



Moto Edge 2025

Level 2 – Service and Repair Manual





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Revision History

Revision	Date	Notes
1	04/24/2025	Initial Release.





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Chapter 1. Safety Information

Important

This manual includes technical instructions for replacing genuine parts in this product.

Read the entire manual before your repair.

Always use the latest version of this product service manual for repair.

Cautions and Warnings

Failure to follow the repair instructions or not to use genuine parts or proper tools may damage the device or compromise the device's functionality or water resistance.

The phone components may be damaged by electrostatic discharge (ESD). Always use an ESD mat and ground strap when working with internal components.

Turn off the device before repair.

Loose screws, extra screws, or small parts inside the device can cause safety issue. Set aside all parts and screws removed during repair.



Chapter 2. Introduction

Acronyms and Abbreviations

Table 1. Acronyms and Abbreviations

Abbreviation	Meaning
PU	Polyurethane
PCB	Printed Circuit Board
MIC	Microphone
BTB	Board to Board
FPC	Flexible Printed Circuit
FOD	Fingerprint on Display

External Views

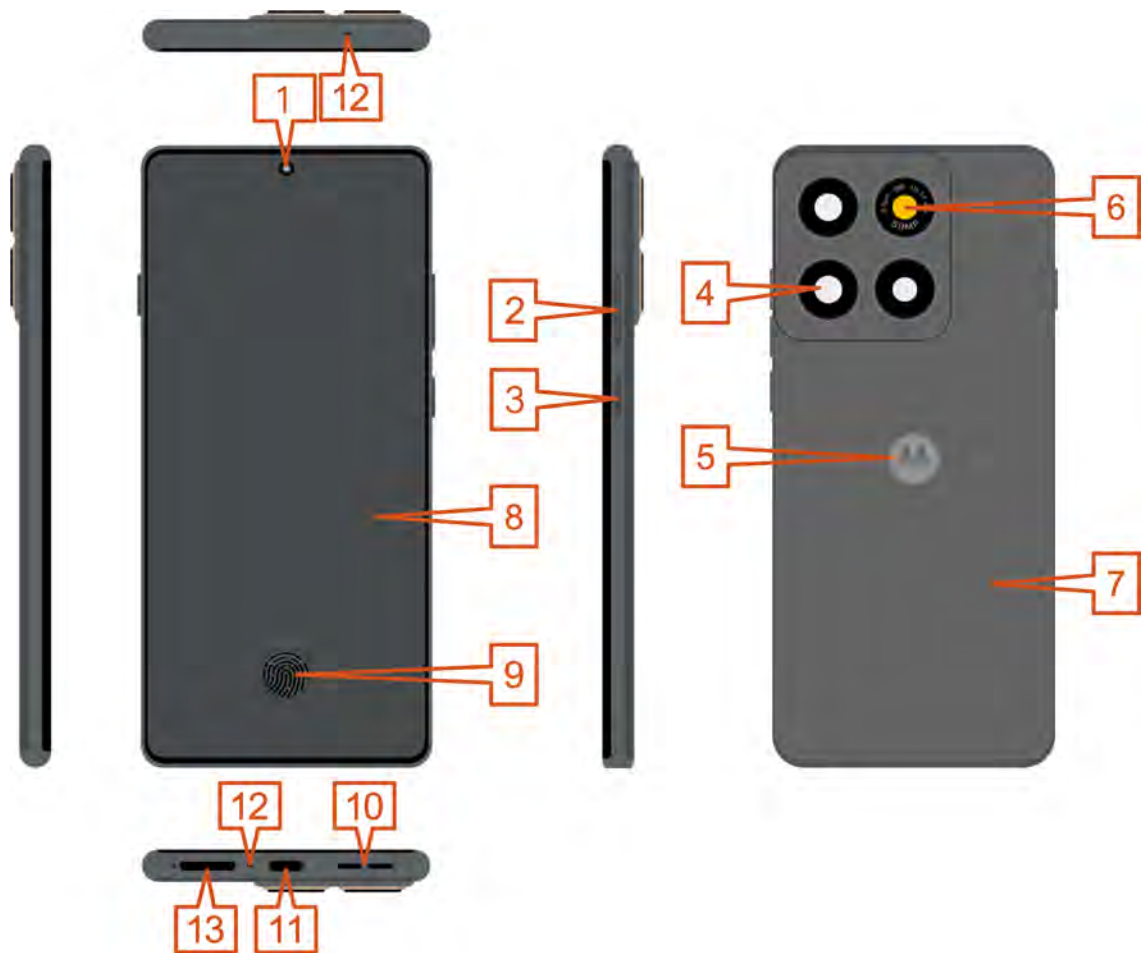


Figure 1. External Views

Table 2. External Views Parts List

Reference #	Description
1	Front-Facing Camera
2	Volume Key
3	Power Key
4	Flashlight
5	Rear-Facing Camera
6	Batwing Logo
7	Rear Inlay
8	Display
9	FOD
10	Loudspeaker
11	USB Type-C

Table 2. External Views Parts List (continued)

Reference #	Description
12	MIC
13	SIM Door



Main Exploded Views

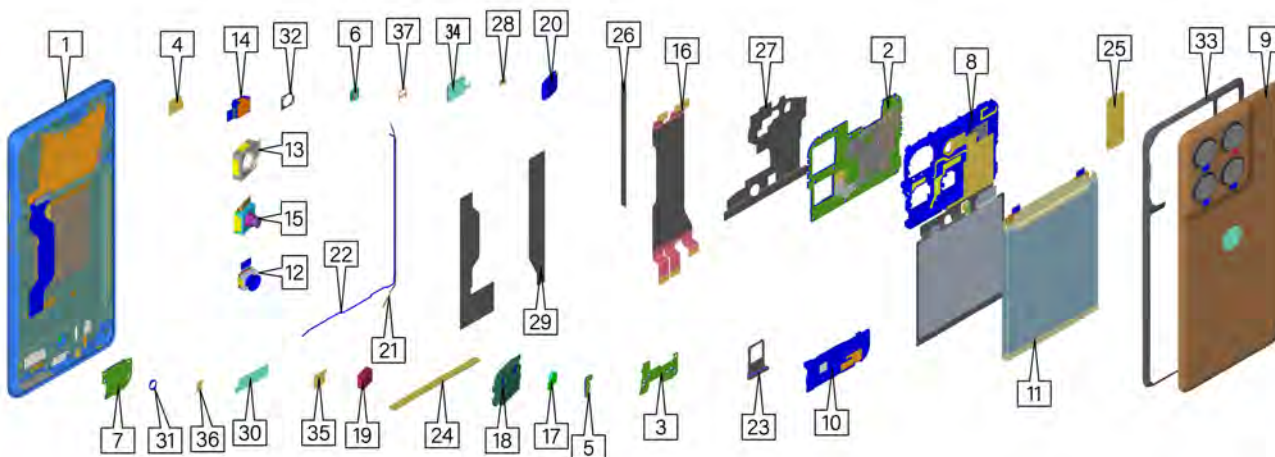


Figure 2. Assembly Exploded View

Table 3. Assembly Exploded View Parts List

Reference #	Description	Recovery Part
1	XT2519 TP LCM ASSY Green CS	Yes
2	XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	Yes
3	XT2519 USB Board CS	Yes
4	XT2519 Flash Board CS	Yes
5	XT2519 ANT Board CS	Yes
6	XT2519 PUD Board CS	Yes
7	XT2519 SIM Board CS	Yes
8	XT2519 Top Bracket CS	Yes
9	XT2519 Inlay ASSY Green CS	Yes
10	ANT,LDS CAR ANT,ASSY_BOTTOM_BRACKET OULU	Yes
11	ACCY,BAT,5200mAh,RM52,ATL516482, NVT	Yes
12	MDL,CAMR,10M,rear,L3K1A00;O-film,OIS:Mac	Yes
13	MDL,CAMR,50M,rear,L896A40;O-film,OIS:Wra	Yes
14	MDL,CAMR,50M,FRNT,C4PA18;Qtech,AF:Levant	Yes
15	MDL,CAMR,50M,rear,LJNSA50;O-film,AF:Leva	Yes
16	ASSY,FLX - MN,Prado NA,Main,FPC,2L	Yes
17	FPM,Qtech,G3T,new	Yes
18	AU,SPKR,DYN SPKR BX,6ohms,Fpc CONT,GP co	Yes

Table 3. Assembly Exploded View Parts List (continued)

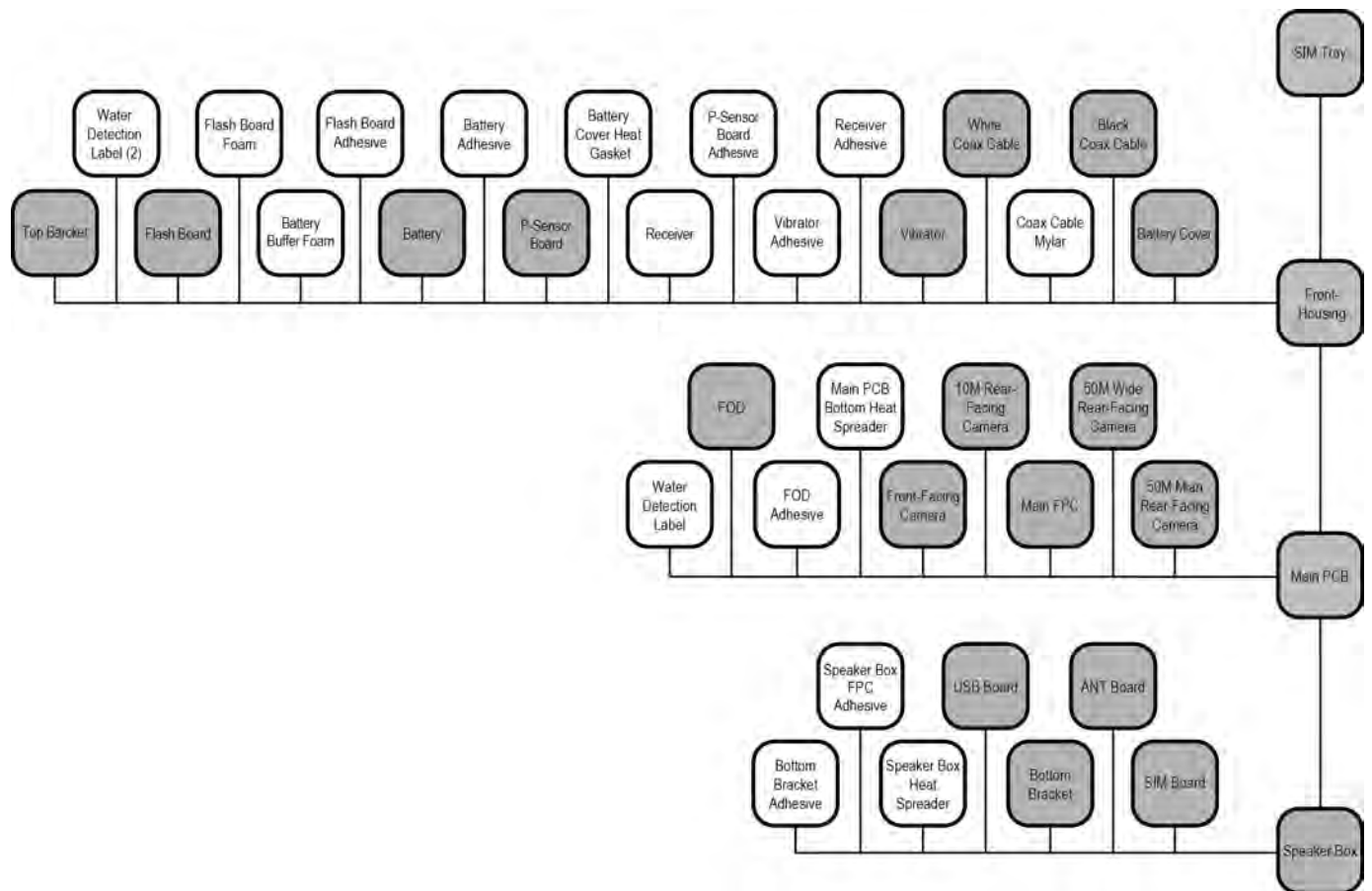
Reference #	Description	Recovery Part
19	VIBR,LIN,8x9x3.5mm,170Hz,8+/-1 Ohms	Yes
20	AU,RCVR,10x12x2.9mm,7ohm,+FPC	No
21	CBL,COAX,CABLE1_OULU	Yes
22	CBL,COAX,CABLE2_OULU	Yes
23	HDW,SIM TRAY - PLAS,ASSY_SIM_TRAY_OULU_B	Yes
24	DICUT,FOAM,OULU_BATTERY_SUP_GAS	No
25	DIECUT_OULU_HEAT_GASKET	No
26	DICUT,FOAM,OULU_CABLE_MYLAR	No
27	THRM,COND,OULU_PMU_GRAPHITE	No
28	DICUT,FOAM,OULU_FLASH_PCB_GASKET	No
29	DICUT,FOAM,OULU_BATTERY_ADH	No
30	DICUT,FOAM,OULU_INLAY_BOX_PSA	No
31	DICUT,FOAM,OULU_FOD_ADH	No
32	DICUT,FOAM,OULU_FLASH_PCB_PSA	No
33	XT2519-X Inlay Adhesive CS	No
34	DICUT,FOAM,OULU_RECEIVER_PSA	No
35	DICUT,FOAM,OULU_MOTOR_ADH	No
36	DICUT,FOAM,OULU_SPK_FPC_PSA	No
37	DICUT,FOAM,OULU_P_SENSOR_PSA	No
-	ZEEKR SCREW_M1P2_1P55_H03_CROSS	No
-	HDW,SCR,ooth_Screw_M1.4x0.30x3.6mm	No
-	HDW,SCR,Screw_M1.4x0.30x2.5mm_Clear	No
-	HDW,SCR,Tooth_Screw_M1.4x0.30x 3.0mm_Cle	No
-	DICUT,WATERPROOF,Waterproof LBL TMO	No
-	LBL,IMEI,9X1.3mm,Full Size 35.6x27.6mm L	No
-	THRM,COND,OULU_SPK_GRAPHITE	No
-	DICUT,FOAM,OULU_BOX_GAKET	No
-	DICUT,FOAM,OULU_FRT_CAM_GAS_2	No



Chapter 3. Disassembly and Recovery

Disassembly and Recovery Map

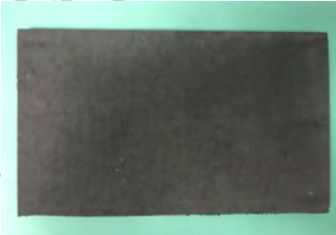
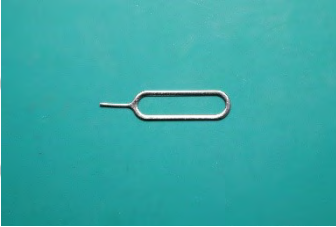
*Shaded parts may be eligible for parts recovery.



Tools Required for Disassembly

The following tools are required to disassemble the Moto Edge 2025.

NOTE
Improper tools may cause damage to components.

Description	Part #	Picture/Drawing
3 mm Allen Wrench	--	
Anti-static foam pad Pad thickness : ≥5mm Pad Material : silicone rubber, as reference Silicone Clean Matt (RG-400)	--	
Hot Plate	--	
SIM/SD Tray Removal Tool	--	
Black Stick	--	

Description	Part #	Picture/Drawing
Torque Driver	--	
Shim	4-00-5L-10000	
PH00 Bit	--	
BtB	--	
MINI Desktop LCD Freezing Separator	TBK-578	
Sealed Bag	--	

Description	Part #	Picture/Drawing
Plastic Tweezers	--	
Oven	RG-202F	
Thin Plastic Spudger	0-00-00-40826	
PU Inlay Disassembly Tool	30007085	
Anti-static Tweezers	--	
ESD Mat	--	--
Wrist Strap	--	--
Gloves	--	--

SIM Tray Removal

NOTE

The SIM Tray can be recovered and reused after removal.

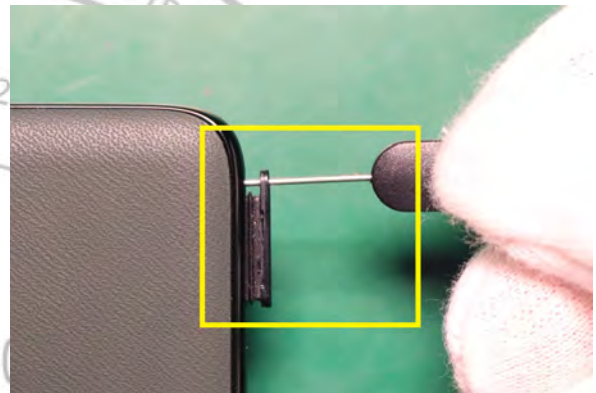


1. Power off the device before beginning with the procedure. Use the SIM Tray Removal pin to push into the SIM Tray hole.

/// WARNING ///

Disassembling the device without turning it off may cause data loss.

2. Press the SIM Tray removal tool to make it pop-out as shown.



3. Use fingers to take out the SIM Tray.

NOTE

Remove the SIM Tray vertically outwards to avoid deformation.



IMEI Label Removal

NOTE

Remove the IMEI Label only if necessary.
After you remove it, you cannot reuse it.



Use the Plastic Tweezers to remove the IMEI Label from the SIM tray.

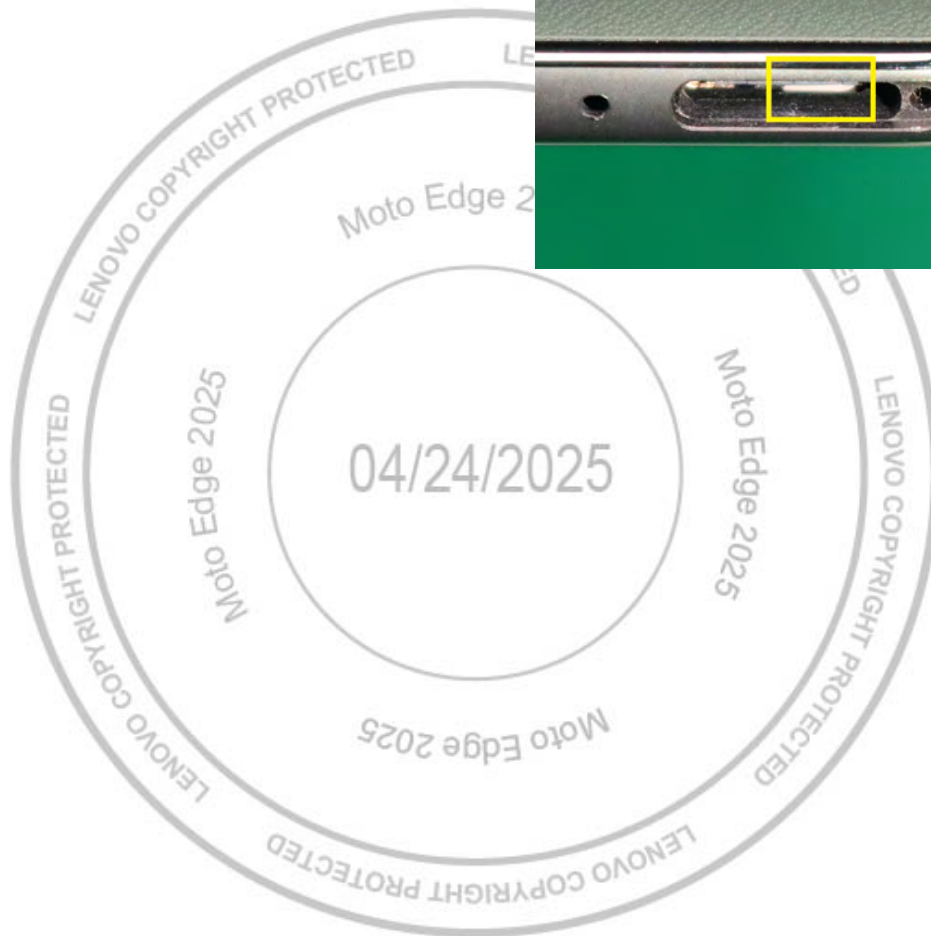
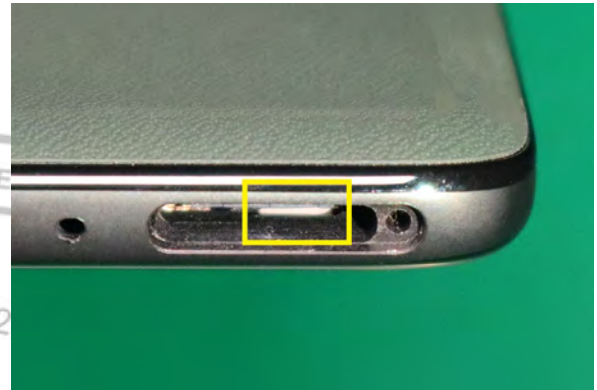


Water Detection Label Inspection

NOTE

If the Water Detection Label (WDL) has been activated, follow Return Un-Repaired (RUR) guidelines for further instructions.

Inspect the WDL inside the SIM Tray Slot for signs of activation. Use external light if needed.



Battery Cover Removal

Preheating for Battery Cover Removal

NOTE

The Battery Cover can be recovered and reused after removal.



// CAUTION //

Do not set the Oven temperature higher than 80°C (176°F). Damage to the phone may occur.

NOTE

If you don't have an oven, you can use a hair dryer for Battery Cover removal. Make sure the hair dryer's working temperature is lower than 80°C (176°F) to avoid potential damage to the phone.

1. Place the phone in the Oven, with the Battery Cover side down.



2. Wait 10 minutes for the Battery Cover Adhesive to warm up.

NOTE

If the phone is not heated sufficiently, the disassembly could damage the part.

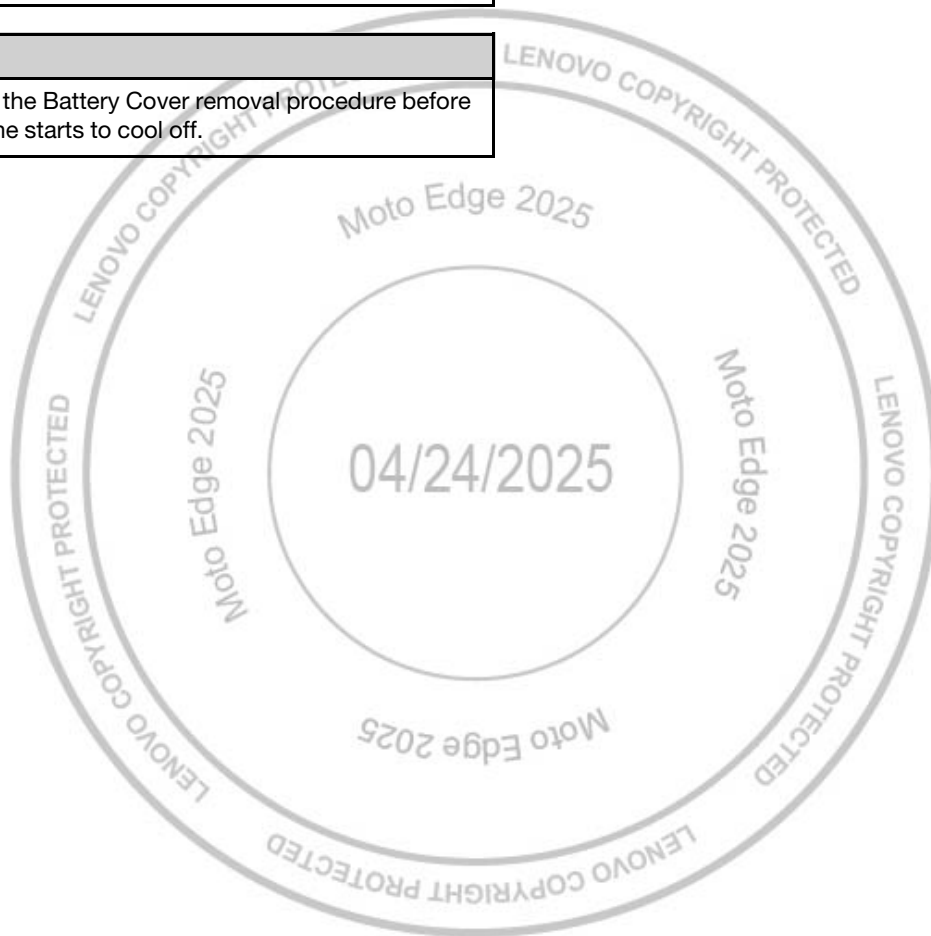
3. Remove the phone from the oven.

// CAUTION //

Wear protective gloves when handling heated phones.

NOTE

Perform the Battery Cover removal procedure before the phone starts to cool off.
--



Battery Cover Removal

NOTE

The Battery Cover can be recovered and reused after removal if it is undamaged.



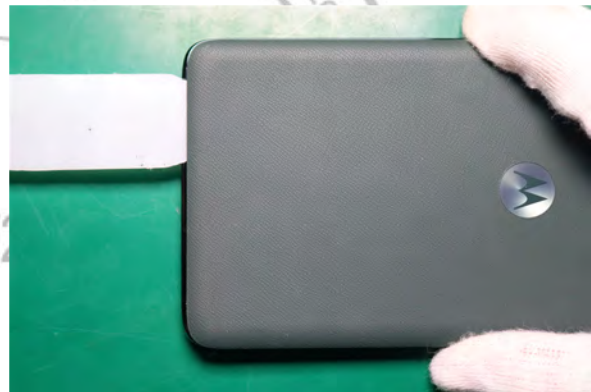
1. Use the Inlay Disassembly Tool to create a gap between the Battery Cover and the Front-Housing.



2. Use the Thin Plastic Spudger to disengage the Battery Cover from all the sides of the phone. Start at the point as shown.

//CAUTION//

Do not insert the Thin Plastic Spudger more than 10 mm to prevent damaging internal components.



3. Use the Thin Plastic Spudger to disengage the Battery Cover from all the sides of the phone.



4. Move the Thin Plastic Spudger in the direction as shown.



5. Pull the Battery Cover up toward bottom and upper side.



NOTE

Make sure not to rotate the Battery Cover too much, it will cause Battery Cover crack.



6. Split the Battery Cover from the phone.



Top Bracket Removal

NOTE

The Top Bracket can be recovered and reused after removal.



1. Use the Torque Driver with PH00 Bit to remove 10 screws as shown.

NOTE

Screws can be reused for refurbish operation in WW except in North America. Keep the screws properly if reusable.

/// WARNING ///

The screwdriver tip should be of the correct size for the screw head. Misuse of the screwdriver may cause damage.



2. Use the pointed end of the Black Stick to lift and remove the Top Bracket from the location as shown.

NOTE

Be careful to avoid damaging the Top Bracket.

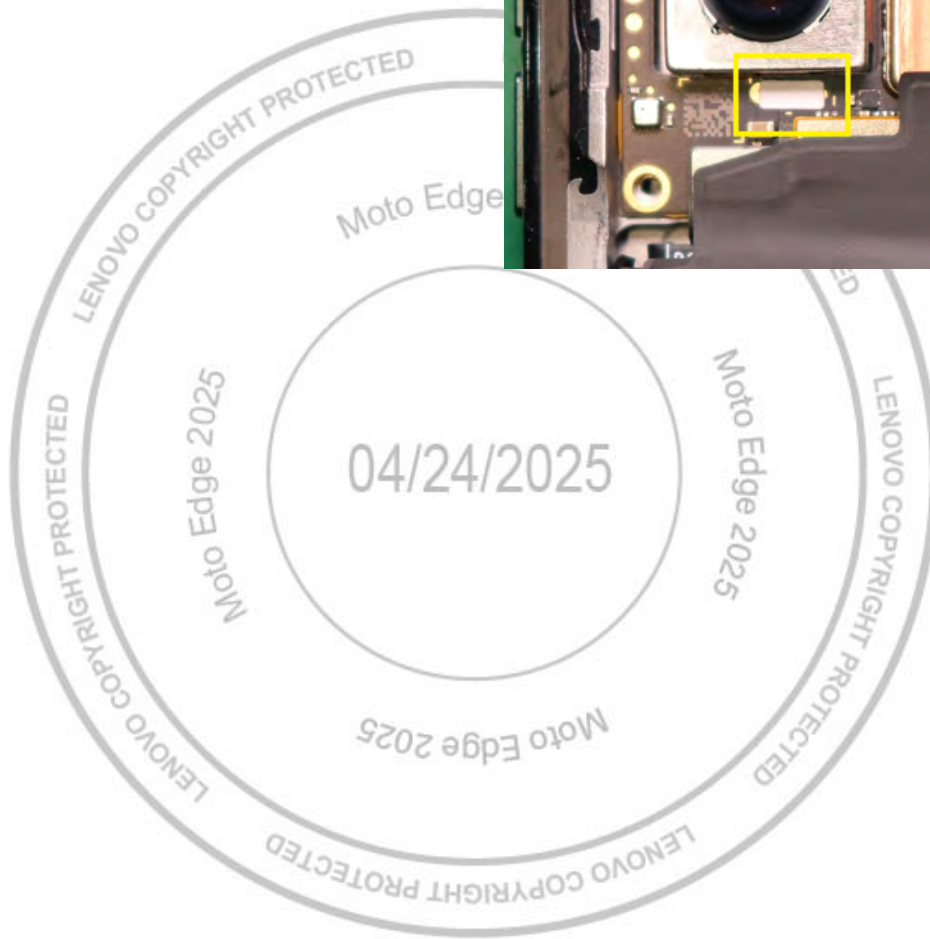
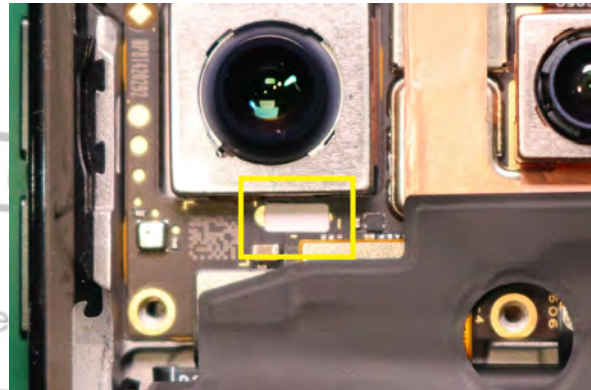


Water Detection Label Inspection

NOTE

If the Water Detection Label (WDL) has been activated, follow Return Un-Repaired (RUR) guidelines for further instructions.

Inspect the WDL on the Main PCB for signs of activation.



Flash Board Removal

NOTE

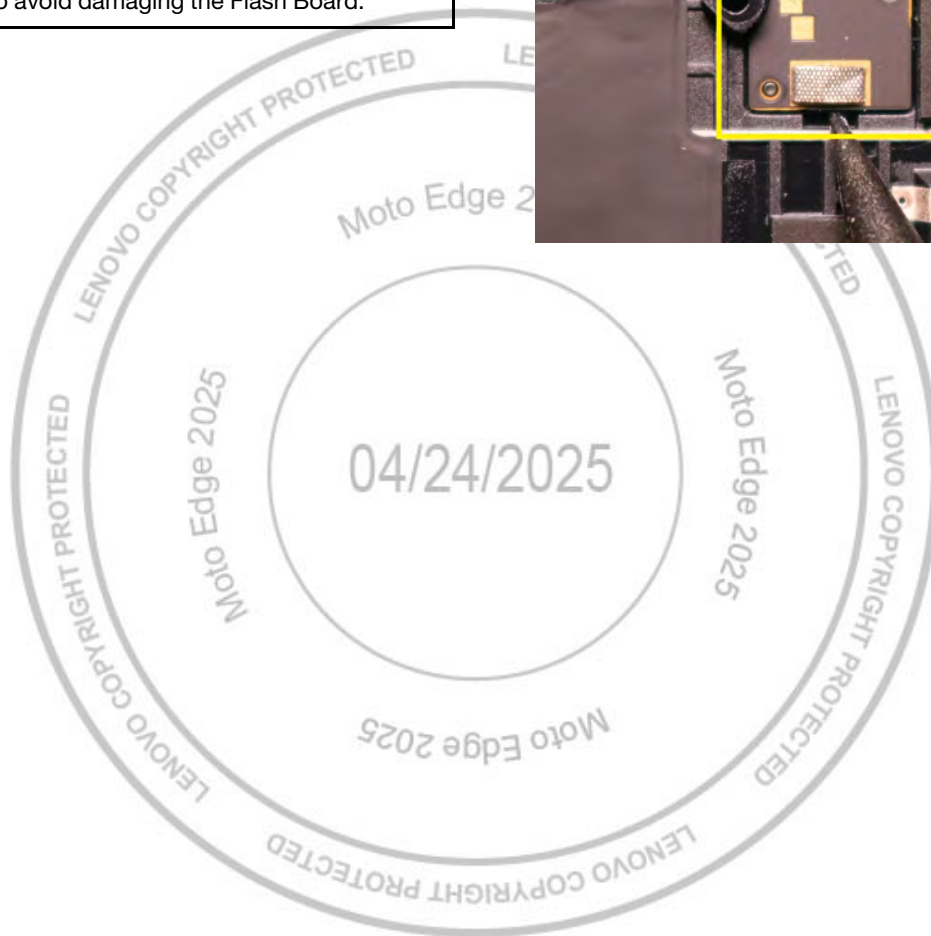
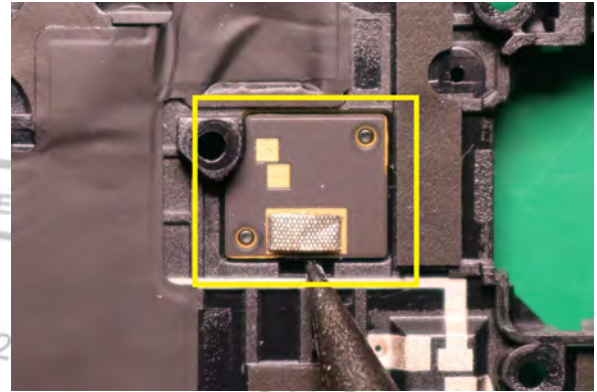
The Flash Board can be recovered and reused after removal.



Use the pointed end of the Black Stick to disengage and remove the Flash Board from the Top Bracket as shown.

NOTE

Be careful to avoid damaging the Flash Board.



Bottom Bracket Removal

NOTE

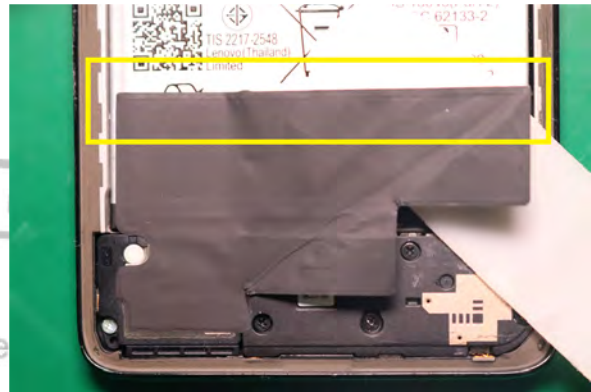
The Bottom Bracket can be recovered and reused after removal.



1. Use the Thin Plastic Spudger to disengage the Speaker Box Heat Spreader.

NOTE

The area marked in yellow has back adhesive.



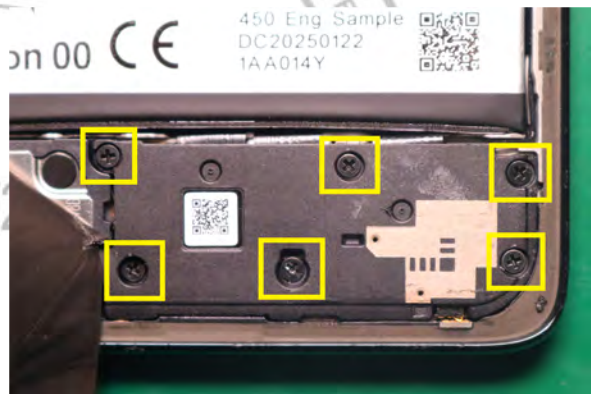
2. Use the Torque Driver with PH00 Bit to remove six screws as shown.

NOTE

Screws can be reused for refurbish operation in WW except in North America. Keep the screws properly if reusable.

/// WARNING ///

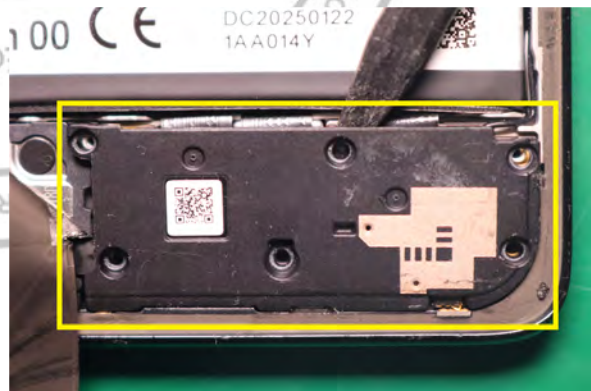
The screwdriver tip should be of the correct size for the screw head. Misuse of the screwdriver may cause damage.



3. Use the pointed end of the Black Stick to lift and remove the Bottom Bracket from the location as shown.

NOTE

Be careful to avoid damaging the Bottom Bracket.

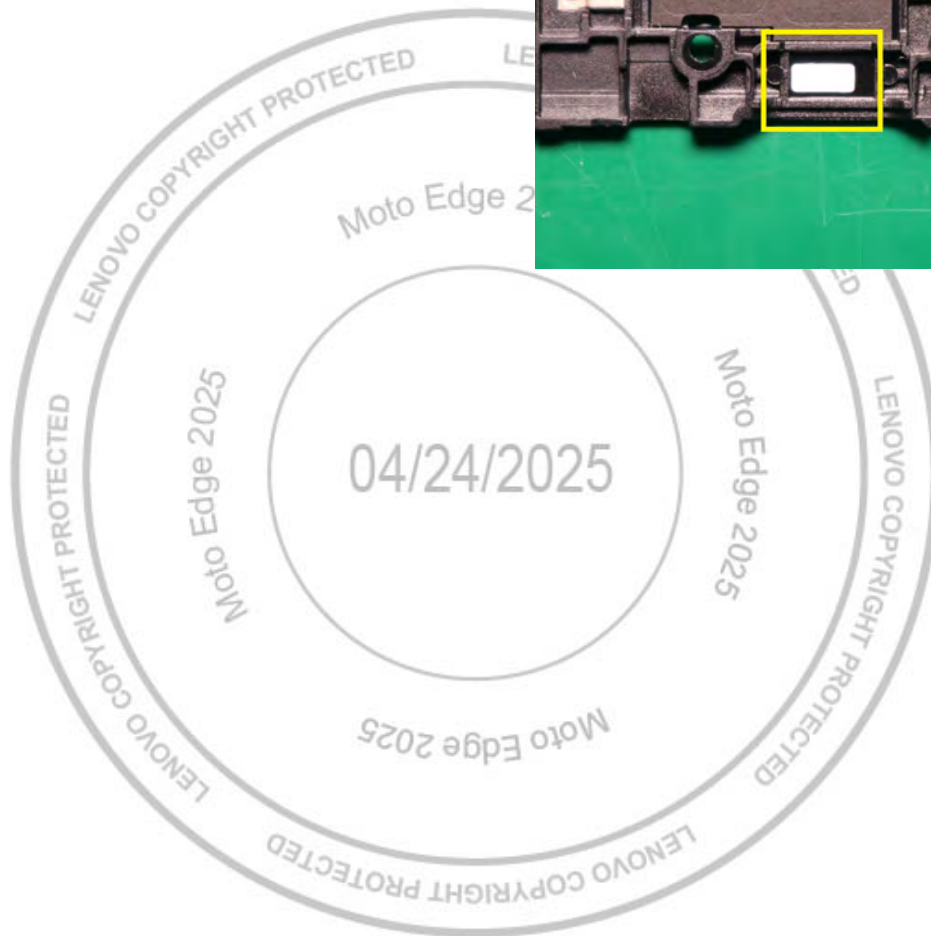
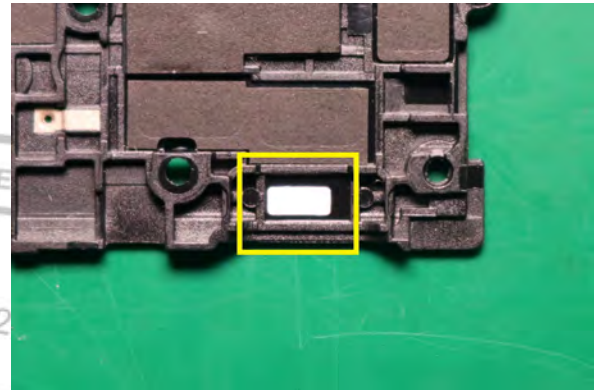


Water Detection Label Inspection

NOTE

If the Water Detection Label (WDL) has been activated, follow Return Un-Repaired (RUR) guidelines for further instructions.

Inspect the WDL on the Bottom Bracket for signs of activation.



Main PCB Bottom Heat Spreader Removal

NOTE

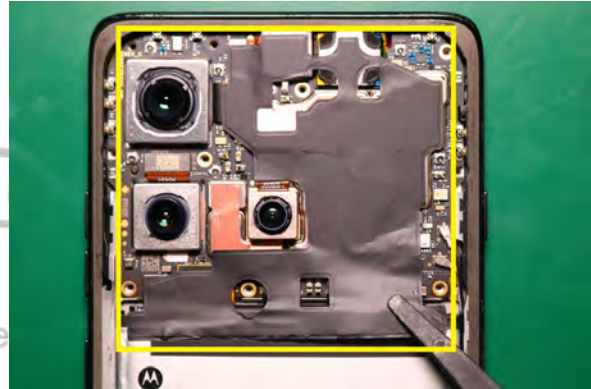
After you remove the Main PCB Bottom Heat Spreader, you cannot reuse it.



Use the Plastic Tweezers to remove the Main PCB Bottom Heat Spreader from the location as shown.

NOTE

Be careful to avoid touching other components on the Main PCB.



50M Wide Rear-Facing Camera Removal

NOTE

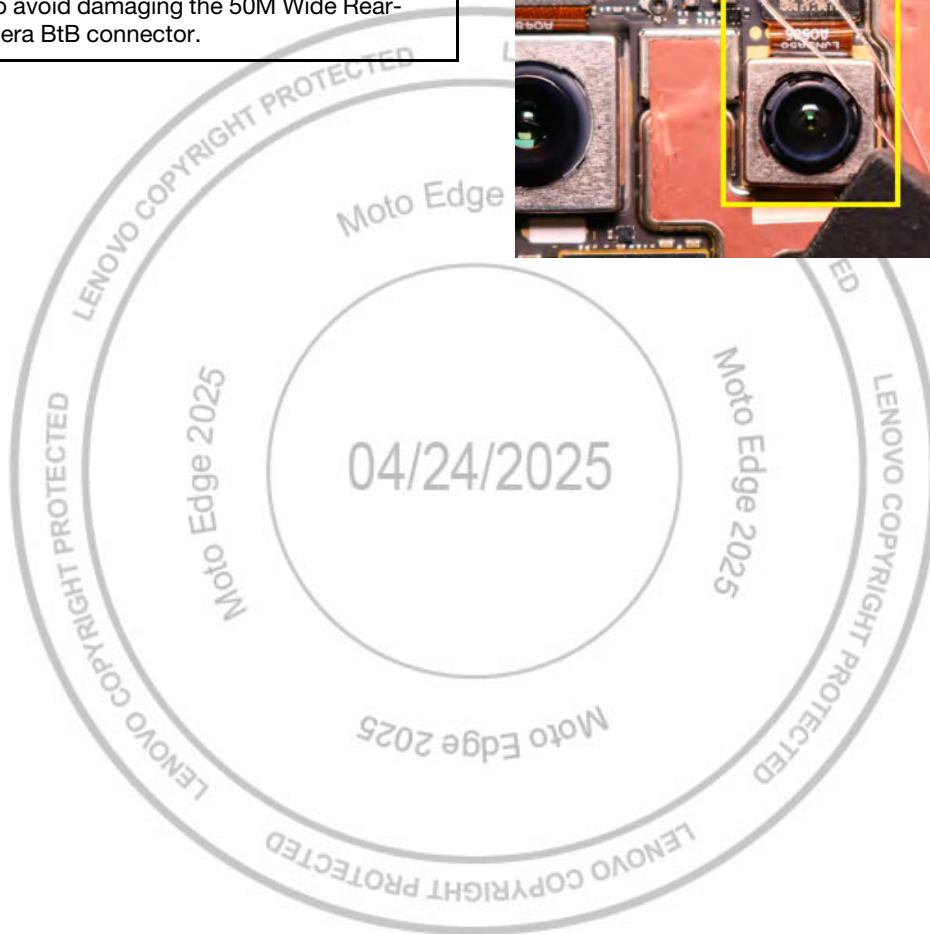
The 50M Wide Rear-Facing Camera can be recovered and reused after removal.



Use the BtB tool to disengage and remove the 50M Wide Rear-Facing Camera from the location as shown.

NOTE

Be careful to avoid damaging the 50M Wide Rear-Facing Camera BtB connector.



50M Main Rear-Facing Camera Removal

NOTE

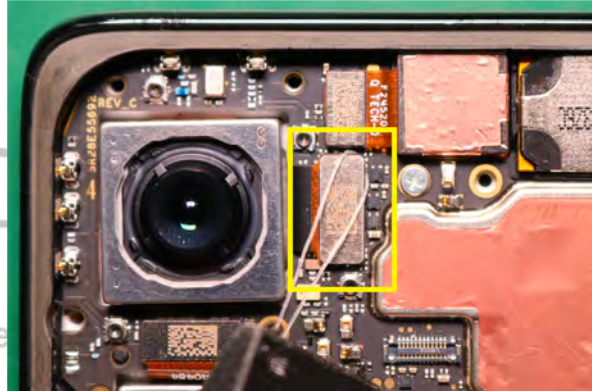
The 50M Main Rear-Facing Camera can be recovered and reused after removal.



1. Use the BtB tool to disengage the 50M Main Rear-Facing Camera BtB connector from the location as shown.

NOTE

Be careful to avoid damaging the 50M Main Rear-Facing Camera BtB connector.



2. The Camera FPC is folded under the Main PCB. Use the Plastic Tweezers to move the main body of the 50M Main Rear-Facing Camera to the left and remove the whole Camera.

NOTE

Be careful to avoid damaging the 50M Main Rear-Facing Camera.



10M Rear-Facing Camera Removal

NOTE

The 10M Rear-Facing Camera can be recovered and reused after removal.



1. Use the BtB tool to disengage the 10M Rear-Facing Camera BtB connector from the location as shown.

NOTE

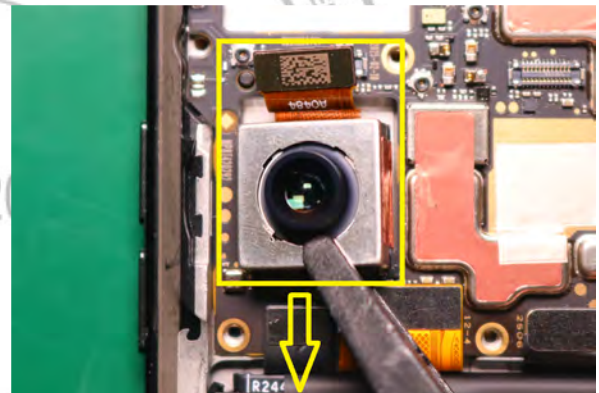
Be careful to avoid damaging the 10M Rear-Facing Camera BtB connector.



2. The Camera FPC is folded under the Main PCB. Use the Plastic Tweezers to move the main body of the 10M Rear-Facing Camera downwards and remove the whole Camera.

NOTE

Be careful to avoid damaging the 10M Rear-Facing Camera.



Main PCB Removal

NOTE

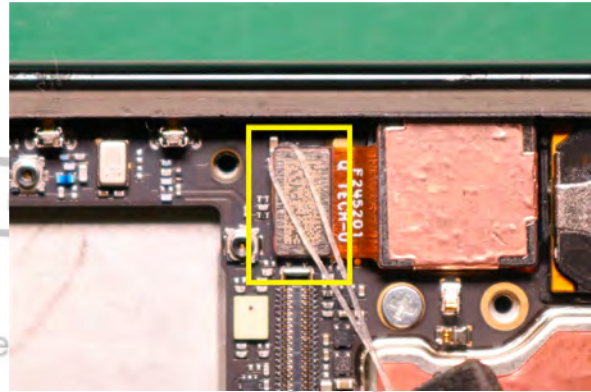
The Main PCB can be recovered and reused after removal.



1. Use the BtB tool to disengage the Front-Facing Camera BtB Connector from the Main PCB as shown.

NOTE

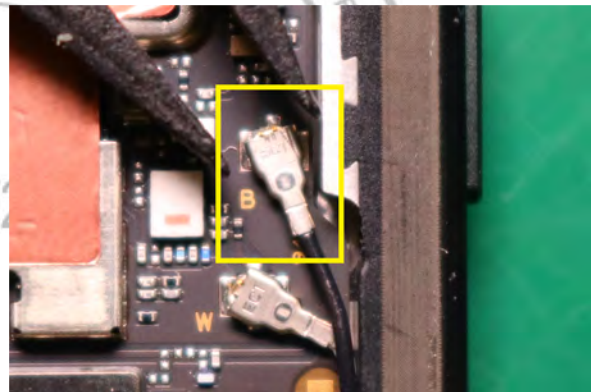
Be careful to avoid damaging the BtB connector.



2. Use the Plastic Tweezers to disconnect the Black Coax Cable from the location as shown.

NOTE

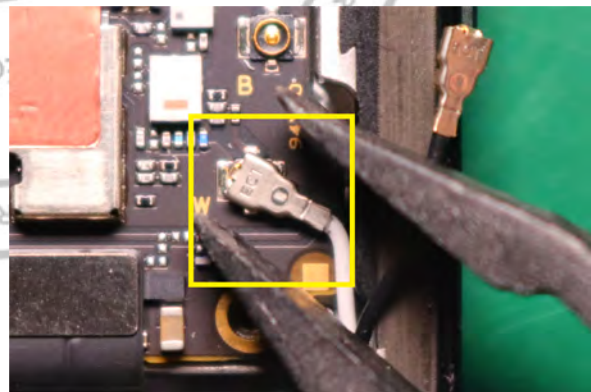
Be careful to avoid damaging the metal ring of the Black Coax Cable.



3. Use the Plastic Tweezers to disconnect the White Coax Cable from the location as shown.

NOTE

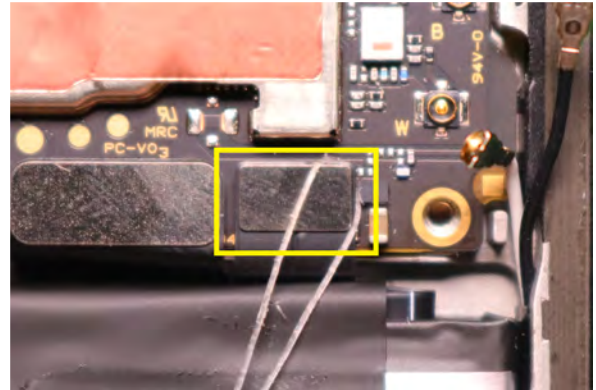
Be careful to avoid damaging the metal ring of the White Coax Cable.



4. Use the BtB tool to disengage the Battery Flex BtB Connector from the Main PCB as shown.

NOTE

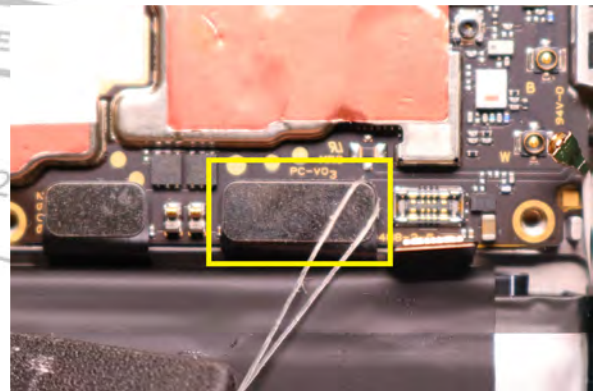
Be careful to avoid damaging the BtB connector.



5. Use the BtB tool to disengage the Main FPC BtB Connector from the Main PCB as shown.

NOTE

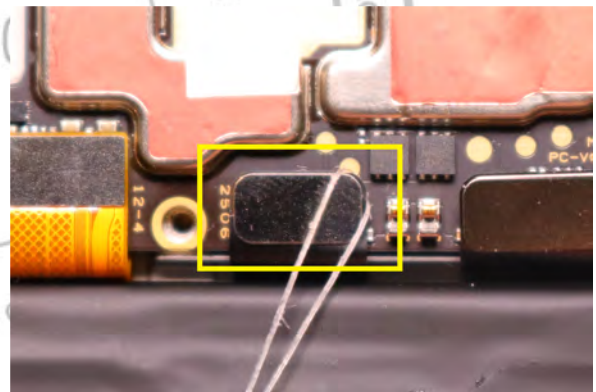
Be careful to avoid damaging the BtB connector.



6. Use the BtB tool to disengage the Main FPC BtB Connector from the Main PCB as shown.

NOTE

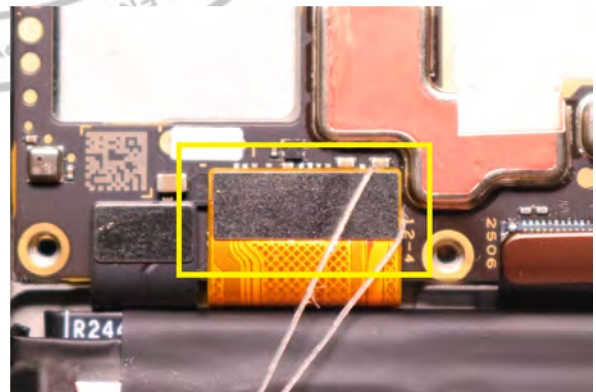
Be careful to avoid damaging the BtB connector.



7. Use the BtB tool to disengage the TP FPC BtB Connector from the Main PCB as shown.

NOTE

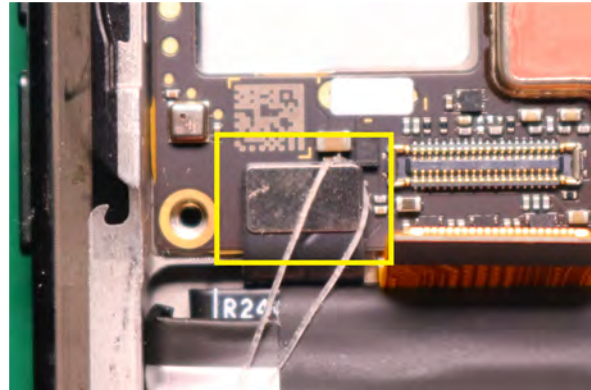
Be careful to avoid damaging the BtB connector.



8. Use the BtB tool to disengage the Battery Flex BtB Connector from the Main PCB as shown.

NOTE

Be careful to avoid damaging the BtB connector.



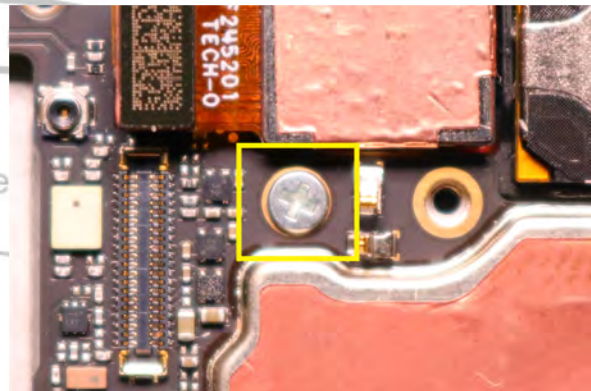
9. Use the Torque Driver with PH00 Bit to remove one screw as shown.

NOTE

Screws can be reused for refurbish operation in WW except in North America. Keep the screws properly if reusable.

/// WARNING ///

The screwdriver tip should be of the correct size for the screw head. Misuse of the screwdriver may cause damage.



10. Use the pointed end of the Black Stick to lift and remove the Main PCB from the location as shown.

NOTE

Do not lift too hard to damage the Main PCB.



SIM Board Removal

NOTE

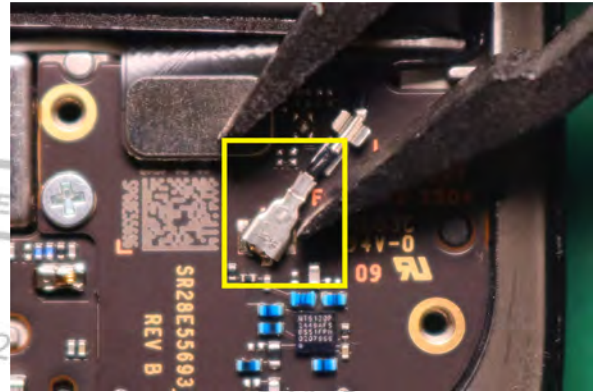
The SIM Board can be recovered and reused after removal.



1. Use the Plastic Tweezers to disconnect the Black Coax Cable from the location as shown.

NOTE

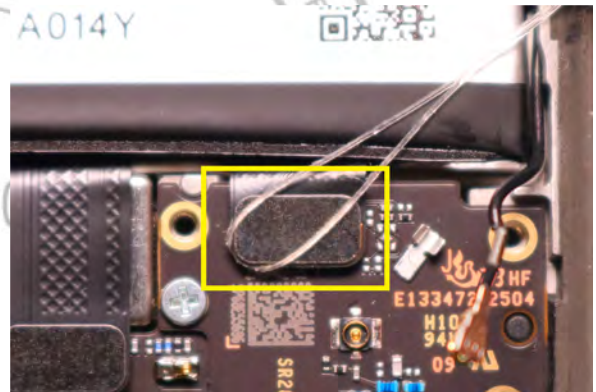
Be careful to avoid damaging the metal ring of the Black Coax Cable.



2. Use the BtB tool to disengage the Main FPC BtB Connector from the location as shown.

NOTE

Be careful to avoid damaging the BtB connector.



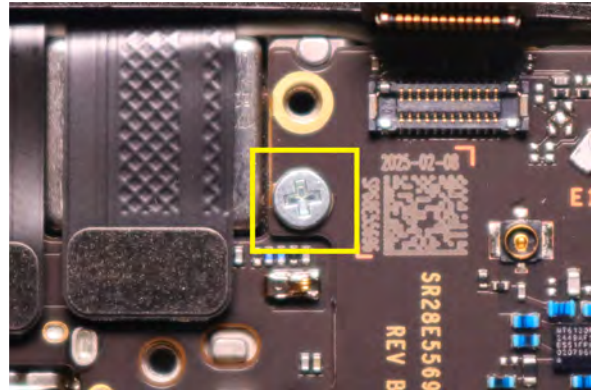
3. Use the Torque Driver with PH00 Bit to remove one screw as shown.

NOTE

Screws can be reused for refurbish operation in WW except in North America. Keep the screws properly if reusable.

/// WARNING ///

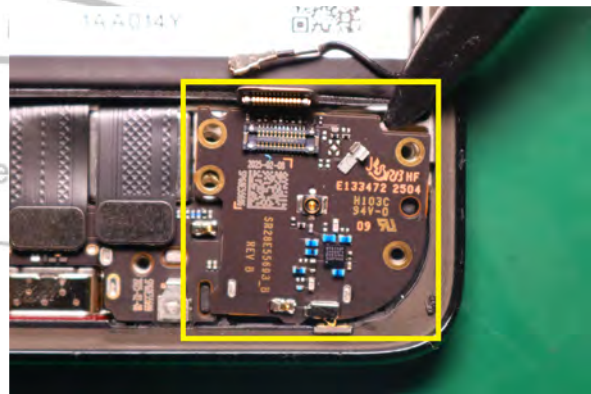
The screwdriver tip should be of the correct size for the screw head. Misuse of the screwdriver may cause damage.



4. Use the pointed end of the Black Stick to lift and remove the SIM Board from the location as shown.

NOTE

Do not lift too hard to damage the SIM Board.



FOD Sensor Removal

NOTE

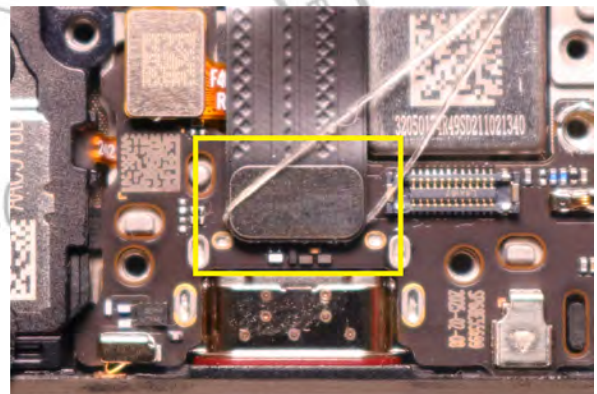
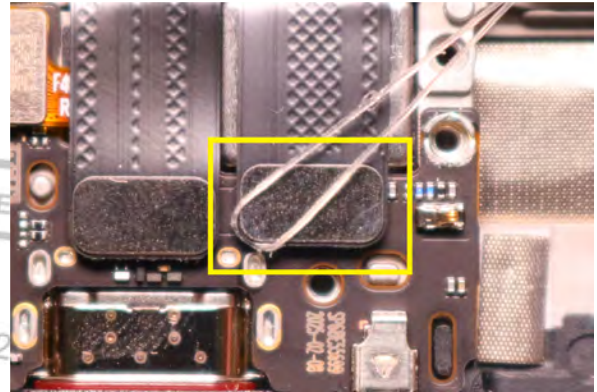
The FOD Sensor can be recovered and reused after removal.



1. Use the BtB tool to disengage the Main FPC BtB connectors from the location as shown.

NOTE

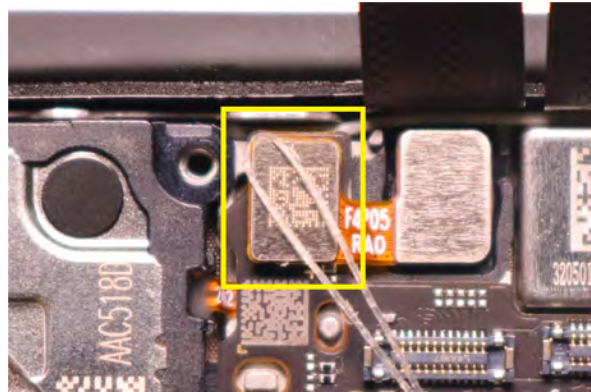
Be careful to avoid damaging the Main FPC BtB connectors.



2. Use the BtB tool to disengage the FOD Sensor BtB connector from the location as shown.

NOTE

Be careful to avoid damaging the FOD Sensor BtB connector.



3. Use the flat end of the Black Stick to lift and remove the FOD Sensor from the location as shown.

NOTE

Be careful to avoid damaging the FOD Sensor since it has back adhesive.



USB Board Removal

NOTE

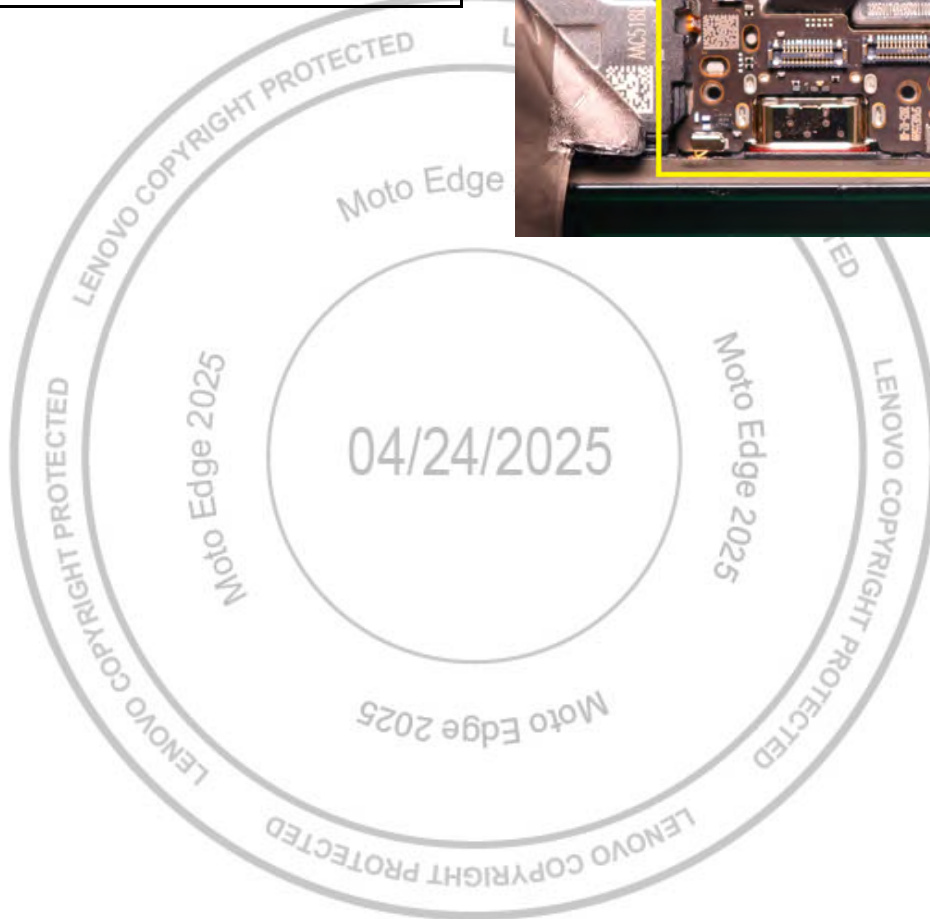
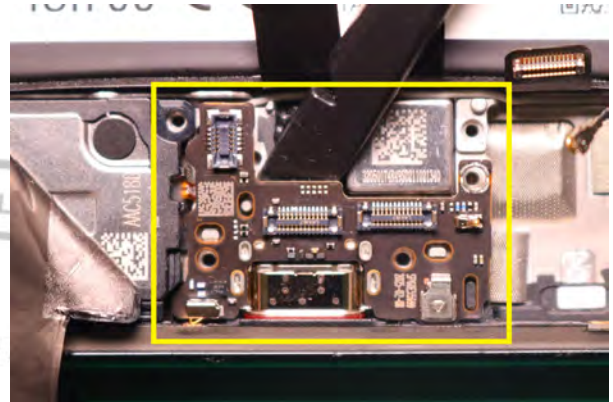
The USB Board can be recovered and reused after removal.



Use the flat end of the Black Stick to lift and remove the USB Board from the location as shown.

NOTE

Do not lift too hard to damage the USB Board.



Speaker Box Removal

NOTE

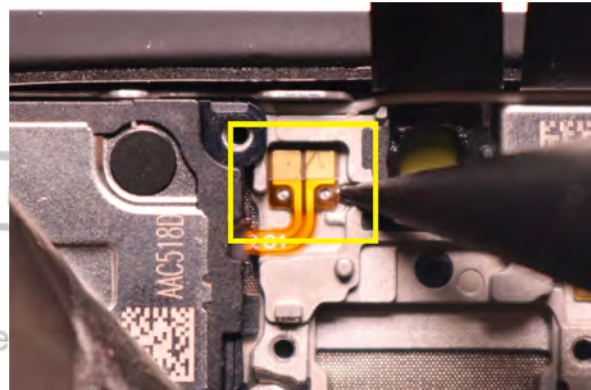
The Speaker Box can be recovered and reused after removal.



1. Use the pointed end of the Black Stick to disengage the Speaker Box FPC from the location as shown.

NOTE

Be careful to avoid damaging the Speaker Box FPC.



2. Use the Torque Driver with PH00 Bit to remove one screw as shown.

NOTE

Screws can be reused for refurbish operation in WW except in North America. Keep the screws properly if reusable.

/// WARNING ///

The screwdriver tip should be of the correct size for the screw head. Misuse of the screwdriver may cause damage.



3. Use the flat end of the black stick to lift and remove the Speaker Box from the location as shown.

NOTE

Do not lift too hard to damage the Speaker Box.



ANT Board Removal

NOTE

The ANT Board can be recovered and reused after removal.



1. Use the Torque Driver with PH00 Bit to remove one screw as shown.

NOTE

Screws can be reused for refurbish operation in WW except in North America. Keep the screws properly if reusable.

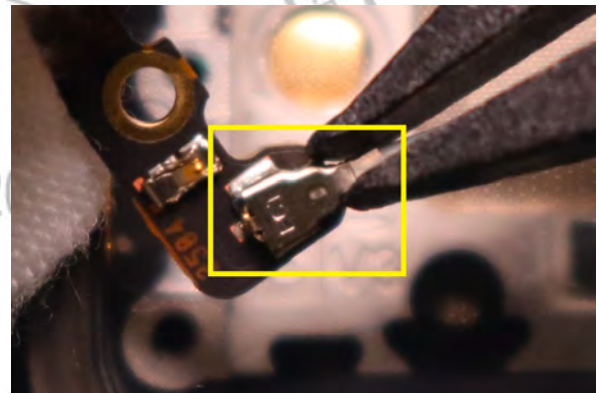
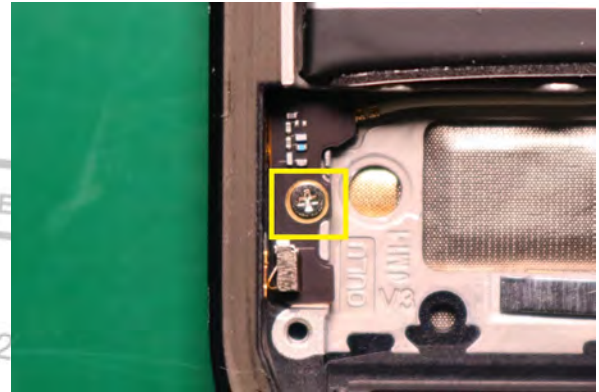
/// WARNING ///

The screwdriver tip should be of the correct size for the screw head. Misuse of the screwdriver may cause damage.

2. Use the Plastic Tweezers to disconnect the White Coax Cable from the location as shown.

NOTE

Be careful to avoid damaging the metal ring of the White Coax Cable.



Battery Removal

Battery Removal Method A

/// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

NOTE

Remove the Battery only if it is defective or damaged. After you remove it, it's not recommended to reuse the battery.



// CAUTION //

Handle the Battery Pack with care. If dropped on the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and through assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.

NOTE

A small amount of isopropyl alcohol (IPA) can facilitate battery removal.

/// WARNING ///

1. Take special care to prevent IPA from entering the battery driver circuit or battery connector, as it may cause a short circuit.
2. If used excessively, IPA can migrate inside the display and reach internal components, potentially causing blemishes.
3. Be careful to thoroughly clean up any residual IPA.

1. Set the temperature of the Hot Plate to 80°C (176°F).

// CAUTION //

Do not set the Hot Plate temperature higher than 80°C (176°F). Damage to the phone may occur.

NOTE

Preheating with an oven is also acceptable if the oven is set to the same temperature.

NOTE

If you don't have an oven, you can use a hair dryer for Battery removal. Make sure the hair dryer's working temperature is lower than 80°C (176°F) to avoid potential damage to the phone.

2. Place the phone on the Hot Plate, with the Display side down.



3. Wait 10 minutes for the adhesive to warm up.

NOTE

Heat the phone sufficiently to avoid damaging the part.

4. Use the Thin Plastic Spudger to cut the adhesives from the top of the Battery.



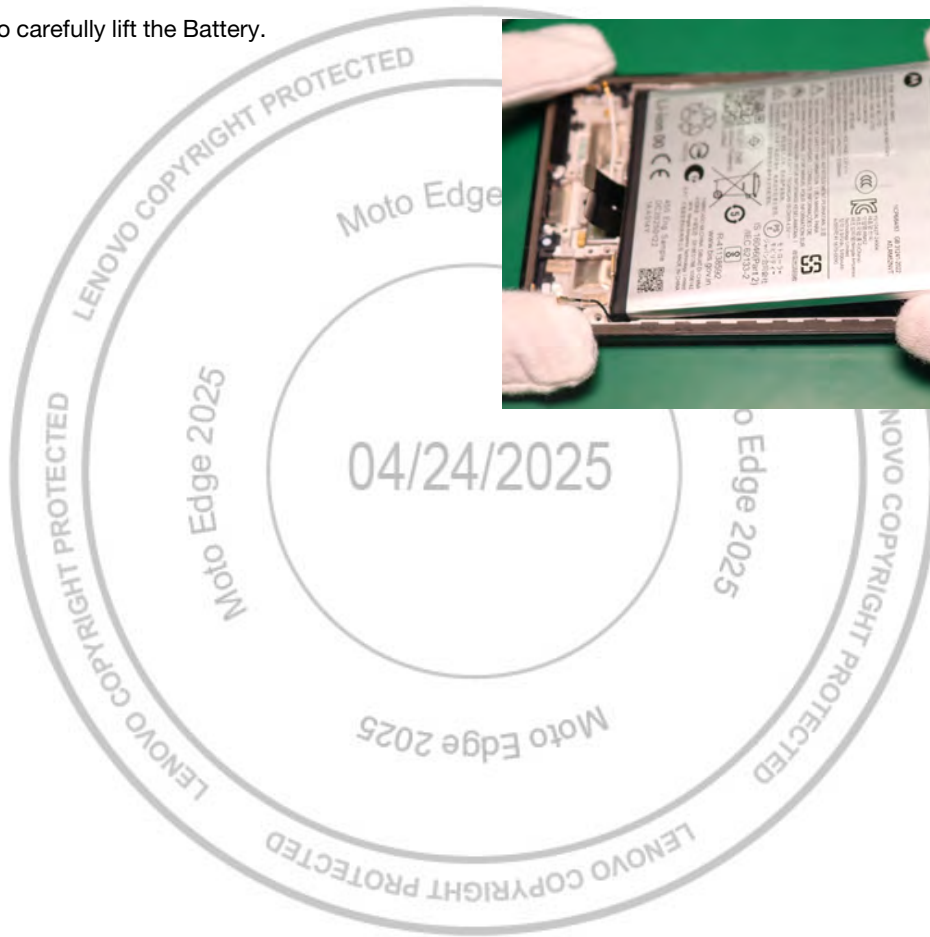
5. Use the Thin Plastic Spudger to cut the adhesives from the side of the Battery.



6. Use the Thin Plastic Spudger to cut the adhesives from the bottom of the Battery.



7. Use fingers to carefully lift the Battery.



Battery Removal Method B

/// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

NOTE

Ensure the display assembly is fully dried before reuse to avoid any potential liquid damage after assembled.

NOTE

Drying the display assembly in an oven with 60°C for 2-3 mins is needed prior to using.

// CAUTION //

Handle the Battery Pack with care. If dropped on the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e. g. scratched, dented, punctured) prior to and through assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.

1. The power supply line is more than 2.5 meters away.
2. Allow enough space for heat dissipation, more than 1 meter is recommended.



3. Avoid more than 2 hours idle time and turn off overnight.



4. Turn on the Freezing Separator.

NOTE

The switch is on the back.



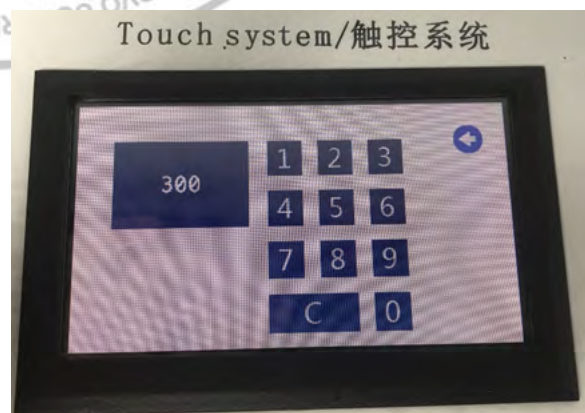
5. Select the Language menu and set the desired language.



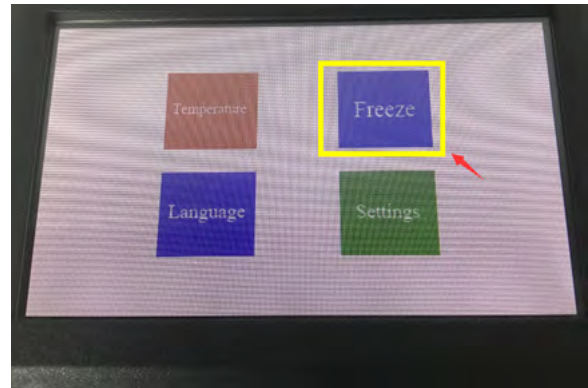
6. Select the settings menu, set the temperature and Freezing times.
Set the temperature to -40 °C: Click the temperature menu, enter 40 on the screen number. Then press the arrow in the upper right corner to return.



7. Set the Freezing time to 300 seconds (5 Minutes): Click the time menu, enter 300 on the screen number. Then press the arrow in the upper right corner to return to the main menu.



8. Click Freeze menu, then click the start menu.



9. Verify the temperature reaches the setting value. When the temperature reaches -40 degrees, the compressor will stop, then open the door.



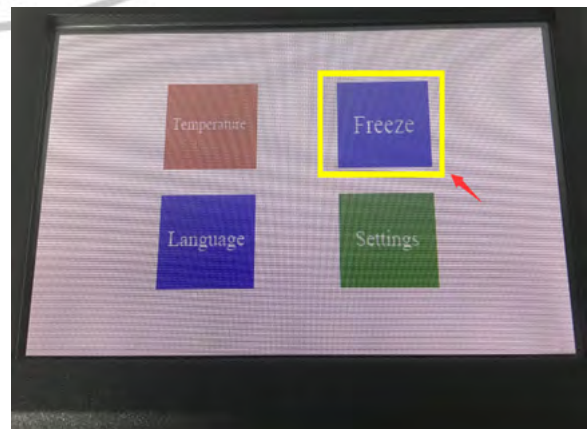
10. Put display into sealing bag and seal then put 1~2 Display into cold plate and close the door.

NOTE

Please wear cotton gloves during placement to avoid contact with frozen surface and injury to hands. Phone or display need face down.



11. Click Freeze menu.



12. Click the start menu.

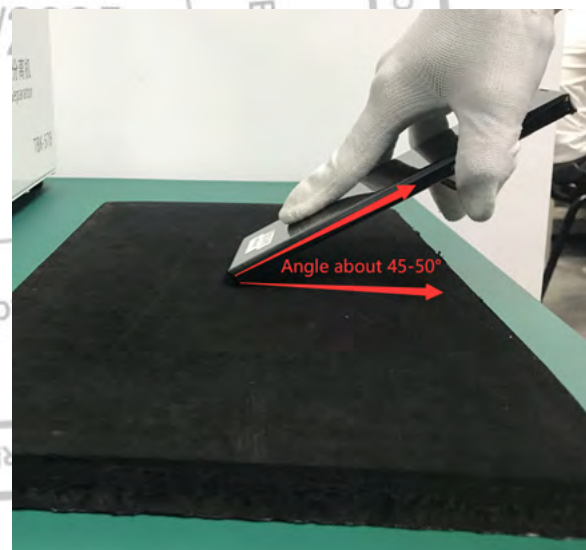


13. After clicking the Start menu, Start the countdown, and freeze it for 5 minutes. When the countdown time reaches, the device will alarm and ring three times.
14. Open the door. Take out one Display at the time with wearing cotton gloves. Take out the Display in the order it was put in.

NOTE

Please wear cotton gloves during taking to avoid contact with frozen surface and injury to hands.

15. Remove the Battery.
16. Take out the frozen assembly from the bags.
17. Holding the Display place the Battery face down with the ESD sponge pad at an angle of about 45-50 degrees, and hit on the pad 3-4 times, the Battery will fall off automatically.
18. After the Battery removed. Immediately put the Batteries and Display into two different sealed bag and sealed into bags for temperature return.



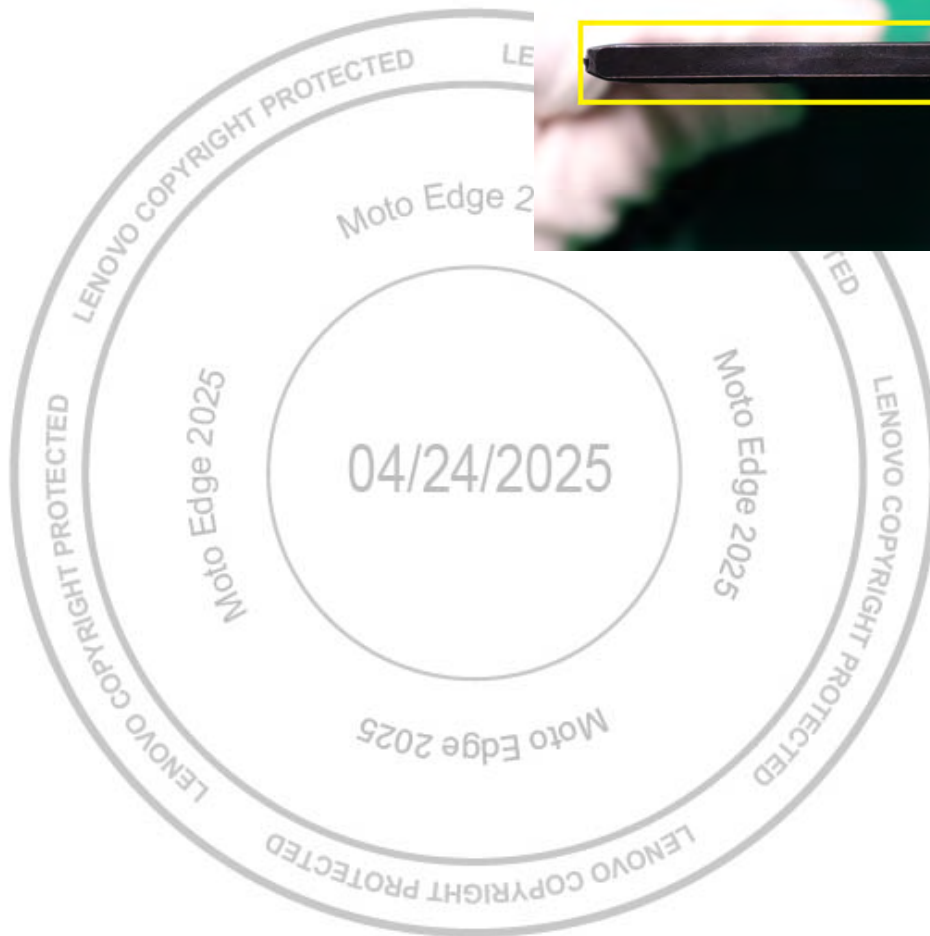
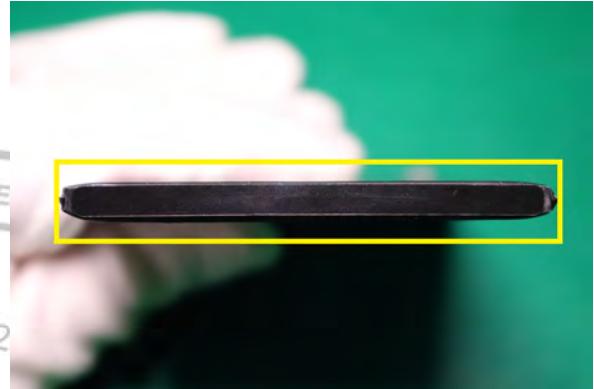
Battery Buffer Foam Removal

NOTE

After you remove the Battery Buffer Foam, you cannot reuse it.



Use the Plastic Tweezers to remove the Battery Buffer Foam from the location as shown.



Front-Facing Camera Removal

NOTE

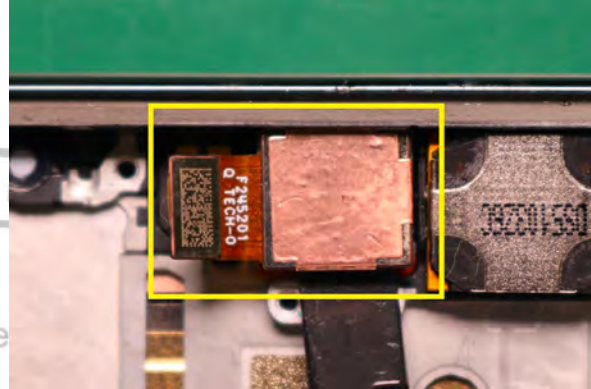
The Front-Facing Camera can be recovered and reused after removal.



Use the flat end of the Black Stick to disengage and remove the Front-Facing Camera from the location as shown.

NOTE

There is back adhesive on the camera lens area. Be careful to avoid damaging the Front-Facing Camera.



Receiver Removal

NOTE

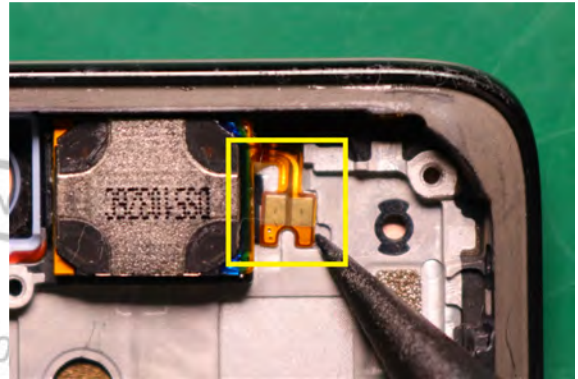
After you remove the Receiver, you cannot reuse it.



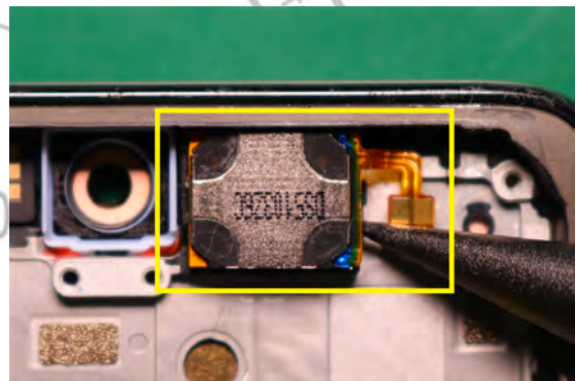
1. Use the pointed end of the Black Stick to disengage the Receiver FPC from the location as shown.

NOTE

Be careful not to scratch the Front-Housing.



2. Use the pointed end of the Black Stick to disengage and remove the Receiver from the location as shown.



Proximity Sensor Board Removal

NOTE

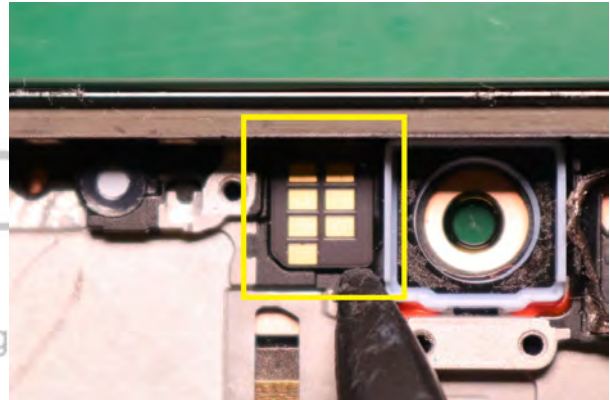
The Proximity Sensor Board can be recovered and reused after removal.



Use the pointed end of the Black Stick to disengage and remove the Proximity Sensor Board on the location as shown.

NOTE

Be careful to avoid damaging the Proximity Sensor Board and Front-Housing.



Vibrator Removal

NOTE

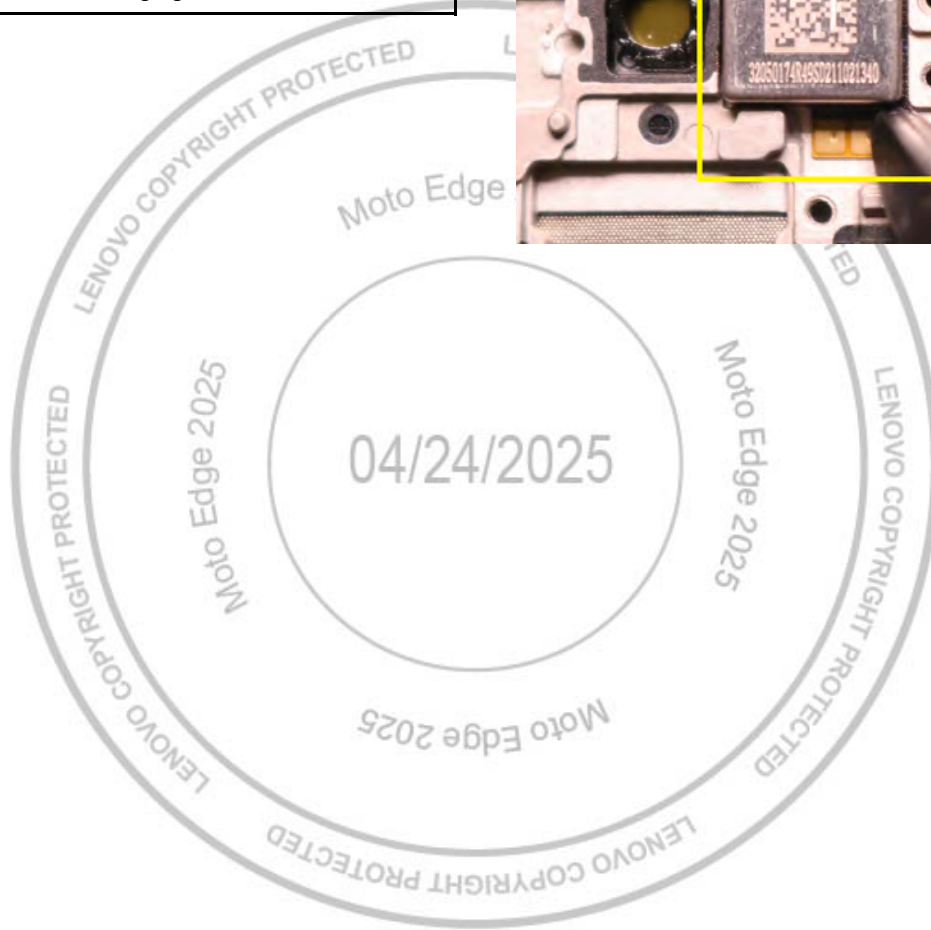
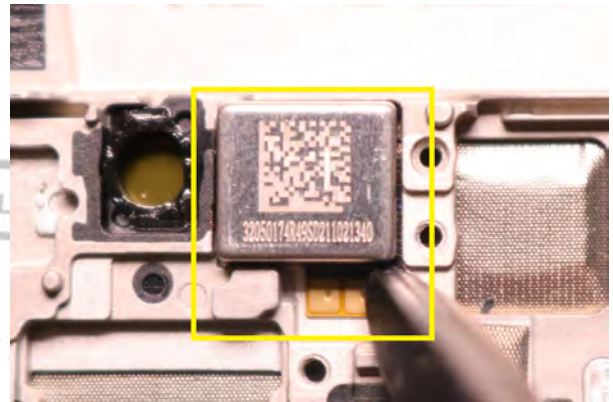
The Vibrator can be recovered and reused after removal.



Use the pointed end of the Black Stick to disengage and remove the Vibrator from the location as shown.

NOTE

Be careful to avoid damaging the Vibrator.



Main FPC Removal

NOTE

The Main FPC can be recovered and reused after removal.



Use fingers to remove the Main FPC from the location as shown.

NOTE

Remove the Main FPC by starting from the Main PCB side; starting from the sub board side may cause the graphite to wrinkle or damaged.



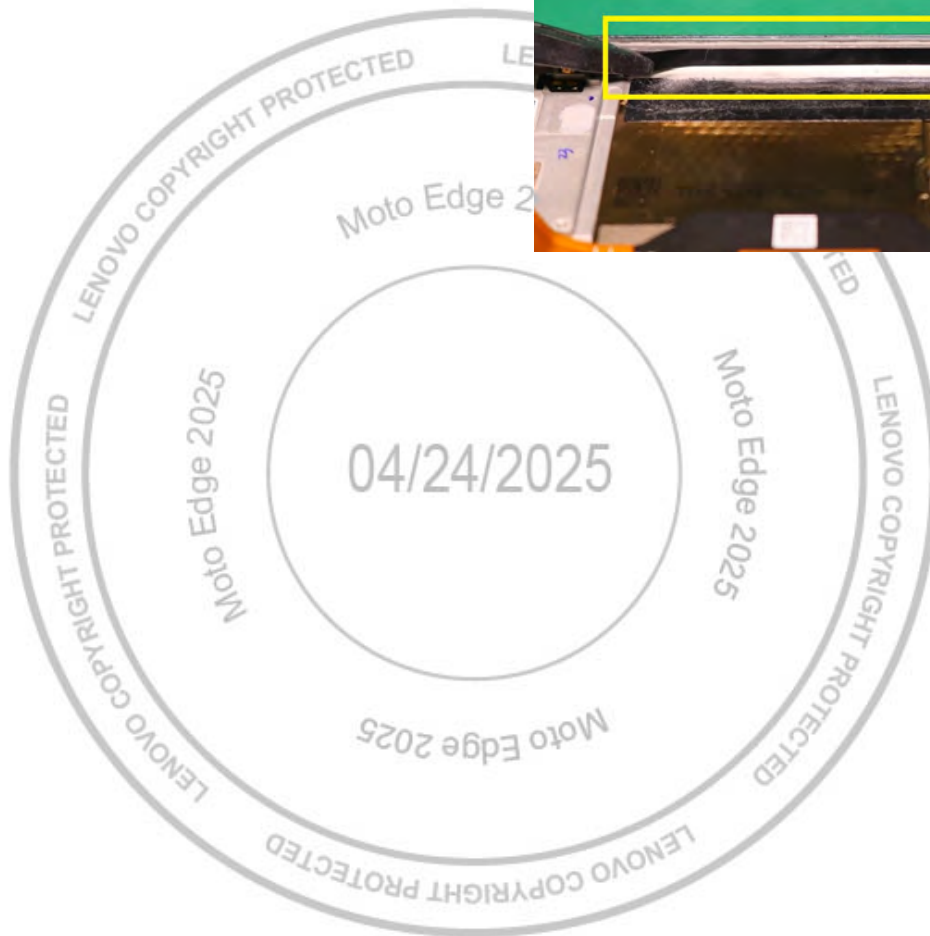
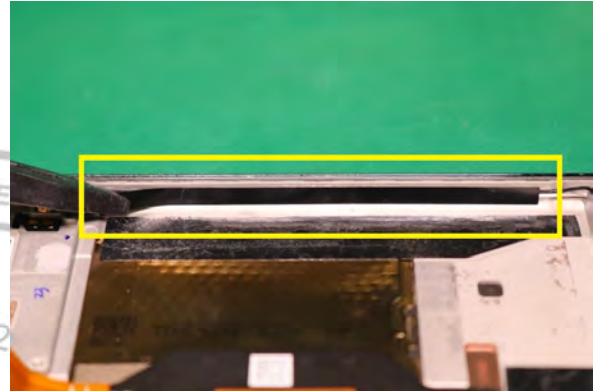
Coax Cable Mylar Removal

NOTE

After you remove the Coax Cable Mylar, you cannot reuse it.



Use the Plastic Tweezers to remove the Coax Cable Mylar from the location as shown.



Black Coax Cable Removal

NOTE

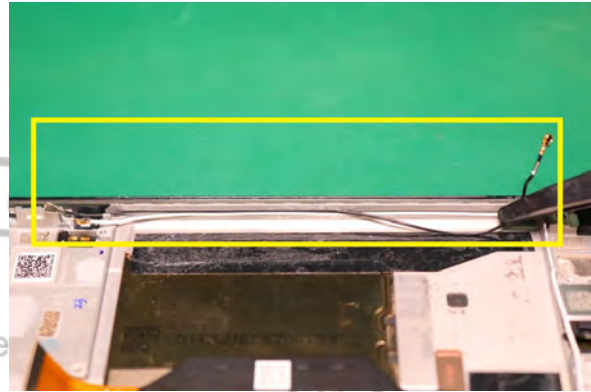
The Black Coax Cable can be recovered and reused after removal.



Use the Plastic Tweezers to remove the Black Coax Cable from the location as shown.

NOTE

Coax Cable cannot be reused in North America refurbish operation.



White Coax Cable Removal

NOTE

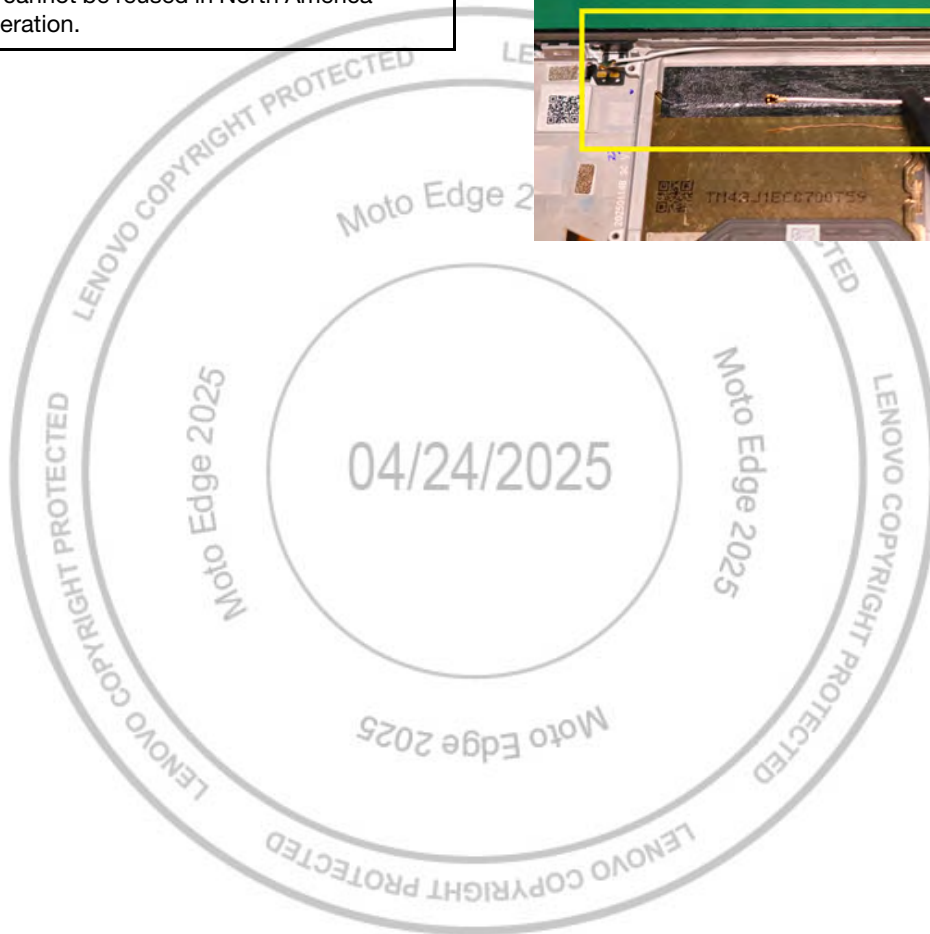
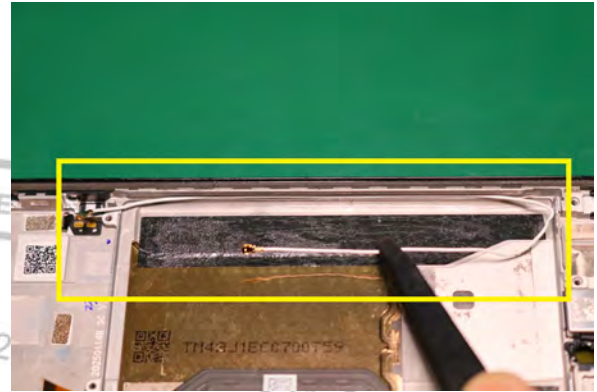
The White Coax Cable can be recovered and reused after removal.



Use the Plastic Tweezers to remove the White Coax Cable from the location as shown.

NOTE

Coax Cable cannot be reused in North America refurbish operation.





Chapter 4. Parts Refresh

Tools Required for Parts Refresh

The following tools are required for parts refresh of the Moto Edge 2025.

Description	Part #	Image
Plastic Tweezers	--	--
Black Stick	--	
ESD Mat	--	--
Wrist Strap	--	--
Isopropyl (ISP) Alcohol	--	--
Cotton Swabs	--	--
Cleaning Pads	--	--
Gloves or Finger Collets	--	--

Battery Cover Cleaning

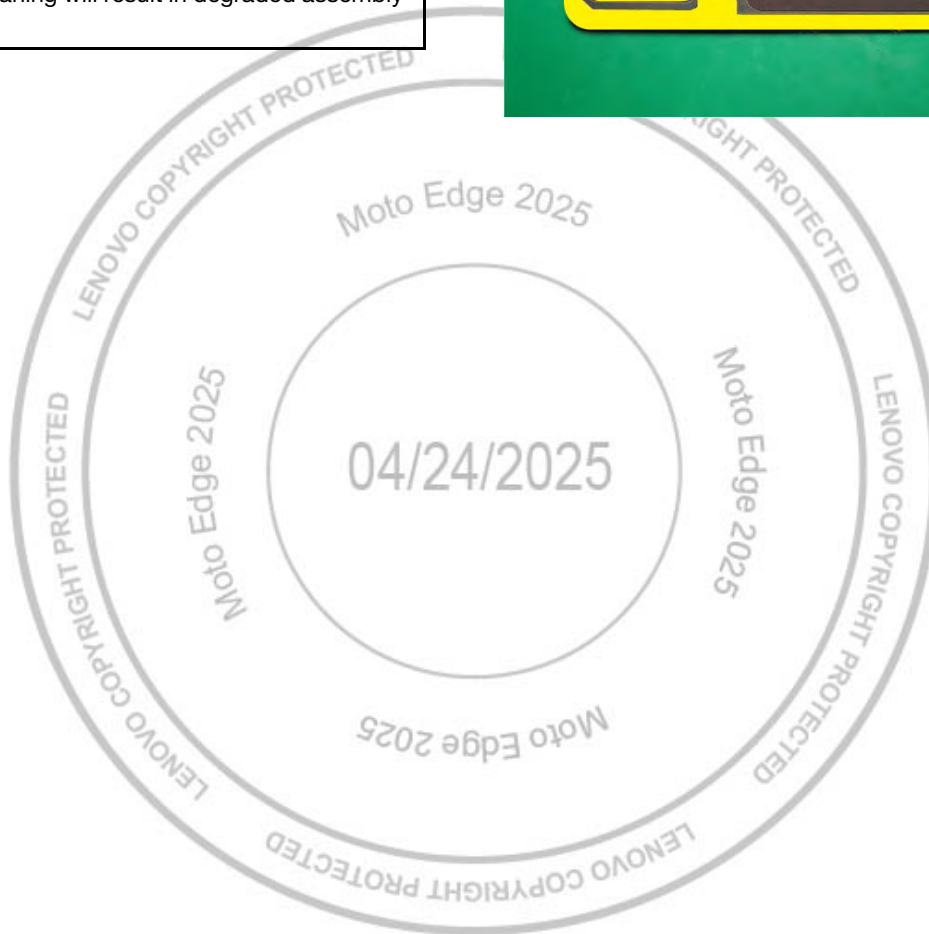
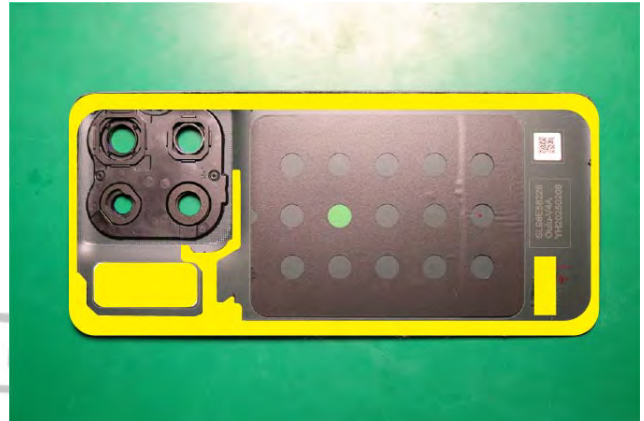
Use the ISP Alcohol and Cotton Swabs to remove all the adhesives on the Battery Cover as shown.

// CAUTION //

Remove the adhesive carefully to avoid damage to the Battery Cover.

// CAUTION //

Inadequate cleaning will result in degraded assembly quality.



Front-Housing Cleaning

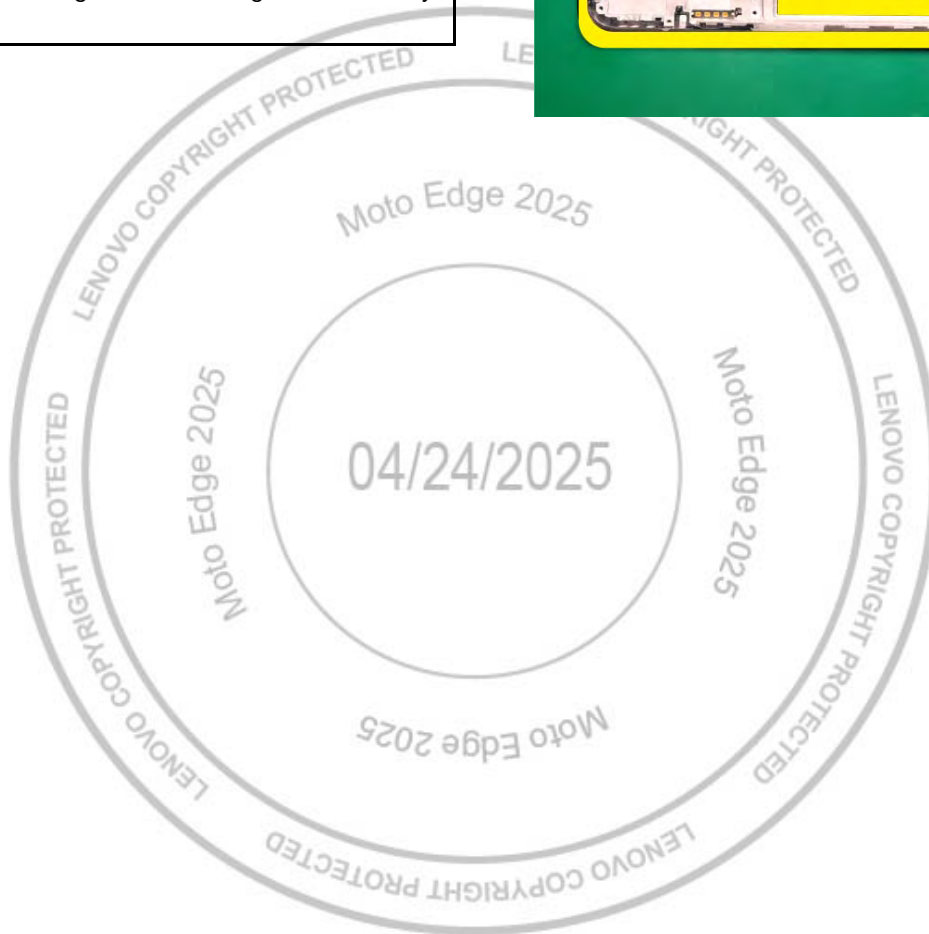
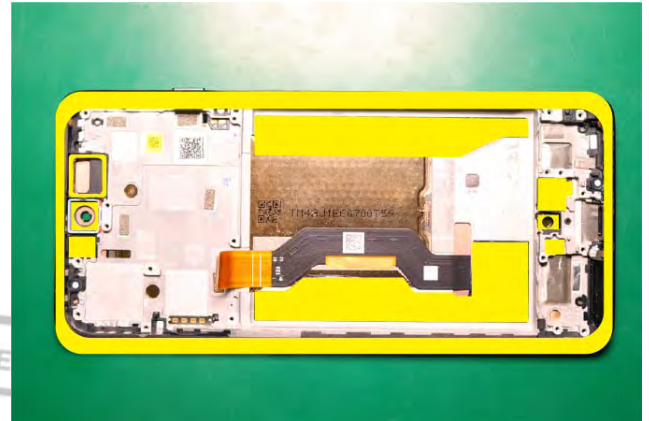
Use the Cotton Swabs with ISP Alcohol to remove all the adhesives from the location as shown.

// CAUTION //

Remove the adhesive carefully to avoid damage to the Front-Housing.

// CAUTION //

Inadequate cleaning will result in degraded assembly quality.

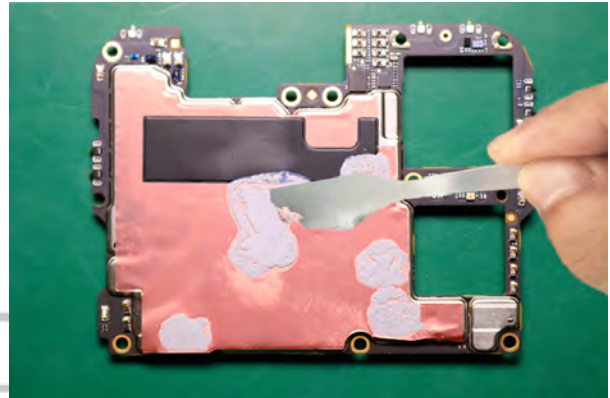


Thermal Gel Cleaning

Use Plastic Scraper to remove the most part of Thermal putty from the Main PCB and Front-Housing.

// CAUTION //

Remove the Thermal putty carefully to avoid damage to the Front-Housing and Main PCB.

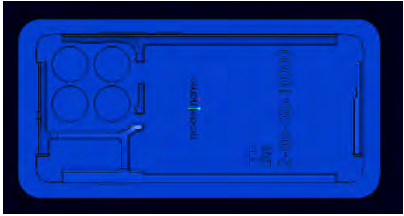
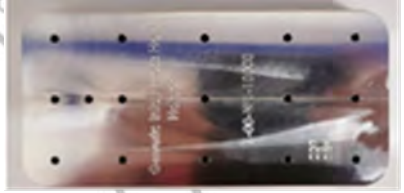
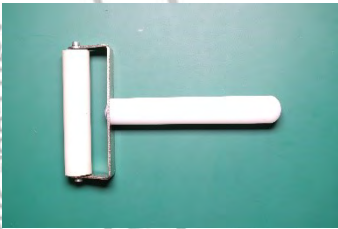


Tools Required for Assembly

The following tools are required to assemble the Moto Edge 2025.

NOTE
Improper tools may cause damage to components.

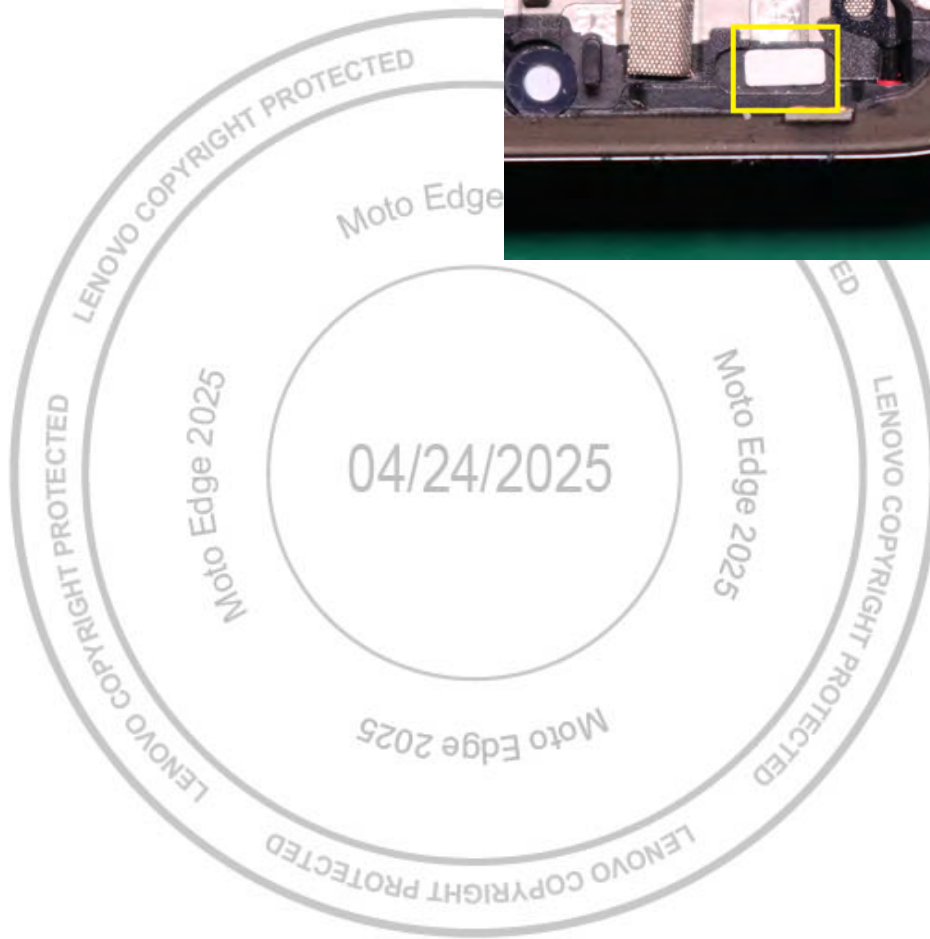
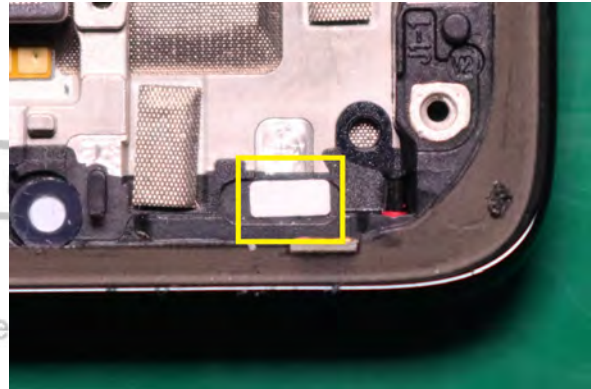
Description	Part #	Picture/Drawing
Black Stick	--	
Torque Driver	--	
PH00 Bit	--	
Regen-I Pneumatic Press System	RG262	
Houston inlay adhesive alignment Supplier: AMS Email: Andrea.Arhelger@ams-flensburg.com	2-00-D7-10000	

Description	Part #	Picture/Drawing
Prado NA inlay adhesive alignment Supplier: AMS Email: Arhelger@ams-flensburg.com	2-00-D8-10000	
Inlay Press – Press Pad for 4 Corner Supplier: AMS Email: Arhelger@ams-flensburg.com	2-00-D9-10000	
Generic Inlay Press -Holder Supplier: AMS Email: Andrea.Arhelger@ams-flensburg.com	1-00-W1-10000	
Manual Roller		
AP-111 Note: 3M N200 or 3M K500 can be alternative material for 3M AP-111.		
Plastic Tweezers	--	--
Tweezers	--	--
Gloves or Finger Collets	--	--

Water Detection Label Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,WATERPROOF,Waterproof LBL TMO	-

Use the Plastic Tweezers to place the Water Detection Label (WDL) on the Front-Housing as shown.



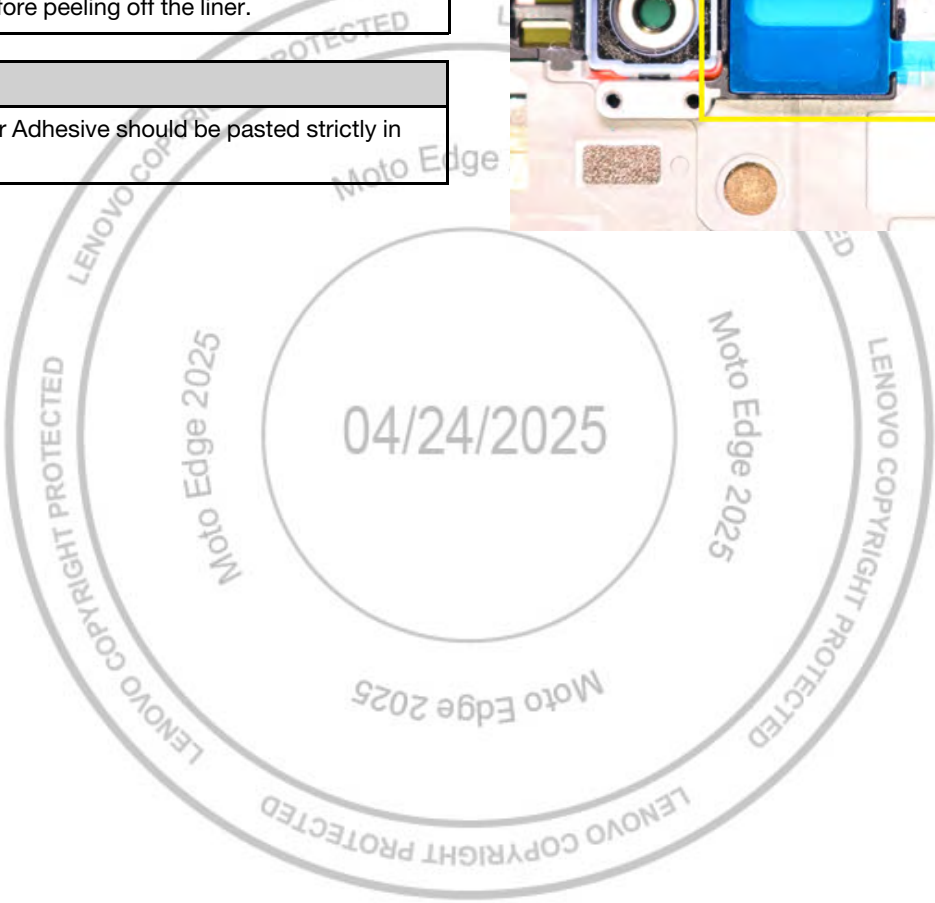
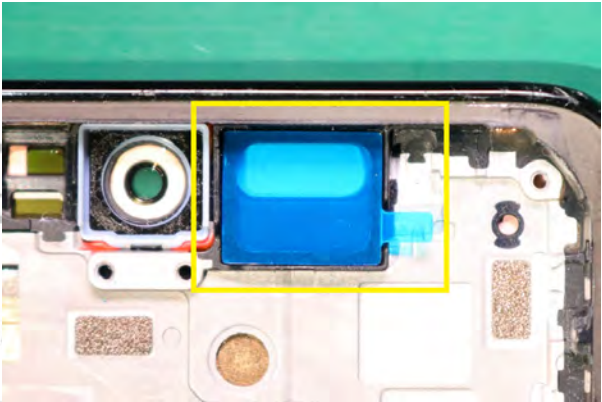
Receiver Adhesive Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_RECEIVER_PSA	34

Use the Plastic Tweezers to place the Receiver Adhesive on the location as shown and peel off the liner.

NOTE
Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.

NOTE
The Receiver Adhesive should be pasted strictly in place.



Receiver Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
AU,RCVR,10x12x2.9mm,7ohm,+FPC	20

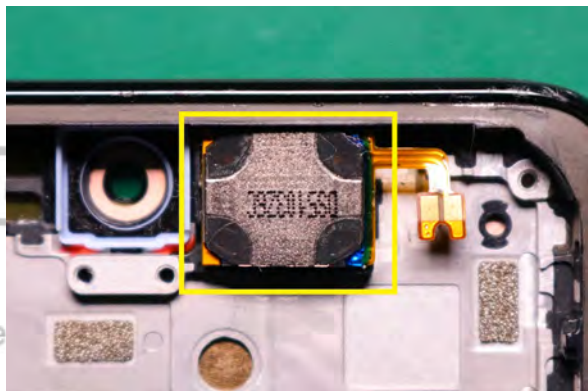
1. Use the Plastic Tweezers to place and secure the Receiver on the location as shown.

NOTE

Press firmly for seconds 3 times to activate the adhesive.

NOTE

The Receiver should be assembled strictly in place. Improper installation will affect the signal of the phone.



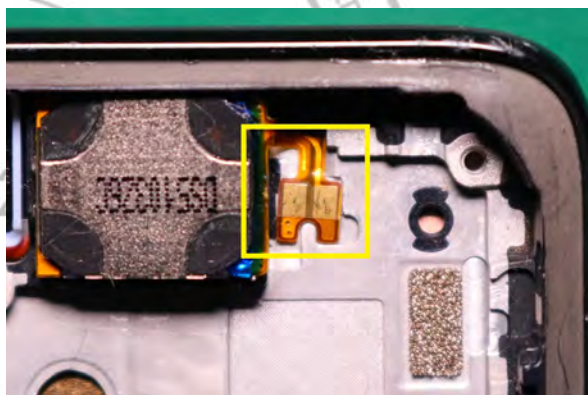
2. Use the Plastic Tweezers to place the Receiver FPC on the location aligning with the pin as shown.

NOTE

Press firmly for seconds 3 times to activate the adhesive.

NOTE

Be careful not to damage the Receiver FPC.



Proximity Sensor Board Adhesive Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_P_SENSOR_PSA	37

Use the Plastic Tweezers to place the Proximity Sensor Board Adhesive on the location as shown and peel off the liner.

NOTE

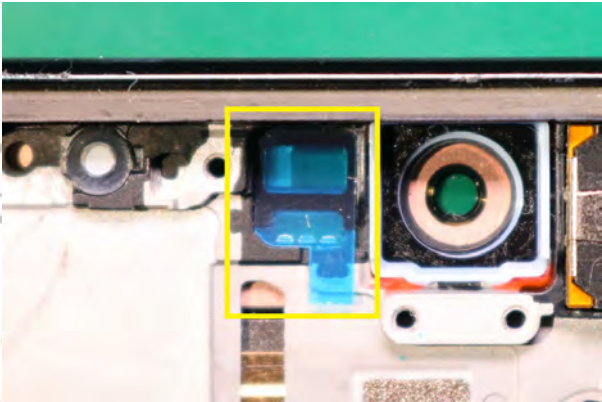
Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.

NOTE

The Proximity Sensor Board Adhesive should be pasted strictly in place.

NOTE

Be careful to avoid touching the touch screen.

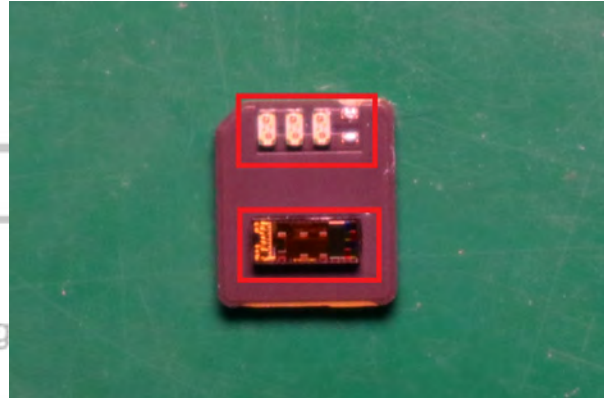


Proximity Sensor Board Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519 PUD Board CS	6

NOTE

Correctly identify the chip area and sensor area to prevent inverted installation.



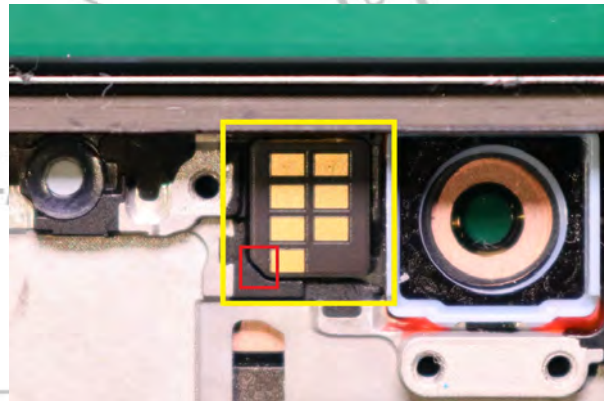
Use the Plastic Tweezers to place and secure the Proximity Sensor Board on the location as shown.

NOTE

Press firmly for seconds 3 times to activate the adhesive.

NOTE

The Proximity Sensor Board should be pasted strictly in place.



FOD Adhesive Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_FOD_ADH	31

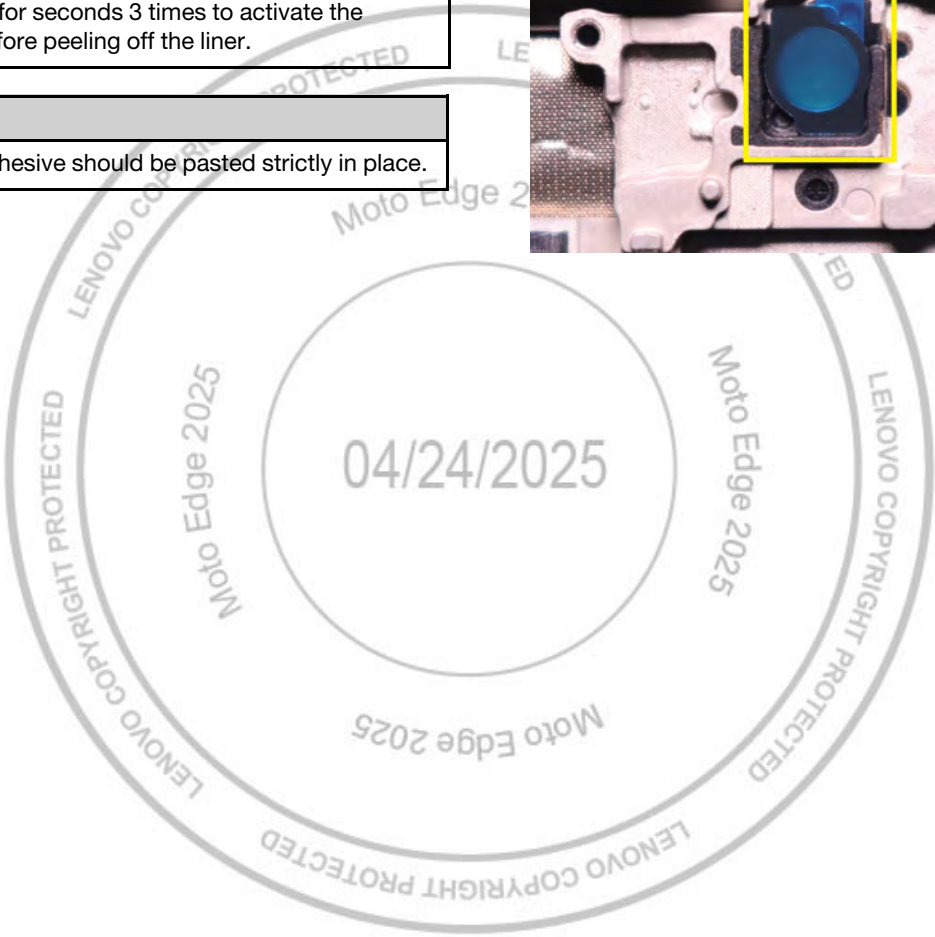
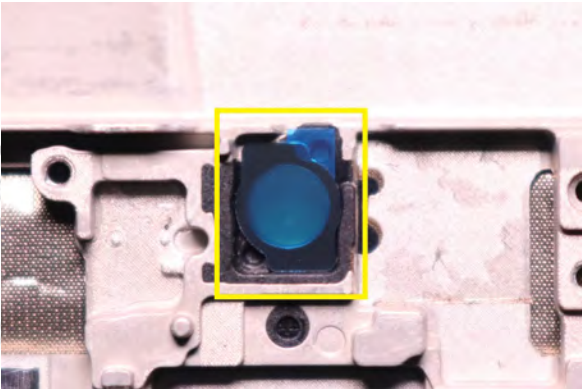
Use the Plastic Tweezers to place the FOD Adhesive on the location as shown and peel off the liner.

NOTE

Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.

NOTE

The FOD Adhesive should be pasted strictly in place.



Vibrator Adhesive Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_MOTOR_ADH	35

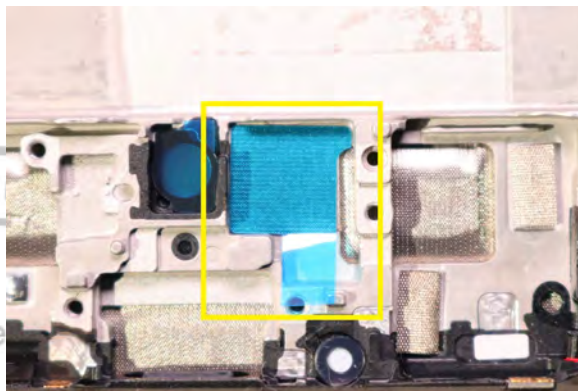
Use the Plastic Tweezers to place the Vibrator Adhesive on the location as shown and peel off the liner.

NOTE

Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.

NOTE

The Vibrator Adhesive should be pasted strictly in place.



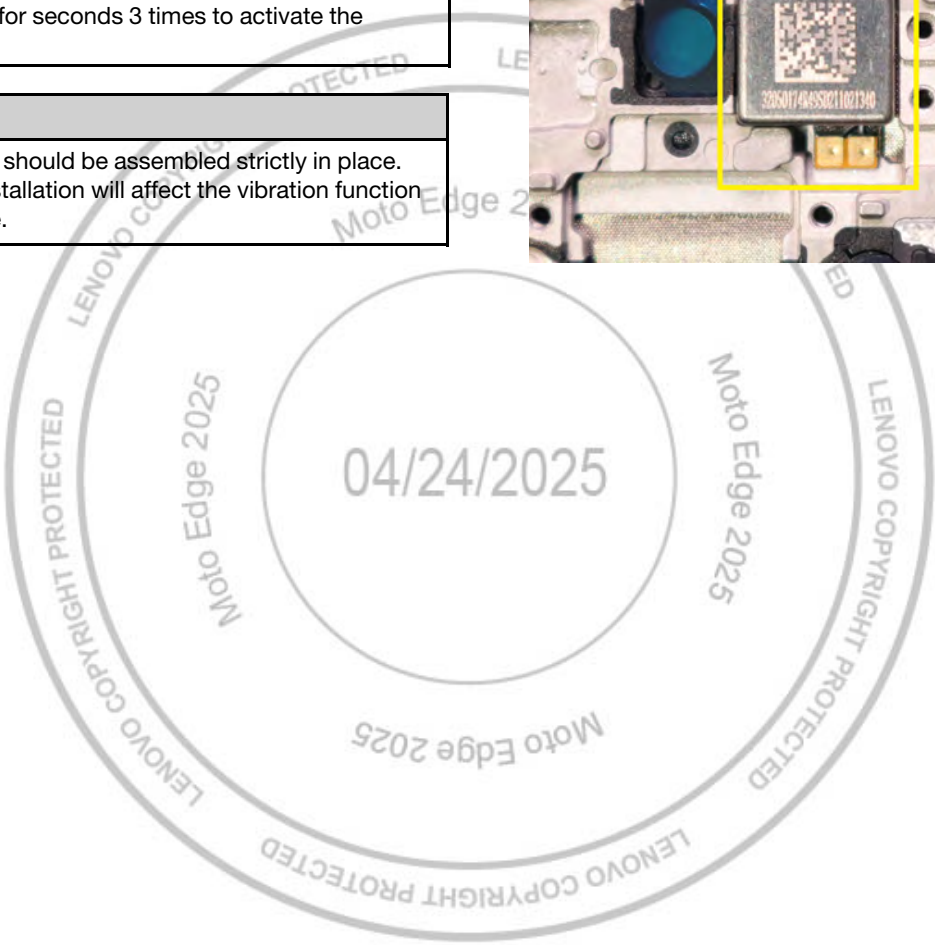
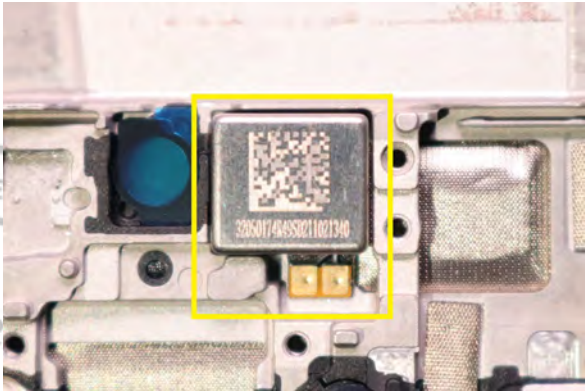
Vibrator Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
VIBR,LIN,8x9x3.5mm,170Hz,8+/-1 Ohms	19

Use the Plastic Tweezers to place the Vibrator on the location as shown.

NOTE
Press firmly for seconds 3 times to activate the adhesive.

NOTE
The Vibrator should be assembled strictly in place. Improper installation will affect the vibration function of the phone.



ANT Board Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519 ANT Board CS	5
CBL,COAX,CABLE2_OULU	22
ZEEKR SCREW_M1P2_1P55_H03_CROSS	-

1. Use the Plastic Tweezers to place and secure the White Coax Cable on the back side of the ANT Board as shown.

NOTE

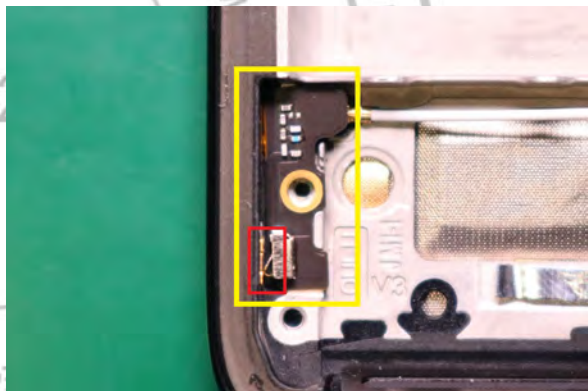
Align the interface before securing to avoid damaging the contacts.



2. Use the Plastic Tweezers to place and secure the ANT Board on the location as shown.

NOTE

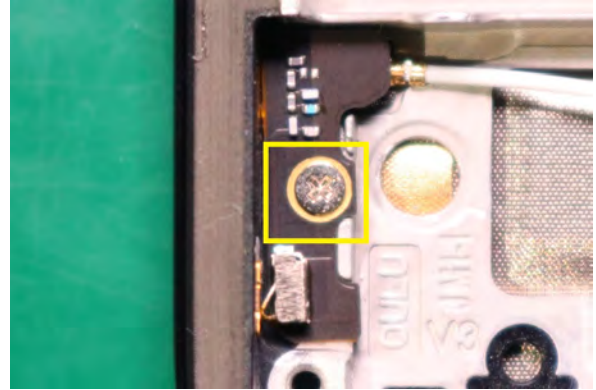
Check that the metal spring is correctly positioned against the contact point on the Front-Housing.



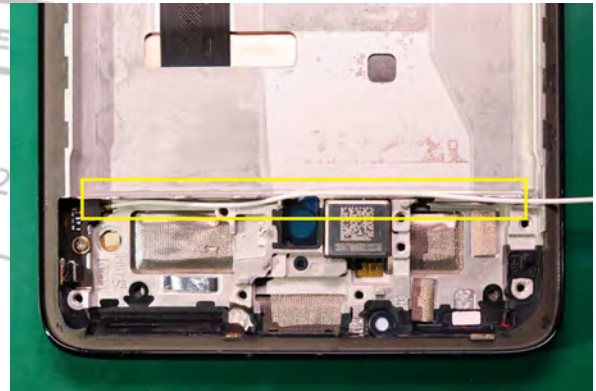
3. Use Torque Driver with PH00 Bit to tighten one screw as shown (0.5 ± 0.04 kgf-cm).

NOTE

The screw should not be over tightened or loosened. Improper twisting force may cause damage or components to fall out.



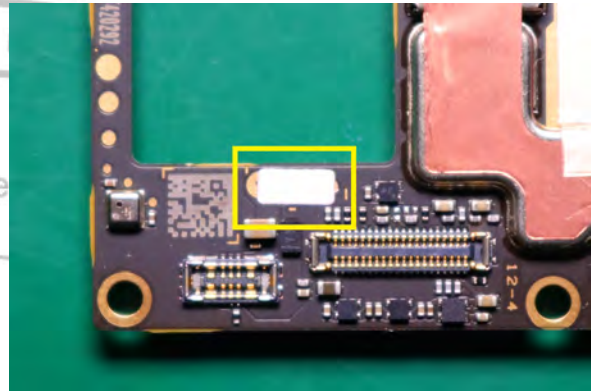
4. Use the pointed end of the Black Stick to place the White Coax Cable into the cable guide.



Water Detection Label Assembly

Description	Reference #
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
DICUT,WATERPROOF,Waterproof LBL TMO	-

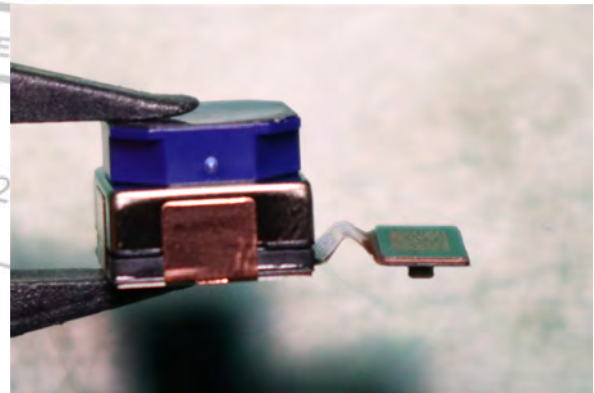
Use the Plastic Tweezers to place the Water Detection Label (WDL) on the Main PCB as shown.



50M Wide Rear-Facing Camera Assembly

Description	Reference #
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
MDL,CAMR,50M,rear,LJNSA50;O-film,AF:Leva	15

1. Pre-bend the 50M Wide Rear-Facing Camera FPC as shown.



2. Use fingers to place and secure the 50M Wide Rear-Facing Camera on the Main PCB as shown.

NOTE

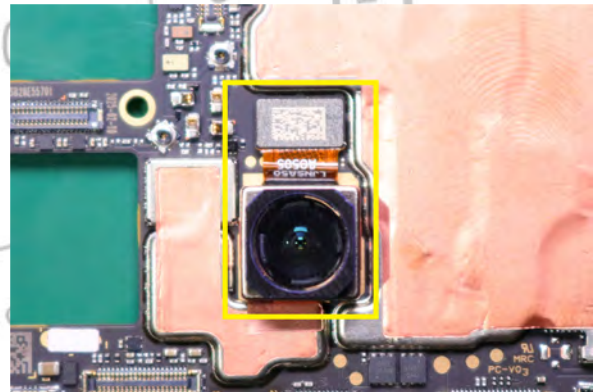
Align the interface before securing to avoid damaging the contacts.

NOTE

The 50M Wide Rear-Facing Camera should be assembled strictly in place. Improper installation will affect the photograph function of the phone.

NOTE

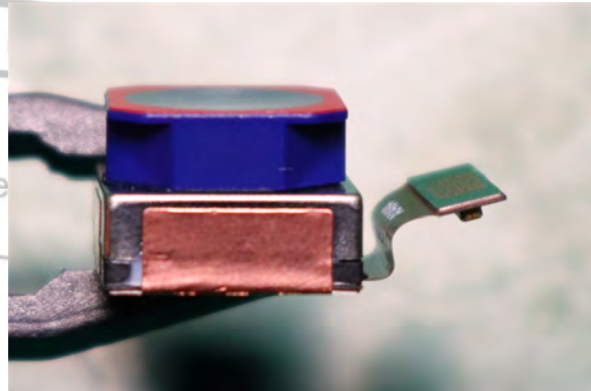
Do not peel off the protective cover until you assemble the Top Bracket.



10M Rear-Facing Camera Assembly

Description	Reference #
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
MDL,CAMR,10M,rear,L3K1A00;O-film,OIS:Mac	12

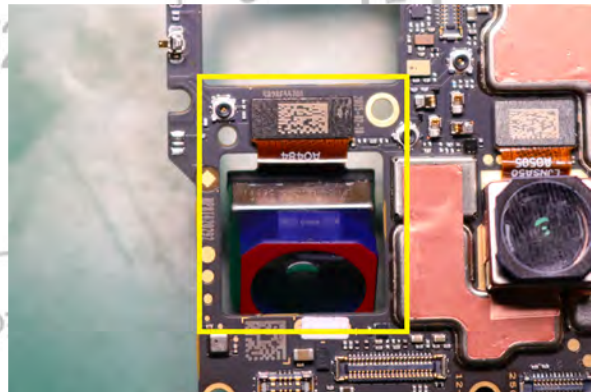
1. Pre-bend the 10M Rear-Facing Camera FPC as shown.



2. Use fingers to place the main body of the camera through the slot, then secure the 10M Rear-Facing Camera BtB connector on the Main PCB as shown.

NOTE

Align the interface before securing to avoid damaging the contacts.



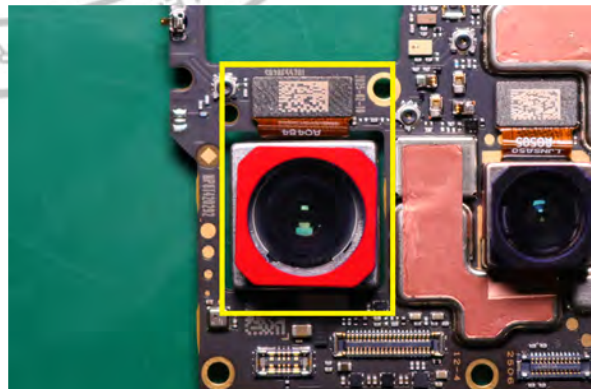
3. Use fingers to carefully place the 10M Rear-Facing Camera in the slot on the Main PCB.

NOTE

The 10M Macro Rear-Facing Camera should be assembled strictly in place. Improper installation will affect the photograph function of the phone.

NOTE

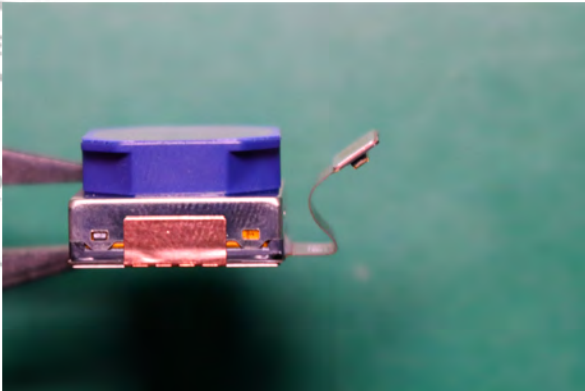
Do not peel off the protective cover until you assemble the Top Bracket.



50M Main Rear-Facing Camera Assembly

Description	Reference #
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
MDL,CAMR,50M,rear,L896A40;O-film,OIS:Wra	13

1. Pre-bend the 50M Main Rear-Facing Camera FPC as shown.



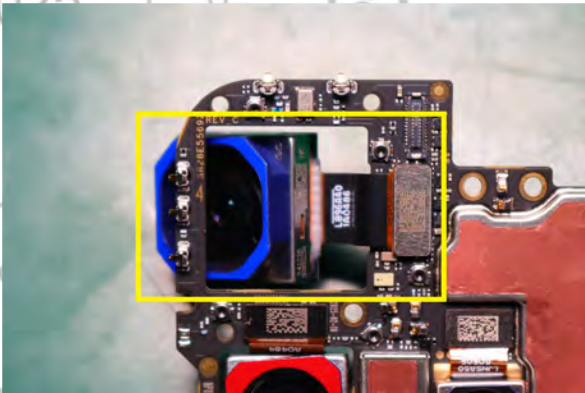
2. Use fingers to place the main body of the camera through the slot, then secure the 50M Main Rear-Facing Camera BtB connector on the Main PCB as shown.

NOTE

Align the interface before securing to avoid damaging the contacts.

NOTE

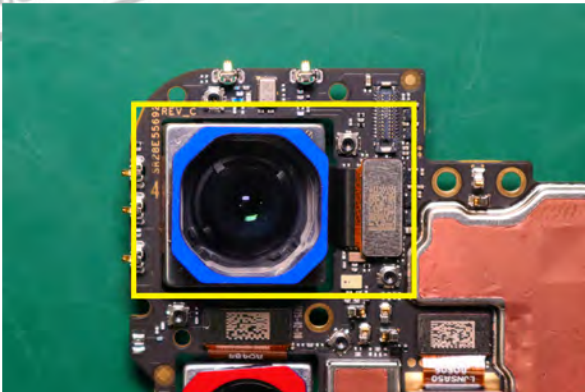
The 50M Main Rear-Facing Camera should be assembled strictly in place. Improper installation will affect the photograph function of the phone.



3. Use fingers to carefully place the 50M Main Rear-Facing Camera in the slot on the Main PCB.

NOTE

Do not peel off the protective cover until you assemble the Top Bracket.



Thermal Gel Assembly

NOTE

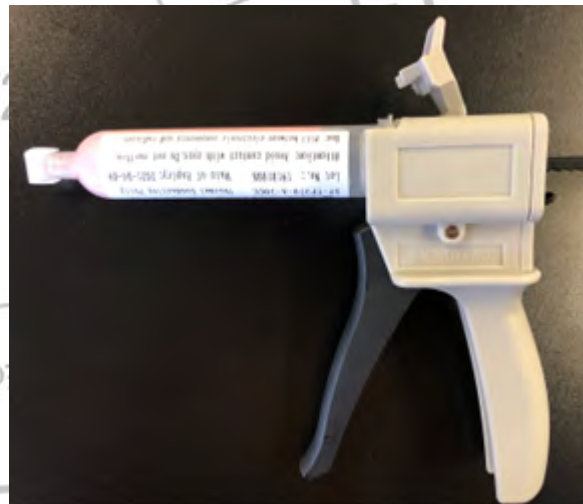
This procedure is only required when replacing the Main PCB or Front Housing.

Thermal Gel Syringe size package and Needle Gauges description

1. TDS SY-TP350 5ml can operate without dispensing tool.



2. TDS SY-TP350 30ml operate with dispensing tool.



3. Henkel LF350 30ml operate with dispensing tool.



4. Cooler Master and Artic Thermal Gel syringe package.



5. When use Artic and Cooler Master 30ml package suggest using 18-gauge needle.



6. When use SY-TP350 or Henkel LF350 30ml package suggest using 14- or 15-gauge needle.



Front-Housing Thermal Gel Assembly

Add Thermal Conductive Gel (223±23 mg) on the visual block as shown.

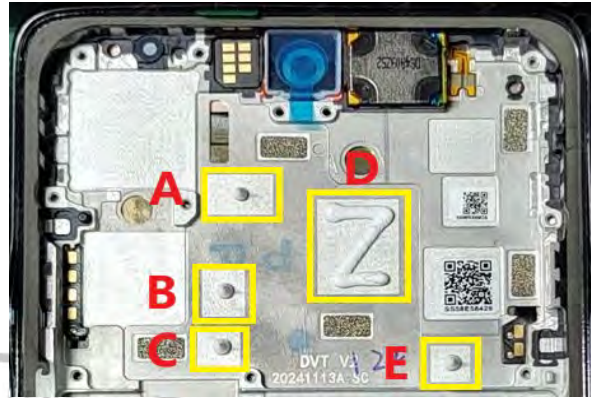
A: 20±5 mg

B: 20±5 mg

C: 20±5 mg

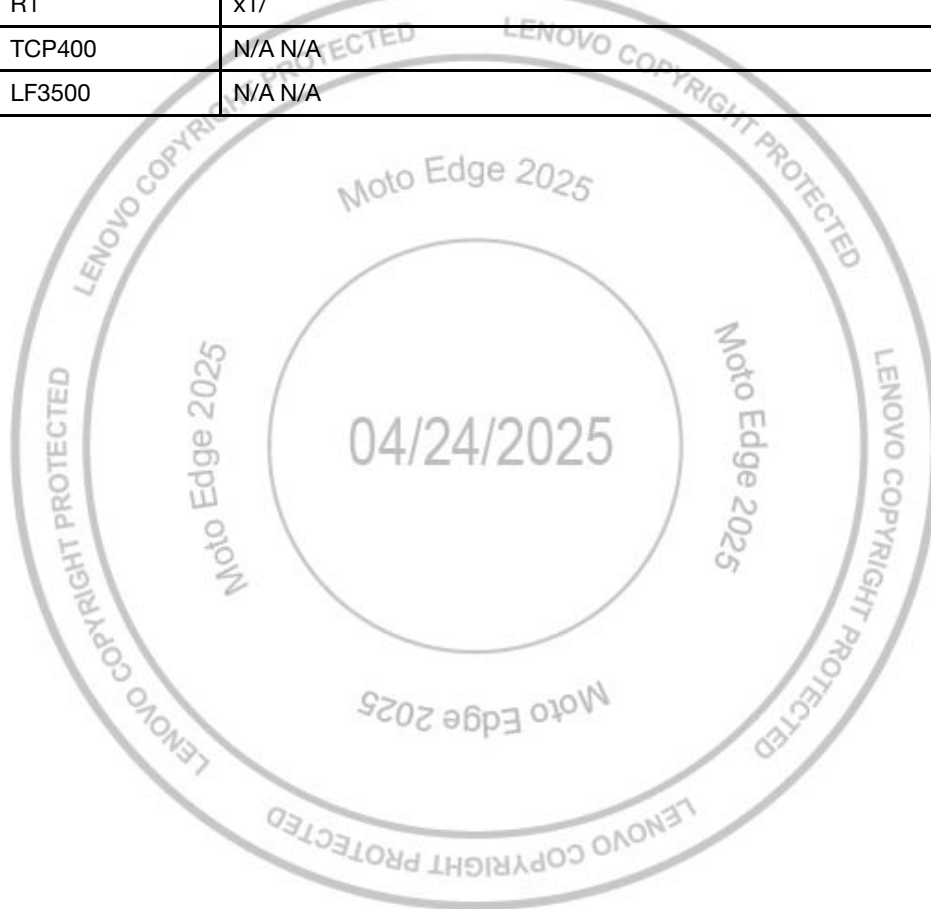
D: 143±10 mg

E: 20±5 mg



Thermal Gel list that can be acceptable substitutes

Brand	Model	URL
Cool Master	MGY-OSSG-N15M-R1	https://www.coolermaster.com/catalog/coolers/thermal-grease/mastergel-pro/
	MGZ-NDSG-N15M-R1	https://www.coolermaster.com/catalog/coolers/thermal-grease/mastergel-maker/
	RG-ICE1-TG15-R1	https://www.coolermaster.com/catalog/coolers/thermal-grease/ic-essential-e1/
	RG-ICE2-TA15-R1	https://www.coolermaster.com/catalog/coolers/thermal-grease/ic-essential-e2/
	RG-EFX1-TG15-R1	https://www.coolermaster.com/catalog/coolers/thermal-grease/extreme-fusion-x1/
Electrolube	TCP400	N/A N/A
Henkel	LF3500	N/A N/A



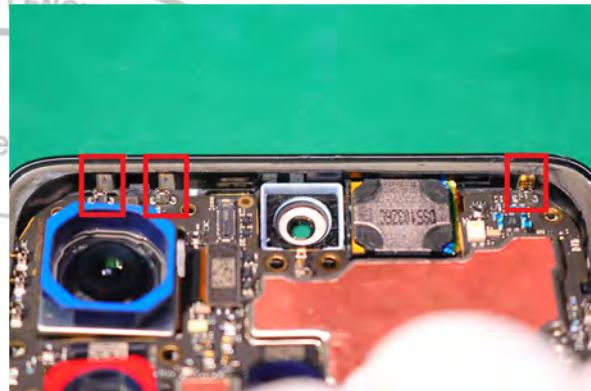
Main PCB Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
HDW,SCR,Screw_M1.4x0.30x2.5mm_Clear	-

1. Incline the Main PCB at certain degrees and place it into the Front-Housing.

NOTE

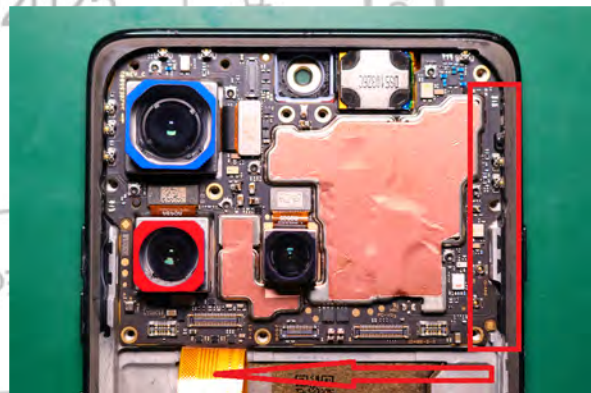
Correctly position the metal springs against the contact points on the Front-Housing



2. Use fingers to first place the left side of the Main PCB into the Front-Housing, then place the right side of the Main PCB into the Front-Housing.

NOTE

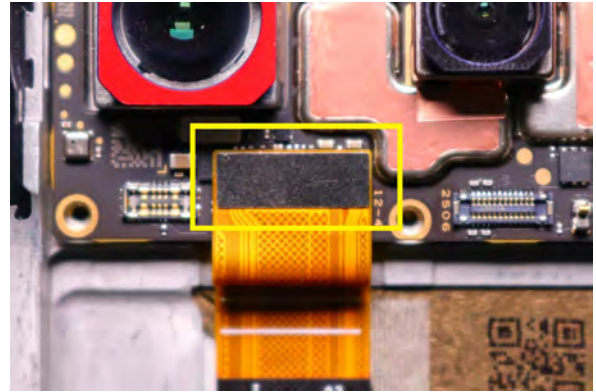
Be careful not to touch other components on the Main PCB.



3. Use fingers to place and secure the TP FPC BtB connector on the Main PCB as shown.

NOTE

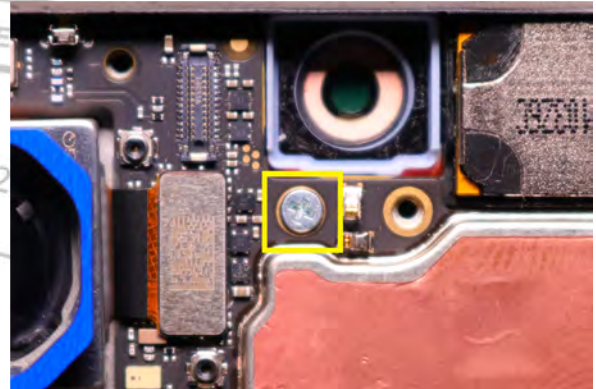
Align the interface before securing to avoid damaging the contacts.



4. Use Torque Driver with PH00 Bit to tighten one screw as shown (0.7 ± 0.06 kgf-cm).

NOTE

The screw should not be over tightened or loosened. Improper twisting force may cause damage or components to fall out.



Front-Facing Camera Adhesive Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_FRT_CAM_GAS_2	-

Use the Plastic Tweezers to place the Front-Facing Camera Adhesive on the Front-Housing as shown and peel off the liner.

NOTE

The Front-Facing Camera Adhesive should be pasted strictly in place.

NOTE

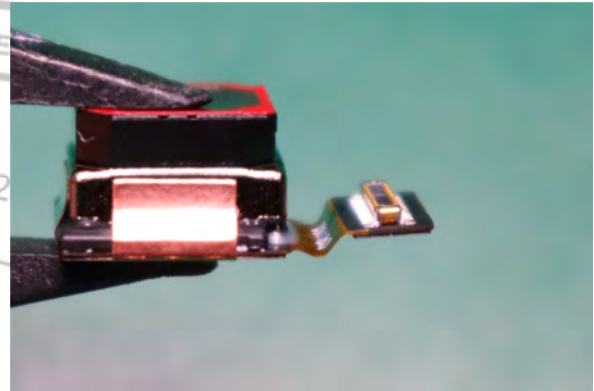
Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.



Front-Facing Camera Assembly

Description	Reference #
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
MDL,CAMR,50M,FRNT,C4PA18;Qtech,AF:Levant	14

1. Pre-bend the Front-Facing Camera FPC as shown.



2. Peel off the protective cover of the Front-Facing Camera, then use fingers to place and secure the Front-Facing Camera on the location as shown.

NOTE

First secure the Front-Facing Camera BtB connector, then place the Front-Facing Camera into the camera slot.

NOTE

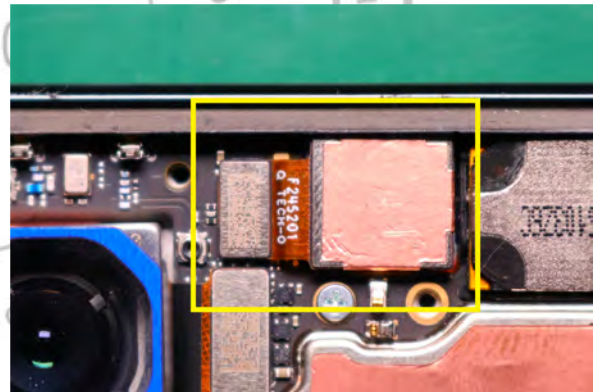
Align the interface before securing to avoid damaging the contacts.

NOTE

Make sure the Front-Facing Camera is installed into the recess of the Front-Housing.

NOTE

The Front-Facing Camera should be assembled strictly in place. Improper installation will affect the photograph function of the phone.



Speaker Box FPC Adhesive Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_SPK_FPC_PSA	36

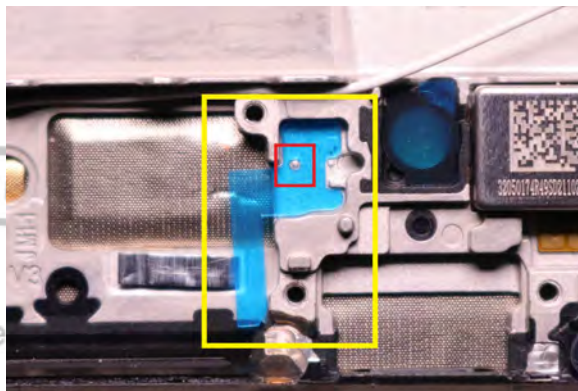
Use the Plastic Tweezers to place the Speaker Box FPC Adhesive on the location aligning with the pin as shown and peel off the liner.

NOTE

Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.

NOTE

The Speaker Box FPC Adhesive should be pasted strictly in place.



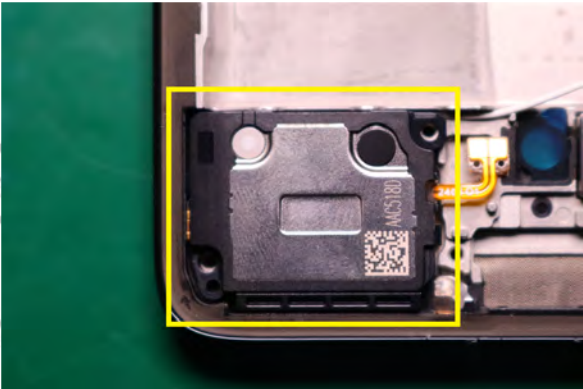
Speaker Box Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
AU,SPKR,DYN SPKR BX,6ohms,Fpc CONT,GP co	18

1. Use the Plastic Tweeze to place and secure the Speaker Box on the location as shown.

NOTE

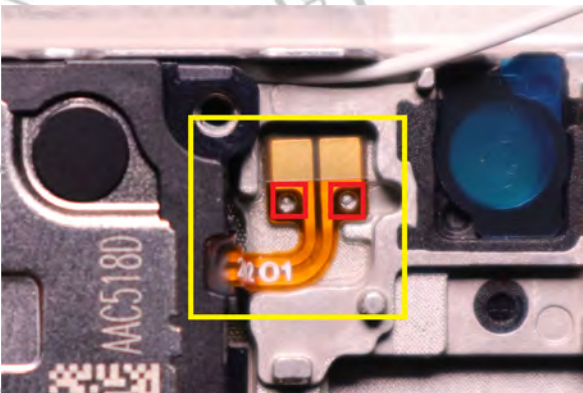
The Speaker Box should be assembled strictly in place. Improper installation will affect the sound function of the phone.



2. Use the Plastic Tweeze to place and secure the Speaker Box FPC on the location aligning with the pins as shown.

NOTE

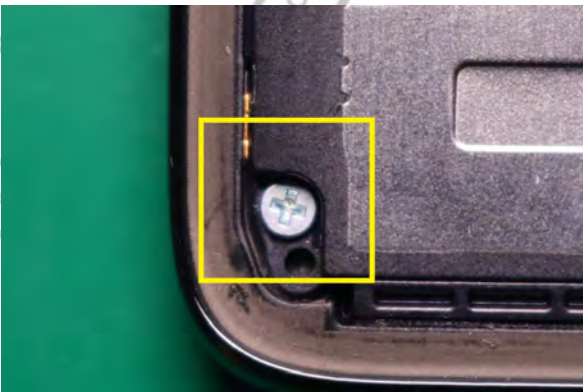
Carefully press the Speaker Box FPC to activate the adhesive.



3. Use Torque Driver with PH00 Bit to tighten one screw as shown (0.5±0.04 kgf-cm).

NOTE

The screw should not be over tightened or loosened. Improper twisting force may cause damage or components to fall out.



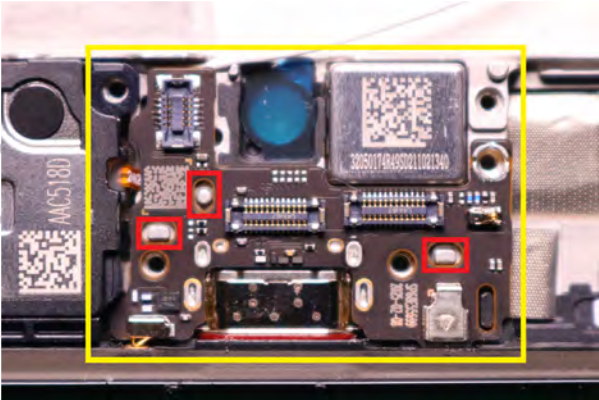
USB Board Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519 USB Board CS	3

Use fingers to place the USB Board on the location aligning with the pins as shown.

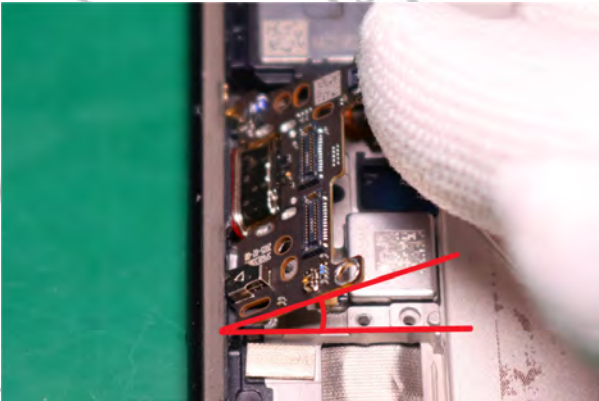
NOTE

Be careful to not touch other components on the USB Board.



NOTE

Place the USB Board at certain angle into the Front-Housing.



SIM Board Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519 SIM Board CS	7
HDW,SCR,Screw_M1.4x0.30x2.5mm_Clear	-

1. Use fingers to place the SIM Board on the location as shown.

NOTE

Be careful to not touch other components on the SIM Board.

NOTE

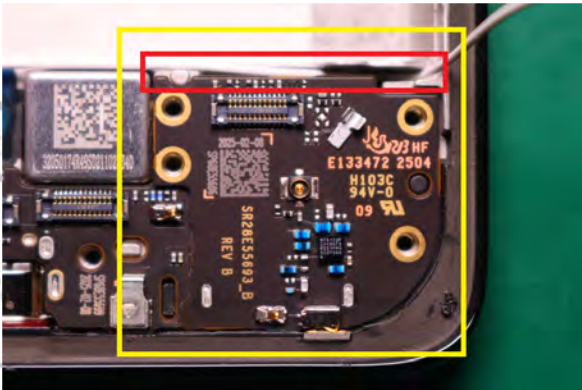
Check that the White Coax Cable is in the cable guide and positioned under the SIM Board.

NOTE

Place the SIM Board at certain angle into the Front-Housing.

NOTE

Check that the metal spring is correctly positioned against the contact point on the Front-Housing.



2. Use Torque Driver with PH00 Bit to tighten one screw as shown (0.7±0.06 kgf-cm).

NOTE

The screw should not be over tightened or loosened. Improper twisting force may cause damage or components to fall out.



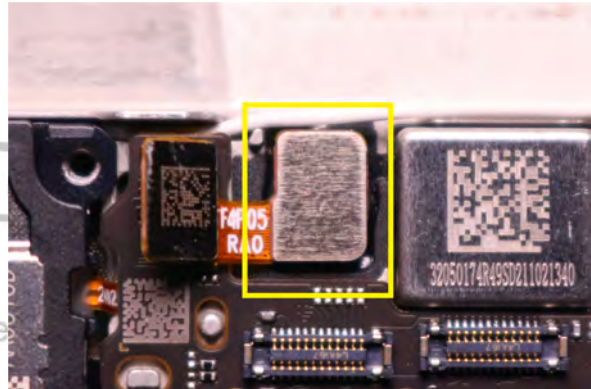
FOD Sensor Assembly

Description	Reference #
XT2519 USB Board CS	3
FPM,Qtech,G3T,new	17

1. Use fingers to place the FOD Sensor into the slot on the location as shown.

NOTE

Carefully press the FOD sensor area to activate the adhesive.



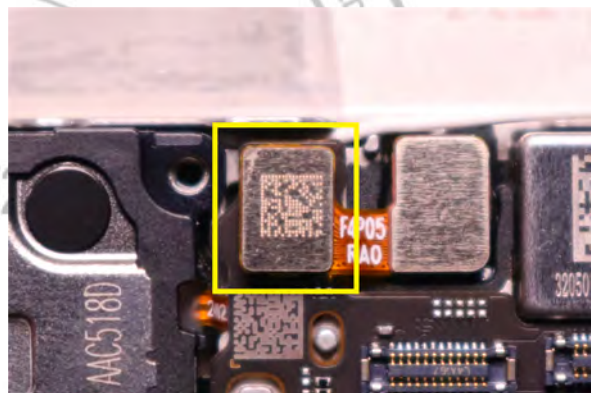
2. Use fingers to place and secure the FOD Sensor BtB connector on the USB board as shown.

NOTE

Align the interface before securing to avoid damaging the contacts.

NOTE

The FOD should be assembled strictly in place. Improper installation will affect the fingerprint recognition function of the phone.



White Coax Cable Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
CBL,COAX,CABLE2_OULU	22

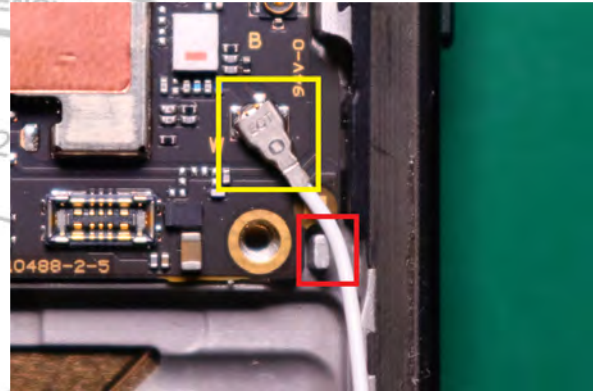
1. Use the Plastic Tweezers to place and secure the White Coax Cable on the Main PCB as shown.

NOTE

Align the interface before securing to avoid damaging the contacts.

NOTE

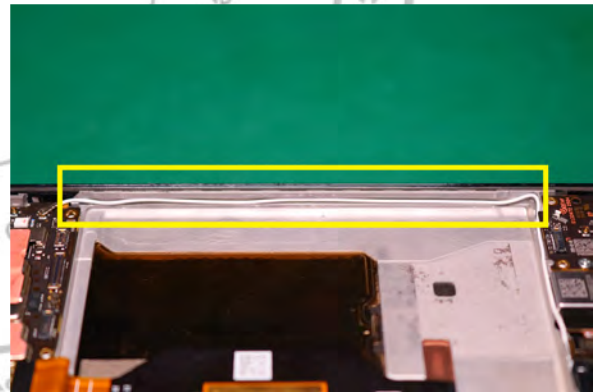
The White Coax Cable should be on the right side of the positioning post.



2. Use the pointed end of the Black Stick to place the White Coax Cable on the pocket of the recess of the phone.

NOTE

Use the pointed end of the Black Stick to place the White Coax Cable on the pocket from the Main PCB side to SIM Board side as shown.



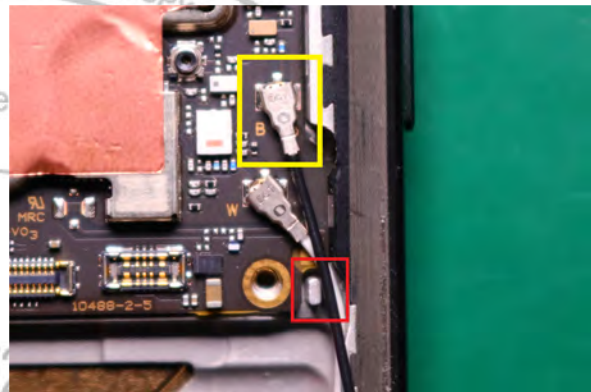
Black Coax Cable Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
XT2519 SIM Board CS	7
CBL,COAX,CABLE1_OULU	21

1. Use the Plastic Tweezers to place and secure the Black Coax Cable on the Main PCB as shown.

NOTE

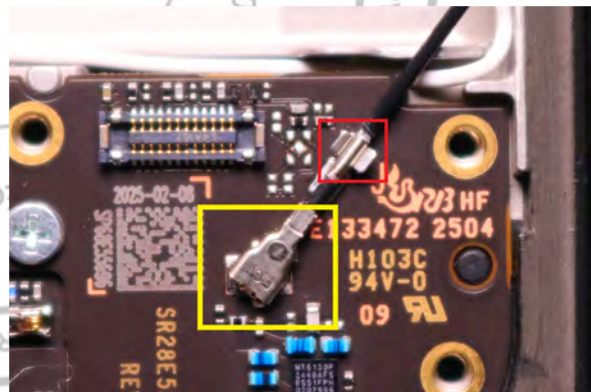
Align the interface before securing to avoid damaging the contacts.



2. Use the Plastic Tweezers to place and secure the Black Coax Cable on the SIM Board as shown.

NOTE

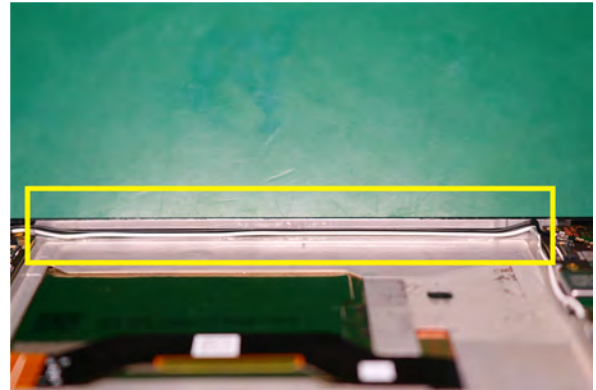
Align the interface before securing to avoid damaging the contacts.



3. Use the pointed end of the Black Stick to place the Black Coax Cable on the pocket of the recess of the phone.

NOTE

Use the pointed end of the Black Stick to place the Black Coax Cable on the pocket from Main PCB side to Sub Board side as shown.

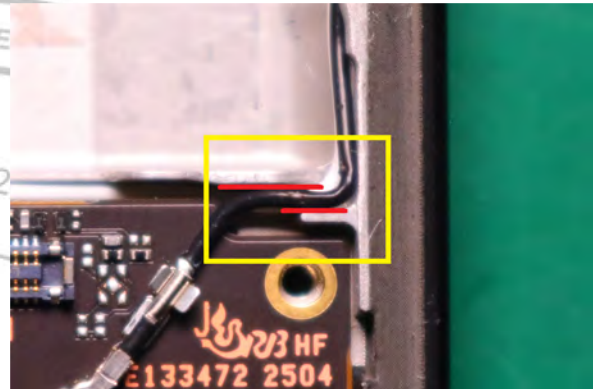


NOTE

Check that the Black Coax Cable should be placed into the cable guide.

NOTE

The White Coax Cable should be under the Black Coax Cable.



Coax Cable Mylar Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_CABLE_MYLAR	26

Use the Plastic Tweezers to place the Coax Cable Mylar on the location as shown.

NOTE

Press firmly for seconds 3 times to activate the adhesive.

NOTE

The Coax Cable Mylar can not exceed the edge of the Front-Housing.



Main FPC Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
XT2519 USB Board CS	3
XT2519 SIM Board CS	7
ASSY,FLX - MN,Prado NA,Main,FPC,2L	16

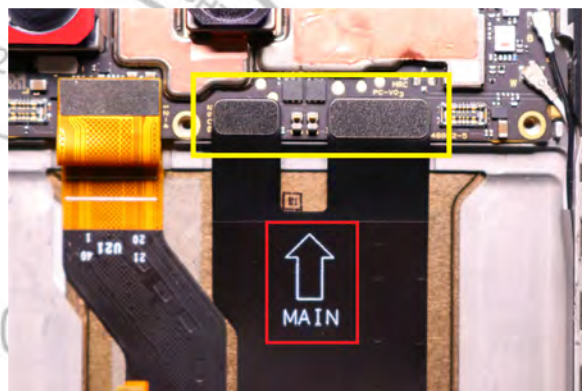
1. Use fingers to place and secure the Main FPC BtB connectors on the Main PCB as shown.

NOTE

Align the interface before securing to avoid damaging the contacts.

NOTE

The end labeled "MAIN" should be connected to the Main PCB.



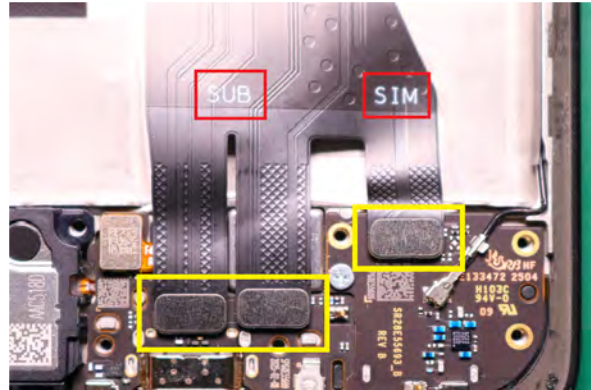
2. Use fingers to place and secure the Main FPC BtB connectors on the USB Board and SIM Board as shown.

NOTE

Align the interface before securing to avoid damaging the contacts.

NOTE

The end labeled "SIM" should be connected to the SIM Board, while the end labeled "SUB" should be connected to the USB Board.



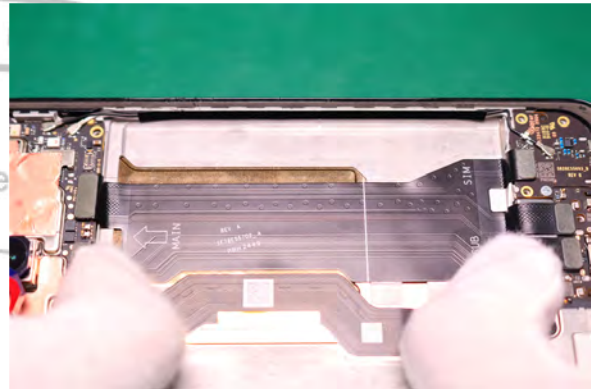
3. Use fingers to place and secure the Main FPC on the Front-Housing as shown.

NOTE

Place the Main FPC strictly following the cable guide on the Front Housing.

NOTE

Press firmly for seconds 3 times to activate the adhesive.



Battery Adhesive Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
DICUT,FOAM,OULU_BATTERY_ADH	29

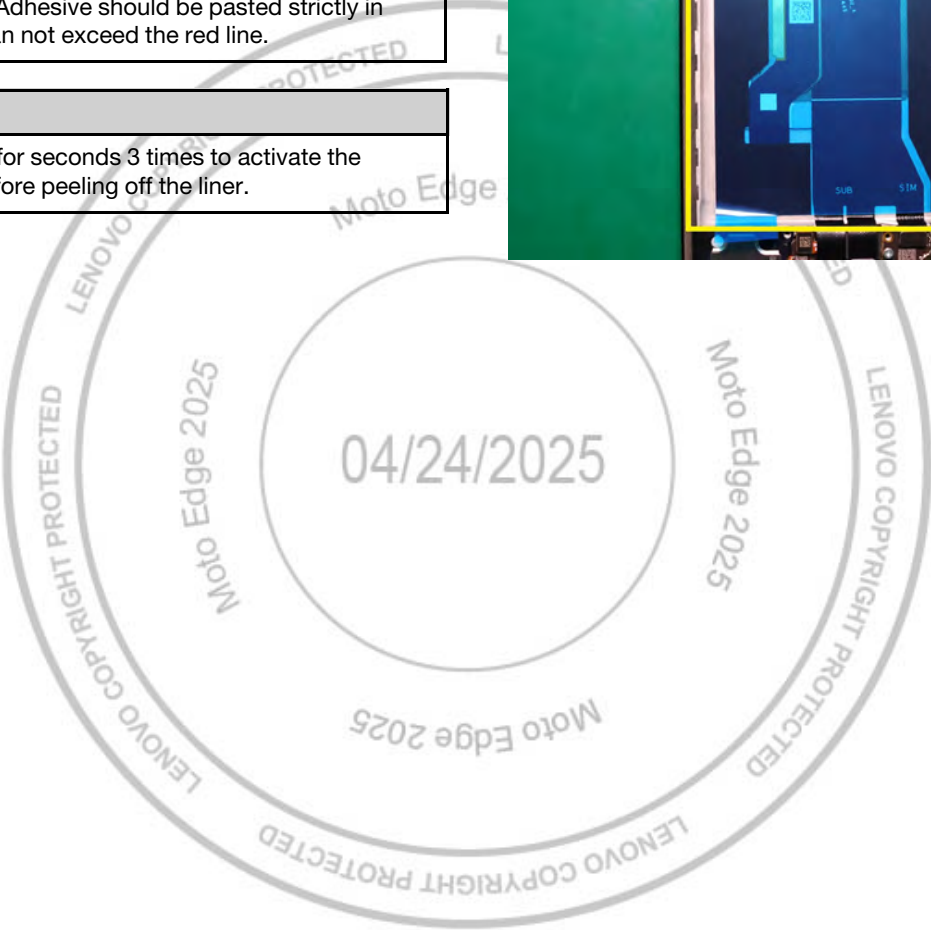
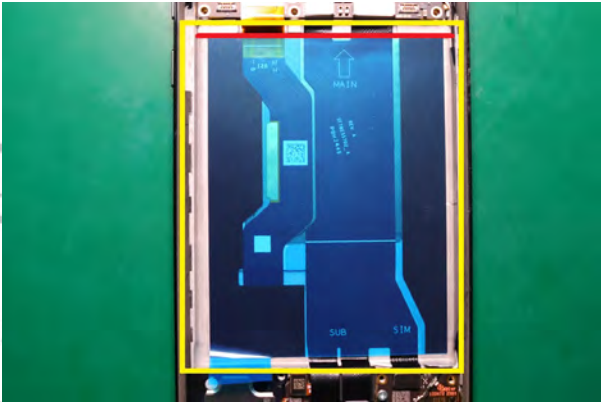
Use the Plastic Tweezers to place the Battery Adhesive on the location as shown and peel off the liner.

NOTE

The Battery Adhesive should be pasted strictly in place and can not exceed the red line.

NOTE

Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.



Battery Buffer Foam Assembly

Description	Reference #
ACCY,BAT,5200mAh,RM52,ATL516482, NVT	11
DICUT,FOAM,OULU_BATTERY_SUP_GAS	24

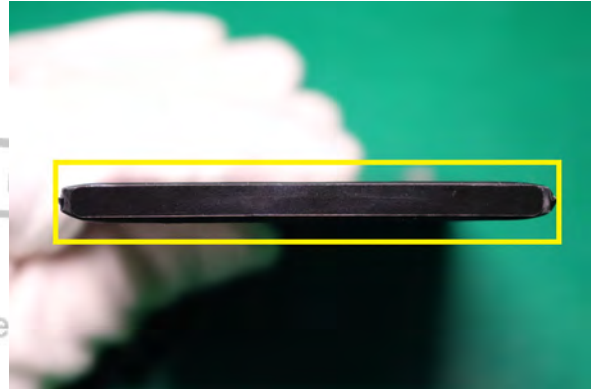
Use the Plastic Tweezers to place the Battery Buffer Foam on the location as shown.

NOTE

The Battery Buffer Foam should be pasted strictly in place.

NOTE

Press firmly for seconds 3 times to activate the adhesive.



Battery Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
ACCY,BAT,5200mAh,RM52,ATL516482, NVT	11

/// WARNING ///

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer. Refer to the Battery Safety Guidelines.

// CAUTION //

Handle the Battery Pack with care. If dropped to the floor, it may be internally damaged and must be scrapped.

Ensure Battery and its insulation are not damaged (e.g. scratched, dented, punctured) prior to and throughout assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws and screwdrivers do not contact the Battery.

1. Use fingers to place and secure the Battery on the location as shown.

NOTE

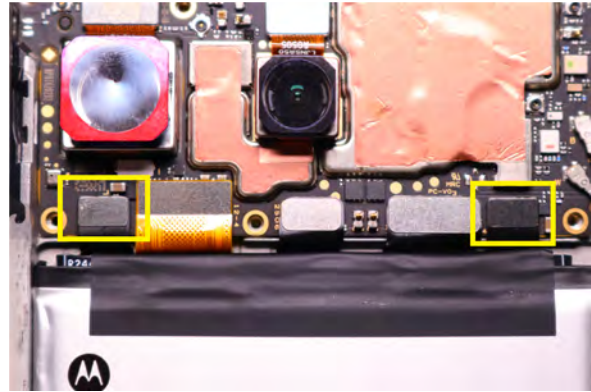
Make sure to assembly the Battery using the bottom red line for positioning.



2. Use fingers to place and secure the Battery BtB connectors on the location as shown.

NOTE

Align the interface before securing to avoid damaging the contacts.



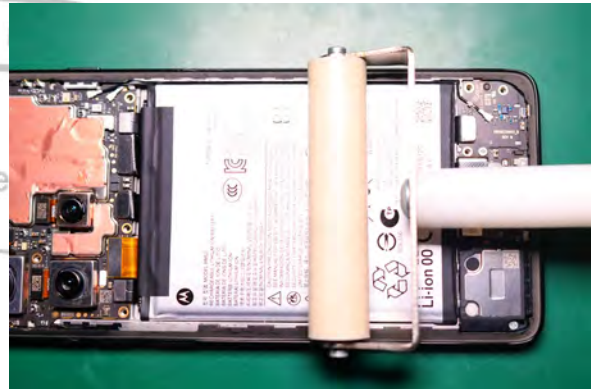
3. Use the Manual Roller to roll over the Battery for 10 cycles to secure the Battery as shown.

NOTE

For each cycle roll the Manual Roller from top to bottom of the Battery and vice versa.

NOTE

Each cycle should last for 3 seconds.



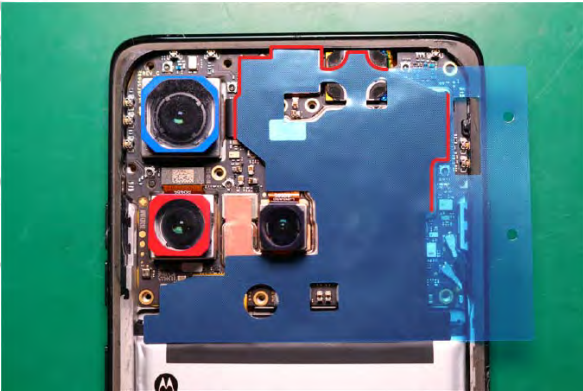
Main PCB Bottom Heat Spreader Assembly

Description	Reference #
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
THRM,COND,OULU_PMU_GRAPHITE	27

Use the Plastic Tweezers to place the Main PCB Bottom Heat Spreader on the location as shown and peel off the liner.

NOTE
Improper installation will affect the heat dissipation of the phone.

NOTE
Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.



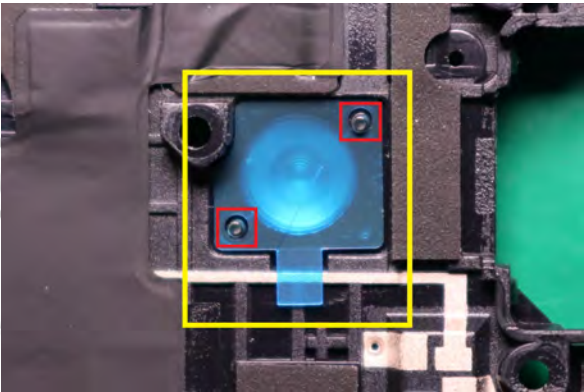
Flash Board Adhesive Assembly

Description	Reference #
XT2519 Top Bracket CS	8
DICUT,FOAM,OULU_FLASH_PCB_PSA	32

Use the Plastic Tweezers to place the Flash Board Adhesive on the location aligning with the pins as shown and peel off the liner.

NOTE
The Flash Board Adhesive should be pasted strictly in place.

NOTE
Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.



Flash Board Assembly

Description	Reference #
XT2519 Flash Board CS	4
XT2519 Top Bracket CS	8

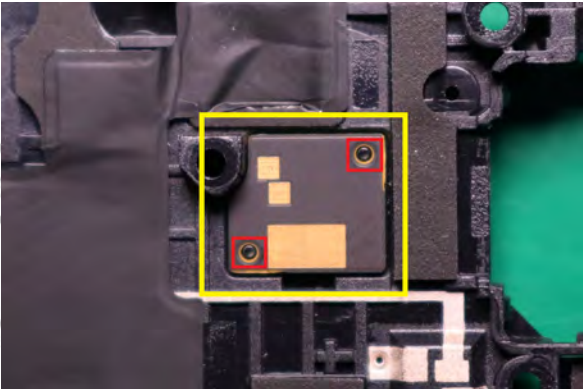
Use the Plastic Tweezers to place the Flash Board on the location aligning with pins as shown.

NOTE

The Flash Board should be assembled strictly in place. Improper installation will affect the flash light function of the phone.

NOTE

Press firmly for seconds 3 times to activate the adhesive.



Flash Board Foam Assembly

Description	Reference #
XT2519 Flash Board CS	4
DICUT,FOAM,OULU_FLASH_PCB_GASKET	28

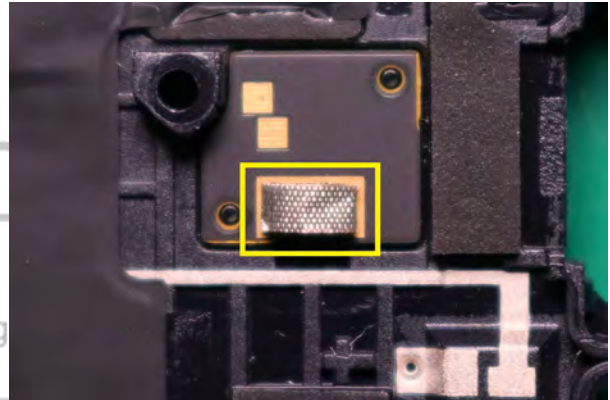
Use the Plastic Tweezers to place the Flash Board Foam on the location as shown.

NOTE

Press firmly for seconds 3 times to activate the adhesive.

NOTE

The Flash Board Foam should be pasted strictly in place.



Top Bracket Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519-1 MB 8+256G Retail DS CS XT2519-1 MB 8+256G TMO DL CS XT2519-1 MB 8+256G CMCT DL CS XT2519-1 MB 8+256G SPECTRUM DL CS XT2519-1 MB 8+256G DISH DL CS XT2519V MB 8+256G TF DL CS	2
XT2519 Top Bracket CS	8
HDW,SCR,ooth_Screw_M1.4x0.30x3.6mm	-

1. Use the Plastic Tweezers to place the Top Bracket on the location as shown.

NOTE

Ensure all buckles are securely fastened.



NOTE

Place the Top Bracket at certain angle into the Front-Housing.



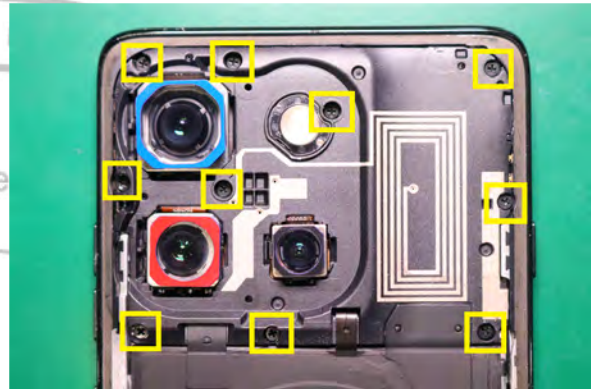
2. Use Torque Driver with PH00 Bit to tighten 10 screws as shown (0.9 ± 0.07 kgf-cm).

NOTE

The screws should not be over tightened or loosened. Improper twisting force may cause damage or components to fall out.

NOTE

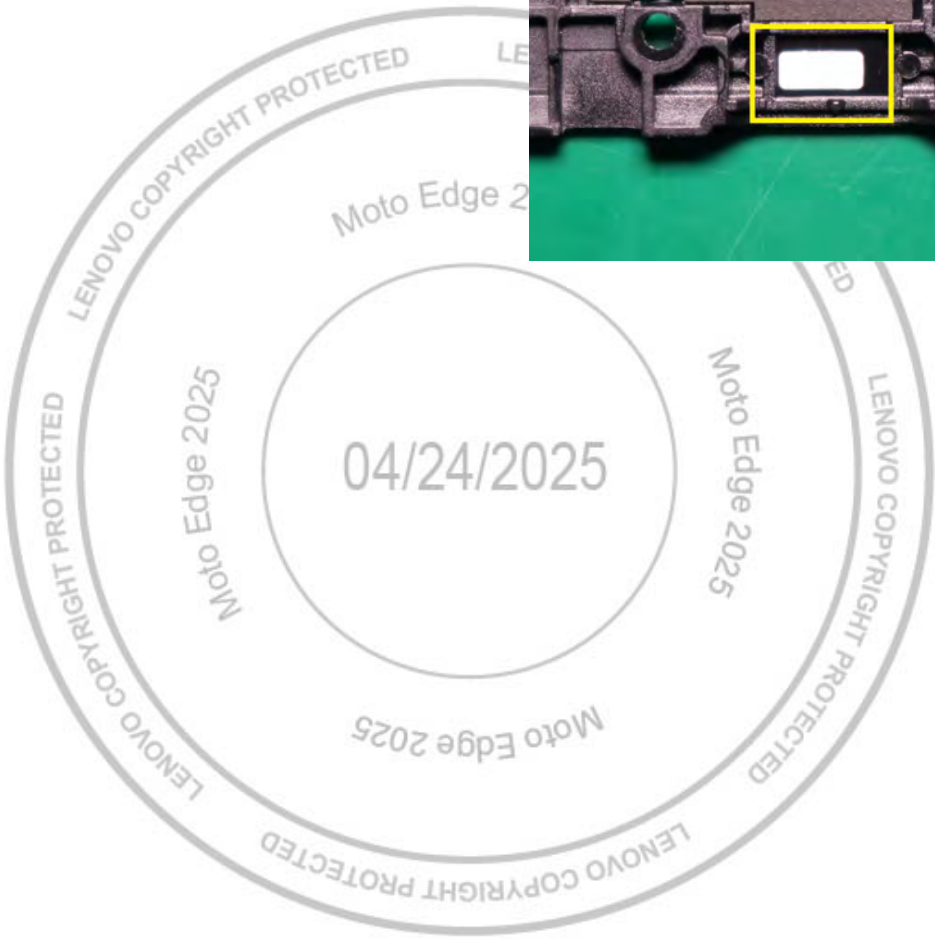
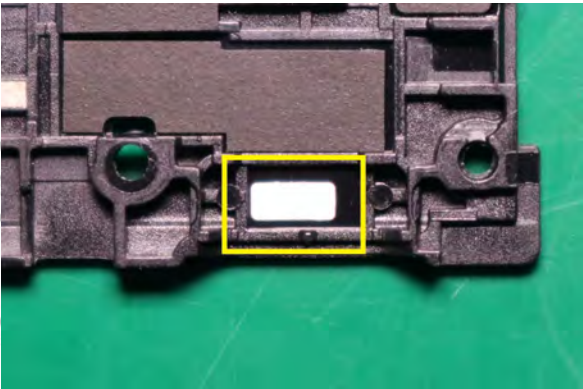
After assembling the Top Bracket, carefully peel off all camera protective cover.



Water Detection Label Assembly

Description	Reference #
ANT,LDS CAR ANT,ASSY_BOTTOM_BRACKET OULU	10
DICUT,WATERPROOF,Waterproof LBL TMO	-

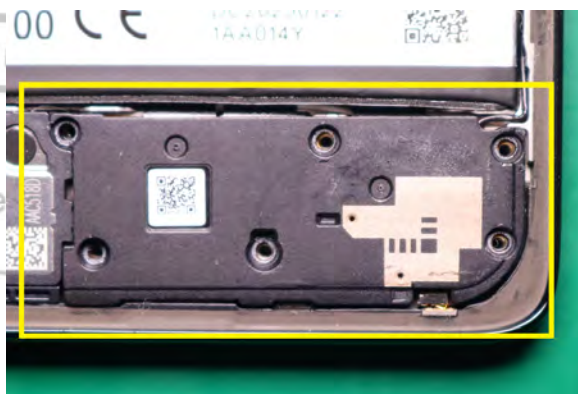
Use the Plastic Tweezers to place the Water Detection Label (WDL) on the Bottom Bracket as shown.



Bottom Bracket Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519 USB Board CS	4
XT2519 SIM Board CS	7
ANT,LDS CAR ANT,ASSY_BOTTOM_BRACKET OULU	10
HDW,SCR,ooth_Screw_M1.4x0.30x3.6mm	-

1. Use fingers to place the Bottom Bracket on the location as shown.



NOTE

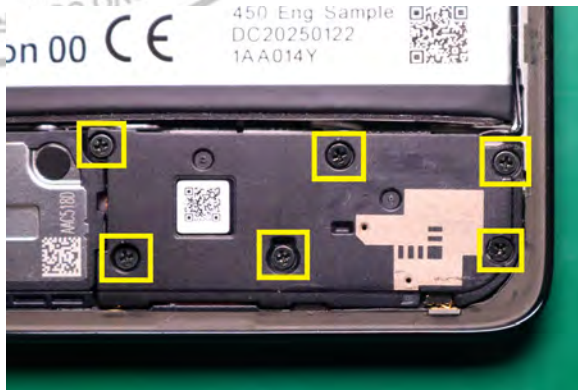
Place the Top Bracket at certain angle into the Front-Housing.



2. Use Torque Driver with PH00 Bit to tighten six screws as shown (0.9 ± 0.07 kgf-cm).

NOTE

The screws should not be over tightened or loosened. Improper twisting force may cause damage or components to fall out.



Speaker Box Heat Spreader Assembly

Description	Reference #
AU,SPKR,DYN SPKR BX,6ohms,Fpc CONT,GP co	18
THRM,COND,OULU_SPK_GRAPHITE	-

Use the Plastic Tweezers to place the Speaker Box Heat Spreader on the location as shown and peel off the liner.

NOTE
Improper installation will affect the heat dissipation of the phone.

NOTE
Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.



Bottom Bracket Adhesive Assembly

Description	Reference #
ANT,LDS CAR ANT,ASSY_BOTTOM_BRACKET OULU	10
DICUT,FOAM,OULU_INLAY_BOX_PSA	30

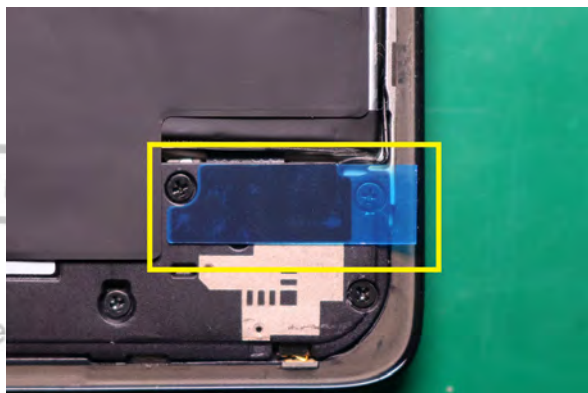
Use the Plastic Tweezers to place the Bottom Bracket Adhesive on the location as shown and don't peel off the liner at this step.

NOTE

Press firmly for seconds 3 times to activate the adhesive.

NOTE

The Bottom Bracket Adhesive should be pasted strictly in place.



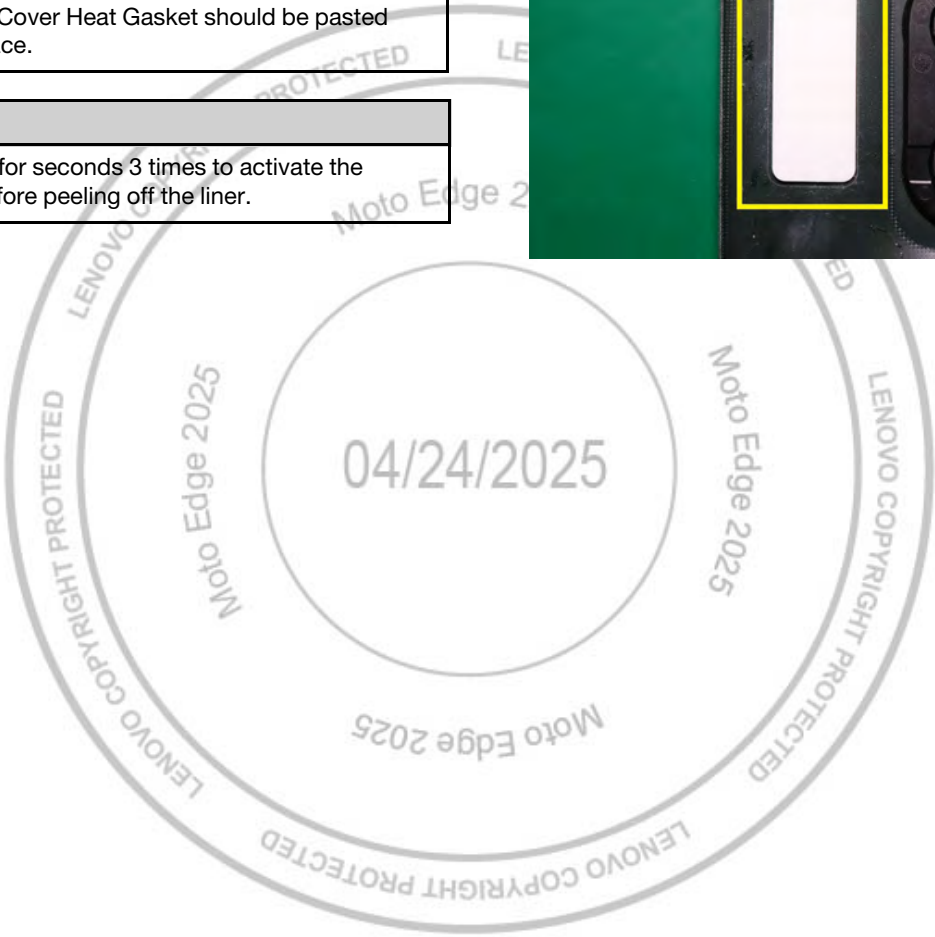
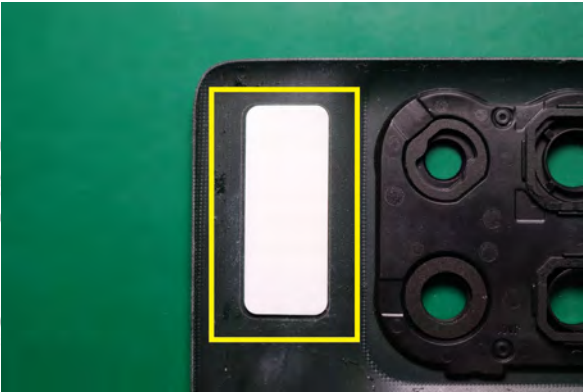
Battery Cover Heat Gasket Assembly

Description	Reference #
XT2519 Inlay ASSY Green CS	9
DIECUT_OULU_HEAT_GASKET	25

Use the Plastic Tweezers to place the Battery Cover Heat Gasket on the location as shown and peel off the liner.

NOTE
The Battery Cover Heat Gasket should be pasted strictly in place.

NOTE
Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.



Speaker Box Gasket Assembly

Description	Reference #
XT2519 Inlay ASSY Green CS	9
DICUT,FOAM,OULU_BOX_GAKET	-

Use the Plastic Tweezer to place the Speaker Box Gasket on the location as shown and peel off the liner.

NOTE

The Speaker Box Gasket should be pasted strictly in place.

NOTE

Press firmly for seconds 3 times to activate the adhesive before peeling off the liner.



Battery Cover Assembly

Description	Reference #
XT2519 TP LCM ASSY Green CS	1
XT2519 Top Bracket CS	8
XT2519 Inlay ASSY Green CS	9
ANT,LDS CAR ANT,ASSY_BOTTOM_BRACKET OULU	10
XT2519-X Inlay Adhesive CS	33

1. Use the cotton swabs and ISP Alcohol to clean the Front Housing and Battery Cover as shown.

//CAUTION//

Front Housing and Battery Cover cleaning are critical to the phone's water resistance. You must thoroughly clean the surface with ISP Alcohol and allow it to dry completely before applying 3M AP-111 Adhesion Promoter.



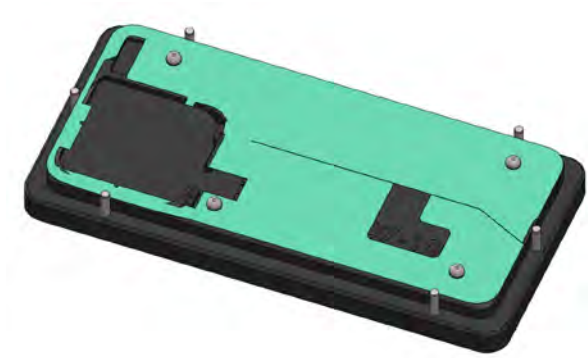
2. Wait for the ISP Alcohol to dry completely.

//CAUTION//

Do not use the same cotton swabs to clean with ISP Alcohol and apply 3M AP-111 Adhesion Promoter. The Battery Cover will not properly adhere to the Front-Housing if the cotton swabs are reused. The cotton swabs may be used for two applications of the same chemical, but then must be discarded.

3. Repeat step 1 – 2 one time.
4. Use clean cotton swabs to apply 3M AP-111 Adhesion Promoter to the Front Housing and Battery Cover.
5. Wait for the 3M AP-111 Adhesion Promoter to dry.

6. Peel off the liner of the Battery Cover Adhesive and use the Plastic Tweezers to position the Battery Cover Adhesive on the Battery Cover Adhesive Alignment(2-00-D7-10000) as shown.



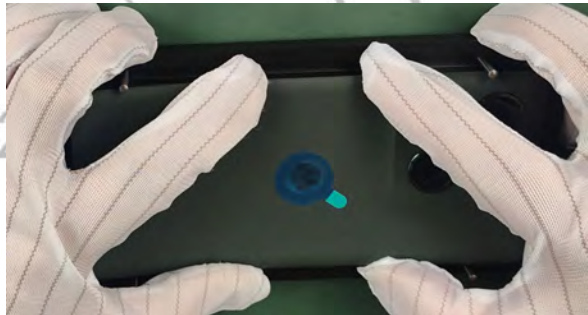
7. Use fingers to place the Battery Cover on the Battery Cover Adhesive Alignment as shown.



8. Use fingers to press down the Battery Cover with the Battery Cover Adhesive Alignment as shown.

NOTE

Make sure to press the Battery Cover and the alignment at the same time.



9. Use fingers to press the surrounding Battery Cover Adhesive 3 times to activate it as shown and peel off the liner.

NOTE

The Battery Cover needs to be pre-pressed 3 times along the back-adhesive area by hand in case the adhesive was removed with the liner



10. Use fingers to place the Battery Cover on the Front-Housing as shown.



11. Heat the phone in the Oven for 4 min in 55°C -65 °C (131°F -149°F).

NOTE

For the best of IP68 waterproof performance, please heat the phone before press inlay. And perform the Inlay press procedure before the phone starts to cool off.

// CAUTION //

Wear protective gloves when handling heated phones.



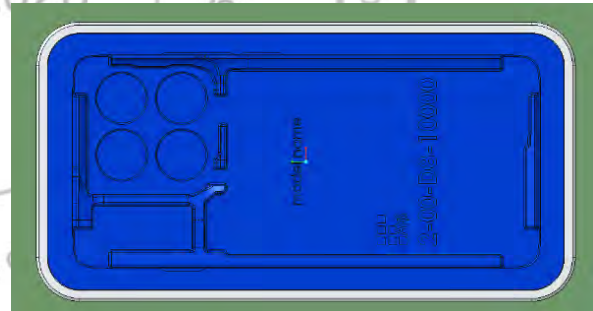
12. Power on pneumatic press system by press power switch to "ON" position

// CAUTION //

Please read pneumatic press system user manual prior to operation.



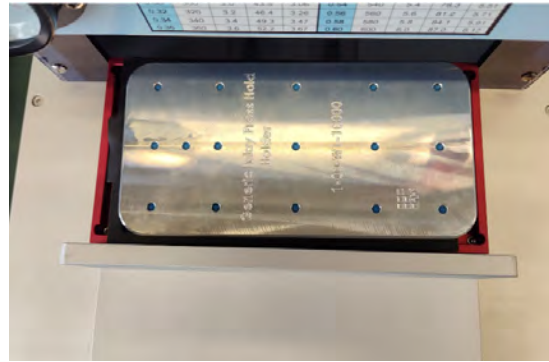
13. Assemble press rubber pad - 4 edges(2-00-D8-10000) and generic inlay press holder(1-00-W1-10000) to inlay press fixture.



14. Pull out press drawer from chamber and place the phone onto the base rubber pad in pneumatic press system as shown.



15. Place the Inlay press fixture on top of the phone as shown



16. Push the press system drawer into the chamber, and set program to No.9 by press “Program” button repeatedly, check the “Pressure” (Mpa) shows “0.4” and “Time” (sec) shows “30” as shown.



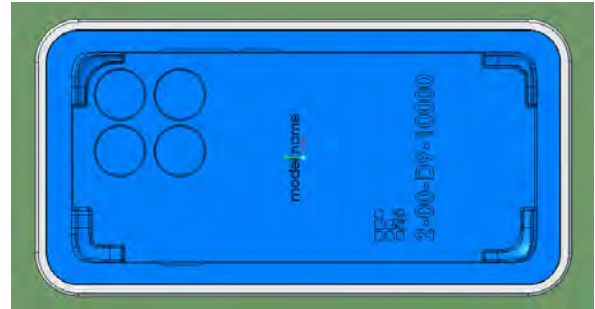
17. Press both of “Start” on the left and right side to initiate press process. Wait 30 seconds until process is finished.



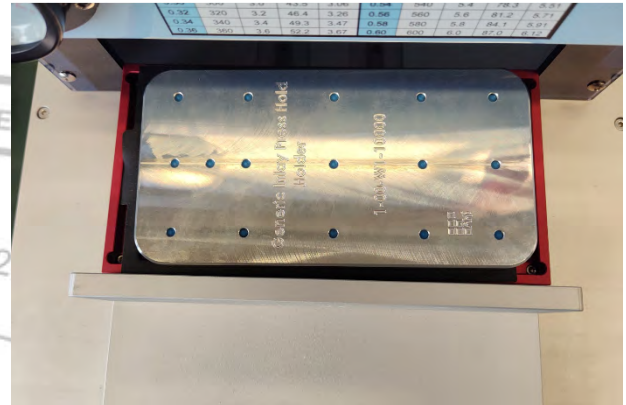
18. Pull out the drawer from the press chamber, remove the Inlay press fixture.



19. Remove Press rubber pad- 4 Edge from generic inlay press holder. Assemble press rubber pad - 4 corners(2-00-D9-10000) and generic inlay press holder(1-00-W1-10000) to inlay press fixture.



20. Place the Inlay press fixture on top of the phone as shown.



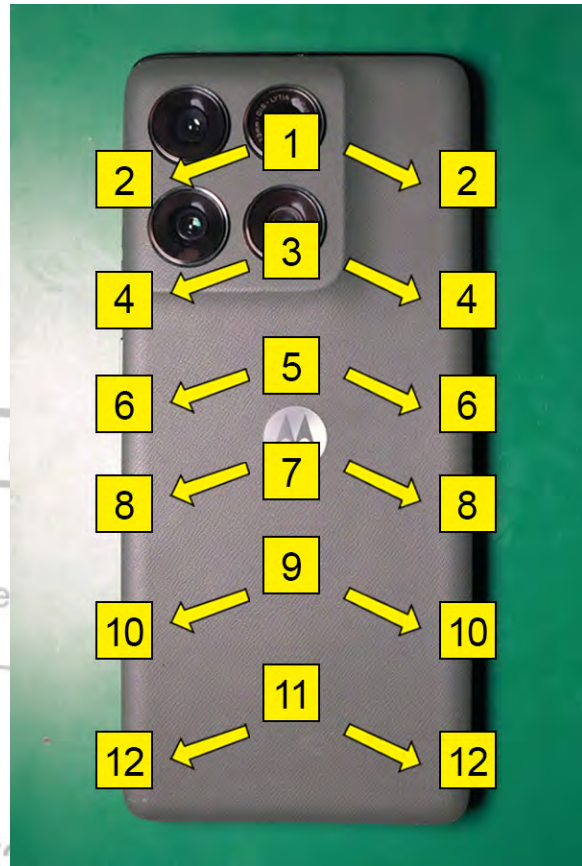
21. Press both of "Start" on the left and right side to initiate press process. Wait 30 seconds until process is finished.



22. Pull out the drawer from the press chamber, remove the Inlay press fixture, then take out the phone.



23. Apply manual pressure to the Battery Cover as follows:
24. Place both thumbs on point 1 (in middle of the Battery Cover) and slide them out to point 2.
25. Place both thumbs on point 3 and slide them out to point 4.
26. Place both thumbs on point 5 and slide them out to point 6.
27. Place both thumbs on point 7 and slide them out to point 8.
28. Place both thumbs on point 9 and slide them out to point 10.
29. Place both thumbs on point 11 and slide them out to point 12.



30. Place both thumbs on point 1 and slide them around the perimeter of the Battery Cover to point 2. Use fingers to press around the perimeter of the Camera bezel point 3 as shown.



IMEI Label Assembly

Description	Reference #
HDW,SIM TRAY - PLAS,ASSY_SIM_TRAY_OULU_B	23
LBL,IMEI,9X1.3mm,Full Size 35.6x27.6mm L	-

Use the Plastic Tweezers to place the IMEI Label on the location as shown.

NOTE

Be careful not to damage the IMEI Label.



SIM Tray Assembly

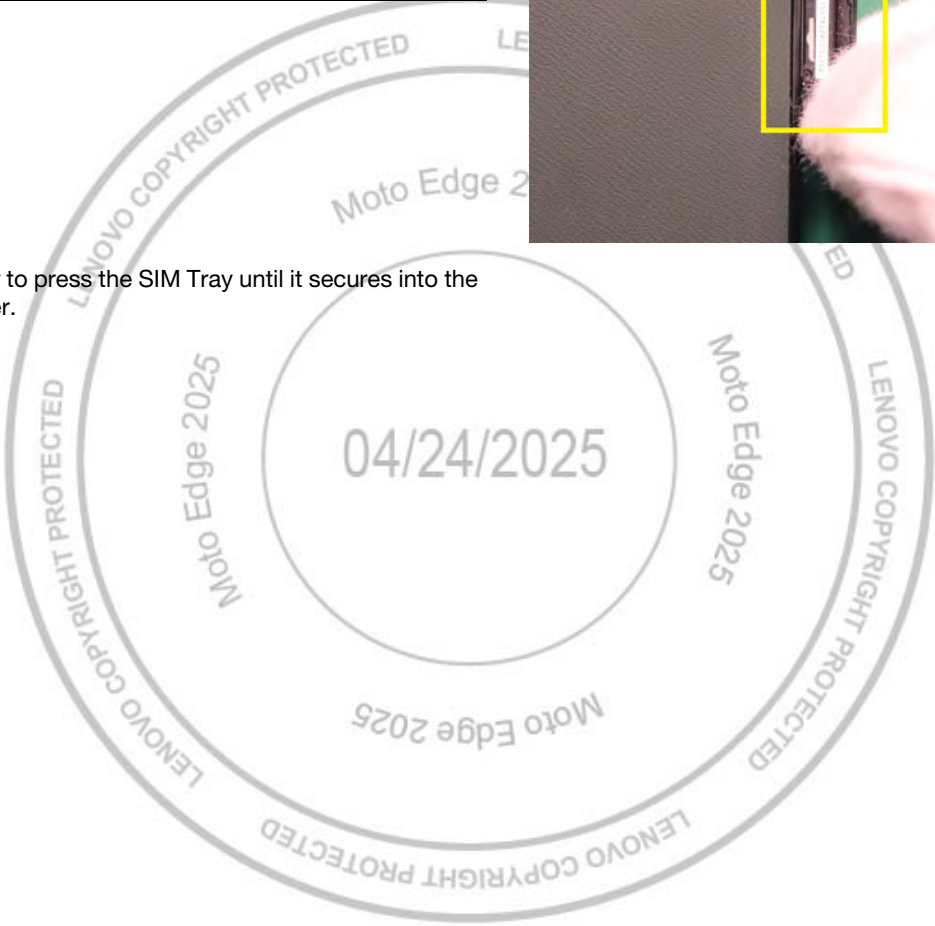
Description	Reference #
XT2519 TP LCM ASSY Green CS	1
HDW,SIM TRAY - PLAS,ASSY_SIM_TRAY_OULU_B	23

1. Insert the SIM Tray in the transceiver as shown.

NOTE
Do not shake the SIM Tray during the insertion.



2. Use finger to press the SIM Tray until it secures into the transceiver.





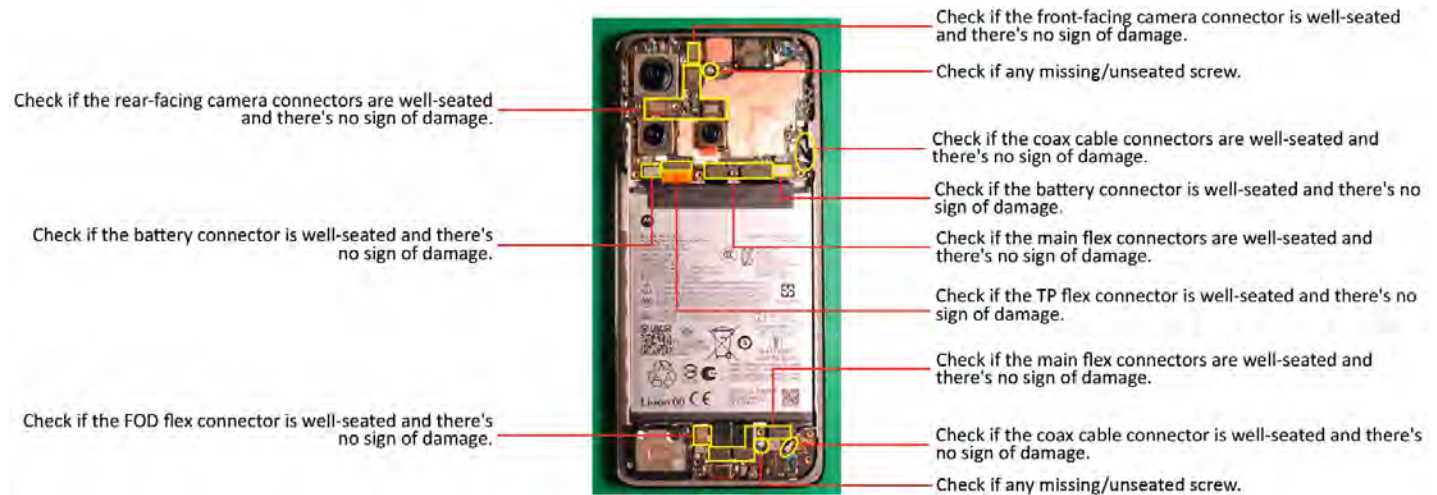
Chapter 6. Assembly Quality check

Battery Quality Check



Check if battery adhesive is reused or
with residue from the old one

Connectors Quality Check



Screws Quality Check



Check if any missing/unseated screws.

Check if any missing/misaligned heat spreader.

Check if any missing/unseated screws.



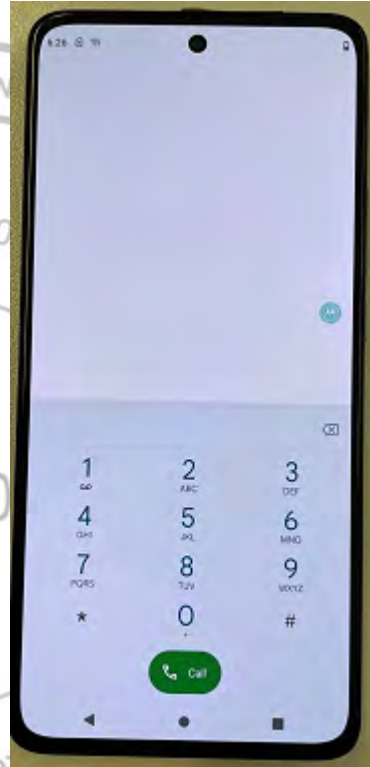
Chapter 7. FOD Calibration Solution

NOTE

Use LMST (Motorola Software Test Tool) to perform the FOD calibration with the tool.

For the manual FOD calibration, follow below processes:

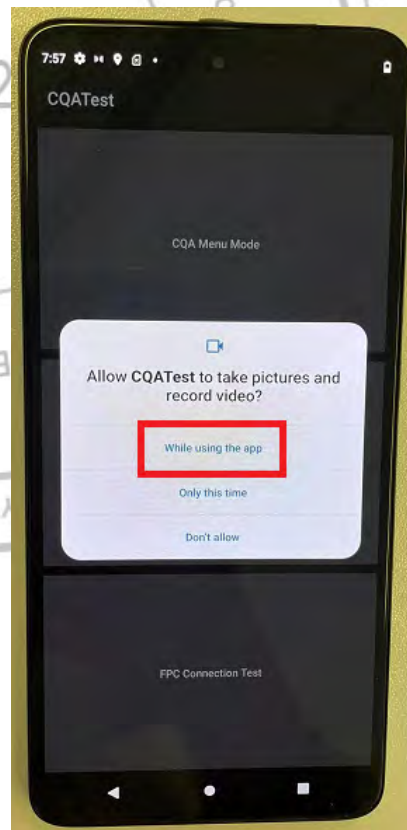
1. Open the phone Dial Screen.



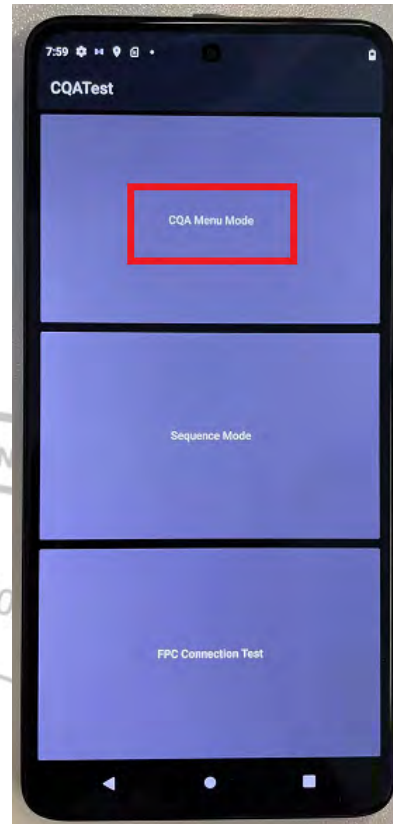
2. Enter *****#2486***** on the Dial Pad and press Call.



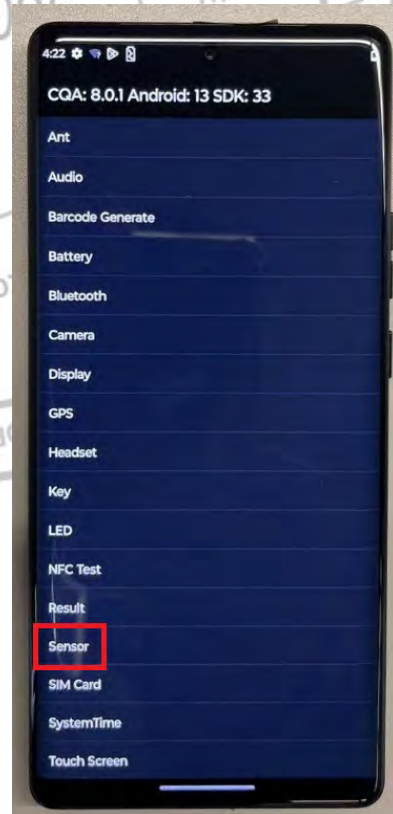
3. Select Allow to all pop-ups prompts.



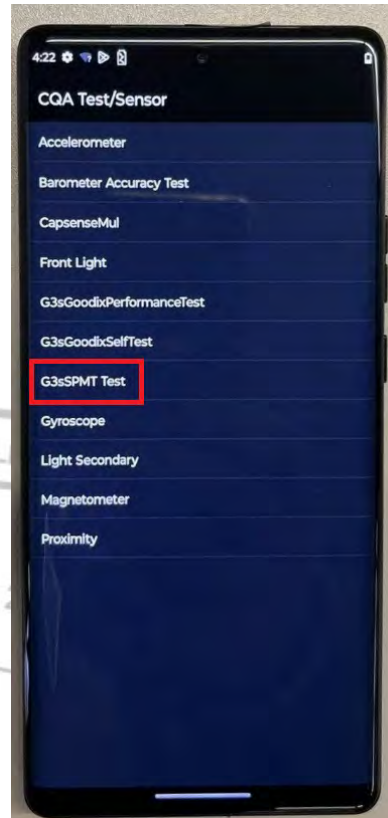
4. Select the "CQA Menu Mode".



5. Select "Sensor" from the options.



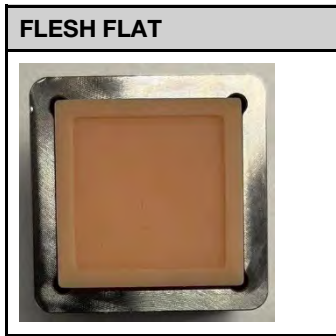
6. Select “G3sSPMT Test” from the options.



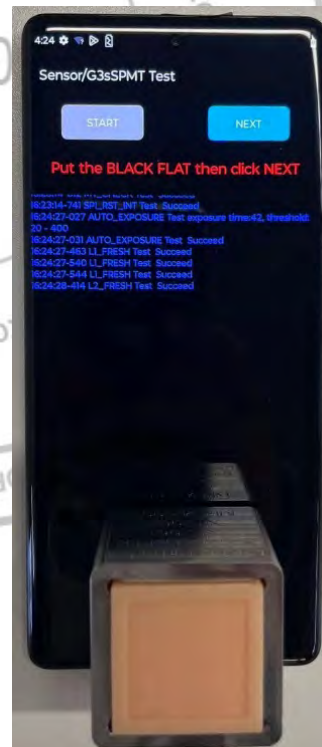
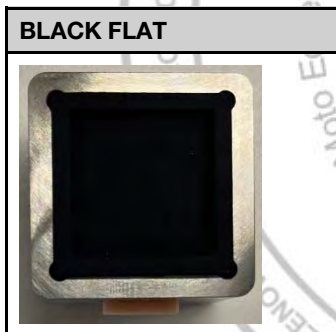
7. Press Start.



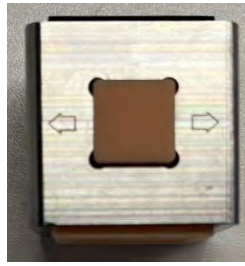
8. Place “Flesh Flat” side onto FOD area and press “Next”.



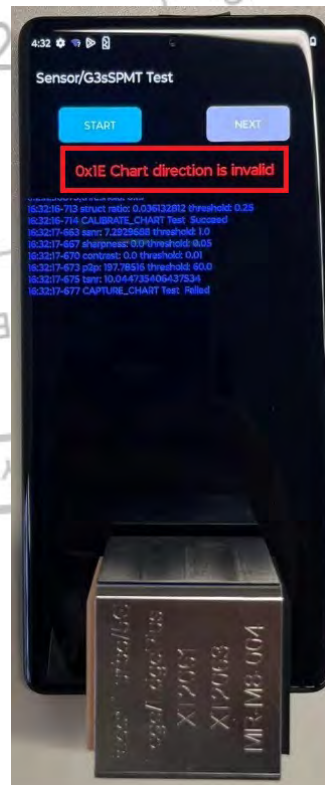
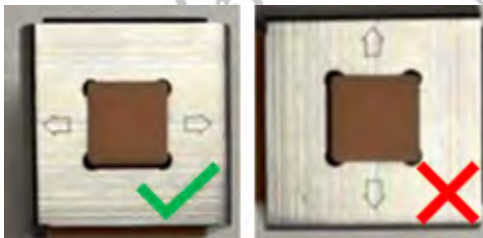
9. Place “Black Flat” side onto FOD area and press “Next”.



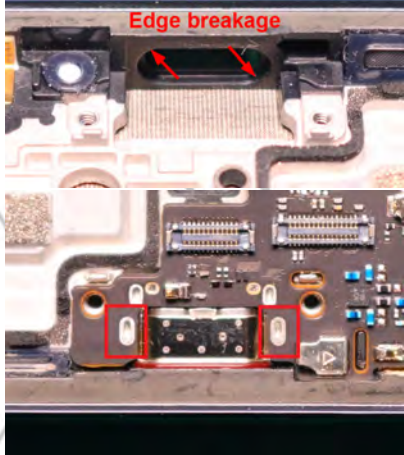
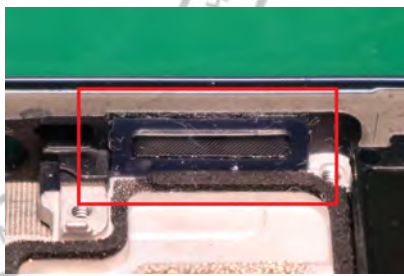
FLESH FLAT

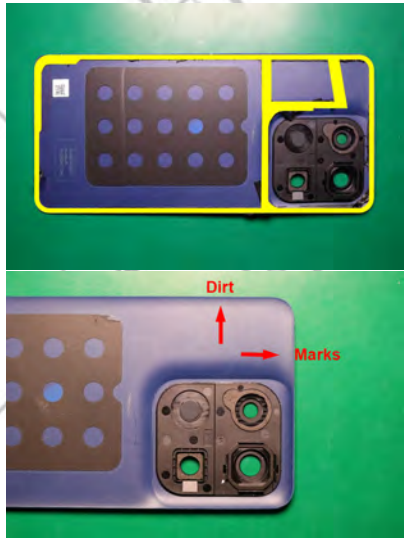
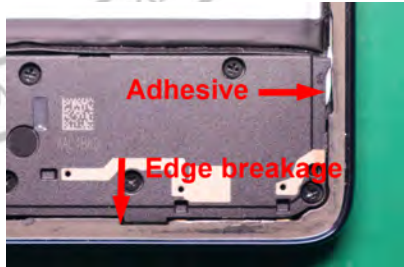


Place “Flesh chart” side with pattern lines horizontal, NOT Vertical. Fail to do so will result in “Chart direction is invalid” error.

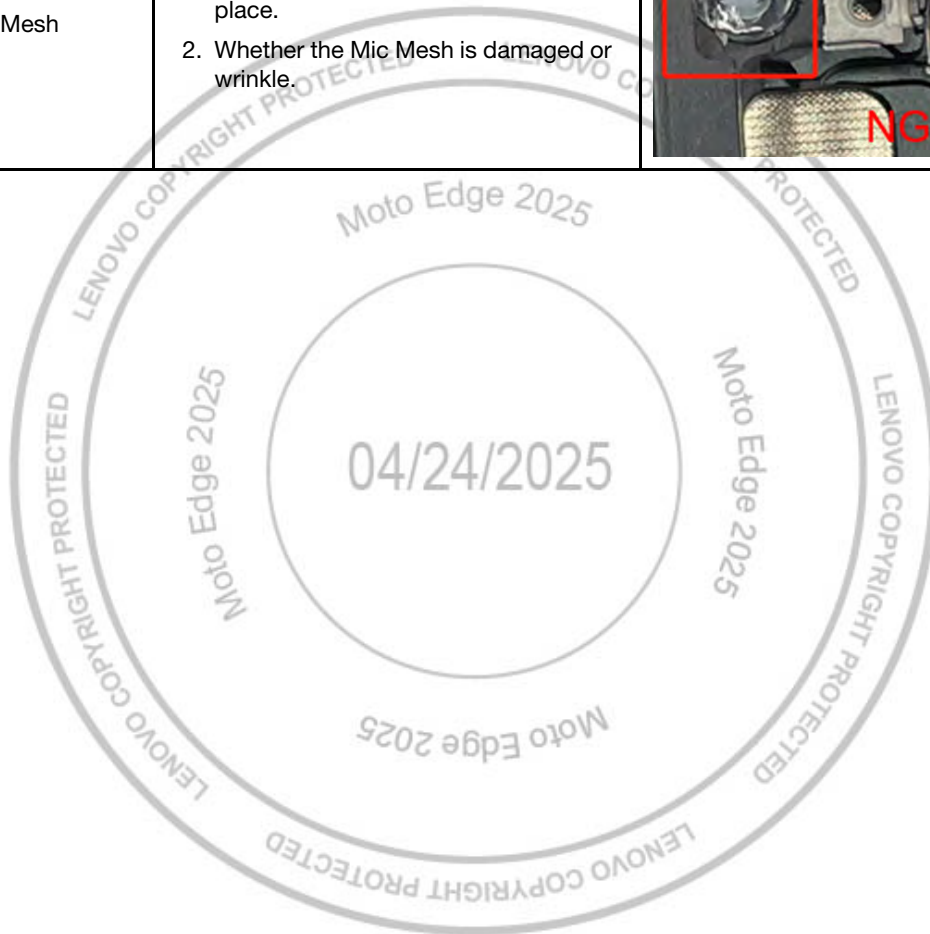


Chapter 8. Defective Air Tightness Inspection

Order	Check Content	Check Factors	Picture/Drawing
1	USB	- Whether the USB sealing ring is damaged or have deformation. - Whether the edge of USB port hole on Front-Housing is damaged. - Whether the USB port hole on Front-Housing is in place.	 
2	Speaker Box	- Whether the Speaker Mesh is in place or damaged. - Whether the Speaker Box leaks air (the probability is very low).	

Order	Check Content	Check Factors	Picture/Drawing
3	SIM Tray	- Whether the Sim Tray is assembled in place. - Whether the Sim Tray silicon ring is damaged or dirty.	
4	Battery Cover	- Whether the reused Battery Cover is clean. - Whether the Battery Cover adhesive has marks or dirt.	
5	Front-Housing	- Whether the residual adhesive is cleaned. - Whether the adhesive surface is damaged.	

Order	Check Content	Check Factors	Picture/Drawing
6	Sim Pin	- Whether the Sim Pin is assembled in place. - Whether the Sim Pin silicon is damaged.	
7	Mic Mesh	- Whether the Mic Mesh is assembled in place. - Whether the Mic Mesh is damaged or wrinkle.	





Chapter 9. Battery Safety Guidelines

Handle Battery with care. If the Battery Pack is dropped to the floor, it may be internally damaged and must be scrapped.

Ensure all surfaces, fixtures, and phone components contacting the Battery are smooth and clean.

Ensure Battery and its insulation are not damaged (e.g., scratched, dented, punctured) prior to and throughout assembly.

Prior to assembly, ensure Battery edges and surfaces are not dented or deformed, and that fixtures and parts that will contact the Battery are free of foreign material.

Ensure screws or screwdrivers or any sharp tools do not contact the Battery.

Failure to adhere to Safety Critical Note(s) may increase risk of rupture, burning, or failure to function safely when used by the customer.

Batteries should be handled with care to avoid damage to the cell (example: scratch, dent, puncture), insulation or protective circuit.

Mishandling or contact with foreign material may increase risk of swelling, rupture, burning, or other failure to function safely when used by the customer.

Do not puncture, deform, crush, or disassemble battery.

Do not shorten the connector leads, do not submerge in water, or expose to extreme temperatures.

If battery pack has leaking fluids, do not touch any fluids.



Chapter 10. Guidance for Handling Lithium Ion Batteries

When handling devices with Li-Ion batteries, it is imperative to take basic precautionary measures and follow best practices. This guidance does not contain device-specific training procedures. Please refer to your internal organizational procedures or OEM training materials for device-specific battery replacement procedures.

Batteries that are swollen and/or have a crease, dent, puncture or other deformation shall be removed and replaced with a new battery. These batteries shall not be reused.

Background

Like many consumer electronics devices, mobile devices contain Li-Ion batteries and sensitive electronic components that are designed to be serviced by qualified technicians. Li-Ion batteries are a safety-critical component of these devices and must be handled with care.

When fully or partially charged, Li-Ion batteries can combust if punctured, bent, dented or damaged. Basic best practices can minimize incidents with Li-Ion batteries. All appropriate measures to protect personnel against possible chemical, thermal, and/or explosion hazards shall be taken.

It is important to note that consumer do-it-yourself (DIY) battery replacement or repair kits, often made available via third parties, do not ensure safety-critical best practices. Some may not adhere to basic lithium battery design requirements, although form and fit criteria are met. It is very important to use battery packs approved by the OEM.

Technicians who perform device repairs shall be properly trained and provided with the appropriate tools, components and work instructions. Careless work during a repair, or the use of improper components, can lead to safety risks including battery thermal events.

The batteries used in most modern devices are contained in a soft pouch protected by the outer enclosure of the device. When the device enclosure is opened for a repair, the battery can be damaged by tools or other components making contact with the battery. Damaging the battery can create a safety risk.

It is highly recommended and in many cases an OEM requirement to replace a soft pouch battery that has been removed from a device, as the removal process could damage the battery. A removed battery, including those "harvested" from other devices, does not provide the same guarantee of quality and safety as a new battery.

Use the highest quality components/batteries available along with proper tools.

Any repair requiring the removal of screws or other components shall be carefully performed to ensure that loose screws or misaligned components are not left inside a device. Loose screws or misaligned components can damage the battery and potentially lead to a battery thermal event.

Appropriate final testing according to each organization's internal processes and procedures shall be done to ensure the quality and safety of any repair. Best practices including checking and re-checking your work will ensure these standards are met.

Battery Service: Required Equipment

Technicians shall possess the following equipment for working on Li-Ion batteries:

- Neoprene or nitrile gloves (EN 374) or equivalent
- Heat-resistant gloves
- Safety glasses
- Cleaning wipes (to clean safety glasses)
- 8-10 cups of clean, dry, untreated sand, stored in a container as specified below
- Wide-mouth non-breakable plastic quick-pour sand container with a flip-top lid
 - The sand container shall be within arm's reach (2 ft. or 0.6 m), on either side of the workstation, for immediate access during an unexpected thermal event. It shall not be stored above or below the workstation.
- Hand broom with dustpan
- Existing ESD bags or re-sealable, plastic disposal bags, and boxes
- Yellow fireproof safety cabinet
- Re-sealable aluminized bags
- Voltmeter and appropriate wiring

Battery Service: Precautions, Training and Handling Guidelines

Technicians shall follow these precautions and guidelines when working on Li-Ion batteries:

- Wear safety glasses whenever handling batteries.
- Remove jewelry items such as rings, wristwatches, pendants or any other loose wearable items that could come in contact with the battery terminals.
- Always inspect Standard Operating Procedures (SOP) prior to disassembly to ensure the proper temperature guidelines are followed when disassembling devices.
- Do not handle battery packs if they feel warm or hot to the touch or look deformed, included, but not limited to, swollen, crushed, have breached.
- Do not attempt to handle a venting battery or device containing one.
- All swollen, creased, dented, punctured or otherwise deformed batteries shall be processed in accordance with appropriate SOP.
- Handle batteries with signs of leakage in a well-ventilated area.
- Always have all safety equipment available (quick-pour sand container, ABC fire extinguisher, fire safety gloves and dedicated Li-Ion battery containment device) when disassembling or processing devices with internal soft-pouch batteries.
- Cover all metal work surfaces with an insulating material (ESD mat). Work areas shall be kept clean and free of metal or sharp objects that could short the contacts, or puncture or damage the cover to the battery.
- All tools shall be made of ESD material with no sharp edges in order to prevent dents and punctures.
- Promptly dispose of used batteries in accordance with local regulations.

Battery Safety Training

Every technician handling batteries, regardless of their skill level, shall complete battery safety training that includes the best practices described in this document. Training shall take place on a regular basis, with the recommended frequency being once a year. It is also recommended to undergo training if and when an unfamiliar battery pack design or chemistry is to be handled.

Battery Handling

Technicians shall follow these key handling and safety points when working on Li-Ion batteries. Some can be dangerous to the persons carrying them out. All appropriate measures to protect personnel against possible chemical, thermal, and/or explosion hazards shall be taken.

- Do not subject batteries or battery-powered devices to high levels of force.
- All appropriate measures to protect personnel against possible chemical, thermal, and/or explosion hazards shall be taken.
- Excessive force shall not be used to free a battery lodged inside the housing.
- Check for proper fit before inserting the battery into any type of housing.
- Batteries shall not be forced into the battery cavity.
- Do not expose Li-Ion batteries to liquids.
- Only use inspection tools (such as calipers and rulers) that are made from, or covered with, a non-conductive material.
- Properly connect the battery in the electronic device, charger or testing equipment.
- Use only certified chargers. Non-certified chargers may not properly charge or may over-charge a battery, causing swelling.
- Discharge battery only in an approved device.
- Do not short circuit the battery.
- Do not directly solder a battery.
- Never attempt to open a battery.
- Never attempt to repair a battery.
- Remove batteries from a device that will not be used for an extended period of time (if possible).
- Do not reuse soft-pouch batteries.

If something unusual is noticed, stop using the battery. If the battery or battery-powered device gives off an unusual odor, overheats, vents, sparks, is discolored, deformed or reacts unusually in any way during use, recharging or storage, remove it from the device or battery charger and discontinue use.

- Never use a battery if it is swollen, dented, creased, punctured.
- Keep metal tools away from batteries.
- **NEVER USE WATER TO PUT OUT A BATTERY FIRE.** Only use an ABC fire extinguisher and Li-Ion battery containment device with sand.
- **The most effective way to stop a thermal runaway (battery fire) is by smothering the battery or device immediately with plenty of clean, dry sand, dumped all at once from the quick-pour container. Also have immediate access to an ABC-type fire extinguisher in the event the reaction is not contained by the sand.**

New Battery Installation

The service provider shall follow this guidance when working with new Li-Ion battery assemblies:

- Follow the provided work instructions.
- When required to remove a battery that is installed in a device using adhesive, always use new battery adhesives to install the replacement battery. Reusing the adhesive left on the housing could lead to the battery coming loose and may cause safety issues.
- Before placing new adhesive, completely remove and clean any residue left on the housing using isopropyl alcohol or other suitable solvent before placing new adhesive.

- Never place a new adhesive on top of existing adhesive since it increases the height and could cause interference with the internal space or battery cavity.
- Ensure proper alignment of the adhesive to the housing surface is critical for proper bonding strength.
- Do not use clamps to hold the battery pack in place during the rework process.
- Ensure proper use of press and hand roller so that adhesive properly bonds to the housing and battery. Insufficient bonding may cause the battery to loosen, resulting in safety issues.
- Some batteries may require application of pads and/or tape after assembly; follow provided work instructions to attach protective materials.
- Inspect the housing to ensure no sharp edges contact the battery.
- Inspect battery flex or cable for signs of damage.
- Inspect the connectors on the battery flex/cables and board to ensure they are not damaged or corroded.
- Proper alignment of the battery to the housing surface is critical for safety.
- Do not place labels on the battery unless required by the OEM.
- Ensure the battery connector is properly connected to the board.
- Secure all battery connectors and the battery pack itself by using properly placed adhesive tape and wraps. This should be clearly explained in the work instruction.

Storage Guidelines

Technicians shall follow these Li-Ion battery storage guidelines:

- Store batteries in a well-ventilated, dry area. The storage temperature shall be between -4° F (-20° C) and 113° F (-45° C), or according to the battery manufacturer's guidelines.
 - Lithium ion batteries function best in the temperature range of 32° to 95° F (0° to 35° C)
- Store batteries in an isolated area, away from combustible materials and preferably in a fireproof safety container.
- Store lithium batteries in their original protective cases, padding and boxes.
- Do not compress or force batteries into boxes if they do not fit.
- Store used batteries in a separate location from new batteries.
- Make sure to place only one battery in each box or pad, exactly as provided by the manufacturer.
- Any Li-Ion battery storage area shall have immediate access to a quick-pour sand container with sand, an ABC fire extinguisher and a Li-Ion battery containment device.
- Never stack heavy objects on top of boxes containing Li-Ion batteries and take necessary precautions to avoid crushing or puncturing the cell case. Severe damage may potentially lead to hazardous chemical release or a battery thermal event.
- Minimize the number of Li-Ion battery boxes that are stacked on top of each other.
- Do not allow excessive quantities of batteries to accumulate in any storage area.

Battery Recycling and Shipment

Technicians shall source a recycling provider and adhere to their prescribed shipping procedures. The recycler shall have appropriate certifications including R2.

To find the list of R2 recyclers, reference <https://sustainableelectronics.org/recyclers>.

Li-Ion batteries are dangerous goods and can pose a safety risk if not prepared and shipped in compliance with international transport regulations. Technicians shall follow the IATA Lithium Battery Shipping Regulations (LBSR) Guide when shipping Li-Ion batteries.

Employee Emergency Action Plan

The service provider shall have an employee emergency action plan documented and communicated to technicians. Technicians shall be familiar with their organization's employee emergency action plan.

First Aid Procedures

The service provider shall have first aid equipment on-hand at all times and documented procedures for handling incidents.





Chapter 11. Broken Glass Handling Guide

Important

The displays and some of inlay are made of glass. The glass could break if the phone is dropped on a hard surface, receives a substantial impact, or is crushed, bent, or deformed.

Cautions and Warnings

Don't attempt to remove chipped or cracked glass shards.

Put on safety glasses with side shields and the cut-resistant gloves.

Use a vacuum cleaner to remove glass pieces from your workspace and phone.

