

Repair manual

Hammer Blade Va 5G

HS2402 | HS2402e

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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.



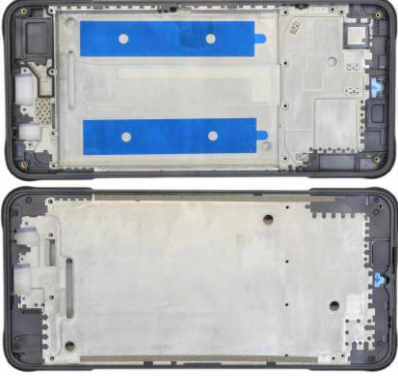
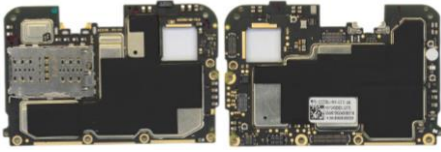
Failure to follow repair instructions, use of non-original parts or inappropriate tools may cause fire or other safety hazards and lead to property damage, personal injury or death.

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
Main antenna 1	CZE005426	
Main antenna 2	CZE005425	
Main antenna 3	CZE005427	
Main antenna 4	CZE005734	
Main antenna 5	CZE005735	
Main antenna 6	CZE005736	
Main antenna 7	CZE005737	
NFC antenna	CZE005733	
WiFi-GPS antenna	CZE005428	
BM-78 battery	CZE005393	
Buzzer	CZE005400	
Fingerprint scanner	CZE005392	
Left decorative element	CZE005408	
Right decorative element	CZE005409	
Speaker	CZE005399	
Macro camera	CZE005391	
Front camera	CZE005389	
Rear camera	CZE005390	
Proximity sensor channel	CZE005411	
LED channel	CZE005405	
Rear cover	CZE005415	
LCD+TP	CZE005388	

Logo	CZE005418	
Microphone membrane	CZE005422	
Auxiliary microphone membrane	CZE005423	
Side button membrane	CZE005395	
Housing	CZE005403	
Motherboard bracket	CZE005404	
Proximity sensor cover	CZE005412	
Motherboard	CZE005387	
Sub-PCBA	CZE005394	
Logo sticker	CZE005419	
RF cable 1	CZE005401	
RF cable 2	CZE005766	
Volume button	CZE005407	
Buzzer mesh	CZE005421	
Speaker mesh	CZE005420	
Camera lens cover	CZE005416	
LED lens cover	CZE005417	
Decoration element screw	CZE005436	
Housing screw	CZE005433	
Sub-PCBA screw	CZE005434	
Motherboard screw	CZE005435	
Buzzer tape	CZE005397	

LED tape	CZE005396	
Microphone tape	CZE005398	
Conductive tape 1	CZE005429	
Conductive tape 2	CZE005430	
Thermal pad 1	CZE005431	
Thermal pad 2	CZE005432	
Buzzer holder	CZE005406	
SIM tray	CZE005410	
Microphone gasket	CZE005414	
Additional microphone gasket	CZE005413	
Vibration	CZE005402	
Service hole cover	CZE005424	

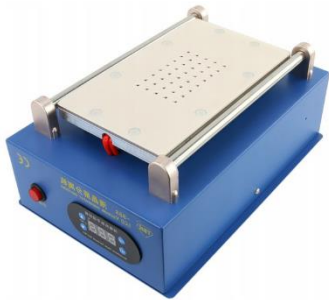
* Always use original manufacturer parts. Third-party parts may not function properly.

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:

- Rear cover
- Motherboard bracket
- Motherboard
- Front camera
- Main camera
- Sub-PCBA holder
- Sub-PCBA (*USB-C*)
- Buzzer (*speaker*)
- Microphone
- Battery
- LCD display

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| Rear cover

Required tools

- LCD heater
- suction cup
- triangular opening tool

Steps

1. Using an LCD heater, evenly heat the rear cover surface to reduce the stickiness of the foam between the cover and the rest of the device.
2. Insert the opening tool between the cover and the case to create a gap.
3. Slide the tool along the edges of the device to separate the two parts.



The opening tool should be inserted halfway and positioned under the cover. Be careful not to damage or scratch the device.



3| Motherboard bracket

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 7 points where the screws are located.
2. Remove all screws using a screwdriver.
3. Lift the cover using antistatic tweezers.



4| Motherboard

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 1 point where the screw is located.
2. Remove the screw using a screwdriver.
3. Disconnect the LCD, on/off button and battery connectors using antistatic tweezers.
4. Disconnect the two RF connectors using antistatic tweezers.
5. Carefully grasp the motherboard with round-tipped tweezers and remove it from the case.



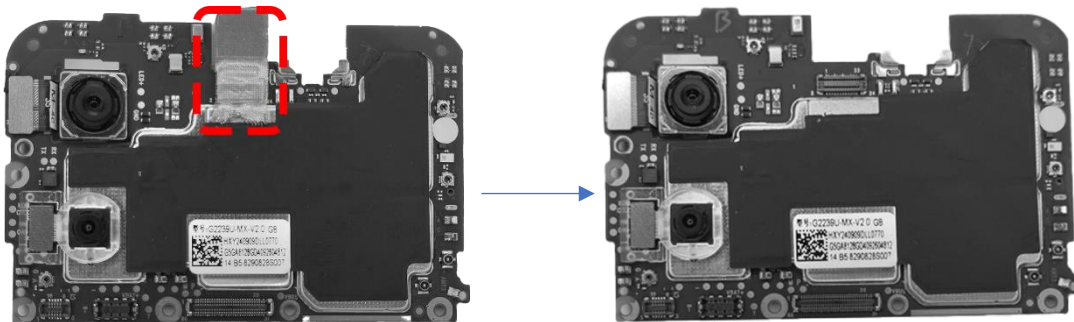
5| Front camera

Required tools

- antistatic tweezers

Steps

1. Peel off the tape holding the front camera using antistatic tweezers.
2. Disconnect the camera connector using antistatic tweezers.
3. Carefully grasp the camera with round-tipped tweezers and remove it from the housing.



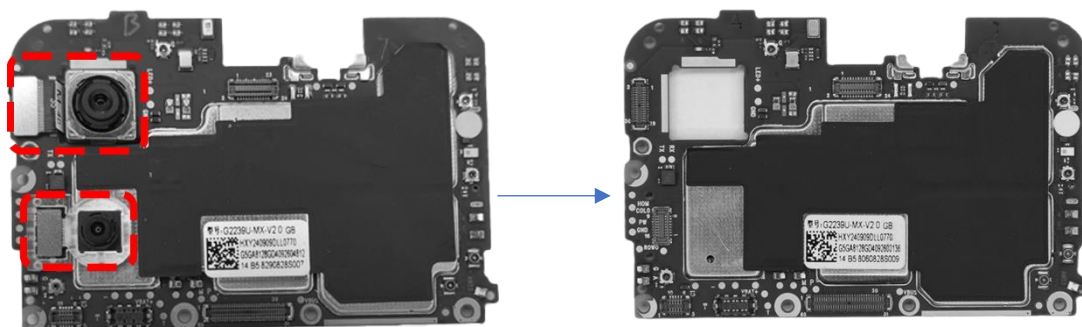
6| Main camera

Required tools

- antistatic tweezers

Steps

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



7| Sub-PCBA bracket

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 8 points where the screws are located.
2. Remove all screws using a screwdriver.
3. Carefully grasp the bracket with round-tipped tweezers and remove it from the case.



8| Sub-PCBA

Includes: USB-C

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 1 point where the screw is located.
2. Remove the screw using a screwdriver.
3. Disconnect the LCD connectors using antistatic tweezers.
4. Disconnect the two RF connectors using antistatic tweezers.
5. Carefully grasp the sub-PCBA with round-tipped tweezers and remove it from the case.



9| Buzzer

Required tools

- plastic opening tool
- antistatic tweezers

Steps

1. Place a flat plastic tool between the speaker and the enclosure and carefully pry it up.
** If necessary, use IPA (isopropyl alcohol) to loosen the speaker from the case.*
2. Carefully remove the speaker from the case.



10| Microphone

Required tools

- antistatic tweezers

Steps

1. Use antistatic tweezers and carefully remove the silicone around the microphone tape.
2. Carefully remove the microphone from the case.



11| Battery

Required tools

- IPA (isopropyl alcohol)

Steps

1. Use IPA (isopropyl alcohol) to loosen the connection between the battery and the case.
2. Peel the plastic tabs off the battery.
3. Pull evenly on the plastic tabs to separate the battery from the device.



12| LCD display

Required tools

- LCD heater
- suction cup
- triangular opening tool

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. Carefully remove the LCD along with its FPC from the housing.



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.

