

Self-Service Repair Manual for vivo X Fold6

Contents

Part I: Document Introduction	1
1.1 Purpose of this Document	1
1.2 Pre-Repair Notices	2
1.2.1 Repair Precautions	2
1.2.2 Electrostatic Discharge (ESD) Precautions	4
Part II: Warranty Information	4
Part III: Tool Usage	4
3.1 Hardware Tools	4
3.2 Software Updates and Tools (This section will be finalized after the software is released.)	7
Part IV: Repair Guide	10
4.1 Spare Part List (with Purchase Codes)	10
4.2 Product Exploded View	14
4.3 Disassembly and Assembly Instructions	15
4.3.1 Main Display Screen Protector Replacement	16
4.3.2 Battery Cover Replacement	20
4.3.3 Removal and Installation of Mainboard Bracket	24
4.3.4 Removal and Installation of Mainboard and Camera	28
4.3.5 Replacement of Sub Board (Main MIC & Charging Port) and USB Port	33
4.3.6 Removal and Installation of Motor	38
4.3.7 Removal and Installation of Side Antenna Daughter Board	41
4.3.8 Replacement of Side Buttons (Volume, Fingerprint, and Mute)	42
4.3.9 Secondary Display Replacement	47
4.3.10 Battery Replacement	53
4.3.11 Replacement of Upper Speaker or Mainboard / Camera for Secondary Body	69
4.3.12 Lower Speaker Replacement (Secondary Body)	73
4.3.13 Main Display Assembly (including Hinge) Replacement	76

Part I: Document Introduction

1.1 Purpose of this Document

This manual is designed to guide repair enthusiasts with basic technical skills and prior repair experience through the process of self-replacing official vivo parts in their devices.

1.2 Pre-Repair Notices

All features, specifications, and device information provided in this document, including but not limited to device advantages, design, pricing, components, performance, availability, and functionality, are subject to change without prior notice. vivo reserves the right to modify this document or any descriptions herein at any time without any obligation to notify. Please read this manual carefully before performing any repairs. If you are not confident in your ability to safely repair your device, do not attempt to disassemble it. We recommend visiting an official vivo Service Center for professional repair assistance.

1.2.1 Repair Precautions

WARNINGS: Failure to follow the instructions or using non-genuine vivo parts or improper tools may damage the device, its components, or other property, impair device functionality or water resistance, and in severe cases, may result in fire or other safety hazards and cause injury or death.

- 1) For any damage or defects caused by repairs performed by non- authorized service providers or individuals, the repairer is solely responsible for all costs associated with repairing the affected parts.
- 2) vivo assumes no liability for device damage, personal injury, or other safety issues arising from failure to follow these repair instructions.
- 3) Use only the official tools provided by vivo. Most electronic components are sensitive to electromagnetic forces, and using low-quality tools may result in permanent damage. Please refer to the included tools list.
- 4) Use only genuine vivo replacement parts. Third-party components may not function properly and could cause fire hazards or personal injury.
- 5) Certain components, such as sensors (Laser AF / Proximity / Fingerprint), rear cameras, touchscreen panel (TSP), speakers, and other modules, may require calibration to ensure optimal post-repair

performance.

6) Repairs performed by users or unskilled individuals may compromise the device's original water and dust resistance.

7) For access to the device's fault data or more detailed diagnostics, please visit an official vivo Customer Service Center.

8) To replace parts not available for retail purchase, please visit a vivo Customer Service Center for further guidance.

9) Always back up all important data on your device before performing any repair.

10) Ensure proper safety equipment is worn before repair. vivo is not responsible for any injuries resulting from a lack of proper safety gear. Refer to the Disassembly and Assembly Tools section for a list of necessary tools.

11) Perform repairs in a safe and secure environment.

12) Ensure the device is powered off and the battery is fully discharged before any repair.

13) If the device is damaged, emits smoke, or has a burning smell, immediately stop using it. Extinguish any flames using a CO₂ or dry powder fire extinguisher, or specialized foam, sand, gravel, or dedicated lithium-ion fire extinguisher, and contact vivo immediately.

14) Safety gear such as protective goggles, gloves, and masks should be worn when you repair the device.

16) Take care not to damage the device when you remove the back cover. Before assembly, ensure there are no screws or foreign objects near the battery.

17) During assembly, inspect the back cover carefully and reinstall it. Avoid hitting or pressing on the battery to prevent damage. If the battery is damaged, visit a vivo Customer Service Center for assistance.

1.2.2 Electrostatic Discharge (ESD) Precautions

Electrostatic discharge (ESD) is the sudden flow of electricity between two charged objects caused by contact, short circuits, or dielectric breakdown. ESD can negatively affect mobile devices, particularly electronic components.

- 1) It is recommended to wear anti-static wrist straps, gloves, and use anti-static mats when you perform repairs.
- 2) Increase airflow in the workspace to reduce the likelihood of accidental ESD events. Dry, low-humidity environments, such as air-conditioned rooms, can increase the probability of electrostatic discharge.

Part II: Warranty Information

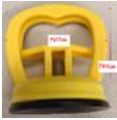
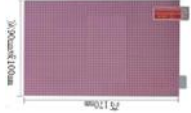
2.1 All official replacement parts provided by vivo carry a 90-day warranty. If any part exhibits quality issues within this period, contact vivo for replacement.

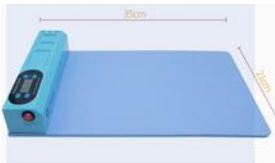
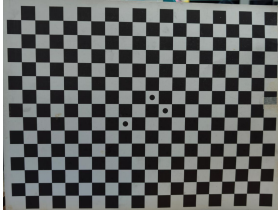
2.2 If the device has been serviced through non- official channels (including by non- professional technicians) but remains fully functional, it will continue to be covered under warranty for the duration of the warranty period. However, if such servicing causes any damage, the damaged parts will no longer be covered, and the user will be responsible for all repair costs.

Part III: Tool Usage

3.1 Hardware Tools

Tool	Photo of the Actual Item	Purpose
------	--------------------------	---------

Metal Prying Pick (with scale)		Disassemble the screen unit
Screwdriver Set (Rubber Handle, 6 mm × 100 mm)		Install/remove screws
PET Prying Pick		Remove the battery cover and screen module
Suction Cup		Remove the battery cover.
Anti-Static Conductive Fiber Tweezers Pointed Tip		Remove BTB and coaxial connectors
Metal Flat-Tip Tweezers		Remove main/sub boards or clean adhesive
Screen / Glass Back Cover Anti-Shatter Film		Prevent glass breakage

Universal Pressure Jig		Apply pressure to screen or battery cover
Electrical Insulation Tape, 3M Black, 17 mm Wide		Optical calibration
EO Fingerprint Test Finger, Flesh Color, 20 × 20 × 12		Photoelectric fingerprint calibration
EO Fingerprint Test Finger, Black, 22 × 22 × 12		Photoelectric fingerprint calibration
Heating Pad (default temperature: 65°C)		Heat the battery cover and screen
After-Sales Camera Easy Calibration Drawing 420 × 320 with Black Spots		Calibrate two rear cameras (must be printed at 420 × 320 mm)

3.1.1 Tool Purchase Link: Official purchase link:

<https://www.vivo.com/eu/view/support/aboutSelfServiceRepair?code=selfServiceRepair>

3.2 Software Updates and Tools (This section will be finalized after the software is released.)

3.2.1 Follow the steps below to update software via FOTA:

- Open the Settings app and tap System Upgrade.
- If the system is already up to date, no action is required.
- If an update is available, you can schedule installation or set an automatic update time.

Note:

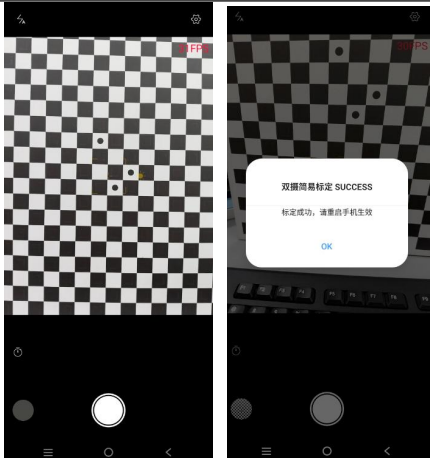
1. Updating via mobile data may incur additional charges.
2. If the latest software is already downloaded, the above options will not be active.

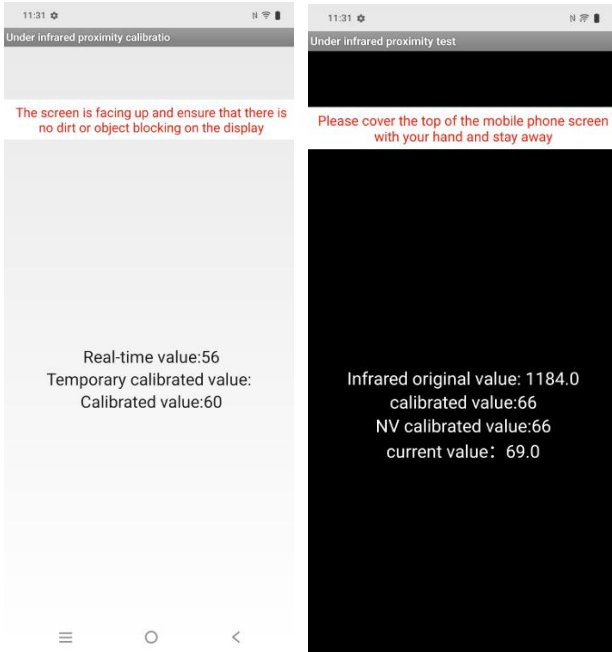
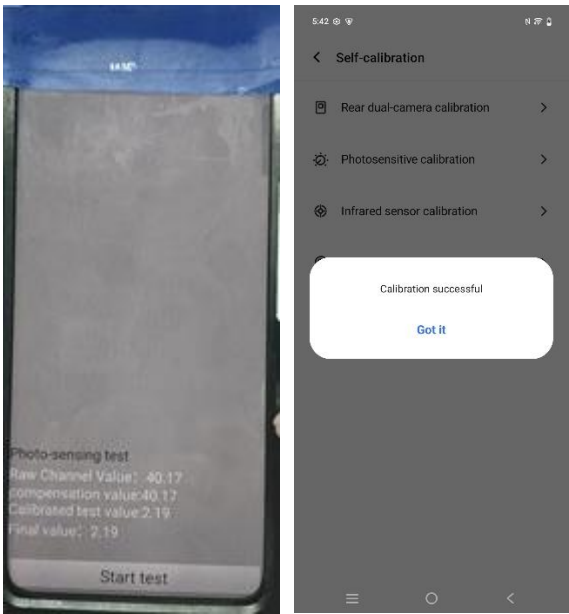
3.2.2 Self-Diagnosis: Perform self-diagnostics before and after repairs to verify device functionality.

Path: In the official app, go to Support > Hardware Test > Self-calibration, and then tap and enter the calibration code SELFREPAIR to run the test.

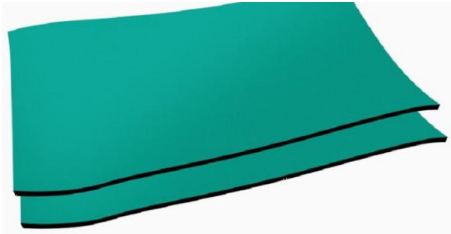
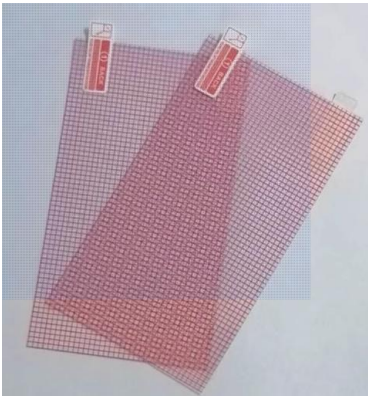
3.2.3 Self-Calibration via Official App: Primarily used for post-repair calibration after you replace the display or camera, this includes rear dual-camera calibration (applicable only to devices with two or more rear cameras), in-display fingerprint calibration, and infrared/light sensor calibration. All relevant components must be calibrated after repair to ensure proper functionality.

Calibration items and instructions are as follows:

Calibration Item	Instructions	Illustration	Notes
Rear Dual-Camera Calibration	In the official app, go to Support > Hardware Test > Self-calibration, enter the calibration code SELFREPAIR, and		Required after you disassemble the mainboard or remove/replace

	then tap Rear Dual-Camera Calibration to complete the process.		any rear camera.
IR Calibration	In the official app, go to Support > Hardware Test > Self-calibration, enter the calibration code SELFREPAIR, and then tap Infrared Sensor Calibration to complete the process.		Required after you disassemble the mainboard or replace the display assembly or display unit.
Optical Calibration	In the official app, go to Support > Hardware Test > Self-calibration, enter the calibration code SELFREPAIR, and then tap Photosensitive Calibration to complete the process.		Required after you disassemble the mainboard or replace the display assembly or display unit.

3.3 Safety Tools

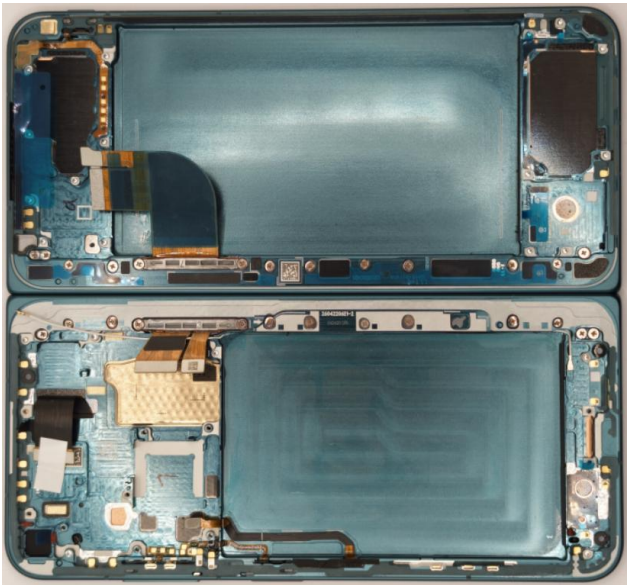
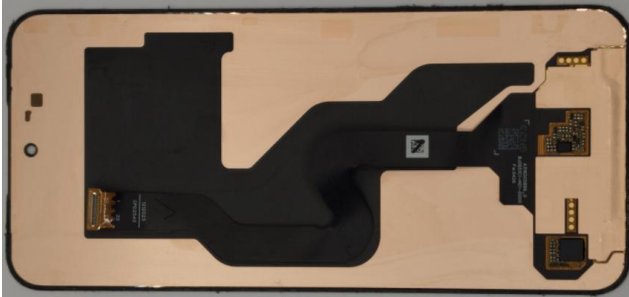
Tool	Photo of the Actual Item	Purpose
Safety Goggles		Protect eyes from splashes or debris during repair
Anti-Static Cut-Resistant Gloves		Prevent electrostatic discharge that could damage the device Protect hands from cuts during repairs
Anti-Static Wrist Strap		Prevent electrostatic discharge that could damage the device
Anti-Static Mat		Prevent electrostatic discharge that could damage the device
Anti-Shatter Film		Prevent device damage or personal injury if the screen or battery cover shatters

Sand Bucket		Safely contain and dispose of a battery in the event of a fire
-------------	---	--

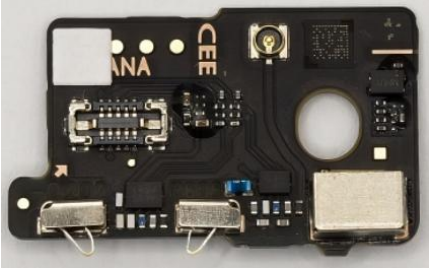
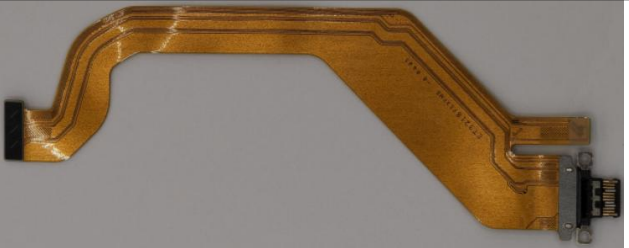
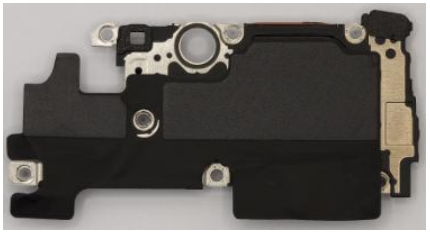
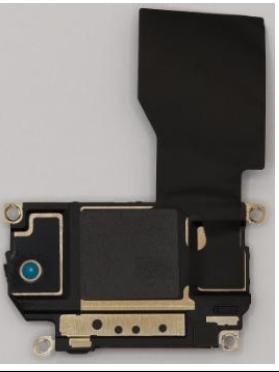
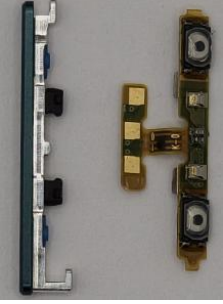
Note: Some protective tools must be purchased separately; official accessories may not include them.

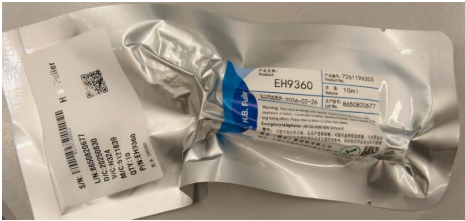
Part IV: Repair Guide

4.1 Spare Part List (with Purchase Codes)

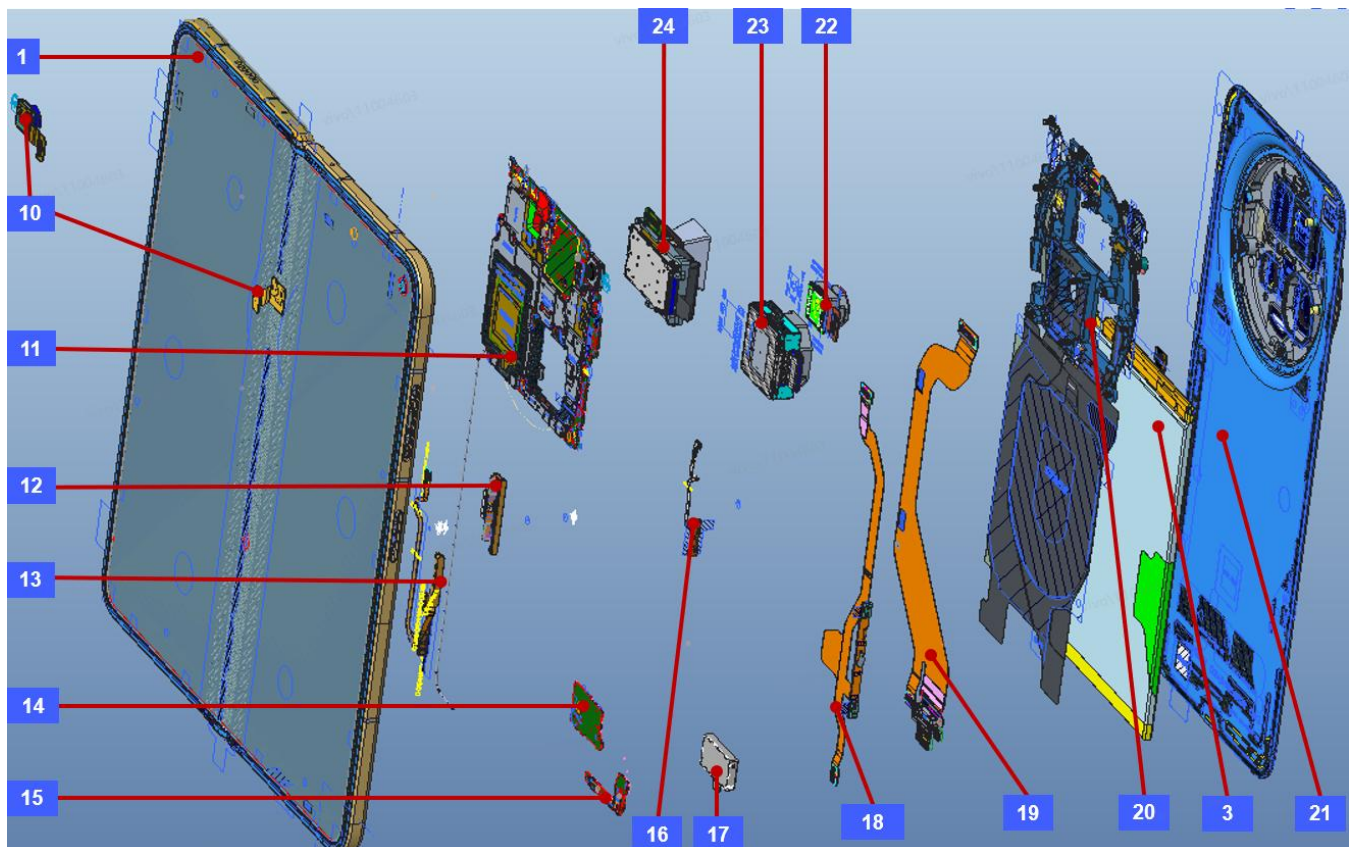
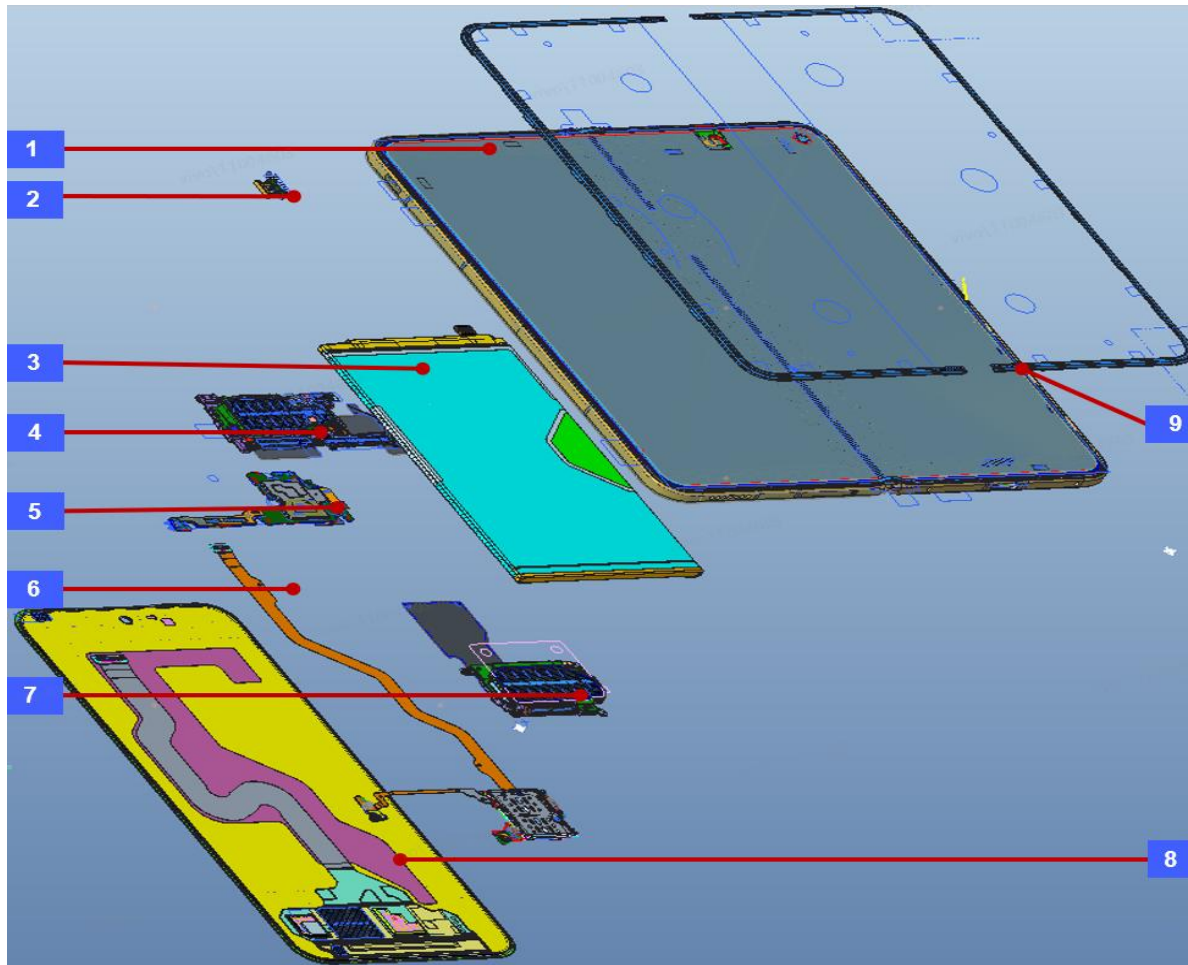
Sr. No.	Material Name	Purchase Code	Illustration
1	Main Display Assembly (Black)	5420388	
2	Main Display Assembly (Blue)	5420389	
3	Secondary Display Assembly	5420028	
4	Battery Cover	5420052	

	Assembly (Black)		
5	Battery Cover Assembly (Blue)	5420054	
6	Plastic-Encapsulated Lithium Battery (Secondary Body)	5420065	
7	Plastic-Encapsulated Lithium Battery (Main Body)	5420068	
8	Wide-Angle Camera	5420034	
9	Rear Main Camera	5420032	
10	Rear Periscope Camera Assembly	5420036	

11	Front Camera Assembly (Main/Secondary Body)	5420030	
12	Sub Board	4936674	
13	Charging Port Assembly	4936678	
14	Upper Speaker	5420044	
15	Lower Speaker	5420046	
16	Volume Button Assembly (Black)	5420038	
17	Volume Button Assembly (Blue)	5420040	
18	Side Fingerprint Sensor Assembly	5420060	

	(Black)		
19	Side Fingerprint Sensor Assembly (Blue)	5420062	
20	Mute Button Assembly (Black)	5420048	
21	Mute Button Assembly (Blue)	5420050	
22	SIM Card Tray (Black)	5420331	
23	SIM Card Tray (Blue)	5420332	
24	Glue	5121839	

4.2 Product Exploded View



No.	Code	Description
-----	------	-------------

1	5420026	Main Display Assembly for X Fold6 (Blue) PD2545GF HSF (SH)
	5420024	Main Display Assembly for X Fold6 (Black) PD2545GF HSF (SH)
2	5420050	Mute Button Assembly for X Fold6 (Blue) PD2545GF HSF (SH)
	5420048	Mute Button Assembly for X Fold6 (Black) PD2545GF HSF (SH)
3	5420068	Plastic-Encapsulated Lithium Battery BB89 HSF
3	5420065	Plastic-Encapsulated Lithium Battery BB88 HSF
4	5420044	Upper Speaker Assembly for X Fold6 PD2545GF HSF (SH)
5	4936686	Semi-Finished PCB for X Fold6: Secondary Body Mainboard PD2545GF HSF (SH)
6	4936684	Semi-Finished PCB for X Fold6: ANC Board with FMC Board PD2545GF HSF (SH)
7	5420046	Lower Speaker Assembly for X Fold6 PD2545GF HSF (SH)
8	5420028	Secondary Display Assembly for X Fold6 PD2545GF HSF (SH)
9	5420056	Mainboard Upper Cover Decorative Strip with T-Shaped Decorative Piece Assembly for X Fold6 PD2545GF HSF (SH)
10	5420030	Front Camera Assembly for Main/Secondary Body of X Fold6 PD2545GF HSF (SH)
11	4936671	Semi-Finished PCB for X Fold6: M Board PD2545GF 512G + 12G HSF (SH)
12	5420040	Volume Button Assembly for X Fold6 (Blue) PD2545GF HSF (SH)
	5420038	Volume Button Assembly for X Fold6 (Black) PD2545GF HSF (SH)
13	5420062	Side Fingerprint Sensor Assembly for X Fold6 (Blue) PD2545GF HSF (SH)
	5420060	Side Fingerprint Sensor Assembly for X Fold6 (Black) PD2545GF HSF (SH)
14	4936674	Semi-Finished PCB for X Fold6: SIM Card Daughter Board PD2545GF HSF (SH)
15	4936676	Semi-Finished PCB for X Fold6: ANB Board PD2545GF HSF (SH)
16	4936682	Semi-Finished FPC for X Fold6: FKA Board PD2545GF HSF (SH)
17	5420058	Motor Assembly for X Fold6 PD2545GF HSF (SH)
18	4936680	Semi-Finished FPC for X Fold6: FMD Board PD2545GF HSF (SH)
19	4936678	Semi-Finished FPC for X Fold6: FMB Board PD2545GF HSF (SH)
20	5420042	Mainboard Bracket Assembly for X Fold6 PD2545GF HSF (SH)
21	5420054	Battery Cover Assembly for X Fold6 (Blue) PD2545GF HSF (SH)
	5420052	Battery Cover Assembly for X Fold6 (Black)PD2545GF HSF (SH)
22	5420034	Rear Wide-Angle Camera Assembly for X Fold6 PD2545GF HSF (SH)
23	5420032	Rear Main Camera Assembly for X Fold6 PD2545GF HSF (SH)
24	5420036	Rear Periscope Camera Assembly for X Fold6 PD2545GF HSF (SH)

4.3 Disassembly and Assembly Instructions

- Before beginning any repair, be sure to complete the following steps:
- Back up your data
- Fully discharge the battery

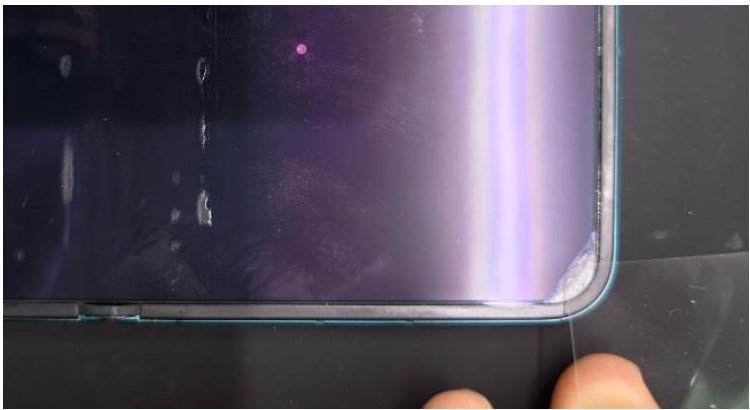
- Power off the device and disconnect all external cables
- Wear anti-static gloves
- If any cosmetic damage or adhesive overflow occurs after assembly, please visit an official vivo Service Center for inspection and support
- Before disassembly, inspect the display and battery cover for cracks. If any are found, apply an anti-shatter film to the surface to prevent injury during the disassembly process

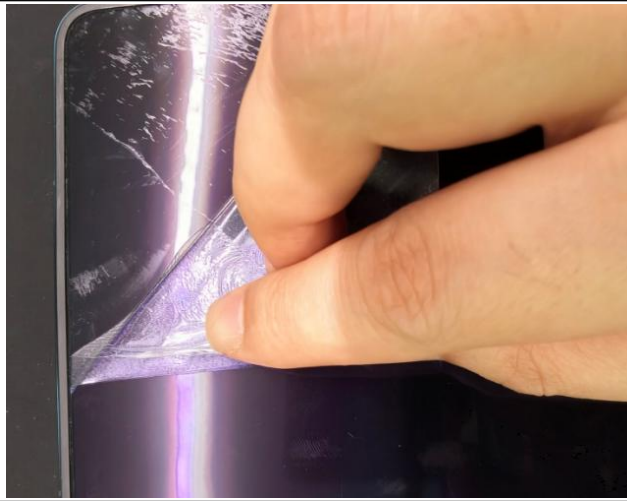
4.3.1 Main Display Screen Protector Replacement

Repair Difficulty: Low

Estimated Time: 6-10 Minutes

Required Spare Part(s): Main Display Screen Protector Assembly

Steps	Illustration
Heat the device: Place the device face down with the main display against the heating pad and heat it at 65°C for 5 minutes.	
Remove the old protector: Use a pry card to lift one corner of the protector, and then hold that corner and peel the protector off in the same direction as you pried.	



Clean residual adhesive: Use the old protector to dab and remove residual adhesive from the main display screen. Then wipe the screen with a lint-free cloth moistened with alcohol, making sure there is no adhesive, dust, hair, or other debris on the surface.



Place the device:

1. Place the device onto the simple protector installation jig with the main display facing upward.
2. Take the new screen protector and place it on the jig with the "Tear off after paste" label facing upward and located at the lower right corner. Peel off release film



No. ①, and then align the protector by placing the left and right positioning tabs onto the jig's positioning posts through the holes in the tabs for preliminary alignment (see Figure ①).

2. Visually check the clearance on all four sides. Once the screen protector is centered, peel off the release film beneath the right positioning tab and press the tab down onto the jig (see Figure ②).

3. Firmly press the right alignment tab to activate the adhesive.



Apply the protector:

1. Release the left positioning tab and remove release film No. ② (see Figure 1).

2. After removing the release film, hold the left positioning tab with your left hand so the protector hangs above the screen. Slowly press the protector onto the



screen from right to left with the squeegee. Avoid gripping the squeegee too tightly to prevent bending or deforming it.



Heat to remove bubbles:

1. After the protector is fully applied, use the squeegee to push out any bubbles along the edges (see Figure 1).

2. Place the device face down with the main display against the heating pad and heat it at 65°C for 10 minutes to clear any remaining bubbles.



4.3.2 Battery Cover Replacement

Repair Difficulty: Low

Estimated Time: 6–10 Minutes

Required Spare Part(s): Battery Cover Assembly

Required Tool(s):

Steps	Illustration
Remove the SIM card tray.	1. Power off the device. Insert the SIM eject pin into the SIM card eject hole and remove the SIM card tray. Note: Before disassembly, check the battery cover for cracks. If any are found, apply an anti-shatter film first. 
Heat the device.	1. Set the heating pad to 65°C. Place the device on the heating pad and heat for 5 minutes.



Remove the battery cover.

1. Place the suction cup at the center of the bottom edge of the back cover, pull upward to create a gap, and insert a prying pick into the gap.





2. Cut along the edges until they are fully open, and then slowly lift the back cover from the bottom. Do not lift it at a sharp angle, as this may cause it to break; instead, gently rock it from side to side while lifting.

Note: After cutting open the bottom edge, lift the battery cover by hand. Do not insert the tool too deep, as this may damage internal components.



3. After all edge adhesive has been released, pinch the lower edge of the battery cover and lift it off.



Clean residual adhesive.

1. Place a dust cover over the camera module, and then use tweezers to remove any remaining adhesive from the battery cover area and frame.

Note: If the adhesive is hard to remove, reheat the battery cover and then continue cleaning.



	
Apply double-sided tape to the battery cover. (New battery covers come with pre-applied tape, so this step is not required.)	After removing any residual adhesive, use the screw holes for alignment and apply the double-sided tape to the battery cover. 
Install the battery cover.	Fit the battery cover in place, and then firmly press around the edges to activate the double-sided tape. 

4.3.3 Removal and Installation of Mainboard Bracket

Repair Difficulty: Low

Estimated Time: 6–10 Minutes

Steps	Illustration
Remove the battery cover (refer to the battery cover removal steps).	Refer to section 4.3.2
Remove the mainboard bracket.	1. Remove the 12 screws securing the mainboard bracket.  2. Use plastic tweezers to lift the adhesive areas at the bottom of the pyrolytic graphite sheets (PGSs) marked with red boxes. Do not fold the PGSs. 

3. Remove the mainboard bracket.



Installation

Install the mainboard bracket into the main body.

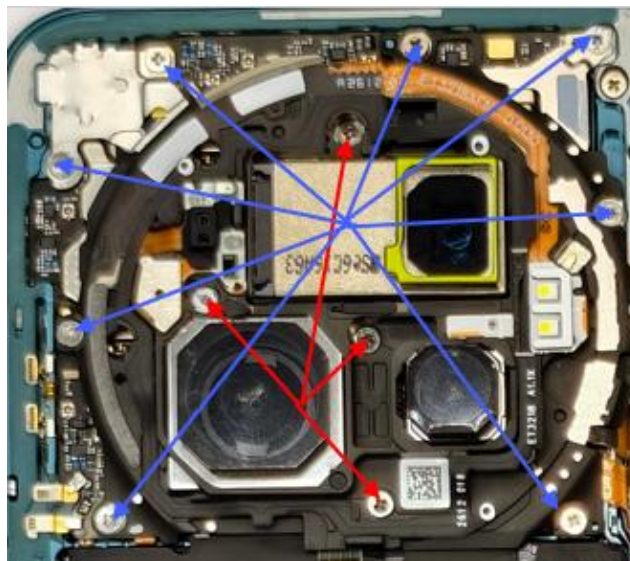
Note:

In Step 1, make sure the metal piece at position ① is snapped into the frame groove and lies flat, so it does not press against the battery cover.

1. Insert the mainboard bracket from the top of the device.



2. Install the mainboard bracket screws: first fasten the four 1.4 × 4 mm long black nickel screws at the positions marked by red arrows, and then fasten the eight 1.4 × 2.0 mm short white nickel screws.



3. Firmly press the double-sided tape at the bottom of the PGSs into place (areas marked with red boxes), and then reapply the warranty seal.



4.3.4 Removal and Installation of Mainboard and Camera

Repair Difficulty: Low

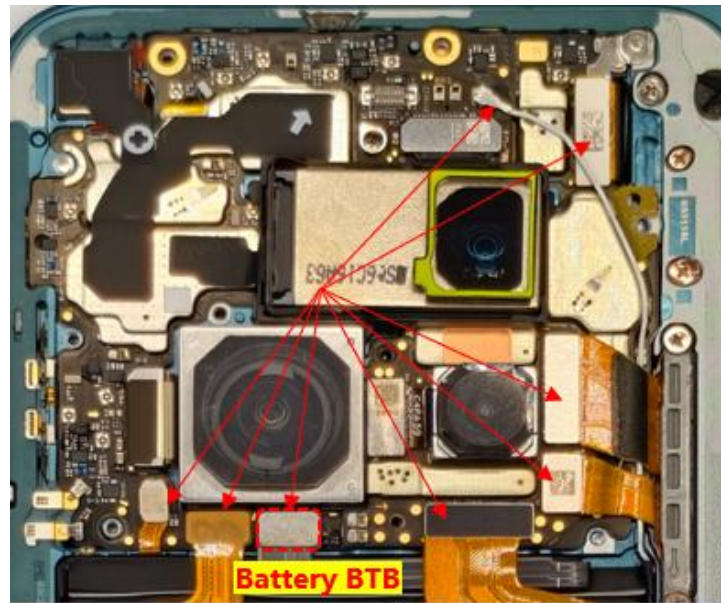
Estimated Time: 9-12 Minutes

Required Spare Part(s): Mainboard

Steps	Illustration
Remove the battery cover (refer to the battery cover removal steps).	Refer to section 4.3.2
Remove the mainboard bracket (refer to the mainboard bracket removal steps).	Refer to section 4.3.3

Remove the mainboard.

1. First disconnect the battery BTB connector, and then disconnect the remaining BTB connectors and the RF cable.



2. Lift the PGS at the front camera area (as indicated by the arrow in the figure).



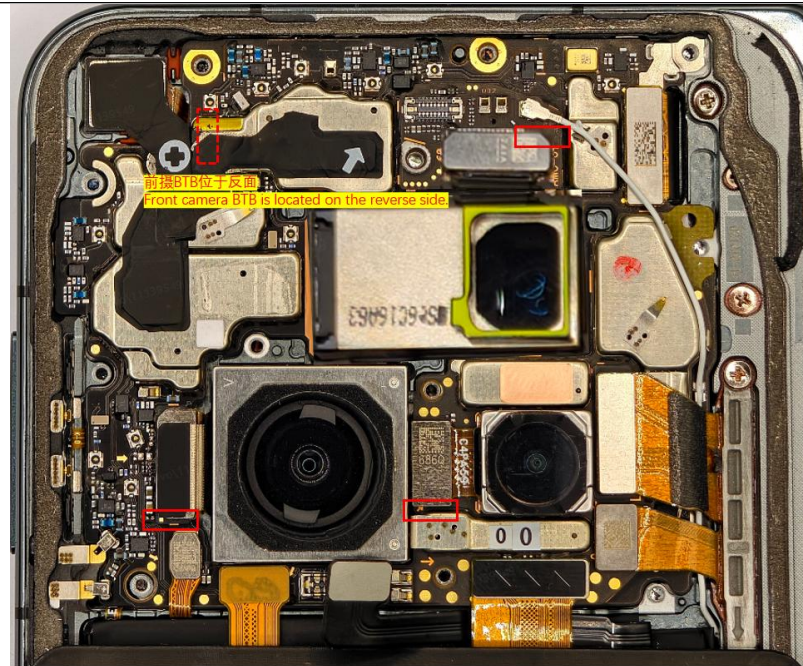
3. Remove the screws securing the mainboard.



4. Remove the mainboard from the opening (as indicated by the arrow in the figure).



5. Use plastic tweezers to disconnect the camera BTB connectors at the areas marked with red boxes, and then remove the cameras.



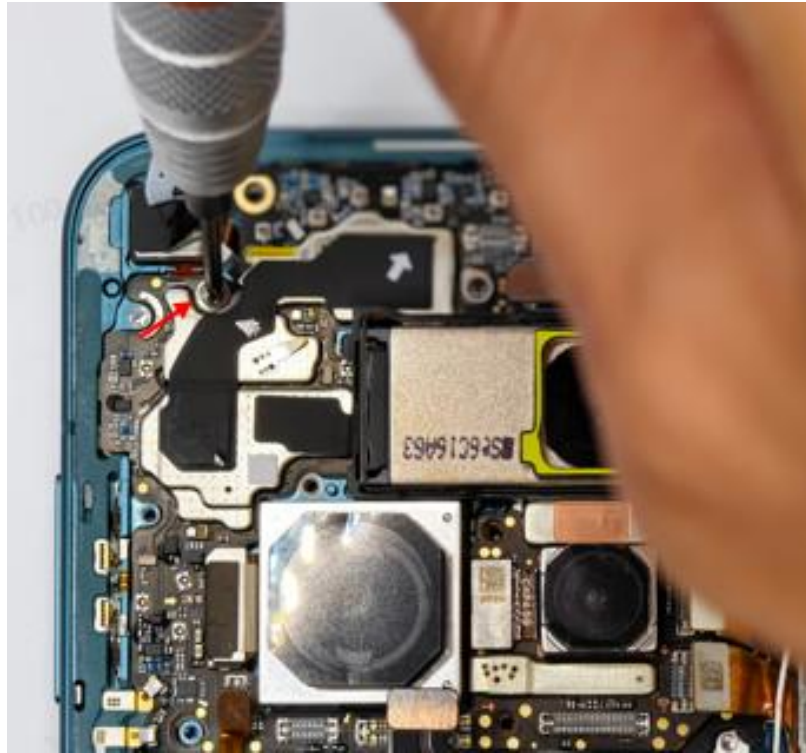
Installation

Install the mainboard.

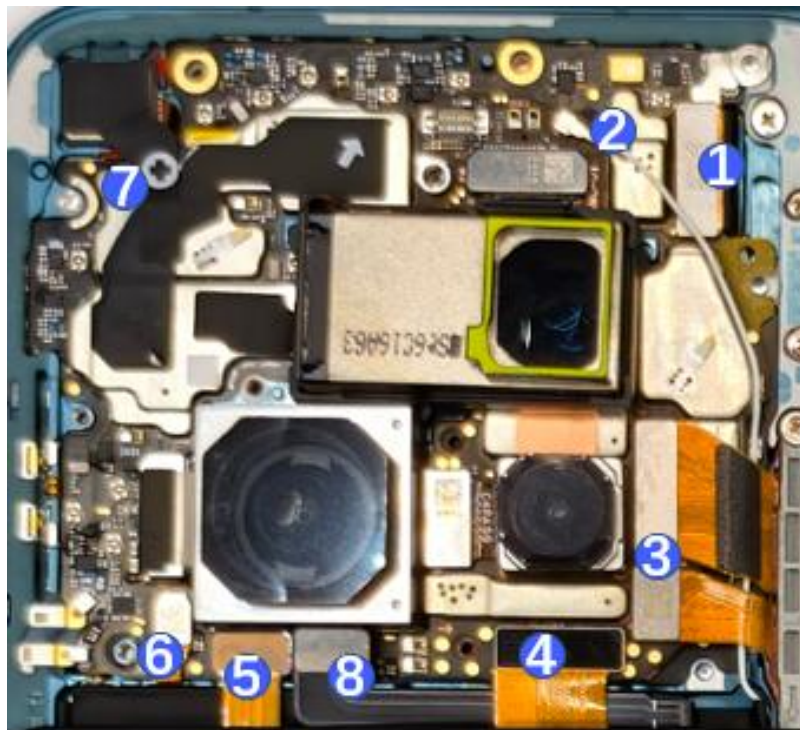
1. Connect the camera BTB connectors.
2. Install the mainboard: insert the bottom edge first (as indicated by the arrows), and then secure the top.



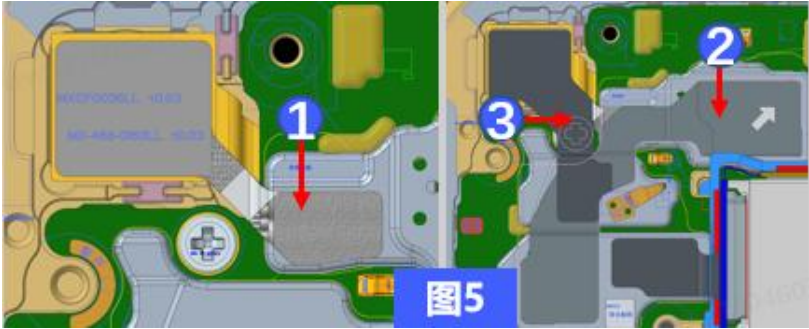
2. Install the mainboard screws.



3. Connect the components in the order shown in the figure: main display BTB → RF cable → hinge FPC BTB (FMA board) → FMB board BTB → FMD board BTB → fingerprint sensor BTB → front camera PGS → battery BTB.



4. After replacing the front camera or the mainboard in the main body, apply the front camera conductive fabric and PGSs in the order shown in Figure 5: front camera conductive fabric → front camera shield PGS → front

	camera PGS. 
Install the mainboard bracket.	Refer to section 4.3.3
Perform calibration.	After reassembly, calibrate the rear dual cameras, light sensor, and infrared sensor as specified in section 3.2.3.

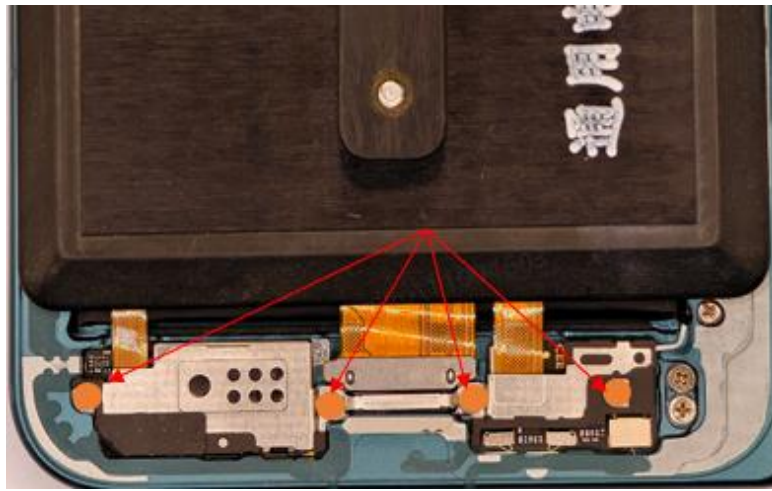
4.3.5 Replacement of Sub Board (Main MIC & Charging Port) and USB Port

Repair Difficulty: Low

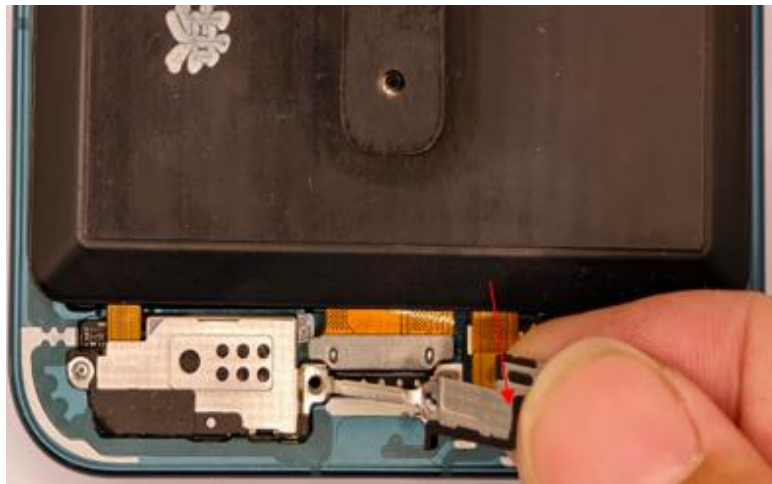
Estimated Time: 15 Minutes

Required Spare Part(s): Sub-Board Assembly

Steps	Illustration
Remove the battery cover (refer to the battery cover removal steps).	Refer to section 4.3.2
Remove the mainboard bracket.	Refer to section 4.3.3
Remove the sub-board bracket.	1. Remove the four screws securing the sub-board bracket.

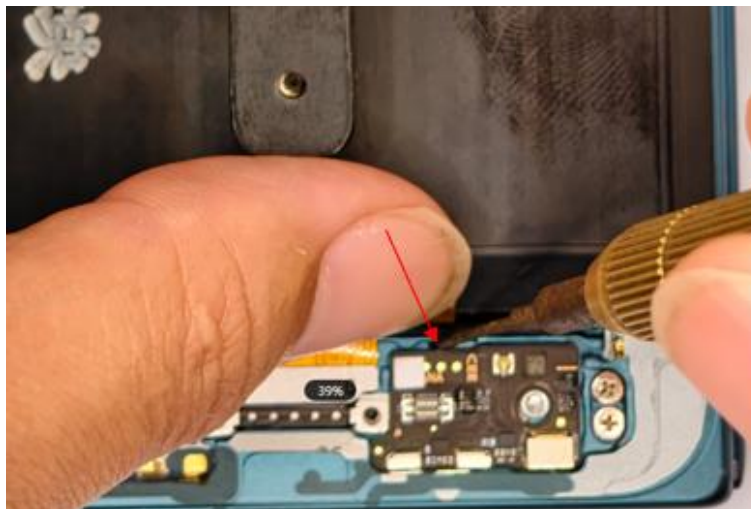


2. Remove the sub-board bracket from the right side.



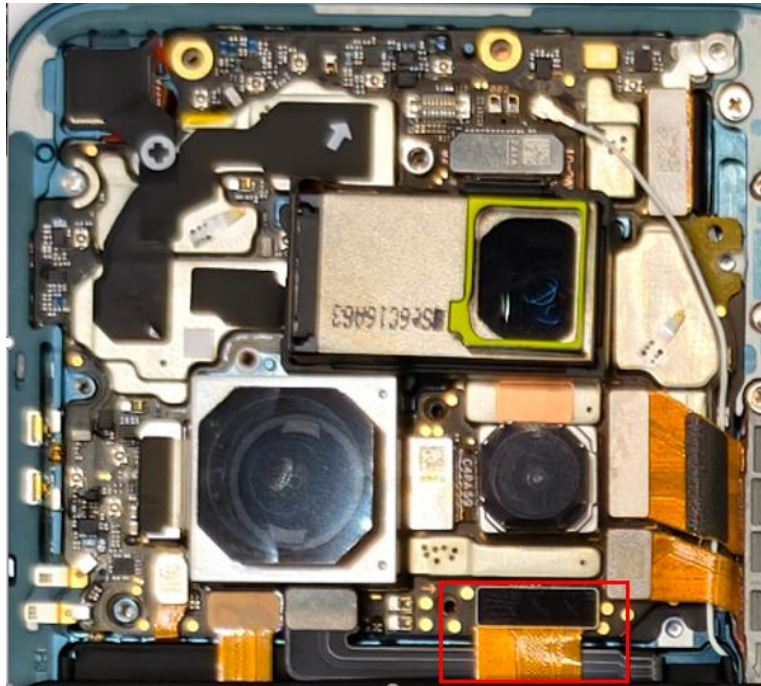
Remove the sub board.

1. Disconnect the BTB connector and RF cable, and then use a flathead screwdriver to pry up the SIM card daughter board from its upper left corner.

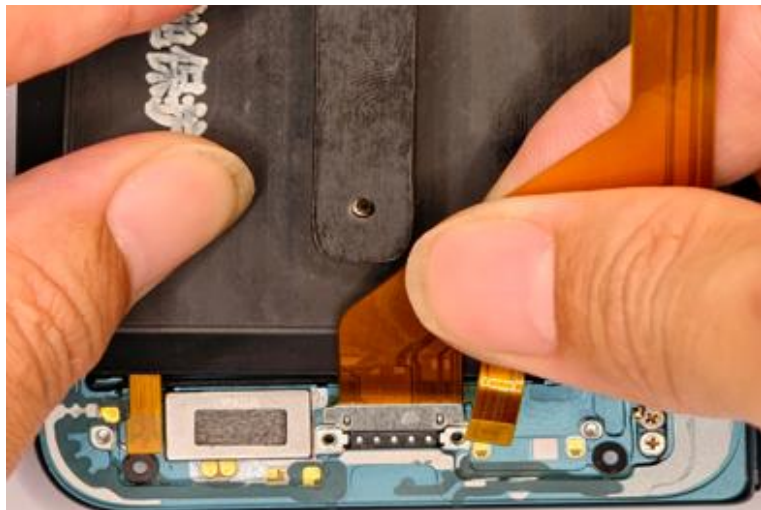


Remove the USB port.

1. Disconnect the BTB connector on the mainboard side.



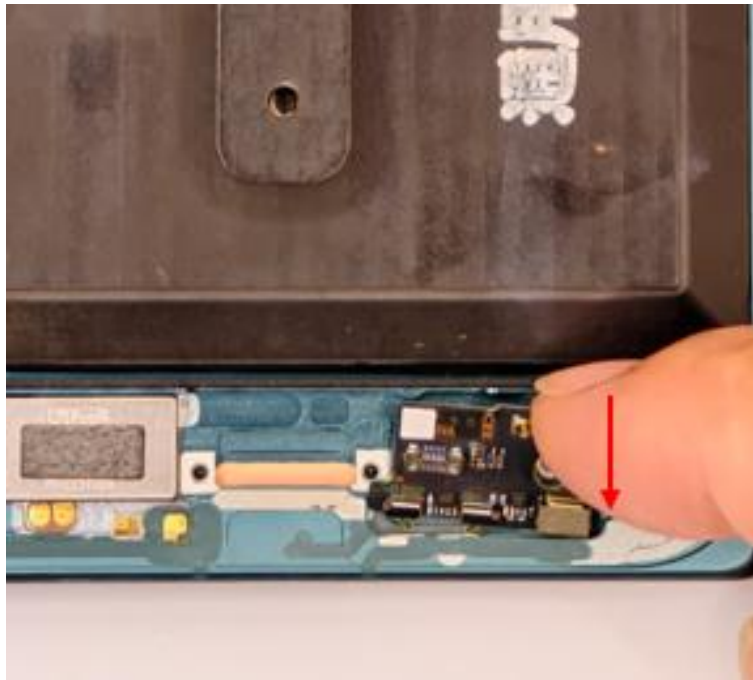
2. Pull out the USB port on the sub board side.



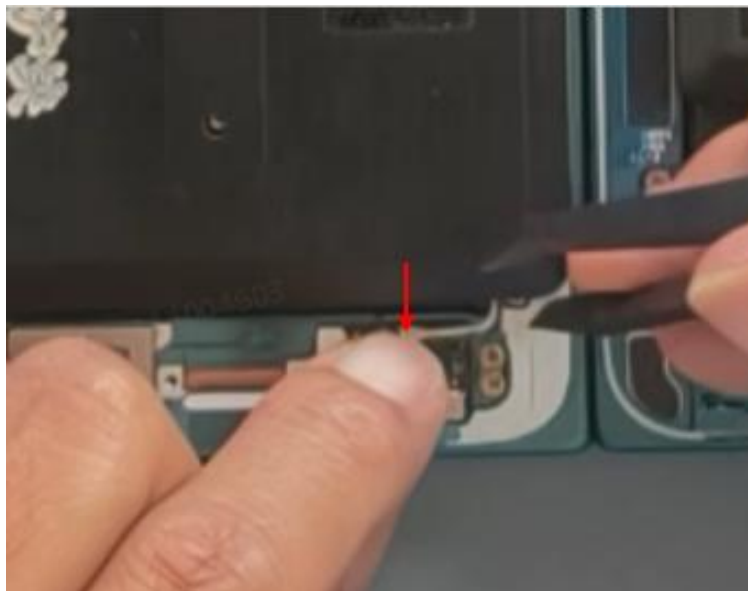
Installation

Install the sub board and USB port.

1. When installing the sub board, first fit the lower half, and then the upper half.



2. Connect the RF cable and the BTB connector on the sub board.



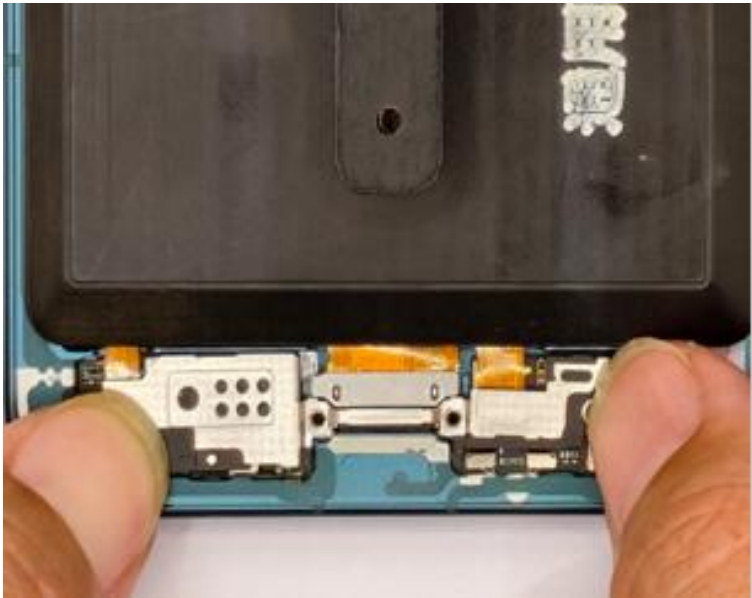
3. Snap the USB BTB connector into place on the mainboard side.



4. Remove the release film from the double-sided tape at the USB port location, and then fit the USB port into the frame.



5. Install the sub-board bracket and the four screws.

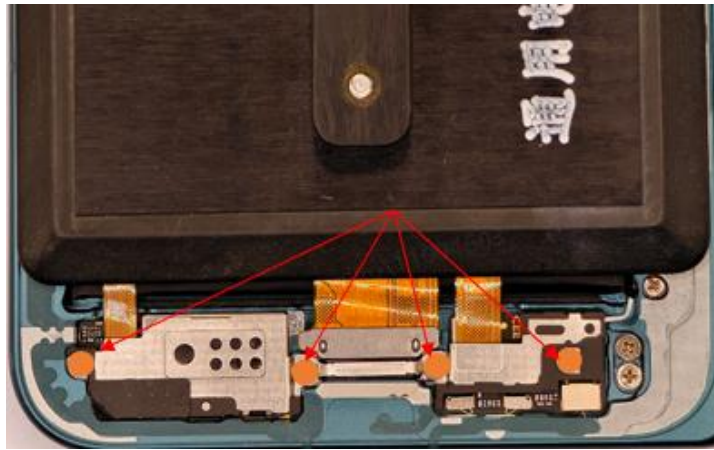
	
Install the battery cover.	Refer to section 4.3.2

4.3.6 Removal and Installation of Motor

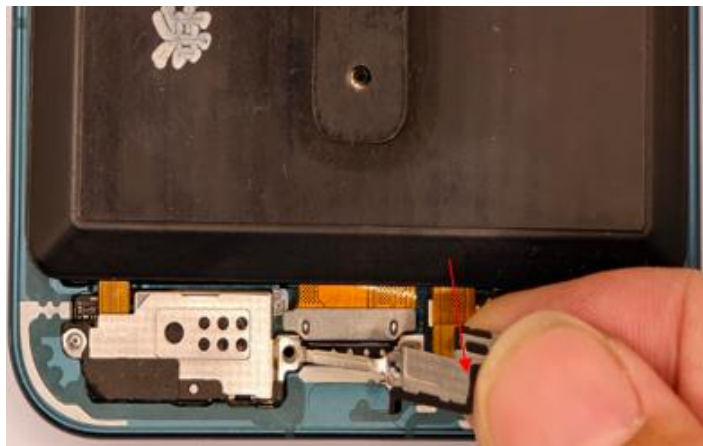
Repair Difficulty: Low

Estimated Time: 6-10 Minutes

Steps	Illustration
Remove the battery cover (refer to the battery cover removal steps).	Refer to section 4.3.2
Remove the sub-board bracket.	1. Remove the four screws securing the sub-board bracket.

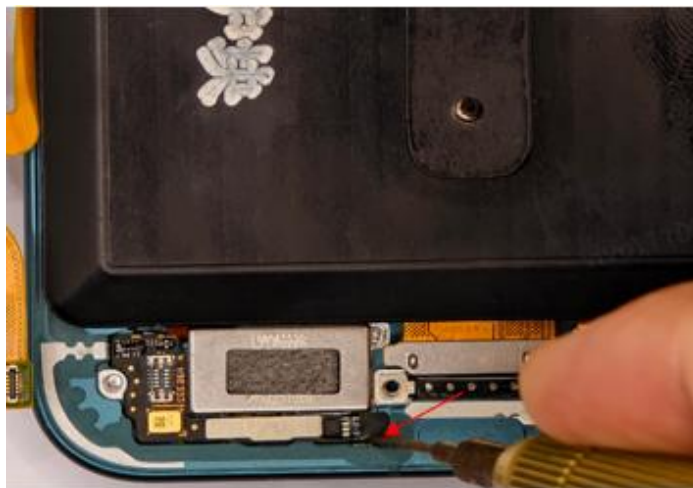


2. Remove the sub-board bracket from the right side.



Remove the motor.

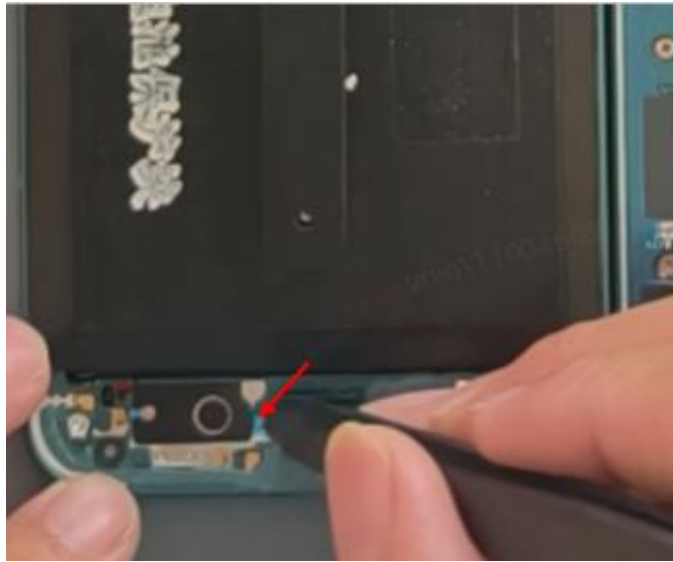
1. Disconnect the BTB connector and RF cable, and then use a flathead screwdriver to pry up the ANB board from its lower right corner.



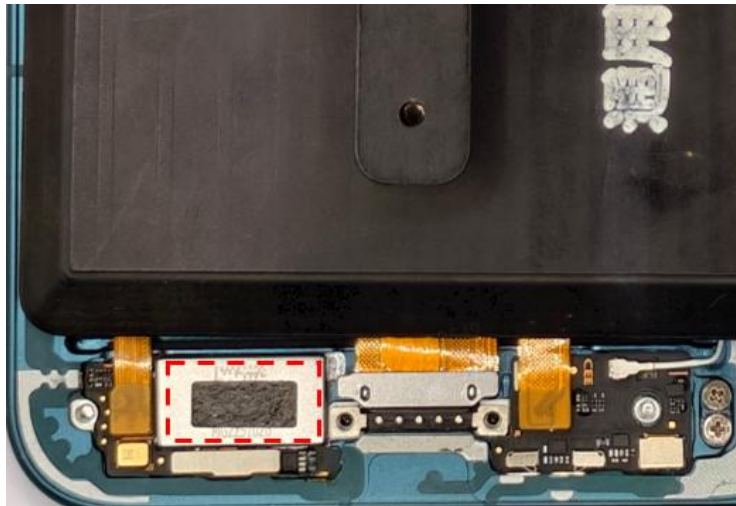
Installation

Install the motor.

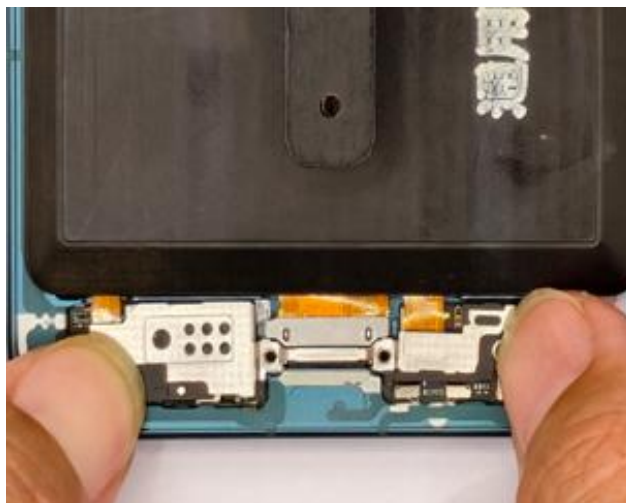
1. Peel off the release film from the motor's double-sided tape. (If only the motor is being replaced, apply new double-sided adhesive to the motor.)



2. Position the motor and press it firmly into place with your fingertip.



3. Install the sub-board bracket and the four screws.



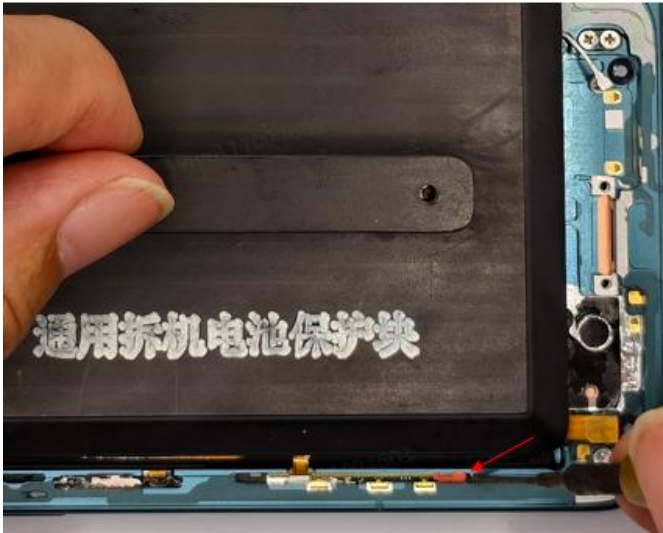
Install the battery cover.

Refer to section 4.3.2

4.3.7 Removal and Installation of Side Antenna Daughter Board

Repair Difficulty: Low

Estimated Time: 6-10 Minutes

Steps	Illustration
Remove the battery cover (refer to the battery cover removal steps).	Refer to section 4.3.2
Remove the mainboard bracket.	Refer to section 4.3.3
Remove the side antenna daughter board.	1. Use a flathead screwdriver to pry up the FMD board from its lower edge (at the location indicated by the arrow in the figure).  2. Take out the FMD board.

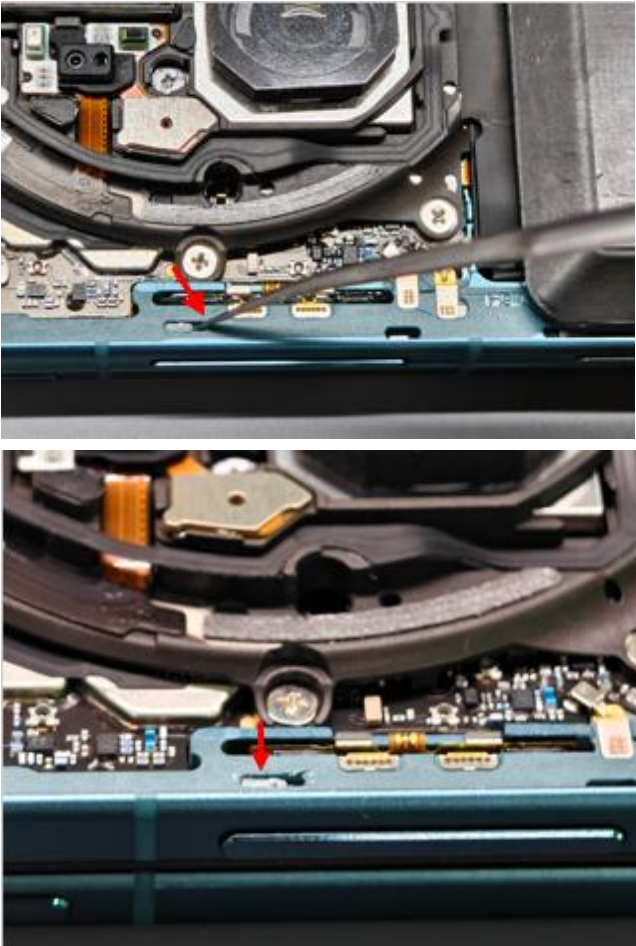
	
Installation	
Install the side antenna daughter board.	1. Insert the side antenna (FMD board) into the frame and press it down until it is seated properly. 
Install the battery cover.	Refer to section 4.3.2

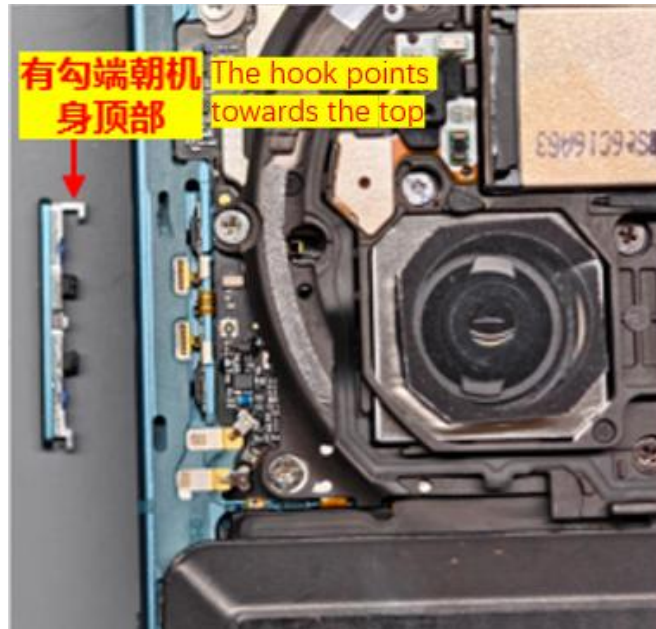
4.3.8 Replacement of Side Buttons (Volume, Fingerprint, and Mute)

Repair Difficulty: Neutral

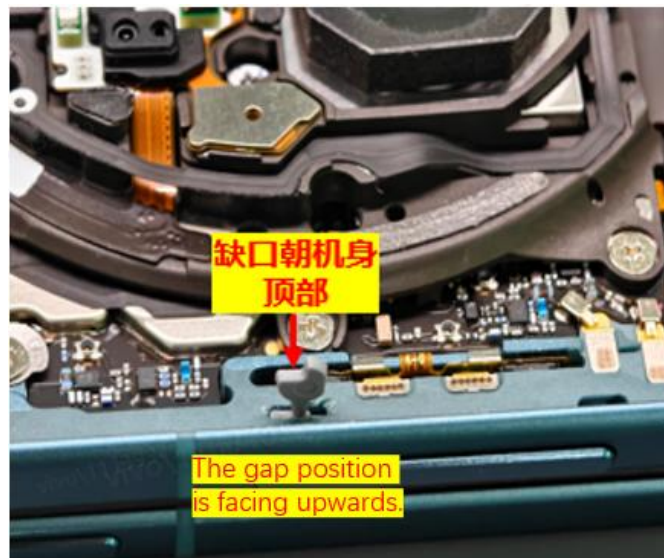
Estimated Time: 60 Minutes

Required Spare Part(s): Side Buttons (Volume, Fingerprint, and Mute)

Steps	Illustration
Remove the battery cover.	Refer to section 4.3.2
Remove the volume button.	1. Use pointed tweezers to carefully pry out the side-button retaining bracket. 
Install the volume button.	1. Remove the damaged volume button (button cap) and install the new volume button (button cap) in its place.



2. When installing the side-button retaining bracket, make sure the notch is facing the top of the device. Once it is seated, snap off the tabs, and then verify the button's appearance, operation, and tactile feel before proceeding to the next step.



Remove the fingerprint button.

1. Remove the battery from the main body as described in section 4.3.10.
2. From the access opening, use pointed tweezers to pry out the two side-button retaining brackets (see Figure 1).



3. From the same opening, use a flathead screwdriver to pry up the fingerprint FPC retaining bracket.

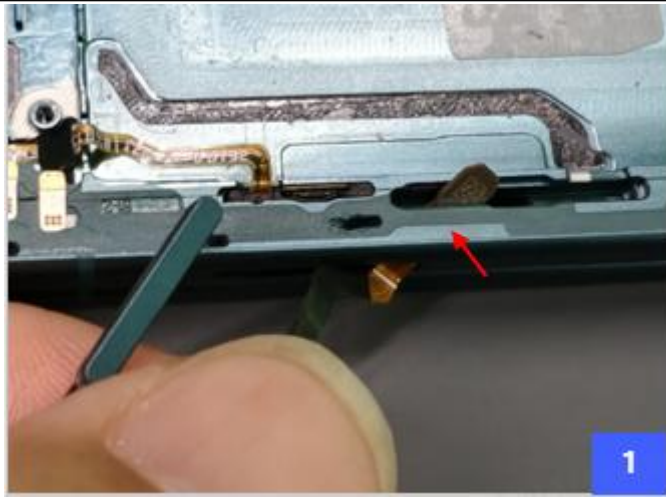


4. Gently remove the fingerprint module (see Figure 3). Avoid pulling forcefully to prevent damage.

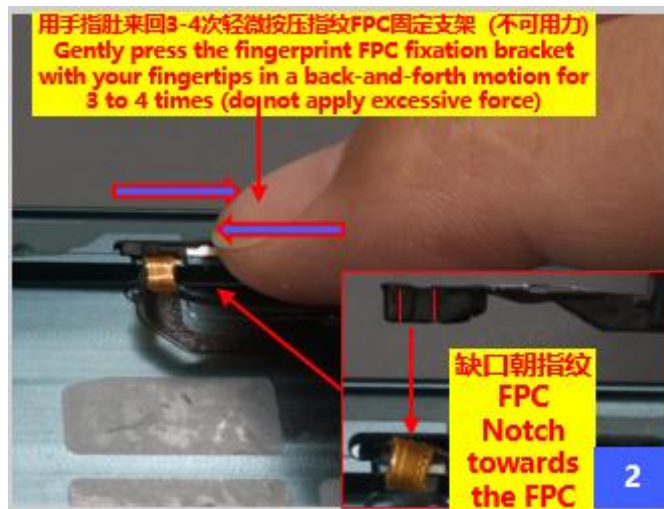


Install the fingerprint button.

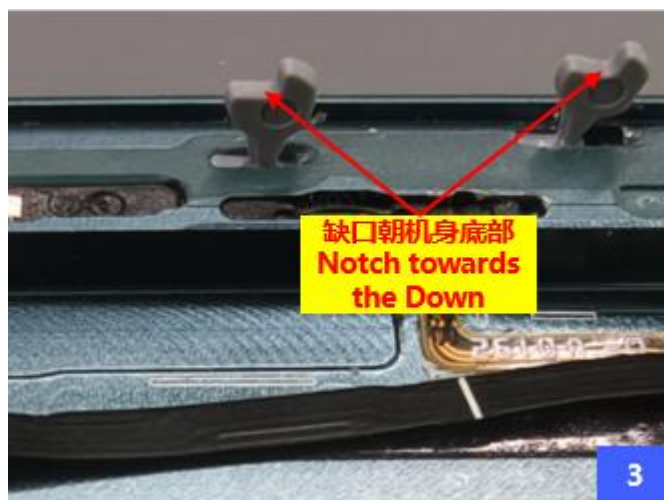
1. Route the BTB end of the fingerprint assembly through the fingerprint slot (see Figure 1).



2. Install the fingerprint FPC retaining bracket, and then lightly press it with your fingertip 3-4 times to seat it. Do not apply excessive force.



3. While holding the fingerprint button pressed from the outside, install the two side-button brackets (see Figure 3).



Install the battery cover.

Refer to section 4.3.2

4.3.9 Secondary Display Replacement

Repair Difficulty: High

Estimated Time: 40-60 Minutes

Required Spare Part(s): Secondary Display Assembly

Steps	Illustration
Heat the device.	Place the device with the secondary display facing downward heat it at 65°C for 10 minutes. 
Remove the secondary display.	1. Use a handheld suction cup on the top edge of the secondary display and gently pull to open a gap. 
Cut open the edges of the secondary display.	1. Insert a card into the gap and slide it along the left, right, and top edges of the frame. Do not insert or slide along the bottom edge. Note: Do not insert deeper than 5 mm, and always slide with the force

directed toward the frame to avoid damaging the display.

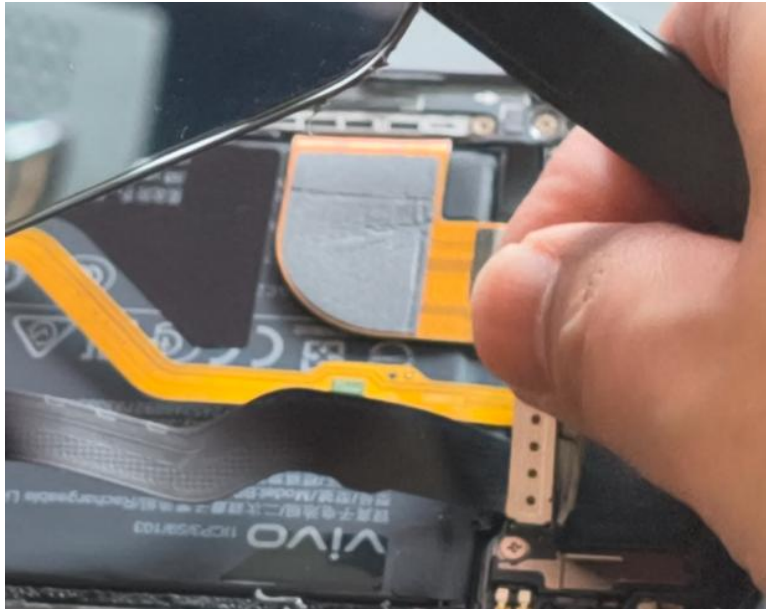


Separate the secondary display.

1. Lift the top end of the display and remove the screw that secures the BTB connector bracket.



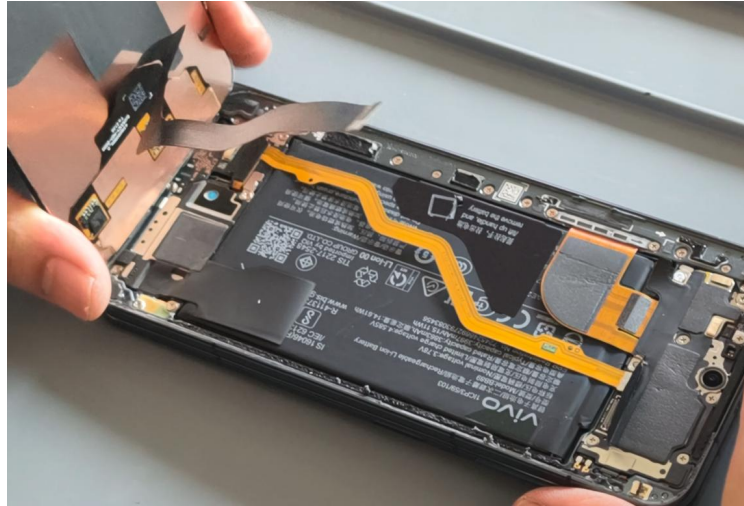
Remove the metal bracket.



Disconnect the BTB connector.



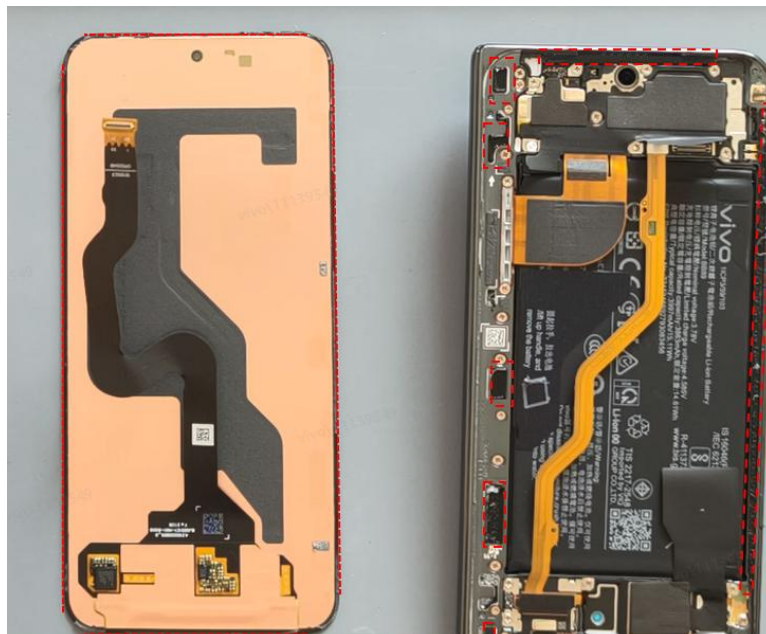
Raise the display to fully release the bottom edge.

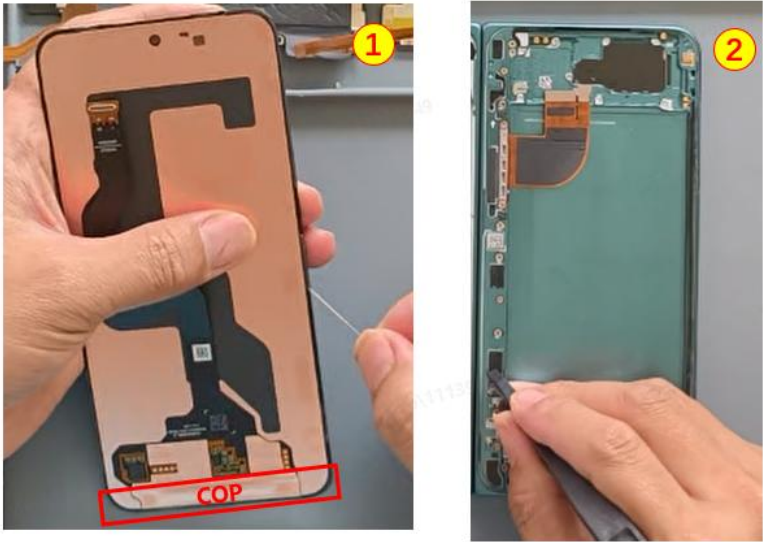


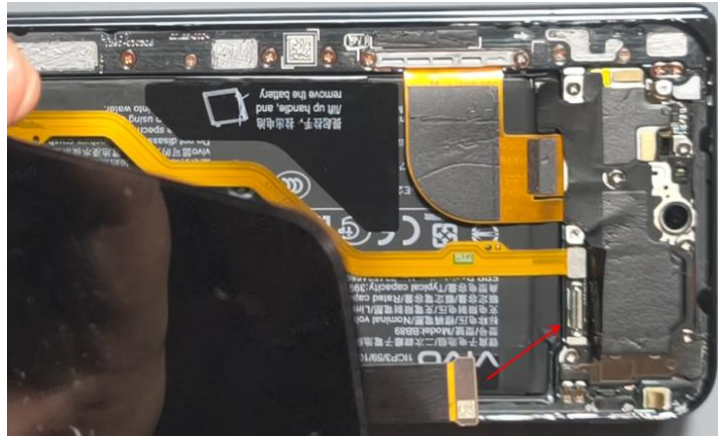
Clear residual adhesive. (If you are replacing the secondary display with a new one, you do not need to remove adhesive from the old one)

1. Remove residual adhesive from both the display and the frame: peel off the strip-shaped adhesive by hand, and then use tweezers to remove any remaining residue. Figure 1 shows adhesive removal from the display; Figure 2 shows adhesive removal from the frame.

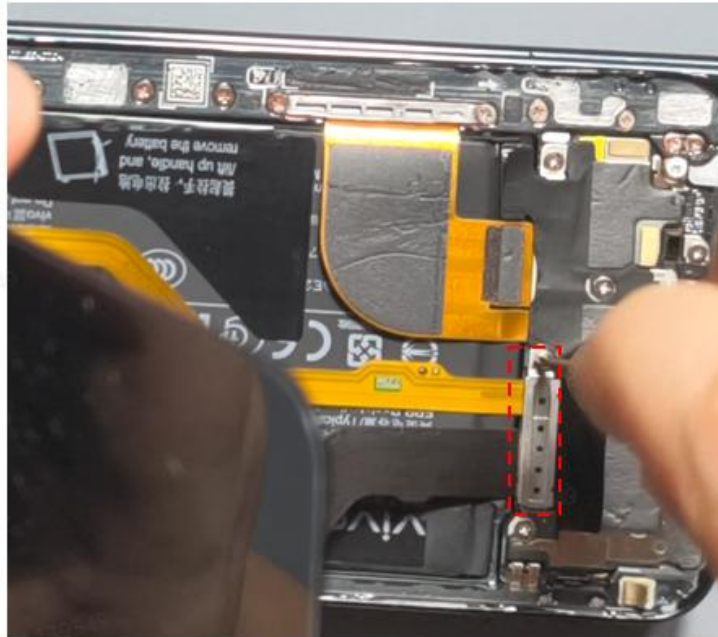
Note: When removing residual adhesive from the display, never touch the COP area with tweezers or fingernails, as this may damage the display.



	
Steps	Illustration
Apply adhesive.	1. The secondary display is glued in place. Before assembly, prepare the glue (purchase code: 5121839) and plastic dispensing tips (20G/22G). 2. Apply glue from the right side of the upper speaker opening to the left side, as shown below. 3. After applying the glue, check the groove in the frame for gaps or excess buildup and ensure the glue is evenly distributed. 
Test the display functionality.	1. Connect the screen BTB connector, power on the device, and verify that the display functions properly.



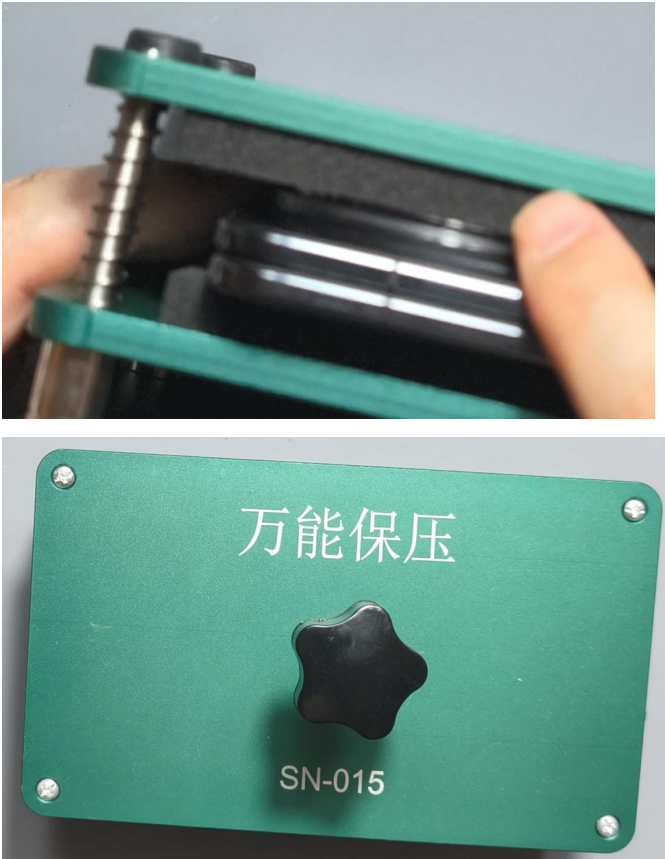
Install the BTB bracket and screw.



Install the display and wipe away any excess glue.

1. Fit the secondary display in place, press gently to ensure proper adhesion, and use a lint-free cloth to wipe away any excess glue.



	
Cure under pressure.	1. Place the assembled device in the pressure-holding jig and maintain pressure for at least 30 minutes. 

4.3.10 Battery Replacement

Repair Difficulty: High

Estimated Time: Over 90 Minutes

Required Spare Part(s): Battery Assembly (including batteries in both left and right bodies)

Steps	Illustration
Remove the battery cover (refer to the battery cover removal steps).	Refer to section 4.3.2
Remove the mainboard bracket.	Refer to section 4.3.3
Remove the mainboard.	1. First disconnect the battery BTB connector, and then disconnect the remaining BTB connectors and the RF cable.  2. Lift the PGS at the front camera area (as indicated by the arrow in the figure). 

3. Remove the screws securing the mainboard.

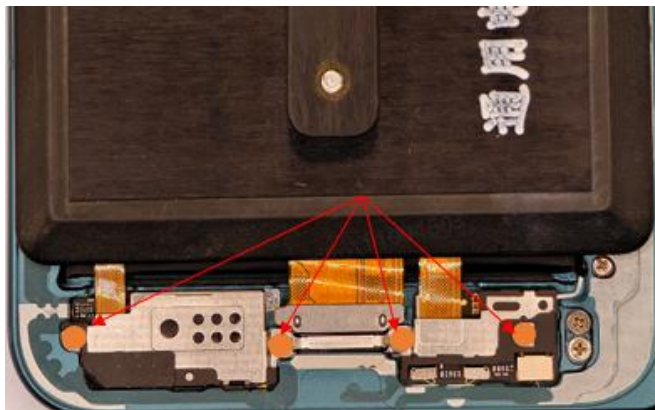


4. Remove the mainboard from the opening (as indicated by the arrow in the figure).

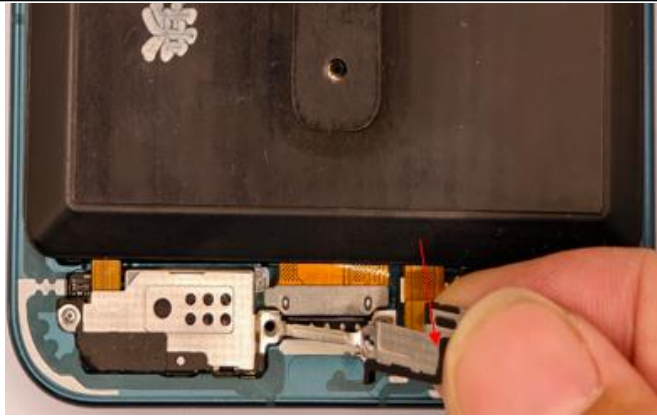


Remove the sub board, FMB board, and motor.

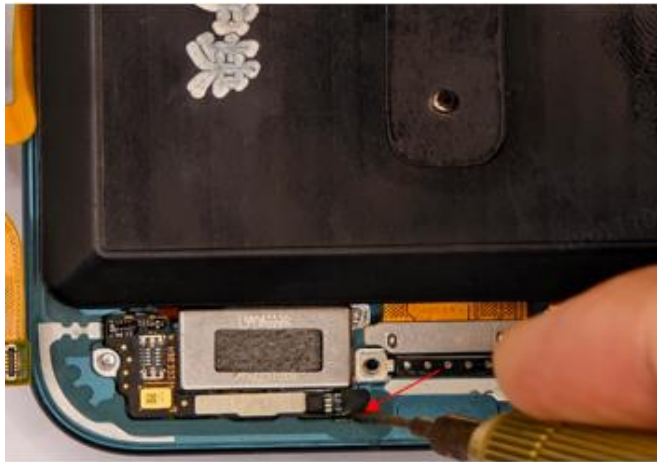
1. Remove the four screws securing the sub-board bracket.



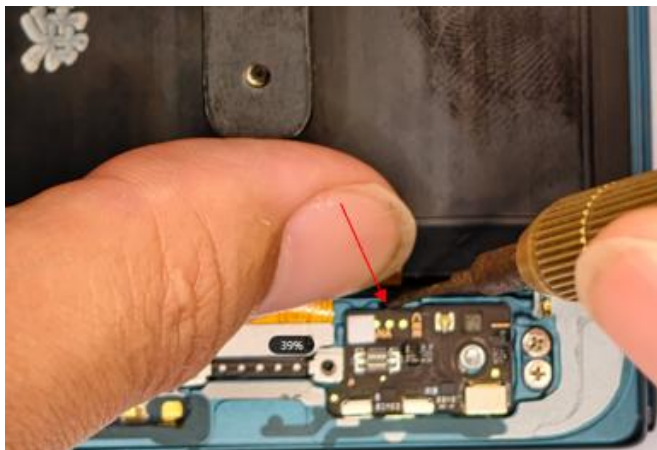
2. Remove the sub-board bracket from the right side.



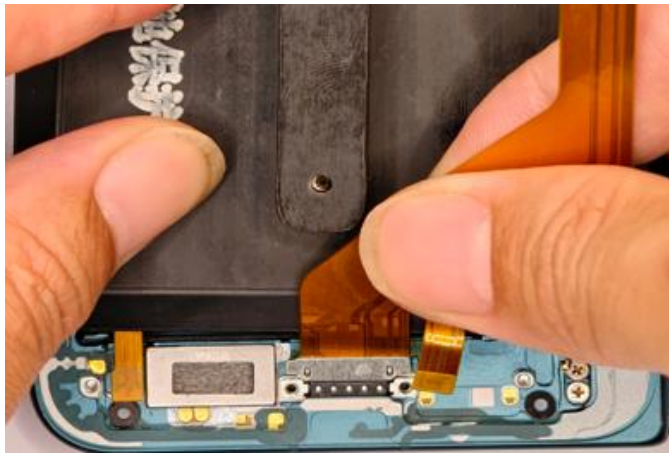
3. Disconnect the BTB connector and RF cable, and then use a flathead screwdriver to pry up the ANB board from its lower right corner.



4. Use a flathead screwdriver to pry up the SIM card daughter board from its upper left corner.



5. Hold the FMB board and pull it upward (toward the battery).



6. Use a flathead screwdriver to pry up the motor from its upper right corner.



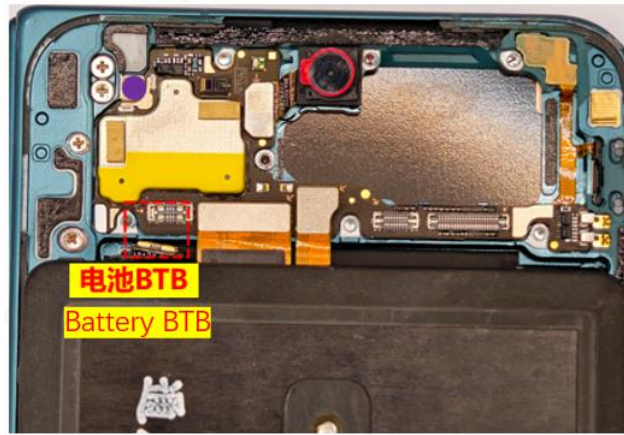
Remove the FMD board
(side antenna).

1. Use a flathead screwdriver to pry up the FMD board from its lower edge (at the location indicated by the arrow in the figure).

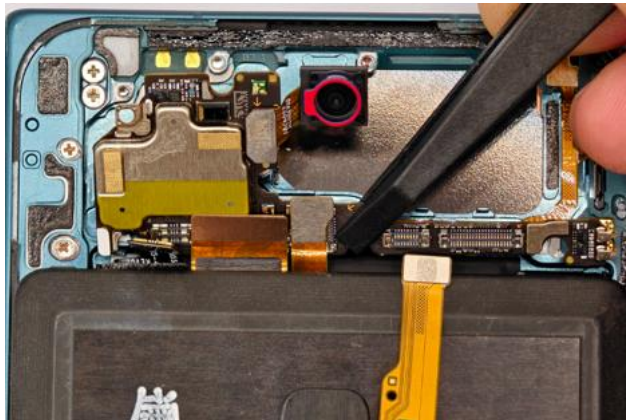


2. Take out the FMD board.

	
Remove the secondary display.	Refer to section 4.3.9
Remove the MA board.	1. Remove the 6 screws securing the upper speaker (marked with purple circles).  2. First disconnect the battery BTB connector, and then disconnect the other BTB connectors, and finally remove the screw securing the mainboard in the secondary body (marked with a purple circle in the upper left corner).

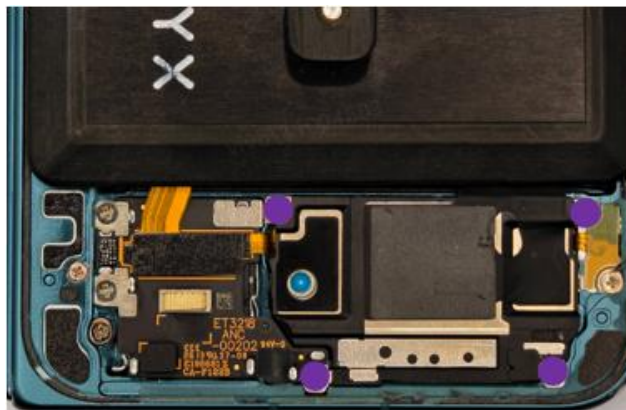


3. Use plastic tweezers to remove the mainboard in the secondary body.

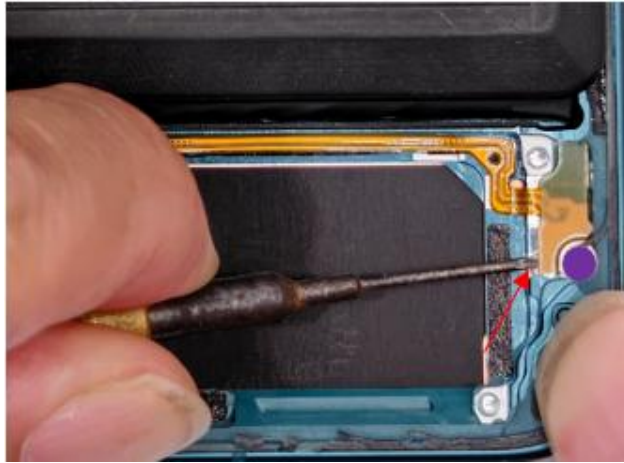


Remove the ANC board and lower speaker.

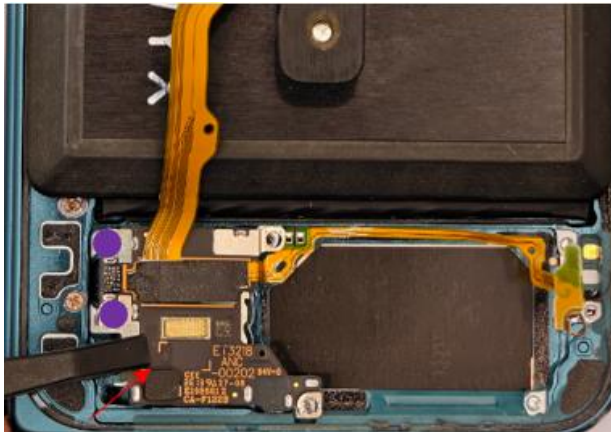
1. Remove the 4 screws securing the lower speaker (marked with purple circles).



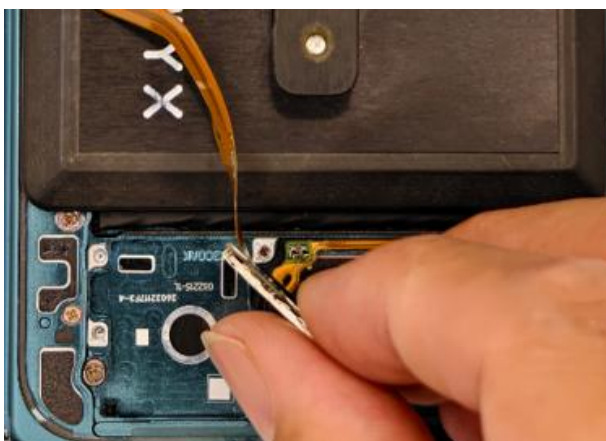
2. Remove the single screw securing the antenna daughter board (marked with a purple circle), and then use a flathead screwdriver at the disassembly notch to pry up the antenna board.



3. Remove the two screws securing the SIM card daughter board (purple positions in the illustration), and then use plastic tweezers (red arrow position) to pry up the ANC board.



4. Remove the SIM card daughter board.



Remove the battery.

Note:

① Before removing the battery, place the device in a freezer for at least 30 minutes.

② Before removing the battery, remove the main and sub boards, cameras, and other components, leaving only the frame.

1. Seal the disassembled device in a plastic bag.



2. Place the bagged device in a freezer for at least 30 minutes.



3. Within 5 seconds of removing the device from the freezer, quickly pull out the battery. If you cannot remove it within this time, repeat the freezing process. Use a short, firm pulling motion to detach the battery.



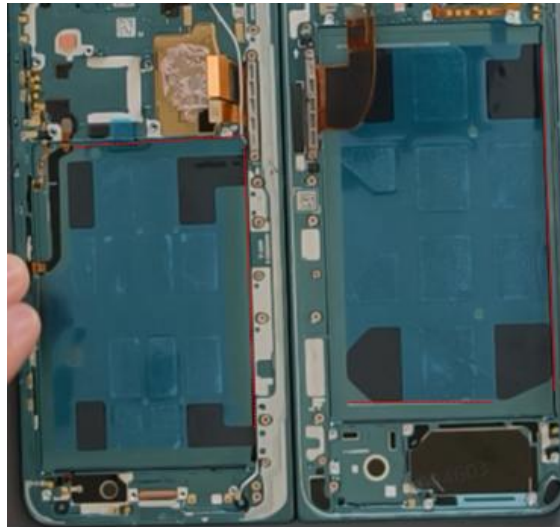
4. Use tweezers to clear remaining double- sided tape from the battery bay.



Installation

Steps	Illustration
Install the battery.	1. Apply battery double-sided tape at the locations indicated by the red lines in the figure: on the main body, align it with the top and right edges of the battery bay; on the secondary body, align it with the laser

alignment mark at the bottom and the right edge.



2. Peel off the release film from the battery tape, seat the bottom edge of the battery first, and then press the top edge into place.



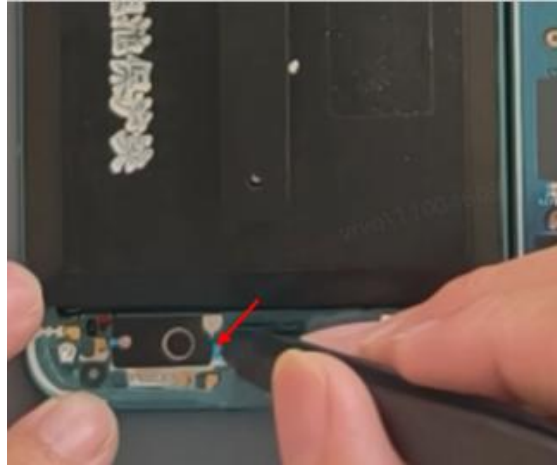
3. Use a roller or your hand to press over the battery at least four times to ensure firm adhesion.



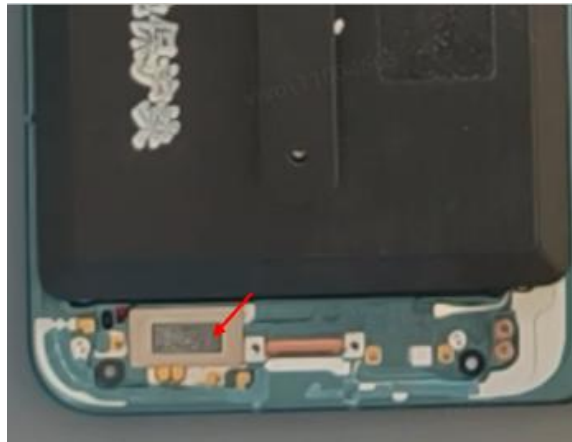
Install the motor, SIM card daughter board, and

1. Peel off the release film from the motor's double-sided tape. (If only the motor is being replaced, apply new double-sided adhesive to the motor.)

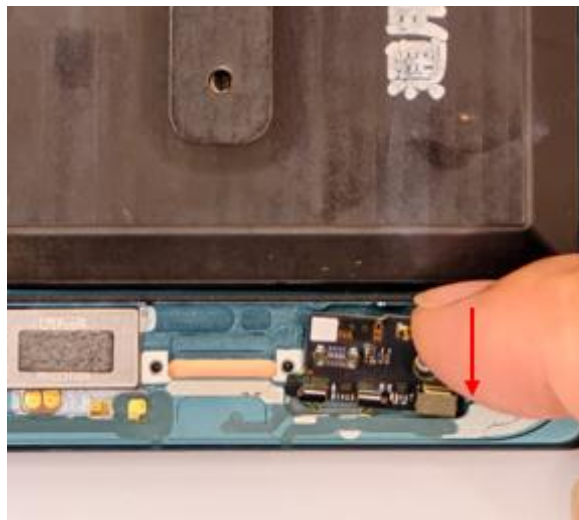
ANB board.



2. Position the motor and press it firmly into place with your fingertip.



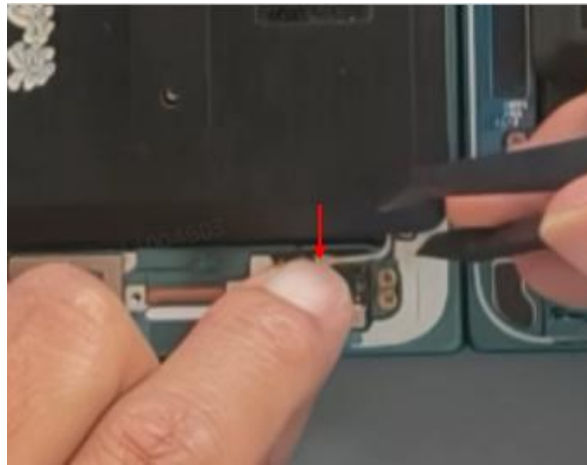
3. First insert the bottom of the SIM card sub board. After confirming the antenna spring contacts are properly installed, insert the top.



4. Fit the top edge of the ANB board into the red silicone area first, and then press down the bottom edge.



1. Snap the RF cable into place and route it through the cable groove in the frame.



Install the FMD board,
FMB board, and
sub-board bracket.

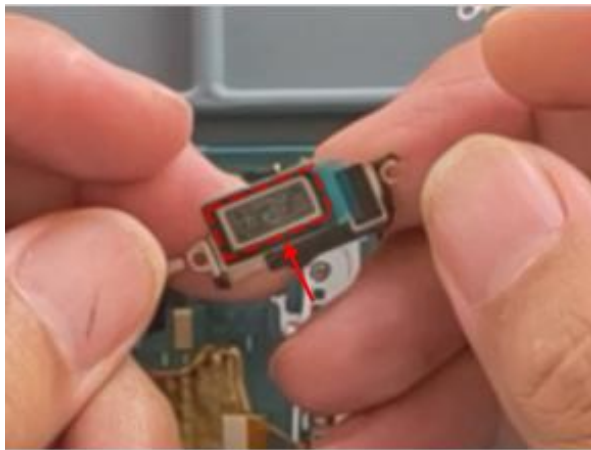
1. Insert the side antenna (FMD board) into the frame and press it down until it is seated properly.



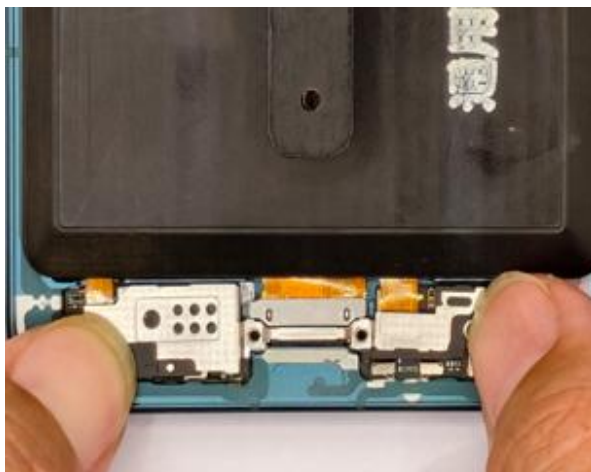
2. Remove the release film from the double-sided tape at the USB port location, and then fit the FMB board (USB board) into the frame.



3. Peel off the old pre-press pad for motor from the sub-board bracket (do not remove the double-sided tape around the motor or the adhesive in the). Then apply new double-sided tape and peel off its release film.



4. Connect the BTB connectors on the FMD and FMB boards, install the sub-board bracket, and tighten the 4 screws.



Install the mainboard for

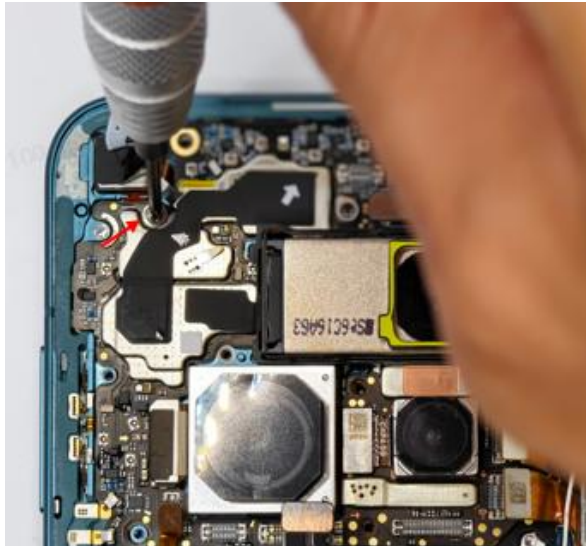
1. Insert the bottom edge first (as indicated by the arrows), and then

the main body.

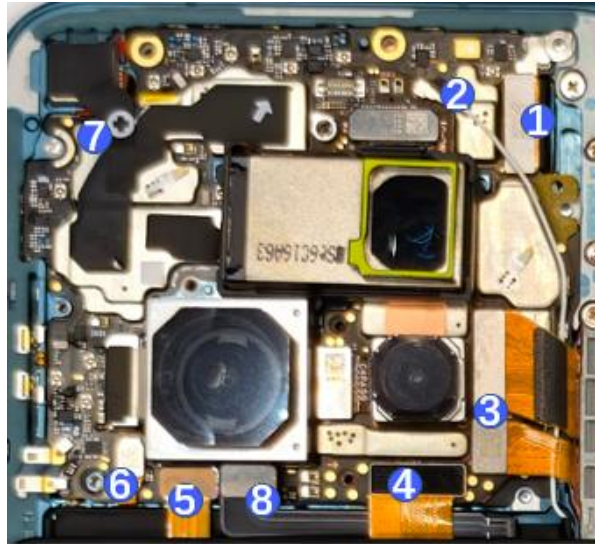
secure the top.



2. Install and tighten the mainboard screws.



3. Connect the components in the order shown in the figure: main display
BTB → RF cable → hinge FPC BTB (FMA board) → FMB board BTB →
FMD board BTB → fingerprint sensor BTB → front camera PGS → battery
BTB.



4. If the front camera or the mainboard in the main body has been replaced, apply the front camera conductive fabric and PGSs in the order shown in Figure 5: front camera conductive fabric → front camera shield PGS → front camera PGS.

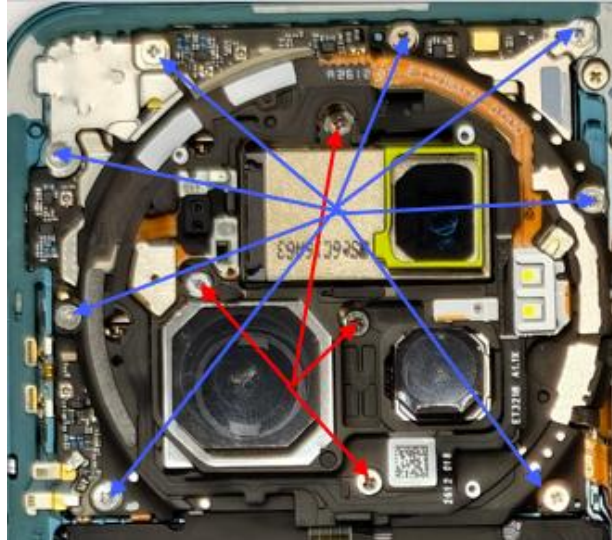


Install the mainboard bracket into the main body.

1. Insert the mainboard bracket from the top of the device.



2. Install the mainboard bracket screws: first fasten the four 1.4 × 4 mm long black nickel screws at the positions marked by red arrows, and then fasten the eight 1.4 × 2.0 mm short white nickel screws.



3. Firmly press the double-sided tape at the bottom of the PGSs into place (areas marked with red boxes), and then reapply the warranty seal.



Install the battery cover.

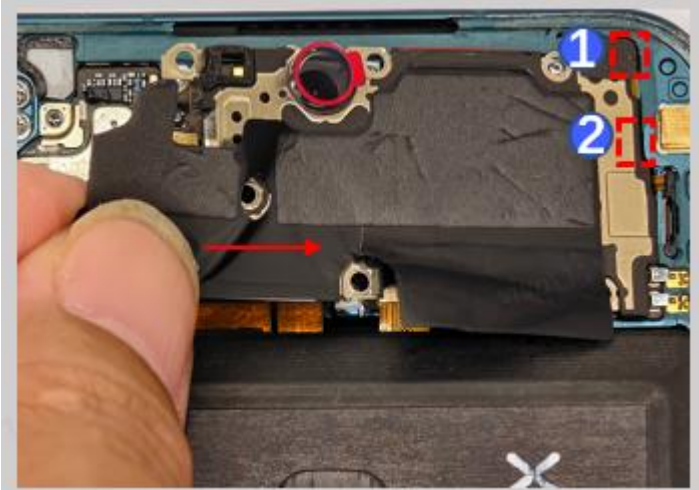
Refer to section 4.3.2

4.3.11 Replacement of Upper Speaker or Mainboard / Camera for Secondary Body

Repair Difficulty: High

Estimated Time: 40–60 Minutes

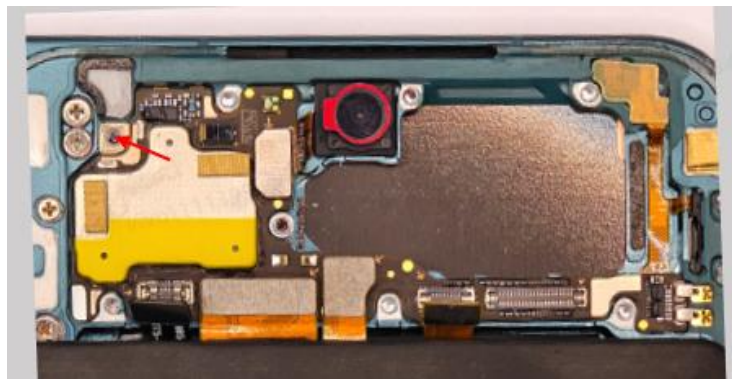
Required Spare Part(s): Upper Speaker

Steps	Illustration
Remove the secondary display as described in the Secondary Display Replacement section.	Refer to section 4.3.9
Remove the upper speaker and front camera.	1. Remove the 6 screws securing the upper speaker (marked with purple circles).  2. Raise the PGS above the upper speaker from the left side, and then lift the speaker off the steel bracket on the left and remove it in the direction of the arrow. Take care with the clips at positions 1 and 2. 

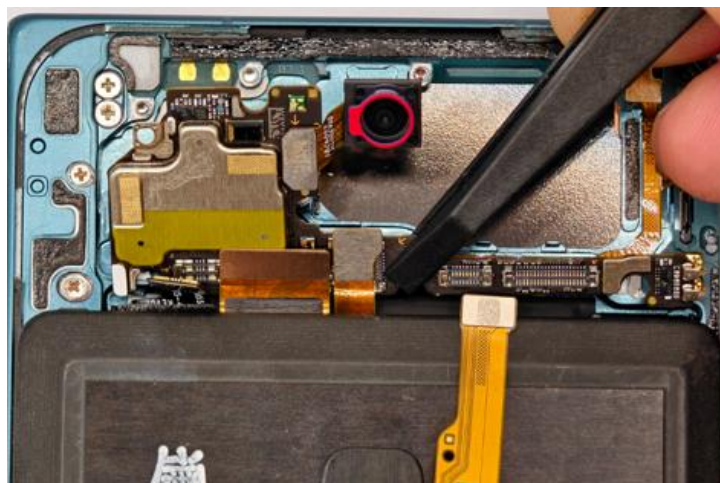
3. Disconnect the battery BTB connector in the area marked with the red box, and then remove the front camera.



4. Remove the screw securing the mainboard and disconnect the other BTB connectors on the mainboard (the front camera BTB connector does not need to be disconnected).



5. Use plastic tweezers to remove the mainboard in the secondary body.



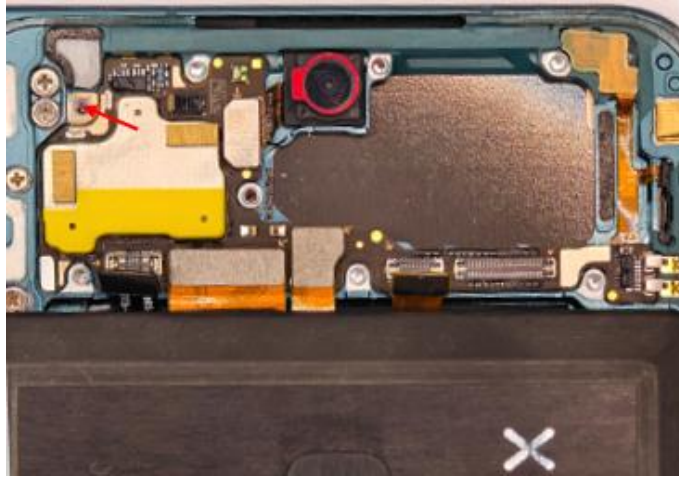
Installation

Install the mainboard for the

1. Fit the mainboard for the secondary body into the frame and secure

secondary body.

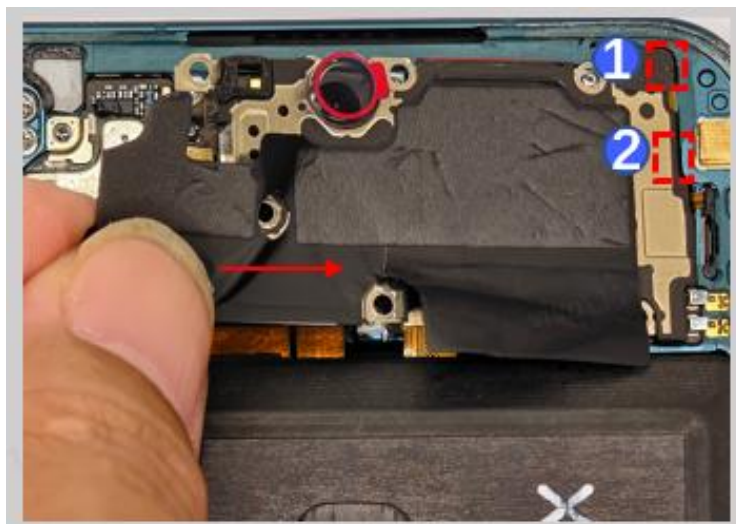
it with one 1.4 × 1.5 mm white nickel screws.



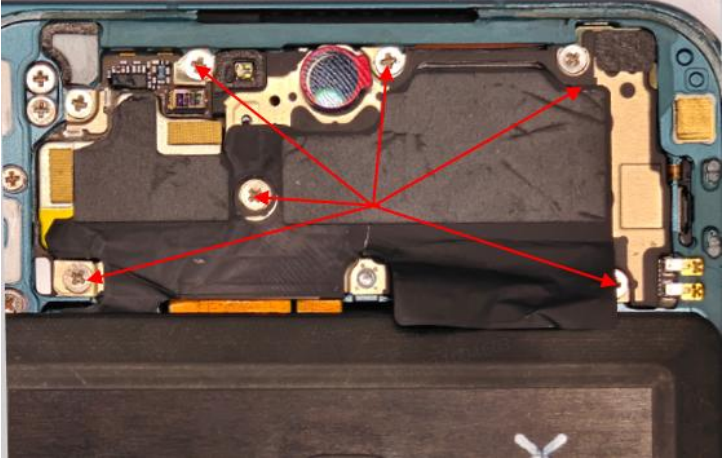
Install the upper speaker and front camera.

1. Install the front camera.

2. When installing the upper speaker, insert it from its right side at an angle, engaging the clips at positions ① and ② on the frame, and then press it down vertically in the direction of the speaker rubber sleeve.



3. Once the speaker is in place, install and tighten the remaining six 1.4 × 1.5 mm white nickel screws.

	
Install the secondary display.	Refer to section 4.3.10

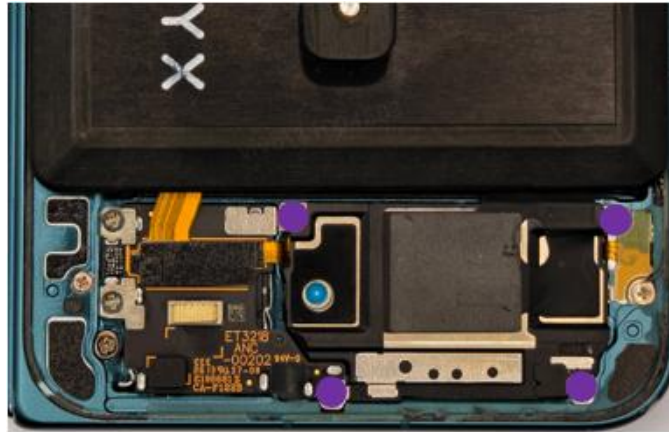
4.3.12 Lower Speaker Replacement (Secondary Body)

Repair Difficulty: High

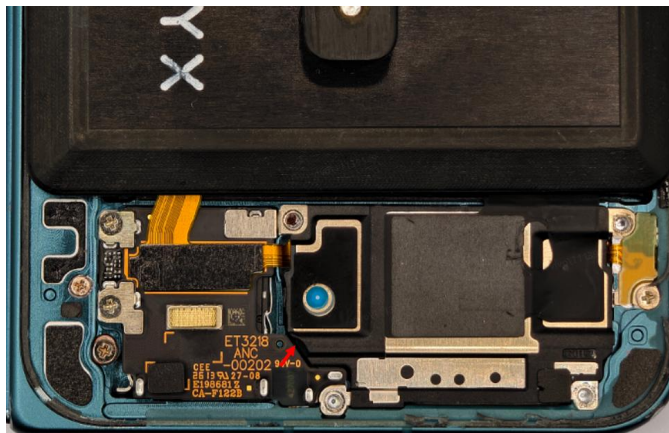
Estimated Time: 40-60 Minutes

Required Spare Part(s): Lower Speaker

Steps	Illustration
Remove the secondary display as described in the Secondary Display Replacement section.	Refer to section 4.3.9
Remove the lower speaker.	1. Remove the 4 screws securing the lower speaker (marked with purple circles).

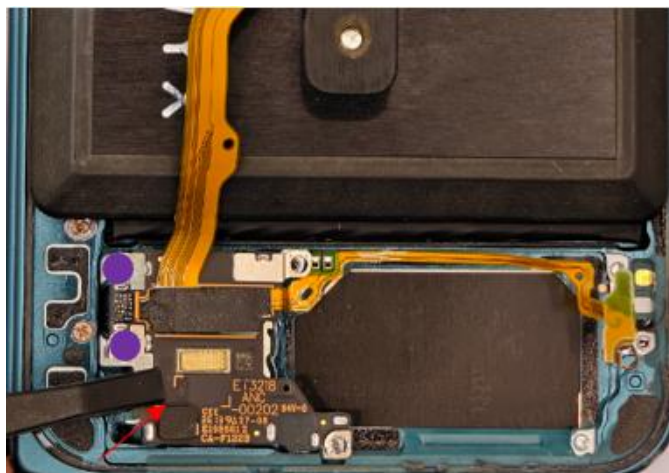


2. Pry up the lower speaker from the position indicated by the red arrow, and then remove it.

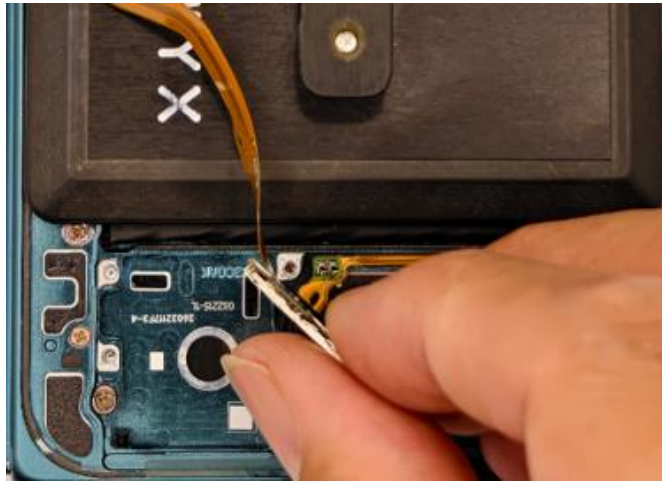


Remove the SIM card daughter board.

1. Disconnect the BTB connector on the mainboard side.
2. Remove the two screws securing the ANC board (purple positions in the illustration), and then use plastic tweezers (red arrow position) to pry up the ANC board.



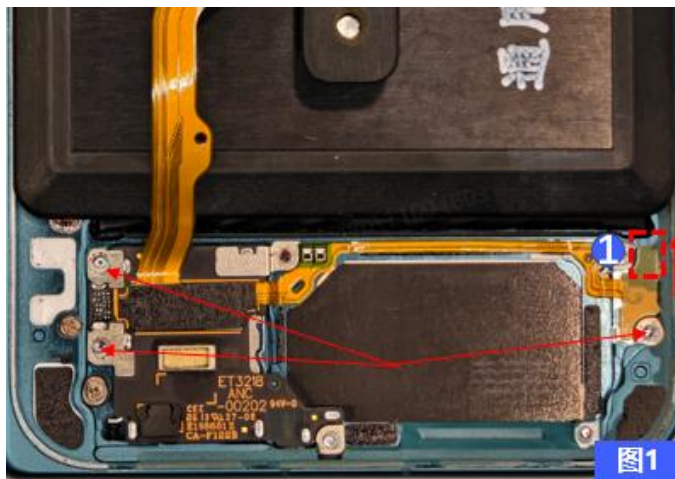
3. Take out the ANC board.



Installation

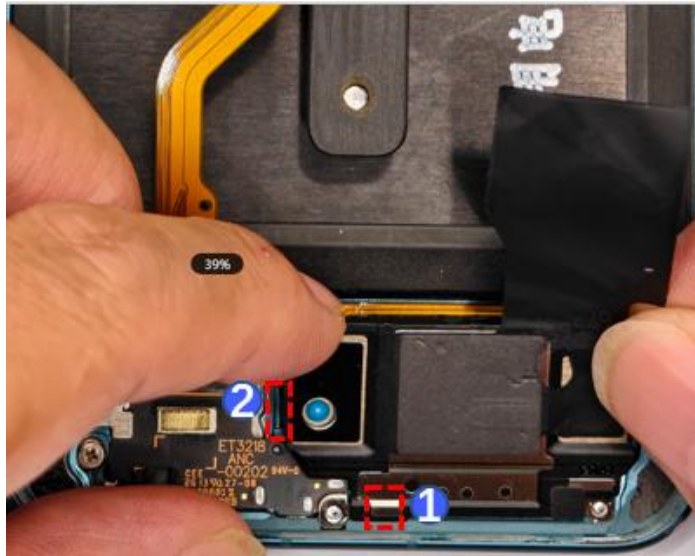
Install the SIM card daughter board.

1. Install the SIM card daughter board: at position ① in Figure 1, first insert the top edge of the board into the frame groove, and then install and tighten the three 1.4 × 1.5 mm white nickel screws.

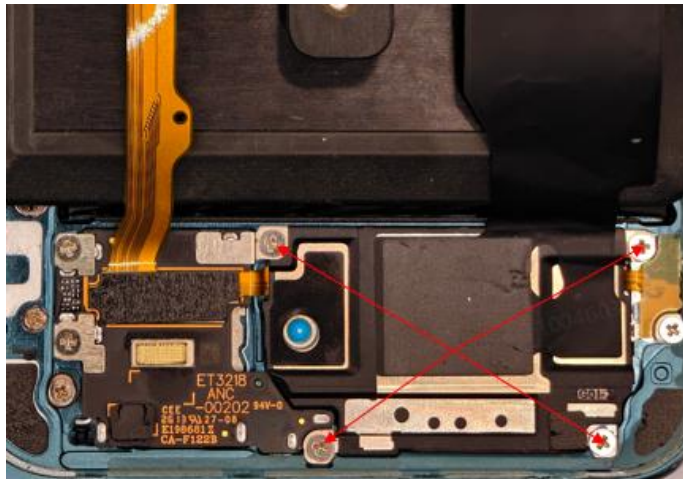


Install the lower speaker.

1. When installing the lower speaker, insert it from its right side at an angle, engaging the clips at positions ① and ② on the frame, and then press it down vertically in the direction of the speaker rubber sleeve.



2. Once the speaker is in place, install and tighten the remaining four 1.4 × 1.5 mm white nickel screws.



Install the secondary display.

Refer to section 4.3.9

4.3.13 Main Display Assembly (including Hinge) Replacement

Repair Difficulty: High

Estimated Time: Over 120 Minutes

Required Spare Part(s): Main Display Assembly

Removal

Steps		Illustration
Main Body	Remove the battery cover.	Refer to section 4.3.2
	Remove the mainboard bracket.	Refer to section 4.3.3
	Remove the mainboard and cameras.	Refer to section 4.3.4
	Remove the sub board and USB port.	Refer to section 4.3.5
	Remove the motor.	Refer to section 4.3.6
	Remove the side antenna daughter board.	Refer to section 4.3.7
	Remove the battery from the main body.	Refer to section 4.3.10
Secondary Body	Remove the secondary display.	Refer to section 4.3.9
	Remove the upper speaker and the mainboard from the secondary body.	Refer to section 4.3.11
	Remove the lower speaker and the SIM card daughter board.	Refer to section 4.3.12
	Remove the battery from the secondary body.	Refer to section 4.3.10
Installation		
Main Body	Install the battery for the main body.	Refer to section 4.3.10
	Install the motor, sub board, and	Refer to section 4.3.5

	USB port.	
	Install the side antenna daughter board.	Refer to section 4.3.7
	Install the mainboard for the main body and the cameras.	Refer to section 4.3.4
	Install the mainboard bracket into the main body.	Refer to section 4.3.3
	Install the battery cover.	Refer to section 4.3.2
Secondary Body	Install the battery for the secondary body.	Refer to section 4.3.10
	Install the lower speaker and SIM card daughter board.	Refer to section 4.3.12
	Install the mainboard for the secondary body and upper speaker.	Refer to section 4.3.12
	Install the secondary display.	Refer to section 4.3.9
Whole phones	Perform calibration.	Perform rear dual-camera calibration and infrared light sensor calibration as described in section 3.2.