



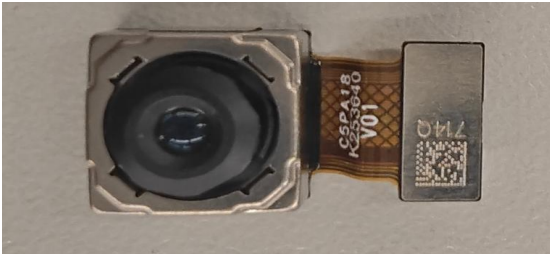
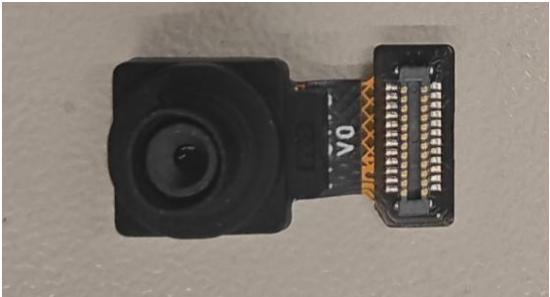

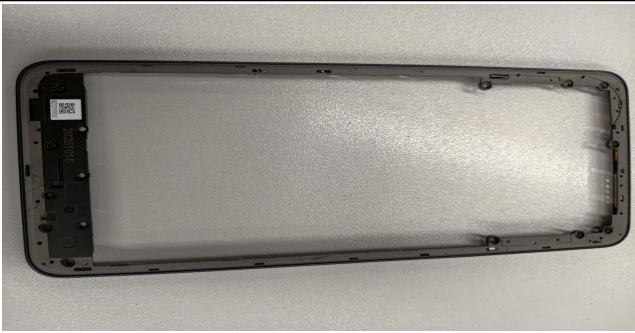
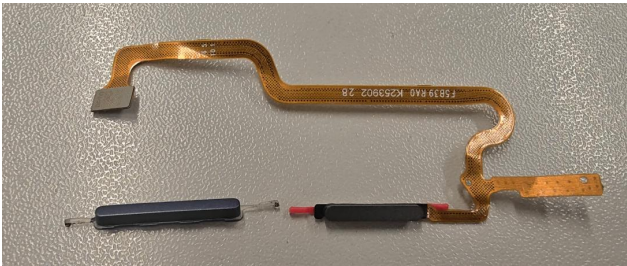




Y21 5G Self-Repair Manual

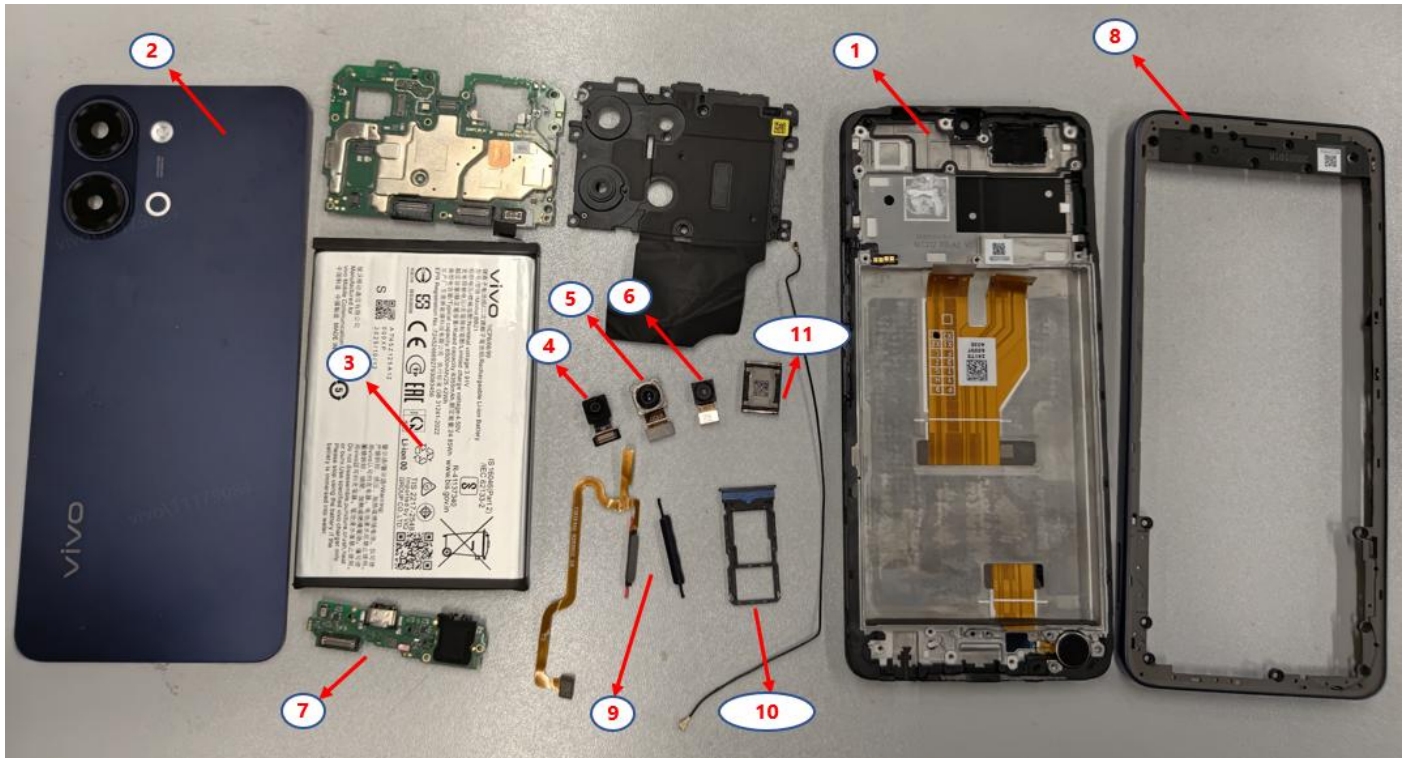
Part IV: Repair Guide

4.1 Spare Parts List (with Purchase Codes)

No.	Part Name	Purchase Code	Illustration
1	Display assembly	5439547	
2	Battery cover assembly	5439535 5439537 5439536 5439538	
3	Battery assembly	5439549 5439548	
4	Rear auxiliary camera	5439545	

5	Rear main camera	5439544	
6	Front camera	5439543	
7	Sub-board	4936279	
8	Mid-frame assembly	5439539 5439540	
9	Side key assembly	5439541 5439542	
10	SIM card tray	5439550 5439551	
11	Speaker	5439546	

4.2 Product Exploded View



No.	Part Name
1	Display assembly
2	Battery cover assembly
3	Battery assembly
4	Rear auxiliary camera
5	Rear main camera
6	Front camera
7	Sub-board
8	Mid-frame assembly
9	Side key assembly
10	SIM card tray
11	Speaker

4.3 Disassembly and Assembly Instructions

- Before starting the repair, ensure you complete the following procedure:
- Back up all data
- Fully discharge the battery
- Power off the device and disconnect all external cables
- Wear anti-static gloves
- If cosmetic damage, adhesive overflow, or other abnormalities occur after assembly, contact a vivo official service center for assistance


4.3.1 Battery Cover Removal and Installation


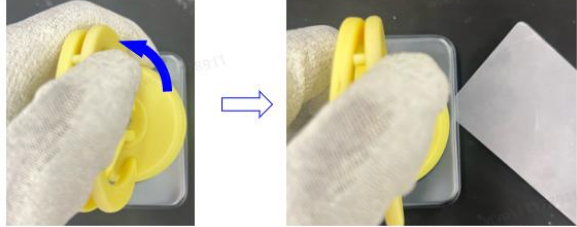

Repair Difficulty: Low

Repair Time: 6–10 minutes

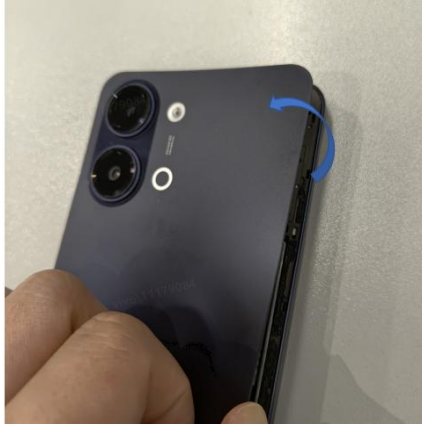
Required Spare Parts: Battery cover assembly

Removal

Procedure	Illustration	Notes
Step 1: Power off the device. Insert the SIM eject pin into the SIM card eject hole and remove the SIM card tray.	 A photograph of the back of a dark blue smartphone. The camera lens and flash are visible on the left. On the right side, there is a small circular hole for the SIM card tray. A silver SIM eject pin is inserted into this hole. A blue callout box with white text points to the hole, stating: "Insert the SIM eject pin at the indicated position to remove the SIM card tray." The SIM card tray is partially visible, protruding from the hole.	

<p>Step 2: Set the heating pad to 65 ° C. Place the phone on the heating pad and heat for 5 minutes.</p>		<p>Default temperature at power-on is 65°C. Refer to the device manual if adjustment is required.</p>
<p>Step 3: Place the suction cup at the center edge of the bottom of the back cover. Lift to create a gap and insert the opening pick.</p>		<p>Notes:</p> <ol style="list-style-type: none"> 1. Use a handled suction cup carefully to avoid injury, as the suction cup may separate during use. 2. Do not insert the opening pick more than 5 mm into the device.
<p>Step 4: Slide the opening pick clockwise as shown to separate the battery cover.</p>		

Step 5: After separating all edges, slowly lift the back cover from the indicated position.



Step 6: Separate the battery cover to complete the removal.



Step 7: Use pointed anti-static tweezers to remove all residual adhesive from the back cover and the back of the device.



Do not place fingers or foreign objects on the rear camera or back cover lens. Avoid damaging nearby components.

Step 8: Complete adhesive cleaning.



Installation

Procedure

Illustration

Notes

Step 1: Apply double-sided adhesive to the battery cover and camera seal.



Step 2: Remove the release liners from the battery cover double-sided adhesive and the camera seal double-sided adhesive.



<p>Step 3: Install the battery cover. Align it properly and press it onto the mid-frame.</p>		
<p>Step 4: Wrap a lint-free cloth around your fingers and press the adhesive areas to activate the adhesive, battery cover assembly installation complete.</p>		



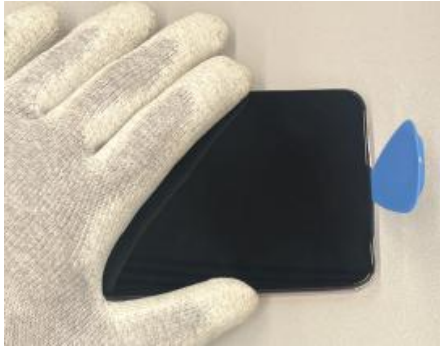

4.3.2 Mid-Frame Removal and Installation


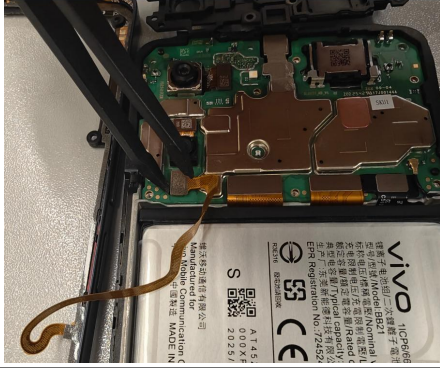


Repair Difficulty: Low

Repair Time: 8–12 minutes

Required Spare Parts: Mid-frame assembly

Removal		
Procedure	Illustration	Notes
Step 1: Remove the	Refer to the installation procedure in Section 4.3.1.	

<p>battery cover (refer to the battery cover removal procedure).</p>		
<p>Step 2: Use a Phillips screwdriver to remove the mainboard bracket screws, 18 in total, as illustrated.</p>		
<p>Step 3: Set the heating pad to 65°C. Place the phone screen-side down and heat for 3 minutes.</p>		<p>Default temperature at power-on is 65°C. Refer to the device manual if adjustment is required.</p>
<p>Step 4: After removing the screws, insert a triangular opening pick at the USB port area at the bottom of the device.</p>		
<p>Step 5: Slide clockwise as indicated to separate the mid-frame.</p>		

<p>Step 6: After separating the mid-frame, use anti-static tweezers to remove the mainboard bracket assembly.</p>		
<p>Step 7: Use anti-static tweezers to remove the fingerprint BTB connector.</p>		
<p>Step 8: Complete mid-frame removal.</p>		
<h3>Installation</h3>		
<p>Procedure</p>	<p>Illustration</p>	<p>Notes</p>
<p>Step 1: Use anti-static tweezers to remove residual adhesive from the mid-frame and display assembly.</p>		

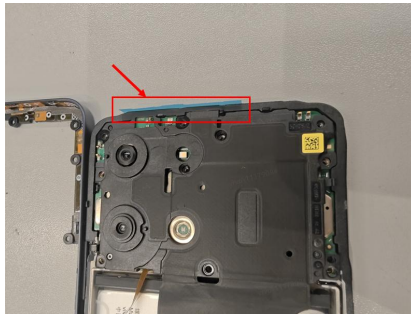
Step 2: After cleaning the mid-frame adhesive, apply new mid-frame adhesive and remove the release liner.



Step 3: Attach the fingerprint BTB connector to the mainboard.




Step 4: Install the mainboard bracket and attach the mainboard bracket water-resistant PET film.



Ensure the camera position is aligned.

Step 5: Snap the mid-frame into place starting from the button side. After ensuring the button side is fully engaged, snap the SIM card tray side into place.



<p>Step 6: Insert and tighten all 18 screws. Mid-frame assembly is complete.</p>		
<p>Step 7: Install the battery cover.</p>	<p>Refer to the installation procedure in Section 4.3.1.</p>	


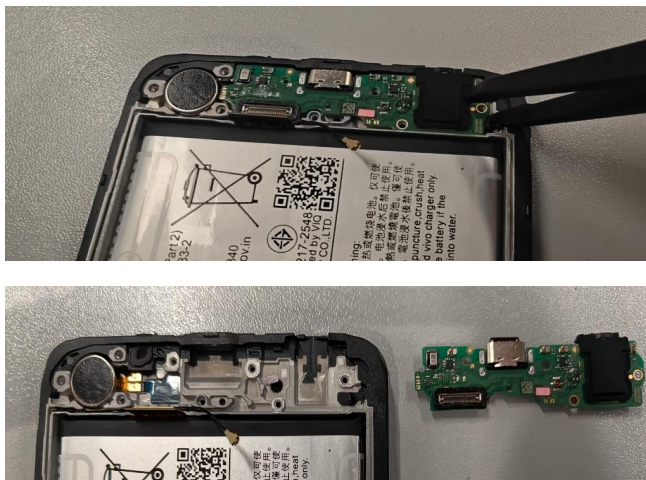

4.3.3 Sub-board (Main MIC & Charging Port) Removal and Installation


Repair Difficulty: Low

Repair Time: 9–13 minutes

Required Spare Parts: Sub-board assembly

Removal		
Procedure	Illustration	Notes
<p>Step 1: Remove the battery cover (refer to the battery cover removal procedure).</p>	<p>Refer to the removal procedure in Section 4.3.1.</p>	
<p>Step 2: Remove the mid-frame (refer to the mid-frame removal procedure).</p>	<p>Refer to the removal procedure in Section 4.3.2.</p>	

<p>Step 3: Remove the component BTB connectors and coaxial cable from the indicated positions.</p>		
<p>Step 4: Use pointed tweezers to pry up the ANA board from the indicated position to complete the removal.</p>		
<p>Installation</p>		
<p>Procedure</p>	<p>Illustration</p>	<p>Notes</p>
<p>Step 1: Align the bottom edge of the sub-board with the USB port, and then press it down to ensure it is flat and fully seated without lifting.</p>		

<p>Step 2: Connect the coaxial cable, route it neatly into the slot; connect the display BTB.</p>		
<p>Step 3: Install the mid-frame.</p>	<p>Refer to the mid-frame installation procedure in Section 4.3.2.</p>	
<p>Step 4: Install the battery cover.</p>	<p>Refer to the battery cover installation procedure in Section 4.3.1.</p>	


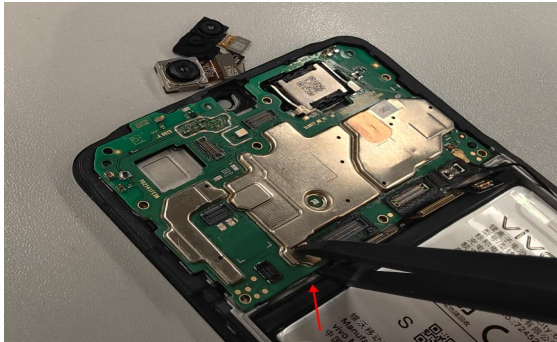
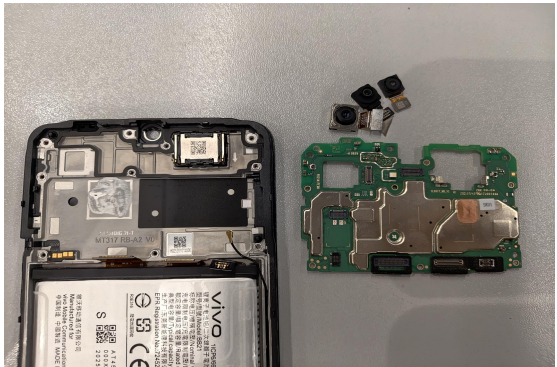
4.3.4 Mainboard Removal and Installation

Repair Difficulty: Low

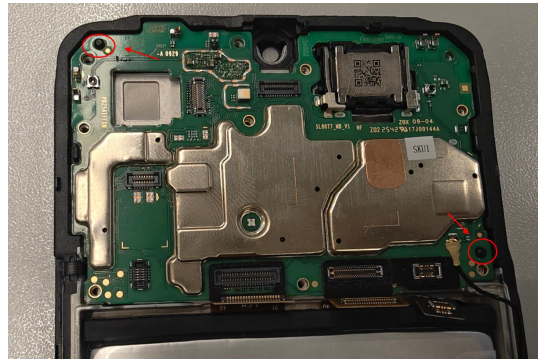
Repair Time: 9–12 minutes

Required Spare Parts: Mainboard

Removal		
Procedure	Illustration	Notes
<p>Step 1: Remove the battery cover (refer to the battery cover removal procedure).</p>	<p>Refer to the battery cover removal procedure in Section 4.3.1.</p>	
<p>Step 2: Remove the mid-frame (refer to the</p>	<p>Refer to the mid-frame removal procedure in Section 4.3.2.</p>	

<p>mid-frame removal procedure).</p>		
<p>Step 3: Use pointed anti-static tweezers to disconnect the battery BTB, the coaxial cable, and other BTB connectors.</p>		<p>After removing the camera, protect it from dust and contamination, and avoid touching the lens to prevent affecting image quality.</p>
<p>Step 4: Use pointed anti-static tweezers to lift the mainboard from the indicated position and remove it.</p>		
<p>Step 5: Mainboard removal is complete.</p>		
<p>Installation</p>		

Step 1: Insert the upper side of the mainboard into the main assembly first, and then snap the mainboard into place. Ensure it is flat without lifting and that the locating posts (as marked) are fully engaged.



Step 2: Connect the BTB connectors and the coaxial cable in the order shown to complete the mainboard installation. Note: Replace with new conductive cloth as indicated by the arrow.



Step 3: Install the mid-frame.

Refer to the mid-frame installation procedure in Section 4.3.2.

Step 5: Install the battery cover.

Refer to the battery cover installation procedure in Section 4.3.1.

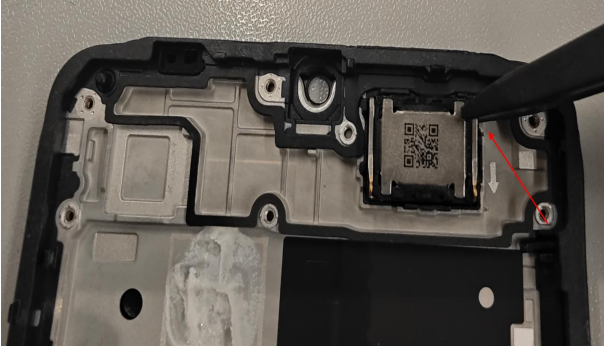
Step 6: Calibration.	After full assembly, perform rear dual-camera calibration, ambient light calibration, and infrared calibration according to Section 3.2.3.	
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4.3.5 Upper Speaker Removal and Installation

Repair Difficulty: Low


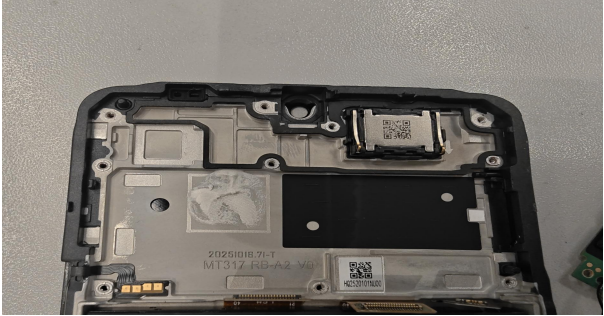
Repair Time: 9–12 minutes

Required Spare Parts: Upper speaker

Removal		
Procedure	Illustration	Notes
Step 1: Remove the battery cover (refer to the battery cover removal procedure).	Refer to the removal procedure in Section 4.3.1.	
Step 2: Remove the mid-frame assembly (refer to the mid-frame removal procedure).	Refer to the removal procedure in Section 4.3.2.	
Step 3: Remove the mainboard.	Refer to the removal procedure in Section 4.3.4.	
Step 4: Remove the upper speaker. Use tweezers to remove the speaker unit.		Do not insert the tweezers too deeply

		when removing the unit to avoid damaging the display.
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Installation

Procedure	Illustration	Notes
<p>Remove residual adhesive from the speaker area on the main assembly. Apply new double-sided adhesive for the upper speaker to the mid-frame and remove the blue release liner.</p>		<p>Be careful not to damage the display while removing adhesive.</p>
<p>Step 2: Press down to the corresponding position on the main assembly to complete the installation of the upper speaker.</p>		

4.3.6 Battery Removal and Installation

Repair Difficulty: Low


Repair Time: 6–10 minutes


Required Spare Parts: Battery assembly

Preparation before battery removal:


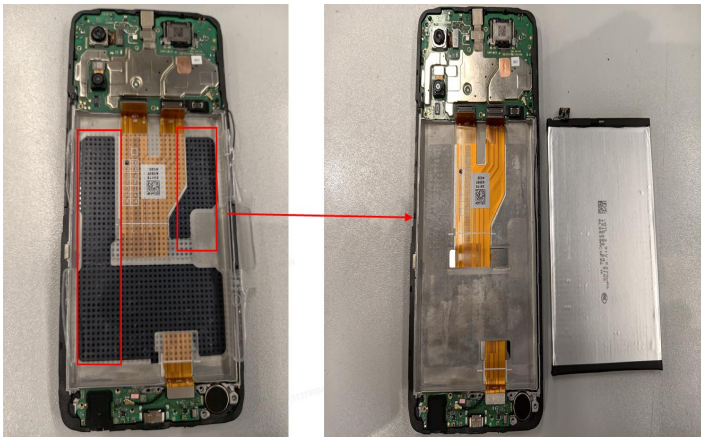
1. Fully discharge the battery
2. Prepare a sand bucket in advance to prevent fire hazards during battery removal.


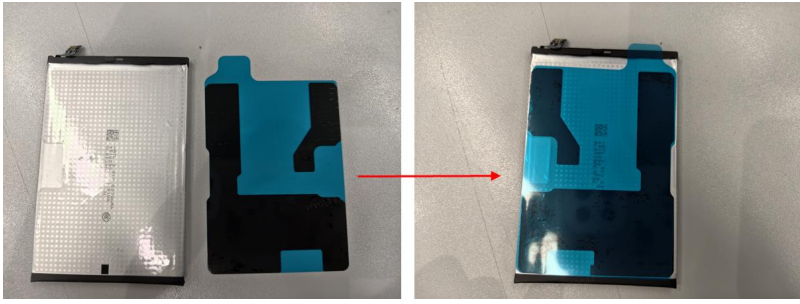

Removal


Procedure	Illustration	Notes
Step 1: Remove the battery cover (refer to the battery cover removal procedure).	Refer to the removal procedure in Section 4.3.1.	
Step 2: Remove the mid-frame assembly (Refer to the mid-frame removal procedure).	Refer to the removal procedure in Section 4.3.2.	
Step 3: Disconnect the battery BTB connectors.		

<p>Step 4: Lift the PET pull tab on the battery and slowly pull it at a 145° angle to detach the battery.</p>		<p>Ensure your hand do not obstruct the battery area during removal.</p>
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Installation

Procedure	Illustration	Notes
<p>Step 1: Check whether the battery is swollen, deformed, or damaged. If so, do not reuse and replace with a new battery.</p>		
<p>Step 2: Remove residual adhesive on the main upper part and battery, clean black adhesive in</p>		

<p>the indicated areas.</p>		
<p>Step 3: Take a new battery PET disc and attach it to the battery as illustrated.</p>		
<p>Step 4: Attach the battery adhesive to the battery as shown.</p>		
<p>Step 5: Remove the release film from the battery adhesive, place the battery into the mainboard upper cover, and press firmly on adhesive areas indicated by the blue frames to activate the adhesive.</p>		<p>Before installation, ensure the battery and battery compartment are free from foreign objects.</p>

<p>Step 6: Connect the Battery BTB connector.</p>		
<p>Step 7: Install the mid-frame.</p>	<p>Refer to the mid-frame installation procedure in section 4.3.2.</p>	
<p>Step 8: Install the battery cover.</p>	<p>Refer to the battery cover installation procedure in Section 4.3.1.</p>	


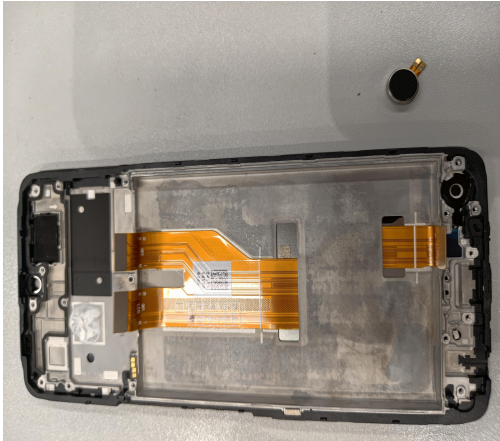
4.3.7 Display Assembly Removal and Installation

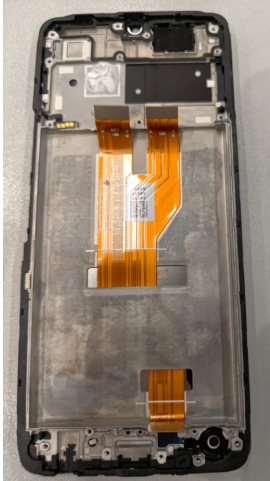
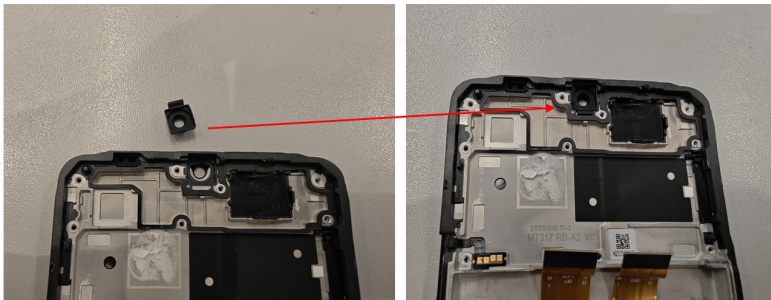
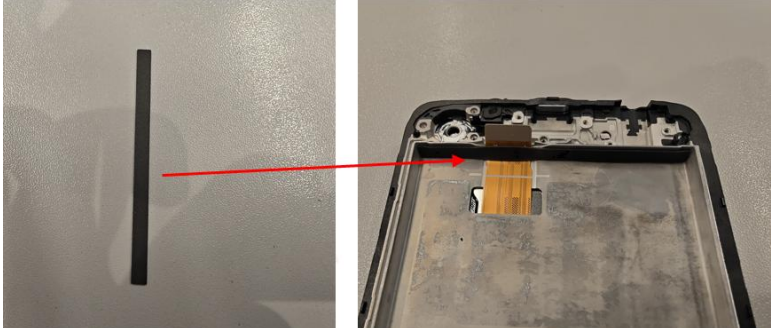
Repair Difficulty: Neutral

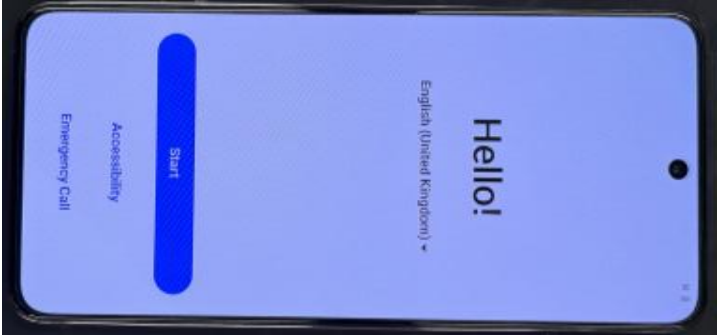
Repair Time: 15–20 minutes

Required Spare Parts: Display assembly

Removal		
Procedure	Illustration	Notes
<p>Step 1: Remove the battery cover.</p>	<p>Refer to the removal procedure in Section 4.3.1.</p>	
<p>Step 2: Remove the mid-frame.</p>	<p>Refer to the removal procedure in Section 4.3.2.</p>	
<p>Step 3: Remove the</p>	<p>Refer to the removal procedure in Section 4.3.6.</p>	

battery.		
Step 4: Remove the mainboard.	Refer to the removal procedure in Section 4.3.4.	
Step 5: Remove the upper speaker.	Refer to the removal procedure in Section 4.3.5.	
Step 7: Remove the sub-board.	Refer to the removal procedure in Section 4.3.3.	
Step 9: Remove the voice coil motor component.		
Step 10: Removal complete.		
Installation		
Procedure	Illustration	Notes

<p>Step 1: Install the new display assembly.</p>		
<p>Step 2: Install the front camera silicone case.</p>		
<p>Step 3: Assemble the upper speaker, mainboard, and voice coil motor.</p>	<p>Refer to the installation procedure in Sections 4.3.6, 4.3.5, and 4.3.4.</p>	
<p>Step 4: Apply the battery compartment cushion.</p>		
<p>Step 5: Install the ANA board.</p>	<p>Refer to the installation procedure in Sections 4.3.4.</p>	
<p>Step 6: Install battery</p>	<p>Refer to the installation procedure in Section 4.3.6.</p>	
<p>Step 7: Install the mid-frame and battery cover.</p>	<p>Refer to the mid-frame installation procedure in Sections 4.3.2 and battery cover installation procedure in Section 4.3.1.</p>	

<p>Step 8: Power on the device and check if the screen turns on normally.</p>		
<p>Step 9: Calibration.</p>	<p>Upon completing device assembly, execute the calibrations specified in section 3.2.3 for the rear dual-camera, screen fingerprint, infrared, and ambient light sensor.</p>	


4.3.9 Side Buttons (Volume Buttons) Removal and Installation

Repair Difficulty: Low

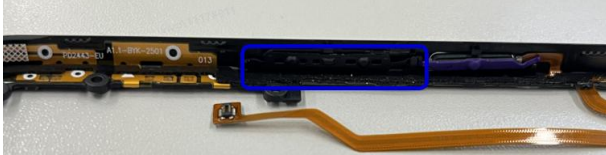
Repair Time: 6–8 minutes

Required Spare Parts: Side Button

Removal		
Procedure	Illustration	Notes
<p>Step 1: Remove the battery cover.</p>	<p>Refer to the removal procedure in Section 4.3.1.</p>	
<p>Step 2: Remove the mid-frame.</p>	<p>Refer to the removal procedure in Section 4.3.2.</p>	

<p>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.</p>		
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Installation

Procedure	Illustration	Notes
<p>Step 1: Place the new side button into the slot.</p>		
<p>Step 2: Use anti-static pointed tweezers to insert the button ribbon into the clip, side button replacement complete.</p>	