

#### INTRODUCTION

Thank you very much for selecting this Serpent rc car and thus become a member of the ever growing worldwide Serpent racing family. Serpent started in 1980 and has been growing its product-line and fan -base ever since.

The Serpent SRX4 Gen3 is a state of the art 1/10 scale 4wd buggy. which will give you the true Serpent racing experience. The assembly manual will guide you through all the steps to complete the car, so you can hit the track with a good base set-up. The Serpent design department succeeded to create a superbly performing car combined with ease of assembly and maintenance. The high quality standards of all parts and hardware will make racing your Serpent car a very rewarding activity!

Through our team, website and social media we will keep you up-to-date on all developments of the Serpent cars. We hope to meet you on the track and through our various media! Enjoy the drive!

Team Serpent Multiple World Champions

#### Instructions

Serpent's long tradition of excellence extends to the instruction manuals, and this instruction manual is no exception. The easy-to-follow layout is richly illustrated with 3D-rendered full-color images to make your building experience quick and easy. Following the instructions will result in a well-built, high-performance race-car that will soon be able to unleash its full potential at the racetrack. The kit includes bags, with bag numbers, which refer to the same step in the manual. Open only the indicated bag(s) per step and finish that part of the assembly. Remaining parts will be needed lateron in the assembly process.

#### PLASTIC PARTS

The Serpent moulded parts are very durable and hard. When assembling longer screws in new composite parts, make sure to use new hex bits in your (power) tools. Pre-threading also helps to avoid screw damage.

#### SETUP

In certain assembly steps you need to make basic adjustments, which will give you a good initial setup for your Serpent SRX4 Gen3. Fine-tuning the initial setup is an essential part of building a high-performance racecar like your Serpent SRX4 Gen3.

#### EXPLODED NIEWS AND PARTS LIST

The exploded views and parts lists for the Serpent SRX4 Gen3 are presented in the Reference Guide section in the back of this manual. The exploded views show all the parts of a particular assembly step along with the Serpent part number and hotlink to the Serpent website. Part numbers in orange indicate that this part is an optional. Optionals part names and numbers are showed below.

#### CUSTOMER SERVICE

Serpent has made a strong effort to make this manual as complete and clear as possible. Additional info may be published in our website: www.serpent.com or you may ask your dealer or the Serpent distributor for advice, or email Serpent direct: info@serpent.com. The Serpent Facebook, Twitter and Youtube pages give additional means of support and communications.

#### **SAFETY**

Read and take note of the 'Read this First section' before proceeding to assemble the car-kit. This car-kit is intended for persons aged 16 or older.

#### READ THIS FIRST!

- This is a highly technical hobby product, intended to be used in a safe racing environment. This car is capable of speeds in excess of 80 km/h or 50mph. Please follow these guidelines when building and operating this model.
- Parental guidance is required when the builder/user of this car is under 16.
- Follow the building instructions. If in doubt, contact your dealer or importer.
- Be sure to use the proper tools when assembling the car. Always exercise caution when using electric tools, knives and other sharp objects.
- Be careful when using liquids like lubrication oil, fuel or glue. Do not swallow.
- Follow the manufacturer's instruction in case you experience irritation after using the product.
- Be careful when operating the car. Stay away from any rotating parts such as wheels, gears and transmission. Stay away from motor, engine and exhaust pipe system or speedo during and immediately after use, as these parts may be very hot. We advise to use protective hand cloves.
- Only operate this car in a safe environment, like a special racing track or a closed parking lot. Avoid using this car on public roads, crowded places or near infants.
- Before operating this car, always check the mechanical status of the car. Also check that the transmitter and receiver frequencies correspond and are not used by any other racer at the same time. Check that the batteries of the transmitter and receiver- are fully charged.
- After use, always check all the mechanics of the car. We advise to clean the car immediately after use, and inspect the parts for wear or fractures. Replace when necessary. Do not use water, methanol, thinner or other solvents to clean the car.
- Empty the fuel tank (depending on model) if needed and disconnect the receiver battery.
- Store the car in a dry and heated place to avoid corrosion of metal parts.
- Avoid using this car in wet conditions as the water will cause corrosion on the metal parts and bearings and these parts will cease to function properly. If driven in the wet, ensure that all the electric equipment is waterproofed and after use, that all moving parts are dried immediately.

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#### HOW TO USE THE MANUAL





#### LINES DESCRIPTION

Each step contains a variety of numbers, lines, and symbols. The numbers represent the order in which the parts should be assembled. The lines are described below.

1 2 3	Step number; the order in which you should assemble the indicated parts		
<b>-</b>	Length after assembly		
	Assembly path of one item into another		
	Group of items (within lines) should be assembled first		
-	Direction the item should be moved		
<del>-</del>	Glue one item to another		
0	Connect one item to another		
<u> </u>	Gap between two items		
	<b>D</b>		

Press/Insert one item into another

#### ICONS DESCRIPTION

Each step contains a variety of symbols described below.



Carefully, read and check extensively.



Apply a small amount of cyano glue. Use wear protection for eyes and hands.



Detail view to explain assembly or order of parts better.



Default set-up: This symbol indicates the default setup.



Grease: apply a small amount of grease to the parts shown.



Silicone grease: apply a small amount of grease to the parts shown.



Thread lock: apply a small amount on the parts shown. Before to apply the threadlock, make sure to degrease the parts very well, as otherwise the threadlock will not work.



Silicone oil: use the indicated silicone oil for the shocks and differentials.



Oil: apply a small amount of oil to the parts shown.



Left and right parts should be assembled in the same way.



Parts or items not included in the kit.



Optional part, not standard in the kit.

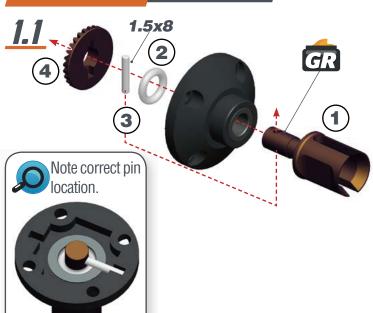


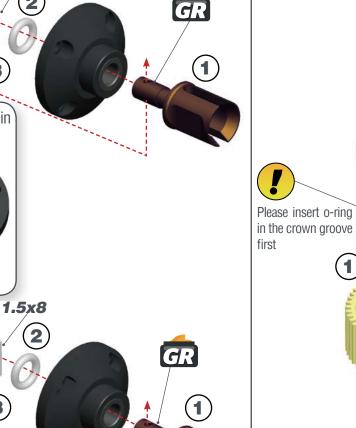


DIFF BAG RR

STEP 2

STEP 3

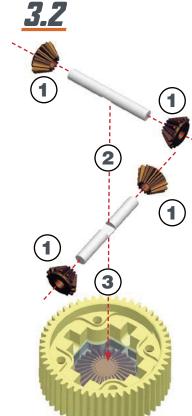




**3.1** Add just enough oil to cover the large gear before assembling the small satellite gears and cross

Use the silicone oil supplied in the kit. For the correct cst value please check the default setup-sheet.





1.5x8





Fit the o-ring before finishing the filling of the differential.



Fill the differential to the brim with silicone oil, do NOT overfill.

Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.





# AMOUNT OF OIL IN THE DIFFS

Use a digital scale to measure the exact amount of oil in the

Differential weight should be 17.3 - 17.5 grams.























#### FRONT DIFF ASSEMBLY





## STEP 6

DIFF BAG FR

## STEP 7

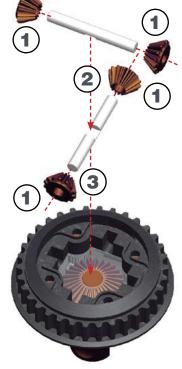
STEP 8

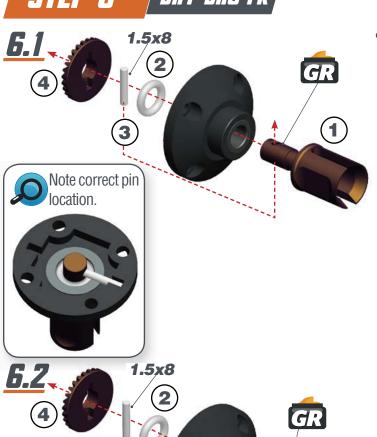


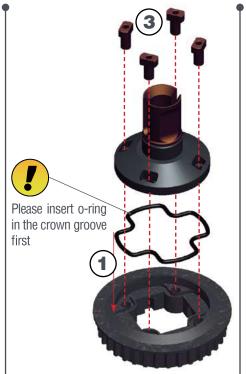
Use the silicone oil supplied in the kit. For the correct cst value please check the default setup-sheet.











1.5x8

 $(\mathbf{1})$ 













Fill the differential to the brim with silicone oil , do NOT overfill.

Use the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.





#### AMOUNT OF OIL IN THE

Use a digital scale to measure the exact amount of oil in the

Differential weight should be 19.0 - 19.15 grams.













Apply some CA glue to fix the flange to the front diff.

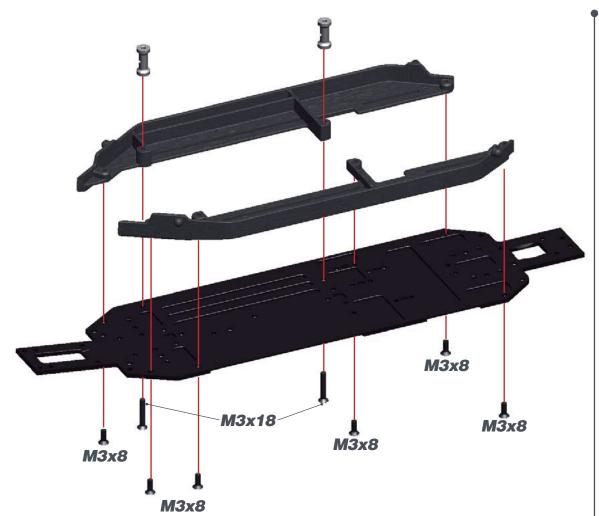




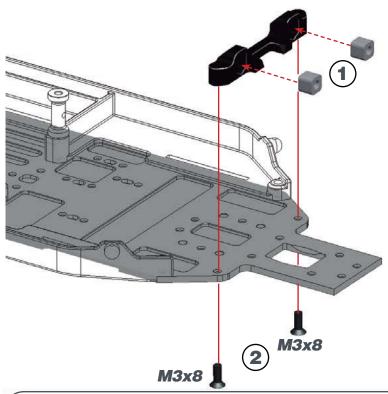




BAG 1



## STEP 12









Please find qty. 2 Centered Inserts. These 0 inserts are the default setup and should be installed into this RR FR Toe block. Additional information can be found on page 21, for how you can use the inserts to adjust toe-in, anti-squat, and pivot width.



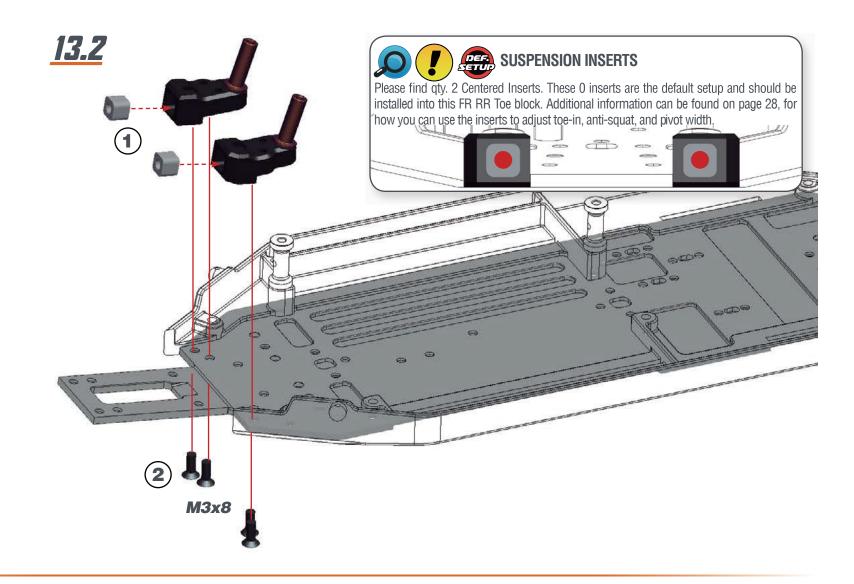








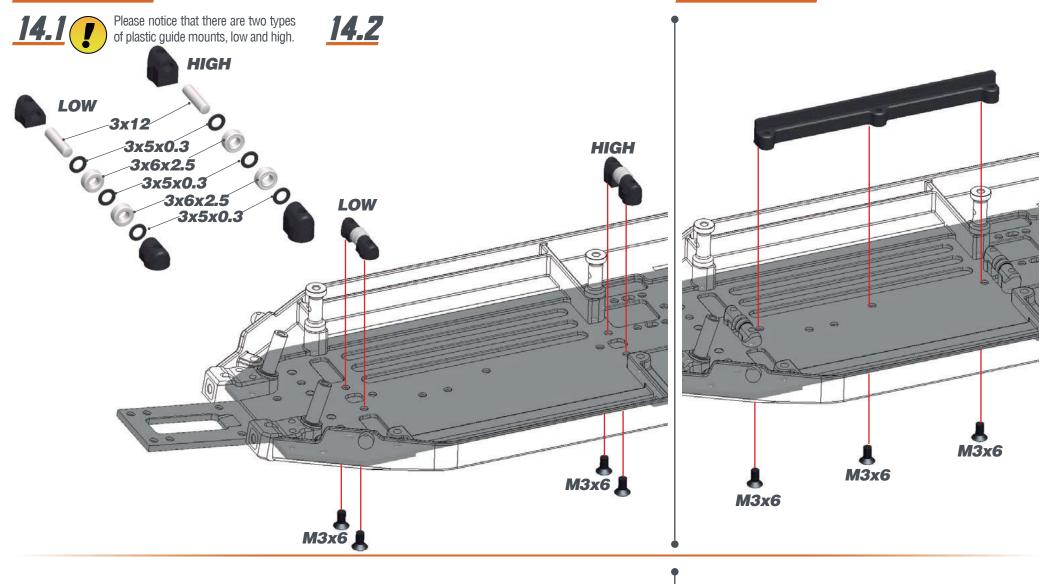




















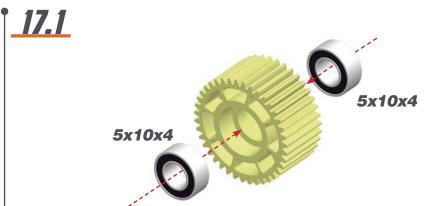


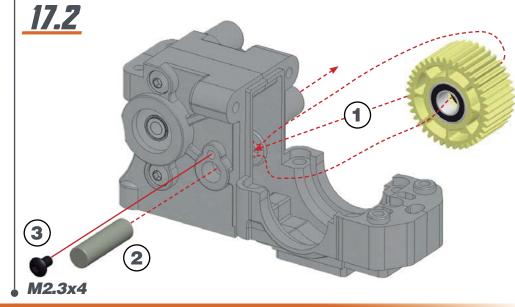


STEP 16 BAG 2











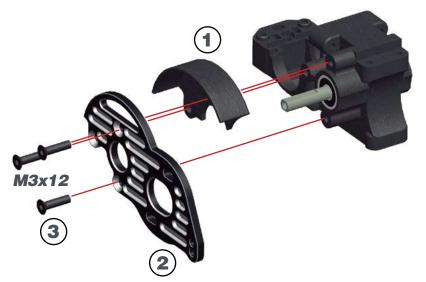


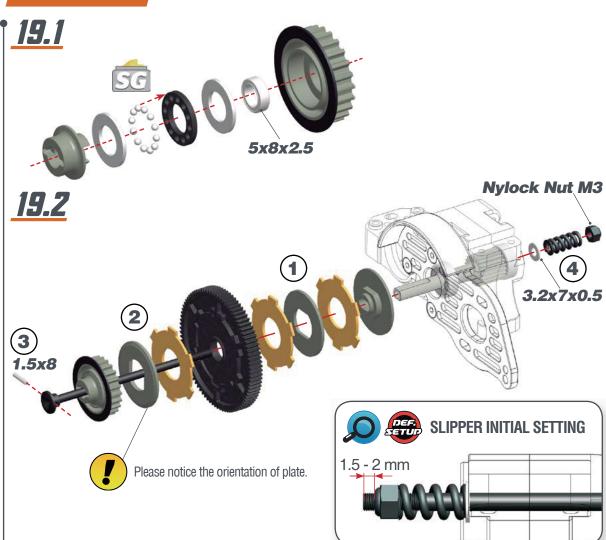






















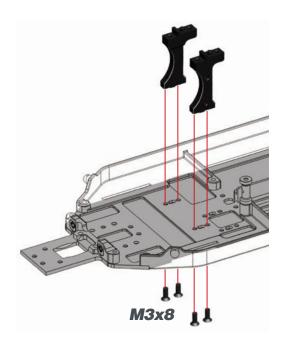


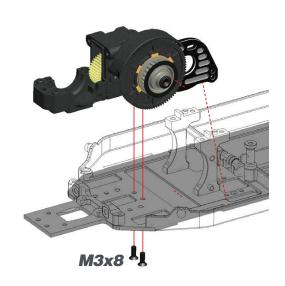


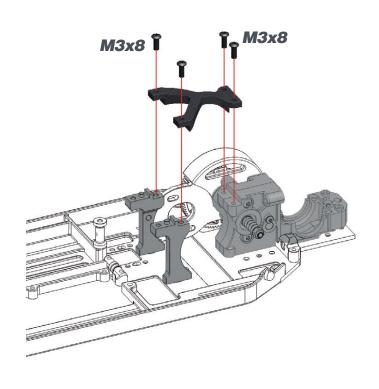
*STEP 20* 

<u> 20.1</u>









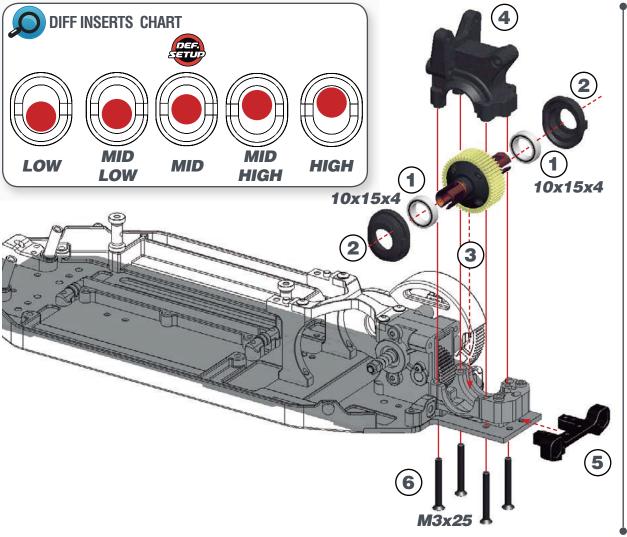


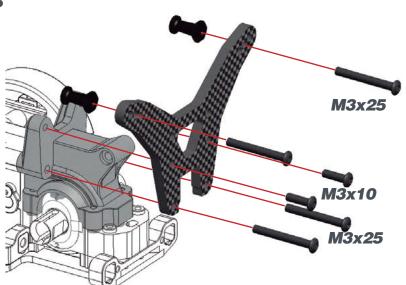






## STEP 22 BAG 3



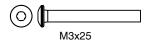






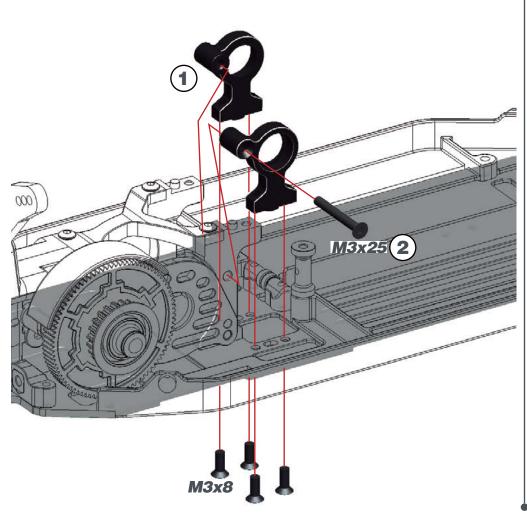


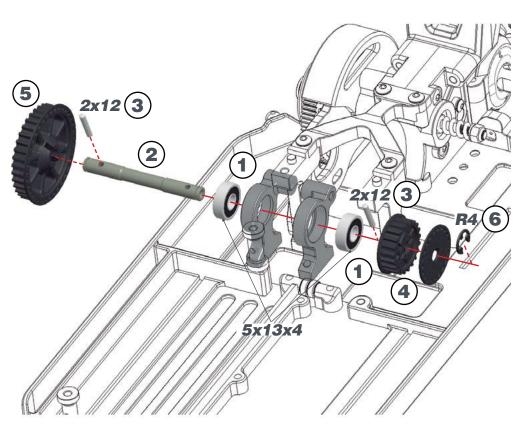


























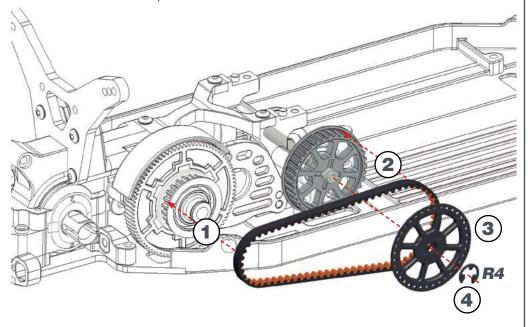
#### Assembly order:

1- Install the belt onto the LSD slipper pulley.

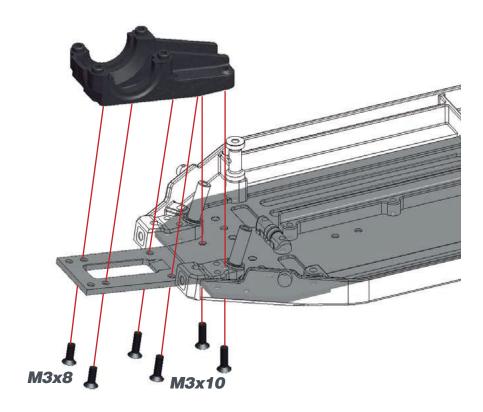
2- Roll the belt onto the 36t pulley.

3- Install the flange.

4- Assemble the circlip.



# STEP 27 BAG 4



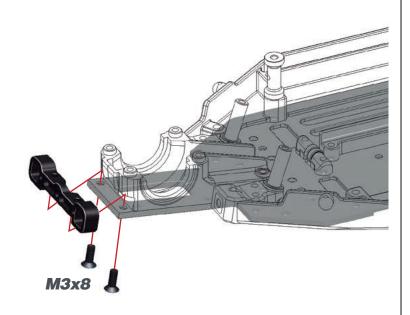


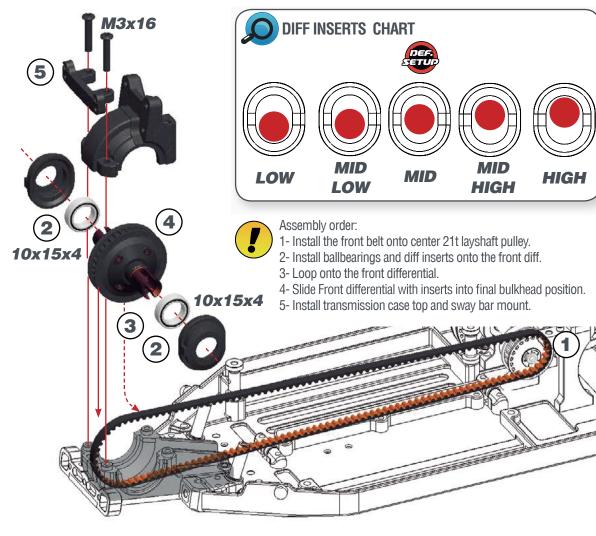












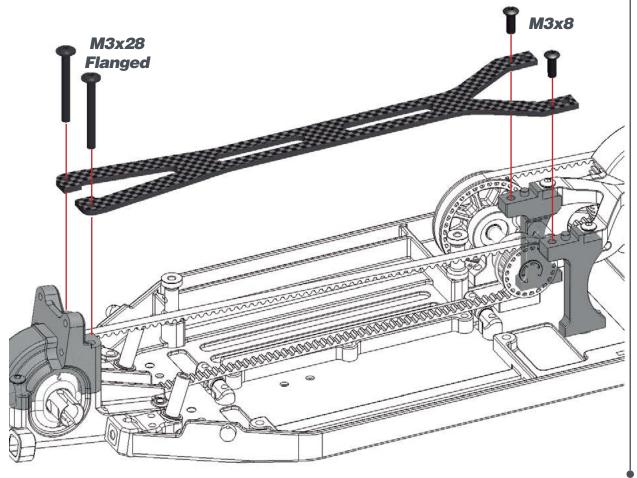


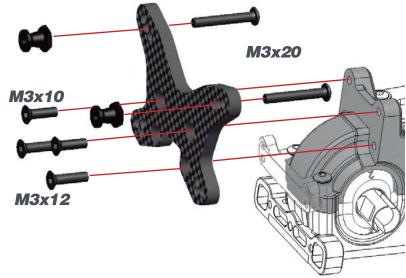




















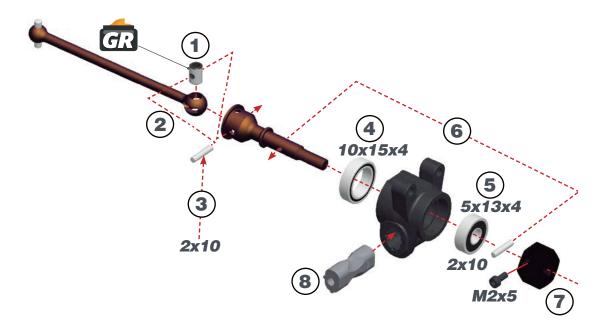






BAG 5



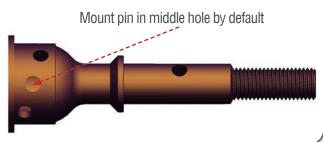






#### **L=R** REAR WHEEL-AXLE PIN FOR DRIVESHAFT POSITION

The axle has 3 pivoting choices. The shallowest hole will provide more chassis roll / less roll stiffness. The deepest hole will reduce chassis roll / increase roll stiffness. The center hole is recommended as its neutral.



REAR AXLE HEIGHT AND OFFSET INSERTS						
Wide Offset		Narrow				
L R	 	L	R			
Omm	0mm		$\bigcirc$			
(i) (ii) 0.5mm	0.5mn		$\bigcirc$			
(i) (ii) 1mm	1mm		$\bigcirc$			
(i) (ii) 1.5mm	1.5mn		$\bigcirc$			
per O 2mm	2mm	$\bigcirc$				
② 2.5mm	2.5mn		$\bigcirc$			
<b>3mm</b>	3mm					

- 1) The axle height adjustment will give you the ability to adjust the roll center for various traction conditions. Typically in lower grip, you will run 0,+0.5,1 or 1.5mm / lower roll centers. In higher grip conditions you will want to use +2,2.5,3mm / higher roll centers.
- 2) The width offset will give you more versatility to adjust the track width, axle location and hex width. Especially useful when using Longer rear arm.

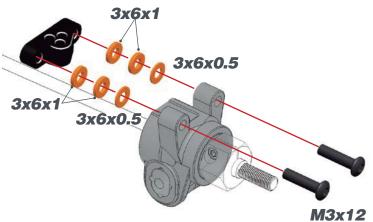




















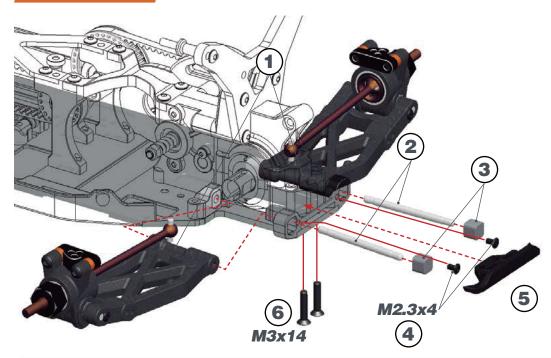








#### STEP 35 BAG 6



#### SIMPLIFIED EXPLANATION OF THE REAR SUSPENSIONSION INSERTS

Example A: RR FR toe block inserts are 0°, RR RR toe block inserts are also 0°. This instance will produce 3° toe in and 1° anti-squat. This is default setting.

Example B: RR FR toe block inserts have been changed to centered 0.5° UP. The inserts in the RR RR toe block remain 0°. This will produce 3° toe in and 1.5° anti-squat.

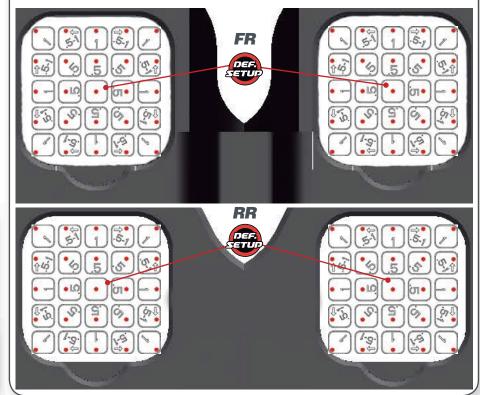
Example C: RR FR toe block inserts remain 0°. The RR RR toe block inserts have been changed to 0.5° centered inward. This will product 2.5° toe in and 1° anti-squat.





Below is a diagram of every possible orientation of the compete 7 inserts system. You are able to move 0.5 or 1 degree in any direction from center. We also have 2 special inserts to fill 0.5° left and right offset, by 1° height, as seen in the diagram. Depending on your setup, the range of toe in is 1°, up to 5°. The anti squat range is -1 (pro Squat) up to 3° anti-squat.

The default is centered inserts in both the FR FR toe block and RR RR toe block. This produces 3° toe in and 1° anti squat.













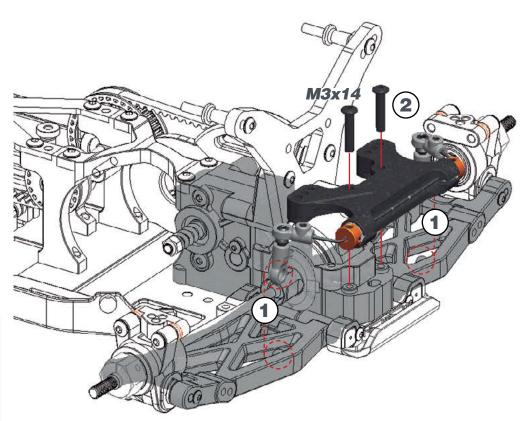


3 M3x3





1.3mm (1.3mm)



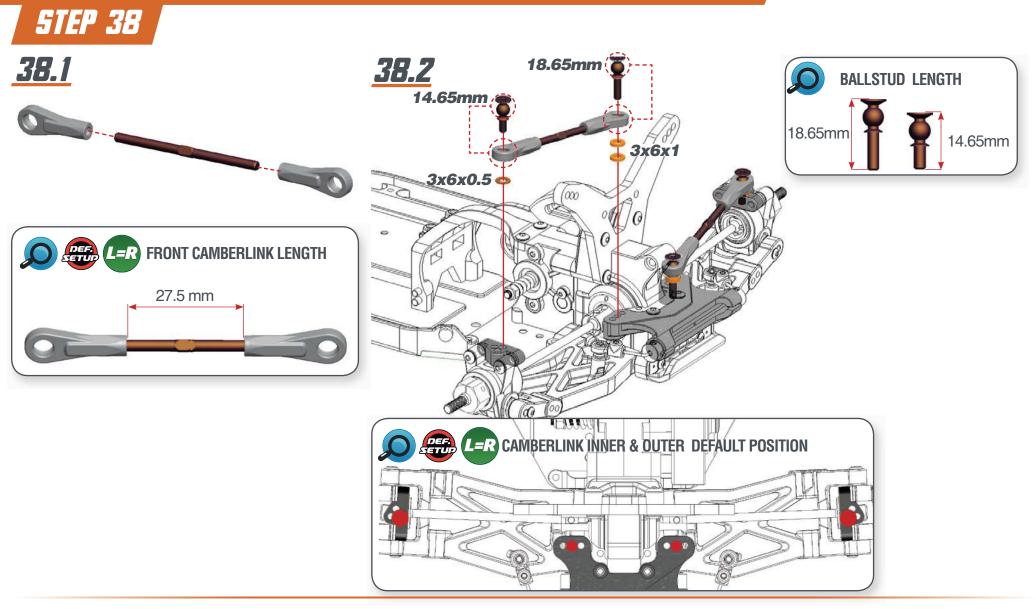










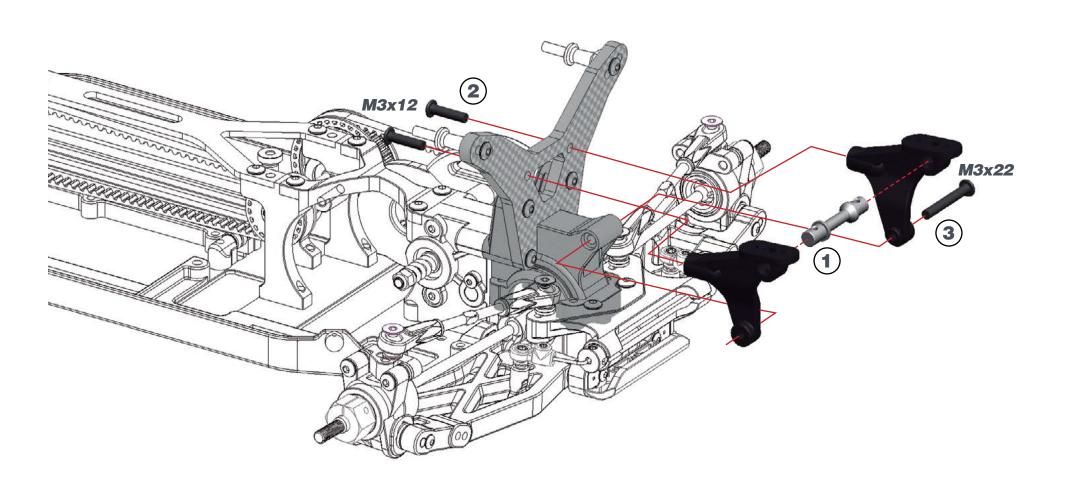




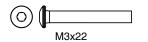










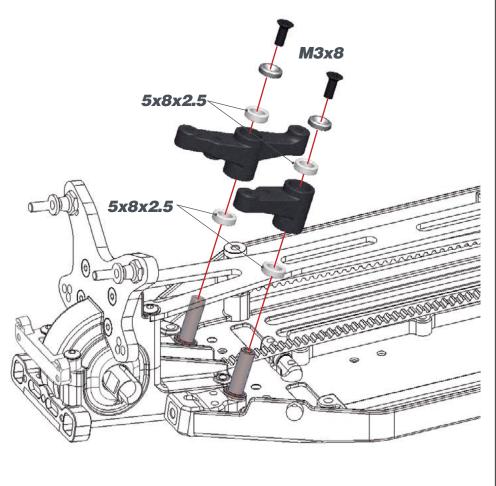


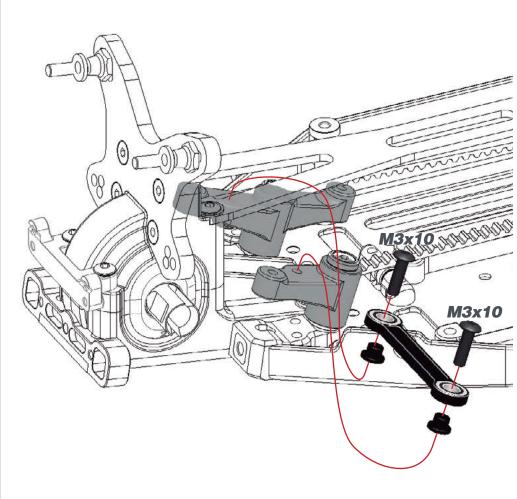




STEP 40 BAG 7







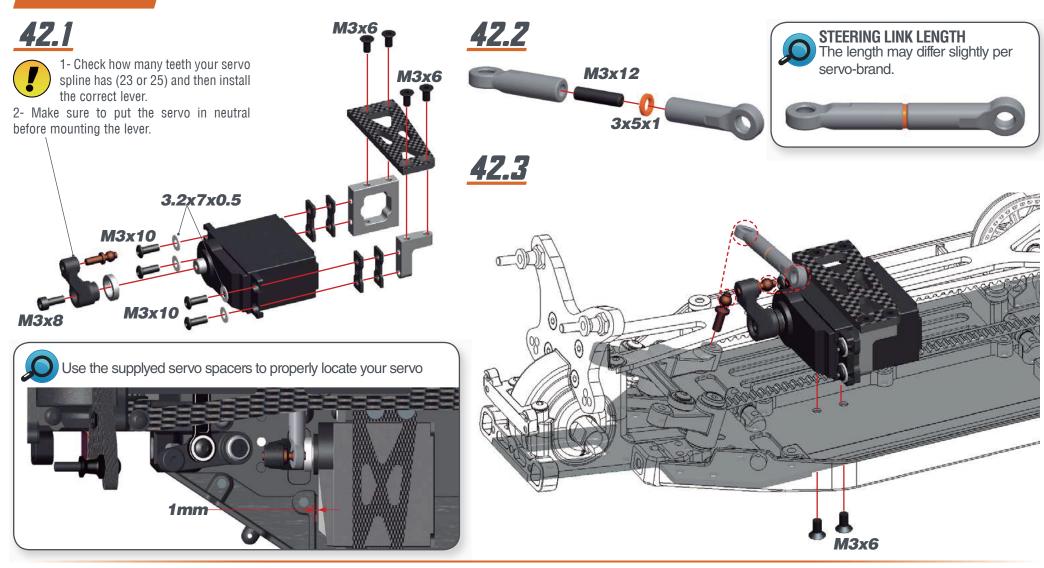




























## STEP 43 BAG 8













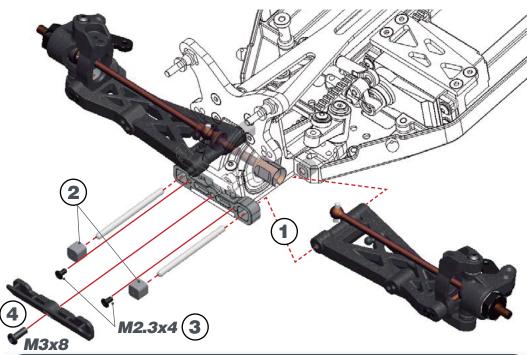








#### STEP 45 BAG 9



#### SIMPLIFIED EXPLANATION OF THE FRONT SUSPENSIONSION INSERTS

Example A: FR/RR toe block inserts are 0°, FF/FF toe block inserts are 0°. This instance will produce 0° toe angle, and 8° degrees of kickup

Example B: FR/RR toe block inserts are 0°, FF/FF toe block inserts are 0.5° up. This instance will produce 0° toe angle, and 8.5° degrees of kickup

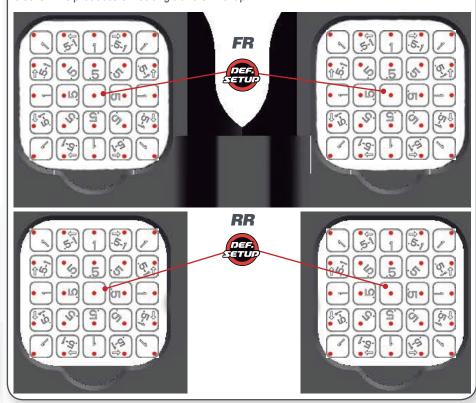
Example C: FR/RR toe block inserts are 0.5° in, FF/FF toe block inserts are 0°. This instance will produce 0.5° toe out angle, and 8° degrees of kickup.





Below is a diagram of every possible orientation of the complete 7 insert system. You are able to move 0.5 to 1 degree in any direction from center. We also have two special inserts to fill 0.5° left and right offset,by 1° height as shown in the diagram.

Depending on your setup, inboard toe angle is -2° to +2°. The kickup range is from 6° to 10° kickup at the inner hinge pin. The default is centered inserts in both the FR/RR and FF/FF toe blocks. This produces 0° toe angle and 8° kickup.

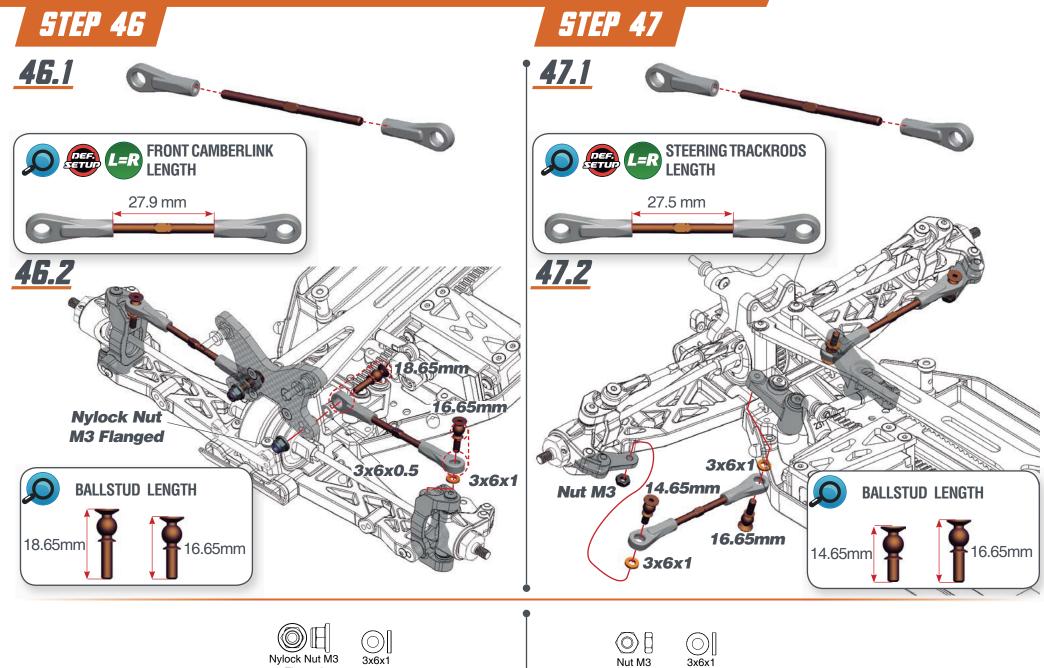








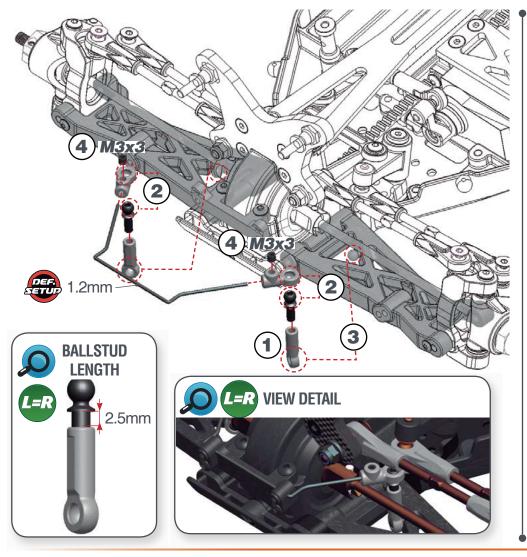


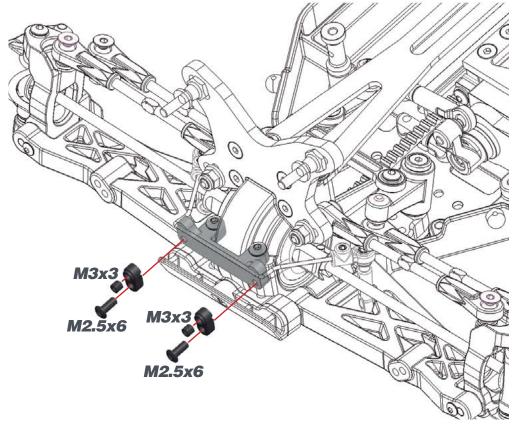


Flanged













#### SHOCKS ASSEMBLY



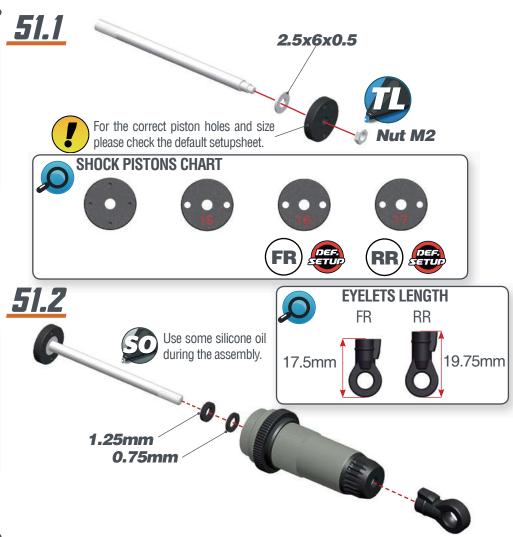


#### BAG 10 FR SHOCKS / BAG 11 RR SHOCKS STEP 51 STEP 50











2.5x6x0.5



# Salar gen3

STEP 53

#### **STEP 52**

#### *52.1*

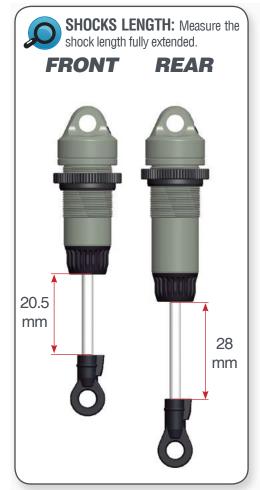
- 1- Fill up with sillicone oil fully using the silicone oil supplied in the kit. For the correct cst value please check the default setupsheet.
- 2- Extend the shockrod fully
- 3- Move the shockrod slowly up and down to let ALL air bubbles escape.
- 4- Apply the gasket and cap and close fully.

#### *52.2*

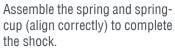
1-Bleed: push the shockrod all the way in slowly, to allow excessive oil to escape.

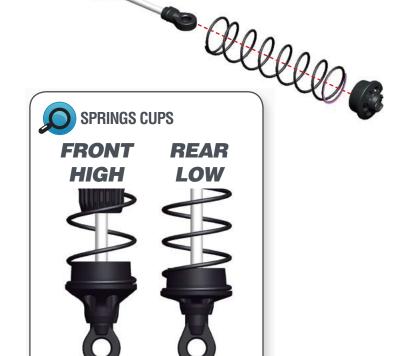
2- With shockrod fully in, mount the o-ring and screw.





Assemble the society and covier



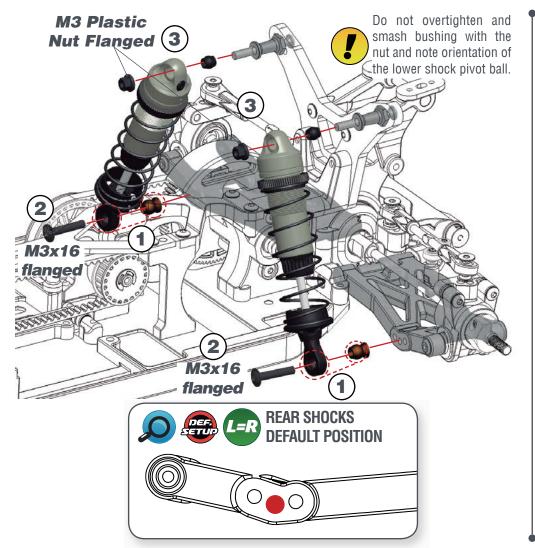


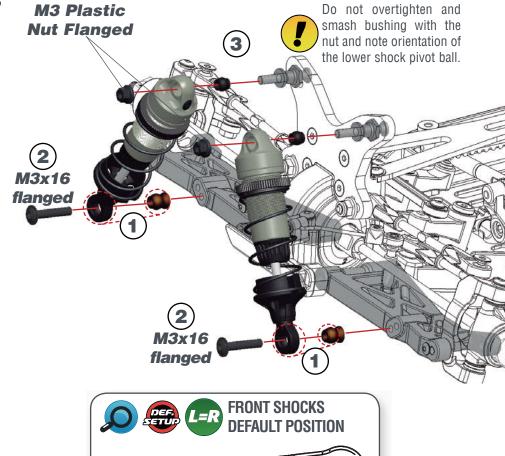






## STEP 54 BAG 12







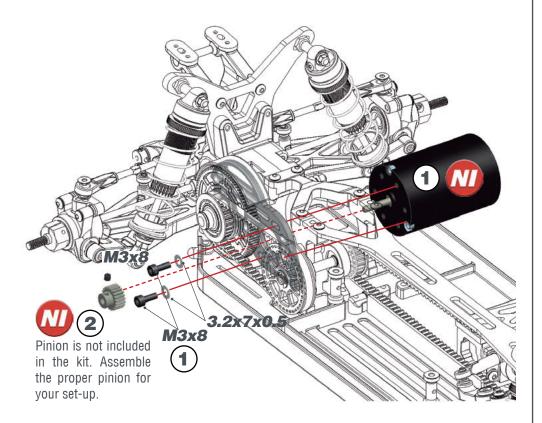








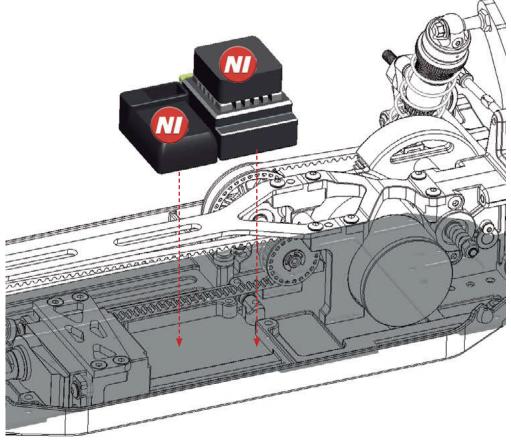




## STEP 57



Use double sided tape to mount the ESC and RX to the chassis.

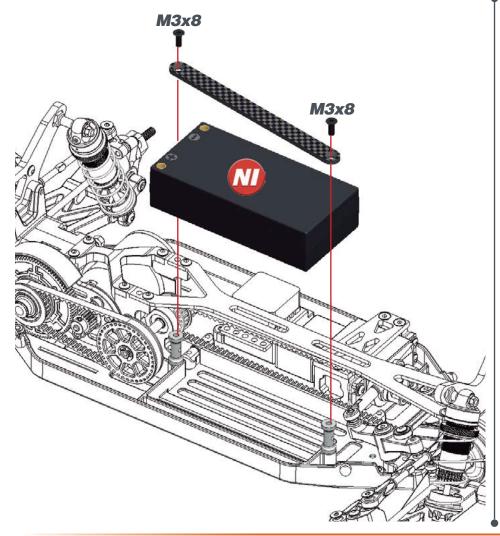


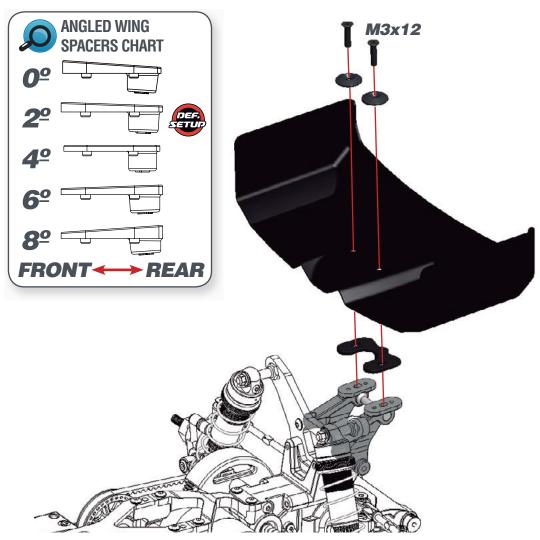










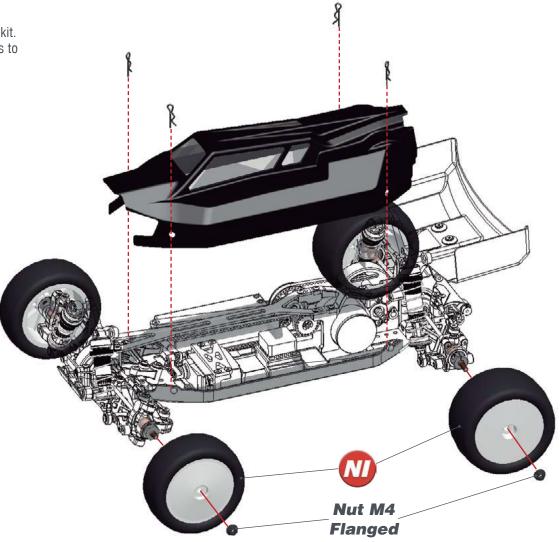








1- Rims included in the kit.
2- Rubber tyres not included in the kit.
3- Be sure to glue your rubber tyres to the wheels using Cyanoacrylate glue.









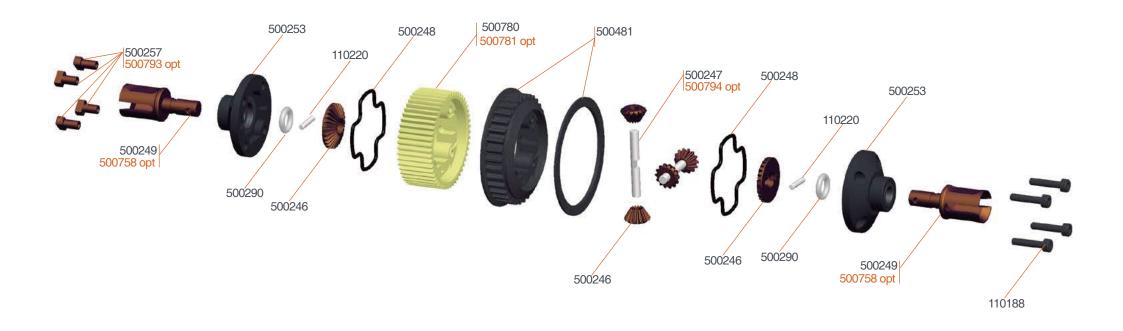
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#### 500790 Geardiff set 51T SRX2 Gen3



411069 Differential balls steel 1/8" (12)

411107 Diff balls. 1/8 ceramic (12)

500259 Differential balls carbide 1/8

500256 Thrustbearing carbide balldiff SRX2

500781 Geardiff housing 51T LF SRX2 Gen3

500782 Diff pully balldiff 51T LF SRX2 Gen3

OPT 500791 Balldiff set 51T SRX2 Gen3

500793 Geardiff nut alu (4) SRX2

500794 Diff pin 14T alu (2) SRX2

500168 Diff ring balldiff (2) SRX2

500169 Balldiff outdrive male SRX2

500170 Balldiff outdrive female SRX2

500172 Balldiff bolt (2) SRX2

500173 Balldiff thrustbearing SRX2

500187 Balldiff T-nut (2) SRX2

500448 Geardiff housing alu SRX

500459 Oneway pulley 34T fr SRX4

500460 Balldiff pulley 34T fr SRX4

500484 Geardiff 34T fr SRX4

500485 Geardiff rr alu SRX

500731 Diff pully balldiff 51T SRX2 Gen3

500758 Geardiff outdrive long (2) SRX2 Gen3

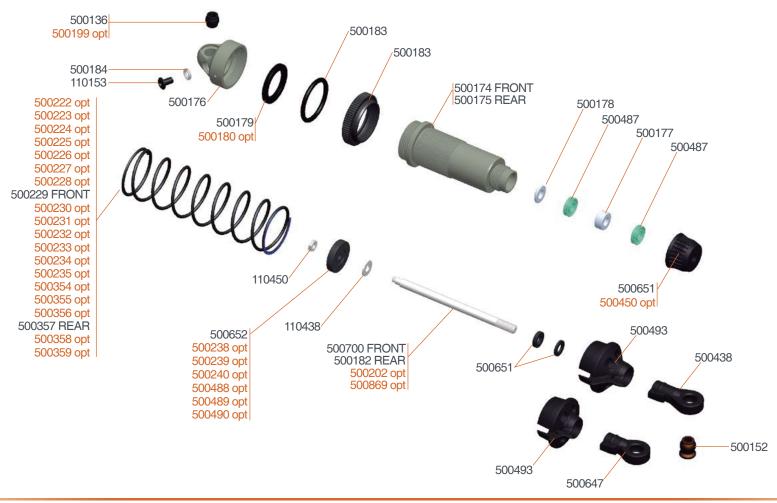
500782 Diff pully balldiff 51T LF SRX2 Gen3

500790 Geardiff set 51T SRX2 Gen3

#### SHOCKS EXPLODED NIEW







500450 Shock bottom cap alu (4) SRX

500488 Shock piston square machined 2-hole 1.3 (4)

500489 Shock piston square machined 3-hole 1.2 (4)

500490 Shock piston square machined 4-hole 1.1 (4)

500202 Shock shaft rr TiN coated (2) SRX2

500180 Shock membrame (4) SRX2

500222 Shock spring silver 2,5lbs fr (2) SRX2

500223 Shock spring black 2,65 fr (2) SRX2

500224 Shock spring orange 2,87lbs fr (2) SRX2

500225 Shock spring red 3,0lbs fr (2) SRX2

500226 Shock spring pink 3,15lbs fr (2) SRX2

500227 Shock spring blue 3,4lbs fr (2) SRX2

500228 Shock spring purple 3,5lbs fr (2) SRX2

500229 Shock spring green 3,7lbs fr (2) SRX2

500230 Shock spring orange 2,0lbs rr (2) SRX2

500231 Shock spring red 2,1lbs rr (2) SRX2

500232 Shock spring pink 2,2lbs rr (2) SRX3

500233 Shock spring blue 2,3lbs rr (2) SRX2

500234 Shock spring purple 2,4lbs rr (2) SRX2

500235 Shock spring green 2,5lbs rr (2) SRX2

500354 Shock spring orange 1.8lbs rr astro (2) SRX2

500355 Shock spring red 1.9lbs rr astro (2) SRX2

500356 Shock spring pink 2.0lbs rr astro (2) SRX2

500357 Shock spring blue 2.1lbs rr astro (2) SRX2

500358 Shock spring purple 2.2lbs rr astro (2) SRX2

500359 Shock spring green 2.3lbs rr astro (2) SRX2

500869 Shockshaft fr TiN coated (2) SRX Gen3

500199 Shock top bushing delrin (4) SRX2

500238 Shock piston conical 2 holes (4) SRX2

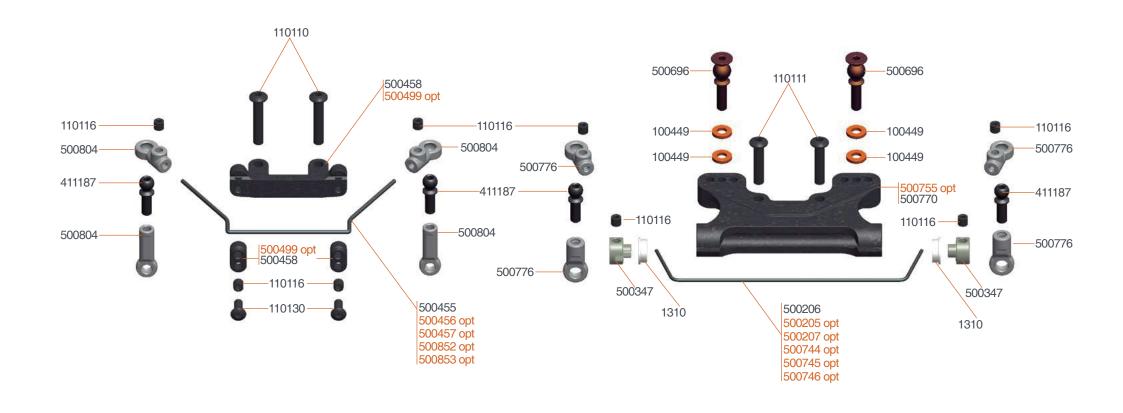
500239 Shock piston conical 3 holes (4) SRX3

500240 Shock piston conical 4 holes (4) SRX4









# CENTER CHASSIS ASSEMBLY EXPLODED NIEW





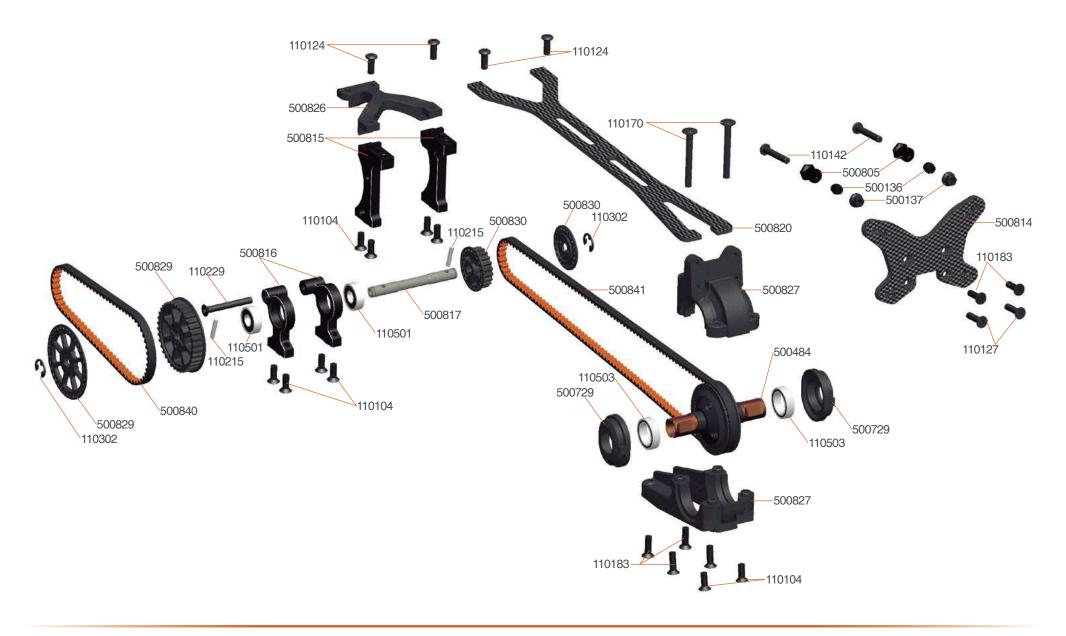




# MID-FRONT TRANSMISSION EXPLODED VIEW





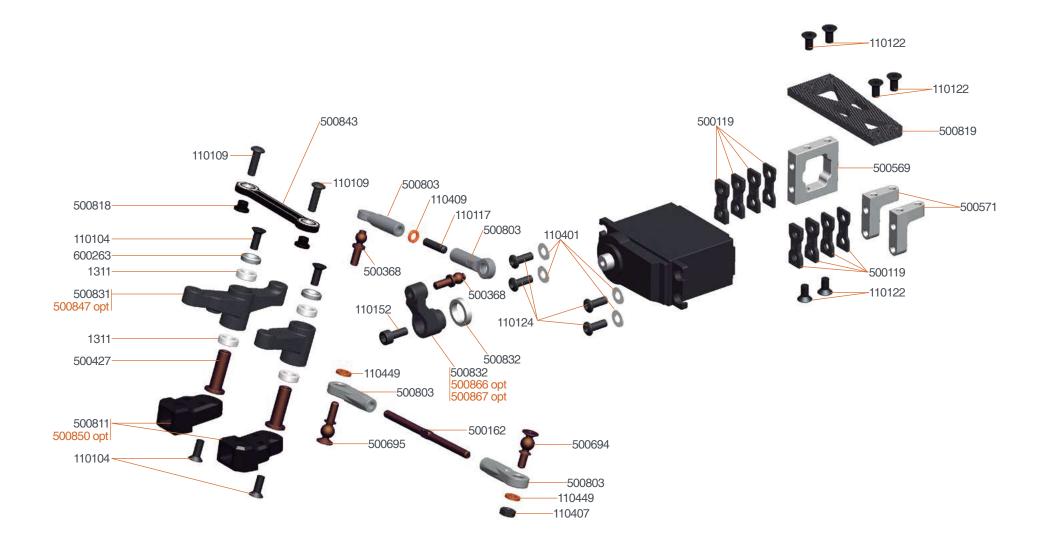




# STEERING SERVO ASSEMBLY EXPLODED VIEW



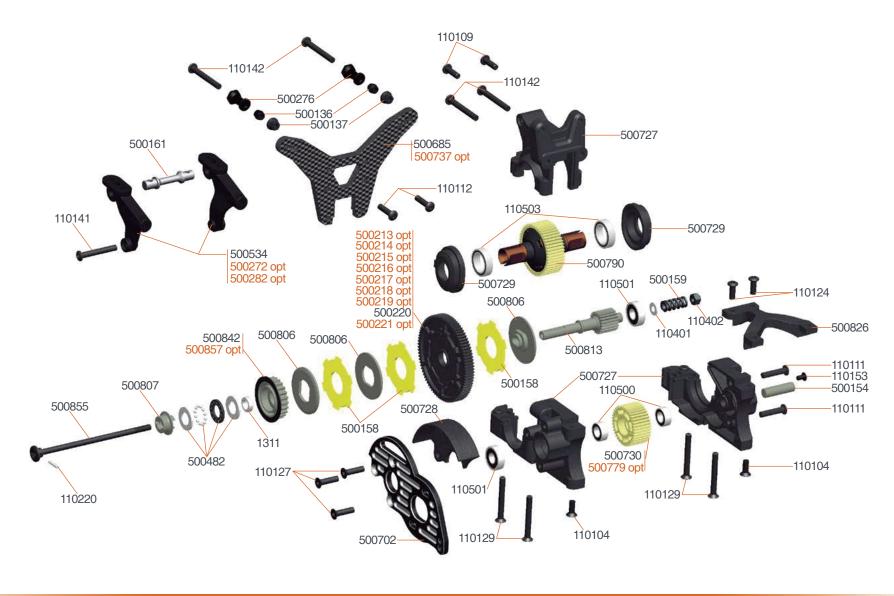




#### REAR TRANSMISSION EXPLODED NIEW









500217 Spur gear 80T SRX2 500218 Spur gear 82T SRX2 500219 Spur gear 84T SRX2 500221 Spur gear 88T SRX2 500272 Wingmount-set SRX2 MM 500282 Wingmoung low SRX2 mm 500737 Shocktower rr low carbon SRX2 Gen3 500779 Idler gear 39T LF SRX2 Gen3 500856 Slipper Set 24T FT SRX4 Gen3 500857 Slipper Pulley 24T FT SRX4 Gen3















500262 Pivot pin fr inner / rr outer TiN coated (2) SRX2 500740 Wheelaxle short (2) SRX2 Gen 3

500748 Suspension bracket mid RR-FR SRX2 Gen3

500749 Suspension bracket mid RR-RR SRX2 Gen3

500750 Suspension bracket wide RR-FR SRX2 Gen3

500751 Suspension bracket wide RR-RR SRX2 Gen3

500752 Suspension bracket narrow RR-FR brass SRX2 Gen3

500753 Suspension bracket mid RR-FR brass SRX2 Gen3

500754 Suspension bracket wide RR-FR brass SRX2 Gen3

500784 Driveshaft rr 69mm SRX2 Gen3

500785 Driveshaft rr 68mm SRX2 Gen3

500190 Driveshaft rr 65mm (2) SRX2 500539 Wishbone rr L+R SRX2 MM V2 hard

500540 Wishbone rr L+R long SRX2 MM

500541 Wishbone rr L+R long SRX2 MM hard 500690 Wheelhexacon +2mm (2) SRX2 Gen3 500691 Wheelhexacon 0mm (2) SRX2 Gen3

500692 Wheelhexacon -1mm (2) SRX2 Gen3

500693 Wheelhexacon -2mm (2) SRX2 Gen3

500777 Short offset upright (2) SRX Gen3

500854 Wheelhexagon 0mm (2) SRX4 Gen3











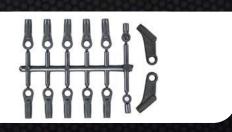
500375 Rear wing 7" (2) SRX 500492 Wing washer alu srx (2) 500622 1/10 buggy rim 4wd FR yellow SDX (2) 500734 Front bulkhead insert alu SRX2 Gen3 500868 Body lightweight SRX4 Gen3

# TEAM SERPENT NETWORK

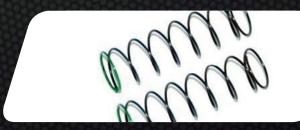
SPYDER SRX4 GEN3 SPARE PARTS www.serpent.com/500015/spares/







SPYDER SRX4 GEN3 OPTIONALS PARTS www.serpent.com/500015/Optionals/









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