover (1).

49. INSTALL LOWER RADIATOR GRILLE LH



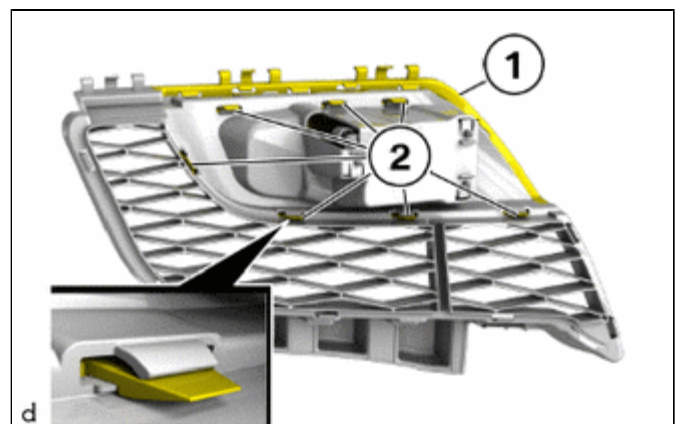
(a) Engage the claws (arrows) to install the lower radiator grille LH (3).

(b) Engage the No. 4 engine room wire (1) to the holder (2) on the lower radiator grille LH (3).

50. INSTALL MILLIMETER WAVE RADAR SENSOR (w/ Toyota Supra Safety)

Click here [INFO](#)

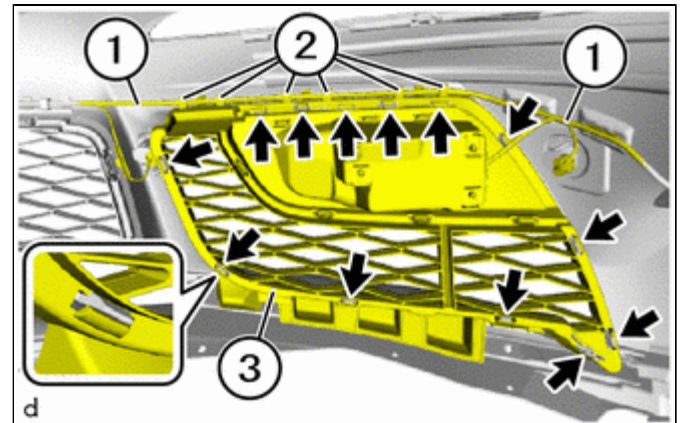
51. INSTALL LOWER SIDE RADIATOR GRILLE RH



(a) Engage the claws (2) to install the lower side radiator grille RH (1).

52. INSTALL LOWER RADIATOR GRILLE RH

- (a) Engage the claws (arrows) to install the lower radiator grille RH (3).



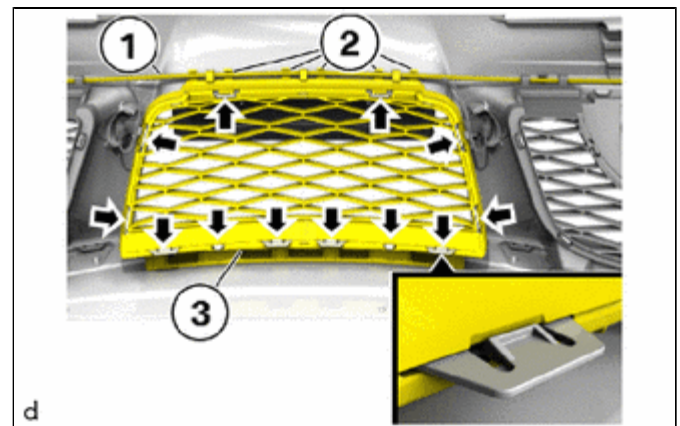
- (b) Connect the No. 4 engine room wire (1) to the holders (2) on the lower radiator grille RH (3).

- (c) w/ Toyota Supra Safety:

- (1) Connect the connector.

53. INSTALL LOWER NO. 1 RADIATOR GRILLE

- (a) Engage the claws (arrows) to install the lower No. 1 radiator grille (3).



- (b) Connect the No. 4 engine room wire (1) to the holders (2) on the lower No. 1 radiator grille (3).

54. INSTALL FRONT SIDE ULTRASONIC SENSOR

Click here [INFO](#)

55. INSTALL FRONT CORNER ULTRASONIC SENSOR

Click here [INFO](#)

56. INSTALL FRONT CENTER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the front corner ultrasonic sensor.

57. INSTALL FRONT BUMPER EMBLEM SUB-ASSEMBLY

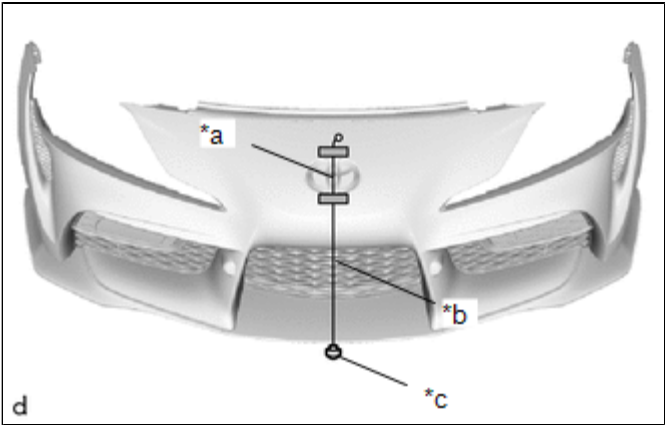
Click here [INFO](#)


58. INSTALL FRONT BUMPER EXTENSION MOUNTING BRACKET

NOTICE:

- Malfunction of the ultrasonic sensor.
- Incorrect assembly of the license plate leads to a malfunction of the ultrasonic sensor.
- Fix license plate and front bumper extension mounting bracket only according to the dimensions specified in the repair instructions.
 - Only use front bumper extension mounting bracket that have been approved for the vehicle type.
 - The license plate carrier must not be installed on the front bumper.

(a) Hang the weight from the center of the front bumper emblem sub-assembly as shown in the illustration.

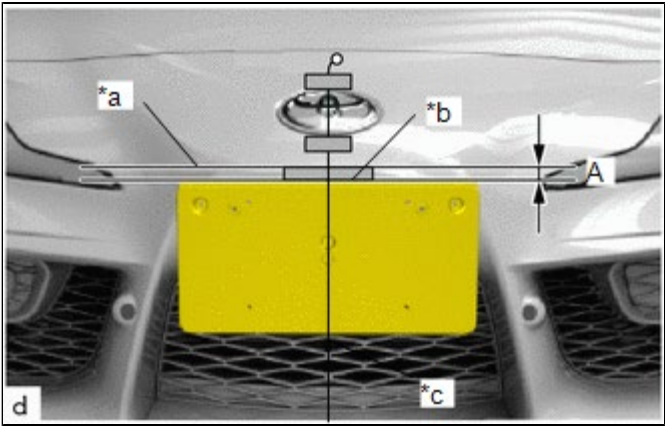



*a	Center of The Front Bumper Emblem Sub-assembly
*b	String
*c	Weight
	Tape

HINT:

Lightly flick the string with your fingers several times to confirm that the string is perpendicular to the ground.

(b) Set the front bumper extension mounting bracket on the front bumper assembly as shown in the illustration.



*a	Bumper Panel Edge
*b	Lower Edge of The Tape And Upper Edge of The Front Bumper Extension Mounting Bracket
*c	String
	Tape

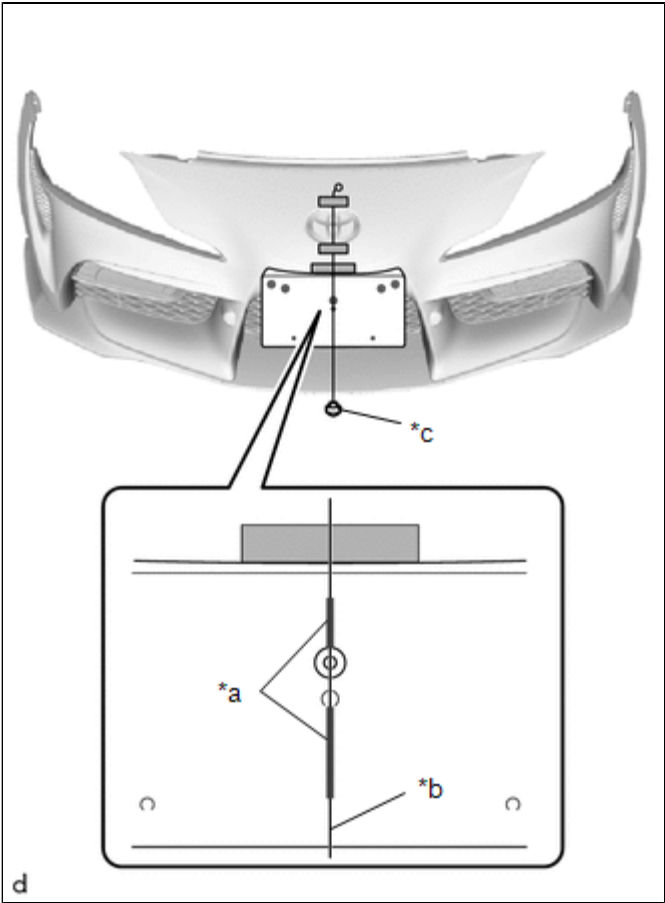
Standard:


AREA	SPECIFIED CONDITION
A	15 mm (0.591 in.)

HINT:

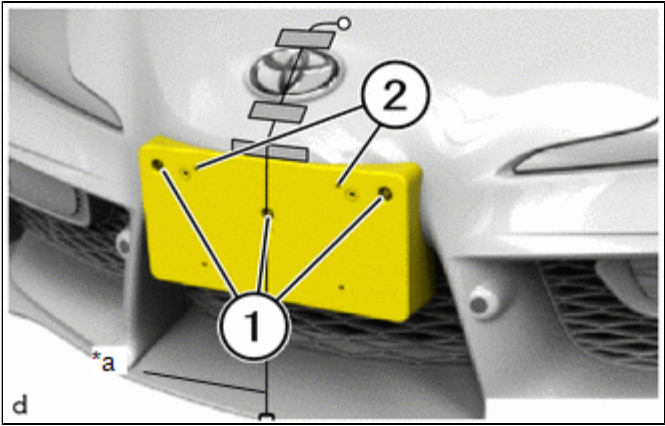
Match the lower edge of the tape with the upper edge of the front bumper extension mounting bracket.


- (c) Make sure that the center line of the bumper extension mounting bracket and the center of the front bumper emblem sub-assembly match.



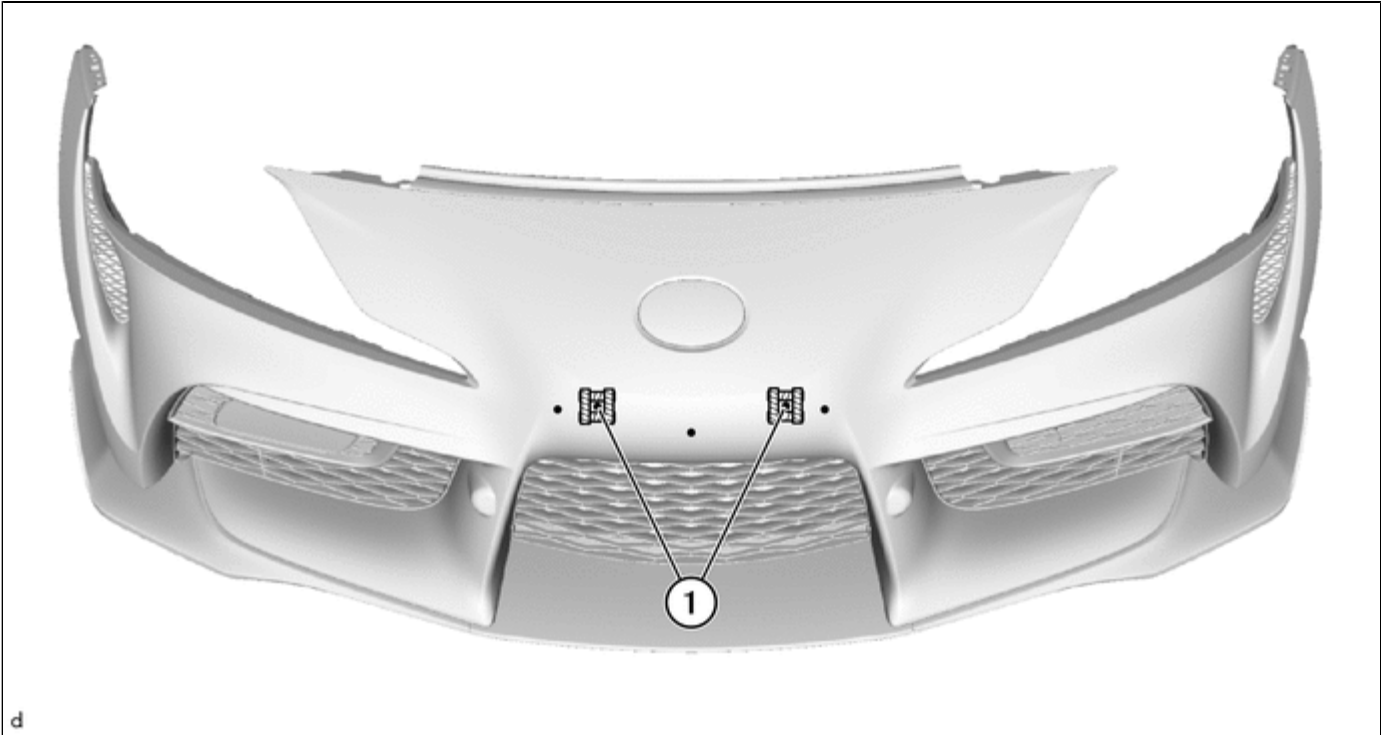
*a	Center Line
*b	String
*c	Weight
	Tape


(d) Front license plate mounting bolt length 10 mm (0.394 in.) or more:



*a	String
	Tape

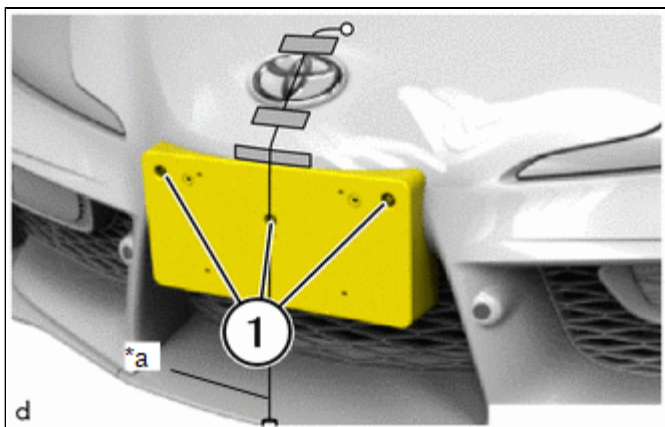
- (1) Mark the front bumper assembly from the mounting holes position (1) of the front bumper extension mounting bracket and the mounting bolt holes position (2) of the license plate.
- (2) Apply protective tape as shown in the illustration and drill a 8.0 mm (0.315 in.) hole in the mounting bolt holes position (1) of the number plate.




	Protective Tape	-	-
---	-----------------	---	---

- (3) Remove the protective tape.

(e) Align the mark and install screws (1) the front bumper extension mounting bracket without pre-drilling.



*a	String
	Tape

(f) Remove the tape, string and weight.

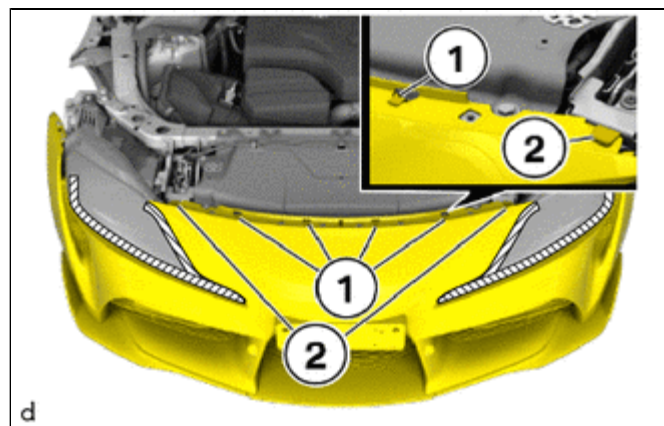
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT BUMPER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT BUMPER ASSEMBLY

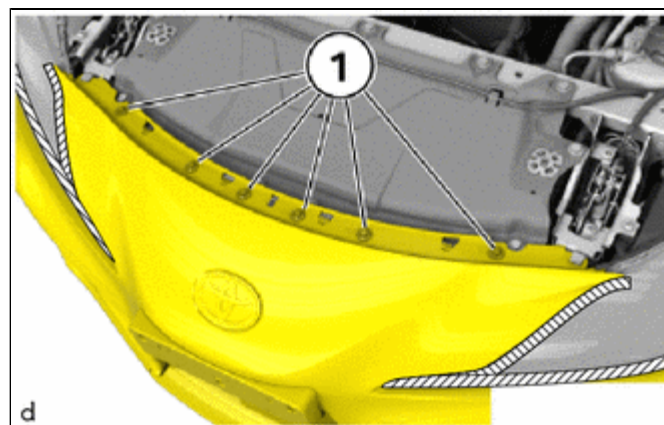
- (a) Engage the guides (2) and clamps (1) to install the front bumper assembly.



- (b) Install the bolts (1).

Torque:

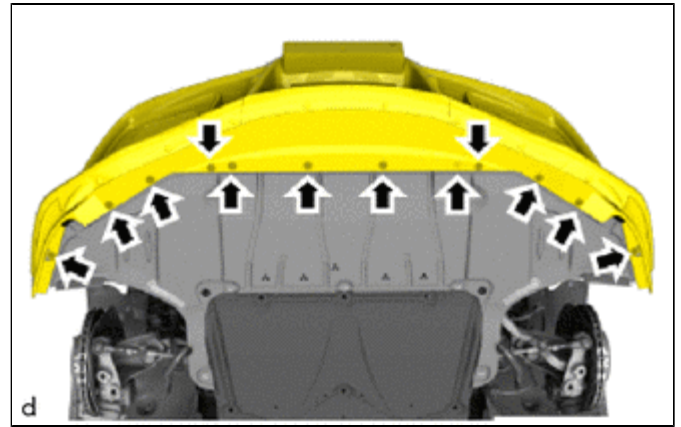
8.0 N·m {82 kgf·cm, 71 in·lbf}



- (c) Install the screws (arrowed).

Torque:

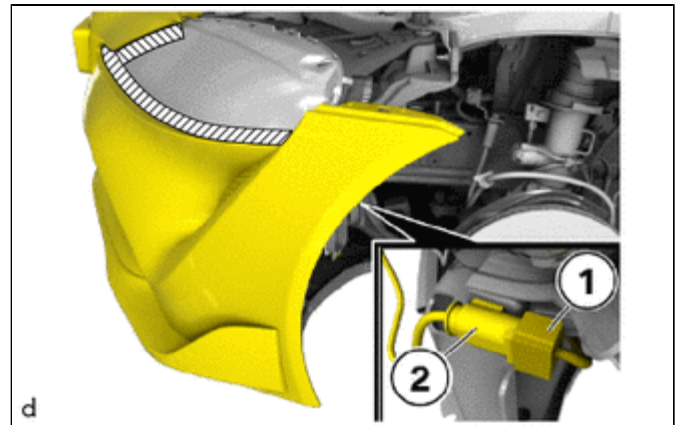
3.0 N·m {31 kgf·cm, 27 in·lbf}



(d) Engage the clamp (2).

HINT:

Perform the operations on the left and right side.



(e) Connect the connector (1).

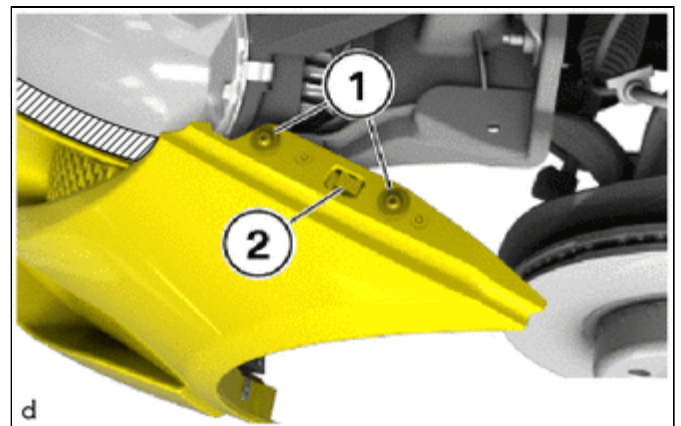
HINT:

Perform the operations on the left and right side.

(f) Engage the clamp (2).

HINT:

Perform the operations on the left and right side.



(g) Install the T20 screws (1).

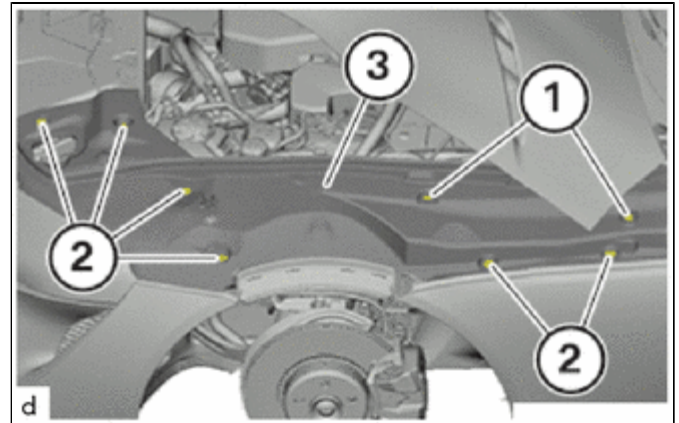
HINT:

Perform the operations on the left and right side.

(h) Remove the protective tape.

2. INSTALL FRONT FENDER UPPER PROTECTOR LH

(a) Install the front fender upper protector LH (3).



(b) Install the clips (1) and clips (2).

3. INSTALL FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

4. INSTALL HOOD TO RADIATOR SUPPORT SEAL

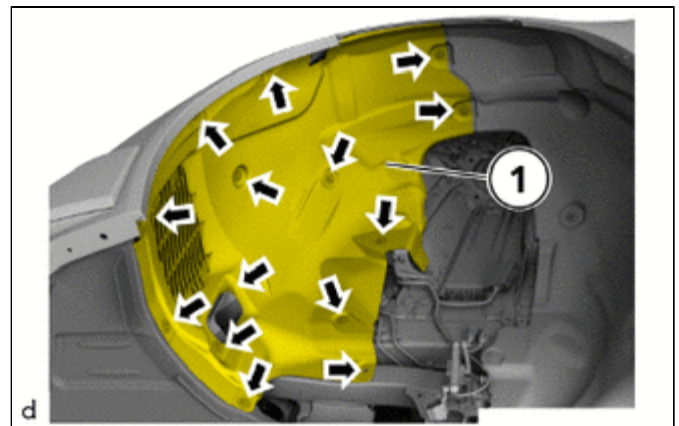
(a) Install the hood to radiator support seal.

5. INSTALL FRONT FENDER LINER LH

(a) Install the front fender liner LH (1) with screws (arrows).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}



6. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

7. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

8. ADJUST HEADLIGHT AIMING

Click here [INFO](#)

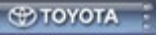
9. ADJUST MILLIMETER WAVE RADAR SENSOR (w/ Toyota Supra Safety)

- Before starting adjustment:

Click here [INFO](#)

- Adjustment:

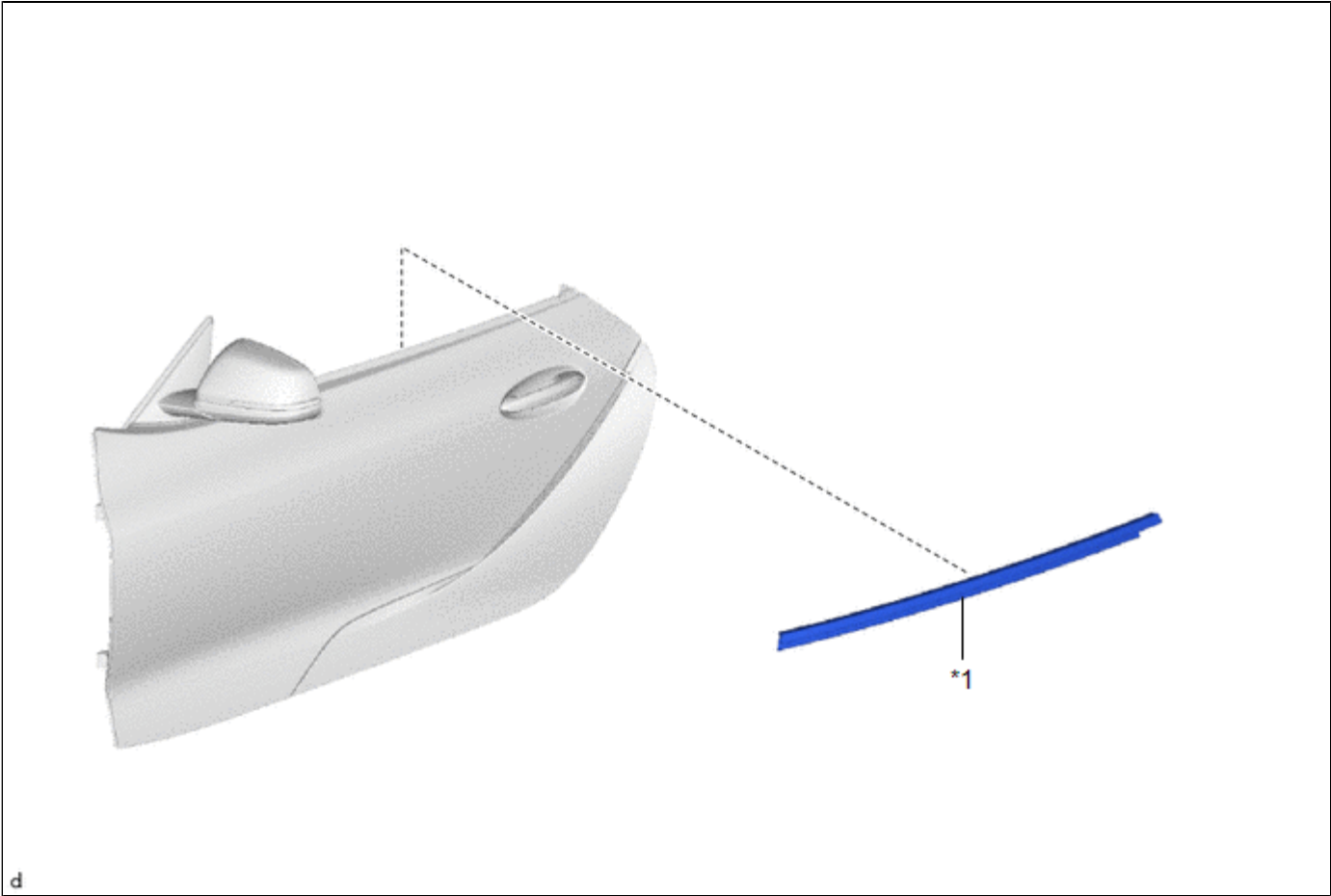
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR BELT MOULDING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT DOOR BELT MOULDING ASSEMBLY	-	-
----	-----------------------------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR BELT MOULDING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

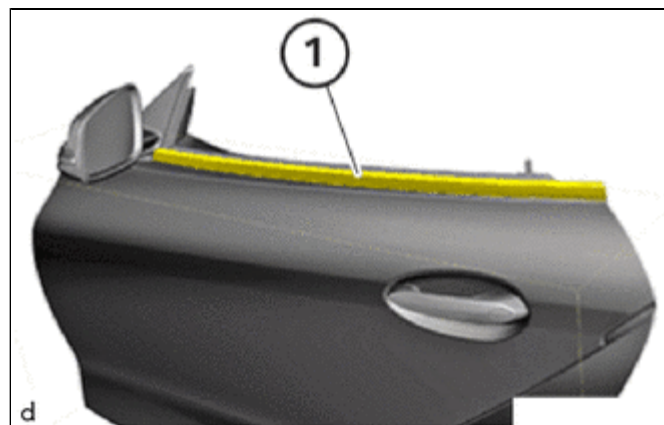
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. REMOVE FRONT DOOR BELT MOULDING ASSEMBLY

(a) Remove the front door belt moulding assembly (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR BELT MOULDING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL FRONT DOOR BELT MOULDING ASSEMBLY

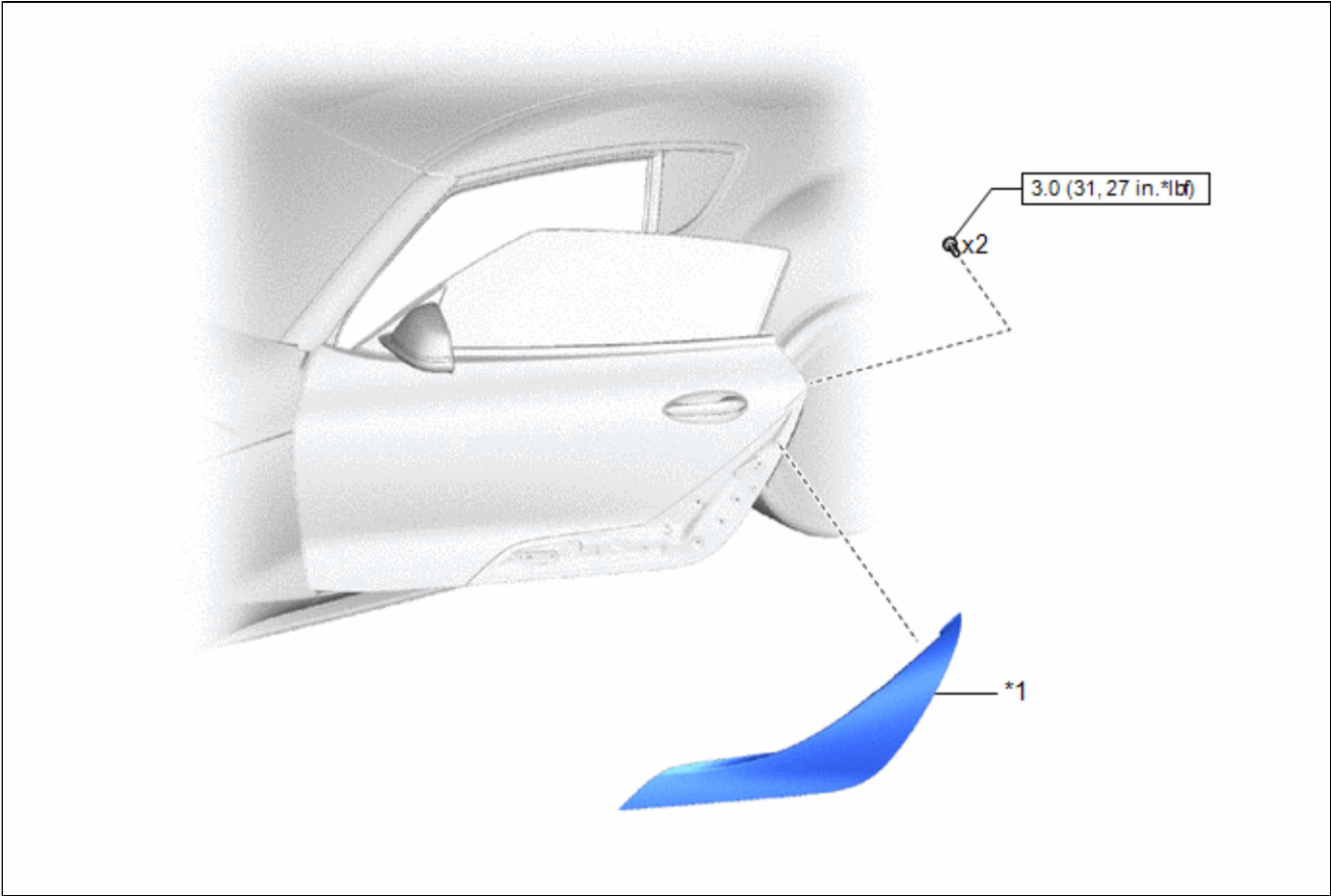
- Coat the front door belt moulding assembly with a suitable lubricant prior to installation.
- Install the front door belt moulding assembly.




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCND
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR OUTSIDE MOULDING: COMPONENTS; 2020 MY Supra [03/2019 -]		

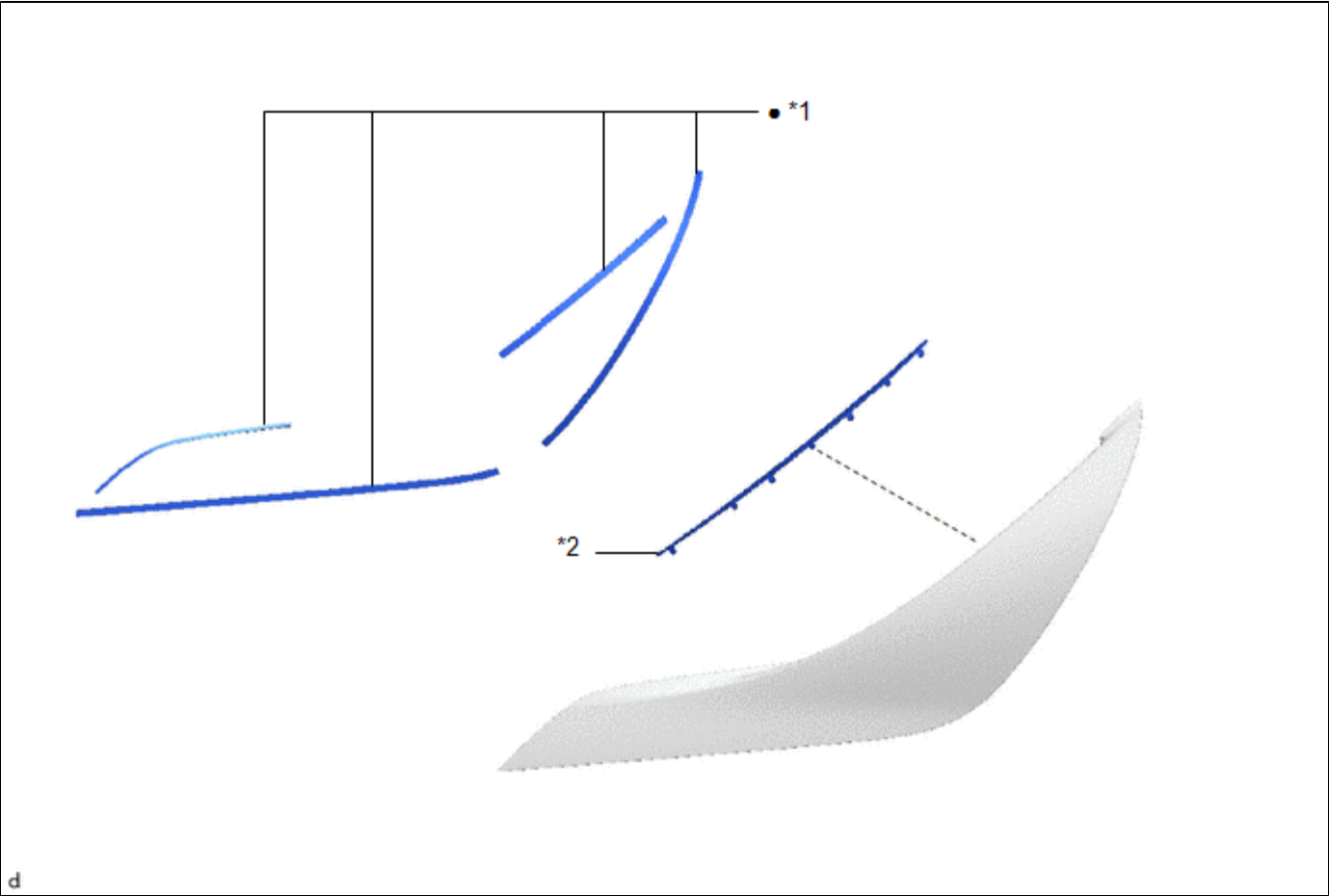
COMPONENTS

ILLUSTRATION



*1	FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	BODY OUTSIDE MOULDING PAD	*2	FRONT DOOR REAR OUTSIDE MOULDING
●	Non-reusable part	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR OUTSIDE MOULDING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

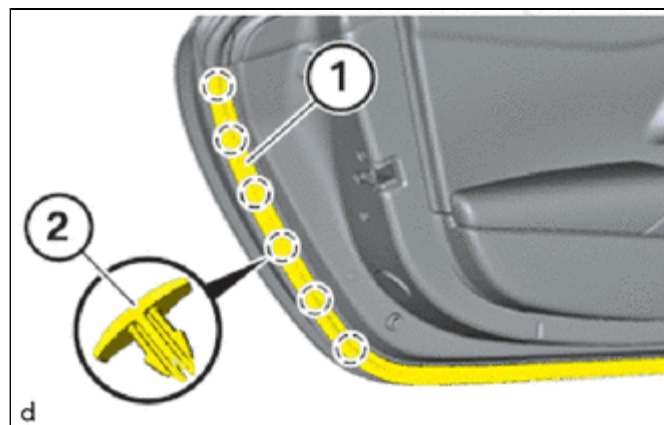
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. SEPARATE FRONT DOOR WEATHERSTRIP

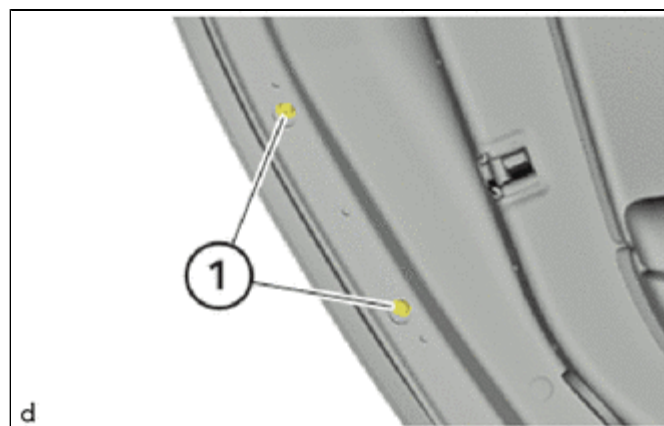
- (a) Disengage the clips (2) to separate the front door weatherstrip (1).



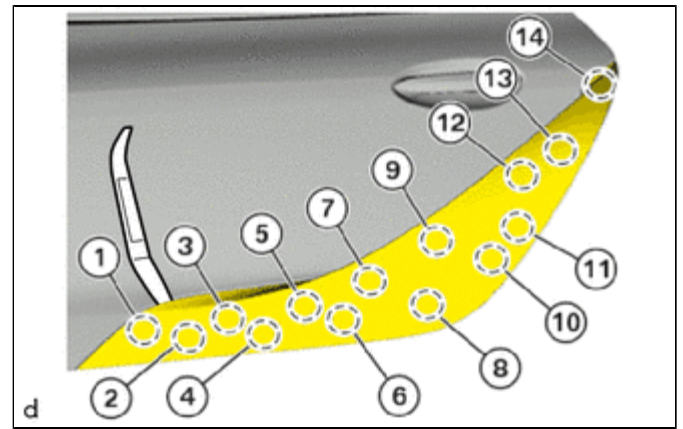
- (b) Let front door weatherstrip (1) hang down.

2. REMOVE FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY

- (a) Remove the screws (1).



(b) Using a moulding remover A, disengage the clips in the order as shown the illustration, and remove the front door outside moulding sub-assembly.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR OUTSIDE MOULDING: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

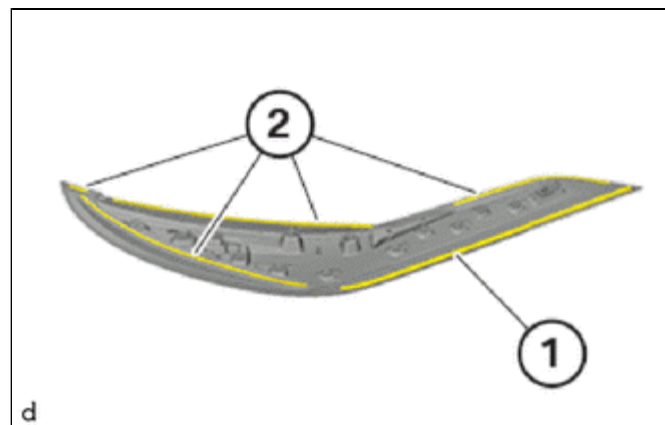
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. REMOVE BODY OUTSIDE MOULDING PAD

(a) Remove the body outside moulding pad (1) and (2).

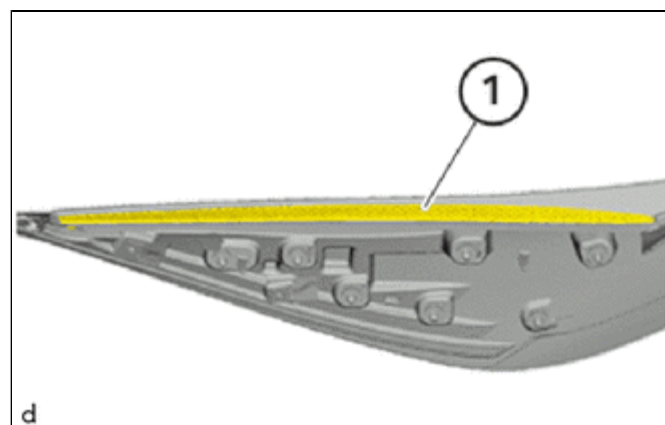


(b) Clean the adhesive area with cleaner.

Cleaner:
Cleaner R2

2. REMOVE FRONT DOOR REAR OUTSIDE MOULDING

(a) Remove the front door rear outside moulding (1).





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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR OUTSIDE MOULDING: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

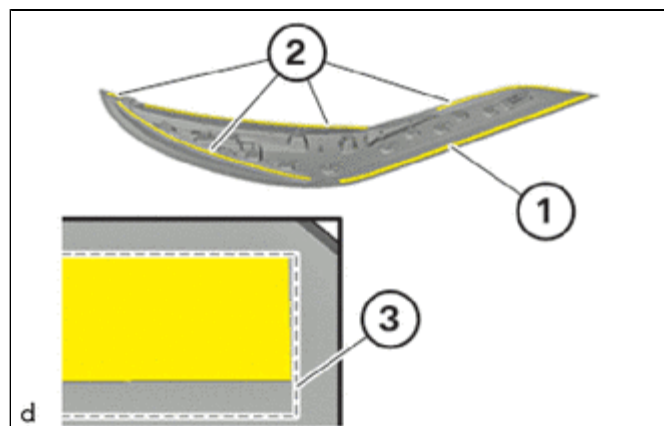
1. INSTALL FRONT DOOR REAR OUTSIDE MOULDING

- Install the front door rear outside moulding.

2. INSTALL BODY OUTSIDE MOULDING PAD

- Replace the body outside moulding pad.

- Cut and shorten body outside moulding pad (1) and (2) according to the marks.



- Install the body outside moulding pad (1) and (2) along the marker line (3) that lies near the component center.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: FRONT DOOR OUTSIDE MOULDING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

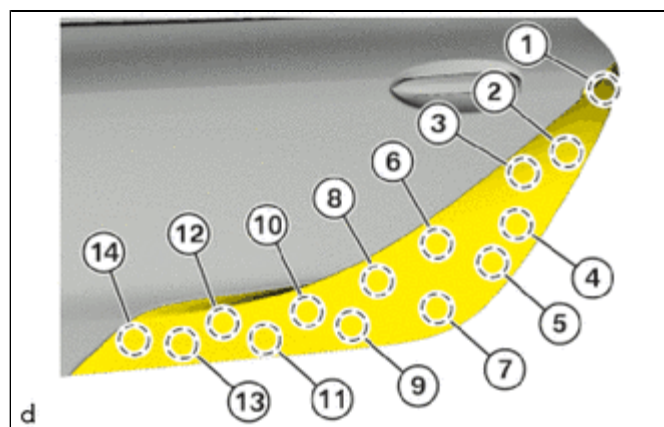
- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

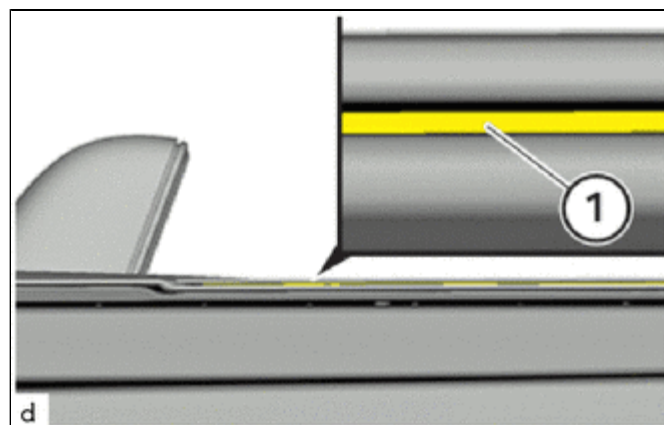
1. INSTALL FRONT DOOR OUTSIDE MOULDING SUB-ASSEMBLY

(a) Peel off the liner from adhesive tape.

(b) Engage the clips in the order as shown the illustration, and install the front door outside moulding sub-assembly.



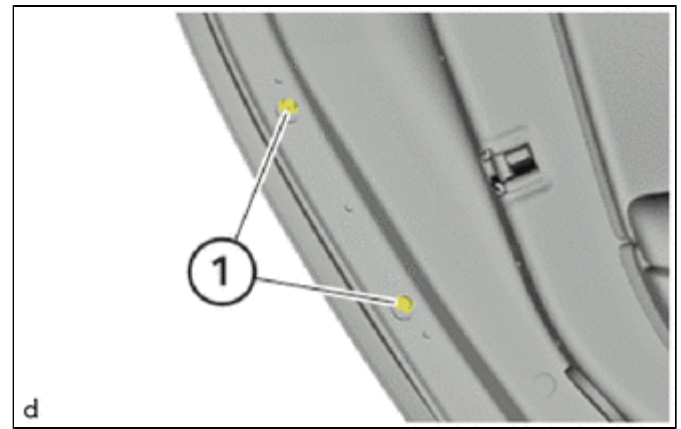
(c) Press on adhesive strip (1) tightly by hand in sections.



(d) Install the screws (1).

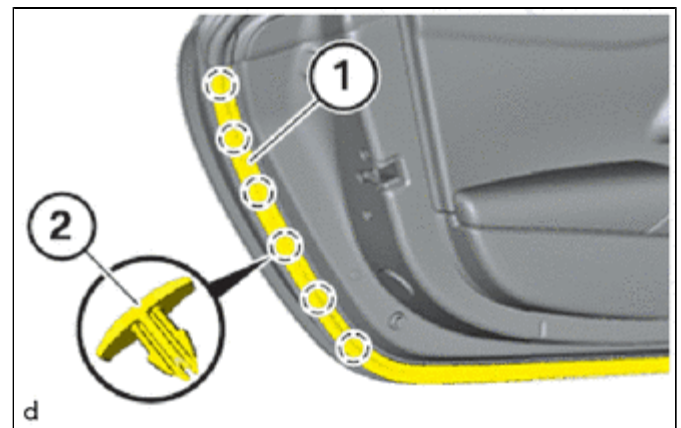
Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



2. INSTALL FRONT DOOR WEATHERSTRIP

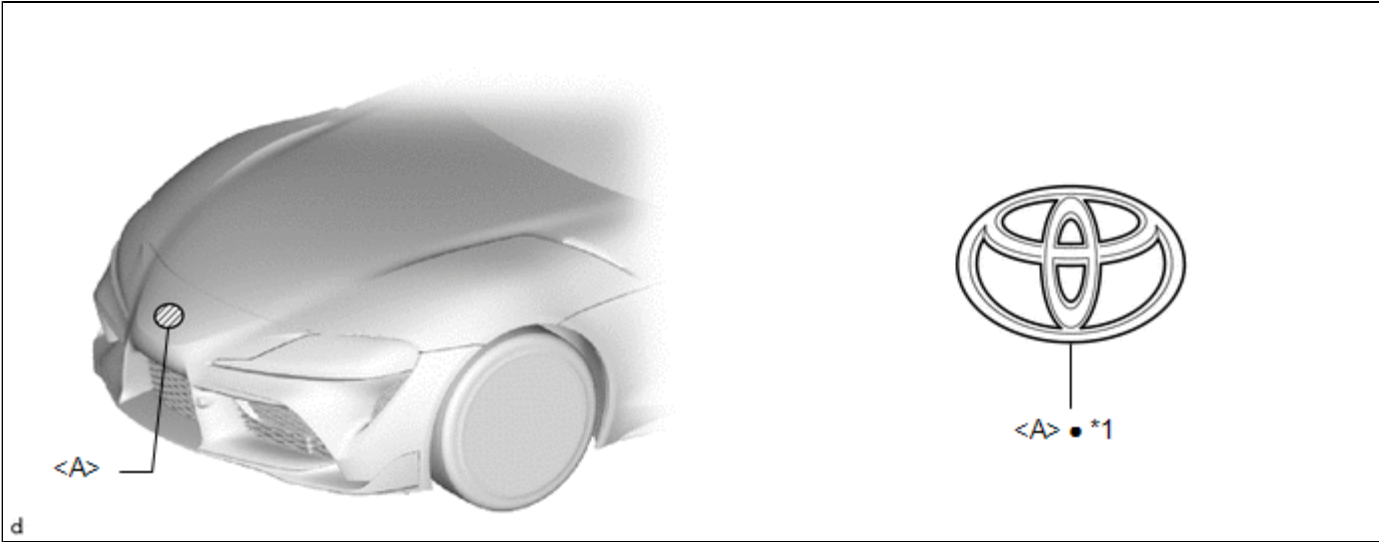
(a) Engage the clips to install the front door weatherstrip (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: NAME PLATE: COMPONENTS; 2020 MY Supra [03/2019 -]		

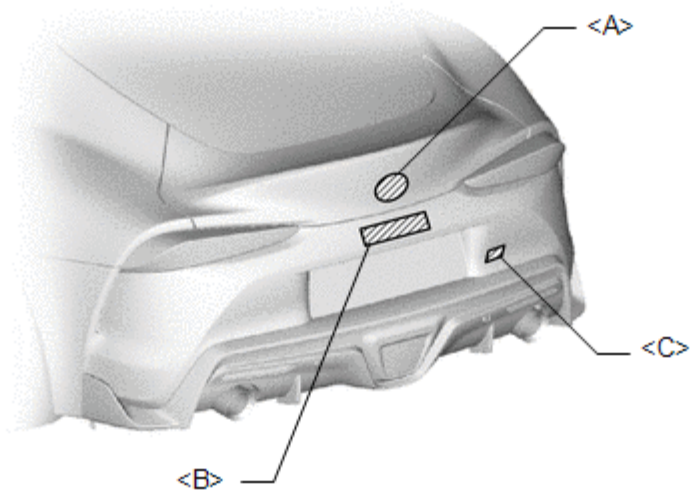
COMPONENTS

ILLUSTRATION



*1	FRONT BUMPER EMBLEM SUB-ASSEMBLY	-	-
•	Non-reusable part	-	-

ILLUSTRATION



d

*1	NO. 1 BACK DOOR EMBLEM	*2	SYMBOL EMBLEM
*3	NAME PLATE	-	-
•	Non-reusable part	-	-



TOYOTA

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: NAME PLATE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Tools and sharp-edged components can cause scratches.
 - Protect working area.
 - Handle tools and components carefully.

PROCEDURE

1. REMOVE FRONT BUMPER EMBLEM SUB-ASSEMBLY

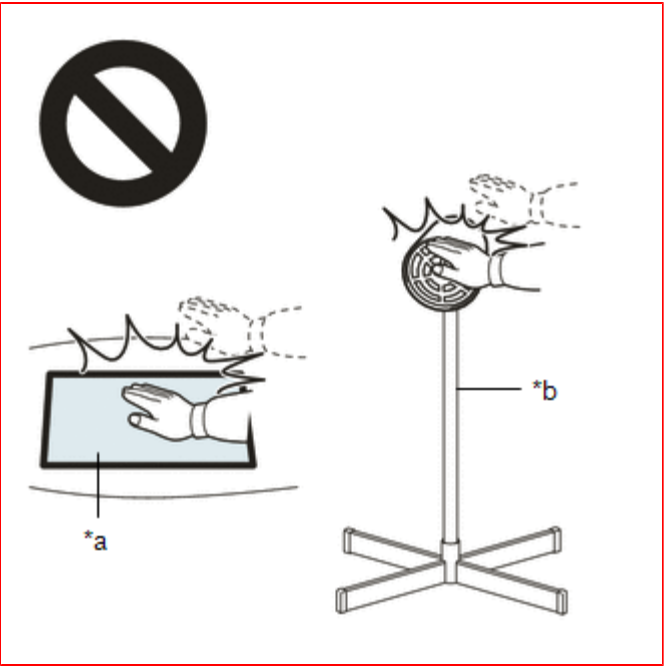
HINT:

When removing the front bumper emblem sub-assembly, heat the front bumper emblem sub-assembly using a heat light.

Standard:

ITEM	TEMPERATURE
Front Bumper Emblem Sub-assembly	40 to 50°C (104 to 122°F)

CAUTION:



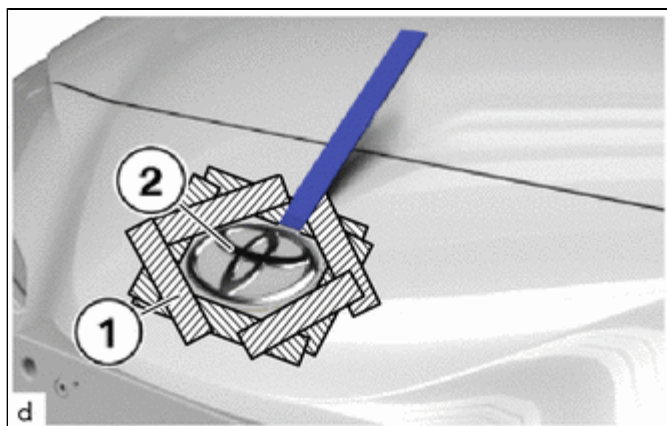
- Touching heated parts for a long time may result in burns.

*a	Heated Part
*b	Heat Light
- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the front bumper emblem sub-assembly excessively.

(a) Tape off working area (1) around front bumper emblem sub-assembly (2) with protective tape.



Protective Tape

(b) Using a moulding remover A, remove the front bumper emblem sub-assembly (2).

(c) Remove the protective tape.

2. REMOVE NO. 1 BACK DOOR EMBLEM

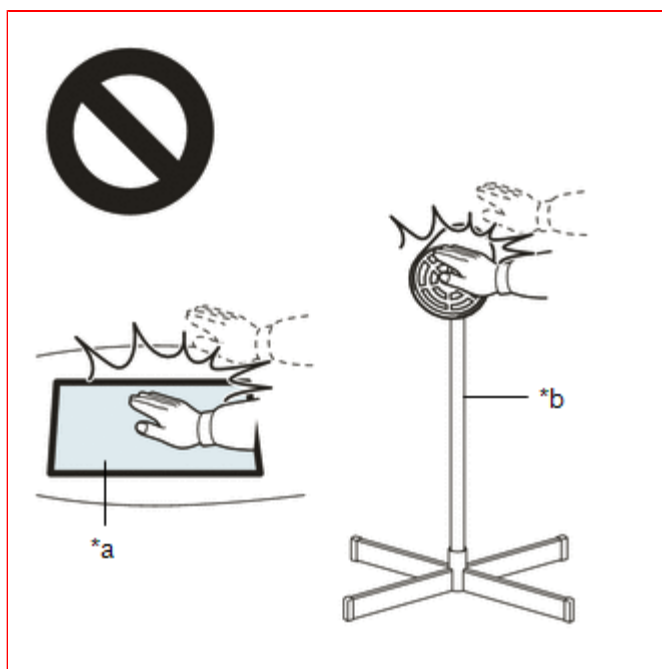
HINT:

When removing the No. 1 back door emblem, heat the No. 1 back door emblem using a heat light.

Standard:

ITEM	TEMPERATURE
No. 1 Back Door Emblem	40 to 50°C (104 to 122°F)

CAUTION:



- Touching heated parts for a long time may result in burns.

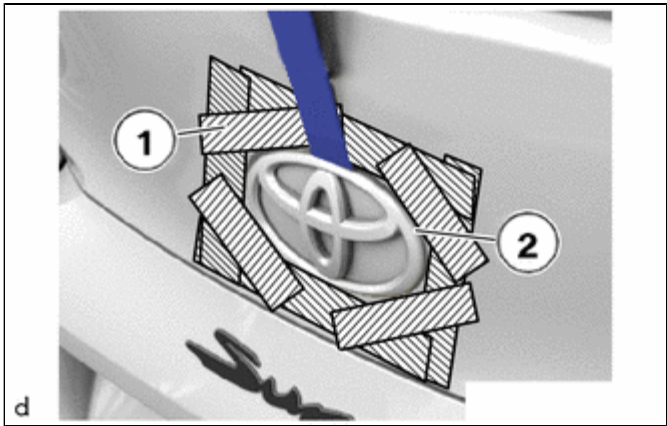
*a	Heated Part
*b	Heat Light

- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the No. 1 back door emblem excessively.

(a) Tape off working area (1) around No. 1 back door emblem (2) with protective tape.



	Protective Tape
--	-----------------

- (b) Using a moulding remover A, remove the No. 1 back door emblem (2).
- (c) Remove the protective tape.

3. REMOVE NAME PLATE

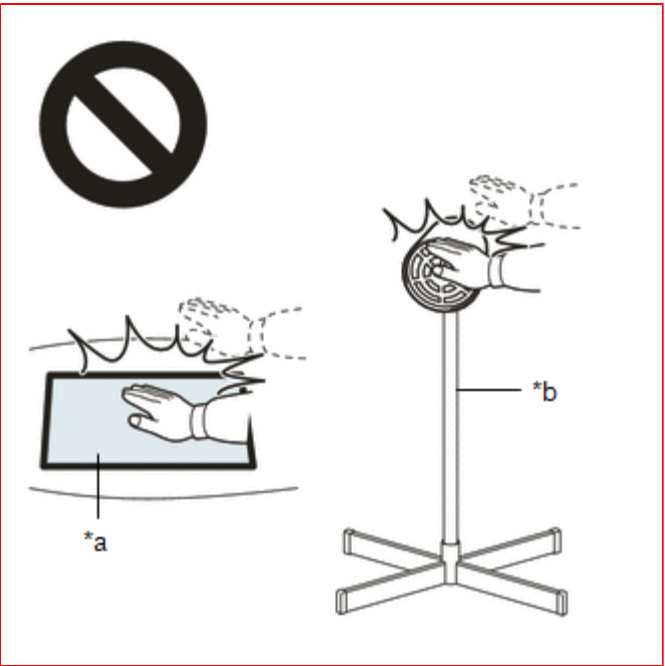
HINT:

When removing the name plate, heat the name plate using a heat light.

Standard:

ITEM	TEMPERATURE
Name Plate	40 to 50°C (104 to 122°F)

CAUTION:



- Touching heated parts for a long time may result in burns.

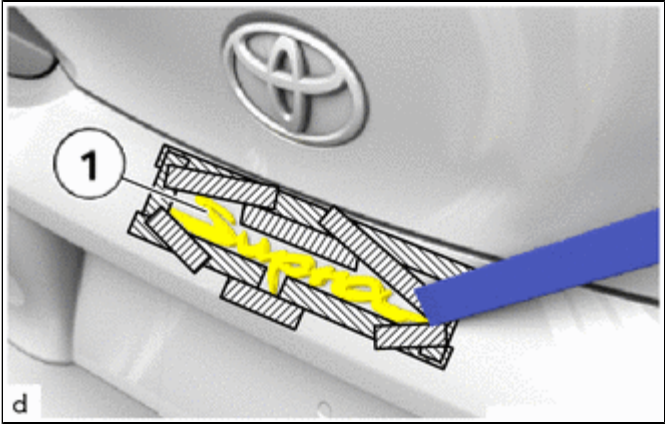
*a	Heated Part
*b	Heat Light

- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the name plate excessively.

(a) Tape off the working area around the name plate (1) with protective tape.



	Protective Tape
--	-----------------

(b) Using a moulding remover A, remove the name plate (1).

(c) Remove the protective tape.

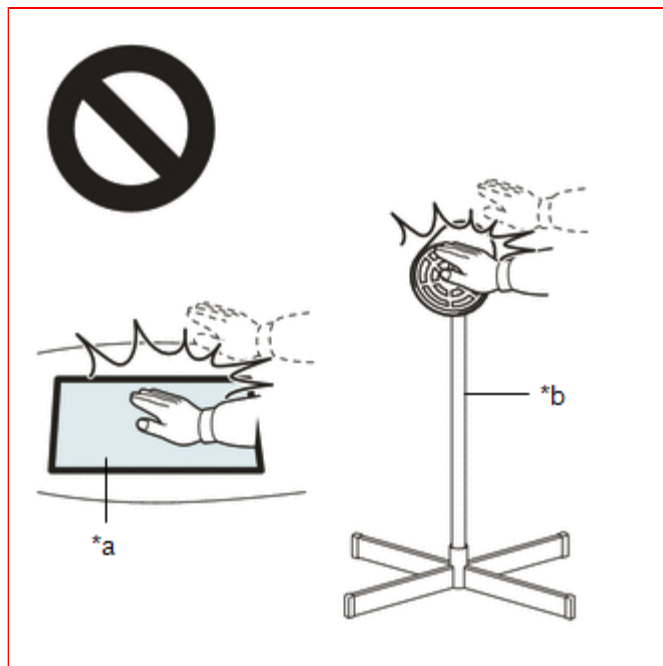
4. REMOVE SYMBOL EMBLEM

HINT:

When removing the symbol emblem, heat the symbol emblem using a heat light.

Standard:

ITEM	TEMPERATURE
------	-------------

CAUTION:

- Touching heated parts for a long time may result in burns.

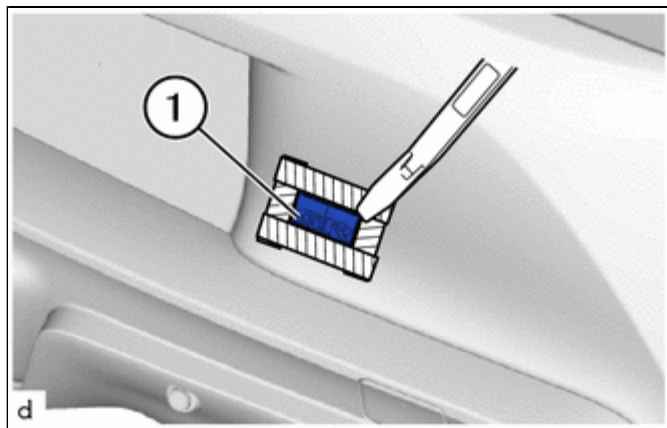
*a	Heated Part
*b	Heat Light

- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the symbol emblem excessively.

(a) Tape off the working area around the symbol emblem (1) with protective tape.



Protective Tape

(b) Using a moulding remover A, remove the symbol emblem (1).

(c) Remove the protective tape.

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Title: EXTERIOR PANELS / TRIM: NAME PLATE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SYMBOL EMBLEM

(a) Remove the adhesive residue on the rear bumper assembly and clean the adhesive area with cleaner.

Cleaner:
Cleaner R2

(b) Install the replace symbol emblem.

(1) Remove the peeling paper from the face of the symbol emblem.

HINT:

After removing the peeling paper, keep the exposed adhesive free from foreign matter.

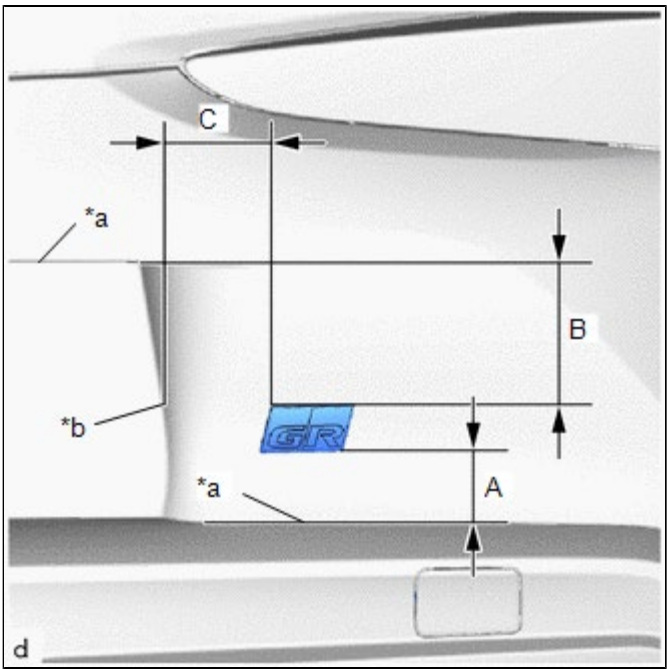
(2) Install the symbol emblem in the position shown in the illustration.

HINT:

Press the symbol emblem firmly to install it.

Standard:

AREA	SPECIFIED CONDITION
A	40.9 mm (1.61 in.)
B	91.6 mm (3.61 in.)
C	84.6 mm (3.33 in.)



*a	Rear Bumper Assembly Edge
*b	Rear Bumper Assembly End of R

2. INSTALL NAME PLATE

(a) Remove the adhesive residue on the rear bumper assembly and clean the adhesive area with the cleaner.

Cleaner:
Cleaner R2

(b) Install the replace name plate.

(1) Remove the peeling paper from the face of the name plate.

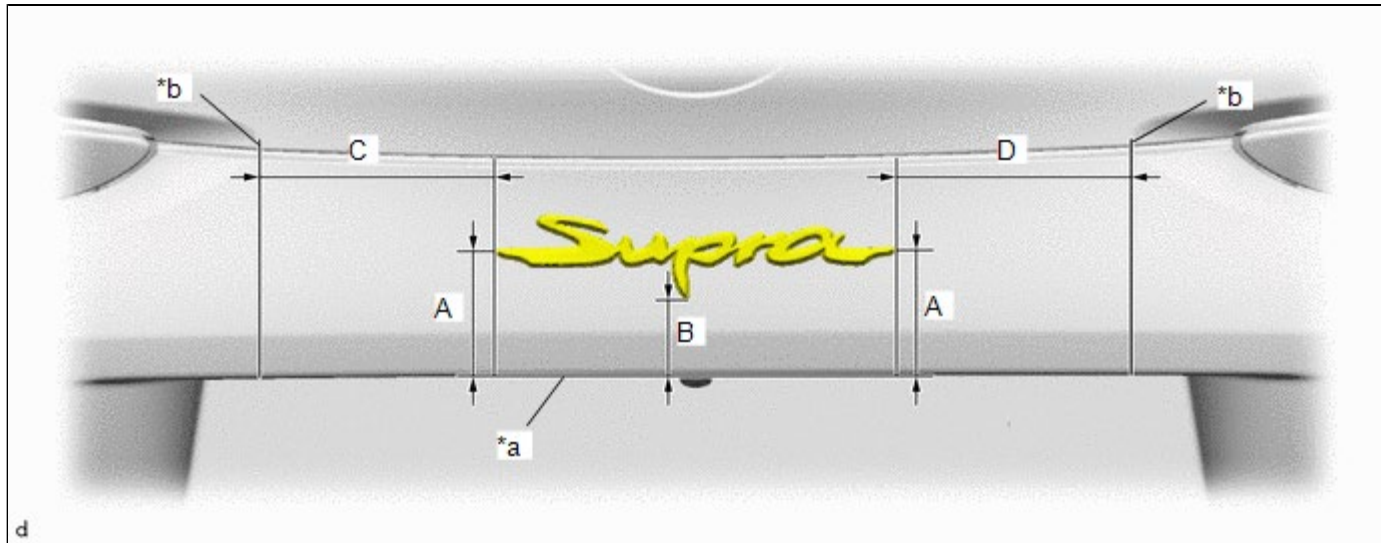
HINT:

After removing the peeling paper, keep the exposed adhesive free from foreign matter.

(2) Install the name plate in the position shown in the illustration.

HINT:

Press the name plate firmly to install it.



*a	Rear Bumper Assembly Edge	*b	Rear Bumper Assembly End of R
----	---------------------------	----	-------------------------------

Standard:

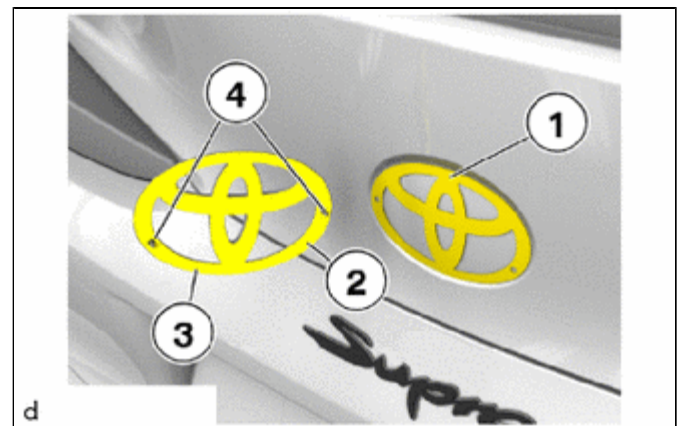
AREA	SPECIFIED CONDITION
A	65 mm (2.56 in.)
B	40 mm (1.57 in.)
C	131 mm (5.16 in.)
D	138 mm (5.43 in.)

3. INSTALL NO. 1 BACK DOOR EMBLEM

(a) Remove adhesive residue on the tailgate and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2



(b) Peel off the liner from the adhesive tape (2).

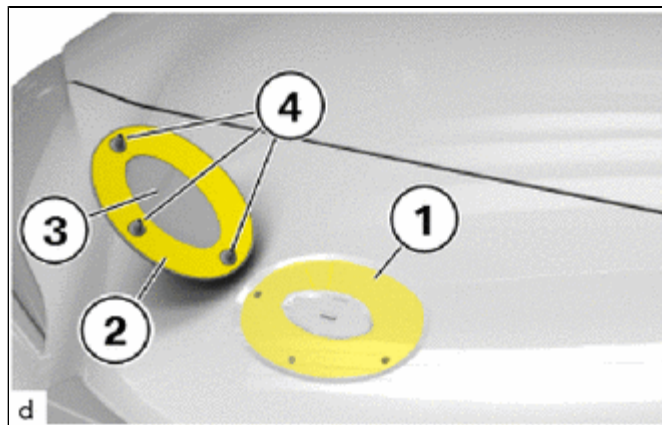
(c) Install a new No. 1 back door emblem (3) using the guides (4) and press it on tightly.

4. INSTALL FRONT BUMPER EMBLEM SUB-ASSEMBLY

- (a) Remove glue residue from the bumper panel and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2



- (b) Peel off the liner from the adhesive tape (2).

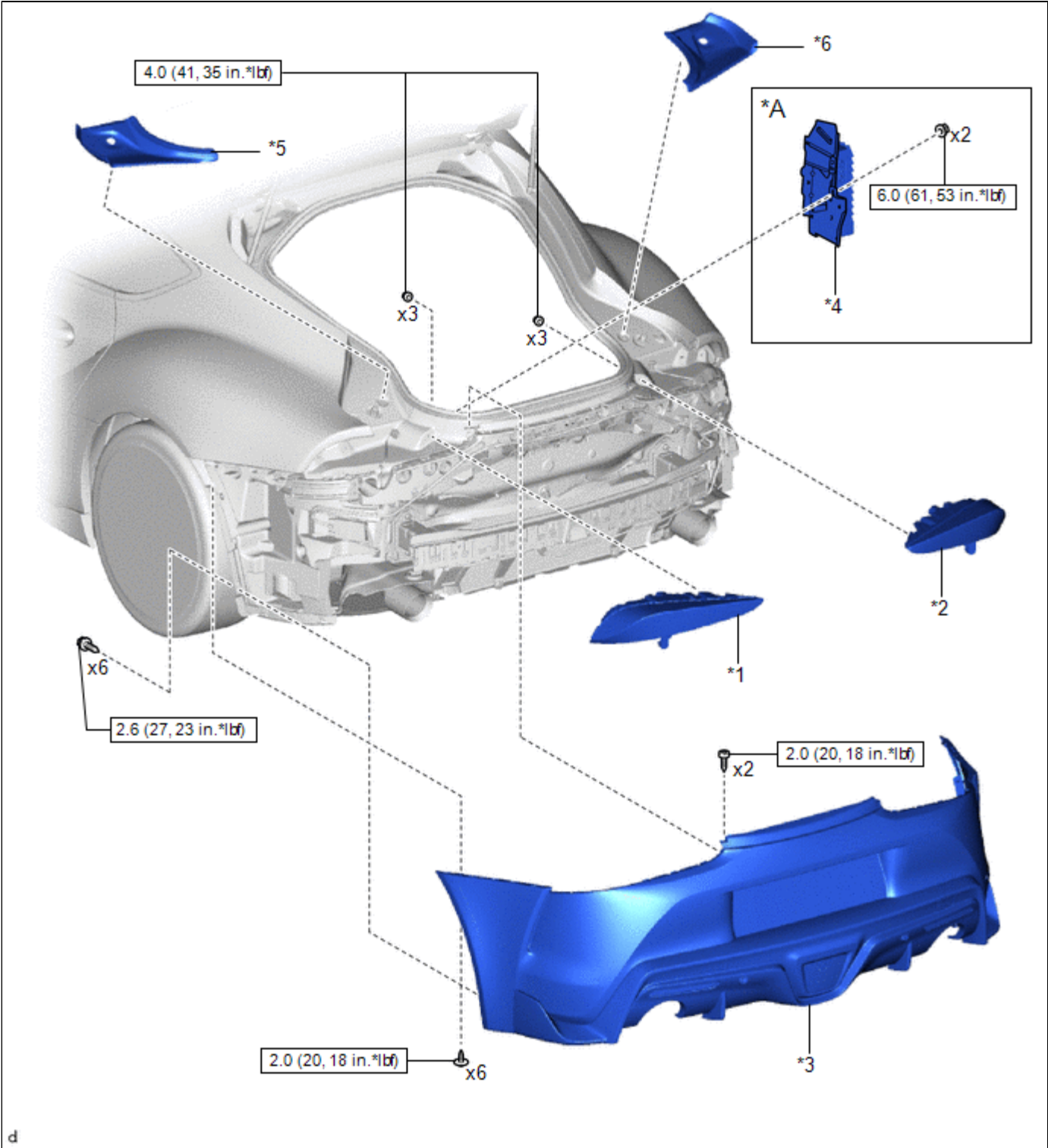
- (c) Install a new front bumper emblem sub-assembly (3) using the guides (4) and press it on tightly.




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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: REAR BUMPER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

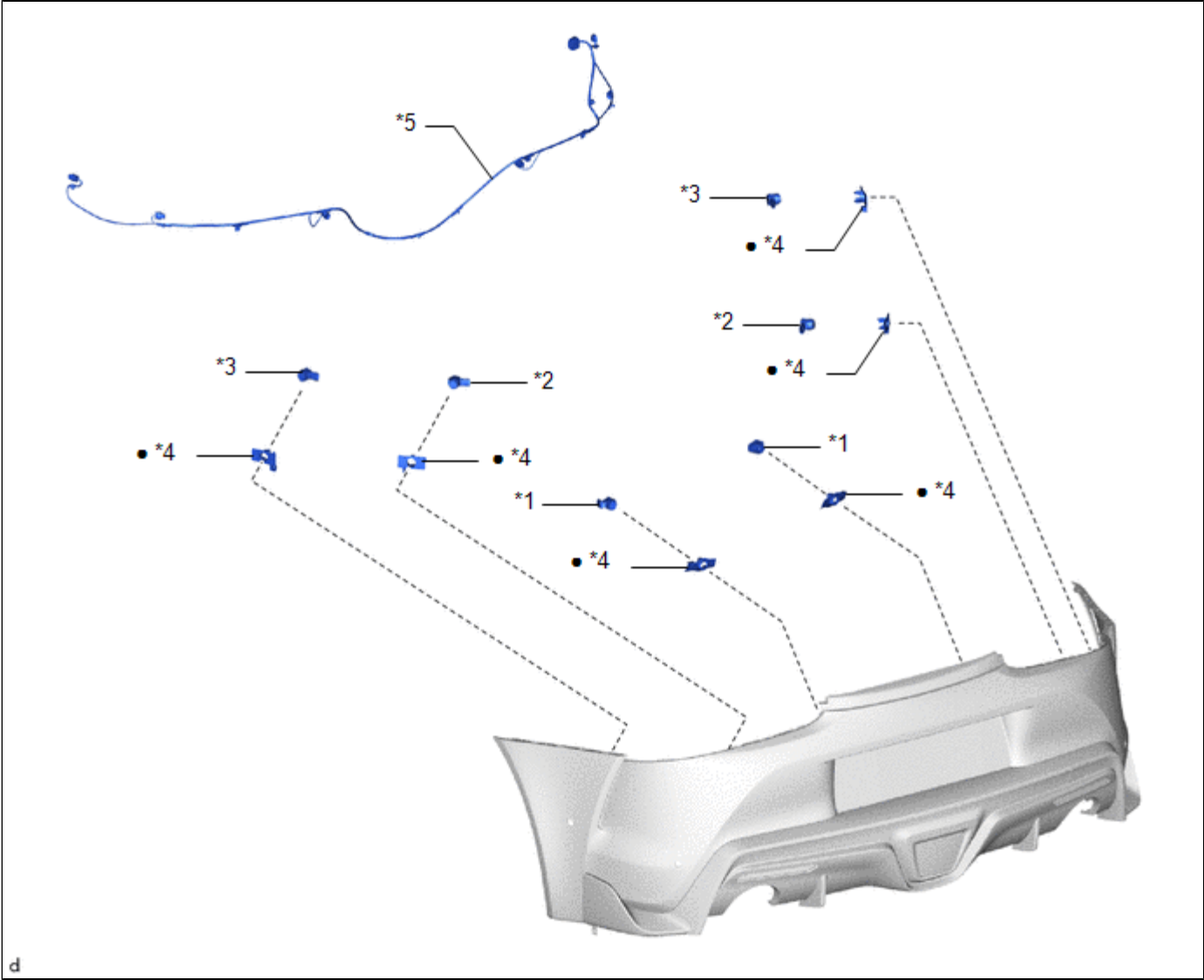
ILLUSTRATION



*A	w/ Stereo Component Amplifier	-	-
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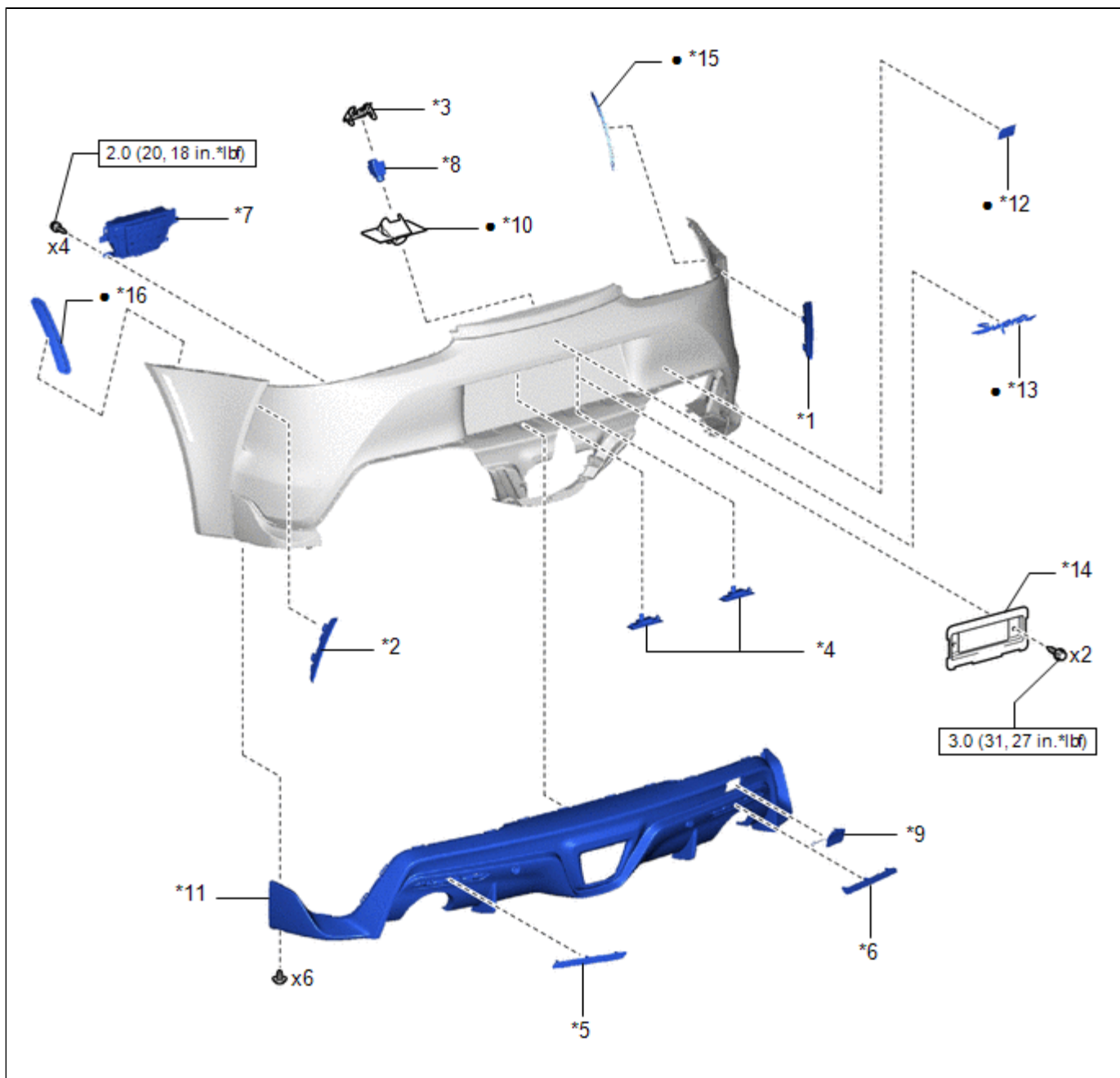
*1	REAR COMBINATION LIGHT ASSEMBLY LH	*2	REAR COMBINATION LIGHT ASSEMBLY RH
*3	REAR BUMPER ASSEMBLY	*4	STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET
*5	BACK DOOR SIDE GARNISH LH	*6	BACK DOOR SIDE GARNISH RH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



ILLUSTRATION



*1	REAR CENTER ULTRASONIC SENSOR	*2	REAR CORNER ULTRASONIC SENSOR
*3	REAR SIDE ULTRASONIC SENSOR	*4	NO. 2 ULTRASONIC SENSOR RETAINER
*5	WIRING HARNESS	-	-
●	Non-reusable part	-	-

ILLUSTRATION



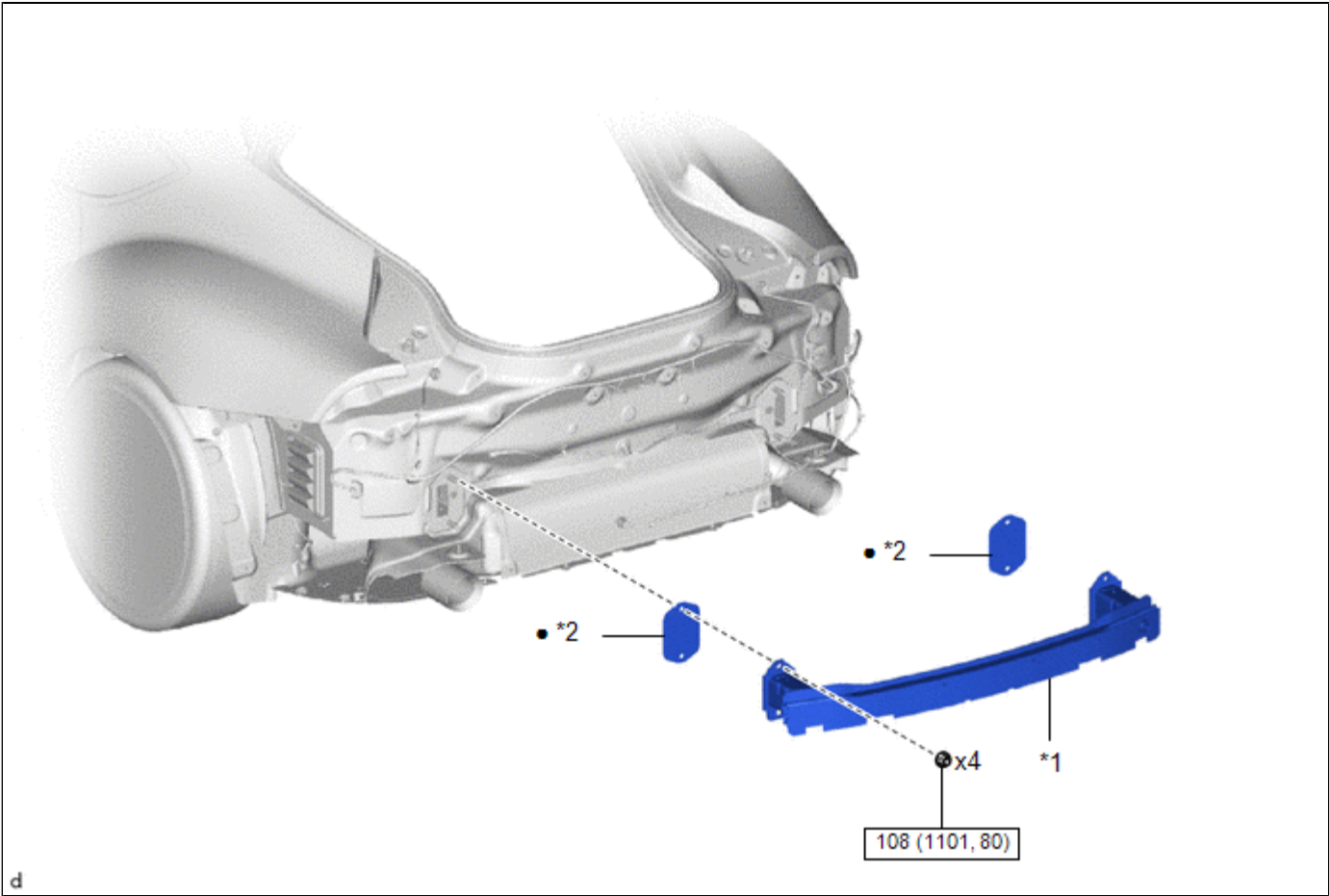
*1	AIR INLET TRIM STRIP RH	*2	AIR INLET TRIM STRIP LH
*3	HOLDER	*4	LICENSE PLATE LIGHT ASSEMBLY
*5	REFLEX REFLECTOR ASSEMBLY LH	*6	REFLEX REFLECTOR ASSEMBLY RH
*7	BACK-UP LIGHT ASSEMBLY	*8	TELEVISION CAMERA ASSEMBLY
*9	REAR BUMPER PLATE RH	*10	BRACKET FOR REAR VIEW CAMERA
*11	REAR BUMPER COVER LOWER SECTION	*12	SYMBOL EMBLEM
*13	NAME PLATE	*14	REAR REGISTRATION PLATE
*15	REFLECTOR RH	*16	REFLECTOR LH
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

[illegible]

*1	REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY LH	*2	REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY RH
*3	BLIND SPOT MONITOR SENSOR LH	*4	NO. 1 REAR BUMPER SUPPORT
*5	REAR BUMPER ENERGY ABSORBER	*6	ABSORBER FUNNEL LH
*7	THEFT WARNING SIREN ASSEMBLY	*8	BLIND SPOT MONITOR SENSOR RH
*9	ABSORBER FUNNEL RH	-	-

<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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ILLUSTRATION



*1	REAR BUMPER REINFORCEMENT SUB-ASSEMBLY	*2	SEAL
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

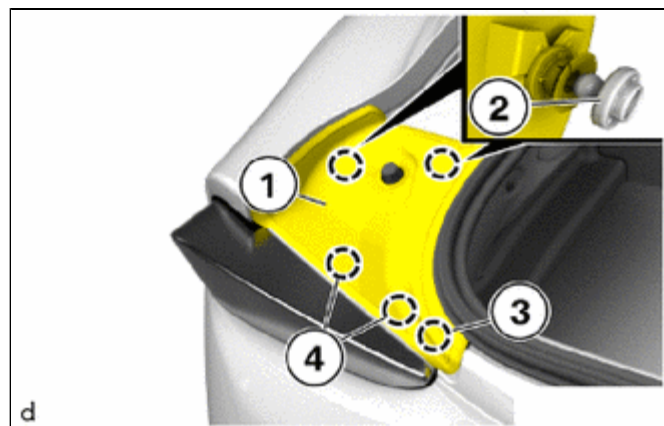
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: REAR BUMPER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE BACK DOOR SIDE GARNISH LH

(a) Disengage the pins (2) and claw (3).



(b) Disengage the guides to remove the back door side garnish LH (1).

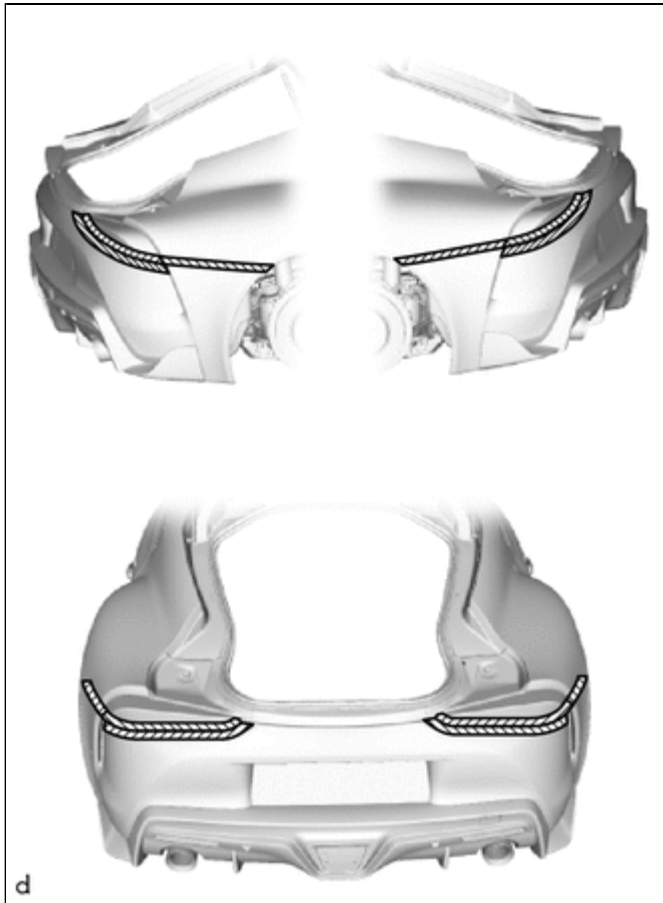
2. REMOVE BACK DOOR SIDE GARNISH RH

HINT:

Use the same procedure as for the LH side.

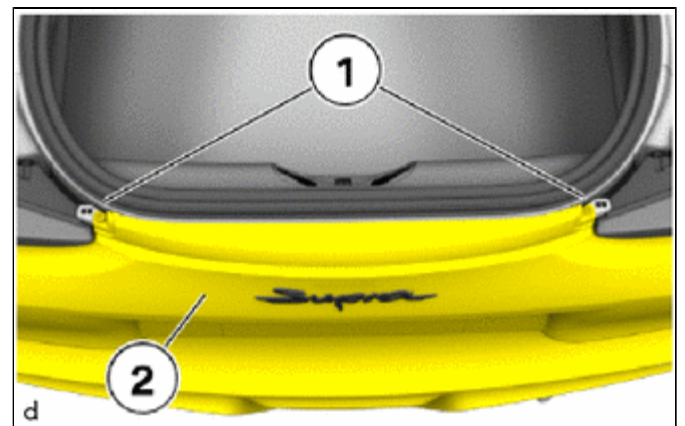
3. REMOVE REAR BUMPER ASSEMBLY

(a) Apply protective tape as shown in the illustration.



	Protective Tape
--	-----------------

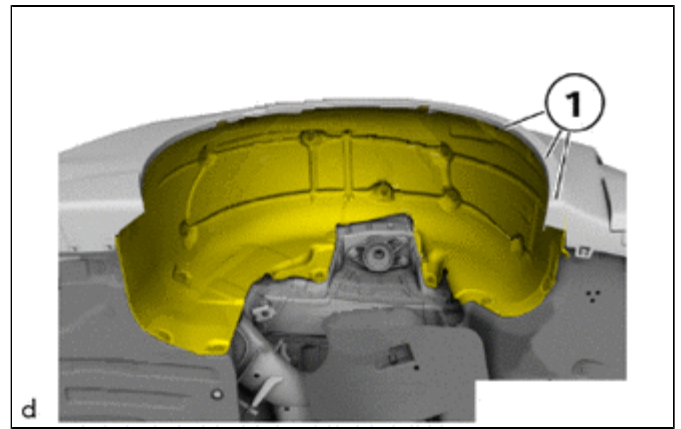
(b) Remove the T20 screws (1) on the rear bumper assembly (2).



(c) Remove the screws (1).

HINT:

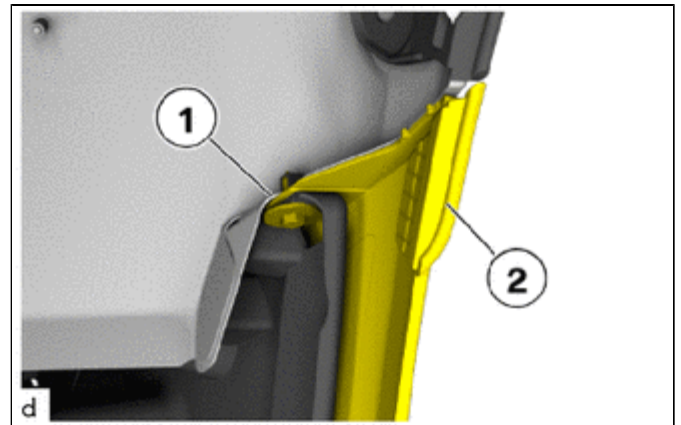
Perform the operations on the left and right side.



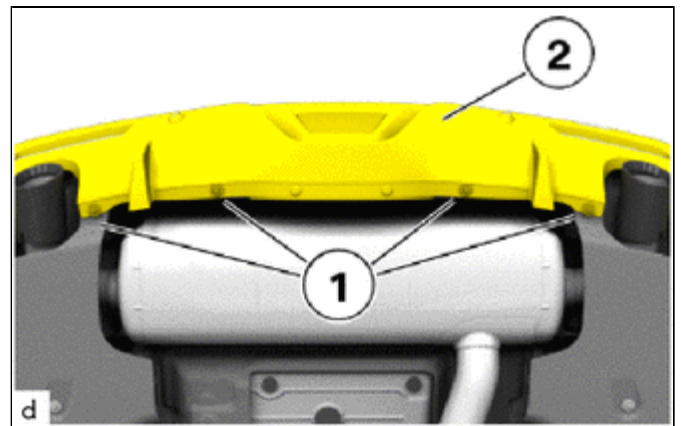
(d) Remove the screw (1) on the rear bumper assembly (2).

HINT:

Perform the operations on the left and right side.



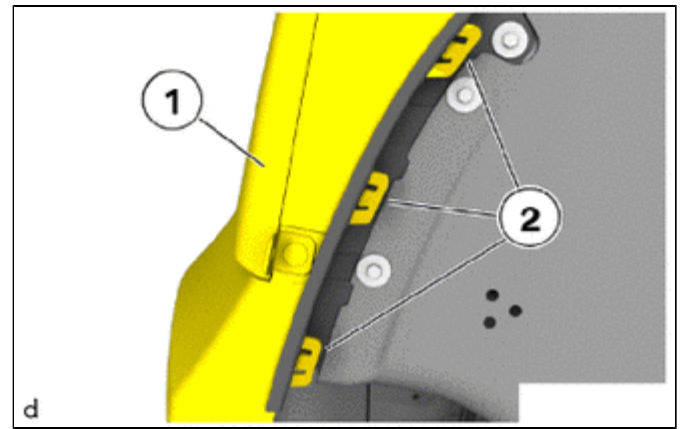
(e) Remove the screws (1) on the rear bumper assembly (2).



(f) Disengage the claws (2) on the rear bumper assembly (1).

HINT:

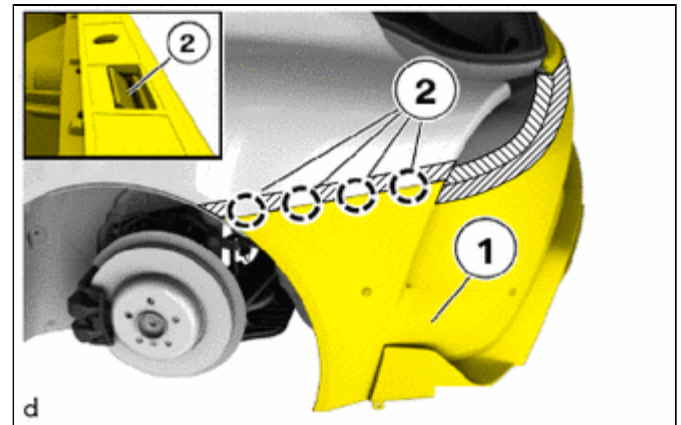
Perform the operations on the left and right side.



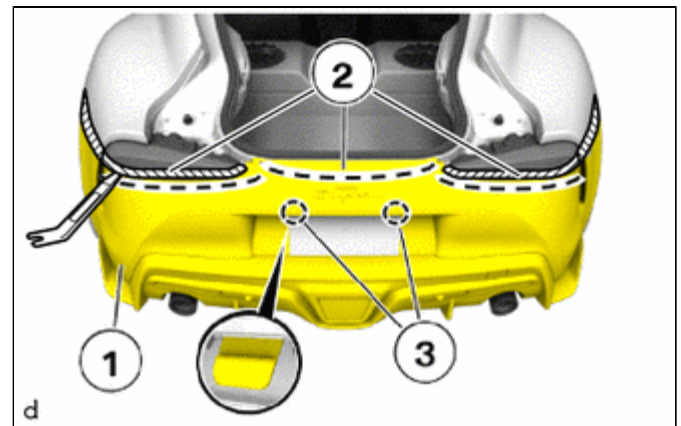
(g) Disengage the claws (2) on the rear bumper assembly (1).

HINT:

Perform the operations on the left and right side.



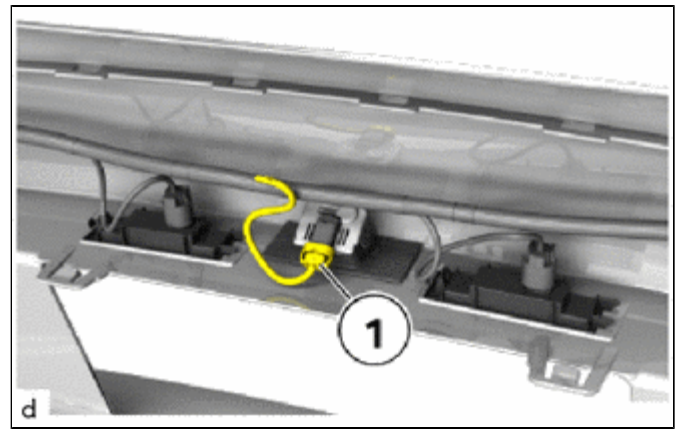
(h) Using a moulding remover E, disengage the claws (2).



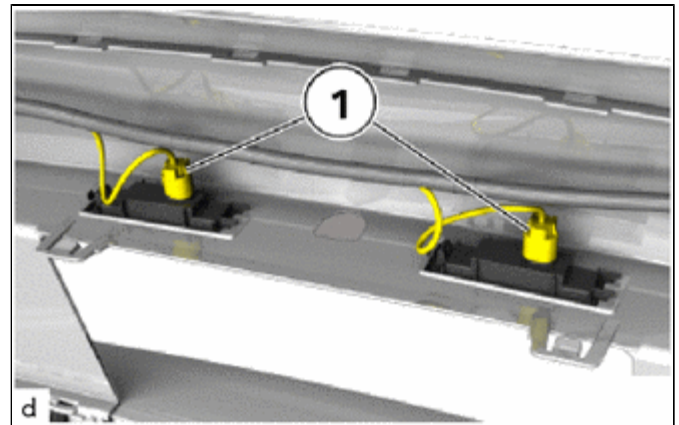
(i) Disengage the claws (3).

(j) Disconnect the rear bumper assembly (1).

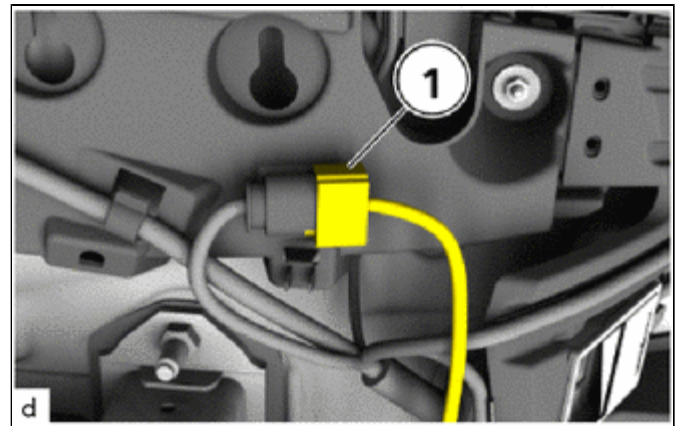
(k) Disconnect the connector (1).



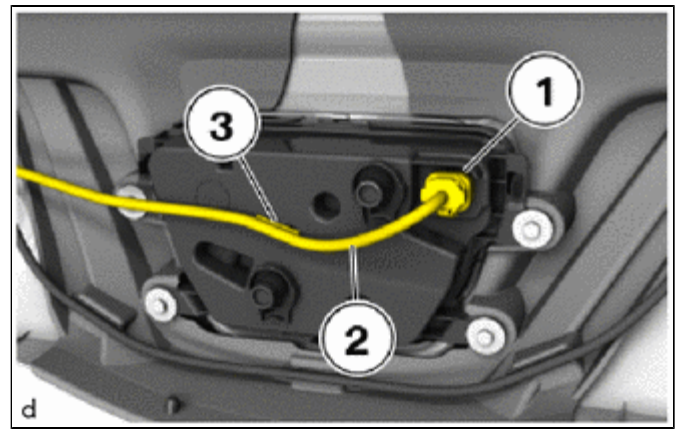
(l) Disconnect the connectors (1).



(m) Disconnect the connector (1).



(n) Disconnect the connector (1).



(o) Disengage the clamp (3) to disconnect the wiring harness (2).

(p) Remove rear bumper assembly.

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Title: EXTERIOR PANELS / TRIM: REAR BUMPER: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

2. REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKLET (w/ Stereo Component Amplifier)

Click here [INFO](#)

3. REMOVE REAR COMBINATION LIGHT ASSEMBLY LH

Click here [INFO](#)

4. REMOVE REAR COMBINATION LIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

5. REMOVE REAR SIDE ULTRASONIC SENSOR

Click here [INFO](#)

6. REMOVE REAR CORNER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the rear side ultrasonic sensor.

7. REMOVE REAR CENTER ULTRASONIC SENSOR

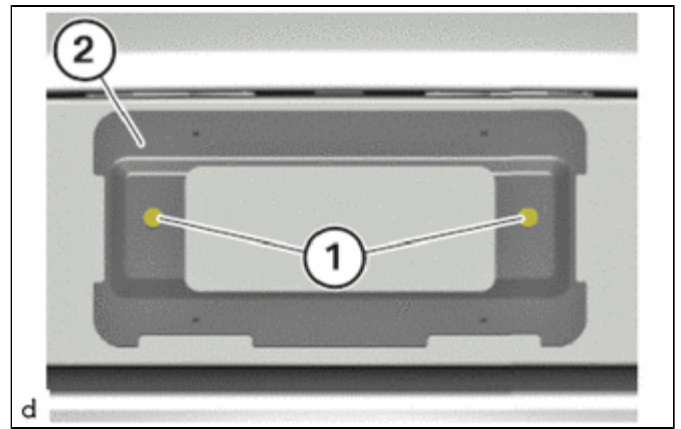
Click here [INFO](#)

8. REMOVE NO. 2 ULTRASONIC SENSOR RETAINER

Click here [INFO](#)

9. REMOVE REAR REGISTRATION PLATE

(a) Remove the screws (1).



(b) Remove rear registration plate (2).

10. REMOVE BACK-UP LIGHT ASSEMBLY

Click here [INFO](#)

11. REMOVE TELEVISION CAMERA ASSEMBLY

Click here [INFO](#)

12. REMOVE BRACKET FOR REAR VIEW CAMERA

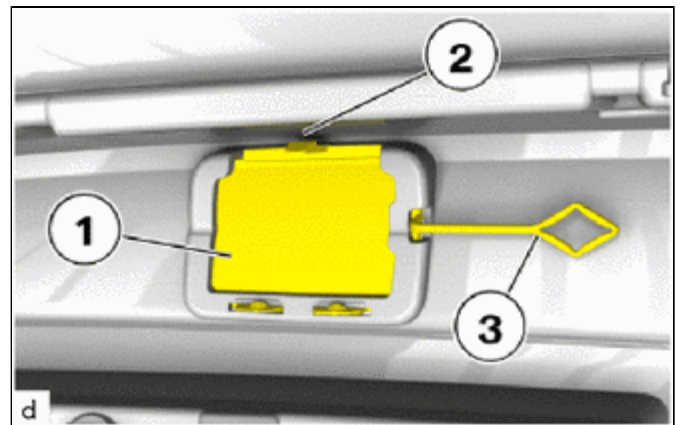
Click here [INFO](#)

13. REMOVE LICENSE PLATE LIGHT ASSEMBLY

Click here [INFO](#)

14. REMOVE REAR BUMPER PLATE RH

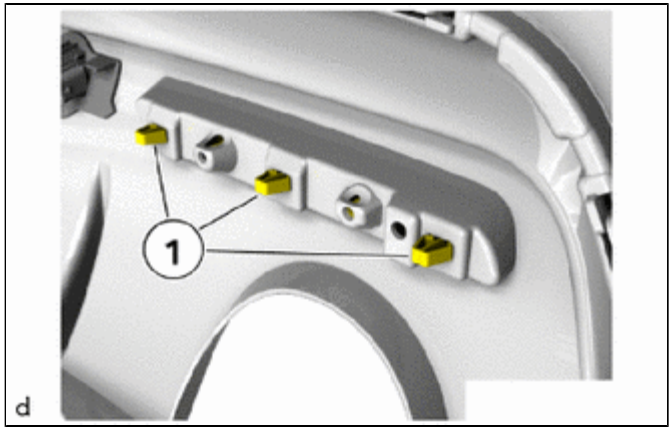
(a) Disengage the claw (2).



(b) Disengage the hook (3) to remove the rear bumper plate RH (1).

15. REMOVE REFLEX REFLECTOR ASSEMBLY LH

(a) Disengage claws (1) to remove the reflex reflector assembly LH.



16. REMOVE REFLEX REFLECTOR ASSEMBLY RH

HINT:
Use the same procedure as for the LH side.

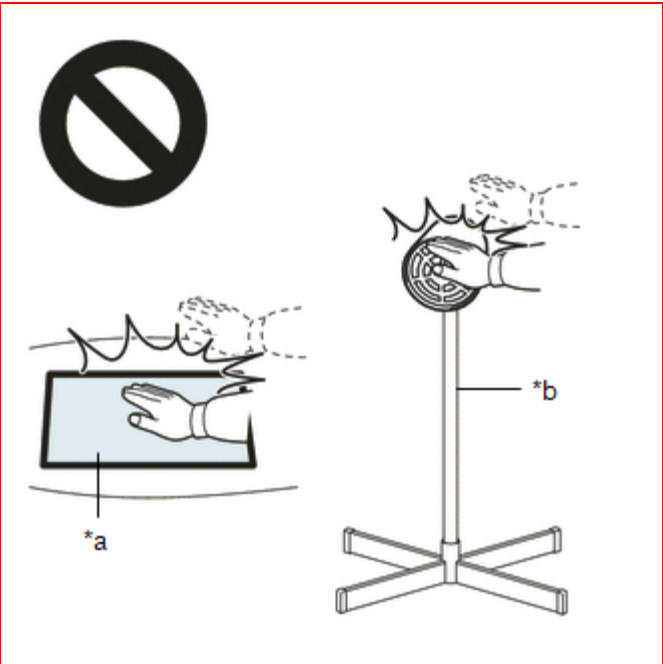
17. REMOVE REFLECTOR LH

HINT:
When removing the reflector LH, heat the reflector LH using a heat light.

Standard:

ITEM	TEMPERATURE
Reflector LH	40 to 50 °C (104 to 122 °F)

CAUTION:



- Touching heated parts for a long time may result in burns.

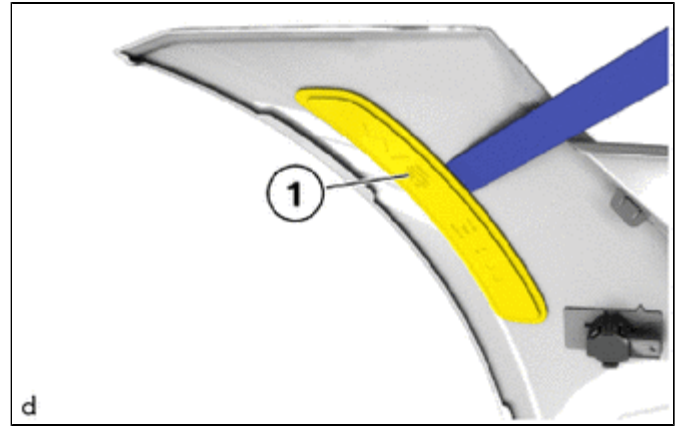
*a	Heated Part
*b	Heat Light

- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the reflector LH excessively.

(a) Using a moulding remover A, remove the reflector LH (1).



18. REMOVE REFLECTOR RH

HINT:

Use the same procedure as for the LH side.

19. REMOVE NAME PLATE

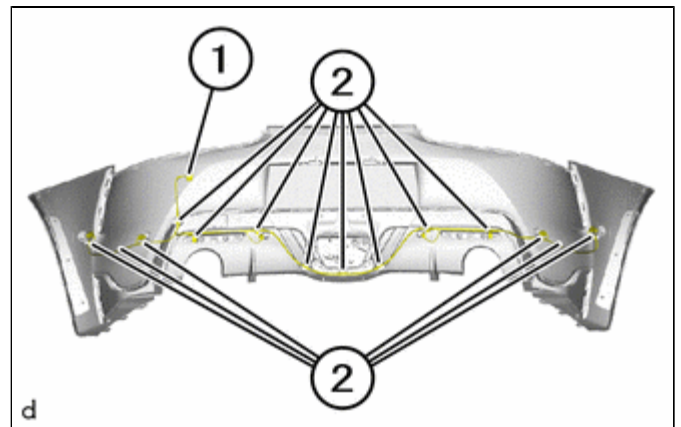
Click here [INFO](#)

20. REMOVE SYMBOL EMBLEM

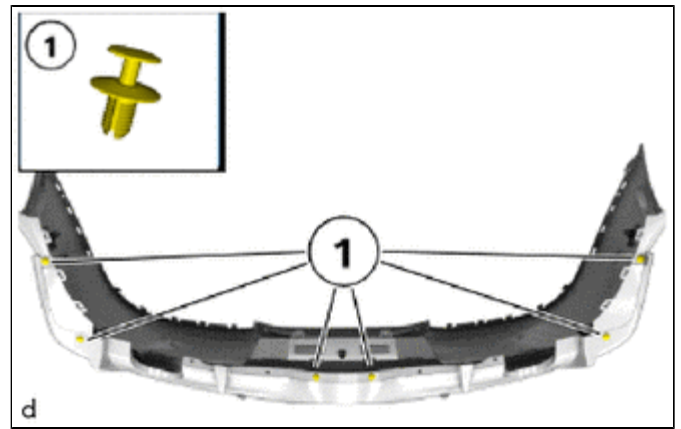
Click here [INFO](#)

21. REMOVE REAR BUMPER COVER LOWER SECTION

(a) Disengage the clamps to remove the wiring harness (1).



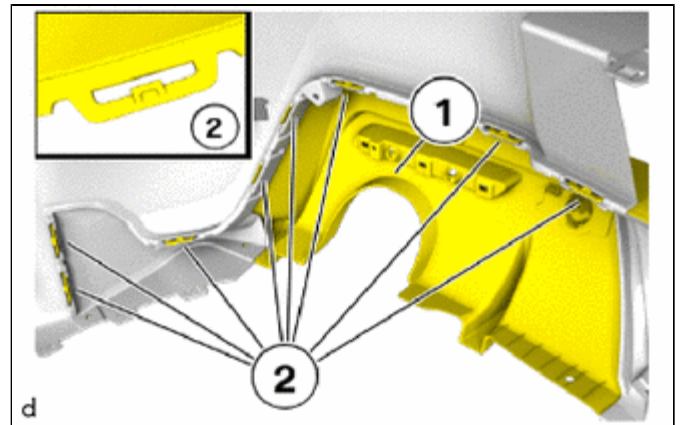
(b) Remove the clips (1).



(c) Disengage the claws (2).

HINT:

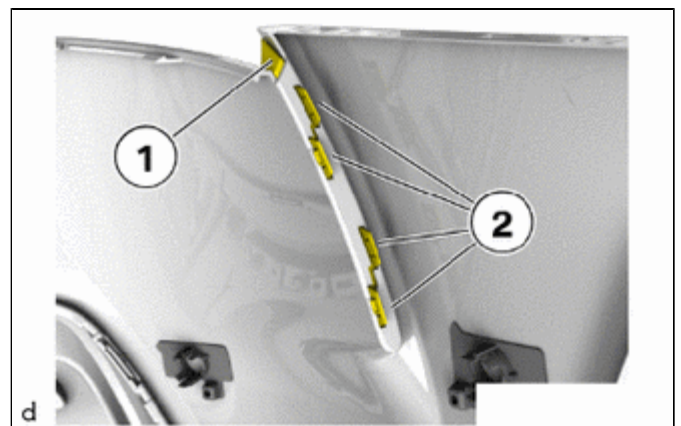
Perform the operations on the left and right side.



(d) Remove the rear bumper cover lower section (1).

22. REMOVE AIR INLET TRIM STRIP LH

(a) Disengage the claws (2) to remove the air inlet trim strip LH (1).



23. REMOVE AIR INLET TRIM STRIP RH

HINT:

Use the same procedure as for the LH side.

24. REMOVE ABSORBER FUNNEL LH

Click here [INFO](#)

25. REMOVE ABSORBER FUNNEL RH

HINT:

Use the same procedure as for the LH side.

26. REMOVE BLIND SPOT MONITOR SENSOR LH

Click here [INFO](#)

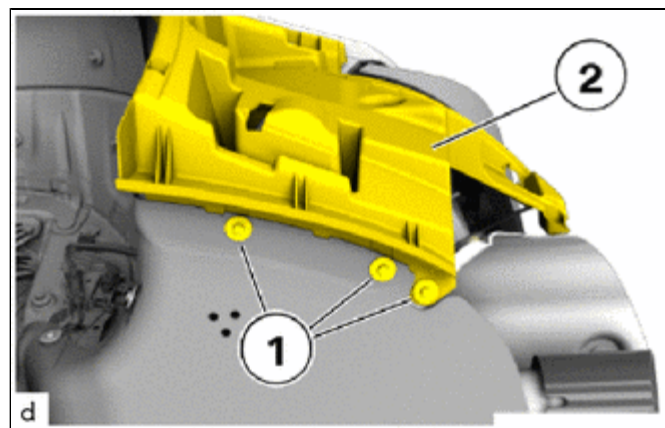
27. REMOVE BLIND SPOT MONITOR SENSOR RH

HINT:

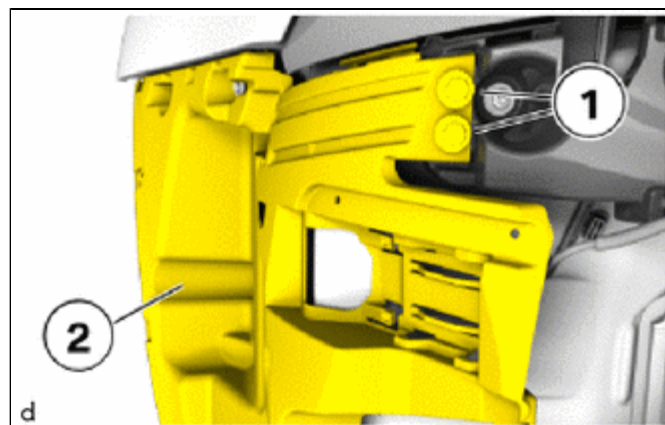
Use the same procedure as for the LH side.

28. REMOVE REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY LH

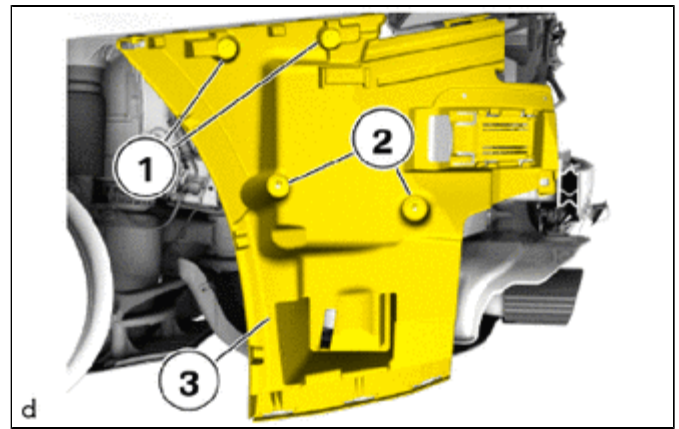
- (a) Remove the screws (1) on the rear bumper side support sub-assembly LH (2).



- (b) Remove the T20 screws (1) on the rear bumper side support sub-assembly LH (2).

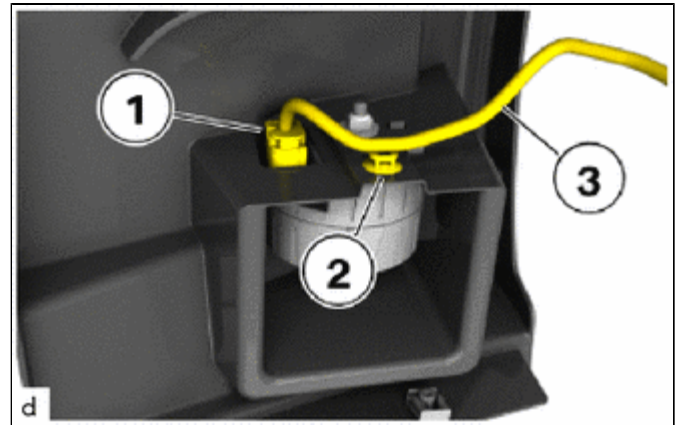


(c) Remove the screws (1).



(d) Remove the nuts (2).

(e) Remove the rear bumper side support sub-assembly LH (3).



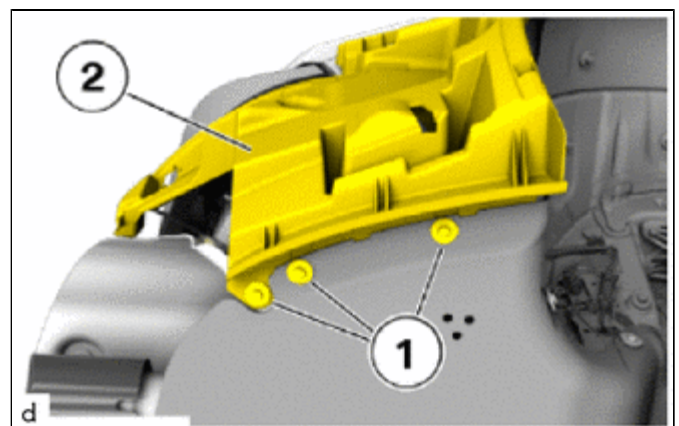
(g) Disconnect the connector (1) and wiring harness (3) to remove the rear bumper side support sub-assembly LH.

29. REMOVE THEFT WARNING SIREN ASSEMBLY

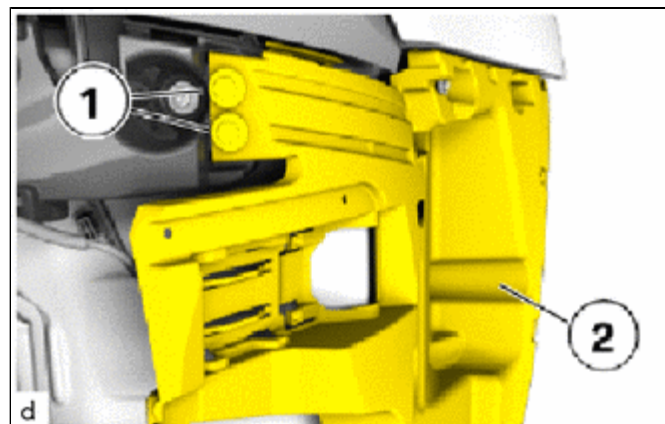
Click here [INFO](#)

30. REMOVE REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY RH

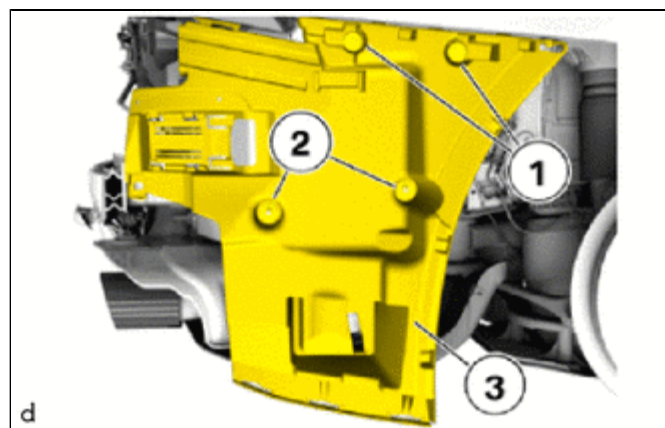
(a) Remove the screws (1) on the rear bumper side support sub-assembly RH (2).



(b) Remove the T20 screws (1) on the rear bumper side support sub-assembly RH (2).



(c) Remove the screws (1).

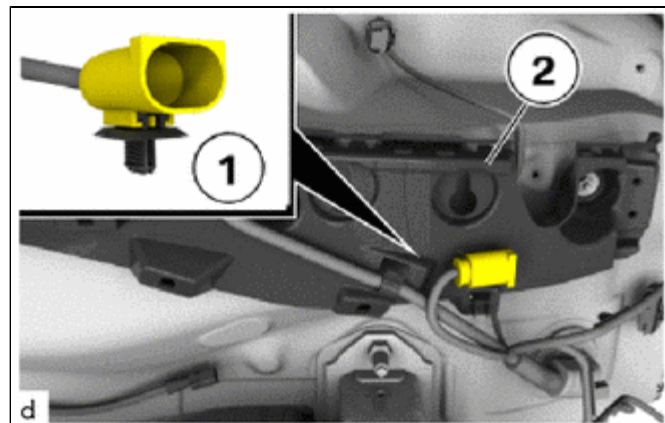


(d) Remove the nuts (2).

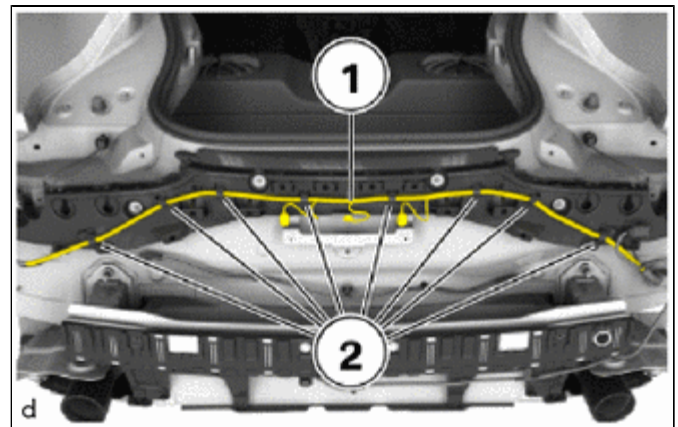
(e) Remove the rear bumper side support sub-assembly RH (3).

31. REMOVE NO. 1 REAR BUMPER SUPPORT

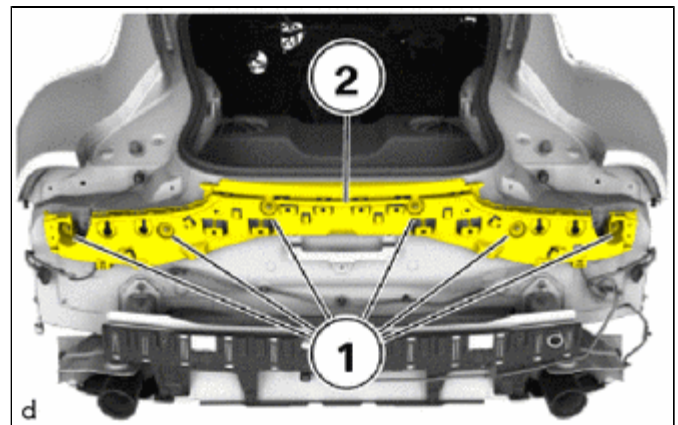
(a) Disengage the clamp (1) to the guide for the No. 1 rear bumper support (2).



(b) Disconnect the wiring harness (1) from the holders (2).

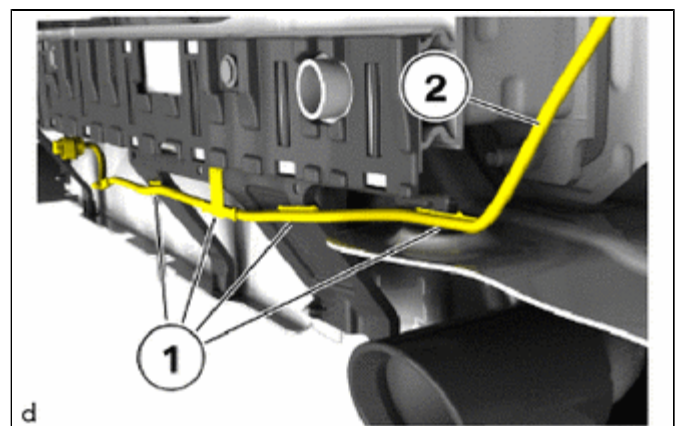


(c) Remove the nuts (1) and guide for the No. 1 rear bumper support (2).

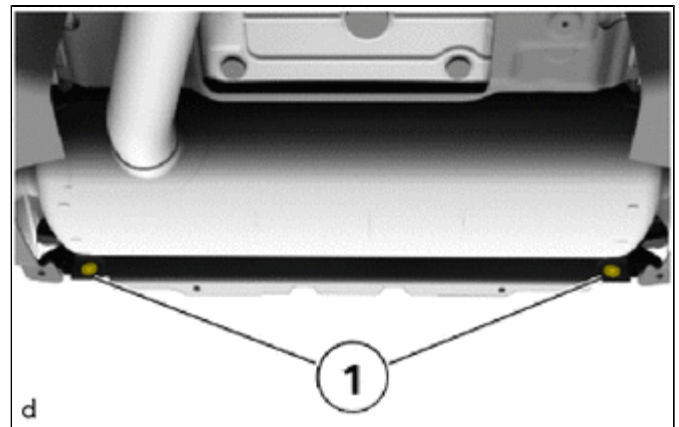


32. REMOVE REAR BUMPER ENERGY ABSORBER

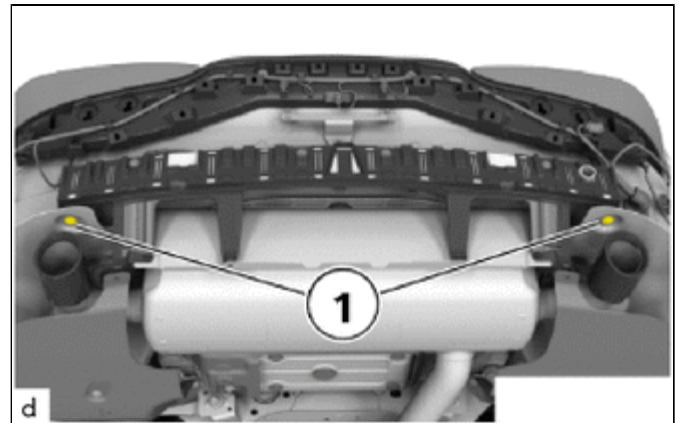
(a) Disengage the clamps (1) to disconnect the wiring harness (2).



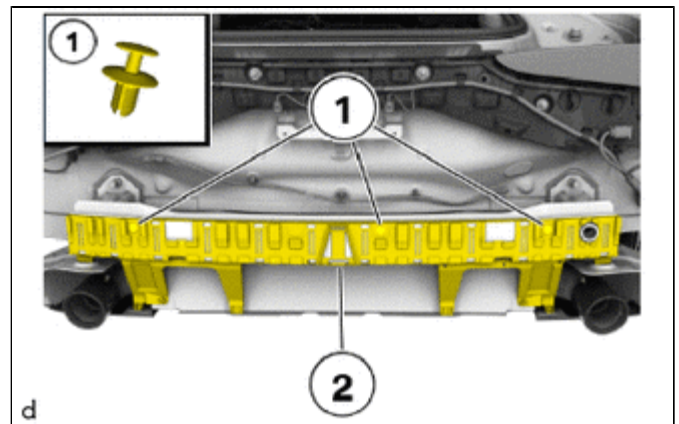
(b) Remove the screws (1).



(c) Remove the screws (1).

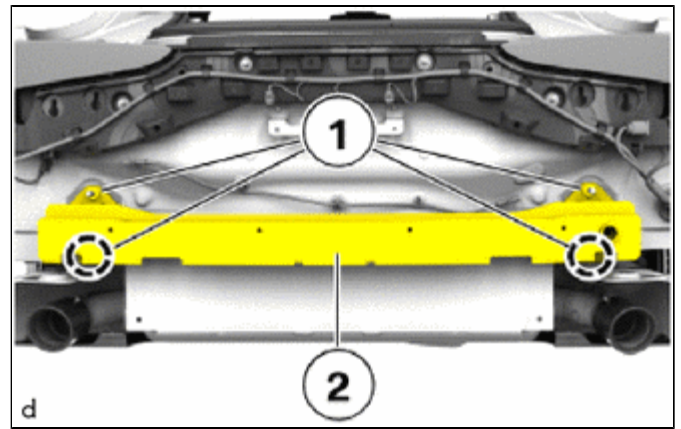


(d) Remove the clips (1) and rear bumper energy absorber (2).



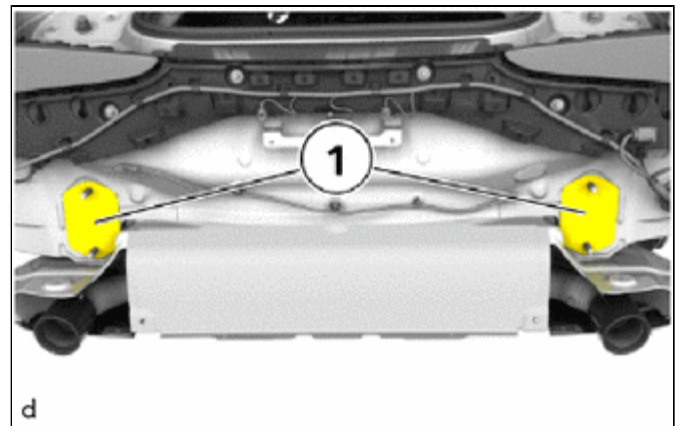
33. REMOVE REAR BUMPER REINFORCEMENT SUB-ASSEMBLY

(a) Using a deep socket wrench 18 mm, remove the 18 mm nuts (1).



(b) Remove the rear bumper reinforcement sub-assembly (2).

(c) Remove the seals (1).



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REASSEMBLY

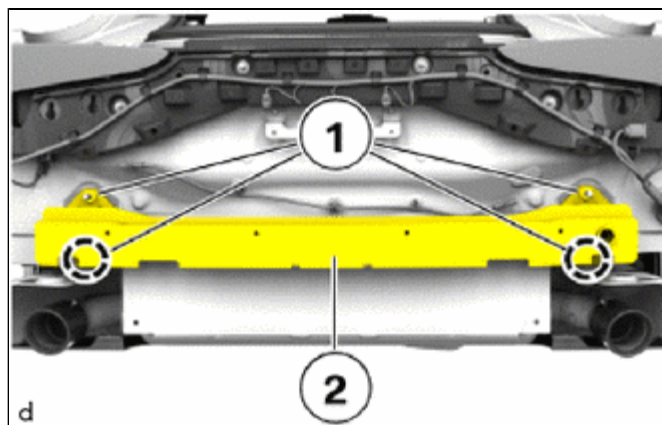
PROCEDURE

1. INSTALL REAR BUMPER REINFORCEMENT SUB-ASSEMBLY

(a) Install the replace seals (1).



(b) Set the rear bumper reinforcement sub-assembly (2).



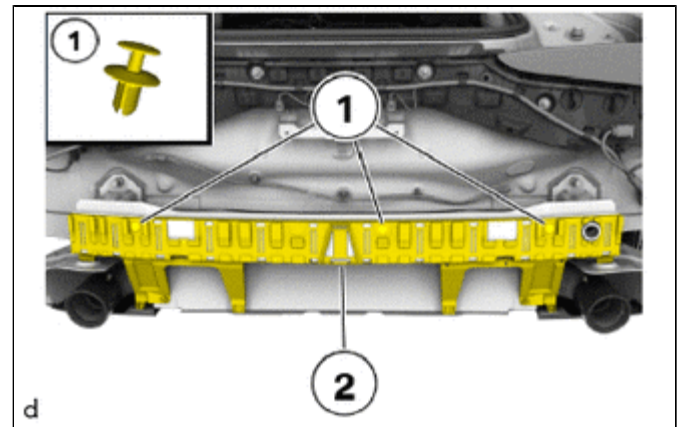
(c) Using a deep socket wrench 18 mm, install the 18 mm nuts (1).

Torque:

108 N·m {1101 kgf·cm, 80 ft·lbf}

2. INSTALL BUMPER ENERGY ABSORBER

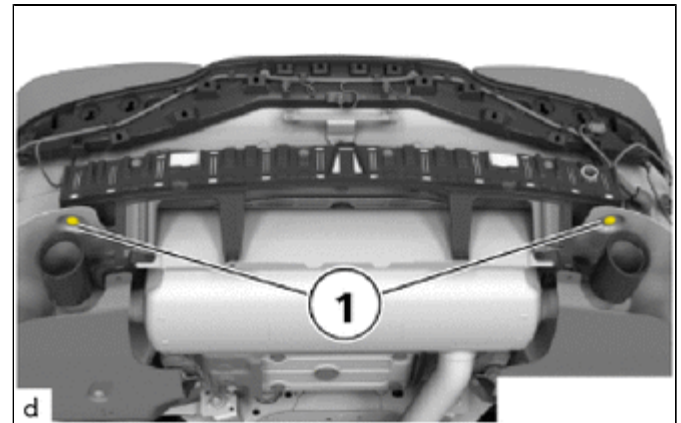
(a) Install the rear bumper energy absorber (2) with clips (1).



(b) Install the screws (1).

Torque:

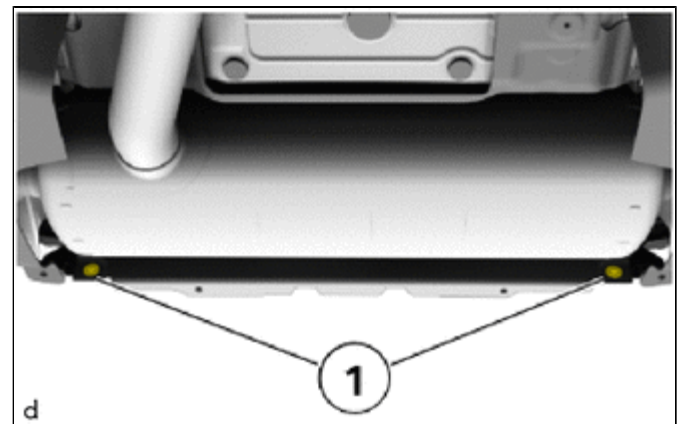
3.0 N·m {31 kgf·cm, 27 in·lbf}



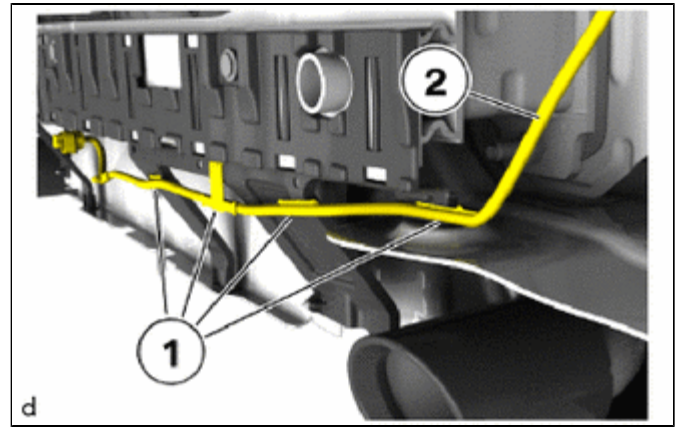
(c) Install the screws (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



(d) Engage the clamps (1) to connect the wiring harness (2).

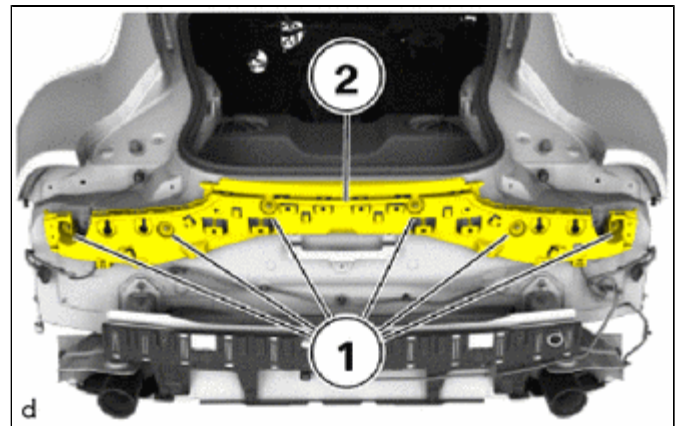


3. INSTALL NO. 1 REAR BUMPER SUPPORT

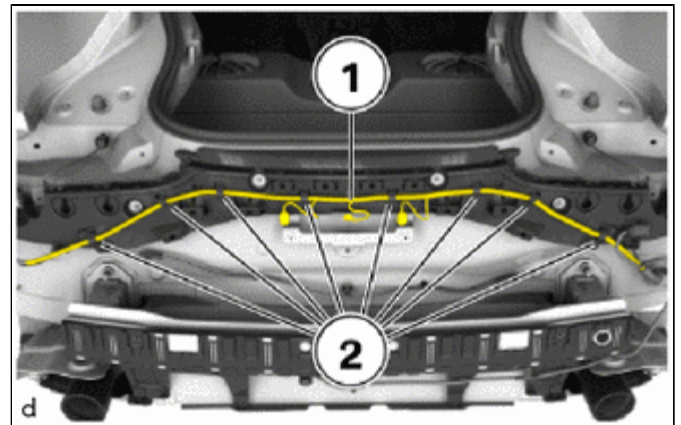
(a) Install the No. 1 rear bumper support (2) with nuts (1).

Torque:

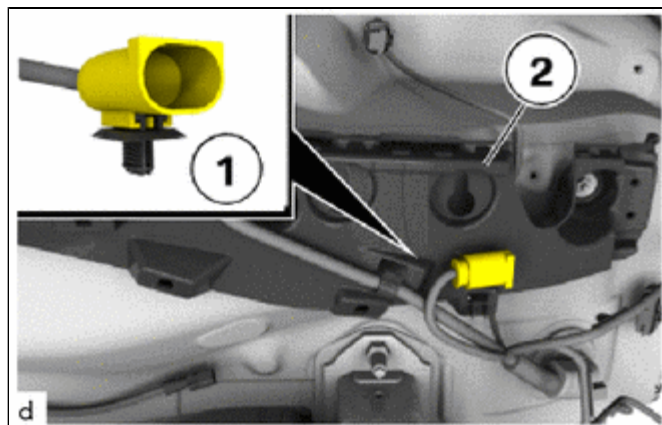
8.0 N·m {82 kgf·cm, 71 in·lbf}



(b) Connect the wiring harness (1) to the holders (2).



(c) Engage the connector (1) to the No. 1 rear bumper support (2).

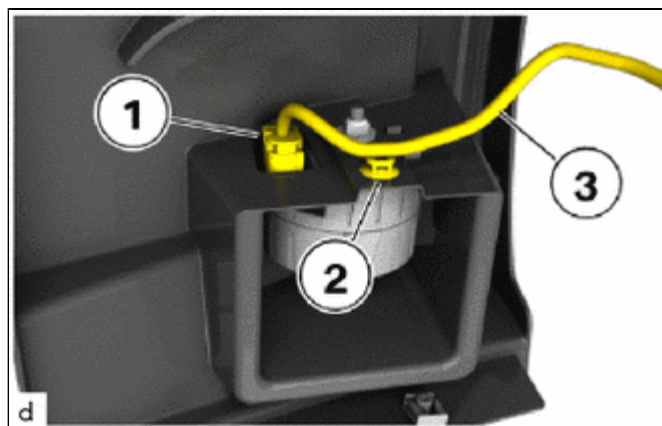


4. INSTALL THEFT WARNING SIREN ASSEMBLY

Click here [INFO](#)

5. INSTALL REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY LH

(a) Connect the connector (1) and wiring harness (3).

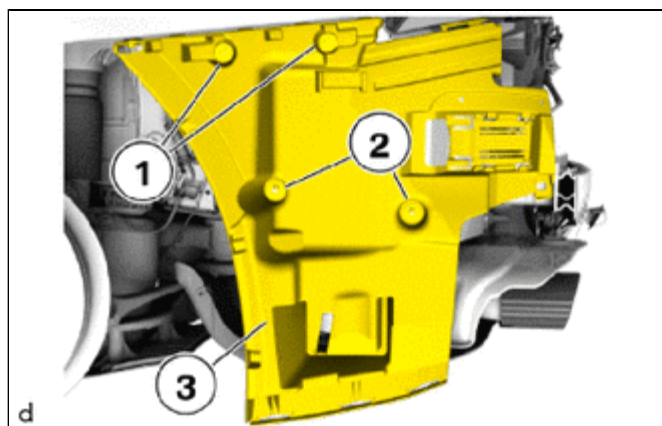


(b) Engage the clamp (2).

(c) Install the rear bumper side support sub-assembly LH (3) with nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



(d) Install the screws (1).

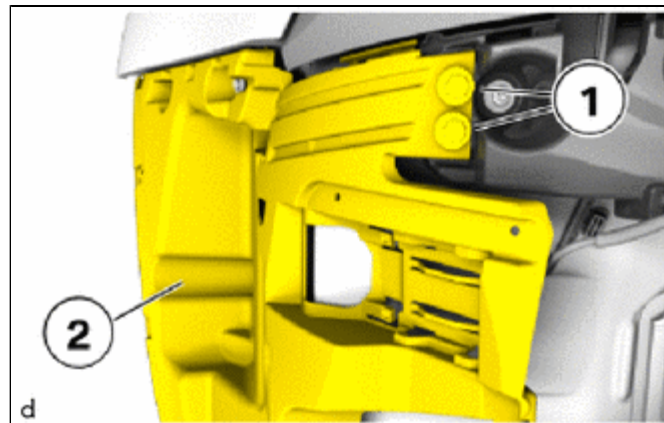
Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

- (e) Install the T20 screws (1) on the rear bumper side support sub-assembly LH (2).

Torque:

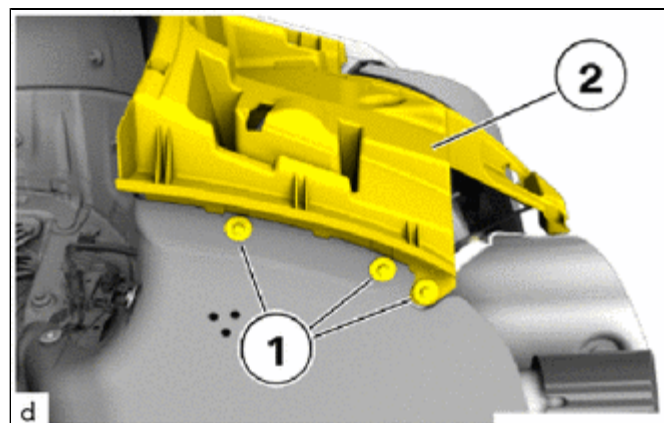
2.0 N·m {20 kgf·cm, 18 in·lbf}



- (f) Install the screws (1) on the rear bumper side support sub-assembly LH (2).

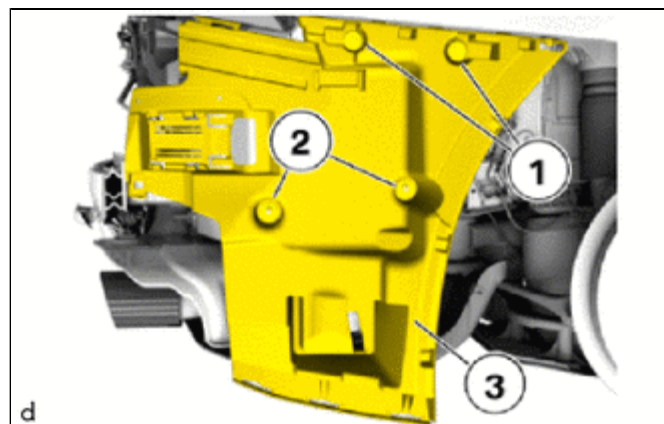
Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



6. INSTALL REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY RH

- (a) Set the rear bumper side support sub-assembly RH (3).



- (b) Install the nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(c) Install the screws (1).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

(d) Install the T20 screws (1) on the rear bumper side support sub-assembly RH (2).

Torque:

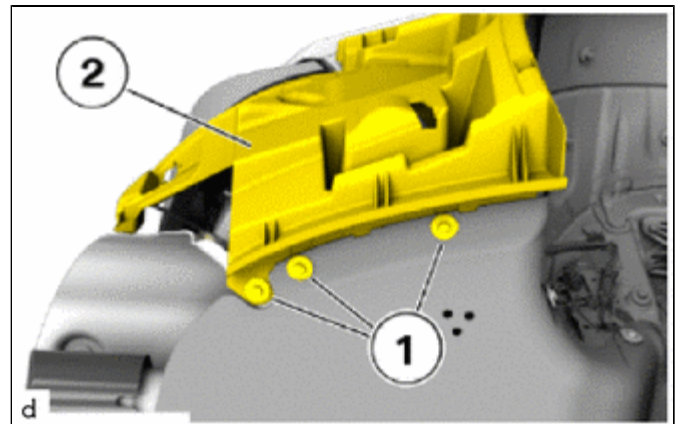
2.0 N·m {20 kgf·cm, 18 in·lbf}



(e) Install the screws (1) on the rear bumper side support sub-assembly RH (2).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



7. INSTALL BLIND SPOT MONITOR SENSOR LH

Click here [INFO](#)

8. INSTALL BLIND SPOT MONITOR SENSOR RH

HINT:

Use the same procedure as for the LH side.

9. INSTALL ABSORBER FUNNEL LH

Click here [INFO](#)

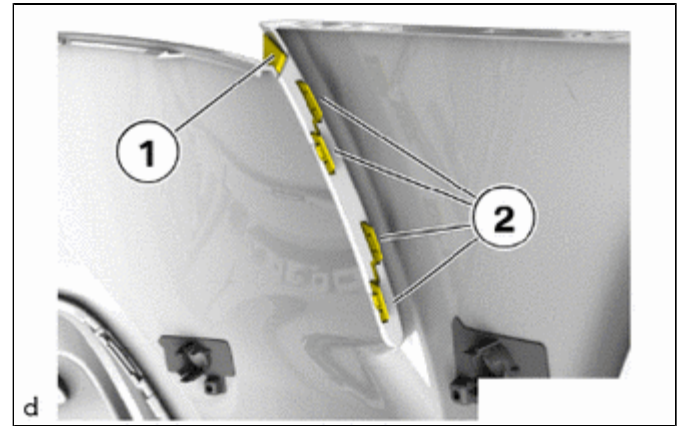
10. INSTALL ABSORBER FUNNEL RH

HINT:

Use the same procedure as for the LH side.

11. INSTALL AIR INLET TRIM STRIP LH

- (a) Install the air inlet trim strip LH (1) and engage the claws (2).



12. INSTALL AIR INLET TRIM STRIP RH

HINT:

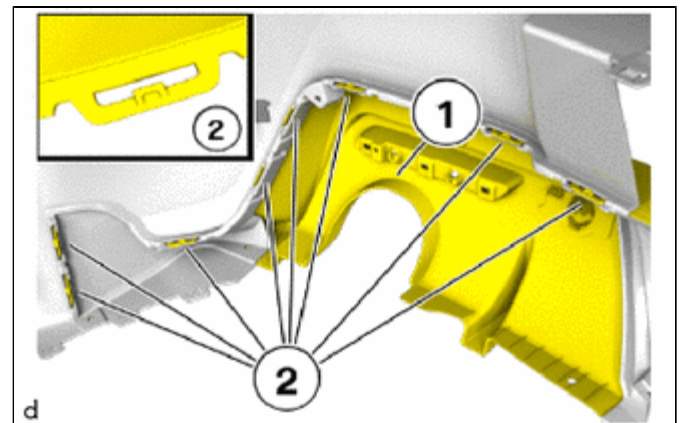
Use the same procedure as for the LH side.

13. INSTALL REAR BUMPER COVER LOWER SECTION

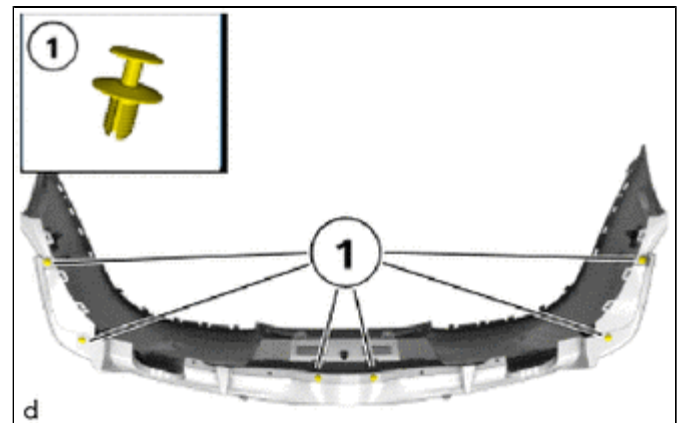
- (a) Engage the claws (2) to install the rear bumper cover lower section (1).

HINT:

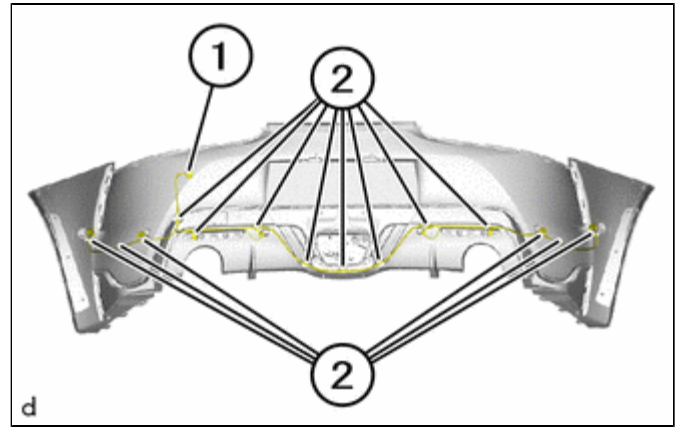
Perform the operations on the left and right side.



- (b) Install the clips (1).



(c) Engage the clamps (2) to install the wiring harness (1).



14. INSTALL SYMBOL EMBLEM

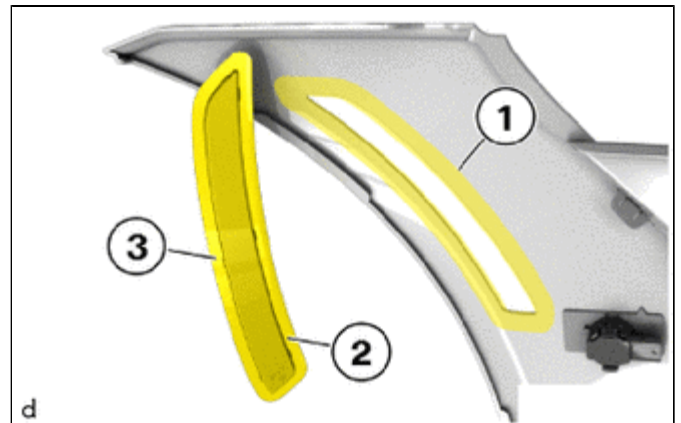
Click here [INFO](#)

15. INSTALL NAME PLATE

Click here [INFO](#)

16. INSTALL REFLECTOR LH

(a) Replace the reflector (3).



(b) Remove glue residue from the bumper panel and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2

(c) Peel off the liner (2) from the adhesive tape.

(d) Install the reflector (3) in the designated area and securely press.

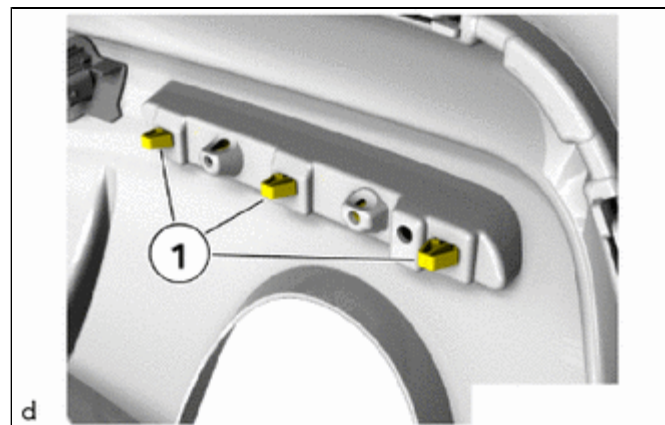
17. INSTALL REFLECTOR RH

HINT:

Use the same procedure as for the LH side.

18. INSTALL REFLEX REFLECTOR ASSEMBLY LH

(a) Engage the claws (1) to install the reflex reflector assembly LH.



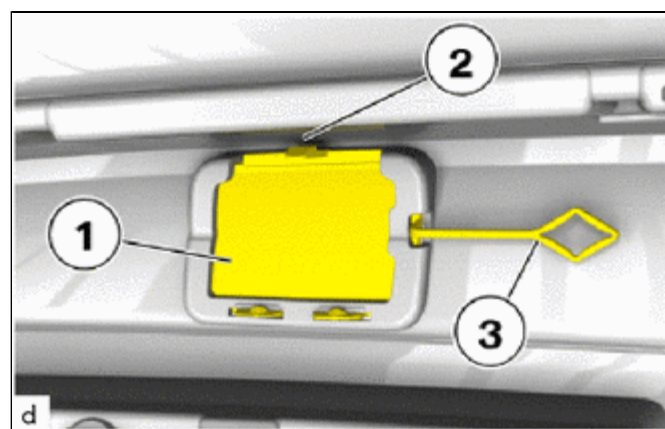
19. INSTALL REFLEX REFLECTOR ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

20. INSTALL REAR BUMPER PLATE RH

(a) Engage the hook (3).



(b) Engage the claw to install the rear bumper plate RH (1).

21. INSTALL LICENSE PLATE LIGHT ASSEMBLY

Click here [INFO](#)

22. INSTALL BRACKET FOR REAR VIEW CAMERA

Click here [INFO](#)

23. INSTALL TELEVISION CAMERA ASSEMBLY

Click here [INFO](#)

24. INSTALL BACK-UP LIGHT ASSEMBLY

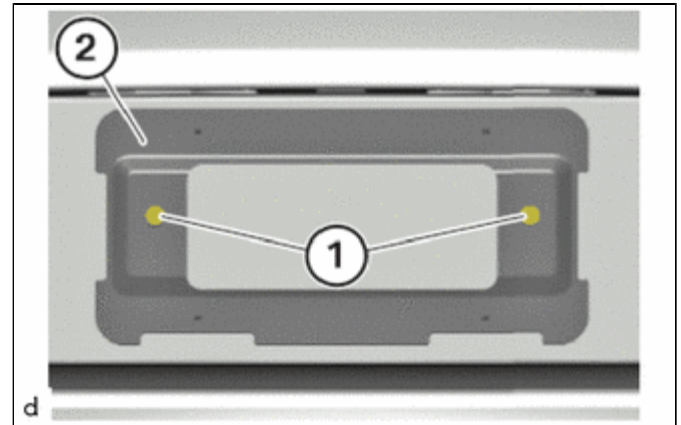
Click here [INFO](#)

25. INSTALL REAR REGISTRATION PLATE

HINT:

The bolting points of the rear registration plate are marked by stampings on the rear bumper assembly.

(a) Set the rear registration plate (2).



(b) Install the screws (1) without pre-drilling and tighten.

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

26. INSTALL NO. 2 ULTRASONIC SENSOR RETAINER

Click here [INFO](#)

27. INSTALL REAR CENTER ULTRASONIC SENSOR

Click here [INFO](#)

28. INSTALL REAR SIDE ULTRASONIC SENSOR

Click here [INFO](#)

29. INSTALL REAR CORNER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the rear side ultrasonic sensor.

30. INSTALL REAR COMBINATION LIGHT ASSEMBLY LH

Click here [INFO](#)

31. INSTALL REAR COMBINATION LIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

32. INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET (w/ Stereo Component Amplifier)

Click here [INFO](#)

33. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

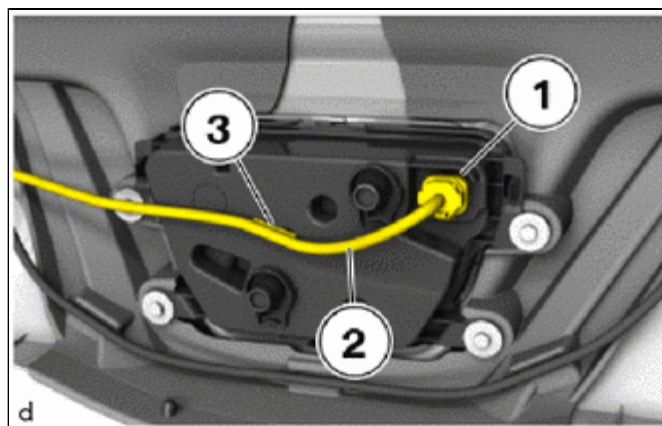
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCMS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: REAR BUMPER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

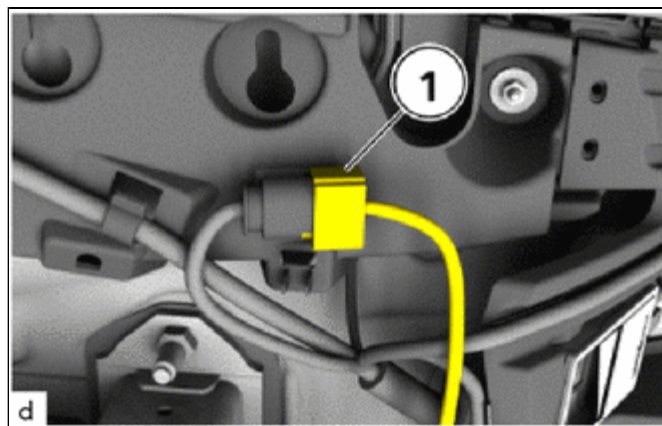
PROCEDURE

1. INSTALL REAR BUMPER ASSEMBLY

(a) Connect the connector (1).

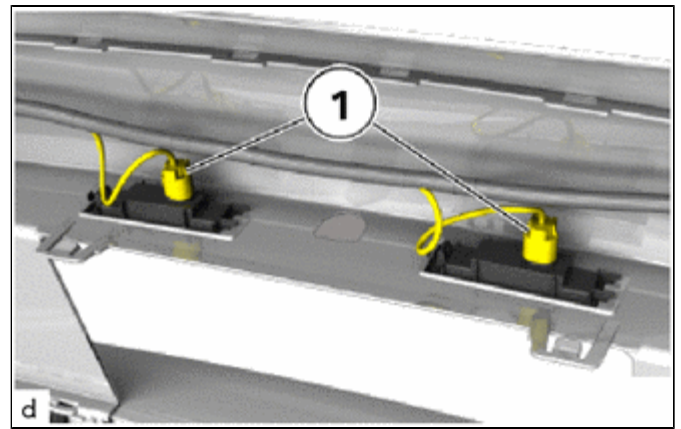


(b) Engage the wiring harness (2) with the clamp (3).

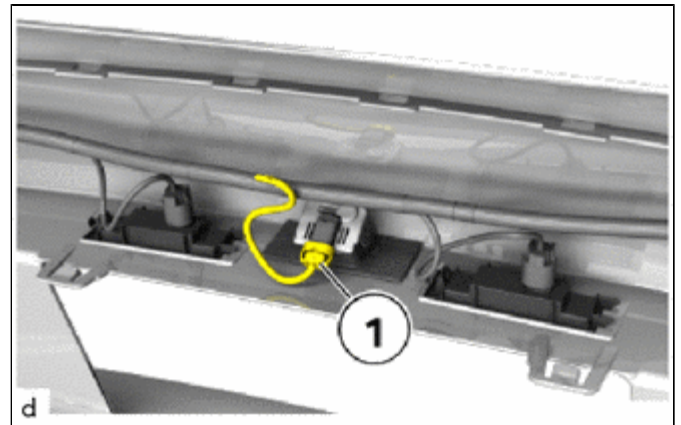


(c) Connect the connector (1).

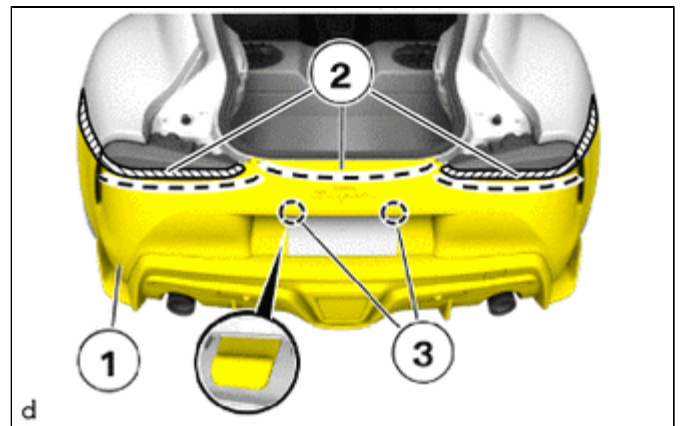
(d) Connect the connectors (1).



(e) Connect the connector (1).



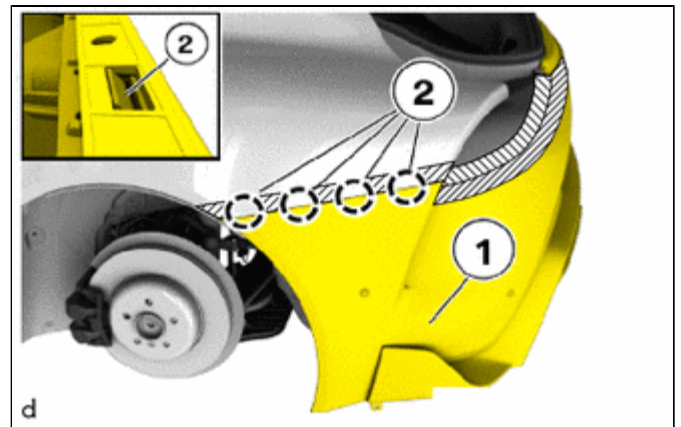
(f) Install the rear bumper assembly (1) and engage the claws (2) and claws (3).



(g) Engage the rear bumper assembly (1) into the claws (2) at side.

HINT:

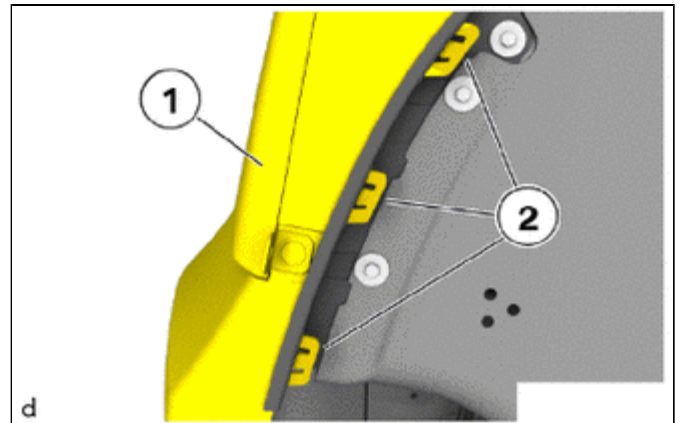
Perform the operations on the left and right side.



(h) Engage the rear bumper assembly (1) into the claws (2) at side.

HINT:

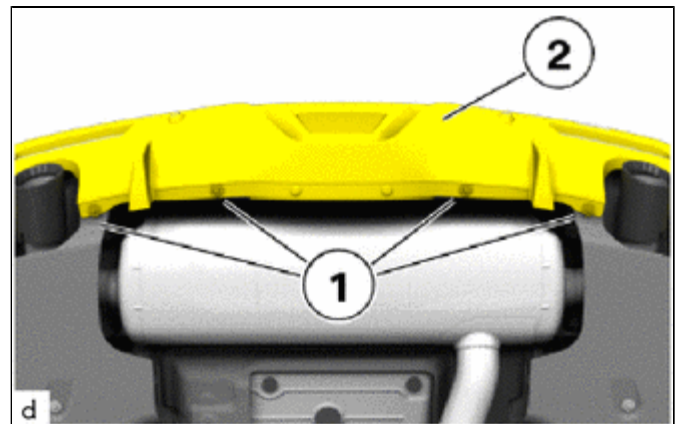
Perform the operations on the left and right side.



(i) Install the screws (1) on the rear bumper assembly (2).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}



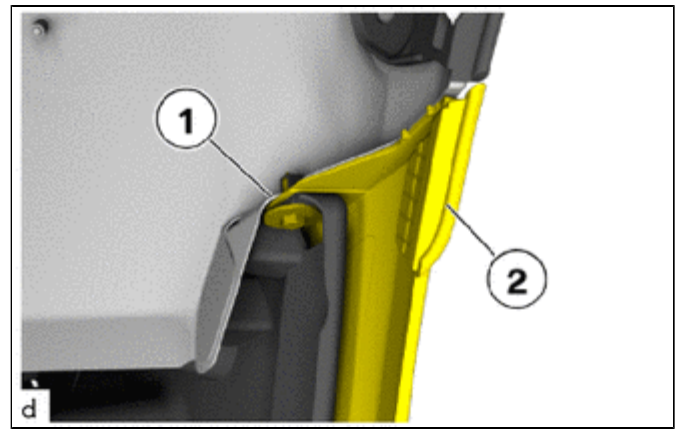
(j) Install the screw (1) on the rear bumper assembly (2).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

HINT:

Perform the operations on the left and right side.



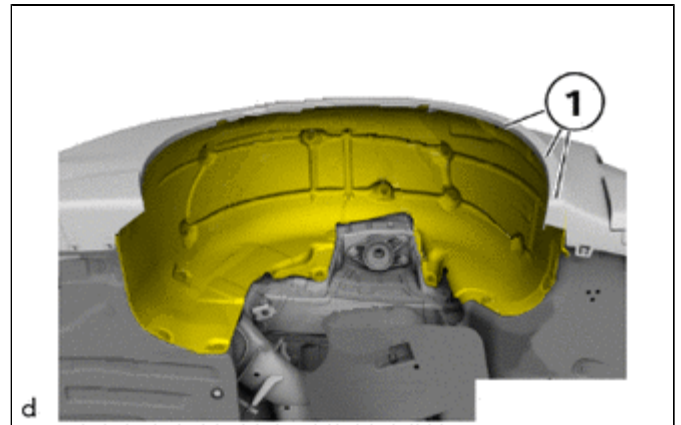
(k) Install the screws (1).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

HINT:

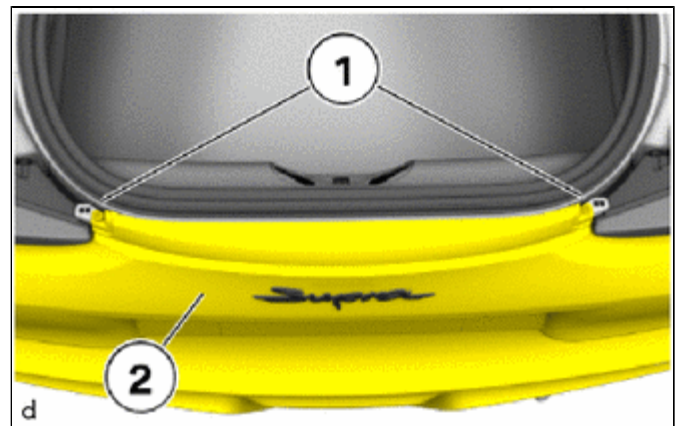
Perform the operations on the left and right side.



(l) Install the T20 screws (1) on the rear bumper assembly (2).

Torque:

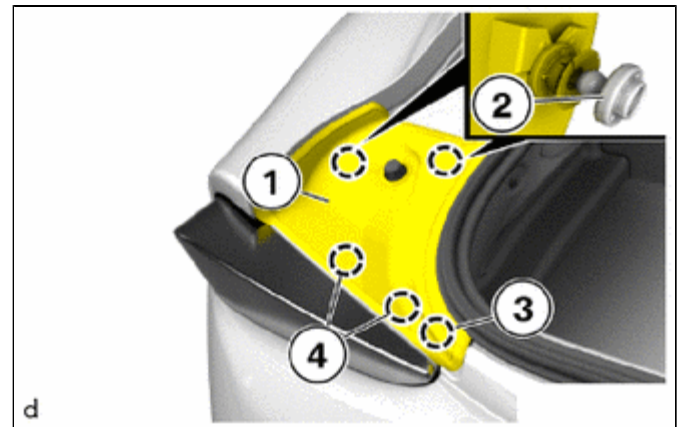
2.0 N·m {20 kgf·cm, 18 in·lbf}



(m) Remove the protective tape.

2. INSTALL BACK DOOR SIDE GARNISH LH

(a) Engage the guides (4) to install the back door side garnish LH (1).



(b) Engage the pins (2) and claw (3).

3. INSTALL BACK DOOR SIDE GARNISH RH

HINT:

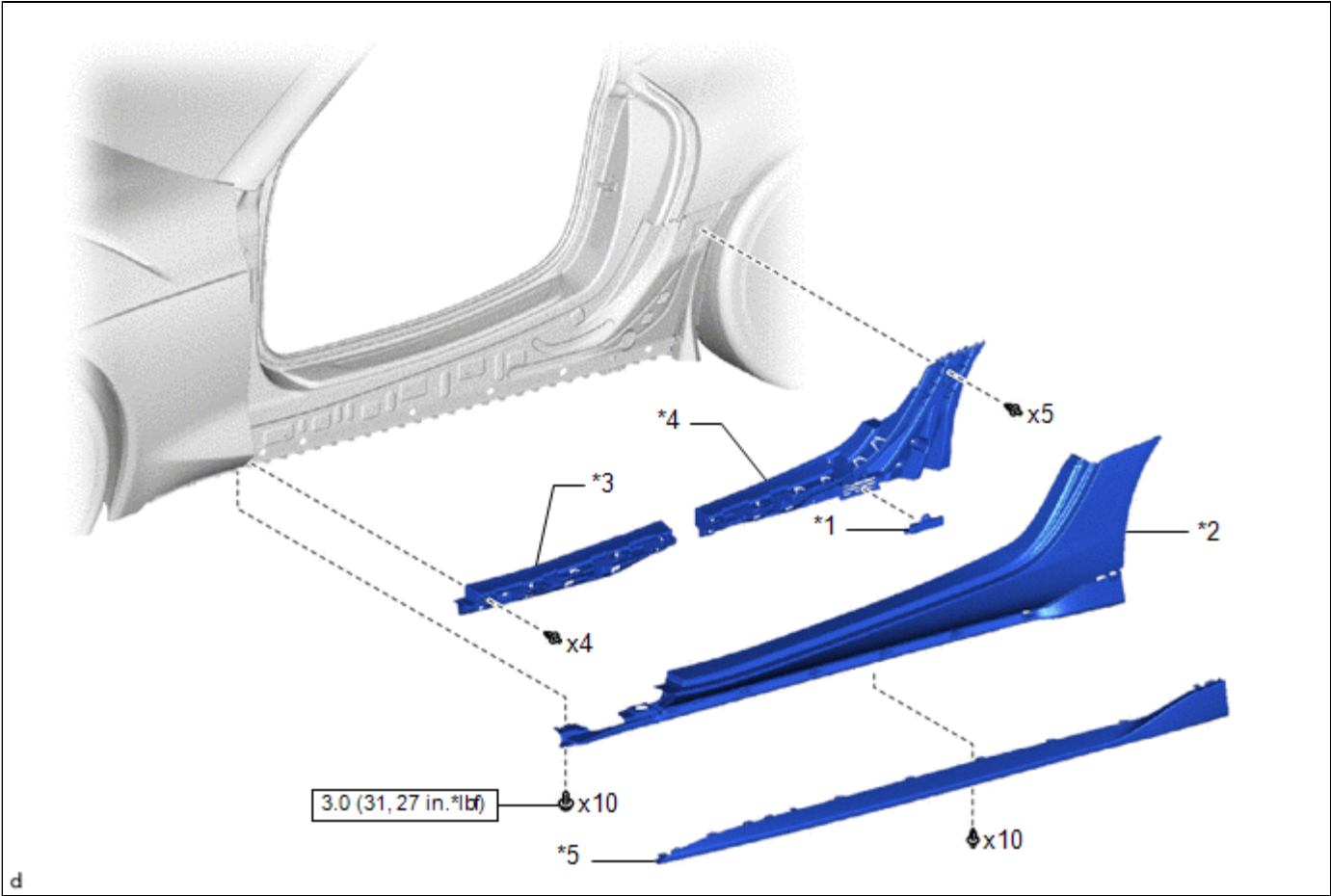
Use the same procedure as for the LH side.




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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: ROCKER PANEL MOULDING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ELECTRICAL KEY ANTENNA	*2	NO. 1 SIDE PANEL MOULDING
*3	NO. 2 BODY OUTSIDE MOULDING PAD	*4	NO. 4 BODY OUTSIDE MOULDING PAD
*5	ROCKER PANEL MOULDING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCN0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: ROCKER PANEL MOULDING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

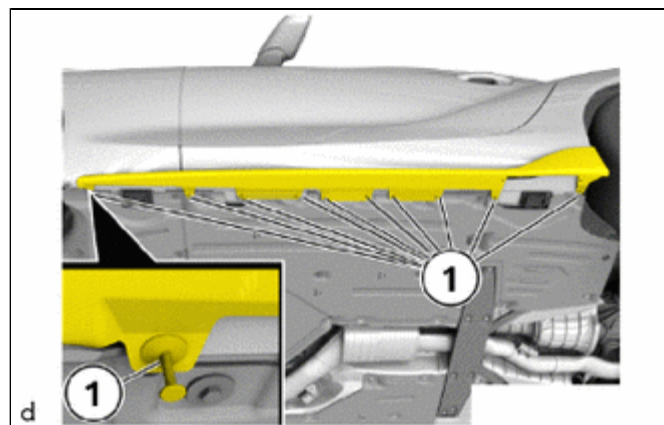
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

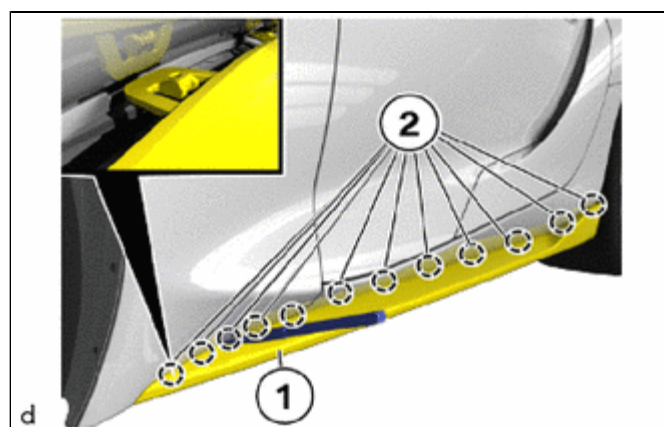
PROCEDURE

1. REMOVE ROCKER PANEL MOULDING

(a) Remove the clips (1).

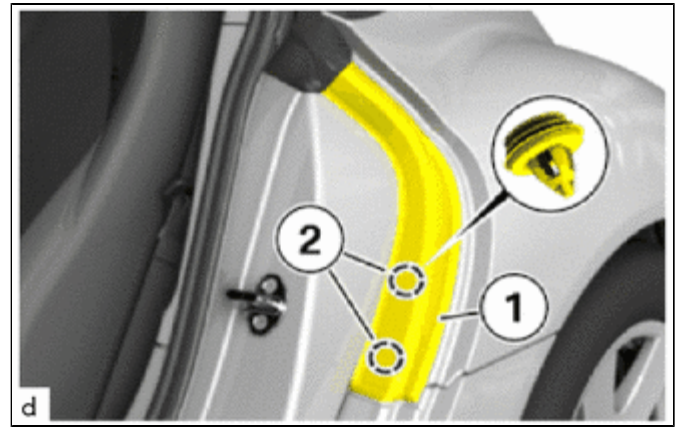


(b) Using a moulding remover A, disengage the claws (2) to remove the rocker panel moulding (1).

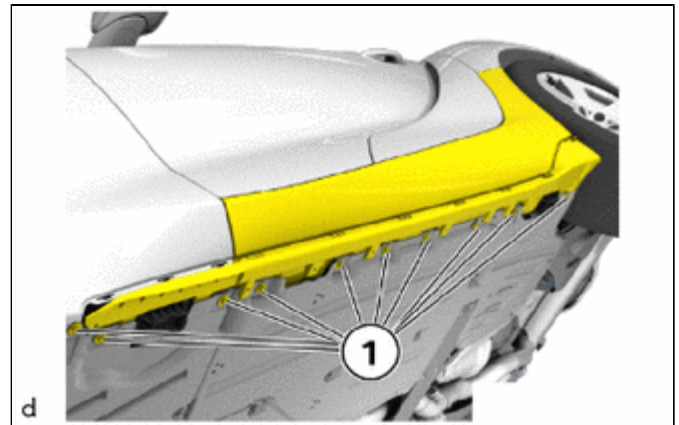


2. REMOVE NO. 1 SIDE PANEL MOULDING

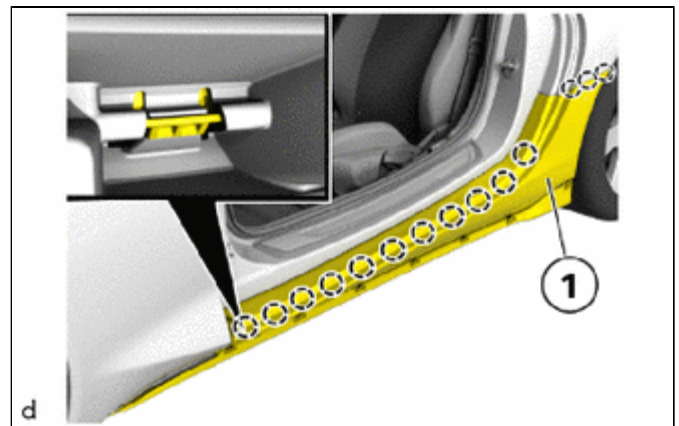
(a) Disengage the clips (2) to disconnect the front door inner trim cover (1).



(b) Remove the screws (1).



(c) Disengage the claws to remove the No. 1 side panel moulding (1).



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Title: EXTERIOR PANELS / TRIM: ROCKER PANEL MOULDING: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

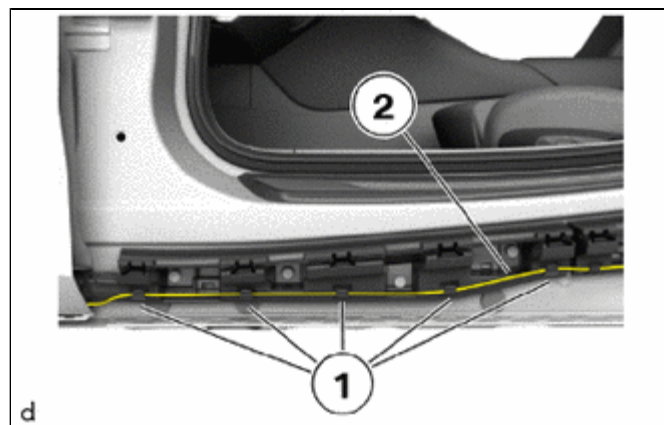
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

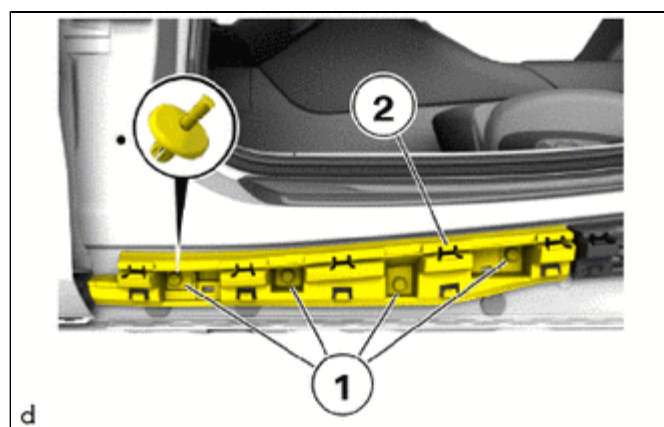
PROCEDURE

1. REMOVE NO. 2 BODY OUTSIDE MOULDING PAD

(a) Disconnect the floor wire (2) from holders (1).



(b) Remove the clips (1) and No. 2 body outside moulding pad (2).

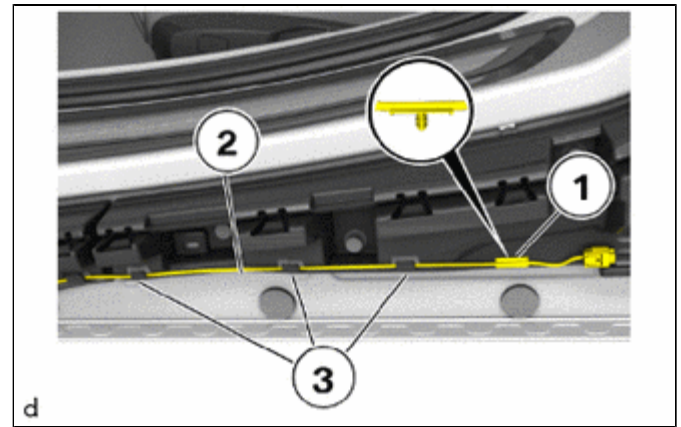


2. REMOVE ELECTRICAL KEY ANTENNA

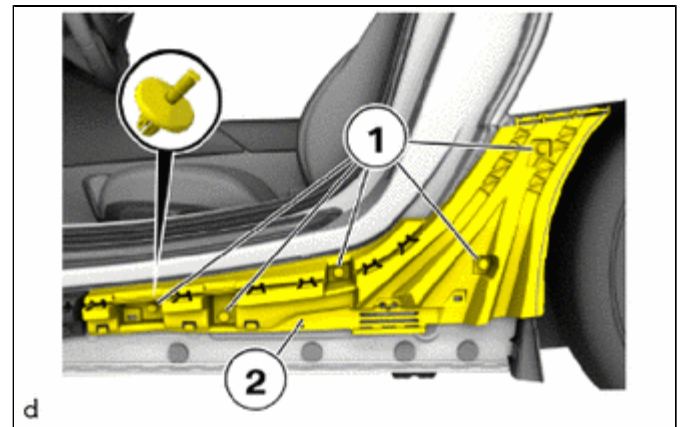
Click here [INFO](#)

3. REMOVE NO. 4 BODY OUTSIDE MOULDING PAD

(a) Disengage the clamp (1).



(b) Disconnect the floor wire (2) from holders (3).



(c) Remove the clips (1) and No. 4 body outside moulding pad (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: ROCKER PANEL MOULDING: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

CAUTION / NOTICE / HINT

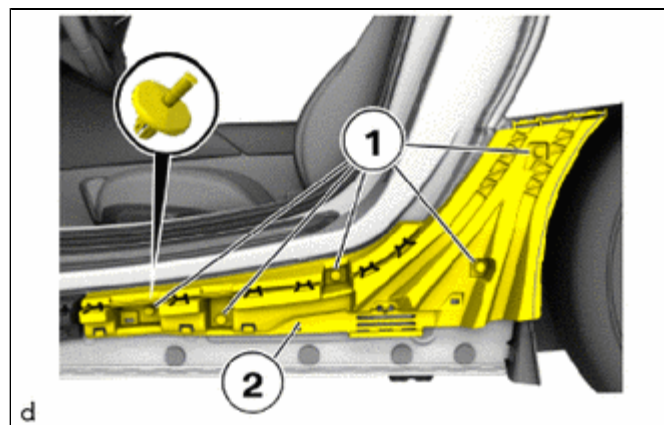
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

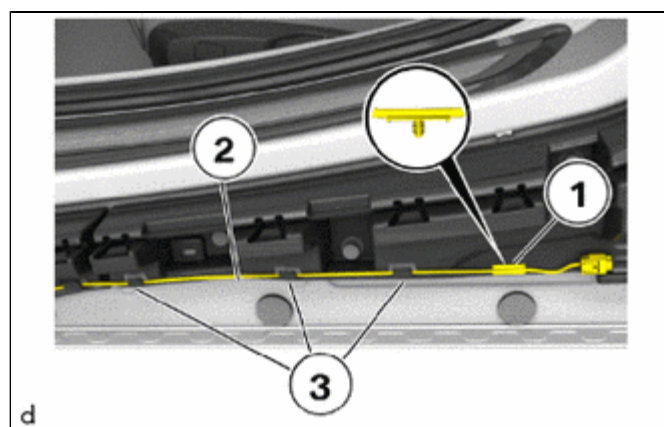
PROCEDURE

1. INSTALL NO. 4 BODY OUTSIDE MOULDING PAD

- (a) Install the No. 4 body outside moulding pad (2) with the clips (1).



- (b) Connect the wiring harness (2) to the holders (3).



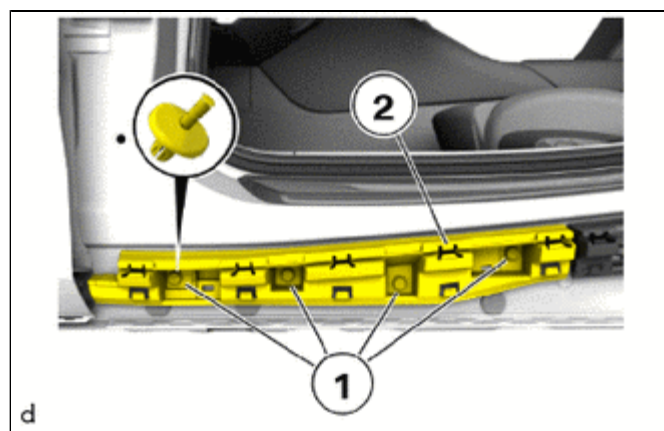
- (c) Engage the clamp (1).

2. INSTALL ELECTRICAL KEY ANTENNA

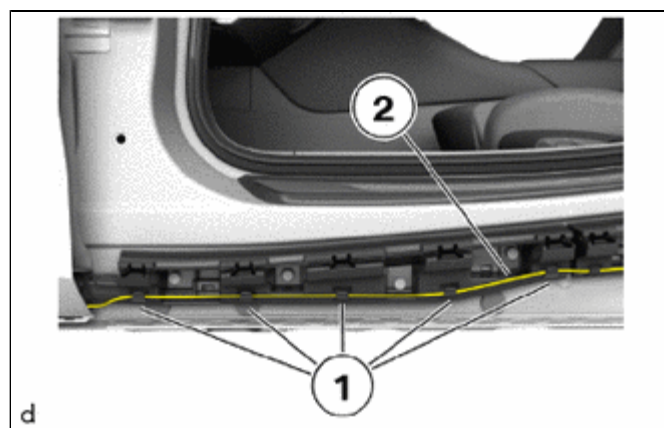
Click here [INFO](#)

3. INSTALL NO. 2 BODY OUTSIDE MOULDING PAD

(a) Install the No. 2 body outside moulding pad (2) with the clips (1).



(b) Connect the wiring harness (2) to the holders (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: ROCKER PANEL MOULDING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

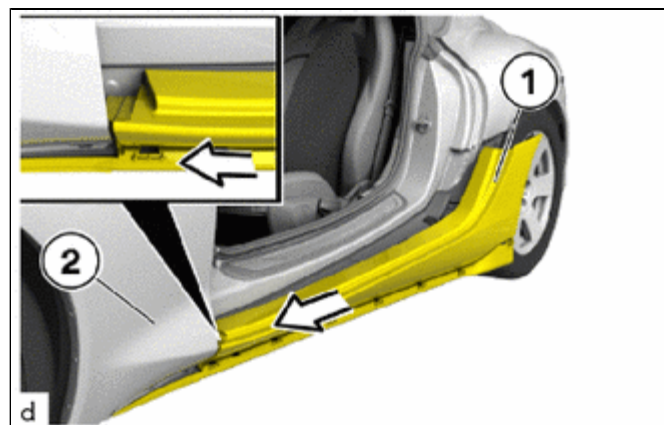
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

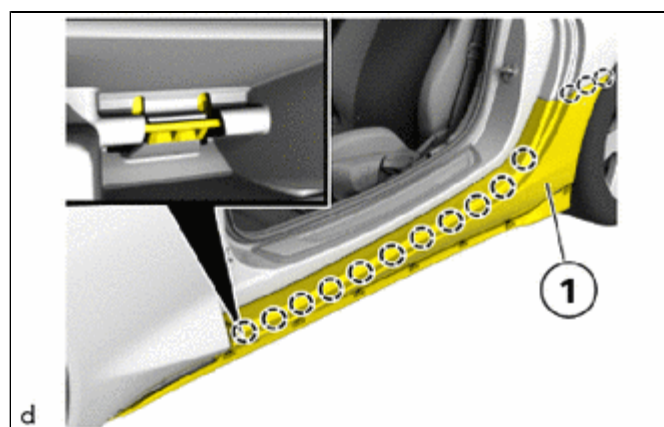
PROCEDURE

1. INSTALL NO. 1 SIDE PANEL MOULDING

- (a) Install the No. 1 side panel moulding (1) under the front side panel (2) in the direction of the arrow.



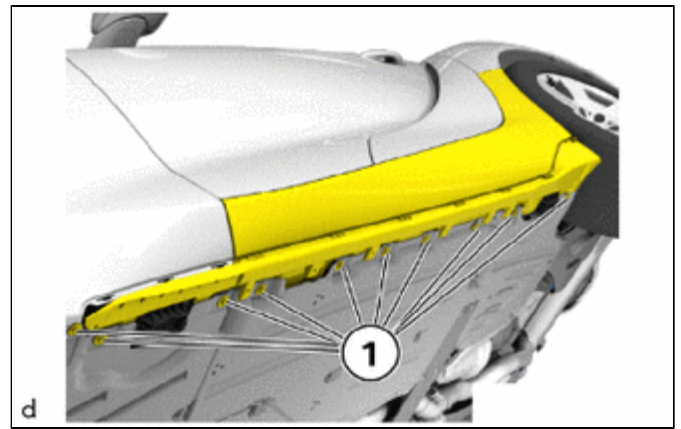
- (b) Engage the No. 1 side panel moulding (1) and the claws.



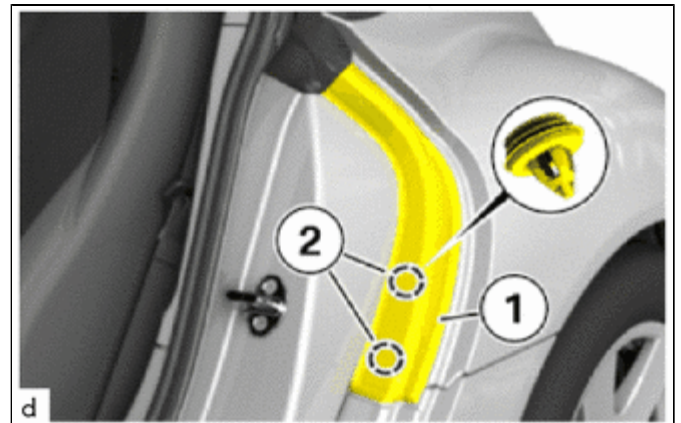
(c) Install the screws (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

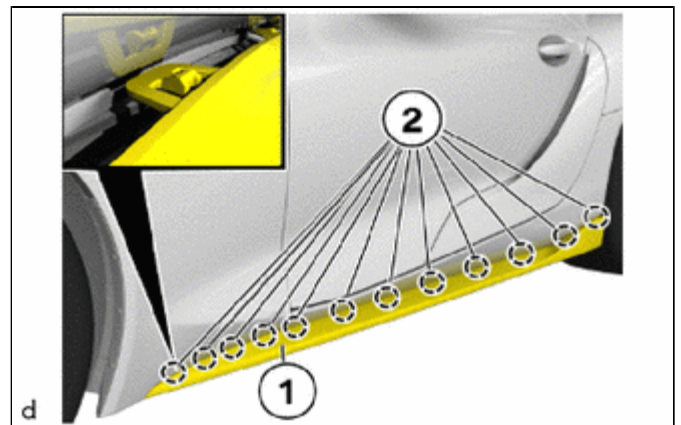


(d) Engage the clips (2) to connect the front door inner trim cover (1).

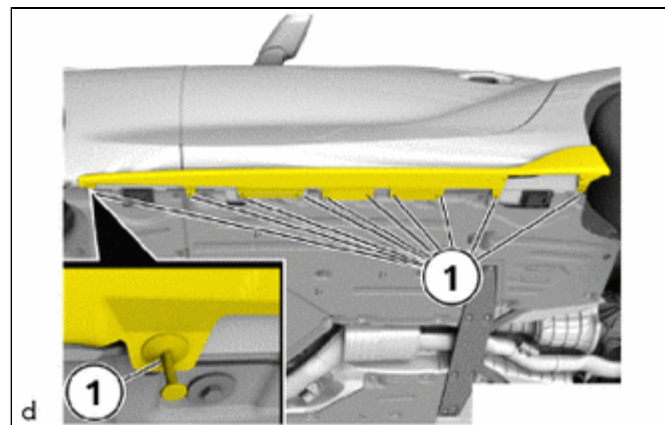


2. INSTALL ROCKER PANEL MOULDING

(a) Engage the claws (2) to install the rocker panel moulding (1).



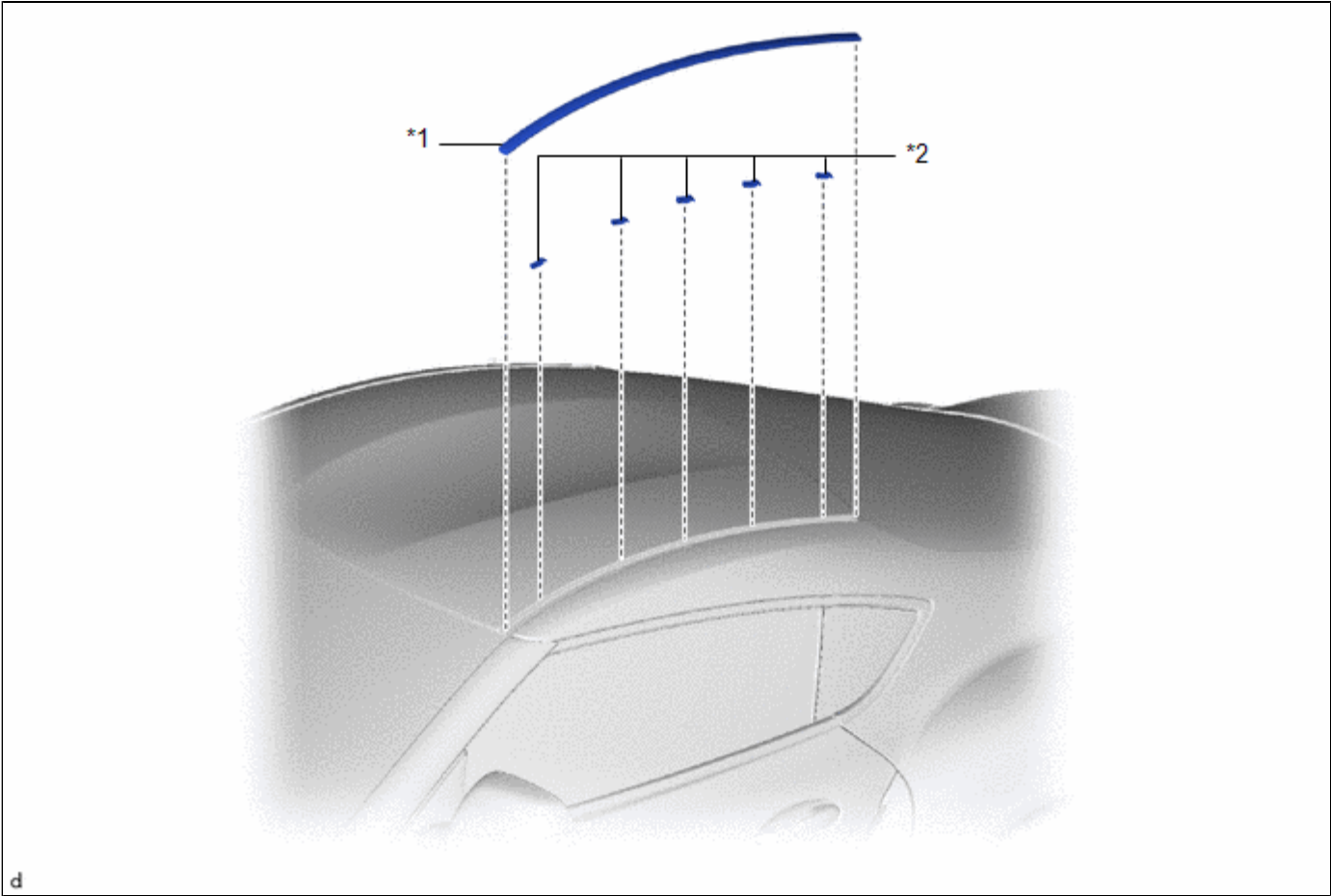
(b) Install the clips (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: ROOF DRIP SIDE FINISH MOULDING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ROOF DRIP SIDE FINISH MOULDING	*2	NO. 1 ROOF DRIP SIDE FINISH MOULDING CLIP
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: ROOF DRIP SIDE FINISH MOULDING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

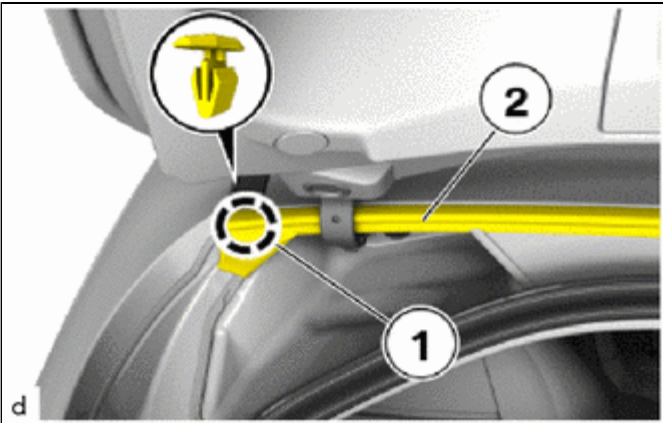
CAUTION / NOTICE / HINT

- HINT:**
- Use the same procedure for both the LH and RH sides.
 - The procedure described below is for the LH side.

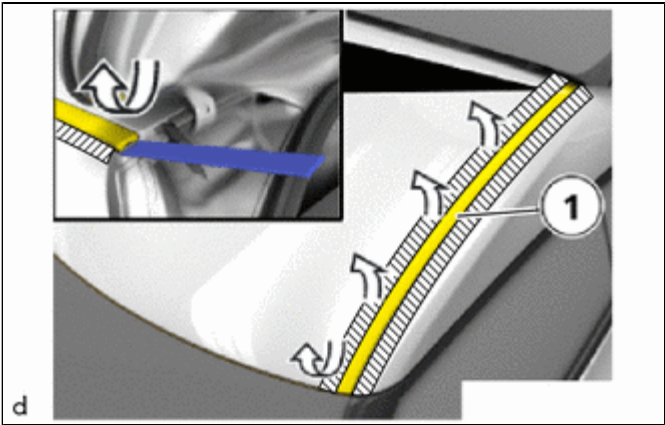
PROCEDURE

1. REMOVE ROOF DRIP SIDE FINISH MOULDING

(a) Disengage the clip (1) to disconnect the back door seal (2).



(b) Apply protective tape as shown in the illustration.



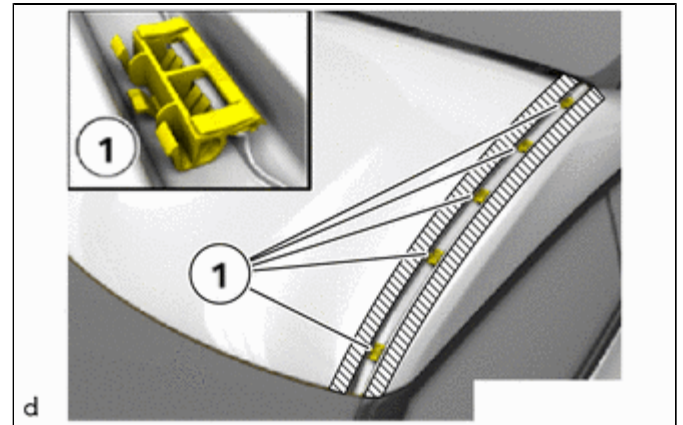
	Protective Tape
--	-----------------

(c) Using a moulding remover A, disengage the claws to remove the roof drip side finish moulding (1).

NOTICE:

- Tools and sharp-edged components can cause scratches.
 - Protect working area.
 - Handle tools and components carefully.

(d) Remove the No. 1 roof drip side finish moulding clip (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: ROOF DRIP SIDE FINISH MOULDING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

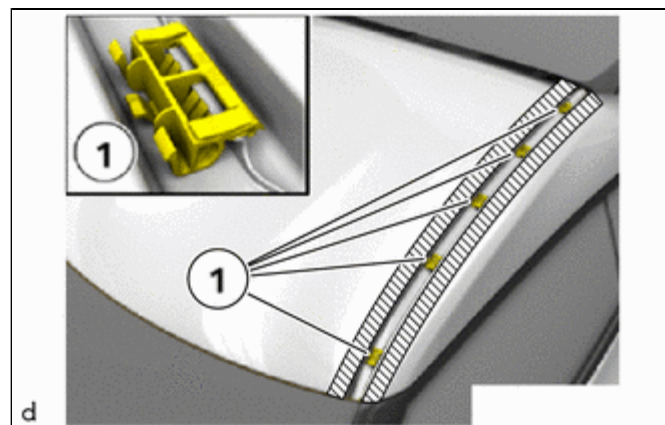
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

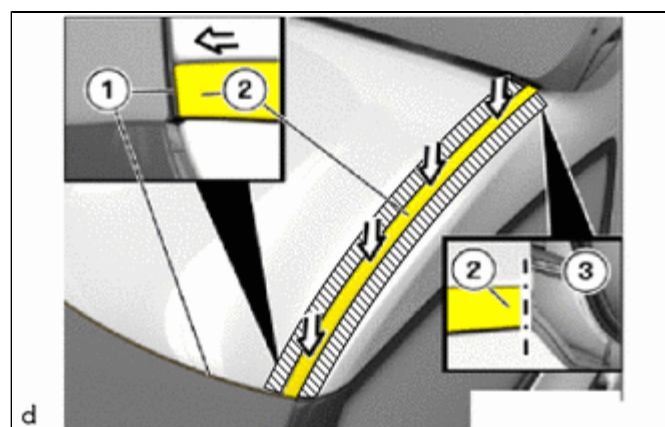
PROCEDURE

1. INSTALL ROOF DRIP SIDE FINISH MOULDING

(a) Install the No. 1 roof drip side finish moulding clip.



(b) Install the roof drip side finish moulding (2) in such a way that it makes contact with windshield outside moulding (1).

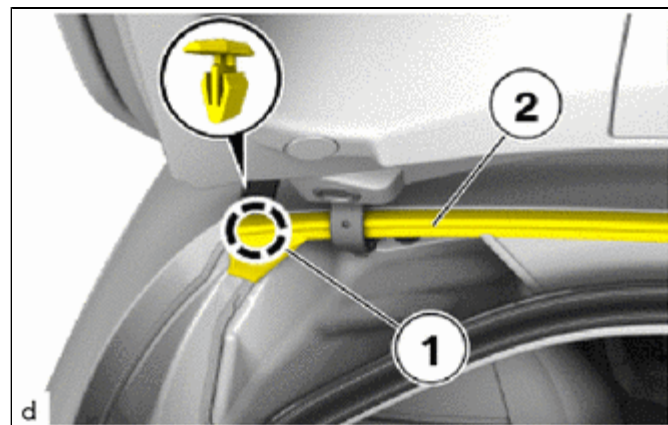


(c) Install the roof drip side finish moulding (2) in such a way that it lies flush against edge (3).

(d) Install the roof drip side finish moulding fully into roof frame (2).

(e) Remove the protective tape.

(f) Engage the clip (1) to connect the back door seal (2).

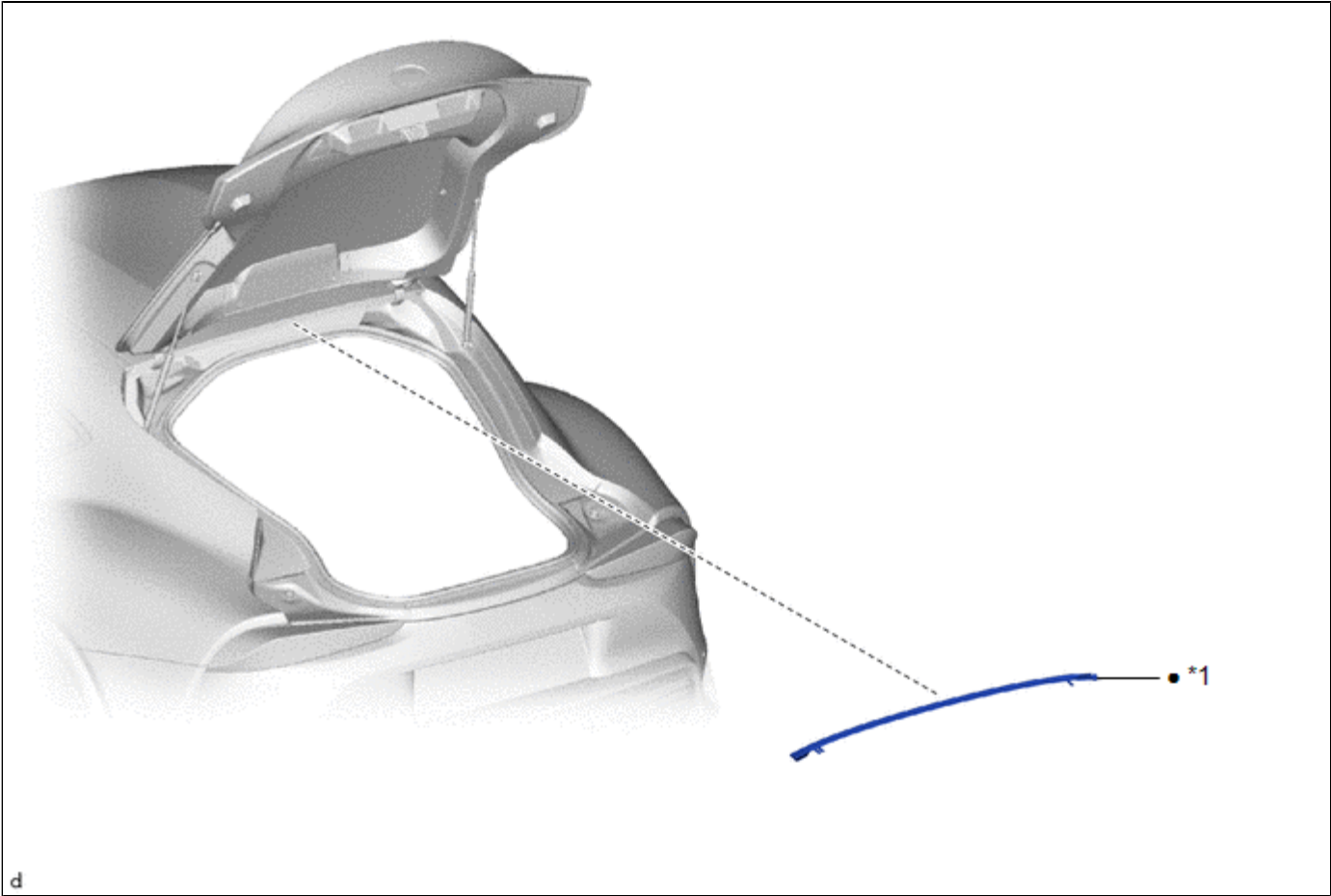


TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: TAIL GATE PROTECTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BACK DOOR SEAL	-	-
●	Non-reusable part	-	-

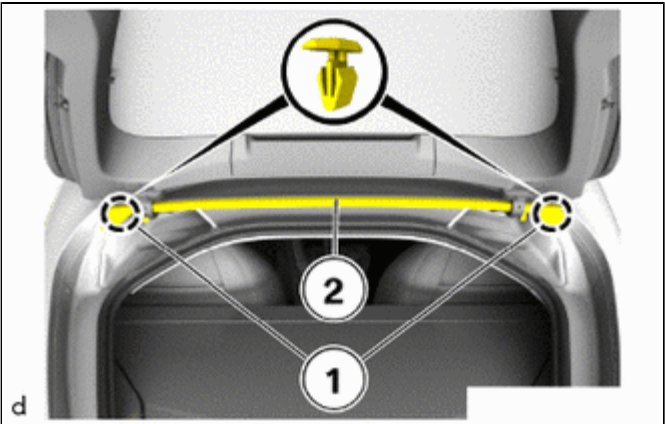
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: TAIL GATE PROTECTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE BACK DOOR SEAL

(a) Disengage the clips (1).



(b) Remove the back door seal (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: TAIL GATE PROTECTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

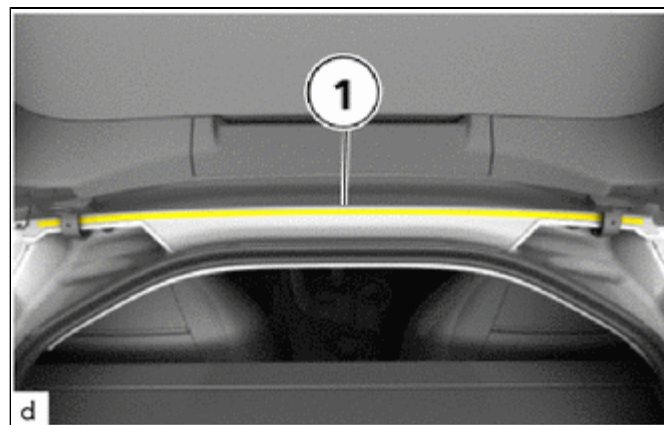
1. INSTALL BACK DOOR SEAL

(a) Remove adhesive residue on the roof frame.

(b) Clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2

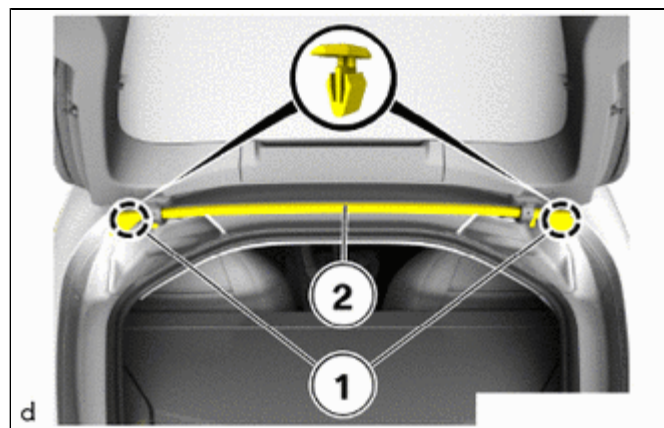


(c) Peel off the liner from adhesive tape.

(d) Engage the clips (1) to install a new back door seal (2).

HINT:

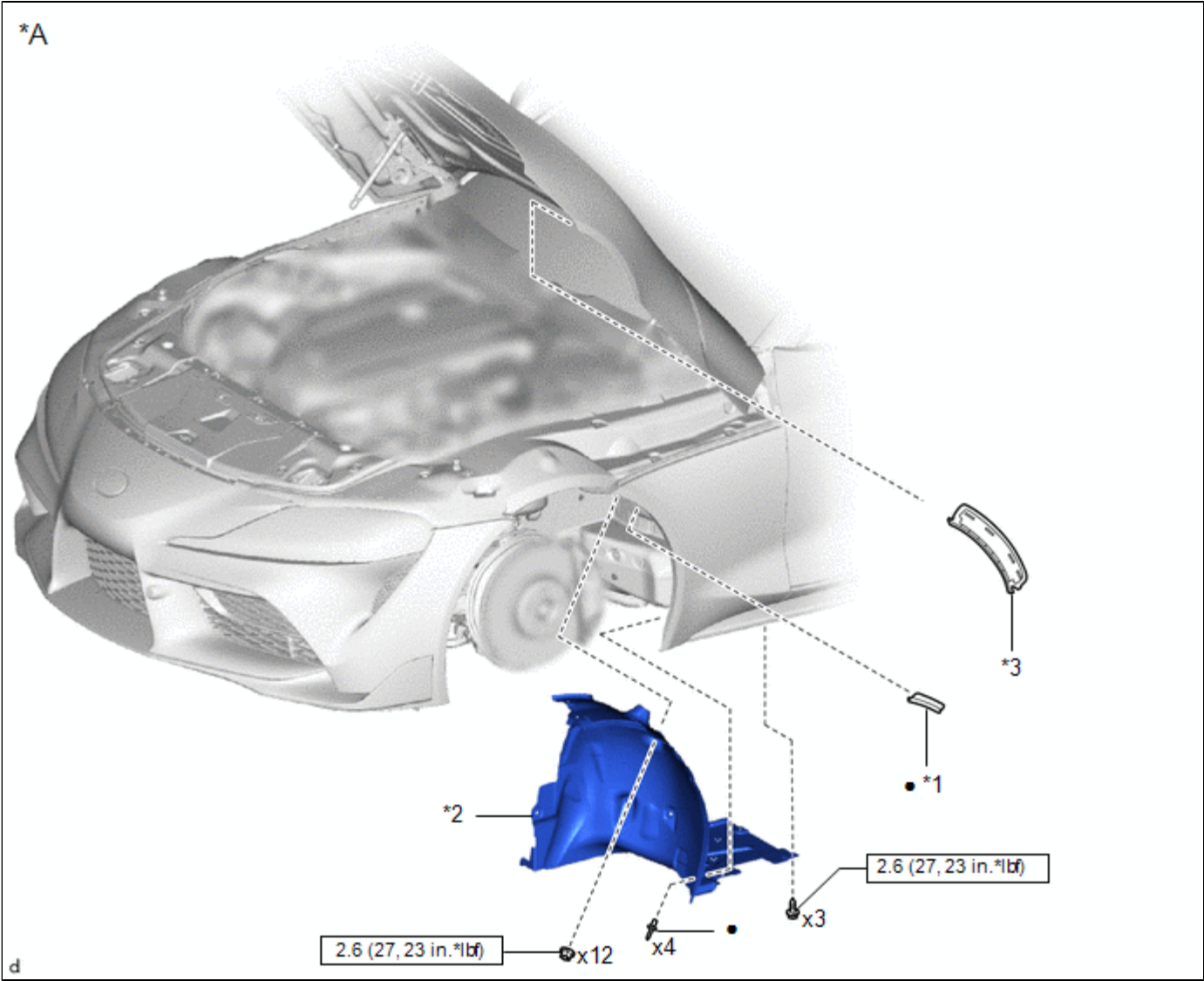
Press the back door seal firmly to install it.





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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: WHEEL OPENING MOULDING: COMPONENTS; 2020 MY Supra [03/2019 -]		

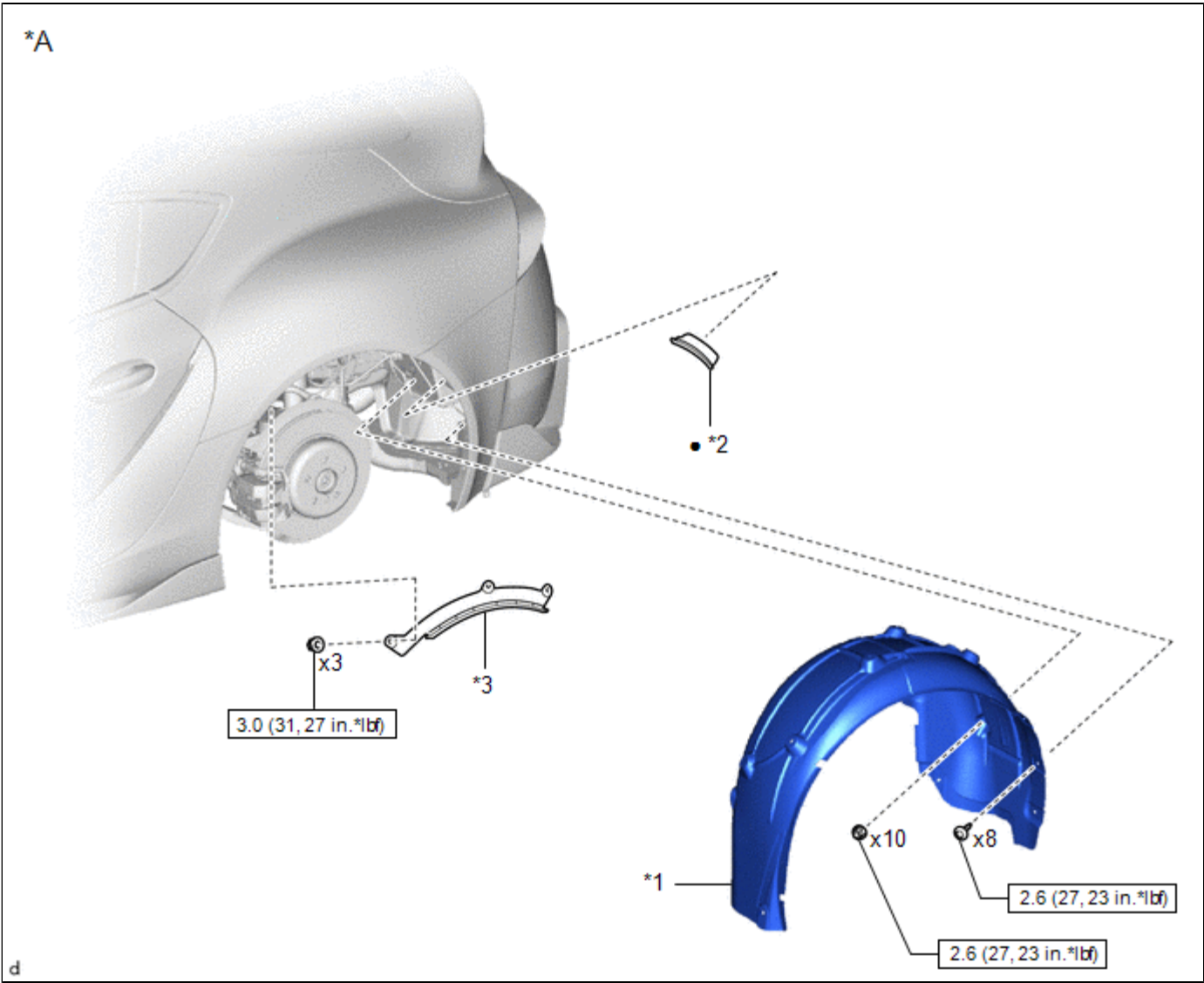
COMPONENTS


ILLUSTRATION



*A	for Front Side	-	-
*1	FENDER PANEL MUDGUARD SUB-ASSEMBLY	*2	FRONT NO. 2 FENDER LINER
*3	HOOD MOULDING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

ILLUSTRATION



*A	for Rear Side	-	-
*1	REAR WHEEL HOUSE LINER	*2	NO. 1 QUARTER OUTSIDE MOULDING
*3	QUARTER OUTSIDE MOULDING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCN8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: WHEEL OPENING MOULDING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. REMOVE FRONT WHEEL LH (for Front Side)

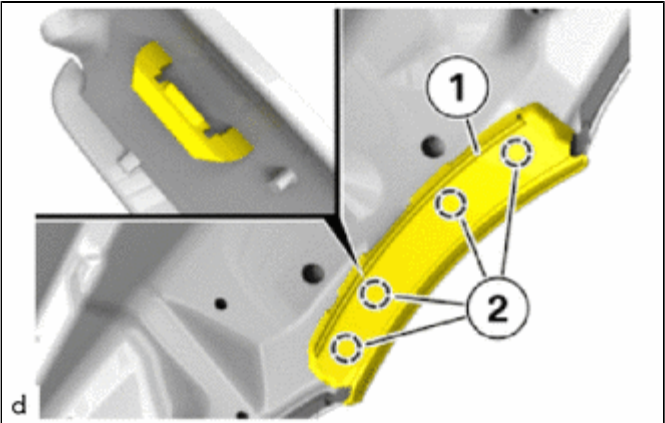
Click here [INFO](#)

2. REMOVE FRONT NO. 2 FENDER LINER (for Front Side)

Click here [INFO](#)

3. REMOVE HOOD MOULDING (for Front Side)

(a) Disengage the claws (2) to remove the hood moulding (1).



4. REMOVE FENDER PANEL MUDGUARD SUB-ASSEMBLY (for Front Side)

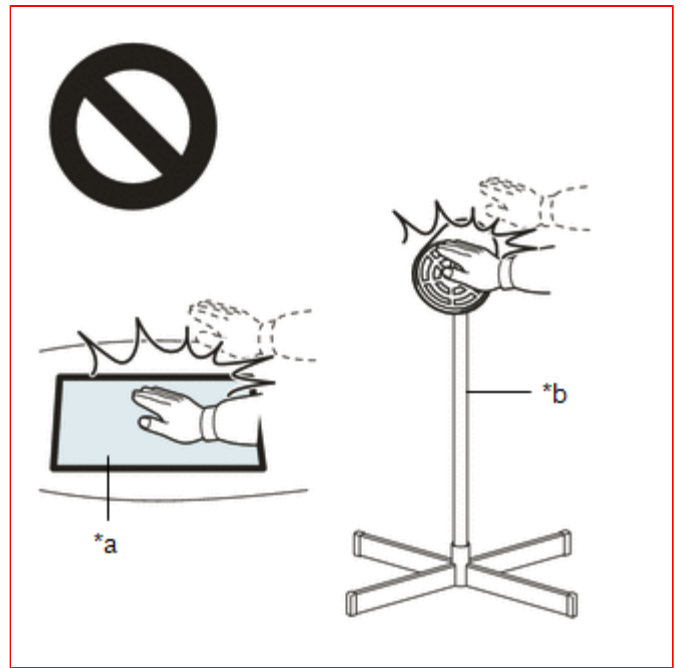
HINT:

When removing the fender panel mudguard sub-assembly, heat the fender panel mudguard sub-assembly using a heat light.

Standard:

ITEM	TEMPERATURE
Fender Panel Mudguard Sub-assembly	40 to 50°C (104 to 122°F)

CAUTION:



- Touching heated parts for a long time may result in burns.

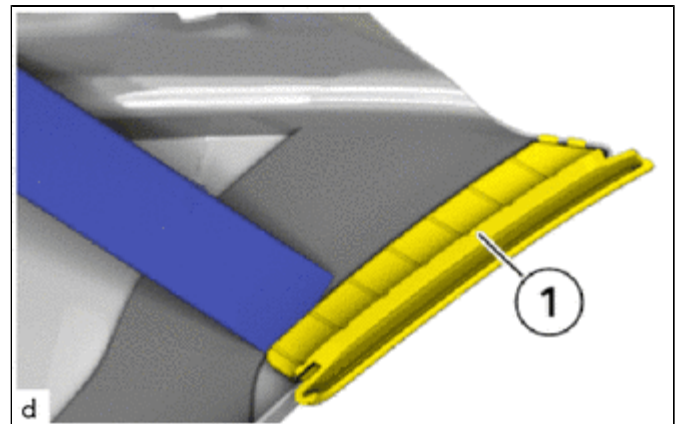
*a	Heated Part
*b	Heat Light

- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the fender panel mudguard sub-assembly excessively.

- (a) Using a moulding remover A, remove the fender panel mudguard sub-assembly (1).

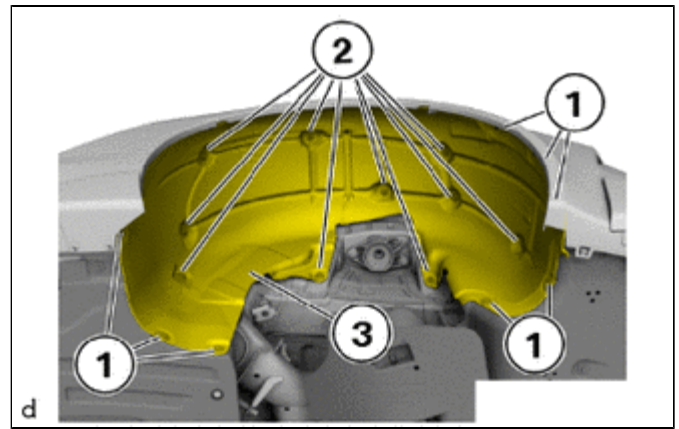


5. REMOVE REAR WHEEL LH (for Rear Side)

Click here [INFO](#)

6. REMOVE REAR WHEEL HOUSE LINER (for Rear Side)

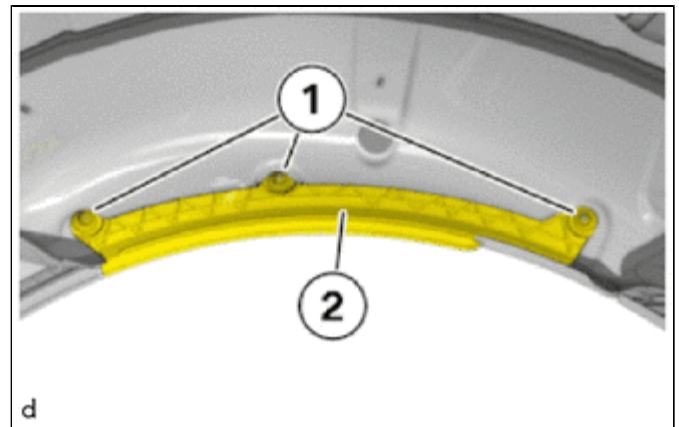
- (a) Remove the screws (1).



(b) Remove the nuts (2) and rear wheel house liner (3).

7. REMOVE QUARTER OUTSIDE MOULDING (for Rear Side)

(a) Remove the nuts (1) and quarter outside moulding (2).



8. REMOVE NO. 1 QUARTER OUTSIDE MOULDING (for Rear Side)

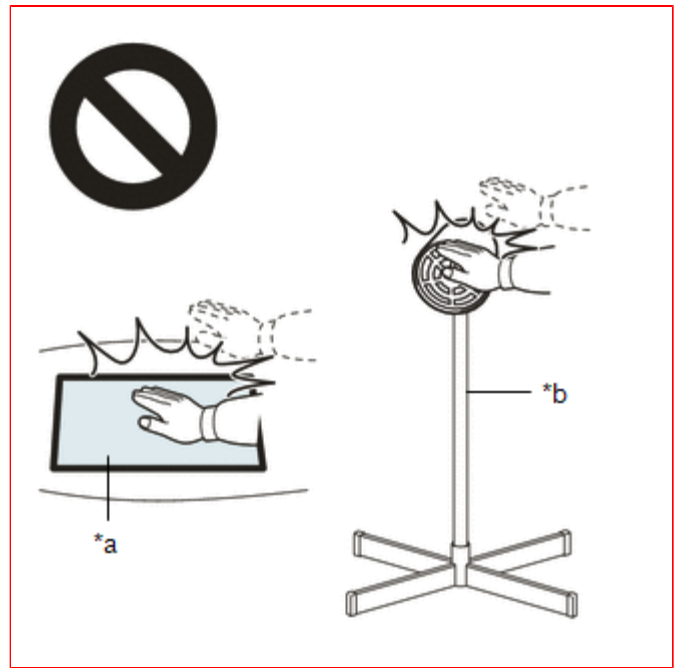
HINT:

When removing the No. 1 quarter outside moulding, heat the No. 1 quarter outside moulding using a heat light.

Standard:

ITEM	TEMPERATURE
No. 1 Quarter Outside Moulding	40 to 50°C (104 to 122°F)

CAUTION:



- Touching heated parts for a long time may result in burns.

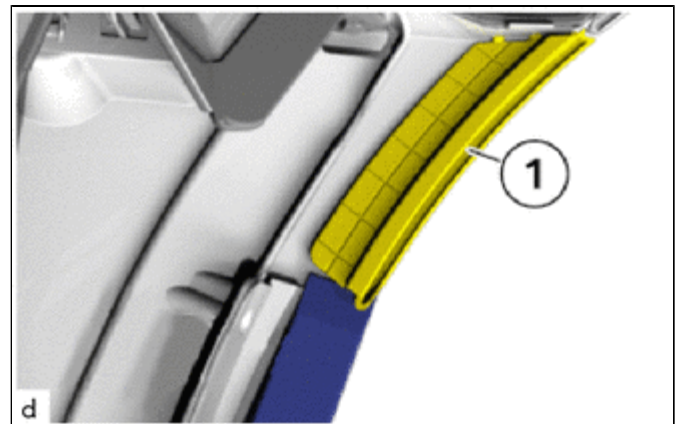
*a	Heated Part
*b	Heat Light

- Do not touch the heat light and heated parts, touching the heat light may result in burns.

NOTICE:

Do not heat the No. 1 quarter outside moulding excessively.

- (a) Using a moulding remover A, remove the No. 1 quarter outside moulding (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: WHEEL OPENING MOULDING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

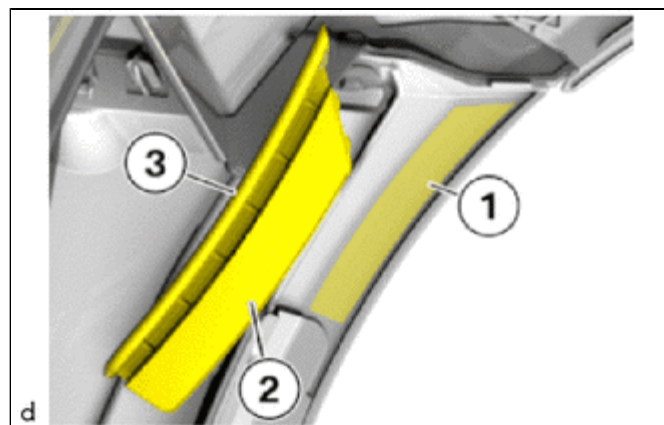
PROCEDURE

1. INSTALL NO. 1 QUARTER OUTSIDE MOULDING (for Rear Side)

- (a) Remove adhesive residue from the rear bumper cover and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2



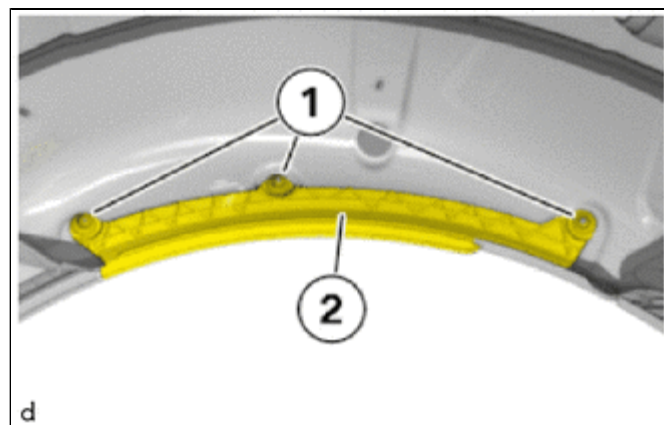
- (b) Peel off the liner from adhesive tape (2).
- (c) Install the No. 1 quarter outside moulding (3) and press firmly.

2. INSTALL QUARTER OUTSIDE MOULDING (for Rear Side)

- (a) Install the quarter outside moulding (2) with the nuts (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

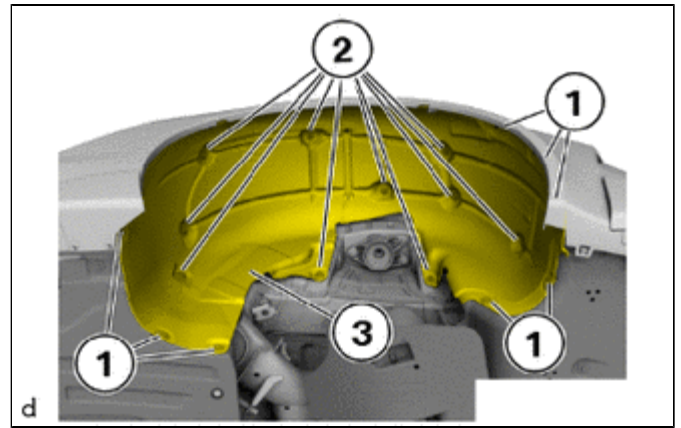


3. INSTALL REAR WHEEL HOUSE LINER (for Rear Side)

(a) Install the rear wheel house liner (3) with the nuts (2).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}



(b) Install the screws (1).

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

4. INSTALL REAR WHEEL LH (for Rear Side)

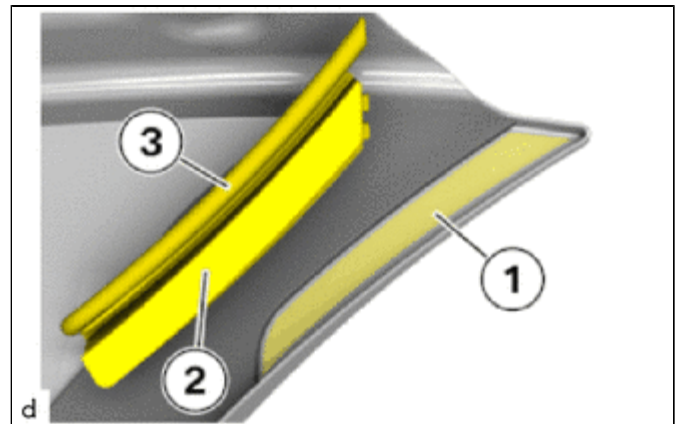
Click here [INFO](#)

5. INSTALL FENDER PANEL MUDGUARD SUB-ASSEMBLY (for Front Side)

(a) Remove adhesive residue on the front side panel and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2

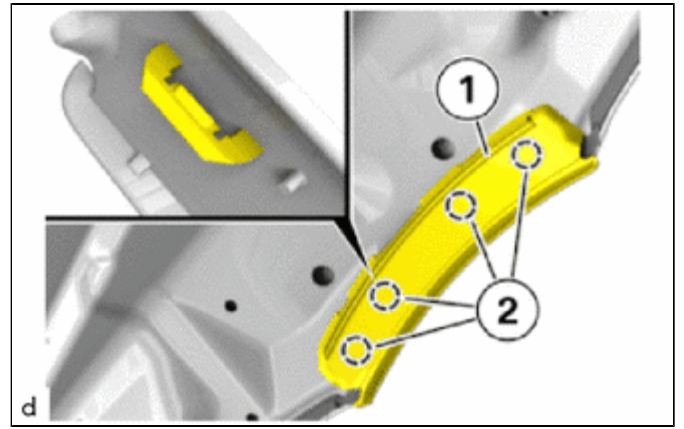


(b) Peel off the liner from adhesive tape (2).

(c) Install the fender panel mudguard sub-assembly (3) and press tightly.

6. INSTALL HOOD MOULDING (for Front Side)

(a) Engage the claws (2) to install the hood moulding (1).



7. INSTALL FRONT NO. 2 FENDER LINER (for Front Side)

Click here [INFO](#)

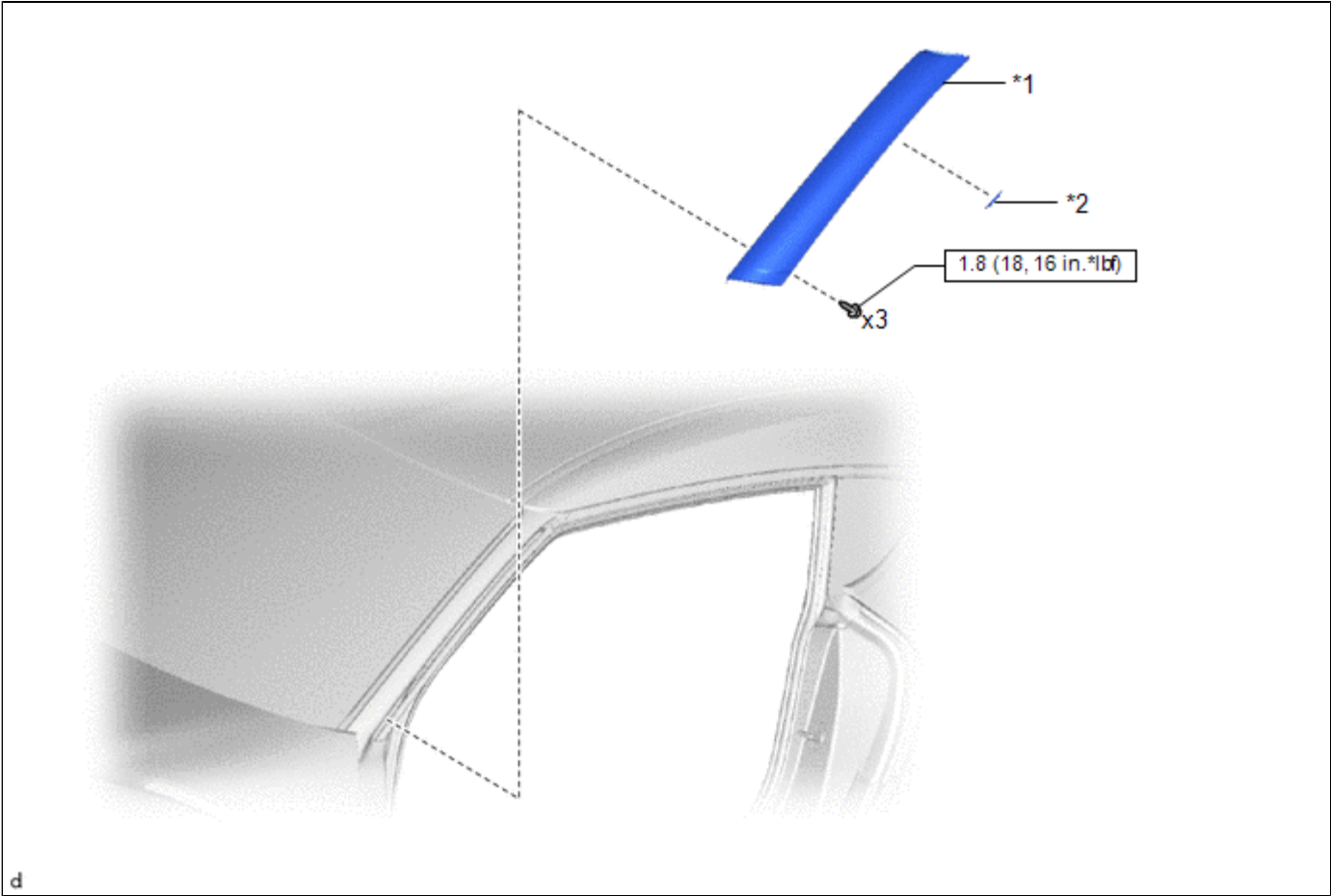
8. INSTALL FRONT WHEEL LH (for Front Side)


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCN4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: WINDSHIELD OUTSIDE MOULDING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ROOF DRIP SIDE FINISH MOULDING	*2	ROOF DRIP SIDE FINISH MOULDING CLIP
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCN5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: WINDSHIELD OUTSIDE MOULDING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

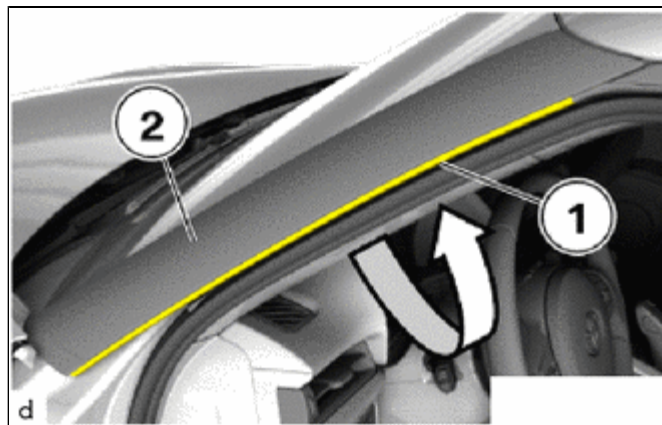
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

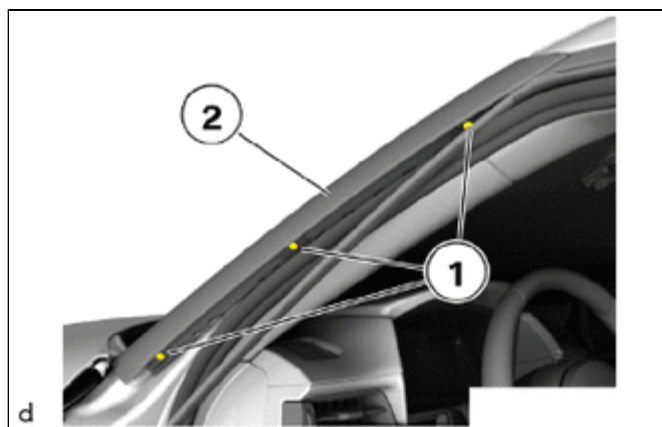
PROCEDURE

1. REMOVE ROOF DRIP SIDE FINISH MOULDING

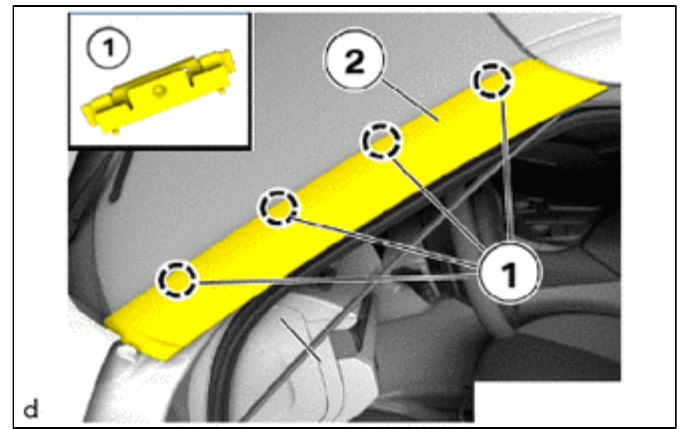
- (a) Disconnect the front door window frame front moulding (1) in the direction of arrow on the roof drip side finish moulding (2).



- (b) Remove the T20 screws (1) on the roof drip side finish moulding (2).



(c) Disengage the claws (1) to remove the roof drip side finish moulding (2).



(d) Remove the roof drip side finish moulding clips (1).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: EXTERIOR PANELS / TRIM: WINDSHIELD OUTSIDE MOULDING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

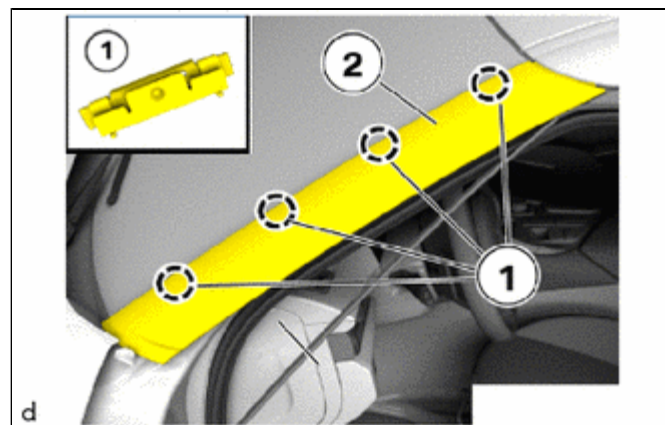
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL ROOF DRIP SIDE FINISH MOULDING

(a) Install the roof drip side finish moulding clips (1).

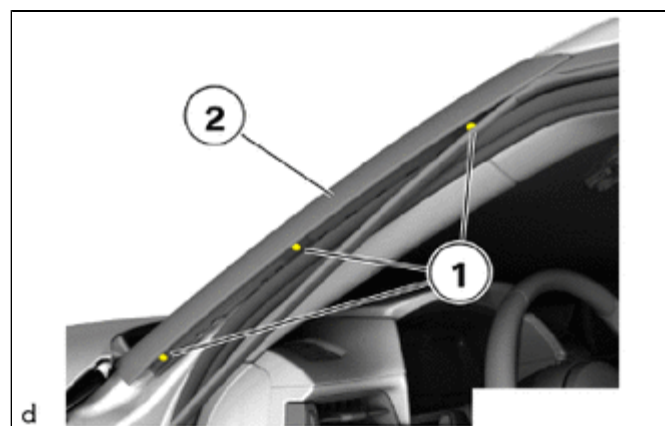


(b) Engage the claws (1) to install the roof drip side finish moulding (2).

(c) Install the T20 screws (1) on the roof drip side finish moulding (2).

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

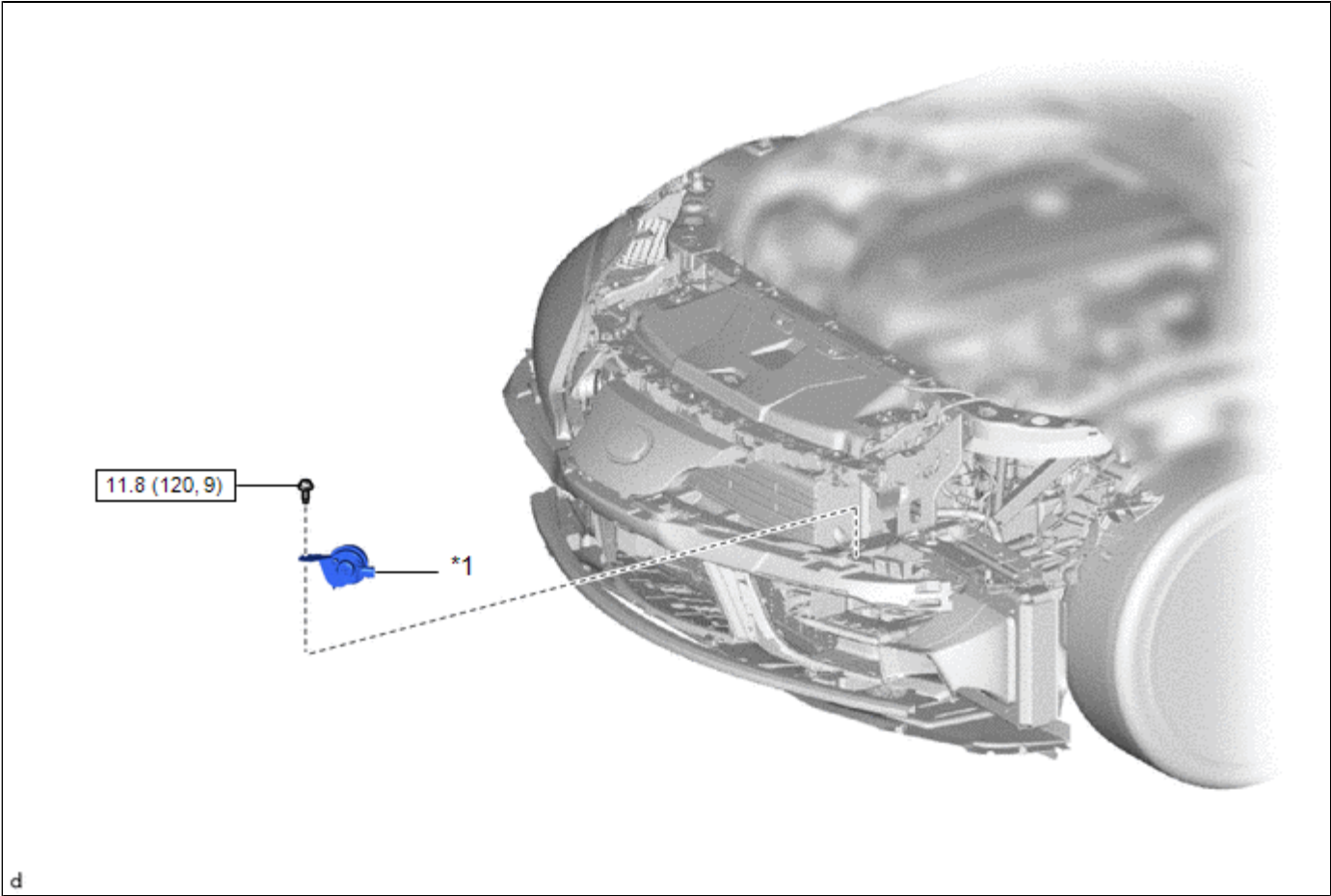


(d) Connect the front door window frame front moulding.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HORN: HORN: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	HIGH PITCHED HORN ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HORN: HORN: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

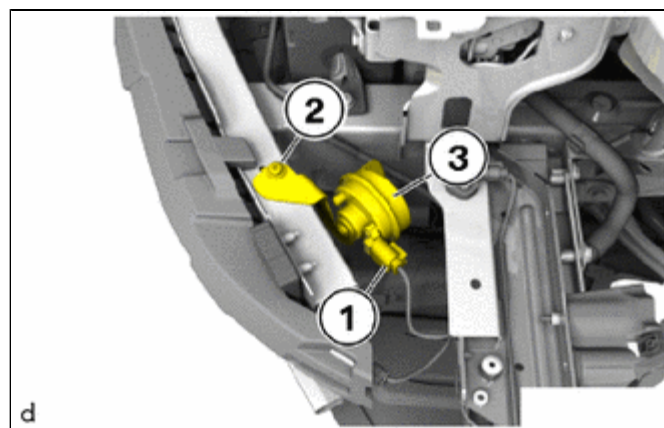
PROCEDURE

1. REMOVE HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

2. REMOVE HIGH PITCHED HORN ASSEMBLY

(a) Disconnect the connector (1).



(b) Remove the T30 bolt (2) and high pitched horn assembly (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCLB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HORN: HORN: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL HIGH PITCHED HORN ASSEMBLY

(a) Install the high pitched horn assembly with the T30 bolt.

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

(b) Connect the connector.

2. INSTALL HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

3. ADJUST HEADLIGHT AIMING

Click here [INFO](#)

4. ADJUST MILLIMETER WAVE RADAR SENSOR (w/ Toyota Supra Safety)

- Before starting adjustment:

Click here [INFO](#)

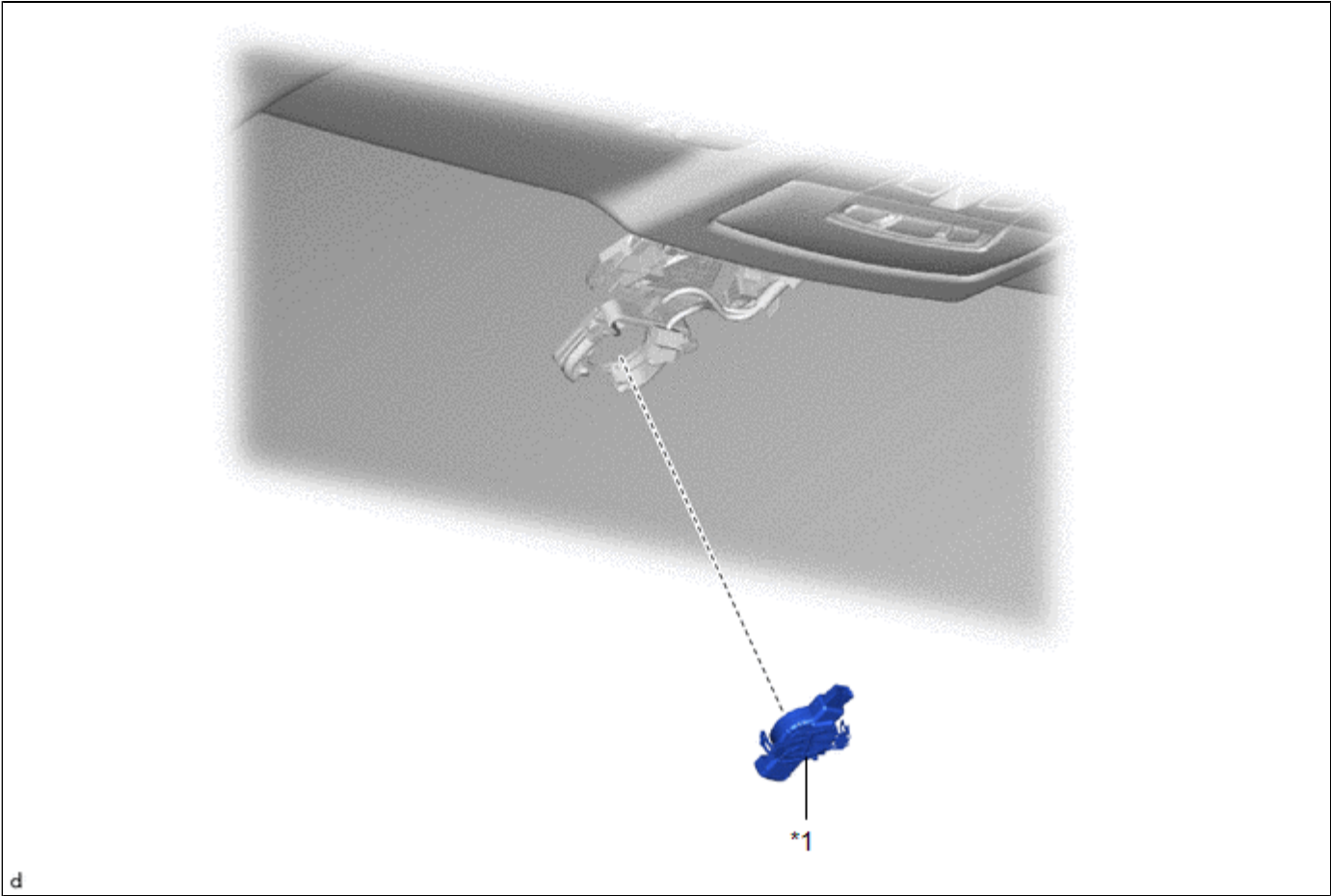
- Adjustment:

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): AUTOMATIC LIGHT CONTROL SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RAIN SENSOR	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): AUTOMATIC LIGHT CONTROL SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE INNER REAR VIEW MIRROR ASSEMBLY

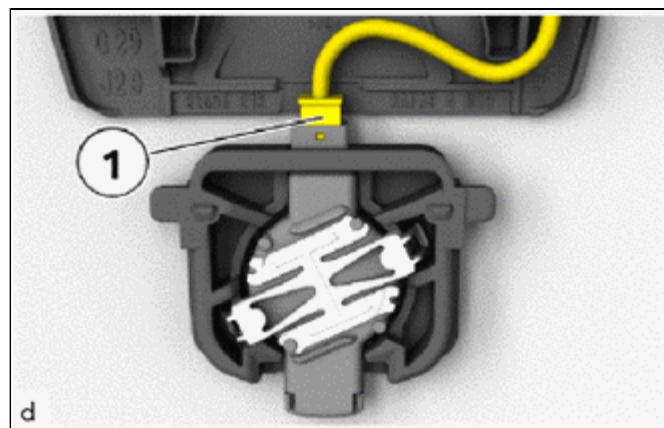
Click here [INFO](#)

2. REMOVE RAIN SENSOR

NOTICE:

When replacing windshield glass: Immediately install the rain sensor on the new windshield glass.

(a) Disconnect the connector (1).



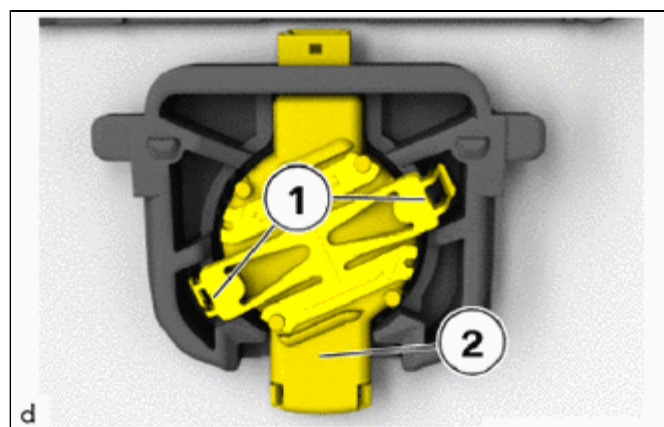
(b) Push in retaining springs (1) on both sides and disengage the lock by means of a screwdriver.

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor (2).

- Do not touch or damage the silicone-coated surface on the rain sensor (2).



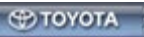
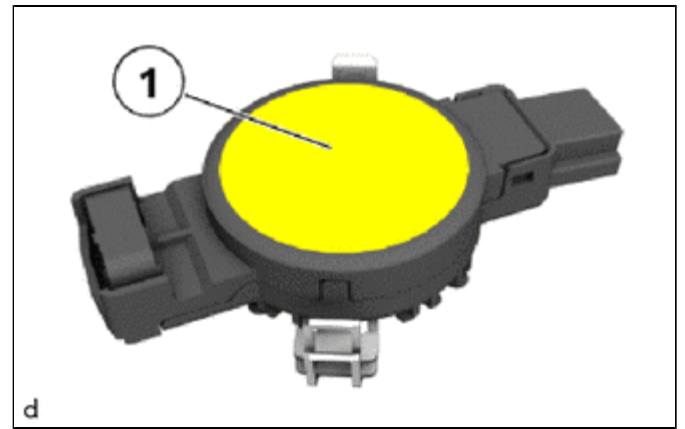
(c) Remove the rain sensor slowly off the windshield glass. At the same time, monitor the release of the silicone area (1) from outside.

NOTICE:

The silicone surface must evenly loosen from the windshield glass, if applicable, lower the pull-off force.

HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): AUTOMATIC LIGHT CONTROL SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL RAIN SENSOR

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor.

- Do not touch or damage the silicone-coated surface on the rain sensor.

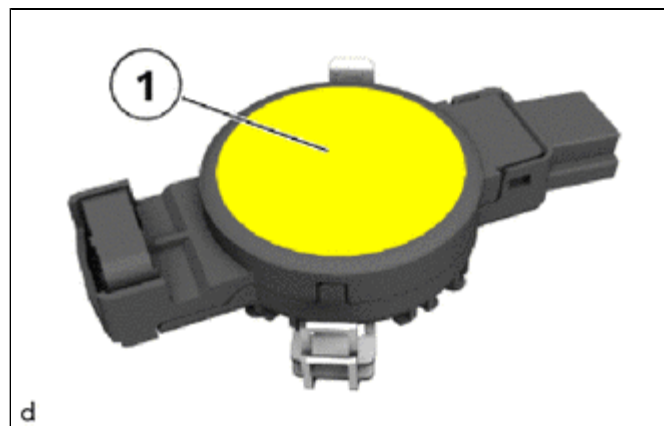
HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.

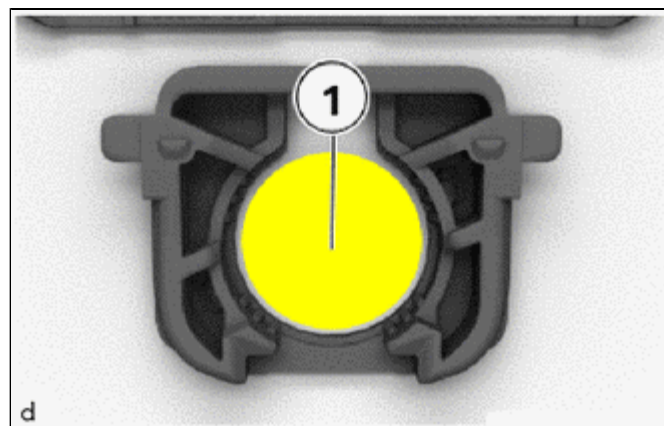
(a) Check silicone surface (1) for damage.

HINT:

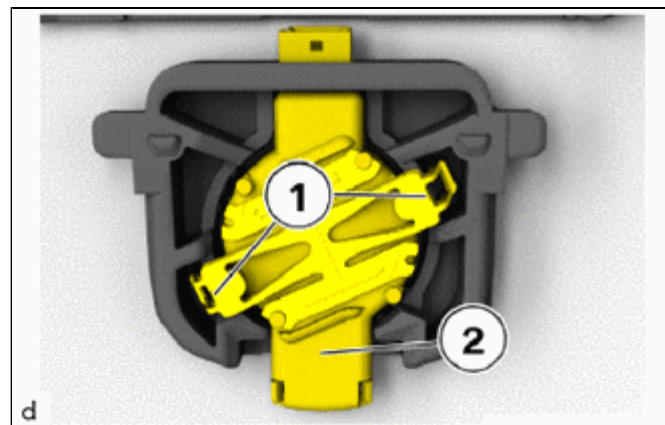
- Silicone surface (1) is damaged.
 - Replace rain sensor.



(b) Carefully clean windshield glass in the contact area (1) of rain sensor.



(c) Install the rain sensor (2) into the holder and press on centered on the retaining springs (1).

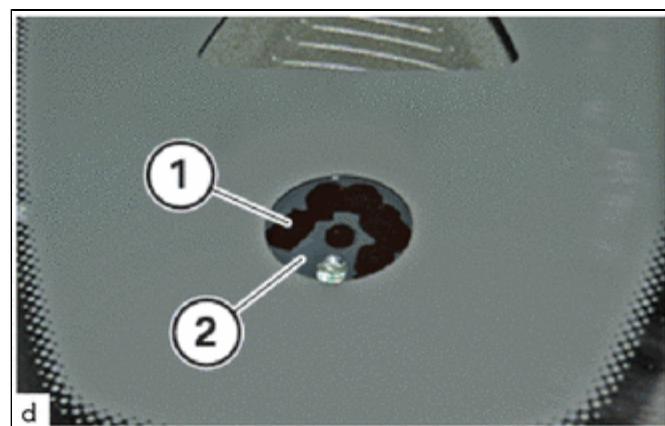


(d) Successively press down the retaining springs (1) on each side to lock it.

(e) Check contact surfaces for air pockets from the outside.

HINT:

- Visible shadows (1) are not air pockets, but the optical element of the rain sensor (2).
- The shadows (1) do not indicate a functional limitation.
- Contact surface has air pockets.
 - Remove the rain sensor and install again.



(f) Connect the connector.

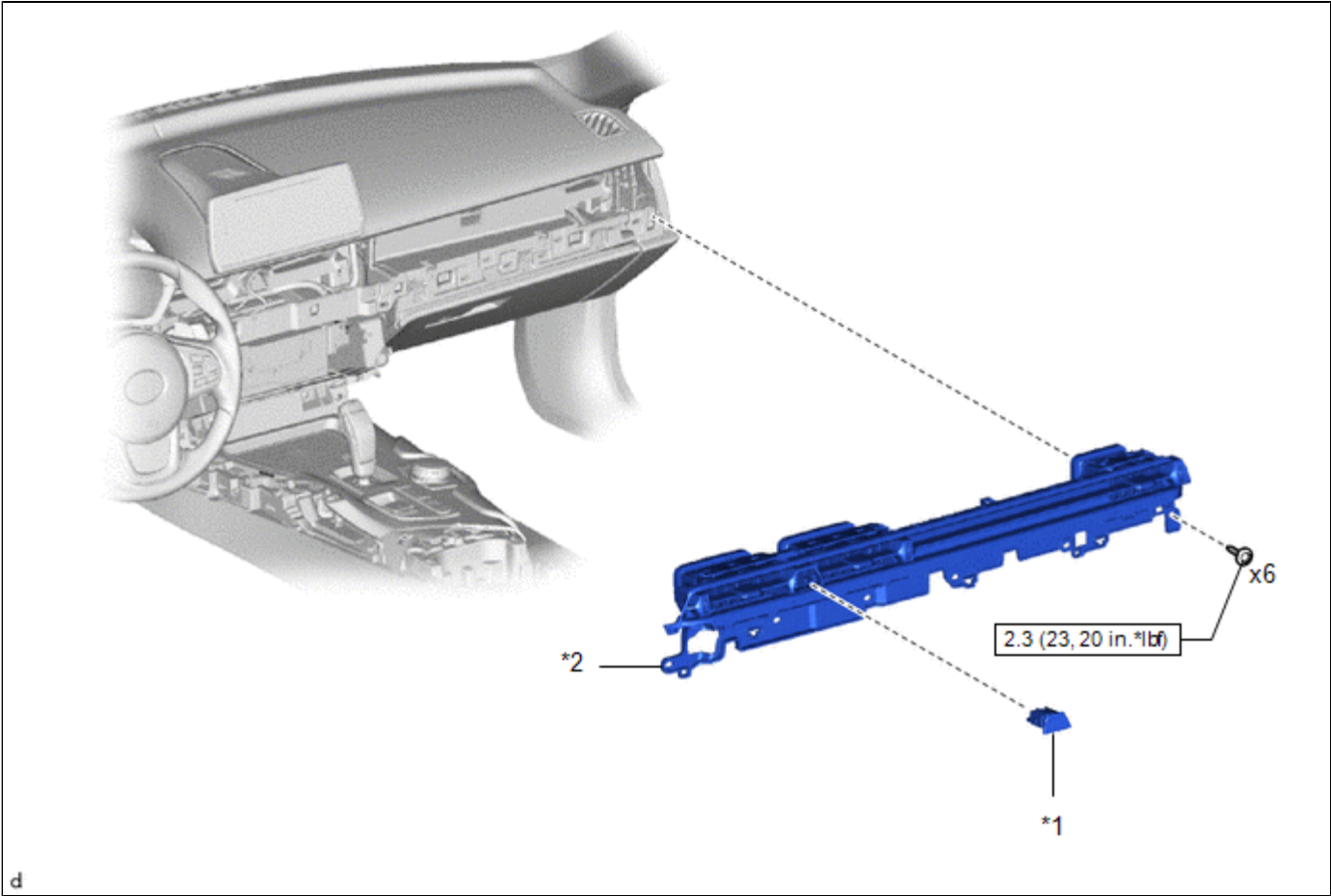
2. INSTALL INNER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HAZARD WARNING SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	HAZARD WARNING SIGNAL SWITCH ASSEMBLY	*2	NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HAZARD WARNING SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY

Click here [INFO](#)

3. REMOVE HAZARD WARNING SIGNAL SWITCH ASSEMBLY

NOTICE:

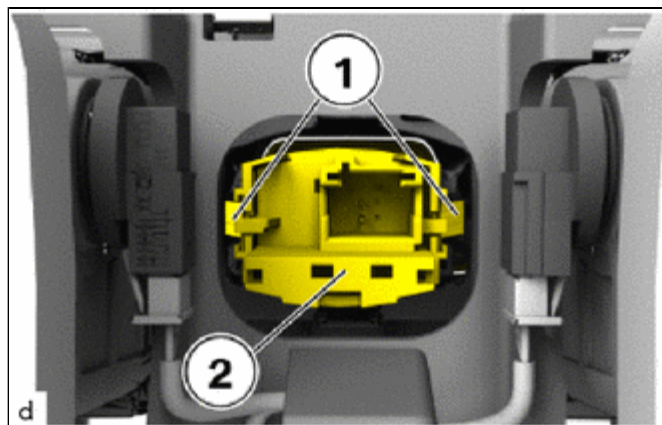
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Disengage the claws (1) to remove the hazard warning signal switch assembly (2).



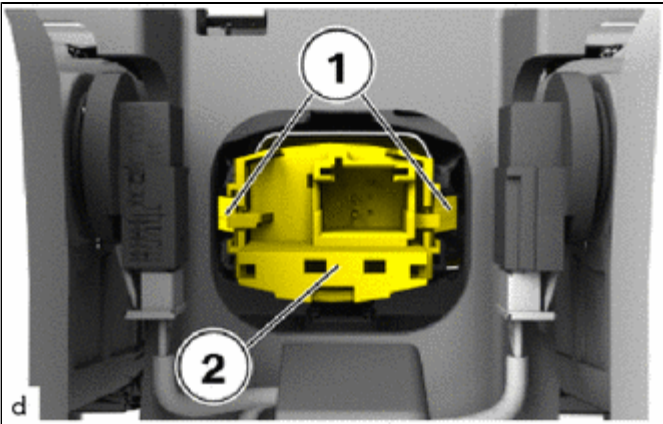
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HAZARD WARNING SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL HAZARD WARNING SIGNAL SWITCH ASSEMBLY

(a) Engage the claws (1) to install the hazard warning signal switch assembly (2).



2. INSTALL NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY

Click here [INFO](#)

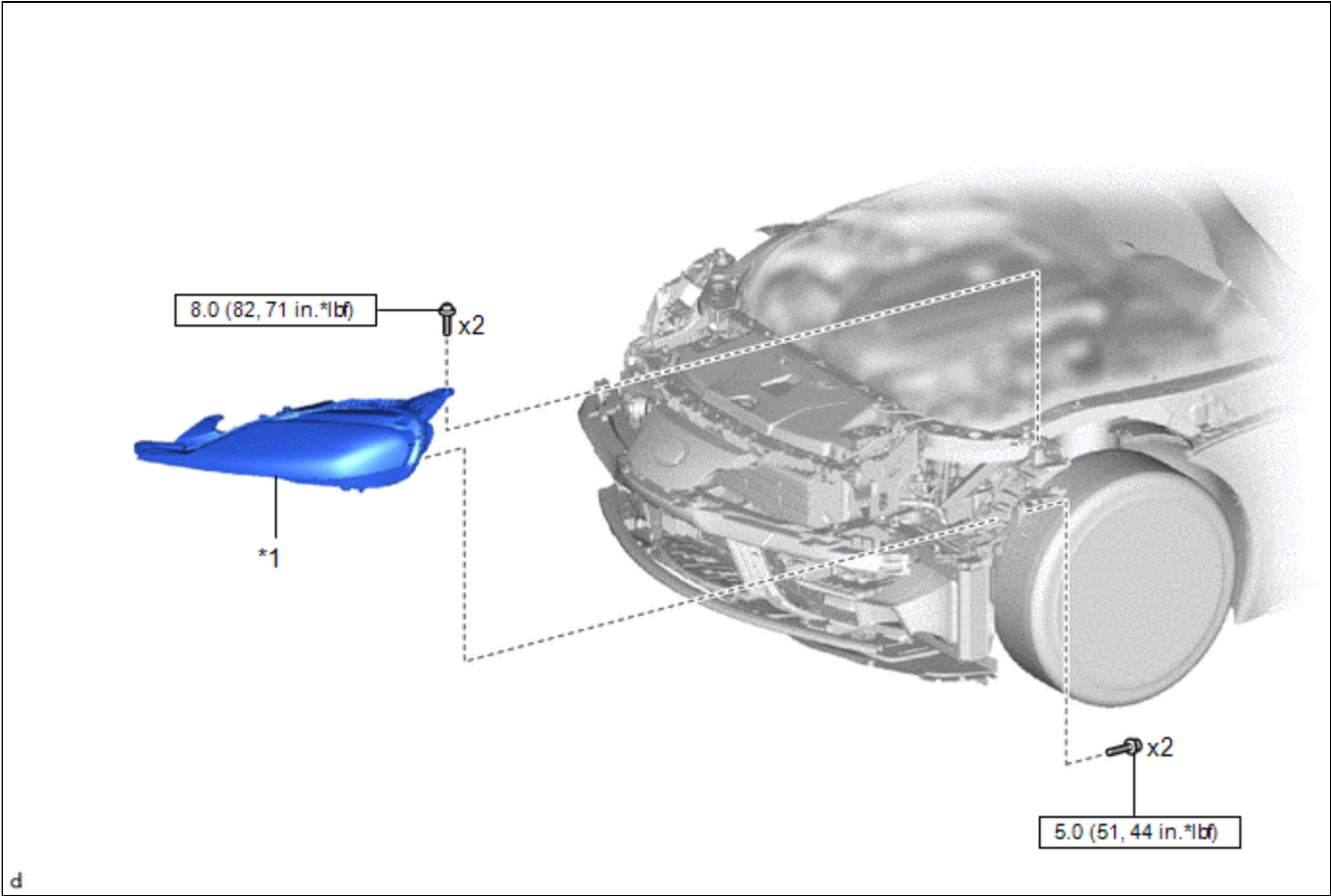
3. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCK3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

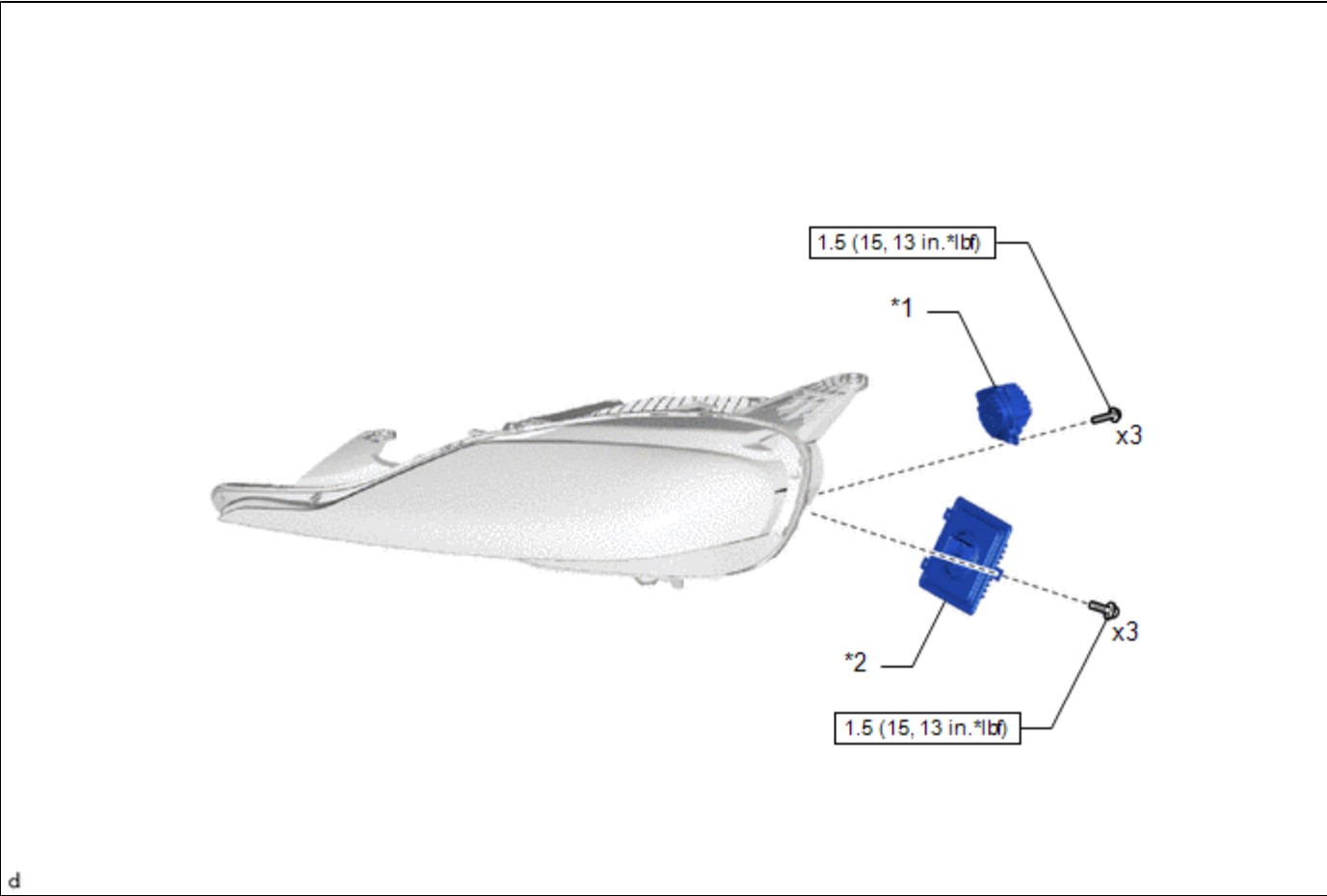
COMPONENTS


ILLUSTRATION



*1	HEADLIGHT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

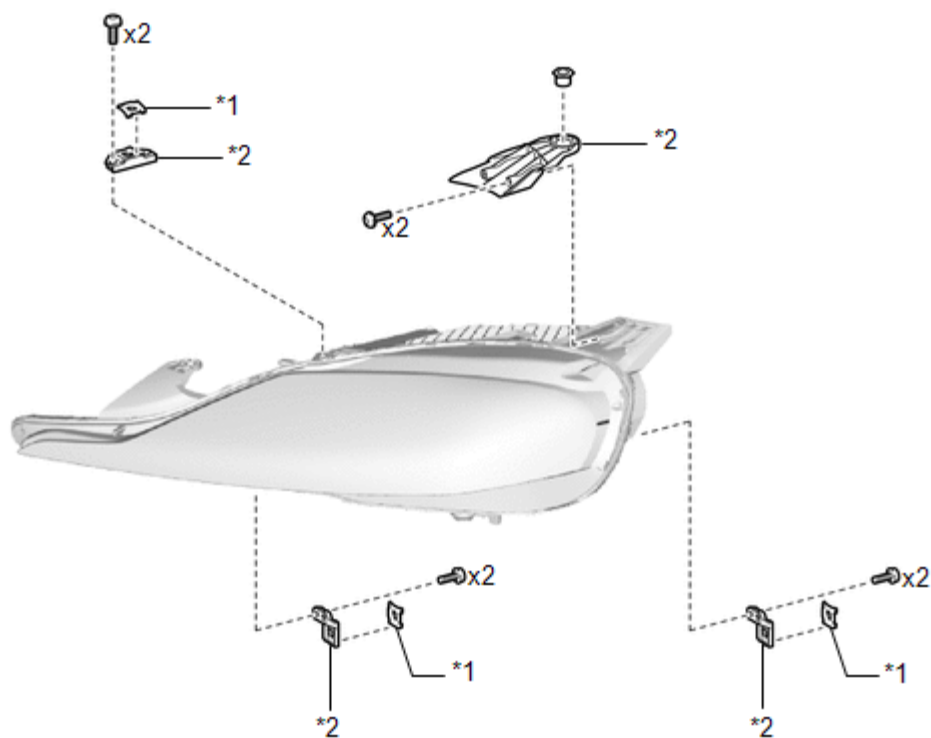
ILLUSTRATION



*1	HEADLIGHT LED UNIT ASSEMBLY	*2	LIGHT CONTROL LED ECU
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION

*a



d

*1	REINFORCEMENT PLATE	*2	RETAINING RING
*a	Bracket for Repair	-	-



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCK4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

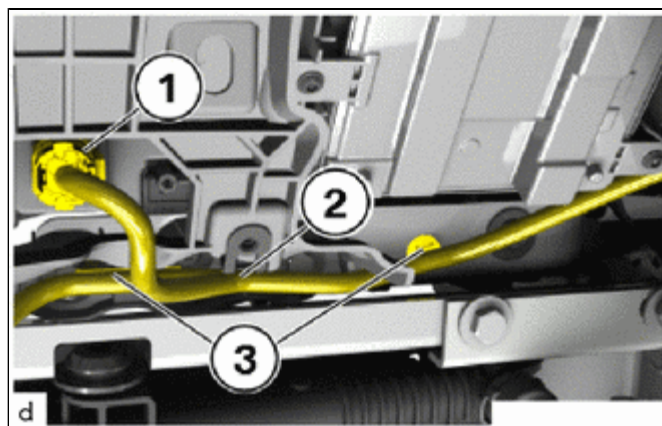
PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

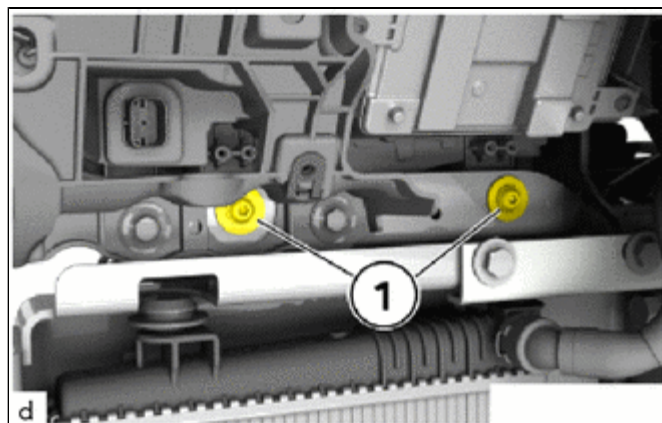
2. REMOVE HEADLIGHT ASSEMBLY

(a) Disconnect the connector (1).

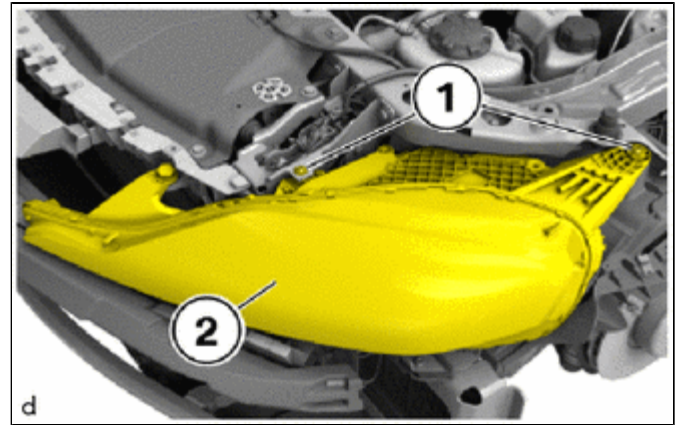


(b) Disengage the clamps (3) to disconnect the wiring harness (2).

(c) Remove the T30 bolts (1).



(d) Remove the T30 bolts (1).



(e) Guide out and remove the headlight assembly (2) to the front.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ASSEMBLY: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.
- Damage to or destruction of electrical components.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - For additional information see:

Click here [INFO](#)

CAUTION / NOTICE / HINT

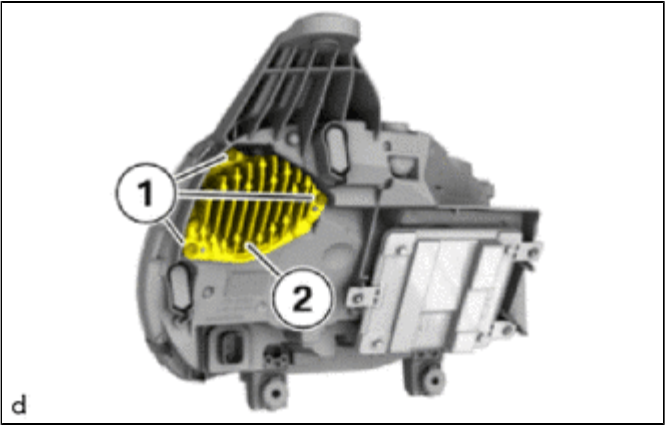
HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

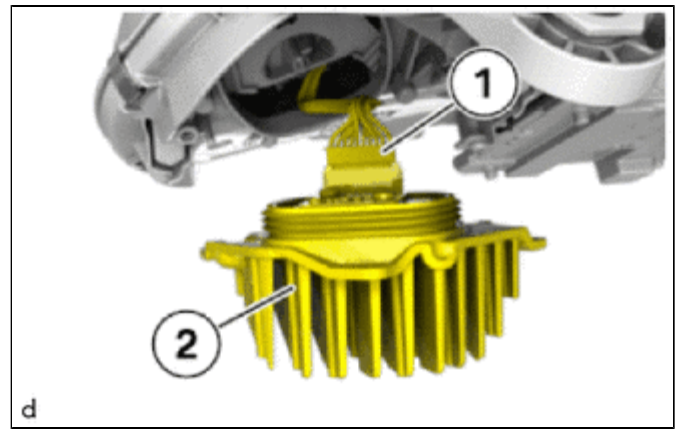
1. REMOVE HEADLIGHT LED UNIT ASSEMBLY

(a) Remove the T20 screws (1).



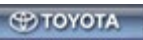
(b) Pull headlight LED unit assembly (2) out of the headlight assembly.

(c) Disconnect the connector (1) to remove the headlight LED unit assembly (2).



2. REMOVE LIGHT CONTROL LED ECU

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCK8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ASSEMBLY: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

CAUTION / NOTICE / HINT

NOTICE:

- Observe the operating instructions for the headlight adjusting device.
- Do not perform headlight adjustment immediately after lowering the vehicle on the vehicle hoist. In this case, move the vehicle for approx. 15 m on its own wheels before headlight adjustment.

HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. PREPARE VEHICLE FOR HEADLIGHT AIM ADJUSTMENT

- Vehicle parked on level ground.
- Check correct adjustment of headlights in relation to engine compartment lid (gap dimensions).

Click here [INFO](#)

- Check tire pressure and correct if necessary.
- Apply load equivalent to one person on driver's seat (75 kg, 165 lb).
- Vehicle with full fuel tank or appropriate additional weight in luggage compartment.

2. INSPECT HEADLIGHT AIMING

- Start the engine.

- For equipment variant with manual headlight beam throw adjustment: Move handwheel (1) to neutral position.



- Light switch must be in "low beam/driving light" position (3).

NOTICE:

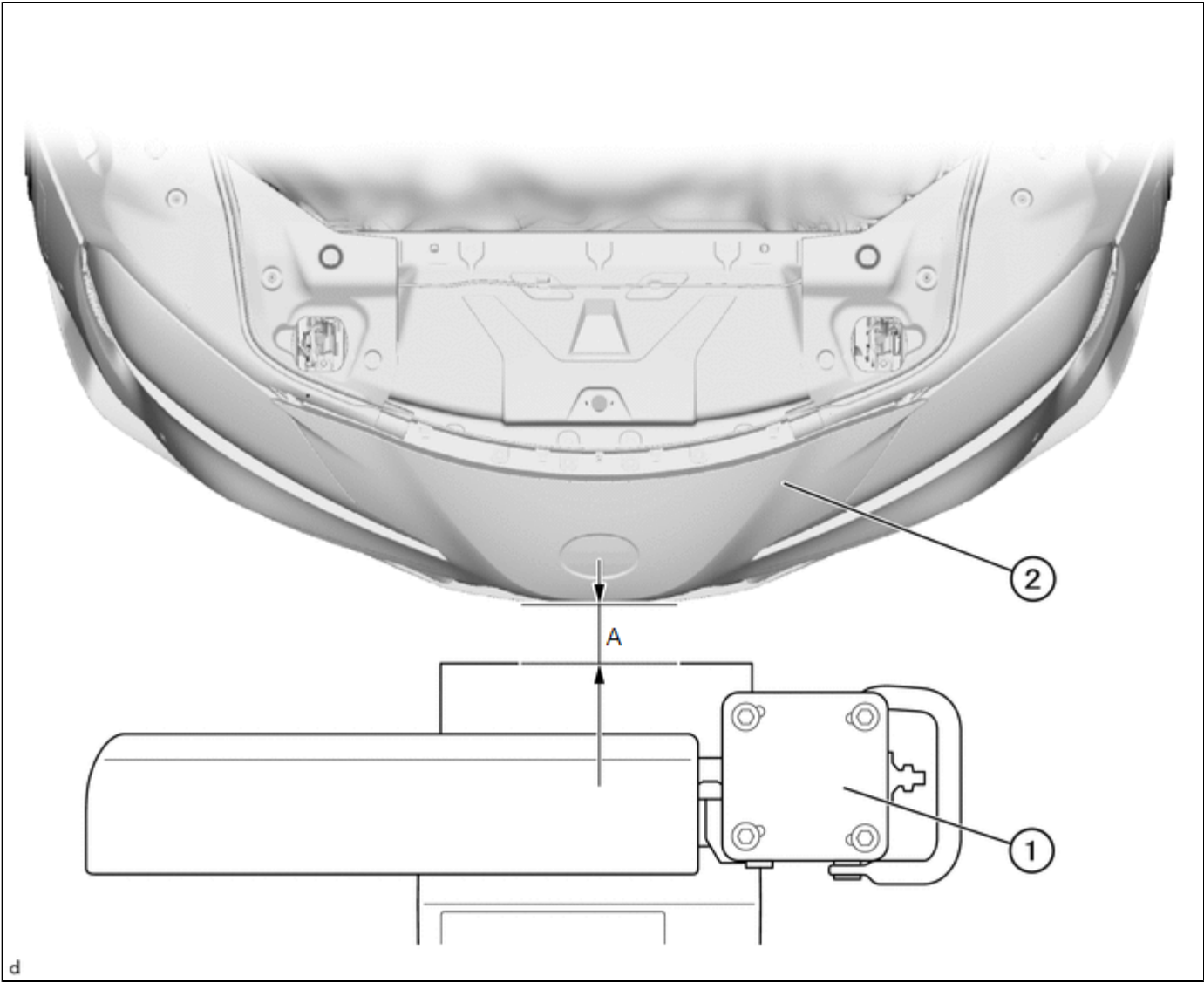
Do not carry out the headlight adjustment in the "automatic driving lights control" light switch position (2).

- Wait 80 seconds after switching on lights. During this time, do not move the vehicle and avoid vibrations.

NOTICE:

- Wheels must be in the straight-ahead position.
- Do not move the vehicle and steering wheel during the measuring and adjustment procedures.

(e) Position the headlight adjusting device (1) centrally in front of the vehicle (2) at distance (A) = 10 cm (0.328 ft.).



Standard:

AREA	SPECIFIED CONDITION
A	10 cm (0.328 ft.)

HINT:

- A correct measurement/adjustment requires exact positioning of the headlight adjusting device (1).
- The headlight adjusting device (1) must stand vertically to the vehicle longitudinal axis.

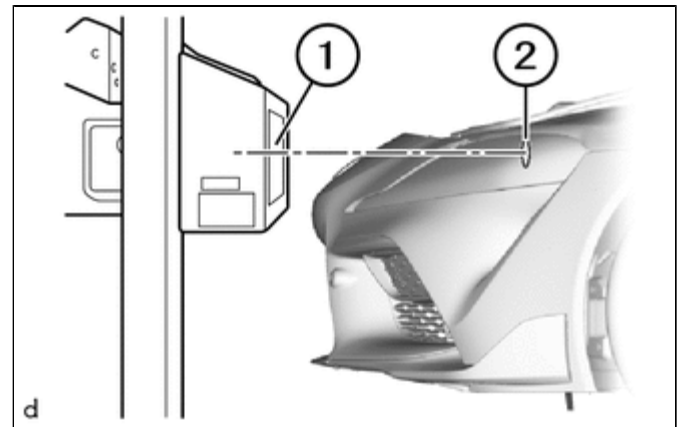
(f) The center of the collecting lens (1) must match the center (2) of headlight assembly horizontally.

NOTICE:

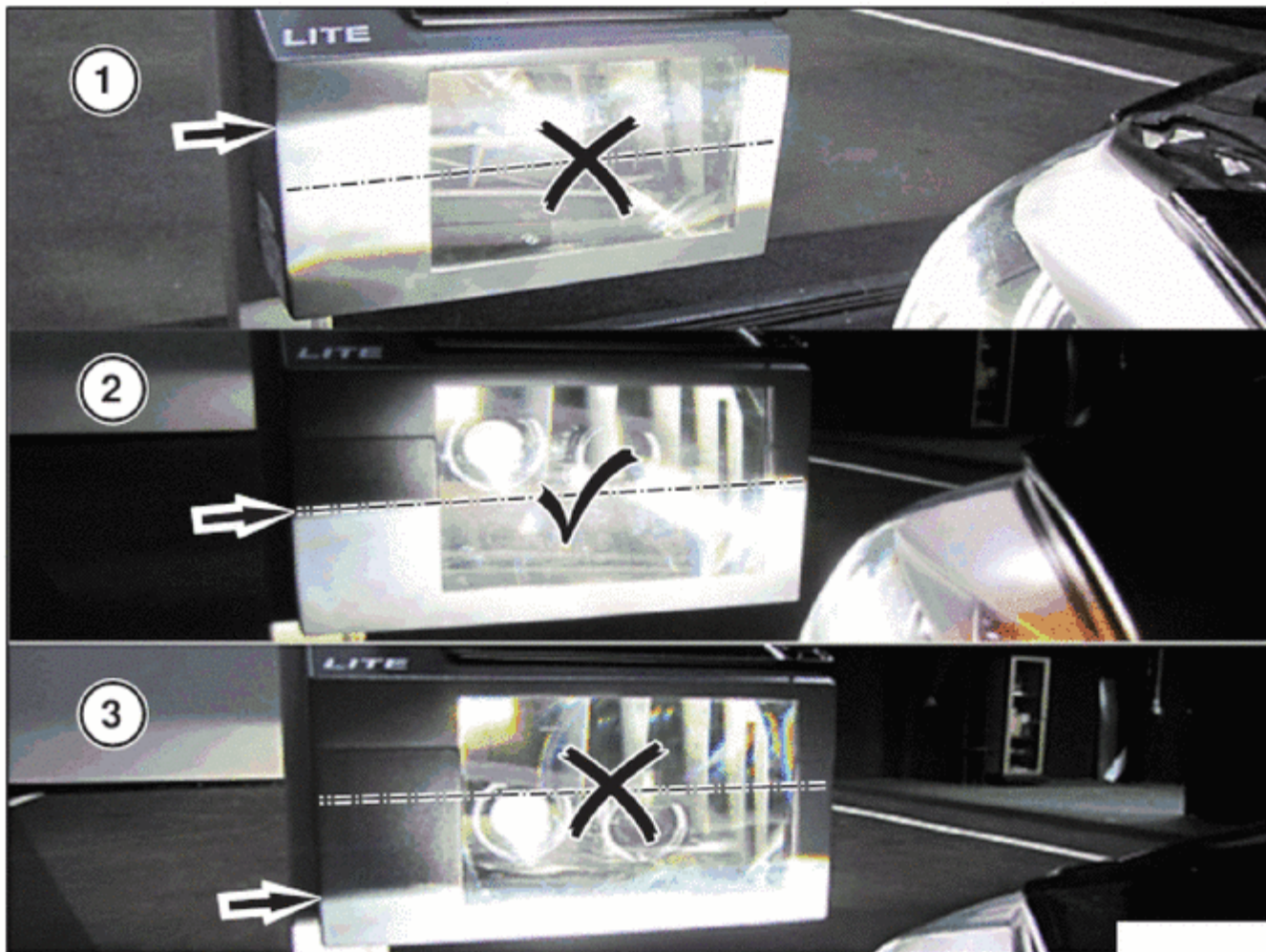
Always perform positioning of the headlight adjusting device (1) at the headlight assembly.

HINT:

Corrections are made by raising or lowering the headlight adjusting device.



(g) When positioned correctly, the light/dark boundary of the headlight (marked with arrow) must hit the collecting lens of the adjusting device in the center:

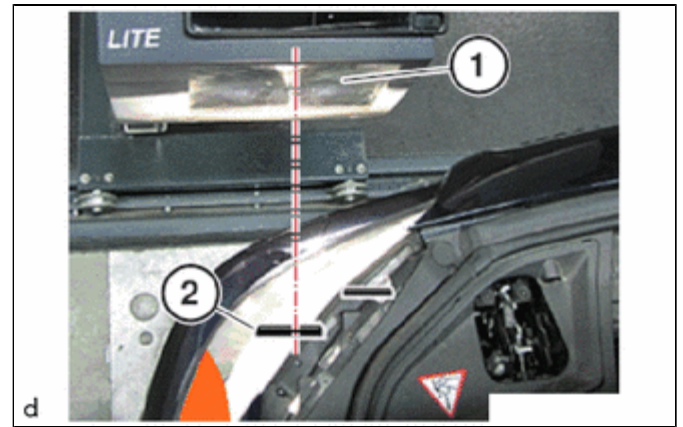


- (1) The headlight adjusting device is too low (1).
- (2) The headlight adjusting device is positioned correctly (2).
- (3) The headlight adjusting device is too high (3).

- (h) The center of the collecting lens (1) must match the center of headlight (2) vertically.

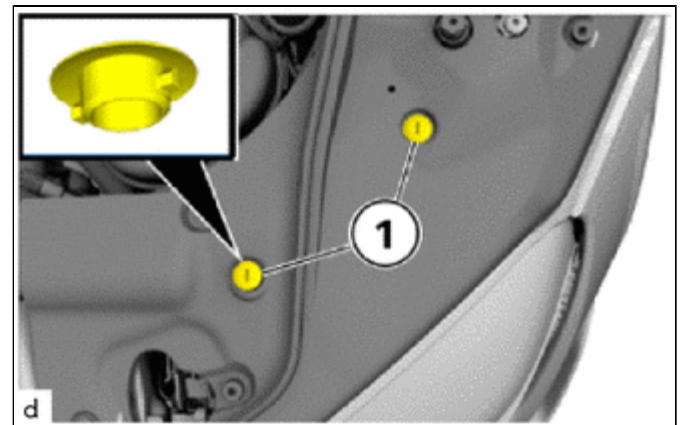
HINT:

Corrections are made by sliding the side of the headlight adjusting device to the left or right.



3. ADJUST HEADLIGHT AIMING

- (a) Turn both covers (1) above the adjusting screws for the light setting by 90° and remove.



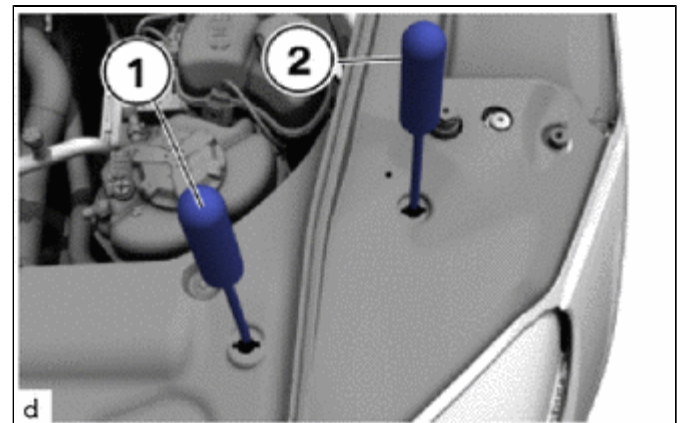
- (b) Adjust the aim vertically:

NOTICE:

The final turn of the aiming screw should be made in the clockwise direction. If the screw is tightened excessively, loosen it and then retighten it, so that the final turn of the screw is in the clockwise direction.

HINT:

- Since the low beam light and the high beam light are a unit, if the aim on the low beam is correct, the high beam should also be correct. However, check both beams just to make sure.
- When adjusting the vertical axis of the headlight, the horizontal axis will also change. It is necessary to adjust the vertical position first, and then correct the horizontal position.
- If it is not possible to correctly adjust headlight aim, check the headlight unit and headlight unit lens installation.
- Confirm the direction of rotation of the aiming screw by observing it while it is being adjusted. Due to the position of the screwdriver, the direction of rotation of the adjusting screw can be different than the direction of rotation of the screwdriver being used to adjust it.



(1) Adjust the aim of each headlight to the specified range by turning each aiming screw with a screwdriver (1).

(c) Adjust the aim horizontally:

NOTICE:

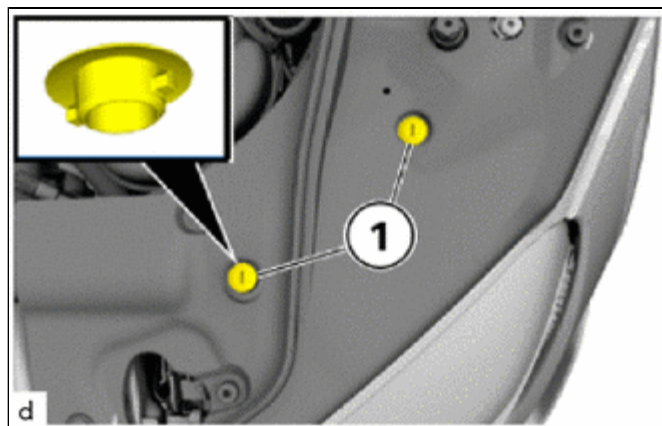
The final turn of the aiming screw should be made in the clockwise direction. If the screw is tightened excessively, loosen it and then retighten it, so that the final turn of the screw is in the clockwise direction.

HINT:

- Since the low beam light and the high beam light are a unit, if the aim on the low beam is correct, the high beam should also be correct. However, check both beams just to make sure.
- If it is not possible to correctly adjust headlight aim, check the headlight unit and headlight unit lens installation.
- Confirm the direction of rotation of the aiming screw by observing it while it is being adjusted. Due to the position of the screwdriver, the direction of rotation of the adjusting screw can be different than the direction of rotation of the screwdriver being used to adjust it.

(1) Adjust the aim of each headlight to the specified range by turning each aiming screw with a screwdriver (2).

(d) Install the covers (1) above the adjusting screws for the light setting and turn by 90°.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ASSEMBLY: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

CAUTION / NOTICE / HINT

HINT:
Description is for left component only. Procedure on the right side is identical.

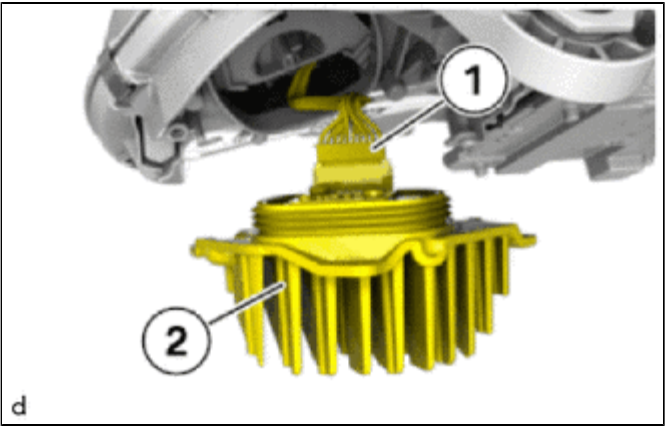
PROCEDURE

1. INSTALL LIGHT CONTROL LED ECU

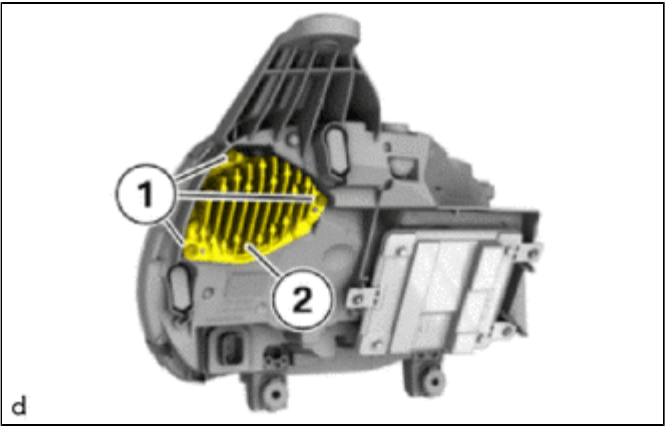
Click here [INFO](#)

2. INSTALL HEADLIGHT LED UNIT ASSEMBLY

(a) Connect the connector (1) to the headlight LED unit assembly (2).



(b) Set the headlight LED unit assembly (2) in the headlight assembly.



(c) Install the T20 screws (1).

Torque:
1.5 N·m {15 kgf·cm, 13 in·lbf}



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

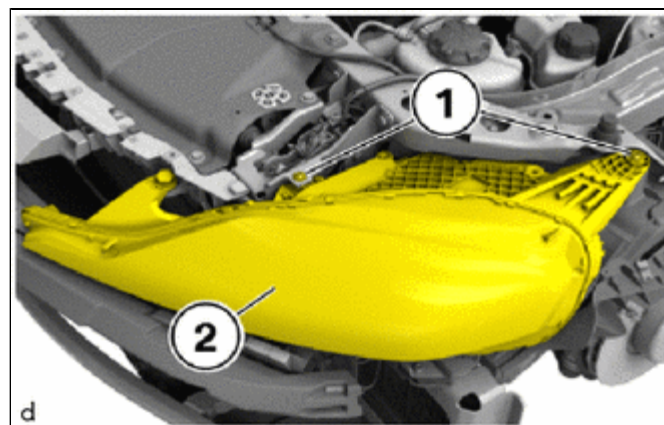
PROCEDURE

1. INSTALL HEADLIGHT ASSEMBLY

(a) Install the headlight assembly (2) with the T30 bolts (1).

Torque:

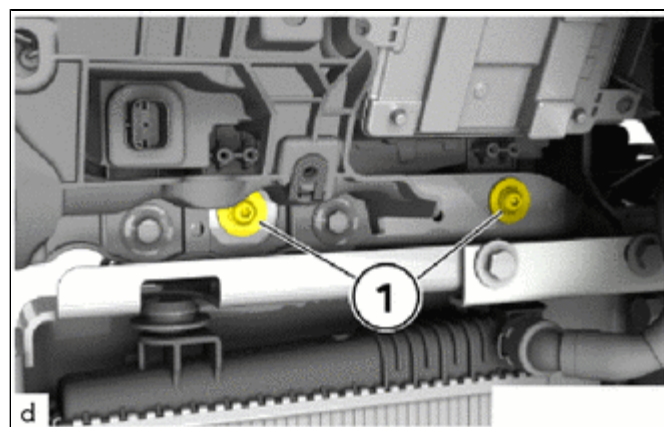
8.0 N·m {82 kgf·cm, 71 in·lbf}



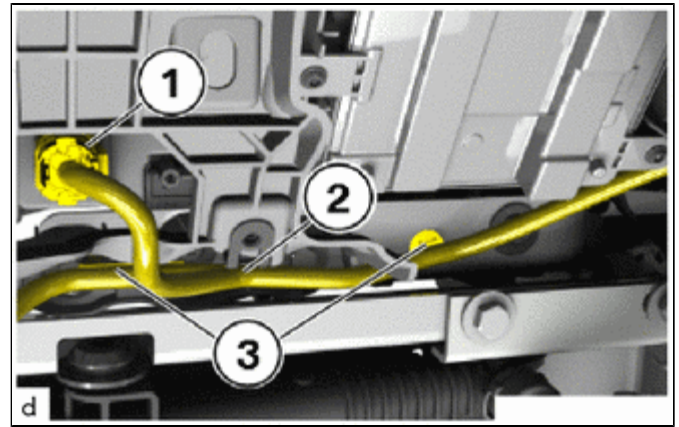
(b) Install the T30 bolts (1).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}



(c) Connect the connector (1).



(d) Engage the clamps (3) to connect the wiring harness (2).

2. INSTALL FRONT BUMPER ASSEMBLY

Click here [INFO](#)

3. ADJUST HEADLIGHT AIMING

Click here [INFO](#)

4. ADJUST MILLIMETER WAVE RADAR SENSOR (w/ Toyota Supra Safety)

- Before starting adjustment:

Click here [INFO](#)

- Adjustment:

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ASSEMBLY: REPAIR; 2020 MY Supra [03/2019 -]		

REPAIR

CAUTION / NOTICE / HINT

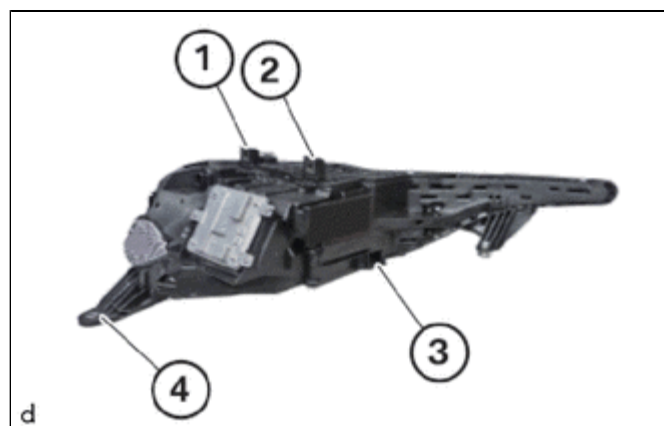
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.
- If the installation area of the headlight assembly is damaged, use a supply retainer for a low-cost repair.
- Ensure that the headlight assembly is not damaged.

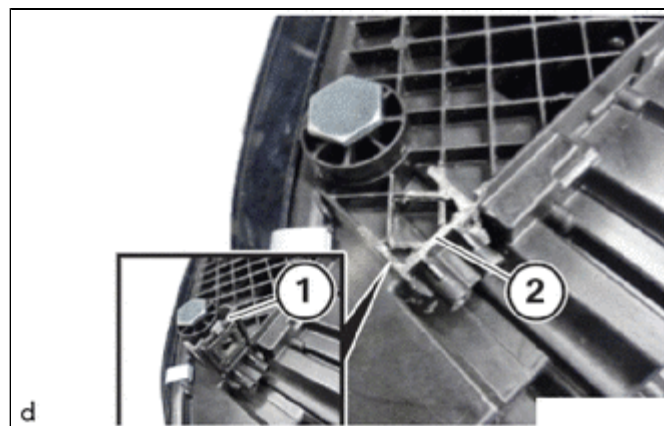
PROCEDURE

1. INSTALL HEADLIGHT REPAIR KIT

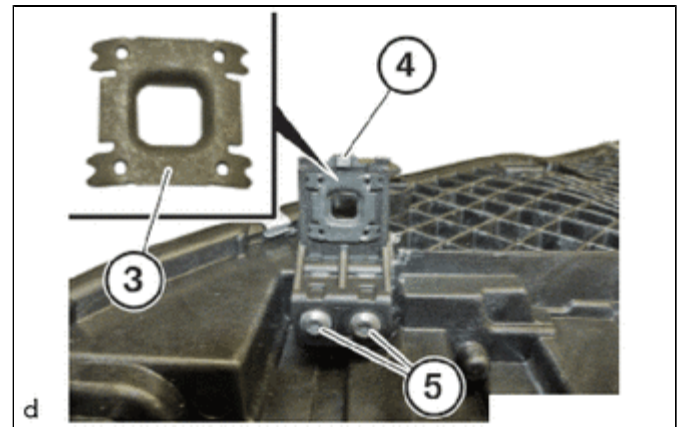
- (a) The headlight support repair kit can be used for the retaining ring (1) and (2) and (3) and (4).



- (b) If necessary, remove damaged retaining ring (1) as shown (2).

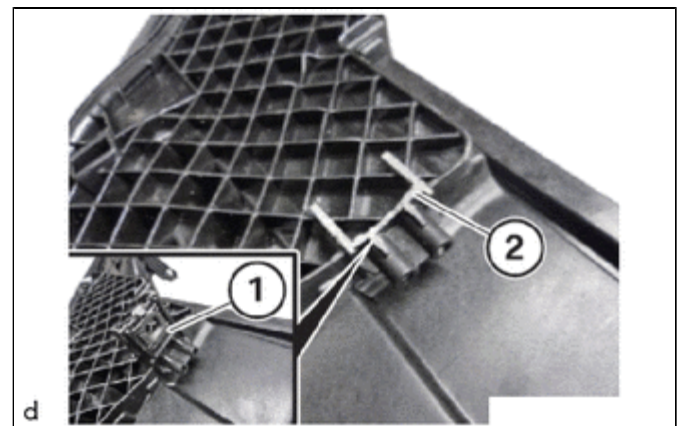


(c) Mount the enclosed reinforcement plate (3) in new retaining ring (4).

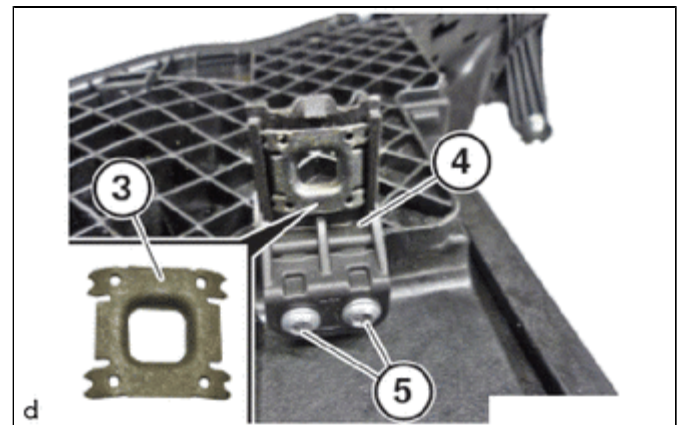


(d) Secure the new retaining ring with enclosed screws (5).

(e) If necessary, remove damaged retaining ring (1) as shown (2).

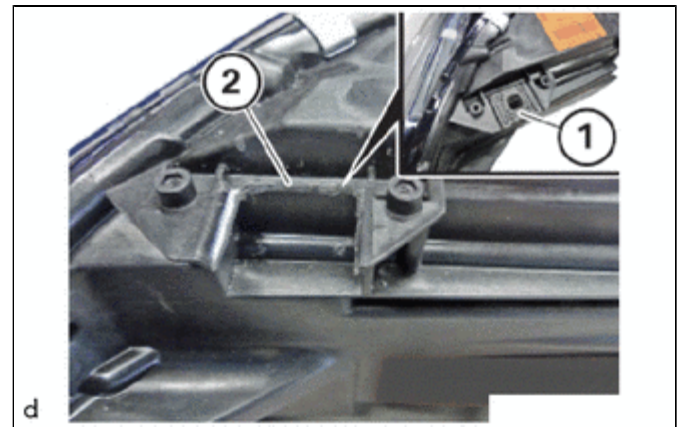


(f) Mount the enclosed reinforcement plate (3) in new retaining ring (4).

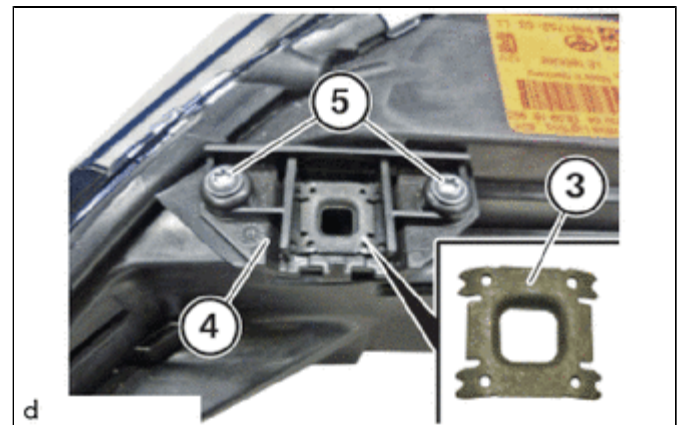


(g) Secure the new retaining ring with enclosed screws (5).

(h) If necessary, remove damaged retaining ring (1) as shown (2).

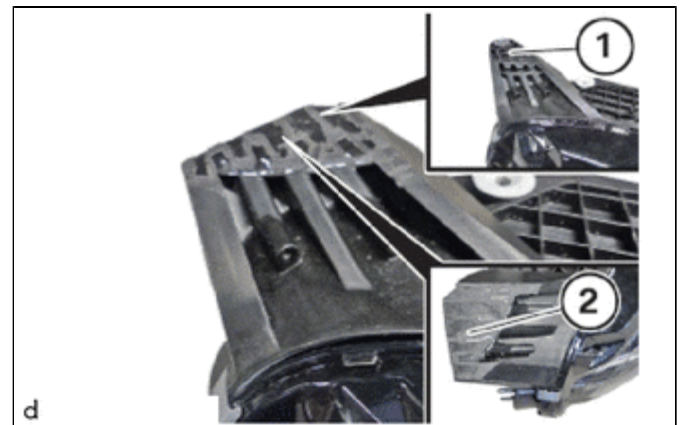


(i) Mount the enclosed reinforcement plate (3) in new retaining ring (4).

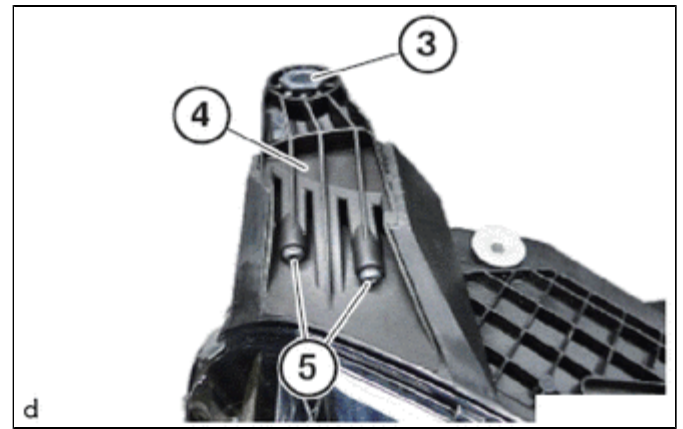


(j) Secure the new retaining ring with enclosed screws (5).

(k) If necessary, remove damaged retaining ring (1) as shown (2).



(l) Screw in the enclosed nut (3) to new retaining ring (4).

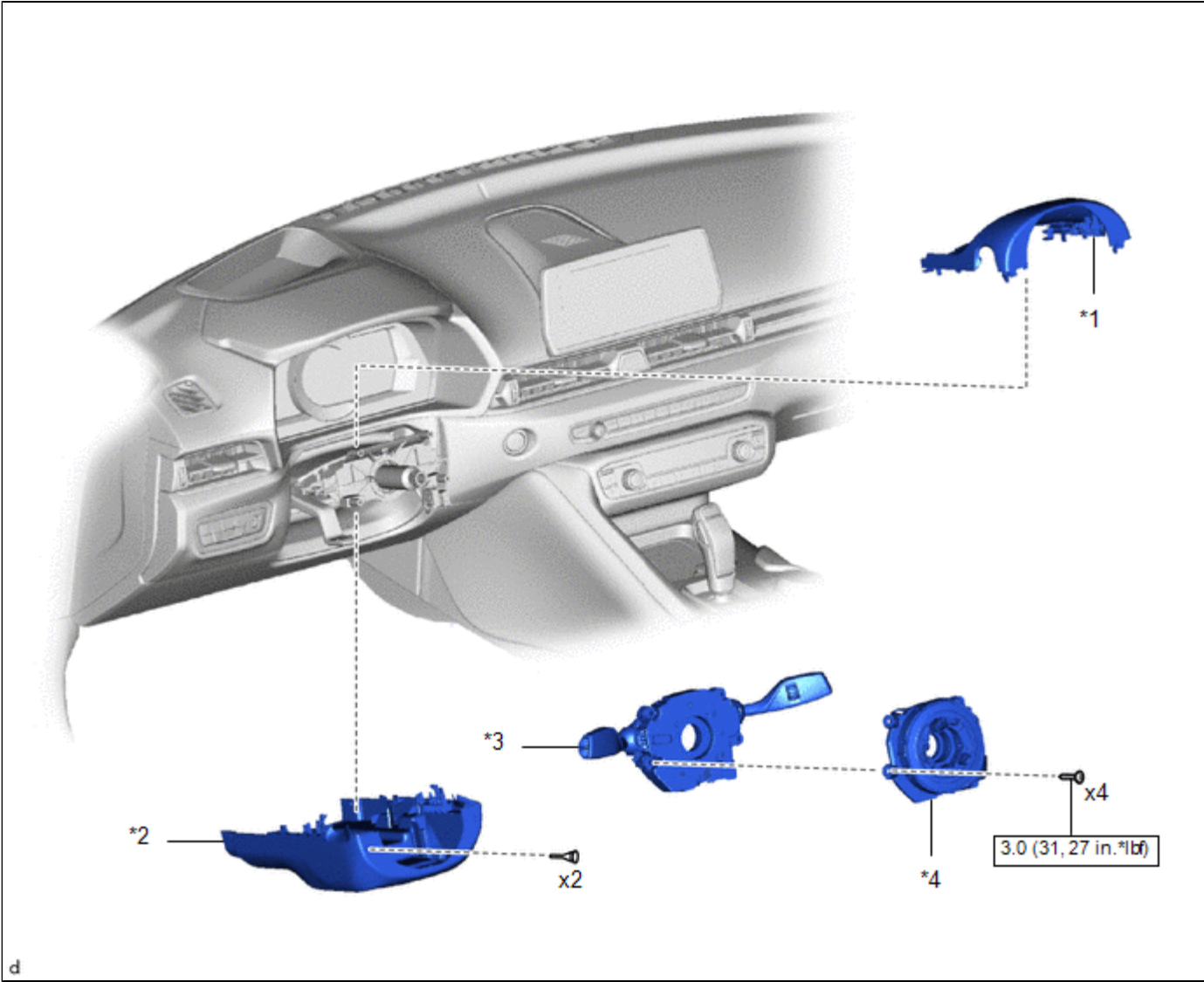


(m) Secure the new retaining ring with enclosed screws (5).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT DIMMER SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	UPPER STEERING COLUMN COVER	*2	LOWER STEERING COLUMN COVER
*3	TURN SIGNAL SWITCH ASSEMBLY	*4	SPIRAL CABLE SUB-ASSEMBLY
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT DIMMER SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: Safety regulations on handling components with gas generators.

Click here

INFO

PROCEDURE

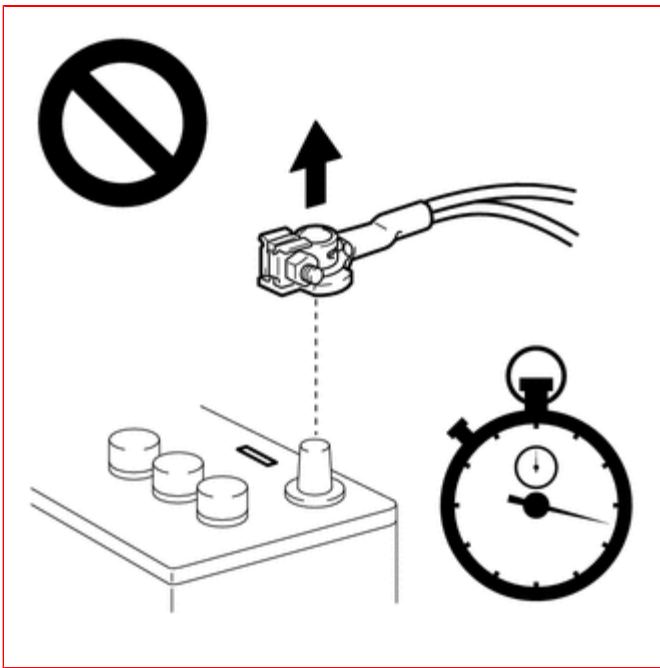
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here

INFO

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

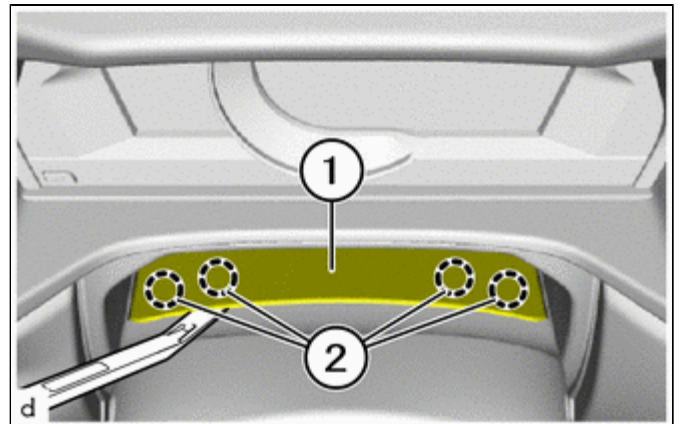
- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE STEERING WHEEL ASSEMBLY

Click here [INFO](#)

3. REMOVE UPPER STEERING COLUMN COVER

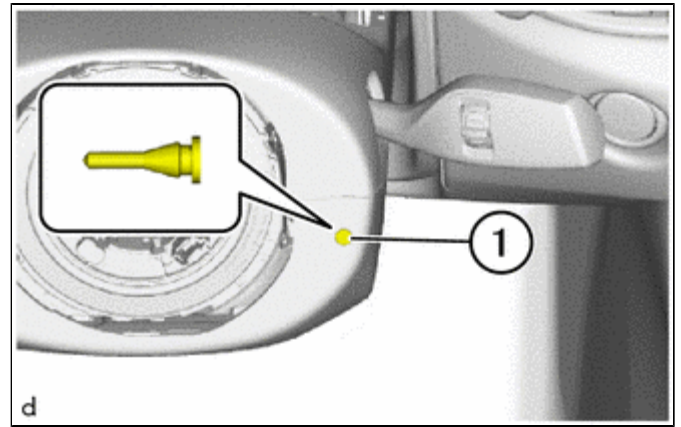
- (a) Using a moulding remover A, disengage the clips (2) to disconnect the steering column cover (1).



- (b) Press in the rubber plug (1) with the T15 "TORX" screwdriver to the inside and into the lower steering column cover.

HINT:

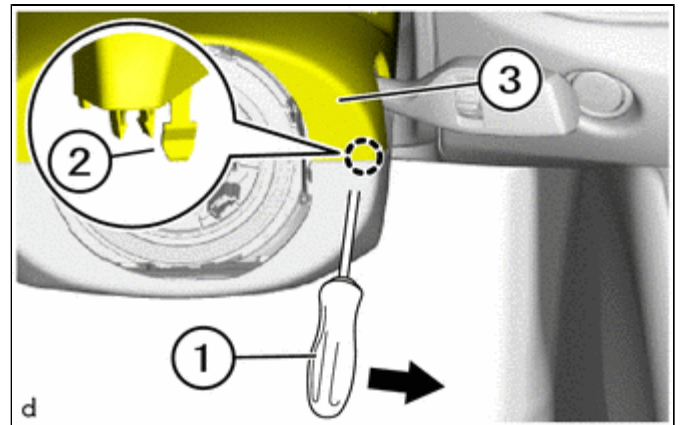
- The rubber plugs are reusable. Process to reuse the rubber plug: remove the lower steering column cover and remove the rubber plug.
- Perform the operations on the left and right side.



(c) Press the T15 "TORX" screwdriver (1) in the direction of the arrow and lever the tab (2) to the inside.

HINT:

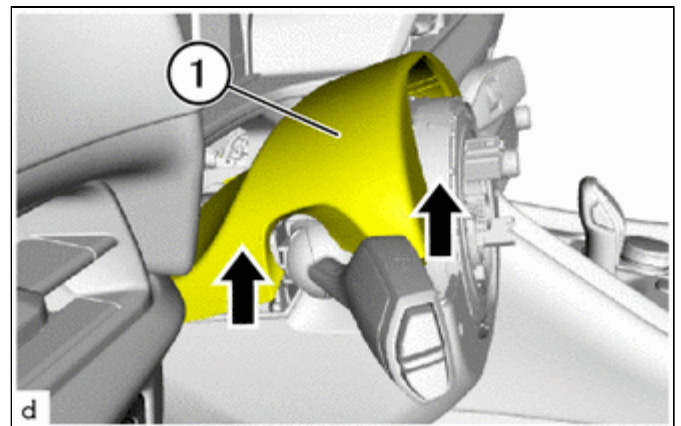
Perform the operations on the left and right side.



(d) Press the upper steering column cover (3) to the top at the same time.

HINT:

Perform the operations on the left and right side.



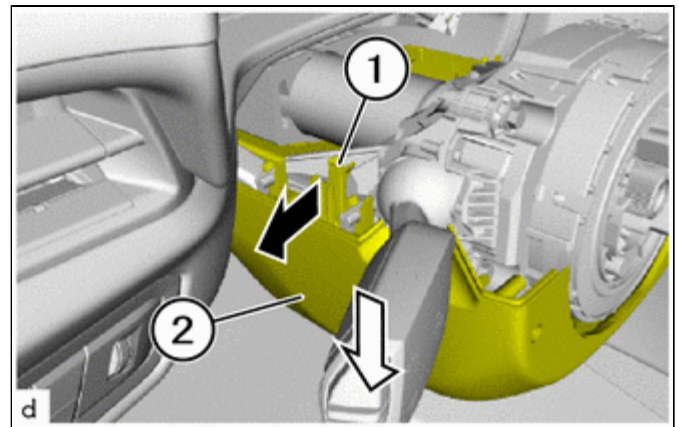
(e) Remove the upper steering column cover (1) out to the top as shown in the illustration.

4. REMOVE LOWER STEERING COLUMN COVER

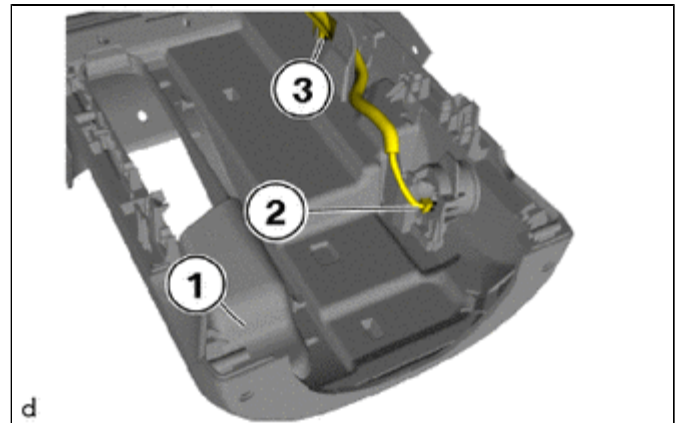
- (a) Push the claw (1) to the outside in the direction of the arrow and unclip the lower steering column cover (2) in the direction of the arrow to the bottom.

HINT:

Perform the operations on the left and right side.



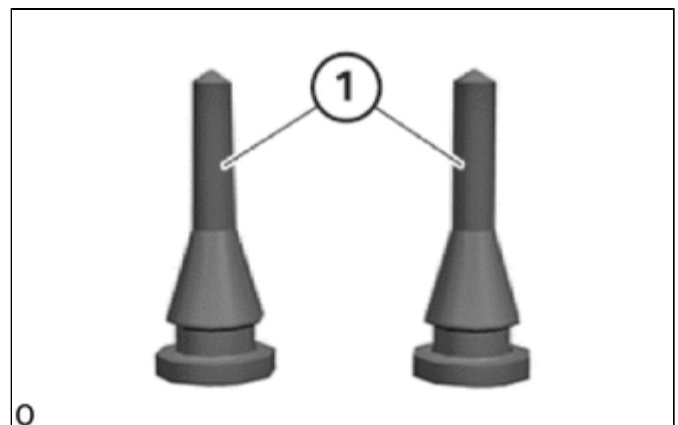
- (b) Tilt the lower steering column cover (1) down.



- (c) Disconnect the connector (2).

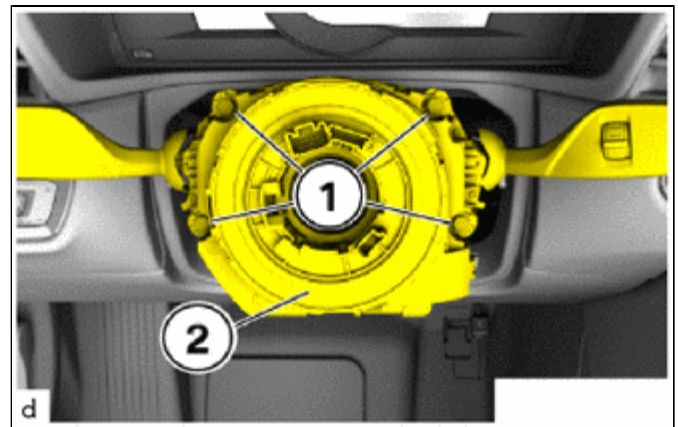
- (d) Disengage the guide (3) to remove the lower steering column cover (1).

- (e) Remove rubber plugs (1) from the lower steering column cover.



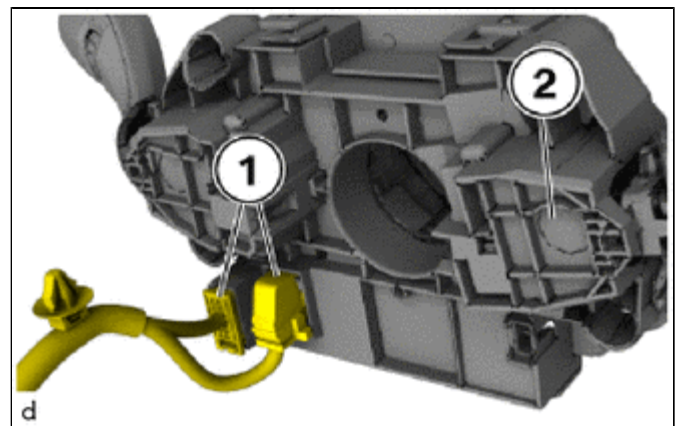
5. REMOVE TURN SIGNAL SWITCH ASSEMBLY

(a) Using a deep socket wrench 7 mm, remove the screws (1).



(b) Thread out the turn signal switch assembly (2).

(c) Disconnect the connectors (1) to remove the turn signal switch assembly (2).



6. REMOVE SPIRAL CABLE SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT DIMMER SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

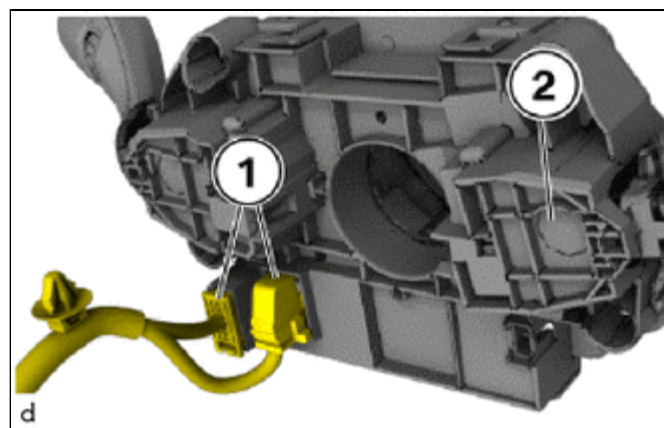
PROCEDURE

1. INSTALL SPIRAL CABLE SUB-ASSEMBLY

Click here [INFO](#)

2. INSTALL TURN SIGNAL SWITCH ASSEMBLY

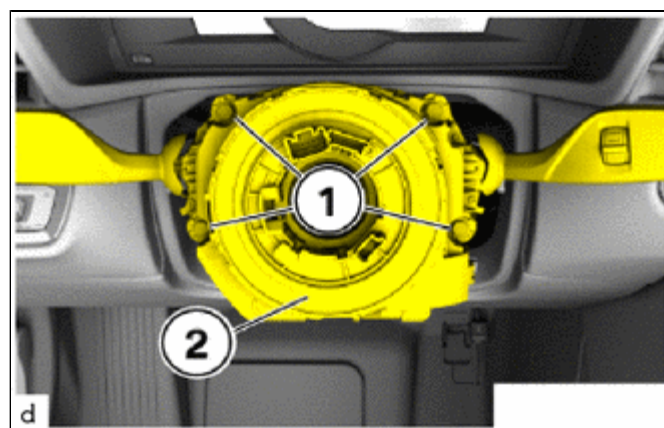
(a) Connect the connectors (1) with the turn signal switch assembly (2).



(b) Using a deep socket wrench 7 mm, install the turn signal switch assembly (2) with the screws (1)

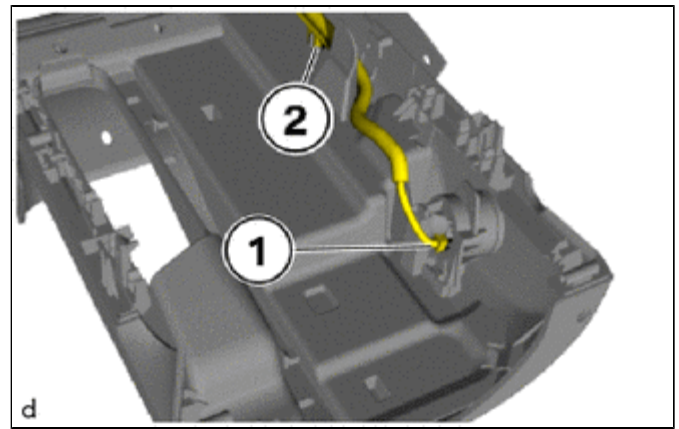
Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



3. INSTALL LOWER STEERING COLUMN COVER

(a) Connect the connector (1).

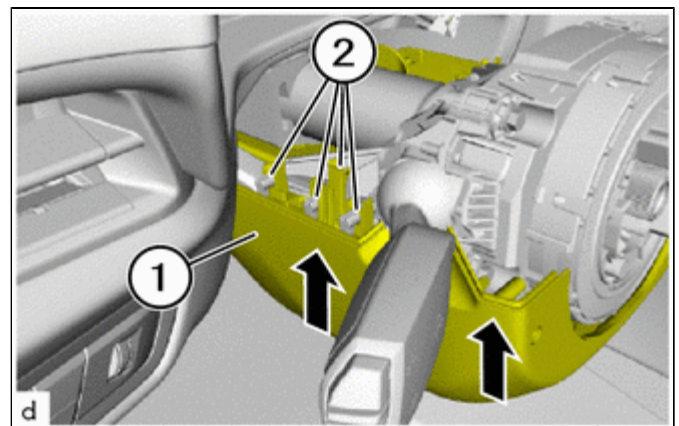


(b) Engage the guide (2).

(c) Align the lower steering column cover (1) at the claw (2) to the steering column.

HINT:

Perform the operations on the left and right side.



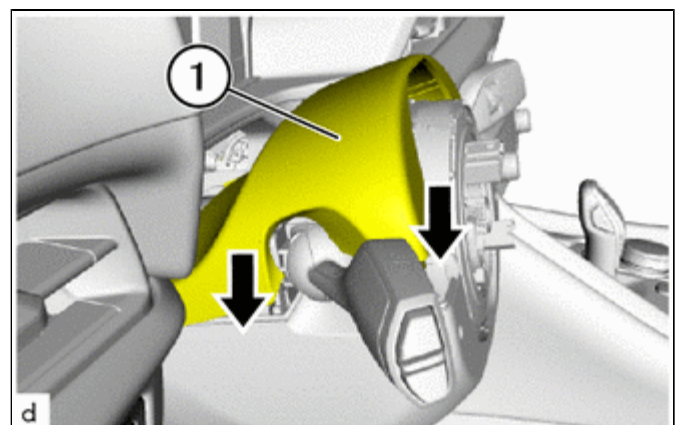
(d) Press the lower steering column cover (1) upwards in direction of arrow until the claw (2) engage.

HINT:

Perform the operations on the left and right side.

4. INSTALL UPPER STEERING COLUMN COVER

(a) Guide in the upper steering column cover (1).



(b) Press the upper steering column cover (1) down and engage.

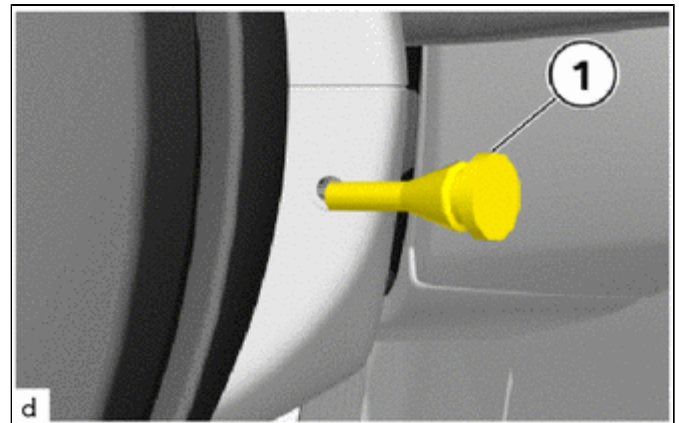
NOTICE:

The upper steering column cover (1) must engage audibly and perceptibly.

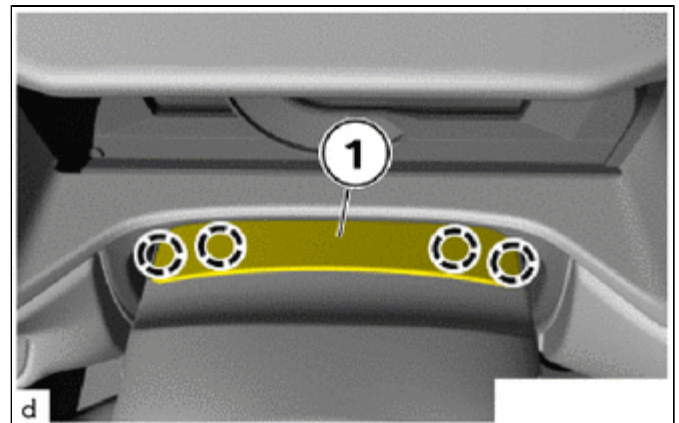
(c) Seal the bore hole using a rubber plug (1).

HINT:

Perform the operations on the left and right side.



(d) Engage the clips to connect the steering column cover (1).

**5. INSTALL STEERING WHEEL ASSEMBLY**

Click here [INFO](#)

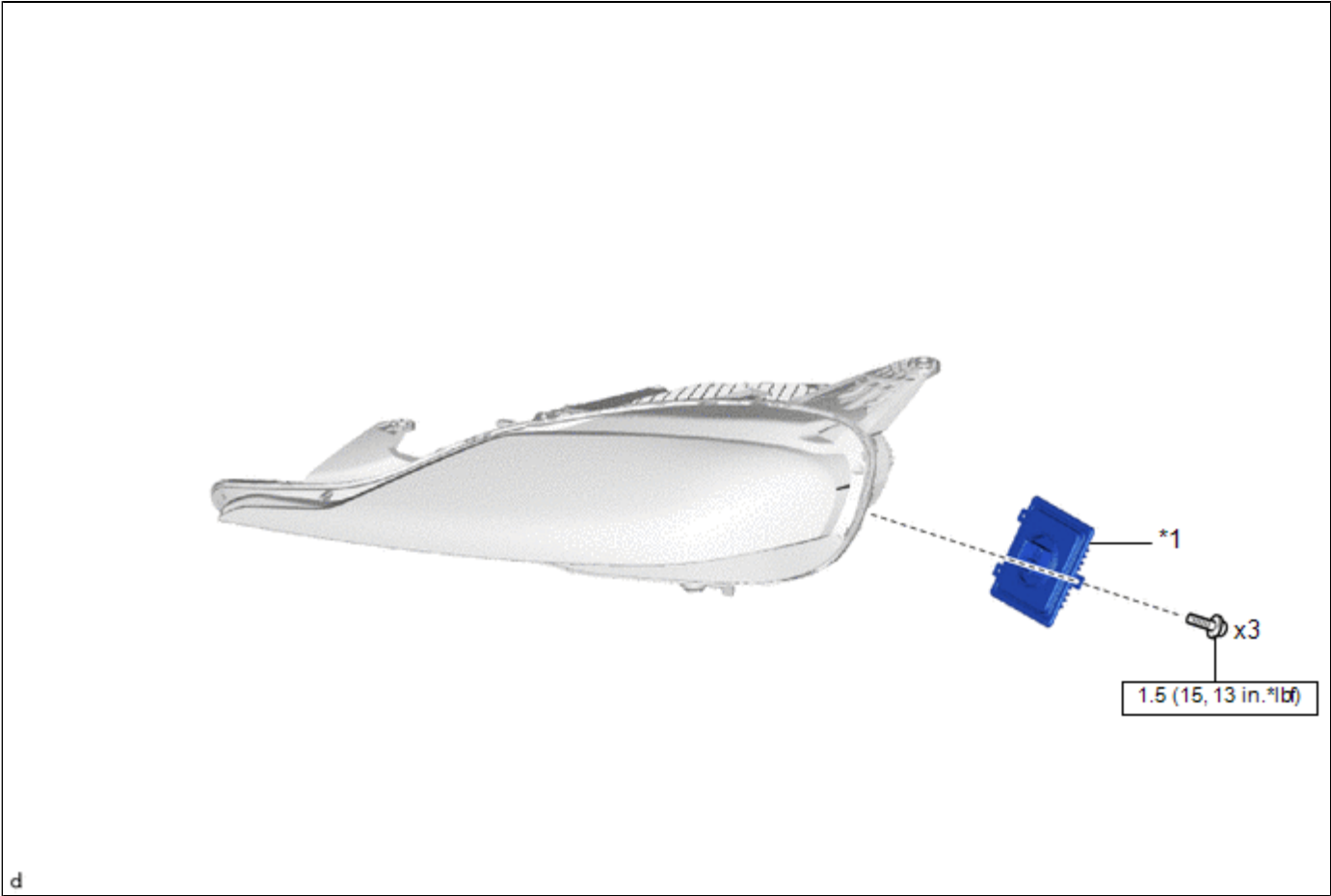
6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LIGHT CONTROL LED ECU	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

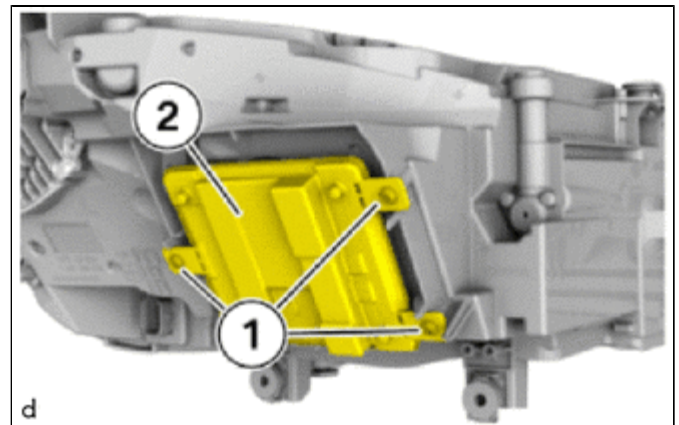
PROCEDURE

1. REMOVE HEADLIGHT ASSEMBLY

Click here [INFO](#)

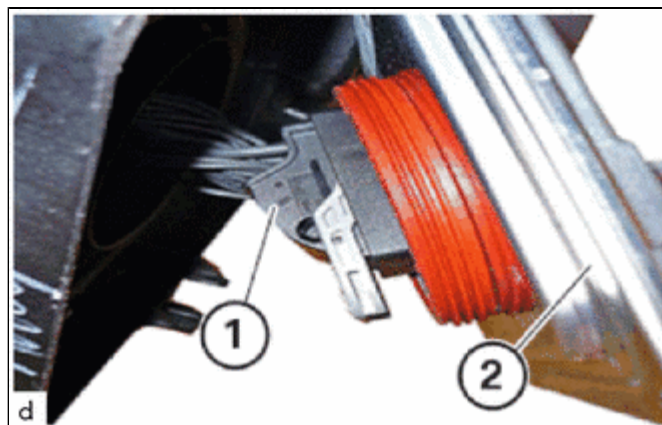
2. REMOVE LIGHT CONTROL LED ECU

(a) Remove the T20 screws (1).



(b) Pull light control LED ECU (2) out of the headlight assembly.

(c) Disconnect the connector (1).



(d) Remove the light control LED ECU (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEADLIGHT ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

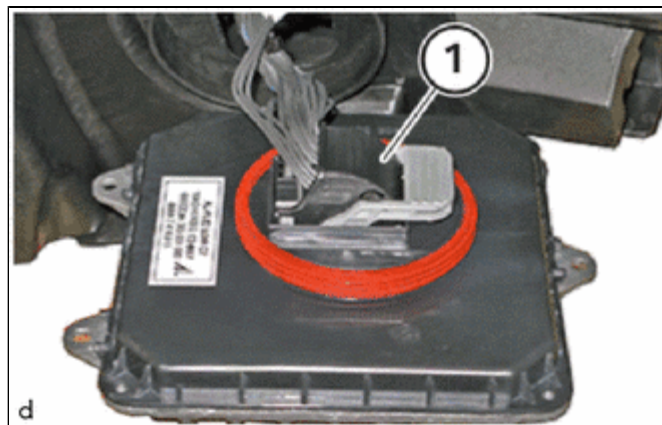
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

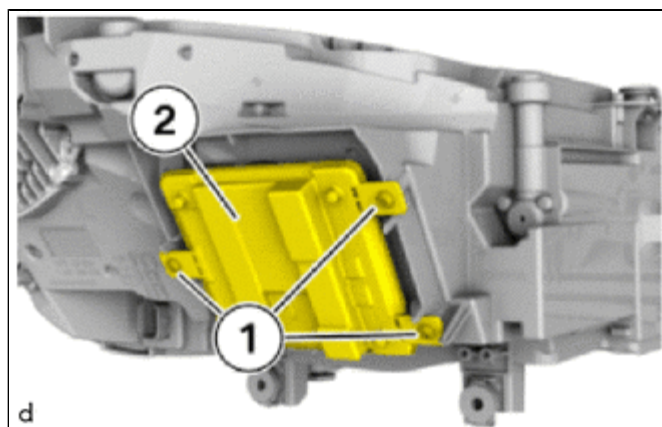
PROCEDURE

1. INSTALL LIGHT CONTROL LED ECU

(a) Connect the connector (1).



(b) Set the light control LED ECU (2) in the headlight assembly.



(c) Install the T20 screws (1).

Torque:

1.5 N·m {15 kgf·cm, 13 in·lbf}

2. INSTALL HEADLIGHT ASSEMBLY

3. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- When there is communication abnormality in the middle of work, control unit might be damaged.

- (a) Connect the battery charger to the vehicle.
- (b) Connect the diagnosis system with the vehicle.
- (c) Determine the action plan.
- (d) Accept and fully process the measures plan.
- (e) Wait until programming/encoding has been completed.

NOTICE:

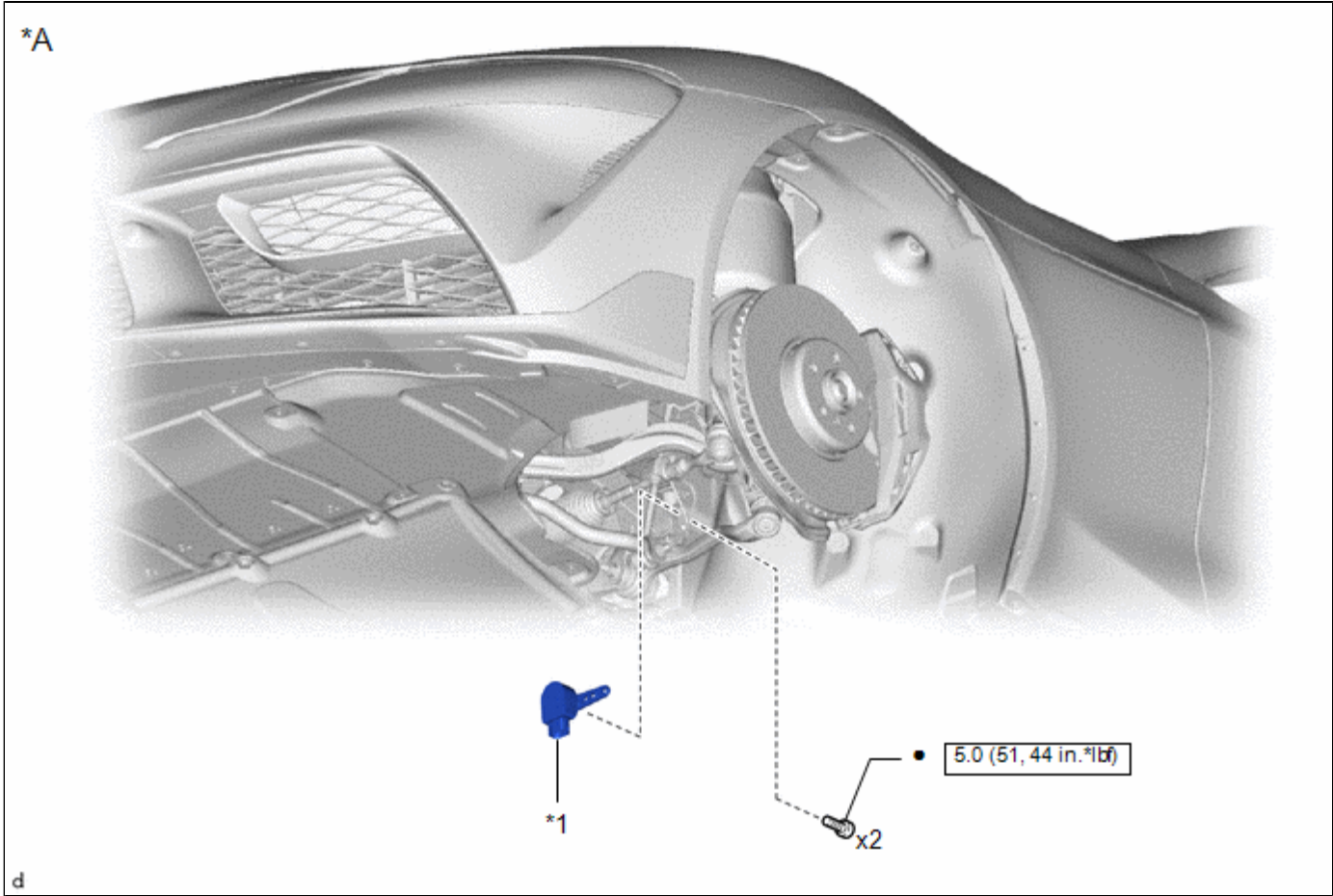
When there is communication abnormality in the middle of work, control unit might be damaged.


- (f) Carry out vehicle test.
- (g) Delete the fault memory.
- (h) Disconnect the diagnosis system from the vehicle.
- (i) Disconnect the battery charger from the vehicle.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEIGHT CONTROL SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

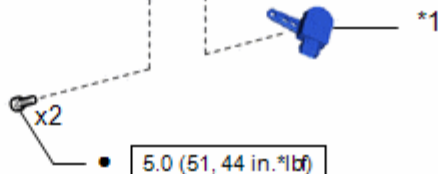
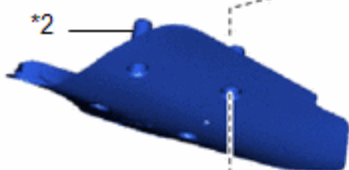
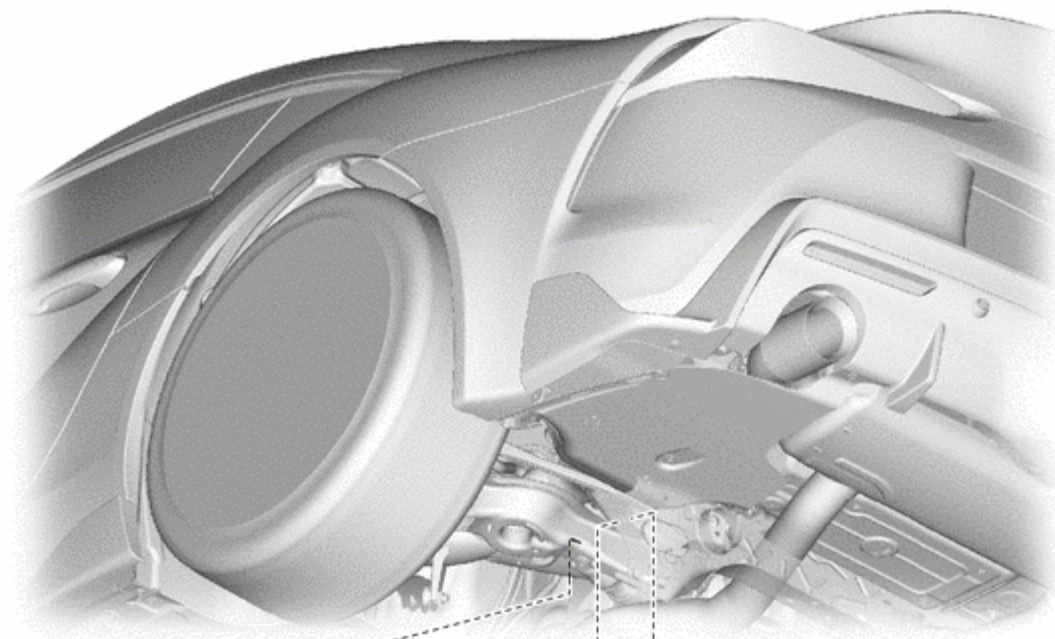
ILLUSTRATION



*A	for Front Side	-	-
*1	FRONT HEIGHT CONTROL SENSOR SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

*A



d

*A	for Rear Side	-	-
*1	REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY	*2	REAR SUSPENSION ARM COVER LH
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEIGHT CONTROL SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Vehicle may slip off the vehicle hoist if the vehicle hoist is handled incorrectly.

Danger! Life-threatening injuries!

- Observe safety information on raising the vehicle using a vehicle hoist.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

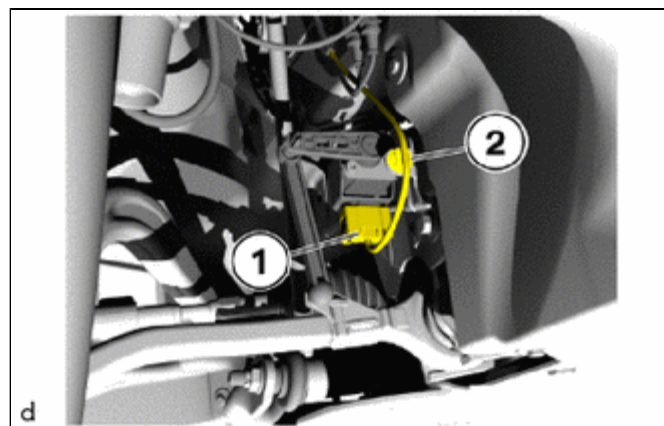
PROCEDURE

1. REMOVE FRONT WHEEL LH (for Front Side)

Click here [INFO](#)

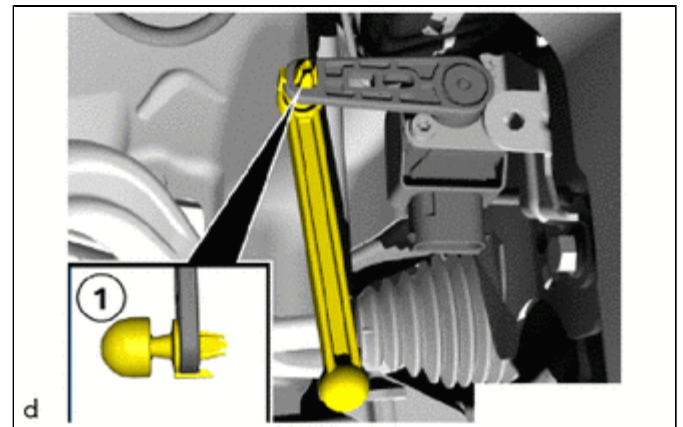
2. REMOVE FRONT HEIGHT CONTROL SENSOR SUB-ASSEMBLY (for Front Side)

(a) Disconnect the connector (1).

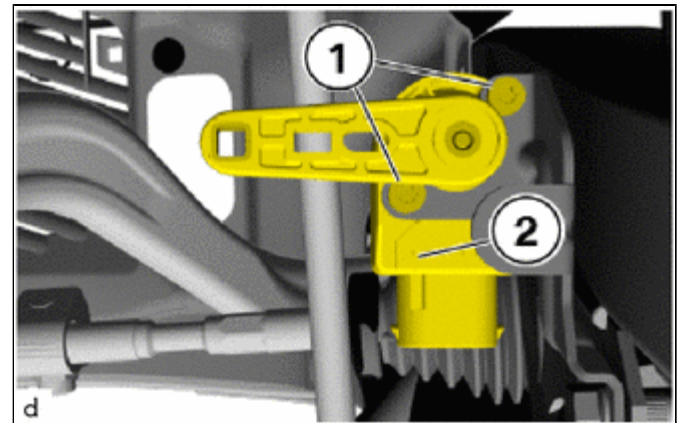


(b) Disengage the clamp (2).

(c) Disengage the clamp (1).



(d) Remove the T20 bolts (1) and front height control sensor sub-assembly (2).

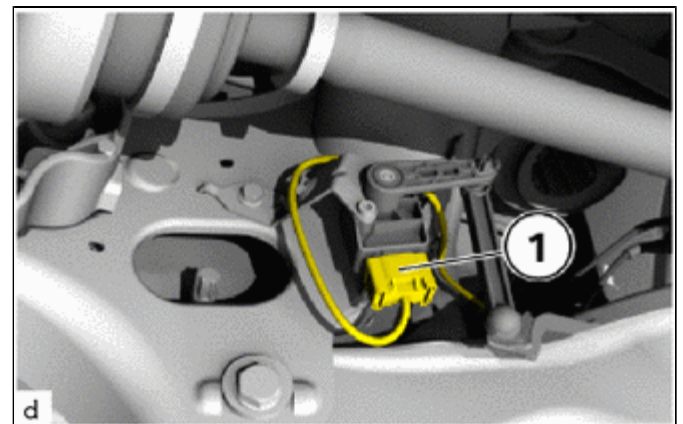


3. REMOVE REAR SUSPENSION ARM COVER LH (for Rear Side)

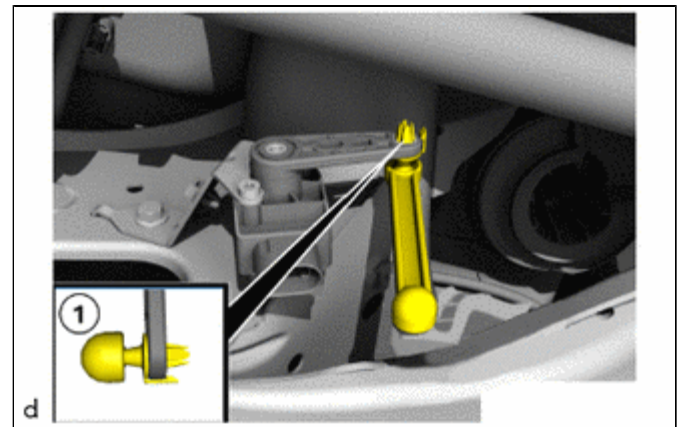
Click here [INFO](#)

4. REMOVE REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY (for Rear Side)

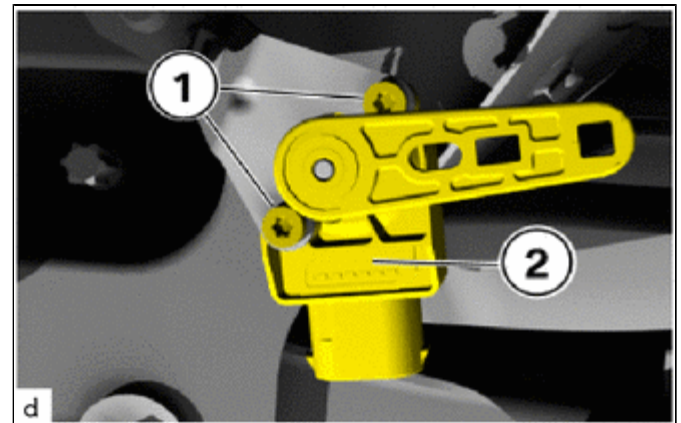
(a) Disconnect the connector (1).



(b) Disengage the clamp (1).



(c) Remove the T20 bolts (1) and rear height control sensor sub-assembly (2).



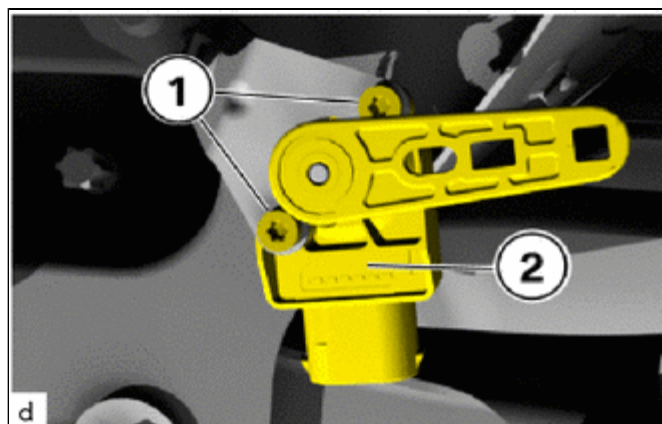
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCL5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HEIGHT CONTROL SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL REAR HEIGHT CONTROL SENSOR SUB-ASSEMBLY (for Rear Side)

(a) Replace the bolts (1).

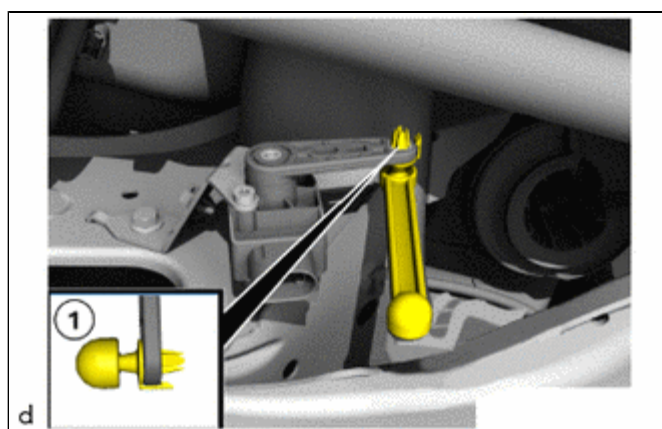


(b) Install the rear height control sensor sub-assembly (2) with the T20 screws (1).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(c) Engage the clamp (1).



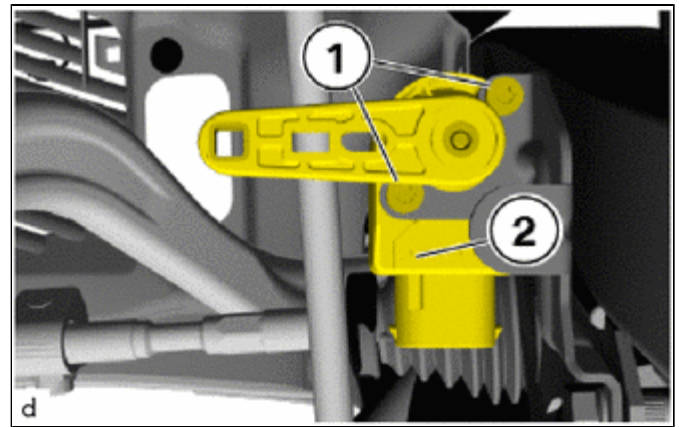
(d) Connect the connector.

2. INSTALL REAR SUSPENSION ARM COVER LH (for Rear Side)

Click here [INFO](#)

3. INSTALL FRONT HEIGHT CONTROL SENSOR SUB-ASSEMBLY (for Front Side)

(a) Replace the bolts (1).

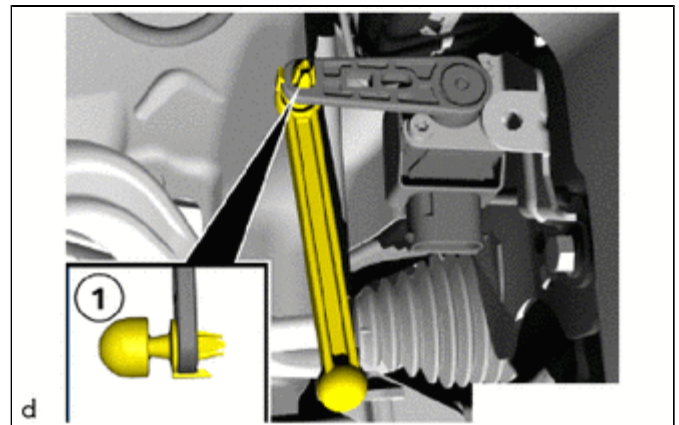


(b) Install the front height control sensor sub-assembly (2) with T20 screws (1).

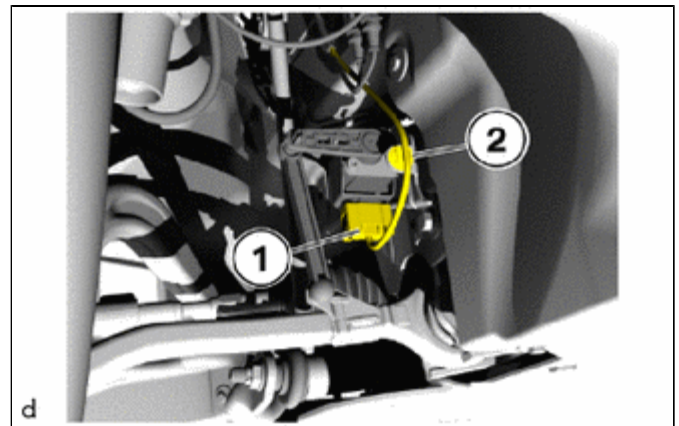
Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(c) Engage the clamp (1).



(d) Connect the connector (1).



(e) Engage the clamp (2).

4. INSTALL FRONT WHEEL LH (for Front Side)

Click here [INFO](#)

5. ADJUST HEIGHT CONTROL SENSOR

(a) Connect the diagnosis system to the vehicle and enter the following menus:

Vehicle management / Service functions / Chassis / Vertical dynamics platform / Ride height adjustment / ABL Ride height sensors: Start-up

6. PERFORM INITIALIZATION

Click here [INFO](#)

7. ADJUST HEADLIGHT AIMING

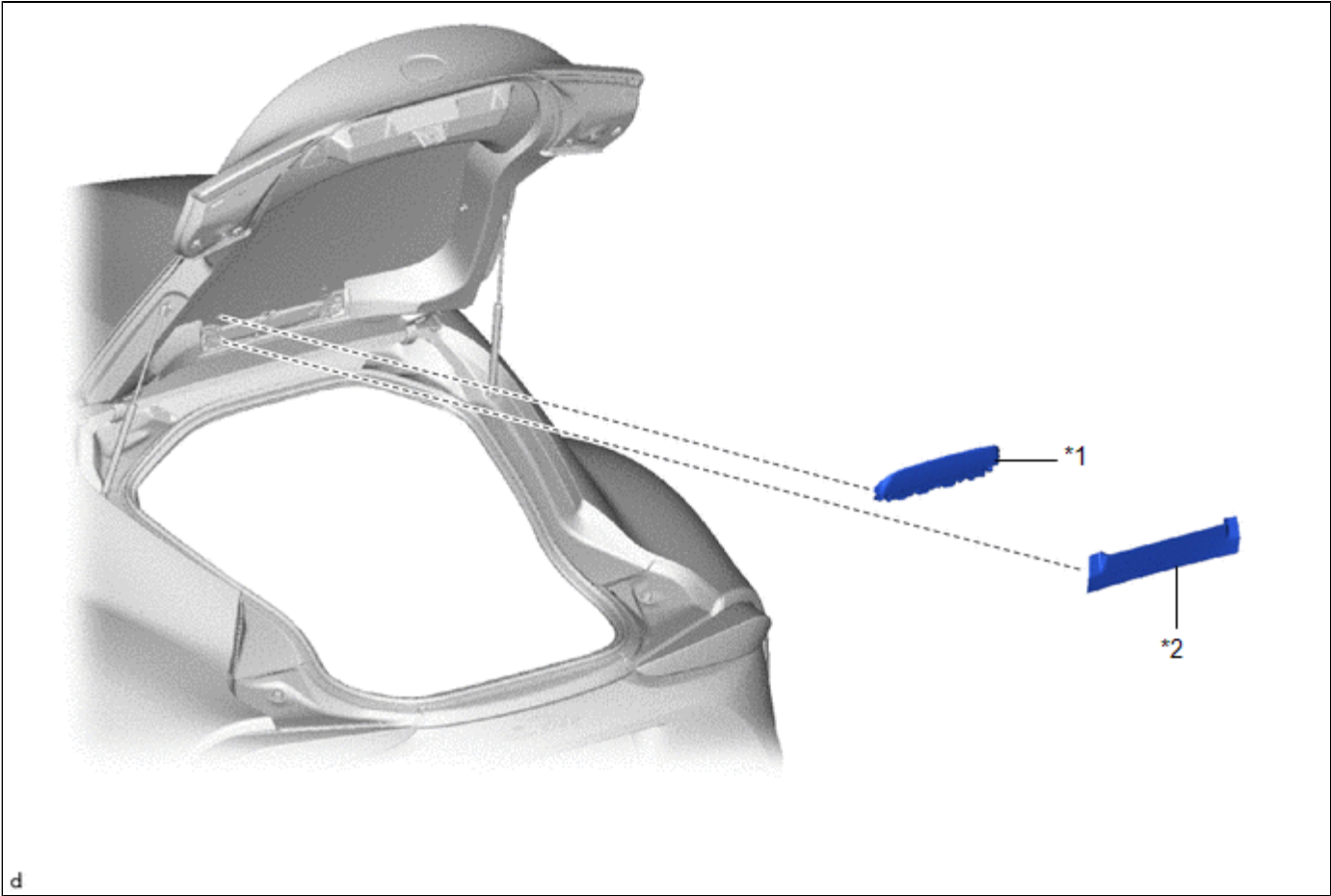
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HIGH MOUNTED STOP LIGHT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CENTER STOP LIGHT ASSEMBLY	*2	UPPER BACK DOOR TRIM
----	----------------------------	----	----------------------

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HIGH MOUNTED STOP LIGHT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

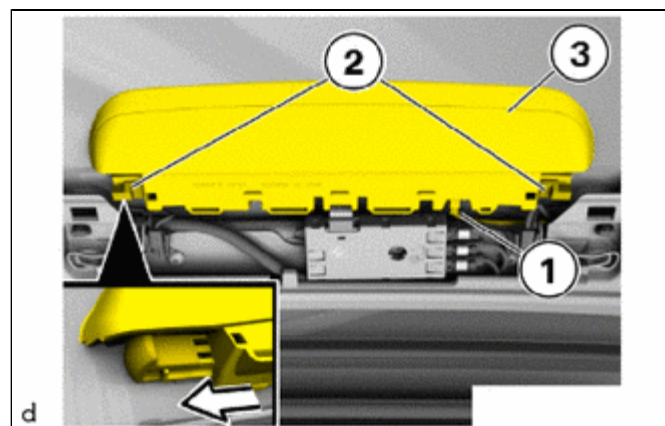
PROCEDURE

1. REMOVE UPPER BACK DOOR TRIM

Click here [INFO](#)

2. REMOVE CENTER STOP LIGHT ASSEMBLY

(a) Unlock both slides (2) outwards in the direction of the arrow and remove the center stop light assembly (3).



(b) Disconnect the connector (1).

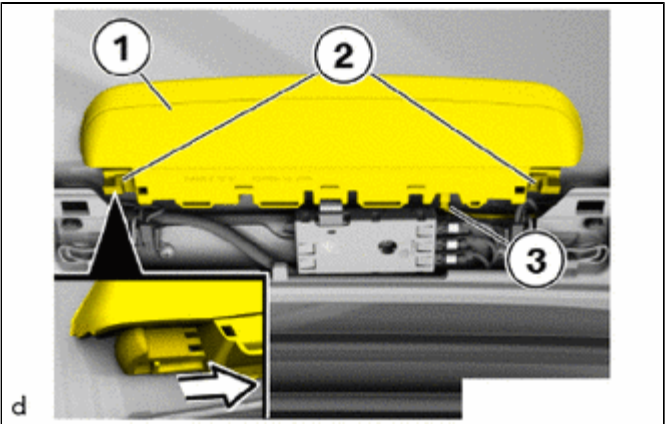
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): HIGH MOUNTED STOP LIGHT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL CENTER STOP LIGHT ASSEMBLY

(a) Connect the connector (3).



- (b) Install the center stop light assembly (1).
- (c) Lock both slides (2) inwards in the direction of the arrow.

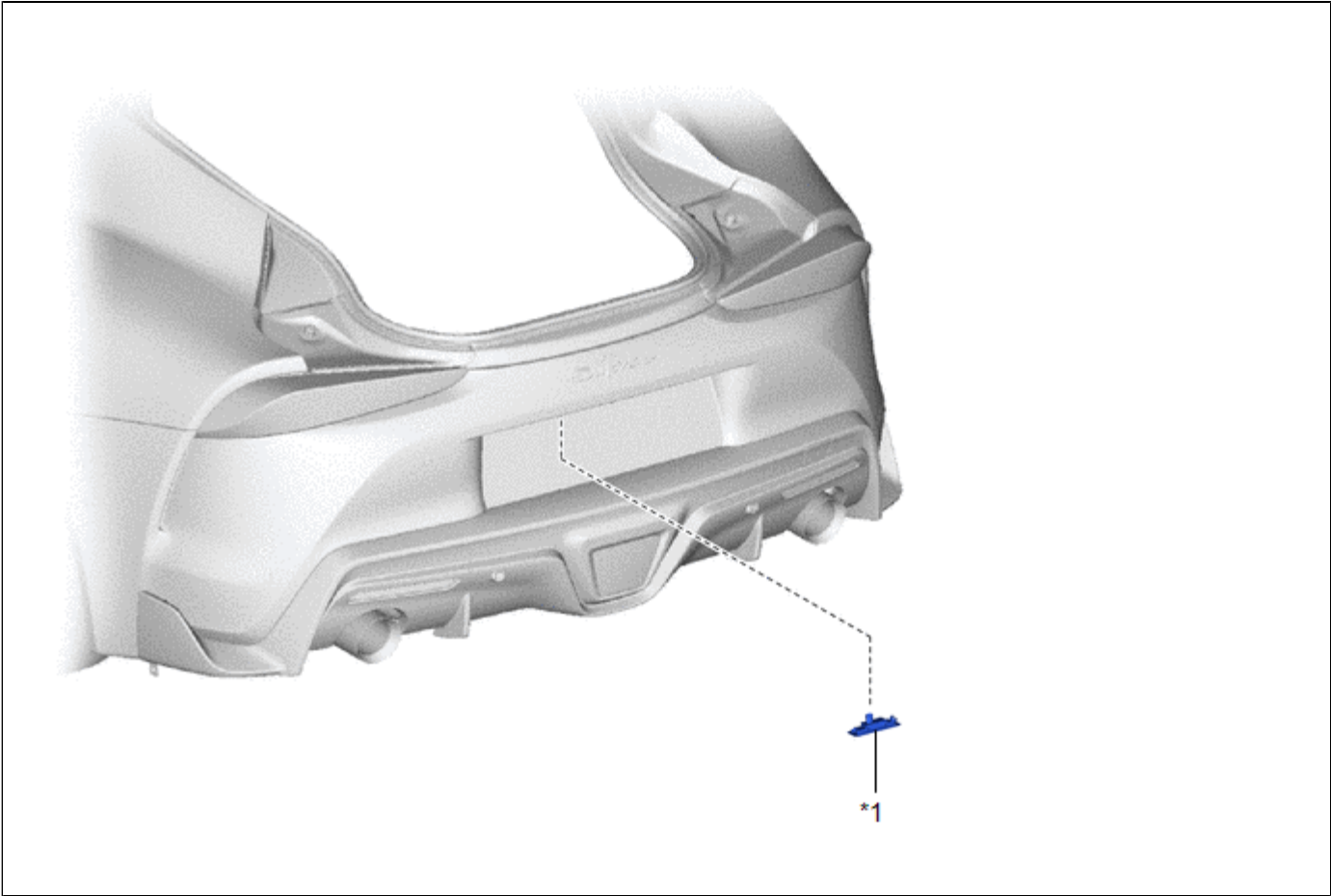
2. INSTALL UPPER BACK DOOR TRIM

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): LICENSE PLATE LIGHT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LICENSE PLATE LIGHT ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): LICENSE PLATE LIGHT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

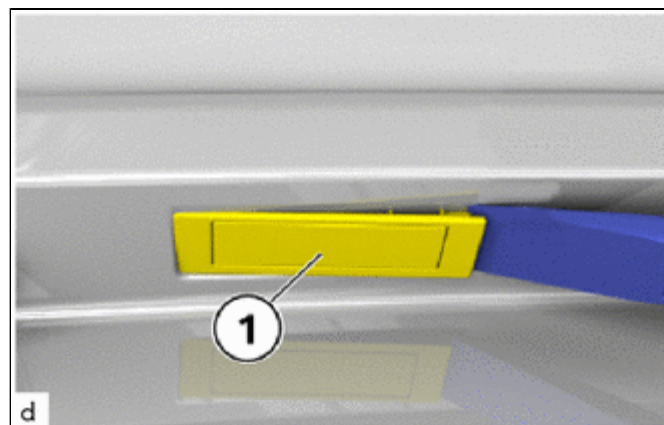
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. REMOVE LICENSE PLATE LIGHT ASSEMBLY

- (a) Using a moulding remover A, remove the license plate light assembly (1).



- (b) Disconnect the connector.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): LICENSE PLATE LIGHT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

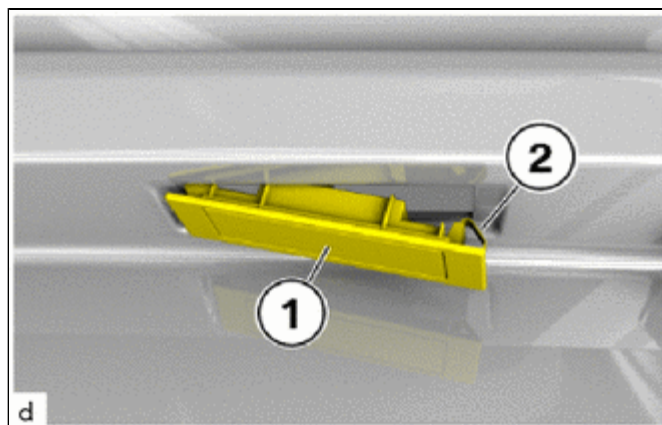
- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL LICENSE PLATE LIGHT ASSEMBLY

(a) Connect the connector.

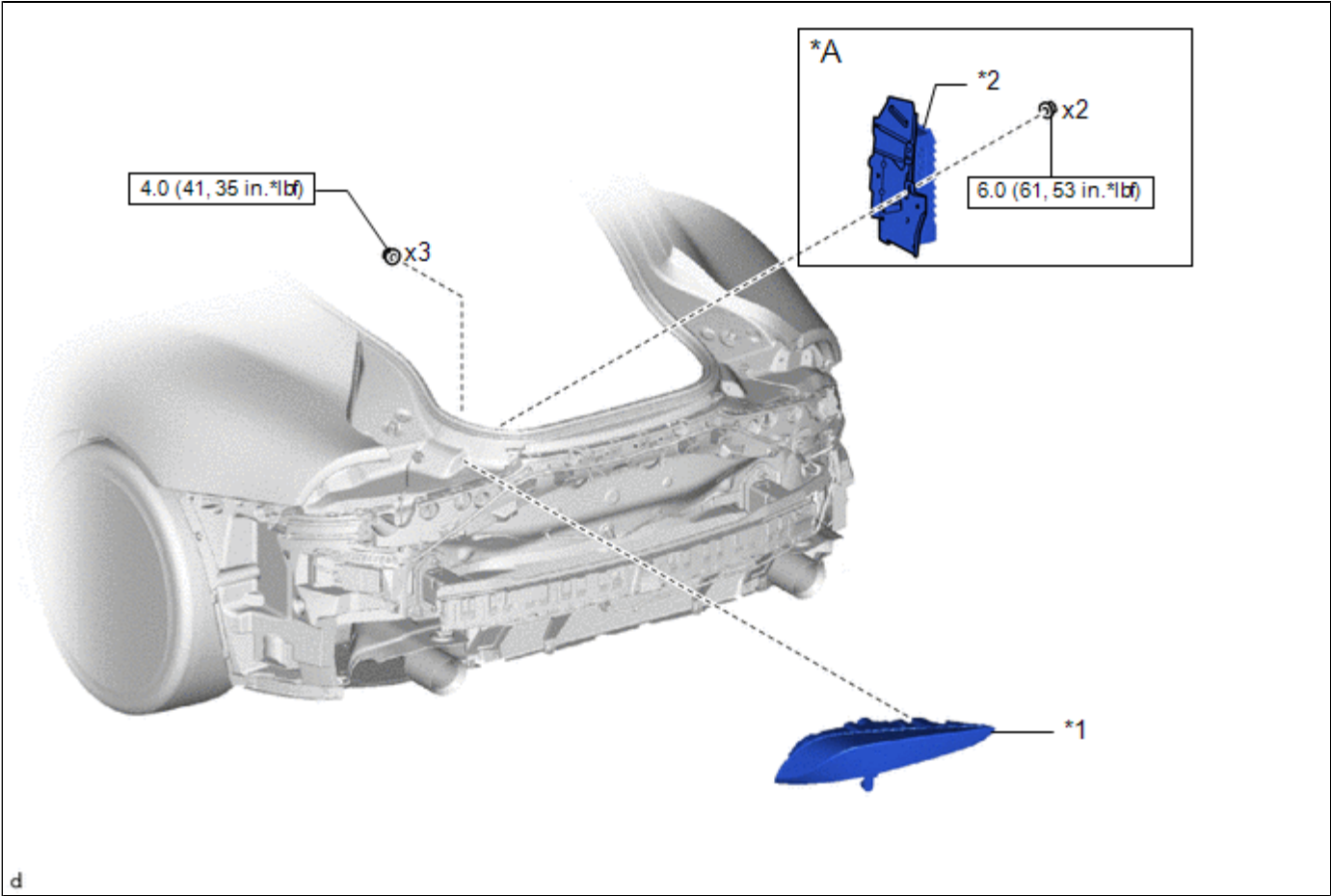
(b) Install the license plate light assembly (1) and clip it in with the claw (2).




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): REAR COMBINATION LIGHT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Stereo Component Amplifier	-	-
*1	REAR COMBINATION LIGHT ASSEMBLY	*2	STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): REAR COMBINATION LIGHT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

2. REMOVE REAR BUMPER ASSEMBLY

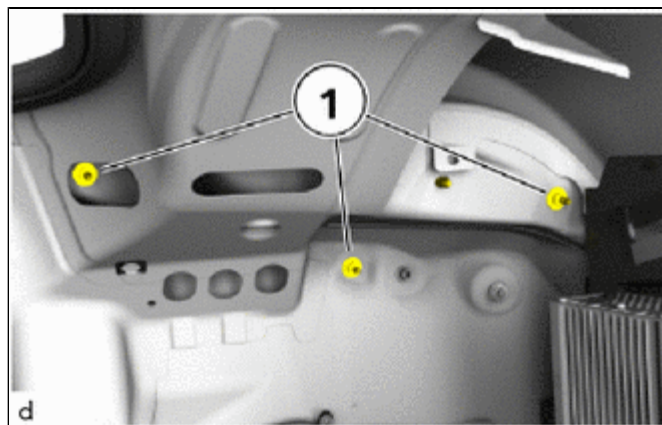
Click here [INFO](#)

3. REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET (w/ Stereo Component Amplifier)

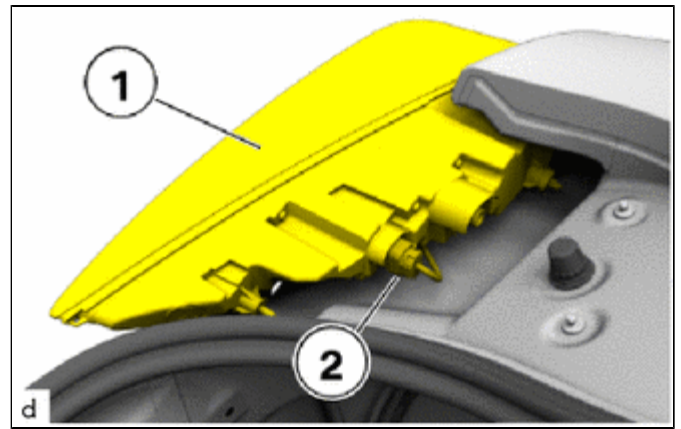
Click here [INFO](#)

4. REMOVE REAR COMBINATION LIGHT ASSEMBLY

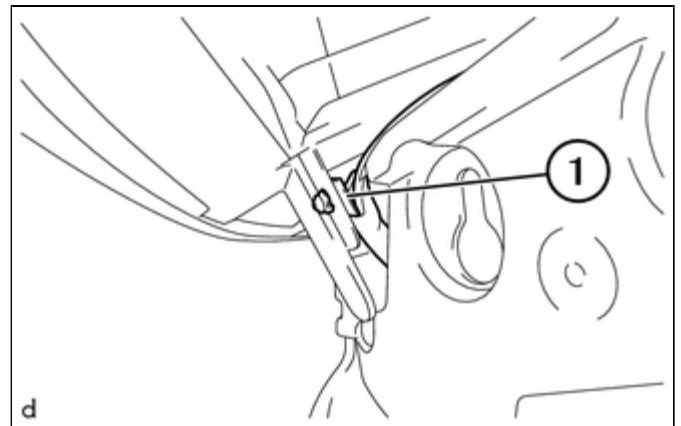
(a) Remove the nuts (1).



(b) Guide out the rear combination light assembly (1) towards the rear.



(c) Disconnect the connector (2) from the rear combination light assembly (1).



(d) Disengage the clamp (1) to remove the rear combination light assembly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): REAR COMBINATION LIGHT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

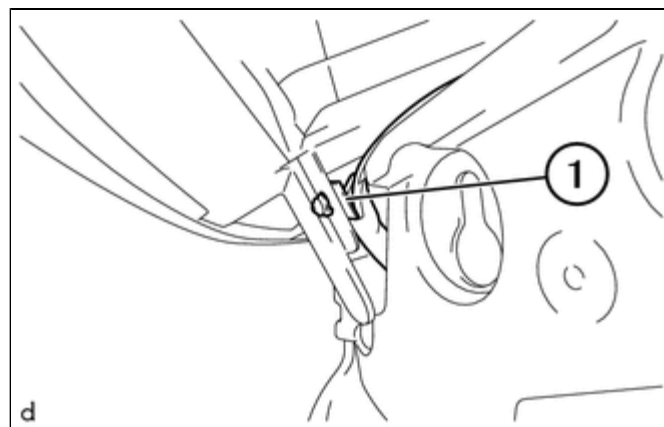
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL REAR COMBINATION LIGHT ASSEMBLY

(a) Engage the clamp (1).



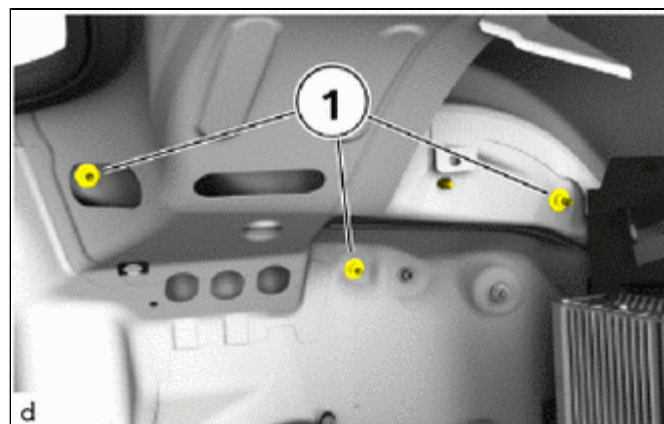
(b) Connect the connector.

(c) Set the rear combination light assembly.

(d) Install the nuts (1).

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}



2. INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET (w/ Stereo Component Amplifier)

Click here [INFO](#)

3. INSTALL REAR BUMPER ASSEMBLY

Click here [INFO](#)

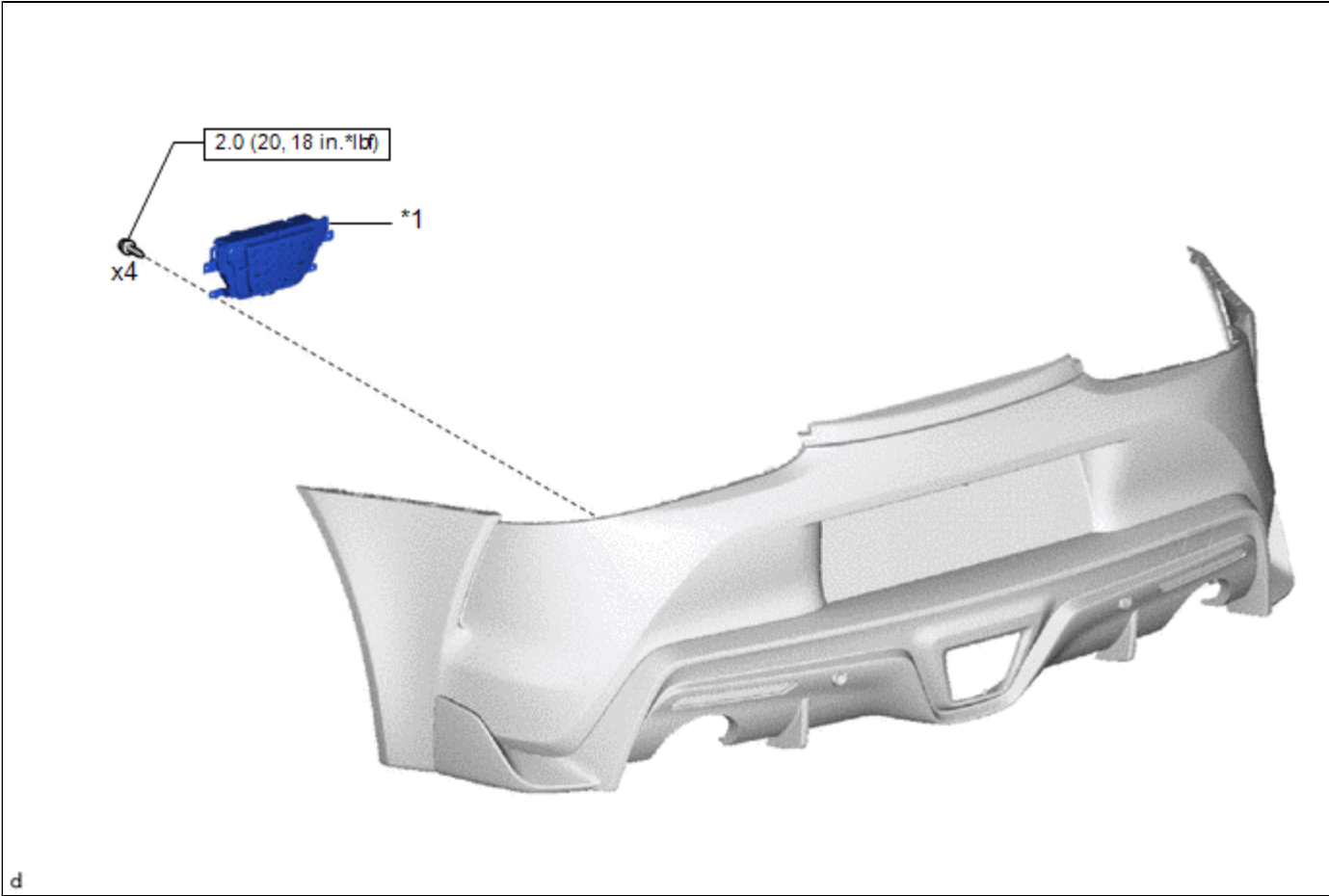
4. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): REAR LIGHT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BACK-UP LIGHT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): REAR LIGHT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

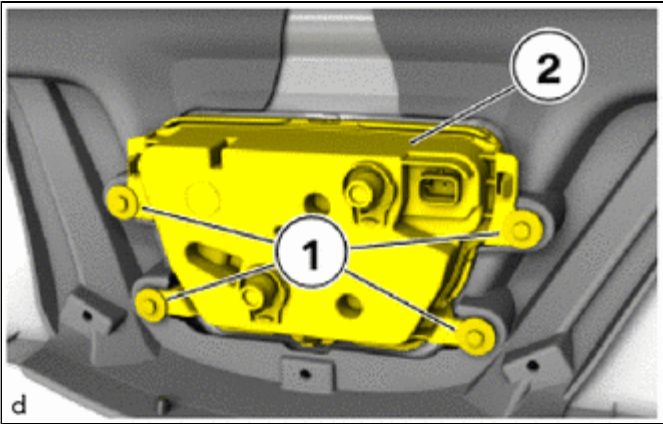
PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

Click here [INFO](#)

2. REMOVE BACK-UP LIGHT ASSEMBLY

(a) Remove the screws (1) and back-up light assembly (2).



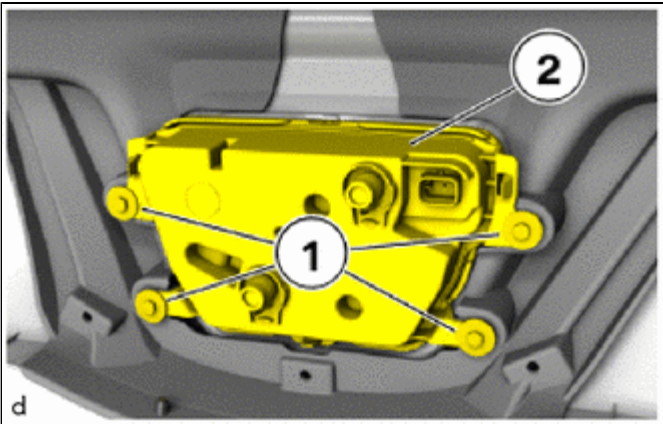
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): REAR LIGHT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BACK-UP LIGHT ASSEMBLY

(a) Install the back-up light assembly (2).



(b) Install the screws (1).

Torque:
2.0 N·m {20 kgf·cm, 18 in·lbf}

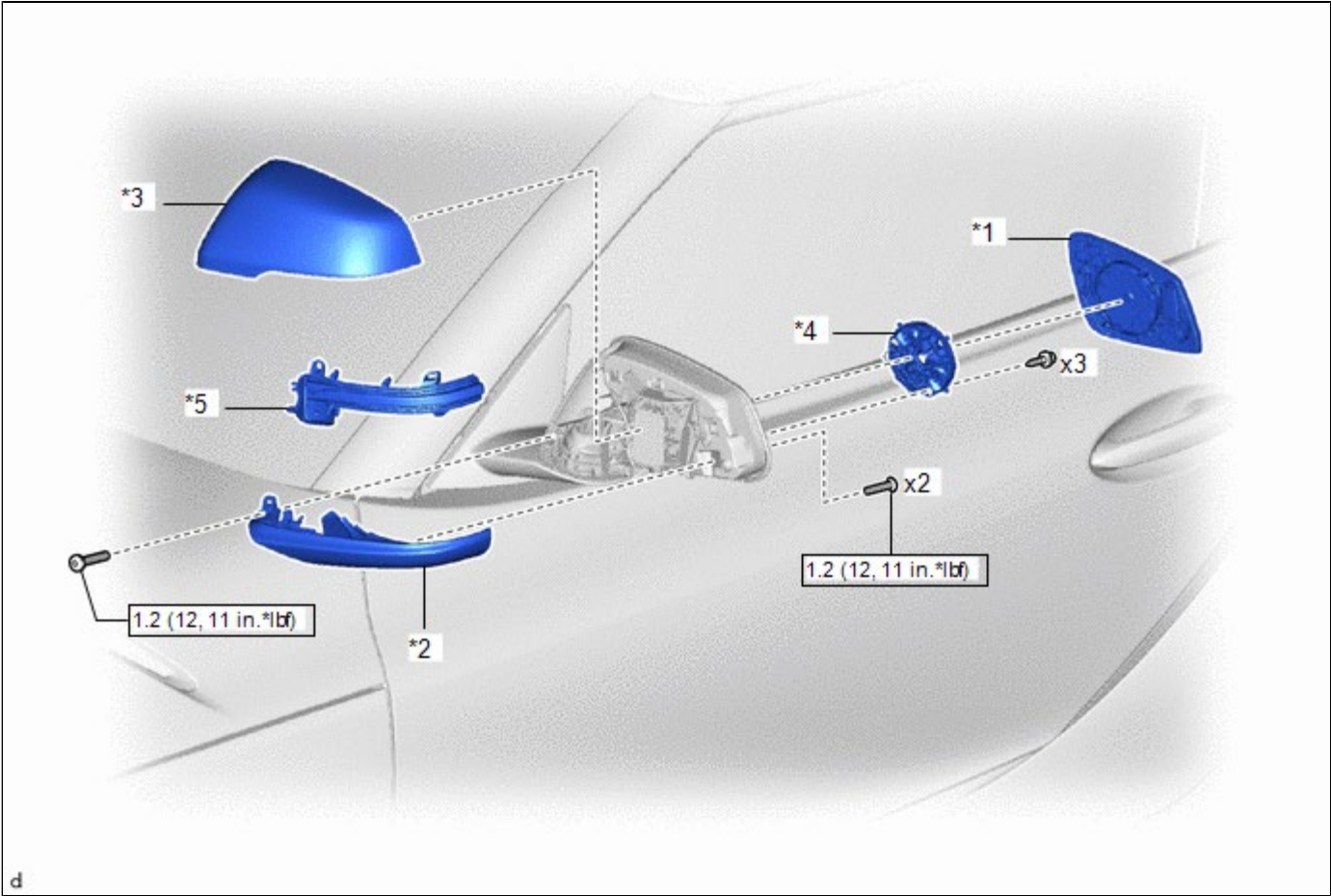
2. INSTALL REAR BUMPER ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCK9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): SIDE TURN SIGNAL LIGHT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OUTER MIRROR	*2	NO. 2 OUTER MIRROR COVER
*3	OUTER MIRROR COVER	*4	OUTER MIRROR ACTUATOR ASSEMBLY
*5	SIDE TURN SIGNAL LIGHT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): SIDE TURN SIGNAL LIGHT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. REMOVE OUTER MIRROR

Click here [INFO](#)

2. REMOVE OUTER MIRROR COVER

Click here [INFO](#)

3. REMOVE OUTER MIRROR ACTUATOR ASSEMBLY

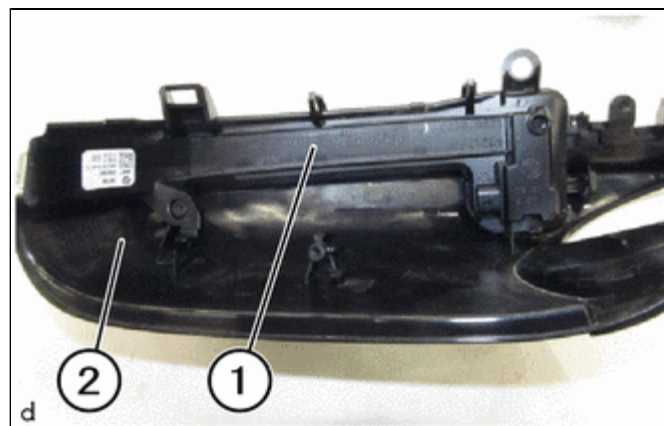
Click here [INFO](#)

4. REMOVE NO. 2 OUTER MIRROR COVER

Click here [INFO](#)

5. REMOVE SIDE TURN SIGNAL LIGHT ASSEMBLY

(a) Remove the side turn signal light assembly (1) from the No. 2 outer mirror cover (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): SIDE TURN SIGNAL LIGHT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL SIDE TURN SIGNAL LIGHT ASSEMBLY

- Install the side turn signal light assembly on No. 2 outer mirror cover.

2. INSTALL NO. 2 OUTER MIRROR COVER

Click here [INFO](#)

3. INSTALL OUTER MIRROR ACTUATOR ASSEMBLY

Click here [INFO](#)

4. INSTALL OUTER MIRROR COVER

Click here [INFO](#)

5. INSTALL OUTER MIRROR

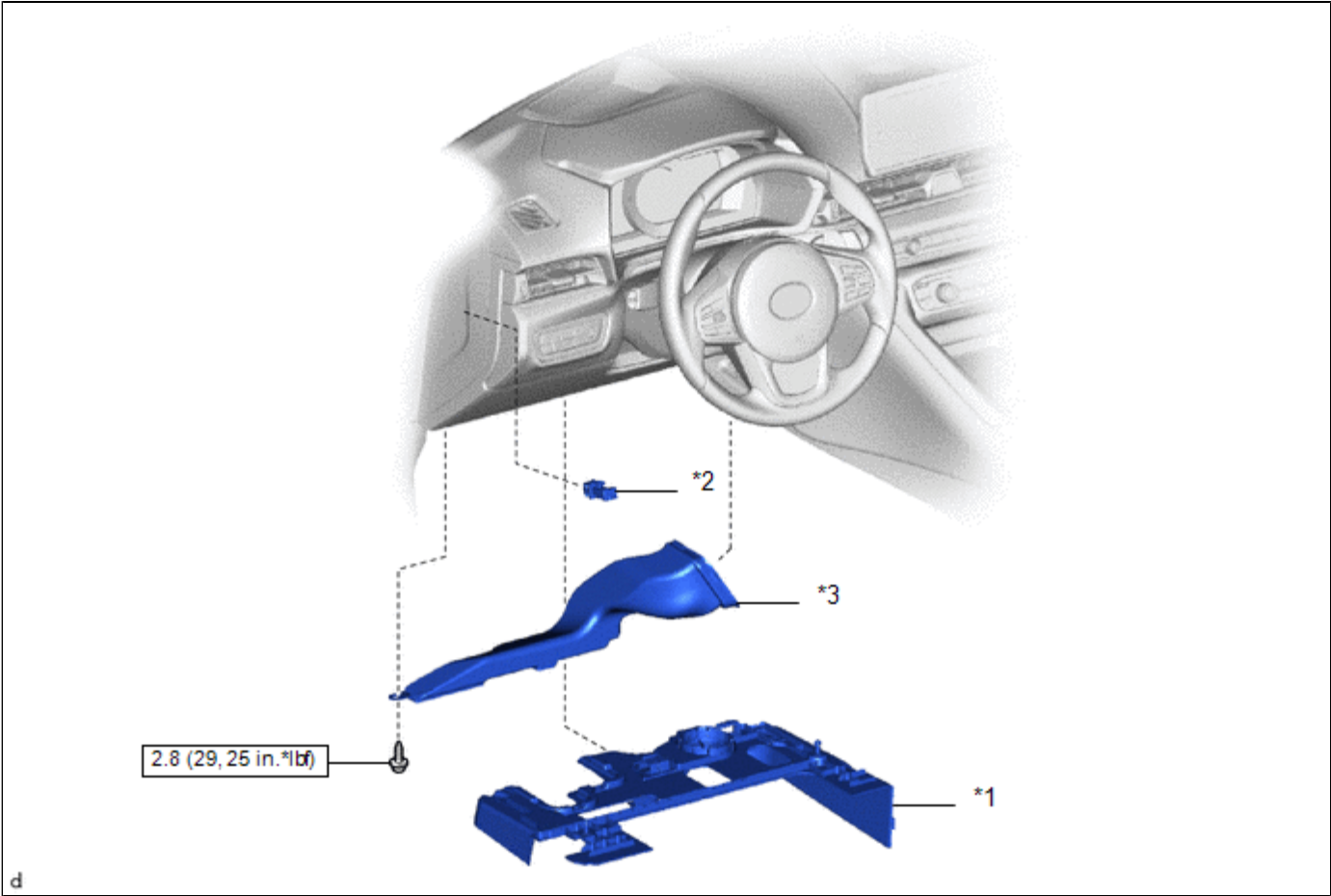
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): STOP LIGHT SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY	*2	STOP LIGHT SWITCH ASSEMBLY
*3	NO. 1 AIR DUCT	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): STOP LIGHT SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

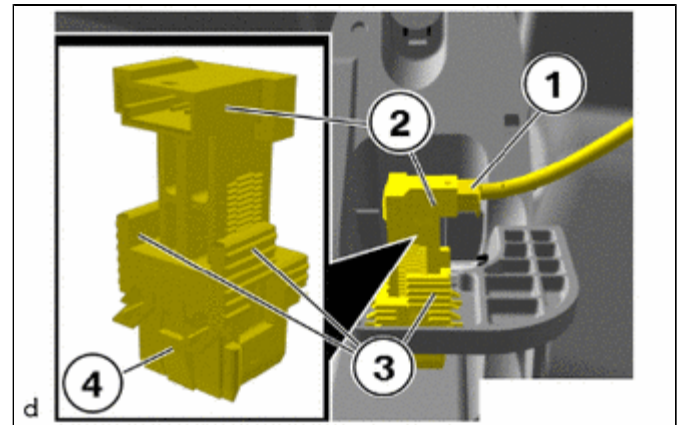
Click here [INFO](#)

2. REMOVE NO. 1 AIR DUCT

Click here [INFO](#)

3. REMOVE STOP LIGHT SWITCH ASSEMBLY

(a) Disconnect the connector (1).



(b) Operate and hold brake pedal.

(c) Pull the stop light switch assembly (2) out of the holder (3) for the stop light switch assembly.

(d) Press the claw (4) together and unclip the holder (3) for the stop light switch assembly from the brake pedal.

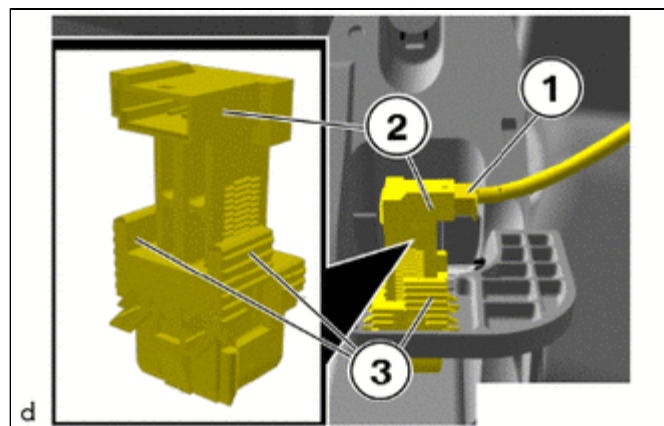
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): STOP LIGHT SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL STOP LIGHT SWITCH ASSEMBLY

- (a) Clip in the holder (3) of the stop light switch assembly into the brake pedal.



- (b) Press brake pedal.
- (c) Engage the stop light switch assembly (2) with the holder (3) of the stop light switch assembly up to the limit position.
- (d) Counter support the holder (3) of the stop light switch assembly and simultaneously relieve the brake pedal slowly and completely.

NOTICE:

The brake pedal is moved back to the stop.

- (e) Connect the connector (1).

2. INSTALL NO. 1 AIR DUCT

Click here [INFO](#)

3. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): SWITCH HOUSING: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 LIGHT CONTROL SWITCH ASSEMBLY	*2	INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY
----	-------------------------------------	----	--

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): SWITCH HOUSING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

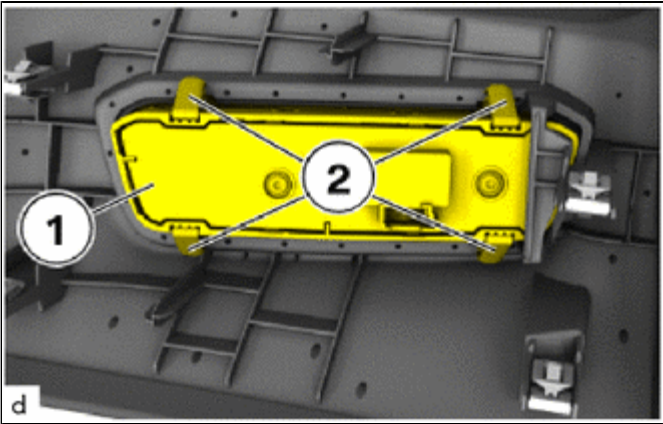
PROCEDURE

1. REMOVE INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 LIGHT CONTROL SWITCH ASSEMBLY

(a) Disengage the claws (2) to remove the No. 1 light control switch assembly (1).



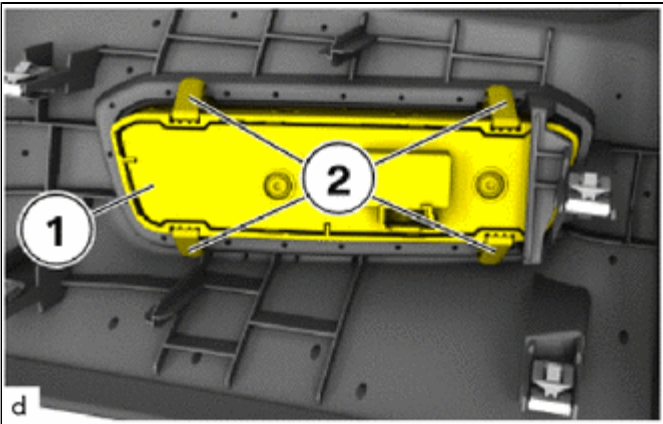
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCKT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (EXT): SWITCH HOUSING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 LIGHT CONTROL SWITCH ASSEMBLY

(a) Engage the claws (2) to install the No. 1 light control switch assembly (1).



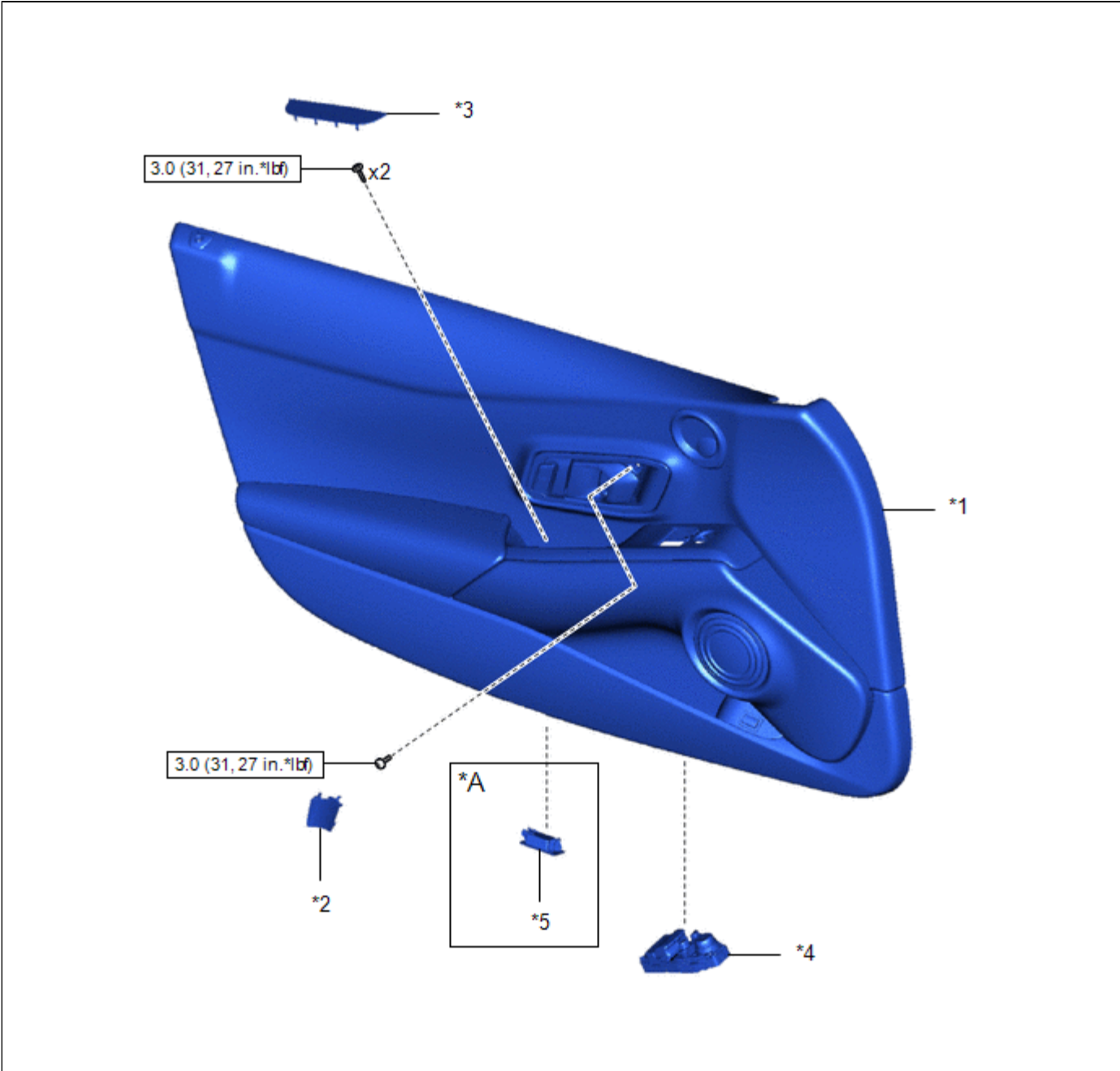
2. INSTALL INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCU0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER MIRROR SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH	*2	NO. 2 DOOR INSIDE HANDLE BEZEL LH
*3	DOOR TRIM COVER LH	*4	POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
*5	COURTESY LIGHT ASSEMBLY	-	-

<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCU1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER MIRROR SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

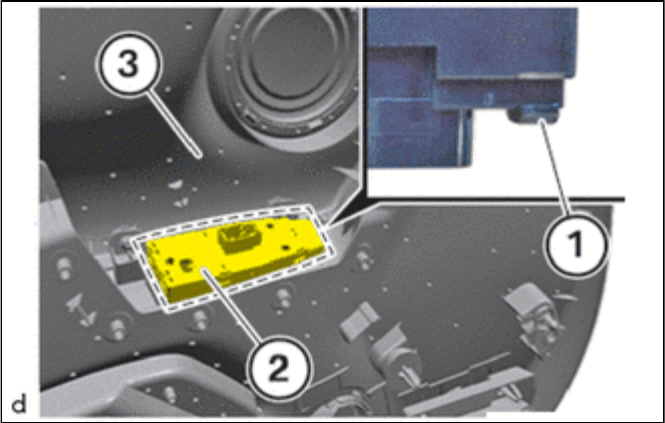
Click here [INFO](#)

2. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH

Click here [INFO](#)

3. REMOVE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY

(a) Release claws (1) in the marked area.



(b) Remove power window regulator master switch assembly (2) from front door trim board sub-assembly LH (3).

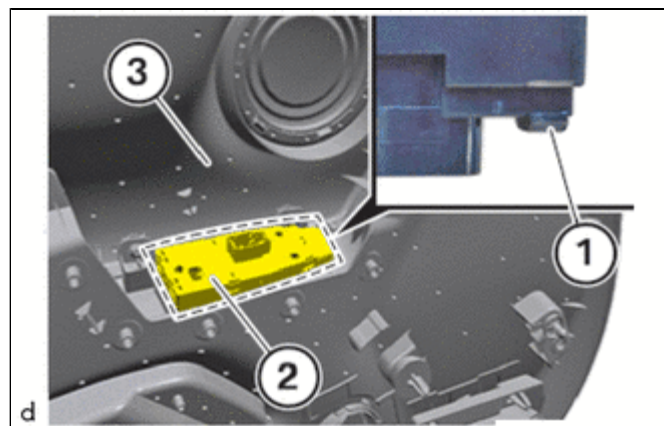
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCU2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER MIRROR SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY

- (a) Position power window regulator master switch assembly (2) on the front door trim board sub-assembly LH (3) and engage in the claws (1).



2. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH

Click here [INFO](#)

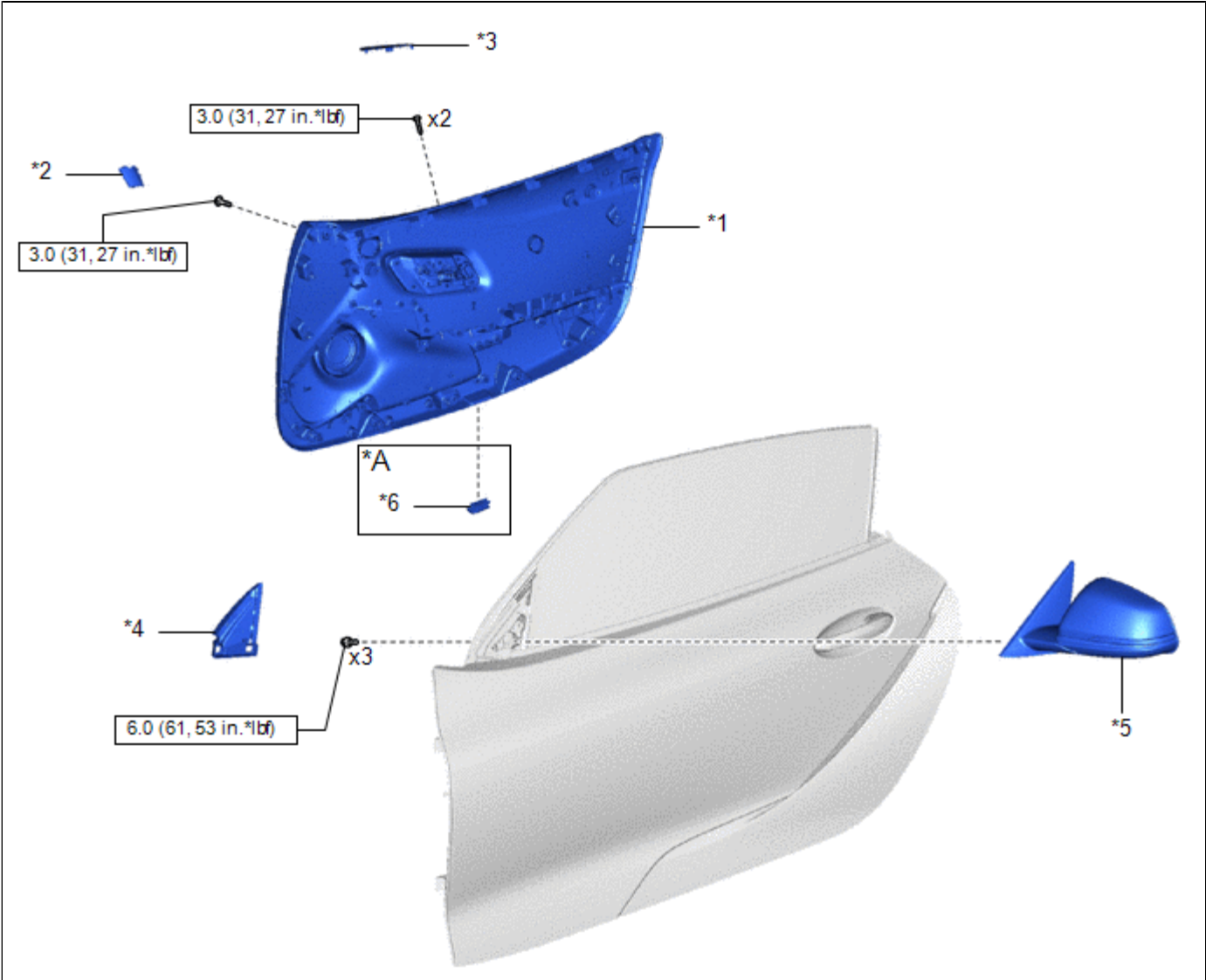
3. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: COMPONENTS; 2020 MY Supra [03/2019 -]		

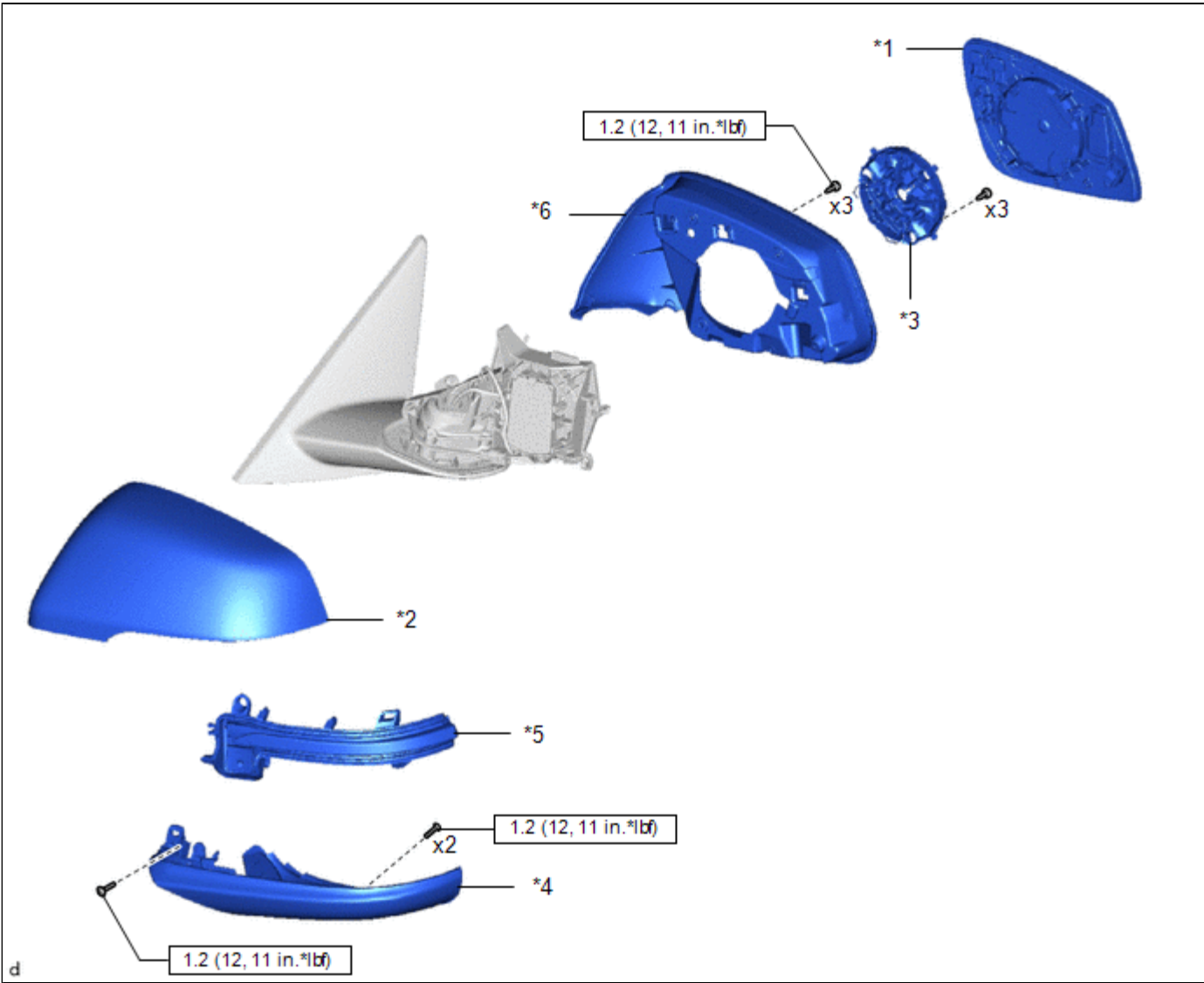
COMPONENTS


ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	FRONT DOOR TRIM BOARD SUB-ASSEMBLY	*2	NO. 2 DOOR INSIDE HANDLE BEZEL
*3	DOOR TRIM COVER	*4	FRONT DOOR LOWER FRAME BRACKET GARNISH
*5	OUTER REAR VIEW MIRROR ASSEMBLY	*6	COURTESY LIGHT ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	OUTER MIRROR	*2	OUTER MIRROR COVER
*3	OUTER MIRROR ACTUATOR ASSEMBLY	*4	NO. 2 OUTER MIRROR COVER
*5	SIDE TURN SIGNAL LIGHT ASSEMBLY	*6	OUTER MIRROR VISOR
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

2. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

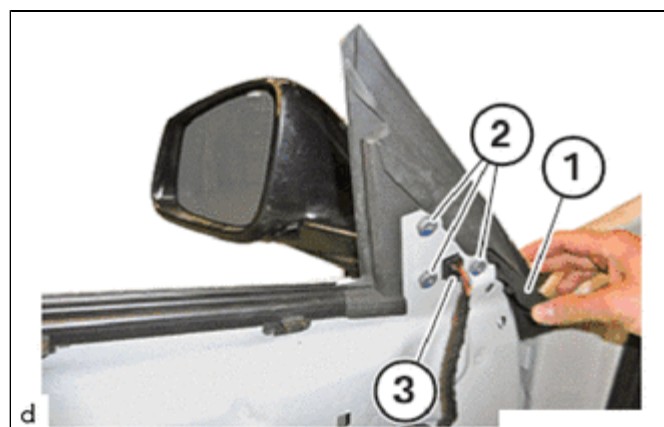
3. REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH

Click here [INFO](#)

4. REMOVE OUTER REAR VIEW MIRROR ASSEMBLY

(a) Secure outer rear view mirror assembly against falling out.

(b) Unlock connector (3) and disconnect.



(c) Press front door front belt seal (1) on the outside to the side.

(d) Release the bolts (2) and remove the outer rear view mirror assembly.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

NOTICE:

- Scratches.
- Tools and sharp-edged components can cause scratches.
- Protect working area.
 - Handle tools and components carefully.

HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. REMOVE OUTER MIRROR

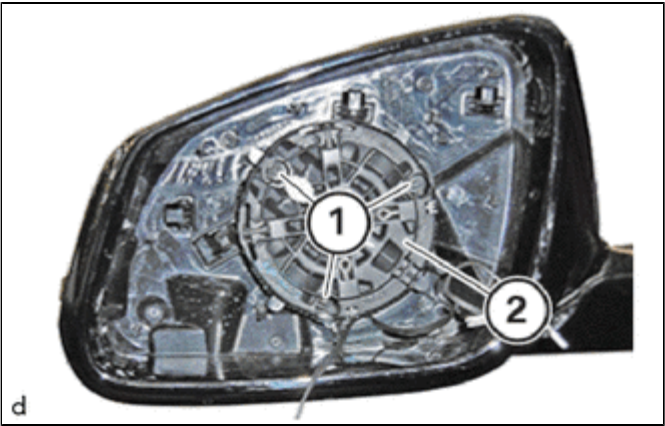
Click here [INFO](#)

2. REMOVE OUTER MIRROR COVER

Click here [INFO](#)

3. REMOVE OUTER MIRROR ACTUATOR ASSEMBLY

(a) Release the T10 screws (1) and pull out the outer mirror actuator assembly (2) a little.



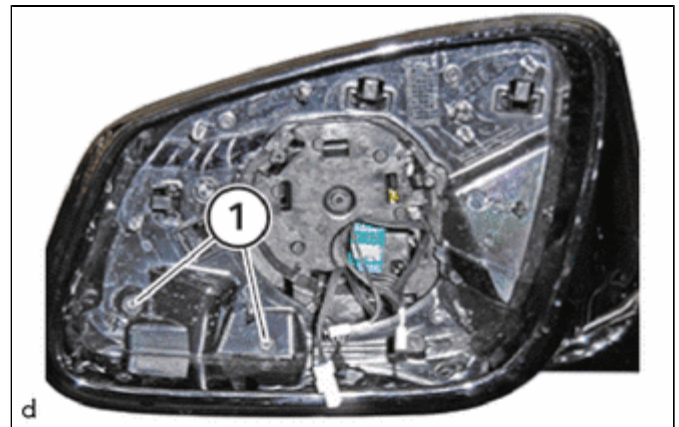
(b) Unlock connector (1) and disconnect.



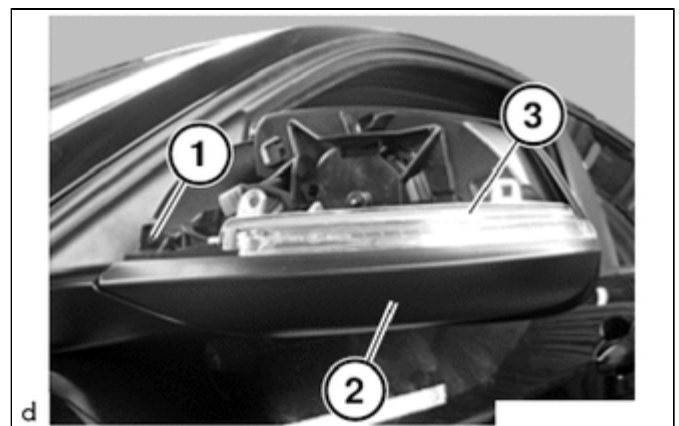
(c) Remove outer mirror actuator assembly (2).

4. REMOVE NO. 2 OUTER MIRROR COVER

(a) Loosen T20 screws (1).



(b) Loosen T20 screw (1).



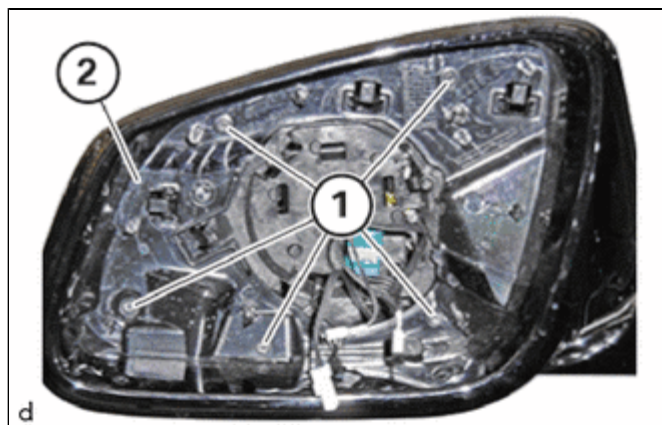
(c) Feed out No. 2 outer mirror cover (2) carefully.

(d) Unlock and disconnect connector to the side turn signal light assembly (3).

5. REMOVE SIDE TURN SIGNAL LIGHT ASSEMBLY

6. REMOVE OUTER MIRROR VISOR

(a) Loosen T20 screws (1).



(b) Slide the outer mirror visor (2) out.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

CAUTION / NOTICE / HINT

HINT:
Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. INSTALL OUTER MIRROR VISOR



(a) Tighten the T20 screws (1) on the outer mirror visor (2).

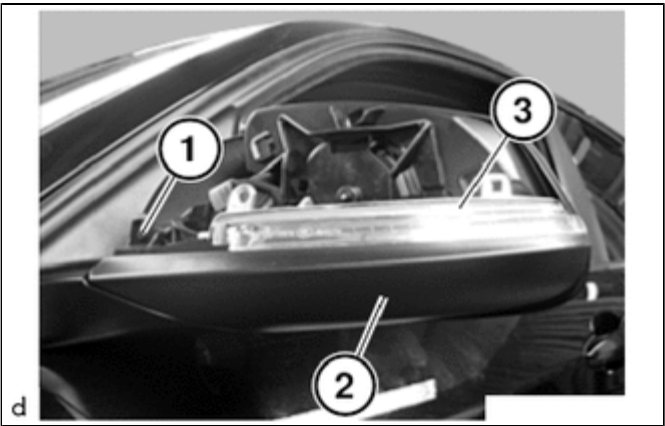
Torque:
1.2 N·m {12 kgf·cm, 11 in·lbf}

2. INSTALL SIDE TURN SIGNAL LIGHT ASSEMBLY

Click here [INFO](#)

3. INSTALL NO. 2 OUTER MIRROR COVER

(a) Guide in No. 2 outer mirror cover (2) carefully.



- (b) Connect and lock the connector on side turn signal light assembly (3).
- (c) Tighten down T20 screw (1).

Torque:

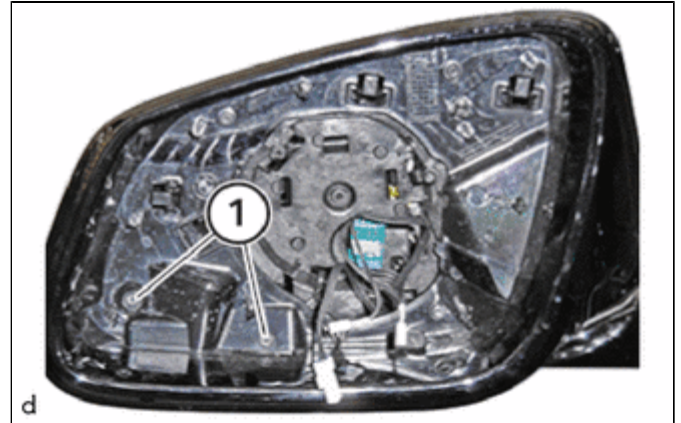
1.2 N·m {12 kgf·cm, 11 in·lbf}

- (d) Ensure that the housing fits correctly on the side turn signal light assembly and the No. 2 outer mirror cover.

- (e) Tighten the T20 screws (1).

Torque:

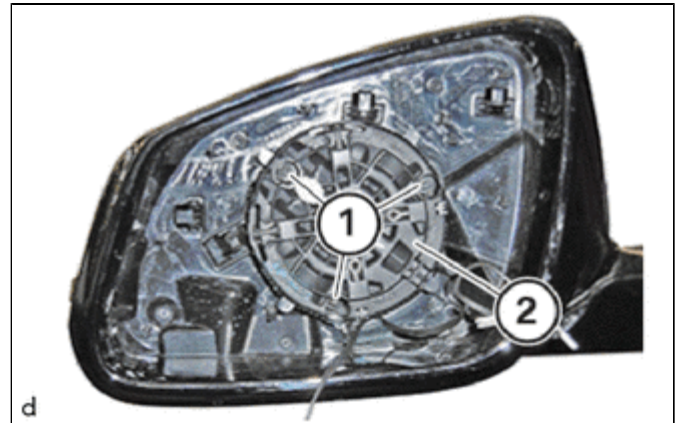
1.2 N·m {12 kgf·cm, 11 in·lbf}



4. INSTALL OUTER MIRROR ACTUATOR ASSEMBLY

- (a) Position outer mirror actuator assembly.
- (b) Connect connector and lock.

- (c) Position outer mirror actuator assembly (2) correctly.



- (d) Tighten the T10 screws (1).

5. INSTALL OUTER MIRROR COVER

Click here [INFO](#)

6. INSTALL OUTER MIRROR

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

Description is for left component only. Procedure on the right side is identical.

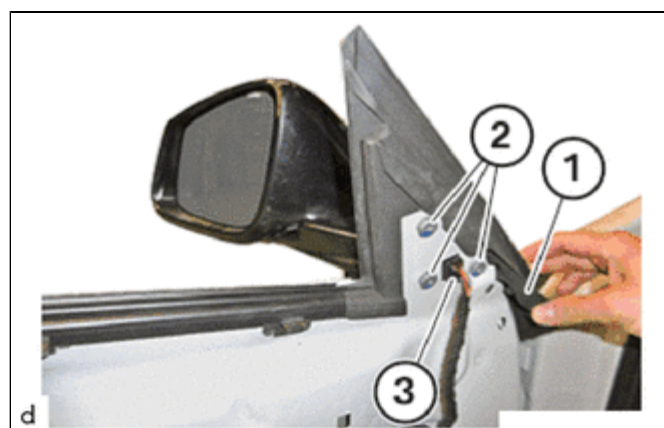
PROCEDURE

1. INSTALL OUTER REAR VIEW MIRROR ASSEMBLY

- (a) Install the outer rear view mirror assembly and tighten the bolts (2).

Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}



- (b) Connect connector (3) and lock.
(c) Fit the front door front belt seal (1) correctly.
(d) Carry out functional check.

2. INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH

Click here [INFO](#)

3. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

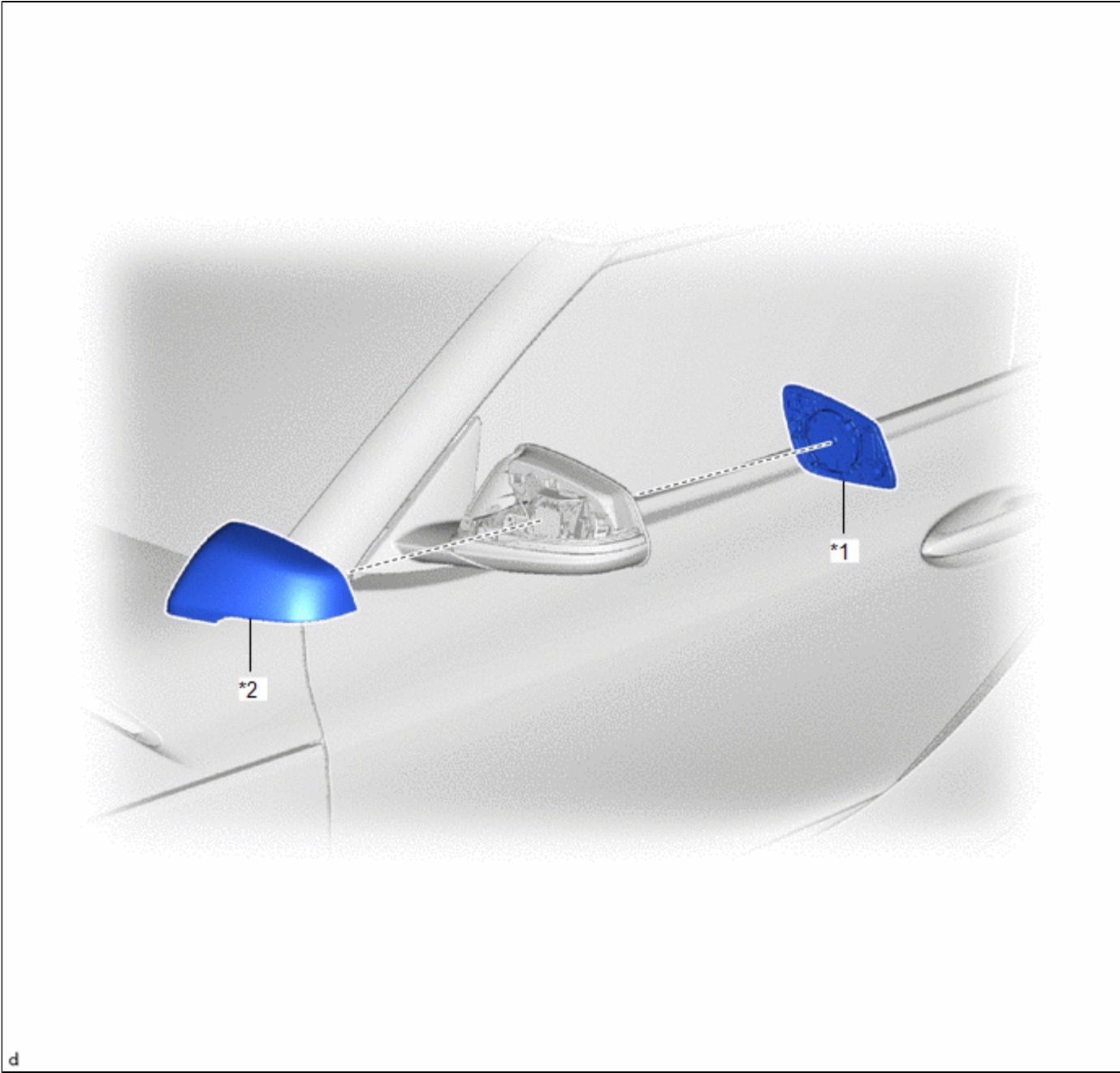
4. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR COVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OUTER MIRROR	*2	OUTER MIRROR COVER
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR COVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. REMOVE OUTER MIRROR

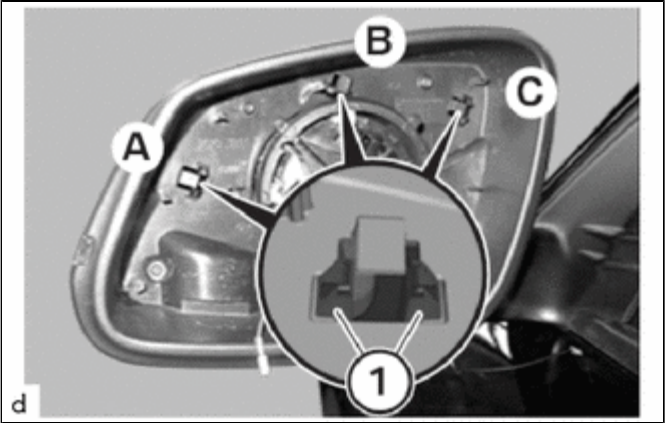
Click here [INFO](#)

2. REMOVE OUTER MIRROR COVER

HINT:

Carry out the work at temperatures between 18°C (64°F) and 23°C (73°F) only.

- (a) Press claws (1) together in the sequence (A), (B) and (C) and pull off the outer mirror cover to the outside at the same time.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR COVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

Description is for left component only. Procedure on the right side is identical.

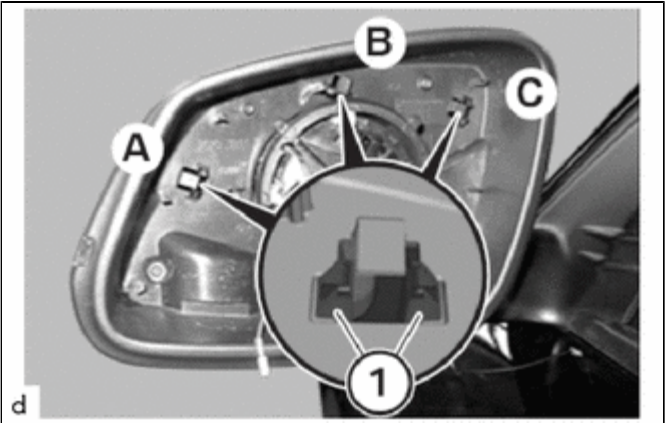
PROCEDURE

1. INSTALL OUTER MIRROR COVER

HINT:

Carry out the work at temperatures between 18°C (64°F) and 23°C (73°F) only.

- (a) Position the outer mirror cover and engage it in claws (1) in the (C), (B) and (A) order.



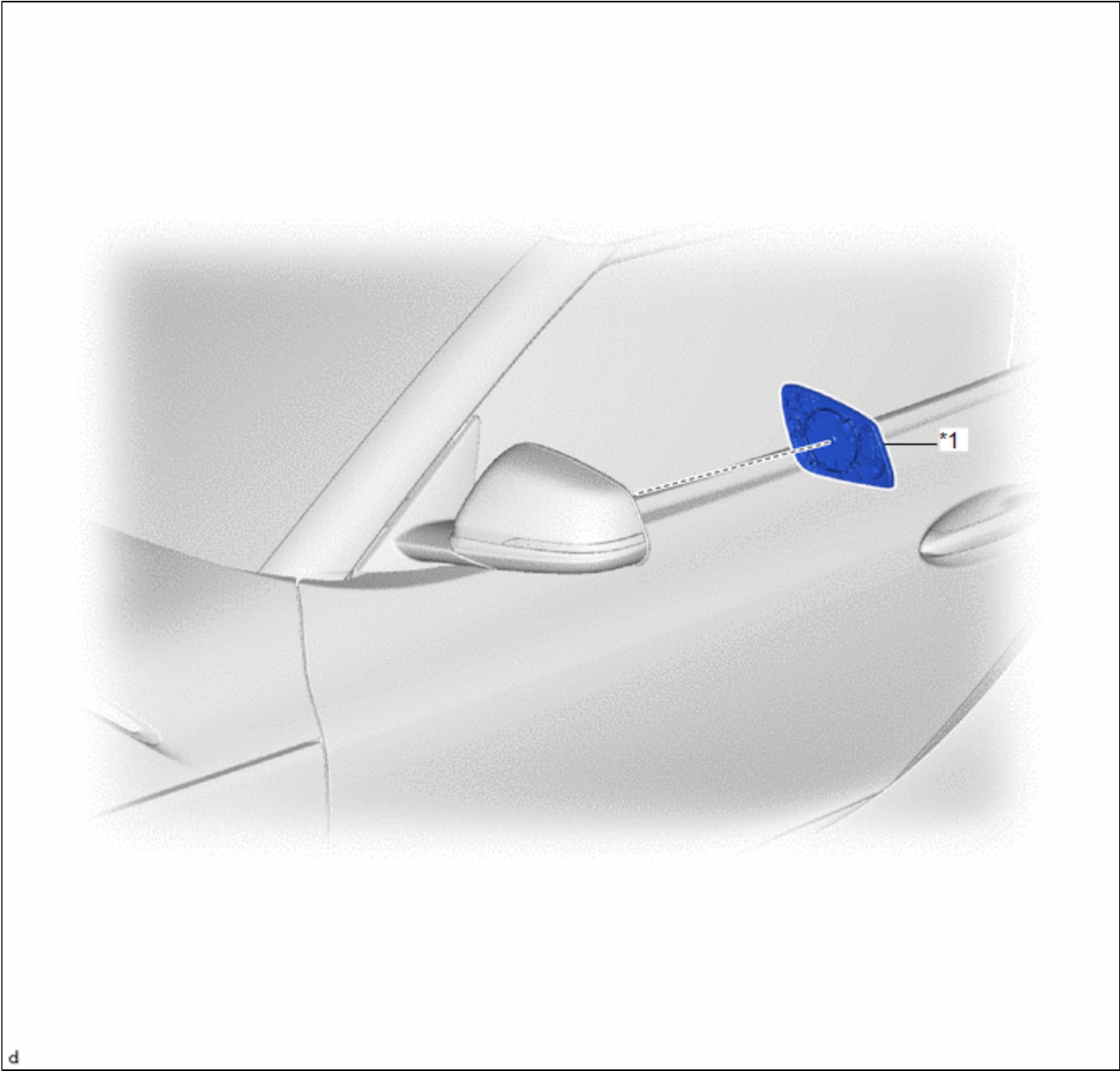
2. INSTALL OUTER MIRROR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR GLASS: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OUTER MIRROR	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCTV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR GLASS: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

Description is for left component only. Procedure on the right side is identical.

PROCEDURE

1. REMOVE OUTER MIRROR

CAUTION:

- Glass splinters.

Danger of injury!

- If the mirror glass is damaged, wear safety goggles and protective gloves.

HINT:

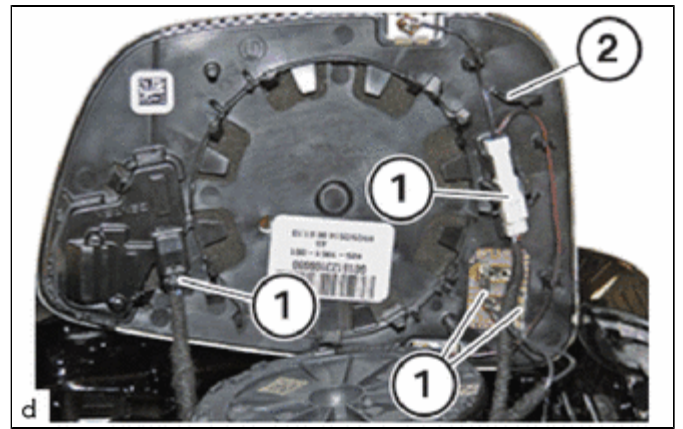
Carry out the work at temperatures between 18°C (64°F) and 23°C (73°F) only.

- (a) Press manually on outer mirror (1) on the side of the vehicle up to the limit position.



- (b) Unclip the outer mirror (1) using molding remover A all the way around, starting with the outer side.

- (c) Disconnect connector (1).



(d) Remove outer mirror (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (EXT): OUTER REAR VIEW MIRROR GLASS: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

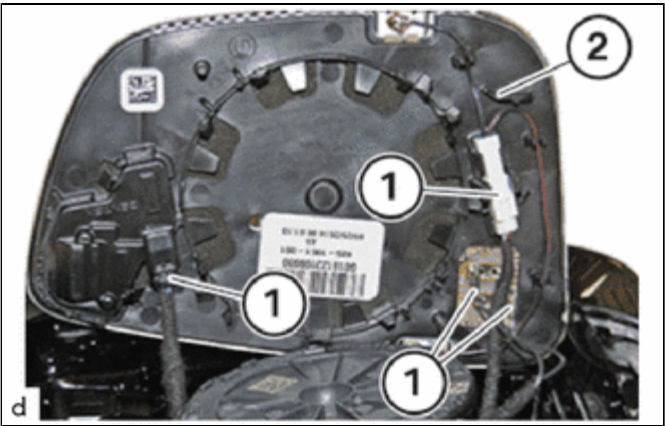
CAUTION / NOTICE / HINT

HINT:
Description is for left component only. Procedure on the right side is identical.

PROCEDURE

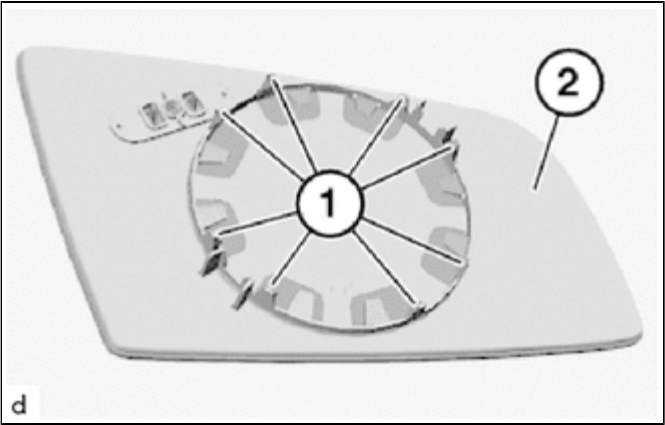
1. INSTALL OUTER MIRROR

(a) Position outer mirror (2).



(b) Connect connector (1).

(c) Position the outer mirror (2) with the retaining lugs (1) flush with the outer mirror actuator assembly and clip in.

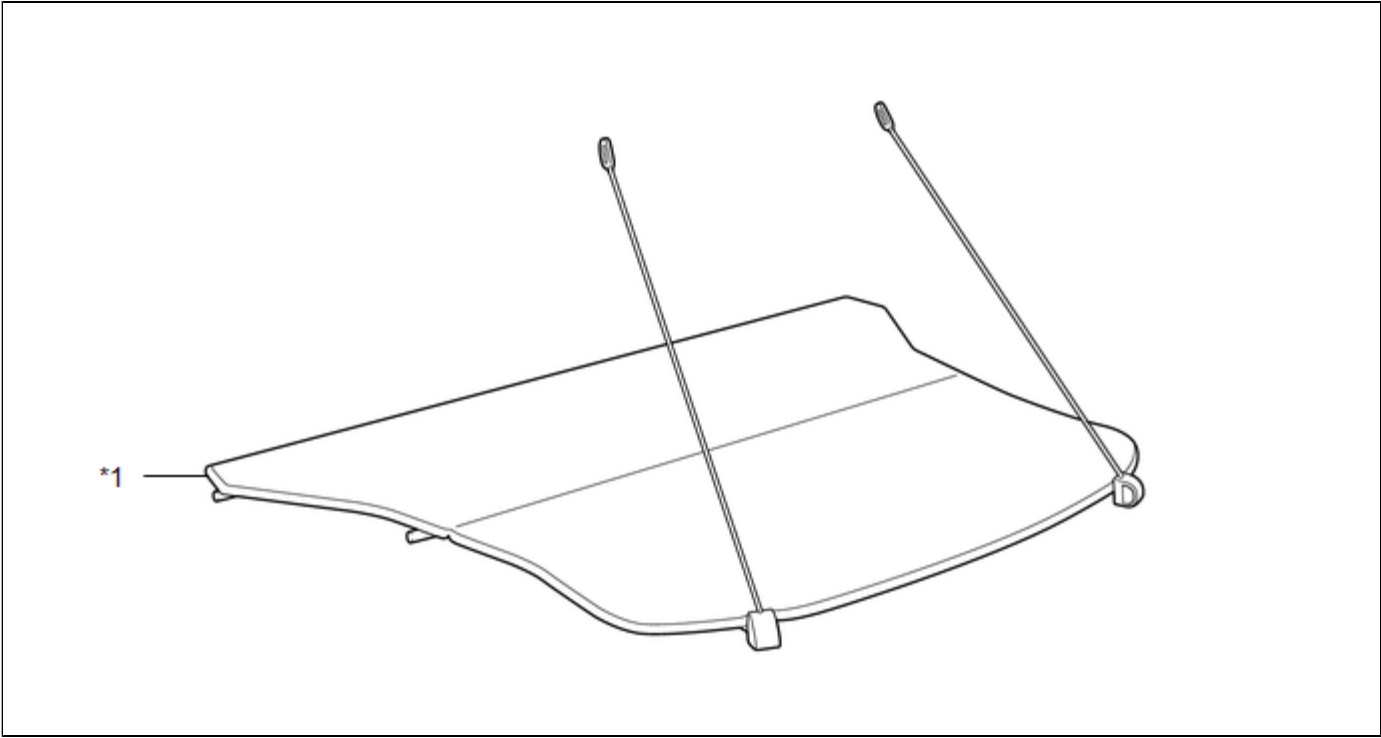


- (d) Ensure correct locking.
- (e) Check that the outer mirror actuator assembly functions correctly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC15
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: BACK DOOR GLASS: COMPONENTS; 2020 MY Supra [03/2019 -]		

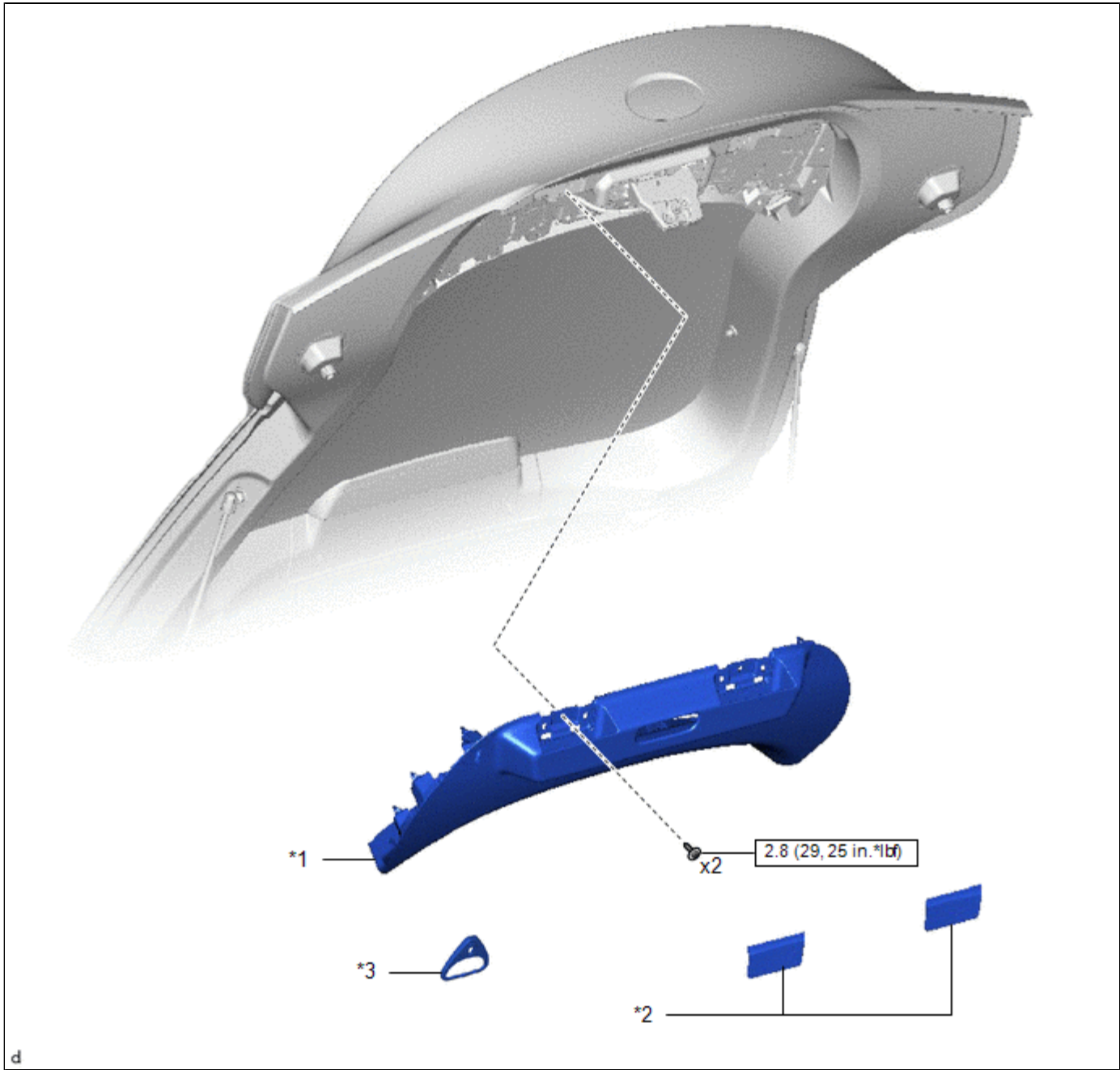
COMPONENTS


ILLUSTRATION



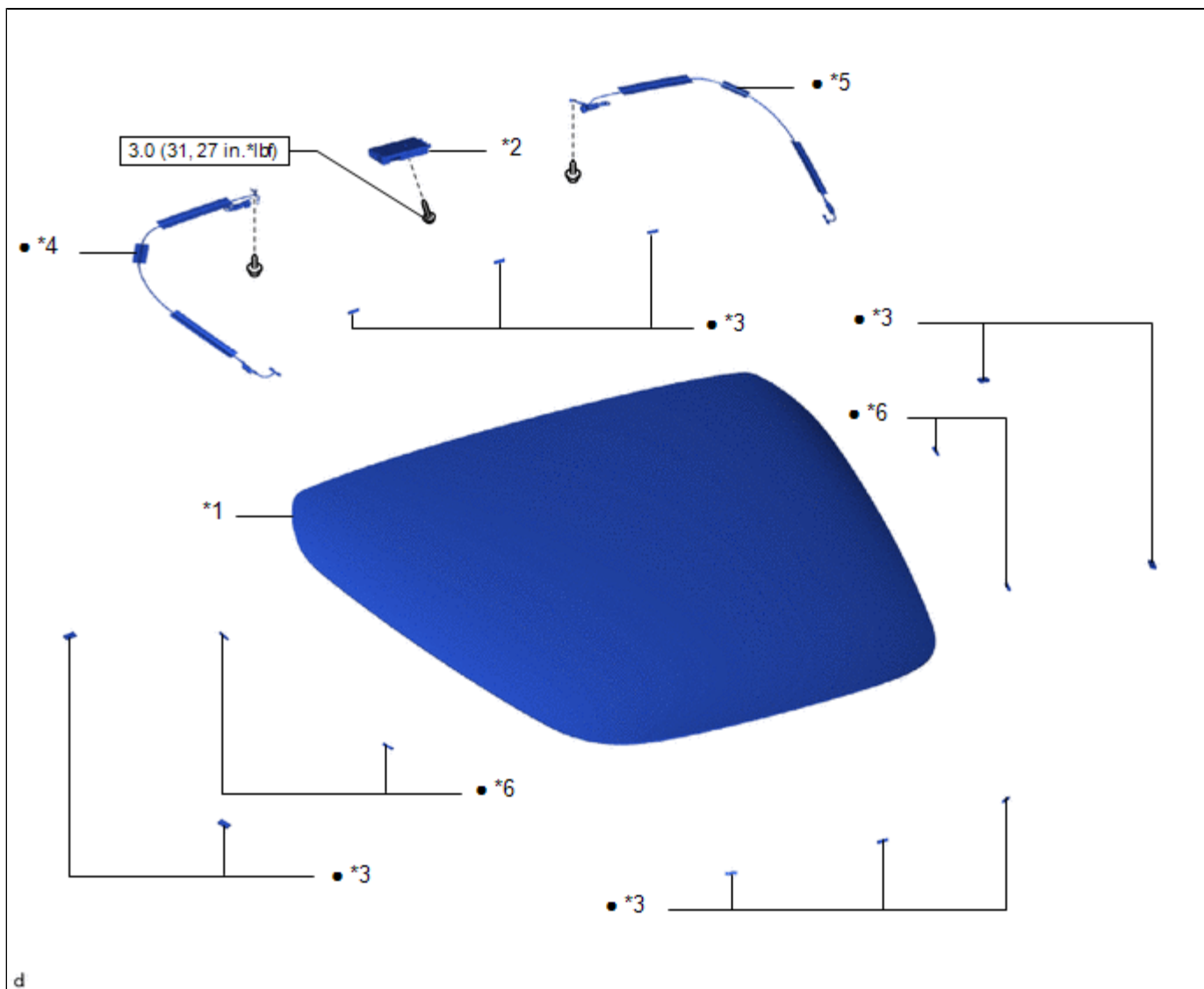
*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	-	-
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
ILLUSTRATION



*1	BACK DOOR TRIM BOARD	*2	BACK DOOR TRIM COVER
*3	EMERGENCY RELEASE HANDLE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	BACK DOOR GLASS	*2	NO. 1 AMPLIFIER ANTENNA ASSEMBLY
*3	NO. 1 WINDSHIELD GLASS SPACER	*4	BACK DOOR GLASS WIRE LH
*5	BACK DOOR GLASS WIRE RH	*6	BACK DOOR GLASS SPACER
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC16
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: BACK DOOR GLASS: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE BACK DOOR TRIM BOARD

Click here [INFO](#)

3. REMOVE EMERGENCY RELEASE HANDLE

Click here [INFO](#)

4. REMOVE CENTER STOP LIGHT ASSEMBLY

Click here [INFO](#)

5. REMOVE NO. 1 AMPLIFIER ANTENNA ASSEMBLY

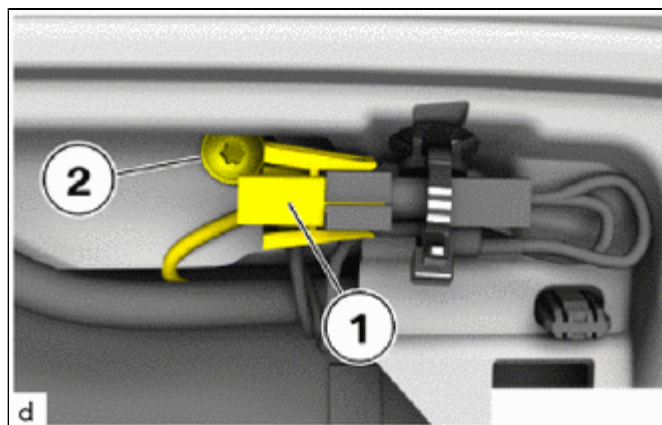
Click here [INFO](#)

6. REMOVE BACK DOOR GLASS

(a) Disconnect the connector (1).

HINT:

Perform the operations on the left and right side.



(b) Remove T25 screw (2).

HINT:

Perform the operations on the left and right side.

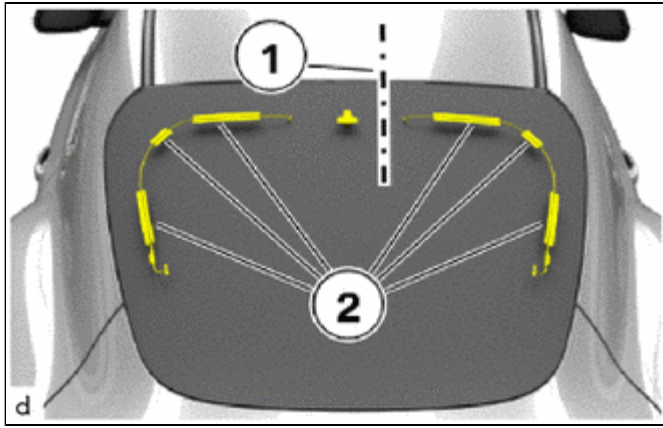
(c) Tape off body in area of passthrough point (1) with protective tape.

(d) Pass a piano wire between the back door panel and back door glass.

NOTICE:

Pay particular attention at the passthrough point (1) as otherwise there is a risk of damage to the wiring harness (2)

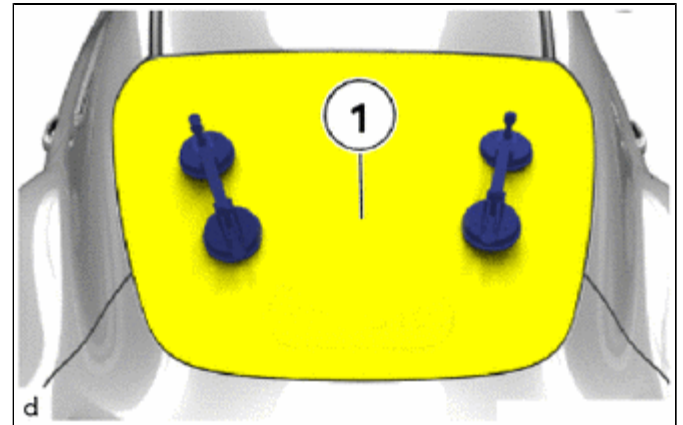
at the passthrough.



(e) Tie both wire ends to wooden blocks or similar objects that can serve as handles.

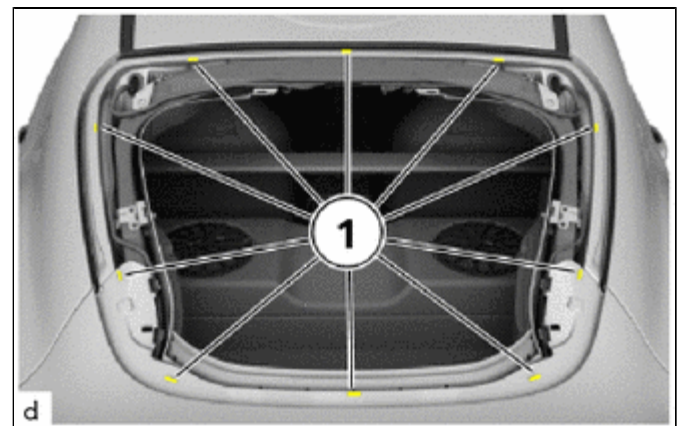
(f) Cut out the back door glass.

(g) Using suction cups, remove back door glass (1).



7. REMOVE NO. 1 WINDSHIELD GLASS SPACER

(a) Remove all No. 1 windshield glass spacers (1).



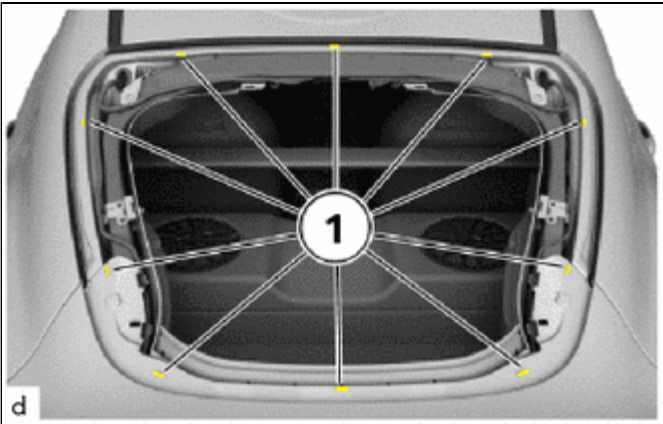
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC17
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: BACK DOOR GLASS: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 WINDSHIELD GLASS SPACER

- (a) Install all new No. 1 windshield glass spacers (1) centrally on the marks.



2. INSTALL BACK DOOR GLASS

HINT:

- The vehicle can be towed away or driven without the back door glass.
- When carrying out removal/installation work and during the hardening time, the vehicle must be standing on its wheels on a level surface.
- The back door glass are bonded to the body. This bonding will increase the torsional rigidity of the vehicle. To obtain perfect bonding, comply with the installation procedure described in the following.

- (a) Clean back door glass and body aperture with residual adhesive bead.

Cleaner:
Cleaner R1, Cleaner R2

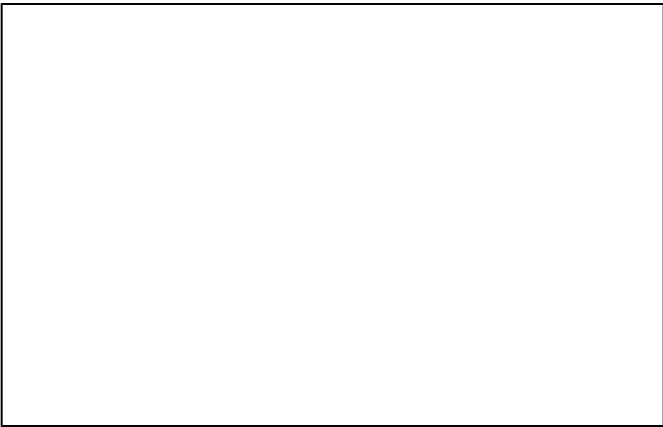
HINT:

Protect vehicle interior against contamination.

- (b) Install the 2 protective tapes (1) to the roof.

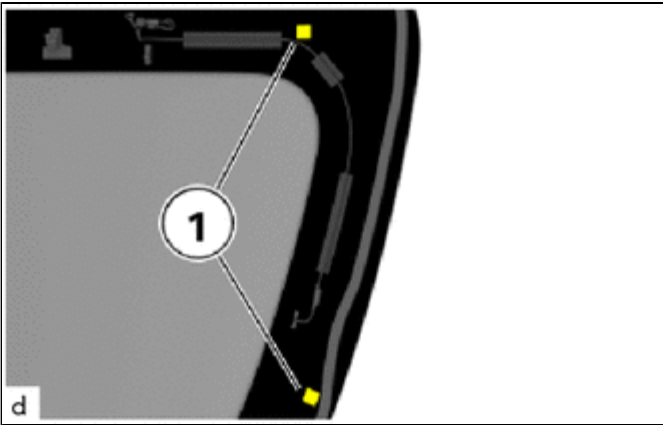
Standard Dimension:

AREA	DIMENSION
A	250 mm (9.84 in.)



(c) Replace the back door glass spacers (1) on the back door glass and the body.

HINT:
Perform the operations on the left and right side.

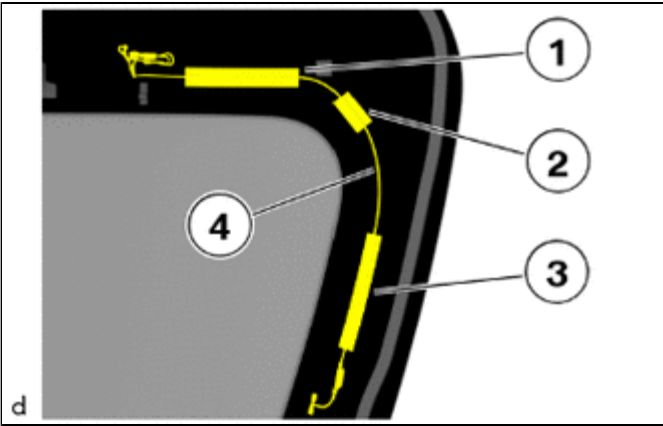


(d) Glue on the back door glass spacers (1) where marked.

HINT:
Perform the operations on the left and right side.

(e) Check tapes (1) to (3) on the back door glass wire (4) for correct position and replace where required.

HINT:
Perform the operations on the left and right side.



(f) Provide two glue cartridges.

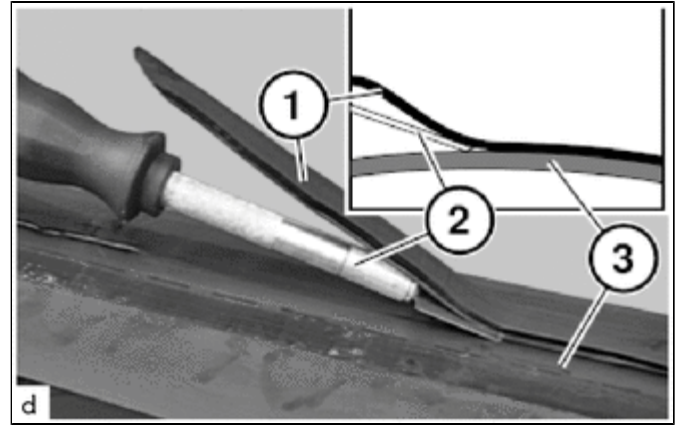
Adhesive:
Repair Kit, Window Glass, Cold, 1 Hour

(g) When reusing the back door glass:

- (1) Position the scraper (2) as shown and remove the residual adhesive bead (1) up to remaining thickness.

Standard Dimension:

AREA	DIMENSION
Remaining thickness of adhesive bead	0.5 mm (0.0197 in.)



(h) Apply glass activator to the back door glass (3) so that a wide line of glass activator is located next to the squeezed adhesive bead.

Glass activator:

Repair Kit, Window Glass, Cold, 1 Hour

NOTICE:

- The glass activator is used for adhesion between glass or ceramic glass and the adhesive. Therefore, a thin, homogeneous and continuous line of glass activator must be applied. If the back door glass is to be reused with a cut-back adhesive bead, glass activator is not needed.
- The glass activator may not be applied in the field of view or the point grid. Fresh glass activator in the field of view must immediately be wiped off because hardened glass activator will leave a haze behind.

Cleaner:

Cleaner R2

HINT:

- Protrusion of glass activator against the compressed adhesive bead: 1.0 to 2.0 mm (0.0394 to 0.0787 in.)
- Allow the glass activator to dry for 2 minutes.

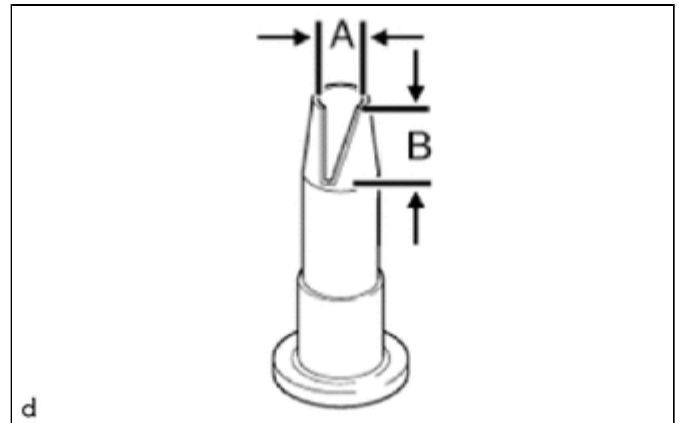
(i) Prepare the glue cartridge with the standard nozzle C.

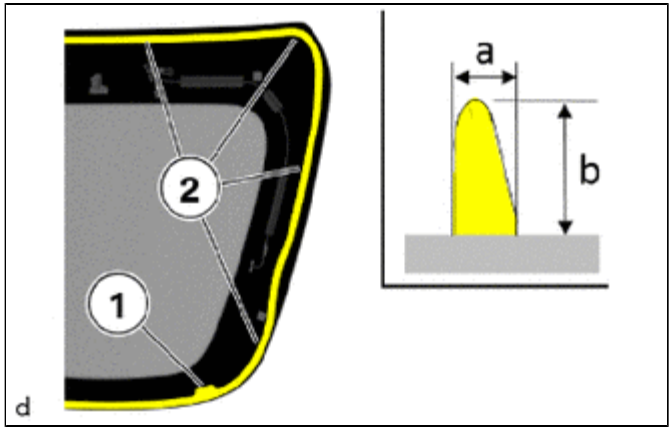
Standard Nozzle C:

Repair Kit, Window Glass, Cold, 1 Hour

Standard Dimension:

AREA	DIMENSION
A	7.0 to 9.0 mm (0.276 to 0.354 in.)
B	11 to 13 mm (0.433 to 0.512 in.)





(j) Apply bead joint in area (1).

(k) Apply adhesive bead within the mark (2) on the back door glass.

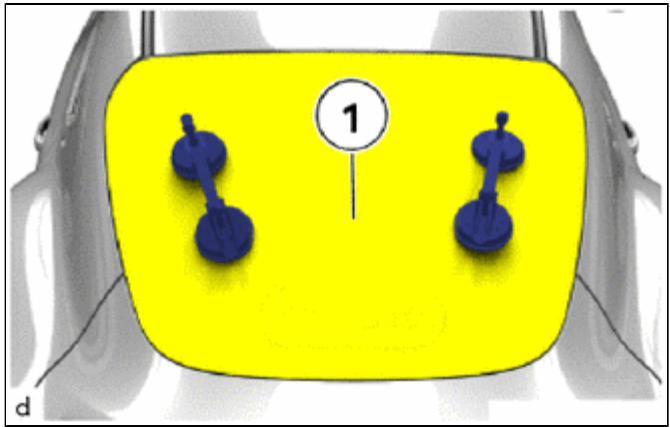
Adhesive bead:

AREA	DIMENSION
a	7.0 to 9.0 mm (0.276 to 0.354 in.)
b	11 to 13 mm (0.433 to 0.512 in.)

(l) Using suction cups, fit back door glass (1) carefully.

HINT:

At the same time, guide the back door glass parallel to the C-pillar, fit at the top and align on the side edges as well as the upper and lower edge.



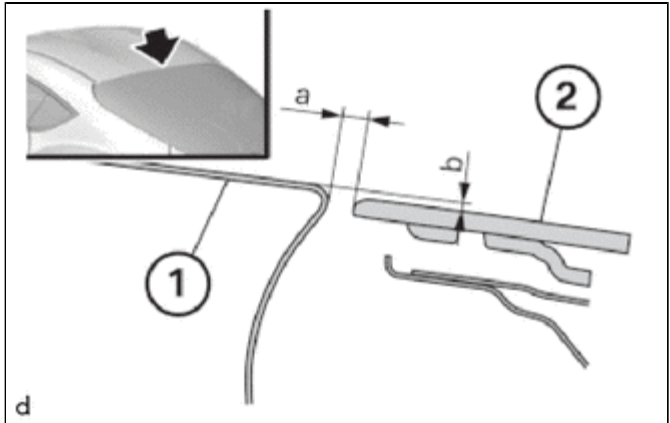
(m) Using the special tools 0 496 076 (00 9 470) and 0 495 259 (51 0 010), measuring gap dimension back door glass to roof outer skin.

SST: 09800-WA340

SST: 09800-WA350

Standard Clearance:

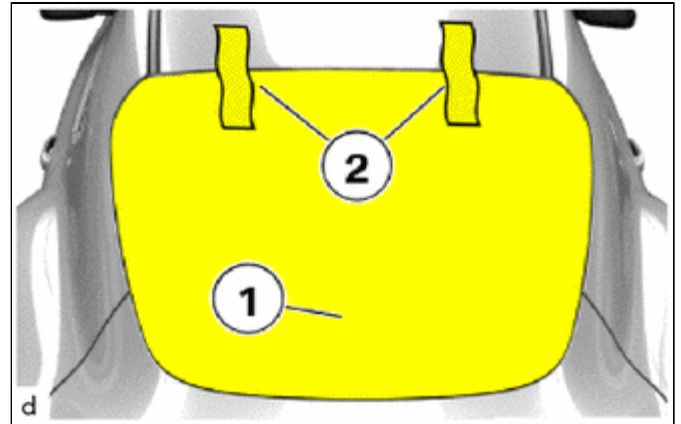
AREA	DIMENSION
a	5.8 to 9.1 mm (0.228 to 0.358 in.)
b	0.6 to 4.2 mm (0.0236 to 0.165 in.)



(1)	Roof outer skin
-----	-----------------

(n) Press the back door glass on evenly all the way around and engage at the back door glass spacer.

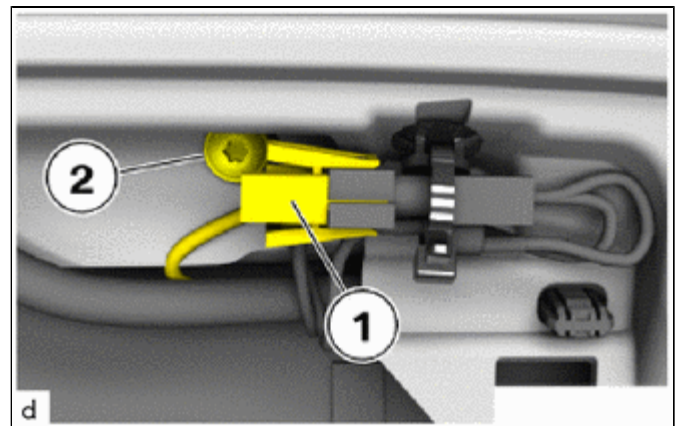
(o) Secure back door glass (1) with protective tapes (2) on the roof.



(p) Pull the cable shoe of the grounding cable onto the screw (2).

HINT:

Perform the operations on the left and right side.



(q) Tighten down T25 screw (2).

HINT:

Perform the operations on the left and right side.

(r) Connect the connector (1).

HINT:

Perform the operations on the left and right side.

3. INSTALL NO. 1 AMPLIFIER ANTENNA ASSEMBLY

Click here [INFO](#)

4. INSTALL CENTER STOP LIGHT ASSEMBLY

Click here [INFO](#)

5. INSTALL BACK DOOR TRIM BOARD

Click here

INFO

6. INSTALL EMERGENCY RELEASE HANDLE

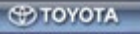
Click here

INFO

7. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here

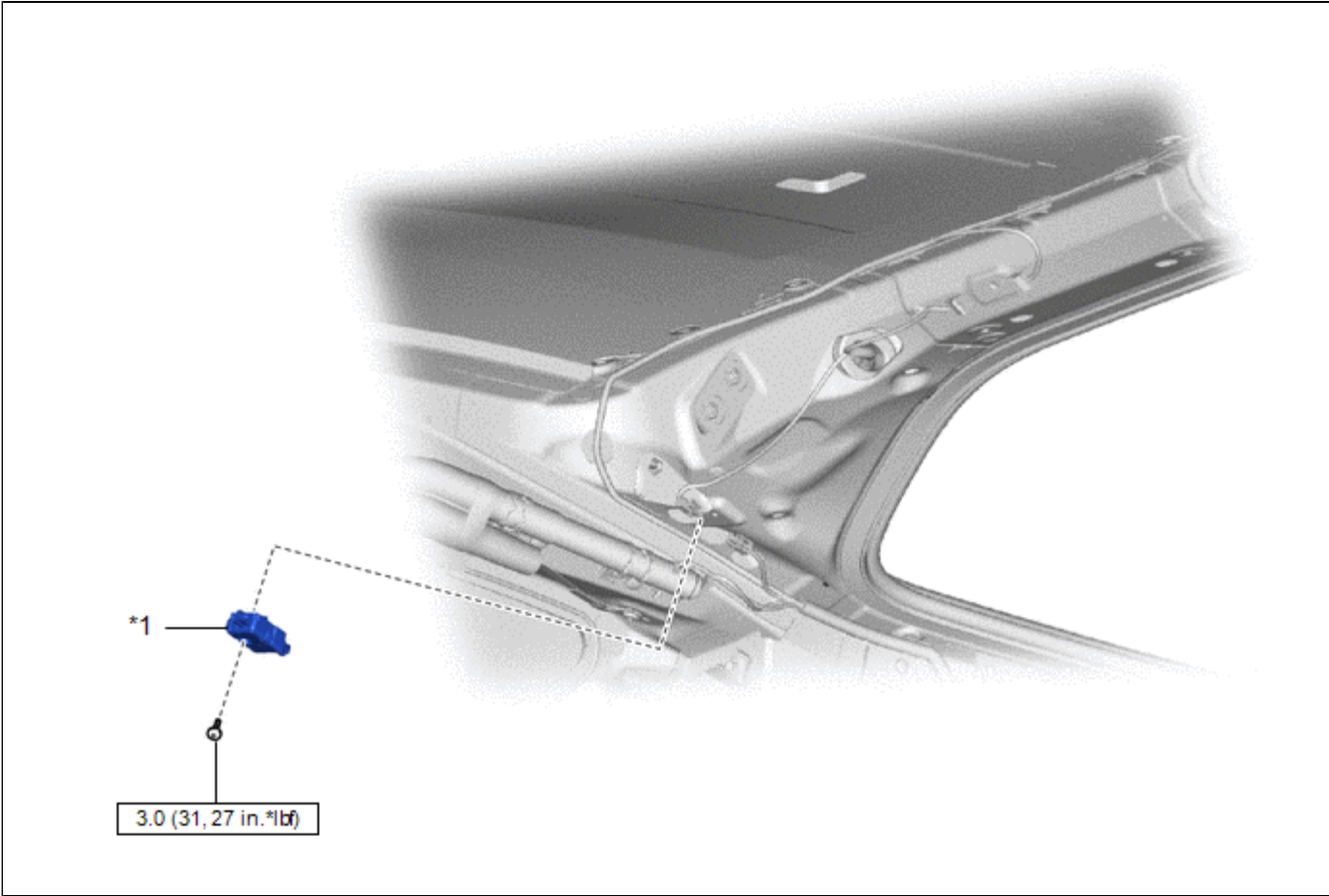
INFO



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC1B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: DEFOGGER RELAY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TRAP CIRCUIT	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC1C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: DEFOGGER RELAY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

- Airbag unit.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: Safety regulations on handling components with gas generators.

Click here [INFO](#)

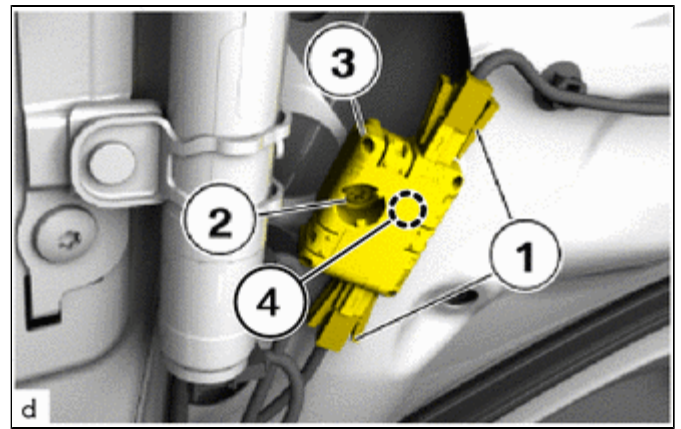
PROCEDURE

1. REMOVE ROOF HEADLINING ASSEMBLY

Click here [INFO](#)

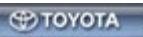
2. REMOVE TRAP CIRCUIT

- (a) Disconnect the connectors (1).



(b) Remove T25 bolt (2).

(c) Disengage the guide (4) to remove the trap circuit (3).



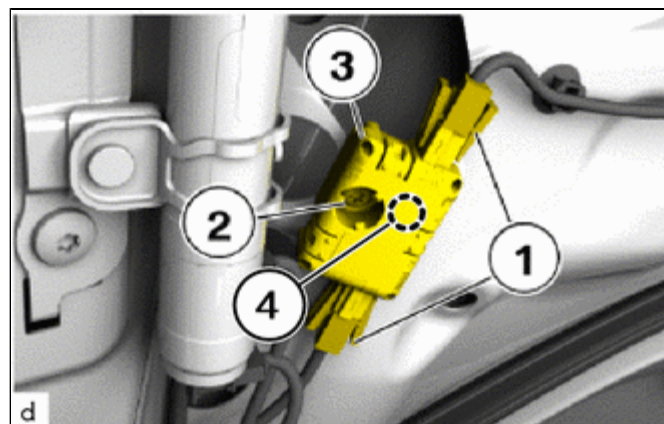
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC1D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: DEFOGGER RELAY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRAP CIRCUIT

(a) Engage the guide (4).



(b) Install the trap circuit (3) with the T25 bolt (2).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(c) Connect the connectors (1).

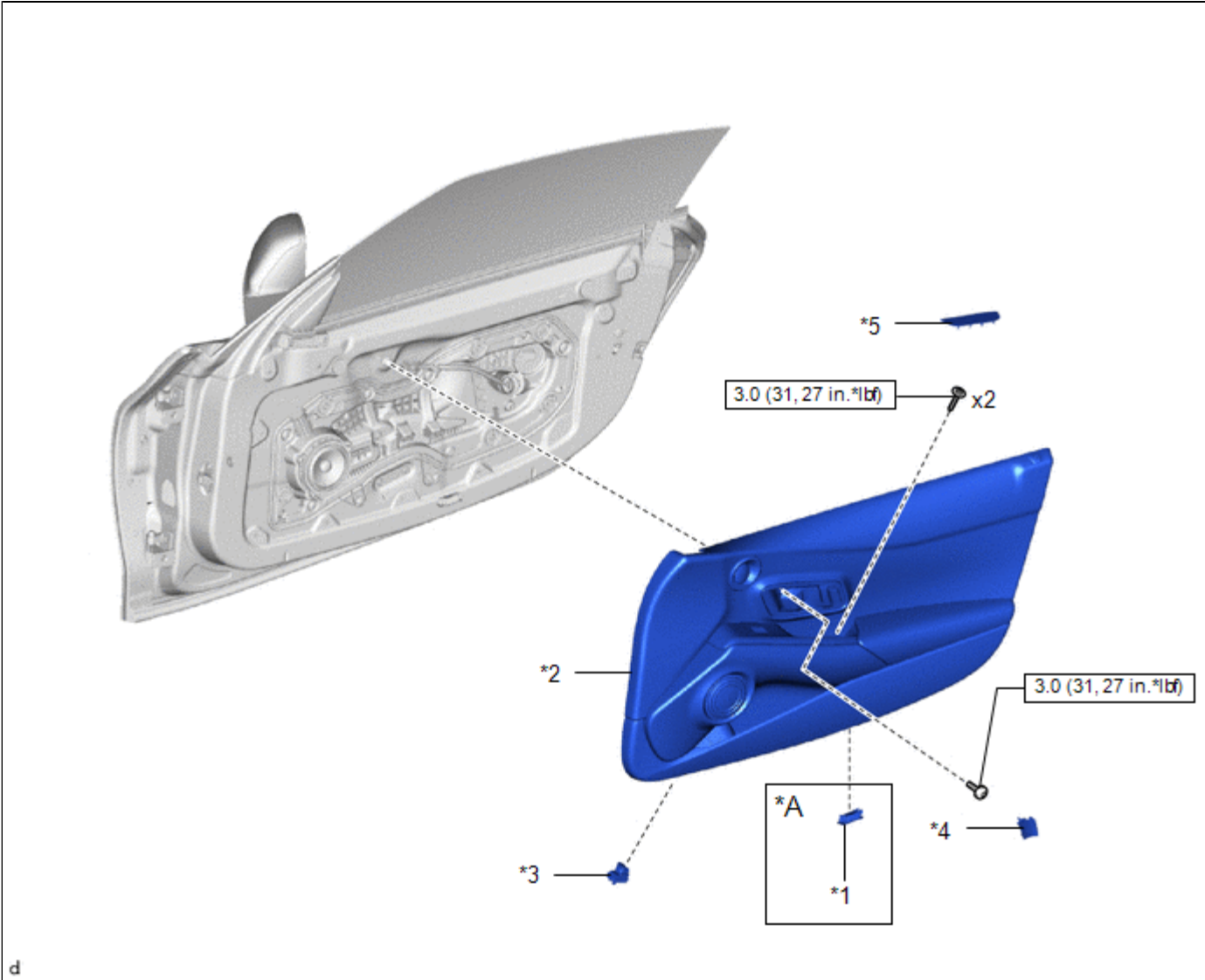
2. INSTALL ROOF HEADLINING ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: FRONT PASSENGER SIDE POWER WINDOW SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	COURTESY LIGHT ASSEMBLY	*2	FRONT DOOR TRIM BOARD SUB-ASSEMBLY RH
*3	POWER WINDOW REGULATOR SWITCH ASSEMBLY	*4	NO. 2 DOOR INSIDE HANDLE BEZEL RH
*5	DOOR TRIM COVER RH	-	-
N*m (kgf*cm, ft.*lbf): Specified			

<div></div>	torque	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0X
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: FRONT PASSENGER SIDE POWER WINDOW SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

HINT:
Use the same procedure as for the LH side.

Click here [INFO](#)

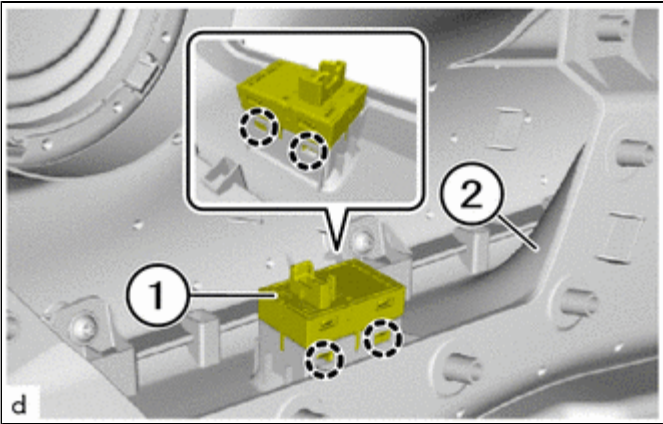
2. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY RH

HINT:
Use the same procedure as for the LH side.

Click here [INFO](#)

3. REMOVE POWER WINDOW REGULATOR SWITCH ASSEMBLY

(a) Disengage the claws in the marked area.



(b) Remove power window regulator switch assembly (1) from the front door trim board sub-assembly RH (2).

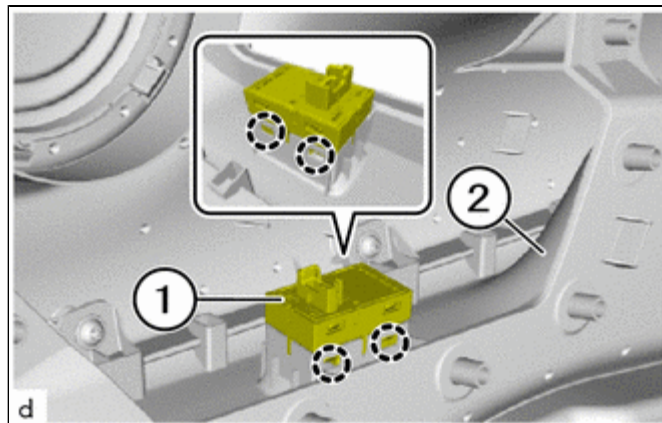
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: FRONT PASSENGER SIDE POWER WINDOW SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL POWER WINDOW REGULATOR SWITCH ASSEMBLY

- (a) Install power window regulator switch assembly (1) on front door trim board sub-assembly RH (2) and clip it in on both sides of the marked area.



2. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

[Click here](#) **INFO**

3. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

HINT:

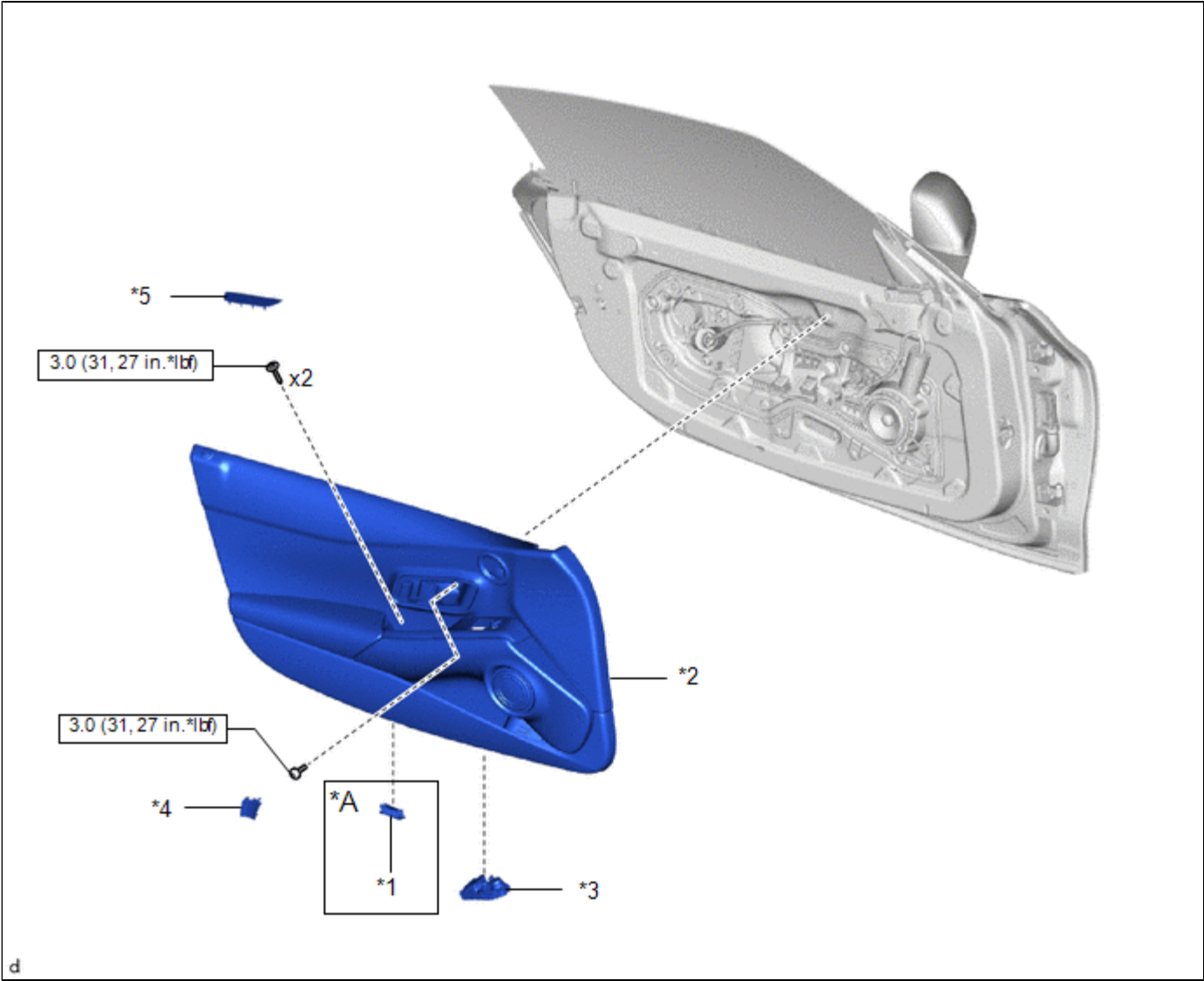
Use the same procedure as for the LH side.

[Click here](#) **INFO**

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0T
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: POWER WINDOW MASTER SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	COURTESY LIGHT ASSEMBLY	*2	FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH
*3	POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY	*4	NO. 2 DOOR INSIDE HANDLE BEZEL LH
*5	DOOR TRIM COVER LH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

<div></div>			
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0U
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: POWER WINDOW MASTER SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

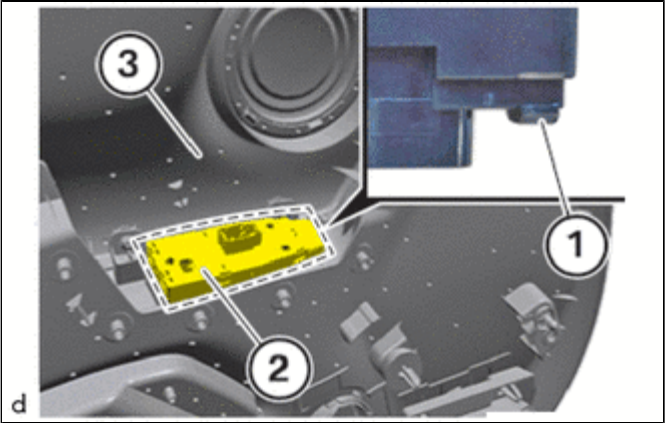
Click here [INFO](#)

2. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH

Click here [INFO](#)

3. REMOVE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY

(a) Disengage claws (1) in the marked area.



(b) Remove power window regulator master switch assembly (2) from front door trim board sub-assembly LH (3).

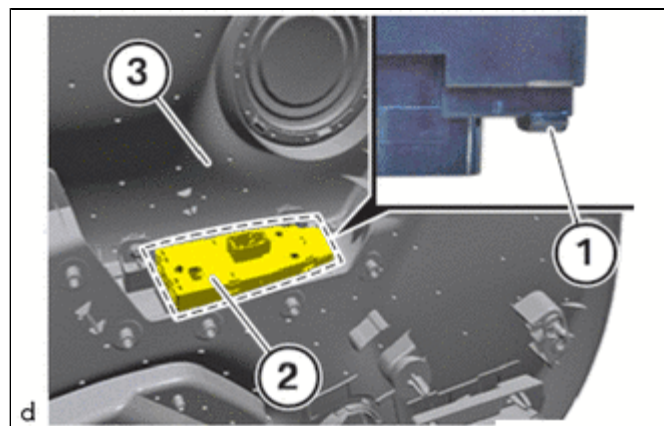
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0V
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: POWER WINDOW MASTER SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY

- (a) Position power window regulator master switch assembly (2) on the front door trim board sub-assembly LH (3) and engage in the claws (1).



2. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY LH

Click here [INFO](#)

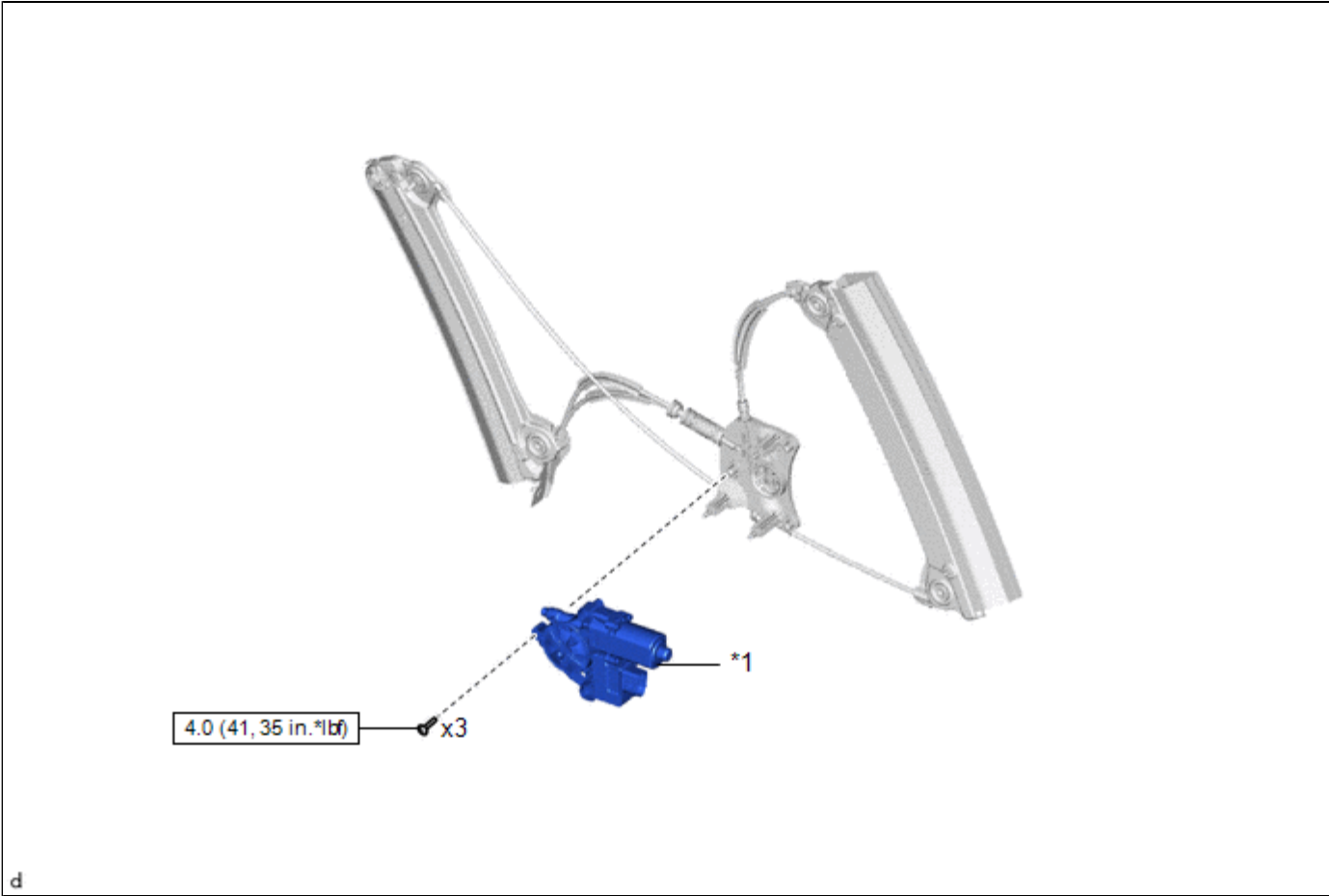
3. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC0Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: POWER WINDOW REGULATOR MOTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	POWER WINDOW REGULATOR MOTOR ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC10
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: POWER WINDOW REGULATOR MOTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

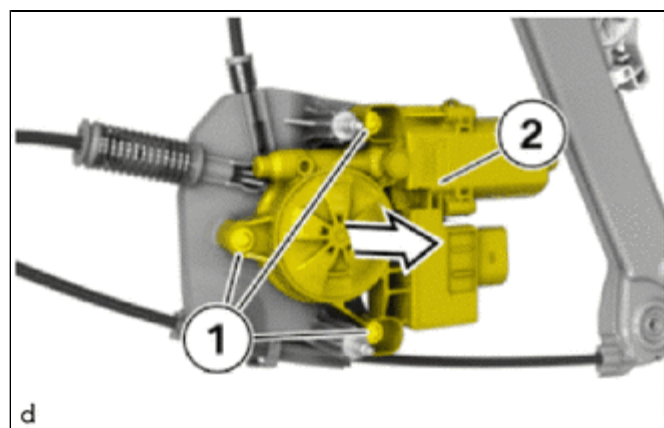
PROCEDURE

1. REMOVE FRONT DOOR WINDOW REGULATOR ASSEMBLY

Click here [INFO](#)

2. REMOVE POWER WINDOW REGULATOR MOTOR ASSEMBLY

(a) Remove the T25 screws (1).



(b) Remove the power window regulator motor assembly (2) from the front door window regulator assembly in direction of arrow.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC11
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: POWER WINDOW REGULATOR MOTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

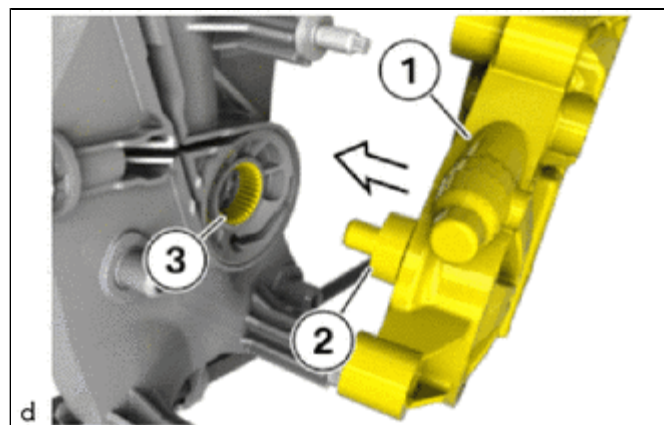
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. INSTALL POWER WINDOW REGULATOR MOTOR ASSEMBLY

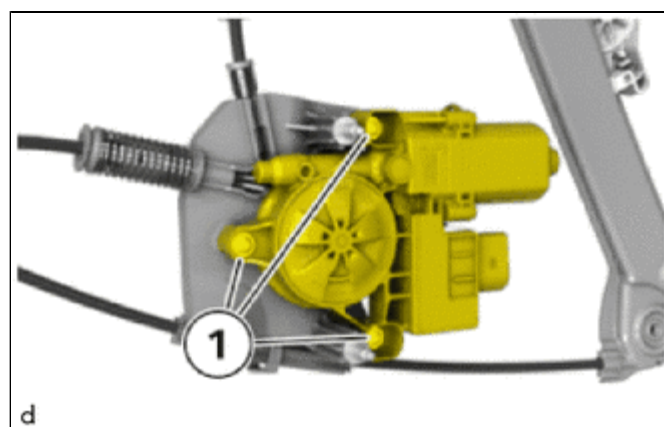
- (a) Install the power window regulator motor assembly for the front door window regulator assembly (1) in direction of arrow so that its shaft (2) is fitted de-energized in the gearing (3) of the front door window regulator assembly.



- (b) Install the T25 screws (1).

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}



2. INSTALL FRONT DOOR WINDOW REGULATOR ASSEMBLY

Click here [INFO](#)

3. INITIALIZE POWER WINDOW CONTROL SYSTEM

NOTICE:

- When a power window regulator motor assembly replaced, the power window control system must be initialized. Functions such as the auto up and down function, jam protection function and window open warning function will not operate if initialization is not performed.
- When performing initialization, use the power window switch of each door to initialize each power window.
- Make sure to park the vehicle and all doors closed before performing initialization.

(a) Operating procedure for initialization (manual):

- (1) Move front door glass sub-assembly into lower end position.
- (2) Press and hold switch in "Open one-touch function" position (second switch position) for a timespan between 15 and 25 seconds.
- (3) Move front door glass sub-assembly to upper end position.
- (4) Switch position "Close one-touch function" (2nd switch position) hold down the switch position during the entire process.

(b) Connect the diagnosis system to the vehicle and enter the following menus:

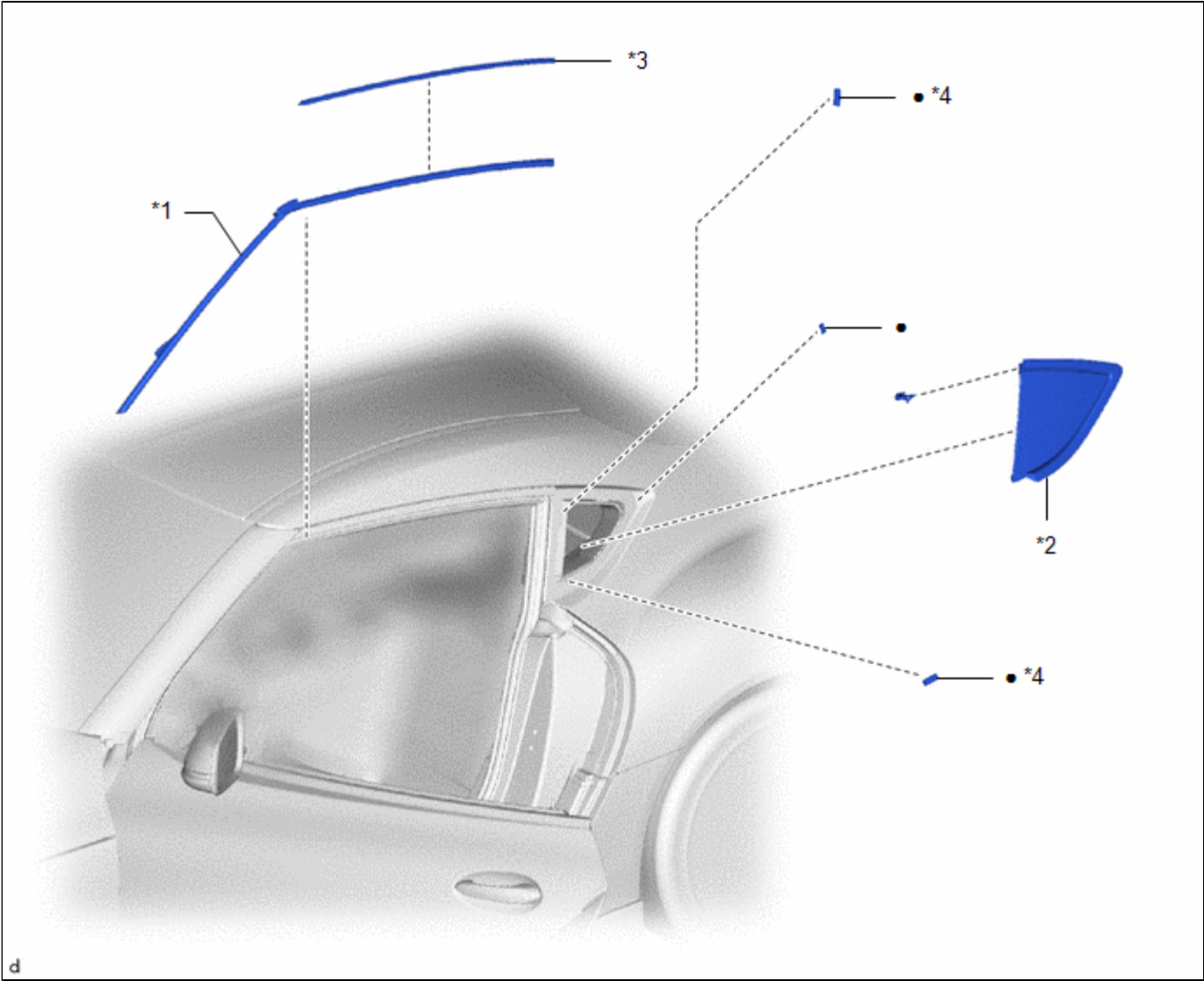
Vehicle management / Service functions / Body / Locking and security functions / Power window regulator / Initialize power window drive



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC18
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: QUARTER WINDOW GLASS: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION

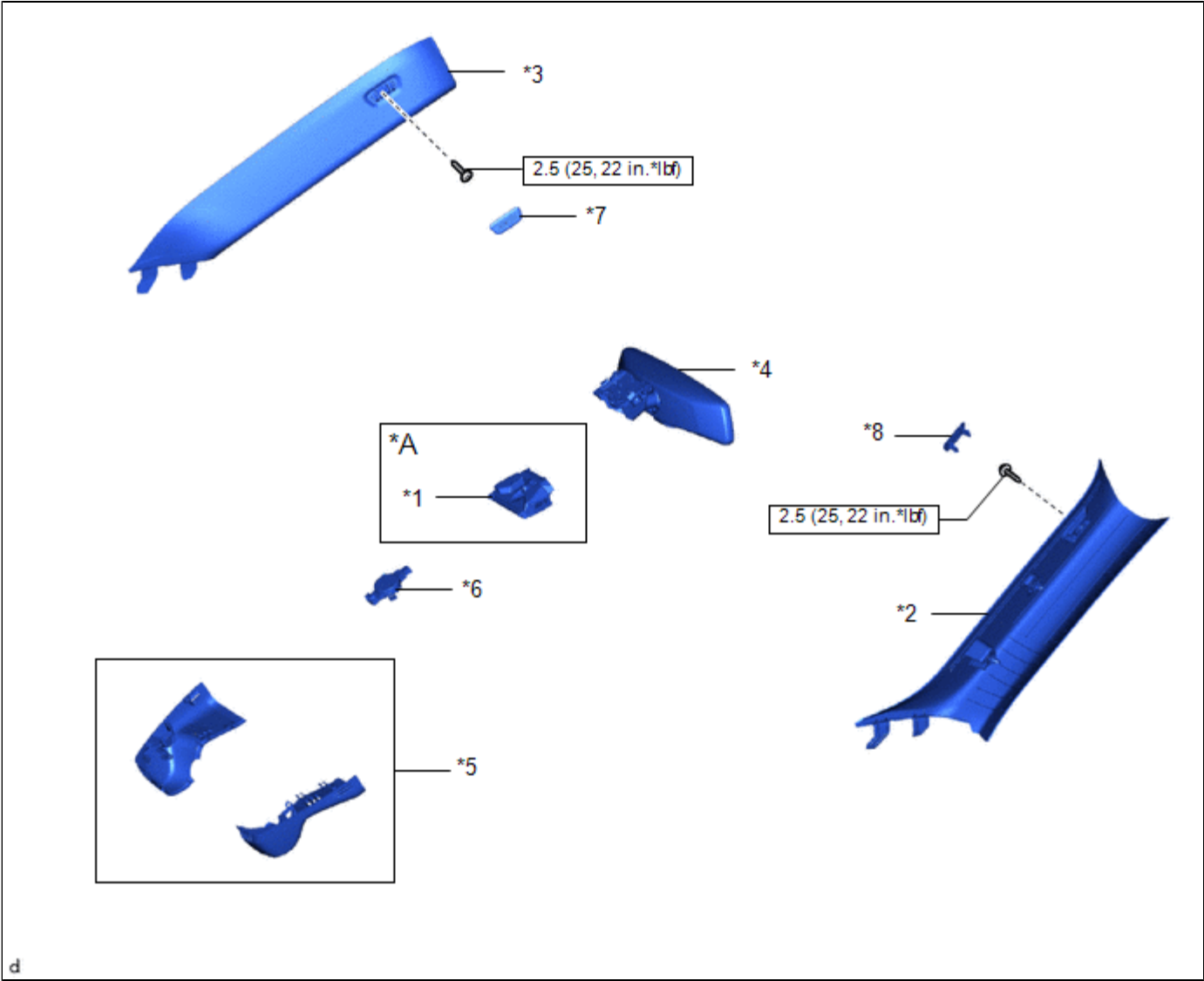


*1	FRONT DOOR WINDOW FRAME FRONT MOULDING	*2	QUARTER WINDOW ASSEMBLY
*3	FRONT ROOF SIDE RAIL WEATHERSTRIP RETAINER	*4	GUIDE PIN
●	Non-reusable part	-	-


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC12
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: WINDSHIELD GLASS: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

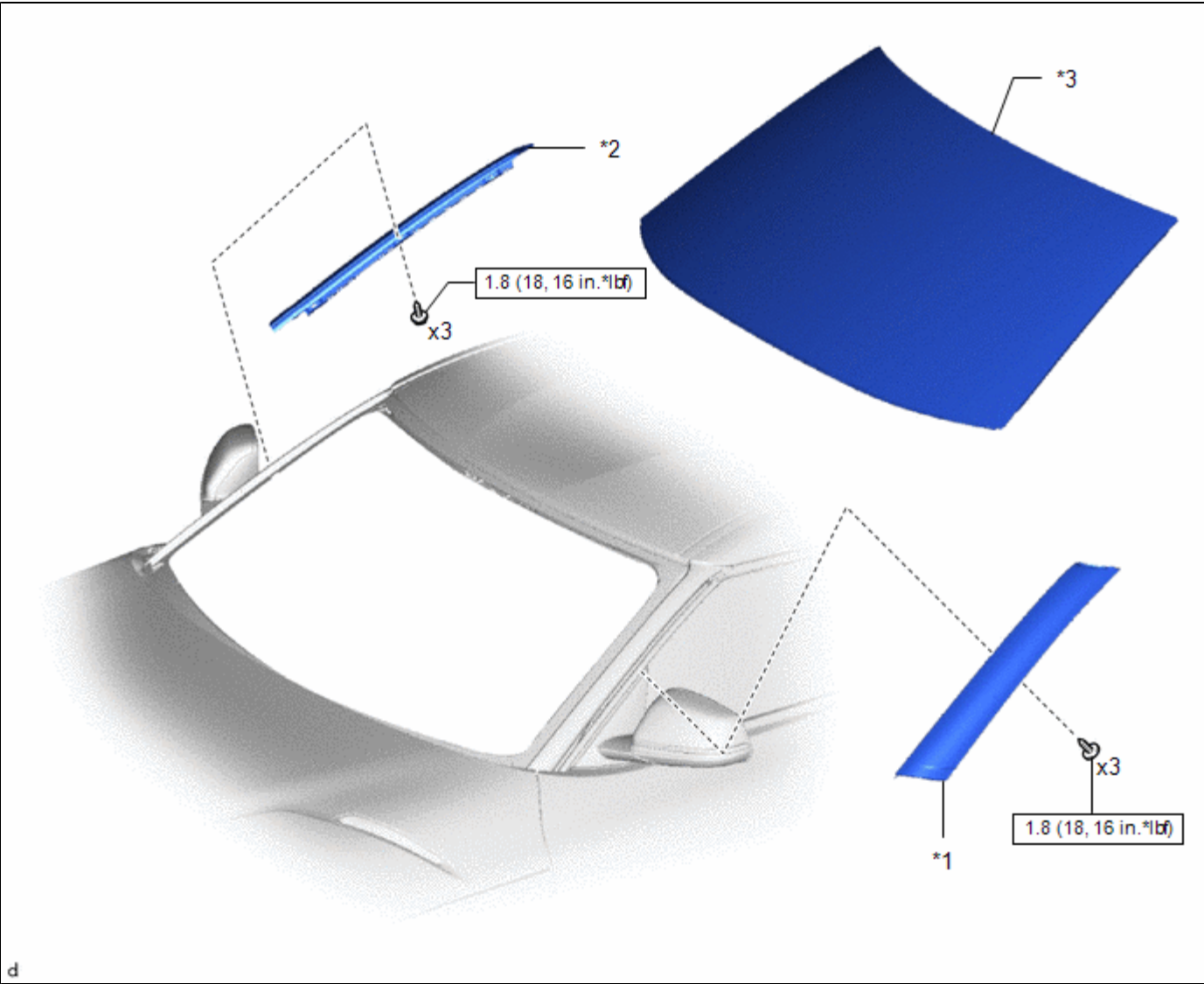
ILLUSTRATION




*A	w/ Toyota Supra Safety	-	-
*1	FORWARD RECOGNITION CAMERA	*2	FRONT PILLAR GARNISH LH
*3	FRONT PILLAR GARNISH RH	*4	INNER REAR VIEW MIRROR ASSEMBLY
*5	INNER REAR VIEW MIRROR STAY HOLDER COVER	*6	RAIN SENSOR
*7	FRONT PILLAR GARNISH COVER RH	*8	FRONT PILLAR GARNISH COVER LH

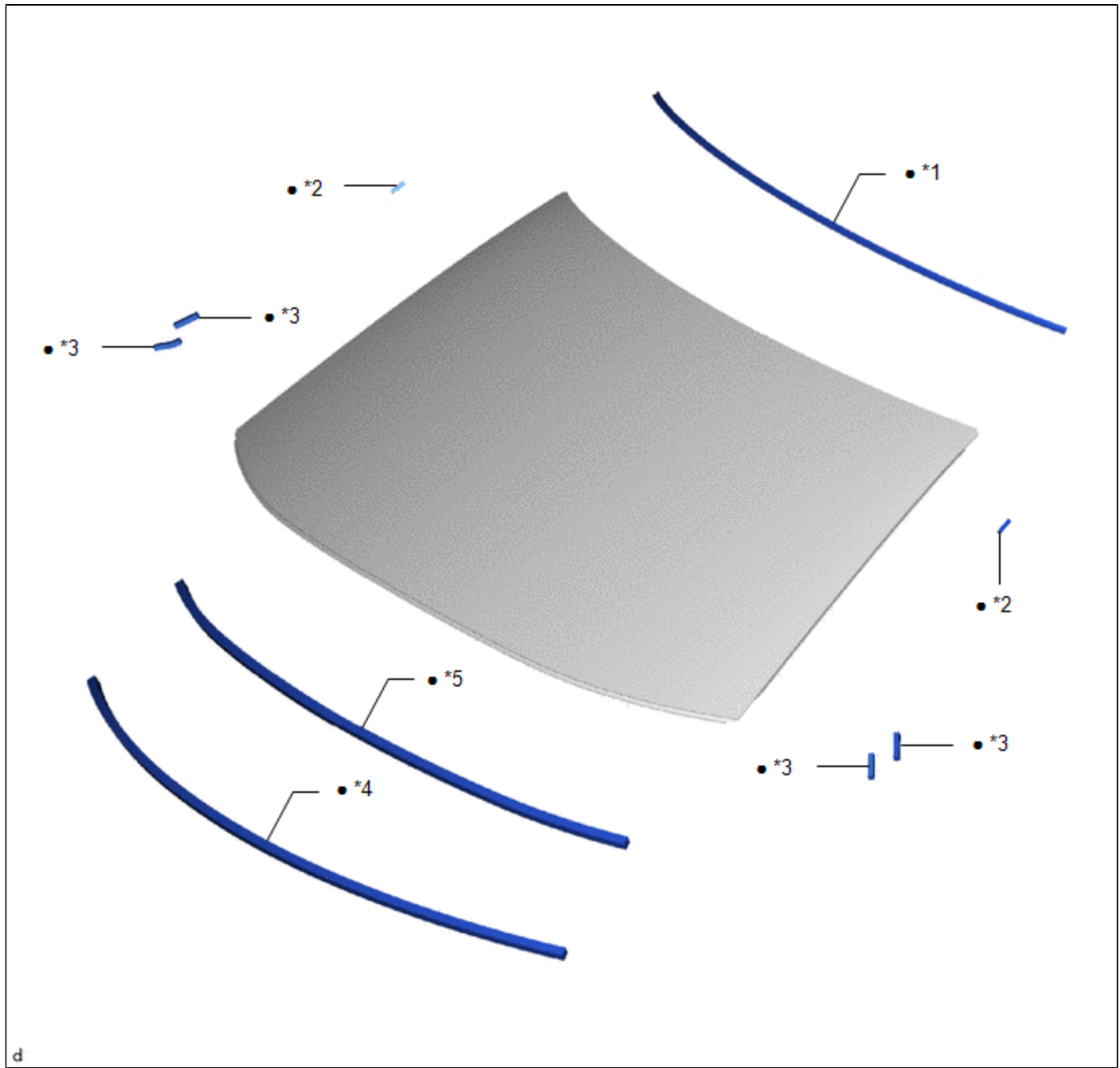
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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ILLUSTRATION



*1	ROOF DRIP SIDE FINISH MOULDING LH	*2	ROOF DRIP SIDE FINISH MOULDING RH
*3	WINDSHIELD GLASS	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	WINDSHIELD OUTSIDE MOULDING	*2	NO. 1 WINDSHIELD GLASS SPACER
*3	CUSHION	*4	NO. 1 INSTRUMENT PANEL CUSHION
*5	NO. 2 INSTRUMENT PANEL CUSHION	-	-
●	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC13
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: WINDSHIELD GLASS: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Scratches.

Tools and sharp-edged components can cause scratches.

- Protect working area.
- Handle tools and components carefully.

PROCEDURE

1. REMOVE INNER REAR VIEW MIRROR STAY HOLDER COVER

Click here [INFO](#)

2. REMOVE INNER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)

3. REMOVE RAIN SENSOR

Click here [INFO](#)

4. REMOVE FORWARD RECOGNITION CAMERA (w/ Toyota Supra Safety)

Click here [INFO](#)

5. REMOVE FRONT PILLAR GARNISH LH

Click here [INFO](#)

6. REMOVE FRONT PILLAR GARNISH RH

HINT:

Use the same procedure as for the LH side.

7. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here [INFO](#)

8. REMOVE ROOF DRIP SIDE FINISH MOULDING LH

Click here [INFO](#)

9. REMOVE ROOF DRIP SIDE FINISH MOULDING RH

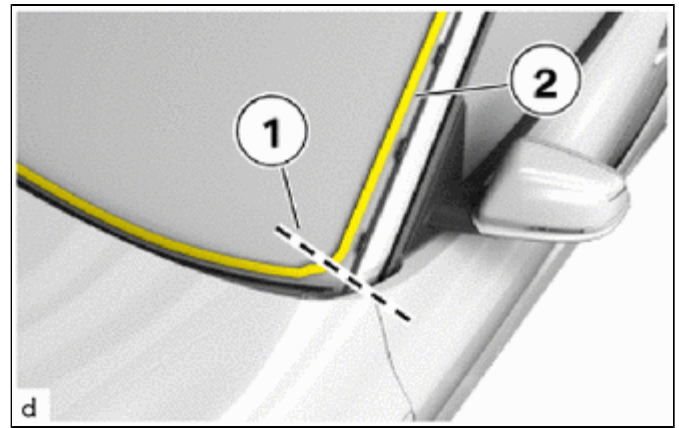
HINT:

Use the same procedure as for the LH side.

10. REMOVE WINDSHIELD GLASS

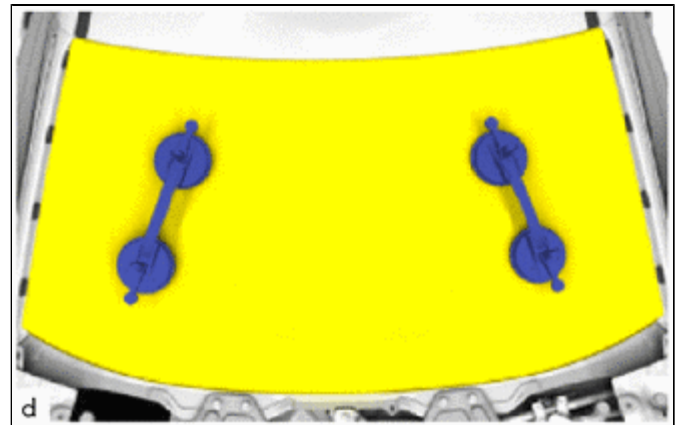
- (a) Tape off body in area of piercing point with protective tape.

(b) Push the thread along the line (1) through the adhesive bead (2) from the inside.



(c) Cut out the windshield glass with a piano wire.

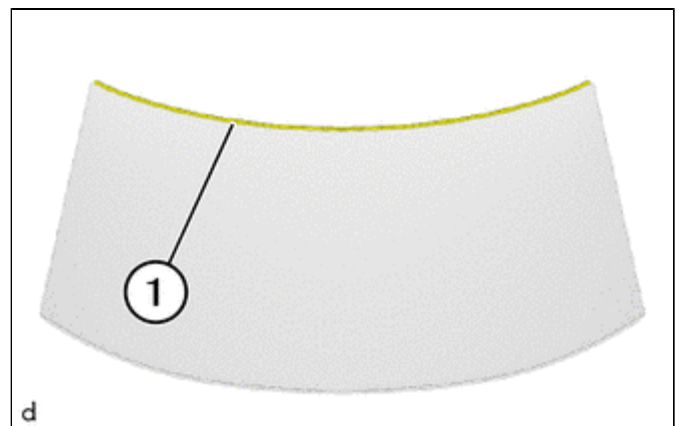
(d) Using suction cups, remove windshield glass.



11. REMOVE WINDSHIELD OUTSIDE MOULDING

(a) When reusing the windshield glass:

(1) Remove the windshield outside moulding (1).



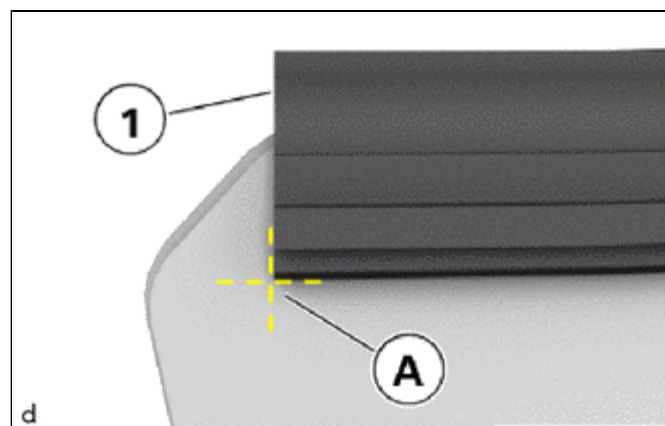
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC14
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: WINDSHIELD GLASS: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

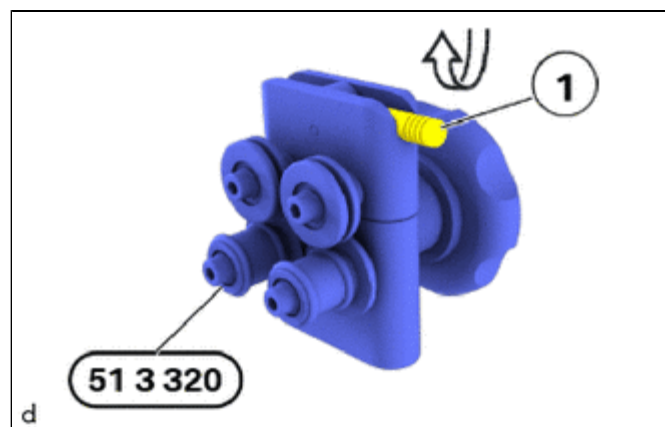
1. INSTALL WINDSHIELD OUTSIDE MOULDING

- (a) Observe marks (A) for a new windshield outside moulding (1).

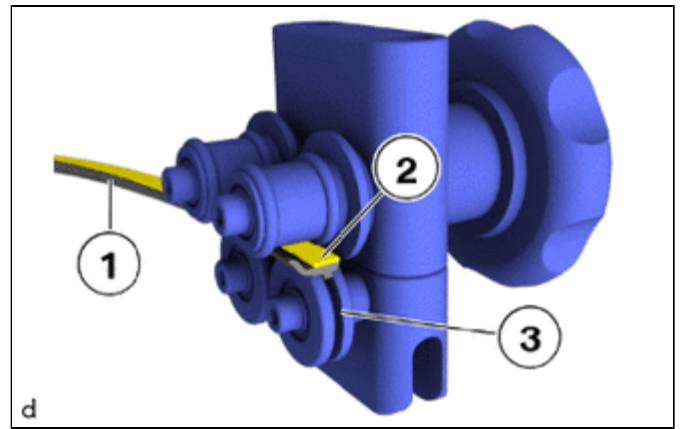


- (b) Reposition lever (1) in direction of arrow and open it using the special tool 0 496 529 (51 3 320).

SST: 09800-WA170

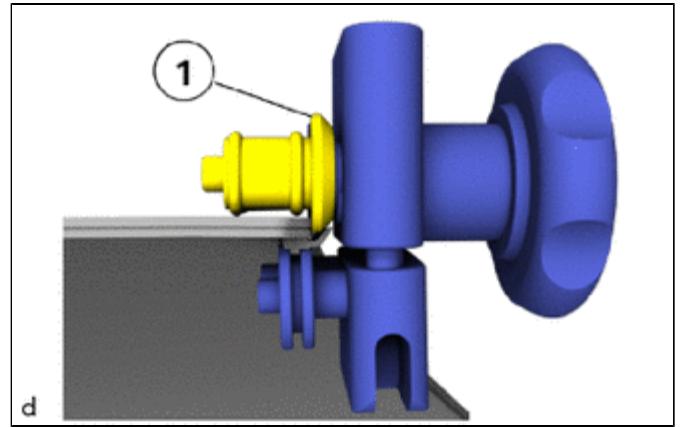


- (c) Pull off protective film (2) in stages from double-sided tape.



(d) Insert the windshield outside moulding (1) into the special tool 0 496 529 (51 3 320) (3).

SST: 09800-WA170

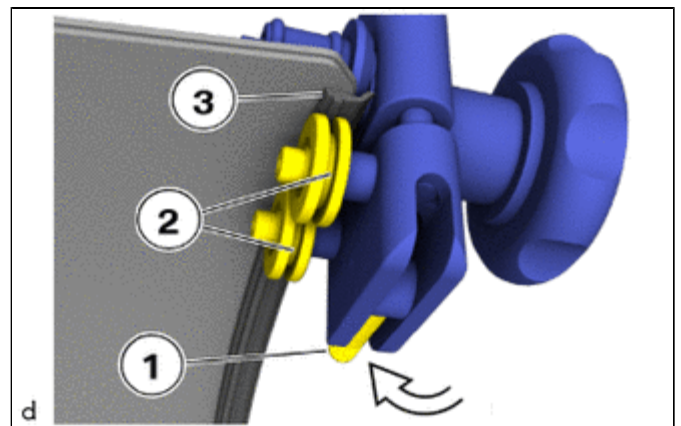


(e) Place the special tool 0 496 529 (51 3 320) with the pressure rollers (1) up against the windshield glass edge.

SST: 09800-WA170

(f) Align the cover on the outer edge of the windshield glass.

(g) Fit the cover and visually check for perfect fit.

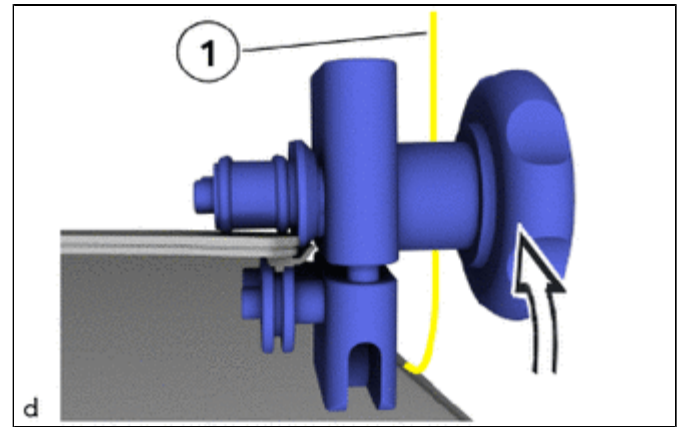


(h) Reposition the lever (1) in the direction of arrow and close the special tool 0 496 529 (51 3 320).

SST: 09800-WA170

(i) Ensure the windshield outside moulding (3) fits correctly into the guide pulleys (2).

- (j) Continue to pull off protective film (1) in stages from double-sided tape.



- (k) Pull the special tool 0 496 529 (51 3 320) in the direction of arrow with the handwheel over the entire upper edge of the windshield glass.

SST: 09800-WA170

- (l) Install the windshield outside moulding.

2. INSTALL WINDSHIELD GLASS

HINT:

- The vehicle can be towed away or driven without the windshield glass.
- When carrying out removal/installation work and during the hardening time, the vehicle must be standing on its wheels on a level surface.
- The windshield glass are bonded to the body. This bonding will increase the torsional rigidity of the vehicle. To obtain perfect bonding, comply with the installation procedure described in the following.

- (a) Clean windshield glass and body aperture with residual adhesive bead.

Cleaner:

Cleaner R1, Cleaner R2

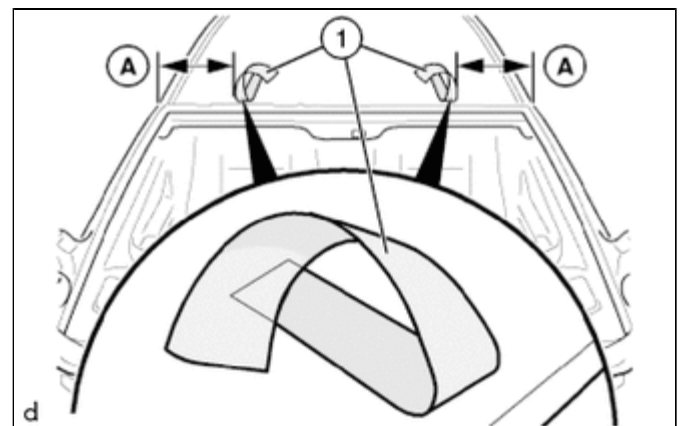
HINT:

Protect vehicle interior against contamination.

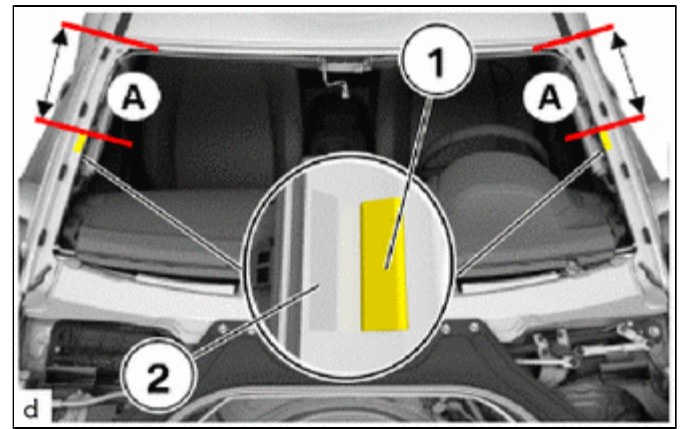
- (b) Install the 2 protective tapes (1) to the roof.

Standard Dimension:

AREA	DIMENSION
A	250 mm (9.84 in.)



(c) Completely remove the No. 1 windshield glass spacer (1).



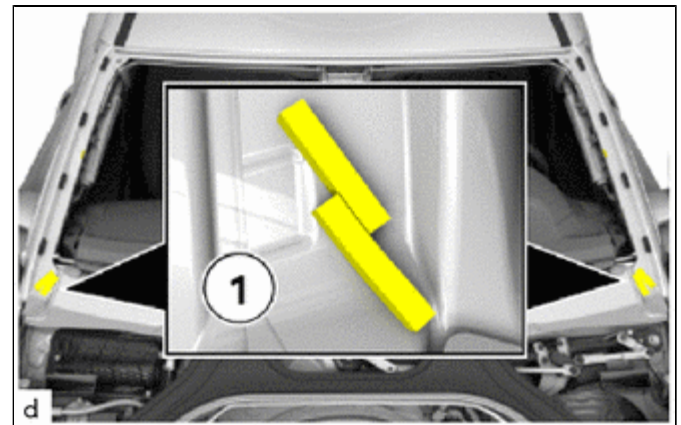
(d) Replace the No. 1 windshield glass spacer (1).

(e) Bond the new No. 1 windshield glass spacer (1) in the center on the marks (2) embossed on the body.

Dimensions of the No. 1 windshield glass spacer and positioning:

AREA	DIMENSION
Length	20 mm (0.787 in.)
Width	5.0 mm (0.197 in.)
Height	5.0 mm (0.197 in.)
A	300 mm (11.8 in.)

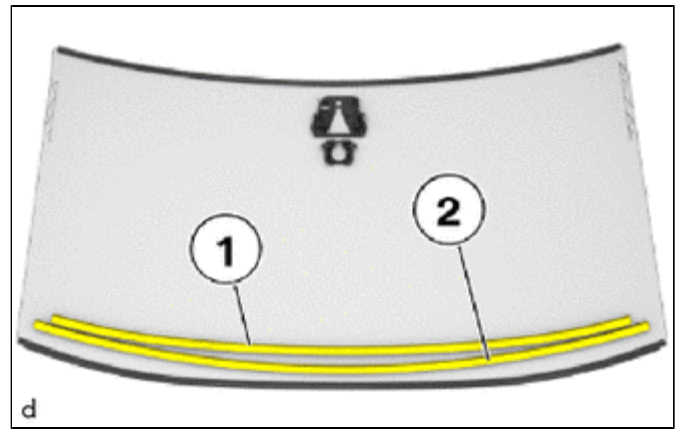
(f) Check both cushions (1) for damage and replace if necessary.



(g) Check No. 1 instrument panel cushion (2) and No. 2 instrument panel cushion (1) for the cowl panel for damage.

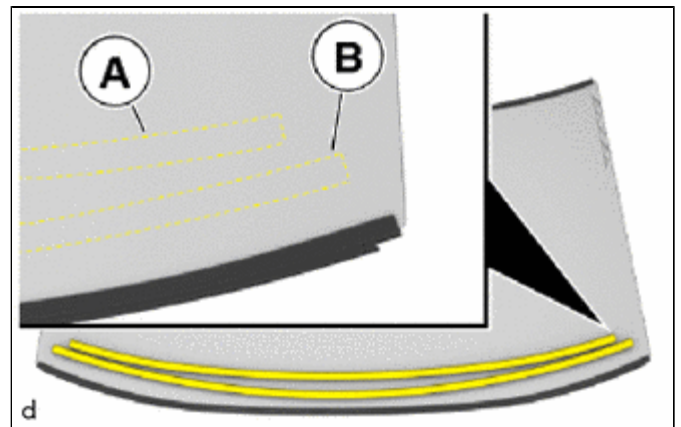
HINT:

- No. 1 instrument panel cushion (2) or No. 2 instrument panel cushion (1) for the cowl panel is damaged.
 - Replace No. 1 instrument panel cushion (2) or No. 2 instrument panel cushion (1) for the cowl panel.



(h) When reusing the No. 1 instrument panel cushion and No. 2 instrument panel cushion:

- (1) Observe marks (A) and (B) for the No. 1 instrument panel cushion and No. 2 instrument panel cushion on the windshield glass.

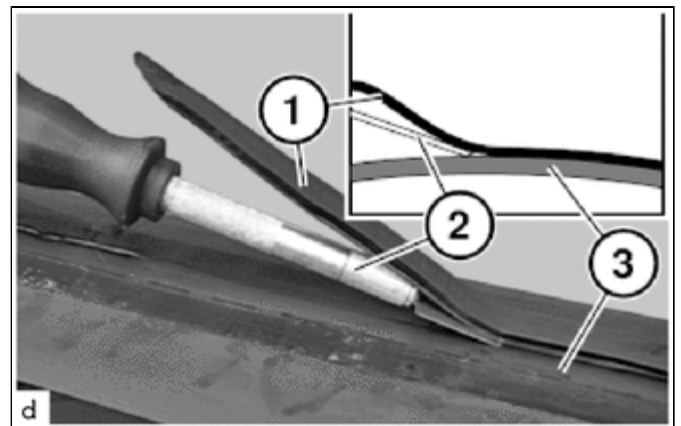


(i) When reusing the windshield glass:

- (1) Position the scraper (2) as shown and remove the residual adhesive bead (1) up to remaining thickness.

Standard Dimension:

AREA	DIMENSION
Remaining thickness of adhesive bead	0.5 mm (0.0197 in.)



(j) Apply glass activator to the windshield glass (3) so that a wide line of glass activator is located next to the squeezed adhesive bead.

Glass activator:

Repair Kit, Window Glass, Cold, 1 Hour

NOTICE:

- The glass activator is used for adhesion between glass or ceramic glass and the adhesive. Therefore, a thin, homogeneous and continuous line of glass activator must be applied. If the windshield glass is to be reused with a cut-back adhesive bead, glass activator is not needed.

- The glass activator may not be applied in the field of view or the point grid. Fresh glass activator in the field of view must immediately be wiped off because hardened glass activator will leave a haze behind.

Cleaner:

Cleaner R2

HINT:

- Protrusion of glass activator against the compressed adhesive bead: 1.0 to 2.0 mm (0.0394 to 0.0787 in.)
- Allow the glass activator to dry for 2 minutes.

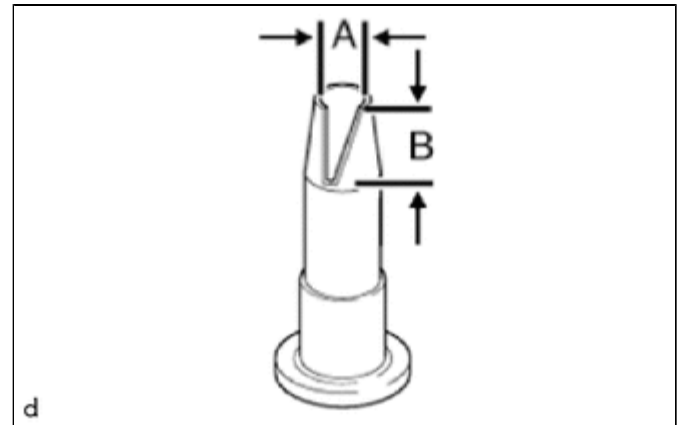
(k) Prepare the glue cartridge with the standard nozzle C.

Standard Nozzle C:

Repair Kit, Window Glass, Cold, 1 Hour

Standard Dimension:

AREA	DIMENSION
A	7.0 to 9.0 mm (0.276 to 0.354 in.)
B	11 to 13 mm (0.433 to 0.512 in.)



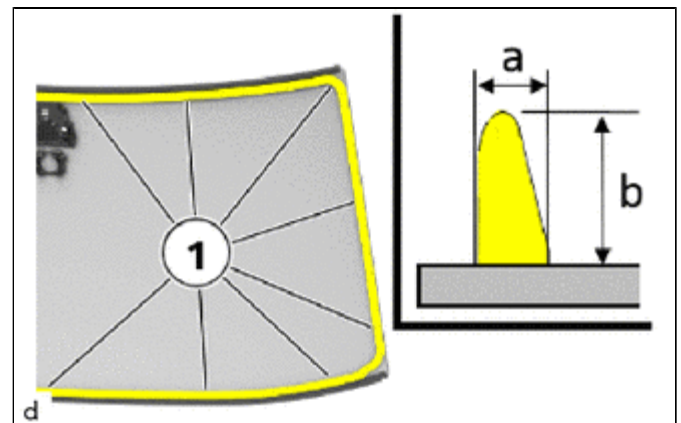
(l) Apply adhesive bead within the marks (1) on the windshield glass.

Adhesive:

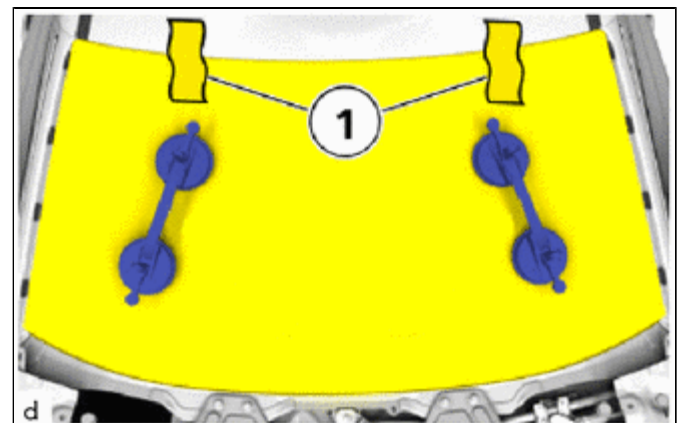
Repair Kit, Window Glass, Cold, 1 Hour

Standard Dimension:

AREA	DIMENSION
a	7.0 to 9.0 mm (0.276 to 0.354 in.)
b	11 to 13 mm (0.433 to 0.512 in.)



(m) Using suction cups, carefully insert the windshield glass between the bonnet and the cowl panel.



- (n) Position the windshield glass at the top.
- (o) Evenly align the windshield glass on the left and right.
- (p) Insert and press on the windshield glass at the bottom.
- (q) Press the windshield glass towards the top until the windshield outside moulding of the windshield glass is evenly in contact with the roof.
- (r) Secure the windshield glass in this installation position using the two protective tapes (1).

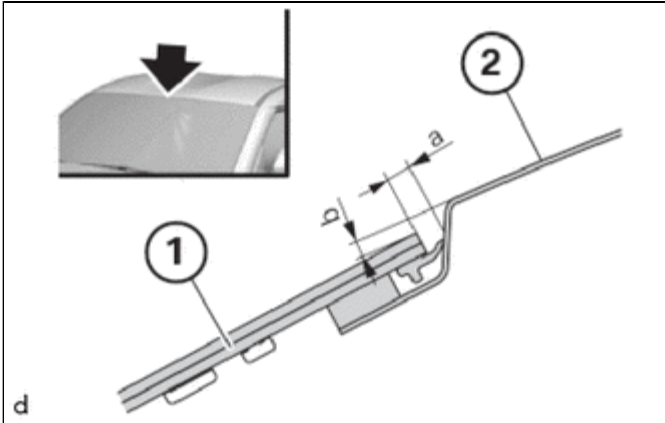
(s) Using the special tools 0 496 076 (00 9 470) and 0 495 259 (51 0 010), measuring gap dimension windshield glass to roof outer skin.

SST: 09800-WA340

SST: 09800-WA350

Standard Dimension:

AREA	DIMENSION
a	2.6 to 5.0 mm (0.102 to 0.197 in.)
b	1.1 to 3.7 mm (0.0433 to 0.146 in.)



(1)	Windshield Glass
(2)	Roof Outer Skin

3. INSTALL ROOF DRIP SIDE FINISH MOULDING LH

Click here [INFO](#)

4. INSTALL ROOF DRIP SIDE FINISH MOULDING RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here [INFO](#)

6. CHECK WIPER AND WASHER SYSTEM

- (a) Check the wiper range for streaks.
 - (1) Streaks in the wiper range.
 - (2) Replace the windshield wiper blade assembly.
- (b) Check the washer fluid contacts the windshield glass.
 - (1) The washer fluid contacts does not exit or exits unevenly.
 - (2) If applicable, replace the front washer nozzle and hose assembly.

7. INSTALL FRONT PILLAR GARNISH LH

Click here [INFO](#)

8. INSTALL FRONT PILLAR GARNISH RH

HINT:

Use the same procedure as for the LH side.

9. INSTALL FORWARD RECOGNITION CAMERA (w/ Toyota Supra Safety)

Click here [INFO](#)

10. INSTALL RAIN SENSOR

Click here [INFO](#)

11. INSTALL INNER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)

12. INSTALL INNER REAR VIEW MIRROR STAY HOLDER COVER

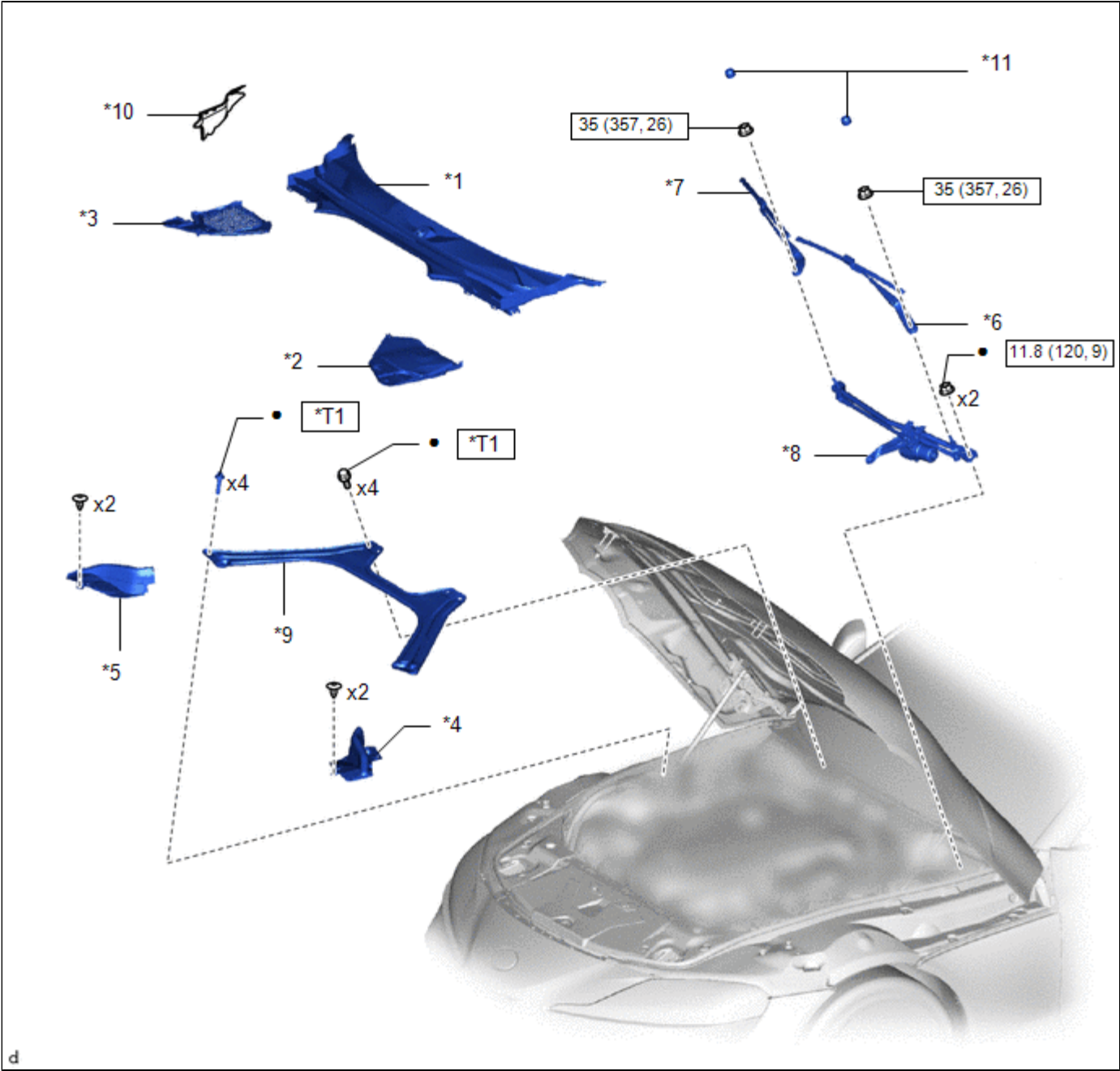
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: FRONT WIPER MOTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY	*2	COWL VENT COVER LH
*3	COWL VENT COVER RH	*4	FRONT FENDER TO COWL SIDE SEAL LH

*5	FRONT FENDER TO COWL SIDE SEAL RH	*6	FRONT WIPER ARM AND BLADE ASSEMBLY LH
*7	FRONT WIPER ARM AND BLADE ASSEMBLY RH	*8	FRONT WIPER MOTOR AND LINK ASSEMBLY
*9	UPPER FRONT SUSPENSION CENTER BRACE	*10	WATER GUARD PLATE RH
*11	FRONT WIPER ARM HEAD CAP	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
*T1	1st: 56 N*m (571 kgf*cm, 41 ft.*lbf) 2nd: Turn 90°	-	-



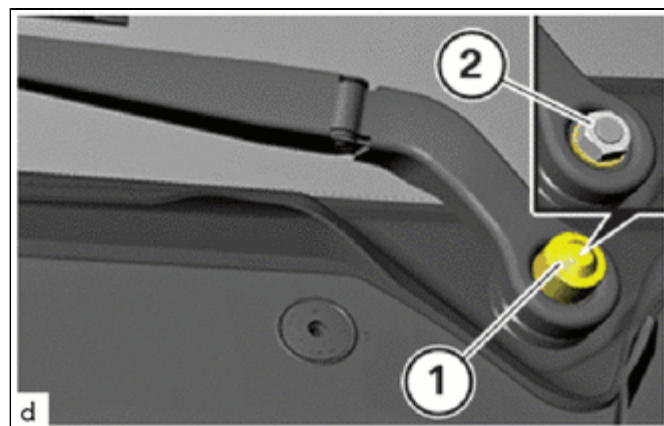
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: FRONT WIPER MOTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH

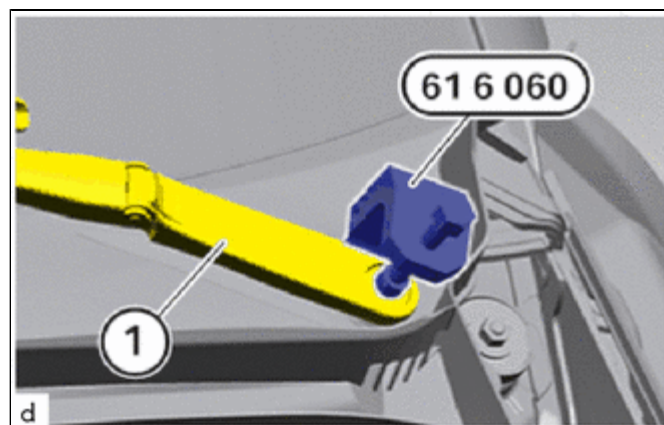
(a) Remove the front wiper arm head cap (1).



(b) Using a socket wrench 16 mm, remove nut (2).

(c) Using special tool 0 493 441 (61 6 060), pull off the front wiper arm and blade assembly LH (1).

SST: 09800-WA020



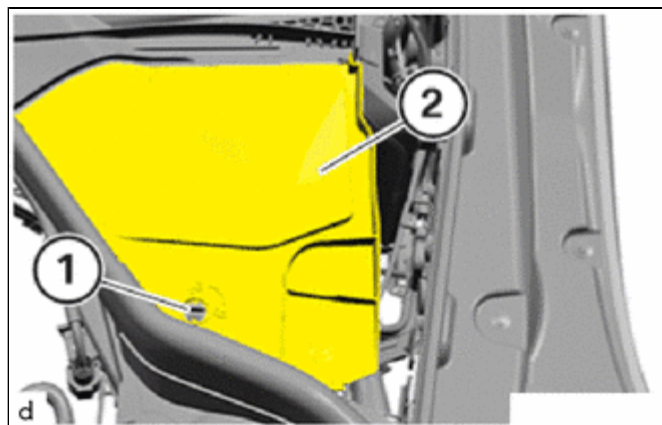
2. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH

HINT:

Description is for left component only. Procedure on the right side is identical.

3. REMOVE COWL VENT COVER LH

(a) Disengage the lock (1).

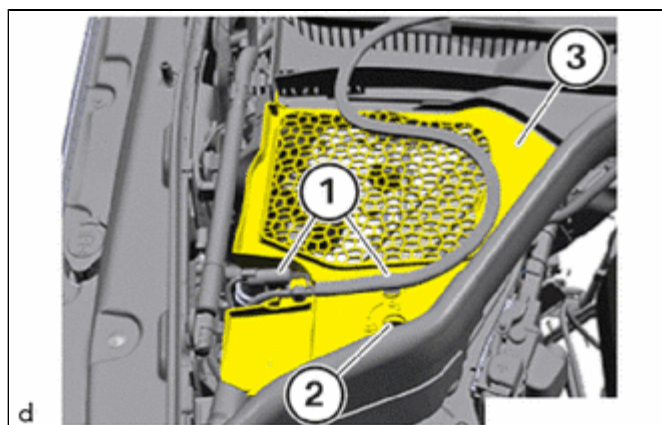


(b) Remove cowl vent cover LH (2).

4. REMOVE COWL VENT COVER RH

(a) for Type A:

(1) Disconnect the connector and washer nozzle and hose assembly (1) from the cowl vent cover RH (3).

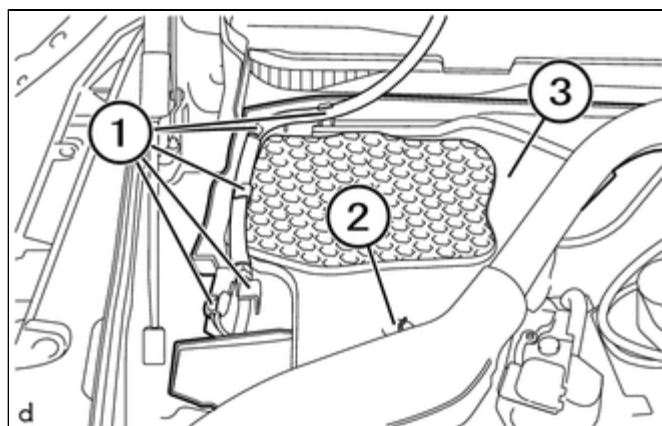


(2) Disengage the lock (2).

(3) Remove the cowl vent cover RH (3).

(b) for Type B:

(1) Disconnect the connector and washer nozzle and hose assembly (1) from the cowl vent cover RH (3).

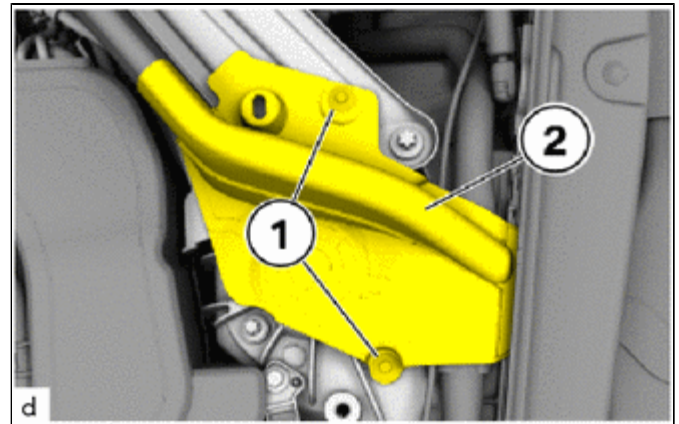


(2) Disengage the lock (2).

(3) Remove the cowl vent cover RH (3).

5. REMOVE FRONT FENDER TO COWL SIDE SEAL LH

(a) Remove the clips (1).



(b) Remove front fender to cowl side seal LH (2).

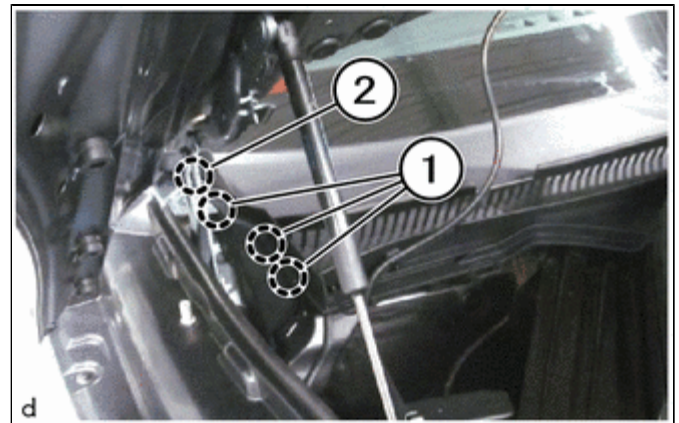
6. REMOVE FRONT FENDER TO COWL SIDE SEAL RH

HINT:

Description is for left component only. Procedure on the right side is identical.

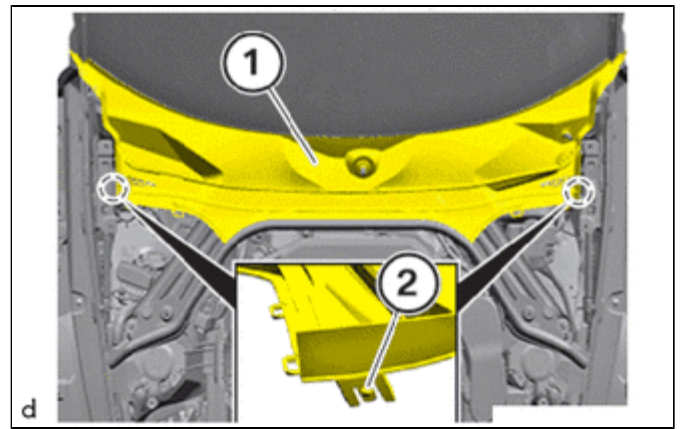
7. REMOVE WATER GUARD PLATE RH

(a) Disengage the claws (1) and guide (2) to remove the water guard plate RH.

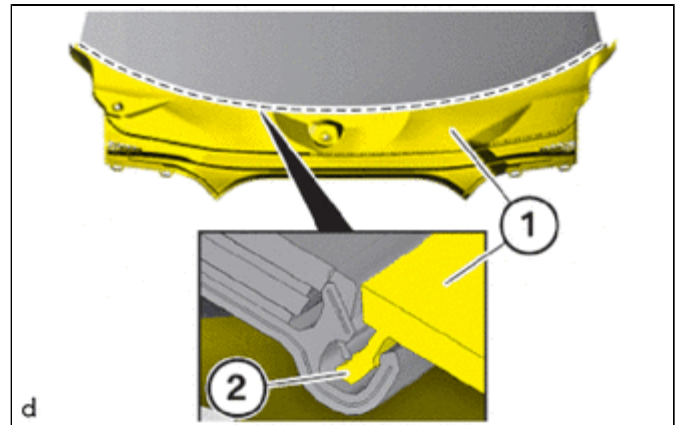


8. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

(a) Disengage the claws (2) to disconnect the cowl top ventilator louver sub-assembly (1).



(b) Pull the cowl top ventilator louver sub-assembly (1) upward out of the claw (2) beginning on the side.

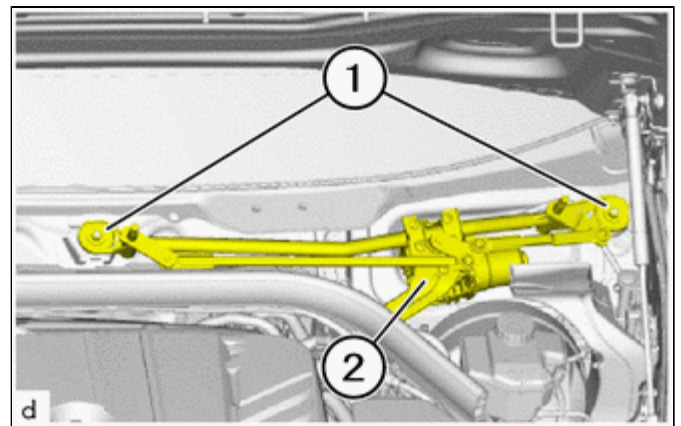


9. REMOVE UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

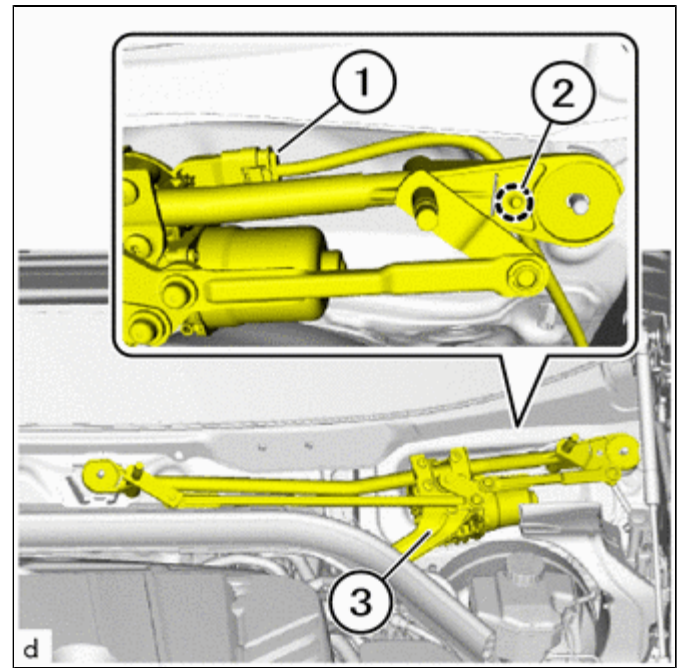
10. REMOVE FRONT WIPER MOTOR AND LINK ASSEMBLY

(a) Remove the nuts (1).



(b) Disengage the guide (2).

(c) Disengage the clamp (2).



(d) Disconnect the connector (1) to remove the front wiper motor and link assembly (3).

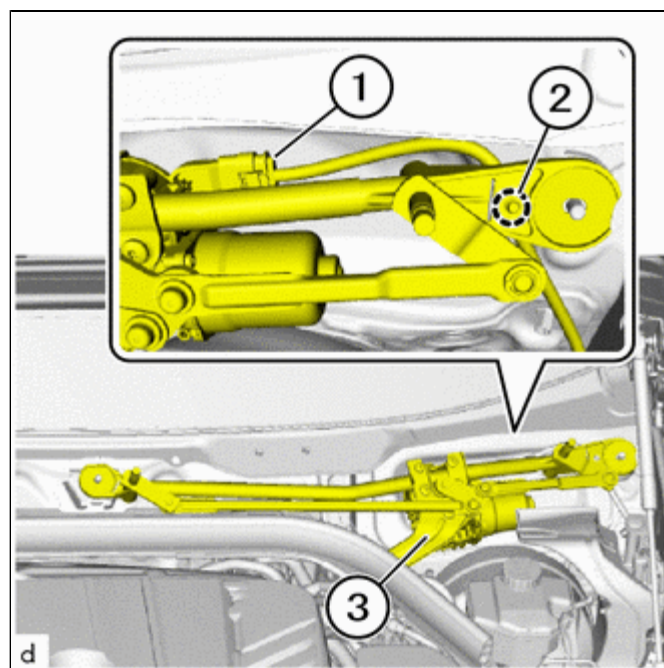
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: FRONT WIPER MOTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

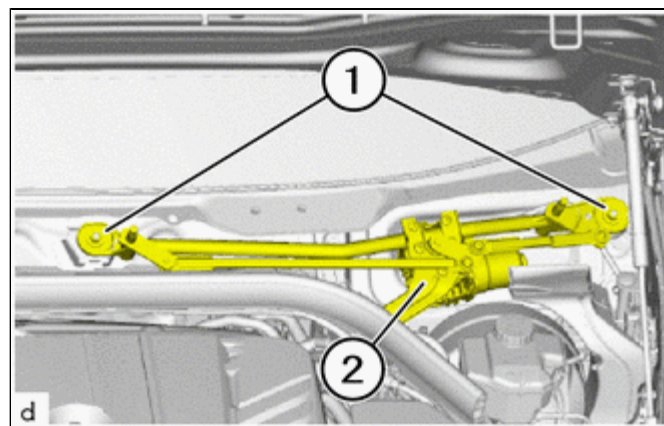
1. INSTALL FRONT WIPER MOTOR AND LINK ASSEMBLY

(a) Connect the connector (1).



(b) Engage the guide (3) and clamp (2).

(c) Install the front wiper motor and link assembly (2).



(d) Install a new nuts (1).

Torque:

11.8 N·m {120 kgf·cm, 9 ft·lbf}

2. INSTALL UPPER FRONT SUSPENSION CENTER BRACE

Click here [INFO](#)

3. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

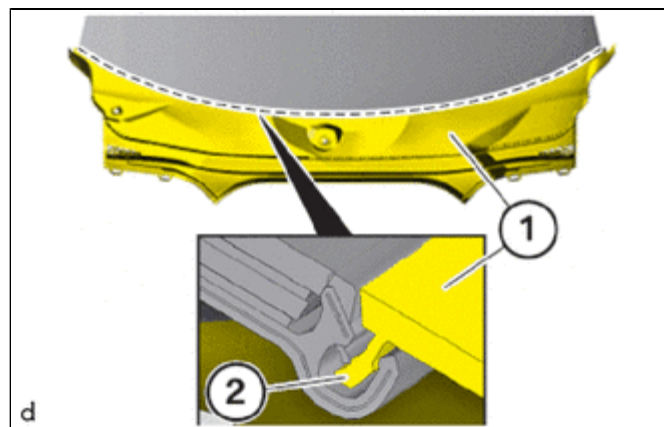
NOTICE:

- Damage caused by water ingress into the vehicle.

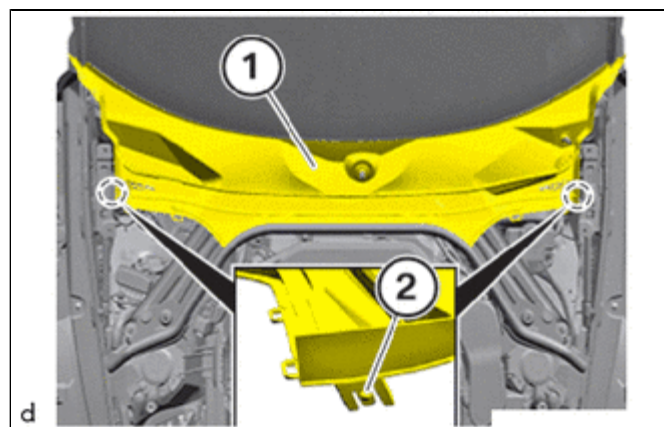
Water ingress into the vehicle may result in damage to components, malfunctions and corrosion.

- Ensure correct installation of the components.
- Only use undamaged components.

(a) Push the cowl top ventilator louver sub-assembly (1) into the claw (2) beginning on the side.

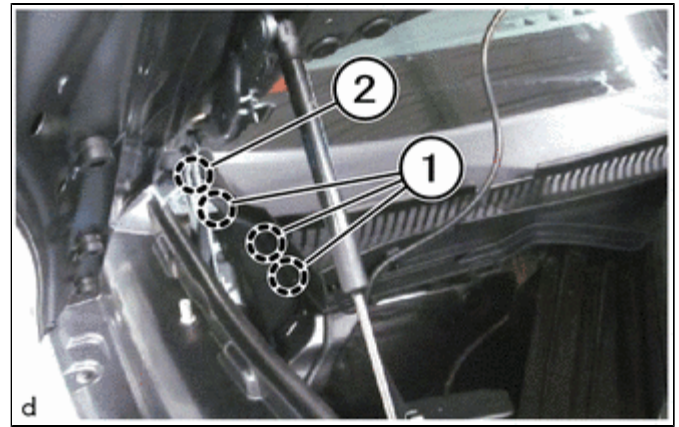


(b) Engage the cowl top ventilator louver sub-assembly (1) in the claws (2).



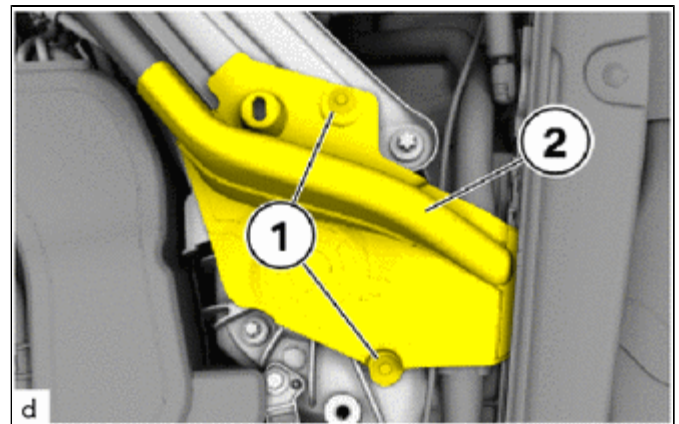
4. INSTALL WATER GUARD PLATE RH

(a) Engage the guide (2) and claws (1) to install the water guard plate RH.



5. INSTALL FRONT FENDER TO COWL SIDE SEAL LH

(a) Install front fender to cowl side seal LH (2).



(b) Install clips (1).

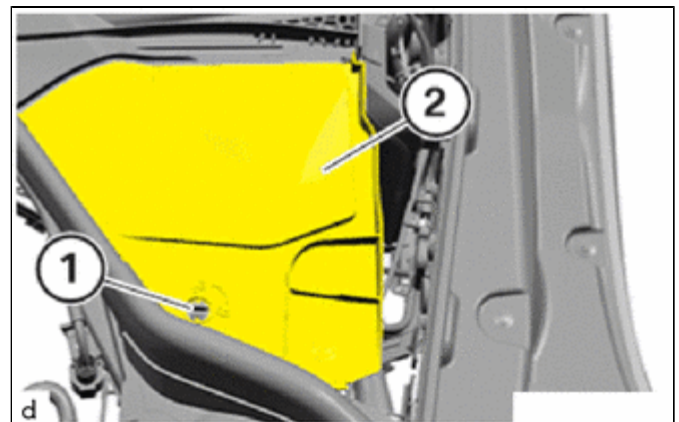
6. INSTALL FRONT FENDER TO COWL SIDE SEAL RH

HINT:

Description is for left component only. Procedure on the right side is identical.

7. INSTALL COWL VENT COVER LH

(a) Install the cowl vent cover LH (2).

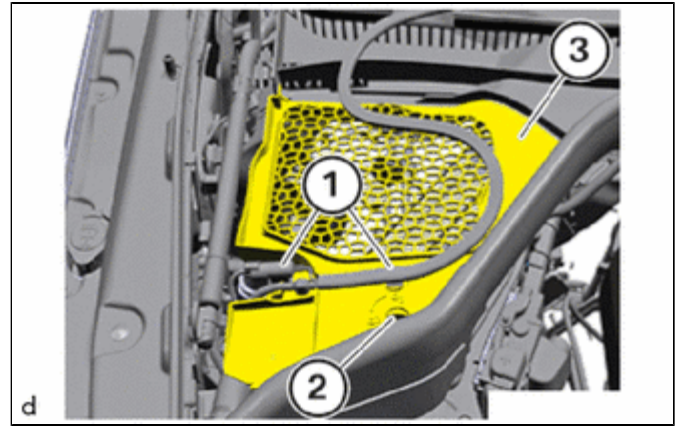


(b) Engage the lock (1).

8. INSTALL COWL VENT COVER RH

(a) for Type A:

(1) Install the cowl vent cover RH (3).

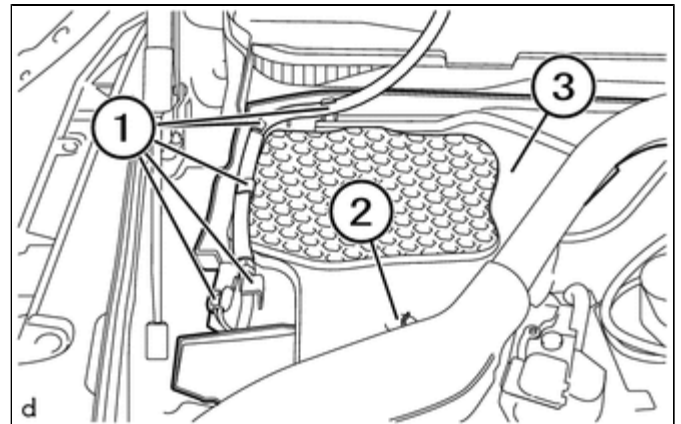


(2) Engage the lock (2).

(3) Connect the connector and the washer nozzle and hose assembly (1) to the cowl vent cover RH (3).

(b) for Type B:

(1) Install the cowl vent cover RH (3).

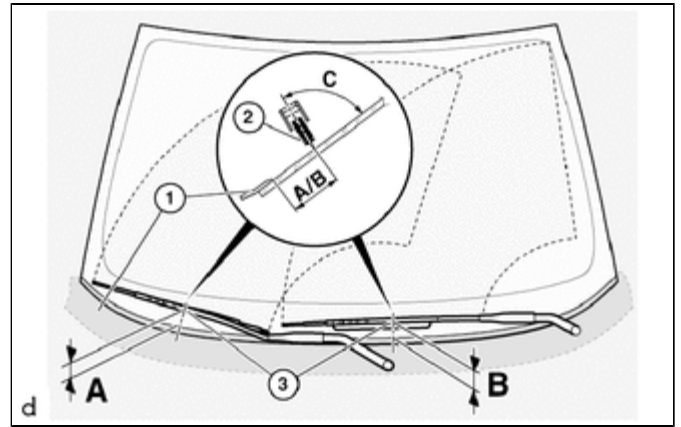


(2) Engage the lock (2).

(3) Connect the connector and the washer nozzle and hose assembly (1) to the cowl vent cover RH (3).

9. INSPECT FRONT WIPER ARM AND BLADE ASSEMBLY

(a) Connect the front wiper arm and blade assembly (3).



(b) Correctly position the front wiper arm and blade assembly (2) in relation to the windshield glass edge (1).

Distance from windshield glass edge to wiper blade:

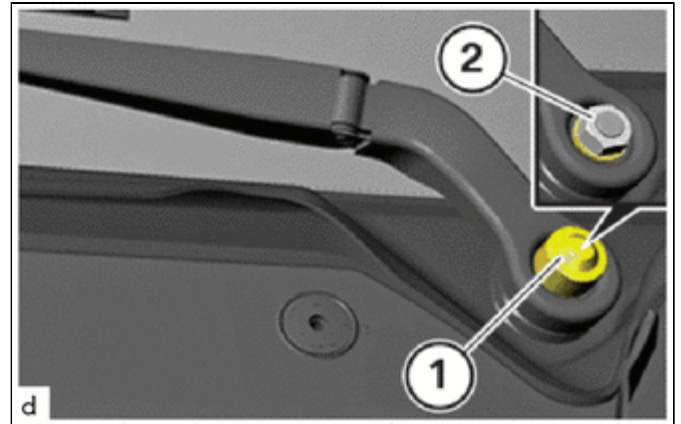
AREA	DIMENSION
A	65.0 mm (2.56 in.)
B	58.0 mm (2.28 in.)

10. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH

(a) Using a socket wrench 16 mm, tighten nut (2).

Torque:

35.0 N·m {357 kgf·cm, 26 ft·lbf}



(b) Install the front wiper arm head cap (1).

11. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH

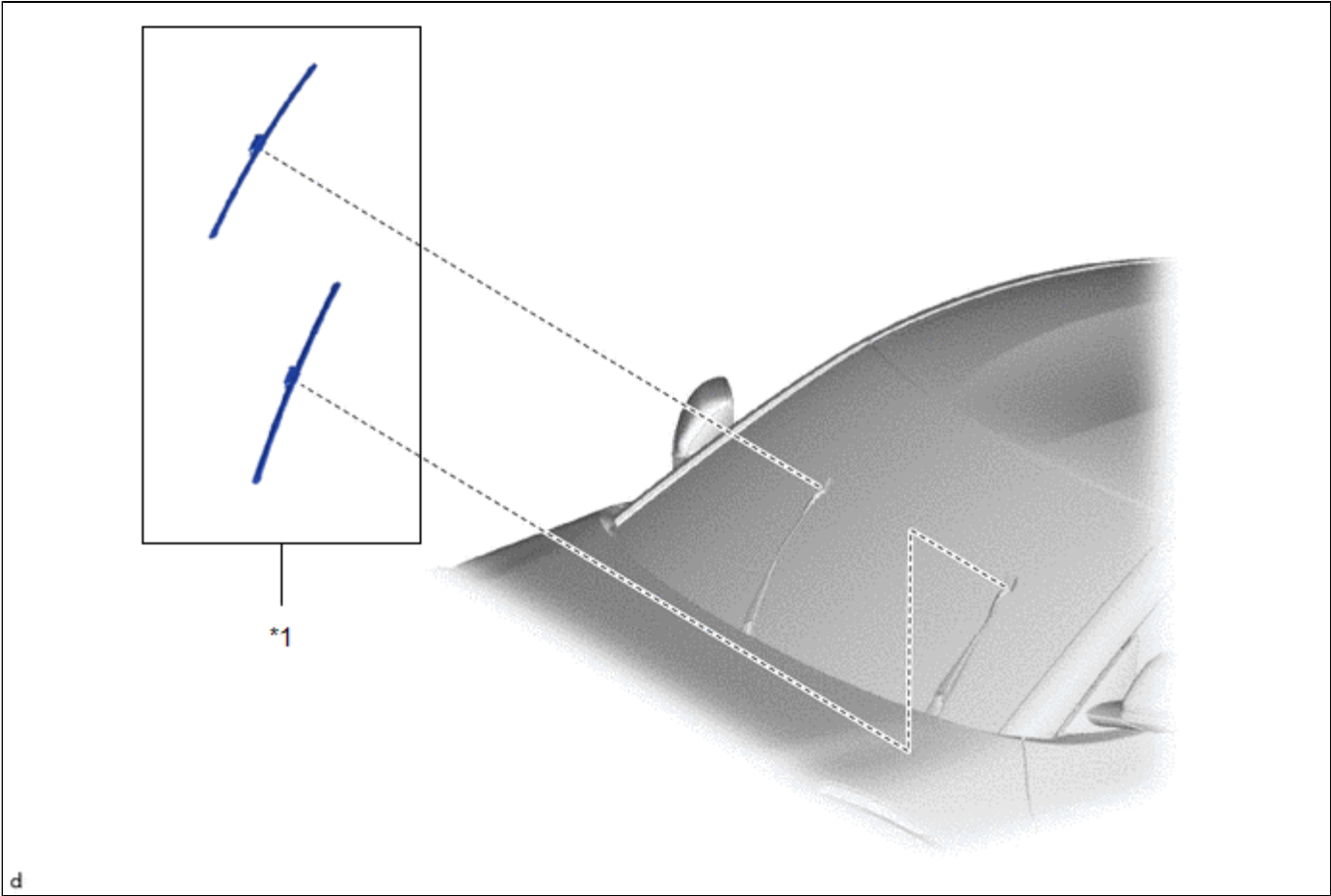
HINT:

Description is for left component only. Procedure on the right side is identical.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: FRONT WIPER RUBBER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT WIPER BLADE	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: FRONT WIPER RUBBER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: FRONT WIPER RUBBER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

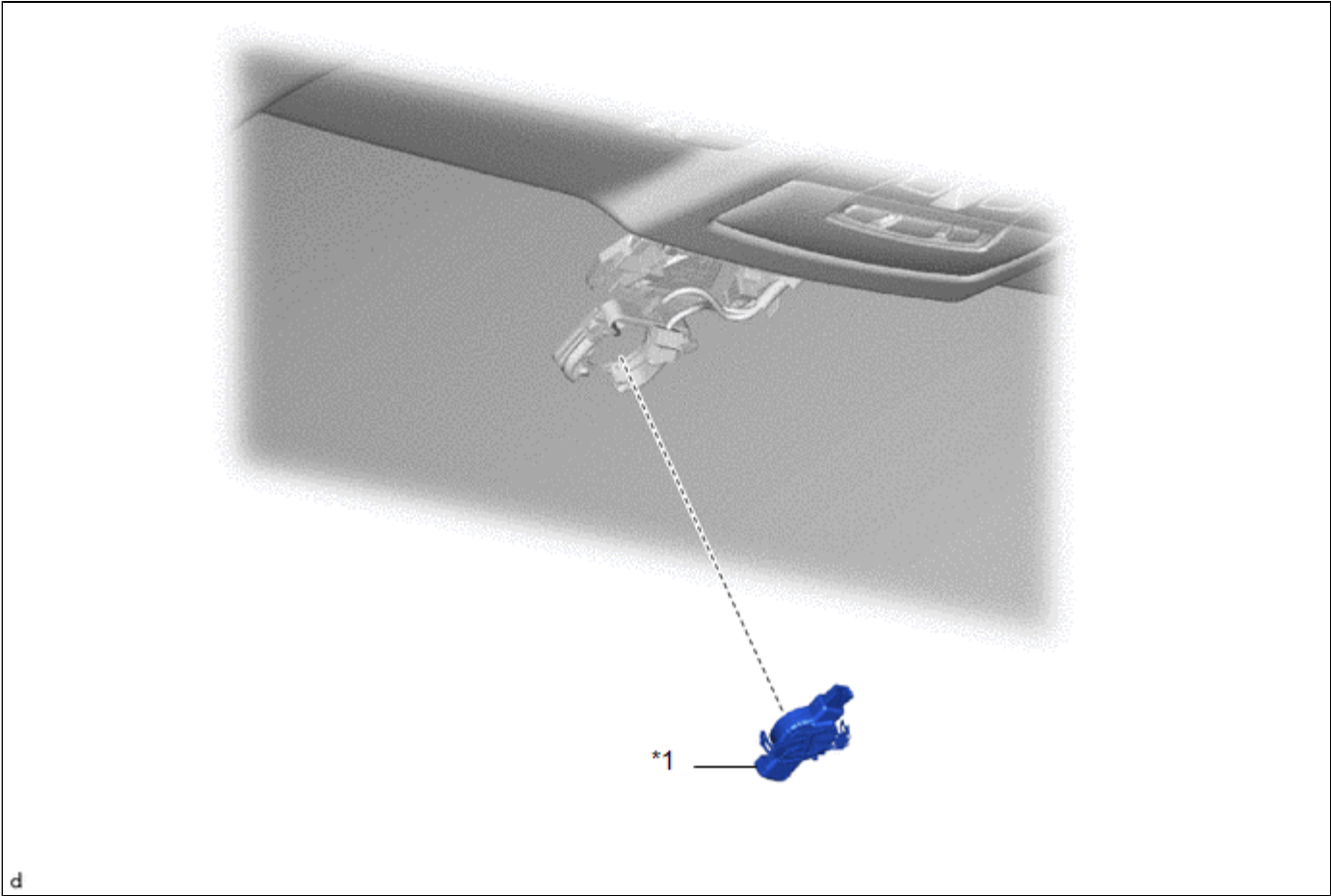
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCD6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: RAIN SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RAIN SENSOR	-	-
----	-------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCD7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: RAIN SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE INNER REAR VIEW MIRROR ASSEMBLY

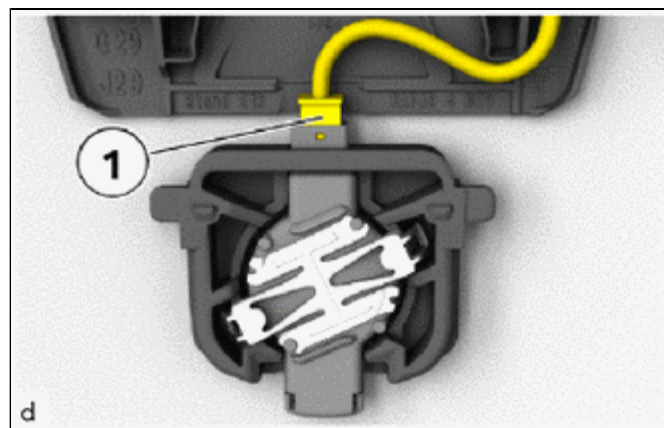
Click here [INFO](#)

2. REMOVE RAIN SENSOR

NOTICE:

When replacing windshield glass: Immediately install the rain sensor on the new windshield glass.

(a) Disconnect the connector (1).



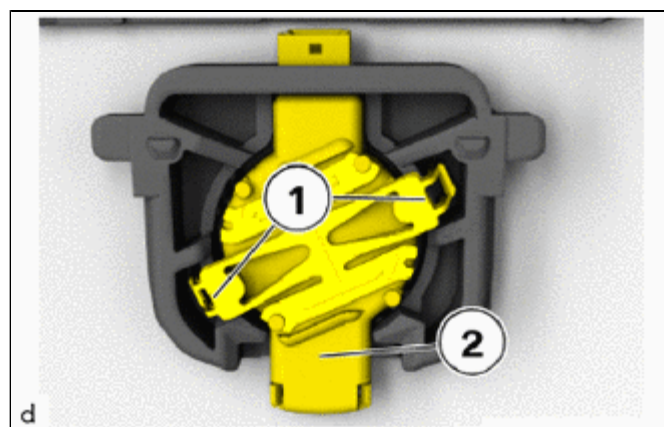
(b) Push in retaining springs (1) on both sides and disengage the lock by means of a screwdriver.

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor (2).

- Do not touch or damage the silicone-coated surface on the rain sensor (2).



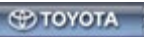
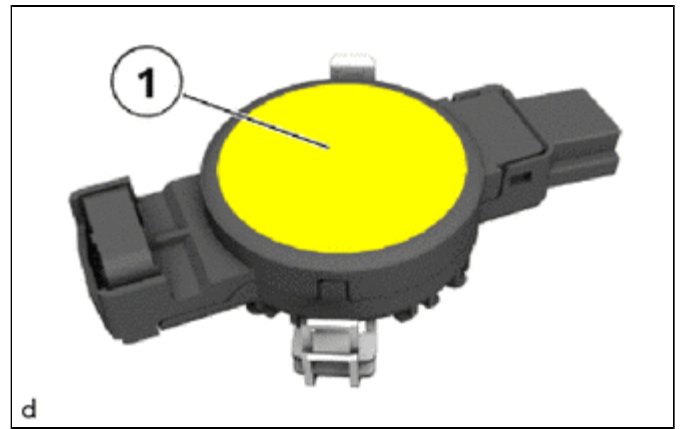
(c) Remove the rain sensor slowly off the windshield glass. At the same time, monitor the release of the silicone area (1) from outside.

NOTICE:

The silicone surface must evenly loosen from the windshield glass, if applicable, lower the pull-off force.

HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: RAIN SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL RAIN SENSOR

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor.

- Do not touch or damage the silicone-coated surface on the rain sensor.

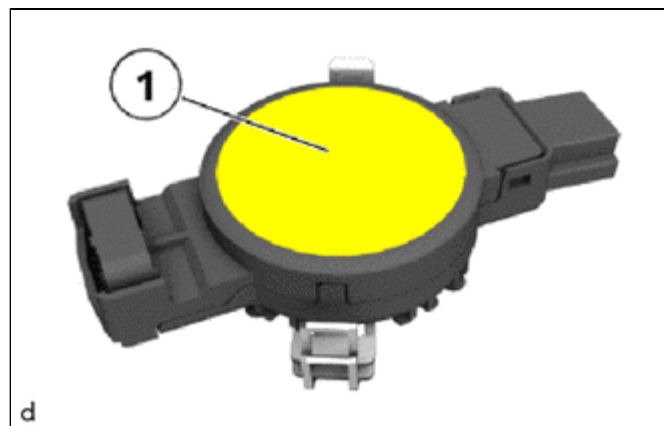
HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.

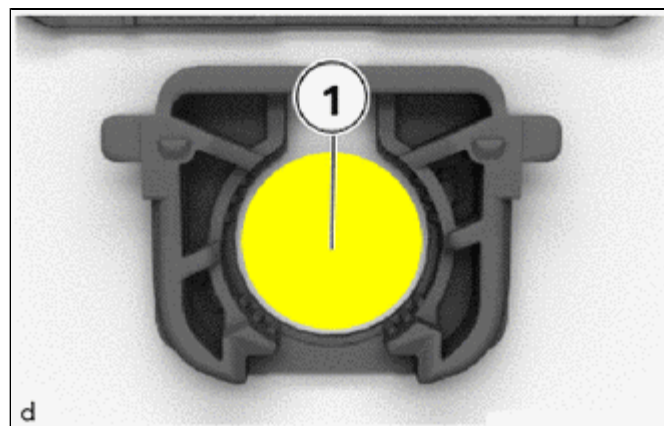
(a) Check silicone surface (1) for damage.

HINT:

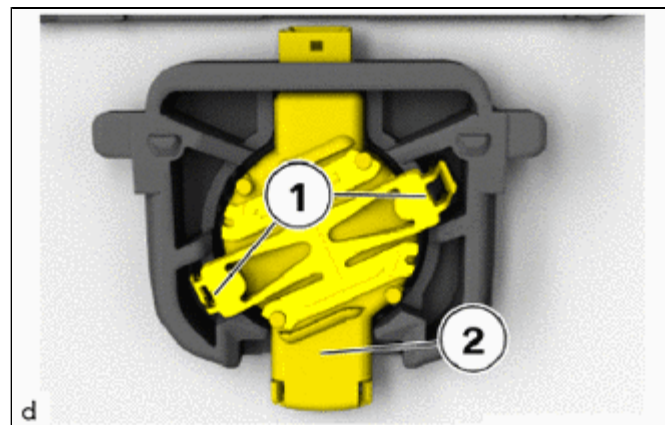
- Silicone surface (1) is damaged.
 - Replace rain sensor.



(b) Carefully clean windshield glass in the contact area (1) of rain sensor.



(c) Install the rain sensor (2) into the holder and press on centered on the retaining springs (1).

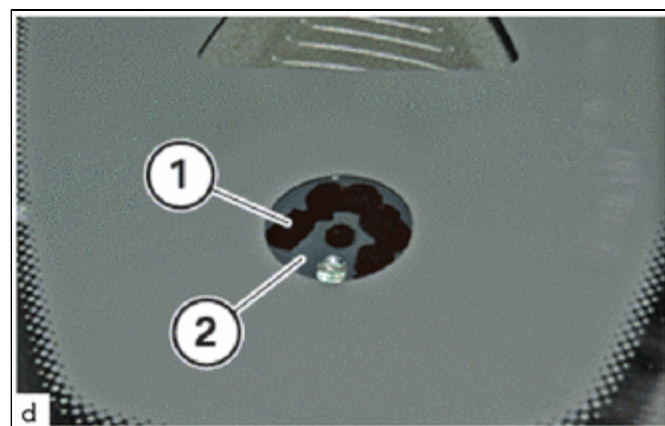


(d) Successively press down the retaining springs (1) on each side to lock it.

(e) Check contact surfaces for air pockets from the outside.

HINT:

- Visible shadows (1) are not air pockets, but the optical element of the rain sensor (2).
- The shadows (1) do not indicate a functional limitation.
- Contact surface has air pockets.
 - Remove the rain sensor and install again.



(f) Connect the connector.

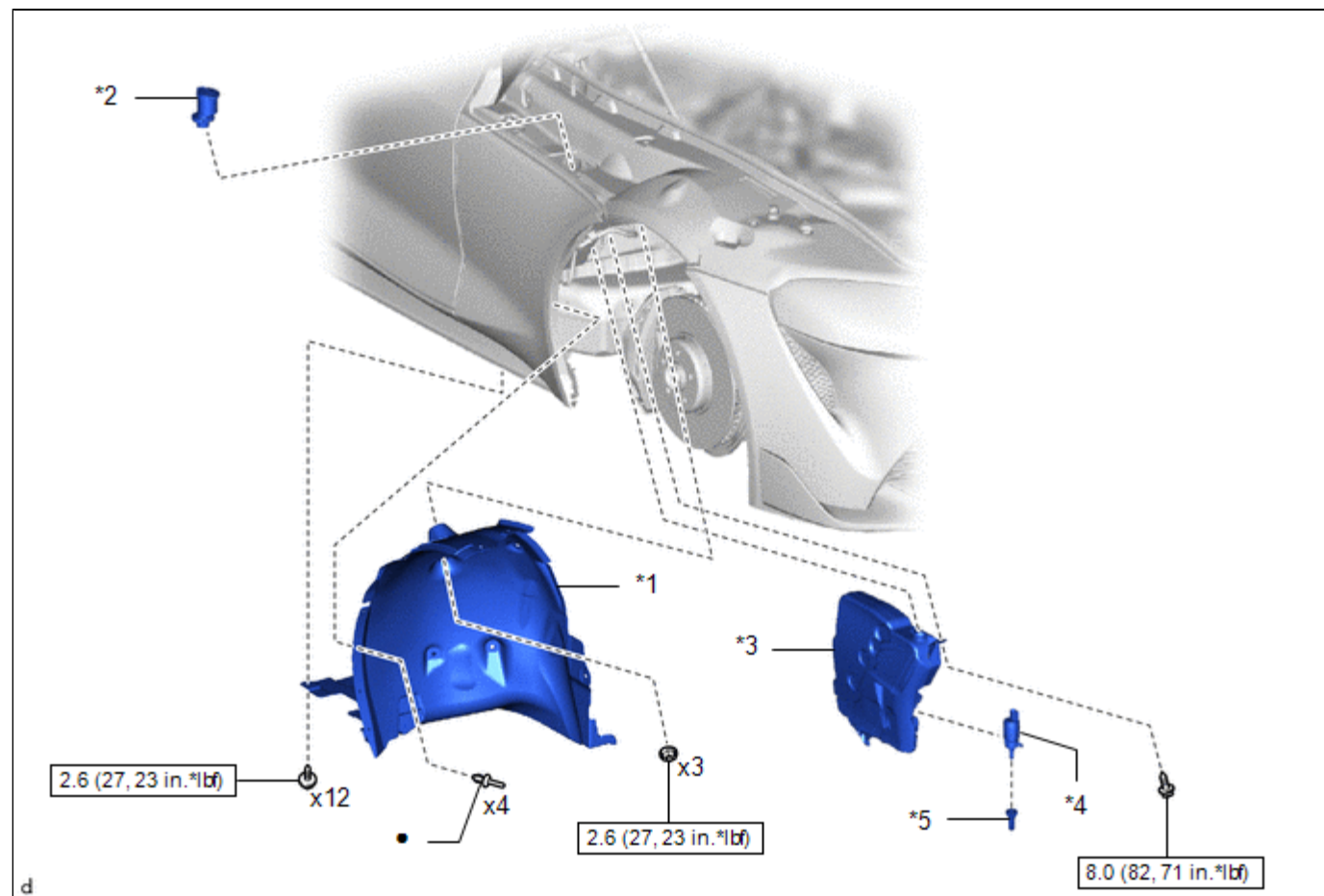
2. INSTALL INNER REAR VIEW MIRROR ASSEMBLY



Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCD0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WASHER MOTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT NO. 2 FENDER LINER RH	*2	WASHER INLET SUB-ASSEMBLY
*3	WINDSHIELD WASHER JAR ASSEMBLY	*4	WINDSHIELD WASHER MOTOR AND PUMP ASSEMBLY
*5	STRAINER WITH SEAL	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCD1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WASHER MOTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT WHEEL RH

Click here [INFO](#)

2. REMOVE FRONT NO. 2 FENDER LINER RH

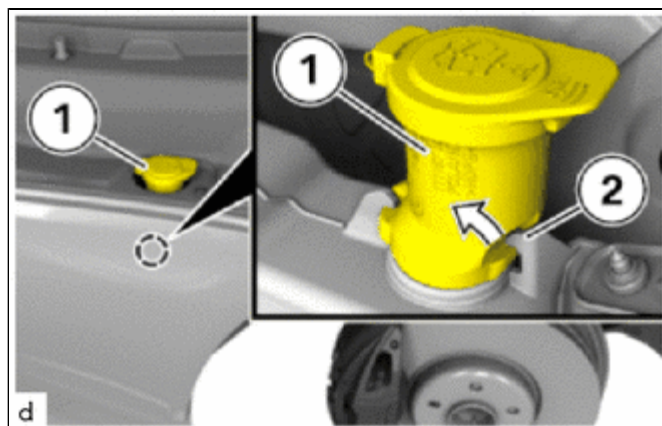
HINT:

Use the same procedure as for the LH side.

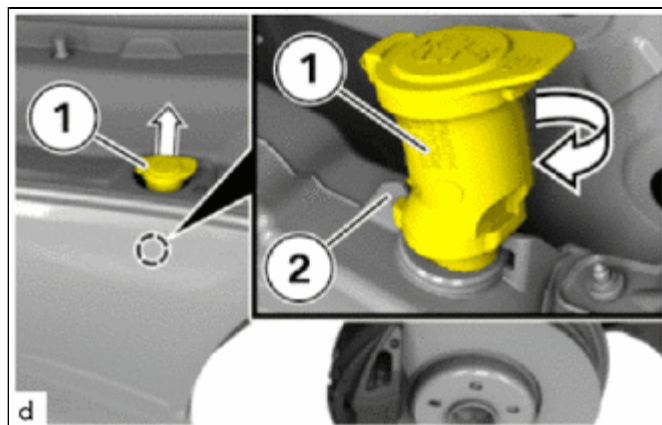
Click here [INFO](#)

3. REMOVE WASHER INLET SUB-ASSEMBLY

- (a) Disengage the washer inlet sub-assembly (1) out of the front tabs (2) in the direction of the arrow.

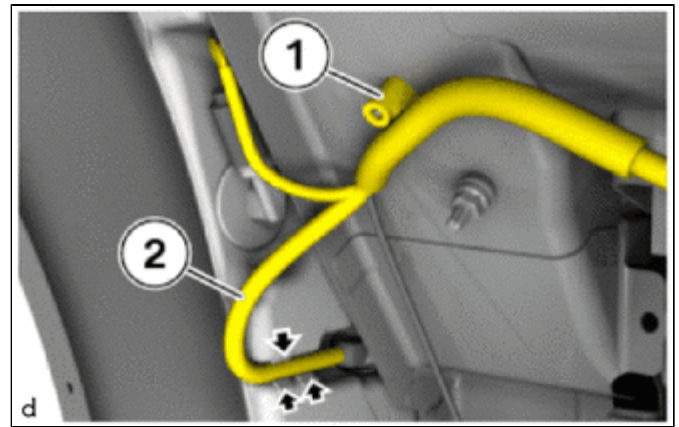


- (b) Remove washer inlet sub-assembly (1) in direction of arrow and feed out from rear tabs (2).

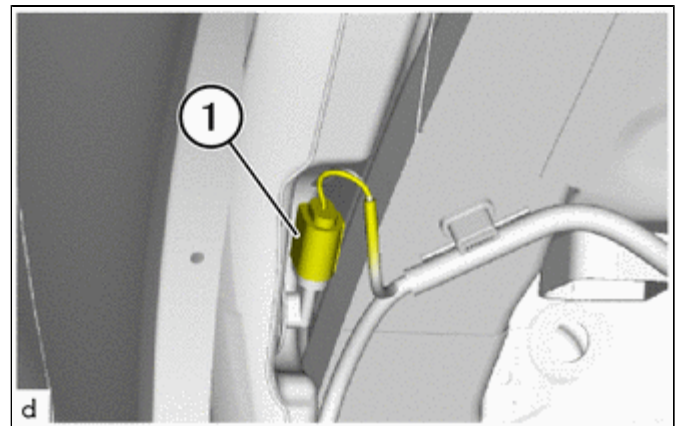


4. REMOVE WINDSHIELD WASHER JAR ASSEMBLY

(a) Disengage the clamp (1).

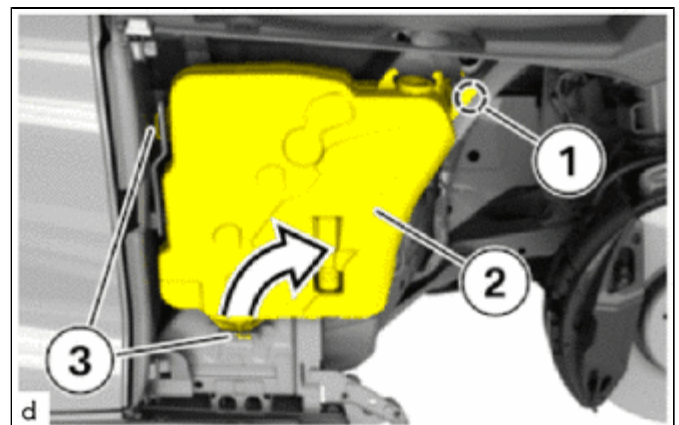


(b) Disengage the washer hose (2) in the marked area (arrows).



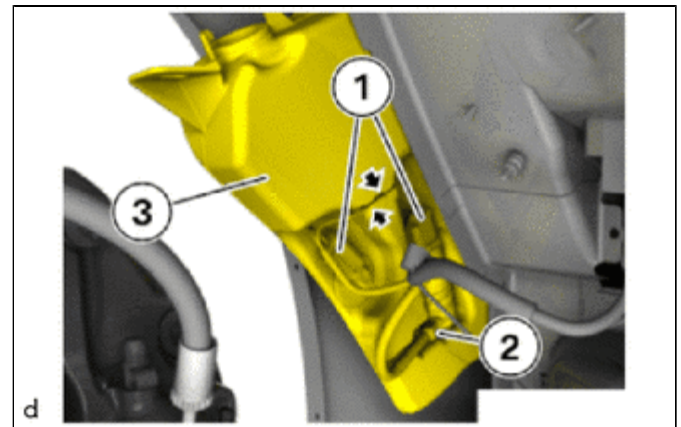
(c) Disconnect the connector (1).

(d) Remove the screw (1).



(e) Tilt the windshield washer jar assembly (2) from the guides (3) in the direction of arrow.

(f) Disengage the wire harness in the marked area (arrows).



(g) Disconnect the connectors (1).

(h) Disconnect the washer hose at the snap fastener (2).

(i) Catch the escaping washer fluid.

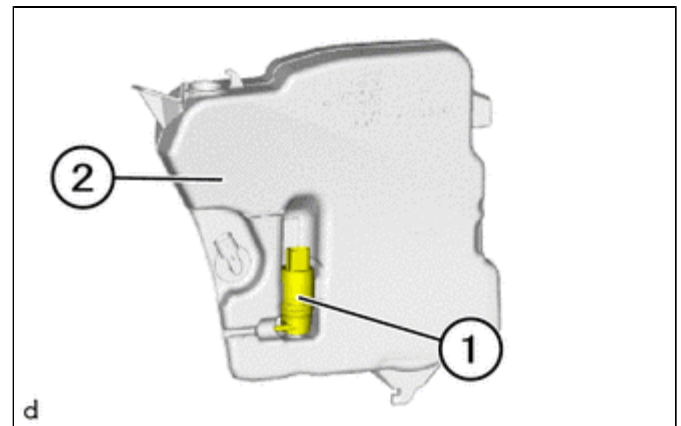
HINT:

Use a container to collect the washer fluid.

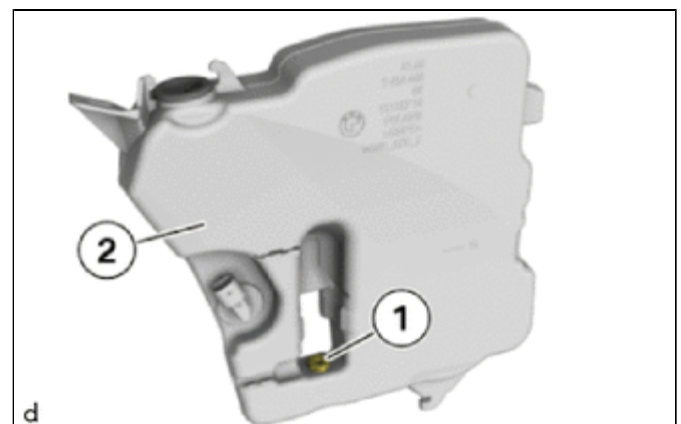
(j) Remove windshield washer jar assembly (3).

5. REMOVE WINDSHIELD WASHER MOTOR AND PUMP ASSEMBLY

(a) Remove the windshield washer motor and pump assembly (1) from the windshield washer jar assembly (2).



(b) Remove strainer with seal (1) in the windshield washer jar assembly (2).





TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCD2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WASHER MOTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

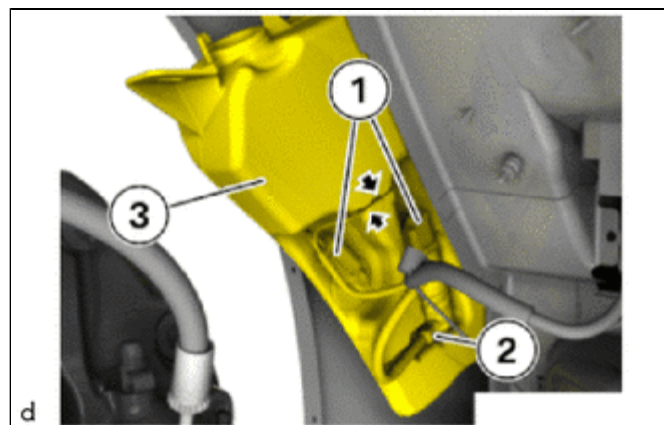
PROCEDURE

1. INSTALL WINDSHIELD WASHER MOTOR AND PUMP ASSEMBLY

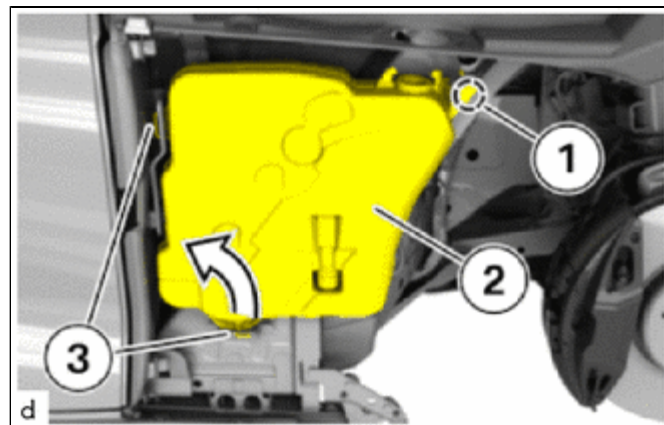
- (a) Check the strainer with seal for damage and replace if necessary.
- (b) Install strainer with seal in windshield washer jar assembly.
- (c) Install windshield washer motor and pump assembly in windshield washer jar assembly.

2. INSTALL WINDSHIELD WASHER JAR ASSEMBLY

- (a) Connect the washer hose at the snap fastener (2).



- (b) Connect connectors (1).
- (c) Engage in the line in the marked area (arrows).
- (d) Insert washer windshield washer jar assembly (3).

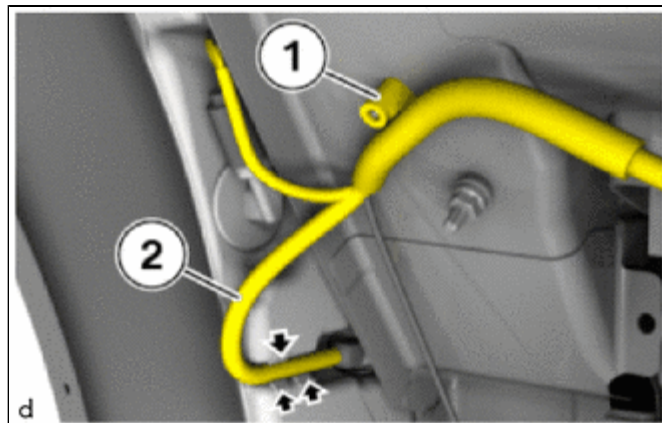


- (f) Install the screw (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

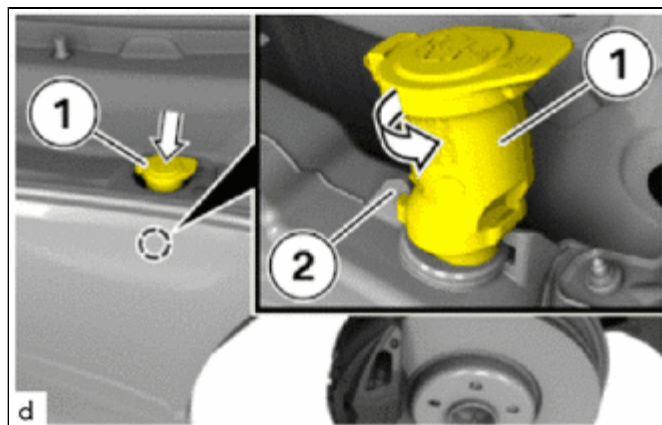
- (g) Engage in the washer hose (2) in the marked area (arrows).



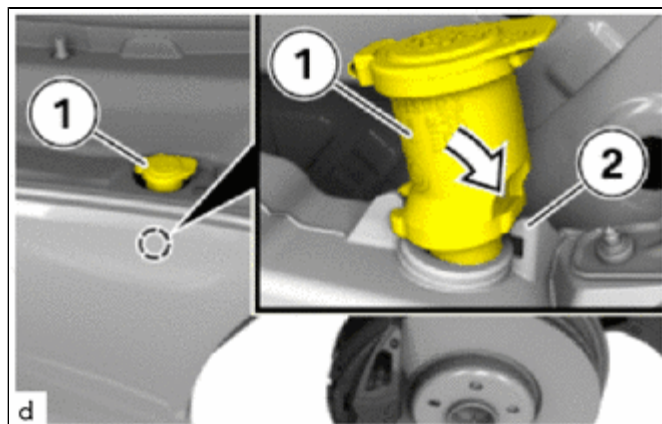
- (h) Engage the clamp (1).

3. INSTALL WASHER INLET SUB-ASSEMBLY

- (a) Engage the washer inlet sub-assembly (1) into the rear tabs (2) downwards in the direction of the arrow.



- (b) Turn the washer inlet sub-assembly (1) in the direction of the arrow towards the initial position.



- (c) Install in the washer inlet sub-assembly (1) to the front tabs (2) the direction of the arrow.

4. INSTALL FRONT NO. 2 FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

[Click here](#) [INFO](#)

5. INSTALL FRONT WHEEL RH

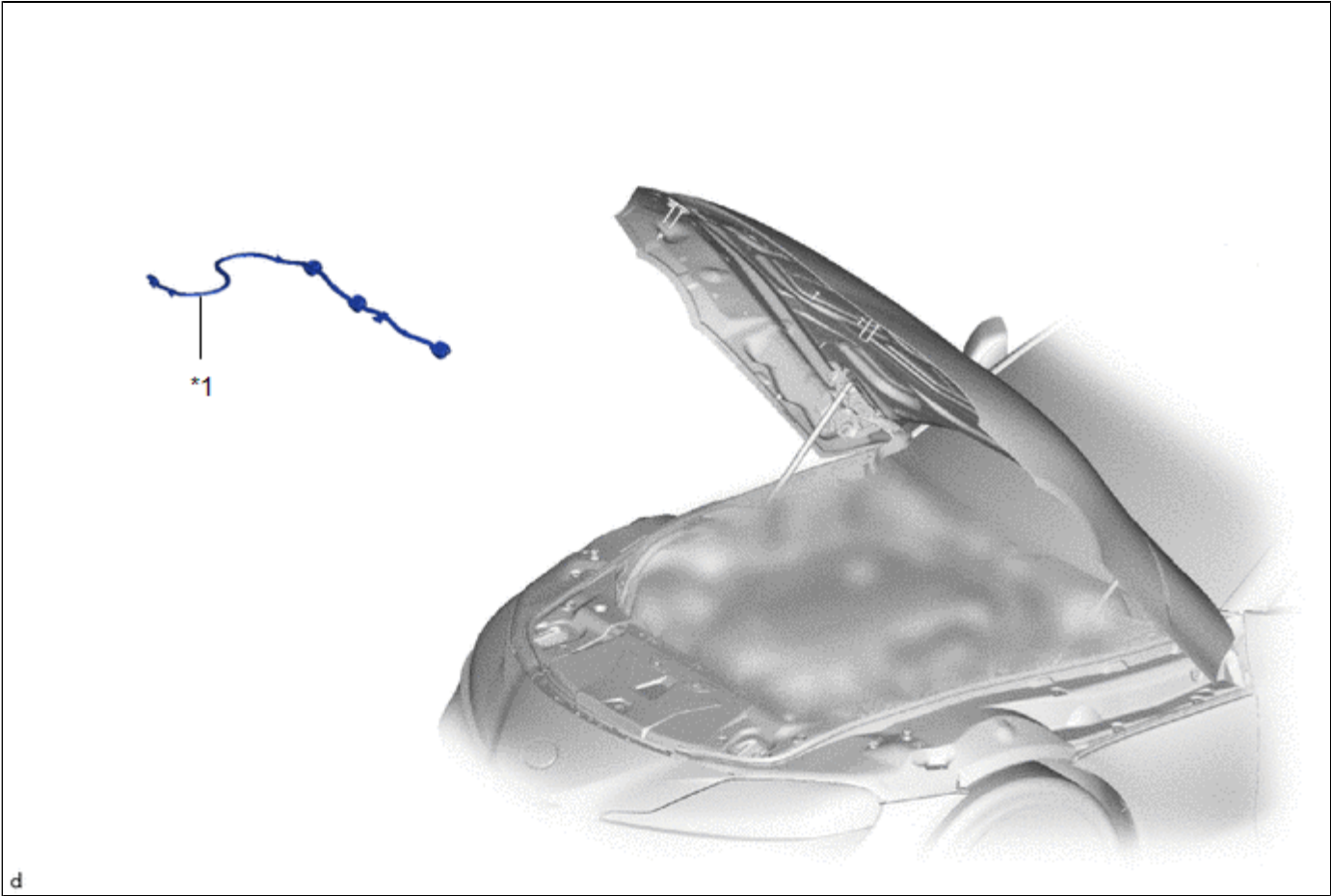
[Click here](#) [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WASHER NOZZLE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT WASHER NOZZLE AND HOSE ASSEMBLY	-	-
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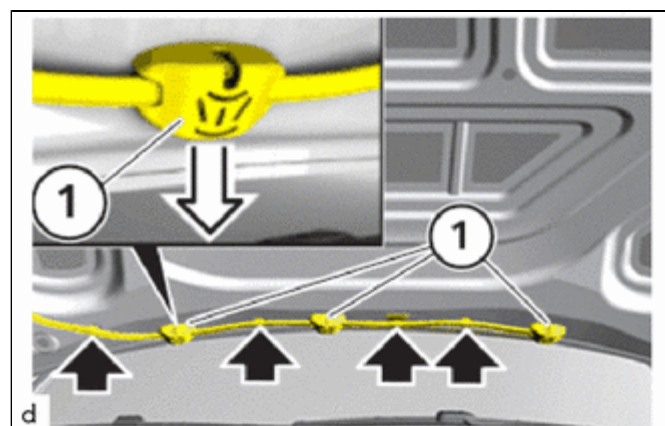
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCD4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WASHER NOZZLE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT WASHER NOZZLE AND HOSE ASSEMBLY

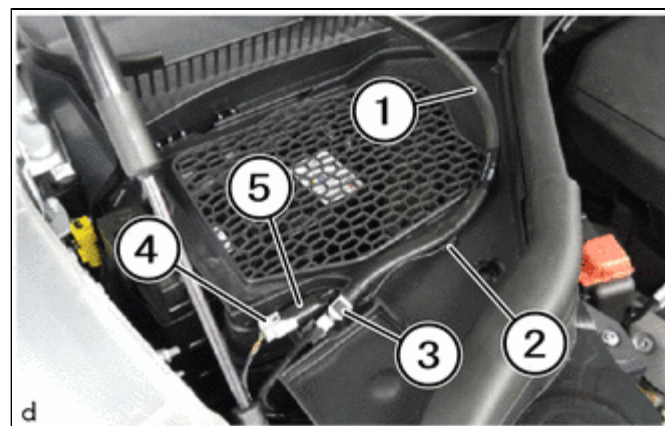
(a) Disengage the front washer nozzle and hose assembly from all brackets (arrows) at the hood sub-assembly.



(b) Disengage the front washer nozzle and hose assembly (1) towards the bottom.

(c) for Type A:

(1) Disengage the front washer nozzle and hose assembly (1) from the brackets (2).



(2) Disconnect the front washer nozzle and hose assembly (1) at the snap fastener (3).

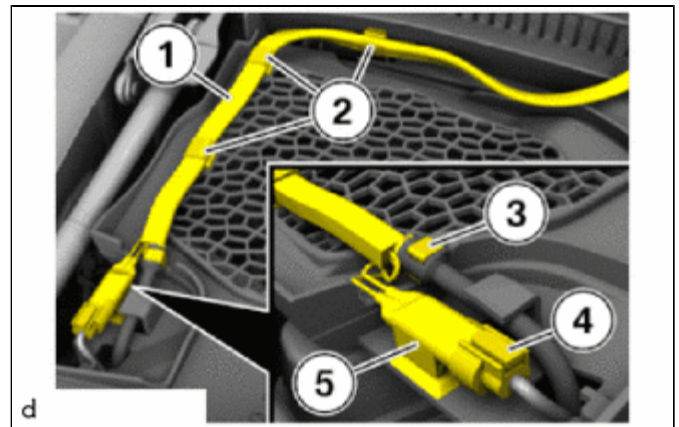
(3) Disconnect the connector (4).

(4) Disengage the connector (5) from the bracket.

(5) Remove the front washer nozzle and hose assembly (1).

(d) for Type B:

- (1) Disengage the front washer nozzle and hose assembly (1) from the brackets (2).



- (2) Disconnect the front washer nozzle and hose assembly (1) at the snap fastener (3).
- (3) Disconnect the connector (4).
- (4) Disengage the connector (5) from the bracket.
- (5) Remove the front washer nozzle and hose assembly (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WASHER NOZZLE: INSTALLATION; 2020 MY Supra [03/2019 -]		

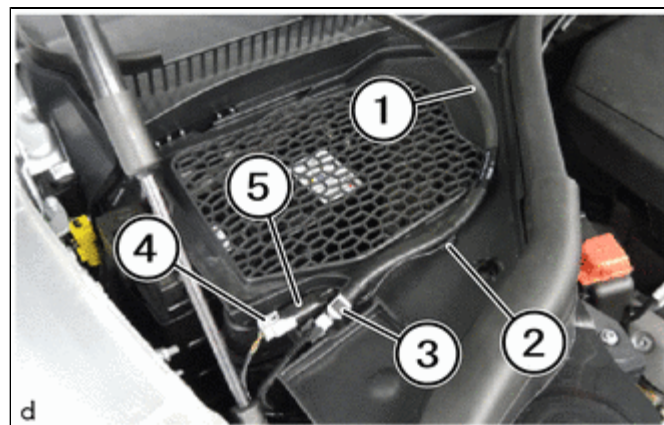
INSTALLATION

PROCEDURE

1. INSTALL FRONT WASHER NOZZLE AND HOSE ASSEMBLY

(a) for Type A:

(1) Engage the connector (5) into the bracket.



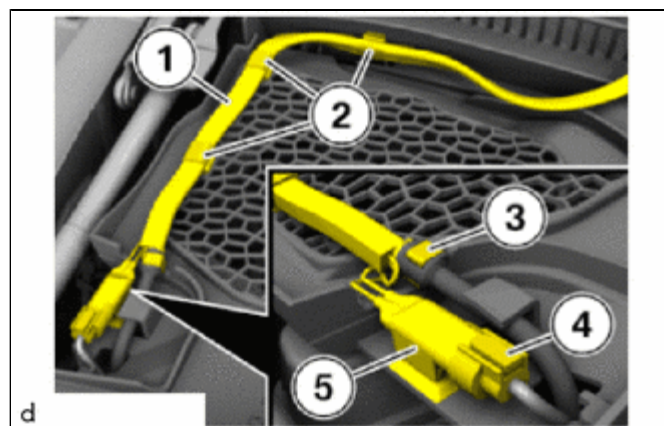
(2) Connect connectors (4).

(3) Connect the front washer nozzle and hose assembly (1) at the snap fastener (3).

(4) Engage the front washer nozzle and hose assembly (1) into the brackets (2).

(b) for Type B:

(1) Engage the connector (5) into the bracket.

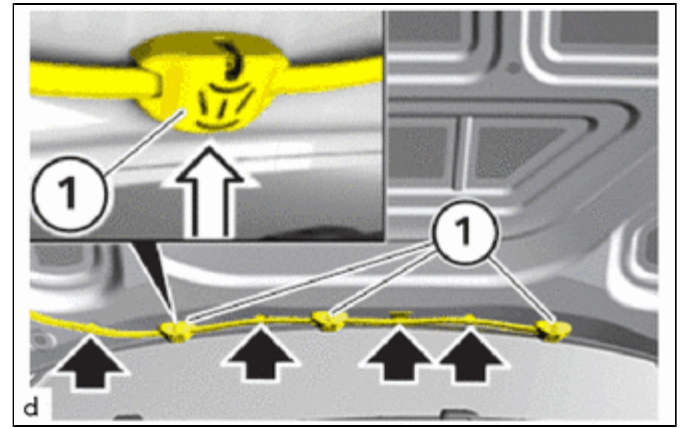


(2) Connect connectors (4).

(3) Connect the front washer nozzle and hose assembly (1) at the snap fastener (3).

(4) Engage the front washer nozzle and hose assembly (1) into the brackets (2).

(c) Engage the front washer nozzle and hose assembly (1) in at the top.

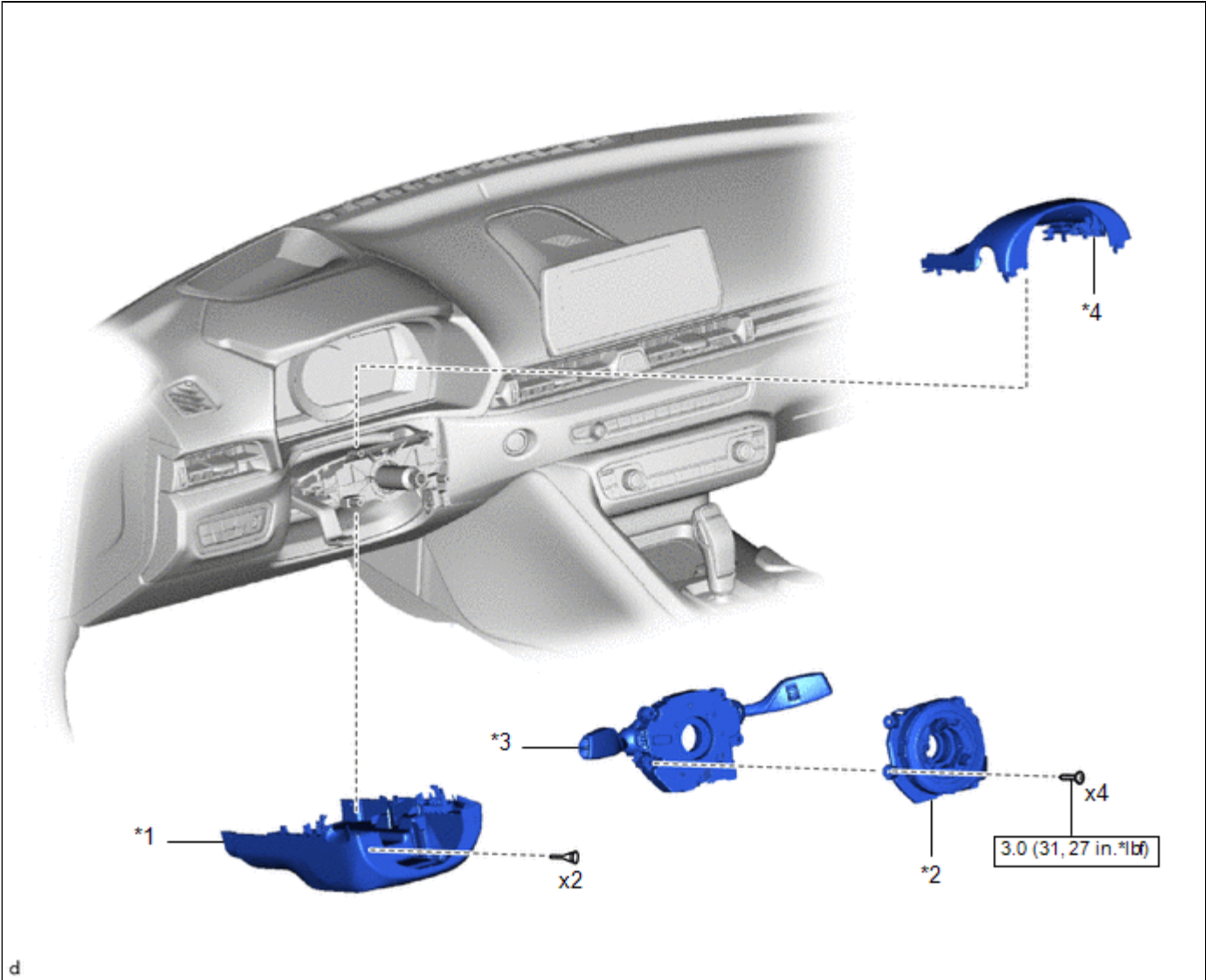


(d) Install the front washer nozzle and hose assembly into the brackets (arrows) on the hood sub-assembly.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WIPER SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LOWER STEERING COLUMN COVER	*2	SPIRAL CABLE SUB-ASSEMBLY
*3	TURN SIGNAL SWITCH ASSEMBLY	*4	UPPER STEERING COLUMN COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WIPER SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: Safety regulations on handling components with gas generators.

[Click here](#) [INFO](#)

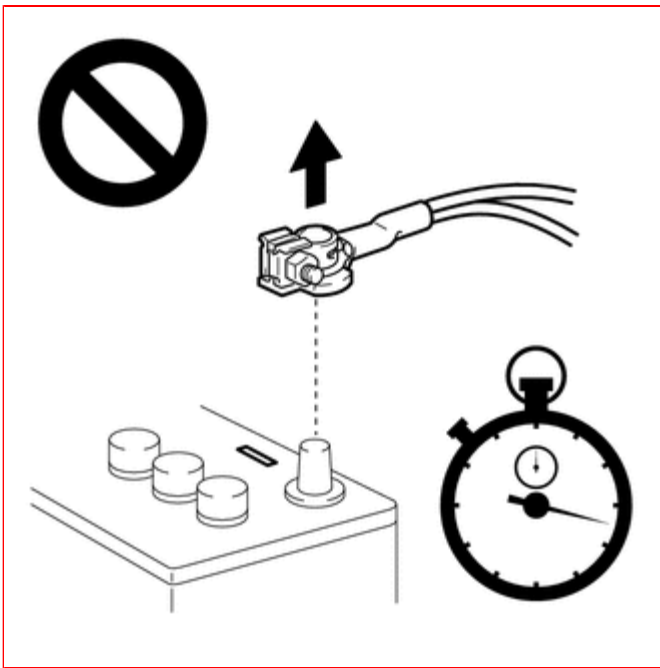
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

[Click here](#) [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE STEERING WHEEL ASSEMBLY

Click here [INFO](#)

3. REMOVE UPPER STEERING COLUMN COVER

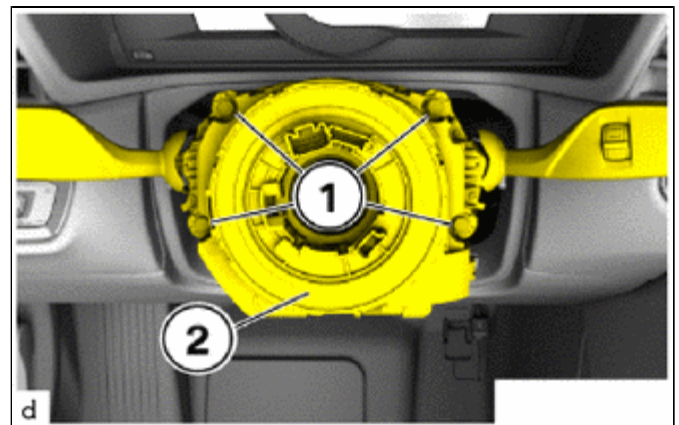
Click here [INFO](#)

4. REMOVE LOWER STEERING COLUMN COVER

Click here [INFO](#)

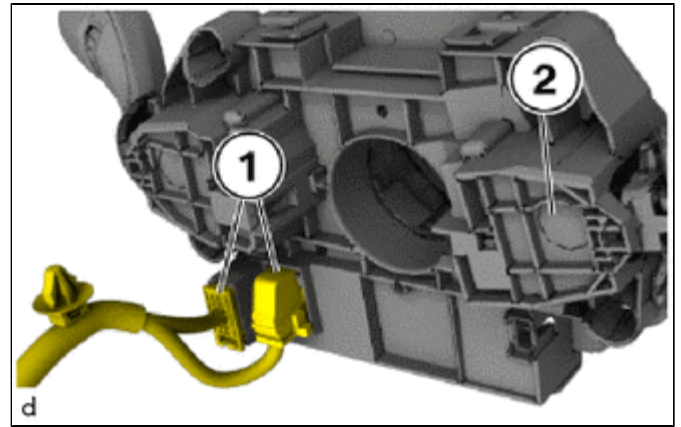
5. REMOVE TURN SIGNAL SWITCH ASSEMBLY

(a) Using a deep socket wrench 7 mm, remove screws (1).



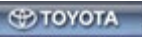
(b) Disconnect the turn signal switch assembly (2).

(c) Disconnect the connectors (1) to remove the turn signal switch assembly (2) with the spiral cable sub-assembly.



6. REMOVE SPIRAL CABLE SUB-ASSEMBLY

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WIPER / WASHER: WIPER SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

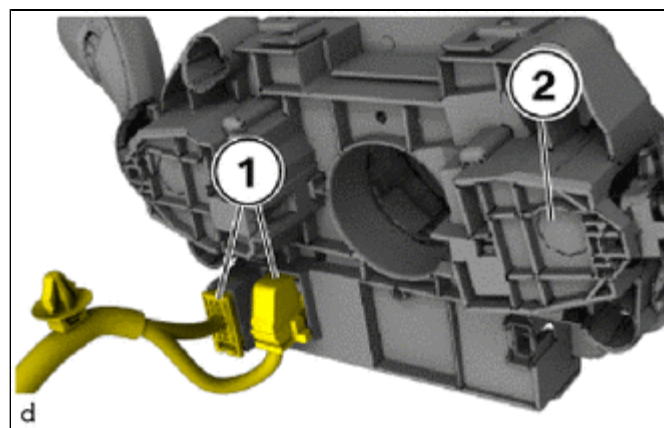
PROCEDURE

1. INSTALL SPIRAL CABLE SUB-ASSEMBLY

Click here [INFO](#)

2. INSTALL TURN SIGNAL SWITCH ASSEMBLY

(a) Connect the connectors (1) with the turn signal switch assembly (2).

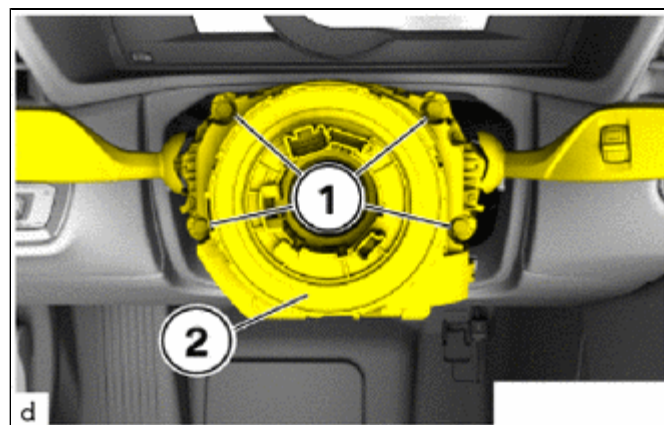


(b) Connect the turn signal switch assembly (2).

(c) Using a deep socket wrench 7 mm, tighten the screws (1) to install the turn signal switch assembly (2) with the spiral cable sub-assembly.

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



3. INSTALL LOWER STEERING COLUMN COVER

Click here [INFO](#)

4. INSTALL UPPER STEERING COLUMN COVER

Click here [INFO](#)

5. INSTALL STEERING WHEEL ASSEMBLY

Click here [INFO](#)

6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC19
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: QUARTER WINDOW GLASS: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

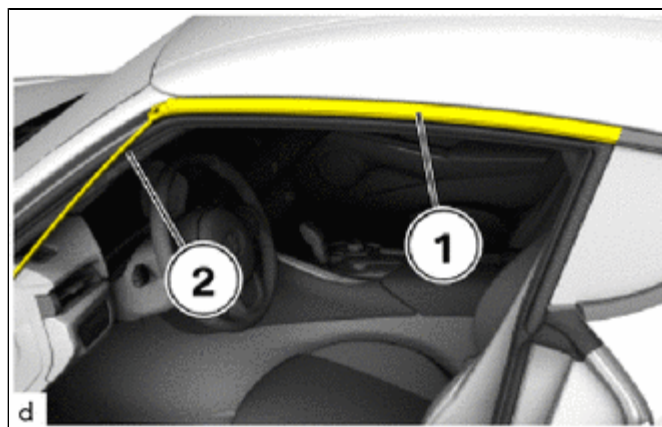
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

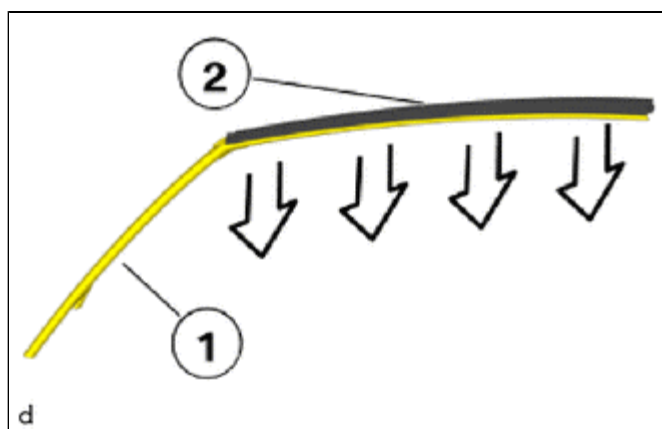
PROCEDURE

1. REMOVE FRONT DOOR WINDOW FRAME FRONT MOULDING

- (a) Remove front roof side rail weatherstrip retainer (1) with the front door window frame front moulding (2).



- (b) Disengage front door window frame front moulding (1) from the front roof side rail weatherstrip retainer (2) in the direction of arrow.



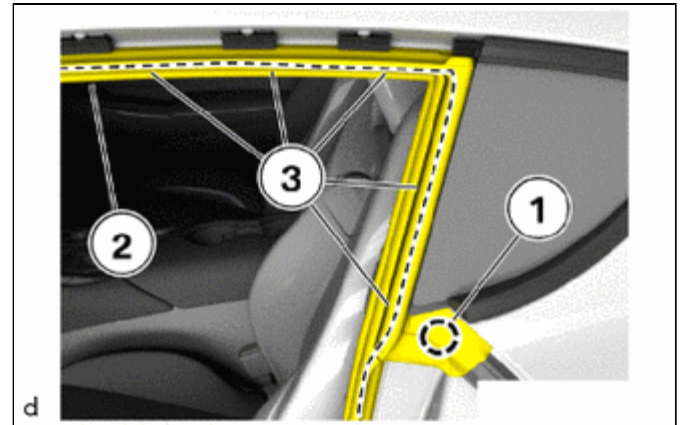
2. REMOVE QUARTER WINDOW ASSEMBLY

NOTICE:

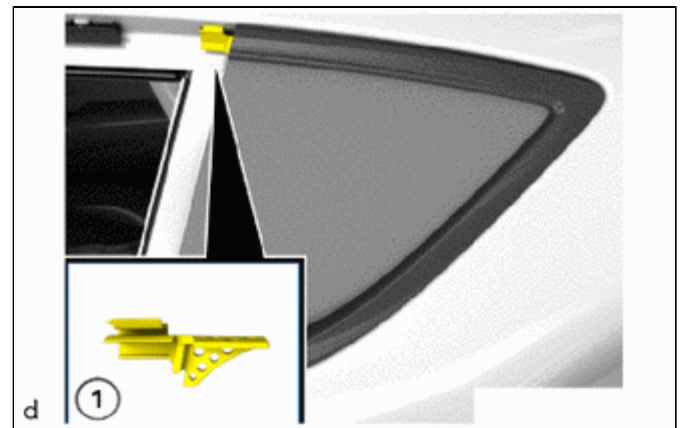
- Paint damage.
- Mechanical action can lead to paint damage.
 - Mask those working areas at risk with protective tape.

- Remove and install heavy or bulky components with the aid of another person/other persons.

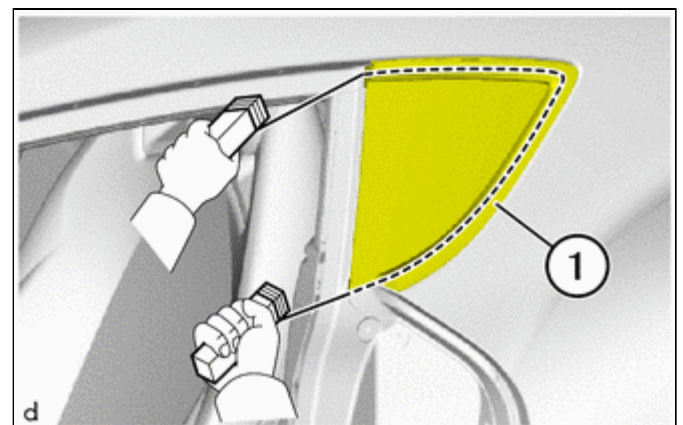
(a) Disengage clip (1) and pull off the edge protection (2) at (3).



(b) Remove clip (1).



(c) Guide the piano wire (1) behind of the quarter window assembly and wrap it completely around the quarter window assembly.



(d) Set the handles (for example, wooden blocks) (2) to the piano wire (1).

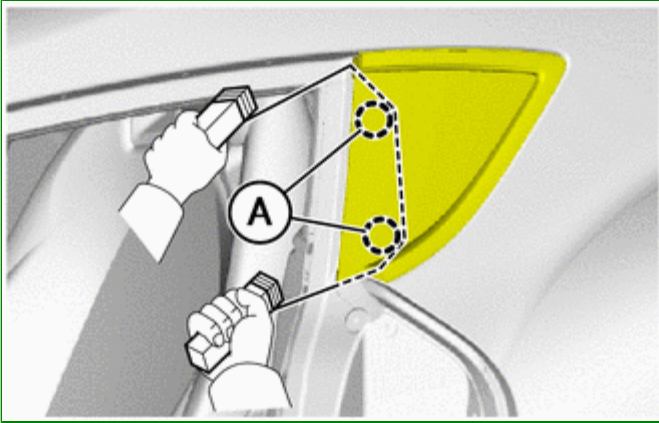
(e) Secure the quarter window assembly on the body with protective tape.

(f) To facilitate cutting through the adhesive bead, heat the piano wire (1) with sawing motions.

(g) Cut through the adhesive bead from back to front.

HINT:

- To facilitate cutting through the adhesive bead, heat the piano wire (1) with sawing motions.
- There are guide pins in area (A) which can be cut through using increased force.



(h) Cut through adhesive bead completely and remove the quarter window assembly.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC1A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: WINDOW / GLASS: QUARTER WINDOW GLASS: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL QUARTER WINDOW ASSEMBLY

HINT:

- The vehicle can be towed away or driven without the quarter window assembly.
- When carrying out removal/installation work and during the hardening time, the vehicle must be standing on its wheels on a level surface.
- The quarter window assembly are bonded to the body. This bonding will increase the torsional rigidity of the vehicle. To obtain perfect bonding, comply with the installation procedure described in the following.

(a) Clean quarter window assembly and body aperture with residual adhesive bead.

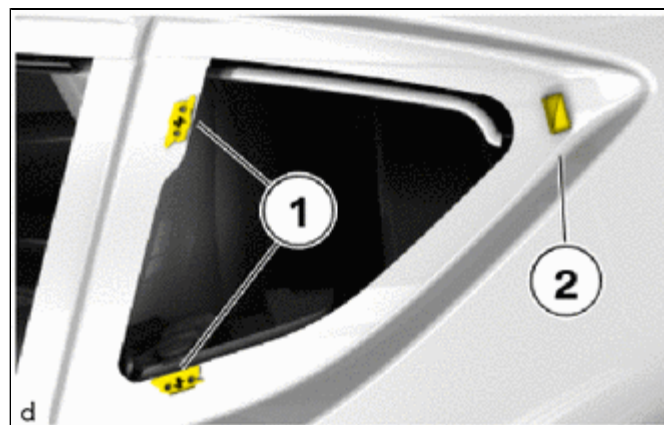
Cleaner:

Cleaner R1, Cleaner R2

HINT:

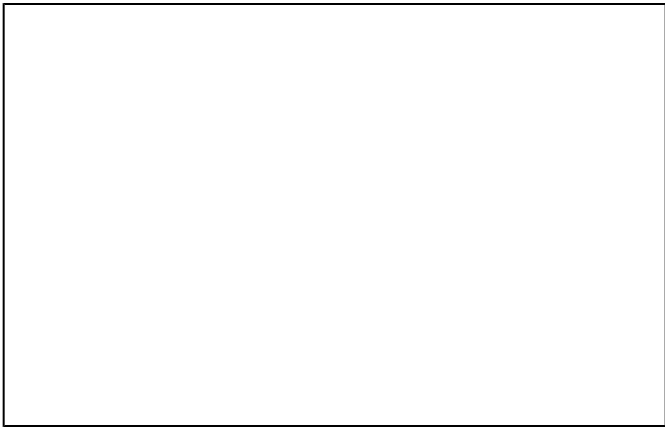
Protect vehicle interior against contamination.

(b) Remove the remaining guide pins (1) and the double-sided tape (2) and clean the bonding surface.



(c) Apply new double-sided tape in the position of the removed double-sided tape (2).

(d) Remove residual adhesive bead (1) on body aperture and on the quarter window assembly shortly before the bonding with scraper.



(e) Position the scraper (2) as shown and remove the residual adhesive bead (1) up to remaining thickness.

Standard Dimension:

AREA	DIMENSION
Remaining thickness of adhesive bead	0.5 mm (0.0197 in.)

(f) Apply glass activator to the quarter window assembly (3) so that a wide line of glass activator is located next to the squeezed adhesive bead.

Glass activator:

Repair Kit, Window Glass, Cold, 1 Hour

NOTICE:

- The glass activator is used for adhesion between glass or ceramic glass and the adhesive. Therefore, a thin, homogeneous and continuous line of glass activator must be applied. If the quarter window assembly is to be reused with a cut-back adhesive bead, glass activator is not needed.
- The glass activator may not be applied in the field of view or the point grid. Fresh glass activator in the field of view must immediately be wiped off because hardened glass activator will leave a haze behind.

Cleaner:

Cleaner R2

HINT:

- Protrusion of glass activator against the compressed adhesive bead: 1.0 to 2.0 mm (0.0394 to 0.0787 in.)
- Allow the glass activator to dry for 2 minutes.

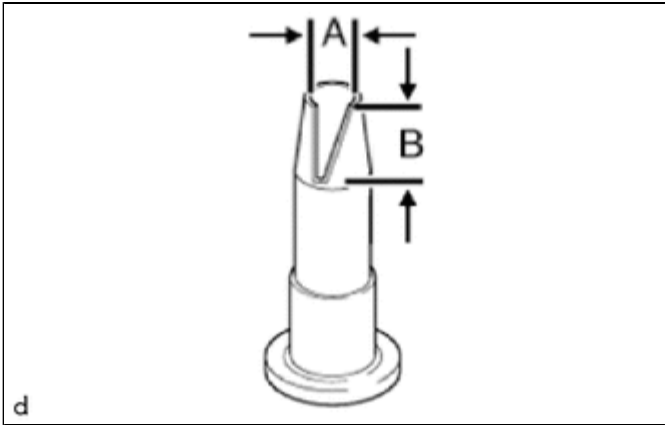
(g) Prepare the glue cartridge with the plastic nozzle.

Standard Nozzle C:

Repair Kit, Window Glass, Cold, 1 Hour

Standard Dimension:

AREA	DIMENSION
A	7.0 to 9.0 mm (0.276 to 0.354 in.)
B	14 to 16 mm (0.551 to 0.630 in.)



(h) Overview for quarter window assembly bonding.

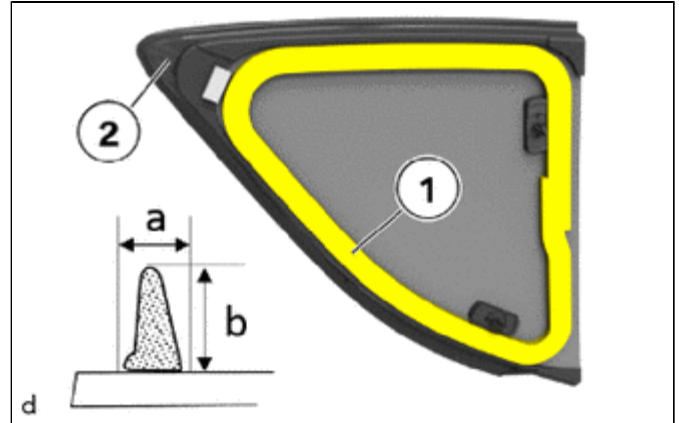
- (i) Follow the adhesive bead (1) around the circumference of the PVC coating (2).

Adhesive:

Repair Kit, Window Glass, Cold, 1 Hour

Adhesive bead:

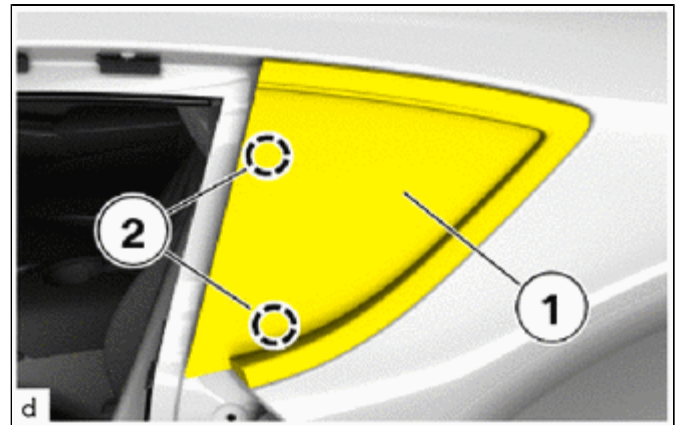
AREA	DIMENSION
a	7.0 to 9.0 mm (0.276 to 0.354 in.)
b	14 to 16 mm (0.551 to 0.630 in.)



- (j) Mount the quarter window assembly (1) on the side panel and thread in using guide pins (2).

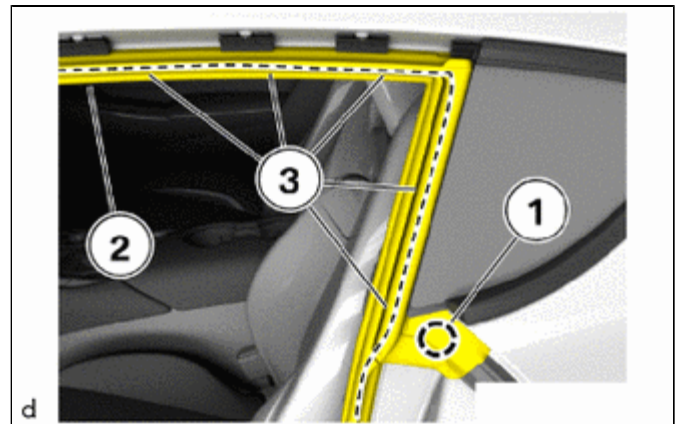
HINT:

Secure the quarter window assembly (1) with the protective tape.



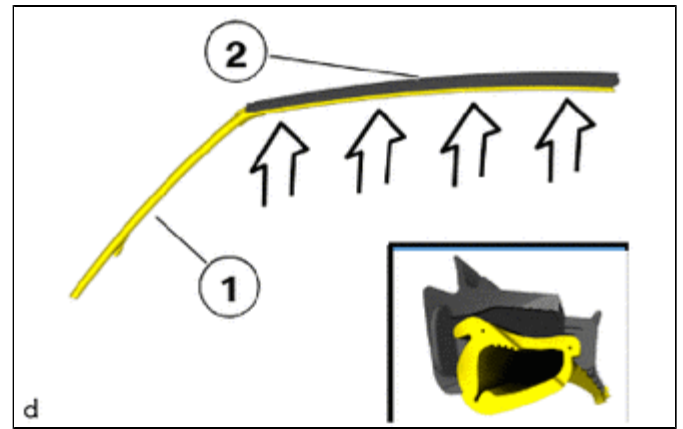
- (k) Insert the clip.

- (l) Mount edge protection (2) in area (3) and clip in the clip (1).



2. INSTALL FRONT DOOR WINDOW FRAME FRONT MOULDING

(a) Clip front door window frame front moulding (1) into the front roof side rail weatherstrip retainer (2) in the direction of arrow.

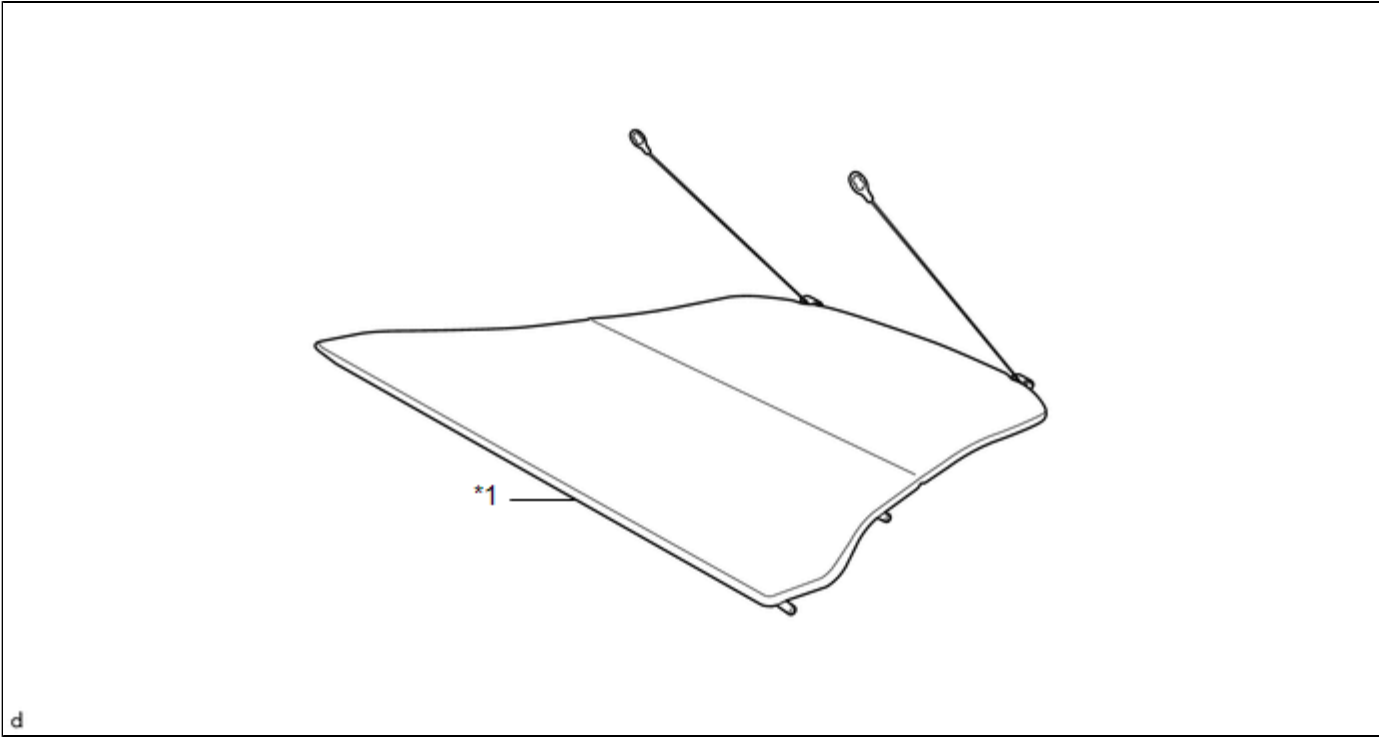


(b) Clip in front roof side rail weatherstrip retainer with the front door window frame front moulding.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: BACK DOOR LOCK: COMPONENTS; 2020 MY Supra [03/2019 -]		

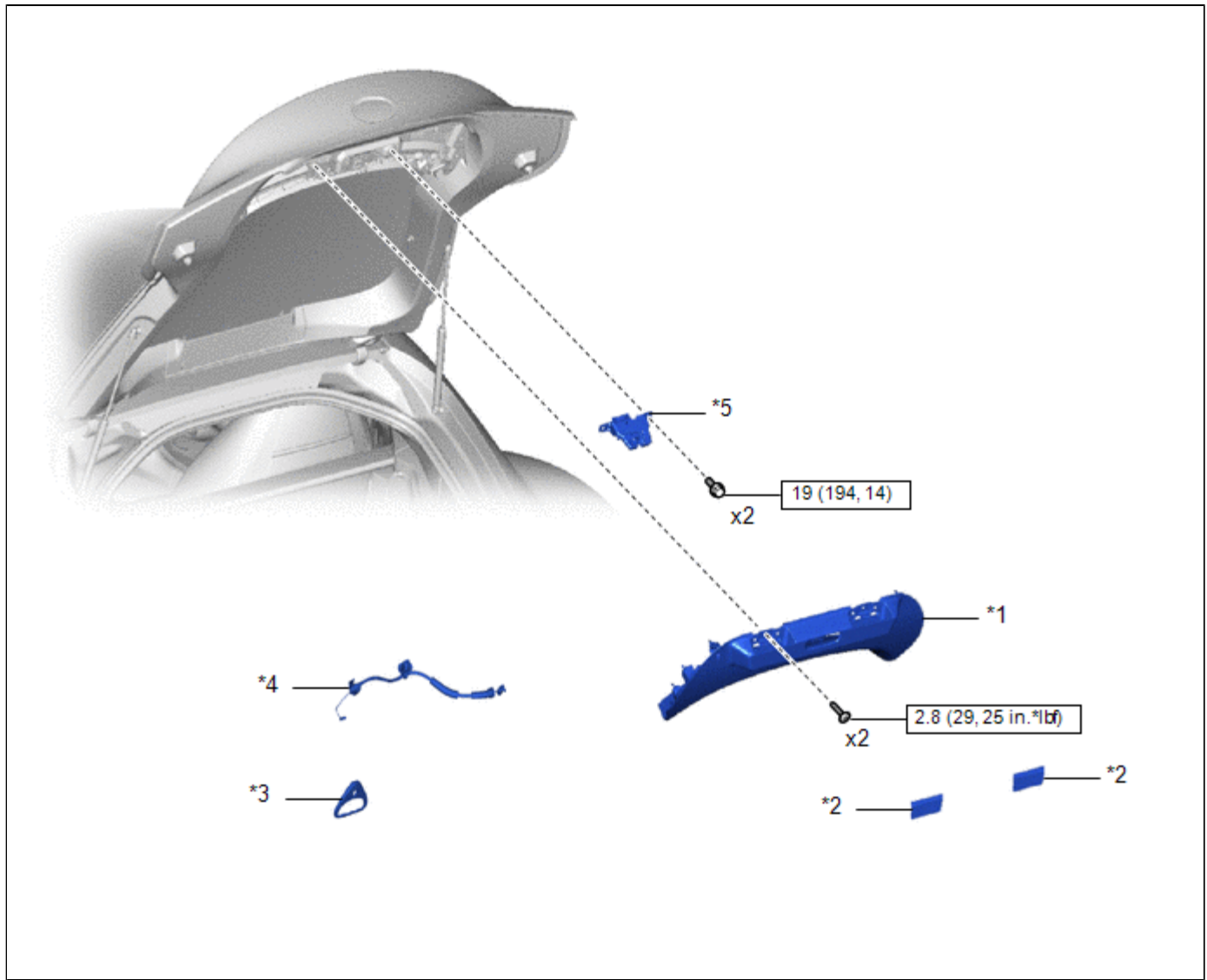
COMPONENTS


ILLUSTRATION



*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	-	-
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ILLUSTRATION



*1	BACK DOOR TRIM BOARD	*2	BACK DOOR TRIM COVER
*3	EMERGENCY RELEASE HANDLE	*4	BACK DOOR LOCK CONTROL CABLE ASSEMBLY
*5	BACK DOOR LOCK ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: BACK DOOR LOCK: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE EMERGENCY RELEASE HANDLE

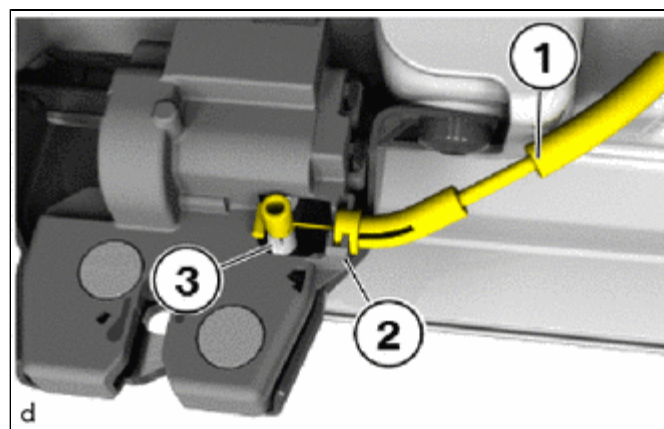
Click here [INFO](#)

3. REMOVE BACK DOOR TRIM BOARD

Click here [INFO](#)

4. DISCONNECT BACK DOOR LOCK CONTROL CABLE ASSEMBLY

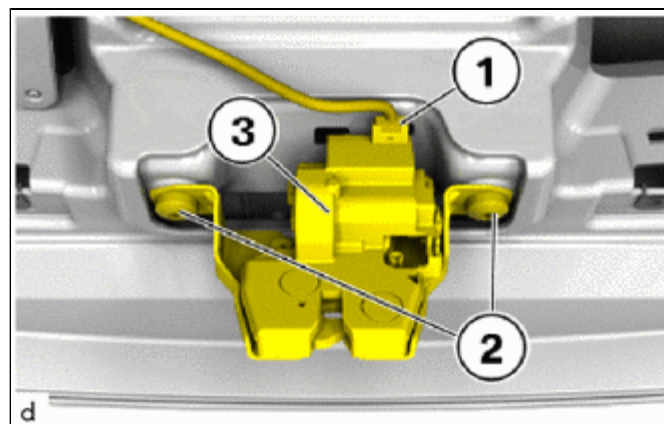
(a) Disconnect the back door lock control cable assembly (1) from the guide (2).



(b) Disconnect back door lock control cable assembly (1) on the locking pawl (3).

5. REMOVE BACK DOOR LOCK ASSEMBLY

(a) Unlock plug connection (1) and disconnect.



(b) Unscrew the bolts (2) and remove back door lock assembly (3).



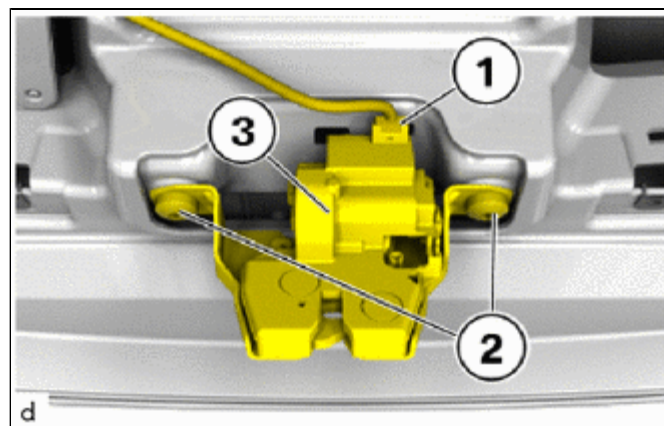
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: BACK DOOR LOCK: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BACK DOOR LOCK ASSEMBLY

(a) Position back door lock assembly (3).



(b) Tighten down bolts (2).

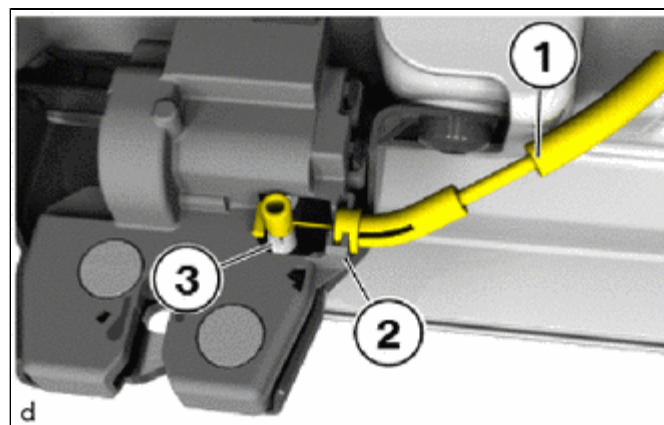
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(c) Connect connector (1) and lock.

2. CONNECT BACK DOOR LOCK CONTROL CABLE ASSEMBLY

(a) Connect back door lock control cable assembly (1) on the locking pawl (3).



(b) Connect the back door lock control cable assembly (1) in the guide (2).

3. INSTALL BACK DOOR TRIM BOARD

Click here [INFO](#)

4. INSTALL EMERGENCY RELEASE HANDLE

Click here [INFO](#)

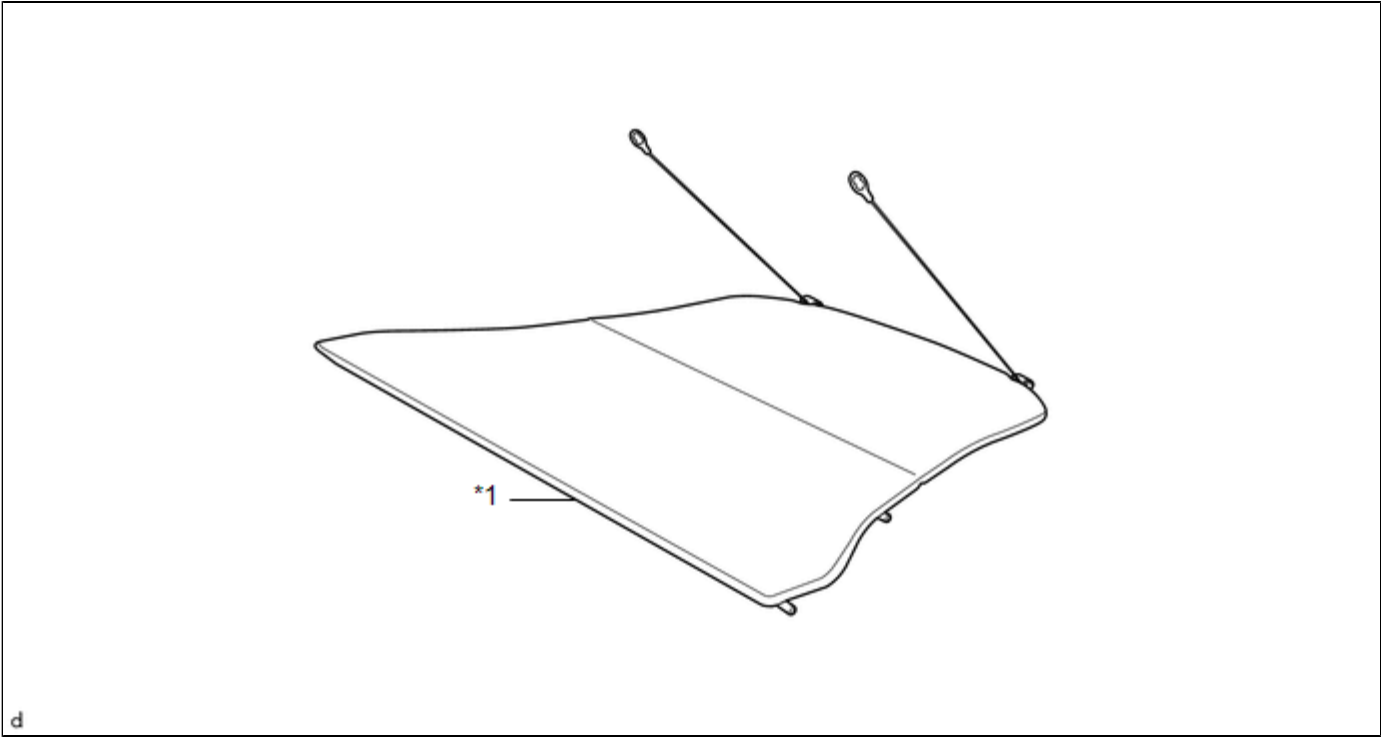
5. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL RECEIVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

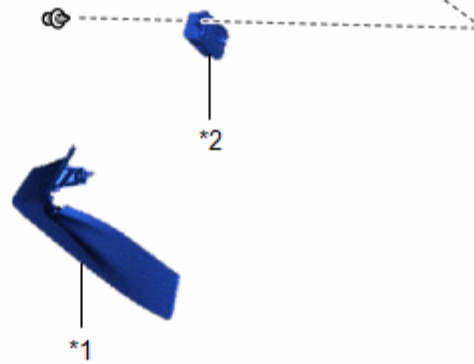
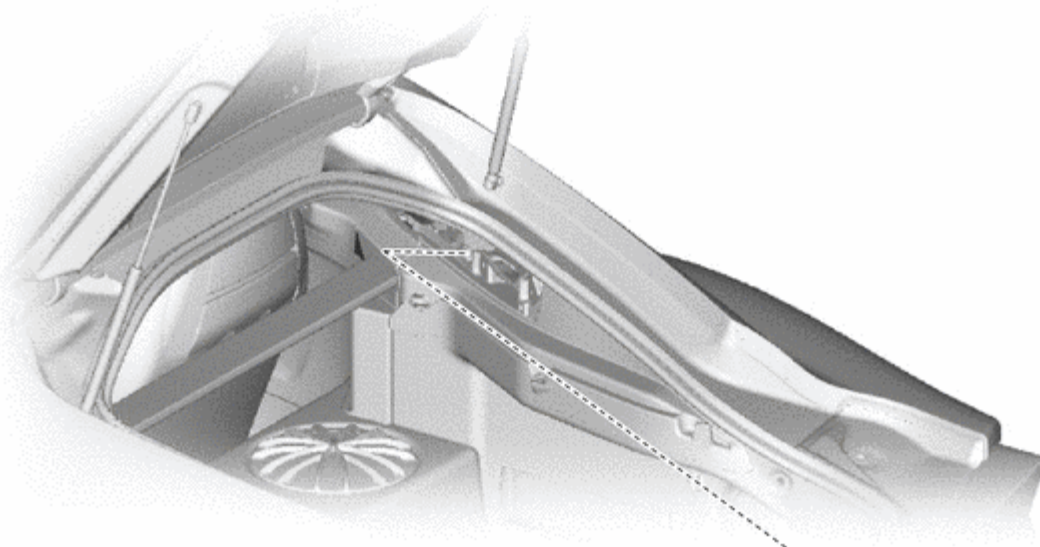
COMPONENTS

ILLUSTRATION



*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	-	-
----	----------------------------------	---	---

ILLUSTRATION



d

*1	ROOF SIDE INNER GARNISH ASSEMBLY RH	*2	REMOTE CONTROLLER ASSEMBLY
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL RECEIVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

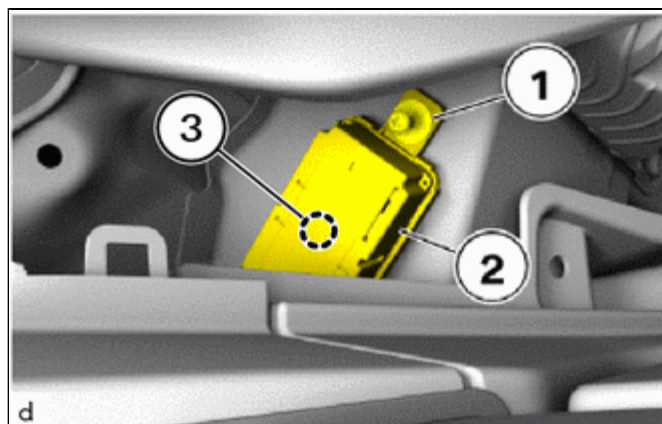
HINT:

Use the same procedure as for the LH side.

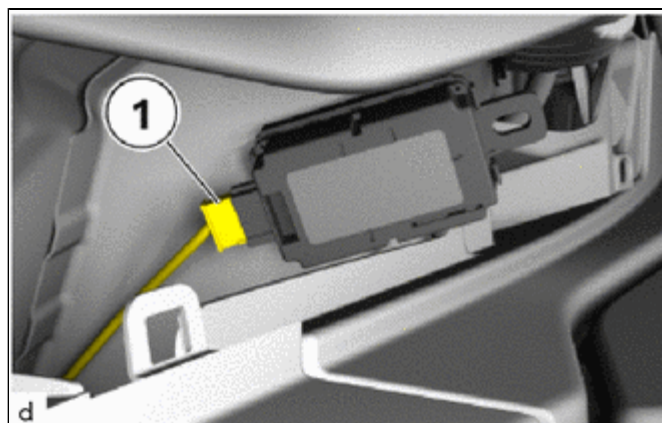
Click here [INFO](#)

3. REMOVE REMOTE CONTROLLER ASSEMBLY

(a) Loosen clip (1).

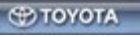


(b) Disconnect the remote controller assembly (2) from the guide (3) below it.



(c) Unlock plug connection (1) and disconnect.

(d) Remove remote controller assembly.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL RECEIVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

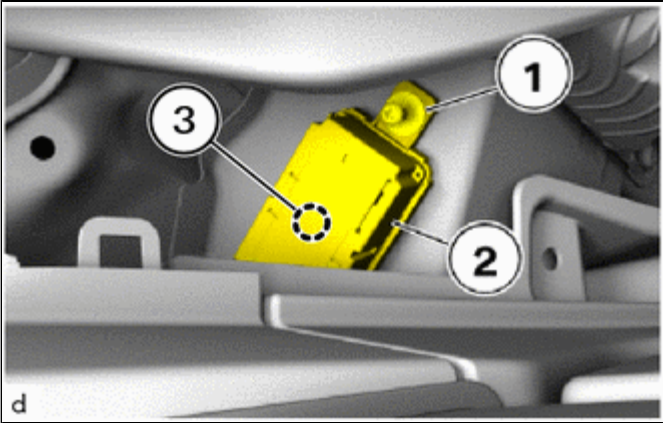
INSTALLATION

PROCEDURE

1. INSTALL REMOTE CONTROLLER ASSEMBLY

(a) Connect connectors and lock.

(b) Position the remote controller assembly (2) on the guide (3) below it.



(c) Fasten clip (1).

2. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

[Click here](#) **INFO**

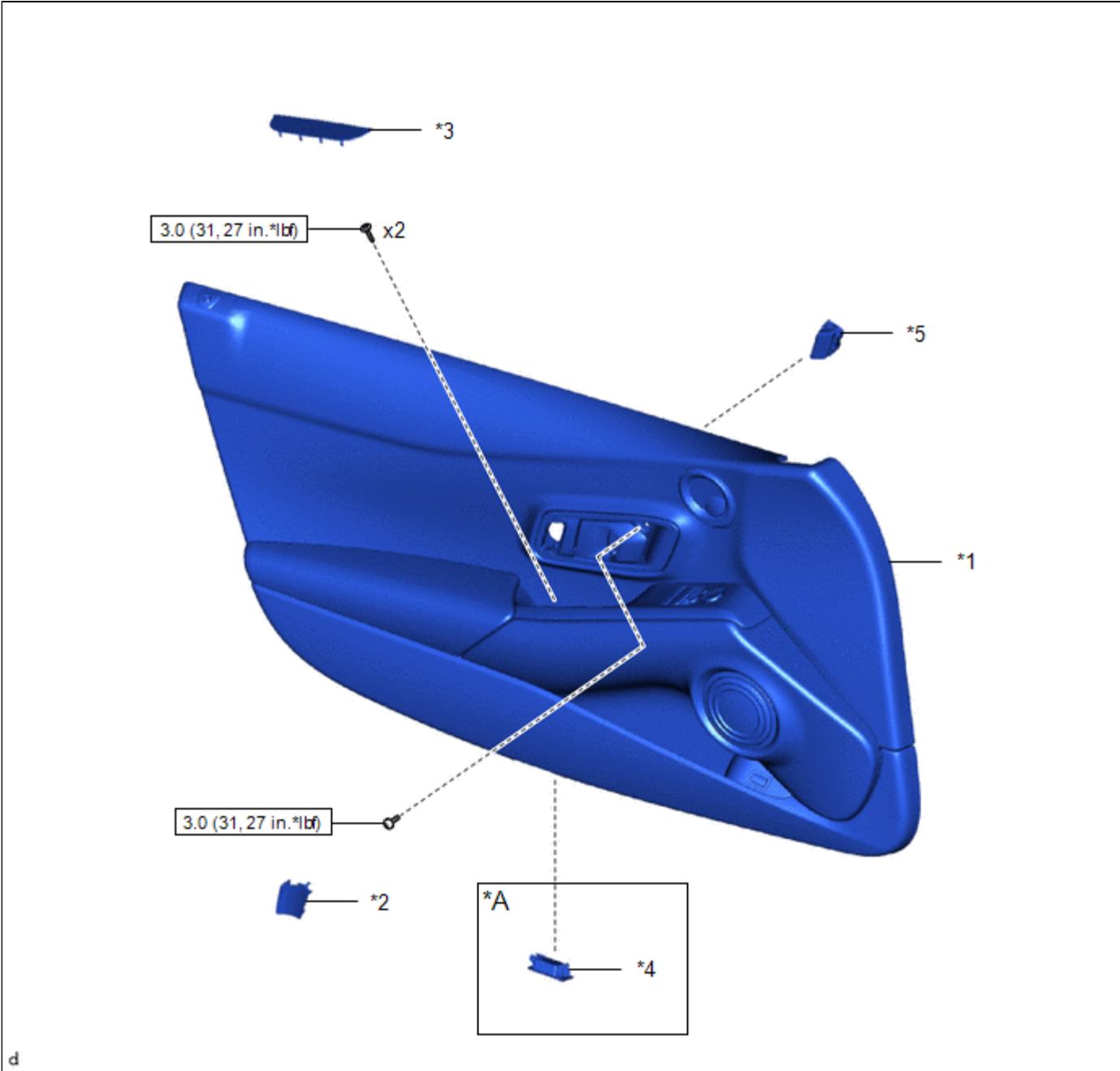
3. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

[Click here](#) **INFO**

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	FRONT DOOR TRIM BOARD SUB-ASSEMBLY	*2	NO. 2 DOOR INSIDE HANDLE BEZEL
*3	DOOR TRIM COVER	*4	COURTESY LIGHT ASSEMBLY
*5	DOOR CONTROL SWITCH ASSEMBLY	-	-

<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

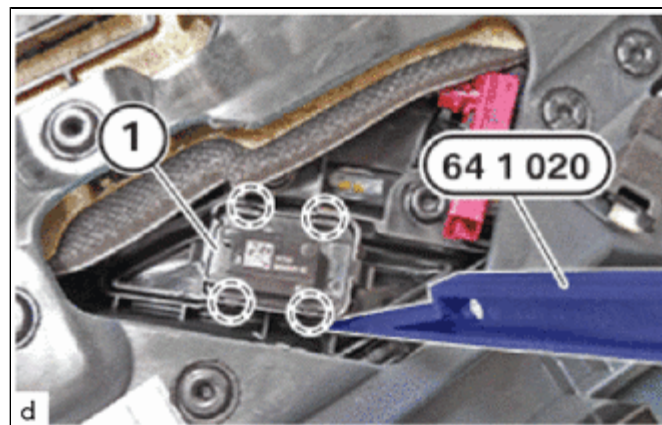
2. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE DOOR CONTROL SWITCH ASSEMBLY

- (a) Release the claws (marks) with the special tool 0 493 681 (64 1 020).

SST: 09200-WA280



- (b) Remove door control switch assembly (1).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

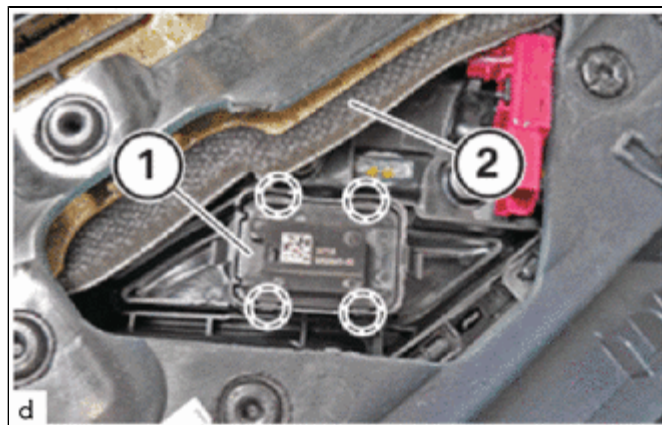
PROCEDURE

1. INSTALL DOOR CONTROL SWITCH ASSEMBLY

- (a) Position door control switch assembly (1) and install in the front door trim board sub-assembly (2).

HINT:

The door control switch assembly (1) must be engaged correctly in the claws (marks).



2. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

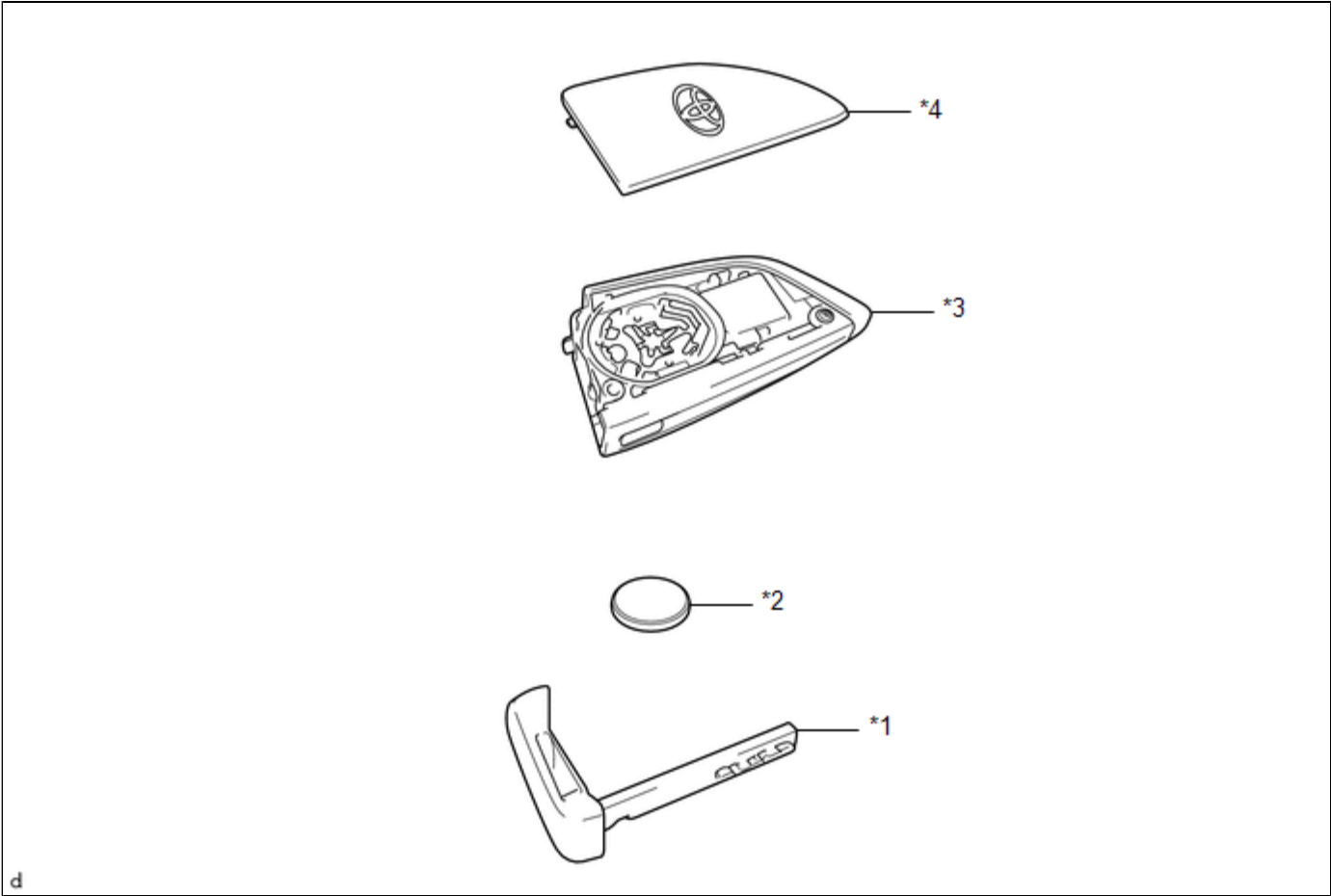
3. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL TRANSMITTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CUT KEY	*2	TRANSMITTER BATTERY
*3	TRANSMITTER HOUSING CASE	*4	TRANSMITTER HOUSING COVER

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL TRANSMITTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

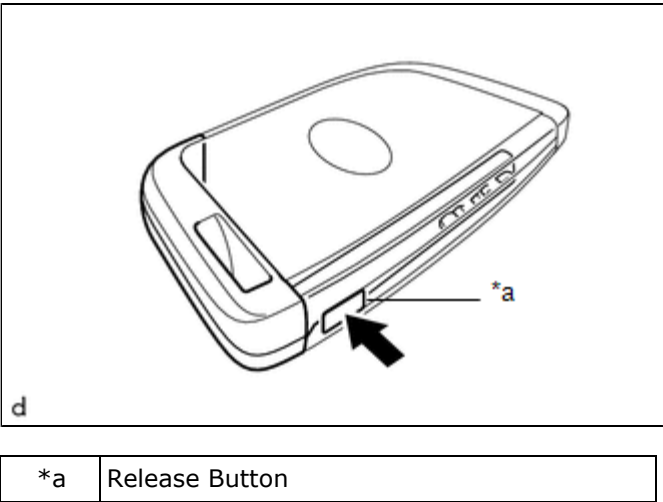
CAUTION / NOTICE / HINT

NOTICE:
Take extra care when handling these precision electronic components.

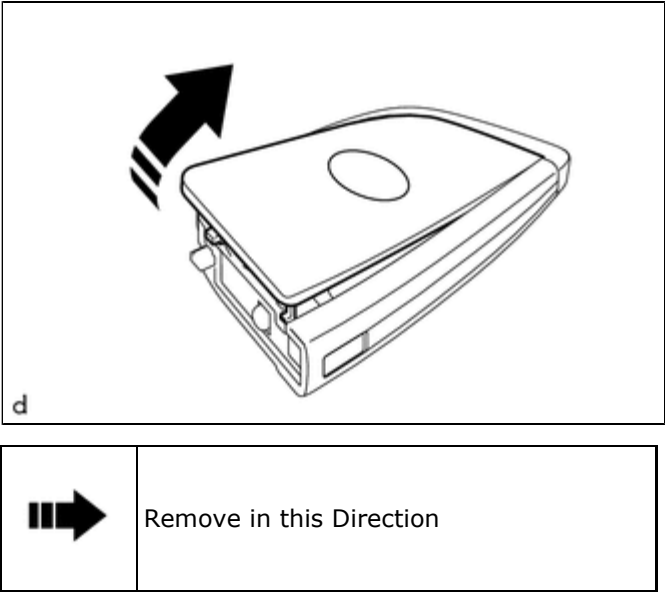
PROCEDURE

1. REMOVE TRANSMITTER BATTERY

(a) Press the release button to remove the cut key.

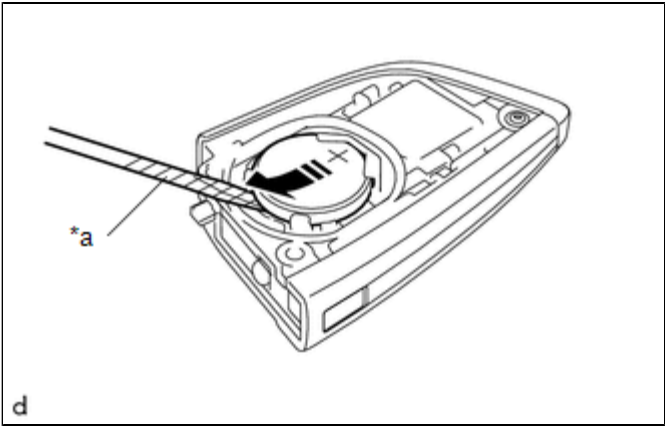



(b) Remove the transmitter housing cover as shown in the illustration.



NOTICE:
Do not use excessive force when prying apart the transmitter housing cover.

(c) Using a screwdriver with its tip wrapped in protective tape, remove the transmitter battery as shown in the illustration.



*a	Protective Tape
	Remove in this Direction

NOTICE:

- Do not push the terminals with your finger.
- Do not forcibly pry up the transmitter battery as the terminals may be damaged.
- Do not touch the transmitter battery with wet hands. Moisture may cause rust.
- Do not touch or move any components inside the transmitter housing case. It may interfere with proper operation.
- When replacing the transmitter battery, before starting work, remove static electricity that has built up in the body by touching, for example, the vehicle to prevent the electrical key transmitter sub-assembly from being damaged.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: DOOR CONTROL TRANSMITTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

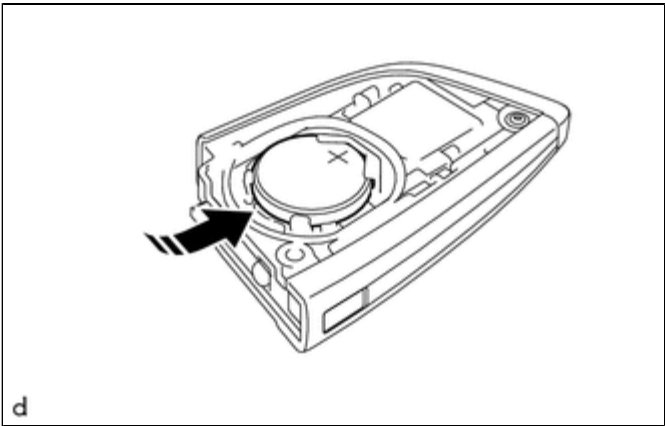
NOTICE:
Take extra care when handling these precision electronic components.


PROCEDURE

1. INSTALL TRANSMITTER BATTERY

(a) Install a new transmitter battery with the positive (+) side facing upward, as shown in the illustration.

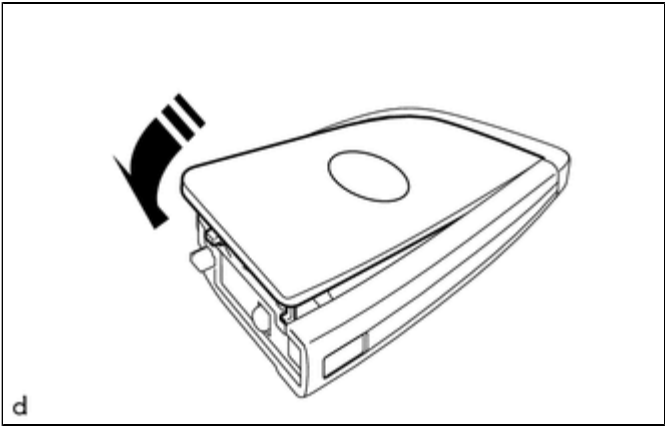
- NOTICE:**
- Do not bend the transmitter battery electrode during installation.
 - Keep the inside of the transmitter housing cover free of dust and oil.
 - When replacing the transmitter battery, before starting work, remove static electricity that has built up in the body by touching, for example, the vehicle to prevent the electrical key transmitter sub-assembly from being damaged.





Install in this Direction

(b) Install the transmitter housing cover by pressing down on it as shown in the illustration.



--	--



Install in this Direction

(c) Insert the cut key into the transmitter.

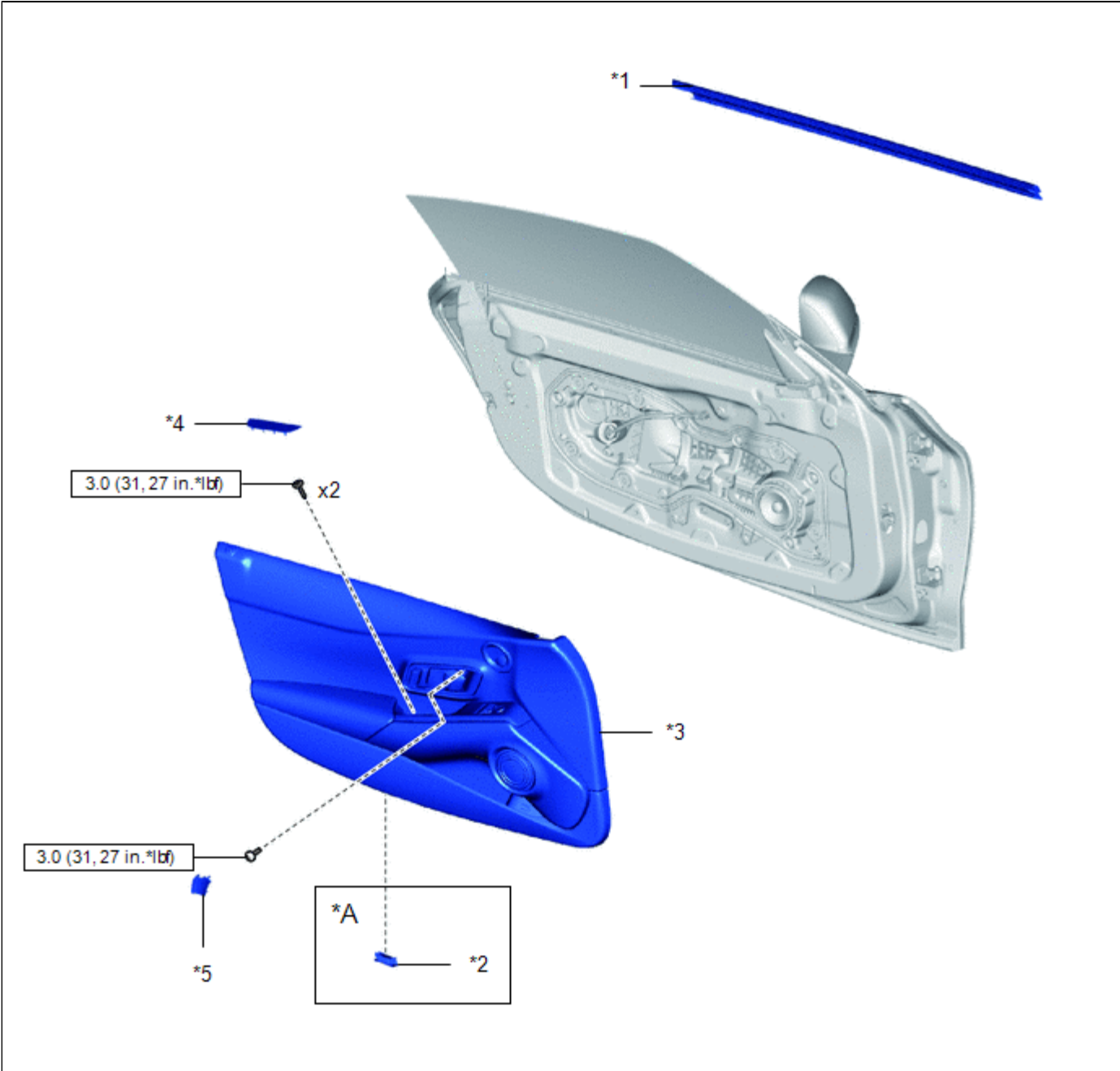


TOYOTA


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: FRONT DOOR LOCK: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

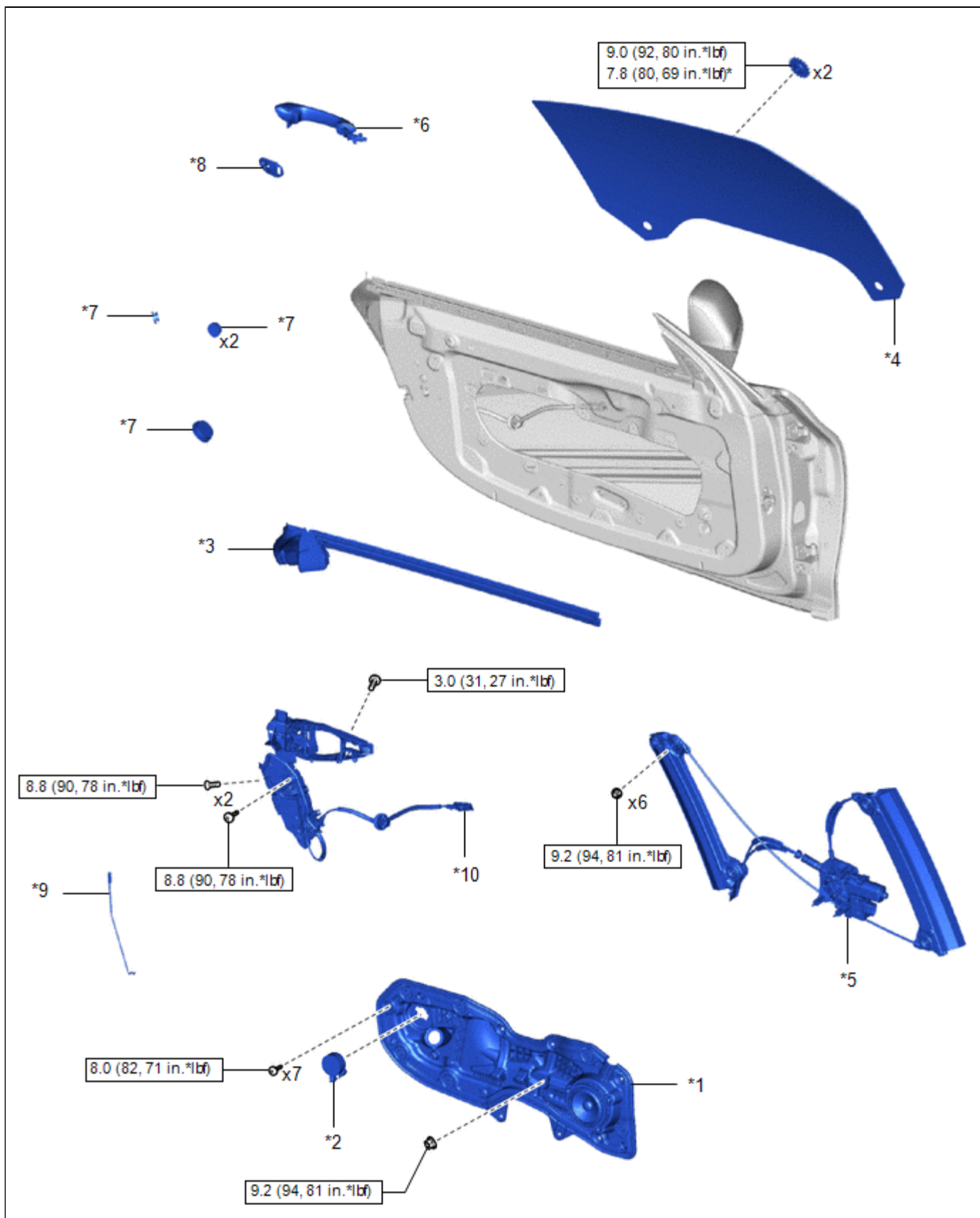
ILLUSTRATION




*A	w/ Courtesy Light	-	-
*1	FRONT DOOR BELT MOULDING ASSEMBLY	*2	COURTESY LIGHT ASSEMBLY
*3	FRONT DOOR TRIM BOARD SUB-ASSEMBLY	*4	DOOR TRIM COVER
*5	NO. 2 DOOR INSIDE HANDLE BEZEL	-	-

	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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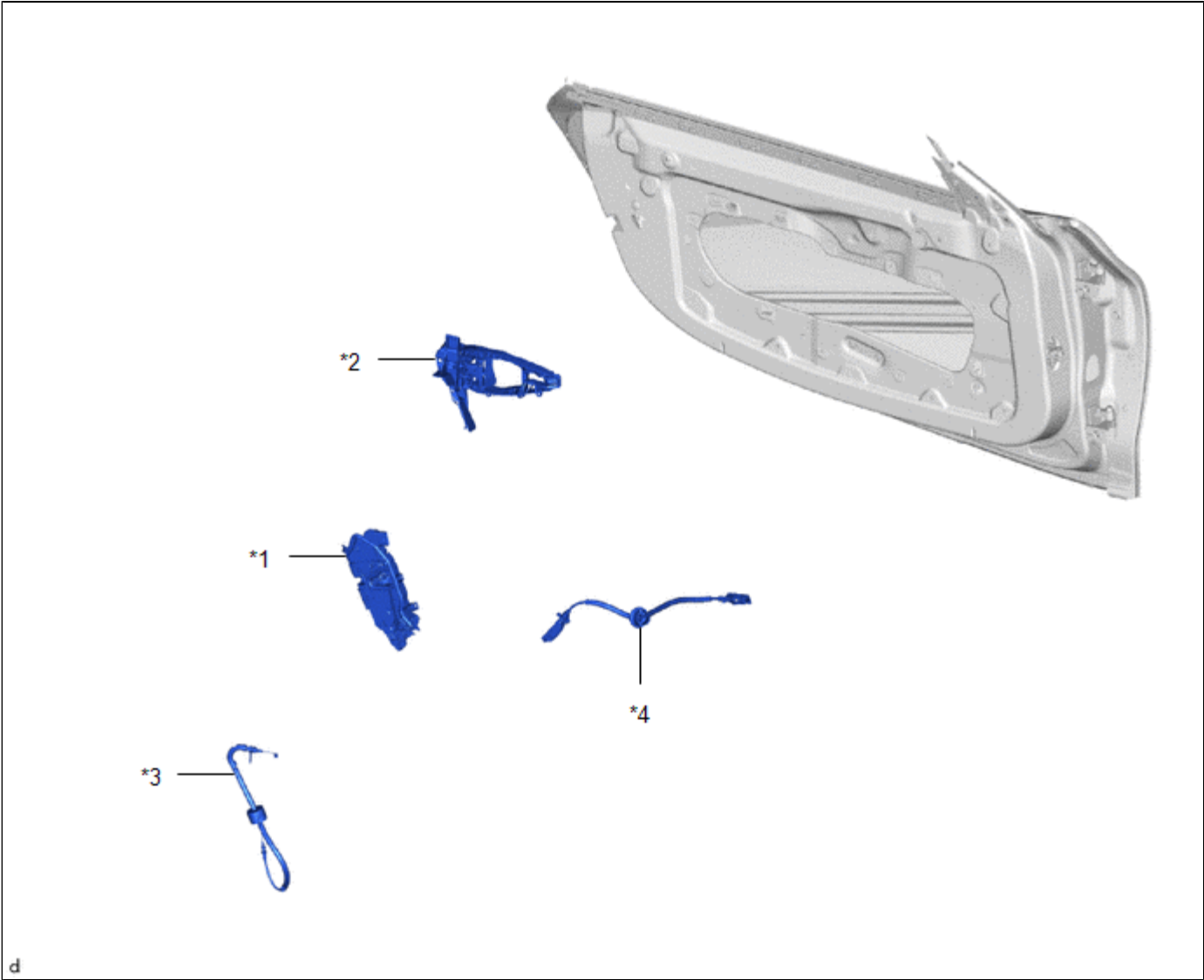
ILLUSTRATION



*1	SOUND INSULATION	*2	SIDE AIRBAG PRESSURE SENSOR
*3	FRONT DOOR GLASS INNER WEATHERSTRIP	*4	FRONT DOOR GLASS SUB-ASSEMBLY
*5	FRONT DOOR WINDOW REGULATOR ASSEMBLY	*6	FRONT DOOR OUTSIDE HANDLE ASSEMBLY

*7	SEAL PLUG	*8	FRONT DOOR OUTSIDE HANDLE COVER
*9	FRONT DOOR LOCK OPEN ROD	*10	FRONT DOOR LOCK WITH MOTOR ASSEMBLY WITH FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	*	For use with SST

ILLUSTRATION



*1	FRONT DOOR LOCK WITH MOTOR ASSEMBLY	*2	FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY
*3	FRONT DOOR LOCK REMOTE CONTROL CABLE (FOR OPEN LEVER)	*4	FRONT DOOR INSIDE LOCKING CABLE (FOR LOCK / UNLOCK KNOB)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: FRONT DOOR LOCK: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

- Airbag unit.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- For additional information see:

Click here [INFO](#)

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

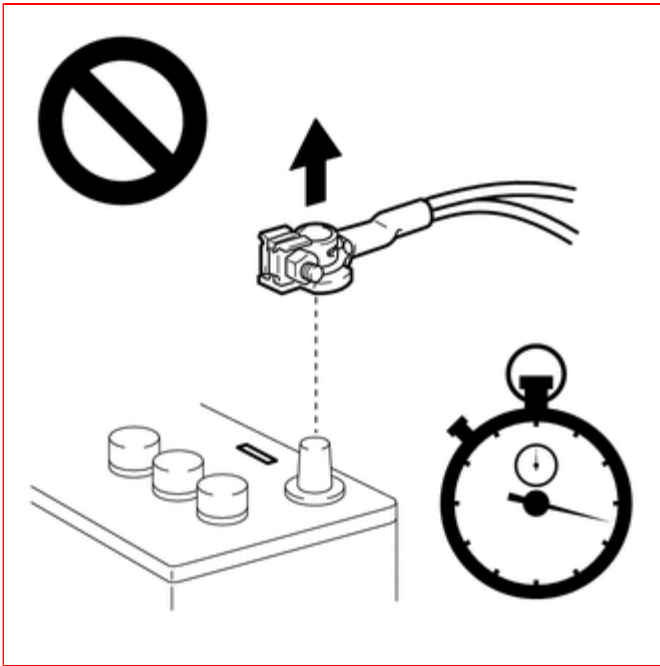
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE FRONT DOOR BELT MOULDING ASSEMBLY

Click here [INFO](#)

3. LOOSEN FRONT DOOR GLASS SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

5. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

6. REMOVE SIDE AIRBAG PRESSURE SENSOR

Click here [INFO](#)

7. REMOVE SOUND INSULATION

Click here [INFO](#)

8. REMOVE FRONT DOOR GLASS INNER WEATHERSTRIP

Click here [INFO](#)

9. REMOVE FRONT DOOR GLASS SUB-ASSEMBLY

Click here [INFO](#)

10. REMOVE FRONT DOOR WINDOW REGULATOR ASSEMBLY

Click here [INFO](#)

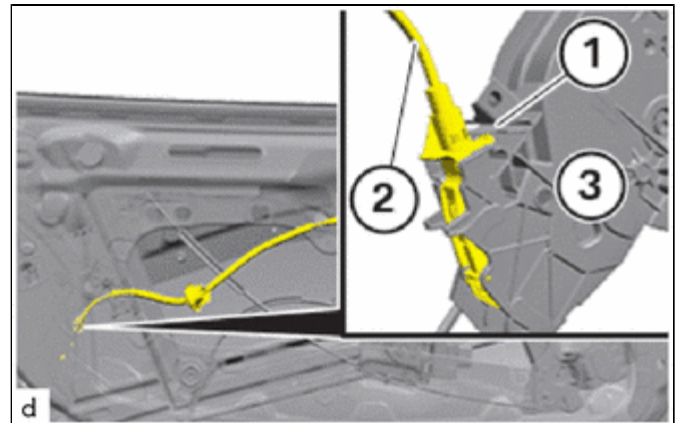
11. REMOVE FRONT DOOR OUTSIDE HANDLE ASSEMBLY

12. REMOVE FRONT DOOR INSIDE LOCKING CABLE (FOR LOCK / UNLOCK KNOB)

- (a) Unlock the lock mechanism (1) and remove the front door inside locking cable (for lock / unlock knob) (2) towards the rear from front door lock with motor assembly (3).

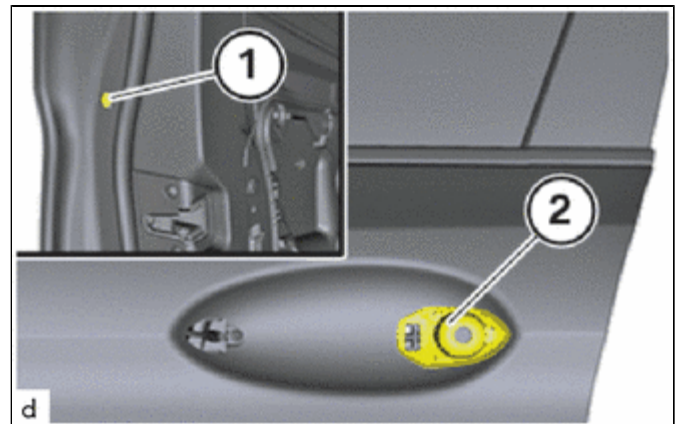
HINT:

The front door inside locking cable (for lock / unlock knob) (2) slides out on its own.



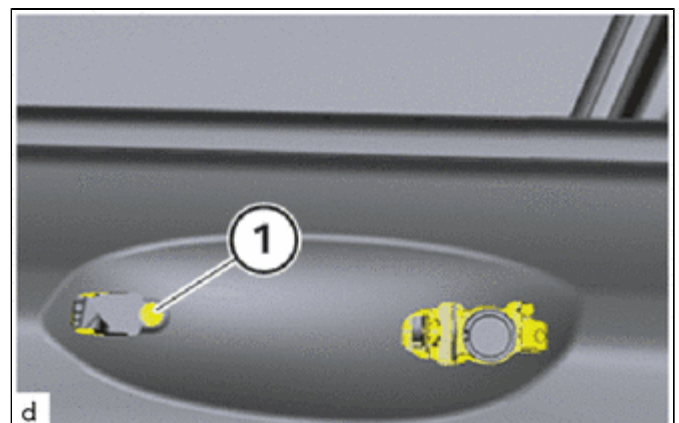
13. REMOVE FRONT DOOR LOCK WITH MOTOR ASSEMBLY

- (a) Using a 4 mm hexagon wrench, loosen screw (1).

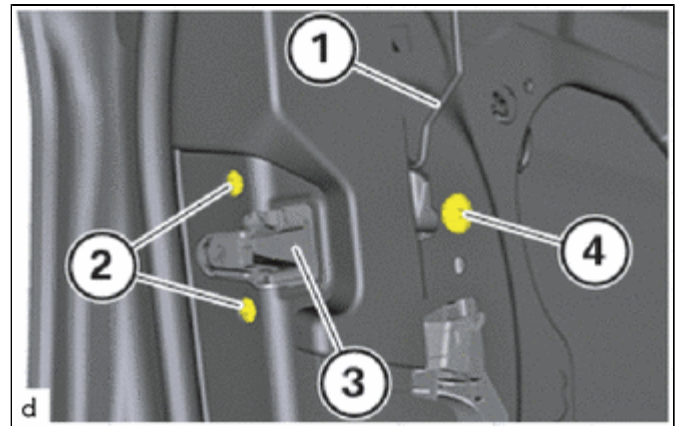


- (b) Remove the front door outside handle cover (2).

- (c) Loosen T20 screw (1).



(d) Unclip front door lock open rod (1).



(e) Unlock and disconnect the connector on the front door lock with motor assembly (3) at inner.

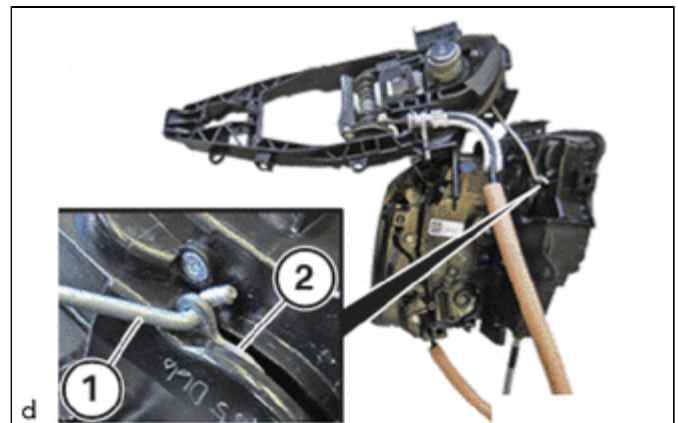
(f) Release the wiring harness from the front door lock with motor assembly (3) on the inner.

(g) Loosen T30 bolts (2) and (4).

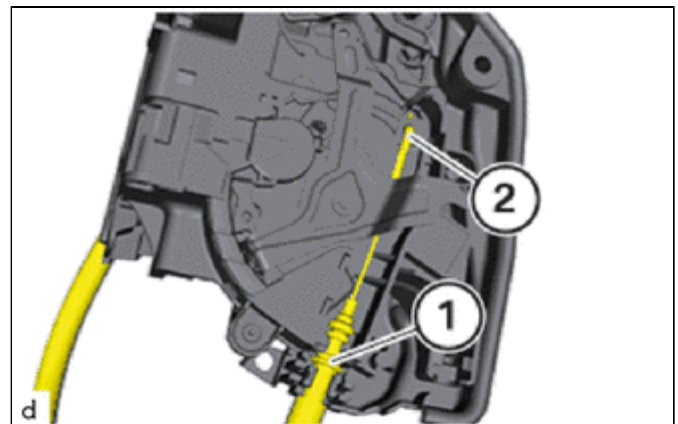
(h) Guide out the front door lock with motor assembly (3) together with the front door outside handle frame sub-assembly and remove.

14. REMOVE FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY

(a) Disconnect the front door lock control link sub-assembly (1) from the front door lock with motor assembly (2).

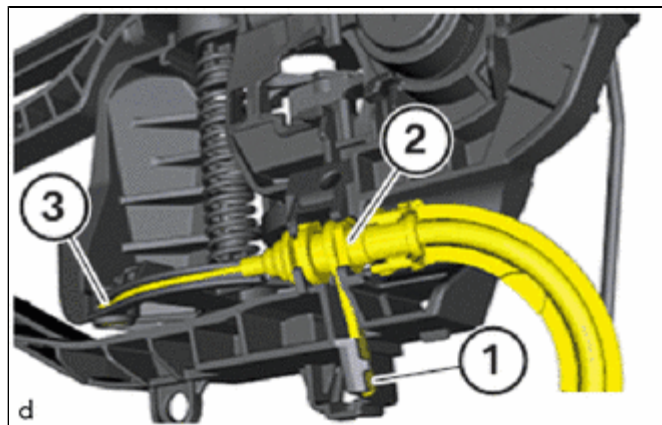


(b) Disconnect the front door lock remote control cable (for open lever) (1).



(c) Disconnect the front door lock remote control cable (for open lever) nipple (2).

(d) Lift the lug (1) over the clip and twist it upwards.



(e) Disconnect the front door lock remote control cable (for open lever) (2).

(f) Disconnect the front door lock remote control cable (for open lever) nipple (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCSI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: FRONT DOOR LOCK: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

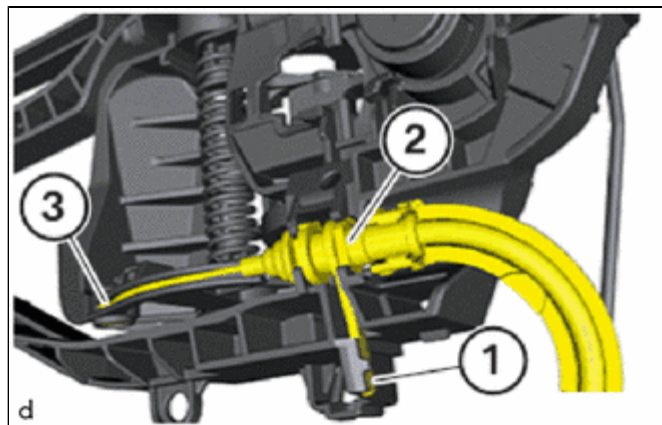
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

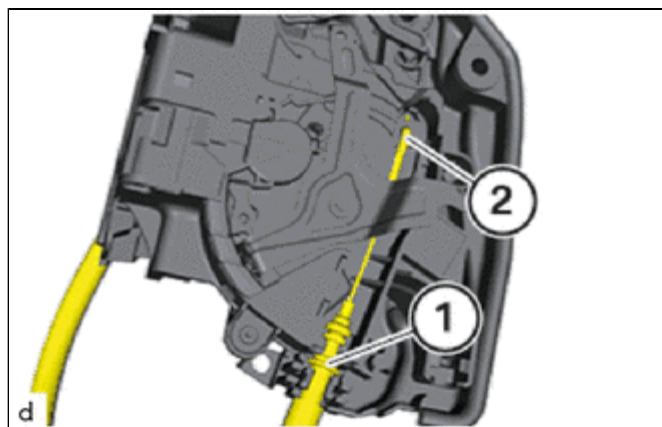
1. INSTALL FRONT DOOR OUTSIDE HANDLE FRAME SUB-ASSEMBLY

- (a) Connect the front door lock remote control cable (for open lever) nipple (3).



- (b) Connect the front door lock remote control cable (for open lever) (2).
 (c) Twist lug (1) and engage.

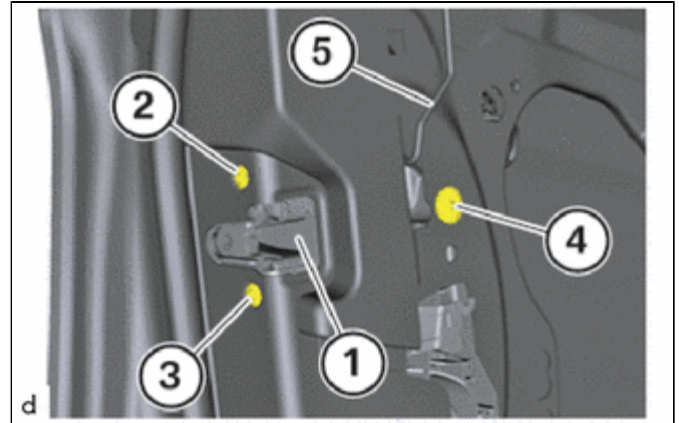
- (d) Connect the front door lock remote control cable (for open lever) nipple (2).



- (e) Connect the front door lock remote control cable (for open lever) (1).
 (f) Connect the front door lock control link sub-assembly in the front door lock with motor assembly.

2. INSTALL FRONT DOOR LOCK WITH MOTOR ASSEMBLY

- (a) Guide in the front door lock with motor assembly (1) together with the front door outside handle frame sub-assembly.



- (b) Connect wiring harness.
(c) Connect the connector to the front door lock with motor assembly (1) and lock it.
(d) Screw in T30 bolts (2) to (4) several rotations.
(e) Tighten the T30 bolts in the following sequence: (2) - (3) - (4).

Torque:

8.8 N·m {90 kgf·cm, 78 in·lbf}

- (f) Clip in front door lock open rod (5).
(g) Tighten down T20 screw.

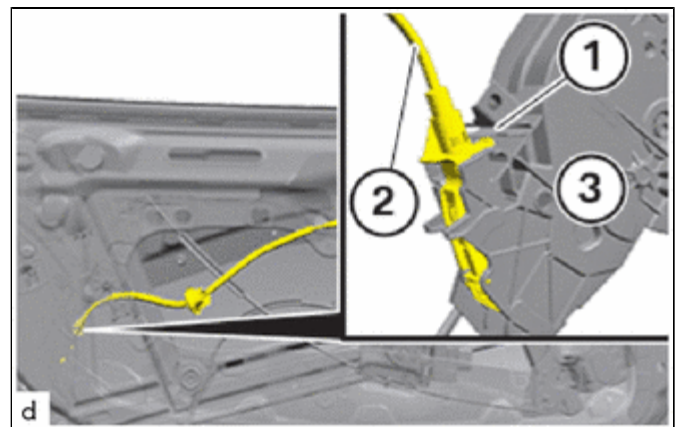
Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

- (h) Install front door outside handle cover.
(i) Using a 4 mm hexagon wrench, tighten down screw.

3. INSTALL FRONT DOOR INSIDE LOCKING CABLE (FOR LOCK / UNLOCK KNOB)

- (a) Position front door inside locking cable (for lock / unlock knob) (2) correctly in front door lock with motor assembly (3).



- (b) Engage the front door inside locking cable (for lock / unlock knob) (2) forwards into lock (1).

4. INSTALL FRONT DOOR OUTSIDE HANDLE ASSEMBLY

Click here [INFO](#)

5. INSTALL FRONT DOOR WINDOW REGULATOR ASSEMBLY

Click here [INFO](#)

6. INSTALL FRONT DOOR GLASS SUB-ASSEMBLY

Click here [INFO](#)

7. ADJUST FRONT DOOR GLASS SUB-ASSEMBLY

Click here [INFO](#)

8. INSTALL FRONT DOOR GLASS INNER WEATHERSTRIP

Click here [INFO](#)

9. INSTALL SOUND INSULATION

Click here [INFO](#)

10. INSTALL SIDE AIRBAG PRESSURE SENSOR

Click here [INFO](#)

11. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

12. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

13. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

14. ADJUST FRONT DOOR GLASS SUB-ASSEMBLY

Click here [INFO](#)

15. TIGHTEN FRONT DOOR GLASS SUB-ASSEMBLY

Click here [INFO](#)

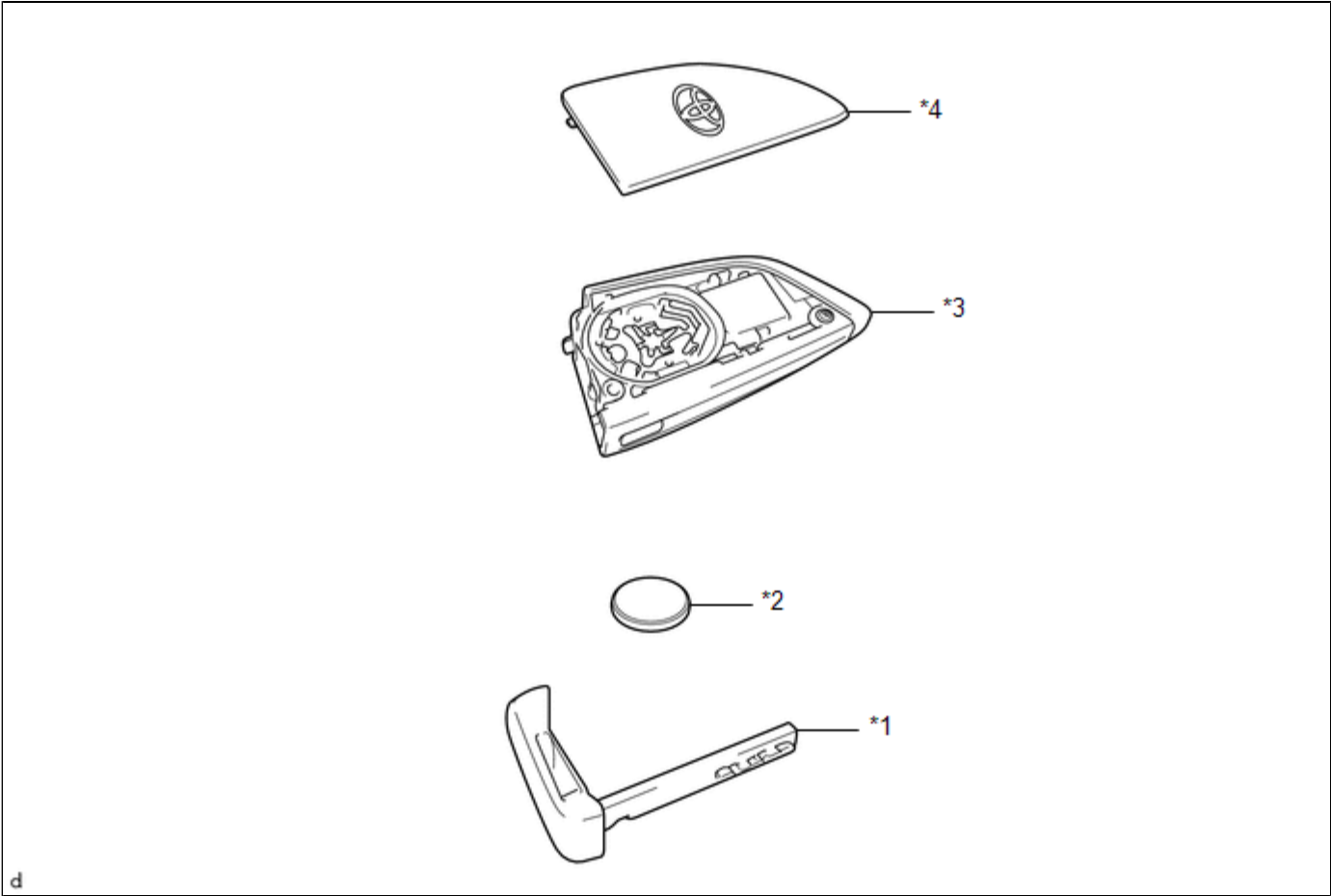
16. INSTALL FRONT DOOR BELT MOULDING ASSEMBLY

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: TRANSMITTER BATTERY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CUT KEY	*2	TRANSMITTER BATTERY
*3	TRANSMITTER HOUSING CASE	*4	TRANSMITTER HOUSING COVER

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCS8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: TRANSMITTER BATTERY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCS9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: DOOR LOCK: TRANSMITTER BATTERY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

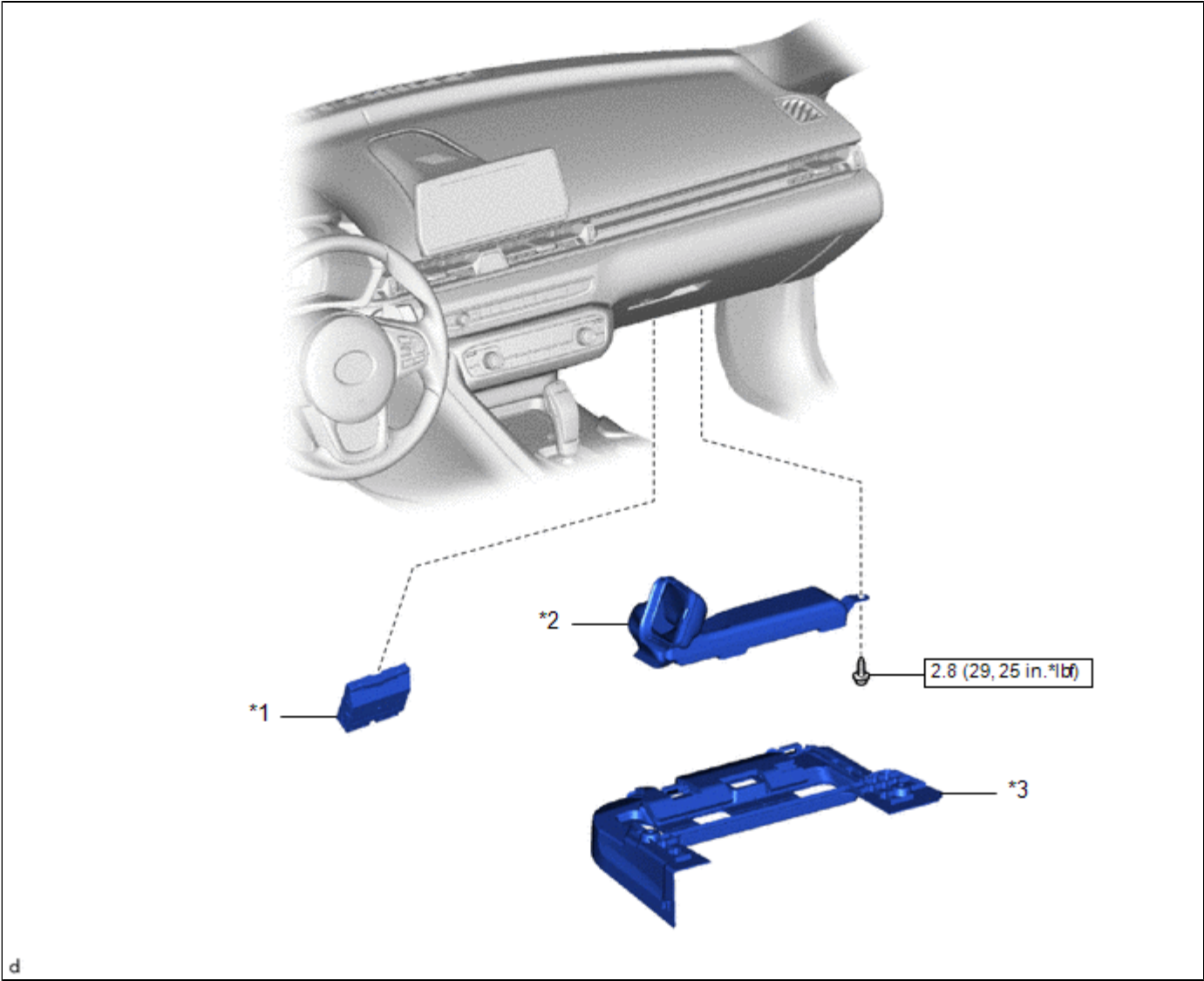
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING AMPLIFIER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CONDITIONING AMPLIFIER ASSEMBLY	*2	NO. 2 AIR DUCT
*3	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING AMPLIFIER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

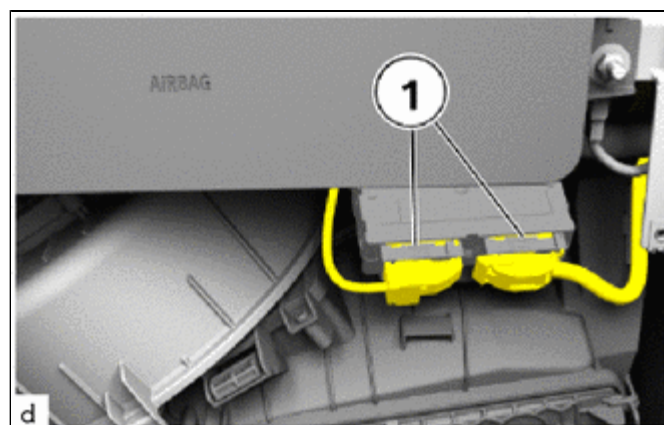
Click here [INFO](#)

2. REMOVE NO. 2 AIR DUCT

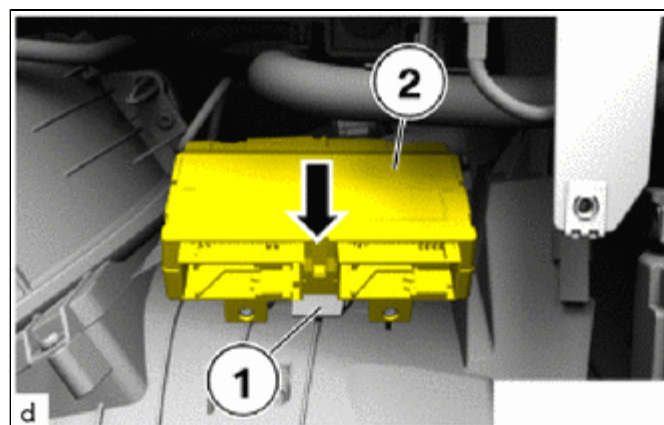
Click here [INFO](#)

3. REMOVE AIR CONDITIONING AMPLIFIER ASSEMBLY

(a) Disconnect the connectors (1).



(b) Disengage claw (1) and pull out the air conditioning amplifier assembly (2) in direction of arrow.



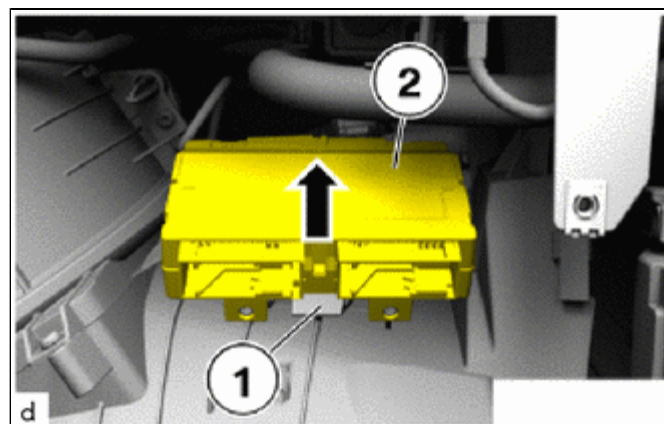
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING AMPLIFIER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

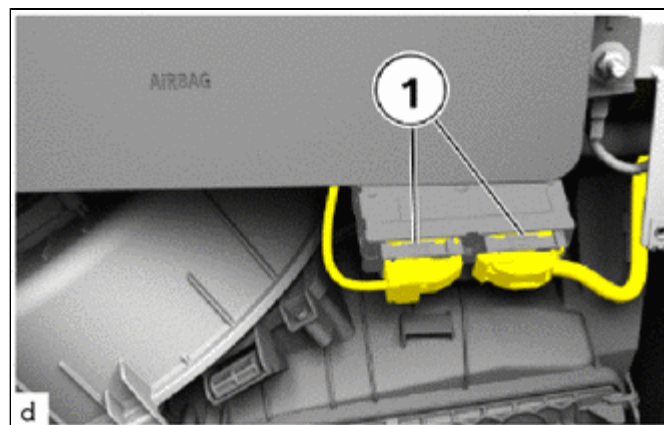
PROCEDURE

1. INSTALL AIR CONDITIONING AMPLIFIER ASSEMBLY

- (a) Slide in the air conditioning amplifier assembly (2) in direction of arrow until the claw (1) engages.



- (b) Connect the connectors (1).



2. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

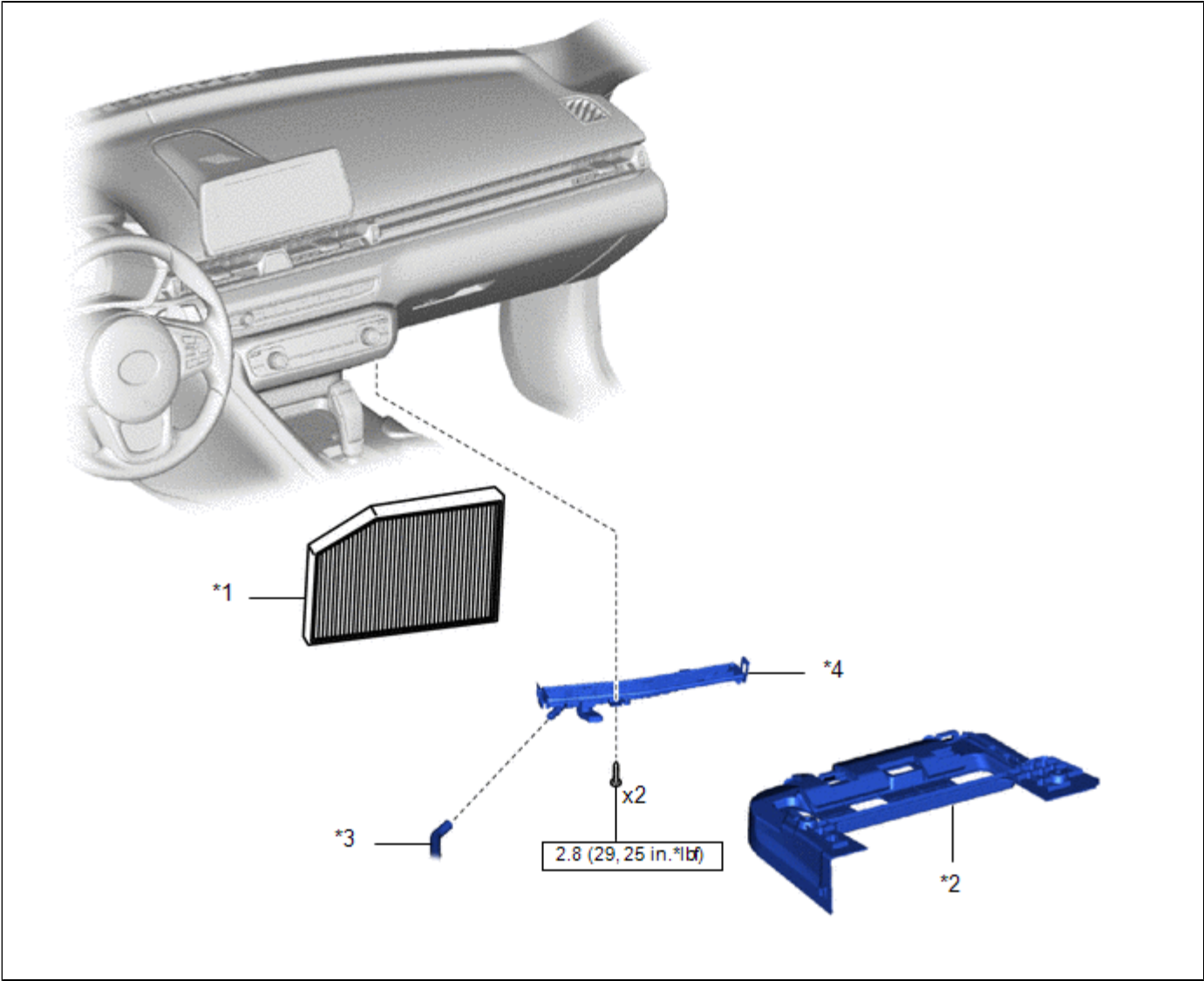
3. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING FILTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CLEAN AIR FILTER	*2	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
*3	DRAIN COOLER HOSE	*4	COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING FILTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING FILTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

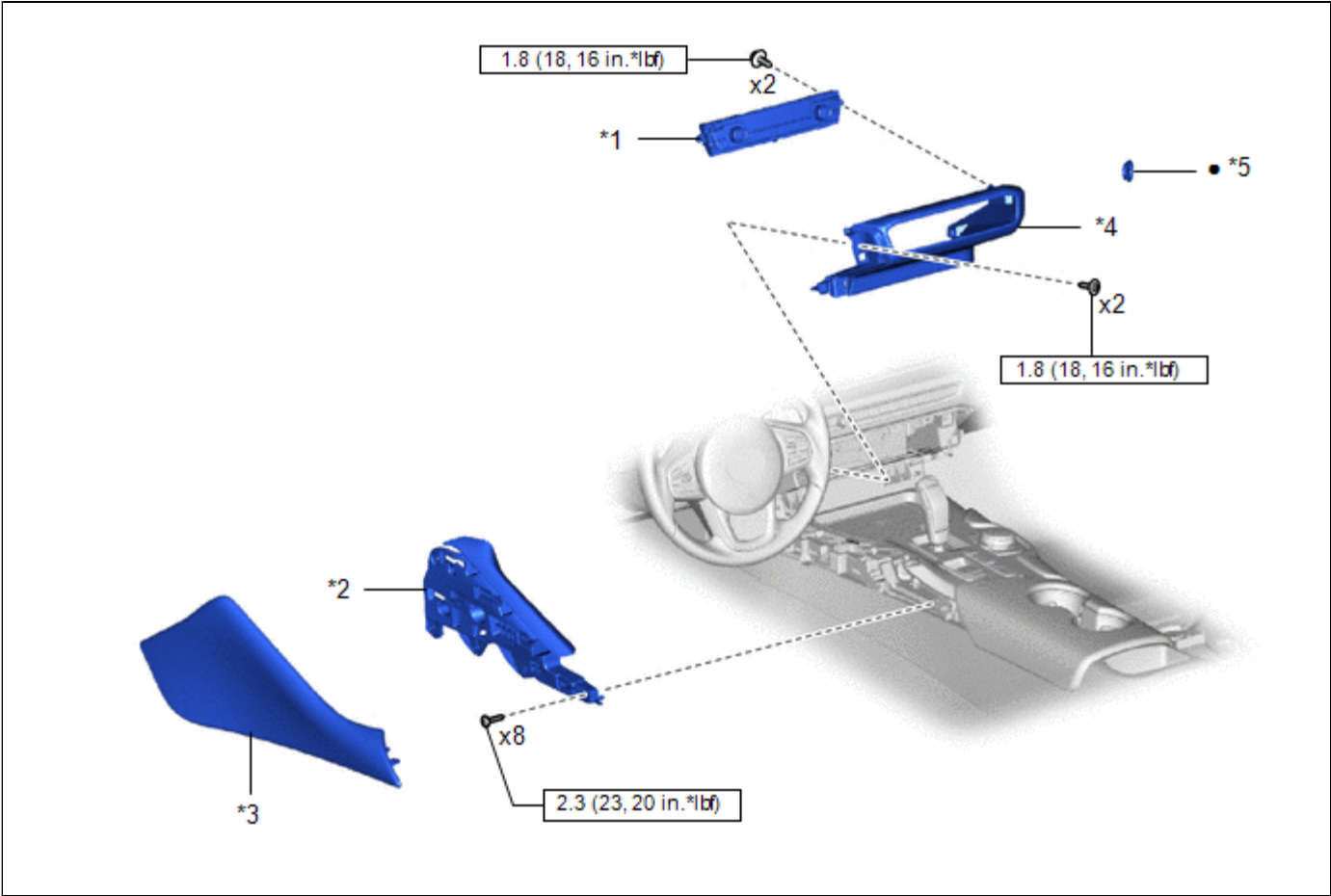
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PANEL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CONDITIONING CONTROL ASSEMBLY	*2	CONSOLE PANEL AND CONSOLE PANEL RETAINER
*3	CONSOLE SIDE PANEL	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	RUBBER PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PANEL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE CONSOLE SIDE PANEL

Click here [INFO](#)

2. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

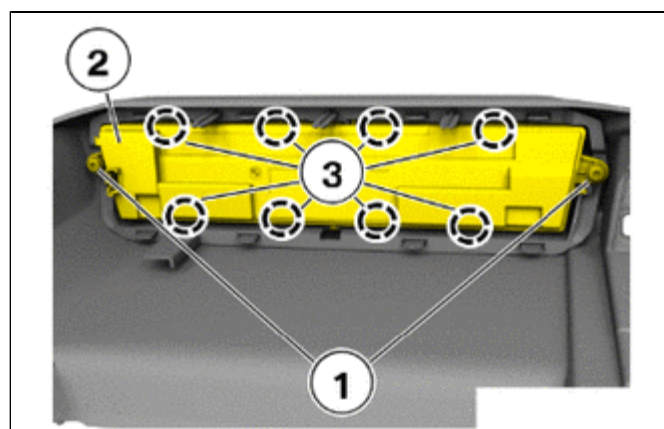
Click here [INFO](#)

3. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

4. REMOVE AIR CONDITIONING CONTROL ASSEMBLY

(a) Remove the T20 screws (1).



(b) Disengage air conditioning control assembly (2) at the claws (3) with a suitable tool and remove.

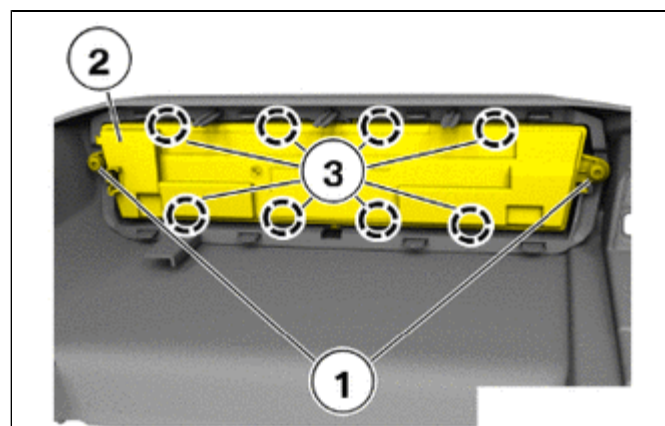
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PANEL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR CONDITIONING CONTROL ASSEMBLY

- (a) Engage in the air conditioning control assembly (2) with the claws (3).



- (b) Install the T20 screws (1).

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

2. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

3. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

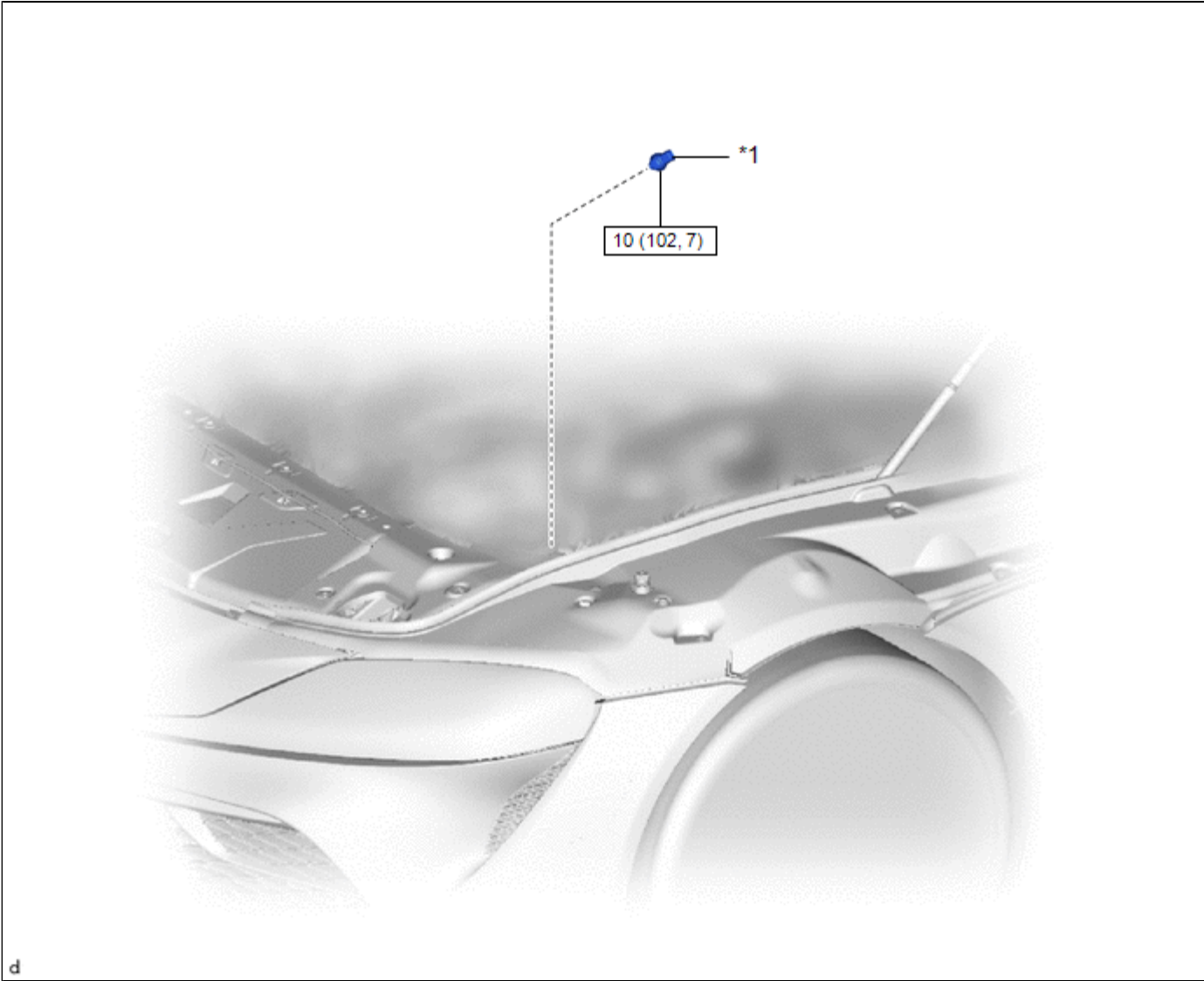
4. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PRESSURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CONDITIONER PRESSURE SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PRESSURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. REMOVE RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

3. REMOVE AIR CONDITIONER PRESSURE SENSOR

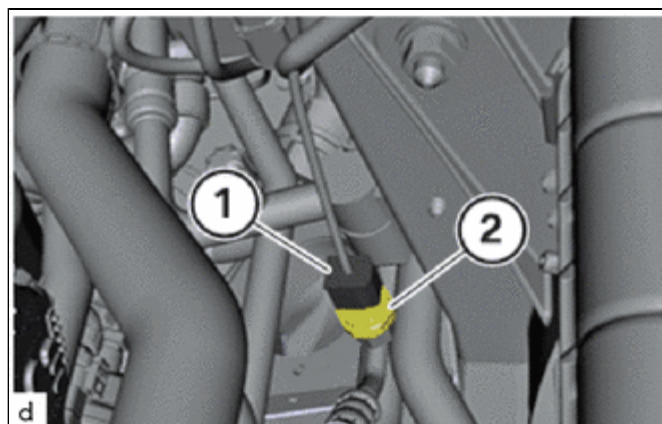
CAUTION:

- Residual pressure in the air conditioning.

Danger of injury.

- Wear safety goggles and protective gloves when disconnecting the refrigerant line.
- Seal refrigerant lines with seal plugs.

(a) Disconnect the connector (1).



(b) Using a 24 mm deep socket wrench, remove the air conditioner pressure sensor (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PRESSURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR CONDITIONER PRESSURE SENSOR

(a) Using a 24 mm deep socket wrench, install the air conditioner pressure sensor.

Torque:
10 N·m {102 kgf·cm, 7 ft·lbf}

(b) Connect the connector.

2. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

3. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING SYSTEM: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

REFRIGERANT CIRCUIT IS UNDER HIGH PRESSURE

- If the service valve caps on the service valves are difficult to open, there is a danger of injury from leaking valve inserts.

REPAIRS MAY ONLY BE CARRIED OUT ON A DEPRESSURIZED REFRIGERANT CIRCUIT

- Before conducting repairs, check the actual pressure drop.

AVOID CONTACT WITH REFRIGERANT AND COMPRESSOR OIL

- Pay attention to the safety information for dealing with coolant.
- Follow safety information:

Click here [INFO](#)

RESTART ENGINE ONLY WHEN AIR CONDITIONING HAS BEEN CORRECTLY FILLED

ALWAYS USE NEW O-RINGS EACH TIME A/C CONNECTIONS ARE OPENED

- They must not be coated.

OPEN THE REFRIGERANT CIRCUIT FOR AS SHORT A PERIOD AS POSSIBLE

DURING THE ENTIRE FILLING PROCEDURE THE VEHICLE MUST STAND ON THE FLOOR

FILLING A RAISED VEHICLE WILL RESULT IN INSUFFICIENT FILLING LEVELS

PERFORM A/C PERFORMANCE TEST IN EVENT OF CUSTOMER COMPLAINT

Click here [INFO](#)

INSTRUCTIONS FOR DRAWING OFF AIR CONDITIONING

- To help separation of refrigerant and compressor oil, run engine at low speed (800 to 1200 rpm) and with air conditioning switched on for a few minutes.
 - This limits the entrainment of compressor oil while it is drawn off.
- Drawn-off compressor oil must be changed and reintroduced via the refrigerant recovery unit.
- During drawing off, set the blower of the heating and air conditioning unit to the middle blower speed.
 - This ensures that drawing off is more effective since the pressure on the low pressure side increases.

INSTRUCTIONS FOR EVACUATING OFF AIR CONDITIONING

- Before each filling, evacuate the refrigerant circuit.
- Observe an evacuation time of at least 30 minutes.
- The evacuation procedure removes all traces of ambient air, water vapor and any other gases present from the air conditioning. This enables subsequent system filling with refrigerant.
- If the vacuum does not remain stable when the system is off, run the procedure for leaks in the refrigerant circuit.

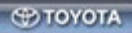
Click here [INFO](#)

- During evacuation, set the blower of the heating and air conditioning unit to the middle blower speed.

(1) This ensures that evacuation is more effective since the pressure on the low pressure side increases.

INSTRUCTIONS FOR FILLING AIR CONDITIONING

- (a) Before filling with refrigerant, replace the compressor oil entrained plus losses during drawing off.
- (b) Fill up the amount of refrigerant as per type plate.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING SYSTEM: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

CAUTION / NOTICE / HINT

NOTICE:

- Observe the following conditions prior to the air condition performance test:
 - Connect the Diagnosis system. Check the fault memory (no faults in the fault memory).
 - Vehicle management / Troubleshooting / Fault memory
 - Attach a thermometer with separate display element to the head restraint. Lay display element outwards out of passenger compartment.
 - Perform the test in a suitable workshop area at an ambient temperature above 18°C (64°F).
 - Vehicle temperature should be approximately the same as the ambient temperature in the workshop.
 - Engine must be at operating temperature.
 - Drive mode "ECO" must not be switched on.

PROCEDURE

1. INSPECT AIR CONDITION PERFORMANCE

(a) Warm up the engine.

(1) Check the engine warm-up condition.

HINT:

- Connect the diagnosis system to the vehicle and enter the following menus.
Vehicle information / Control unit list / DME / Call up control unit functions / Diagnostic request / Diagnostic request / 102 Coolant temperature

(b) Heat passenger compartment:

- (1) "A/C switch" is not activated during the heating process.
- (2) Close front door glass sub-assembly and doors.
- (3) Set air recirculation function.
- (4) Select air distribution mode for footwell and defrosting.
- (5) Maximum temperature setting.
- (6) Maximum blower speed.
- (7) Start engine.

(c) Cool down passenger compartment:

- (1) Switch on compressor with pulley assembly with "A/C switch" at a vehicle interior temperature of 45°C (113°F) (measured at the head restraint).

HINT:

- On vehicles with MAX-AC switch:
 - Activation of (MAX-AC) = (maximum cooling power)

(d) After 5 minutes, measure both ventilation temperatures with a thermometer at the same time (center, left and right fresh air grille). The measured temperature must be 16°C (61°F) or less. The difference between the right and left

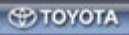
must not be greater than 2°C (36°F).

- (e) If one or both temperature specifications is not reached drain off heating and air conditioning system. Measure the amount of refrigerant drawn off and compare with the nominal fill amount.
- (f) Check whether refrigerant loss is present.
 - (1) If there is a permissible loss of refrigerant, fill the refrigerant circuit with the nominal fill amount.

Click here [INFO](#)

- (2) If there is an impermissible loss of refrigerant, check the refrigerant circuit for tightness. After rectifying the leak, fill the refrigerant circuit with the nominal fill amount.

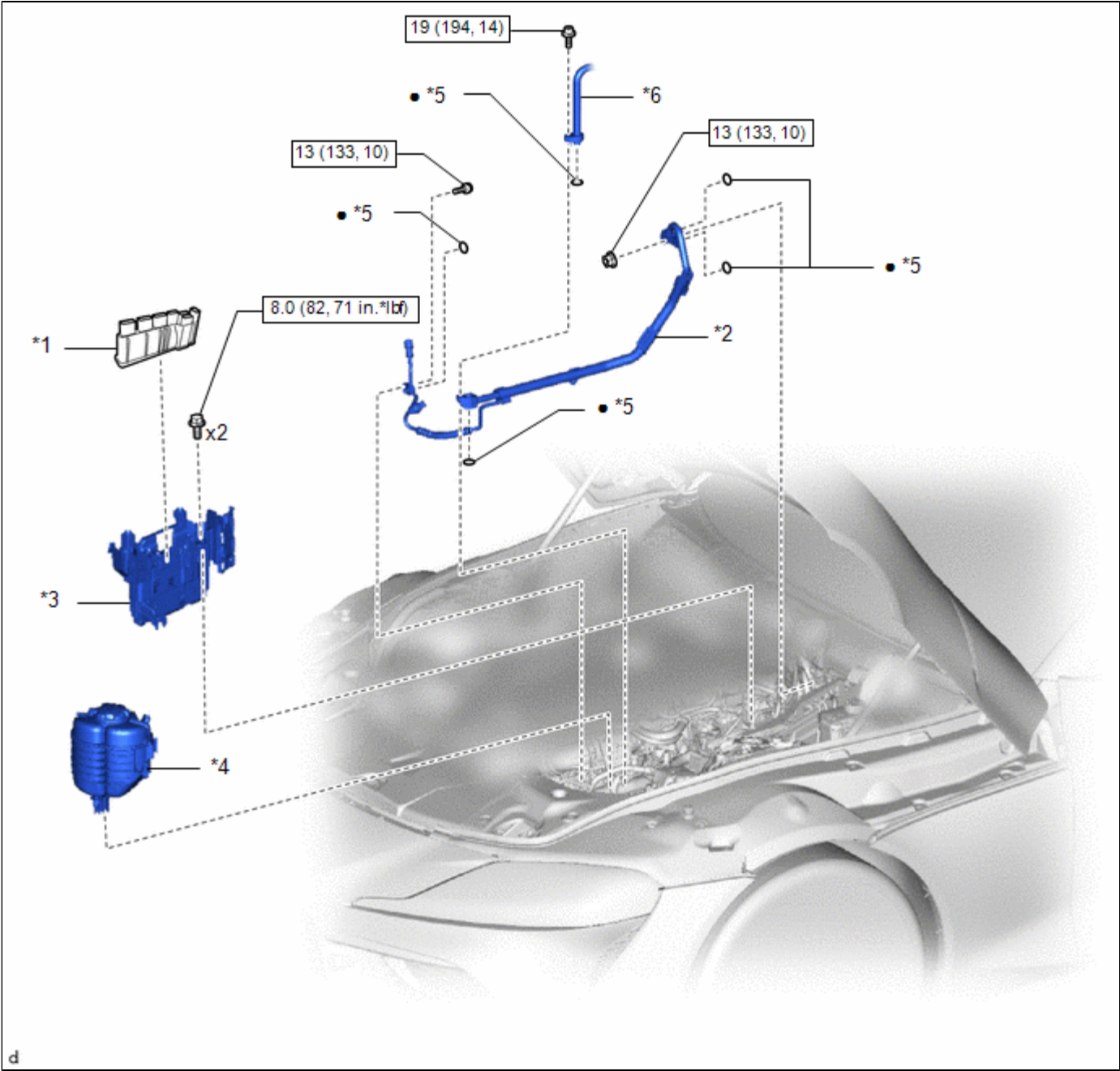
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

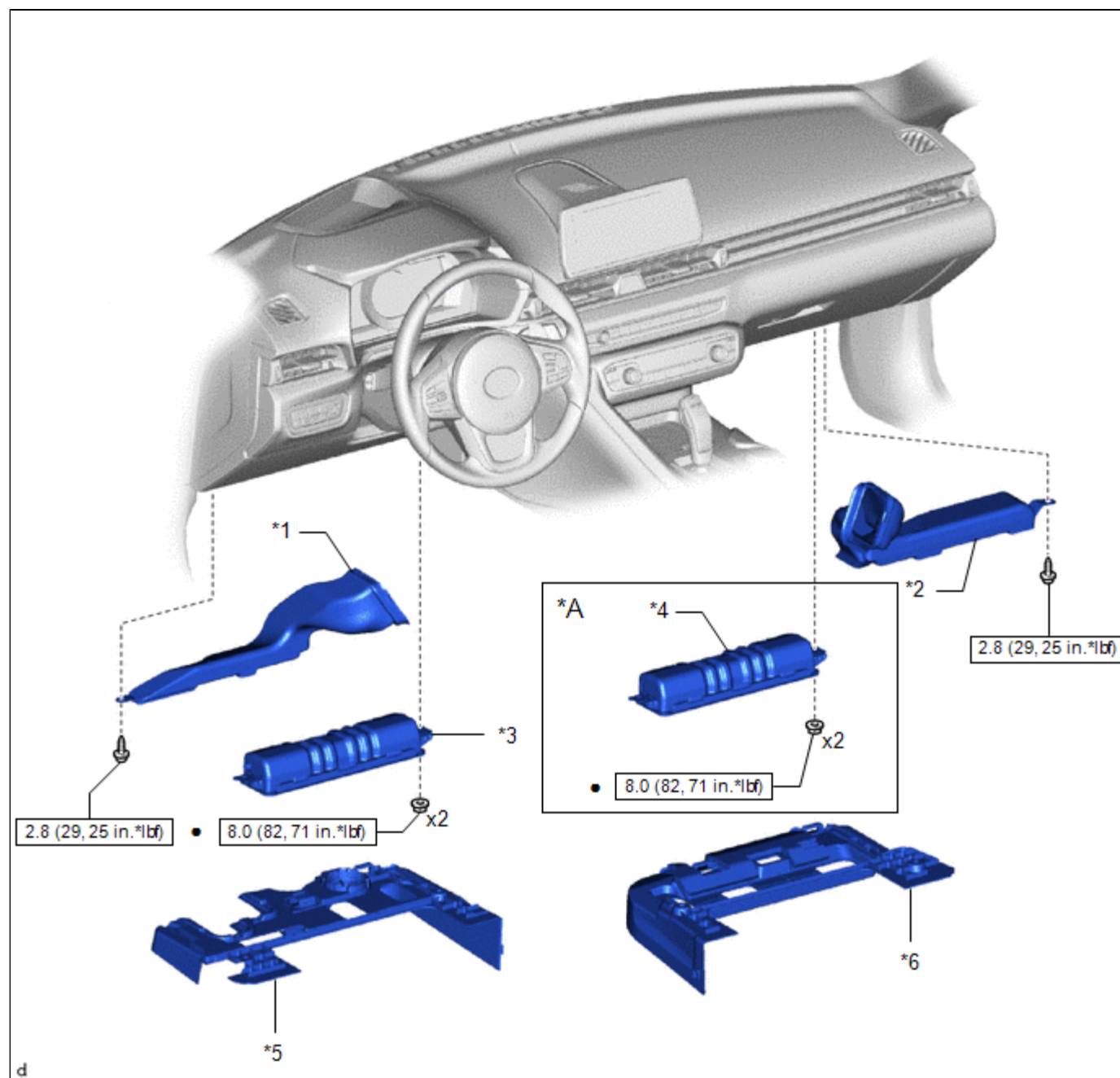
ILLUSTRATION



*1	NO. 1 INTEGRATION RELAY	*2	AIR CONDITIONER TUBE ASSEMBLY
*3	ENGINE ROOM ECM BOX	*4	RADIATOR RESERVE TANK ASSEMBLY
*5	O-RING	*6	SUCTION PIPE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



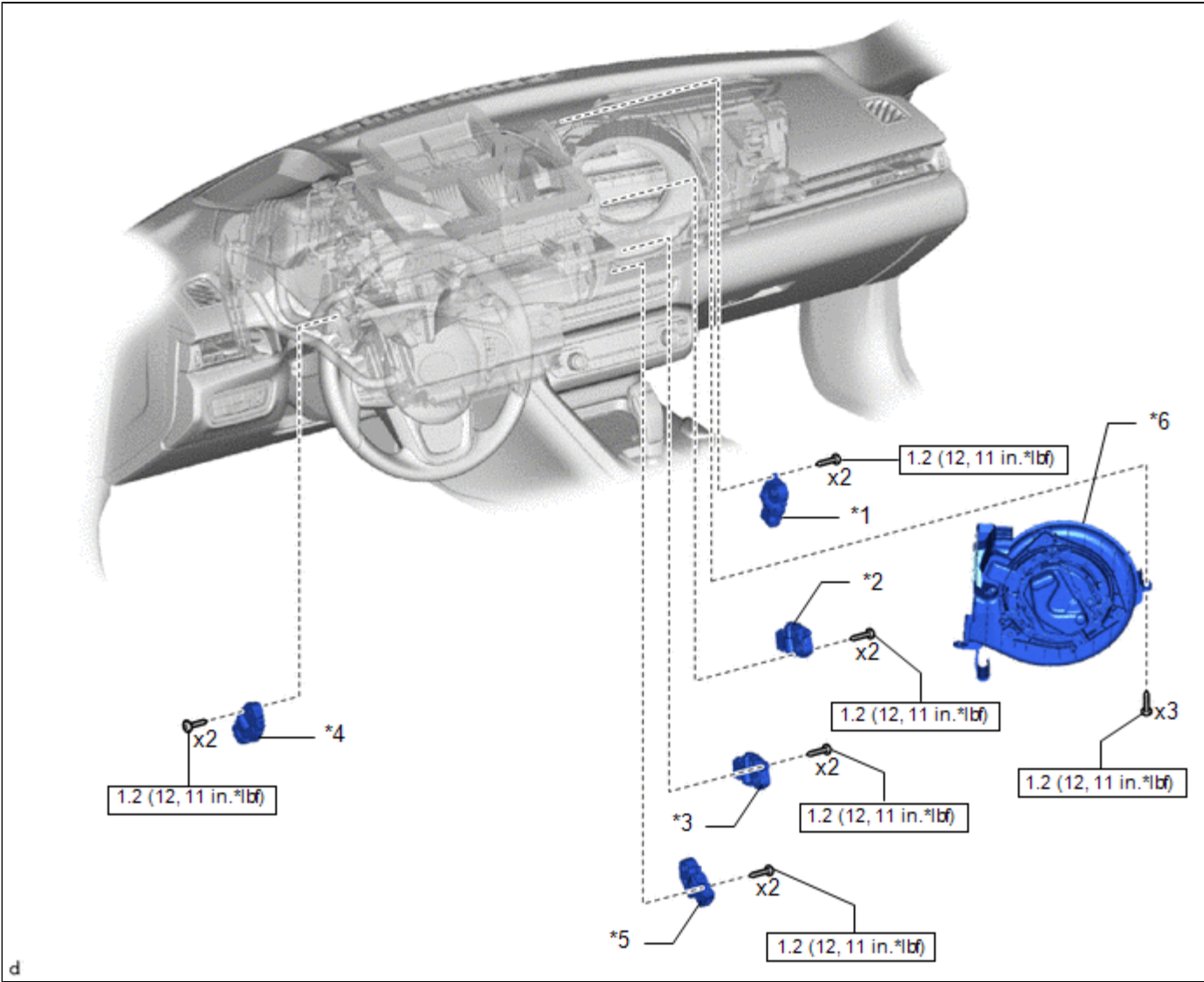
ILLUSTRATION



*A	w/ Passenger Side Knee Airbag	-	-
*1	NO. 1 AIR DUCT	*2	NO. 2 AIR DUCT
*3	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY	*4	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY
*5	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY	*6	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified	•	Non-reusable part

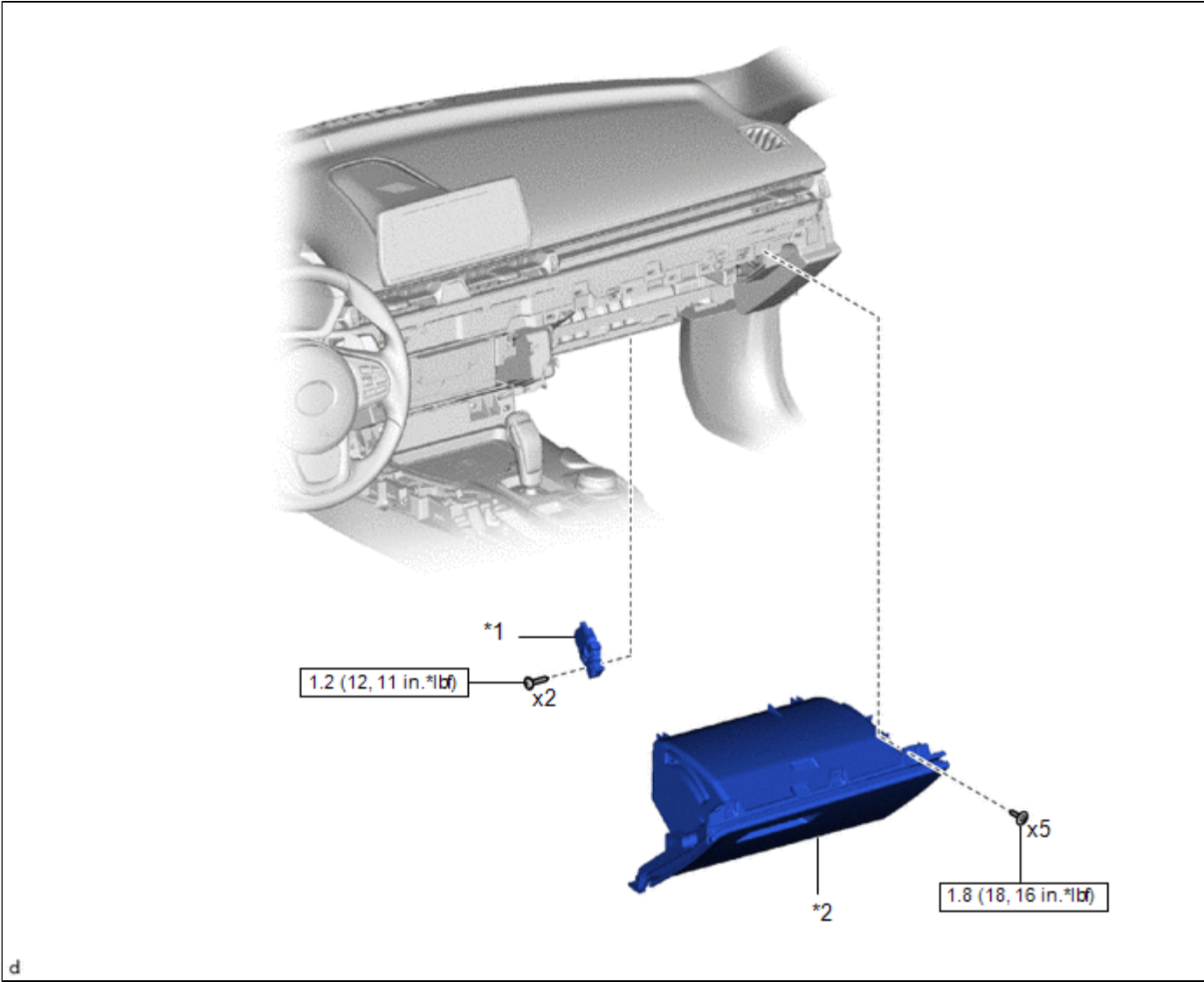
<div></div>	torque		
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ILLUSTRATION



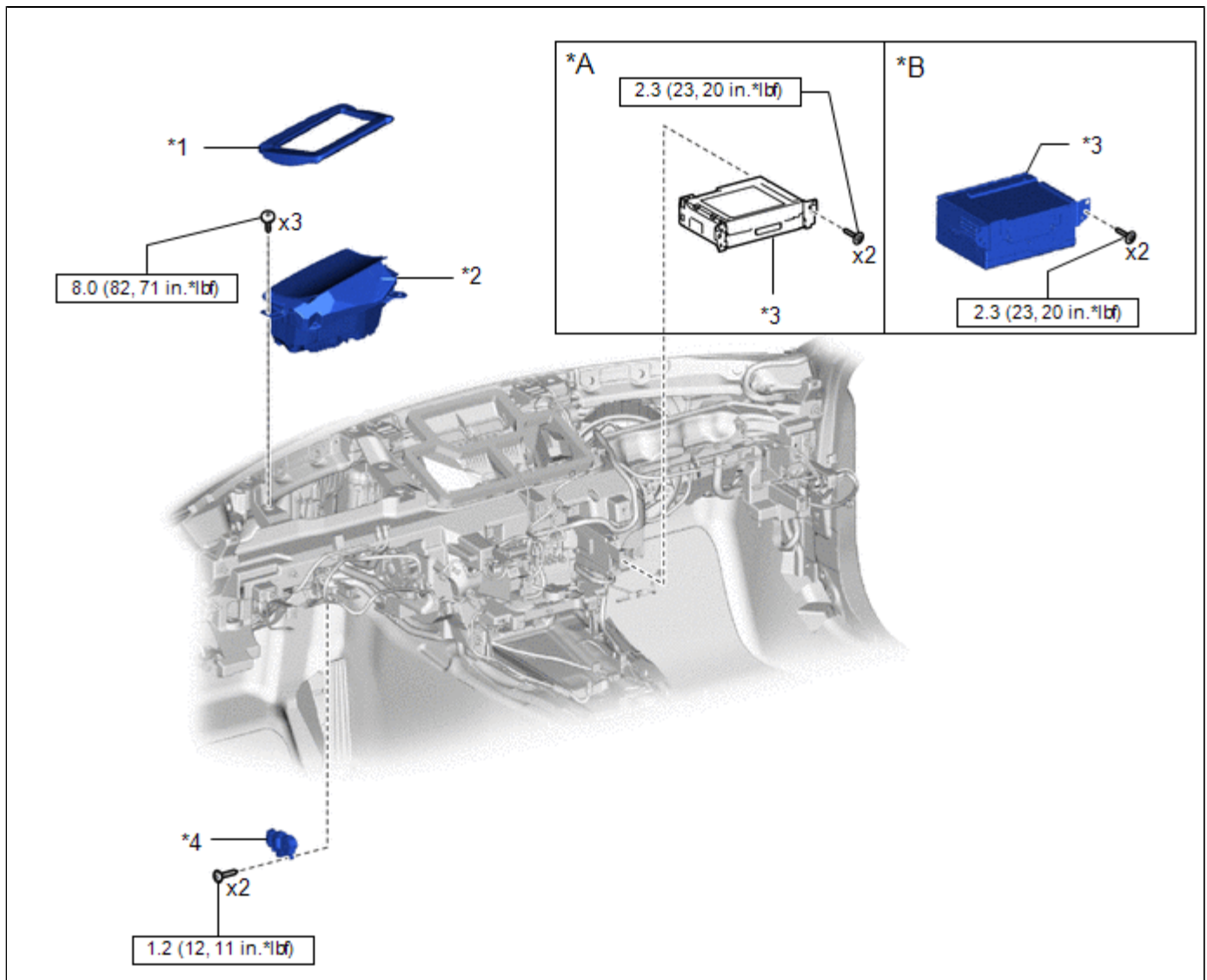
*1	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M61)	*2	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M7a)
*3	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M69)	*4	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M23a)
*5	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M83a)	*6	BLOWER WITH FAN MOTOR SUB-ASSEMBLY
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



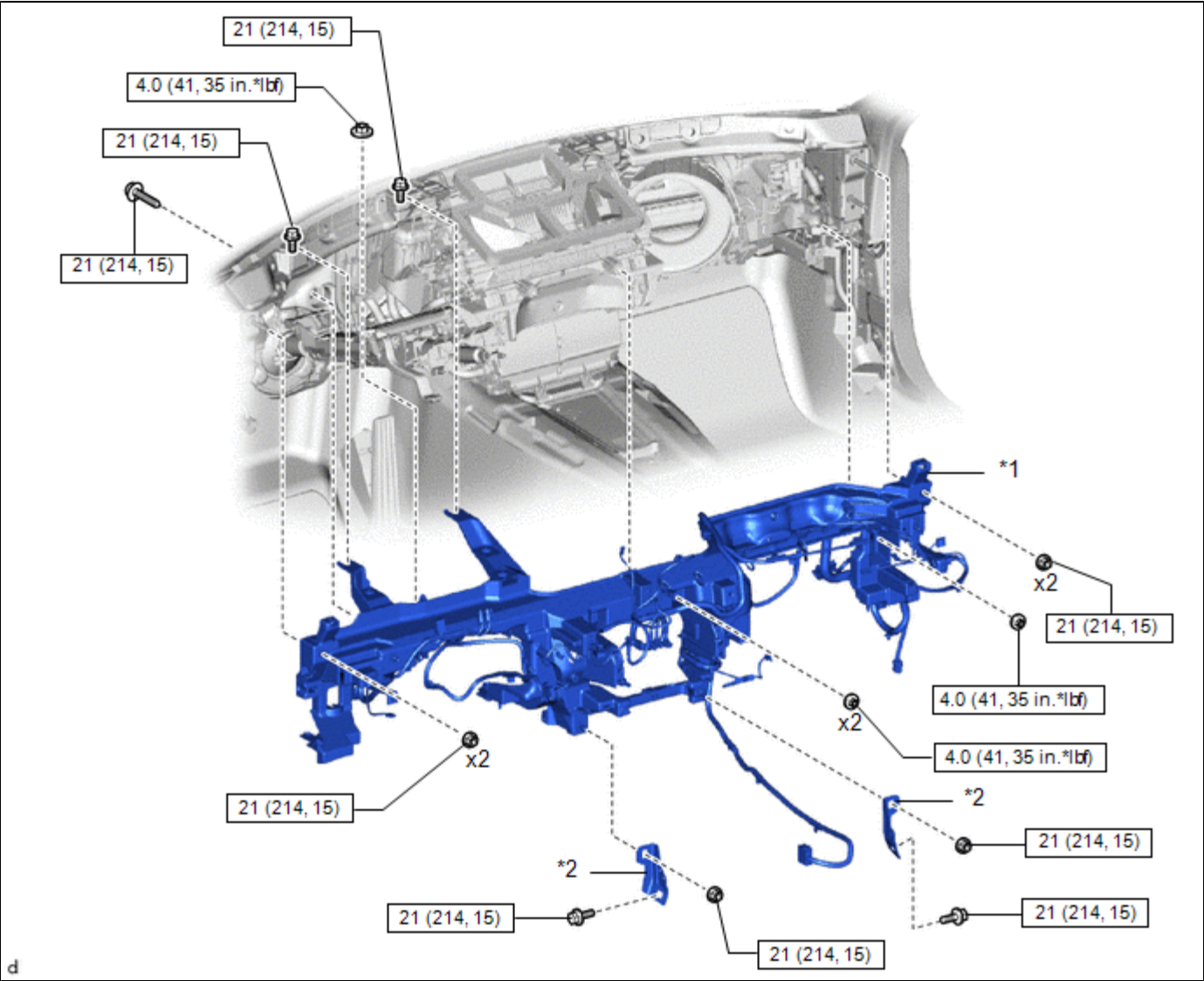
*1	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M16)	*2	GLOVE COMPARTMENT DOOR ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



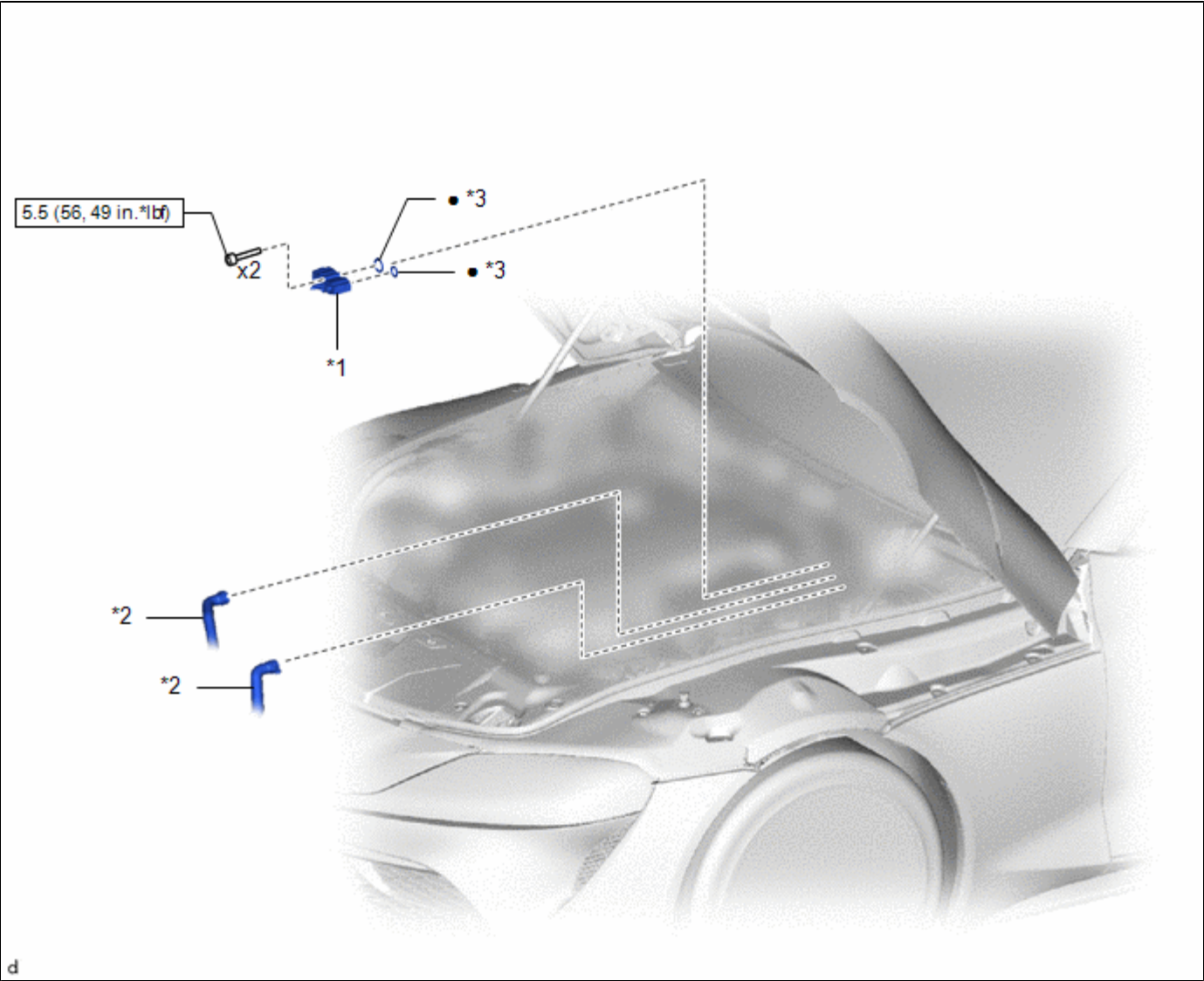
*A	w/o Navigation System	*B	w/ Navigation System
*1	NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL	*2	METER MIRROR SUB-ASSEMBLY
*3	RADIO RECEIVER ASSEMBLY	*4	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M21b)
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



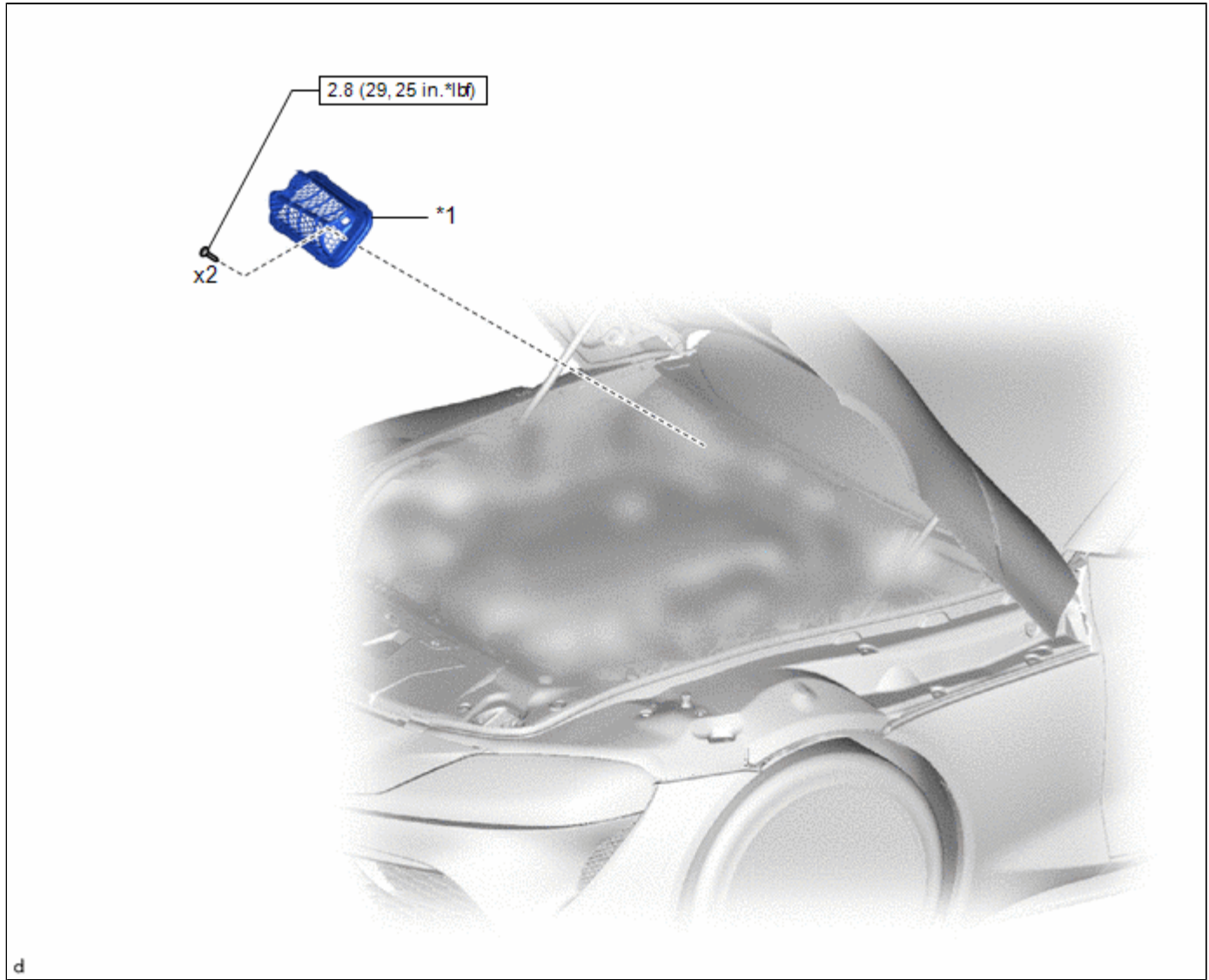
*1	INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY	*2	NO. 1 INSTRUMENT PANEL BRACKET
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


ILLUSTRATION



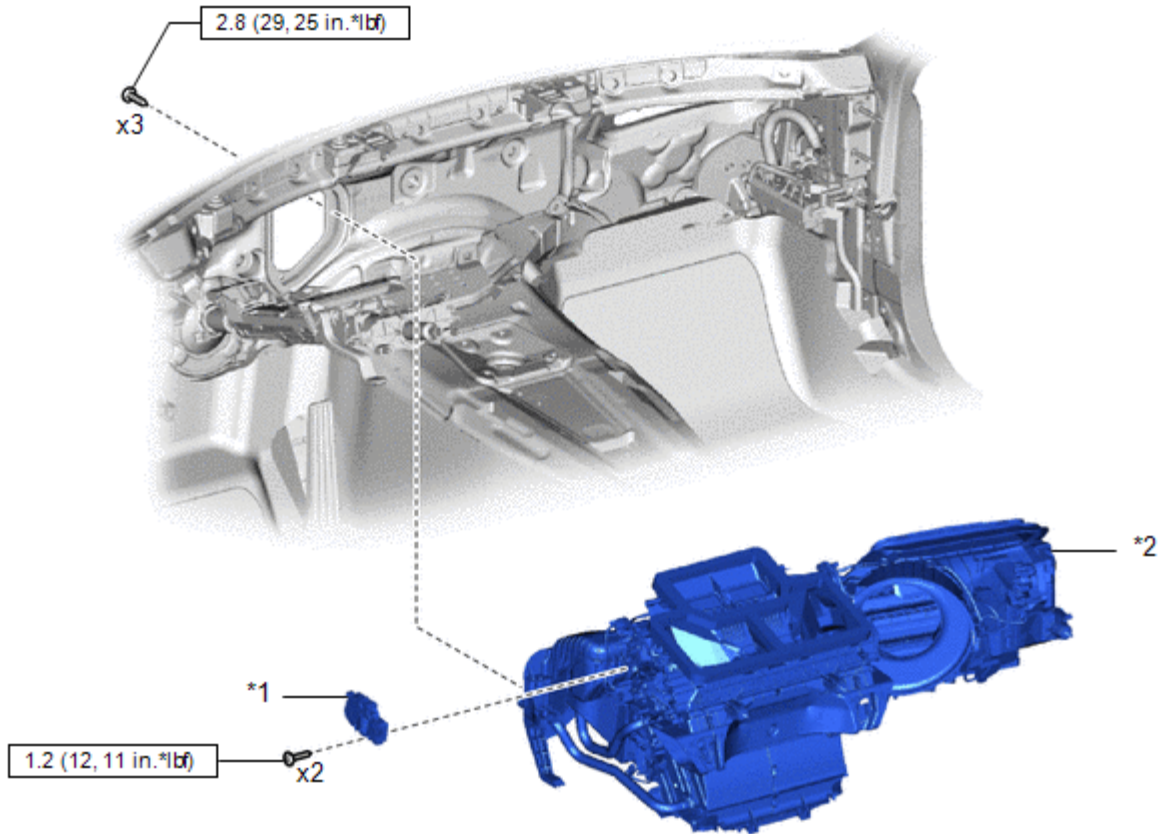
*1	COOLER EXPANSION VALVE	*2	HEATER WATER HOSE
*3	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	NO. 1 AIR DUCT SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

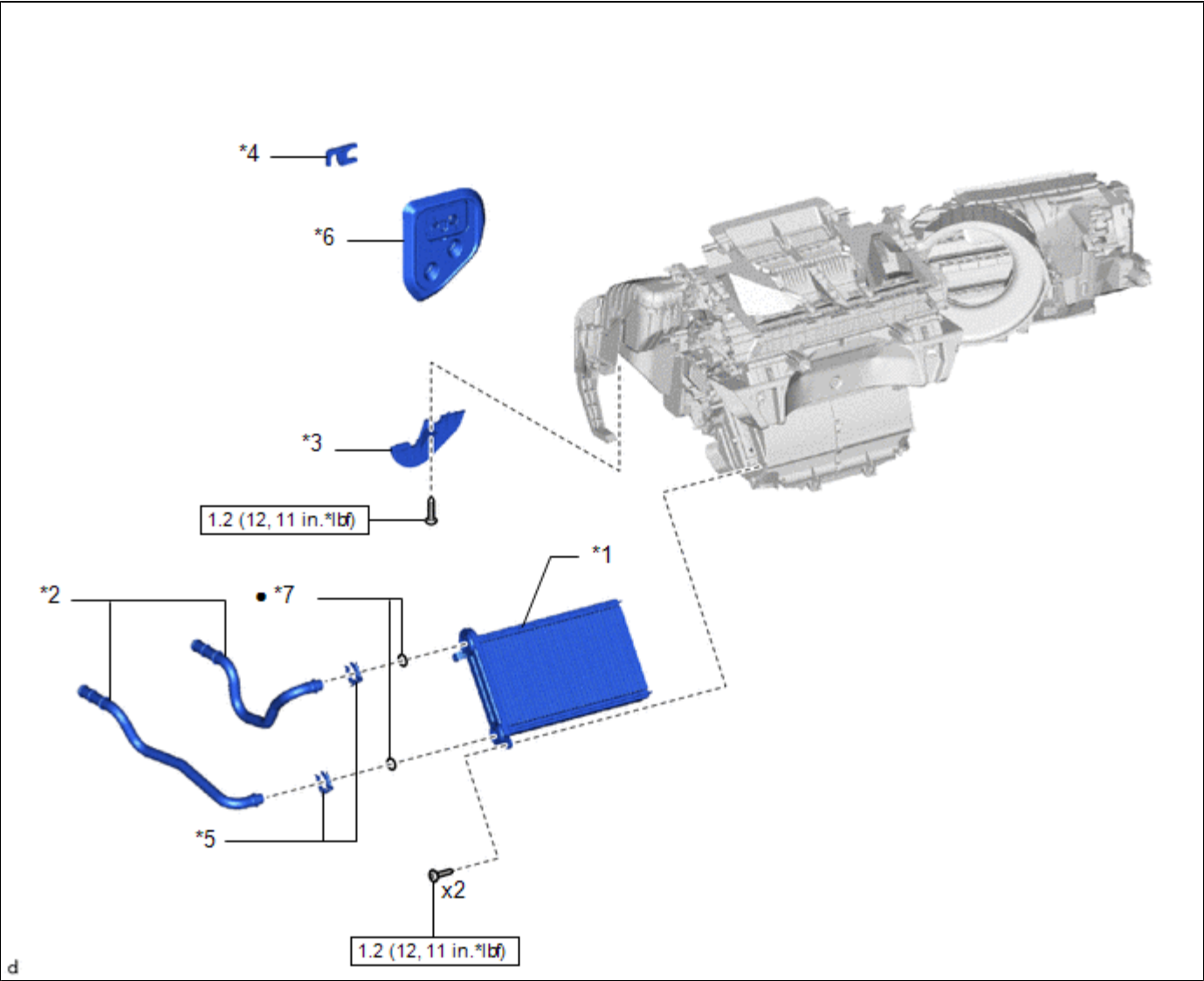
ILLUSTRATION




d

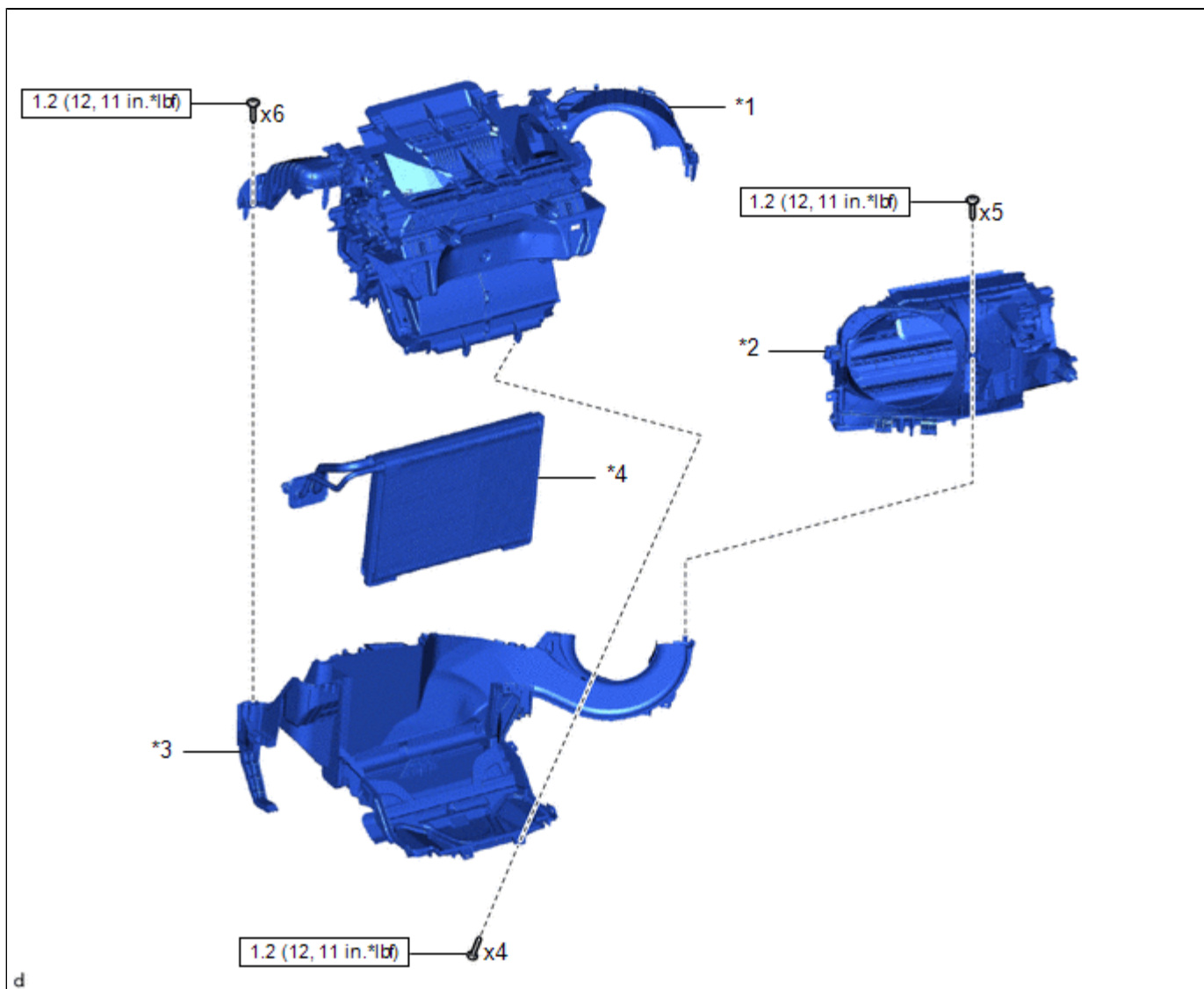
*1	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M9)	*2	AIR CONDITIONING UNIT ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	HEATER RADIATOR UNIT SUB-ASSEMBLY	*2	WATER PIPE SUB-ASSEMBLY
*3	WATER PIPE SUB-ASSEMBLY HOLDER	*4	MOUNTING PLATE
*5	RETAINING CLIP	*6	SEAL
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	AIR CONDITIONING RADIATOR ASSEMBLY	*2	BLOWER HOUSING
*3	LOWER RADIATOR CASE SUB-ASSEMBLY	*4	NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: ON-VEHICLE CLEANING; 2020 MY Supra [03/2019 -]		

ON-VEHICLE CLEANING

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger of life-threatening injuries.



- Work on pyrotechnic parts may only be carried out by competent and properly trained persons.
- Replace damaged or fallen parts.
- Disconnect the battery lead from the battery before carrying out any work on the airbag.
- Only lay the airbag unit with the upholstery (airbag) facing upwards.
- For further information see: Safety instructions for handling components with gas generators.

Click here [INFO](#)

NOTICE:

- Damage to the air conditioning.

The use of a non-approved clean air filter can lead to functional impairment of the air conditioner.

- Only operate the air conditioner with the prescribed clean air filter.

HINT:

Air conditioning is set to recirculation mode.

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

4. REMOVE CLEAN AIR FILTER

Click here [INFO](#)

5. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

6. REMOVE BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

7. CLEAN NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY

CAUTION:

- Health impairment in contact with liquids.
 - Observe safety instructions on the containers and comply with them.
 - Only carry out work with appropriate personal protective equipment.

HINT:

Park the vehicle at a suitable washing area, as the effluent cleaning agent escapes through the condensation drain on the transmission tunnel.

(a) Fill the cleaner in special tool 9 429 217.

SST: 09800-WA190

Cleaner:

Air Conditioning System Cleaner

(b) Connect special tool 2 222 502 with special tool 9 429 217.

SST: 09800-WA250

SST: 09800-WA190

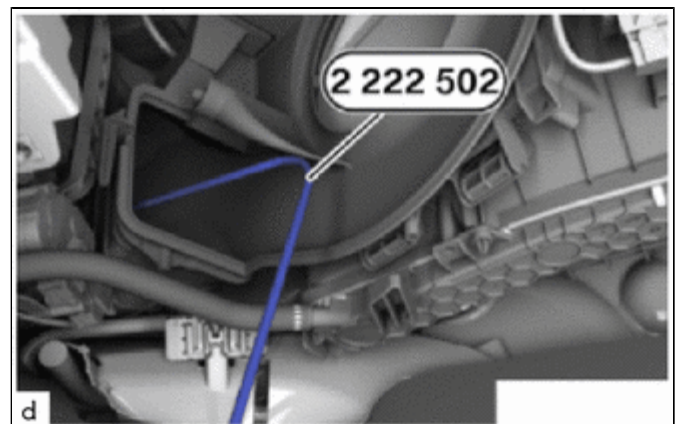
(c) Build pressure in special tool 9 429 217.

(d) Close all ventilation vents.

(e) Cover the carpet in the work area.

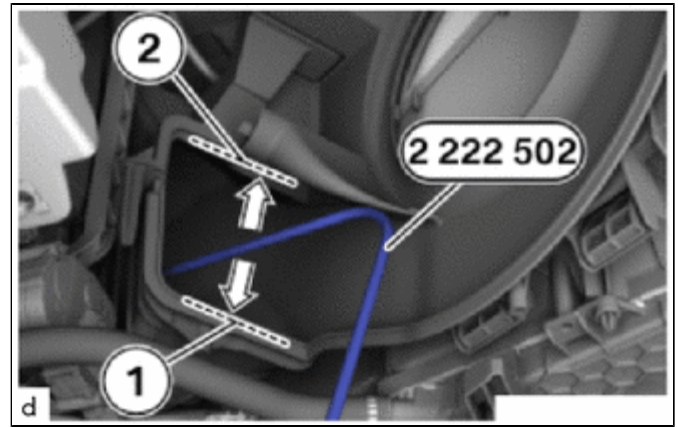
(f) Insert special tool 2 222 502 into the opening of the housing as shown.

SST: 09800-WA250



- (g) Move the special tool 2 222 502 in the opening of the housing in the directions of the arrows from the lower edge (1) to the upper edge (2).

SST: 09800-WA250



- (h) Move special tool 2 222 502 back and forth until the cleaner has been completely sprayed.

SST: 09800-WA250

- (i) After cleaning, drain vehicle for approx. 5 minutes.

8. INSTALL BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

9. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

10. INSTALL CLEAN AIR FILTER

Click here [INFO](#)

11. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

12. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

13. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits. Risk of fire.

- Detach battery earth lead from battery.

- Airbag unit.

Danger. Life-threatening injuries.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: Safety regulations on handling components with gas generators.

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Scratches.

Tools and sharp-edged components can cause scratches.

- Protect working area.
- Handle tools and components carefully.

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. DRAIN ENGINE COOLANT

Click here [INFO](#)

3. REMOVE UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

4. REMOVE ECM

Click here [INFO](#)

5. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

6. REMOVE ENGINE ROOM ECM BOX

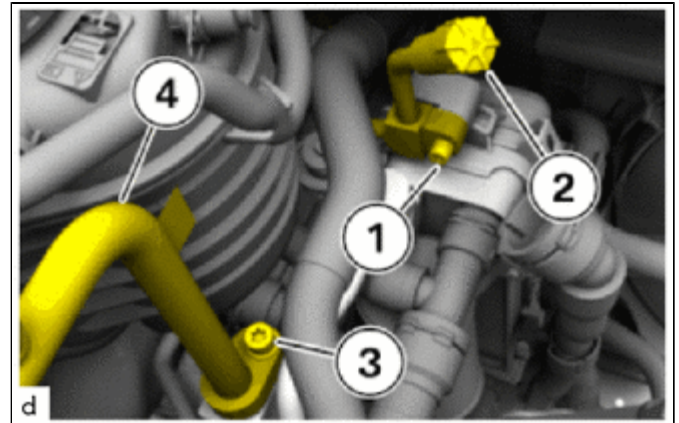
Click here [INFO](#)

7. REMOVE RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

8. SEPARATE AIR CONDITIONER TUBE ASSEMBLY

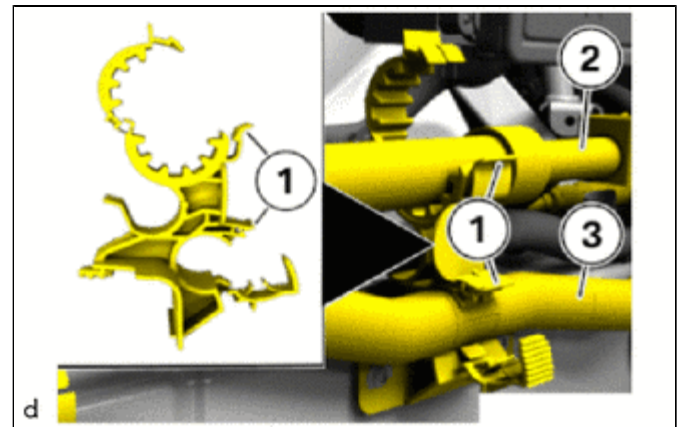
(a) Remove T30 bolt (1) and remove air conditioner tube assembly (2).



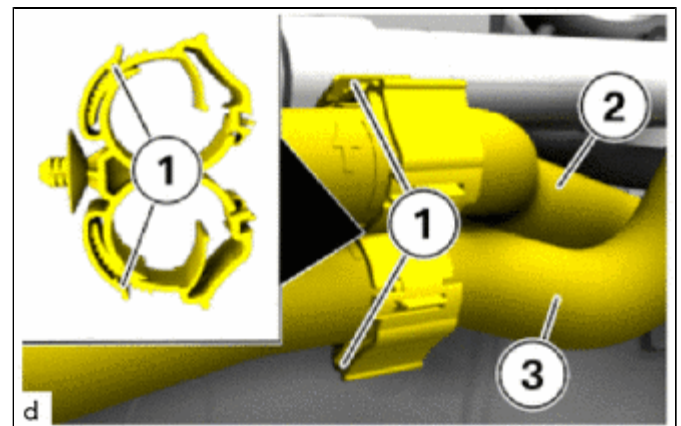
(b) Remove T45 bolt (3) and remove the suction pipe sub-assembly (4).

(c) Remove the O-rings.

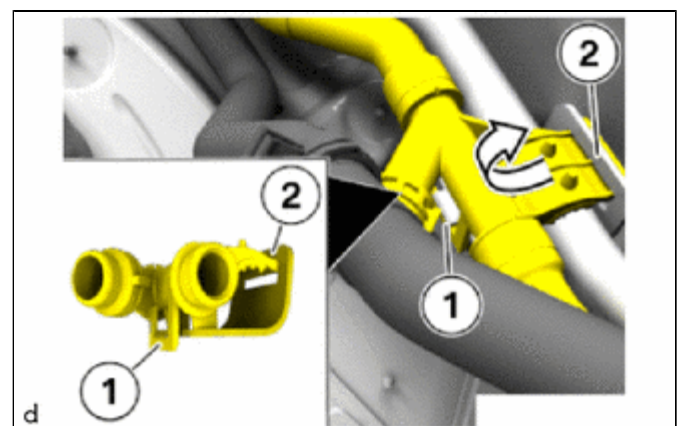
(d) Unlock the holder with the catches (1) and open.



(e) Remove the air conditioner tube assembly (2) and the heater water hose (3) from the holder.



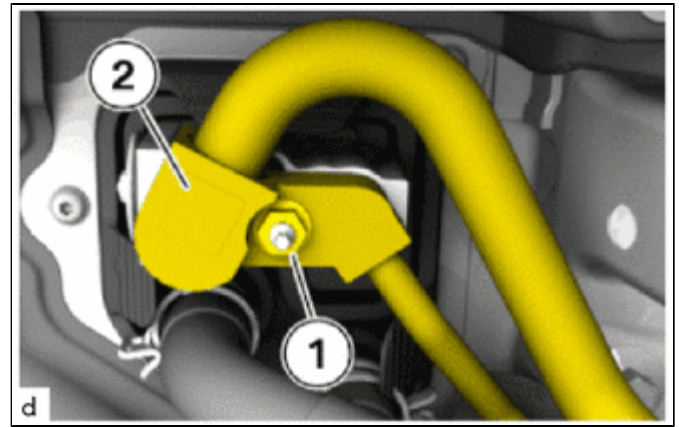
(g) Remove the heater water hose (2) and (3) from the holder.



(h) Remove catch (1).

(i) Feed the heater water hose in the direction of the arrow from the receptacle on the air conditioner tube assembly (2).

(j) Remove nut (1).



(k) Disconnect the air conditioner tube assembly (2) from the cooler expansion valve.

(l) Remove the O-ring.

9. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

10. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

11. REMOVE LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

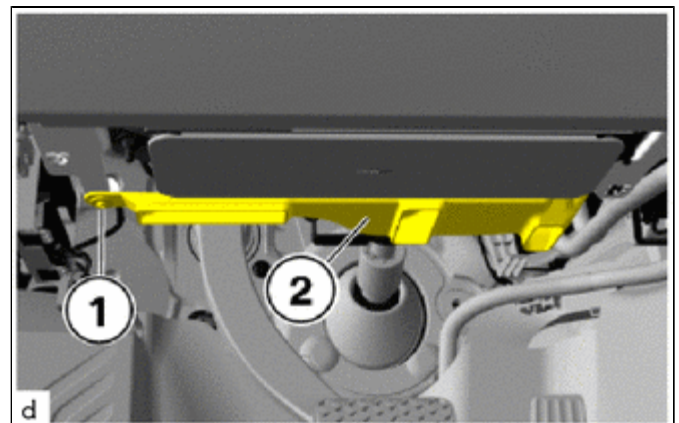
Click here [INFO](#)

12. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

13. REMOVE NO. 1 AIR DUCT

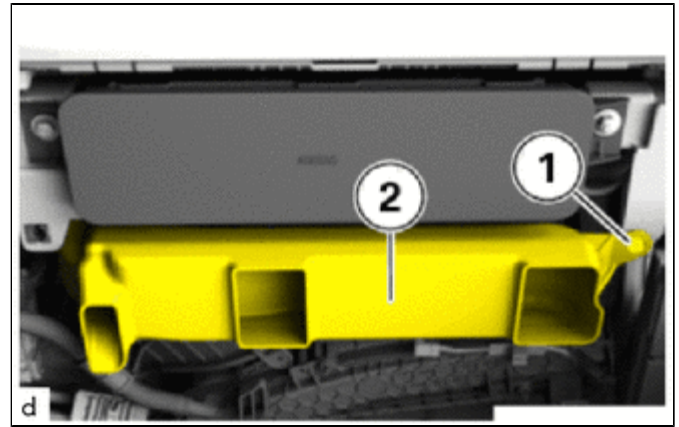
(a) Remove screw (1).



(b) Remove No. 1 air duct (2).

14. REMOVE NO. 2 AIR DUCT

(a) Remove screw (1).

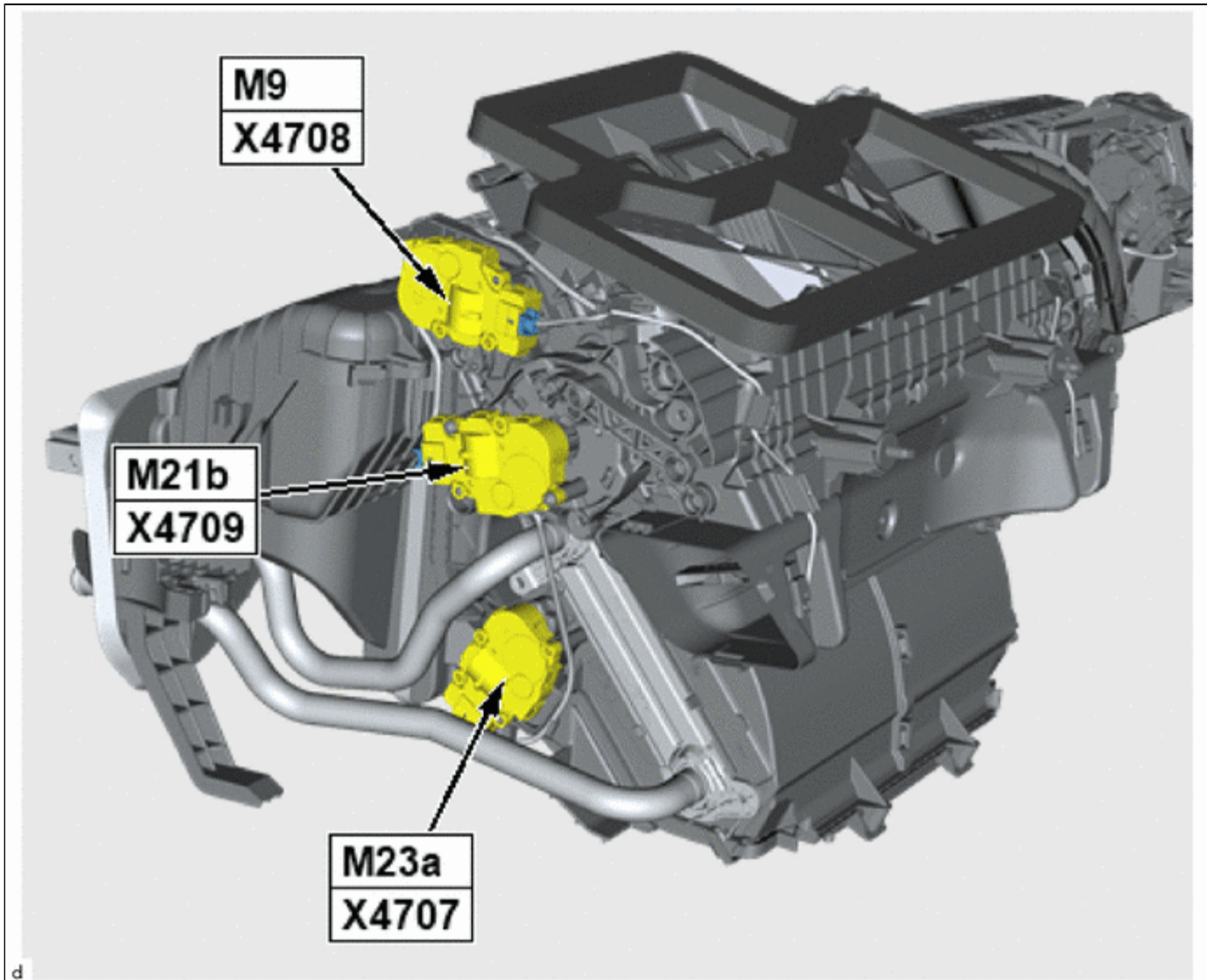


(b) Remove No. 2 air duct (2).

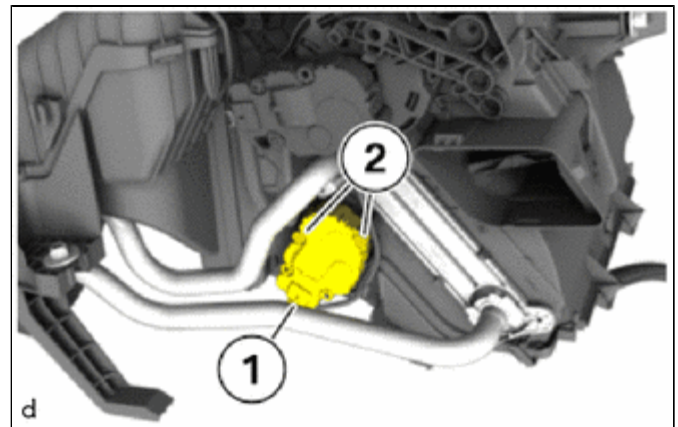
15. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M23a)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



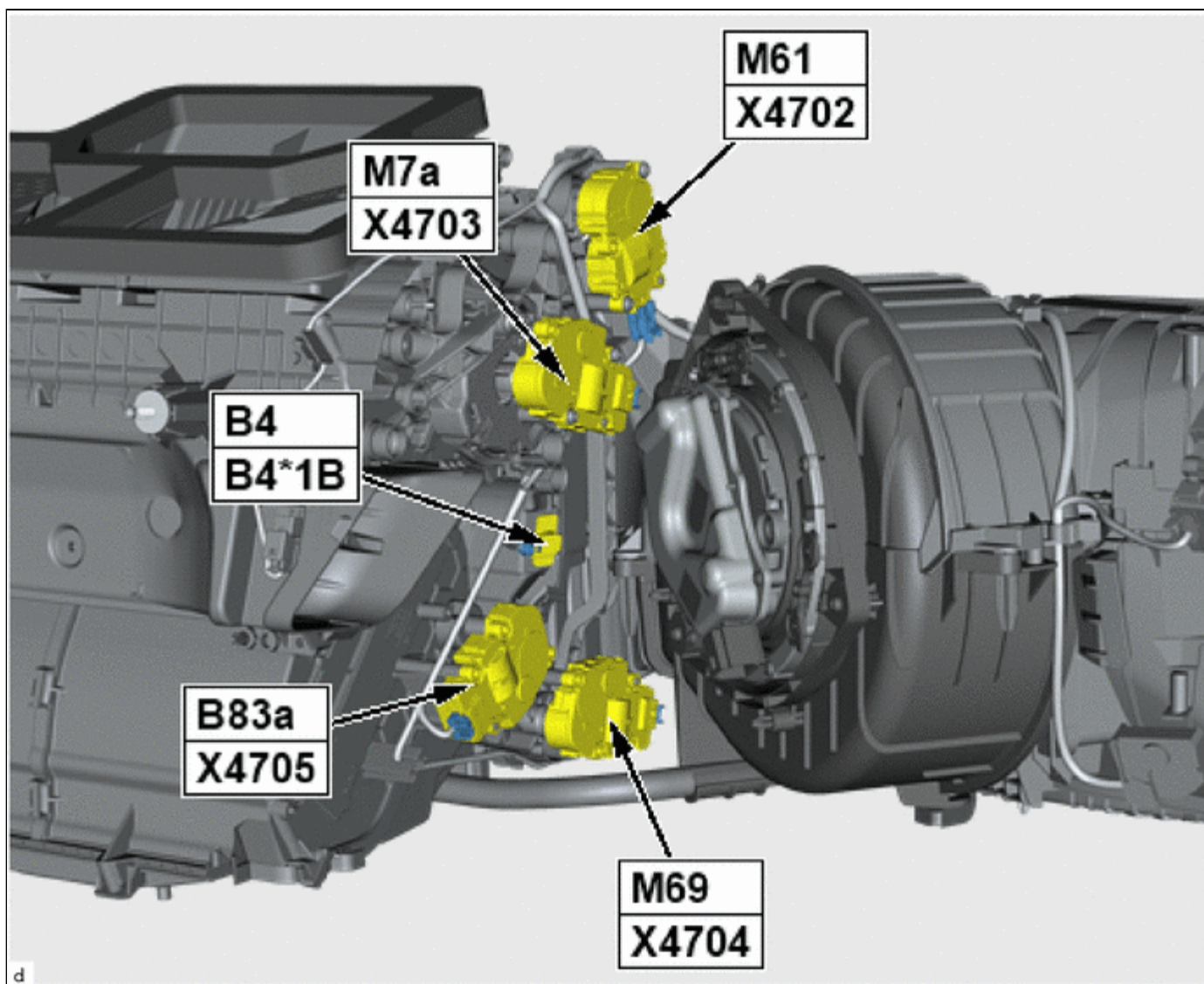
(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M23a).

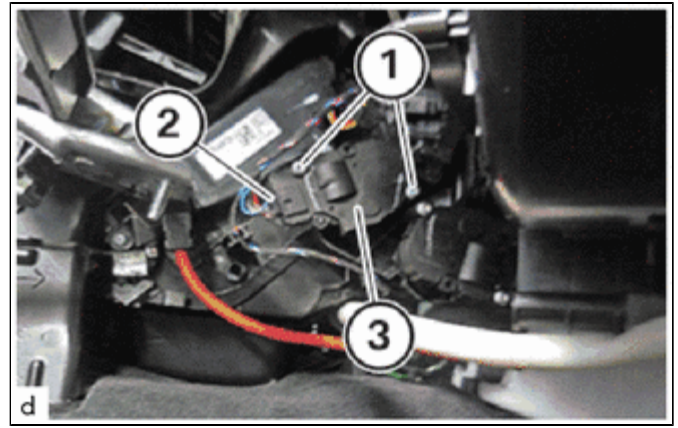
16. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M83a)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (2).



(b) Remove T20 screws (1).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M83a) (3).

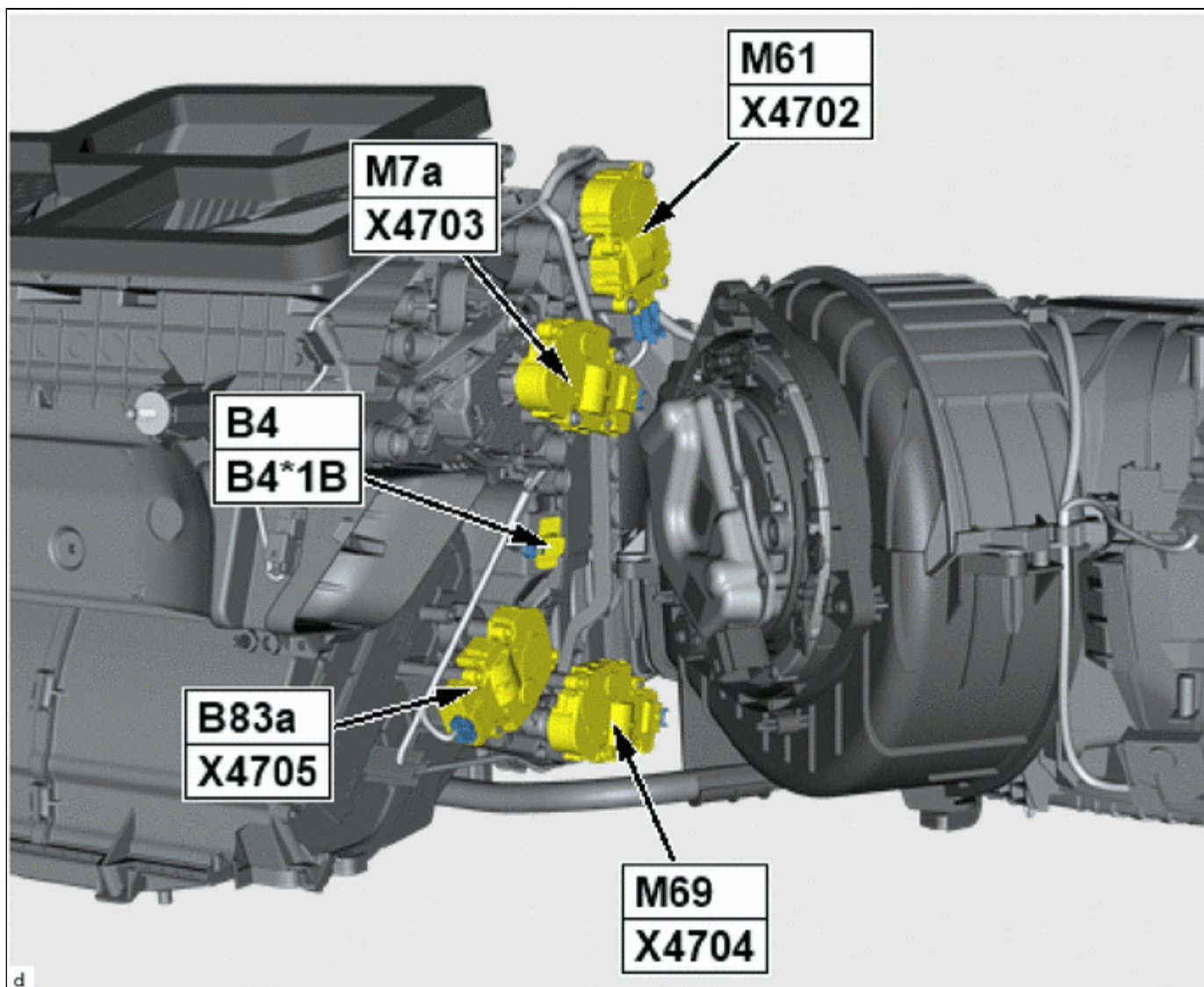
17. REMOVE BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

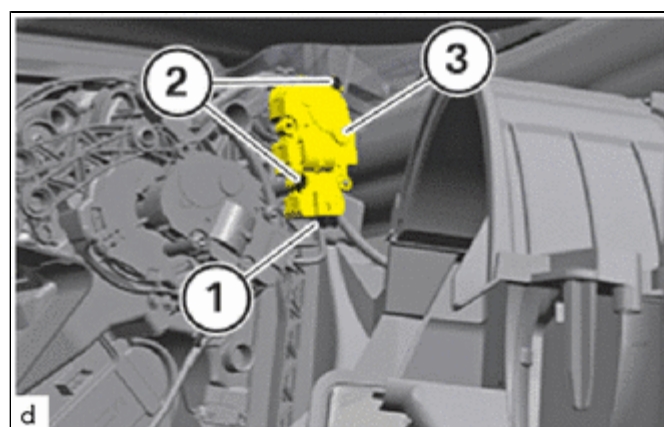
18. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M61)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



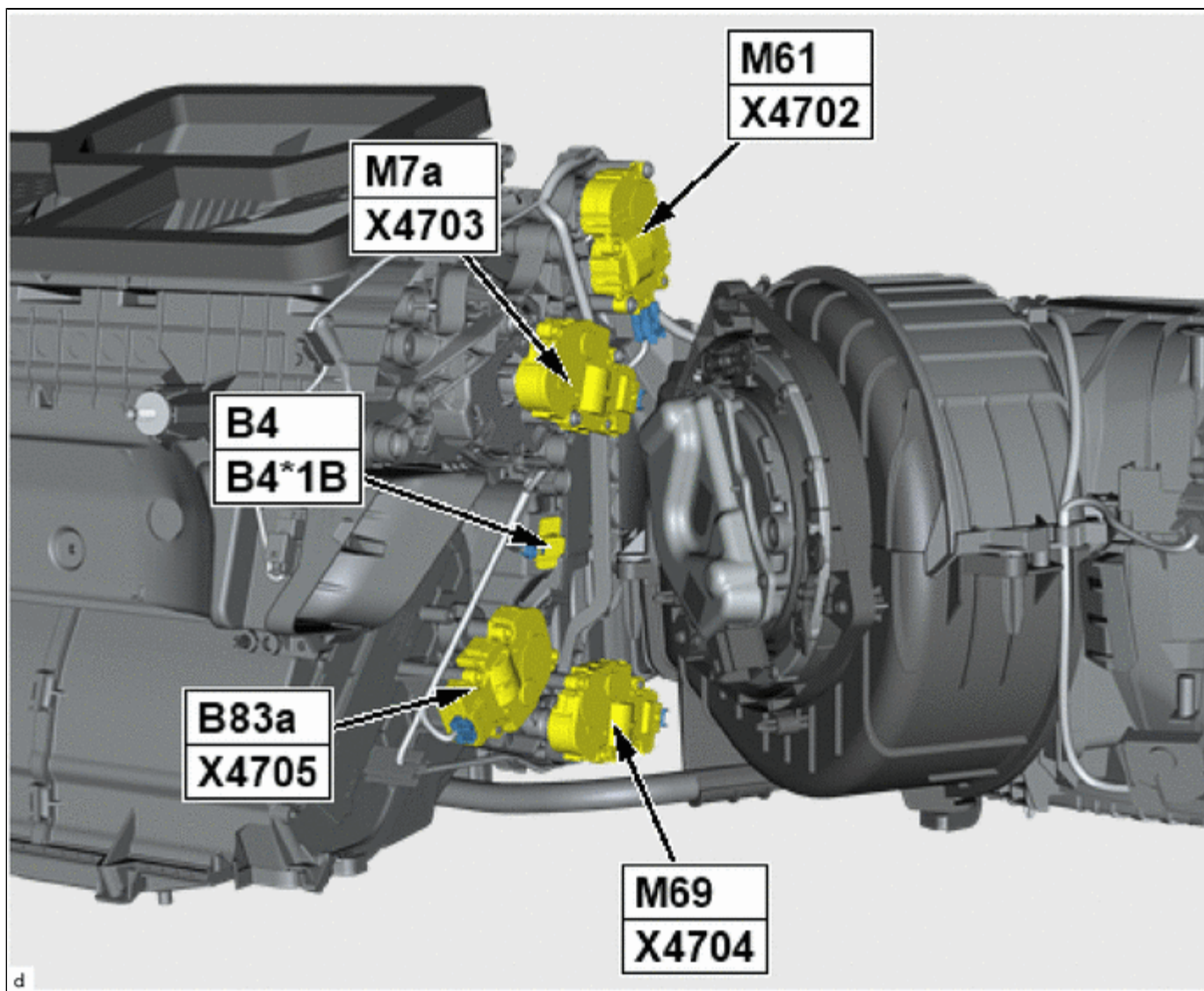
(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M61) (3).

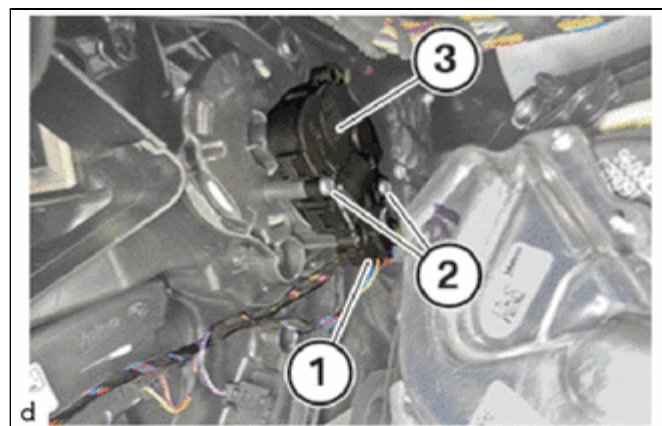
19. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M7a)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



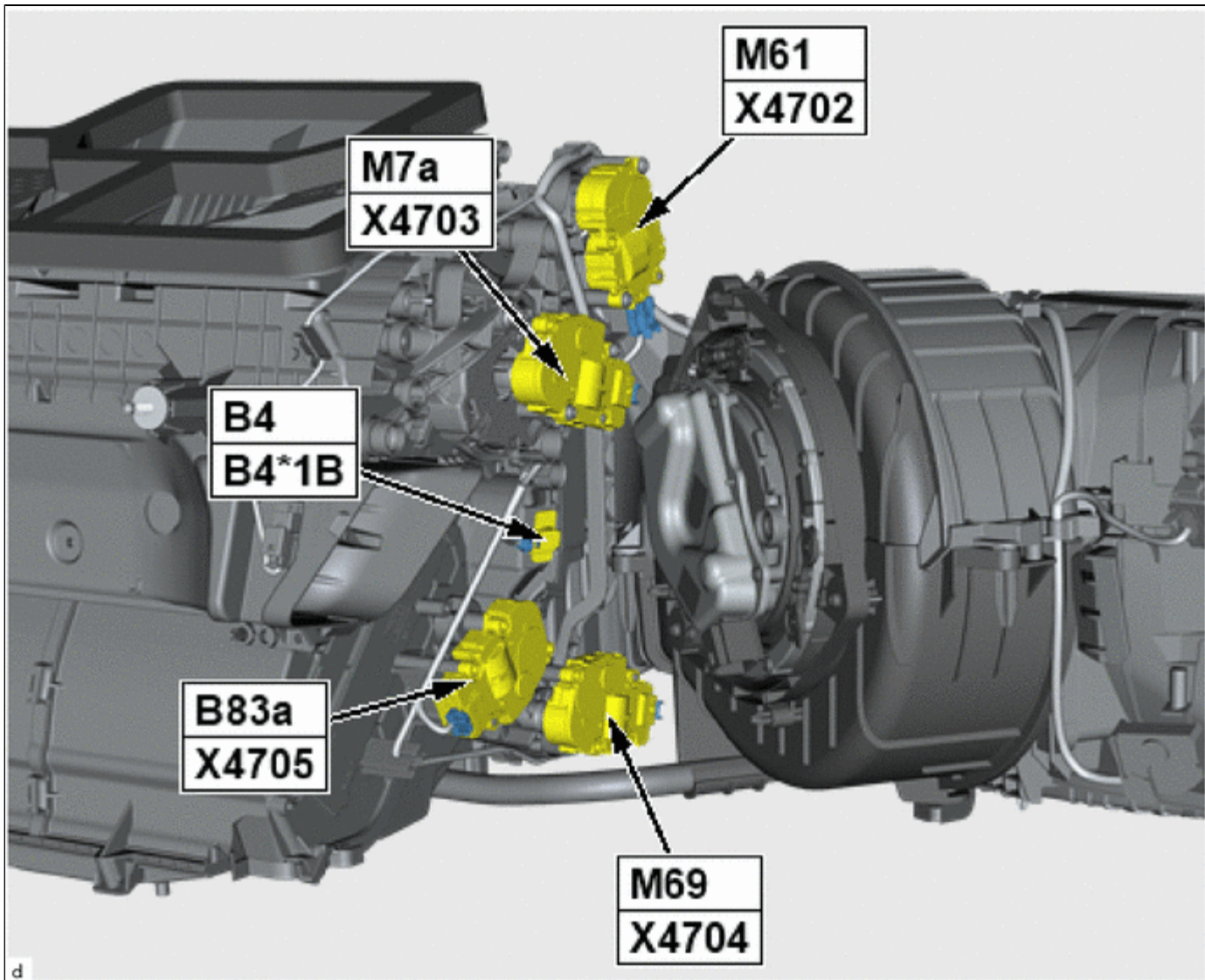
(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M7a) (3).

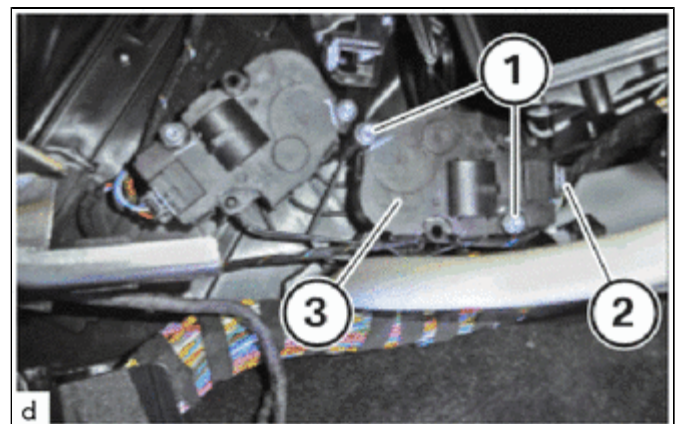
20. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M69)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (2).



(b) Remove T20 screws (1).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M69) (3).

21. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

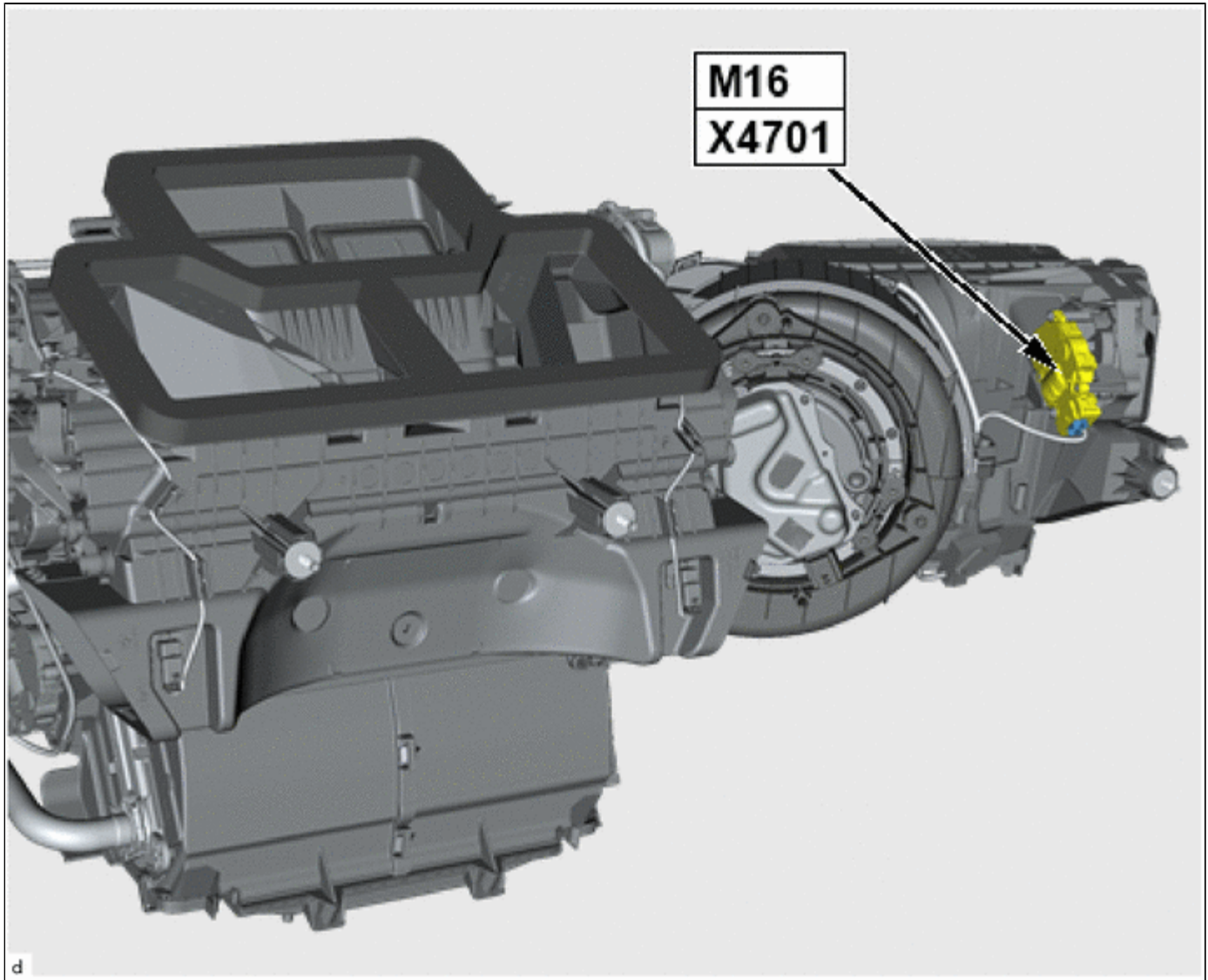
22. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

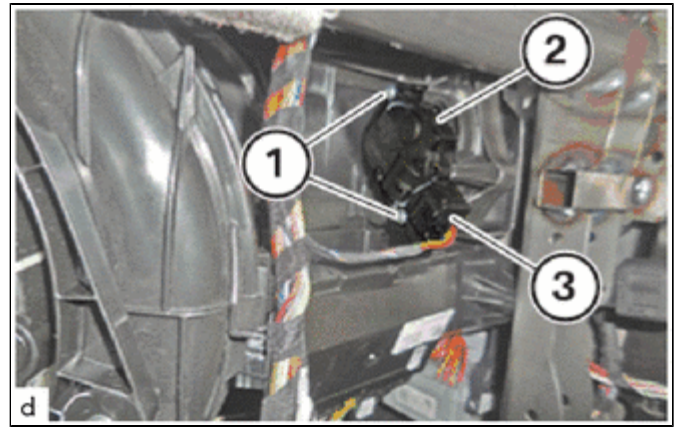
23. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M16)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (3).



(b) Remove T20 screws (1).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M16) (2).

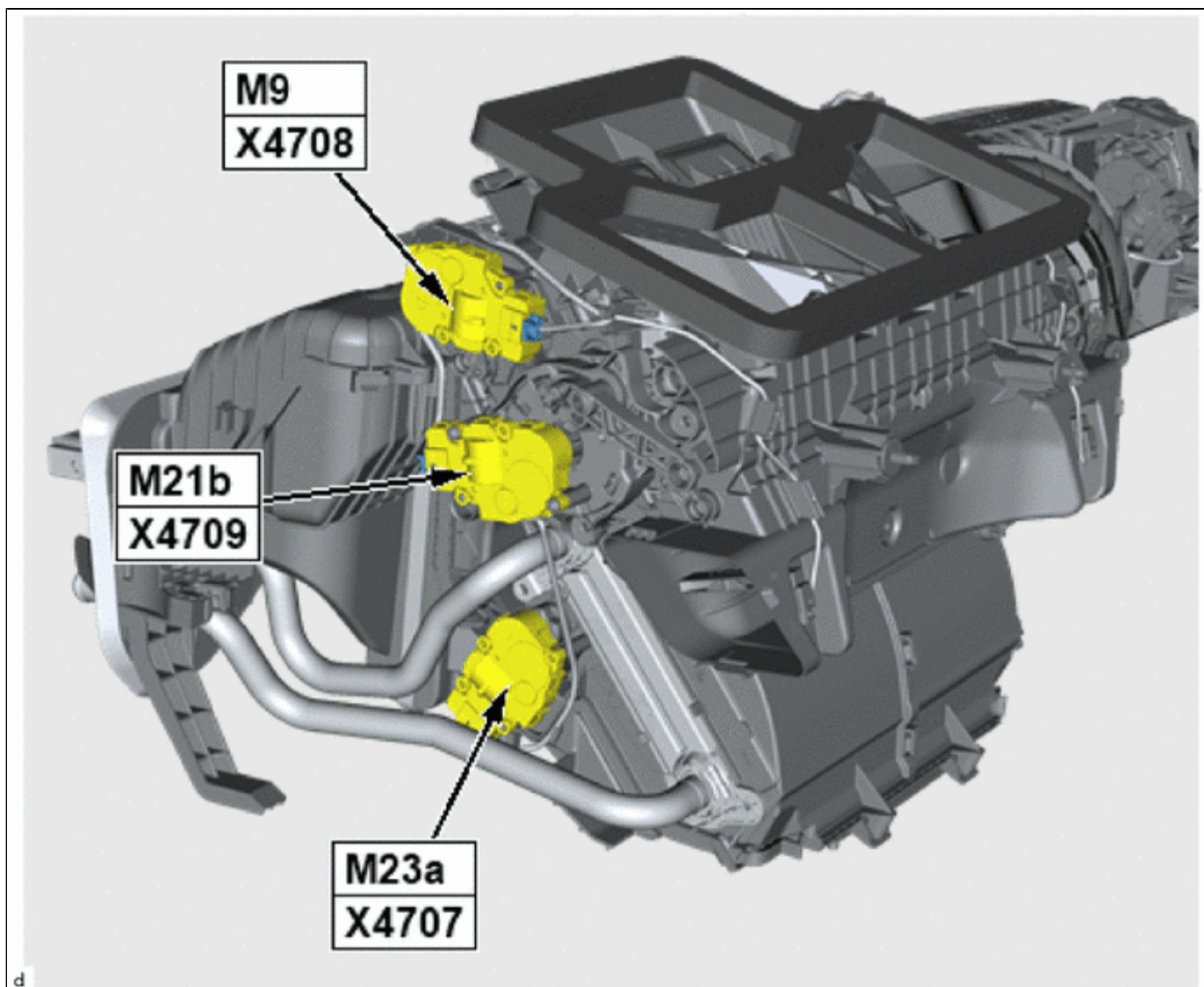
24. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

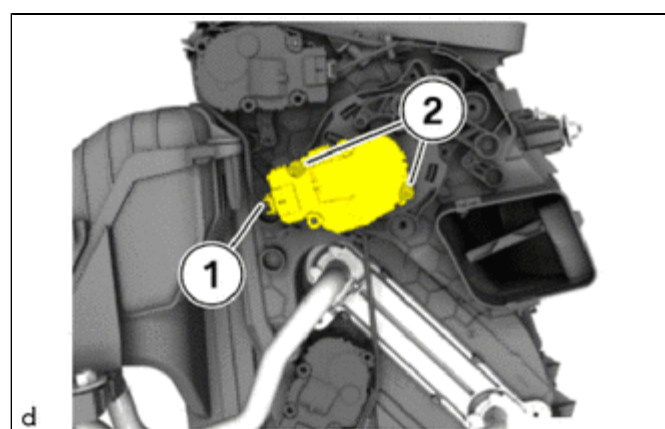
25. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M21b)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M21b).

26. REMOVE RADIO RECEIVER ASSEMBLY (w/o Navigation System)

Click here [INFO](#)

27. REMOVE RADIO RECEIVER ASSEMBLY (w/ Navigation System)

Click here [INFO](#)

28. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

29. REMOVE METER MIRROR SUB-ASSEMBLY

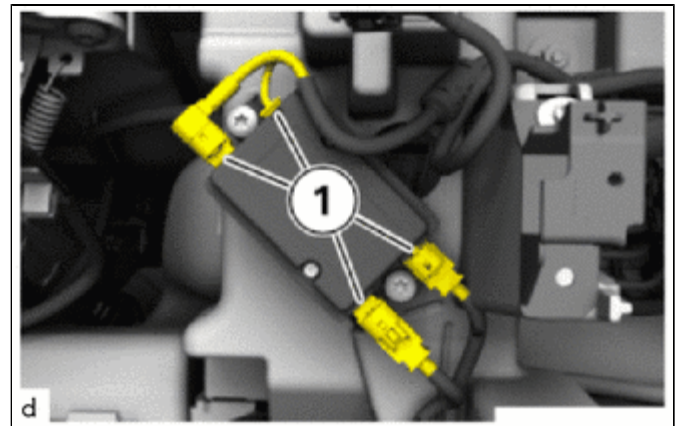
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30. SEPARATE STEERING COLUMN ASSEMBLY

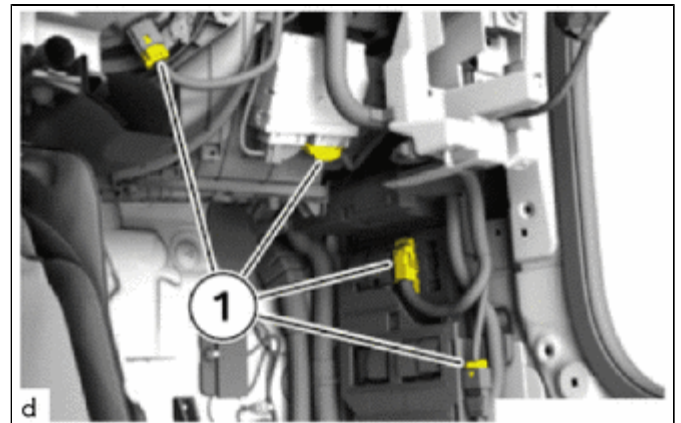
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31. REMOVE INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

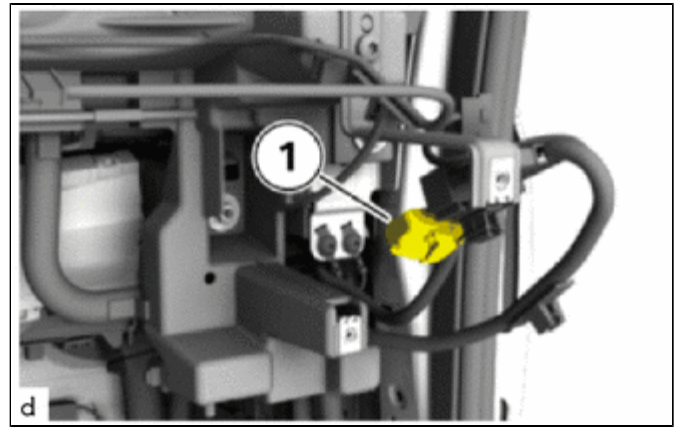
(a) Disconnect the connectors (1).



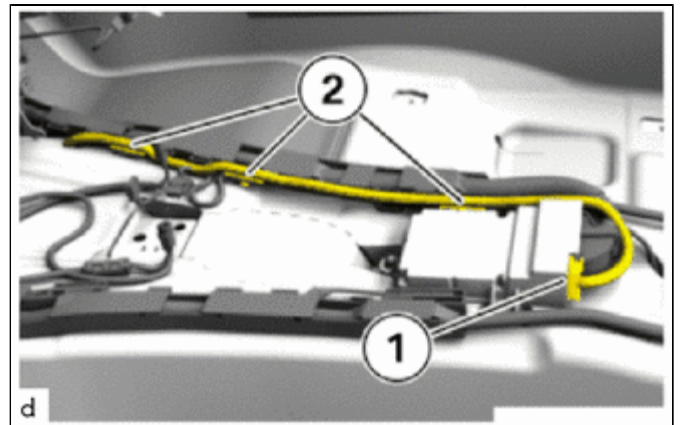
(b) Disconnect the connectors (1).



(c) Disconnect the connector (1).

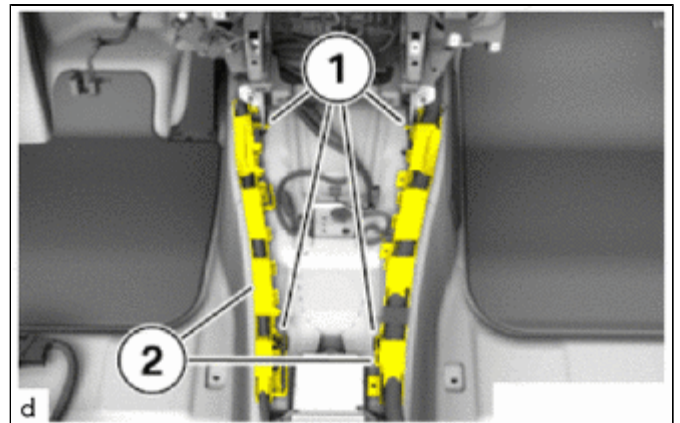


(d) Disconnect the connector (1).

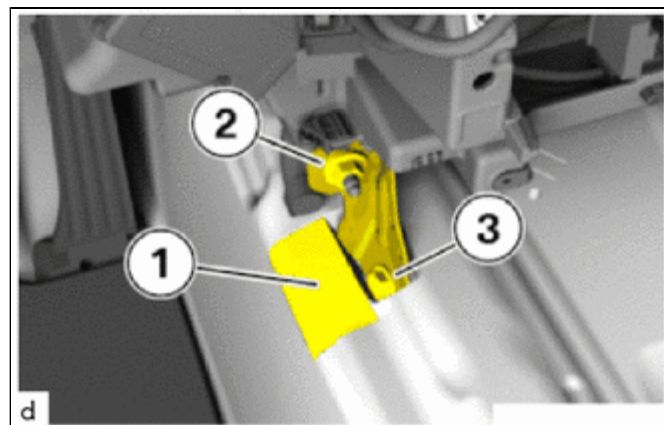


(e) Disengage the clamps (2) and move the cable harness aside.

(f) Disengage the claws (1) and put the cable ducts (2) aside.



(g) Fold the carpet (1) to the side in the marked area.

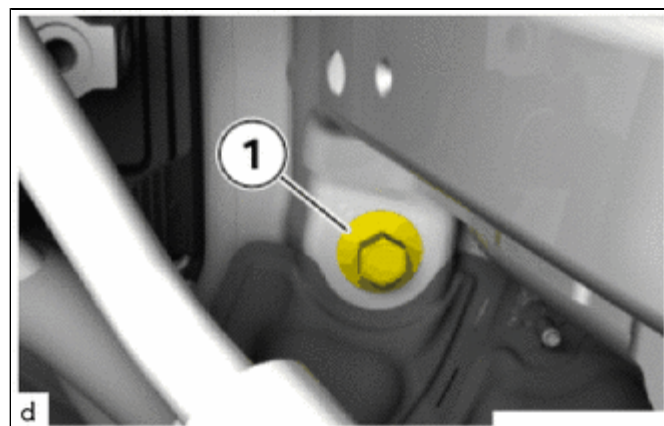


(h) Remove the No. 1 instrument panel bracket with the nut (2) and bolt (3).

HINT:

- The right-hand side component is shown. The procedure on the right is identical.
- Carry out the work steps on the left and right side.

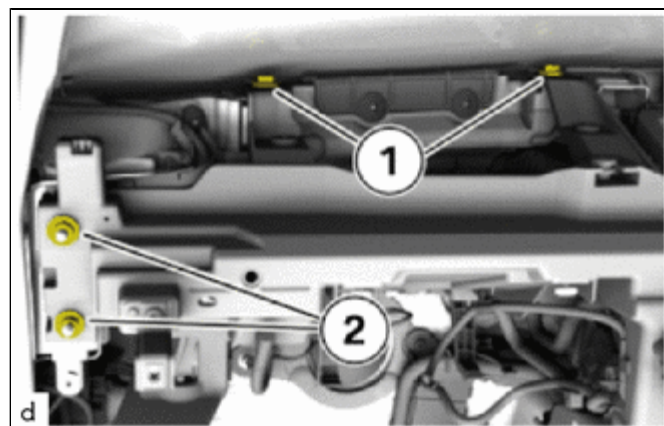
(i) Using a socket wrench 16 mm, remove the bolt (1) in the engine compartment.



(j) Loosen bolts (1) a few turns.

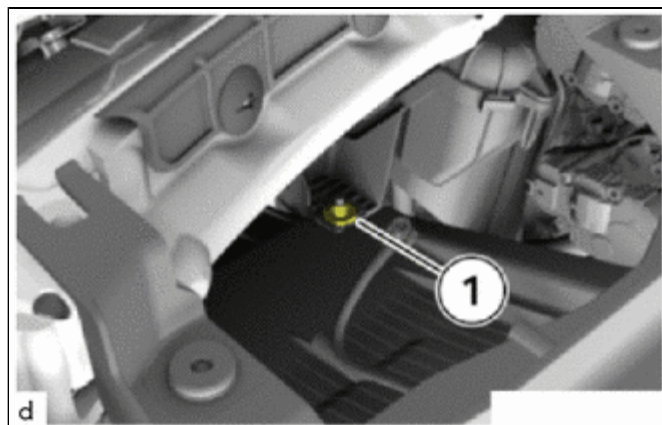
NOTICE:

Do not remove the bolts (1).

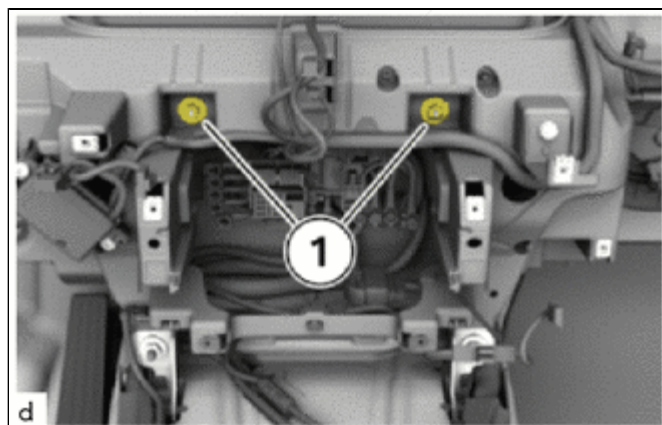


(k) Remove nuts (2).

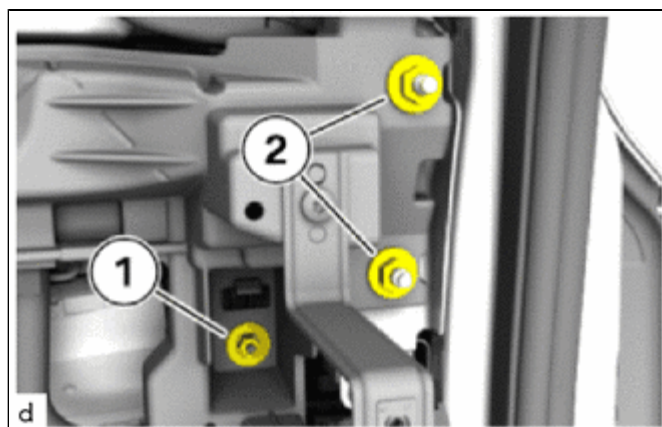
(l) Remove nut (1).



(m) Remove nuts (1).



(n) Remove nuts (1) and (2).



(o) Carefully feed out the instrument panel reinforcement sub-assembly with the wiring harness to the rear.

NOTICE:

Conduct the following operation with the assistance of a second person.

(p) Carefully remove the instrument panel reinforcement sub-assembly including vehicle wiring harness from the vehicle interior.

NOTICE:

Conduct the following operation with the assistance of a second person.

32. REMOVE COOLER EXPANSION VALVE

Click here [INFO](#)

33. REMOVE AIR CONDITIONING UNIT ASSEMBLY

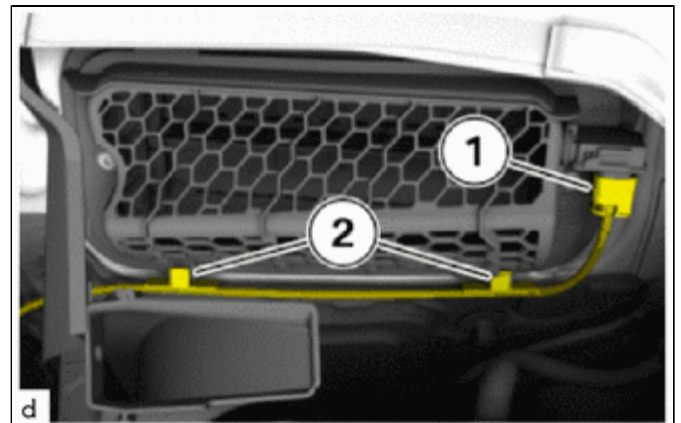
- (a) Slide the hose clamps (1) to disconnect the heater water hoses.

NOTICE:

Prepare a drain pan or cloth in case the coolant leaks.

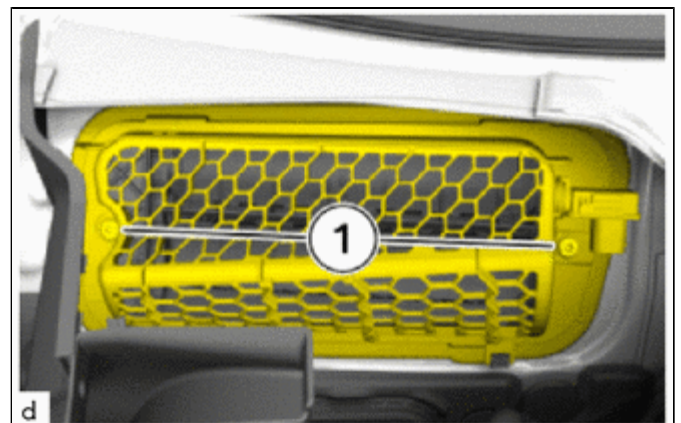


- (b) Disconnect the connector (1).

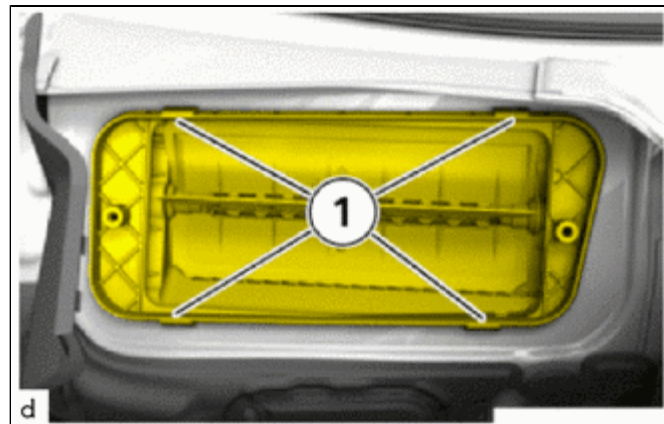


- (c) Disengage the clamps (2) and put the cable harness aside.

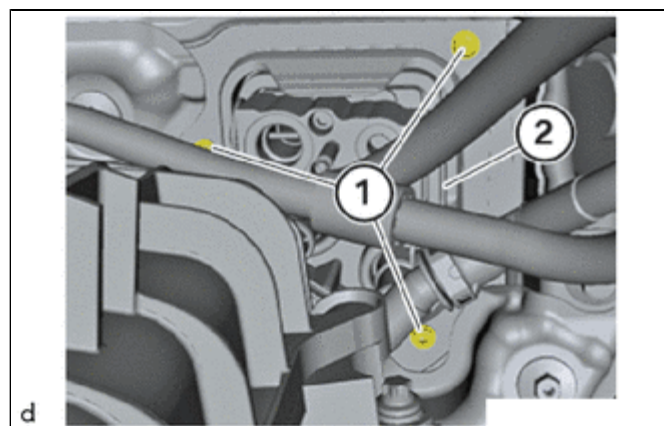
- (d) Remove T25 screws (1) and remove No. 1 air duct sub-assembly.



(e) Disengage the claws (1) on the air conditioning unit assembly.



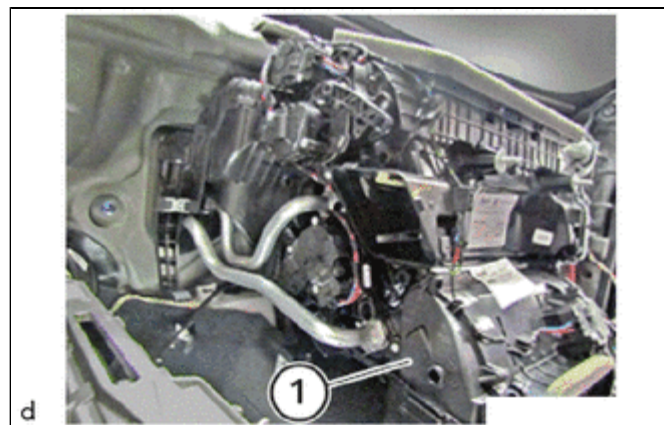
(f) Remove T25 screws (1) from air conditioning unit assembly (2).



(g) Remove air conditioning unit assembly (1).

NOTICE:

Protect carpet in footwell against escaping coolant.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

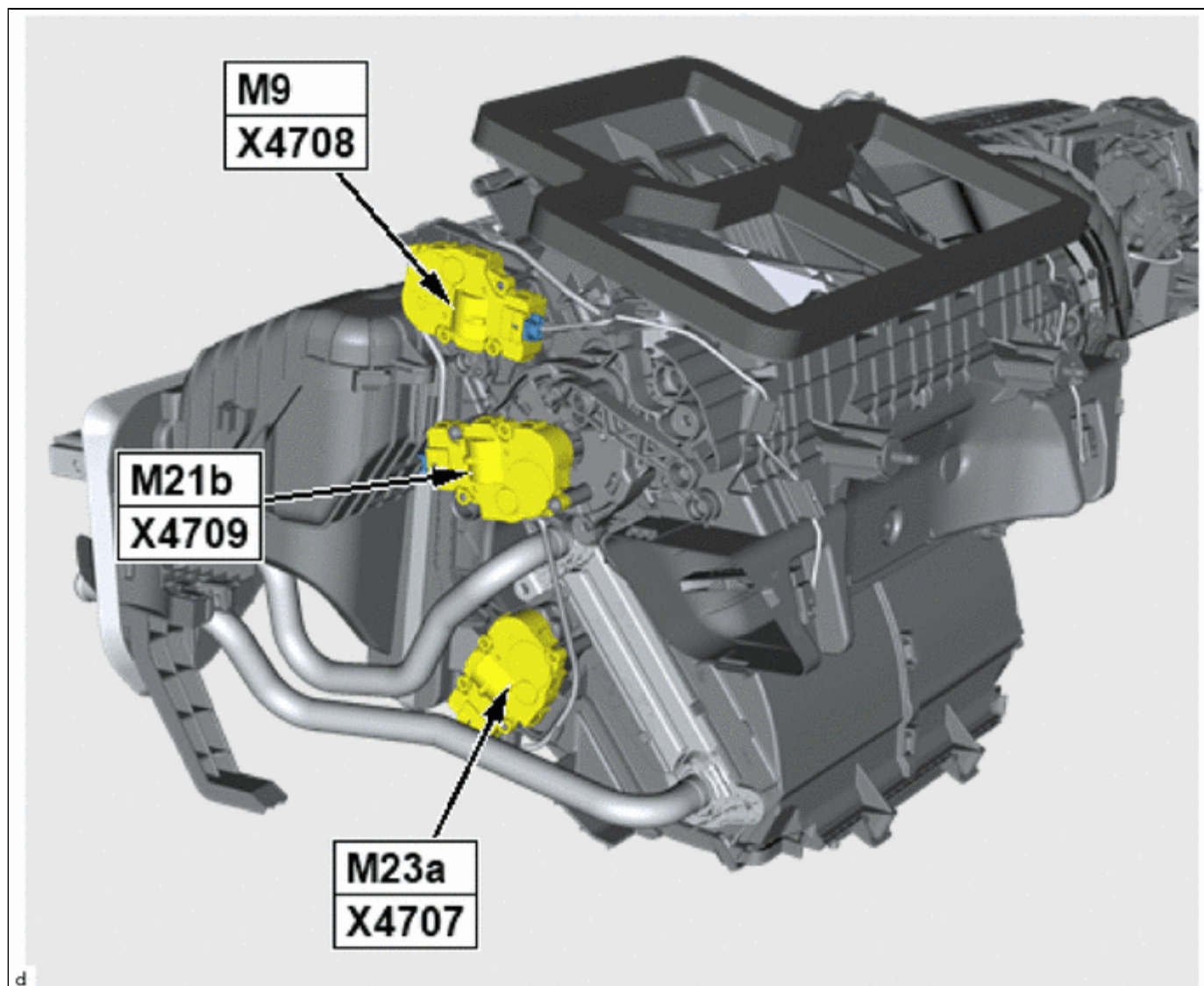
DISASSEMBLY

PROCEDURE

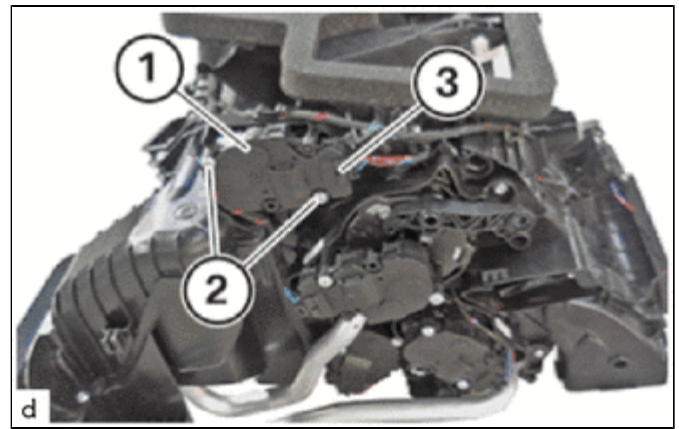
1. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M9)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly:



(a) Disconnect the connector (3).



(b) Remove T20 screws (2).

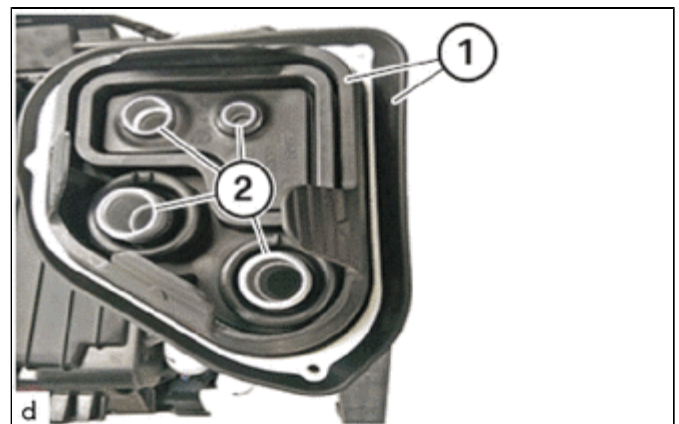
(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M9) (1).

2. REMOVE WATER PIPE SUB-ASSEMBLY

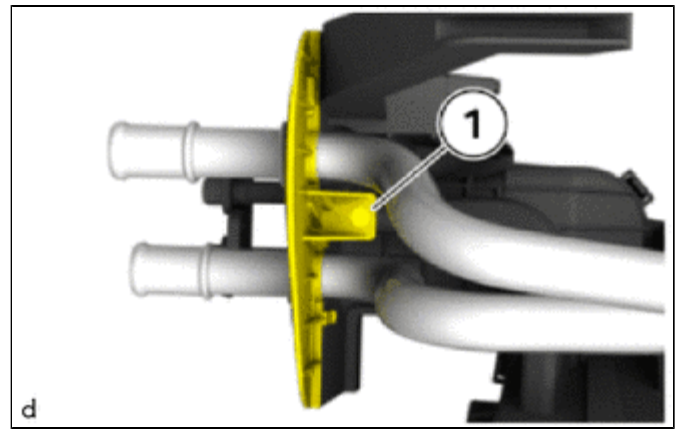
(a) Remove mounting plate (1).



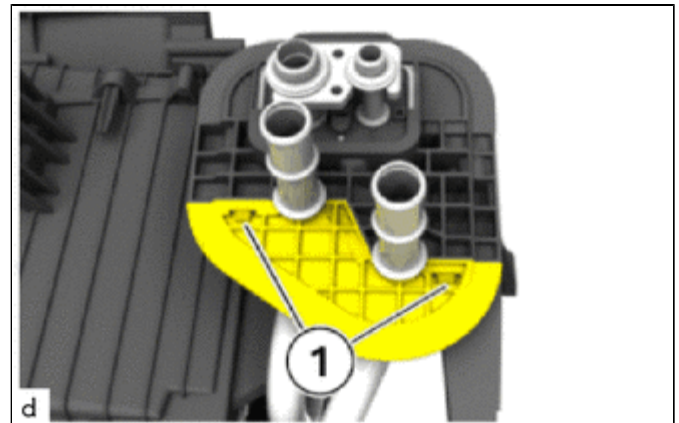
(b) Remove the seals (1) from the pipes (2) and remove them completely.



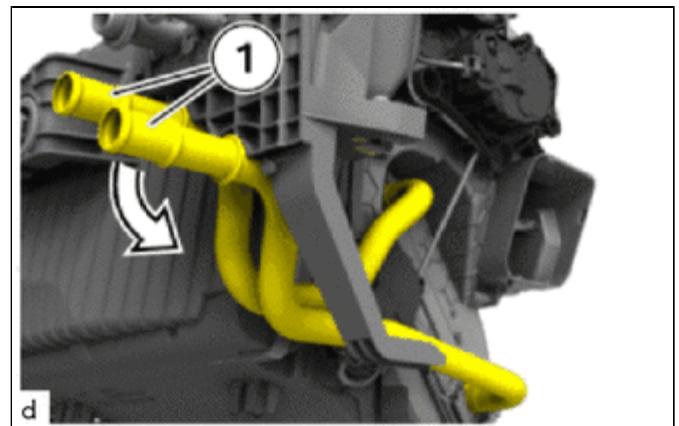
(c) Remove T20 screw (1).



(d) Disengage claws (1) and remove the water pipe sub-assembly holder.



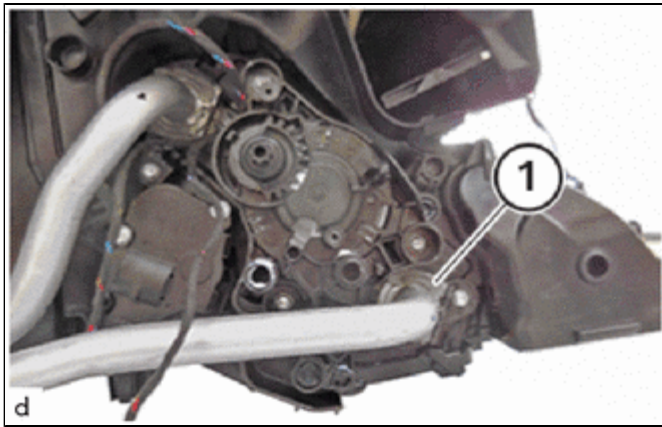
(e) Turn the water pipe sub-assembly (1) downwards in the direction of the arrow.



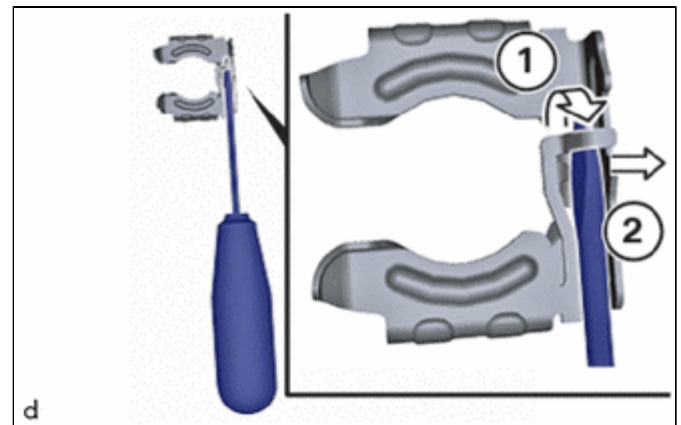
(f) Remove retaining clip (1) as in following operation.

HINT:

Use the same procedure as for the opposite side.



(1) Disengage retaining clip (1) using screwdriver upwards.



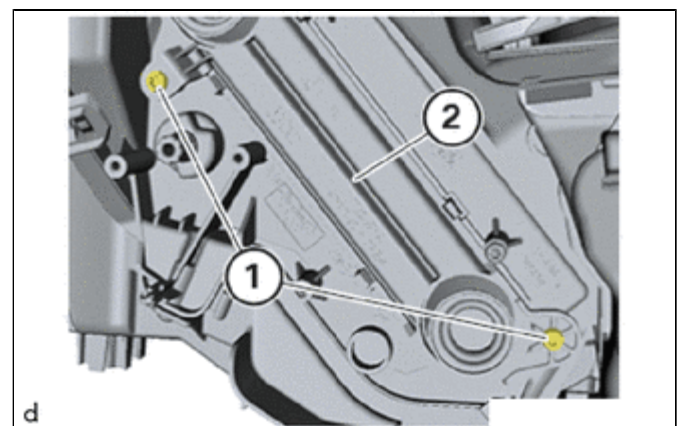
(2) Slide retaining clip (2) using screwdriver to one side.

(g) Remove the 2 water pipe sub-assemblies.

(h) Remove the 2 O-rings.

3. REMOVE HEATER RADIATOR UNIT SUB-ASSEMBLY

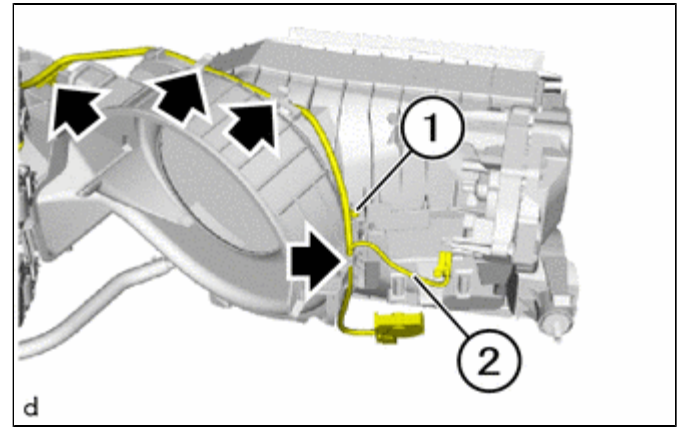
(a) Remove T20 screws (1).



(b) Remove the heater radiator unit sub-assembly (2).

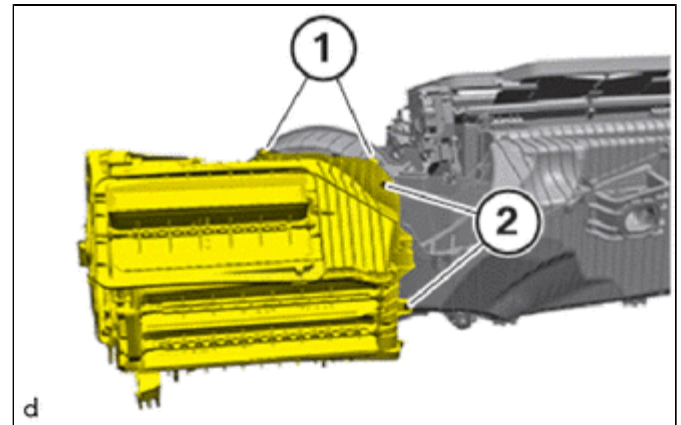
4. REMOVE NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY

(a) Remove T20 screw (1).

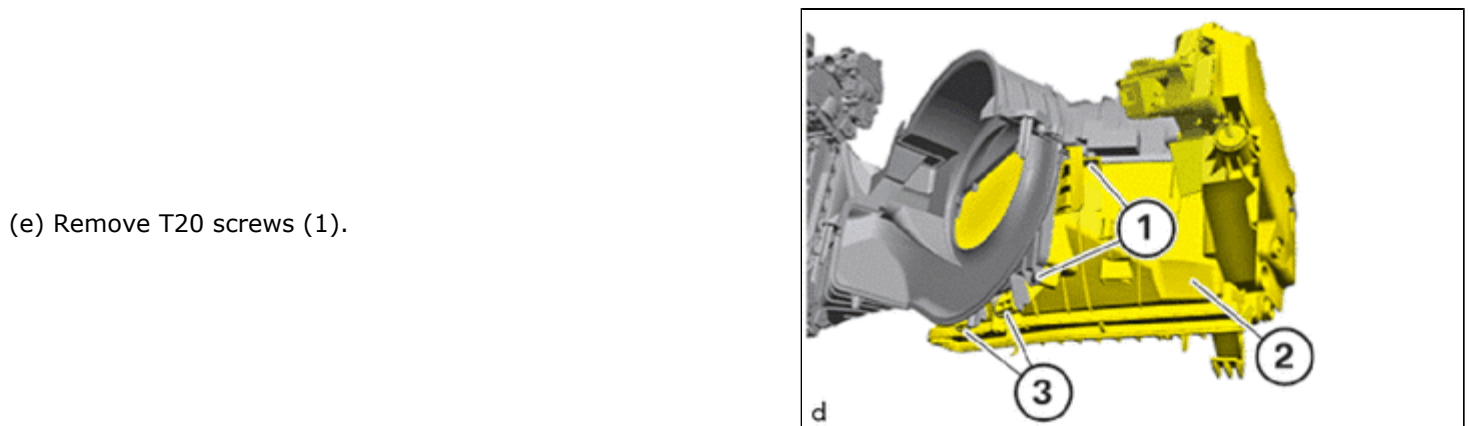


(b) Disconnect the cable (2) from the guides (arrows) and place to one side.

(c) Disengage the claws (1).



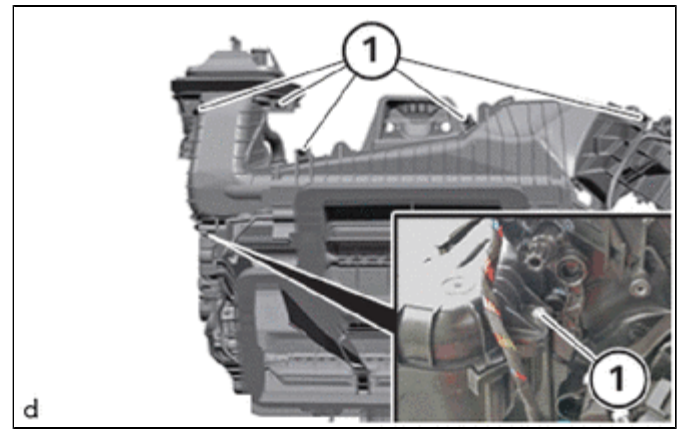
(d) Remove T20 screws (2).



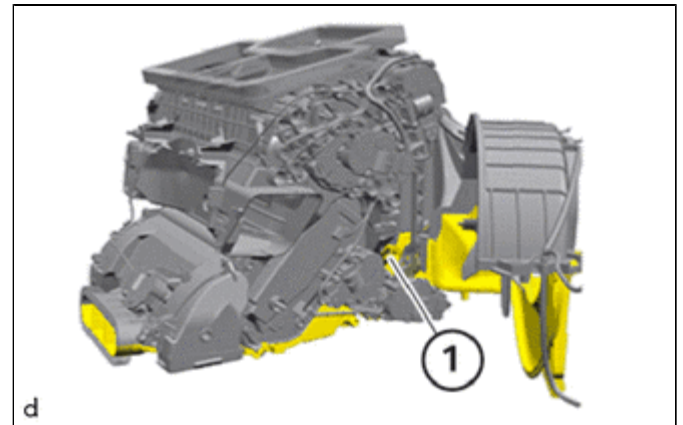
(e) Remove T20 screws (1).

(f) Remove the blower housing (2) slightly and disengage from the hooks (3).

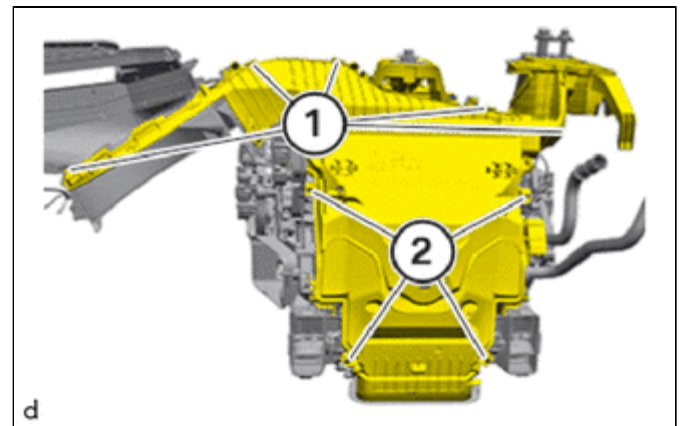
(g) Remove T20 screws (1).



(h) Disengage the claw (1).

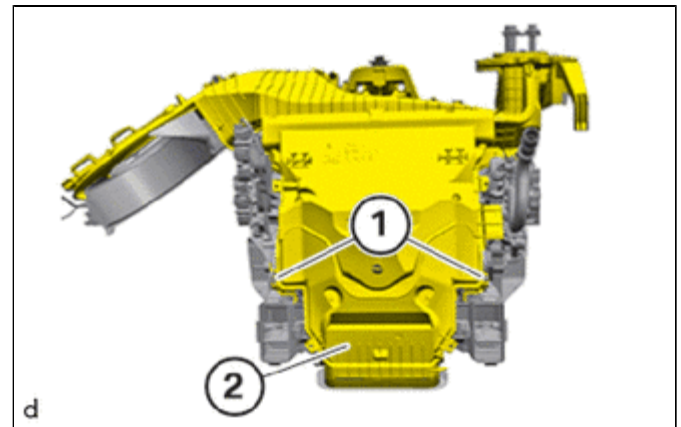


(i) Disengage the claws (1).

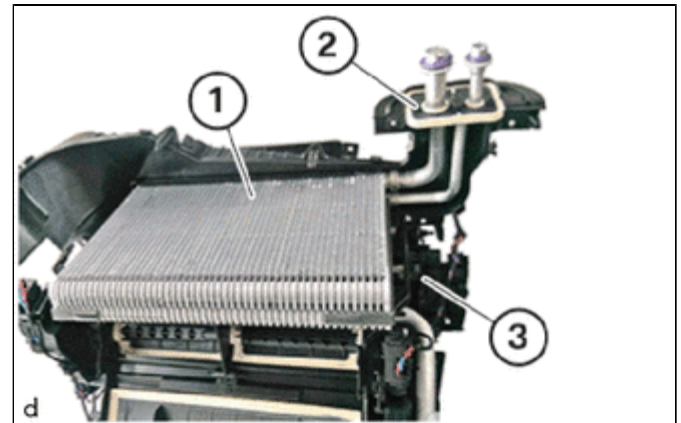


(j) Remove T20 screws (2).

(k) Disengage the claws (1) and guide out the lower radiator case sub-assembly (2) and remove it.



(l) Remove the No. 1 cooler evaporator sub-assembly (1) with the seal (2) from the air conditioning radiator assembly (3).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

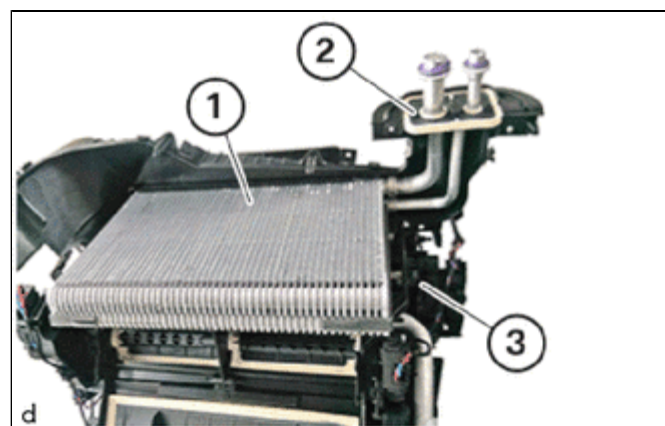
PROCEDURE

1. INSTALL NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY

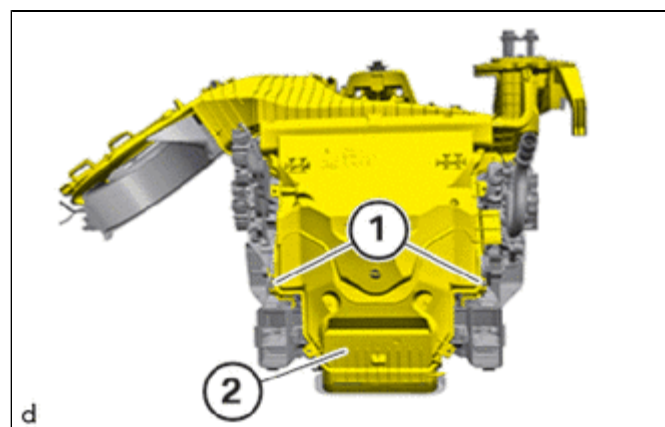
- (a) Install the No. 1 cooler evaporator sub-assembly (1) in the air conditioning radiator assembly (3) correctly.

HINT:

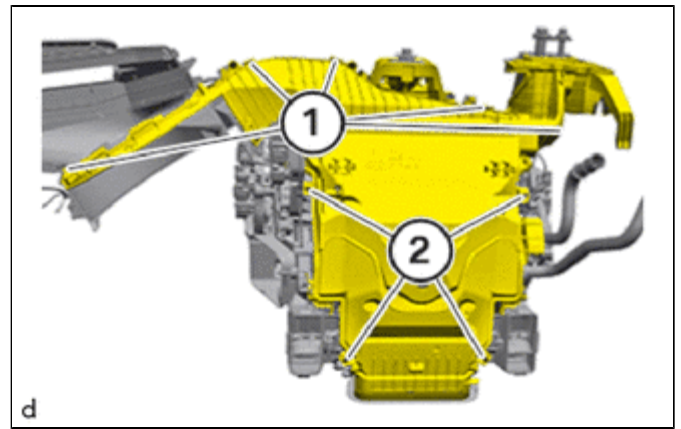
Make sure that the seal (2) is positioned correctly.



- (b) Correctly feed in lower radiator case sub-assembly (2) and engage at the claws (1).



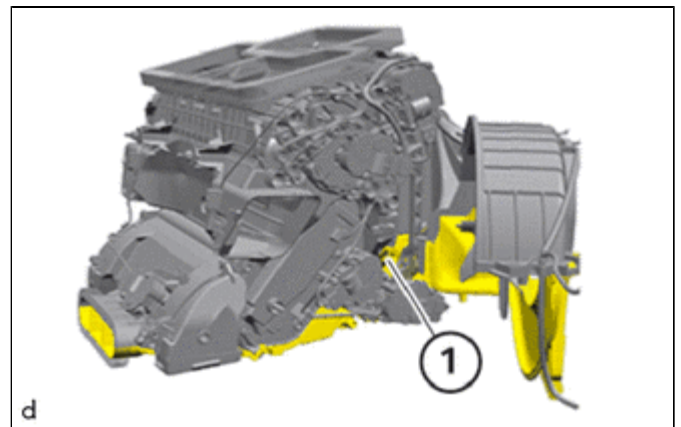
- (c) Engage claws (1).



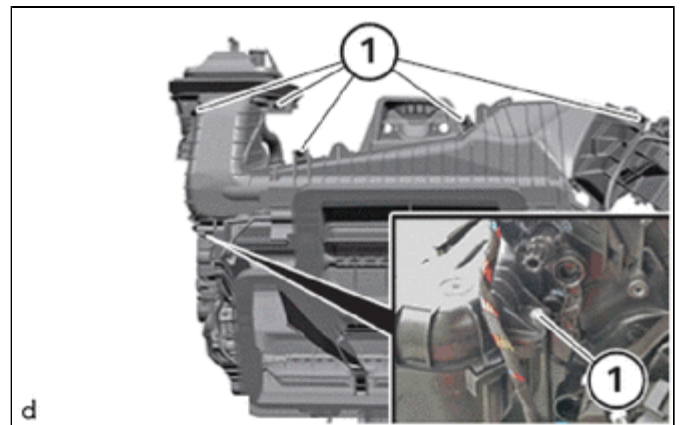
(d) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}



(e) Engage claw (1).

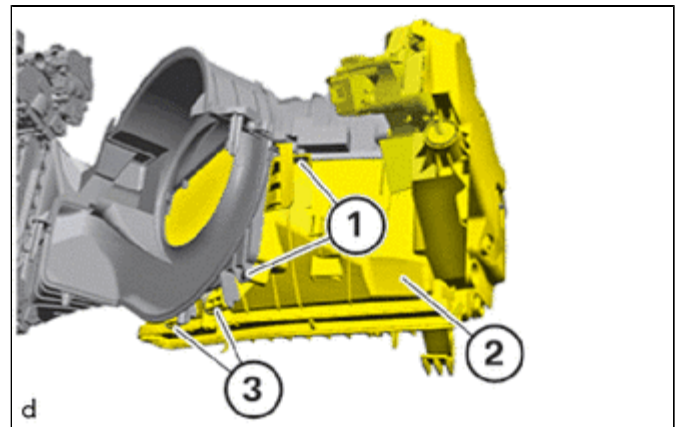


(f) Tighten the T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(g) Install blower housing (2) onto the hooks (3) and position correctly.

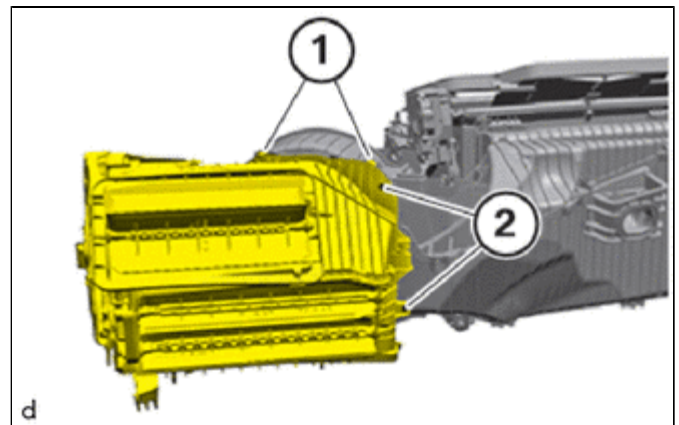


(h) Tighten the T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(i) Engage claws (1).

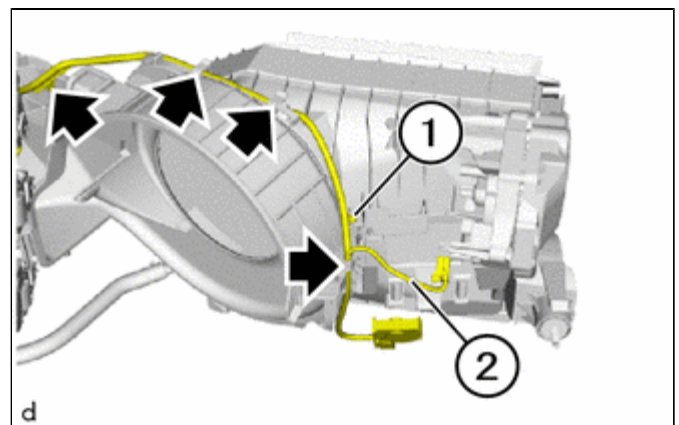


(j) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(k) Connect cable (2) at the guides (arrows).



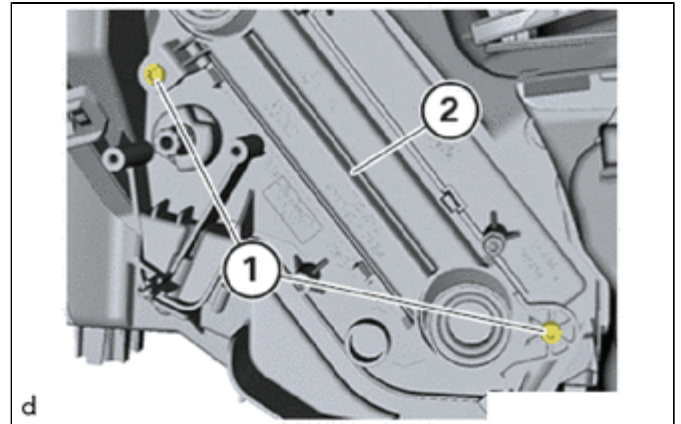
(l) Tighten T20 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

2. INSTALL HEATER RADIATOR UNIT SUB-ASSEMBLY

(a) Install heater radiator unit sub-assembly (2).



(b) Tighten the T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

3. INSTALL WATER PIPE SUB-ASSEMBLY

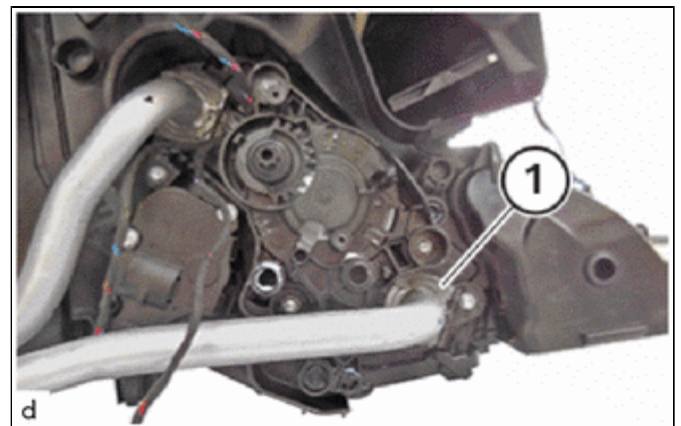
(a) Replace the 2 O-rings.

(b) Connect the 2 water pipe sub-assemblies.

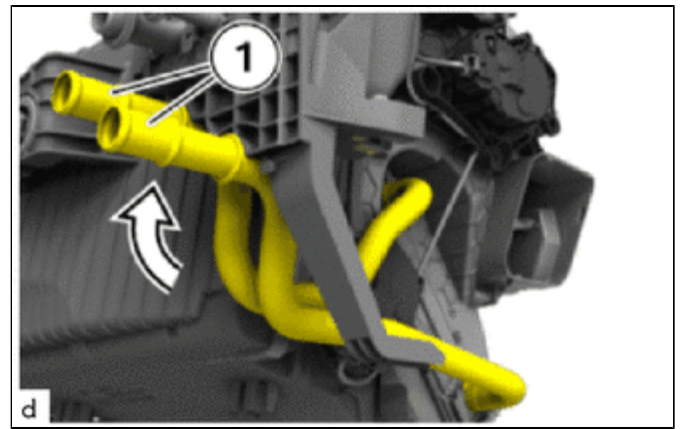
(c) Secure the water pipe sub-assembly with the retaining clip (1).

HINT:

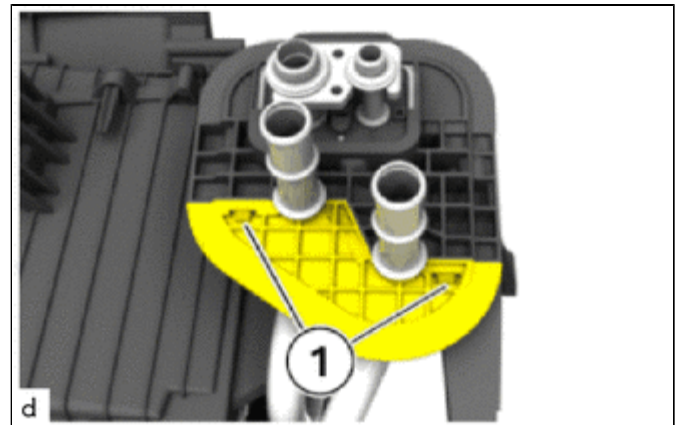
Use the same procedure as for the opposite side.



(d) Turn the water pipe sub-assembly (1) back to their original position in the direction of the arrow.



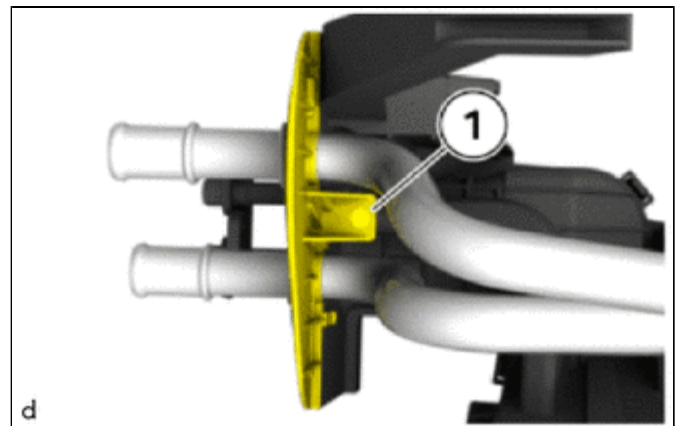
(e) Install the water pipe sub-assembly holder and engage the claws (1).



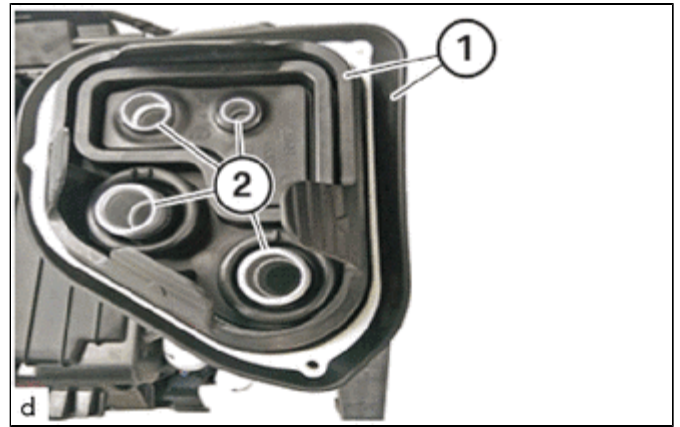
(f) Tighten T20 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}



(g) Thread the seals (1) completely over the pipes (2) and position them correctly.

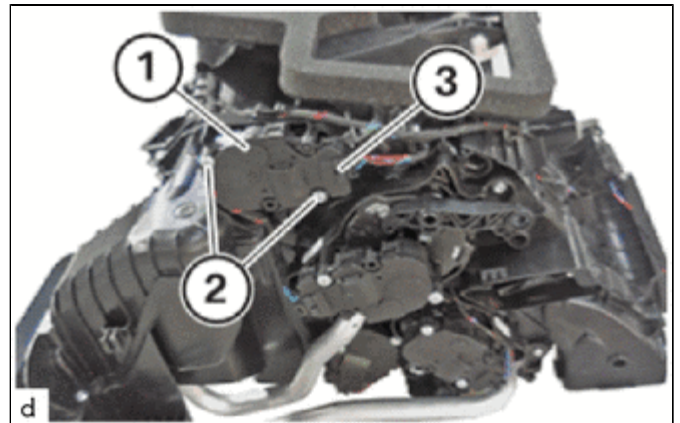


(h) Install mounting plate (1).



4. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M9)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M9) (1).



(b) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Connect the connector (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

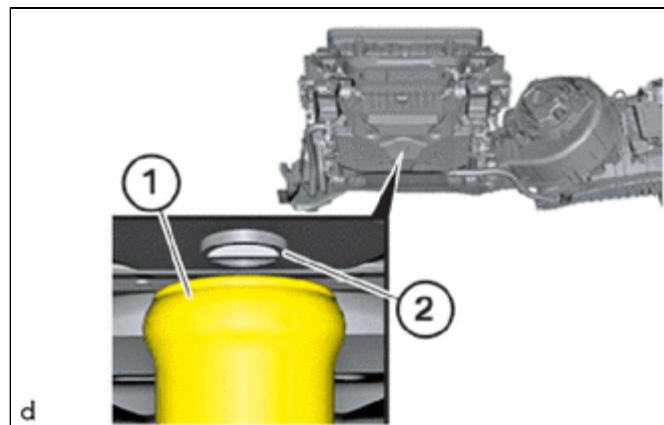
1. INSTALL AIR CONDITIONING UNIT ASSEMBLY

(a) Install the air conditioning unit assembly.

(b) Ensure correct fit of condensate drain (2) on grommet (1).

NOTICE:

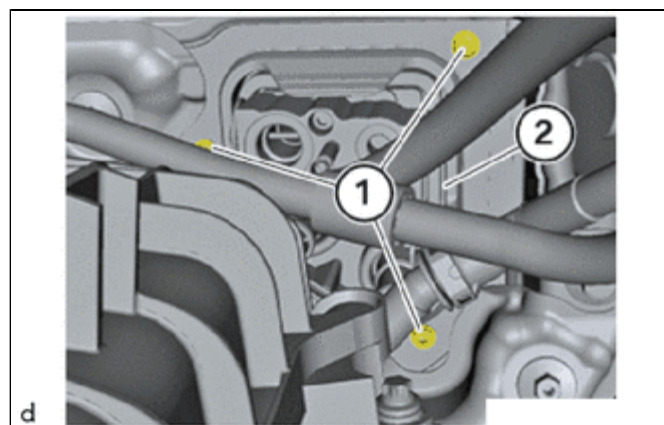
- Damage caused by water ingress into the vehicle.
Water ingress into the vehicle may result in damage to components, malfunctions and corrosion.
- Perform visual inspection after installing the air conditioning unit assembly (2).
- Only use undamaged components.



(c) Tighten T25 screws (1) of air conditioning unit assembly (2).

Torque:

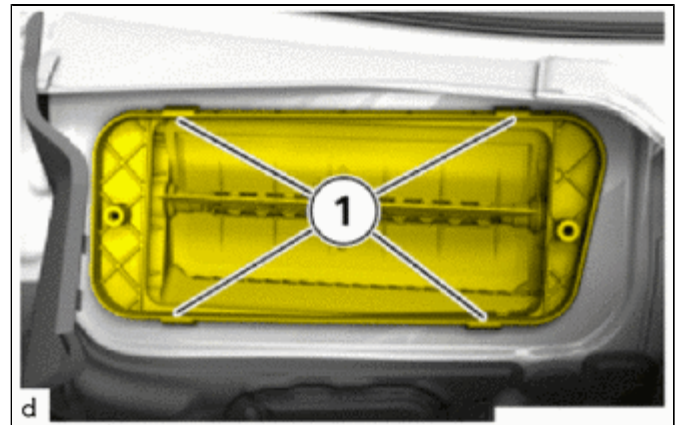
2.8 N·m {29 kgf·cm, 25 in·lbf}



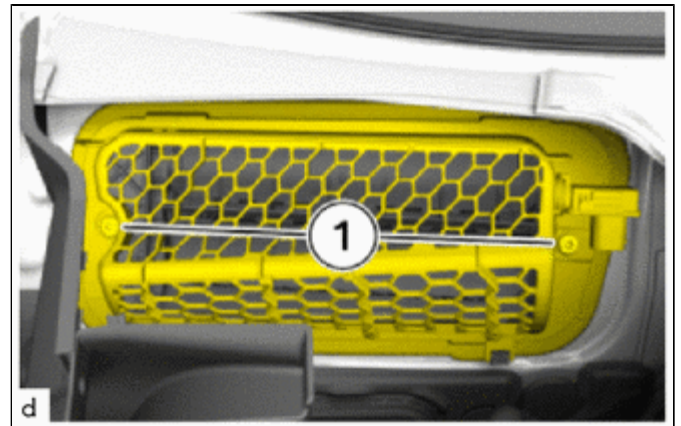
(d) Correctly push on the heater water hoses and secure the hose clamps (1).



(e) Fasten the air conditioning unit assembly with the claws (1).



(f) Install No. 1 air duct sub-assembly.

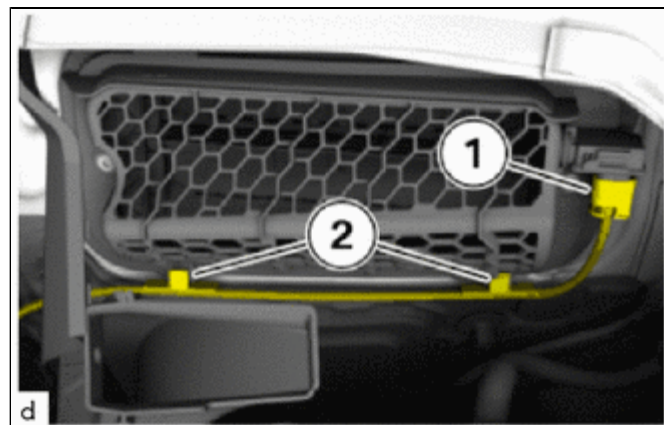


(g) Tighten T25 screws (1).

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

(h) Connect the connector (1).



(i) Engage the clamps (2).

2. INSTALL COOLER EXPANSION VALVE

Click here [INFO](#)

3. INSTALL INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

(a) Carefully insert the instrument panel reinforcement sub-assembly and connect all connectors at the same time.

NOTICE:

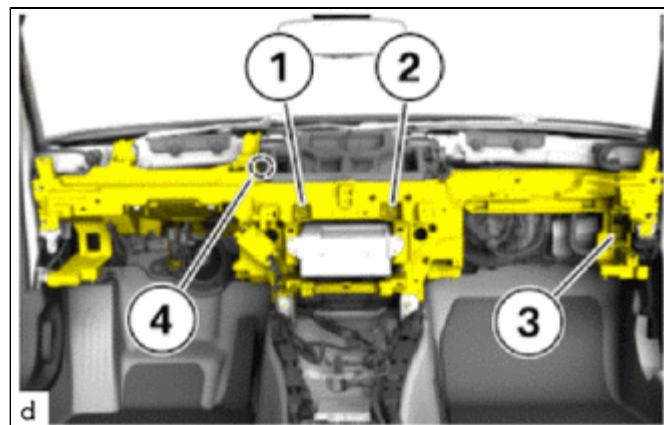
Conduct the following operation with the assistance of a second person.

(b) Install the air conditioning unit assembly to the instrument panel reinforcement sub-assembly first.

(c) Tighten the nuts in the order shown in the illustration.

Torque:

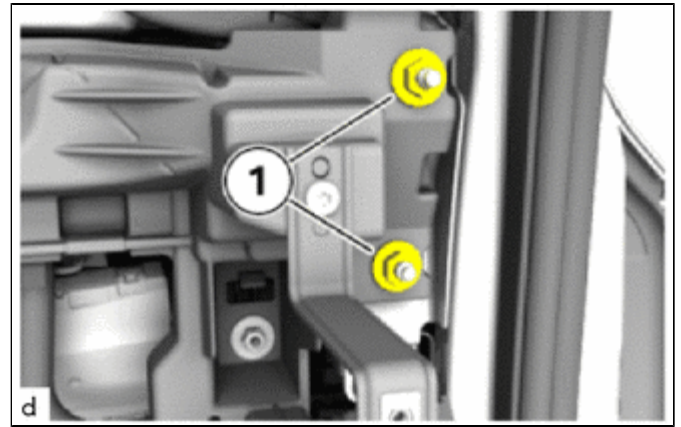
4.0 N·m {41 kgf·cm, 35 in·lbf}



(d) Tighten nuts (1).

Torque:

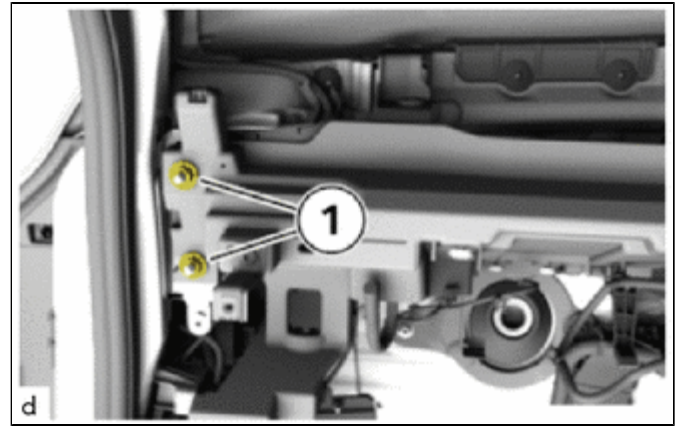
21 N·m {214 kgf·cm, 15 ft·lbf}



(e) Tighten nuts (1).

Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}



(f) Using a socket wrench 16 mm, tighten bolt.

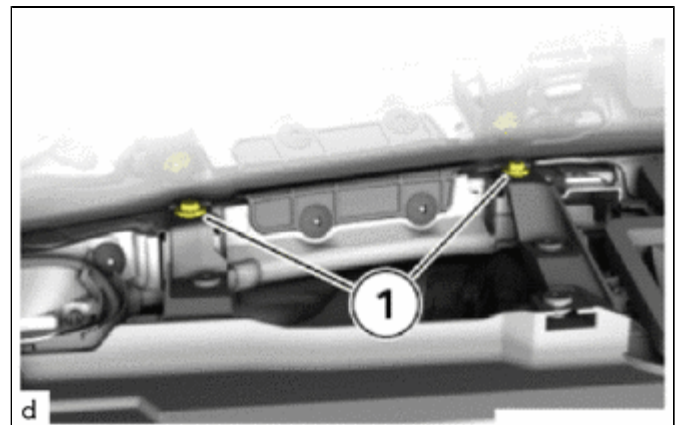
Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}

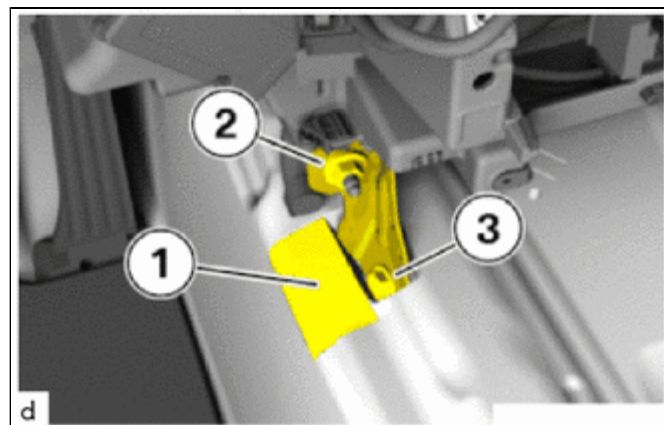
(g) Tighten bolts (1).

Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}



(h) Place the carpet (1) in the marked area to the side and install the No. 1 instrument panel bracket.



(i) Tighten bolt (3).

Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}

(j) Tighten nut (2).

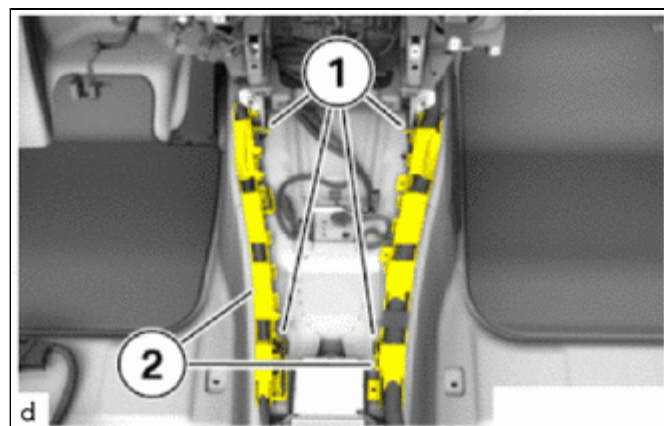
Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}

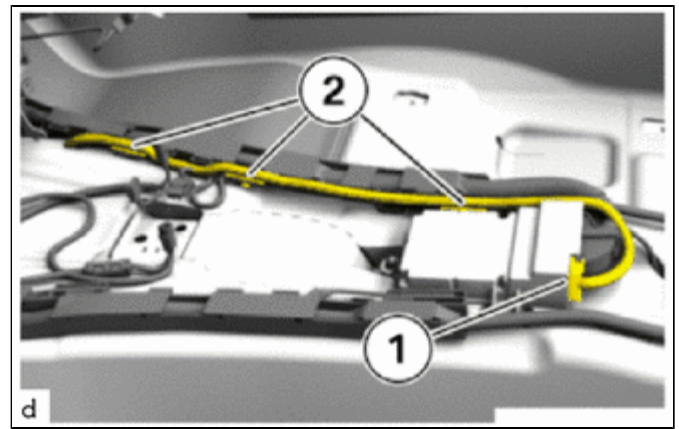
HINT:

- The right-hand side component is shown. The procedure on the right is identical.
- Carry out the work steps on the left and right side.

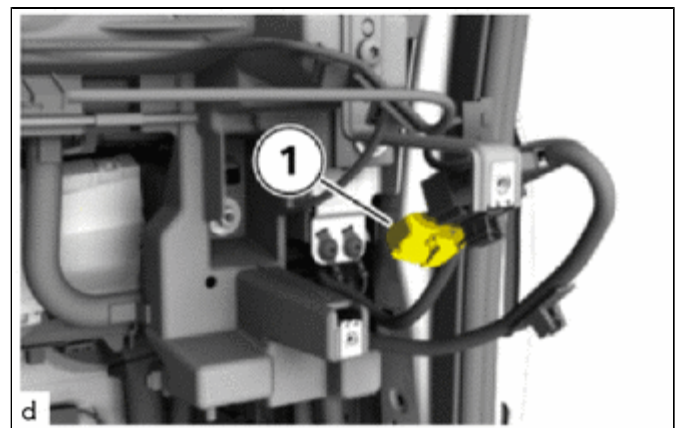
(k) Install the cable ducts (2) and engage the claws (1).



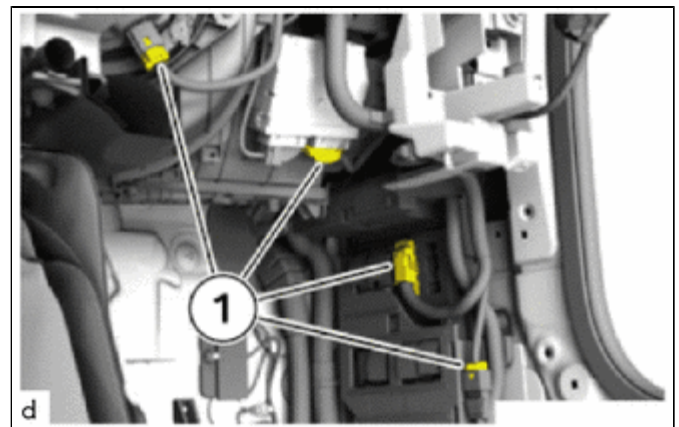
(l) Connect the cable harness and engage the clamps (2).



(m) Connect the connector (1).

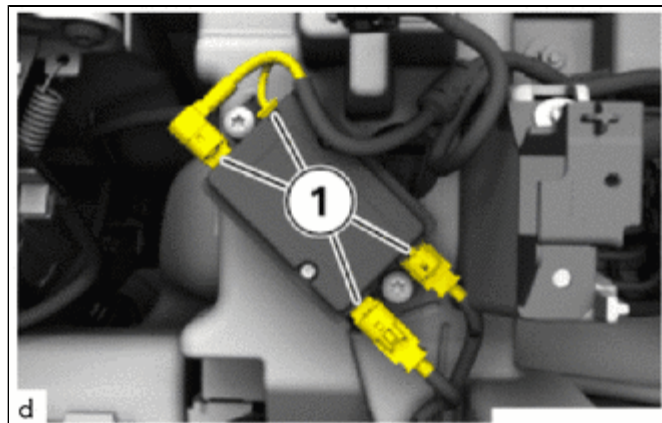


(n) Connect the connector (1).



(o) Connect the connectors (1).

(p) Connect the connectors (1).



4. CONNECT STEERING COLUMN ASSEMBLY

Click here [INFO](#)

5. INSTALL METER MIRROR SUB-ASSEMBLY

Click here [INFO](#)

6. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

7. INSTALL RADIO RECEIVER ASSEMBLY (w/o Navigation System)

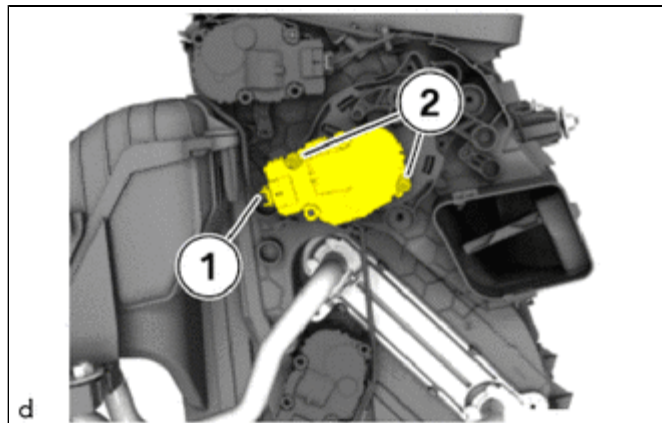
Click here [INFO](#)

8. INSTALL RADIO RECEIVER ASSEMBLY (w/ Navigation System)

Click here [INFO](#)

9. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M21b)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M21b).



(b) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

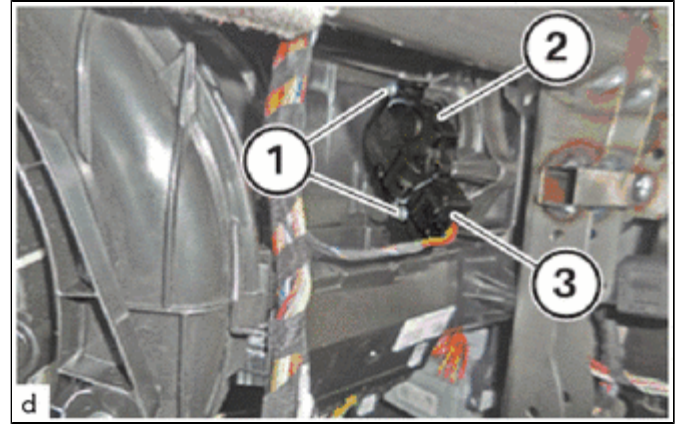
(c) Connect the connector (1).

10. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

11. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M16)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M16) (2).



- (b) Tighten T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

- (c) Connect the connector (3).

12. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY

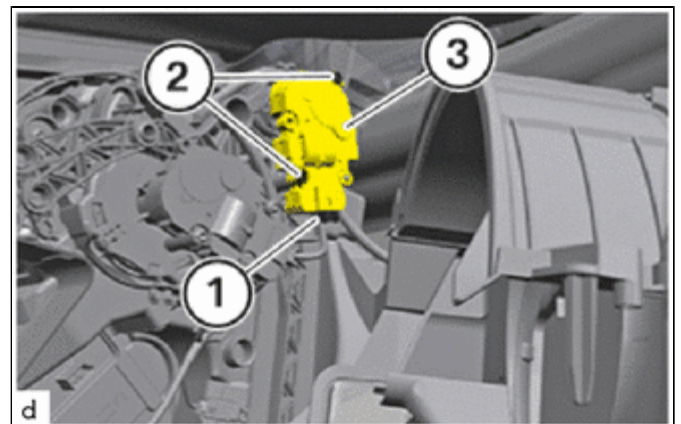
Click here [INFO](#)

13. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

14. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M61)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M61) (3).



- (b) Tighten T20 screws (2).

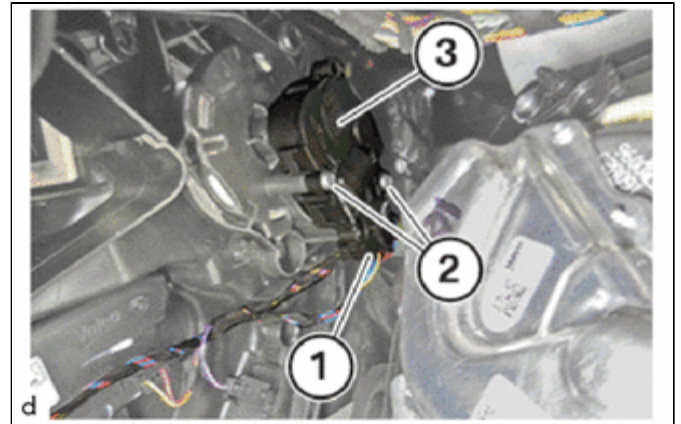
Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Connect the connector (1).

15. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M7a)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M7a) (3).



(b) Tighten T20 screws (2).

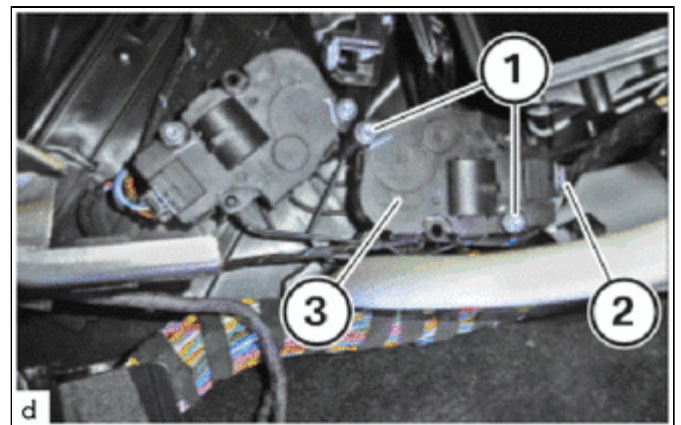
Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Connect the connector (1).

16. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M69)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M69) (3).



(b) Tighten T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

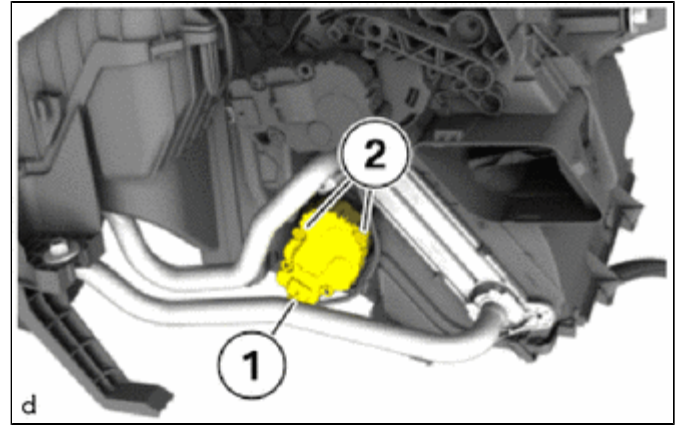
(c) Connect the connector (2).

17. INSTALL BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

18. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M23a)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M23a).



- (b) Tighten T20 screws (2).

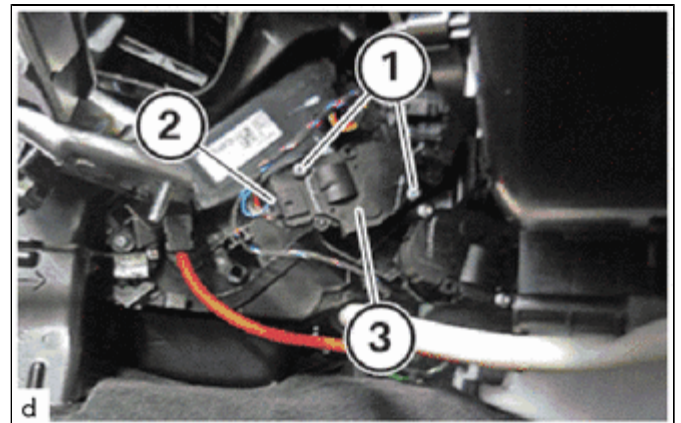
Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

- (c) Connect the connector (1).

19. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M83a)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M83a) (3).



- (b) Tighten T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

- (c) Connect the connector (2).

20. INSTALL NO. 1 AIR DUCT

- (a) Install No. 1 air duct.
(b) Tighten screw.

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

21. INSTALL NO. 2 AIR DUCT

- (a) Install No. 2 air duct.
(b) Tighten screw.

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

22. INSTALL LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

Click here [INFO](#)

23. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

24. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

25. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

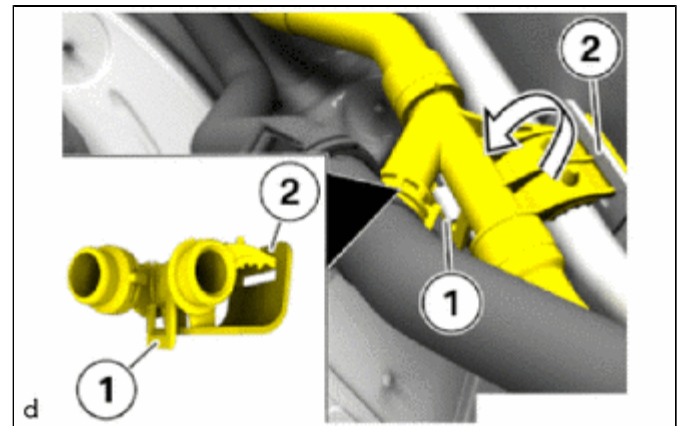
26. CONNECT AIR CONDITIONER TUBE ASSEMBLY

- (a) Replace O-rings.
- (b) Install the air conditioner tube assembly on the cooler expansion valve.
- (c) Tighten nut.

Torque:

13 N·m {133 kgf·cm, 10 ft·lbf}

- (d) Thread the heater water hose into the receptacle of the air conditioner tube assembly (2) in the direction of the arrow.

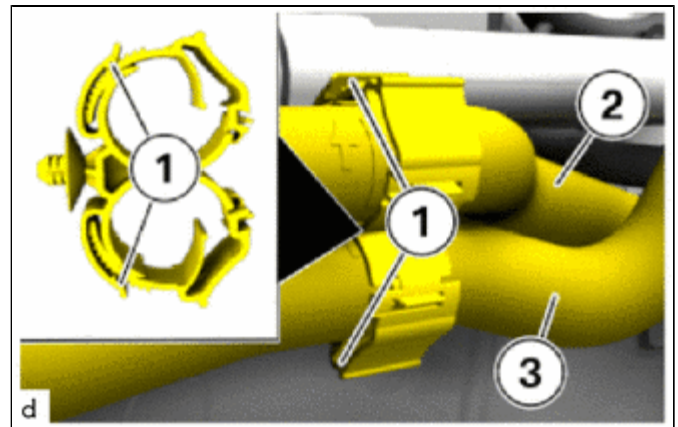


- (e) Engage the catch (1).

- (f) Connect the heater water hose (2) and (3) in the holder with the catches (1).

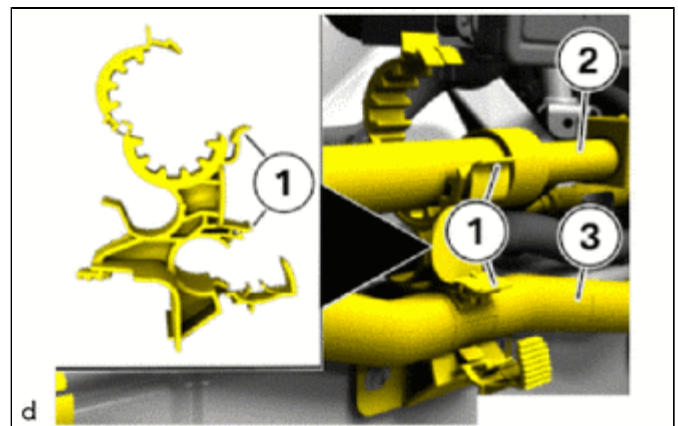
HINT:

Check holder with catches (1) for damage, replace if necessary.



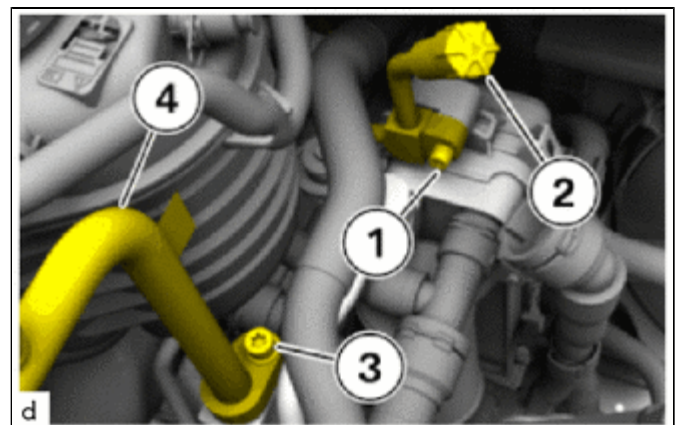
(g) Engage the notches (1).

(h) Install the air conditioner tube assembly (2) and the heater water hose (3) in the holder.



(i) Engage the notches (1).

(j) Replace O-rings.



(k) Install the suction pipe sub-assembly (4) and tighten the T45 bolt (3).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(l) Install the air conditioner tube assembly (2) and tighten the T30 bolt (1).

Torque:

13 N·m {133 kgf·cm, 10 ft·lbf}

27. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

28. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

29. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

30. INSTALL ECM

Click here [INFO](#)

31. INSTALL UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

32. ADD ENGINE COOLANT

Click here [INFO](#)

33. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

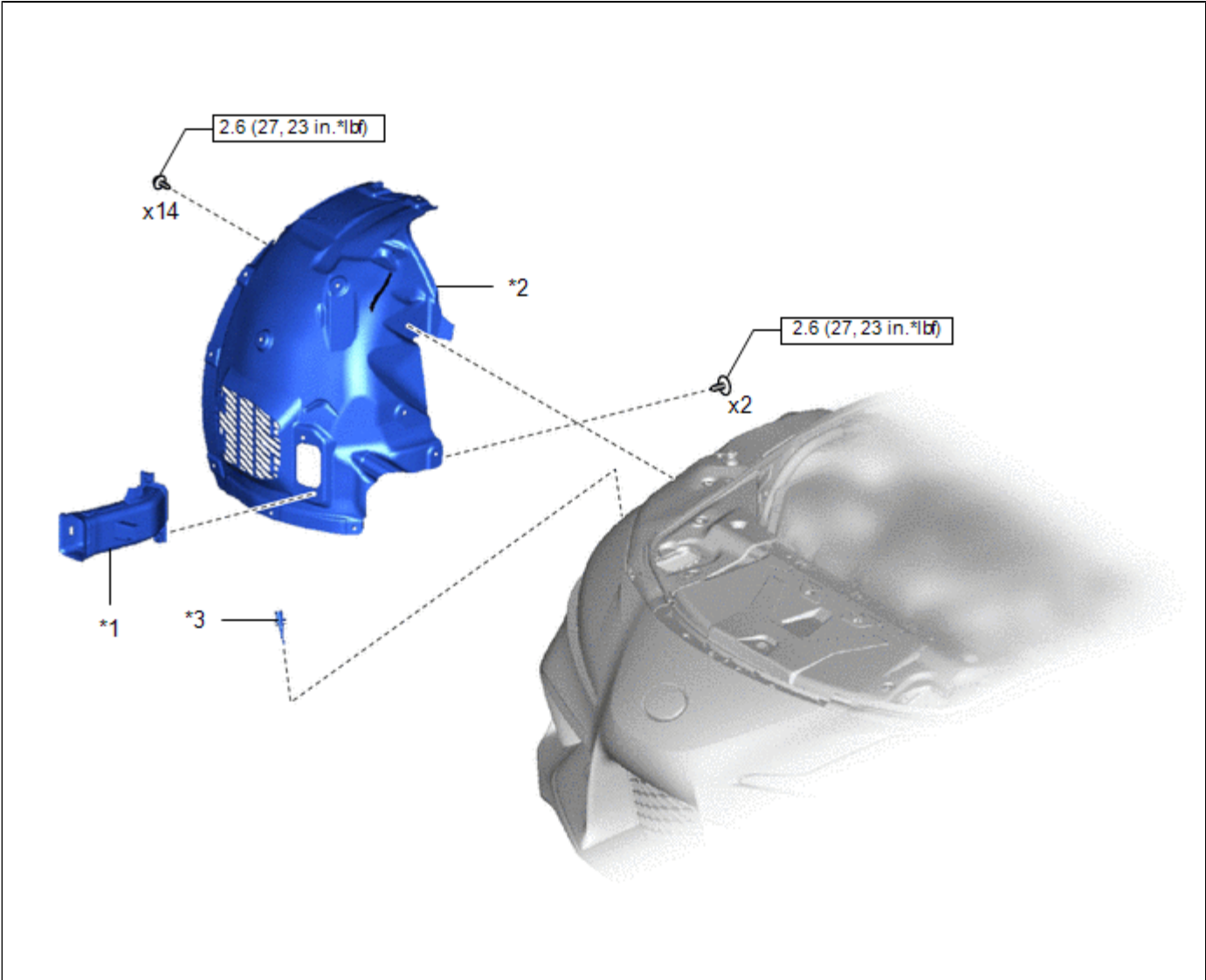
34. CHECK WIPER AND WASHER SYSTEM

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AMBIENT TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR INTAKE DUCT RH	*2	FRONT FENDER LINER RH
*3	TEMPERATURE SENSOR ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AMBIENT TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT WHEEL RH

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

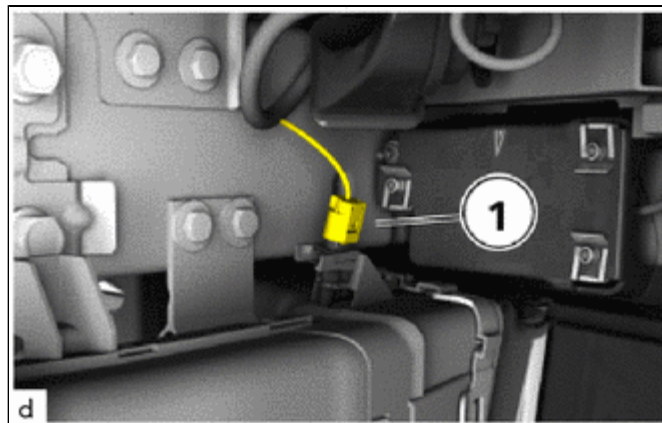
Click here [INFO](#)

3. REMOVE AIR INTAKE DUCT RH

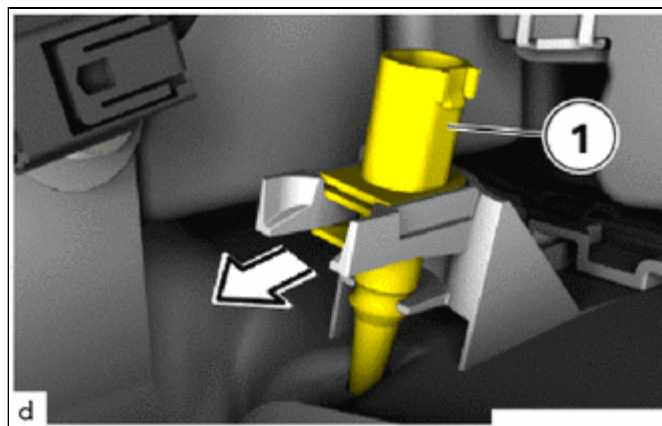
Click here [INFO](#)

4. REMOVE TEMPERATURE SENSOR ASSEMBLY

(a) Disconnect the connector (1).



(b) Disengage temperature sensor assembly (1) in the direction of the arrow and remove upwards.





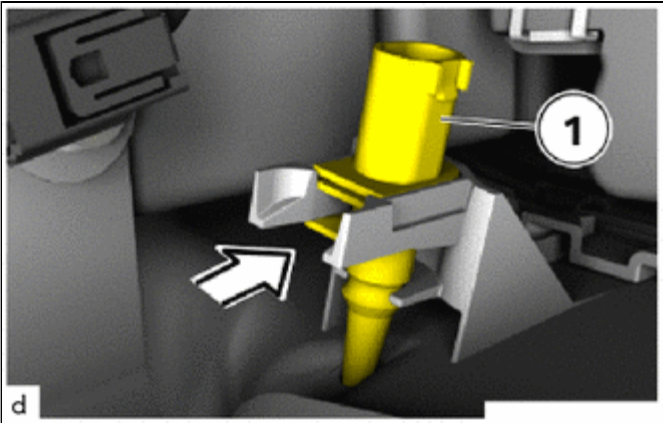
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AMBIENT TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TEMPERATURE SENSOR ASSEMBLY

- (a) Install temperature sensor assembly (1) into the bore from above and engage in the direction of the arrow.



- (b) Connect the connector.

2. INSTALL AIR INTAKE DUCT RH

Click here [INFO](#)

3. INSTALL FRONT FENDER LINER RH

HINT:
Use the same procedure as for the LH side.

Click here [INFO](#)

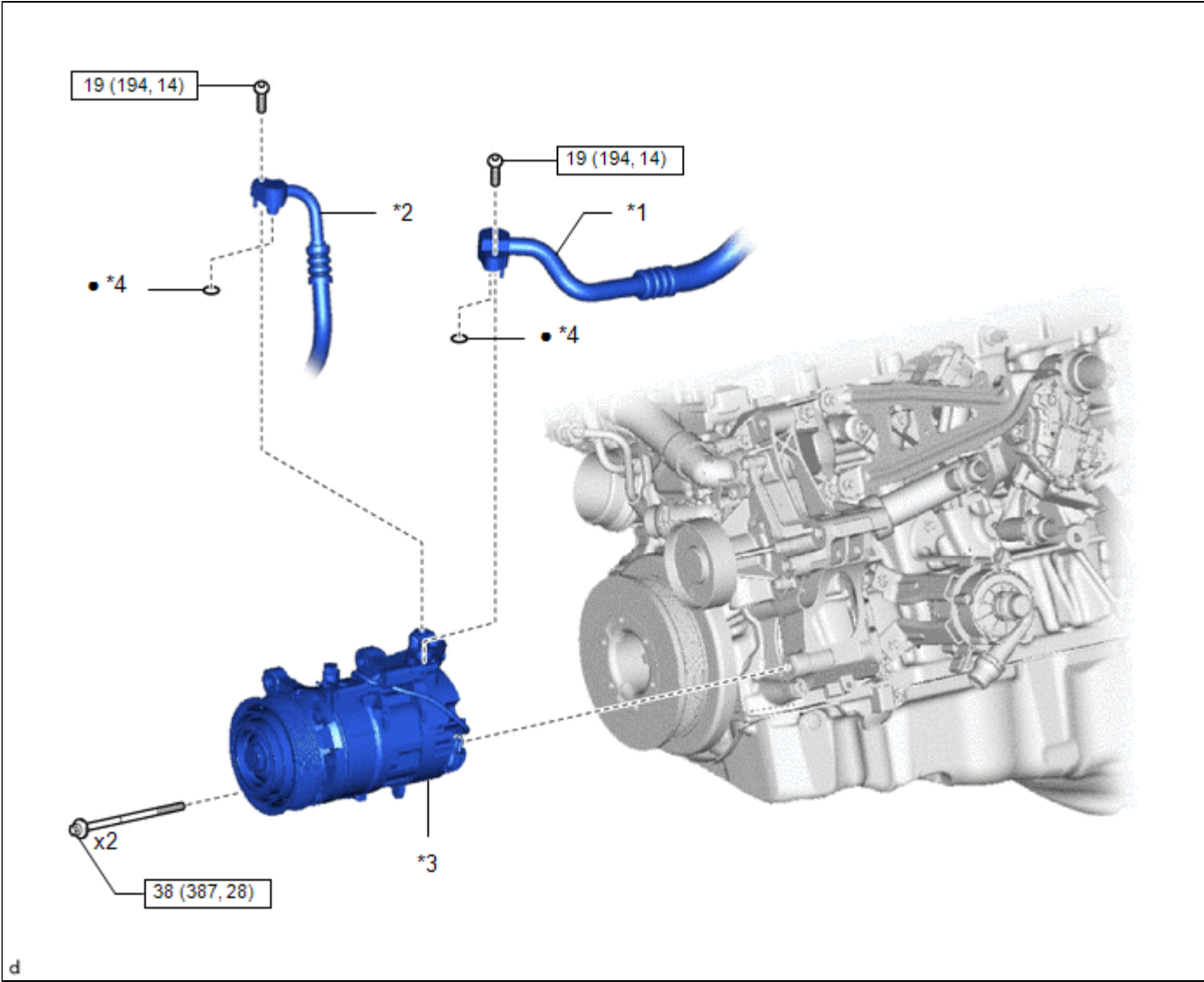
4. INSTALL FRONT WHEEL RH

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COMPRESSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SUCTION PIPE SUB-ASSEMBLY	*2	DISCHARGE TUBE G
*3	COMPRESSOR WITH PULLEY ASSEMBLY	*4	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COMPRESSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits. Risk of fire.

- Detach battery earth lead from battery.

- Refrigerant circuit under high pressure.

Danger of injury.

- Note and follow safety information on containers.
- Avoid contact with refrigerant; wear safety goggles and protective gloves.
- For more information see:

- Handling refrigerant:

Click here [INFO](#)

- Notes on repair work on air conditioning:

Click here [INFO](#)

NOTICE:

- External damage to compressor with pulley assembly.

Excessive force applied during removal will result in damage to the compressor with pulley assembly.

- Remove the compressor with pulley assembly without damaging it and without applying external force.
- Avoid impacts/knocks to plastic belt pulley (caused by tools, contact with base).

HINT:

- If mechanical failure of the compressor with pulley assembly occurs resulting in chips entering the refrigerant circuit, replace the following parts: compressor with pulley assembly, cooler condenser assembly with desiccant insert, line to cooler condenser assembly and compressor oil.
- When the engine is stopped after the end of the journey, it may be necessary to run the electric fan. In rare cases, operation of the electric fan can last up to 11 minutes. This protects the components. In this case, replacing the electric fan will not remedy the problem.

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. REMOVE FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

3. REMOVE GENERATOR ASSEMBLY

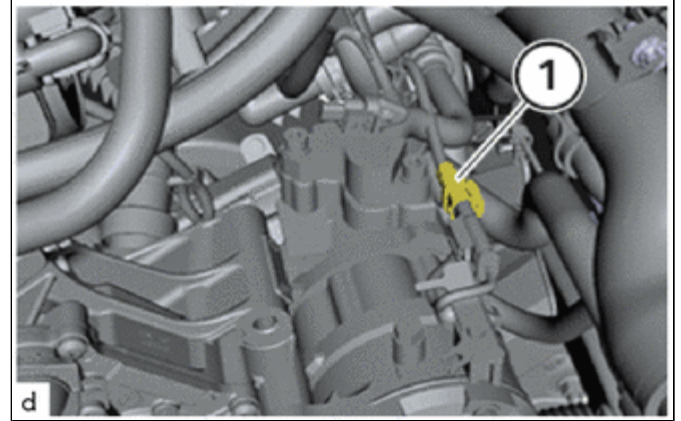
Click here [INFO](#)

4. REMOVE COMPRESSOR WITH PULLEY ASSEMBLY

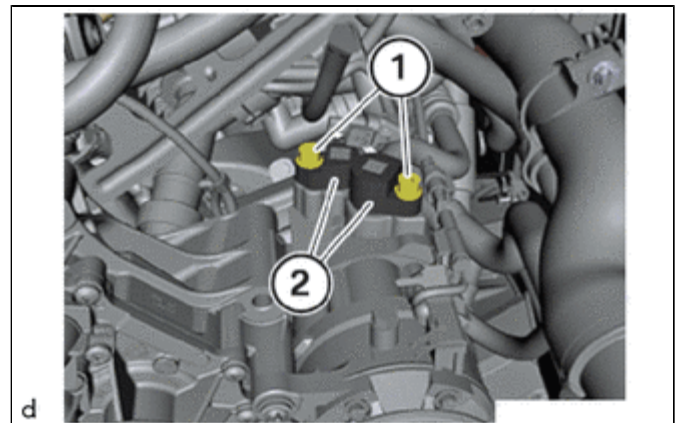
CAUTION:

- Danger of injury.
 - Wear safety goggles and protective gloves when disconnecting the refrigerant line.
 - Seal refrigerant lines with seal plugs.

(a) Disconnect the connector (1).



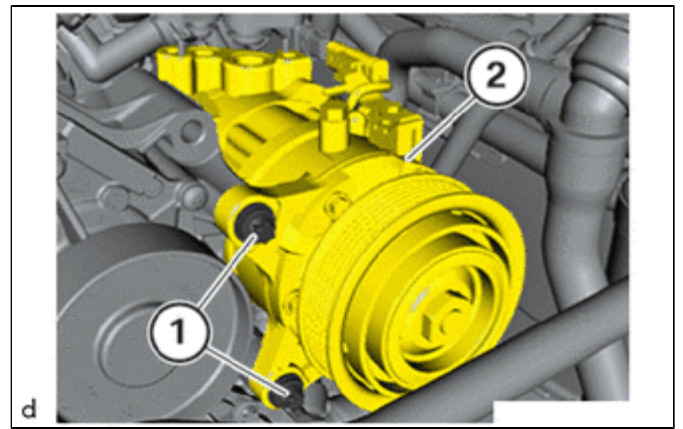
(b) Remove T45 bolt (1) to disconnect the suction pipe sub-assembly (2).



(c) Remove T45 bolt (1) to disconnect the discharge tube G (2).

(d) Remove the O-rings.

(e) Remove E12 bolts (1).



(f) Feed out and remove the compressor with pulley assembly (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COMPRESSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. ADJUST COMPRESSOR OIL (for Type A)

NOTICE:

- A new compressor with pulley assembly is filled with compressor oil at the factory. The amount of compressor oil in a new compressor with pulley assembly corresponds to the amount of compressor oil for the entire new and unfilled refrigerant circuit.
- When the compressor with pulley assembly is replaced, it is essential to adapt the amount of compressor oil.

HINT:

- The following procedure only applies when a new compressor with pulley assembly has a label with the amount of compressor oil.
- The compressor oil amount specification is located on the label on the compressor with pulley assembly.
- The position of the label can vary depending on the compressor with pulley assembly.
- The compressor oil specification on the label is in g, ml or cc. The cc are specified throughout these repair instructions for adjusting the amount of compressor oil, as g and ml closely correspond to cc.

(a) Step 1

- (1) Read and record amount of compressor oil specified on the previous compressor with pulley assembly.
- (2) If no label is present, continue with step 3, case 1.
- (3) Read and record amount of compressor oil specified on a new compressor with pulley assembly.
- (4) Compare both amounts of compressor oil with each other.
- (5) Amount of compressor oil specified on the previous and a new compressor with pulley assembly is same. In this case, continue with step 3, case 1.
- (6) Amount of compressor oil specified on the previous and a new compressor with pulley assembly is not the same.
 - Amount of compressor oil specified on the previous compressor with pulley assembly is higher than on a new compressor with pulley assembly. Difference is not taken into account. In this case, continue with step 3, case 1.
 - Amount of compressor oil specified on the previous compressor with pulley assembly is lower than on a new compressor with pulley assembly: Generate and record the difference between both amounts of compressor oil. Then, continue with step 3, case 2.
- (7) Example:
 - Amount of compressor oil specified on the previous compressor with pulley assembly 110 g (3.88 oz).
 - Amount of compressor oil specified on a new compressor with pulley assembly 150 g (5.29 oz).
 - 150 g (5.29 oz) - 110 g (3.88 oz) = 40 g (1.41 oz) approximately 40 cc (1.35 fl.oz).
 - Record the difference 40 cc (1.35 fl.oz).

(b) Step 2

- (1) Open the oil filler plug.

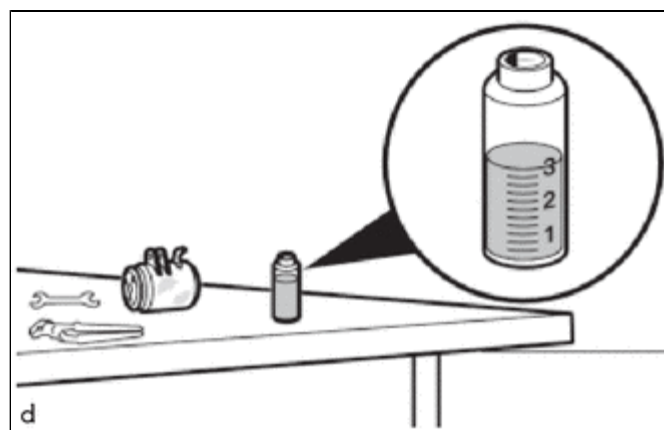
- (2) Transfer all of the compressor oil remaining in the previous compressor with pulley assembly into a measuring cup via the oil filler plug.



- (3) Turn the belt pulley during draining.

(c) Step 3

- (1) Read the drained amount of compressor oil from the previous compressor with pulley assembly on the measuring cup.



(2) Case 1:

- Add 10 cc (0.338 fl.oz) extra to the amount of compressor oil read as a precautionary allowance.
- Record at least but a total of 50 cc (1.69 fl.oz).

(3) Example:

- 20 cc (0.676 fl.oz) read at measuring cup.
- 20 cc (0.676 fl.oz) + 10 cc (0.338 fl.oz) precautionary allowance = 30 cc (1.01 fl.oz) (below 50 cc (1.69 fl.oz)).
- Amount of compressor oil determined for a new compressor with pulley assembly = 50 cc (1.69 fl.oz).

(4) Case 2:

- Add 10 cc (0.338 fl.oz) extra to the amount of compressor oil read as a precautionary allowance.
- To this add the difference.
- Record at least but a total of 50 cc (1.69 fl.oz).

(5) Example:

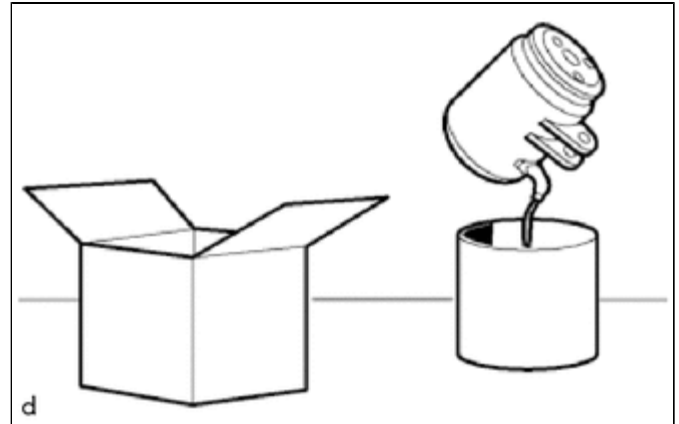
- Difference = 40 cc (1.35 fl.oz).
- 20 cc (0.676 fl.oz) read at measuring cup.
- 20 cc (0.676 fl.oz) + 10 cc (0.338 fl.oz) precautionary allowance = 30 cc (1.01 fl.oz).
- 30 cc (1.01 fl.oz) + 40 cc (1.35 fl.oz) difference = 70 cc (2.37 fl.oz) (above 50 cc (1.69 fl.oz)).

- Amount of compressor oil determined for a new compressor with pulley assembly = 70 cc (2.37 fl.oz).

(d) Step 4

- (1) Open the oil filler plug.

- (2) Drain the following amount of compressor oil from a new compressor with pulley assembly into a clean measuring cup.



- (3) Amount of compressor oil to be drained from a new compressor with pulley assembly = amount of compressor oil on the label for a new compressor with pulley assembly - amount of compressor oil determined for a new compressor with pulley assembly.

- (4) Example:

- Amount on a new compressor with pulley assembly compressor oil label: 150 cc (5.07 fl.oz).
- Amount of compressor oil determined for a new compressor with pulley assembly: 50 cc (1.69 fl.oz).
- Amount of compressor oil to be drained = 150 cc (5.07 fl.oz) - 50 cc (1.69 fl.oz) = 100 cc (3.38 fl.oz).
- 100 cc (3.38 fl.oz) must be drained from a new compressor with pulley assembly.

- (5) Replace the sealing ring.

- (6) Tighten oil filler plug.

Torque:

30 N·m {306 kgf·cm, 22 ft·lbf}

- (7) Immediately after draining, the remaining compressor oil must be filled into the refrigerant recovery unit expansion tank.
- (8) The remaining compressor oil must be disposed of correctly if it is not immediately filled into the expansion tank of the refrigerant recovery unit.
- (9) Compressor oil drained from the previous compressor with pulley assembly must not be reused and must be disposed of correctly.

2. ADJUST COMPRESSOR OIL (for Type B)

NOTICE:

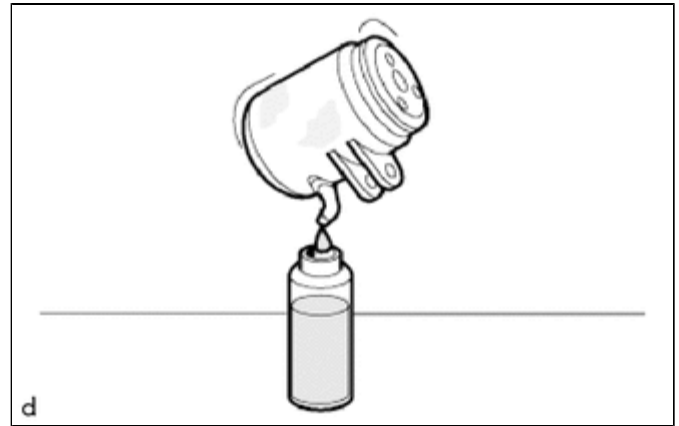
- A new compressor with pulley assembly is filled with compressor oil at the factory. The amount of compressor oil in a new compressor with pulley assembly corresponds to the amount of compressor oil for the entire new and unfilled refrigerant circuit.
- When the compressor with pulley assembly is replaced, it is essential to adapt the amount of compressor oil.

HINT:

The following procedure only applies if a new compressor with pulley assembly has a label indicating the amount of compressor oil.

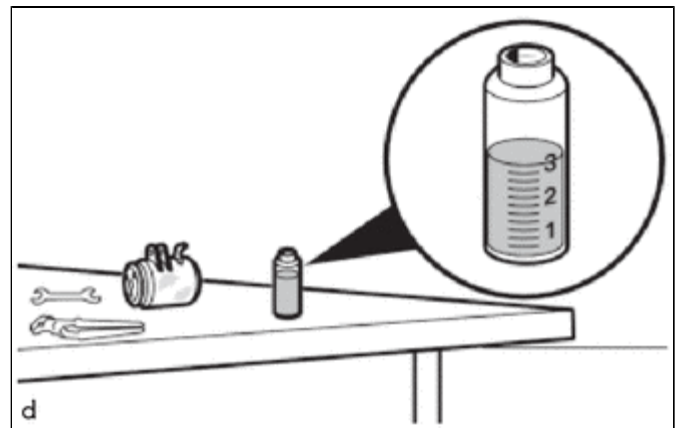
- (a) Open the oil filler plug.

- (b) Transfer all of the compressor oil remaining in the previous compressor with pulley assembly into a measuring cup via the oil filler plug.



- (c) Turn the belt pulley during draining.

- (d) Read the drained amount of compressor oil from the previous compressor with pulley assembly on the measuring cup.



- (e) Add 10 cc (0.338 fl.oz) extra to the recorded amount of compressor oil as a precautionary allowance, but record at least a total of 50 cc (1.69 fl.oz).

- (f) Example:

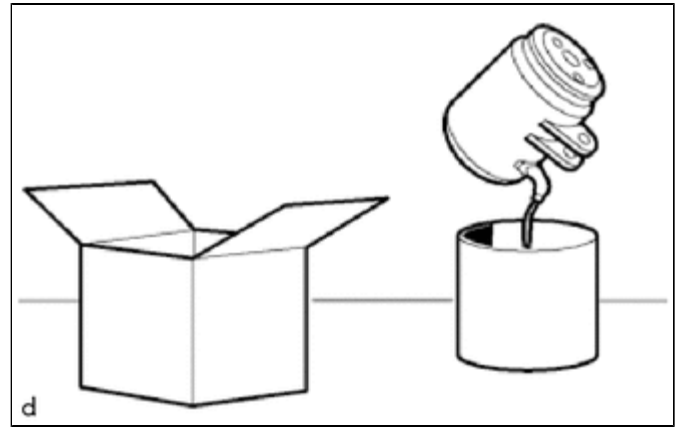
(1) 20 cc (0.676 fl.oz) read at measuring cup.

(2) 20 cc (0.676 fl.oz) + 10 cc (0.338 fl.oz) precautionary allowance = 30 cc (1.01 fl.oz) (below 50 cc (1.69 fl.oz)).

(3) Amount of compressor oil to be filled in a new compressor with pulley assembly = 50 cc (1.69 fl.oz).

- (g) Open the oil filler plug.

- (h) Drain the entire compressor oil from a new compressor with pulley assembly into a clean collecting vessel.



- (i) Turn the belt pulley during draining.
- (j) Immediately fill the amount of compressor oil to be filled from the collecting vessel into a clean measuring cup.
- (k) Fill the amount of compressor oil to be filled from the measuring cup into a new compressor with pulley assembly.
- (l) Renew the sealing ring.
- (m) Tighten oil filler plug.

Torque:

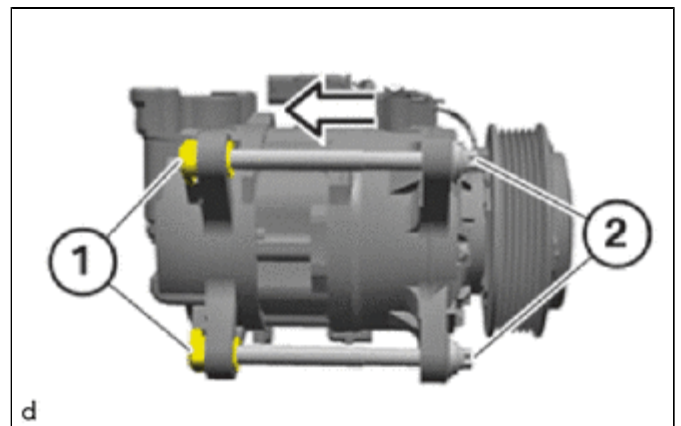
30 N·m {306 kgf·cm, 22 ft·lbf}

- (n) Immediately after draining, the remaining compressor oil must be filled into the refrigerant recovery unit expansion tank.
- (o) The remaining compressor oil must be disposed of correctly if it is not immediately filled into the expansion tank of the refrigerant recovery unit.
- (p) Compressor oil drained from the previous compressor with pulley assembly must not be reused and must be disposed of correctly.

3. INSTALL COMPRESSOR WITH PULLEY ASSEMBLY

- (a) Prepare for the installation of the compressor with pulley assembly.

- (1) Install the E12 bolts (2) into the threaded support sleeve (1).

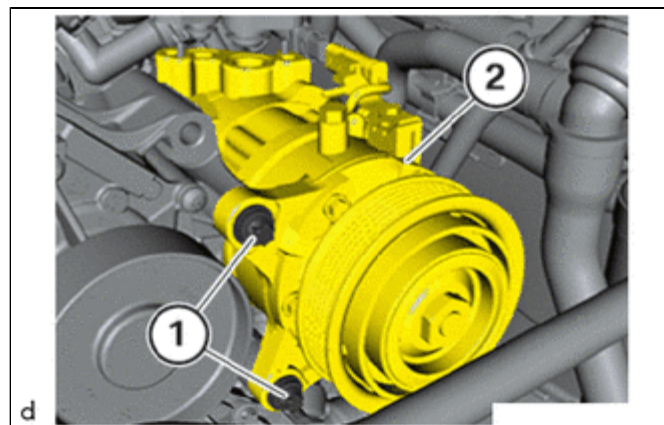


- (2) Slightly press back the threaded support sleeve (1) in the direction of the arrow with the E12 bolts (2).
- (3) Remove the E12 bolts (2) from the threaded support sleeve (1) again.

(b) Install the compressor with pulley assembly (2) with the E12 bolts (1).

Torque:

38 N·m {387 kgf·cm, 28 ft·lbf}

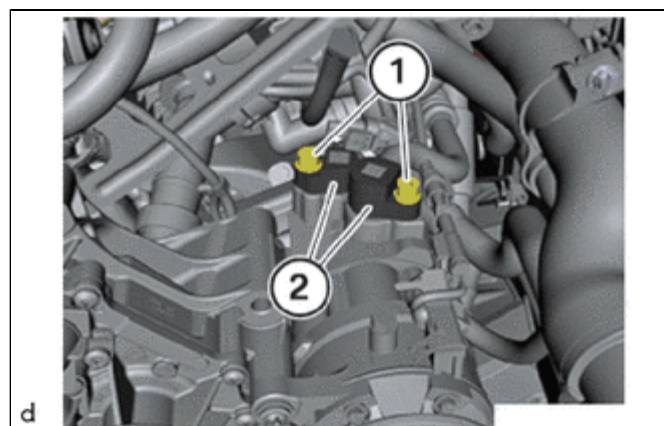


(c) Replace O-rings.

(d) Install the suction pipe sub-assembly (2) with the T45 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



(e) Install the discharge tube G (2) with the T45 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(f) Connect the connector.

4. INSTALL GENERATOR ASSEMBLY

Click here [INFO](#)

5. INSTALL FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

6. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

7. WARM UP COMPRESSOR

NOTICE:

- Mechanical damage to a new compressor with pulley assembly.

An increased quantity of compressor oil in a new compressor with pulley assembly can cause mechanical damage.

- Perform the running-in procedure.
- Do not exceed the idle speed during running-in.

HINT:

The running-in procedure for a new compressor with pulley assembly can either be performed manually or using the diagnosis system.

(a) Manual:

- (1) Switch off the air conditioning.
- (2) Set all ventilation outlets in the instrument panel to "OPEN".
- (3) Start the engine and allow the idle speed to stabilize.
- (4) Set the blower output to a minimum of 75% of the maximum blower output.
- (5) Switch on the air conditioning and allow the engine to run at idle speed for a minimum of 2 minutes.
- (6) Switch off the air conditioning and blower.
- (7) Stop engine.

(b) Connect the diagnosis system to the vehicle and enter the following menus:

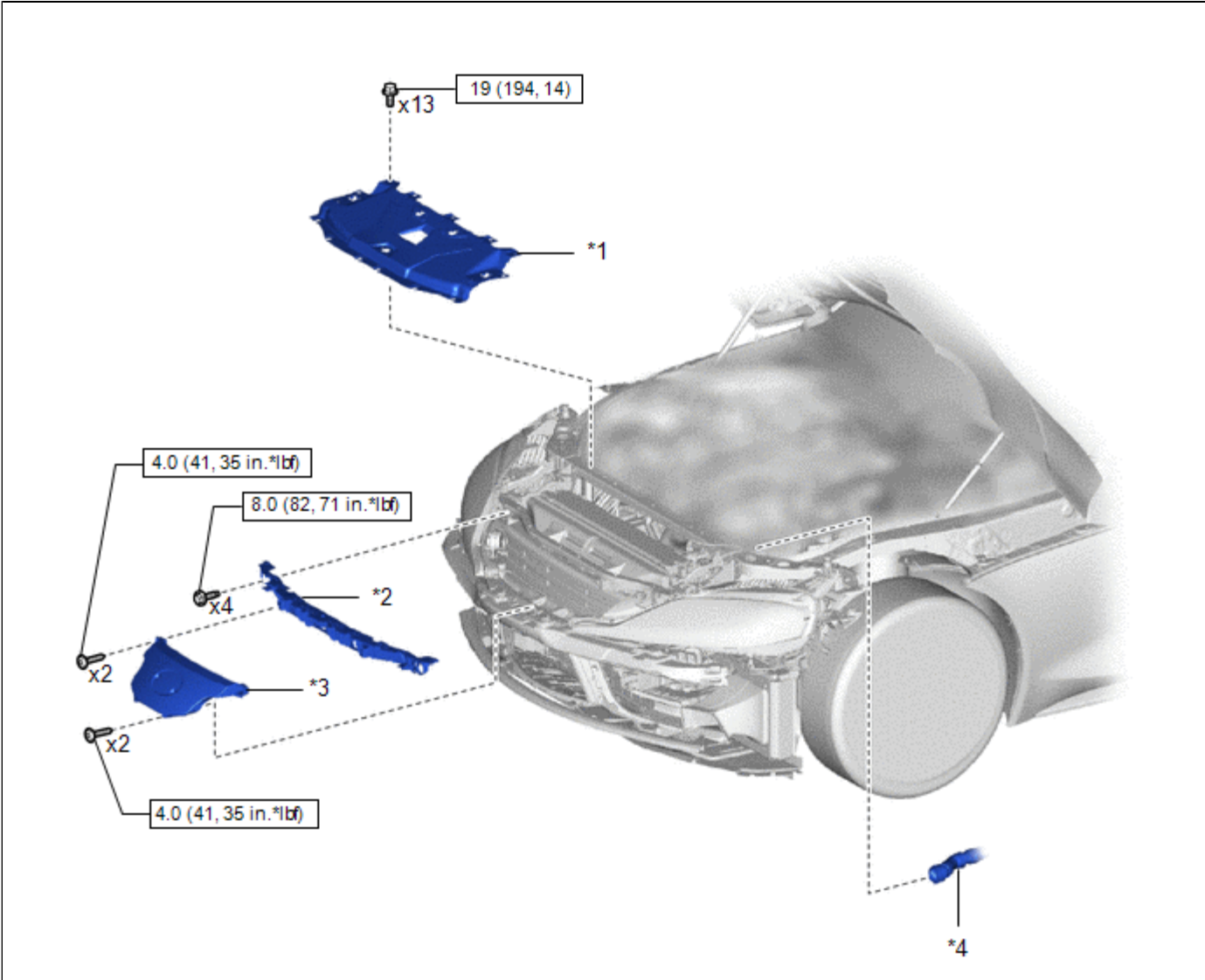
Vehicle management / Service functions / Body / Heating and air conditioning functions / Run-in protection for A/C compressor



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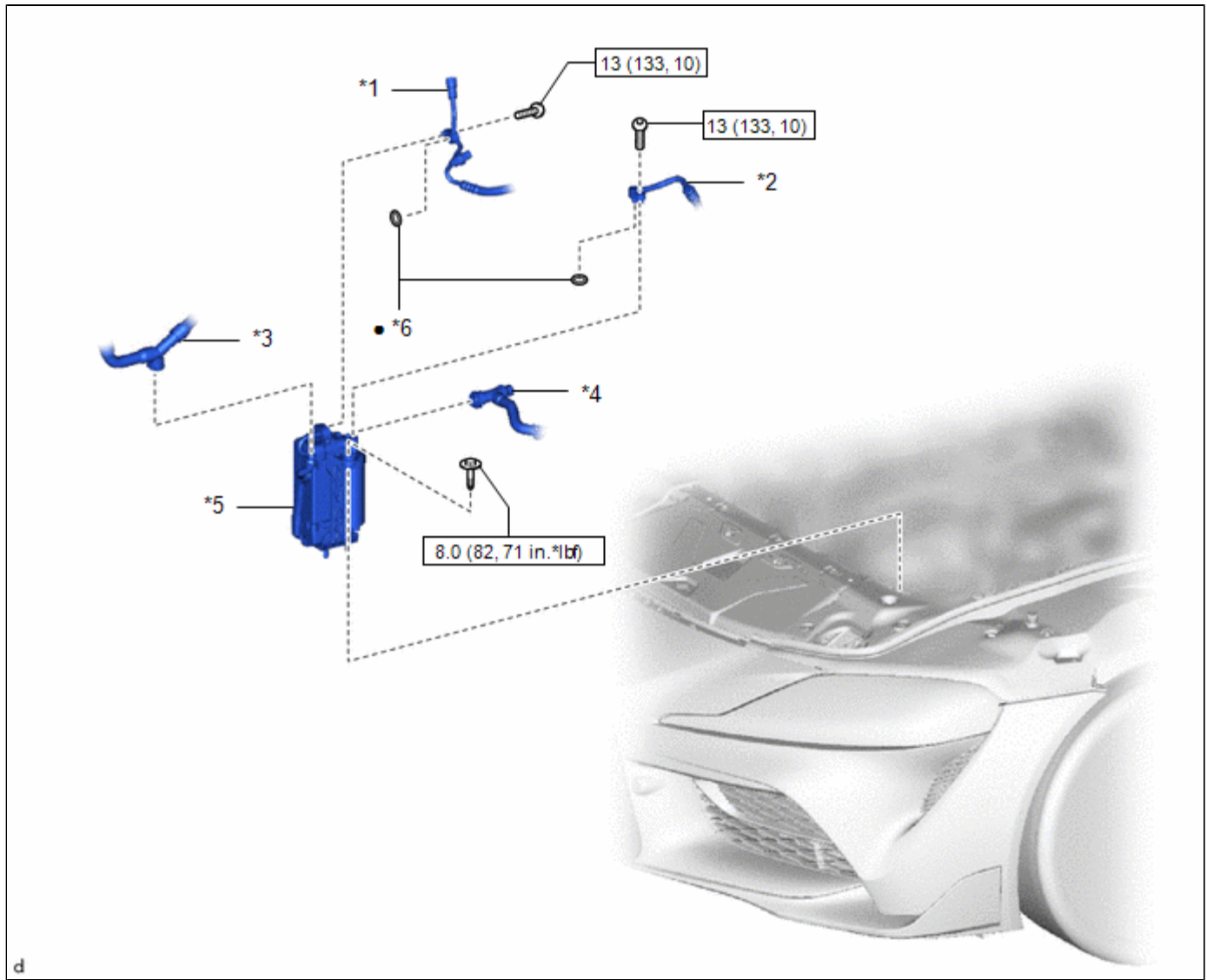
COMPONENTS

ILLUSTRATION




*1	RADIATOR UPPER AIR DEFLECTOR	*2	FRONT BUMPER UPPER RETAINER
*3	FRONT BUMPER INNER SUPPORT	*4	NO. 2 RADIATOR HOSE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



d

*1	AIR CONDITIONER TUBE ASSEMBLY	*2	DISCHARGE TUBE G
*3	NO. 5 WATER BY-PASS HOSE	*4	NO. 6 WATER BY-PASS HOSE
*5	COOLER CONDENSER ASSEMBLY	*6	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. DRAIN ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

5. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

6. REMOVE FRONT BUMPER INNER SUPPORT

Click here [INFO](#)

7. REMOVE FRONT BUMPER UPPER RETAINER

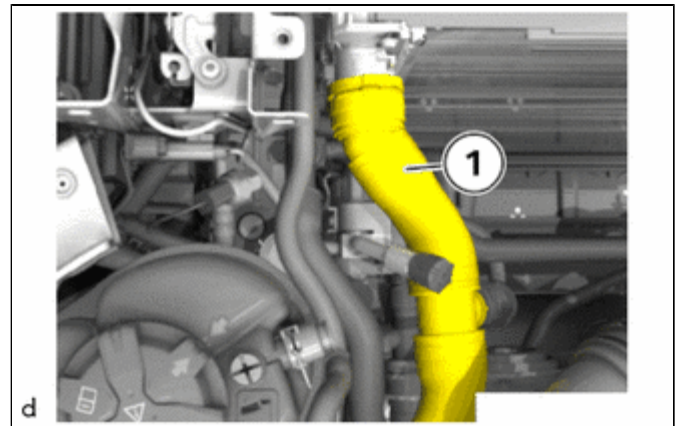
Click here [INFO](#)

8. REMOVE RADIATOR UPPER AIR DEFLECTOR

Click here [INFO](#)

9. SEPARATE NO. 2 RADIATOR HOSE

(a) Separate the No. 2 radiator hose (1) from the high temperature radiator assembly.



10. REMOVE COOLER CONDENSER ASSEMBLY

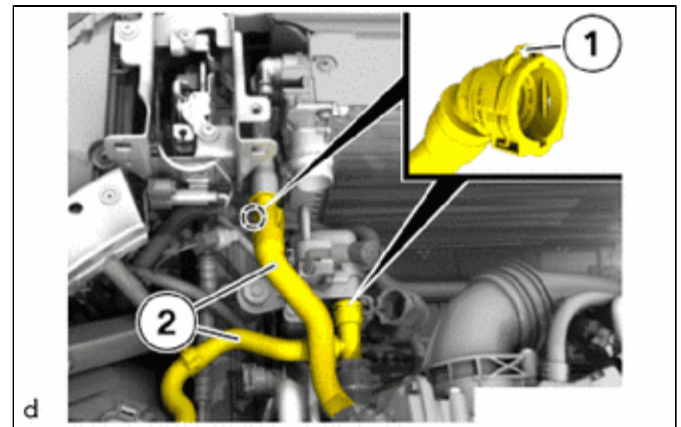
CAUTION:

- Danger of injury.
 - Wear safety goggles and protective gloves when disconnecting the refrigerant line. Seal refrigerant lines with seal plugs.

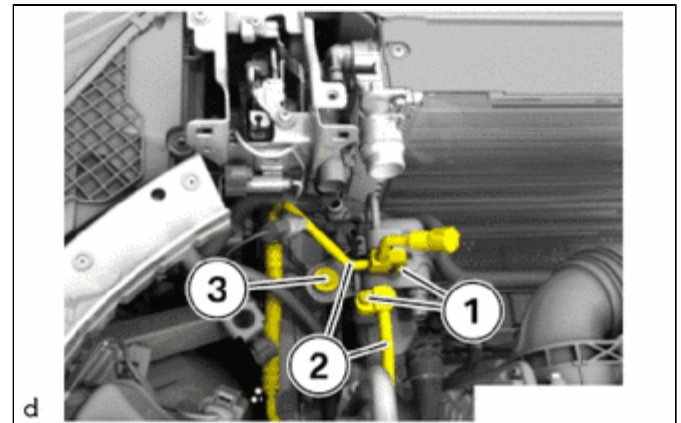
- (a) Disengage the lock springs (1) and disconnect No. 5 water by-pass hose (2) and No. 6 water by-pass hose (2) from the cooler condenser assembly.

NOTICE:

Catch and dispose of escaping coolant.



- (b) Remove T30 bolts (1) and T45 bolts (1).

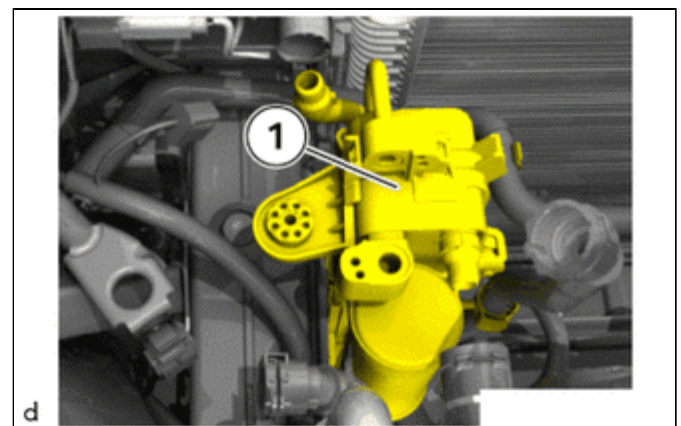


- (c) Disconnect air conditioner tube assembly (2) and discharge tube G (2) from the cooler condenser assembly.

- (d) Remove the O-rings.

- (e) Remove bolt (3).

- (f) Remove the cooler condenser assembly (1) together with the holder.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: CONDENSER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

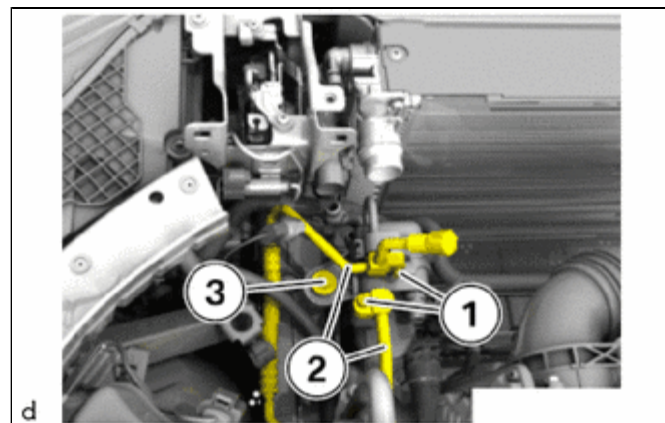
1. INSTALL COOLER CONDENSER ASSEMBLY

(a) Install the cooler condenser assembly together with the bracket.

(b) Tighten bolt (3).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



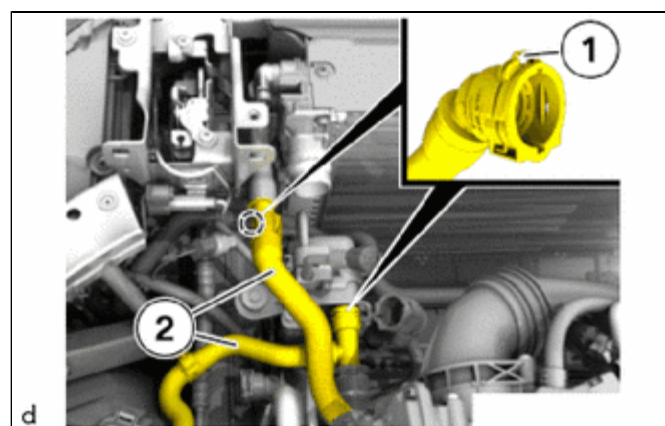
(c) Replace O-rings.

(d) Connect air conditioner tube assembly (2) and discharge tube G (2).

(e) Tighten T30 bolts (1) and T45 bolts (1).

Torque:

13 N·m {133 kgf·cm, 10 ft·lbf}



(f) Connect the No. 5 water by-pass hose (2) and No. 6 water by-pass hose (2).

(g) Lock springs (1) must engage audibly.

2. CONNECT NO. 2 RADIATOR HOSE

(a) Connect and lock the No. 2 radiator hose.

3. INSTALL RADIATOR UPPER AIR DEFLECTOR

Click here [INFO](#)

4. INSTALL FRONT BUMPER UPPER RETAINER

Click here [INFO](#)

5. INSTALL FRONT BUMPER INNER SUPPORT

Click here [INFO](#)

6. INSTALL FRONT BUMPER ASSEMBLY

Click here [INFO](#)

7. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

8. ADD ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

9. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

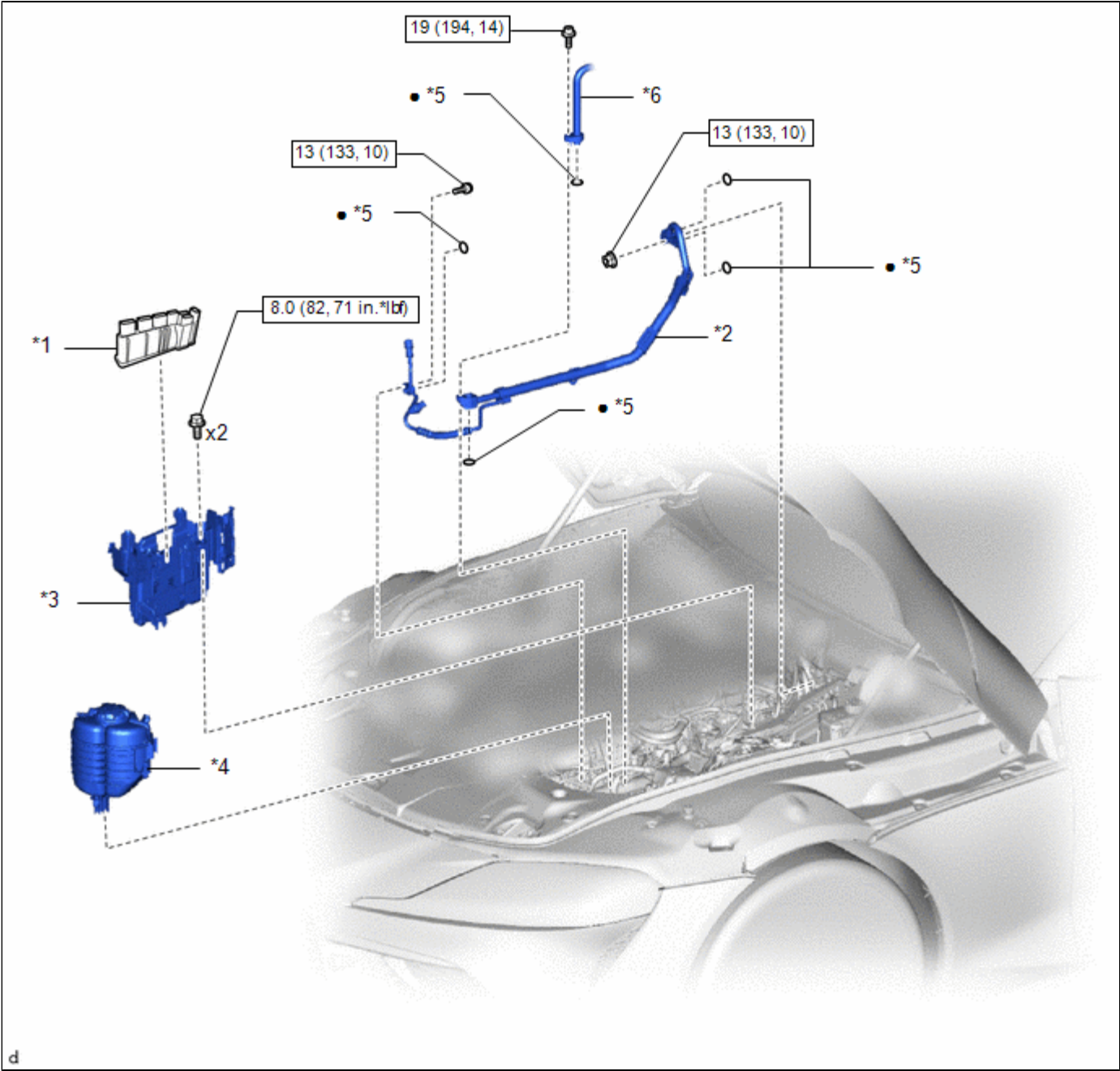
10. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COOLER EXPANSION VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

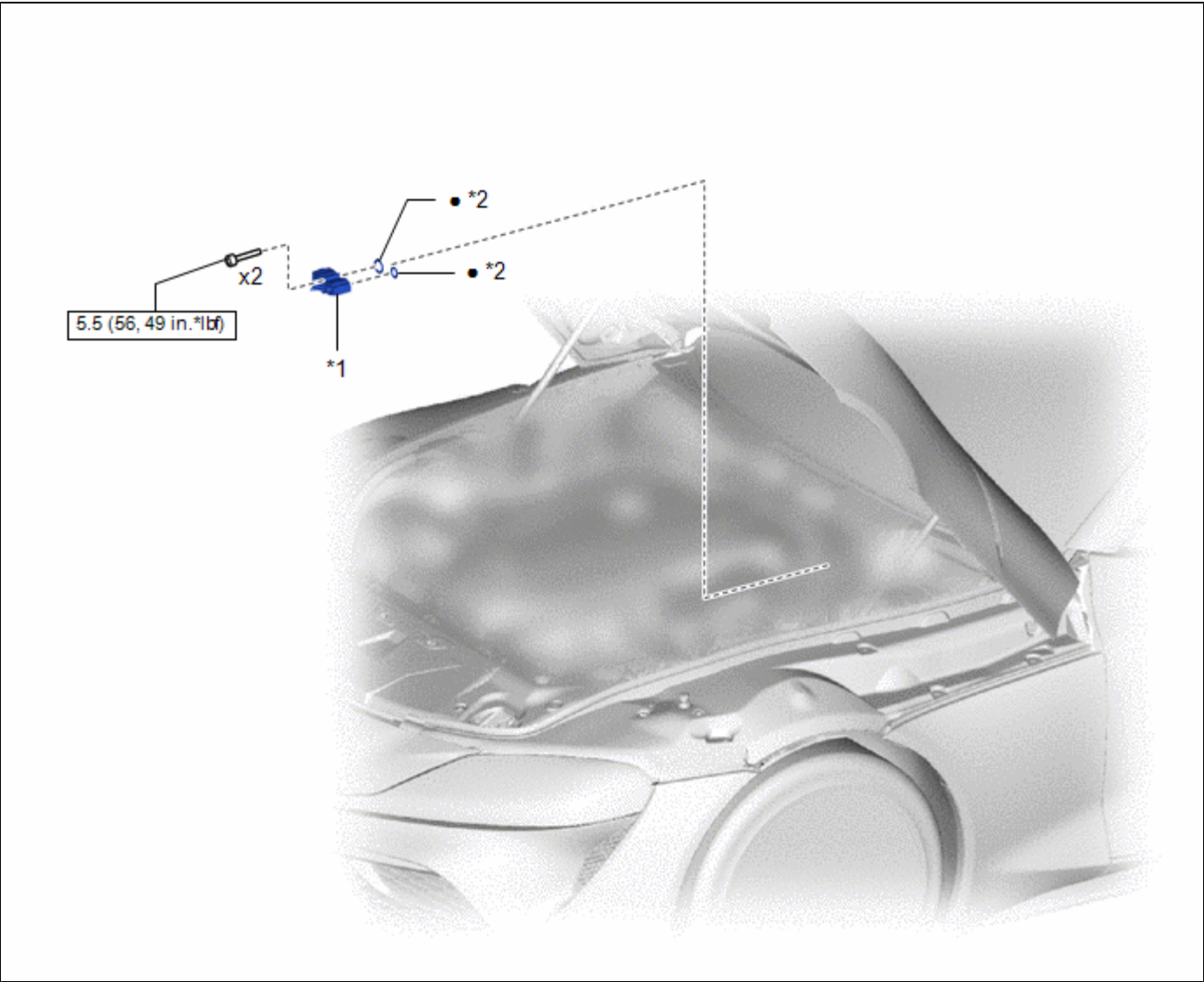
ILLUSTRATION




*1	NO. 1 INTEGRATION RELAY	*2	AIR CONDITIONER TUBE ASSEMBLY
*3	ENGINE ROOM ECM BOX	*4	RADIATOR RESERVE TANK ASSEMBLY
*5	O-RING	*6	SUCTION PIPE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

			
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ILLUSTRATION



*1	COOLER EXPANSION VALVE	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COOLER EXPANSION VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. REMOVE UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

3. REMOVE ECM

Click here [INFO](#)

4. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

5. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

6. REMOVE RADIATOR RESERVE TANK ASSEMBLY

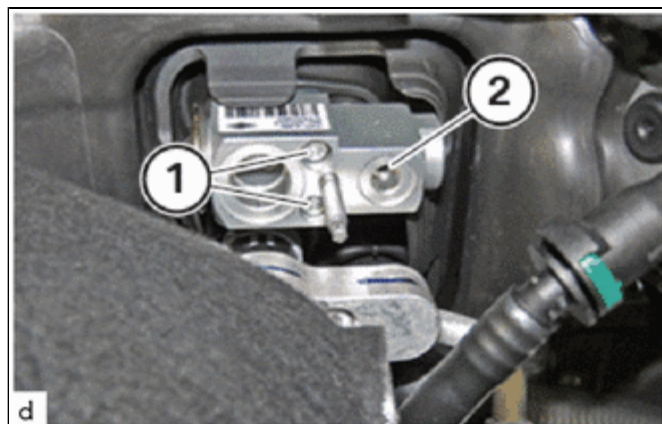
Click here [INFO](#)

7. SEPARATE AIR CONDITIONER TUBE ASSEMBLY

Click here [INFO](#)

8. REMOVE COOLER EXPANSION VALVE

(a) Using a 4 mm hexagon wrench, remove the bolts (1).



(b) Remove the cooler expansion valve (2).

(c) Remove the O-rings.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COOLER EXPANSION VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

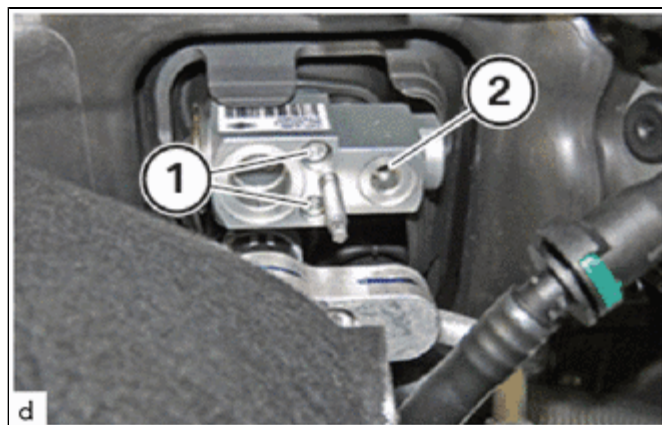
INSTALLATION

PROCEDURE

1. INSTALL COOLER EXPANSION VALVE

(a) Replace the O-rings.

(b) Install the cooler expansion valve (2).



(c) Using a 4 mm hexagon wrench, install the bolts (1).

Torque:

5.5 N·m {56 kgf·cm, 49 in·lbf}

2. CONNECT AIR CONDITIONER TUBE ASSEMBLY

Click here [INFO](#)

3. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

4. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

5. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

6. INSTALL ECM

Click here [INFO](#)

7. INSTALL UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

8. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

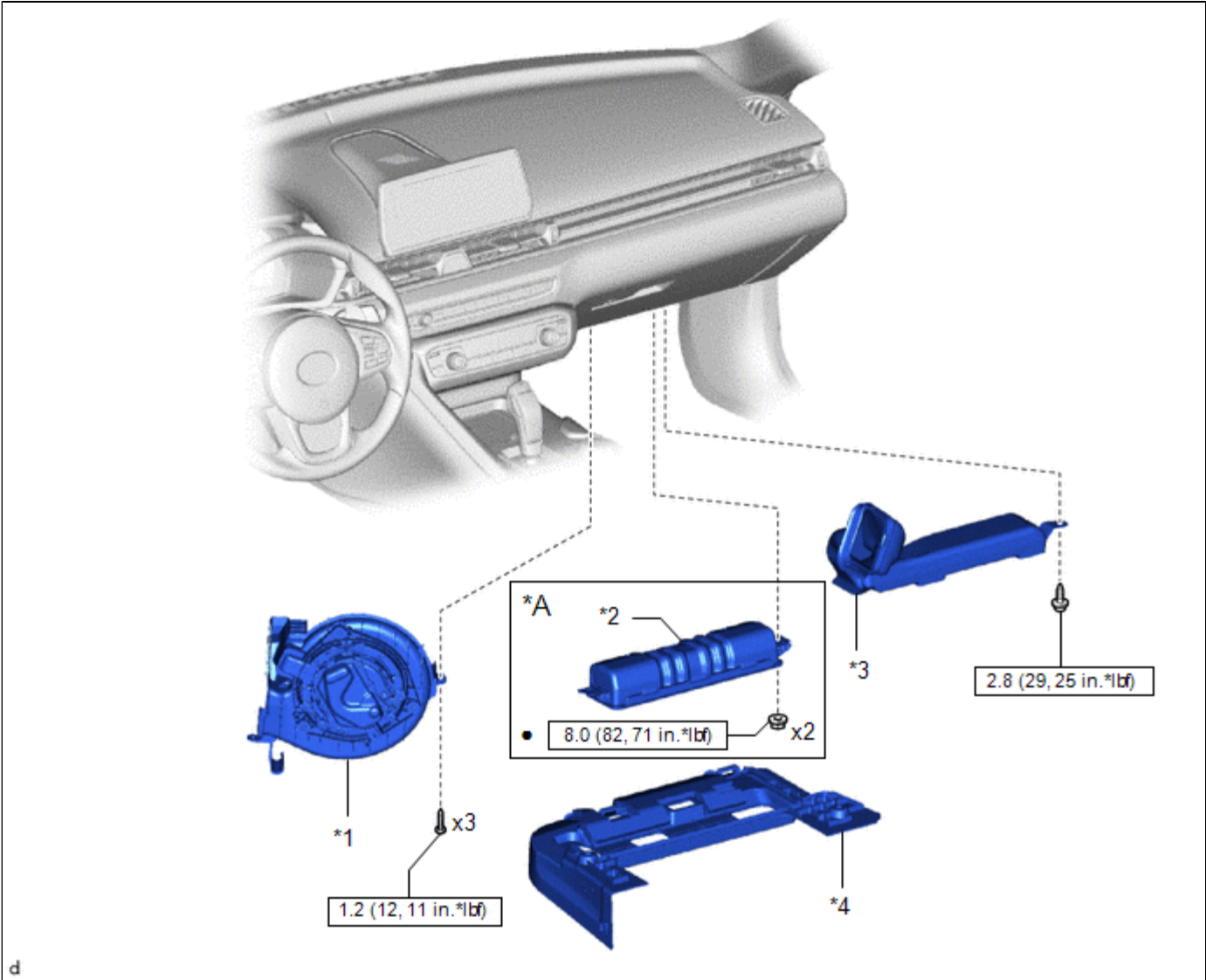
9. CHECK WIPER AND WASHER SYSTEM


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT BLOWER MOTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Passenger Side Knee Airbag	-	-
*1	BLOWER WITH FAN MOTOR SUB-ASSEMBLY	*2	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY
*3	NO. 2 AIR DUCT	*4	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT BLOWER MOTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger. Life-threatening injuries.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: Safety regulations on handling components with gas generators.

Click here

INFO

PROCEDURE

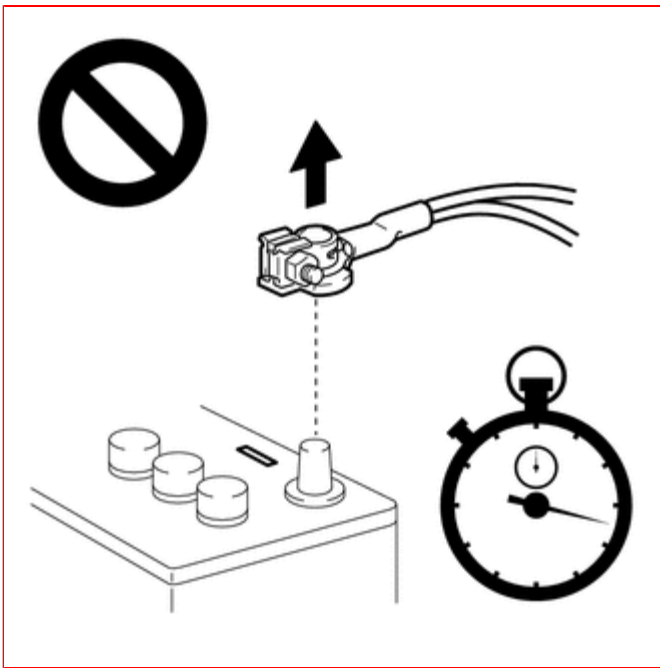
1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here

INFO

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

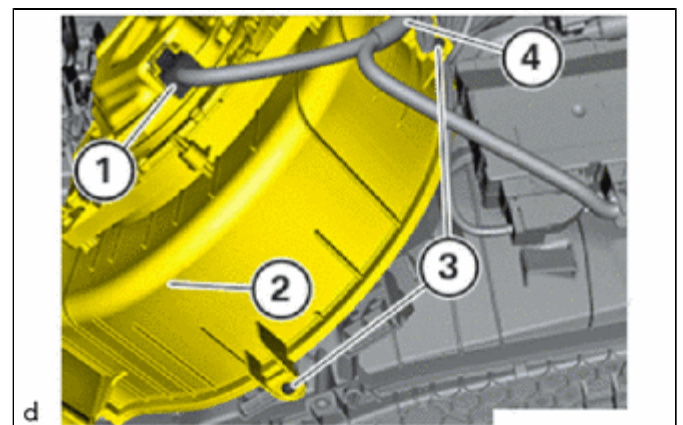
Click here [INFO](#)

4. REMOVE NO. 2 AIR DUCT

Click here [INFO](#)

5. REMOVE BLOWER WITH FAN MOTOR SUB-ASSEMBLY

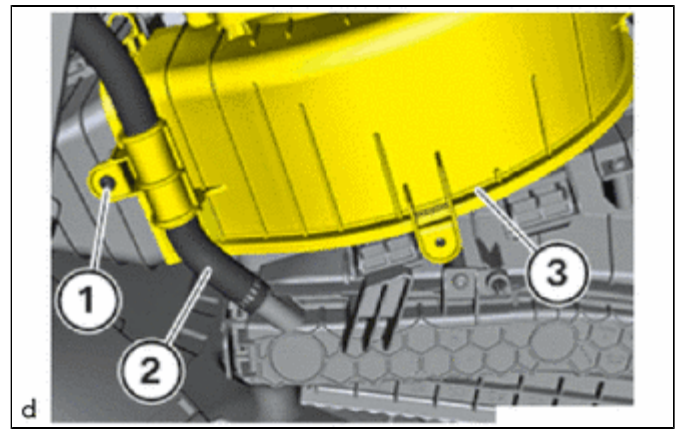
- (a) Disconnect the connector (1) from the blower with fan motor sub-assembly (2).



- (b) Remove T20 screws (3).

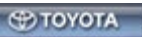
- (c) Pull of the cable clip (4) from the blower with fan motor sub-assembly (2).

(d) Remove T20 screw (1).



(e) Guide out the hose (2) from the blower motor with fan sub-assembly (3).

(f) Remove the blower motor with fan sub-assembly (3).



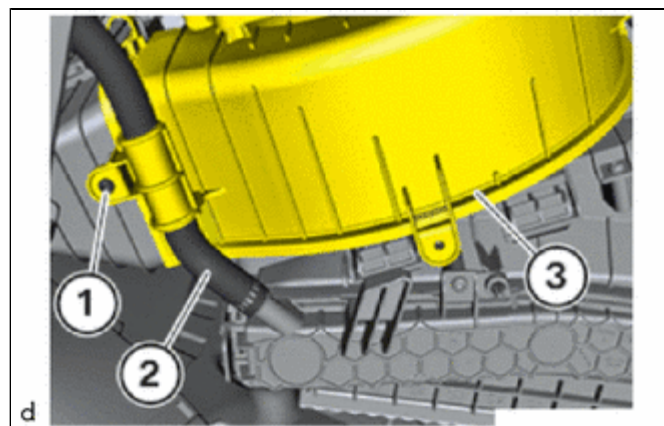
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT BLOWER MOTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BLOWER WITH FAN MOTOR SUB-ASSEMBLY

(a) Install the blower with fan motor sub-assembly (3).



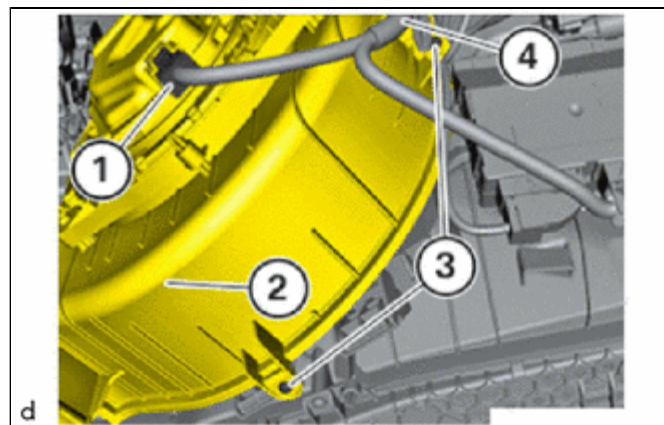
(b) Tighten T20 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Feed in the hose (2) at the blower with fan motor sub-assembly (3).

(d) Connect the connector (1) of the blower with fan motor sub-assembly (2).



(e) Tighten T20 screws (3).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(f) Secure the cable clip (4) on the blower with fan motor sub-assembly (2).

2. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

3. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

4. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

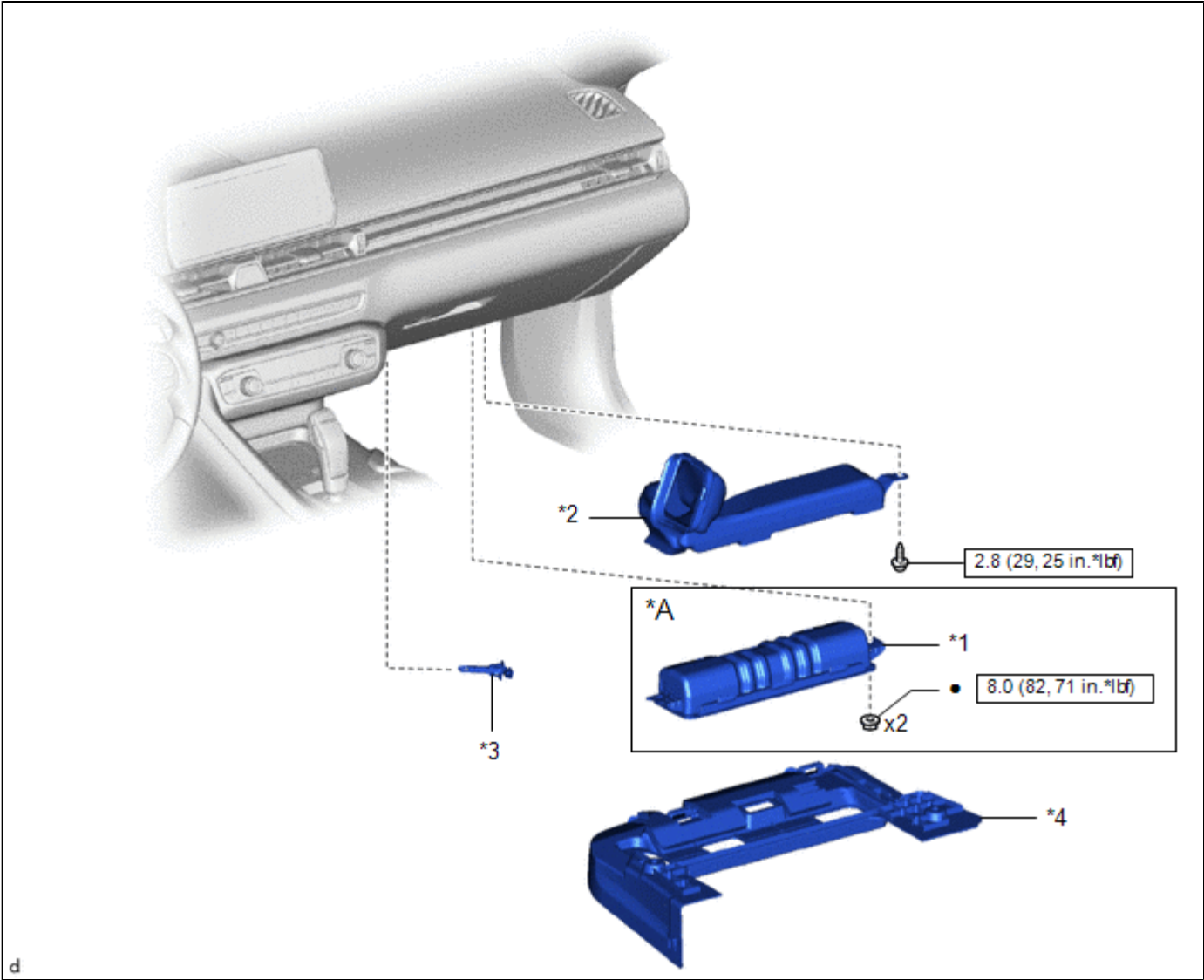
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT EVAPORATOR TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Passenger Side Knee Airbag	-	-
*1	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY	*2	NO. 2 AIR DUCT
*3	NO. 2 COOLER THERMISTOR	*4	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT EVAPORATOR TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger. Life-threatening injuries.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: Safety regulations on handling components with gas generators.

Click here [INFO](#)

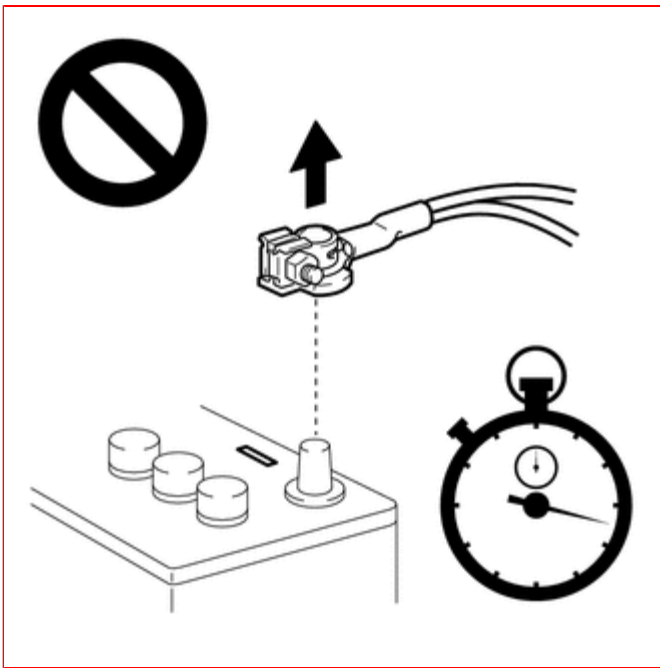
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

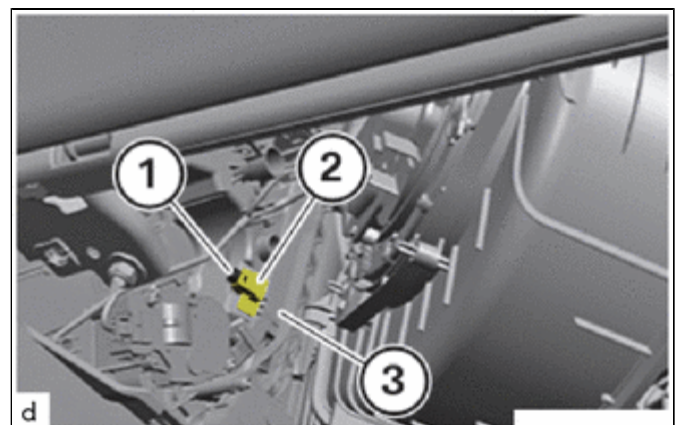
Click here [INFO](#)

4. REMOVE NO. 2 AIR DUCT

Click here [INFO](#)

5. REMOVE NO. 2 COOLER THERMISTOR

(a) Disconnect the connector (1).



(b) Disengage the No. 2 cooler thermistor (2) and remove it from the air conditioning unit assembly (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT EVAPORATOR TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 COOLER THERMISTOR

- (a) Install the No. 2 cooler thermistor correctly in the air conditioning unit assembly and engage.
- (b) Connect the connector.

2. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

3. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

4. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: REFRIGERANT: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

CAUTION:

- Avoid all contact with liquid or gaseous HFC-134a (R134a). Wear protective goggles and gloves when working on the refrigerant circuit.
- Although HFC-134a (R134a) at normal temperature is non-toxic, not inflammable and not explosive in air in any mixture ratio, it is still essential to follow various safety precautions.

PRECAUTIONS FOR REFRIGERANT HFC-134a (R134a)

- As a gas, HFC-134a (R134a) is colorless, odorless and heavier than air. If it enters the atmosphere, this may result in an imperceptible danger of asphyxiation or in cardiac palpitations, especially in workshop pits. Ventilate rooms adequately; if necessary, turn on installed extractor systems.
- Store filled refrigerant pressure flasks so that they are not subject to direct sunlight or other heat sources (at maximum 45°C (113°F)). Also avoid exposing them to mechanical stress (e.g. by dropping).
- Do not weld or solder on to filled heating and air conditioning systems or in rooms into which HFC-134a (R134a) may have escaped. Exposure to flames or high temperatures (below 50°C (122°F)) may give rise to toxic decomposition products (fluorine gas). For this reason, do not smoke either.
- In the event of fire, carbon dioxide (CO₂), extinguishing powder and a sprayed water jet are deemed to be suitable extinguishing agents. Cool reservoirs at risk with a sprayed water jet (risk of bursting).
- If the service valve caps on the service valves are difficult to open, there is a risk of injury from leaking valve inserts (high pressure).
- The filled refrigerant circuit of the A/C system is subject to excess pressure. Before carrying out repairs on the A/C system, it is absolutely essential to draw off the refrigerant.

HINT:

Before conducting repairs, check the actual pressure drop on the pressure gauge of the refrigerant recovery unit.

- HFC-134a (R134a) must be drawn off, cleaned and returned to the air conditioning using a refrigerant recovery unit following the relevant operating instructions.
- For a properly functioning A/C system, it is essential to have the greatest possible levels of cleanliness when working on the A/C system and the longest possible evacuation (at least 30 minutes dehumidification from refrigerant circuit) before each filling of the A/C system.
- HFC-134a (R134a) absorbs very small amounts of moisture. Therefore, seal off opened pipes, cooler condenser assembly, evaporator, compressor with pulley assembly and dryer flask immediately with seal plugs.
- With replacement parts, the plugs may only be removed immediately before the lines are connected.
- Installation note:
 - After each refilling of an air conditioning, check that service valve caps of the service valves are hand-tight. They serve as additional seals.

CAUTION:

- Work on the refrigerant circuit may only be carried out by experts.
 - Avoid all contact with liquid or gaseous HFO-1234yf (R1234yf). Wear protective goggles and gloves when working on the refrigerant circuit.
- Although HFO-1234yf (R1234yf) at normal temperature is non-toxic, non-flammable and not explosive in air in any mixture ratio, it is still essential to follow various safety precautions. At higher temperatures, HFO-1234yf (R1234yf) is inflammable.

PRECAUTIONS FOR REFRIGERANT HFO-1234yf (R1234yf)

- (a) As a gas, HFO-1234yf (R1234yf) is colorless, odorless and heavier than air. If it enters the atmosphere, this may result in an imperceptible danger of asphyxiation or in cardiac palpitations, especially in workshop pits. Ventilate rooms adequately; if necessary, turn on installed extractor systems.
- (b) Store filled refrigerant pressure flasks so that they are not subject to direct sunlight or other heat sources (at maximum 45°C (113°F)). Also avoid exposing them to mechanical stress (e.g. by dropping).
- (c) Do not weld or solder on to filled air conditioning systems or in rooms into which HFO-1234yf (R1234yf) may have leaked. Exposure to flames or high temperatures (below 50°C (122°F)) may give rise to toxic products of decomposition (hydrofluoric acid). For this reason, do not smoke either.
- (d) In the event of fire, carbon dioxide (CO₂), extinguishing powder and a sprayed water jet are deemed to be suitable extinguishing agents. Cool reservoirs at risk with a sprayed water jet (risk of bursting).
- (e) If the service valve caps on the service valves are difficult to open, there is a risk of injury from leaking valve inserts (high pressure).
- (f) The filled refrigerant circuit of the A/C system is subject to excess pressure. Before carrying out repairs on the A/C system, it is absolutely essential to draw off the refrigerant.

HINT:

Before conducting repairs, check the actual pressure drop on the pressure gauge of the refrigerant recovery unit.

- (g) HFO-1234yf (R1234yf) must be drawn off, cleaned and returned to the A/C system using a refrigerant recovery unit following the relevant operating instructions.
- (h) For a properly functioning A/C system, it is essential to have the greatest possible levels of cleanliness when working on the A/C system and the longest possible evacuation (at least 30 minutes dehumidification from refrigerant circuit) before each filling of the A/C system.
- (i) HFO-1234yf (R1234yf) easily absorbs moisture. Therefore, seal off opened pipes, cooler condenser assembly, evaporator, compressor with pulley assembly and dryer flask immediately with seal plugs.
 - (1) If the air conditioning has been completely drained by a leak, accident or repair, the desiccant insert must be replaced as excessive moisture may have entered the system.
- (j) With replacement parts, the plugs may only be removed immediately before the lines are connected. In the event of warranty claims, the old parts must be provided with plugs to be able to determine the cause of the damage.
- (k) Installation note.
 - (1) After each refilling of an air conditioning, check that service valve caps of the service valves are hand-tight. They serve as additional seals.

PRECAUTIONS FOR COMPRESSOR OIL

- (a) Refrigerant is hygroscopic and must therefore be stored in suitable containers that are sealed airtight.
- (b) Compressor oil is non-combustible and non-explosive at normal temperatures. Nevertheless, the following points must be observed.
 - (1) Do not store in the vicinity of flames, heat sources or strongly oxidizing materials.
 - (2) Suitable extinguishants are carbon dioxide (CO₂), dry extinguishant and foam.
- (c) Protective measures/rules of conduct:
 - (1) Wear safety goggles.
 - (2) Wear oil-resistant protective gloves.
 - (3) Do not swallow.
 - (4) Do not inhale.
 - (5) Observe country-specific safety regulations.
- (d) First aid measures:

(1) If swallowed:

- Do not induce vomiting, unless expressly instructed to do so by medical personnel.
- Do not administer anything to an unconscious person through their mouth. Consult a doctor immediately if larger quantities of this substance are swallowed. Loosen tight-fitting items of clothing (e.g. collar, tie, belt or similar).

(2) Eye contact:

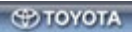
- Remove contact lenses if worn. In the event of eye contact, rinse eyes for at least 15 minutes with plenty of water. It is essential to use warm water. Consult a doctor.

(3) Skin contact:

- In the event of skin contact, rinse immediately with plenty of water. Remove contaminated clothes and shoes. Wash affected clothes before wearing again. Clean shoes thoroughly before reusing. Consult a doctor.

(4) After inhalation:

- If inhaled, take the person affected outside into fresh air immediately and keep them under supervision. Consult a doctor.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: REFRIGERANT: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

CAUTION:

- Refrigerant circuit under high pressure.

Danger of injury.

- Note and follow safety information on containers.
- Avoid contact with refrigerant; wear safety goggles and protective gloves.
- For more information see:

- Handling refrigerant:

[Click here](#) **INFO**

- Notes on repair work on air conditioning:

[Click here](#) **INFO**

NOTICE:

The engine is switched off.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- Let the engine run for a few minutes at a low engine speed (800 to 1200 rpm) and with the heating and air conditioning system switched on.
- Stop engine.
- Remove the service valve caps from the service valves.
- Connect the high pressure line of the refrigerant recovery unit with the vehicle's high-pressure connection.
- Connect the low-pressure line of the refrigerant recovery unit with the vehicle's low-pressure connection.
- Start the evacuation on the refrigerant recovery unit.
- During evacuation, allow the blower of the heating and air conditioning unit to run at middle blower speed.
- Record the amount of evacuated refrigerant and amount of compressor oil after having completed evacuation.
- Keep the sheet with the recorded quantities as the values are once again required when filling.
- Disconnect the high pressure line and low pressure line.
- Drain the high pressure line and low pressure line.
- Close the service valve caps of the service valves.
- Correctly dispose of the drained compressor oil.

CAUTION:

- Refrigerant circuit under high pressure.

Danger of injury.

- Note and follow safety information on containers.
- Avoid contact with refrigerant; wear safety goggles and protective gloves.
- For more information see:

■ Handling refrigerant:

[Click here](#) 

■ Notes on repair work on air conditioning:

[Click here](#) 

CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

NOTICE:

- The engine is switched off.
- The vehicle is on the floor.

HINT:

Filling a raised vehicle will result in insufficient filling levels.

- Remove the service valve caps from the service valves.
- Connect the high pressure line of the vacuum pump or appropriate equipment with the vehicle's high-pressure connection.
- Connect the low-pressure line of the vacuum pump with the vehicle's low-pressure connection.
- Start the evacuation on the vacuum pump.
- Adhere to an evacuation time of at least 30 min.
- During evacuation, allow the blower of the heating and air conditioning unit to run at middle blower speed.
- If the vacuum does not remain stable during evacuation:
 - Run the inspect for leaks in the refrigerant circuit.
 - Rectify leaks in the refrigerant circuit.
- Determine the quantities of a new compressor oil to be refilled.
- In addition to the drawn off and recorded amount of compressor oil, add the following quantities (if applicable).
- Top up the compressor oil losses over time as per the table.
- Table 1 indicates the permitted loss of refrigerant after a specific period of time. There is no leak. Compressor oil must not be topped up.
- Table 2 indicates the amount of compressor oil which must be topped up after a specific period of time with an impermissible loss of refrigerant due to a leak.
- Case 1: Refrigerant loss is not exceeded as per Table 1.
 - Top up missing refrigerant.
 - It is not permitted to top up the compressor oil.
- Case 2: Refrigerant loss is exceeded as per Table 1.
 - Top up missing refrigerant.
 - Compressor oil must be topped up additionally according to Table 2.

Table 1/case 1

No. of years since the last filling	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5
Permissible loss (Do not top up compressor oil)	below 30 g (1.1 oz)	below 60 g (2.1 oz)	below 90 g (3.2 oz)	below 120 g (4.2 oz)	below 150 g (5.3 oz)

Table 2/case 2

--	--	--

No. of years since the last filling	Loss of refrigerant	Top up quantity compressor oil
0 to 1	120 g (4.23 oz) or less	0
	120 to 150 g (4.23 to 5.29 oz)	10 cc (0.338 fl.oz)
	150 g (5.29 oz) or higher	20 cc (0.676 fl.oz)
1 to 2	180 g (6.35 oz) or less	0
	180 to 210 g (6.35 to 7.41 oz)	10 cc (0.338 fl.oz)
	210 g (7.41 oz) or higher	20 cc (0.676 fl.oz)
2 to 3	240 g (8.47 oz) or less	0
	240 to 270 g (8.47 to 9.52 oz)	10 cc (0.338 fl.oz)
	270 g (9.52 oz) or higher	20 cc (0.676 fl.oz)
3 to 4	300 g (10.6 oz) or less	0
	300 to 330 g (10.6 to 11.6 oz)	10 cc (0.338 fl.oz)
	330 g (11.6 oz) or higher	20 cc (0.676 fl.oz)
4 to 5	360 g (12.7 oz) or less	10 cc (0.338 fl.oz)
	360 g (12.7 oz) or higher	20 cc (0.676 fl.oz)

(o) Add compressor oil according to the table if parts of the refrigerant circuit have been replaced.

(1) Case 1: Part exchange as preliminary work for additional work and part exchange due to slow leakage (minor leak, e.g. hairline crack).

(2) Case 2: Part exchange due to sudden leakage (major leak, e.g. line disconnection caused by accident).

Parts	Case 1	Case 2
Compressor with pulley assembly*1	*	*
Evaporator	10 cc (0.338 fl.oz)	35 cc (1.18 fl.oz)
*1: Oil the compressor with pulley assembly.		

Parts	Case 1	Case 2
Cooler condenser assembly	40 cc (1.35 fl.oz)	55 cc (1.86 fl.oz)
For each replaced refrigerant line	10 cc (0.338 fl.oz)	35 cc (1.18 fl.oz)
Per replaced air conditioner pressure sensor	0	0
Per replaced seal	0	0

(p) Top up determined amount of compressor oil into the refrigerant circuit.

(q) Fill the amount of refrigerant as per the type plate into the refrigerant circuit.

(r) Disconnect the high pressure line and low pressure line on the vehicle.

(s) Drain the high pressure line and low pressure line.

(t) Close the service valves on the vehicle with the service valve caps.

Standard Charge Amount:

HFC-134a(R134a): 550 g (19.4 oz)

HFO-1234yf (R1234yf): 550 g (19.4 oz)

SST: 09985-20010

09985-02010
09985-02050
09985-02060
09985-02070
09985-02080
09985-02090
09985-02110
09985-02130
09985-02140
09985-02150

INSPECT FOR REFRIGERANT LEAK

(a) After recharging the air conditioning system with refrigerant, inspect for refrigerant leaks using a halogen leak detector.

HINT:

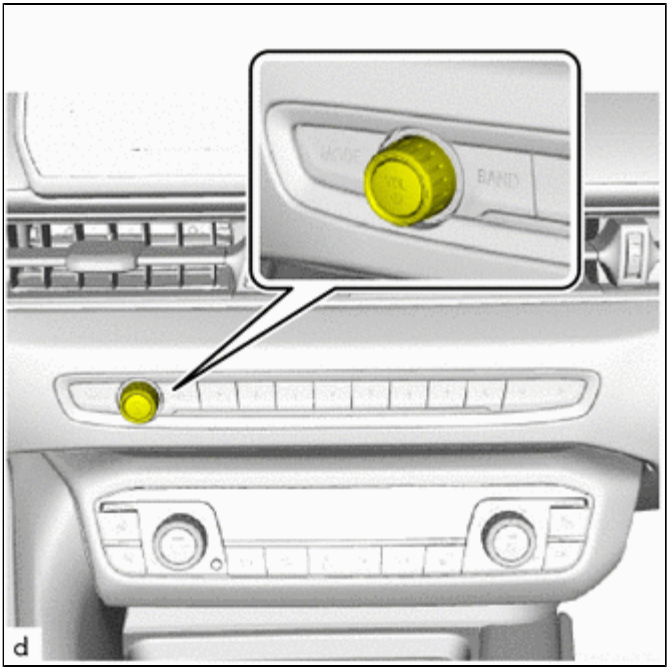
- for HFO-1234yf (R1234yf):
 - Be sure to use a halogen leak detector that is compatible with HFO-1234yf (R1234yf) systems.

(b) Carry out the test under the following conditions:

- Check that the START-STOP button (engine switch) off.

HINT:

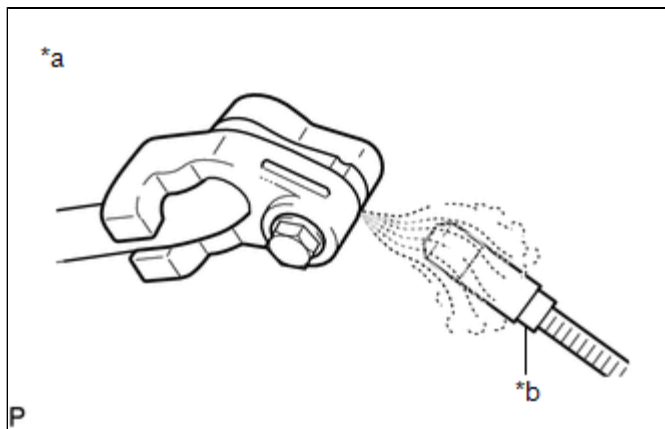
Pressing and holding the AUDIO button changes the power source mode to IG OFF.



- Ensure good ventilation (the halogen leak detector may react to volatile gases which are not refrigerant, such as gasoline vapor and exhaust gas).
- Repeat the inspection 2 or 3 times.
- Measure the pressure to make sure that there is some refrigerant remaining in the air conditioning system.

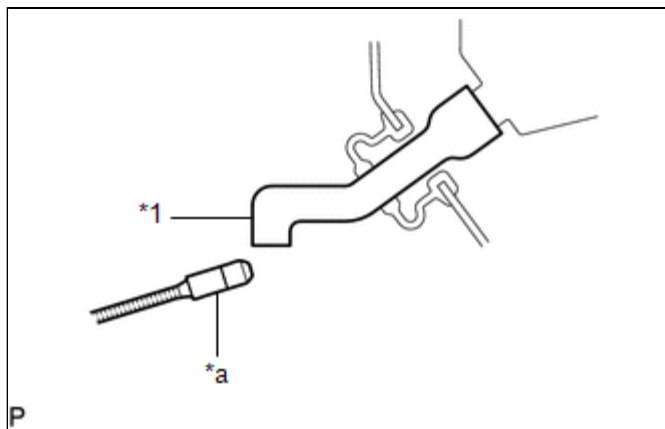
Pressure when the compressor is off: approximately 392 to 588 kPa (3.9 to 5.9 kgf/cm², 57 to 85 psi)

(c) Using a halogen leak detector, inspect for refrigerant leaks from the air conditioning system.



*a	Inspect for Leak
*b	Halogen Leak Detector

(d) Bring the halogen leak detector close to the drain cooler hose with the detector power off, and then turn the detector on.



*1	Drain Cooler Hose
*a	Halogen Leak Detector

HINT:

- After the blower motor has stopped, leave the cooling unit for more than 15 minutes.
- Bring the halogen leak detector sensor under the drain cooler hose.
- When bringing the halogen leak detector close to the drain cooler hose, make sure that the halogen leak detector does not react to volatile gases. If it is not possible to avoid interference from volatile gases, the vehicle should be lifted up to allow checking for leaks.

(e) If a refrigerant leak is not detected from the drain cooler hose, remove the blower motor control from the cooling unit. Insert the halogen leak detector sensor into the unit and check for leaks.

(f) Disconnect the pressure sensor connector and leave it for approximately 20 minutes. Bring the halogen leak detector close to the pressure sensor and check for leaks.

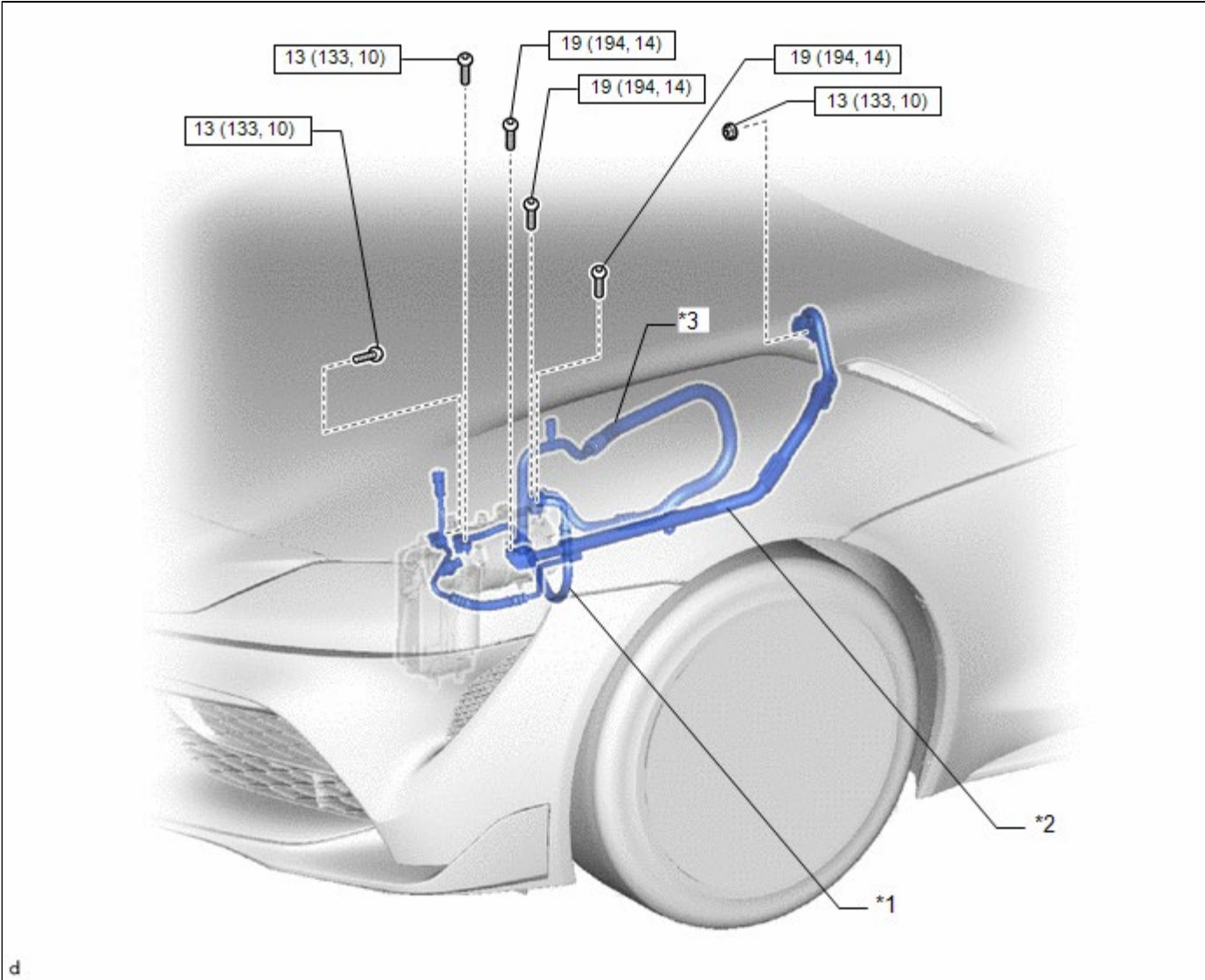
HINT:

When checking for leaks, the presence of oily dirt at a joint can indicate a leak.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: REFRIGERANT LINE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION

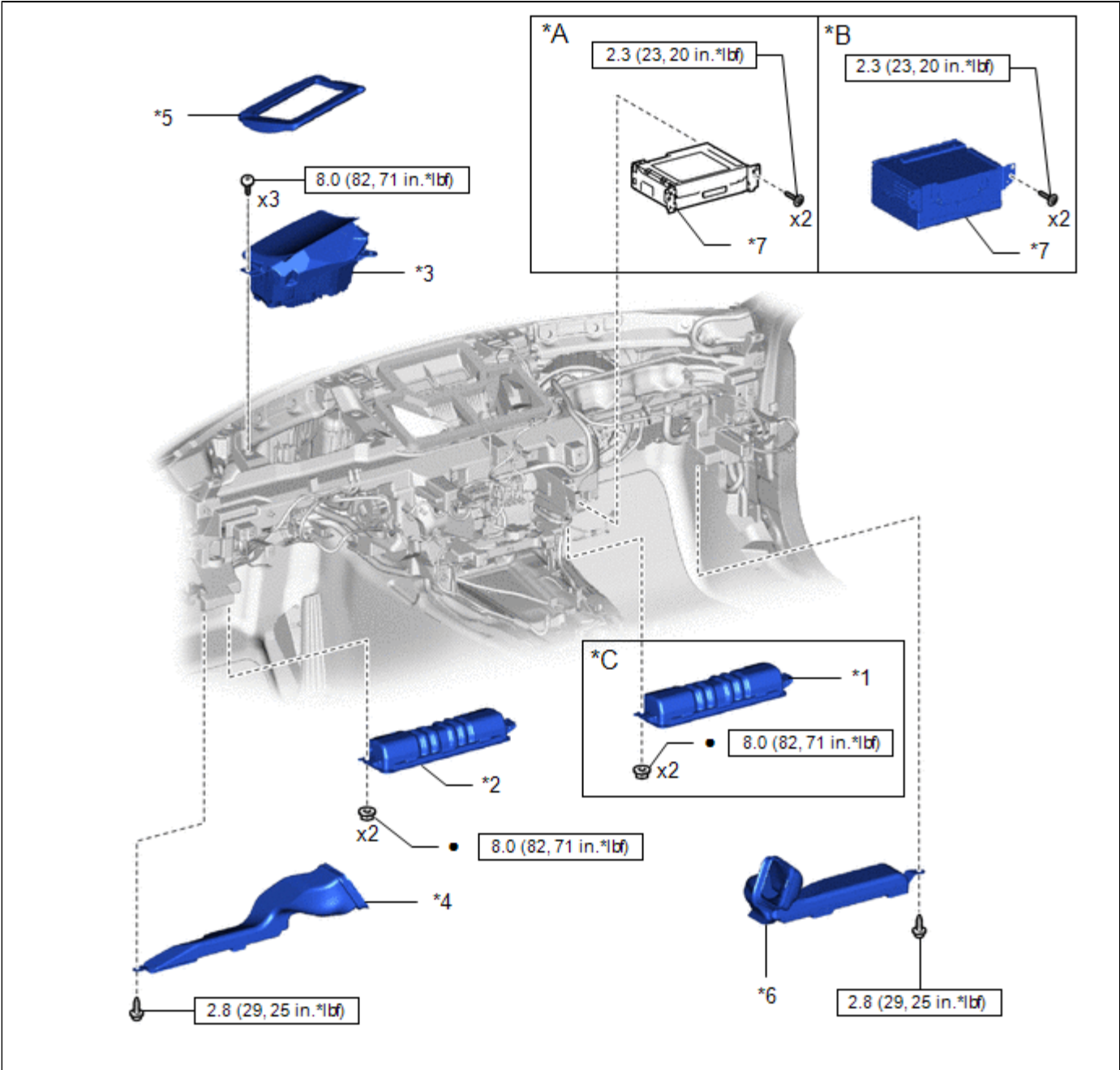


*1	DISCHARGE TUBE G	*2	AIR CONDITIONER TUBE ASSEMBLY
*3	SUCTION PIPE SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: ROOM TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

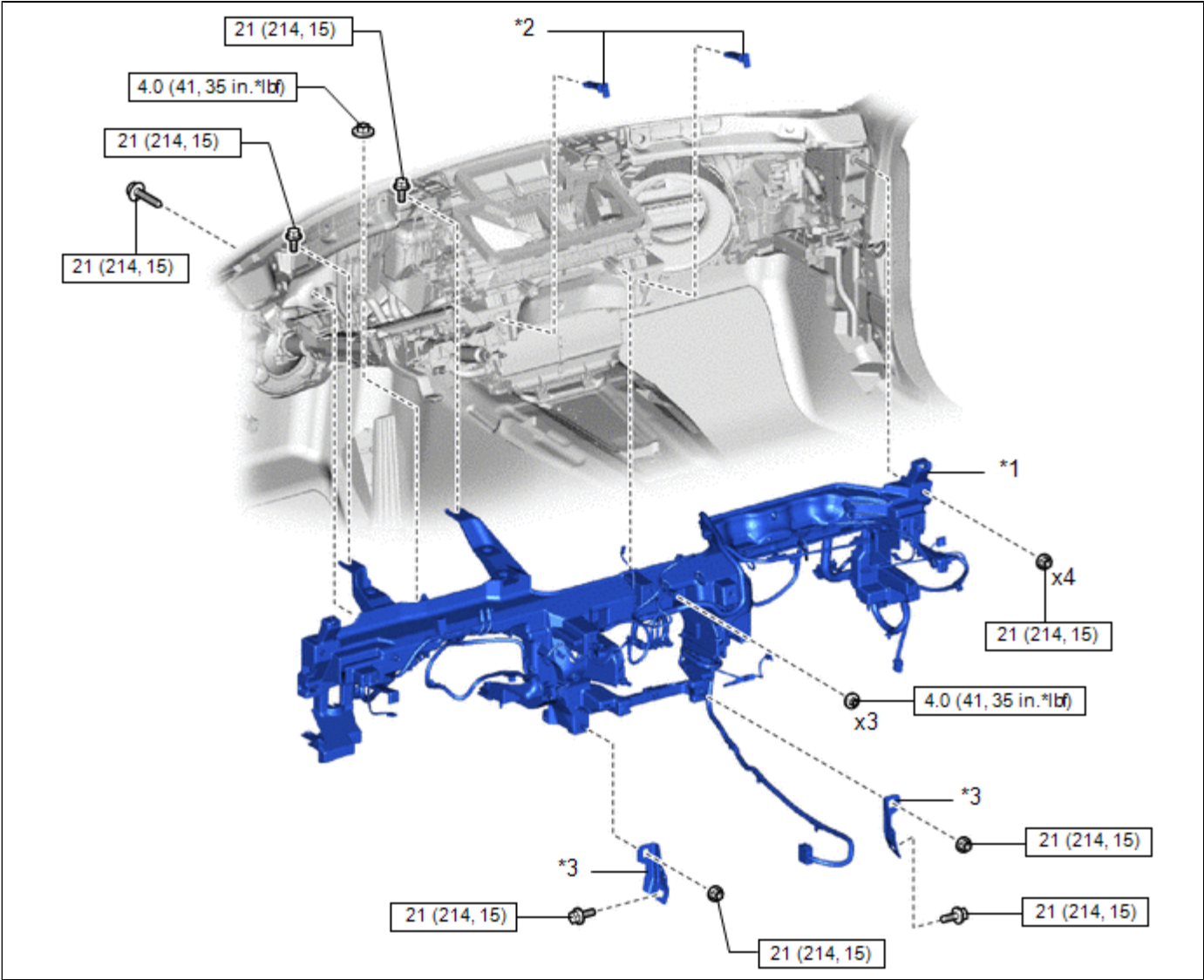
ILLUSTRATION



*A	w/o Navigation System	*B	w/ Navigation System
*C	w/ Passenger Side Knee Airbag	-	-
*1	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY	*2	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

*3	METER MIRROR SUB-ASSEMBLY	*4	NO. 1 AIR DUCT
*5	NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL	*6	NO. 2 AIR DUCT
*7	RADIO RECEIVER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

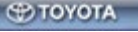
ILLUSTRATION



*1	INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY	*2	NO. 1 COOLER THERMISTOR
*3	NO. 1 INSTRUMENT PANEL BRACKET	-	-
	N*m (kgf*cm, ft.*lbf): Specified	-	-



torque



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: ROOM TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

- Airbag unit.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see: Safety regulations on handling components with gas generators.

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Scratches.

Tools and sharp-edged components can cause scratches.

- Protect working area.
- Handle tools and components carefully.

PROCEDURE

1. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

2. REMOVE UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

3. REMOVE LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

Click here [INFO](#)

4. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

5. REMOVE NO. 1 AIR DUCT

Click here [INFO](#)

6. REMOVE NO. 2 AIR DUCT

Click here [INFO](#)

7. REMOVE RADIO RECEIVER ASSEMBLY (w/o Navigation System)

Click here [INFO](#)

8. REMOVE RADIO RECEIVER ASSEMBLY (w/ Navigation System)

Click here [INFO](#)

9. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

10. REMOVE METER MIRROR SUB-ASSEMBLY

Click here [INFO](#)

11. REMOVE STEERING COLUMN ASSEMBLY

Click here [INFO](#)

12. REMOVE INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

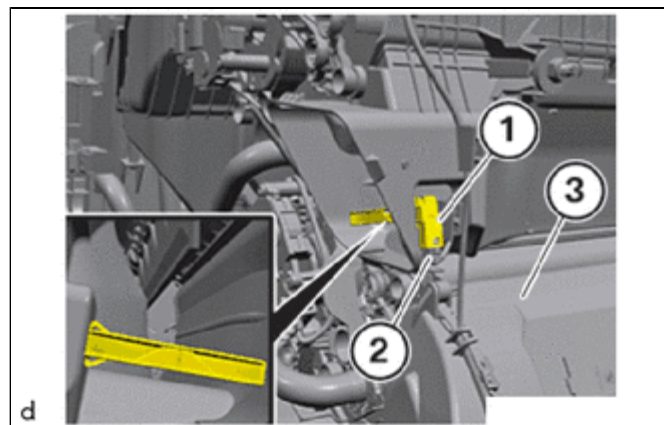
Click here [INFO](#)

13. REMOVE NO. 1 COOLER THERMISTOR

HINT:

Use the same procedure for the RH side and LH side.

(a) Disconnect the connector (2).



(b) Remove the No. 1 cooler thermistor (1) from the air conditioner unit assembly (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: ROOM TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 COOLER THERMISTOR

HINT:

Use the same procedure for the RH side and LH side.

(a) Install the No. 1 cooler thermistor in the air conditioning unit assembly.

(b) Connect the connector.

2. INSTALL INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL STEERING COLUMN ASSEMBLY

Click here [INFO](#)

4. INSTALL METER MIRROR SUB-ASSEMBLY

Click here [INFO](#)

5. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

6. INSTALL RADIO RECEIVER ASSEMBLY (w/o Navigation System)

Click here [INFO](#)

7. INSTALL RADIO RECEIVER ASSEMBLY (w/ Navigation System)

Click here [INFO](#)

8. INSTALL NO. 1 AIR DUCT

Click here [INFO](#)

9. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

10. INSTALL LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

Click here [INFO](#)

11. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

12. INSTALL UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

13. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

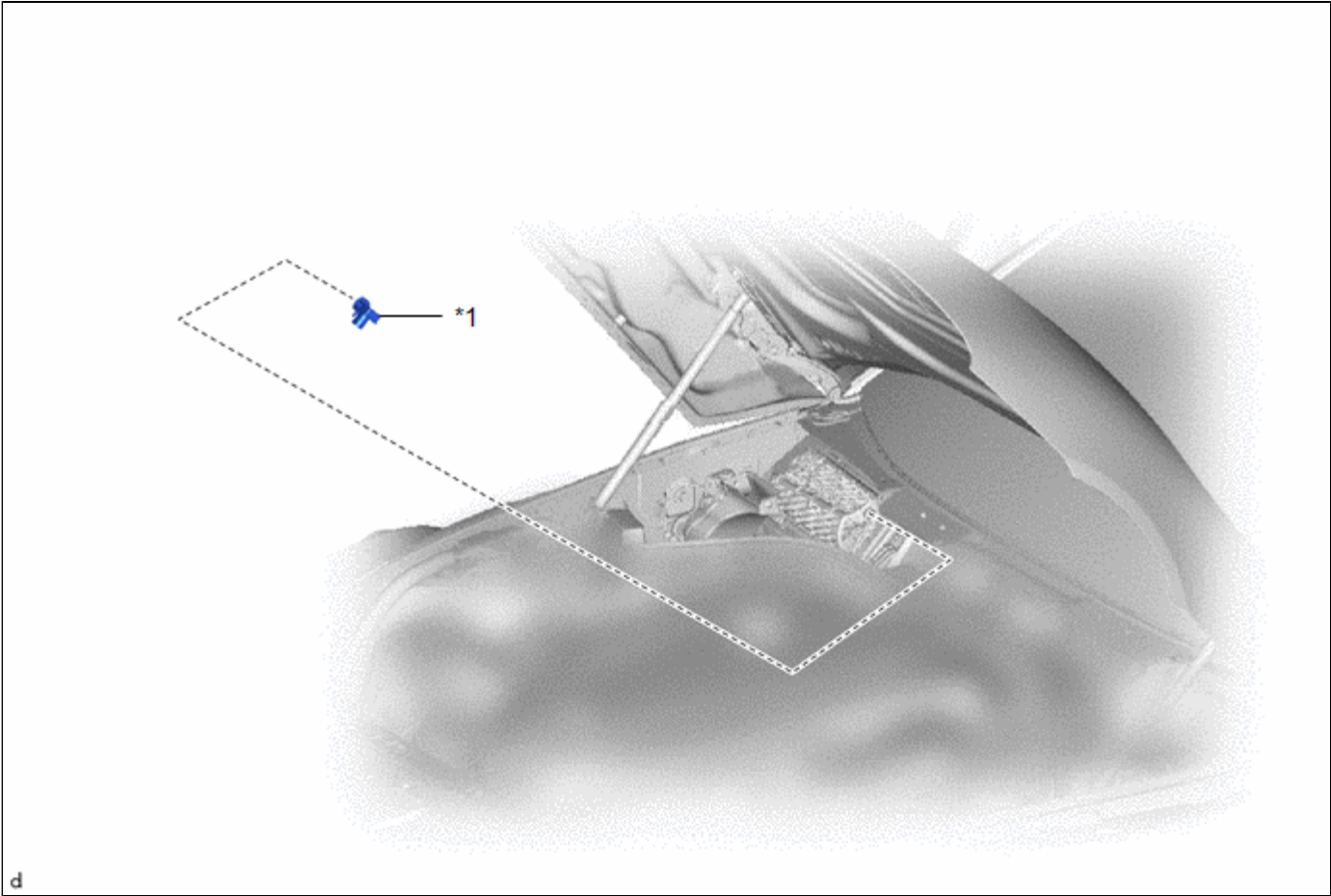
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SMOKE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SMOKE SENSOR	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SMOKE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

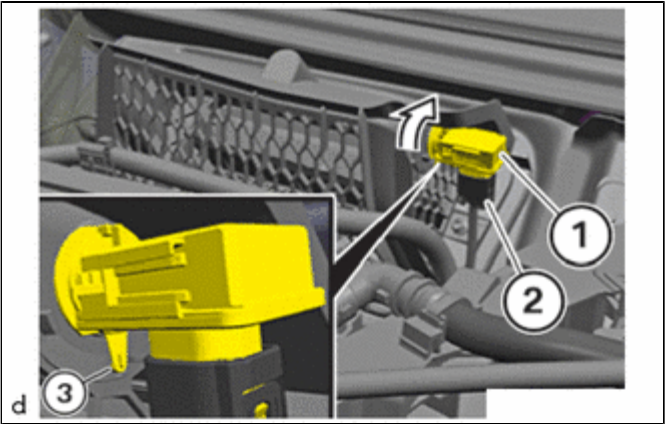
PROCEDURE

1. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE SMOKE SENSOR

(a) Disconnect the connector (2).



(b) Raise guide pin (3) slightly and turn smoke sensor (1) in direction of arrow.

(c) Remove smoke sensor (1).

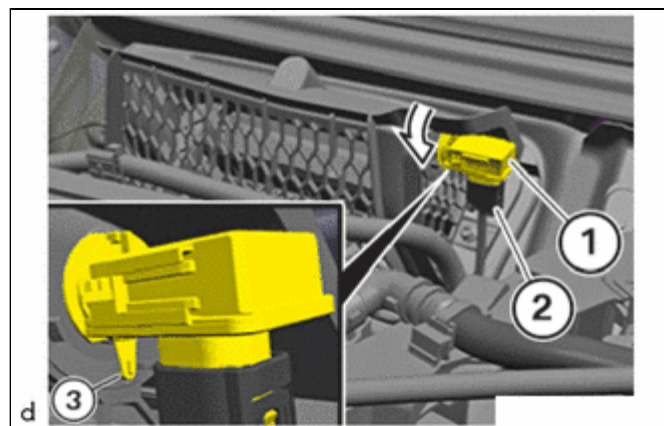
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SMOKE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SMOKE SENSOR

- (a) Install the smoke sensor (1) and turn it in the direction of arrow until the guide pin (3) engages.



- (b) Connect the connector (2).

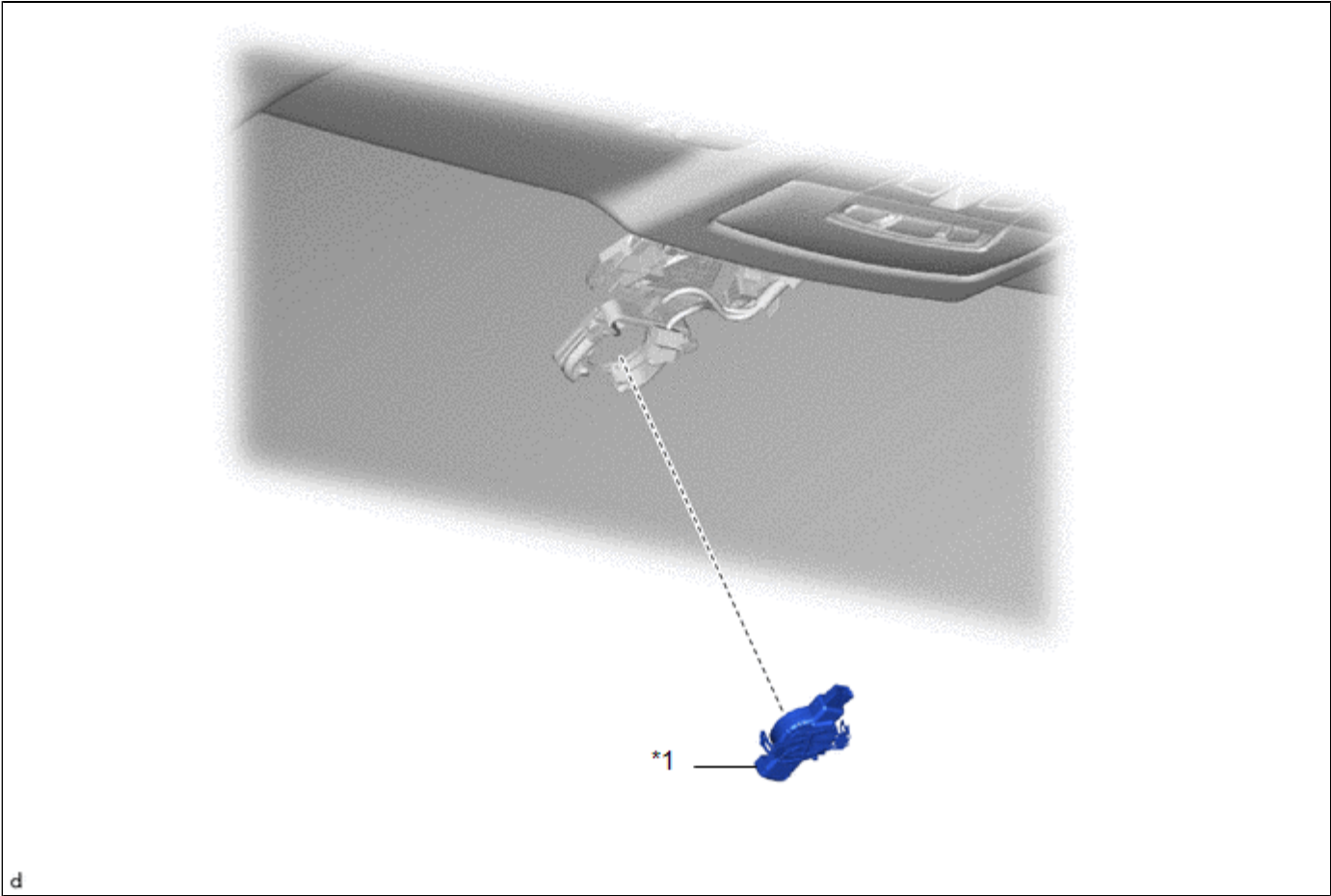
2. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SOLAR SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RAIN SENSOR	-	-
----	-------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SOLAR SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE INNER REAR VIEW MIRROR ASSEMBLY

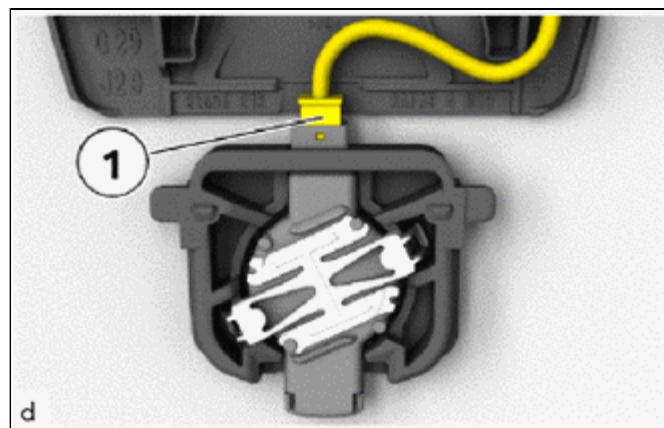
Click here [INFO](#)

2. REMOVE RAIN SENSOR

NOTICE:

When replacing windshield glass: Immediately install the rain sensor on the new windshield glass.

(a) Disconnect the connector (1).



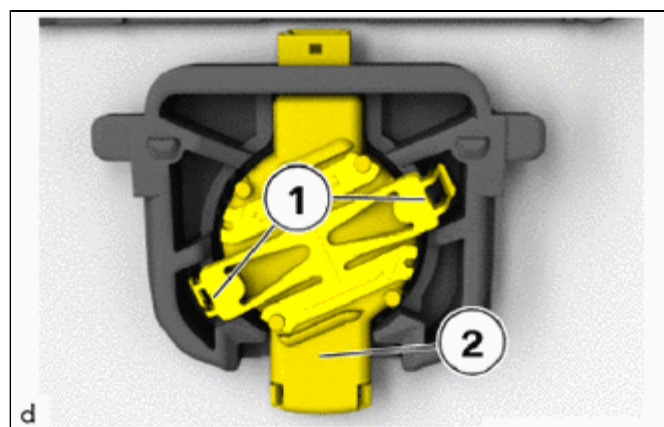
(b) Push in retaining springs (1) on both sides and disengage the lock by means of a screwdriver.

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor (2).

- Do not touch or damage the silicone-coated surface on the rain sensor (2).



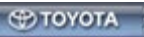
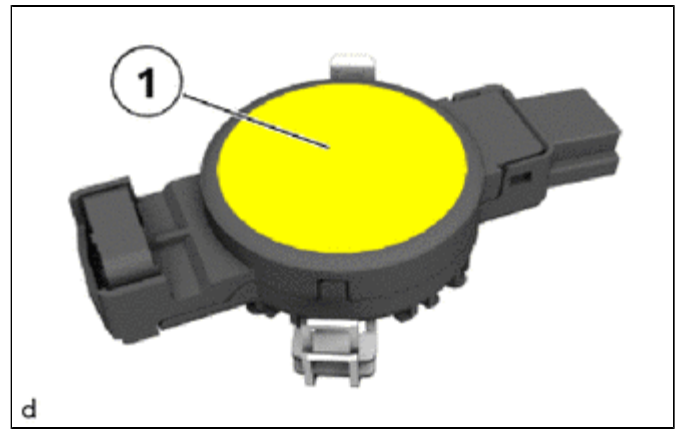
(c) Remove the rain sensor slowly off the windshield glass. At the same time, monitor the release of the silicone area (1) from outside.

NOTICE:

The silicone surface must evenly loosen from the windshield glass, if applicable, lower the pull-off force.

HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SOLAR SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL RAIN SENSOR

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor.

- Do not touch or damage the silicone-coated surface on the rain sensor.

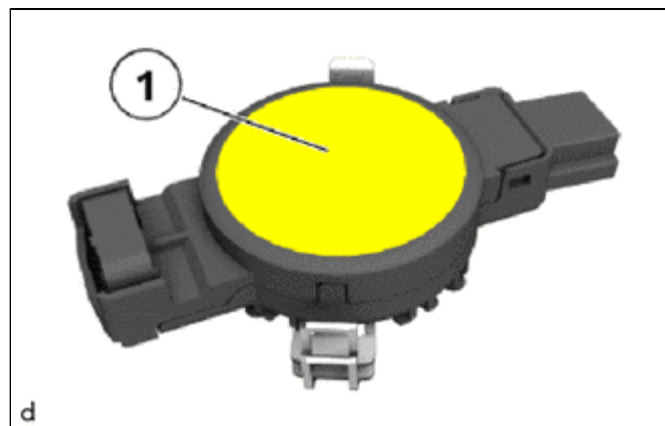
HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.

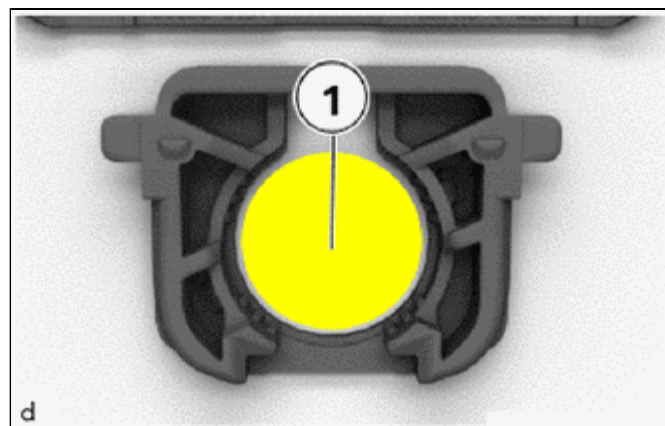
(a) Check silicone surface (1) for damage.

HINT:

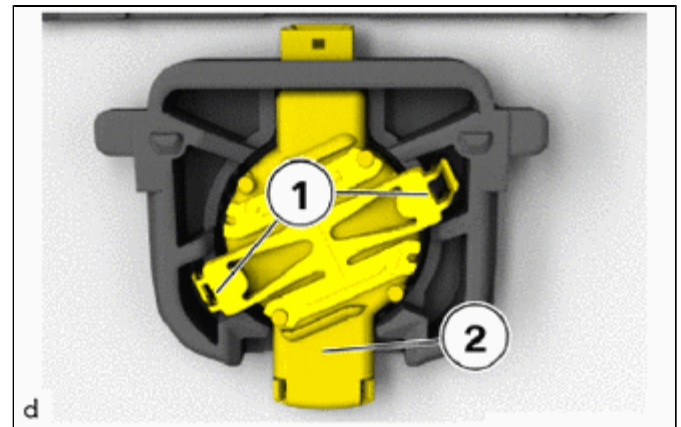
- Silicone surface (1) is damaged.
 - Replace rain sensor.



(b) Carefully clean windshield glass in the contact area (1) of rain sensor.



(c) Install the rain sensor (2) into the holder and press on centered on the retaining springs (1).

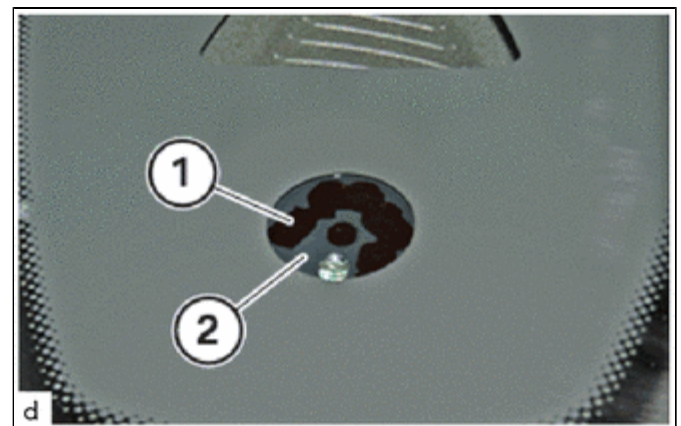


(d) Successively press down the retaining springs (1) on each side to lock it.

(e) Check contact surfaces for air pockets from the outside.

HINT:

- Visible shadows (1) are not air pockets, but the optical element of the rain sensor (2).
- The shadows (1) do not indicate a functional limitation.
- Contact surface has air pockets.
 - Remove the rain sensor and install again.



(f) Connect the connector (1).

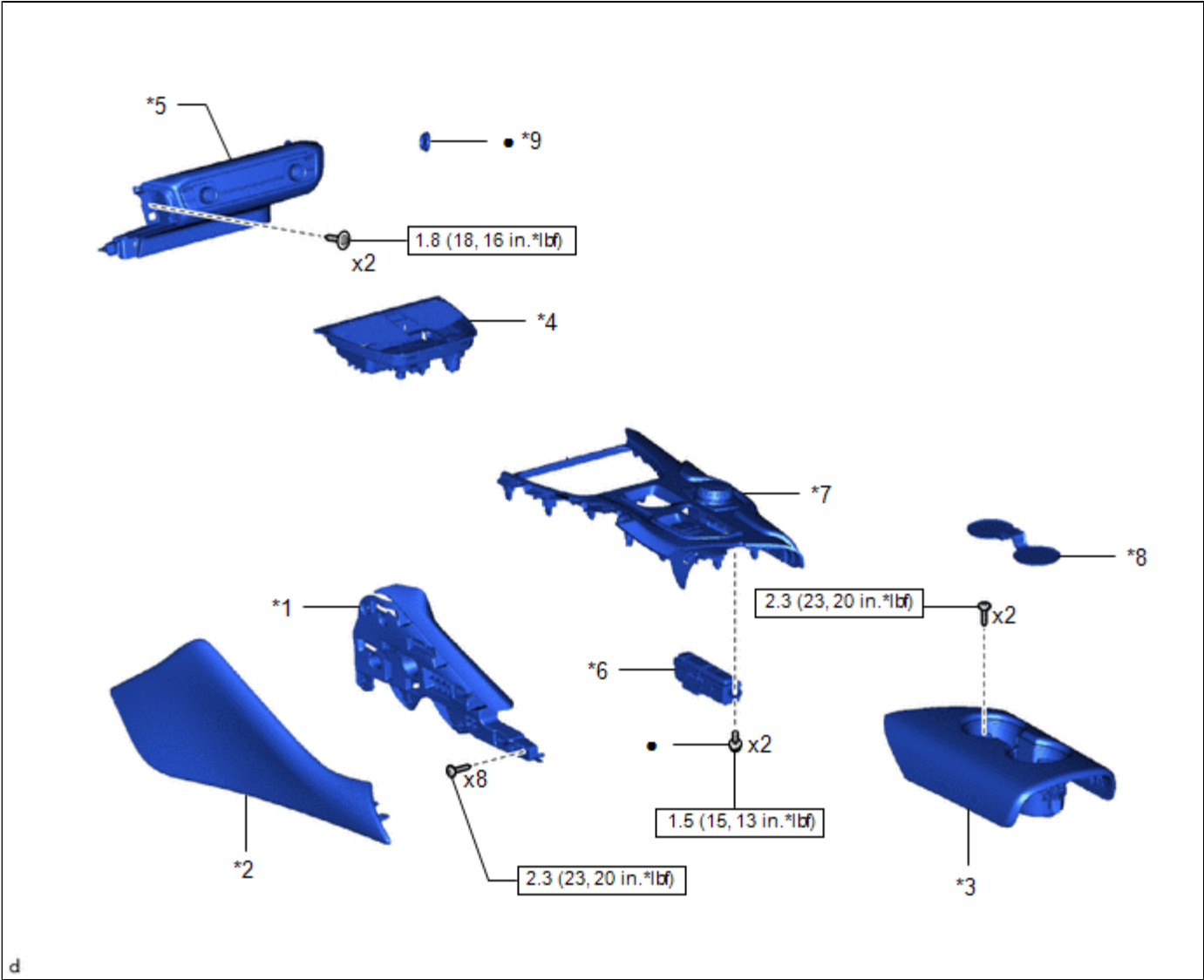
2. INSTALL INNER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: COMBINATION SWITCH (for Console Box): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*2	CONSOLE SIDE PANEL
*3	FRONT CONSOLE ARMREST ASSEMBLY	*4	FRONT CONSOLE BOX COVER
*5	INSTRUMENT PANEL FINISH LOWER PANEL	*6	PATTERN SELECT SWITCH ASSEMBLY
*7	UPPER CONSOLE PANEL SUB-	*8	NO. 1 CONSOLE BOX SILENCER PAD

	ASSEMBLY		
*9	RUBBER PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: COMBINATION SWITCH (for Console Box): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

3. REMOVE CONSOLE SIDE PANEL

Click here [INFO](#)

4. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

5. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

6. REMOVE FRONT CONSOLE BOX COVER

Click here [INFO](#)

7. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY

Click here [INFO](#)

8. REMOVE PATTERN SELECT SWITCH ASSEMBLY

NOTICE:

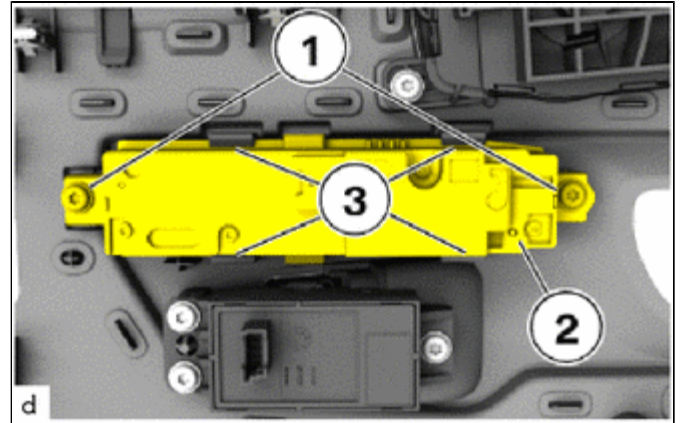
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Loosen T20 screws (1).



(b) Detach the claws (3).

(c) Remove the pattern select switch assembly (2).



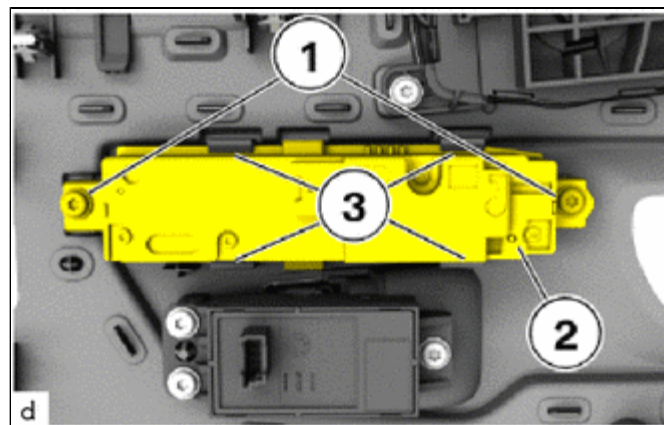
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: COMBINATION SWITCH (for Console Box): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL PATTERN SELECT SWITCH ASSEMBLY

- (a) Attach the claws (3) to install the pattern select switch assembly (2).



- (b) Replace T20 screws (1).

- (c) Tighten the T20 screws (1).

Torque:

1.5 N·m {15 kgf·cm, 13 in·lbf}

2. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL FRONT CONSOLE BOX COVER

Click here [INFO](#)

4. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

5. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

6. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

7. INSTALL FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

8. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: COMBINATION SWITCH (for Instrument Panel): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY	*2	NO. 1 LIGHT CONTROL SWITCH ASSEMBLY
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: COMBINATION SWITCH (for Instrument Panel): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

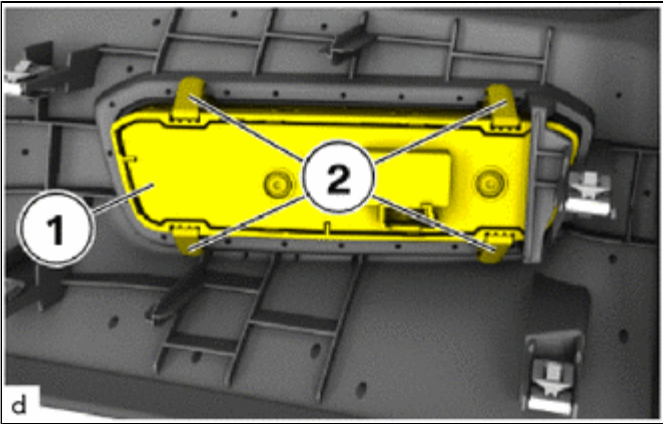
PROCEDURE

1. REMOVE INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 LIGHT CONTROL SWITCH ASSEMBLY

(a) Detach the clips (2) to remove the No. 1 light control switch assembly (1).



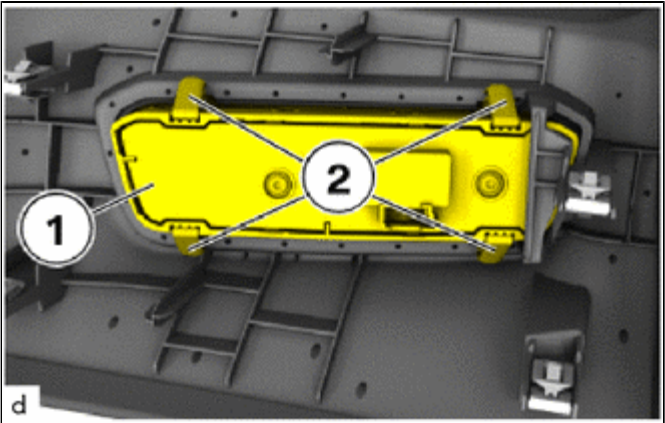
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: COMBINATION SWITCH (for Instrument Panel): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 LIGHT CONTROL SWITCH ASSEMBLY

(a) Attach the clips (2) to install the No. 1 light control switch assembly (1).



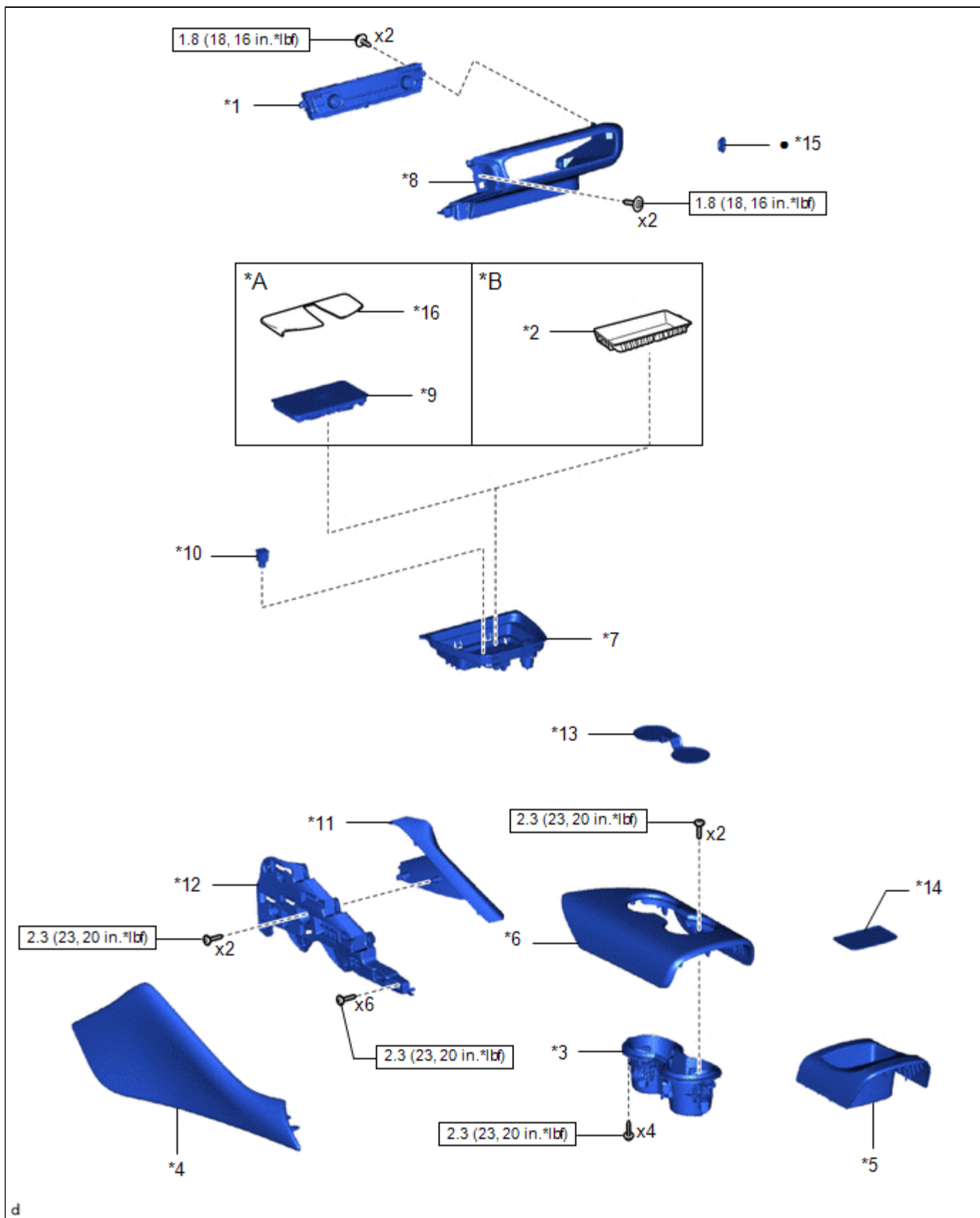
2. INSTALL INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: FRONT CONSOLE BOX: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

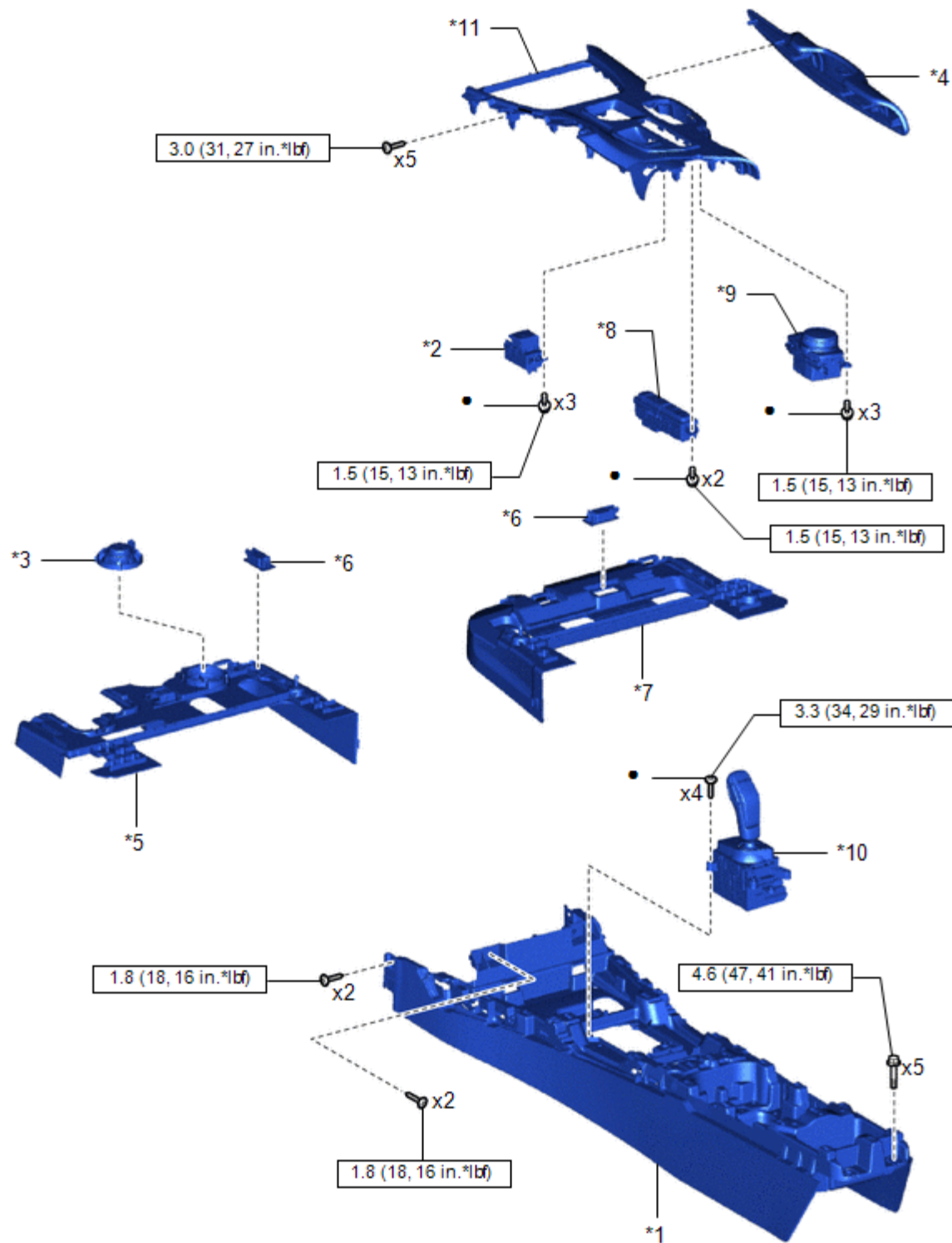
ILLUSTRATION



*A	w/ Wireless Charger	*B	w/o Wireless Charger
*1	AIR CONDITIONING CONTROL ASSEMBLY	*2	BOX BOTTOM MAT


*3	CONSOLE BOX CUP HOLDER	*4	CONSOLE SIDE PANEL
*5	CONSOLE UPPER REAR PANEL	*6	FRONT CONSOLE ARMREST ASSEMBLY
*7	FRONT CONSOLE BOX COVER	*8	INSTRUMENT PANEL FINISH LOWER PANEL
*9	MOBILE WIRELESS CHARGER CRADLE ASSEMBLY	*10	NO. 1 STEREO JACK ADAPTER ASSEMBLY
*11	CONSOLE PANEL	*12	CONSOLE PANEL RETAINER
*13	NO. 1 CONSOLE BOX SILENCER PAD	*14	NO. 2 CONSOLE BOX SILENCER PAD
*15	RUBBER PLUG	*16	UPPER CONSOLE COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

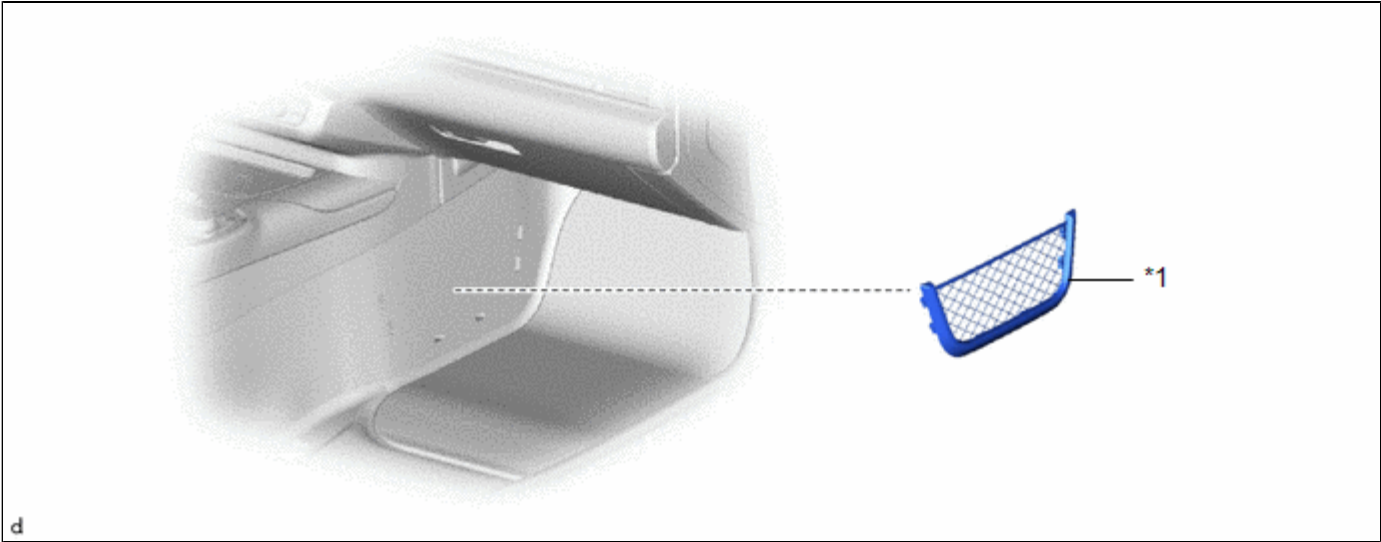


d

*1	CONSOLE BOX ASSEMBLY	*2	ELECTRIC PARKING BRAKE SWITCH ASSEMBLY
*3	EMERGENCY LOUDSPEAKER	*4	NO. 1 BOX PANEL

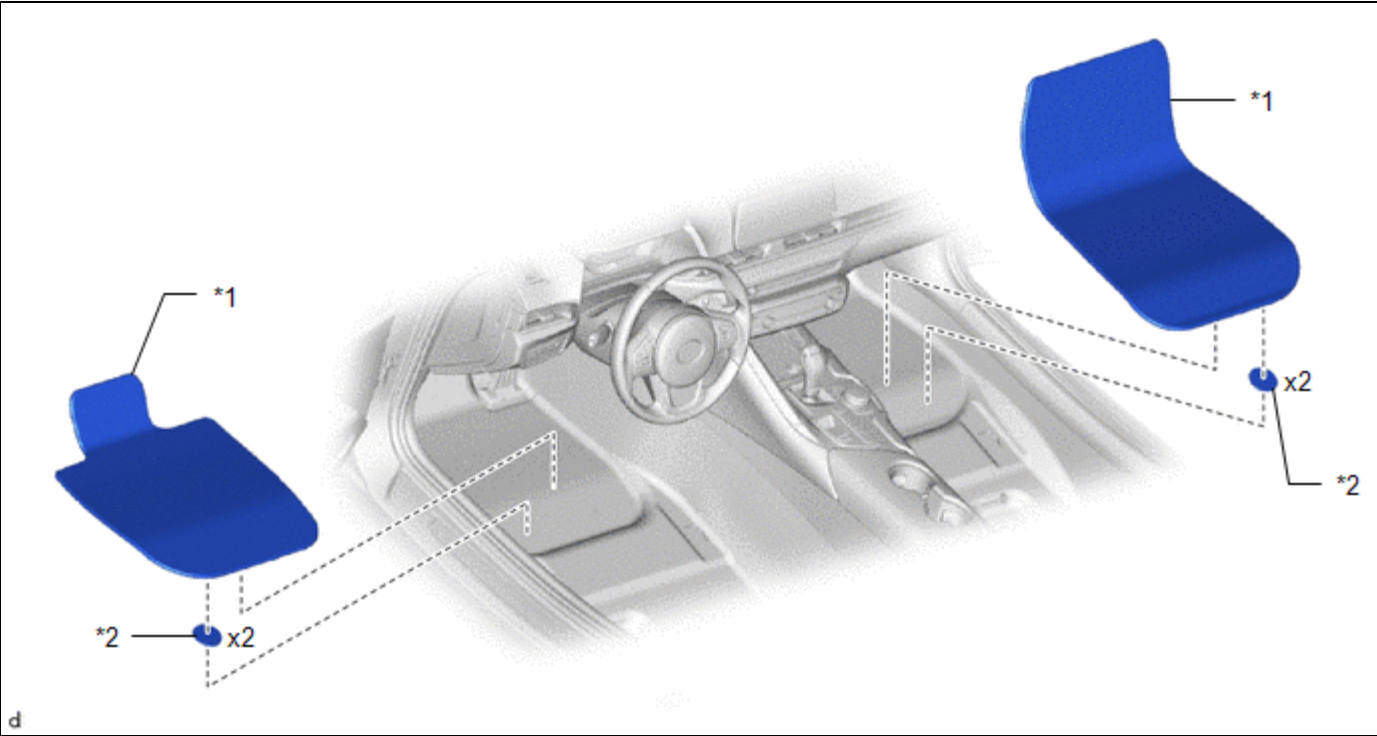
*5	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY	*6	NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY
*7	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY	*8	PATTERN SELECT SWITCH ASSEMBLY
*9	REMOTE OPERATION CONTROLLER ASSEMBLY	*10	TRANSMISSION FLOOR SHIFT ASSEMBLY
*11	UPPER CONSOLE PANEL SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



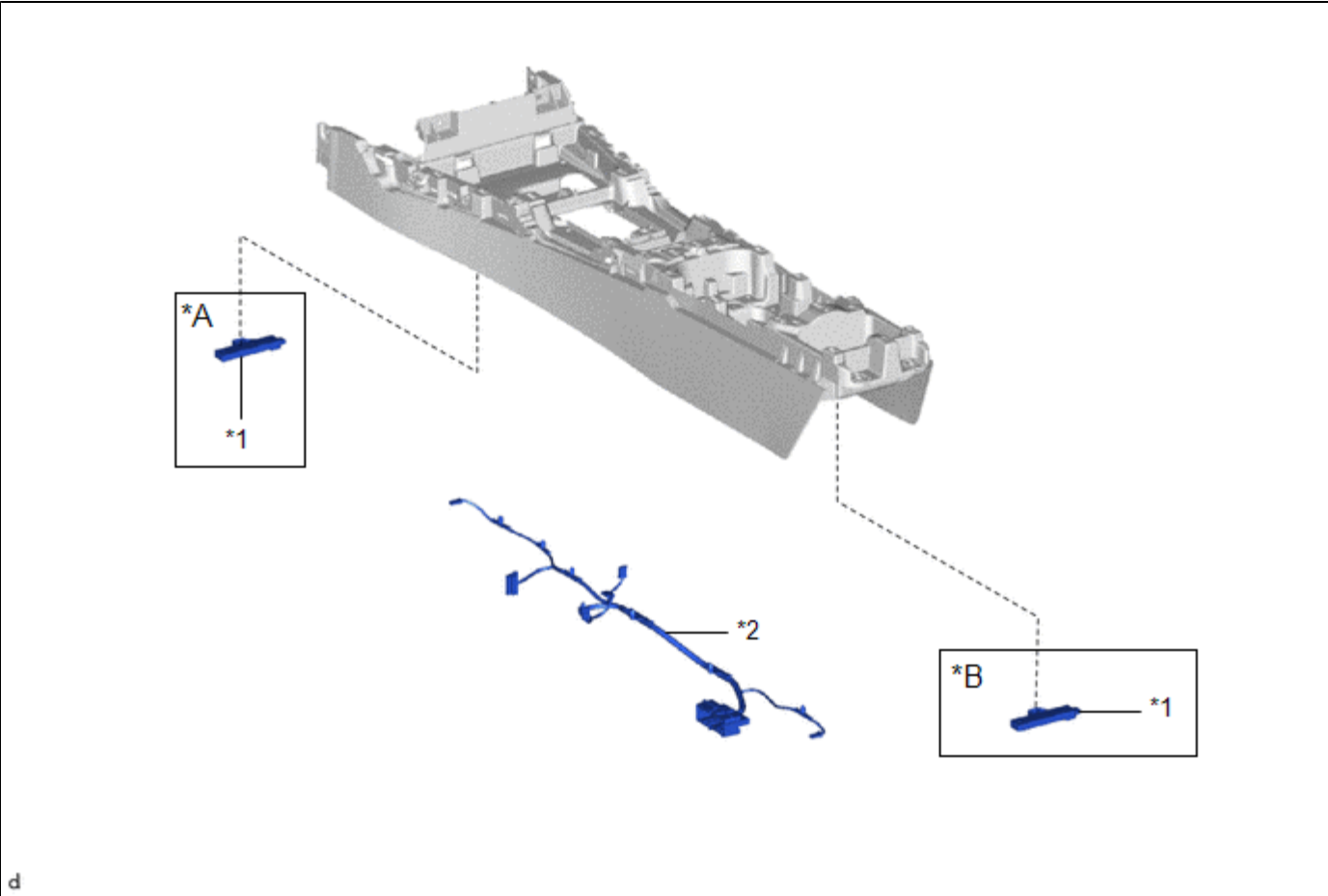
*1	FOOTWELL STORAGE NET	-	-
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ILLUSTRATION



*1	FLOOR MAT ASSEMBLY	*2	NO. 1 MAT SET PLATE
----	--------------------	----	---------------------

ILLUSTRATION



*A	for Console Box Front Side	*B	for Console Box Rear Side
----	----------------------------	----	---------------------------

*1	NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY	*2	WIRING HARNESS
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: FRONT CONSOLE BOX: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.
- Risk of short circuits! Risk of fire!
- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

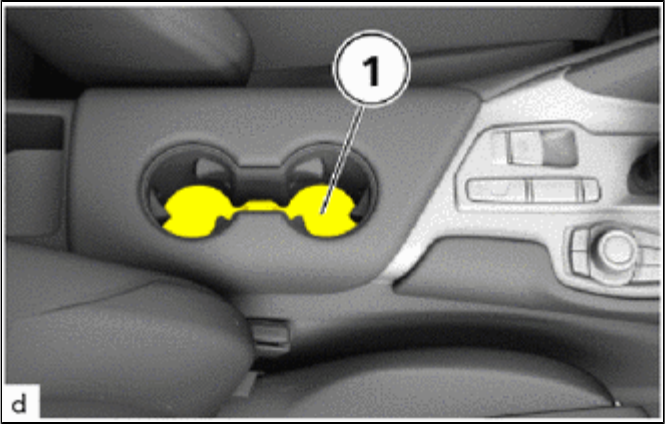
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

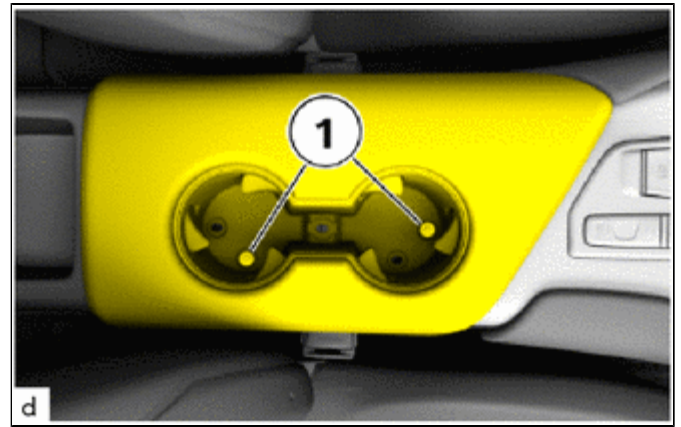
Click here [INFO](#)

2. REMOVE FRONT CONSOLE ARMREST ASSEMBLY

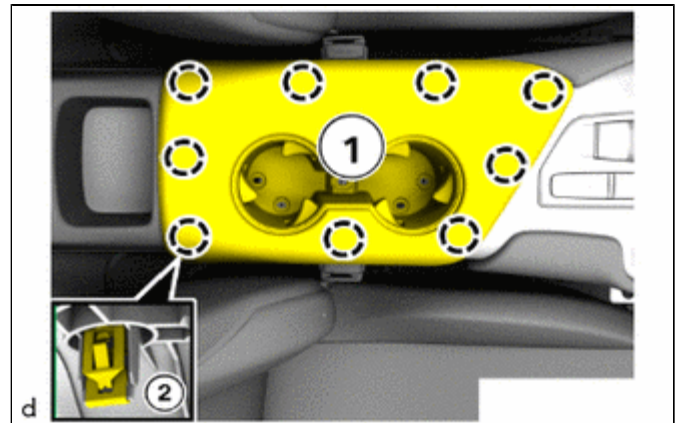
(a) Remove the No. 1 console box silencer pad (1).



(b) Loosen T20 screws (1).

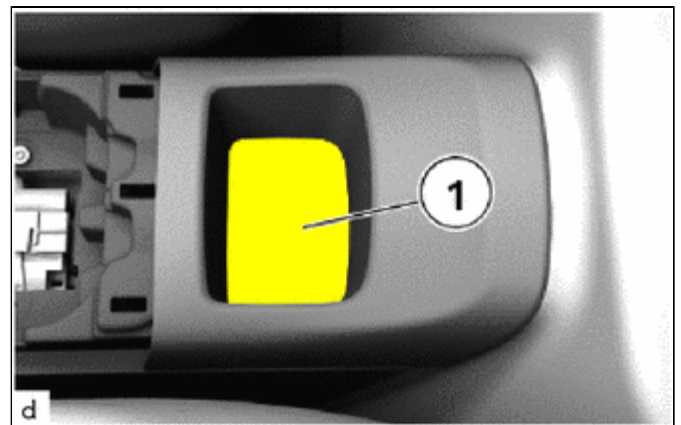


(c) Detach the clips (2) to remove the front console armrest assembly (1).

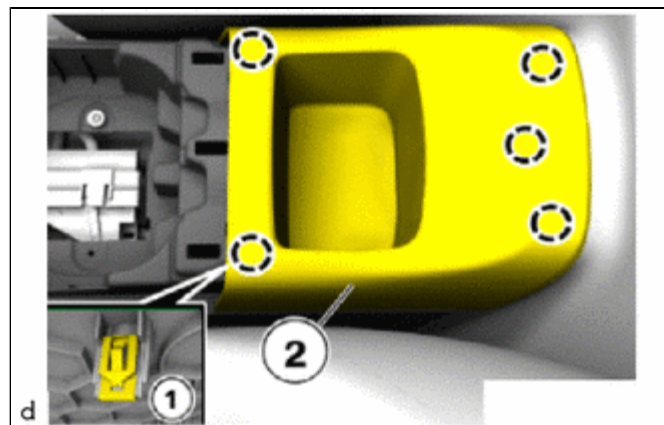


3. REMOVE CONSOLE UPPER REAR PANEL

(a) Remove the No. 2 console box silencer pad (1).

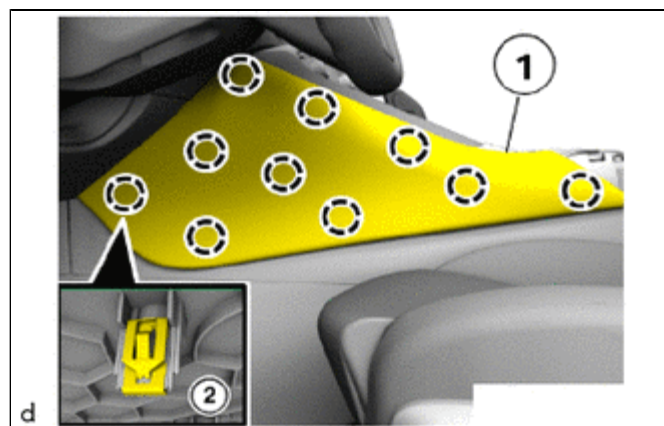


(b) Detach the clips (1) to remove the console upper rear panel (2).



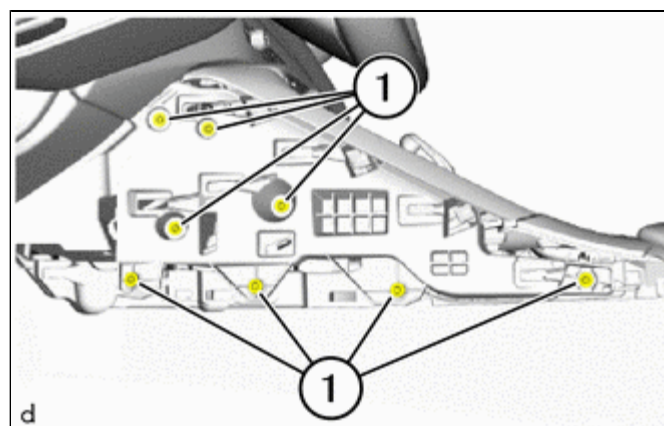
4. REMOVE CONSOLE SIDE PANEL

(a) Detach the clips (2) to remove the console side panel (1).

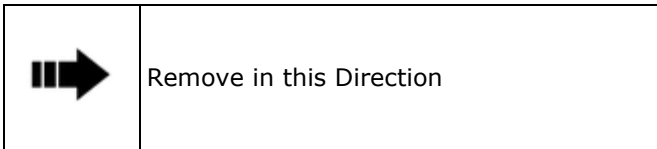
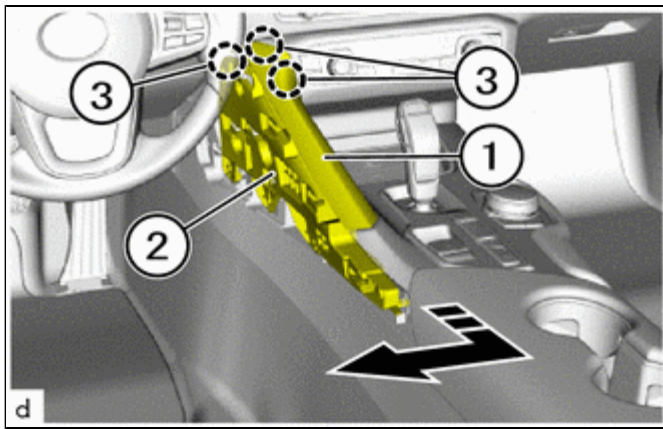


5. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

(a) Loosen T20 screws (1).

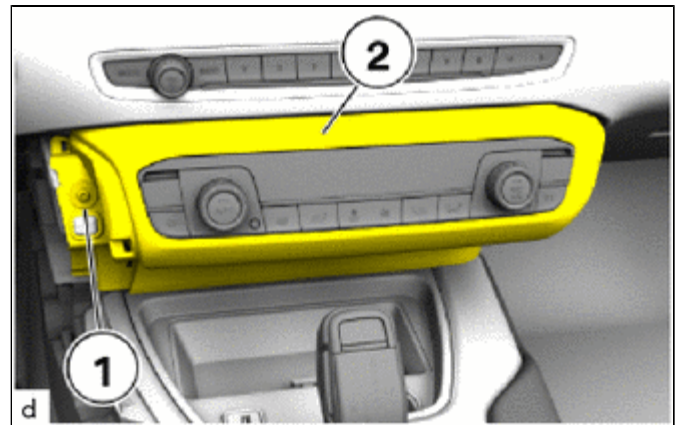


(b) Detach the guides (3) to remove the console panel (1) and console panel retainer (2) as shown in the illustration.

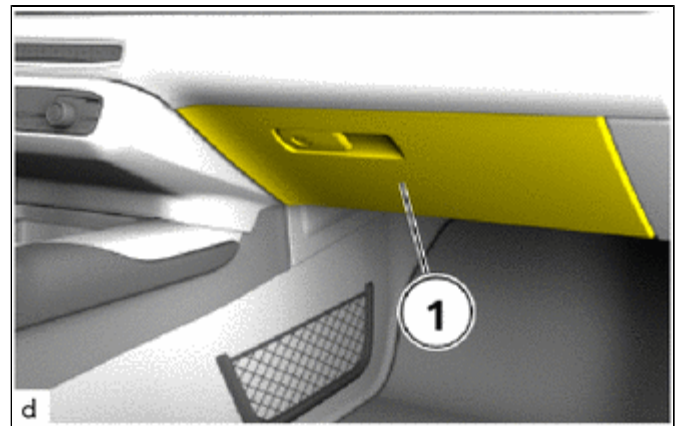


6. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

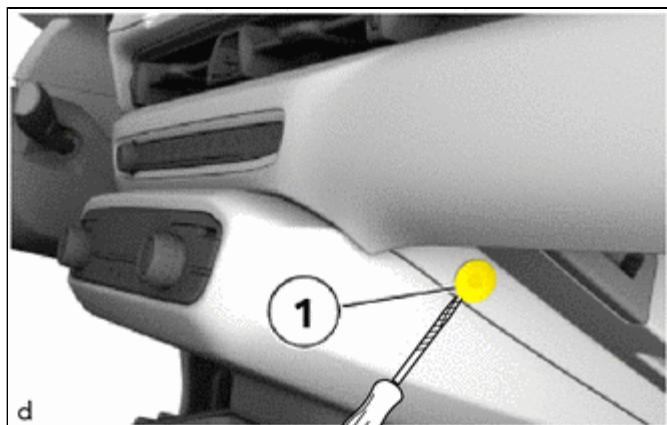
(a) Loosen T20 screw (1) on the instrument panel finish lower panel (2).



(b) Open the glove compartment door assembly (1).



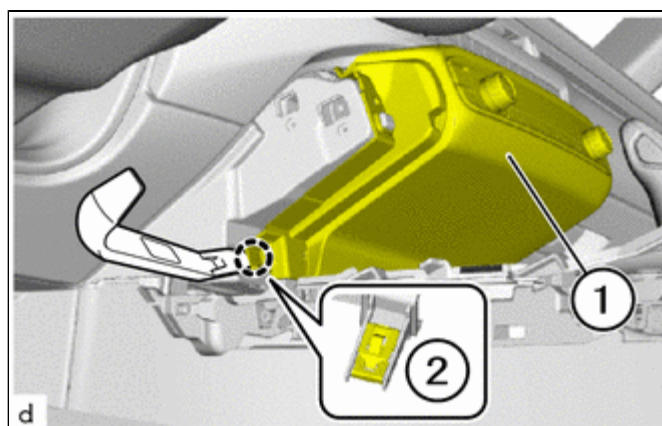
(c) Using a screwdriver with its tip wrapped in protective tape, remove the rubber plug (1).



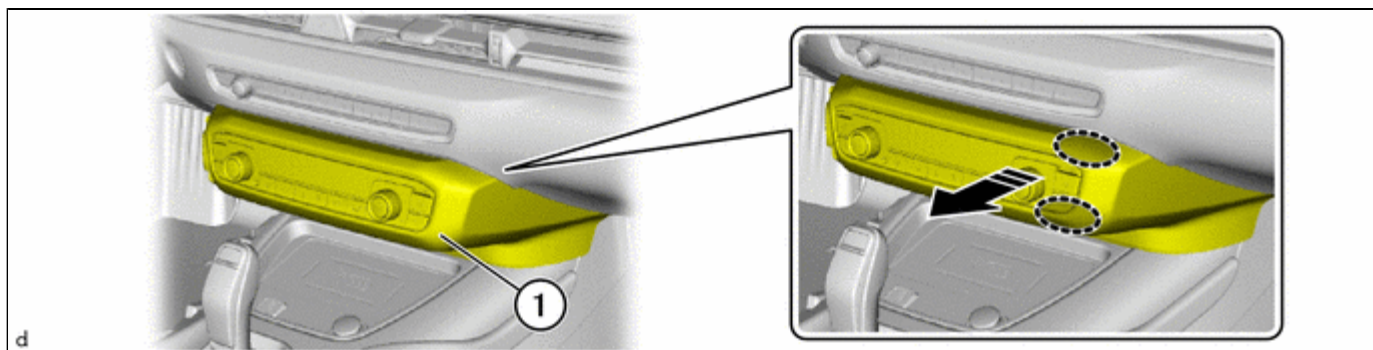
	Protective Tape
--	-----------------

(d) Loosen T20 screw behind it.

(e) Using a moulding remover A, detach the clip (2) of the instrument panel finish lower panel (1).

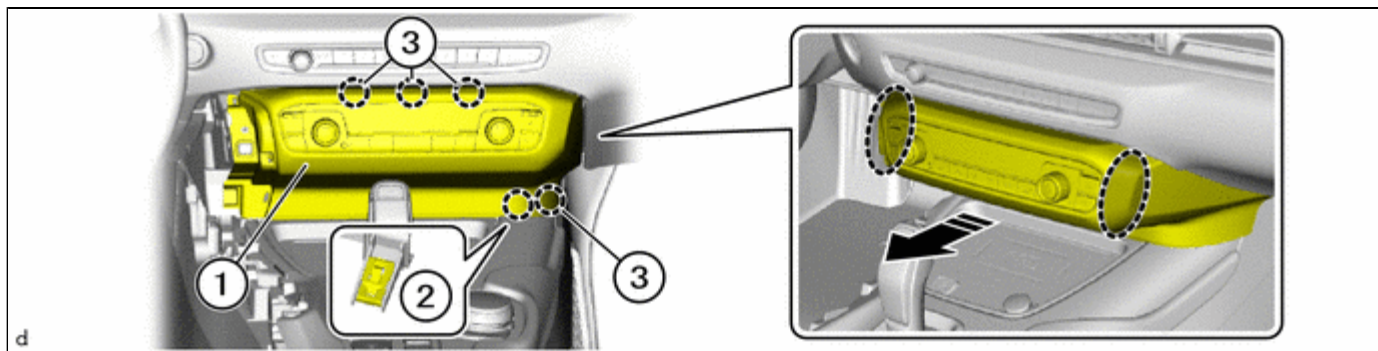


(f) Slightly pull out the instrument panel finish lower panel (1) toward you as shown in the illustration.



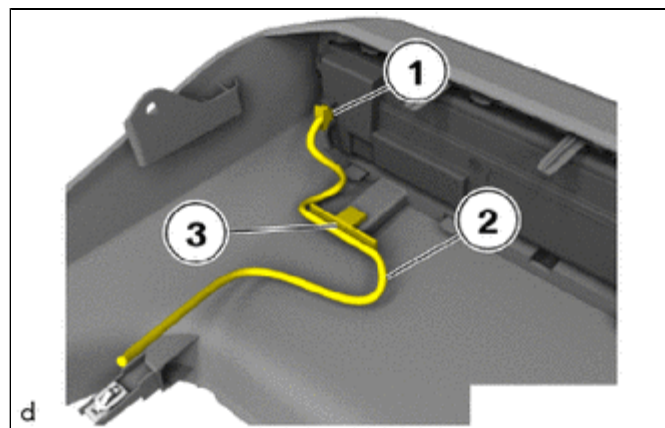
	Place Hands Here		Remove in this Direction
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(g) Pull the instrument panel finish lower panel (1) straight forward, detach the guides (3) and the clip (2), and pull it out toward you.



	Place Hands Here		Remove in this Direction
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(h) Unlock plug connection (1) and disconnect.

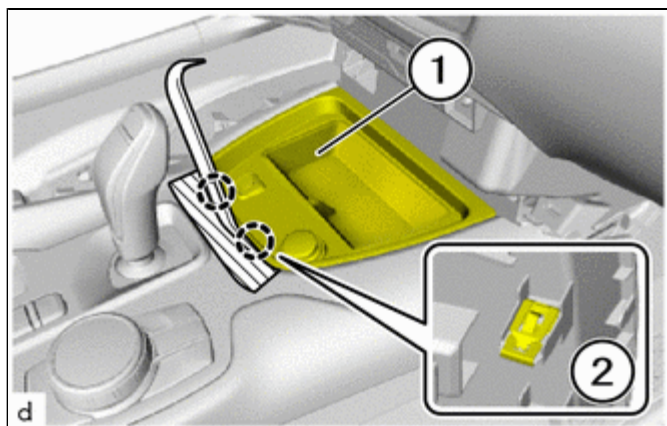


(i) Detach the clip (3) to disconnect the wiring harness (2).

(j) Remove the instrument panel finish lower panel.

7. REMOVE FRONT CONSOLE BOX COVER

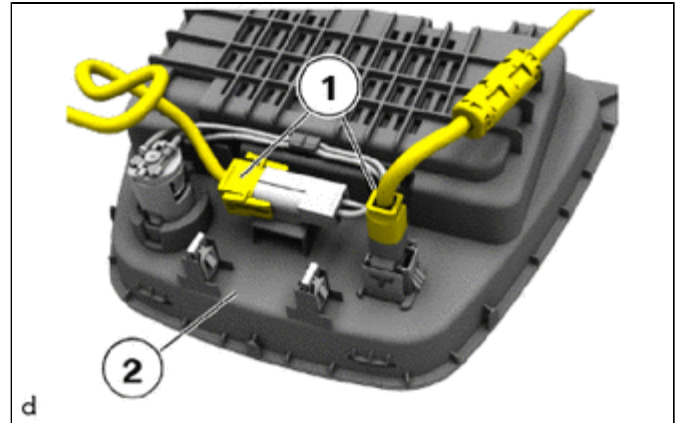
(a) Apply protective tape as shown in the illustration.



	Protective Tape
--	-----------------

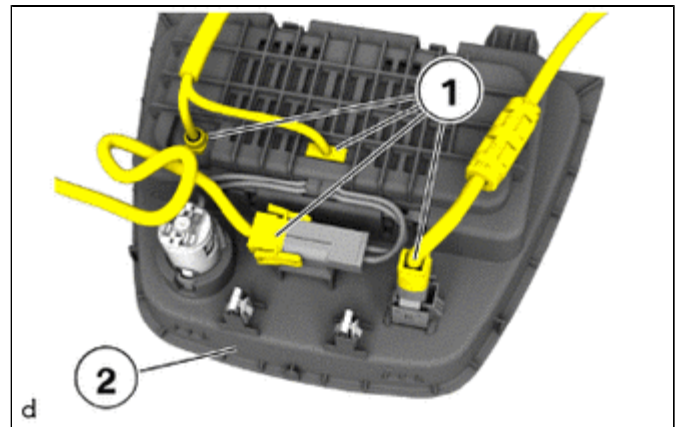
- (b) Using a molding remover A, detach the clips (2) of front console box cover (1).
- (c) Raise the front console box cover (1) a little.
- (d) w/o Wireless Charger:

(1) Unlock and disconnect plug connections (1) from the front console box cover (2).



- (e) w/ Wireless Charger:

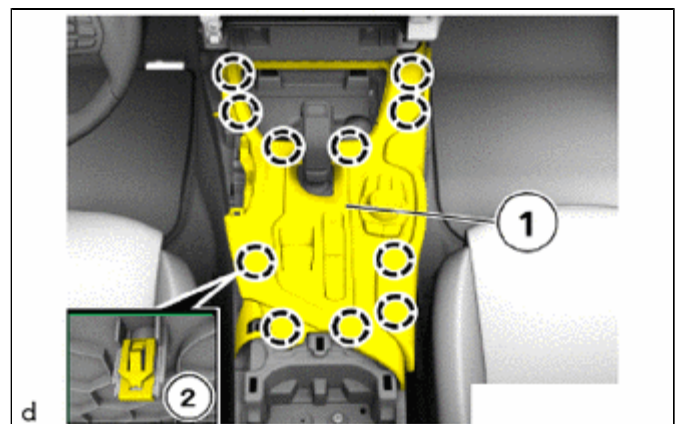
(1) Unlock and disconnect the plug connection (1) from the front console box cover (2).



- (f) Remove the front console box cover.

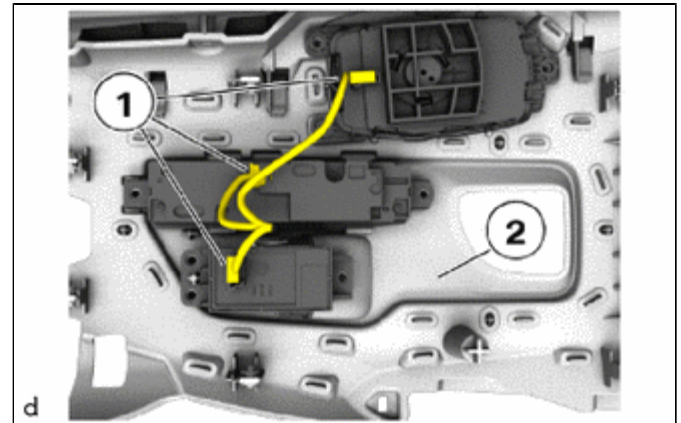
8. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY

- (a) Detach the clips (2) of the upper console panel sub-assembly (1).



(b) Lift the upper console panel sub-assembly (1) up slightly.

(c) Unlock plug connection (1) and disconnect.



(d) Remove the upper console panel sub-assembly (2).

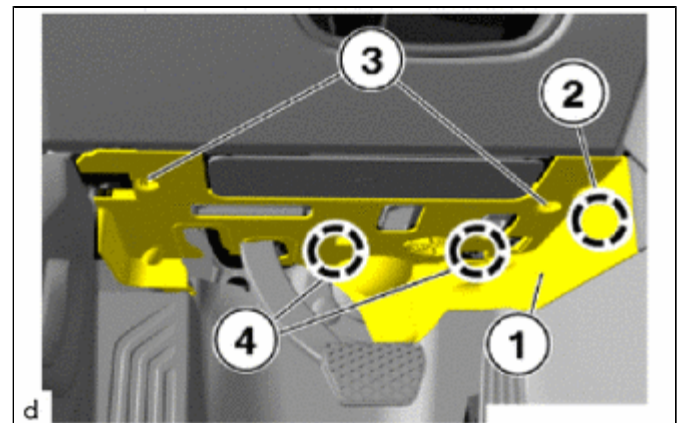
9. REMOVE TRANSMISSION FLOOR SHIFT ASSEMBLY

Click here [INFO](#)

10. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

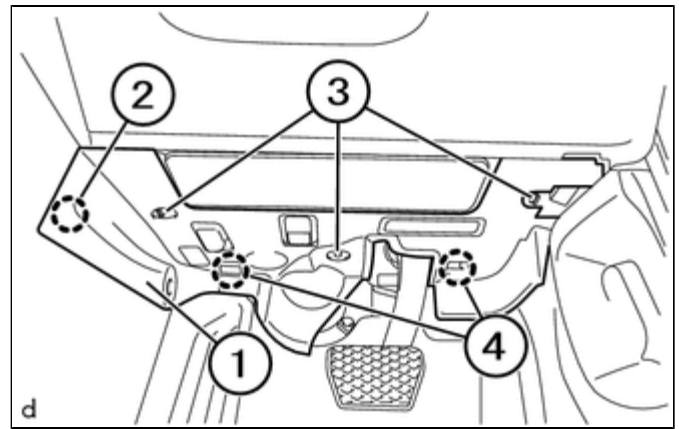
(a) for LHD:

- (1) Turn the locks (3) by 90°.
- (2) Detach the guide (2).
- (3) Detach the guides (4) to remove the No. 1 instrument panel under cover sub-assembly (1).
- (4) Unlock associated plug connections and disconnect.



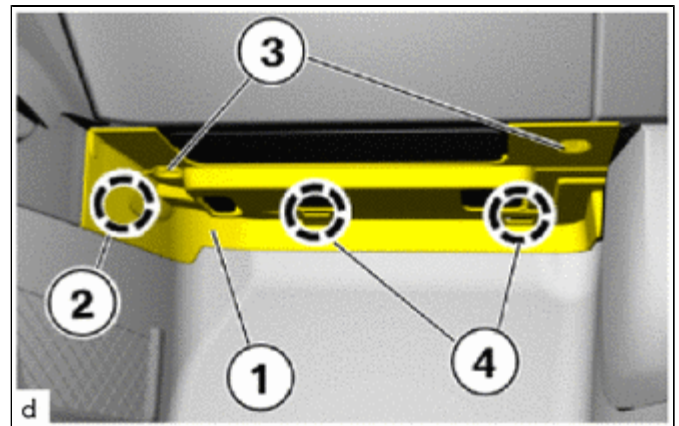
(b) for RHD:

- (1) Turn the locks (3) by 90°.
- (2) Detach the guide (2).
- (3) Detach the guides (4) to remove the No. 1 instrument panel under cover sub-assembly (1).
- (4) Unlock associated plug connections and disconnect.



11. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

(a) Turn the locks (3) by 90°.



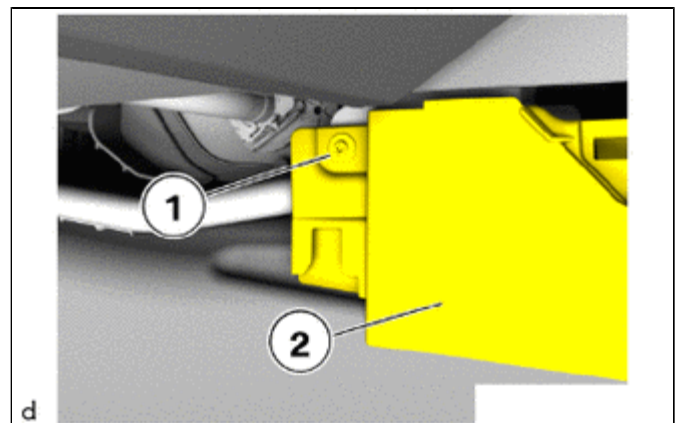
(b) Detach the guide (2).

(c) Detach the guides (4) to remove the No. 2 instrument panel under cover sub-assembly (1).

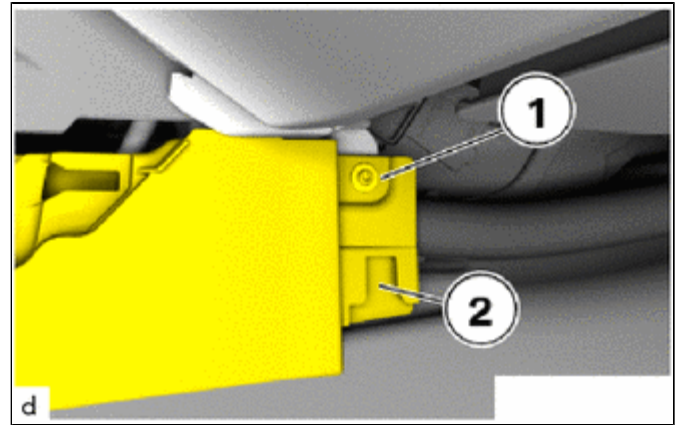
(d) Unlock plug connections and disconnect.

12. REMOVE CONSOLE BOX ASSEMBLY

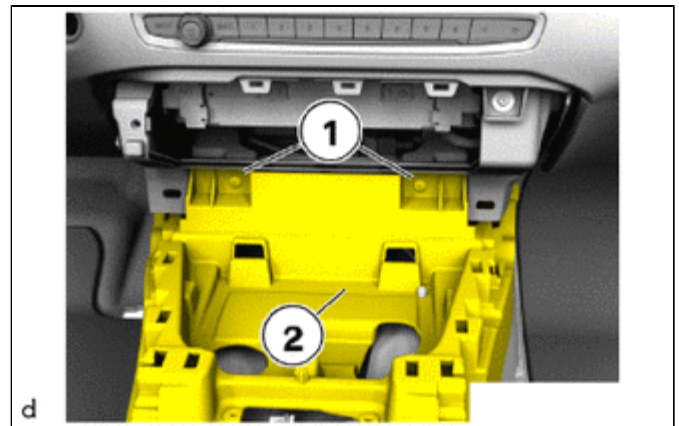
(a) Loosen T20 screw (1) on the console box assembly (2) on the left.



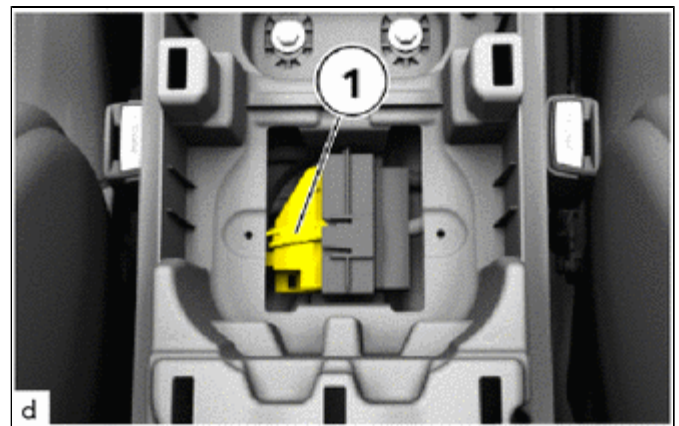
(b) Loosen T20 screw (1) on the console box assembly (2) on the right.



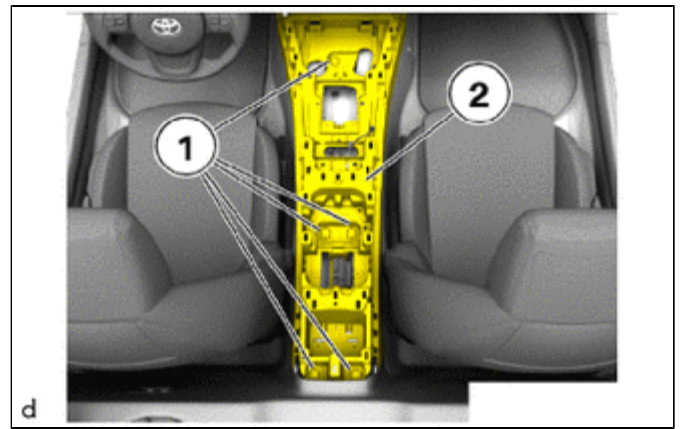
(c) Loosen T20 screws (1) on the console box assembly (2) on the front.



(d) Unlock plug connection (1) and disconnect.



(e) Loosen bolts (1).

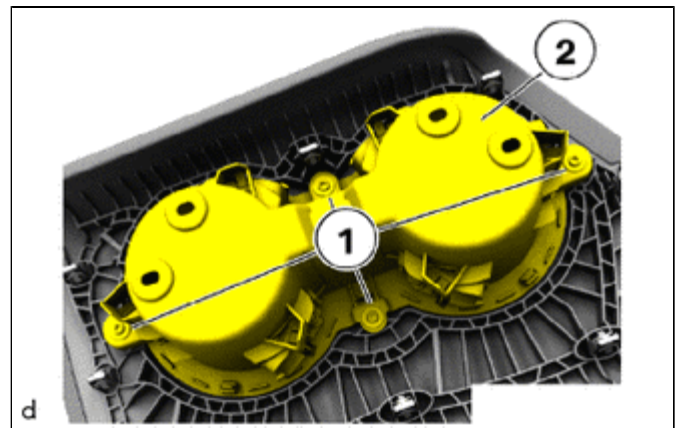


(f) Remove the console box assembly (2).

13. REMOVE CONSOLE BOX CUP HOLDER

HINT:

Perform this procedure only when replacement of the console box cup holder is necessary.



(a) Loosen T20 screws (1).

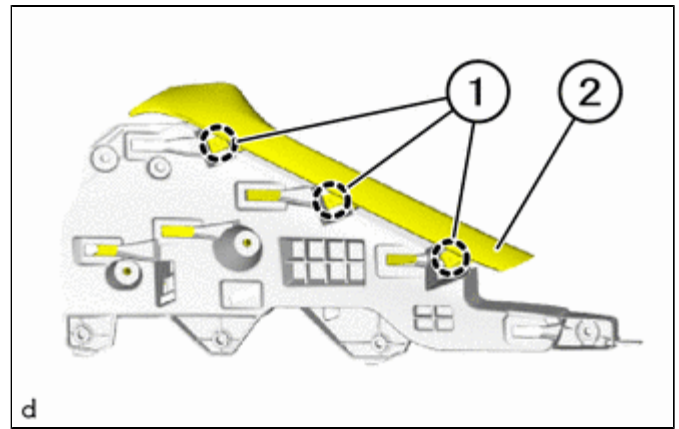
(b) Remove the console box cup holder (2).

14. REMOVE CONSOLE PANEL

HINT:

Perform this procedure only when replacement of the console panel or console panel retainer is necessary.

(a) Detach the clips (1).



(b) Remove the console panel (2).

15. REMOVE AIR CONDITIONING CONTROL ASSEMBLY

HINT:

Perform this procedure only when replacement of the instrument panel finish lower panel is necessary.

Click here [INFO](#)

16. REMOVE BOX BOTTOM MAT (w/o Wireless Charger)

HINT:

Perform this procedure only when replacement of the box bottom mat is necessary.

(a) Remove the box bottom mat.

17. REMOVE MOBILE WIRELESS CHARGER CRADLE ASSEMBLY (w/ Wireless Charger)

HINT:

Perform this procedure only when replacement of the front console box cover is necessary.

Click here [INFO](#)

18. REMOVE NO. 1 STEREO JACK ADAPTER ASSEMBLY

HINT:

Perform this procedure only when replacement of the front console box cover is necessary.

Click here [INFO](#)

19. REMOVE PATTERN SELECT SWITCH ASSEMBLY

HINT:

Perform this procedure only when replacement of the upper console panel sub-assembly is necessary.

Click here [INFO](#)

20. REMOVE ELECTRIC PARKING BRAKE SWITCH ASSEMBLY

HINT:

Perform this procedure only when replacement of the upper console panel sub-assembly is necessary.

Click here [INFO](#)

21. REMOVE REMOTE OPERATION CONTROLLER ASSEMBLY

HINT:

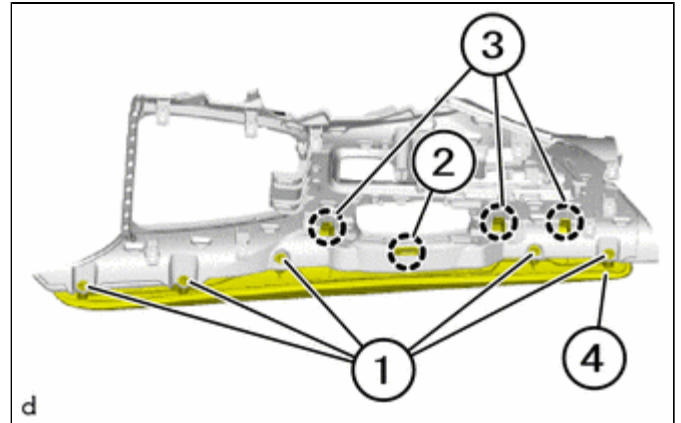
Perform this procedure only when replacement of the upper console panel sub-assembly is necessary.

Click here [INFO](#)

22. REMOVE NO. 1 BOX PANEL**HINT:**

Perform this procedure only when replacement of the No. 1 box panel is necessary.

(a) Loosen T20 screws (1).



(b) Detach the claw (2) and guides (3).

(c) Remove the No. 1 box panel (4).

23. REMOVE EMERGENCY LOUDSPEAKER**HINT:**

Perform this procedure only when replacement of the No. 1 instrument panel under cover sub-assembly is necessary.

Click here [INFO](#)

24. REMOVE NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY (w/ Foot light)**HINT:**

Perform this procedure only when replacement of the instrument panel under cover sub-assembly is necessary.

- for Driver Side

Click here [INFO](#)

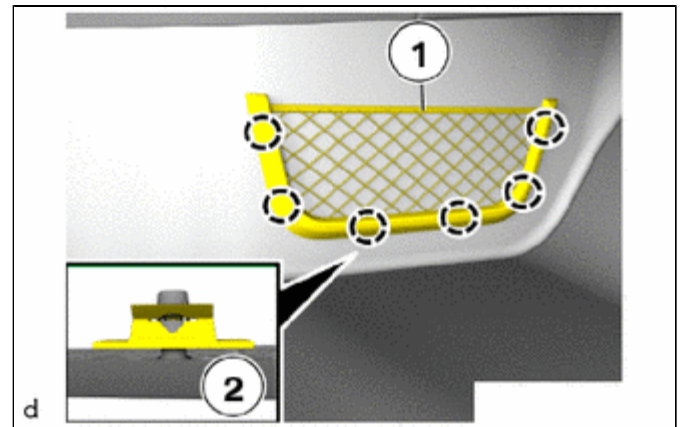
- for Front Passenger Side

Click here [INFO](#)

25. REMOVE FOOTWELL STORAGE NET**HINT:**

Perform this procedure only when replacement of the footwell storage net is necessary.

(a) Detach the clips (2) to remove the footwell storage net (1).

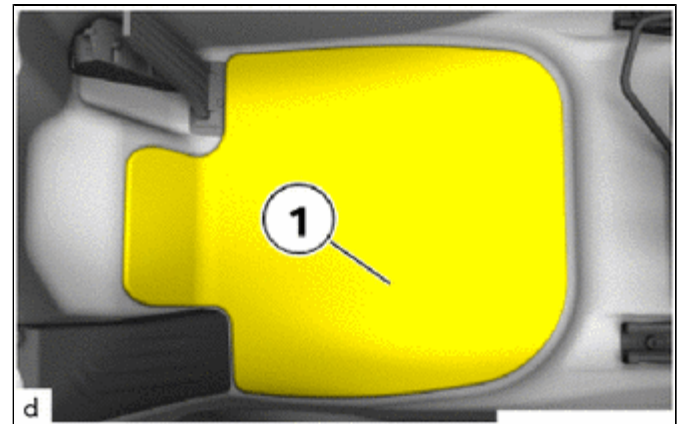


26. REMOVE FLOOR MAT ASSEMBLY

HINT:

- Perform this procedure only when replacement of the floor mat assembly is necessary.
- Use the same procedures for the front passenger side.

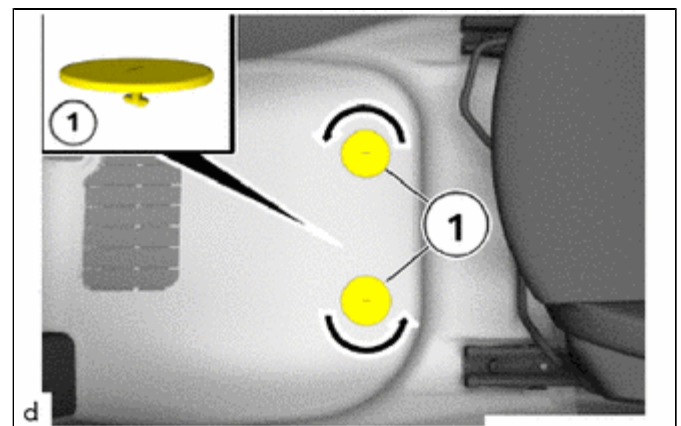
(a) Remove the floor mat assembly (1).



(b) Turn the No. 1 mat set plates (1) by 90° and remove upward from the front floor carpet assembly.

HINT:

Perform this procedure only when replacement of the No. 1 mat set plate is necessary.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: FRONT CONSOLE BOX: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

1. REMOVE NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY (for Console Box Front Side)

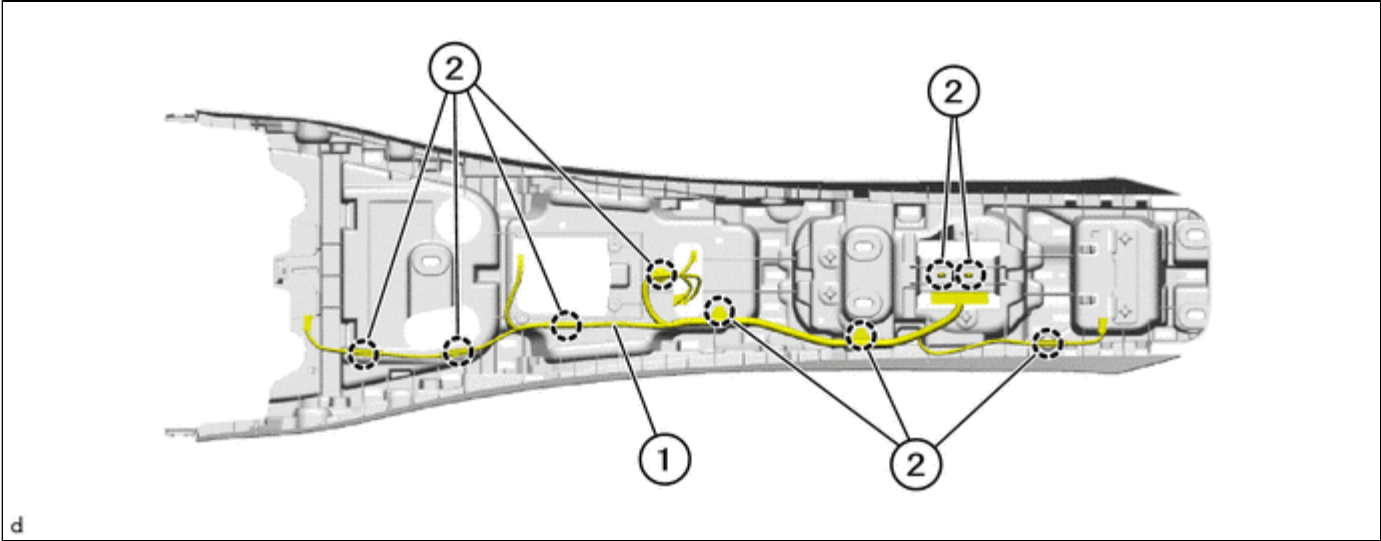
Click here [INFO](#)

2. REMOVE NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY (for Console Box Rear Side)

Click here [INFO](#)

3. REMOVE WIRING HARNESS

(a) Detach the clamps (2) to remove the wiring harness (1).



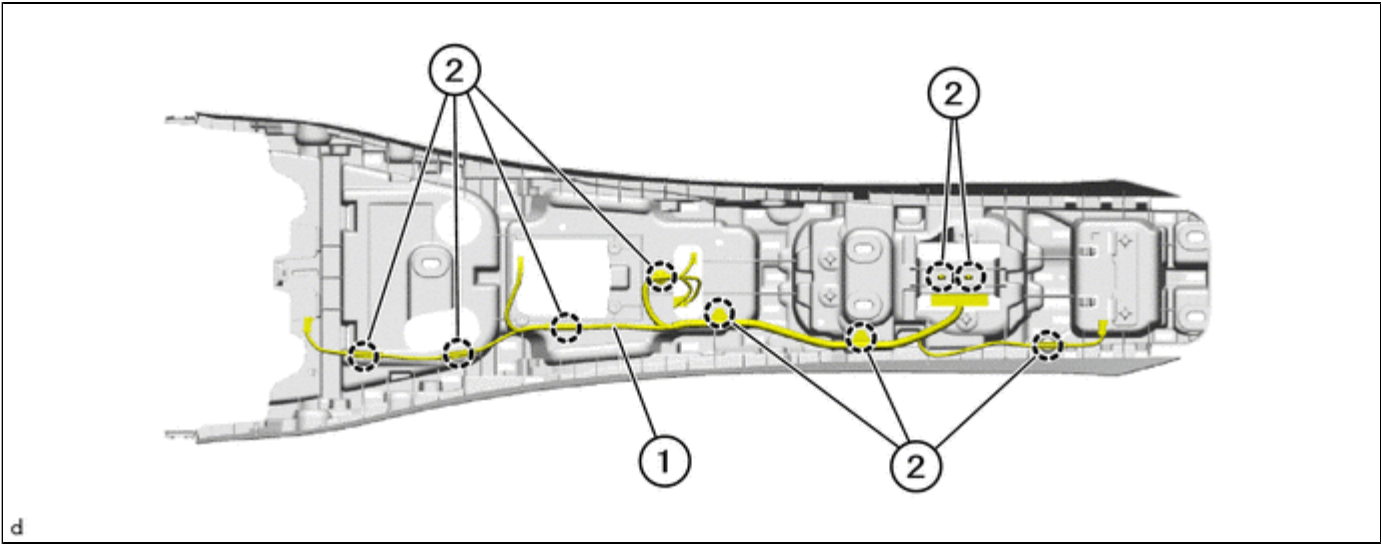
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: FRONT CONSOLE BOX: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL WIRING HARNESS

(a) Attach the clamps (2) to install the wiring harness (1).



2. INSTALL NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY (for Console Box Front Side)

Click here [INFO](#)

3. INSTALL NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY (for Console Box Rear Side)

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: FRONT CONSOLE BOX: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FLOOR MAT ASSEMBLY

HINT:

- Perform this procedure only when replacement of the floor mat assembly is necessary.
- Use the same procedures for the front passenger side.

(a) Install the No. 1 mat set plates in the front floor carpet assembly and turn by 90°.

HINT:

Perform this procedure only when replacement of the No. 1 mat set plate is necessary.

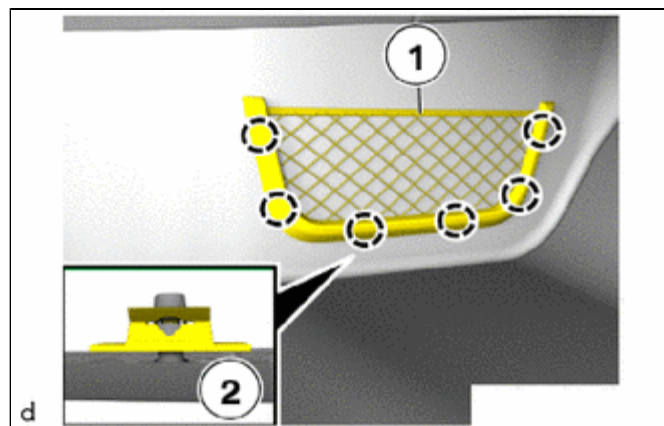
(b) Install the floor mat assembly.

2. INSTALL FOOTWELL STORAGE NET

HINT:

Perform this procedure only when replacement of the footwell storage net is necessary.

(a) Attach the clips (2) to install the footwell storage net (1).



3. INSTALL EMERGENCY LOUDSPEAKER

HINT:

Perform this procedure only when replacement of the No. 1 instrument panel under cover sub-assembly is necessary.

Click here [INFO](#)

4. INSTALL NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY (w/ Foot light)

HINT:

Perform this procedure only when replacement of the instrument panel under cover sub-assembly is necessary.

- for Driver Side

Click here [INFO](#)

- for Front Passenger Side

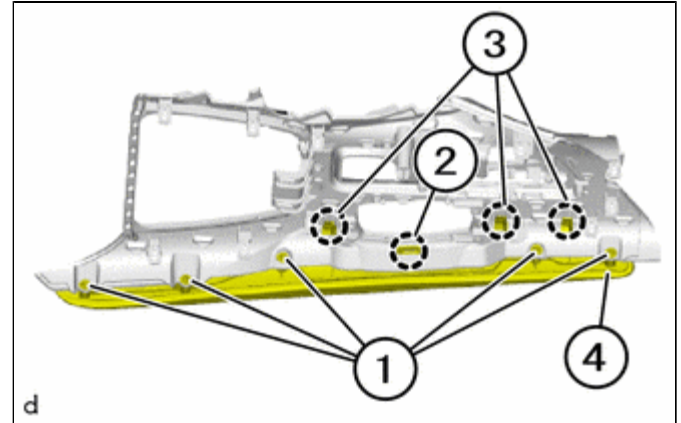
[Click here](#) [INFO](#)

5. INSTALL NO. 1 BOX PANEL

HINT:

Perform this procedure only when replacement of the No. 1 box panel is necessary.

- (a) Attach the guides (3) and claw (2) to install the No. 1 box panel (4).



- (b) Tighten the T20 screws (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

6. INSTALL REMOTE OPERATION CONTROLLER ASSEMBLY

HINT:

Perform this procedure only when replacement of the upper console panel sub-assembly is necessary.

[Click here](#) [INFO](#)

7. INSTALL ELECTRIC PARKING BRAKE SWITCH ASSEMBLY

HINT:

Perform this procedure only when replacement of the upper console panel sub-assembly is necessary.

[Click here](#) [INFO](#)

8. INSTALL PATTERN SELECT SWITCH ASSEMBLY

HINT:

Perform this procedure only when replacement of the upper console panel sub-assembly is necessary.

[Click here](#) [INFO](#)

9. INSTALL NO. 1 STEREO JACK ADAPTER ASSEMBLY

HINT:

Perform this procedure only when replacement of the front console box cover is necessary.

[Click here](#) [INFO](#)

10. INSTALL BOX BOTTOM MAT (w/o Wireless Charger)

HINT:

Perform this procedure only when replacement of the box bottom mat insert is necessary.

(a) Install the box bottom mat.

11. INSTALL MOBILE WIRELESS CHARGER CRADLE ASSEMBLY (w/ Wireless Charger)

HINT:

Perform this procedure only when replacement of the front console box cover is necessary.

Click here [INFO](#)

12. INSTALL AIR CONDITIONING CONTROL ASSEMBLY

HINT:

Perform this procedure only when replacement of the instrument panel finish lower panel is necessary.

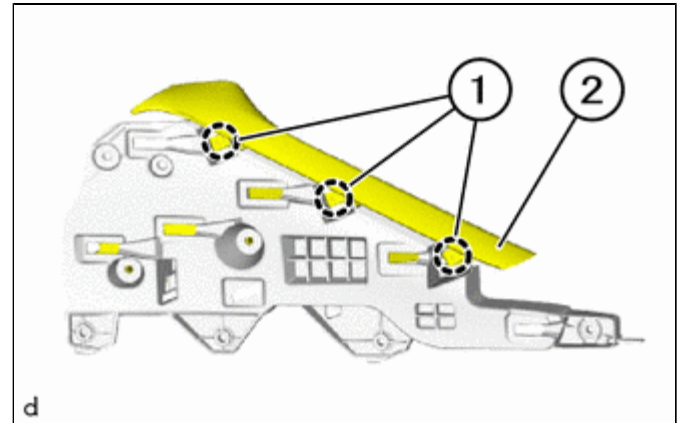
Click here [INFO](#)

13. INSTALL CONSOLE PANEL

HINT:

Perform this procedure only when replacement of the console panel or console panel retainer is necessary.

(a) Attach the clips (1) to install the console panel (2).

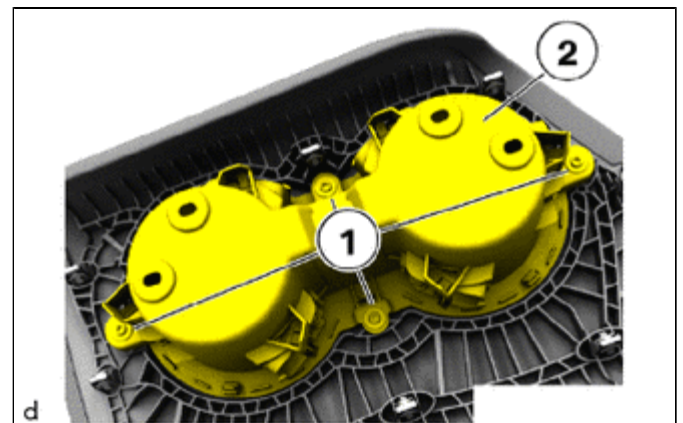


14. INSTALL CONSOLE BOX CUP HOLDER

HINT:

Perform this procedure only when replacement of the console box cup holder is necessary.

(a) Install the console box cup holder (2).



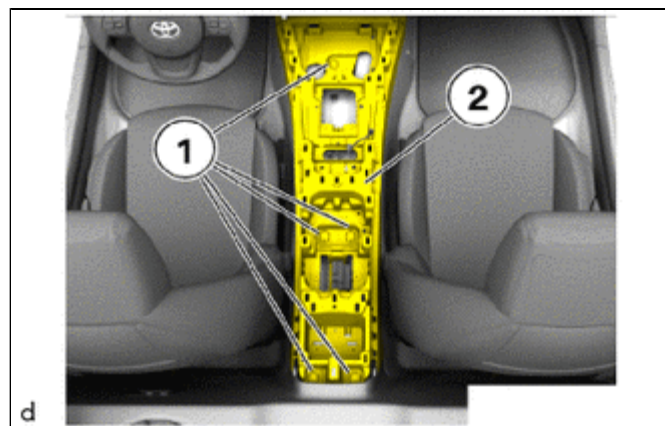
(b) Tighten the T20 screws (1).

Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}

15. INSTALL CONSOLE BOX ASSEMBLY

(a) Install the console box assembly (2).

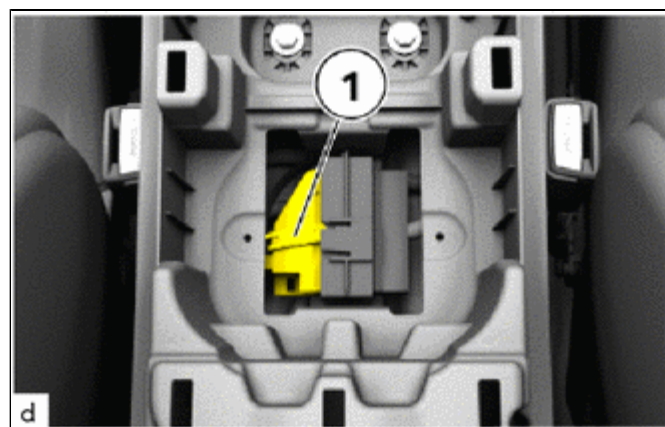


(b) Tighten the bolts (1).

Torque:

4.6 N·m {47 kgf·cm, 41 in·lbf}

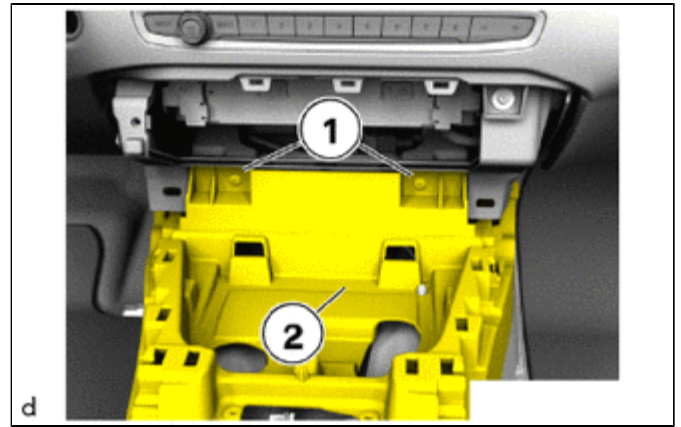
(c) Connect the connector and lock (1).



(d) Tighten the T20 screws (1) on the console box assembly (2) on the front.

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}



(e) Tighten the T20 screw on the console box assembly on the right.

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

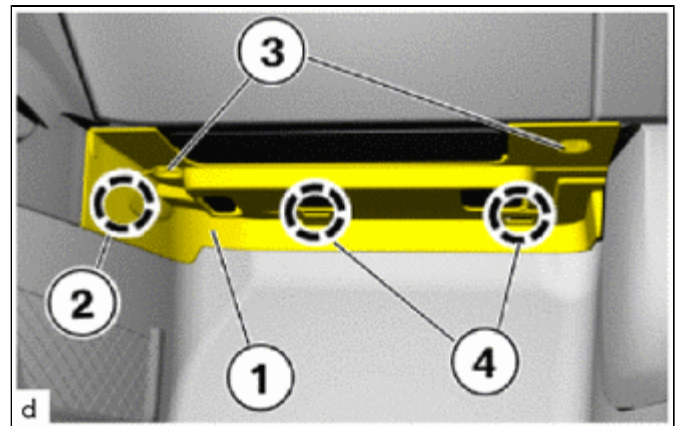
(f) Tighten the T20 screw on the console box assembly on the left.

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

16. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

(a) Connect associated connector.



(b) Attach the guides (4).

(c) Attach the guide (2) to install the No. 2 instrument panel under cover sub-assembly (1).

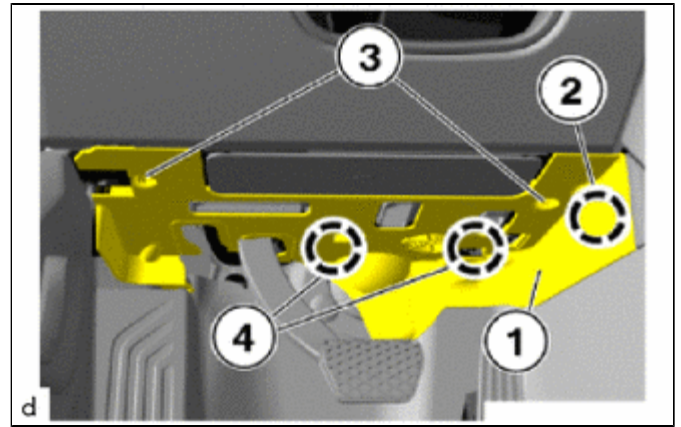
(d) Position locks (3) correctly and turn by 90°.

17. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

(a) for LHD:

(1) Connect and lock the relevant connectors.

(2) Attach the guides (4).



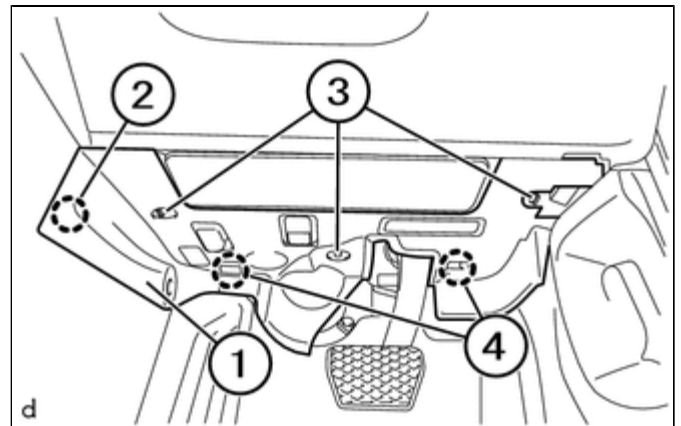
(3) Attach the guide (2) to install the No. 1 instrument panel under cover sub-assembly (1).

(4) Turn the locks (3) by 90°.

(b) for RHD:

(1) Connect and lock the relevant connectors.

(2) Attach the guides (4).



(3) Attach the guide (2) to install the No. 1 instrument panel under cover sub-assembly (1).

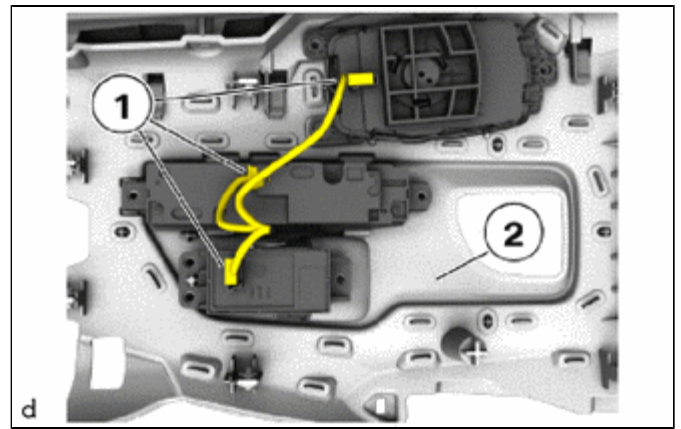
(4) Turn the locks (3) by 90°.

18. INSTALL TRANSMISSION FLOOR SHIFT ASSEMBLY

Click here [INFO](#)

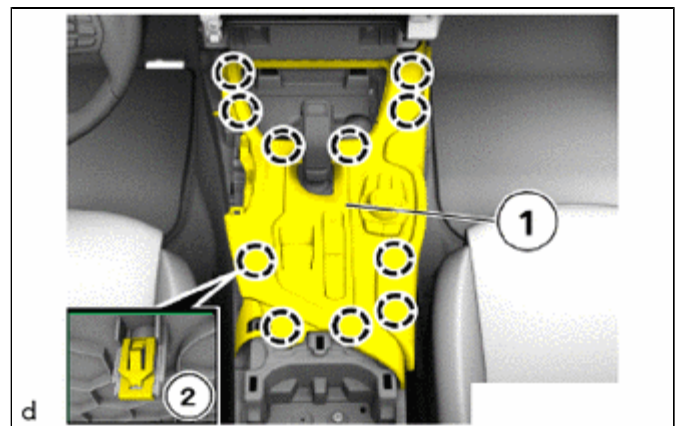
19. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY

(a) Connect connectors (1) and lock.



(b) Position the upper console panel sub-assembly (2).

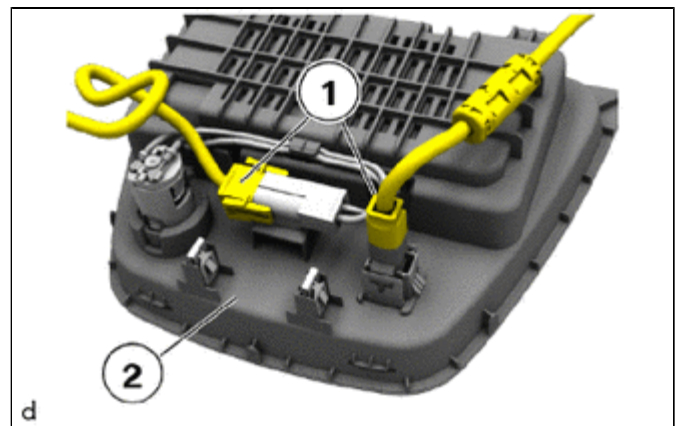
(c) Attach the clips (2) to install the upper console panel sub-assembly (1).



20. INSTALL FRONT CONSOLE BOX COVER

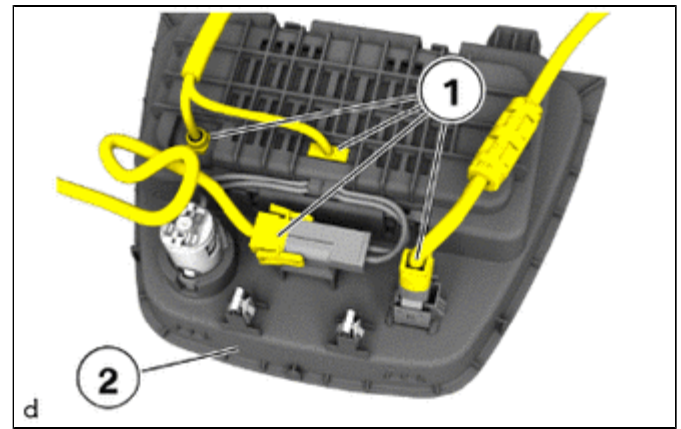
(a) w/o Wireless Charger:

(1) Connect and lock the connectors (1) to the front console box cover (2).

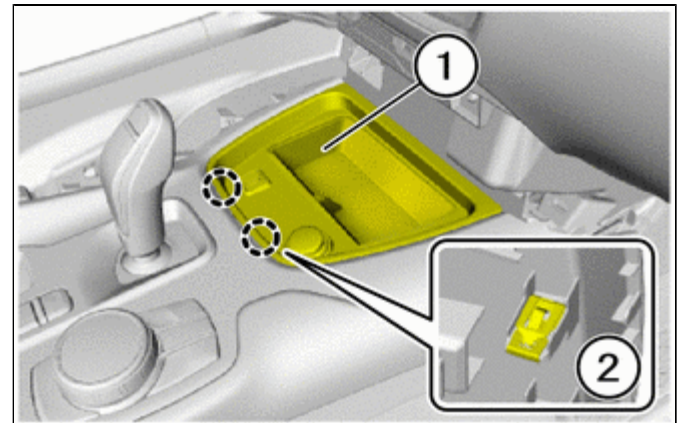


(b) w/ Wireless Charger:

(1) Connect and lock the connectors (1) to the front console box cover (2).

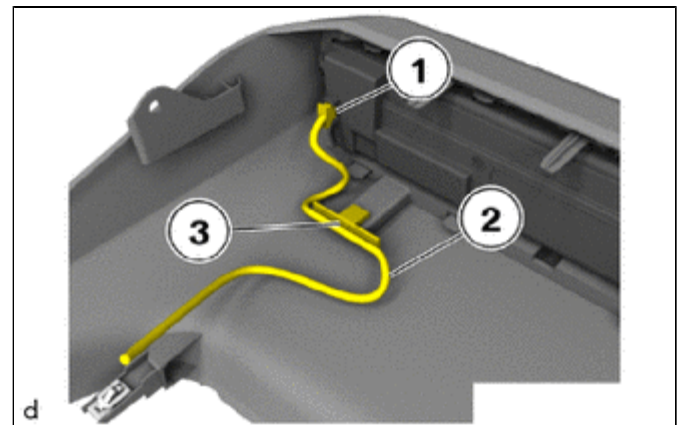


(c) Attach the clips (2) to install the front console box cover (1).



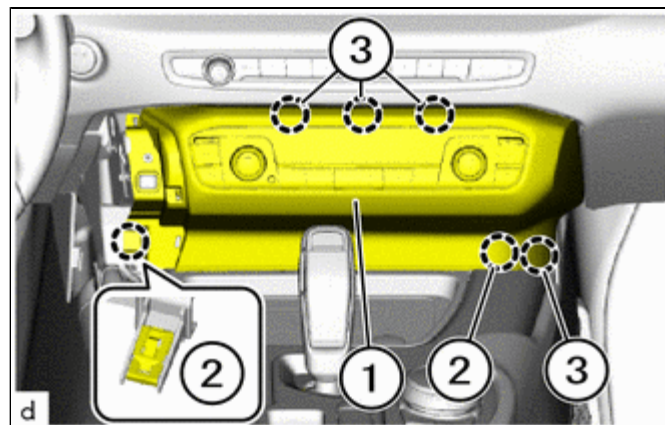
21. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

(a) Connect connectors (1) and lock.



(b) Attach the clip (3) to install the wiring harness (2).

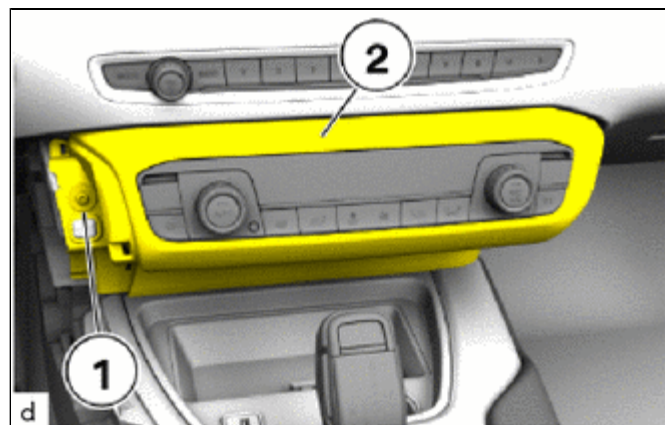
(c) Attach the guides (3) and clips (2) to install the instrument panel finish lower panel (1).



(d) Tighten the T20 screw (1) on the instrument panel finish lower panel (2).

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

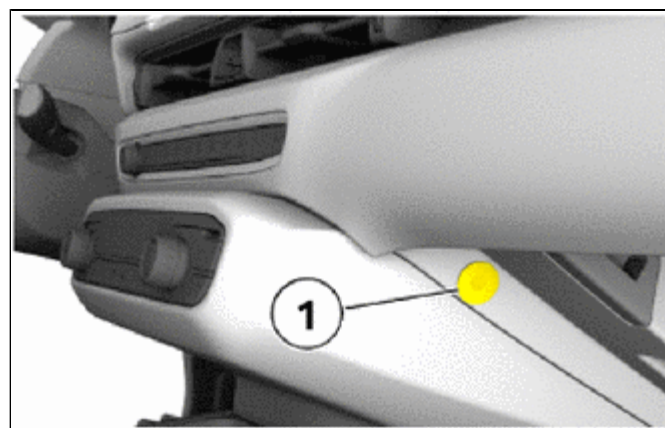


(e) Open the glove compartment door assembly.

(f) Tighten the T20 screw.

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

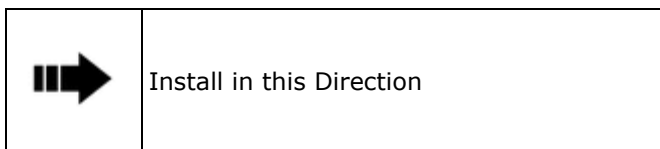
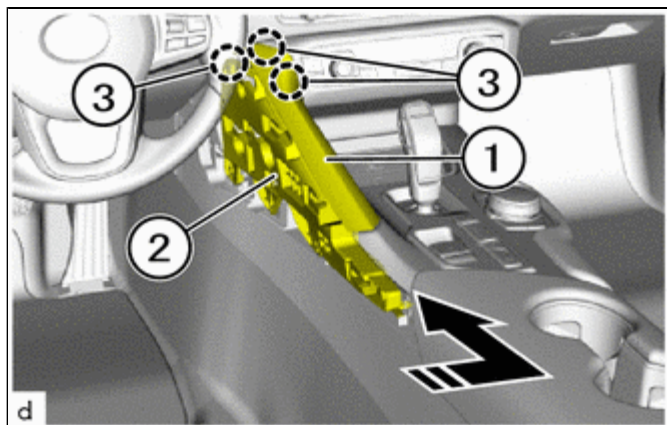


(g) Replace rubber plug (1).

(h) Install the rubber plug (1).

22. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

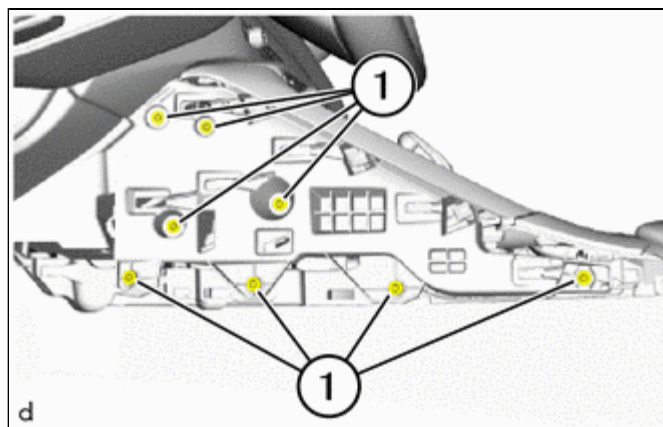
(a) Attach the guides (3) to install the console panel (1) and console panel retainer (2) as shown in the illustration.



(b) Tighten the T20 screws (1).

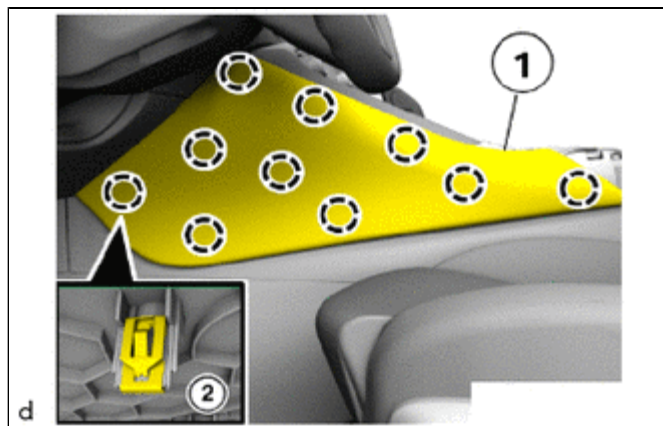
Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}



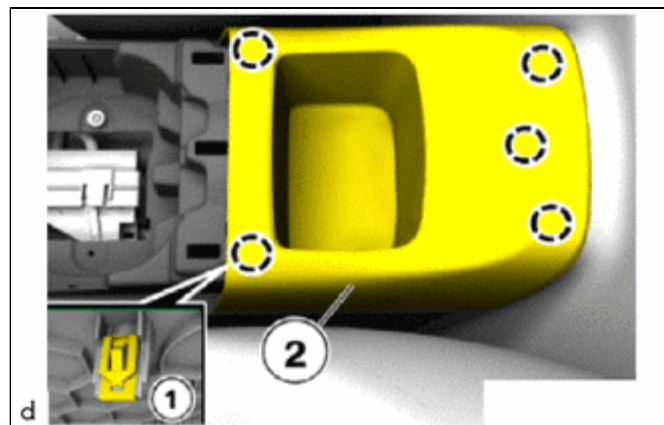
23. INSTALL CONSOLE SIDE PANEL

(a) Attach the clips (2) to install the console side panel (1).



24. INSTALL CONSOLE UPPER REAR PANEL

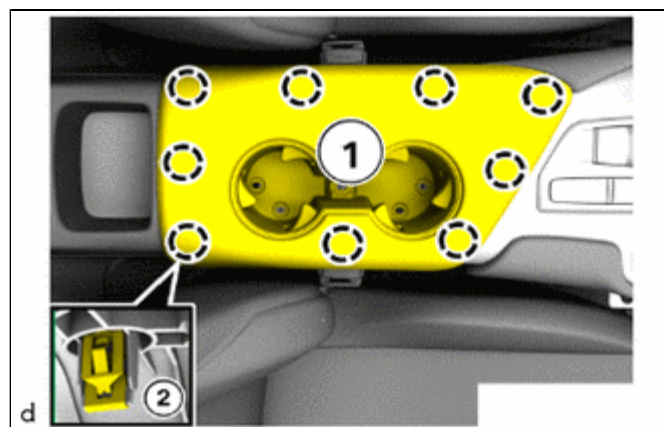
- (a) Attach the clips (1) to install the console upper rear panel (2).



- (b) Install the No. 2 console box silencer pad.

25. INSTALL FRONT CONSOLE ARMREST ASSEMBLY

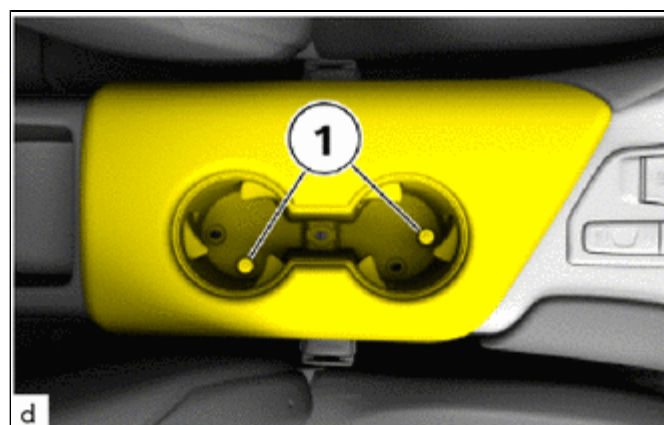
- (a) Attach the clips (2) to install the front console armrest assembly (1).



- (b) Tighten the T20 screws (1).

Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}



- (c) No. 1 console box silencer pad.

26. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)



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Title: INTERIOR PANELS / TRIM: INSTRUMENT PANEL SAFETY PAD: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

PRECAUTION FOR VEHICLE WITH SRS AIRBAG AND SEAT BELT PRETENSIONER

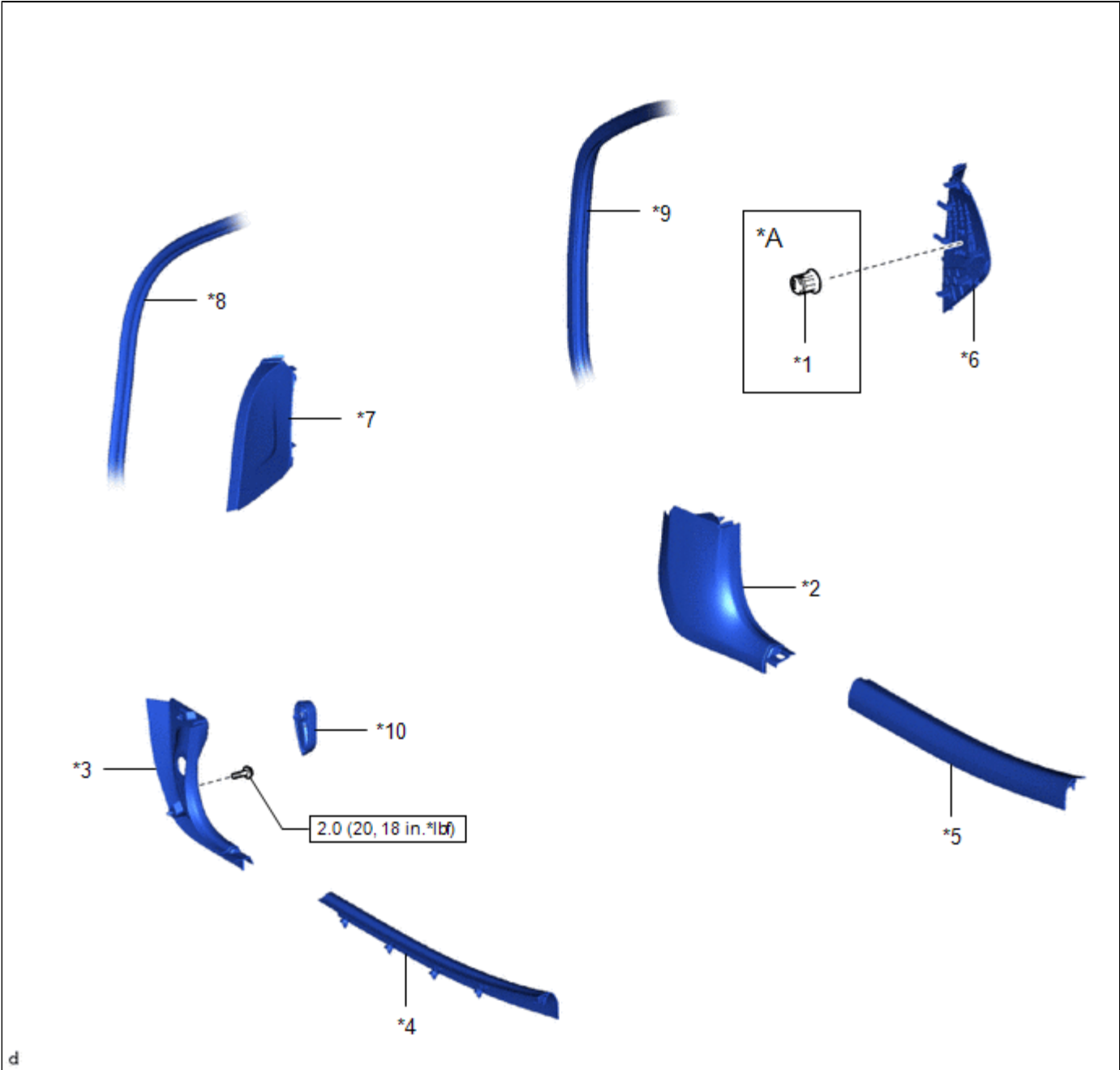
(a) Some operations in this section may affect the SRS airbags. Prior to performing the corresponding operations, read the precautions regarding the SRS airbags.

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: INSTRUMENT PANEL SAFETY PAD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

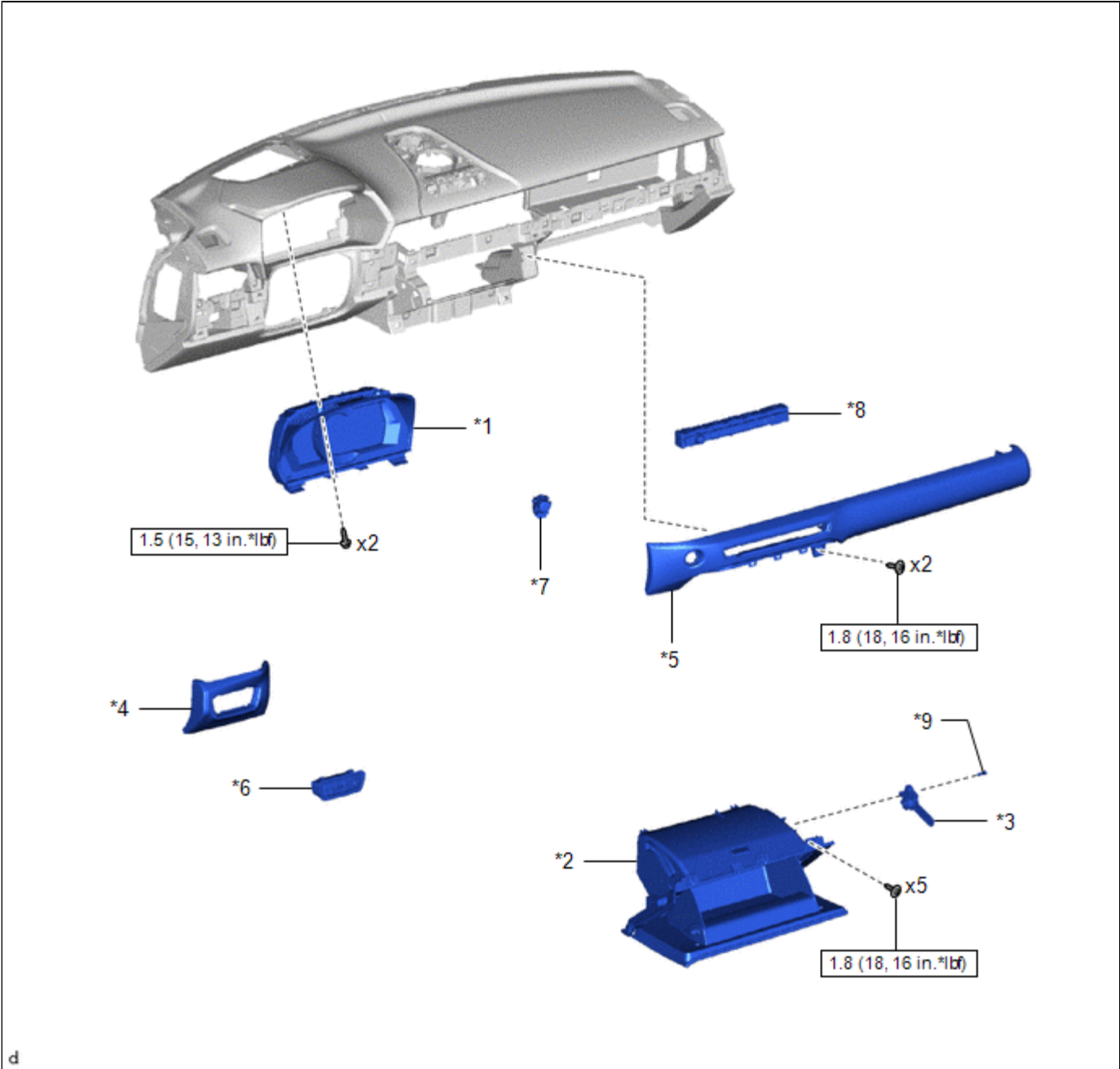
ILLUSTRATION




*A	w/ Airbag Cut Off Switch	-	-
*1	AIRBAG CUT OFF SWITCH CYLINDER SUB-ASSEMBLY	*2	COWL SIDE TRIM BOARD RH
*3	COWL SIDE TRIM SUB-ASSEMBLY LH	*4	FRONT DOOR SCUFF PLATE LH

*5	FRONT DOOR SCUFF PLATE RH	*6	NO. 1 INSTRUMENT SIDE PANEL
*7	NO. 2 INSTRUMENT SIDE PANEL	*8	FRONT DOOR OPENING TRIM WEATHERSTRIP LH
*9	FRONT DOOR OPENING TRIM WEATHERSTRIP RH	*10	HOOD LOCK RELEASE LEVER PROTECTOR
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

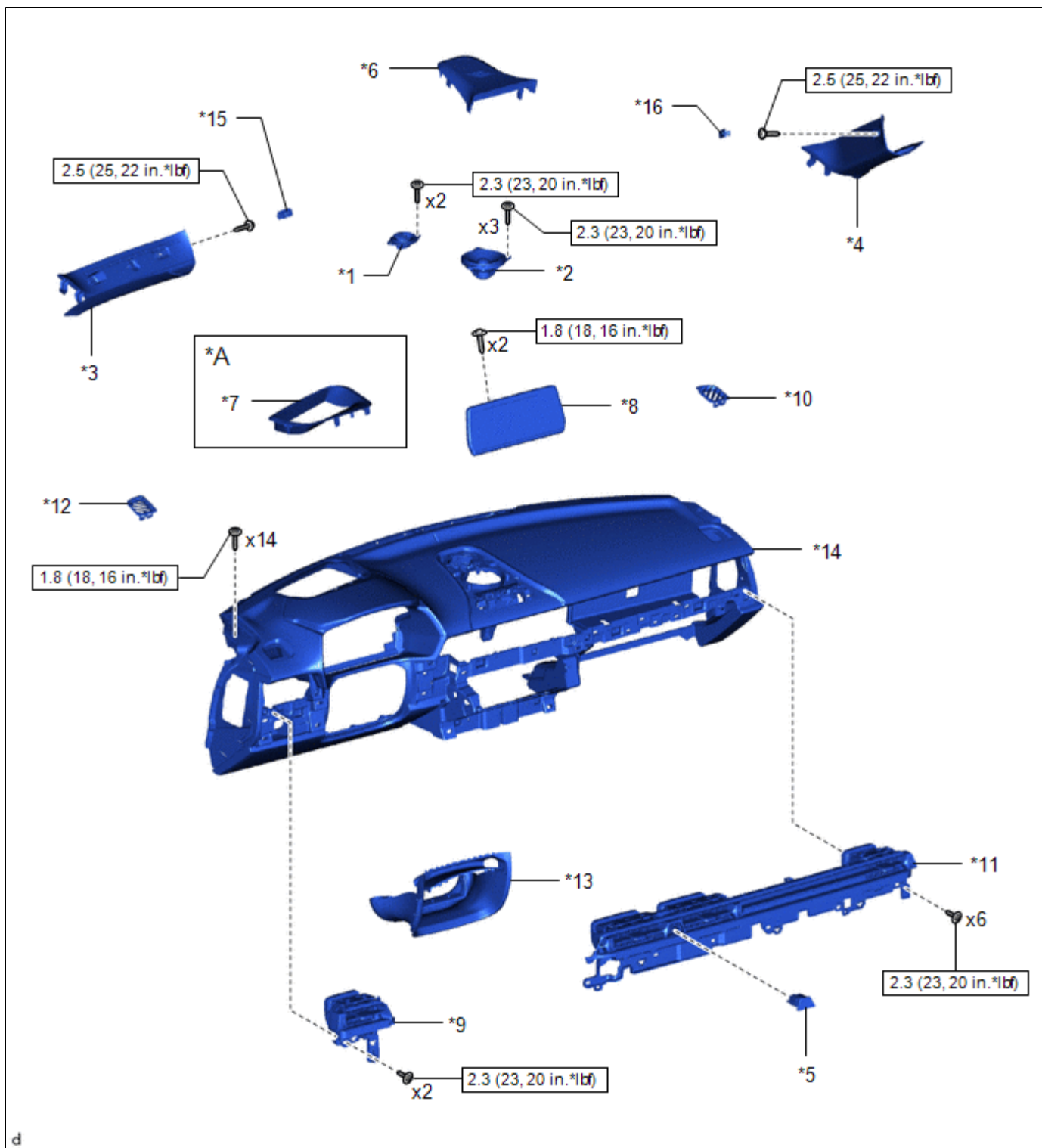
ILLUSTRATION




*1	COMBINATION METER ASSEMBLY	*2	GLOVE COMPARTMENT DOOR
----	----------------------------	----	------------------------

			ASSEMBLY
*3	GLOVE COMPARTMENT DOOR STOPPER SUB-ASSEMBLY	*4	INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY
*5	NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY	*6	NO. 1 LIGHT CONTROL SWITCH ASSEMBLY
*7	PUSH START SWITCH	*8	RADIO RECEIVER SWITCH KNOB
*9	LOCKING PIN	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

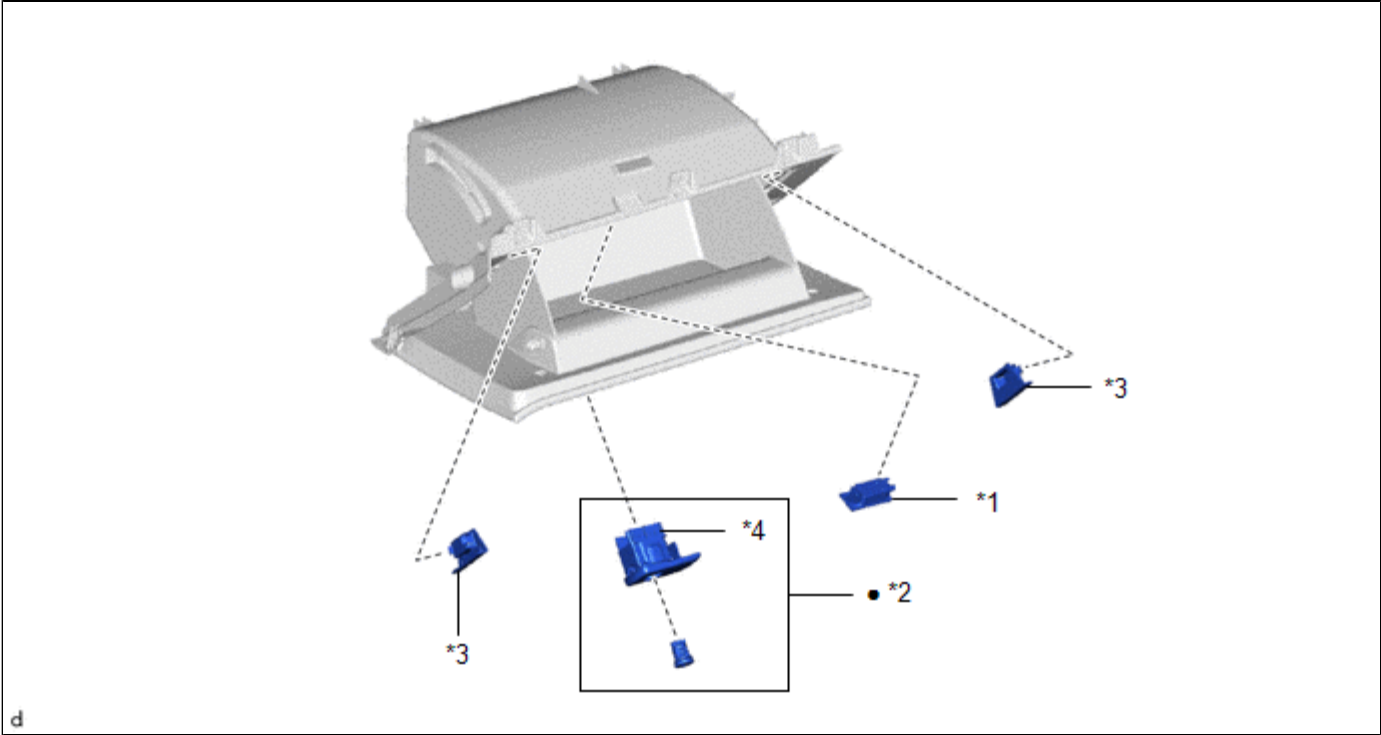
ILLUSTRATION



*A	w/ Headup Display	-	-
*1	FRONT NO. 3 SPEAKER ASSEMBLY	*2	FRONT NO. 4 SPEAKER ASSEMBLY
*3	FRONT PILLAR GARNISH LH	*4	FRONT PILLAR GARNISH RH
*5	HAZARD WARNING SIGNAL SWITCH ASSEMBLY	*6	INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL
*7	INSTRUMENT CLUSTER FINISH END PANEL	*8	MULTI-DISPLAY ASSEMBLY
*9	NO. 1 INSTRUMENT PANEL REGISTER ASSEMBLY	*10	NO. 1 SIDE DEFROSTER NOZZLE

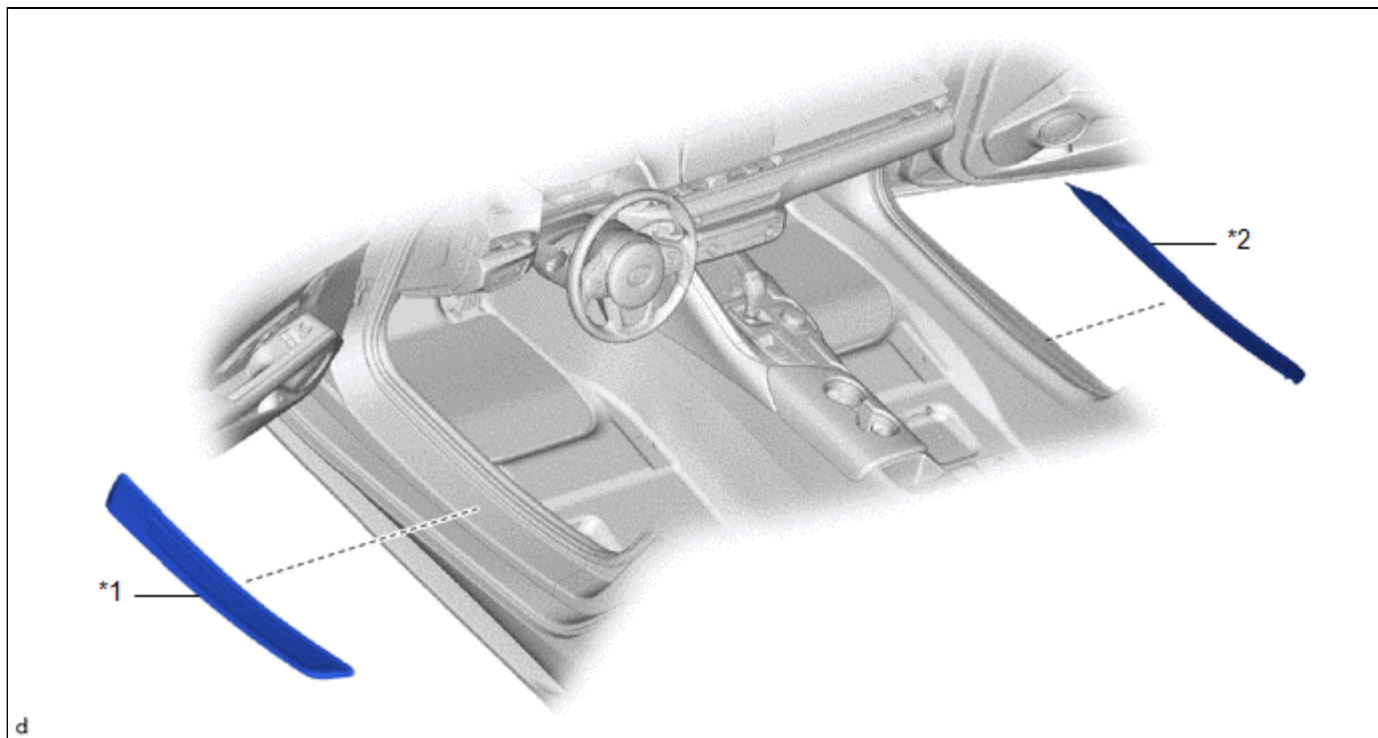
*11	NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY	*12	NO. 2 SIDE DEFROSTER NOZZLE
*13	STEERING COLUMN COVER	*14	INSTRUMENT PANEL SAFETY PAD ASSEMBLY
*15	FRONT PILLAR GARNISH COVER LH	*16	FRONT PILLAR GARNISH COVER RH
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



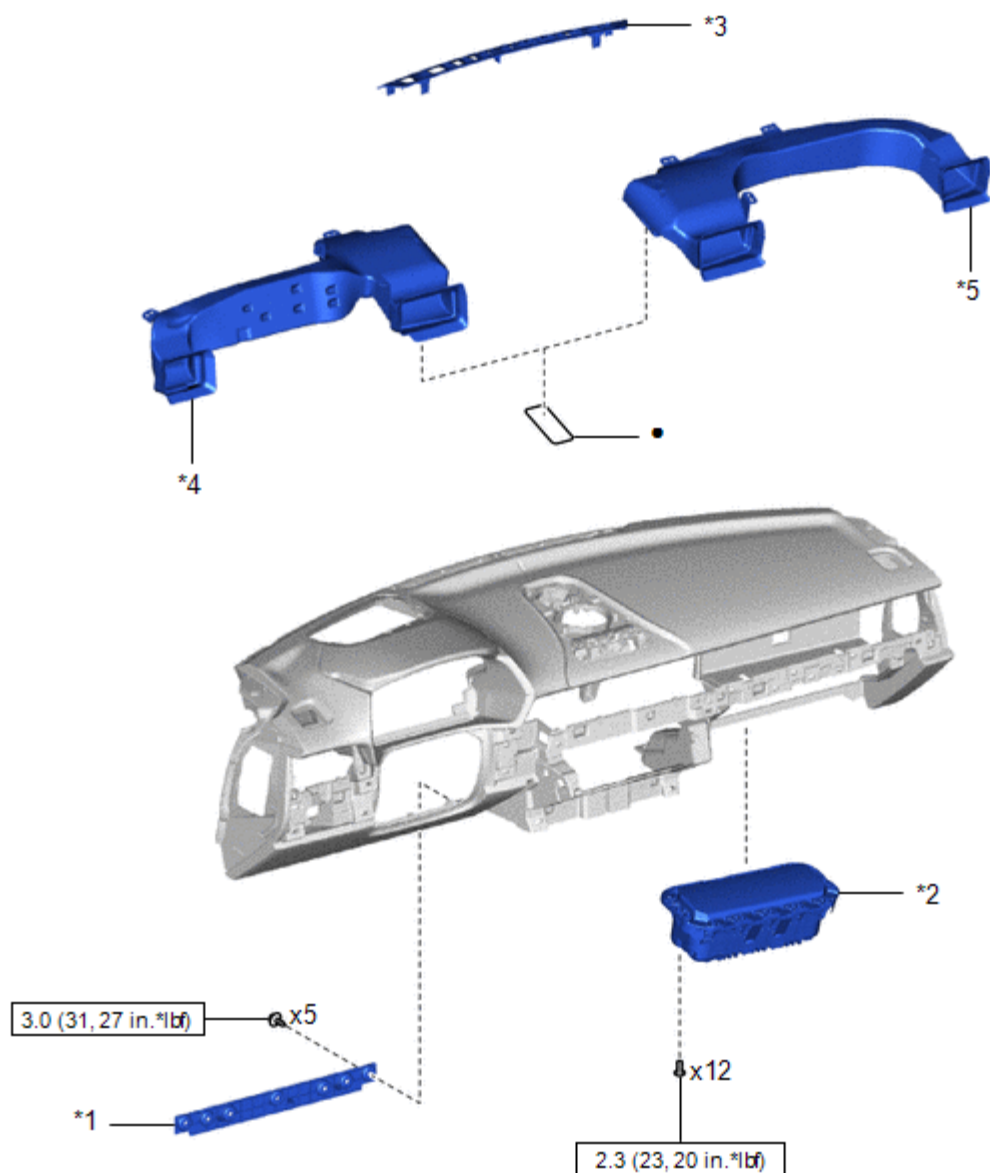
*1	GLOVE BOX LIGHT	*2	GLOVE COMPARTMENT DOOR LOCK CYLINDER ASSEMBLY
*3	INSTRUMENT PANEL PATCH	*4	OPENER
●	Non-reusable part	-	-

ILLUSTRATION




*1	FRONT DOOR SCUFF PLATE OUTSIDE LH	*2	FRONT DOOR SCUFF PLATE OUTSIDE RH
----	--------------------------------------	----	--------------------------------------

ILLUSTRATION



d

*1	INSTRUMENT LOWER PANEL	*2	INSTRUMENT PANEL PASSENGER WITHOUT DOOR AIRBAG ASSEMBLY
*3	NO. 1 DEFROSTER NOZZLE GARNISH	*4	NO. 1 HEATER TO REGISTER DUCT SUB-ASSEMBLY
*5	NO. 2 HEATER TO REGISTER DUCT SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: INSTRUMENT PANEL SAFETY PAD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.

- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE CONSOLE BOX ASSEMBLY

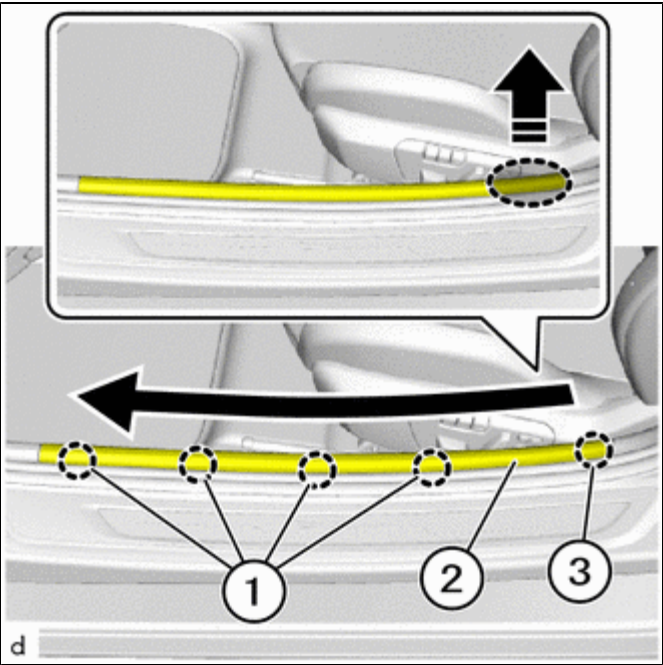
Click here [INFO](#)

2. REMOVE TURN SIGNAL SWITCH ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT DOOR SCUFF PLATE LH

(a) Detach the guide (3) and clips (1) in the order as shown in the illustration.

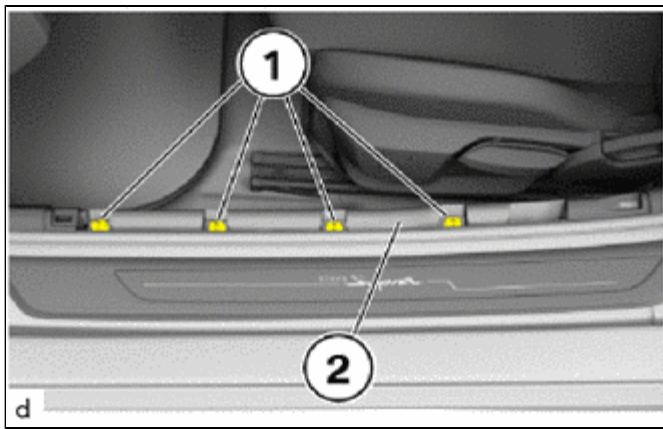


	Place Hands Here
	Order of Removal
	Remove in this Direction

(b) Remove the front door scuff plate LH (2).

HINT:

If necessary, remove the clips (1) from the floor panel (2) and attach to the front door scuff plate LH.



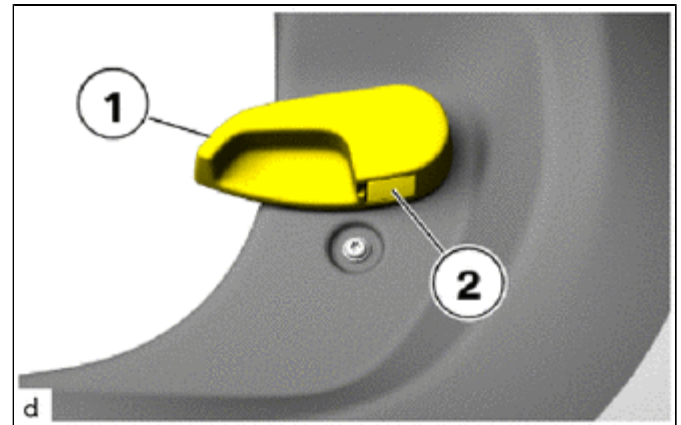
4. REMOVE FRONT DOOR SCUFF PLATE RH

HINT:

Use the same procedure as for the LH side.

5. REMOVE COWL SIDE TRIM SUB-ASSEMBLY LH

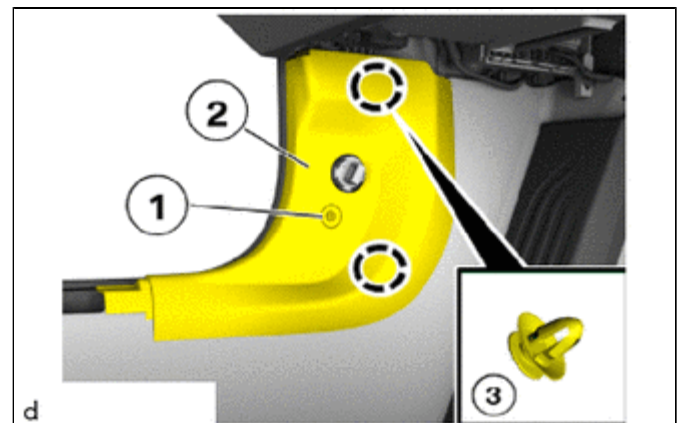
(a) Pull the hood lock release lever protector (1) towards the rear.



(b) Remove the locking wedge (2).

(c) Remove the hood lock release lever protector (1).

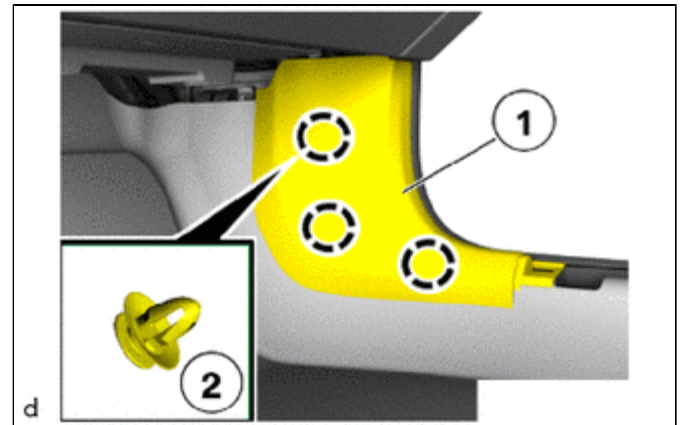
(d) Loosen T20 screw (1).



(e) Detach the clips (3) to remove the cowl side trim sub-assembly LH (2).

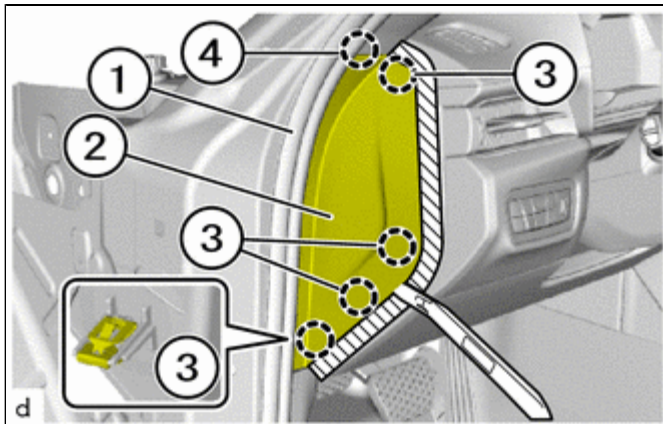
6. REMOVE COWL SIDE TRIM BOARD RH

(a) Detach the clips (2) to remove the cowl side trim board RH (1).



7. REMOVE NO. 2 INSTRUMENT SIDE PANEL

(a) Separate the front door opening trim weatherstrip LH (1) from the area of the No. 2 instrument side panel (2).



Protective Tape

(b) Apply protective tape as shown in the illustration.

(c) Using a molding remover A, detach the clips (3).

(d) Detach the guide (4) to remove the No. 2 instrument side panel (2).

8. REMOVE NO. 1 INSTRUMENT SIDE PANEL

HINT:

Use the same procedure as for the No. 2 side.

(a) Separate the front door opening trim weatherstrip RH from the area of the No. 1 instrument side panel.

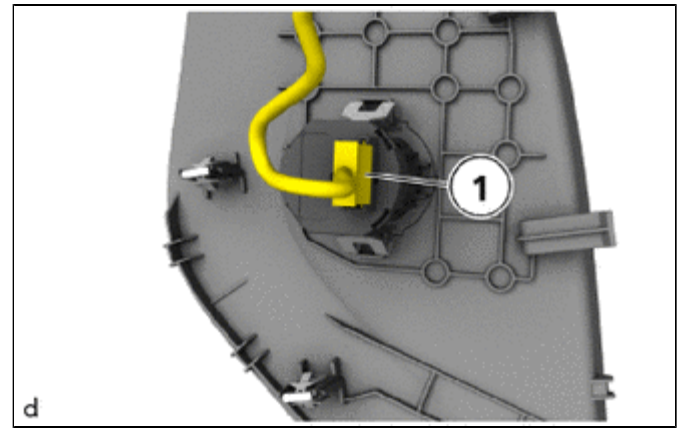
(b) Apply protective tape.

(c) Using a molding remover A, detach the clips.

(d) Detach the guide to remove the No. 1 instrument side panel.

(e) w/ Airbag Cut Off Switch:

(1) Unlock plug connection (1) and disconnect.

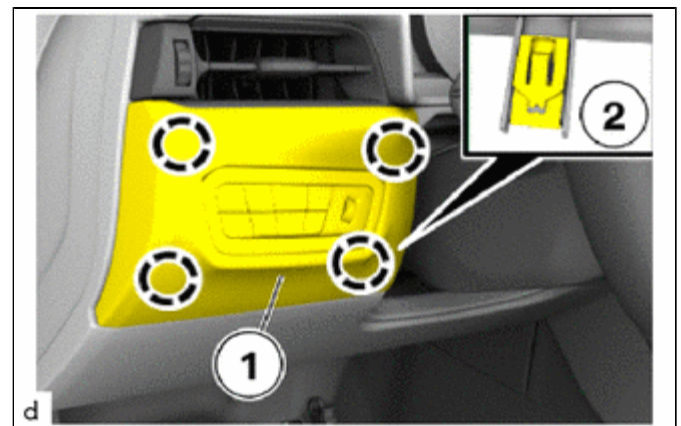


9. REMOVE COMBINATION METER ASSEMBLY

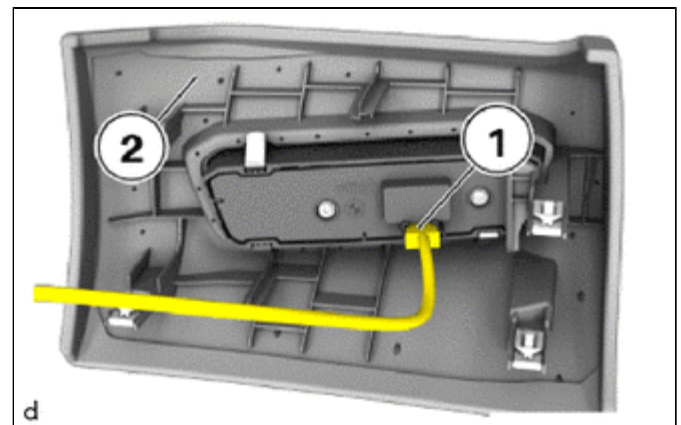
Click here [INFO](#)

10. REMOVE INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY

(a) Detach the clips (2) to remove the instrument panel finish panel sub-assembly (1).



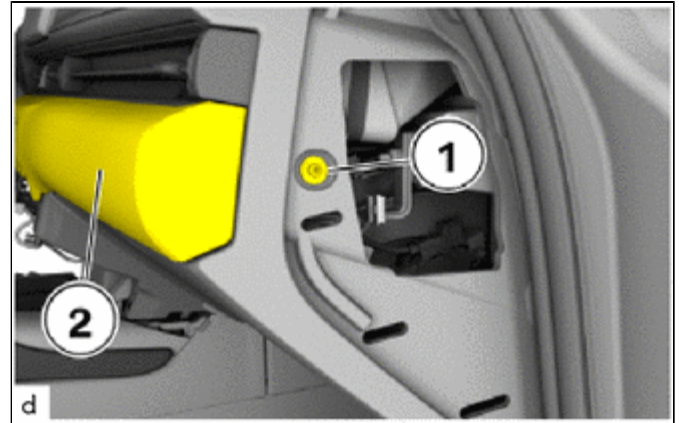
(b) Unlock and disconnect the plug connection (1).



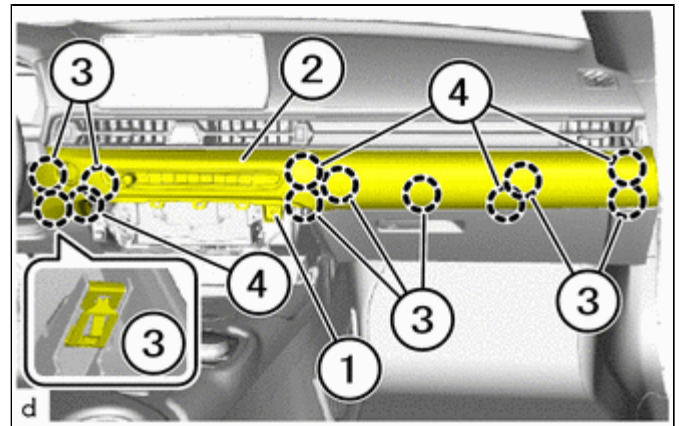
(c) Remove the instrument panel finish panel sub-assembly (2).

11. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

- (a) Loosen T20 screw (1) on the No. 1 instrument panel garnish sub-assembly (2).

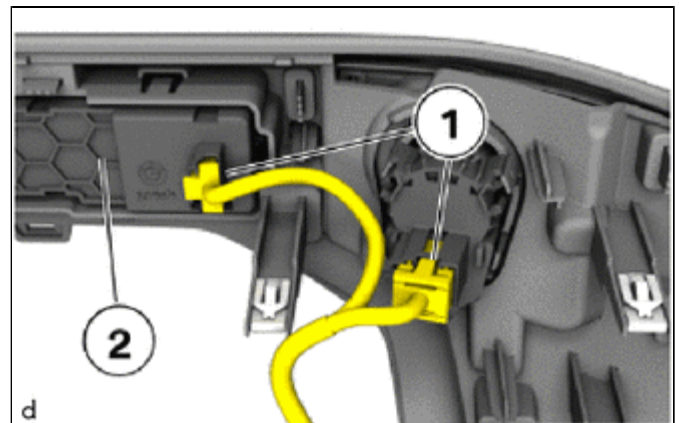


- (b) Loosen T20 screw (1).



- (c) Detach the clips (3) and guides (4) to remove the No. 1 instrument panel garnish sub-assembly (2).
- (d) Pull the No. 1 instrument panel garnish sub-assembly (2) from the instrument panel safety pad assembly slightly forward.

- (e) Unlock and disconnect plug connections (1).



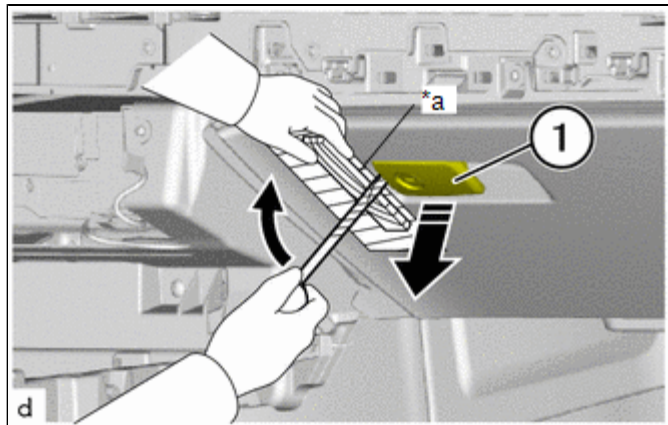
- (f) Remove the No. 1 instrument panel garnish sub-assembly (2).




12. REMOVE GLOVE COMPARTMENT DOOR LOCK CYLINDER ASSEMBLY

HINT:

Perform this procedure only when replacement of the glove compartment door lock cylinder assembly is necessary.

(a) Apply protective tape to the glove compartment door assembly as shown in the illustration.



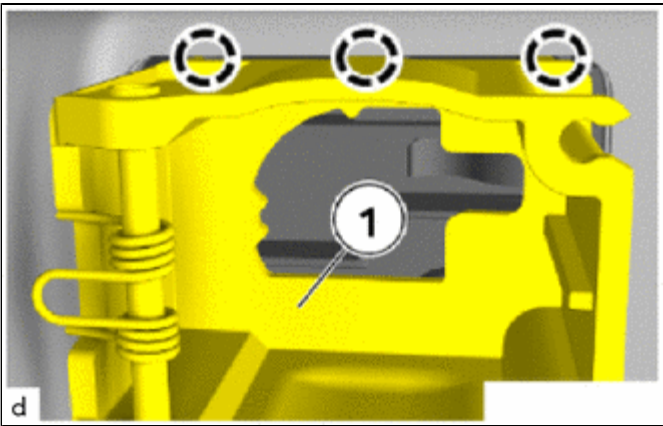
*a	Wooden Block
	Protective Tape
	Apply Pressure in this Direction
	Remove in this Direction

(b) Insert a screwdriver with its blade wrapped in protective tape into the gap between the opener (1) and the glove compartment door assembly.

(c) Using a wooden block as a fulcrum, apply pressure in the direction shown by the arrow in the illustration to break the opener (1) and remove it.

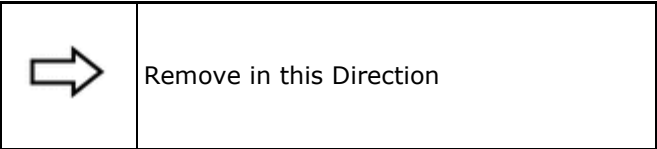
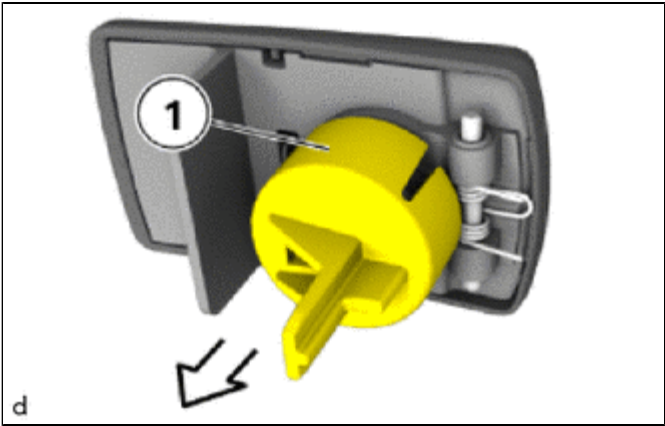
NOTICE:

Make sure the glove compartment door assembly is not damaged in the process.

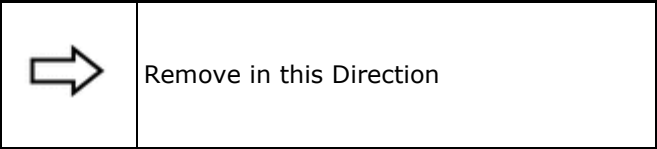
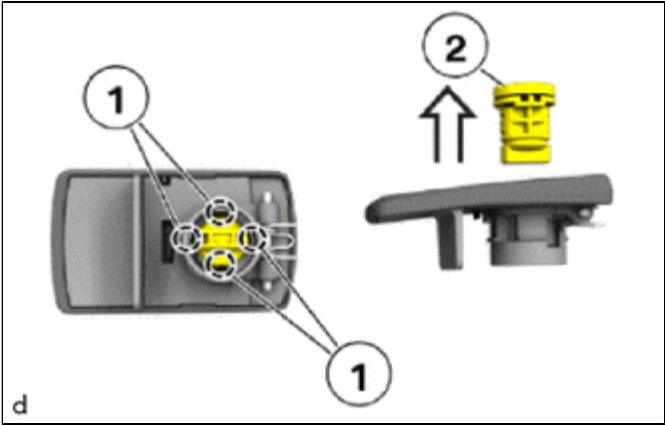


(d) Unclip the housing (1) with a flat screwdriver in the marked areas and remove.

(e) Remove the operating lever (1) in the direction of the arrow.

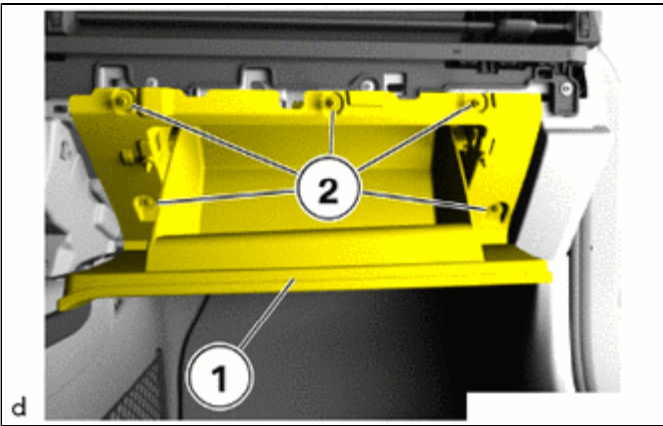


(f) Detach retaining lugs (1) and remove the glove compartment door lock cylinder assembly (2) in direction of arrow.



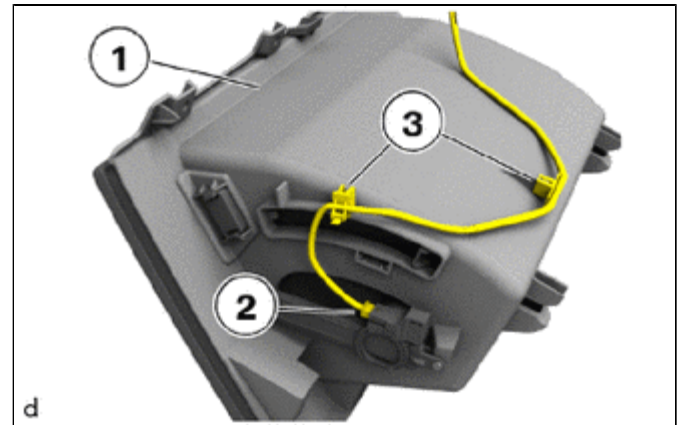
13. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY

(a) Open the glove compartment door assembly (1).



(b) Loosen T20 screws (2).

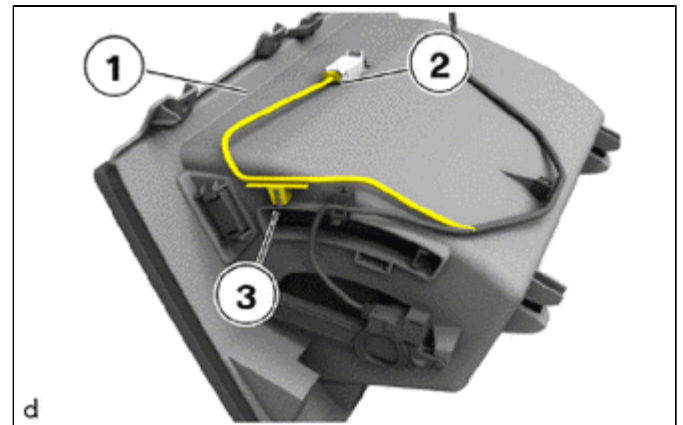
(c) Pull the glove compartment door assembly (1) out slightly and unlock and disconnect the plug connection (2).



(d) Detach the clips (3) of the wiring harness.

(e) w/ Glove Box Light:

(1) Unlock and disconnect plug connection (2).

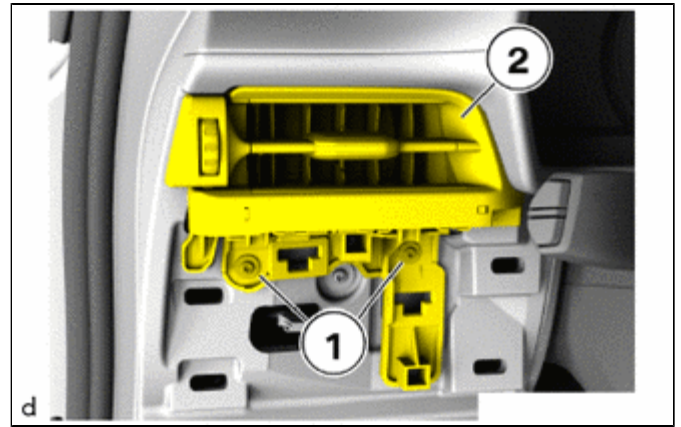


(2) Detach the clip (3) of the wiring harness.

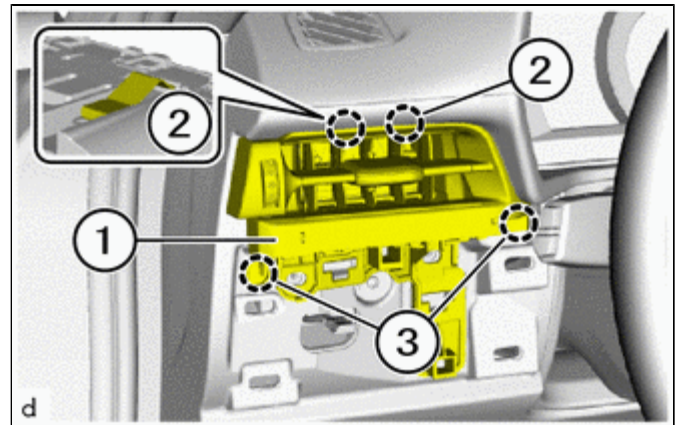
(f) Remove the glove compartment door assembly (1).

14. REMOVE NO. 1 INSTRUMENT PANEL REGISTER ASSEMBLY

(a) Loosen T20 screws (1) on the No. 1 instrument panel register assembly (2).

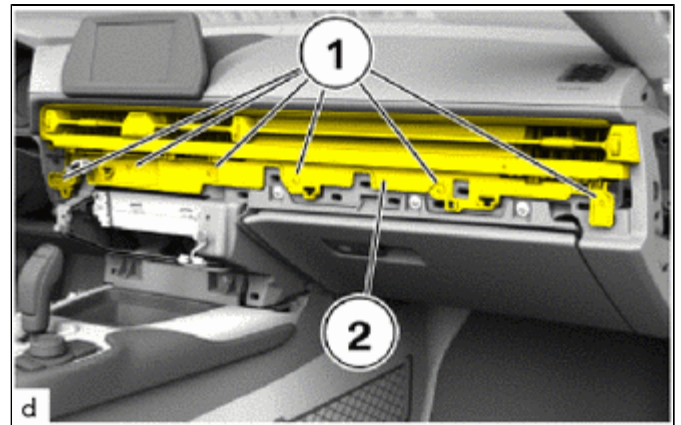


(b) Detach the clips (2) and guides (3) to remove the No. 1 instrument panel register assembly (1).

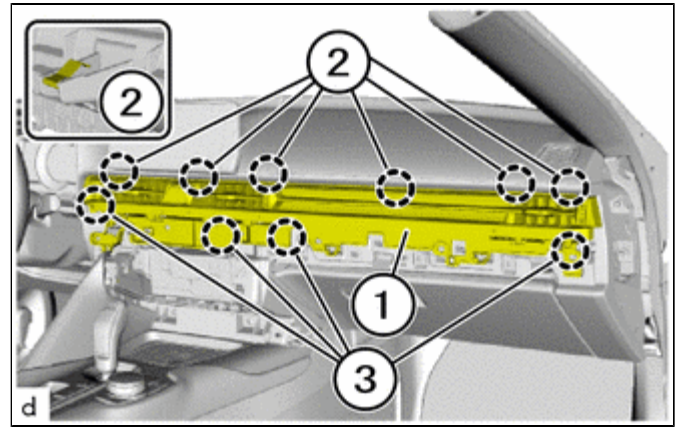


15. REMOVE NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY

(a) Loosen T20 screws (1) on the No. 2 instrument panel register assembly (2).

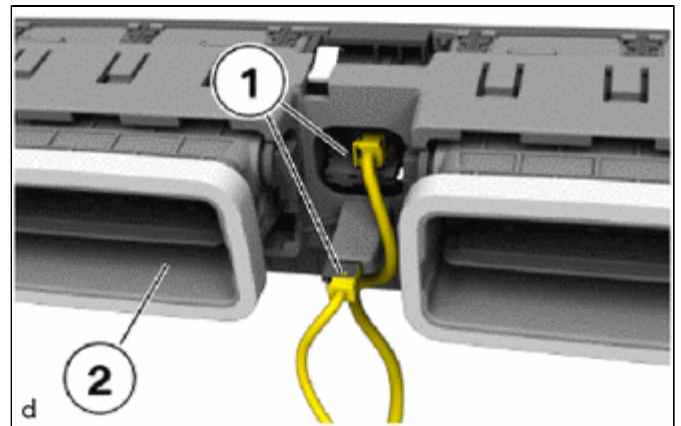


(b) Detach the clips (2) and guides (3).



(c) Pull the No. 2 instrument panel register assembly (1) slightly forward.

(d) Unlock and disconnect plug connections (1).



(e) Remove the No. 2 instrument panel register assembly (2).

16. REMOVE FRONT PILLAR GARNISH LH

CAUTION:

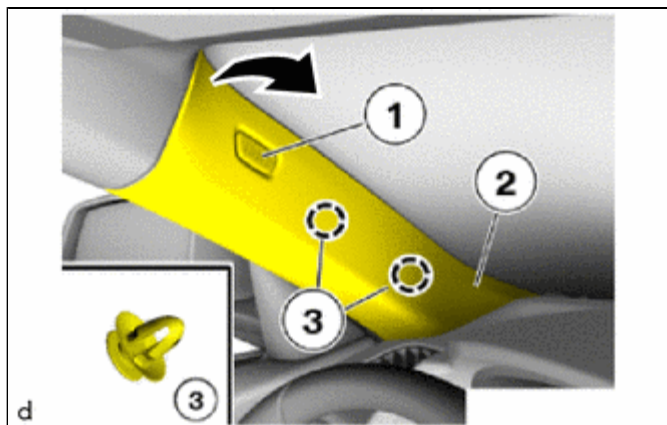
- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

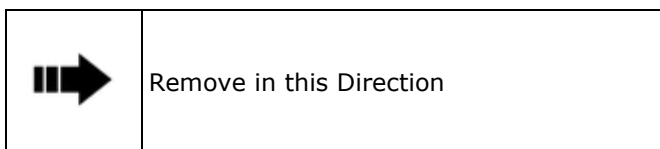
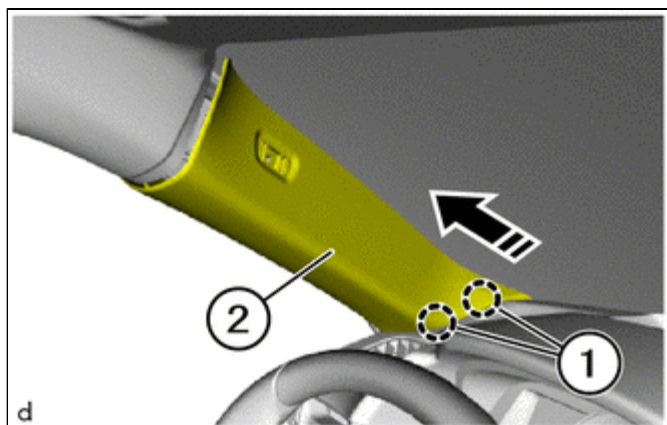
[Click here](#) **INFO**

(a) Remove the front pillar garnish cover LH (1) and loosen T25 screw below it.

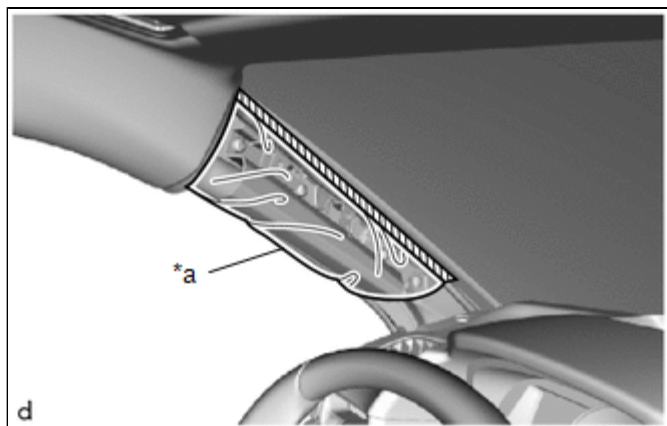


(b) Pull up the front pillar garnish LH (2) to detach the clips (3).

(c) Detach the guides (1) to remove the front pillar garnish LH (2) in the direction of the arrow.



(d) Protect the curtain shield airbag assembly.



*a	Protective Cover
	Adhesive Tape



- (1) Completely cover the curtain shield airbag assembly with a cloth or nylon sheet and secure the ends of the cover with adhesive tape as shown in the illustration.

NOTICE:

Cover the curtain shield airbag assembly with a protective cover as soon as the front pillar garnish LH is removed.

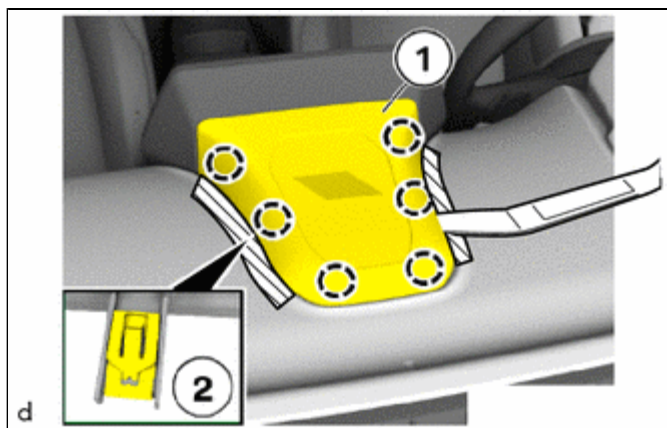
17. REMOVE FRONT PILLAR GARNISH RH

HINT:

Use the same procedure as for the LH side.

18. REMOVE INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL

- (a) Apply protective tape as shown in the illustration.



Protective Tape

- (b) Using a molding remover A, detach the clips (2) to remove the instrument cluster finish center upper panel (1).

19. REMOVE FRONT NO. 4 SPEAKER ASSEMBLY

Click here [INFO](#)

20. REMOVE FRONT NO. 3 SPEAKER ASSEMBLY

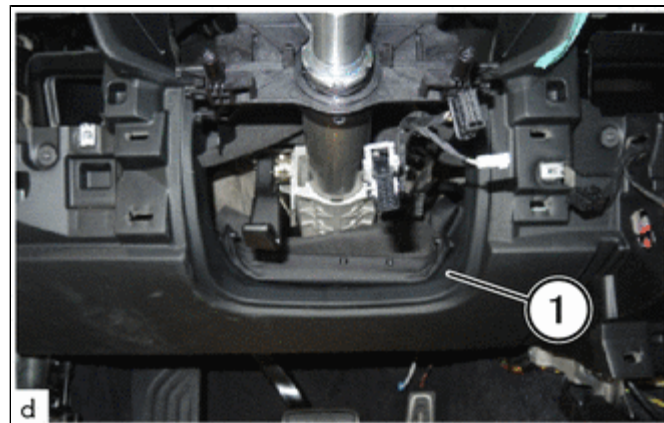
Click here [INFO](#)

21. REMOVE MULTI-DISPLAY ASSEMBLY

Click here [INFO](#)

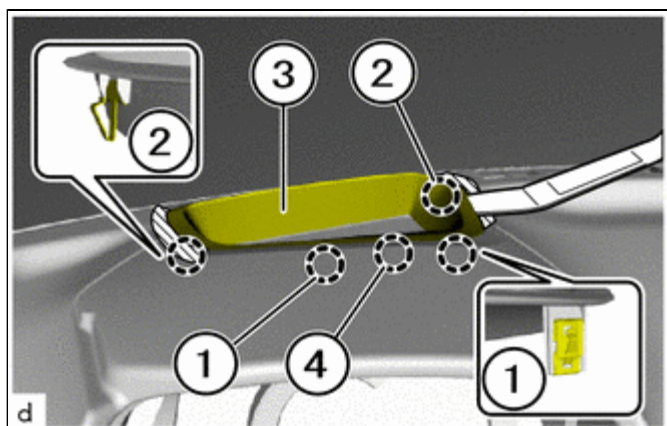
22. REMOVE STEERING COLUMN COVER

(a) Remove the steering column cover (1).



23. REMOVE INSTRUMENT CLUSTER FINISH END PANEL (w/ Headup Display)

(a) Apply protective tape as shown in the illustration.

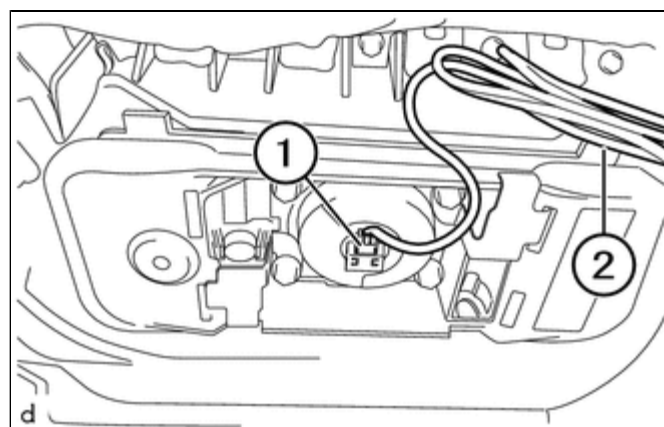


(b) Using a molding remover A, detach the clips (2), clips (1) and guide (4) to remove the instrument cluster finish end panel (3).

24. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

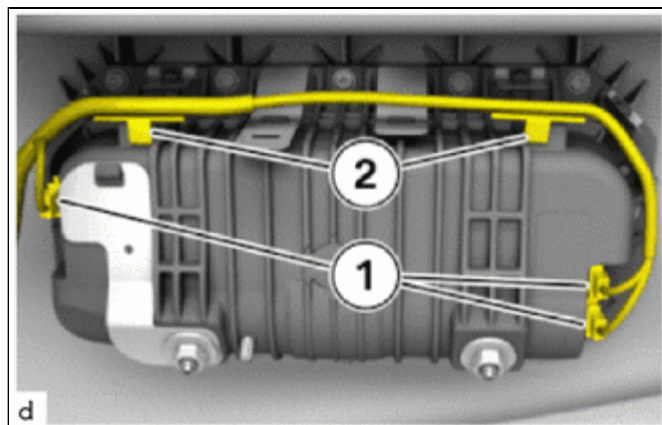
(a) Instrument panel passenger airbag assembly for Single Type:

(1) Unlock and disconnect the plug connection (1) and detach the clip (2).

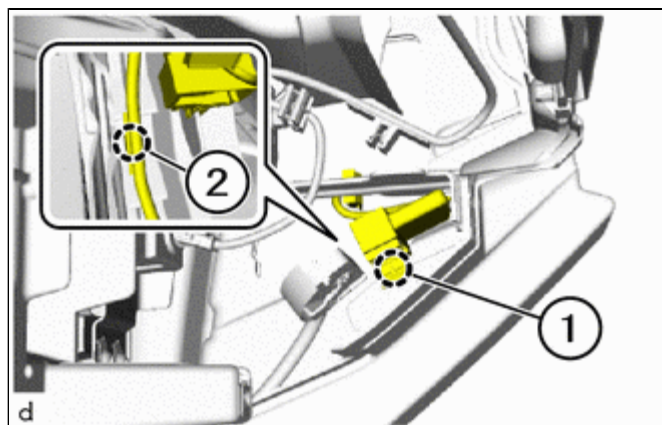


(b) Instrument panel passenger airbag assembly for Dual Type:

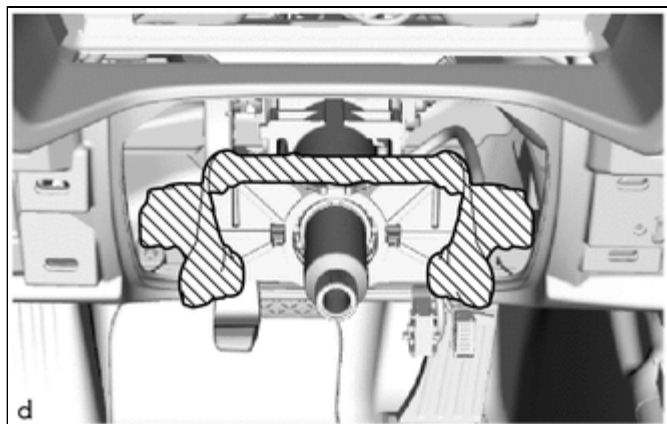
(1) Unlock and disconnect the plug connections (1) and detach the clips (2).



(c) Detach the clips (1) and clips (2) of wiring harness.

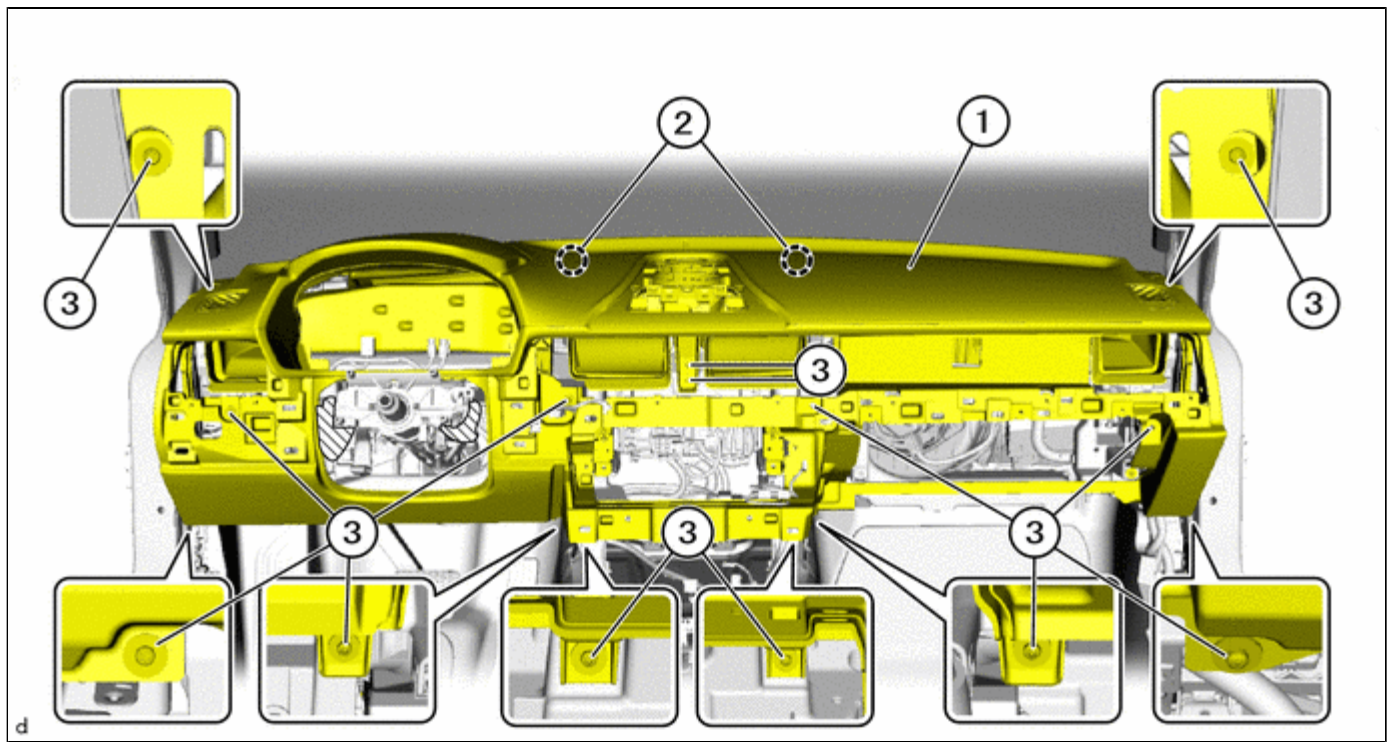



(d) Apply protective tape as shown in the illustration.



Protective Tape

(e) Loosen T20 screws (3).



	Protective Tape	-	-
---	-----------------	---	---

(f) Detach the guides (2) to remove the instrument panel safety pad assembly (1).

25. REMOVE AIRBAG CUT OFF SWITCH CYLINDER SUB-ASSEMBLY (w/ Airbag Cut Off Switch)

HINT:

Perform this procedure only when replacement of the instrument side panel is necessary.

Click here [INFO](#)

26. REMOVE NO. 1 LIGHT CONTROL SWITCH ASSEMBLY

HINT:

Perform this procedure only when replacement of the instrument panel finish panel sub-assembly is necessary.

Click here [INFO](#)

27. REMOVE RADIO RECEIVER SWITCH KNOB

HINT:

Perform this procedure only when replacement of the No. 1 instrument panel garnish sub-assembly is necessary.

Click here [INFO](#)

28. REMOVE PUSH START SWITCH

HINT:

Perform this procedure only when replacement of the No. 1 instrument panel garnish sub-assembly is necessary.

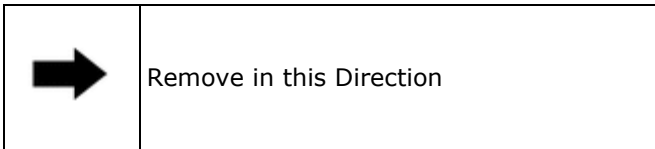
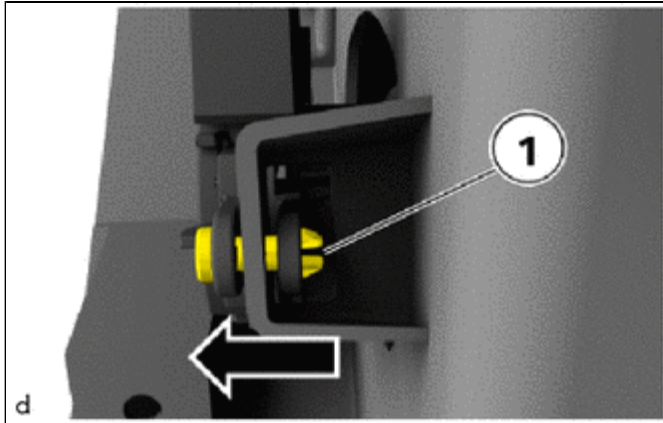
Click here [INFO](#)

29. REMOVE GLOVE COMPARTMENT DOOR STOPPER SUB-ASSEMBLY

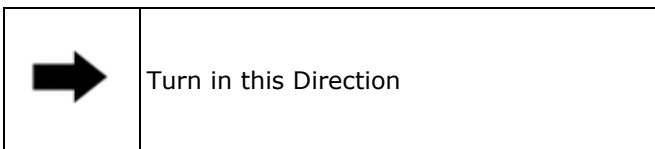
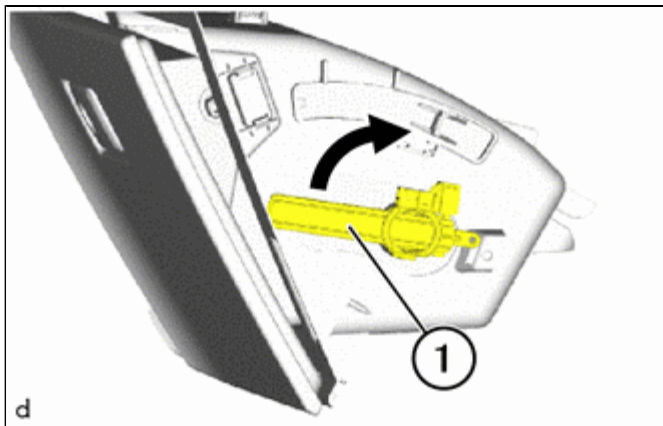
HINT:

Perform this procedure only when replacement of the glove compartment door stopper sub-assembly is necessary.

(a) Remove the locking pin (1) in the direction of the arrow.



(b) Open the glove compartment door assembly slightly.



(c) Turn the glove compartment door stopper sub-assembly (1) clockwise approximately 90° and remove it.

30. REMOVE HAZARD WARNING SIGNAL SWITCH ASSEMBLY

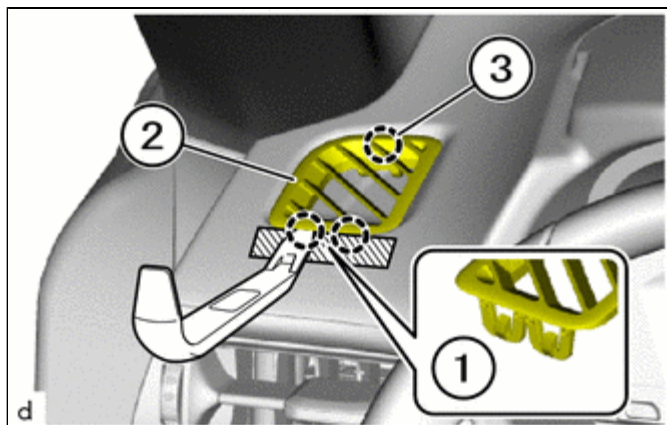
HINT:


Perform this procedure only when replacement of the No. 2 instrument panel register assembly is necessary.

[Click here](#) 

31. REMOVE NO. 2 SIDE DEFROSTER NOZZLE

(a) Apply protective tape as shown in the illustration.



	Protective Tape
--	-----------------

(b) Using a molding remover A, detach the claws (1).

(c) Detach the guide (3) to remove the No. 2 side defroster nozzle (2).

32. REMOVE NO. 1 SIDE DEFROSTER NOZZLE

HINT:

Use the same procedure as for the No. 2 side.

33. REMOVE GLOVE BOX LIGHT (w/ Glove Box Light)

HINT:

Perform this procedure only when replacement of the glove compartment door assembly is necessary.

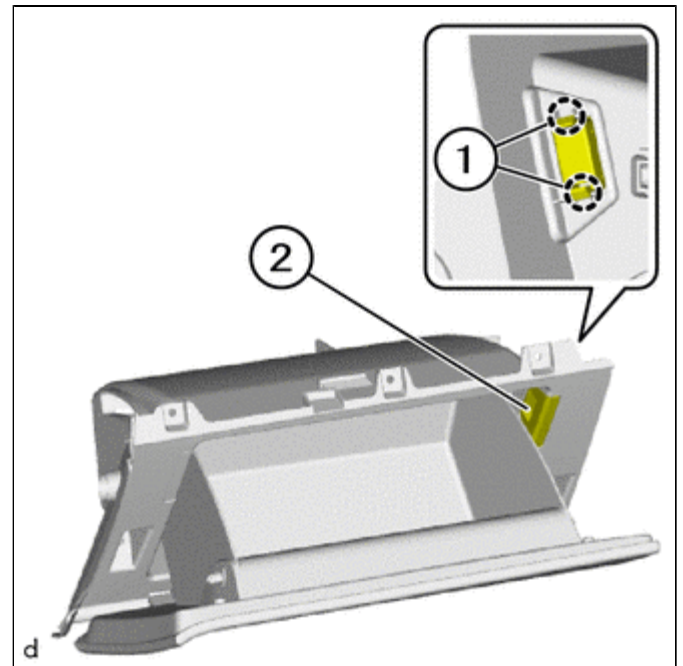
Click here [INFO](#)

34. REMOVE INSTRUMENT PANEL PATCH

HINT:

- Perform this procedure only when replacement of the instrument panel patch is necessary.
- Use the same procedures for the opposite side.

(a) Detach the claws (1) to remove the instrument panel patch (2).

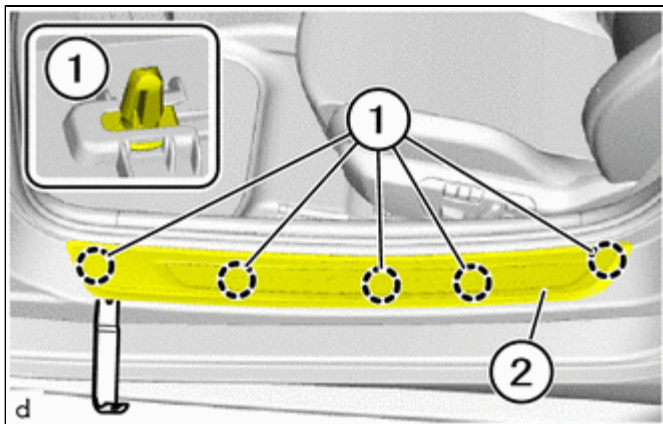


35. REMOVE FRONT DOOR SCUFF PLATE OUTSIDE LH

HINT:

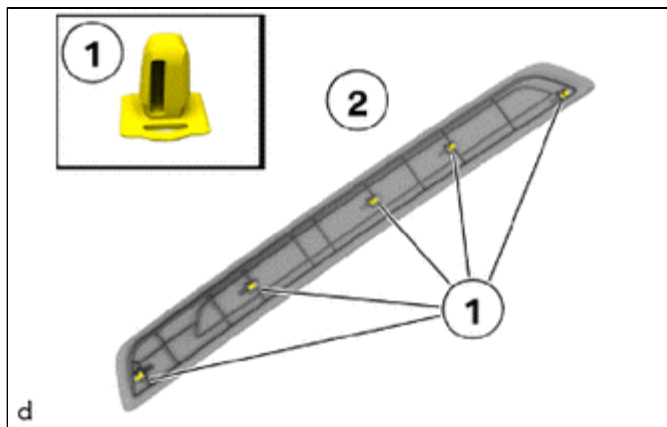
Perform this procedure only when replacement of the front door scuff plate outside LH is necessary.

(a) Using a molding remover B, detach the clips (1) to remove the front door scuff plate outside LH (2).



HINT:

If necessary, remove the clips (1) remaining in the body and mount them on the front door scuff plate outside LH (2).



36. REMOVE FRONT DOOR SCUFF PLATE OUTSIDE RH

HINT:

Use the same procedure as for the LH side.

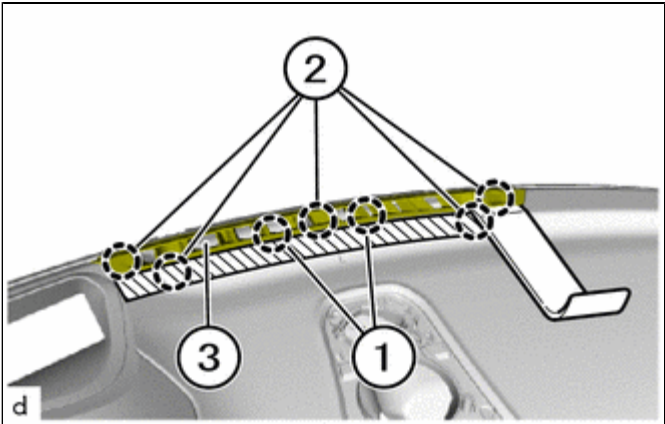
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: INSTRUMENT PANEL SAFETY PAD: DISASSEMBLY; 2020 MY Supra [03/2019 -]		


DISASSEMBLY

PROCEDURE

1. REMOVE NO. 1 DEFROSTER NOZZLE GARNISH

(a) Apply protective tape as shown in the illustration.



	Protective Tape
---	-----------------

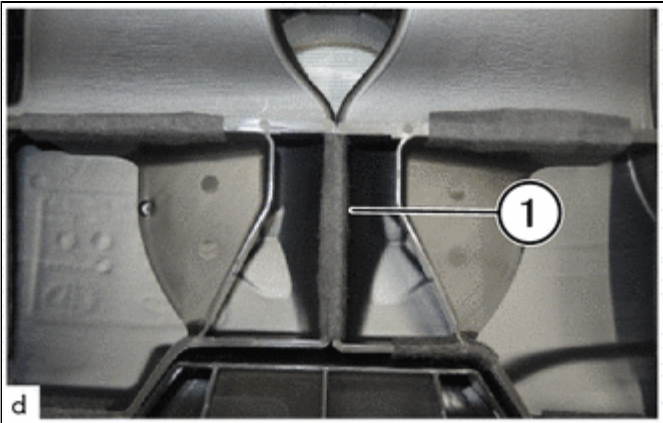
(b) Using a molding remover D, detach the clips (2) and claws (1) to remove the No. 1 defroster nozzle garnish (3).

2. REMOVE INSTRUMENT PANEL PASSENGER WITHOUT DOOR AIRBAG ASSEMBLY

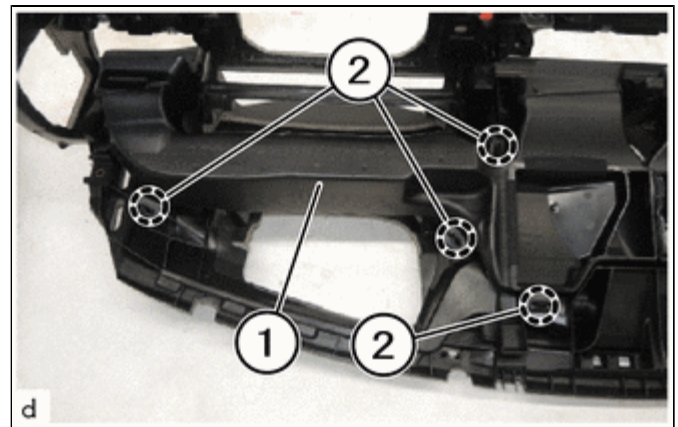
Click here [INFO](#)

3. REMOVE NO. 1 HEATER TO REGISTER DUCT SUB-ASSEMBLY

(a) Peel off the adhesive tape (1).



(b) Detach the guides (2) to remove the No. 1 heater to register duct sub-assembly (1).



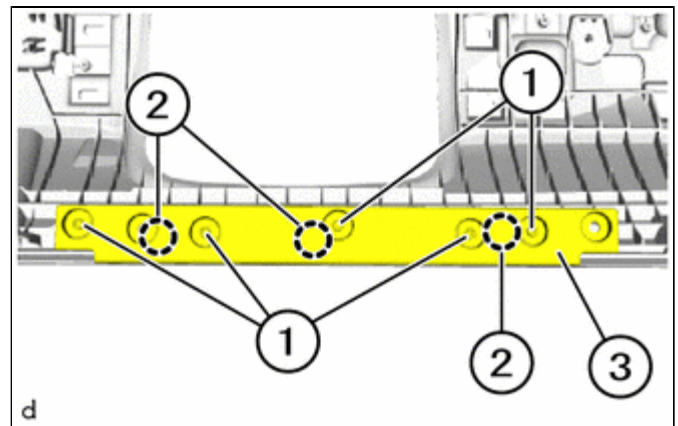
4. REMOVE NO. 2 HEATER TO REGISTER DUCT SUB-ASSEMBLY

HINT:

Use the same procedure as for the No. 1 side.

5. REMOVE INSTRUMENT LOWER PANEL

(a) Loosen T20 screws (1).



(b) Detach the guides (2) to remove the instrument lower panel (3).

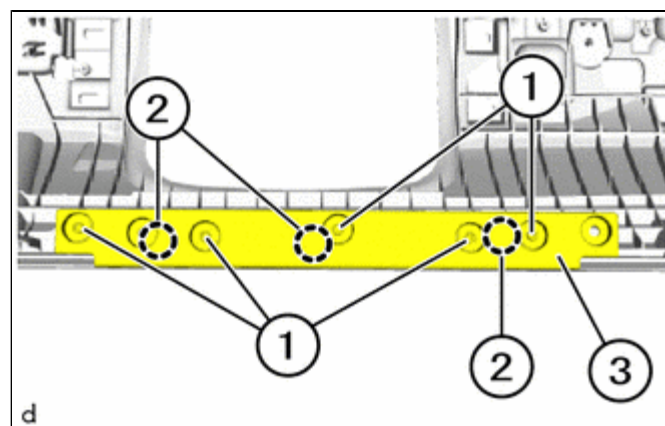
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: INSTRUMENT PANEL SAFETY PAD: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL INSTRUMENT LOWER PANEL

- (a) Attach the guides (2) to install the instrument lower panel (3).



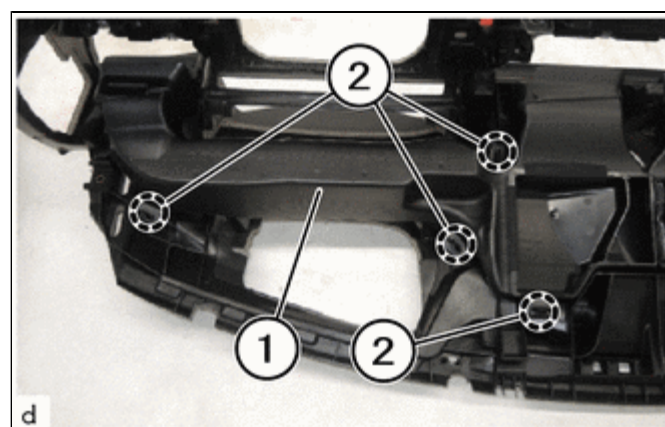
- (b) Tighten the T20 screws (1).

Torque:

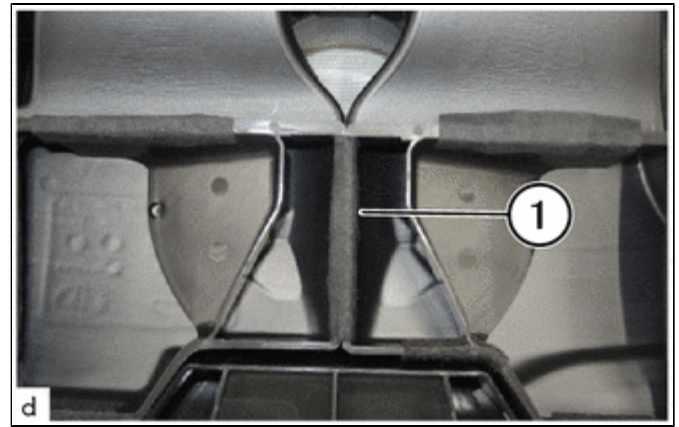
3.0 N·m {31 kgf·cm, 27 in·lbf}

2. INSTALL NO. 1 HEATER TO REGISTER DUCT SUB-ASSEMBLY

- (a) Attach the guides (2) to install the No. 1 heater to register duct sub-assembly (1).



(b) Replace the adhesive tape (1) and install it.



3. INSTALL NO. 2 HEATER TO REGISTER DUCT SUB-ASSEMBLY

HINT:

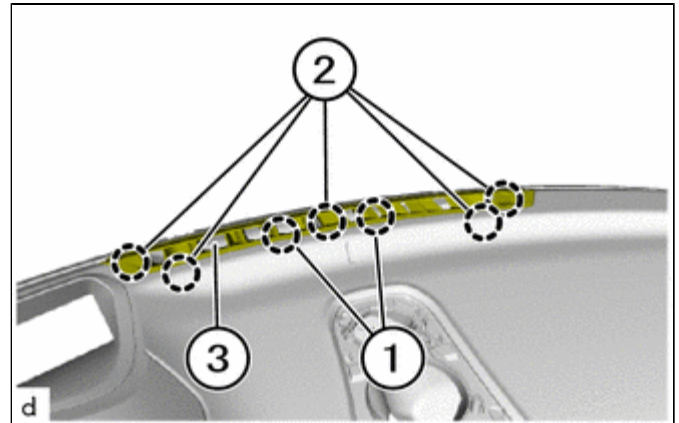
Use the same procedure as for the No. 1 side.

4. INSTALL INSTRUMENT PANEL PASSENGER WITHOUT DOOR AIRBAG ASSEMBLY

Click here [INFO](#)

5. INSTALL NO. 1 DEFROSTER NOZZLE GARNISH

(a) Attach the clips (2) and claws (1) to install the No. 1 defroster nozzle garnish (3).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: INSTRUMENT PANEL SAFETY PAD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

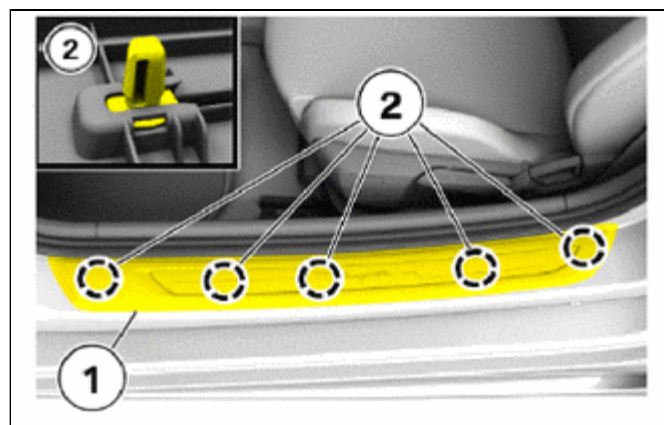
PROCEDURE

1. INSTALL FRONT DOOR SCUFF PLATE OUTSIDE LH

HINT:

Perform this procedure only when replacement of the front door scuff plate outside LH is necessary.

- (a) Attach the clips (2) to install the front door scuff plate outside LH (1).



2. INSTALL FRONT DOOR SCUFF PLATE OUTSIDE RH

HINT:

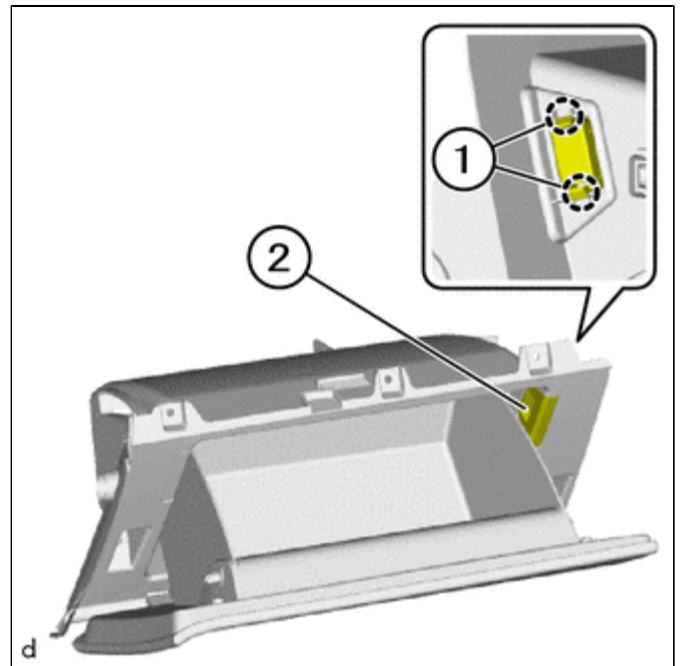
Use the same procedure as for the LH side.

3. INSTALL INSTRUMENT PANEL PATCH

HINT:

- Perform this procedure only when replacement of the instrument panel patch is necessary.
- Use the same procedures for the opposite side.

- (a) Attach the claws (1) to install the instrument panel patch (2).



4. INSTALL GLOVE BOX LIGHT (w/ Glove Box Light)

HINT:

Perform this procedure only when replacement of the glove compartment door assembly is necessary.

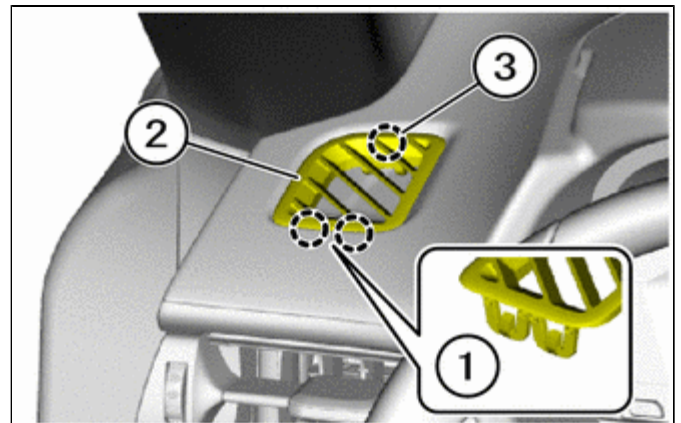
Click here [INFO](#)

5. INSTALL NO. 2 SIDE DEFROSTER NOZZLE

HINT:

Perform this procedure only when replacement of the No. 2 side defroster nozzle is necessary.

(a) Attach the guide (3) and claws (1) to install the No. 2 side defroster nozzle (2).



6. INSTALL NO. 1 SIDE DEFROSTER NOZZLE

HINT:

Use the same procedure as for the No. 2 side.

7. INSTALL HAZARD WARNING SIGNAL SWITCH ASSEMBLY

HINT:

Perform this procedure only when replacement of the No. 2 instrument panel register assembly is necessary.

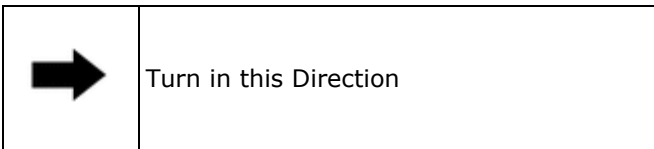
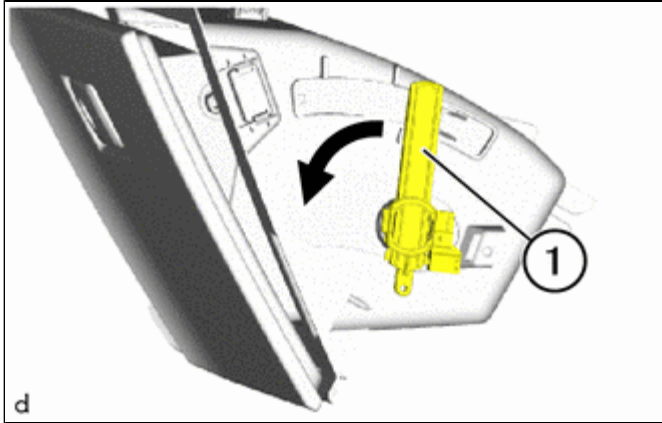
Click here [INFO](#)

8. INSTALL GLOVE COMPARTMENT DOOR STOPPER SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the glove compartment door stopper sub-assembly is necessary.

(a) Open the glove compartment door assembly slightly.



(b) Turn the glove compartment door stopper sub-assembly (1) counterclockwise approximately 90° and install it.

(c) Install the locking pin.

9. INSTALL NO. 1 LIGHT CONTROL SWITCH ASSEMBLY

HINT:

Perform this procedure only when replacement of the instrument panel finish panel sub-assembly is necessary.

Click here [INFO](#)

10. INSTALL PUSH START SWITCH

HINT:

Perform this procedure only when replacement of the No. 1 instrument panel garnish sub-assembly is necessary.

Click here [INFO](#)

11. INSTALL RADIO RECEIVER SWITCH KNOB

HINT:

Perform this procedure only when replacement of the No. 1 instrument panel garnish sub-assembly is necessary.

Click here [INFO](#)

12. INSTALL AIRBAG CUT OFF SWITCH CYLINDER SUB-ASSEMBLY (w/ Airbag Cut Off Switch)

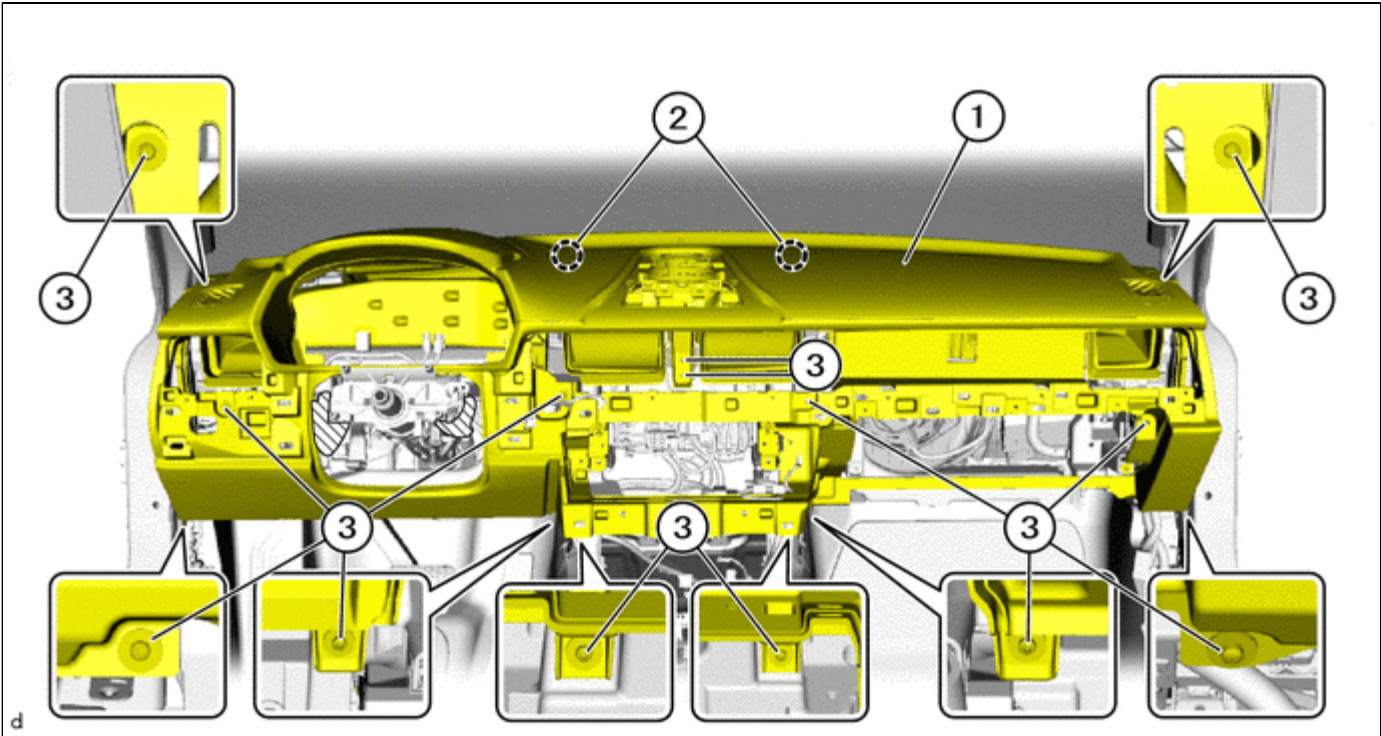
HINT:


Perform this procedure only when replacement of the instrument side panel is necessary.

Click here [INFO](#)

13. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

(a) Attach the guides (2) to install the instrument panel safety pad assembly (1).



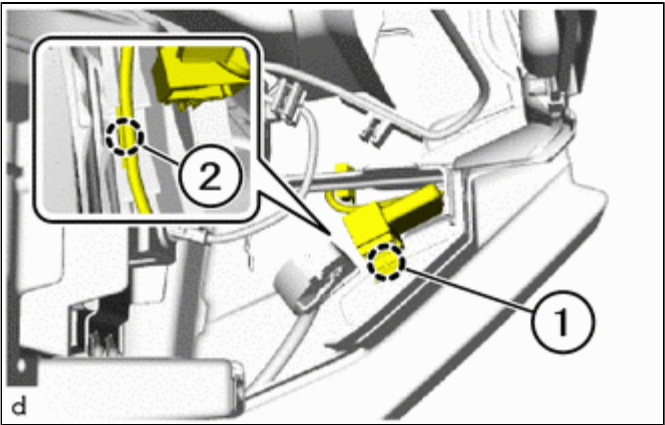
	Protective Tape	-	-
---	-----------------	---	---

(b) Remove the protective Tape.

(c) Tighten the T20 screws (3).

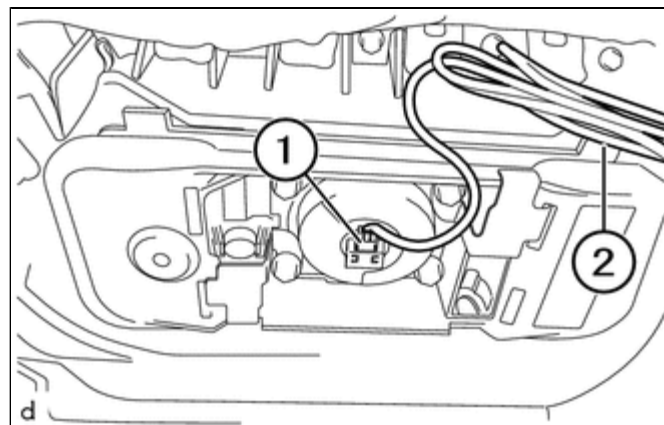
Torque:
1.8 N·m {18 kgf·cm, 16 in·lbf}

(d) Attach the clips (1) and clips (2) of wiring harness.



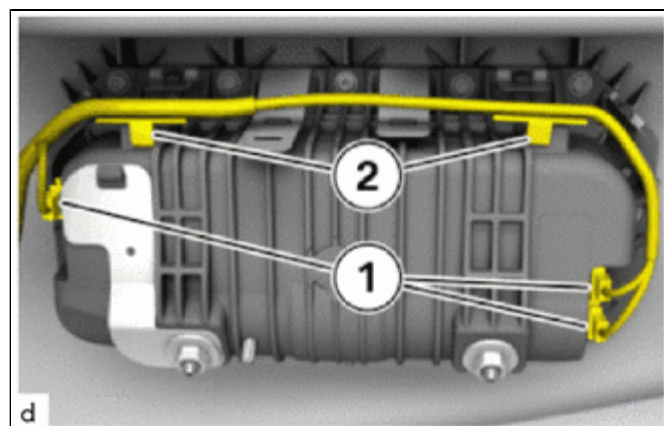
(e) Instrument panel passenger airbag assembly for Single Type:

- (1) Connect and lock the connector (1) and attach the clip (2).



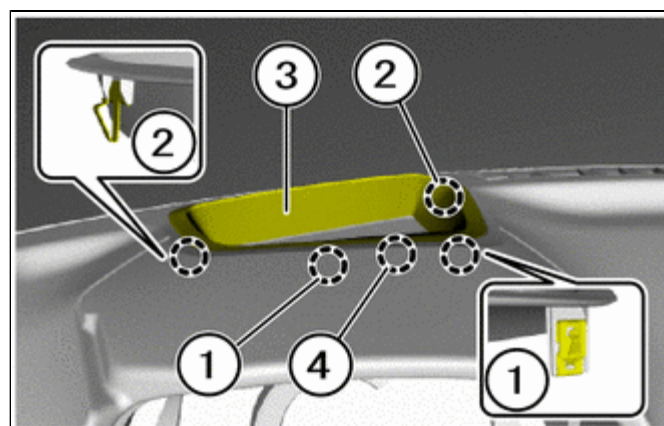
- (f) Instrument panel passenger airbag assembly for Dual Type:

- (1) Connect and lock the connectors (1) and attach the clips (2).



14. INSTALL INSTRUMENT CLUSTER FINISH END PANEL (w/ Headup Display)

- (a) Attach the clips (2), clips (1) and guide (4) to install the instrument cluster finish end panel (3).



15. INSTALL STEERING COLUMN COVER

- (a) Install the steering column cover.

16. INSTALL MULTI-DISPLAY ASSEMBLY

Click here [INFO](#)

17. INSTALL FRONT NO. 3 SPEAKER ASSEMBLY

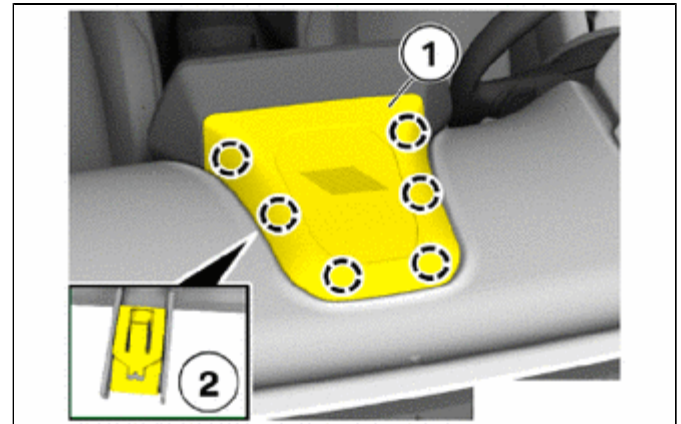
Click here [INFO](#)

18. INSTALL FRONT NO. 4 SPEAKER ASSEMBLY

Click here [INFO](#)

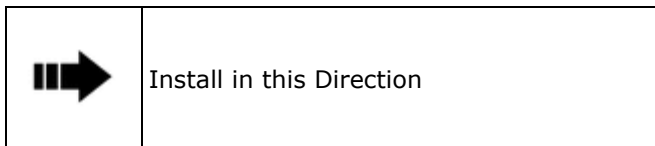
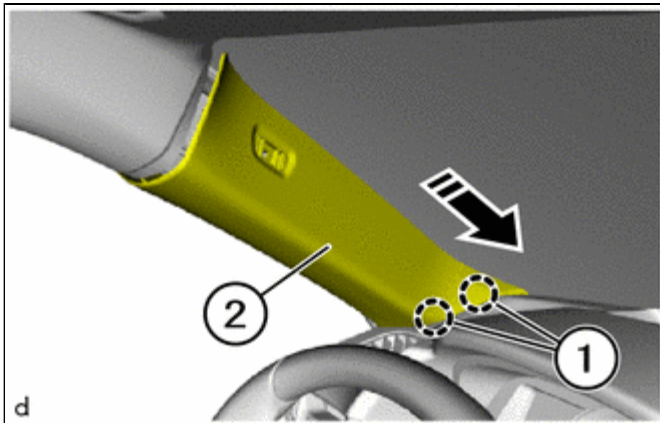
19. INSTALL INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL

- (a) Attach the clips (2) to install the instrument cluster finish center upper panel (1).

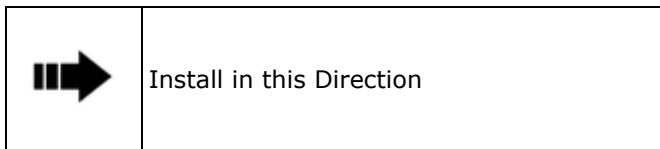
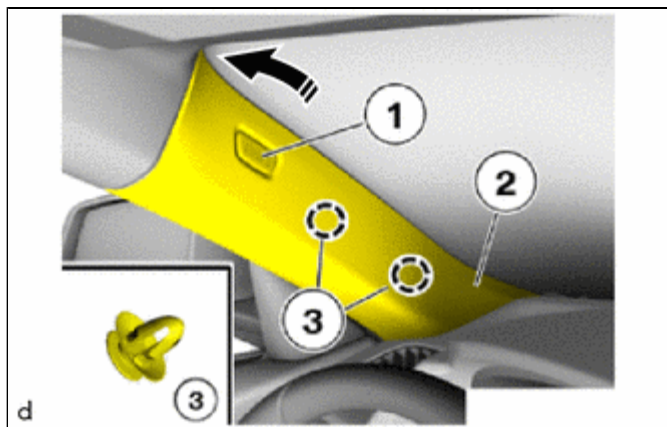


20. INSTALL FRONT PILLAR GARNISH LH

- (a) Remove the adhesive tape and protective cover.
(b) Attach the guides (1) of front pillar garnish LH (2) in the direction of the arrow.



- (c) Attach the clips (3) to install the front pillar garnish LH (2).



(d) Tighten the T25 screw.

Torque:

2.5 N·m {25 kgf·cm, 22 in·lbf}

(e) Install the front pillar garnish cover LH (1).

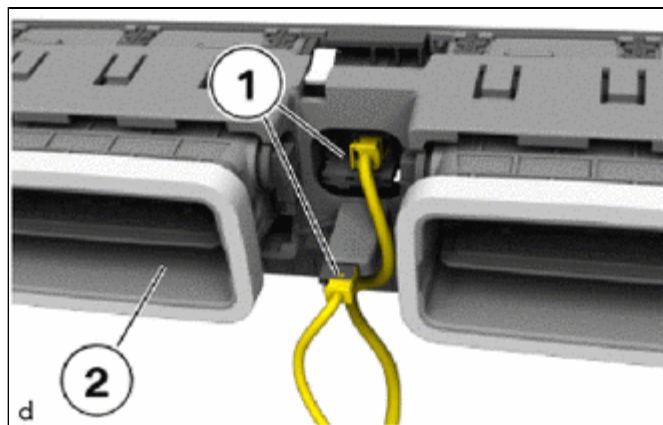
21. INSTALL FRONT PILLAR GARNISH RH

HINT:

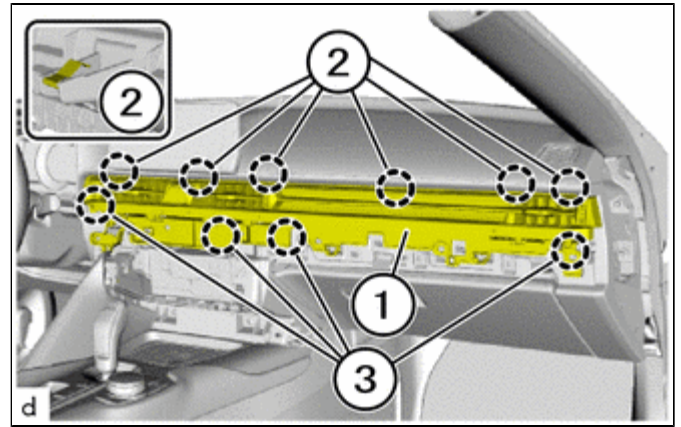
Use the same procedure as for the LH side.

22. INSTALL NO. 2 INSTRUMENT PANEL REGISTER ASSEMBLY

(a) Connect connectors (1) and lock to No. 2 instrument panel register assembly (2).



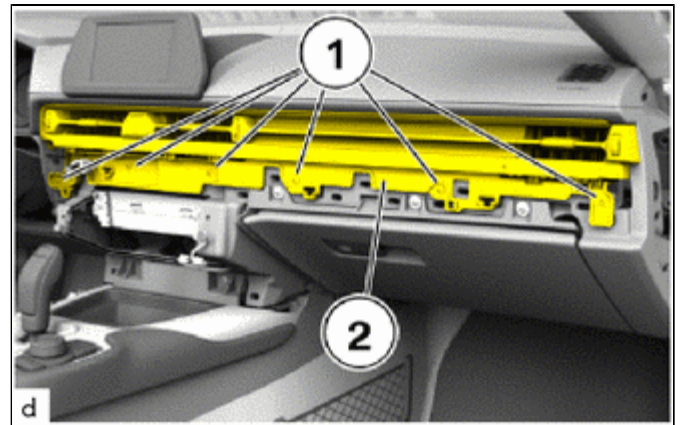
(b) Attach the guides (3) and clips (2) to install the No. 2 instrument panel register assembly (1).



(c) Tighten the T20 screws (1) on the No. 2 instrument panel register assembly (2).

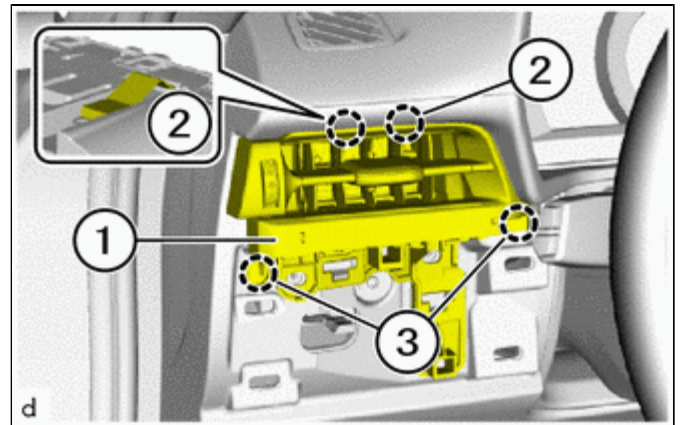
Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}



23. INSTALL NO. 1 INSTRUMENT PANEL REGISTER ASSEMBLY

(a) Attach the guides (3) and clips (2) to install the No. 1 instrument panel register assembly (1).

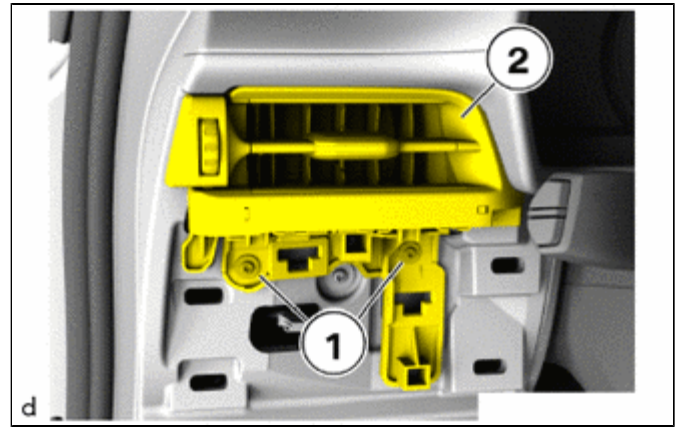


(b) Tighten the T20 screws (1) on the No. 1 instrument panel

register assembly (2).

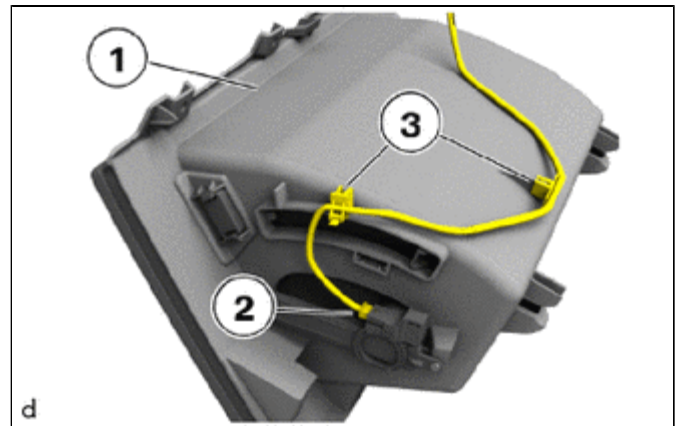
Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}



24. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY

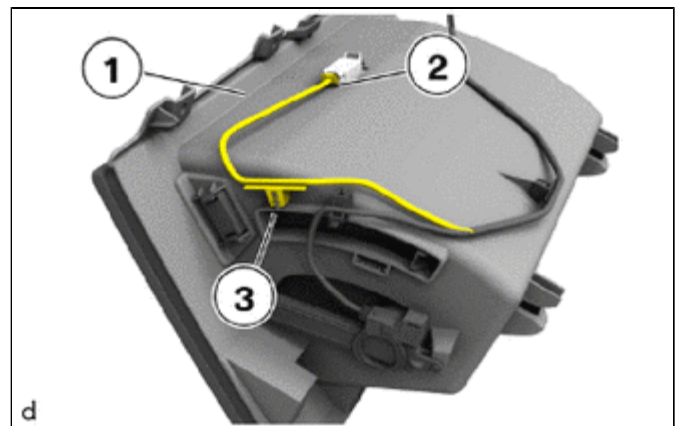
(a) Attach the clips (3) of the wiring harness to the glove compartment door assembly (1).



(b) Connect connector (2) and lock.

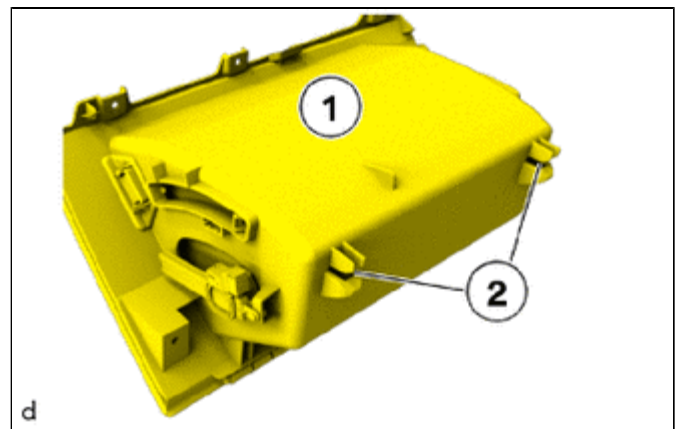
(c) w/ Glove Box Light:

(1) Attach the clip (3) of the wiring harness to the glove compartment door assembly (1).

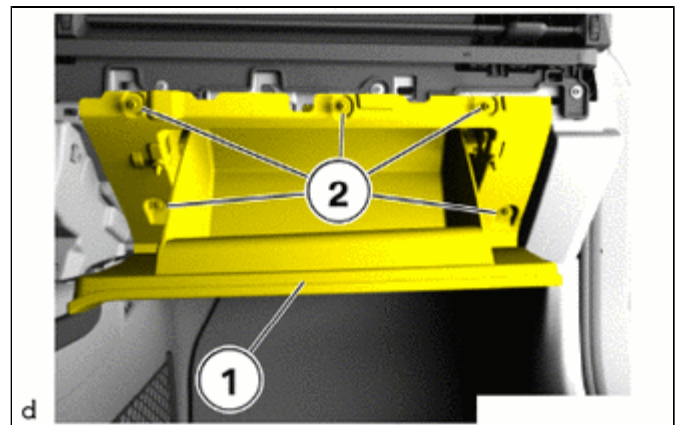


(2) Connect connector (2) and lock.

- (d) Make sure that the holders (2) on the glove compartment door assembly (1) are positioned correctly during installation.



- (e) Install the glove compartment door assembly (1).



- (f) Open the glove compartment door assembly (1).

- (g) Tighten the T20 screws (2).

Torque:

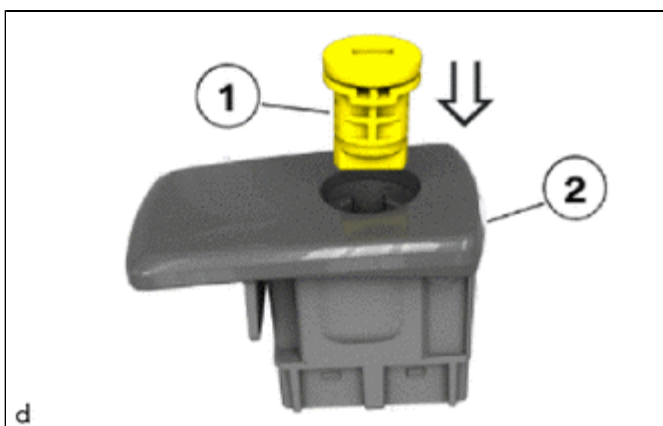
1.8 N·m {18 kgf·cm, 16 in·lbf}

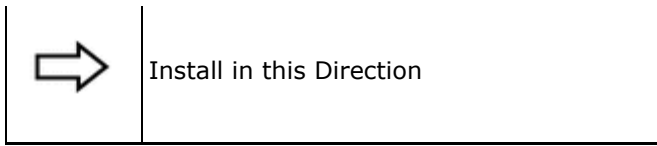
25. INSTALL GLOVE COMPARTMENT DOOR LOCK CYLINDER ASSEMBLY

HINT:

Perform this procedure only when replacement of the glove compartment door lock cylinder assembly is necessary.

- (a) Replace opener (2).



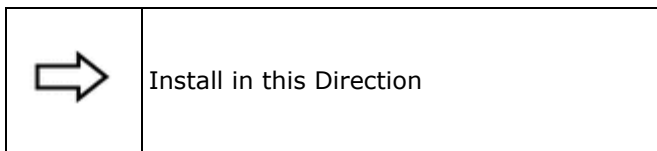
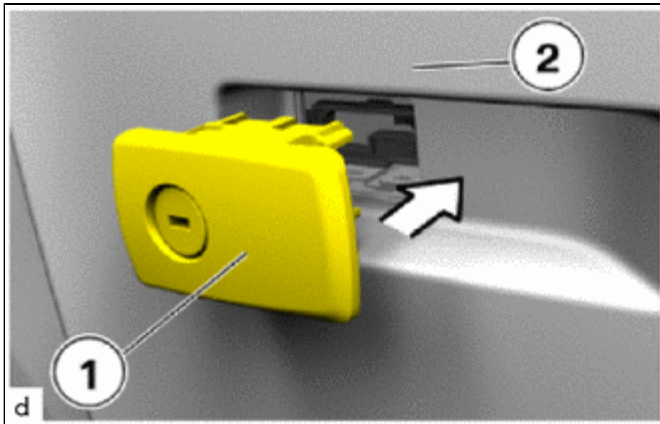


(b) Insert glove compartment door lock cylinder assembly (1) in the opener (2) and push in direction of arrow to the limit position.

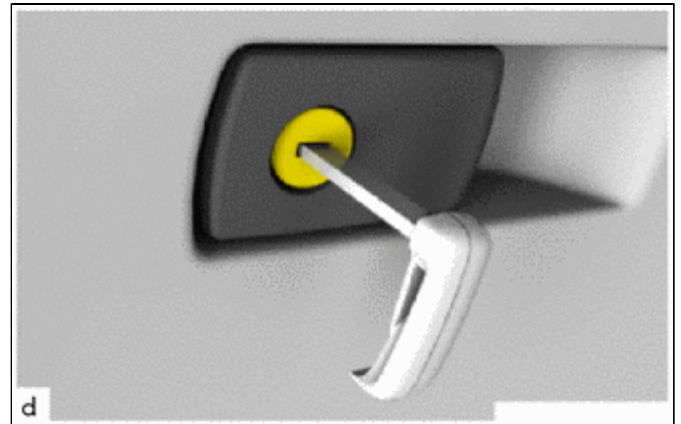
NOTICE:

The glove compartment door lock cylinder assembly (1) must audibly engage.

(c) Position opener (1) in the glove compartment door assembly (2) and push in direction of arrow until the opener (1) engages completely.



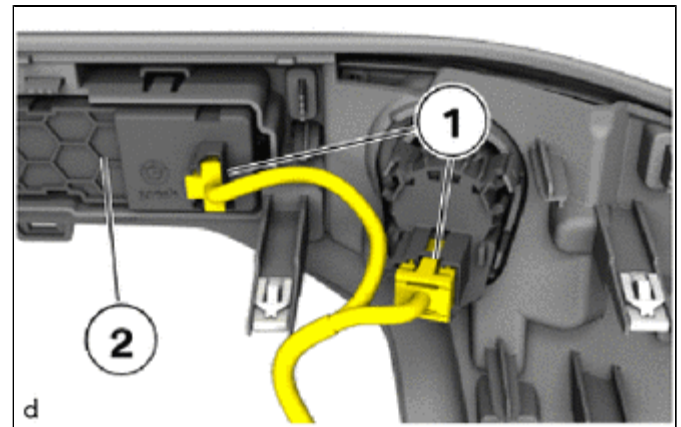
(d) Check glove compartment door lock cylinder assembly for function.



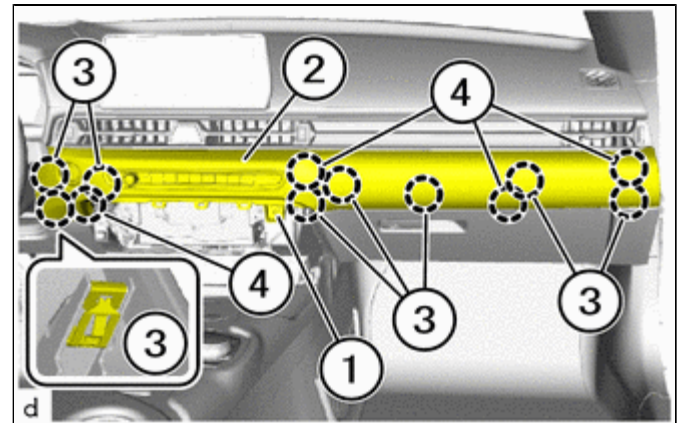
26. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

(a) Connect connectors (1) and lock to No. 1 instrument panel

garnish sub-assembly (2).



(b) Attach the clips (3) and guides (4) to install the No. 1 instrument panel garnish sub-assembly (2).



(c) Tighten the T20 screw (1).

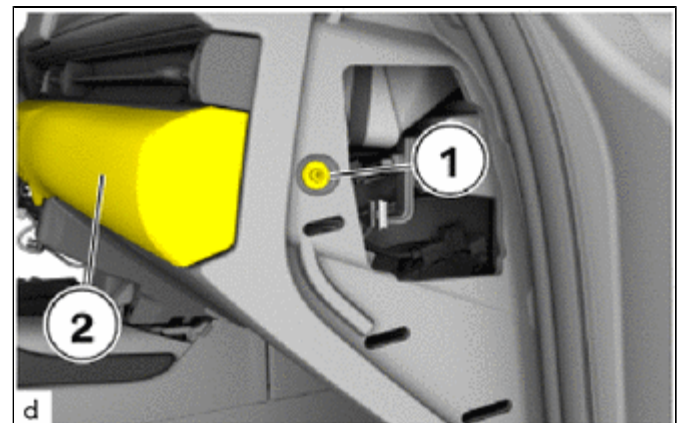
Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

(d) Tighten the T20 screw (1) on the No. 1 instrument panel garnish sub-assembly (2).

Torque:

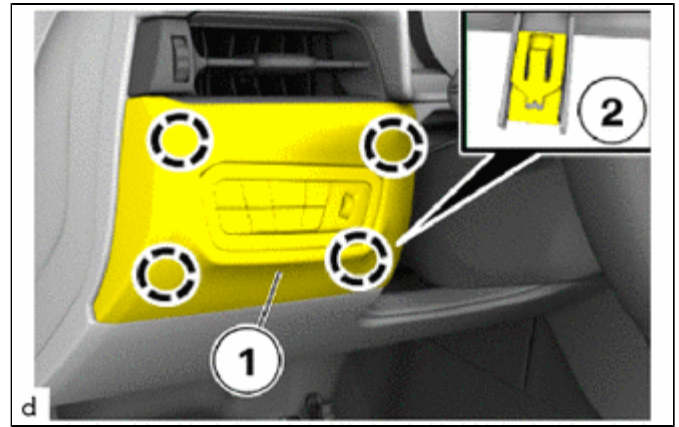
1.8 N·m {18 kgf·cm, 16 in·lbf}



27. INSTALL INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY

(a) Connect and lock the connector to the instrument panel finish panel sub-assembly.

- (b) Attach the clips (2) to install the instrument panel finish panel sub-assembly (1).

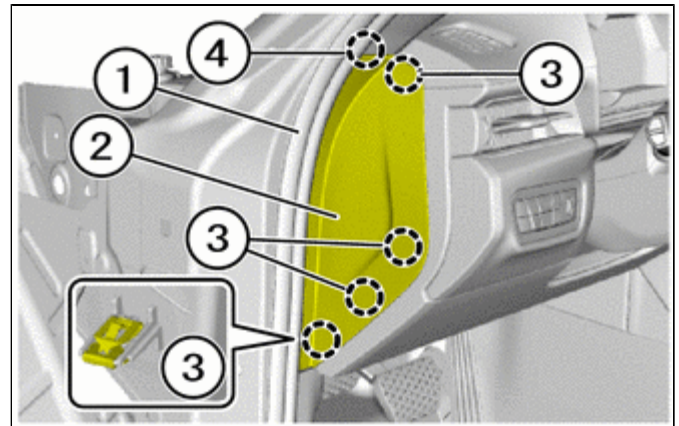


28. INSTALL COMBINATION METER ASSEMBLY

Click here [INFO](#)

29. INSTALL NO. 2 INSTRUMENT SIDE PANEL

- (a) Attach the guide (4) and clips (3) to install the No. 2 instrument side panel (2).



- (b) Connect the front door opening trim weatherstrip LH (1) to the area of the No. 2 instrument side panel (2).

30. INSTALL NO. 1 INSTRUMENT SIDE PANEL

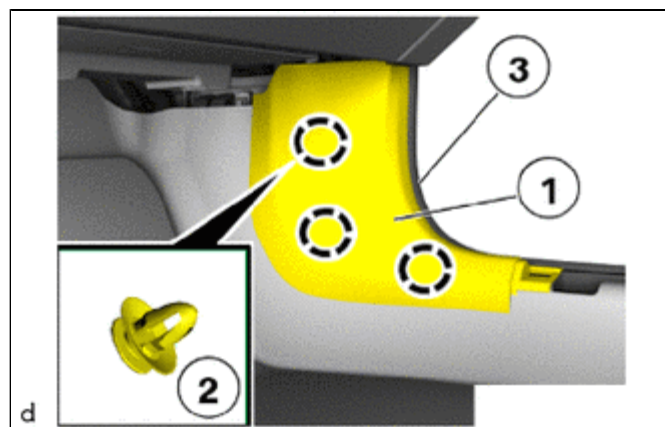
HINT:

Use the same procedure as for the No. 2 side.

- (a) w/ Airbag Cut Off Switch:
- (1) Connect connector and lock.
- (b) Attach the guide and clips to install the No. 1 instrument side panel.
- (c) Connect the front door opening trim weatherstrip RH to the area of the No. 1 instrument side panel.

31. INSTALL COWL SIDE TRIM BOARD RH

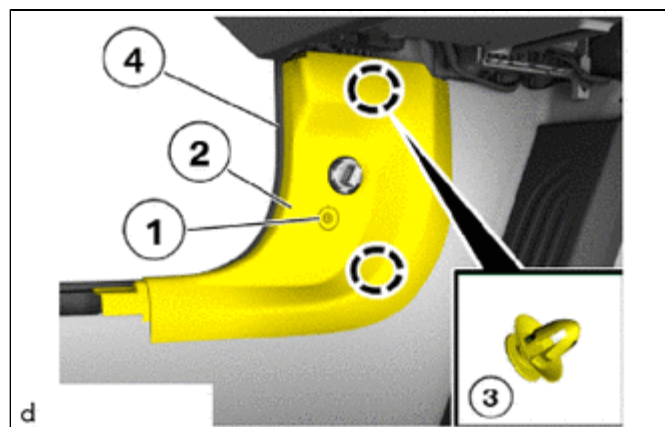
- (a) Attach the clips (2) to install the cowl side trim board RH (1).



- (b) Make sure the cowl side trim board RH (1) is correctly fitted on the edge protection (3).

32. INSTALL COWL SIDE TRIM SUB-ASSEMBLY LH

- (a) Attach the clips (3) to install the cowl side trim sub-assembly LH (2).



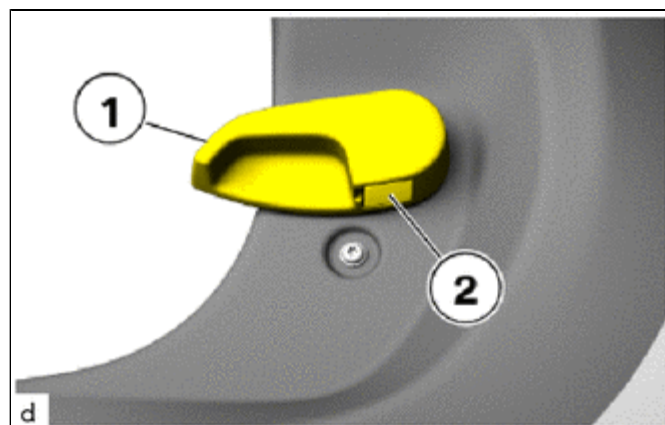
- (b) Make sure the cowl side trim sub-assembly LH (2) is correctly fitted on the edge protection (4).

- (c) Tighten the T20 screw (1).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

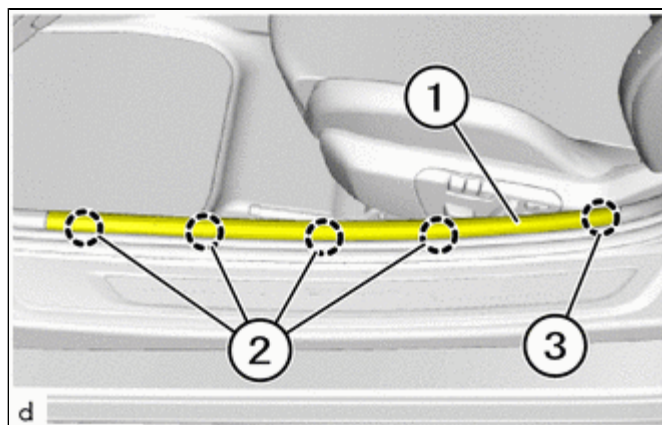
- (d) Install the hood lock release lever protector (1).



(e) Install the locking wedge (2).

33. INSTALL FRONT DOOR SCUFF PLATE LH

(a) Attach the clips (2) and guide (3) to install the front door scuff plate LH (1).



34. INSTALL FRONT DOOR SCUFF PLATE RH

HINT:

Use the same procedure as for the LH side.

35. INSTALL TURN SIGNAL SWITCH ASSEMBLY

Click here [INFO](#)

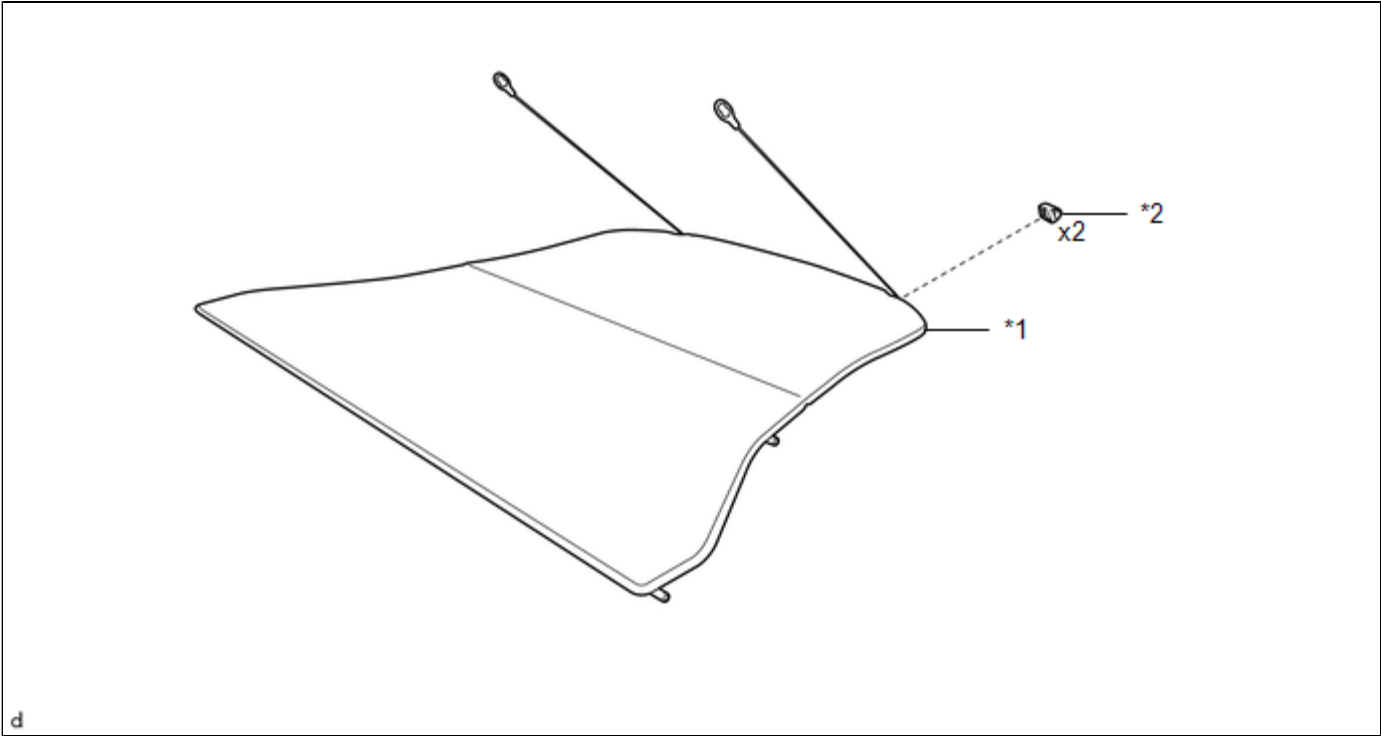
36. INSTALL CONSOLE BOX ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: ROOF HEADLINING: COMPONENTS; 2020 MY Supra [03/2019 -]		

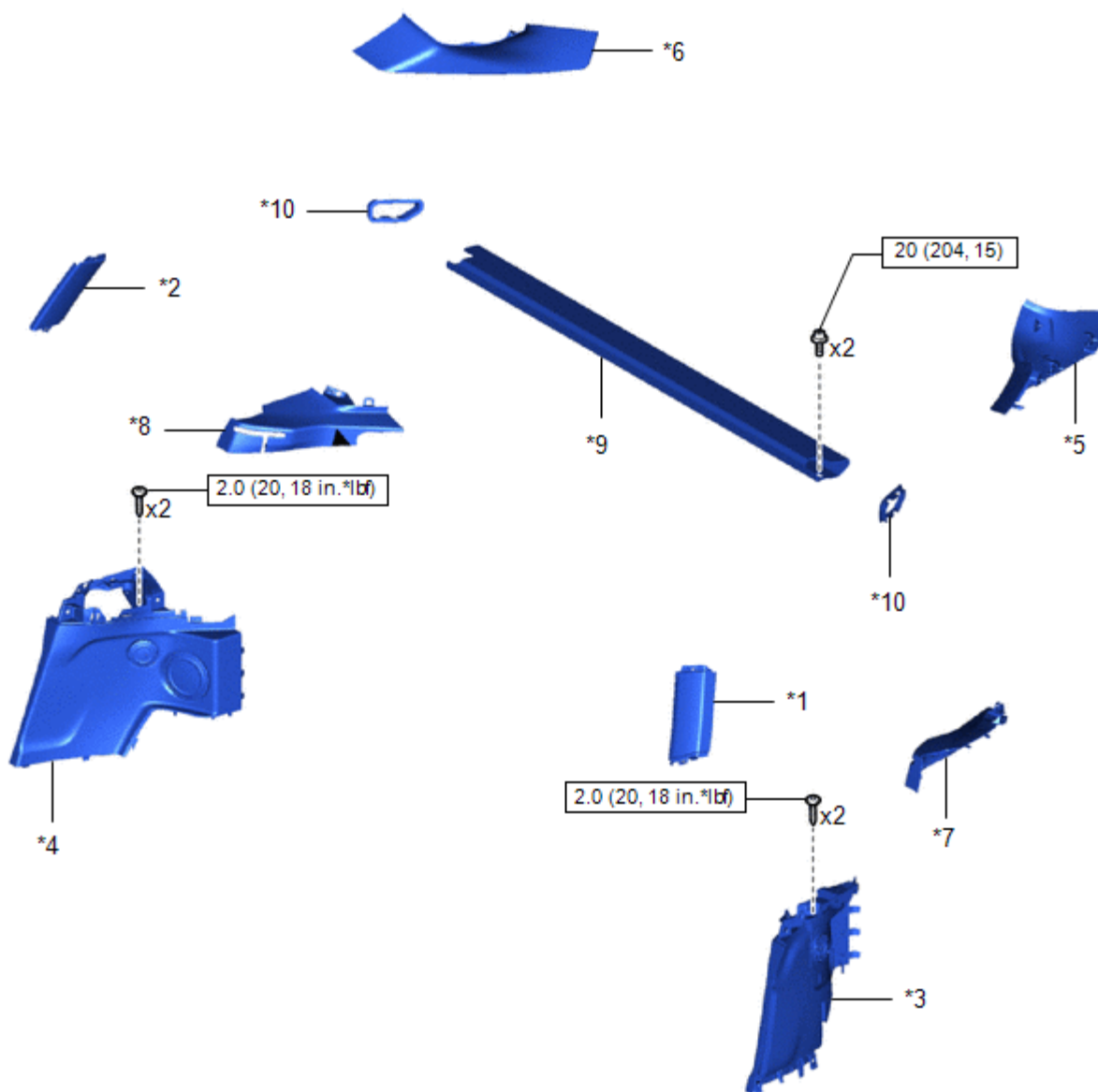
COMPONENTS

ILLUSTRATION




*1	PACKAGE TRAY TRIM PANEL ASSEMBLY	*2	PACKAGE TRAY TRIM STOPPER
----	----------------------------------	----	---------------------------

ILLUSTRATION

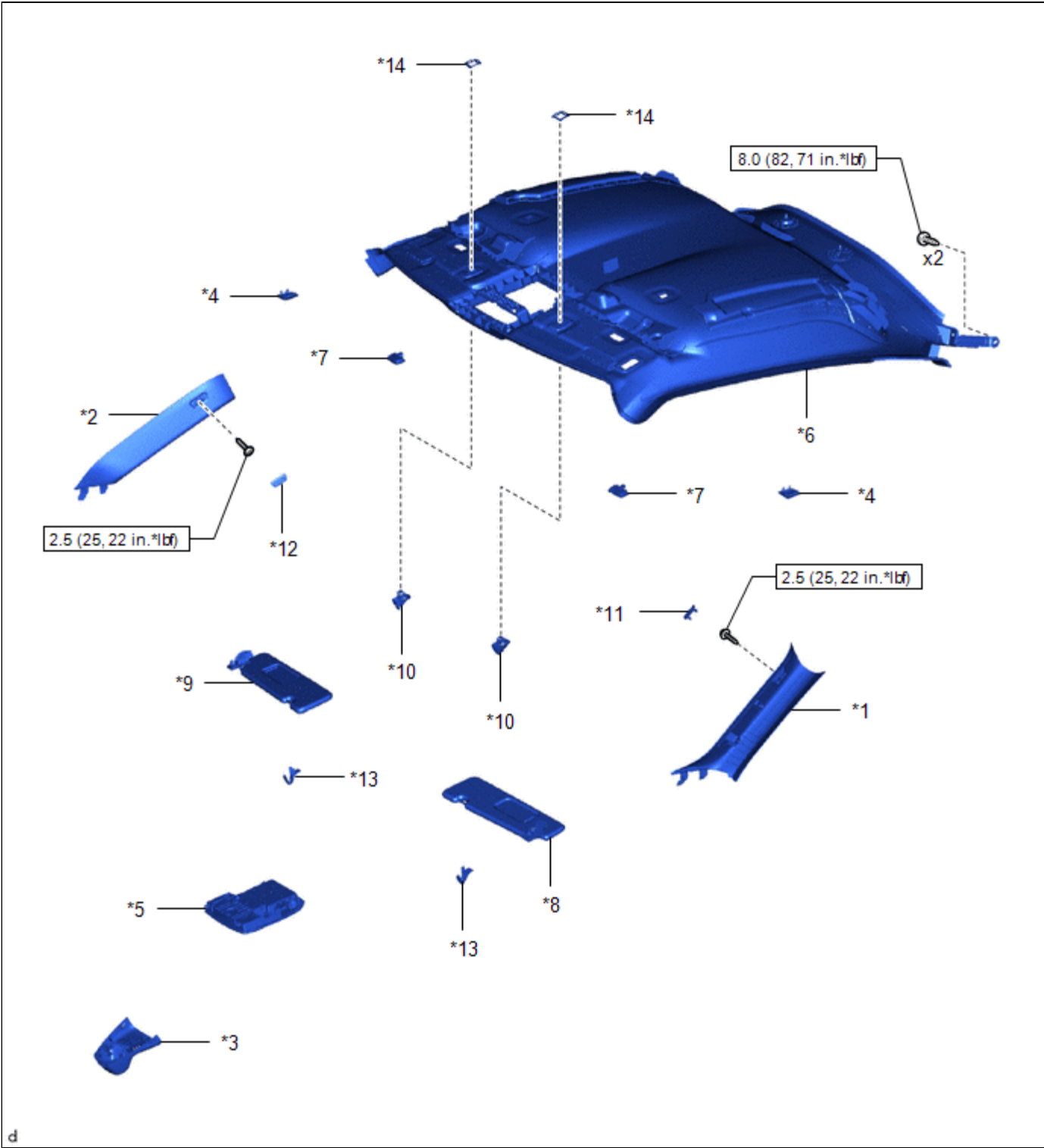


d


*1	CENTER PILLAR GARNISH ASSEMBLY LH	*2	CENTER PILLAR GARNISH ASSEMBLY RH
*3	QUARTER TRIM UPPER PANEL LH	*4	QUARTER TRIM UPPER PANEL RH
*5	ROOF SIDE INNER GARNISH ASSEMBLY LH	*6	ROOF SIDE INNER GARNISH ASSEMBLY RH
*7	SEAT BELT HOLE COVER SUB-ASSEMBLY LH	*8	SEAT BELT HOLE COVER SUB-ASSEMBLY RH
*9	TRANSVERSE PIPE	*10	TRANSVERSE PIPE TRIM

	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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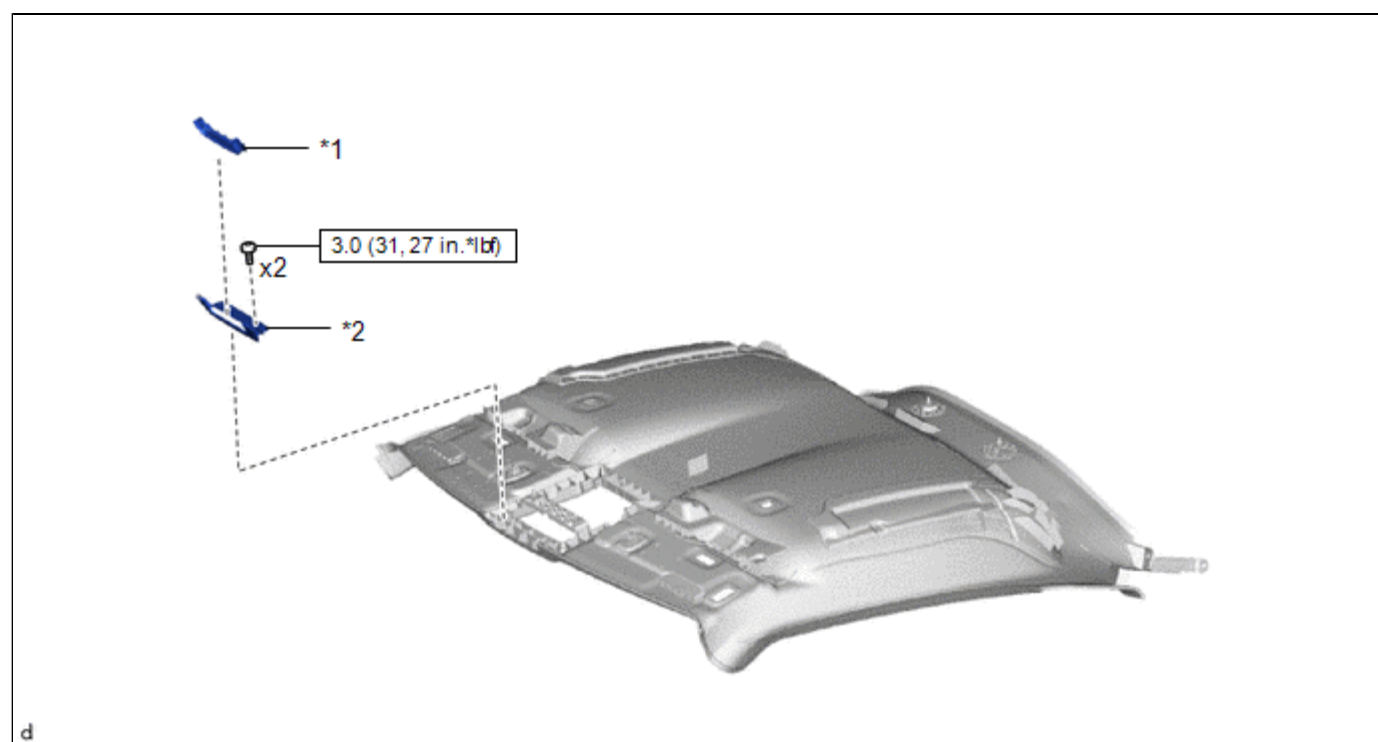
ILLUSTRATION




*1	FRONT PILLAR GARNISH LH	*2	FRONT PILLAR GARNISH RH
	INNER REAR VIEW MIRROR STAY		

*3	HOLDER COVER	*4	MICROPHONE CASE
*5	ROOF CONSOLE BOX SUB-ASSEMBLY	*6	ROOF HEADLINING ASSEMBLY
*7	VANITY LIGHT ASSEMBLY	*8	VISOR ASSEMBLY LH
*9	VISOR ASSEMBLY RH	*10	VISOR HOLDER
*11	FRONT PILLAR GARNISH COVER LH	*12	FRONT PILLAR GARNISH COVER RH
*13	VISOR BRACKET COVER	*14	VISOR HOLDER RETAINER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	INNER REAR VIEW MIRROR STAY HOLDER COVER CUSHION	*2	ROOF HEADLINING SUPPORT
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: ROOF HEADLINING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

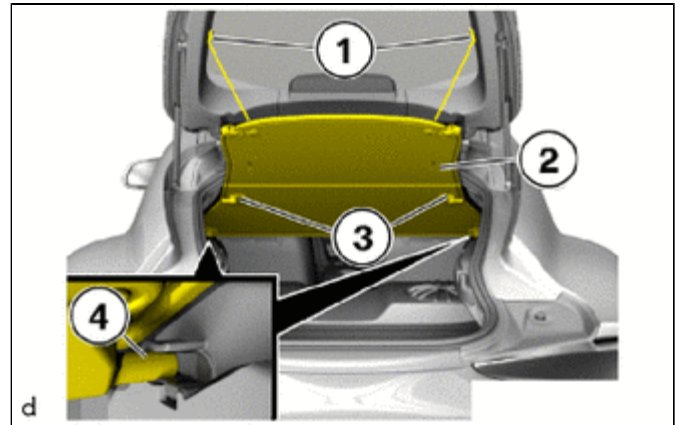
(a) for Manual Seat:

(1) Operate the front seat adjuster assembly to move the front seat assembly RH to the foremost position.

(b) for Power Seat:

(1) Operate the power seat switch assembly to move the front seat assembly RH to the foremost position.

(c) Detach the retaining straps (1).

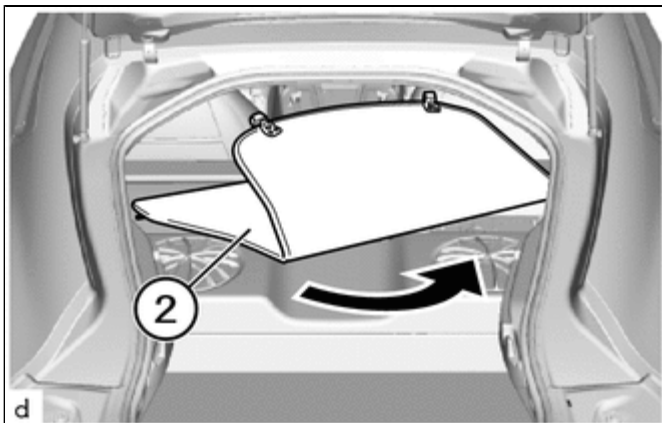


(d) Detach the rear mountings (3) to the top.

(e) Detach the front guides (4) to the rear.

(f) Fold the package tray trim panel assembly (2) together and remove.

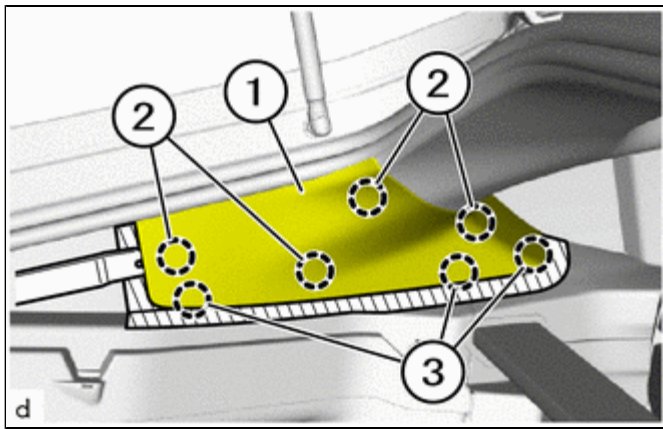
HINT:
Turn the package tray trim panel assembly (2) approximately 45° counterclockwise and remove it from the tailgate.



Turn in this Direction

2. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH

(a) Apply protective tape as shown in the illustration.



Protective Tape

(b) Using a molding remover B, detach the clips (2) and guides (3).

(c) Slide the roof side inner garnish assembly LH (1) out under the sealing lip of the back door weatherstrip and remove.

3. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE FRONT SEAT ASSEMBLY LH (for Manual Seat)

Click here [INFO](#)

5. REMOVE FRONT SEAT ASSEMBLY RH (for Manual Seat)

HINT:

Use the same procedure as for the LH side.

6. REMOVE FRONT SEAT ASSEMBLY LH (for Power Seat)

Click here [INFO](#)

7. REMOVE FRONT SEAT ASSEMBLY RH (for Power Seat)

HINT:

Use the same procedure as for the LH side.

8. REMOVE CONSOLE BOX ASSEMBLY

Click here [INFO](#)

9. SEPARATE TRANSVERSE PIPE TRIM

HINT:

Use the same procedures for the opposite side.

Click here [INFO](#)

10. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

11. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

12. REMOVE TRANSVERSE PIPE

Click here [INFO](#)

13. REMOVE CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

14. REMOVE CENTER PILLAR GARNISH ASSEMBLY RH**HINT:**

Use the same procedure as for the LH side.

15. REMOVE QUARTER TRIM UPPER PANEL LH

Click here [INFO](#)

16. REMOVE QUARTER TRIM UPPER PANEL RH**HINT:**

Use the same procedure as for the LH side.

17. REMOVE VISOR ASSEMBLY LH

Click here [INFO](#)

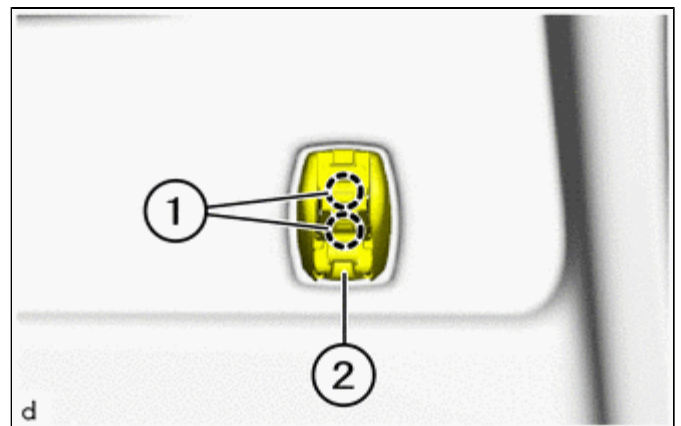
18. REMOVE VISOR ASSEMBLY RH**HINT:**

Use the same procedure as for the LH side.

19. REMOVE VISOR HOLDER**HINT:**

Use the same procedures for the opposite side.

- (a) Push the clamps (1) together and pull the visor holder (2) out of the roof headlining assembly.

**20. REMOVE ROOF CONSOLE BOX SUB-ASSEMBLY**

Click here [INFO](#)

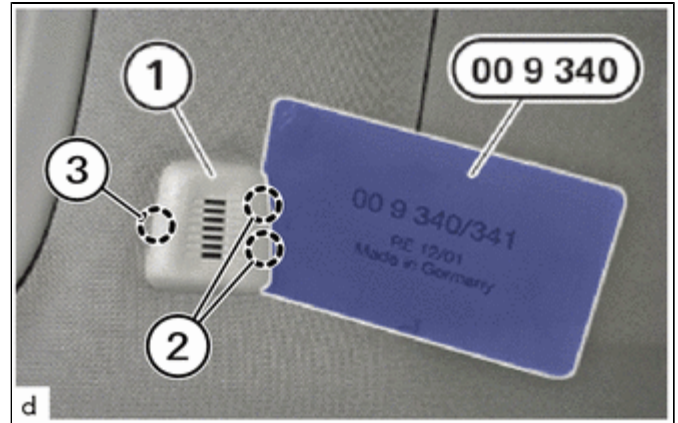
21. REMOVE MICROPHONE CASE

HINT:

Use the same procedures for the opposite side.

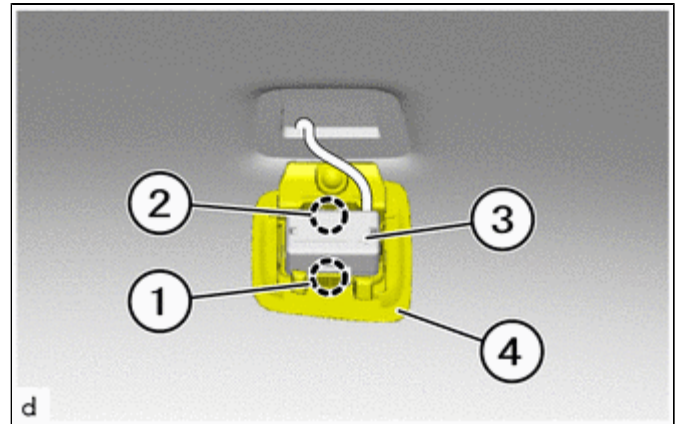
- (a) Using a special tool 0 493 687 (00 9 340), detach the claws (2) and guide (3) to remove the microphone case (1).

SST: 09800-WA180



- (b) w/ Microphone:

- (1) Detach the claw (1) and guide (2) to remove the microphone case (4) from telephone microphone assembly (3).



22. REMOVE VANITY LIGHT ASSEMBLY

HINT:

Use the same procedures for the opposite side.

[Click here](#) [INFO](#)

23. REMOVE INNER REAR VIEW MIRROR STAY HOLDER COVER

[Click here](#) [INFO](#)

24. REMOVE FRONT PILLAR GARNISH LH

[Click here](#) [INFO](#)

25. REMOVE FRONT PILLAR GARNISH RH

HINT:

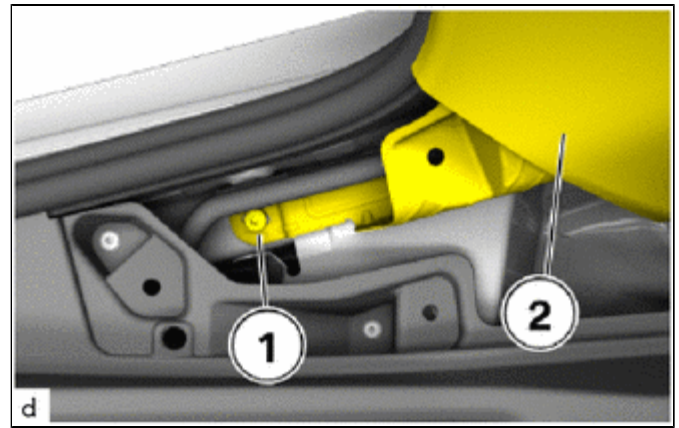
Use the same procedure as for the LH side.

26. REMOVE ROOF HEADLINING ASSEMBLY

(a) Loosen T30 screw (1) on the roof headlining assembly (2).

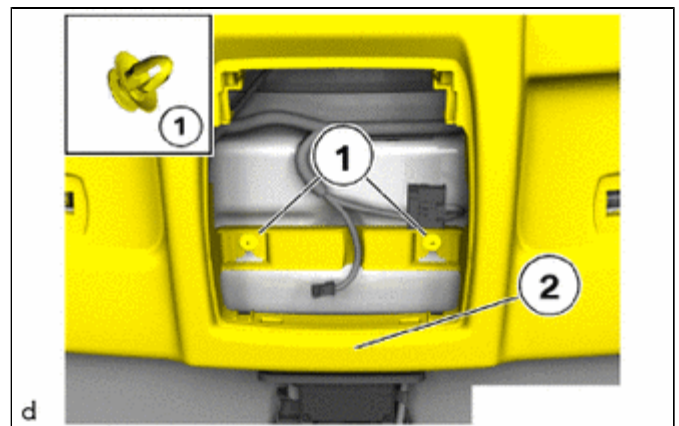
HINT:

Use the same procedures for the opposite side.



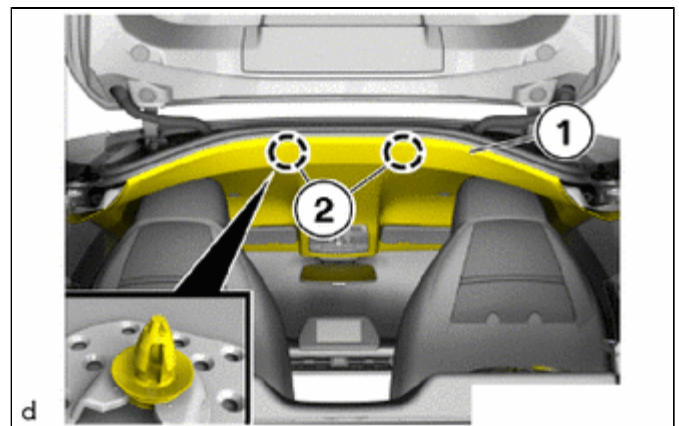
(b) for Front Side:

(1) Detach the clips (1) of the roof headlining assembly (2).



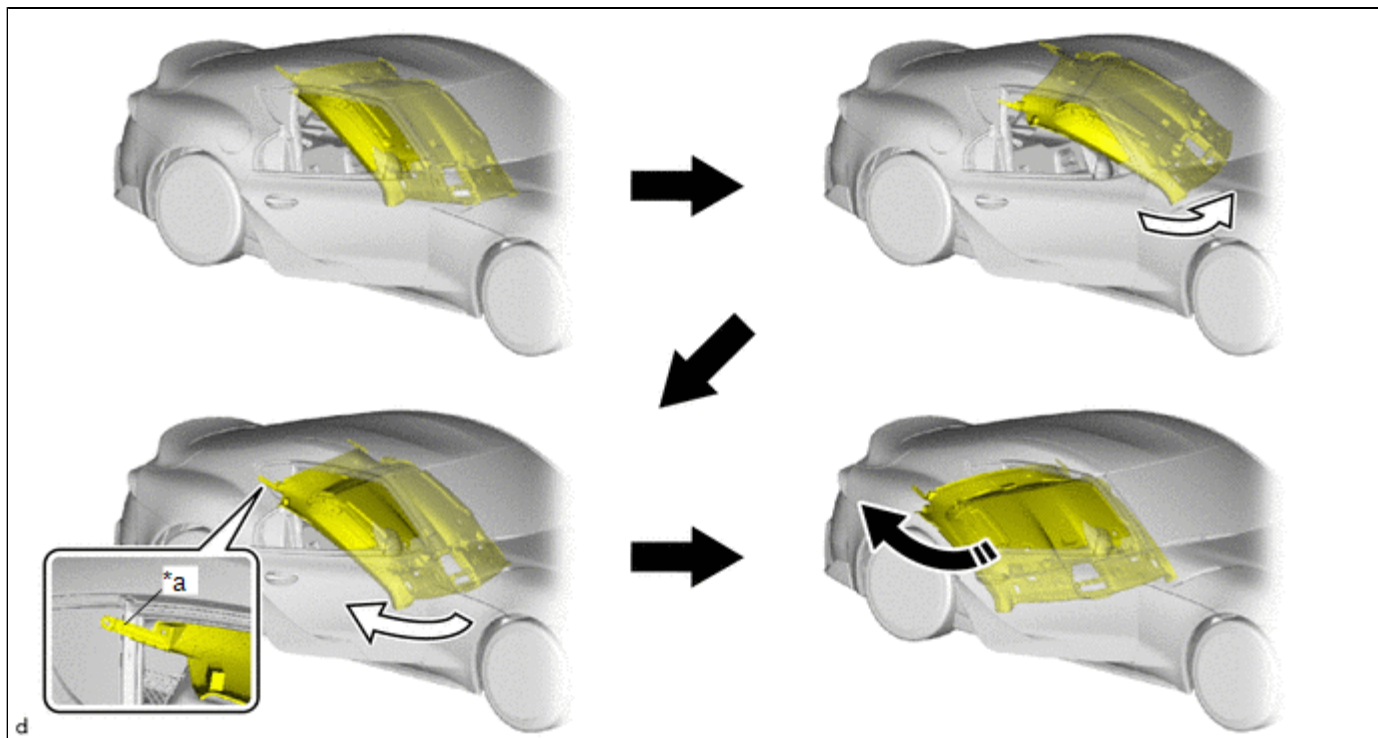
(c) for Rear Side:



(1) Detach the clips (2) of the roof headlining assembly (1).



(d) Feed roof headlining assembly (1) out of the respective edge protection.

(e) Turn the roof headlining assembly diagonally and bend slightly to remove it with an auxiliary person through the aperture of the passenger door as shown in the illustration.

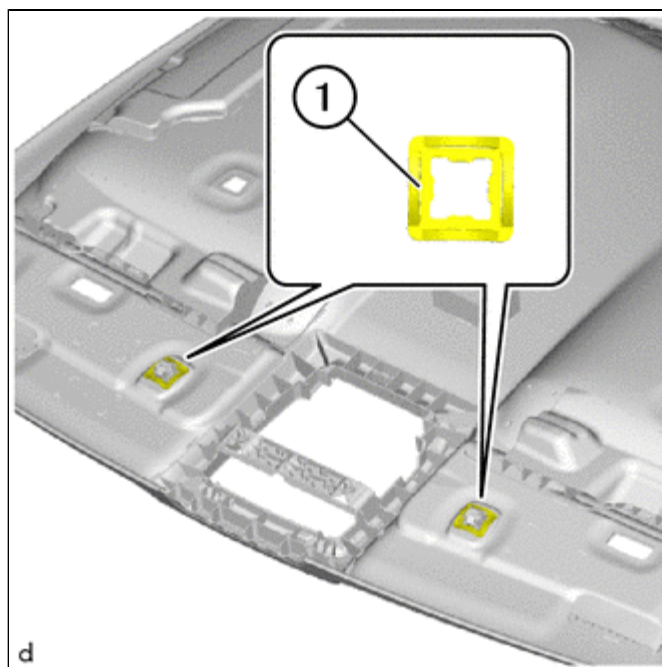


*a	Rear RH Side of Roof Headlining Assembly	-	-
	Turn in this Direction		Remove in this Direction

NOTICE:

- Make sure that wrinkles do not form in the roof headlining assembly during removal.
- Make sure that the roof headlining assembly does not get caught on anything as it may become bent or damaged.
- Do not damage the roof headlining assembly or vehicle interior.

(f) Remove the visor holder retainers (1).

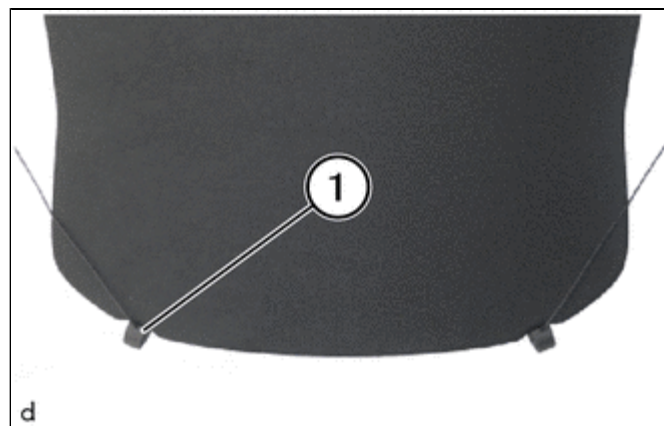


27. REMOVE PACKAGE TRAY TRIM STOPPER

HINT:

- Perform this procedure only when replacement of the package tray trim stopper is necessary.
- Use the same procedures for the opposite side.

(a) Remove the package tray trim stopper (1).

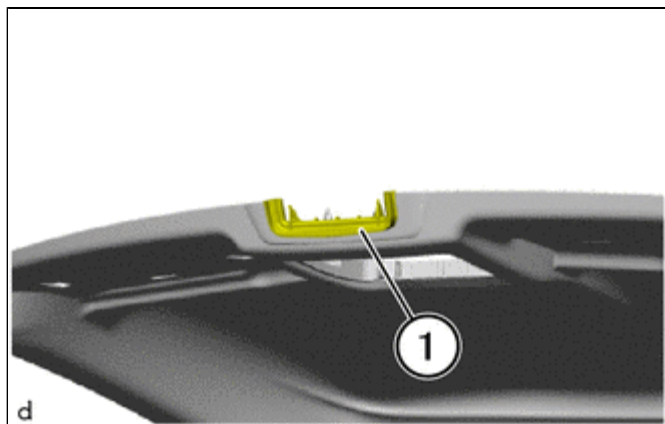


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: ROOF HEADLINING: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

PROCEDURE

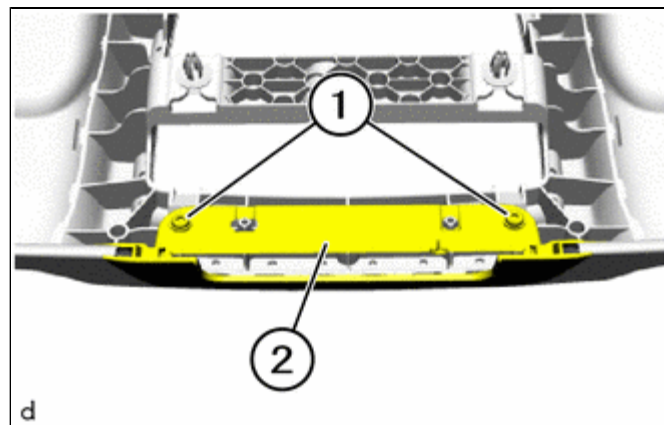
1. REMOVE INNER REAR VIEW MIRROR STAY HOLDER COVER CUSHION



(a) Remove the inner rear view mirror stay holder cover cushion (1).

2. REMOVE ROOF HEADLINING SUPPORT

(a) Loosen T20 screws (1).



(b) Remove the roof headlining support (2).

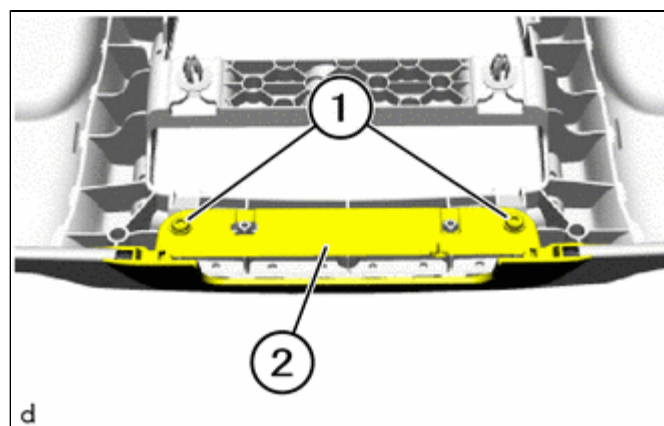
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: ROOF HEADLINING: REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

PROCEDURE

1. INSTALL ROOF HEADLINING SUPPORT

(a) Install the roof headlining support (2).



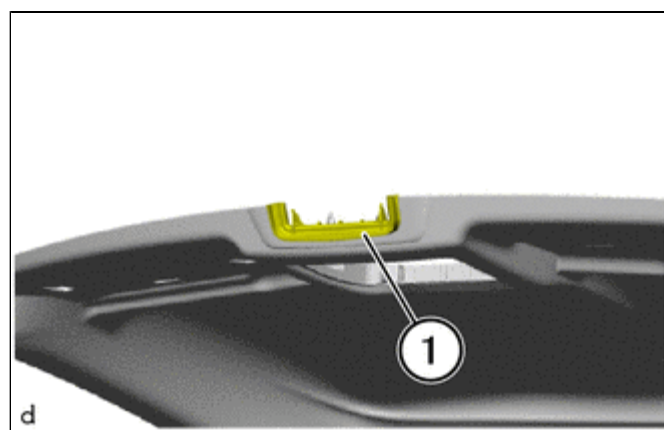
(b) Tighten the T20 screws (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

2. INSTALL INNER REAR VIEW MIRROR STAY HOLDER COVER CUSHION

(a) Install the inner rear view mirror stay holder cover cushion (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: INTERIOR PANELS / TRIM: ROOF HEADLINING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL PACKAGE TRAY TRIM STOPPER

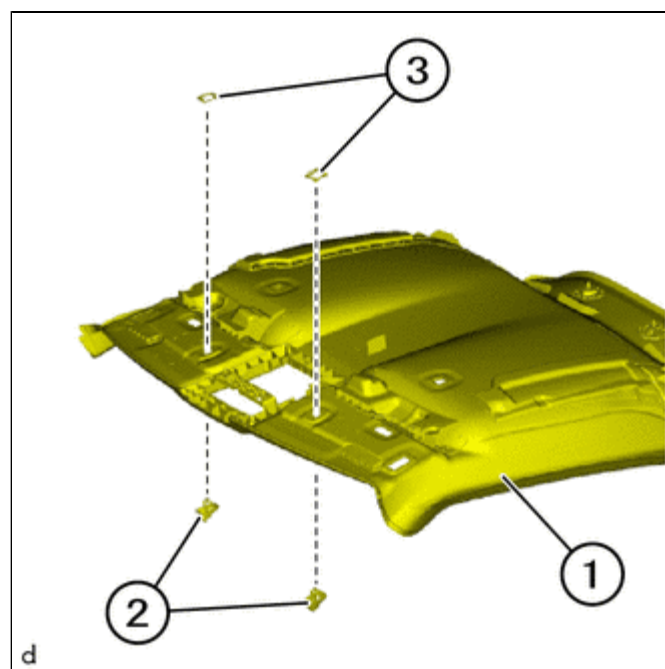
HINT:

- Perform this procedure only when replacement of the package tray trim stopper is necessary.
- Use the same procedures for the opposite side.

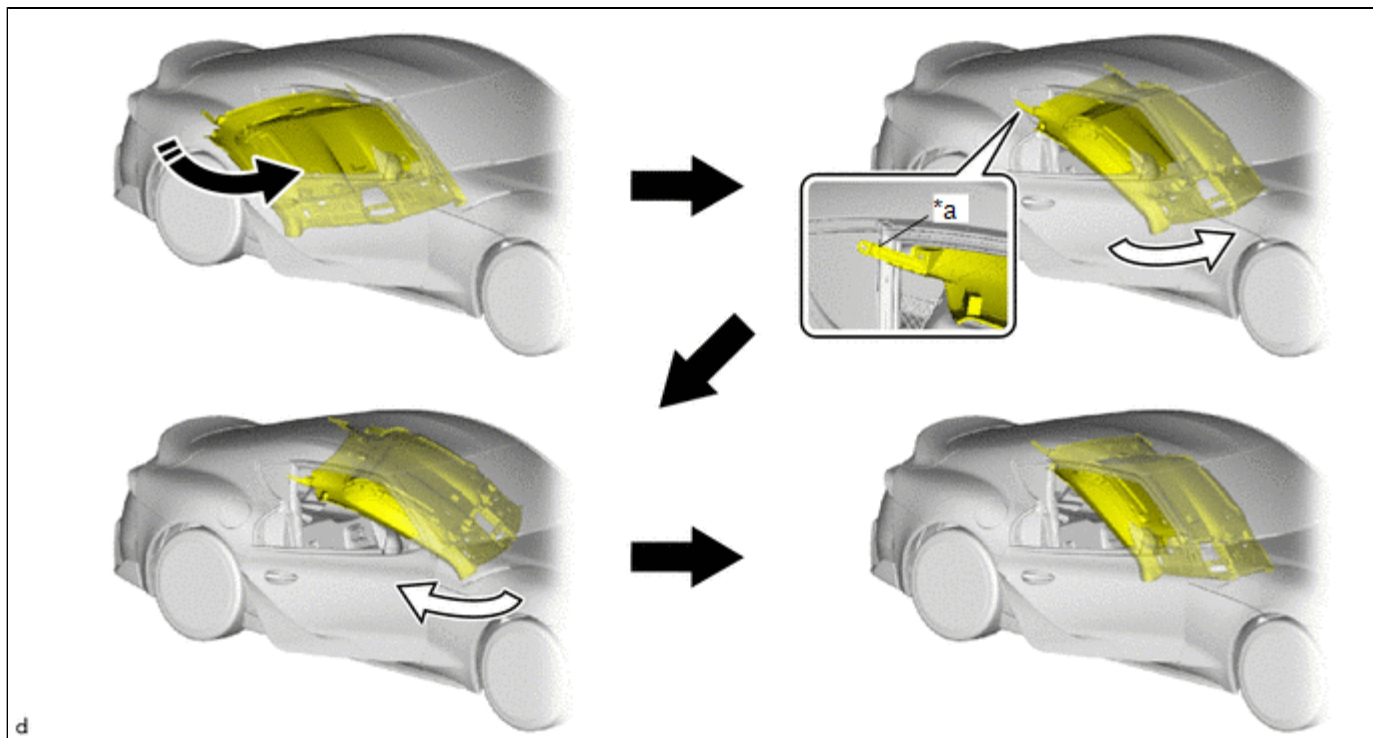
(a) Install the package tray trim stopper.

2. INSTALL ROOF HEADLINING ASSEMBLY

(a) Install the visor holders (2) and visor holder retainers (3) to the roof headlining assembly (1).



(b) Install the roof headlining assembly through the aperture of the passenger door with the help of an auxiliary person as shown in the illustration.



*a	Rear RH Side of Roof Headlining Assembly	-	-
	Turn in this Direction		Install in this Direction

NOTICE:

- Check that the corners of the roof headlining are not folded, twisted or otherwise deformed and that none of the mounted parts have fallen off.
- Make sure that the roof headlining does not get caught on anything as it may become bent or damaged.
- Do not damage the roof headlining or vehicle interior.

(c) Guide in roof headlining assembly under the particular edge protection.

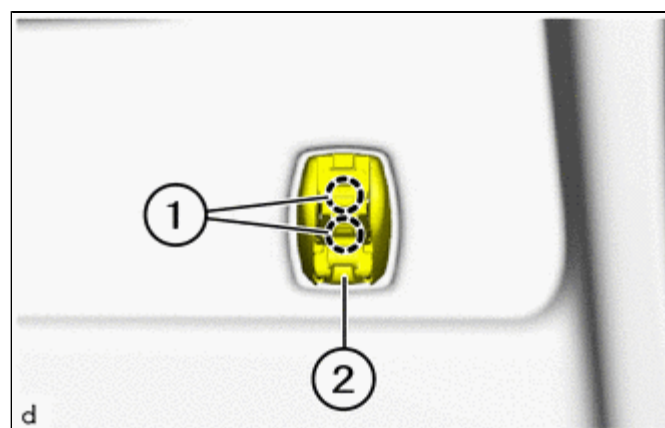
(d) Attach clamps (1) of the visor holder (2) to the body.

NOTICE:

Make sure the clamps are attached correctly.

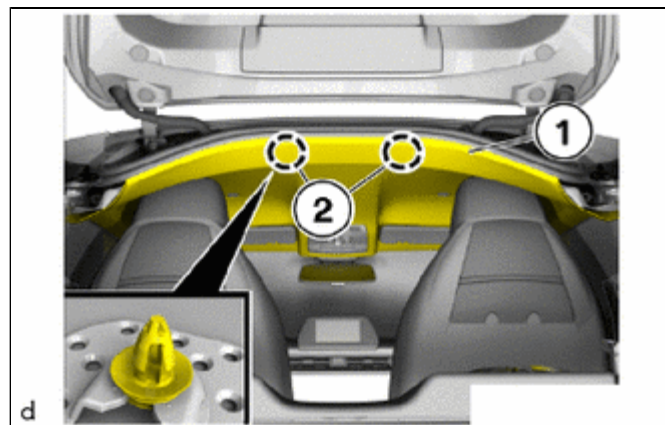
HINT:

Use the same procedures for the opposite side.



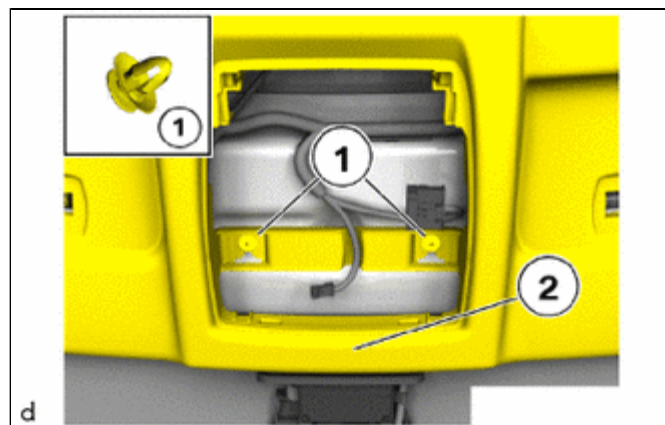
(e) for Rear Side:

(1) Attach the clips (2) of the roof headlining assembly (1).



(f) for Front Side:

(1) Attach the clips (1) of the roof headlining assembly (2).



(g) Tighten the T30 screw of the roof headlining assembly.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

HINT:

Use the same procedures for the opposite side.

3. INSTALL FRONT PILLAR GARNISH LH

Click here [INFO](#)

4. INSTALL FRONT PILLAR GARNISH RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL INNER REAR VIEW MIRROR STAY HOLDER COVER

Click here [INFO](#)

6. INSTALL VANITY LIGHT ASSEMBLY

HINT:

Use the same procedures for the opposite side.

Click here [INFO](#)

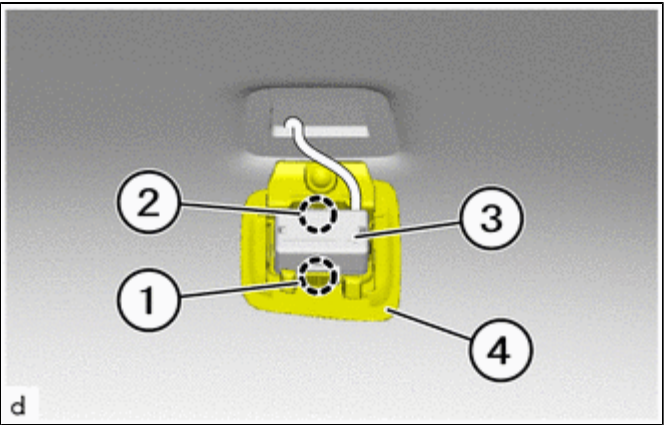
7. INSTALL MICROPHONE CASE

HINT:

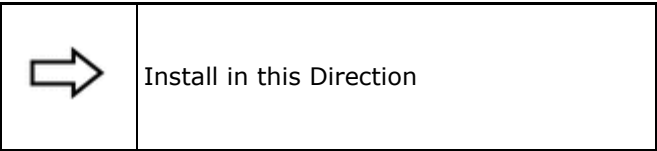
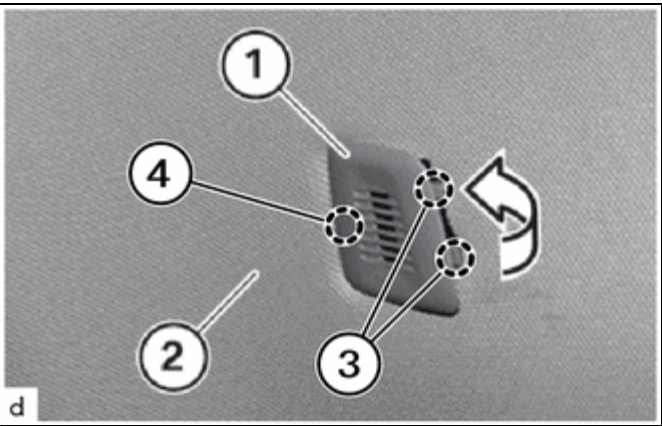
Use the same procedures for the opposite side.

(a) w/ Microphone:

- (1) Attach the guide (2) and claw (1) to install the microphone case (4) to the telephone microphone assembly (3).



- (b) Attach the guide (4) and claws (3) to install the microphone case (1) to the roof headlining assembly (2) in the direction of the arrow.



8. INSTALL ROOF CONSOLE BOX SUB-ASSEMBLY

Click here [INFO](#)

9. INSTALL VISOR ASSEMBLY LH

Click here [INFO](#)

10. INSTALL VISOR ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

11. INSTALL QUARTER TRIM UPPER PANEL LH

Click here [INFO](#)

12. INSTALL QUARTER TRIM UPPER PANEL RH

HINT:

Use the same procedure as for the LH side.

13. INSTALL CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

14. INSTALL CENTER PILLAR GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

15. INSTALL TRANSVERSE PIPE

Click here [INFO](#)

16. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

17. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

18. INSTALL TRANSVERSE PIPE TRIM

HINT:

Use the same procedures for the opposite side.

Click here [INFO](#)

19. INSTALL CONSOLE BOX ASSEMBLY

Click here [INFO](#)

20. INSTALL FRONT SEAT ASSEMBLY LH (for Manual Seat)

Click here [INFO](#)

21. INSTALL FRONT SEAT ASSEMBLY RH (for Manual Seat)

HINT:

Use the same procedure as for the LH side.

22. INSTALL FRONT SEAT ASSEMBLY LH (for Power Seat)

Click here [INFO](#)

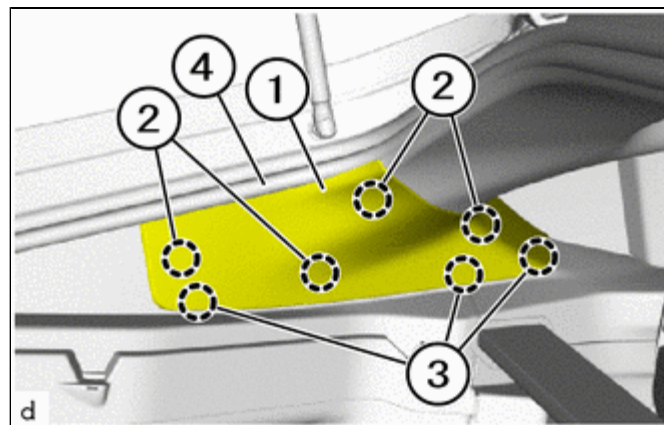
23. INSTALL FRONT SEAT ASSEMBLY RH (for Power Seat)

HINT:

Use the same procedure as for the LH side.

24. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH

- (a) Guide in the roof side inner garnish assembly LH (1) below the sealing lip of the back door weatherstrip (4).



- (b) Attach the guides (3) and clips (2) to install the roof side inner garnish assembly LH (1).

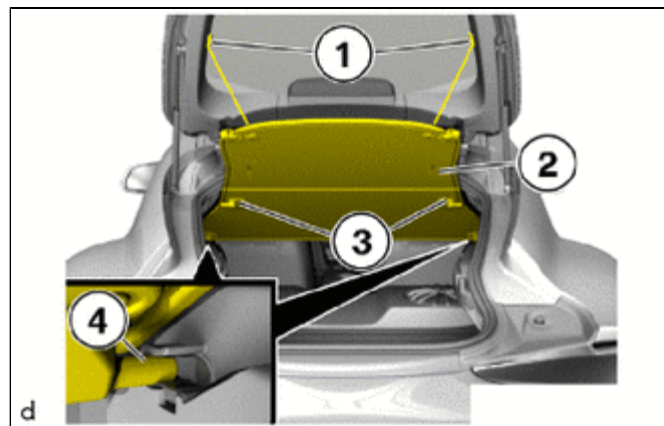
25. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

26. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

- (a) Attach the front guides (4) forward.

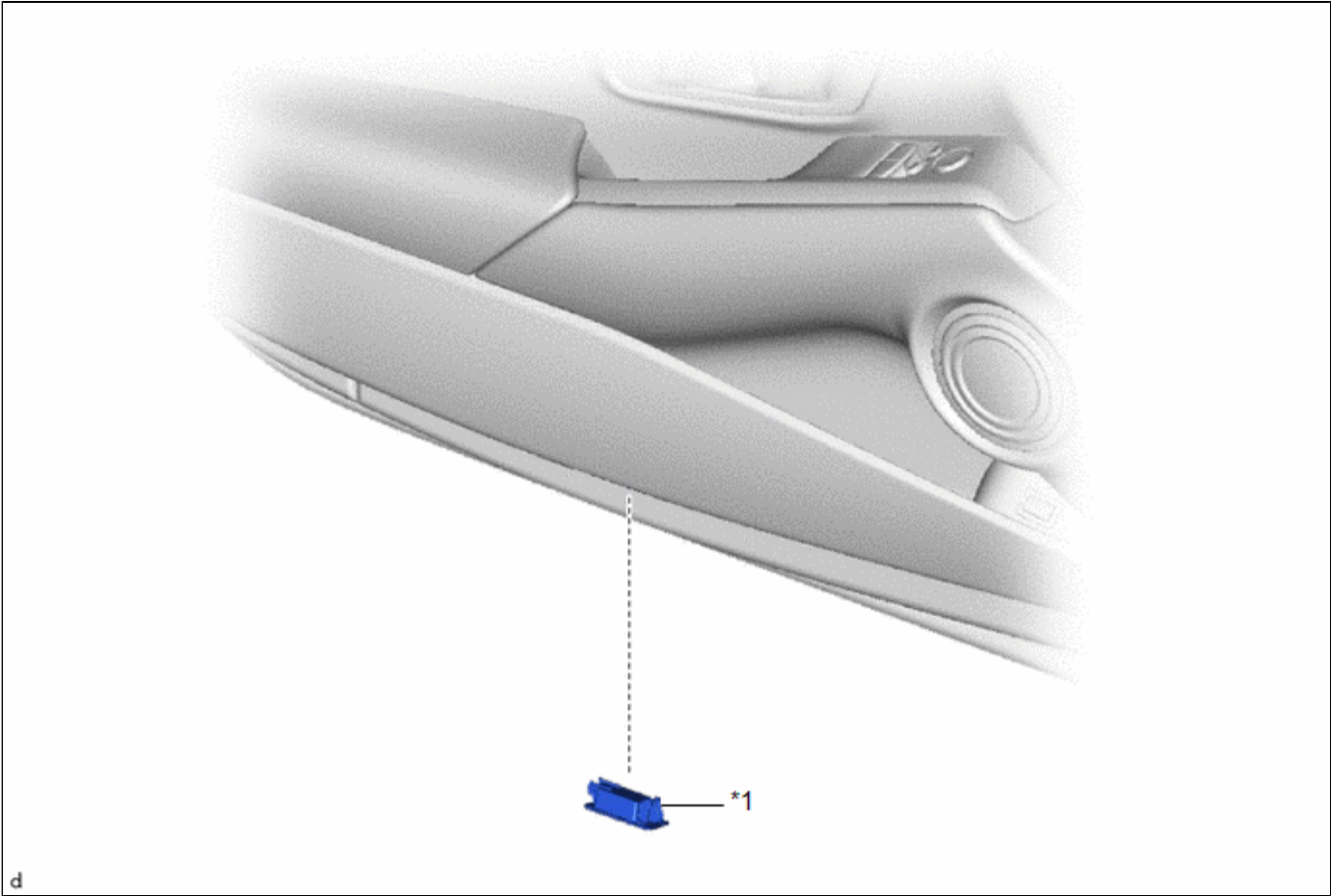


- (b) Attach the rear mounting (3) downward.
(c) Fold the package tray trim panel assembly (2) open.
(d) Attach the retaining straps (1).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): DOOR COURTESY LIGHT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	COURTESY LIGHT ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCID
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): DOOR COURTESY LIGHT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

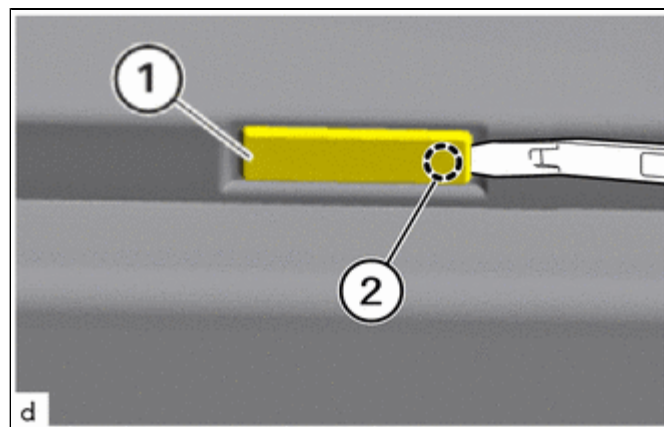
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY

- (a) Using a molding remover A, detach the claw (2) to remove the courtesy light assembly (1) from the front door trim board sub-assembly.



- (b) Unlock plug connection and disconnect.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): DOOR COURTESY LIGHT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL COURTESY LIGHT ASSEMBLY

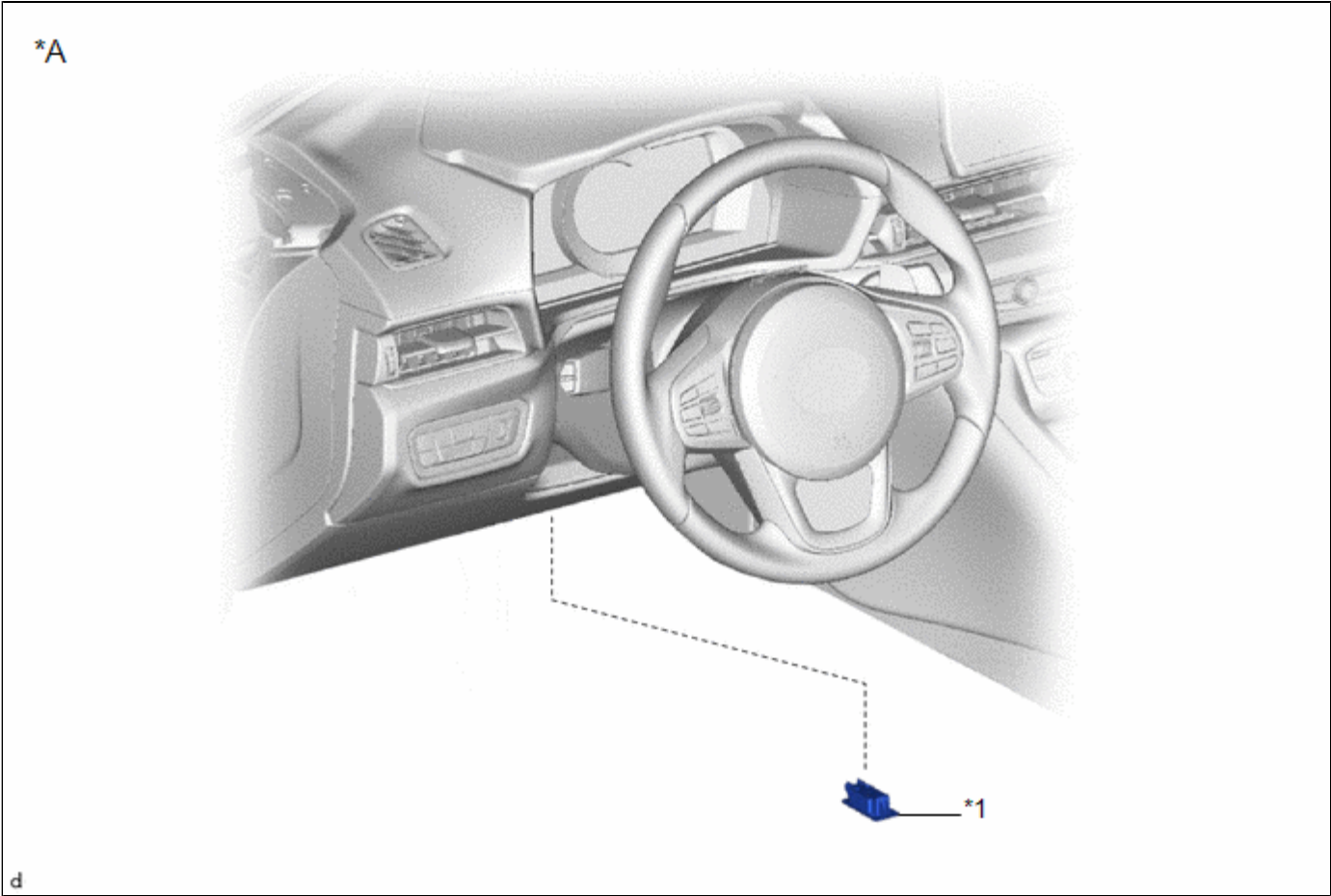
- Connect and lock the connector.
- Attach the claw to install the courtesy light assembly to the front door trim board sub-assembly.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCII
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): FOOTWELL LIGHT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

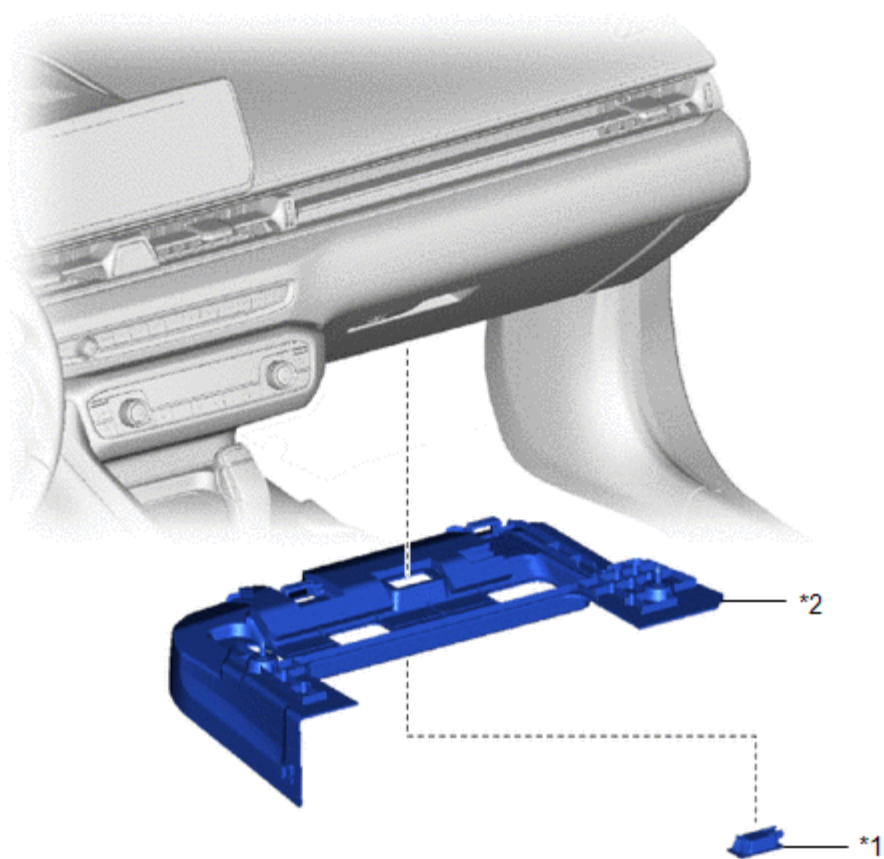
ILLUSTRATION



*A	for Driver Side	-	-
*1	NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY	-	-

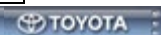
ILLUSTRATION

*A



d

*A	for Front Passenger Side	-	-
*1	NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY	*2	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY



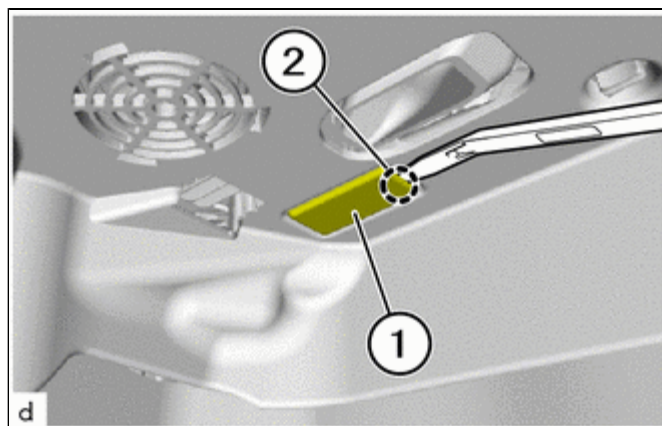
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): FOOTWELL LIGHT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

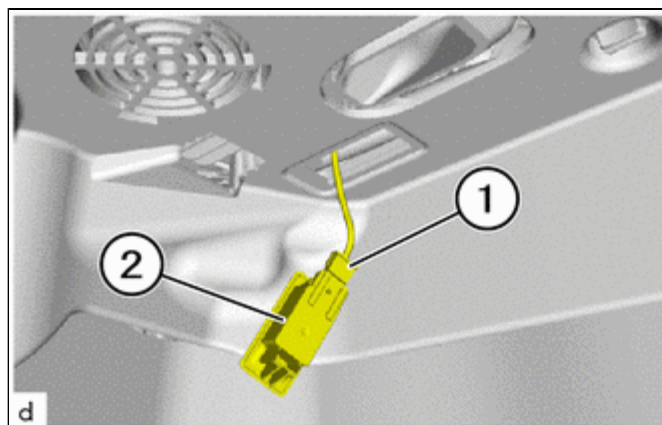
PROCEDURE

1. REMOVE NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY (for Driver Side)

- (a) Using a molding remover A, detach the claw (2) to remove the No. 1 interior illumination light assembly (1) from the No. 1 instrument panel under cover sub-assembly.



- (b) Unlock plug connection (1) and disconnect.



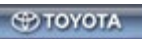
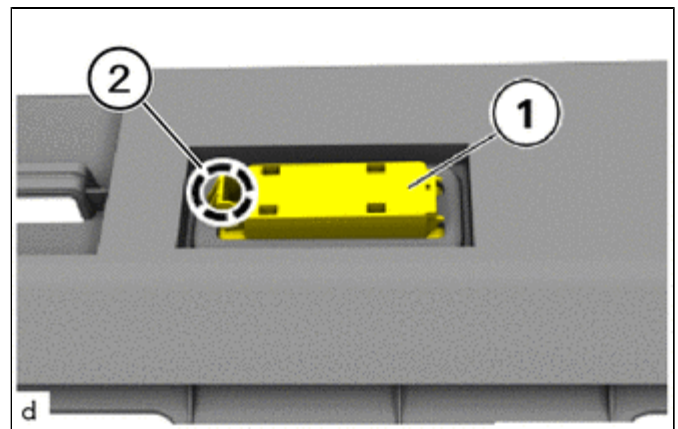
- (c) Remove No. 1 interior illumination light assembly (2).

2. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY (for Front Passenger Side)

Click here [INFO](#)

3. REMOVE NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY (for Front Passenger Side)

(a) Detach the claw (2) to remove the No. 1 interior illumination light assembly (1) from the No. 2 instrument panel under cover sub-assembly.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): FOOTWELL LIGHT: INSTALLATION; 2020 MY Supra [03/2019 -]		

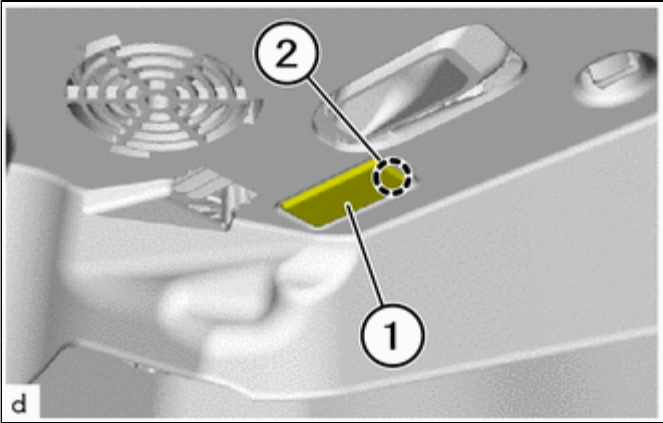
INSTALLATION

PROCEDURE

1. INSTALL NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY (for Driver Side)

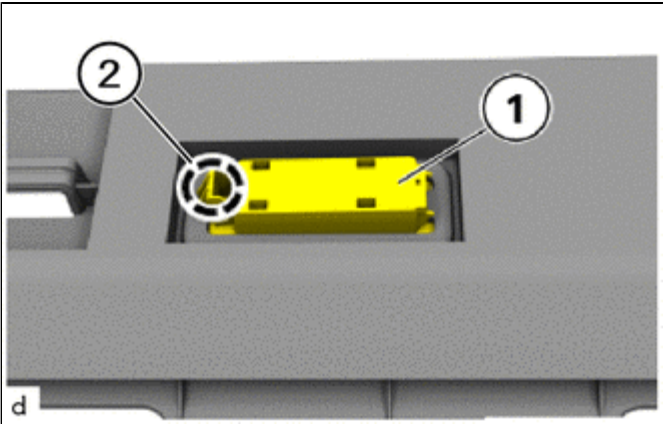
(a) Connect and lock the connector on the No. 1 interior illumination light assembly.

(b) Attach the claw (2) to install the No. 1 interior illumination light assembly (1) to the No. 1 instrument panel under cover sub-assembly.



2. INSTALL NO. 1 INTERIOR ILLUMINATION LIGHT ASSEMBLY (for Front Passenger Side)

(a) Attach the claw (2) to install the No. 1 interior illumination light assembly (1) to the No. 2 instrument panel under cover sub-assembly.



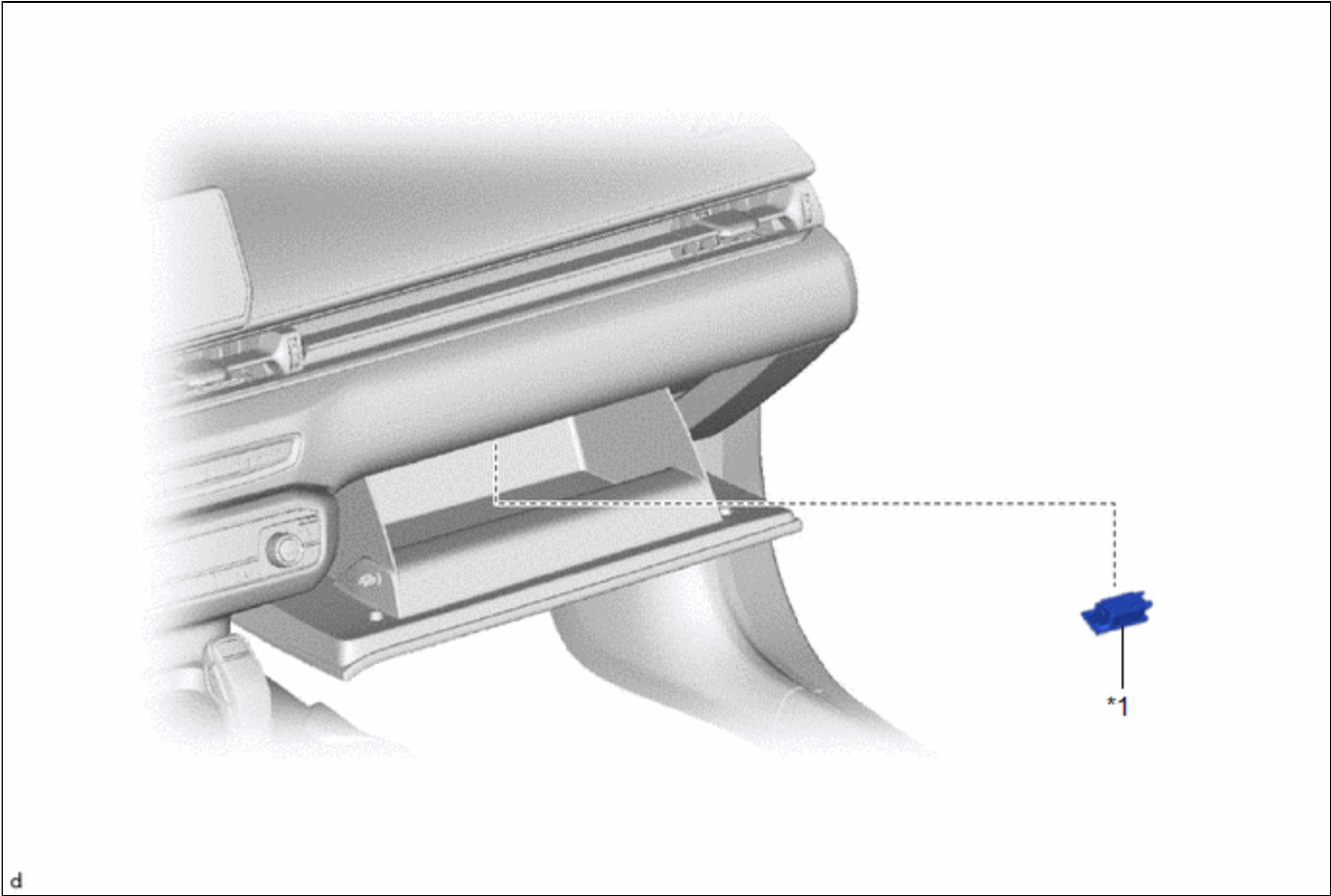
3. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY (for Front Passenger Side)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): GLOVE BOX LIGHT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



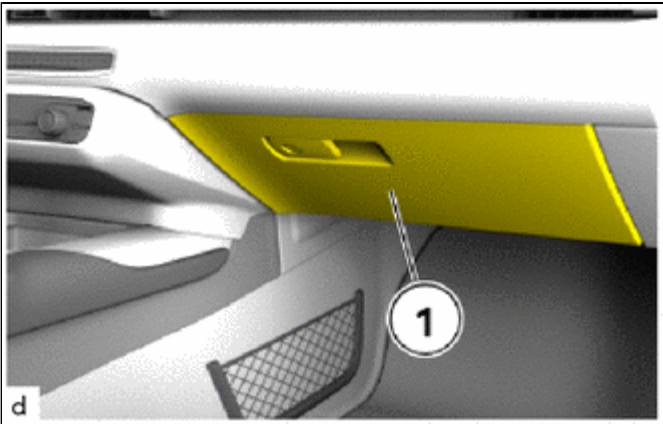
*1	GLOVE BOX LIGHT	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): GLOVE BOX LIGHT: REMOVAL; 2020 MY Supra [03/2019 -]		

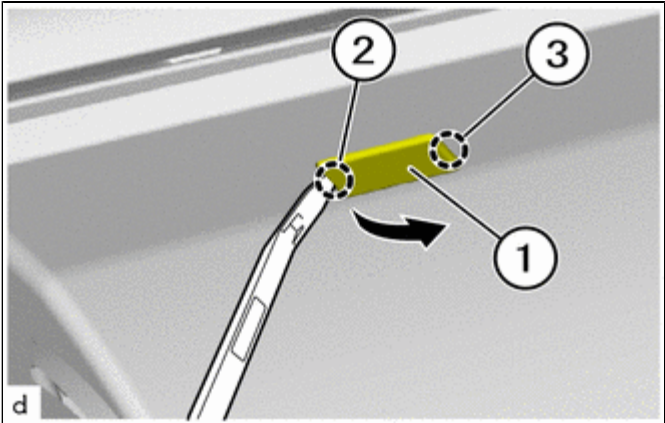
REMOVAL PROCEDURE

1. REMOVE GLOVE BOX LIGHT

(a) Open glove compartment door assembly (1).

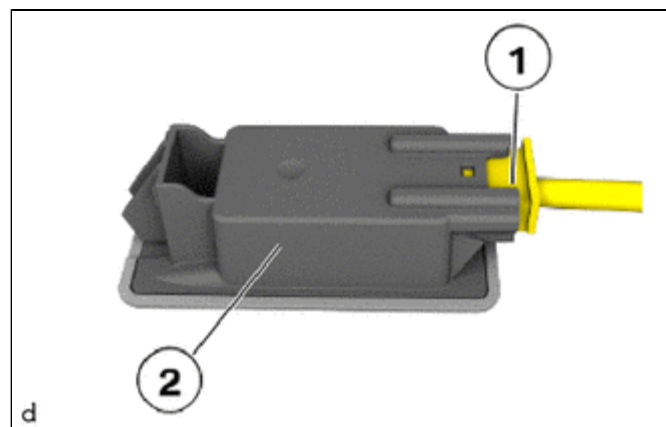


(b) Using a molding remover A, detach the claw (2) and guide (3) to remove the glove box light (1) in the direction of the arrow.



Remove in this Direction

(c) Unlock plug connection (1) and disconnect.



(d) Remove glove box light (2).



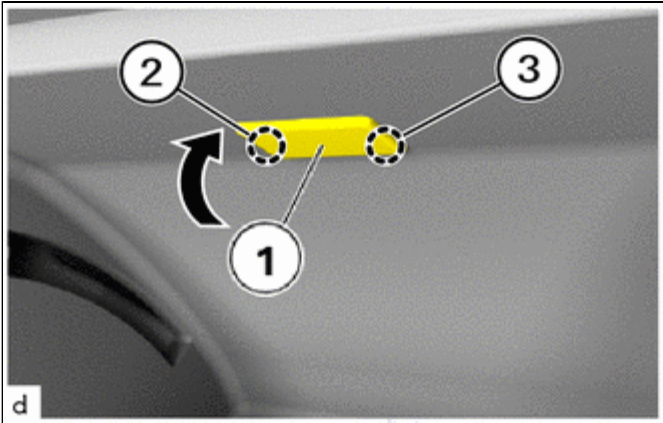
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): GLOVE BOX LIGHT: INSTALLATION; 2020 MY Supra [03/2019 -]		


INSTALLATION

PROCEDURE

1. INSTALL GLOVE BOX LIGHT

- (a) Connect and lock the connector on the glove box light.
- (b) Attach the guide (3) and claw (2) to install the glove box light (1) in the direction of the arrow.





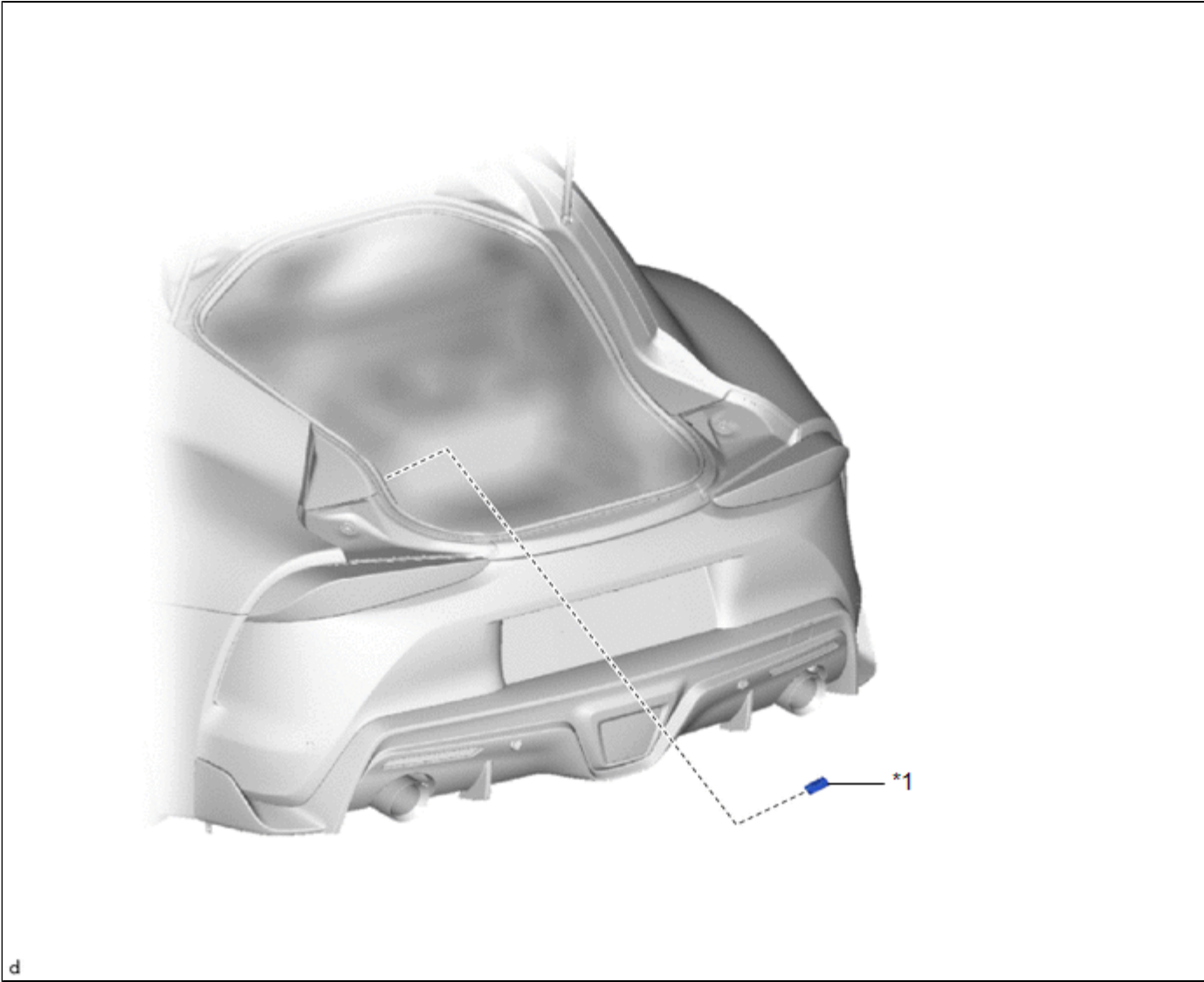
Install in this Direction

- (c) Close glove compartment door assembly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): LUGGAGE COMPARTMENT ROOM LIGHT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): LUGGAGE COMPARTMENT ROOM LIGHT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

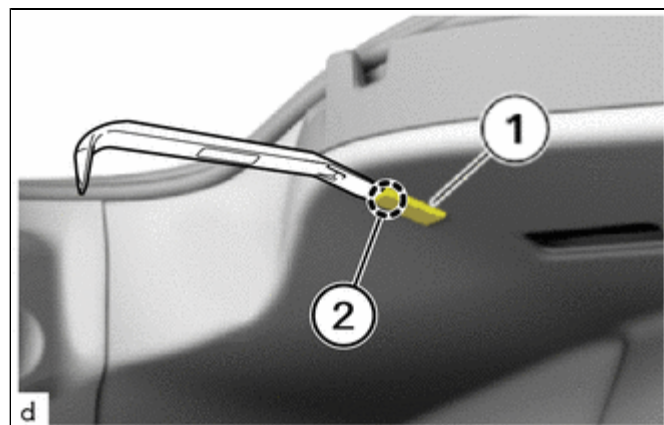
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

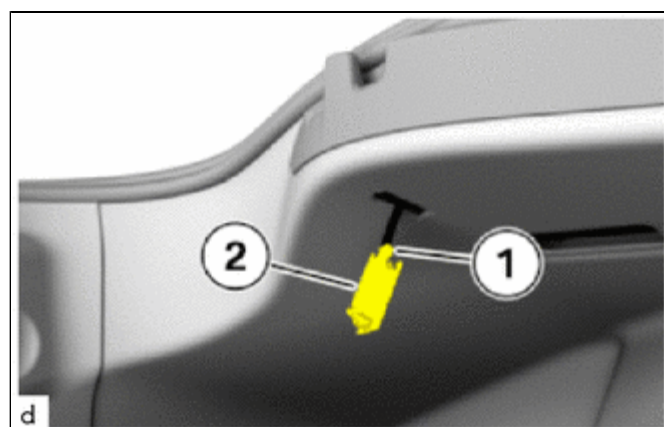
PROCEDURE

1. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

- (a) Using a molding remover A, detach the claw (2) to remove the No. 1 luggage compartment light assembly (1).



- (b) Unlock plug connection (1) and disconnect.



- (c) Remove the No. 1 luggage compartment light assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): LUGGAGE COMPARTMENT ROOM LIGHT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

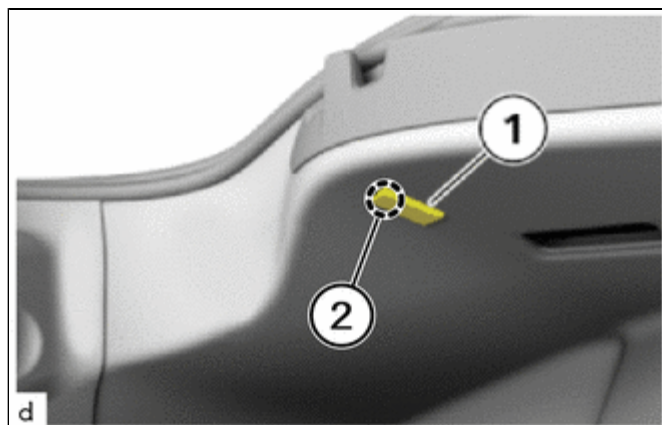
- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

(a) Connect and lock the connector on the No. 1 luggage compartment light assembly.

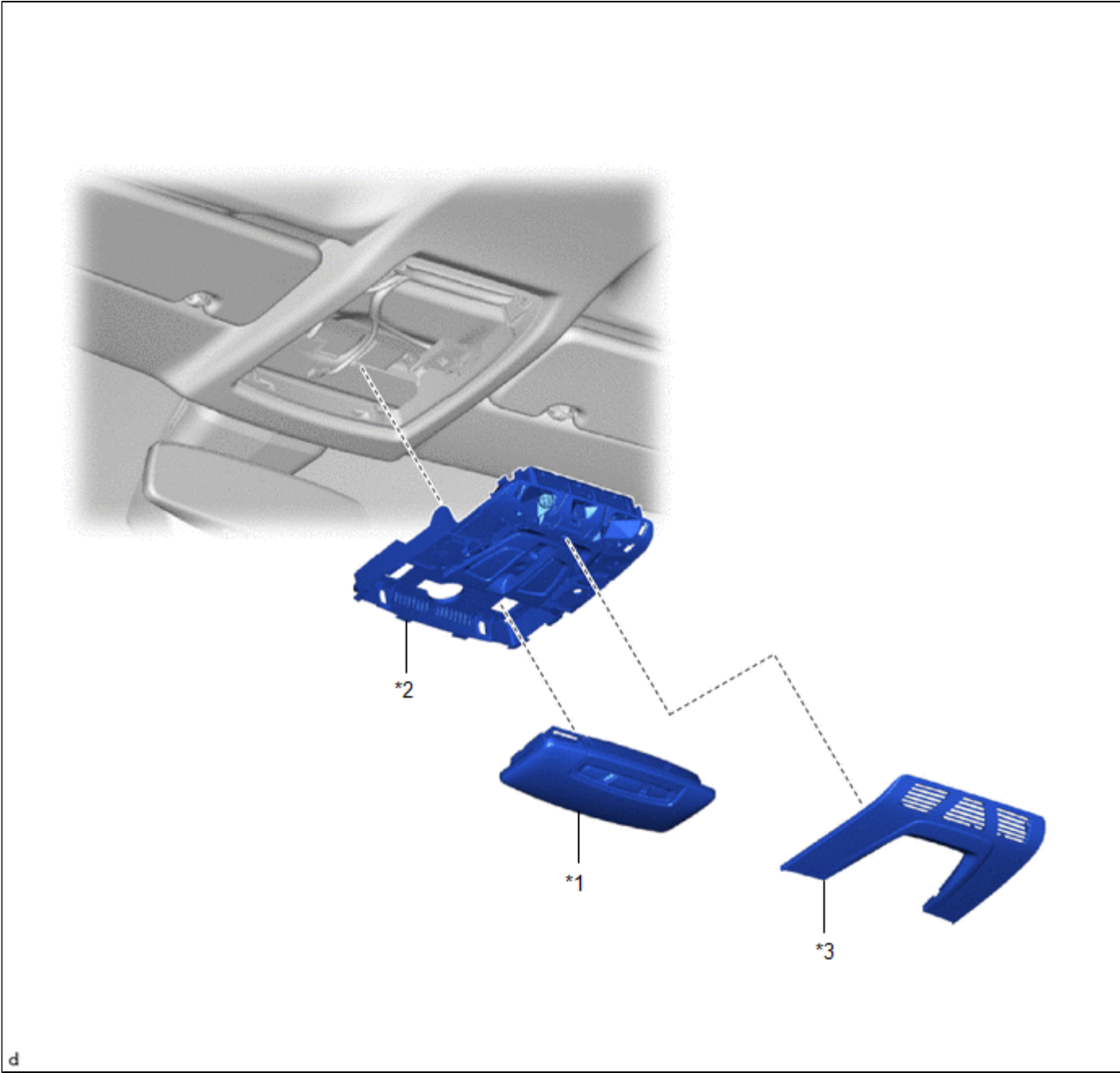
(b) Attach the claw (2) to install the No. 1 luggage compartment light assembly (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): PERSONAL LIGHT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	MAP LIGHT ASSEMBLY	*2	ROOF CONSOLE BOX SUB-ASSEMBLY
*3	ROOF CONSOLE BOX COVER	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): PERSONAL LIGHT: REMOVAL; 2020 MY Supra [03/2019 -]		

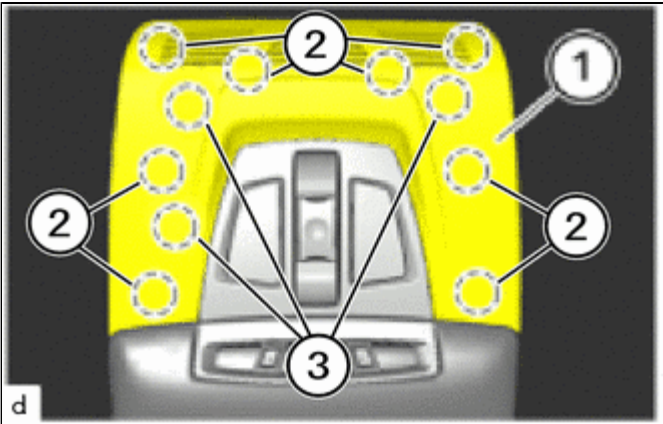
REMOVAL

PROCEDURE

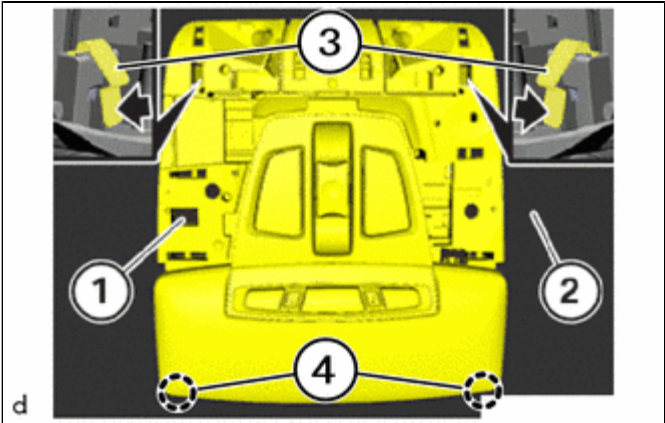
1. REMOVE ROOF CONSOLE BOX SUB-ASSEMBLY

(a) Using a molding remover A, detach the claws (2) and guides (3) to remove the roof console box cover (1).

NOTICE:
Carefully detach and remove the roof console box cover, not to damage the claws.



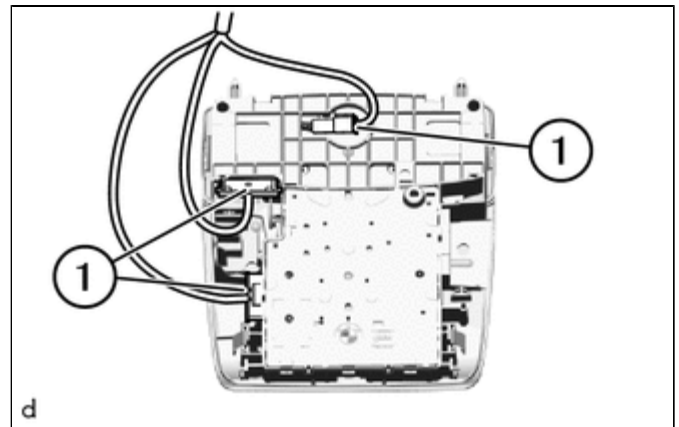
(b) Detach the retaining lugs (3) on the left and right using a screwdriver in the direction of the arrows.



Push

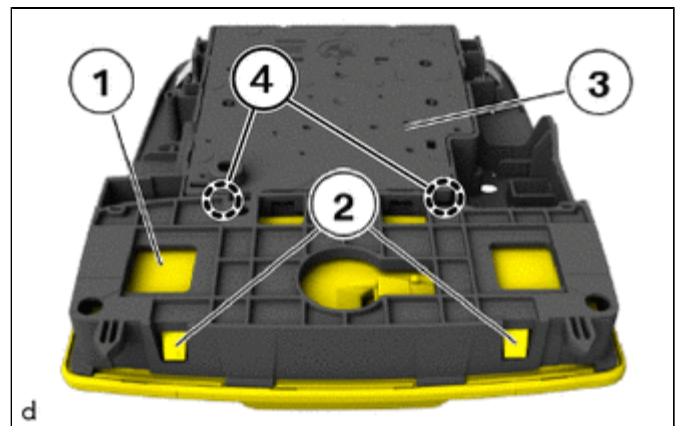
(c) Detach the guides (4) to remove the roof console box sub-assembly (1) from the roof headlining assembly (2).

(d) Unlock associated plug (1) connections and disconnect.



2. REMOVE MAP LIGHT ASSEMBLY

(a) Detach the clamps (2) and guides (4) to remove the map light assembly (1) from the roof console box sub-assembly (3).



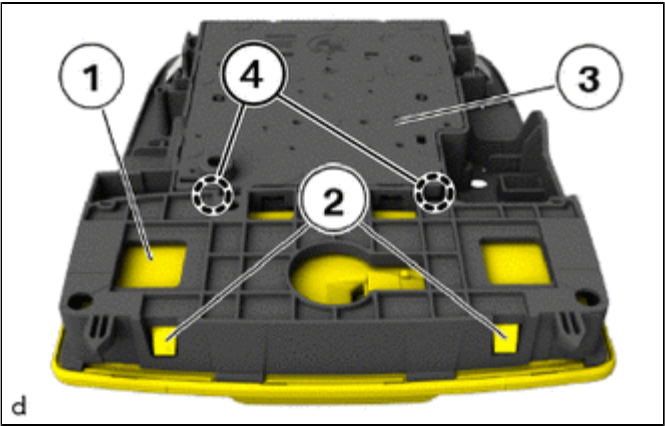
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): PERSONAL LIGHT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

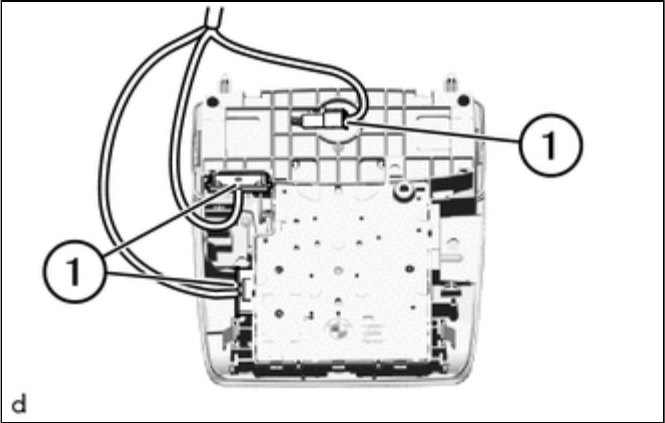
1. INSTALL MAP LIGHT ASSEMBLY

- (a) Attach the guides (4) and clamps (2) to install the map light assembly (1) to the roof console box sub-assembly (3).

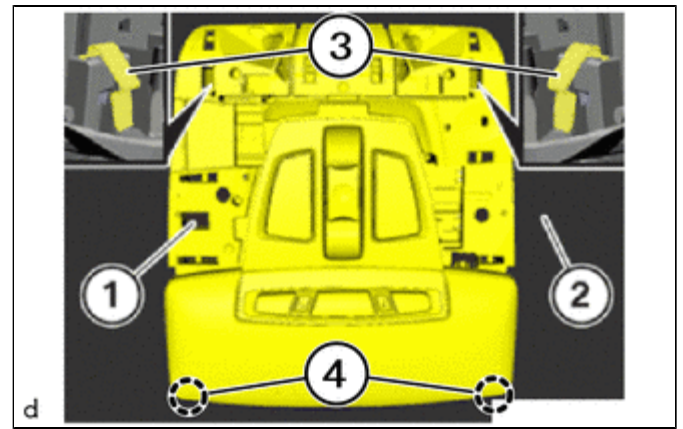


2. INSTALL ROOF CONSOLE BOX SUB-ASSEMBLY

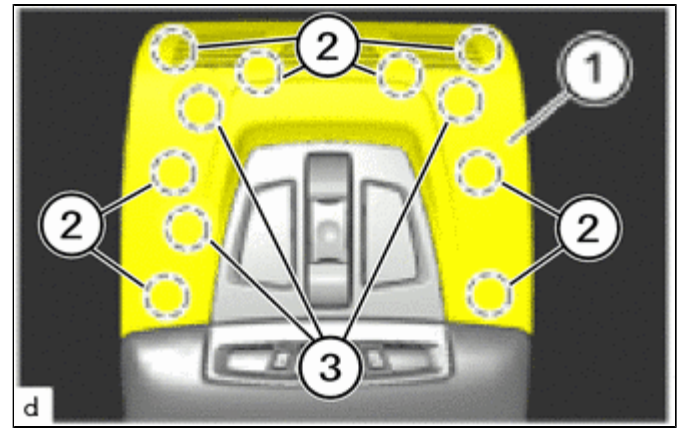
- (a) Connect and lock corresponding connectors (1).



- (b) Attach the guides (4) and lugs (3) to join the roof console box sub-assembly (1) to the roof headlining assembly (2).



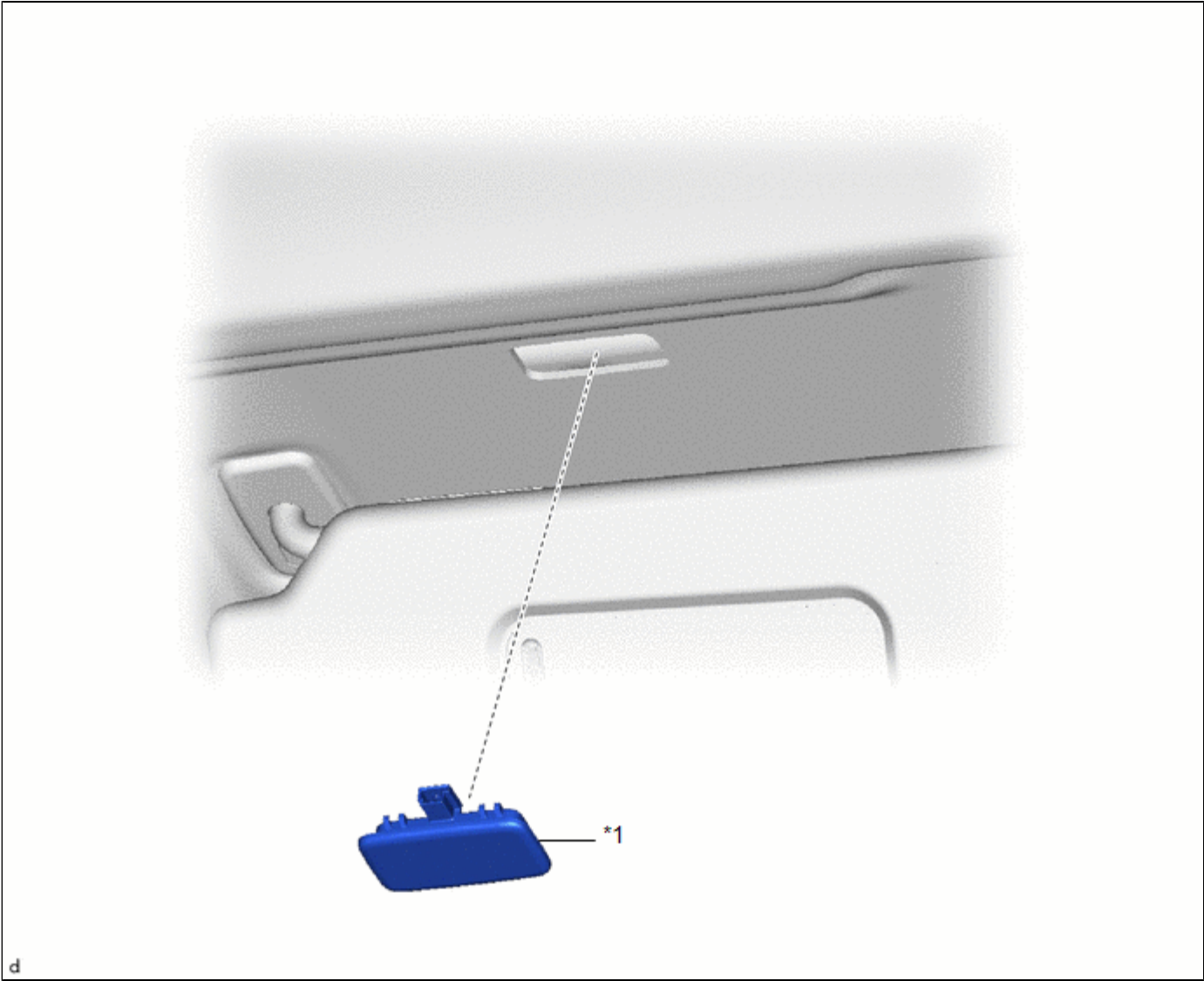
(c) Attach the guides (3) and claws (2) to install the roof console box cover (1) carefully on the marks on the roof console box sub-assembly.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): VANITY LIGHT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VANITY LIGHT ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): VANITY LIGHT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

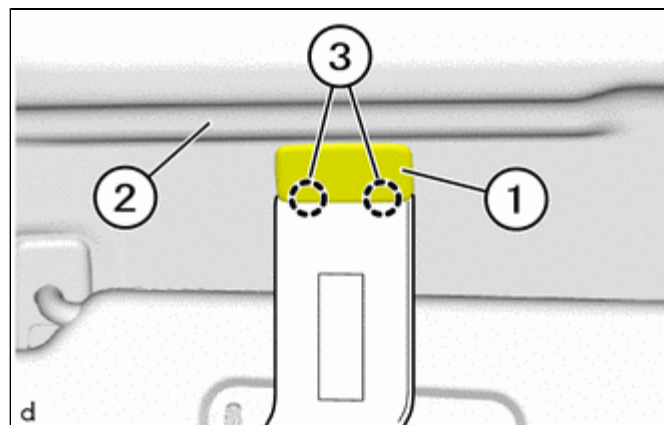
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

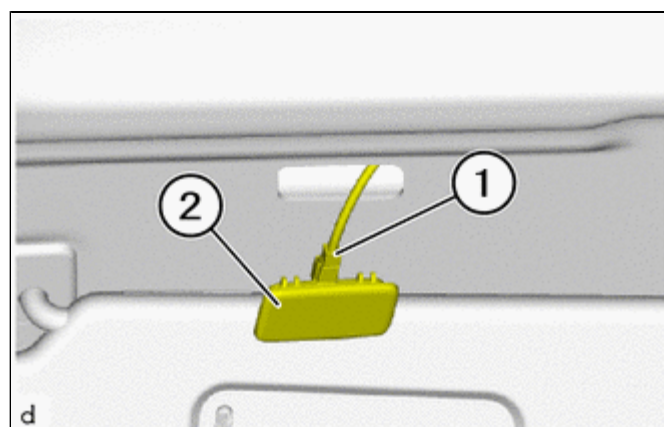
PROCEDURE

1. REMOVE VANITY LIGHT ASSEMBLY

- (a) Using a molding remover D, detach the claws (3) to remove the vanity light assembly (1) from roof headlining assembly (2).



- (b) Unlock and disconnect connector (1).



- (c) Remove vanity light assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): VANITY LIGHT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

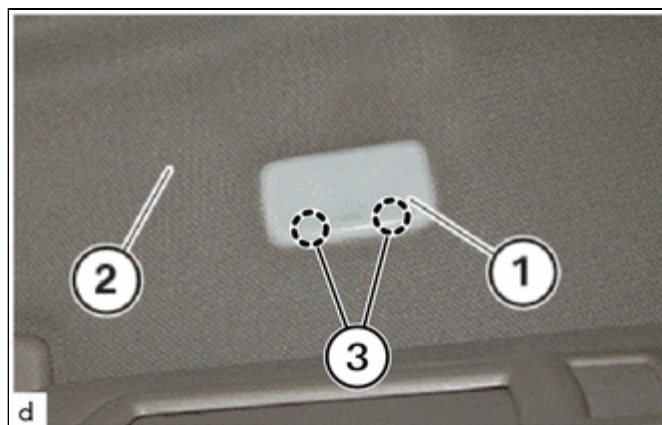
- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

PROCEDURE

1. INSTALL VANITY LIGHT ASSEMBLY

(a) Connect the connector to the vanity light assembly.

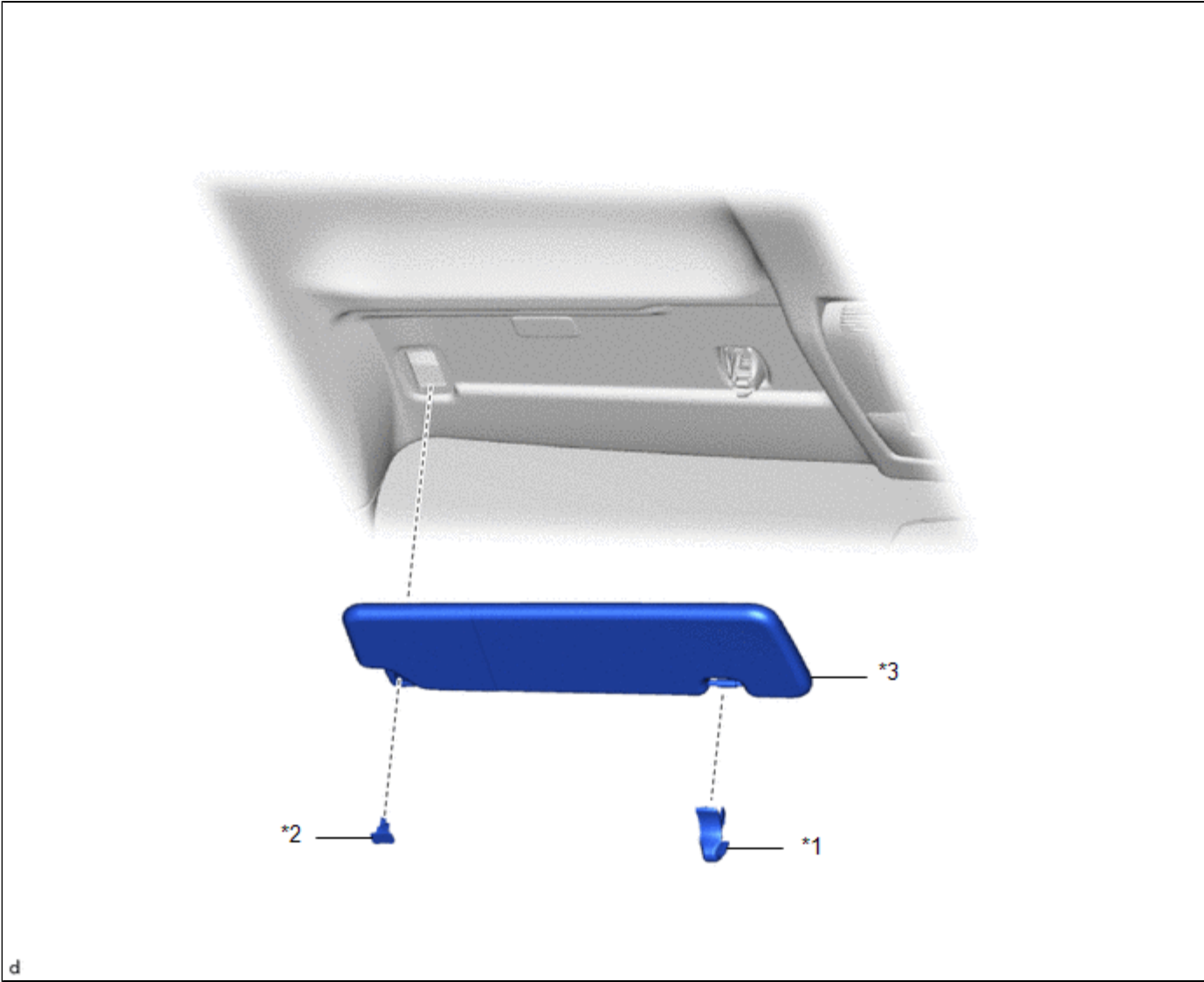
(b) Attach the claws (3) to install the vanity light assembly (1) in the roof headlining assembly (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): VANITY LIGHT SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	VISOR HOLDER COVER	*2	COVER
*3	VISOR ASSEMBLY	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): VANITY LIGHT SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

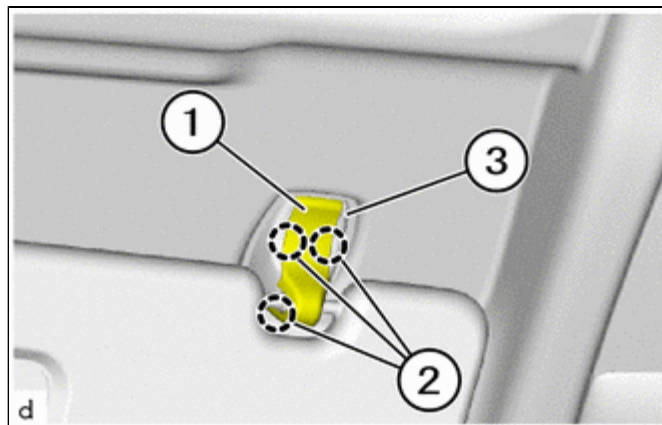
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

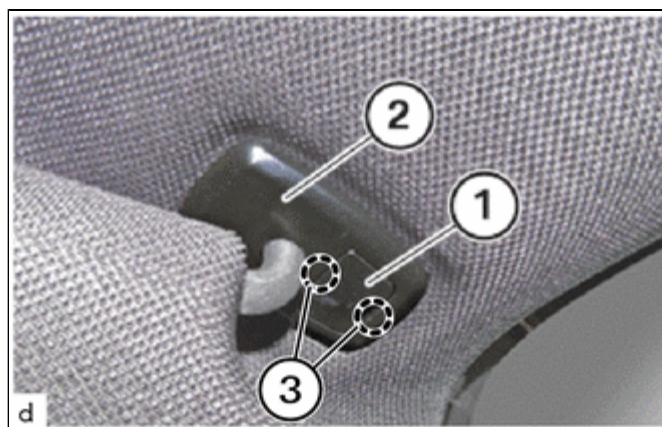
PROCEDURE

1. REMOVE VISOR ASSEMBLY

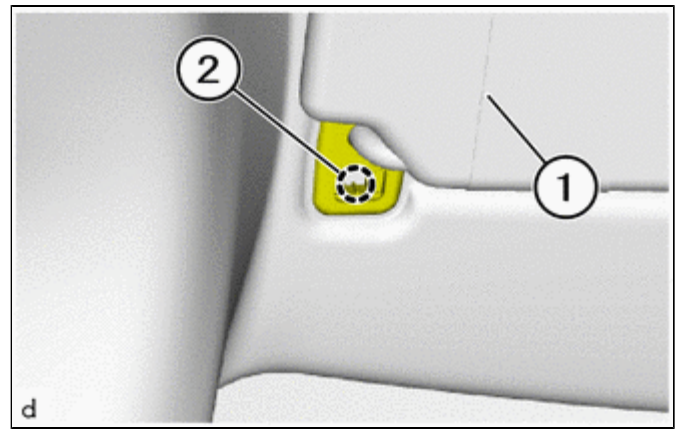
- (a) Detach the claws (2) to pull out the visor holder cover (1) from the visor holder (3).



- (b) Detach the claws (3) to pull out the cover (1) from the visor assembly (2).



(c) Detach the clip (2) to remove visor assembly (1).



(d) Unlock plug connection and disconnect.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: LIGHTING (INT): VANITY LIGHT SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

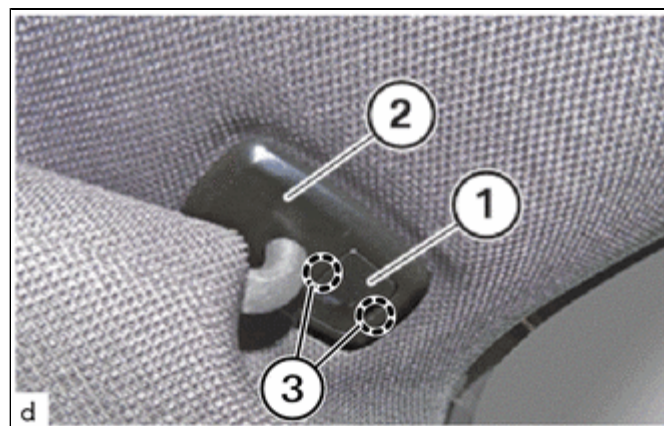
HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

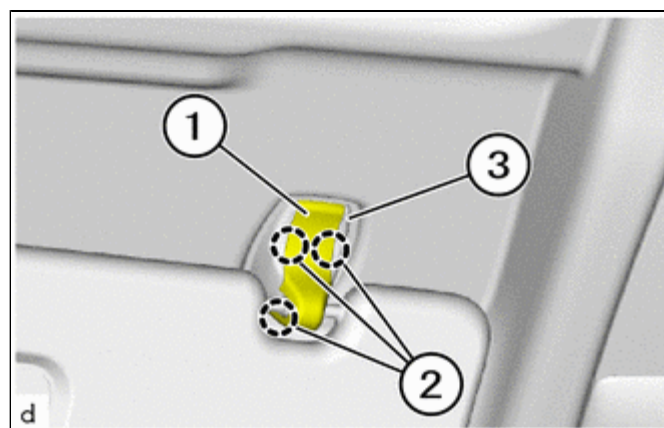
PROCEDURE

1. INSTALL VISOR ASSEMBLY

- Connect and lock the connector.
 - Attach the clip to install the visor assembly.
- (c) Attach the claws (3) to install cover (1) to the visor assembly (2).



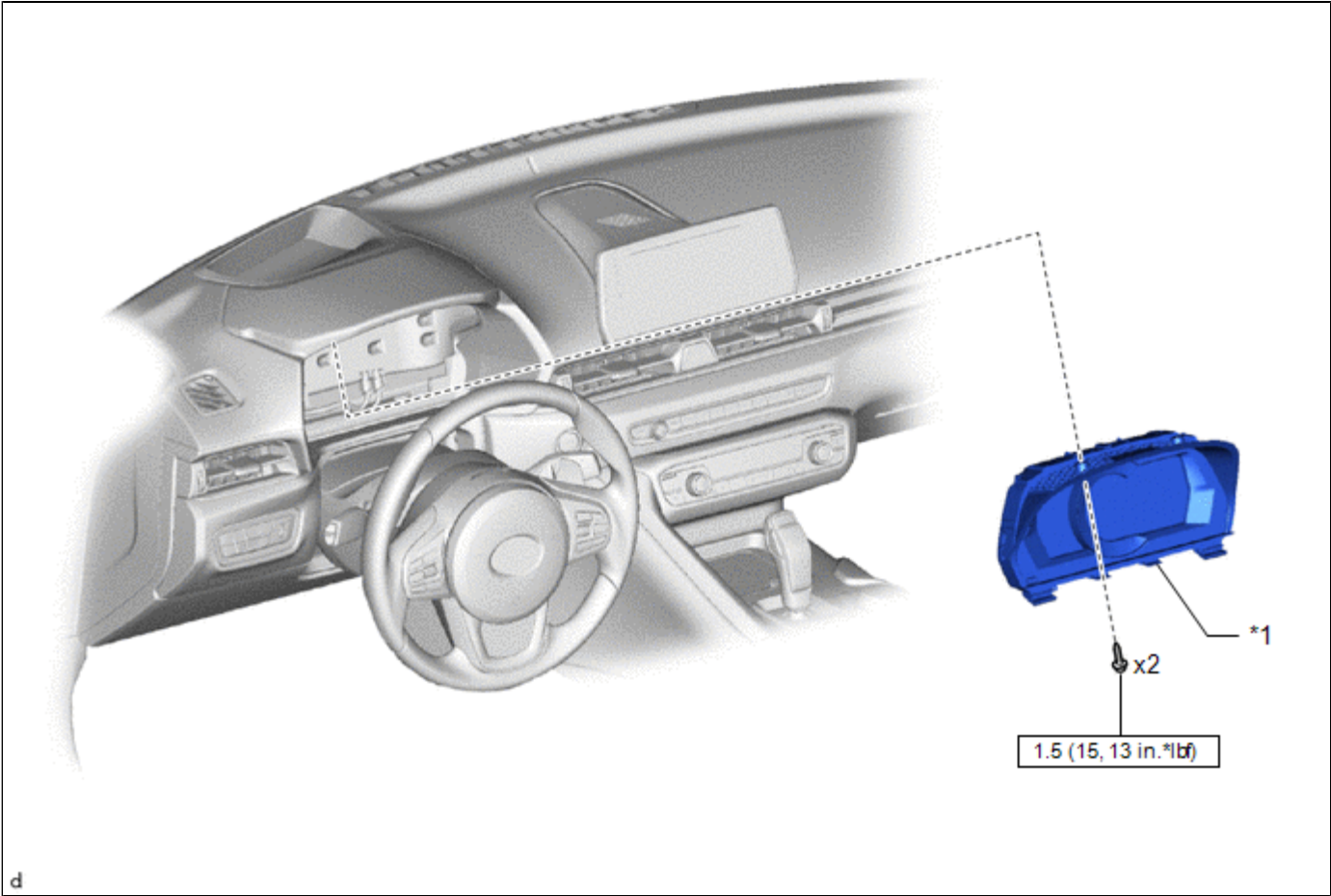
- (d) Attach the claws (2) to install visor holder cover (1) to the visor holder (3).




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: COMBINATION METER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	COMBINATION METER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: COMBINATION METER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Combination meter assembly must be programed after it is replaced.

For additional information see:

Click here [INFO](#)

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

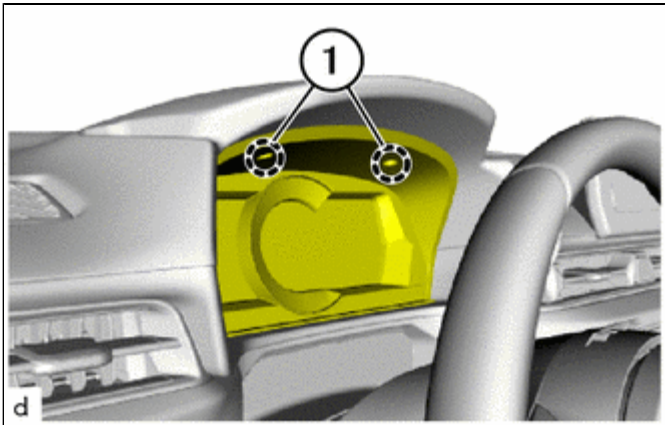
Click here [INFO](#)

2. ADJUST THE STEERING COLUMN POSITION

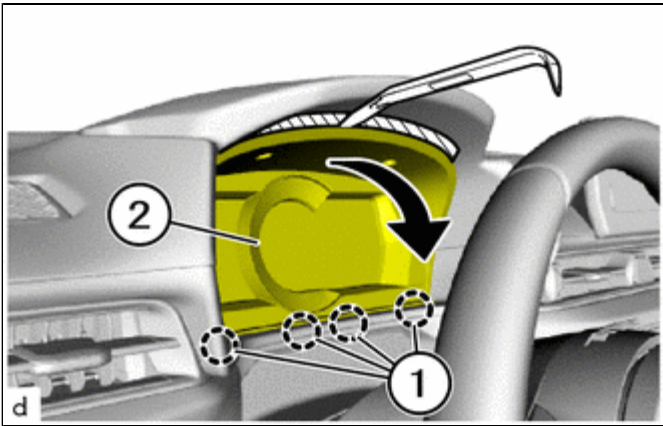
- Adjust the length of the steering column to the maximum length.
- Move the steering column to the lowest steering column position.



3. REMOVE COMBINATION METER ASSEMBLY

(a) Loosen T20 screws (1).



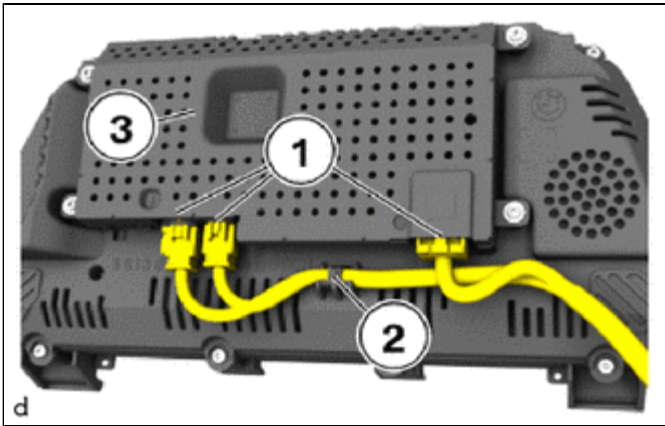
(b) Apply protective tape as shown in the illustration.



	Rotate
	Protective Tape

(c) Using a molding remover A, rotate the combination meter assembly (2) forward in direction of arrow.

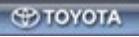
(d) Detach the retaining tabs (1) to pull the combination meter assembly (2) forward.



(e) Unlock and disconnect plug connections (1).

(f) Detach wiring harness from the holder (2).

(g) Removing the combination meter assembly (3).



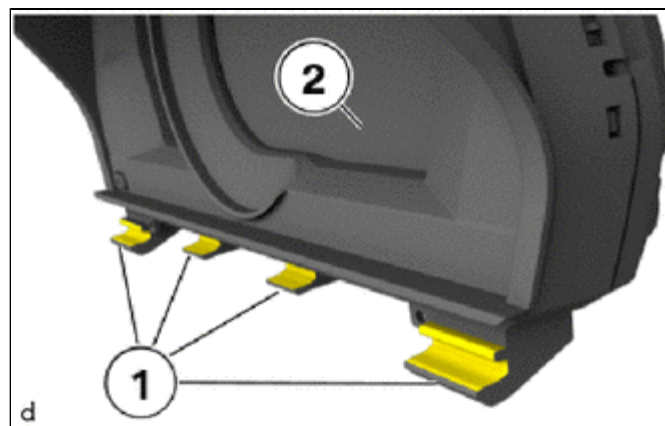
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: COMBINATION METER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

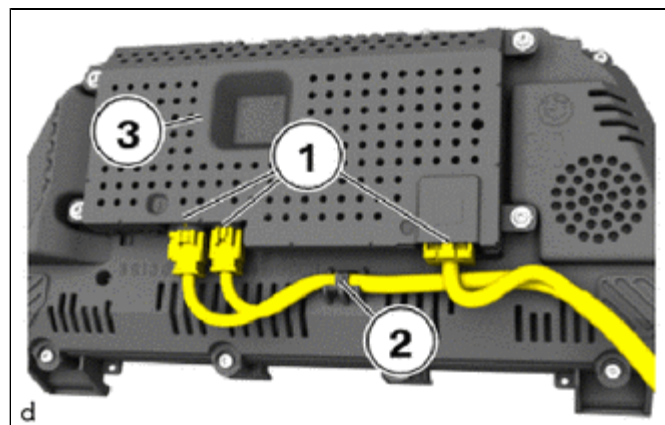
PROCEDURE

1. INSTALL COMBINATION METER ASSEMBLY

- (a) When installing the combination meter assembly (2), make sure that the retaining tabs (1) are positioned correctly.

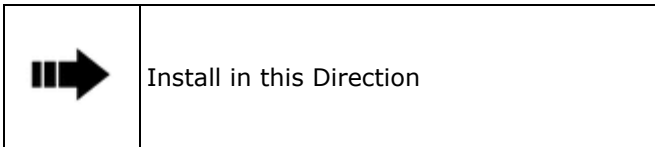
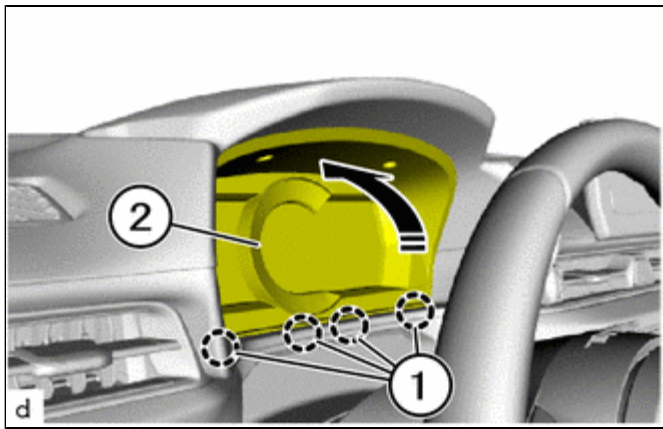


- (b) Attach wiring harness in the holder (2) on the combination meter assembly (3).



- (c) Connect connectors (1) and lock.

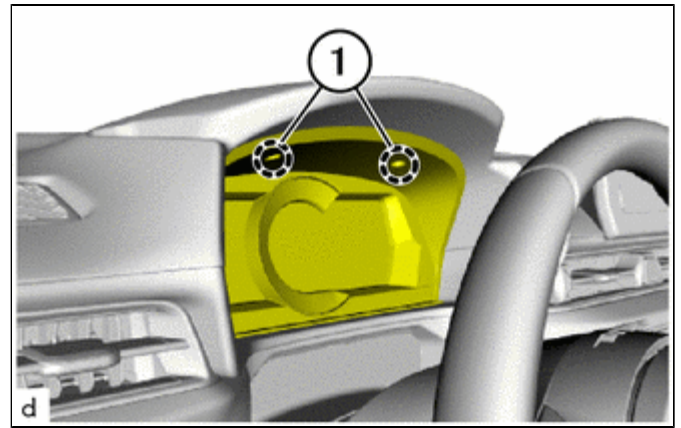
- (d) Position combination meter assembly (2) and attach the retaining tabs (1) to install it in direction of arrow.



(e) Tighten the T20 screws (1).

Torque:

1.5 N·m {15 kgf·cm, 13 in·lbf}



2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

3. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

(h) Disconnect the diagnosis system from the vehicle.

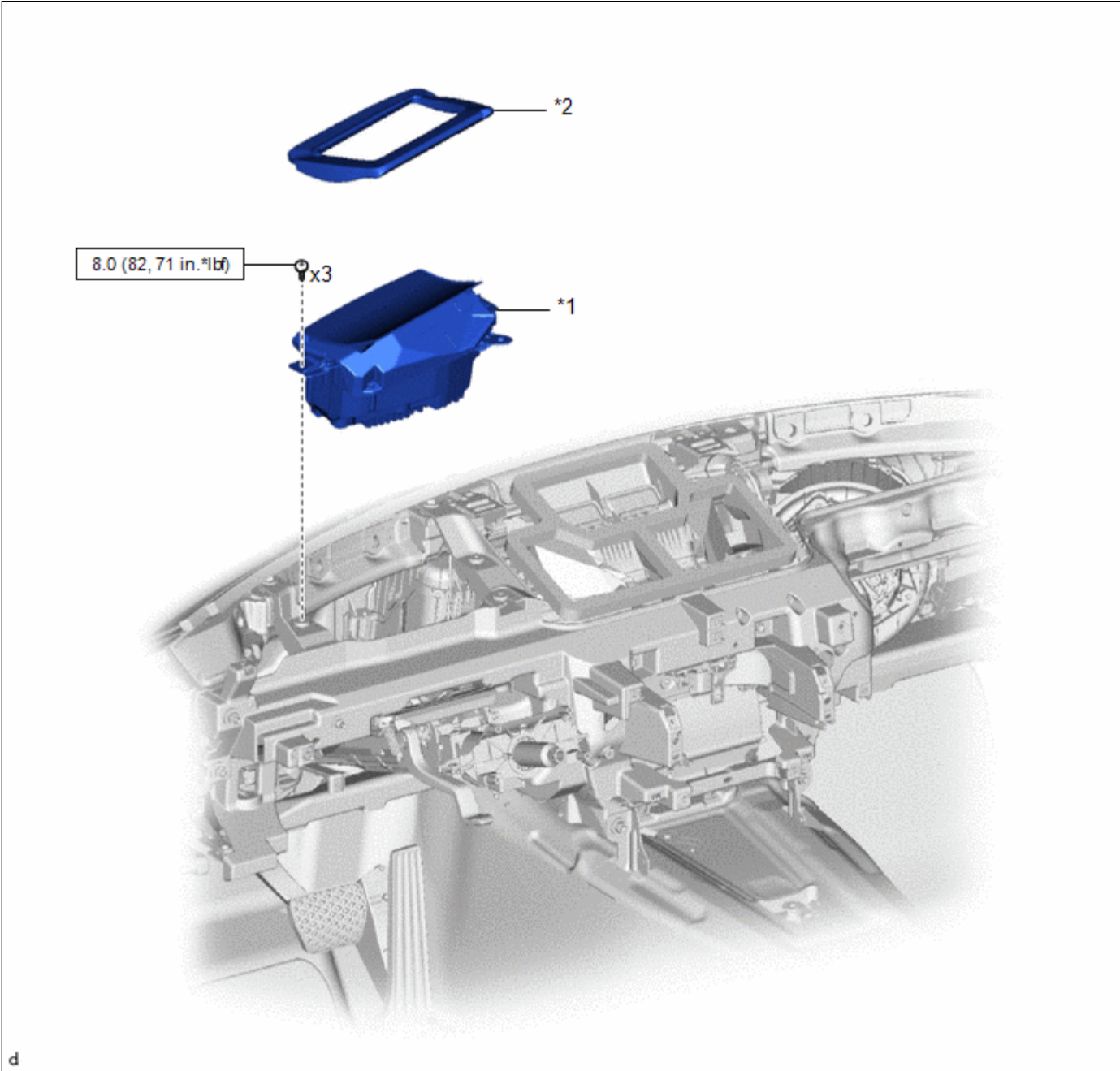
(i) Disconnect the battery charger from the vehicle.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: HEADUP DISPLAY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	METER MIRROR SUB-ASSEMBLY	*2	NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: HEADUP DISPLAY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.

- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Meter mirror sub-assembly must be programmed after it is replaced.

For additional information see:

Click here [INFO](#)

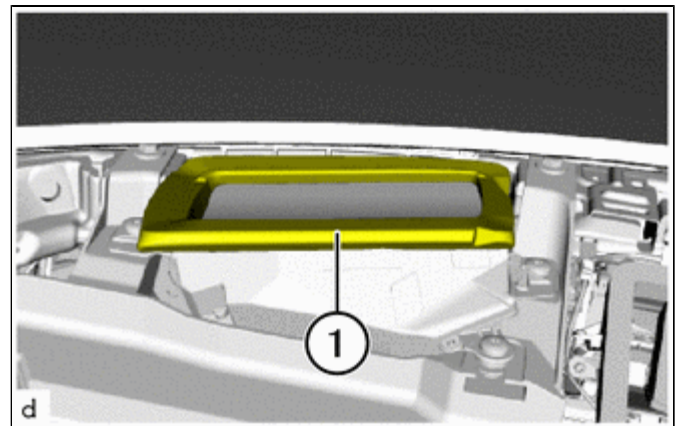
PROCEDURE

1. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

(a) Remove the No. 1 instrument cluster finish panel seal (1).



3. REMOVE METER MIRROR SUB-ASSEMBLY

NOTICE:

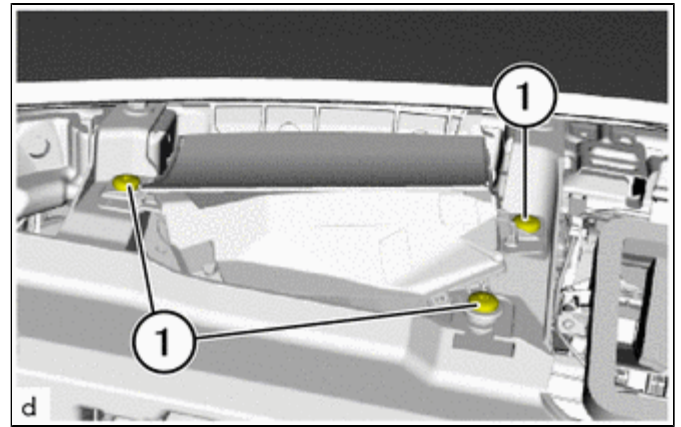
- Electrostatic discharge.

Damage to or destruction of electrical components.

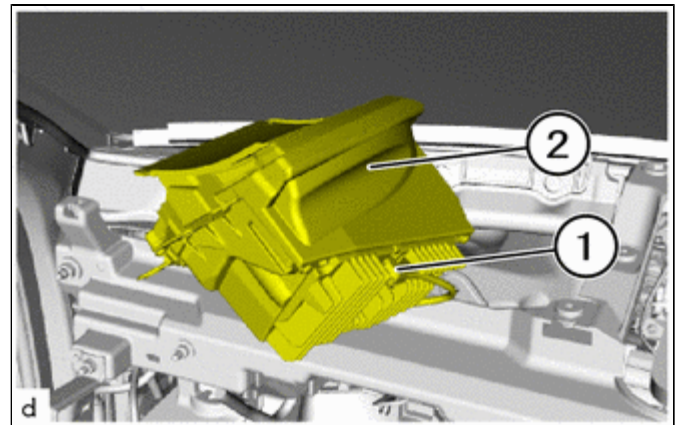
- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Remove the T30 bolts (1).



(b) Feed out meter mirror sub-assembly (2) from instrument panel reinforcement sub-assembly.



(c) Unlock plug connection (1) and disconnect.

(d) Remove the meter mirror sub-assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: HEADUP DISPLAY: INSTALLATION; 2020 MY Supra [03/2019 -]		

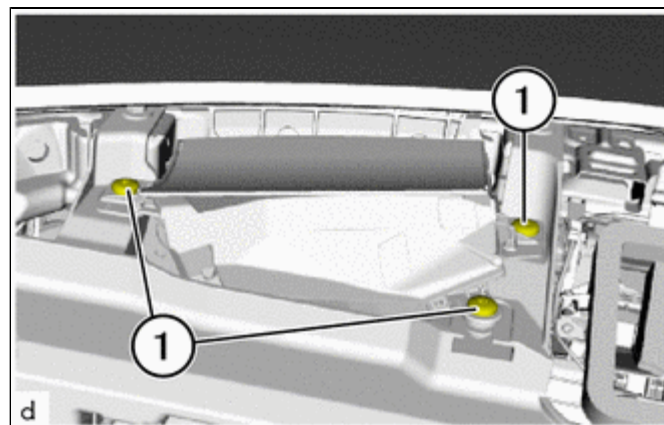
INSTALLATION

PROCEDURE

1. INSTALL METER MIRROR SUB-ASSEMBLY

(a) Connect the associated connector to the meter mirror sub-assembly and lock.

(b) Temporarily install the meter mirror sub-assembly with T30 bolts (1).



(c) Tighten the T30 bolts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

(a) Install the No. 1 instrument cluster finish panel seal.

3. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

4. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

(h) Disconnect the diagnosis system from the vehicle.

(i) Disconnect the battery charger from the vehicle.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: LIGHT CONTROL RHEOSTAT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INSTRUMENT PANEL FINISH PANEL SUB-ASSEMBLY	*2	LIGHT CONTROL RHEOSTAT (NO. 1 LIGHT CONTROL SWITCH ASSEMBLY)
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: LIGHT CONTROL RHEOSTAT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCH4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: METER / GAUGE / DISPLAY: LIGHT CONTROL RHEOSTAT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

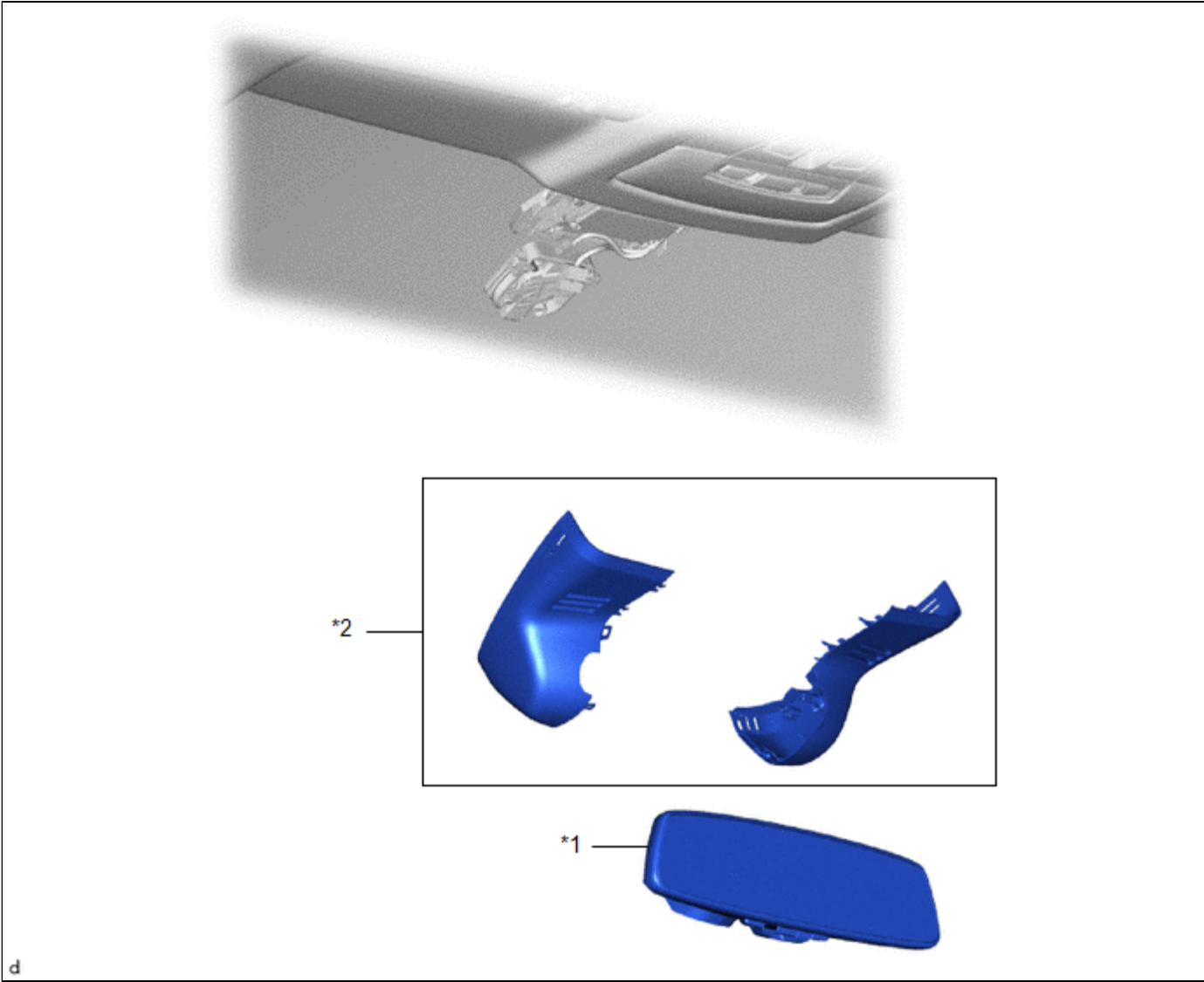
CAUTION / NOTICE / HINT

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (INT): INNER REAR VIEW MIRROR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INNER REAR VIEW MIRROR ASSEMBLY	*2	INNER REAR VIEW MIRROR STAY HOLDER COVER
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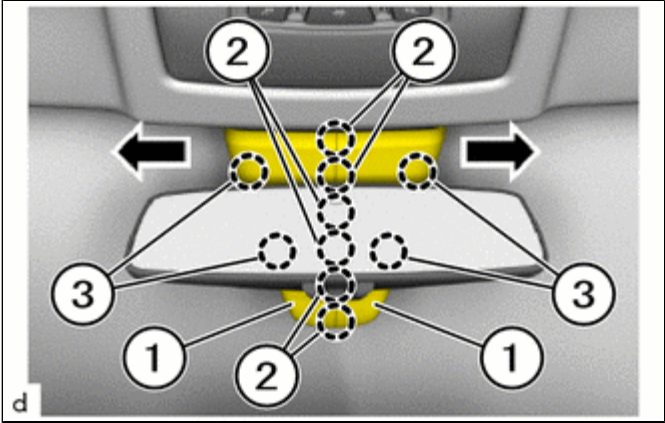
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (INT): INNER REAR VIEW MIRROR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE INNER REAR VIEW MIRROR STAY HOLDER COVER

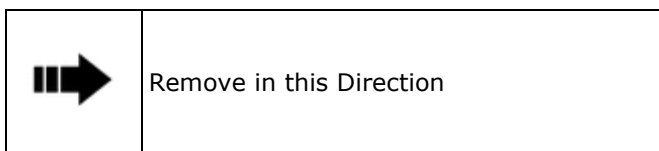
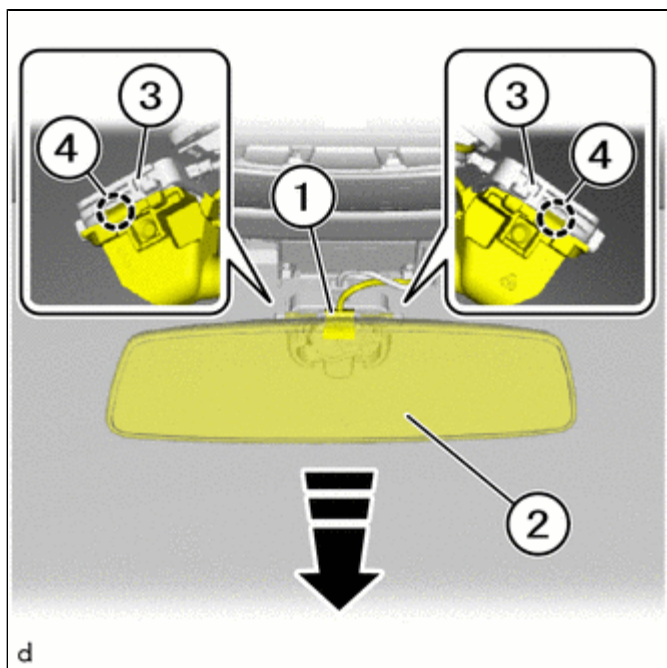
- (a) Detach the claws (2) and guides (3) to remove the inner rear view mirror stay holder cover (1) in the direction of the arrow.



Remove in this Direction

2. REMOVE INNER REAR VIEW MIRROR ASSEMBLY

- NOTICE:**
 Carry out the work at temperatures between 18 °C and 23 °C only.
- (a) Unlock plug connection (1) and disconnect.



(b) Detach the guides (4) and pull to remove the inner rear view mirror assembly (2) from the mirror base (3) in the direction of the arrow.

NOTICE:

- Damage to the component.

Excessive force may damage the component.

- Handle component carefully.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: MIRROR (INT): INNER REAR VIEW MIRROR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

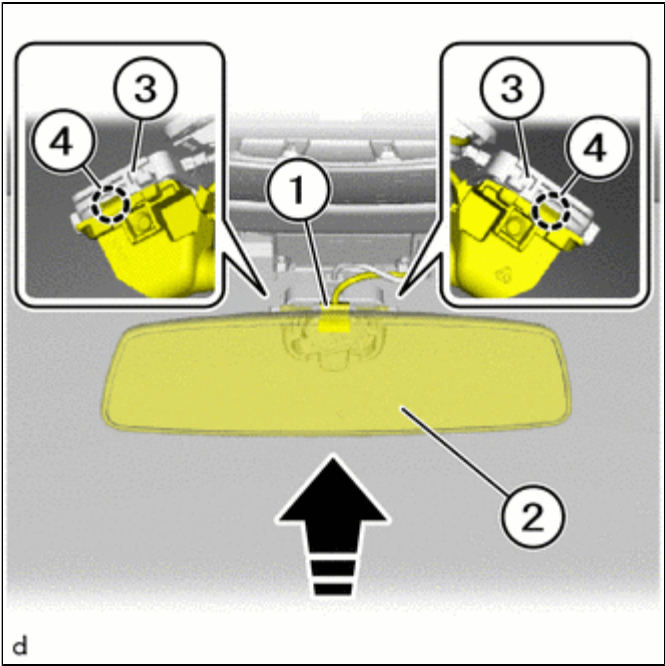
PROCEDURE


1. INSTALL INNER REAR VIEW MIRROR ASSEMBLY

NOTICE:

Carry out the work at temperatures between 18 °C and 23 °C only.

- (a) Attach the guides (4) to install the inner rear view mirror assembly (2) at the mirror base (3) and slide in the direction of the arrow.





Install in this Direction

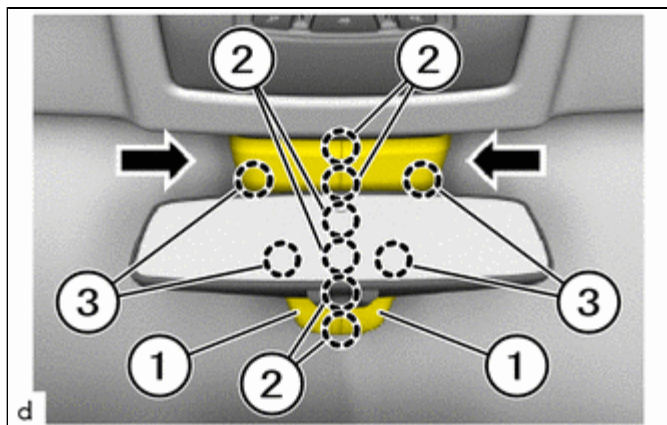
HINT:

Check the correct installation position of the interior mirror (2) at the mirror base (3).

- (b) Connect connector (1) and lock.

2. INSTALL INNER REAR VIEW MIRROR STAY HOLDER COVER

- (a) Attach the guides (3) and claws (2) to install the inner rear view mirror stay holder cover (1) in the direction of the arrow.



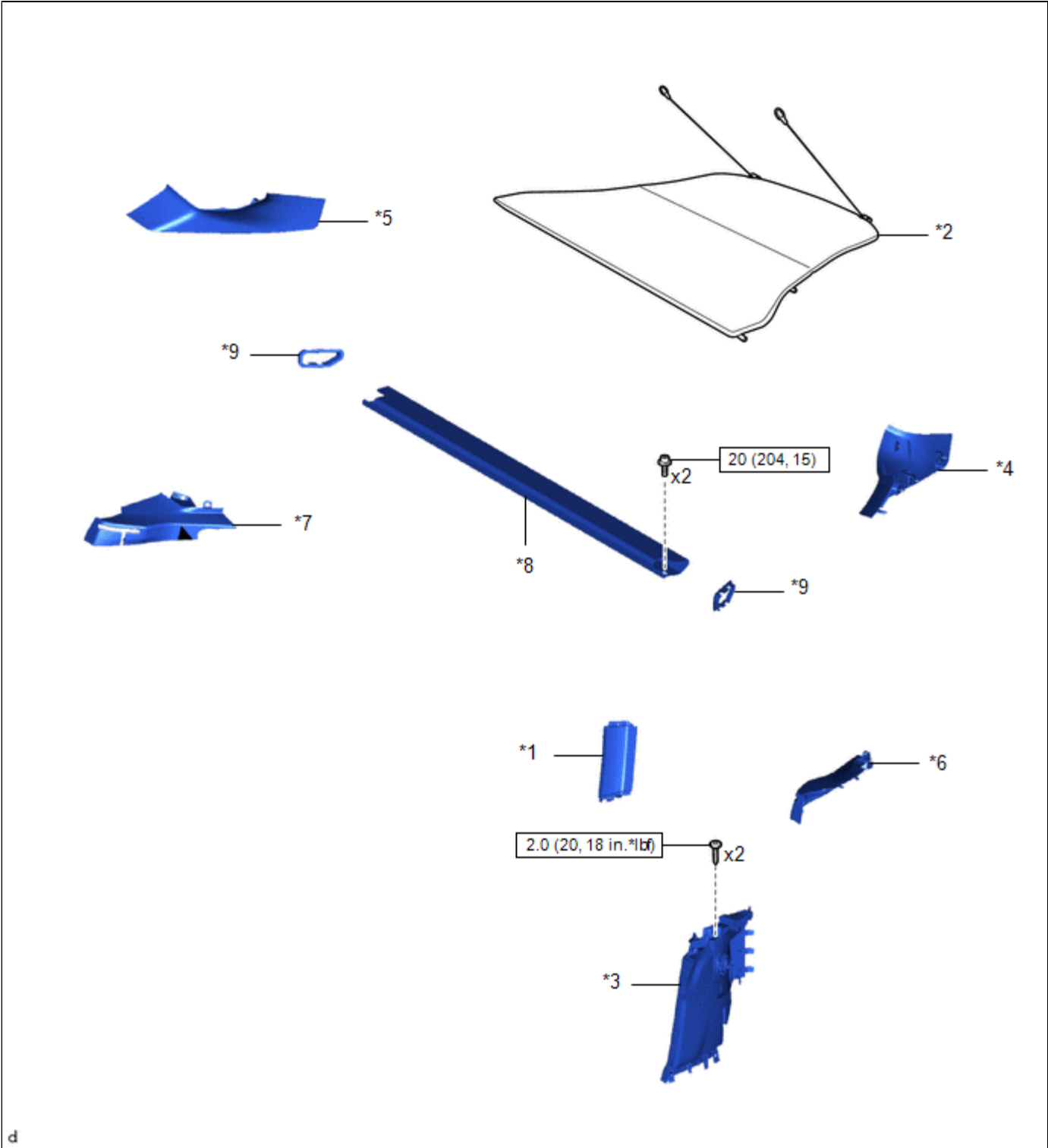
Install in this Direction




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): LTE LINE COMPENSATOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

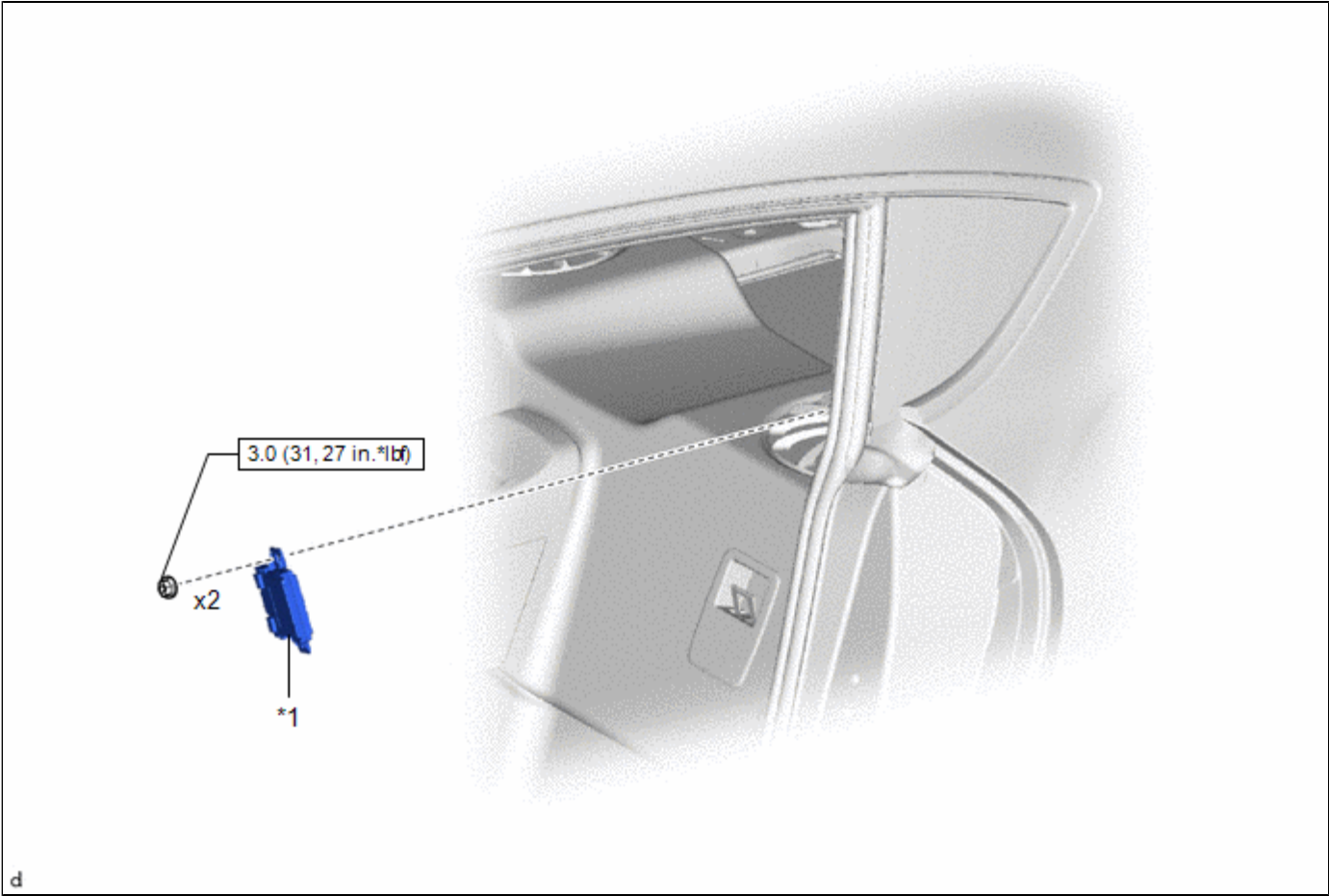
ILLUSTRATION



	CENTER PILLER GARNISH ASSEMBLY	PACKAGE TRAY TRIM PANEL
--	--------------------------------	-------------------------

*1	LH	*2	ASSEMBLY
*3	QUARTER TRIM UPPER PANEL LH	*4	ROOF SIDE INNER GARNISH ASSEMBLY LH
*5	ROOF SIDE INNER GARNISH ASSEMBLY RH	*6	SEAT BELT HOLE COVER SUB-ASSEMBLY LH
*7	SEAT BELT HOLE COVER SUB-ASSEMBLY RH	*8	TRANSVERSE PIPE
*9	TRANSVERSE PIPE TRIM	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	LTE COMPENSATOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified	-	-

<div></div>	torque		
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): LTE LINE COMPENSATOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

3. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

4. SEPARATE TRANSVERSE PIPE TRIM

Click here [INFO](#)

5. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

6. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

7. REMOVE TRANSVERSE PIPE

Click here [INFO](#)

8. REMOVE CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

9. REMOVE QUARTER TRIM UPPER PANEL LH

10. REMOVE LTE COMPENSATOR

NOTICE:

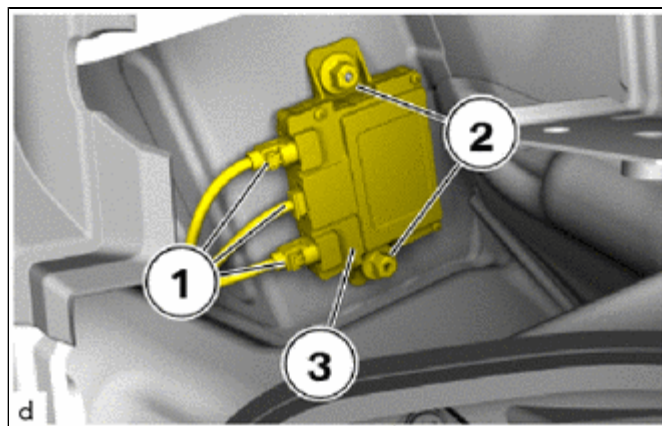
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connections (1) and disconnect.



(b) Loosen nuts (2).

(c) Remove the LTE compensator (3).

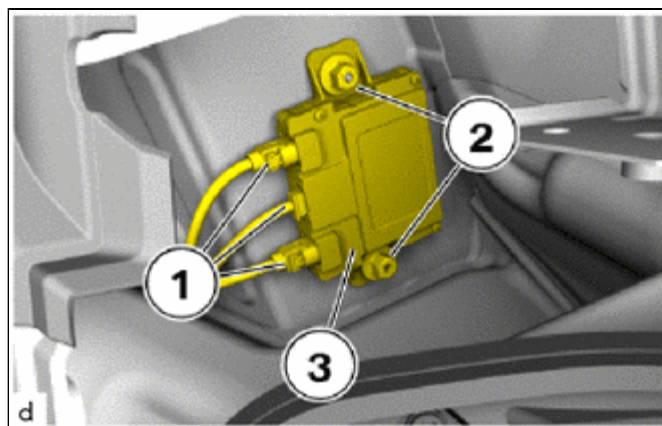
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): LTE LINE COMPENSATOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL LTE COMPENSATOR

(a) Position the LTE compensator (3).



(b) Tighten nuts (2).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(c) Connect connectors (1) and lock.

2. INSTALL QUARTER TRIM UPPER PANEL LH

Click here [INFO](#)

3. INSTALL CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

4. INSTALL TRANSVERSE PIPE

Click here [INFO](#)

5. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

6. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

7. INSTALL TRANSVERSE PIPE TRIM

Click here [INFO](#)

8. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

9. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

10. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

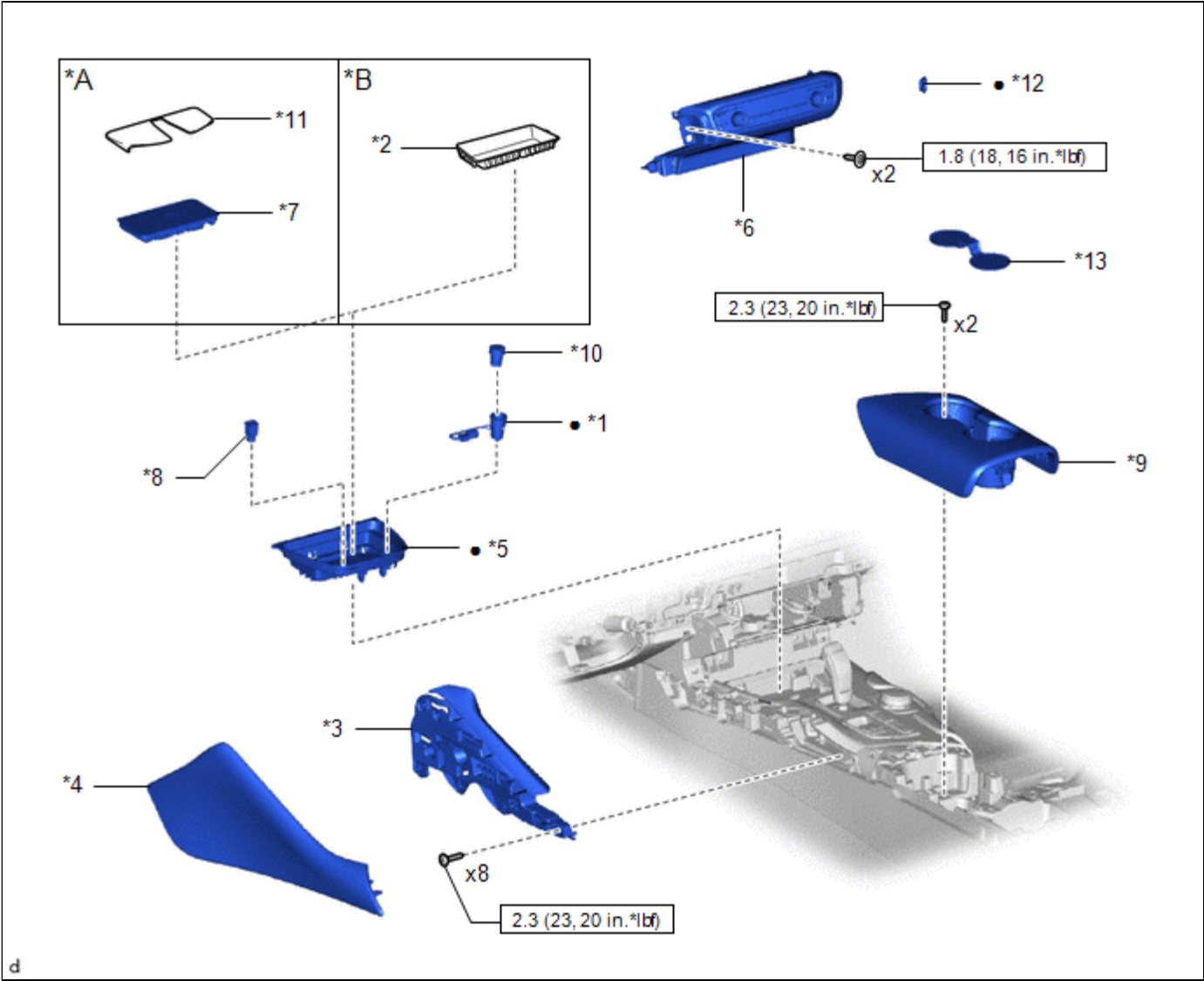
Click here [INFO](#)




Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): POWER OUTLET SOCKET: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Wireless Charger	*B	w/o Wireless Charger
*1	12 V POWER SOCKET	*2	BOX BOTTOM MAT
*3	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*4	CONSOLE SIDE PANEL
*5	FRONT CONSOLE BOX COVER	*6	INSTRUMENT PANEL FINISH LOWER PANEL
	MOBILE WIRELESS CHARGER CRADLE		NO. 1 STEREO JACK ADAPTER

*7	ASSEMBLY	*8	ASSEMBLY
*9	FRONT CONSOLE ARMREST ASSEMBLY	*10	PLUG
*11	UPPER CONSOLE COVER	*12	RUBBER PLUG
*13	NO. 1 CONSOLE BOX SILENCER PAD	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): POWER OUTLET SOCKET: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

2. REMOVE CONSOLE SIDE PANEL

Click here [INFO](#)

3. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

4. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

5. REMOVE FRONT CONSOLE BOX COVER

HINT:

12 V power socket is bonded with the front console box cover and cannot be separated from each other without causing damage. Front console box cover and 12 V power socket must be replaced.

Click here [INFO](#)

6. REMOVE NO. 1 STEREO JACK ADAPTER ASSEMBLY

Click here [INFO](#)

7. REMOVE BOX BOTTOM MAT (w/o Wireless Charger)

Click here [INFO](#)

8. REMOVE MOBILE WIRELESS CHARGER CRADLE ASSEMBLY (w/ Wireless Charger)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): POWER OUTLET SOCKET: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BOX BOTTOM MAT (w/o Wireless Charger)

Click here [INFO](#)

2. INSTALL MOBILE WIRELESS CHARGER CRADLE ASSEMBLY (w/ Wireless Charger)

Click here [INFO](#)

3. INSTALL NO. 1 STEREO JACK ADAPTER ASSEMBLY

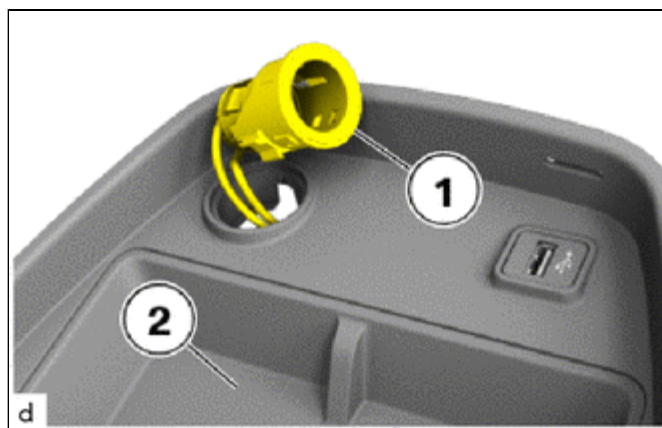
Click here [INFO](#)

4. INSTALL 12 V POWER SOCKET

HINT:

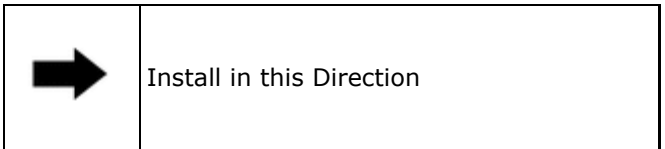
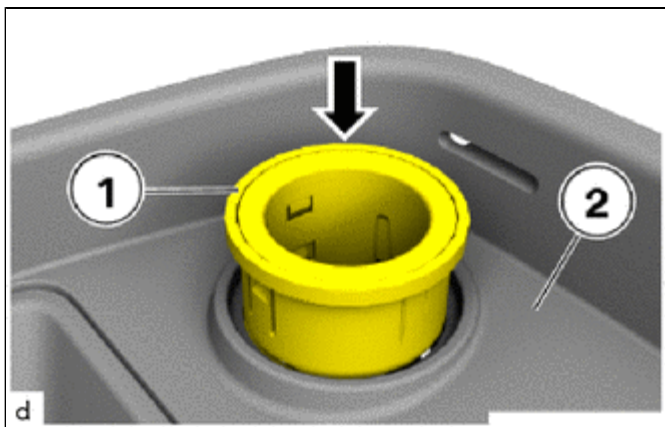
12 V power socket is bonded with the front console box cover and cannot be separated from each other without causing damage. Front console box cover and 12 V power socket must be replaced.

(a) Replace the 12 V power socket (1) and front console box cover (2).

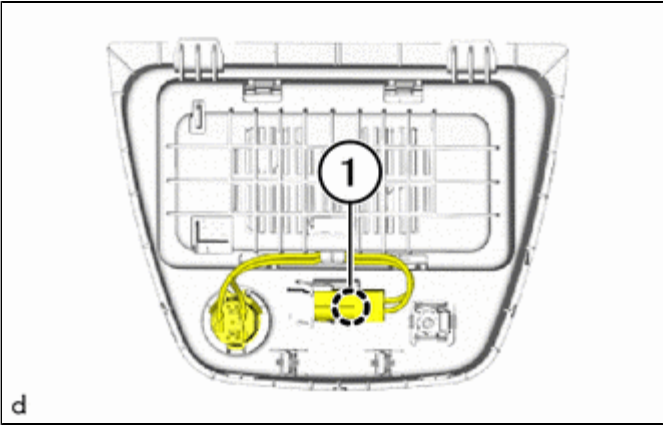


(b) Insert the 12 V power socket (1) into the front console box cover (2).

(c) Firmly press the 12 V power socket (1) into the front console box cover (2) in the direction of the arrow.



(d) Attach the clamp (1).



(e) Install the plug (1).



5. INSTALL FRONT CONSOLE BOX COVER

Click here [INFO](#)

6. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

7. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

8. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

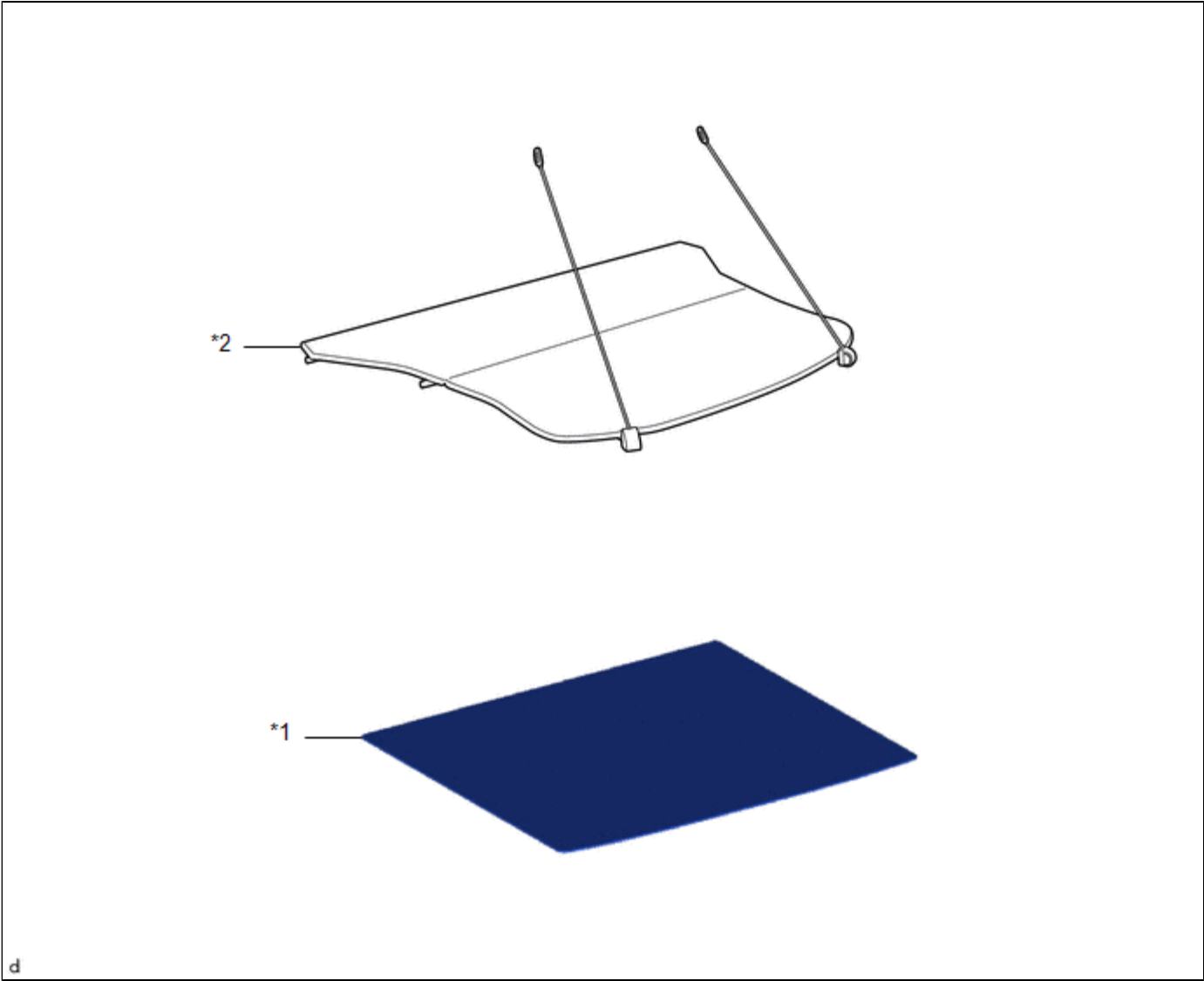
9. INSTALL FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): REAR POWER OUTLET SOCKET: COMPONENTS; 2020 MY Supra [03/2019 -]		

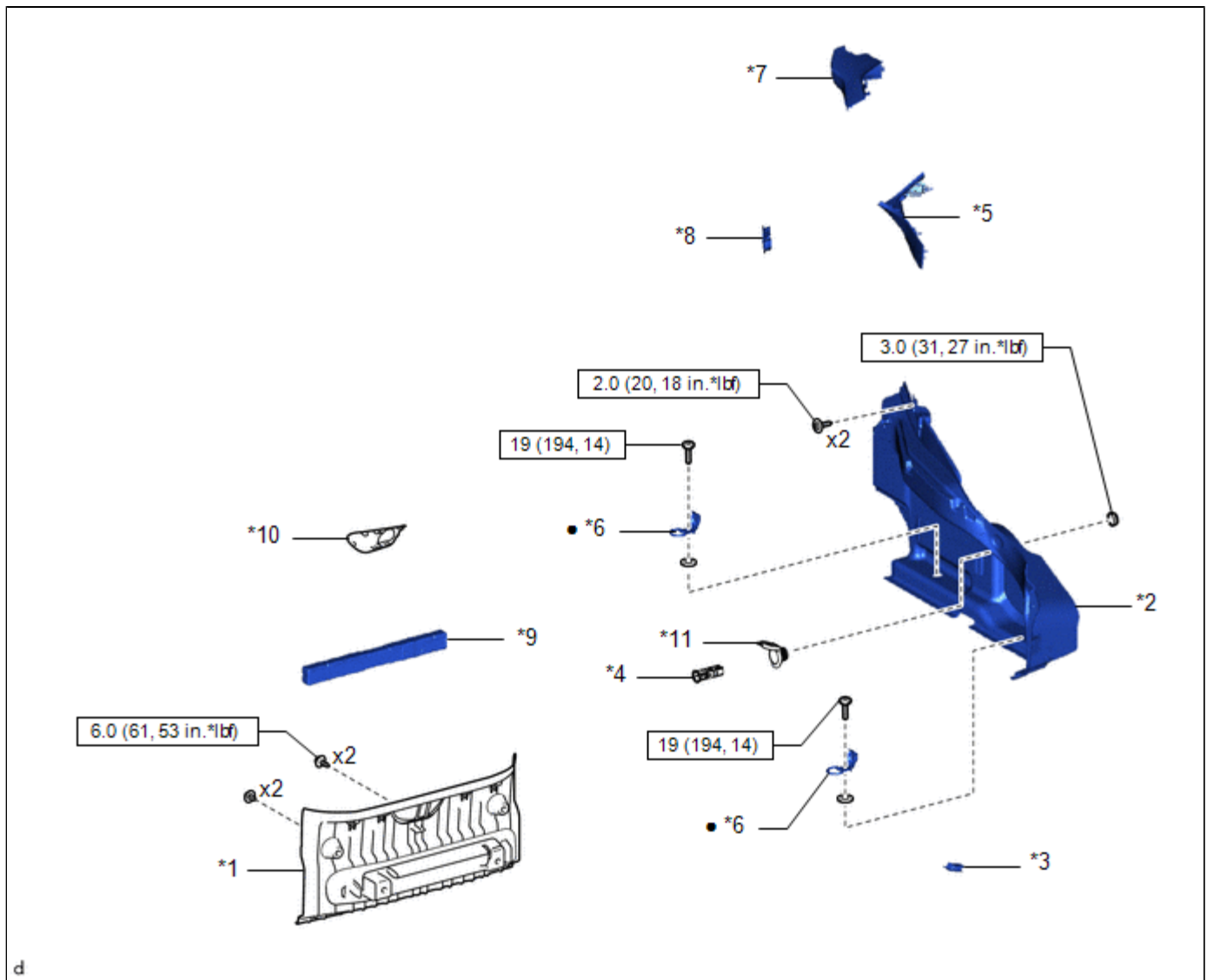
COMPONENTS



ILLUSTRATION



*1	DECK BOARD ASSEMBLY	*2	PACKAGE TRAY TRIM PANEL ASSEMBLY
----	---------------------	----	----------------------------------

ILLUSTRATION



*1	DECK TRIM REAR COVER	*2	DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH
*3	NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY	*4	NO. 2 POWER OUTLET SOCKET ASSEMBLY
*5	ROOF SIDE INNER GARNISH ASSEMBLY RH	*6	ROPE HOOK
*7	SEAT BELT HOLE COVER SUB-ASSEMBLY RH	*8	TRANSVERSE PIPE TRIM
*9	TRIANGLE REFLECTOR SET	*10	BACK DOOR STRIKER COVER
*11	NO. 2 POWER OUTLET SOCKET COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): REAR POWER OUTLET SOCKET: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

3. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

4. SEPARATE TRANSVERSE PIPE TRIM

Click here [INFO](#)

5. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

6. REMOVE TRIANGLE REFLECTOR SET

Click here [INFO](#)

7. REMOVE DECK TRIM REAR COVER

Click here [INFO](#)

8. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

9. REMOVE ROPE HOOK

Click here [INFO](#)

10. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

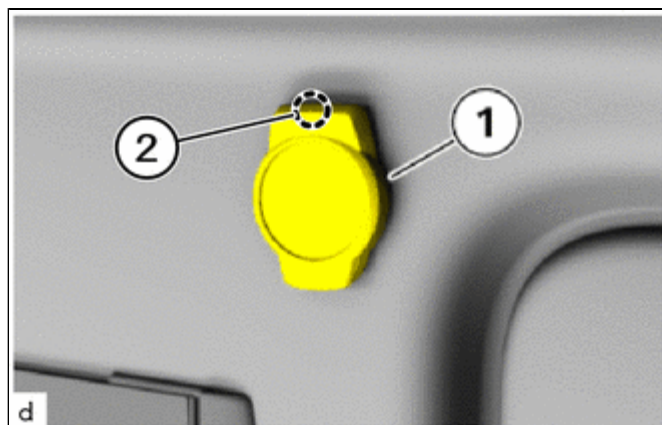
11. REMOVE NO. 2 POWER OUTLET SOCKET ASSEMBLY

(a) Using SST, loosen nut (1).

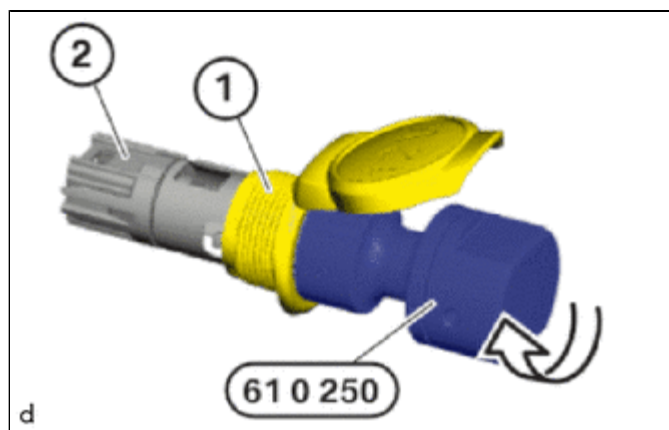
SST: 09922-10010



(b) Detach the guide (2) to remove the No. 2 power outlet socket assembly and No. 2 power outlet socket cover (1).



(c) Insert the special tool 0 496 588 (61 0 250) in the No. 2 power outlet socket assembly (2).



Rotate in this Direction

SST: 09900-WA290

(d) Rotate the head of the special tool by 90° in the direction of the arrow.

(e) Remove the No. 2 power outlet socket assembly (2) with the special tool from the No. 2 power outlet socket cover (1).

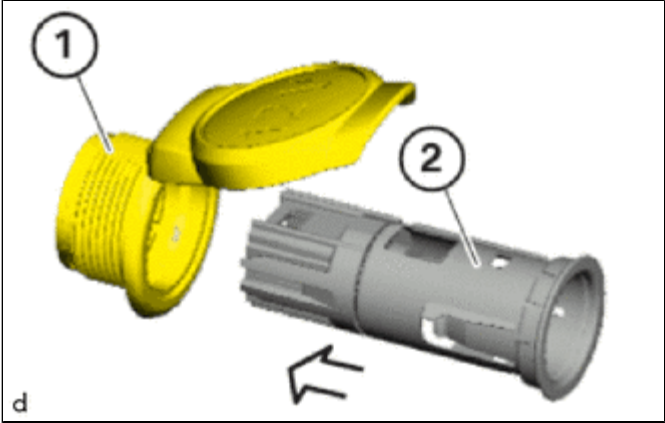
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): REAR POWER OUTLET SOCKET: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

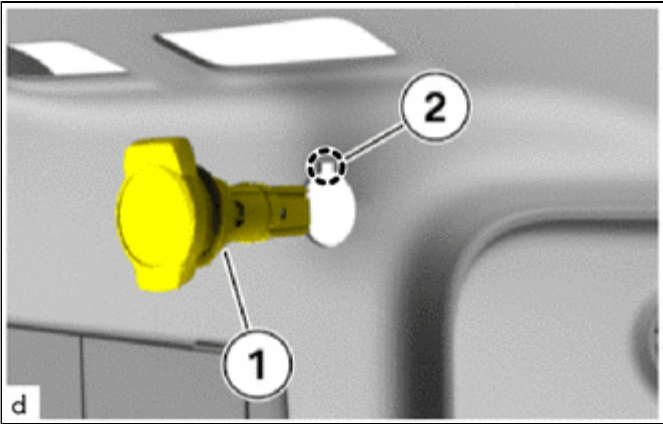
1. INSTALL NO. 2 POWER OUTLET SOCKET ASSEMBLY

- (a) Insert the No. 2 power outlet socket assembly (2) in the No. 2 power outlet socket cover (1) and attach in the direction of the arrow.



Install in this Direction

- (b) Attach the guide (2) to install the No. 2 power outlet socket assembly and No. 2 power outlet socket cover (1).



- (c) Using SST, tighten nut.

Torque:
 3.0 N·m {31 kgf·cm, 27 in·lbf}
SST: 09922-10010

2. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

3. INSTALL ROPE HOOK

Click here [INFO](#)

4. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

5. INSTALL DECK TRIM REAR COVER

Click here [INFO](#)

6. INSTALL TRIANGLE REFLECTOR SET

Click here [INFO](#)

7. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

8. INSTALL TRANSVERSE PIPE TRIM

Click here [INFO](#)

9. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

10. INSTALL DECK BOARD ASSEMBLY

Click here [INFO](#)

11. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

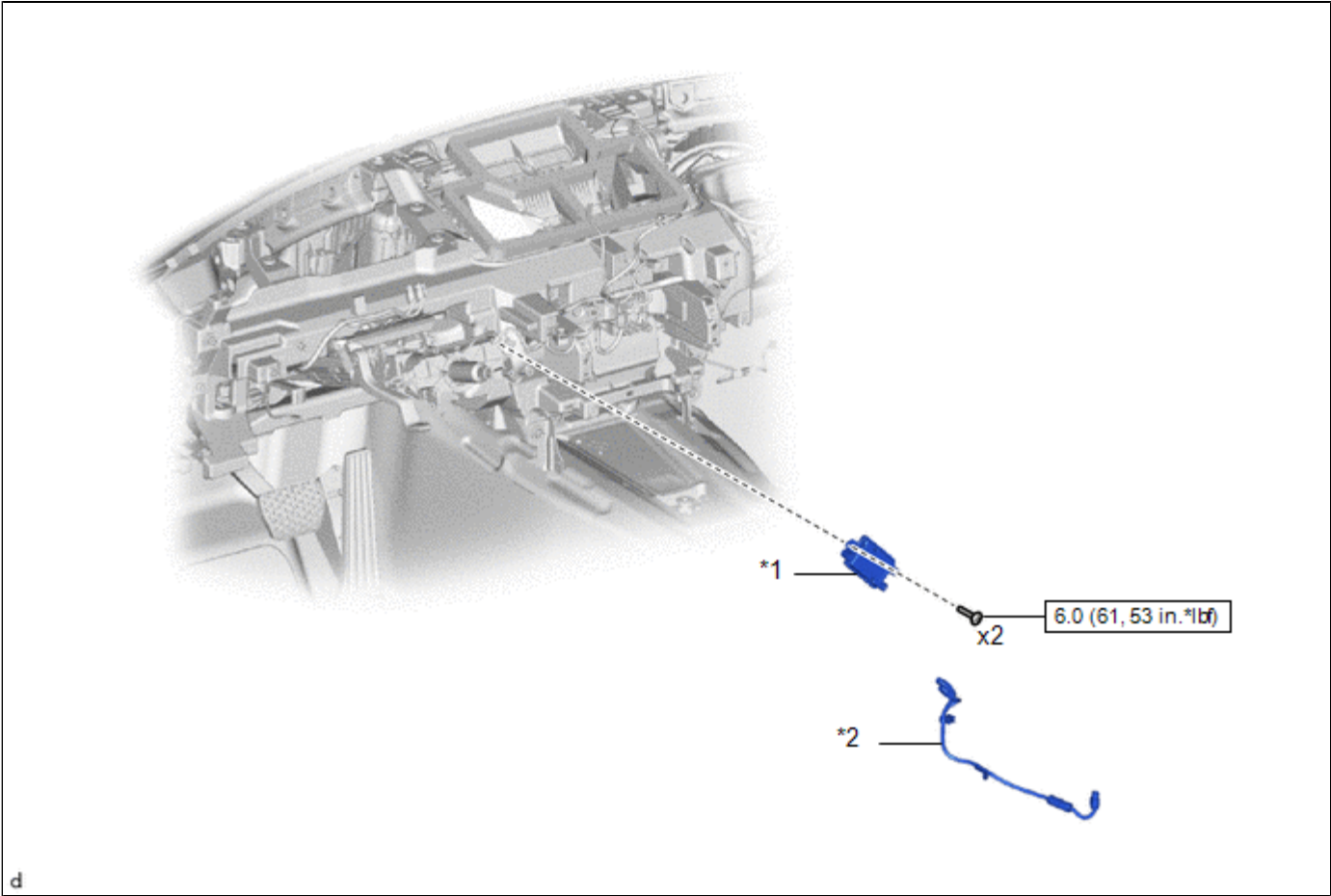
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): USB HUB: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	USB HUB	*2	NO. 5 INSTRUMENT PANEL WIRE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): USB HUB: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.
- Damage to or destruction of electrical components.
 - Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
 - Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
 - Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
 - For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is

disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

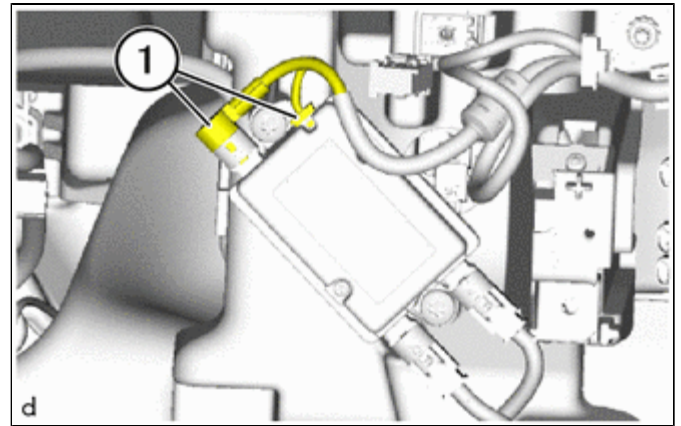
2. REMOVE USB HUB

NOTICE:

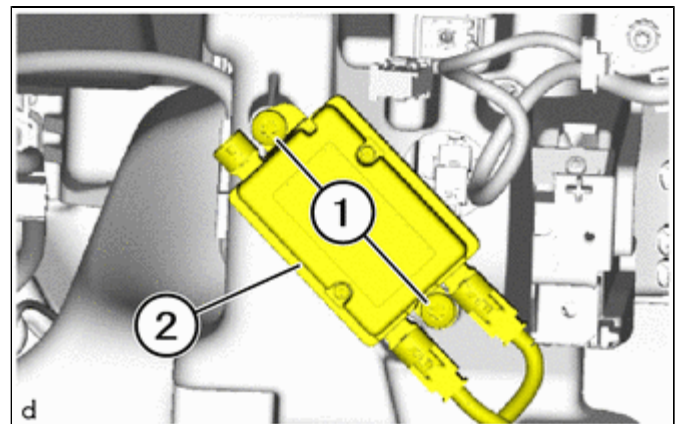
- Electrostatic discharge.
- Damage to or destruction of electrical components.
- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connections (1) and disconnect.

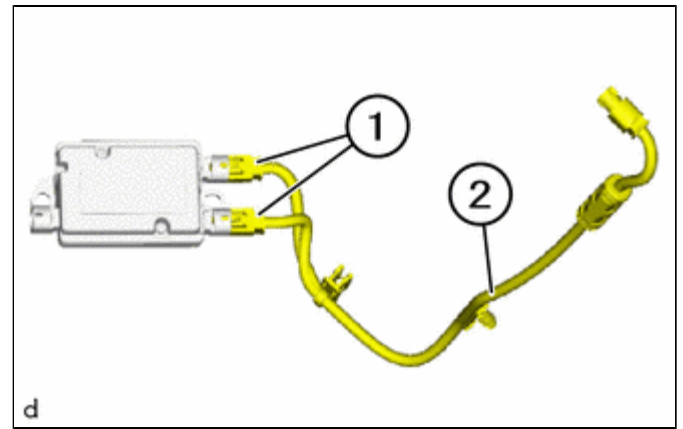


(b) Loosen the T30 screws (1).



(c) Remove the USB hub (2).

(d) Unlock plug connections (1) and disconnect to remove the No. 5 instrument panel wire (2).



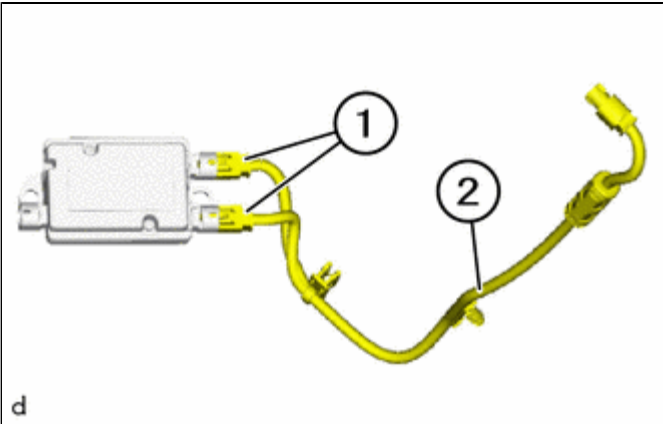
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): USB HUB: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

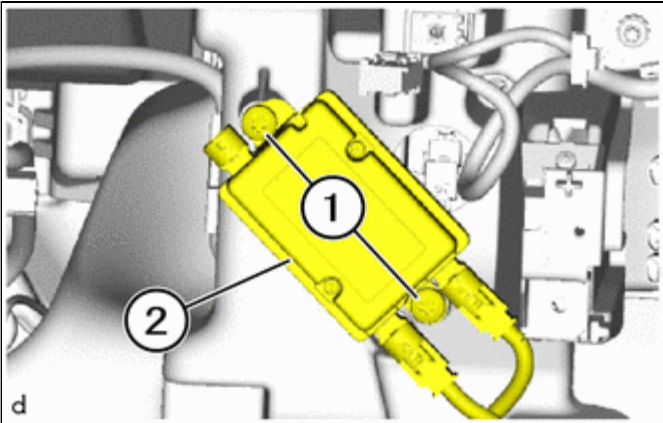
PROCEDURE

1. INSTALL USB HUB

(a) Connect connectors (1) and lock to install the No. 5 instrument panel wire (2).



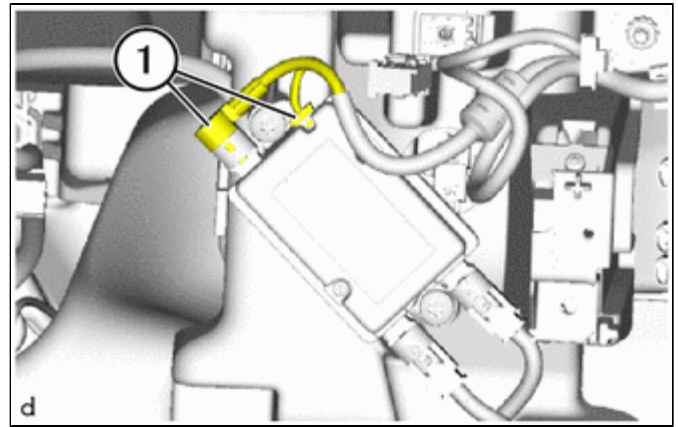
(b) Position the USB hub (1).



(c) Tighten the T30 screws (1).

Torque:
6.0 N·m {61 kgf·cm, 53 in·lbf}

(d) Connect connectors (1) and lock.



2. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

3. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

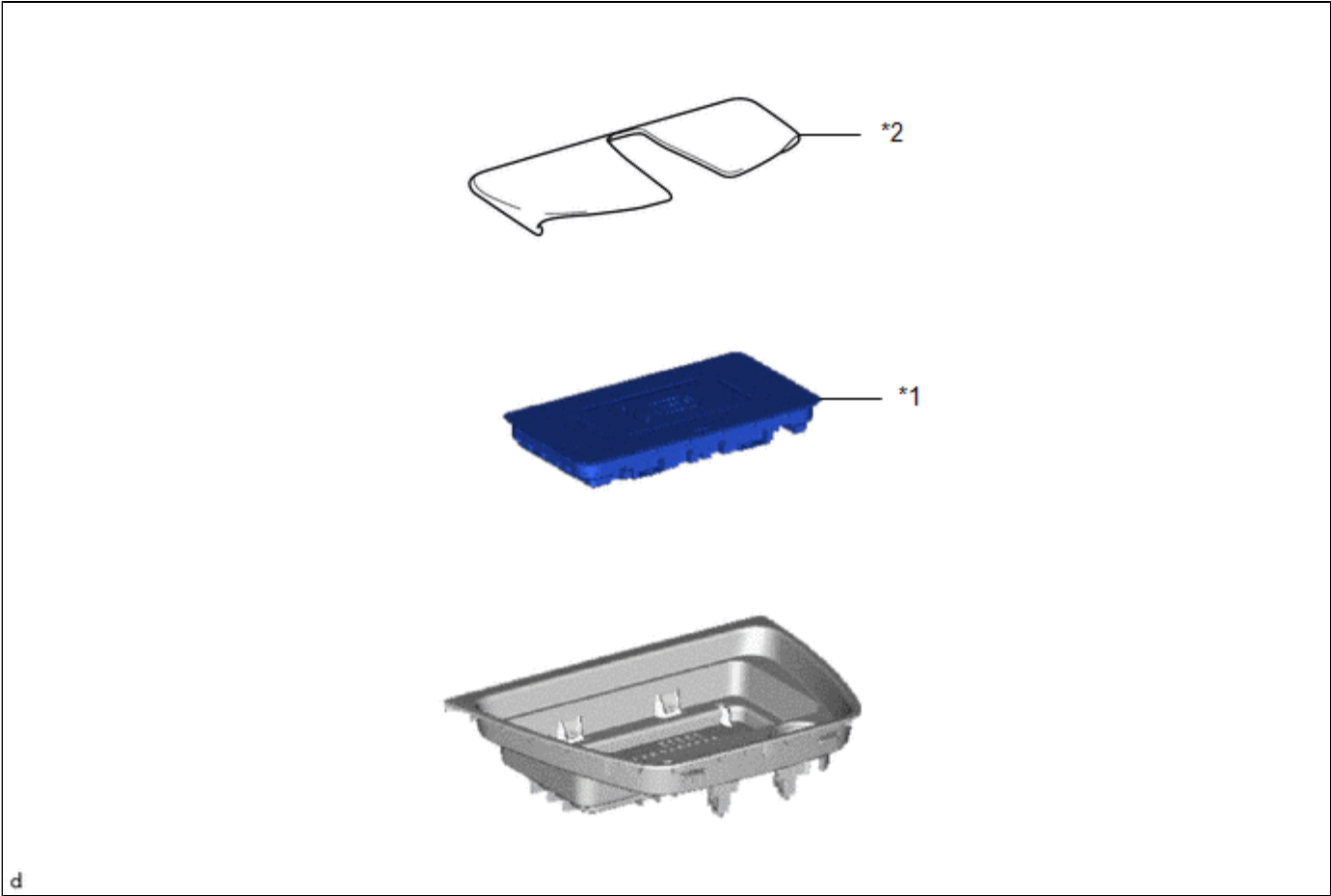
(h) Disconnect the diagnosis system from the vehicle.

(i) Disconnect the battery charger from the vehicle.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQ9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): WIRELESS CHARGER ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	MOBILE WIRELESS CHARGER CRADLE ASSEMBLY	*2	UPPER CONSOLE COVER
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): WIRELESS CHARGER ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE FRONT CONSOLE BOX COVER

Click here [INFO](#)

2. REMOVE MOBILE WIRELESS CHARGER CRADLE ASSEMBLY

NOTICE:

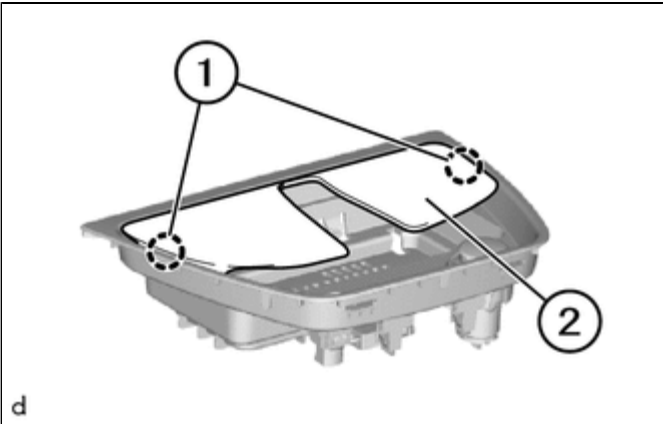
- Electrostatic discharge.

Damage to or destruction of electrical components.

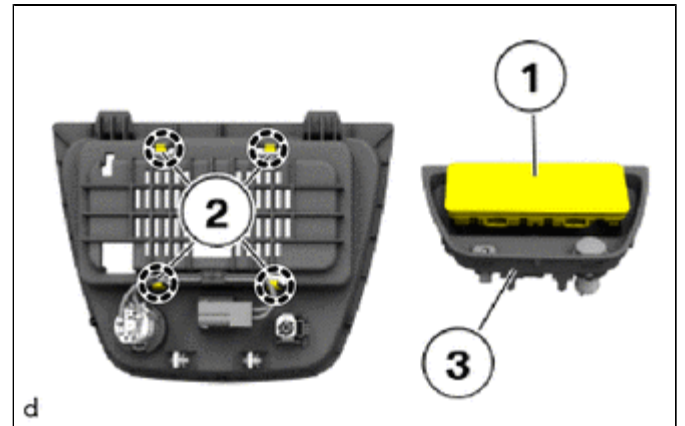
- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- (a) Detach the guides (1) to remove the upper console cover (2).



(b) Detach the claws (2) to remove the mobile wireless charger cradle assembly (1) from the front console box cover (3).



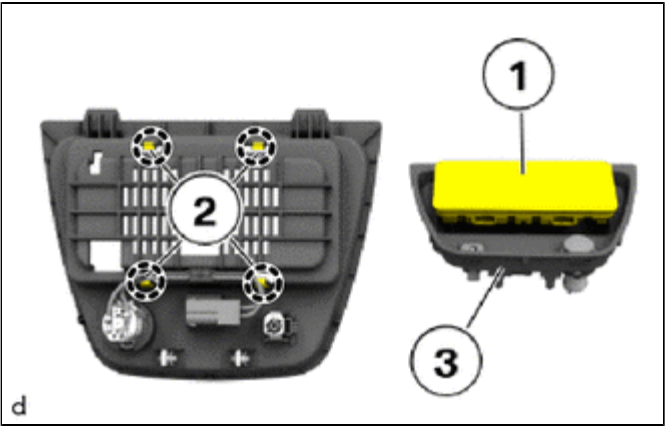
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCQB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: POWER OUTLETS (INT): WIRELESS CHARGER ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

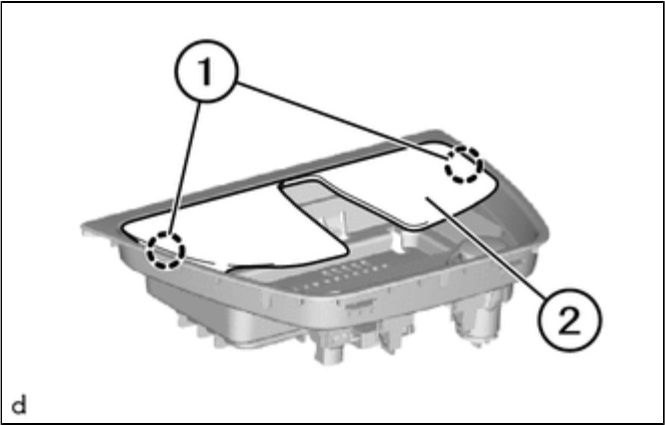
PROCEDURE

1. INSTALL MOBILE WIRELESS CHARGER CRADLE ASSEMBLY

(a) Attach the claws (2) to install the mobile wireless charger cradle assembly (1) in the front console box cover (3).



(b) Attach the guides (1) to install the upper console cover (2).



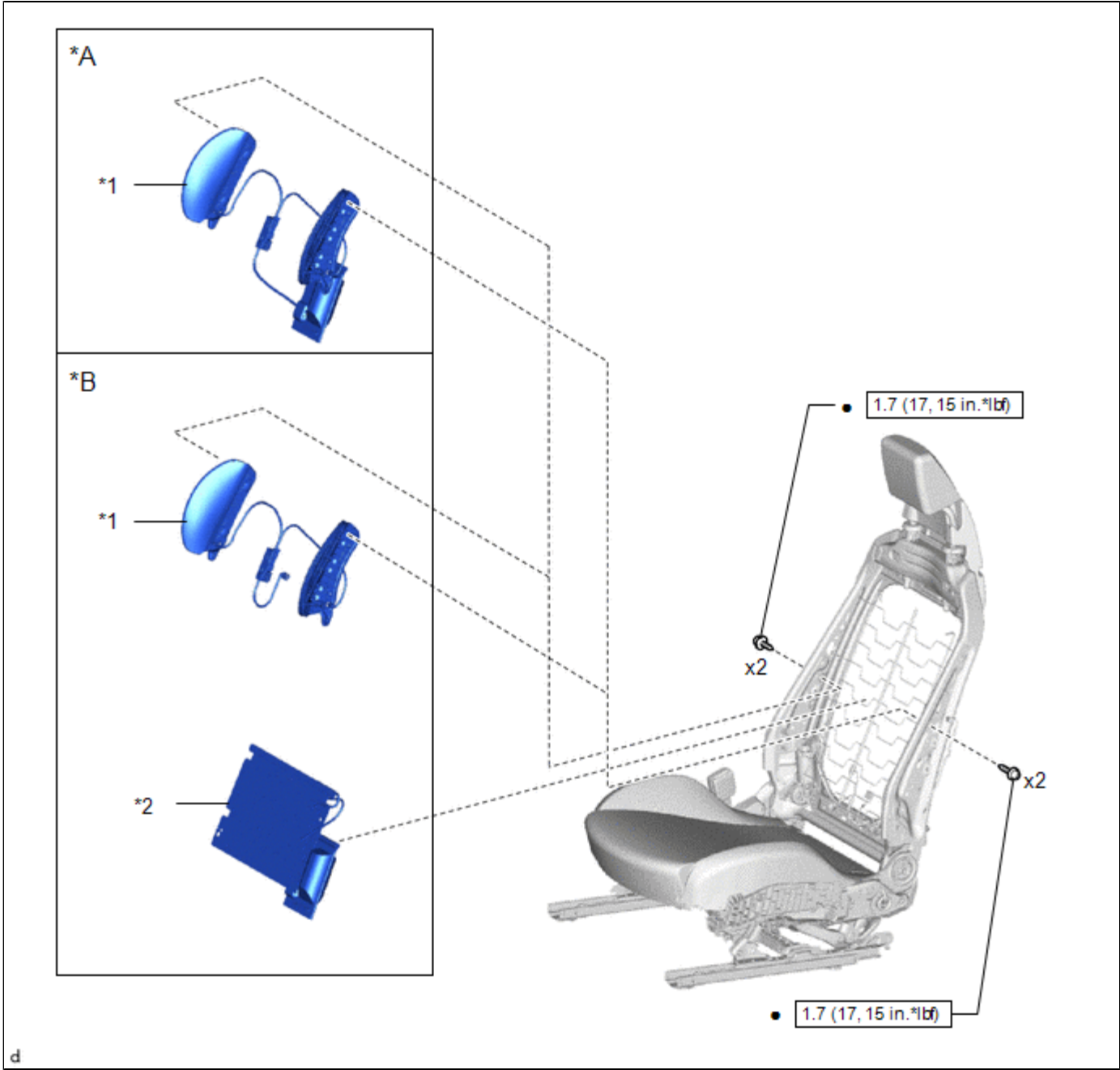
2. INSTALL FRONT CONSOLE BOX COVER



Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3N
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: BACK SIDE SUPPORT ADJUSTER ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/o Lumbar Support	*B	w/ Lumbar Support
*1	SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY	*2	LUMBAR SUPPORT ADJUSTER ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD30
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: BACK SIDE SUPPORT ADJUSTER ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Manual Seat)

Click here [INFO](#)

2. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Power Seat)

Click here [INFO](#)

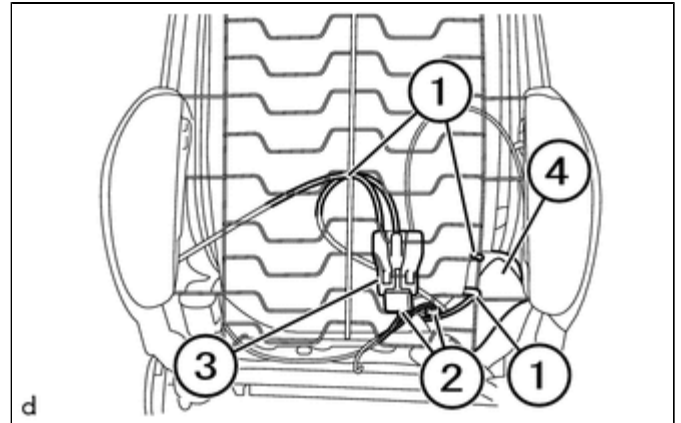
3. REMOVE LUMBAR SUPPORT ADJUSTER ASSEMBLY (w/ Lumbar Support)

Click here [INFO](#)

4. REMOVE SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY

(a) w/o Lumbar Support:

(1) Remove the tie band (1).



(2) Disconnect the connectors (2).

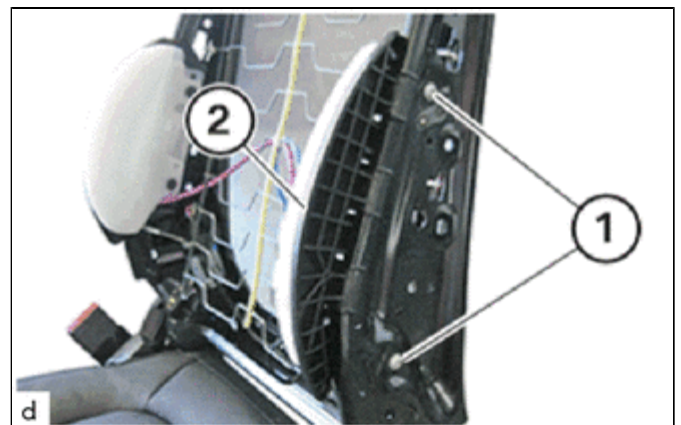
(3) Remove the valve unit (3) from the spring wire.

(4) Remove the pump (4).

(b) Loosen the T20 screws (1) to remove the air cushion of seatback side support adjuster assembly (2).

HINT:

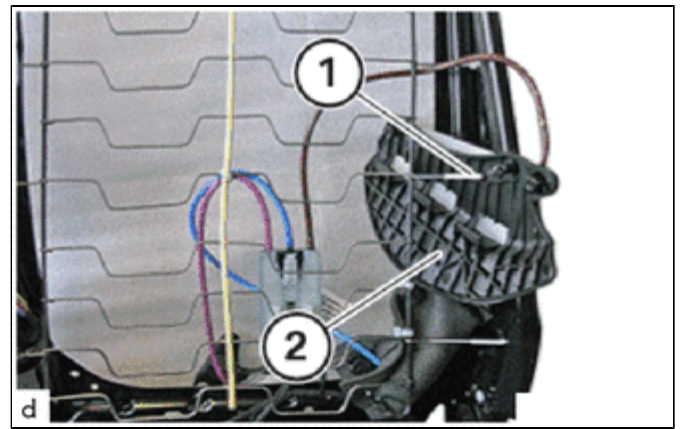
Use the same procedure for the opposite side.



(c) Detach the spring wire (1) from the separate type front seatback spring assembly.

HINT:

Use the same procedure for the opposite side.



(d) Pass the air cushion of seatback side support adjuster assembly (2) through backwards.

HINT:

Use the same procedure for the opposite side.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3P
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: BACK SIDE SUPPORT ADJUSTER ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

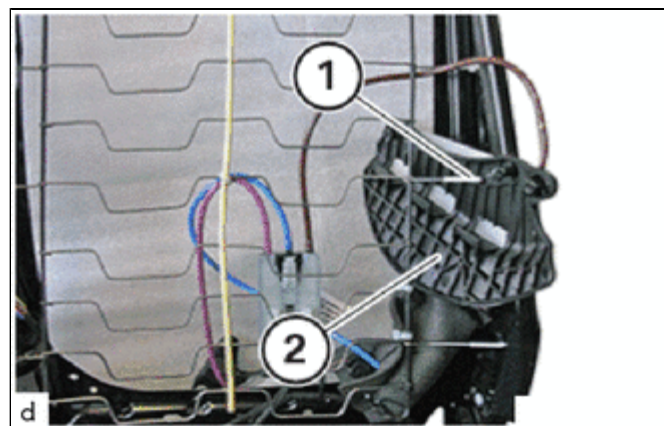
PROCEDURE

1. INSTALL SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY

- (a) Pass the air cushion of seatback side support adjuster assembly (2) through forwards.

HINT:

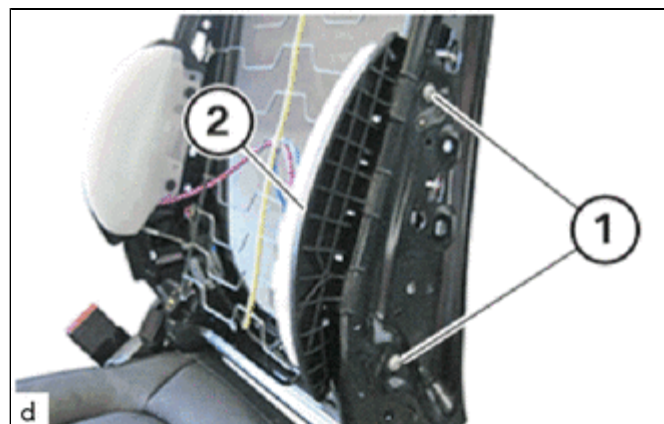
Use the same procedure for the opposite side.



- (b) Attach the spring wire (1) to the separate type front seatback spring assembly.

HINT:

Use the same procedure for the opposite side.



- (c) Replace the T20 screws (1).

(d) Tighten the T20 screws (1) to install the air cushion of seatback side support adjuster assembly (2).

Torque:

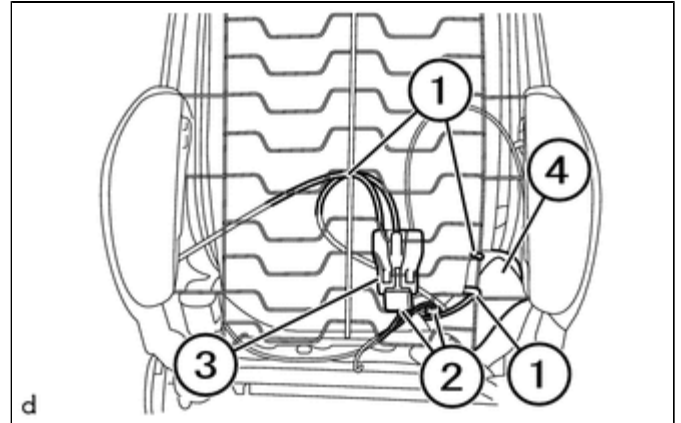
1.7 N·m {17 kgf·cm, 15 in·lbf}

HINT:

Use the same procedure for the opposite side.

(e) w/o Lumbar Support:

(1) Install the pump (4).



(2) Install the valve unit (3) to the spring wire.

(3) Connect the connectors (2).

(4) Install the tie band (1).

2. INSTALL LUMBAR SUPPORT ADJUSTER ASSEMBLY (w/ Lumbar Support)

Click here [INFO](#)

3. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Manual Seat)

Click here [INFO](#)

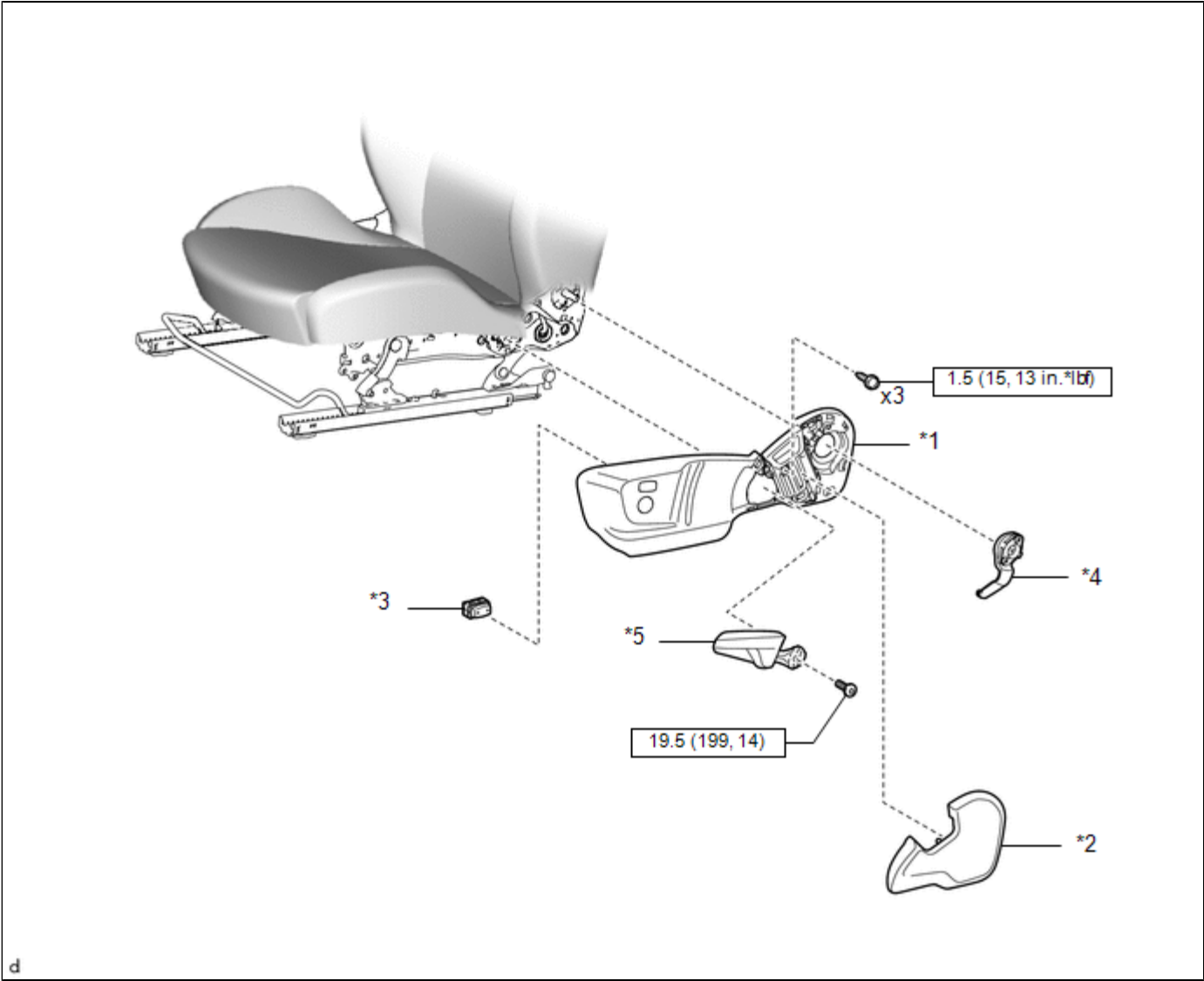
4. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Power Seat)


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD45
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: BACK SIDE SUPPORT SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT SEAT CUSHION SHIELD	*2	FRONT SEAT SIDE SHIELD
*3	FRONT SEATBACK SUPPORT POWER SEAT SWITCH	*4	RECLINING CONTROL LINK SUB-ASSEMBLY
*5	VERTICAL ADJUSTING HANDLE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD46
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: BACK SIDE SUPPORT SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT SIDE SHIELD

Click here [INFO](#)

3. REMOVE NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

4. REMOVE VERTICAL ADJUSTING HANDLE

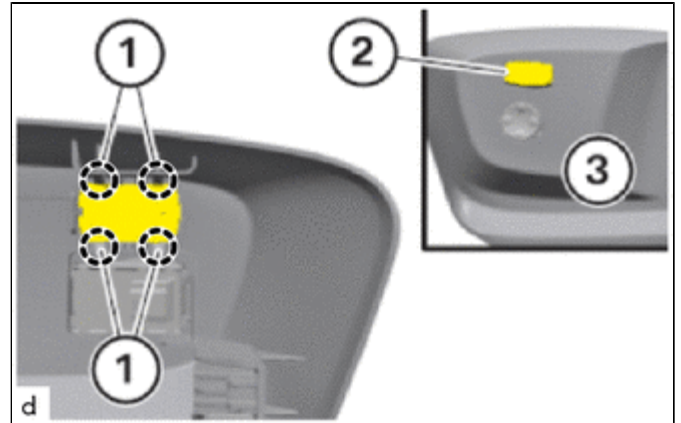
Click here [INFO](#)

5. REMOVE FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

6. REMOVE FRONT SEATBACK SUPPORT POWER SEAT SWITCH

(a) Detach the claws (1).



(b) Remove the front seatback support power seat switch (2) from the front seat cushion shield (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD47
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: BACK SIDE SUPPORT SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

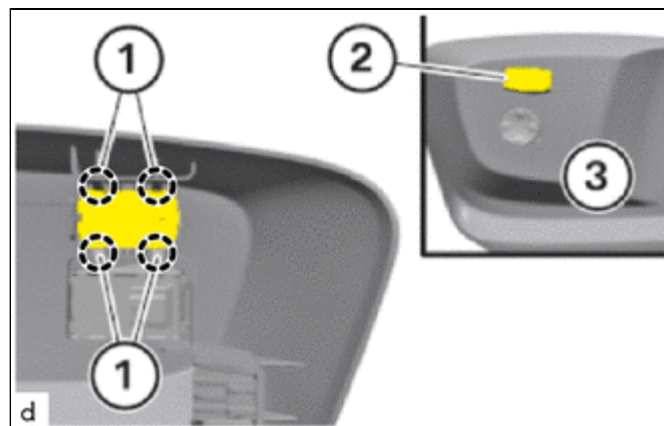
PROCEDURE

1. INSTALL FRONT SEATBACK SUPPORT POWER SEAT SWITCH

(a) Attach the claws (1) to install the front seatback support power seat switch (2) to the front seat cushion shield (3).

NOTICE:

Check the attaching sound of the claws (1).



2. INSTALL FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

3. INSTALL VERTICAL ADJUSTING HANDLE

Click here [INFO](#)

4. INSTALL NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

5. INSTALL FRONT SEAT SIDE SHIELD

Click here [INFO](#)

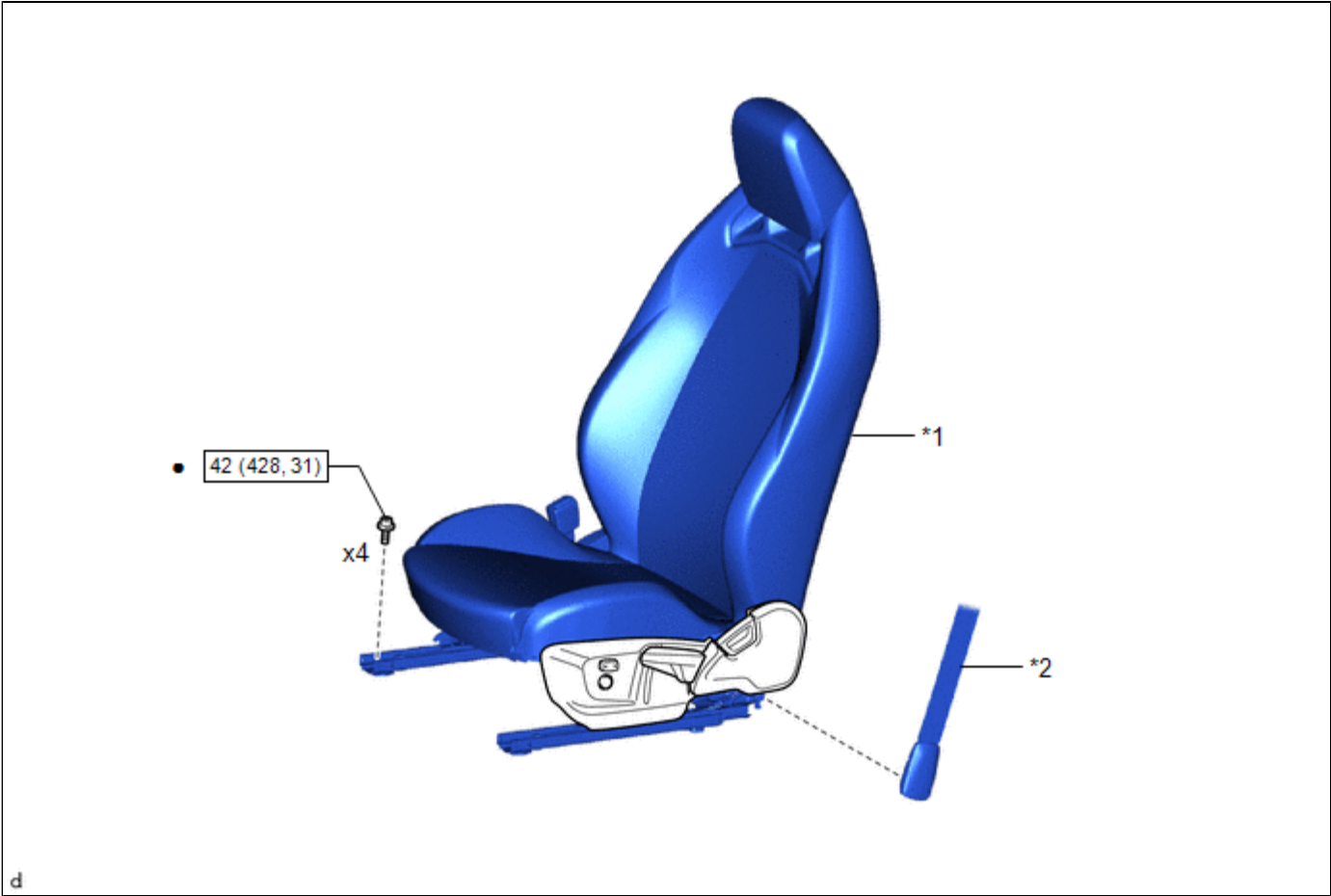
6. INSTALL FRONT SEAT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD31
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Manual Seat): COMPONENTS; 2020 MY Supra [03/2019 -]		

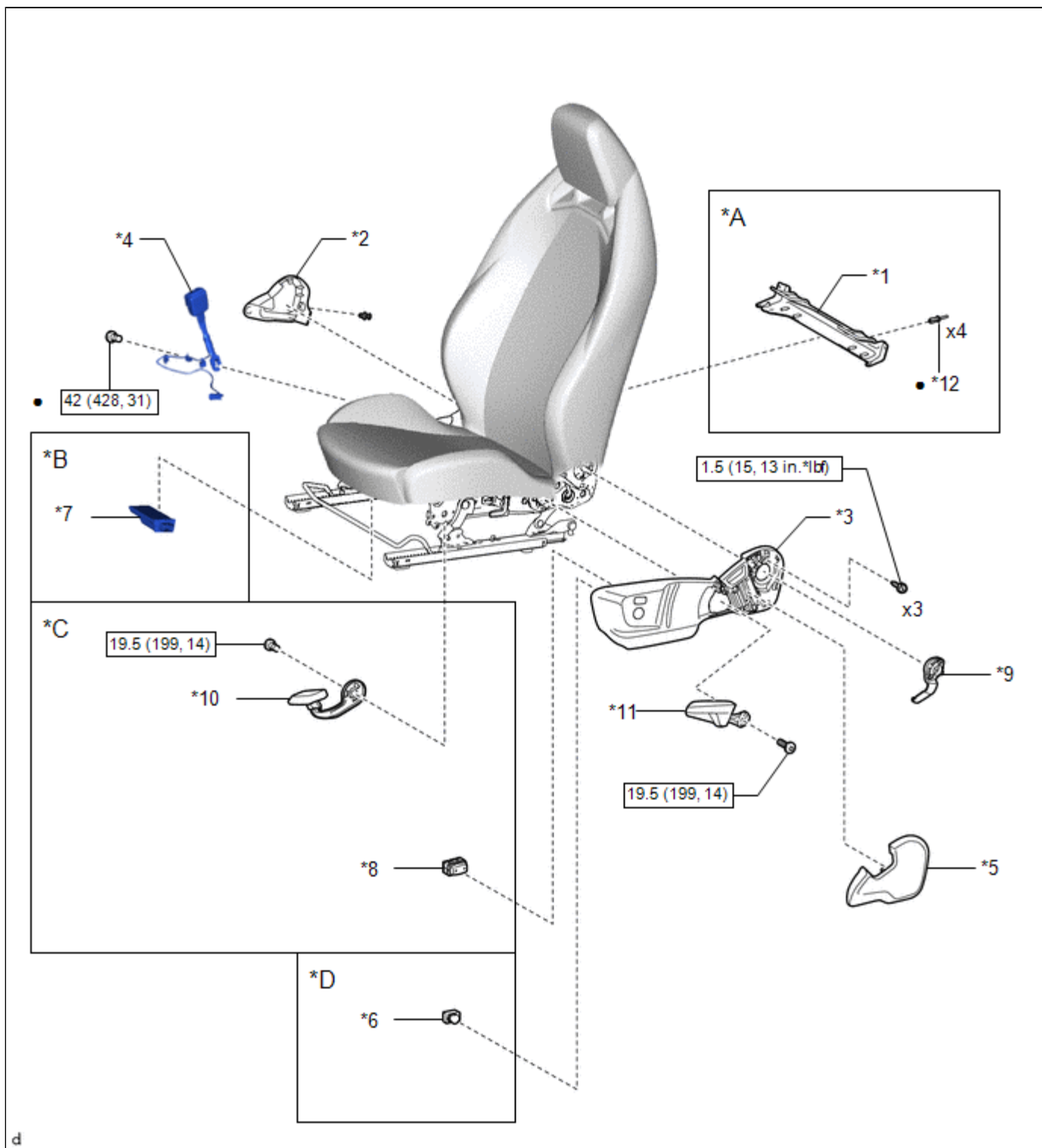
COMPONENTS

ILLUSTRATION




*1	FRONT SEAT ASSEMBLY	*2	FRONT SEAT OUTER BELT ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

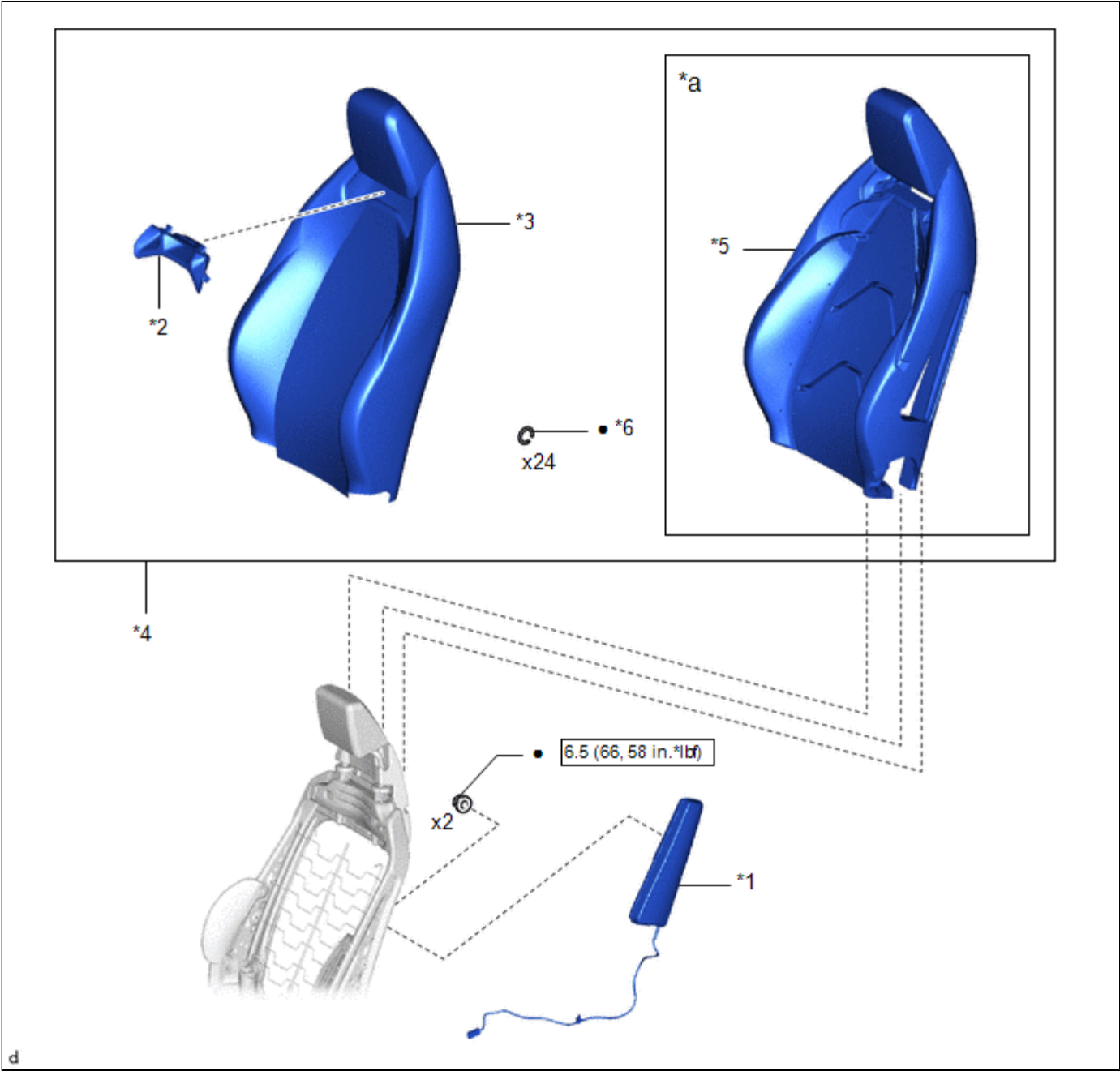
ILLUSTRATION




*A	w/ Bracket	*B	w/ Occupant Detection ECU
*C	w/ Back Side Support Adjuster	*D	w/ Lumbar Support
*1	CHILD RESTRAINT SEAT ANCHOR BRACKET	*2	FRONT SEAT CUSHION INNER SHIELD
*3	FRONT SEAT CUSHION SHIELD	*4	FRONT SEAT INNER BELT ASSEMBLY
*5	FRONT SEAT SIDE SHIELD	*6	FRONT LUMBAR SUPPORT POWER SEAT SWITCH
*7	OCCUPANT DETECTION ECU	*8	FRONT SEATBACK SUPPORT POWER SEAT SWITCH

*9	NO. 2 RECLINING ADJUSTER RELEASE ARM	*10	SEAT LIFTER LEVER SUB-ASSEMBLY
*11	VERTICAL ADJUSTING HANDLE	*12	RIVET
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

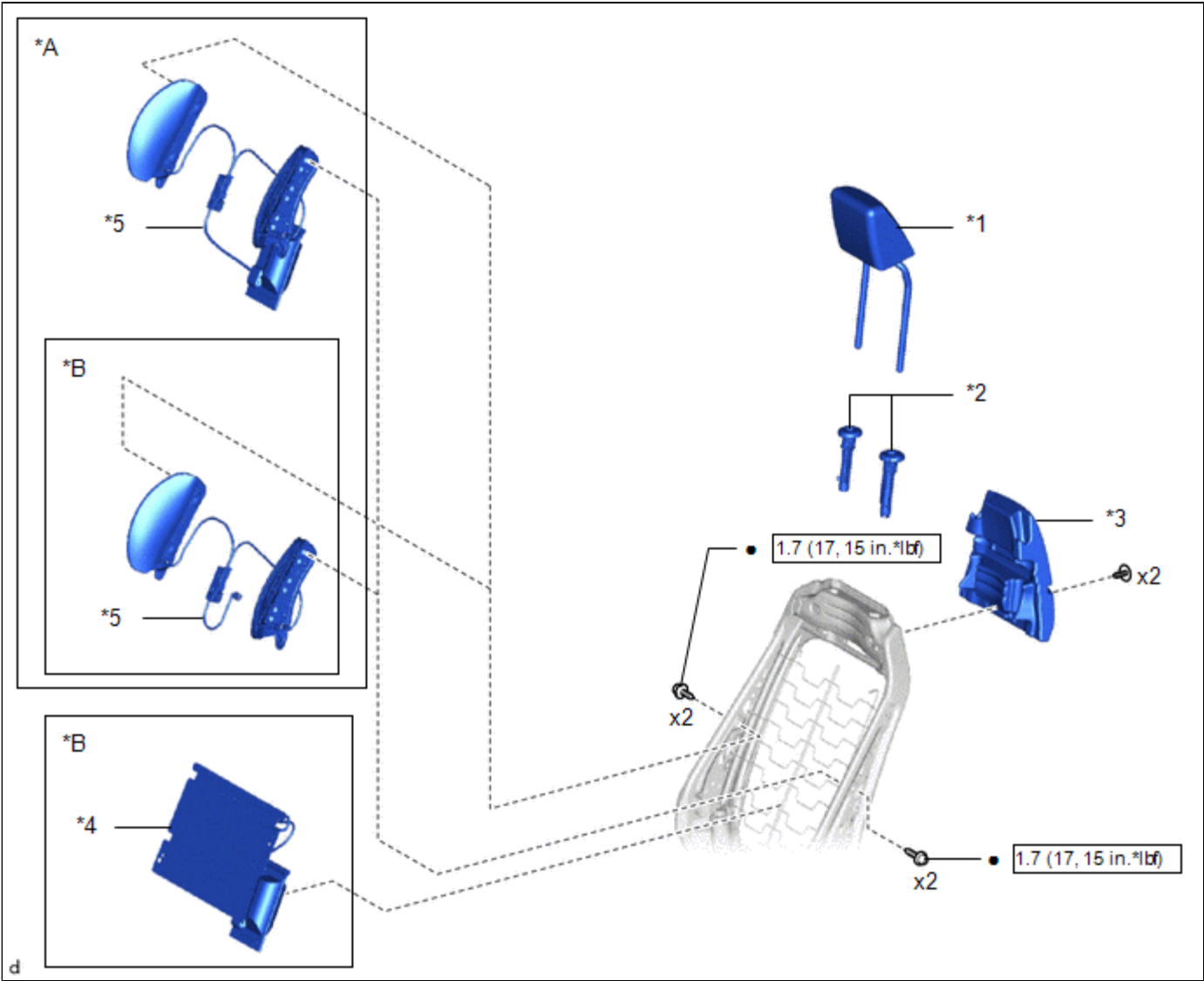
ILLUSTRATION




*1	FRONT SEAT AIRBAG ASSEMBLY	*2	FRONT SEATBACK GARNISH
*3	SEPARATE TYPE FRONT SEATBACK COVER	*4	SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

*5	SEPARATE TYPE FRONT SEATBACK PAD WITH HEATER ASSEMBLY	*6	HOG RING
*a	When Reusing the Separate Type Front Seatback Pad with Heater Assembly	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

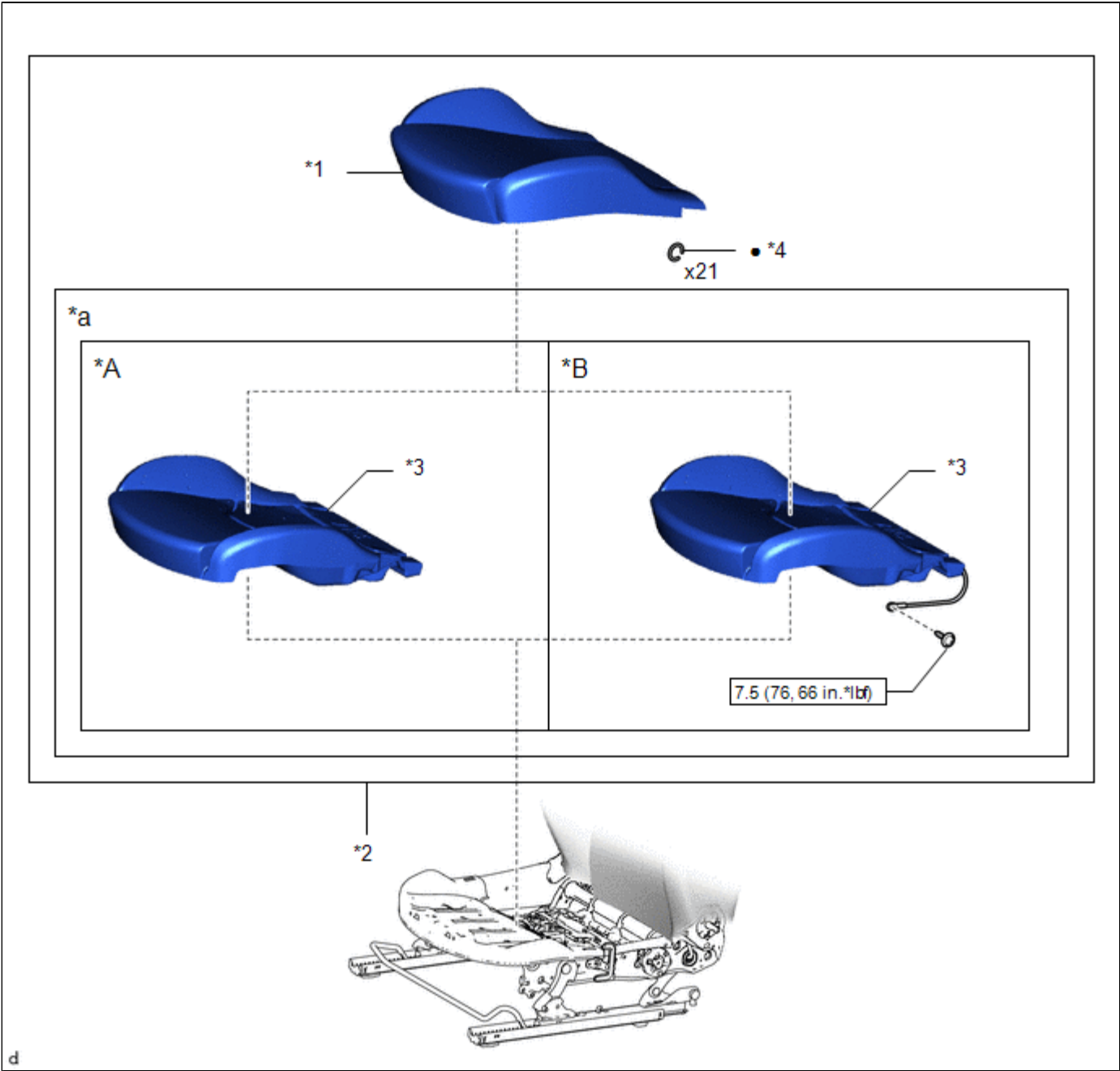
ILLUSTRATION




*A	w/ Back Side Support Adjuster	*B	w/ Lumbar Support
*1	FRONT SEAT HEADREST ASSEMBLY	*2	FRONT SEAT HEADREST SUPPORT
*3	FRONT SEATBACK BOARD	*4	LUMBAR SUPPORT ADJUSTER ASSEMBLY
*5	SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY	-	-

	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
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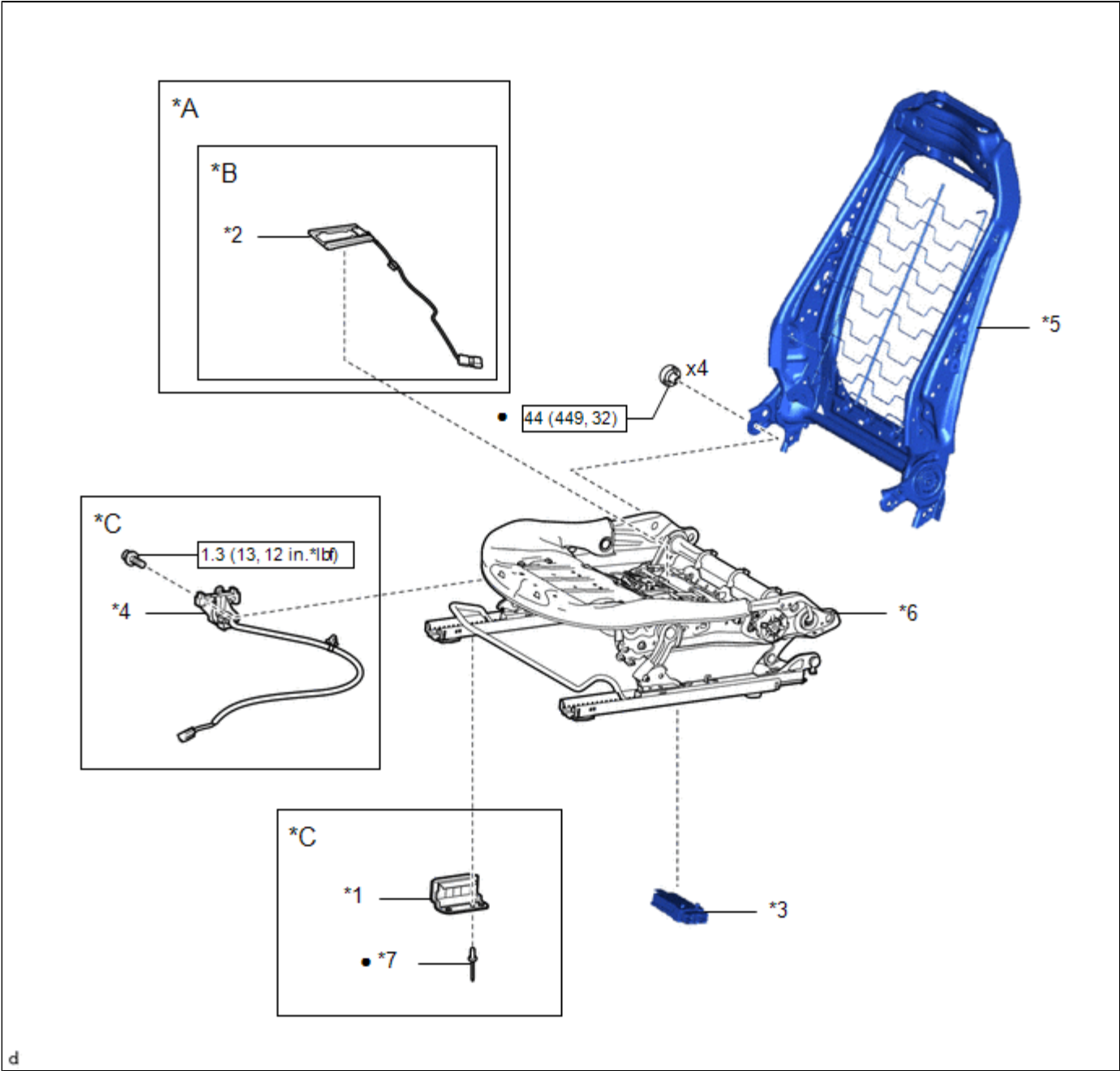
ILLUSTRATION




*A	w/o Occupant Detection ECU	*B	w/ Occupant Detection ECU
*1	SEPARATE TYPE FRONT SEAT CUSHION COVER	*2	SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD
*3	SEPARATE TYPE FRONT SEAT CUSHION PAD WITH HEATER ASSEMBLY	*4	HOG RING
	When Reusing the Saparate Type		

*a	Front Seat Cushion Pad with Heater Assembly	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

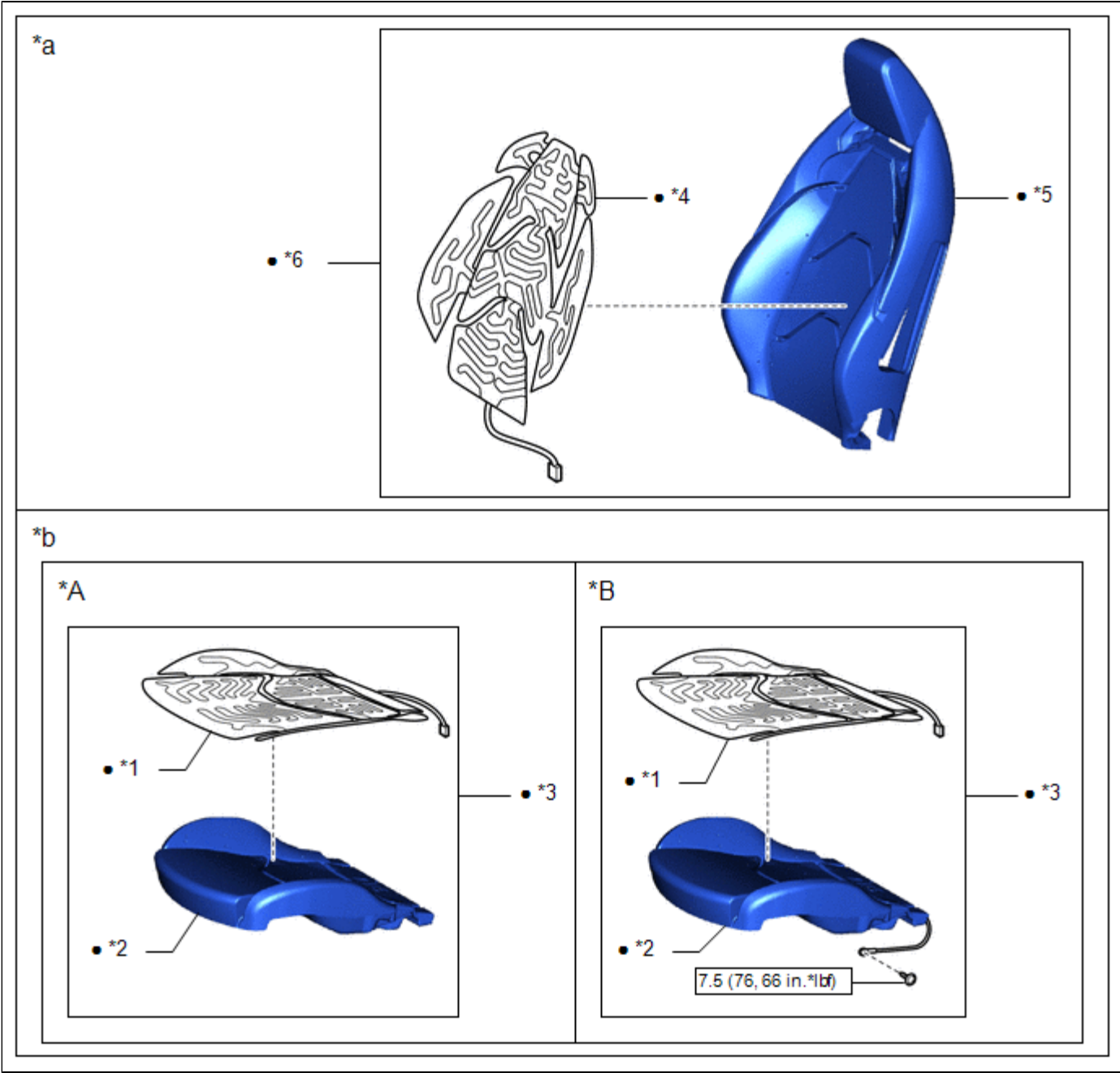
ILLUSTRATION




*A	for Front Passenger Side	*B	w/o Occupant Detection ECU
*C	w/ Seat Position Airbag Sensor	-	-
*1	SEAT POSITION SENSOR MAGNET	*2	BELT WARNING OCCUPANT DETECTION SENSOR
*3	SEAT HEATER CONTROL SUB-ASSEMBLY	*4	SEAT POSITION AIRBAG SENSOR

*5	SEPARATE TYPE FRONT SEATBACK SPRING ASSEMBLY	*6	FRONT SEAT ADJUSTER ASSEMBLY
*7	RIVET	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

ILLUSTRATION



*A	w/o Occupant Detection ECU	*B	w/ Occupant Detection ECU
*1	FRONT SEAT CUSHION HEATER ASSEMBLY	*2	SEPARATE TYPE FRONT SEAT CUSHION PAD
*3	SEPARATE TYPE FRONT SEAT CUSHION PAD WITH HEATER	*4	FRONT SEATBACK HEATER ASSEMBLY

	ASSEMBLY		
*5	SEPARATE TYPE FRONT SEATBACK PAD	*6	SEPARATE TYPE FRONT SEATBACK PAD WITH HEATER ASSEMBLY
*a	When Replacing the Front Seatback Heater Assembly	*b	When Replacing the Front Seat Cushion Heater Assembly
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD32
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Manual Seat): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT ASSEMBLY

CAUTION:

- Airbag unit.

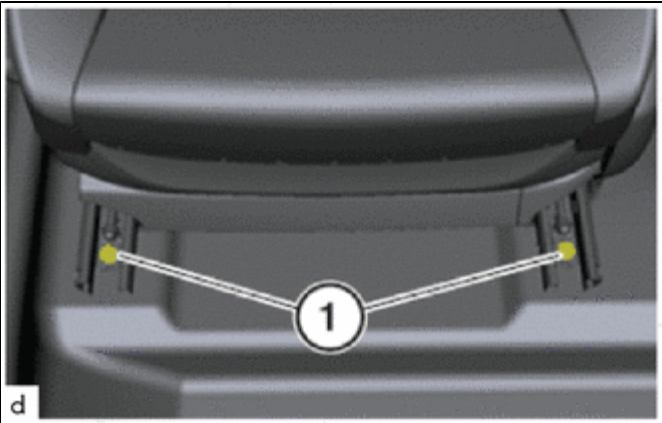
Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

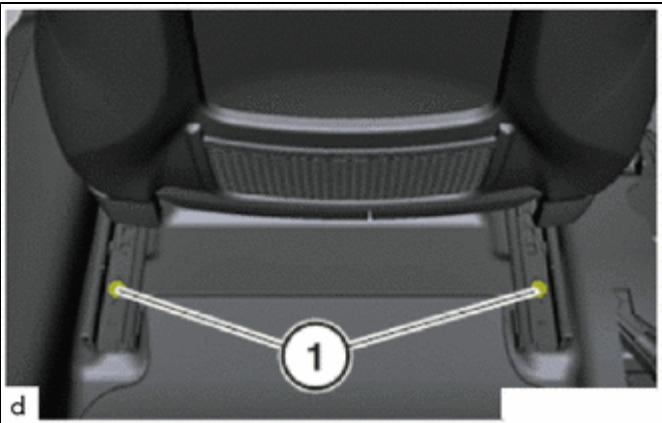
Click here

(a) Move the front seat assembly to the rearmost position.



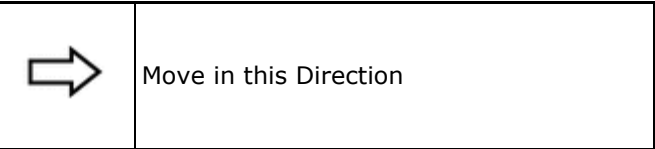
(b) Loosen the T50 bolts (1).

(c) Move the front seat assembly to the foremost position.



(d) Loosen the T50 bolts (1).

(e) Move the steering column (1) completely forwards and upwards.

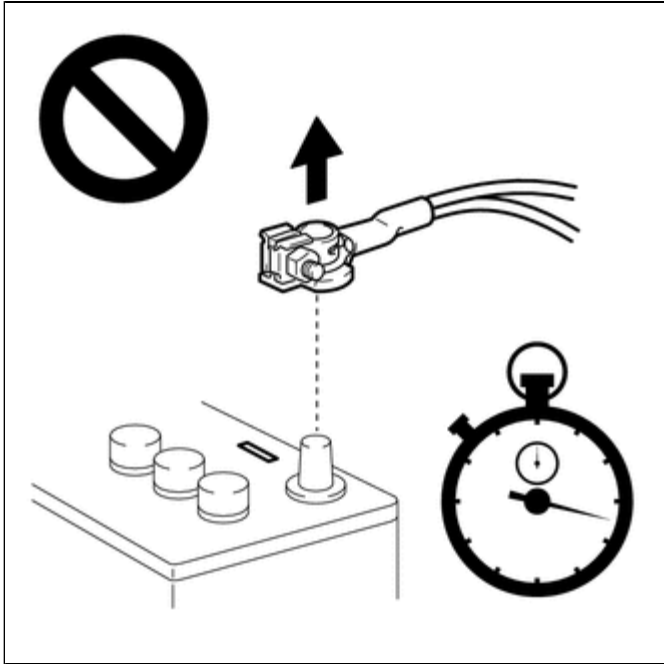


- (f) Move the front seat assembly (2) to the foremost position.
- (g) Move the seatback (3) as shown in the illustration.
- (h) Disconnect the cable from the negative (-) battery terminal.

Click here [INFO](#)

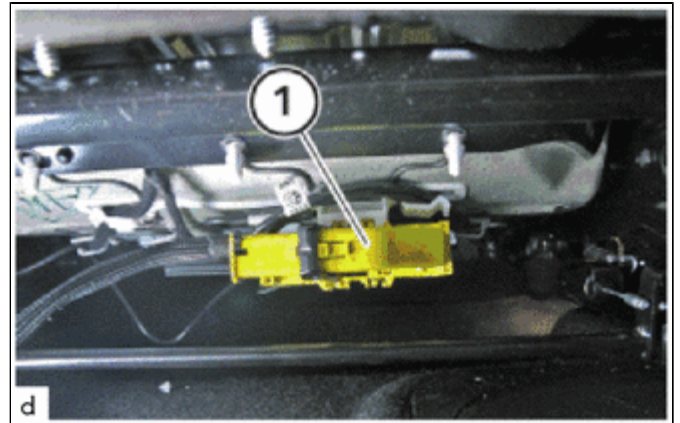
CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



- (i) Cover the front door scuff plate with protective covers.

- (j) Tilt the front seat assembly backwards to disconnect the connector (1).



- (k) Remove the front seat assembly with another person.

NOTICE:

- Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Protect the front seat leg.
- Be careful not to damage the front seat assembly, body exterior or body interior.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD33
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Manual Seat): DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE OCCUPANT DETECTION ECU (w/ Occupant Detection ECU)

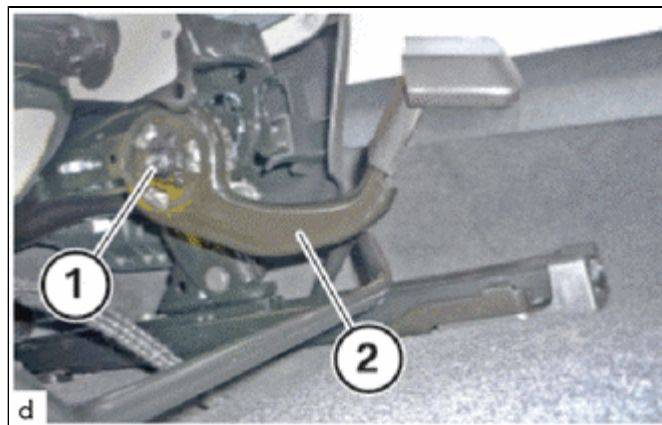
Click here [INFO](#)

2. REMOVE FRONT SEAT INNER BELT ASSEMBLY

Click here [INFO](#)

3. REMOVE SEAT LIFTER LEVER SUB-ASSEMBLY (w/ Back Side Support Adjuster)

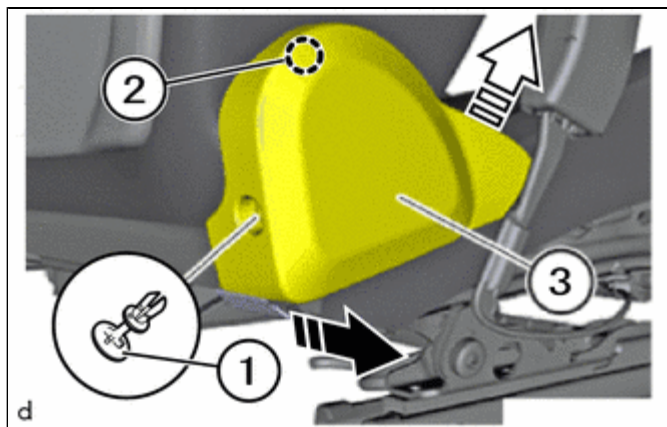
(a) Loosen the screw (1).





(b) Remove the seat lifter lever sub-assembly (2).

4. REMOVE FRONT SEAT CUSHION INNER SHIELD

(a) Remove the clip (1).

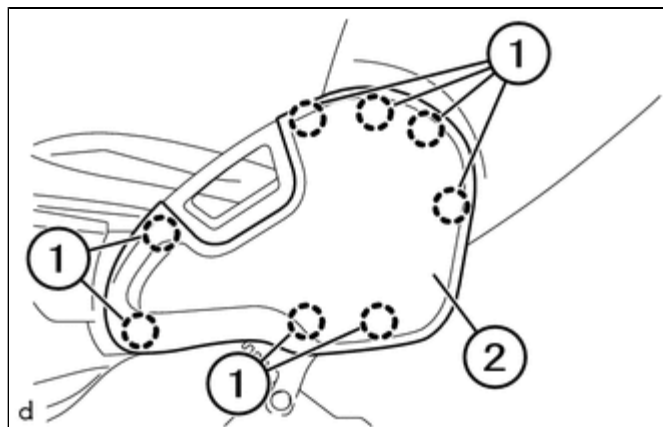


	Remove in this Direction (1)
	Remove in this Direction (2)

(b) Detach the guide (2) to remove the front seat cushion inner shield (3) in the direction of the arrow.

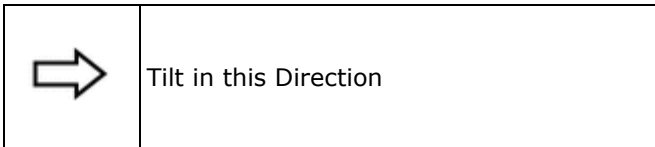
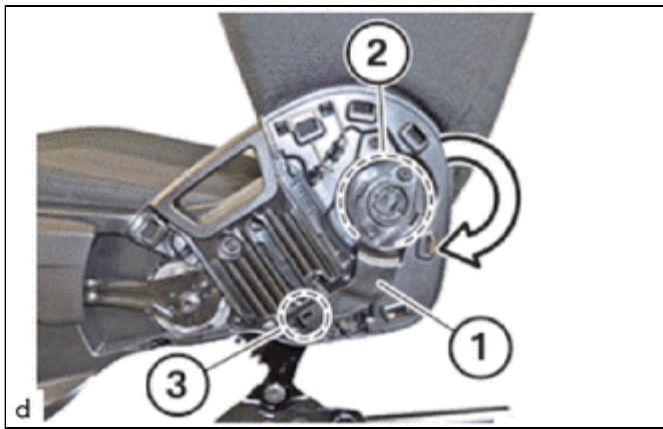
5. REMOVE FRONT SEAT SIDE SHIELD

(a) Detach the claws (1) to remove the front seat side shield (2).



6. REMOVE NO. 2 RECLINING ADJUSTER RELEASE ARM

(a) Detach the No. 2 reclining adjuster release arm (1) in the marked area (2) carefully.

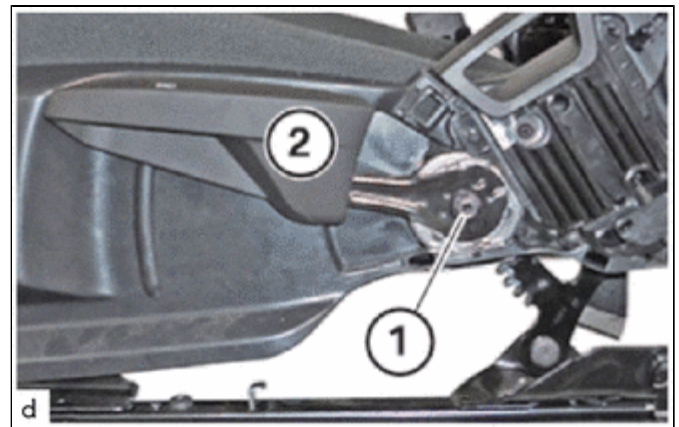


(b) Tilt the No. 2 reclining adjuster release arm (1) carefully in the direction of the arrow.

(c) Detach the guide (3) to remove the No. 2 reclining adjuster release arm (1).

7. REMOVE VERTICAL ADJUSTING HANDLE

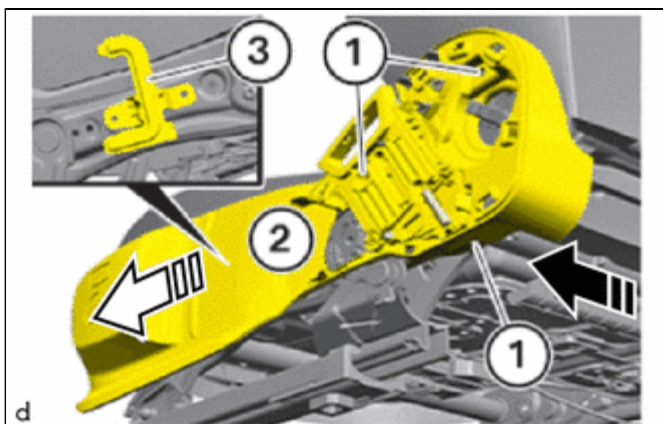
(a) Loosen the T45 screw (1).





(b) Remove the vertical adjusting handle (2).

8. REMOVE FRONT SEAT CUSHION SHIELD

(a) Loosen the T20 screws (1).



	Remove in this Direction (1)
	Remove in this Direction (2)

(b) Remove the front seat cushion shield (2) from the No. 2 front seat side shield bracket (3) in the direction of the arrow.

(c) w/ Lumbar Support:

(1) Disconnect the connector.

(d) w/ Back Side Support Adjuster:

(1) Disconnect the connector.

9. REMOVE FRONT LUMBAR SUPPORT POWER SEAT SWITCH (w/ Lumbar Support)

Click here [INFO](#)

10. REMOVE FRONT SEATBACK SUPPORT POWER SEAT SWITCH (w/ Back Side Support Adjuster)

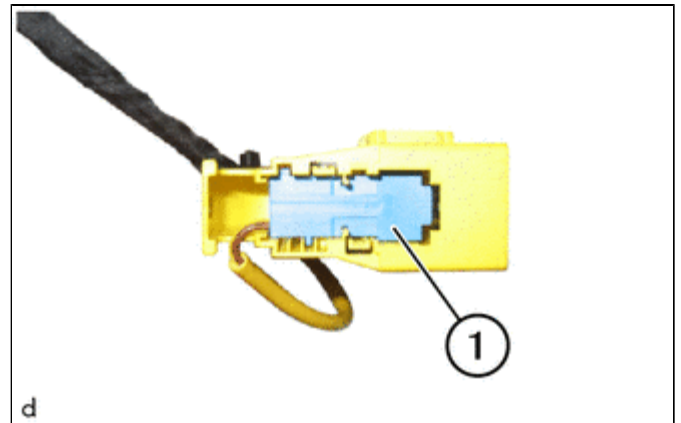
Click here [INFO](#)

11. REMOVE CHILD RESTRAINT SEAT ANCHOR BRACKET (w/ Bracket)

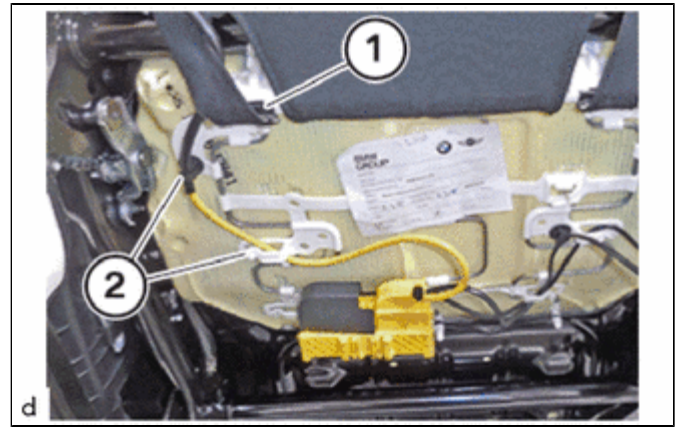
Click here [INFO](#)

12. REMOVE FRONT SEAT AIRBAG ASSEMBLY

(a) Disconnect the connector (1) from the connector housing.



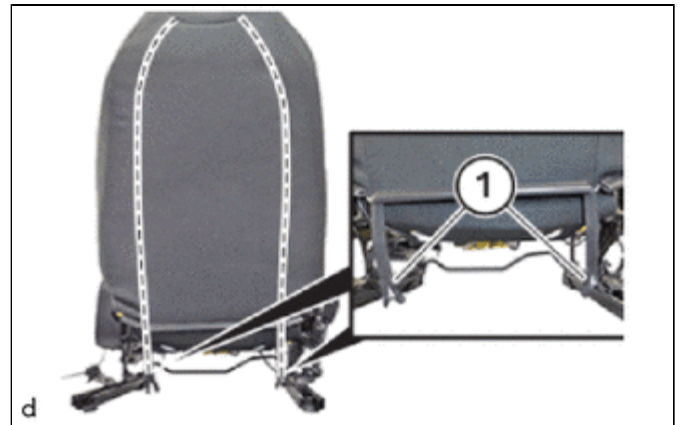
(b) Detach the separate type front seat cushion cover (1).



(c) Detach the clamps (2).



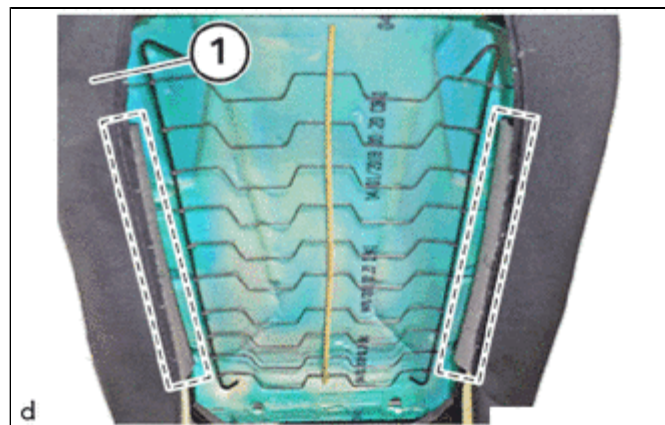
(d) Detach the separate type front seatback cover (1) in the marked area.



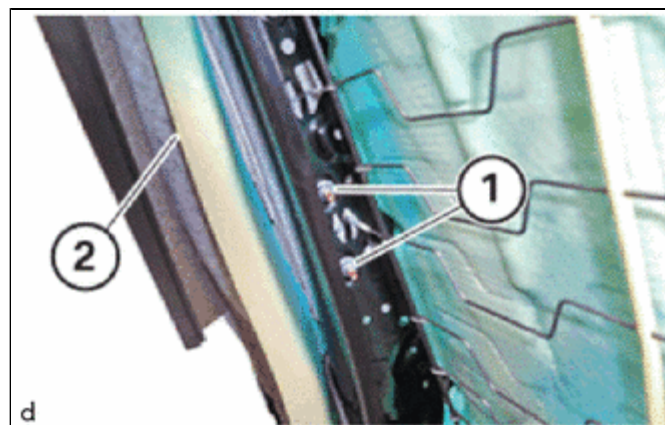
(e) Using a special tool 0 490 472 (00 5 020), open the fasteners (1) in the marked area.

SST: 09300-WA180

- (f) Detach the separate type front seatback cover (1) in the marked area.

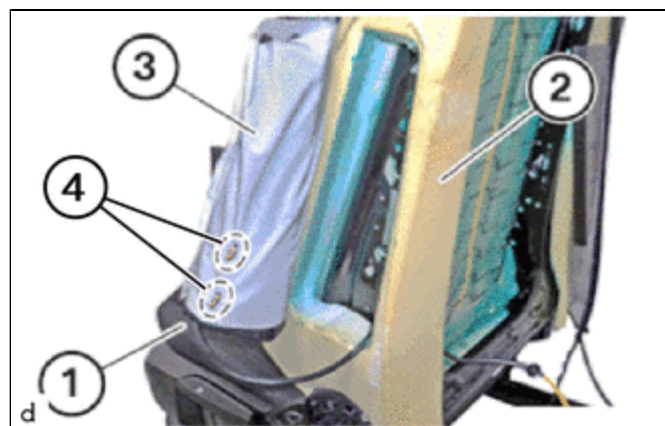


- (g) Loosen the nuts (1).



- (h) Fold the separate type front seatback cover with pad (2) to the side.

- (i) Pull the front seat airbag assembly (1) carefully from the separate type front seatback pad (2).



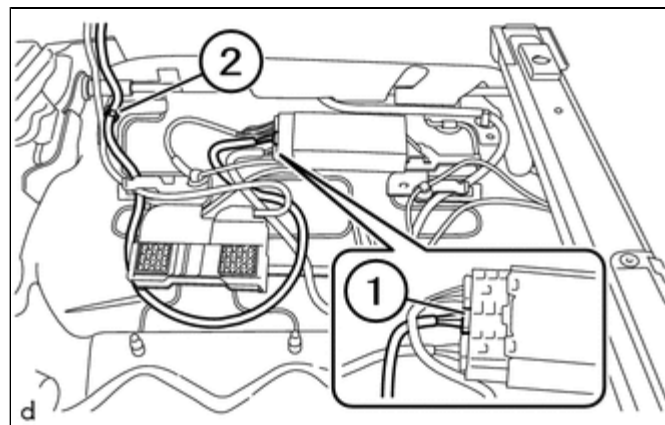
- (j) Remove the front seat airbag assembly (1) out carefully from the pocket in the separate type front seatback cover (3).

NOTICE:

Make sure that the stud bolts (4) do not damage the pocket in the separate type front seatback cover.

13. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

(a) Disconnect the connector (1).

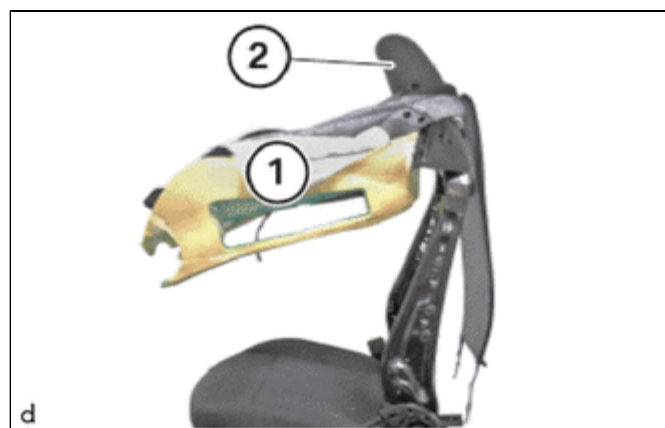


(b) Detach the clamp (2).

(c) Position the separate type front seatback cover with pad (1) as illustrated.

NOTICE:

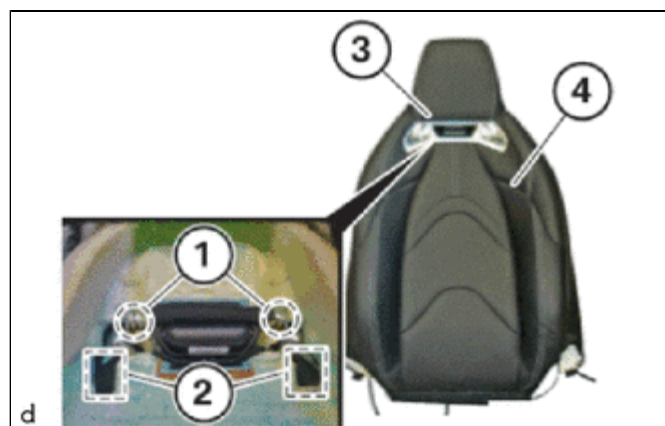
Handle the separate type front seatback cover with pad (1) carefully to avoid damage.



(d) Remove the separate type front seatback cover with pad (1) from the front seat headrest assembly (2).

14. REMOVE FRONT SEATBACK GARNISH

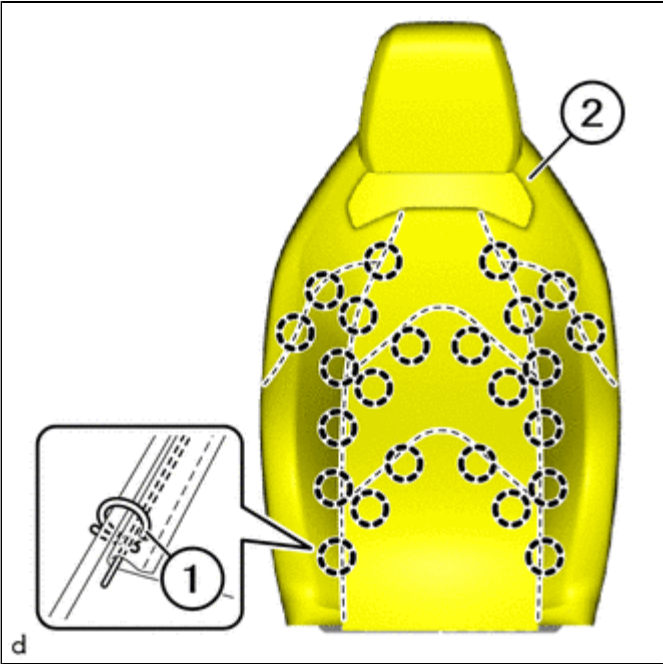
(a) Detach the claws (1).



(b) Detach the guides (2) to remove the front seatback garnish (3) from the separate type front seatback cover with pad (4).

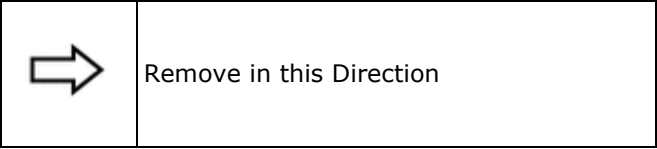
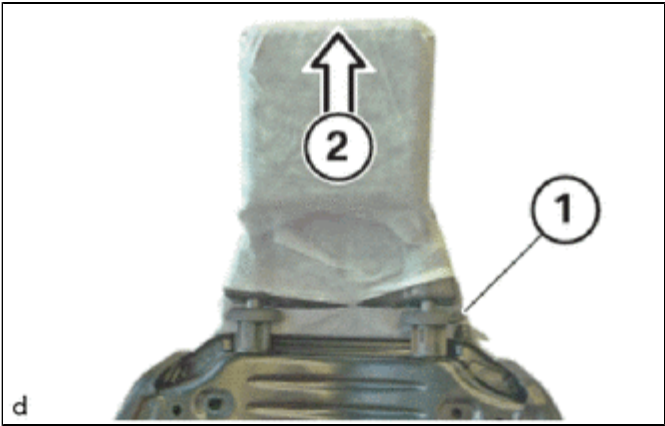
15. REMOVE SEPARATE TYPE FRONT SEATBACK COVER

- (a) Remove the 24 hog rings (1) and separate type front seatback cover (2) from the separate type front seatback pad with heater assembly.



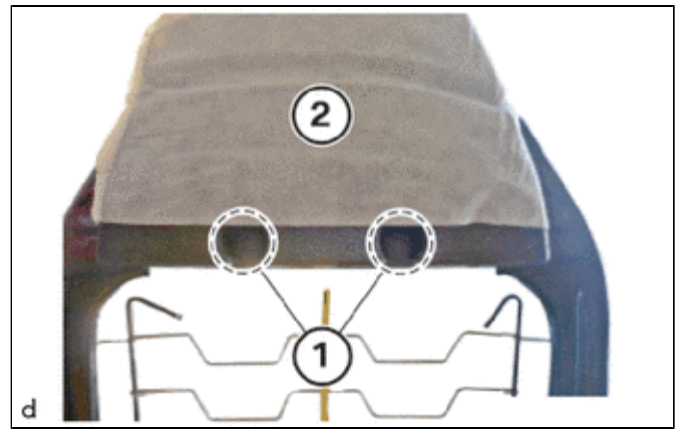
16. REMOVE FRONT SEAT HEADREST ASSEMBLY

- (a) Press the lock button (1) to remove the front seat headrest assembly (2) in the direction of the arrow.



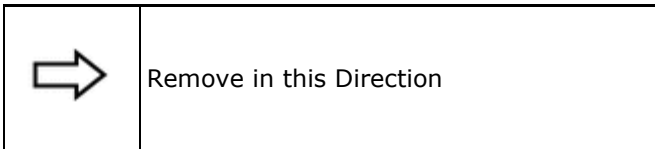
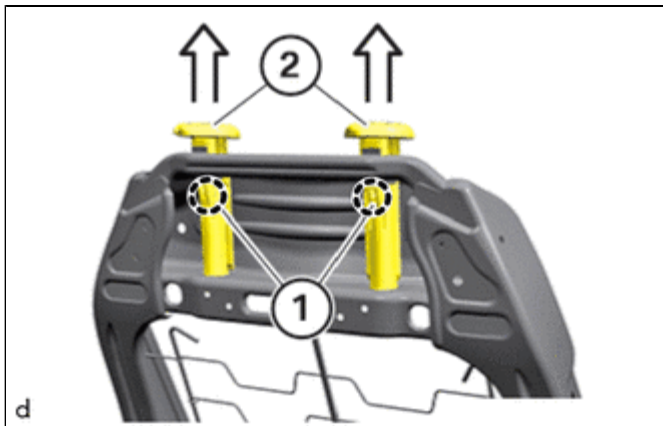
17. REMOVE FRONT SEATBACK BOARD

- (a) Detach the clips (1) to remove the front seatback board (2).



18. REMOVE FRONT SEAT HEADREST SUPPORT

(a) Detach the claws (1) to remove the front seat headrest supports (2) in the direction of the arrow.



19. REMOVE LUMBAR SUPPORT ADJUSTER ASSEMBLY (w/ Lumbar Support)

Click here [INFO](#)

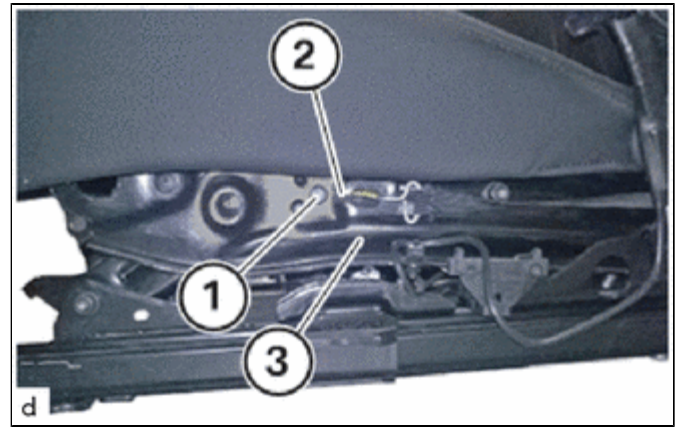
20. REMOVE SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY (w/ Back Side Support Adjuster)

Click here [INFO](#)

21. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

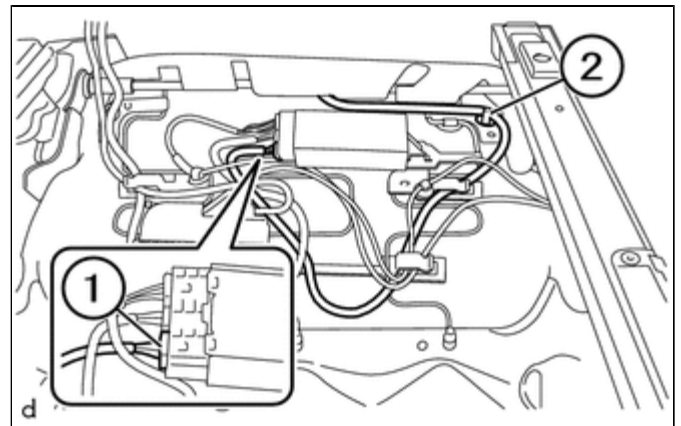
(a) w/ Occupant Detection ECU:

(1) Loosen the screw (1).



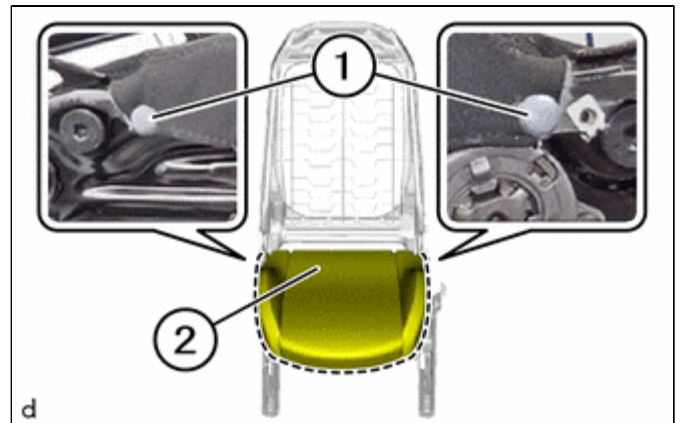
(2) Remove the cable (2) from the front seat adjuster assembly (3).

(b) Disconnect the connector (1).



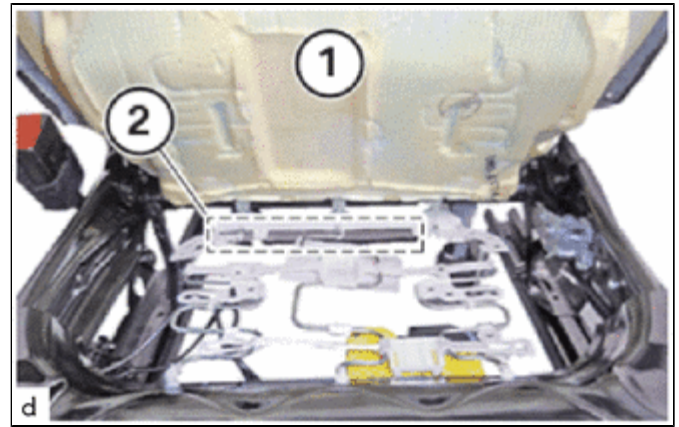
(c) Detach the clamp (2).

(d) Using a clip remover, detach the clips (1).



(e) Detach the separate type front seat cushion cover with pad (2) in the marked area.

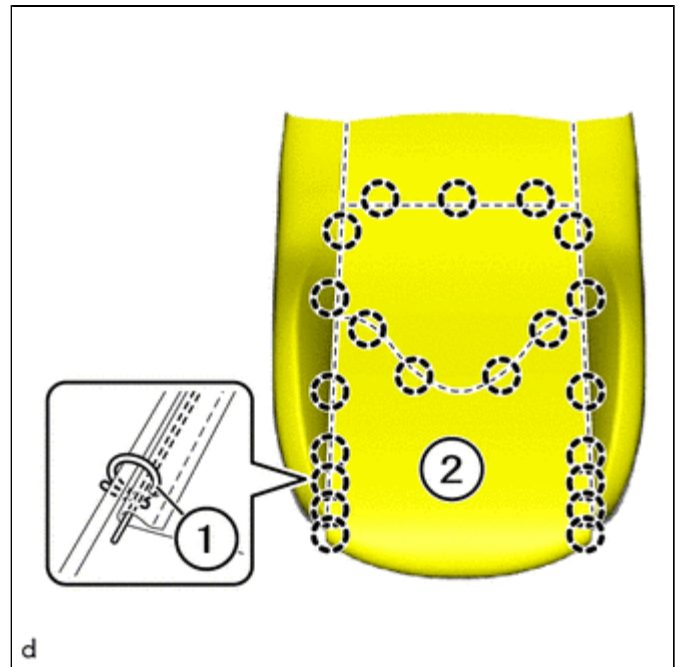
- (f) Position the separate type front seat cushion cover with pad (1) as illustrated.



- (g) Detach the separate type front seat cushion cover with pad (1) in the marked area (2).

22. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER

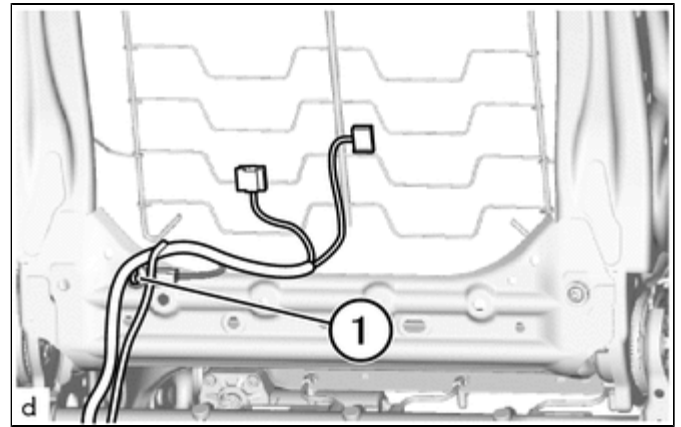
- (a) Remove the 21 hog rings (1) and separate type front seat cushion cover (2) from the separate type front seat cushion pad with heater assembly.



23. REMOVE SEPARATE TYPE FRONT SEATBACK SPRING ASSEMBLY

- (a) w/ Lumbar Support, w/ Back Side Adjuster:

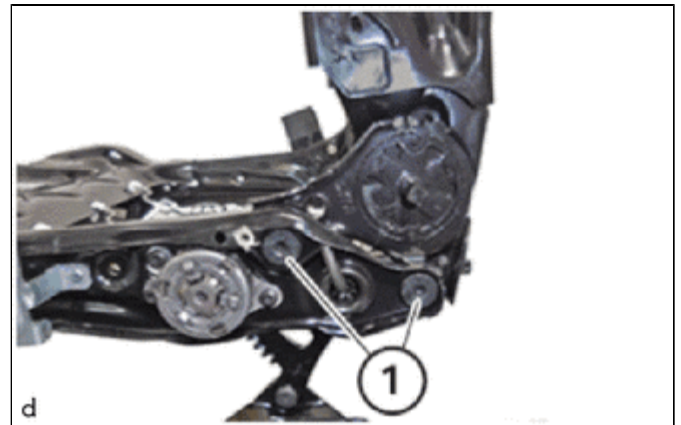
- (1) Detach the clamp (1) to separate the front seat wire.



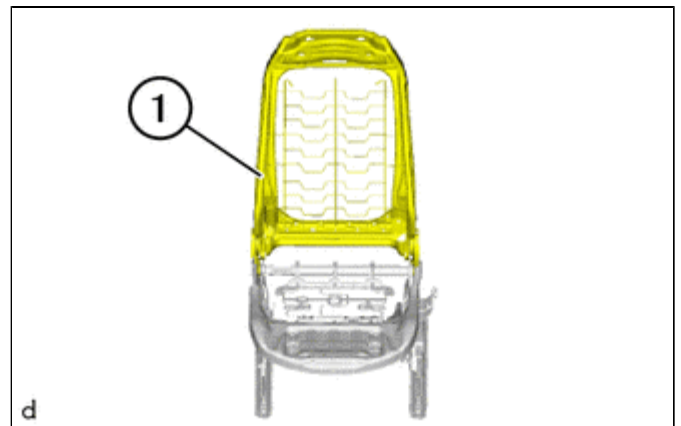
(b) Loosen the T50 bolts (1).

HINT:

Use the same procedure for the opposite side.

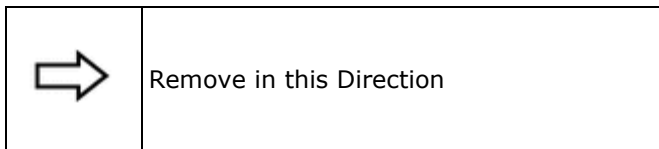
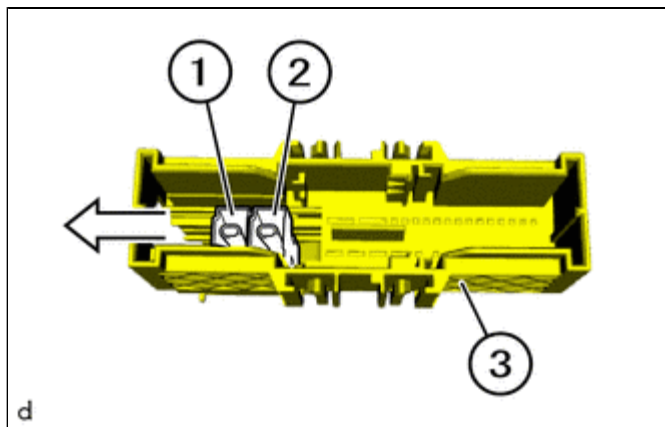


(c) Remove the separate type front seatback spring assembly (1).

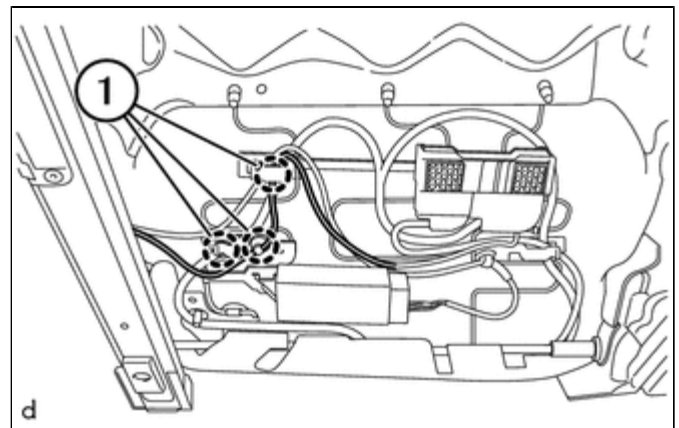


24. REMOVE SEAT POSITION AIRBAG SENSOR (w/ Seat Position Airbag Sensor)

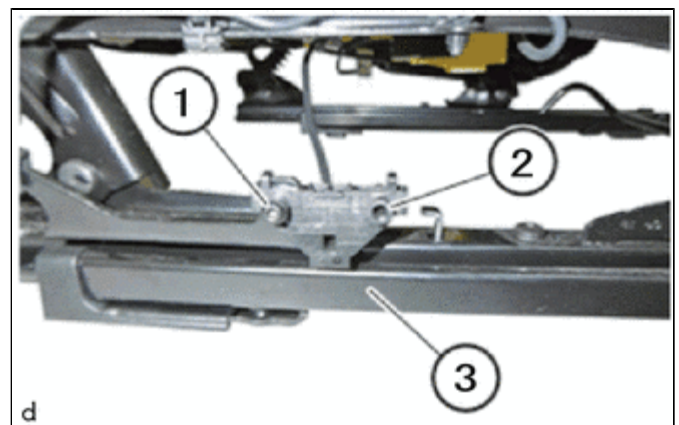
(a) Remove the connectors in order from (1) to (2) and pull them out of the connector housing (3) one after another in the direction of the arrow.



(b) Detach the clamps (1).



(c) Loosen the bolt (1).



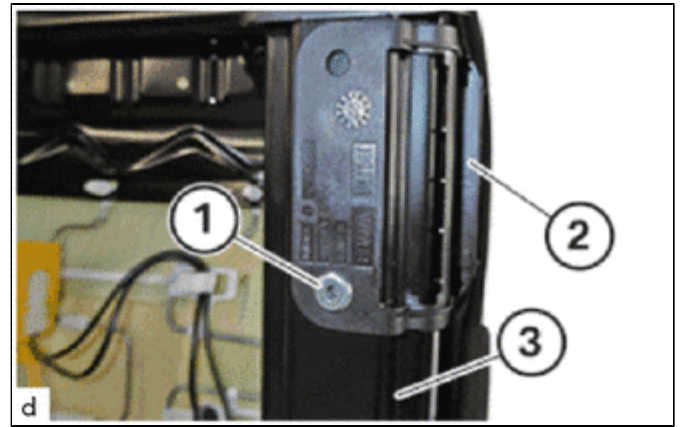
(d) Pull the No. 2 seat position airbag sensor (2) out up of the front seat adjuster assembly (3) upwards and remove.

25. REMOVE SEAT POSITION SENSOR MAGNET (w/ Seat Position Airbag Sensor)

(a) Drill out the rivet (1).

NOTICE:

- Do not drill the rivet at an angle as this will cause damage to the drill and rivet installation hole. Line up the drill with the rivet, and carefully drill out the rivet head.
- Be careful as the drilled rivet will be very hot.

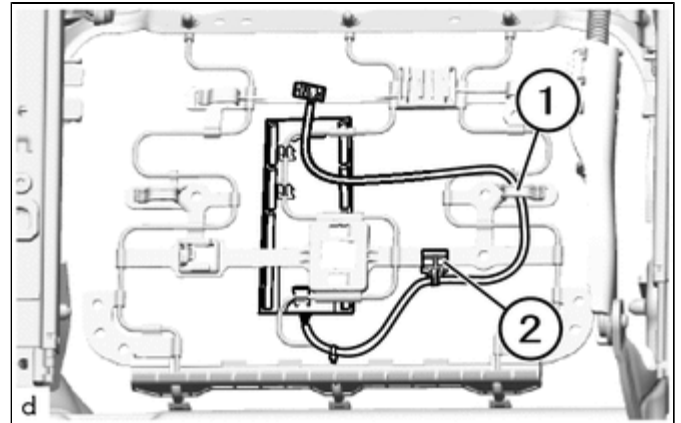


(b) Remove the seat position sensor magnet (2) from the top of the front seat adjuster assembly (3).

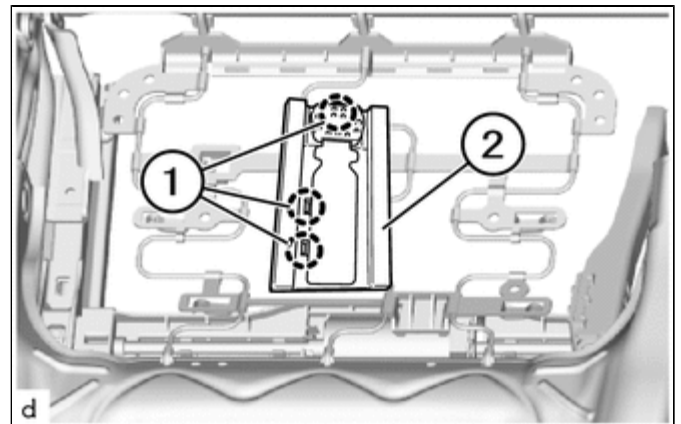
26. REMOVE BELT WARNING OCCUPANT DETECTION SENSOR (for Front Passenger Side)

(a) w/o Occupant Detection ECU:

(1) Detach the cable from the holder (1) and clamp (2).

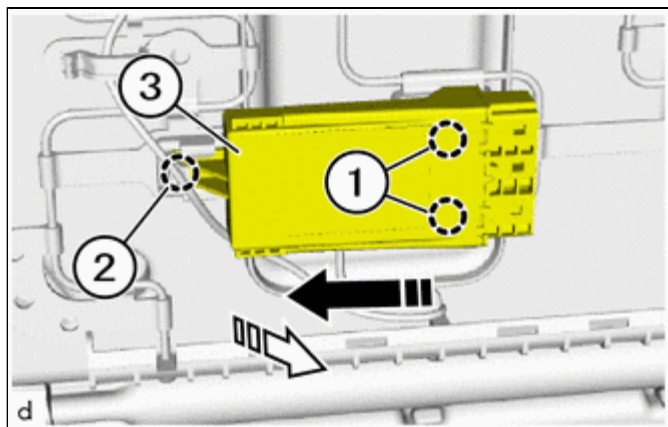




(2) Detach the claws (1) to remove the belt warning occupant detection sensor (2).



27. REMOVE SEAT HEATER CONTROL SUB-ASSEMBLY

(a) Detach the guides (1) and guide (2) to remove the seat heater control sub-assembly (3) as shown in the illustration.



	Remove in this Direction (1)
	Remove in this Direction (2)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD34
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Manual Seat): REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

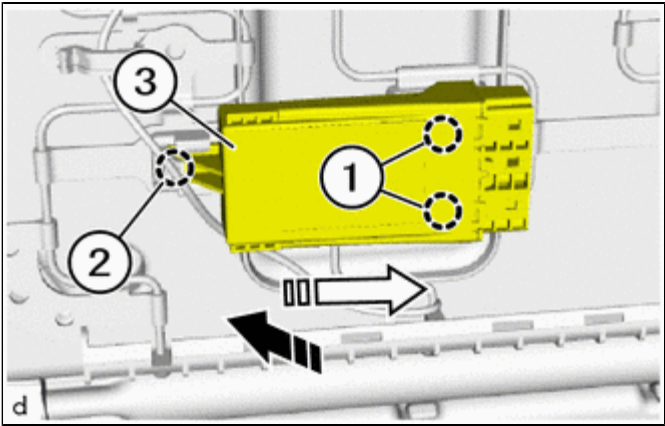
HINT:



- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. INSTALL SEAT HEATER CONTROL SUB-ASSEMBLY

(a) Attach the guides (1) and guide (2) to install the seat heater control sub-assembly (3) as shown in the illustration.

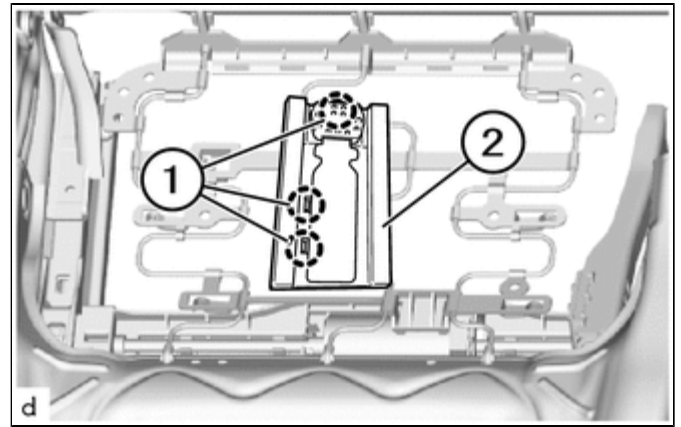


	Install in this Direction (1)
	Install in this Direction (2)

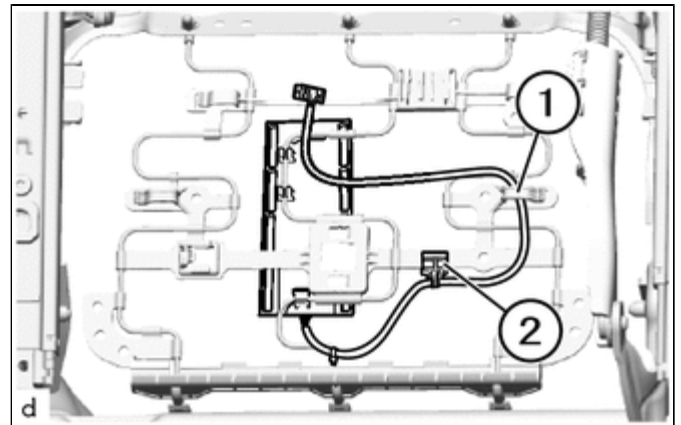
2. INSTALL BELT WARNING OCCUPANT DETECTION SENSOR (for Front Passenger Side)

(a) w/o Occupant Detection ECU:

- (1) Attach the claws (1) to install the belt warning occupant detection sensor (2).

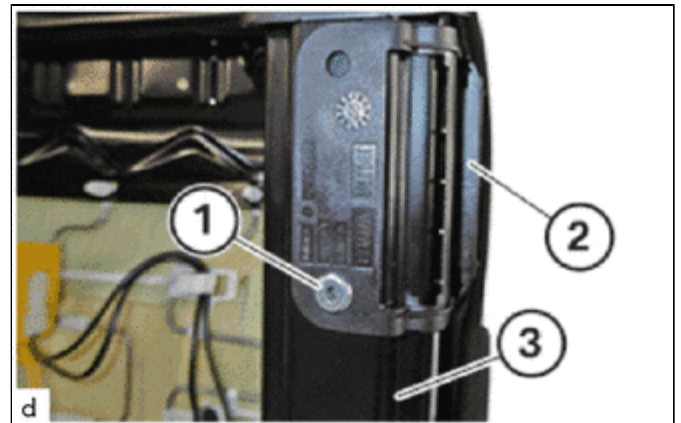


(2) Attach the cable to the holder (1) and clamp (2).



3. INSTALL SEAT POSITION SENSOR MAGNET (w/ Seat Position Airbag Sensor)

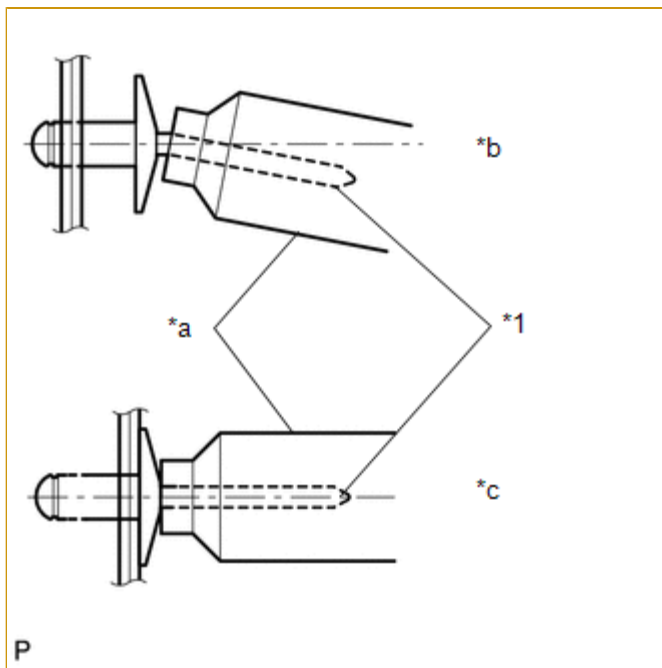
(a) Position the seat position sensor magnet (2) on top of the front seat adjuster assembly (3).



(b) Fasten the rivet (1).

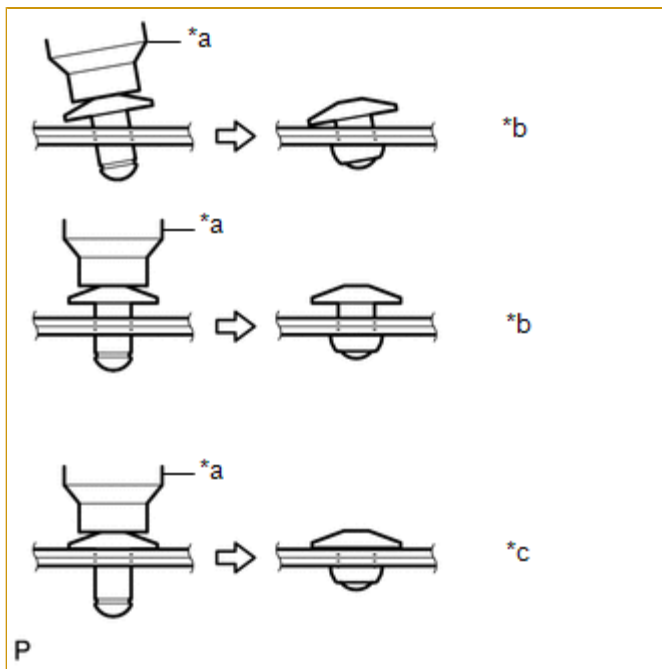
NOTICE:

- Do not pry on the rivet with the riveter, as this will cause damage to the riveter and mandrel.



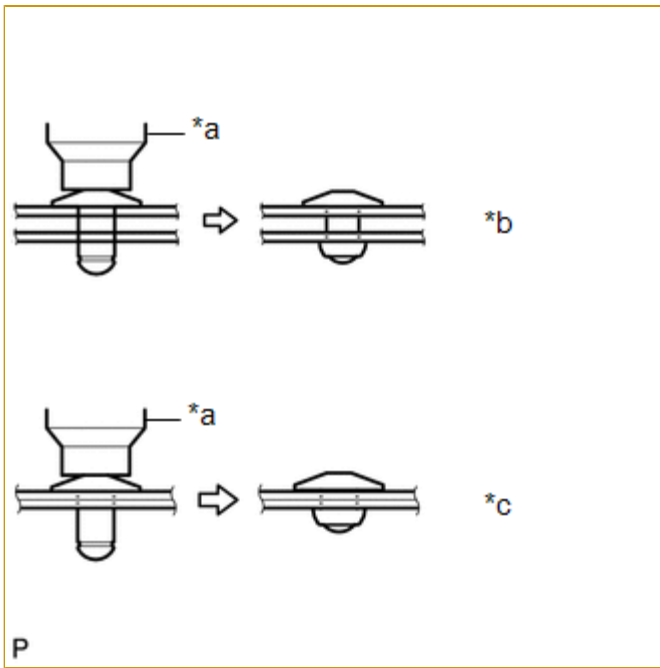
*1	Mandrel
*a	Riveter
*b	Incorrect
*c	Correct

- Confirm that the rivet is seated properly against the seat position sensor magnet.



*a	Riveter
*b	Incorrect
*c	Correct

- Do not tilt the riveter when installing the seat position sensor magnet with the rivet.
- Do not leave any space between the rivet head and the seat position sensor magnet.
- Do not leave any space between the seat position sensor magnet and front seat adjuster assembly. Firmly hold the seat position sensor magnet and front seat adjuster assembly together while installing the rivet.

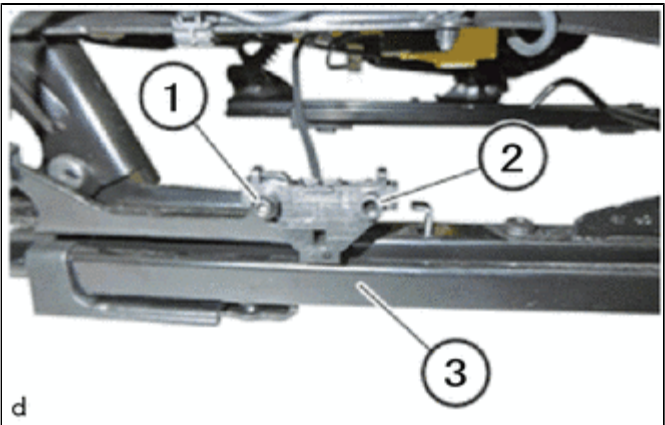


*a	Riveter
*b	Incorrect
*c	Correct

HINT:

If the mandrel of the rivet does not come off on the first operation of the rivet gun, slide the rivet gun forward on the mandrel and operate it again.

4. INSTALL SEAT POSITION AIRBAG SENSOR (w/ Seat Position Airbag Sensor)



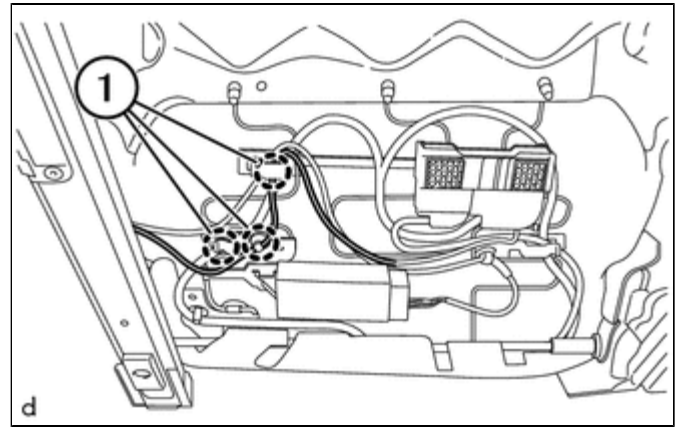
(a) Install the No. 2 seat position airbag sensor (2) to the front seat adjuster assembly (3) from above and position it correctly.

(b) Tighten the bolt (1).

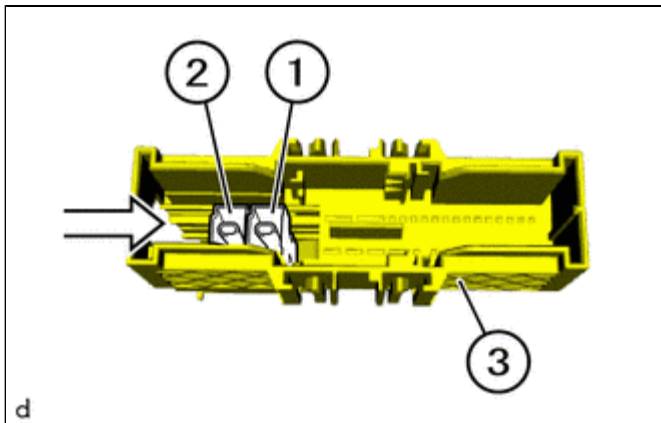
Torque:

1.3 N·m {13 kgf·cm, 12 in·lbf}

(c) Attach the clamps (1).



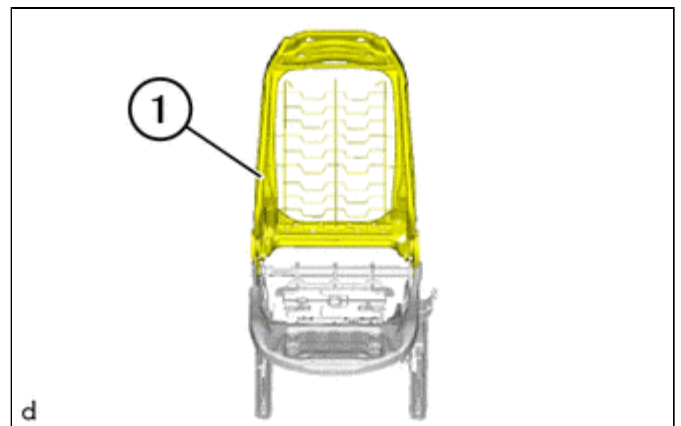
(d) Install the connectors correctly into the connector housing (3) in the sequence (1) to (2) in the direction of arrow.



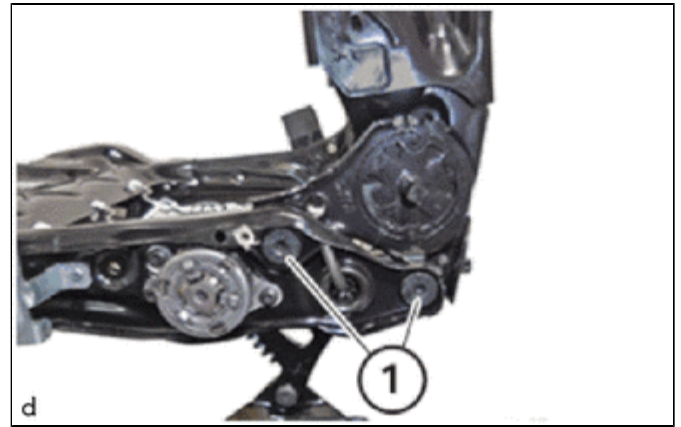
Install in this Direction

5. INSTALL SEPARATE TYPE FRONT SEATBACK SPRING ASSEMBLY

(a) Position the separate type front seatback spring assembly (1) correctly.



(b) Replace the T50 bolts (1).



(c) Tighten the T50 bolts (1).

Torque:

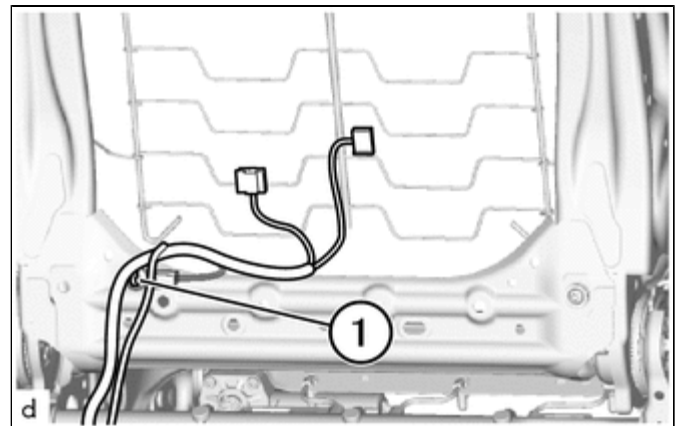
44 N·m {449 kgf·cm, 32 ft·lbf}

HINT:

Use the same procedure for the opposite side.

(d) w/ Lumbar Support, w/ Back Side Adjuster:

(1) Attach the clamp (1) to connect the front seat wire.



6. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER

(a) When replacing the front seat cushion heater assembly:

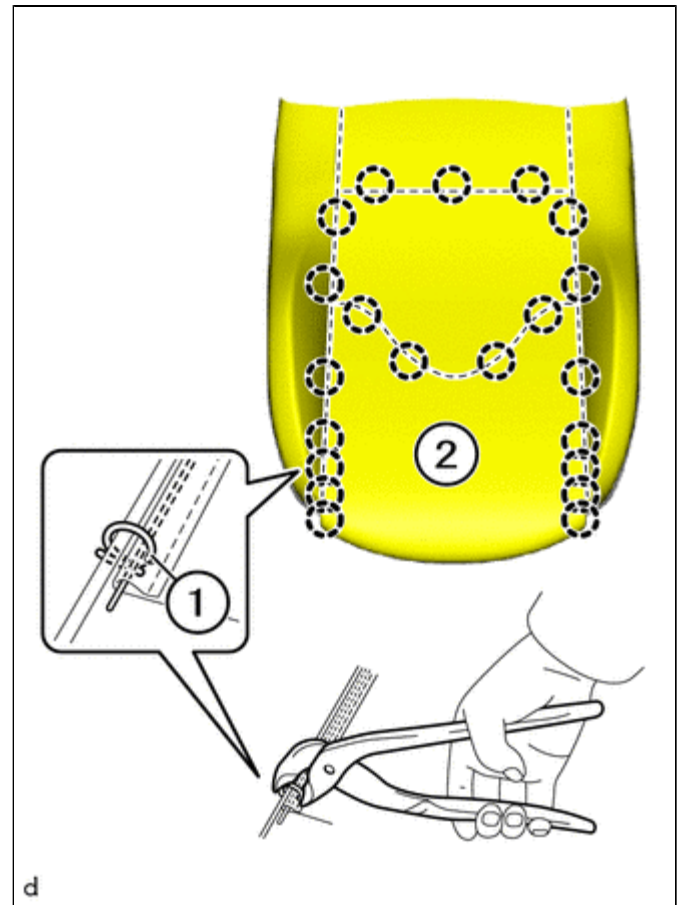
Click here [INFO](#)

(b) w/ Occupant Detection ECU:

(1) Place the separate type front seat cushion cover (2) correctly on the separate type front seat cushion pad with heater assembly.

NOTICE:

- The seat occupancy mat is bonded to the entire surface of the separate type front seat cushion pad and can only be replaced together with the separate type front seat cushion pad.
- If the seat occupancy mat or separate type front seat cushion pad is defective, both parts must always be replaced together.
- Full operability can only be guaranteed with the original replacement part.
- After fitting the separate type front seat cushion cover, enable the seat occupancy mat using the diagnosis system.



(c) w/o Occupant Detection ECU:

(1) Place the separate type front seat cushion cover (2) correctly on the separate type front seat cushion pad with heater assembly.

(d) Replace the 21 hog rings (1).

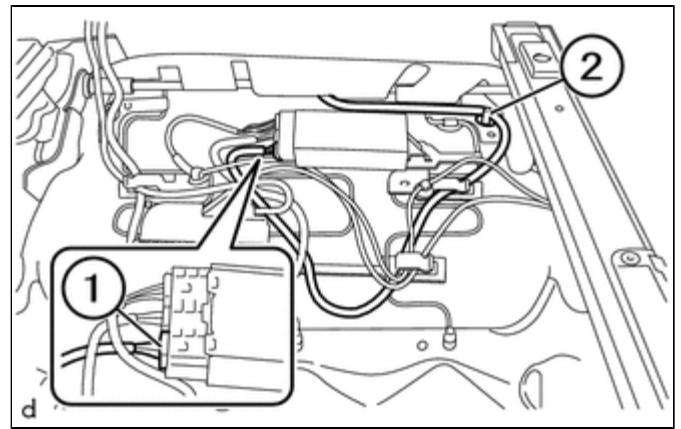
(e) Using hog ring pliers, install the separate type front seat cushion cover (2) to the separate type front seat cushion pad with heater assembly with 21 new hog rings (1).

NOTICE:

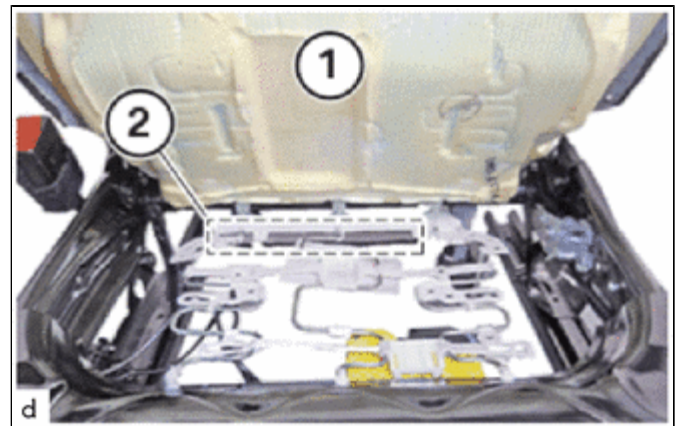
- Be careful not to damage the separate type front seat cushion cover.
- When installing the hog rings, take care to minimize wrinkles as much as possible.
- Align the center of the hog ring installation area of the separate type front seat cushion cover with the center of the separate type front seat cushion pad with heater assembly so that no wrinkles appear, and securely tighten the hog rings as shown in the illustration.

7. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

(a) Attach the clamp (2).

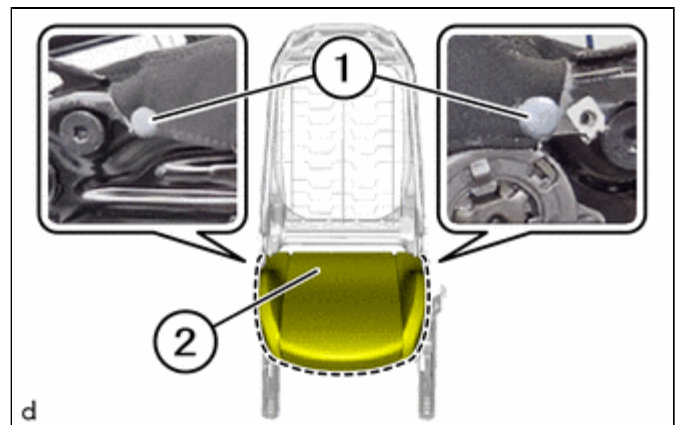


(b) Connect the connector (1).



(c) Position the separate type front seat cushion cover with pad (1) as illustrated.

(d) Attach the separate type front seat cushion cover with pad (1) in the marked area (2).

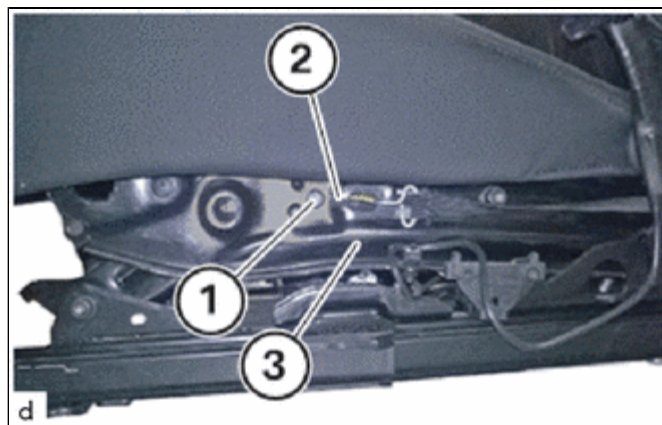


(e) Attach the separate type front seat cushion cover with pad (2) correctly in the marked area.

(f) Install the clips (1).

(g) w/ Occupant Detection ECU:

- (1) Install the cable (2) to the front seat adjuster assembly (3).



- (2) Tighten the screw (1).

Torque:

7.5 N·m {76 kgf·cm, 66 in·lbf}

8. INSTALL SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY (w/ Back Side Support Adjuster)

Click here [INFO](#)

9. INSTALL LUMBAR SUPPORT ADJUSTER ASSEMBLY (w/ Lumbar Support)

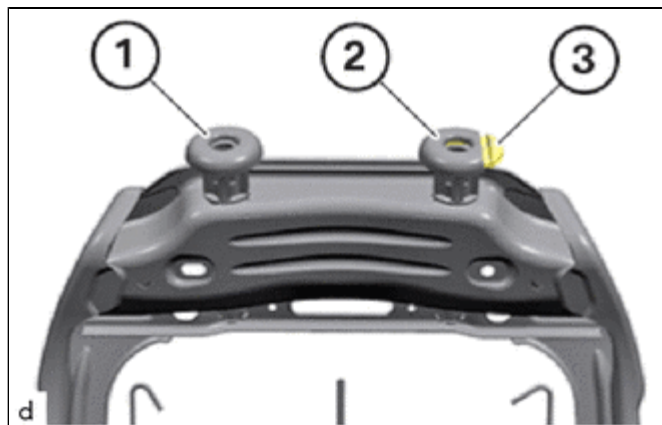
Click here [INFO](#)

10. INSTALL FRONT SEAT HEADREST SUPPORT

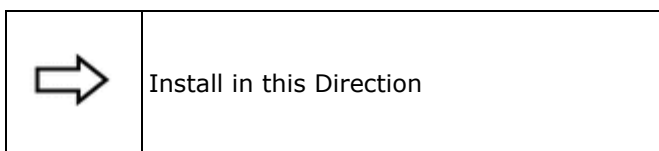
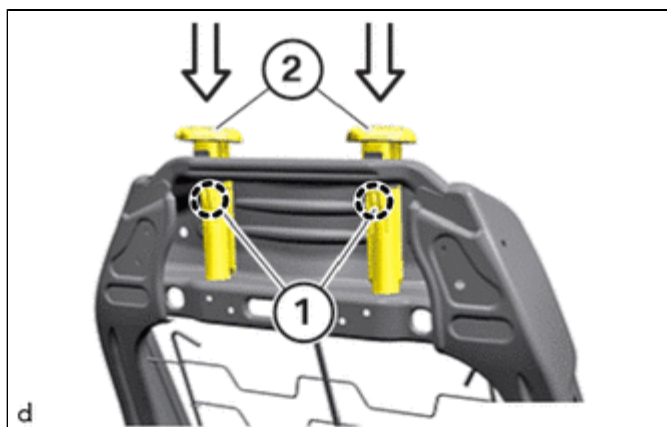
- (a) Position the front seat headrest support (2) on the left side of the vehicle.

HINT:

- The front seat headrest support (1) and (2) are not identical.
- The front seat headrest support (2) is provided with a lock button (3).

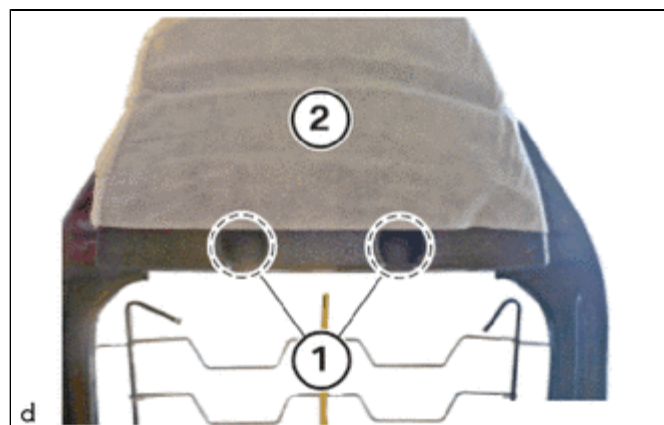


- (b) Attach the claws (1) to install the front seat headrest supports (2).



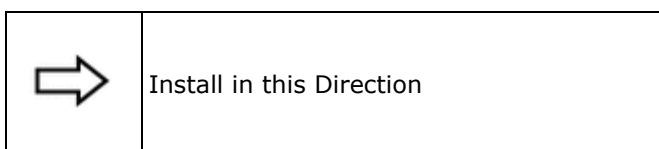
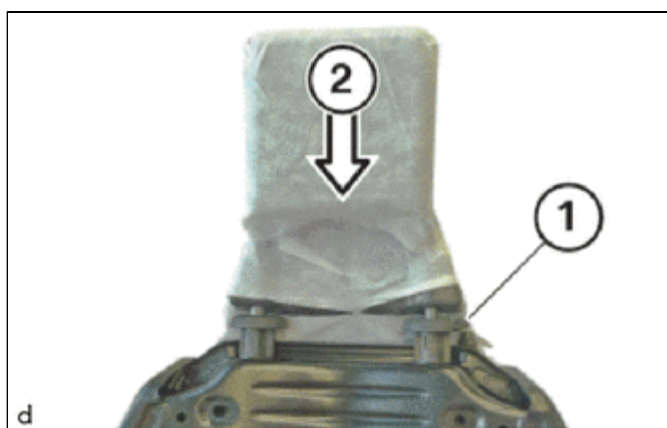
11. INSTALL FRONT SEATBACK BOARD

(a) Attach the clips (1) to install the front seatback board (2).



12. INSTALL FRONT SEAT HEADREST ASSEMBLY

(a) Press the lock button (1) to install the front seat headrest assembly (2) in the direction of the arrow.

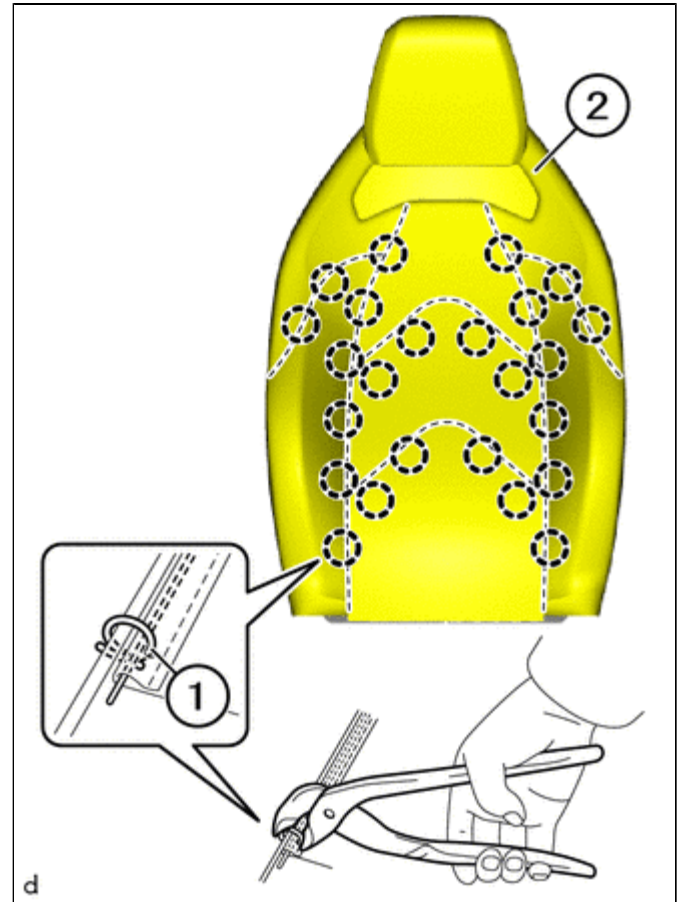


13. INSTALL SEPARATE TYPE FRONT SEATBACK COVER

(a) When replacing the front seatback heater assembly:

Click here [INFO](#)

(b) Place the separate type front seatback cover (2) correctly on the separate type front seatback pad with heater assembly.



(c) Replace the 24 hog rings (1).

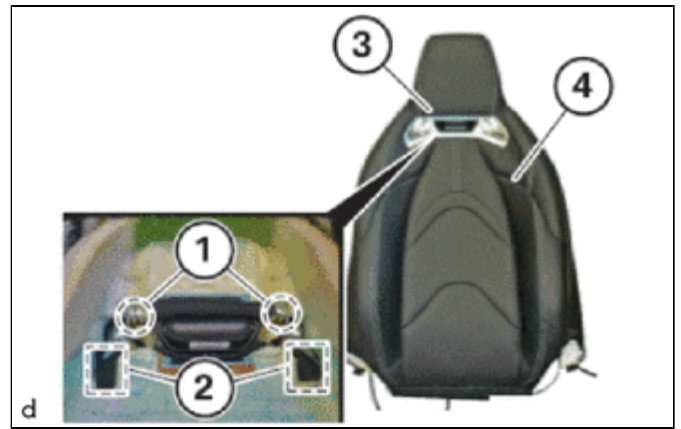
(d) Using hog ring pliers, install the separate type front seatback cover (2) to the separate type front seatback pad with heater assembly with 24 hog rings (1).

NOTICE:

- Be careful not to damage the separate type front seatback cover.
- When installing the hog rings, take care to minimize wrinkles as much as possible.
- Align the center of the hog ring installation area of the separate type front seatback cover with the center of the separate type front seatback pad with heater assembly so that no wrinkles appear, and securely tighten the hog rings as shown in the illustration.

14. INSTALL FRONT SEATBACK GARNISH

(a) Attach the guides (2).



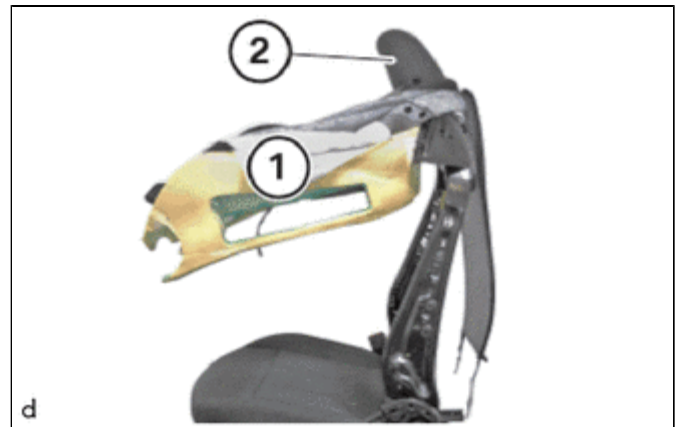
(b) Attach the claws (1) to install the front seatback garnish (3) to the separate type front seatback cover with pad (4).

15. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

(a) Install the separate type front seatback cover with pad (1) correctly over the front seat headrest assembly (2).

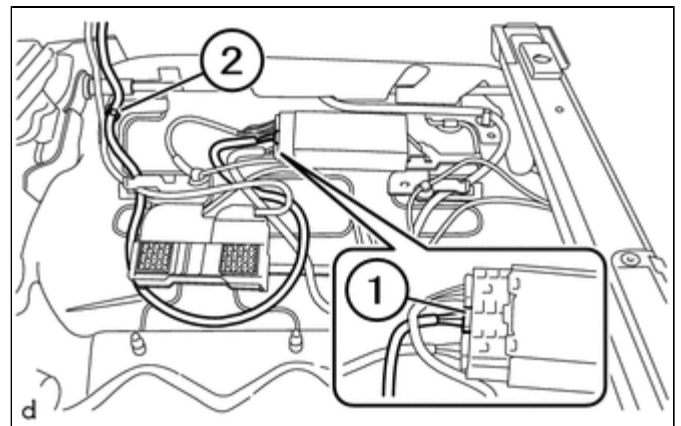
NOTICE:

Handle the separate type front seatback cover with pad (1) carefully to prevent damage.



(b) Install the separate type front seatback cover with pad (1) correctly.

(c) Attach the clamp (2).



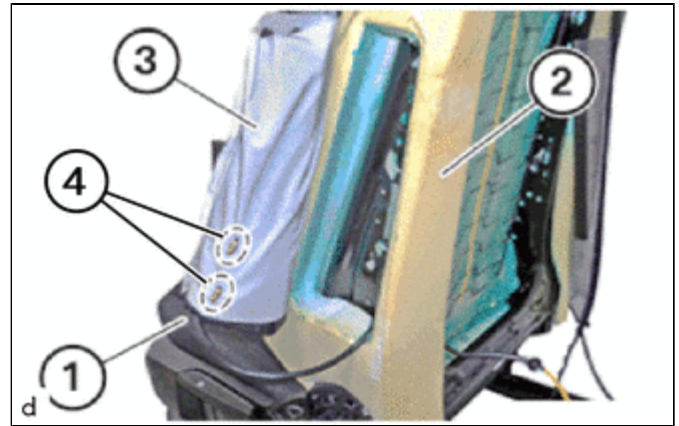
(d) Connect the connector (1).

16. INSTALL FRONT SEAT AIRBAG ASSEMBLY

- (a) Install the front seat airbag assembly (1) carefully into the pocket of separate type front seatback cover (3).

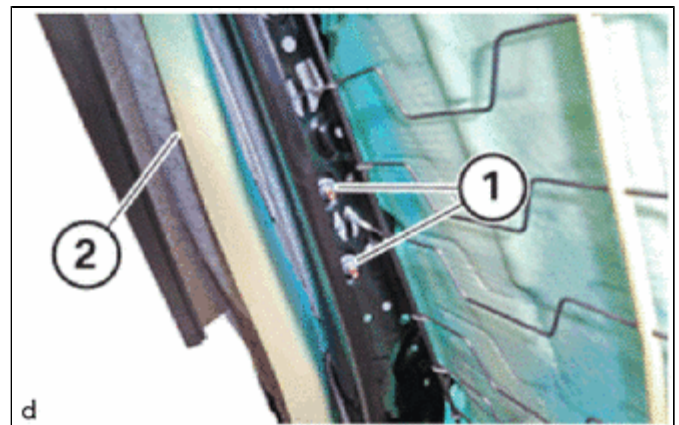
NOTICE:

Make sure that the stud bolts (4) do not damage the pocket in the separate type front seatback cover.



- (b) Position the front seat airbag assembly (1) correctly in the separate type front seatback pad (2).

- (c) Position the separate type front seatback cover with pad (2) correctly.



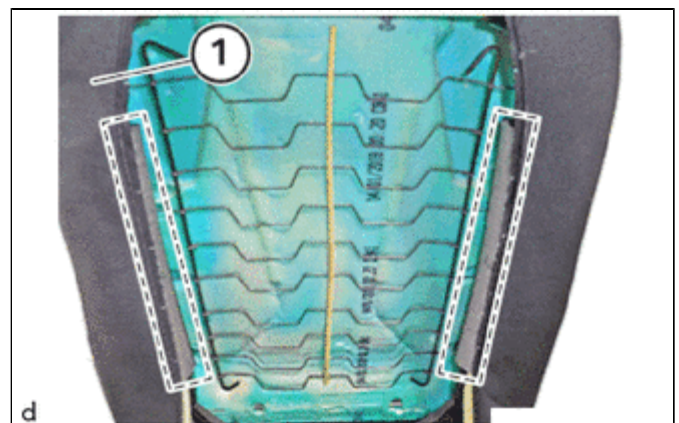
- (d) Replace the nuts (1).

- (e) Tighten the nuts (1).

Torque:

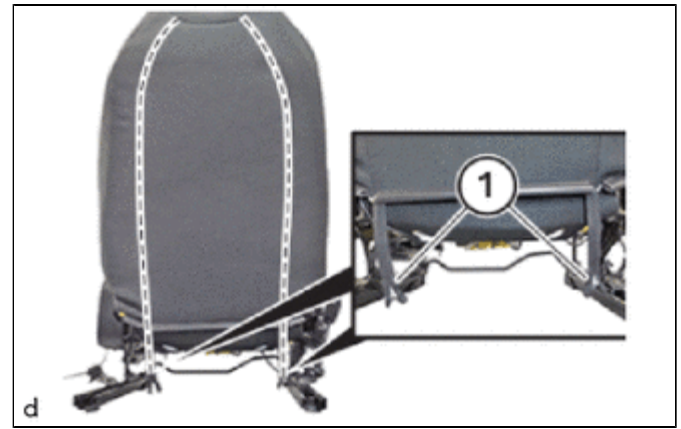
6.5 N·m {66 kgf·cm, 58 in·lbf}

- (f) Attach the separate type front seatback cover with pad (1) correctly in the marked area.



(g) Using a special tool 0 490 472 (00 5 020), close the fasteners (1) in the marked area.

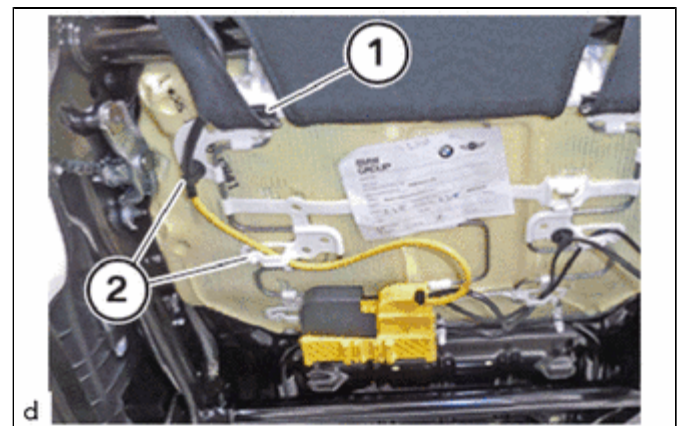
SST: 09300-WA180



(h) Attach the separate type front seatback cover (1) correctly in the marked area.

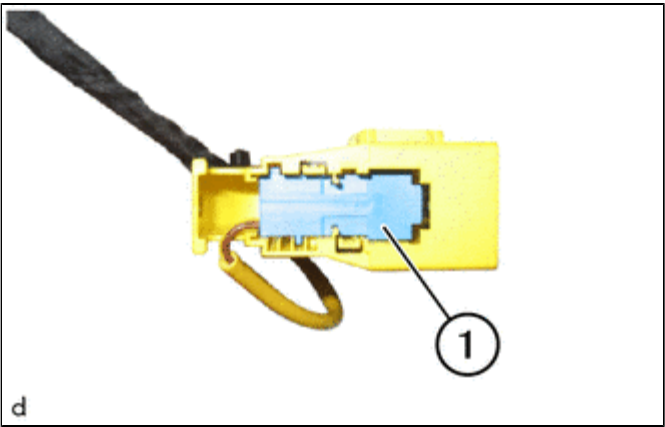


(i) Attach the clamps (2).



(j) Attach the separate type front seat cushion cover (1).

(k) Connect the connector (1) to the connector housing.



17. INSTALL CHILD RESTRAINT SEAT ANCHOR BRACKET (w/ Bracket)

Click here [INFO](#)

18. INSTALL FRONT LUMBAR SUPPORT POWER SEAT SWITCH (w/ Lumbar Support)

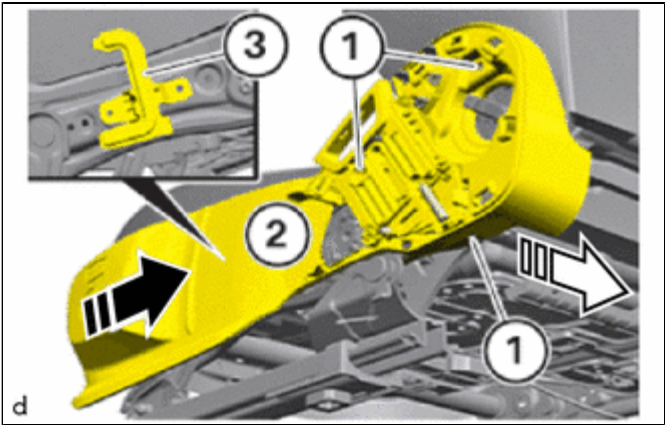
Click here [INFO](#)



19. INSTALL FRONT SEATBACK SUPPORT POWER SEAT SWITCH (w/ Back Side Support Adjuster)

Click here [INFO](#)

20. INSTALL FRONT SEAT CUSHION SHIELD

- (a) w/ Lumbar Support:
 - (1) Connect the connector.
- (b) w/ Back Side Support Adjuster:
 - (1) Connect the connector.
- (c) Install the front seat cushion shield (2) to the No. 2 front seat side shield bracket (3) correctly in the direction of the arrow.



	Install in this Direction (1)
	Install in this Direction (2)

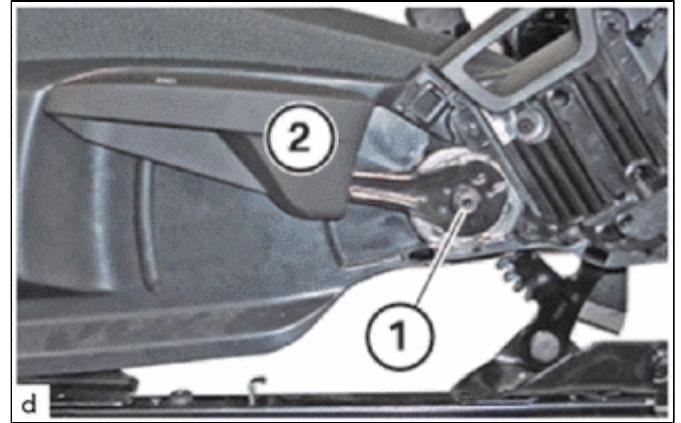
(d) Tighten the T20 screws (1).

Torque:

1.5 N·m {15 kgf·cm, 13 in·lbf}

21. INSTALL VERTICAL ADJUSTING HANDLE

(a) Position the vertical adjusting handle (2) correctly.



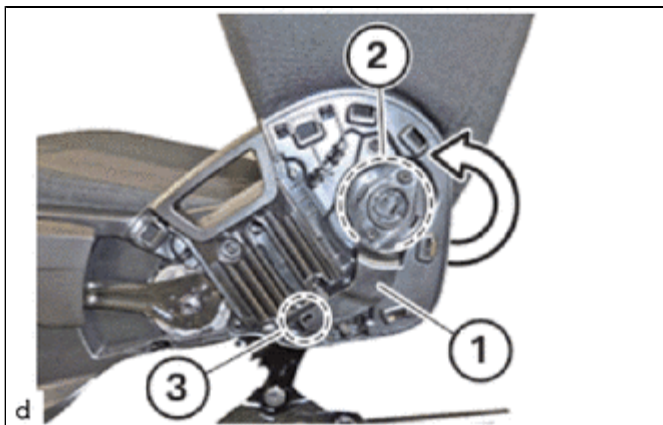
(b) Tighten the T45 screw (1).

Torque:

19.5 N·m {199 kgf·cm, 14 ft·lbf}

22. INSTALL NO. 2 RECLINING ADJUSTER RELEASE ARM

(a) Attach the guide (3).



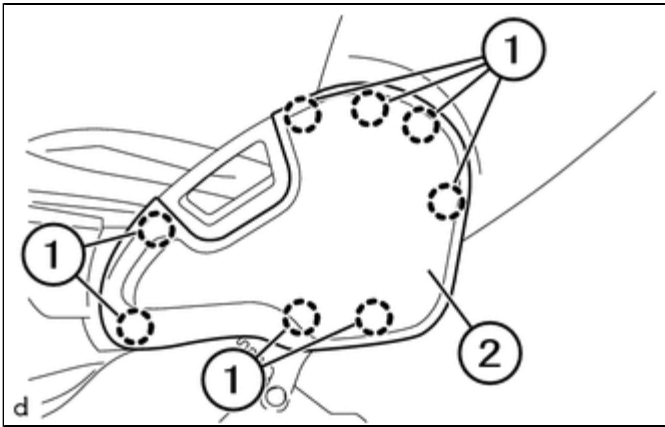
Raise in this Direction

(b) Raise the No. 2 reclining adjuster release arm (1) carefully in the direction of the arrow.

(c) Attach the No. 2 reclining adjuster release arm (1) in the marked area (2) carefully.

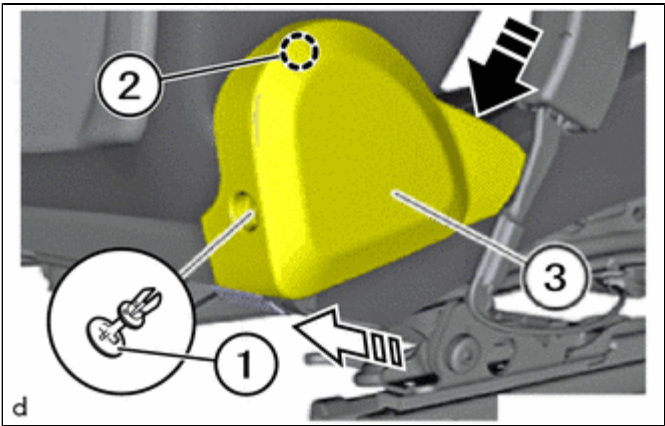
23. INSTALL FRONT SEAT SIDE SHIELD



(a) Attach the claws (1) to install the front seat side shield (2).



24. INSTALL FRONT SEAT CUSHION INNER SHIELD

(a) Attach the guide to install the front seat cushion inner shield (2) in the direction of the arrow.

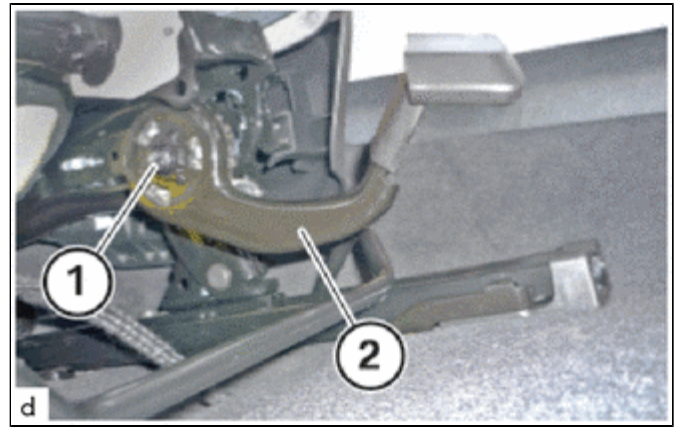


	Install in this Direction (1)
	Install in this Direction (2)

(b) Install the clip (1).

25. INSTALL SEAT LIFTER LEVER SUB-ASSEMBLY (w/ Back Side Support Adjuster)

(a) Install the seat lifter lever sub-assembly (2).



(b) Tighten the screw (1).

Torque:

19.5 N·m {199 kgf·cm, 14 ft·lbf}

26. INSTALL FRONT SEAT INNER BELT ASSEMBLY

Click here [INFO](#)

27. INSTALL OCCUPANT DETECTION ECU (w/ Occupant Detection ECU)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD35
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Manual Seat): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. INSTALL FRONT SEAT ASSEMBLY

- Cover the front door scuff plate with protective covers.
- Place the front seat assembly in the vehicle with another person.

NOTICE:

- Heavy component.

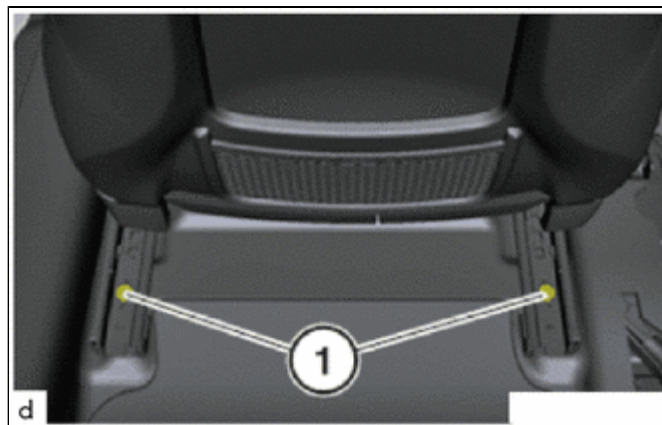
Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Protect the front seat leg.
- Be careful not to damage the front seat assembly, body exterior or body interior.

- Tilt the front seat assembly backwards to connect the connector.

- Move the front seat assembly to the foremost position.

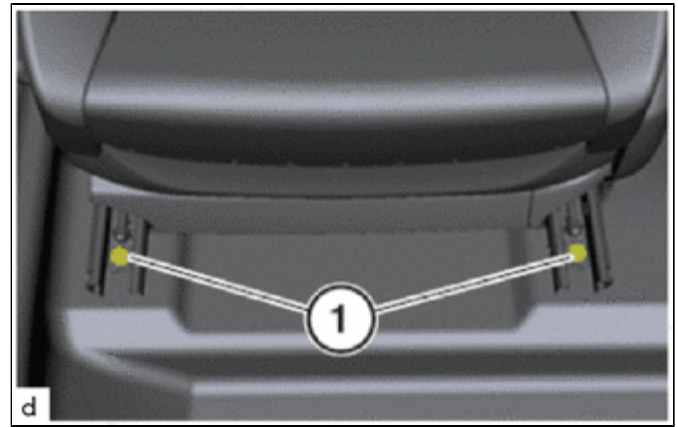


- Replace the T50 bolts (1).
- Tighten the T50 bolts (1).

Torque:

42 N·m {428 kgf·cm, 31 ft·lbf}

(g) Move the front seat assembly to the rearmost position.



(h) Replace the T50 bolts (1).

(i) Tighten the T50 bolts (1).

Torque:

42 N·m {428 kgf·cm, 31 ft·lbf}

(j) Connect the cable to the negative (-) battery terminal.

Click here [INFO](#)

2. CONNECT FRONT SEAT OUTER BELT ASSEMBLY

Click here [INFO](#)

3. ENCODE/PROGRAM CONTROL UNIT(S) (w/ Occupant Detection ECU)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

(h) Disconnect the diagnosis system from the vehicle.

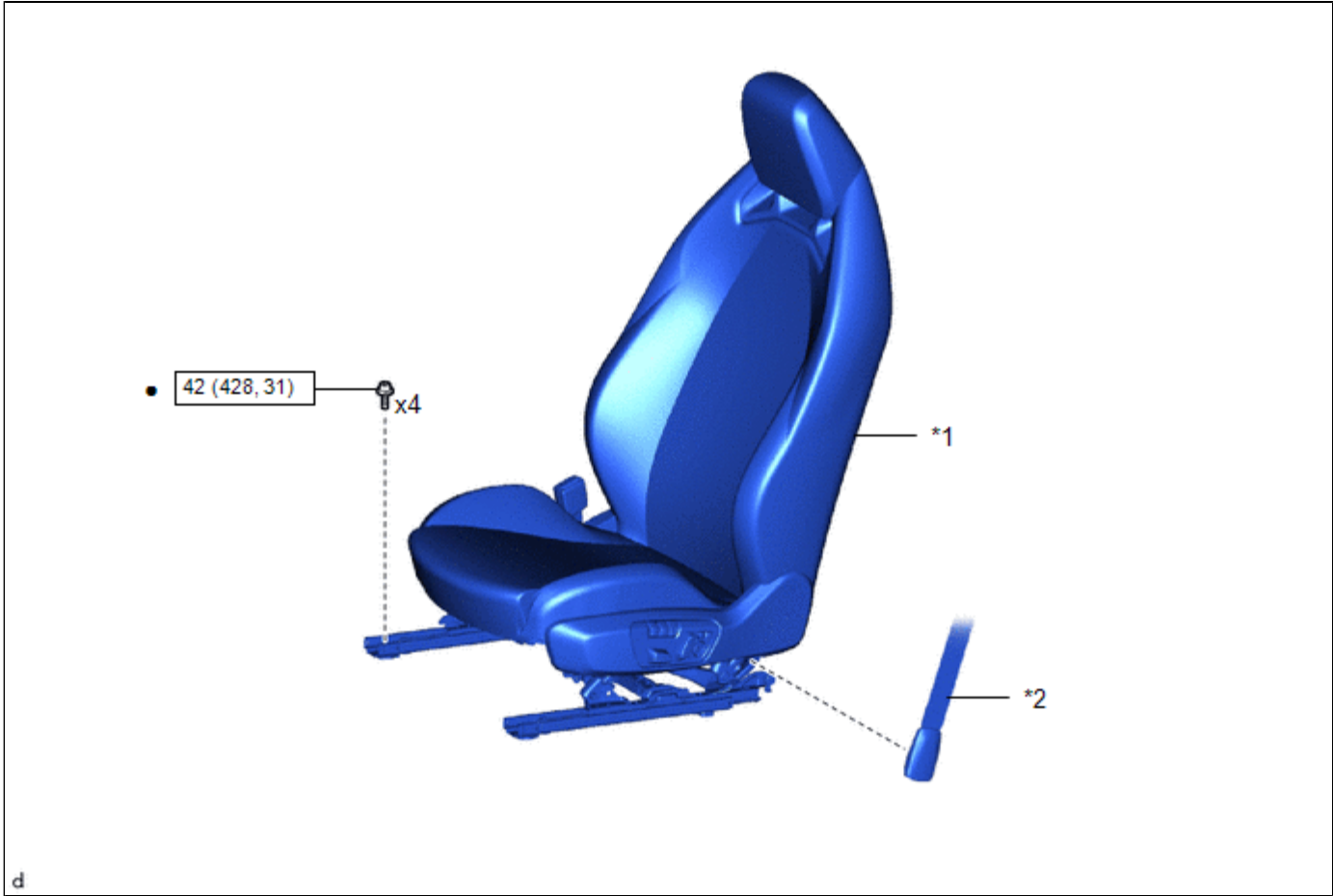
(i) Disconnect the battery charger from the vehicle.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD36
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Power Seat): COMPONENTS; 2020 MY Supra [03/2019 -]		

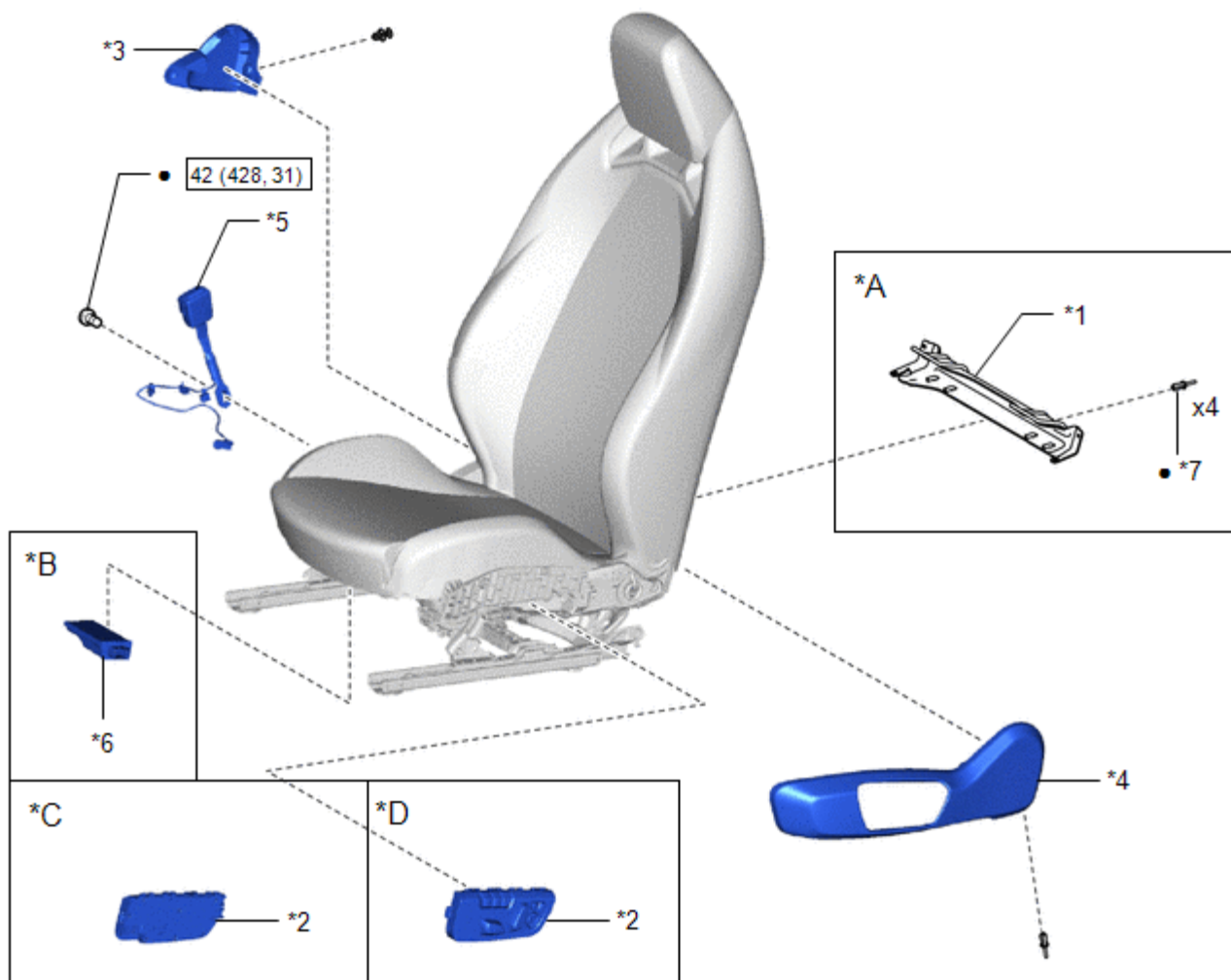
COMPONENTS

ILLUSTRATION




*1	FRONT SEAT ASSEMBLY	*2	FRONT SEAT OUTER BELT ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

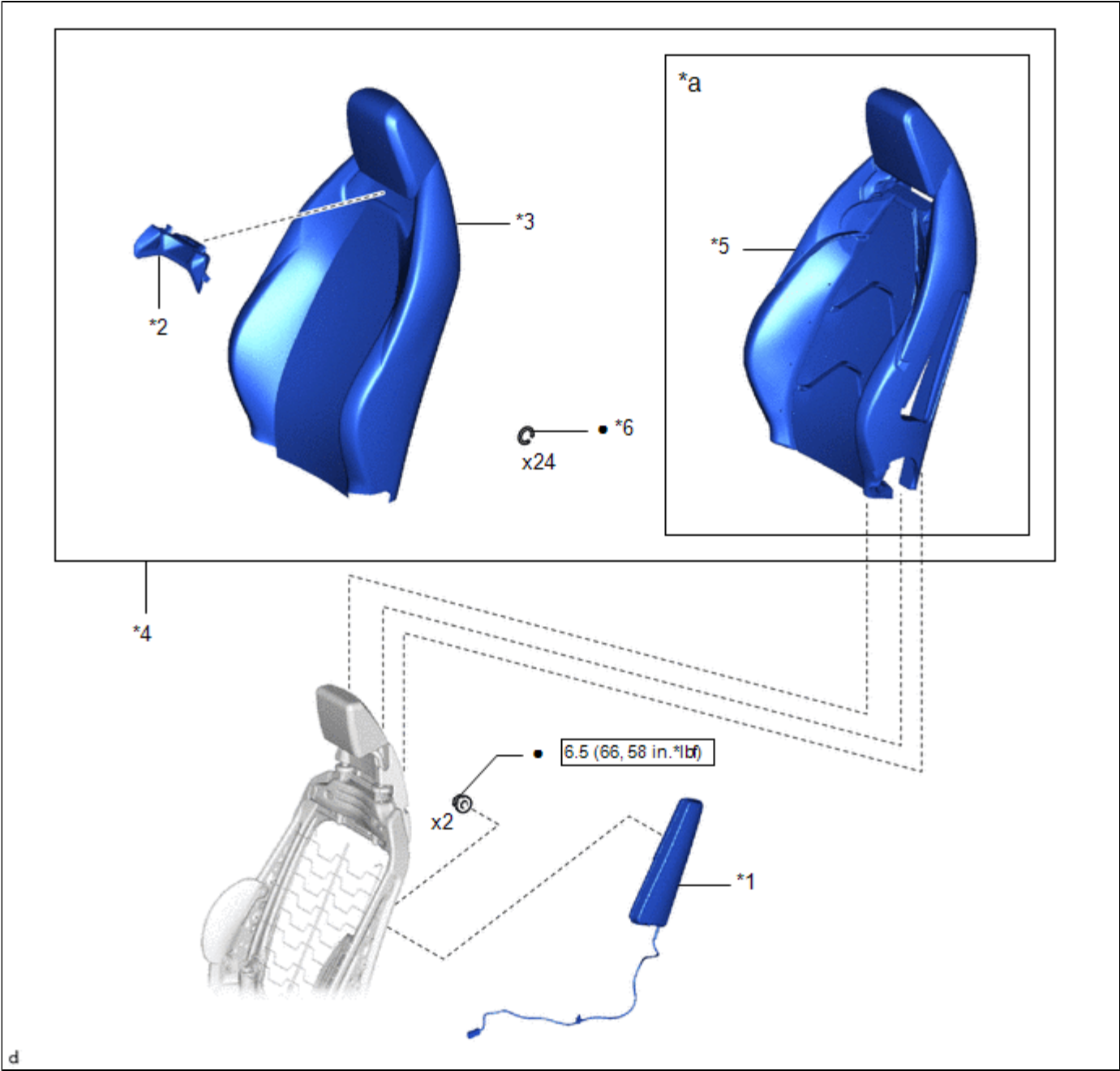
ILLUSTRATION




d

*A	w/ Bracket	*B	w/ Occupant Detection ECU
*C	for Front Passenger Side	*D	for Driver Side
*1	CHILD RESTRAINT SEAT ANCHOR BRACKET	*2	FRONT POWER SEAT SWITCH
*3	FRONT SEAT CUSHION INNER SHIELD	*4	FRONT SEAT CUSHION SHIELD
*5	FRONT SEAT INNER BELT ASSEMBLY	*6	OCCUPANT DETECTION ECU
*7	RIVET	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

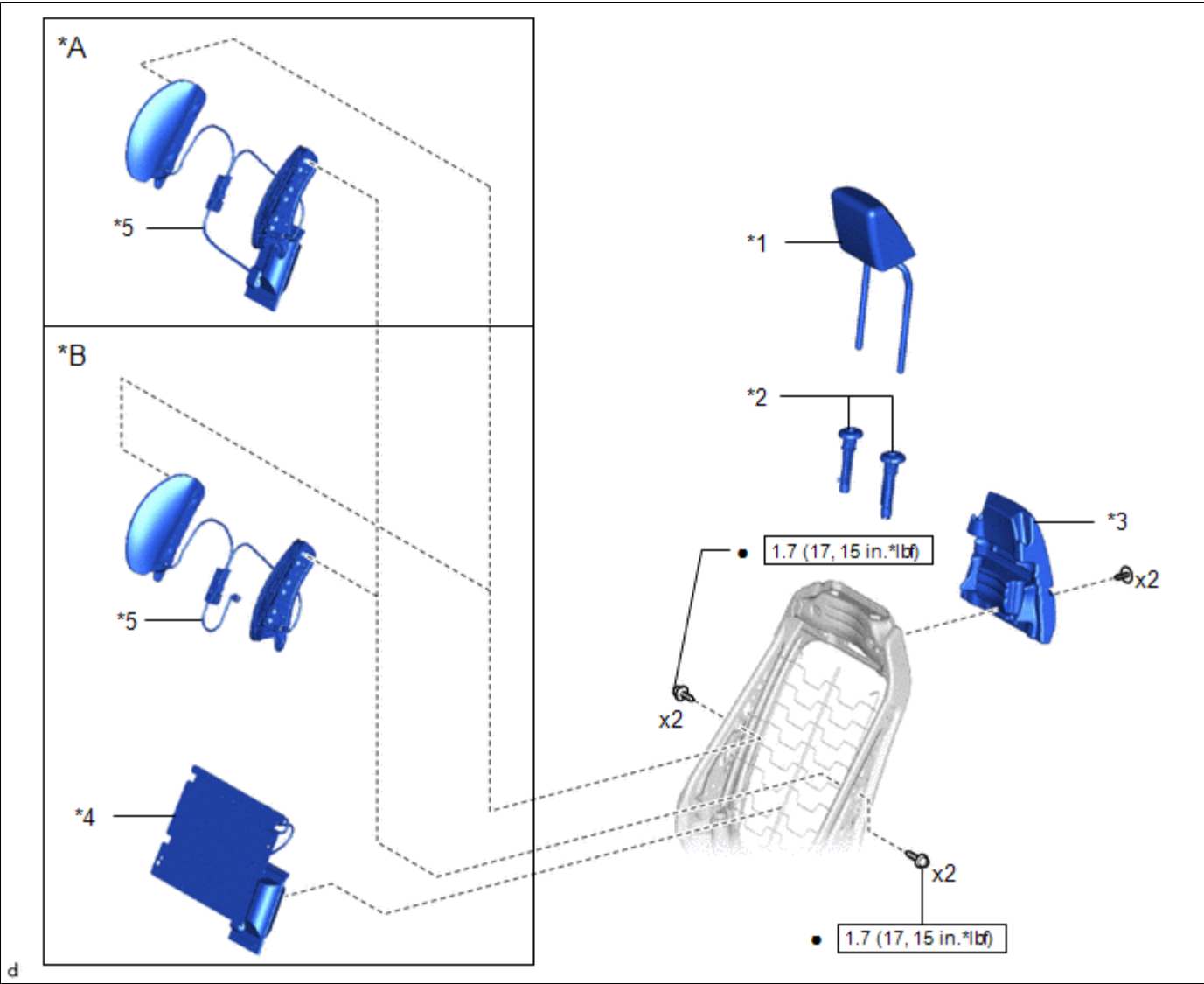
ILLUSTRATION





*1	FRONT SEAT AIRBAG ASSEMBLY	*2	FRONT SEATBACK GARNISH
*3	SEPARATE TYPE FRONT SEATBACK COVER	*4	SEPARATE TYPE FRONT SEATBACK COVER WITH PAD
*5	SEPARATE TYPE FRONT SEATBACK PAD WITH HEATER ASSEMBLY	*6	HOG RING
*a	When Reusing the Separate Type Front Seatback Pad with Heater Assembly	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

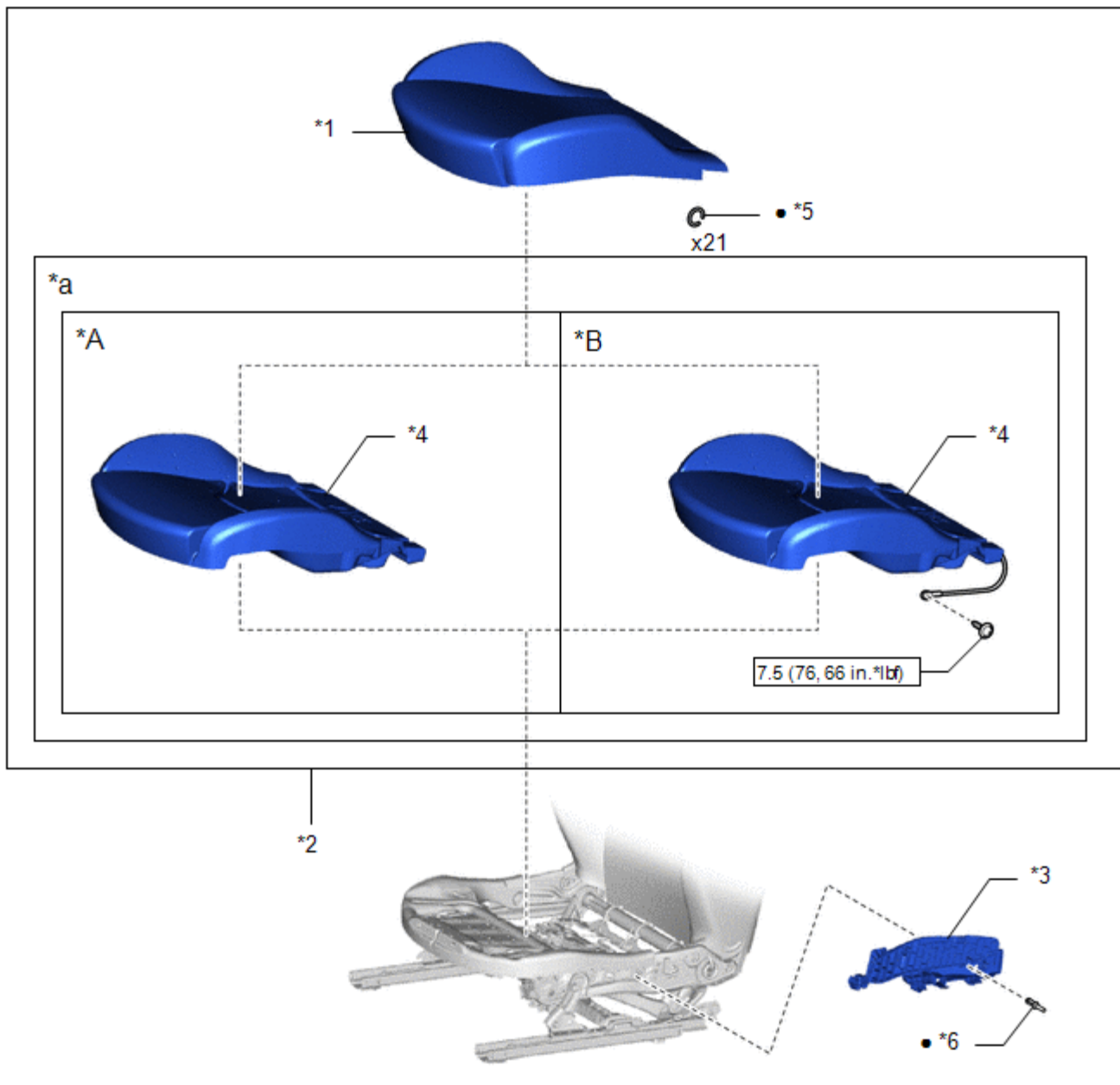
			
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ILLUSTRATION




*A	w/o Lumbar Support	*B	w/ Lumbar Support
*1	FRONT SEAT HEADREST ASSEMBLY	*2	FRONT SEAT HEADREST SUPPORT
*3	FRONT SEATBACK BOARD	*4	LUMBAR SUPPORT ADJUSTER ASSEMBLY
*5	SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

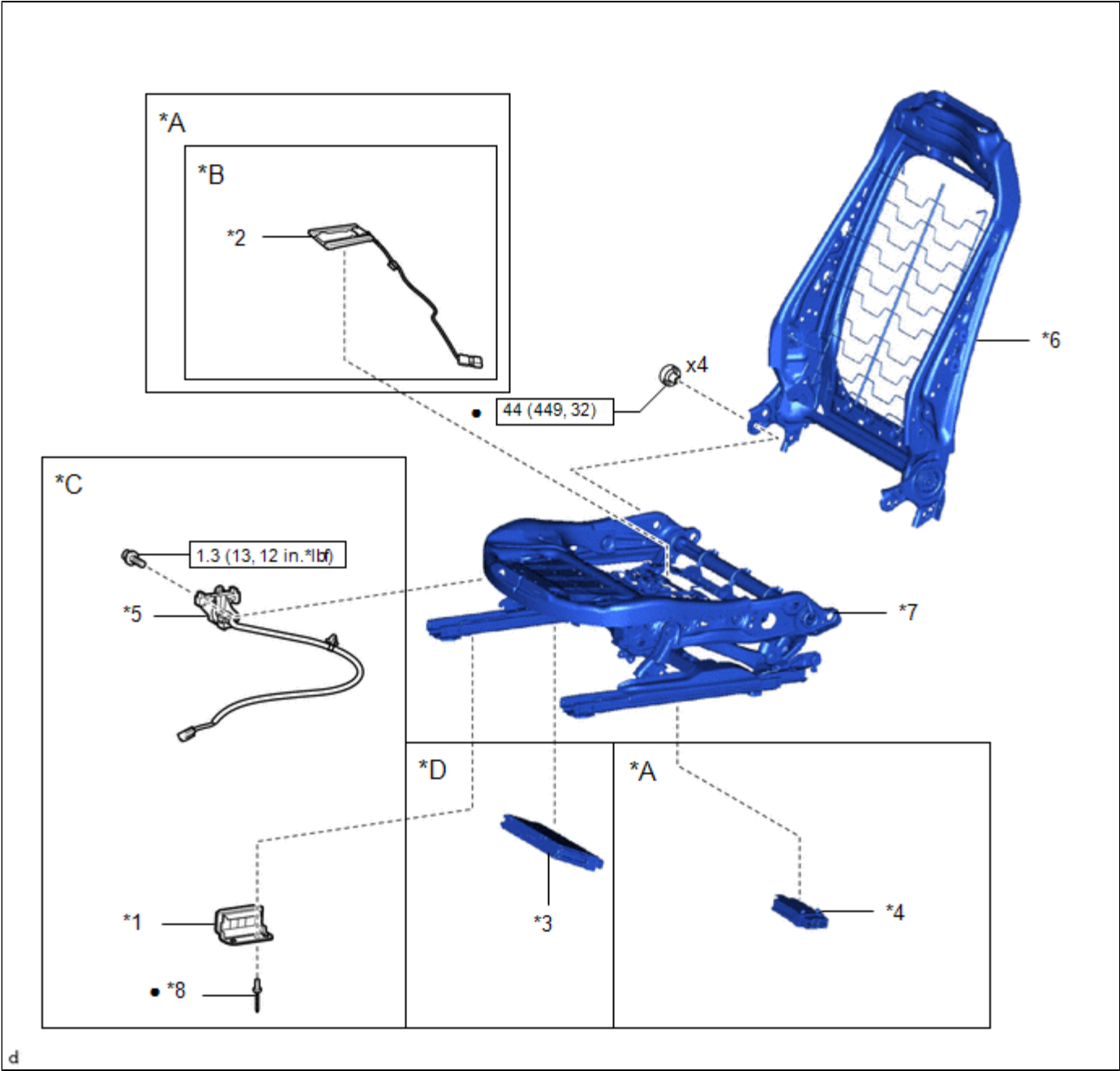
ILLUSTRATION



d

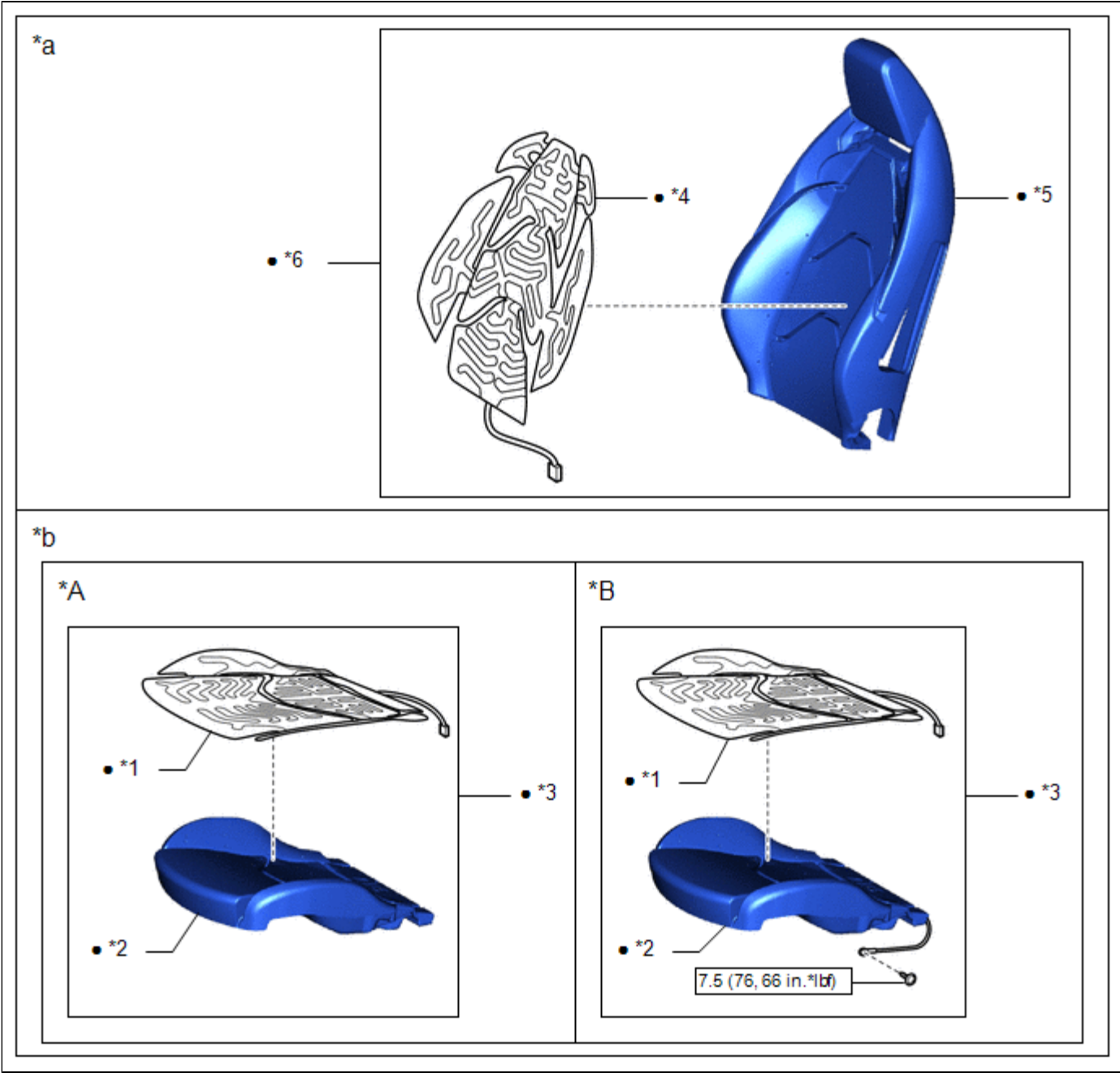
*A	w/o Occupant Detection ECU	*B	w/ Occupant Detection ECU
*1	SEPARATE TYPE FRONT SEAT CUSHION COVER	*2	SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD
*3	FRONT SEAT SUPPORT	*4	SEPARATE TYPE FRONT SEAT CUSHION PAD WITH HEATER ASSEMBLY
*5	HOG RING	*6	RIVET
*a	When Reusing the Separate Type Front Seat Cushion Pad with Heater Assembly	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

ILLUSTRATION



*A	for Front Passenger Side	*B	w/o Occupant Detection ECU
*C	w/ Seat Position Airbag Sensor	*D	for Driver Side
*1	SEAT POSITION SENSOR MAGNET	*2	BELT WARNING OCCUPANT DETECTION SENSOR
*3	POSITION CONTROL ECU ASSEMBLY	*4	SEAT HEATER CONTROL SUB-ASSEMBLY
*5	SEAT POSITION AIRBAG SENSOR	*6	SEPARATE TYPE FRONT SEATBACK SPRING ASSEMBLY
*7	FRONT SEAT ADJUSTER ASSEMBLY	*8	RIVET
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



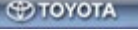
*A	w/o Occupant Detection ECU	*B	w/ Occupant Detection ECU
*1	FRONT SEAT CUSHION HEATER ASSEMBLY	*2	SEPARATE TYPE FRONT SEAT CUSHION PAD
*3	SEPARATE TYPE FRONT SEAT CUSHION PAD WITH HEATER ASSEMBLY	*4	FRONT SEATBACK HEATER ASSEMBLY
*5	SEPARATE TYPE FRONT SEATBACK PAD	*6	SEPARATE TYPE FRONT SEATBACK PAD WITH HEATER ASSEMBLY
*a	When Replacing the Front Seatback Heater Assembly	*b	When Replacing the Front Seat Cushion Heater Assembly
N*m (kgf*cm, ft.*lbf): Specified			



torque

•

Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD37
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Power Seat): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT ASSEMBLY

CAUTION:

- Airbag unit.

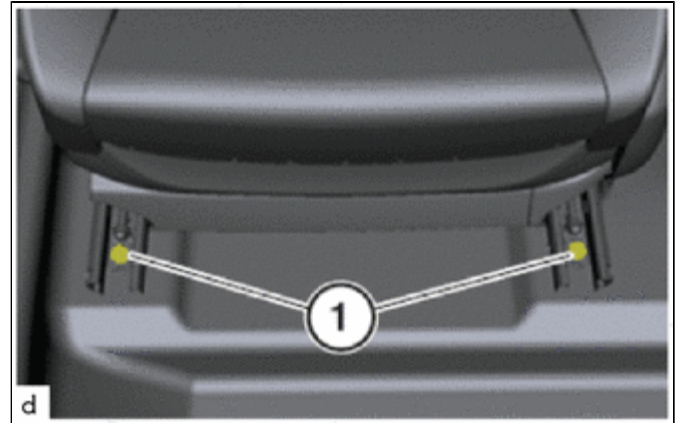
Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

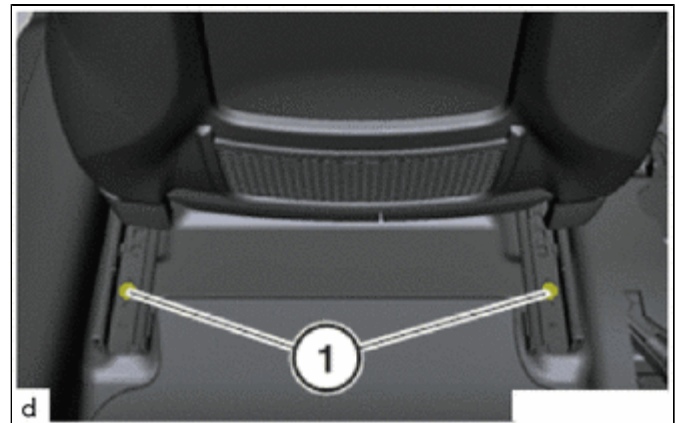
Click here

(a) Move the front seat assembly to the rearmost position.

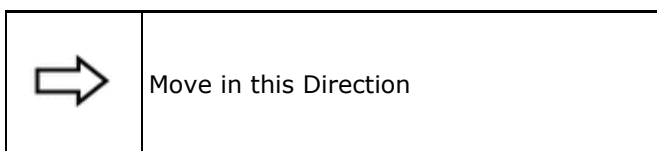
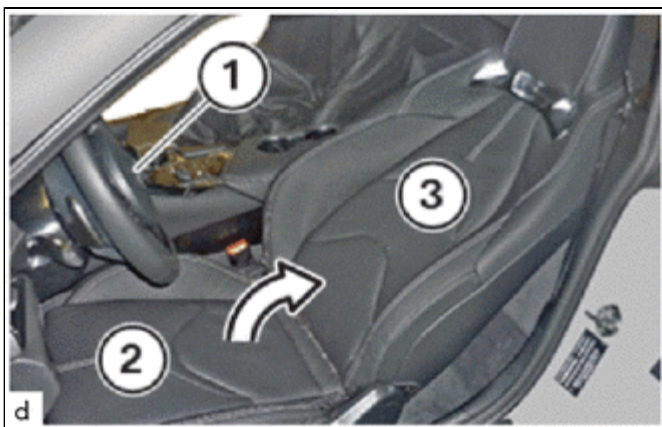


(b) Loosen the T50 bolts (1).

(c) Move the front seat assembly to the foremost position.



(d) Loosen the T50 bolts (1).



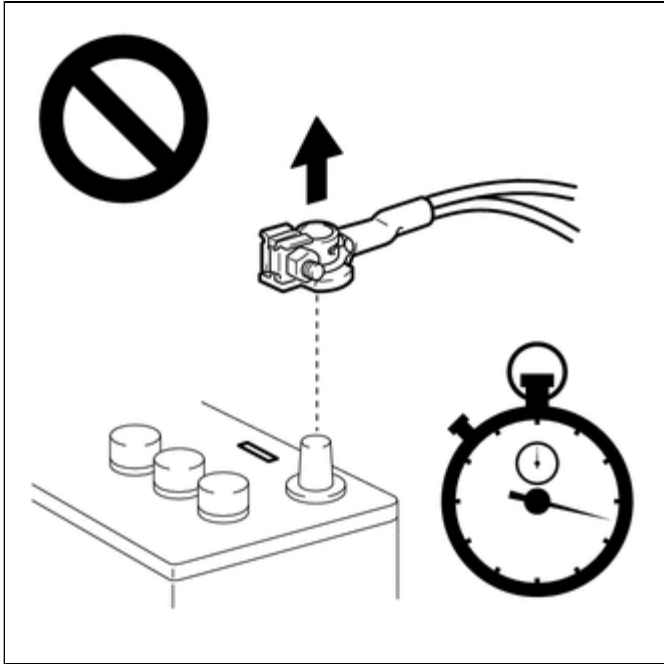
(e) Move the steering column (1) completely forwards and upwards.

- (f) Move the front seat assembly (2) to the foremost position.
- (g) Move the rear seatback (3) as shown in the illustration.
- (h) Disconnect the cable from the negative (-) battery terminal.

Click here [INFO](#)

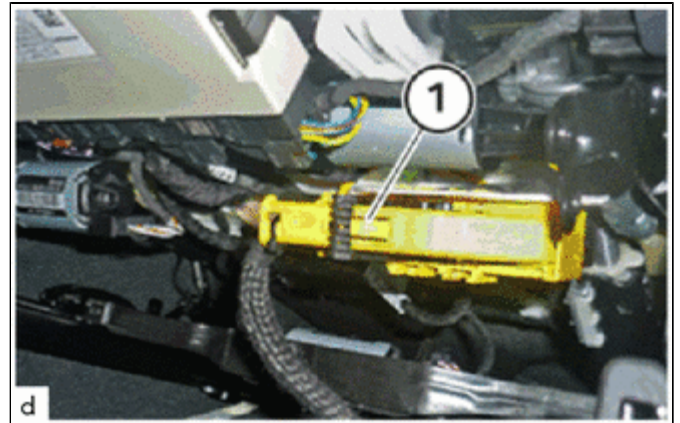
CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



- (i) Cover the front door scuff plate with protective covers.

- (j) Tilt the front seat assembly backwards to disconnect the connector (1).



- (k) Remove the front seat assembly with another person.

NOTICE:

- Heavy component.

Heavy components can lead to injury or damage.

- Remove and install heavy components with the aid of another person/other persons.

- Protect the front seat leg.
- Be careful not to damage the front seat assembly, body exterior or body interior.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD38
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Power Seat): DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE OCCUPANT DETECTION ECU (w/ Occupant Detection ECU)

Click here [INFO](#)

2. REMOVE FRONT SEAT INNER BELT ASSEMBLY

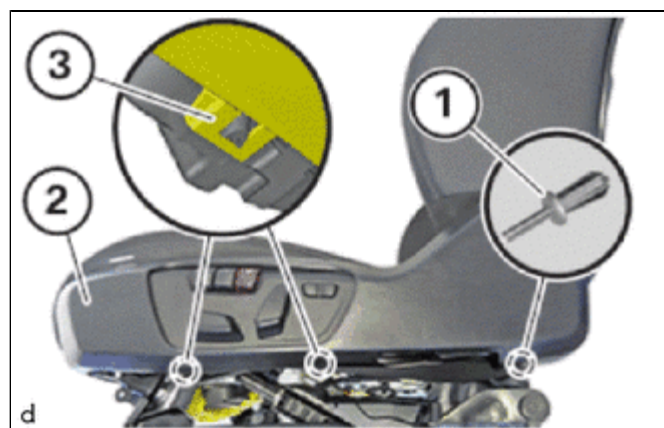
Click here [INFO](#)

3. REMOVE FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

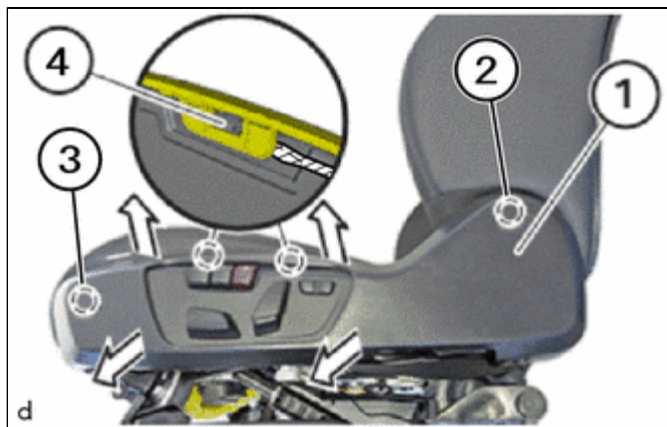
4. REMOVE FRONT SEAT CUSHION SHIELD



(a) Remove the clip (1).



(b) Detach the claws (3) to separate the front seat cushion shield (2) from outward.

(c) Pull the bottom of front seat cushion shield (1) outwards slightly.



	Remove in this Direction
	Protective Tape

(d) Detach the guide (2) and guide (3).

(e) Using a screwdriver with its tip wrapped in protective tape, detach the claws (4) to remove the front seat cushion shield (1).

5. REMOVE CHILD RESTRAINT SEAT ANCHOR BRACKET (w/ Bracket)

Click here [INFO](#)

6. REMOVE FRONT POWER SEAT SWITCH (for Driver Side)

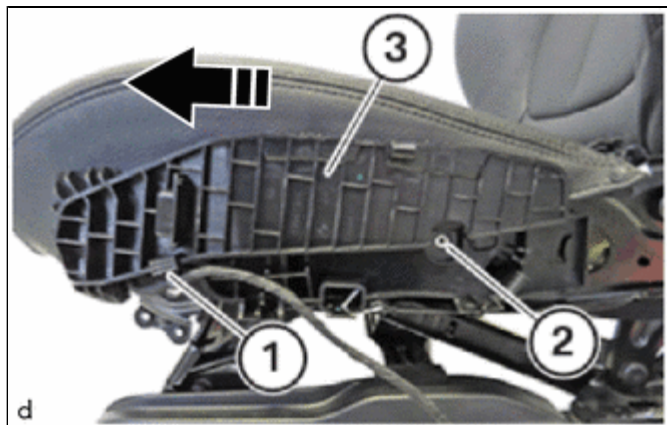
Click here [INFO](#)

7. REMOVE FRONT POWER SEAT SWITCH (for Front Passenger Side)

Click here [INFO](#)

8. REMOVE FRONT SEAT SUPPORT

(a) Detach the clamp (1).



	Remove in this Direction
--	--------------------------



(b) Cover the area around the rivet (2).

(c) Drill out the rivet (2).

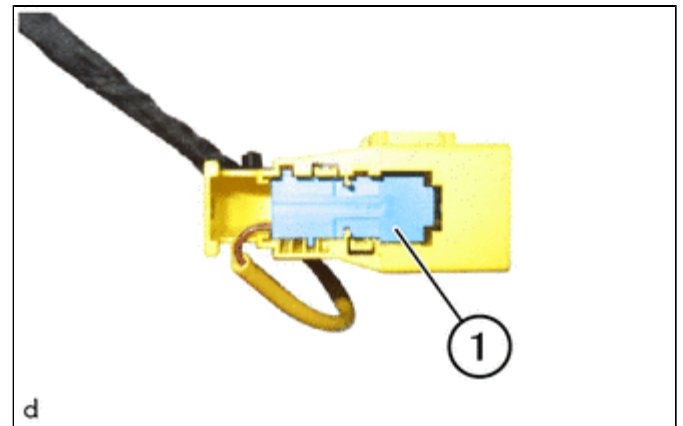
NOTICE:

- Do not drill the rivet at an angle as this will cause damage to the drill and rivet installation hole. Line up the drill with the rivet, and carefully drill out the rivet head.
- Be careful as the drilled rivet will be very hot.

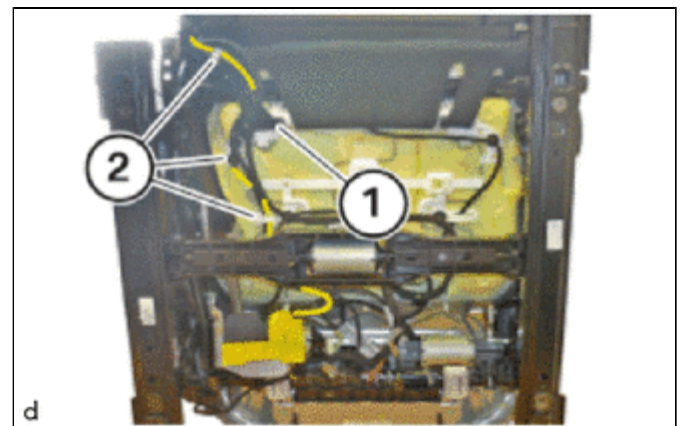
(d) Remove the front seat support forwards.

9. REMOVE FRONT SEAT AIRBAG ASSEMBLY

(a) Disconnect the connector (1) from the connector housing.



(b) Detach the separate type front seat cushion cover (1).



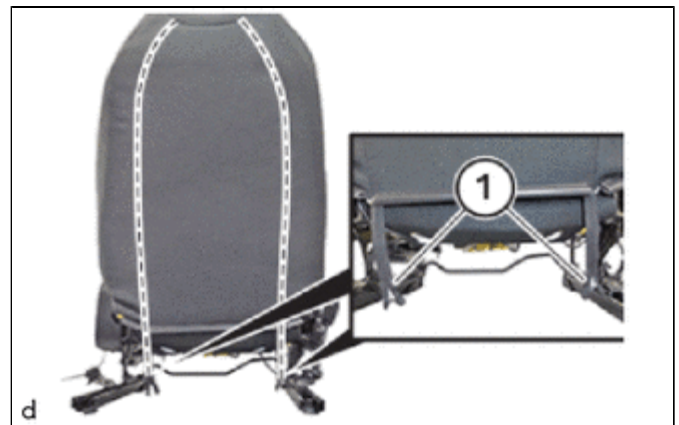
(c) Detach the clamps (2).

(d) Detach the separate type front seatback cover (1) in the marked area.

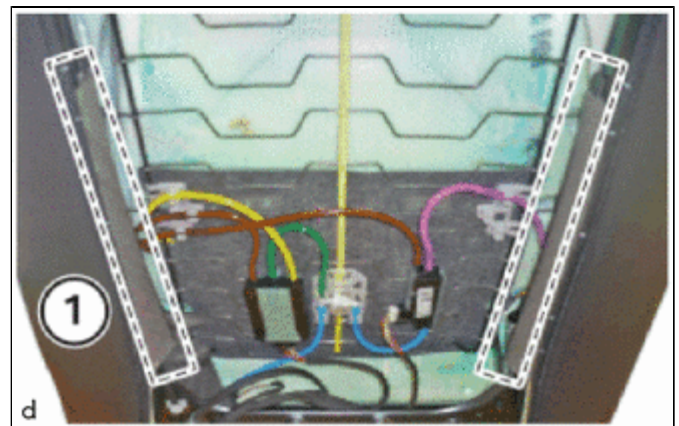


(e) Using a special tool 0 490 472 (00 5 020), open the fasteners (1) in the marked area.

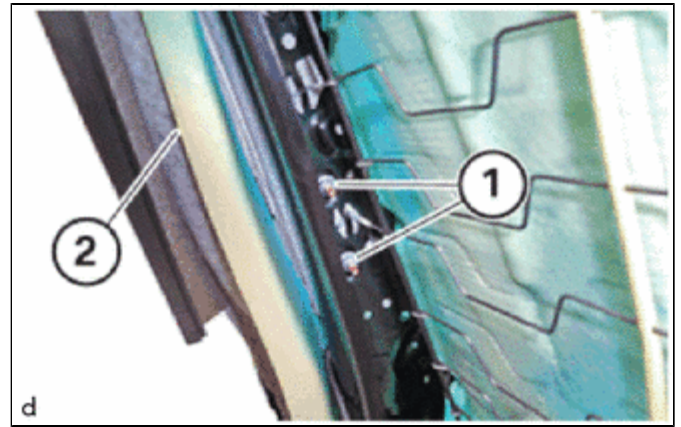
SST: 09300-WA180



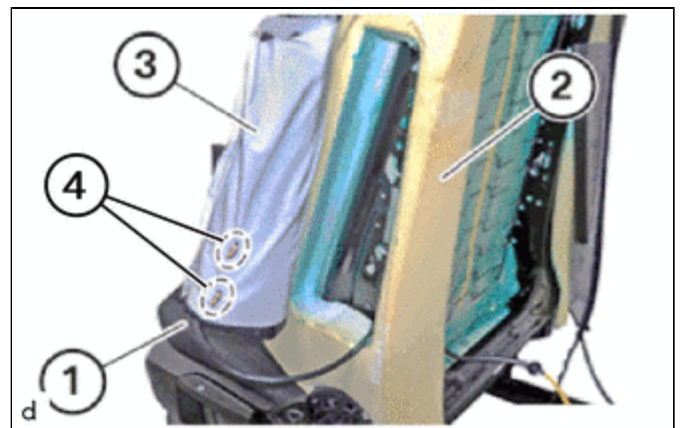
(f) Detach the separate type front seatback cover (1) in the marked area.



(g) Loosen the nuts (1).



(h) Fold the separate type front seatback cover with pad (2) to the side.



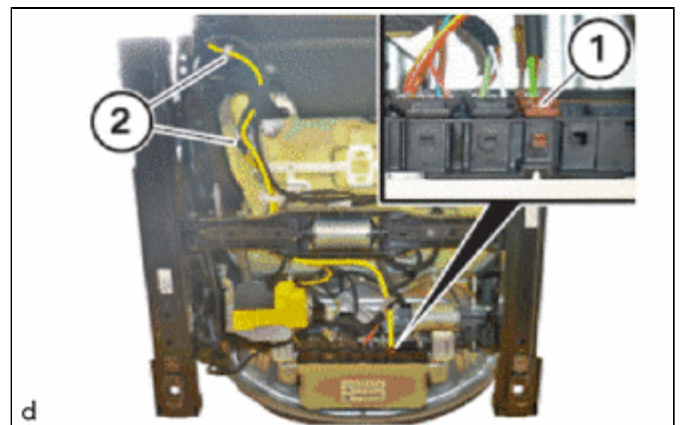
(i) Pull the front seat airbag assembly (1) carefully from the separate type front seatback pad (2).

(j) Remove the front seat airbag assembly (1) out carefully from the pocket in the separate type front seatback cover (3).

NOTICE:

Make sure that the stud bolts (4) do not damage the pocket in the separate type front seatback cover.

10. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD



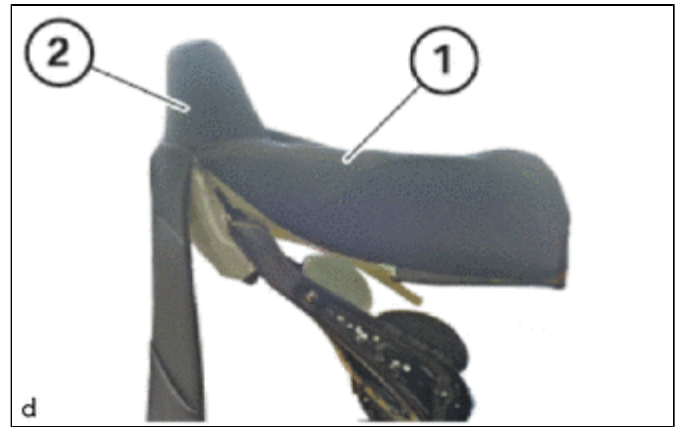
(a) Disconnect the connector (1).

(b) Detach the clamps (2).

(c) Position the separate type front seatback cover with pad (1) as illustrated.

NOTICE:

Handle the separate type front seatback cover with pad (1) carefully to avoid damage.



(d) Remove the separate type front seatback cover with pad (1) from the front seat headrest assembly (2).

11. REMOVE FRONT SEATBACK GARNISH

Click here [INFO](#)

12. REMOVE SEPARATE TYPE FRONT SEATBACK COVER

Click here [INFO](#)

13. REMOVE FRONT SEAT HEADREST ASSEMBLY

Click here [INFO](#)

14. REMOVE FRONT SEATBACK BOARD

Click here [INFO](#)

15. REMOVE FRONT SEAT HEADREST SUPPORT

Click here [INFO](#)

16. REMOVE LUMBAR SUPPORT ADJUSTER ASSEMBLY (w/ Lumbar Support)

Click here [INFO](#)

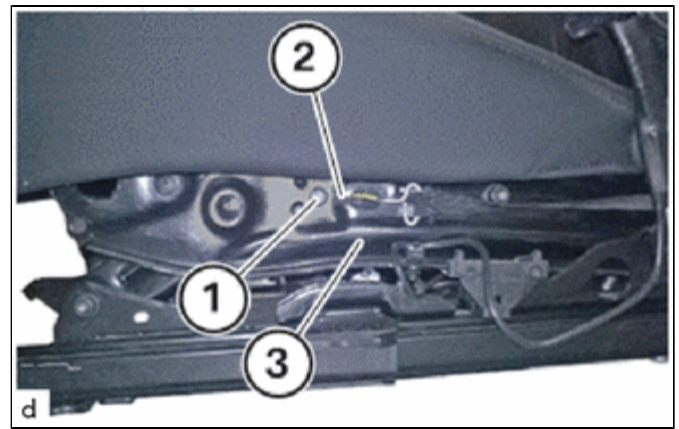
17. REMOVE SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY

Click here [INFO](#)

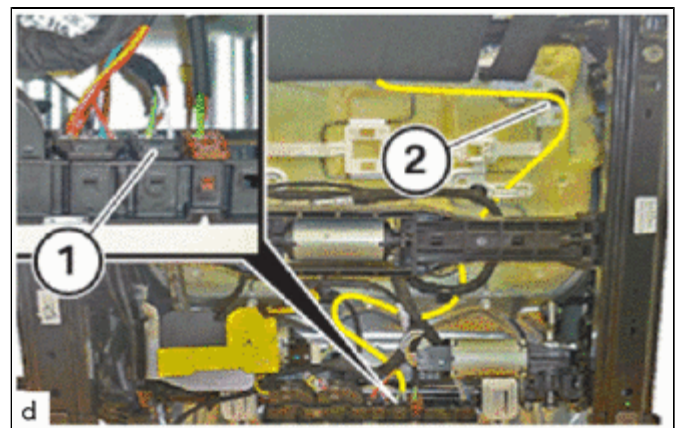
18. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

(a) w/ Occupant Detection ECU:

(1) Loosen the screw (1).

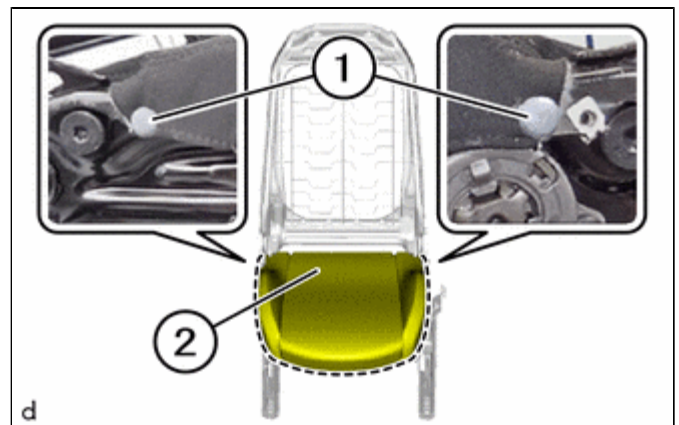


(2) Remove the cable (2) from the front seat adjuster assembly (3).



(b) Disconnect the connector (1).

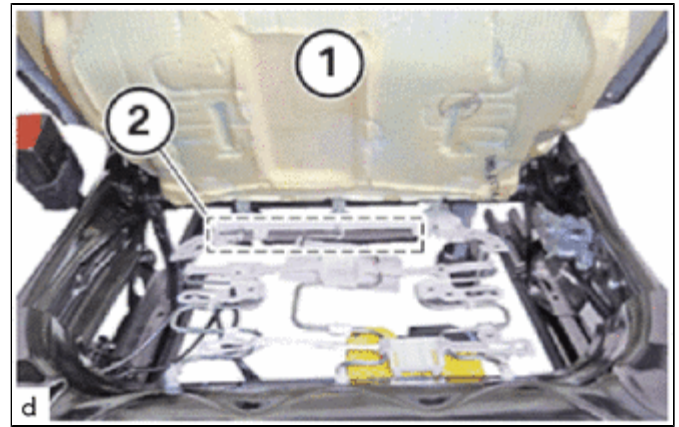
(c) Detach the clamp (2).



(d) Using a clip remover, detach the clips (1).

(e) Detach the separate type front seat cushion cover with pad (2) in the marked area.

- (f) Position the separate type front seat cushion cover with pad (1) as illustrated.



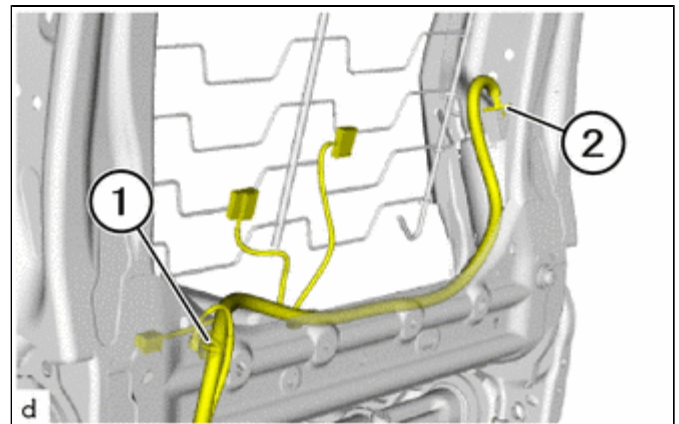
- (g) Detach the separate type front seat cushion cover with pad (1) in the marked area (2).

19. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER

Click here [INFO](#)

20. REMOVE SEPARATE TYPE FRONT SEATBACK SPRING ASSEMBLY

- (a) Disconnect the connector (2).

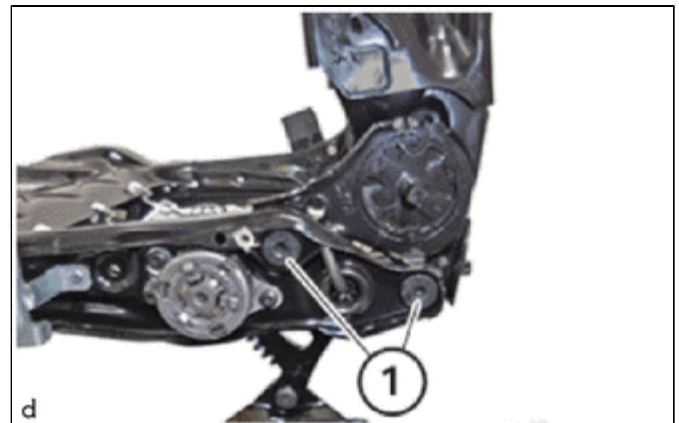


- (b) Detach the clamp (1) to separate the front seat wire.

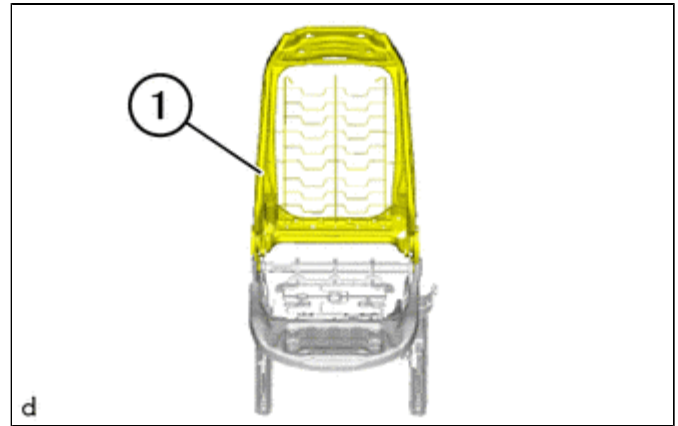
- (c) Loosen the T50 bolts (1).

HINT:

Use the same procedure for the opposite side.

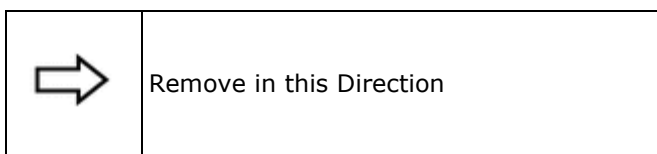
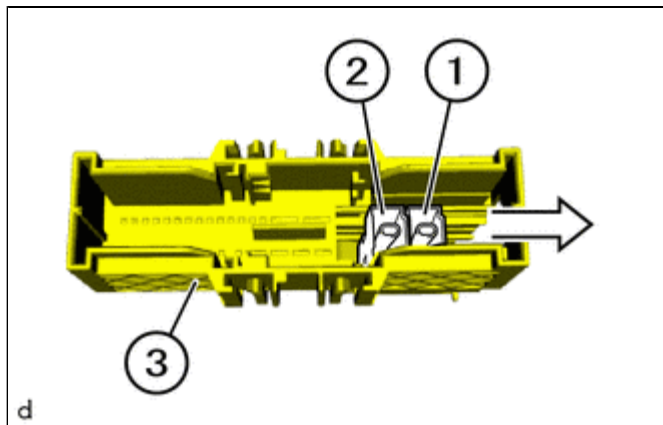


(d) Remove the separate type front seatback spring assembly (1).

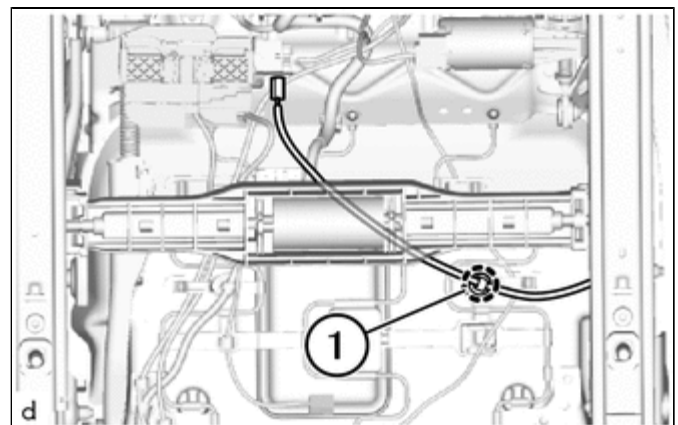


21. REMOVE SEAT POSITION AIRBAG SENSOR (w/ Seat Position Airbag Sensor)

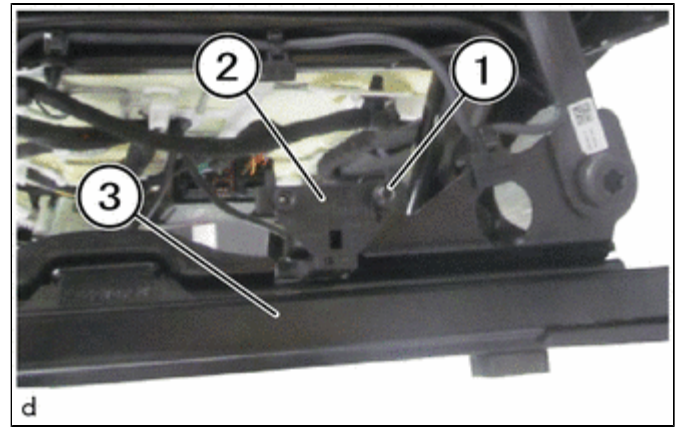
(a) Remove the connectors in order from (1) to (2) and pull them out of the connector housing (3) one after another in the direction of the arrow.



(b) Detach the clamp (1).



(c) Loosen the bolt (1).



(d) Pull the seat position airbag sensor (2) out up of the front seat adjuster assembly (3) upwards and remove.

22. REMOVE SEAT POSITION SENSOR MAGNET (w/ Seat Position Airbag Sensor)

Click here [INFO](#)

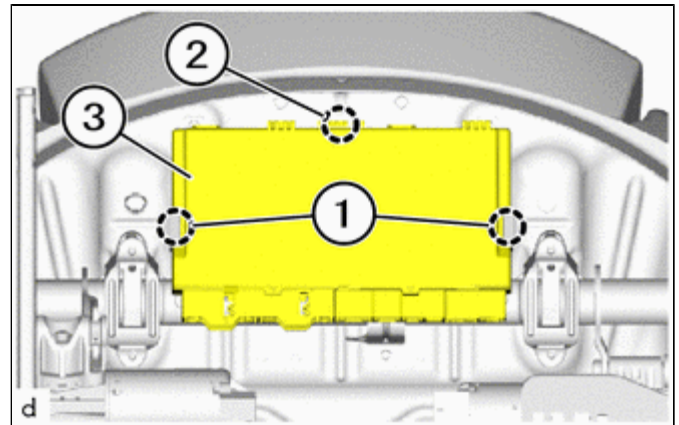
23. REMOVE BELT WARNING OCCUPANT DETECTION SENSOR (for Front Passenger Side)

- w/o Occupant Detection ECU:

Click here [INFO](#)

24. REMOVE POSITION CONTROL ECU ASSEMBLY (for Driver Side)

(a) Detach the clamps (1) and guide (2) to remove the position control ECU assembly (3).



25. REMOVE SEAT HEATER CONTROL SUB-ASSEMBLY (for Front Passenger Side)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD39
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Power Seat): REASSEMBLY; 2020 MY Supra [03/2019 -]		

REASSEMBLY

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

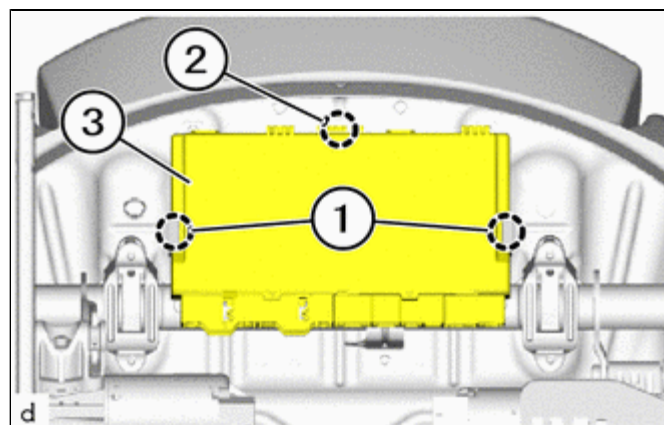
PROCEDURE

1. INSTALL SEAT HEATER CONTROL SUB-ASSEMBLY (for Front Passenger Side)

Click here [INFO](#)

2. INSTALL POSITION CONTROL ECU ASSEMBLY (for Driver Side)

(a) Attach the guide (2) and clamps (1) to install the position control ECU assembly (3).



3. INSTALL BELT WARNING OCCUPANT DETECTION SENSOR (for Front Passenger Side)

- w/o Occupant Detection ECU:

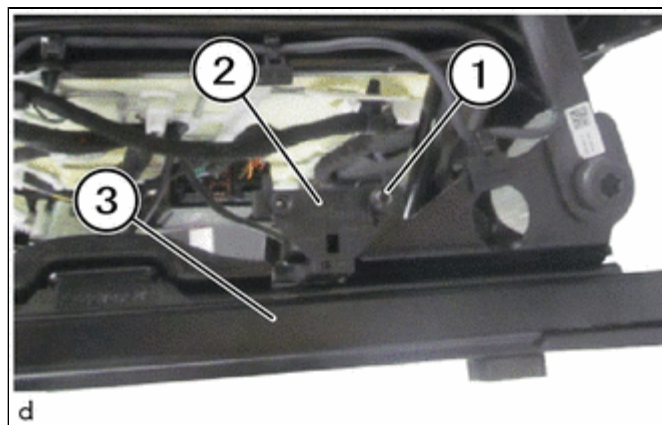
Click here [INFO](#)

4. INSTALL SEAT POSITION SENSOR MAGNET (w/ Seat Position Airbag Sensor)

Click here [INFO](#)

5. INSTALL SEAT POSITION AIRBAG SENSOR (w/ Seat Position Airbag Sensor)

(a) Install the seat position airbag sensor (2) to the front seat adjuster assembly (3) from above and position it correctly.

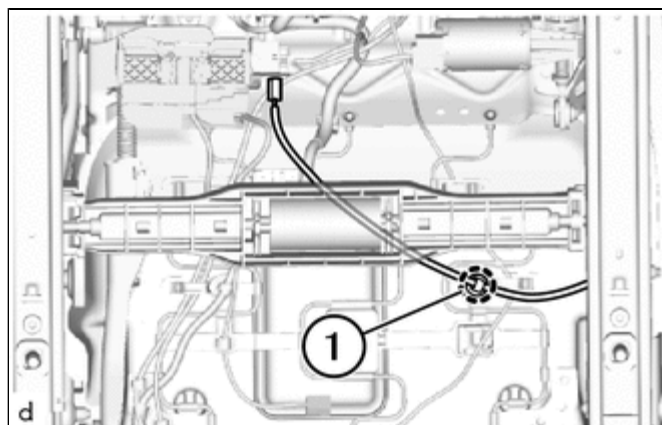


(b) Tighten the bolt (1).

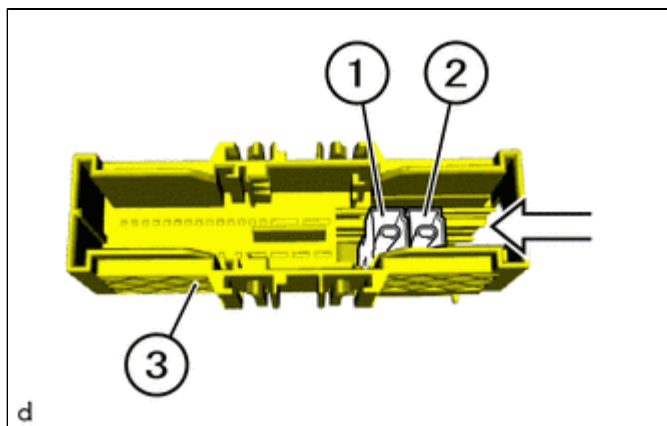
Torque:

1.3 N·m {13 kgf·cm, 12 in·lbf}

(c) Attach the clamp (1).



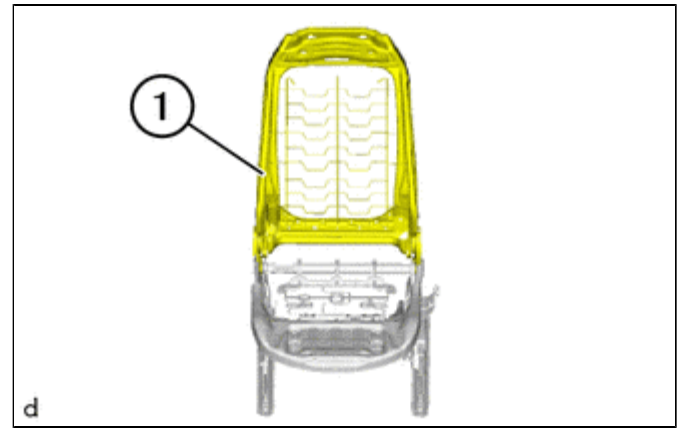
(d) Install the connectors correctly into the connector housing (3) in the sequence (1) to (2) in the direction of arrow.



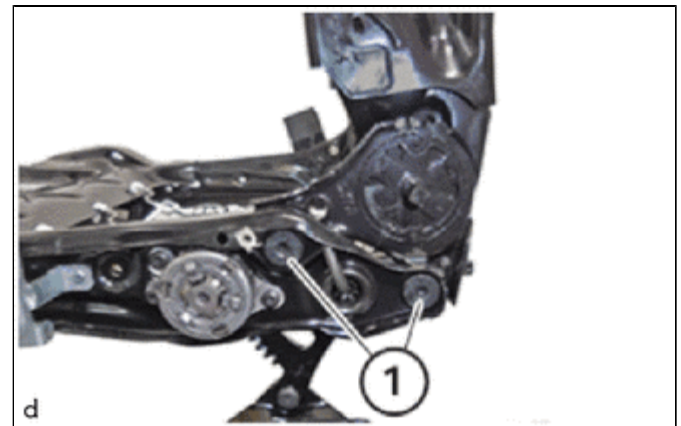
Install in this Direction

6. INSTALL SEPARATE TYPE FRONT SEATBACK SPRING ASSEMBLY

(a) Position the separate type front seatback spring assembly (1) correctly.



(b) Replace the T50 bolts (1).



(c) Tighten the T50 bolts (1).

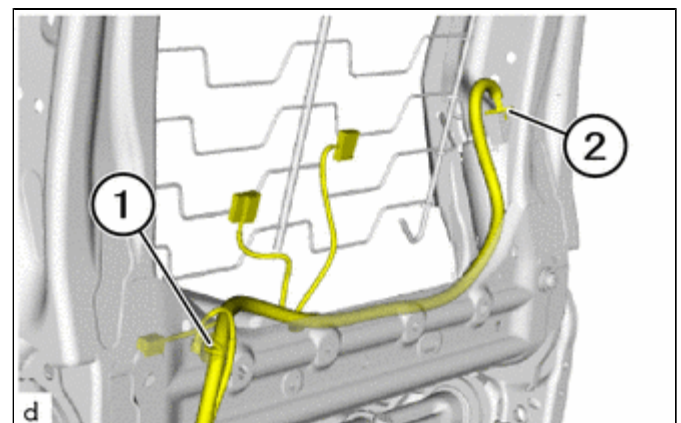
Torque:

44 N·m {449 kgf·cm, 32 ft·lbf}

HINT:

Use the same procedure for the opposite side.

(d) Attach the clamp (1) to connect the front seat wire.



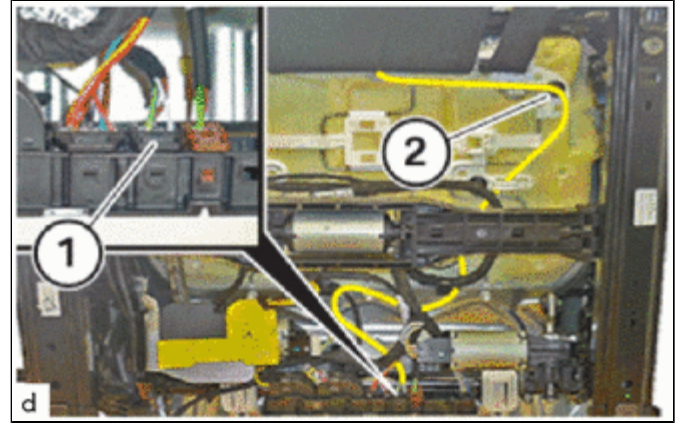
(e) Connect the connector (2).

7. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER

Click here [INFO](#)

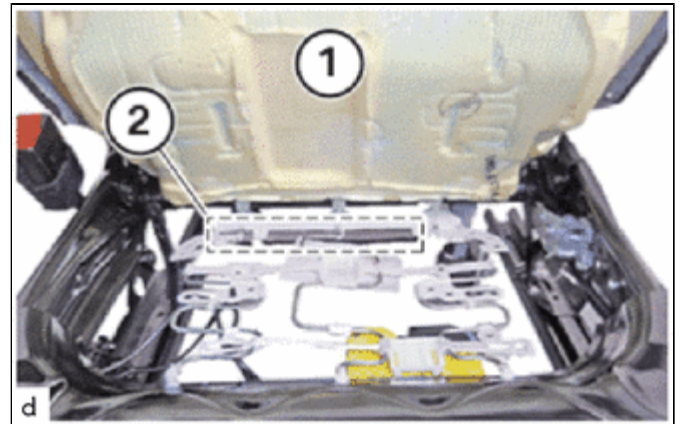
8. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

(a) Attach the clamp (2).



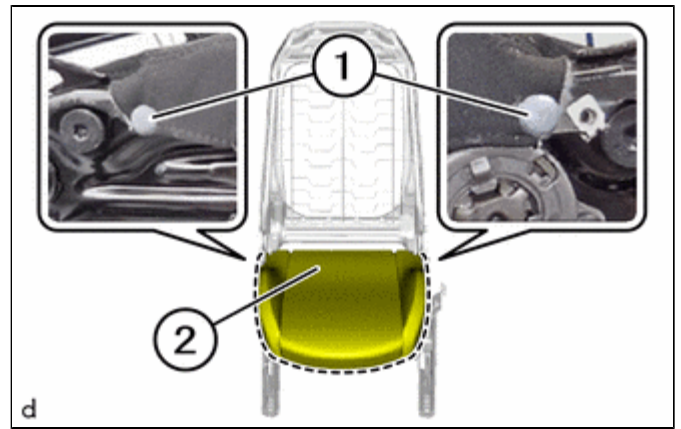
(b) Connect the connector (1).

(c) Position the separate type front seat cushion cover with pad (1) as illustrated.



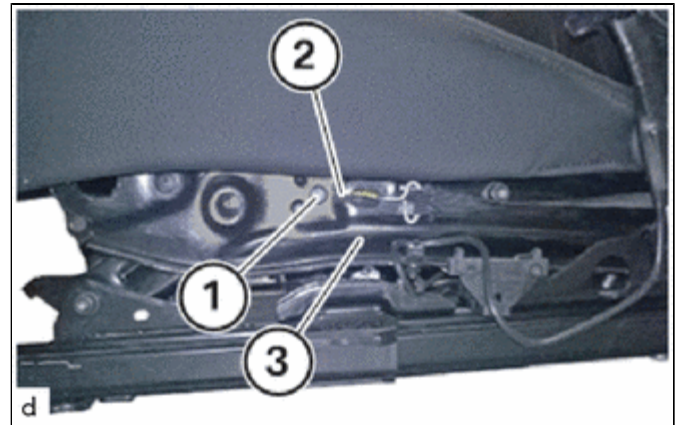
(d) Attach the separate type front seat cushion cover with pad (1) in the marked area (2).

(e) Attach the separate type front seat cushion cover with pad (2) correctly in the marked area.



(f) Install the clips (1).

(g) w/ Occupant Detection ECU:



(1) Install the cable (2) to the front seat adjuster assembly (3).

(2) Tighten the screw (1).

Torque:

7.5 N·m {76 kgf·cm, 66 in·lbf}

9. INSTALL SEATBACK SIDE SUPPORT ADJUSTER ASSEMBLY

Click here [INFO](#)

10. INSTALL LUMBAR SUPPORT ADJUSTER ASSEMBLY (w/ Lumbar Support)

Click here [INFO](#)

11. INSTALL FRONT SEAT HEADREST SUPPORT

Click here [INFO](#)

12. INSTALL FRONT SEATBACK BOARD

Click here [INFO](#)

13. INSTALL FRONT SEAT HEADREST ASSEMBLY

Click here [INFO](#)

14. INSTALL SEPARATE TYPE FRONT SEATBACK COVER

Click here [INFO](#)

15. INSTALL FRONT SEATBACK GARNISH

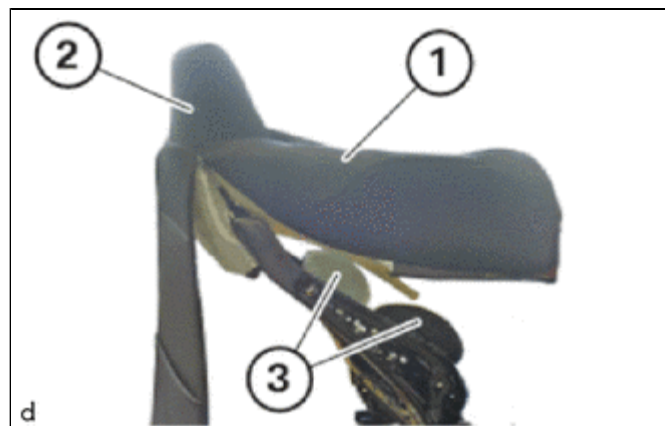
Click here [INFO](#)

16. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

- (a) Install the separate type front seatback cover with pad (1) correctly over the front seat headrest assembly (2).

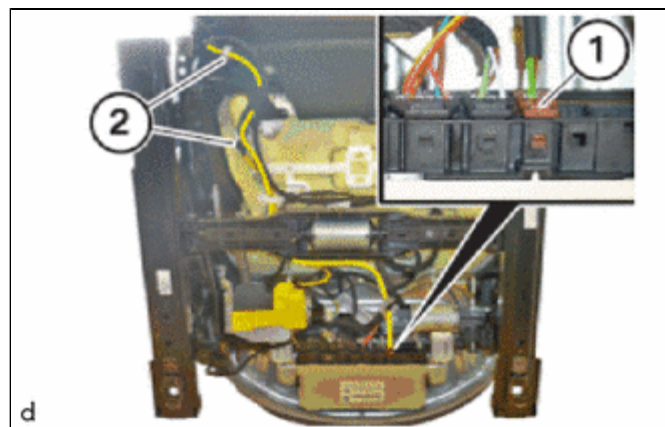
NOTICE:

Handle the separate type front seatback cover with pad (1) carefully to prevent damage.



- (b) Install the separate type front seatback cover with pad (1) correctly on the backrest width adjustment (3).

- (c) Attach the clamps (2).



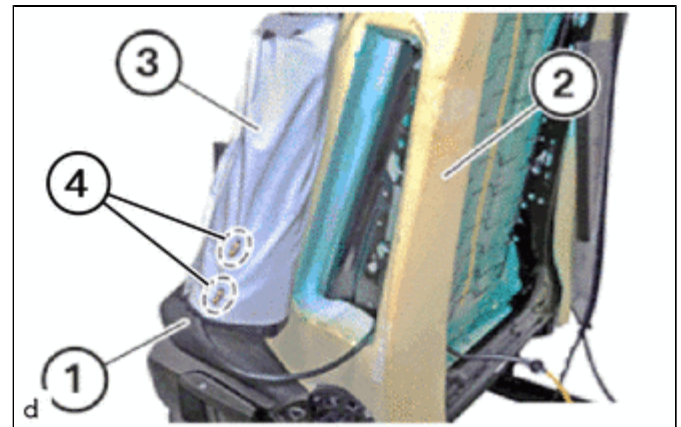
- (d) Connect the connector (1).

17. INSTALL FRONT SEAT AIRBAG ASSEMBLY

- (a) Install the front seat airbag assembly (1) carefully into the pocket of separate type front seatback cover (3).

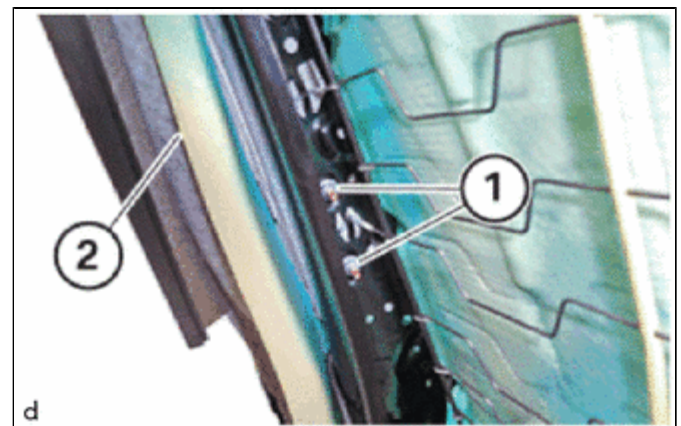
NOTICE:

Make sure that the stud bolts (4) do not damage the pocket in the separate type front seatback cover.



(b) Position the front seat airbag assembly (1) correctly in the separate type front seatback pad (2).

(c) Position the separate type front seatback cover with pad (2) correctly.



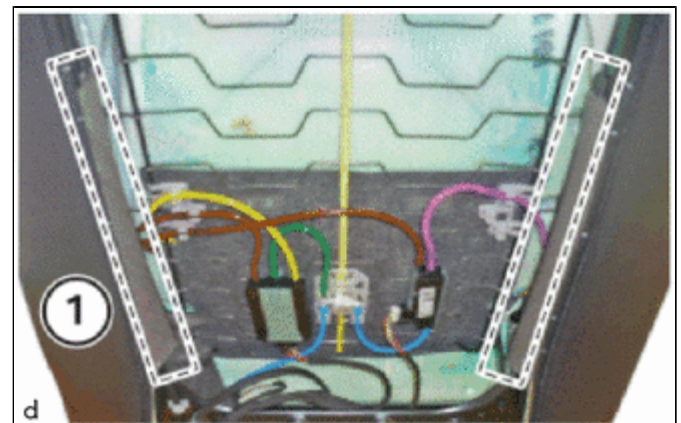
(d) Replace the nuts (1).

(e) Tighten the nuts (1).

Torque:

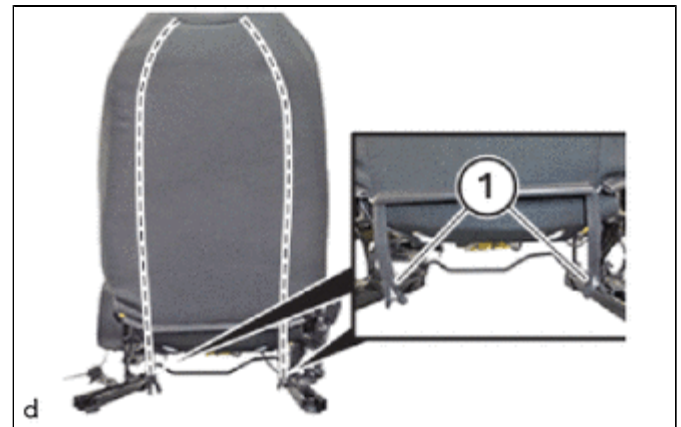
6.5 N·m {66 kgf·cm, 58 in·lbf}

(f) Attach the separate type front seatback cover with pad (1) correctly in the marked area.



(g) Using a special tool 0 490 472 (00 5 020), close the fasteners (1) in the marked area.

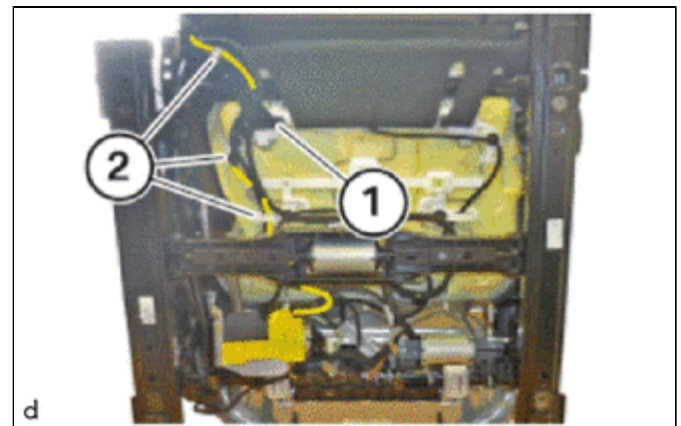
SST: 09300-WA180



(h) Attach the separate type front seatback cover (1) correctly in the marked area.

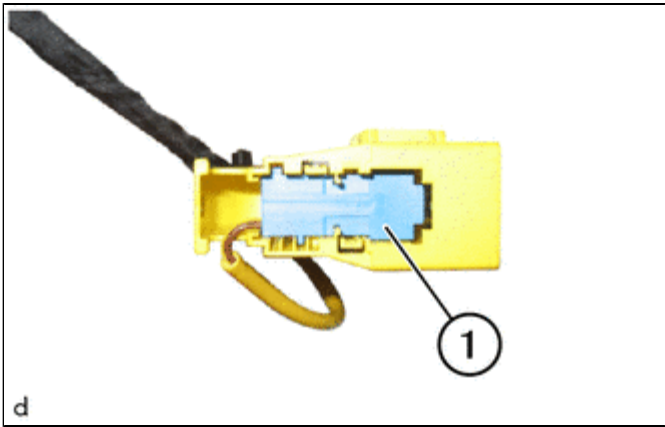


(i) Attach the clamps (2).



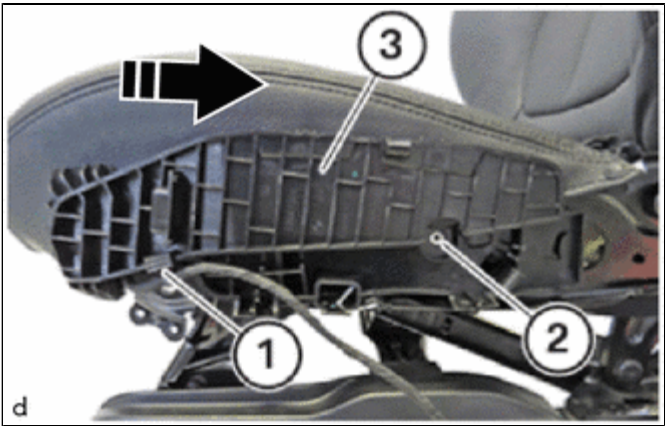
(j) Attach the separate type front seat cushion cover (1).


(k) Connect the connector (1) to the connector housing.



18. INSTALL FRONT SEAT SUPPORT

(a) Install the front seat support (3) backwards.



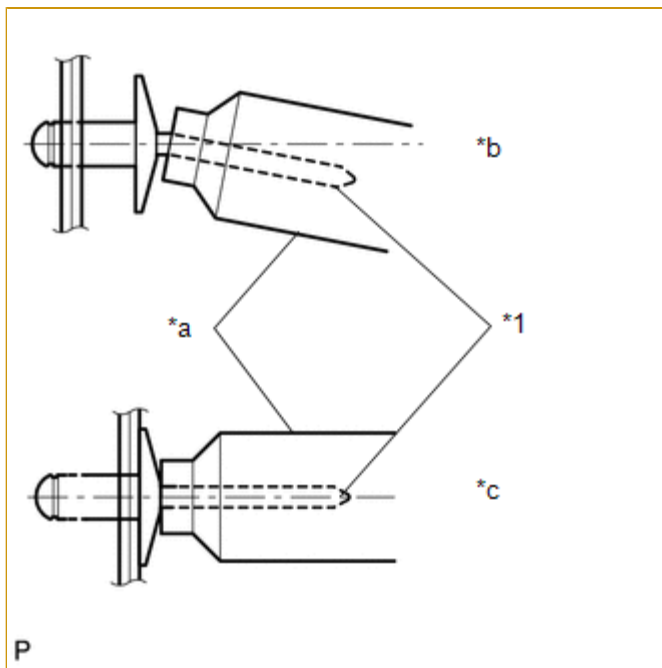
	Install in this Direction
--	---------------------------

(b) Replace the rivet (2).

(c) Fasten the front seat support (3) with the rivet (2).

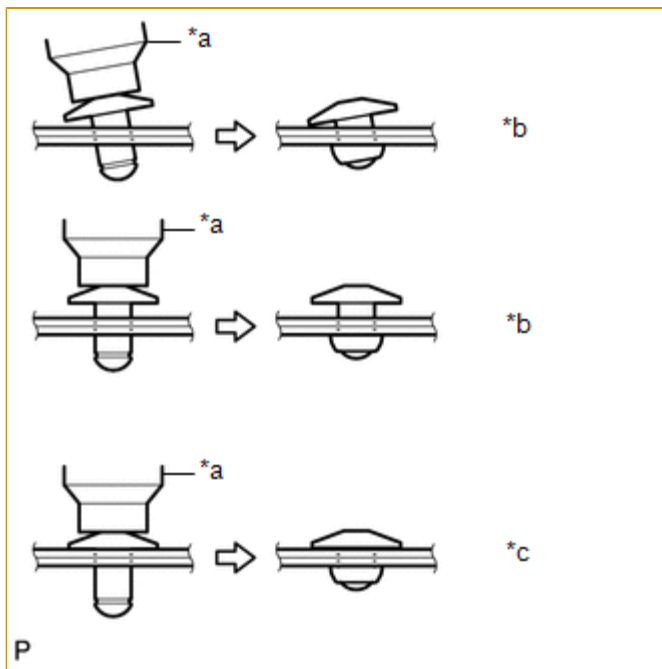
NOTICE:

- Do not pry on the rivet with the riveter, as this will cause damage to the riveter and mandrel.



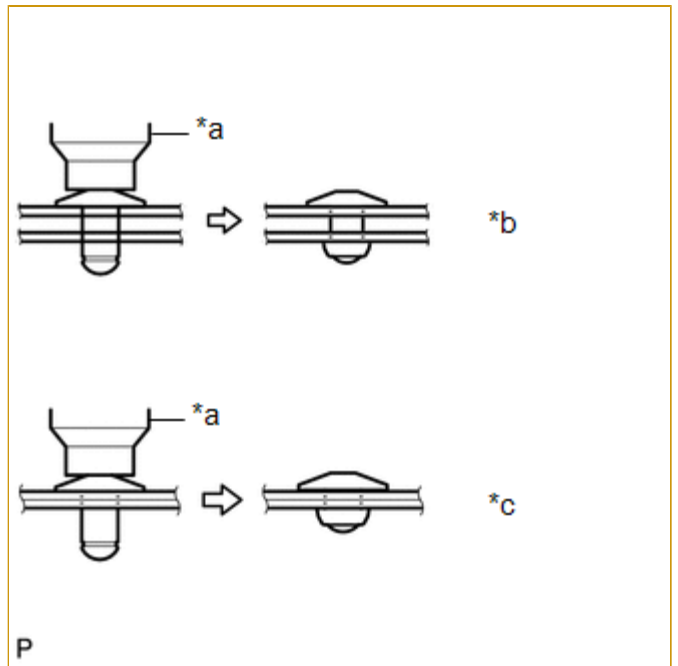
*1	Mandrel
*a	Riveter
*b	Incorrect
*c	Correct

- Confirm that the rivet is seated properly against the front seat support.



*a	Riveter
*b	Incorrect
*c	Correct

- Do not tilt the riveter when installing the front seat support with the rivet.
- Do not leave any space between the rivet head and front seat support.
- Do not leave any space between the front seat support and front seat assembly. Firmly hold the front seat support



and front seat assembly together while installing the rivet.

*a	Riveter
*b	Incorrect
*c	Correct

HINT:

If the mandrel of the rivet does not come off on the first operation of the rivet gun, slide the rivet gun forward on the mandrel and operate it again.

(d) Attach the clamp (1).

19. INSTALL FRONT POWER SEAT SWITCH (for Driver Side)

Click here [INFO](#)

20. INSTALL FRONT POWER SEAT SWITCH (for Front Passenger Side)

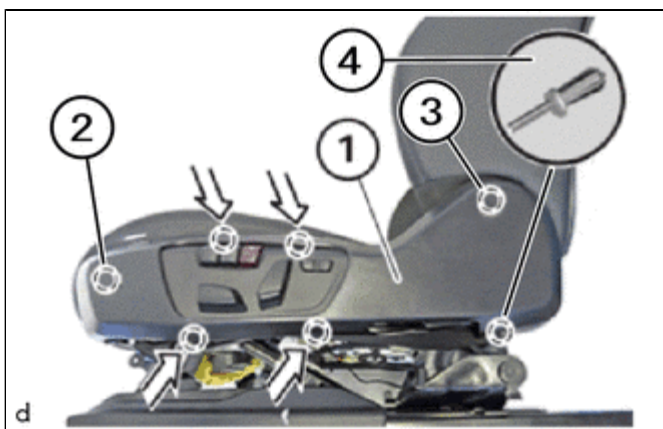
Click here [INFO](#)

21. INSTALL CHILD RESTRAINT SEAT ANCHOR BRACKET (w/ Bracket)

Click here [INFO](#)

22. INSTALL FRONT SEAT CUSHION SHIELD

(a) Attach the claws in the direction of the arrow.





Install in this Direction

(b) Attach the guide (2) and guide (3).

(c) Attach the claws to install the front seat cushion shield (1) in the direction of the arrow.

(d) Install the clip (4).

23. INSTALL FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

24. INSTALL FRONT SEAT INNER BELT ASSEMBLY

Click here [INFO](#)

25. INSTALL OCCUPANT DETECTION ECU (w/ Occupant Detection ECU)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3A
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT ASSEMBLY (for Power Seat): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. INSTALL FRONT SEAT ASSEMBLY

- Cover the front door scuff plate with protective covers.
- Place the front seat assembly in the vehicle with another person.

NOTICE:

- Heavy component.

Heavy components can lead to injury or damage.

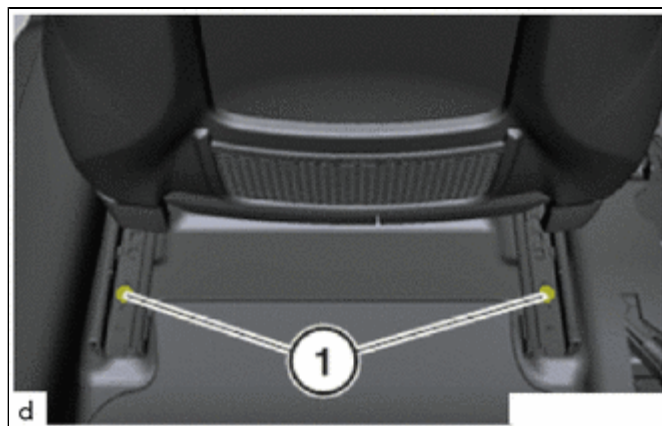
- Remove and install heavy components with the aid of another person/other persons.

- Protect the front seat leg.
- Be careful not to damage the front seat assembly, body exterior or body interior.

- Tilt the front seat assembly backwards to connect the connector.
- Connect the cable to the negative (-) battery terminal.

Click here [INFO](#)

- Move the front seat assembly to the foremost position.

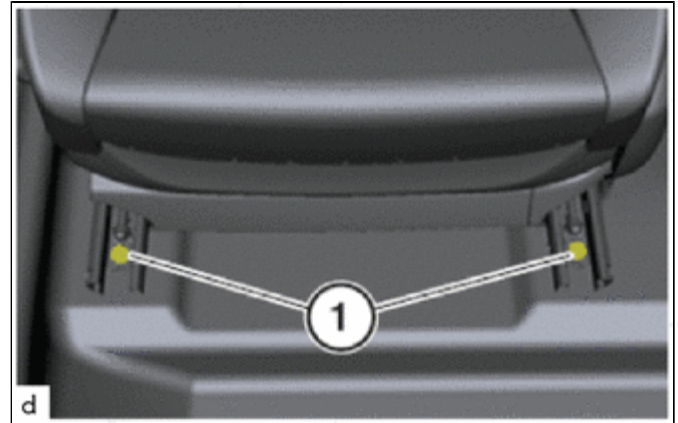


- Replace the T50 bolts(1).
- Tighten the T50 bolts(1).

Torque:

42 N·m {428 kgf·cm, 31 ft·lbf}

(h) Move the front seat assembly to the rearmost position.



(i) Replace the T50 bolts(1).

(j) Tighten the T50 bolt(1).

Torque:

42 N·m {428 kgf·cm, 31 ft·lbf}

2. CONNECT FRONT SEAT OUTER BELT ASSEMBLY

Click here [INFO](#)

3. ENCODE/PROGRAM CONTROL UNIT(S) (w/ Occupant Detection ECU)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

(h) Disconnect the diagnosis system from the vehicle.

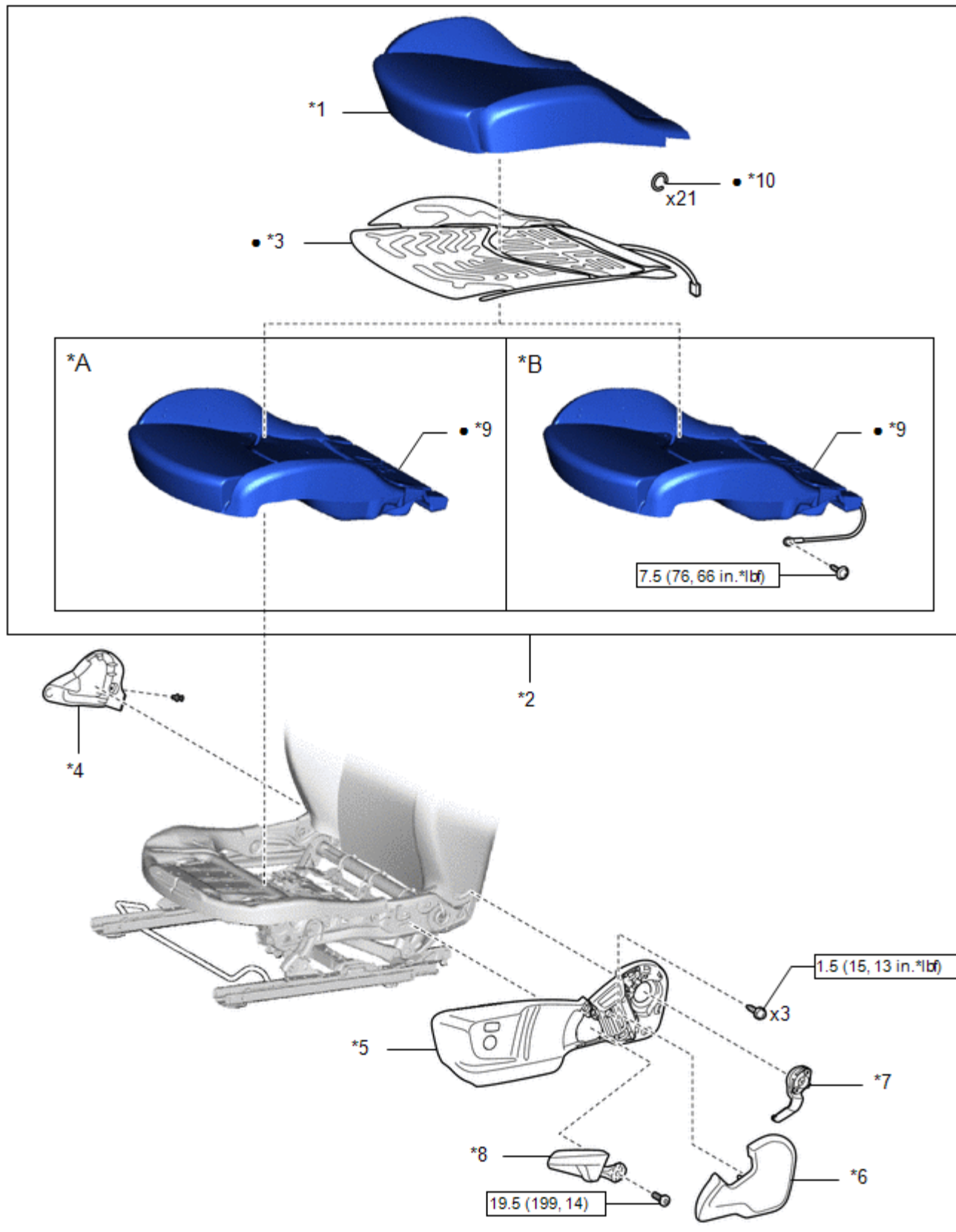
(i) Disconnect the battery charger from the vehicle.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3K
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT CUSHION HEATER (for Manual Seat): COMPONENTS; 2020 MY Supra [03/2019 -]		


COMPONENTS

ILLUSTRATION



d

*A	w/o Occupant Detection ECU	*B	w/ Occupant Detection ECU
*1	SEPARATE TYPE FRONT SEAT CUSHION COVER	*2	SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD
*3	FRONT SEAT CUSHION HEATER ASSEMBLY	*4	FRONT SEAT CUSHION INNER SHIELD

*5	FRONT SEAT CUSHION SHIELD	*6	FRONT SEAT SIDE SHIELD
*7	NO. 2 RECLINING ADJUSTER RELEASE ARM	*8	VERTICAL ADJUSTING HANDLE
*9	SEPARATE TYPE FRONT SEAT CUSHION PAD	*10	HOG RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3L
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT CUSHION HEATER (for Manual Seat): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

3. REMOVE FRONT SEAT SIDE SHIELD

Click here [INFO](#)

4. REMOVE NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

5. REMOVE VERTICAL ADJUSTING HANDLE

Click here [INFO](#)

6. REMOVE FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

7. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

Click here [INFO](#)

8. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER

HINT:

Front seat cushion heater assembly is bonded with the separate type front seat cushion pad and cannot be separated from each other without causing damage. Separate typr front seat cushion pad and front seat cushion heater assembly must be replaced.

Click here [INFO](#)



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3M
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT CUSHION HEATER (for Manual Seat): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

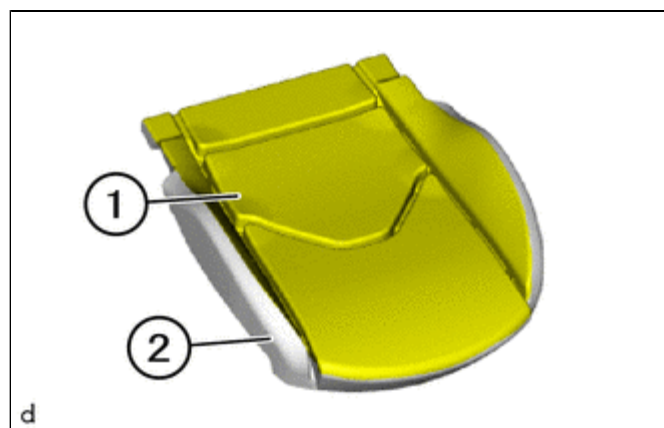
PROCEDURE

1. INSTALL FRONT SEAT CUSHION HEATER ASSEMBLY

HINT:

Front seat cushion heater assembly is bonded with the separate type front seat cushion pad and cannot be separated from each other without causing damage. Separate type front seat cushion pad and front seat cushion heater assembly must be replaced.

(a) Replace the separate type front seat cushion pad (2).



(b) Position and align the front seat cushion heater assembly (1) on the separate type front seat cushion pad (2) correctly.

(c) Bond the front seat cushion heater assembly (1) to the separate type front seat cushion pad (2).

2. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER

Click here [INFO](#)

3. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

Click here [INFO](#)

4. INSTALL FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

5. INSTALL VERTICAL ADJUSTING HANDLE

Click here [INFO](#)

6. INSTALL NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

7. INSTALL FRONT SEAT SIDE SHIELD

Click here [INFO](#)

8. INSTALL FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

9. INSTALL FRONT SEAT ASSEMBLY

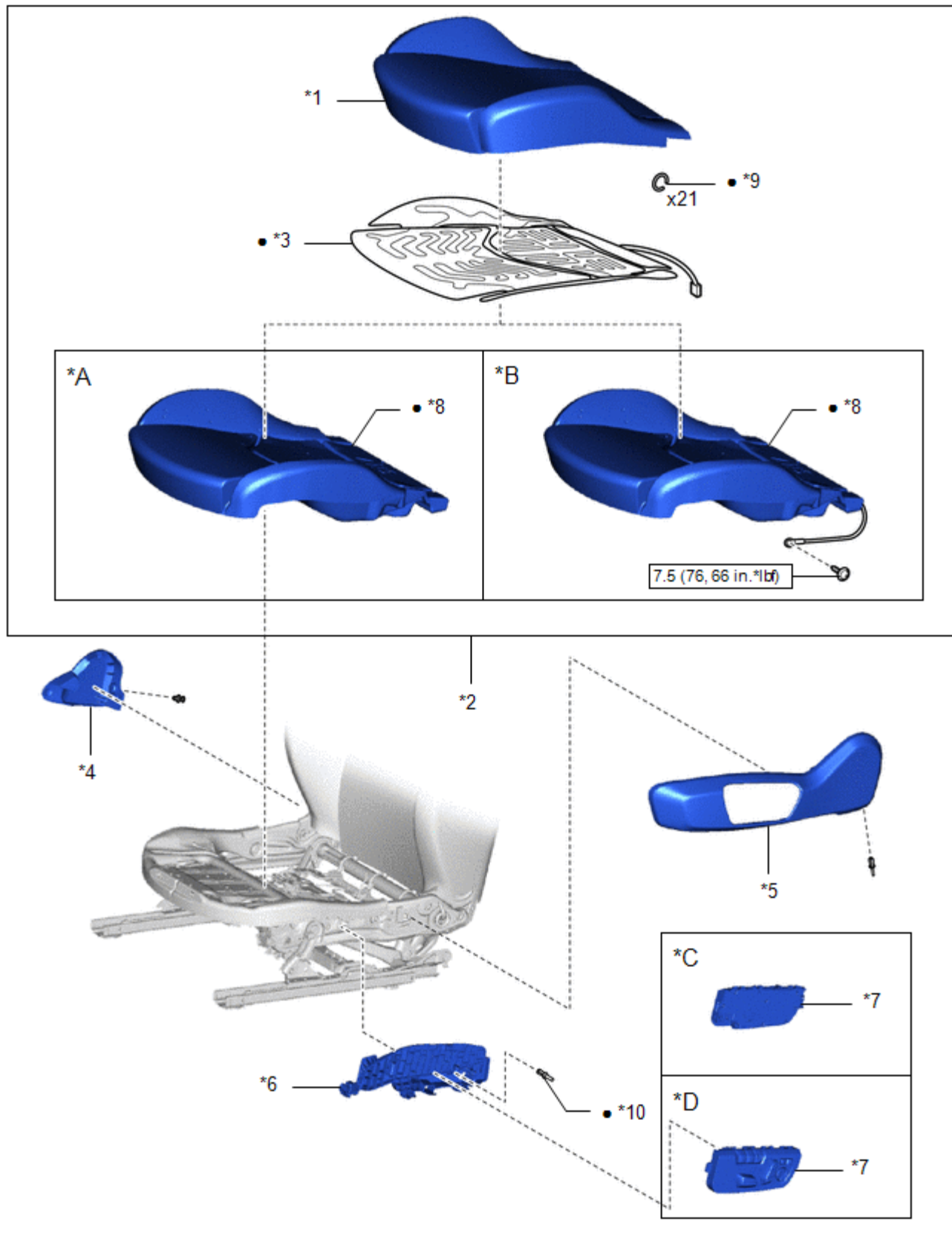
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3T
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT CUSHION HEATER (for Power Seat): COMPONENTS; 2020 MY Supra [03/2019 -]		


COMPONENTS

ILLUSTRATION



d

*A	w/o Occupant Detection ECU	*B	w/ Occupant Detection ECU
*C	for Front Passenger Side	*D	for Driver Side
*1	SEPARATE TYPE FRONT SEAT CUSHION COVER	*2	SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD
	FRONT SEAT CUSHION HEATER		

*3	ASSEMBLY	*4	FRONT SEAT CUSHION INNER SHIELD
*5	FRONT SEAT CUSHION SHIELD	*6	FRONT SEAT SUPPORT
*7	FRONT POWER SEAT SWITCH	*8	SEPARATE TYPE FRONT SEAT CUSHION PAD
*9	HOG RING	*10	RIVET
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3U
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT CUSHION HEATER (for Power Seat): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

3. REMOVE FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

4. REMOVE FRONT POWER SEAT SWITCH (for Driver Side)

Click here [INFO](#)

5. REMOVE FRONT POWER SEAT SWITCH (for Front Passenger Side)

Click here [INFO](#)

6. REMOVE FRONT SEAT SUPPORT

Click here [INFO](#)

7. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

Click here [INFO](#)

8. REMOVE SEPARATE TYPE FRONT SEAT CUSHION COVER

HINT:

Front seat cushion heater assembly is bonded with the separate type front seat cushion pad and cannot be separated from each other without causing damage. Separate type front seat cushion pad and front seat cushion heater assembly must be replaced.

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3V
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEAT CUSHION HEATER (for Power Seat): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. INSTALL FRONT SEAT CUSHION HEATER ASSEMBLY

HINT:

Use the same procedure for the manual seat.

Click here [INFO](#)

2. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER

Click here [INFO](#)

3. INSTALL SEPARATE TYPE FRONT SEAT CUSHION COVER WITH PAD

Click here [INFO](#)

4. INSTALL FRONT SEAT SUPPORT

Click here [INFO](#)

5. INSTALL FRONT POWER SEAT SWITCH (for Driver Side)

Click here [INFO](#)

6. INSTALL FRONT POWER SEAT SWITCH (for Front Passenger Side)

Click here [INFO](#)

7. INSTALL FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

8. INSTALL FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

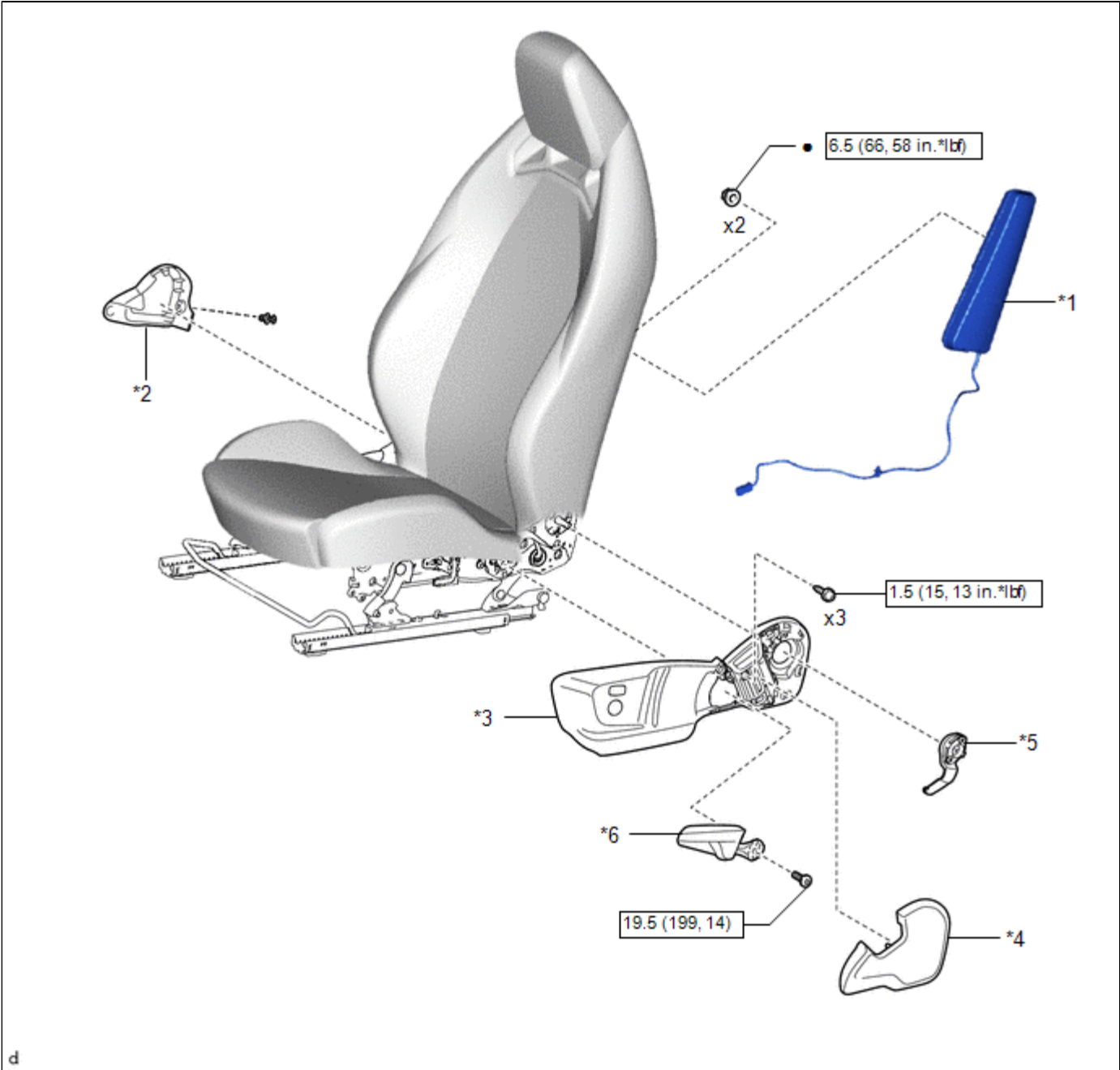
9. INSTALL FRONT SEAT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEATBACK HEATER (for Manual Seat): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT SEAT AIRBAG ASSEMBLY	*2	FRONT SEAT CUSHION INNER SHIELD
*3	FRONT SEAT CUSHION SHIELD	*4	FRONT SEAT SIDE SHIELD
*5	NO. 2 RECLINING ADJUSTER RELEASE ARM	*6	VERTICAL ADJUSTING HANDLE
N*m (kgf*cm, ft.*lbf): Specified			

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3I
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEATBACK HEATER (for Manual Seat): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

3. REMOVE FRONT SEAT SIDE SHIELD

Click here [INFO](#)

4. REMOVE NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

5. REMOVE VERTICAL ADJUSTING HANDLE

Click here [INFO](#)

6. REMOVE FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

7. REMOVE FRONT SEAT AIRBAG ASSEMBLY

Click here [INFO](#)

8. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

Click here [INFO](#)

9. REMOVE FRONT SEATBACK GARNISH

Click here [INFO](#)

10. REMOVE SEPARATE TYPE FRONT SEATBACK COVER

HINT:

Front seatback heater assembly is bonded with the separate type front seatback pad and cannot be separated from each other without causing damage. Separate type front seatback pad and front seatback heater assembly must be replaced.

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3J
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEATBACK HEATER (for Manual Seat): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

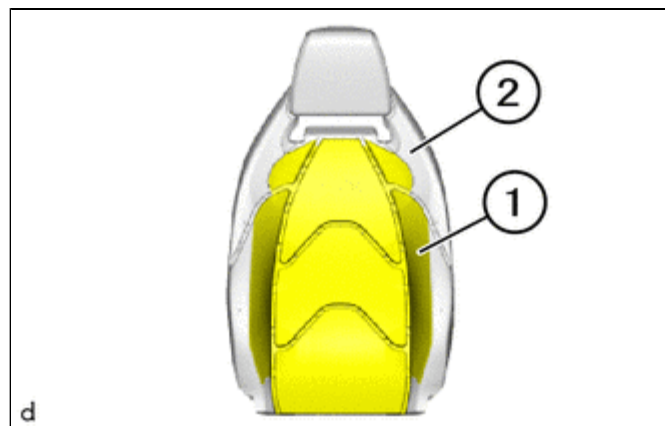
PROCEDURE

1. INSTALL FRONT SEATBACK HEATER ASSEMBLY

HINT:

Front seatback heater assembly is bonded with the separate type front seatback pad and cannot be separated from each other without causing damage. Separate type front seatback pad and front seatback heater assembly must be replaced.

(a) Replace the separate type front seatback pad (2).



(b) Position and align the front seatback heater assembly (1) on the separate type front seatback pad (2) correctly.

(c) Bond the front seatback heater assembly (1) to the separate type front seatback pad (2) correctly.

2. INSTALL SEPARATE TYPE FRONT SEATBACK COVER

Click here [INFO](#)

3. INSTALL FRONT SEATBACK GARNISH

Click here [INFO](#)

4. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

Click here [INFO](#)

5. INSTALL FRONT SEAT AIRBAG ASSEMBLY

Click here [INFO](#)

6. INSTALL FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

7. INSTALL VERTICAL ADJUSTING HANDLE

Click here [INFO](#)

8. INSTALL NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

9. INSTALL FRONT SEAT SIDE SHIELD

Click here [INFO](#)

10. INSTALL FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

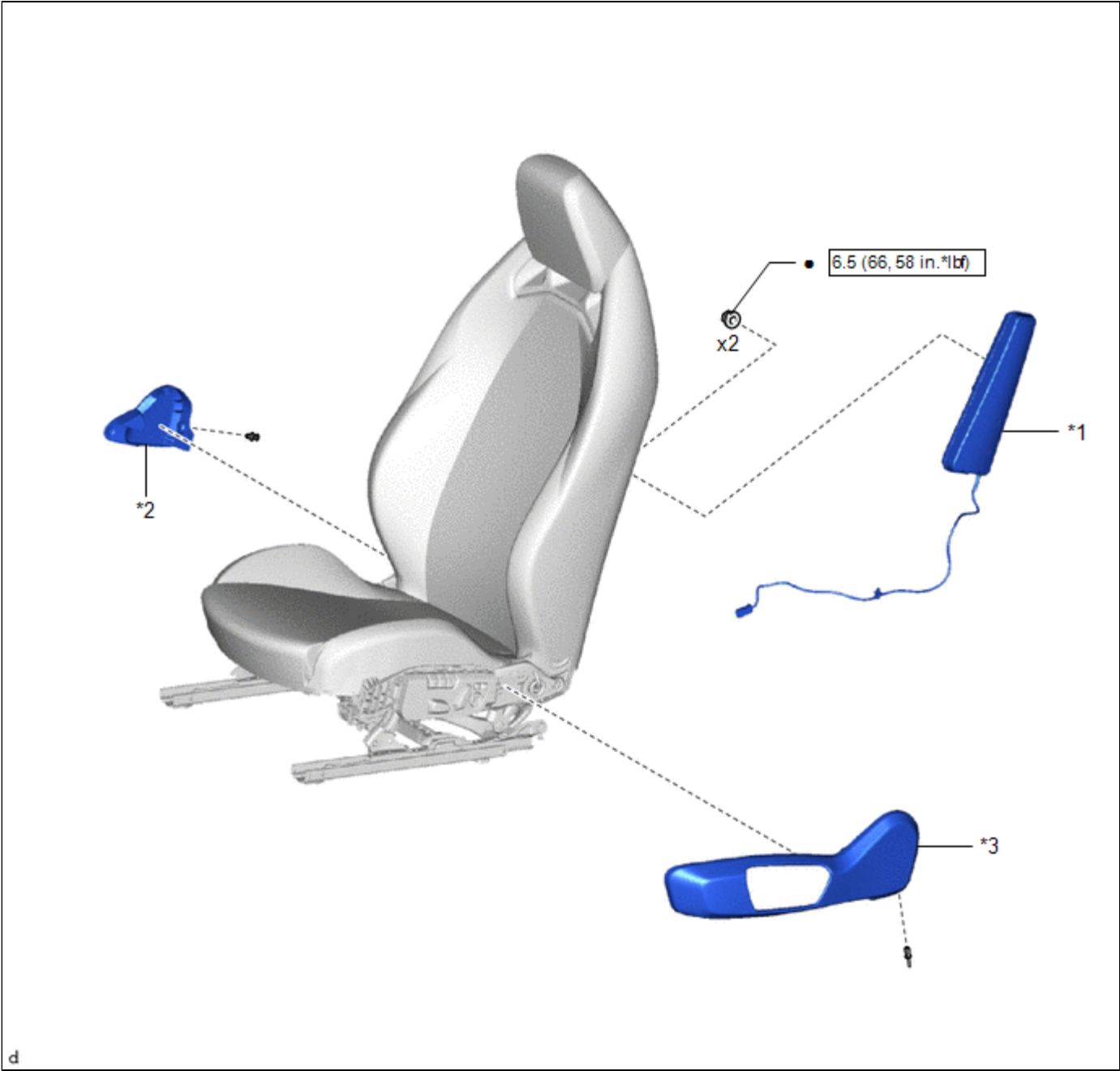
11. INSTALL FRONT SEAT ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3Q
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEATBACK HEATER (for Power Seat): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

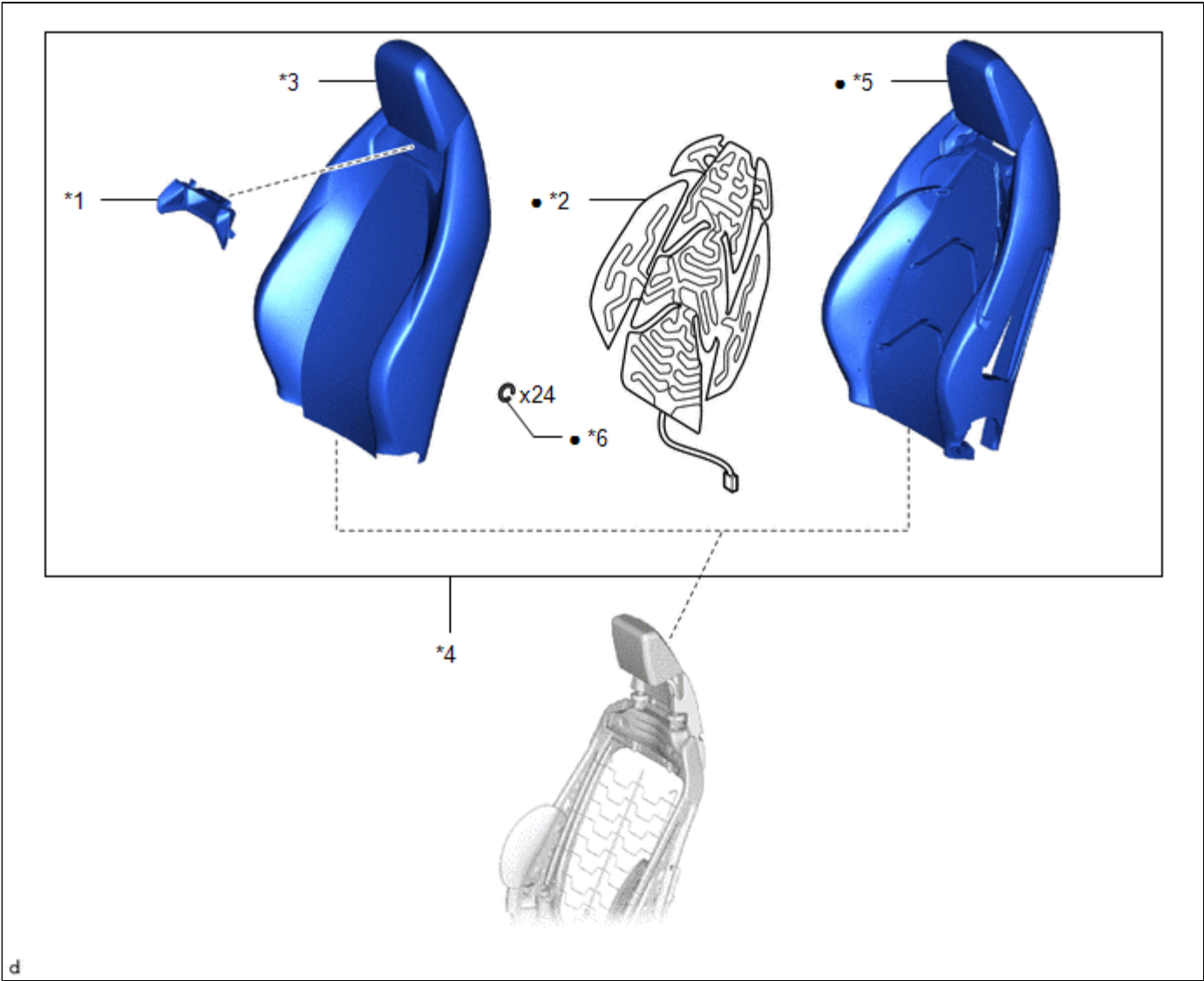
ILLUSTRATION



*1	FRONT SEAT AIRBAG ASSEMBLY	*2	FRONT SEAT CUSHION INNER SHIELD
*3	FRONT SEAT CUSHION SHIELD	-	-
N*m (kgf*cm, ft.*lbf): Specified			

	torque	•	Non-reusable part
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ILLUSTRATION



*1	FRONT SEATBACK GARNISH	*2	FRONT SEATBACK HEATER ASSEMBLY
*3	SEPARATE TYPE FRONT SEATBACK COVER	*4	SEPARATE TYPE FRONT SEATBACK COVER WITH PAD
*5	SEPARATE TYPE FRONT SEATBACK PAD	*6	HOG RING
•	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3R
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEATBACK HEATER (for Power Seat): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

3. REMOVE FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

4. REMOVE FRONT SEAT AIRBAG ASSEMBLY

Click here [INFO](#)

5. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

Click here [INFO](#)

6. REMOVE FRONT SEATBACK GARNISH

Click here [INFO](#)

7. REMOVE SEPARATE TYPE FRONT SEATBACK COVER

HINT:

Front seatback heater assembly is bonded with the separate type front seatback pad and cannot be separated from each other without causing damage. Separate type front seatback pad and front seatback heater assembly must be replaced.

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3S
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: FRONT SEATBACK HEATER (for Power Seat): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. INSTALL FRONT SEATBACK HEATER ASSEMBLY

HINT:

Use the same procedure for the manual seat.

Click here [INFO](#)

2. INSTALL SEPARATE TYPE FRONT SEATBACK COVER

Click here [INFO](#)

3. INSTALL FRONT SEATBACK GARNISH

Click here [INFO](#)

4. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD

Click here [INFO](#)

5. INSTALL FRONT SEAT AIRBAG ASSEMBLY

Click here [INFO](#)

6. INSTALL FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

7. INSTALL FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

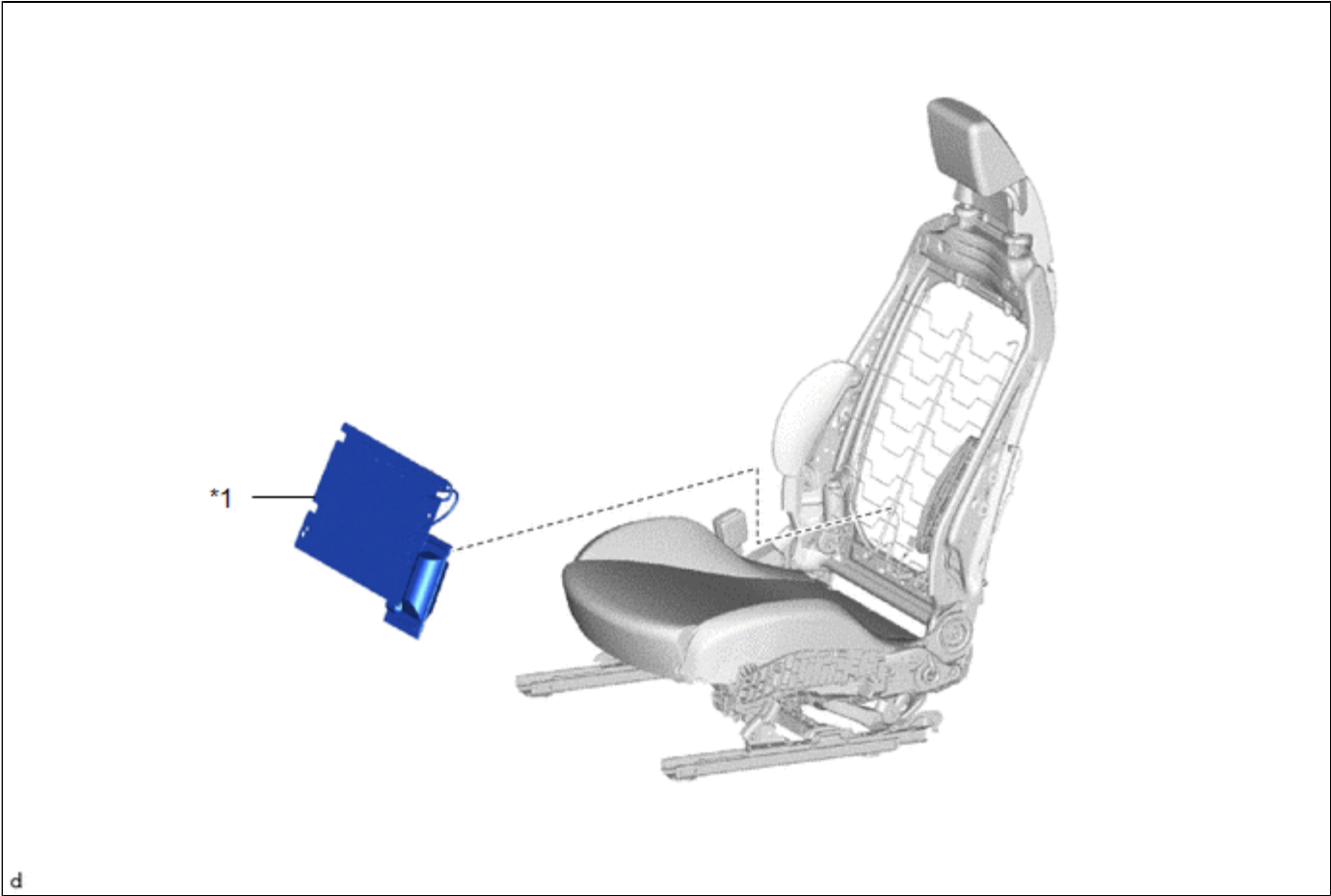
8. INSTALL FRONT SEAT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3E
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: LUMBAR SUPPORT ADJUSTER ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LUMBAR SUPPORT ADJUSTER ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3F
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: LUMBAR SUPPORT ADJUSTER ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Manual Seat)

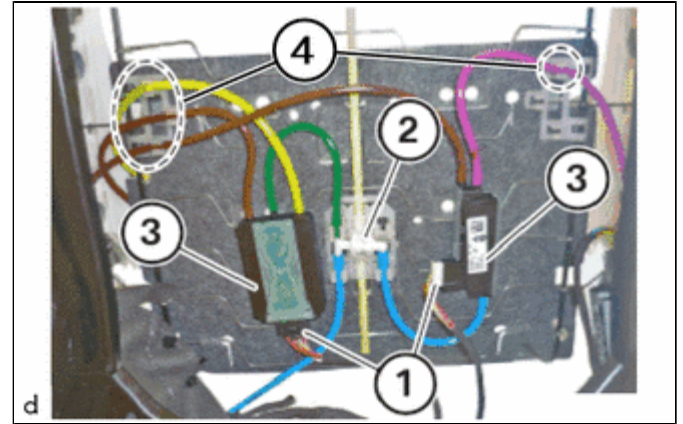
Click here [INFO](#)

2. REMOVE SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Power Seat)

3. REMOVE LUMBAR SUPPORT ADJUSTER ASSEMBLY

(a) w/ Back Side Support Adjuster:

(1) Disconnect the connectors (1).



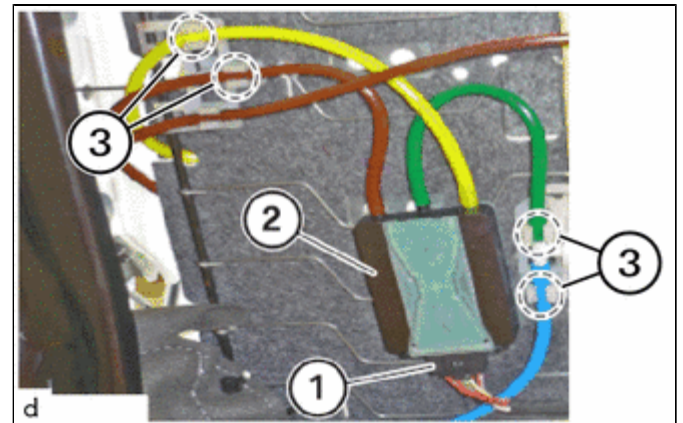
(2) Disconnect the pneumatic tubes connector (2).

(3) Detach the pneumatic tubes from the holders in the marked area (4).

(4) Remove the valve units (3) from the spring wire.

(b) w/o Back Side Support Adjuster:

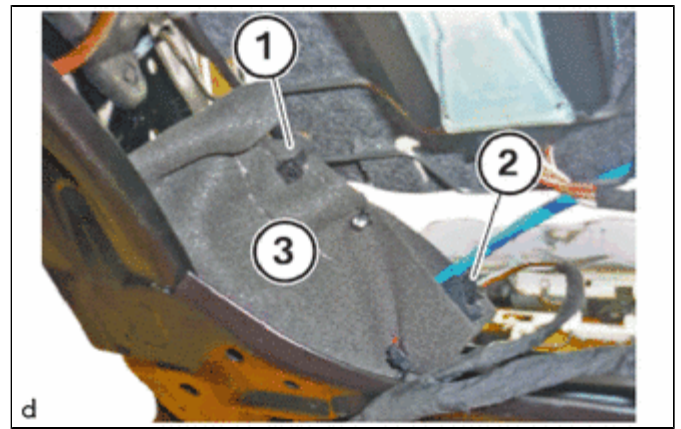
(1) Disconnect the connector (1).



(2) Detach the pneumatic tubes from the holder in the marked area (3).

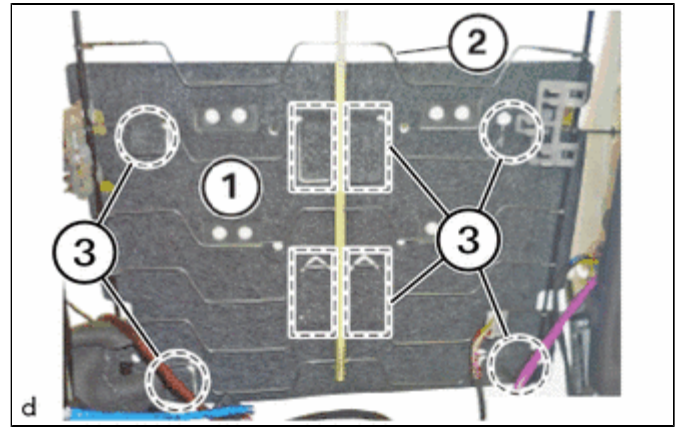
(3) Remove the valve unit (2) from the spring wire.

(c) Remove the tie band (1).



(d) Disconnect the connector (2).

(e) Remove the pump (3).



(f) Remove the lumbar support adjuster assembly (1) in the marked areas (3) from the spring wire (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3G
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: LUMBAR SUPPORT ADJUSTER ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

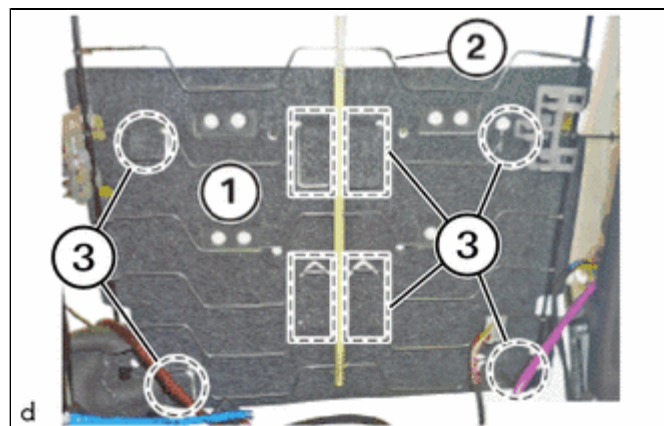
HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

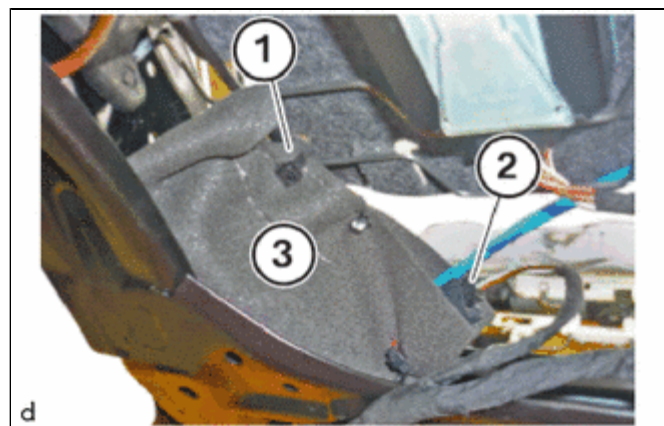
PROCEDURE

1. INSTALL LUMBAR SUPPORT ADJUSTER ASSEMBLY

- (a) Install the lumbar support adjuster assembly (1) in the marked areas (3) to the spring wire (2).

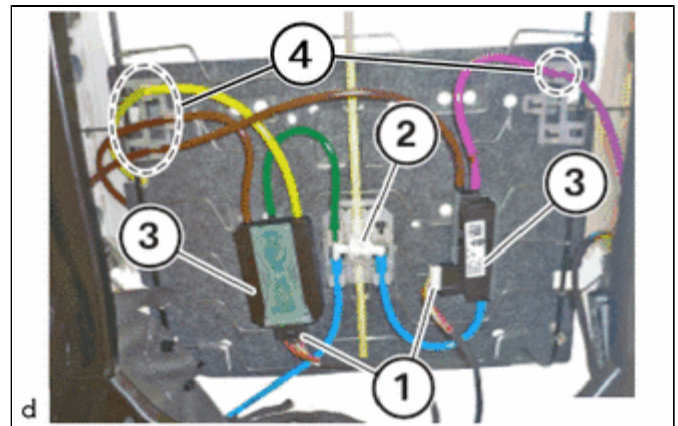


- (b) Install the pump (3) correctly.



- (c) Install the tie band (1).
- (d) Connect the connector (2).
- (e) w/ Back Side Support Adjuster:

(1) Install the valve units (3) correctly to the spring wire.



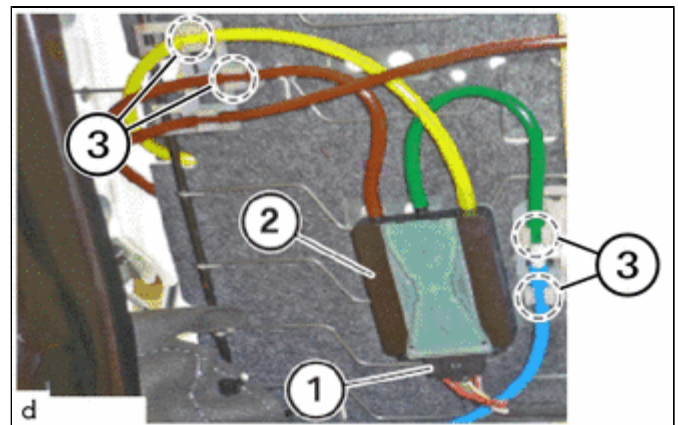
(2) Attach the pneumatic tubes to the holders in the marked area (4).

(3) Connect the pneumatic tubes connector (2).

(4) Connect the connectors (1).

(f) w/o Back Side Support Adjuster:

(1) Install the valve unit (2) correctly to the spring wire.



(2) Attach the pneumatic tubes to the holder in the marked area (3).

(3) Connect the connector (1).

2. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Manual Seat)

Click here [INFO](#)

3. INSTALL SEPARATE TYPE FRONT SEATBACK COVER WITH PAD (for Power Seat)

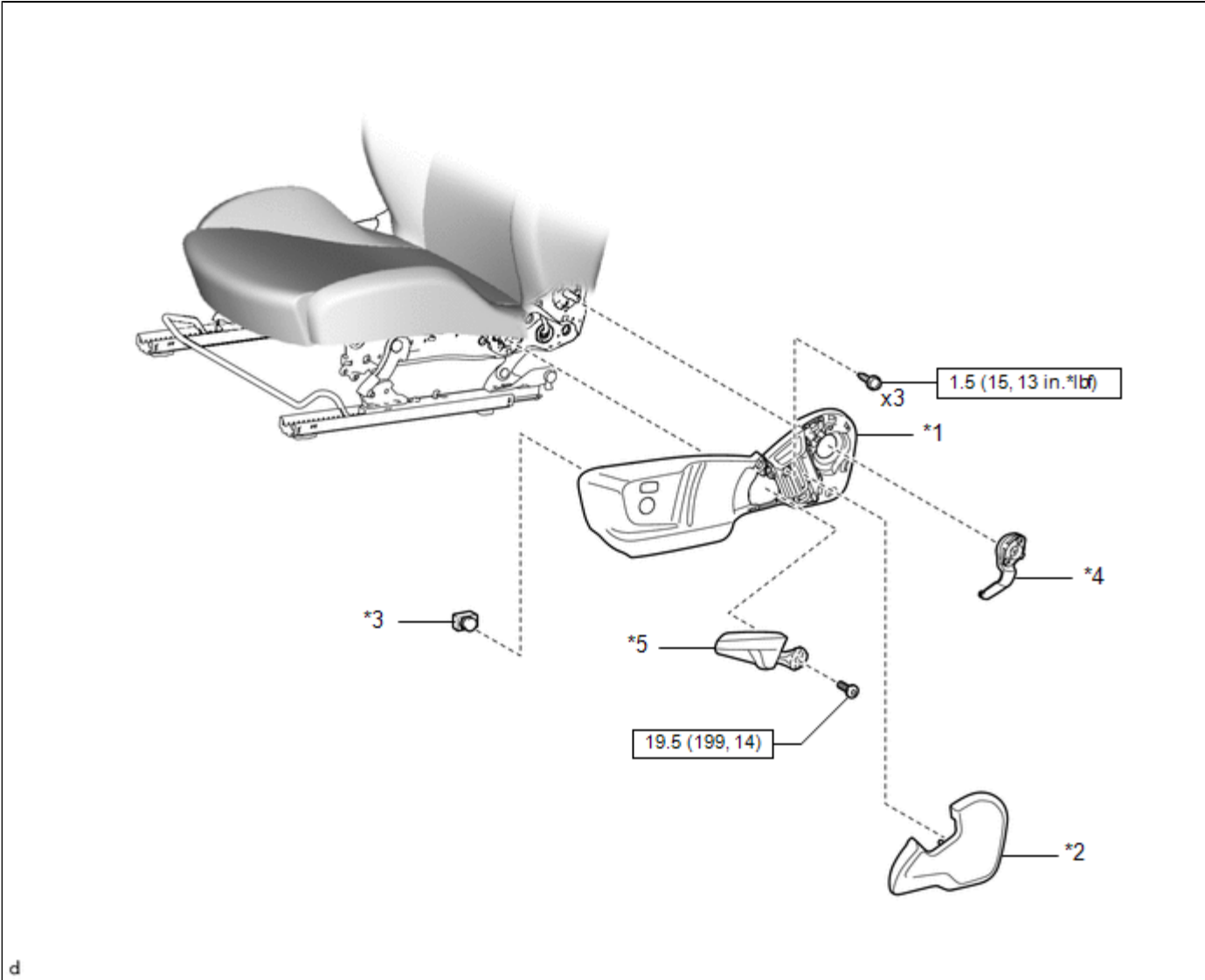
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD42
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: LUMBAR SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT SEAT CUSHION SHIELD	*2	FRONT SEAT SIDE SHIELD
*3	FRONT LUMBAR SUPPORT POWER SEAT SWITCH	*4	NO. 2 RECLINING ADJUSTER RELEASE ARM
*5	VERTICAL ADJUSTING HANDLE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD43
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: LUMBAR SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT SIDE SHIELD

Click here [INFO](#)

3. REMOVE NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

4. REMOVE VERTICAL ADJUSTING HANDLE

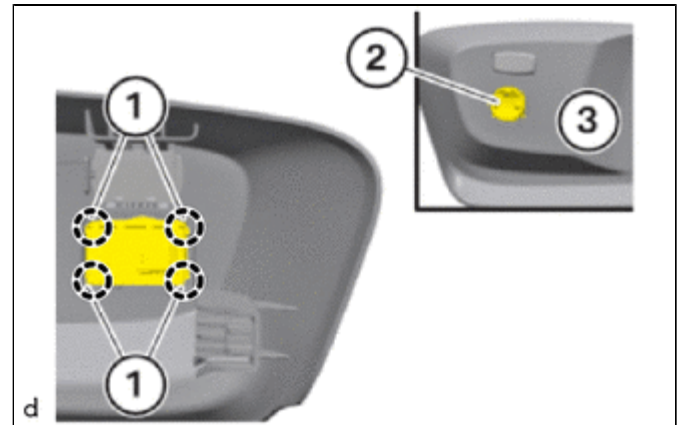
Click here [INFO](#)

5. REMOVE FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

6. REMOVE FRONT LUMBAR SUPPORT POWER SEAT SWITCH

(a) Detach the claws (1).



(b) Remove the front lumbar support power seat switch (2) from the front seat cushion shield (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD44
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: LUMBAR SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

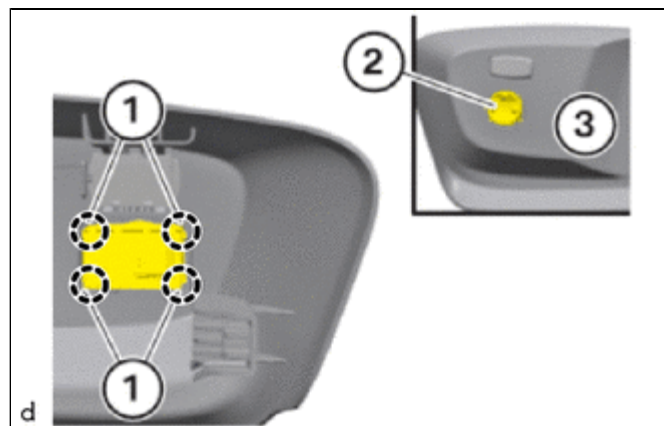
PROCEDURE

1. INSTALL FRONT LUMBAR SUPPORT POWER SEAT SWITCH

(a) Attach the claws (1) to install the front lumbar support power seat switch (2) to the front seat cushion shield (3).

NOTICE:

Check the attaching sound of the claws (1).



2. INSTALL FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

3. INSTALL VERTICAL ADJUSTING HANDLE

Click here [INFO](#)

4. INSTALL NO. 2 RECLINING ADJUSTER RELEASE ARM

Click here [INFO](#)

5. INSTALL FRONT SEAT SIDE SHIELD

Click here [INFO](#)

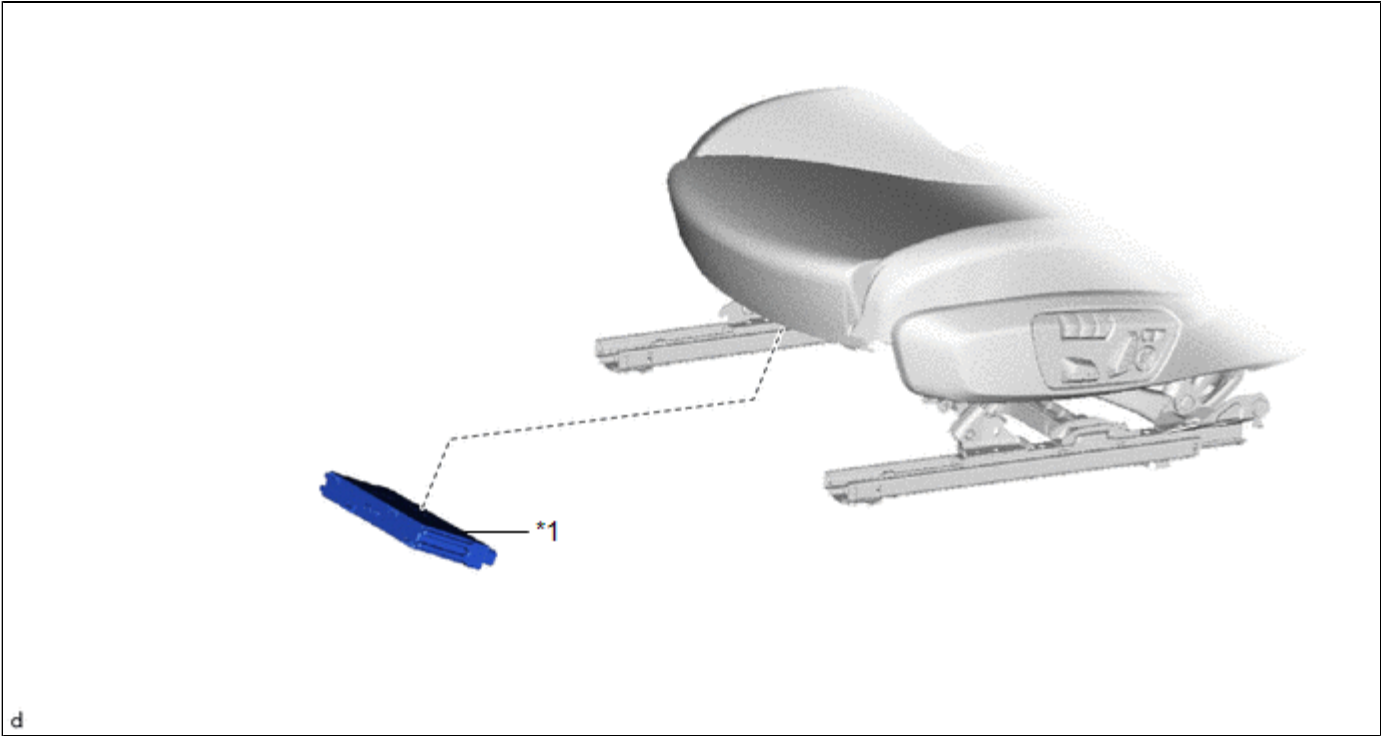
6. INSTALL FRONT SEAT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3Z
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: POWER SEAT CONTROL ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	POSITION CONTROL ECU ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD40
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: POWER SEAT CONTROL ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

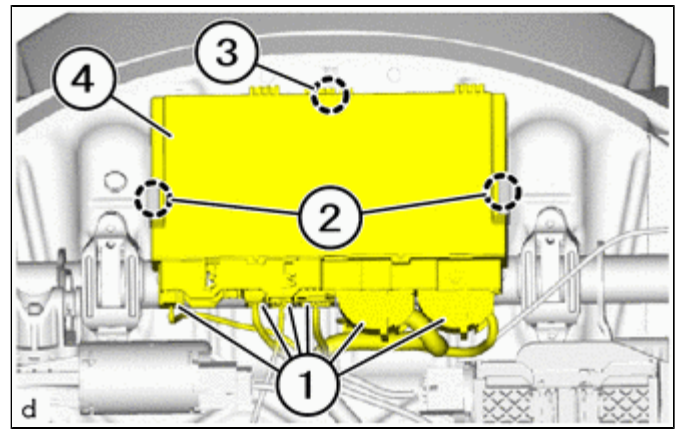
PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE POSITION CONTROL ECU ASSEMBLY

(a) Disconnect the connectors (1).



(b) Disengage the clamps (2) and guide (3) to remove the position control ECU assembly (4).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD41
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: POWER SEAT CONTROL ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

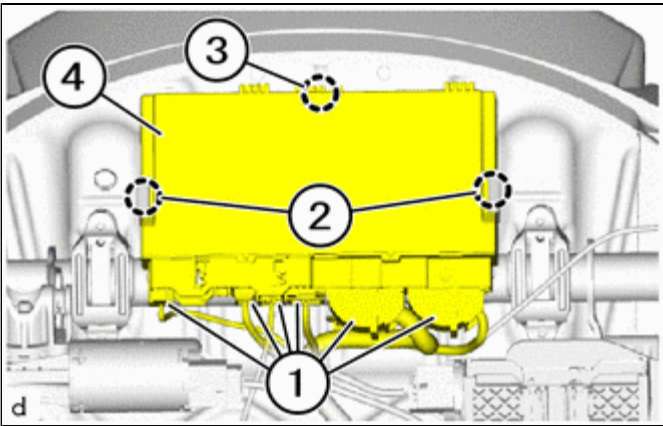
CAUTION / NOTICE / HINT

CAUTION:
Wear protective gloves. Sharp areas on the parts may injure your hands.

PROCEDURE

1. REMOVE POSITION CONTROL ECU ASSEMBLY

(a) Engage the guide (3) and clamps (2) to install the position control ECU assembly (4).



(b) Connect the connectors (1).

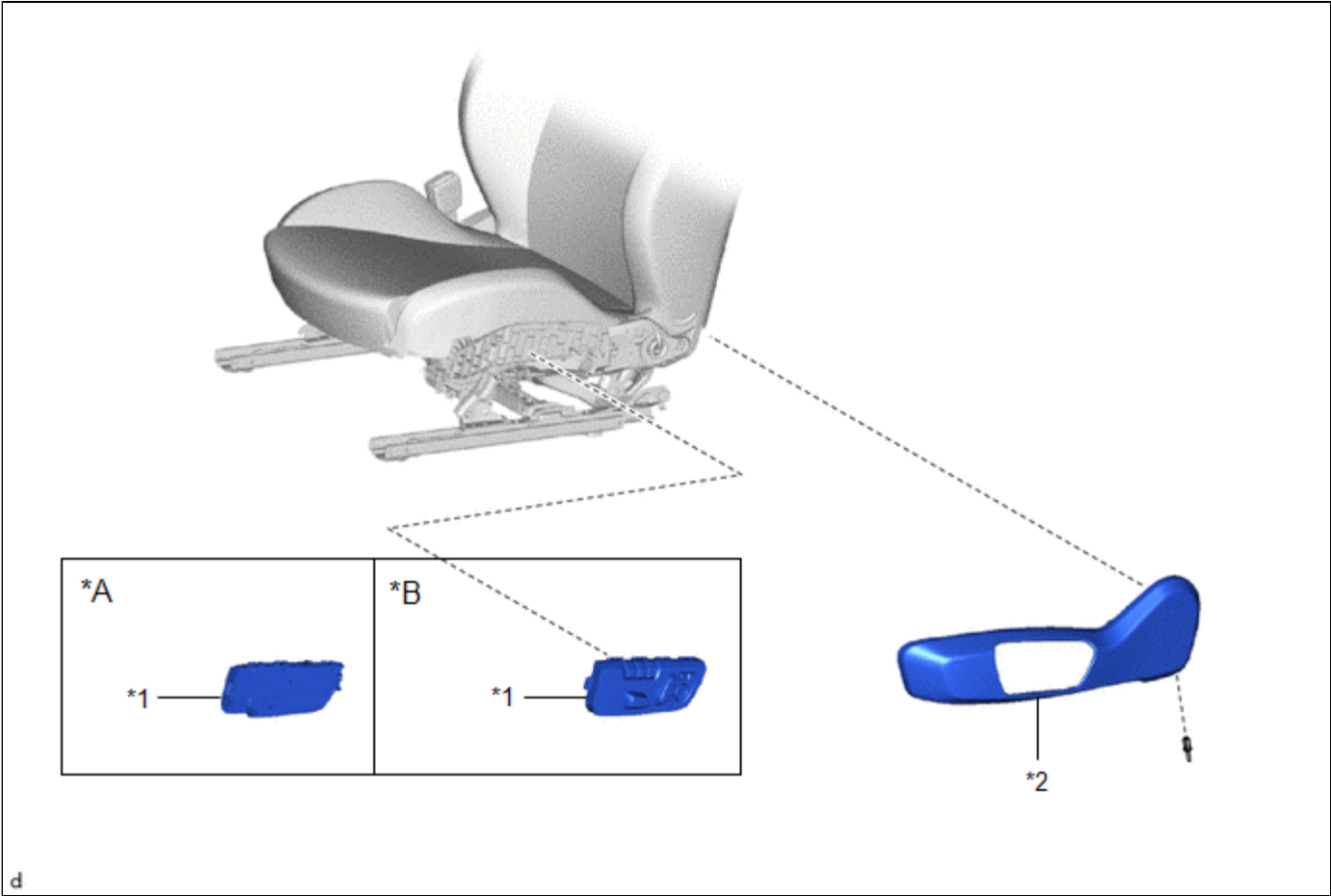
2. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: POWER SEAT SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Front Passenger Side	*B	for Driver Side
*1	FRONT POWER SEAT SWITCH	*2	FRONT SEAT CUSHION SHIELD

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: POWER SEAT SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

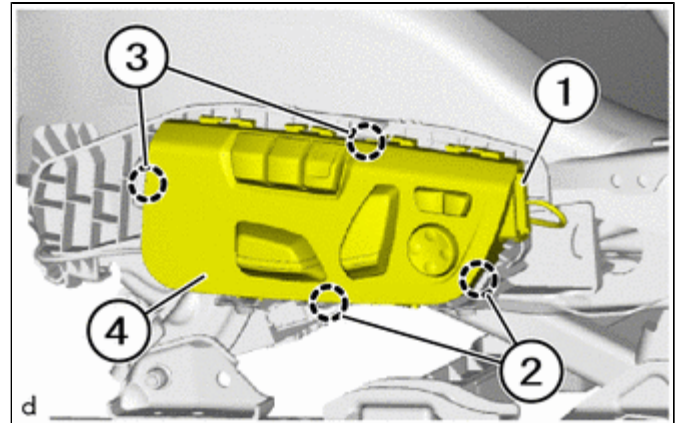
1. REMOVE FRONT SEAT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SEAT CUSHION SHIELD

3. REMOVE FRONT POWER SEAT SWITCH (for Driver Side)

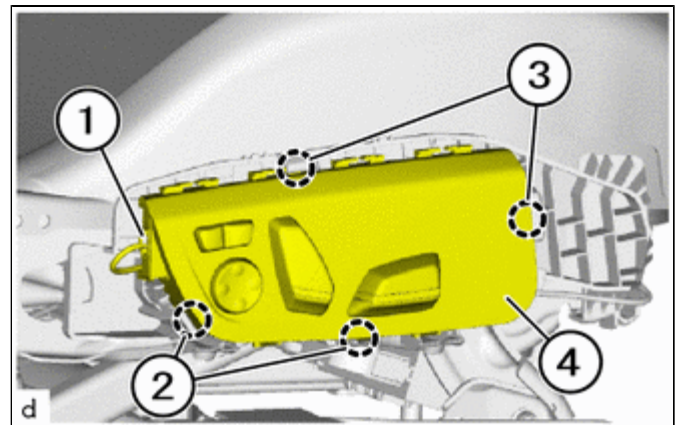
(a) Disconnect the connector (1).



(b) Disengage the claws (2) and guides (3) to remove the power seat switch (4).

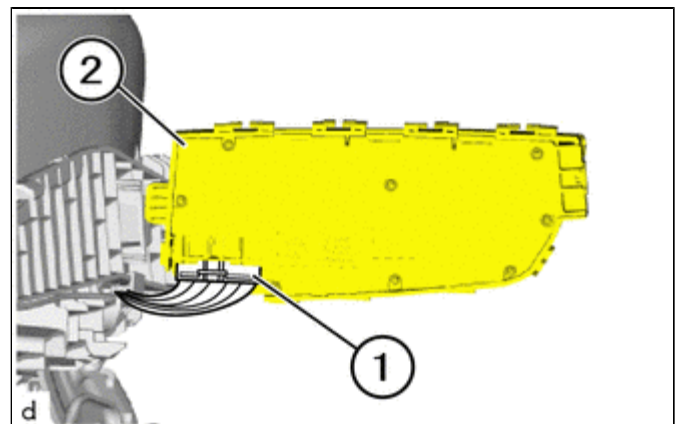
4. REMOVE FRONT POWER SEAT SWITCH (for Front Passenger Side)

(a) Disconnect the connector (1).



(b) Disengage the claws (2) and guides (3) to separate the power seat switch (4).

(c) Disconnect the connector (1) to remove the power seat switch (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: POWER SEAT SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

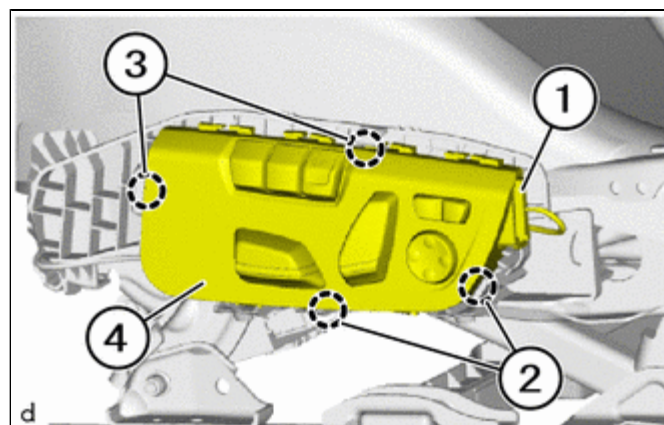
HINT:

- Use the same procedure for the driver side and front passenger side.

PROCEDURE

1. INSTALL FRONT POWER SEAT SWITCH (for Driver Side)

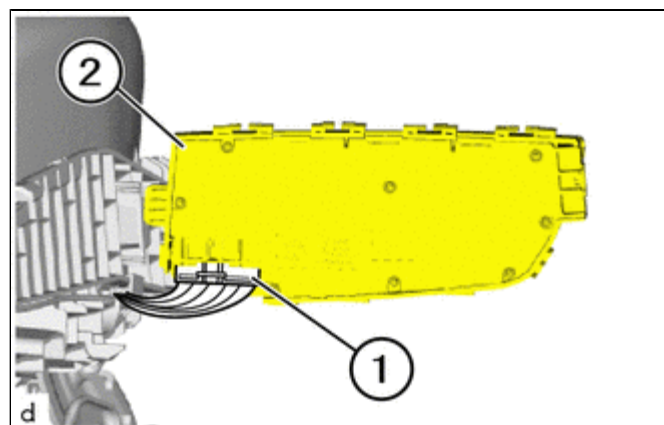
- (a) Engage the guides (3) and claws (2) to install the power seat switch (4).



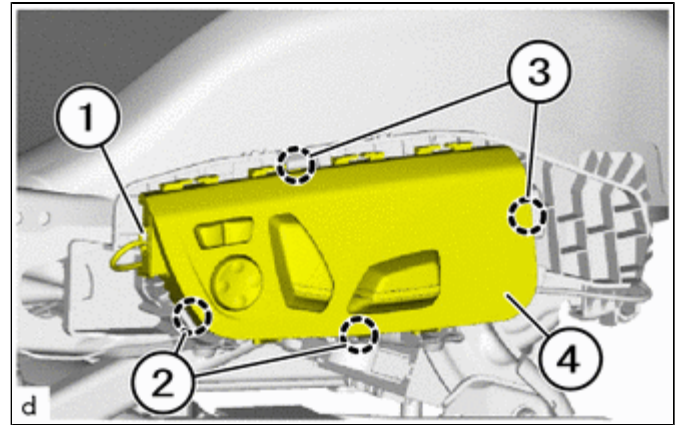
- (b) Connect the connector (1).

2. INSTALL FRONT POWER SEAT SWITCH (for Front Passenger Side)

- (a) Connect the connector (1) to the power seat switch (2).



(b) Engage the guides (3) and claws (2) to install the power seat switch (4).



(c) Connect the connector (1).

3. INSTALL FRONT SEAT CUSHION SHIELD

Click here [INFO](#)

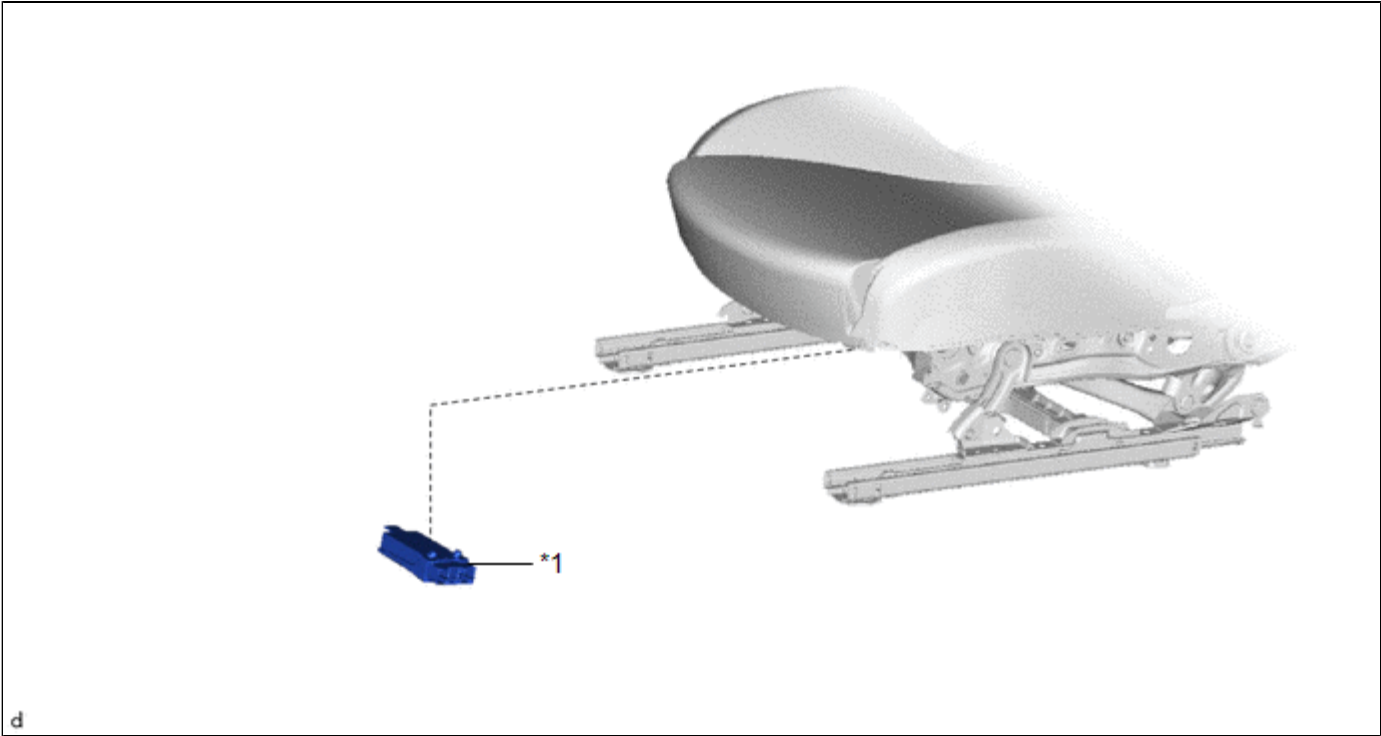
4. INSTALL FRONT SEAT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: SEAT HEATER CONTROL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SEAT HEATER CONTROL SUB-ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3X
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: SEAT HEATER CONTROL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY (for Manual Seat)

Click here [INFO](#)

2. REMOVE FRONT SEAT ASSEMBLY RH (for Power Seat)

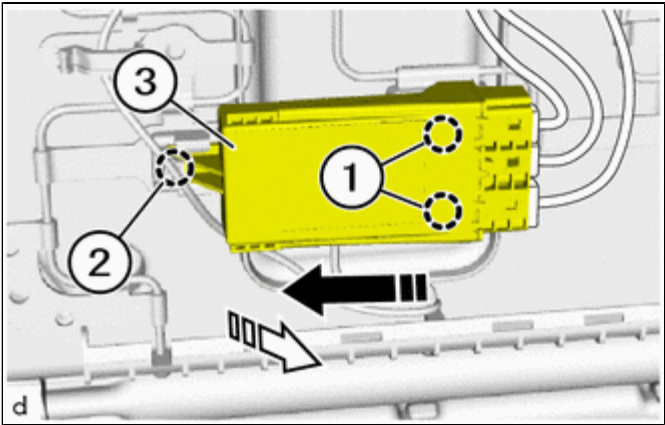
3. REMOVE SEAT HEATER CONTROL SUB-ASSEMBLY

HINT:

- for Power Seat:

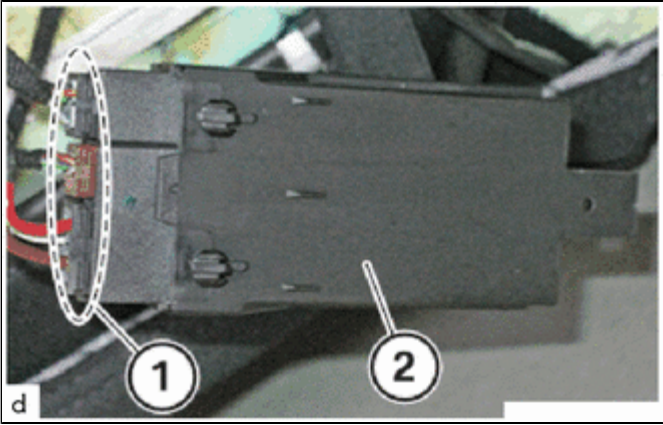
Seat heater control sub-assembly is installed to the front passenger side.

(a) Disengage the guides (1) and guide (2) to remove the seat heater control sub-assembly (3) as shown in the illustration.



	Remove in this Direction (1)
	Remove in this Direction (2)

(b) Disconnect the connectors (1) from the seat heater control sub-assembly (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JD3Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT: SEAT HEATER CONTROL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

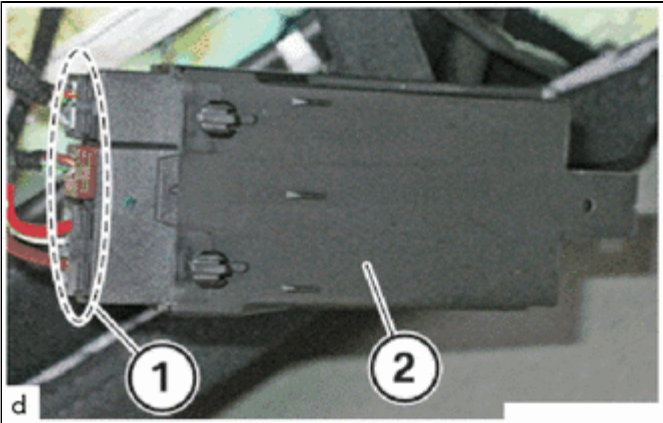
1. INSTALL SEAT HEATER CONTROL SUB-ASSEMBLY

HINT:

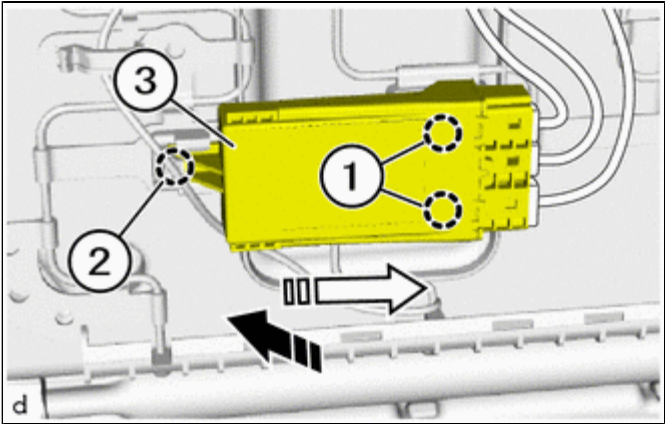
- for Power Seat:



Seat heater control sub-assembly is installed to the front passenger side.

(a) Connect the connectors (1) to the seat heater control sub-assembly (2).



(b) Engage the guide (2) and guides (1) to install the seat heater control sub-assembly (3) as shown in the illustration.



	Install in this Direction (1)
	Install in this Direction (2)

2. INSTALL FRONT SEAT ASSEMBLY (for Manual Seat)

Click here [INFO](#)

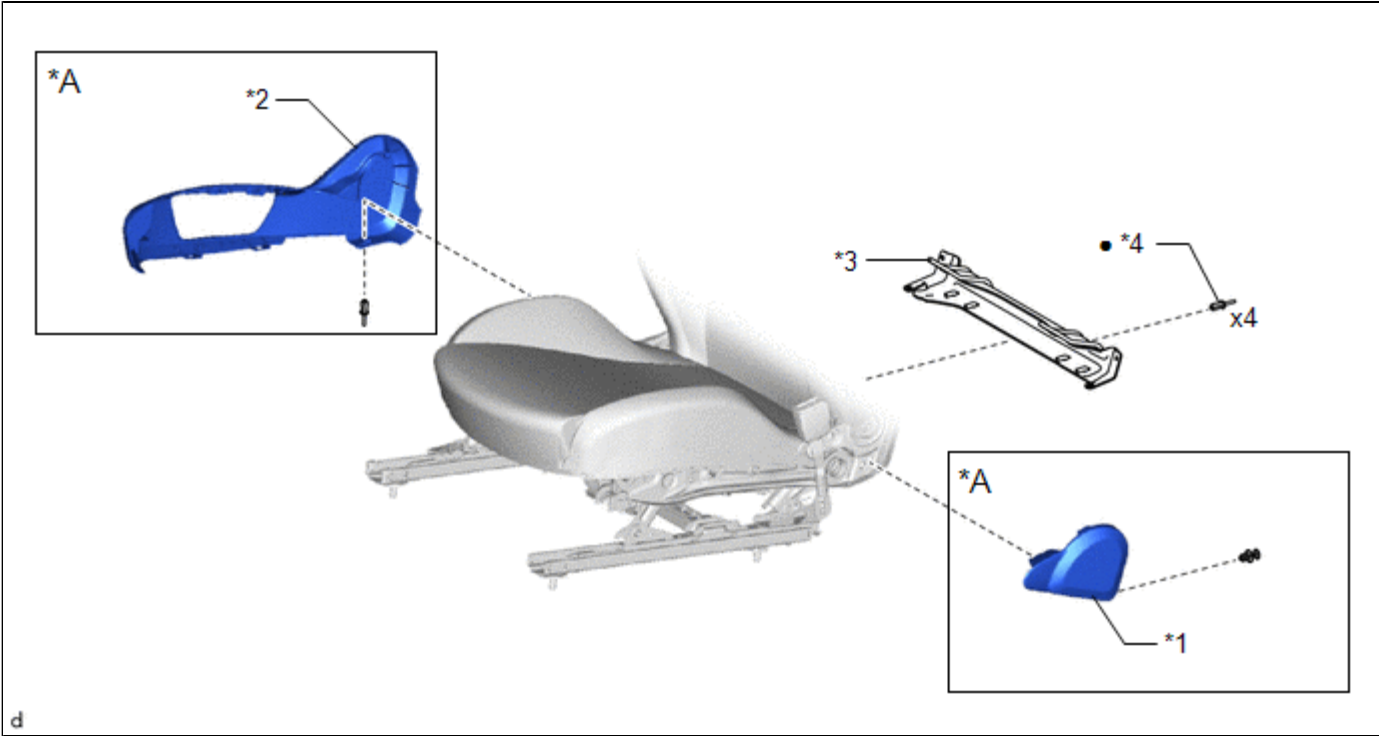
3. INSTALL FRONT SEAT ASSEMBLY RH (for Power Seat)

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: CHILD RESTRAINT SEAT ANCHOR BRACKET: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Power Seat	-	-
*1	FRONT SEAT CUSHION INNER SHIELD	*2	FRONT SEAT CUSHION SHIELD
*3	CHILD RESTRAINT SEAT ANCHOR BRACKET	*4	RIVET
●	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: CHILD RESTRAINT SEAT ANCHOR BRACKET: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Child restraint seat anchor bracket is installed to the front passenger side.

PROCEDURE

1. REMOVE FRONT SEAT CUSHION SHIELD (for Manual Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

2. REMOVE FRONT SEAT ASSEMBLY (for Power Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

3. REMOVE FRONT SEAT CUSHION INNER SHIELD (for Power Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

4. REMOVE FRONT SEAT CUSHION SHIELD (for Power Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

5. REMOVE CHILD RESTRAINT SEAT ANCHOR BRACKET

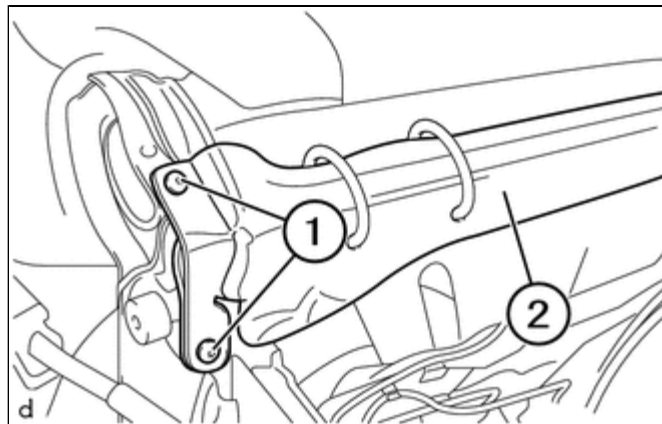
(a) Drill out the rivets (1).

NOTICE:

- Do not drill the rivet at an angle as this will cause damage to the drill and rivet installation hole. Line up the drill with the rivet, and carefully drill out the rivet head.
- Be careful as the drilled rivet will be very hot.

HINT:

Use the same procedure for the opposite side.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCI2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: CHILD RESTRAINT SEAT ANCHOR BRACKET: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

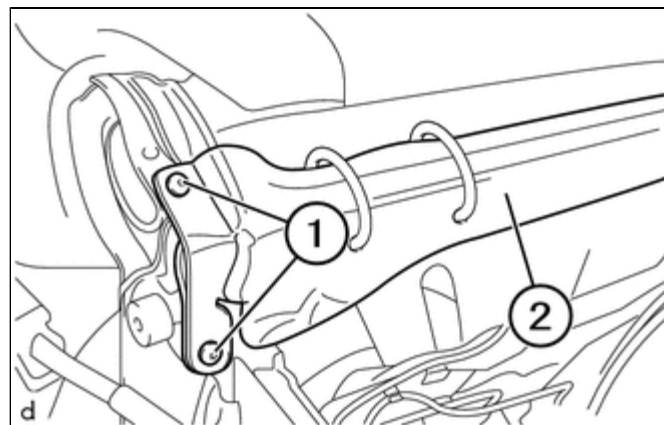
HINT:

- Child restraint seat anchor bracket is installed to the front passenger side.

PROCEDURE

1. INSTALL CHILD RESTRAINT SEAT ANCHOR BRACKET

(a) Position the child restraint seat anchor bracket (2).

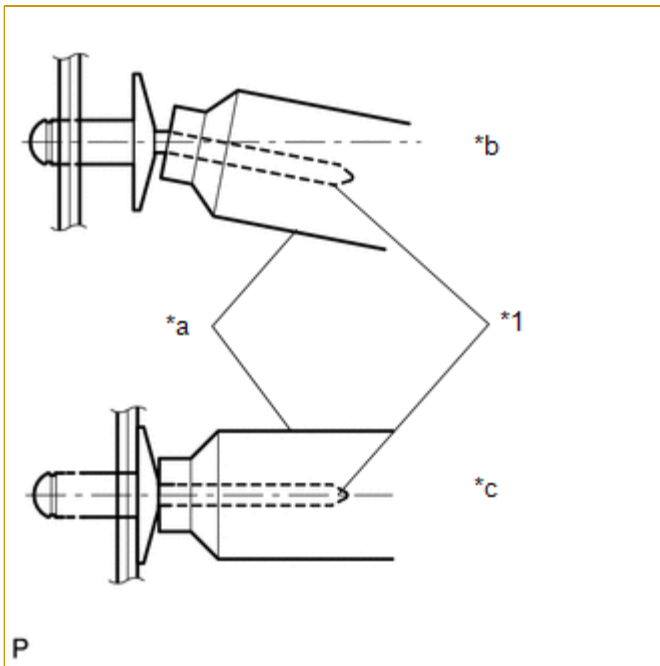


(b) Replace the rivets (1).

(c) Using an air riveter or hand riveter, attach the child restraint seat anchor bracket (2) with new rivets (1).

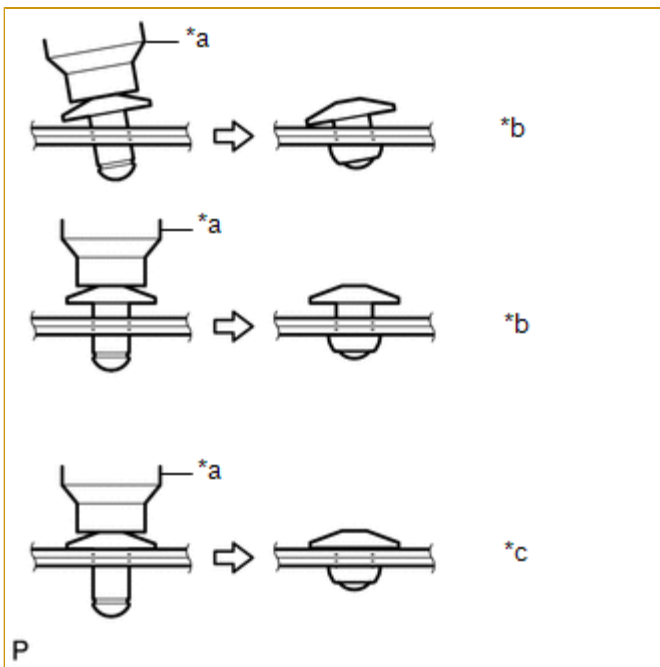
NOTICE:

- Do not pry on the rivets with the riveter, as this will cause damage to the riveter and mandrel.



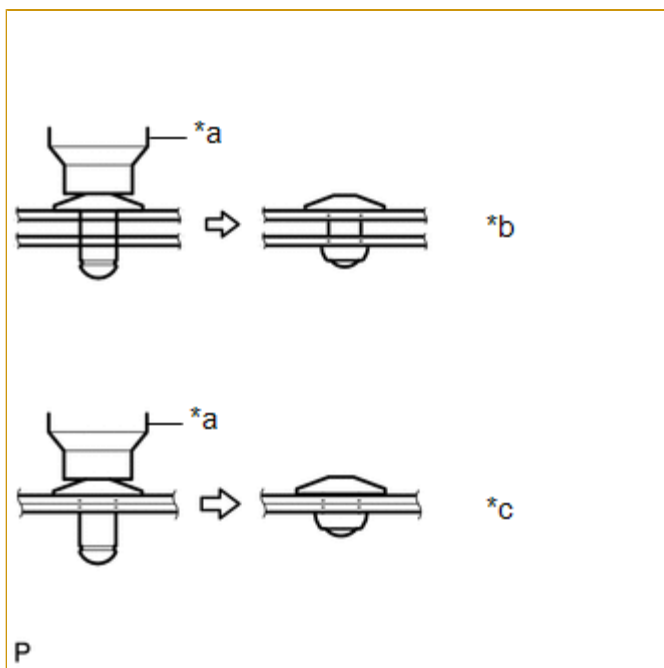
*1	Mandrel
*a	Riveter
*b	Incorrect
*c	Correct

- Confirm that the rivets are seated properly against the child restraint seat anchor bracket.



*a	Riveter
*b	Incorrect
*c	Correct

- Do not tilt the riveter when installing the child restraint seat anchor bracket with the rivet.
- Do not leave any space between the rivet heads and child restraint seat anchor bracket.
- Do not leave any space between the child restraint seat anchor bracket and front seat assembly. Firmly hold the child restraint seat anchor bracket and front seat assembly together while installing the rivet.



*a	Riveter
*b	Incorrect
*c	Correct

HINT:

- If the mandrel of the rivet does not come off on the first operation of the rivet gun, slide the rivet gun forward on the mandrel and operate it again.
- Use the same procedure for the opposite side.

2. INSTALL FRONT SEAT CUSHION SHIELD (for Manual Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

3. INSTALL FRONT SEAT CUSHION SHIELD (for Power Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

4. INSTALL FRONT SEAT CUSHION INNER SHIELD (for Power Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

5. INSTALL FRONT SEAT ASSEMBLY (for Power Seat)

HINT:

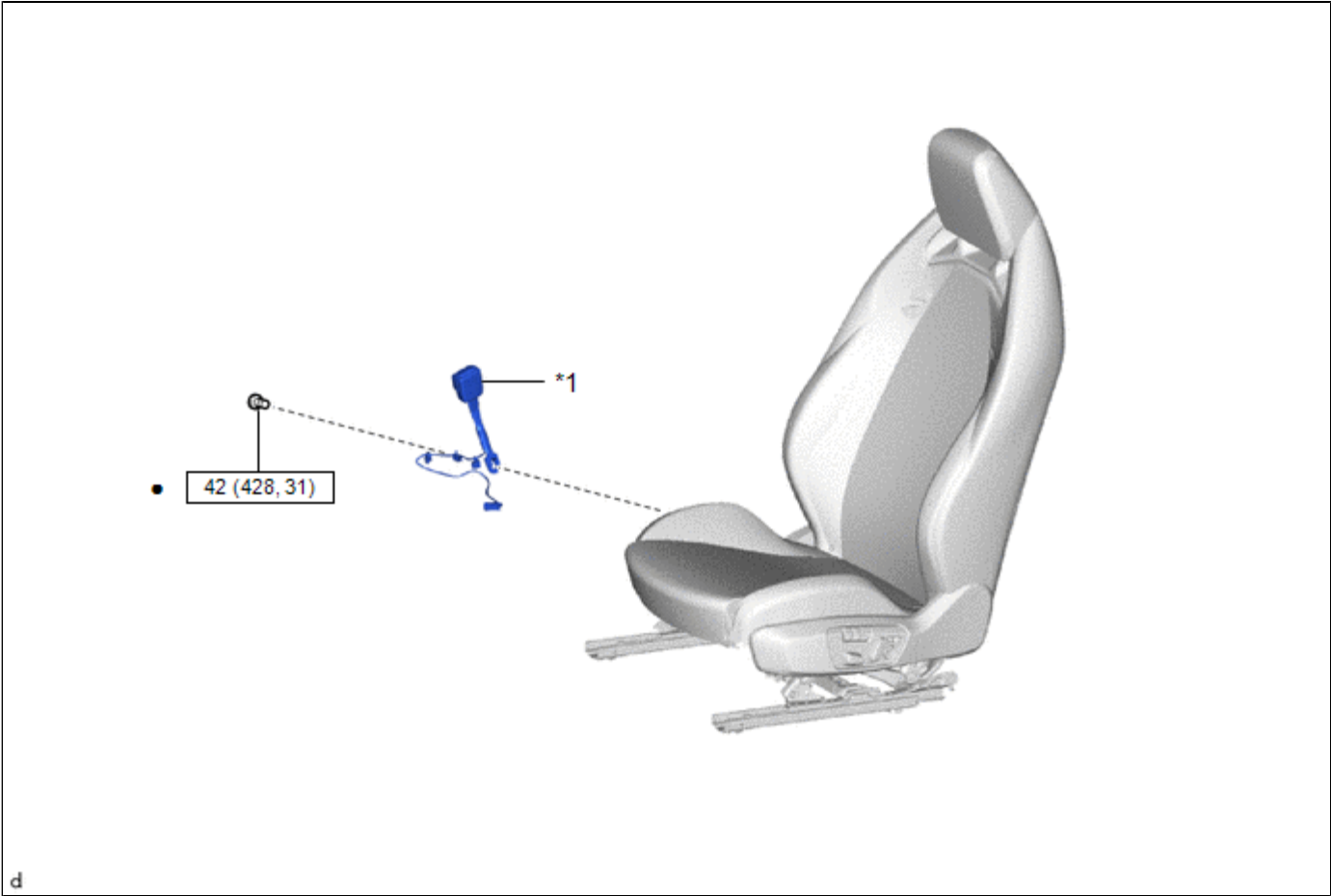
Use the same procedure as for the driver side.

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: FRONT SEAT INNER BELT ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT SEAT INNER BELT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: FRONT SEAT INNER BELT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

PROCEDURE

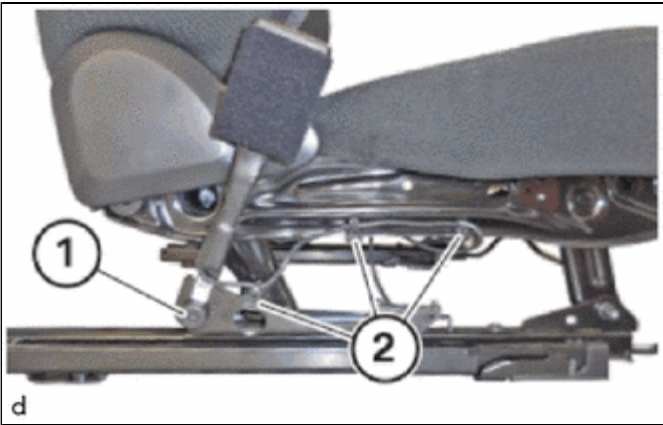
1. REMOVE FRONT SEAT ASSEMBLY (for Manual Seat)

Click here [INFO](#)

2. REMOVE FRONT SEAT ASSEMBLY (for Power Seat)

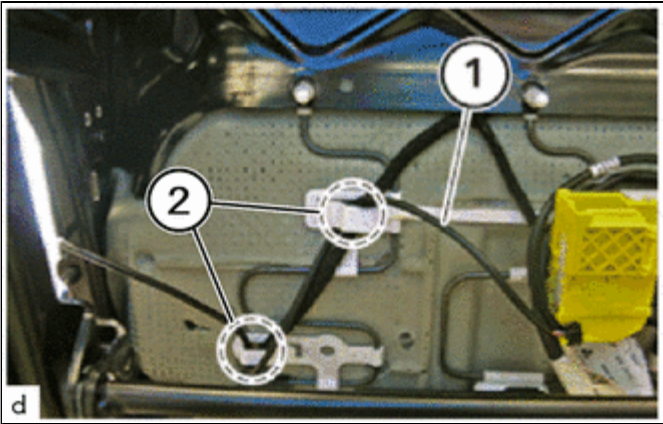
3. REMOVE FRONT SEAT INNER BELT ASSEMBLY

(a) Loosen the T50 bolt (1).

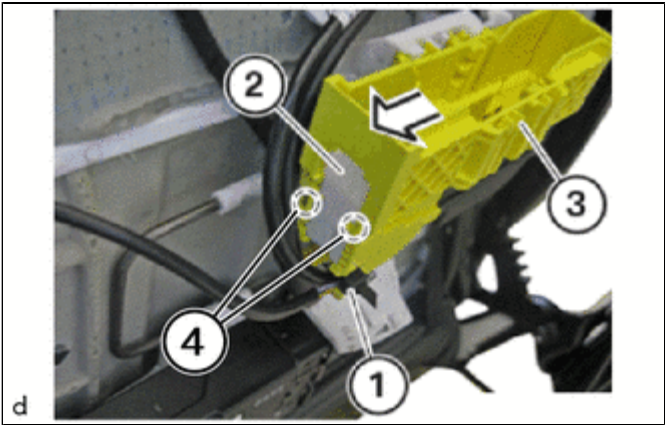


(b) Detach the clamps (2).

(c) Detach the cable (1) from the holder (2).



(d) Remove the tie band (1).



Remove in this Direction

(e) Detach the claws (4) carefully to remove the connector (2) from the connector housing (3) in the direction of the arrow.



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Title: SEAT BELT: FRONT SEAT INNER BELT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

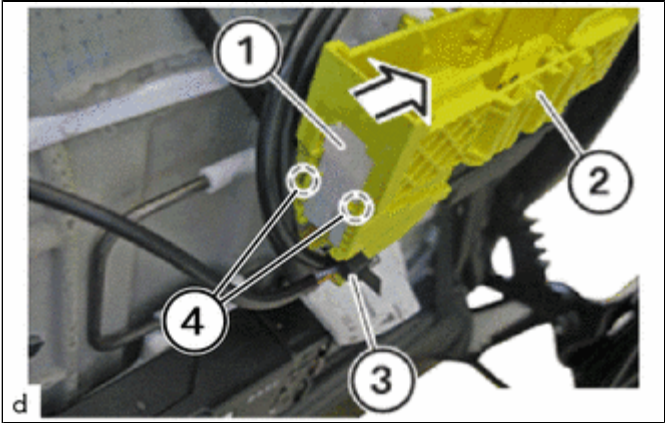
Wear protective gloves. Sharp areas on the parts may injure your hands.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

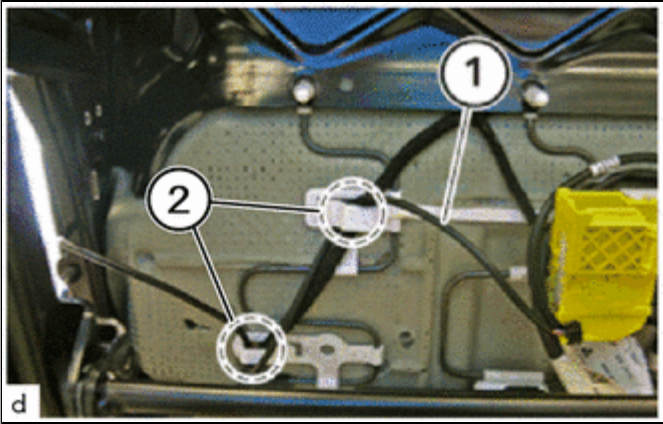
PROCEDURE

1. INSTALL FRONT SEAT INNER BELT ASSEMBLY



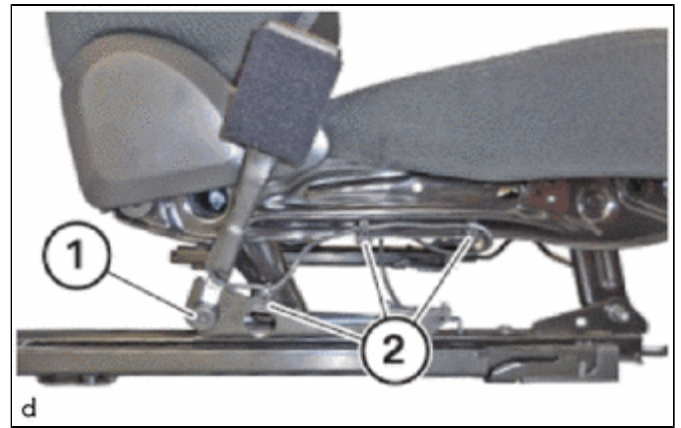
Install in this Direction

- (a) Attach the claws (4) to install the connector (1) to the connector housing (2) in the direction of the arrow.
- (b) Fasten the cables to the connector housing (2) with the tie band (3).



- (c) Attach the cable (1) in the holder (2).

(d) Replace the T50 bolt (1).



(e) Tighten the T50 bolt (1).

Torque:

42 N·m {428 kgf·cm, 31 ft·lbf}


(f) Attach the clamps (2).

2. INSTALL FRONT SEAT ASSEMBLY (for Manual Seat)

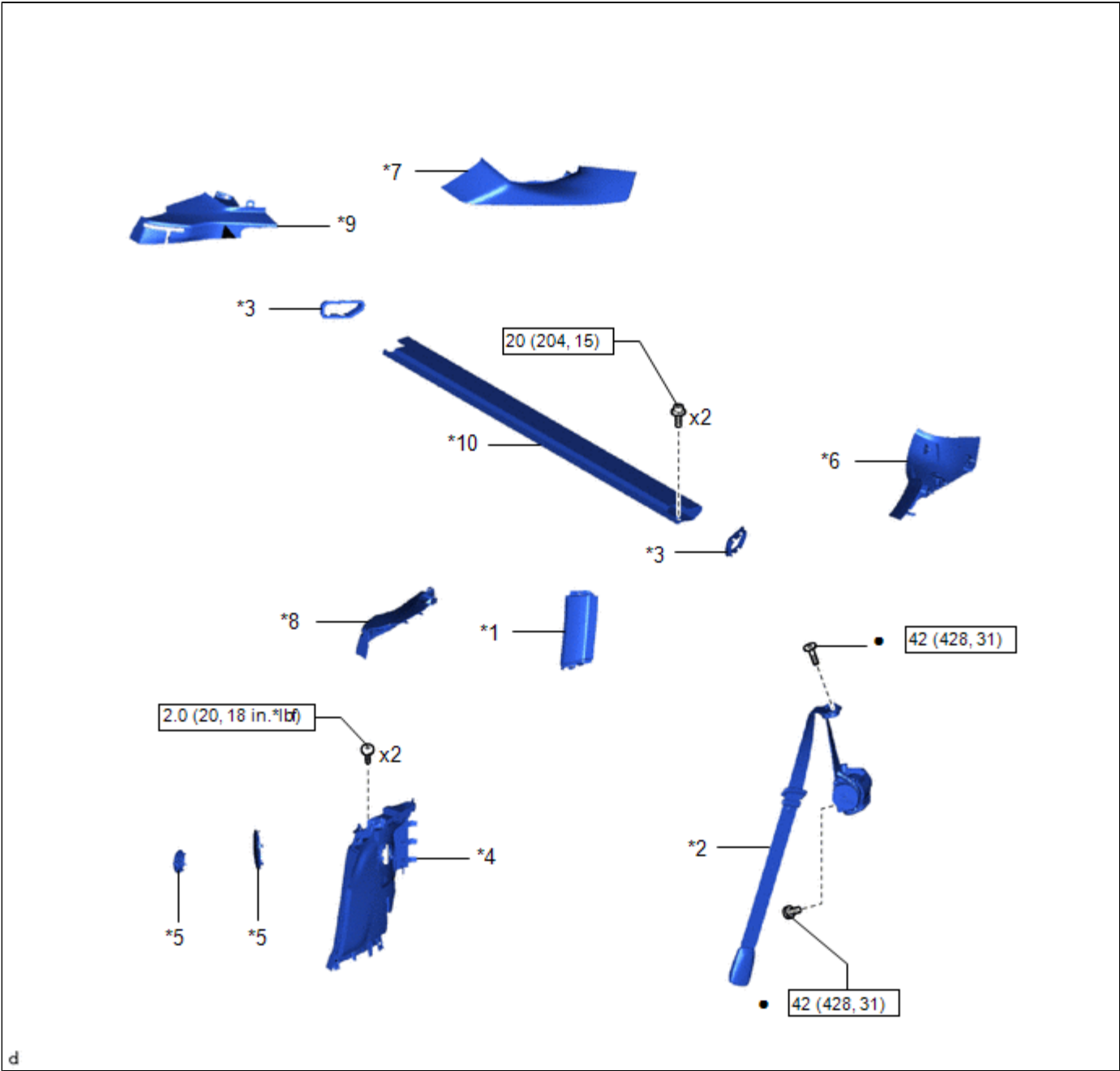
Click here [INFO](#)

3. INSTALL FRONT SEAT ASSEMBLY (for Power Seat)


Click here [INFO](#)

*C	for 10 Speakers	-	-
*1	DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH	*2	NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY
*3	DECK TRIM REAR COVER	*4	REAR NO. 2 SPEAKER ASSEMBLY
*5	REAR NO. 3 SPEAKER ASSEMBLY	*6	ROPE HOOK
*7	TRIANGLE REFLECTOR SET	*8	BACK DOOR STRIKER COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	CENTER PILLAR GARNISH ASSEMBLY	*2	FRONT SEAT OUTER BELT ASSEMBLY
*3	TRANSVERSE PIPE TRIM	*4	QUARTER TRIM UPPER PANEL

*5	REAR SPEAKER GRILLE SUB-ASSEMBLY	*6	ROOF SIDE INNER GARNISH ASSEMBLY LH
*7	ROOF SIDE INNER GARNISH ASSEMBLY RH	*8	SEAT BELT HOLE COVER SUB-ASSEMBLY LH
*9	SEAT BELT HOLE COVER SUB-ASSEMBLY RH	*10	TRANSVERSE PIPE
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

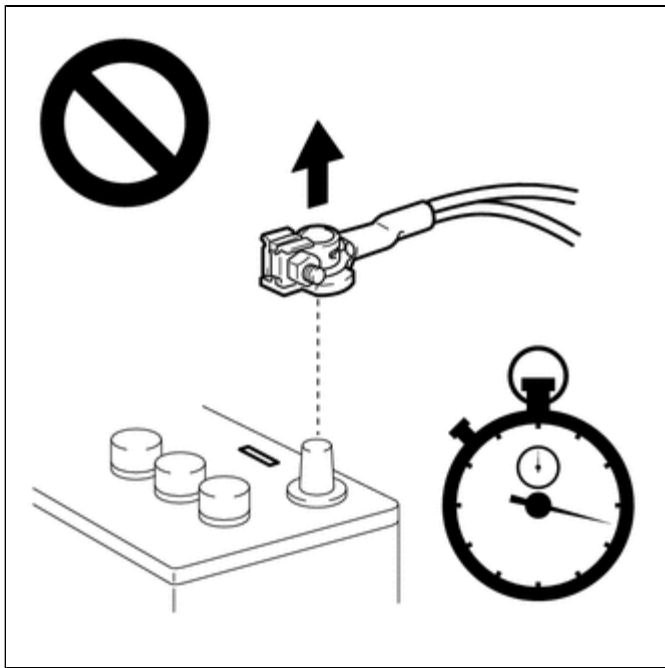
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



2. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

3. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

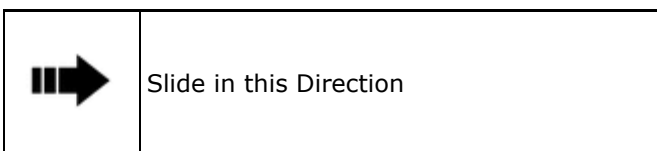
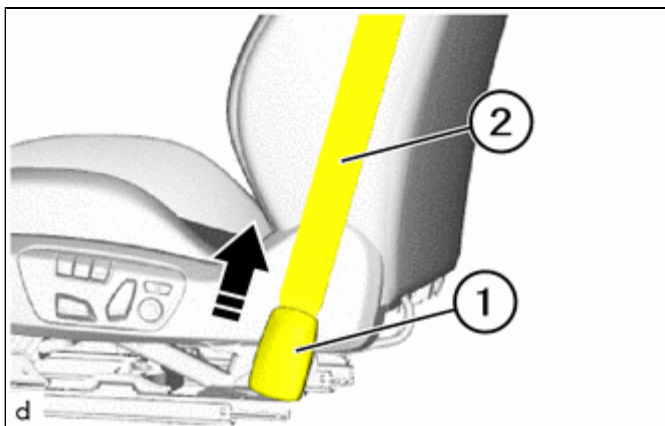
Use the same procedure as for the LH side.

4. SEPARATE TRANSVERSE PIPE TRIM

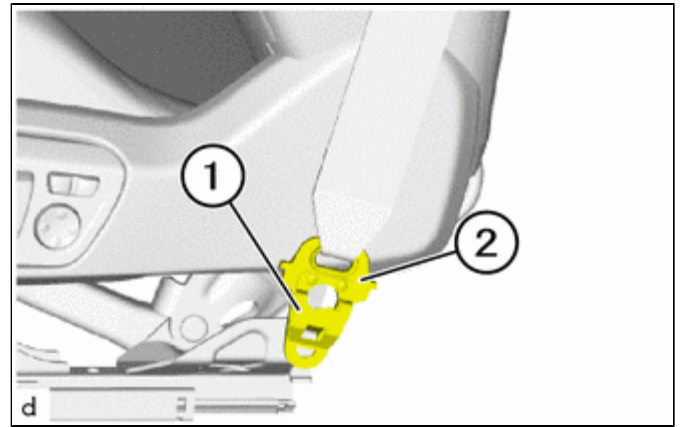
Click here [INFO](#)

5. DISCONNECT FRONT SEAT OUTER BELT ASSEMBLY

(a) Slide the cover (1) on the front seat outer belt assembly (2) in the upward direction.



(b) Turn the end fitting (2) to the rear.

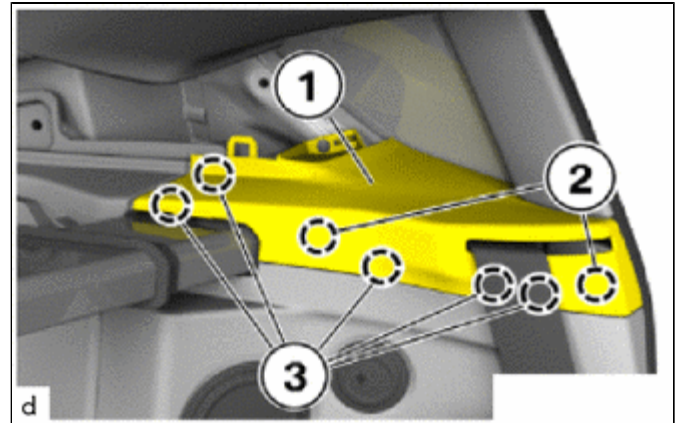


(c) Carefully pull the lock plate (1) outward to feed out the end fitting (2) to the front.

(d) Remove the end fitting (2) outward.

6. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY LH

(a) Detach the clips (2) and the claws (3) to remove the seat belt hole cover sub-assembly LH (1).



(b) Slide the seat belt hole cover sub-assembly LH (1) out under the front door opening trim weatherstrip to remove it.

(c) Slide the front seat outer belt assembly out through the slot of the seat belt hole cover sub-assembly LH (1).

7. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

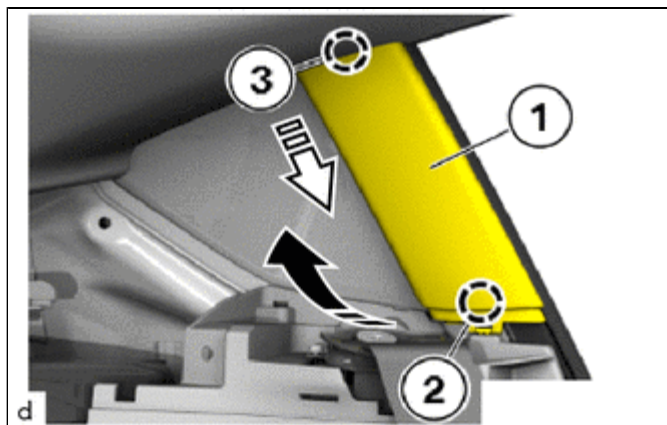
Use the same procedure as for the LH side.

8. REMOVE TRANSVERSE PIPE

Click here [INFO](#)

9. REMOVE CENTER PILLAR GARNISH ASSEMBLY

(a) Detach the clamp (2).



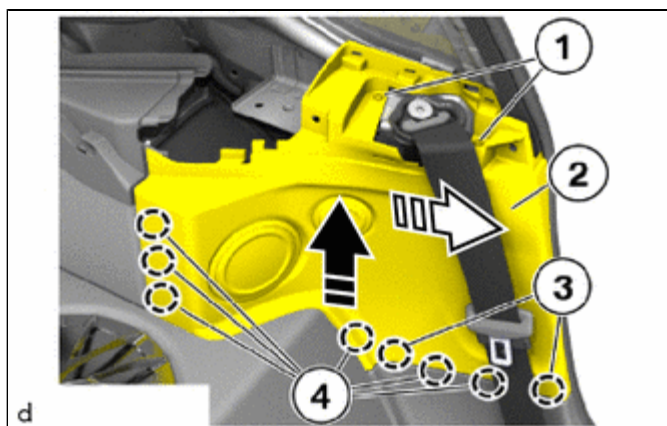
	Remove in this Direction (1)
	Remove in this Direction (2)

(b) Thread out the center pillar garnish assembly (1) under the front door opening trim weatherstrip.

(c) Detach the guide (3) to remove the center pillar garnish assembly (1).

10. REMOVE QUARTER TRIM UPPER PANEL

(a) Loosen the T20 screws (1).



	Remove in this Direction (1)
	Remove in this Direction (2)

(b) Thread out the quarter trim upper panel (2) under the front door opening trim weatherstrip.

(c) Detach the claws (3) and guides (4) to remove the quarter trim upper panel (2) as shown in the illustration.

(d) Take off the quarter trim upper panel (2) from the front seat outer belt assembly to remove.

11. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

12. REMOVE TRIANGLE REFLECTOR SET

Click here [INFO](#)

13. REMOVE DECK TRIM REAR COVER

Click here [INFO](#)

14. REMOVE ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

15. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

16. REMOVE REAR NO. 3 SPEAKER ASSEMBLY (for 12 Speakers)

Click here [INFO](#)

17. REMOVE REAR NO. 2 SPEAKER ASSEMBLY (for 10 Speakers)

HINT:

Use the same procedure as for the rear No. 3 speaker assembly.

18. REMOVE FRONT SEAT OUTER BELT ASSEMBLY

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

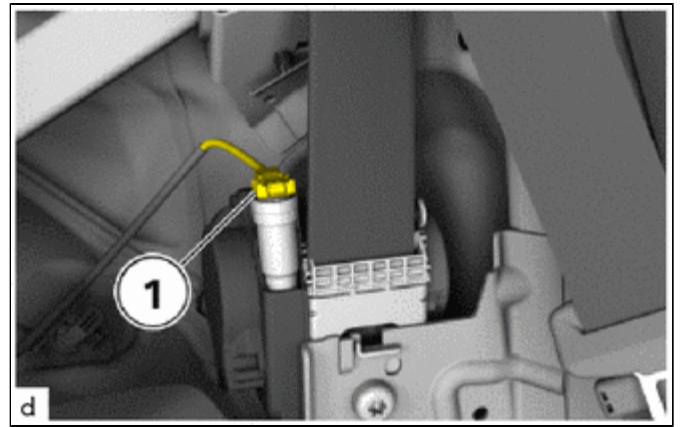
Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

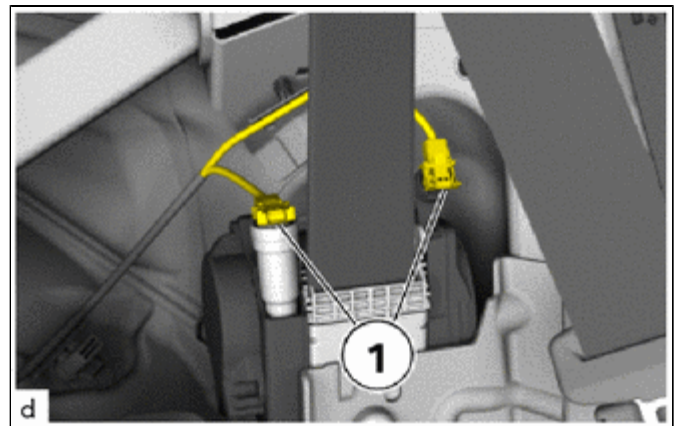
(a) for Type A:

(1) Disconnect the connector (1).

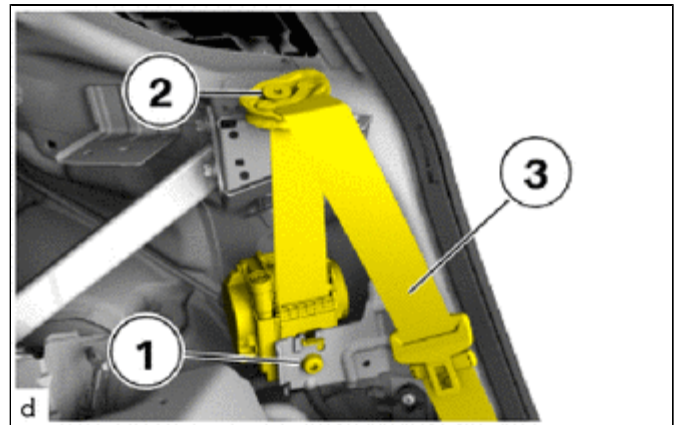


(b) for Type B:

(1) Disconnect the connectors (1).



(c) Loosen the T50 bolt (1) and bolt (2).



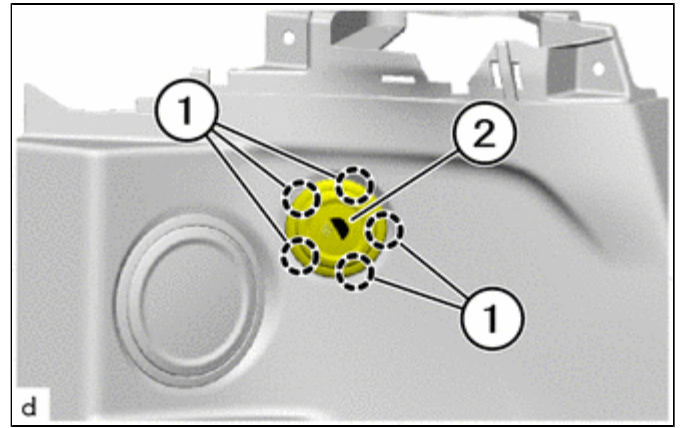
(d) Remove the front seat outer belt assembly (3).

19. REMOVE REAR SPEAKER GRILLE SUB-ASSEMBLY

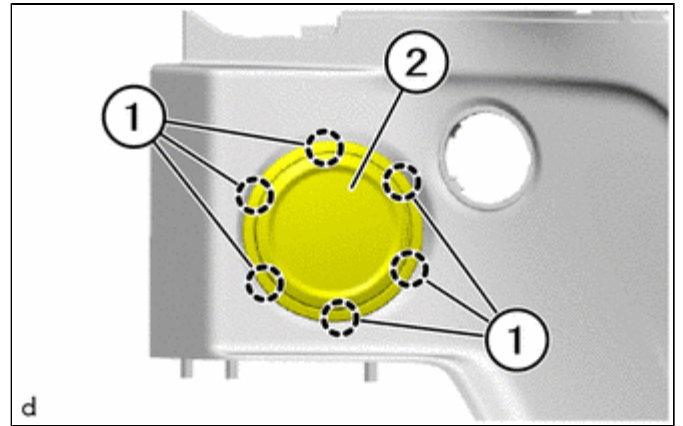
HINT:

Perform this procedure only when replacement of the rear speaker grille sub-assembly is necessary.

(a) Detach the claws (1) to remove the rear speaker grille sub-assembly (2).



(b) Detach the claws (1) to remove the rear speaker grille sub-assembly (2).



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Title: SEAT BELT: FRONT SEAT OUTER BELT ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the driver side and front passenger side.
- The procedure listed below is for the driver side.

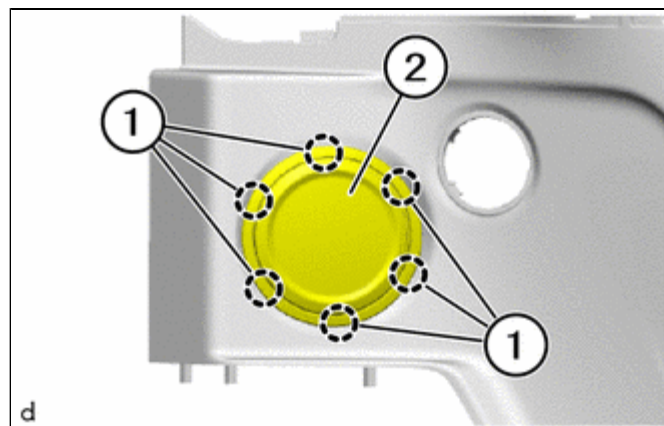
PROCEDURE

1. INSTALL REAR SPEAKER GRILLE SUB-ASSEMBLY

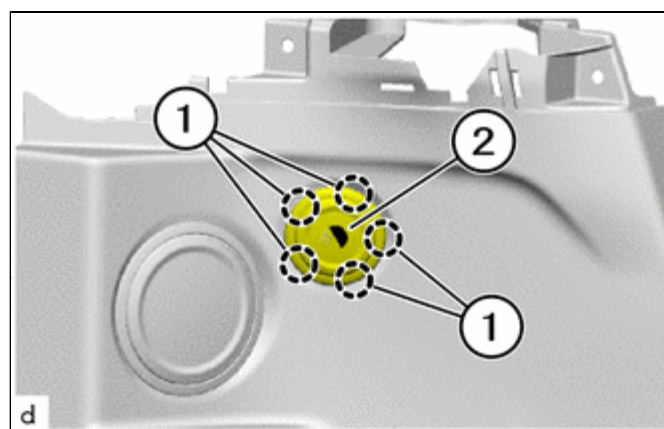
HINT:

Perform this procedure only when replacement of the rear speaker grille sub-assembly is necessary.

- (a) Attach the claws (1) to install the rear speaker grille sub-assembly (2).



- (b) Attach the claws (1) to install the rear speaker grille sub-assembly (2).



2. INSTALL FRONT SEAT OUTER BELT ASSEMBLY

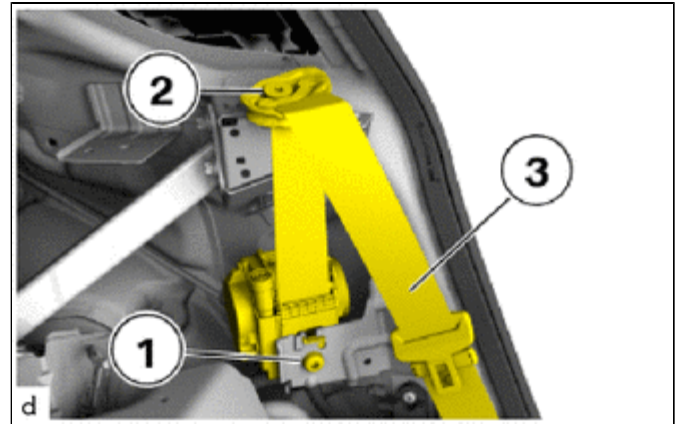
CAUTION:

Malfunction with incorrectly secured components.

Danger of injury!

- Ask a second person to check the torque or latch mechanism (four-eyes principle).
- Both persons must document that the work has been carried out correctly in the vehicle records.

(a) Correctly position the front seat outer belt assembly (3).



(b) Replace the T50 bolt (2).

(c) Tighten the T50 bolt (2).

Torque:

42 N·m {428 kgf·cm, 31 ft·lbf}

(d) Replace the T50 bolt (1).

(e) Tighten the T50 bolt (1).

Torque:

42 N·m {428 kgf·cm, 31 ft·lbf}

(f) for Type A:

(1) Connect the connector.

NOTICE:

Securely lock the locking button.

(g) for Type B:

(1) Connect the connectors.

NOTICE:

Securely lock the locking button.

3. INSTALL REAR NO. 3 SPEAKER ASSEMBLY (for 12 Speakers)

Click here [INFO](#)

4. INSTALL REAR NO. 2 SPEAKER ASSEMBLY (for 10 Speakers)

HINT:

Use the same procedure as for the rear No. 3 speaker assembly.

5. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

6. INSTALL ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

7. INSTALL DECK TRIM REAR COVER

Click here [INFO](#)

8. INSTALL TRIANGLE REFLECTOR SET

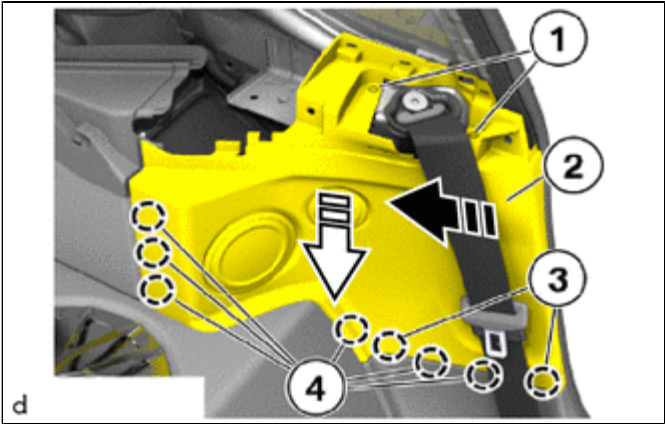
Click here [INFO](#)



9. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

10. INSTALL QUARTER TRIM UPPER PANEL

(a) Position the quarter trim upper panel (2).



	Install in this Direction (1)
	Install in this Direction (2)

(b) Attach the guides (4) and claws (3) to install the quarter trim upper panel (2).

(c) Thread the quarter trim upper panel (2) under the front door opening trim weatherstrip.

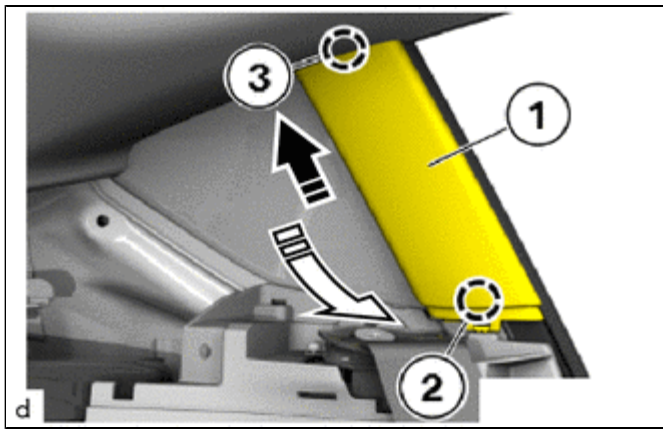
(d) Tighten the T20 screws (1).



Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

11. INSTALL CENTER PILLAR GARNISH ASSEMBLY

(a) Attach the guide (3).



	Install in this Direction (1)
	Install in this Direction (2)

(b) Slide in the center pillar garnish assembly (1) under the front door opening trim weatherstrip.

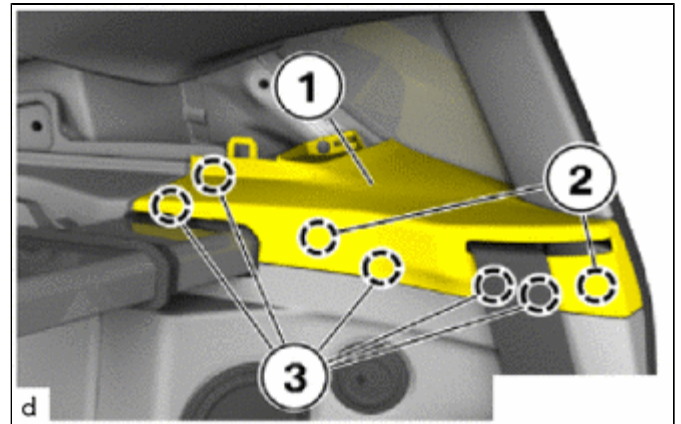
(c) Attach the clamp (2) to install the center pillar garnish assembly (1).

12. INSTALL TRANSVERSE PIPE

Click here [INFO](#)

13. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY LH

(a) Insert the front seat outer belt assembly through the slot of the seat belt hole cover sub-assembly LH (1).



(b) Slide the seat belt hole cover sub-assembly LH (1) in under the front door opening trim weatherstrip.

(c) Attach the clips (2) and claws (3) to install the seat belt hole cover sub-assembly LH (1).

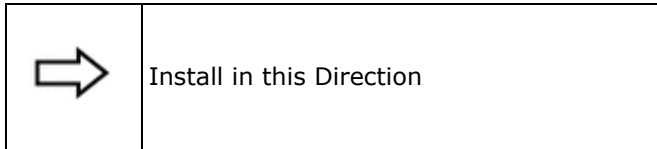
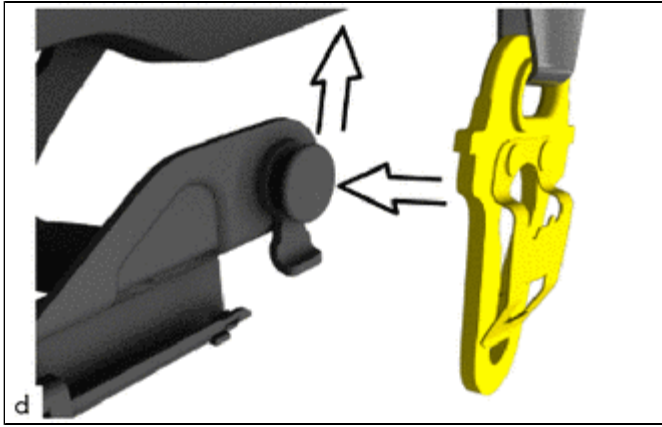
14. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

15. CONNECT FRONT SEAT OUTER BELT ASSEMBLY

(a) Insert the end fitting in the direction of the arrow.



CAUTION:

- Malfunction with incorrectly secured components.

Danger of injury!

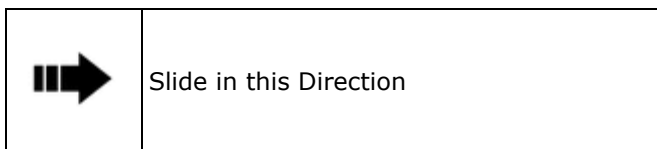
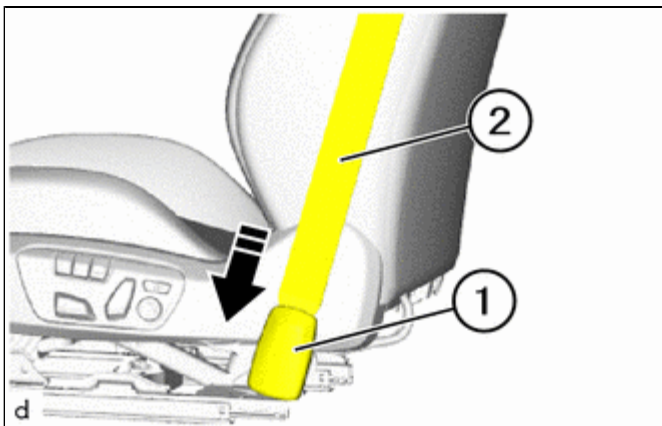
- Ask a second person to check the torque or latch mechanism (four-eyes principle).
- Both persons must document that the work has been carried out correctly in the vehicle records.

(b) Pull the end fitting in the direction of the arrow until the lock plate engages audibly.

NOTICE:

The end fitting can be turned on the bolt if the lock plate is engaged correctly.

(c) Slide the cover (1) on the front seat outer belt assembly (2) in the downward direction.



(d) Perform the concluding check: Pull the end fitting forward, upward and backward.

16. CONNECT TRANSVERSE PIPE TRIM

Click here [INFO](#)

17. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

18. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

19. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

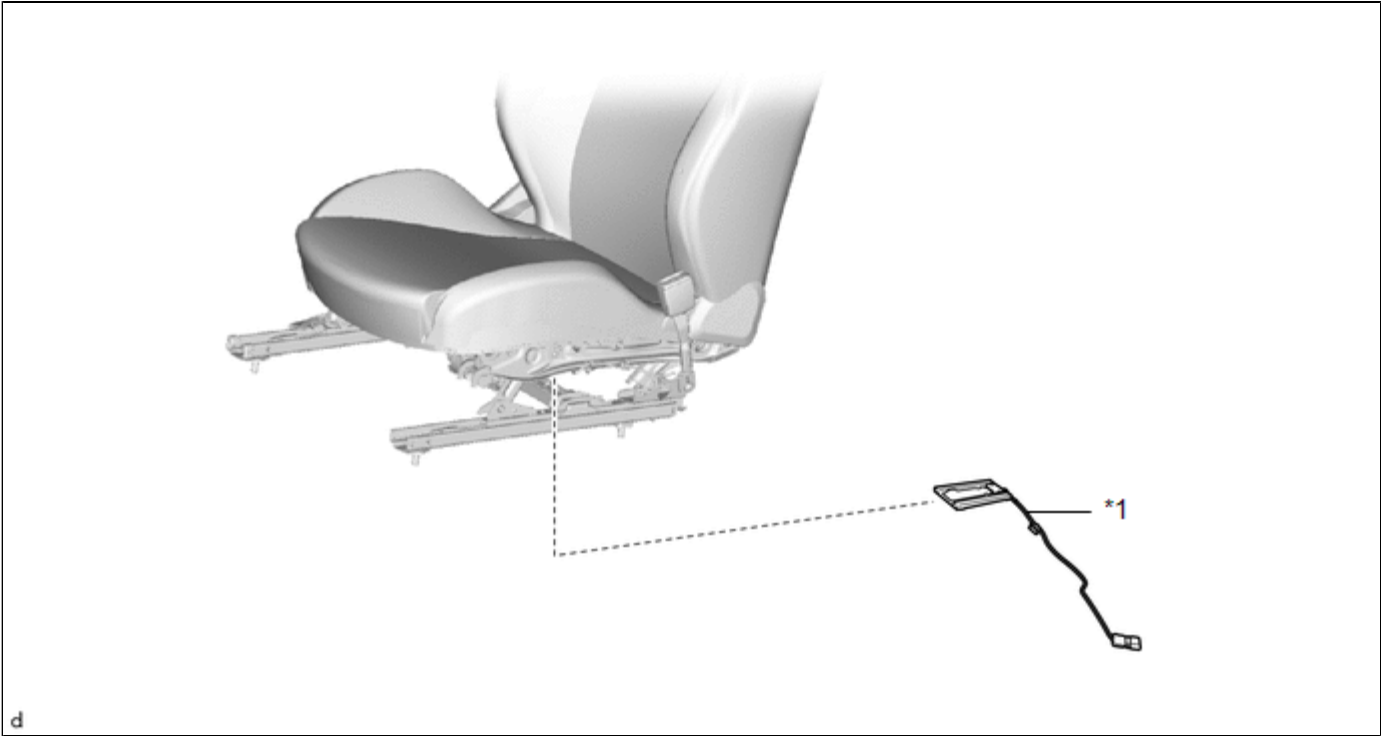
Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: OCCUPANT DETECTION SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BELT WARNING OCCUPANT DETECTION SENSOR	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: OCCUPANT DETECTION SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY (for Manual Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

2. REMOVE FRONT SEAT ASSEMBLY (for Power Seat)

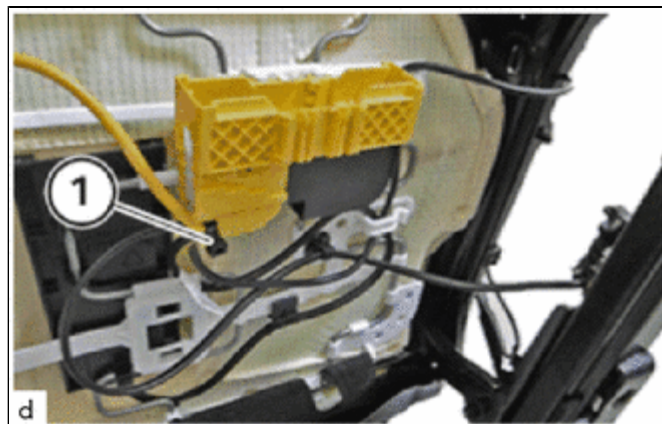
HINT:

Use the same procedure as for the driver side.

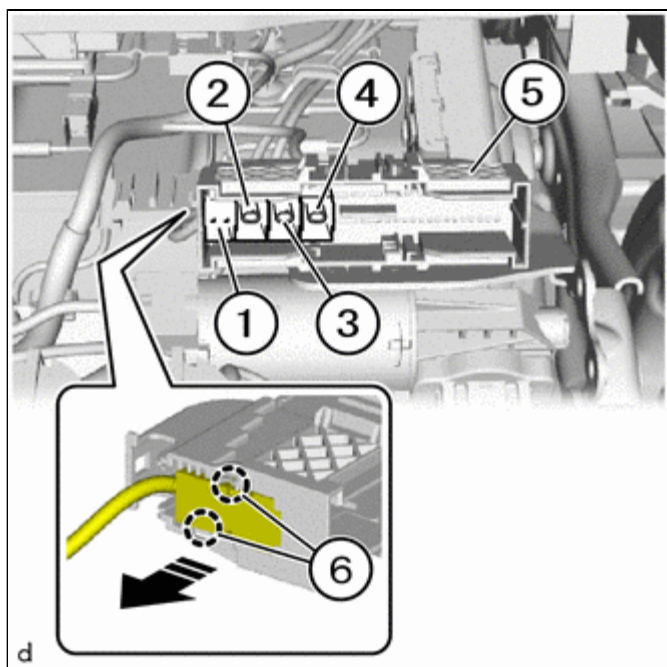
Click here [INFO](#)

3. REMOVE BELT WARNING OCCUPANT DETECTION SENSOR

(a) Remove the tie band (1).

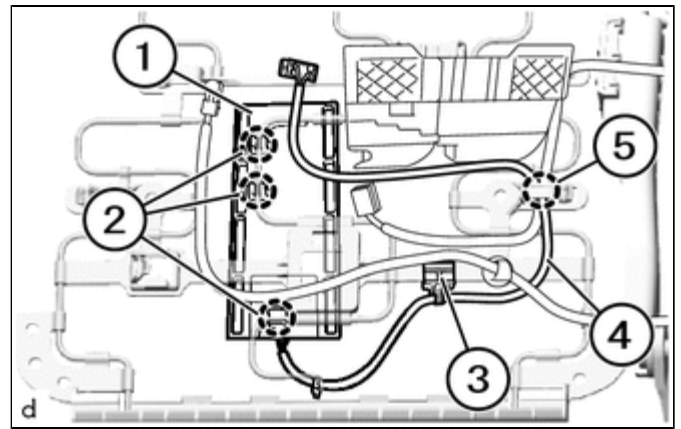


(b) Detach the claws (6) to remove the connectors in order from (1) to (4) from the connector housing (5) in the direction of the arrow.



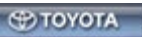
Remove in this Direction

(c) Detach the claws (2) and clamp (3).



(d) Detach the cable (4) from the holder (5).

(e) Remove the belt warning occupant detection sensor (1) from the front seat assembly carefully.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCHT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SEAT BELT: OCCUPANT DETECTION SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

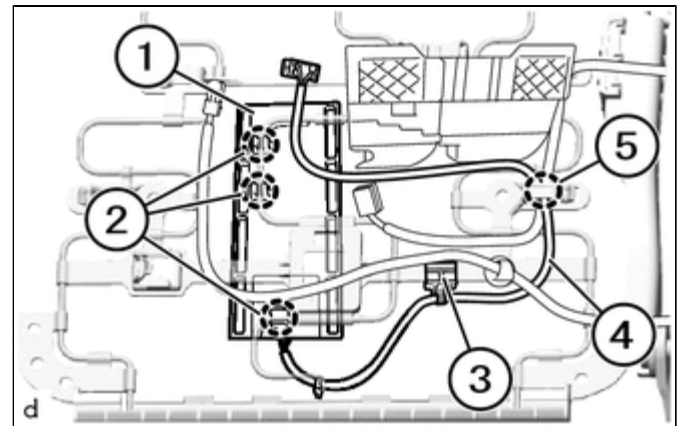
CAUTION:

Wear protective gloves. Sharp areas on the parts may injure your hands.

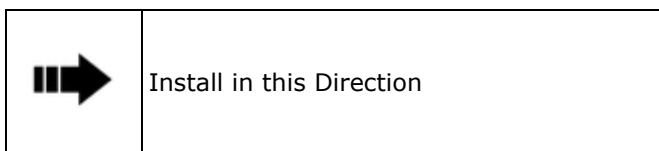
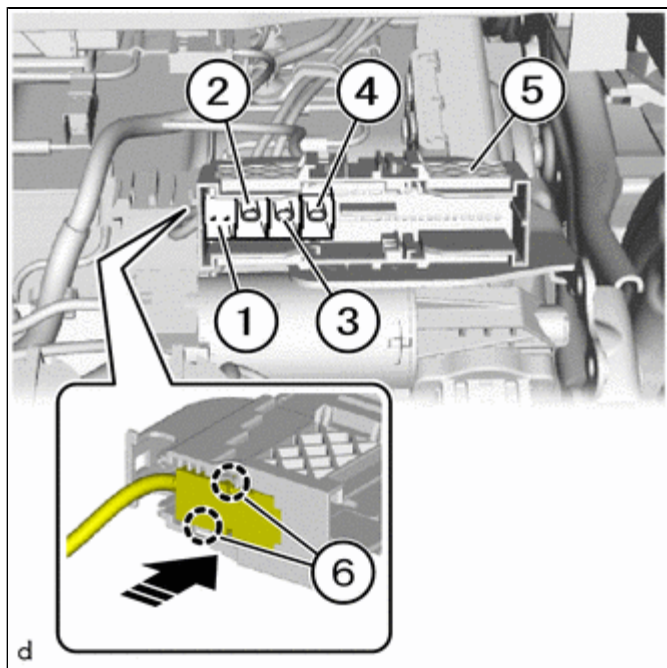
PROCEDURE

1. INSTALL BELT WARNING OCCUPANT DETECTION SENSOR

- (a) Install the belt warning occupant detection sensor (1) to the front seat assembly carefully.



- (b) Attach the cable (4) to the holder (5).
- (c) Attach the claws (2) and clamp (3).
- (d) Attach the claws (6) correctly to install the connectors to the connector housing (5) in order of (4) to (1) in the direction of the arrow.



(e) Fasten the tie band.

2. INSTALL FRONT SEAT ASSEMBLY (for Manual Seat)

HINT:

Use the same procedure as for the driver side.

Click here [INFO](#)

3. INSTALL FRONT SEAT ASSEMBLY (for Power Seat)

HINT:

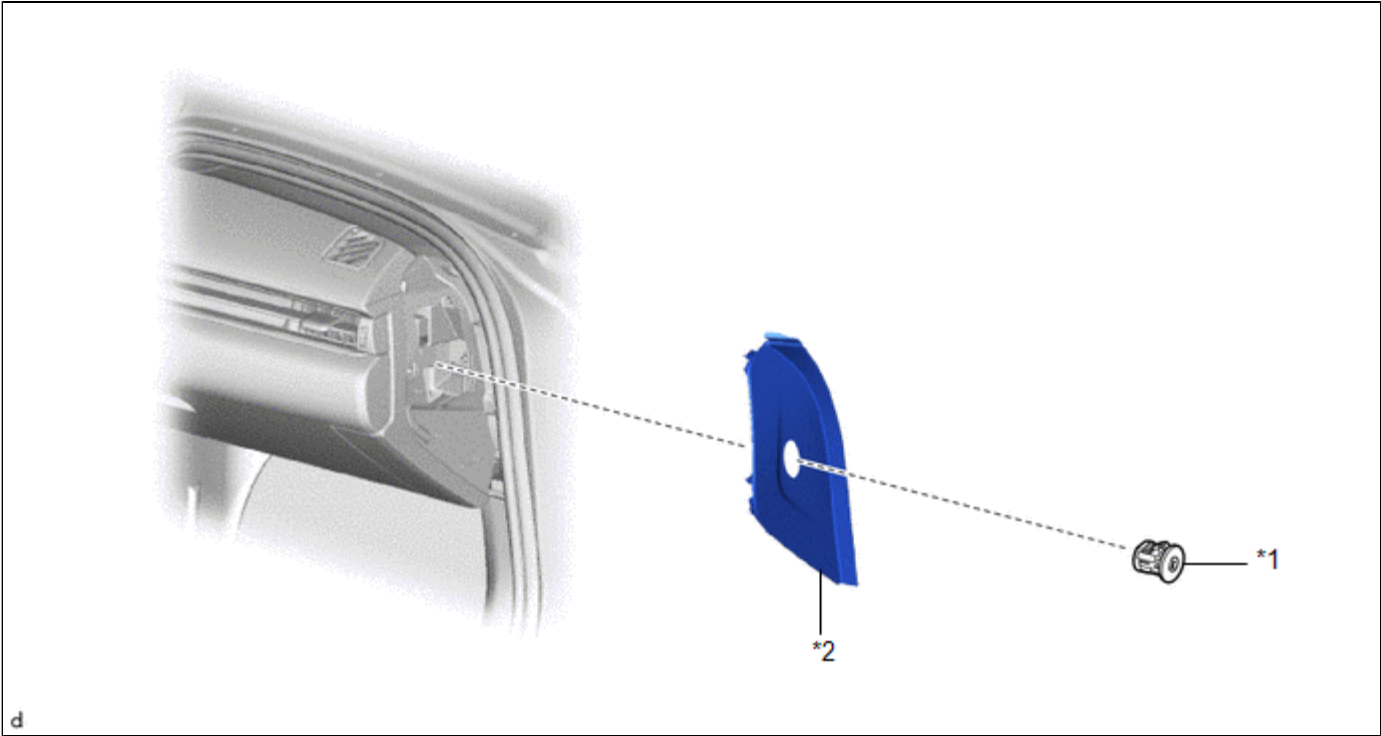
Use the same procedure as for the driver side.

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG CUT-OFF SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIRBAG CUT OFF SWITCH CYLINDER SUB-ASSEMBLY	*2	NO. 1 INSTRUMENT SIDE PANEL
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG CUT-OFF SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

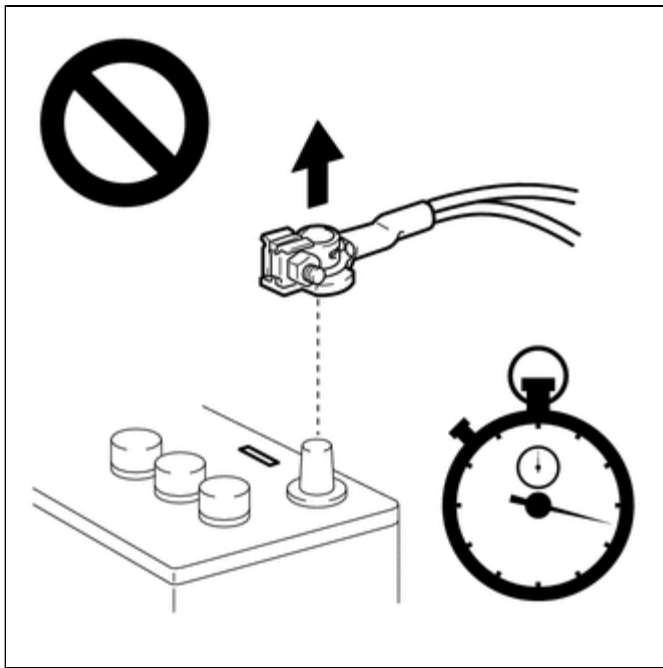
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

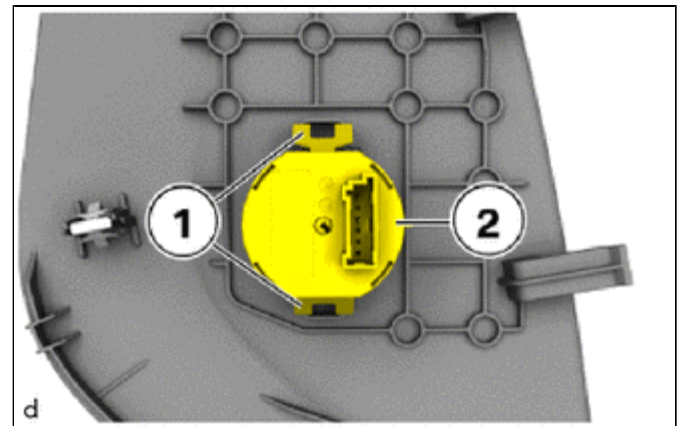


2. REMOVE NO. 1 INSTRUMENT SIDE PANEL

Click here [INFO](#)

3. REMOVE AIRBAG CUT OFF SWITCH CYLINDER SUB-ASSEMBLY

(a) Detach the clamps (1) to remove the airbag cut off switch cylinder sub-assembly (2).



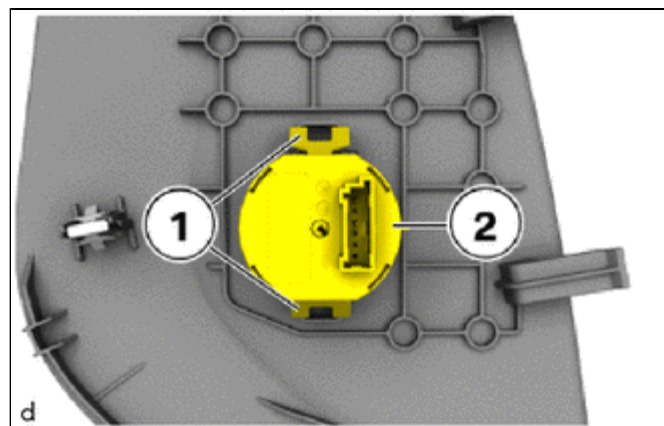
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG CUT-OFF SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIRBAG CUT OFF SWITCH CYLINDER SUB-ASSEMBLY

- (a) Attach the clamps (1) to install the airbag cut off switch cylinder sub-assembly (2).



2. INSTALL NO. 1 INSTRUMENT SIDE PANEL

Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCK1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

CAUTION:

Failure to comply with the warning notices and repair notes for gas generator components can cause accidental deployment and result in injury and vehicle damage!

(a) This applies in particular to the following components.

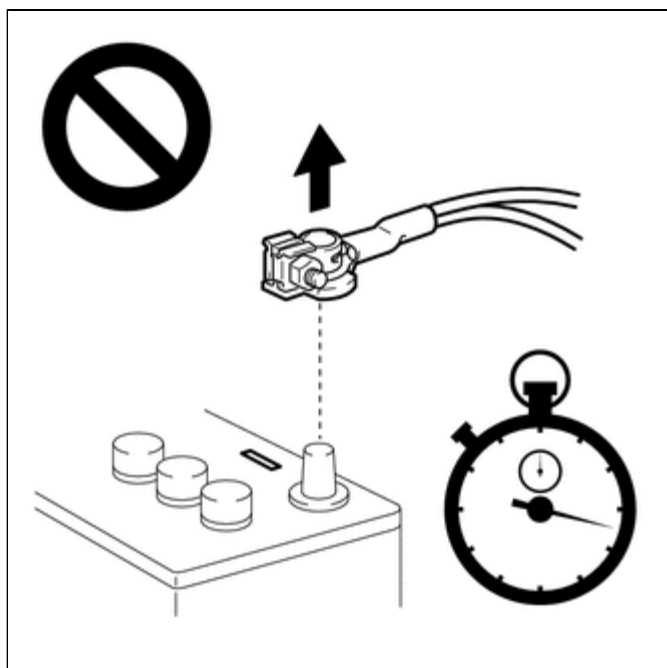
- Horn button assembly
- Instrument panel passenger without door airbag assembly
- Front seat airbag assembly
- Front seat outer belt assembly
- Curtain shield airbag assembly
- Lower No. 1 instrument panel airbag assembly
- Lower No. 2 instrument panel airbag assembly
- Safety battery terminal
- Airbag sensor
- Side airbag pressure sensor

PRECAUTION FOR DISCONNECTING CABLE FROM NEGATIVE BATTERY TERMINAL

(a) Work on components of the airbag system should only ever be carried out with the battery disconnected, the negative terminal post covered and the plug connection of the cable leading to the gas generator disconnected. If only the vehicle battery is disconnected, the prescribed waiting period of 60 seconds must be observed without fail.

CAUTION:

The SRS is equipped with a back-up power source. If work is started within 60 seconds of disconnecting the cable from the negative (-) battery terminal, the SRS parts may deploy.



GENERAL PRECAUTION

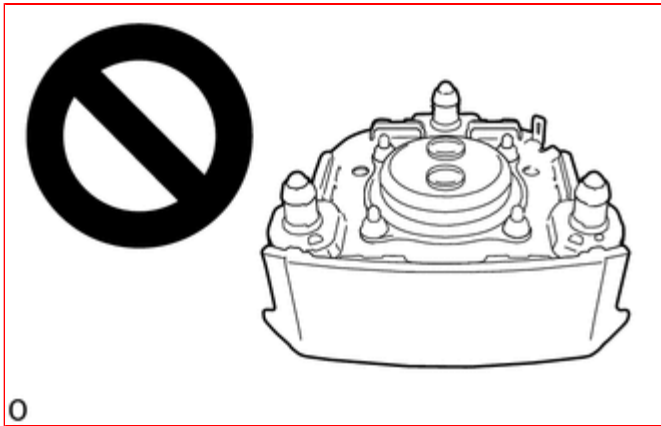
(a) When handling, transporting and storing gas generators, observe the country-specific regulations!

- (b) Checking and installation work must be carried out by professionally trained personnel only.
- (c) In the event of breaks in work, a component with a gas generator that has been removed must be secured against access by other persons.
- (d) Individual components must never be repaired. Instead, always replace them.
- (e) Do not treat airbag system components with cleaning agents or grease.
- (f) Components of the airbag system must not be exposed to temperatures in excess of 75 °C (167 °F).
- (g) Airbag system components, including electronic diagnostic components, which have been dropped from heights in excess of 0.5 m (1.64 ft.) must not be reinstalled in the vehicles.
- (h) Do not remove components of the airbag system from the original packaging until immediately before they are to be installed in the vehicle.
- (i) Before installing, subject components such as housing, connector pins, etc. of the airbag system to a visual inspection for damage and replace if necessary.
- (j) Airbag system components may only be electrically tested while they are installed and only with the diagnosis system.
- (k) Components with gas generators must not be fired while they are removed. They must be disposed of by special disposal companies or returned to the manufacturer in the packaging of the new parts.
- (l) Avoid all contact with the skin when removing a fired airbag module - wear gloves. Wash with water after contact with the skin.

PRECAUTION FOR HORN BUTTON ASSEMBLY, INSTRUMENT PANEL PASSENGER WITHOUT DOOR AIRBAG ASSEMBLY, FRONT SEAT AIRBAG ASSEMBLY, CURTAIN SHIELD AIRBAG ASSEMBLY, LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY, LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

CAUTION:

- Danger of injury
 - The airbag module may only be set down with the airbag itself facing upwards. Otherwise the airbag module will be thrown upwards if the gas generator is ignited.



- (a) Do not point the ignition squib of a gas generator at other persons.
- (b) When storing an airbag, do not place anything on top of it or place it in a pile.

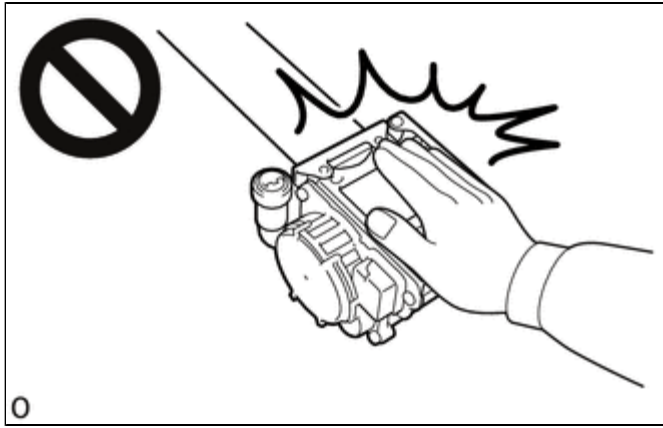
PRECAUTION FOR FRONT SEAT OUTER BELT ASSEMBLY (PRETENSIONER)

- (a) Do not point the ignition squib of a gas generator at other persons.
- (b) Do not touch the area around the retractor, even when a front seat outer belt assembly or rear seat outer belt assembly is temporarily removed during service.

CAUTION:

If the pretensioner unexpectedly deploys and the front seat outer belt assembly or rear seat outer belt assembly is

retracted during an operation, it could cause a serious accident.



(c) When storing a pretensioner, do not place objects on top of it or place it in a pile.

PRECAUTION FOR SAFETY BATTERY TERMINAL

(a) Do not point the ignition squib of a gas generator at other persons.

PRECAUTION FOR AIRBAG SENSOR

(a) If a sensor has been dropped make sure to replace it with a new one.

(b) If a sensor has been subjected to strong impact make sure to replace it with a new one.

(c) Individual components must never be repaired. Instead, always replace them.

WHEN SERVICING DAMEGED VEHICLE

(a) When carrying out straightening and welding work with an electric welder:

(1) Disconnect battery.

(2) Cover negative terminal (post).

PRECAUTION FOR SIDE AIRBAG PRESSURE SENSOR

(a) Do not treat airbag system components with cleaning agents or grease.

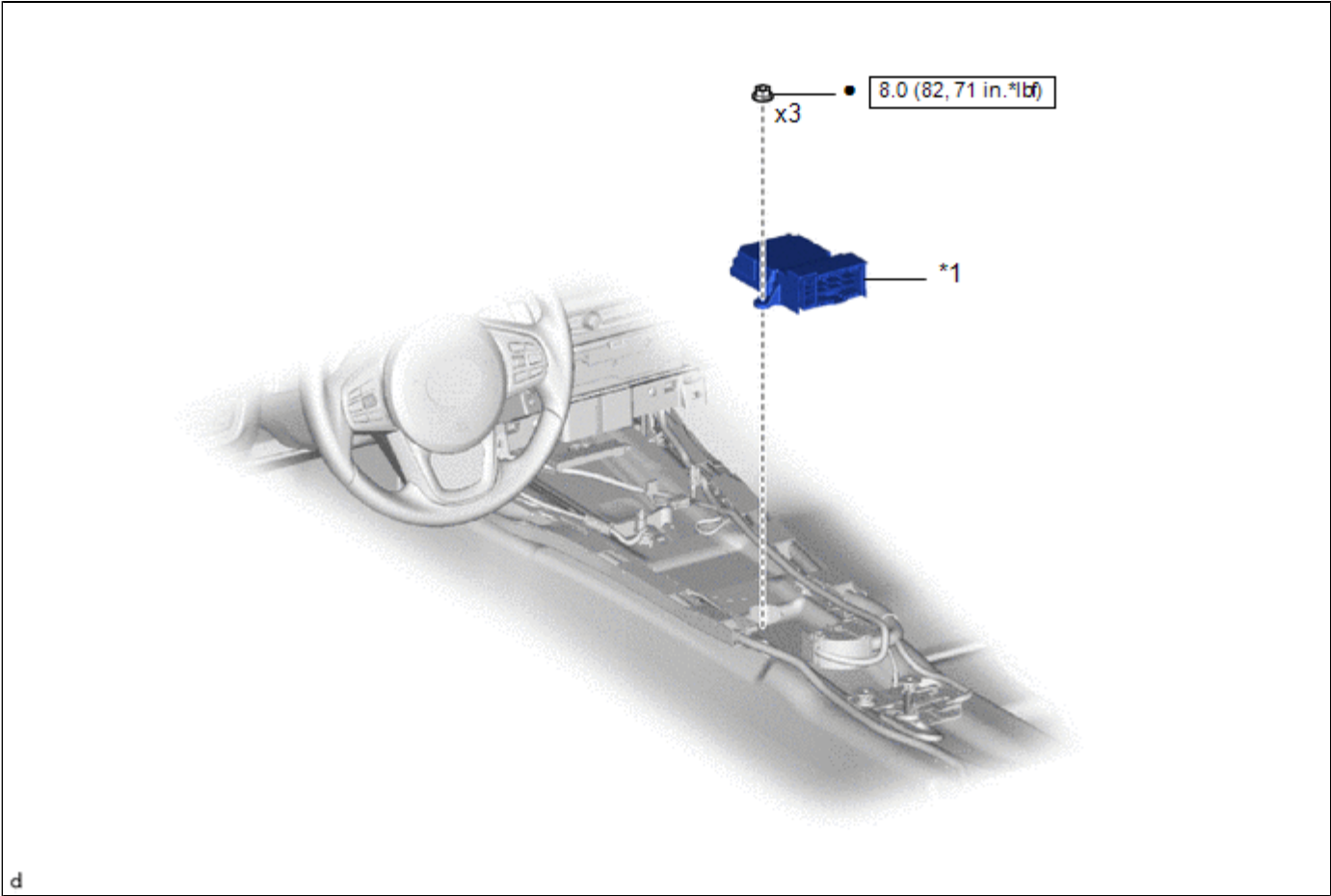
(b) Do not make any modifications to the front door that may change the inner pressure of the front door.

(c) Individual components must never be repaired. Instead, always replace them.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIRBAG ECU ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE CONSOLE BOX ASSEMBLY

Click here [INFO](#)

2. REMOVE AIRBAG ECU ASSEMBLY

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

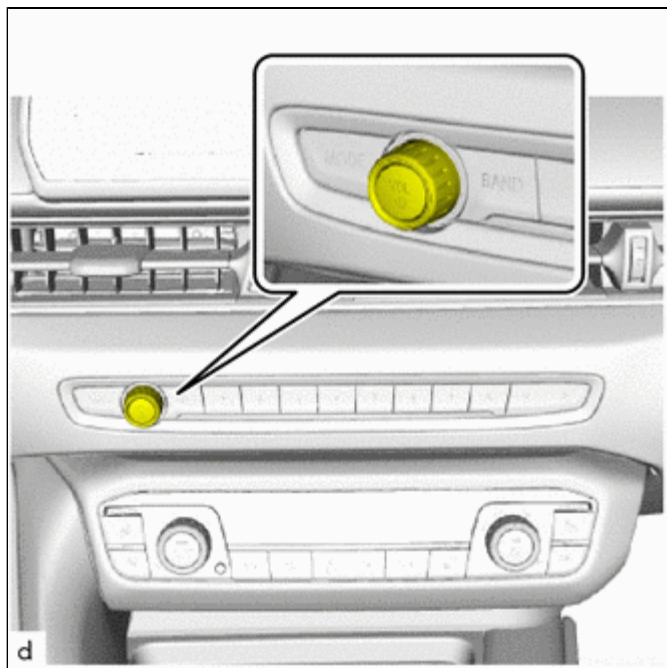
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

[Click here](#) 

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

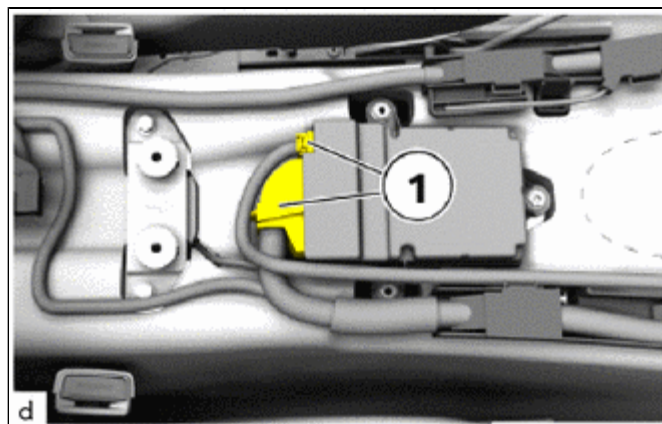


(b) Check that the cable is disconnected from the negative (-) battery terminal.

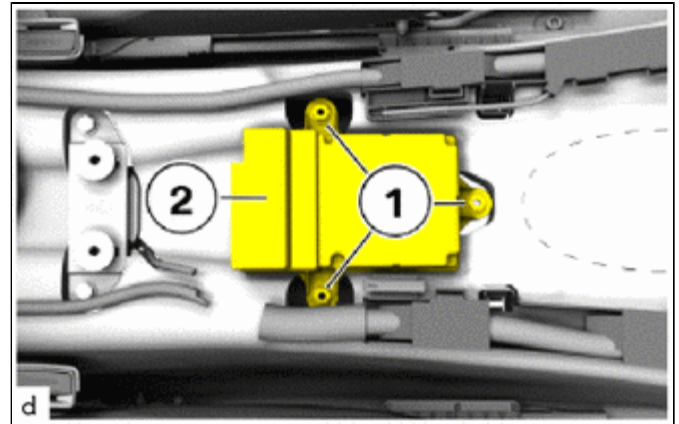
CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Unlock the plug connection (1) and disconnect.



(d) Loosen the nuts (1).



(e) Remove the airbag ECU assembly (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

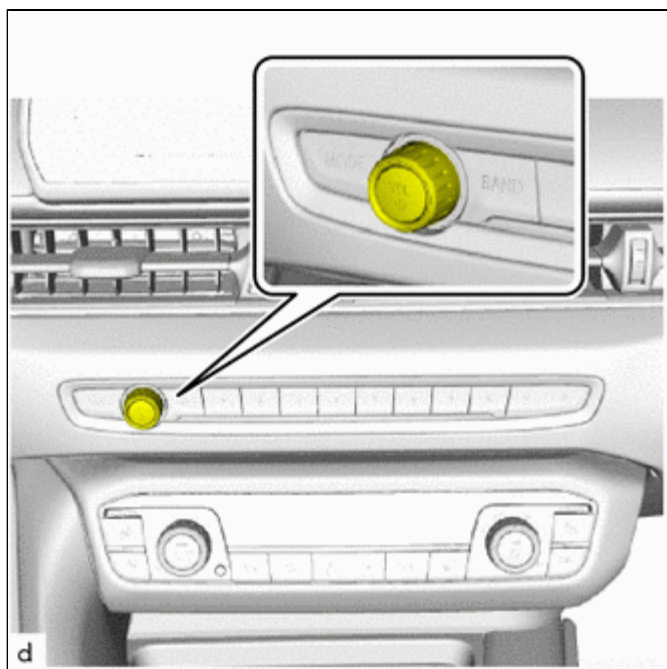
PROCEDURE

1. INSTALL AIRBAG ECU ASSEMBLY

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

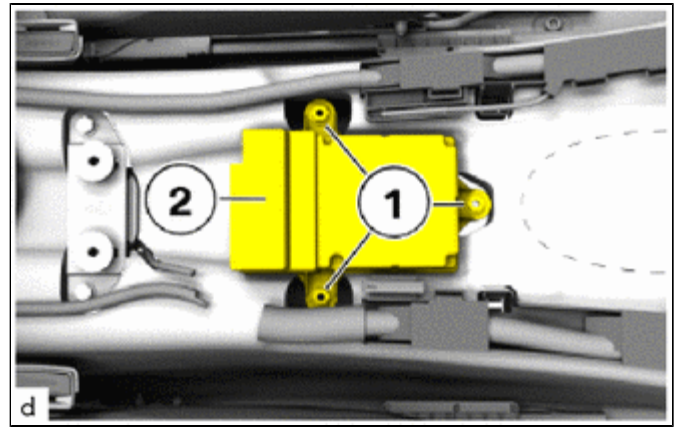
(c) Install the airbag ECU assembly (2).

(d) Replace the nuts (1).

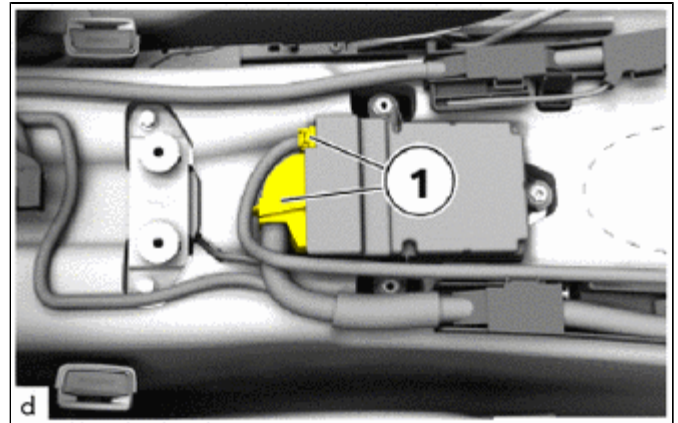
(e) Tighten the nuts (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



(f) Connect the connectors (1) and lock.



2. INSTALL CONSOLE BOX ASSEMBLY

Click here [INFO](#)

3. ADJUST AIRBAG ECU ASSEMBLY

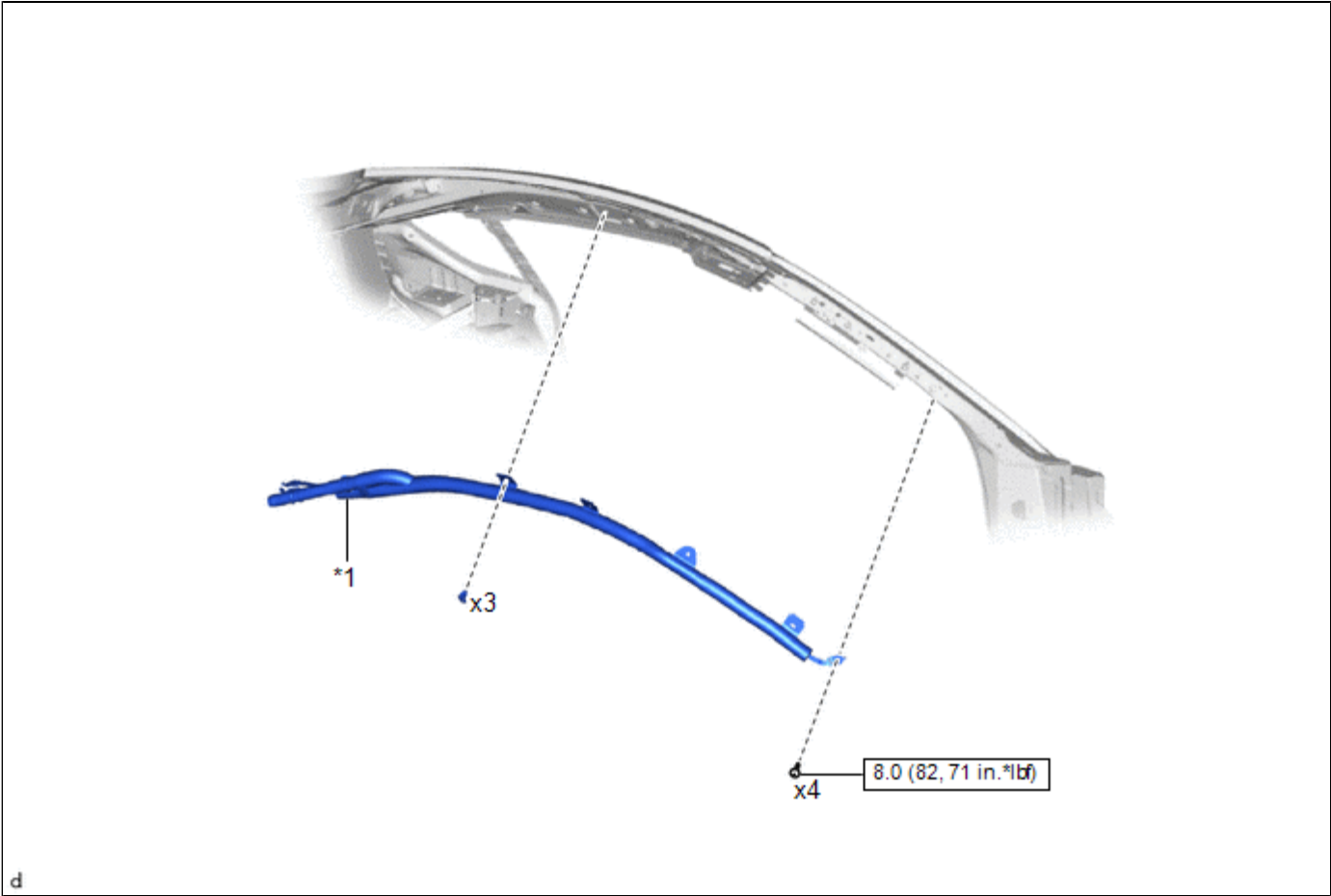
(a) Connect the diagnosis system to the vehicle and enter the following menus:

Service functions / Chassis / Traction control system / Adjustment of the driving dynamics sensors

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



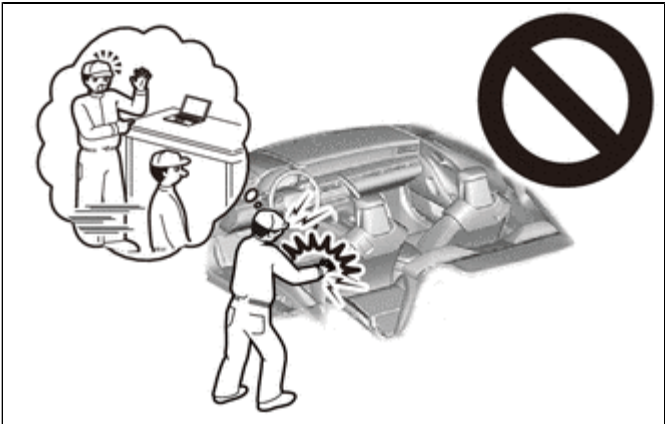
*1	CURTAIN SHIELD AIRBAG ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJ5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

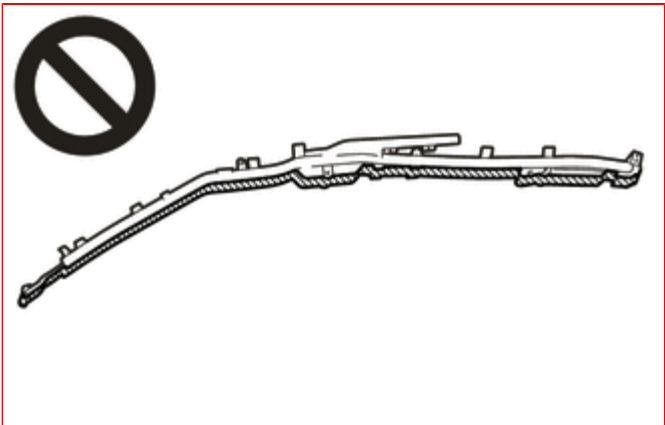
CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.



Cushion (Airbag Itself)

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

- If the airbag deploys for any reason, it may cause a serious accident.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. REMOVE ROOF HEADLINING ASSEMBLY

Click here [INFO](#)

2. REMOVE CURTAIN SHIELD AIRBAG ASSEMBLY

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!

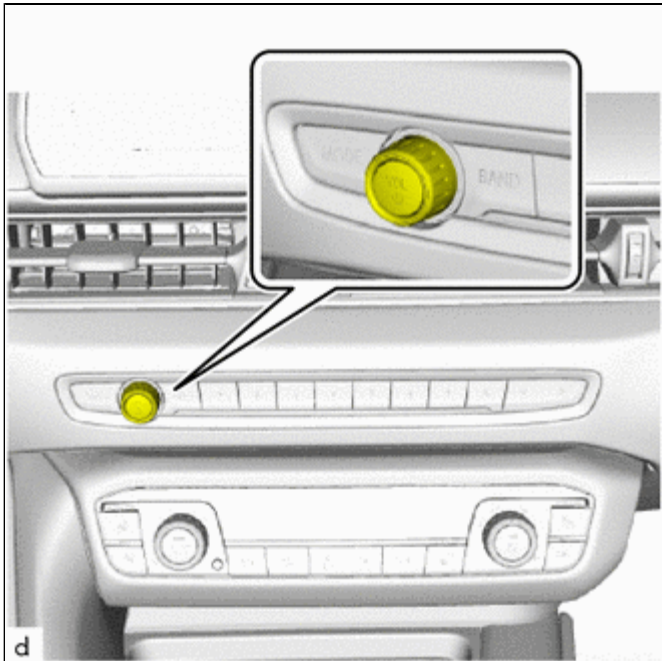
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see:

Click here [INFO](#)

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

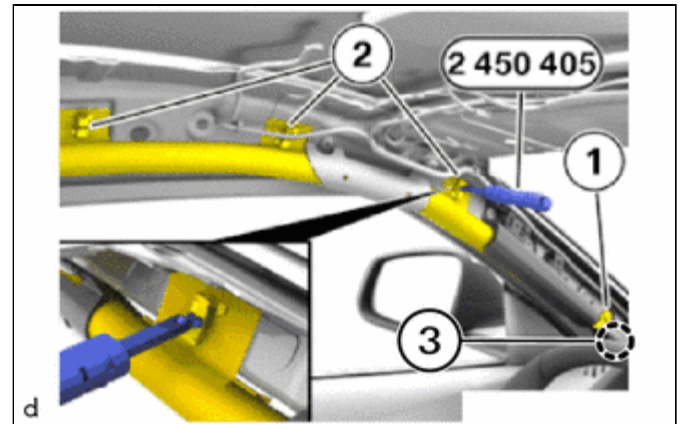


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Loosen the T30 bolt (1).

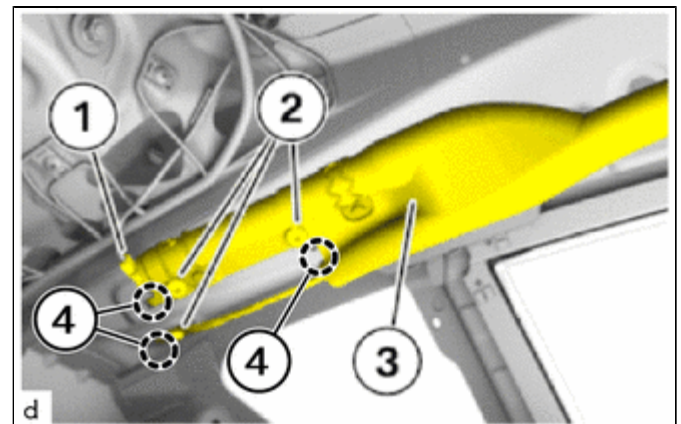


(d) Detach the guide (3).

(e) Unlock and detach the clamps (2) using special tool 2 450 405.

SST: 09800-WA280

(f) Unlock the plug connection (1) and disconnect.



(g) Loosen the T30 bolts (2).

(h) Detach the guides (4) to remove the curtain shield airbag assembly (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: CURTAIN SHIELD AIRBAG ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for both the LH and RH sides.
- The procedure described below is for the LH side.

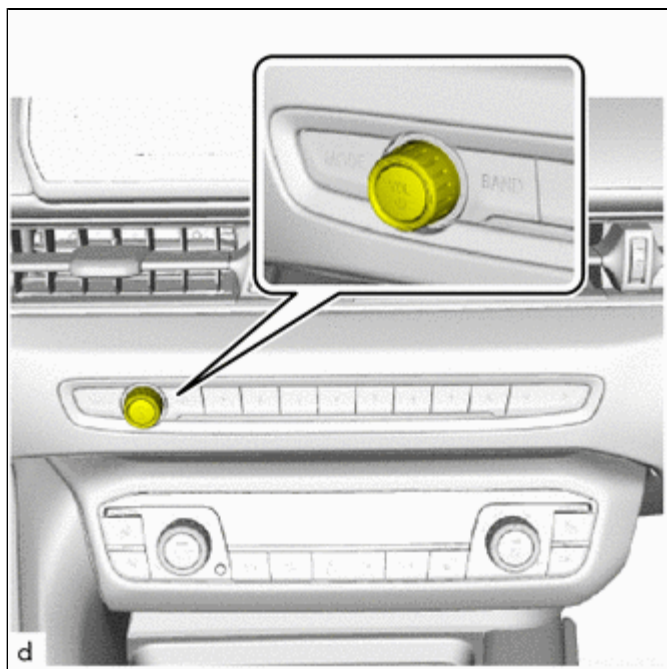
PROCEDURE

1. INSTALL CURTAIN SHIELD AIRBAG ASSEMBLY

- (a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

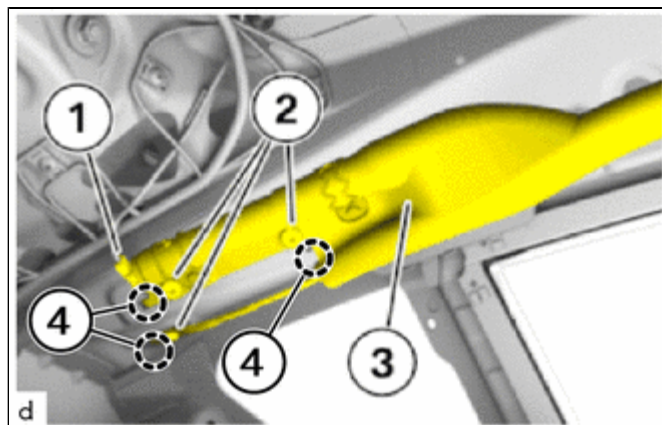


- (b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Attach the guides (4) to install the curtain shield airbag assembly (3).

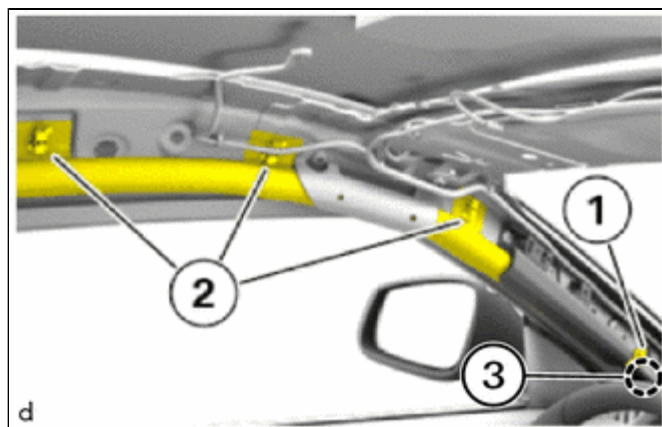


(d) Tighten the T30 bolts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Connect the plug connection (1) and lock.



(f) Attach the clamps (2).

(g) Attach the guide (3).

(h) Tighten the T30 bolt (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

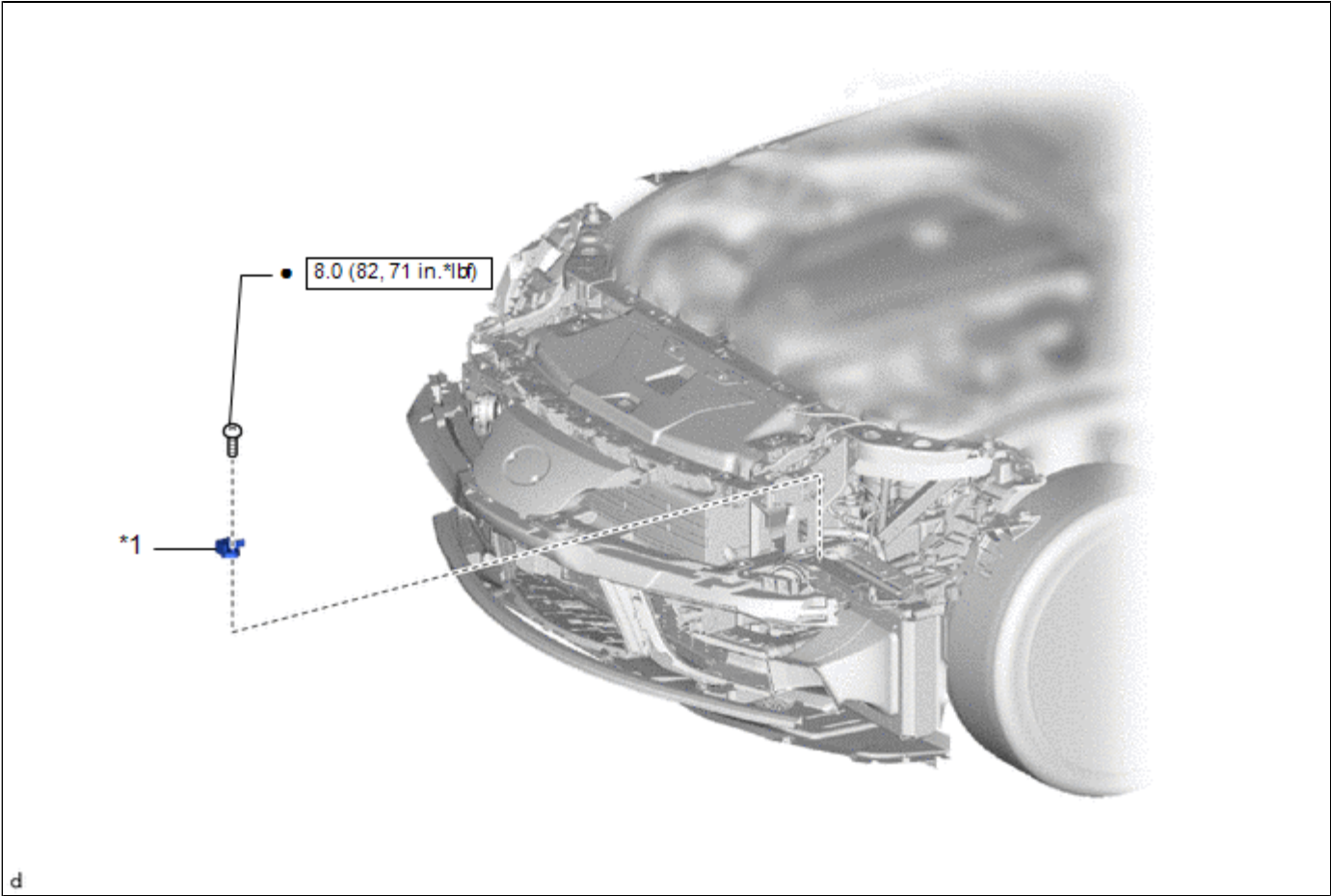
2. INSTALL ROOF HEADLINING ASSEMBLY


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT AIRBAG SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT AIRBAG SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT AIRBAG SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.
- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. REMOVE HEADLIGHT ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT AIRBAG SENSOR

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

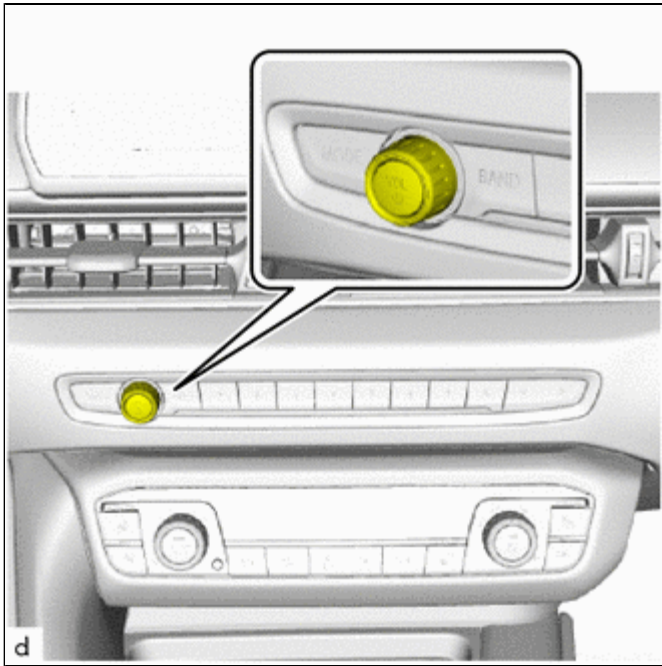
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

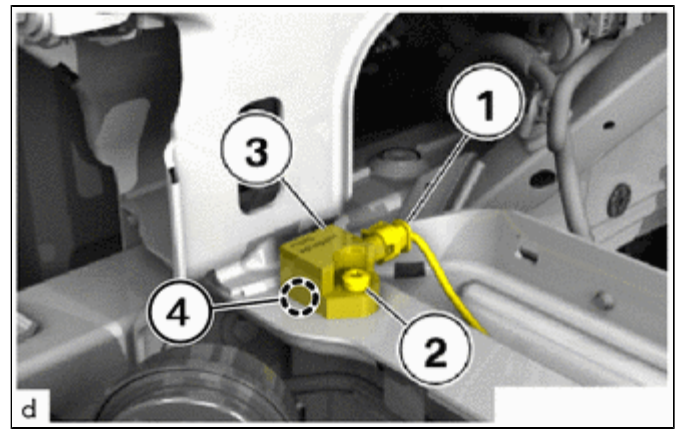


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Unlock the plug connection (1) and disconnect.



(d) Loosen the T30 bolt (2) and detach the guide (4) to remove the front airbag sensor (3).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT AIRBAG SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

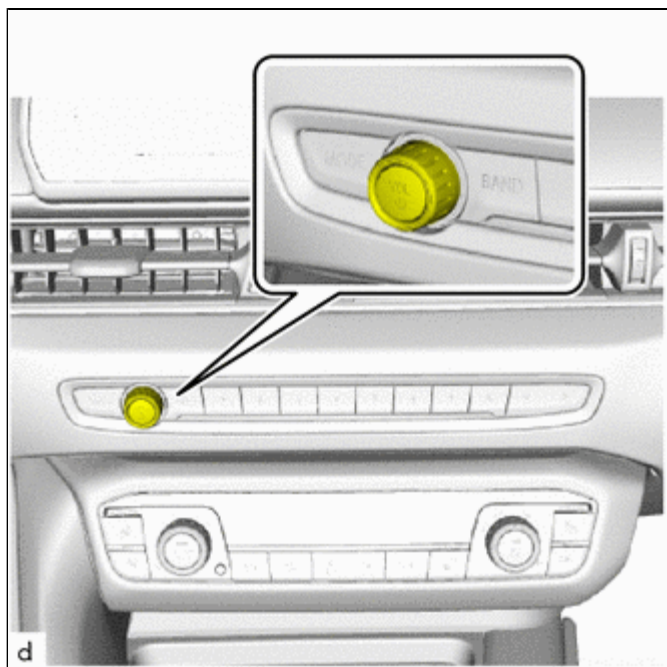
PROCEDURE

1. INSTALL FRONT AIRBAG SENSOR

- Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

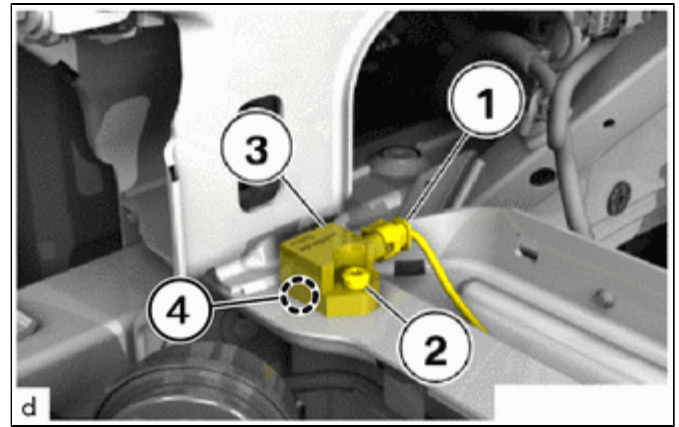


- Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Attach the guide (4) to install the front airbag sensor (3).



(d) Replace the T30 bolt (2).

(e) Tighten the T30 bolt (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(f) Connect the connectors (1) and lock.

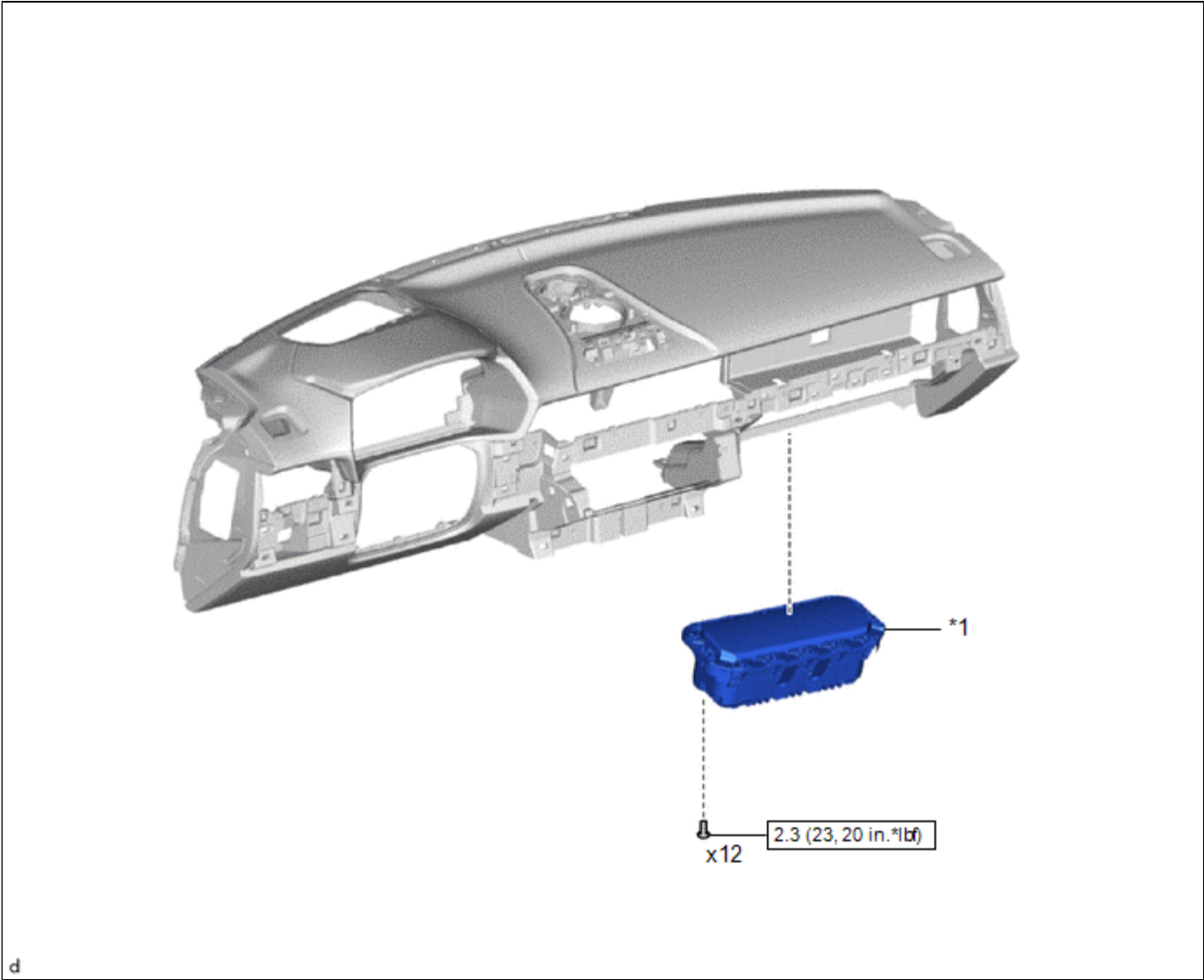
2. INSTALL HEADLIGHT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JC11
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INSTRUMENT PANEL PASSENGER WITHOUT DOOR AIRBAG ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJ2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

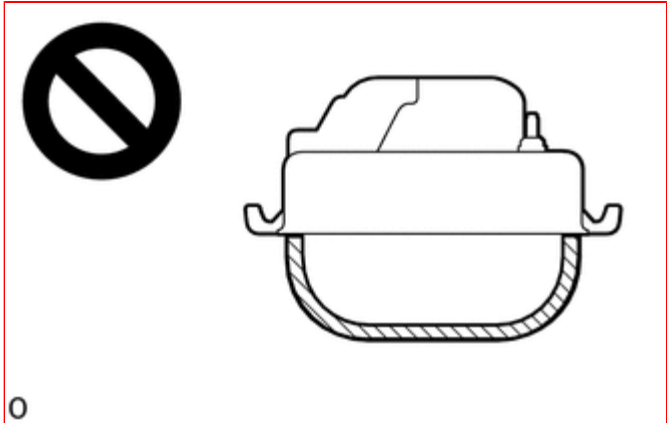
CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

2. REMOVE INSTRUMENT PANEL PASSENGER WITHOUT DOOR AIRBAG ASSEMBLY

CAUTION:

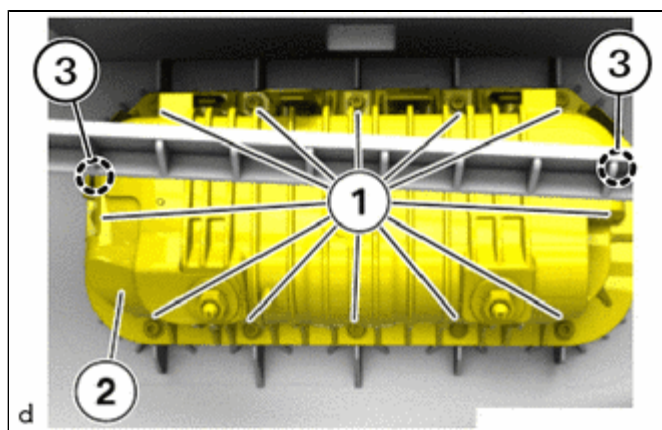
- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see:

Click here [INFO](#)

(a) Loosen the T30 screws (1).



(b) Detach the guides (3) to remove the instrument panel passenger without door airbag assembly (2) from the instrument panel safety pad assembly.



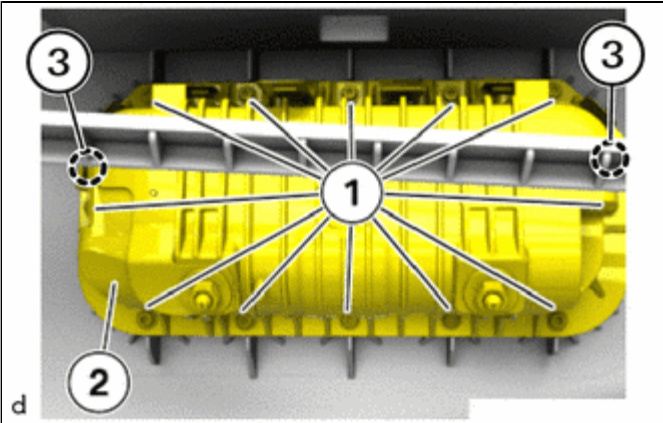
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJ3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT PASSENGER AIRBAG ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL INSTRUMENT PANEL PASSENGER WITHOUT DOOR AIRBAG ASSEMBLY

(a) Attach the guides (3) to install the instrument panel passenger without door airbag assembly (2) to the instrument panel safety pad assembly.



(b) Tighten the T30 screws (1).

Torque:
2.3 N·m {23 kgf·cm, 20 in·lbf}

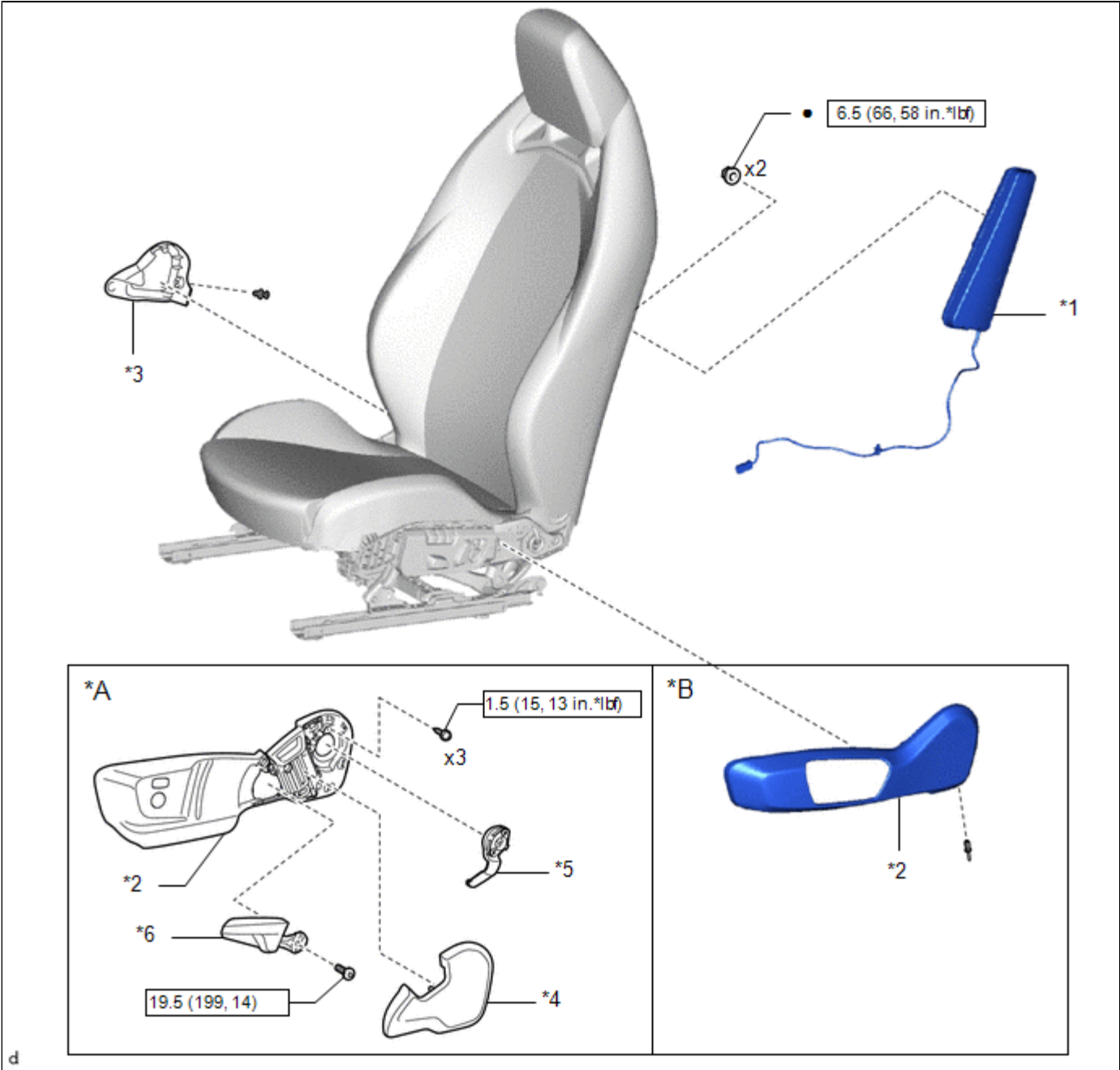
2. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJ7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT SIDE AIRBAG ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Manual Seat	*B	for Power Seat
*1	FRONT SEAT AIRBAG ASSEMBLY	*2	FRONT SEAT CUSHION SHIELD
*3	FRONT SEAT CUSHION INNER SHIELD	*4	FRONT SEAT SIDE SHIELD
*5	NO. 2 RECLINING ADJUSTER RELEASE ARM	*6	VERTICAL ADJUSTING HANDLE

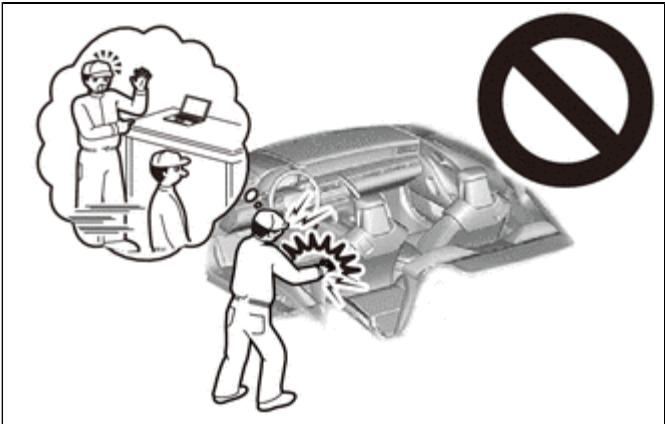
<div></div>	N*m (kgf*cm, ft.*lbf): Specified torque	<div>•</div>	Non-reusable part
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJ8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT SIDE AIRBAG ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

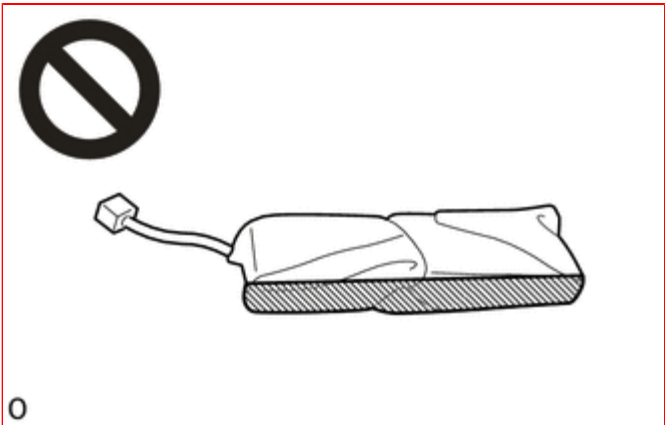
CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.



	Cushion (Airbag Itself)
--	-------------------------

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wear protective gloves. Sharp areas on the parts may injure your hands.



- There is risk of injury.

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

- for Manual Seat:

Click here [INFO](#)

- for Power Seat:

Click here [INFO](#)

2. REMOVE FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

3. REMOVE FRONT SEAT SIDE SHIELD (for Manual Seat)

Click here [INFO](#)

4. REMOVE NO. 2 RECLINING ADJUSTER RELEASE ARM (for Manual Seat)

Click here [INFO](#)

5. REMOVE VERTICAL ADJUSTING HANDLE (for Manual Seat)

Click here [INFO](#)

6. REMOVE FRONT SEAT CUSHION SHIELD (for Manual Seat)

Click here [INFO](#)

7. REMOVE FRONT SEAT CUSHION SHIELD (for Power Seat)

Click here [INFO](#)

8. REMOVE FRONT SEAT AIRBAG ASSEMBLY

CAUTION:

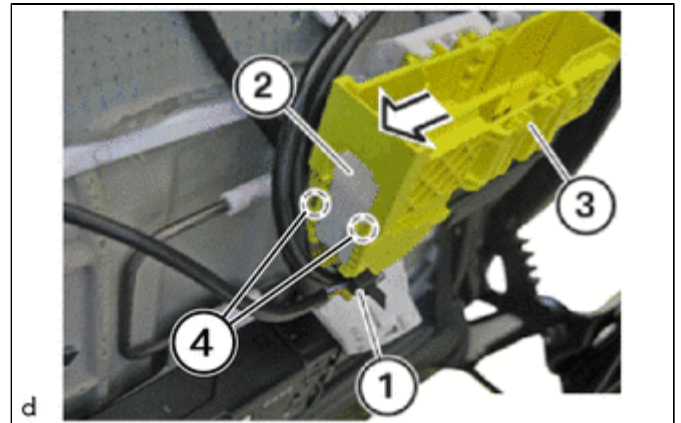
- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see:

Click here [INFO](#)

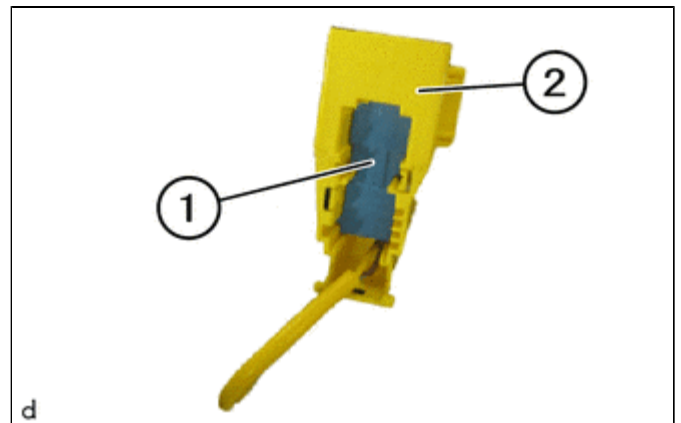
(a) Loosen the tie band (1).



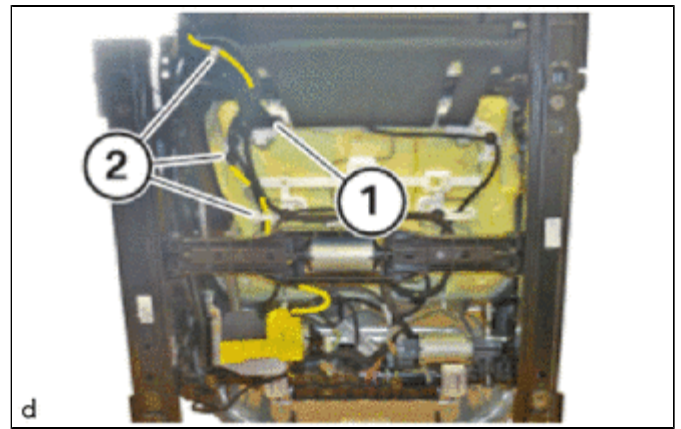
(b) Detach the claws (4) carefully.

(c) Remove the connector (2) in the direction of the arrow from the connector housing (3).

(d) Remove the connector (1) from the connector housing (2).



(e) Detach the separate type front seat cushion cover (1).



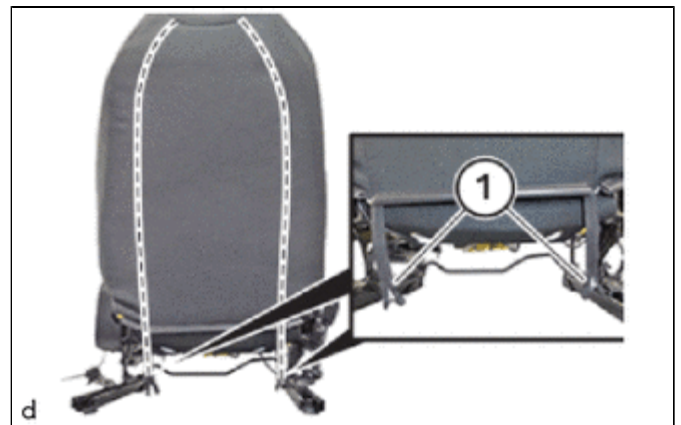
(f) Detach the clamps (2).

(g) Detach the separate type front seatback cover (1) in the marked area.

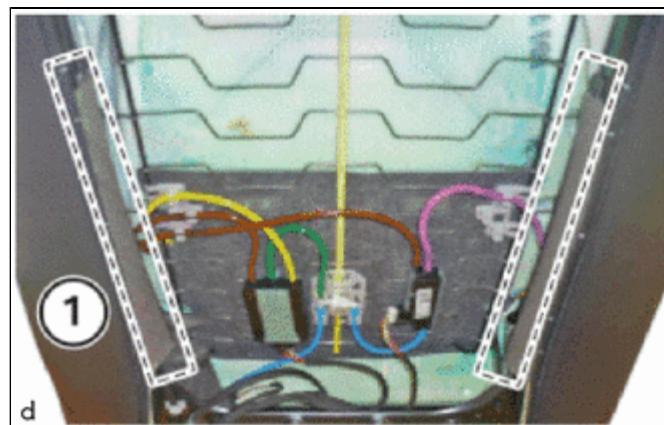


(h) Using a special tool 0 490 472 (00 5 020), open the fasteners (1) in the marked area.

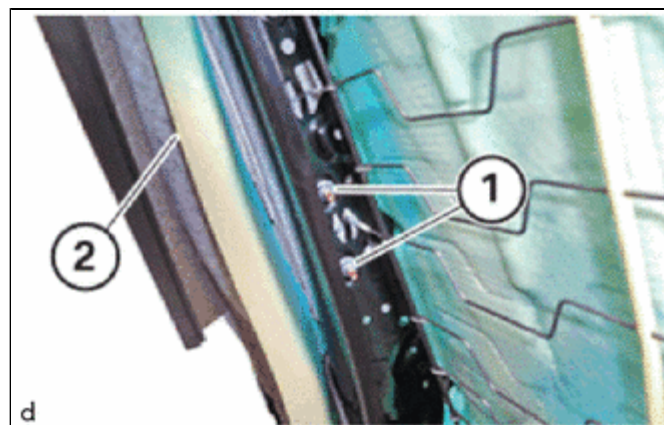
SST: 09300-WA180



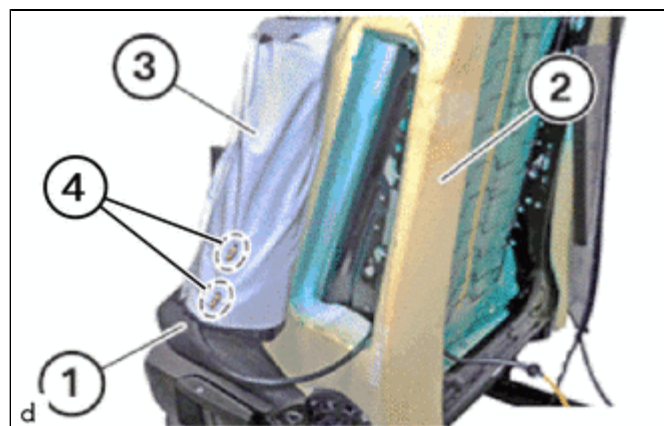
- (i) Detach the separate type front seatback cover (1) in the marked area.



- (j) Loosen the nuts (1).



- (k) Fold the separate type front seatback cover with pad (2) to the side.



- (l) Carefully remove the front seat airbag assembly (1) from the separate type front seatback pad (2).

- (m) Carefully remove the front seat airbag assembly (1) from the pocket in the separate type front seatback cover (3).

NOTICE:

Make sure that the stud bolts (4) do not damage the pocket in the cover.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJ9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: FRONT SEAT SIDE AIRBAG ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

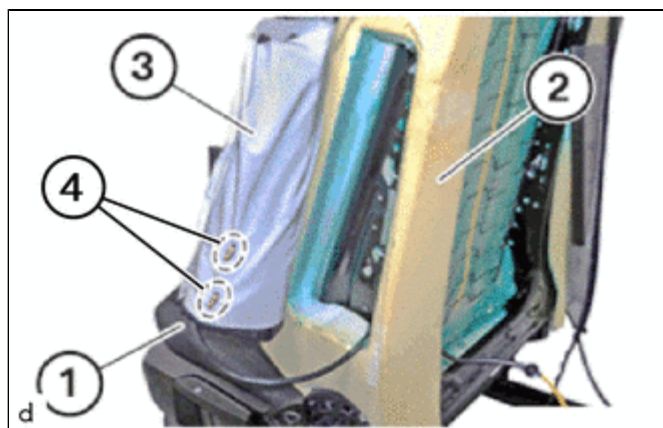
PROCEDURE

1. INSTALL FRONT SEAT AIRBAG ASSEMBLY

- (a) Install the front seat airbag assembly (1) carefully into the pocket of the separate type front seatback cover (3).

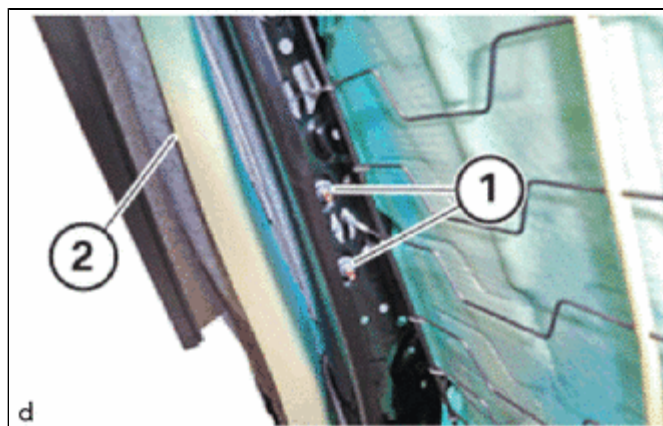
NOTICE:

Make sure that the stud bolts (4) do not damage the pocket in the cover.



- (b) Position the front seat airbag assembly (1) correctly in the separate type front seatback pad (2).

- (c) Position the separate type front seatback cover with pad (2) correctly.



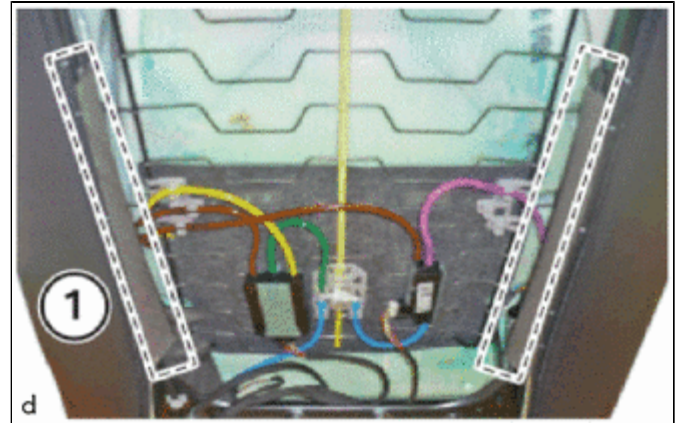
- (d) Replace the nuts (1).

- (e) Tighten the nuts (1).

Torque:

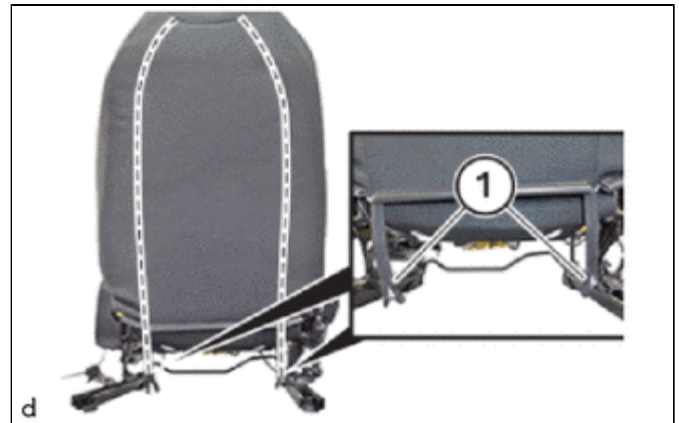
6.5 N·m {66 kgf·cm, 58 in·lbf}

- (f) Position the separate type front seatback cover (1) correctly in the marked area and clip it in.



- (g) Using a special tool 0 490 472 (00 5 020), close the fasteners (1) in the marked area.

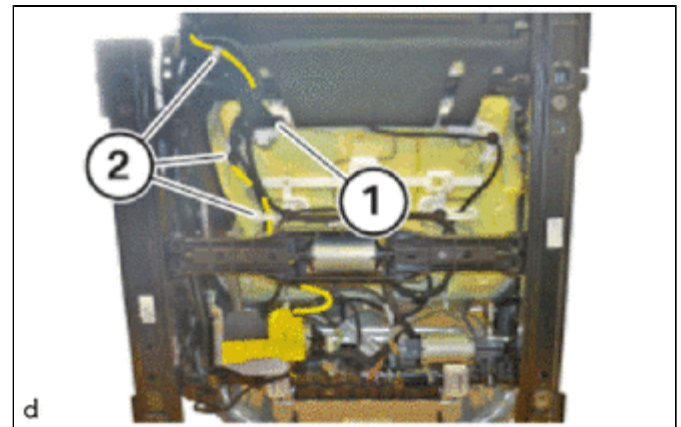
SST: 09300-WA180



- (h) Position the separate type front seatback cover (1) correctly in the marked area and clip it in.



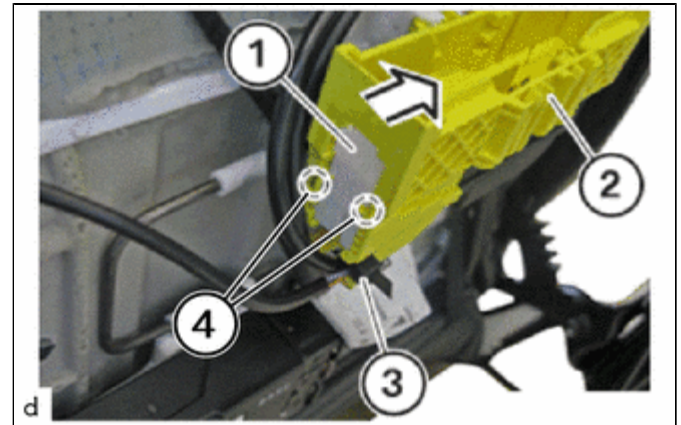
(i) Attach the clamps (2).



(j) Attach the separate type front seat cushion cover (1).

(k) Install the connector to the connector housing.

(l) Attach the claws to install the connector (1) to the connector housing (2).



(m) Fasten the cable (3) with tie band to the connector housing (2).

2. INSTALL FRONT SEAT CUSHION SHIELD (for Power Seat)

Click here [INFO](#)

3. INSTALL FRONT SEAT CUSHION SHIELD (for Manual Seat)

Click here [INFO](#)

4. INSTALL VERTICAL ADJUSTING HANDLE (for Manual Seat)

Click here [INFO](#)

5. INSTALL NO. 2 RECLINING ADJUSTER RELEASE ARM (for Manual Seat)

Click here [INFO](#)

6. INSTALL FRONT SEAT SIDE SHIELD (for Manual Seat)

Click here [INFO](#)

7. INSTALL FRONT SEAT CUSHION INNER SHIELD

Click here [INFO](#)

8. INSTALL FRONT SEAT ASSEMBLY

- for Manual Seat:

Click here [INFO](#)

- for Power Seat:

Click here [INFO](#)

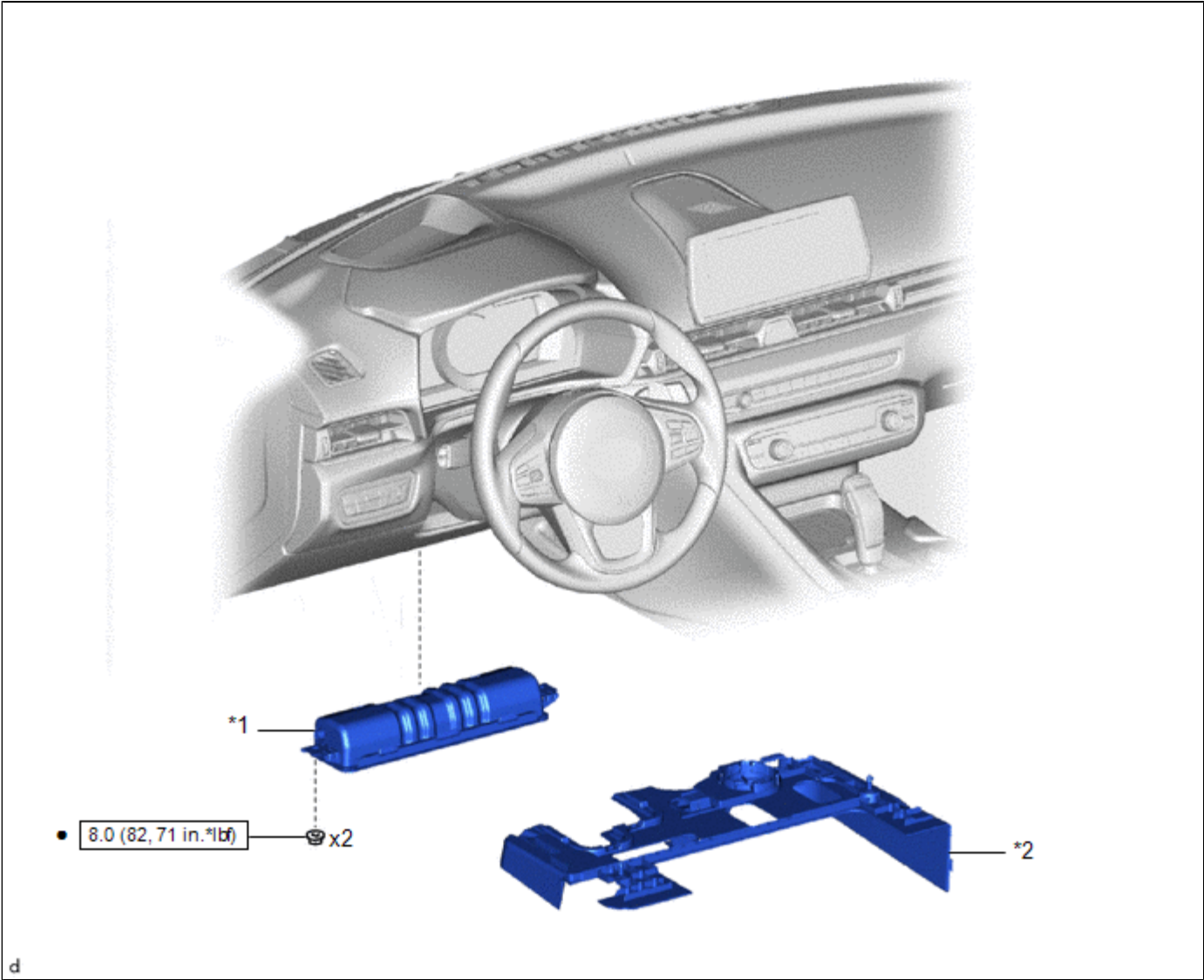


TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: KNEE AIRBAG ASSEMBLY (for Driver Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY	*2	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: KNEE AIRBAG ASSEMBLY (for Driver Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

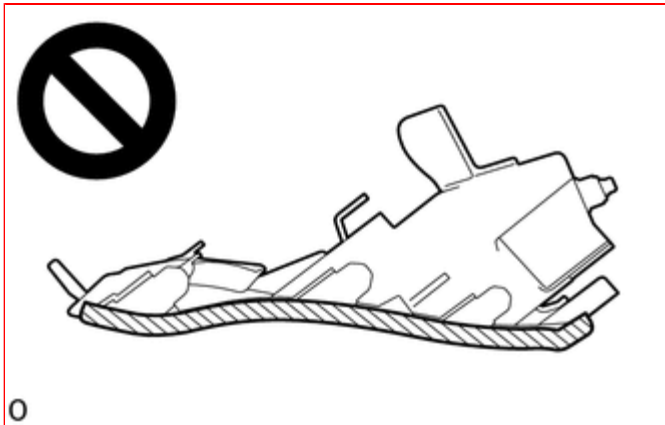
CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

- If the airbag deploys for any reason, it may cause a serious accident.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

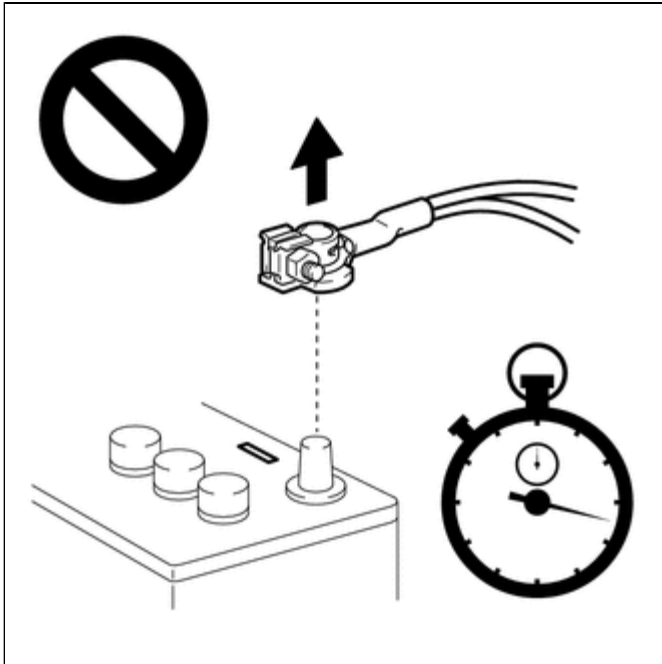
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



2. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!

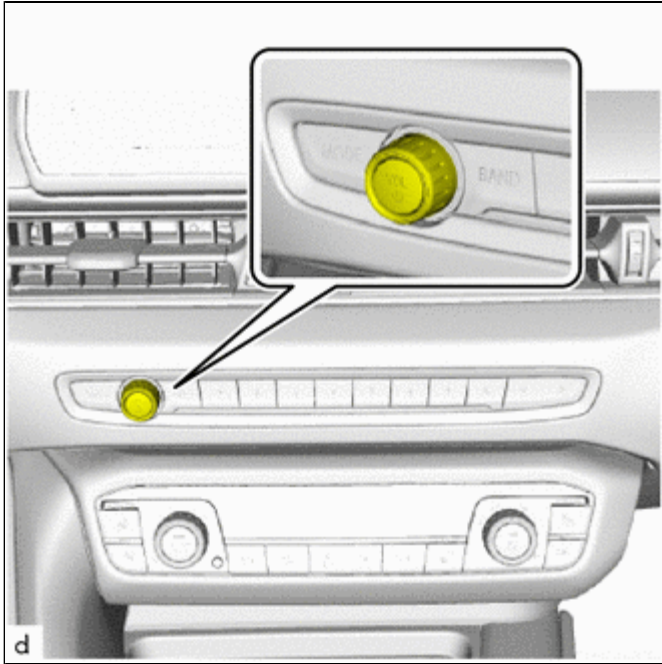
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see:

Click here [INFO](#)

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

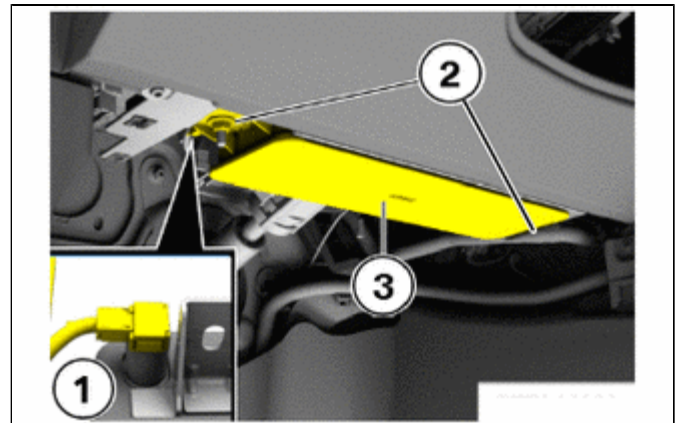


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Unlock the plug connection (1) and disconnect.



(d) Loosen the nuts (2) and remove the lower No. 2 instrument panel airbag assembly (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: KNEE AIRBAG ASSEMBLY (for Driver Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

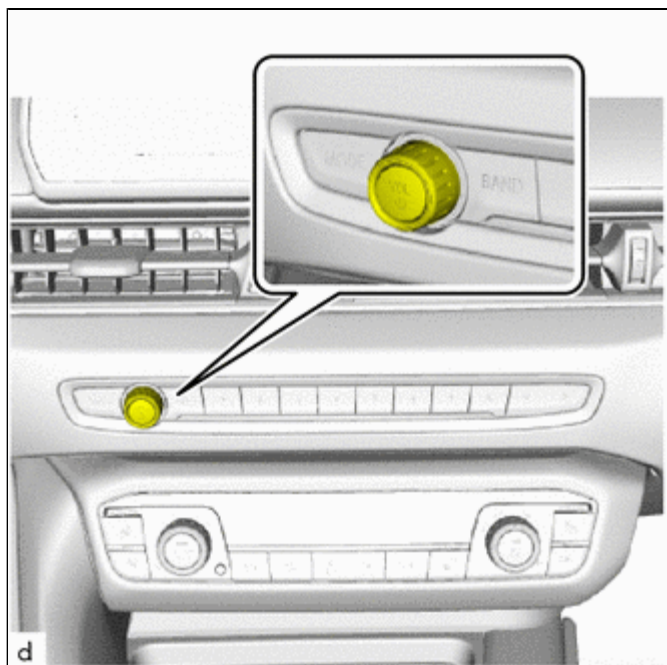
PROCEDURE

1. INSTALL LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

- (a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

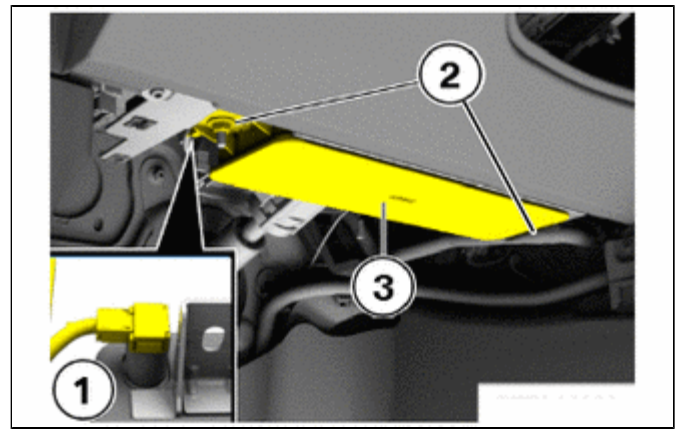


- (b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

- (c) Replace the nuts (2).



(d) Install the lower No. 2 instrument panel airbag assembly (3) and tighten the nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Connect the connectors (1) and lock.

2. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

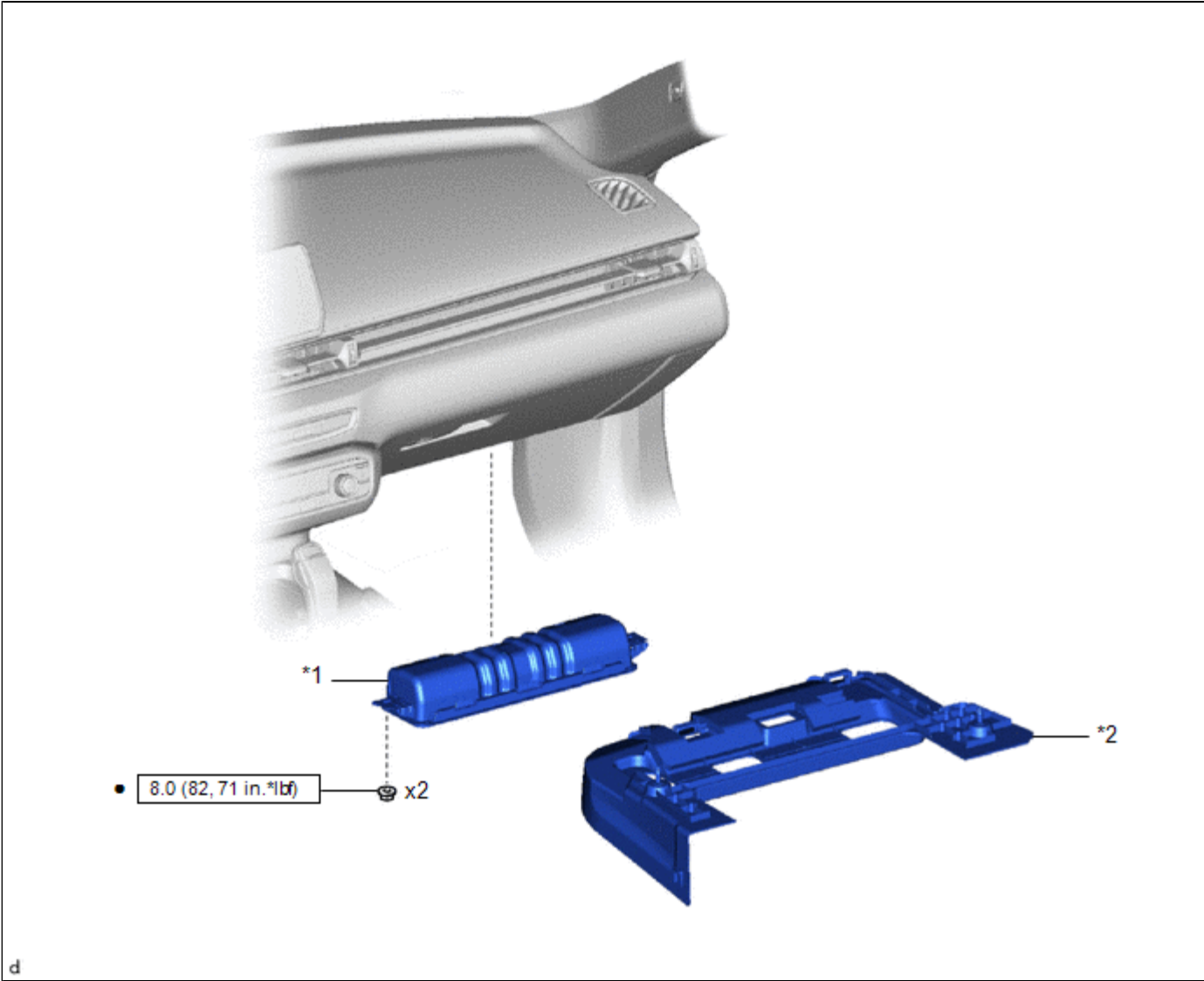
3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: KNEE AIRBAG ASSEMBLY (for Front Passenger Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY	*2	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: KNEE AIRBAG ASSEMBLY (for Front Passenger Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

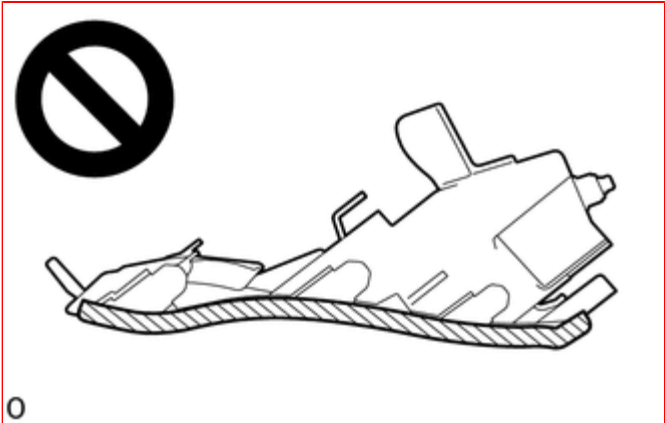
CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

- If the airbag deploys for any reason, it may cause a serious accident.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

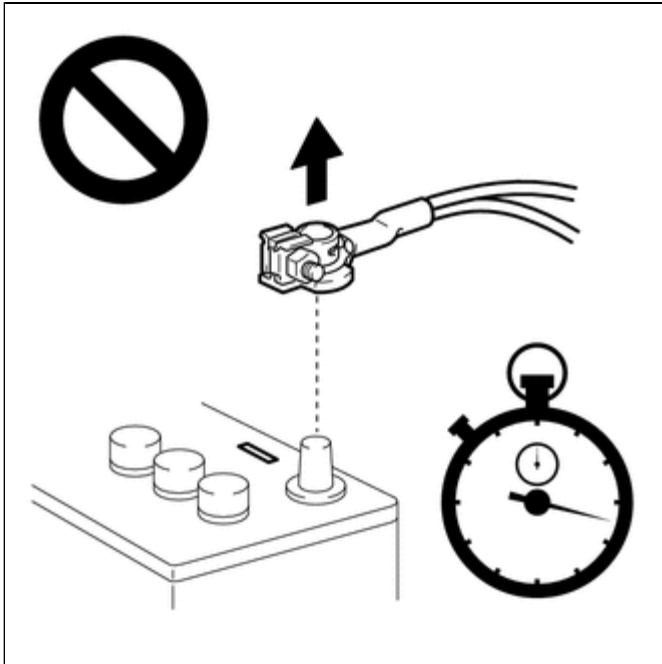
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



2. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!

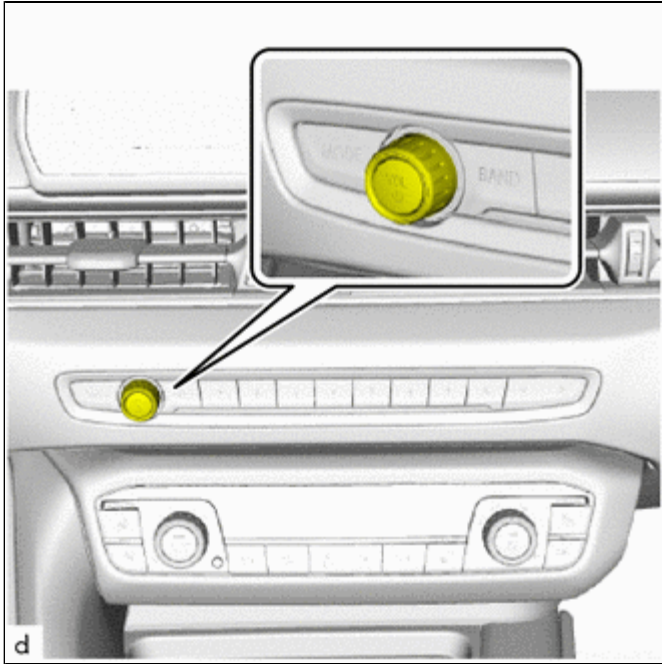
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see:

Click here [INFO](#)

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

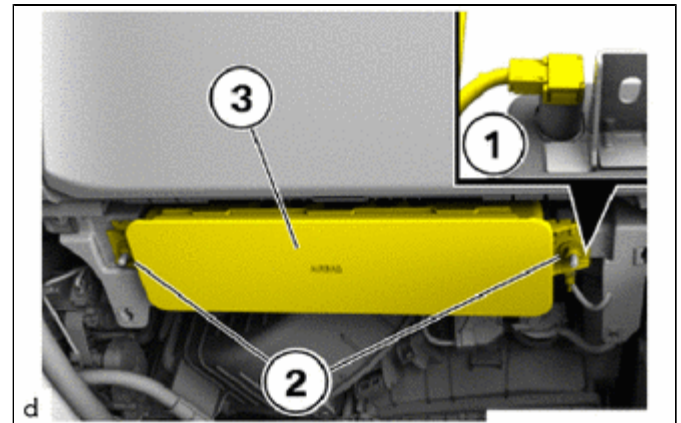


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Unlock the plug connection (1) and disconnect.



(d) Loosen the nuts (2) and remove the lower No. 1 instrument panel airbag assembly (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJ0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: KNEE AIRBAG ASSEMBLY (for Front Passenger Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

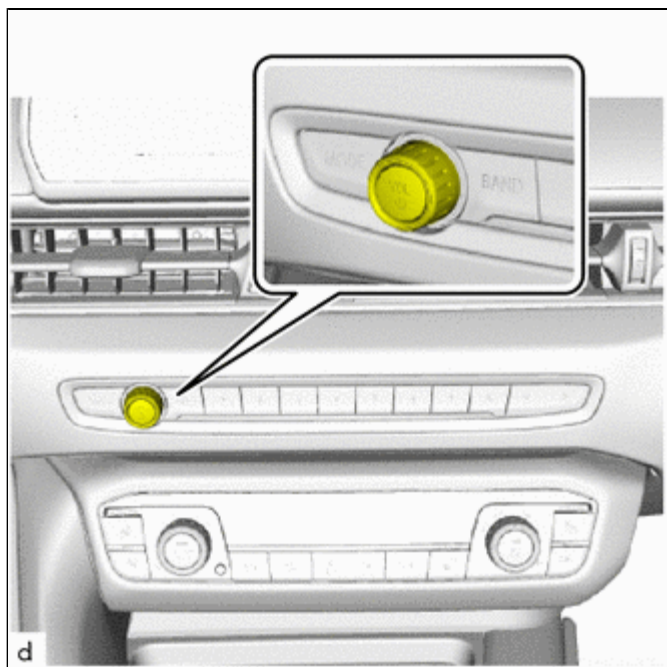
PROCEDURE

1. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY

- (a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

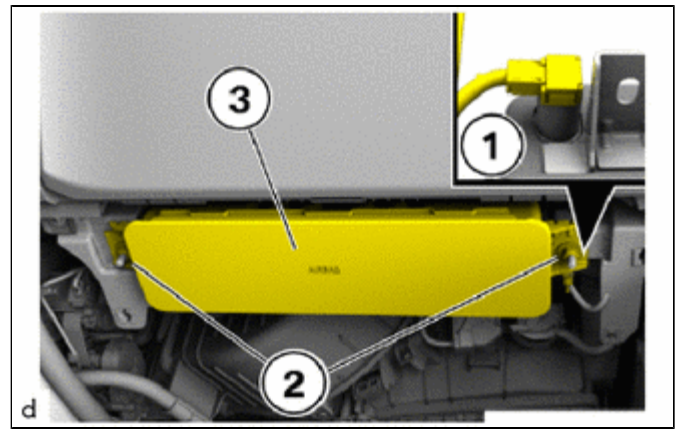


- (b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

- (c) Replace the nuts (2).



(d) Install the lower No. 1 instrument panel airbag assembly (3) and tighten the nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Connect the connectors (1) and lock.

2. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

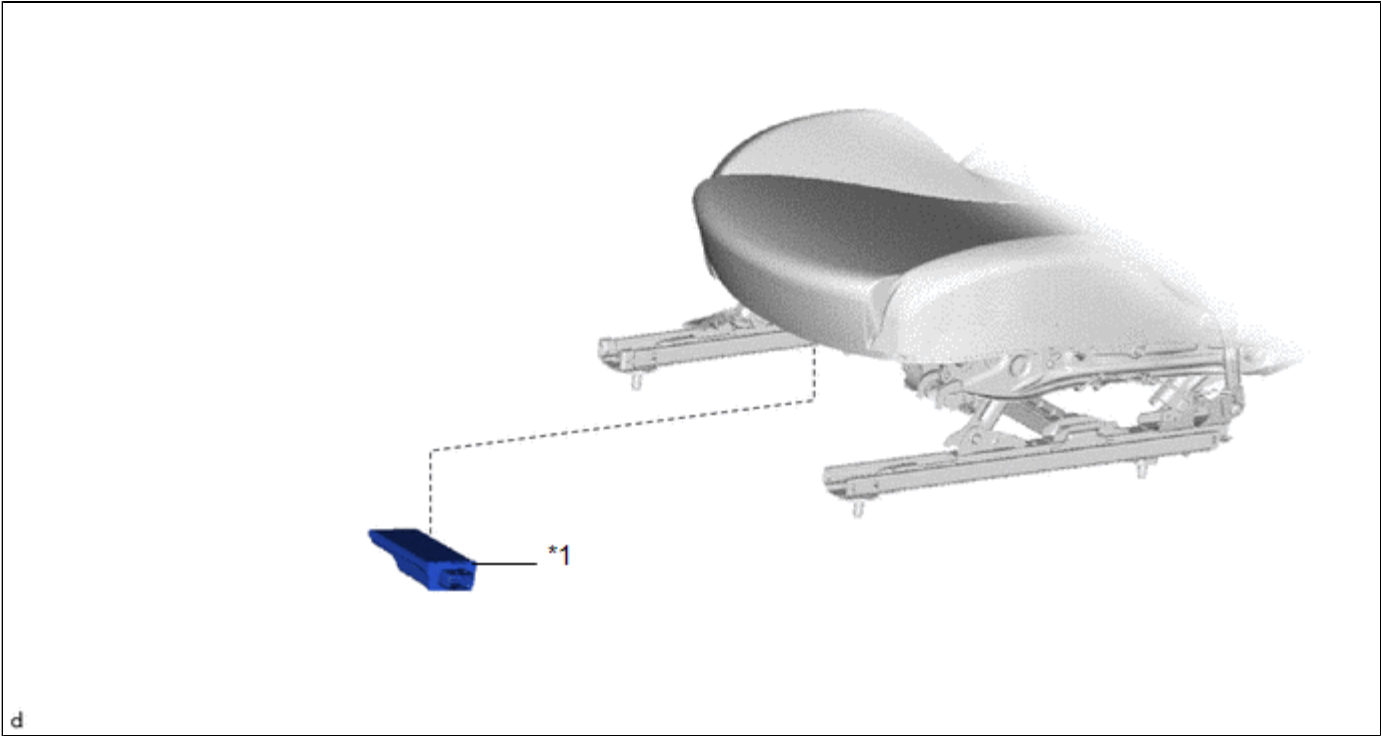
3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	OCCUPANT DETECTION ECU	-	-
----	------------------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.
- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

- for Manual Seat:

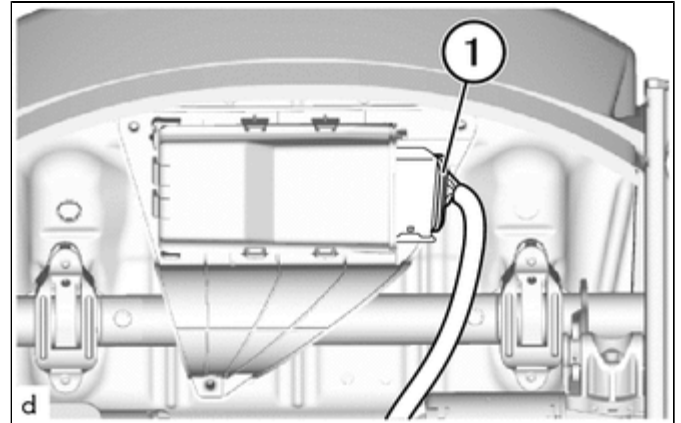
Click here [INFO](#)

- for Power Seat:

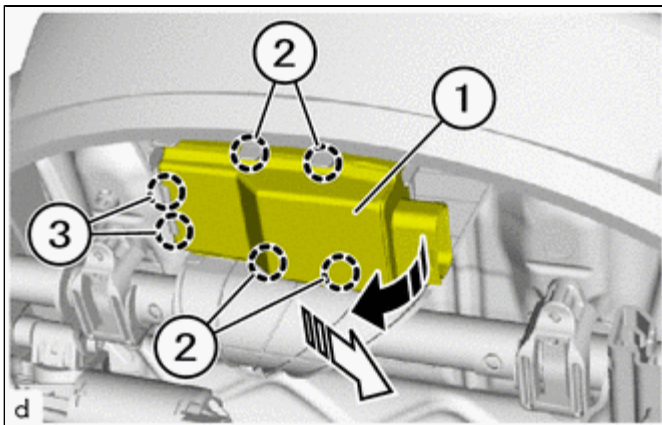
Click here [INFO](#)



2. REMOVE OCCUPANT DETECTION ECU

(a) Unlock plug connection (1) and disconnect.



(b) Detach the claws (2) and guides (3) to remove the occupant detection ECU (1) in the direction of the arrow.



	Remove in this Direction (1)
	Remove in this Direction (2)



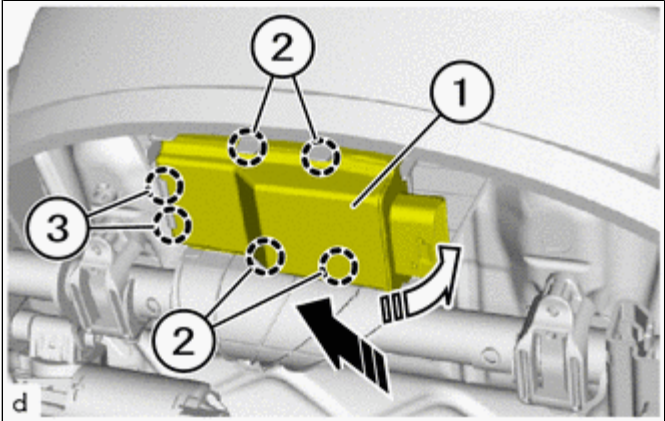
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCK0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: OCCUPANT CLASSIFICATION ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OCCUPANT DETECTION ECU

(a) Attach the guides (3) and claws (2) to install the occupant detection ECU (2) in the direction of the arrow.



	Install in this Direction (1)
	Install in this Direction (2)

(b) Connect connectors and lock.

2. INSTALL FRONT SEAT ASSEMBLY

- for Manual Seat:

Click here [INFO](#)

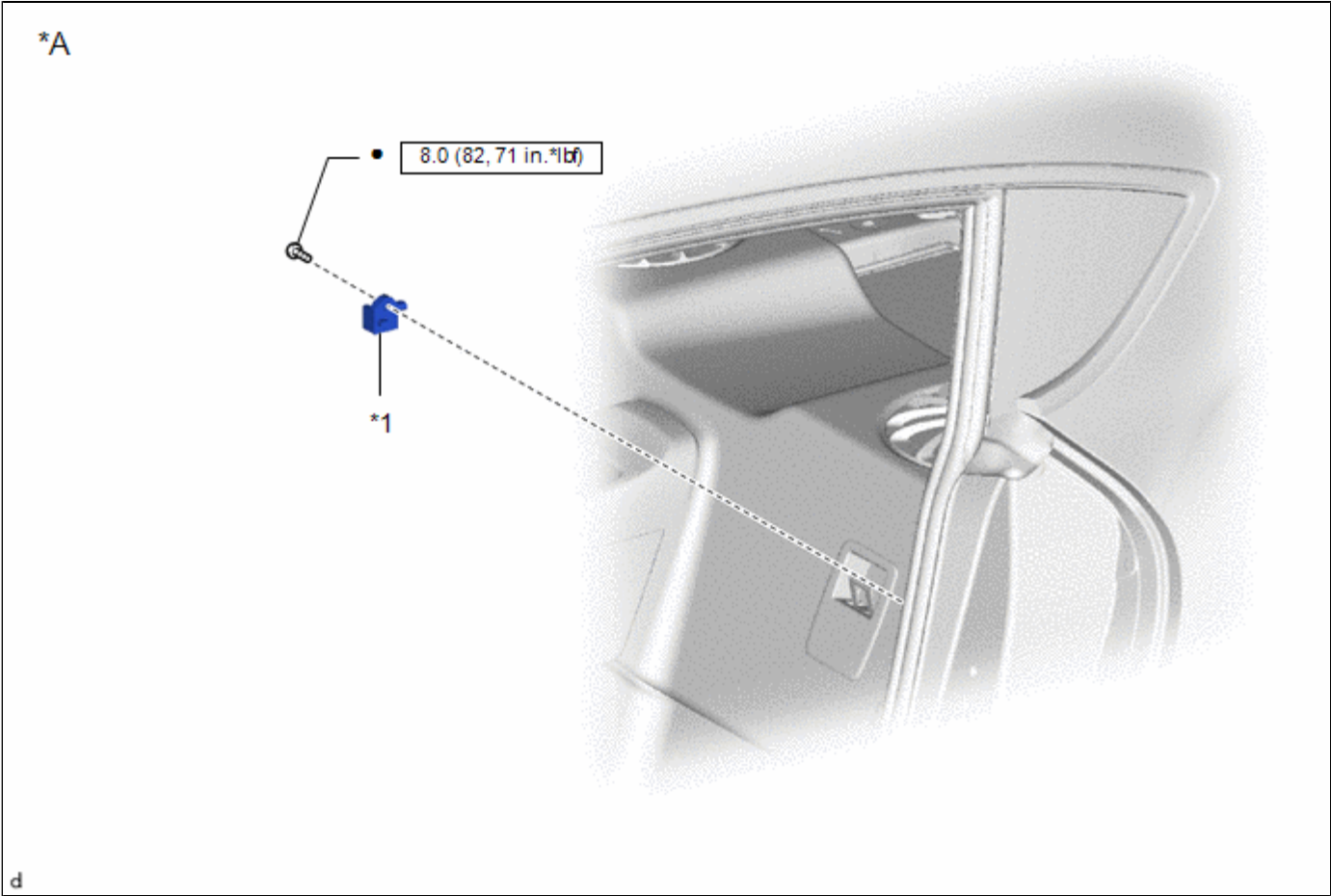
- for Power Seat:


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: REAR AIRBAG SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

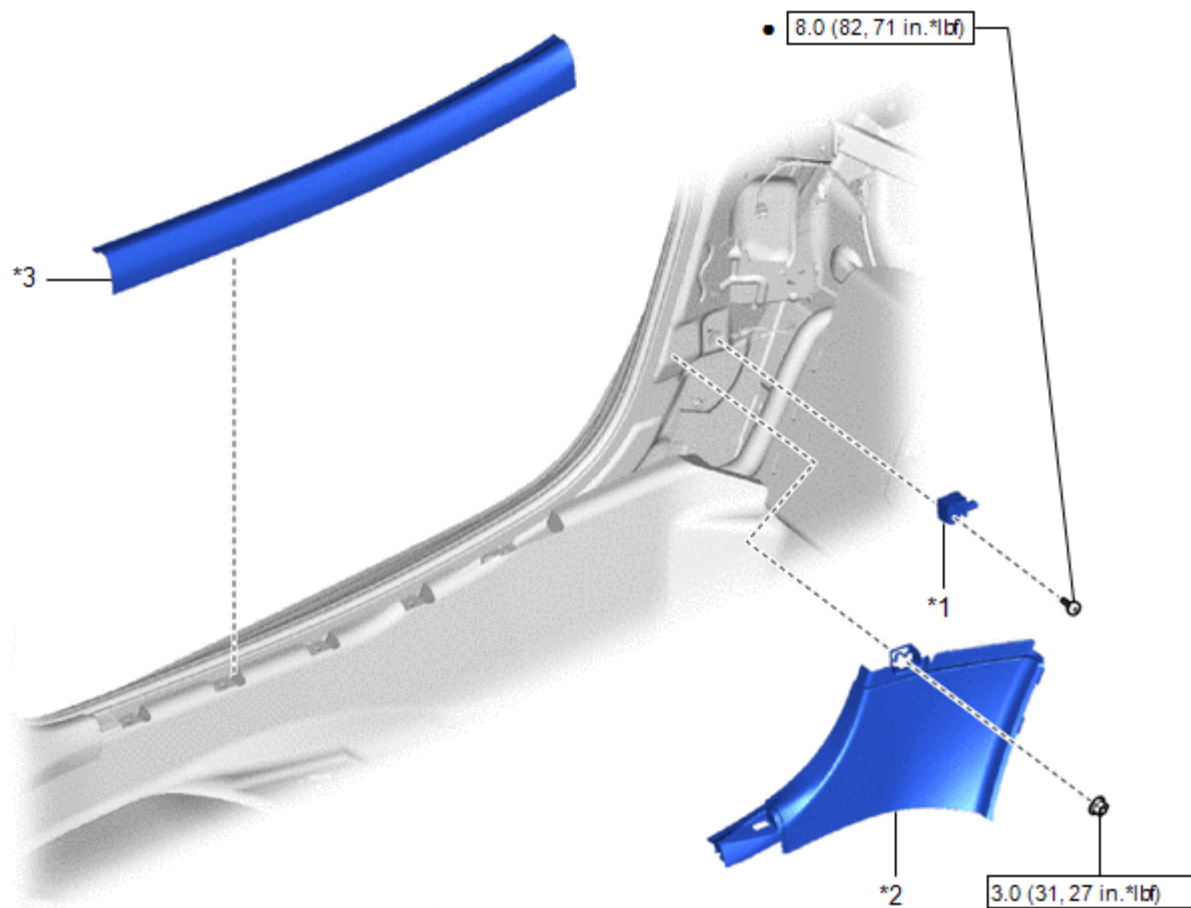
ILLUSTRATION




*A	for LH Side	-	-
*1	AIRBAG SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION

*A



d

*A	for RH Side	-	-
*1	AIRBAG SENSOR	*2	QUARTER TRIM LOWER PANEL RH
*3	FRONT DOOR SCUFF PLATE RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: REAR AIRBAG SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

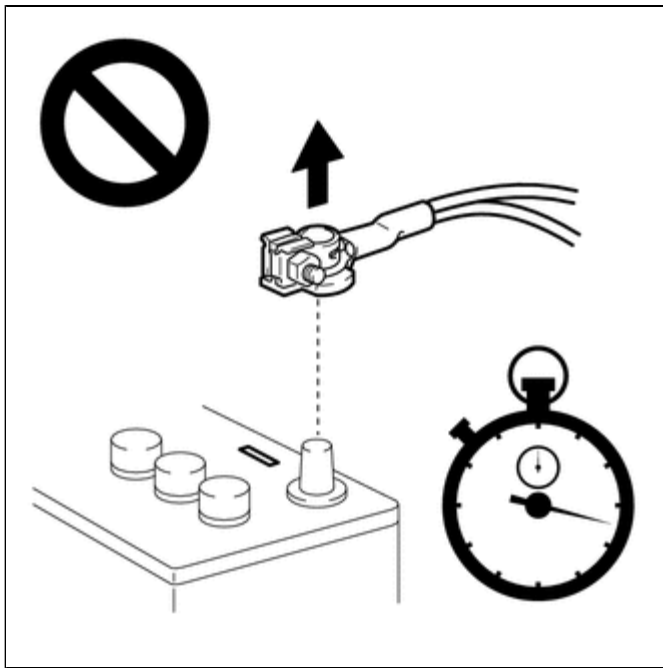
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



2. REMOVE QUARTER TRIM UPPER PANEL

Click here [INFO](#)

3. REMOVE FRONT DOOR SCUFF PLATE RH (for RH Side)

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

4. REMOVE QUARTER TRIM LOWER PANEL RH (for RH Side)

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

5. REMOVE AIRBAG SENSOR (for LH Side)

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

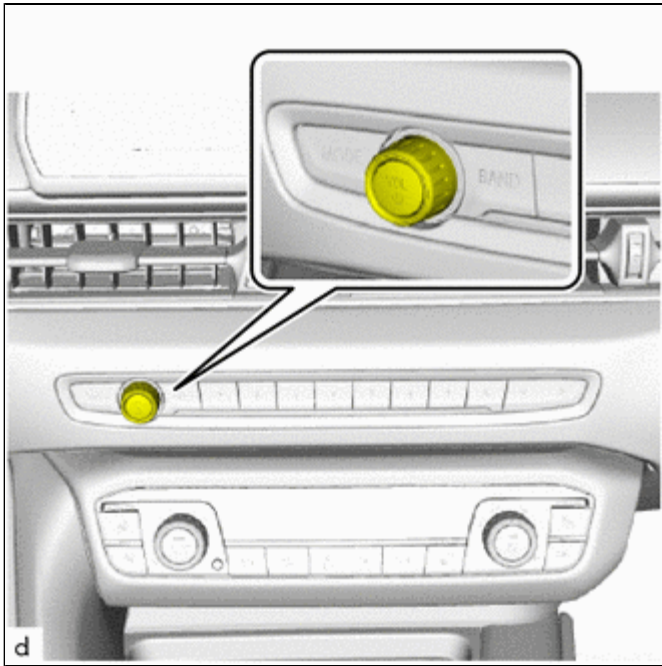
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

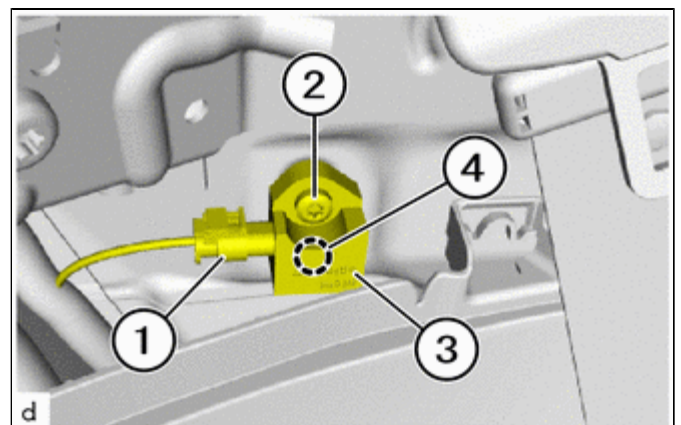


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Unlock the plug connection (1) and disconnect.



(d) Loosen the T30 bolt (2) and detach the guide (4) to remove the airbag sensor (3).

6. REMOVE AIRBAG SENSOR (for RH Side)

HINT:

Use the same procedure as for the LH side.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: REAR AIRBAG SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIRBAG SENSOR (for LH Side)

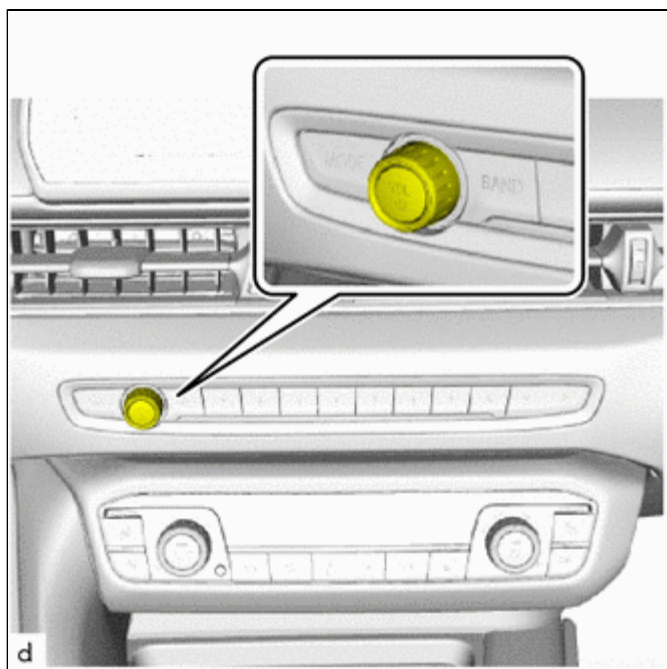
CAUTION:

- Malfunction with incorrectly secured components.
- Danger of injury!
 - Ask a second person to check the torque or latch mechanism (four-eyes principle).
 - Both persons must document that the work has been carried out correctly in the vehicle records.

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

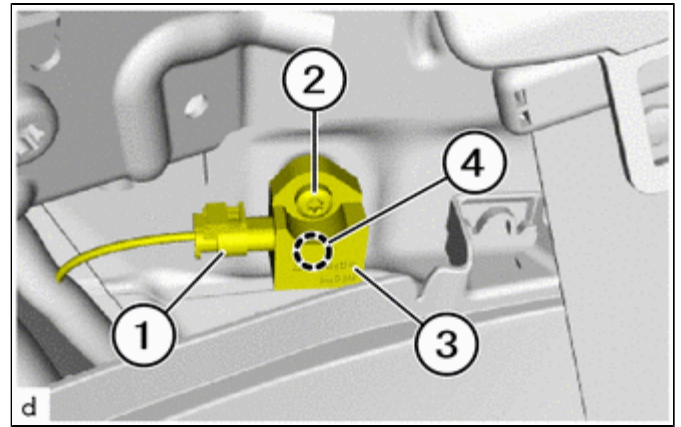


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Attach the guide (4) to install the airbag sensor (3).



(d) Replace the T30 bolt (2).

(e) Tighten the T30 bolt (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(f) Connect connectors (1) and lock.

2. INSTALL AIRBAG SENSOR (for RH Side)

HINT:

Use the same procedure as for the LH side.

3. INSTALL QUARTER TRIM LOWER PANEL RH (for RH Side)

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

4. INSTALL FRONT DOOR SCUFF PLATE RH (for RH Side)

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

5. INSTALL QUARTER TRIM UPPER PANEL

Click here [INFO](#)

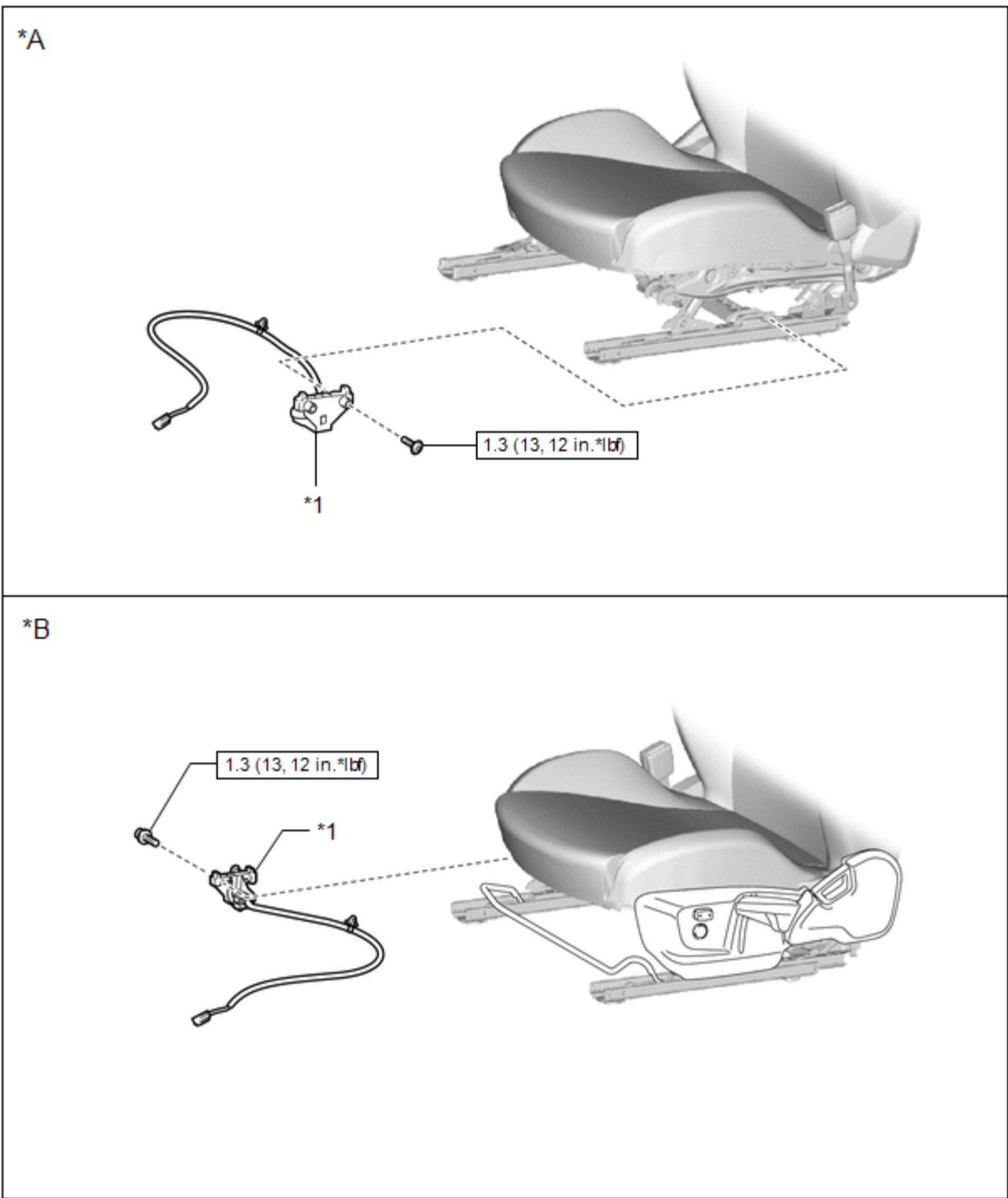
6. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)


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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SEAT POSITION SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Power Seat	*B	for Manual Seat
----	----------------	----	-----------------

*1	SEAT POSITION AIRBAG SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SEAT POSITION SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.
- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. REMOVE FRONT SEAT ASSEMBLY

- for Manual Seat:

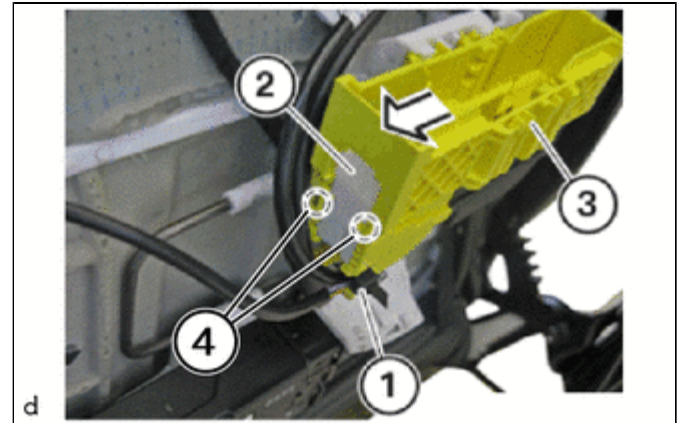
Click here [INFO](#)

- for Power Seat:

Click here [INFO](#)

2. REMOVE SEAT POSITION AIRBAG SENSOR (for Manual Seat)

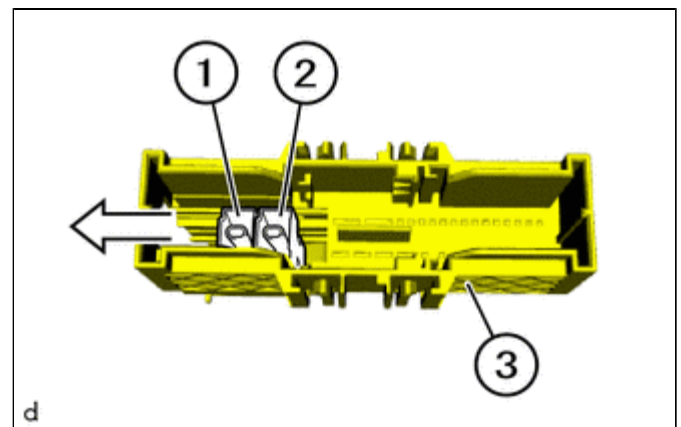
(a) Loosen the tie band (1).



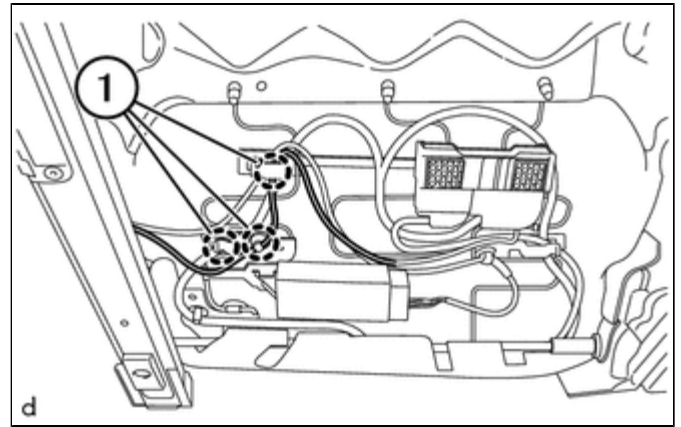
(b) Detach the claws (4) carefully.

(c) Remove the connector (2) in the direction of the arrow from the connector housing (3).

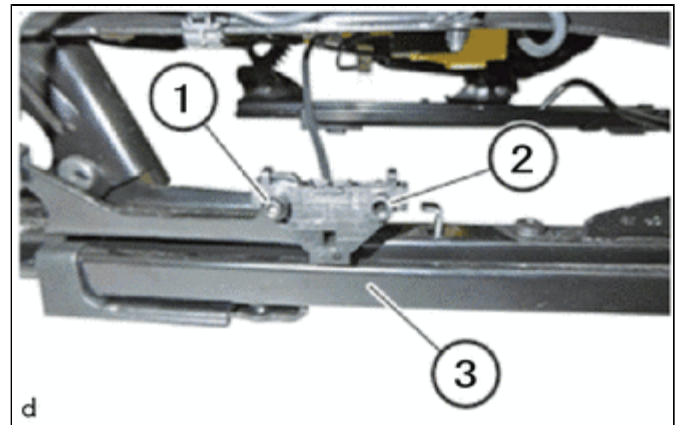
(d) Remove the connectors in order from (1) to (2) and pull them out of the connector housing (3) one after another in the direction of the arrow.



(e) Detach the clamps (1).



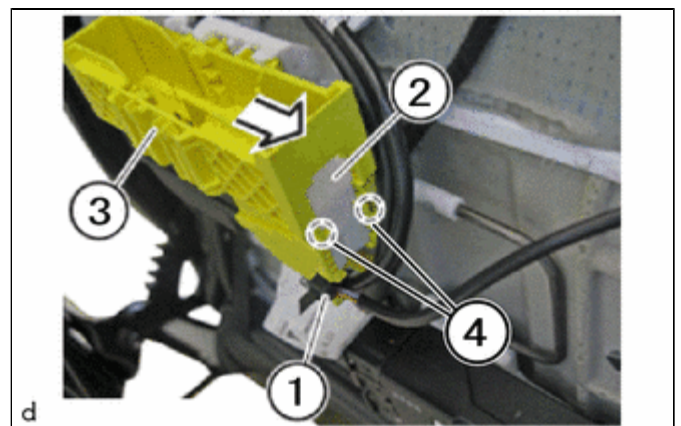
(f) Loosen bolt (1).



(g) Pull the No. 2 seat position airbag sensor (2) out up of the front seat adjuster assembly (3) upwards and remove.

3. REMOVE SEAT POSITION AIRBAG SENSOR (for Power Seat)

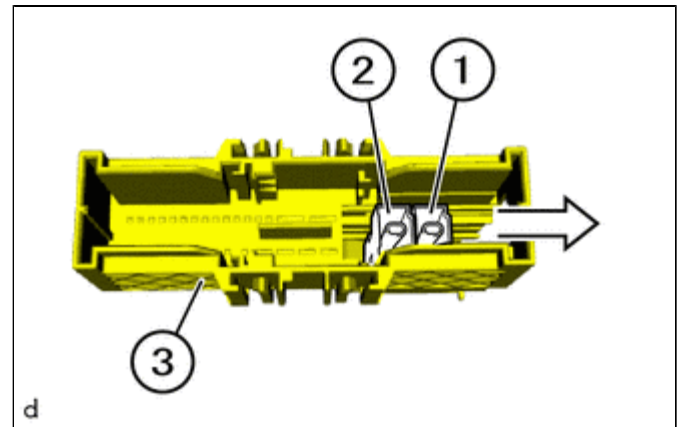
(a) Loosen the tie band (1).



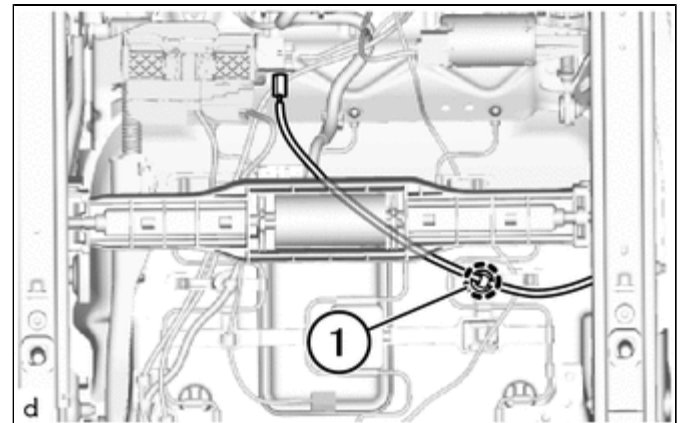
(b) Detach the claws (4) carefully.

(c) Remove the connector (2) in the direction of the arrow from the connector housing (3).

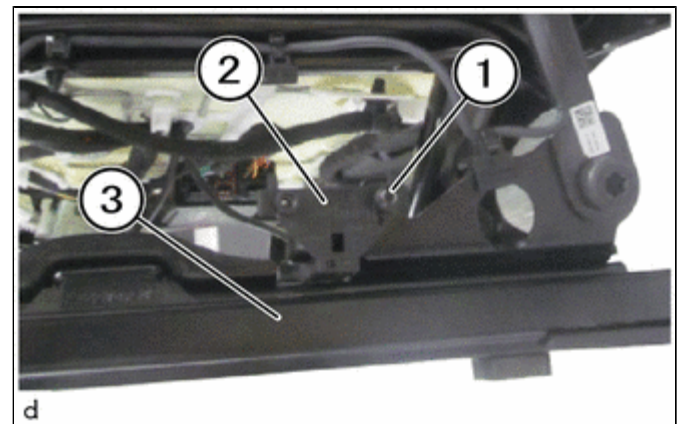
(d) Remove the connectors in order from (1) to (2) and pull them out of the connector housing (3) one after another in the direction of the arrow.



(e) Detach the clamp (1).



(f) Loosen bolt (1).



(g) Pull the seat position airbag sensor (2) out up of the front seat adjuster assembly (3) upwards and remove.

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Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SEAT POSITION SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

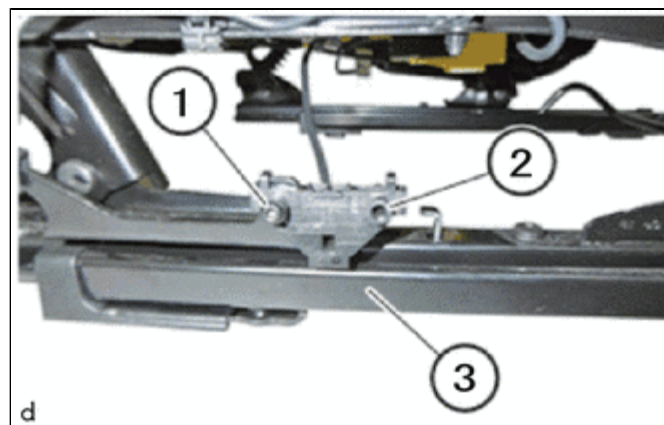
HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

PROCEDURE

1. INSTALL SEAT POSITION AIRBAG SENSOR (for Manual Seat)

- (a) Install the No. 2 seat position airbag sensor (2) to the front seat adjuster assembly (3) from above and position it correctly.

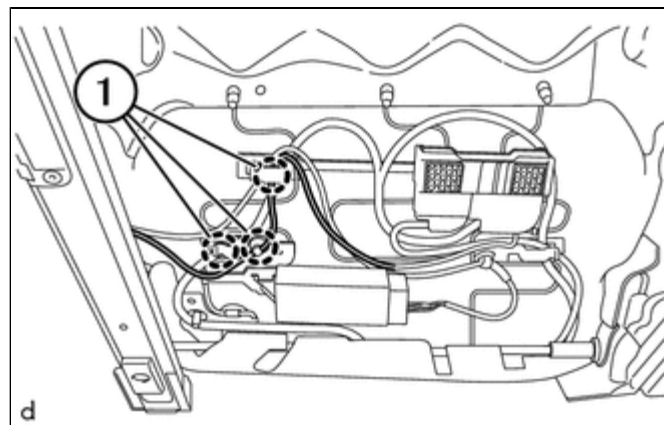


- (b) Tighten the bolt (1).

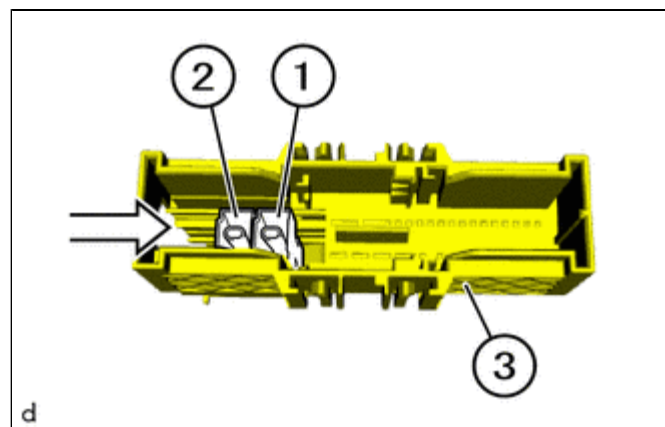
Torque:

1.3 N·m {13 kgf·cm, 12 in·lbf}

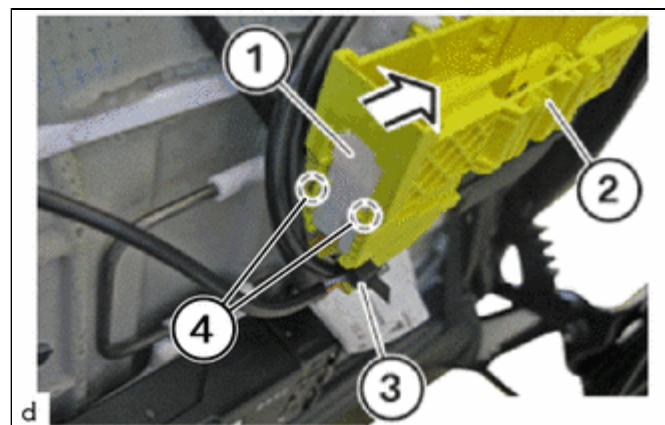
- (c) Attach the clamps (1).



- (d) Install the connectors correctly into the connector housing (3) in the sequence (1) to (2) in the direction of the arrow.



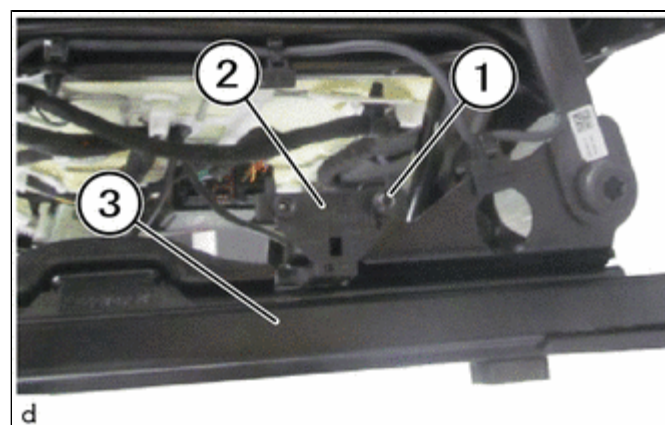
- (e) Attach the claws (4) to install the connector (1) to the connector housing (2).



- (f) Fasten cable (3) with the tie band to connector housing (2).

2. INSTALL SEAT POSITION AIRBAG SENSOR (for Power Seat)

- (a) Install the seat position airbag sensor (2) to the front seat adjuster assembly (3) from above and position it correctly.



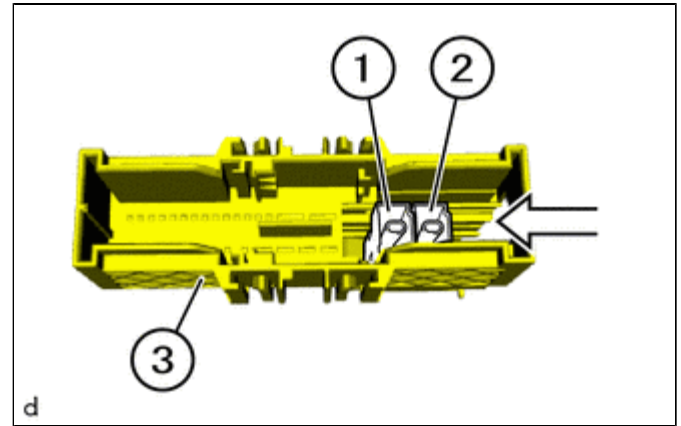
- (b) Tighten the bolt (1).

Torque:

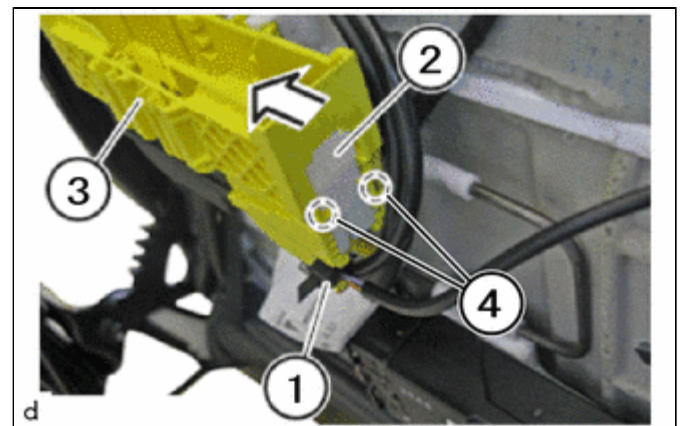
1.3 N·m {13 kgf·cm, 12 in·lbf}

- (c) Attach the clamp.

- (d) Install the connectors correctly into the connector housing (3) in the sequence (1) to (2) in the direction of the arrow.



- (e) Attach the claws (4) to install the connector (1) to the connector housing (2).



- (f) Fasten cable (3) with the tie band to connector housing (2).

3. INSTALL FRONT SEAT ASSEMBLY

- for Manual Seat:

Click here [INFO](#)

- for Power Seat:

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCJK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SIDE AIRBAG SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Pyrotechnic components.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

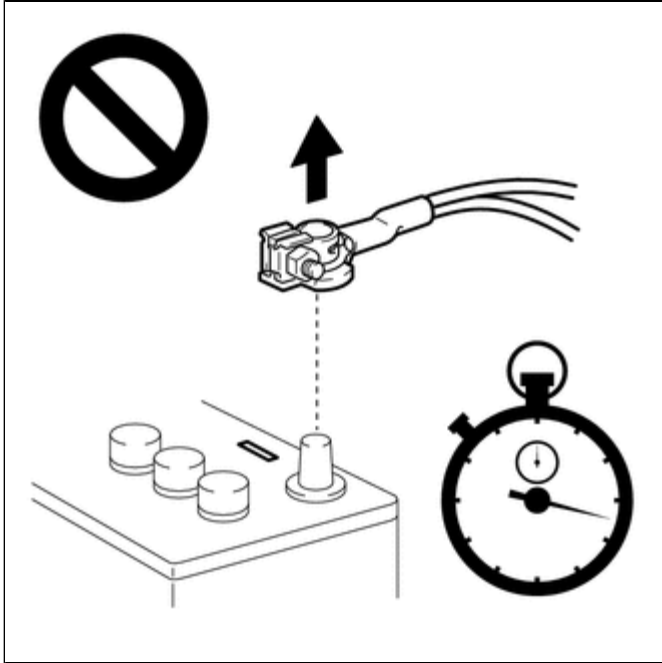
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



2. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

3. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE SIDE AIRBAG PRESSURE SENSOR

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

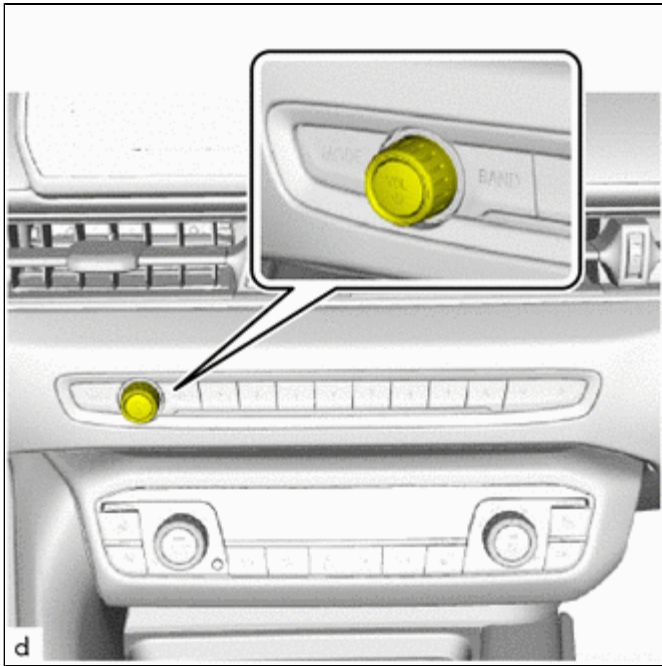
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

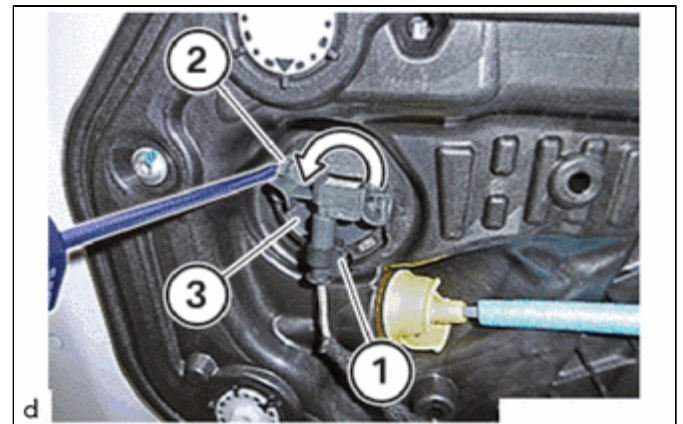


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Unlock the plug connection (1) and disconnect.



(d) Using a screwdriver, detach the claw (2).

(e) Turn the side airbag pressure sensor (3) in the direction of the arrow and remove.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SIDE AIRBAG SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH and LH sides.
- The procedure listed below is for the LH side.

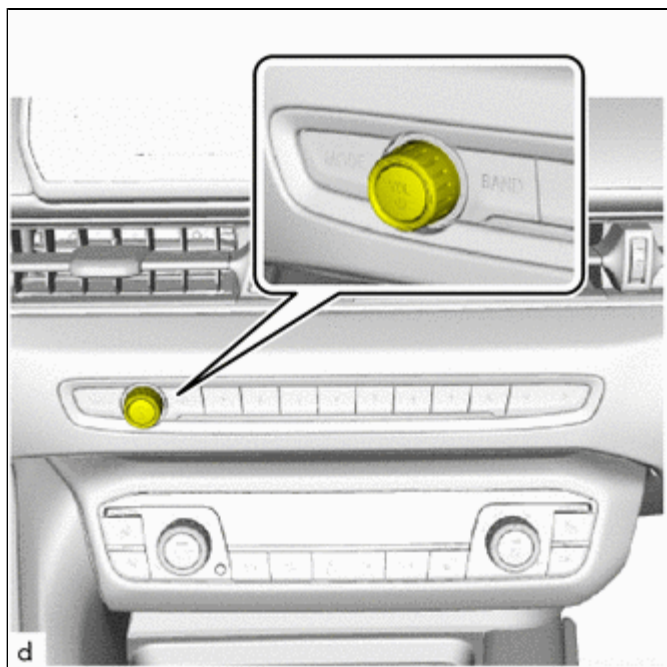
PROCEDURE

1. INSTALL SIDE AIRBAG PRESSURE SENSOR

- (a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



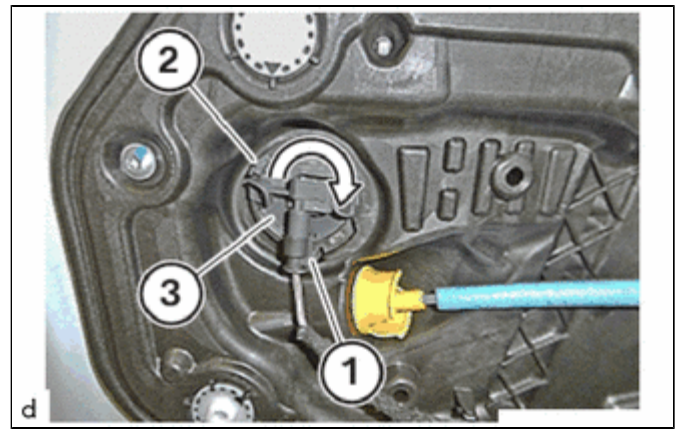
- (b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

- (c) Turn the side airbag pressure sensor (3) in the direction of

the arrow until the claw (2) attach.



(d) Connect connectors (1) and lock.

2. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

Click here [INFO](#)

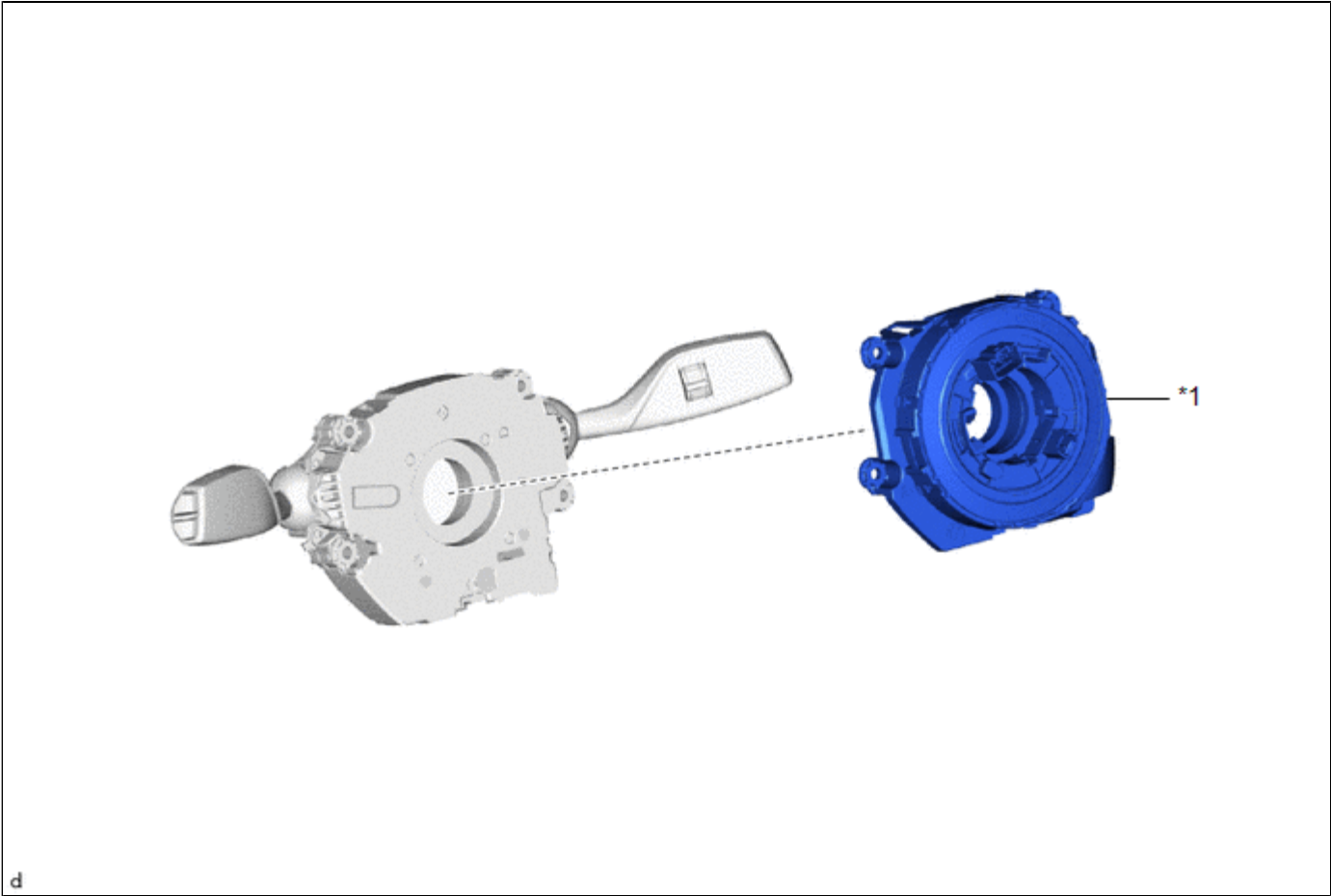
4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SPIRAL CABLE SUB-ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!



- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.



	Cushion (Airbag Itself)
---	-------------------------

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

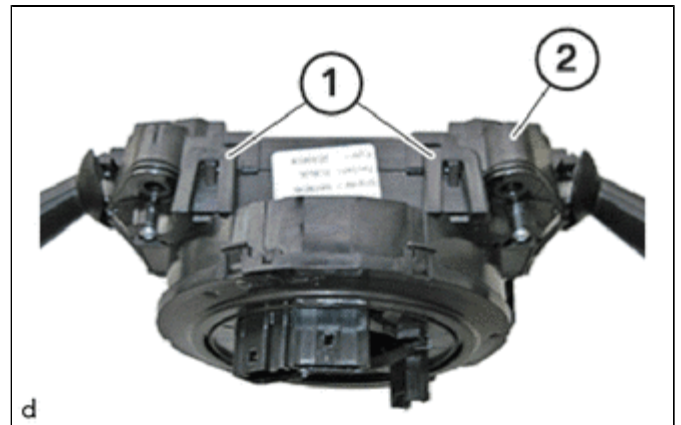
PROCEDURE

1. REMOVE TURN SIGNAL SWITCH ASSEMBLY

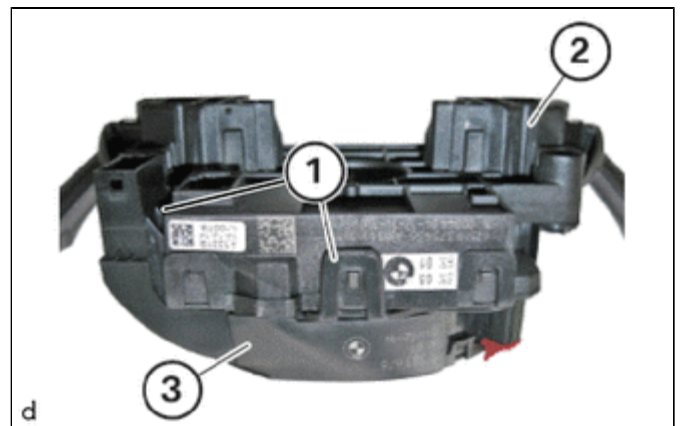
Click here [INFO](#)

2. REMOVE SPIRAL CABLE SUB-ASSEMBLY

- (a) Detach both claws (1) on the turn signal switch assembly (2).



- (b) Detach the central and left claws (1) on the turn signal switch assembly (2).



- (c) Remove the spiral cable sub-assembly (3) from the turn signal switch assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: INSPECTION; 2020 MY Supra [03/2019 -]		

INSPECTION

PROCEDURE

1. INSPECT SPIRAL CABLE SUB-ASSEMBLY

(a) Visually check the spiral cable sub-assembly for defects.

(1) The defects are as follows:

- Scratches
- Small cracks
- Dents
- Chips
- Cracks or other damage to the connector

OK:

No defects are found.

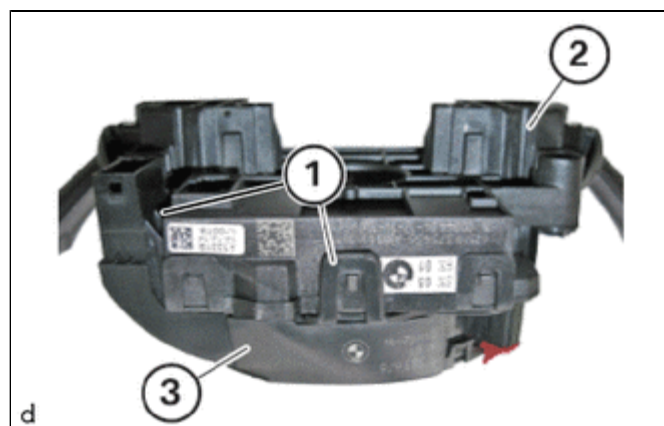
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: SPIRAL CABLE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

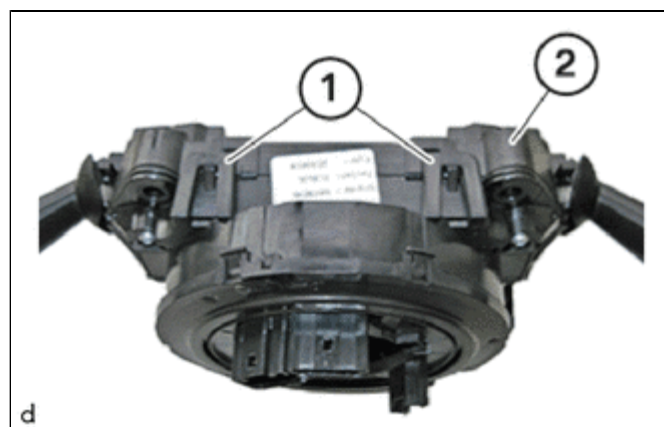
PROCEDURE

1. INSTALL SPIRAL CABLE SUB-ASSEMBLY

- (a) Attach the central and left claws (1) to install the spiral cable sub-assembly (3) to the turn signal switch assembly (2).



- (b) Attach both claws (1) to install the spiral cable sub-assembly to the turn signal switch assembly (2).



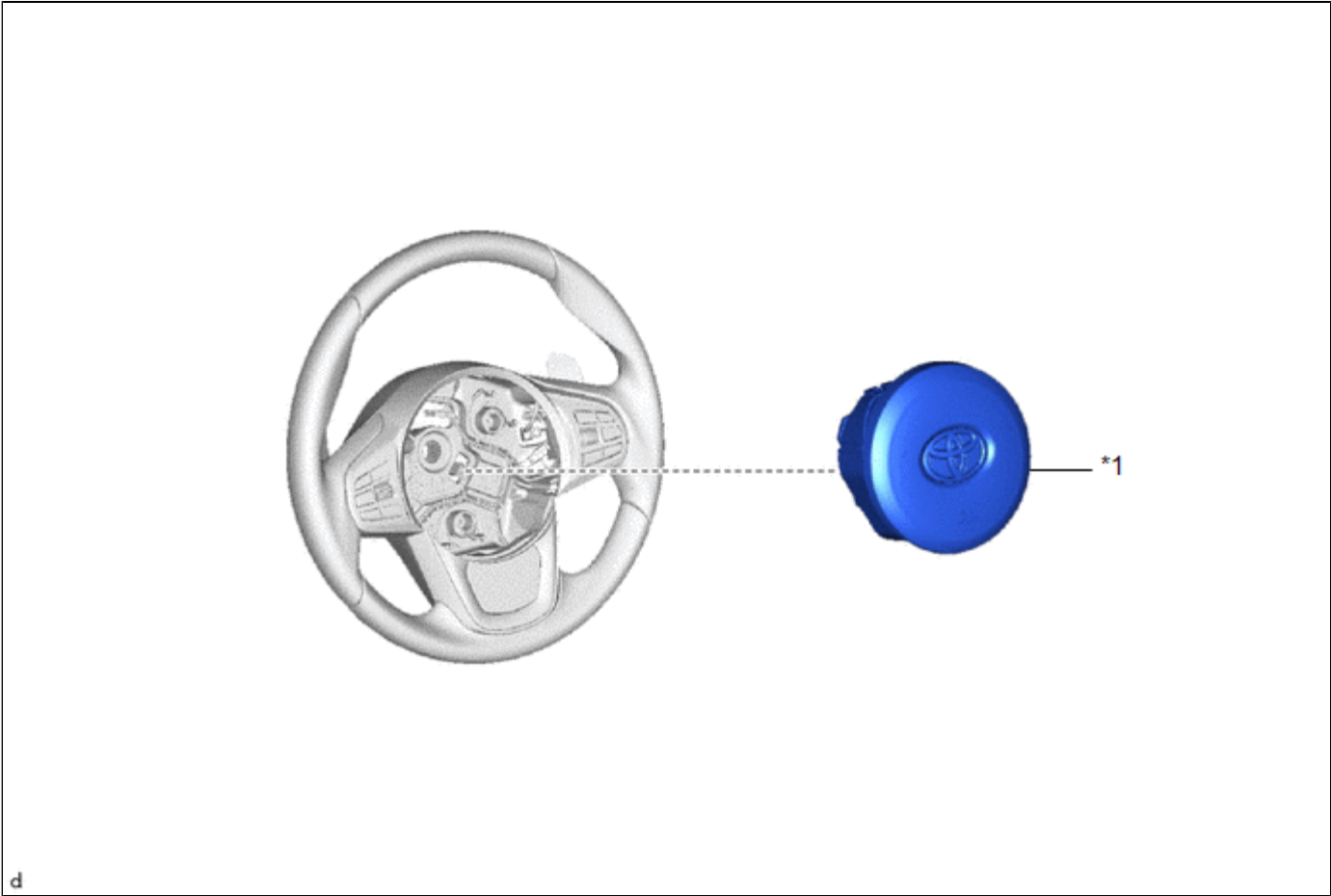
2. INSTALL TURN SIGNAL SWITCH ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



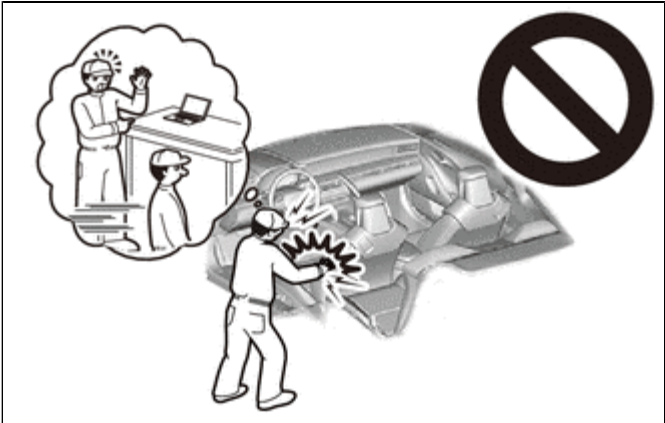
*1	HORN BUTTON ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.



	Cushion (Airbag Itself)
---	-------------------------

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to

prevent damage to the electrical system or components.

- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

HINT:

Steering wheel must be replaced if airbag unit has been deployed.

For more information see:

Click here [INFO](#)

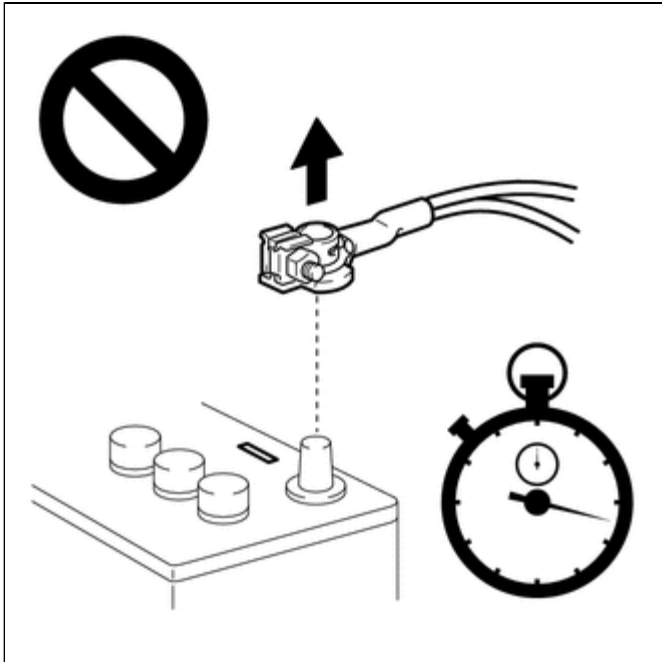
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.



2. REMOVE HORN BUTTON ASSEMBLY

CAUTION:

- Airbag unit.

Danger! Life-threatening injuries!

- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see:

Click here [INFO](#)

HINT:

Steering wheel must be replaced if airbag unit has been deployed.

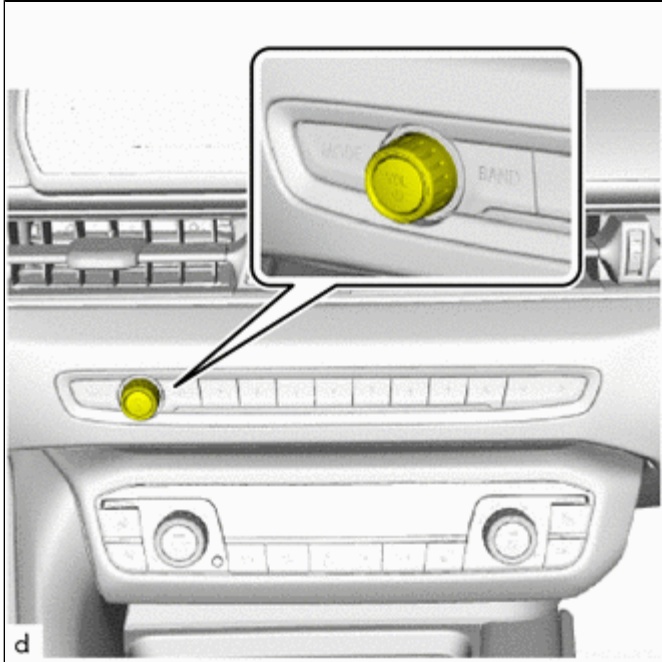
For more information see:

[Click here](#) **INFO**

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(b) Check that the cable is disconnected from the negative (-) battery terminal.

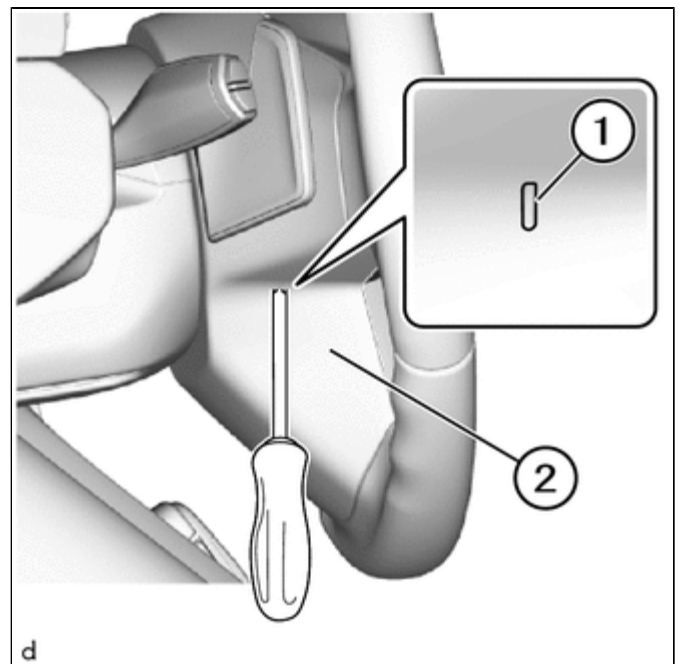
CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

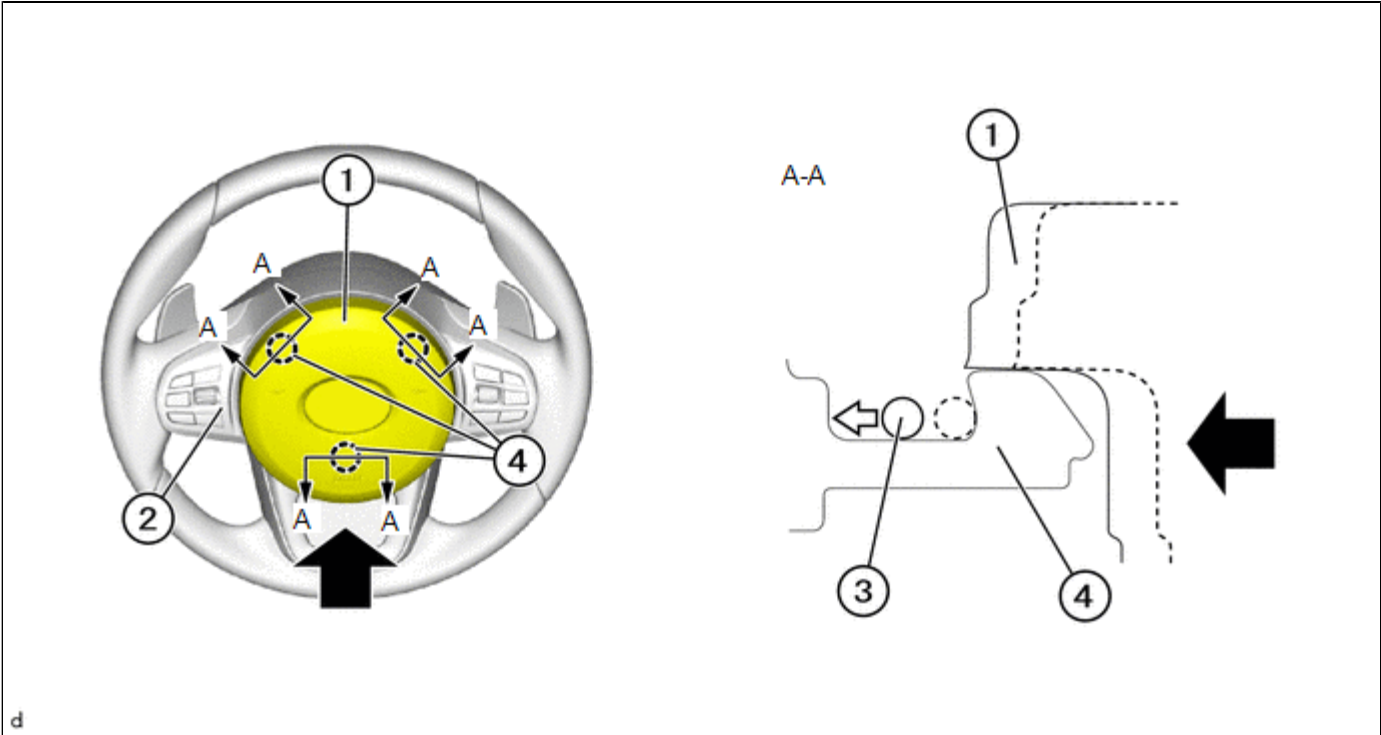
(c) Insert the "TORX" screwdriver T25 diagonally upwards into concealed opening on the rear side (1) of steering wheel assembly (2) until a springy resistance can be felt.

HINT:

Use the same procedure as for the opposite side.

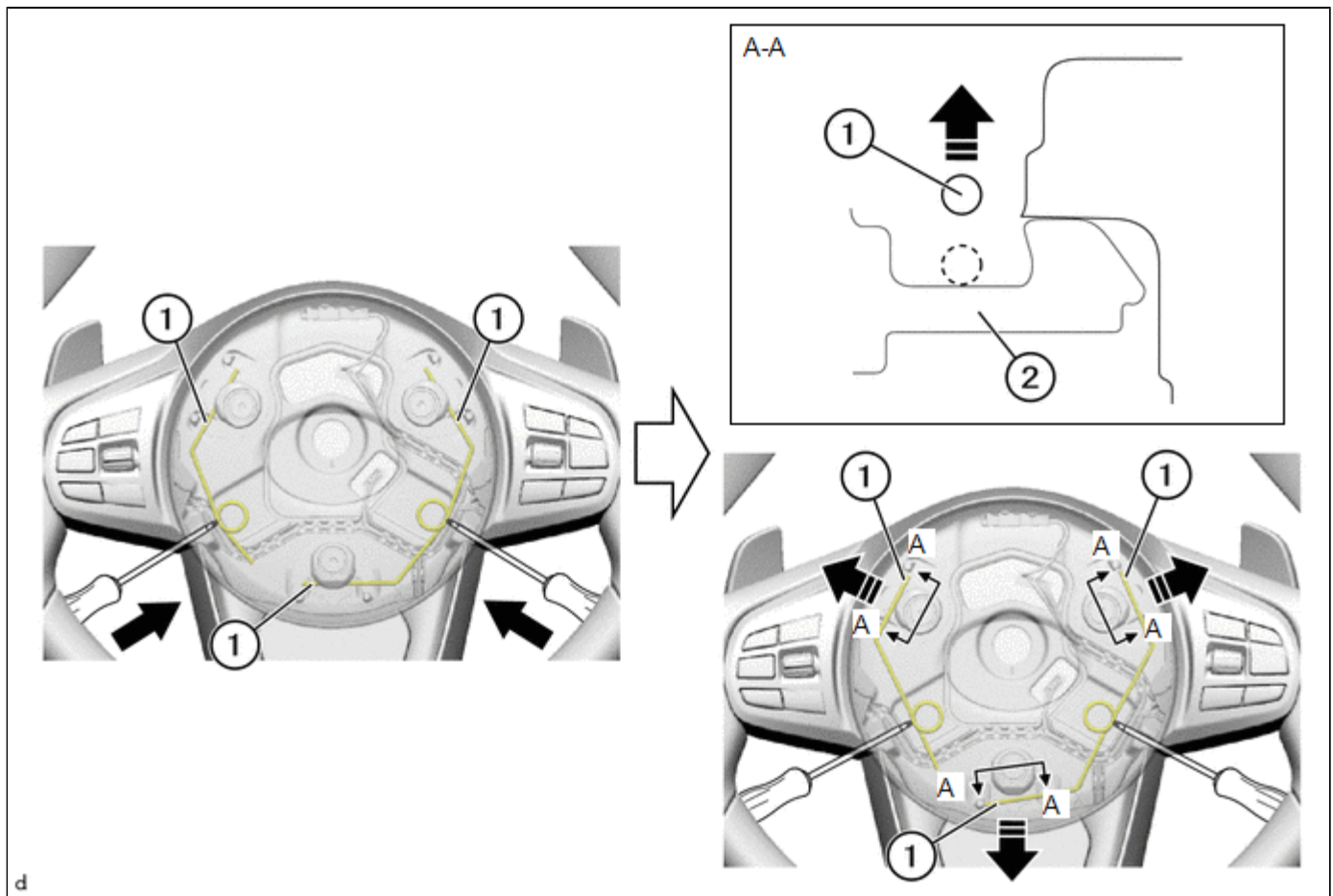




(d) Spreading your hands to hold it over a large area, push the entire horn button assembly (1) against the steering wheel assembly (2) so that the wire spring clips (3) are raised up from the hooks (4).



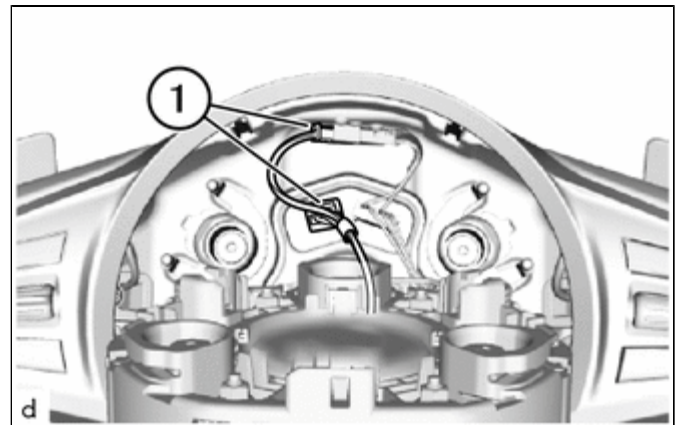
	Push		Raised up
---	------	---	-----------

(e) While pushing and holding the entire horn button assembly, use the "TORX" screwdriver T25H to push the wire spring clips (1) towards the center of the steering wheel assembly and disengage the wire spring clips (1).



	Push		Remove in this Direction
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(f) Unlock the plug connection (1) and disconnect.



(g) Remove the horn button assembly.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCIQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: STEERING PAD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

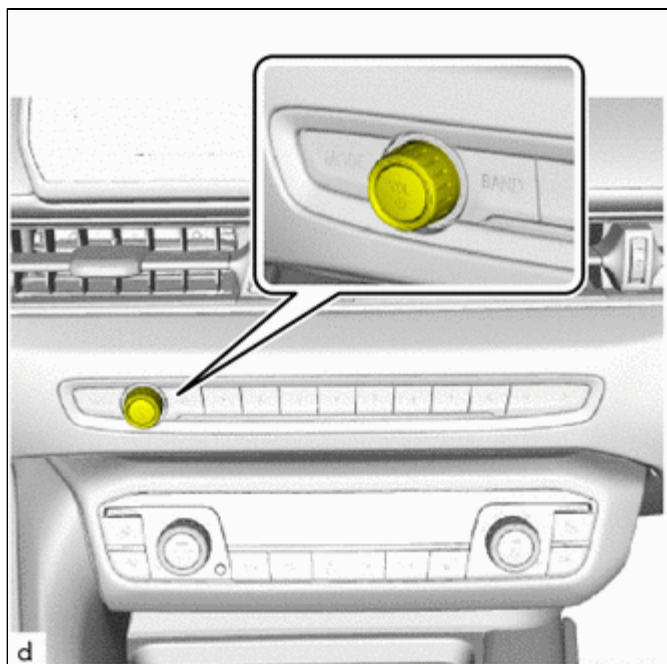
PROCEDURE

1. INSTALL HORN BUTTON ASSEMBLY

(a) Check that the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.

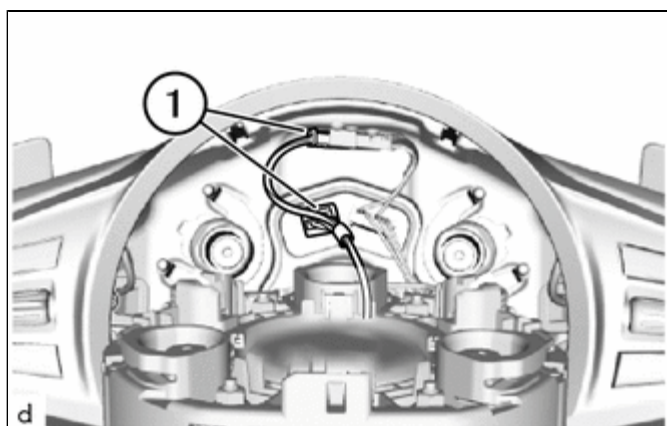


(b) Check that the cable is disconnected from the negative (-) battery terminal.

CAUTION:

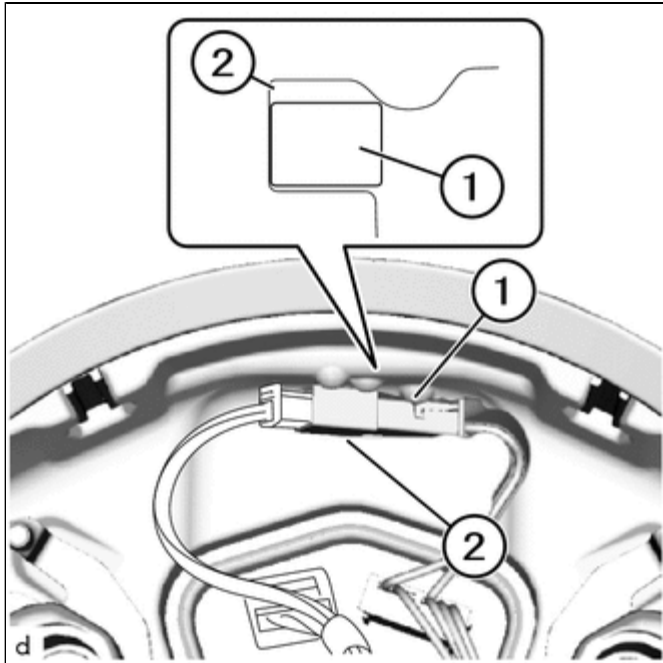
- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
- If the airbag deploys for any reason, it may cause a serious accident.

(c) Connect the connectors (1) and lock.



HINT:

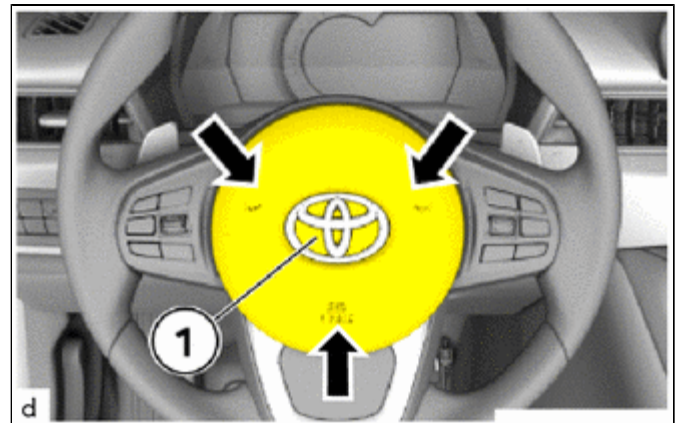
Install the connector (1) to the steering wheel assembly connector holder (2).



- (d) Apply even amounts of pressure and press the horn button assembly (1) into the steering wheel assembly until the airbag unit audibly and noticeably engages.

NOTICE:

After installation, try to pull the horn button assembly and check that the horn button assembly is securely installed.

**2. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**

Click here [INFO](#)

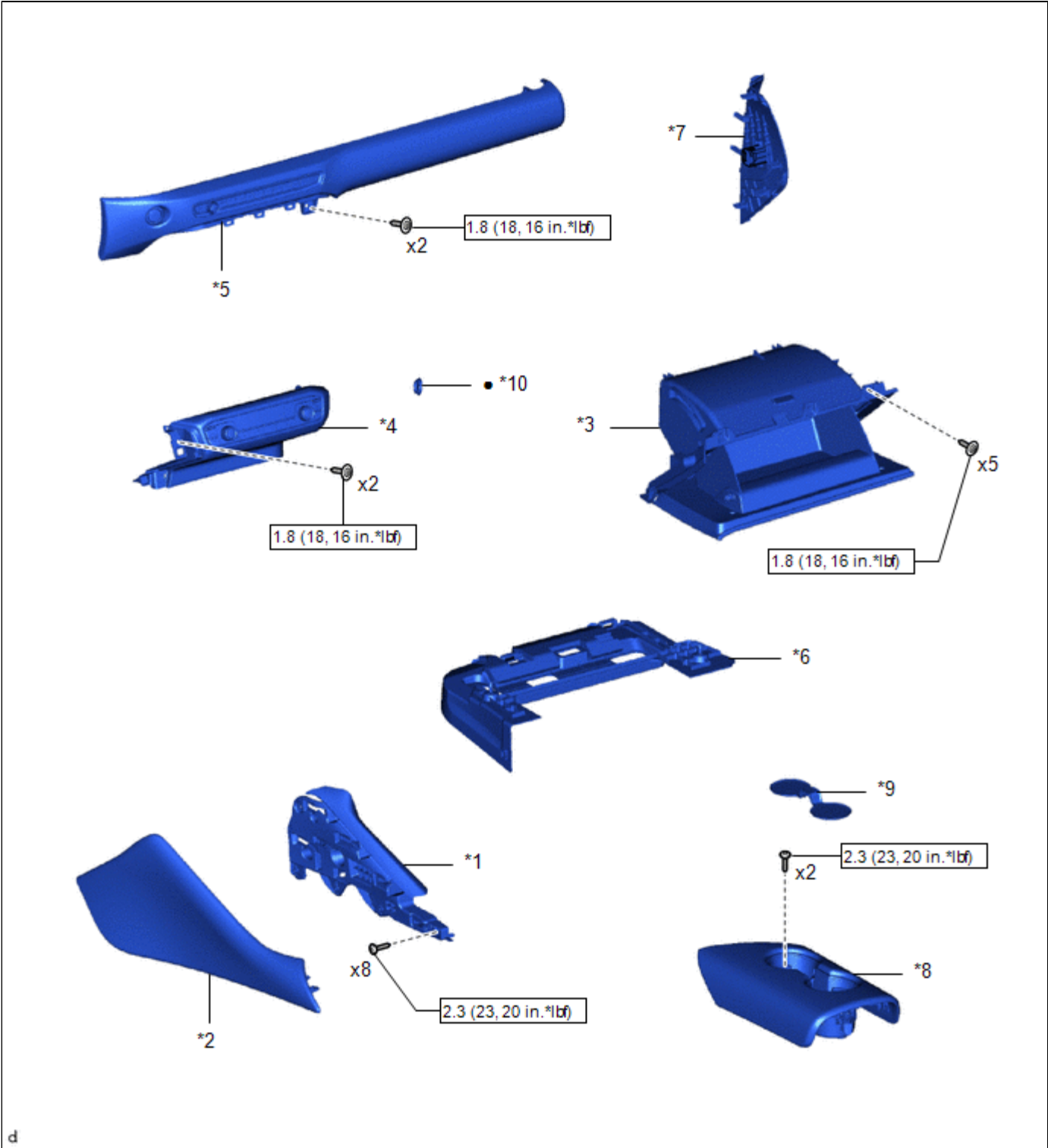
3. INSPECT HORN BUTTON ASSEMBLY

- (a) Make sure that the horn sounds.


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JFCZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: CERTIFICATION ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

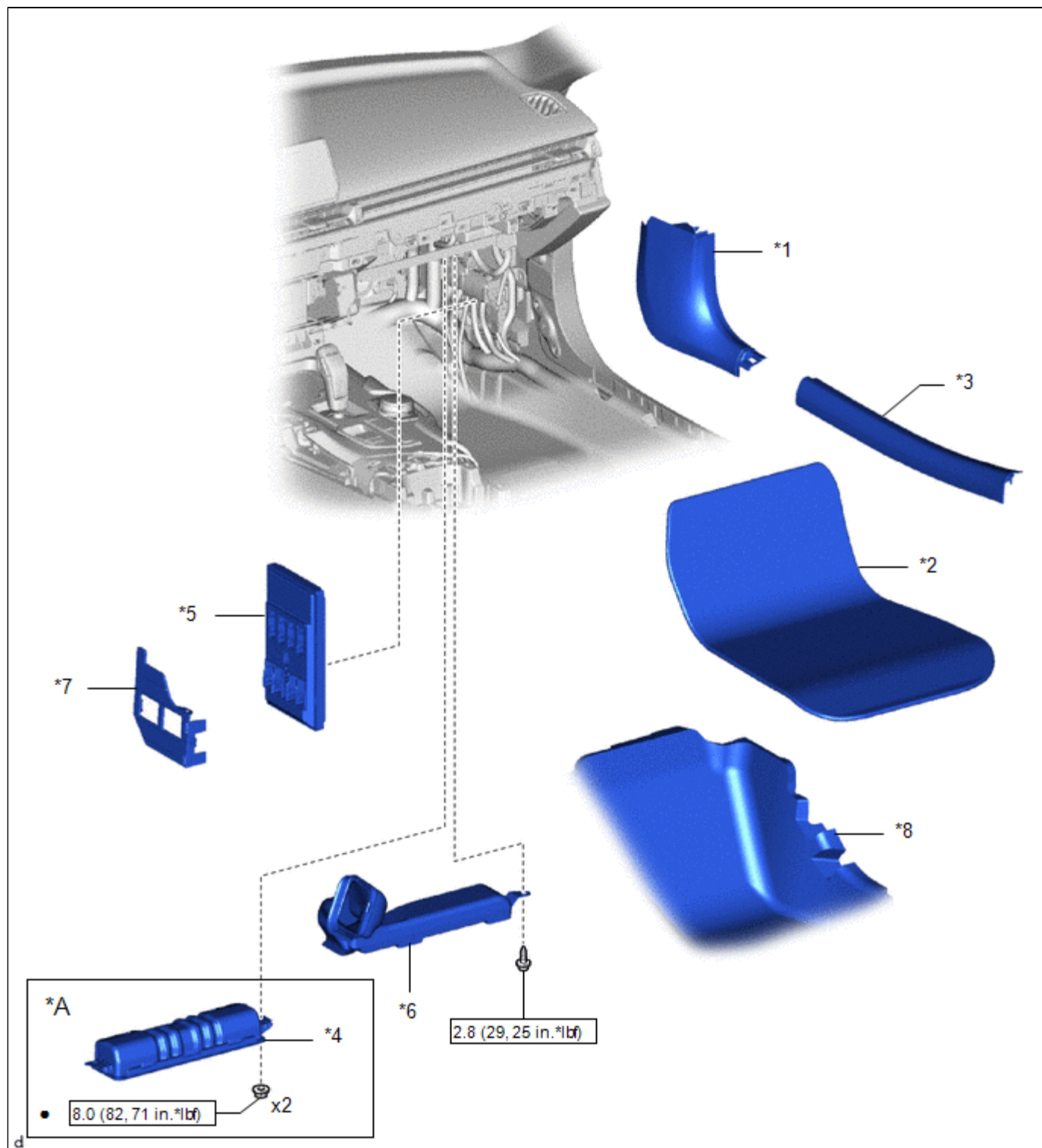
ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE	*2	CONSOLE SIDE PANEL
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	PANEL RETAINER		
*3	GLOVE COMPARTMENT DOOR ASSEMBLY	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY	*6	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
*7	NO. 1 INSTRUMENT SIDE PANEL	*8	FRONT CONSOLE ARMREST ASSEMBLY
*9	NO. 1 CONSOLE BOX SILENCER PAD	*10	RUBBER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



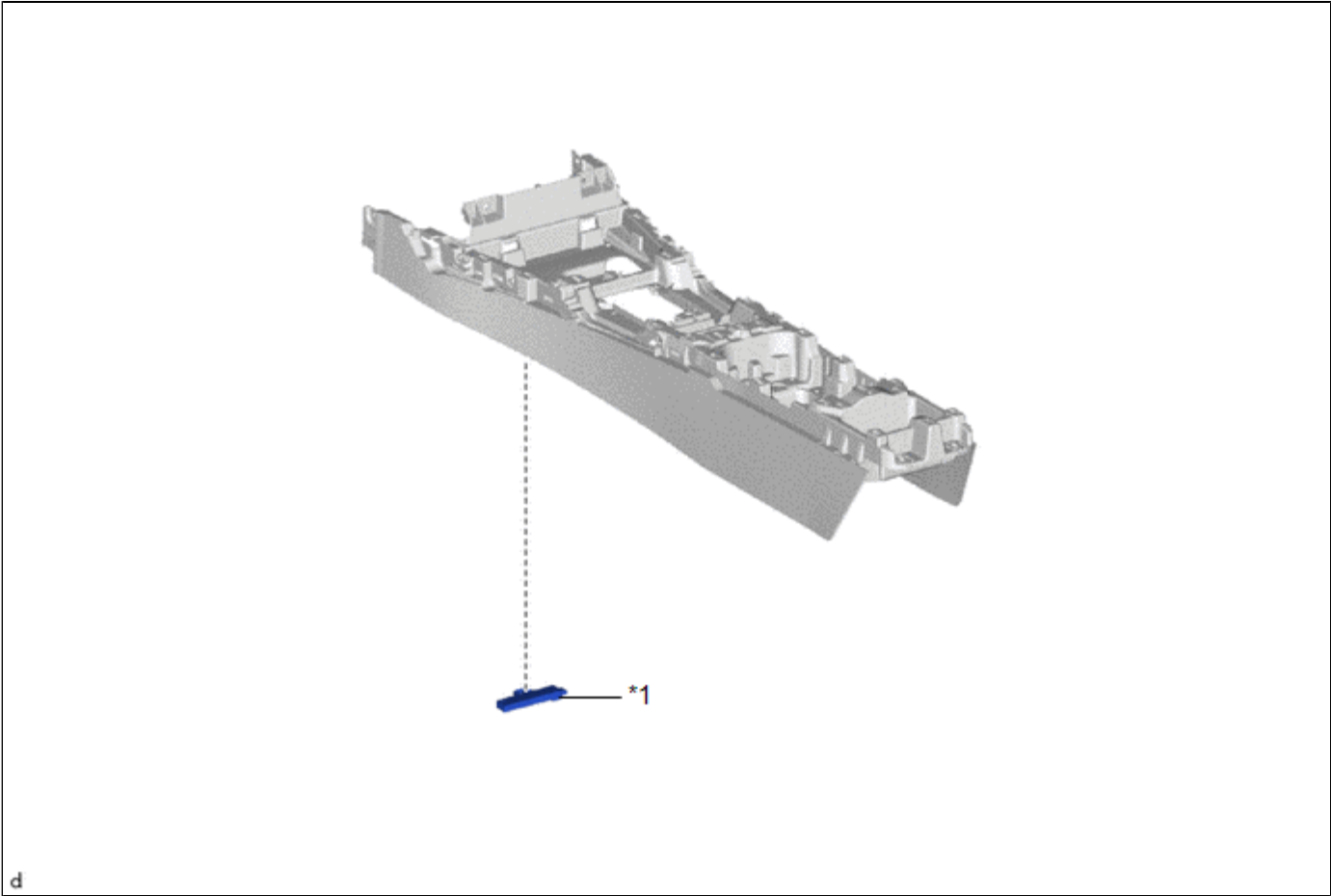
*A	w/ Knee Airbag	-	-
*1	COWL SIDE TRIM BOARD RH	*2	FLOOR MAT ASSEMBLY
*3	FRONT DOOR SCUFF PLATE RH	*4	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY
*5	CERTIFICATION ECU (MULTIPLEX NETWORK BODY ECU)	*6	NO. 2 AIR DUCT
*7	COVER	*8	FRONT FLOOR CARPET ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

<div></div>			
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Console Box Front Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Console Box Front Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE CONSOLE BOX ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY

NOTICE:

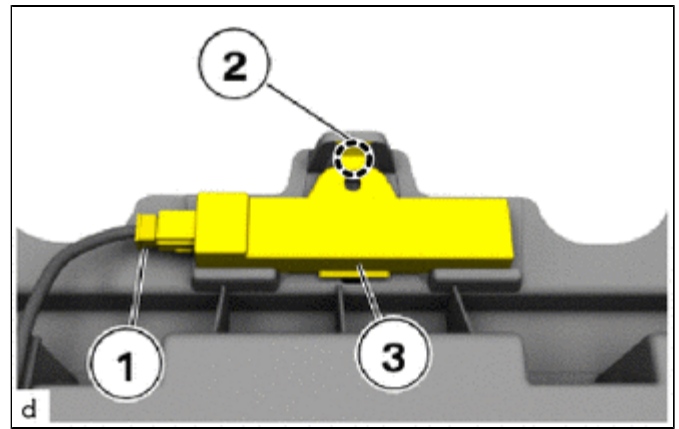
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Disconnect the connector (1).



(b) Detach the claw (2) to remove the No. 1 indoor electrical key antenna assembly (3).

NOTICE:

Be careful when removing the No. 1 indoor electrical key antenna assembly. If the No. 1 indoor electrical key antenna assembly is dropped, replace it with a new one.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Console Box Front Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

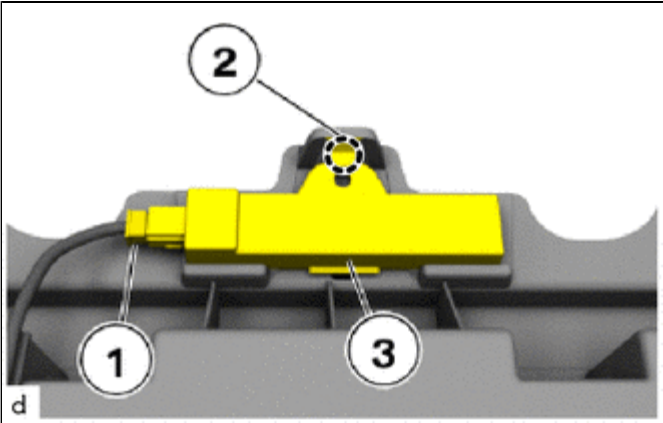
PROCEDURE

1. INSTALL NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY

- (a) Attach the claw (2) to install the No. 1 indoor electrical key antenna assembly (3).

NOTICE:

Be careful when installing the No. 1 indoor electrical key antenna assembly. If the No. 1 indoor electrical key antenna assembly is dropped, replace it with a new one.



- (b) Connect the connector (1).

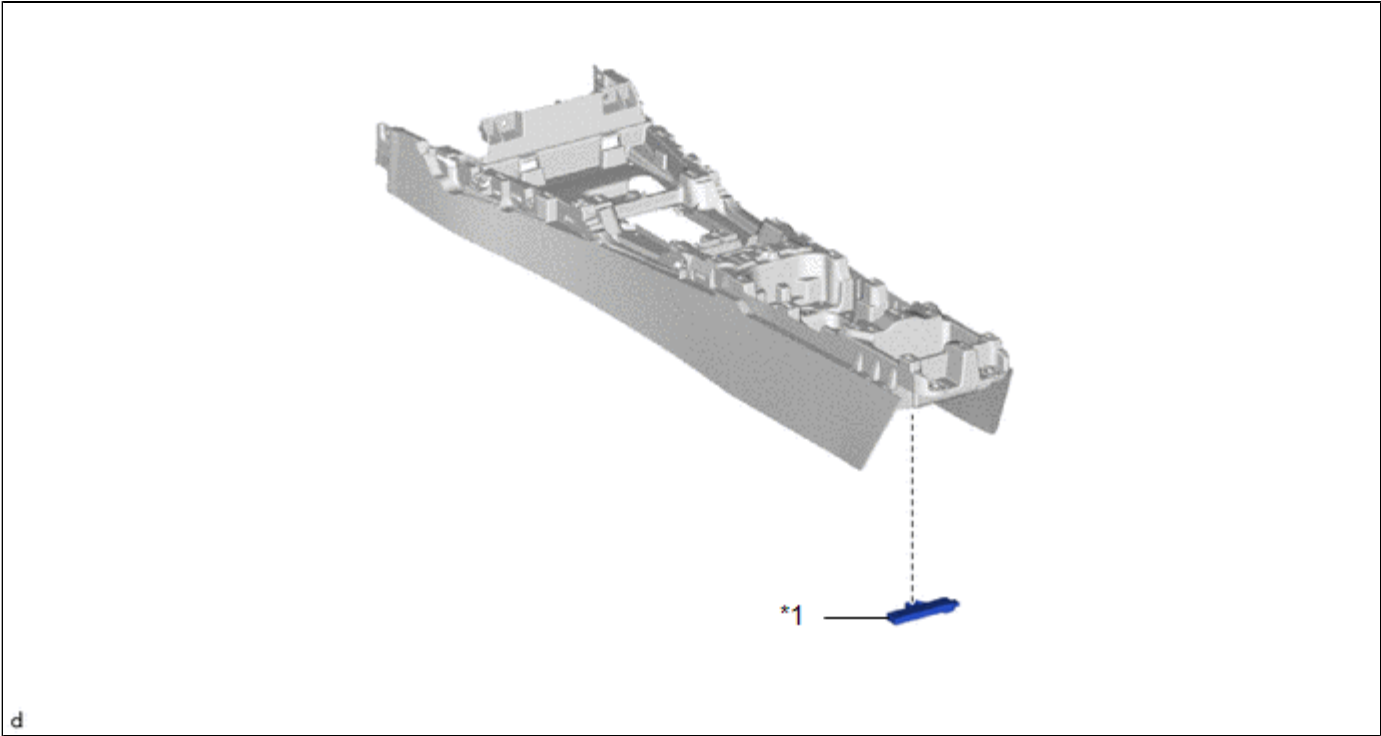
2. INSTALL CONSOLE BOX ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Console Box Rear Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Console Box Rear Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach the cable from the negative (-) battery terminal.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE CONSOLE BOX ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY

NOTICE:

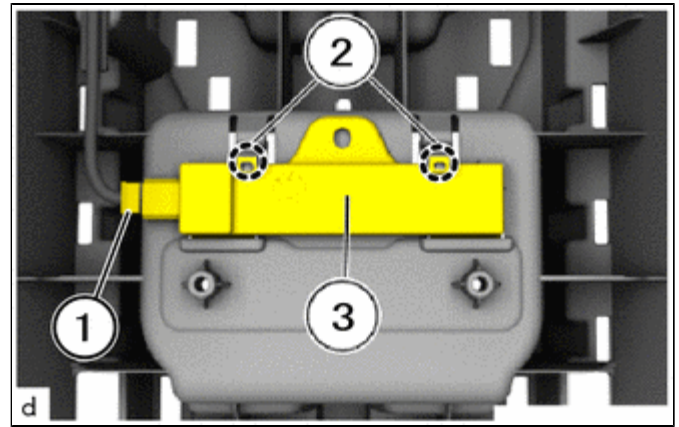
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Disconnect the connector (1).



(b) Detach the claws (2) to remove the No. 1 indoor electrical key antenna assembly (3).

NOTICE:

Be careful when removing the No. 1 indoor electrical key antenna assembly. If the No. 1 indoor electrical key antenna assembly is dropped, replace it with a new one.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Console Box Rear Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

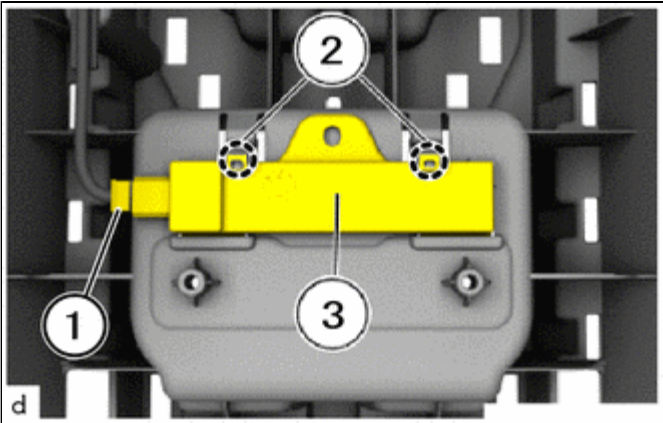
INSTALLATION

PROCEDURE

1. INSTALL NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY

- (a) Attach the claws (2) to install the No. 1 indoor electrical key antenna assembly (3).

NOTICE:
 Be careful when installing the No. 1 indoor electrical key antenna assembly. If the No. 1 indoor electrical key antenna assembly is dropped, replace it with a new one.



- (b) Connect the connector (1).

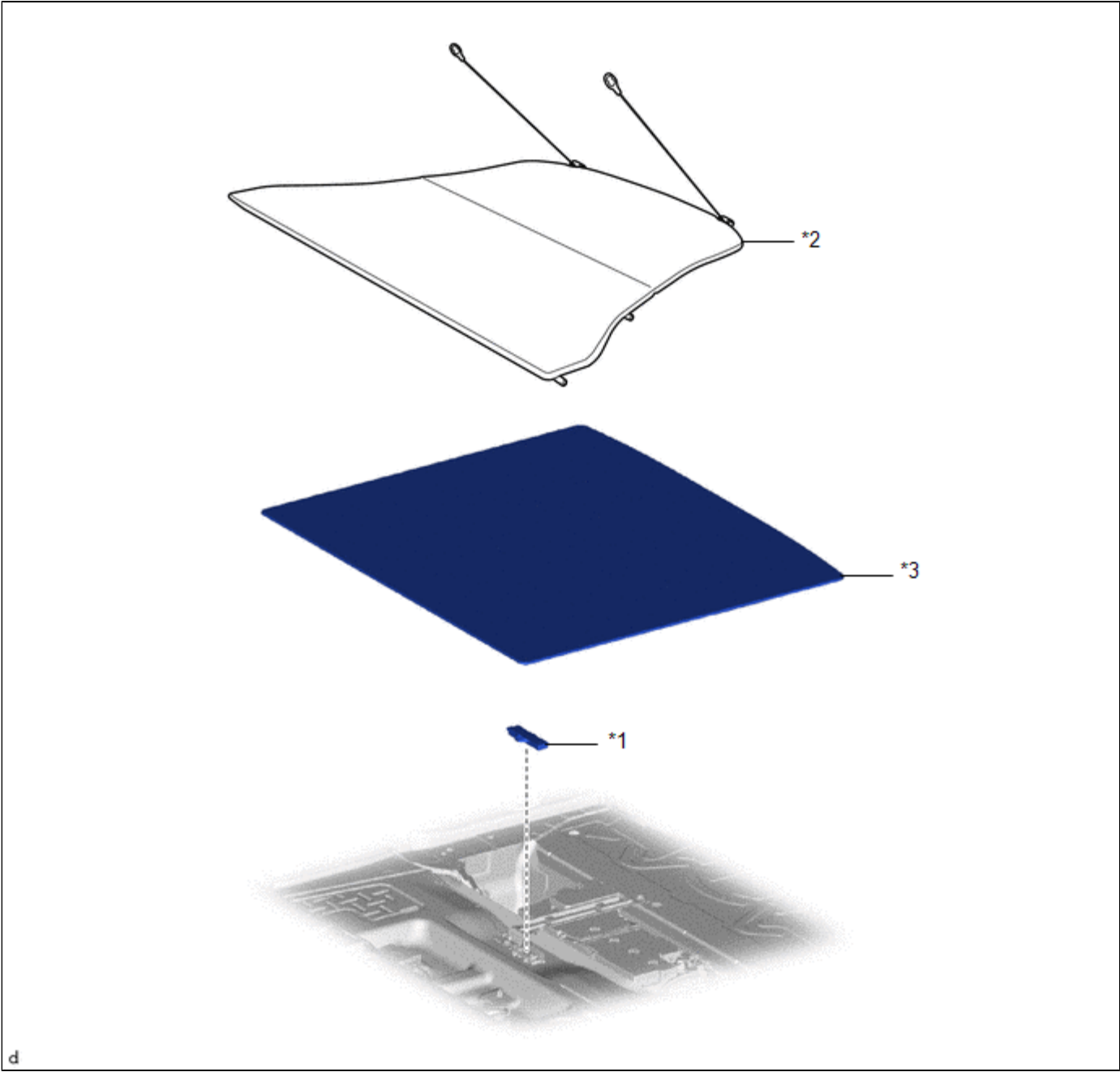
2. INSTALL CONSOLE BOX ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Luggage Compartment): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY	*2	PACKAGE TRAY TRIM PANEL ASSEMBLY
*3	DECK BOARD ASSEMBLY	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCF9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Luggage Compartment): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

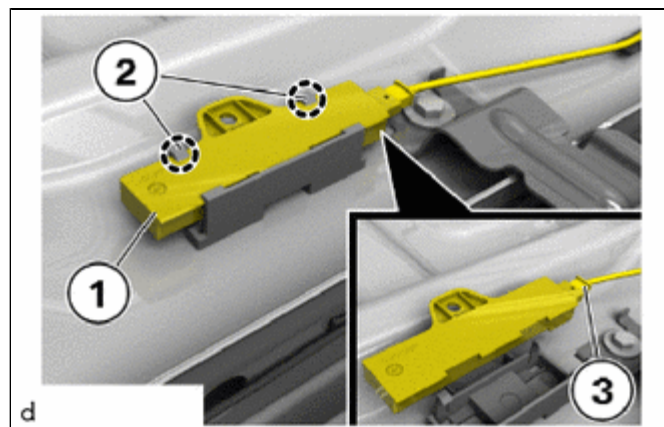
Click here [INFO](#)

2. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

3. REMOVE NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY

(a) Detach the claws (2) of the holder.



(b) Disconnect the connector (3) to remove the No. 1 indoor electrical key antenna assembly (1).

NOTICE:

Be careful when removing the No. 1 indoor electrical key antenna assembly. If the No. 1 indoor electrical key antenna assembly is dropped, replace it with a new one.

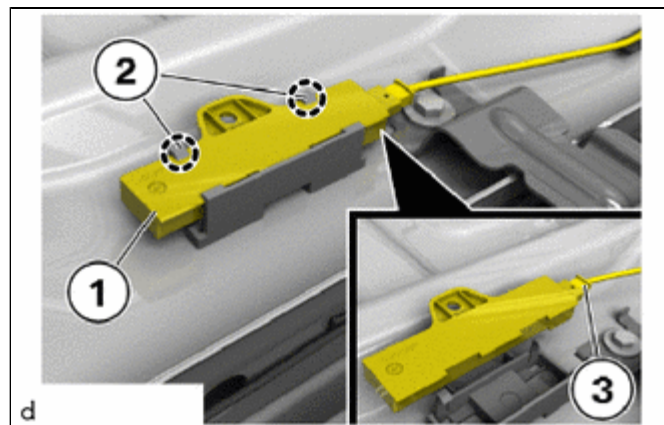
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Luggage Compartment): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 INDOOR ELECTRICAL KEY ANTENNA ASSEMBLY

(a) Connect the connector (3).



(b) Attach the claws (2) of the holder to install the No. 1 indoor electrical key antenna assembly (1).

NOTICE:

Be careful when installing the No. 1 indoor electrical key antenna assembly. If the No. 1 indoor electrical key antenna assembly is dropped, replace it with a new one.

2. INSTALL DECK BOARD ASSEMBLY

Click here [INFO](#)

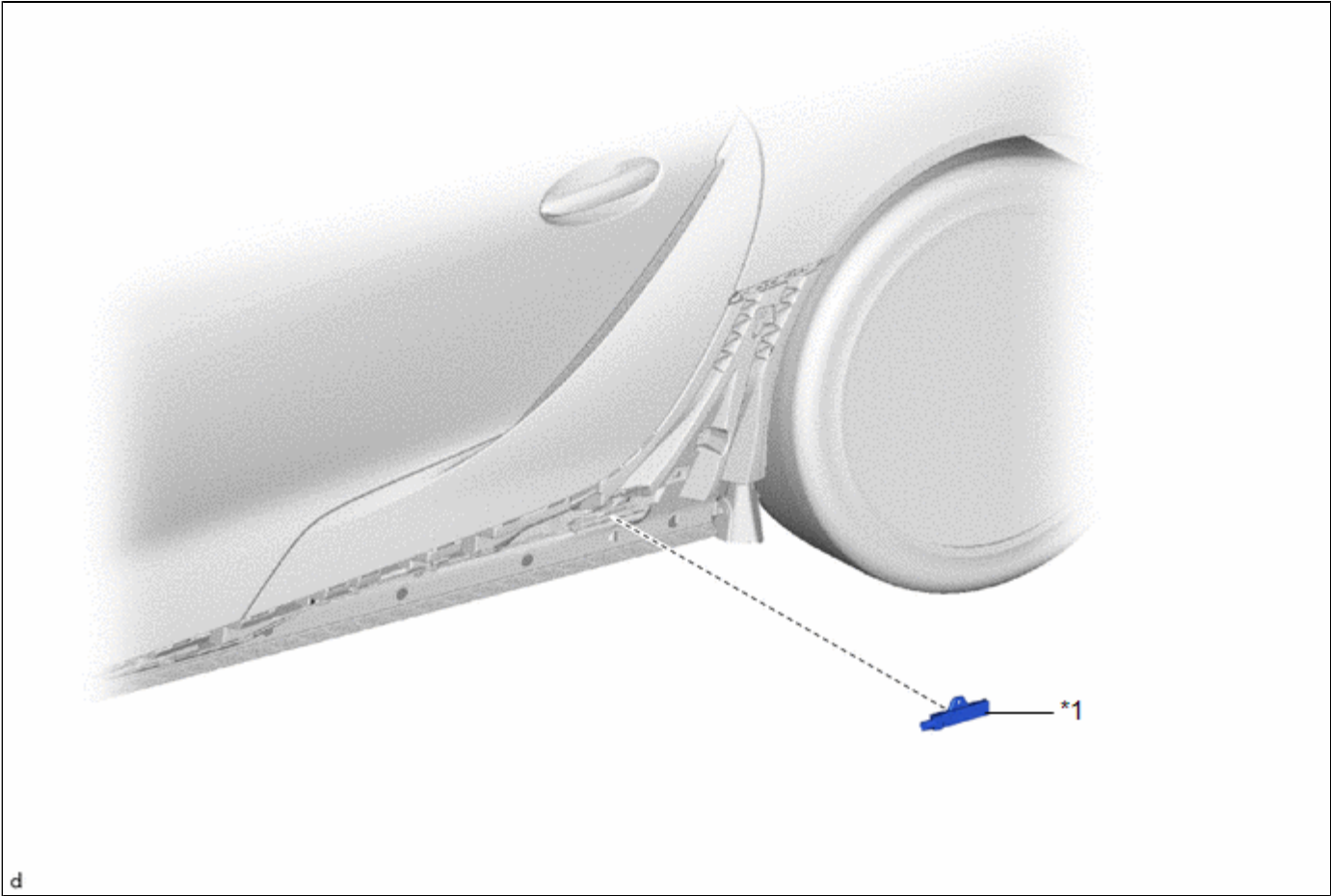
3. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ELECTRICAL KEY ANTENNA	-	-
----	------------------------	---	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

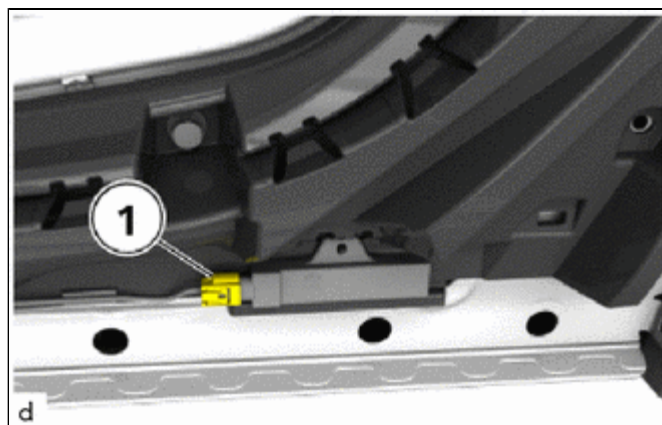
PROCEDURE

1. REMOVE NO. 1 SIDE PANEL MOULDING

Click here [INFO](#)

2. REMOVE ELECTRICAL KEY ANTENNA

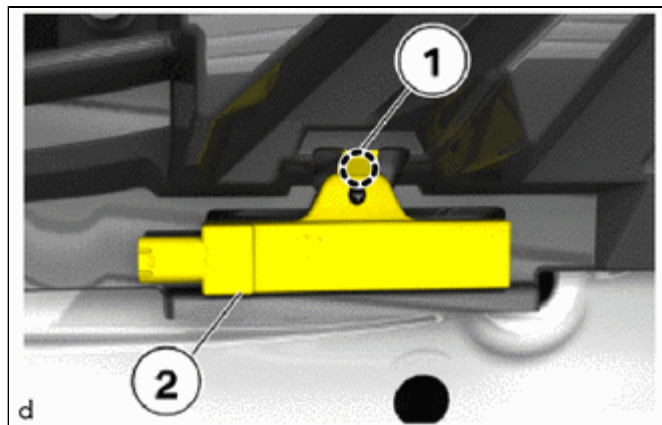
(a) Disconnect the connector (1).



(b) Detach the claw (1) to remove the electrical key antenna (2).

NOTICE:

Be careful when removing the electrical key antenna. If the electrical key antenna is dropped, replace it with a new one.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ELECTRICAL KEY OSCILLATOR (for Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

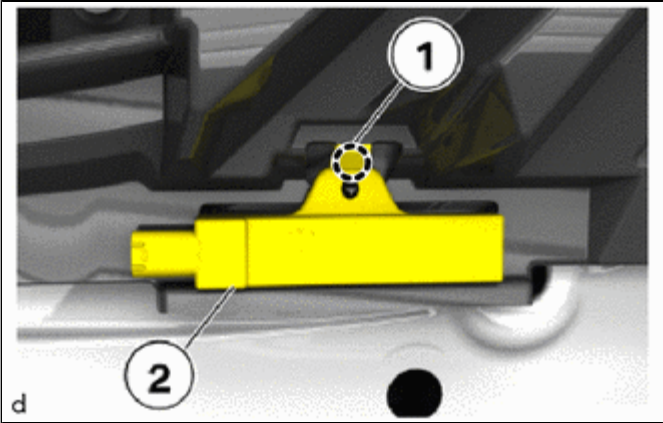
PROCEDURE

1. INSTALL ELECTRICAL KEY ANTENNA

(a) Attach the claw (1) to install the electrical key antenna (2).

NOTICE:

Be careful when installing the electrical key antenna. If the electrical key antenna is dropped, replace it with a new one.



(b) Connect the connector.

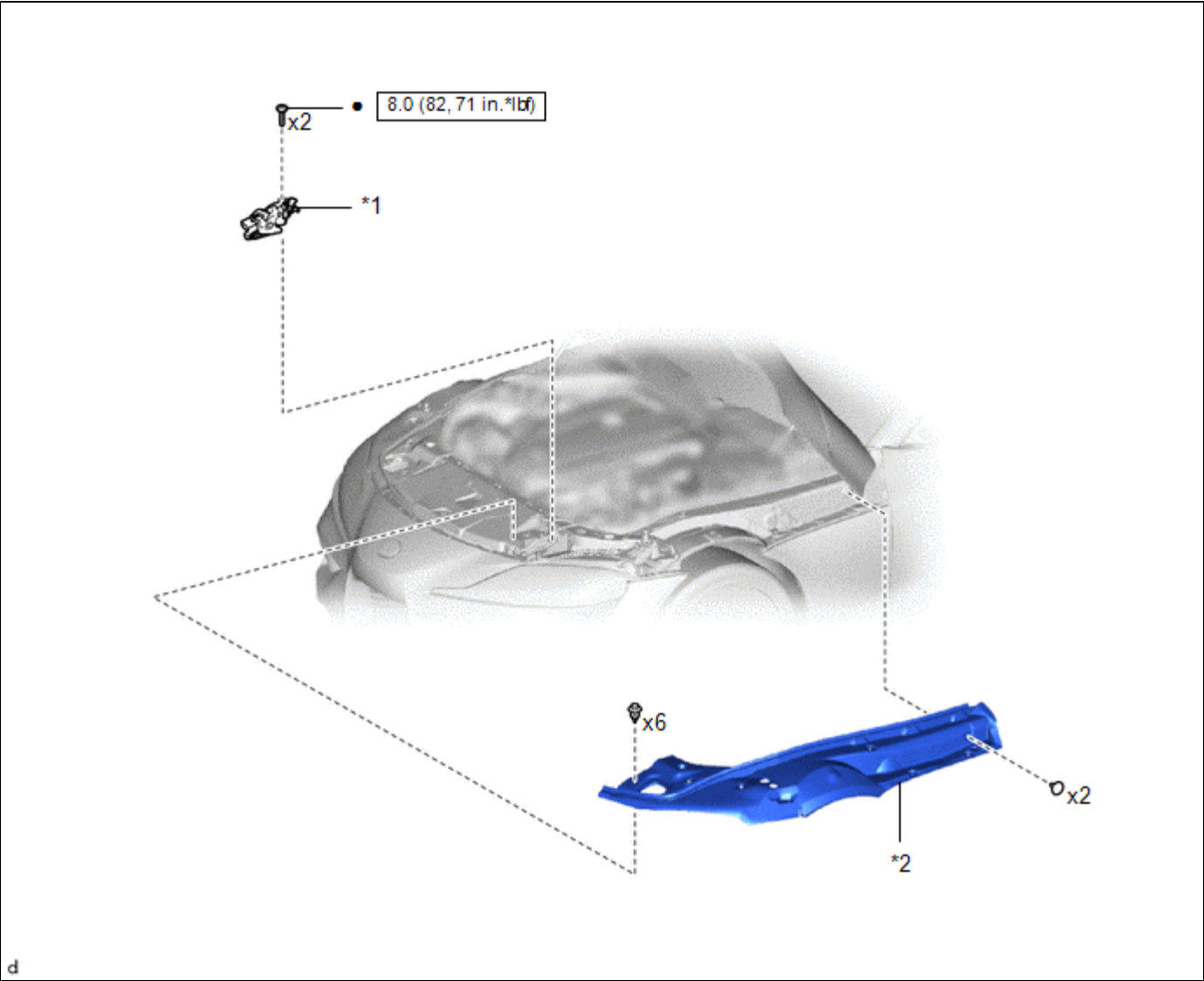
2. INSTALL NO. 1 SIDE PANEL MOULDING

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ENGINE HOOD COURTESY SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)	*2	FRONT FENDER UPPER PROTECTOR LH
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ENGINE HOOD COURTESY SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

3. REMOVE ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

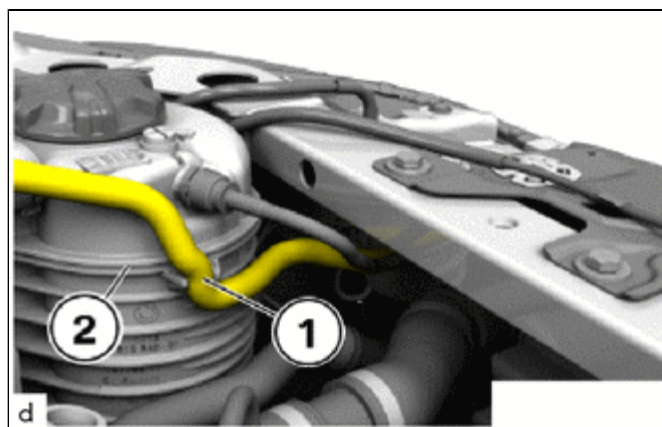
- (a) Detach the No. 5 water by-pass hose (1) from the radiator reserve tank assembly (2).

CAUTION:

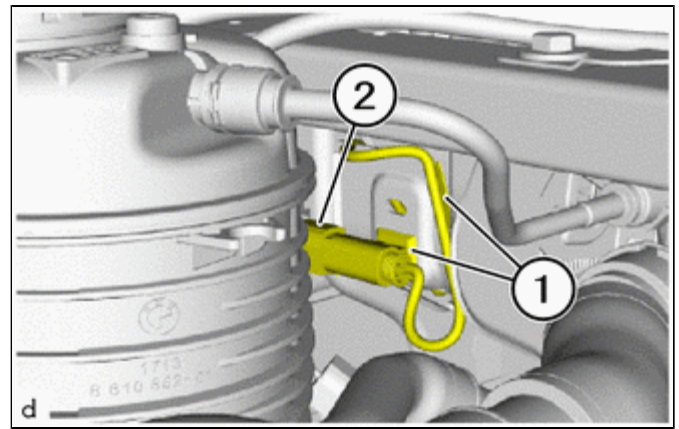
- Hot surfaces.

Risk of burning!

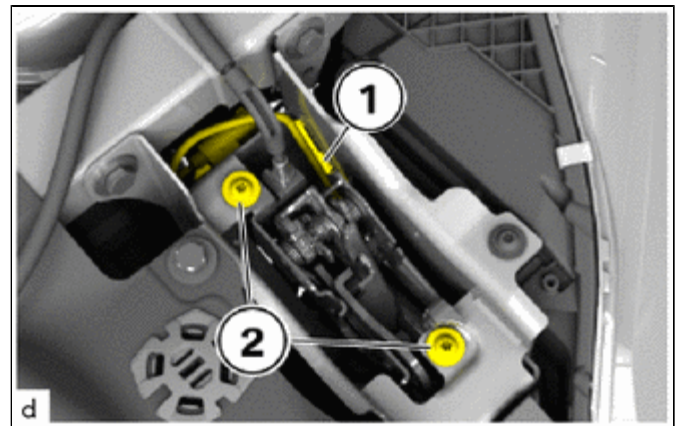
- Perform all work only on components that have cooled down.



- (b) Detach the clamps (1).



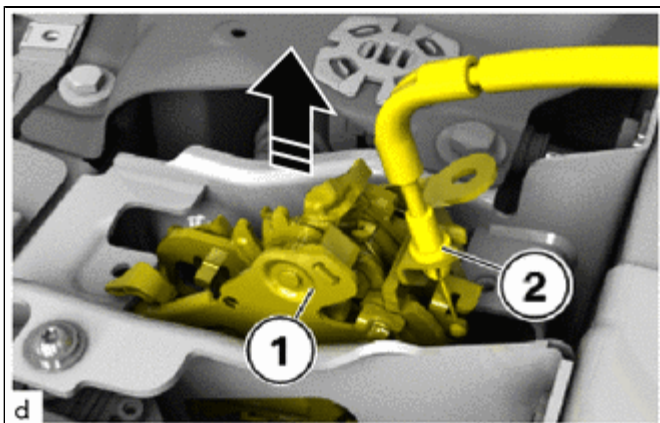
(c) Disconnect the connector (2).



(d) Detach the clamp (1).

(e) Loosen the T30 screws (2).

(f) Remove the engine hood courtesy switch (hood lock assembly) (1) in the upward direction.



Remove in this Direction

(g) Detach the cable (2) from the engine hood courtesy switch (hood lock assembly) (1).

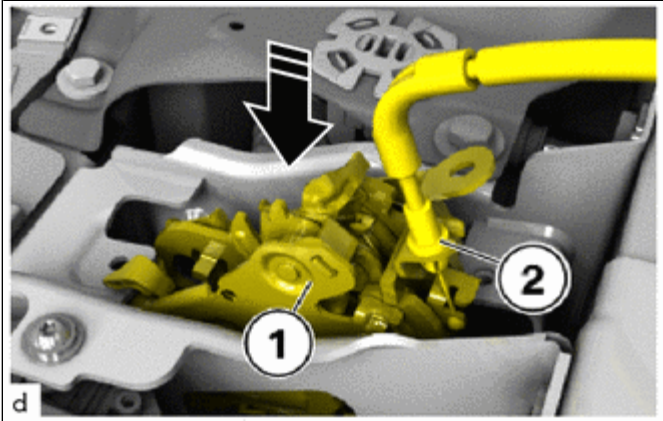
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ENGINE HOOD COURTESY SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

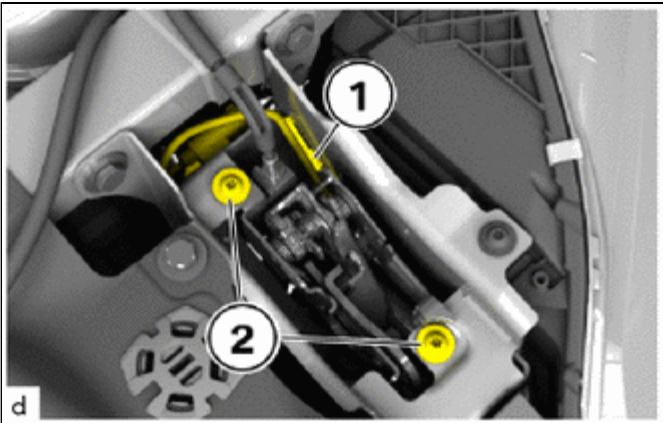
1. INSTALL ENGINE HOOD COURTESY SWITCH (HOOD LOCK ASSEMBLY)

(a) Attach the cable (2) to the engine hood courtesy switch (hood lock assembly) (1).



Install in this Direction

(b) Install the engine hood courtesy switch (hood lock assembly) (1) in the downward direction.



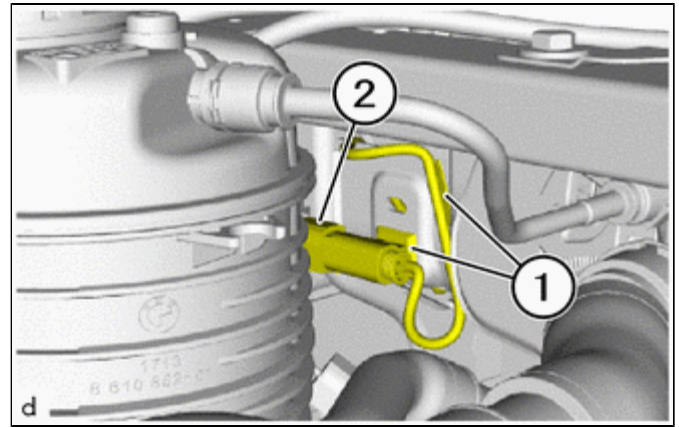
(c) Replace the T30 screws (2).

(d) Tighten the T30 screws (2).

Torque:
8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Attach the clamp (1).

(f) Connect the connector (2).



(g) Attach the clamps (1).

(h) Attach the No. 5 water by-pass hose to the radiator reserve tank assembly.

2. INSTALL FRONT FENDER UPPER PROTECTOR LH

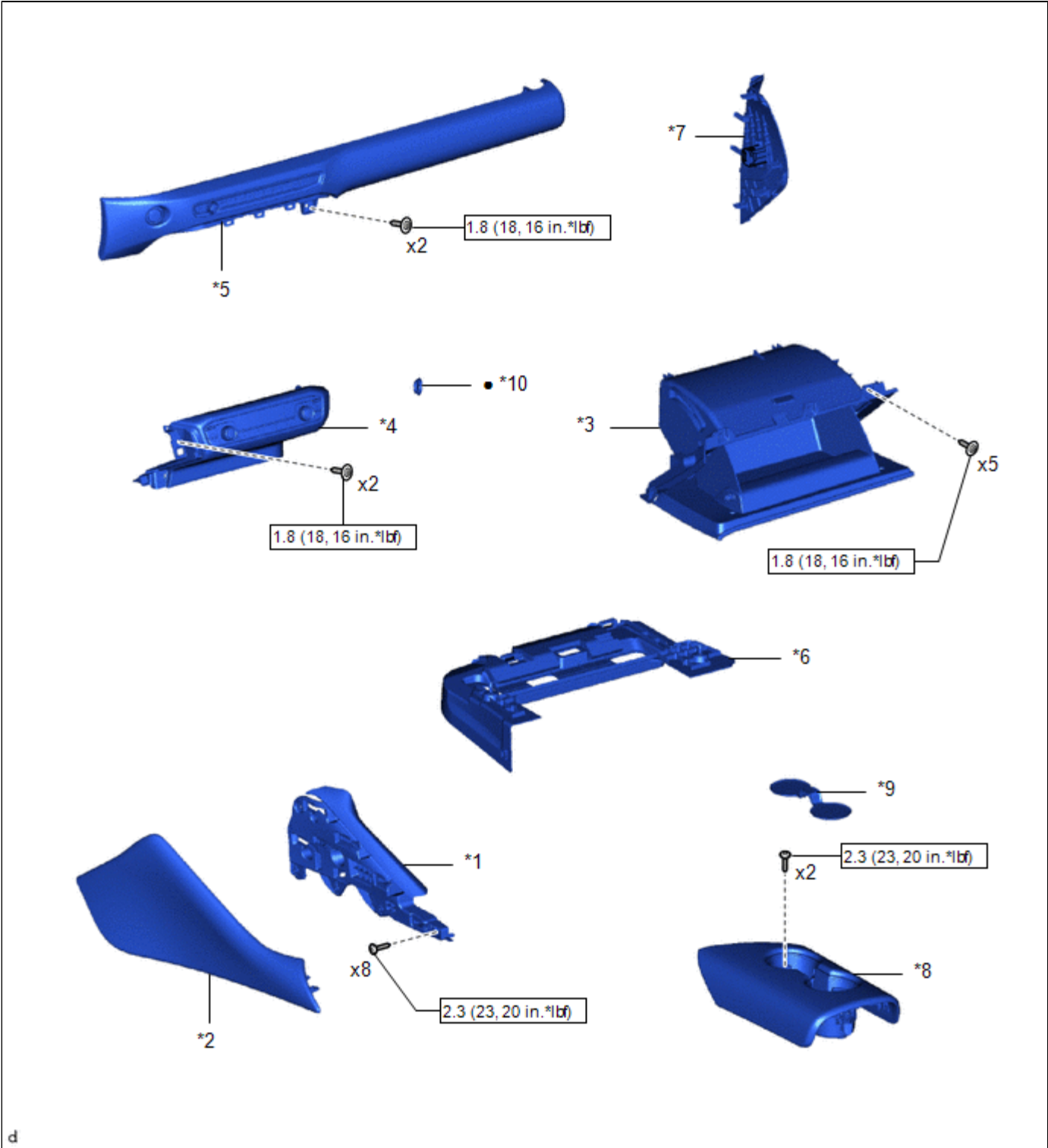
Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JFB9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: ID CODE BOX: COMPONENTS; 2020 MY Supra [03/2019 -]		

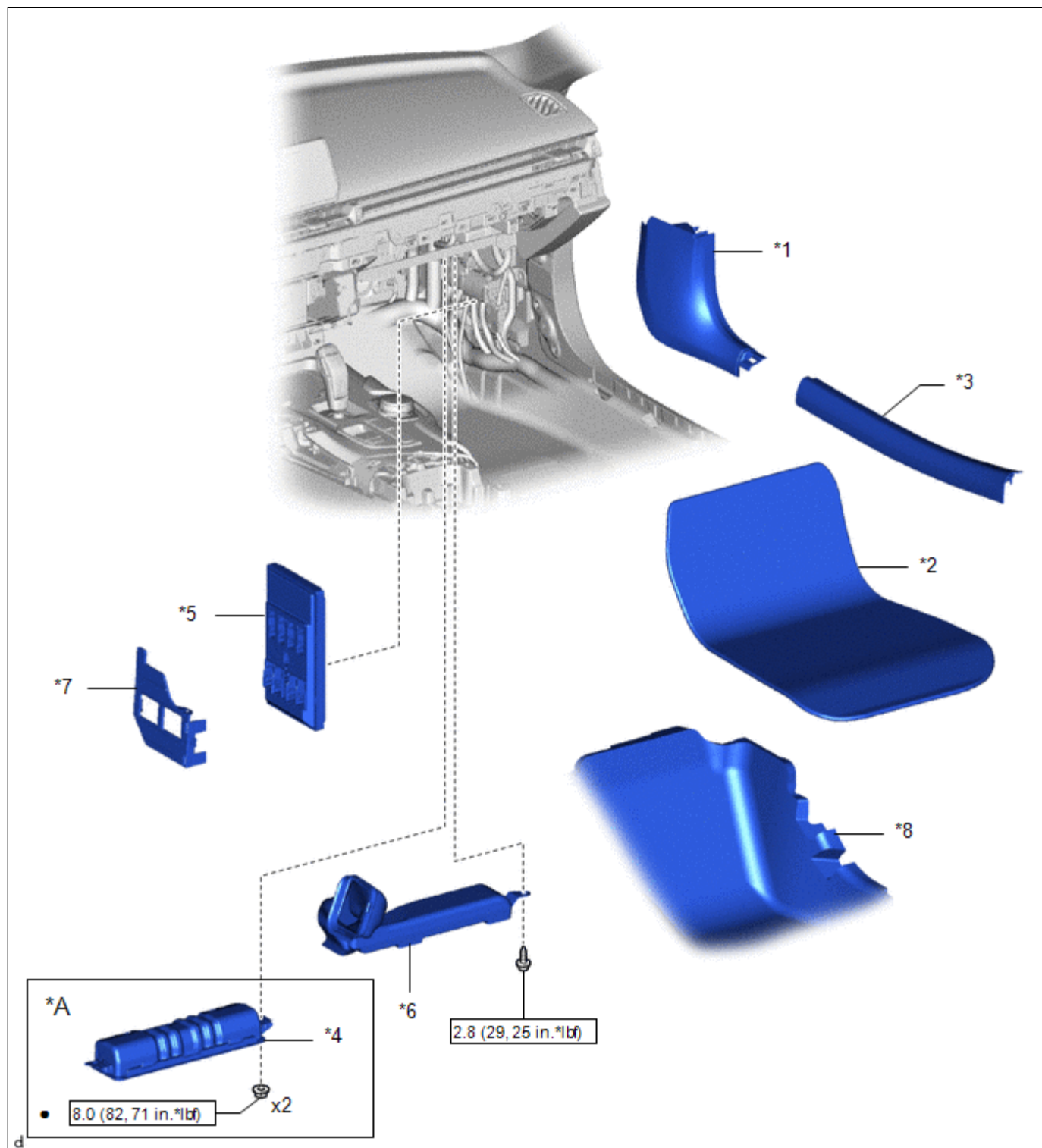
COMPONENTS ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE	*2	CONSOLE SIDE PANEL
----	---------------------------	----	--------------------

	PANEL RETAINER		
*3	GLOVE COMPARTMENT DOOR ASSEMBLY	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY	*6	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
*7	NO. 1 INSTRUMENT SIDE PANEL	*8	FRONT CONSOLE ARMREST ASSEMBLY
*9	NO. 1 CONSOLE BOX SILENCER PAD	*10	RUBBER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



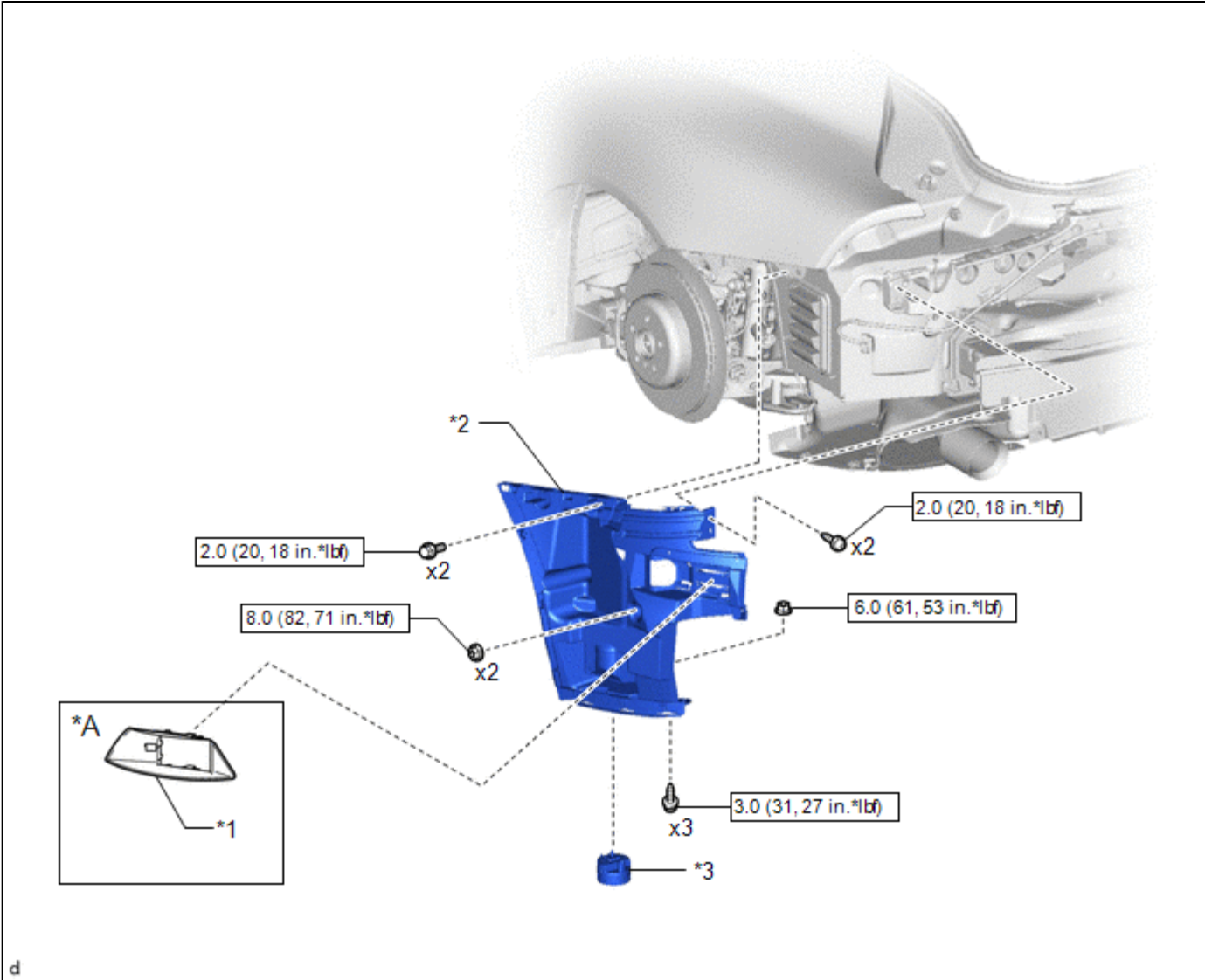
*A	w/ Knee Airbag	-	-
*1	COWL SIDE TRIM BOARD RH	*2	FLOOR MAT ASSEMBLY
*3	FRONT DOOR SCUFF PLATE RH	*4	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY
*5	ID CODE BOX (MULTIPLEX NETWORK BODY ECU)	*6	NO. 2 AIR DUCT
*7	COVER	*8	FRONT FLOOR CARPET ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

<div></div>			
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JFB5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: SECURITY HORN ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Blind Spot Monitor System	-	-
*1	ABSORBER FUNNEL LH	*2	REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY LH
*3	THEFT WARNING SIREN ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JFB6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: SECURITY HORN ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

Click here [INFO](#)

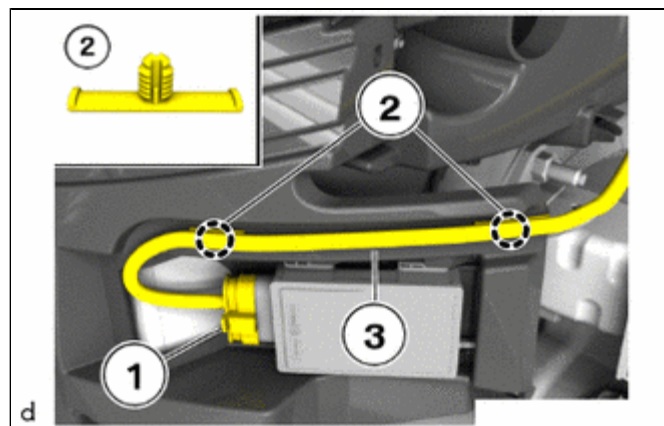
2. REMOVE ABSORBER FUNNEL LH (w/ Blind Spot Monitor System)

Click here [INFO](#)

3. REMOVE REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY LH

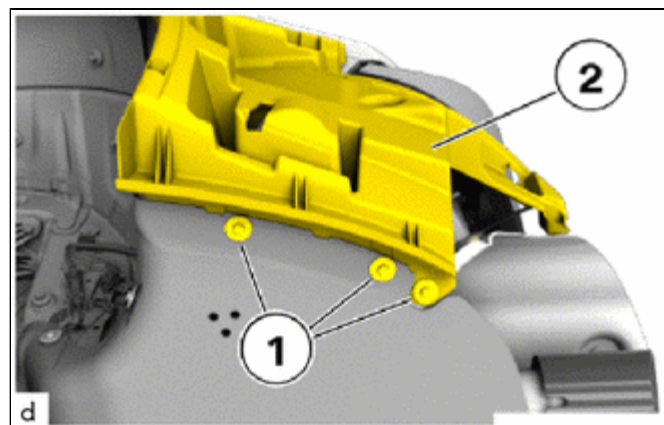
(a) w/ Blind Spot Monitor System:

(1) Disconnect the connector (1).

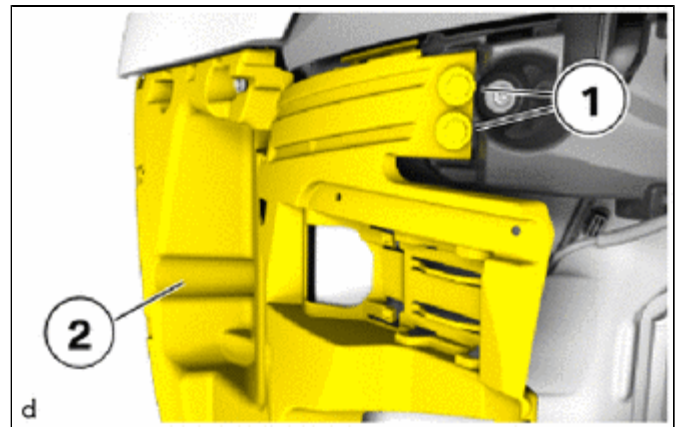


(2) Detach the clamps (2) to separate the wiring harness (3).

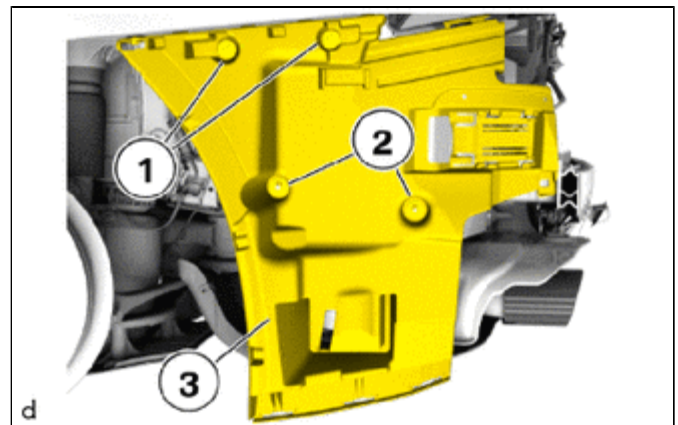
(b) Loosen the screws (1) on the rear bumper side support sub-assembly LH (2).



(c) Loosen the T20 screws (1) on the rear bumper side support sub-assembly LH (2).

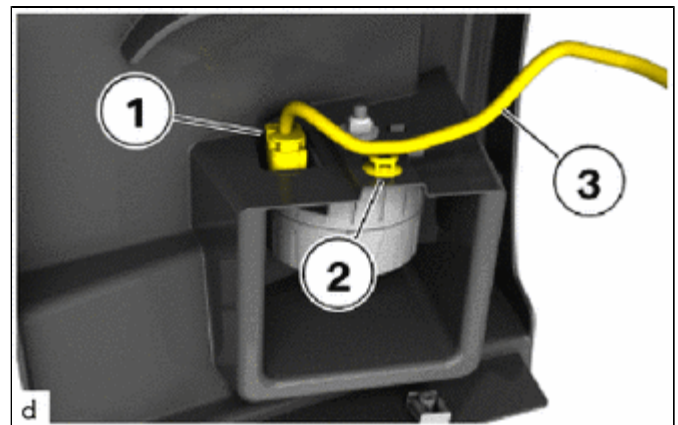


(d) Loosen the screws (1).



(e) Loosen the nuts (2) to remove the rear bumper side support sub-assembly LH (3).

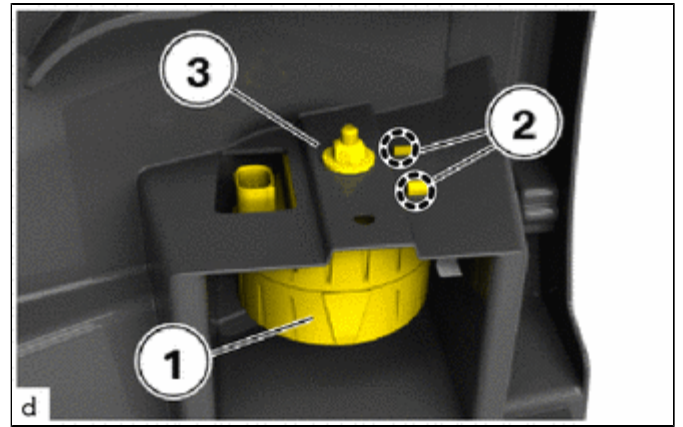
(f) Disconnect the connector (1).



(g) Detach the clamp (2) to remove the wiring harness (3).

4. REMOVE THEFT WARNING SIREN ASSEMBLY

(a) Loosen the nut (3).



(b) Detach the guides (2) to remove the theft warning siren assembly (1).

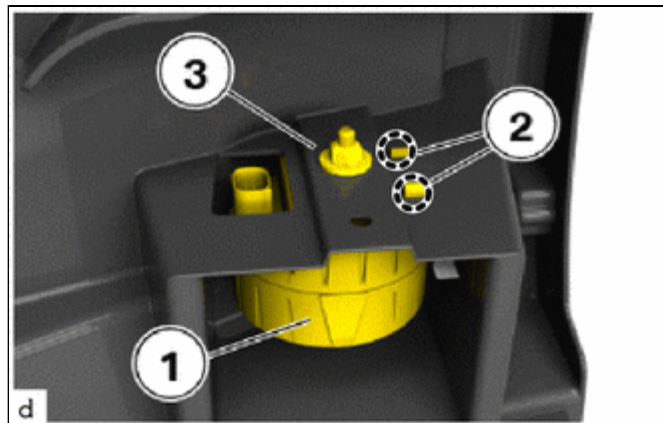
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JFB7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: SECURITY HORN ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL THEFT WARNING SIREN ASSEMBLY

(a) Attach the guides (2).



(b) Tighten the nut (3) to install the theft warning siren assembly (1).

Torque:

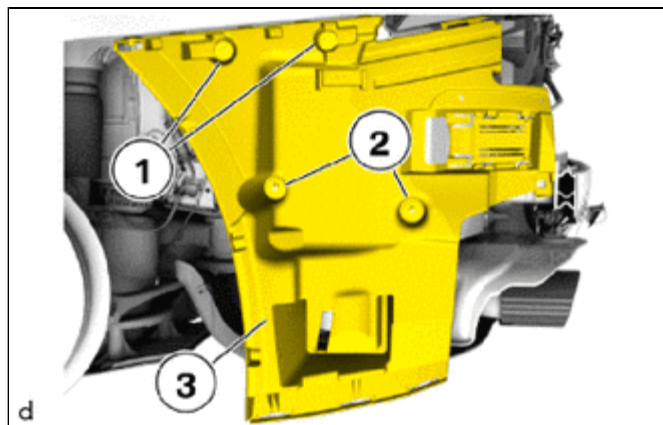
6.0 N·m {61 kgf·cm, 53 in·lbf}

2. INSTALL REAR BUMPER SIDE SUPPORT SUB-ASSEMBLY LH

(a) Connect the connector.

(b) Attach the clamp to install the wiring harness.

(c) Install the rear bumper side support sub-assembly LH (3).



(d) Tighten the nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(e) Tighten the screws (1).

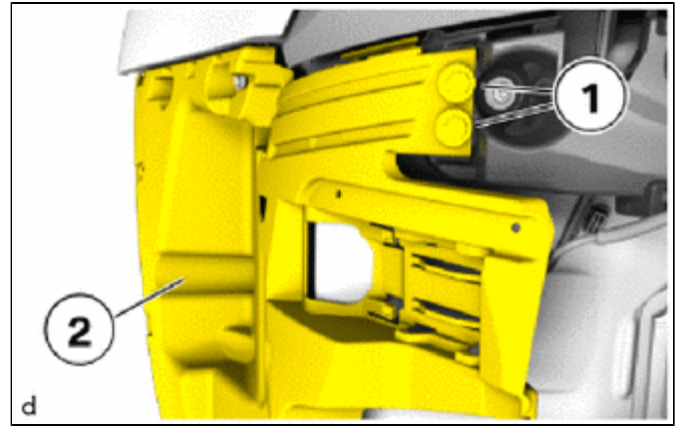
Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

(f) Tighten the T20 screws (1) on the rear bumper side support sub-assembly LH (2).

Torque:

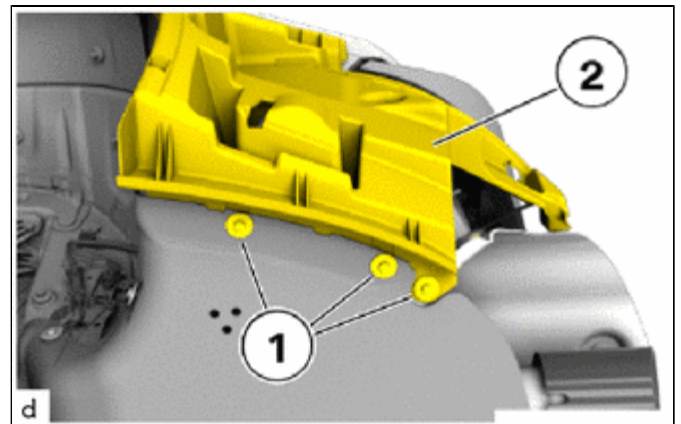
2.0 N·m {20 kgf·cm, 18 in·lbf}



(g) Tighten screws (1) on the rear bumper side support sub-assembly LH (2).

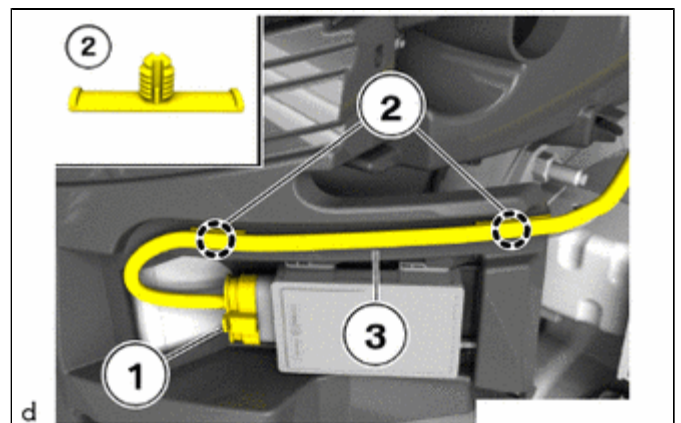
Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



(h) w/ Blind Spot Monitor System:

(1) Position the wiring harness (3).



(2) Attach the clamps (2).

(3) Connect the connector (1).

3. INSTALL ABSORBER FUNNEL LH (w/ Blind Spot Monitor System)

Click here [INFO](#)

4. INSTALL REAR BUMPER ASSEMBLY

Click here [INFO](#)

5. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

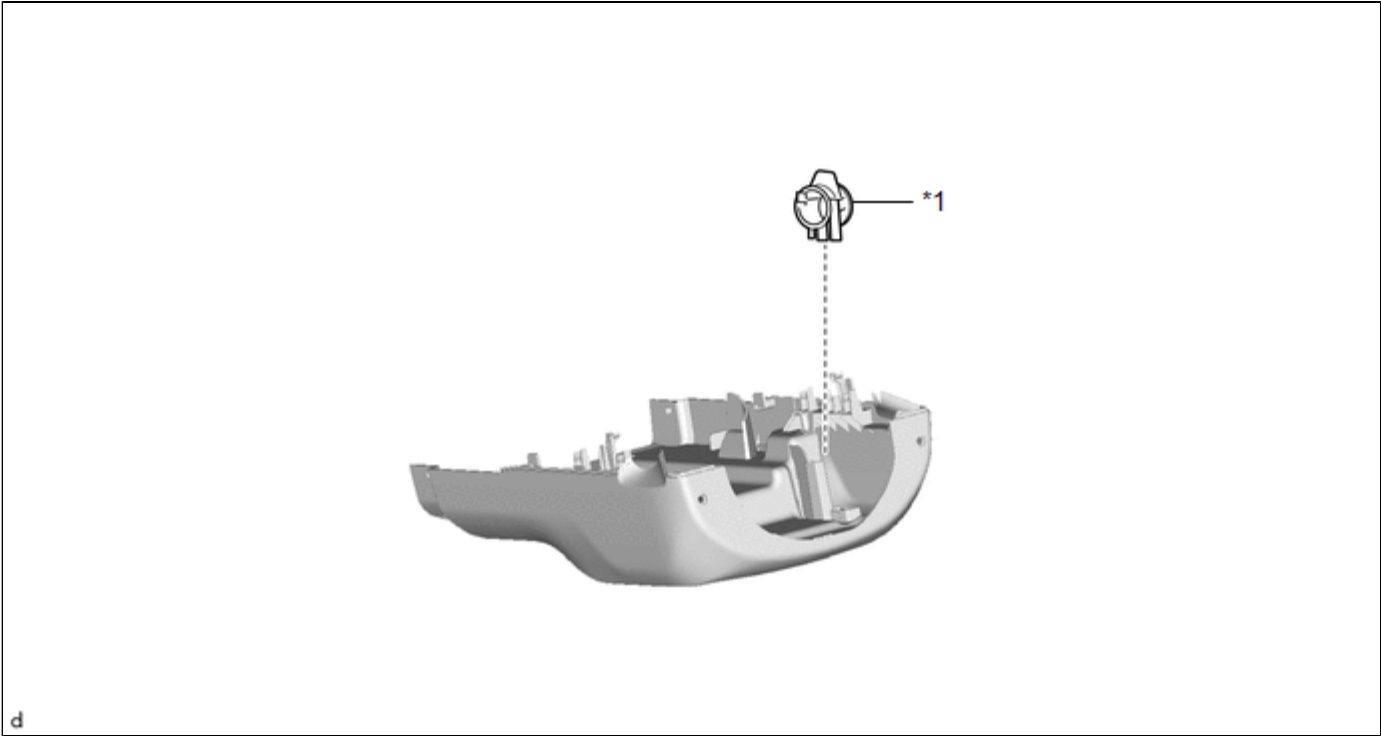
(h) Disconnect the diagnosis system from the vehicle.

(i) Disconnect the battery charger from the vehicle.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: TRANSPONDER KEY AMPLIFIER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TRANSPONDER KEY AMPLIFIER	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: TRANSPONDER KEY AMPLIFIER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

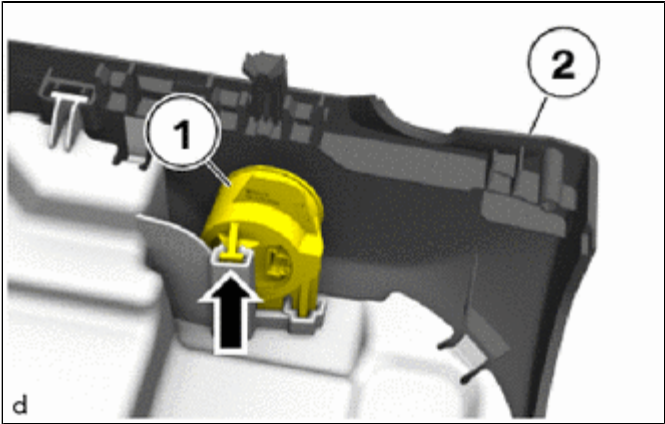
PROCEDURE


1. REMOVE LOWER STEERING COLUMN COVER

Click here [INFO](#)

2. REMOVE TRANSPONDER KEY AMPLIFIER

(a) Remove the transponder key amplifier (1) out of the lower steering column cover (2) in the direction of the arrow.





Remove in this Direction

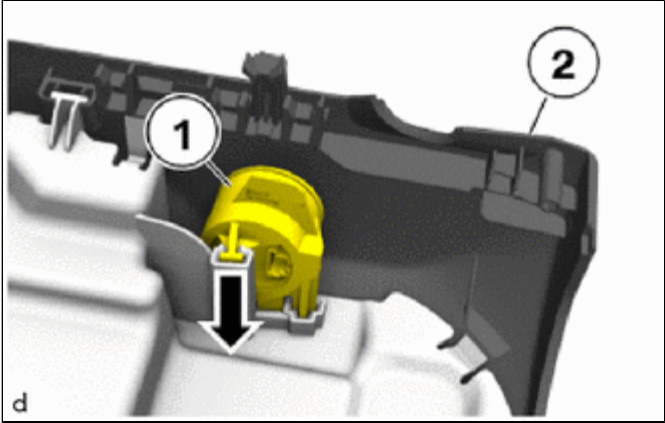
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: TRANSPONDER KEY AMPLIFIER: INSTALLATION; 2020 MY Supra [03/2019 -]		


INSTALLATION

PROCEDURE

1. INSTALL TRANSPONDER KEY AMPLIFIER

(a) Install the transponder key amplifier (1) to the lower steering column cover (2) in the direction of the arrow.





Install in this Direction

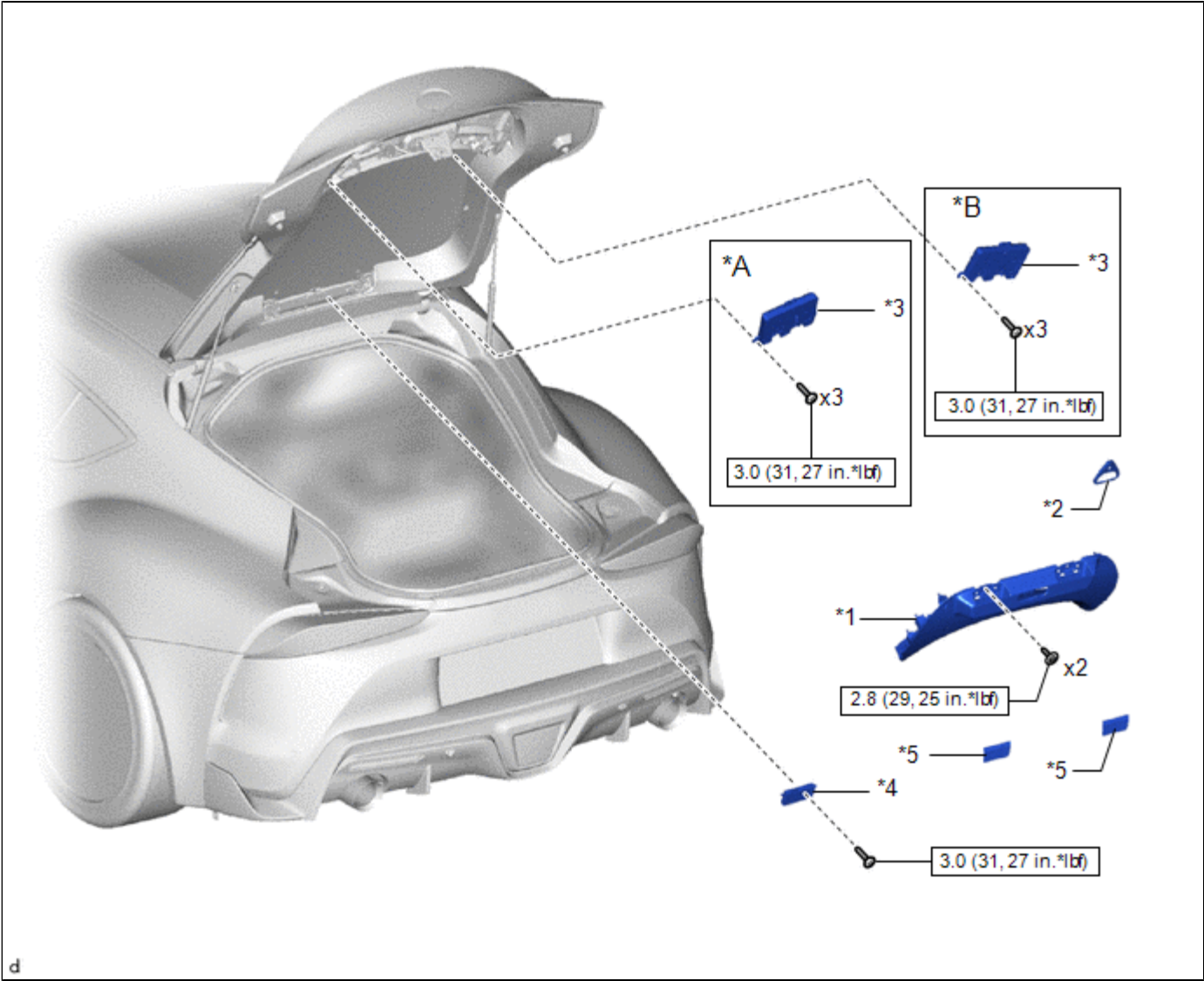
2. INSTALL LOWER STEERING COLUMN COVER

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: AMPLIFIER ANTENNA: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Toyota Supra Connect	*B	for Navigation System
*1	BACK DOOR TRIM BOARD	*2	EMERGENCY RELEASE HANDLE
*3	MULTIPLE-BAND AERIAL	*4	NO. 1 AMPLIFIER ANTENNA ASSEMBLY
*5	BACK DOOR TRIM COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: AMPLIFIER ANTENNA: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE CENTER STOP LIGHT ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 AMPLIFIER ANTENNA ASSEMBLY

NOTICE:

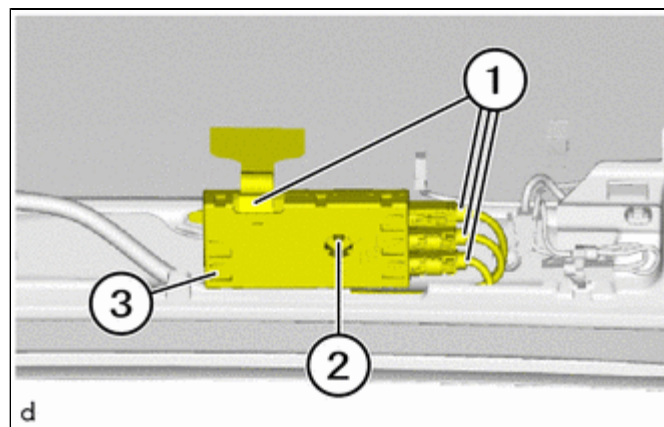
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connections (1) and disconnect.



(b) Loosen T25 screw (2).

(c) Remove the No. 1 amplifier antenna assembly (3).

3. REMOVE EMERGENCY RELEASE HANDLE

Click here [INFO](#)

4. REMOVE BACK DOOR TRIM BOARD

Click here [INFO](#)

5. REMOVE MULTIPLE-BAND AERIAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: AMPLIFIER ANTENNA: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL MULTIPLE-BAND AERIAL

Click here [INFO](#)

2. INSTALL BACK DOOR TRIM BOARD

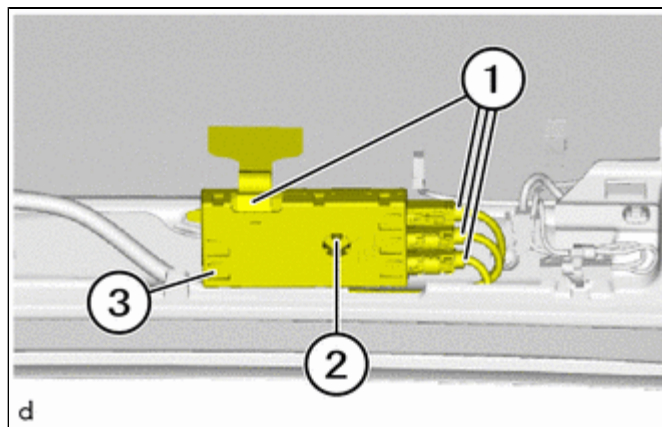
Click here [INFO](#)

3. INSTALL EMERGENCY RELEASE HANDLE

Click here [INFO](#)

4. INSTALL NO. 1 AMPLIFIER ANTENNA ASSEMBLY

(a) Position the No. 1 amplifier antenna assembly (3).



(b) Tighten the T25 screw (2).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(c) Connect connectors (1) and lock.

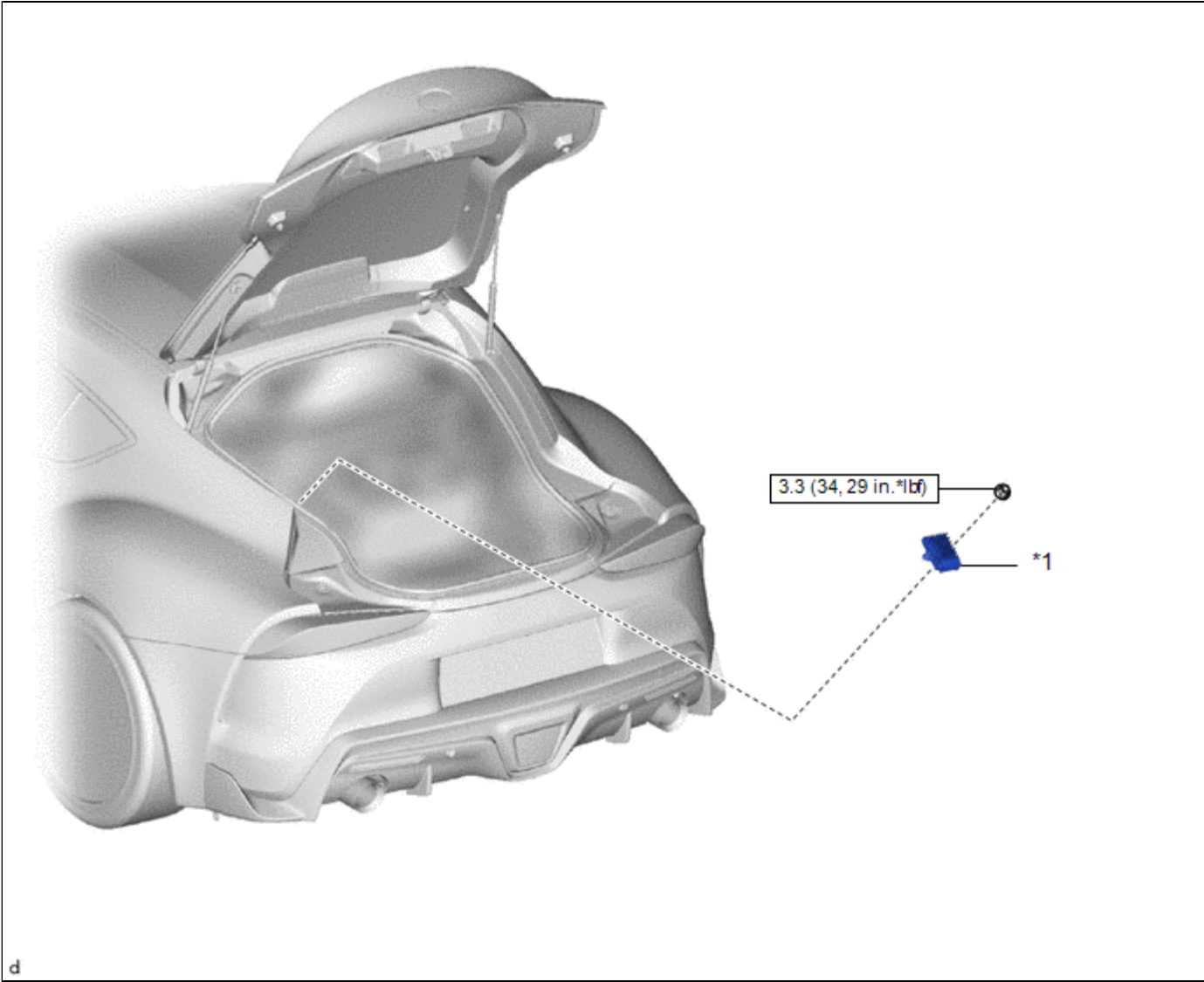
5. INSTALL CENTER STOP LIGHT ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: ASC ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	STEREO COMPONENT EQUALIZER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: ASC ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

2. REMOVE STEREO COMPONENT EQUALIZER ASSEMBLY

NOTICE:

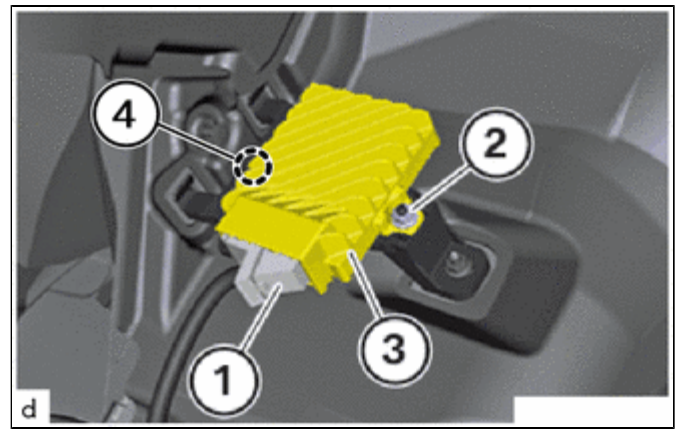
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Loosen nut (2).

(c) Detach the guide (4) to remove the stereo component equalizer assembly (3) from the holder.



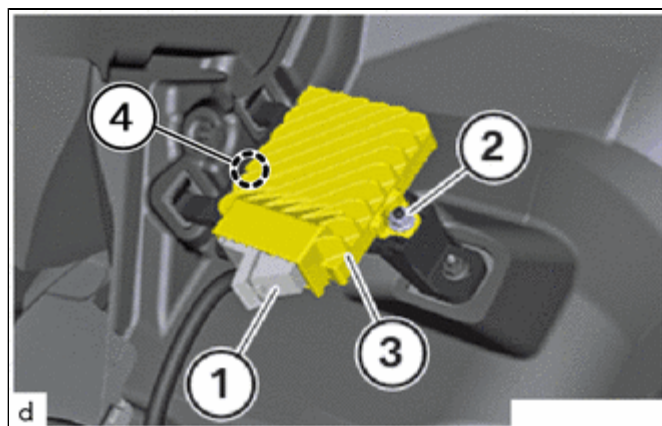
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: ASC ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL STEREO COMPONENT EQUALIZER ASSEMBLY

(a) Attach the guide (4) in the holder.



(b) Install the stereo component equalizer assembly (3) with the nut (2).

Torque:

3.3 N·m {34 kgf·cm, 29 in·lbf}

(c) Connect connector (1) and lock.

2. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

3. PROGRAM/ENCODE THE ACTIVE SOUND DESIGN (ASD) WITH THE DIAGNOSIS SYSTEM

(a) Connect the diagnosis system to the vehicle and enter the following menus:

Vehicle information / Control unit list / ASD Active Sound Design / Call up control unit functions / Component actuation / Reset control unit

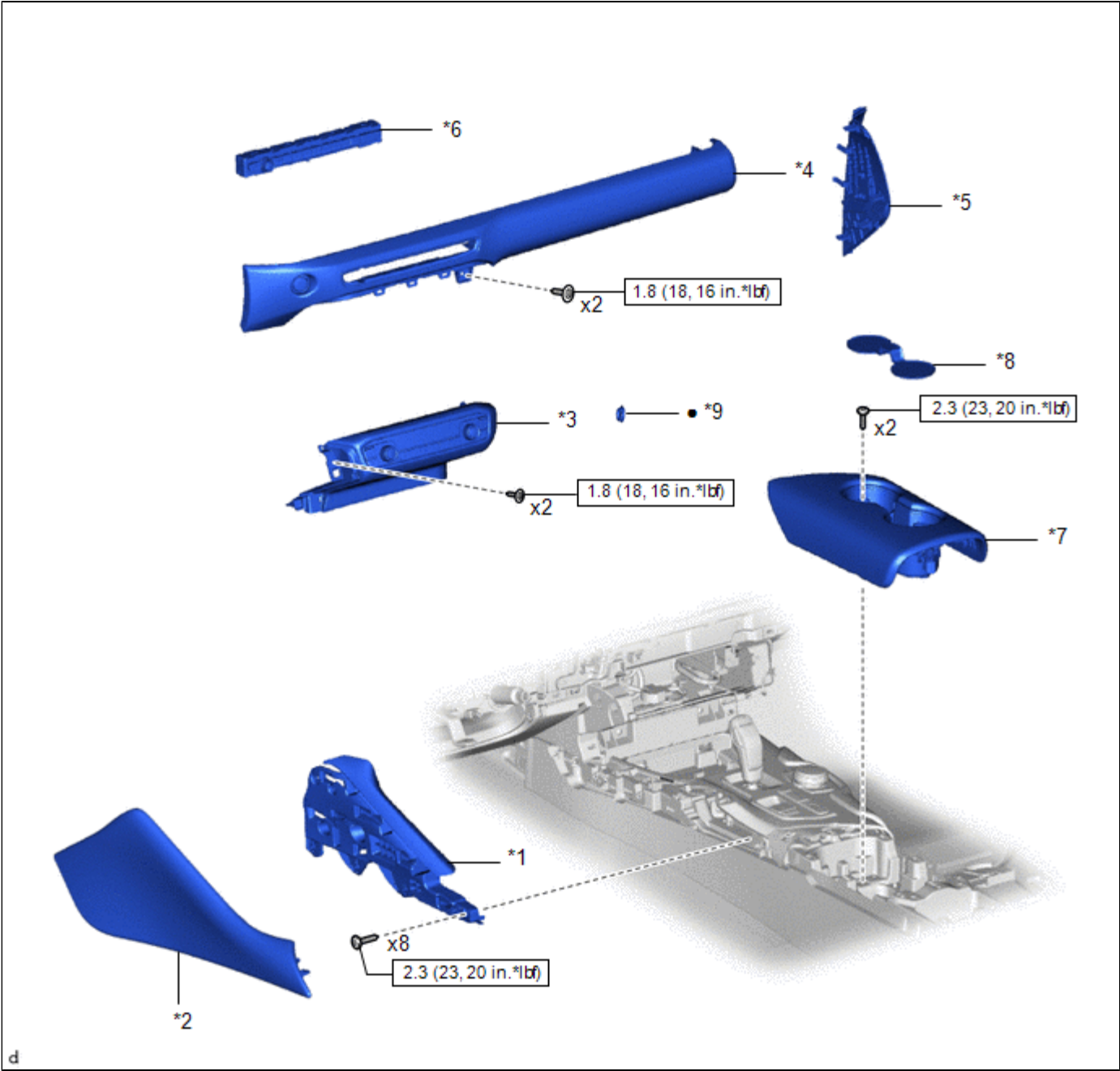
4. PROGRAM/ENCODE AUDIO SYSTEM WITH THE DIAGNOSIS SYSTEM

(a) Connect the diagnosis system to the vehicle and enter the following menus:


Vehicle information / Control unit list / ASD Active Sound Design / Call up control unit functions / Component actuation / Reset control unit

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: CONTROL PANEL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*2	CONSOLE SIDE PANEL
*3	INSTRUMENT PANEL FINISH LOWER PANEL	*4	NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

*5	NO. 1 INSTRUMENT SIDE PANEL	*6	RADIO RECEIVER SWITCH KNOB
*7	FRONT CONSOLE ARMREST ASSEMBLY	*8	NO. 1 CONSOLE BOX SILENCER PAD
*9	RUBBER PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: CONTROL PANEL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

3. REMOVE CONSOLE SIDE PANEL

Click here [INFO](#)

4. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

5. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

6. REMOVE NO. 1 INSTRUMENT SIDE PANEL

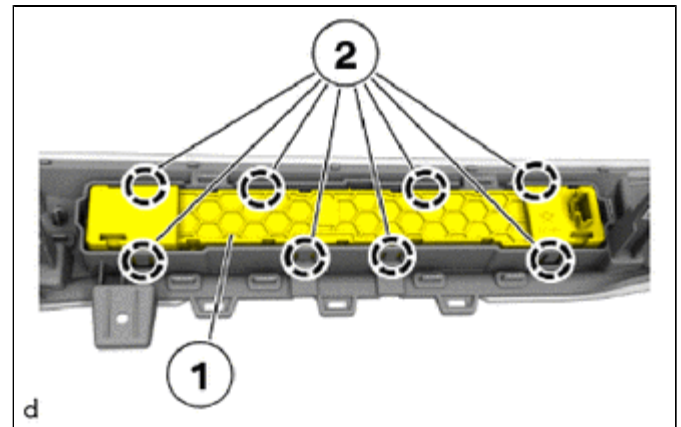
Click here [INFO](#)

7. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

8. REMOVE RADIO RECEIVER SWITCH KNOB

(a) Detach the claws (2) to remove the radio receiver switch knob (1).



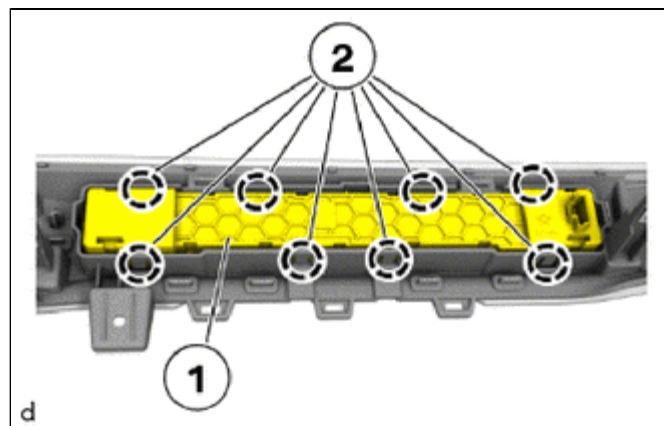
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: CONTROL PANEL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL RADIO RECEIVER SWITCH KNOB

(a) Attach the claws (2) to install the radio receiver switch knob (1).



2. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL NO. 1 INSTRUMENT SIDE PANEL

Click here [INFO](#)

4. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

5. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

6. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

7. INSTALL FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

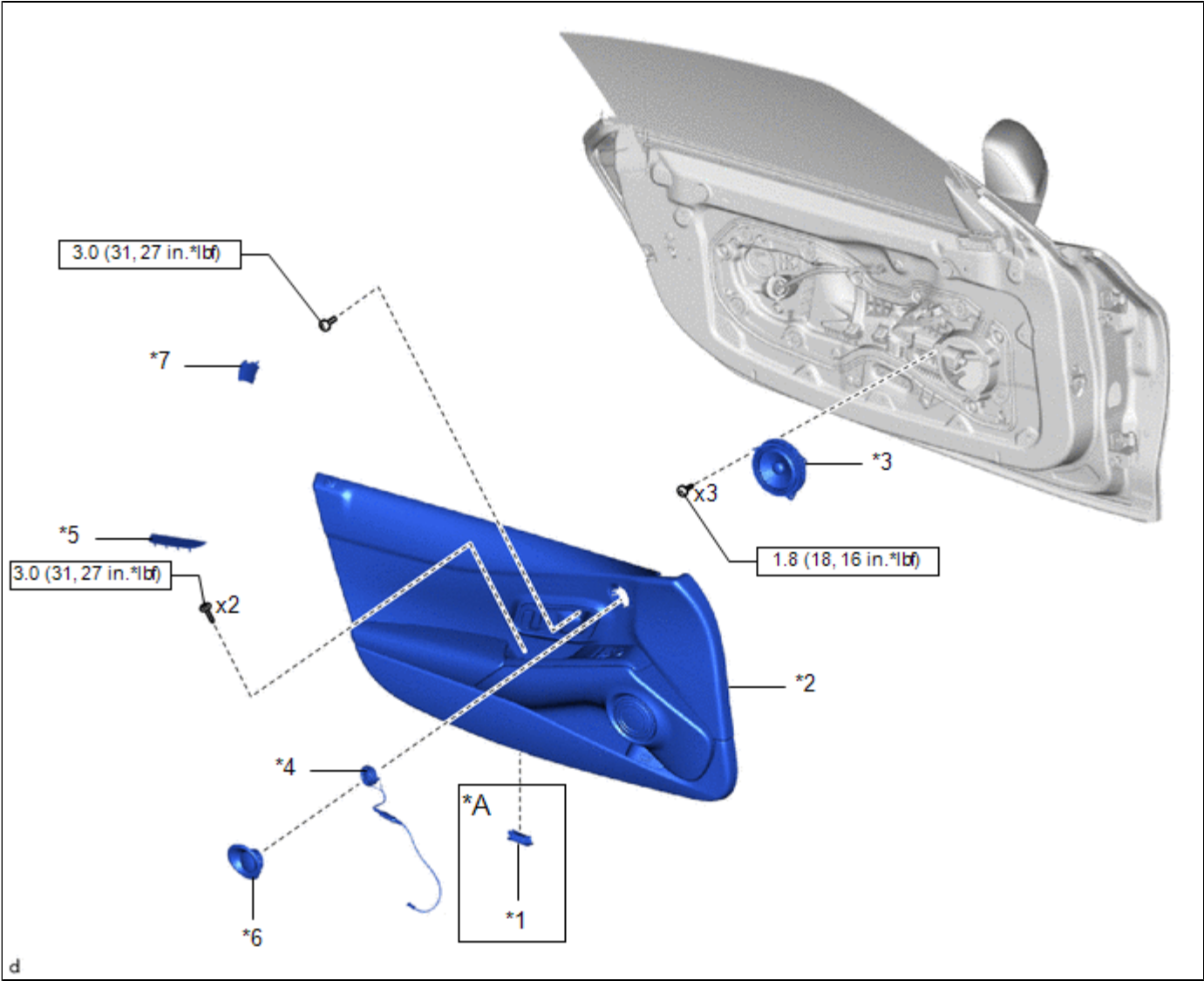
8. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: FRONT DOOR SPEAKER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	COURTESY LIGHT ASSEMBLY	*2	FRONT DOOR TRIM BOARD SUB-ASSEMBLY
*3	FRONT NO. 1 SPEAKER ASSEMBLY	*4	FRONT NO. 2 SPEAKER ASSEMBLY
*5	DOOR TRIM COVER	*6	FRONT DOOR SPEAKER HOLE COVER
*7	NO. 2 DOOR INSIDE HANDLE BEZEL	-	-
	N*m (kgf*cm, ft.*lbf): Specified	-	-

<div></div>	torque		
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: FRONT DOOR SPEAKER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

PROCEDURE

1. REMOVE COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

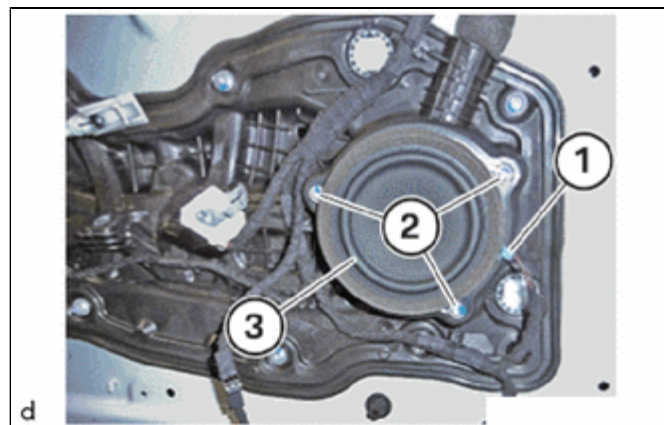
Click here [INFO](#)

2. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT NO. 1 SPEAKER ASSEMBLY

(a) Unlock plug connection (1) and disconnect.

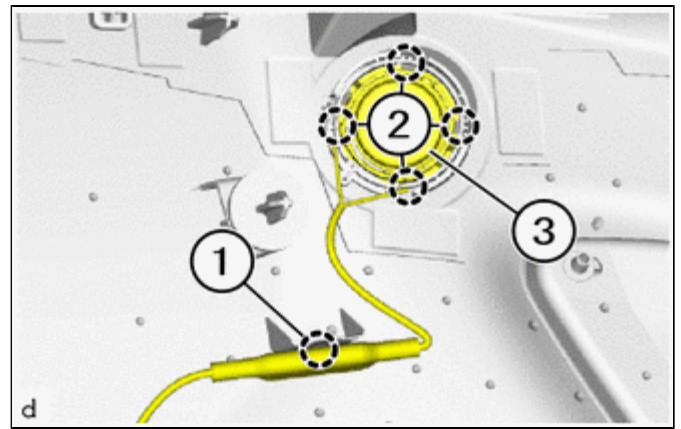


(b) Loosen T20 screws (2).

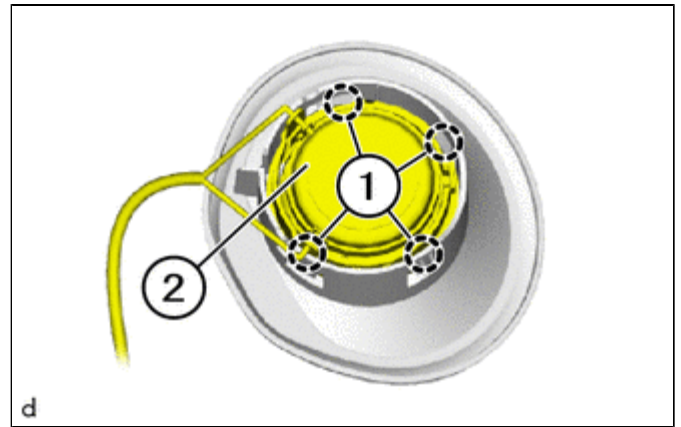
(c) Remove the front No. 1 speaker assembly (3).

4. REMOVE FRONT NO. 2 SPEAKER ASSEMBLY

(a) Detach the clamp (1).



(b) Detach the claws (2) to remove the front No. 2 speaker assembly and front door speaker hole cover (3) from the front door trim board sub-assembly.



(c) Detach the claws (1) to remove the front No. 2 speaker assembly (2) from the front door speaker hole cover.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: FRONT DOOR SPEAKER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

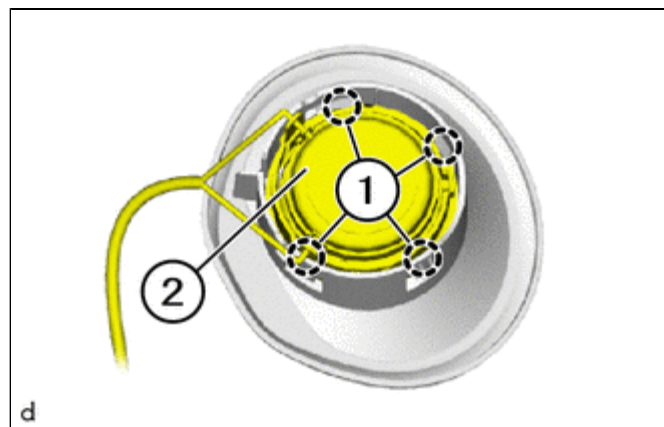
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

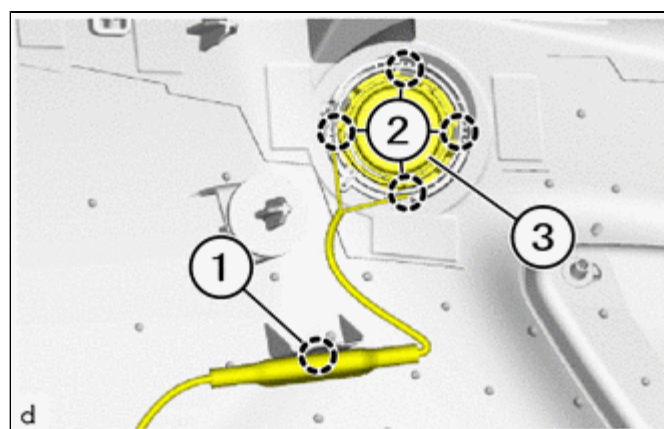
PROCEDURE

1. INSTALL FRONT NO. 2 SPEAKER ASSEMBLY

- (a) Attach the claws (1) to install the front No. 2 speaker assembly (2) to the front door speaker hole cover.



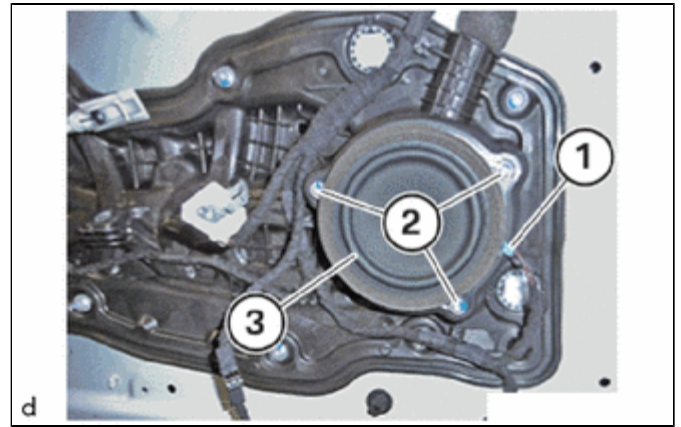
- (b) Attach the claws (2) to install the front No. 2 speaker assembly and front door speaker hole cover (3) to the front door trim board sub-assembly.



- (c) Attach the clamp (1).

2. INSTALL FRONT NO. 1 SPEAKER ASSEMBLY

(a) Position the front No. 1 speaker assembly (3).



(b) Tighten the T20 screws (2).

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

(c) Connect connector (1) and lock.

3. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY

Click here [INFO](#)

4. INSTALL COURTESY LIGHT ASSEMBLY (w/ Courtesy Light)

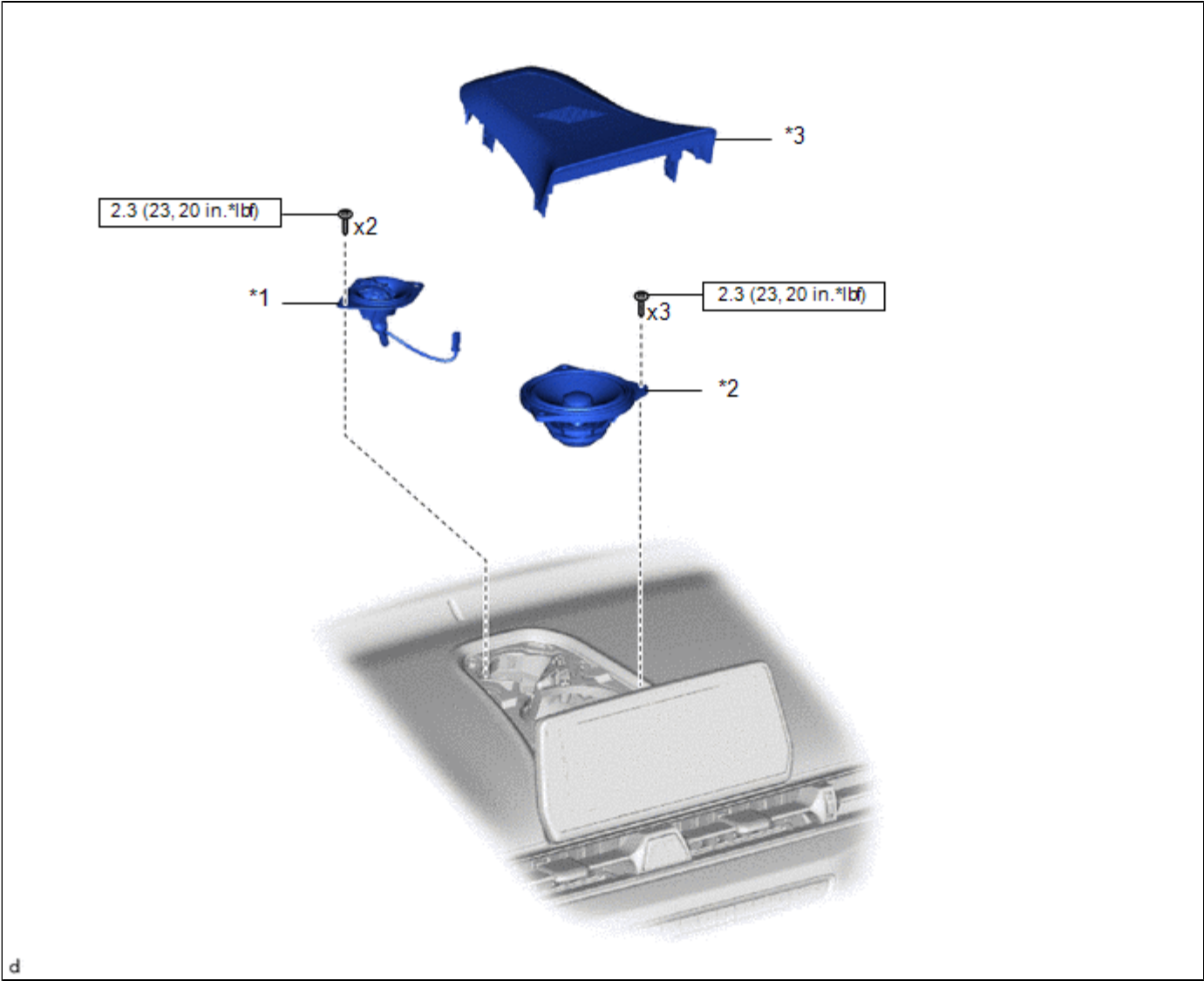
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: INSTRUMENT PANEL SPEAKER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT NO. 3 SPEAKER ASSEMBLY	*2	FRONT NO. 4 SPEAKER ASSEMBLY
*3	INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: INSTRUMENT PANEL SPEAKER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

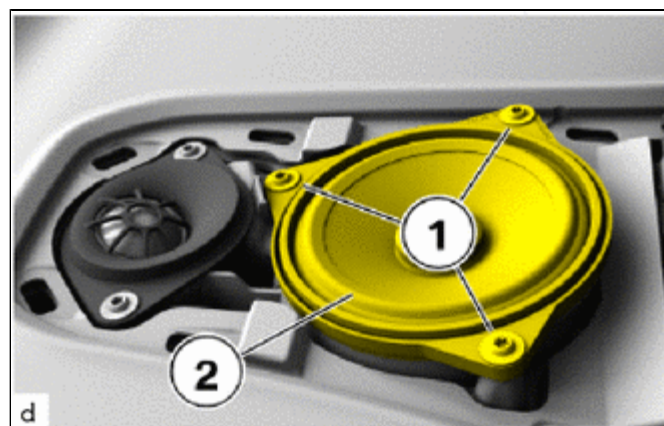
PROCEDURE

1. REMOVE INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL

Click here [INFO](#)

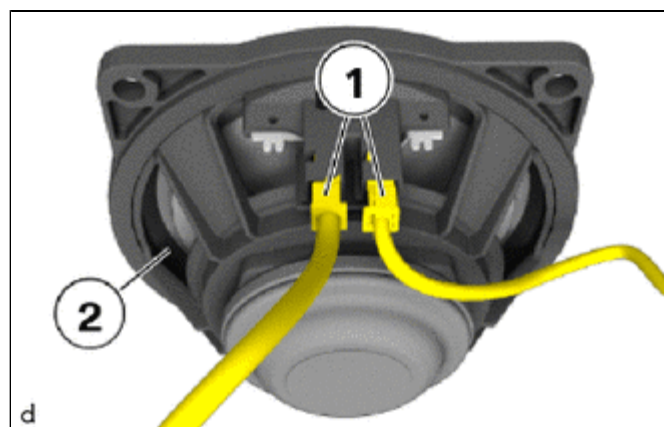
2. REMOVE FRONT NO. 4 SPEAKER ASSEMBLY

(a) Loosen T20 screws (1).



(b) Lift the front No. 4 speaker assembly (2).

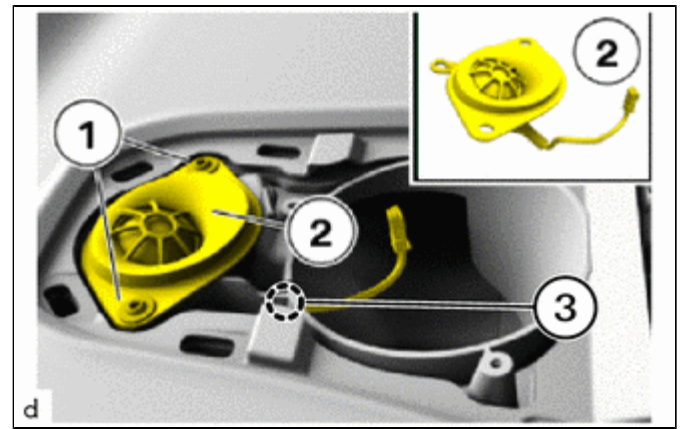
(c) Unlock plug connections (1) and disconnect.



(d) Remove the front No. 4 speaker assembly (2).

3. REMOVE FRONT NO. 3 SPEAKER ASSEMBLY

(a) Loosen T20 screws (1).



(b) Detach the guide (3) to remove the front No. 3 speaker assembly (2).

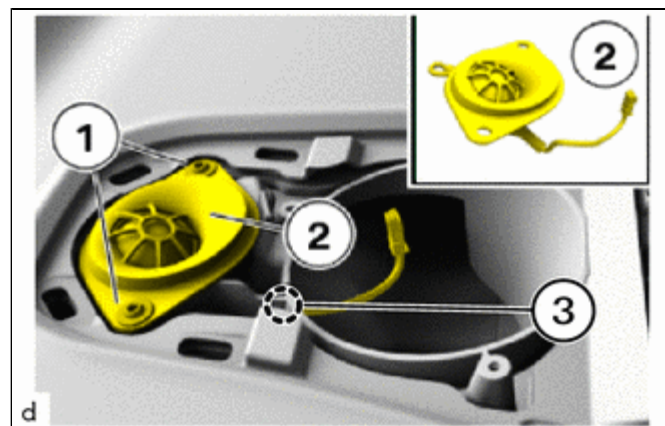
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: INSTRUMENT PANEL SPEAKER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL FRONT NO. 3 SPEAKER ASSEMBLY

- (a) Attach the guide (3) to install the front No. 3 speaker assembly (2).



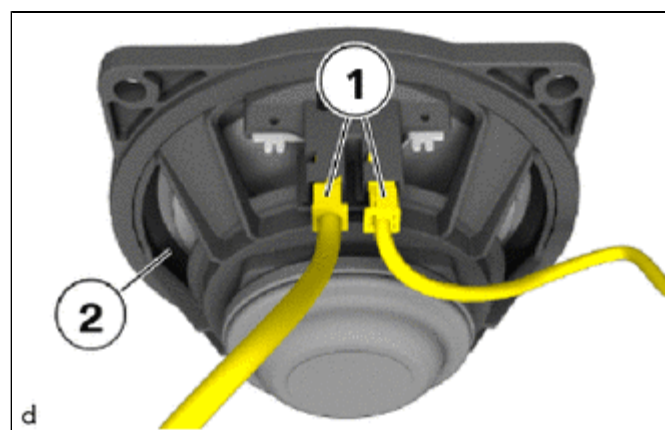
- (b) Tighten the T20 screws (1).

Torque:

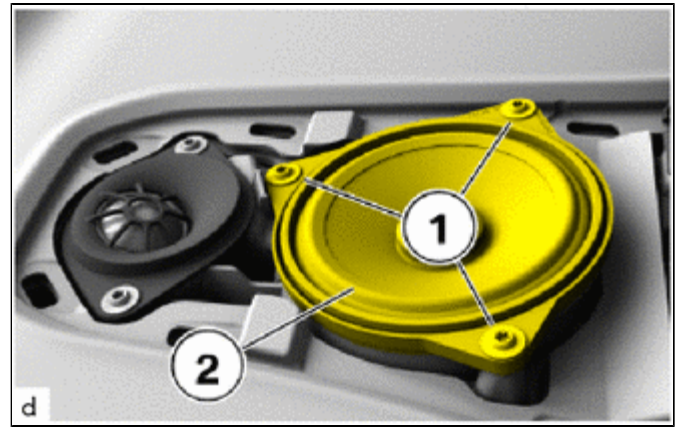
2.3 N·m {23 kgf·cm, 20 in·lbf}

2. INSTALL FRONT NO. 4 SPEAKER ASSEMBLY

- (a) Connect connectors (1) and lock to the front No. 4 speaker assembly (2).



(b) Install the front No. 4 speaker assembly (2).



(c) Tighten the T20 screws (1).

Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}

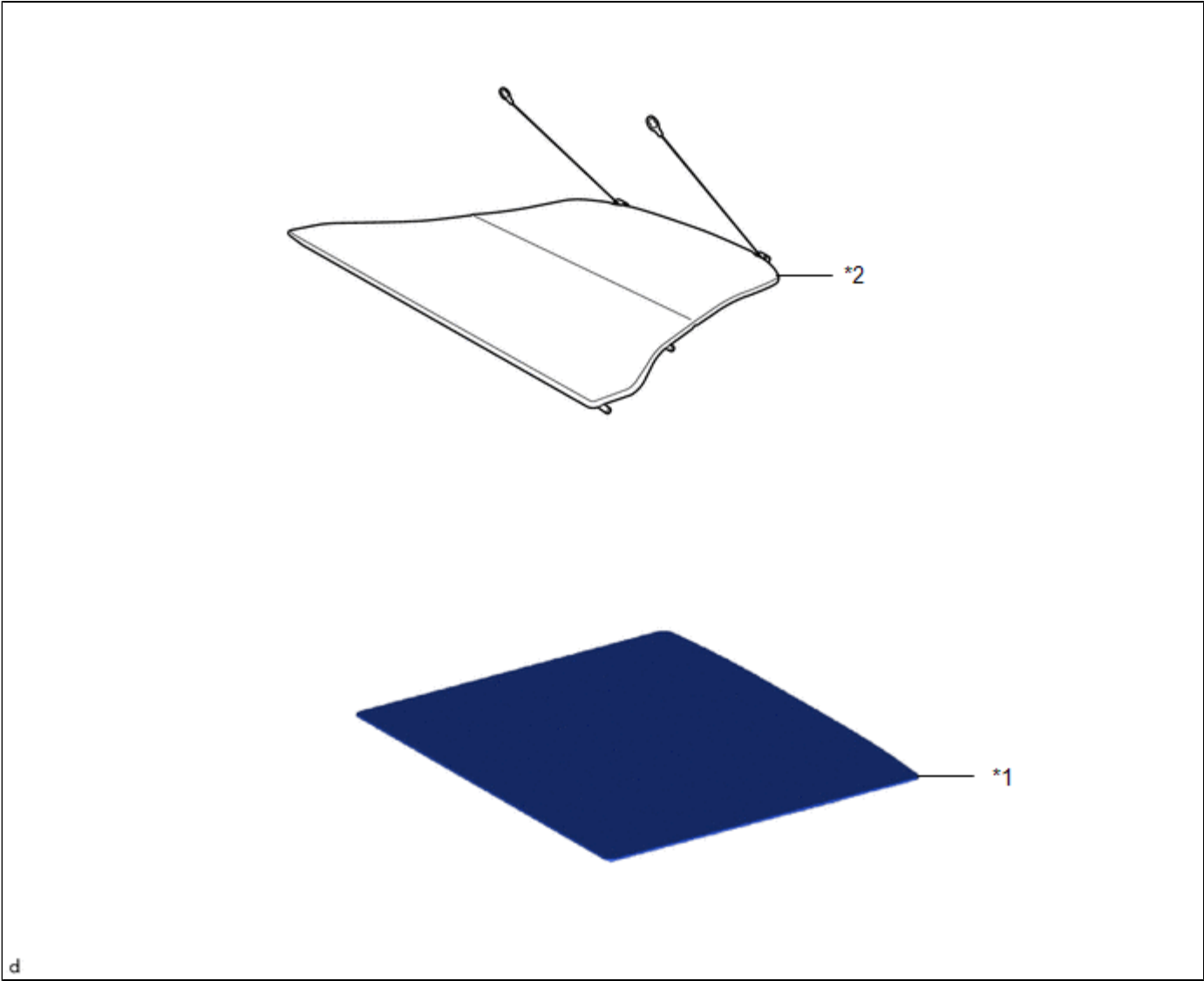
3. INSTALL INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: LUGGAGE SPEAKER: COMPONENTS; 2020 MY Supra [03/2019 -]		

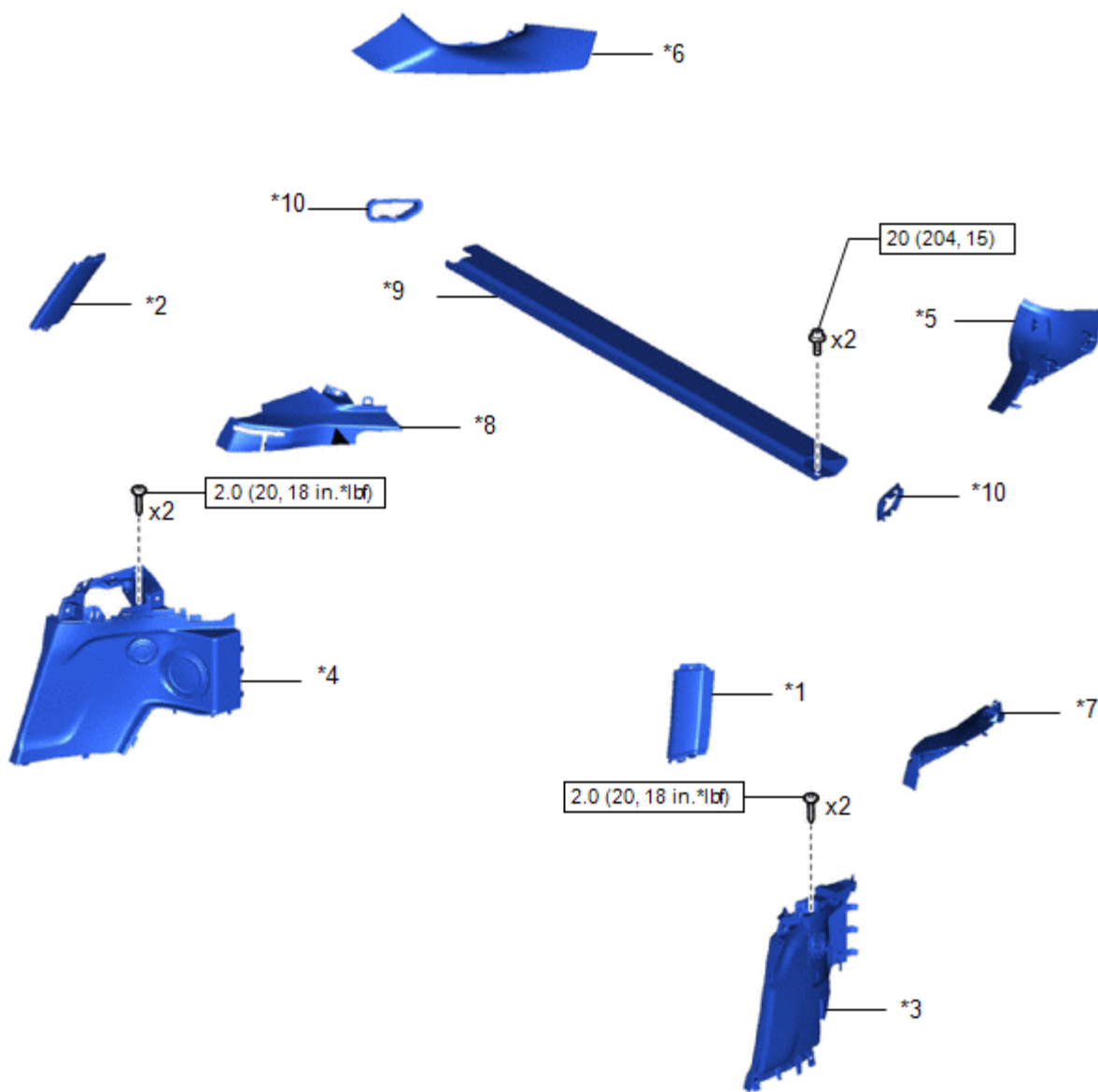
COMPONENTS

ILLUSTRATION




*1	DECK BOARD ASSEMBLY	*2	PACKAGE TRAY TRIM PANEL ASSEMBLY
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ILLUSTRATION

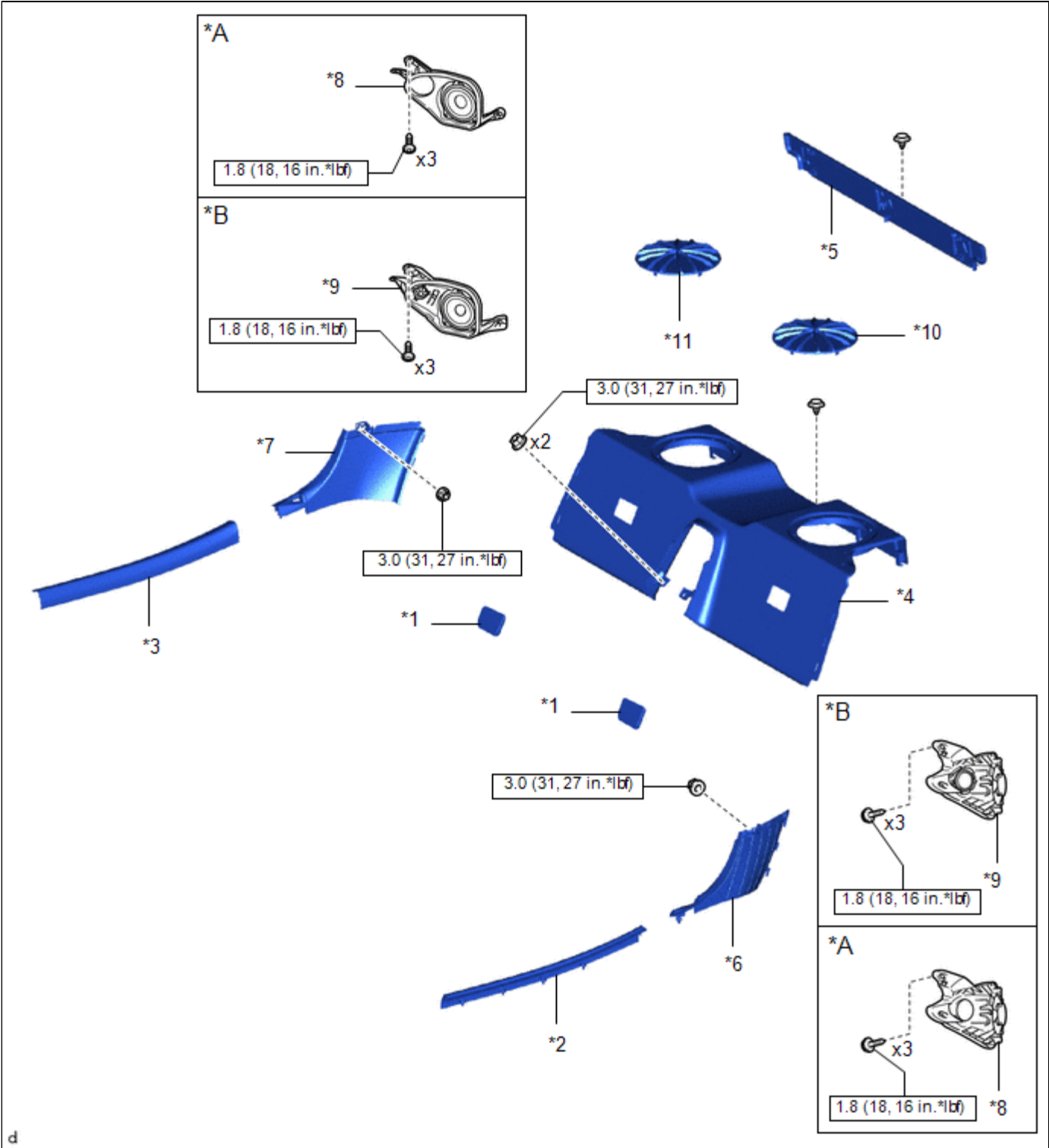


d


*1	CENTER PILLAR GARNISH ASSEMBLY LH	*2	CENTER PILLAR GARNISH ASSEMBLY RH
*3	QUARTER TRIM UPPER PANEL LH	*4	QUARTER TRIM UPPER PANEL RH
*5	ROOF SIDE INNER GARNISH ASSEMBLY LH	*6	ROOF SIDE INNER GARNISH ASSEMBLY RH
*7	SEAT BELT HOLE COVER SUB-ASSEMBLY LH	*8	SEAT BELT HOLE COVER SUB-ASSEMBLY RH
*9	TRANSVERSE PIPE	*10	TRANSVERSE PIPE TRIM

*7	BACK DOOR STRIKER COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

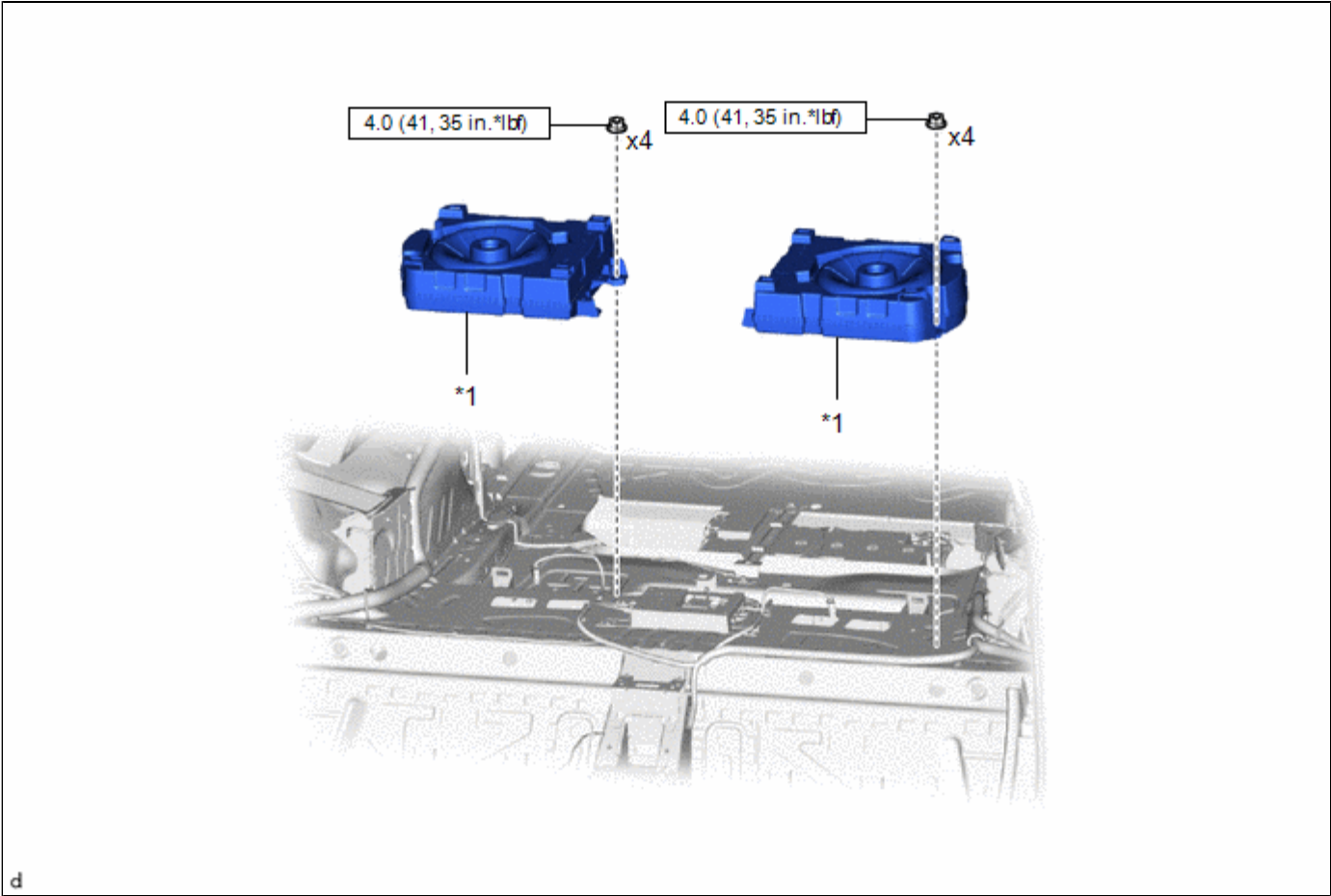
ILLUSTRATION




*A	for 10 Speakers	*B	for 12 Speakers

*1	CHILD RESTRAINT SEAT COVER	*2	FRONT DOOR SCUFF PLATE LH
*3	FRONT DOOR SCUFF PLATE RH	*4	LUGGAGE COMPARTMENT TRIM FRONT COVER
*5	LUGGAGE COMPARTMENT TRIM REAR COVER	*6	QUARTER TRIM LOWER PANEL LH
*7	QUARTER TRIM LOWER PANEL RH	*8	REAR NO. 2 SPEAKER ASSEMBLY
*9	REAR NO. 3 SPEAKER ASSEMBLY	*10	REAR SPEAKER GRILLE SUB-ASSEMBLY LH
*11	REAR SPEAKER GRILLE SUB-ASSEMBLY RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

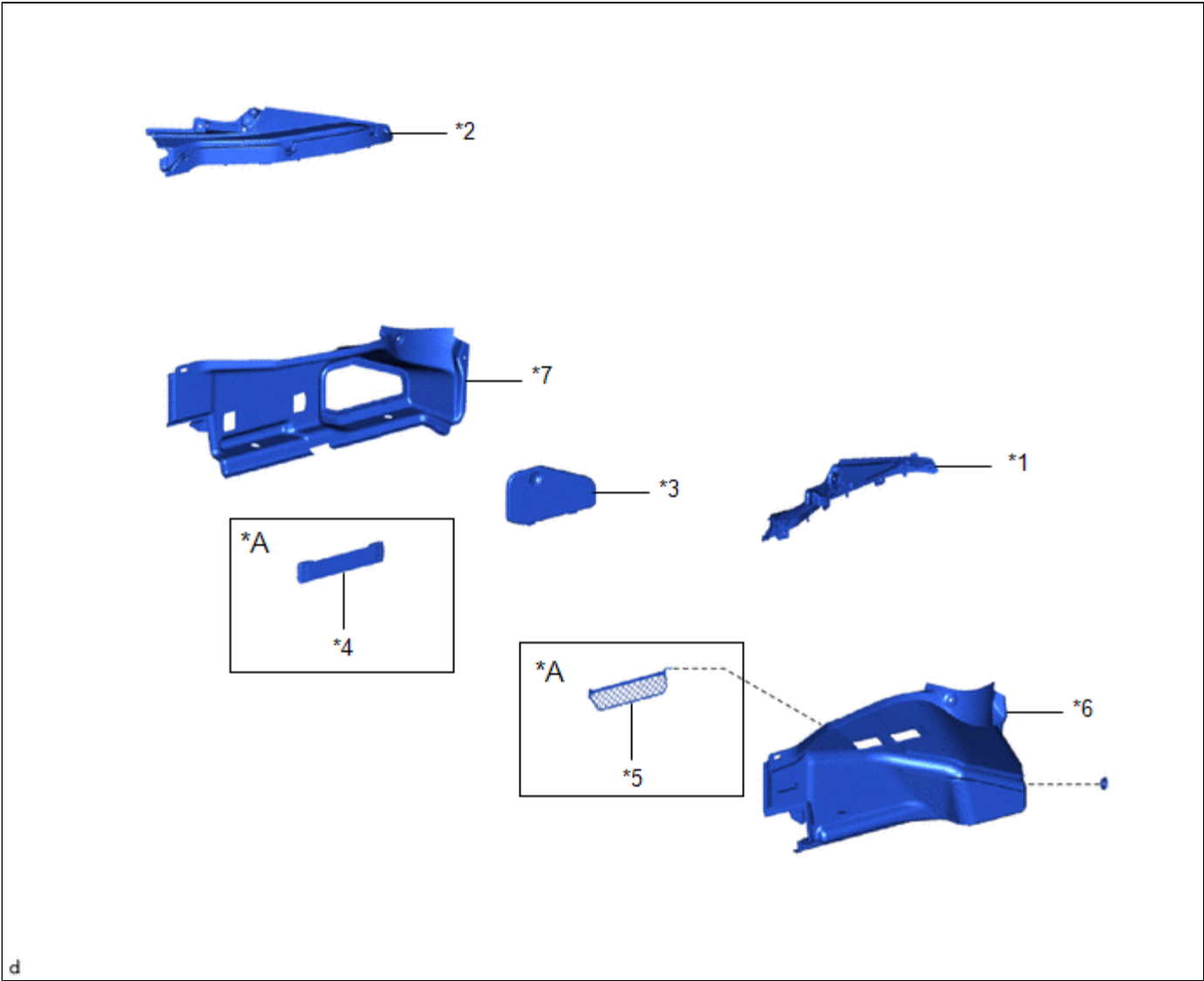
ILLUSTRATION



*1	REAR SPEAKER ASSEMBLY	-	-
----	-----------------------	---	---

	N*m (kgf*cm, ft.*lbf): Specified torque	-	-
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ILLUSTRATION



*A	w/ Courtesy Light	-	-
*1	DECK SIDE TRIM COVER LH	*2	DECK SIDE TRIM COVER RH
*3	DECK TRIM SERVICE HOLE COVER	*4	ROOM PARTITION BAND ASSEMBLY
*5	ROOM PARTITION NET ASSEMBLY	*6	DECK TRIM SIDE BOARD LH
*7	DECK TRIM SIDE BOARD RH	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: LUGGAGE SPEAKER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.
- Risk of short circuits! Risk of fire!
- Detach battery earth lead from battery.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE CONSOLE BOX ASSEMBLY

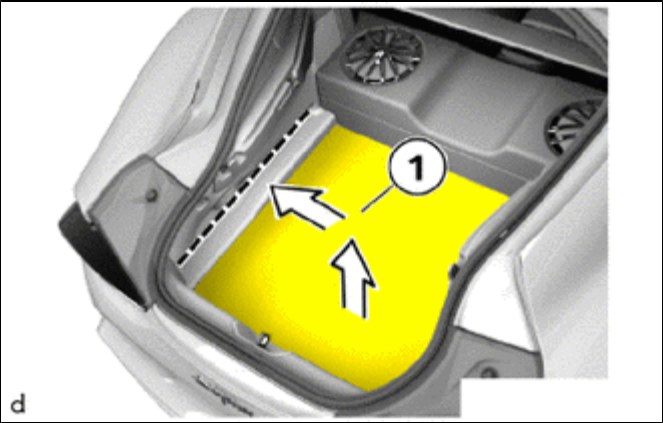
Click here [INFO](#)

2. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

3. REMOVE DECK BOARD ASSEMBLY

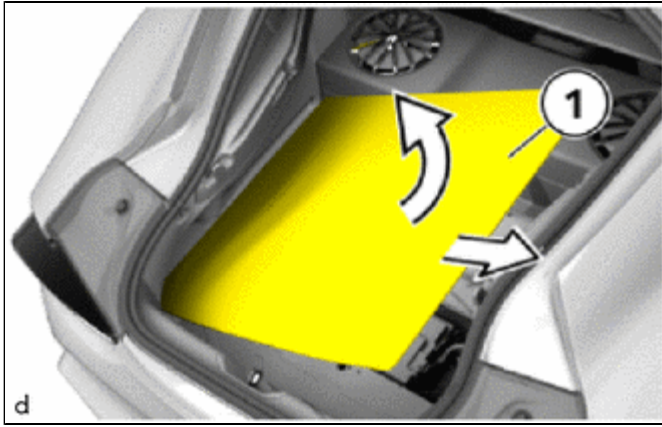
- (a) Slightly lift the deck board assembly (1) on the right side with a suitable tool.



Remove in this Direction

- (b) Slide the left edge of the deck board assembly (1) into the recess in the direction of the arrow of the deck board assembly.

(c) Remove the deck board assembly (1) in the direction of the arrow.



Remove in this Direction

4. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

5. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

6. SEPARATE TRANSVERSE PIPE TRIM

Click here [INFO](#)

7. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

8. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

9. REMOVE TRANSVERSE PIPE

Click here [INFO](#)

10. REMOVE CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

11. REMOVE CENTER PILLAR GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

12. REMOVE QUARTER TRIM UPPER PANEL LH

Click here [INFO](#)

13. REMOVE QUARTER TRIM UPPER PANEL RH

HINT:

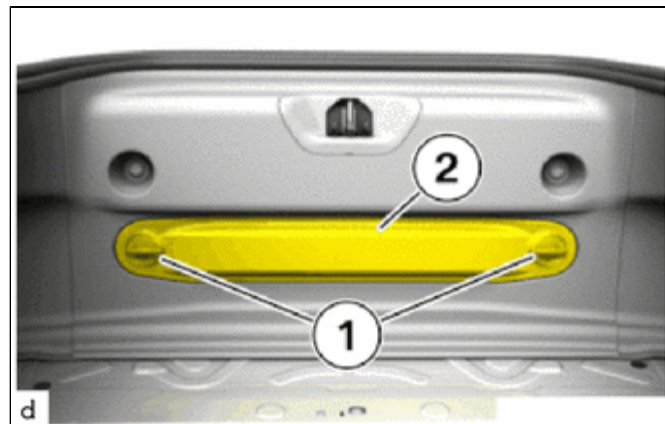
Use the same procedure as for the LH side.

14. REMOVE TRIANGLE REFLECTOR SET

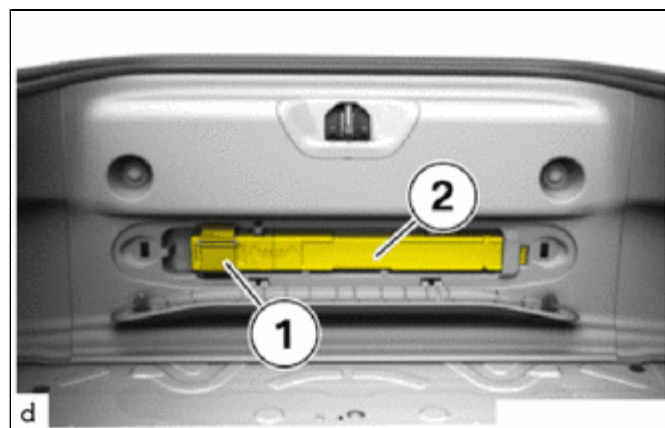
- (a) Open the screw caps (1) and the lid of the triangle reflector set (2).

HINT:

Perform this procedure only when opening the lid is necessary.

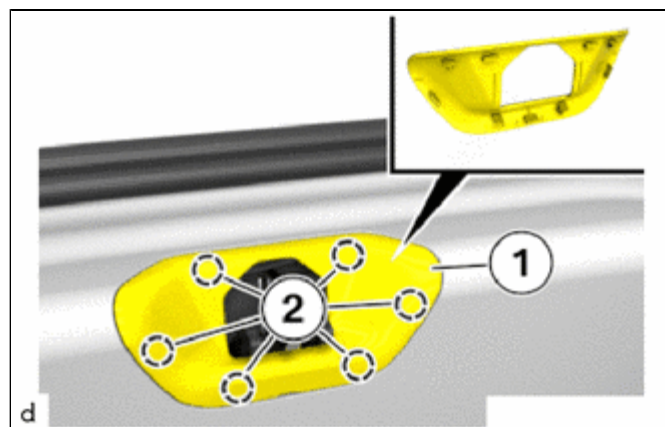


- (b) Open the hook and loop fastener (1) to remove the triangle reflector set (2).

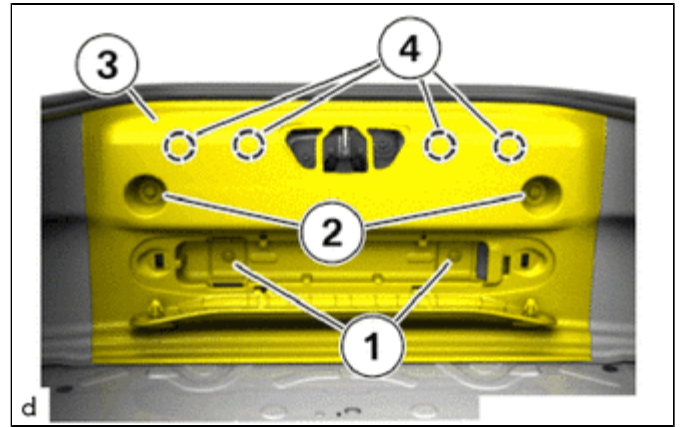


15. REMOVE DECK TRIM REAR COVER

- (a) Detach the claws (2) to remove the back door striker cover (1).



(b) Loosen T30 screws (1).



(c) Detach the clips (2).

(d) Remove the deck trim rear cover (3) out under the back door weatherstrip.

(e) Detach the deck trim rear cover (3) upward from the clips (4).

16. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

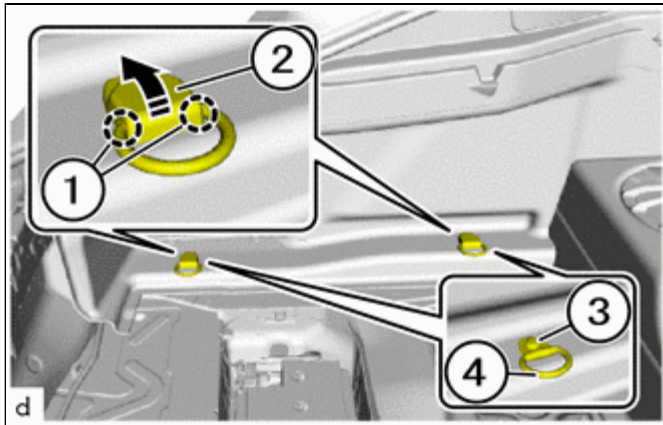
Click here [INFO](#)

17. REMOVE ROPE HOOK (w/ Courtesy Light)

HINT:

Use the same procedures for the opposite side.

(a) Detach the claws (1) to open the covers (2) in the direction of the arrow.



Open in this Direction

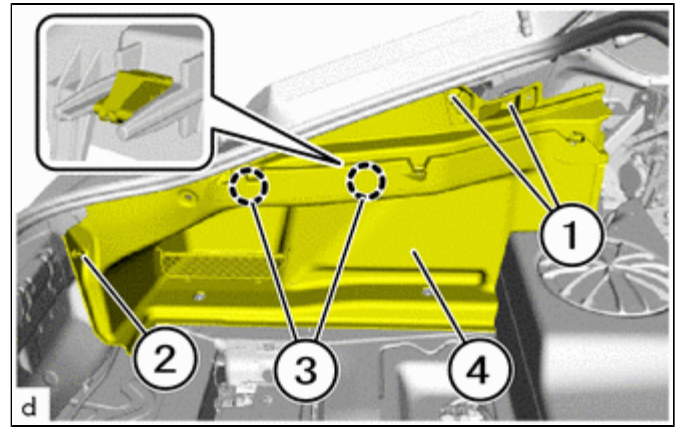
NOTICE:

Because the cover will be damaged, be sure to replace the rope hook with a new one.

(b) Loosen the T40 bolts (3) to remove the rope hooks (4).

18. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

(a) Loosen T20 screws (1).



(b) Detach the clip (2).

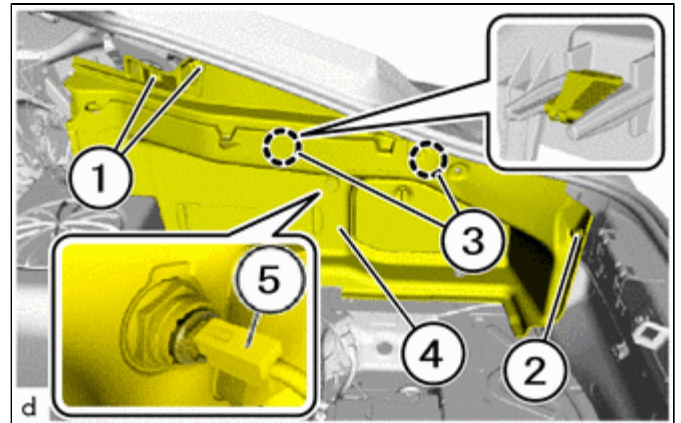
(c) Detach the clips (3).

(d) Thread the deck trim side board and deck side trim cover LH (4) out under the back door weatherstrip.

(e) Feed out and remove the deck trim side board and deck side trim cover LH (4).

19. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

(a) Loosen T20 screws (1).



(b) Detach the clip (2).

(c) Detach the deck trim side board and deck side trim cover RH (4) at the clips (3).

(d) Thread the deck trim side board and deck side trim cover RH (4) out under the back door weatherstrip.

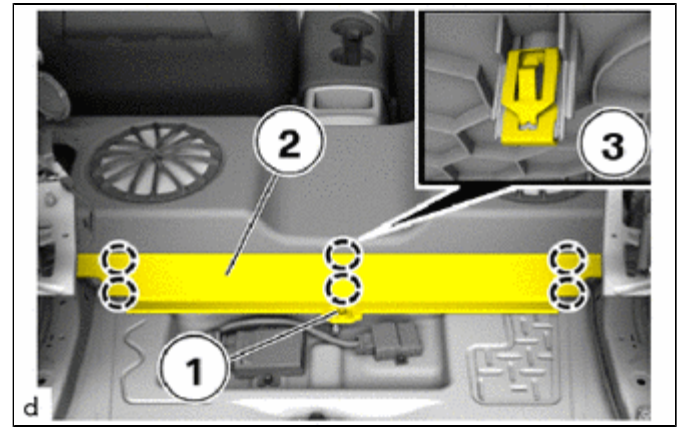
(e) w/ Courtesy Light:

(1) Unlock plug connection (5) and disconnect.

(f) Feed out and remove the deck trim side board and deck side trim cover RH (4).

20. REMOVE LUGGAGE COMPARTMENT TRIM REAR COVER

(a) Detach the clip (1).



(b) Detach the clips (3) to remove the luggage compartment trim rear cover (2).

21. REMOVE FRONT DOOR SCUFF PLATE LH

Click here [INFO](#)

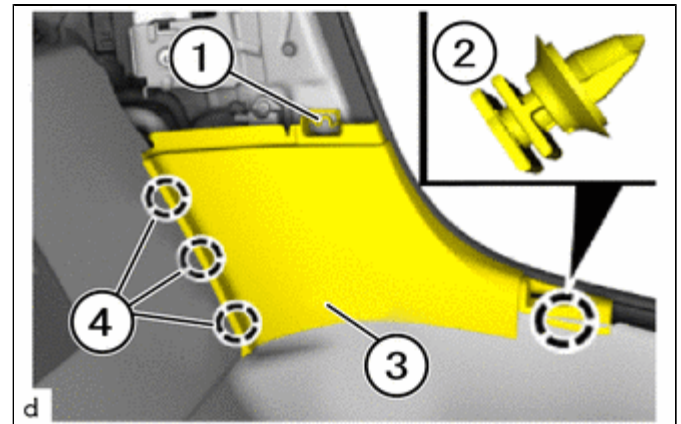
22. REMOVE FRONT DOOR SCUFF PLATE RH

HINT:

Use the same procedure as for the LH side.

23. REMOVE QUARTER TRIM LOWER PANEL LH

(a) Loosen nut (1).



(b) Using a clip remover, detach the clip (2).

(c) Remove the quarter trim lower panel LH (3) from the guides (4) to the top.

24. REMOVE QUARTER TRIM LOWER PANEL RH

HINT:

Use the same procedure as for the LH side.

25. REMOVE REAR NO. 3 SPEAKER ASSEMBLY (for 12 Speakers)

Click here [INFO](#)

26. REMOVE REAR NO. 2 SPEAKER ASSEMBLY (for 10 Speakers)

HINT:

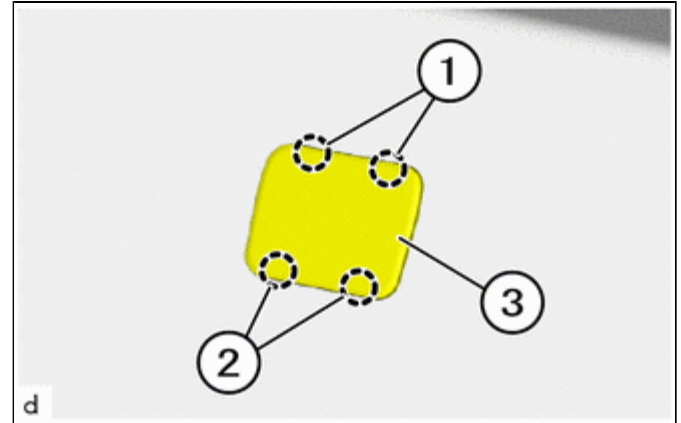
Use the same procedure as for the No. 3 speaker.

27. REMOVE CHILD RESTRAINT SEAT COVER

HINT:

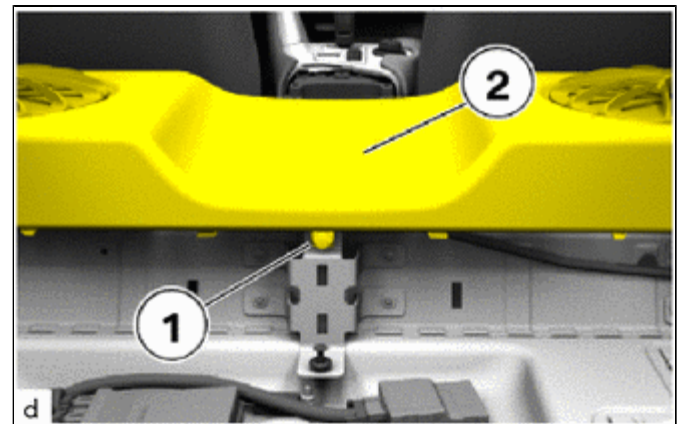
Use the same procedures for the opposite side.

- (a) Detach the claws (1) and guides (2) to remove the child restraint seat cover (3).

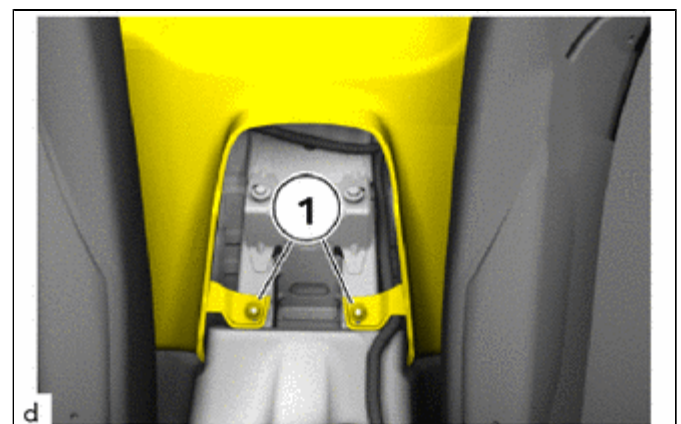


28. REMOVE LUGGAGE COMPARTMENT TRIM FRONT COVER

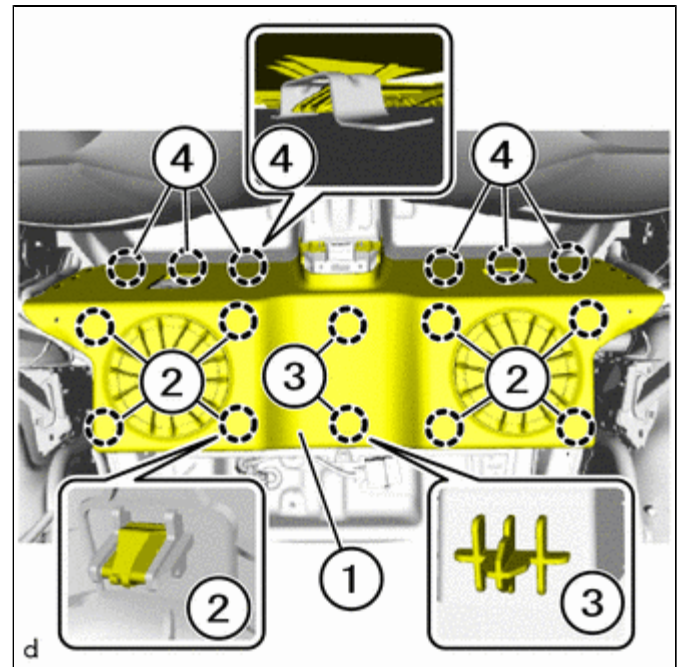
- (a) Detach the clip (1) from the luggage compartment trim front cover (2).



- (b) Loosen nuts (1).



(c) Detach the clips (2), guides (3) and guides (4) to remove the luggage compartment trim front cover (1) to the top.

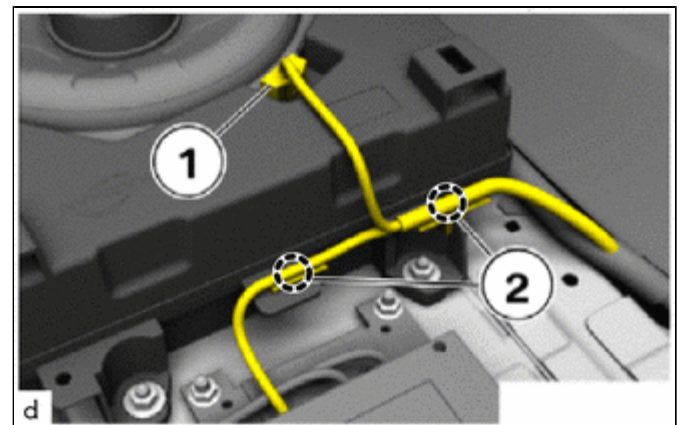


29. REMOVE REAR SPEAKER ASSEMBLY

HINT:

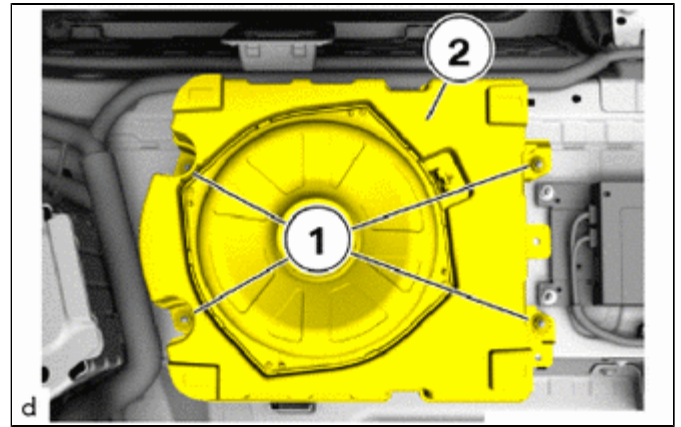
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Unlock plug connection (1) and disconnect.



(b) Detach the clamps (2).

(c) Loosen nuts (1).



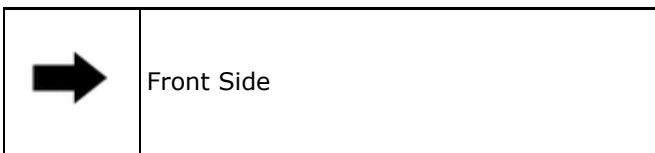
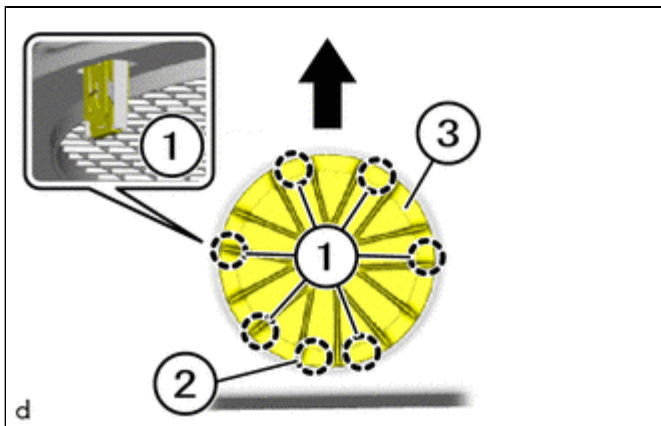
(d) Remove the rear speaker assembly (2).

30. REMOVE REAR SPEAKER GRILLE SUB-ASSEMBLY LH

HINT:

Perform this procedure only when replacement of the rear speaker grille sub-assembly LH is necessary.

(a) Detach the clips (1) and guide (2) to remove the rear speaker grille sub-assembly LH (3).



31. REMOVE REAR SPEAKER GRILLE SUB-ASSEMBLY RH

HINT:

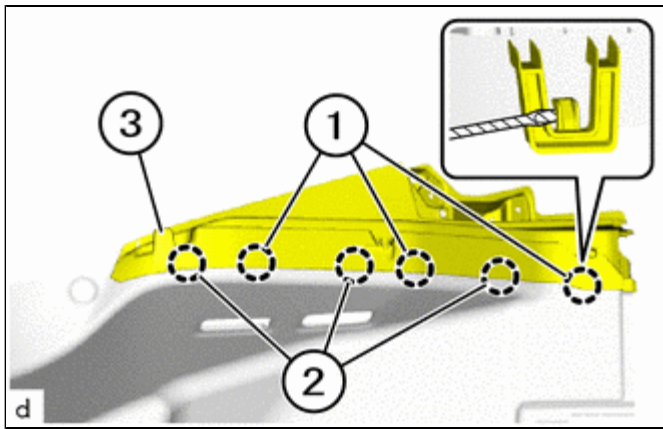
- Perform this procedure only when replacement of the rear speaker grille sub-assembly RH is necessary.
- Use the same procedure as for the LH side.

32. REMOVE DECK SIDE TRIM COVER LH

HINT:

Perform this procedure only when replacement of the deck side trim cover LH is necessary.

(a) Using a screwdriver with its tip wrapped in protective tape, detach the claws (1).



	Protective Tape
--	-----------------

(b) Detach the guides (2) to remove the deck side trim cover LH (3) from the deck trim side board LH.

33. REMOVE DECK SIDE TRIM COVER RH

HINT:

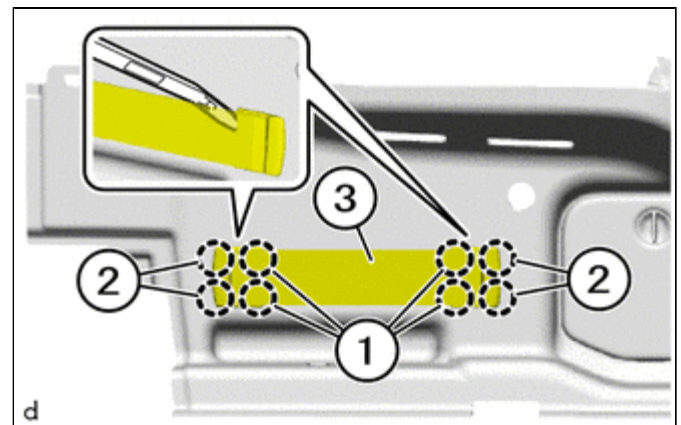
- Perform this procedure only when replacement of the deck side trim cover RH is necessary.
- Use the same procedure as for the LH side.

34. REMOVE ROOM PARTITION BAND ASSEMBLY (w/ Courtesy Light)

HINT:

Perform this procedure only when replacement of the room partition band assembly is necessary.

(a) Using a molding remover A, detach the claws (1) and guides (2) to remove the room partition band assembly (3).

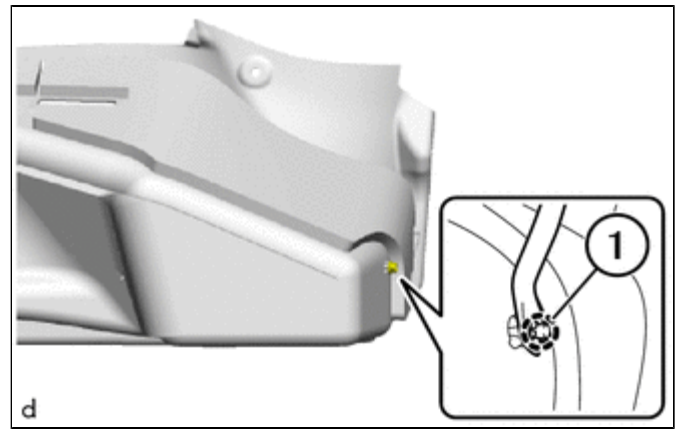


35. REMOVE ROOM PARTITION NET ASSEMBLY (w/ Courtesy Light)

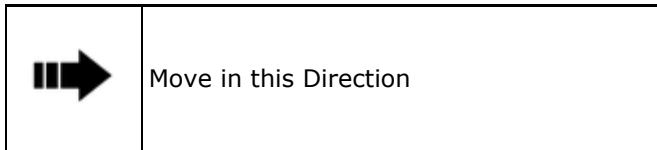
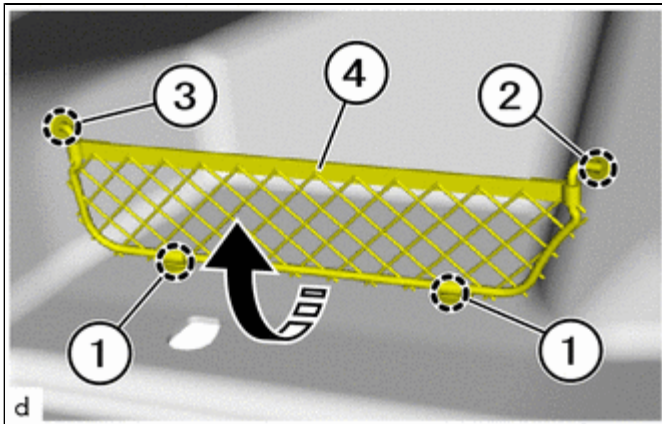
HINT:

Perform this procedure only when replacement of the room partition net assembly is necessary.

(a) Using a clip remover, detach the clip (1).



(b) Detach the guides (1) to move the room partition net assembly (4) in the direction of the arrow.



(c) Detach the guide (2).

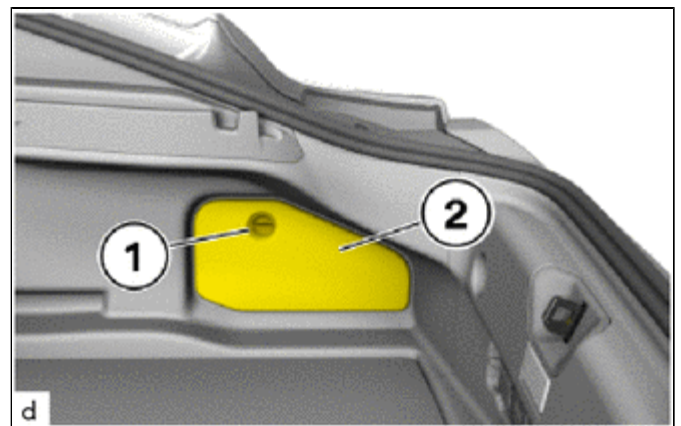
(d) Detach the guide (3) to remove the room partition net assembly (4).

36. REMOVE DECK TRIM SERVICE HOLE COVER

HINT:

Perform this procedure only when replacement of the deck trim service hole cover is necessary.

(a) Unlock the screw cap (1) clockwise to open the flap in the deck Trim service hole cover (2).



(b) Remove the deck Trim service hole cover (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: LUGGAGE SPEAKER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL DECK TRIM SERVICE HOLE COVER

HINT:

Perform this procedure only when replacement of the deck trim service hole cover is necessary.

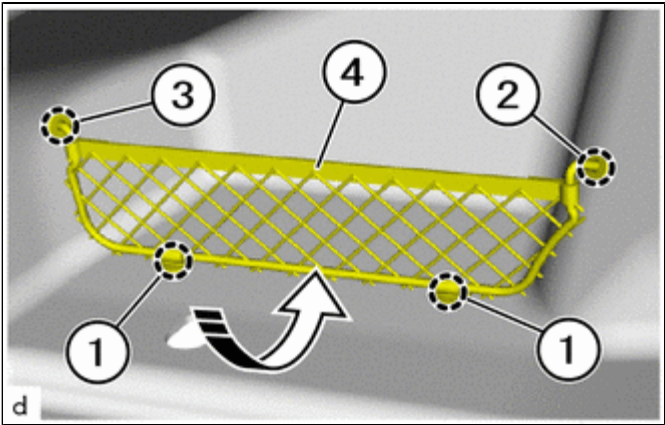
- (a) Position the deck Trim service hole cover and close.
- (b) Turn the screw cap counterclockwise and lock.


2. INSTALL ROOM PARTITION NET ASSEMBLY (w/ Courtesy Light)

HINT:

Perform this procedure only when replacement of the room partition net assembly is necessary.

- (a) Attach the guide (3).

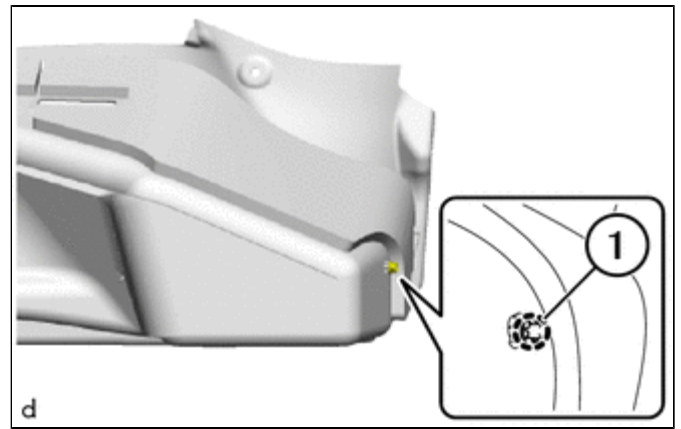




Install in this Direction

- (b) Attach the guide (2).
- (c) Attach the guides (1) to install the room partition net assembly (4) in the direction of the arrow.

- (d) Attach the clip (1).

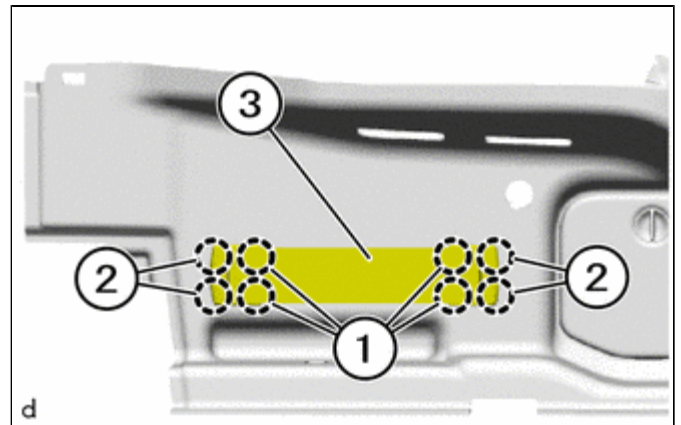


3. INSTALL ROOM PARTITION BAND ASSEMBLY (w/ Courtesy Light)

HINT:

Perform this procedure only when replacement of the room partition band assembly is necessary.

- (a) Attach the guides (2) and claws (1) to install the room partition band assembly (3).

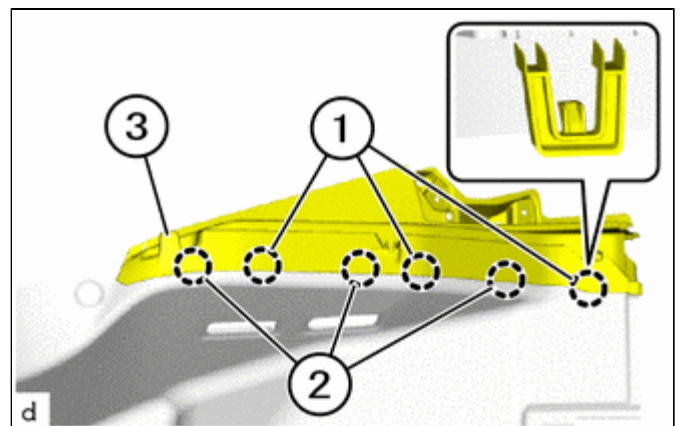


4. INSTALL DECK SIDE TRIM COVER LH

HINT:

Perform this procedure only when replacement of the deck side trim cover LH is necessary.

- (a) Attach the guides (2).



(b) Attach the claws (1) to install the deck side trim cover LH (3) in the deck trim side board LH.

5. INSTALL DECK SIDE TRIM COVER RH

HINT:

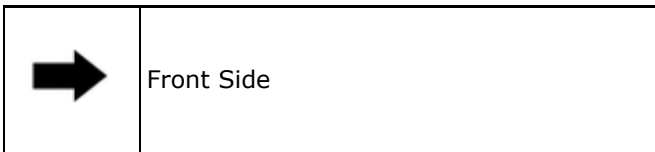
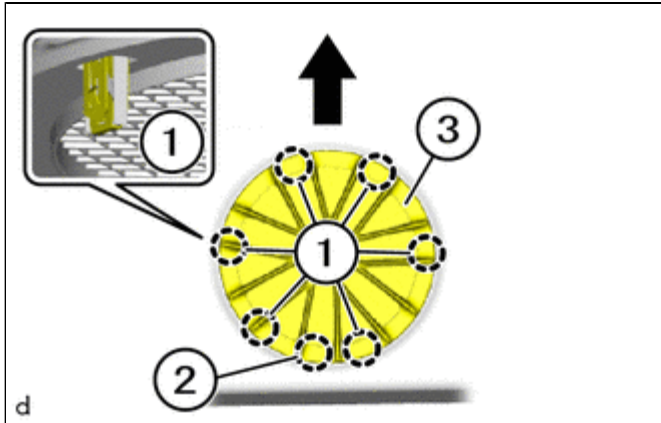
- Perform this procedure only when replacement of the deck side trim cover RH is necessary.
- Use the same procedure as for the LH side.

6. INSTALL REAR SPEAKER GRILLE SUB-ASSEMBLY LH

HINT:

Perform this procedure only when replacement of the rear speaker grille sub-assembly LH is necessary.

(a) Attach the guide (2) and clips (1) to install the rear speaker grille sub-assembly LH (2).



7. INSTALL REAR SPEAKER GRILLE SUB-ASSEMBLY RH

HINT:

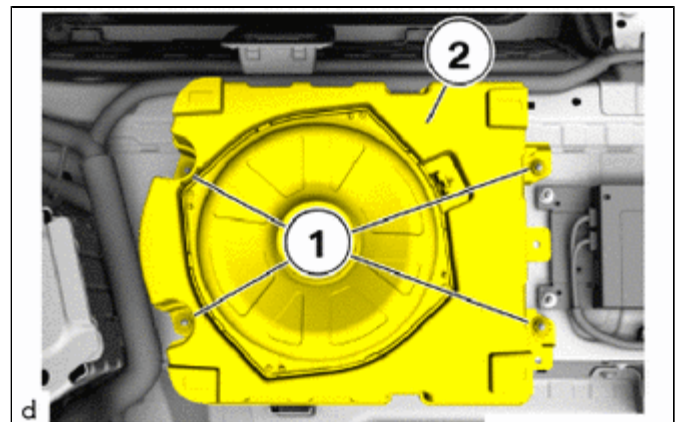
- Perform this procedure only when replacement of the rear speaker grille sub-assembly RH is necessary.
- Use the same procedure as for the LH side.

8. INSTALL REAR SPEAKER ASSEMBLY

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Position the rear speaker assembly LH (2).

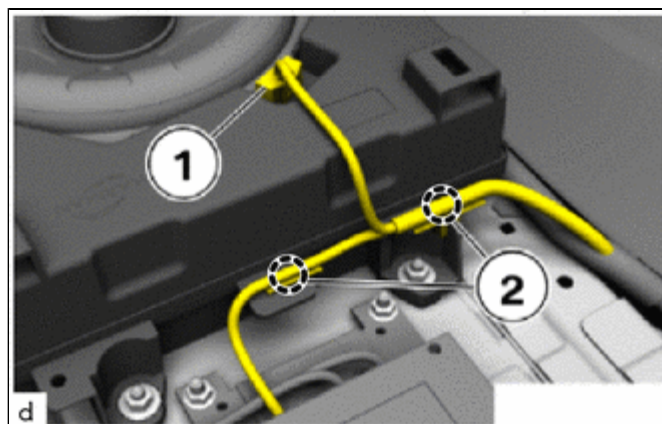


(b) Tighten nuts (1).

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

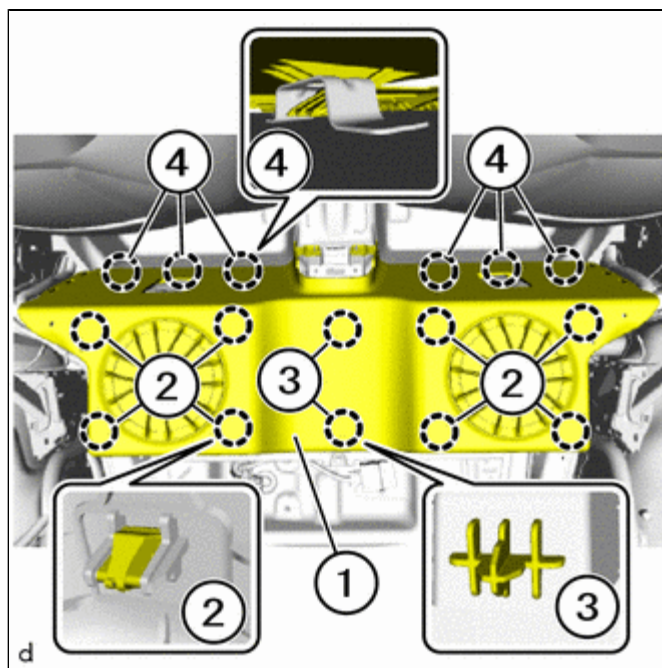
(c) Attach the clamps (2).



(d) Connect connector (1) and lock.

9. INSTALL LUGGAGE COMPARTMENT TRIM FRONT COVER

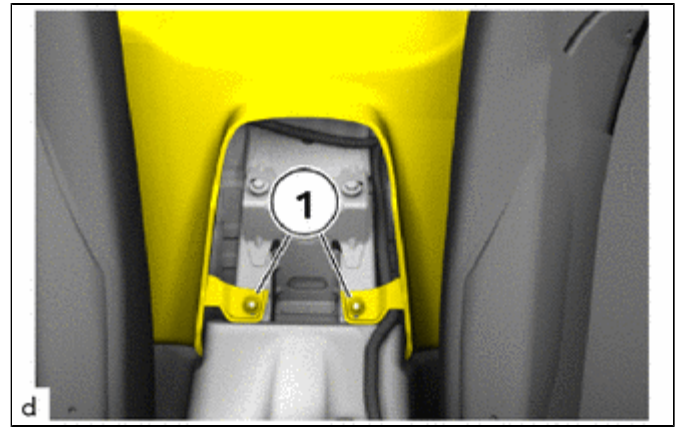
(a) Attach the guides (4), guides (3) and clips (2) to install the luggage compartment trim front cover (1).



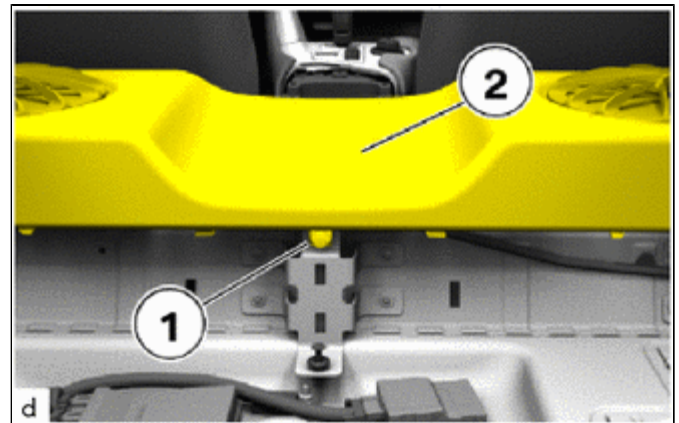
(b) Tighten nuts (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}



(c) Attach the clip (1) in the luggage compartment trim front cover (2).

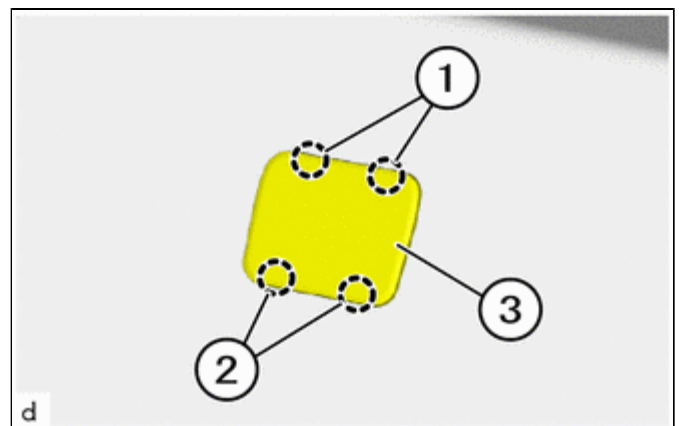


10. INSTALL CHILD RESTRAINT SEAT COVER

HINT:

Use the same procedures for the opposite side.

(a) Attach the guides (2) and claws (1) to install the child restraint seat cover (3).



11. INSTALL REAR NO. 3 SPEAKER ASSEMBLY (for 12 Speakers)

Click here [INFO](#)

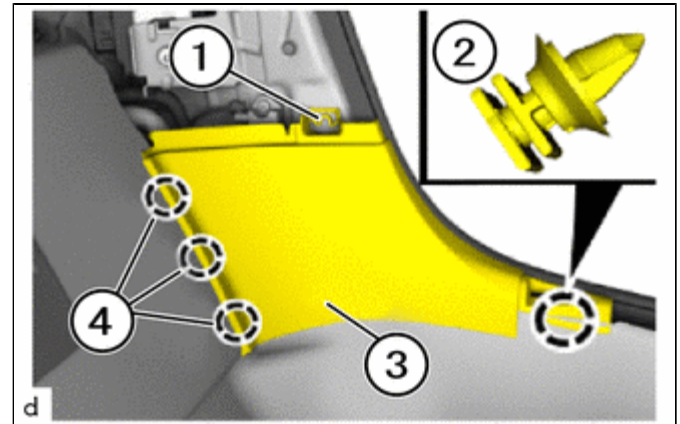
12. INSTALL REAR NO. 2 SPEAKER ASSEMBLY (for 10 Speakers)

HINT:

Use the same procedure as for the No. 3 speaker.

13. INSTALL QUARTER TRIM LOWER PANEL LH

- (a) Attach the guides (4) to install the quarter trim lower panel LH (3).



- (b) Attach the clip (2).

- (c) Tighten nut (1).

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

14. INSTALL QUARTER TRIM LOWER PANEL RH**HINT:**

Use the same procedure as for the LH side.

15. INSTALL FRONT DOOR SCUFF PLATE LH

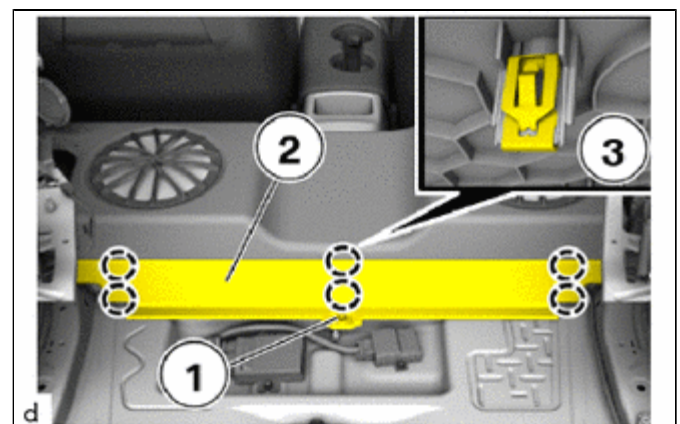
Click here [INFO](#)

16. INSTALL FRONT DOOR SCUFF PLATE RH**HINT:**

Use the same procedure as for the LH side.

17. INSTALL LUGGAGE COMPARTMENT TRIM REAR COVER

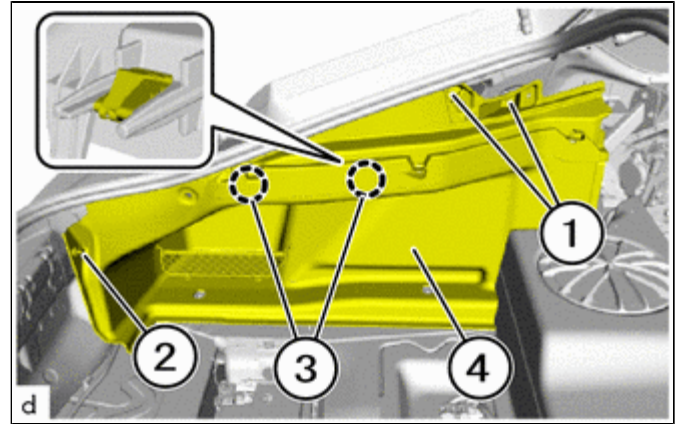
- (a) Attach the clips (3) to install the luggage compartment trim rear cover (2).



(b) Attach the clip (1).

18. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

(a) Insert the deck trim side board and deck side trim cover LH (4).



(b) Guide the deck trim side board and deck side trim cover LH (4) into the upper rear area under the back door weatherstrip.

(c) Attach the clips (3).

(d) Attach the clip (2).

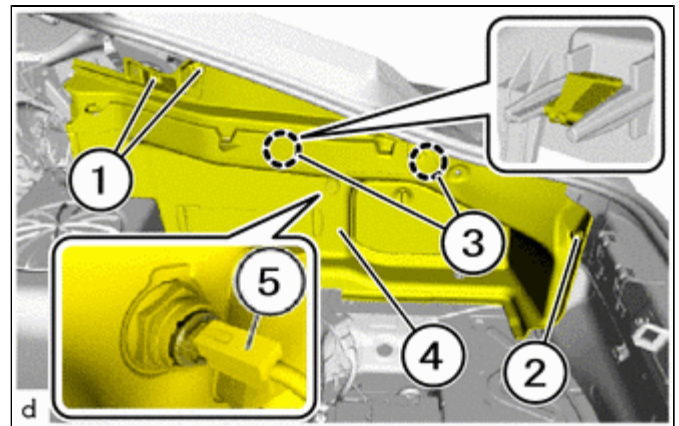
(e) Tighten the T20 screws (1).

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

19. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

(a) Insert the deck trim side board and deck side trim cover RH (4).



(b) w/ Courtesy Light:

(1) Connect connector (5) and lock.

(c) Guide the deck trim side board and deck side trim cover RH (4) into the upper rear area under the back door weatherstrip.

(d) Attach the clips (3).

(e) Attach the clip (2).

(f) Tighten the T20 screws (1).

Torque:

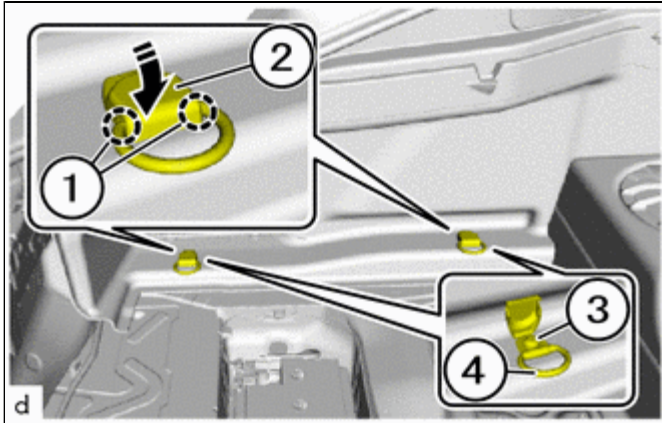
2.0 N·m {20 kgf·cm, 18 in·lbf}

20. INSTALL ROPE HOOK (w/ Courtesy Light)

HINT:

Use the same procedures for the opposite side.

(a) Replace rope hooks (4).



Close in this Direction

(b) Install the rope hooks (4) with the T40 bolts (3).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

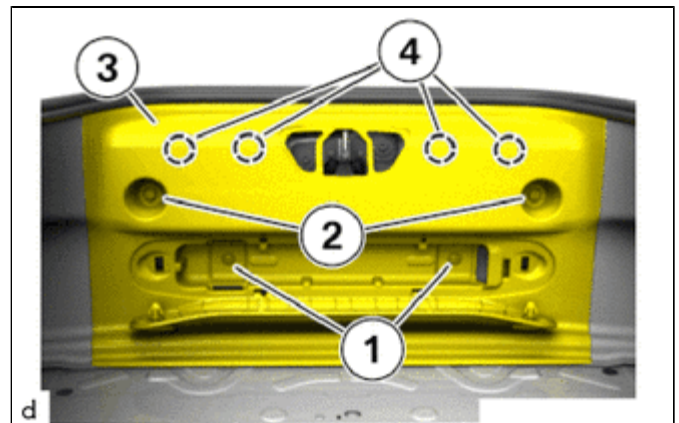
(c) Attach the claws (1) to close the covers (2) in the direction of the arrow.

21. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

22. INSTALL DECK TRIM REAR COVER

(a) Guide in the deck trim rear cover (3) under the back door weatherstrip to attach the clips (4).

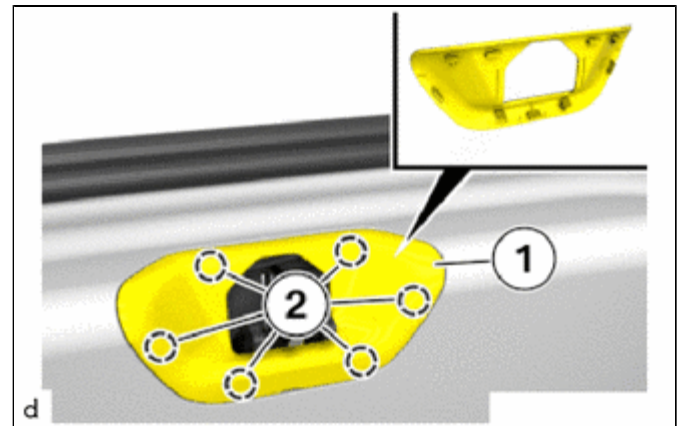


- (b) Attach the clips (2).
- (c) Tighten the T30 screws.

Torque:

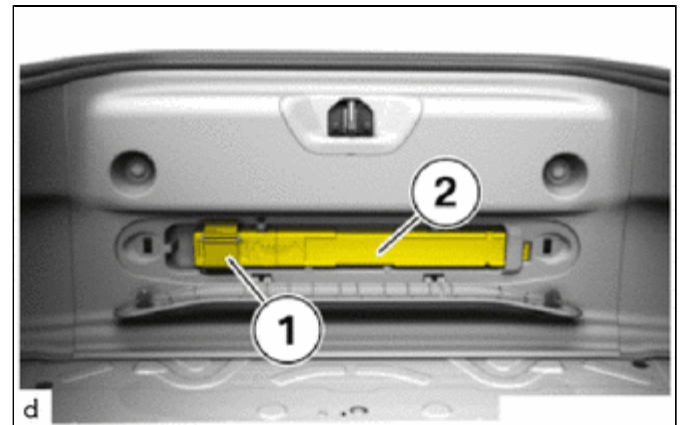
6.0 N·m {61 kgf·cm, 53 in·lbf}

- (d) Attach the claws (2) to install the back door striker cover (1).



23. INSTALL TRIANGLE REFLECTOR SET

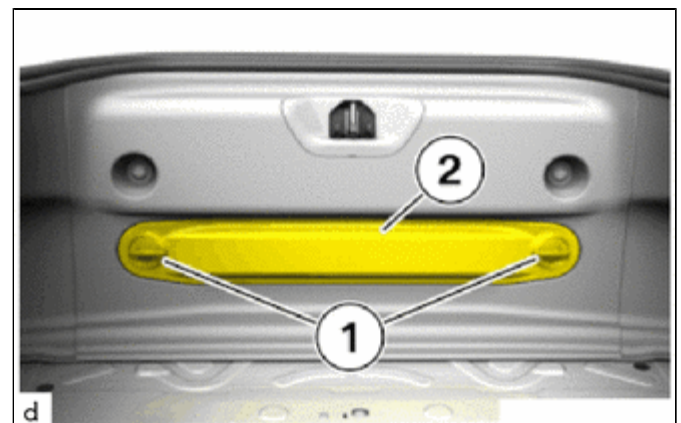
- (a) Install the triangle reflector set (2) and secure it with hook and loop fastener (1).



- (b) Close the lid of the triangle reflector set (2) and lock the screw caps (1).

HINT:

Perform this procedure only when the lid has been opened.



24. INSTALL QUARTER TRIM UPPER PANEL LH

Click here [INFO](#)

25. INSTALL QUARTER TRIM UPPER PANEL RH

HINT:

Use the same procedure as for the LH side.

26. INSTALL CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

27. INSTALL CENTER PILLAR GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

28. INSTALL TRANSVERSE PIPE

Click here [INFO](#)

29. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

30. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

31. INSTALL TRANSVERSE PIPE TRIM

Click here [INFO](#)

32. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

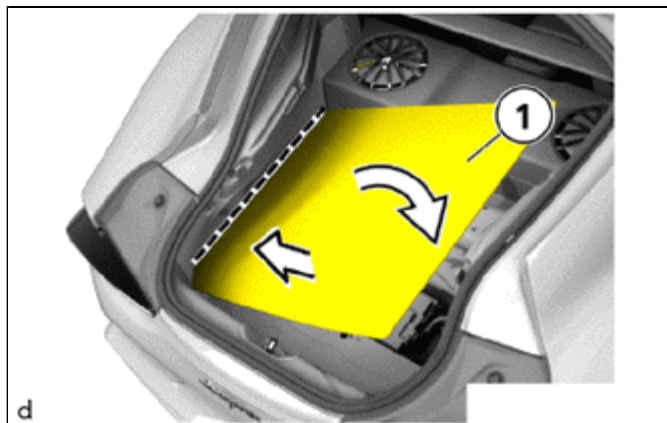
33. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH


HINT:

Use the same procedure as for the LH side.

34. INSTALL DECK BOARD ASSEMBLY

- (a) Slide the left edge of the deck board assembly (1) into the recess in the direction of the arrow of the deck board assembly.



	Install in this Direction
--	---------------------------

(b) Pivot deck board assembly (1) in the direction of the arrow and position centered in the vehicle.

35. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

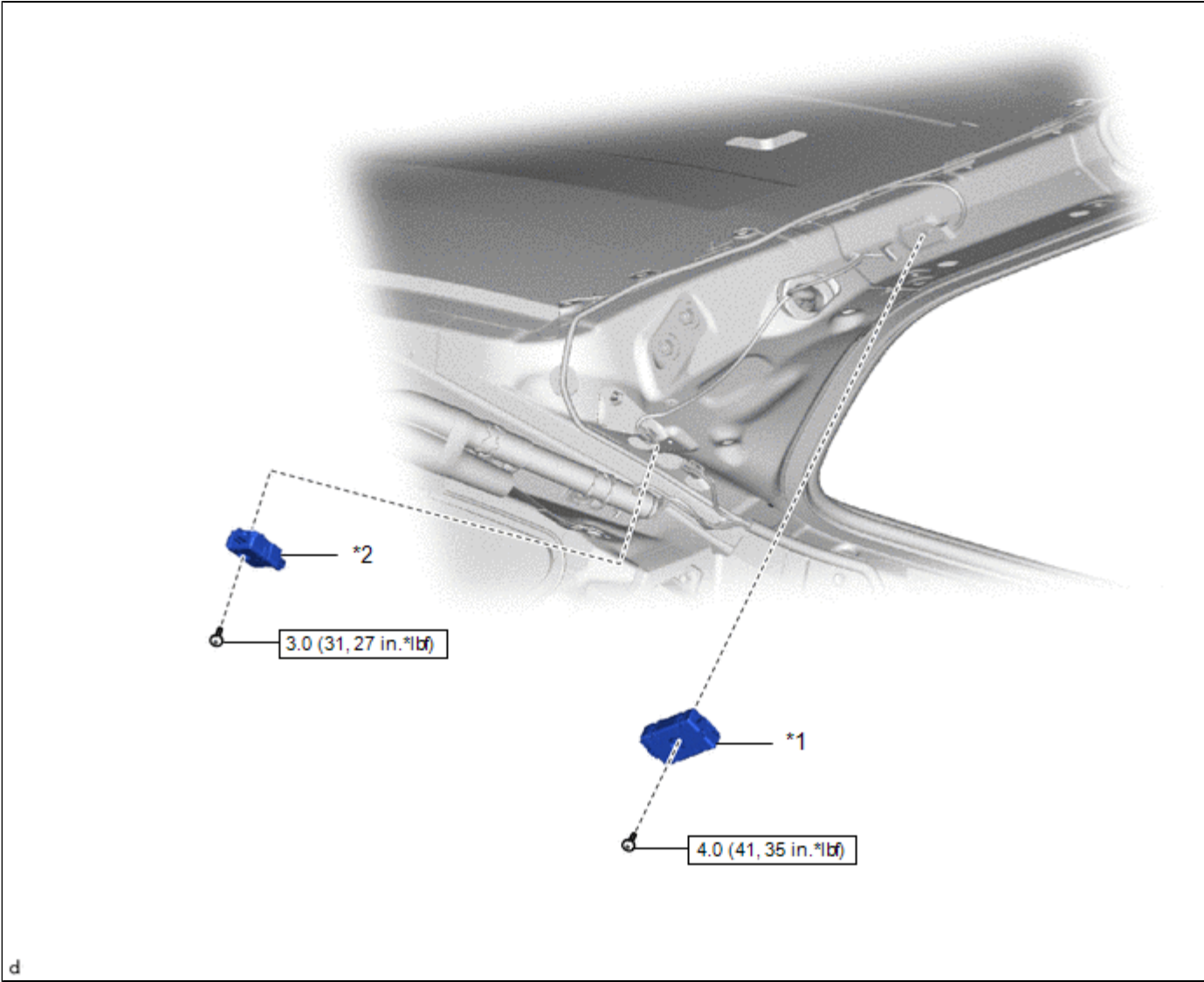
36. INSTALL CONSOLE BOX ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCO9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: NOISE FILTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NOISE FILTER	*2	TRAP CIRCUIT
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: NOISE FILTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

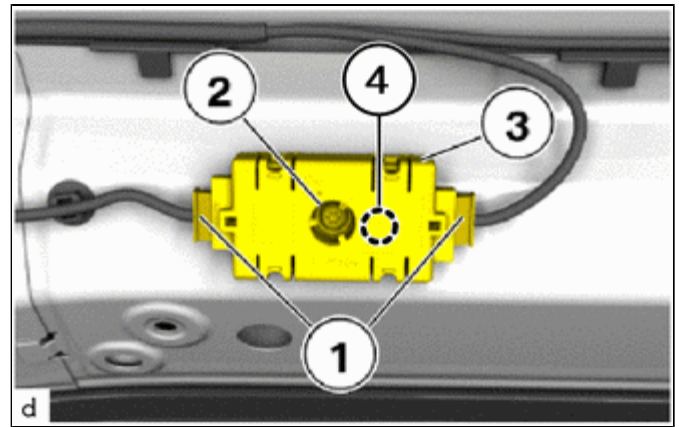
PROCEDURE

1. REMOVE ROOF HEADLINING ASSEMBLY

Click here [INFO](#)

2. REMOVE NOISE FILTER

(a) Unlock plug connections (1) and disconnect.

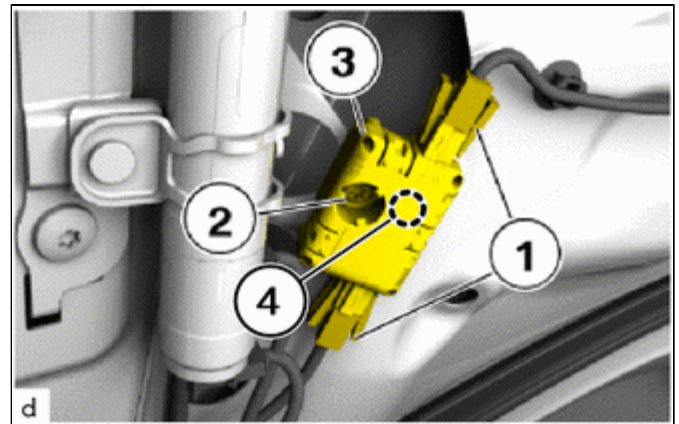


(b) Loosen T25 bolt (2).

(c) Detach the guide (4) to remove the noise filter (3).

3. REMOVE TRAP CIRCUIT

(a) Unlock plug connections (1) and disconnect.



(b) Loosen T25 bolt (2).

(c) Detach the guide (4) to remove the trap circuit (3).

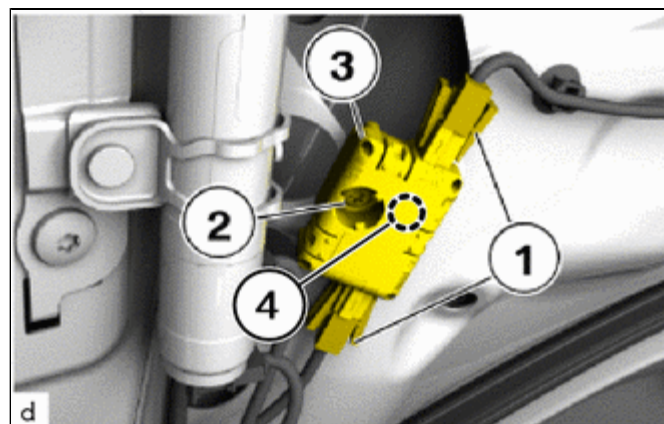
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: NOISE FILTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRAP CIRCUIT

(a) Attach the guide (4).



(b) Install the trap circuit (3) with the T25 bolt (2).

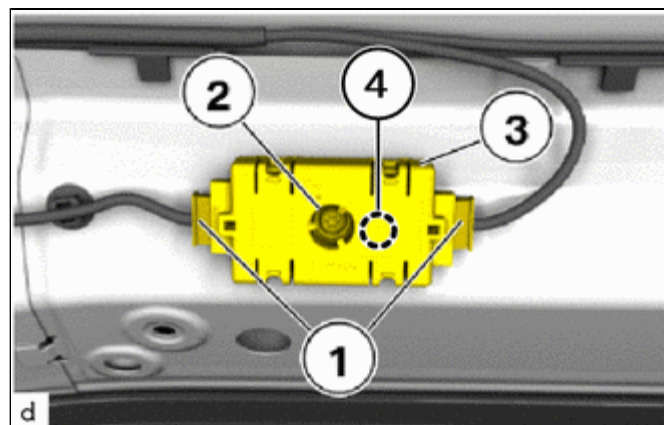
Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

(c) Connect connectors (1) and lock.

2. INSTALL NOISE FILTER

(a) Attach the guide (4).



(b) Install the noise filter (3) with the T25 bolt (2).

Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(c) Connect connectors (1) and lock.

3. INSTALL ROOF HEADLINING ASSEMBLY

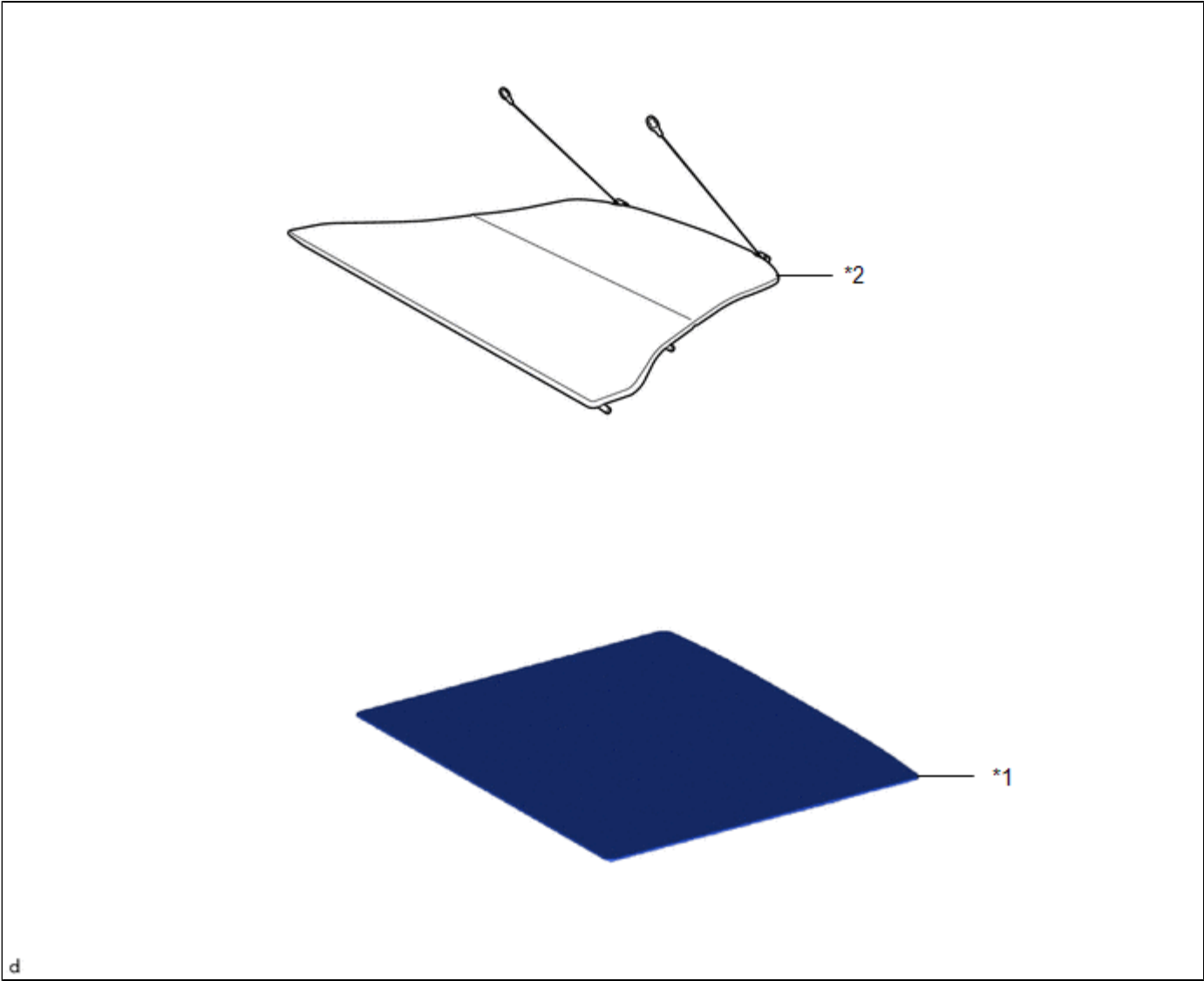
Click here [INFO](#)



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Title: AUDIO / VIDEO: QUARTER TRIM SPEAKER: COMPONENTS; 2020 MY Supra [03/2019 -]		

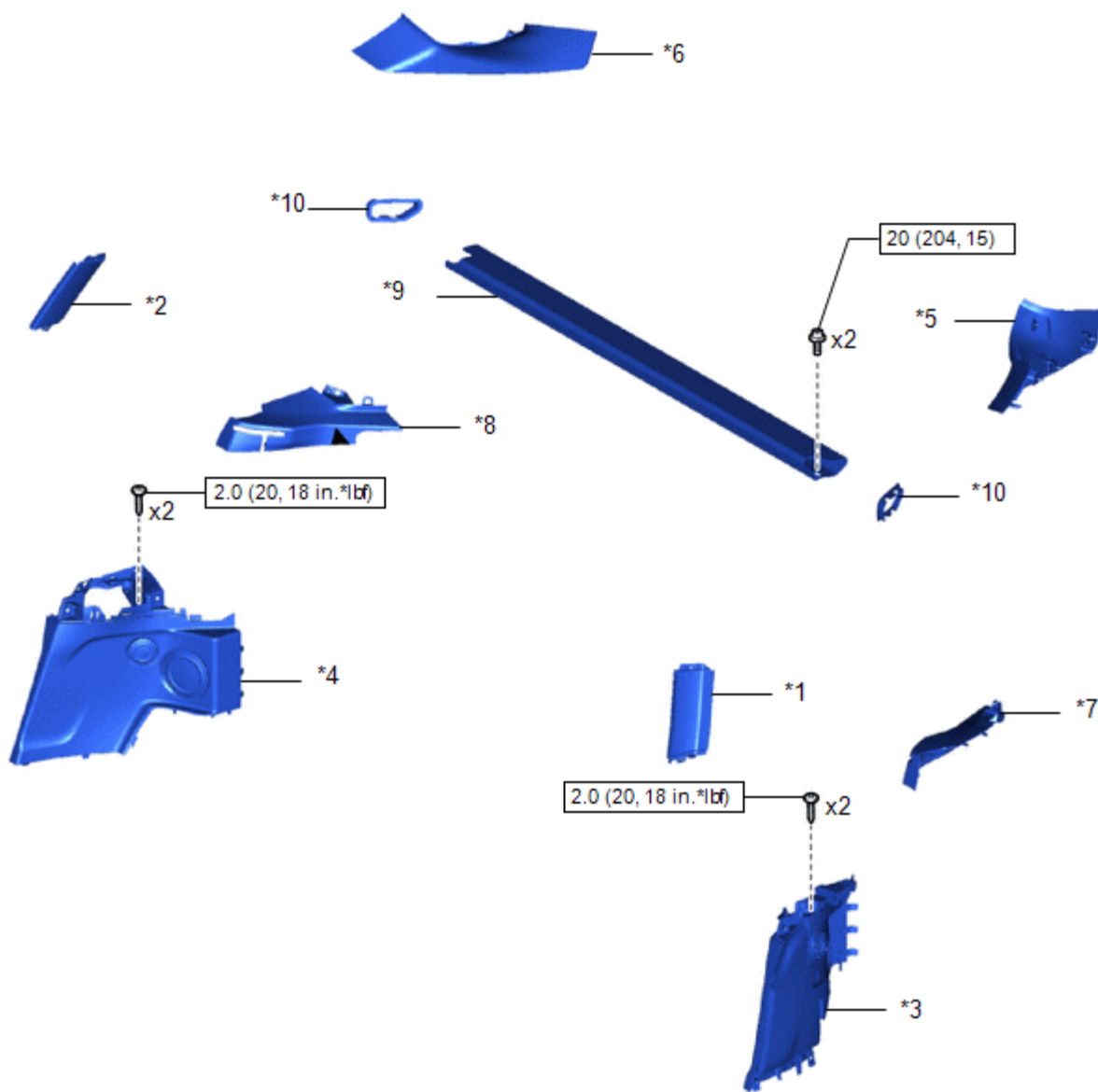
COMPONENTS

ILLUSTRATION




*1	DECK BOARD ASSEMBLY	*2	PACKAGE TRAY TRIM PANEL ASSEMBLY
----	---------------------	----	----------------------------------

ILLUSTRATION

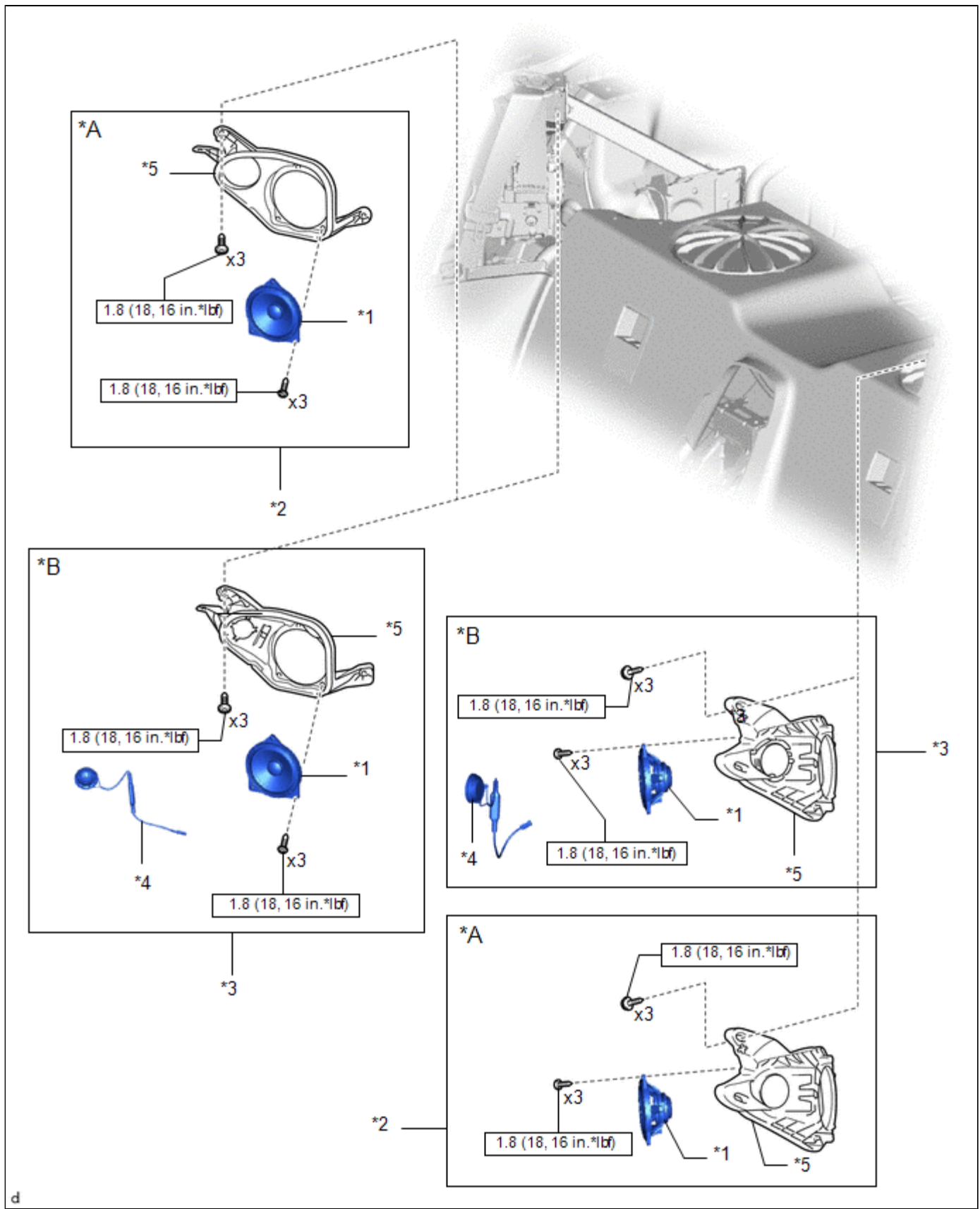


d


*1	CENTER PILLAR GARNISH ASSEMBLY LH	*2	CENTER PILLAR GARNISH ASSEMBLY RH
*3	QUARTER TRIM UPPER PANEL LH	*4	QUARTER TRIM UPPER PANEL RH
*5	ROOF SIDE INNER GARNISH ASSEMBLY LH	*6	ROOF SIDE INNER GARNISH ASSEMBLY RH
*7	SEAT BELT HOLE COVER SUB-ASSEMBLY LH	*8	SEAT BELT HOLE COVER SUB-ASSEMBLY RH
*9	TRANSVERSE PIPE	*10	TRANSVERSE PIPE TRIM

*7	BACK DOOR STRIKER COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*A	for 10 Speakers	*B	for 12 Speakers
*1	MID-RANGE SPEAKER IN THE REAR SIDE TRIM PANEL	*2	REAR NO. 2 SPEAKER ASSEMBLY

*3	REAR NO. 3 SPEAKER ASSEMBLY	*4	TWEETER IN THE REAR SIDE PANEL
*5	SPEAKER HOLDER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Title: AUDIO / VIDEO: QUARTER TRIM SPEAKER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY

Click here [INFO](#)

2. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

3. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

4. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

5. SEPARATE TRANSVERSE PIPE TRIM

Click here [INFO](#)

6. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

7. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

8. REMOVE TRANSVERSE PIPE

Click here [INFO](#)

9. REMOVE CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

10. REMOVE CENTER PILLAR GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

11. REMOVE QUARTER TRIM UPPER PANEL LH

Click here [INFO](#)

12. REMOVE QUARTER TRIM UPPER PANEL RH

HINT:

Use the same procedure as for the LH side.

13. REMOVE TRIANGLE REFLECTOR SET

Click here [INFO](#)

14. REMOVE DECK TRIM REAR COVER

Click here [INFO](#)

15. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

16. REMOVE ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

17. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

18. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

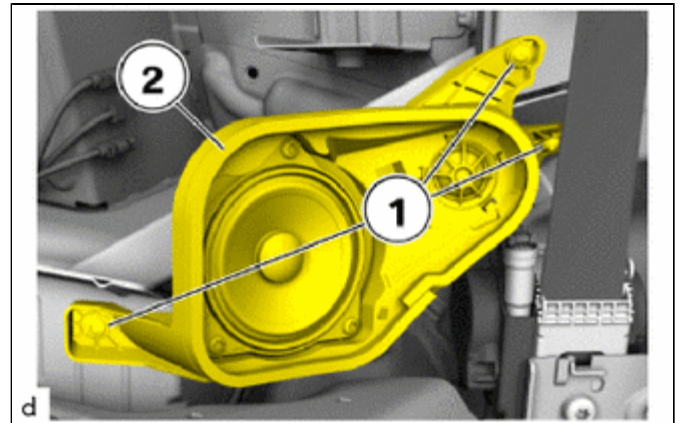
Click here [INFO](#)

19. REMOVE REAR NO. 3 SPEAKER ASSEMBLY (for 12 Speakers)

HINT:

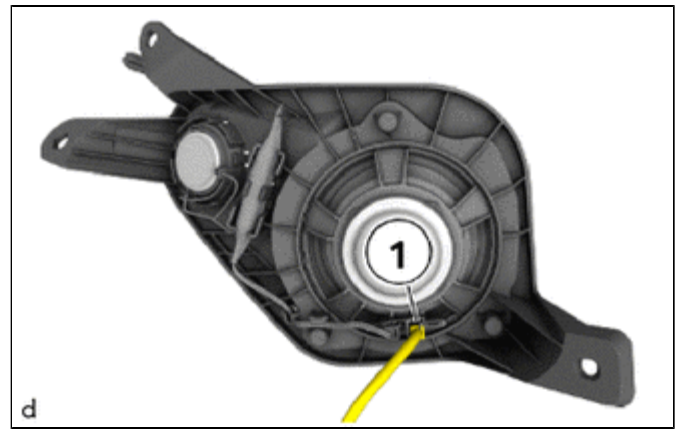
- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Loosen T20 screws (1).



(b) Lift the rear No. 3 speaker assembly (2) slightly forward.

(c) Unlock plug connection (1) and disconnect.



(d) Remove the rear No. 3 speaker assembly.

20. REMOVE REAR NO. 2 SPEAKER ASSEMBLY (for 10 Speakers)

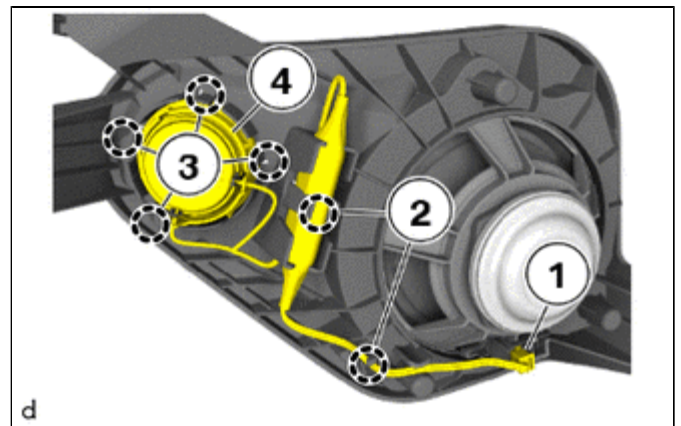
HINT:

Use the same procedure as for the No. 3 speaker.

21. REMOVE TWEETER IN THE REAR SIDE PANEL (for 12 Speakers)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.



(a) Unlock plug connection (1) and disconnect.

(b) Detach the clamps (2).

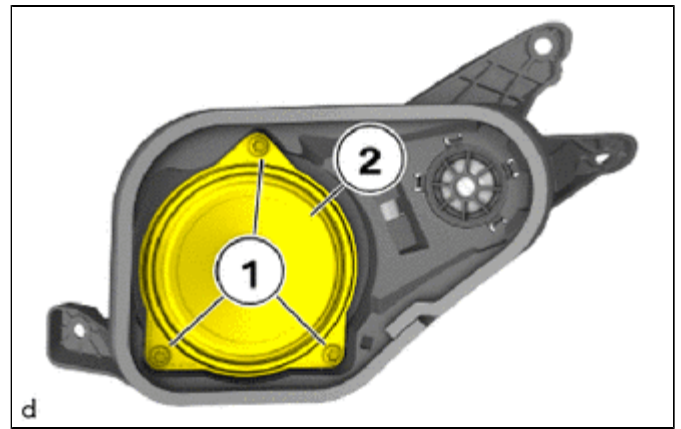
(c) Detach the claws (3) to remove the tweeter in the rear side panel (4) from the speaker holder.

22. REMOVE MID-RANGE SPEAKER IN THE REAR SIDE TRIM PANEL

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Loosen T20 screws (1).



(b) Remove the mid-range speaker in the rear side trim panel (2) from the speaker holder.

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INSTALLATION

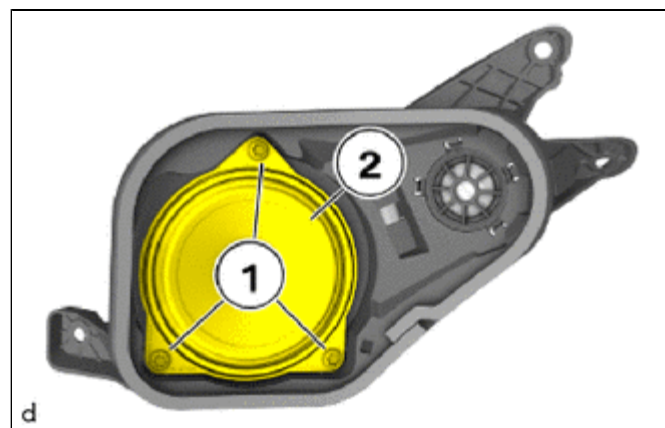
PROCEDURE

1. INSTALL MID-RANGE SPEAKER IN THE REAR SIDE TRIM PANEL

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

- (a) Position the mid-range speaker in the rear side trim panel (2) to the speaker holder.



- (b) Tighten the T20 screws (1).

Torque:

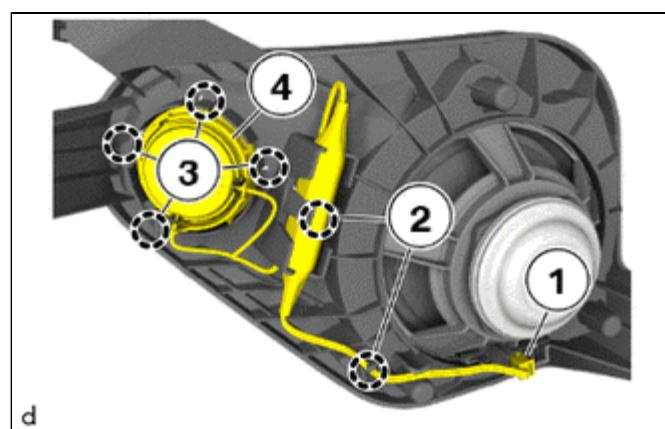
1.8 N·m {18 kgf·cm, 16 in·lbf}

2. INSTALL TWEETER IN THE REAR SIDE PANEL (for 12 Speakers)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

- (a) Attach the claws (3) to install the tweeter in the rear side panel (4) to the speaker holder.



(b) Attach the clamps (2).

(c) Connect connector (1) and lock.

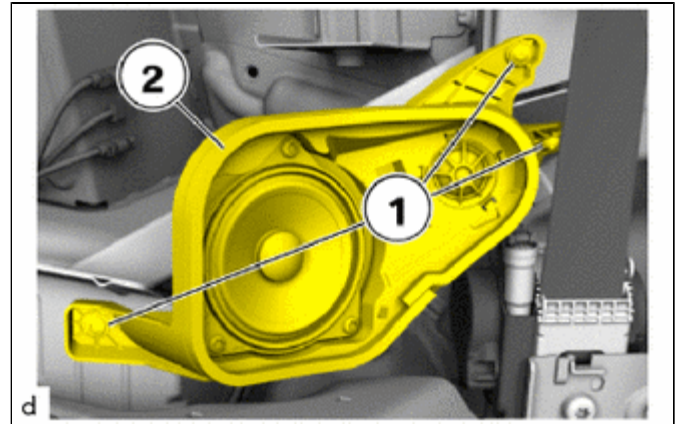
3. INSTALL REAR NO. 3 SPEAKER ASSEMBLY (for 12 Speakers)

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Connect connector and lock.

(b) Install the rear No. 3 speaker assembly (2).



(c) Tighten the T20 screws (1).

Torque:

1.8 N·m {18 kgf·cm, 16 in·lbf}

4. INSTALL REAR NO. 2 SPEAKER ASSEMBLY (for 10 Speakers)

HINT:

Use the same procedure as for the No. 3 speaker.

5. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

6. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER RH

Click here [INFO](#)

7. INSTALL ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

8. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

9. INSTALL DECK TRIM REAR COVER

Click here [INFO](#)

10. INSTALL TRIANGLE REFLECTOR SET

Click here [INFO](#)

11. INSTALL QUARTER TRIM UPPER PANEL LH

Click here [INFO](#)

12. INSTALL QUARTER TRIM UPPER PANEL RH

HINT:

Use the same procedure as for the LH side.

13. INSTALL CENTER PILLAR GARNISH ASSEMBLY LH

Click here [INFO](#)

14. INSTALL CENTER PILLAR GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

15. INSTALL TRANSVERSE PIPE

Click here [INFO](#)

16. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

17. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

18. INSTALL TRANSVERSE PIPE TRIM

Click here [INFO](#)

19. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

20. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

21. REMOVE DECK BOARD ASSEMBLY

Click here [INFO](#)

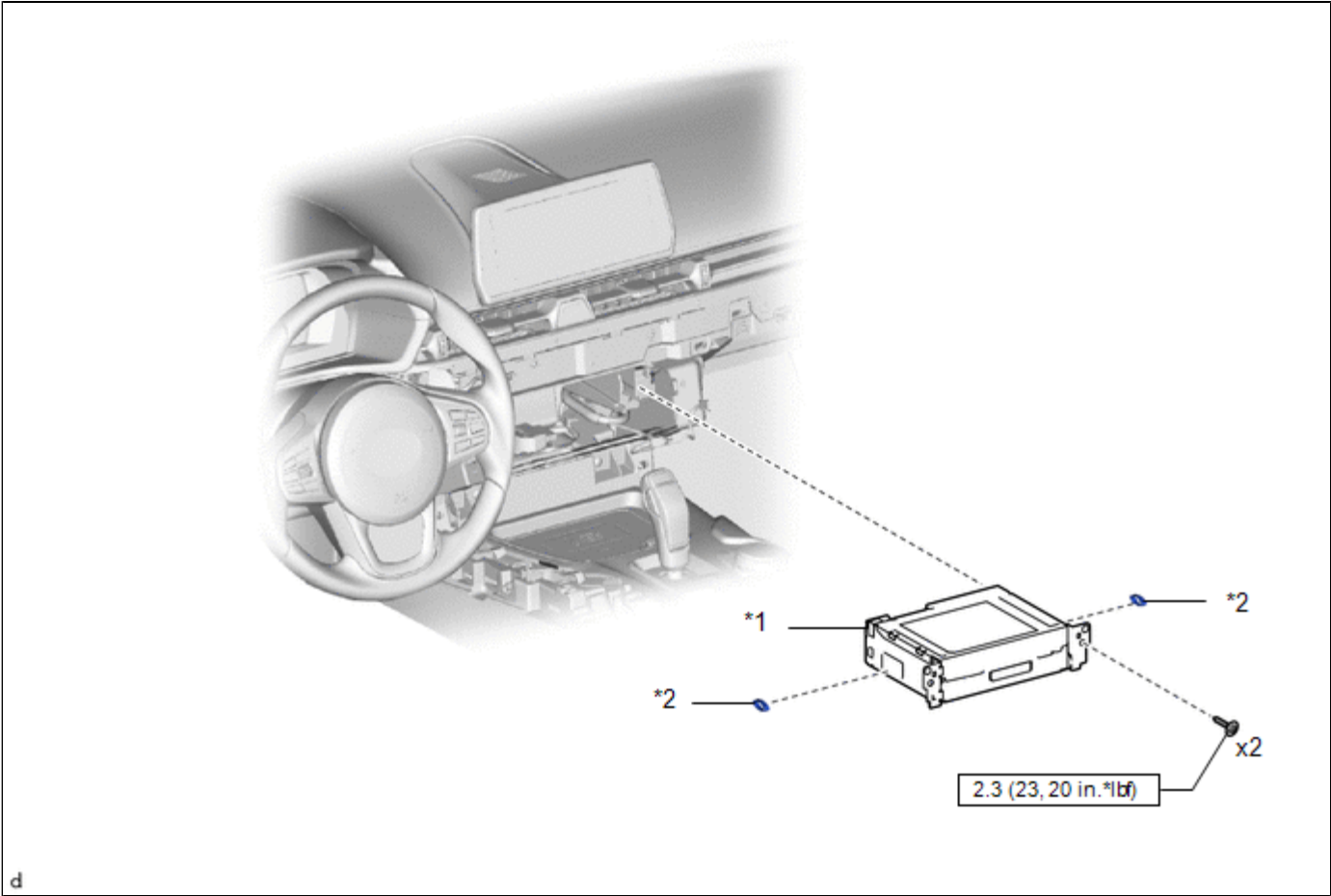
22. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY


Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: RADIO RECEIVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RADIO RECEIVER ASSEMBLY	*2	PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: RADIO RECEIVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE RADIO RECEIVER ASSEMBLY

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Sensitive optical fibers.

Damaged optical fibers can result in operating failure of the LED.

- Do not bend optical fibers too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
- Avoid pressure and tensile loads and heat influences on the optical fiber.

- Damage to the head unit.

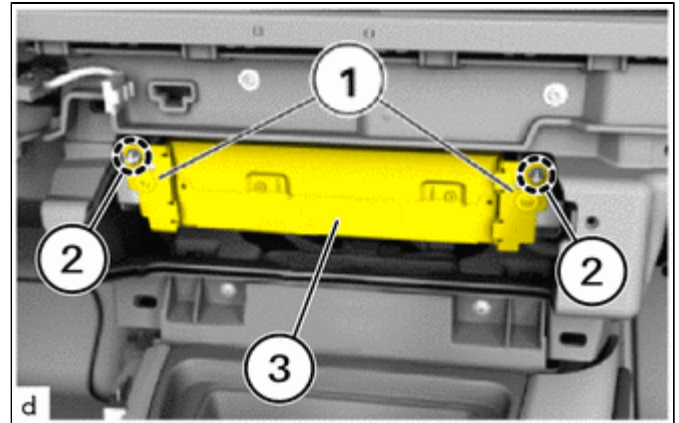
The plug connections of the head unit must not be disconnected if the battery is still connected.

- Disconnect all batteries.

The hard disk of the head unit can be damaged by vibration.

- Carry out mechanical work on the head unit and adjacent components with care.

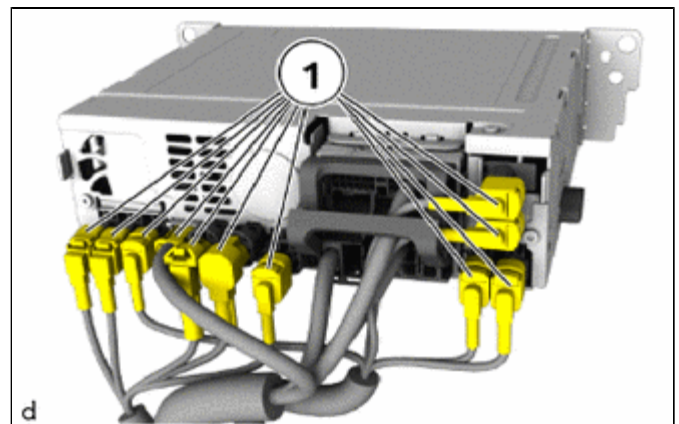
(a) Loosen T20 screws (1).



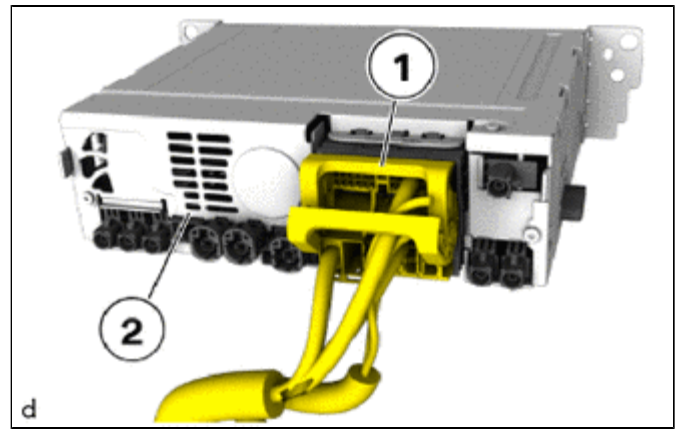
(b) Detach the guides (2).

(c) Pull the radio receiver assembly (3).

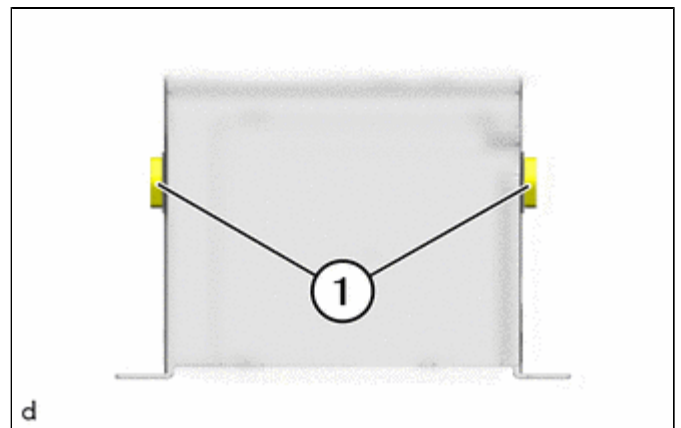
(d) Unlock plug connections (1) and disconnect.



(e) Unlock plug connection (1) and disconnect.



(f) Remove the radio receiver assembly (2).



(g) Remove the plug (1).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: RADIO RECEIVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL RADIO RECEIVER ASSEMBLY

NOTICE:

- Damage to the head unit.

The hard disk of the head unit can be damaged by vibration.

- Carry out mechanical work on the head unit and adjacent components with care.

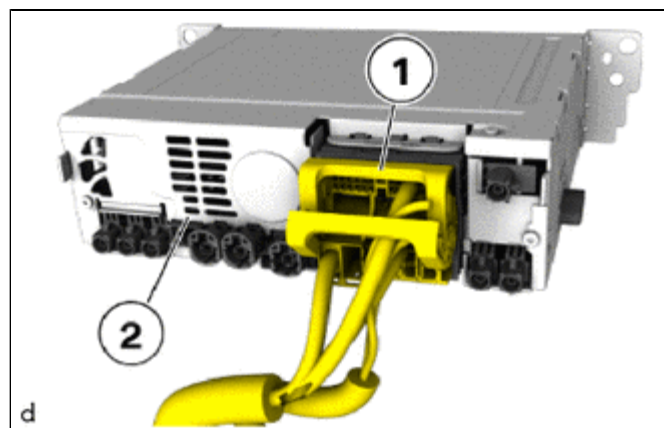
- Sensitive optical fibers.

Damaged optical fibers can result in operating failure of the LED.

- Do not bend optical fibers too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
- Avoid pressure and tensile loads and heat influences on the optical fiber.

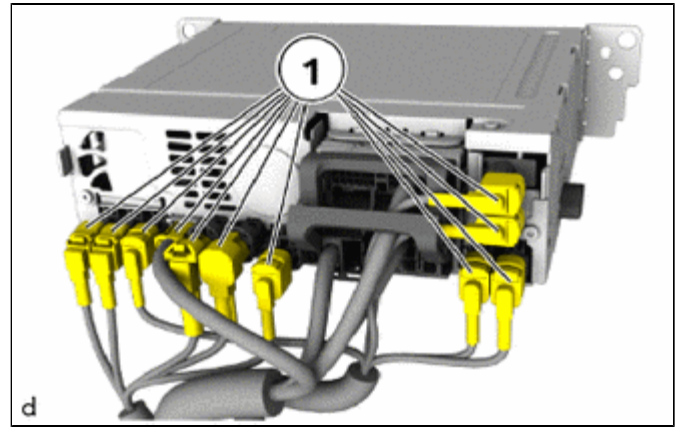
(a) Install the plug.

(b) Position the radio receiver assembly (2).

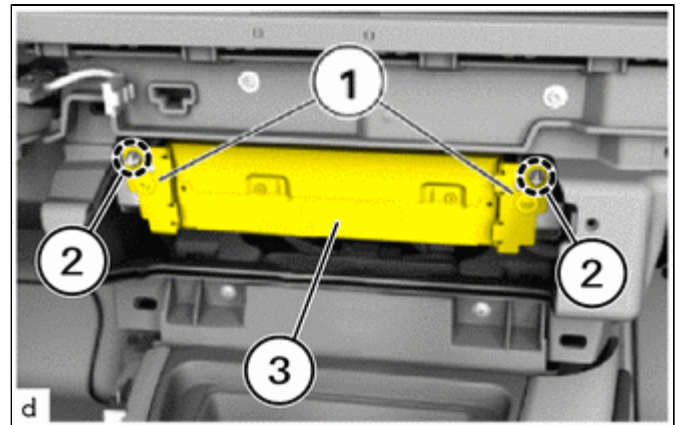


(c) Connect connector (1) and lock.

(d) Connect connectors (1) and lock.



(e) Attach the guides (2) to install the radio receiver assembly (3).



(f) Tighten the T20 screws (1).

Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}

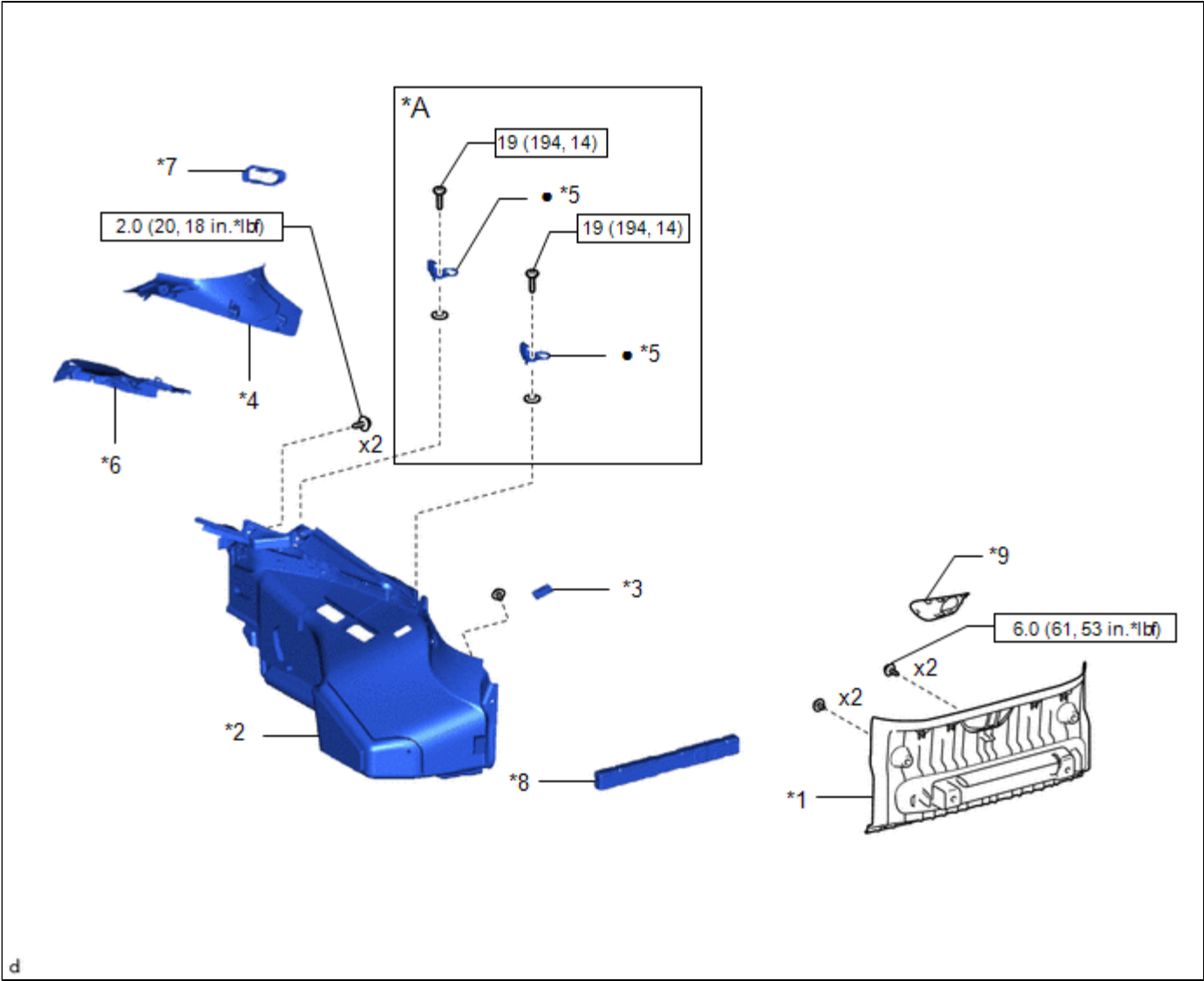
2. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: STEREO COMPONENT AMPLIFIER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

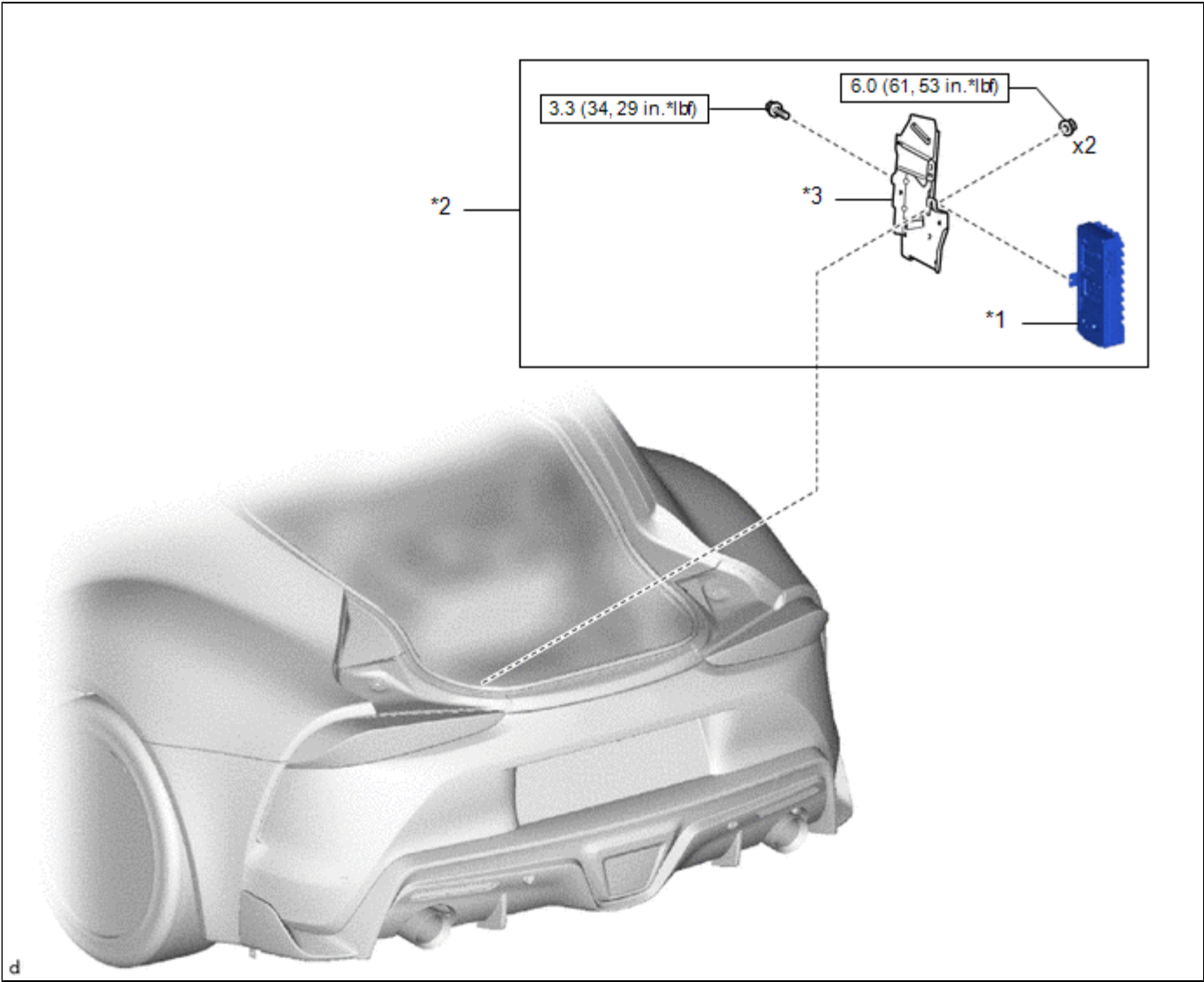
ILLUSTRATION




*A	w/ Courtesy Light	-	-
*1	DECK TRIM REAR COVER	*2	DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH
*3	NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY	*4	ROOF SIDE INNER GARNISH ASSEMBLY LH
*5	ROPE HOOK	*6	SEAT BELT HOLE COVER SUB-ASSEMBLY LH

*7	TRANSVERSE PIPE TRIM	*8	TRIANGLE REFLECTOR SET
*9	BACK DOOR STRIKER COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	STEREO COMPONENT AMPLIFIER ASSEMBLY	*2	STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET
*3	NO. 1 AMPLIFIER BRACKET	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: STEREO COMPONENT AMPLIFIER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

3. SEPARATE TRANSVERSE PIPE TRIM

Click here [INFO](#)

4. REMOVE SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

5. REMOVE TRIANGLE REFLECTOR SET

Click here [INFO](#)

6. REMOVE DECK TRIM REAR COVER

Click here [INFO](#)

7. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

8. REMOVE ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

9. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

10. REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Damage to wires when disconnecting connectors and plug connections.

Sheared wires can cause a short circuit.

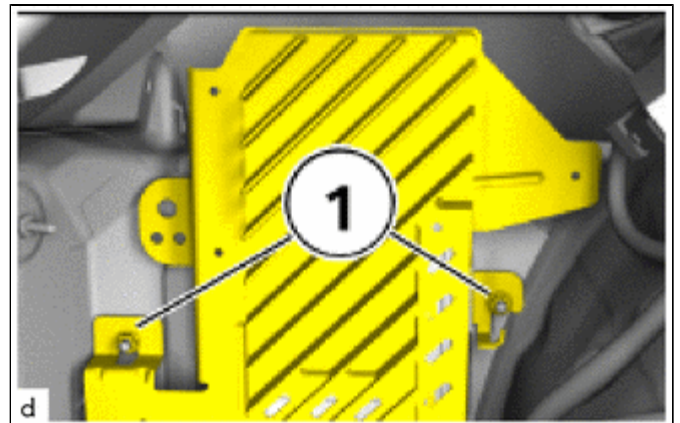
- Do not pull on the wires when disconnecting connectors and plug connections.

- Sensitive optical fibers.

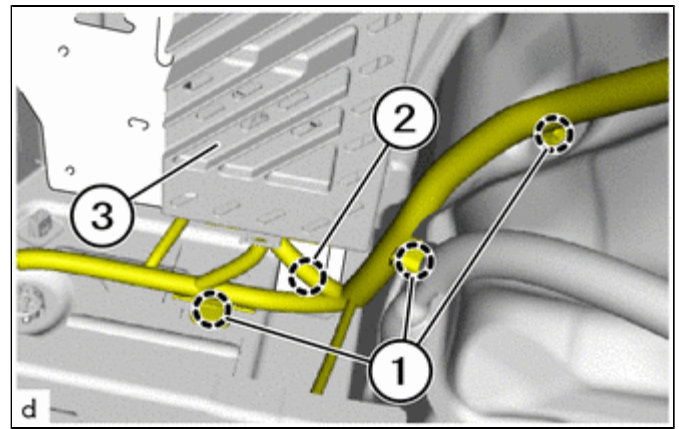
Damaged optical fibers can result in operating failure of the LED.

- Do not bend optical fibers too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
- Avoid pressure and tensile loads and heat influences on the optical fiber.

(a) Loosen nuts (1).

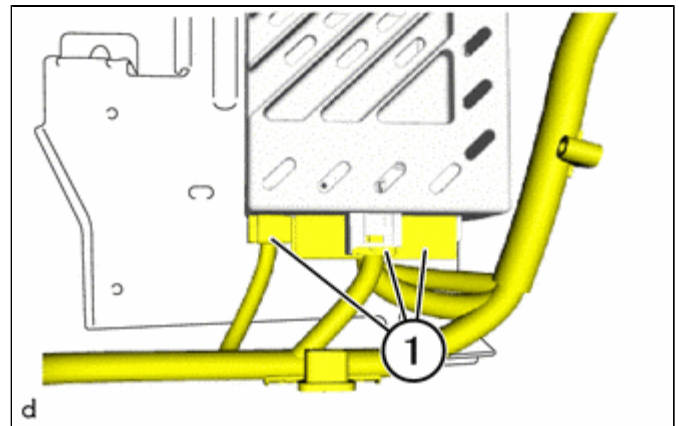


(b) Detach the clamps (1).



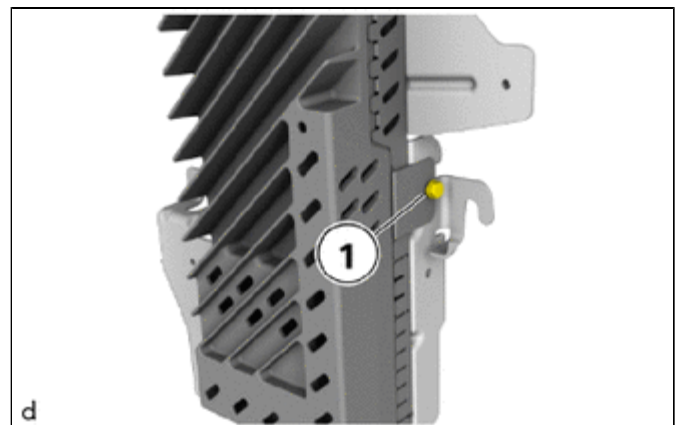
(c) Detach the clamp (2) to remove the stereo component amplifier assembly with bracket (3).

(d) Unlock plug connections (1) and disconnect.

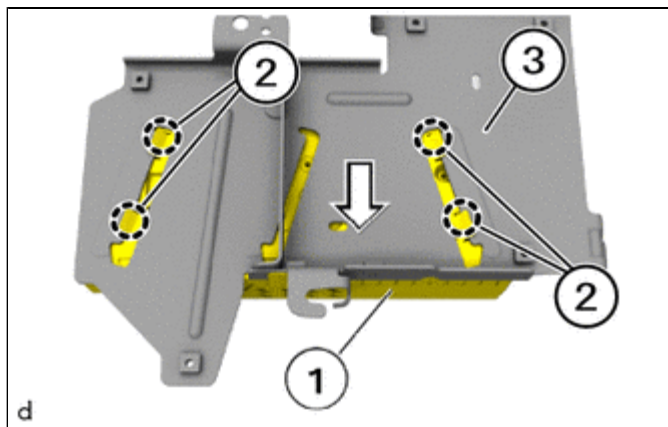


11. REMOVE STEREO COMPONENT AMPLIFIER ASSEMBLY

(a) Loosen bolt (1).



(b) Detach the guides (2) to remove the stereo component amplifier assembly (1) from the No. 1 amplifier bracket (3) in the direction of the arrow.



Remove in this Direction



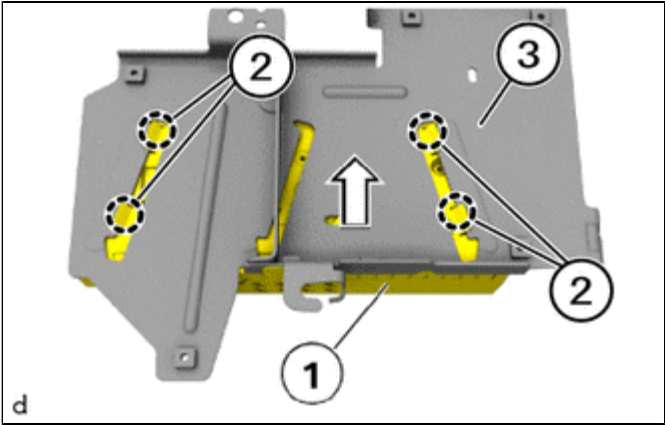
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCNT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: STEREO COMPONENT AMPLIFIER: INSTALLATION; 2020 MY Supra [03/2019 -]		


INSTALLATION

PROCEDURE

1. INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY

(a) Attach the guides (2) to install the stereo component amplifier assembly (1) to the No. 1 amplifier bracket (3) in the direction of the arrow.





Install in this Direction

(b) Tighten bolt.

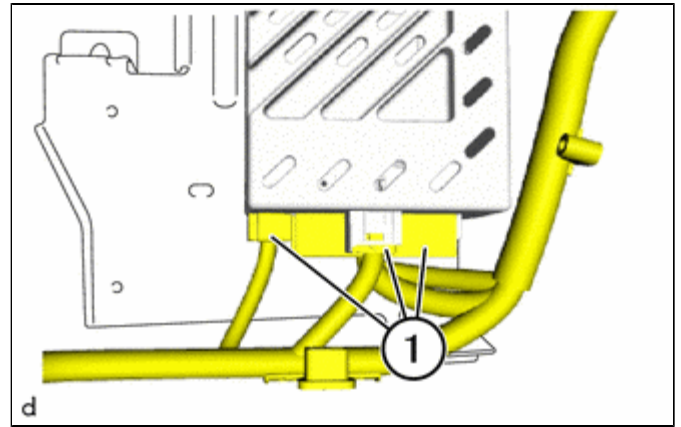
Torque:
3.3 N·m {34 kgf·cm, 29 in·lbf}

2. INSTALL STEREO COMPONENT AMPLIFIER ASSEMBLY WITH BRACKET

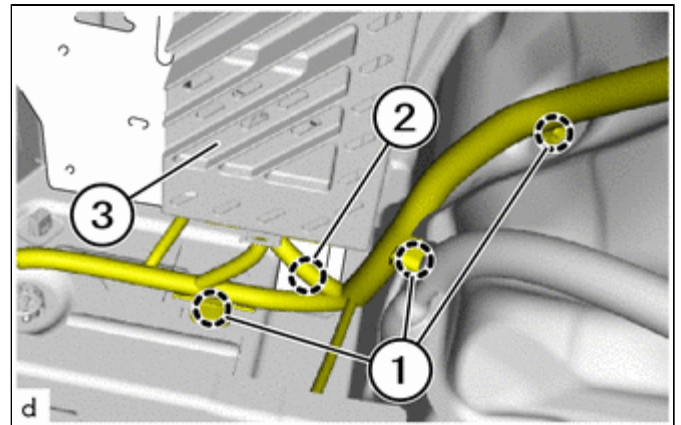
NOTICE:

- Damage to wires when disconnecting connectors and plug connections.
 - Sheared wires can cause a short circuit.
 - Do not pull on the wires when disconnecting connectors and plug connections.
- Sensitive optical fibers.
 - Damaged optical fibers can result in operating failure of the LED.
 - Do not bend optical fibers too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
 - Avoid pressure and tensile loads and heat influences on the optical fiber.

(a) Connect connectors (1) and lock.



(b) Attach the clamp (2) to install the stereo component amplifier assembly with bracket (3).

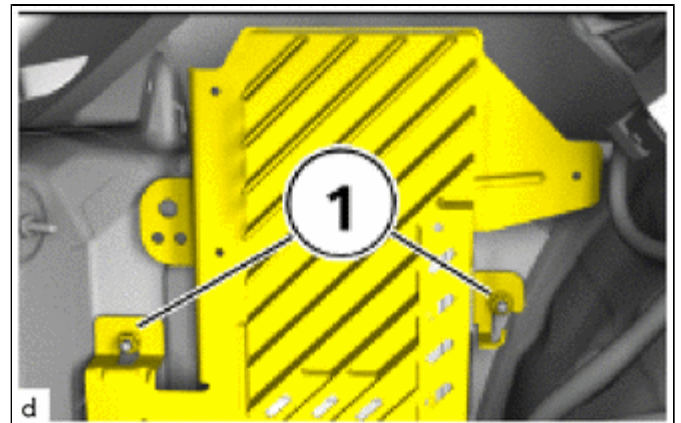


(c) Attach the clamps (1).

(d) Tighten nuts (1).

Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}



3. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

4. INSTALL ROPE HOOK (w/ Courtesy Light)

Click here [INFO](#)

5. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

Click here [INFO](#)

6. INSTALL DECK TRIM REAR COVER

Click here [INFO](#)

7. INSTALL TRIANGLE REFLECTOR SET

Click here [INFO](#)

8. INSTALL SEAT BELT HOLE COVER SUB-ASSEMBLY LH

Click here [INFO](#)

9. INSTALL TRANSVERSE PIPE TRIM

Click here [INFO](#)

10. INSTALL ROOF SIDE INNER GARNISH ASSEMBLY LH

Click here [INFO](#)

11. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

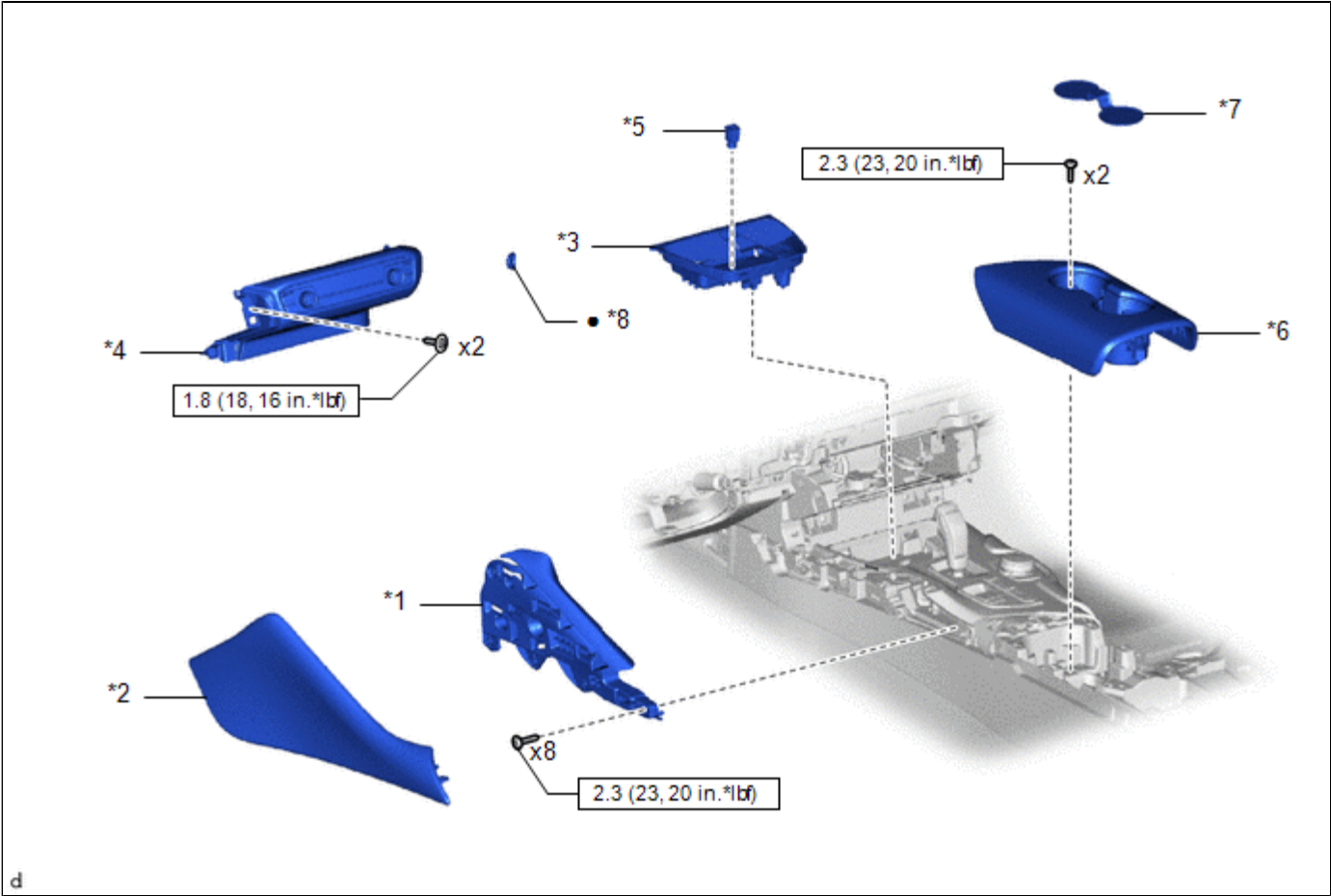
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: STEREO JACK ADAPTER ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*2	CONSOLE SIDE PANEL
*3	FRONT CONSOLE BOX COVER	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	NO. 1 STEREO JACK ADAPTER ASSEMBLY	*6	FRONT CONSOLE ARMREST ASSEMBLY
*7	NO. 1 CONSOLE BOX SILENCER PAD	*8	RUBBER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: STEREO JACK ADAPTER ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

2. REMOVE CONSOLE SIDE PANEL

Click here [INFO](#)

3. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

4. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

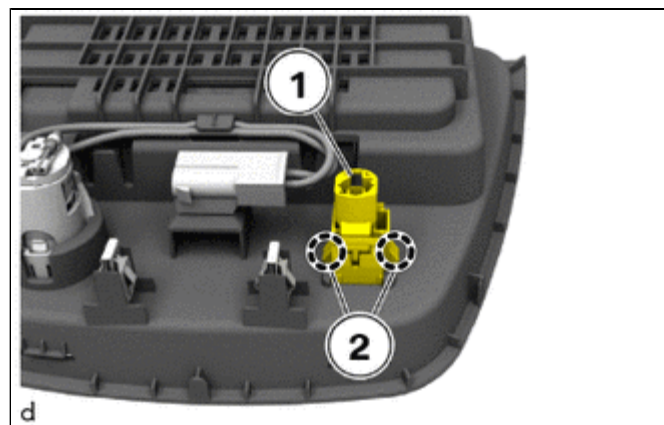
Click here [INFO](#)

5. REMOVE FRONT CONSOLE BOX COVER

Click here [INFO](#)

6. REMOVE NO. 1 STEREO JACK ADAPTER ASSEMBLY

(a) Detach the claws (2) to remove the No. 1 stereo jack adapter assembly (1).



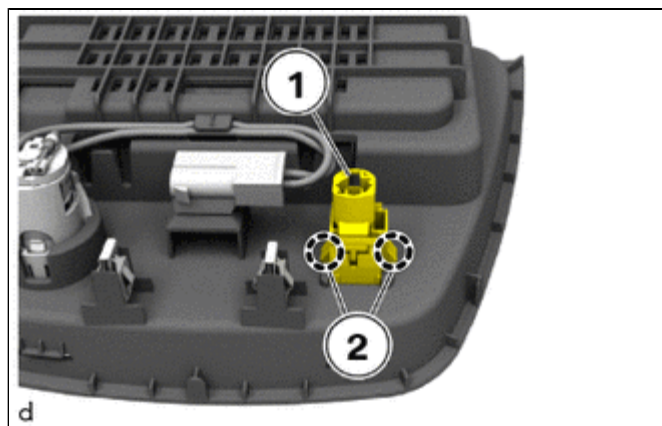
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: AUDIO / VIDEO: STEREO JACK ADAPTER ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 STEREO JACK ADAPTER ASSEMBLY

- (a) Attach the claws (2) to install the No. 1 stereo jack adapter assembly (1).



2. INSTALL FRONT CONSOLE BOX COVER

Click here [INFO](#)

3. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

4. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

5. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

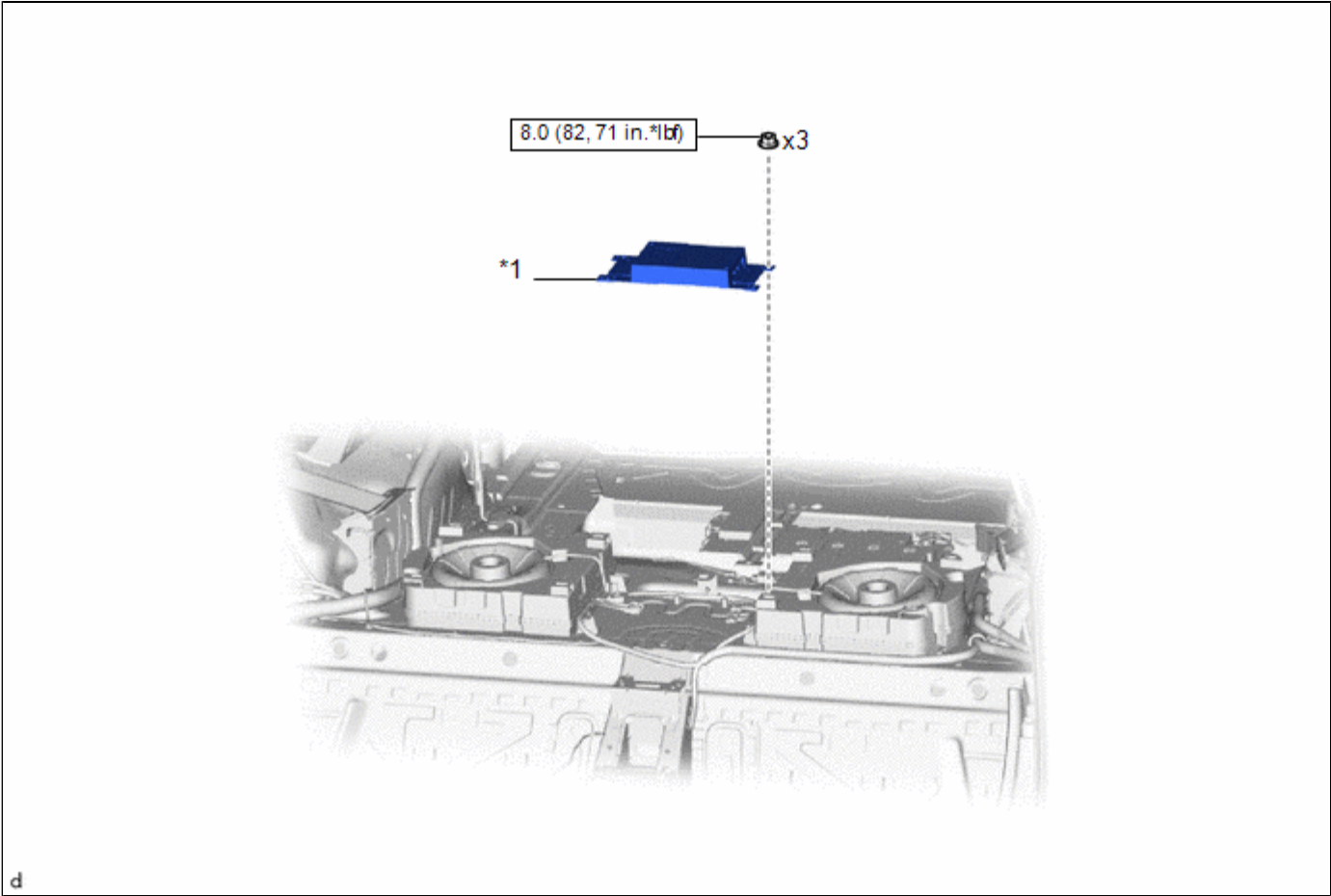
6. INSTALL FRONT CONSOLE ARMREST ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE2W
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: DCM(TELEMATICS TRANSCEIVER): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	DCM (TELEMATICS TRANSCEIVER)	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE2X
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: DCM(TELEMATICS TRANSCEIVER): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE LUGGAGE COMPARTMENT TRIM FRONT COVER

Click here [INFO](#)

2. REMOVE DCM (TELEMATICS TRANSCEIVER)

NOTICE:

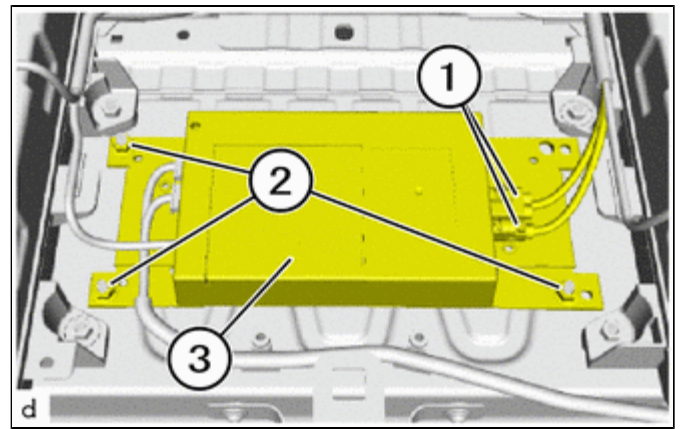
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

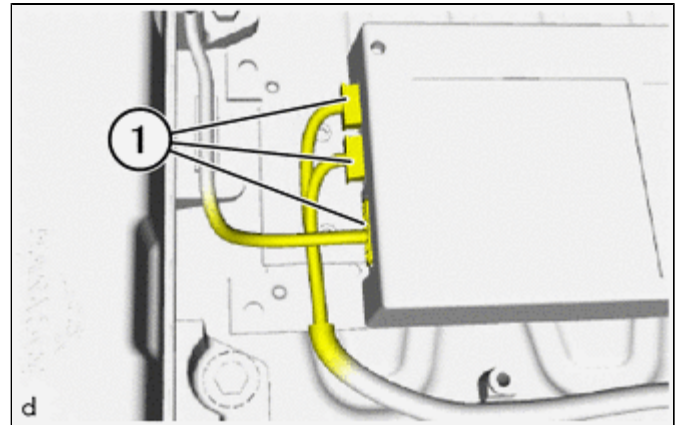
Click here [INFO](#)

(a) Unlock plug connections (1) and disconnect.



(b) Loosen nuts (2).

(c) Remove the DCM (telematics transceiver) (3).



(d) Unlock plug connections (1) and disconnect.

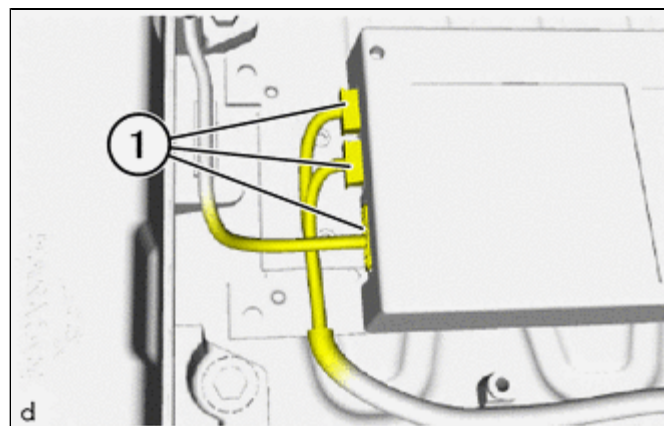
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE2Y
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: DCM(TELEMATICS TRANSCEIVER): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

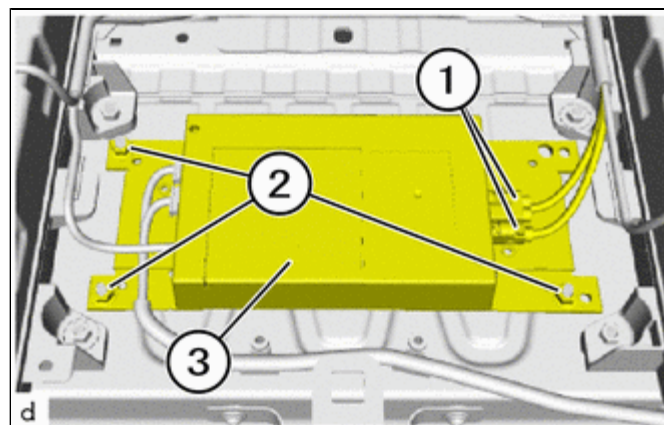
PROCEDURE

1. INSTALL DCM (TELEMATICS TRANSCEIVER)

(a) Connect connectors (1) and lock.



(b) Install the DCM (telematics transceiver) (3).



(c) Tighten nuts (2).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(d) Connect connectors (1) and lock.

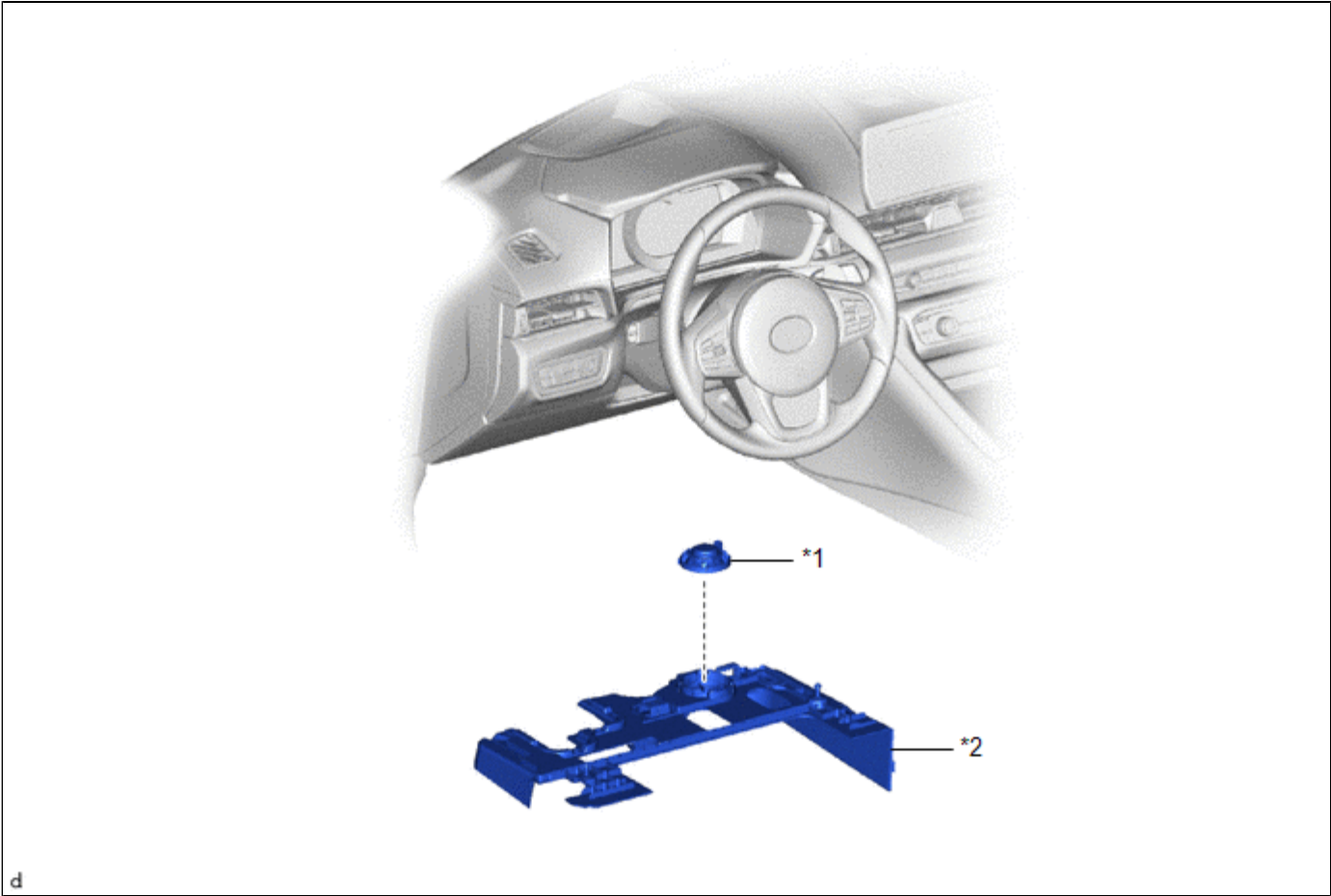
2. INSTALL LUGGAGE COMPARTMENT TRIM FRONT COVER

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE3M
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: EMERGENCY LOUDSPEAKER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	EMERGENCY LOUDSPEAKER	*2	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE3N
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: EMERGENCY LOUDSPEAKER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

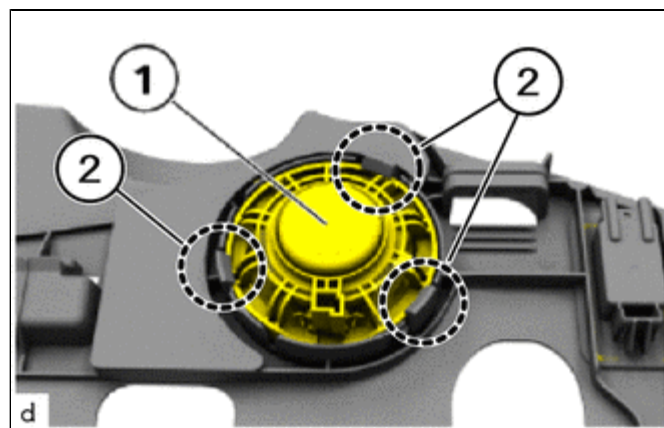
PROCEDURE

1. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE EMERGENCY LOUDSPEAKER

(a) Detach the claws (2) to remove the emergency loudspeaker (1).



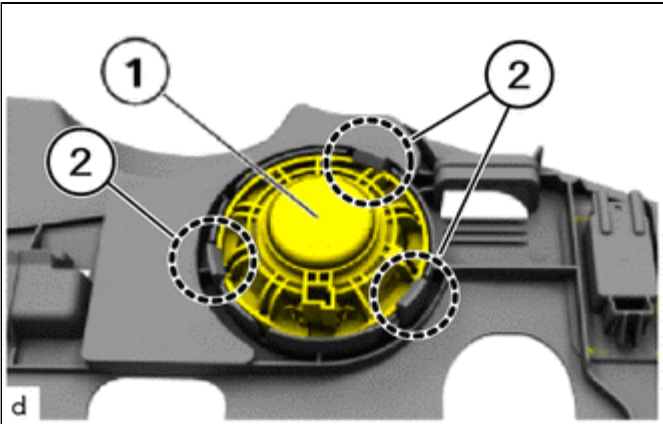
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE30
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: EMERGENCY LOUDSPEAKER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL EMERGENCY LOUDSPEAKER

(a) Attach the claws (2) to install the emergency loudspeaker (1).



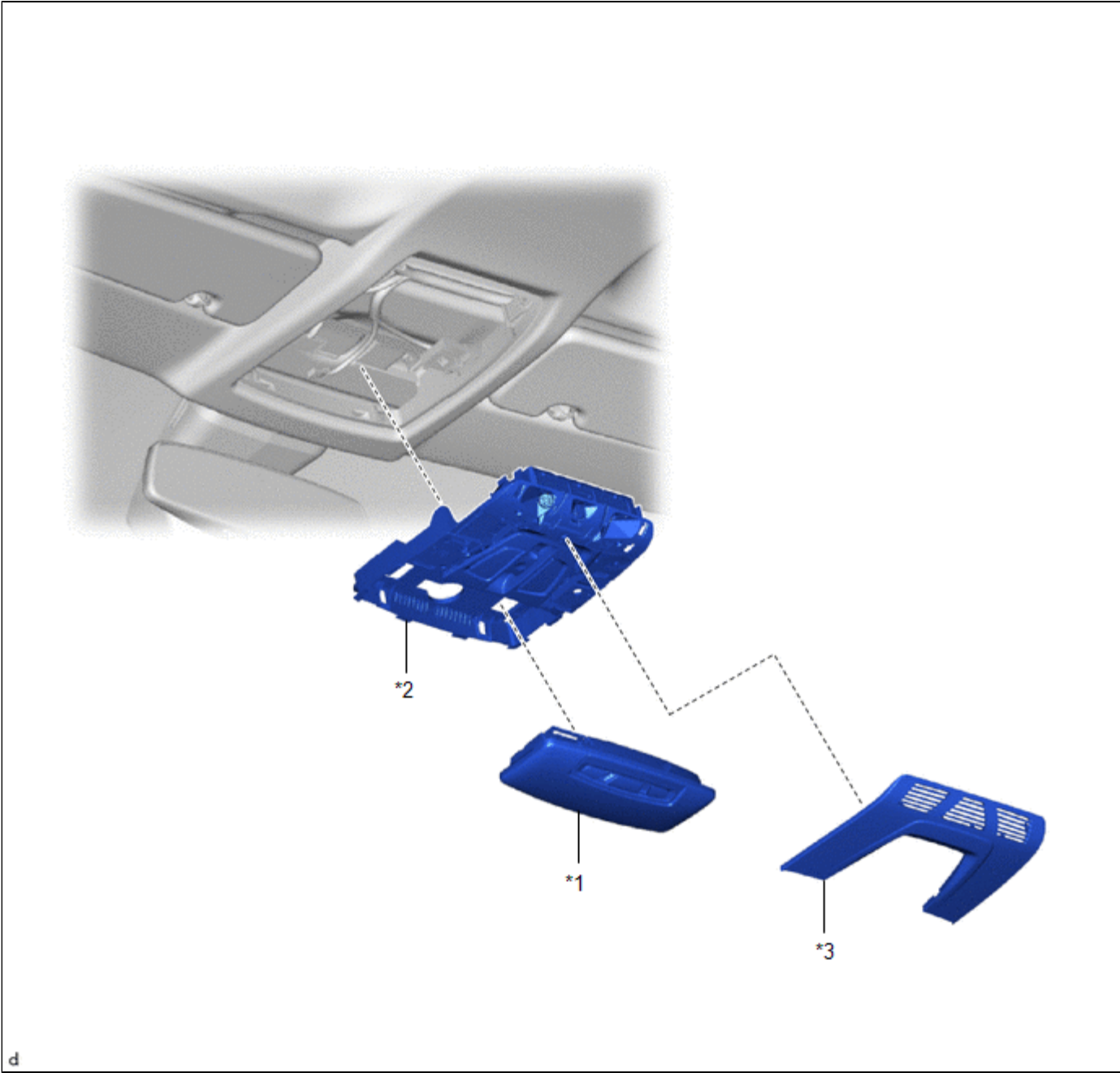
2. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE35
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: MANUAL(SOS)SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION

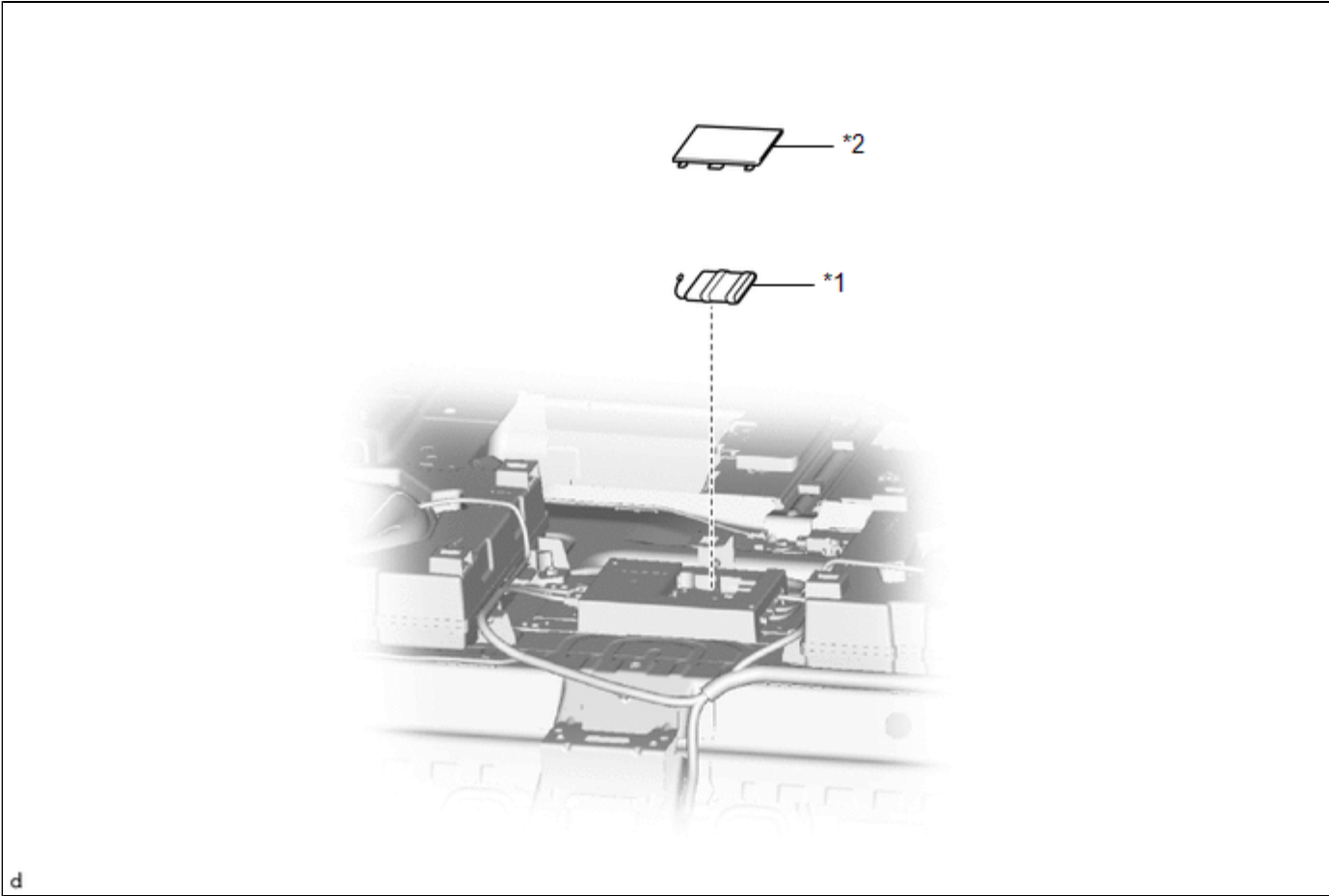


*1	MAP LIGHT ASSEMBLY	*2	MANUAL(SOS)SWITCH (ROOF CONSOLE BOX SUB-ASSEMBLY)
*3	ROOF CONSOLE BOX COVER	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE32
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: MAYDAY BATTERY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	MOBILEPHONE BATTERY	*2	TRANSCEIVER COVER
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE33
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: MAYDAY BATTERY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE LUGGAGE COMPARTMENT TRIM FRONT COVER

Click here [INFO](#)

2. REMOVE MOBILEPHONE BATTERY

NOTICE:

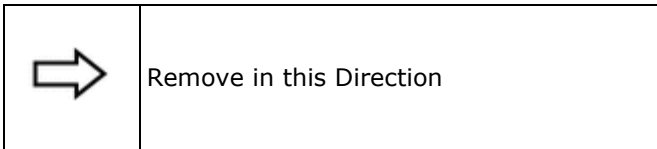
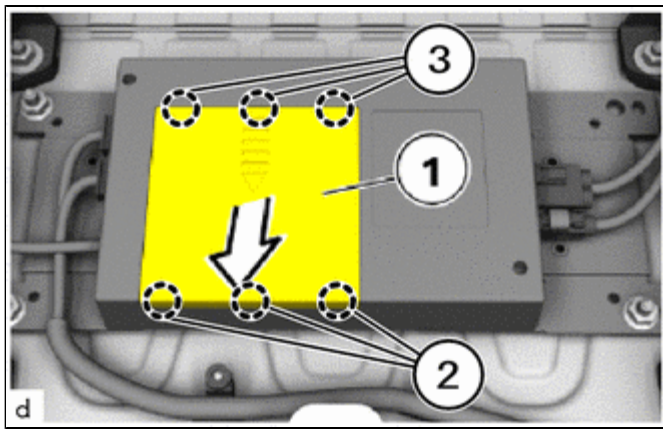
- Electrostatic discharge.

Damage to or destruction of electrical components.

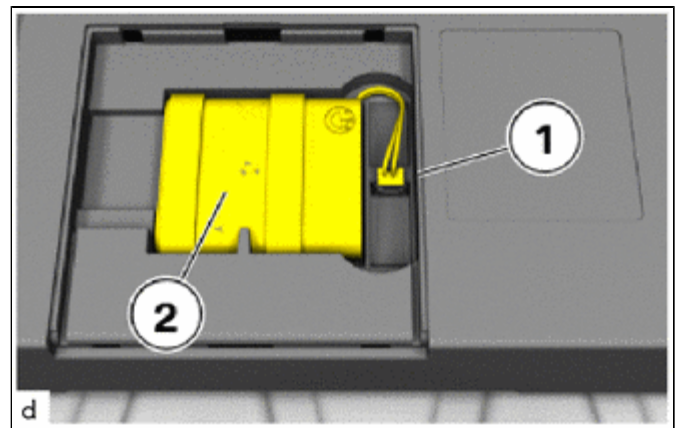
- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Read and comply with user information on using the associated special tool 12 7 060.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Detach the claws (2) and guides (3) to remove the transceiver cover (1) in the direction of the arrow.



(b) Unlock plug connection (1) and disconnect.



(c) Remove the mobilephone battery (2).

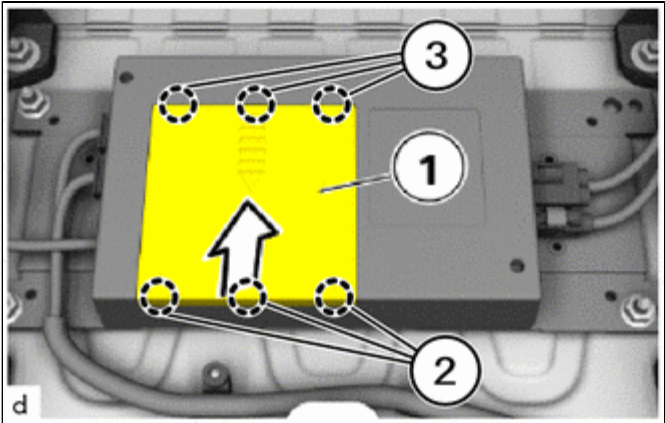
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE34
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: MAYDAY BATTERY: INSTALLATION; 2020 MY Supra [03/2019 -]		


INSTALLATION

PROCEDURE

1. INSTALL MOBILEPHONE BATTERY

- (a) Install the mobilephone battery.
- (b) Connect connector and lock.
- (c) Attach the guides (3) and claws (2) to install the transceiver cover (1) in the direction of the arrow.





Install in this Direction

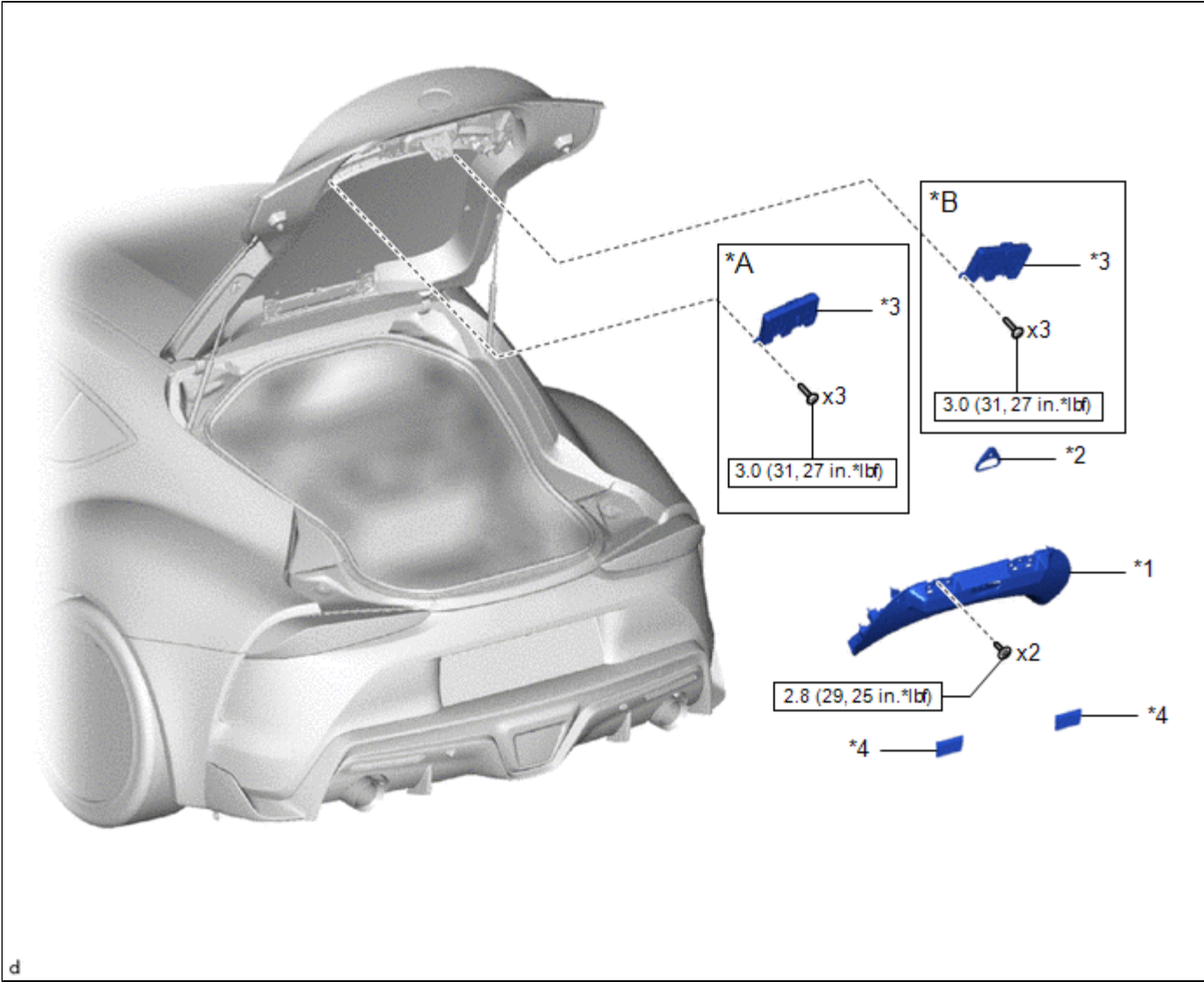
2. INSTALL LUGGAGE COMPARTMENT TRIM FRONT COVER


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE3H
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: TELEPHONE AND GPS ANTENNA: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION

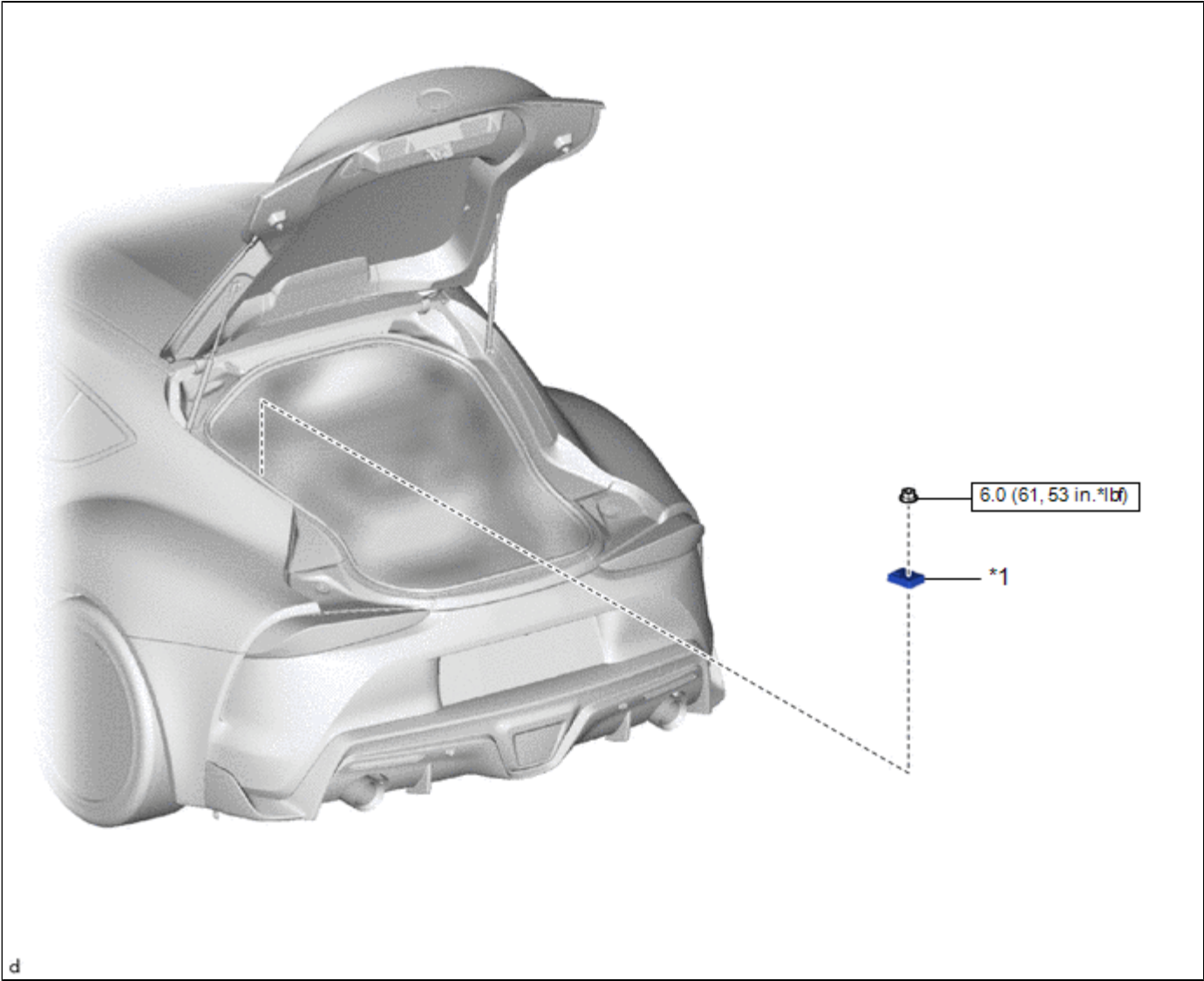



*A	for Toyota Supra Connect	*B	for Navigation System
*1	BACK DOOR TRIM BOARD	*2	EMERGENCY RELEASE HANDLE
*3	MULTIPLE-BAND AERIAL	*4	BACK DOOR TRIM COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE3B
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: TELEPHONE ANTENNA: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	EMERGENCY GSM AERIAL	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE3C
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: TELEPHONE ANTENNA: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH

Click here [INFO](#)

2. REMOVE EMERGENCY GSM AERIAL

NOTICE:

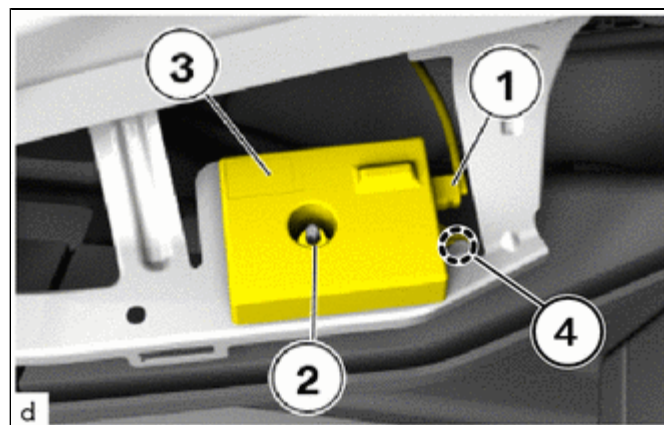
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Unlock plug connection (1) and disconnect.



(b) Loosen nut (2).

(c) Detach the guide (4) to remove the emergency GSM aerial (3).

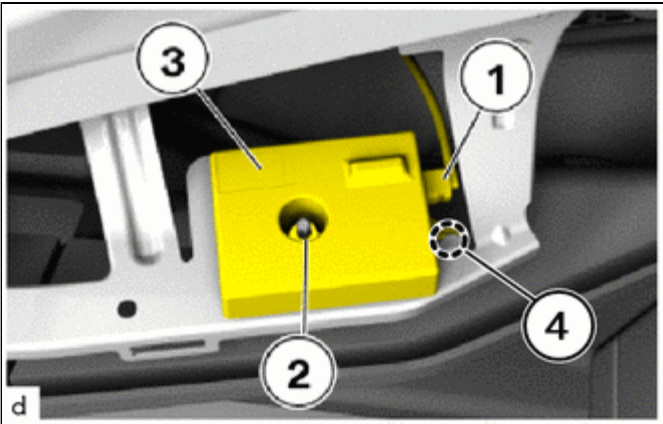
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JE3D
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: CELLULAR COMMUNICATION: TELEPHONE ANTENNA: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL EMERGENCY GSM AERIAL

(a) Attach the guide (4).



(b) Install the emergency GSM aerial (3) with the nut (2).

Torque:
6.0 N·m {61 kgf·cm, 53 in·lbf}

(c) Connect connector (1) and lock.

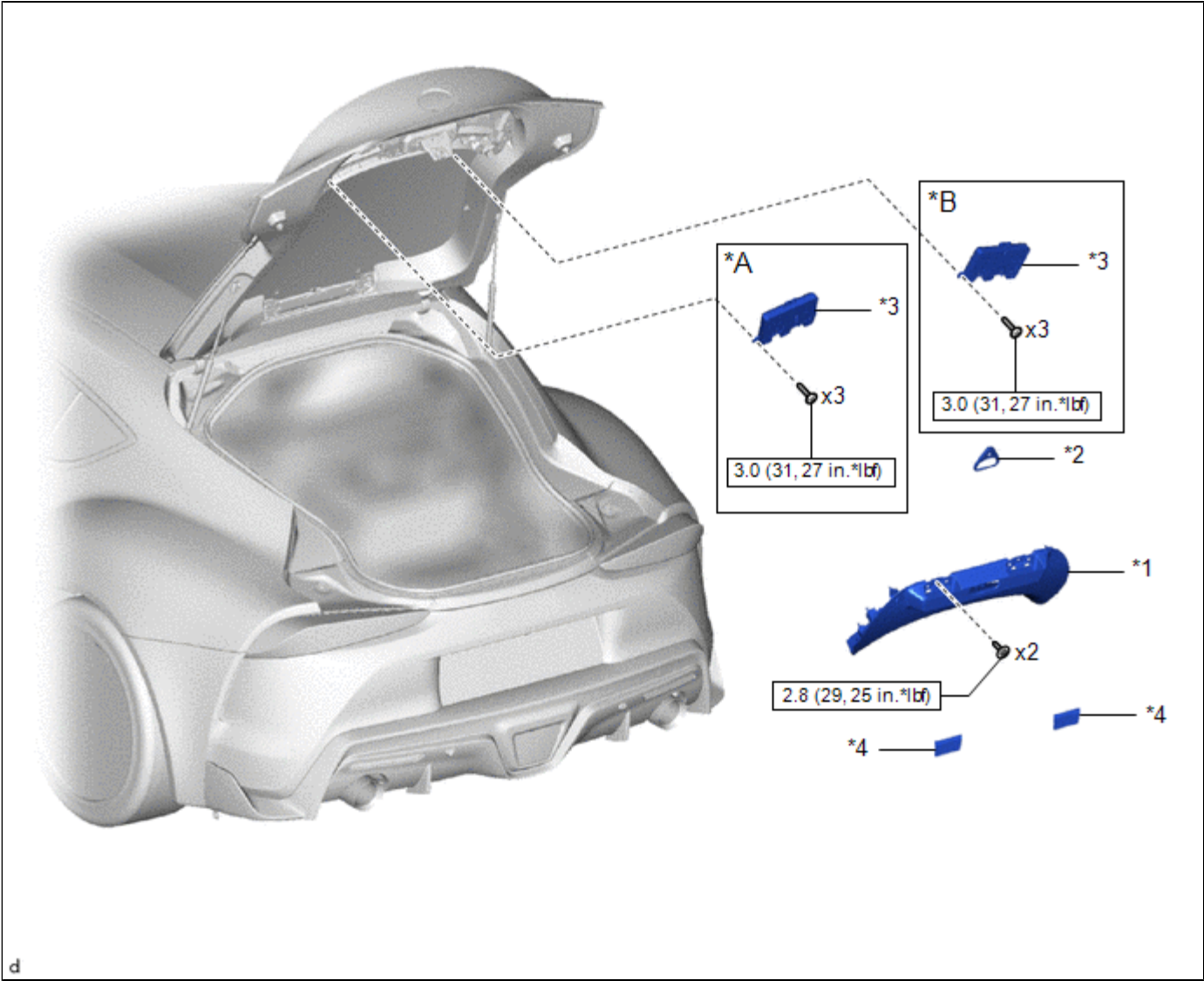
2. INSTALL DECK TRIM SIDE BOARD AND DECK SIDE TRIM COVER LH


Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCP0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: GPS ANTENNA: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	for Toyota Supra Connect	*B	for Navigation System
*1	BACK DOOR TRIM BOARD	*2	EMERGENCY RELEASE HANDLE
*3	MULTIPLE-BAND AERIAL	*4	BACK DOOR TRIM COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCP1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: GPS ANTENNA: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE EMERGENCY RELEASE HANDLE

Click here [INFO](#)

2. REMOVE BACK DOOR TRIM BOARD

Click here [INFO](#)

3. REMOVE MULTIPLE-BAND AERIAL

NOTICE:

- Electrostatic discharge.

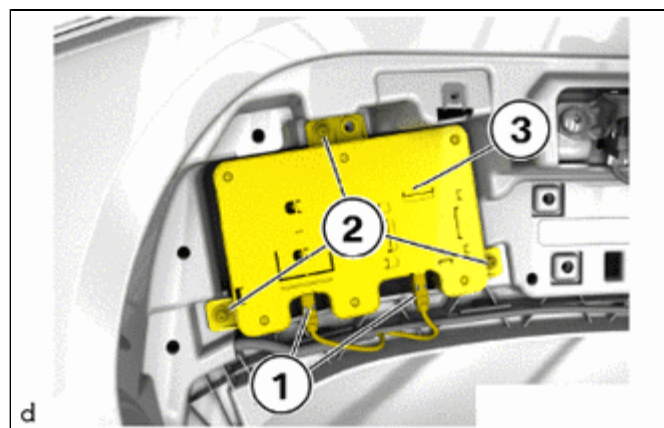
Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) for Toyota Supra Connect:

(1) Unlock plug connections (1) and disconnect.



(2) Loosen T20 screws (2).

(3) Remove the multiple-band aerial (3).

(b) for Navigation System:

HINT:

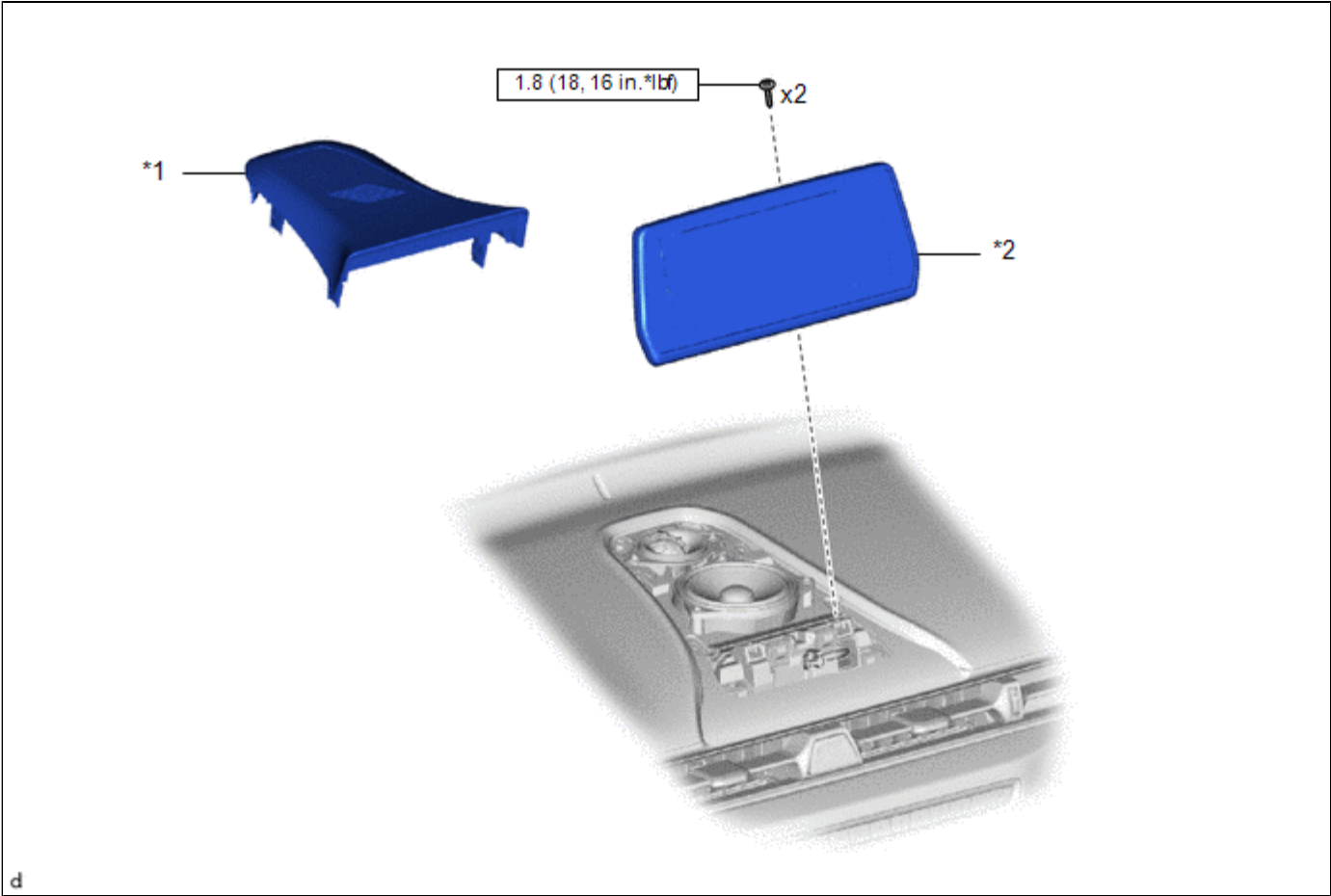
Use the same procedure as for Toyota Supra Connect.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: MULTI-DISPLAY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL	*2	MULTI-DISPLAY ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: MULTI-DISPLAY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL

Click here [INFO](#)

3. REMOVE MULTI-DISPLAY ASSEMBLY

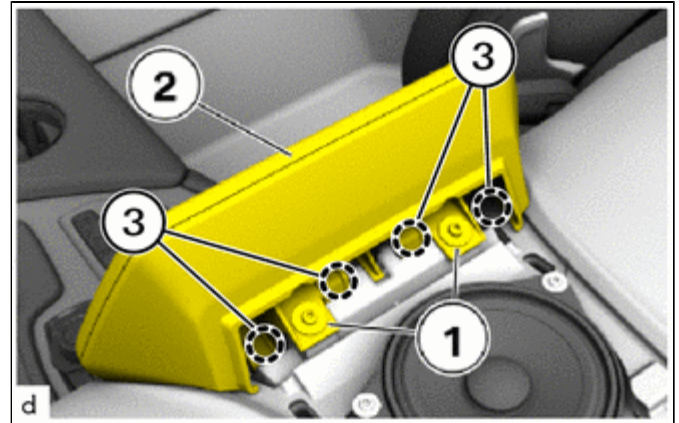
NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

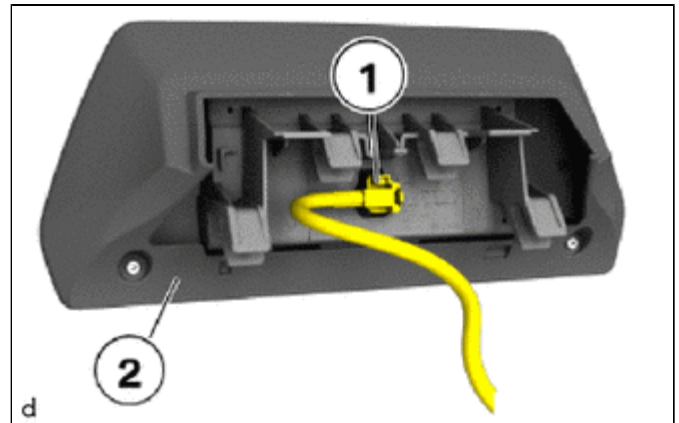
- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

(a) Loosen T20 screws (1).



(b) Detach the clamps (3) to lift up the multi-display assembly (2).

(c) Unlock plug connection (1) and disconnect.



(d) Remove the multi-display assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCON
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: MULTI-DISPLAY: INSTALLATION; 2020 MY Supra [03/2019 -]		

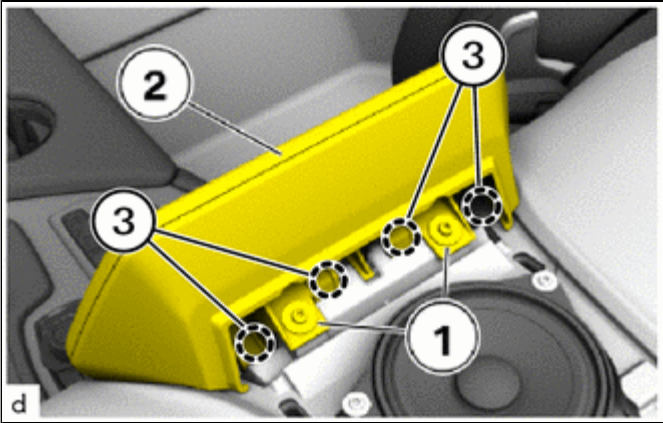
INSTALLATION

PROCEDURE

1. INSTALL MULTI-DISPLAY ASSEMBLY

(a) Connect connector and lock.

(b) Attach the clamps (3) to install the multi-display assembly (2).



(c) Tighten the T20 screws (1).

Torque:
1.8 N·m {18 kgf·cm, 16 in·lbf}

2. INSTALL INSTRUMENT CLUSTER FINISH CENTER UPPER PANEL

Click here [INFO](#)

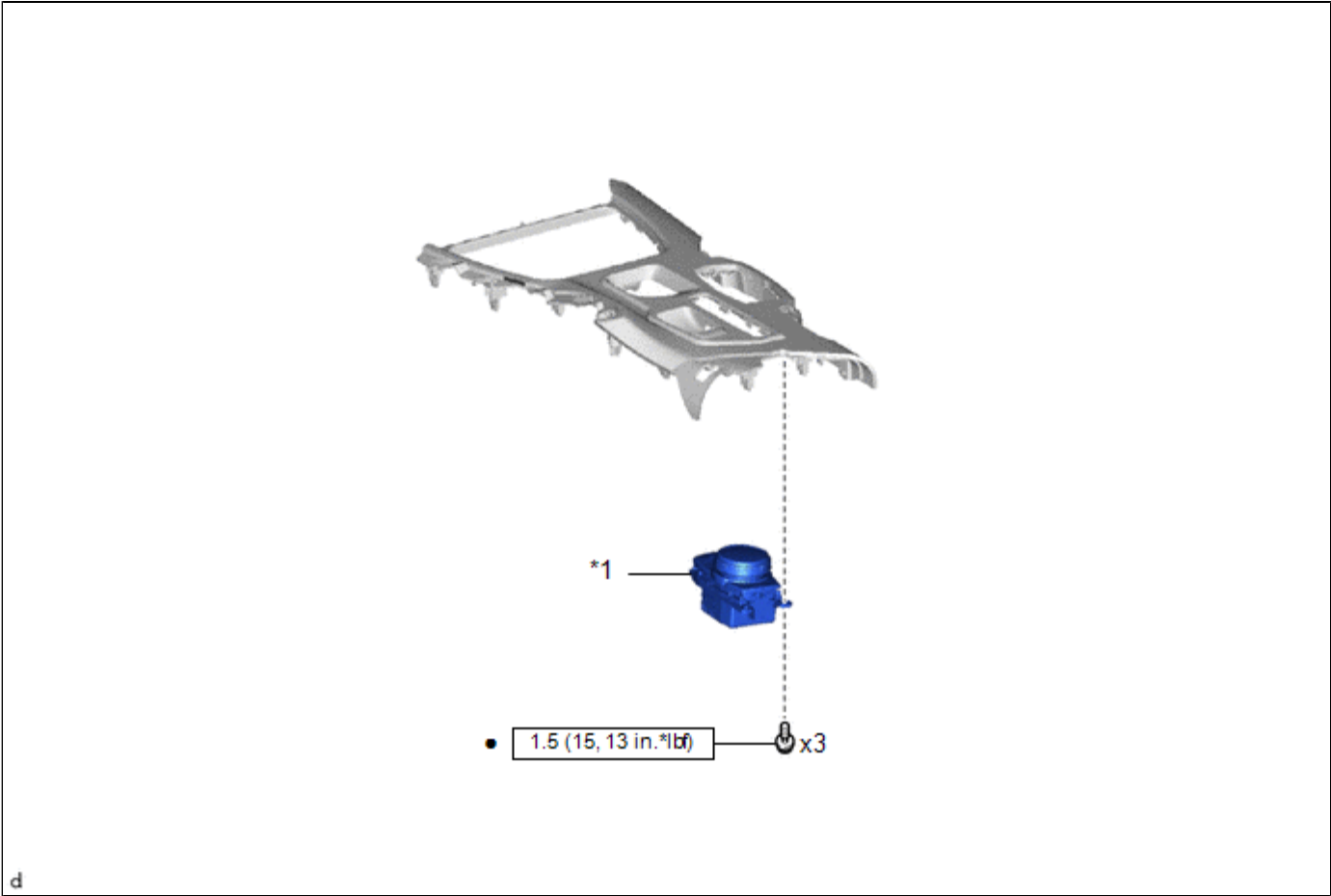
3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: MULTI-DISPLAY CONTROLLER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	REMOTE OPERATION CONTROLLER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOJ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: MULTI-DISPLAY CONTROLLER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE UPPER CONSOLE PANEL SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE REMOTE OPERATION CONTROLLER ASSEMBLY

NOTICE:

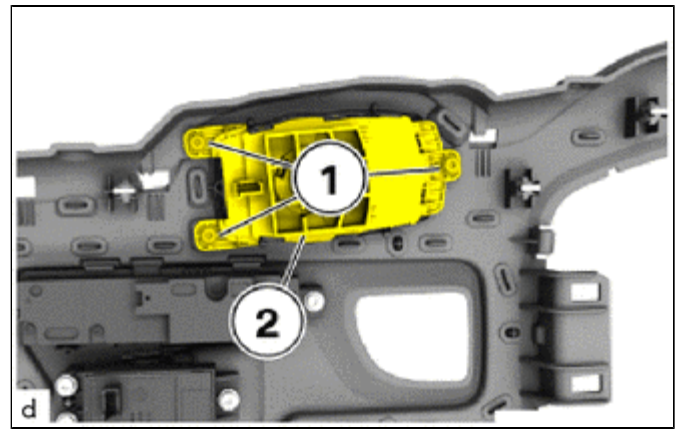
- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

(a) Loosen T20 screws (1).



(b) Remove the remote operation controller assembly (2).

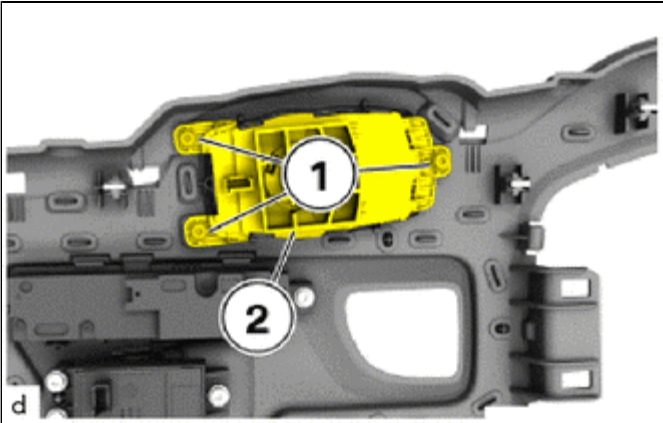
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: MULTI-DISPLAY CONTROLLER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL REMOTE OPERATION CONTROLLER ASSEMBLY

(a) Position the remote operation controller assembly (2).



(b) Replace screws (1).

(c) Tighten the T20 screws (1).

Torque:
1.5 N·m {15 kgf·cm, 13 in·lbf}

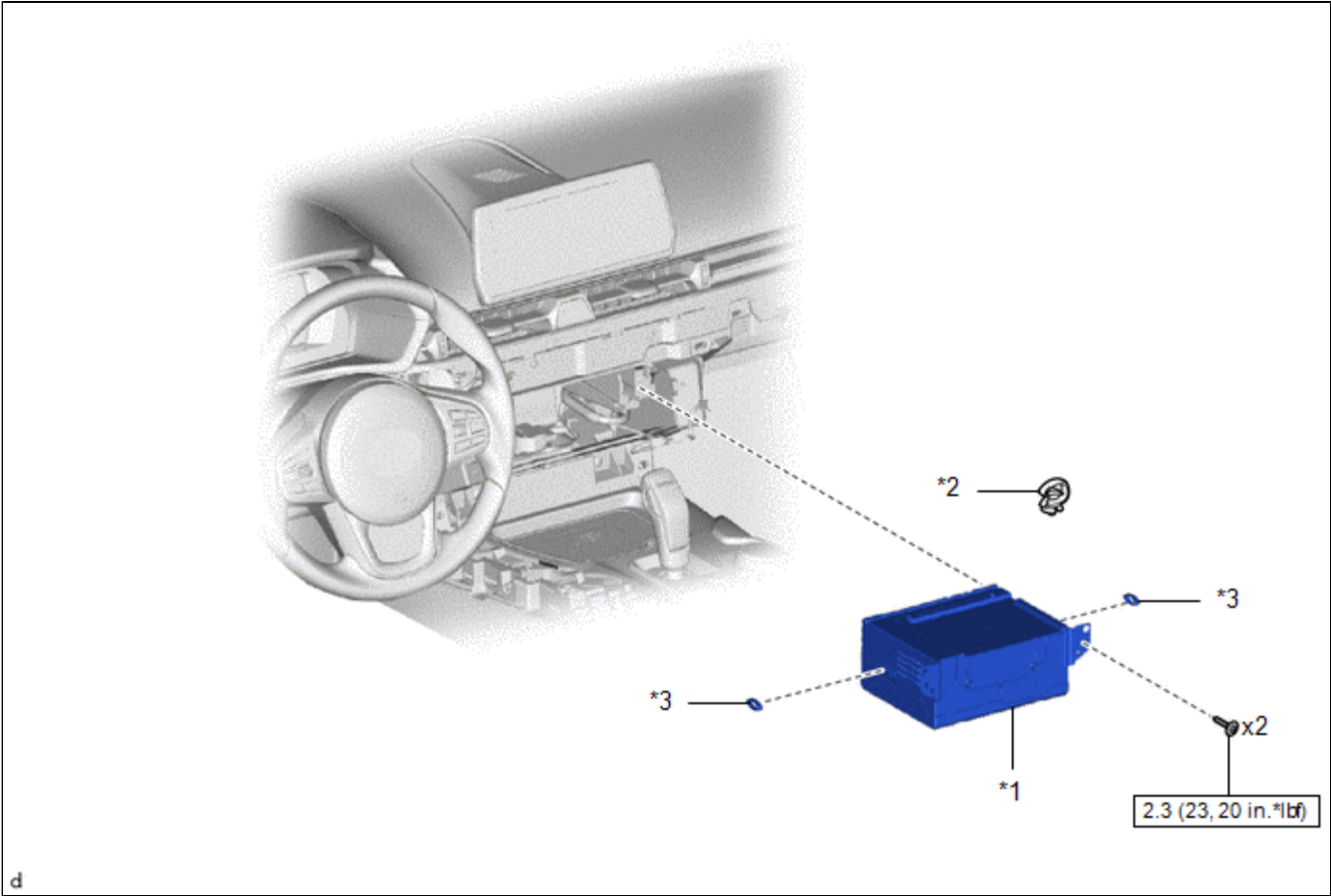
2. INSTALL UPPER CONSOLE PANEL SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: NAVIGATION RECEIVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RADIO RECEIVER ASSEMBLY	*2	CABLE CLIP
*3	PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: NAVIGATION RECEIVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE RADIO RECEIVER ASSEMBLY

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Sensitive optical fibers.

Damaged optical fibers can result in operating failure of the LED.

- Do not bend optical fibers too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
- Avoid pressure and tensile loads and heat influences on the optical fiber.

- Damage to the head unit.

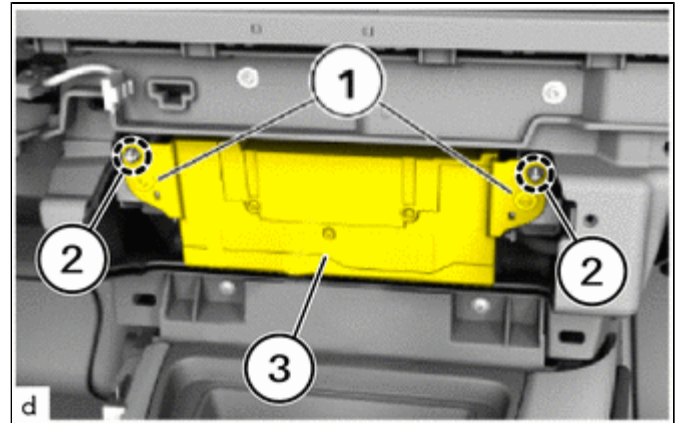
The plug connections of the head unit must not be disconnected if the battery is still connected.

- Disconnect all batteries.

The hard disk of the head unit can be damaged by vibration.

- Carry out mechanical work on the head unit and adjacent components with care.

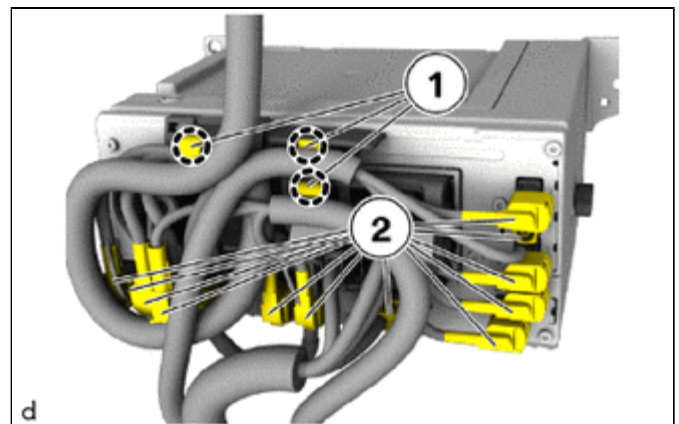
(a) Loosen T20 screws (1).



(b) Detach the guides (2).

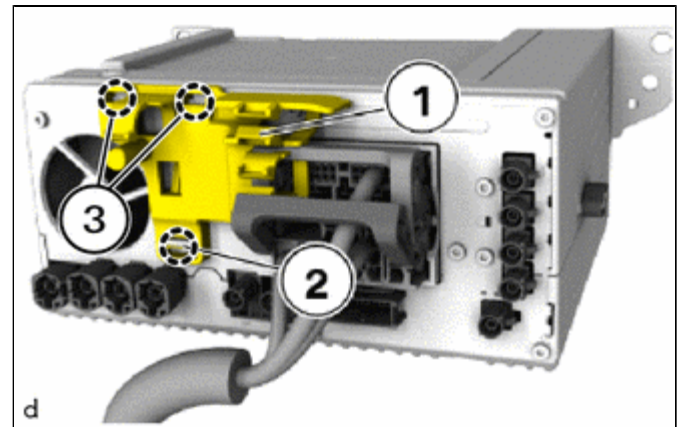
(c) Pull the radio receiver assembly (3).

(d) Detach the wiring harnesses from the holders (1).

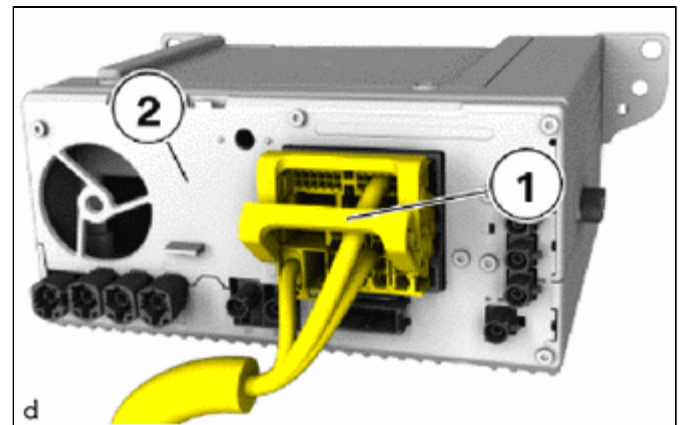


(e) Unlock plug connections (2) and disconnect.

(f) Detach the clip (2) and guides (3) to remove the cable clip (1).

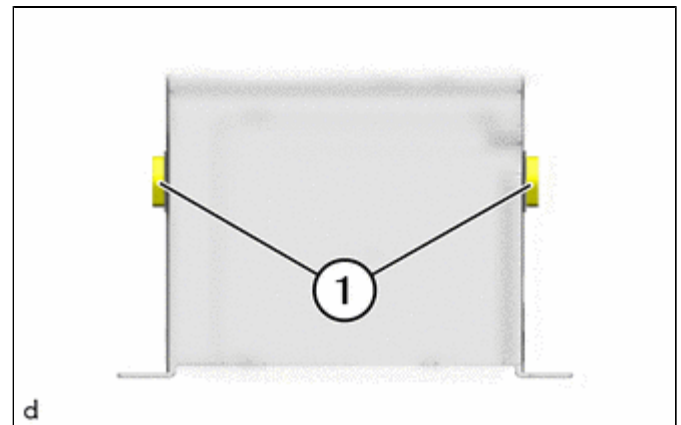


(g) Unlock plug connection (1) and disconnect.



(h) Remove the radio receiver assembly (2).

(i) Remove the plug (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: NAVIGATION RECEIVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL RADIO RECEIVER ASSEMBLY

NOTICE:

- Damage to the head unit.

The hard disk of the head unit can be damaged by vibration.

- Carry out mechanical work on the head unit and adjacent components with care.

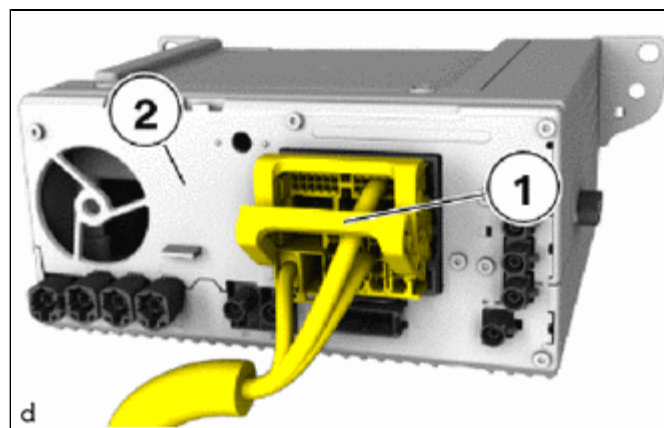
- Sensitive optical fibers.

Damaged optical fibers can result in operating failure of the LED.

- Do not bend optical fibers too much and do not kink, as well. The minimum permissible bending radius is 25 mm.
- Avoid pressure and tensile loads and heat influences on the optical fiber.

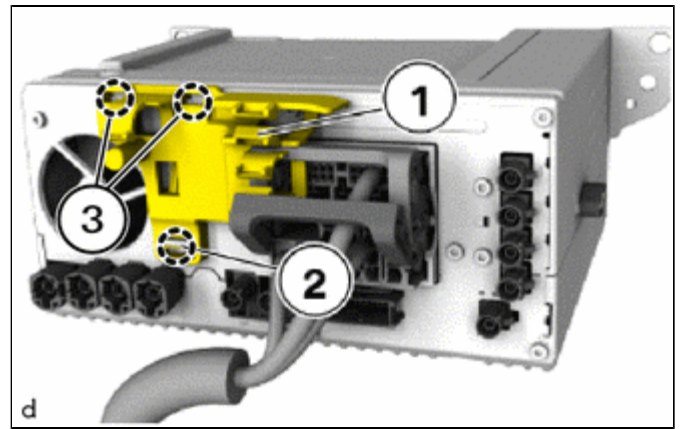
(a) Install the plug.

(b) Position the radio receiver assembly (2).

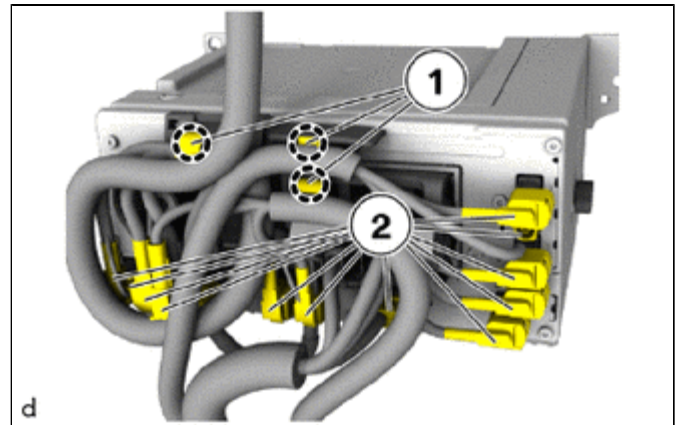


(c) Connect connector and lock (1).

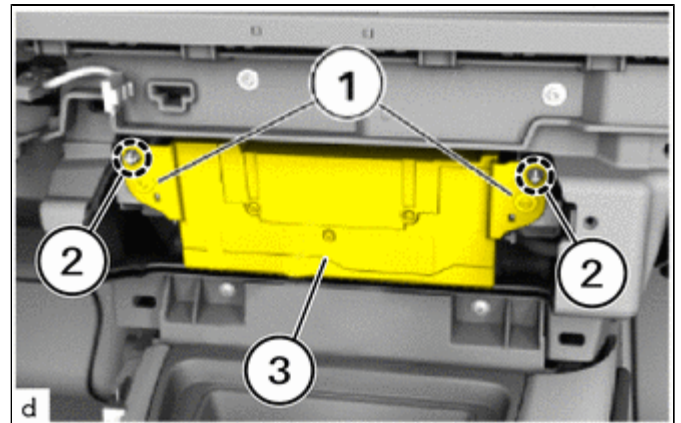
(d) Attach the guides (3) and clip (2) to install the cable clip (1).



(e) Connect connectors (2) and lock.



(f) Attach the wiring harnesses in the holders (1).



(g) Attach the guides (2) to install the radio receiver assembly (3).

(h) Tighten the T20 screws (1).

Torque:

2.3 N·m {23 kgf·cm, 20 in·lbf}

2. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

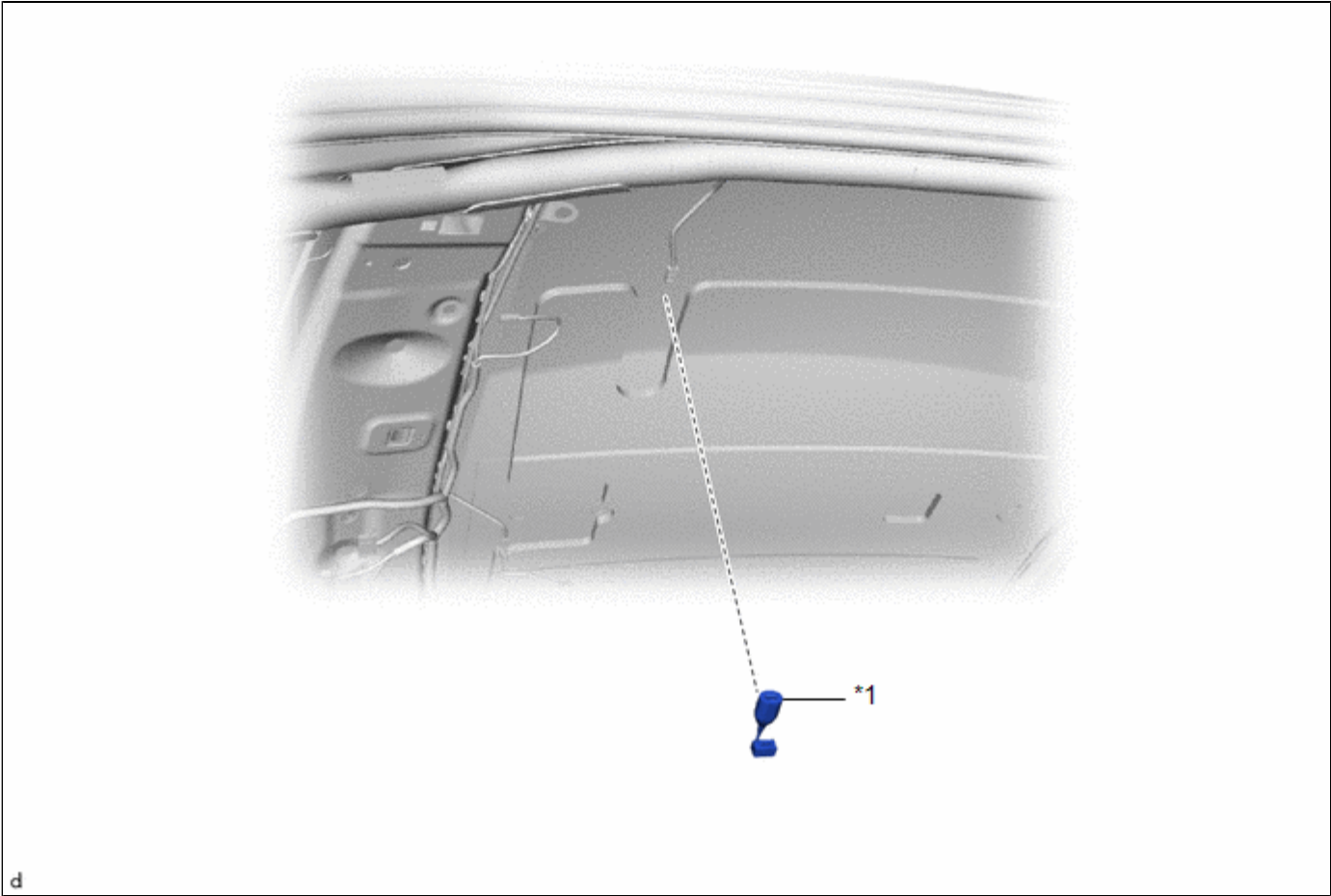
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: TELEPHONE MICROPHONE ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TELEPHONE MICROPHONE ASSEMBLY	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCOS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: TELEPHONE MICROPHONE ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

- Pyrotechnic components.

Danger! Life-threatening injuries!



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

Click here [INFO](#)

NOTICE:

- Before performing work on electronic components, disconnect the cable from the negative (-) battery terminal to prevent damage to the electrical system or components.
- When disconnecting the cable, turn the START-STOP button (engine switch) and headlight switch off and loosen the cable nut completely. Perform these operations without twisting or prying on the cable. Then disconnect the cable.
- Clock settings, radio settings, audio system memory, DTCs and other data will be cleared when the cable is disconnected from the negative (-) battery terminal. Write down any necessary data before disconnecting the cable.

PROCEDURE

1. REMOVE ROOF HEADLINING ASSEMBLY

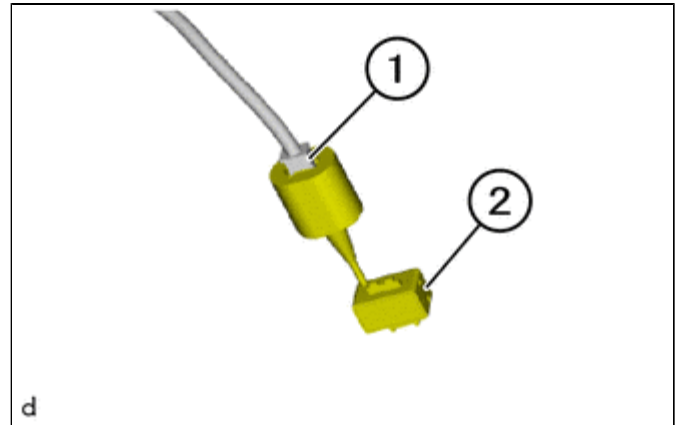
Click here [INFO](#)

2. REMOVE TELEPHONE MICROPHONE ASSEMBLY

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Unlock plug connection (1) and disconnect to remove the telephone microphone assembly (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: NAVIGATION / MULTI INFO DISPLAY: TELEPHONE MICROPHONE ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TELEPHONE MICROPHONE ASSEMBLY

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Connect connector and lock to install the telephone microphone assembly.

2. INSTALL ROOF HEADLINING ASSEMBLY

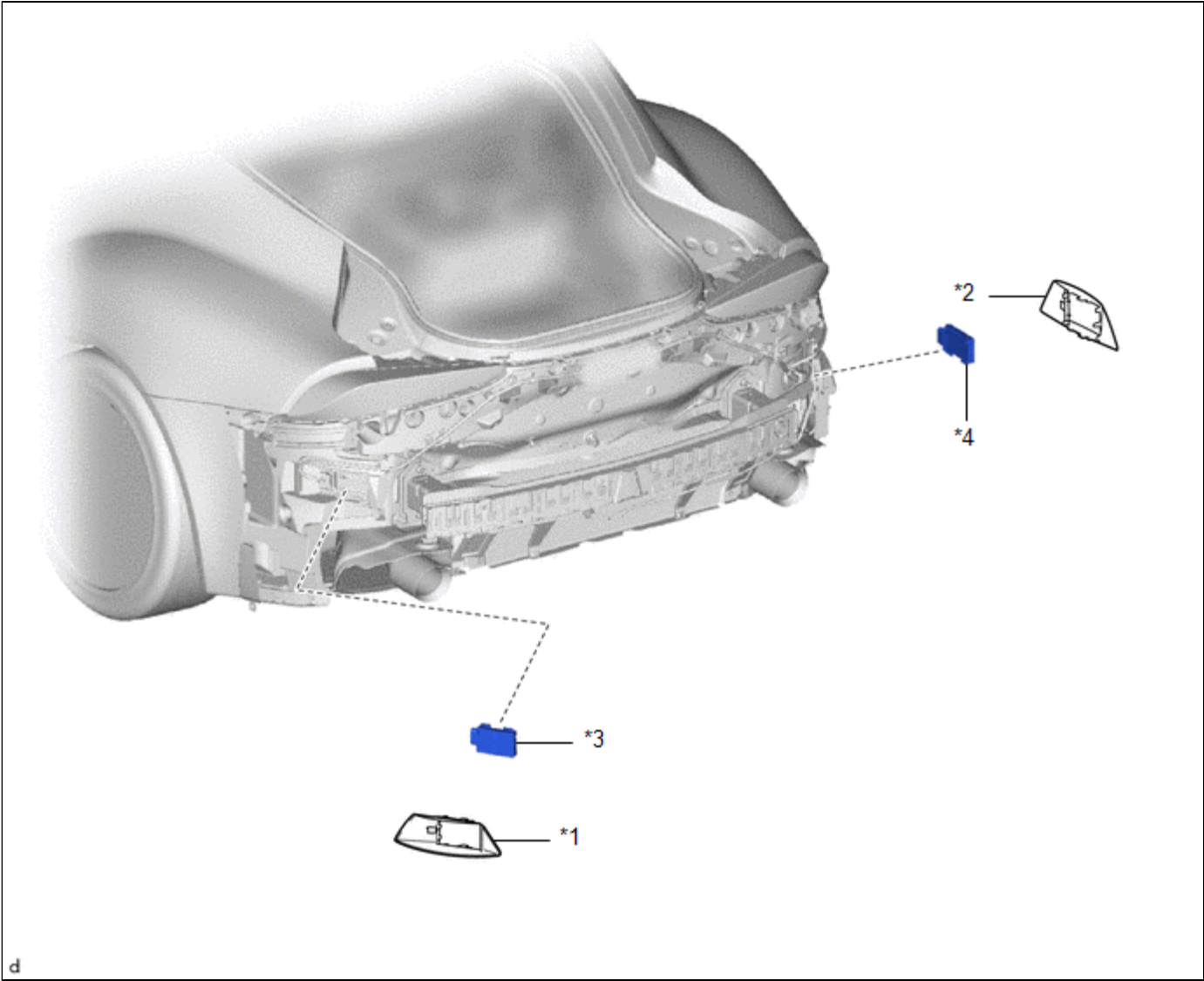
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: BLIND SPOT MONITOR SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ABSORBER FUNNEL LH	*2	ABSORBER FUNNEL RH
*3	BLIND SPOT MONITOR SENSOR LH	*4	BLIND SPOT MONITOR SENSOR RH

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: BLIND SPOT MONITOR SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

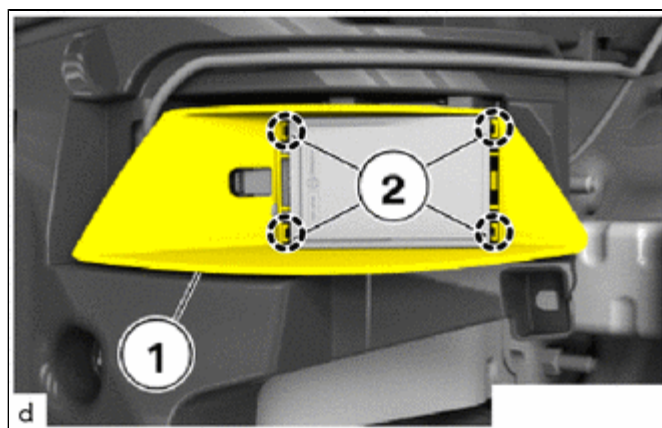
PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

Click here [INFO](#)

2. REMOVE ABSORBER FUNNEL LH

(a) Detach the claws (2) to remove the absorber funnel LH (1).



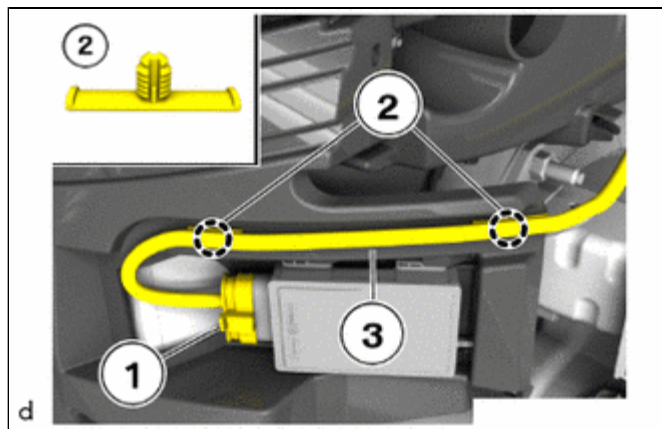
3. REMOVE ABSORBER FUNNEL RH

HINT:

Use the same procedure as for the LH side.

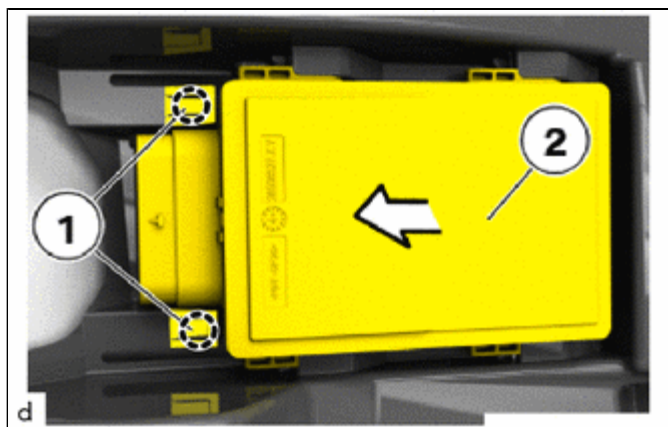
4. REMOVE BLIND SPOT MONITOR SENSOR LH

(a) Unlock plug connection (1) and disconnect.



(b) Detach the clips (2) to separate the wiring harness (3).

(c) Detach the claws (1) to remove the blind spot monitor sensor LH (2) in the direction of the arrow.



Remove in this Direction

5. REMOVE BLIND SPOT MONITOR SENSOR RH

HINT:

Use the same procedure as for the LH side.



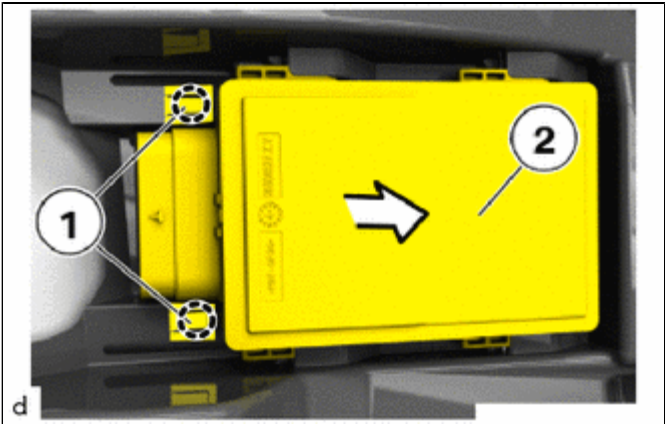
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: BLIND SPOT MONITOR SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

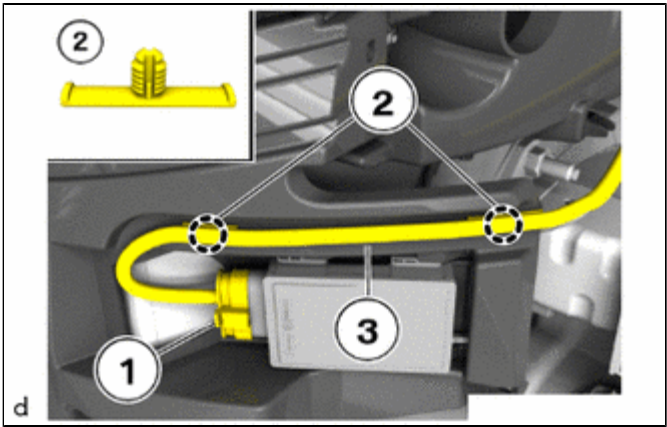
1. INSTALL BLIND SPOT MONITOR SENSOR LH

(a) Attach the claws (1) to install the blind spot monitor sensor (2) in the direction of the arrow.



Install in this Direction

(b) Attach the clips (2) to connect the wiring harness (3).



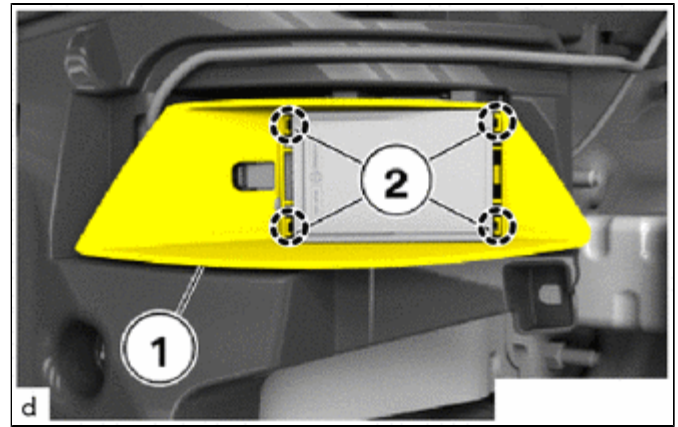
(c) Connect connector (1) and lock.

2. INSTALL BLIND SPOT MONITOR SENSOR RH

HINT:
Use the same procedure as for the LH side.

3. INSTALL ABSORBER FUNNEL LH

(a) Attach the claws (2) to install the absorber funnel LH (1).



4. INSTALL ABSORBER FUNNEL RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL REAR BUMPER ASSEMBLY

Click here [INFO](#)

6. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

(h) Disconnect the diagnosis system from the vehicle.

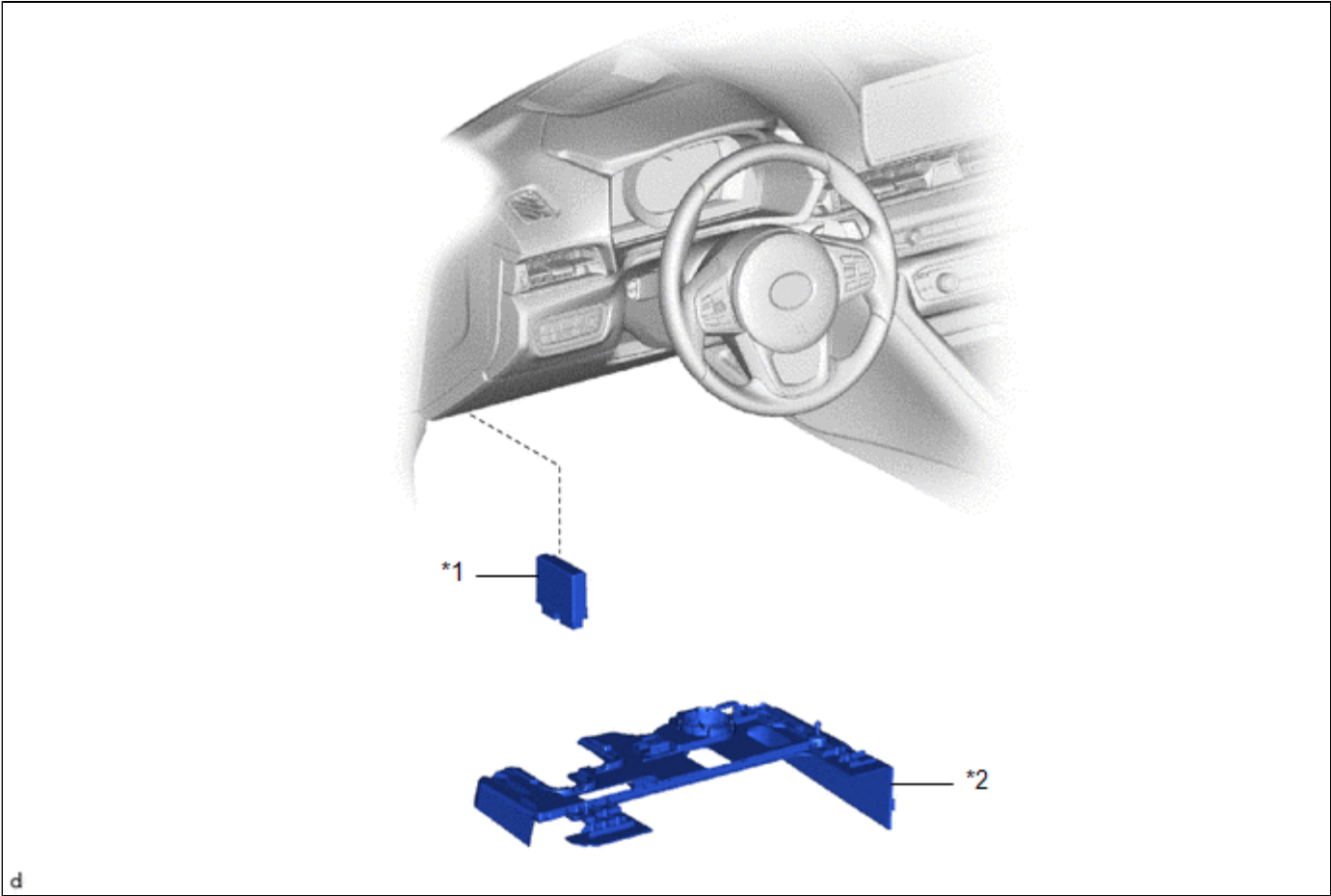
(i) Disconnect the battery charger from the vehicle.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: CLEARANCE WARNING ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CLEARANCE WARNING ECU ASSEMBLY	*2	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
----	--------------------------------	----	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: CLEARANCE WARNING ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

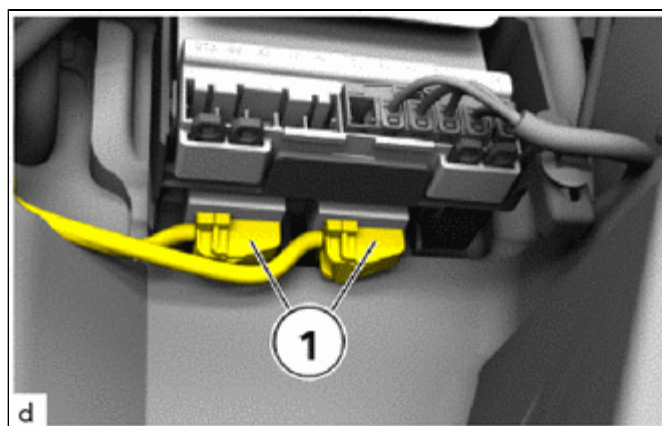
PROCEDURE

1. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

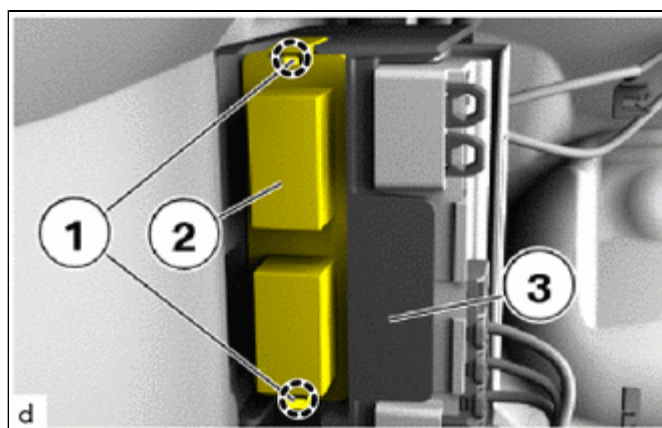
Click here [INFO](#)

2. REMOVE CLEARANCE WARNING ECU ASSEMBLY

(a) Unlock plug connections (1) and disconnect.



(b) Detach the claws (1) to remove the clearance warning ECU assembly (2) from the holder (3).



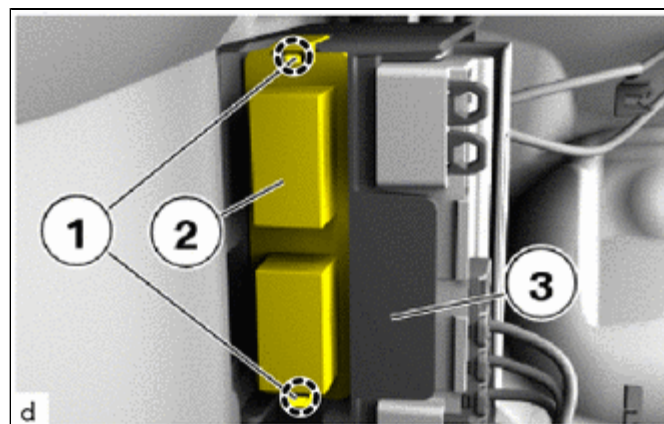
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: CLEARANCE WARNING ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

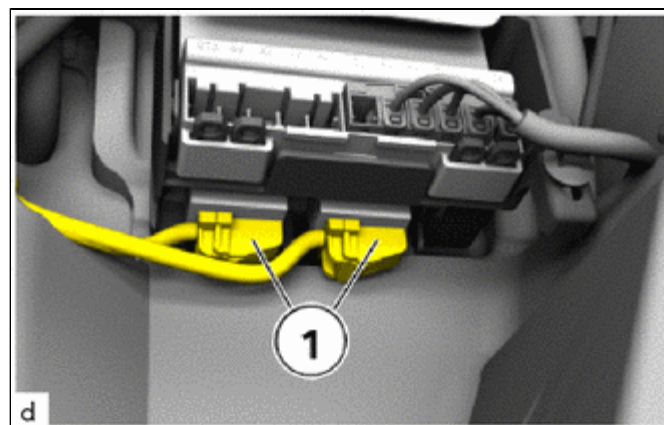
PROCEDURE

1. INSTALL CLEARANCE WARNING ECU ASSEMBLY

- (a) Attach the claws (1) to install the clearance warning ECU assembly (2) to the holder (3).



- (b) Connect connectors (1) and lock.



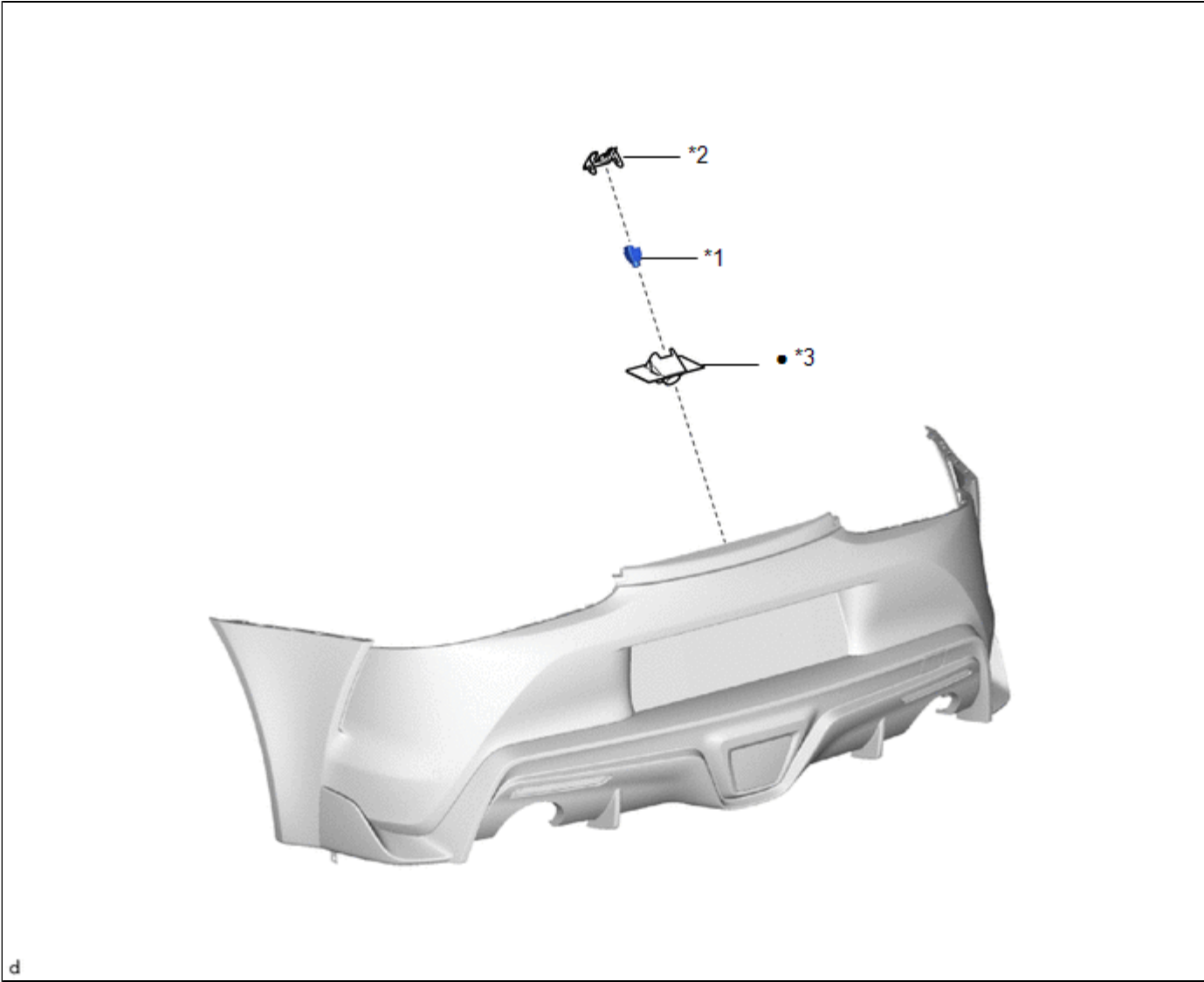
2. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: TELEVISION CAMERA: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TELEVISION CAMERA ASSEMBLY	*2	HOLDER
*3	BRACKET FOR REAR VIEW CAMERA	-	-
•	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: TELEVISION CAMERA: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

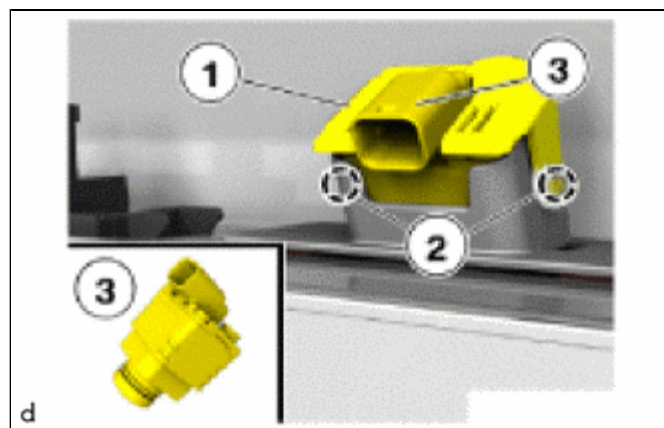
PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

Click here [INFO](#)

2. REMOVE TELEVISION CAMERA ASSEMBLY

(a) Detach the claws (2) to remove the holder (1).



(b) Remove the television camera assembly (3).

3. REMOVE BRACKET FOR REAR VIEW CAMERA

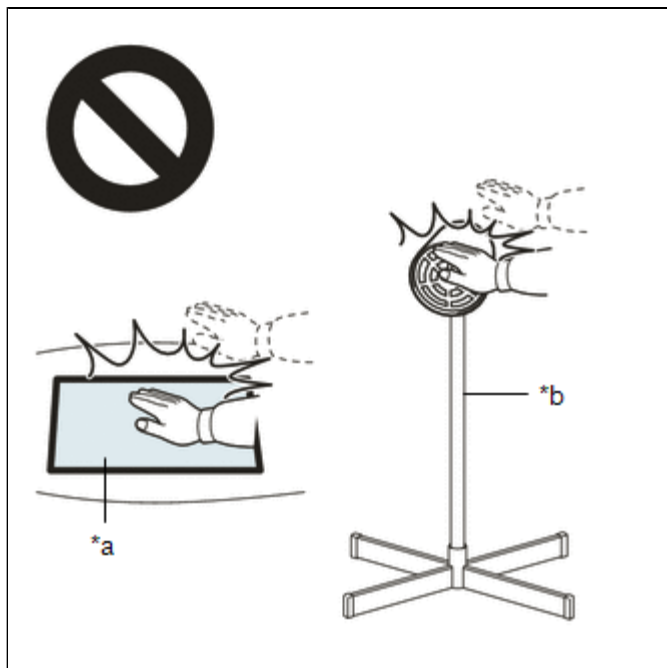
HINT:

- Perform this procedure only when replacement of the bracket for rear view camera is necessary.
- When removing the bracket for rear view camera, heat the rear bumper assembly and bracket for rear view camera using a heat light.

(a) Heat the rear bumper assembly and bracket for rear view camera using a heat light.

CAUTION:

- Do not touch the heat light and heated parts.
- Touching the heat light may result in burns.
- Touching heated parts for a long time may result in burns.

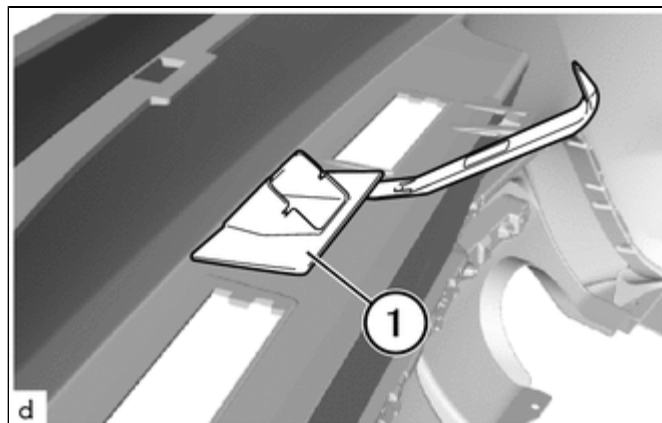


*a	Heated Part
*b	Heat Light

Standard:

ITEM	TEMPERATURE
Rear Bumper Assembly	40 to 50°C (104 to 122°F)
Bracket for Rear View Camera	

(b) Using a moulding remover A, remove the bracket for rear view camera (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: TELEVISION CAMERA: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

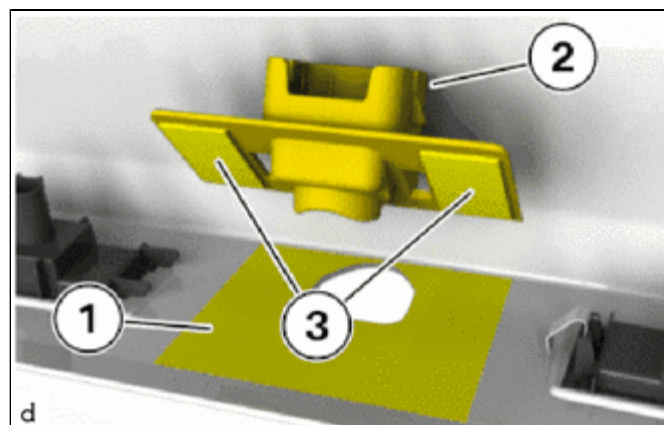
PROCEDURE

1. INSTALL BRACKET FOR REAR VIEW CAMERA

HINT:

Perform this procedure only when replacement of the bracket for rear view camera is necessary.

- (a) Replace the bracket for rear view camera (2).



- (b) Remove adhesive residue on the tailgate and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2

- (c) Peel off the release paper from the bracket for rear view camera.

HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

- (d) Position the bracket for rear view camera (2) and press the adhesive strips (3) on tight.

NOTICE:

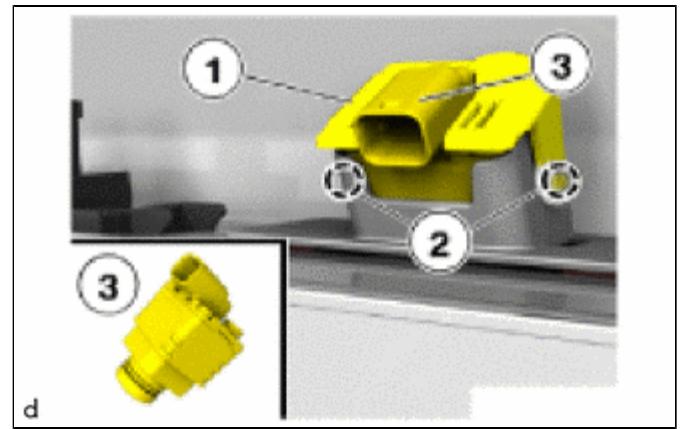
- Make sure that the rear bumper assembly and the bracket for rear view camera are properly aligned.
- Detaching and reattaching a bracket for rear view camera will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the bracket for rear view camera with a new one.

HINT:

Press the area shown in the illustration with a force of to securely install the bracket for rear view camera to the rear bumper assembly. Confirm there is no clearance between the bracket for rear view camera and rear bumper assembly.

2. INSTALL TELEVISION CAMERA ASSEMBLY

(a) Install the television camera assembly (3).



(b) Attach the claws (2) to install the holder (1).

3. INSTALL REAR BUMPER ASSEMBLY

Click here [INFO](#)

4. ENCODE/PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

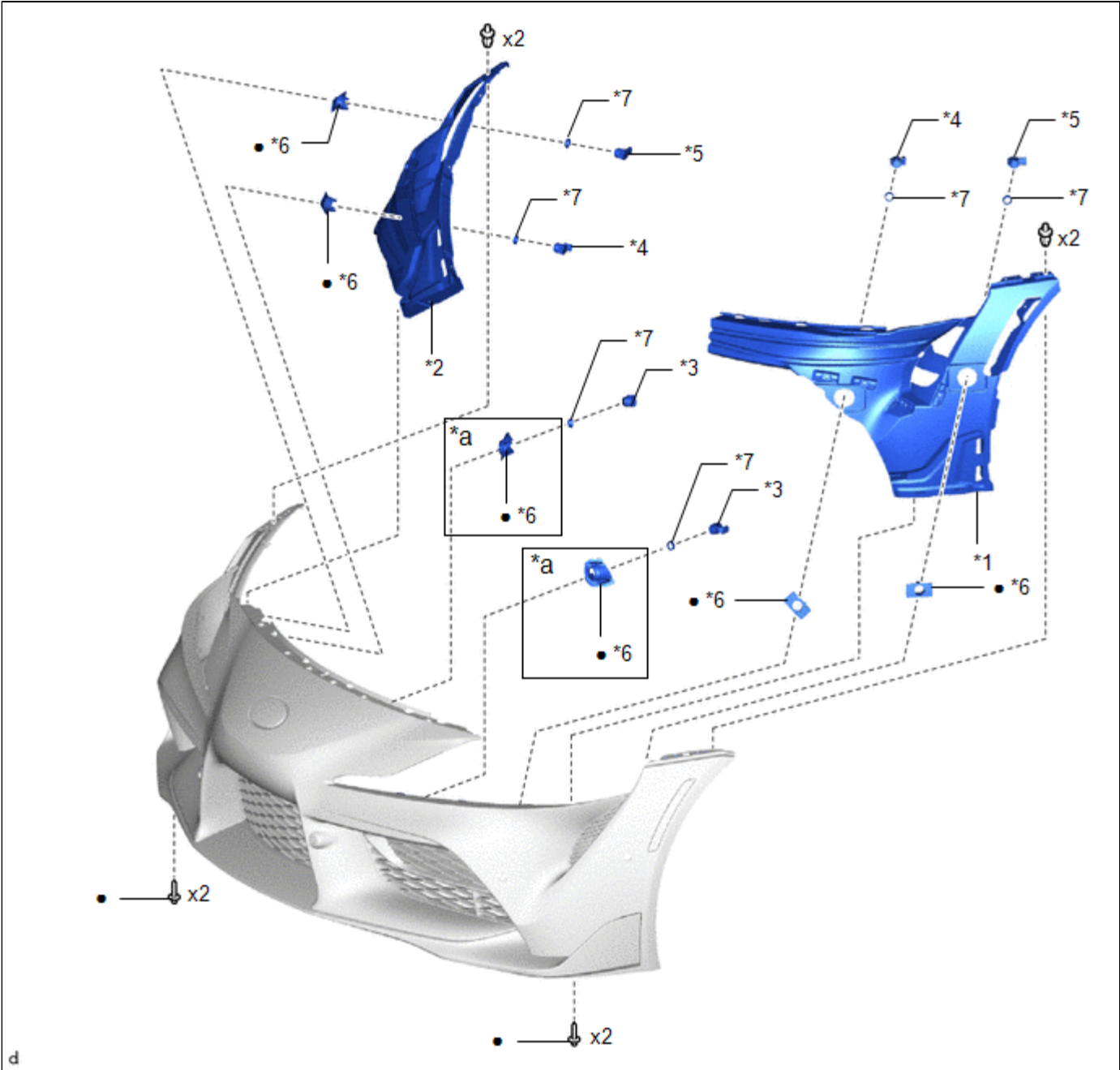
(h) Disconnect the diagnosis system from the vehicle.

(i) Disconnect the battery charger from the vehicle.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Front): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT BUMPER SIDE RETAINER LH	*2	FRONT BUMPER SIDE RETAINER RH
*3	FRONT CENTER ULTRASONIC SENSOR	*4	FRONT CORNER ULTRASONIC SENSOR
*5	FRONT SIDE ULTRASONIC SENSOR	*6	NO. 1 ULTRASONIC SENSOR

			RETAINER
*7	ULTRASONIC SENSOR O-RING	-	-
*a	The No. 1 ultrasonic sensor retainer of the front center ultrasonic sensor is welded to the front bumper assembly and cannot be removed.	-	-
•	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Front): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

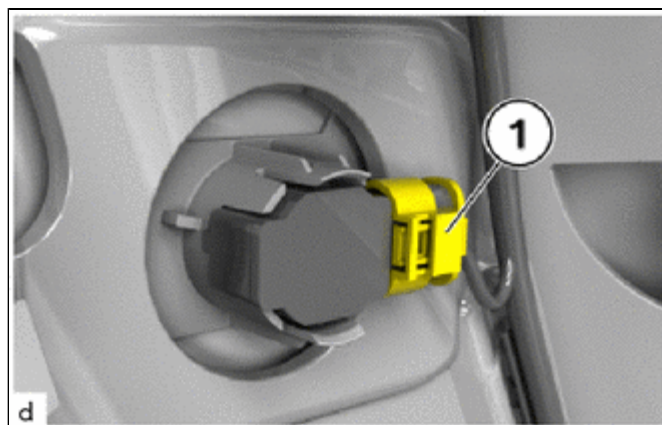
Click here [INFO](#)

2. REMOVE FRONT SIDE ULTRASONIC SENSOR

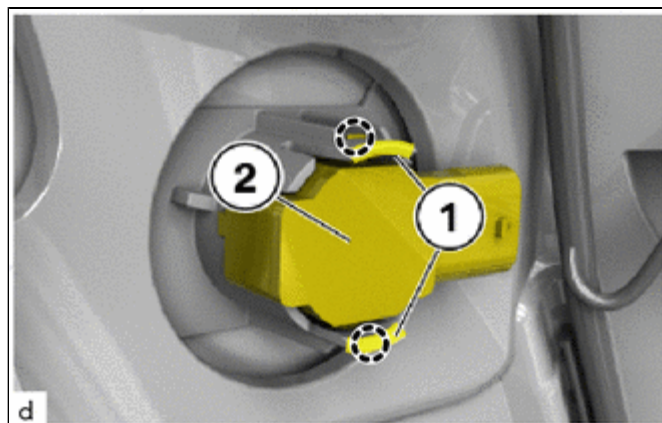
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

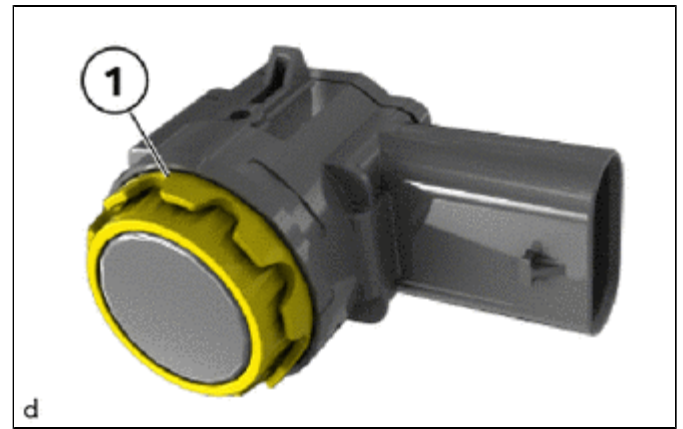
(a) Unlock plug connection (1) and disconnect.



(b) Detach the claws (1) to remove the front side ultrasonic sensor (2).



(c) Remove the ultrasonic sensor O-ring (1).

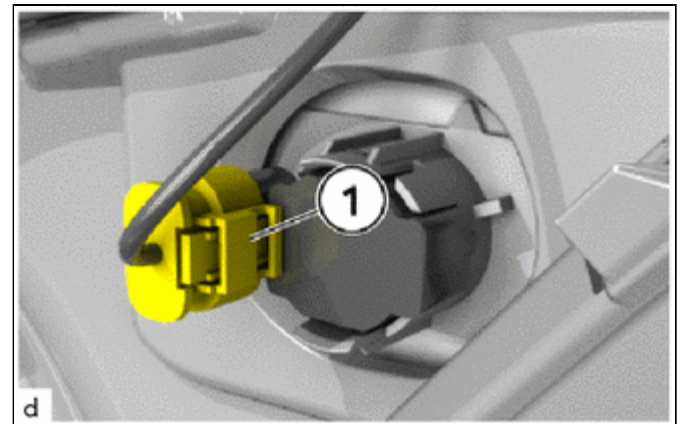


3. REMOVE FRONT CORNER ULTRASONIC SENSOR

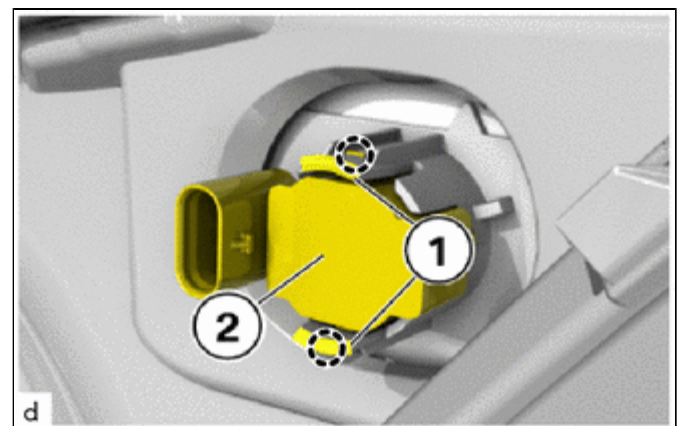
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) Unlock plug connection (1) and disconnect.



(b) Detach the claws (1) to remove the front corner ultrasonic sensor (2).



(c) Remove the ultrasonic sensor O-ring (1).



4. REMOVE FRONT CENTER ULTRASONIC SENSOR

HINT:
Use the same procedure as for the front corner ultrasonic sensor.

5. REMOVE FRONT BUMPER SIDE RETAINER LH

Click here [INFO](#)

6. REMOVE FRONT BUMPER SIDE RETAINER RH

HINT:
Use the same procedure as for the LH side.

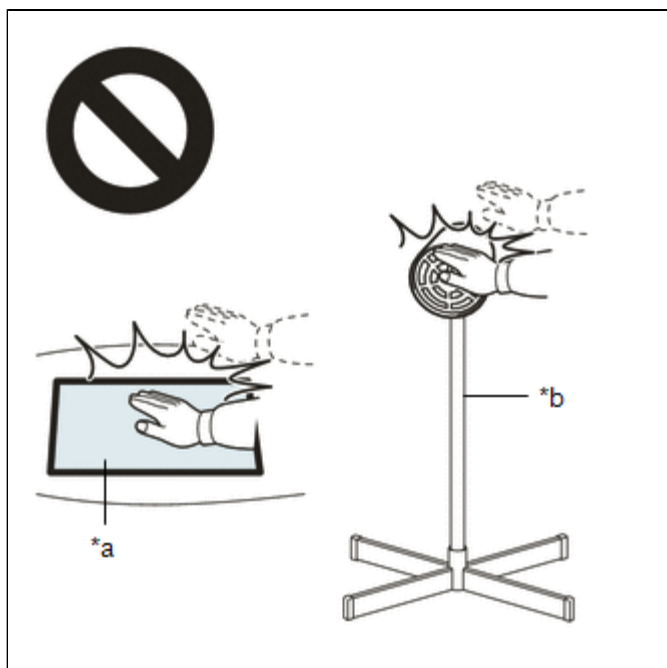
7. REMOVE NO. 1 ULTRASONIC SENSOR RETAINER

- HINT:**
- Perform this procedure only when replacement of the No. 1 ultrasonic sensor retainer is necessary.
 - When removing the No. 1 ultrasonic sensor retainer, heat the front bumper assembly and No. 1 ultrasonic sensor retainer using a heat light.
 - The illustration is for the LH side.
 - orientation for the RH side is the opposite of the LH side.

(a) Heat the front bumper assembly and No. 1 ultrasonic sensor retainer using a heat light at the specified temperature.
Heating Temperature:

ITEM	TEMPERATURE
Front Bumper Assembly	40 to 50°C (104 to 122°F)
No. 1 Ultrasonic Sensor Retainer	

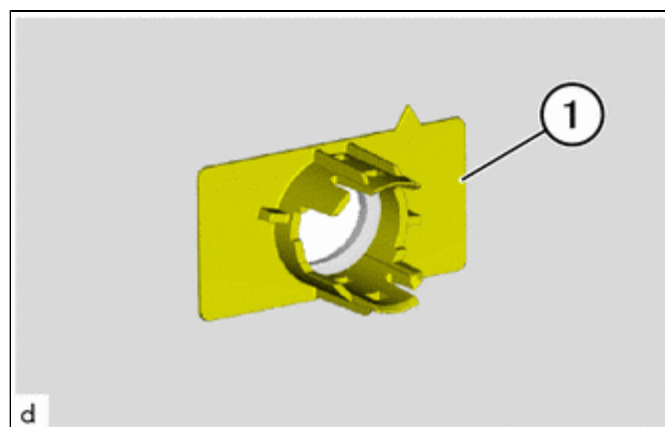
- CAUTION:**
- Do not touch the heat light and heated parts.
 - Touching the heat light may result in burns.
 - Touching heated parts for a long time may result in burns.



*a	Heated Part
*b	Heat Light

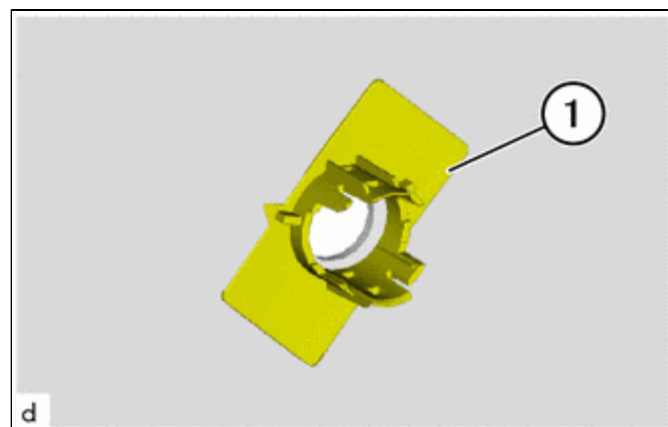
(b) for front side:

(1) Remove the No. 1 ultrasonic sensor retainer (1).



(c) for front corner sid:

(1) Remove the No. 1 ultrasonic sensor retainer (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Front): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 ULTRASONIC SENSOR RETAINER

HINT:

- Perform this procedure only when replacement of the No. 1 ultrasonic sensor retainer is necessary.
- The illustration is for the LH side.
- The orientation for the RH side is the opposite of the LH side.

(a) for front side:

HINT:

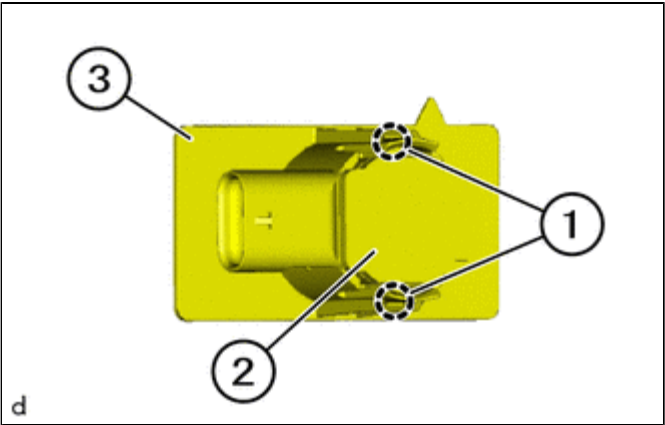
If a No. 1 ultrasonic sensor retainer has been removed, replace it with a new one. Install the front side ultrasonic sensor with a new No. 1 ultrasonic sensor retainer as a set to the front bumper assembly.

- (1) Remove any remaining double-sided tape from the front bumper assembly.
- (2) Install the ultrasonic sensor O-ring.

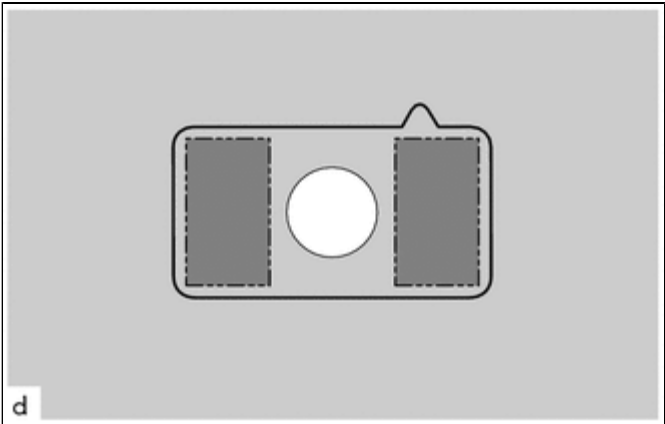
- (3) Attach the claws (1) to install the front side ultrasonic sensor (2) to a new No. 1 ultrasonic sensor retainer (3).


HINT:

To align the positions of the front bumper assembly and ultrasonic sensor, assemble the front side ultrasonic sensor (2) and No. 1 ultrasonic sensor retainer (3) as a single part.



- (4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 1 ultrasonic sensor retainer as shown in the illustration.



	No. 1 Ultrasonic Sensor Retainer Installation Surface
--	--

(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 1 ultrasonic sensor retainer.

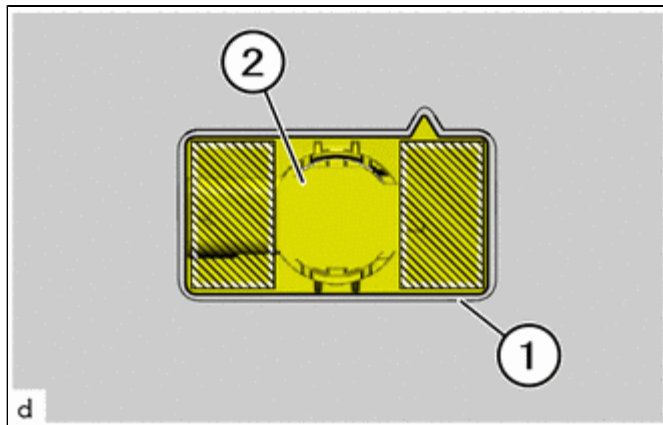
HINT:


After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 1 ultrasonic sensor retainer and front side ultrasonic sensor (2) with the scribed line (1) on the front bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the front bumper assembly and the front side ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 1 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 1 ultrasonic sensor retainer with a new one.



	Press area
--	------------

HINT:

Press the area shown in the illustration with a force of to securely install the No. 1 ultrasonic sensor retainer to the front bumper assembly. Confirm there is no clearance between the No. 1 ultrasonic sensor retainer and front bumper assembly.

(b) for front corner side:

HINT:

If a No. 1 ultrasonic sensor retainer has been removed, replace it with a new one. Install the front corner ultrasonic sensor with a new No. 1 ultrasonic sensor retainer as a set to the front bumper assembly.

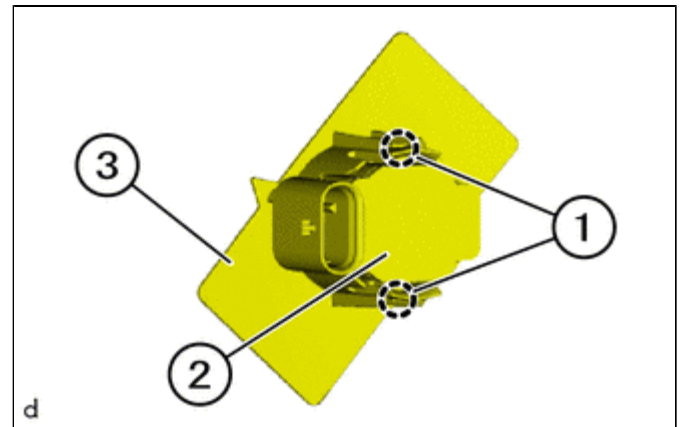
(1) Remove any remaining double-sided tape from the front bumper assembly.

(2) Install the ultrasonic sensor O-ring.

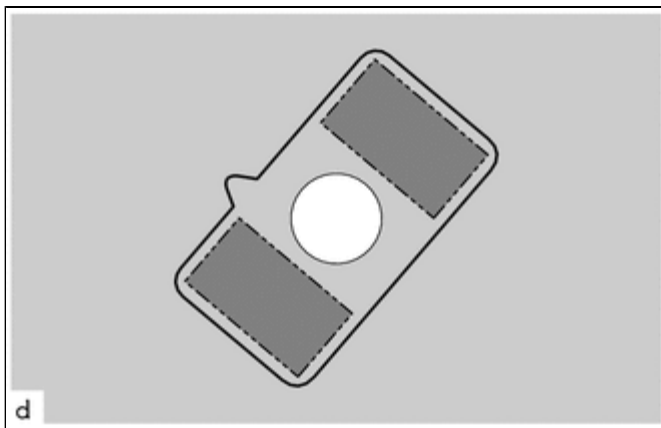
(3) Attach the claws (1) to install the front corner ultrasonic sensor (2) to a new No. 1 ultrasonic sensor retainer (3).

HINT:

To align the positions of the front bumper assembly and ultrasonic sensor, assemble the front corner ultrasonic sensor (2) and No. 1 ultrasonic sensor retainer (3) as a single part.



(4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 1 ultrasonic sensor retainer as shown in the illustration.



No. 1 Ultrasonic Sensor Retainer
Installation Surface

(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 1 ultrasonic sensor retainer.

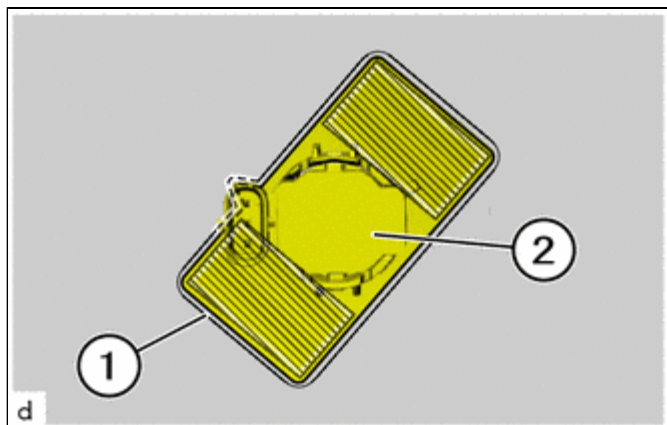
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 1 ultrasonic sensor retainer and front corner ultrasonic sensor (2) with the scribed line (1) on the front bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the front bumper assembly and the front corner ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 1 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 1 ultrasonic sensor retainer with a new one.



HINT:

Press the area shown in the illustration with a force of to securely install the No. 1 ultrasonic sensor retainer to the front bumper assembly. Confirm there is no clearance between the No. 1 ultrasonic sensor retainer and front bumper assembly.

(c) for front center side:

HINT:

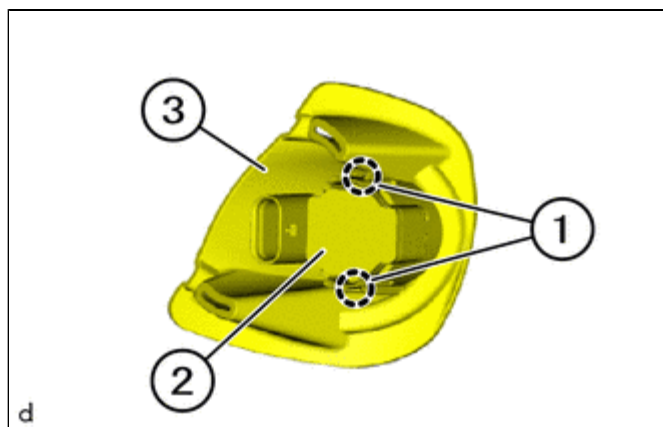
The No. 1 ultrasonic sensor retainer of the front center ultrasonic sensor is welded to the front bumper assembly and cannot be removed.

(1) Install the ultrasonic sensor O-ring.

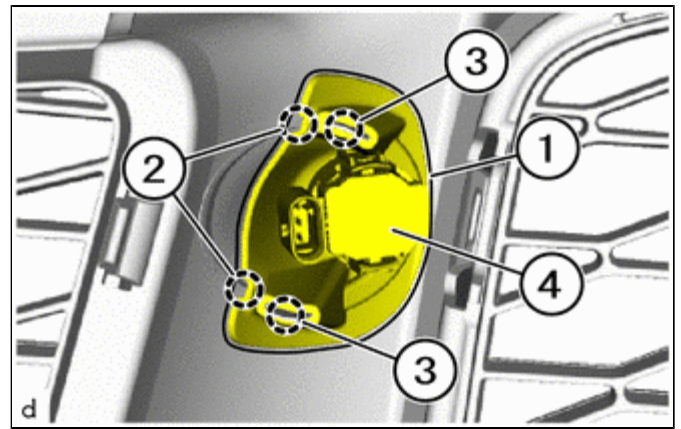
(2) Attach the claws (1) to temporarily install the front center ultrasonic sensor (2) to a new No. 1 ultrasonic sensor retainer (3).

HINT:

To align the positions of the front bumper assembly and ultrasonic sensor, assemble the front center ultrasonic sensor (2) and No. 1 ultrasonic sensor retainer (3) as a single part.



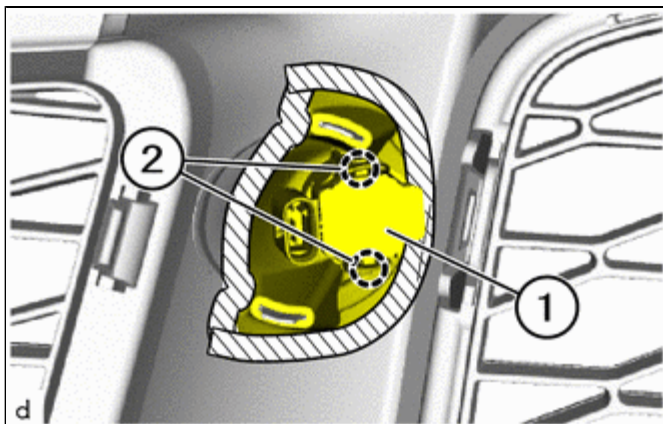
(3) Attach the guides (2) and guides (3).




- (4) Align the No. 1 ultrasonic sensor retainer and front center ultrasonic sensor (4) with the scribed line (1) on the front bumper assembly and position it as shown in the illustration.
- (5) Apply adhesive tape to temporarily install the No. 1 ultrasonic sensor retainer (1) to the front bumper assembly as shown in the illustration.

NOTICE:

Ensure that the sensor tip is correctly inserted into the sensor installation hole of the front bumper assembly.



	Adhesive tape
--	---------------

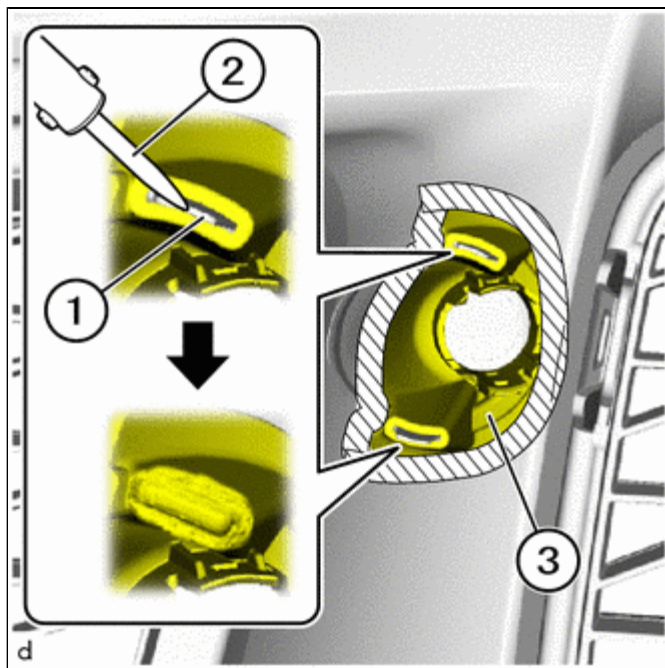
- (6) Detach the claws (2) to remove the front center ultrasonic sensor.

NOTICE:

When removing the front center ultrasonic sensor, make sure that the temporarily installed No. 1 ultrasonic sensor retainer does not come off.

- (7) Using a soldering iron (2), melt the guides (1) of the front bumper assembly to install the No. 1 ultrasonic sensor retainer (3) as shown in the illustration.

SST: 54202



Adhesive tape

CAUTION:

- Do not touch the soldering iron tip or the melted areas.
- Touching the soldering iron tip or the melted areas can result in burns.

NOTICE:

Do not touch the welded portions until they have cooled down.

(8) Check that there is no gap, lifting or looseness between the front bumper assembly and the No. 1 ultrasonic sensor retainer (3).

(9) Remove the adhesive tape.

2. INSTALL FRONT BUMPER SIDE RETAINER LH

Click here [INFO](#)

3. INSTALL FRONT BUMPER SIDE RETAINER RH

HINT:

Use the same procedure as for the LH side.

4. INSTALL FRONT CORNER ULTRASONIC SENSOR

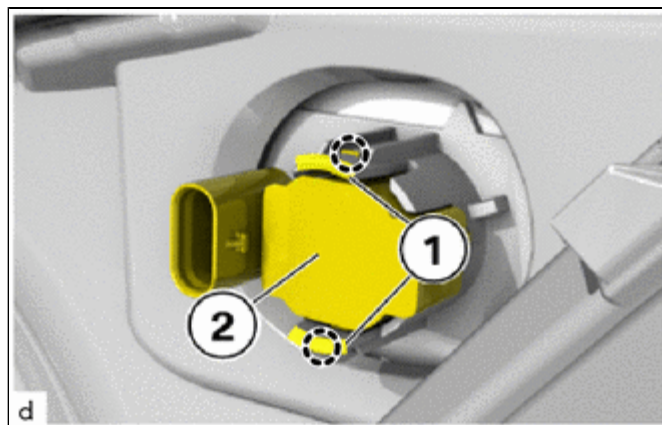
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) When removing or replacing the front corner ultrasonic sensor:

(1) Install the ultrasonic sensor O-ring.

- (2) Attach the claws (1) to install the front corner ultrasonic sensor (2).



- (b) Connect connector and lock.

5. INSTALL FRONT CENTER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the front corner ultrasonic sensor.

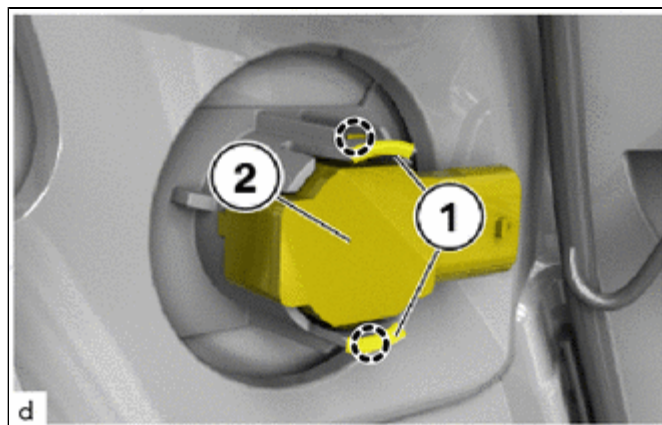
6. INSTALL FRONT SIDE ULTRASONIC SENSOR

HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

- (a) When removing or replacing the front side ultrasonic sensor:

- (1) Install the ultrasonic sensor O-ring.



- (2) Attach the claws (1) to install the front side ultrasonic sensor (2).

- (b) Connect connector and lock.

7. INSTALL FRONT BUMPER ASSEMBLY

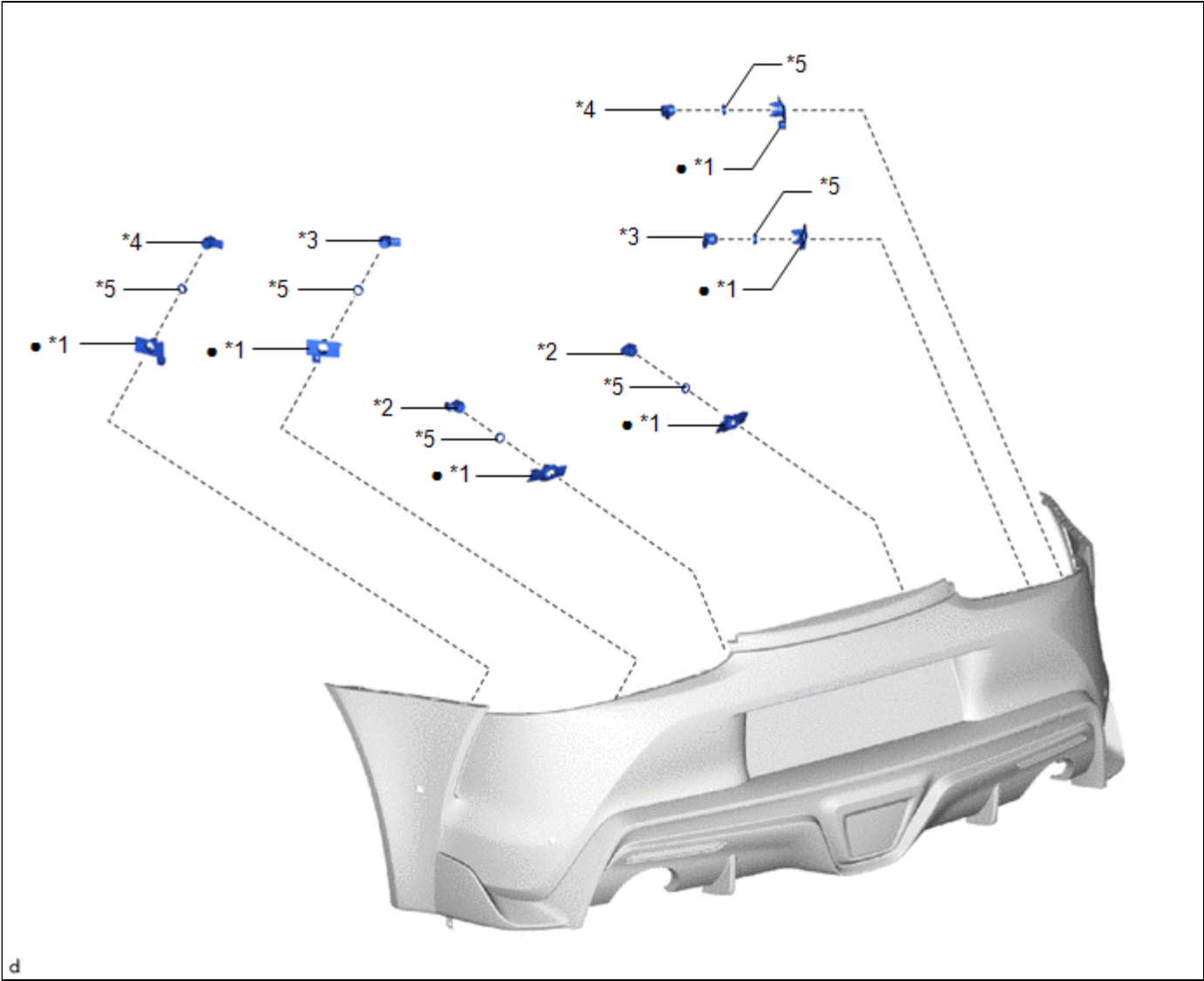
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Rear): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 2 ULTRASONIC SENSOR RETAINER	*2	REAR CENTER ULTRASONIC SENSOR
*3	REAR CORNER ULTRASONIC SENSOR	*4	REAR SIDE ULTRASONIC SENSOR
*5	ULTRASONIC SENSOR O-RING	-	-
●	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Rear): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

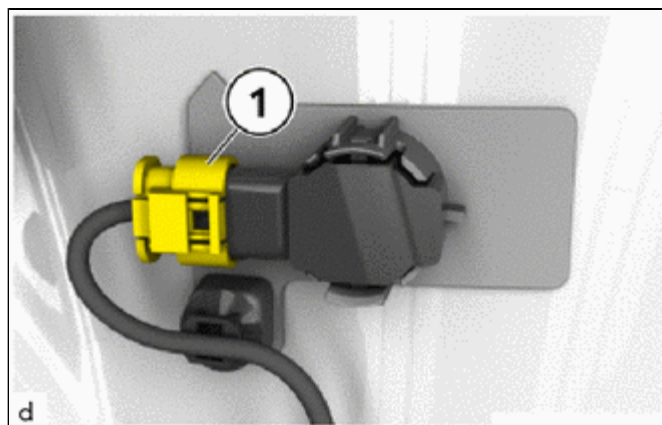
Click here [INFO](#)

2. REMOVE REAR SIDE ULTRASONIC SENSOR

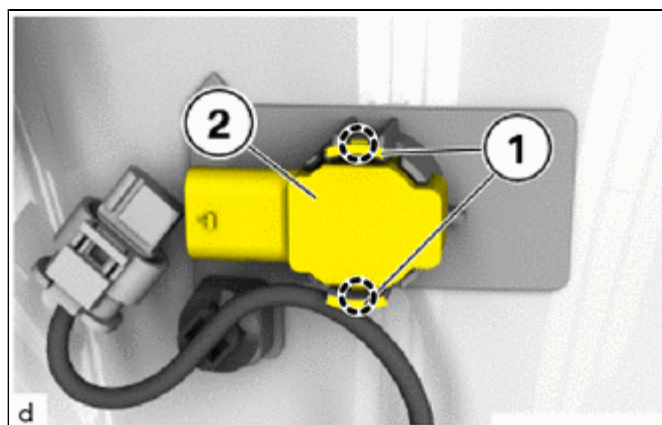
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

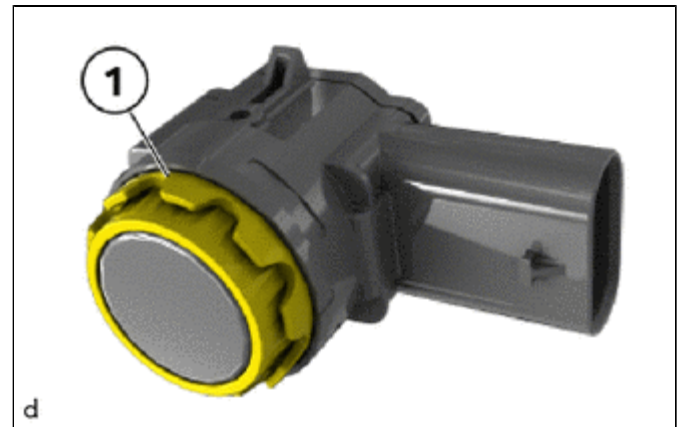
(a) Unlock plug connection (1) and disconnect.



(b) Detach the claws (1) to remove the rear side ultrasonic sensor (2).



(c) Remove the ultrasonic sensor O-ring (1).



3. REMOVE REAR CORNER ULTRASONIC SENSOR

HINT:

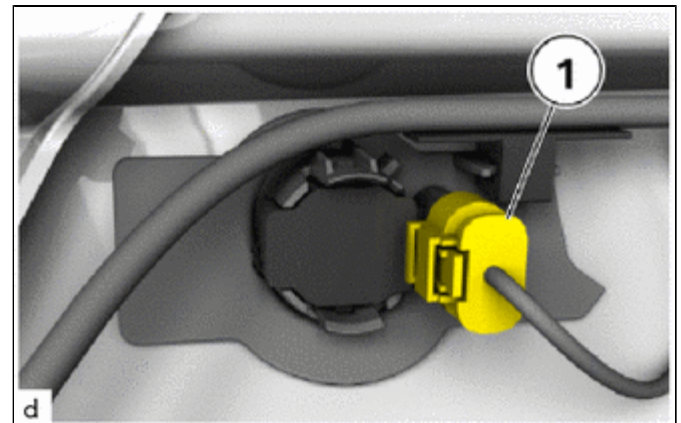
Use the same procedure as for the rear side ultrasonic sensor.

4. REMOVE REAR CENTER ULTRASONIC SENSOR

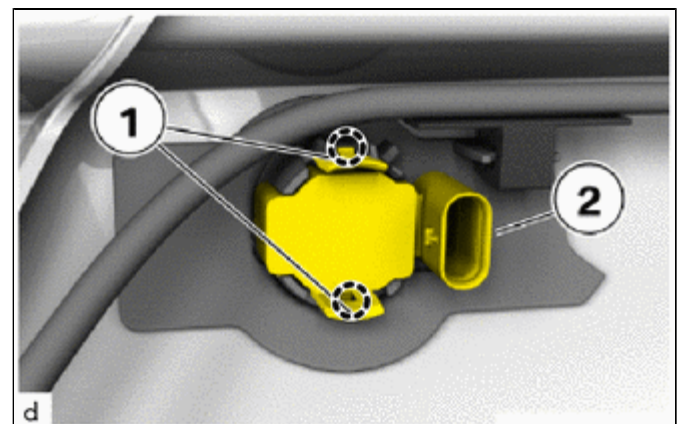
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) Unlock plug connection (1) and disconnect.



(b) Detach the claws (1) to remove the rear center ultrasonic sensor (2).





(c) Remove the ultrasonic sensor O-ring (1).

5. REMOVE NO. 2 ULTRASONIC SENSOR RETAINER

HINT:

- Perform this procedure only when replacement of the No. 2 ultrasonic sensor retainer is necessary.
- When removing the No. 2 ultrasonic sensor retainer, heat the rear bumper assembly and No. 2 ultrasonic sensor retainer using a heat light.
- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

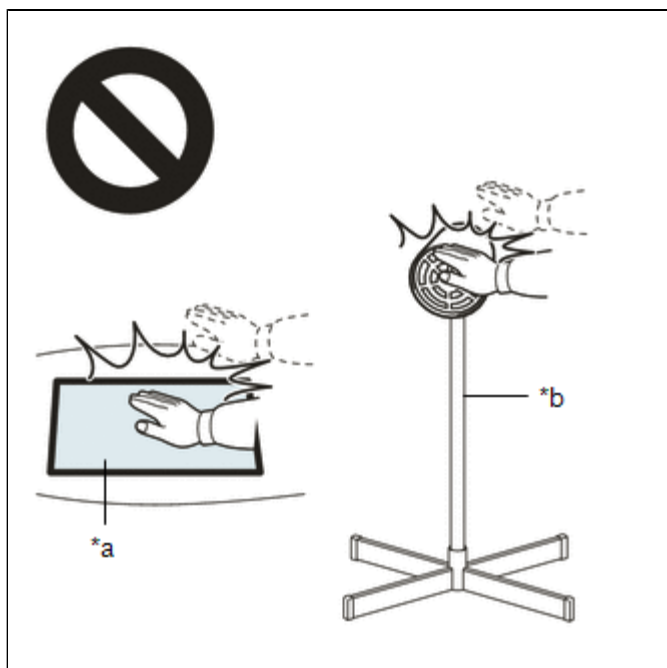
(a) Heat the rear bumper assembly and No. 2 ultrasonic sensor retainer using a heat light at the specified temperature.

Heating Temperature:

ITEM	TEMPERATURE
Rear Bumper Assembly	40 to 50°C (104 to 122°F)
No. 2 Ultrasonic Sensor Retainer	

CAUTION:

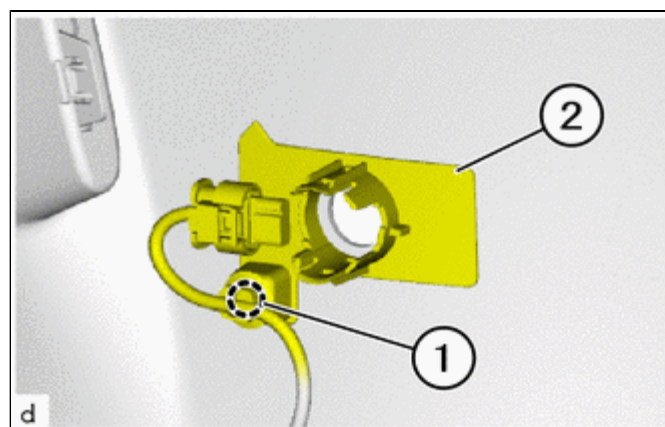
- Do not touch the heat light and heated parts.
- Touching the heat light may result in burns.
- Touching heated parts for a long time may result in burns.



*a	Heated Part
*b	Heat Light

(b) for rear side:

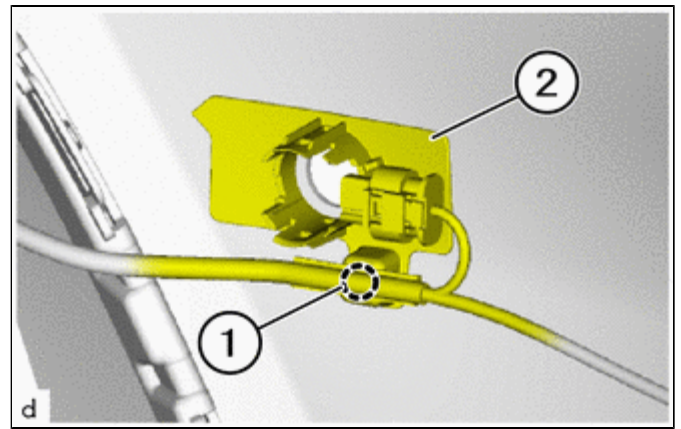
(1) Disengage the clamp (1).



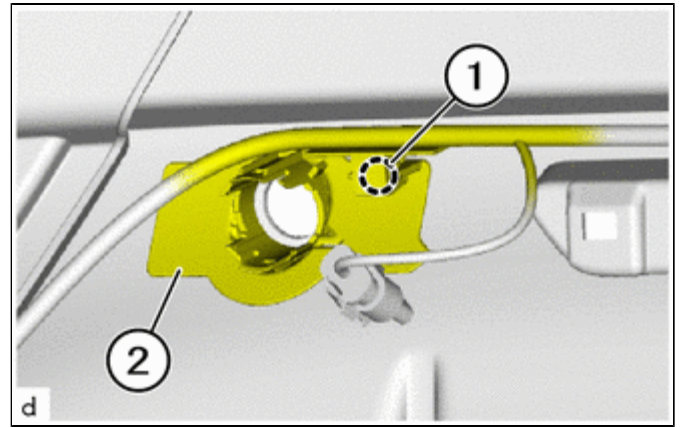
(2) Remove the No. 2 ultrasonic sensor retainer (2).

(c) for rear corner side:

(1) Disengage the clamp (1).



(2) Remove the No. 2 ultrasonic sensor retainer (2).
(d) for rear center side:



(2) Remove the No. 2 ultrasonic sensor retainer (1).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Rear): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 ULTRASONIC SENSOR RETAINER

HINT:

- Perform this procedure only when replacement of the No. 2 ultrasonic sensor retainer is necessary.
- The illustration is for the LH side.
- The orientation for the RH side is the opposite of the LH side.

(a) for rear side:

HINT:

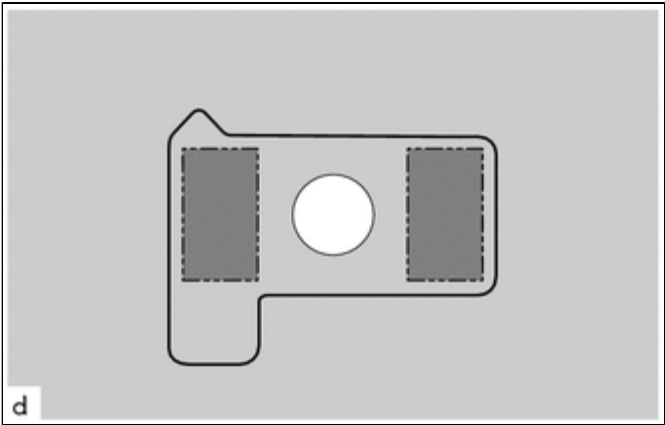
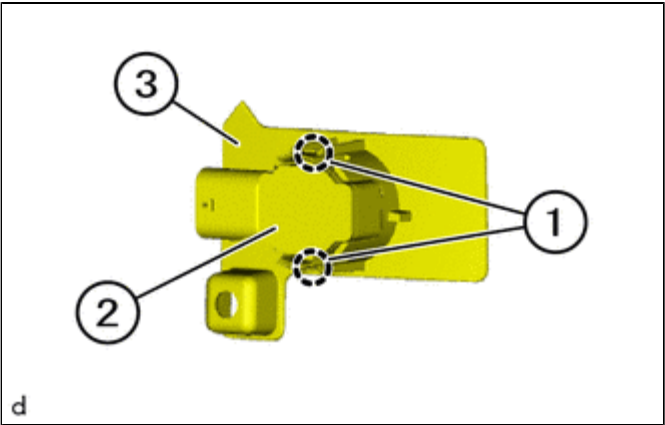
If a No. 2 ultrasonic sensor retainer has been removed, replace it with a new one. Install the rear side ultrasonic sensor with a new No. 2 ultrasonic sensor retainer as a set to the rear bumper assembly.

- (1) Remove any remaining double-sided tape from the rear bumper assembly.
- (2) Install the ultrasonic sensor O-ring.


- (3) Attach the claws (1) to install the rear side ultrasonic sensor (2) to a new No. 2 ultrasonic sensor retainer (3).

HINT:

To align the positions of the rear bumper assembly and ultrasonic sensor, assemble the rear side ultrasonic sensor (2) and No. 2 ultrasonic sensor retainer (3) as a single part.



No. 2 Ultrasonic Sensor Retainer

	Installation Surface
--	----------------------

(4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 2 ultrasonic sensor retainer as shown in the illustration.

(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 2 ultrasonic sensor retainer.

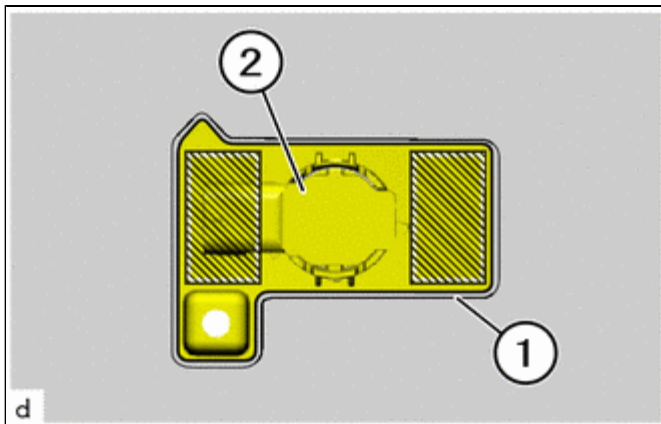
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 2 ultrasonic sensor retainer and rear side ultrasonic sensor (2) with the scribed line (1) on the rear bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the rear bumper assembly and the rear side ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 2 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 2 ultrasonic sensor retainer with a new one.



	Press area
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HINT:

Press the area shown in the illustration with a force of to securely install the No. 2 ultrasonic sensor retainer to the rear bumper assembly. Confirm there is no clearance between the No. 2 ultrasonic sensor retainer and rear bumper assembly.

(8) Attach the clamp.

(b) for rear corner side:

HINT:

If a No. 2 ultrasonic sensor retainer has been removed, replace it with a new one. Install the rear corner ultrasonic sensor with a new No. 2 ultrasonic sensor retainer as a set to the rear bumper assembly.

(1) Remove any remaining double-sided tape from the rear bumper assembly.

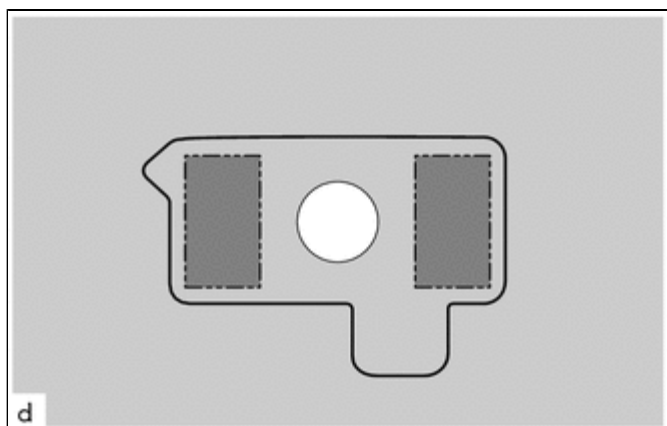
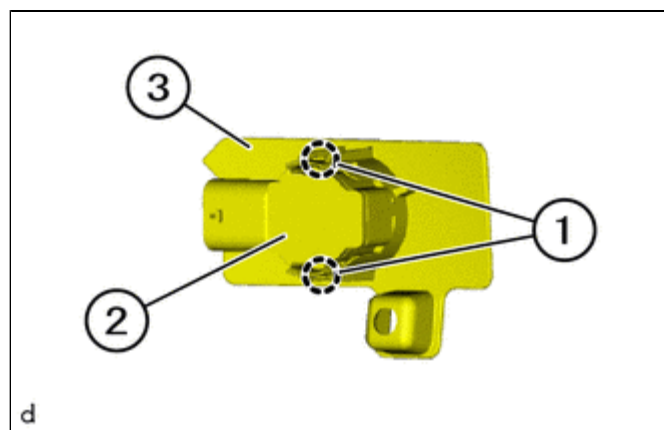
(2) Wipe off any adhesive residue with cleaner.

(3) Install the ultrasonic sensor O-ring.

(4) Attach the claws (1) to install the rear corner ultrasonic sensor (2) to a new No. 2 ultrasonic sensor retainer (3).

HINT:

To align the positions of the rear bumper assembly and ultrasonic sensor, assemble the rear corner ultrasonic sensor (2) and No. 2 ultrasonic sensor retainer (3) as a single part.



No. 2 Ultrasonic Sensor Retainer
Installation Surface

(5) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 2 ultrasonic sensor retainer as shown in the illustration.

(6) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(7) Peel off the release paper from the No. 2 ultrasonic sensor retainer.

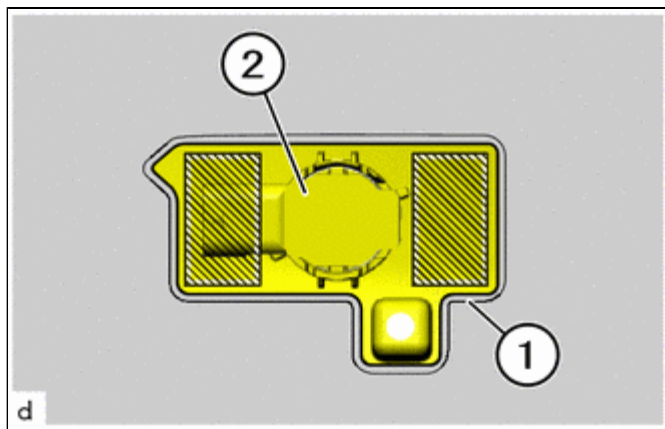
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(8) Align the No. 2 ultrasonic sensor retainer and rear corner ultrasonic sensor (2) with the scribed line (1) on the rear bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the rear bumper assembly and the rear corner ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 2 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 2 ultrasonic sensor retainer with a new one.



	Press area
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HINT:

Press the area shown in the illustration with a force of to securely install the No. 2 ultrasonic sensor retainer to the rear bumper assembly. Confirm there is no clearance between the No. 2 ultrasonic sensor retainer and rear bumper assembly.

(9) Attach the clamp.

(c) for rear center side:

HINT:

If a No. 2 ultrasonic sensor retainer has been removed, replace it with a new one. Install the rear center ultrasonic sensor with a new No. 2 ultrasonic sensor retainer as a set to the rear bumper assembly.

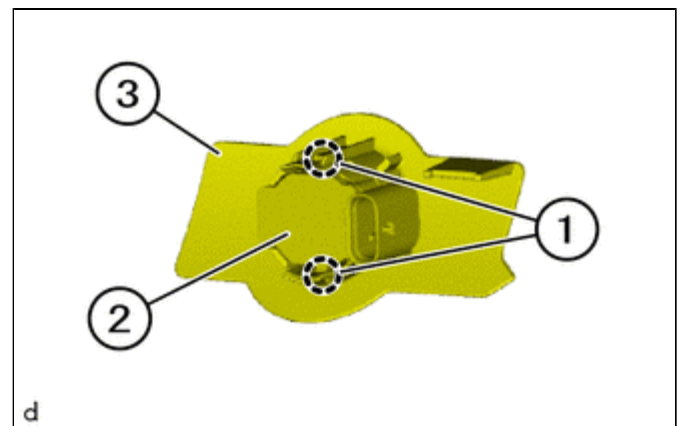
(1) Remove any remaining double-sided tape from the rear bumper assembly.

(2) Install the ultrasonic sensor O-ring.

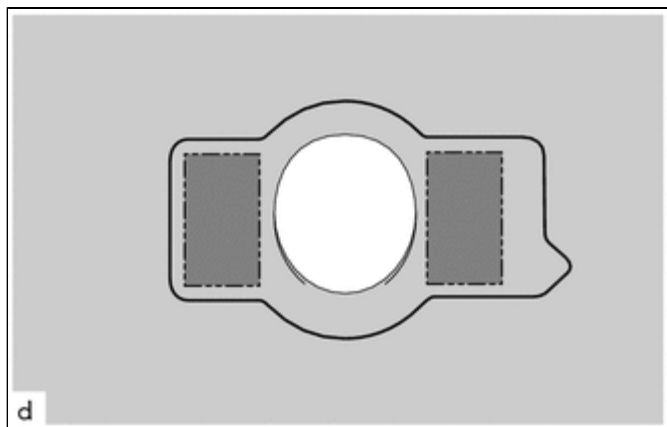
(3) Attach the claws (1) to install the rear center ultrasonic sensor (2) to a new No. 2 ultrasonic sensor retainer (3).


HINT:

To align the positions of the rear bumper assembly and ultrasonic sensor, assemble the rear center ultrasonic sensor (2) and No. 2 ultrasonic sensor retainer (3) as a single part.



(4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 2 ultrasonic sensor retainer as shown in the illustration.



	No. 2 Ultrasonic Sensor Retainer Installation Surface
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(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 2 ultrasonic sensor retainer.

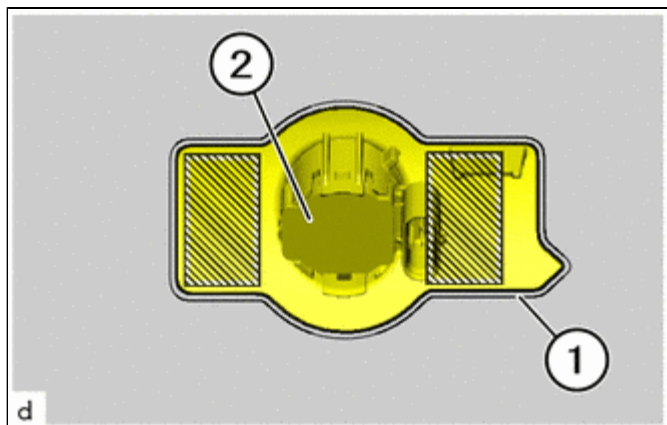
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 2 ultrasonic sensor retainer and rear center ultrasonic sensor (2) with the scribed line (1) on the rear bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the rear bumper assembly and the rear center ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 2 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 2 ultrasonic sensor retainer with a new one.



	Press area
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HINT:

Press the area shown in the illustration with a force of to securely install the No. 2 ultrasonic sensor retainer to the rear bumper assembly. Confirm there is no clearance between the No. 2 ultrasonic sensor retainer and rear bumper assembly.

(8) Attach the clamp.

2. INSTALL REAR CENTER ULTRASONIC SENSOR

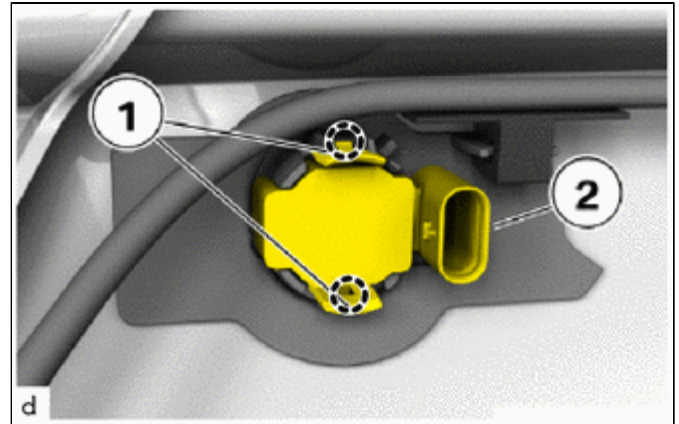
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) When removing or replacing the rear center ultrasonic sensor:

(1) Install the ultrasonic sensor O-ring.

(2) Attach the claws (1) to install the rear center ultrasonic sensor (2).



(b) Connect connector and lock.

3. INSTALL REAR SIDE ULTRASONIC SENSOR

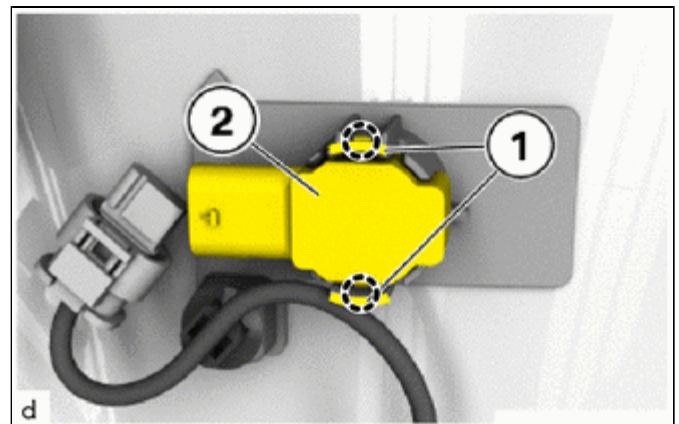
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) When removing or replacing the rear side ultrasonic sensor:

(1) Install the ultrasonic sensor O-ring.

(2) Attach the claws (1) to install the rear side ultrasonic sensor (2).



(b) Connect connector and lock.

4. INSTALL REAR CORNER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the rear side ultrasonic sensor.

5. INSTALL REAR BUMPER ASSEMBLY

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