Pixel 6

Repair Manual

Version 2

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	Sept 2021	First release
V1.1	Sept 2021	1. Software update 2. Modify the content of battery recycling. @P25
V1.2	Nov 2021	1. Adjust the repair flow sequence @P29. 2. Add potential root cause for T064: Fingerprint sensor failure @P160. 3. Add note for WC&NFC flex @P139. 4. Update the wording of the Note @P45 @P46. 5. Add Tips : Turn your Pixel phone on & off @P22. 6. Update battery alignment instruction @P107 @P108. 7. Move the battery cosmetic inspection slide to the precaution section.

Revision History

Version	Date	Change Description
V1.3	Dec 2021	1. Remove the Note “The case can be reused until they no longer adhere” @P41,@P90. 2. Address more specific context on how to pull up the battery @P104 @P107.
V1.4	Jan 2022	1. Update Logic board swap No Need to swap RCAM together. @P22, @P114. 2. Modify the content of Glossary(Acronym / Term) : Add "sub6" @P168, "RCAM" "FCAM" "PSA" "UDFPS"@P170 Microphone AKA, strike out “mic1 bracket”@P169 Enclosure AKA, strike out “bottom case” @P169
V1.5	Sep/29 2022	1. Update Mic1 bracket film remove process ”the release film should be removed prior to Mic1 bracket assembly". Also add the callout if the film remains when the peeling film is removed. @P130
V2	**June 2024**	**1. Removed proprietary references** **2. Added disclaimers** **3. Updated tools and fixtures names and part numbers**

Precautions

Important: Before you begin

Precaution

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 6 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.

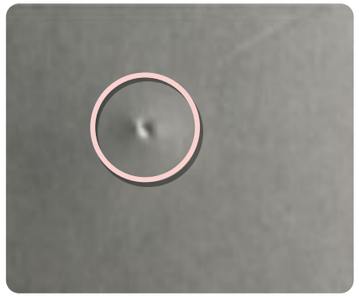
Important: Before Disassembling the Device

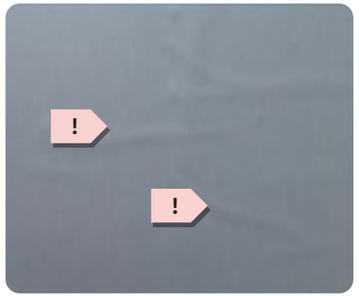
- Disconnect the device from all power sources before any disassembly.
- Make sure the battery is fully discharged before any disassembly.
- If the phone battery shows signs of swelling or damage, or if the phone feels hot or emits strong odor, don't attempt disassembly. Please reach out to Google customer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

Precaution

Caution ⚠

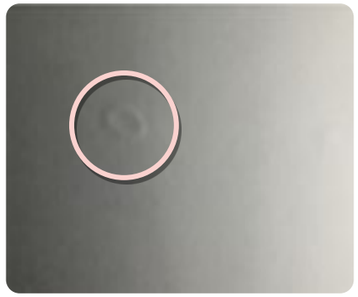
Examples of unacceptable battery conditions - Not suitable for repair*

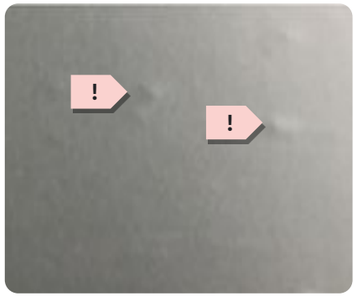

Pouch damage



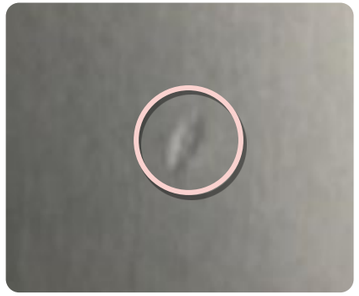
Line protrusion

Scratch

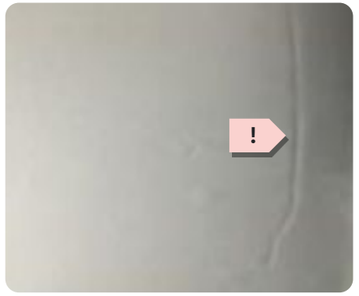

Contamination marking



Dot protrusion


Dent

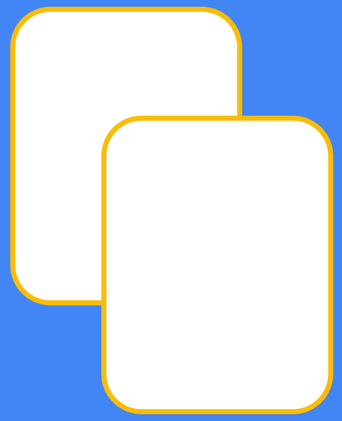
Bubbling



Imprinted line

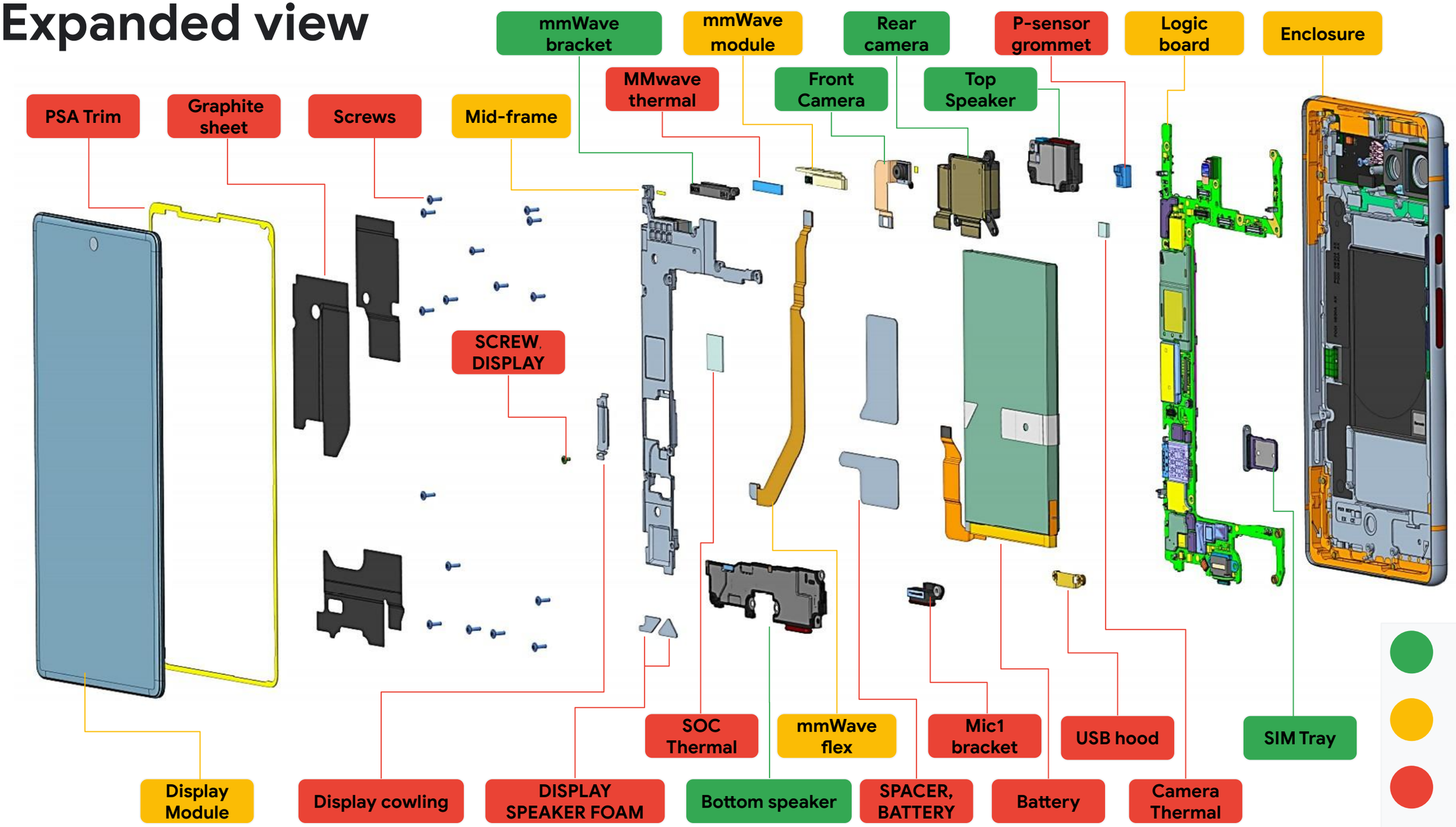
Swelling or electrolyte leakage

*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 6 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 6

SCREW
G250-05801-00

SCREW
G250-05802-00

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.

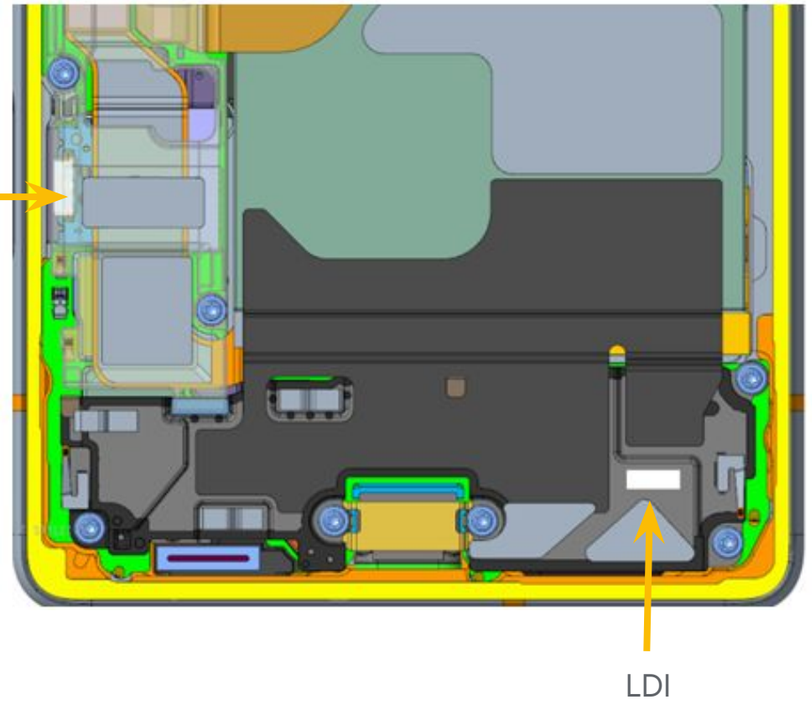
After removal, replace with a new screw

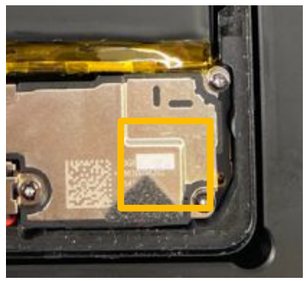
Each screw is critical to the safe continued operation of the phone. Since thread locking adhesive can't be reactivated, replace each used screw with a new screw after removal.

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 disassemble the device).
- On the bottom speaker.

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.

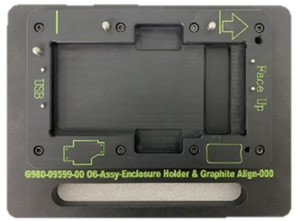
Please note that some tools and fixtures require maintenance and calibration before performing repairs.

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 6

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



Pixel 6 Enclosure Holder & Graphite Align

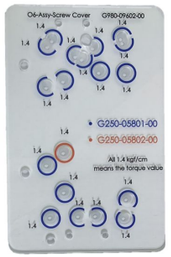
G940-00889-00

Pixel 6 Enclosure PSA Align & Press Cover

G940-00890-00

Pixel 6 Enclosure and CG Press Cover & Sponge Align

G940-00891-00



Pixel 6 Screw Cover

G940-00892-00

Pixel 6 Battery Press

G940-00893-00

Pixel 6 Cleaning Cover CG

G940-00894-00

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

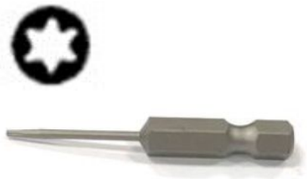
Universal Press Fixture
G940-00733-00

Universal Scraper
G940-00784-00

Upper : SIM TRAY EJECTOR
Lower : CONNECT DSSY

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 (Universal Disassembly 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

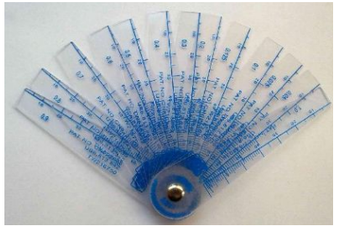
Table C-Clamp

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)

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:

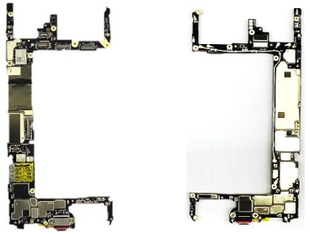
Use of replacement parts other than Google authorized replacement parts, such as aftermarket batteries, may impact device safety, reliability and performance.

Replacement parts

Reusable without cleaning

Reusable with cleaning

Not Reusable after disassembly



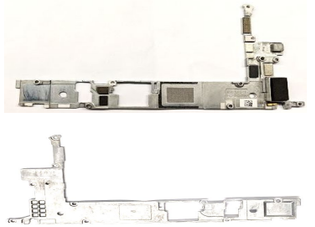
Logic board
Multiple Part Numbers

Display module
G949-00175-01

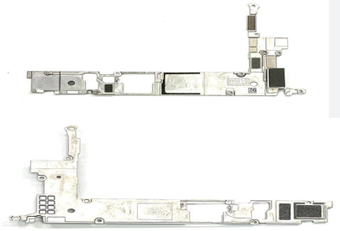
Enclosure
Multiple Part Numbers

Front camera
G949-00184-01

Rear camera
G949-00185-01



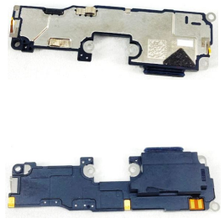
Mid-frame_mmWave
G949-00186-01



Mid-frame_sub6
G949-00187-01

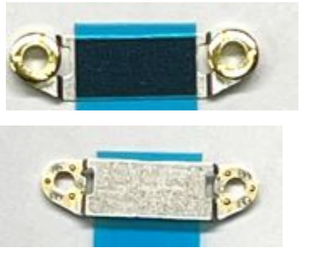
mmWave module
G949-00188-01

Battery
G730-05942-01



Bottom Speaker
G949-00189-01

mmWave Flex
G652-01545-03

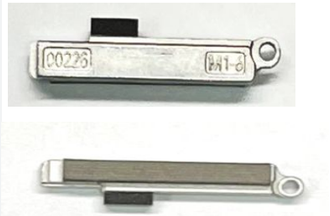


Display cowling
G730-05730-01

Replacement parts

Reusable without cleaning
Reusable with cleaning
Not Reusable after disassembly

bracket mmWave
G730-05759-01

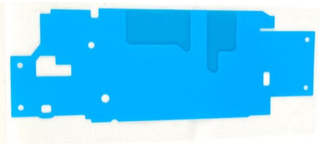


bracket sub-6
G730-05760-01

P-sensor grommet
G804-00753-01

Display Adhesive
G806-05339-01

Sim Tray
Multiple Part Numbers



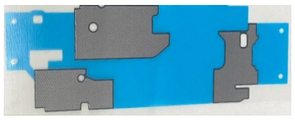
SPACER, BATTERY
G852-01847-01

USB hood
G853-00997-01

Top speaker
G863-00361-02

mmWave thermal pad
G864-00429-01

Camera thermal pad
G864-00447-06



Graphite Sheet
G864-00448-01

SCREW
G250-05801-00

Replacement parts

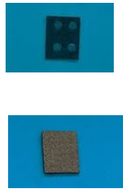
Reusable without cleaning
Reusable with cleaning
Not Reusable after disassembly

SCREW
G250-05802-00

DISPLAY SPEAKER FOAM
G806-05311-02

SPEAKER FOAM
G806-05312-01

Mic1 bracket
G730-05733-50



SOC Thermal Pad
G864-00467-05

RCAM liner
G806-05760-01

Copper foil protective film
G806-05777-01

DISPLAY FCAM Film
G806-05741-01

RCAM UW Cap
G852-02352-01

RCAM Cap
G852-02351-01

FCAM protective case
G852-02183-01

RCAM liner(UW)
G806-05759-01

Replacement parts

Reusable without cleaning

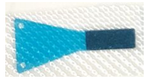
Reusable with cleaning

Not Reusable after disassembly

BG protective film
G806-06339-01

CG_liner_Service
G806-06209-01

DISPLAY FOAM
G806-05313-01

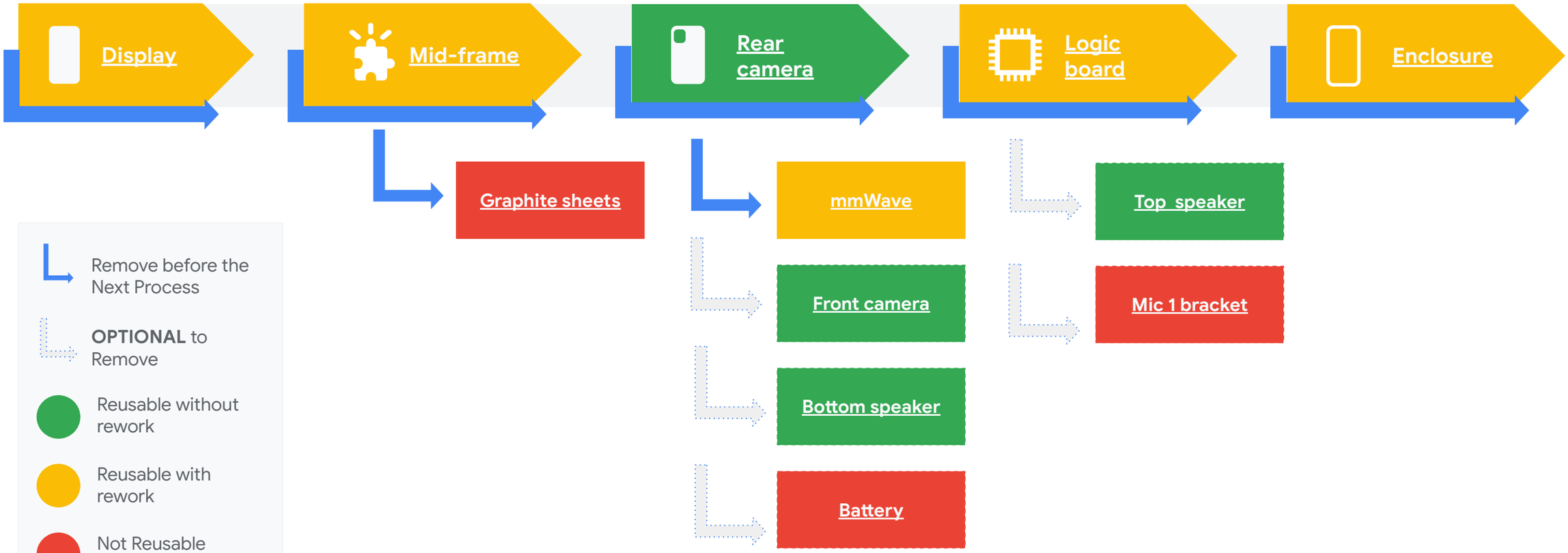


MIDFRAME SPACER
G806-05314-01

Mic3 protective liner
G806-03591-01

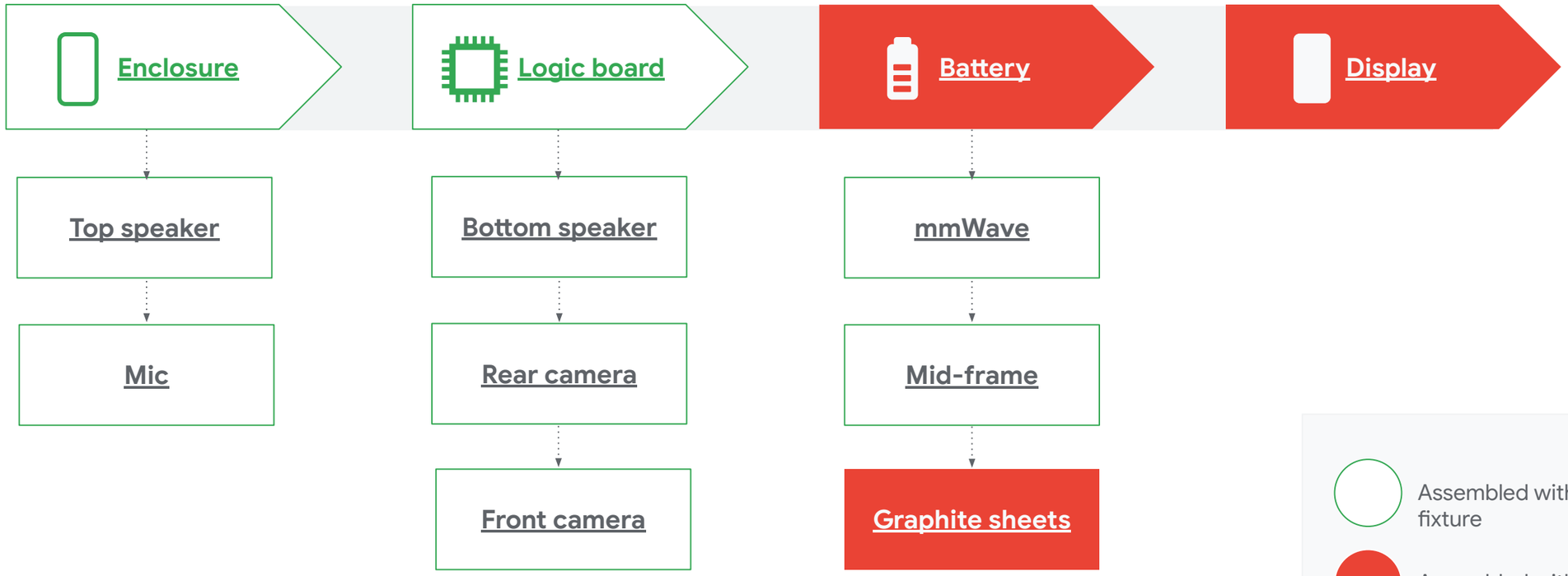
Repair flows

Pixel 6 Disassembly flowchart



Note : Rear camera/Front camera/Bottom speaker/Battery are in the same layer, you can replace each of them without interfere.

Pixel 6 Assembly flowchart



Disassembly instructions

Display

Display replacement

Prerequisites

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

Tools

Heat Plate
Universal disassembly fixture & Universal Device Clips
Ionizing air fan
Pixel 6 Enclosure and CG Press Cover & Sponge Align
Pixel 6 Enclosure PSA Align & Press Cover
Pixel 6 Enclosure Holder & Graphite Align
Universal press fixture
Universal adsorption bulb
Torx Plus 3IP screwdriver
Universal Fish line tool
ESD tweezers
Universal Disassembly ESD stick
Universal Disassembly ESD pick
3M UPUV Primer
Pixel 6 Cleaning Cover CG
Deglue Machine

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.

Display replacement - Cont.

Parts

G949-00175-01 Display		G806-06339-01 BG protective film	
G806-06209-01 CG_liner_Service		G806-05777-01 CG_copper_protective	
G730-05730-01 Display Cowling		G852-02183-01 FCAM Cap	
G806-05339-01 Display adhesive		G806-05741-01 FCAM 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.

01. Cover the Display

- Cover the **Display module** with Protective Film.

Part: G949-00175-01 (Display module)
G806-06209-01 (CG_liner_Service)

02. Cover the Back Glass

- Place a **BG protective film** over the Back Glass and Visor..

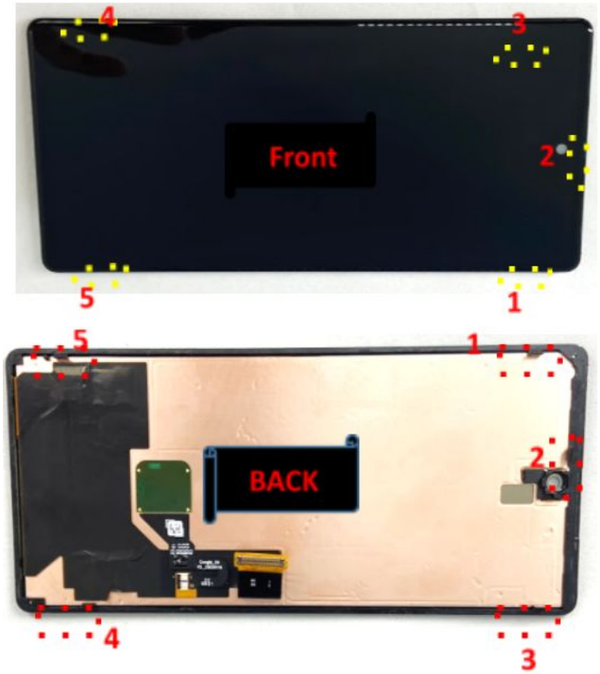
Part: G806-06339-01 (BG protective film)

03. Soften the adhesive

- Place the device display side down on a **Heat plate** set to **122°F /50 ℃** for 10 mins to soften the adhesive.

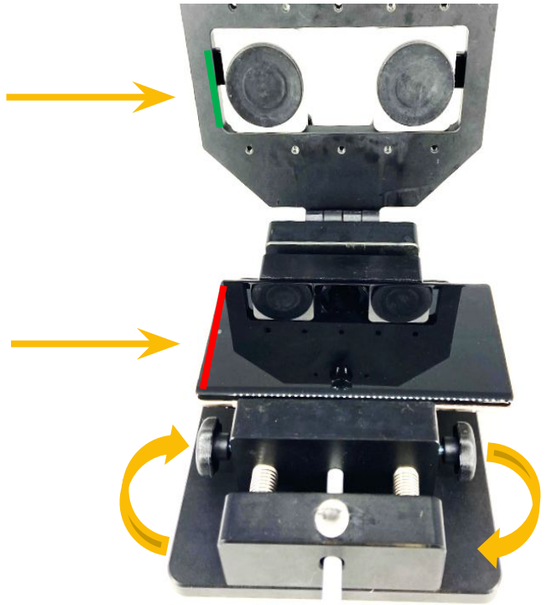
Caution: Heating plate is a Hot Surface. Use caution as it could cause burns.

04. Where snaps are



- Before removing the **Display module**, be aware that there are 5 snaps underneath.
- Avoid damaging the snaps during the disassembly process.

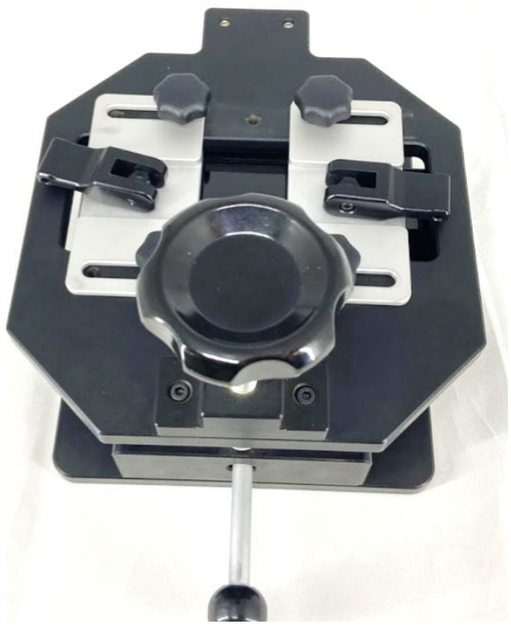
05. Use fixture



- Place the device on the holder of the **Universal disassembly fixture & Universal Device Clips** and adjust the position to let the **Display module** (the red line) align the edge of the left suction cup (the green line).
- Fix the device and lock with the screws.

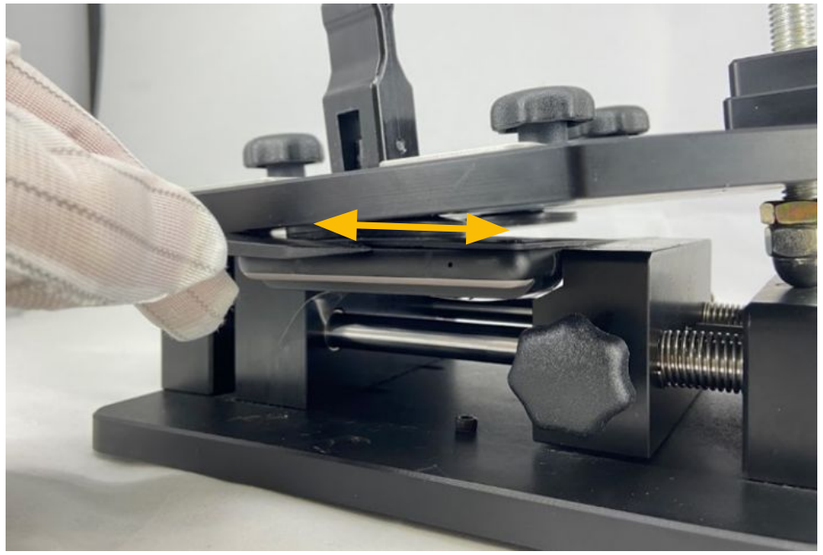
Remove the Display front protective film before attaching the suction cups to the display.
There is a groove which can help to avoid pressing the power button accidentally.

06. Cover fixture



- Cover the lid of **Universal disassembly fixture** as shown in the left picture.
- Trigger the left suction cup as shown in the right picture.

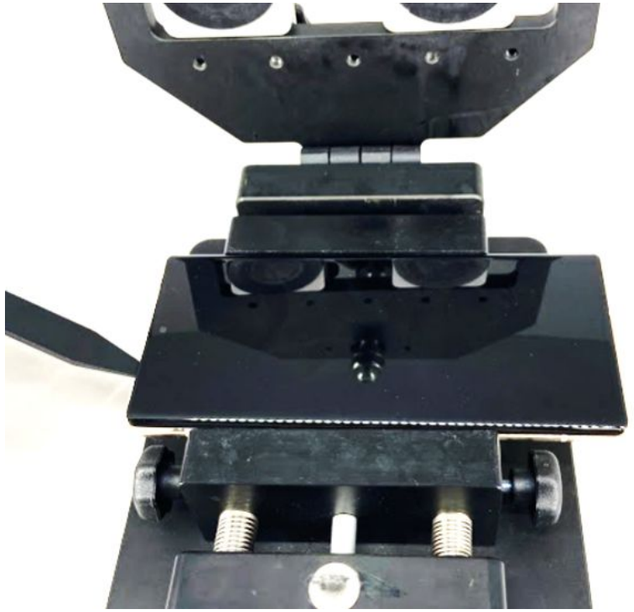
07. Use fixture



- Slowly rotate the knob and the **Display module** to separate from the **Enclosure**.
- As they part, insert an **Universal Disassembly ESD stick** into the gap to prevent them from re-closing.

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

08. Open the lid



- Release the suction cup, and open the lid.
- Do not remove the **Universal Disassembly ESD stick** from the device.

Reattach the Display front protective film after taking out the device from the fixture.

09. Separate Top/Right/Left edge

- Insert an **Universal Disassembly ESD pick (3.5mm)** into the gap to separate the top side.
- Then slide around the right side and left side.

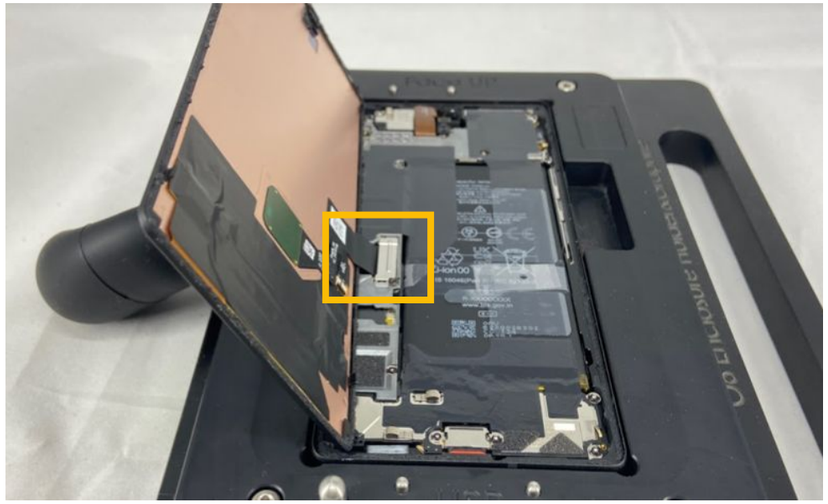
Insert and keep pulling the gap horizontally.

10. Separate bottom edge

- Separate the bottom edge with the **Universal Disassembly ESD pick(3.5mm)** inserted at an approximately 75º angle and slide horizontally, as shown above.

Do not insert the pick horizontally, insert at 75º and keep the **Universal Disassembly ESD pick** at that angle.

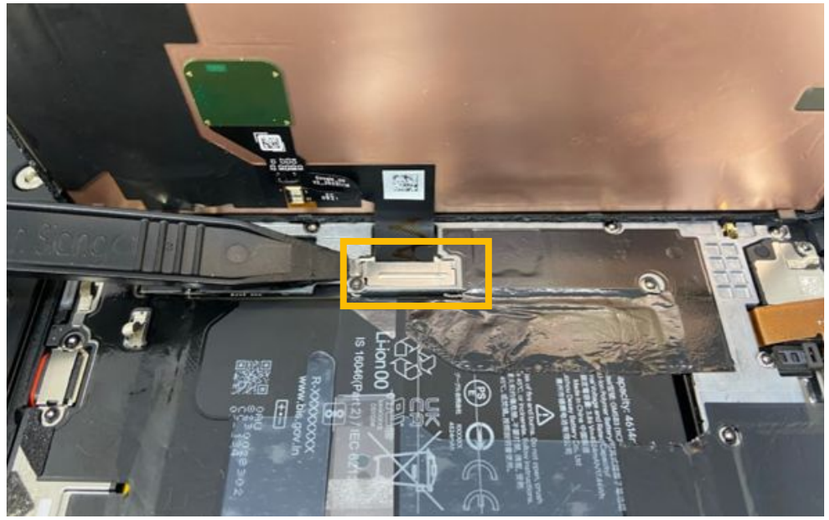
11. Hold the Display



- Once the device is open, use the **Universal adsorption bulb** to hold the display.
- Avoid touching the copper foil.

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.

12. Remove cowling



- Remove with an **Universal Disassembly ESD stick**.

Part: G730-05730-01 (Display Cowling)

Do not reuse the part

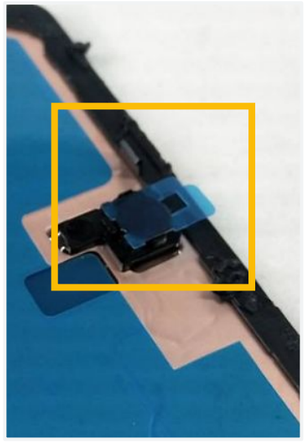
13. Disconnect display

- Loosen the display connector with the **Universal Fish line tool**.
- Remove the **Display module**.

Part: G949-00175-01 (Display module)

Using the **Universal Fish line tool** avoids damage the components.

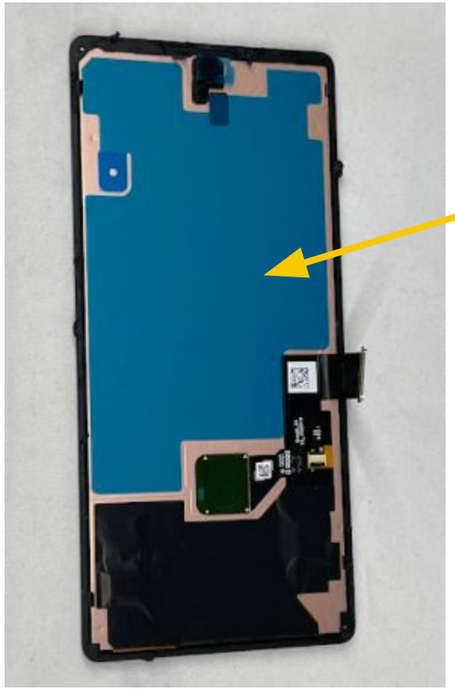
14. Camera protection



- Put on the protective cap (on front Cam) and protective film (on CG's front Cam holder), and gently press with **ESD tweezers**.

Part: G806-05741-01 (FCAM Film)
G852-02183-01 (FCAM Cap)

15. Adhere foil film



- Adhere **copper protective film** to the **Display module**.

Part: G806-05777-01 (CG_copper_protective)

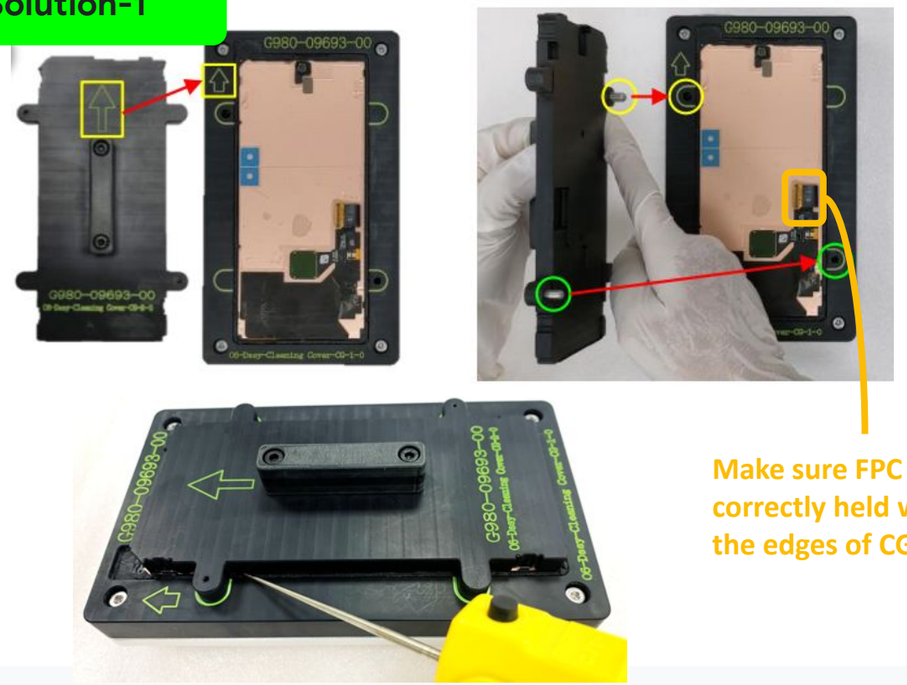
Only apply the copper protective film to reuse a good working, non-cracked screen.

Assembly instructions

Display

01. Re-using the Display with fixture

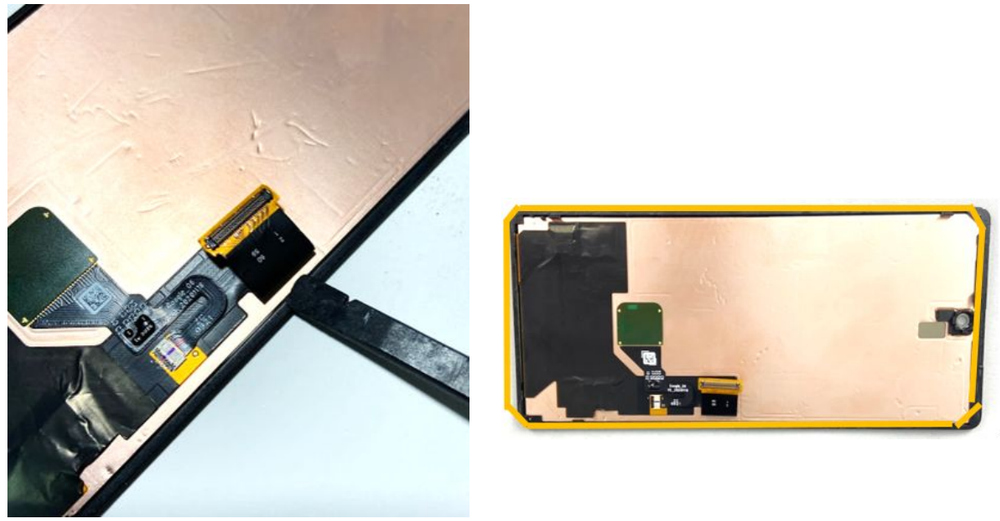
Solution-1



- Use the **Universal adsorption bulb** to place the **Display** in **Pixel 6 Cleaning Cover CG** and place the cover.
- Use an **Deglue Machine** to clean the residual glue out of the **Display**.
- If there is any residue remaining, use a dust free cloth with **IPA** to clean the surface.

01. Re-using the Display

Solution-2



- Use an **Universal Disassembly ESD stick** or **Deglue Machine** to clean the residual glue out of the **Display**.
- If there is any residue remaining, use a dust free cloth with **IPA** to clean the surface.

The highlight is where the residual adhesive exists.

02. Apply primer

- Apply **3M UPUV Primer** around the edge of the device.
- Use an **Ionizing air fan** to blow over the device to prepare the **Primer** for the adhesive.

Once **Primer** has been applied, complete assembly in 25 mins.

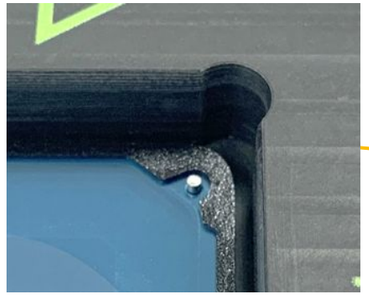
03. Remove liner

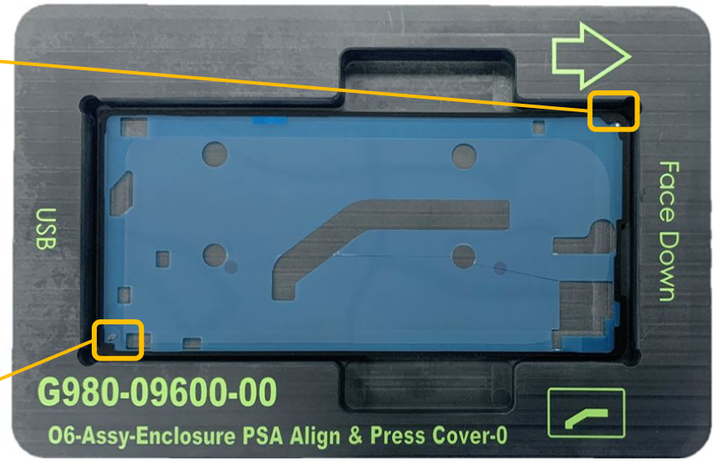
- Slowly remove the liner from the **adhesive**.

Part: G806-05339-01 (Adhesive)

Do not touch the adhesive. If it gets dirty, change for another one.

04. Adhesive alignment

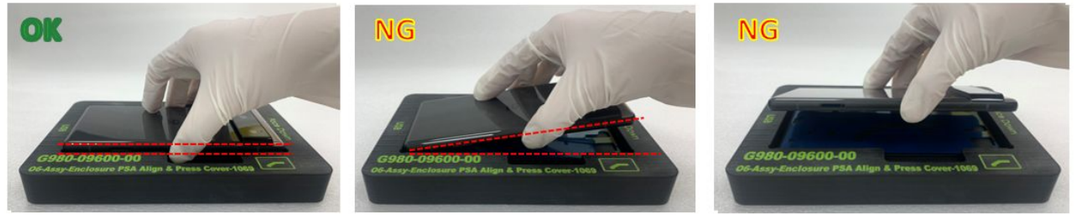




- Place the **adhesive** in the **Pixel 6 Enclosure PSA Align & Press Cover** with the ESD tweezers.

Do not touch the adhesive. If it gets dirty, change for another one.

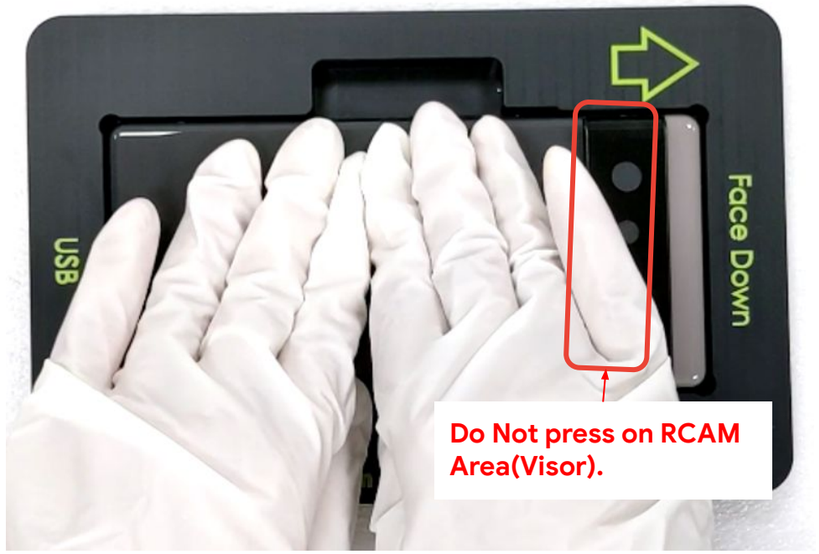
05. Enclosure to adhesive



- Vertically place the **Enclosure** into the pocket in the indicated direction.

Place it vertically.

06. Activate the PSA



- Gently press the all around **adhesive** by hands, to enhance the bonding between **Enclosure** and **adhesive**.

Do Not press on RCAM Area(Visor) during the process.

07. Remove Enclosure

- Remove the **Enclosure** from the **Pixel 6 Enclosure PSA Align & Press Cover** vertically.

Take out the Enclosure vertically.
DON'T put device back side in enclosure PSA align fixture again.

08. Adhesive to enclosure

- Place the **Enclosure** in the **Pixel 6 Enclosure Holder & Graphite Align.**

09. Remove the liner (1st layer)

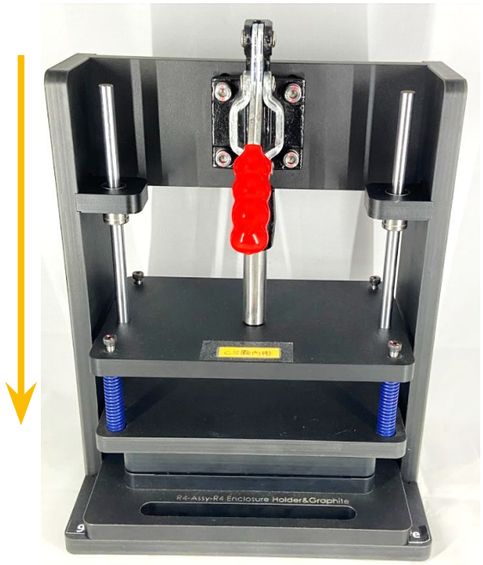
Pick up the tab here.

- Slowly pull the liner to avoid lifting the adhesive, with the pull tab as the figure shown.
- Do not remove the 2nd layer of the liner yet.

10. Place the press cover

- Place the **Pixel 6 Enclosure PSA Align & Press Cover** ON TOP OF **Pixel 6 Enclosure Holder & Graphite Align**.

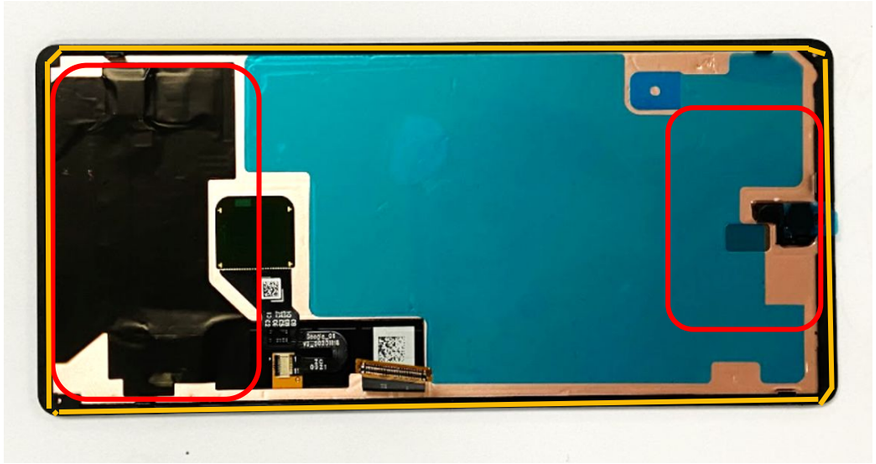
11. Press together in fixture



- Place on the **Universal press fixture** and press the handle down for 10 seconds.
- Then push back the handle to the original position and remove the holder.

Pinch point. Keeps hands clear during operation.

12. Apply primer on display

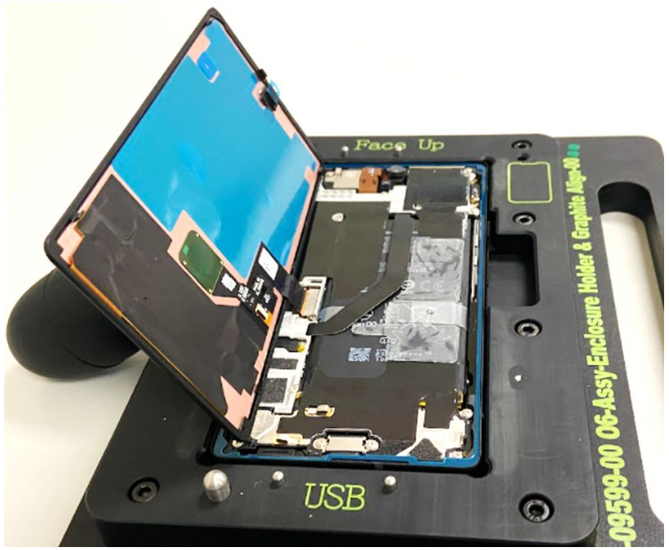


- Apply **3M UPUV Primer** around the edges of the **Display module** using a **Dust-free Dust-free Cotton swabs**.
- Use an **Ionizing air fan** to blow over the device to prepare the Primer for the adhesive.

Part: G949-00175-01 (Display module)

When apply UPUV primer to the CG module, pay attention to avoid touching copper and sponge areas (as shown above red figure). Once **Primer** has been applied, complete assembly in 25 mins.

13. Aligning display module

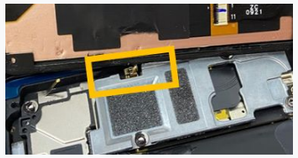


- Use the **Universal adsorption bulb** to prop up the **Display module.**

14. Connect display module

- Connect the **Display flex** to the **Logic board**, applying even pressure across the connector to ensure it is fully engaged.

Avoid to damage the spring.



15. Check display

- Remove the **Universal adsorption bulb** and **display protective film**.
- Power on to check if the device is working properly, Power off device after checking.

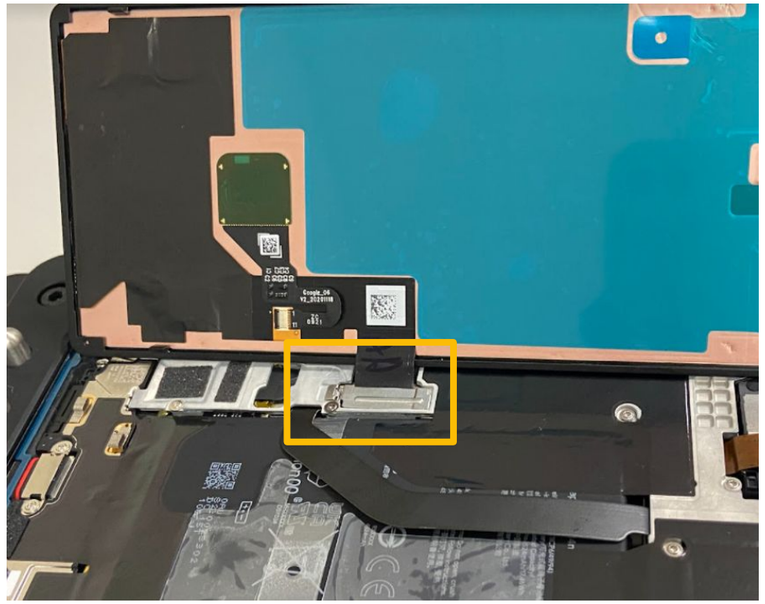
Do not touch the display until it turns on fully since display self-calibration is in progress.
Display Touch Calibration Details

16. 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

This step is only performed if the display or the mainboard has been replaced

17. Attach display cowling



- Attach a new **Display cowling** over the connector.

Part: G730-05730-01 (Display cowling)

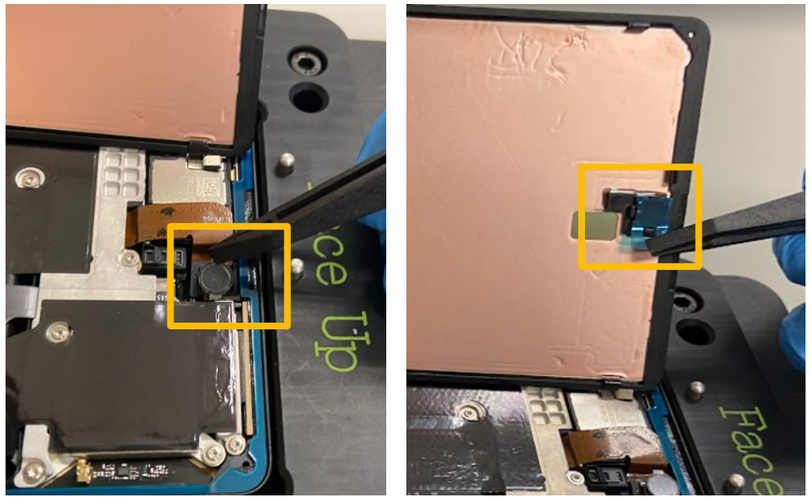
Make sure the trim snaps do not contact the adhesive.

18. Remove liner

- Use the **Universal adsorption bulb** to lift up the **Display module** and remove the **CG copper protective**.

Part: G806-05777-01 (CG_copper_protective)

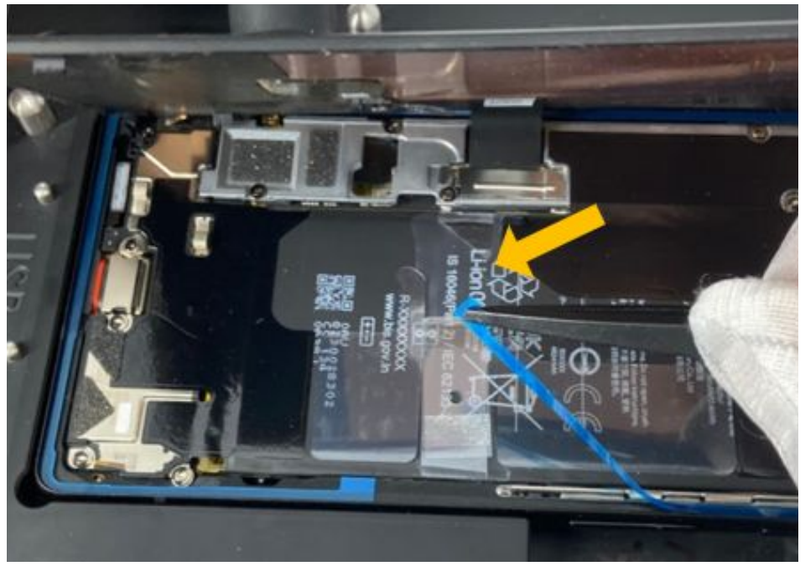
19. Remove film/cap



- Remove the enclosure **Front Cam film / Front Cam Cap.**

Part: G806-05741-01 (FCAM film)
G852-02183-01 (FCAM Cap)

20. Remove liner



- Use **ESD tweezers** to grab the PSA **liner** and carefully pull it away.

21. Fix down display

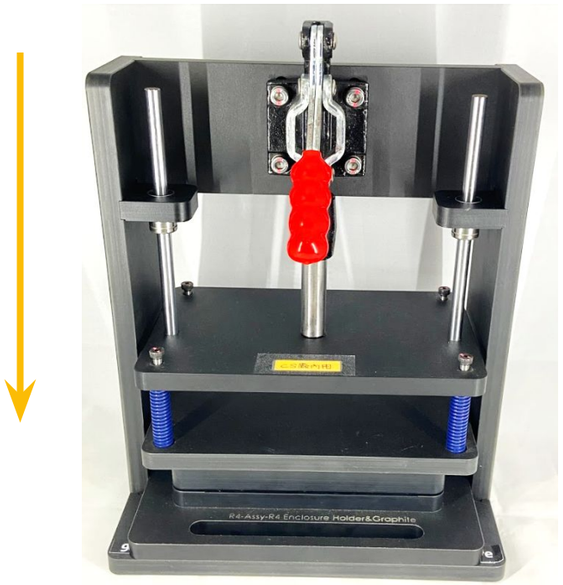
- Align the **Display module** on the **Enclosure vertically**.
- Remove from the **Holder** and press around the display bezel with both hands.

Press the top side middle first, and then follow on 2 long sides and bottom side.

22. Place in holder

- Place the device in the **Pixel 6 Enclosure Holder & Graphite Align** and place the **Press cover** on top.

23. Place in holder



- Place it in the **Universal press fixture** and press the handle down for 30 seconds.
- Push back the handle to the original position and remove the device.

Pinch point. Keeps hands clear during operation.

Disassembly instructions

Graphite sheets

Graphite sheets replacement

Prerequisites

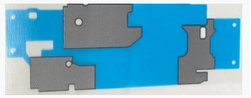
Remove the following items first:

- Display module

Tools

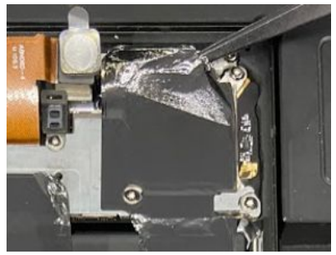
Pixel 6 Enclosure Holder &
Graphite Align
ESD Tweezers
Universal Disassembly ESD stick
Universal scraper

Parts

G864-00448-01 Graphite sheet	
G852-01847-01 SPACER Battery	
G806-05311-02 DISPLAY SPEAKER FOAM	
G806-05312-01 SPEAKER FOAM	
G806-05314-01 MIDFRAME SPACER	
G806-05313-01 DISPLAY FOAM	

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

01. Graphite removal

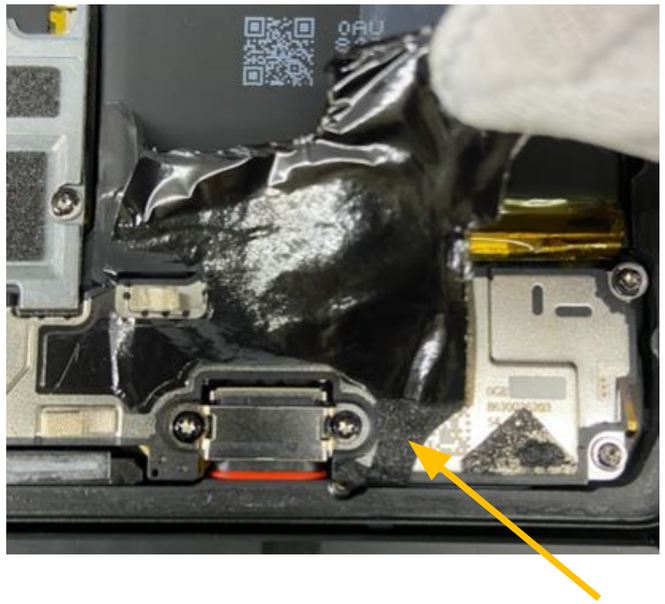


- Use **ESD tweezers** to lift the 3 **Graphite sheets** and then remove slowly by hand. Do not reuse the part.

Part: G864-00448-01 (Graphite sheet)

Be careful not to puncture the battery while using the tweezers.

02. Overlaid foam removal



- Use **ESD tweezers** to pick up and pull out the **DISPLAY SPEAKER FOAM**. It's overlaid with the **Graphite sheet**. Remove it thoroughly.

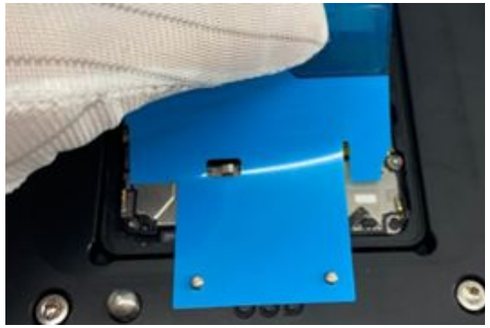
Part: G806-05311-02 (DISPLAY SPEAKER FOAM)

Do not reuse the part

Assembly instructions

Graphite sheets

01. Apply SPACER Battery



- With the device in the **Pixel 6 Enclosure Holder & Graphite Align**, place the **SPACER Battery**, aligning with the the bottom two positioning columns firstly.
- Align with the the top two positioning columns.

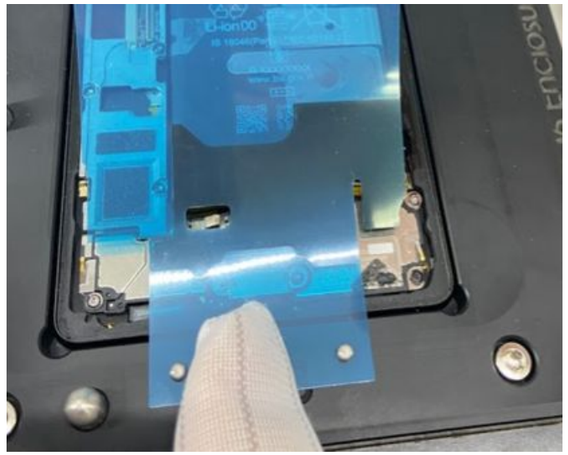
Part: G852-01847-01 (SPACER Battery)

02. Adhere SPACER Battery

- Use the **Universal Scraper** and roll the **SPACER Battery**. Ensure there are no air pockets. Use the smaller scraper where needed.
- Tear off the upper blue release liner accordingly.

Avoid rolling over the gaskets, as it may deform them.

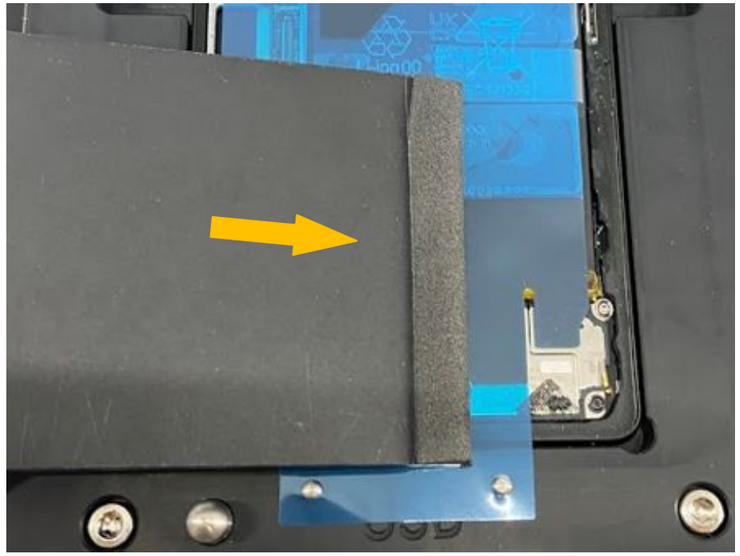
03. Apply graphite sheet



- With the device in the **Pixel 6 Enclosure Holder & Graphite Align**, place the **Graphite sheet**, aligning with the the bottom two positioning columns firstly.
- Align with the the top two positioning columns.

Part: G864-00448-01 (Graphite sheet)

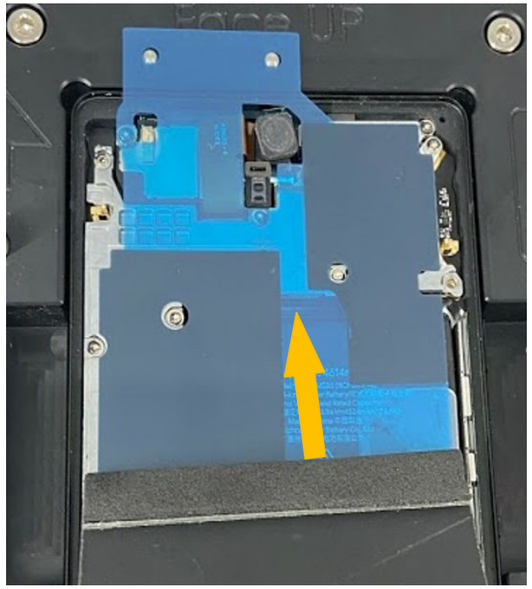
04. Adhere graphite sheet



- Use the **Universal Scraper** and roll the **bottom graphite sheet**. Ensure there are no air pockets. Use the smaller scraper where needed.
- Continue to roll over the 2 remaining sheets.

Avoid rolling over the gaskets, as it may deform them.

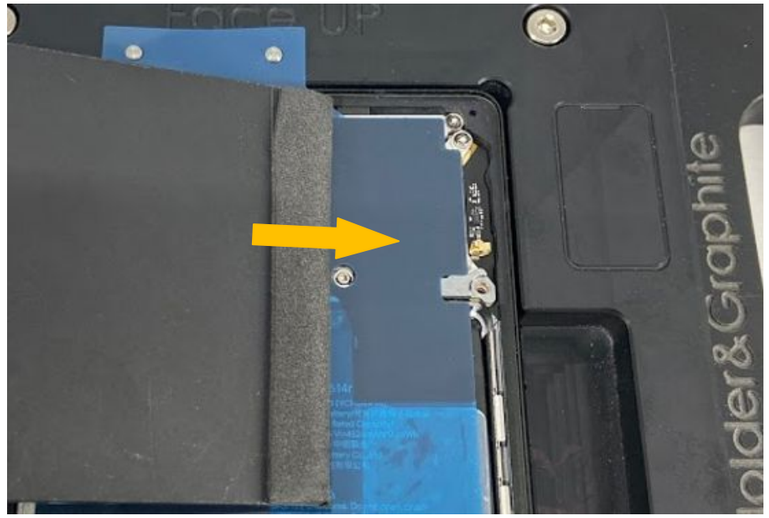
05. Adhere graphite sheet



- Use the **Universal Scraper** and roll the **middle graphite sheet**. Ensure there are no air pockets. Use the smaller scraper where needed.
- Continue to roll over the 2 remaining sheets.

Avoid rolling over the gaskets, as it may deform them.

06. Adhere graphite sheet



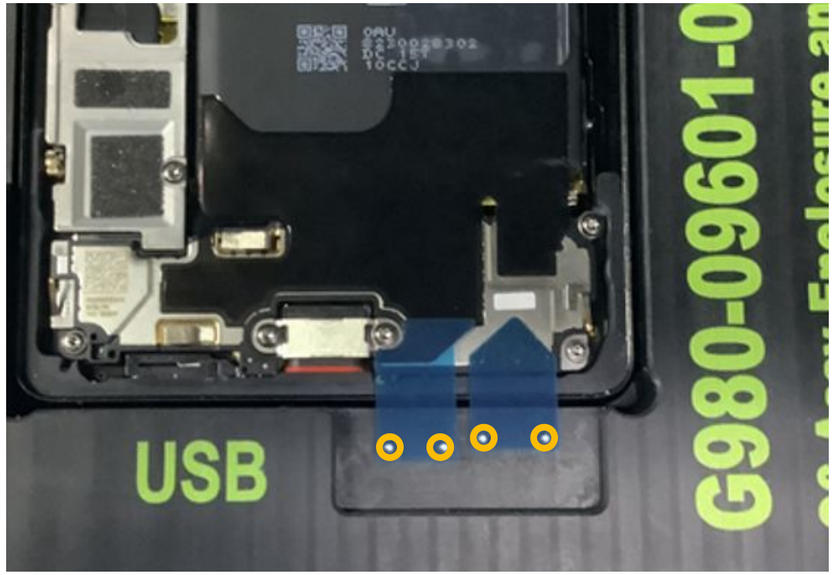
- Use the **Universal Scraper** and roll the **top graphite sheet**. Ensure there are no air pockets. Use the smaller scraper where needed.
- Continue to roll over the 2 remaining sheets.

Avoid rolling over the gaskets, as it may deform them.

07. Remove the liner

- Remove the release liner.

08. Attach the sponges

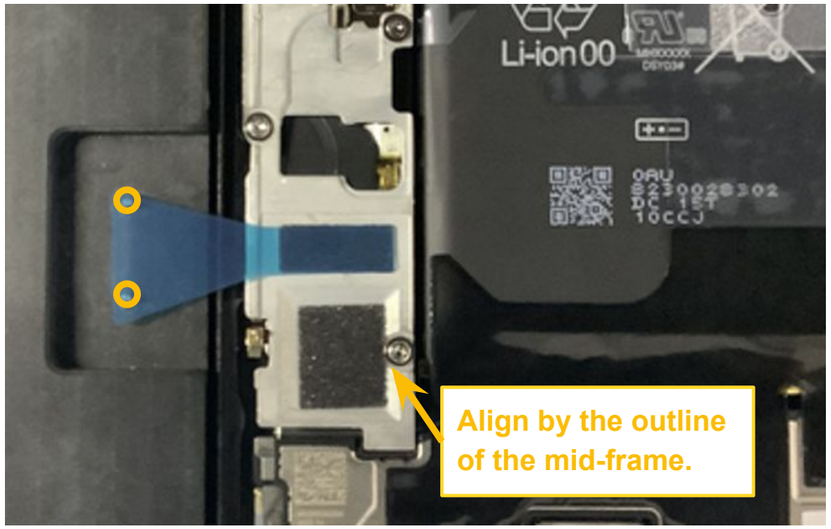


- Align **two sponges** by the alignment Pins of Pixel 6 Enclosure and CG Press Cover & Sponge Align.
- Press the sponges by **Universal Disasse** **ESD stick**.

Part: G806-05311-02 (DISPLAY SPEAKER FOAM)
G806-05312-01 (SPEAKER FOAM)

The right side sponge (G806-05312-01, triangle shape) is on the bottom speaker. Replace it ONLY when it's damaged.

09. Attach the sponges (mid-frame)



- Align **two sponges** by the alignment Pins of **Pixel 6 Enclosure and CG Press Cover & Sponge Align**.
- Press the sponges by **Universal Disassembly ESD stick**.

Part: G806-05313-01 (DISPLAY FOAM)
G806-05314-01 (MIDFRAME SPACER)

Replace the sponges ONLY when they are damaged. If they are in good condition, please skip this step.

Disassembly instructions

Mid-frame

Mid-frame replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets

Tools

Pixel 6 Enclosure Holder & Graphite Align
Pixel 6 Screw Cover
Torx plus 3IP screwdriver
ESD tweezers
Universal Disassembly ESD stick

Parts

G250-05801-00
8 x Screw

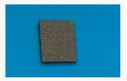
G250-05802-00
1 x Screw

G949-00186-01
Mid-frame_mmWave

G949-00187-01
Mid-frame_Sub-6

G864-00447-06
Camera thermal pad

G864-00467-05
SOC thermal pad



G804-00753-01
P-sensor grommet

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

01. Screw cover

- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**. The 3 alignment pins are to avoid removing the wrong screws.

02. Remove screws

- Remove 9 Mid-frame **Screws** with a **Torx Plus 3IP screwdriver**.
- Then remove the **Pixel 6 Screw Cover**.

Part: G250-05801-00 *8 (Screw)
G250-05802-00 *1 (Screw)

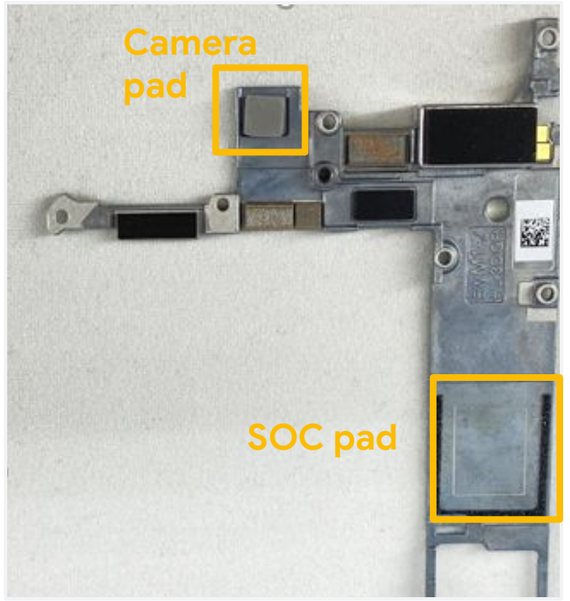
Do not reuse the part

03. Remove mid-frame

- Remove **Mid-frame** with **ESD tweezers** by gripping it in the center, as shown above.

Part: G949-00186-01 (Mid-frame_mmWave)
Part: G949-00187-01 (Mid-frame_Sub-6)

04. Note



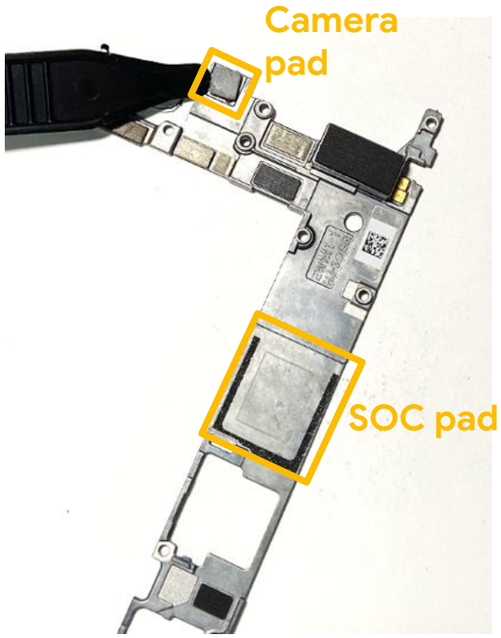
- **Thermal paste** may be left on the **Mid-frame**.
- Undamaged **thermal pads** can be reused. Damaged thermal pads should be replaced.

Part: G864-00447-06 (Camera thermal pad)
Part: G864-00467-05 (SOC thermal pad)

Assembly instructions

Mid-frame

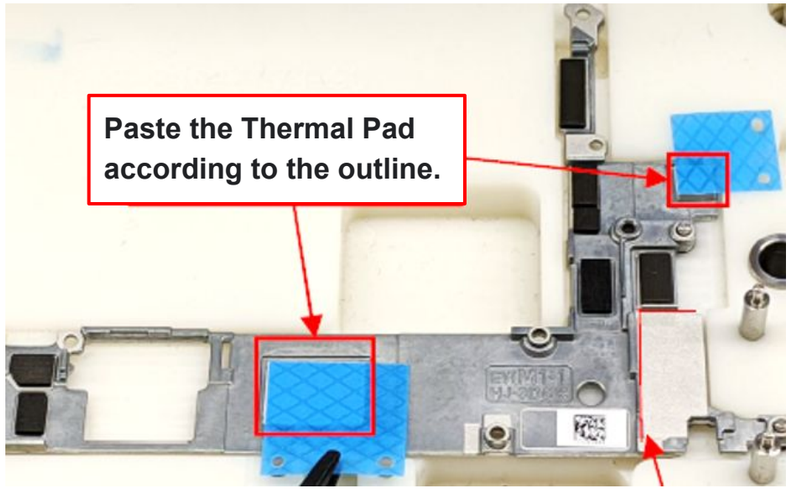
01. Re-using Mid-frame



- Clean any residue from the **Mid-frame** with an **Universal Disassembly ESD stick**.

Part: G864-00447-06 (Camera thermal pad)
Part: G864-00467-05 (SOC thermal pad)

02. Apply thermal pads



- Align the **thermal pad** on the **Mid-frame**.

Part: G864-00447-06 (Camera thermal pad)
Part: G864-00467-05 (SOC thermal pad)

This step is for new and reclaim Mid-frame.

03. Fitting the Mid-frame

- Assemble the **Mid-frame** according to the positioning posts on the **Logic board**.

Part: G949-00186-01 (Mid-frame_mmWave)
Part: G949-00187-01 (Mid-frame_Sub-6)

Make sure that Pin1(a post)can be seen; and the position of Pin2(flex) is not lifted.

04. Fasten the Mid-frame

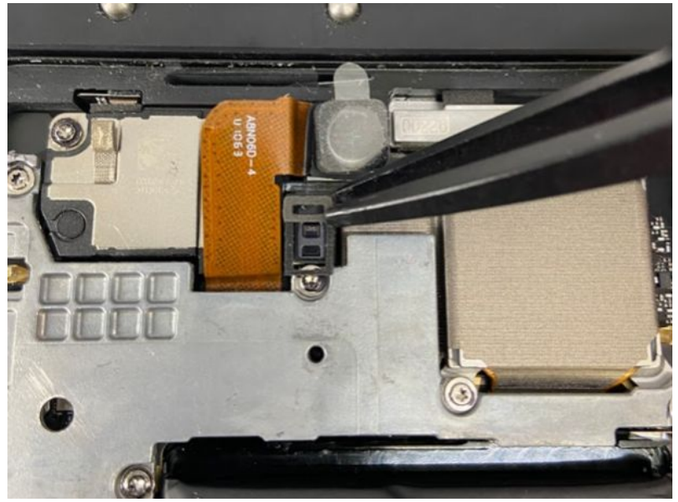
- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align.**
- Tighten the 7 **Screws** with a **Torx Plus 3IP screwdriver**, take out the **Pixel 6 Screw Cover**.

Torque force : 1.4 ± 0.03kgf-cm

Part: G250-05801-00 *8 (Screw), G250-05802-00 *1 (Screw)

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

05. Attach P-sensor grommet



OK

NG deform

NG deform

- Attach **P-sensor grommet** on Logic board. Also check the P-sensor foam is flat.

Part: G804-00753-01 (P-sensor grommet)

Please skip this step, If not removing the P-sensor grommet from the logic board, Using a new grommet(not to reuse old one) if replace new MLB.

Disassembly instructions

mmWave

mmWave replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame

Tools

Pixel 6 Enclosure Holder & Graphite Align
Pixel 6 Screw Cover
Universal Fish line tool
Torx plus 3IP screwdriver
Universal Disassembly ESD stick

Parts

G652-01545-03
mmWave flex

G730-05759-01
bracket mmWave

G730-05760-01
bracket sub-6

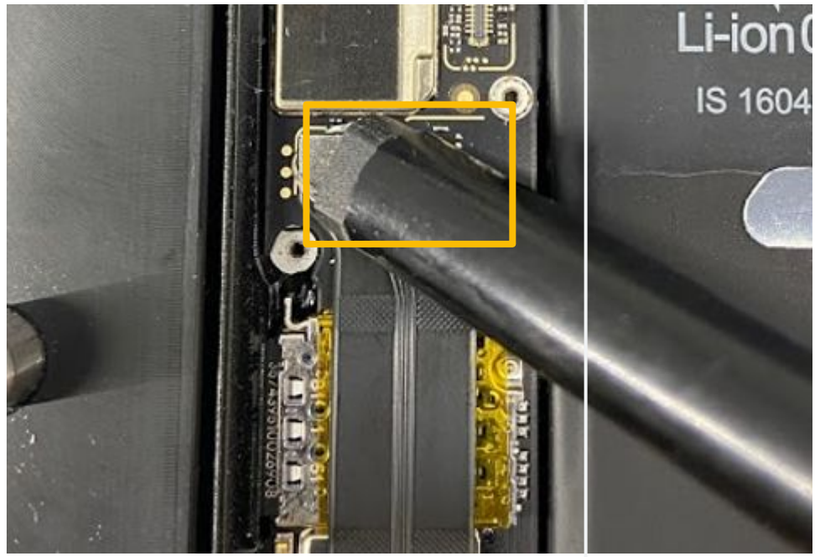
G250-05801-0
1 x Screw

G949-00188-01
mmWave module

G864-00429-01
mmWave thermal pad

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

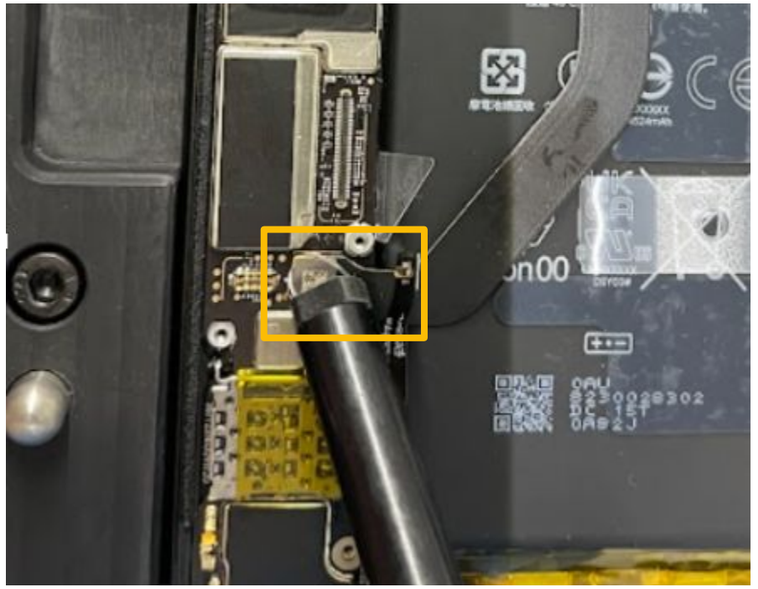
01. Disconnect battery



- Loosen the battery connector and disconnect the **Battery** from the **Logic board** with a **Universal Fish line tool**.

Using the **Universal Fish line tool** avoids damage the components

02. Disconnect 5G



- Loosen the **5G connector** and disconnect from the **Logic board** with a **Universal Fish line tool**.

Using the **Universal Fish line tool** avoids damage the components.
This step is only for mmWave Sku.

03. Remove Screws

- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Remove the **mmWave bracket** screw with a **Torx Plus 3IP screwdriver**, then remove the **Pixel 6 Screw Cover**.

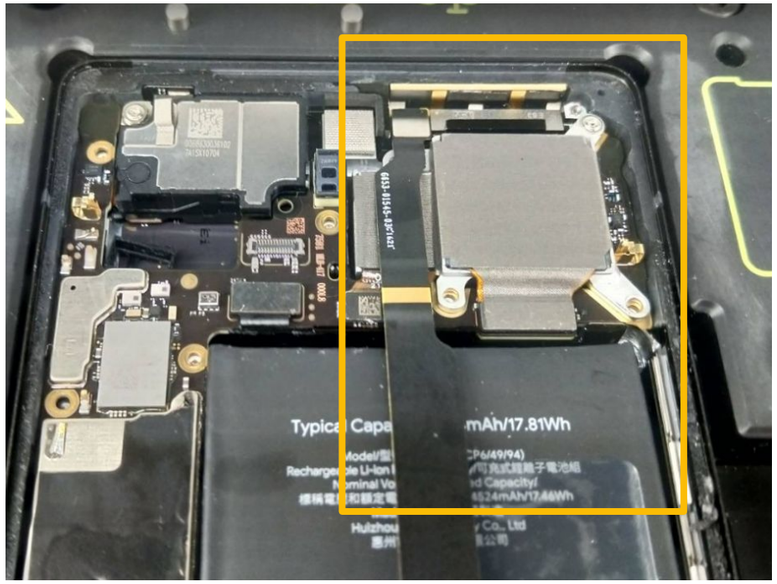
Part: G250-05801-00 (Screw)
Do not reuse the part

04. Remove bracket

- Remove the **bracket** with an **Universal Disassembly ESD stick**.

Part: G730-05759-01 (bracket mmWave)
Part: G730-05760-01 (bracket sub-6)

05. Remove mmWave flex



- Remove the **mmWave flex** & **mmWave module**.

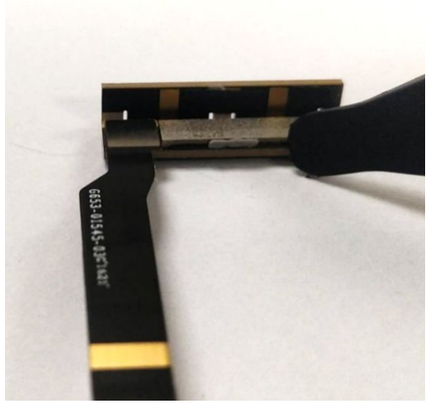
Part: G652-01545-03 (mmWave Flex)
G949-00188-01 (mmWave module)

This step is only for mmWave Sku.

Assembly instructions

mmWave

01. Re-using mmWave



- Clean residue TIM from mmWave Bracket by the **Universal Disassembly ESD stick**. Align the TIM thermal paste by the outline.
- Buckle **mmWave flex** on **mmWave module.**

Part: G652-01545-03 (mmWave Flex)
G949-00188-01 (mmWave module)
G864-00429-01 (mmWave thermal pad)

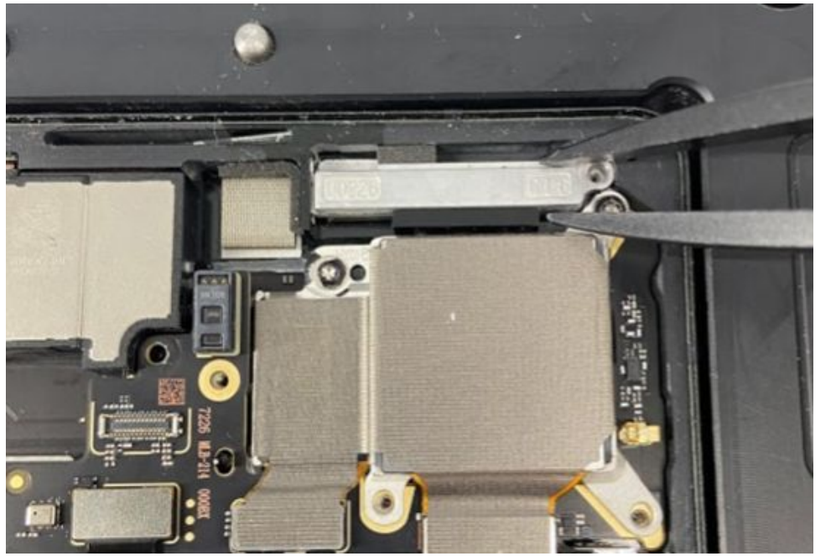
This step is only for mmWave Sku.

02. Assemble mmWave

- Tear off the blue release liner,.
- Insert **mmWave Assy module** into the **Enclosure.**

Bend the **mmWave** flex into an L shape where the flex is scored.
This step is only for mmWave Sku.

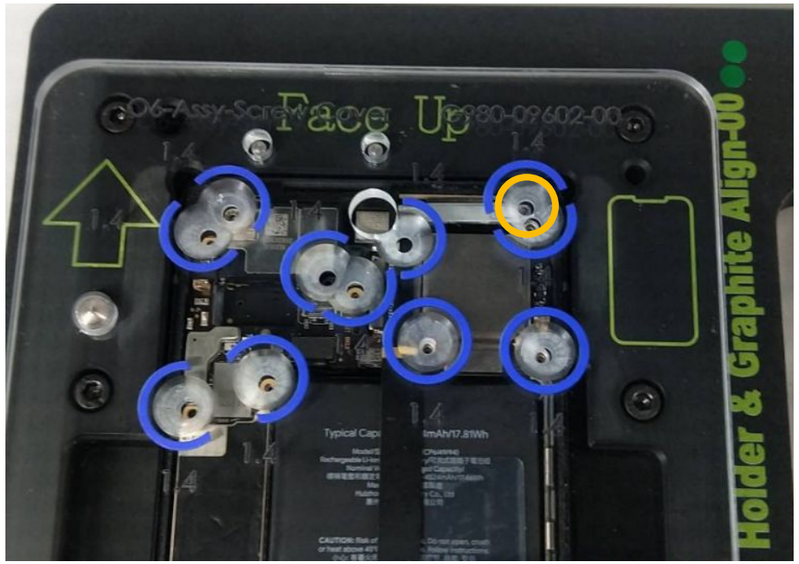
03. Assemble Sub-6 Foam



- Insert the **bracket** at an angle into the **Enclosure**.

Part: G730-05759-01 (bracket mmWave)
Part: G730-05760-01 (bracket sub-6)

04. Assemble bracket

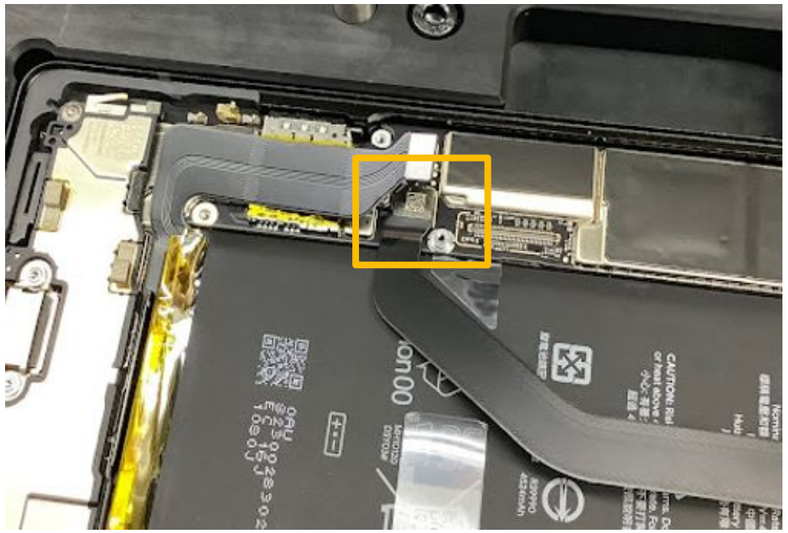


- Place **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align.**
- Fasten the **mmWave bracket screw** with a **Torx Plus (3IP),** take out the **Pixel 6 Screw Cover**.

Torque force : 1.4 ± 0.03kgf-cm

Part: G250-05801-00 (screw)

05. Connect to Logic board



- Connect **mmWave flex** to the **Logic board**.

Check every connector is attached fully to the **Logic board**.
This step is only for mmWave Sku.

06. Connect to Logic board

- Connect **battery flex** to the **Logic board**.

Check every connector is attached fully to the **Logic board**.

Disassembly instructions

Front camera

Front camera replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame
- mmWave

Tools

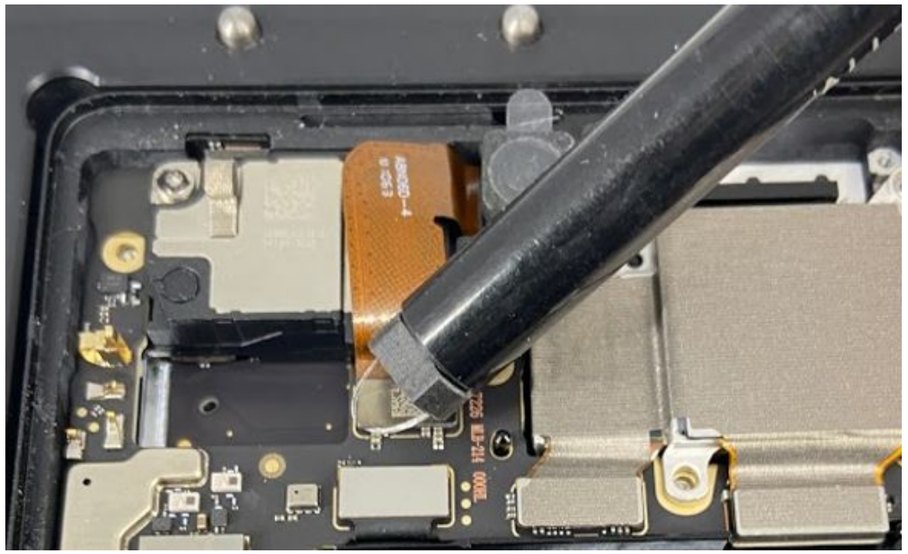
Universal Fish line tool
ESD tweezers

Parts

G949-00184-01
Front camera

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

01. Loosen the connector



- Loosen the **Front camera** connector from the **Logic board** with the **Universal Fish line tool**.

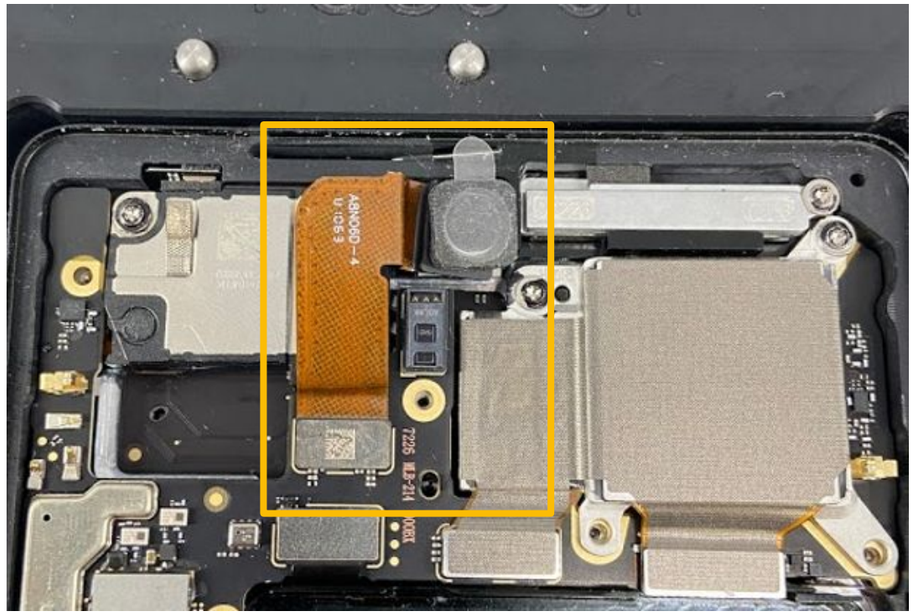
Part: G949-00184-01 (Front camera)

Using the **Universal Fish line tool** avoids damage the components.

Assembly instructions

Front camera

01. Attach front camera



- Pick up the **Front camera** with **ESD tweezers**.
- Attach the **Front camera** with the connector to the **Logic board**.

Part: G949-00184-01 (Front camera)

Disassembly instructions

Rear camera

Rear camera replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame
- mmWave

Tools

Pixel 6 Enclosure Holder &
Graphite Align
Pixel 6 Screw Cover
Torx plus 3IP screwdriver
Universal Fish line tool
ESD tweezers

Parts

G949-00185-01
Rear camera

G250-05801-00
Screw

G806-05759-01
RCAM liner UW

G806-05760-01
RCAM liner

G852-02351-01
RCAM Cap

G852-02352-01
RCAM UW Cap

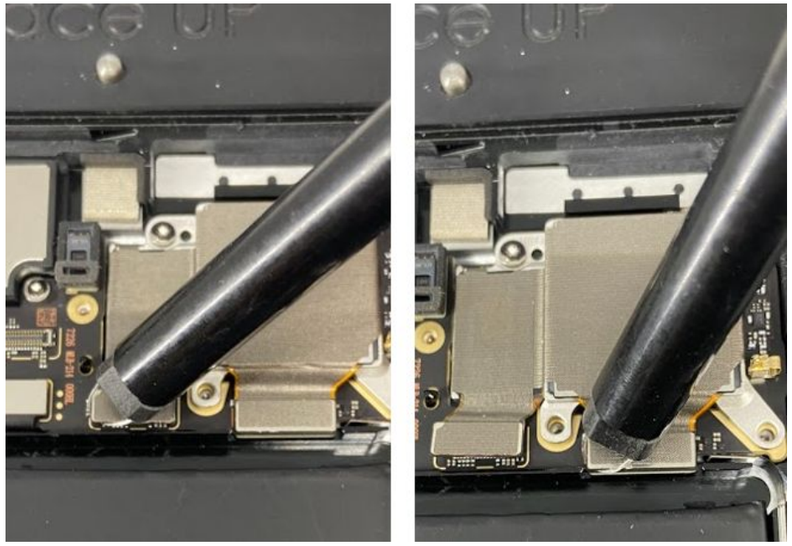
Caution!
Review all **safety precautions** before beginning work.

01. Remove screws

- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Remove the **two Rear camera screws** with a **Torx Plus 3IP screwdriver**, remove the **Pixel 6 Screw Cover**.

Part: G250-05801-00 (Screw)
Do not reuse the part

02. Remove rear camera



- Loosen 2 **Rear camera** connectors and disconnect from the **Logic board** with a **Universal Fish line tool**.
- Remove the **Rear camera** with **ESD tweezers**.

Part: G949-00185-01 (Rear camera)

Using the **Universal Fish line tool** avoids damage the components.

03. Camera protection

- Apply **two RCAM Caps** over the **Rear camera**.

Part: G852-02351-01 (RCAM Cap)
Part: G852-02352-01 (RCAM UW Cap)

04. Enclosure protection

- Clean out the cover liner and apply **two liners** over the **Enclosure**.

Part: G806-05759-01 (RCAM liner UW)
Part: G806-05760-01 (RCAM liner)

Assembly instructions

Rear camera

01. Prepare rear camera

- Remove the **2 protective caps** from the **Rear camera**. Blow it by **ionizing air Fan**.

Part: G852-02351-01 (RCAM Cap)
Part: G852-02352-01 (RCAM UW Cap)

Ensure that the environment is clean for this process.

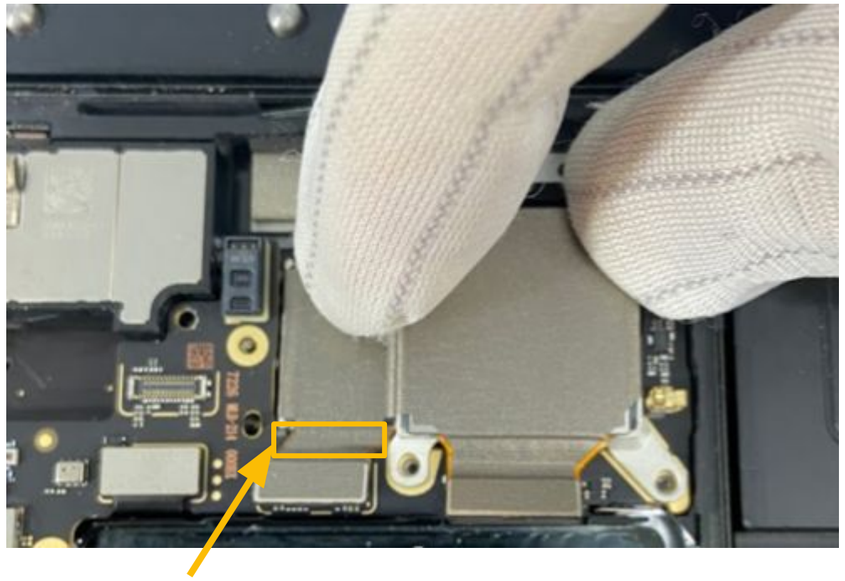
02. Remove liner

- Remove the **2 Rear camera liners** from the **Enclosure** with **ESD tweezers.**

Part: G806-05759-01 (RCAM liner UW)
Part: G806-05760-01 (RCAM liner)

Ensure that the environment is clean for this process.

03. Assemble rear camera

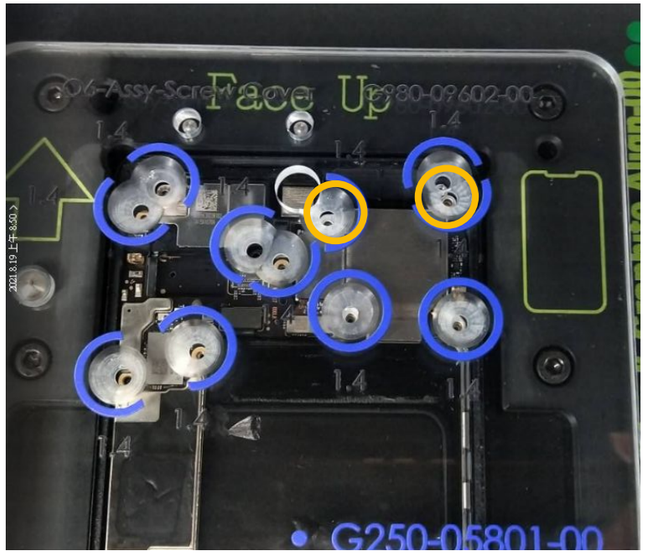


- Place the **Rear camera** into position, keeping it aligned with the lenses in the enclosure.
- Attach the 2 connectors to the **Logic board**, applying pressure evenly across the connectors to ensure they are fully engaged. Viewing from different angles to assist the alignment.

Part: G949-00185-01 (Rear camera)

This left flex area cannot be pressed, as the arrow in figure..

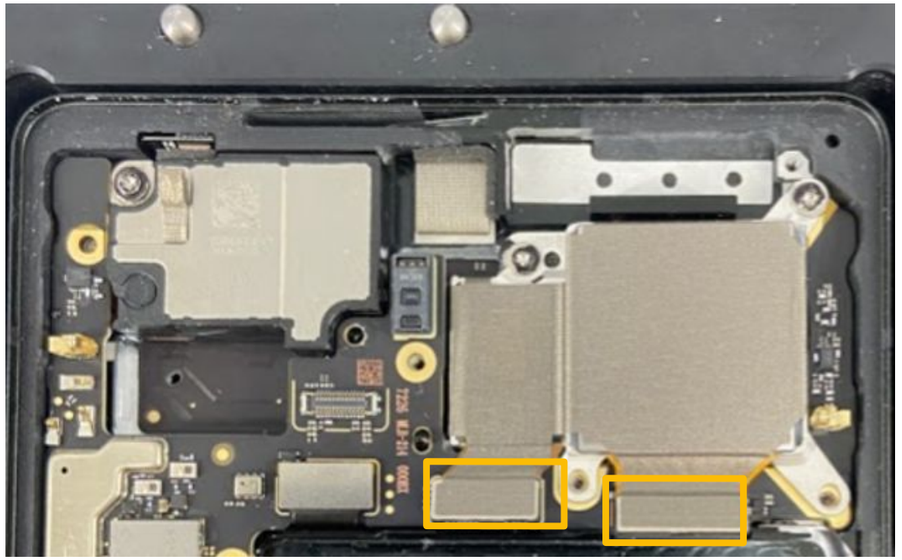
04. Fasten rear camera



- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Tighten **2 Rear camera screws** with a **Torx Plus 3IP screwdriver,** take out the **Pixel 6 Screw Cover**.
  Torque force : 1.4 ± 0.03kgf-cm

Part: G250-05801-00 (Screw)

03. Buckle rear camera



- Buckle the 2 connectors to the **Logic board**.

Disassembly instructions

Bottom speaker

Bottom speaker replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame
- mmWave

Tools

Pixel 6 Enclosure Holder & Graphite Align
Pixel 6 Screw Cover
Torx plus 3IP screwdriver
ESD tweezers

Parts

G949-00189-01
Bottom speaker

G250-05801-00
5 x Screw

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

01. Remove screws

- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Remove the **five Bottom speaker screws** with a **Torx Plus 3IP screwdriver**, remove the **Pixel 6 Screw Cover**.

Part: G250-05801-00 (Screw)
Do not reuse the part

02. Remove Bottom speaker

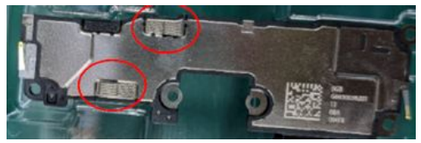
- Remove the **Bottom speaker** with an **ESD tweezers.**

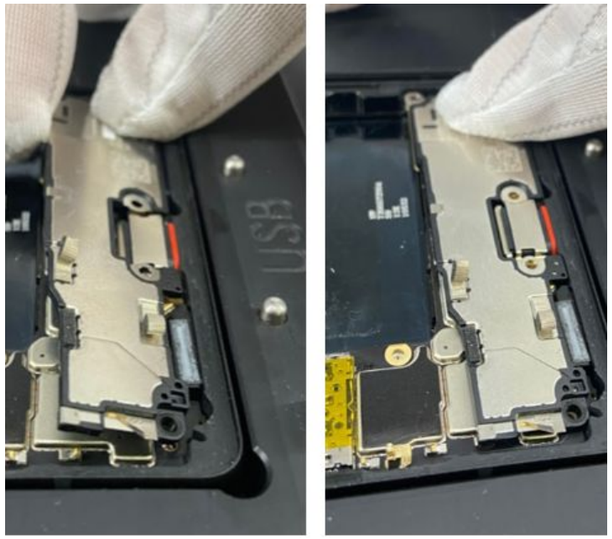
Part: G949-00189-01 (Bottom speaker)

Assembly instructions

Bottom speaker

01. Attach bottom Speaker



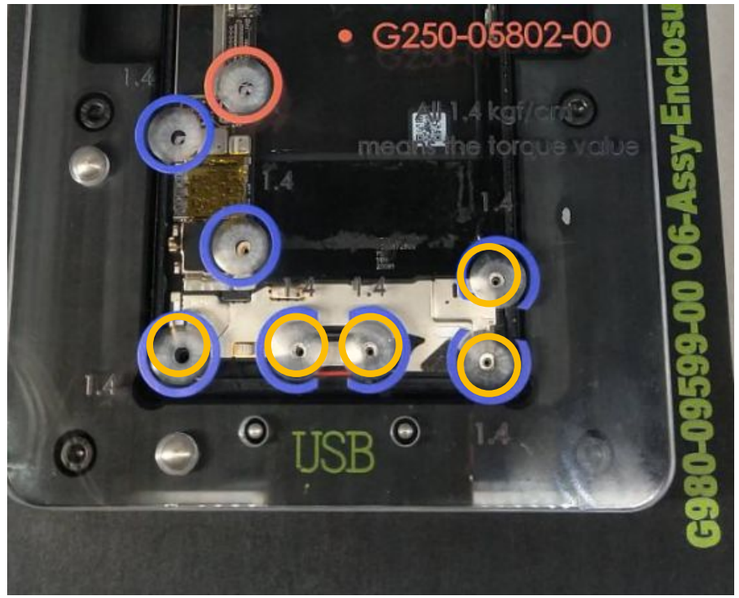


- Before assembling, check whether the foam is off, or broken.
- Insert the **Bottom speaker** at an angle to slot into the **Enclosure**.

Part: G949-00189-01 (Bottom speaker)

Make sure the speaker goes under the enclosure rim.

02. Fasten the screw



- Place **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align.**
- Fasten the **mmWave bracket screw** with a **Torx Plus (3IP),** take out the **Pixel 6 Screw Cover**.

Torque force : 1.4 ± 0.03kgf-cm

Part: G250-05801-00 (screw)

Disassembly instructions

Battery

Battery replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame
- mmWave

Tools

Heat plate
Universal disassembly fixture & Universal Device Clips
Pixel 6 Enclosure Holder & Graphite Align
Pixel 6 Enclosure PSA Align & Press Cover
Universal press fixture
ESD tweezers
Feeler gauge
Universal adsorption bulb
3M AP111 Primer
Table C-Clamp

Parts

G730-05942-01
Battery

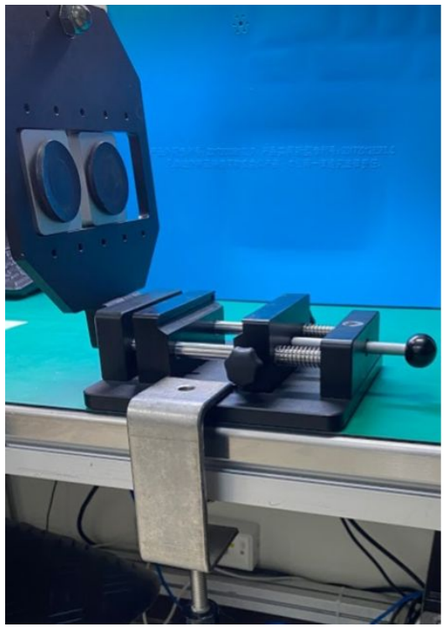
Caution!
Review all **safety precautions** before beginning work.

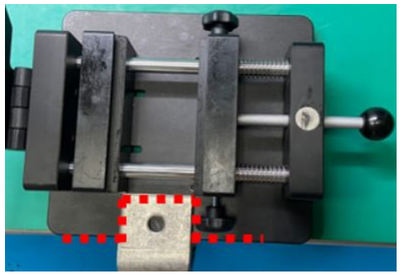
01. Soften glue

- Place the device flat on the **Heat plate** and set to 158°F/70 °C for 10 mins to soften the **Battery** adhesive equally.
- Ensure the Rear camera area is not touching the Heat plate.

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

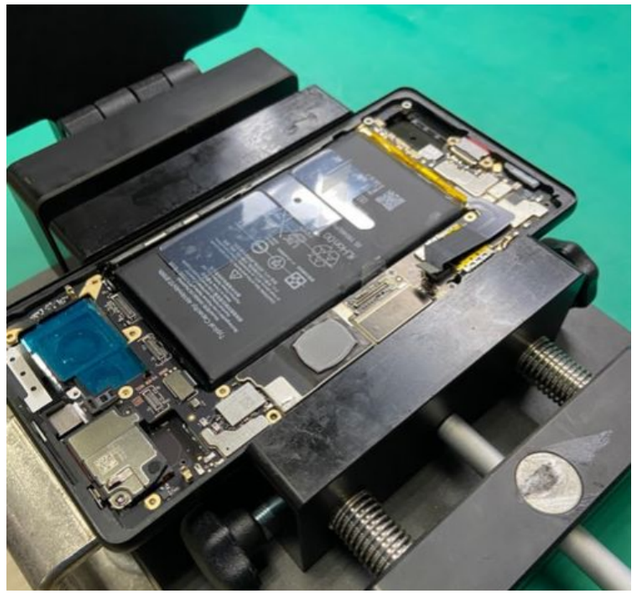
02. Clamp fixture





- Place the **Universal disassembly fixture & Universal Device Clips** on the desk and fasten down with the clamp.
- Align the **Table C-Clamp** with the fixture using the dotted line. And make sure it's as tight as possible.

03. Secure device



- Use the **Universal disassembly fixture** to remove the **Battery**.
- Place the device on the **holder** and adjust so the device is central.
- Lock the device in position with the screws.

04. Lift pull jacket

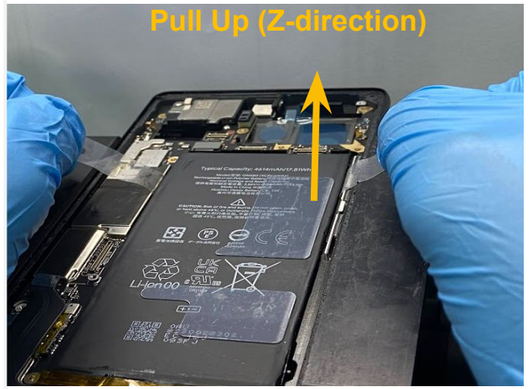
- Lift the pull jacket using **ESD tweezers**.

05. Move pull jacket in Y-direction

- Move pull jacket (green dot line, from position 1 to 2) in Y-direction(Fig1) to the top edge of the battery. Since the adhesive area (Fig 2,red dot lines) is smaller on the top side. It may be easier to pull from here.
- **Part**: G730-05942-01 (Battery)

The intent of the pull jacket is to pull on battery for release, **NOT to cut through the adhesive.**

06. Pull Up in Z-direction



- Pull up jacket both sides together in (Z-direction) to remove the **Battery**.
- Hold the right hand pull jacket like Fig1 ,the pull jacket may broken If holding like the Fig2 while lift up battery..

The battery may be easier to remove, as soon as you lift up the battery after leave heat plate (before adhesive reattaches).

07. Remove battery

- Gently remove the **Battery** and store it safely.

Part: G730-05942-01 (Battery)

Keep small screws and sharp objects away from the **Battery**.
Do not reuse the part

01. Soften glue

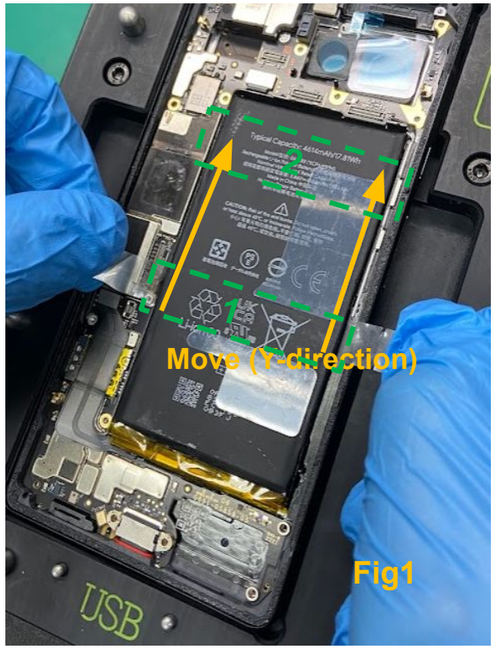
- Place the device flat on the **Heat plate** and set to 158°F/70 °C for 10 mins to soften the **Battery** adhesive equally.
- Ensure the Rear camera area is not touching the Heat plate.

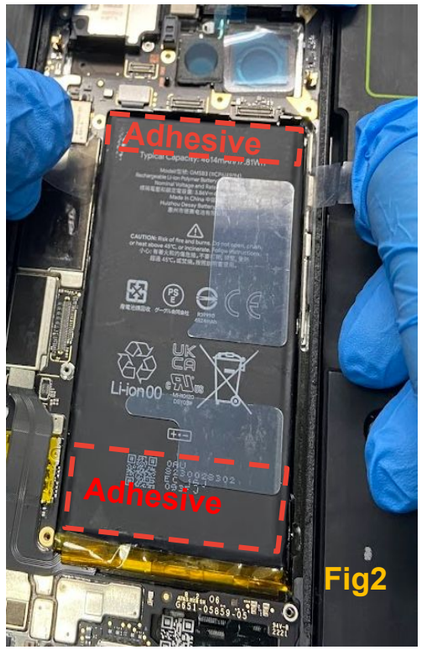
Caution: Heating plate is a Hot Surface. Use caution as it could cause burns.

02. Lift up pull jacket

- With the device in the **Pixel 6 Enclosure Holder & Graphite Align**.
- Lift the pull jacket using **ESD tweezers**.

03. Move pull jacket in Y-direction

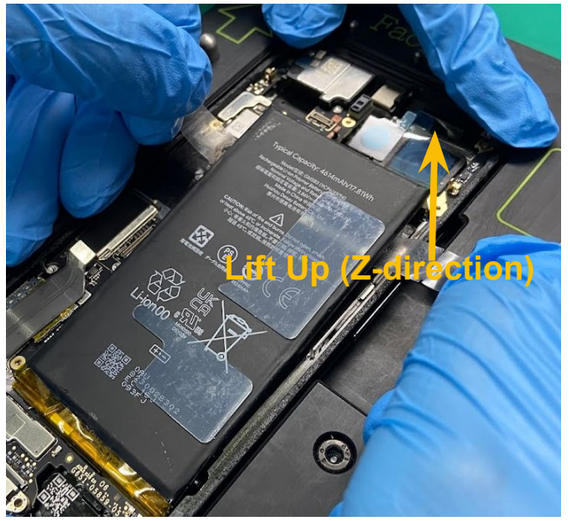


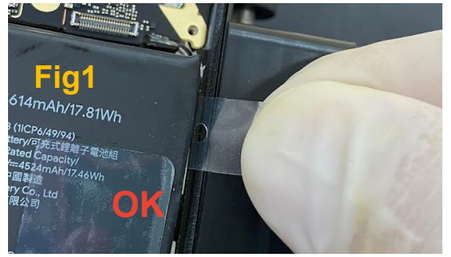


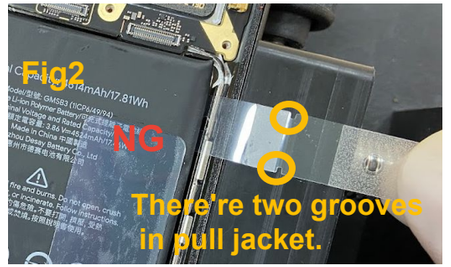
- Move pull jacket (green dot line, from position 1 to 2) in Y-direction(Fig1) to the top edge of the battery. Since the adhesive areas (Fig 2,red dot lines) is smaller on the top side. It may be easier to pull from here.
- **Part**: G730-05942-01 (Battery)

The intent of the pull jacket is to pull on battery for release, **NOT to cut through the adhesive.**

04. Pull Up in Z-direction







- One person should press down.
- Pull up jacket both sides together in (Z-direction) to remove the **Battery**.
- Hold the right hand pull jacket like Fig1, the pull jacket may broken If holding like the Fig2 while pull up battery.

The battery may be easier to remove, as soon as you lift up the battery after leave heat plate (before adhesive curing).

05. Remove battery

- Gently remove the **Battery** and store it safely.

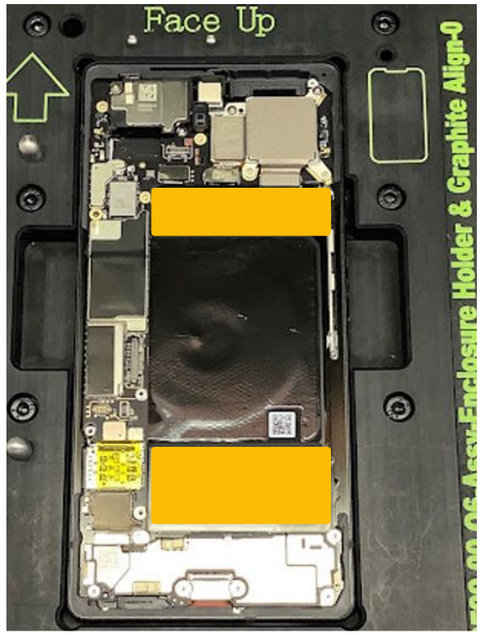
Part: G730-05942-01 (Battery)

Keep small screws and sharp objects away from the **Battery**.
Do not reuse the part

Assembly instructions

Battery

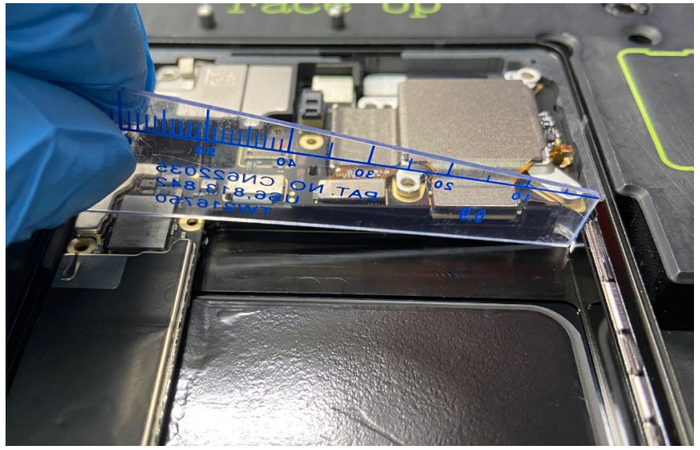
01. Clean enclosure



- Before installation, remove any debris/loose screws from the **Enclosure**. Tear off the two battery liners.
- Ensure **Battery** cosmetic checks are completed.
- Apply **3M AP111 Primer** to the **Battery** adhesive area as shown.

Once Primer has been applied, complete assembly in 25 mins.

02. Align battery



- Place **1.1mm Feeler gauge** against the wall.

03. Align battery

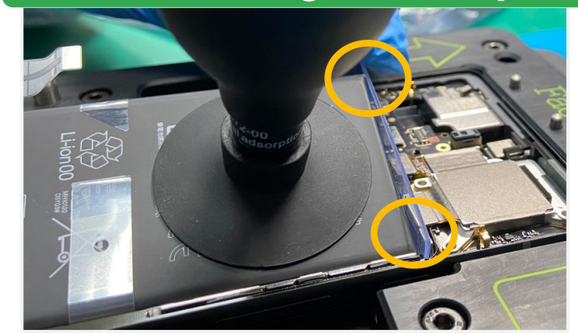


Fig1.

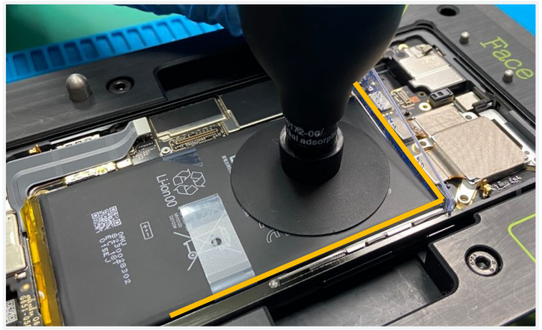
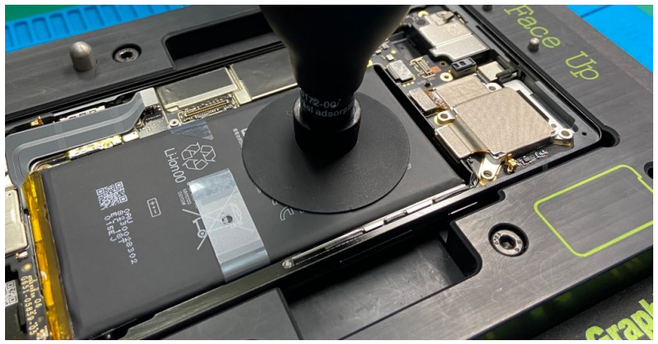


Fig2.

- Use the **Universal adsorption bulb** to pick up the **Battery** and remove the adhesive liner.
- Align the **Battery** at the corners as the figure circles, using the feeler gauge. **(Fig1.)**
- Gently press the **Battery** down with the **Universal adsorption bulb** by the alignment line. **(Fig2.)**

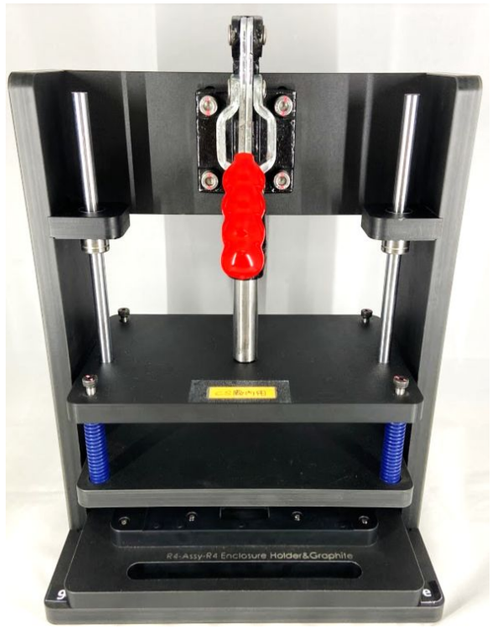
Part: G730-05942-01 (Battery)

04. Prepare to press



- Remove the **1.1mm Feeler gauge** and **Universal adsorption bulb.**
- Place the **Pixel 6 Battery Press** on the **Pixel 6 Enclosure Holder & Graphite Align**.

05. Press together in fixture



- Place the **Pixel 6 Enclosure Holder & Graphite Align** in the **Universal press fixture.**
- Press the handle down for 10 seconds.

Pinch point. Keeps hands clear during operation.

06. Press together in fixture

- Return the handle to the original position and remove the **Pixel 6 Enclosure Holder & Graphite Align**.

Disassembly instructions

Logic board

Logic board replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame
- mmWave
- Front camera
- Rear camera
- Bottom speaker
- Battery

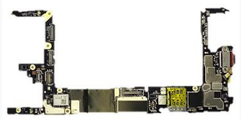
Tools

Pixel 6 Enclosure Holder & Graphite Align
Pixel 6 Screw Cover
Universal Fish line tool
Torx Plus 3IP screwdriver
Universal Disassembly ESD stick
IPA and cloth
Sankol lubricant CFD 409Z_V2
Dust-free Cotton swabs

Parts

G852-01837-01
SIM tray

G949-00161-01
Logic board



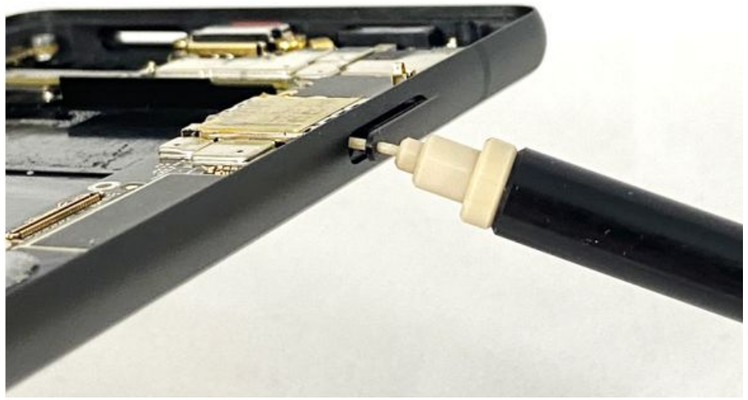
G250-05801-00
Screw

G806-03591-01
Mic protective liner

G853-00997-01
USB hood

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

01. Remove SIM tray



- Remove the **SIM tray** with a **Universal Fish line tool**.

Part: G852-01837-01 (SIM tray)

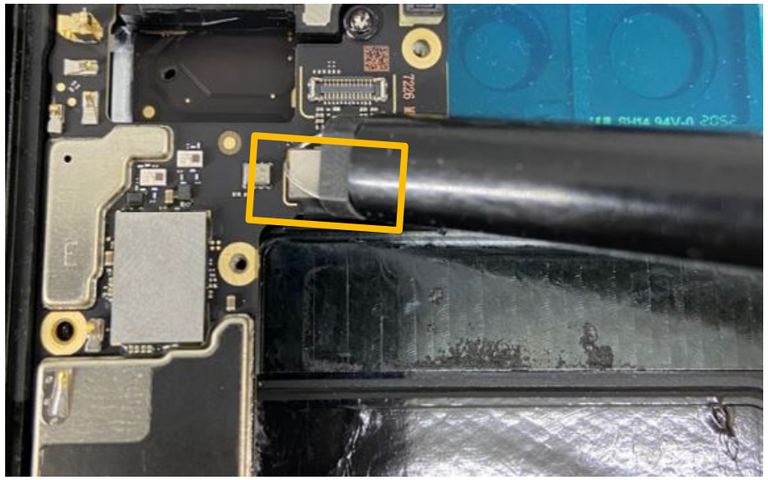
Be careful to avoid scratching the **Enclosure**.

02. Remove the screw

- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Remove the **Logic board screw** with a **Torx Plus 3IP screwdriver**, remove the **Pixel 6 Screw Cover**.

Part: G250-05801-00 (Screw)
Do not reuse the part

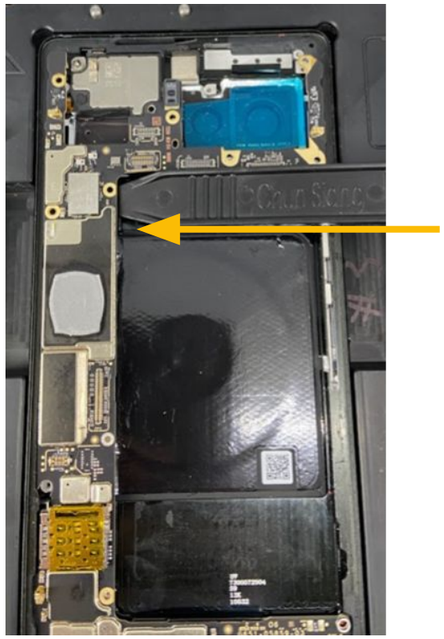
03. Disconnect logic board



- Loosen and remove the sidekey connector as shown with a **Universal Fish line tool**.

Using the **Universal Fish line tool** avoids damage the components.

04. Remove logic board



- Lift the **Logic board** from the area shown by the arrow.

Part: G949-00161-01 (Logic board)

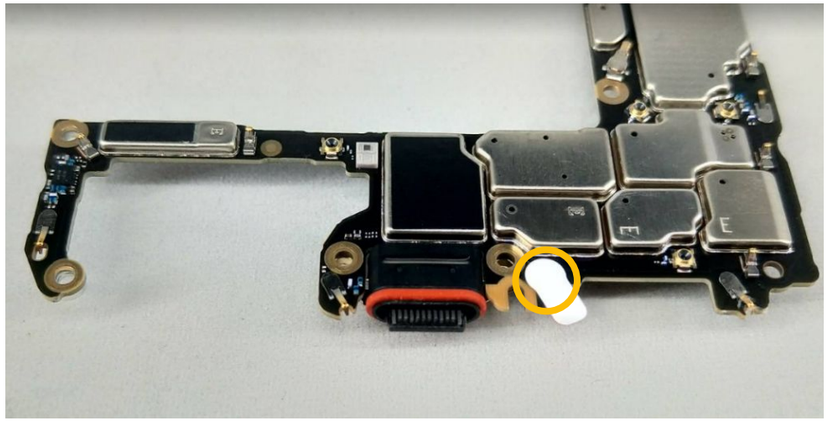
Be careful to avoid damaging components on the **logic board.**

05. Remove logic board

- Hold the **Logic board** from the area shown by the arrow and remove it by sliding upwards towards the top edge.

Be careful to avoid damaging components on the **logic board**.

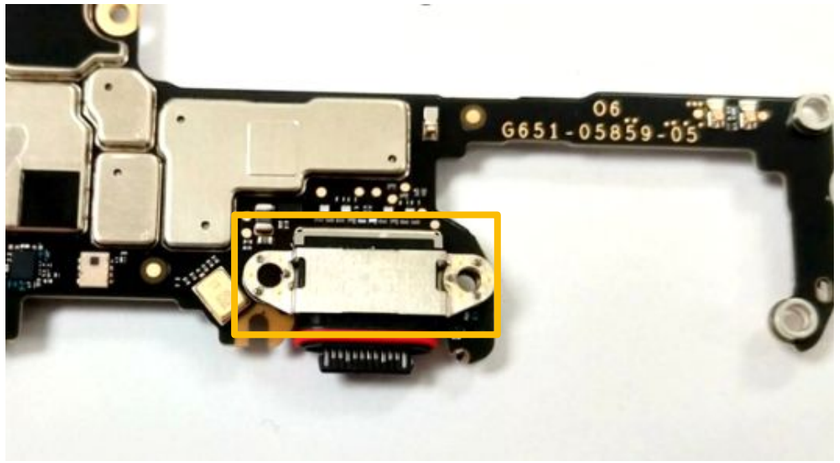
06. Protective film



- Paste a protective film on the **Mic1** hole.

Part: G806-03591-01 (Mic protective liner)

07. Remove USB hood



- Remove a **USB hood** from the **Logic board**.

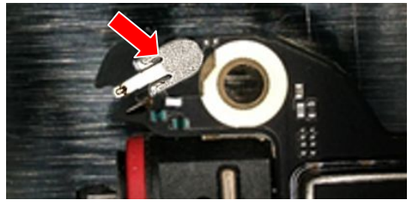
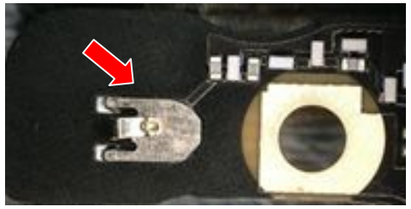
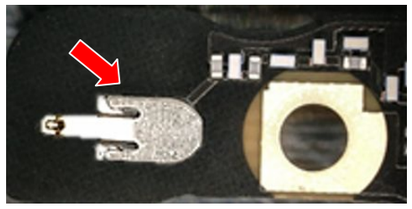
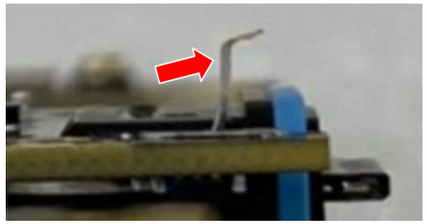
Part: G853-00997-01 (USB hood)

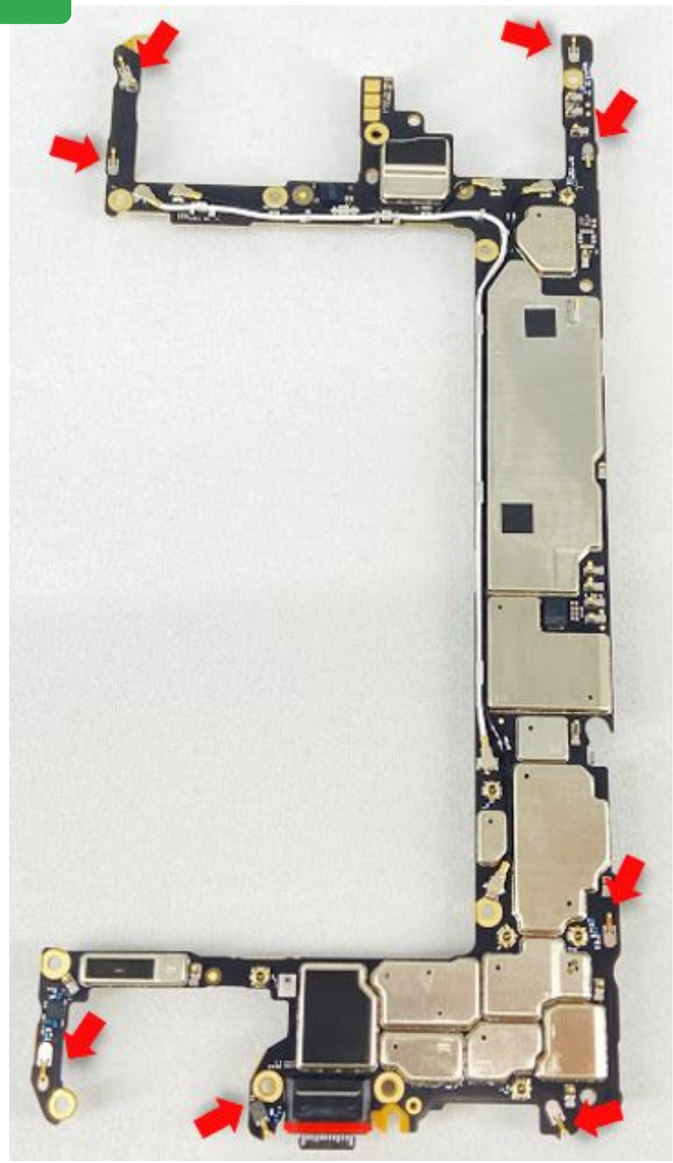
This step is ONLY for the broken/damaged USB hood.

Assembly instructions

Logic board

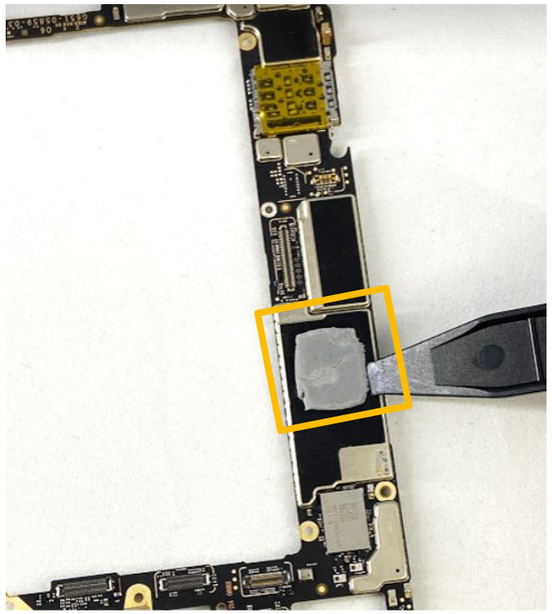
Logic Board check

	NG	OK
bird view		
bird view		
side view		



⚠ Before assembly the MLB, check each spring deformed or not. And pay **EXTRA ATTENTION** to the springs areas during assembly to avoid damaging them.

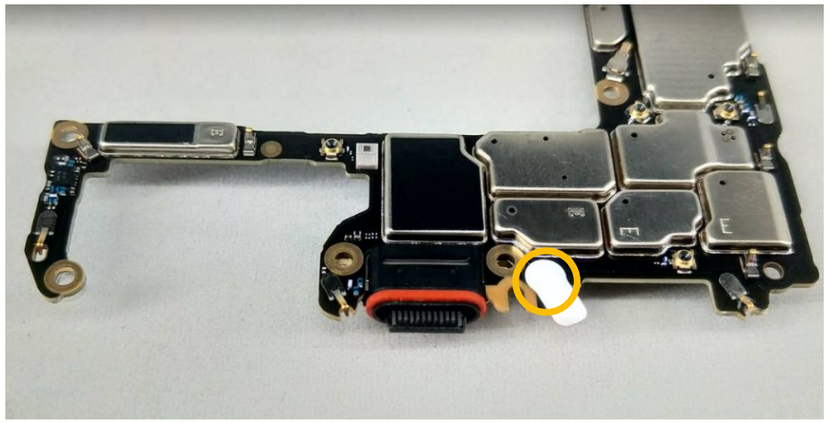
01. Re-using a logic board



- Clean any thermal pad residual from the **Logic board** with an **Universal Disassembly ESD stick**.
- If there is any residue remaining, use a dust free cloth with **IPA** to gently clean the surface.

Part: G949-00161-01 (Logic board)

02. Remove protective film

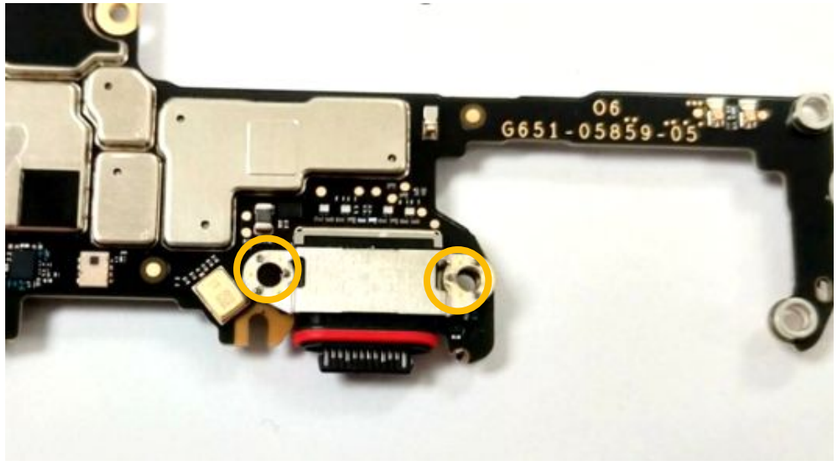


- Peel off the **Mic1** yellow mylar from the **Logic board**.

Part: G806-03591-01 (Mic protective liner)

Do not reuse the part

03. USB hood attach

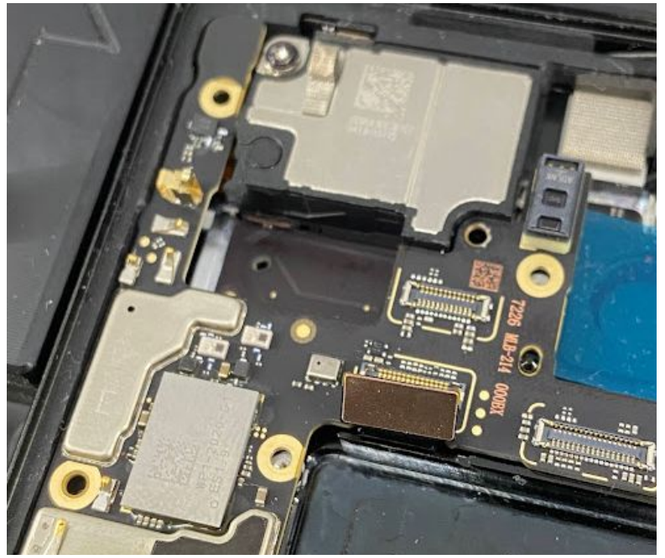


- Tear off the **USB hood** cover release liner, align the two positioning posts on the **Logic board**.

Part: G853-00997-01 (USB hood)

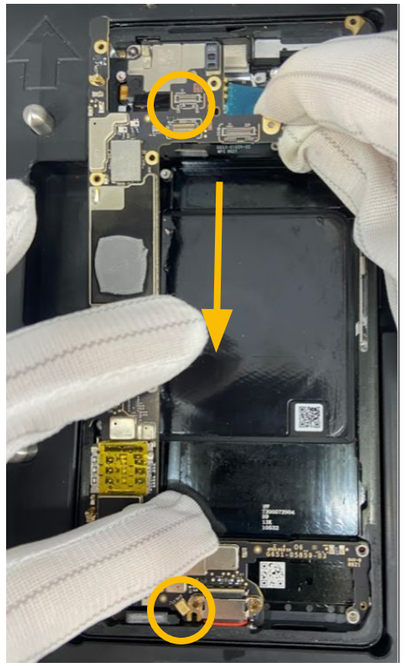
This step is only for new logic board or rework the USB hood.

04. Lift the connector



- Lift the side-key connector in the **Enclosure** with an **Universal Disassembly ESD stick** to avoid trapping them under the **Logic board**.

05. Align logic board

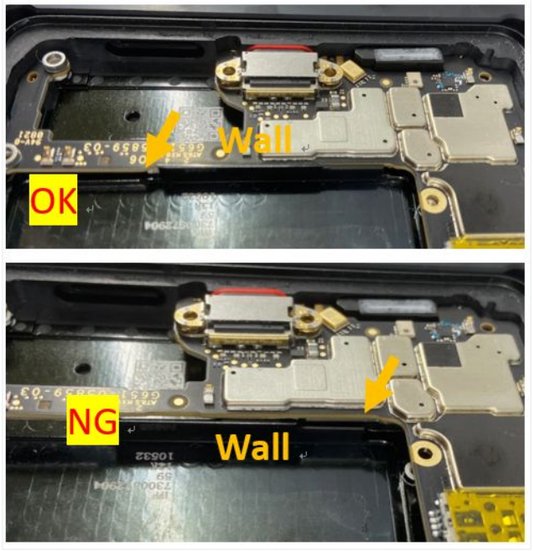


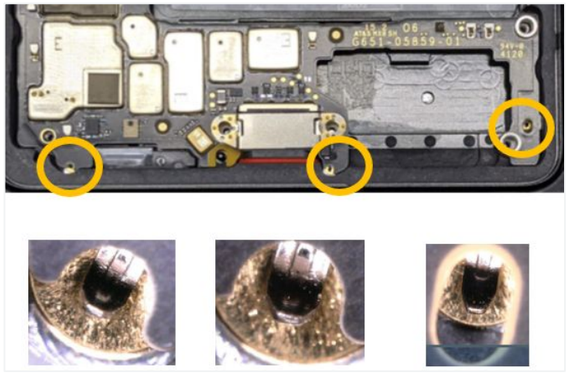
There are two MLB alignment PINs

- Push downwards towards the USB-C socket and then straight down to push the **Logic board** into the retaining wall.

Be careful to avoid damaging components on the **logic board**.

06. Check seating





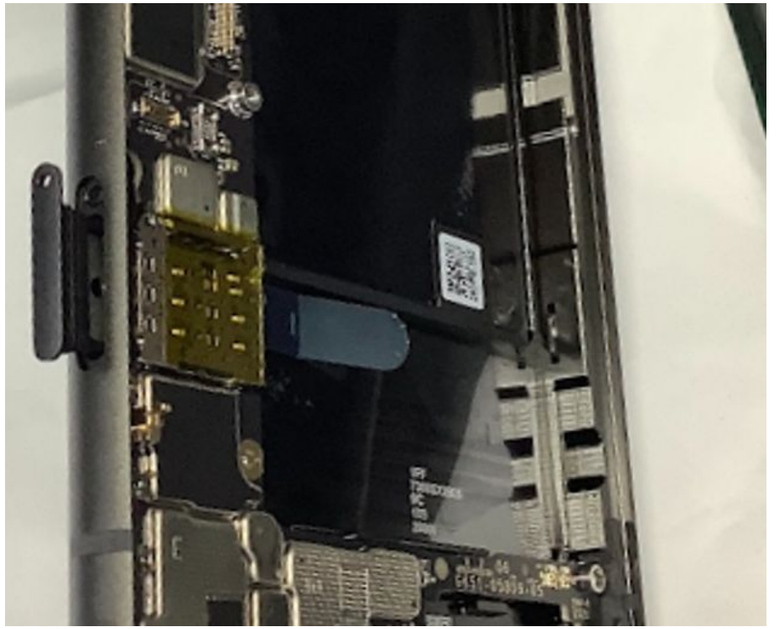
- Press down and push MLB under the wall. The **Logic board** should sit under the retaining wall, as shown above, as left figure.
- Ensure three ANT contacts are visible through slots in **Logic board,** as right figure.

07. SIM tray

- Apply **Sankol lubricant CFD 409Z_V2** to the rubber of the **SIM tray** with a dust-free cotton swab.

Part: G852-01837-01 (SIM tray)

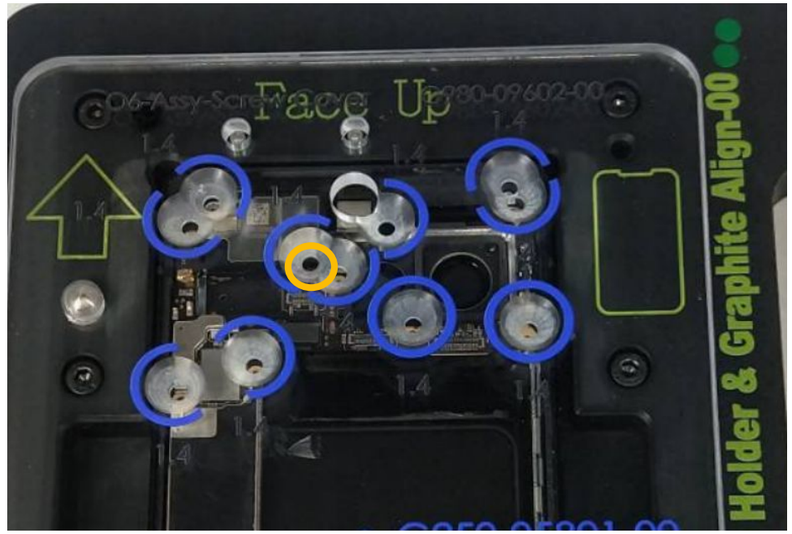
08. Insert SIM tray



- Hold the **Logic board** and insert the **SIM tray** with your right hand.

Part: G852-01837-01 (SIM tray)

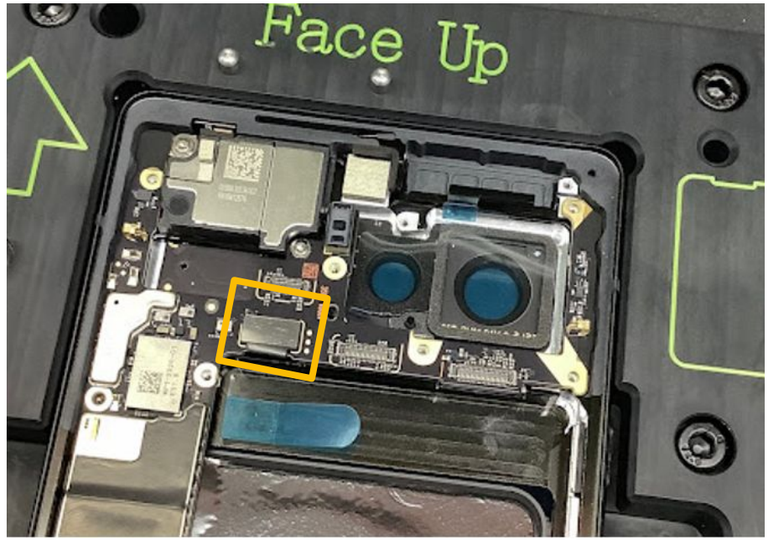
09. Screw in logic board



- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Tighten **the screw** with a **Torx Plus (3IP) screwdriver**, as shown. ***Torque force : 1.4 ± 0.03kgf-cm***
- Remove the **Pixel 6 Screw Cover**.

Part: G250-05801-00 (Screw)

10. Attach connectors



- Attach the side-key connector to the **Logic board**.

Disassembly instructions

Mic1 Bracket

Mic1 Bracket replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame
- mmWave
- Front camera
- Rear camera
- Bottom speaker
- Battery
- Logic board

Tools

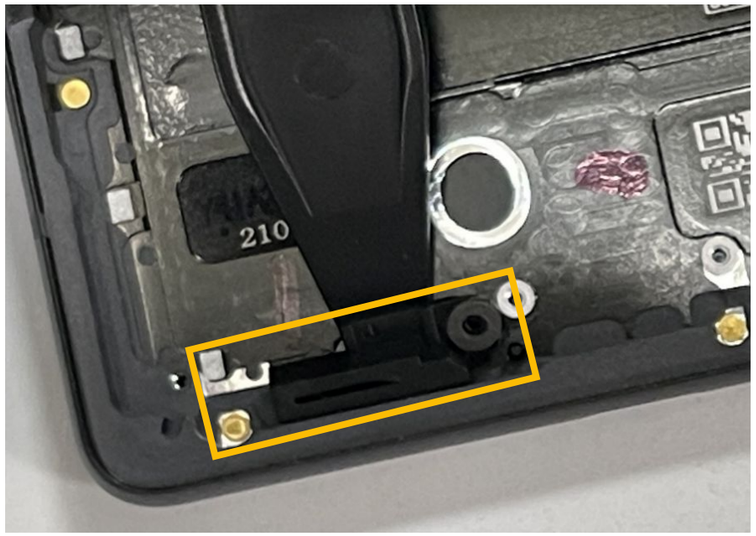
Universal Disassembly ESD stick
ESD tweezers
Sankol lubricant CFD 409Z_V2
Dust-free Cotton swabs

Parts

G730-05733-50
Mic1 bracket

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

01. Remove mic bracket



- Remove the **Mic1 bracket** with an **Universal Disassembly ESD stick**.

Part: G730-05733-50 (Mic1 bracket)

Do not reuse the part

Assembly instructions

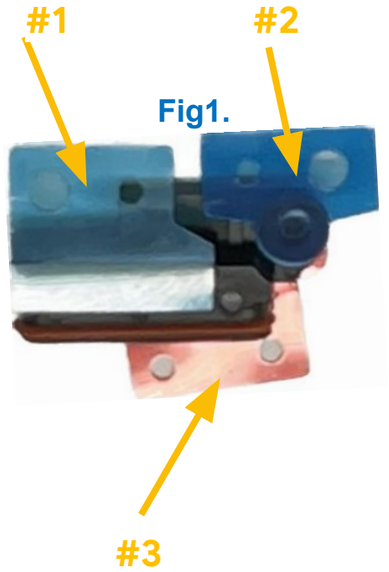
Mic1 Bracket

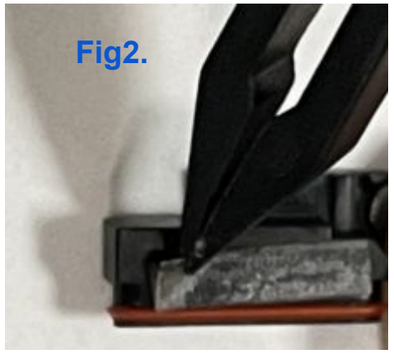
01. Seal the area

- Apply **Sankol lubricant CFD 409Z_V2** with a **dust-free cotton swab** around the mic grill.

Bent the dust-free cotton bud to insert the hole and apply.

02. Remove release film





- Remove the **Mic1 bracket** 3 release films with **ESD tweezers**, in the direction shown. **(Fig1)**
- Check the #1 film, if there is a film remaining on the Mic1 bracket after remove liner, please remove it with the **ESD Tweezers. (Fig2)**

Part: G730-05733-50 (Mic1 bracket)

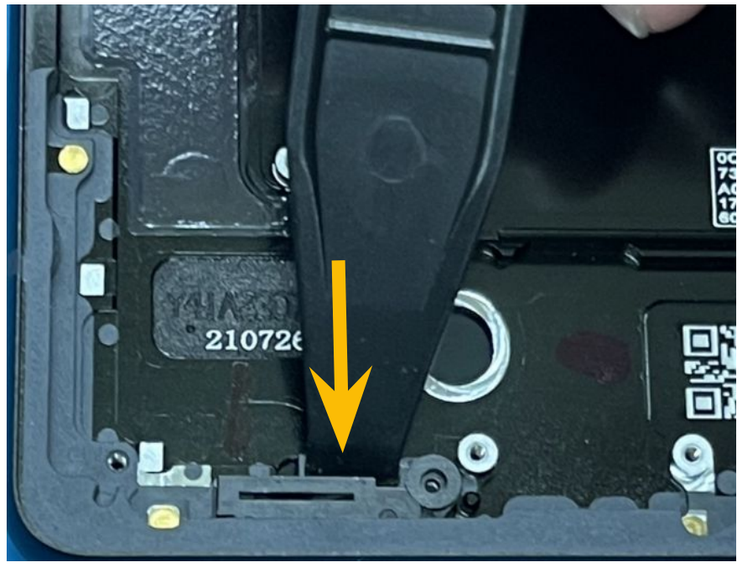
Avoid touching the **Mic1** membrane during assembly.

03. Assemble Mic1 bracket

- Assemble the new **Mic1 bracket**. Ensure it is snapped past the **Enclosure** rim.

Avoid touching the **Mic1** membrane during assembly.

04. Insert new mic 1 bracket



- Press for 3 seconds with an **Universal Disassembly ESD stick**.

Avoid touching the **Mic1** membrane during assembly.

Disassembly instructions

Top speaker

Top speaker replacement

Prerequisites

Remove the following items first:

- Display module
- Graphite sheets
- Mid-frame
- mmWave
- Front camera
- Rear camera
- Bottom speaker
- Battery
- Logic board

Tools

Pixel 6 Enclosure Holder & Graphite Align
Pixel 6 Screw Cover
Torx Plus 3IP screwdriver
Universal Disassembly ESD stick

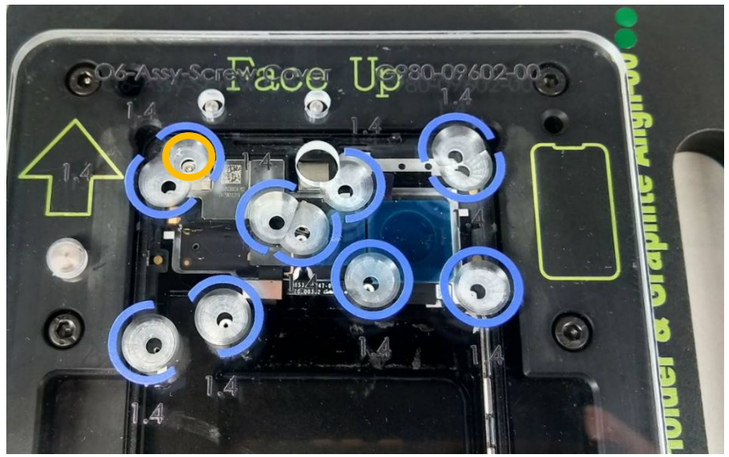
Parts

G863-00361-02
Top Speaker

G250-05801-00
Screw

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

01.Remove screws

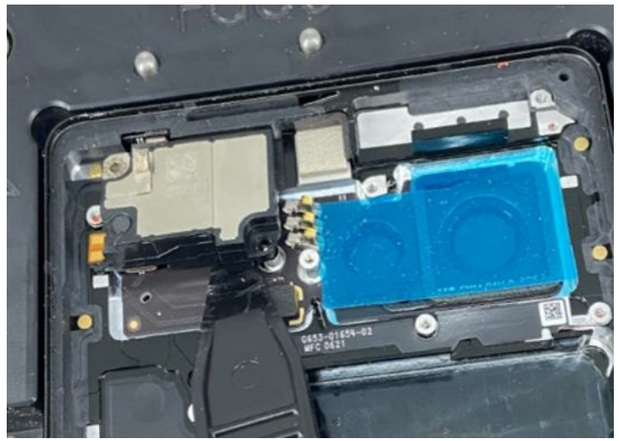


- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Remove the **Top speaker screws** with a **Torx Plus 3IP screwdriver**, then remove the **Pixel 6 Screw Cover**.

~~**Part**: G250-05801-00 (Screw)~~

Do not reuse the part

02. Remove Top Speaker



- Remove the **Top speaker** with an **Universal Disassembly ESD stick**.

Part: G863-00361-02 (Top speaker)

Assembly instructions

Top speaker

01. Check top speaker

NG

Foam covers the screw boss.

OK

Foam NOT covers the screw boss.

- Ensure the the foam of **Top speaker** is not covered the screw boss.

Part: G863-00361-02 (Top speaker)

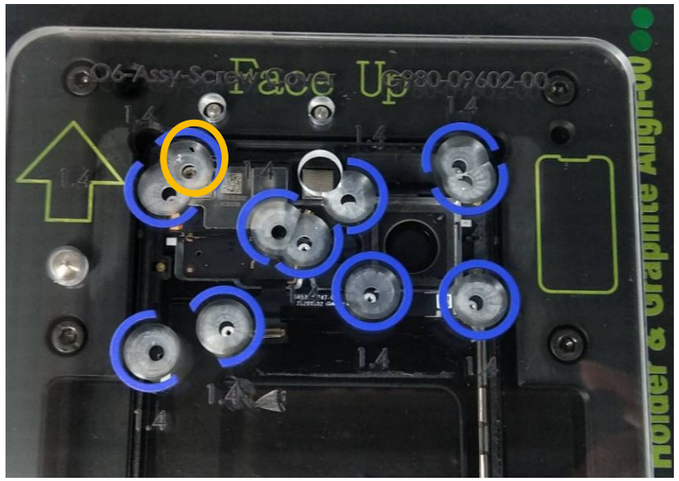
02. Insert top speaker

- Insert it into the **Top speaker** slot on the **Enclosure** at an angle of about 10~15°, making sure to fit it completely.
- Hand press it accordingly.

Part: G863-00361-02 (Top speaker)

Make sure the speaker goes under the enclosure rim.

03. Fasten top speaker



- Place the **Pixel 6 Screw Cover** on the **Pixel 6 Enclosure Holder & Graphite Align**.
- Tighten the **Top speaker screw** with a **Torx Plus 3IP screwdriver**, then remove the **Pixel 6 Screw Cover.**
  Torque force : 1.4 ± 0.03kgf-cm

Part: G250-05801-00 (Screw)

Disassembly instructions

Enclosure

Enclosure replacement

Prerequisites

Remove the following items first:

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

Tools

Universal Disassembly ESD stick
Dust-free Cotton swabs
IPA and cloth

Parts

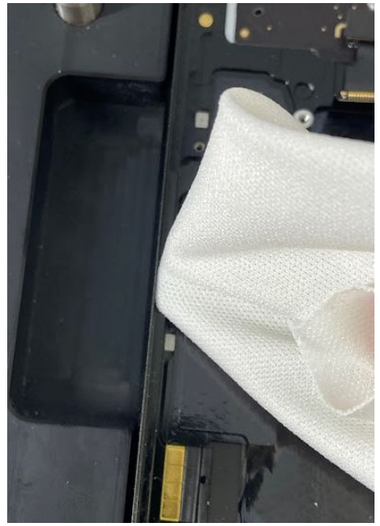
G949-00176-01
Enclosure

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

Assembly instructions

Enclosure

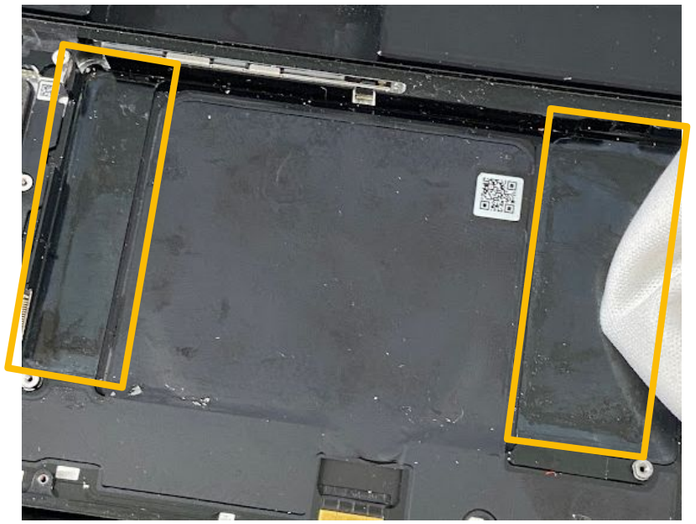
01. Re-using the Enclosure



- Use an **Universal Disassembly ESD stick** to clean the residual glue out of the **Enclosure**.
- If there is any residue remaining, use a dust free cloth with **IPA** to clean the surface.

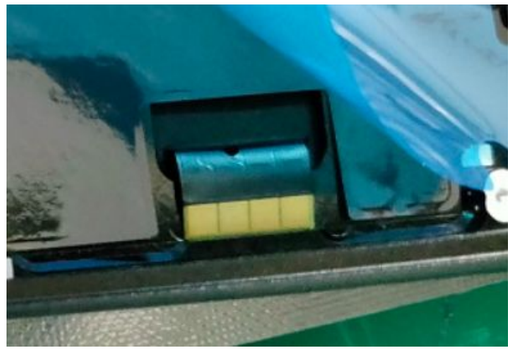
The highlight is where the residual adhesive exists.

02. Clean battery area



- Clean any residue in the **Battery** area with an **Universal Disassembly ESD stick**.
- Apply **IPA** with a cloth afterward.

03. Check the Pad



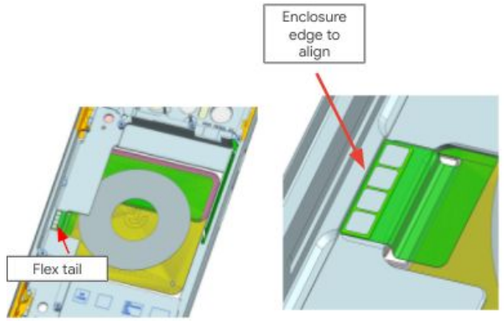


Fig I (OK)

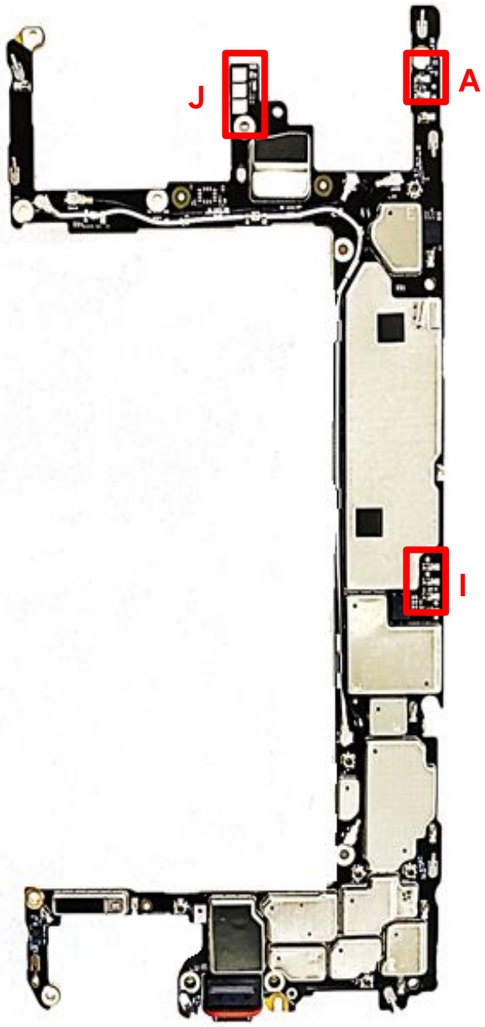
Fig II (NG)

- Visually check the **WC&NFC flex pad,** make sure it is not covered/obstructed by the graphite sheet or other components, and the Flex tail align on enclosure edge (Fig I)
- If you see flex not in right position like Fig II, please contact your google representative.

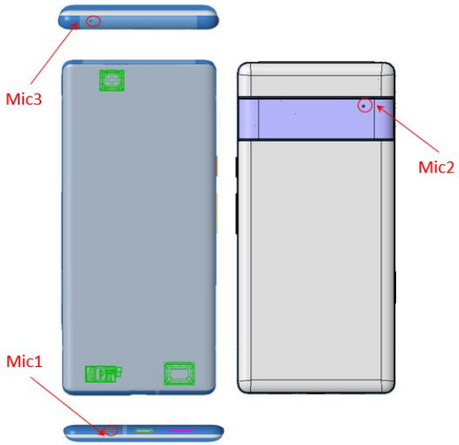
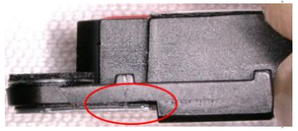
Troubleshooting

Connectors Location

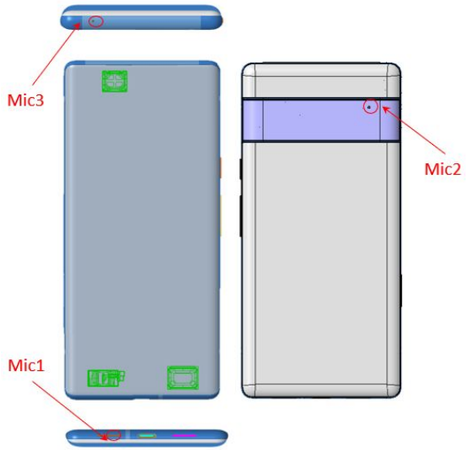
Location & Description	
A	Top SPK Pad
B	Front Camera connector
C	mmWave connector
D	Flam connector
E	Rear Camera connector
F	Display connector
G	Battery connector
H	Vibrator connector
I	WLC&NFC Pad
J	Flash LED Pad
K	Bottom SPK Pad



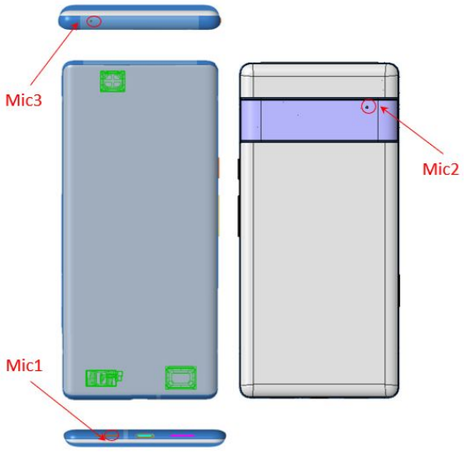
Mic1

Symptom	Potential Root Cause	Procedure	
T010: Mic 1 - no sound T011: Mic 1 - low sound T012: Mic 1 - distorted sound 	Mesh not clean	• Use a microscope and check the mesh for damage or blockage. **(Fig1)** • Clean the mesh and test audio.	 **(Fig1)**
	Assembly Problem	• Disassemble the device, check Mic1 bracket is fully seated. **(Fig2)** • Check if the MLB mic1 liner is removed**. (Fig3)** If not, go to the next step. • Test audio again.	 **(Fig2)**  **(Fig3)**
	Component issue	• Check the **Mic1 bracket** to check if there is a little delamination at the PET corner at the bottom. **(Fig4)** • Use a good **mic1 bracket** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • mic1 bracket  **(Fig4)**

Mic2

Symptom	Potential Root Cause	Procedure	
 T013: Mic 2 - no sound T014: Mic 2 - low sound T015: Mic 2 - distorted sound 	Connectivity issue	• Check if connectivity between **Flam connector** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Component issue	• Use a good **Enclosure** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • Enclosure

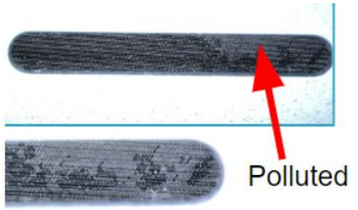
Mic3

Symptom	Potential Root Cause	Procedure	
T016: Mic 3 - no sound T017: Mic 3- low sound T018: Mic 3 - distorted sound 	Connectivity issue	• Check if connectivity between **Flam connector** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Component issue	• Use a good **Enclosure** and **Logic board** to cross check with original ones. • Replace the defective component.	**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 not clean	• Inspect **Top Speaker mesh** and a soft **ESD brush** to remove any debris. • Test audio.	
	Internal debris	• If sound quality is still poor, inspect the mesh and speaker with a **microscope**. • Disassemble the device and inspect the speaker. Use an ionizing air fan to remove any debris and test audio.	
	Connectivity issue	• Check if connectivity between **Top SPK Pad** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Component issue	• If sound quality is still poor, use a good **Top Speaker** and **Logic board** to cross check with original ones • Replace the defective component.	**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	Mesh not clean	• Visually inspect the exterior of the phone check for a polluted mesh on the **Bottom Speaker** port. And use a soft **ESD brush** to remove any debris. • Test audio.	
	Internal debris	• If sound quality is still poor, inspect the mesh and speaker with a **microscope**. • Disassemble the device and inspect the speaker. Use an ionizing air fan to remove any debris and test audio.	
	Connectivity issue	• Check if connectivity between **Bottom SPK Pad** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Component issue	• If sound quality is still poor, use a good **Bottom Speaker** and **Logic board** to cross check with original ones • Replace the defective component.	**Disassembly** • Logic board • Bottom Speaker

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	Damage	• Inspect display for damage and replace if necessary.	
	Connectivity issue	• Check if connectivity between **Display connector** and **Logic board** are normal. • If they are not fully buckled, 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

Display

Symptom	Potential Root Cause	Procedure	
 T044: Multi-touch poor response T045: Multi-touch no response T046: Multi-touch erratic response	Connectivity issue	• Check if connectivity between **Display connector** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Touch screen Fingerprint sensor	• 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

Vibrator

Symptom	Potential Root Cause	Procedure	
 T026: Vibrator failure	Connectivity issue	• Check connector between **Logic board** and the **Mid-frame**. • Test vibrator again. Check the function by triage test.	Connectors Location
	Component issue	• Use a good **Mid-frame** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • Mid-frame

Power

Symptom	Potential Root Cause	Procedure	
 T001: Does not power on T002: Powers off suddenly	Damage	• Inspect USB-C connector for debris preventing charging. • Inspect device for damage. • Inspect liquid damage indicators.	
	Display	• Remove the **Display module** and seat a new one. Charge for 10 minutes to see if the device can power on.	**Disassembly** • Display
	Connectivity issue	• Check if connectivity between **Battery connector** and **Logic board** are normal. • If they are not fully buckled, 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

Power

Symptom	Potential Root Cause	Procedure	
 T053: Battery damage T054: Battery draining fast	Connectivity issue	• Check if connectivity between **Battery connector** and **Logic board** are normal. • If they are not fully buckled, 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

Rear Camera

Symptom	Potential Root Cause	Procedure	
 T071: Camera no preview T072: Camera AR failure T073: Camera Rear Photo quality T074: Camera Rear Video quality T078: Cannot switch between cameras T079: Camera damage	Damage	• Inspect display and camera for damage.	
	Connectivity issue	• Check if connectivity between **Rear camera connector** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Image quality	• Remove **Display module**, connect a new **Rear camera** to test. • If issue is resolved, proceed with **Rear camera** replacement and assemble device.	**Disassembly** • Rear Camera
	No image	• If camera issue remains, replace **Logic board**.	**Disassembly** • Logic board

Front Camera

Symptom	Potential Root Cause	Procedure	
 T071: Camera no preview T075: Camera Front Photo quality T076: Camera Front Video quality T078: Cannot switch between cameras T079: Camera damage	Damage	• Inspect display and camera for damage.	
	Connectivity issue	• Check if connectivity between **Front camera connector** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Image quality	• Connect a new **Front camera** to test. • If issue is resolved, proceed with **Front camera** replacement and assemble device.	**Disassembly** • Front Camera
	No image	• If camera issue remains, replace **Logic board**.	**Disassembly** • Logic board

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** are normal. • If they are not fully buckled, 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

Proximity sensor

Symptom	Potential Root Cause	Procedure	
T059: Proximity sensor failure	Assembly issue	• Check P-sensor foam is posted flat or not.	**Assembly** • P-sensor foam status  OK NG
	Component issue	• Disassemble and check the appearance of Proximity sensor without abnormality. • Use a good **P-sensor grommet** to **Logic board** to check. • Replace the defective component.	**Disassembly** • Logic board

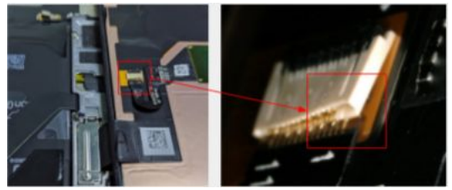
Wireless Charge

Symptom	Potential Root Cause	Procedure	
 T003: Wireless charging failure	Connectivity issue	• Check the contact condition between WC and Pin contact pads. If there is no mark on the pin contact pads, it shows poor connectivity. • If marks are observed, clean the contact pad and test again.	
		• Check if connectivity between **WLC&NFC connector** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Component issue	• Use a good **Enclosure** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • Enclosure

NFC

Symptom	Potential Root Cause	Procedure	
 T051: NFC connectivity Issues	Connectivity issue	• Check the contact condition between WC and Pin contact pads. If there is no mark on the pin contact pads, it shows poor connectivity. • If marks are observed, clean the contact pad and test again.	
		• Check if connectivity between **WLC&NFC connector** and **Logic board** are normal. • If they are not fully buckled, re-assemble and then retest.	Connectors Location
	Component issue	• Use a good **Enclosure** and **Logic board** to cross check with original ones. • Replace the defective component.	**Disassembly** • Logic board • Enclosure

UDFPS

Symptom	Potential Root Cause	Procedure	
T064: Fingerprint sensor failure	Interference Issue	• Remove any screen protector prior to testing related to display function.	
	Damage	• Inspect display for damage and replace if necessary.	
	Connectivity issue	• Check if connectivity between **Display connector** and **Logic board** are normal. • Check if connectivity between **Display flex connector** and **UDFPS** are normal. **(Fig)** • If they are not fully buckled, 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 • Display

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