Pixel 6a

Repair Manual

Version 3

Google recommends that you seek professional assistance for all device repairs.

Self service repair is not recommended unless you are an adult with the technical expertise to safely repair electronic devices. If you choose to perform self repair, you agree to assume the risk associated with such repair.

Use caution if engaging in repair.

Opening and/or repairing your device can present electric shock, device damage, fire and personal injury risks, and other hazards. Before servicing the product, read the full set of precautions in this document.

Welcome!

We are here to help.

At Google, we innovate, design and build in order to create helpful and sustainable products.
Product longevity is really important to us and repairability is part of that. Repair enables our products to stay in-use and out of landfills.

If you have any questions or need support, please reach out.

support.google.com

This manual is organized into sections for easy and intuitive navigation.

Precautions

Safety is a top priority for Google. Users should work in a safe environment and have the skills and training necessary to safely complete repairs.

Repair flows

Here, we have a flow chart of the most efficient repair methods.

Disassembly

Each section contains a list (in the order of device disassembly) of prerequisite steps, tools, fixtures and parts required to complete the repair.

Assembly

For each disassembly, we provide a guide to reassembly. This may include rework steps for certain components.

Troubleshooting & Testing

Use the diagnostic steps and testing recommended in this section
to identify the source of device problems and issues.

Glossary

All the terms and acronyms you need to communicate with the same language to colleagues and customers.

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Revision History

Version	Date	Change Description
V1.0	May 2022	1st released
V1.1	Oct 2022	1. Revised the screw description of G250-05726-00 from “M1.2 , L4.1” to “M1.2x0.3-4.1, D2.2” (P.18, P19) 2. Revised the usage of G250-05726-00 & G250-06166-00 (P.72, P83) 3. Add alignment line & extra photos in battery process (P.157) 4. Add a caution in Mid-frame assy process. (P.77) 5. Add silicone spatula in standard tool / middle frame tool list / apply thermal grease process (P.28/ P.70/ P.80) 6. Add a repeat return caution in paste conductive fabric (P.84) 7. Add ECO info. of 3M primer in Standard Consumables (P.29) 8. Revise the usage of thermal grease per MLB (P.80) 9. Revise mid-frame step - dssy batty con 1st than clean thermal grease. (P.76) 10. Add caution in Mic1. bracket assy: remove sponge and vent liners (P.142) 11. Moved the second PSA liner tear-off step to after the UDFPS calib. has been installed. (P.65) 12. Add 2 protective films to cover rear camera socket: G806-03422-01, G806-05556-01 (P.37/ P.110/ P.112/ P.113) 13. Delete G949-00248-01 Green color of Enclosure SUB6-India (P.165)
V2.0	June 2023	1. Enhance the description of connect CG BTB (P.63) 2. Add photos of correct and incorrect BTB buckling in UW camera (P.115) 3. Remove the description of “*For reused enclosure*:” in UW & Wide camera (P.115/ P.116) 4. New Add Universal Battery Alignment jig to align and install battery (P.159) 5. New Add Universal Battery Alignment jig in tool list (P.152) & in Essential Fixtures (P.27)
V2.1	Oct 2023	1. Update Enclosure Photo (P.33) 2. Battery top adhesive photo (P.35) 3. Battery Bottom adhesive photo (P.36) 4. Add instruction to peel off liner (P.127) 5. Update Enclosure photo (P.165)
V3	**June 2024**	**1. Removed proprietary references** **2. Added disclaimers** **3. Updated tools and fixtures names and part numbers**

Precautions

Precaution

Important: Before you begin

Be careful if engaging in repair

Opening and/or repairing a device can present electric shock, device damage, fire and personal injury risks, and other hazards.

Always perform repairs in a clean work space with good ventilation and no combustible materials.

Ensure no additional screws or small parts are left in the device after assembly.

Always ensure that screws are securely fastened.

Before servicing the product, read the full set of precautions in this document.

Caution: Batteries should be carefully handled, and can be dangerous when damaged

- Fully discharge device battery before attempting repair.
- Never bend, dent, puncture, or use tools to pry the battery.
- Store batteries in the replacement part packaging as soon as possible after removal to prevent damage.
- If a battery begins to vent, immediately cover in sand or use gloves and tongs to place battery in a fire safe.
- Take care to prevent shorting of battery terminals or damaging the battery, as fire or overheating could result.
- Dispose of the battery in a manner in accordance with local regulations.

Caution: Pixel 6a contains a Class 1 laser module

The design of the device incorporates optics and protective housing such that there is no access to a level of laser radiation above Class 1 during normal use or approved servicing.

Laser modules in this product comply with 21 CFR 1040.10 and 1040.11; except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019.

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Module:
Made in Austria. ams AG, Tobelbader Str. 30, 8141 Oberpremstätten, Austria

Precaution

Important: Before you begin

Caution:
Part handling – Glass

- Wear protective gloves and safety glasses when handling damaged parts.
- Use protective film when removing damaged parts.
- Once removed, immediately store the damaged part in the replacement part packaging to prevent injury.

Tools and fixtures

The use of Google-authorized tools and fixtures is **strongly recommended** in order to repair a device in a safe and effective manner.

Caution:

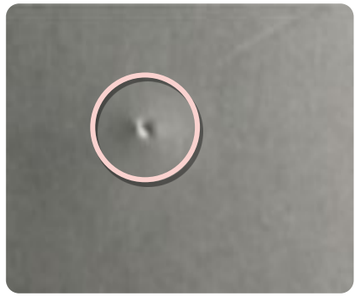
- We don't recommend performing repairs without the specified tools and fixtures.
- Improper use of tools and fixtures may result in injury to yourself, the user of the device or other third parties, as well as damage to the product, tools, fixtures, replacement parts and/or other spare parts.

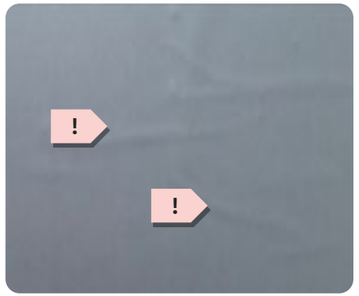
Important: Before Disassembling the Device

- Disconnect the device from all power sources before any disassembly.
- Make sure the battery is fully discharged before any disassembly.
- If the phone battery shows signs of swelling or damage, or if the phone feels hot or emits strong odor, don't attempt disassembly. Please reach out to Google customer support.
- Take care not to expose the phone or its components to liquids once disassembled.

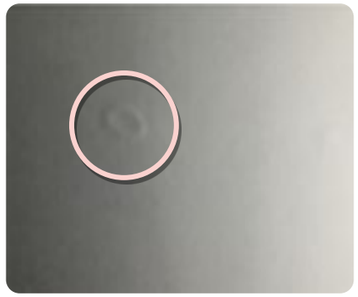
Caution ⚠

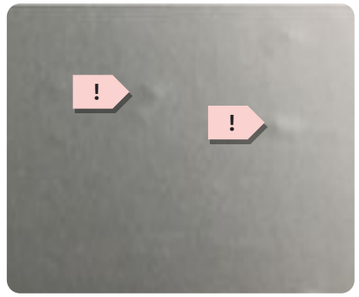
Examples of unacceptable battery conditions - Not suitable for repair*

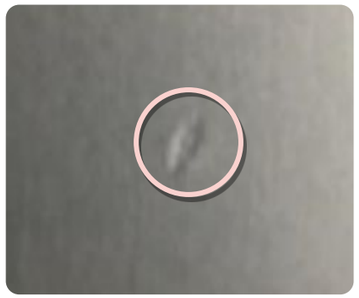

Pouch damage


Line protrusion

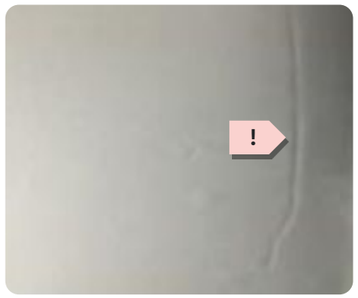

Scratch


Contamination marking


Dot protrusion

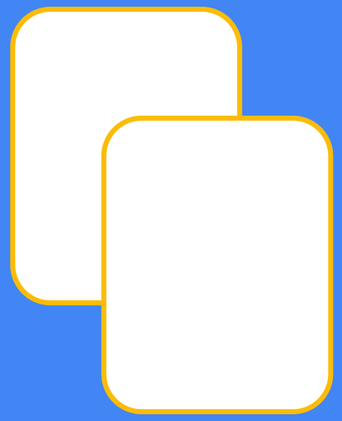

Dent


Bubbling


Imprinted line

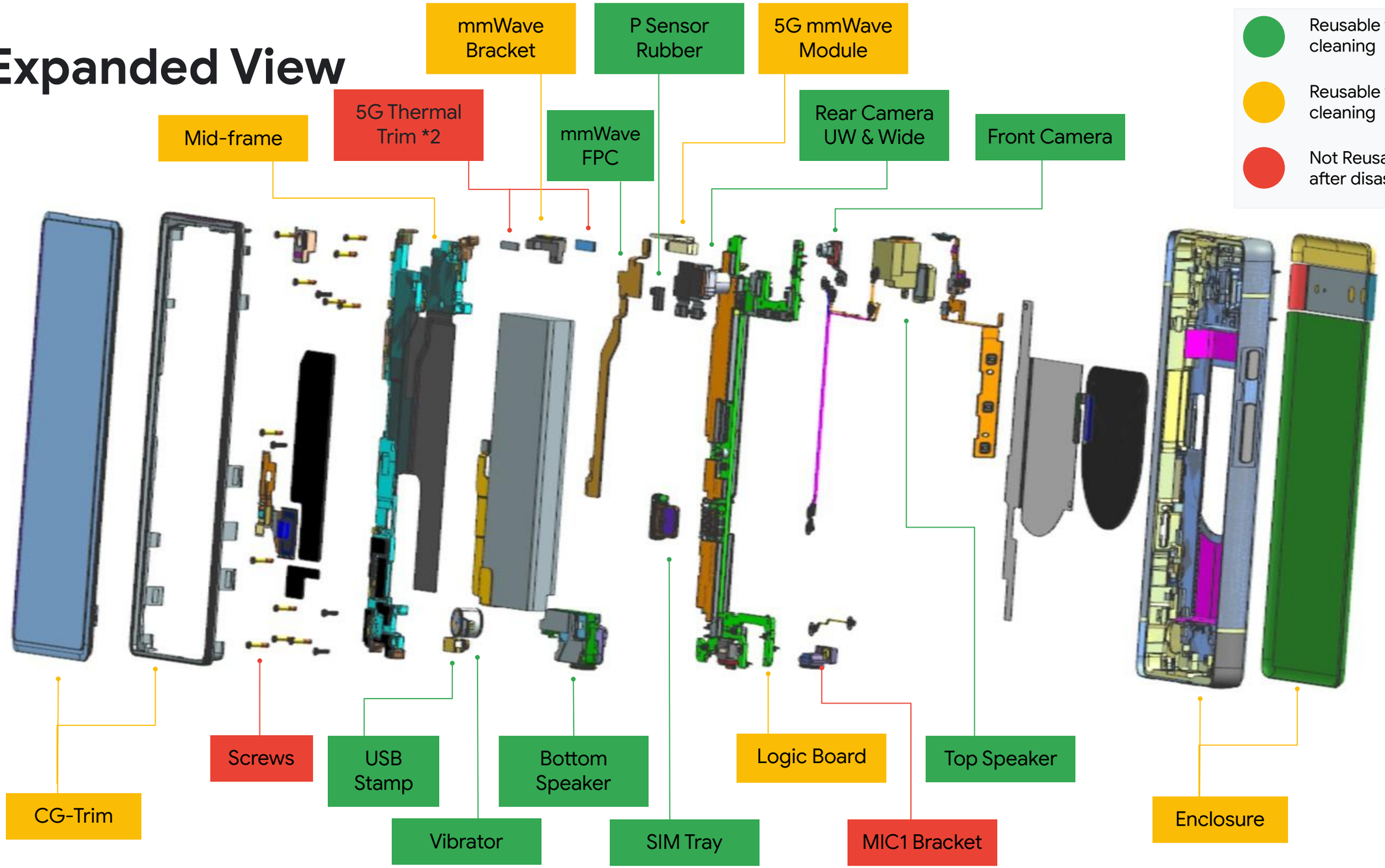

Swelling or electrolyte leakage

*These are examples of potentially dangerous battery conditions but don't reflect all possible dangerous conditions. Please follow general safety guidance outlined in this document.



Introduction

Expanded View



Pixel touch screen calibration process

For the Pixel 6a product

[Note: This process applies all Pixel 1 - Pixel 8 Pro devices, which includes Pixel Fold]

Complete the following before you boot up the device:

- Nothing should touch the display. This includes protective films, cases, fingers, tape, labels, scratch covers, adhesives and debris.
- Devices should be on a flat surface. *Don't* hold it in your hands.

After the above conditions are met, the device should be powered on by pressing the power button. *Don't* touch the device until it's fully booted into the user operating system.

Display touch calibration

After any repair that requires you to open the phone, complete the display touch calibration during first boot.

Touch function

If this process isn't followed, the touch function of the screen may not work as intended.

ESD protection

Electro static discharge (ESD) could damage components, so it's important to work in an ESD-safe environment during repair.

Follow these four steps to keep ESD safe:

Stay grounded

Carry out repairs on an ESD mat, when the person who repairs the device wears a grounded ESD strap.

Avoid static buildup

Don't wear synthetic fibers such as fleeces that could generate static.

Protective bags

Pack all ESD-sensitive parts in metalized protective bags during shipping.

Avoid touching pins

Don't touch pins with use of ESD-safe tools to handle components.

Did you know?

ESD is the sudden flow of electricity through two electrically charged objects. For example, when you walk across a carpet, then touch a metal door handle and feel a shock. It's the ESD.

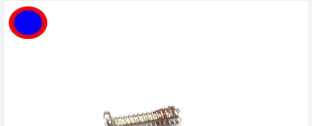
Screw Map - Pixel 6a (mmWave)

These are the screws for the **mmWave product configuration.**

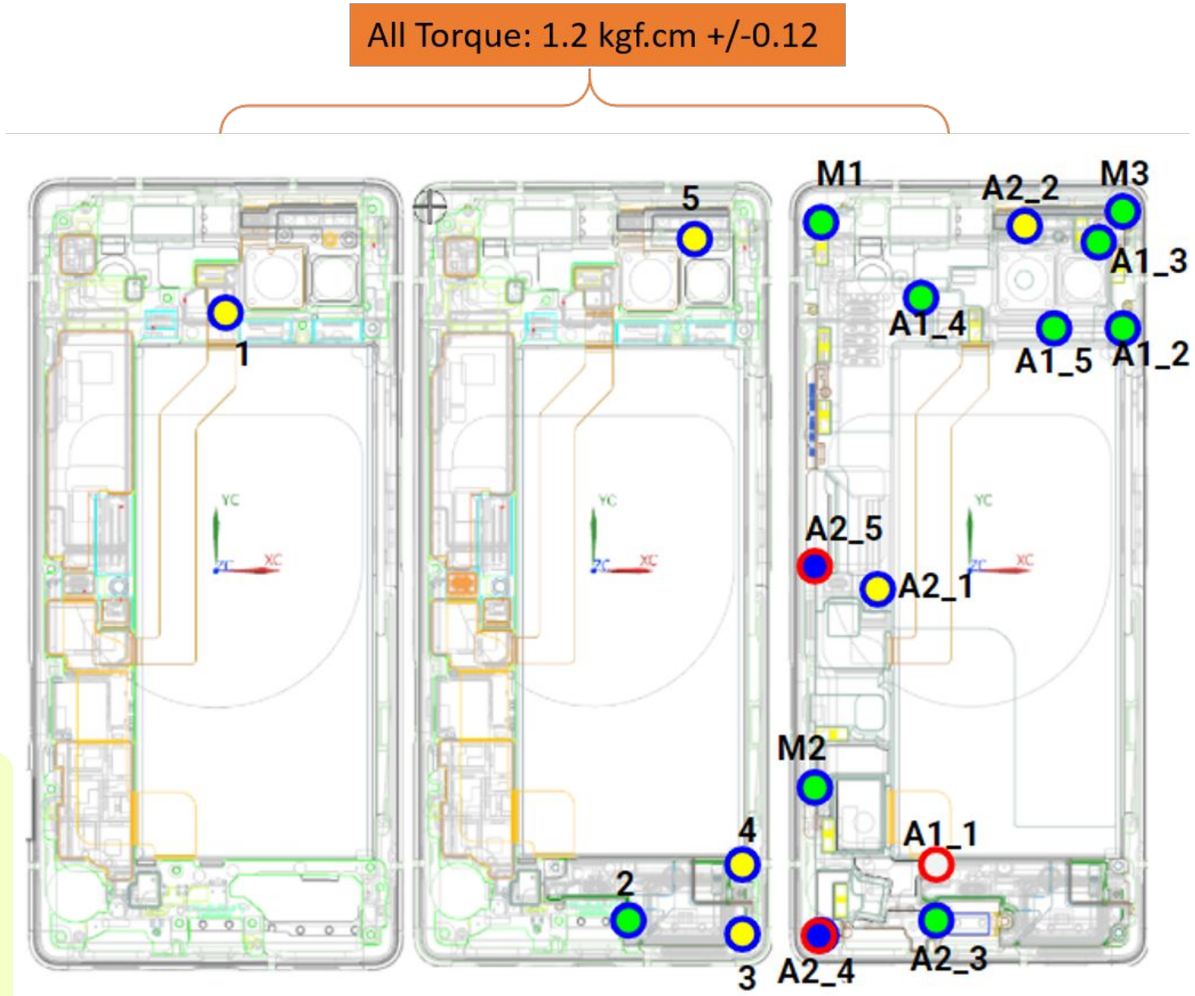
HW, SCREW, SWRCH22A, M1.4x0.3-3.8, D2.5
G250-05370-00

HW, SCREW, SWRCH22A, M1.4x0.3-2.4, D2.7
G250-05371-00

SCREW, 3IP, M1.2x0.3-4.1, D2.2
G250-05726-00



SCREW, SWRCH22A, M1.4x0.3-4.4, D2.5
G250-06166-00



Screws are a single use item

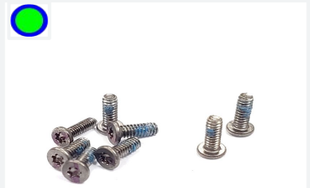
Screws are a single use item and if removed from the device, they should be replaced with a new screw.

After removal, replace with a new screw

Each screw is critical to the safe continued operation of the phone. Since thread locking adhesive can't be reactivated, replace each used screw with a new screw after removal.

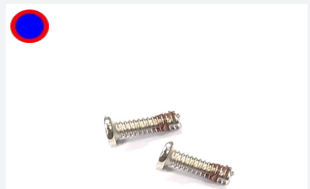
Screw Map - Pixel 6a (Sub6)

These are the screws used in the **sub6 product configuration.**

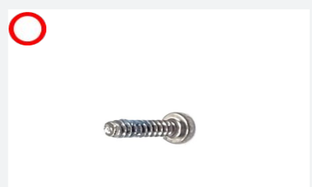


HW, SCREW, SWRCH22A, M1.4x0.3-3.8, D2.5
G250-05370-00

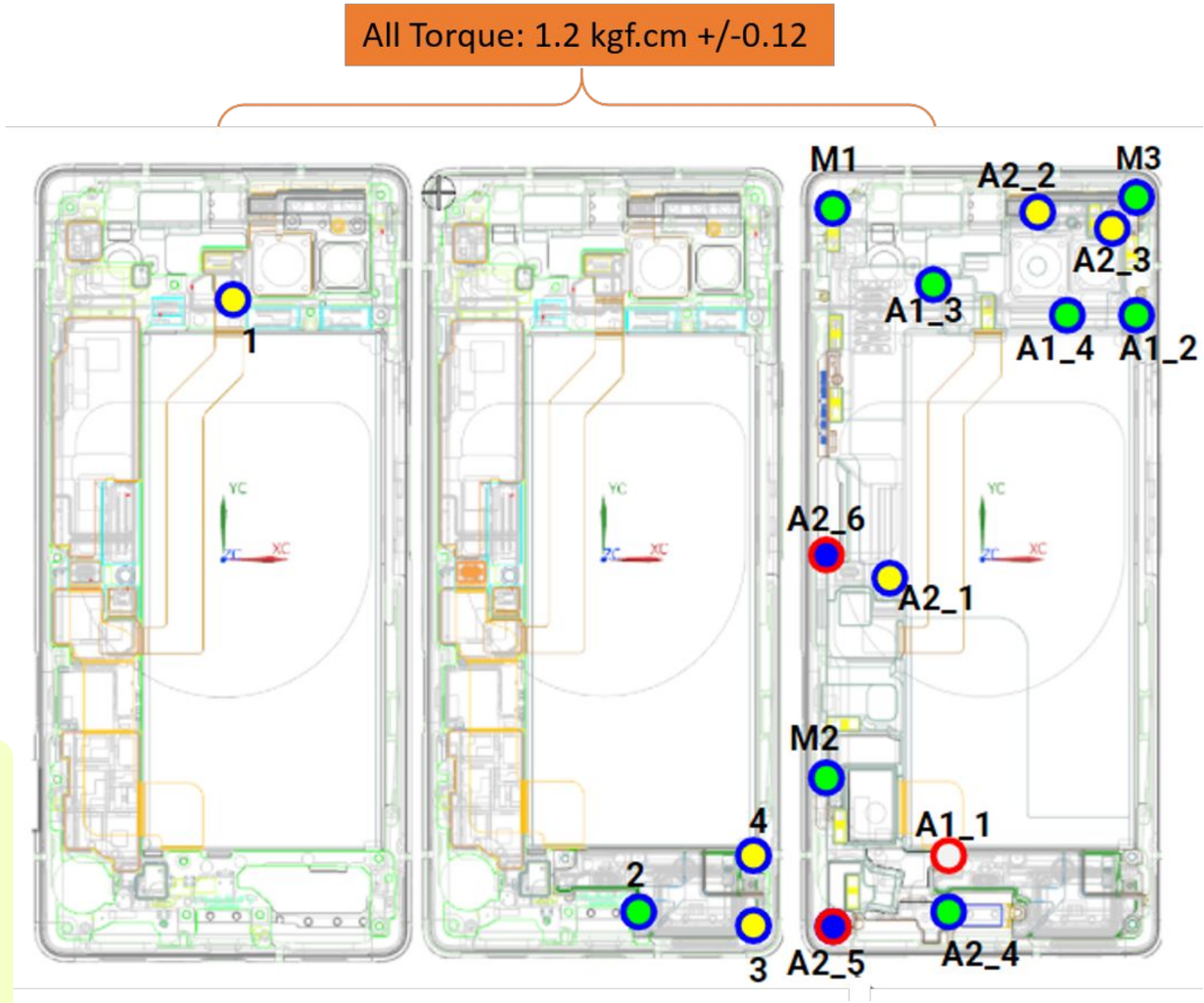
HW, SCREW, SWRCH22A, M1.4x0.3-2.4, D2.7
G250-05371-00



SCREW, SWRCH22A, M1.4x0.3-4.4, D2.5
G250-06166-00



SCREW, 3IP, M1.2x0.3-4.1, D2.2
G250-05726-00



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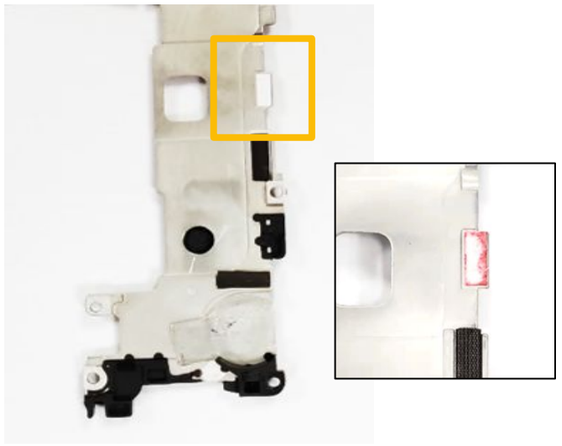
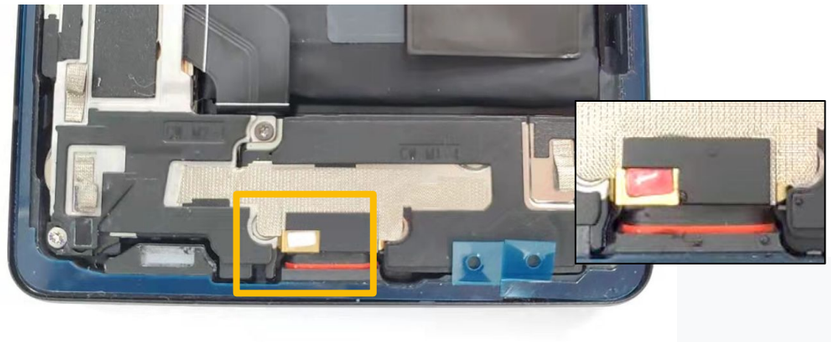
Each screw is critical to the safe continued operation of the phone. Since thread locking adhesive can't be reactivated, replace each used screw with a new screw after removal.

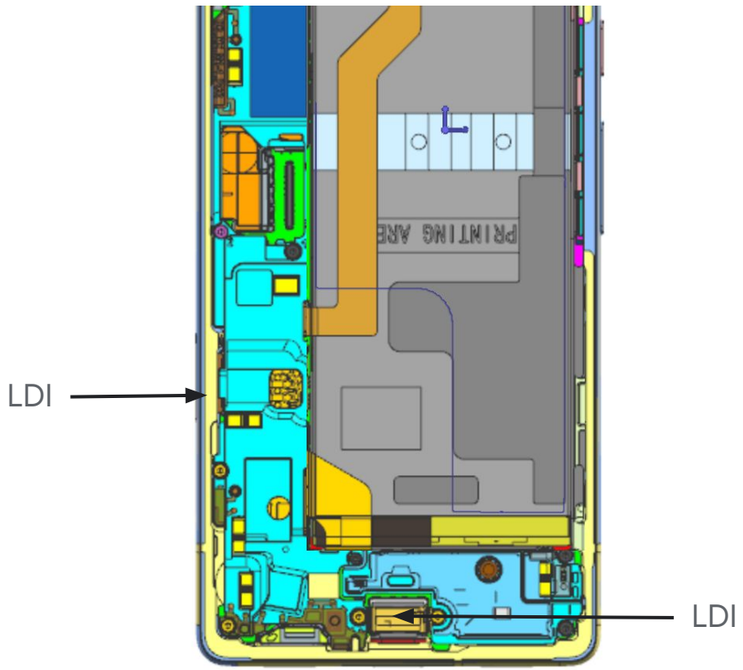
Liquid Damage Indicators

Liquid damage indicators (LDI) are strips that change colors when a phone has been exposed to water or other liquids.

- Exposure to liquids could lead to the device malfunction, such as overheating or a short circuit.
- There’re two LDI on this device.







- On the mid-frame (visible through SIM slot, without disassembly of the device).
- On the USB stamping plate

Tools and Fixtures

The use of Google-authorized tools and fixtures is required in order to repair a device in a safe and effective manner.

Please note that some tools and fixtures require maintenance and calibration before performing repairs.

Caution:

- Do not perform repairs without Google-specified tools and fixtures.
- Improper use of tools and fixtures may result in injury to yourself, the user of the device or other third parties, as well as damage to the product, tools , fixtures, replacement parts and/or other spare parts.

Google-approved fixtures - Pixel 6a

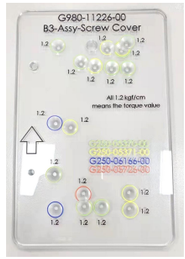
Google-approved fixtures are Google tested and are strongly encouraged to ensure high quality and safe repairs.

Pixel 6a Enclosure Holder
G940-00901-00

Pixel 6a Enclosure PSA Press Cover
G940-00902-00

Pixel 6a Enclosure PSA Align & CG Press Cover
G940-00903-00

Pixel 6a Battery Press
G940-00904-00



Pixel 6a Screw Cover
G940-00905-00

Pixel 6a Thermal Grease Alignment Fixture
G940-00906-00

Google-approved fixtures

Google-approved fixtures are Google tested and are strongly encouraged to ensure high quality and safe repairs.

Universal Disassembly Fixture
G940-00873-00

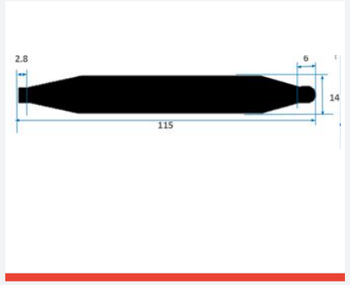
Universal Disassembly Fixture - Universal Device Clips
G940-00874-00

Universal adsorption bulb
G940-00780-00

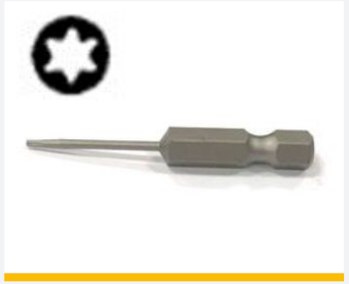
Universal Press Fixture
G940-00733-00

Universal Battery Alignment Jig
G940-00424-01

Universal Fish line tool
G940-00779-00



Universal Disassembly ESD stick
G940-00782-00



Screwdriver Hex Shank Torx Plus Bit no.3
G940-00785-00

Universal Cap Removal
G940-00923-00

Universal Disassembly ESD pick
G940-00783-00

Universal Protective Film
G940-00786-00

Common Tools

Common tools are suggested to ensure high quality and safe repairs. These items don't need to be purchased from a Google-recommended supplier.

ESD wristband

ESD gloves

Dust free cloth

Dust-free
Dust-free Cotton swabs

Plastic ESD Tweezers

SIM card ejection pin

Heating plate

IPA
(Isopropyl Alcohol)

3M UPUV or AP111
Primer

Screwdriver Torx Plus
3IP
[Optional]

Adjustable type torque screwdriver

Spudger (ESD Stick)

Common Tools

Common tools are suggested to ensure high quality and safe repairs. These items don't need to be purchased from a Google-recommended supplier.

Suction Cup

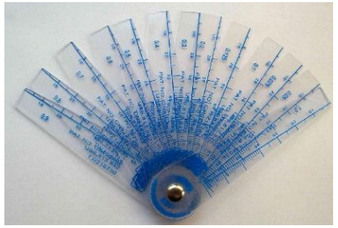
Table C-Clamp

Ionizing air fan

Masking tape

Ionizing air fan

Sankol lubricant CFD 409Z_V2



Feeler gauge

Deglue Machine

Fishing Line (Thickness 0.4mm, 13.9kg/30lb)

ESD pointed stick

For screen removal

Safety knife

Silicone spatula

Precaution

Safety items

Safety items are suggested to ensure high quality and safe repairs. These items don't need to be purchased from a Google recommended supplier.

Safety Glasses	Heat Resistant Protective Gloves	Cut Resistant Protective Gloves	Nitrile or Lint-Free Gloves
			

Replacement Parts

Important notice about replacement parts

- The use of Google authorized replacement parts is strongly recommended.
- Performance within product specifications cannot be assured if Google authorized replacement parts are not used.

Caution:

Use of replacement parts other than Google authorized replacement parts, such as aftermarket batteries, may impact device safety, reliability and performance.

Replacement parts

Reusable without cleaning
Reusable with cleaning
Not Reusable after disassembly

Logic board
Multiple Part Numbers

Enclosure
Multiple Part Numbers

Display module
G949-00239-01

Front camera
G949-00252-01

Wide angle rear camera
G949-00253-01

Ultra wide rear camera
G949-00254-01

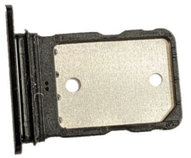
mmWave Mid-frame
G949-00255-01

Sub6 Mid-frame
G949-00256-01

mmWave bracket
G949-00257-01

USB stamping plate
G949-00258-01

Bottom speaker
G949-00259-01



SIM tray
G949-00260-01

Replacement parts

Reusable without cleaning
Reusable with cleaning
Not Reusable after disassembly

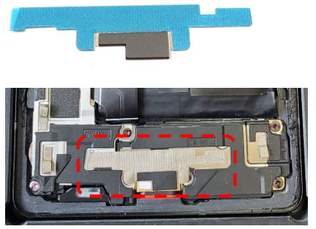
M1.4x0.3-3.8, D2.5
G250-05370-00

M1.4x0.3-2.4, D2.7
G250-05371-00

M1.4x0.3-4.4, D2.5
G250-06166-00

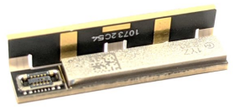
M1.2x0.3-4.1, D2.2
G250-05726-00

Display cowling
G730-05984-01



Conductive fabric
Mid-frame BTM SPK
G806-05648-01

mmWave FPC
G652-01730-03

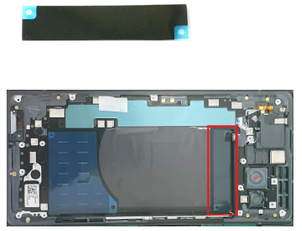


mmWave RF module
G345-01031-01

mmWave
Top thermal trim
G864-00471-01

mmWave
Bottom thermal trim
G864-00472-01

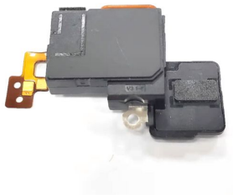
Vibrator
G710-02255-01



Battery
top adhesive
G806-05545-01

Replacement parts

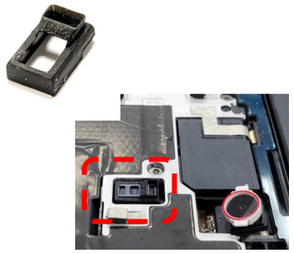
Reusable without cleaning
Reusable with cleaning
Not Reusable after disassembly



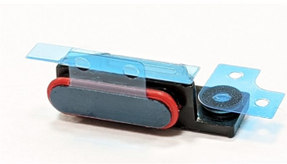
mmWave Top speaker
G949-00261-01

Replacement battery
G949-00262-01

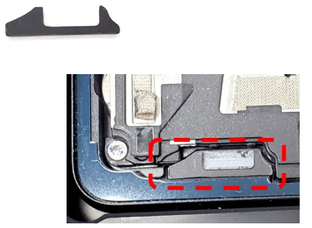
mmWave Battery spacer, small
G806-06185-01



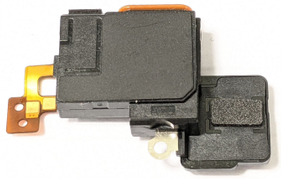
P-sensor rubber
G804-00807-01



Main mic. holder
G730-05996-01



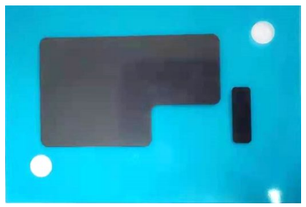
Main mic. mylar
G806-05665-01



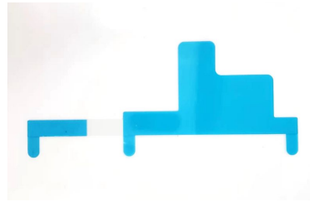
Sub6 Top speaker
G863-00390-01

Thermal grease
G160-01058-00

Conductive fabric washer
G806-06311-01



Sub6 Battery spacer
G806-05609-01



mmWave Battery spacer, big
G806-06186-01

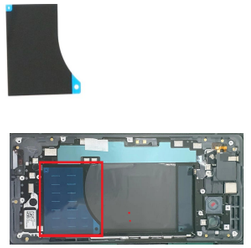
Trim ASM adhesive
G806-05883-01

Replacement parts

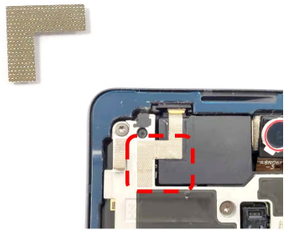
Reusable without cleaning

Reusable with cleaning

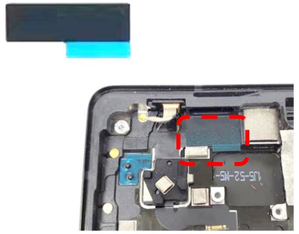
Not Reusable after disassembly



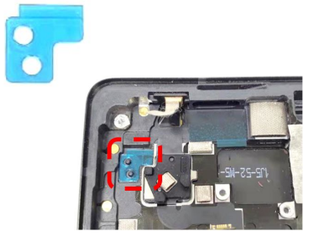
Battery
bottom adhesive
G806-05546-01



Conductive fabric
TSPK Mid-frame
G806-06115-01



Top speaker module
adhesive
G806-05573-01



Top speaker FPC
adhesive
G806-05574-01

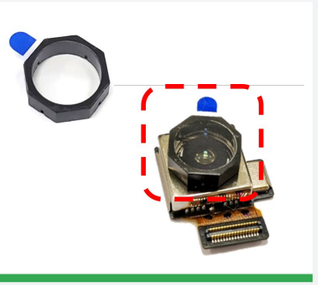
Reusable without cleaning

Reusable with cleaning

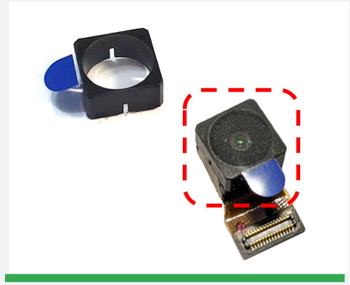
Not Reusable after disassembly

Protective Covers (used to protect parts during repair)

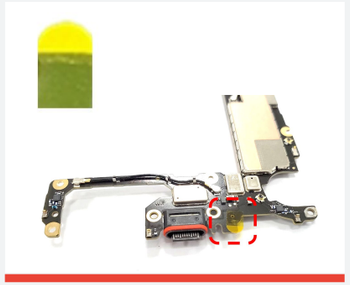
Front camera cap
G806-06072-01



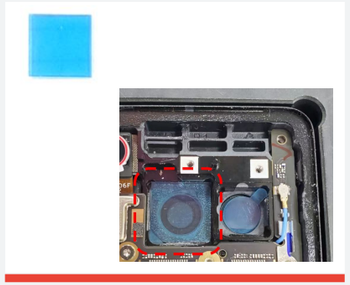
Wide rear camera cap
G806-06073-01



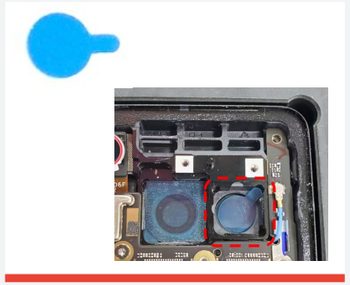
UW rear camera cap
G806-06074-01



Mic. hole kapton tape
G806-04755-01



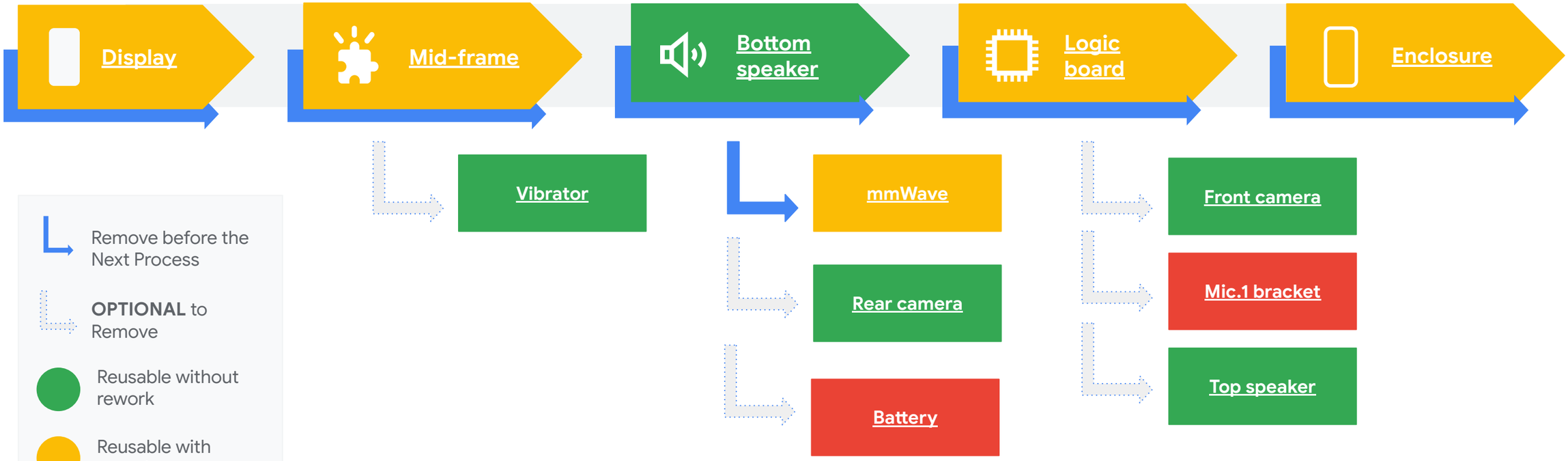
Protective film
G806-03422-01



Protective film,
UW camera socket
G806-05556-01

Repair flows

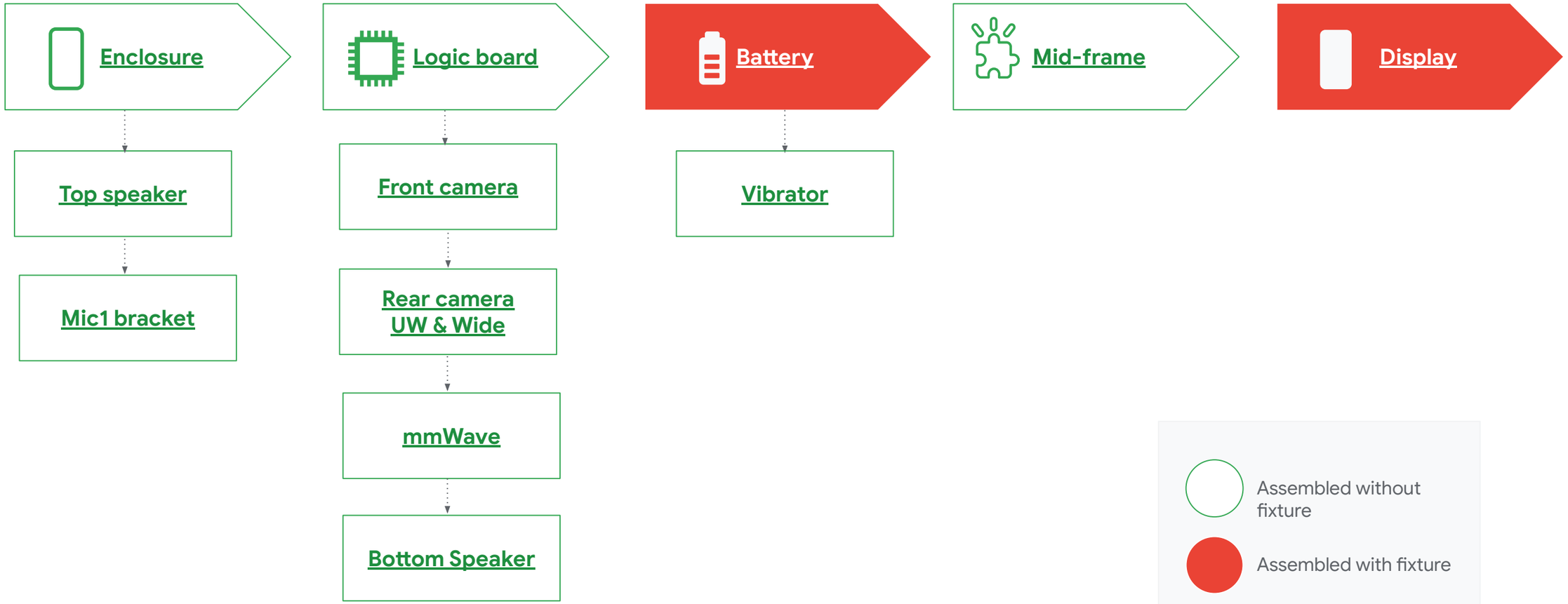
Pixel 6a Disassembly flowchart



How to read this chart...

To replace the battery: Remove the display, mid-frame, bottom speaker, mmWave, then the battery
To remove the logic board: Remove the display, mid-frame, bottom speaker, mmWave, then the logic board

Pixel 6a Assembly flowchart



How to read this chart...

To reinstall the battery: Battery, mmWave, bottom speaker, mid-frame, then display
To reinstall the logic board: Logic board, mmWave, bottom speaker, mid-frame, then display

Disassembly instructions

Display

Display replacement

Before you begin

Before beginning a repair, be sure to power off the device.

Tools

- Universal Fish line tool
- Ionizing air fan
- Heating Plate
- Universal protective film
- Universal disassembly fixture
- Universal Disassembly ESD pick
- Pixel 6a Enclosure Holder
- Universal absorption-bulb
- ESD pointed stick
- Masking tape
- IPA
- Cotton swabs
- 3M primer
- ESD tweezers
- Pixel 6a Enclosure PSA Align & CG Press Cover
- Pixel 6a Enclosure PSA Press Cover
- Universal press fixture

Parts

G949-00239-01
Display module

G806-05883-01
Trim ASM adhesive

G730-05984-01
Display cowling

G806-06072-01
Front camera cap

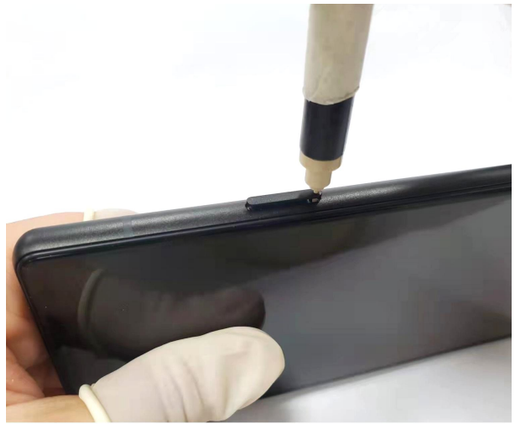
Caution!

Use **safety gloves** to handle damaged displays as some splinter during removal and could cause injury. Apply **protective film** to broken glass before removal. Review all **safety precautions** before beginning work.

Turn off the device

- Make sure the device is turned off before disassembling

Remove Sim Tray

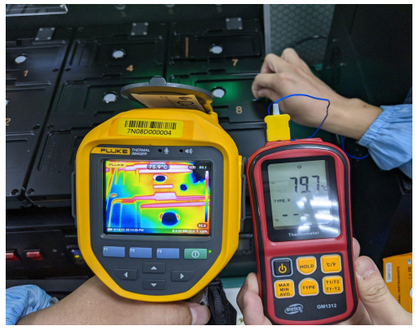


- Use the SIM eject tool to remove the SIM tray from the device

Set up Ionizing Air Fan

- “Ionizing air fan” should be turned on at all times to prevent ESD/EOS issue.

Soften the Adhesives



- Program the heating plate at 176°F/ 80°C. Set the device on there, facing down, for 600 seconds in order to soften the glue.

Caution: Heating plate is a Hot Surface. Use caution as it could cause burns.

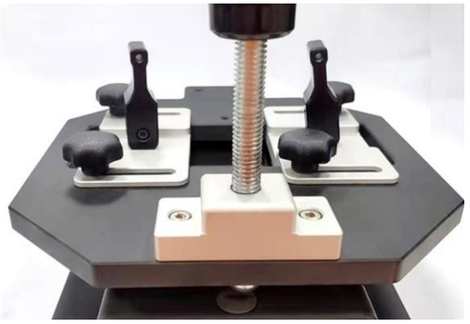
Cover the Enclosure

- Cover the back side of the device with universal protective film.

Caution: Use safety gloves to handle damaged displays as some splinter during removal and could cause injury. Apply protective film to broken glass before removal. Review all safety precautions before beginning work.

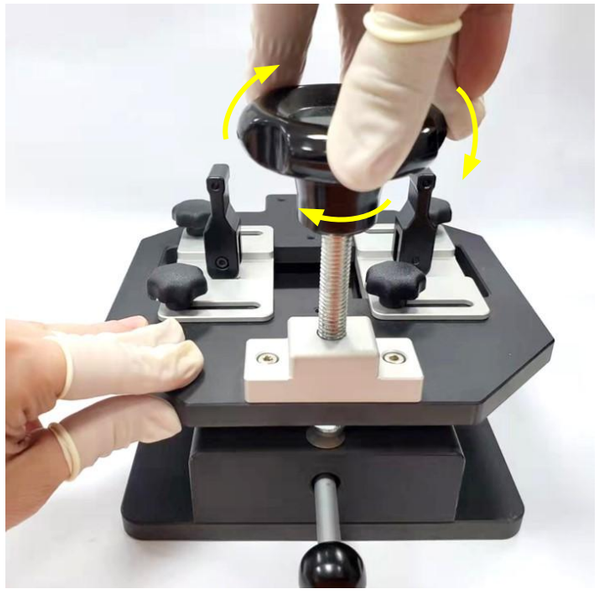
Use the Fixture

After



- Lower the lid to align the 2 suction cups underneath with the display
- Lift the 2 toggles until they are facing upward to secure the suction cups to the display

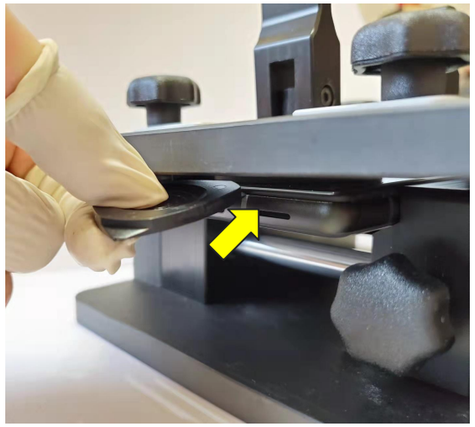
Use the Fixture



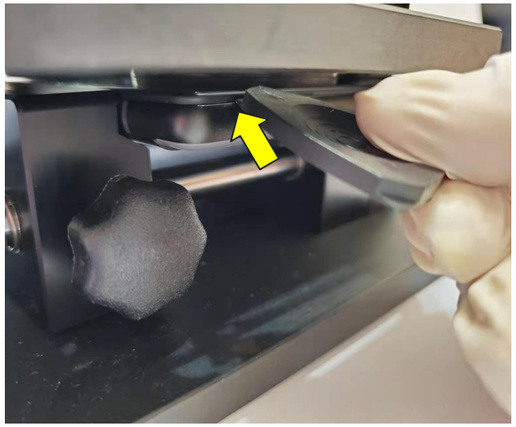
- Turn the knob until you see an opening between display and enclosure

Use the Fixture

Left side (USB)

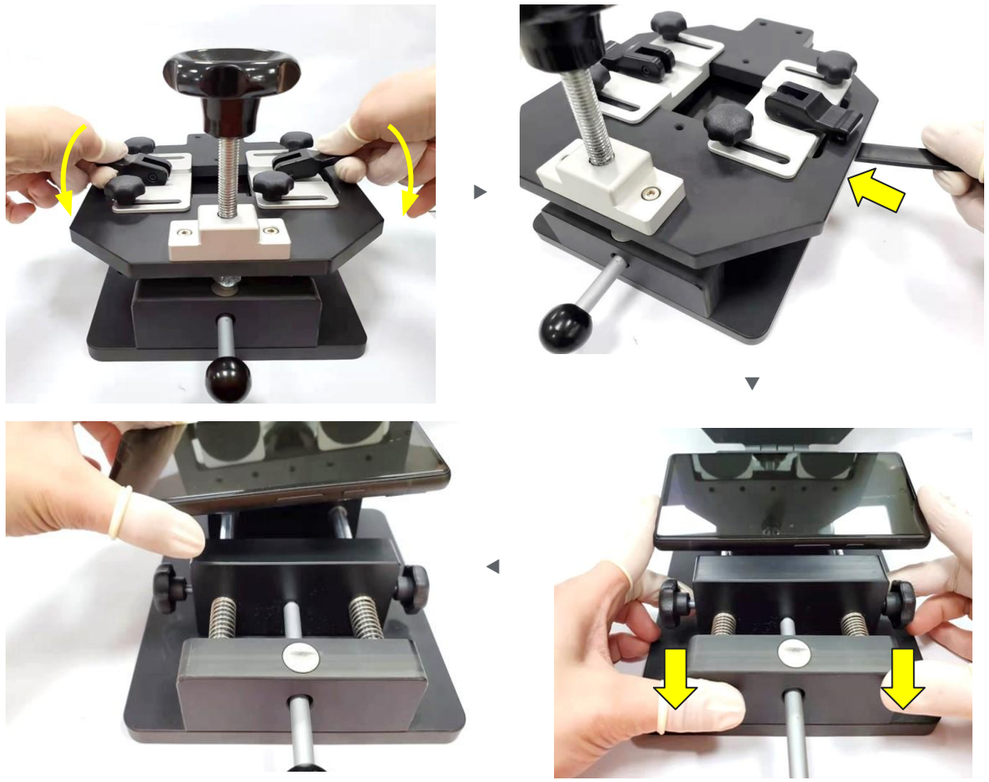


Right side (TOP SPK)



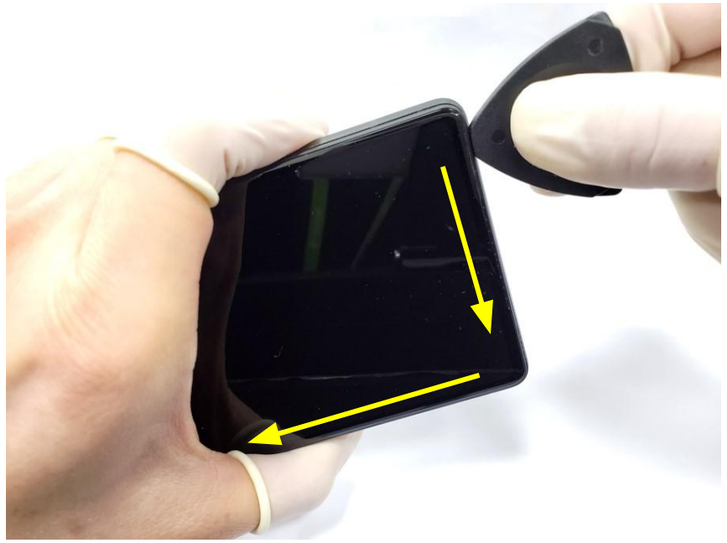
- Once the display has been detached from enclosure, insert the Universal Disassembly ESD picks at both sides of the device, next to USB and Top Speaker.
- Cut the adhesive immediately to prevent display from re-sealing.

Use the Fixture



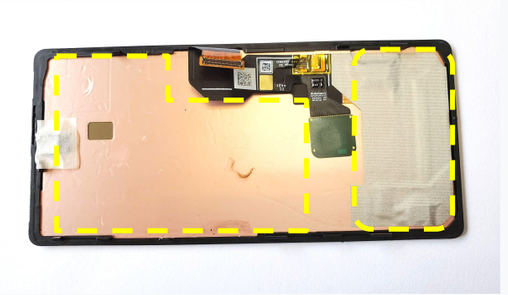
- Release both handles at the top.
- Use Universal Disassembly ESD stick to release the two suction cups underneath.
- Open the lid and turn the knob to remove the device.

Separate the Display

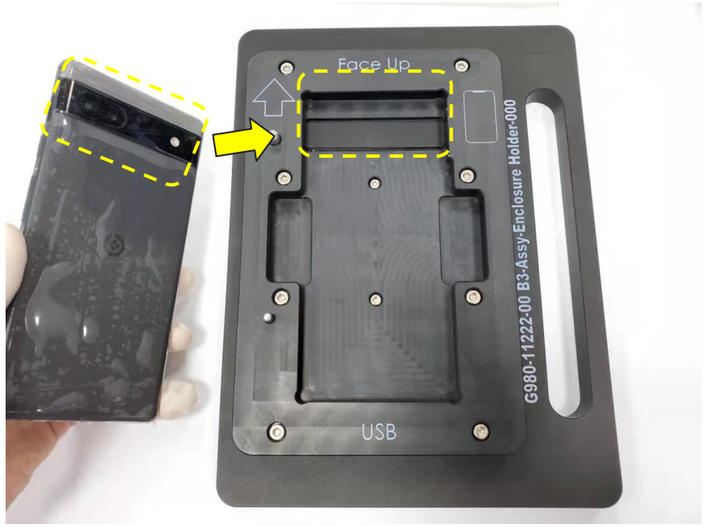


- Insert the Universal Disassembly ESD pick into the opening. Slide it around the entire device slowly and carefully to continue display separation.

Be careful not to push the Universal Disassembly ESD stick beyond the adhesive surface to avoid damaging the screen, battery, or internal components.

●	Do not insert the Universal Disassembly ESD pick beyond the yellow illustrated line. Doing so will put the FPC, copper foil or front cam 
●	Insert the Universal Disassembly ESD pick following the green line. Inserting at the red line will damage the display. 

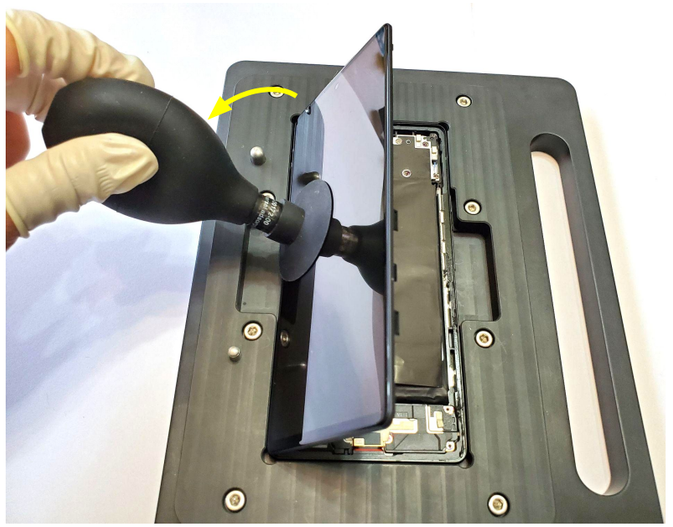
Place Device on Holder



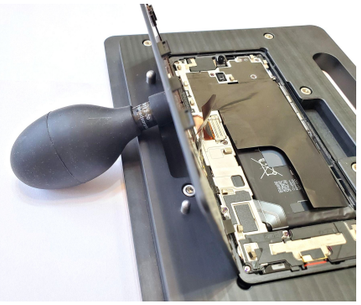
After

- Place the device on the enclosure with camera inside the groove.

Flip the Display



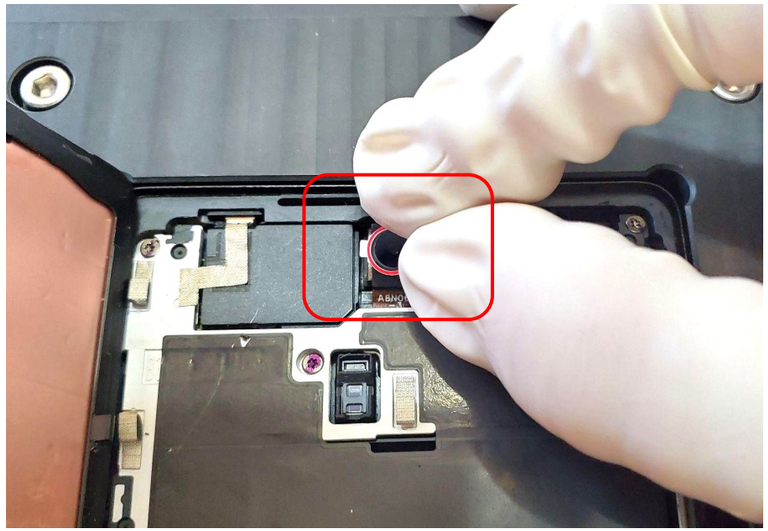
After



- Lift up the display using Universal Absorption-Bulb. Rest it on the side to support display staying in place.

Do not attempt to separate display by force. It is still attached to the enclosure via a very fragile cable. Damage to this cable may cause the device to not function as intended.

Cover the Protective Cap

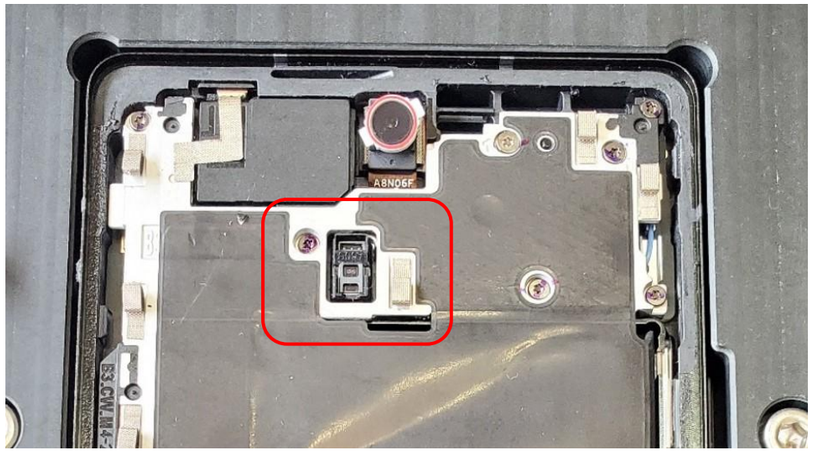


- Cover the front camera with a protective cap.

Part: G806-06072-01 (Front camera cap)

1. Protective cap is a reusable part. If the adhesive has weakened or if there is dust inside the cap, please change to a new one.
2. Do not damage the camera lens.

Inspect P-sensor Rubber



Incorrect: no rubber

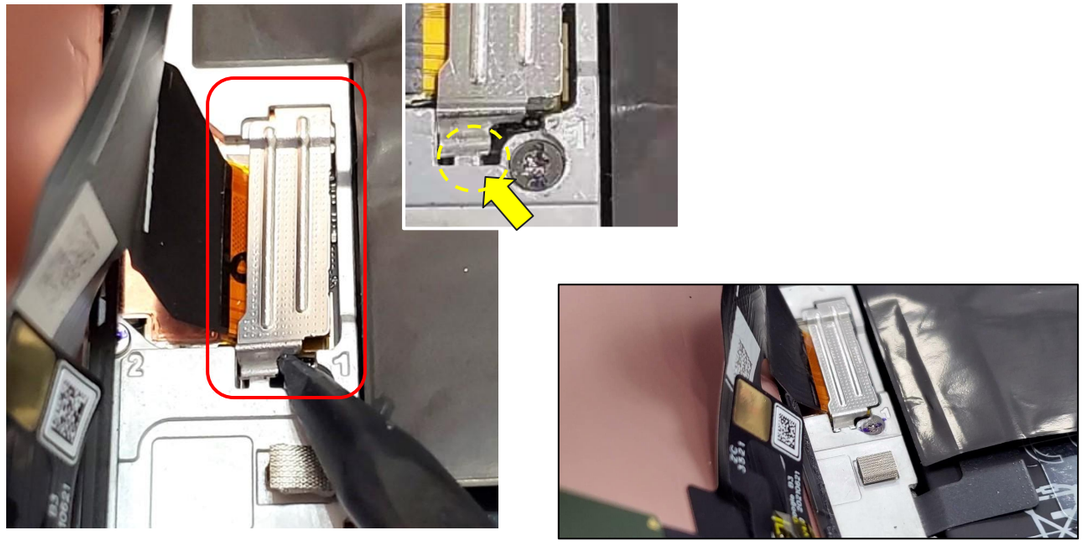
Incorrect: skewed

Incorrect: skewed

Incorrect: skewed

Make sure the p-sensor rubber is not damaged and is in the correct position.

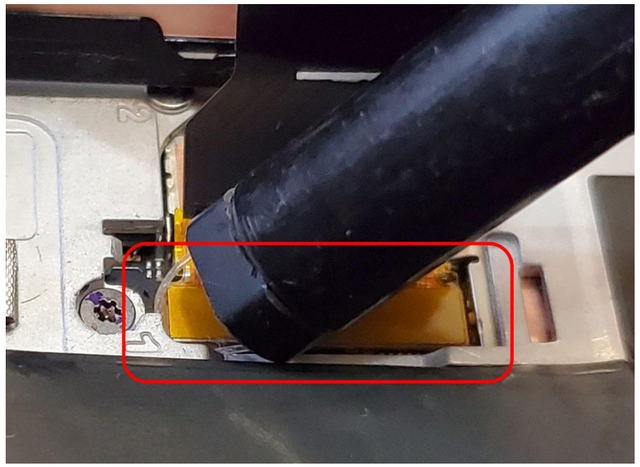
Remove Display Cowling



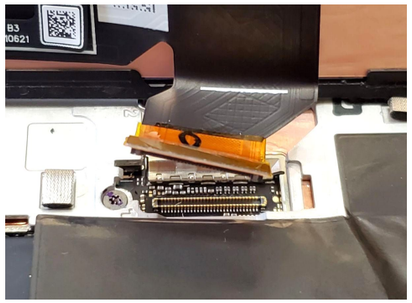
- Release the display cowling by using the **new spudger** to tap the designated position shown above.

1. Be very careful, this cowling plate can fly off easily.
2. It is much easier if the new spudger has a pointed tip.

Disconnect Display FPC

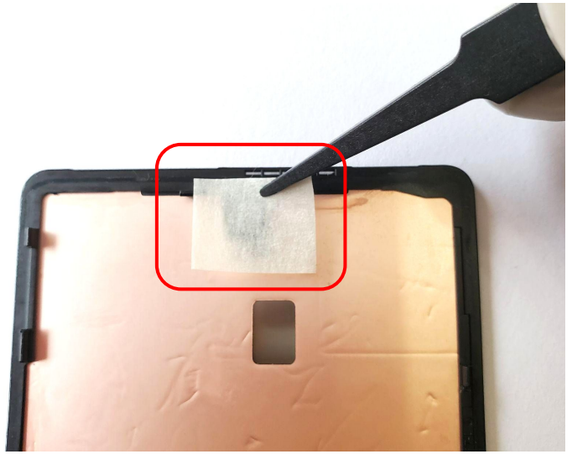


After

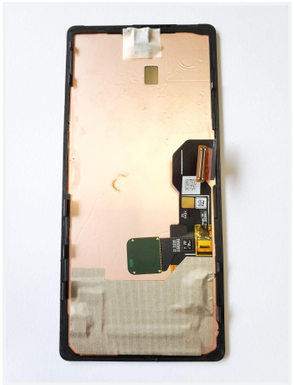


- Use the universal fish line tool to disconnect the display connector from the display.
- Remove the display.

Attach Masking Tape



After



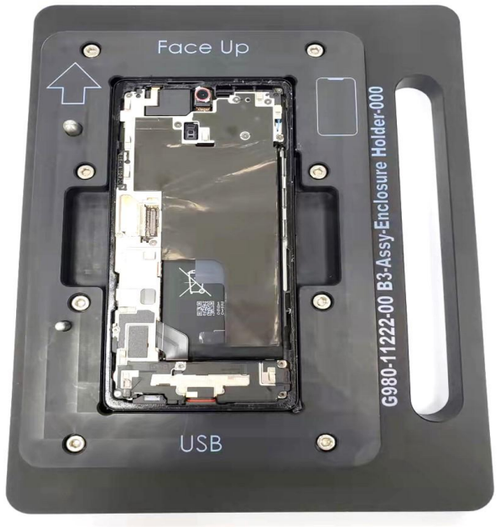
- Cover the front camera holder with masking tape.

Protect Display

- Protect the front side of the display using universal protective film.

Do not wrap to the back side of the display. It will damage the copper foil, conductive fabric.

Enclosure holder Fixture



- Place enclosure on the **Pixel 6a Enclosure Holder** fixture.

Assembly instructions

Display

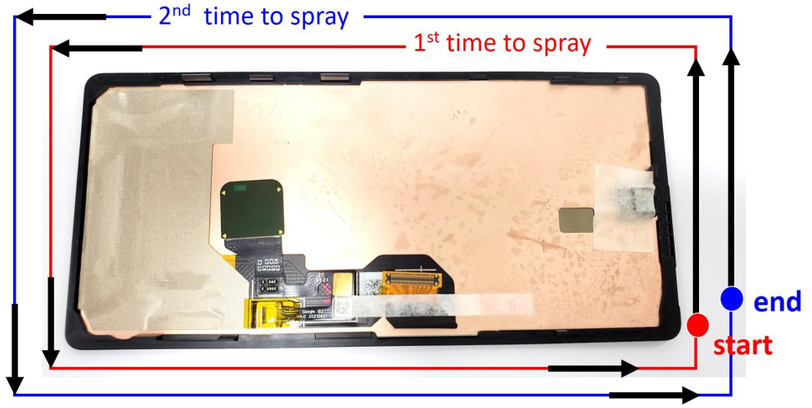
Rework Display
(for Reusing Display)

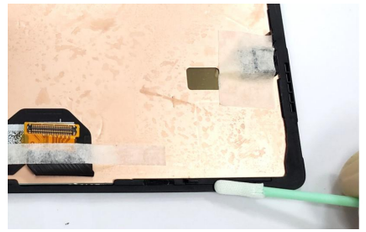
- Clean off the residue adhesive by applying IPA to the highlighted blue areas using cotton swab.

Make sure the top speaker mesh doesn't have any visible residue adhesive or foreign material.

Incorrect: residue

Spray on Display

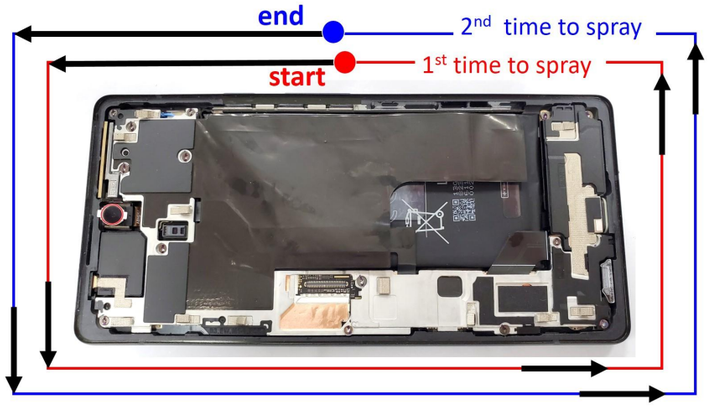




- Apply **3M primer** around the entire display **twice** following the designated order shown above.

1. Uncoated, overflowing, or excessive primer are not acceptable.
2. Move in one direction. Do not apply 3M primer back and forth.
3. Apply 3M primer on display counterclockwise twice.

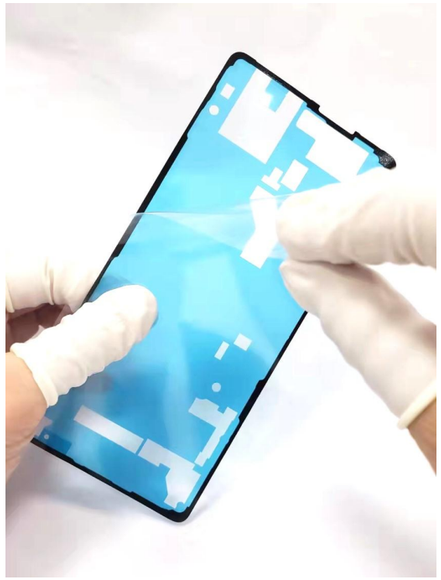
Spray on Enclosure
(for Reusing Enclosure)



- Apply **3M primer** around the entire enclosure **twice** following the designated order shown above.

1. Uncoated, overflowing, or excessive primer is not acceptable.
2. Apply in one direction. Do not apply 3M primer back and forth.
3. Apply 3M primer on display counterclockwise twice.

Place Trim PSA
(for Reusing Enclosure)

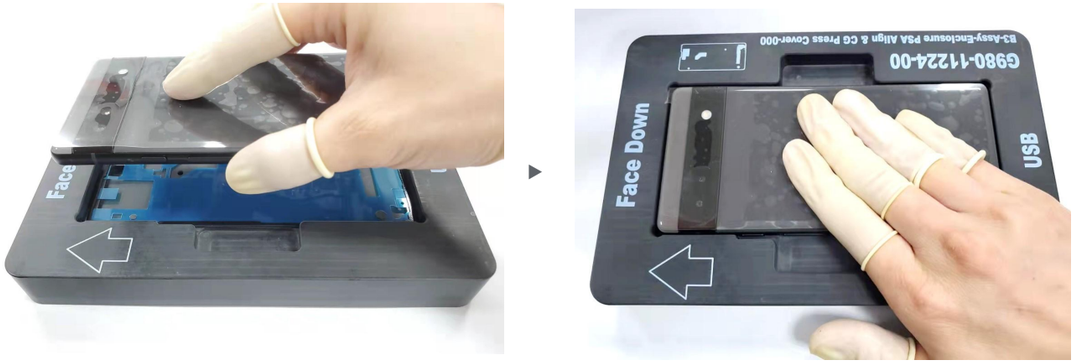


- Slowly remove the transparent liner from the adhesive.
- Set the adhesive on the fixture. This fixture is designed to match the pattern of the adhesive.

Part: G806-05883-01 (Trim PSA adhesive)

1. Take the enclosure PSA carefully and slowly.
2. Do not touch the adhesive. If it gets dirty, change to a new one.

Enclosure to Adhesive
(for Reusing Enclosure)



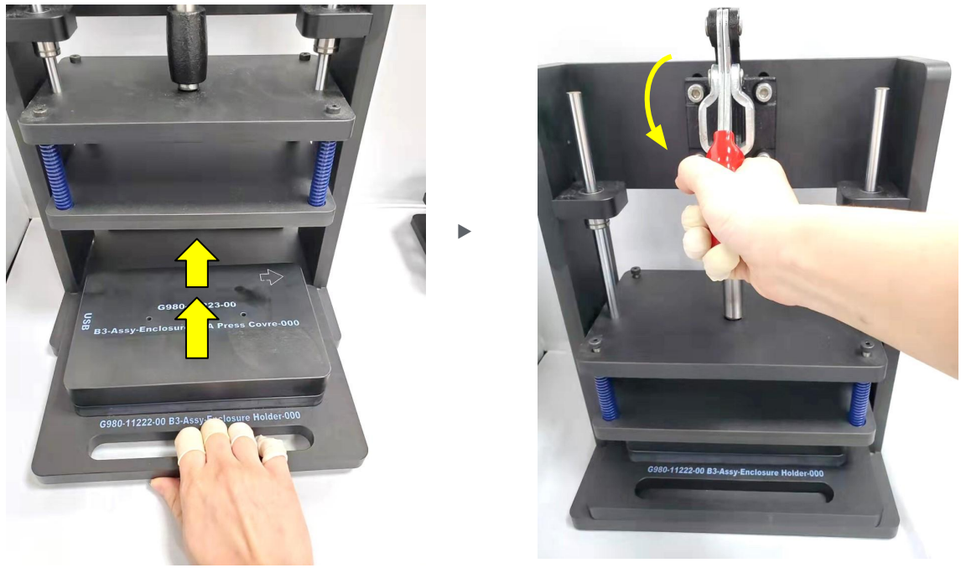
- Place the enclosure on the **Pixel 6a Enclosure PSA Align** fixture. Firmly press on it

1. Camera lens should face up.
2. Paste die cut PSA after assembling mid-frame.

Place the Press Cover
(for Reusing Enclosure)

- Place the device in the **Pixel 6a Enclosure Holder**, then stack enclosure **Pixel 6a Enclosure PSA Press Cover** on the top.

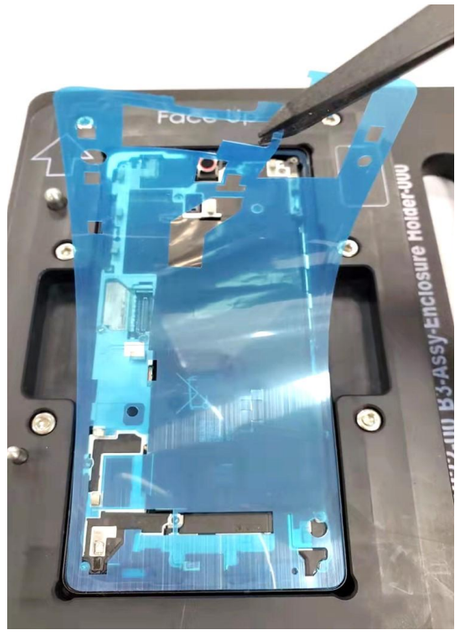
Press together in fixture
(for Reusing Enclosure)



- Deliver the setup onto the Universal Press Fixture.
  Press time: 10s

Pinch point. Keeps hands clear during operation.

Remove liner
(for Reusing Enclosure)

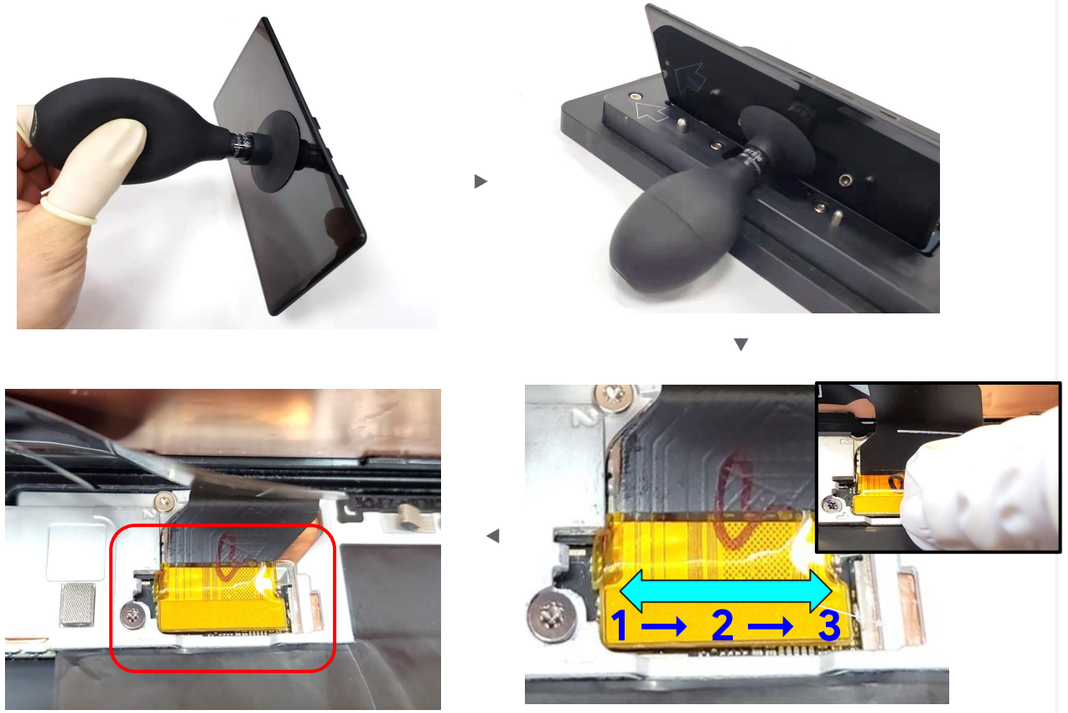


- Gently and slowly remove big liner from enclosure with plastic ESD tweezer.

Remove Protect Film & Taps

- Remove all the protective films and masking tapes from display.

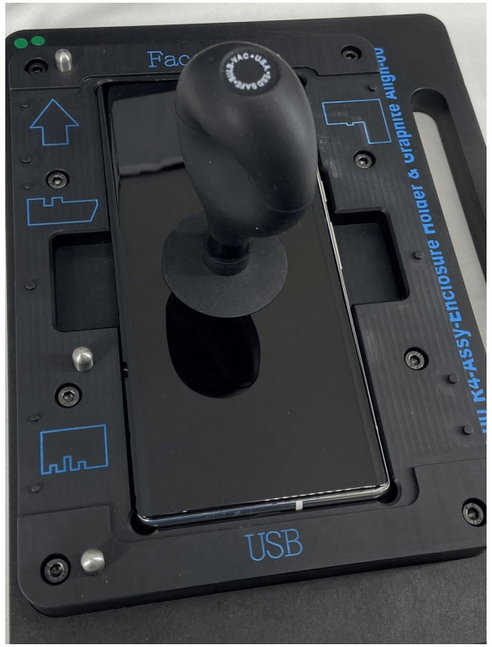
Connect CG BTB



- Use the Universal Absorption-Bulb to transport the Display module.
- Attach the display BTB connector to the logic board, applying even pressure across the connector.

  Pressing 3 points in sequence and slid twice to ensure it is fully engaged.

Display Touch Calibration



- Remove the Universal adsorption-bulb and ensure the display protective film has been removed – **nothing can be touching the display during this process.**
- Power on to check if the device is working and allow display to calibrate during bootup.

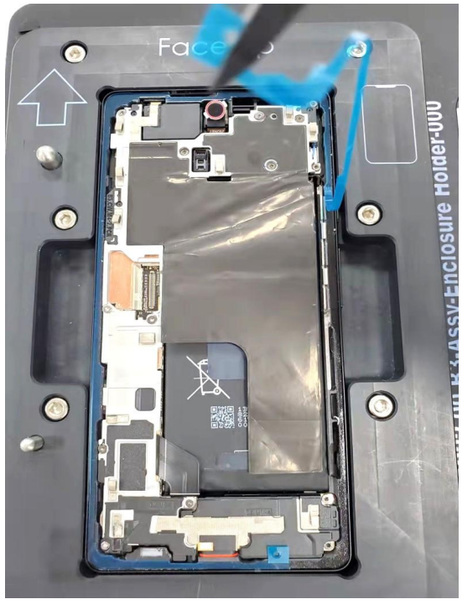
Do not touch the display until it turns on fully since display self-calibration is in progress.
[Display Touch Calibration Details]

Install UDFPS Calibration

- Reboot device into the Fastboot mode
- Connect the device with USB-C cable to the computer, and visit pixelrepair.withgoogle.com to download the UDFPS calibration software

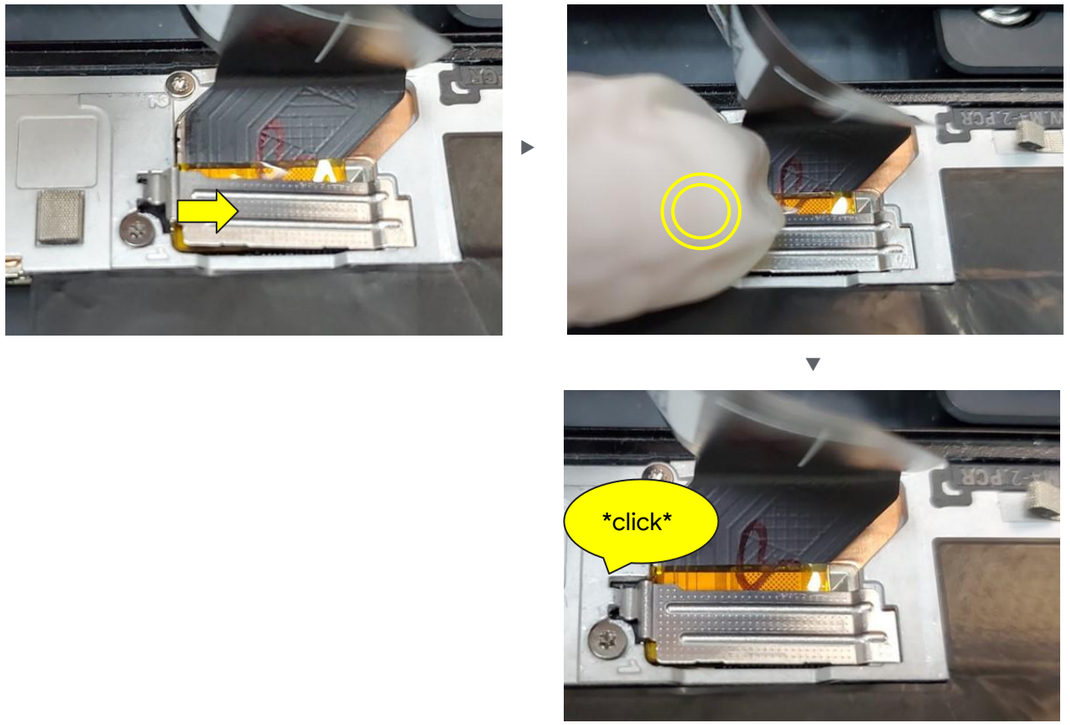
Perform this step only if the display or the mainboard has been replaced

Remove liner



- Remove liner from enclosure with plastic ESD tweezer gently and slowly.

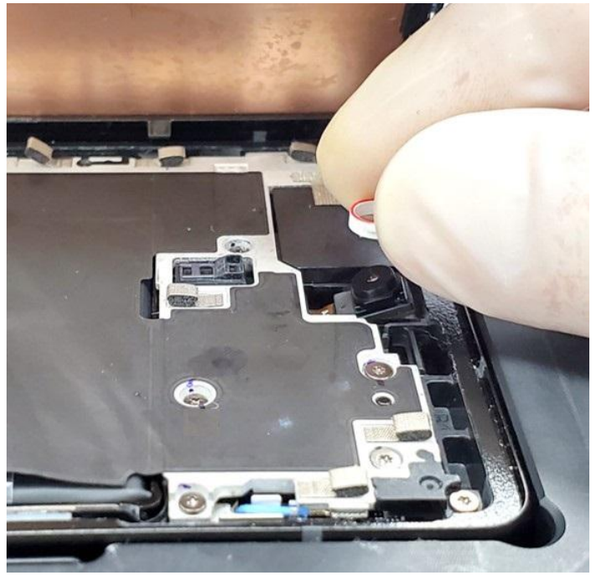
Install Display Cowling



- Insert display cowling following designated direction.
- Applying pressure to the top left of cowling.
- A “clicking” sound means the cowling is installed and locked correctly.

Part: G730-05984-01 (Display cowling)

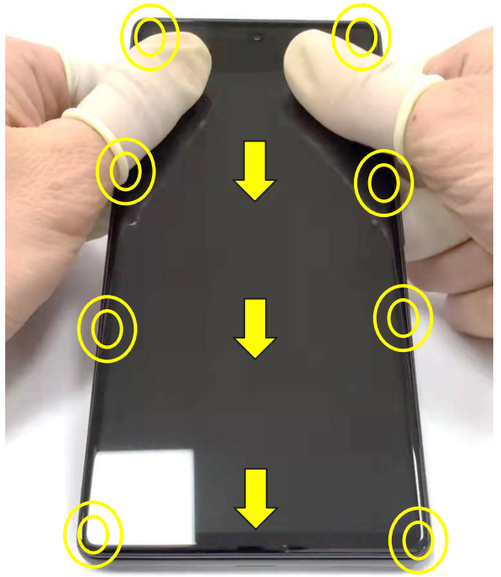
Remove Protective Cap



- Remove protective cap from front camera.

Make sure the p-sensor rubber is installed correctly.

Display & Enclosure assembly



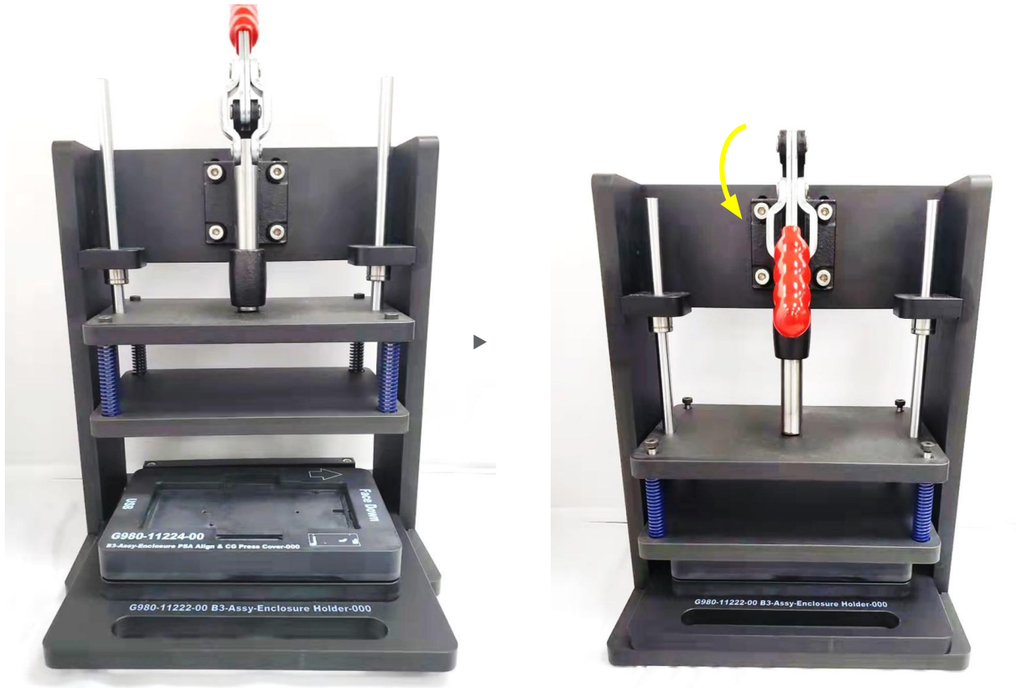
- Remove device from the Pixel 6a Enclosure Holder using Universal Absorption-Bulb.
- Gently press both sides of the device evenly from the top down using your hands.

Do not touch the power key.

Press the Device

- Place the device on the **Pixel 6a Enclosure Holder**, then stack **Pixel 6a Enclosure PSA Align & CG Press Cover** on the top.

Press the Device in Fixture



- Drop the handle to **Universal Press Fixture** to initiate pressing.
  Press time: 10s
  Press weight: 23kg

Pinch point. Keeps hands clear during operation.

Remove Protective Film

- Remove the protective film from the back of the enclosure.

Disassembly instructions

Mid-frame

Mid-frame replacement

Before you begin

Remove the following items first:

- Display module
- Vibrator

Tools

Ionizing air fan
Pixel 6a Enclosure Holder
Torx Plus 3IP screwdriver
ESD tweezer
Universal Disassembly ESD stick
Universal fish line tool
Pixel 6a Screw Cover
Safety knife
IPA
Cotton swabs
Silicone spatula

Caution!
Review all **safety precautions** before beginning work.

Mid-frame difference

mmWave

Sub6

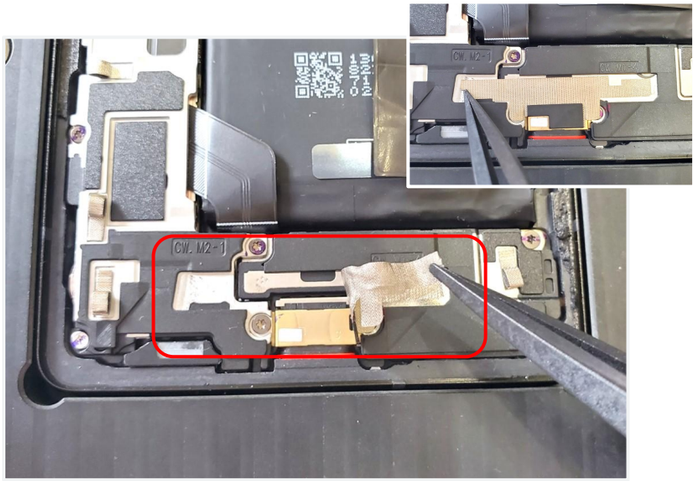
Mid-frame replacement

The **Mid-frame** ensures connectors remain engaged with the **Logic board** and acts as a heatsink.

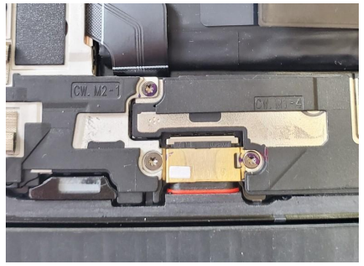
Parts

G949-00255-01 mmWave Mid-frame		G806-05665-01 Main mic. mylar	
G949-00256-01 Sub6 Mid-frame		G806-06115-01 Conductive fabric TSPK Mid-frame	
G806-05648-01 Conductive fabric Mid-frame BTM SPK		G250-05370-00 7 x screw (Sub6) 8 x screw (mmWave)	
G710-02255-01 Vibrator		G250-05371-00 3 x screw (Sub6) 2 x screw (mmWave)	
G160-01058-00 Thermal grease		G250-06166-00 2 x screw	
G804-00807-01 P-sensor rubber		G250-05726-00 1 x screw	

Remove Conductive Fabric



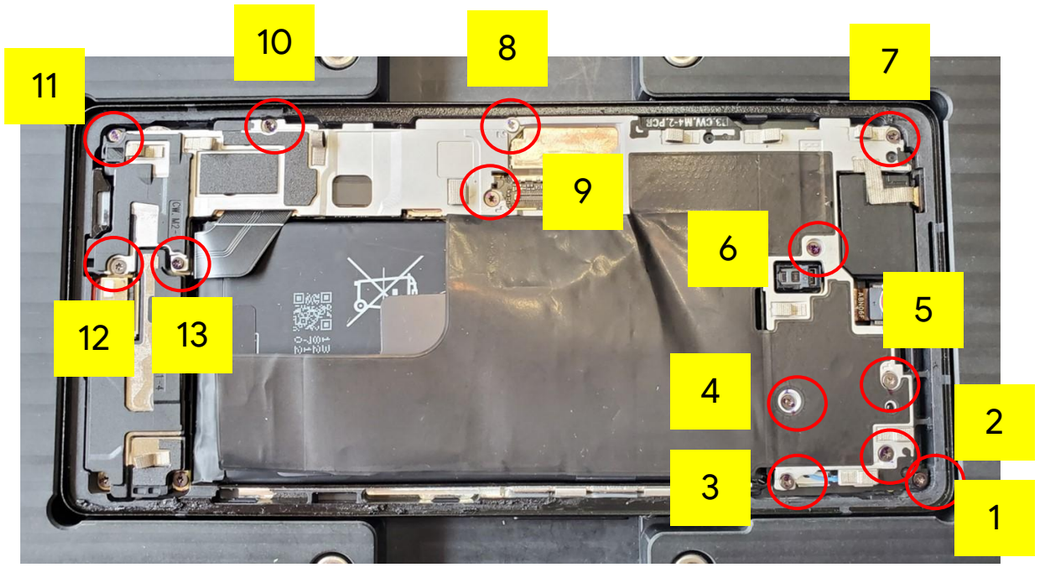
After



- Use plastic ESD tweezer to peel off the conductive fabric covering the USB stamping plate.

Do not reuse this part.

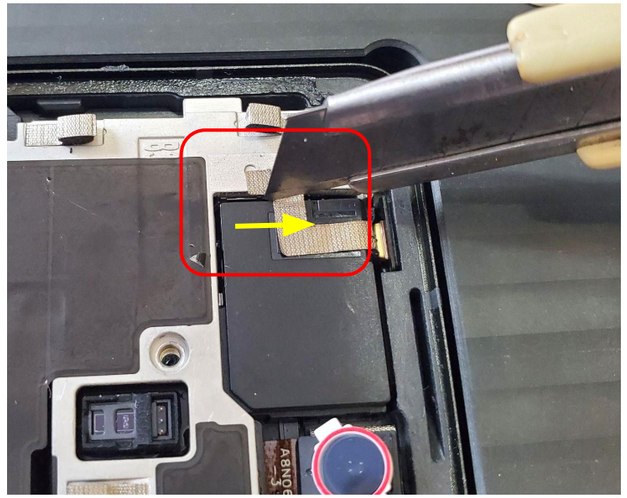
Remove Screws



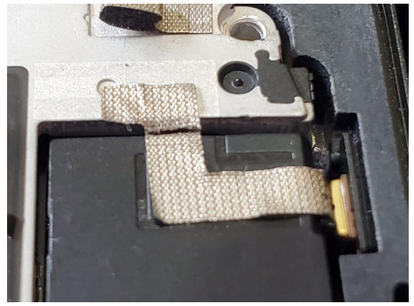
- Use Torx Plus 3IP Screwdriver to remove 13 screws that secure mid-frame to the logic board.

Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

Cut Conductive Fabric



After

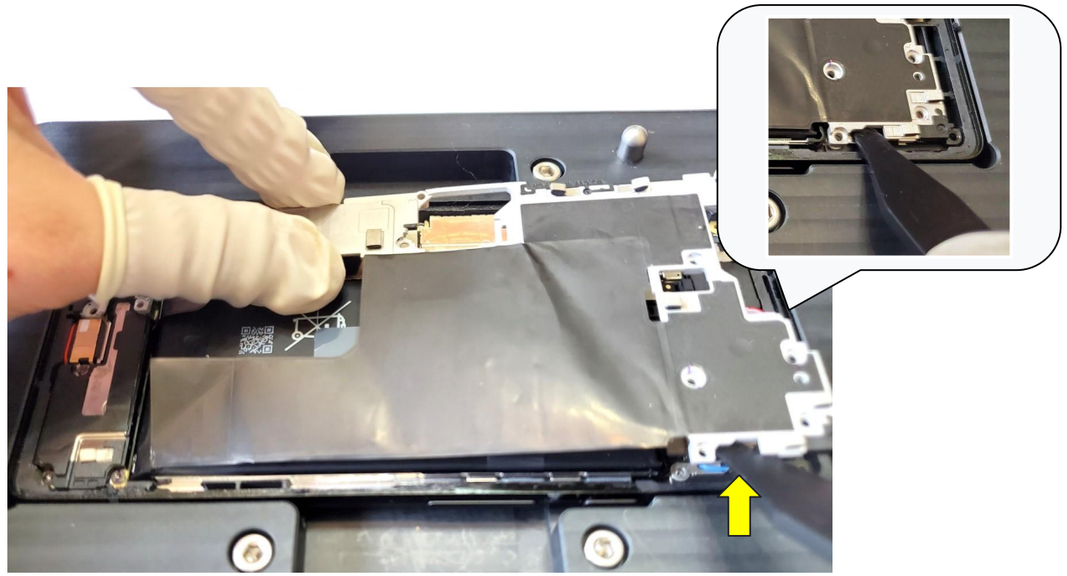


*Do not remove this conductive fabric.

- Use a safety knife to gently cut the conductive fabric that connects top speaker and mid-frame.

Be careful when using the safety knife: wear cut resistant gloves to prevent injury, and take extra care to cut away from the battery to prevent accidental damage.
Incorrect use of the safety knife could cause injury to you or third persons or damage to the battery and/or the product.

Remove Mid-frame

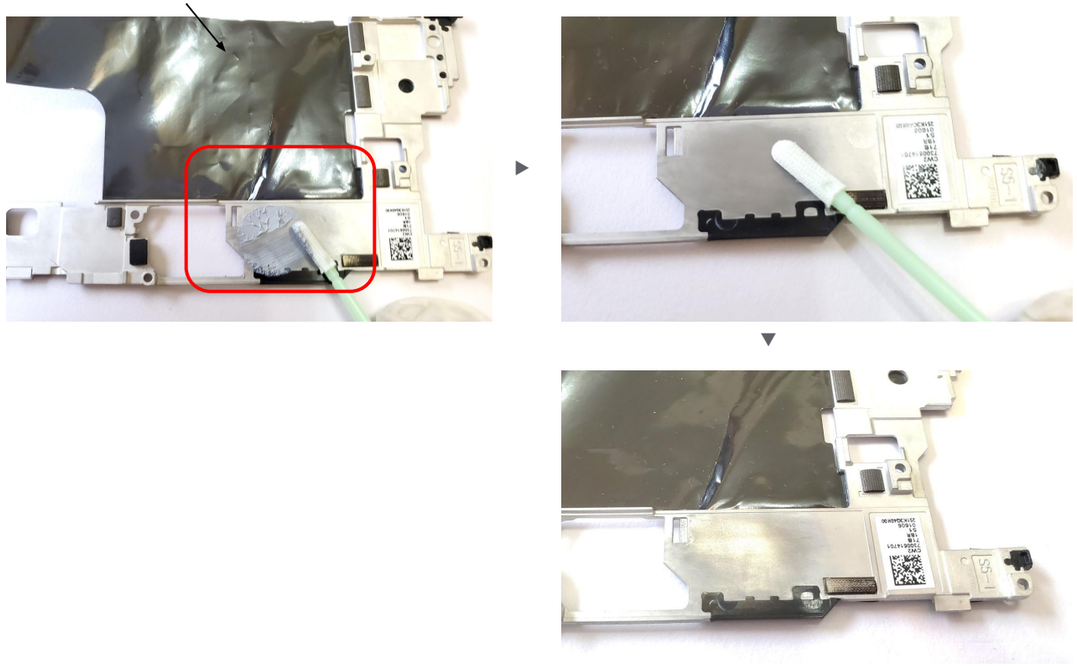


- Use Universal Disassembly ESD stick to lift up the mid-frame from the top right corner.
- Above photo shows the designated location.

Be careful. Both mid-frame and logic board have thermal grease on them.

Clean Thermal Grease

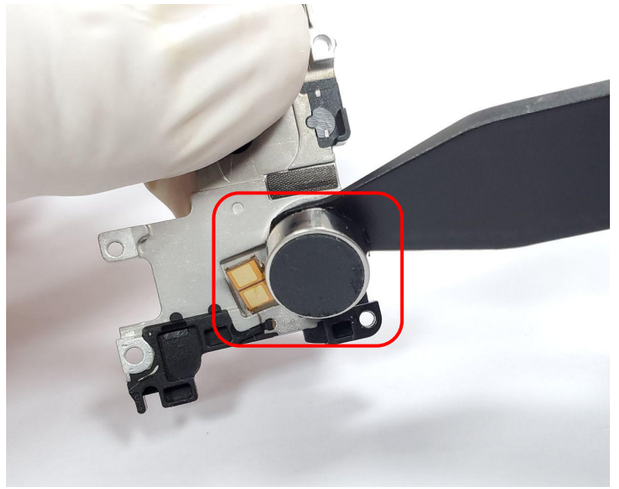
Graphite sheet



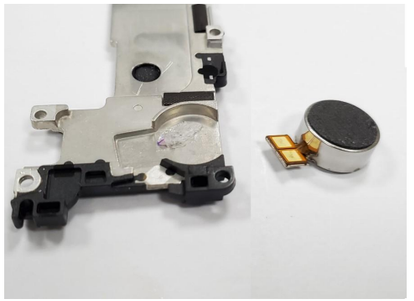
- With a dry cotton swab, clean off the grease on the mid-frame.

Do not use IPA, it may damage the graphite sheet

Remove Vibrator



After

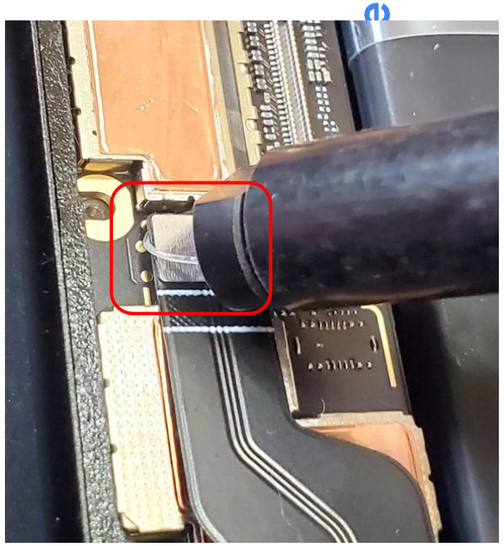


- Insert the Universal Disassembly ESD stick below the vibrator in order to remove it from the mid-frame.

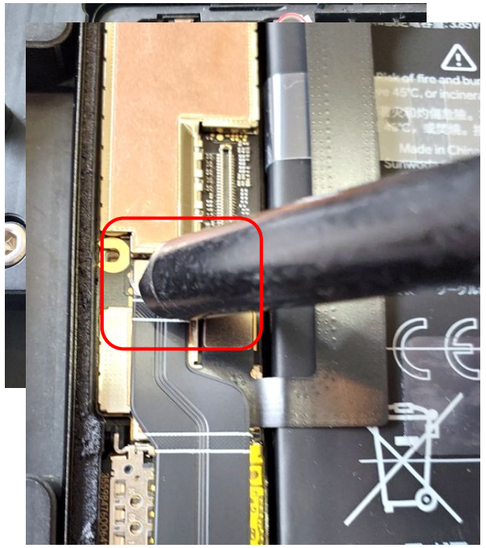
Avoid damaging the black graphite sheet.

Disconnect Battery FPC

Sub6 view



mmWave view



- Use the universal fish line tool to disconnect the battery connector from the logic board.

Clean Thermal Grease Area

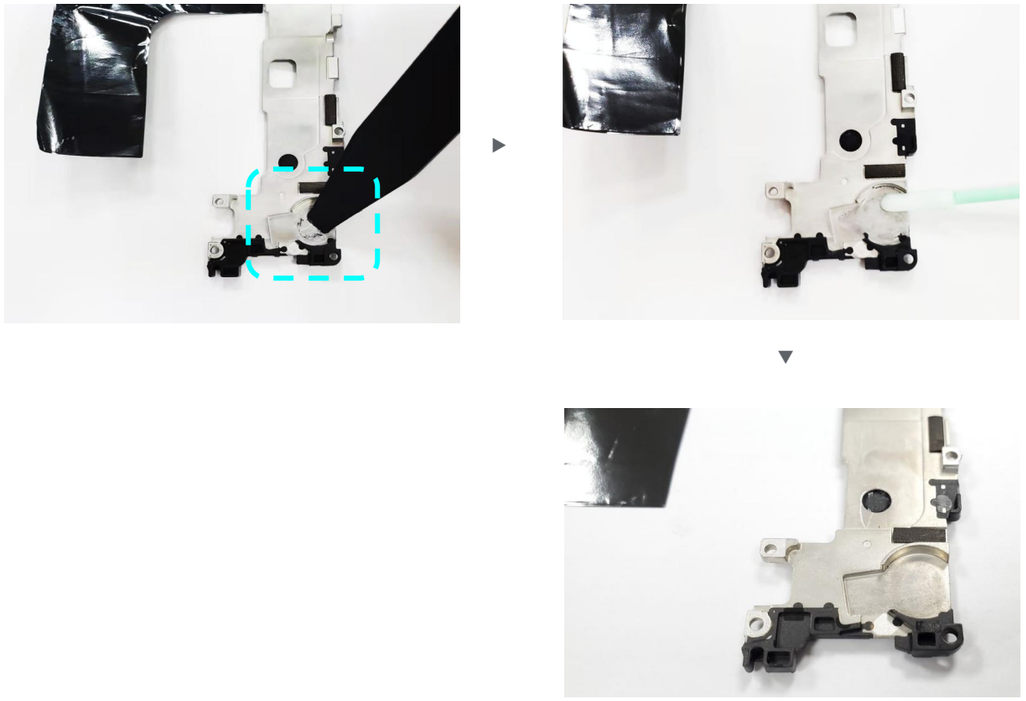
- Clean off the grease from the logic board with cotton swabs.

1. Do not get conductive thermal grease on other components.
2. Do not use IPA.

Assembly instructions

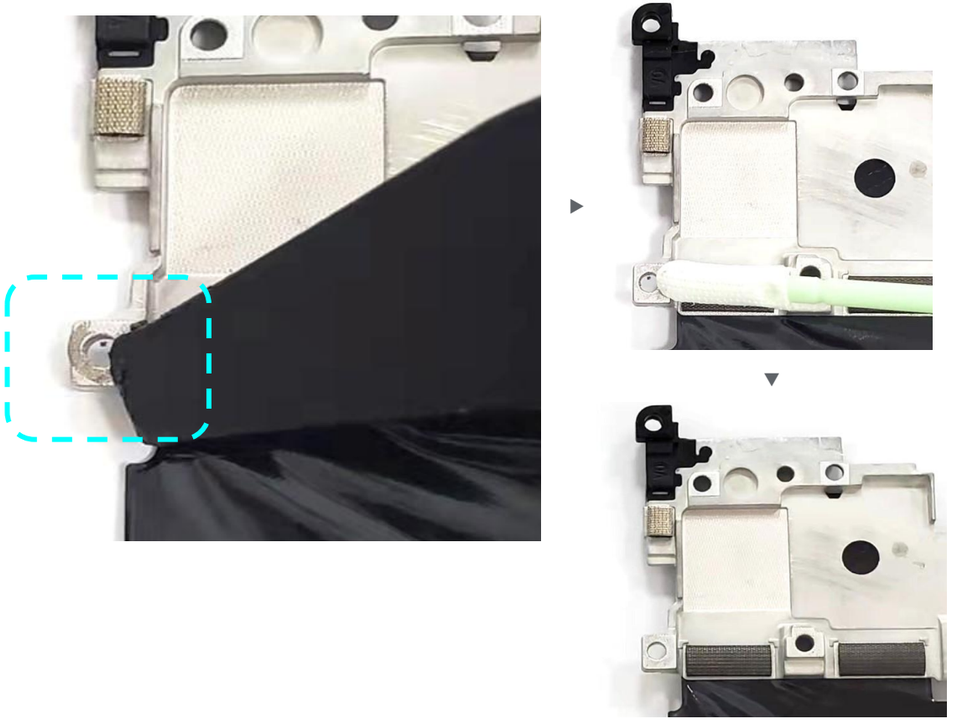
Mid-frame

Rework Vibrator Area
(for Reusing Mid-frame)



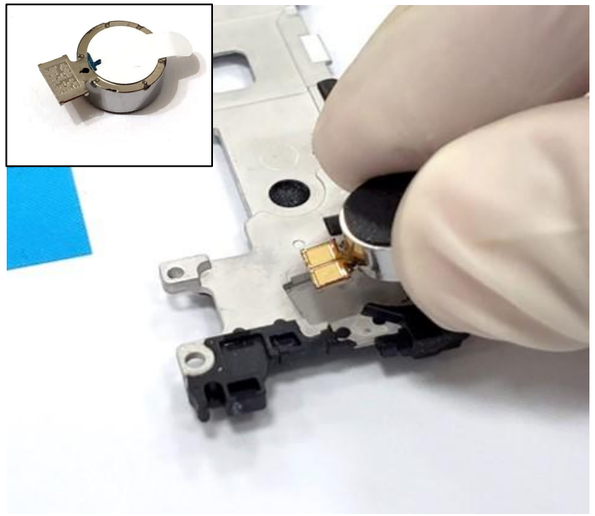
- Use Universal Disassembly ESD stick to clean off the adhesive residue first.
- Wipe the area again with cotton swab and IPA.

Rework Washer Area
(for Reusing Mid-frame)

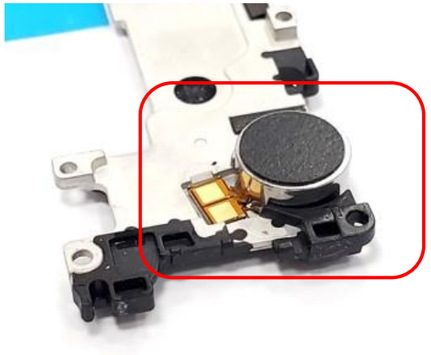


- Use Universal Disassembly ESD stick to clean off the conductive washer residue.
- Wipe the area again with cotton swab and IPA.

Install Vibrator
(For Reusing Mid-frame)



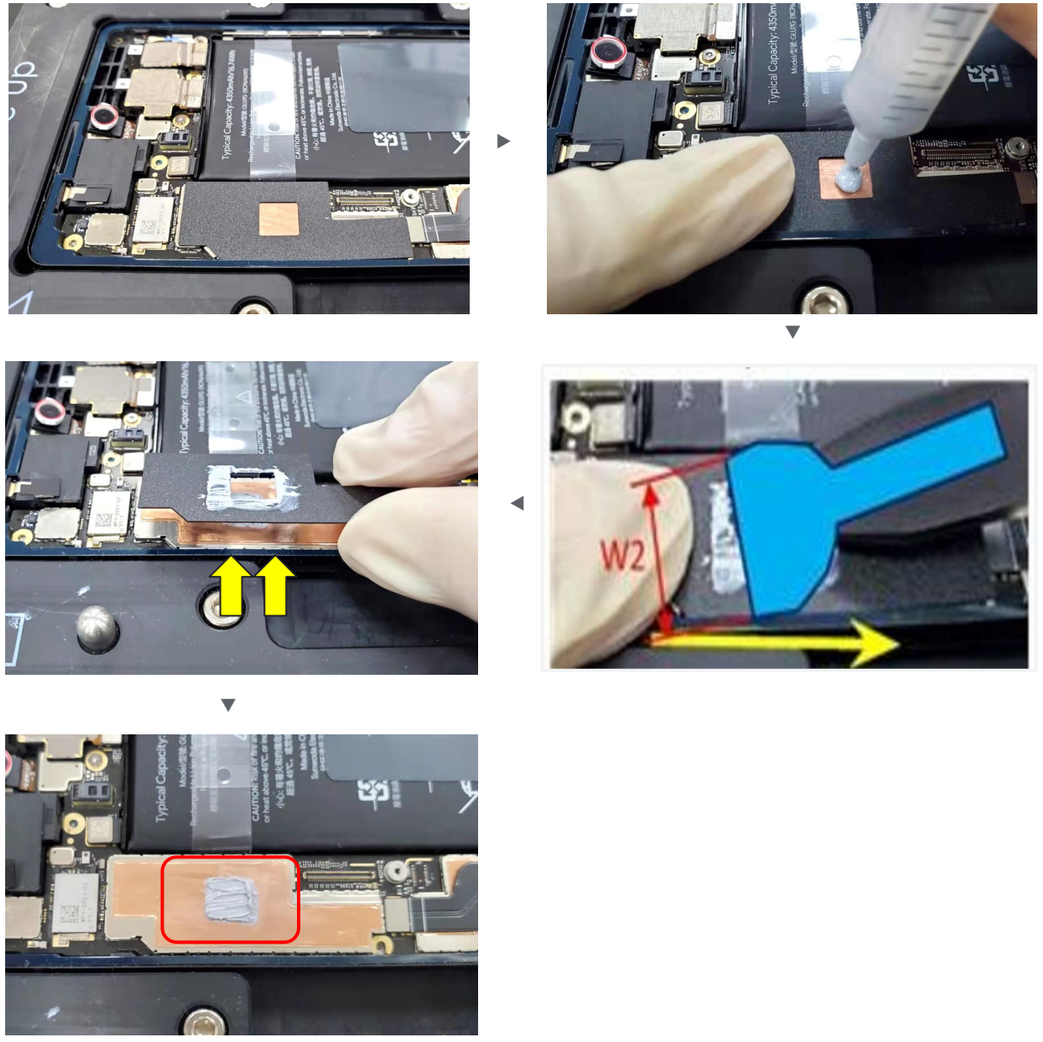
After



- Remove the liner from the vibrator.
- Install vibrator on the back of the Mid-frame.

Incorrect: skewed

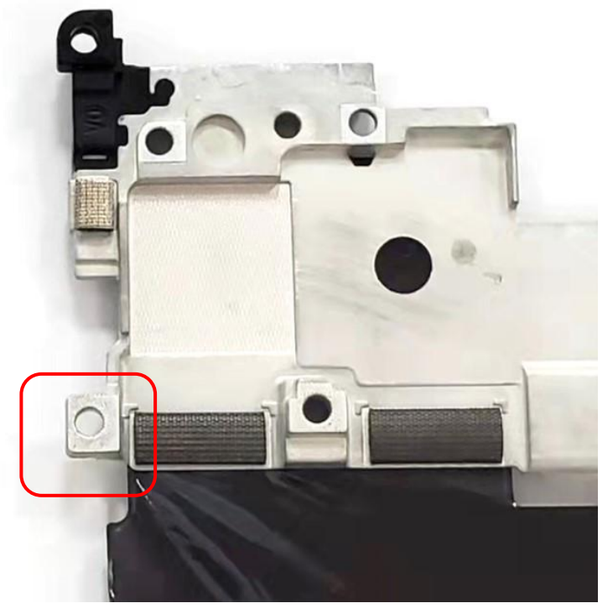
Apply Thermal Grease



- Place the Pixel 6a Thermal Grease Alignment Fixture on the logic board shielding cover – as indicated in the picture.
- Squeeze 1 grid of thermal grease in the designated area.
- Wipe the thermal grease with silicone spatula to cover the entire open area.
  Continue to wipe from ***the same direction****.*
- Remove the Pixel 6a Thermal Grease Alignment Fixture by lifting it straight up.

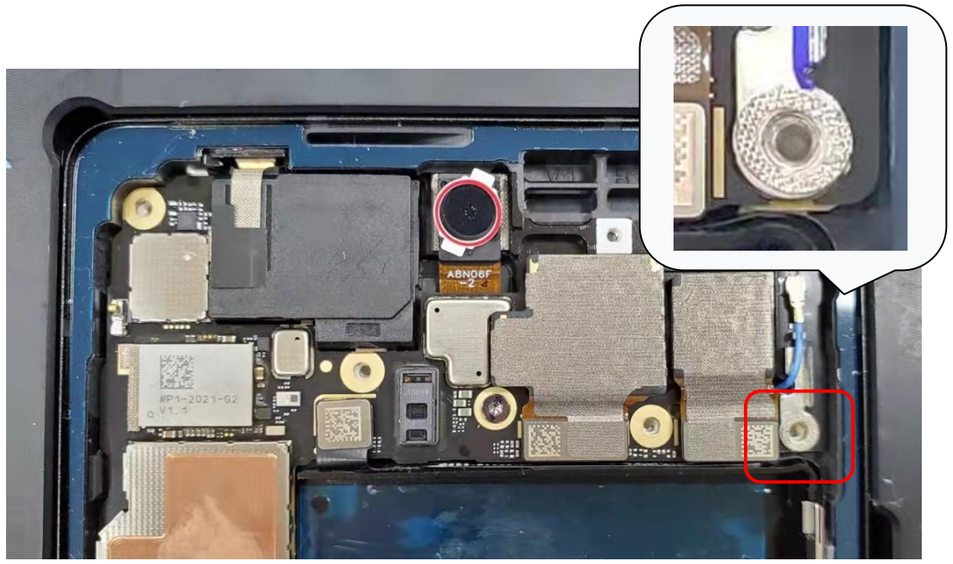
1. Be sure to clean the Pixel 6a Thermal Grease Alignment Fixture & silicone spatula after each use.
2. Do not get conductive thermal grease on any of the nearby components.

Inspect Mid-frame Surface
(for Reusing Mid-frame)



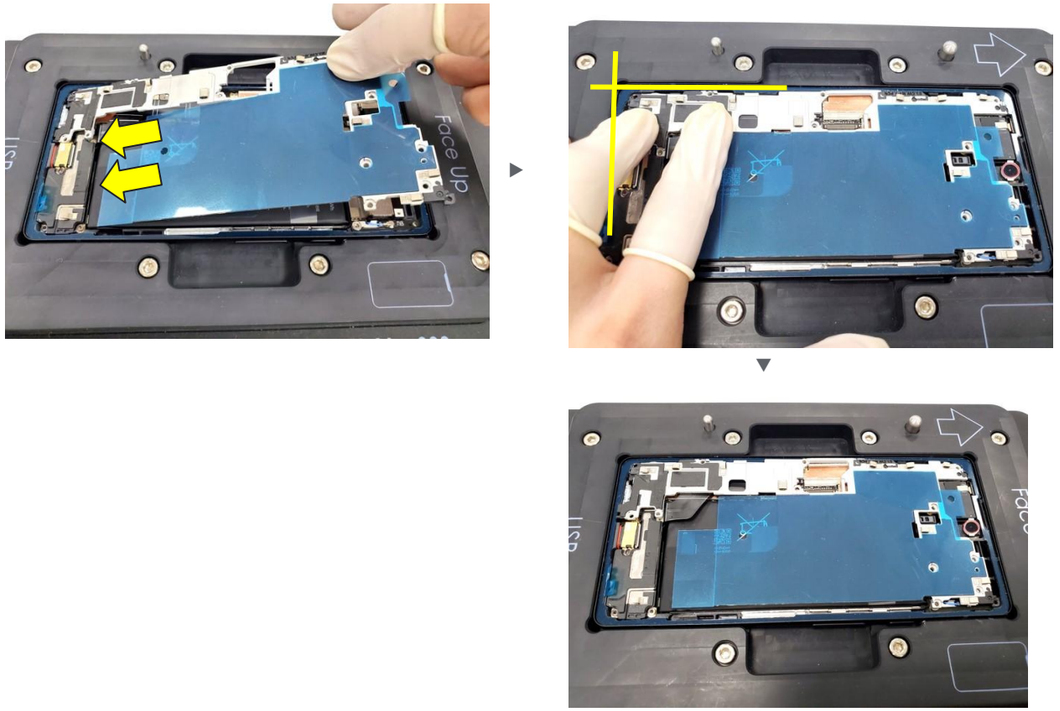
Make sure the conductive fabric washer residue are cleaned off before you begin with re-assembly.

Inspect Logic Board Surface
(for Reusing Logic Board)



Make sure the conductive fabric washer is pasted on the logic board correctly.

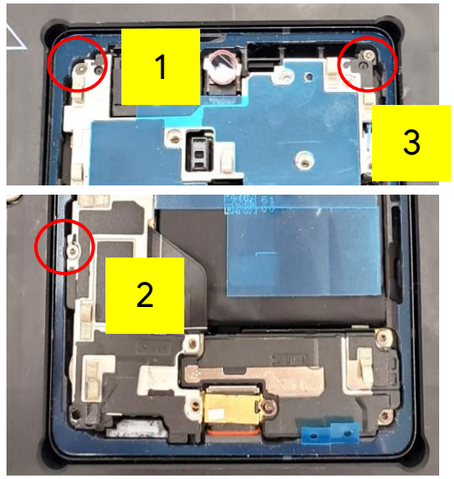
Install Mid-frame



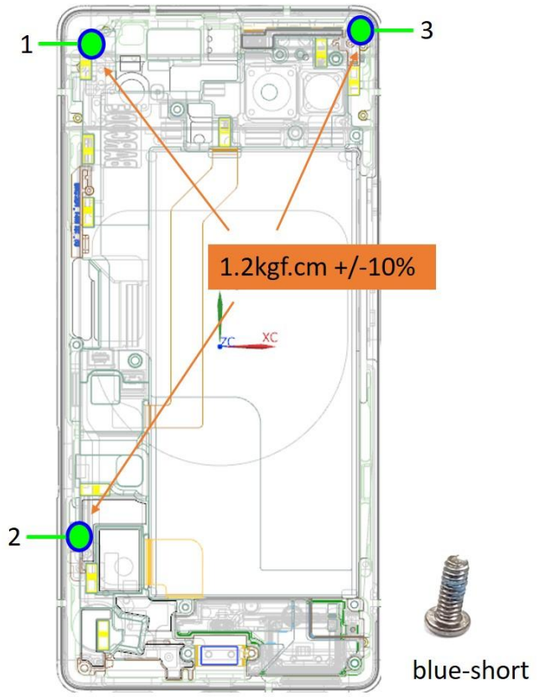
- Align the Mid-frame from the upper left hand corner.

1. Making sure all the springs on the logic board are in good condition.
2. Making sure all the connectors are securely attached to the logic board.

Fasten Screws



	G250-05370-00 M1.4x0.3-3.8, D2.5 (Torque force: 1.2kgf.cm+/-0.12)	3

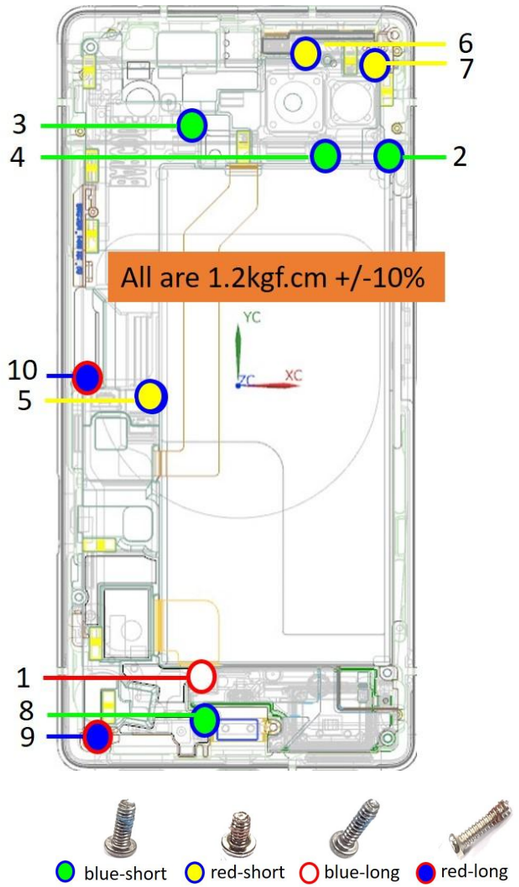


- Use the Pixel 6a Screw Cover to identify screw type and torque force.
- Fasten 3 screws on the Mid-frame with Torx Plus 3IP Screwdriver.

1. Make sure screws are fully installed
2. Do not reuse screws

(Sub6) Fasten Screws

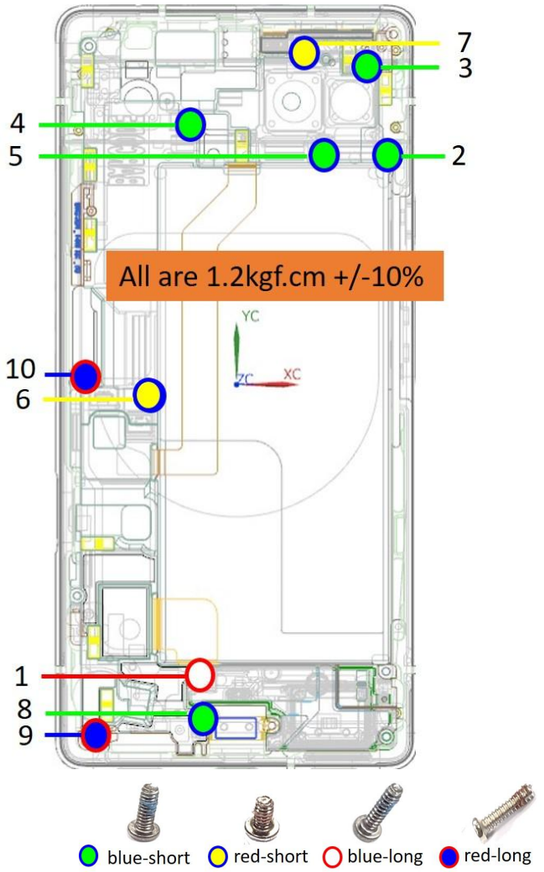
	G250-05371-00 M1.4x0.3-2.4, D2.7 (Torque force: 1.2kgf.cm+/-0.12)	3
	G250-05370-00 M1.4x0.3-3.8, D2.5 (Torque force: 1.2kgf.cm+/-0.12)	4
	G250-06166-00 M1.4x0.3-4.4, D2.5 (Torque force: 1.2kgf.cm+/-0.12)	2
	G250-05726-00 M1.2x0.3-4.1, D2.2 (Torque force: 1.2kgf.cm+/-0.12)	1



- Use the Pixel 6a Screw Cover to identify screw type and torque force.
- Fasten 10 pcs screws on Mid-frame with Torx Plus 3IP Screwdriver.

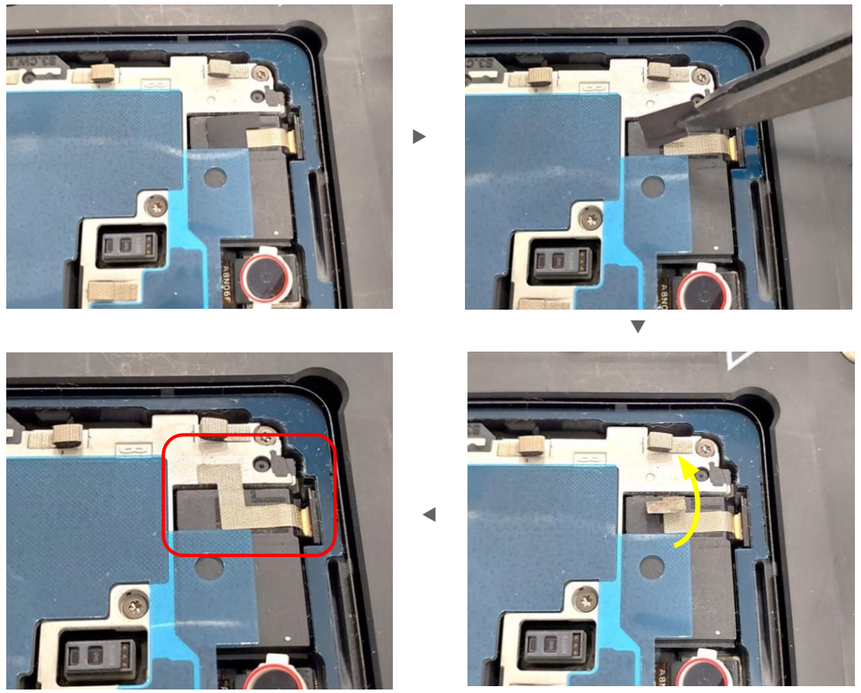
(mmWave) Fasten Screws

	G250-05371-00 M1.4x0.3-2.4, D2.7 (Torque force: 1.2kgf.cm+/-0.12)	2
	G250-05370-00 M1.4x0.3-3.8, D2.5 (Torque force: 1.2kgf.cm+/-0.12)	5
	G250-06166-00 M1.4x0.3-4.4, D2.5 (Torque force: 1.2kgf.cm+/-0.12)	2
	G250-05726-00 M1.2x0.3-4.1, D2.2 (Torque force: 1.2kgf.cm+/-0.12)	1



- Use the Pixel 6a Screw Cover to identify screw type and torque force.
- Fasten 10 pcs screws on Mid-frame with Torx Plus 3IP Screwdriver.

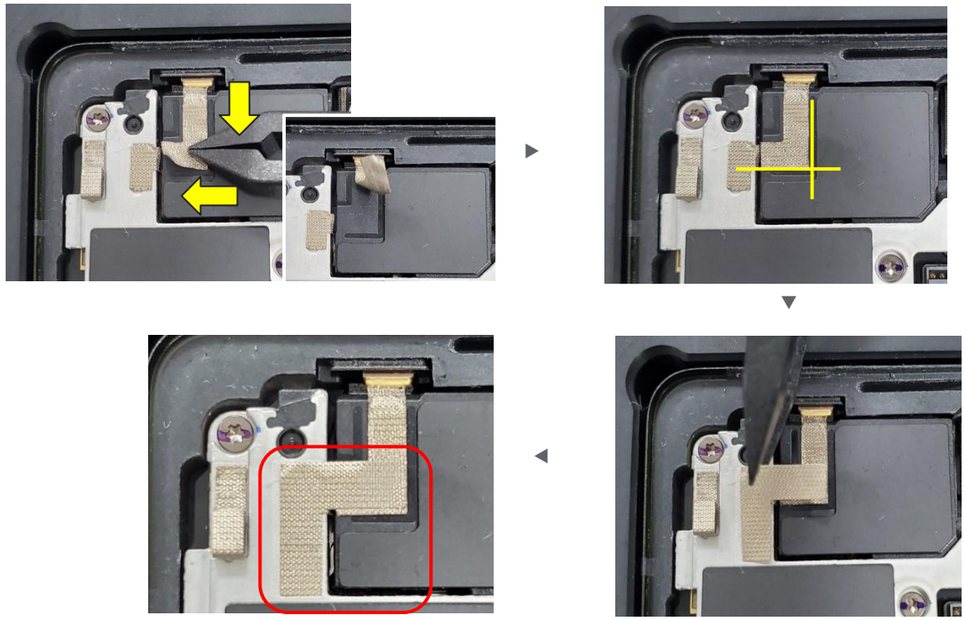
Paste Conductive Fabric
(for New Enclosure)



- Remove the black top to reveal the conductive fabric underneath.
- Stretch the fabric and paste it on the Mid-frame.

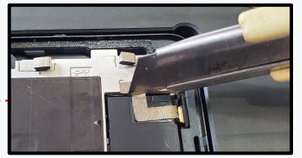
A new top speaker comes with a new conductive fabric.

Paste Conductive Fabric
(for Reusing Enclosure)



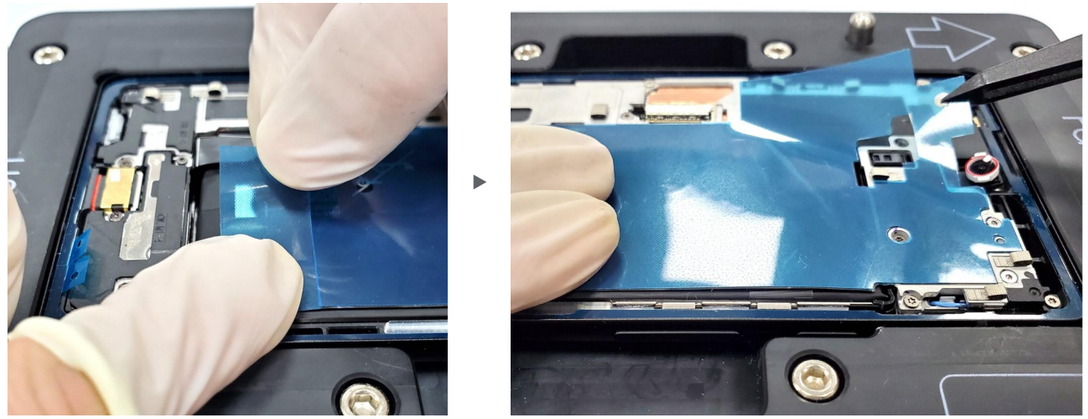
- Restore the remaining conductive fabric back to its original location on the top speaker.
- Paste a new L-shape conductive fabric to bridge the existing ones.

Part: G806-06115-01 (Conductive fabric TSPK Mid-frame)



In the case of repeated return, please tear off the old L-shape conductive fabric and then apply a new one.

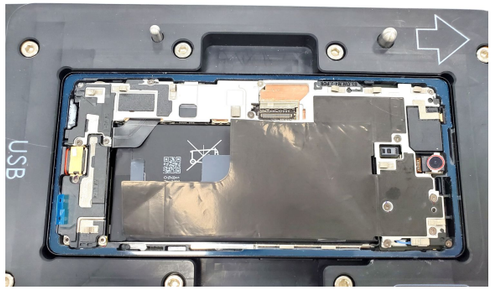
Remove Liner



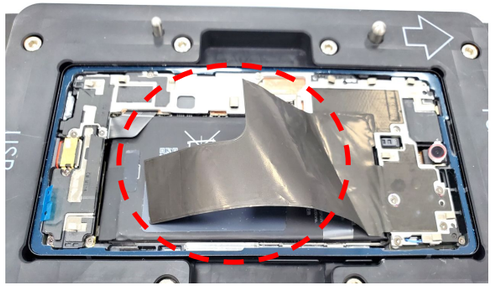
- Peel off the liners from Mid-frame gently and slowly.

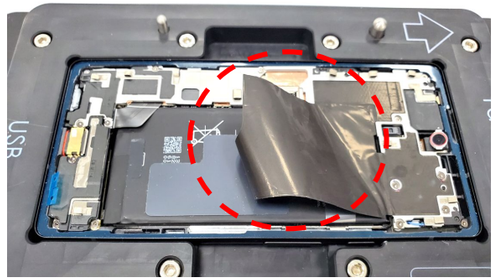
Organize Graphic Sheet

Correct: Smooth



Incorrect: Need to flatten before beginning the display assembly

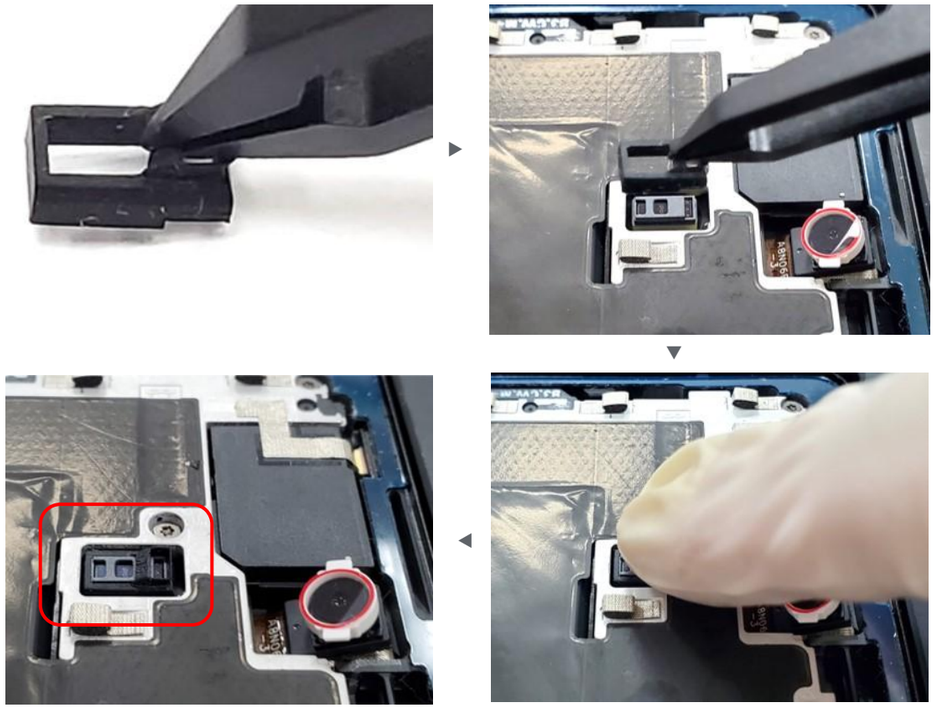




- Smooth out the black graphic sheet and make sure it is NOT curled.

Tears, holes, or breaks are not allowed.
No damage through the black graphite is allowed.

Install P-sensor Rubber



- Transport the P-sensor by holding the middle rib using plastic ESD tweezers.
- Drop the rubber on top of the p-sensor module.

Part: G804-00807-01 (P-sensor rubber)

Make sure the rubber is installed correctly.

Incorrect: missing

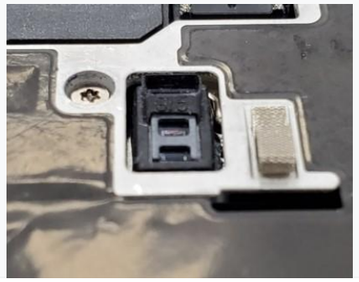
Incorrect: wrong direction

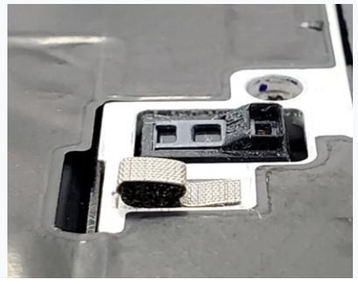
Incorrect: skewed

Incorrect: skewed

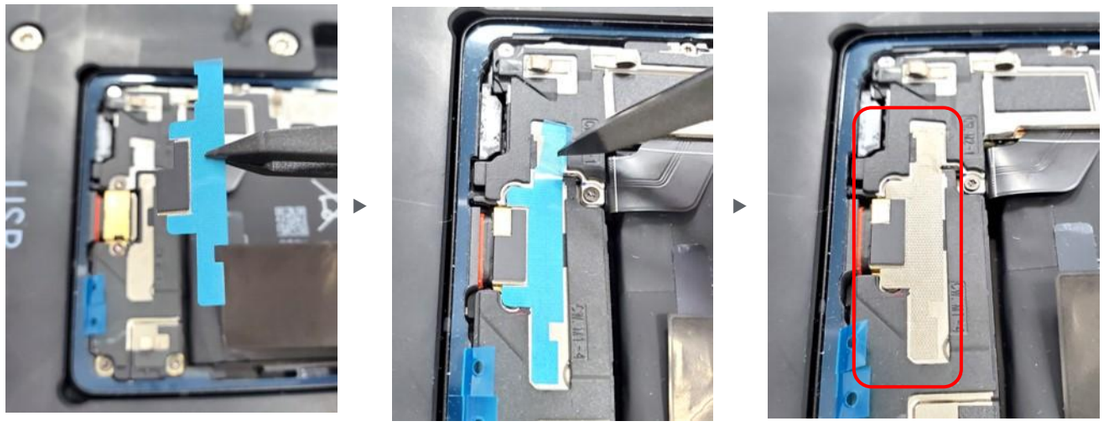
Incorrect: skewed

Correct:





Paste Conductive Fabric

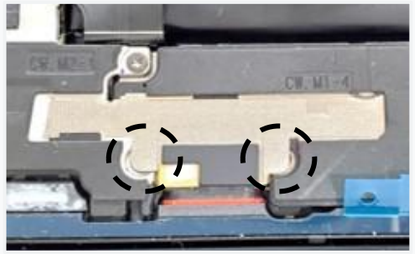


- Use plastic ESD tweezer to transport conductive fabric.
- Align and paste the two extensions over the screws.
- Peel off the liner from conductive fabric.
- Use plastic ESD tweezer to smooth out the surface.

Part: G806-05648-01 (Conductive fabric Mid-frame BTM SPK)

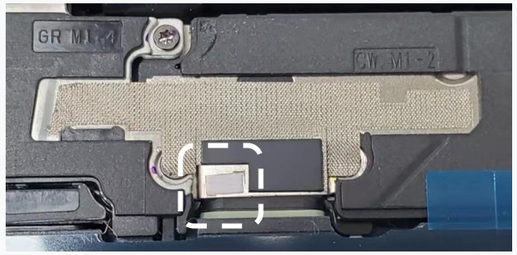
1. Conductive Fabric should cover BOTH screws.

Correct:

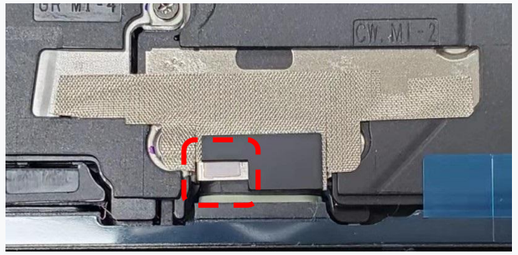


2. Conductive Fabric should NOT be in contact with the LDI.

Correct:



Incorrect: overlaps with LDI

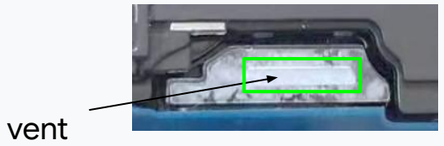


Install Mic.1 Mylar

- Transport the mylar with plastic ESD tweezers.
- Paste the mic.1 mylar around the edges following the yellow indication lines.

Part: G806-05665-01 (Main mic. mylar)

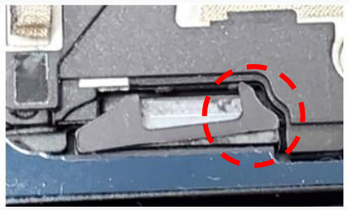
1. Do not damage the vent area (green box). This may impact the air leak performance.



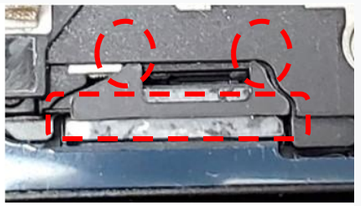
2. Make sure the mylar is installed correctly.

Incorrect: shifted

Incorrect: shifted



Incorrect: shifted



Disassembly instructions

Bottom speaker

Bottom speaker replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame

Tools

Ionizing air fan
Pixel 6a Enclosure Holder
Torx Plus 3IP screwdriver
ESD tweezers
Universal Fish line tool
Pixel 6a Screw Cover

Parts

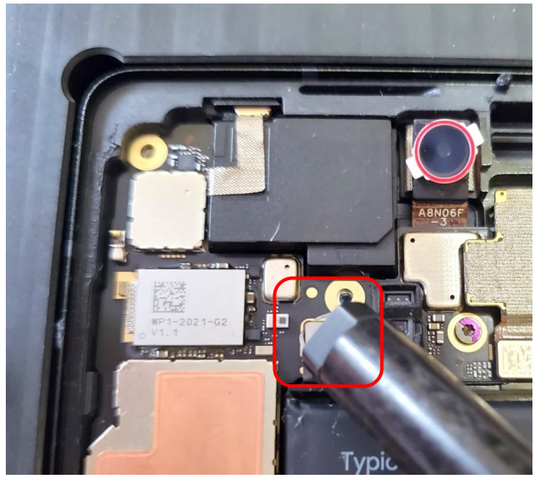
G949-00259-01
Bottom speaker

G250-05370-00
1 x screw

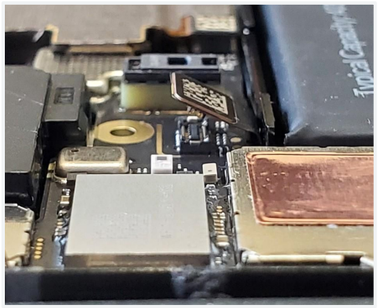
G250-05371-00
2 x screw

Caution!
Review all **safety precautions** before beginning work.

Disconnect the SLAM FPC

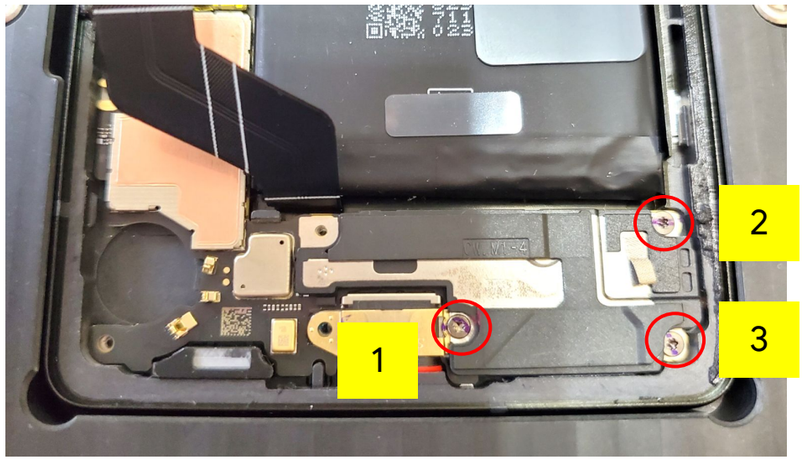


After



- Use universal fish line tool to disconnect SLAM FPC from the logic board.

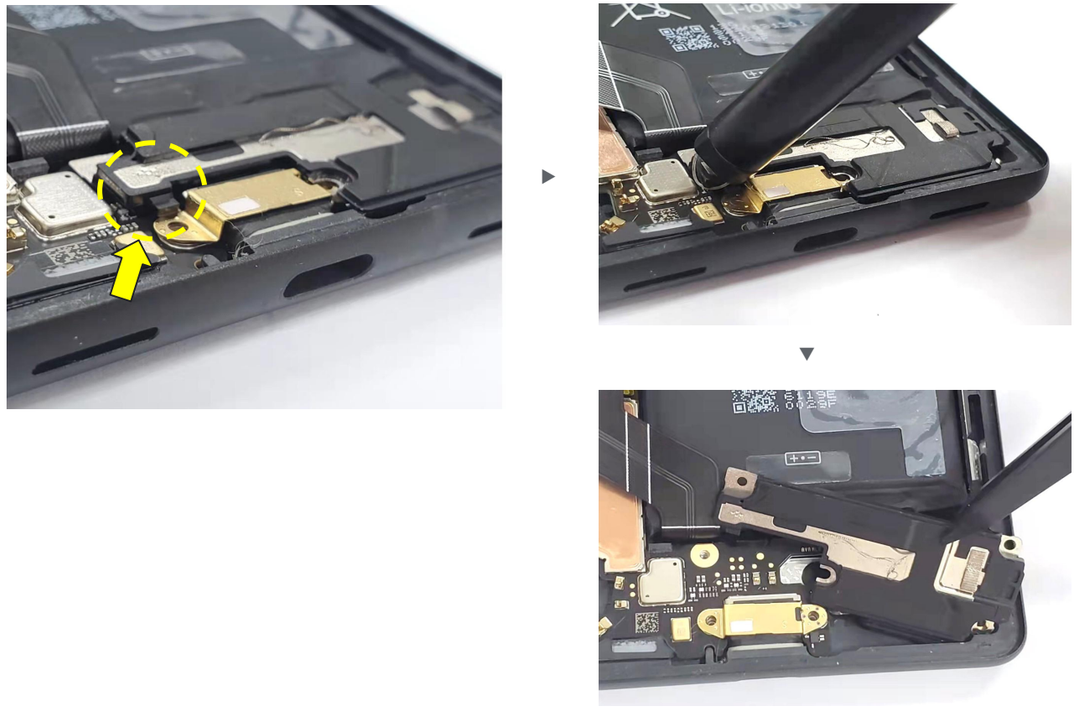
Remove Screws



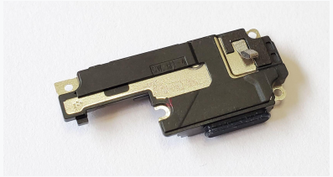
- Use a Torx Plus 3IP Screwdriver to remove 3 screws securing bottom speaker to enclosure.

Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

Remove Bottom Speaker



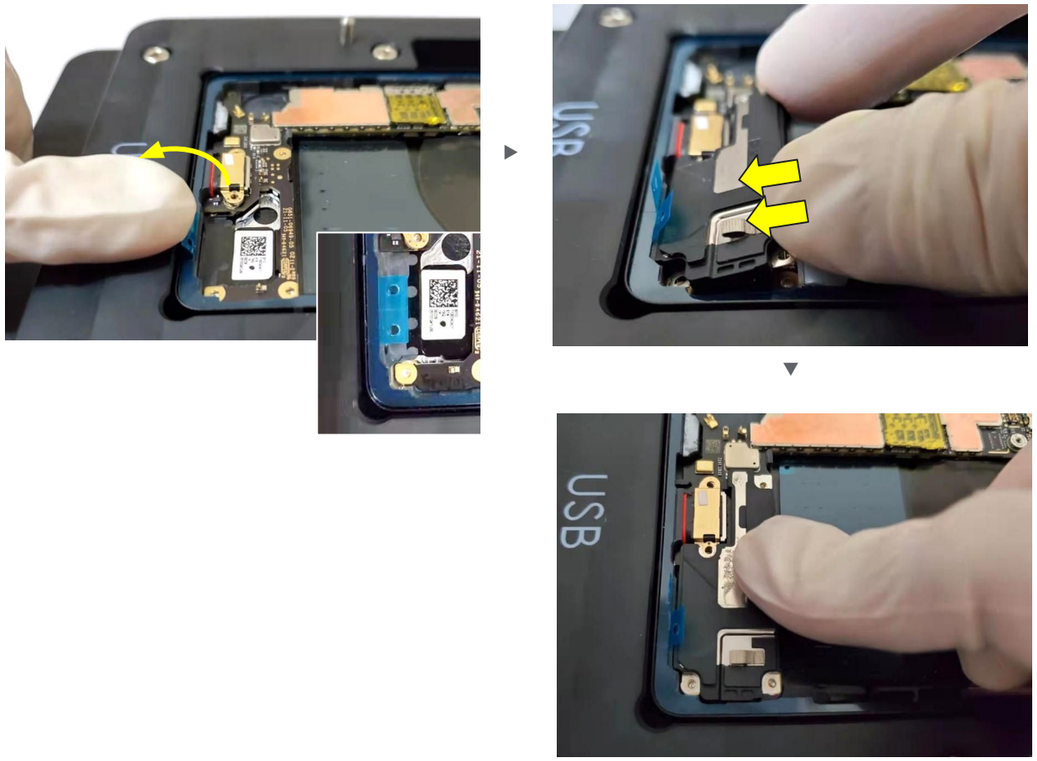
- Use the **universal fish line tool** to scoop up the bottom speaker then take it out with plastic ESD tweezers.



Assembly instructions

Bottom speaker

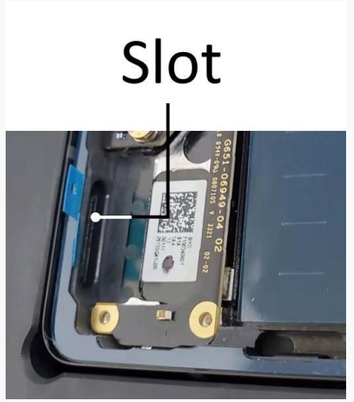
Install Bottom Speaker



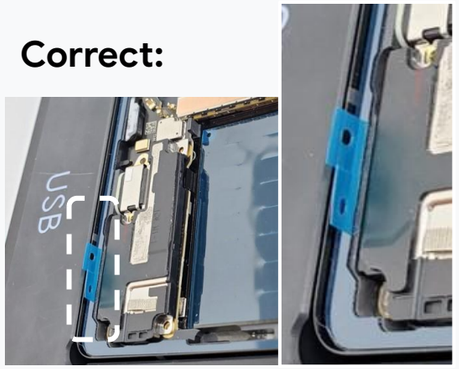
- Pull the PSA backwards using your fingers.
- Install the bottom speaker onto the enclosure.
- Secure the bottom speaker using 1 hook and 1 slot on the enclosure. (please refer right pic.)
- Lightly press the bottom speaker to complete the installation.

#1 Slot

Assemble the Bottom speaker into the slot.

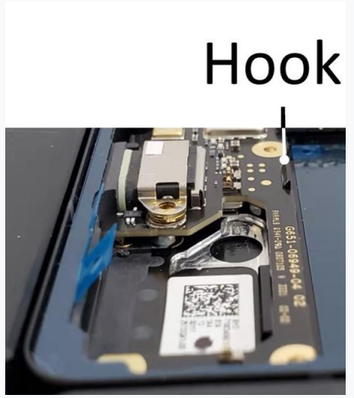


Correct:



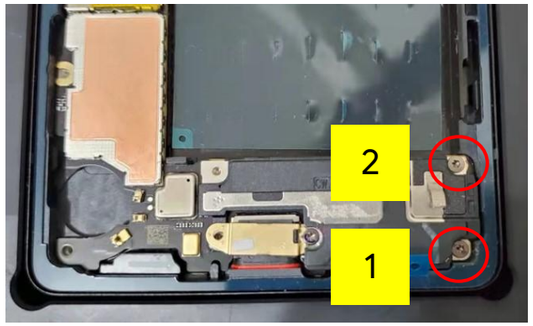
#2 Hook

Bottom speaker should be stacked correctly behind the hook.

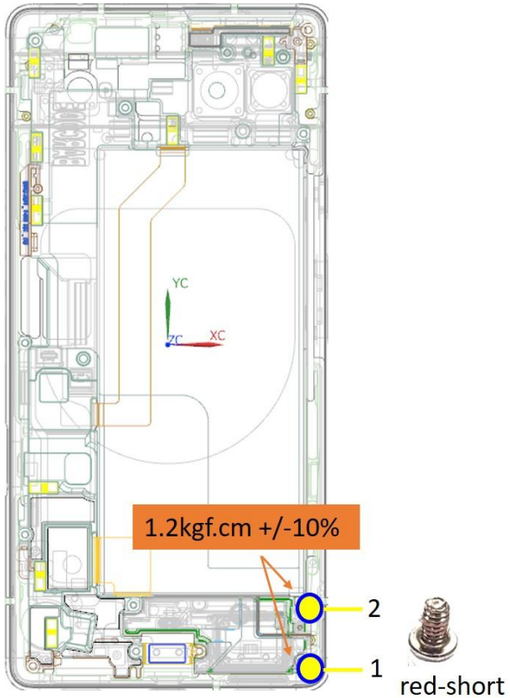


Correct:

Fasten Screws



	G250-05371-00 M1.4x0.3-2.4, D2.7 (Torque force: 1.2kgf.cm +/-10%)	2

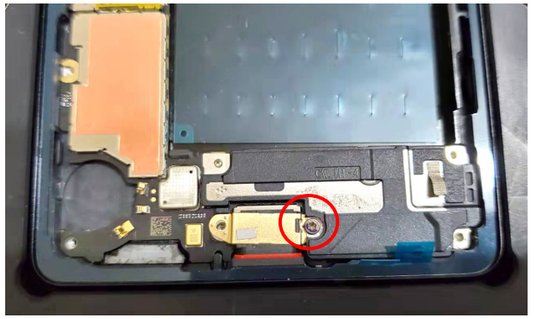


red-short

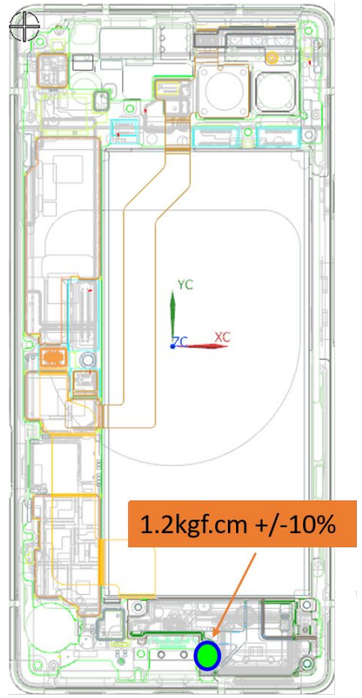
- Use the Pixel 6a Screw Cover to identify screw type and torque force.
- Fasten 2 pcs screws on bottom speaker with Torx Plus 3IP Screwdriver.

Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

Fasten Screws



	G250-05370-00 M1.4x0.3-3.8, D2.5 (Torque force: 1.2kgf.cm +/-10%)	1




blue-short

- Use the Pixel 6a Screw Cover to identify screw type and torque force.
- Fasten 1 screw on bottom speaker with Torx Plus 3IP Screwdriver.

Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

Disassembly instructions

mmWave

mmWave replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame

Tools

Ionizing air fan
Pixel 6a Enclosure Holder
Torx Plus 3IP screwdriver
ESD tweezers
Universal Disassembly ESD stick
Universal Fish line tool
Pixel 6a Screw Cover
IPA
Cotton swabs

Caution!
Review all **safety precautions** before beginning work.

mmWave replacement

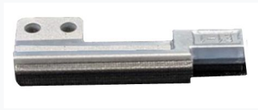
Millimeter waves (**mmWave**) are the radio waves used to build a 5G network, providing fast, reliable mobile data with low latency for the latest devices.

Parts

G652-01730-03
mmWave FPC

G345-01031-01
mmWave RF module

G949-00257-01
mmWave bracket



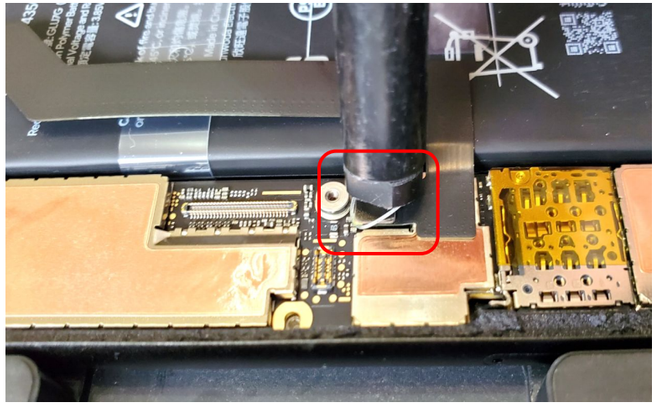
G250-05371-00
1 x screw

G864-00471-01
mmWave Top thermal trim

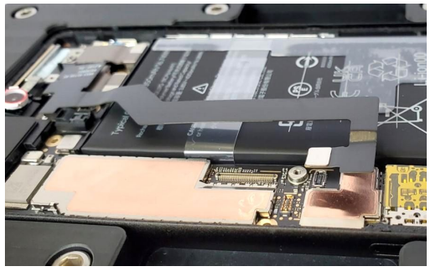
G864-00472-01
mmWave Bottom thermal trim

Caution!
Review all **safety precautions** before beginning work.

(mmWave) Disconnect FPC

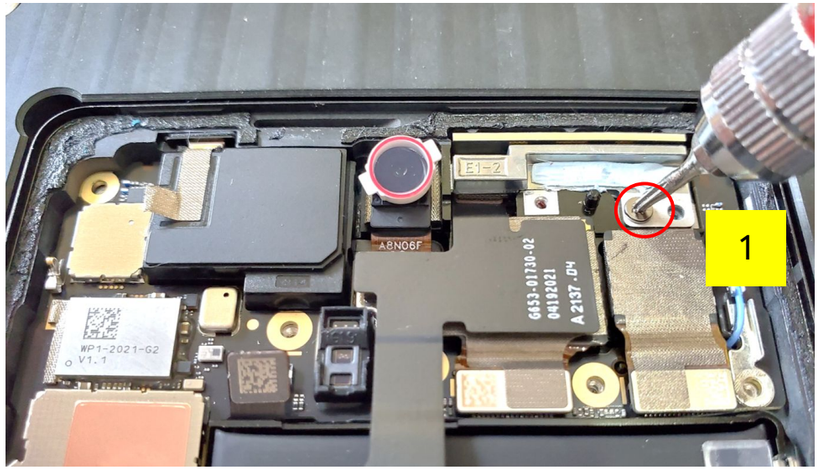


After



- Use universal fish line tool to disconnect mmWave FPC from the logic board.

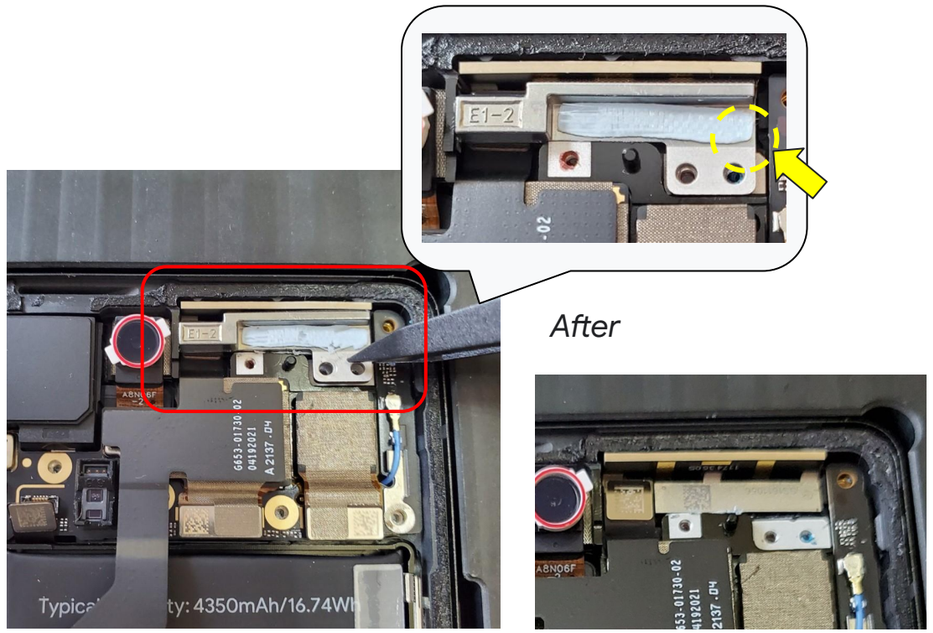
(mmWave) Remove Screws



- Use a Torx Plus 3IP Screwdriver to remove 1 screw that secures bracket to enclosure.

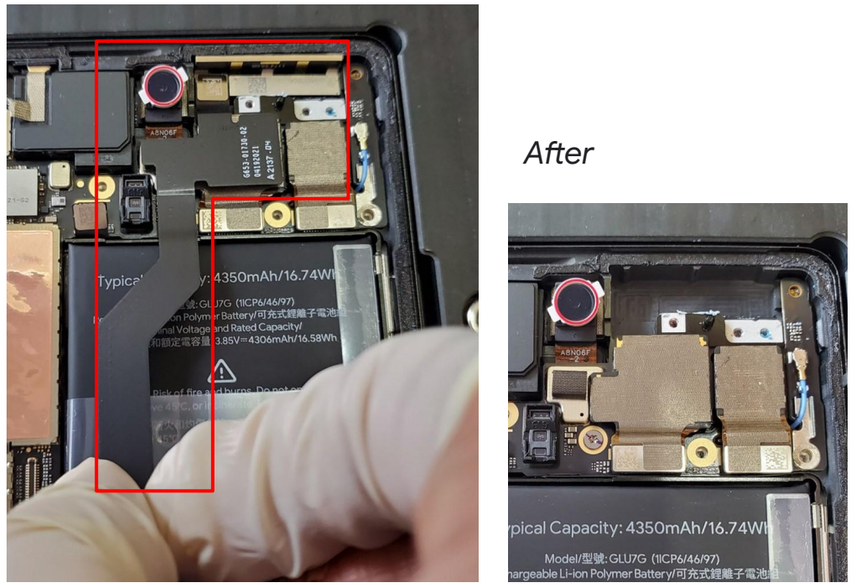
Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

(mmWave) Remove Bracket



- Use the plastic ESD tweezer to extract the bracket.

(mmWave) Remove FPC



- Remove mmWave FPC & mmWave module from enclosure.

(mmWave) Separate FPC & Module

After

- Hold the mmWave module from both sides and detach FPC from it.

Assembly instructions

mmWave

Rework mmWave Bracket
(for Reusing Bracket)

- Clean off the thermal trim adhesive residue on the mmWave bracket with Universal Disassembly ESD stick
- Use IPA and cotton swabs to wipe off the remaining residues.

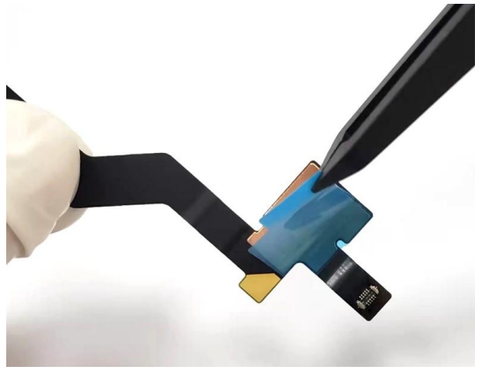
Rework mmWave Module
(for Reusing mmWave Module)

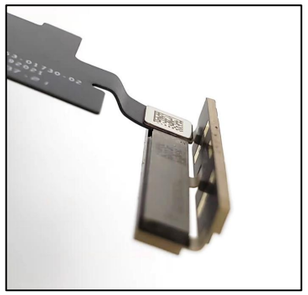
- Clean off the thermal trim adhesive residue on the mmWave module with Universal Disassembly ESD stick .
- Use IPA and cotton swabs to wipe off the remaining residues.

Do not allow adhesive to contaminate the connector

Incorrect

(mmWave) Connect FPC & Module

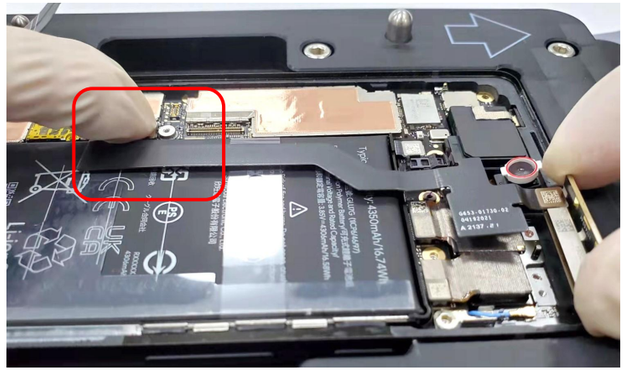


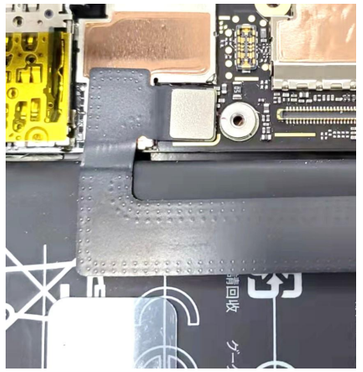


- Using plastic ESD tweezer to remove liner from FPC.
- Connect FPC to the mmWave module.

Make sure the connector is attached securely.

(mmWave) Connect FPC

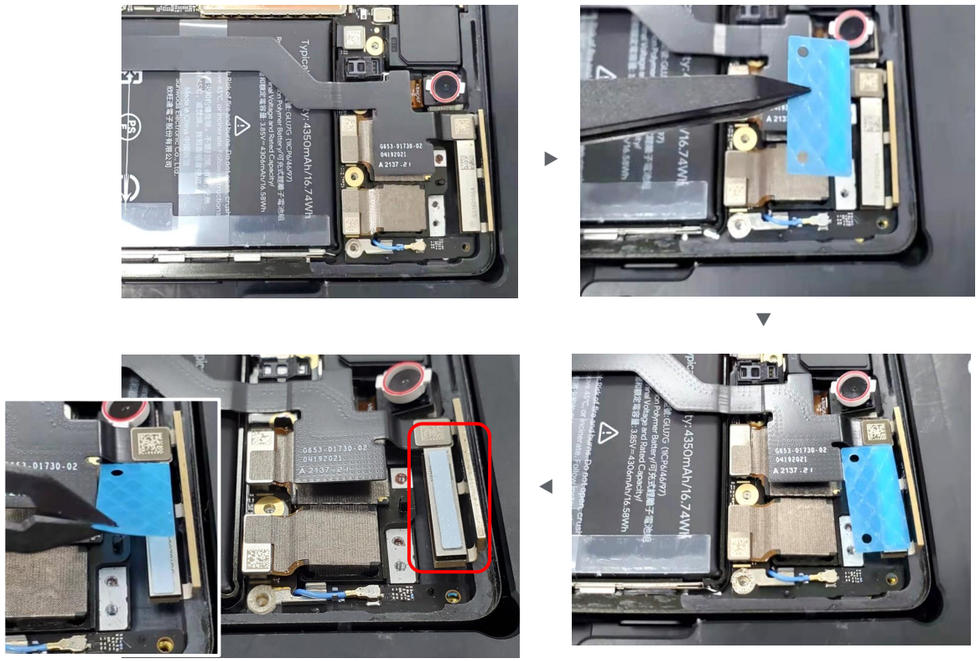




- Connect FPC to the logic board.

Make sure the connector is securely attached to the logic board.

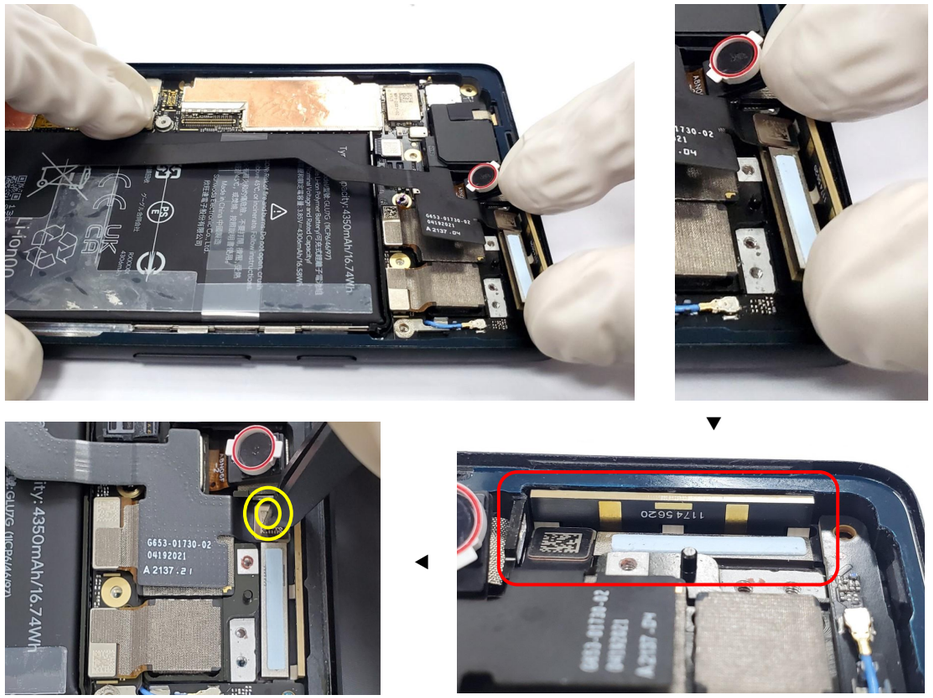
(mmWave) Attach Thermal Trim



- Transport the thermal trim with plastic ESD tweezers.
- Paste thermal trim on the mmWave module. Make sure the diecut is centered.
- Gently press on the thermal trim using plastic ESD tweezers to strengthen the adhesiveness.
- Finally, tear off the liner.

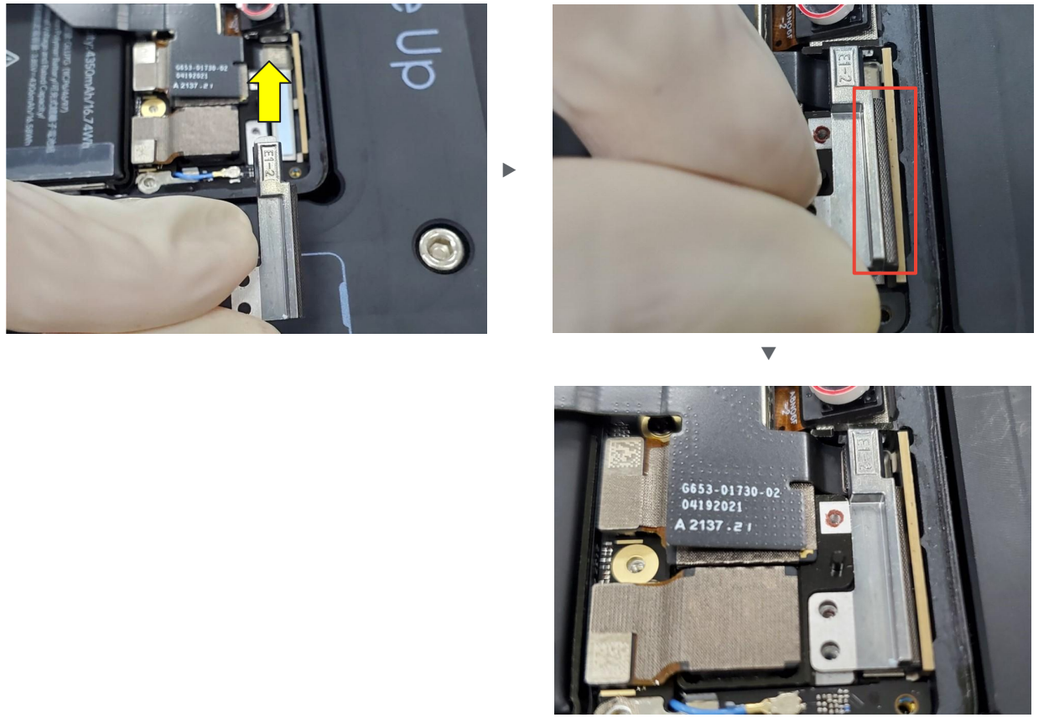
Part: G864-00472-01 (mmWave Bottom thermal trim)

(mmWave) Install FPC & Module



- Drop the FPC along with mmWave module into the enclosure.
- Use plastic ESD tweezers and press the connector section of the module to complete the installation.

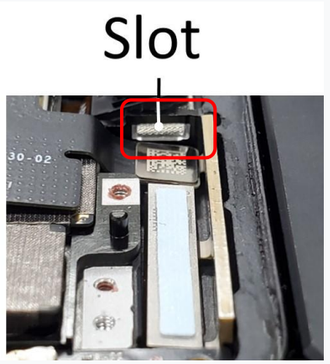
(mmWave) Install mmWave Bracket



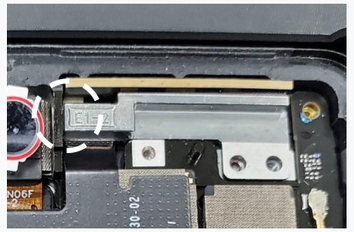
- Insert the mmWave bracket into the enclosure.
- Secure the mmWave bracket using 1 slot on the enclosure. (please refer to pics on the right)

#1 Slot

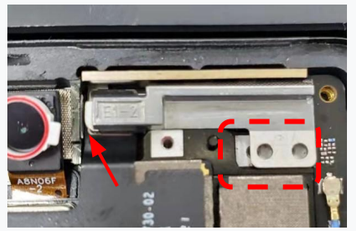
Assemble the mmWave bracket into the slot.



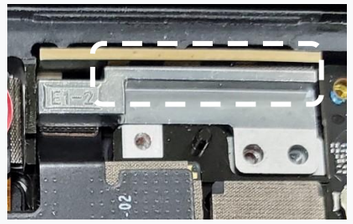
Correct:



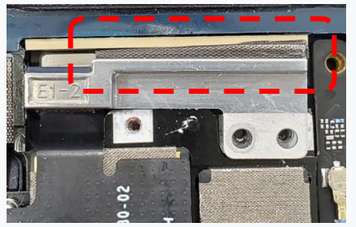
Incorrect:
Not inserted into the slot



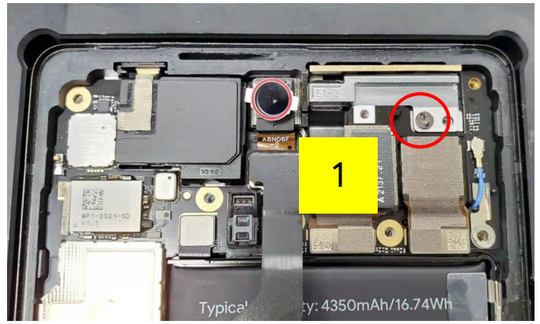
Correct:

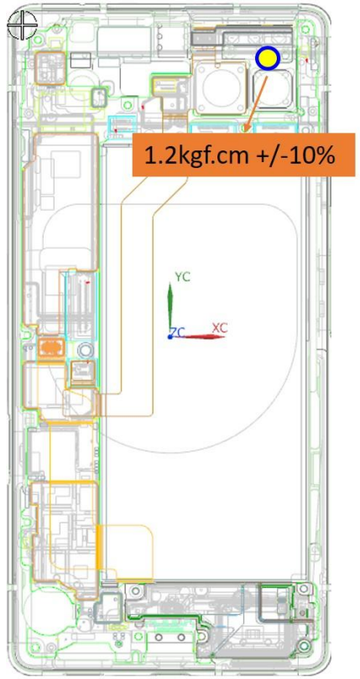


Incorrect: FOF sticking out



(mmWave) Fasten Screws





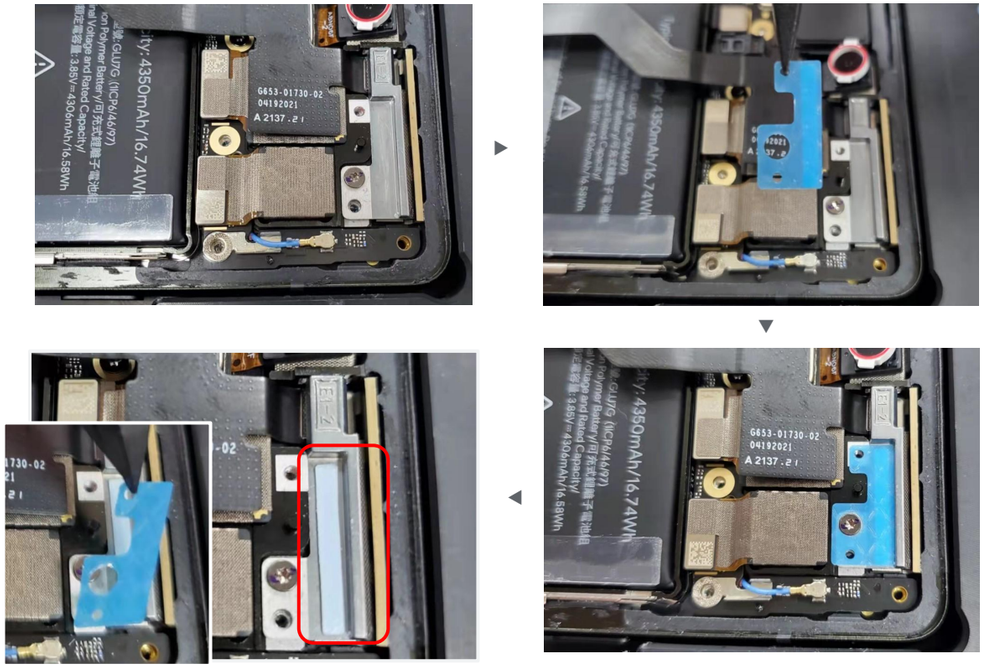
red-short

○	G250-05371-00 M1.4x0.3-2.4, D2.7 (Torque force: 1.2kgf.cm +/-10%)	1

- Use the Pixel 6a Screw Cover to identify screw type and torque force.
- Fasten 1 screw on mmWave bracket with Torx Plus 3IP Screwdriver .

Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

(mmWave) Attach Thermal Trim



- Transport the thermal trim with plastic ESD tweezers.
- Paste thermal trim on the mmWave module. Make sure the diecut is centered.
- Gently press on the thermal trim using plastic ESD tweezers to strengthen the adhesiveness.
- Finally, tear off the liner.

Part: G864-00471-01 (mmWave Top thermal trim)

Disassembly instructions

Rear camera

Rear camera replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame
- mmWave
  (only for VZW device)

Tools

Ionizing air fan
Pixel 6a Enclosure Holder
Torx Plus 3IP screwdriver
ESD tweezers
Universal Fish line tool
Universal Cap Removal
Pixel 6a Screw Cover

Caution!
Review all **safety precautions** before beginning work.

Rear camera replacement

The **Rear cameras** are not fastened to the enclosure, it is simply connected to the **Logic board**.

Parts

G949-00253-01
Wide rear camera

G949-00254-01
UW rear camera

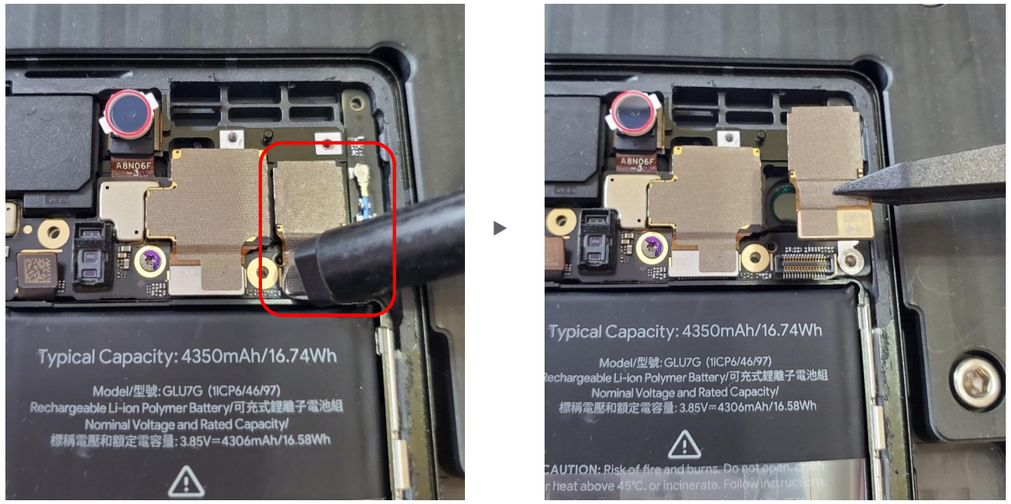
G806-06073-01
Wide rear camera cap

G806-06074-01
UW rear camera cap

G806-03422-01
Protective film

G806-05556-01
Protective film, UW camera socket

Remove UW Rear Camera



- Use universal fish line tool to disconnect UW camera from the logic board.
- Use plastic ESD tweezers to remove it.

Cover the Protective Cap

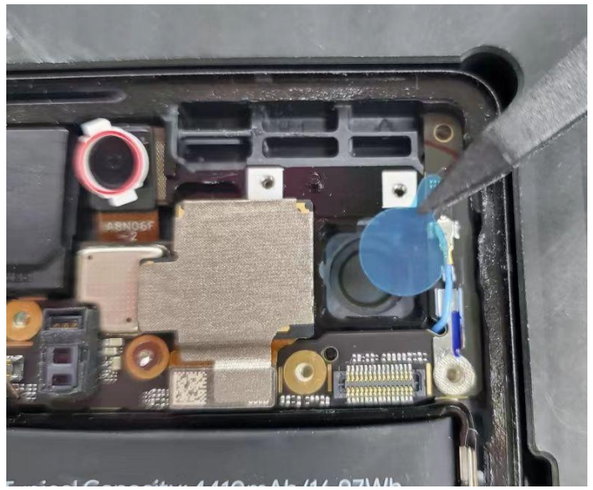
After

- Carefully assemble the protective cap on the camera in order to avoid dust.

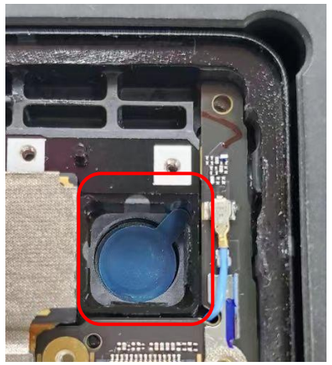
Part: G806-06074-01 (UW camera protective cap)

1. Protective cap is a reusable part. If the adhesive has weakened or if there is dust inside the cap, please change to a new one.
2. Do not damage the camera lens.

Cover Camera Socket



After

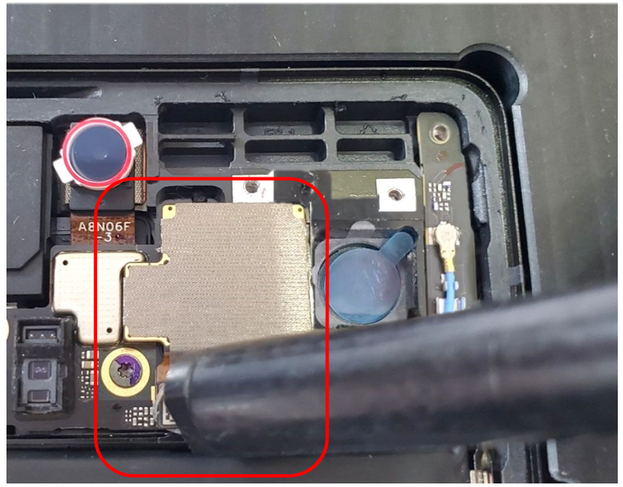


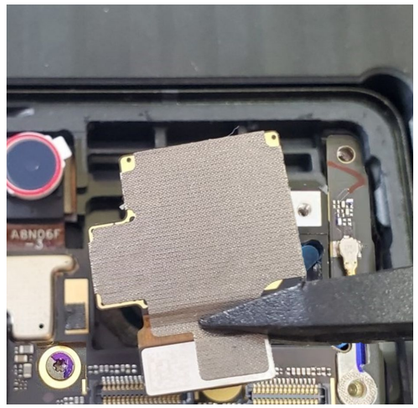
- Use plastic ESD tweezers to take a protective film, and cover the UW camera socket completely.

Part: G806-05556-01 (Protective film, UW camera socket)

1. Make sure the camera socket is clear from dust and debris before covering it with protective film.
2. Apply the protective film gently and do not damage the sponge inside the socket.
3. Do not reuse protective film.

Remove Wide Rear Camera

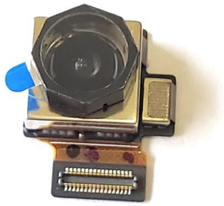




- Use universal fish line tool to disconnect wide camera from the logic board.
- Use plastic ESD tweezers to remove it.

Cover the Protective Cap

After

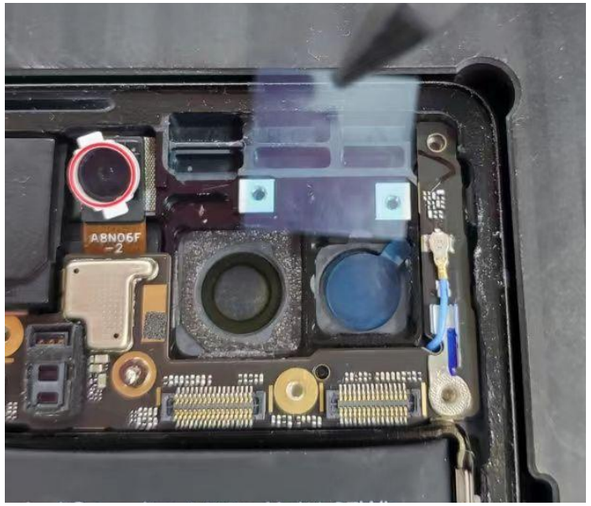


- Carefully assemble the protective cap on the camera in order to avoid dust.

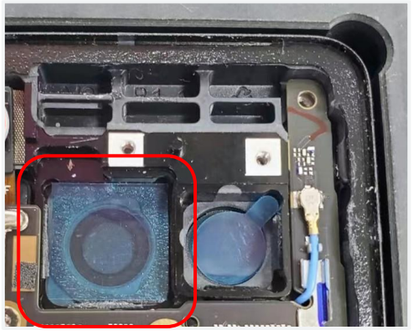
Part: G806-06073-01 (Wide camera protective cap)

1. Protective cap is a reusable part. If the adhesive has weakened or if there is dust inside the cap, please change to a new one.
2. Do not damage the camera lens.

Cover Camera Socket



After



- Use plastic ESD tweezers to take a protective film, and cover the wide camera socket completely.

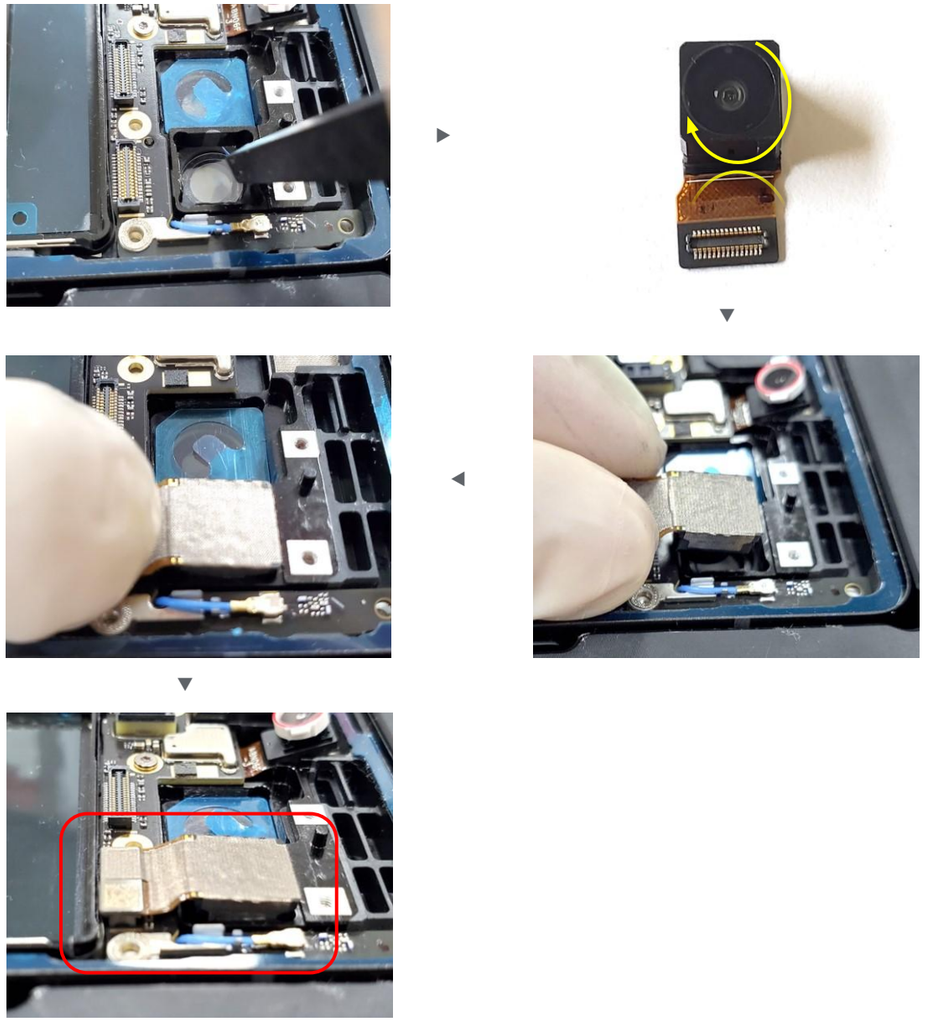
Part: G806-03422-01 (Protective film)

1. Make sure the camera socket is clear from dust and debris before covering it with protective film.
2. Apply the protective film gently and do not damage the sponge inside the socket.
3. Do not reuse protective film.

Assembly instructions

Rear camera

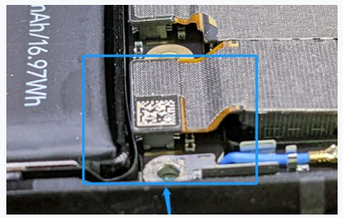
Install UW Rear Camera



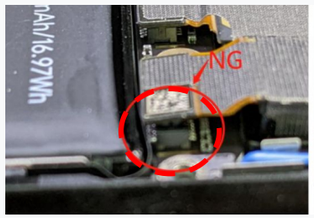
- Gently remove the protective film from the UW camera socket with plastic ESD tweezers.
- Twist the protective cap clockwise by hand to remove it. **Do not touch the lens.**
- Assemble UW camera and connect it to the logic board.

1. Make sure the connector is attached securely to the logic board.

Correct:

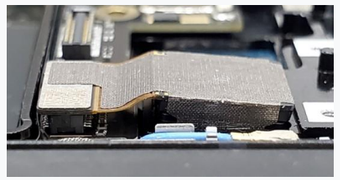


Incorrect: not fully connected

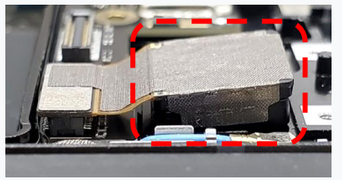


2. Make sure the lens is not floating.

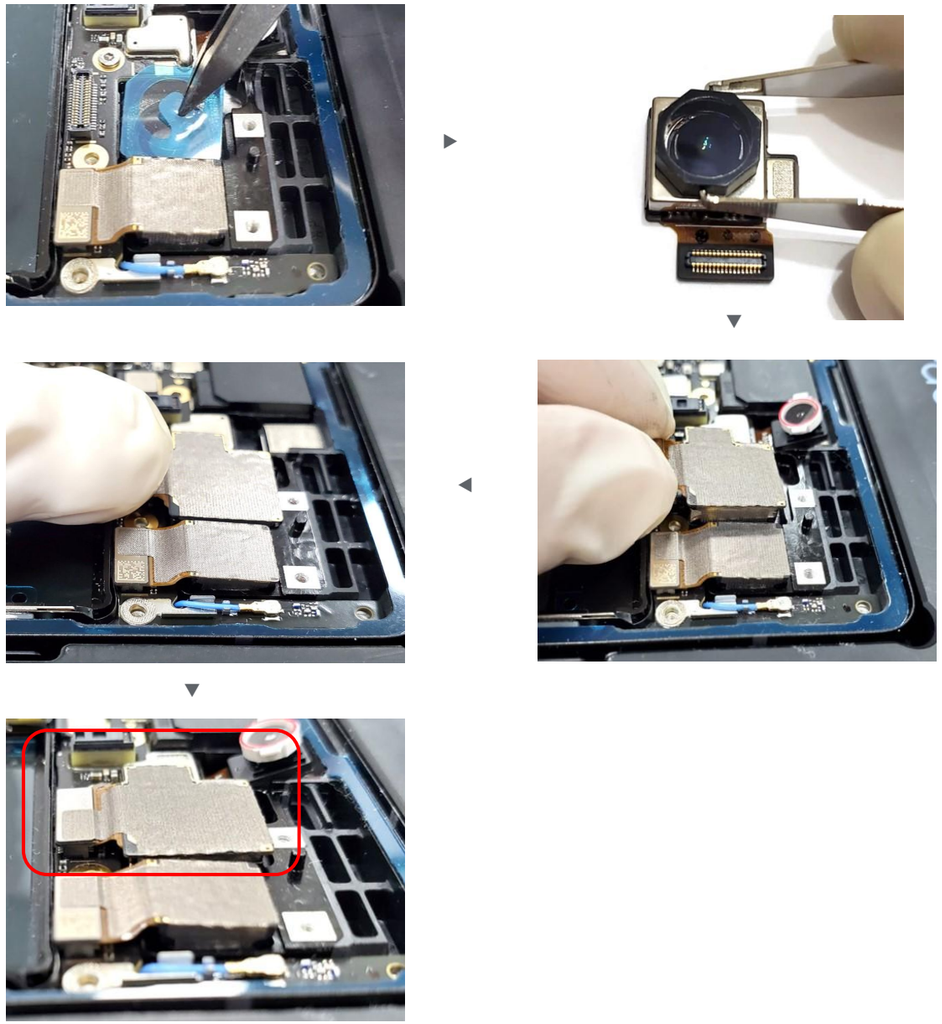
Correct:



Incorrect: floating



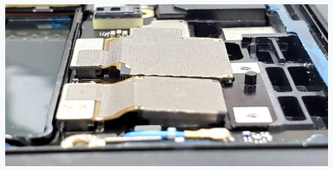
Install Wide Rear Camera



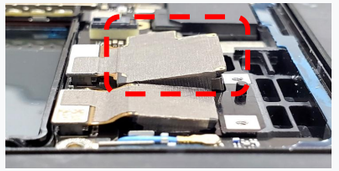
- Gently remove the protective films from wide camera socket with plastic ESD tweezers.
- Remove camera protective cap with Universal Cap Removal tool.
  Do not touch the lens.
- Assemble wide camera and connect it to the logic board.

1. Make sure the connector is attached securely to the logic board.
2. Make sure the lens is not floating.

Correct:



Incorrect: floating



Disassembly instructions

Logic board

Logic board replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame
- Bottom speaker
- mmWave
  (only for VZW device)
- Rear camera

Tools

Ionizing air fan
Pixel 6a Enclosure Holder
Torx Plus 3IP screwdriver
Universal Disassembly ESD stick
ESD tweezers
Pixel 6a Screw Cover

Caution!
Review all **safety precautions** before beginning work.

Logic board replacement

The **Logic board** consists of memory, storage, the processor, and communication components such as Wi-Fi and 5G.
Be aware that a replacement **SIM tray** will not have the IMEI number present.

Parts

G949-00235-01
G949-00263-01
G949-00264-01
G949-00265-01
G949-00266-01
G949-00236-01
G949-00267-01
G949-00238-01
Logic board

G949-00260-01
SIM tray

G949-00258-01
USB stamping plate

G806-06311-01
Conductive fabric washer

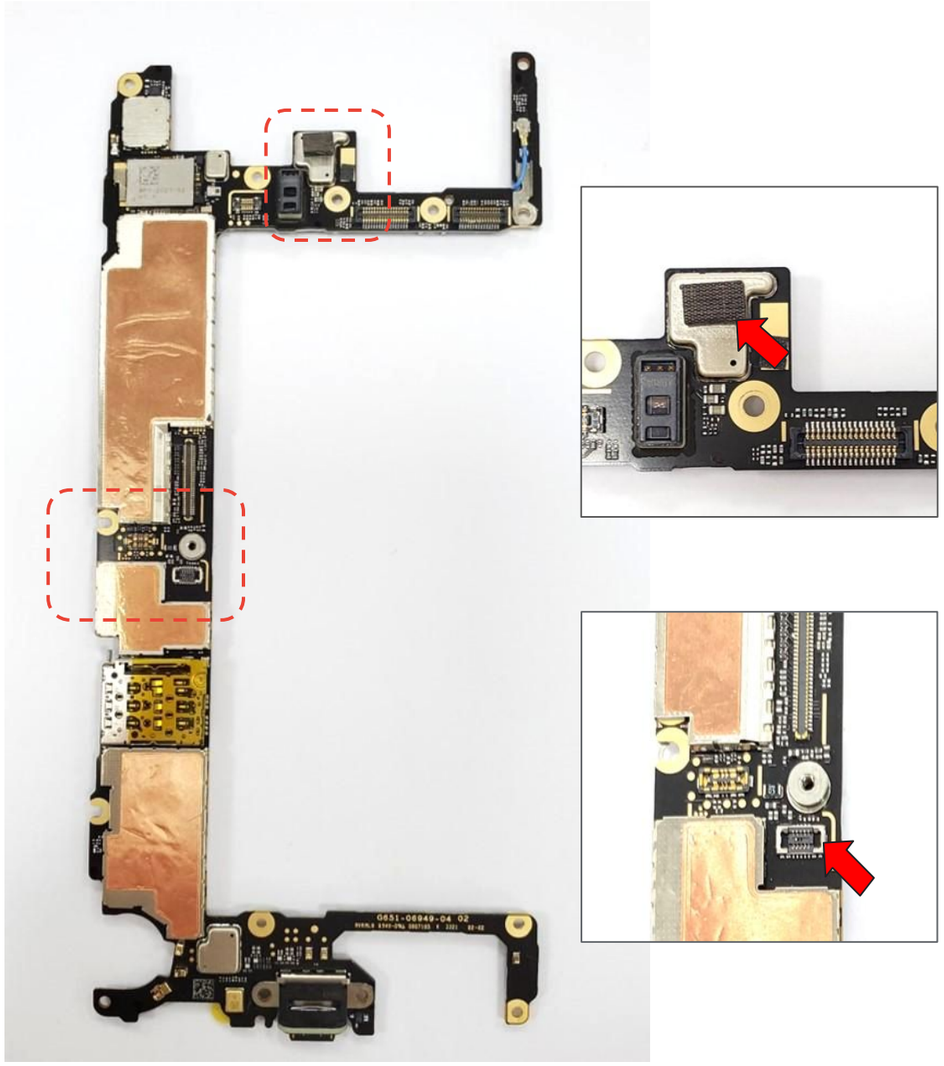
G250-05371-00
1 x screw

G806-04755-01
Mic. hole kapton tape

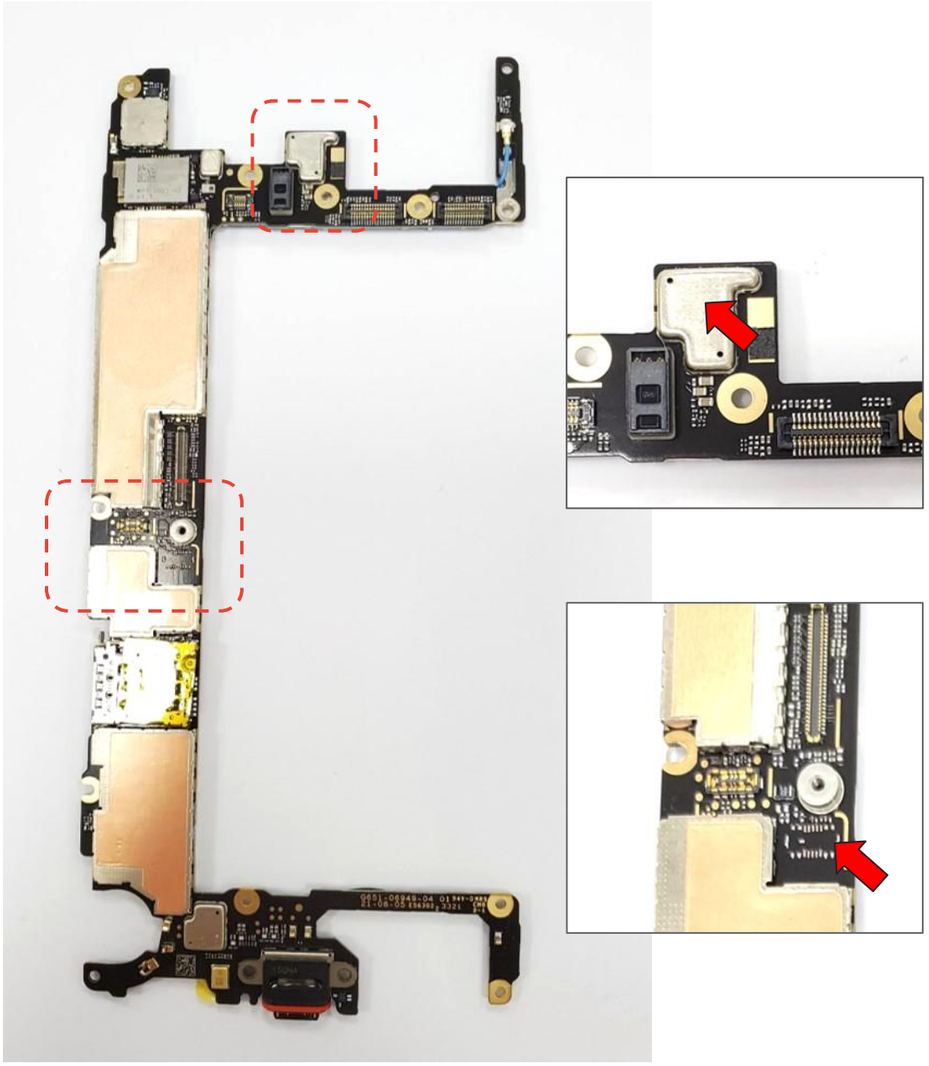
Caution!
Review all **safety precautions** before beginning work.

Logic board difference

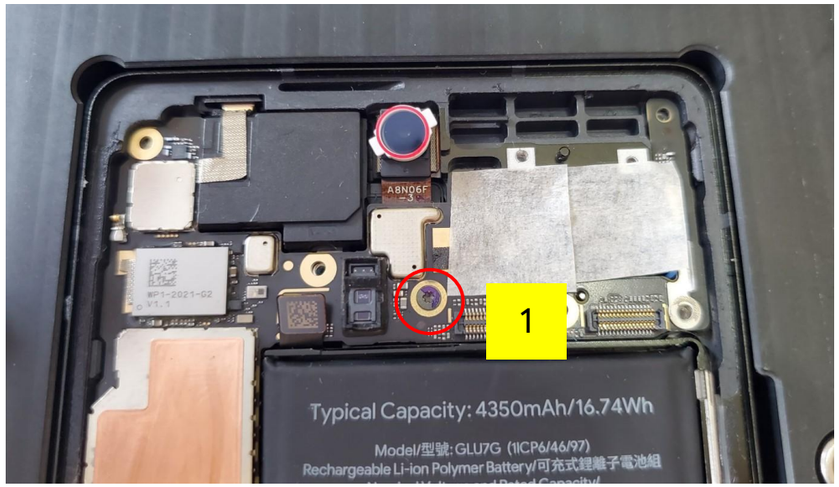
mmWave



Sub6



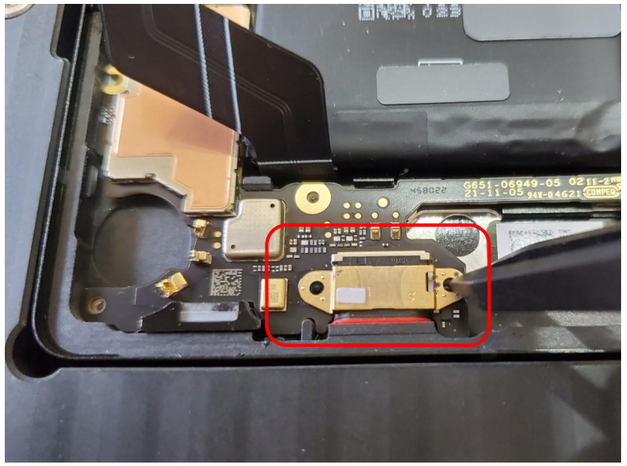
Remove Screw



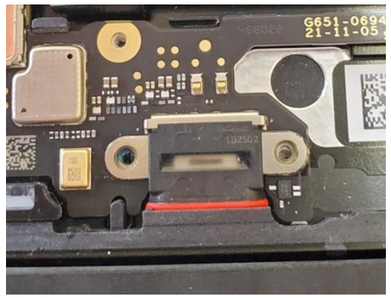
- Use Torx Plus 3IP Screwdriver to remove 1 screw that secures logic board to the enclosure.

Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

Remove USB Stamping

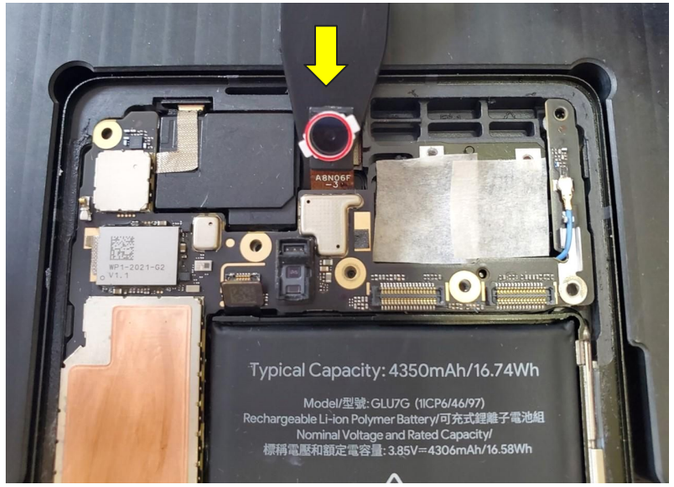


After

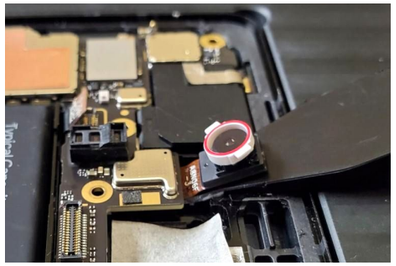


- Use plastic ESD tweezers to remove USB stamping plate that sits on top of the USB module.

Raise Logic Board

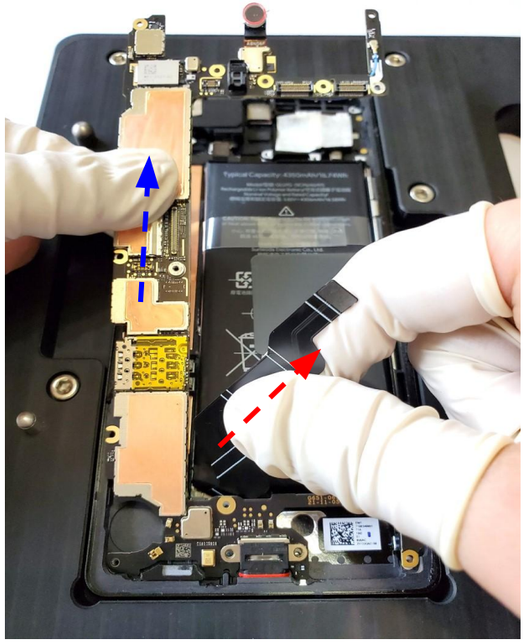


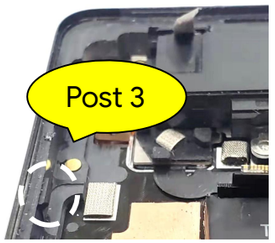
Side view

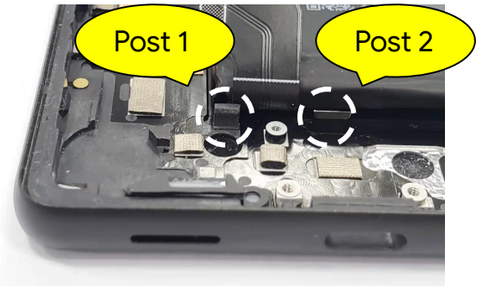


- Slide the Universal Disassembly ESD stick underneath the front camera.
- Lift up the logic board.

Remove Logic Board





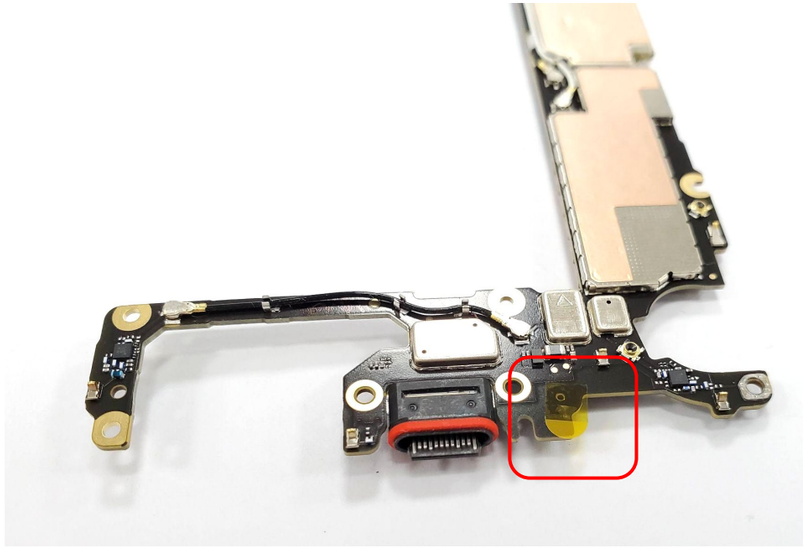


- Tilt the battery FPC slightly as illustrated in red arrow above.
- Remove the logic board by pulling upwards as illustrated in blue arrow above.

Please pay attention to the post 1, 2, 3 to avoid logic board breakage or damage.

Display | Mid-frame | Bottom Speaker | mmWave | Rear Camera | Logic board | Front Camera | Mic1 Bracket | Top Speaker | Battery

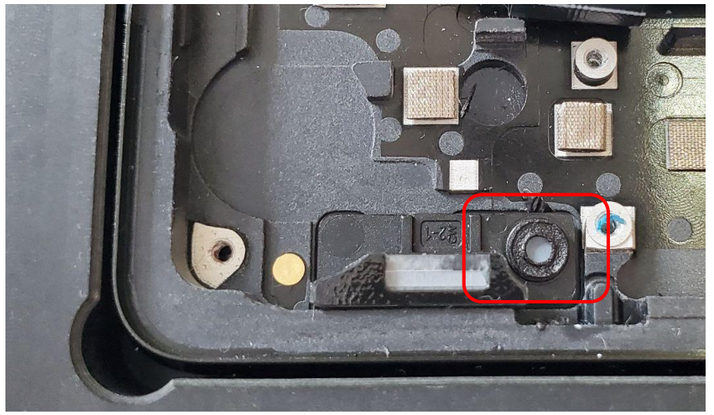
Attach Protective Kapton Tape



- Stick 1 pc of yellow Mic. kapton tape onto the Mic. hole on the logic board.

Part: G806-04755-01 (Mic. hole kapton tape)

Inspect Mic1 Bracket



- Make sure the Mic1 sponge is not damaged.

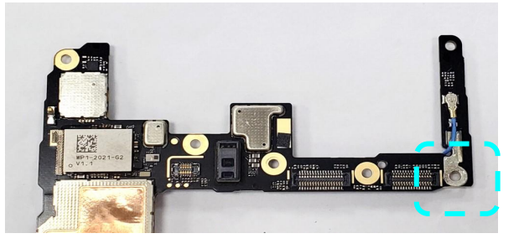
If there is any damage on Mic1 sponge, please change to a new one. For example: sponge broken, sponge shift or foreign material.

Assembly instructions

Logic board

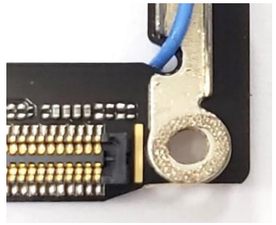
Rework Logic Board
(for Reusing Logic Board)

Front side

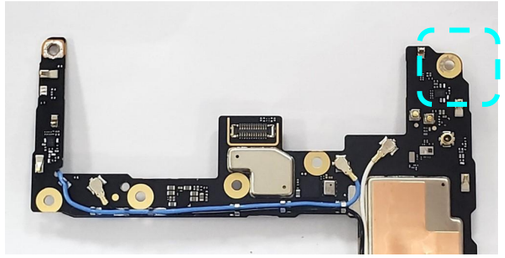


Incorrect: washer broken

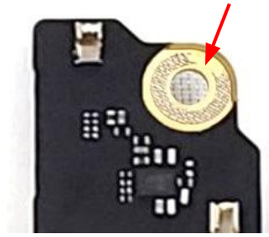
Correct: washer in good condition



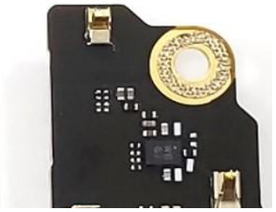
Back side



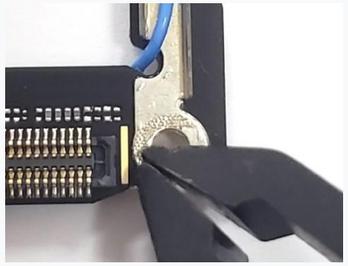
Incorrect: washer broken

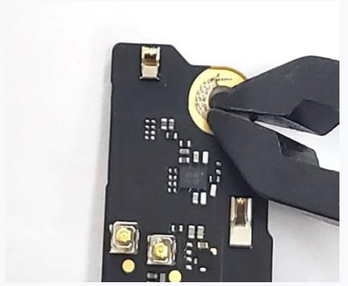


Correct: washer in good condition



- Use plastic ESD tweezers to clean up the damaged conductive fabric washer.

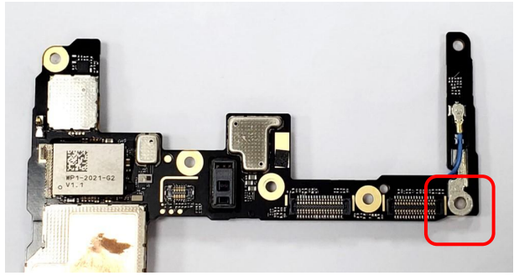


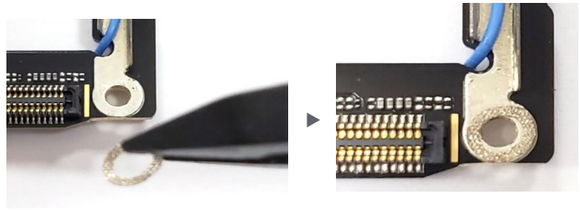


1. Do not damage any nearly springs.
2. If the conductive fabric washer is broken, please clean up the areas and paste a new one.
   If it is still in good condition, this step is not needed.

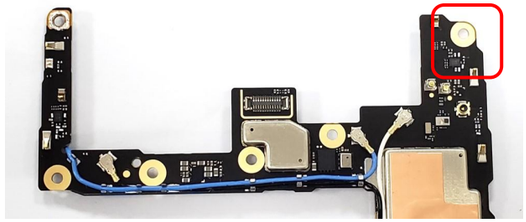
Paste washers
(for Reusing Logic Board)

Front side





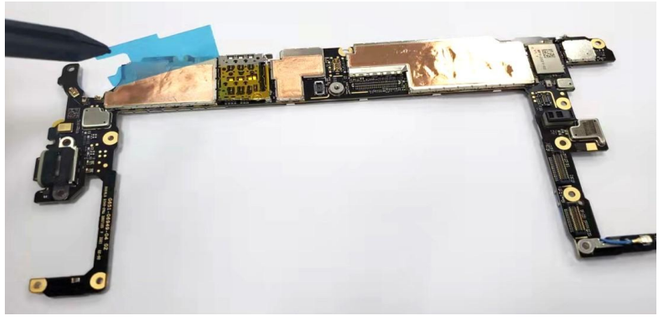
Back side



- Paste 2 pcs of conductive fabric washers on the logic board.

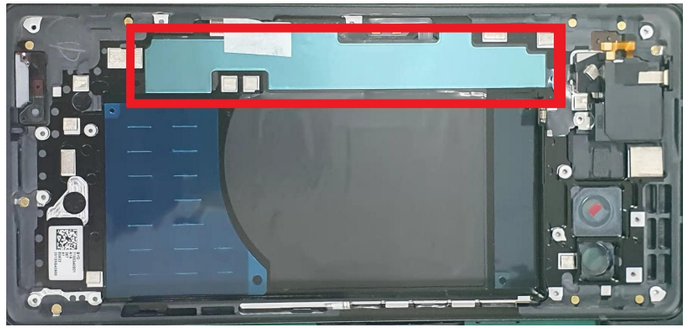
Part: G806-06311-01 (Conductive fabric washer)

Peel off Liners

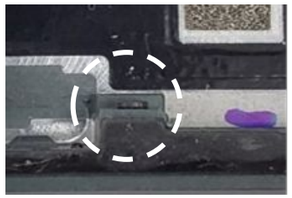


- Using plastic ESD tweezers to remove all the liners from both sides of logic board.

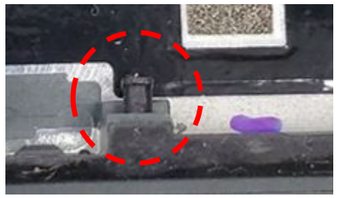
Place Enclosure on Fixture



Correct: sim head is not sticking out



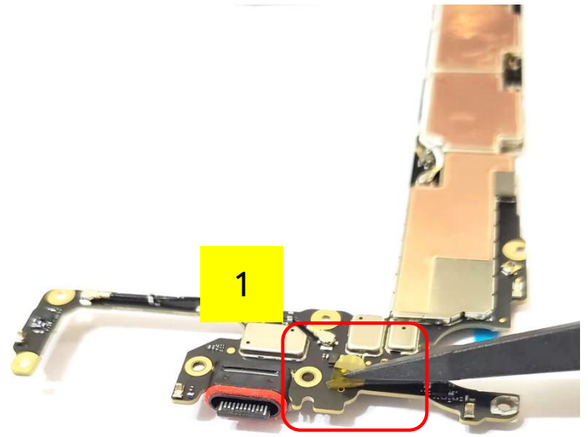
Incorrect: sim head is sticking out



- Place enclosure on the Holder Fixture
- Peel off the liner.

Make sure plunger sim head goes all the way in.

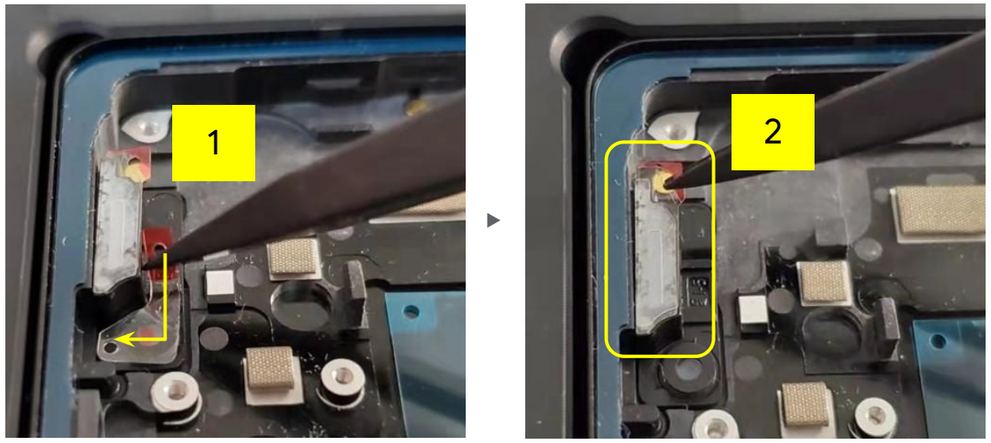
Remove Protective Kapton



- Remove yellow kapton tape from logic board.

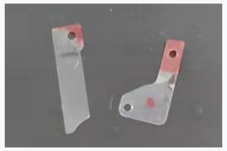
Do not reuse this kapton tape.

Remove Liners on MIC.1

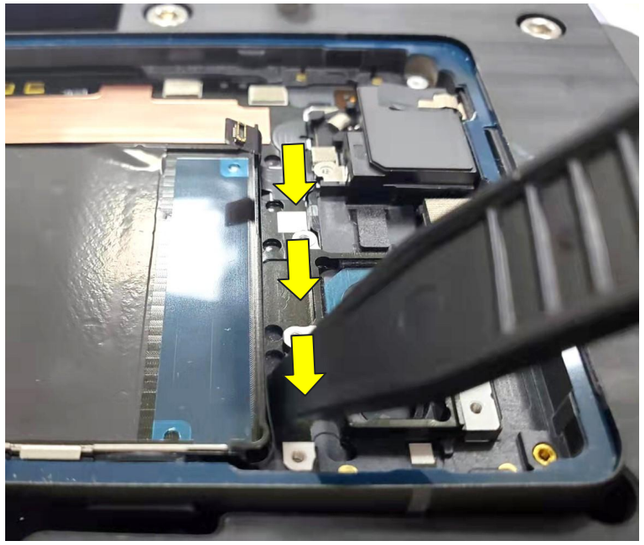


- Using plastic ESD tweezers to grab the red sections of the liners.
- Gently peel off 2 liners from Mic.1 following the designated order.

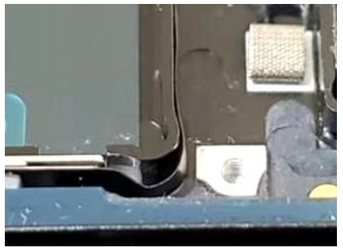
Make sure both liners are removed from MIC.1 before proceeding further.



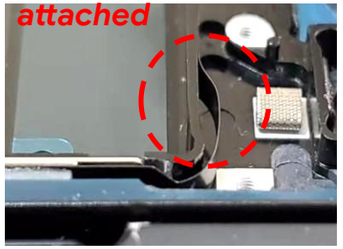
Organize the SLAM FPC



Correct:

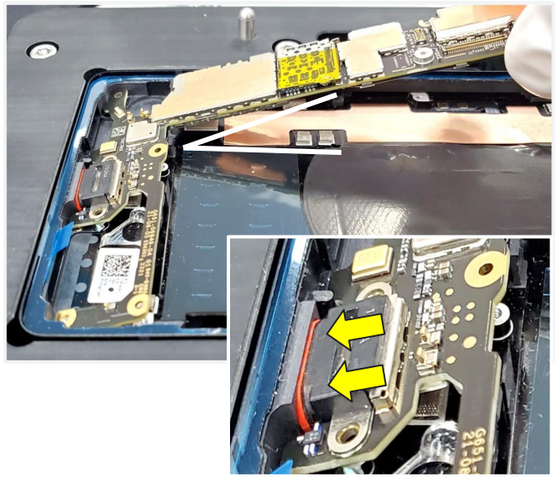


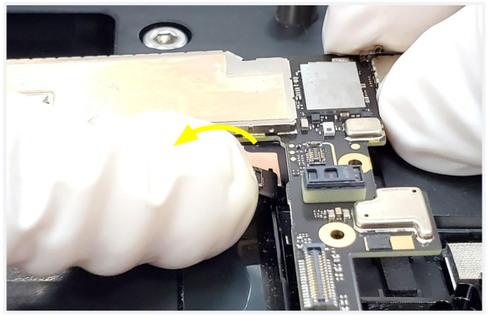
Incorrect: Not fully attached

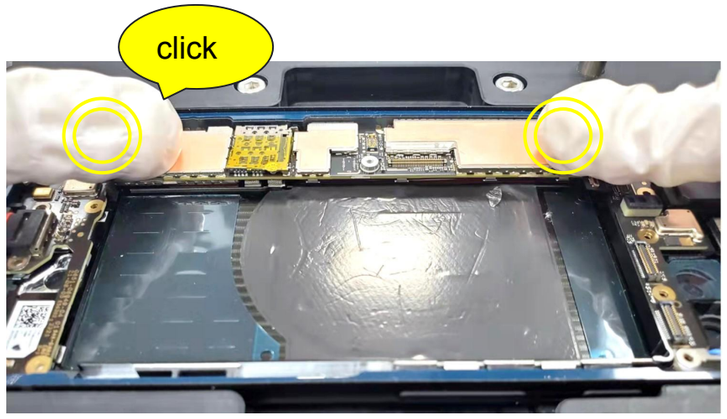


- Using Universal Disassembly ESD stick to smooth the SLAM FPC against the side wall before installing logic board.
- Keep the FPC floating and apart from the side walls at the corner.

Install Logic Board

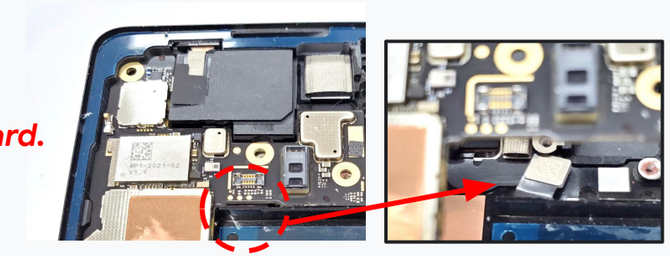






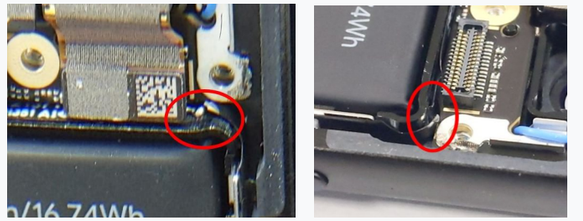
- Insert the logic board to the USB slot at higher than 45° angle.
- Bend the SLAM FPC BTB backward with your fingers while assembling the logic board.
  Do not damage the SLAM FPC connector.

Incorrect: connector is pinched underneath the logic board.



- Secure the logic board using the 2 hook and 1 slot on the enclosure.
  Do not damage the SLAM FPC.

Incorrect: FPC is broken

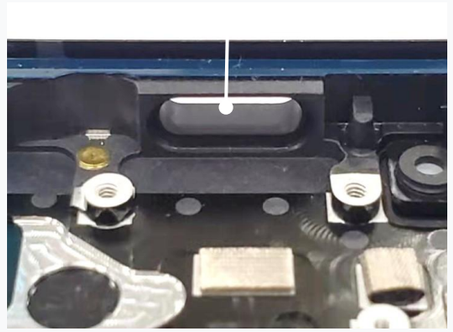


- Lightly press down the logic board and your should hear a clicking sound.

Slot

- Assemble the USB module into the slot.

Slot

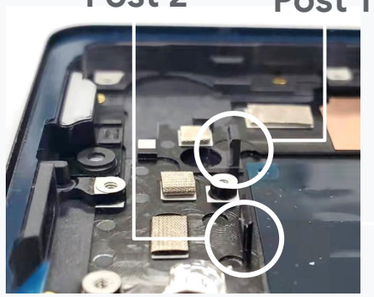


Correct:

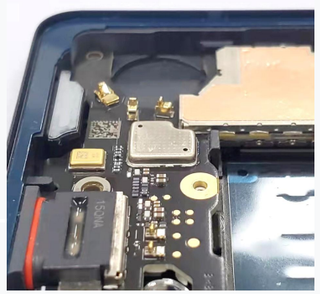
Vertical Post 1 & 2

- Position the Logic board correctly behind the vertical post 1 & 2.

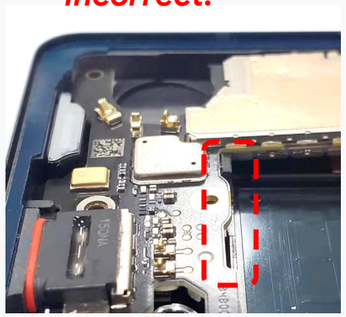
Post 2 Post 1



Correct:



Incorrect:

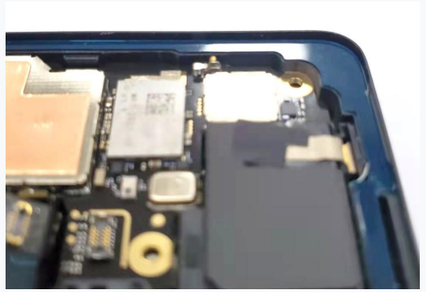


Horizontal Post 3

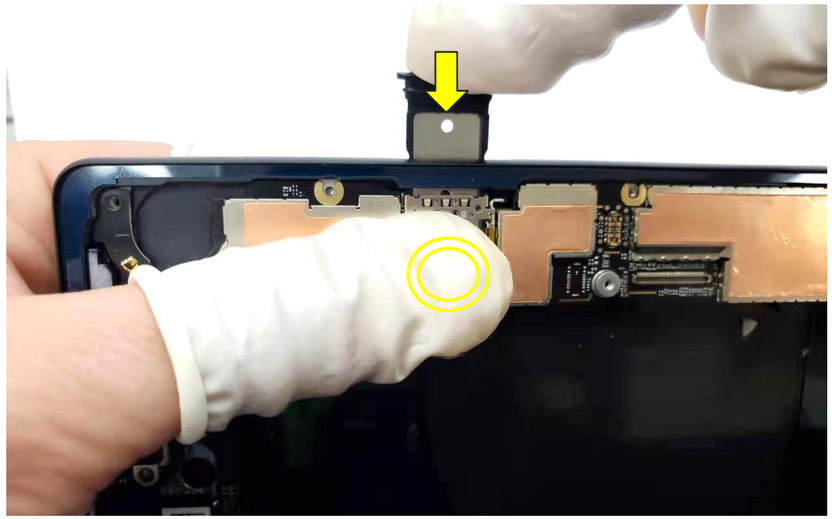
- Position the Logic board correctly under the horizontal post 3.

Post 3

Correct:



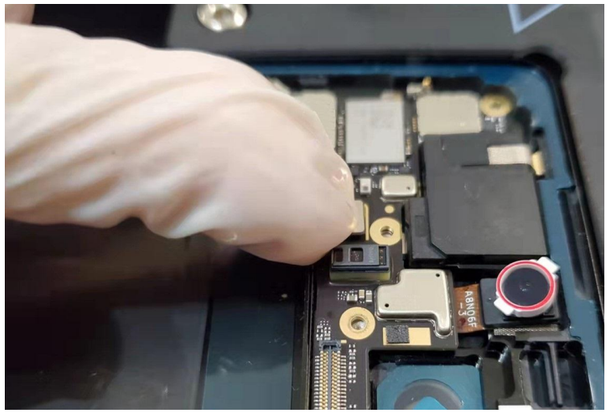
Install SIM tray



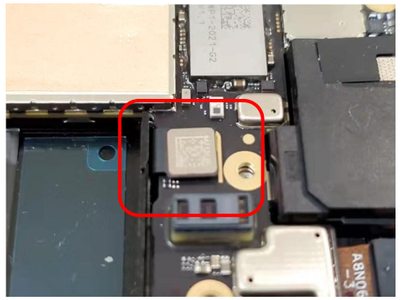
- Lightly press down on the logic board with your finger and insert the sim tray to the enclosure at the same time.

Please insert the SIM tray in the correct direction.

Connect SLAM FPC



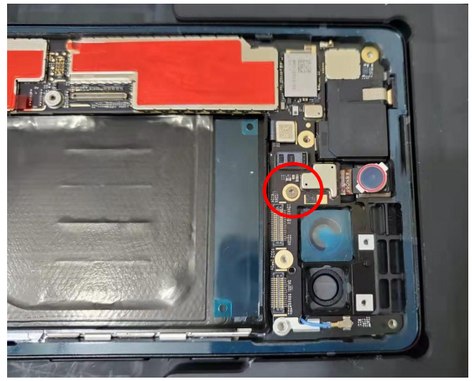
After

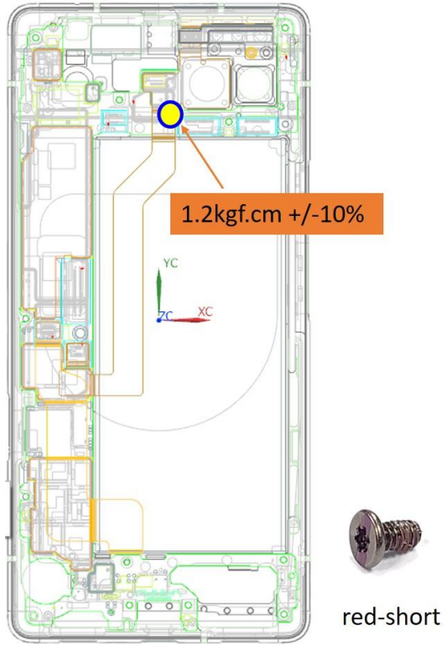


- Connect SLAM FPC on logic board.

Make sure the connector is attached securely to the logic board.

Fasten Screws





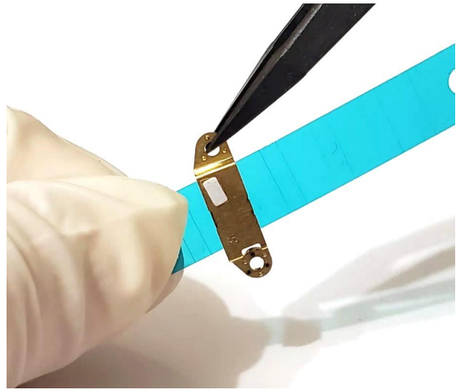
●	G250-05371-00 M1.4x0.3-2.4, D2.7 (Torque force: 1.2kgf.cm +/-10%)	1

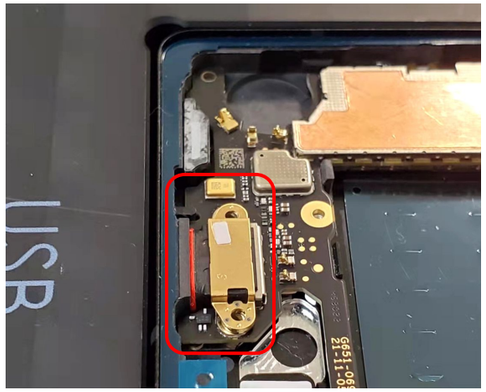
red-short

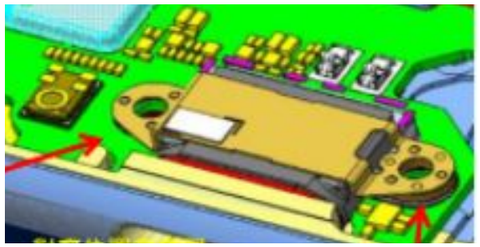
- Use the Pixel 6a Screw Cover to identify screw type and torque force.
- Fasten 1 screw on logic board with Torx Plus 3IP Screwdriver.

Be careful when using the screwdriver, do not accidentally damage the adjacent battery.
Incorrect use of the screw driver could cause injury to you or third persons or damage to the battery and/or the product.

Attach USB Stamping







Alignment L socket

Alignment R socket

- Using plastic ESD tweezers to pick up the USB stamping.
- Set the USB stamping above the USB module with LDI facing outside.

Make sure the LDI is still intact and did not turn red.

Disassembly instructions

Front camera

Front camera replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame
- Bottom speaker
- mmWave
- Rear camera
- Logic board

Tools

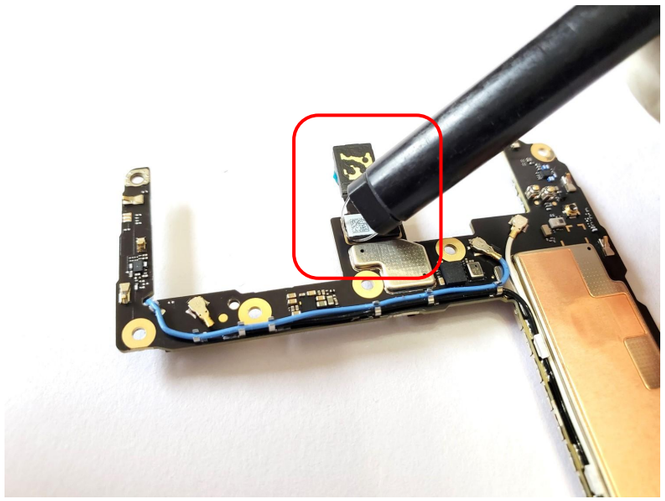
Ionizing air fan
Universal Fish line
ESD tweezers

Parts

G949-00252-01
Front camera

Caution!
Review all **safety precautions** before beginning work.

Remove Front Camera



After

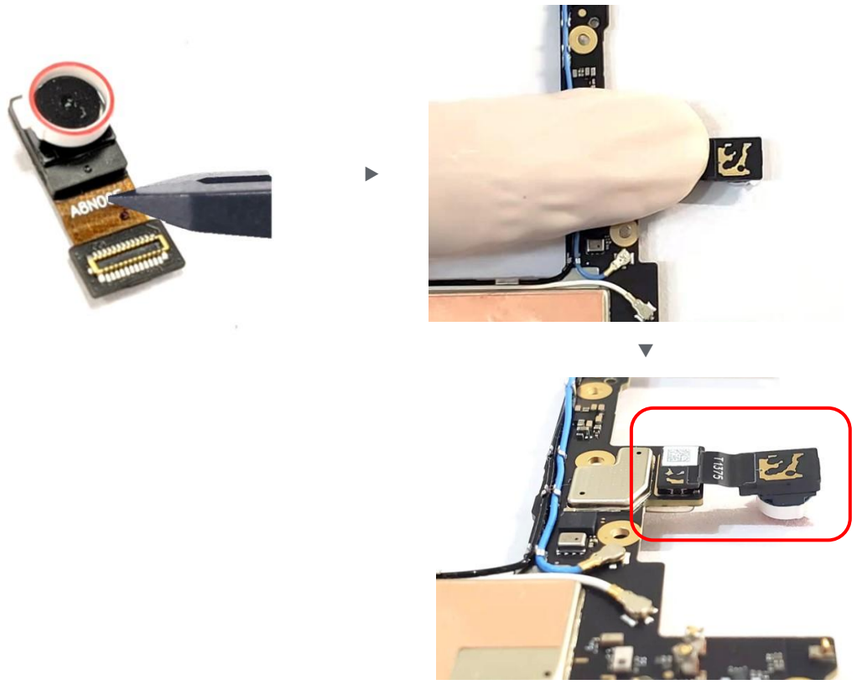
- Use universal fish line tool to disconnect front camera from the logic board.
- Use plastic ESD tweezers to transport it.

The camera may fly off once it's disconnected.

Assembly instructions

Front camera

Install Front Camera



- Transport front camera with plastic ESD tweezers.
- Install the front camera to the designated location on the logic board.
- Press gently to confirm alignment.

Make sure the connector is attached securely to the logic board.

Disassembly instructions

Mic1 Bracket

Mic1 Bracket replacement

Before you begin

Remove the following items first:

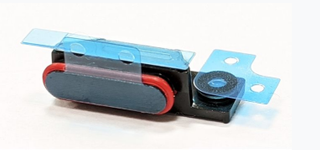
- Display module
- Mid-frame
- Bottom speaker
- mmWave
- Rear camera
- Logic board

Tools

Ionizing air fan
Pixel 6a Enclosure Holder
Universal Disassembly ESD stick
ESD tweezers

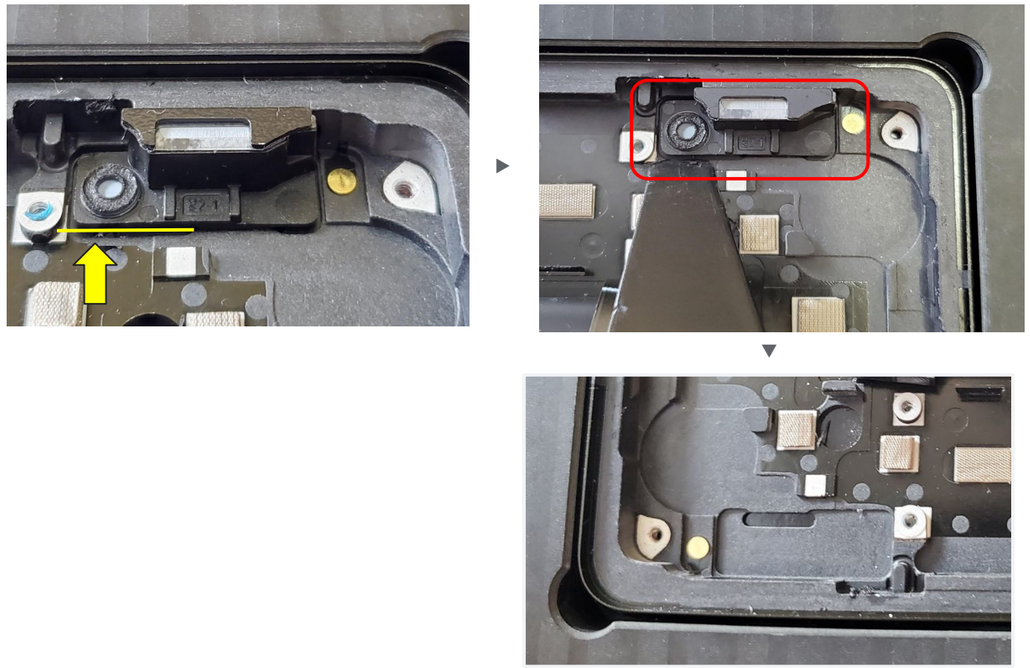
Parts

G730-05996-01
Main mic. holder



Caution!
Review all **safety precautions** before beginning work.

Remove Mic.1 Bracket



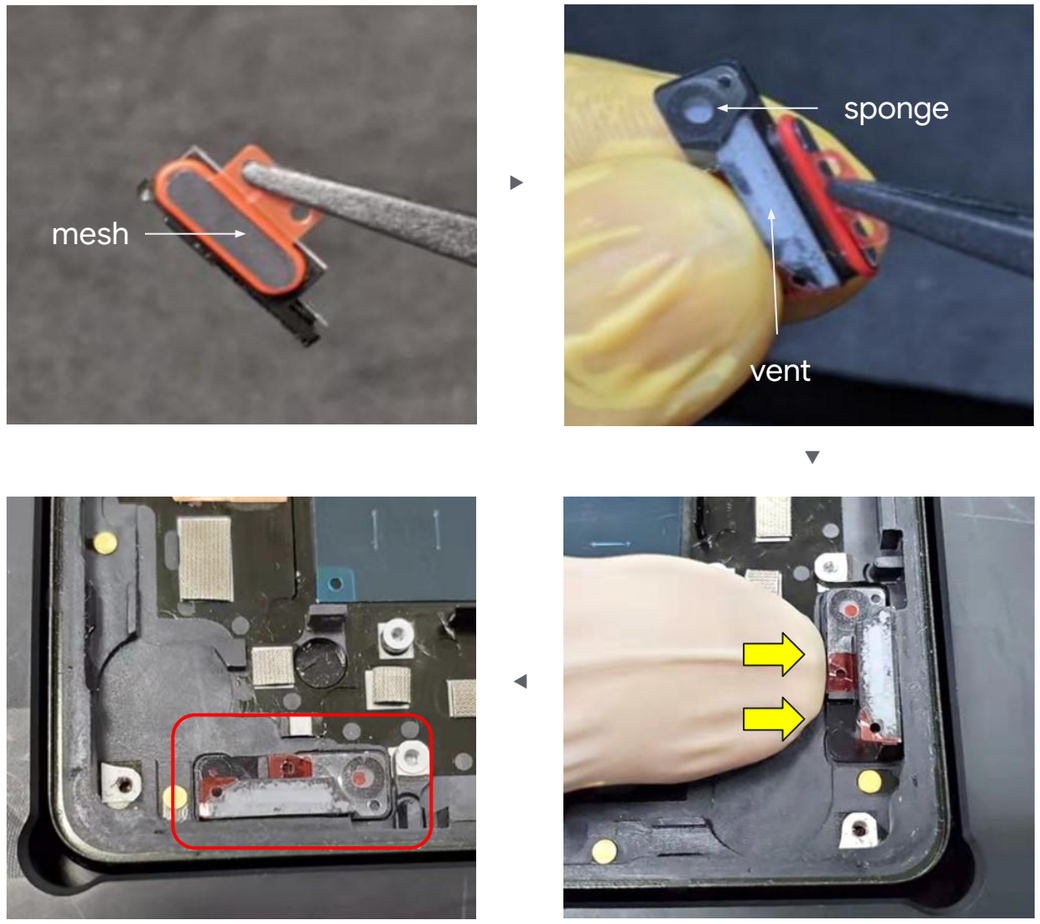
- Insert the Universal Disassembly ESD stick at the designated location shown above to remove mic.1 bracket.

Once removed, do not reuse this part.

Assembly instructions

Mic1 Bracket

Install Mic1 Bracket
(for Reusing Enclosure)

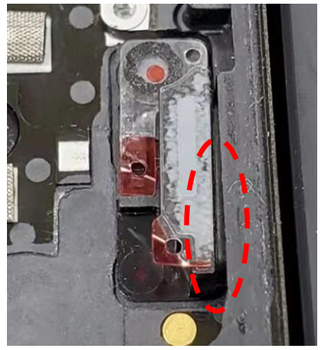


- Use a plastic ESD tweezers to transport Mic1 Bracket.
  Do not touch the mesh, vent or sponge.

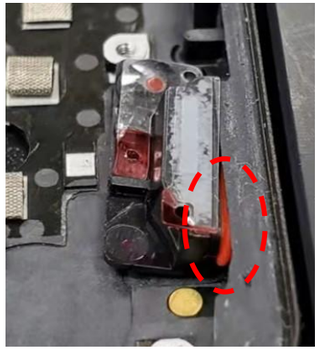
- Use a plastic ESD tweezers to remove the liner attached to the mesh prior to installation.
  Do not remove the liner attached to the sponge until the Mic1 bracket has been installed on the enclosure.
  2 liners on vent and sponge are removed at a different time

- Install the Mic1 bracket on the enclosure.
  Make sure Mic1 bracket is installed firmly against the wall, without any open gaps.

Incorrect: gap



Incorrect: exposed gasket



Correct:

Disassembly instructions

Top speaker

Top speaker replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame
- Bottom speaker
- mmWave
  (only for VZW device)
- Rear camera
- Logic board

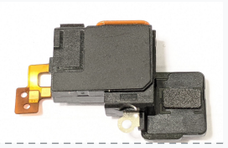
Tools

Ionizing air fan
Pixel 6a Enclosure Holder
ESD tweezers

Parts

G949-00261-01
mmWave Top speaker

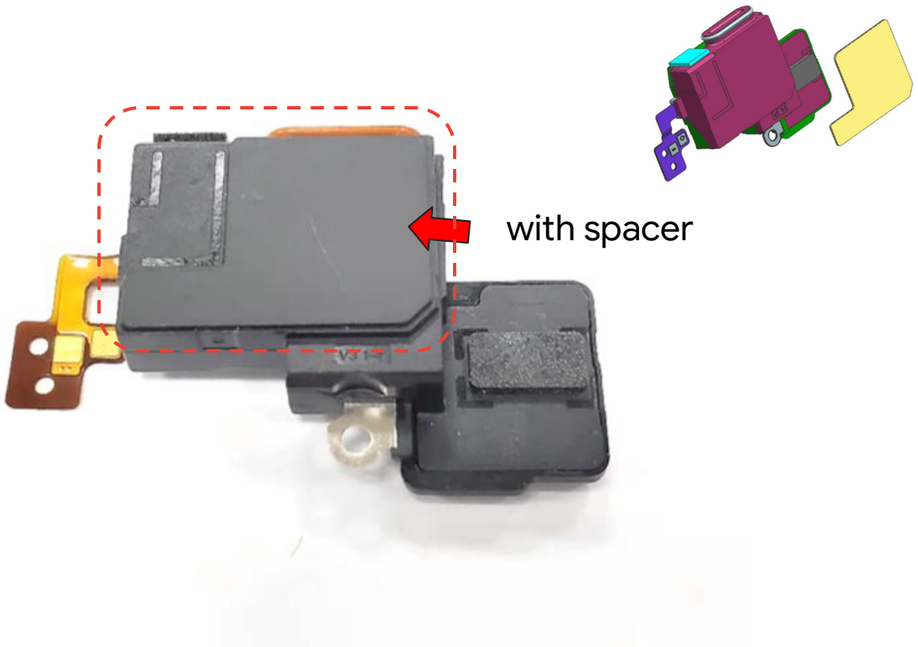
G863-00390-01
Sub6 Top speaker



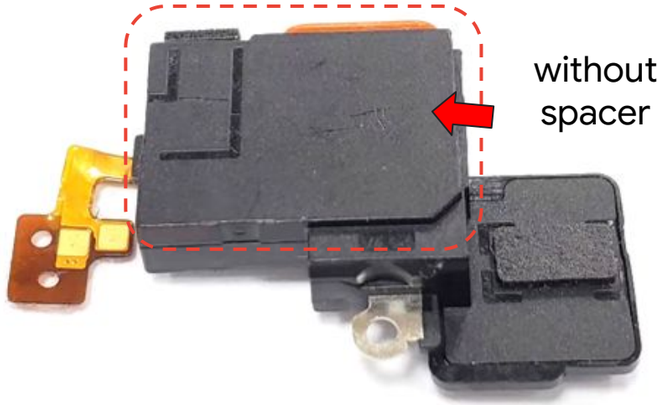
Caution!
Review all **safety precautions** before beginning work.

Top speaker difference

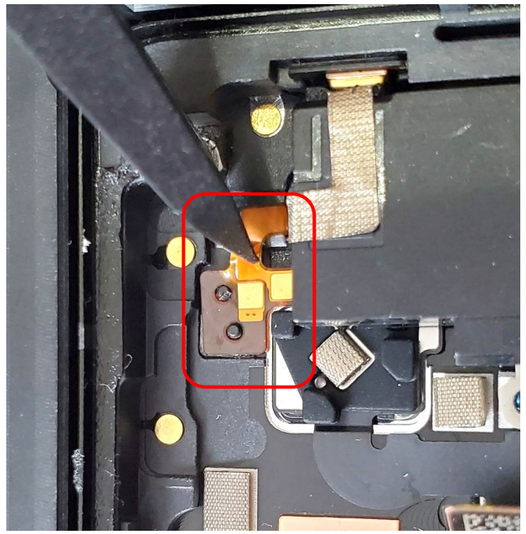
mmWave



Sub6



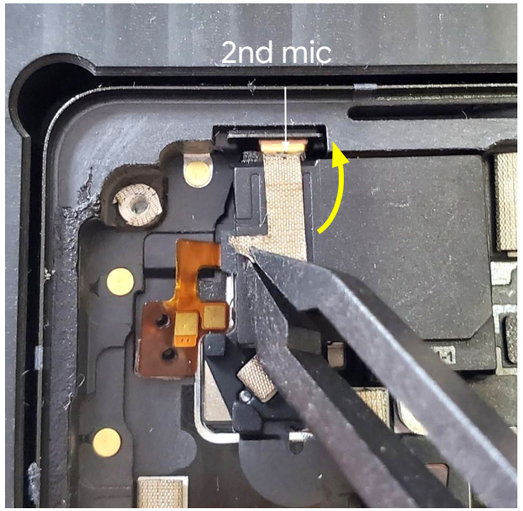
Remove Top Speaker



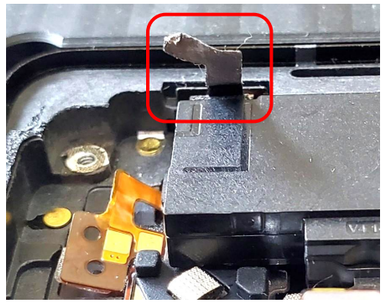
After

- Using plastic ESD tweezers to detach the FPC pads from the enclosure.

Peel the Conductive Fabric Half Way



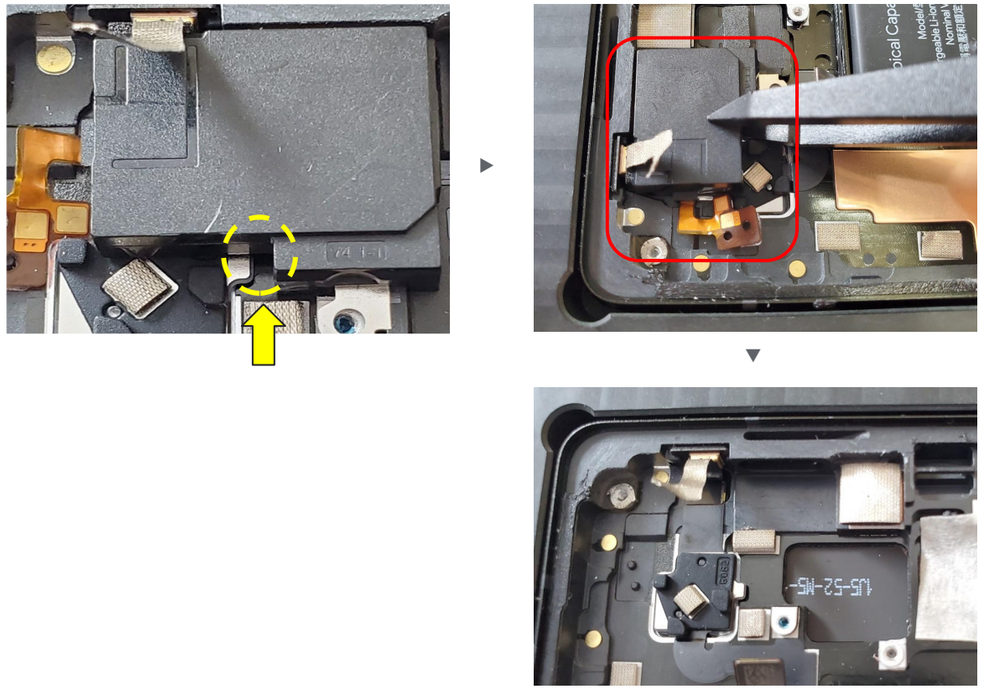
After



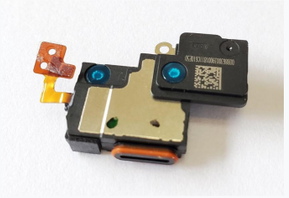
- Conductive fabric is sticked to the top of speaker, as shown above. **Slowly lift it up halfway** using a plastic ESD tweezers.

Do not break this conductive fabric. Adhere it tightly to the 2nd mic.

Remove Top Speaker



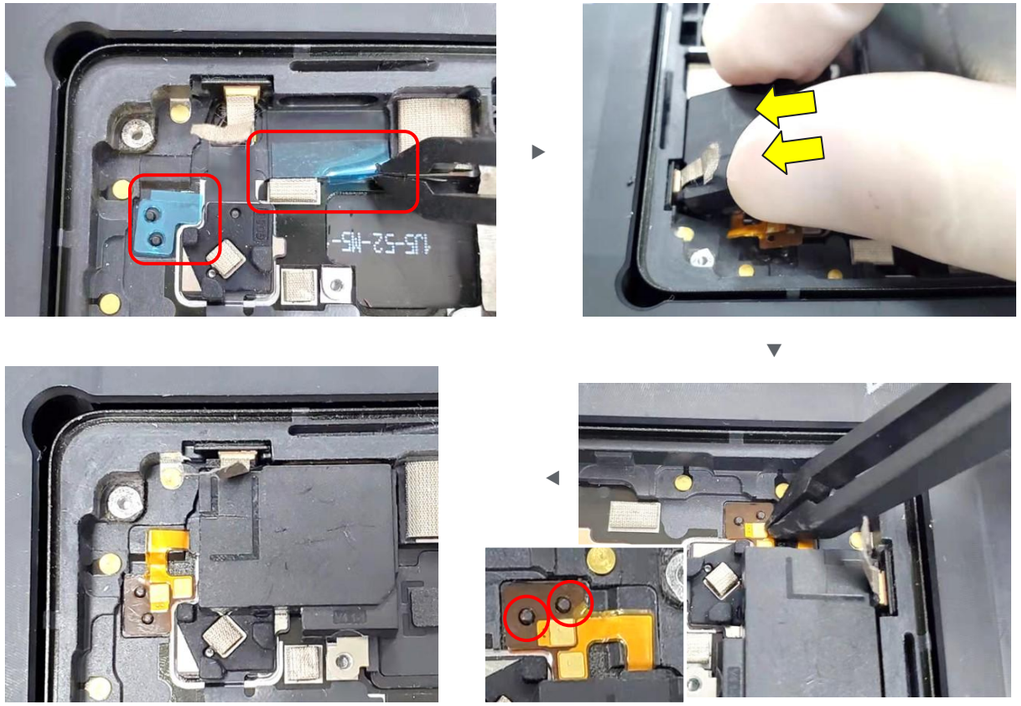
- Use plastic ESD tweezers to lift up the top speaker from the opening in the middle.



Assembly instructions

Top speaker

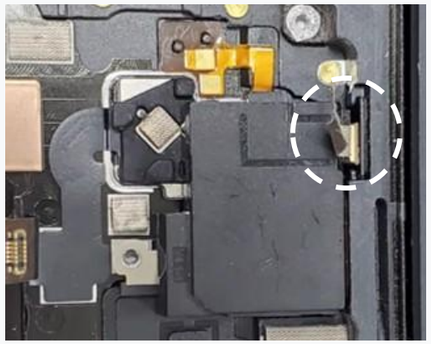
Install Top Speaker
(for Reusing Enclosure)



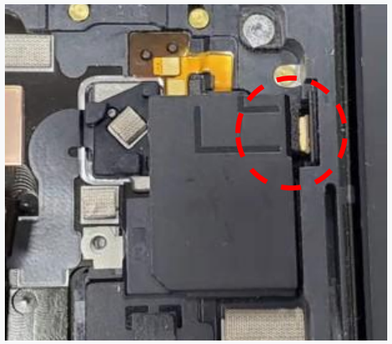
- Use plastic ESD tweezers to peel off 2 liners from the enclosure.
- Insert the top speaker using your fingers and push it against the enclosure wall.
- Use plastic ESD tweezers to align the FPC pad with the positioning pins on the enclosure.

Make sure the conductive fabric is not pinched by the top speaker. it should stay on top.

Correct: it stays on top



Incorrect: pinched by the top speaker



Disassembly instructions

Battery

Battery replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame
- mmWave
  (only for VZW device)

Tools

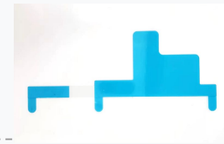
Heating plate
Ionizing air fan
Universal Disassembly Fixture
C-Clamp
Pixel 6a Enclosure Holder
ESD tweezers
Universal Disassembly ESD stick
Universal Absorption-Bulb
Pixel 6a Battery Press
Universal Press Fixture
Universal Battery Alignment jig

Parts

G949-00262-01
Replacement Battery

G806-05609-01
Sub6 Battery spacer

G806-06186-01
mmWave Battery spacer, big



G806-06185-01
mmWave Battery spacer, small

Caution!
Review all **safety precautions** before beginning work.

Soften the Adhesives

- Place the device flat on the Heat plate and set to 140°F/60 °C for 10 mins to soften the Battery adhesive equally.
  - This requires the camera to be placed off the edge of the plate, so that the back panel where the battery is located can be in full contact with the heating surface.

Caution: Heating plate is a Hot Surface. Use caution as it could cause burns.

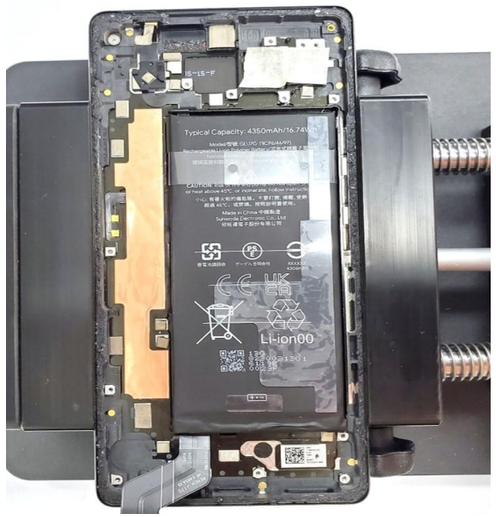
Secure the Fixture

- Place the Universal disassembly fixture on the desk, use a c-clamp to secure the fixture as needed.

Secure the Enclosure

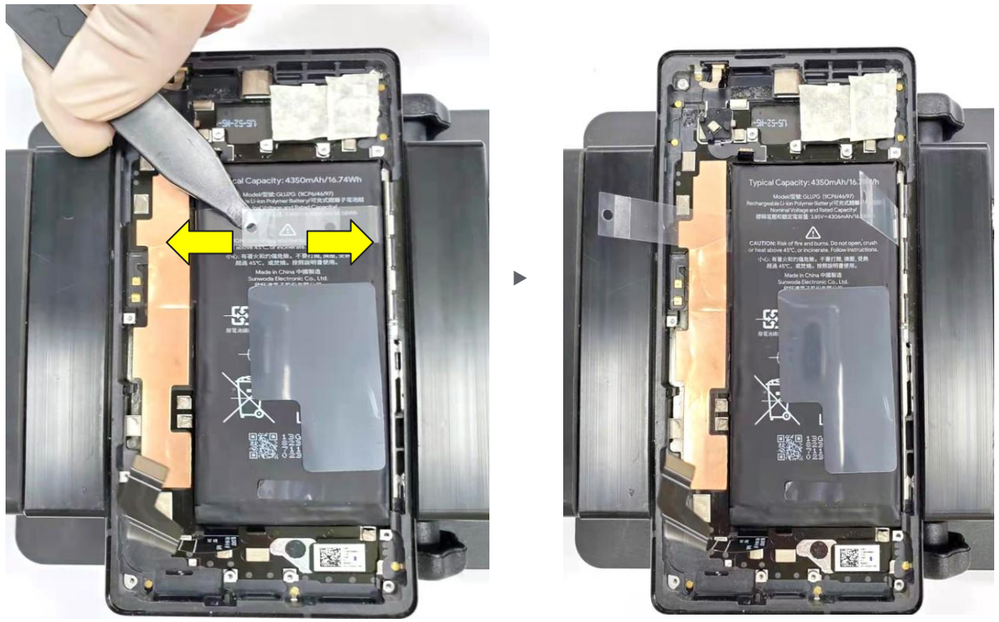
Sub6 view

mmWave view



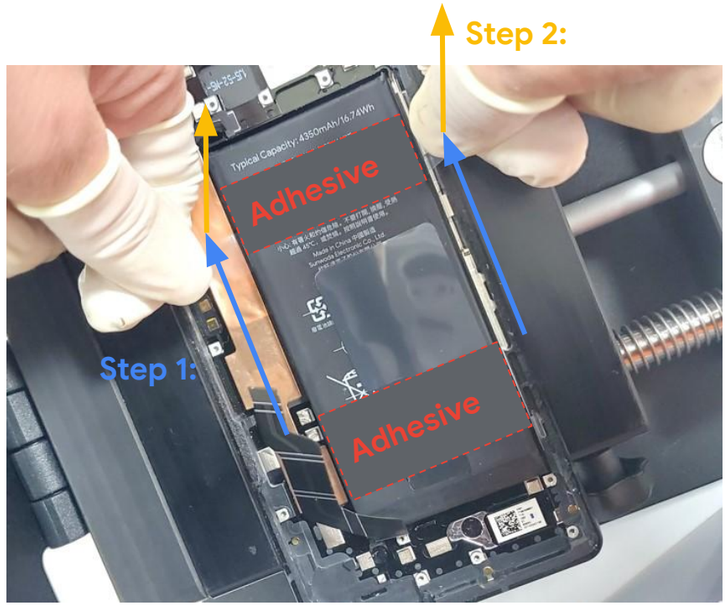
- Use the Universal disassembly fixture to remove the battery.
- Make sure the device is centered on the fixture.
- Turn the knob as much as possible to lock the enclosure in.

(Sub6) Lift Pull Jacket



- Use Universal Disassembly ESD stick to release the knot in the middle.
- Peel the rest off by hand.

(Sub6) Eliminate the adhesive



- Move plastic strip in Y-direction, to compromise the upper adhesive (the upper adhesive is smaller)
- Once the top adhesive is compromised, begin to pull in the Z-direction to pull the battery loose.

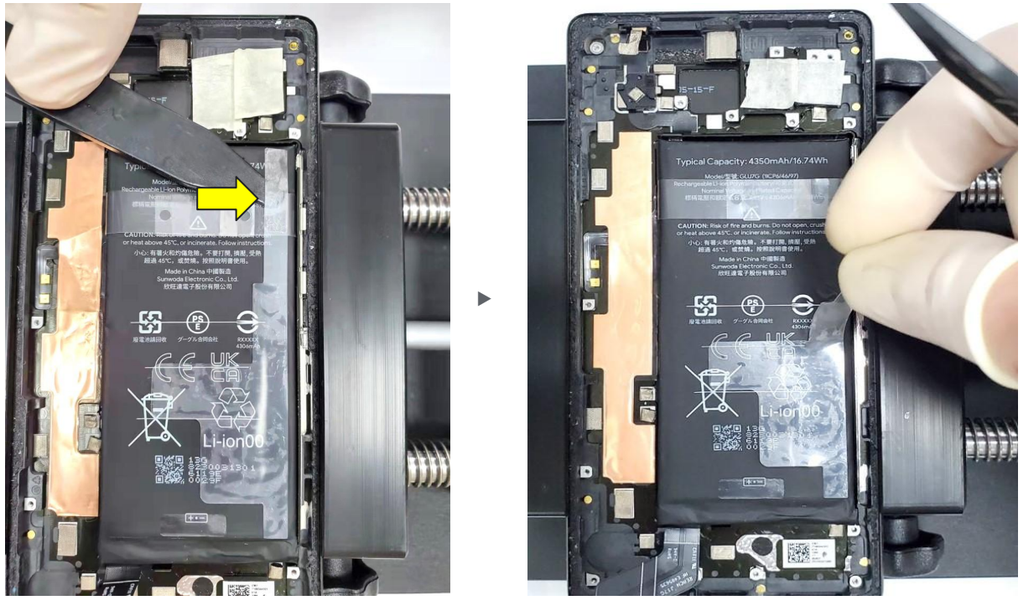
Do not reuse this pull jacket.

(Sub6) Remove Battery

- Gently remove the Battery using Universal Absorption-Bulb.

1. Keep small screws and sharp objects away from the Battery.
2. Once the battery is removed. Do not reuse it.
3. Place the scrap battery back to the original packaging.

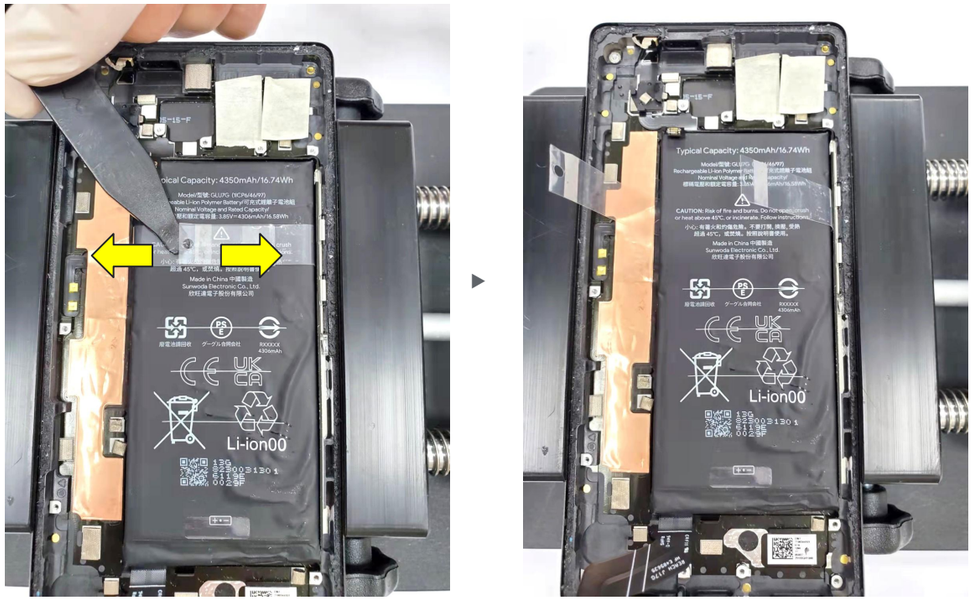
(mmWave) Remove Battery Spacer



- Use Universal Disassembly ESD stick to lift up the battery spacer until you are able to grip it with your fingers.
- Peel off the battery spacer off by hand.

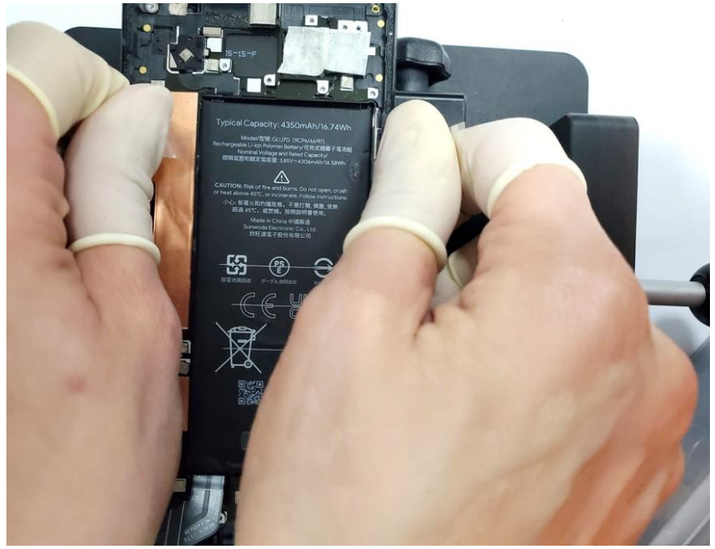
Do not reuse this part.

(mmWave) Lift Pull Jacket



- Use Universal Disassembly ESD stick to release the knot in the middle.
- Peel the rest off by hand.

(mmWave) Pull up to Release Adhesive



- Hold the pull jacket tabs and slide up and down parallelly.
- Once the adhesives are eliminated, battery will become loose.

Do not reuse this part.

(mmWave) Remove Battery

- Always gently transport the battery using Universal Absorption-Bulb.

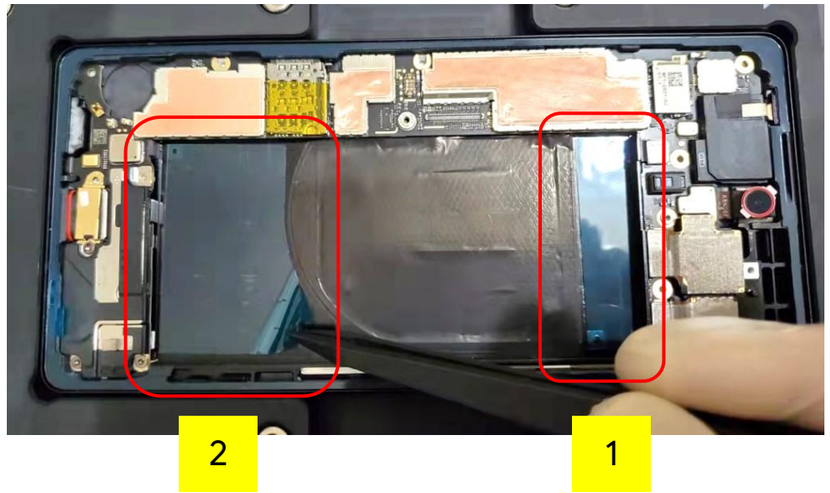
1. Keep small screws and sharp objects away from the Battery.
2. Once the battery is removed. Do not reuse it.
3. Place the scrap battery back to the original packaging.

Display | Mid-frame | Bottom Speaker | mmWave | Rear Camera | Logic board | Front Camera | Mic1 Bracket | Top Speaker | Battery

Assembly instructions

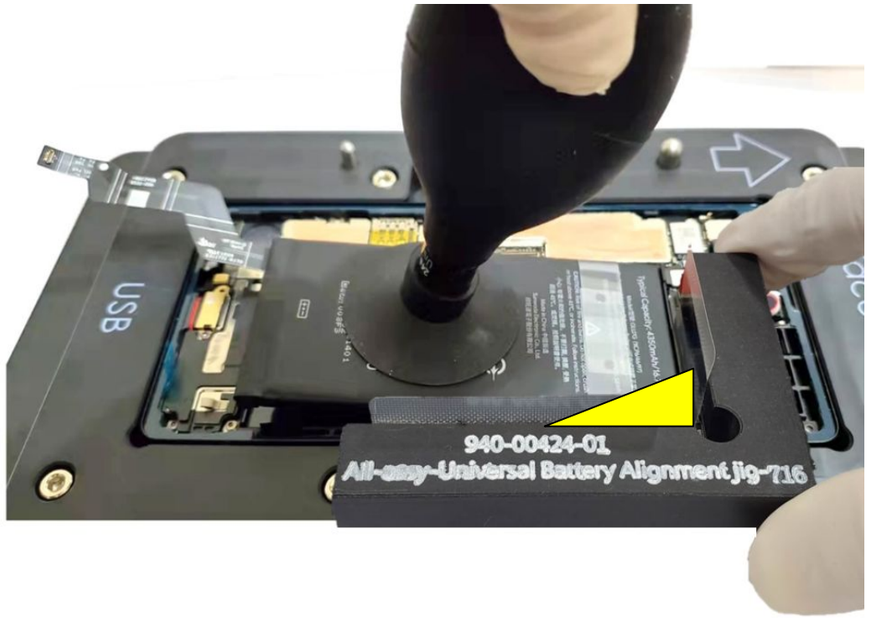
Battery

Peel off Liners



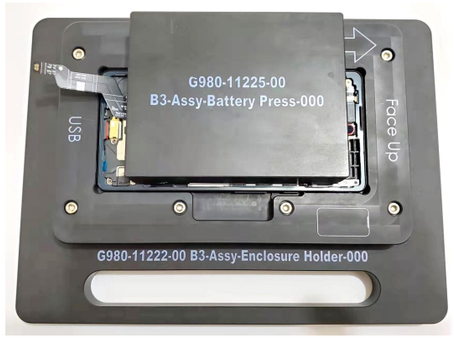
- Before installation...
  - Remove any debris/loose screws from the Enclosure.
  - Ensure Battery cosmetic checks are completed on the replacement battery.
- Remove 2 pcs of liners on the enclosure using plastic ESD tweezers.

Align Battery and Install



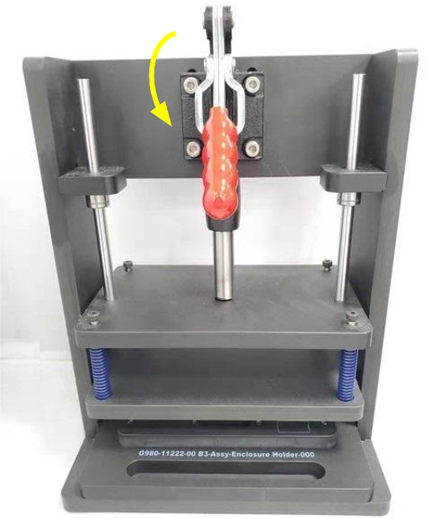
- Transport the battery using Universal Absorption-Bulb.
- Place the Universal Battery Alignment jig at the lower right hand corner first then proceed the battery with installation.

Prepare to Press



- Move the battery FPC backwards.
- Stack the Pixel 6a Battery Press on the top.
- Deliver the setup onto the Universal Press Fixture.

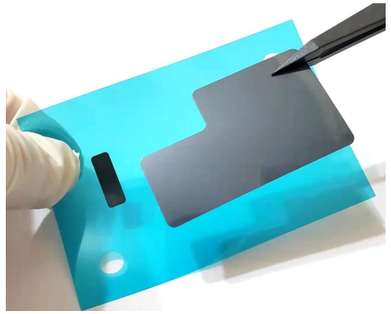
Press Battery in Fixture

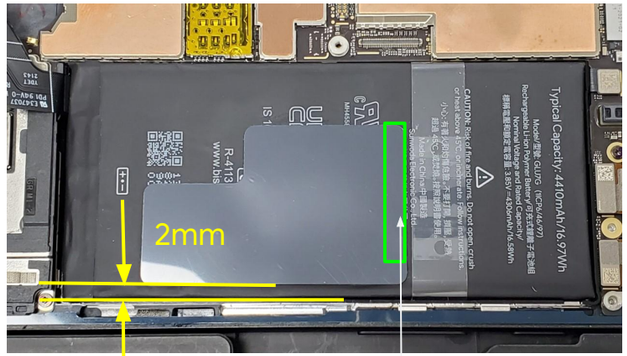


- Lower the handle to begin pressing.
  Pressing time: 24s

Pinch point. Keeps hands clear during operation.

(Sub6) Paste Battery Spacer





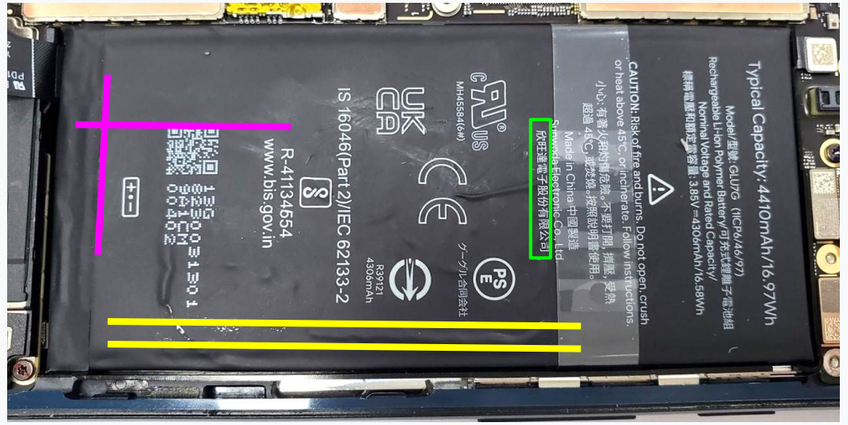
Inner rib of enclosure

last line of text

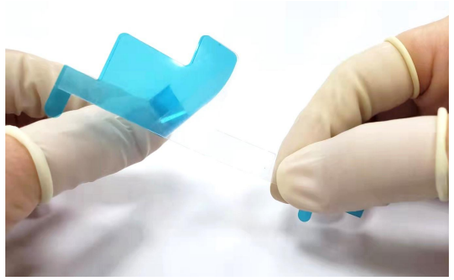
PCM Area

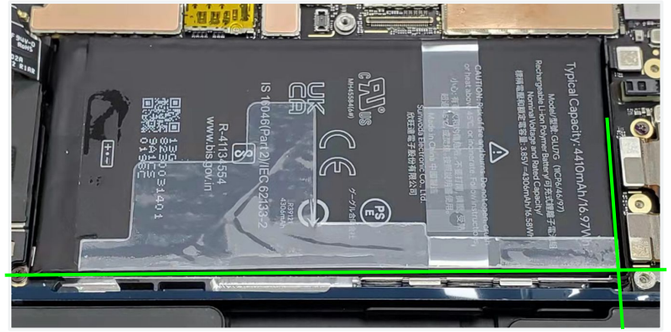
- Use plastic ESD tweezers to transport battery spacer (big).
- Attach spacer (big) in the designated location on the battery.
  - Align and cover the last line of text. (see green frame)
  - Keep a 2mm distance from the inner rib of enclosure. (see yellow line)
- Use plastic ESD tweezers to transport battery spacer (small).
- Attach spacer (small) in the designated location on the battery.
  - Align with the QR code. (see purple line)
  - Align with the top edge of the PCM area. (see purple line)

Part: G806-05609-01 (Sub6 Battery spacer)

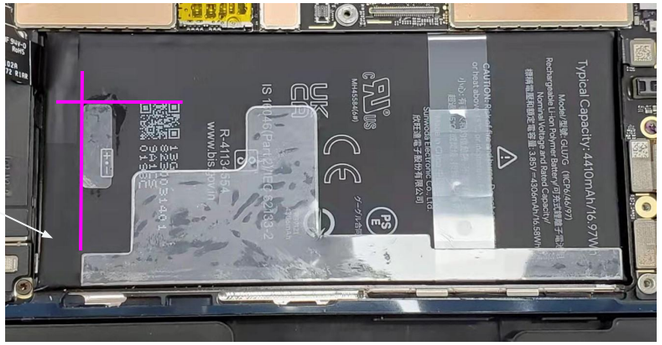


(mmWave) Paste Battery Spacer





PCM Area



- Peel off 2 liners on battery spacer (long) .
- Attach spacer (long) at the designated location on the battery.
  - Align the spacer with the upper corner below rear camera. (see green line)

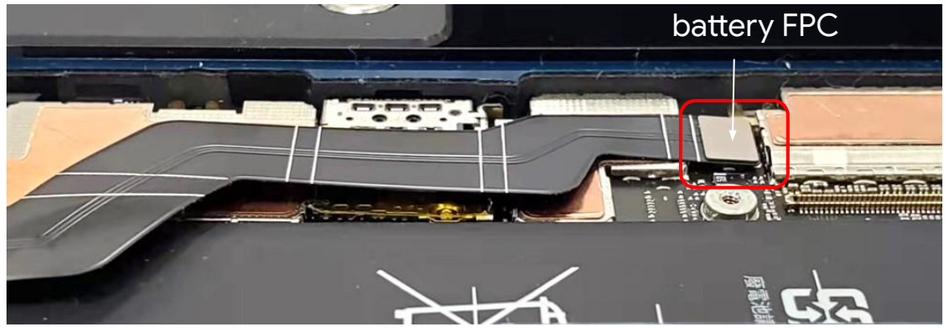
Part: G806-06186-01 (mmWave Battery spacer, big)

- Peel off 2 liners on battery spacer (small) .
- Attach spacer (small) at the designated location on battery.
  - Align with the QR code. (see purple line)
  - Align with the top edge of the PCM area. (see purple line)

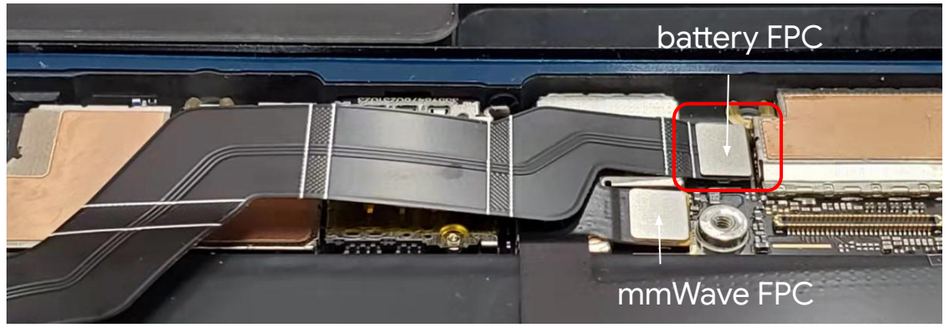
Part: G806-06185-01 (mmWave Battery spacer, small)

Attach Battery Connector

Sub6 view



mmWave view



- Connect Battery FPC to the logic board.

Disassembly instructions

Enclosure

Enclosure replacement

Before you begin

Remove the following items first:

- Display module
- Mid-frame
- Bottom speaker
- mmWave
- Rear camera
- Logic board
- Front camera
- Mic1 bracket
- Top speaker
- Battery

Tools

Pixel 6a Enclosure Holder
ESD tweezers
Universal Disassembly ESD stick
IPA
Cotton swabs

Caution!
Review all **safety precautions** before beginning work.

Enclosure replacement

If re-using the **Enclosure**, ensure that any thermal grease or adhesive residue is completely removed.

Parts

- G949-00240-01 Enclosure
- G949-00241-01 Enclosure
- G949-00242-01 Enclosure
- G949-00243-01 Enclosure
- G949-00244-01 Enclosure
- G949-00245-01 Enclosure

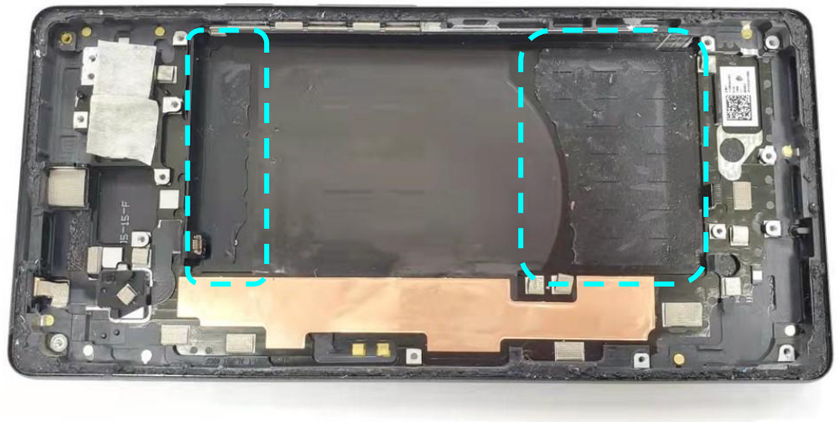
- G949-00246-01 Enclosure
- G949-00247-01 Enclosure
- G949-00249-01 Enclosure
- G949-00250-01 Enclosure
- G949-00251-01 Enclosure

- G806-05545-01 Battery top adhesive 
- G806-05546-01 Battery bottom adhesive 
- G806-05573-01 Top speaker module adhesive 
- G806-05574-01 Top speaker FPC adhesive 

Assembly instructions

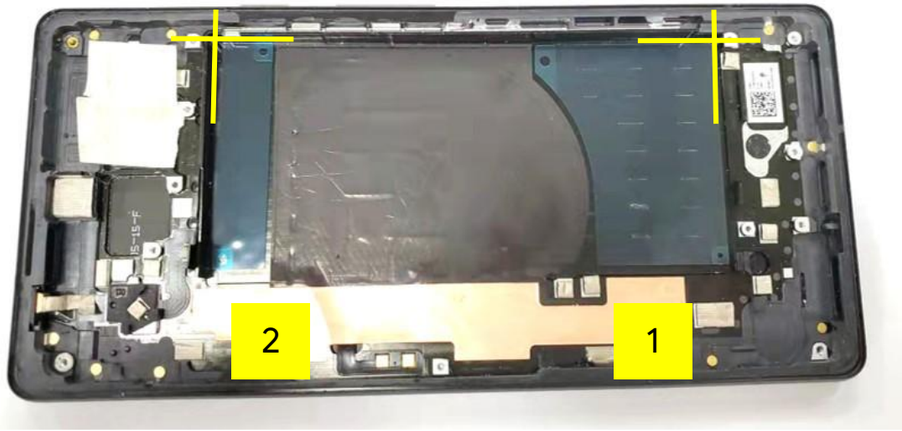
Enclosure

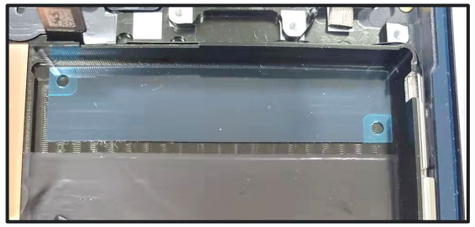
Rework Battery Area
(for Reusing Enclosure)

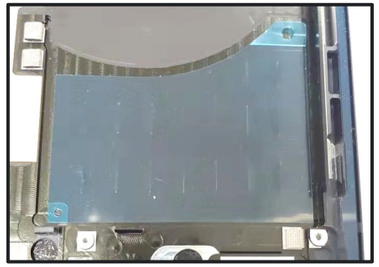


- Use Universal Disassembly ESD stick to clean off the battery adhesive residues.
- If there are residue remainings, use cotton swabs with IPA to wipe the surface.

Paste Adhesive
(for Reusing Enclosure)





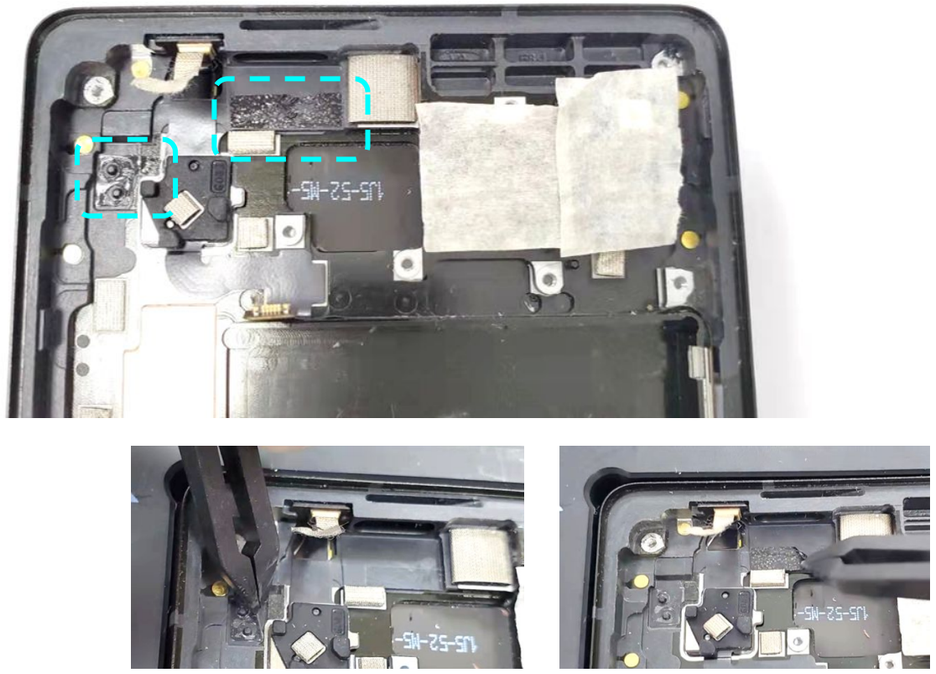


- Paste 2 new adhesives on the enclosure.

Part: G806-05545-01 (Battery top adhesive)

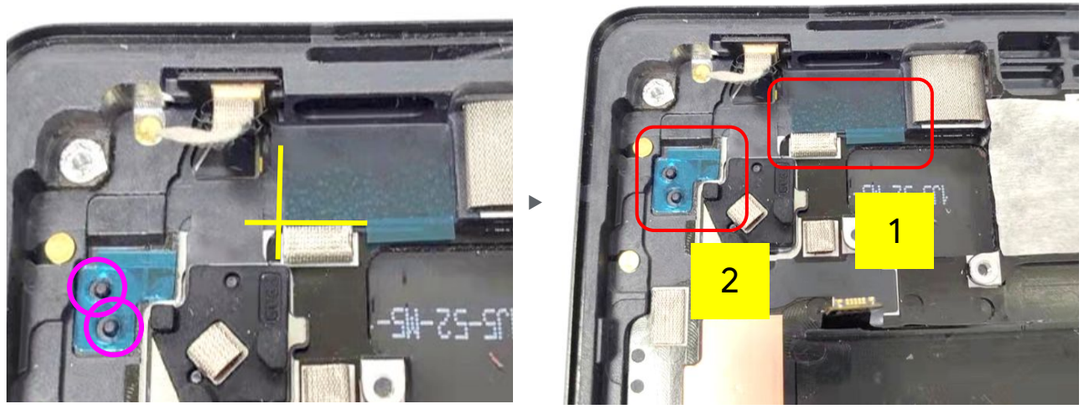
Part: G806-05546-01 (Battery bottom adhesive)

Rework Top Speaker Area
(for Reusing Enclosure)



- Use plastic ESD tweezers to clean up the top speaker adhesive residues.
- If there are residue remainings, use cotton swabs with IPA to wipe the surface.

Paste Adhesive
(for Reusing Enclosure)



- Paste 2 new adhesives on the enclosure following the designated location.

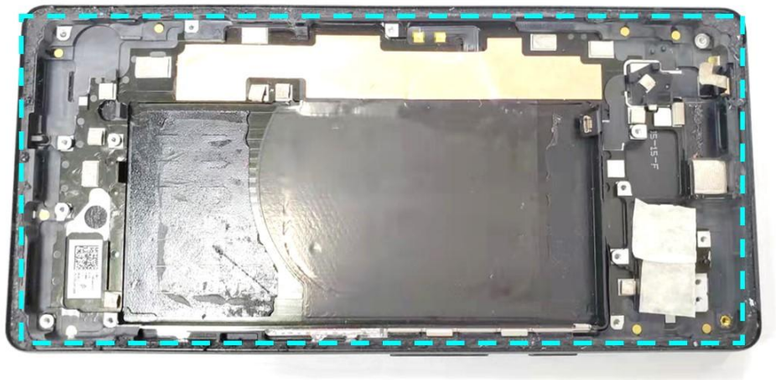
Part: G806-05573-01 (Top speaker module adhesive)

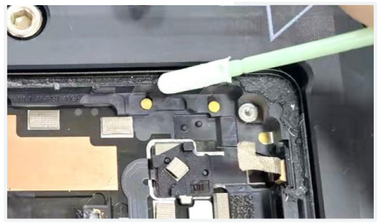
Part: G806-05574-01 (Top speaker FPC adhesive)

Rework Washer Area
(for Reusing Enclosure)

- Use plastic ESD tweezers to clean up the adhesive residue from conductive fabric washer.
- If there are residue remainings, use cotton swabs with IPA to wipe the surface.

Rework Enclosure
(for Reusing Enclosure)



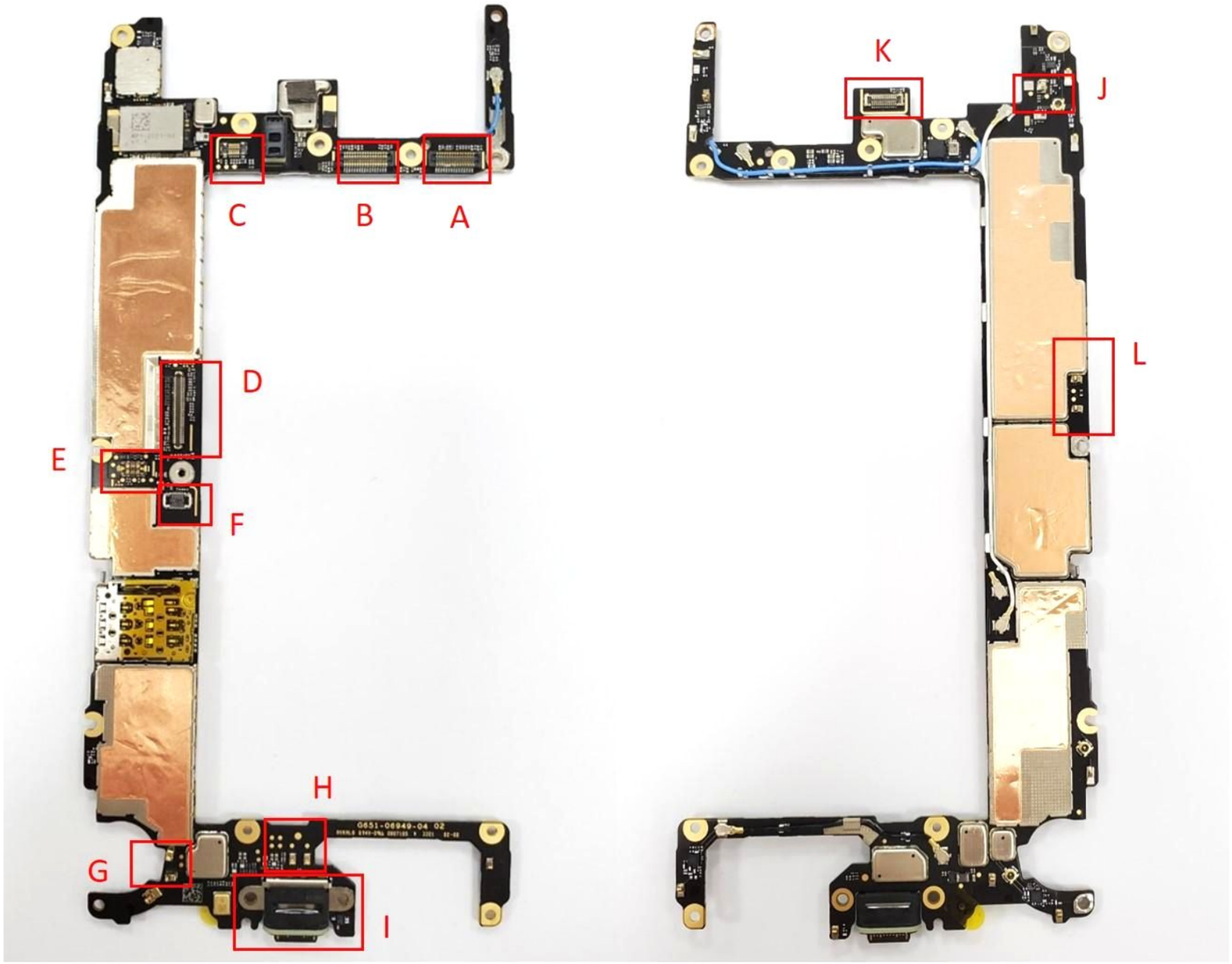


- Wipe the outer edge of the enclosure using cotton swab and IPA in order to clean up the adhesive residue .

Troubleshooting

Connectors Location

Location & Description	
A	REAR CAMERA (ULTRA WIDE) connector
B	REAR CAMERA (WIDE) connector
C	SLAM CONN (SideKey & MIC2 & Flash) connector
D	LCM connector
E	BATTERY connector
F	mmWave connector
G	Vibrator spring connector
H	BOTTOM SPEAKER spring connector
I	USB connector
J	TOP SPEAKER spring connector
K	FRONT CAMERA connector
L	NFC spring connector



Power

Symptom	Potential Root Cause	Procedure	
 T001: Does not power on T002: Powers off suddenly T004: Wired charging failure	Battery Capacity Problem	• Insert the **USB cable** and try to charge the device at least 10 minutes or dummy **battery** to see if the device is out of **battery** capacity. If not, go to the next step.	
	Connectivity Problem	• Disassembly the **Enclosure**, reconnect the **battery**, **USB** and **CG** connector to confirm if it can be charged or power on. If not, go to the next step.	
	Module Problem	• If all the failure symptoms are not present. Use a good **Logic board** and **Battery** to cross check with corresponding failure ones.	**Disassembly** • Logic board • Battery

Mic1

Symptom	Potential Root Cause	Procedure	
 T010: Mic 1 - no sound T011: Mic 1 - low sound T012: Mic 1 - distorted sound	Mesh not clean	• Take a microscope to check the **mesh** is damaged, blocked, shifted, another foreign substance is on it, or the liner is still attached. If yes, remove the foreign change a new **Mic1 bracket**. If not, go to the next step.	
	SW Problem	• Reflash to latest version of the shipping ROM.	
	Module Problem	• Use a good **Logic board** to cross check with failed hardware.	**Disassembly** • Logic board • Mic1 bracket

Mic2

Symptom	Potential Root Cause	Procedure	
 T013: Mic 2 - no sound T014: Mic 2 - low sound T015: Mic 2 - distorted sound	Connectivity Problem	• Check if connectivity between **SLAM FPC** and **Logic board** are normal. • If they are not fully attached, re-assemble and then retest. If fail, go to the next step; if pass, repair process is done.	
	Module Problem	• Use a good **Enclosure** and **Logic board** to cross check with original ones.	**Disassembly** • Logic board • Enclosure

Top Speaker

Symptom	Potential Root Cause	Procedure	
 T019: Top Speaker no sound T020:Top Speaker low sound T021: Top Speaker distorted sound	Mesh Problem	• If there is a noise, please disassemble the **CG** to check if the **mesh of top speaker** on the CG is damaged or if there is debris. If yes, clean or change a new **CG**. If not, go to the next step.	
	Connectivity issue	• Check if connectivity between **Top SPK pad** and **Logic board spring** are normal.	
	Component Problem	• If all the failure symptoms are not present. Use a good **top speaker module** and **Logic board** to cross check with corresponding failed hardware.	**Disassembly** • Logic board • Top speaker

Bottom Speaker

Symptom	Potential Root Cause	Procedure	
 T023: Bottom Speaker no sound T024: Bottom Speaker low sound T025: Bottom Speaker distorted sound	Connectivity Problem	• Check if **bottom speaker** assembly shift; or disassembly **bottom speaker** and check if membrane damaged, or if there is debris. • If yes, then clean or change to a new **bottom speaker** and **Logic board**. If not, go to the next step.	
	Component Problem	• If all the failure symptoms are not present. Use a good **bottom speaker** and **Logic board** to cross check with corresponding failed hardware.	**Disassembly** • Logic board • Bottom Speaker

Vibrator

Symptom	Potential Root Cause	Procedure	
 T026: Vibrator failure	Module Problem	• If all the failure symptoms are not present. Use a good **Logic board** and **Mid-frame (vibrator on it)** to cross check with corresponding failure ones.	**Disassembly** • Logic board • Mid-frame

Display

Symptom	Potential Root Cause	Procedure	
 T027: Display blank T028: Display dead pixel, dark spots or foreign material T029: Display bright pixel, bright or colored spots T030: Display vertical or horizontal lines T031: Display black, white or colored screen T032: Display flickering/abnormal T033: Display image quality T034: Display color mura T035: Display light leakage T036: Display backlight issue T037: Display shadow T038: Display permanent burnin T039: Display temporary burnin T040: Display single crack T041: Display multiple cracks T042: Display to Enclosure gap T043: Display cosmetic defects	Damage	• Inspect & replace display if damaged or out of SPEC.	
	Connectivity issue	• Check if connectivity between **Display connector** and **Logic board** are normal. • If they are not fully attached, re-assemble and then retest.	Connectors Location
	Dead pixels Distorted graphics Flickering Color issues	• Remove **Display module**, fit a replacement part without adhesive and test. • If issue is resolved, apply adhesive and fit new **Display module.**	**Disassembly** • Display
	Component issue	• Use a good **Display** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • Display

Battery

Symptom	Potential Root Cause	Procedure	
 T053: Battery damage T054: Battery draining fast T055: Device overheats	Connectivity issue	• Check if connectivity between **Battery connector** and **Logic board** are normal. • If they are not fully attached, re-assemble and then retest.	Connectors Location
	Component issue	• Use a good **Battery** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • Battery

Sensor

Symptom	Potential Root Cause	Procedure	
 T059: Proximity sensor failure T060: Ambient light sensor failure T061: Accelerometer sensor failure T062: Gyroscope sensor failure	SW Problem	• Make sure SW already updated to latest version.	
	Assembly issue	• Check P-sensor rubber to ensure it is in the correct position.	
	Connectivity Problem	• Check the function by triage test. (Make sure there is no foreign substance covering the **P-sensor** area)	
	Module Problem	• Disassemble and check the appearance of Proximity sensor isn't abnormal. • Use a good **P-sensor rubber** to **Logic board** to cross check with corresponding failure ones. • Replace the defective components.	**Disassembly** • Logic board • Display (P-sensor rubber)

Touch panel

Symptom	Potential Root Cause	Procedure	
 T044: Multi-touch poor response T045: Multi-touch no response T046: Multi-touch erratic response	SW Problem	• Make sure SW already updated to latest version. • Ensure Touch Calibration process was followed 100% to the instructions.	
	Connectivity Problem	• Check the function by triage test. • If fail, disassemble the device and check the assembly condition of **display BTB** connector. If connectivity is poor, re-assemble and retest.	Connectors Location
	Module Problem	• If all the failure symptoms are not present. Use a good **Logic board** and **CG** to cross check with corresponding failure ones.	**Disassembly** • Logic board • Display

Camera

Symptom	Potential Root Cause	Procedure	
 T070:Camera crashes T071 :Camera no preview T072 :Camera AR failure T073 :Camera Rear Photo quality T074 :Camera Rear Video quality T075 :Camera Front Photo quality T076 :Camera Front Video quality T077 :Camera flash not working T078 :Cannot switch between cameras T079 :Camera damage	Cosmetic Problem	• Inspect the camera lens area for damage. • Check the function by triage test. • Disassemble the device to check if camera connector is seated properly. Power on unit and check camera fail symptom again.	
	Connectivity Problem	• Check **camera BTB** and **Logic board** side to identify if assy is deformed or flex crack and reboot device again to check if fail symptom exists.	Connectors Location
	Module Problem	• If fail symptom is still exists, cross check **Logic board** itself or **camera module** to determine if fail symptom caused by camera module or Logic board.	**Disassembly** • Logic board • Rear Camera

RF (BT, WiFi, GPS, NFC)

Symptom	Potential Root Cause	Procedure	
 T047: RF failure T048: Wi-Fi connectivity issues T049: Bluetooth connectivity T050: GPS failure T051: NFC connectivity Issues	Connectivity Problem	• Check if the **screws are loose, springs** are damaged or disconnected. If not, go to the next step.	
	Module Problem	• Use a good **Logic board**, **Enclosure** to cross check with corresponding failure ones.	**Disassembly** • Logic board • Enclosure

UDFPS

Symptom	Potential Root Cause	Procedure	
 T064: Fingerprint sensor failure	Damage	• Inspect display for damage and replace if necessary.	
	SW Problem	• Make sure SW is updated to latest version. • Make sure UDFPS calibration process was followed 100% per instructions.	
	Connectivity issue	• Check if connectivity between **Display connector** and **Logic board** is normal. • If they are not fully attached, re-assemble and then retest.	Connectors Location
	Component issue	• Use a good **Display** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • Enclosure

mmWave

Symptom	Potential Root Cause	Procedure	
 T105: 5G_low_med_band_failure T106: 5G_high_band_failure	Connectivity issue	• Inspect **Mid-frame** and check **mmWave flex** is correctly seated. • Check if connectivity between **mmWave connector** and **Logic board** is normal. • If they are not fully attached, re-assemble and then retest.	Connectors Location
	Component issue	• Connect a new **mmWave** to test. • If issue is resolved, proceed with **mmWave** replacement and assemble device.	**Disassembly** • mmWave
		• If camera issue remains, replace **Logic board**.	**Disassembly** • Logic board

Testing

Software resources

Description	Documentation
Update or reinstall the software on Pixel devices	Link

Glossary

Terminology and definitions

Acronym / Term	Definition
ESD	**Electro Static Discharge** The sudden flow of electricity through two electrically charged objects.
IPA	**Isopropyl Alcohol (99.8%)** Used for cleaning components and enclosures. Comes as pads or a solution.
EHS	**Environmental Health and Safety** Requirements for keeping technicians and customers safe.
LCD	**Liquid Crystal Display** A type of flat panel display which uses liquid crystals to show images.
mmWave	**Millimeter Wave** The radio waves used to build a 5G network, providing fast, reliable mobile data.
LDI	**Liquid Damage Indicator** An indicator that turns from white into another color, typically red, after contact with water. **Also known as:** Liquid damage indicator, LCI

Terminology and definitions

Acronym / Term	Definition
Display module	The cover glass, and sometimes other components such as the fingerprint sensor. **Also known as:** cover glass (CG) · screen · display
Logic board	The main electronic component in the device with the processor, memory, storage, and often Wi-Fi and Bluetooth components all soldered on. **Also known as:** main logic board · main board · motherboard · PCBA
Microphone	The component used for capturing audio to make a call, video or dictate some notes. **Also known as:** mic
Enclosure	The housing that contains the buttons and provides protection for the logic board and other components. **Also known as:** Housing (HSG) · rear cover · back cover (BC) · back glass (BG)

Terminology and definitions

Acronym / Term	Definition
RCAM	Rear Camera modules. **Also known as:** Rear Camera
FCAM	Front Camera modules. **Also known as:** Front Camera
PSA	The adhesive that are used to bond enclosure and display module, battery and enclosure, or other parts. **Also known as:** Pressure Sensitive Adhesive
Audio Jack	Handset Jack **Also known as:** HSJ

Terminology and definitions

Acronym / Term	Definition
FRP	Factory Reset Protection
FDR	Factory Data Reset
SUR	Same Unit Repair
RTV	Return To Vendor
SBOM	Service Bill of Materials