

Repair manual

Hammer Iron 6 5G

HS2513 | HS2513e

HS2514 | HS2514e

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Introduction

This manual contains technical instructions for replacing original manufacturer parts in your Hammer smartphone and is intended for end users and service providers with the knowledge, experience and tools required to repair electronic devices.

All functionality, features, specifications, and other product information provided in this document, including, but not limited to, the benefits, design, pricing, components, performance, availability, and capabilities of the product, are subject to change without notice or obligation. mPTech reserves the right to make changes to this manual and the product described herein at any time without obligation to notify you of such changes.

IMPORTANT!

Read the entire manual first. Do not continue if you are not comfortable performing repairs according to the instructions in this manual.



Failure to follow repair instructions, use of non-original parts or inappropriate tools may result in damage to the part/device or compromise its functionality and water resistance.



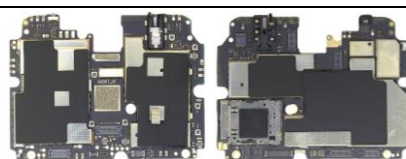
Failure to follow repair instructions, use of non-original parts or inappropriate tools may cause fire or other safety hazards and lead to property damage, personal injury or death.

Warranty

Damage caused by repairs performed outside of an Authorized Service Center is not covered by the mPTech warranty. Such damage may result in future repairs being subject to out-of-warranty costs or the device becoming ineligible for future repairs performed by mPTech.

Parts

Product	Part ID	Image
FM antenna	CZE005917 CZE006179	
Main antenna	CZE005933	
NFC antenna	CZE005844	
BM-81 battery	CZE005842	
Speaker	CZE005932	
Fingerprint module	CZE005852	
Side decorate part	CZE005860	
Receiver	CZE005853	
Macro camera	CZE005832	
Night vision camera	CZE005927	
Front camera	CZE005829	
Rear main camera	CZE005926	
Orange logo	CZE005937	
Silver logo	CZE005936	
Mic waterproof membrane	CZE005948	
Add. mic waterproof membrane	CZE005952	
Additional mic	CZE005950	
Middle housing	CZE005845	
Back housing black Back housing orange	CZE005934 CZE005935	

Front camera foam	CZE005913	
Motherboard foam 1	CZE006214	
Motherboard foam 2	CZE006215	
Motherboard foam 3	CZE006216	
Motherboard	CZE005925 CZE005941	
Sub-PCBA	CZE005915	
Sub-PCBA ANT6	CZE005929	
Led sticker	CZE006182	
Logo sticker	CZE006034	
Speaker mesh sticker	CZE006035	
Camera lens sticker	CZE006033	
Speaker FPC adhesive 1	CZE005947	
Speaker FPC adhesive 2	CZE006178	
Flashlight FPC adhesive	CZE005946	
LED + infrared FPC adhesive	CZE005945	
Add. microphone gasket adhesive	CZE006184	
RF cable 1	CZE005839	
RF cable 2	CZE005930	
RF cable 3	CZE005931	
RF cable 4	CZE006217	
Additional button	CZE005855	
Volume button	CZE005907	
Speaker mesh	CZE005856	
Camera lens	CZE005908	
Screw 1	CZE005923	
Screw 2	CZE005854	
Screw 3	CZE005924	
Speaker USB-C cap screw	CZE006036	

Proximity sensor FPC	CZE005834	
Speaker FPC	CZE005916	
Main FPC	CZE005838	
Flashlight FPC	CZE005836	
LED+ infrared FPC	CZE005835	
Additional button FPC	CZE005837	
Night camera thermal pad	CZE005939	
Rear camera thermal pad	CZE005938	
Motherboard thermal pad	CZE005833	
TP+LCD	CZE005828	
Camera bracket	CZE005940	
SIM tray	CZE005905	
Buzzer gasket	CZE006180	
LED+ infrared gasket	CZE005906	
Microphone gasket	CZE006037	
Additional microphone gasket	CZE005951	
Vibration	CZE005841	
Rear camera bracket	CZE005859	
Additional button bracket	CZE005858	
HF cover	CZE005850	
SIM cover	CZE005851	
USB-C cover	CZE005849	
LCD connector cover	CZE005918	
SIM card slot	CZE005942	
SIM slot	CZE005944	
SIM slot 2	CZE006181	

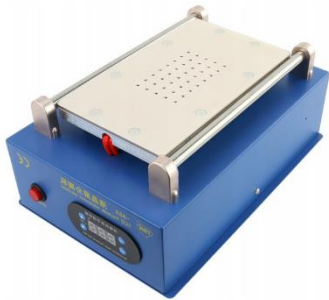
*Always use original manufacturer parts. Third-party parts may not function properly.

Tools

Tools not supplied by mPTech with the product can be purchased at electronics stores.

Use only demagnetized tools specifically designed for repairing small electronic devices, as most electronic components are sensitive to electromagnetic interference.

Repair tools

LCD heater	
Suction cup	
Triangular opening tool	
Antistatic tweezers (anti-ESD*)	
Plastic opening tool	
Philips PH0 screwdriver	
Microfiber cloth	
IPA cloths	
SIM card tray eject pin	

* ESD: electrostatic discharge

Security

During repairs, you must wear safety equipment at all times.

Safety glasses	
Antistatic gloves (anti-ESD*)	
Antistatic mat (anti-ESD*)	
Grounding strap (anti-ESD*)	

*ESD: electrostatic discharge



Perform repairs in a well-ventilated area.

The work area should be free of foreign objects and sharp materials.

Do not leave loose screws, extra screws, or small parts inside the device.

Use caution when using sharp tools near the battery.



The device contains a built-in lithium-ion battery. Improper battery replacement, improper handling of parts, failure to discharge the battery before repair, or failure to follow the instructions provided may result in battery overheating, swelling, venting, leakage, or a thermal runaway event. These events can cause fire, personal injury, death, data loss, or damage to the device, parts, or other property.



Before you begin repairs, completely discharge the battery. A discharged battery is less prone to thermal events. If you cannot determine the battery charge level, do not repair the device.

Disassembly

The device is disassembled in the following order:

- LCD display
- Middle housing
- Main board
- Front camera
- Main camera
- Sub-PCBA (*main microphone, USB-C port*)
- Buzzer (*speaker*)
- Battery
- Side button (*fingerprint reader*)

0| First steps

Before starting repairs, always perform the following steps:

- Back up your device.
- Completely discharge the battery.
- Turn off the device.
- Disconnect all cables.
- Remove all additional accessories (e.g., cases).
- Organize and clean your work area.
- Put on an ESD wrist strap and attach it to a properly grounded ESD mat.



Ensure you are using the correct tools and parts for the model you are repairing.

Take your time. Read all instructions and warnings carefully.

The end of each tape/antenna must be aligned with the connector. Press each end into the connector until you hear a click to ensure that it is securely attached.

1| SIM tray



Disassembling the device with the SIM card tray in place may damage the device.

Required tools

- SIM card tray eject pin

Steps

1. Locate the SIM card tray.
2. Insert the SIM card eject tool into the hole next to the SIM card tray.
3. Push the SIM card eject tool toward the case to eject the SIM card tray.
4. Remove the SIM card tray.

2| LCD display

Required tools

- LCD heater
- suction cup
- triangular opening tool
- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Using an LCD heater, evenly heat the LCD surface to reduce the stickiness of the foam between the LCD frame and the rest of the device.
2. Insert the opening tool between the LCD frame and the case to create a gap.
3. Slide the tool along the edges of the device to separate the two parts.
4. Remove the screw using a screwdriver.
5. Remove the LCD connector cap using antistatic tweezers.
6. Disconnect the LCD ribbon connector using antistatic tweezers..



The opening tool should not be inserted deeper than the width of the LCD frame, otherwise the display will be damaged.
Be careful not to damage or scratch the device .



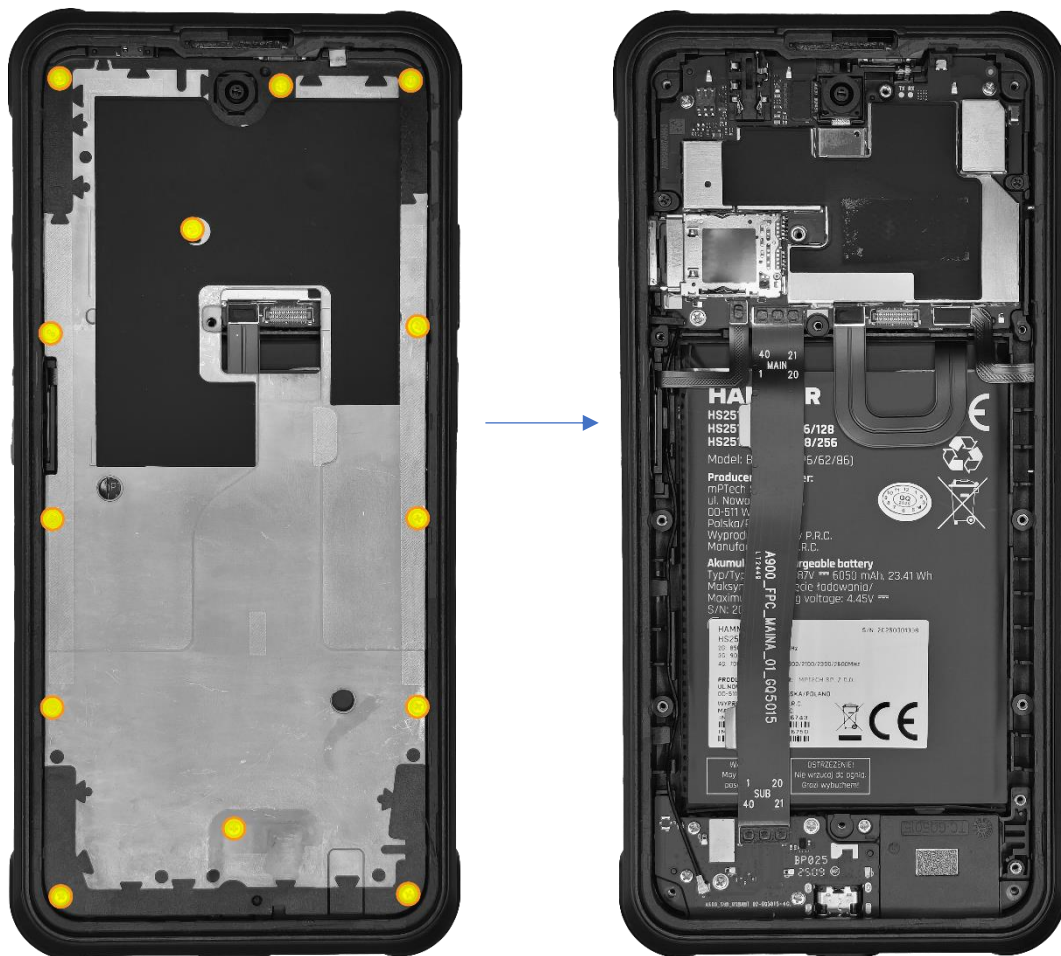
3| Middle housing

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 13 points where the screws are located..
2. Remove all screws using a screwdriver.
3. Carefully grasp the middle housing with round-tipped tweezers and remove it from the case.



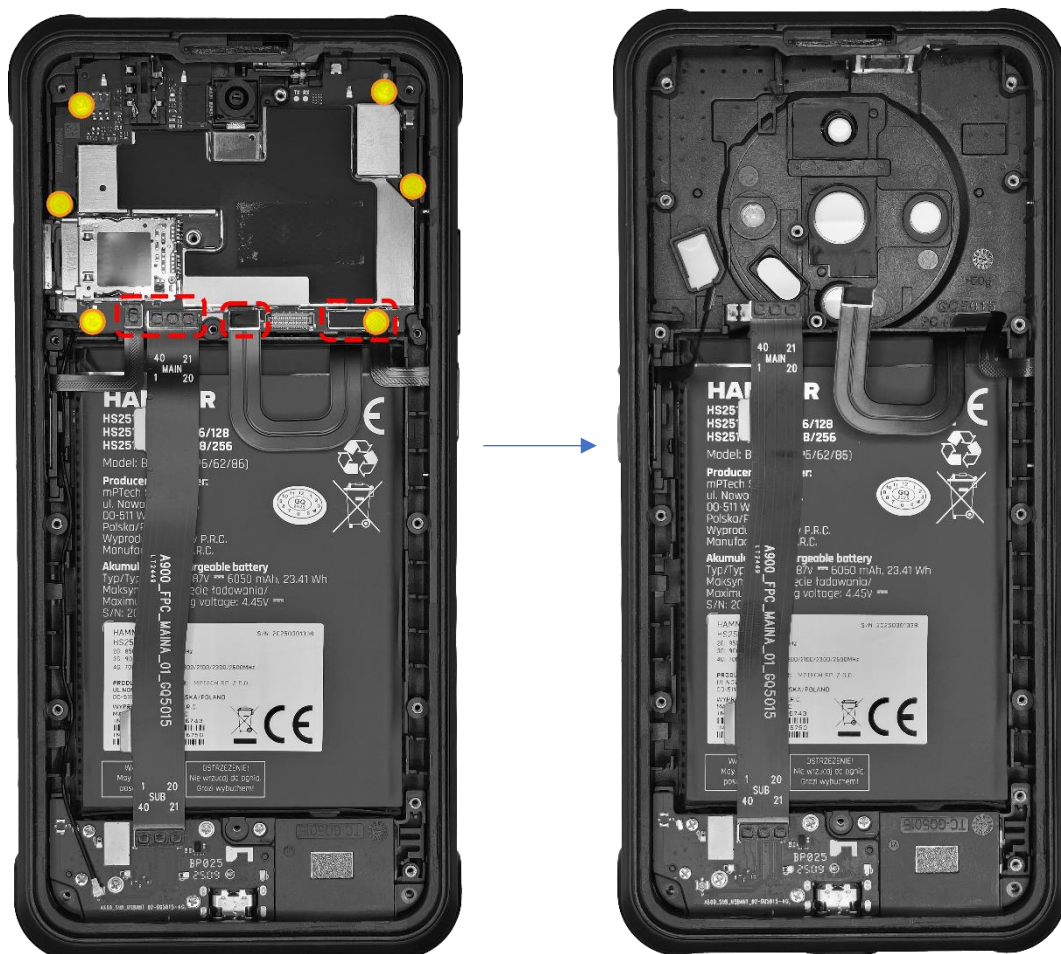
4| Motherboard

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 6 points where the screws are located.
2. Remove all screws using a screwdriver.
3. Disconnect the USB and headphone connectors using antistatic tweezers.
4. Carefully grasp the battery strap connector, sub-pcba and 2 side button connectors with round-tipped tweezers and remove it from the case.



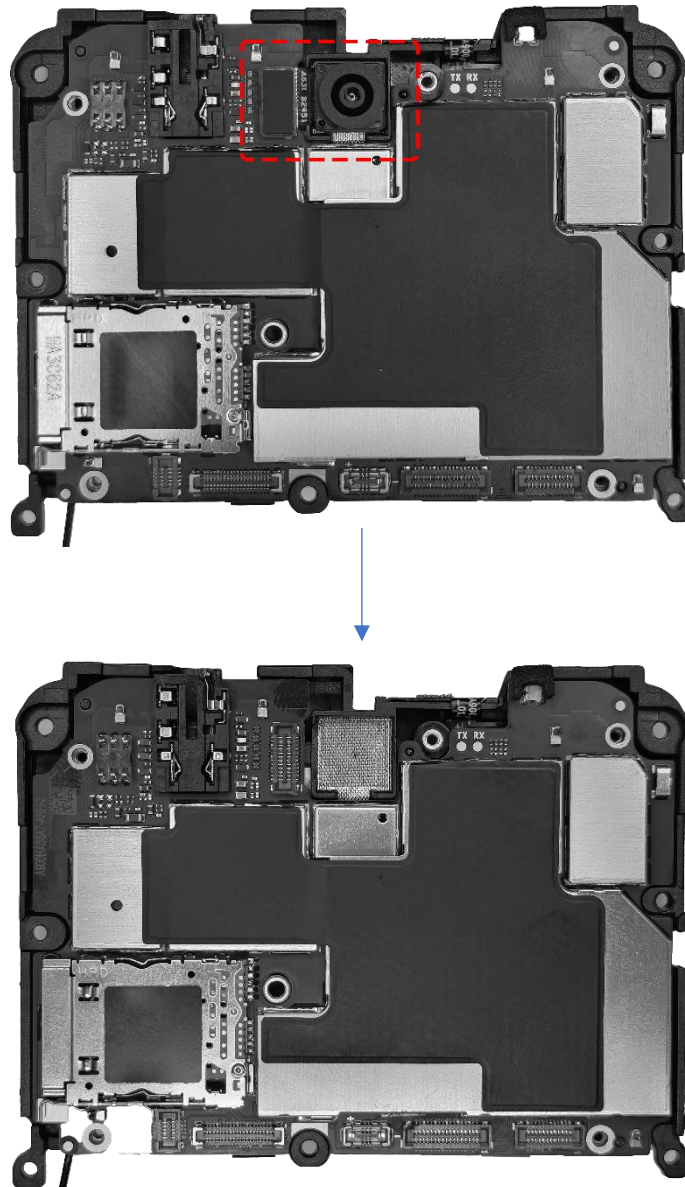
5| Front camera

Required tools

- antistatic tweezers

Steps

1. Disconnect the camera connector on the other side using antistatic tweezers.
2. Carefully grasp the camera with round-tipped tweezers and remove it from the housing.



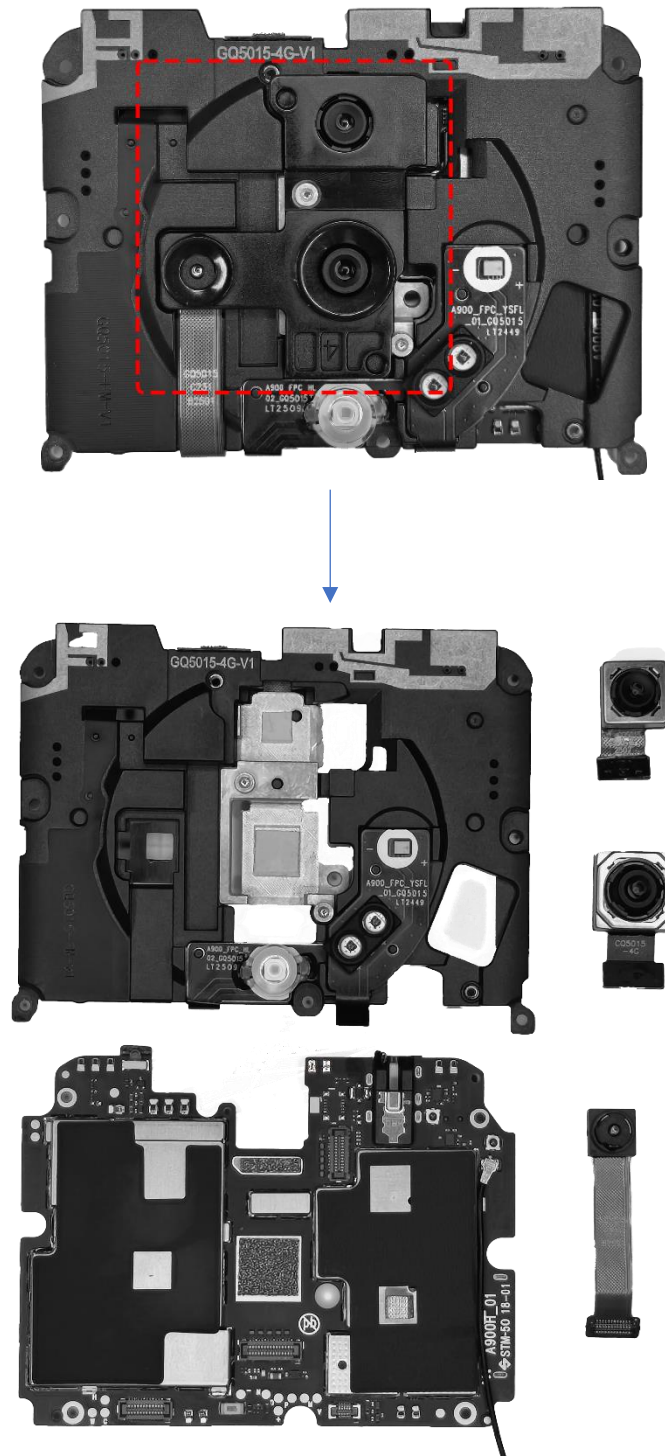
6| Main camera

Required tools

- antistatic tweezers

Steps

1. Remove the cover and disconnect the camera ribbon connectors using antistatic tweezers.
2. Carefully separate the motherboard from its bracket using antistatic tweezers.
3. Disconnect the ribbon connectors and remove the cameras using antistatic tweezers.



7 | Sub-PCBA

Contains: main microphone, USB-C

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 5 points where the screws are located.
2. Remove all screws using a screwdriver.
3. Disconnect the motherboard ribbon connector using antistatic tweezers.
4. Carefully grasp the sub-pcba with round-tipped tweezers and remove it from the case.



8| Buzzer

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Remove the screw using a screwdriver.
2. Lift the box with the buzzer using antistatic tweezers and remove it from the device.



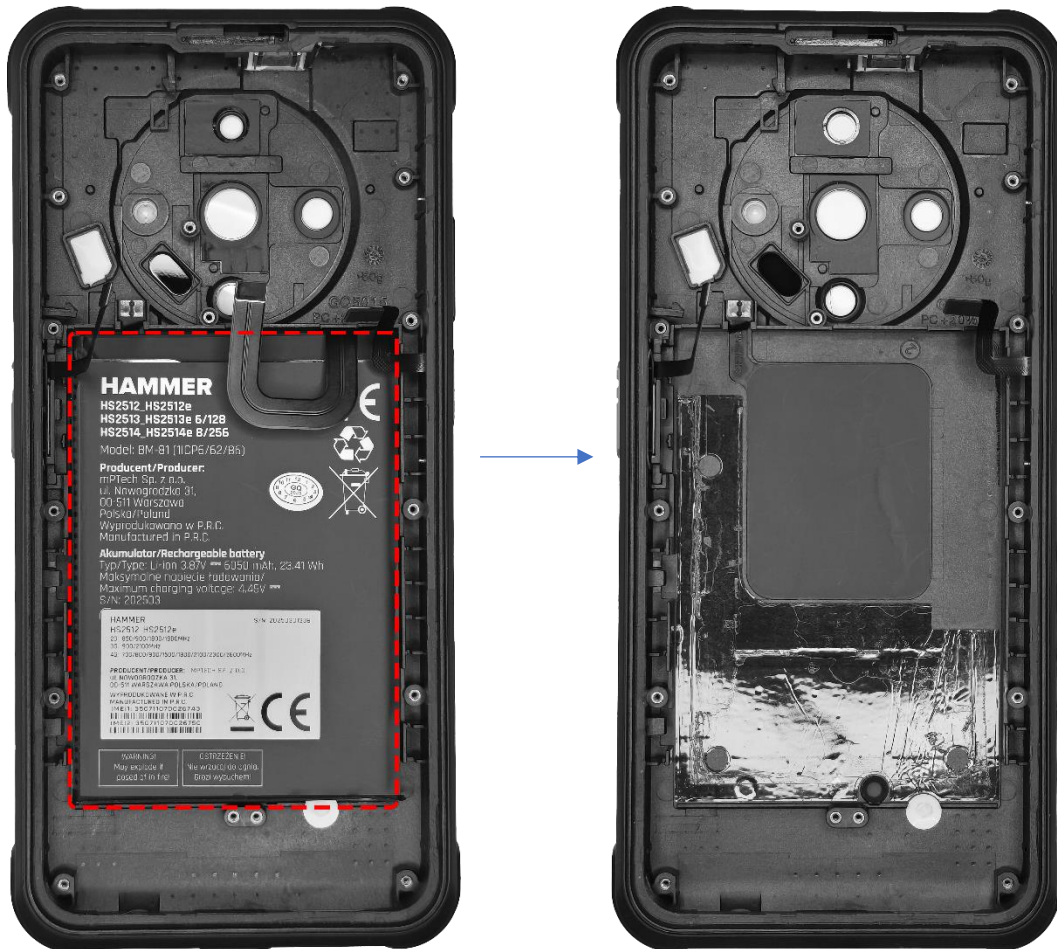
9| Battery

Required tools

- IPA (isopropyl alcohol)

Steps

1. Use IPA (isopropyl alcohol) to loosen up the bond between the battery and it adhesive tape.
2. Peel off the plastic tabs from the battery located under the model label sticker.
3. Pull evenly on the plastic tabs to separate the battery from the device.



10| Rear cover

Contains: mechanical button

Required tools

- none

Steps

0. After completing all the previous disassembly steps, the rear cover will be separated from the device.
1. Remove the side button.

