

Self-Service Repair Manual for V70 Lite 5G

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1 About this manual

1.1 Purpose

This manual is intended to guide DIY hobbyists with certain hands-on skills and repair experience in replacing official components of vivo phones.

1.2 Caution

All features, characteristics, specifications, and other device information provided in this manual, 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 manual or any descriptions herein at any time without the obligation to give notice of such modifications. Please read through this manual carefully before repair. If you do not meet the repair conditions, do not disassemble the device. You may visit a vivo customer service center for repairs.

1.2.1 Repair notes

Warning: Failure to follow the instructions herein or the use of non-official vivo components or improper tools may damage the device, its components, or other property; impair device functionality and water resistance; and in severe cases, cause fires or other safety hazards, leading to personal injury or death.

(1) vivo assumes no liability for any damage or defects resulting from repairs made by unauthorized carriers, yourself, or other non-professionals. vivo is not responsible for any device damage, personal injury, or other safety consequences caused by failure to follow this manual.

(2) Any damage or defects resulting from attempts to repair the device by anyone other than a vivo-certified service provider are not covered by the warranty.

(3) We recommend that you use only official tools for repairing. Most electronic components are sensitive to electromagnetic forces, and low-quality tools may easily damage your device. For tool details, see Section 3.1.

(4) We recommend that you use only official spare parts. Third-party spare parts may not function properly and may cause fires or personal injury.

(5) Some components, such as laser focusing/proximity/fingerprint sensors, rear cameras, touchscreen panels, and speakers, may require calibration to ensure their performance after repair.

(6) The water and dust resistance of a device repaired by yourself or other non-professionals cannot be guaranteed.

(7) If you need to access device fault data or obtain more detailed diagnostics, please visit a vivo customer service center.

(8) If you need to replace components that are unavailable on the market, please visit a vivo customer service center for further assistance.

(9) Before making repairs, back up important data stored in the device.

(10) Before making repairs, wear proper safety gear. vivo is not responsible for any injury due to failure to wear proper safety gear. For details of the required disassembly and assembly tools, see Section 3.1.

- (11) Make repairs in a safe location.
- (12) Before making repairs, make sure that the device is powered off and its battery is fully discharged.
- (13) If the device is damaged, emits smoke, or produces a burning smell, stop repairing it immediately and contact vivo customer service. If a fire is started, extinguish it with a carbon dioxide or dry powder fire extinguisher, specialized foam, sand, soil, gravel, or a dedicated lithium-ion battery fire suppressant.
- (14) When repairing the device, wear protective gear such as safety goggles, gloves, and masks.
- (15) When removing the back cover, take care not to damage the device. Before reassembling the device, make sure that no free screws or foreign objects are left around the battery.
- (16) During reassembly, inspect the back cover for abnormalities before reinstalling it. Avoid impact or pressure on the battery to prevent damage. If the battery is damaged, please visit a vivo customer service center.

1.2.2 ESD precautions

Electrostatic discharge (ESD) is a sudden flow of electric current between two charged objects due to contact, a short circuit, or dielectric breakdown. ESD negatively affects mobile devices, particularly their electronic components.

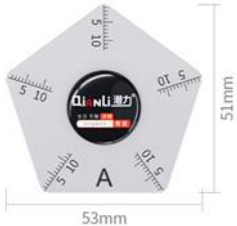
- (1) We recommend that you wear anti-static wrist straps and gloves, and use anti-static mats when you repair the device.
- (2) Increase airflow in the work area to reduce the likelihood of accidental ESD. In an environment with low humidity, such as an air-conditioned room, ESD is more likely to happen.

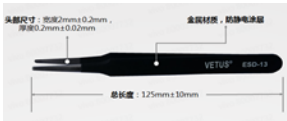
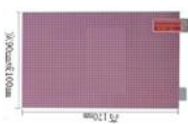
2 Warranty

- 2.1 A 90-day warranty is provided for official spare parts. If any quality issues arise with them within that period, you may contact vivo for a replacement.
- 2.2 A device repaired by anyone other than a vivo-authorized service provider is not covered by the warranty, and you will bear the repair costs.
- 2.3 Any damage caused during self-service repairs will be your responsibility.

3 Tools

3.1 Hardware tools

Tool name	Photo	Usage
Metal pry pick (with a scale)		Disassembling the display module

Screwdriver kit (rubber-grip dual-purpose screwdriver, 6 × 100 mm)		Removing and installing screws
PET pry sheet		Removing the back cover and display module
Suction cup		Removing the back cover
Anti-static carbon fiber tweezers (with pointed tips)		Removing board-to-board (BTB) and coaxial cable connectors
Metal flat-head tweezers		Removing the M board and ANA board, or cleaning adhesive
Anti-shatter film		Preventing glass shattering on screen / back cover
Universal pressure fixture		Securing the screen or back cover
Electrical insulation tape, 3M, black, 17 mm		Optical calibration
False finger, flesh-colored, 20 × 20 × 12 mm		Testing electro-optical fingerprint recognition
False finger, black, 22 × 22 × 12 mm		Testing electro-optical fingerprint recognition

Heating pad (default temperature: 65°C)		Heating the back cover and screen
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3.1.1 Tool purchase

Official purchase link:

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

3.2 Software update and software tools (to be confirmed after software release)

3.2.1 Software update via FOTA

- To update software, go to Settings > System Update.
- If the system is already of the latest version, no update is needed.
- If a software update is available, you can set the time for automatic update.

Note:

1. Updating software via mobile data may incur additional fees.
2. If the latest software has been downloaded to the device, these options do not take effect.

3.2.2 Self-diagnosis

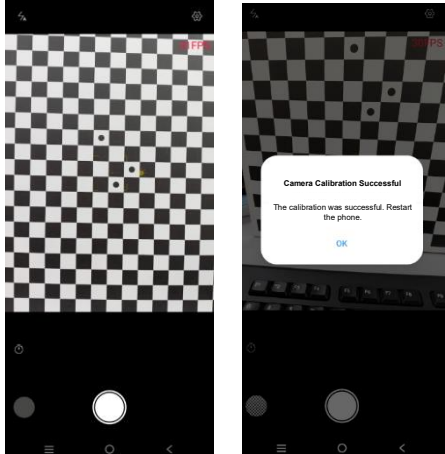
Before and after repair, perform a self-diagnosis to check if the device functions properly.

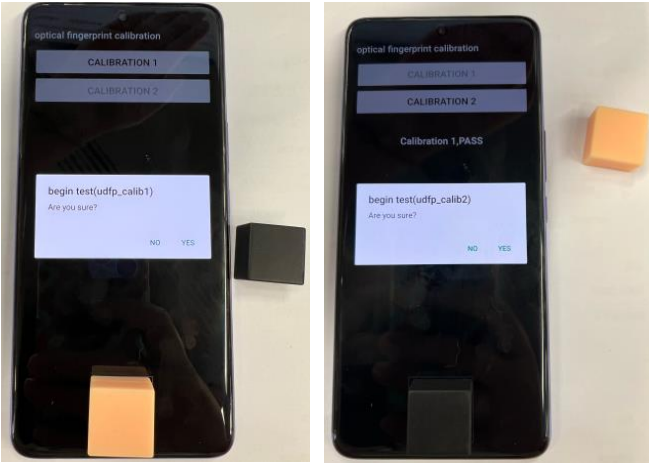
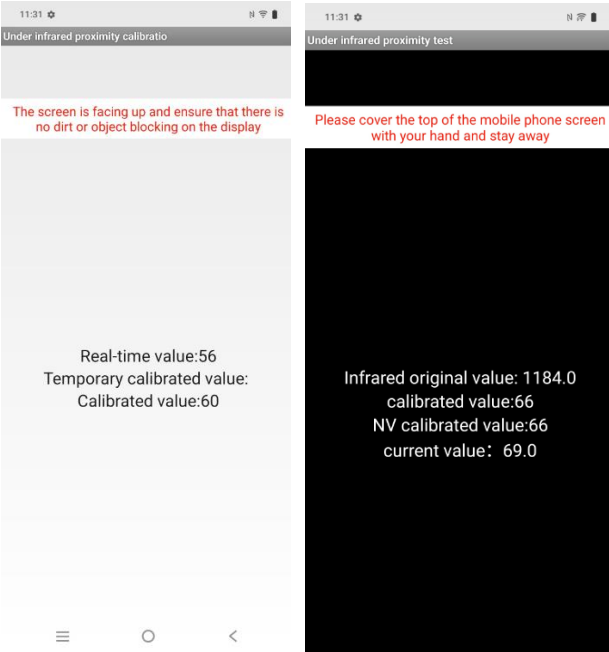
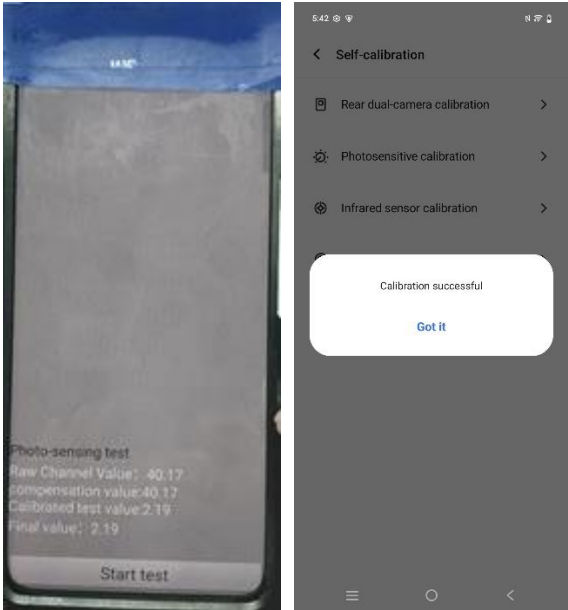
Open the vivo Store / vivo.com app, go to Support > Hardware Test > Self-calibration, and enter the calibration code "SELFREPAIR" to perform the check.

3.2.3 Self-calibration on the vivo Store / vivo.com app

You can perform calibration after replacing the display or camera, such as the calibration of the rear cameras (for devices with two or more rear cameras), in-display fingerprint scanner, infrared proximity sensor, and ambient light sensor. The calibration ensures proper functionality of components after repairs.

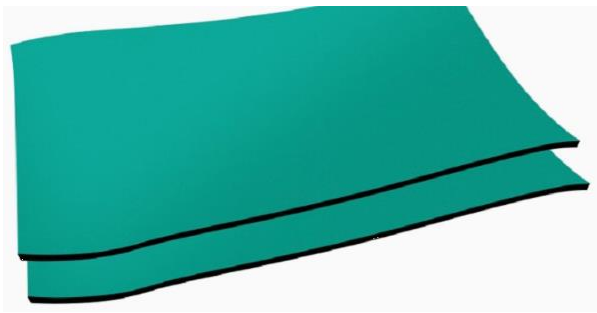
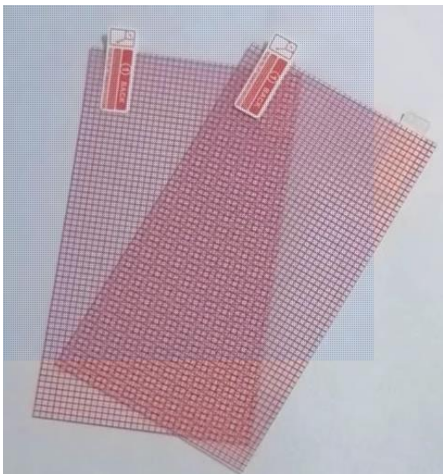
The following table describes calibration items and instructions.

Calibration item	Instruction	Illustration	Description
Rear cameras	Open the vivo Store / vivo.com app, go to Support > Hardware Test > Self-calibration, enter the calibration code "SELFREPAIR", tap Rear dual-camera calibration, and calibrate the cameras.		This calibration is required after M board disassembly or replacement of any rear camera.

In-display fingerprint scanner	Open the vivo Store / vivo.com app, go to Support > Hardware Test > Self-calibration, enter the calibration code "SELFREPAIR", tap Screen finger calibration, and calibrate the fingerprint scanner.		This calibration is required after replacement of the display assembly, display module, or fingerprint module.
Infrared proximity sensor	Open the vivo Store / vivo.com app, go to Support > Hardware Test > Self-calibration, enter the calibration code "SELFREPAIR", tap Infrared proximity sensor calibration, and calibrate the infrared proximity sensor.		This calibration is required after M board disassembly or replacement of the display assembly or display module.
Ambient light sensor	Open the vivo Store / vivo.com app, go to Support > Hardware Test > Self-calibration, enter the calibration code "SELFREPAIR", tap Photosensitive calibration, and calibrate the ambient light sensor.		This calibration is required after M board disassembly or replacement of the display assembly or display module.

3.3 Protective tools

Tool name	Photo	Usage
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Safety goggles		Preventing liquid/splinter splashes from hurting your eyes during repairs
Anti-static cut-resistant gloves		Preventing ESD damage and cuts during repairs
Anti-static wrist strap		Preventing ESD damage to the device during repairs
Anti-static mat		Preventing ESD damage to the device during repairs
Anti-shatter film		Preventing device damage or personal injury due to screen or back cover shattering

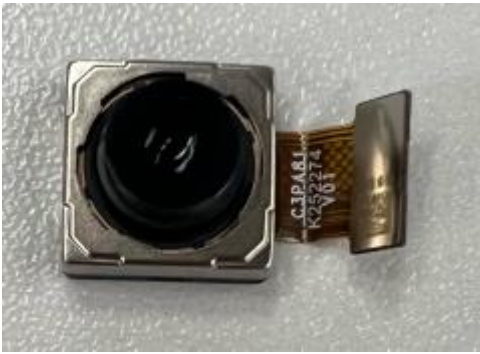
Fire bucket		Containing a burning battery
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Note: vivo does not provide all protective tools. You need to purchase them from other sources.

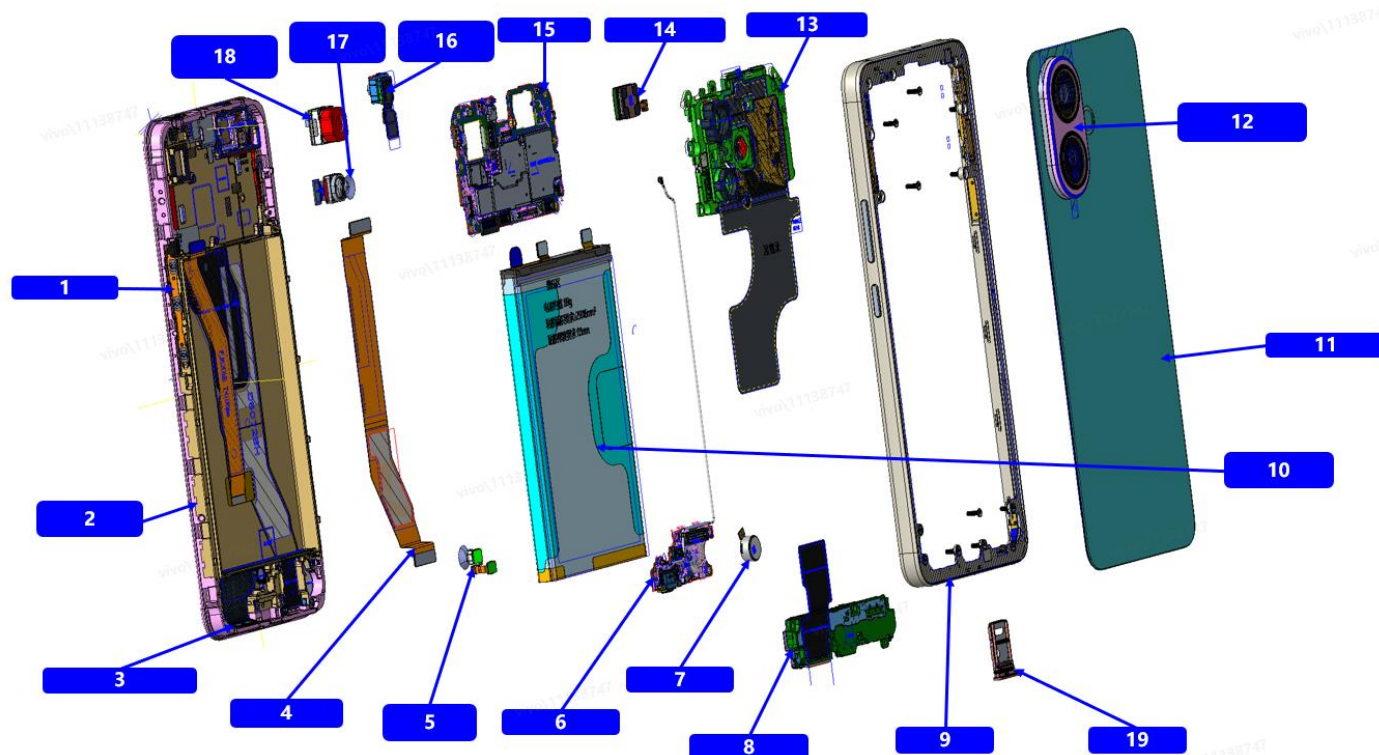
Repair guide

4.1 Spare parts

No.	Material name	Purchase code	Illustration
1	Display assembly	5438044	
2	Back cover assembly	5439925 5439926 5439927 5439928	
3	Battery assembly	5438049 5439931	
4	Wide-angle camera	5438048	

5	Rear main camera	5438047	
6	Front camera	5438046	
7	ANA board	4935544	
8	Lower speaker	5438045	
9	Side buttons	5438053 5438054 5439929	
10	Card tray	5438055 5438056 5439930	

4.2 Product Exploded View



No.	Material Name
1	FK Board
2	Display Component
3	Speaker Dust Screen Component
4	FMA Board
5	Fingerprint Recognition Module Component
6	ANA Board
7	Motor Component
8	Speaker Component
9	Frame Component
10	Plastic-Coated Lithium Battery
11	Battery Cover Component
12	Decorative Camera Ring With Lens Component
13	Mainboard Support Component
14	Upper Speaker Component
15	M Board
16	Front Camera Component
17	Wide-Angle Camera Component
18	Rear Main Camera Component
19	SIM Card Tray

4.3 Removal and Installation Guide

- Before starting 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

4.3.1 Battery Cover Replacement

Difficulty: Low

Estimated Time: 6–10 minutes

Required Spare Parts: Battery Cover Component

Required Tools:

Removal		
Procedure	Reference Pictures	Notes
Step 1: Power off the device. Insert a SIM card tray eject tool into the eject hole to remove the SIM card tray.		
Step 2: Use a heating pad set to 65°C to heat the phone for 5 minutes.		

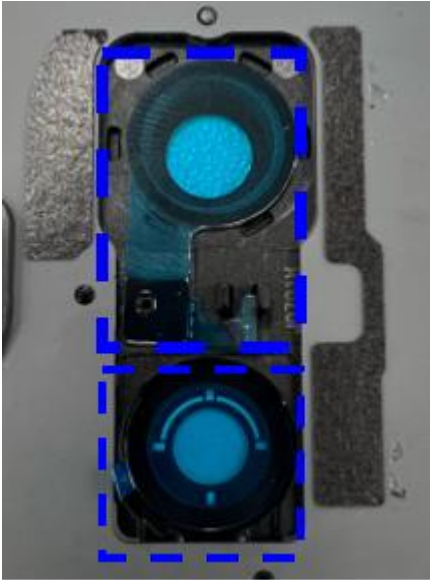
Step 3: Place a suction cup on the bottom center edge of the battery cover, lift upwards to create a gap, and then insert a prying pick into the gap. Note: Do not pry all four sides at this stage—only insert the pick.		Note: Exercise caution when using a handled suction cup to avoid injury, as the suction cup may detach during use.
Step 4: Apply protective film to the battery cover to prevent it from cracking. Use a prying pick to work around the edges. Do not insert deeper than 5 mm.		To avoid damaging internal circuits, never insert the pick deeper than 5 mm.
Step 5: Once the edges are cut open, gently lift the battery cover starting from the bottom. Apply force carefully to prevent the battery cover from cracking.		

Step 6: Detach the battery cover.		
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Step 7: Use pointed anti-static tweezers or your fingers to remove all residual adhesive from the battery cover and the back of the device.		Do not touch the rear cameras or the lens of the battery cover with your fingers or any foreign objects, and avoid damaging nearby components.
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Installation		
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Procedure	Reference Pictures	Notes
Step 1: Peel off the release film from the battery cover's double-sided adhesive. Align the adhesive with the frame and attach it in place as shown in Picture 1. Attach the double-sided adhesive for the main and secondary cameras onto the battery cover camera rings as shown in Picture 2. Press the adhesive firmly and remove the release film.	 Picture 1	

		
Step 2: Align the battery cover with the frame and press it into place. Wrap your fingers with lint-free cloth and press along the adhesive areas to activate bonding.		

4.3.2 Removal and Installation of Frame

Difficulty: Low
Estimated Time: 8-12 minutes
Required Spare Parts: Mainboard Support Component

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover (refer to the battery cover removal steps).	Refer to section 4.3.1	

Step 2: Use a Phillips screwdriver to remove all 17 screws as shown.



Step 3: After removing all screws, insert a triangular prying pick from the indicated position.



Step 4: Carefully run the triangular prying pick along the frame as shown to loosen it.



Step 5: The frame is now removed.



Installation		
Procedure	Reference Pictures	Notes
Step 1: Position the frame as shown and press firmly on all sides to ensure it is properly seated.		Ensure the camera module is properly aligned.
Step 2: Secure the 17 screws to complete installation.		

4.3.3 Removal and Installation of Mainboard Support

Difficulty: Low

Estimated Time: 8–12 minutes

Required Spare Parts: Mainboard Support Component

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover and frame.	Refer to section 4.3.1 and 4.3.2	
Step 2: Use anti-static tweezers to remove the mainboard support from the indicated location.		
Step 3: Remove the mainboard support.		
Installation		
Procedure	Reference Pictures	Notes

Snap the mainboard support onto the top of the mainboard and press it into place.



Ensure the holes are perfectly aligned with the cameras.

4.3.4 Lower Speaker Replacement

Difficulty: Low
Estimated Time: 8–12 minutes
Required Spare Parts: Lower Speaker Component

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover and frame.	Refer to section 4.3.1 and 4.3.2	
Step 2: Use pointed anti-static tweezers to pry up the lower speaker assembly from the indicated position.		Note: Do not puncture the battery.
Step 3: The lower speaker is now removed.		
Installation		
Procedure	Reference Pictures	Notes

Before installation, ensure the speaker is free of debris. Insert the speaker into the main upper part and press firmly into place.



4.3.5 Sub-Board Replacement (Main MIC & Charging Port)

Difficulty: Low

Estimated Time: 9–13 minutes

Required Spare Parts: Sub-Board Component

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover and frame.	Refer to section 4.3.1 and 4.3.2	
Step 2: Remove the speaker (refer to the lower speaker removal steps).	Refer to section 4.3.4	
Step 3: Disconnect the component BTB connectors and coaxial cable at the indicated positions.		
Step 4: Use pointed tweezers to pry up the ANA board from the indicated position.		
Installation		
Procedure	Reference Pictures	Notes
Step 1: Align the sub-board's bottom edge with the USB port, and then press down to ensure it lies flat without warping.	 	
Step 2: Reconnect the coaxial cable and place it neatly into the designated cable groove.		

Step 3: Reconnect the BTB connectors for the mainboard FPC and fingerprint module.



4.3.6 Removal and Installation of Mainboard

Difficulty: Low

Estimated Time: 9–12 minutes

Required Spare Parts: Mainboard

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover and frame.	Refer to section 4.3.1 and 4.3.2	
Step 2: Remove the mainboard support (refer to the mainboard support removal steps)	Refer to section 4.3.3	
Step 3: Use pointed tweezers to disconnect the battery BTB connector, followed by other BTB connectors and coaxial cables. After removing the cameras, keep them free from dust and debris, and avoid direct contact to prevent any impact on image quality. Note: Do not remove the black coaxial cable.		After removing the cameras, keep them free from dust and debris, and avoid direct contact to prevent any impact on image quality.

Step 4: Use a flat-head screwdriver at the indicated position to pry up the mainboard.



Installation

Procedure

Step 1: Insert the bottom edge of the mainboard into the main upper part, then snap it into place. Confirm it sits flat and secure, with both side clips locked properly.

Reference Pictures



Notes

Step 2: Reinstall the cameras and reconnect all BTB connectors and coaxial cables (connect the battery BTB connector last).		
Step 3: Calibration	After reassembly, calibrate the rear dual cameras, light sensor, and infrared sensor as specified in section 3.2.3.	

4.3.7 Removal and Installation of Upper Speaker

Difficulty: Low

Estimated Time: 9–12 minutes

Required Spare Parts: Upper Speaker

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover and frame.	Refer to section 4.3.1 and 4.3.2	
Step 2: Remove the mainboard support.	Refer to section 4.3.3	
Step 3: Remove the mainboard.	Refer to section 4.3.6	
Step 4: Remove the upper speaker. Pry off the reinforcement plate first with a flat-head screwdriver, then remove the speaker itself.	 	To avoid damaging the screen, insert the flat-head screwdriver only shallowly when removing the speaker.
Installation		
Procedure	Reference Pictures	Notes
Step 1: Clean residual adhesive from the upper speaker area on the mainboard cover. Apply new double-sided tape for the upper speaker onto the cover and		Be careful not to damage the screen during

remove the release film.		adhesive removal.
Step 2: Position the speaker onto the mainboard cover and press firmly into place.		

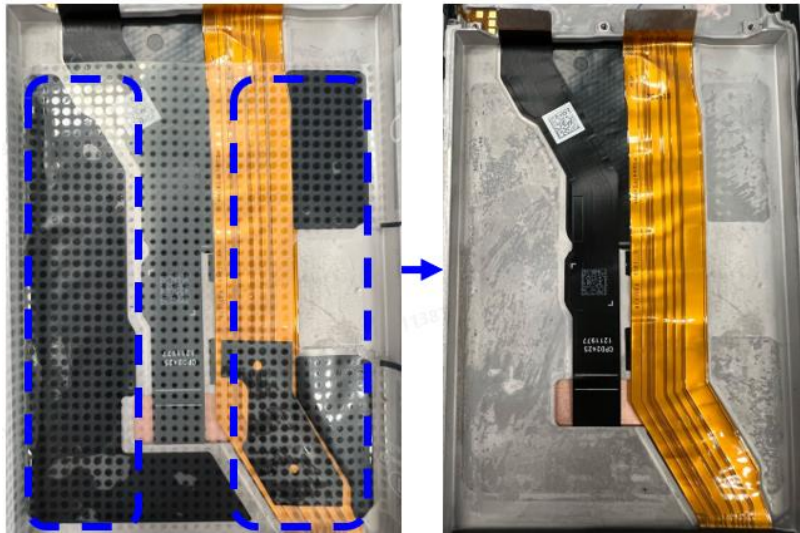
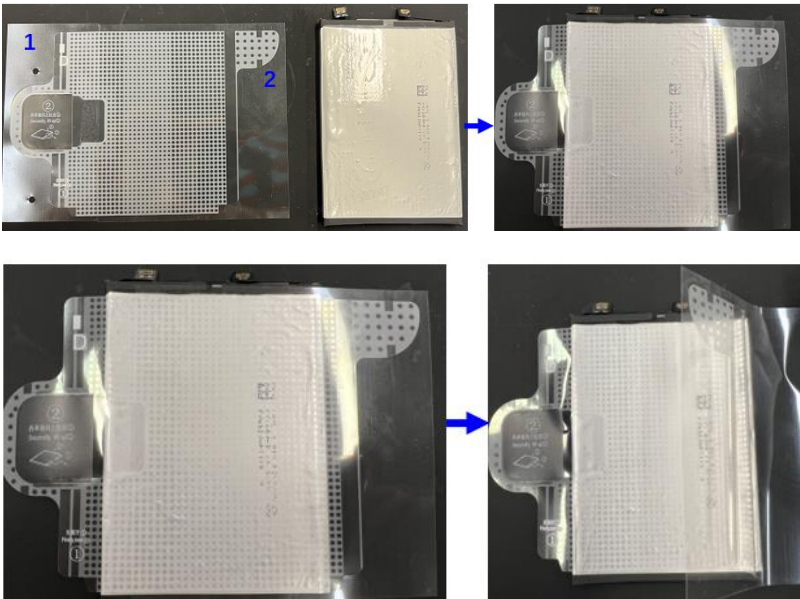
4.3.8 Battery Replacement

Difficulty: Low
Estimated Time: 6–10 minutes
Required Spare Parts: Battery Component

Preparations before battery removal:

- 1. Fully discharge the battery.
- 2. Prepare a sand bucket to mitigate safety risks in case the battery ignites during removal.

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover and frame.	Refer to section 4.3.1 and 4.3.2	
Step 2: Remove the mainboard support.	Refer to section 4.3.3	
Step 3: Disconnect the battery BTB connectors.		
Step 4: Lift the PET pull tab on the battery and slowly pull it at a 145° angle to detach the battery.		Ensure your hand do not obstruct the battery area during removal.

Installation		
Procedure	Reference Pictures	Notes
Step 1: Inspect the battery for signs of swelling, deformation, or damage. If present, replace with a new battery.		
Step 2: Clean residual adhesive from the main upper part and battery within the areas marked by dotted lines in Picture 1. Remove also the PET disc for the old battery.		
Step 3: Take the new battery PET disc, peel off release film 1, and attach the disc to the battery. Peel off release film 2 to fully adhere the PET disc to the battery. Finally, attach the battery double-sided tape to the battery.		



Step 4: Apply the back adhesive to the battery as shown, and attach the main FPC double-sided tape (upside) to the main FPC.



Step 5: Before installation, ensure the battery and battery compartment are free from any foreign objects. Peel off all release films, place the battery into the compartment, and press firmly on the adhesive areas indicated with blue frames to activate the adhesive.



4.3.9 Display Component Replacement

Difficulty: Medium

Estimated Time: 15–20 minutes

Required Spare Parts: Display Component

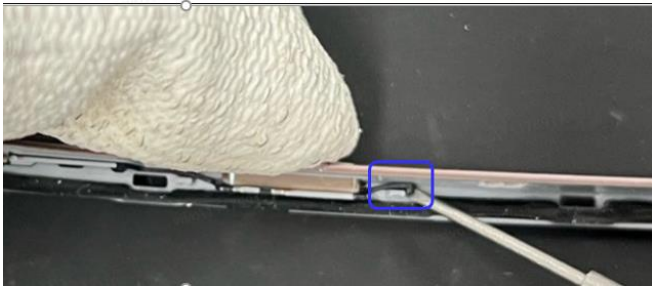
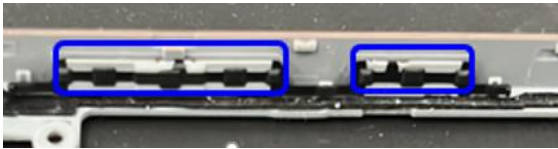
Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover.	Refer to the removal steps in section 4.3.1	
Step 2: Remove the frame.	Refer to the removal steps in section 4.3.2	
Step 3: Remove the mainboard support.	Refer to the removal steps in section 4.3.3	
Step 4: Remove the mainboard.	Refer to the removal steps in section 4.3.6	
Step 5: Remove the upper speaker.	Refer to the removal steps in section 4.3.7	
Step 6: Remove the lower speaker support.	Refer to the removal steps in section 4.3.4	
Step 7: Remove the sub-board.	Refer to the removal steps in section 4.3.5	
Step 8: Remove the battery.	Refer to the removal steps in section 4.3.8	
Step 9: Remove the motor.		
Step 10: Remove the fingerprint module.		
Step 11: Remove the FMA board.		
Installation		

Procedure	Reference Pictures	Notes
Step 1: Install the upper speaker, mainboard, cameras, motor, fingerprint module, and ANA board.	Refer to the installation steps in section 4.3.7, 4.3.6, and 4.3.5	
Step 2: Install the coaxial cable. First secure one end to the M board, route the cable neatly into the cable groove, then secure the other end to the ANA board.		
Step 3: Install the FMA board. Apply the FMA board back adhesive to the battery compartment as shown. Connect the FMA board's BTB connectors to the M board and ANA board, press the FMA board into place, then attach the battery compartment bottom soft pad.		
Step 4: Install the speaker, battery, mainboard support, frame, and battery cover.	Refer to the installation steps in sections 4.3.4, 4.3.8, 4.3.3, 4.3.2, and 4.3.1	

Step 5: Power on the device and verify that the screen functions properly.		
Step 6: Calibration	After reassembly, calibrate the rear dual cameras, in-display fingerprint sensor, infrared sensor, and light sensor as specified in section 3.2.3.	

4.3.10 Side Button Replacement

Difficulty: Low
Estimated Time: 6–8 minutes
Required Spare Parts: Side Button

Removal		
Procedure	Reference Pictures	Notes
Step 1: Remove the battery cover.	Refer to the removal steps in section 4.3.1	
Step 2: Remove the frame.	Refer to the removal steps in section 4.3.2	
Step 3: Use a flat-head screwdriver to press the button and pry the side button clip from the indicated position to remove the side buttons.		
Installation		
Procedure	Reference Pictures	Notes
Step 1: Place the new side buttons into the slot.		
Step 2: Use anti-static pointed tweezers to insert the button ribbon into the clip to complete the side button replacement.	