

Repair manual

Hammer Iron V

HS2302 | HS2302e

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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.



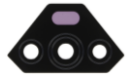
Failure to follow repair instructions, use of non-original parts or inappropriate tools may cause fire or other safety hazards and lead to property damage, personal injury or death.

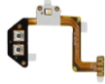
Warranty

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	CZE005146	
Main antenna	CZE005143	
GPS/WiFi/BT antenna	CZE005144	
LTE antenna	CZE005145	
NFC antenna	CZE005147	
BM-76 battery	CZE005141	
Buzzer	CZE005140	
Fingerprint reader	CZE005166	
Black decorative element Orange decorative element	CZE005160 CZE005184	
Speaker	CZE005167	
Night camera	CZE005170	
Front camera	CZE005168	
Rear camera	CZE005169	
LCD+TP	CZE005132	
Black logo IMPEL logo Orange logo	CZE005162 CZE005650 CZE005161	
Microphone membrane	CZE005649	

Side button membrane	CZE005135	
Additional button membrane	CZE005136	
Middle housing	CZE005148	
Black rear housing Orange rear housing	CZE005150 CZE005149	
Front camera cover	CZE005157	
Infrared cover	CZE005175	
LED tape foam	CZE005158	
Infrared tape foam	CZE005174	
Motherboard	CZE005131	
Additional board	CZE005133	
Battery adhesive	CZE005738	
Logo adhesive	CZE005182	
Speaker mesh adhesive	CZE005181	
Rear camera lens adhesive	CZE005183	
RF cable	CZE005139	
Volume button	CZE005156	
Speaker mesh	CZE005163	
Rear camera lens	CZE005165	
Screws	CZE005159	

Proximity sensor FPC	CZE005138	
Speaker FPC	CZE005178	
Main FPC	CZE005134	
LED and infrared FPC	CZE005137	
Microphone FPC	CZE005151	
Motherboard thermal pad	CZE005172	
Infrared thermal pad	CZE005173	
SIM tray	CZE005155	
Side button bracket	CZE005176	
Microphone gasket	CZE005648	
Vibration	CZE005142	
Camera bracket	CZE005152	
Rear case bracket	CZE005153	
Additional button bracket	CZE005154	
HF cover	CZE006077	
SIM tray cover	CZE006078	
LCD FPC cover	CZE005177	
System connector cover	CZE006079	

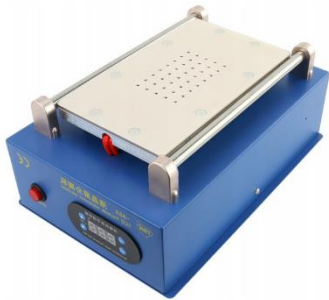
*Always use original manufacturer parts. Third-party parts may not function properly.

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 (*USB-C port*)
- Buzzer (*speaker*)
- Microphone
- Battery

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

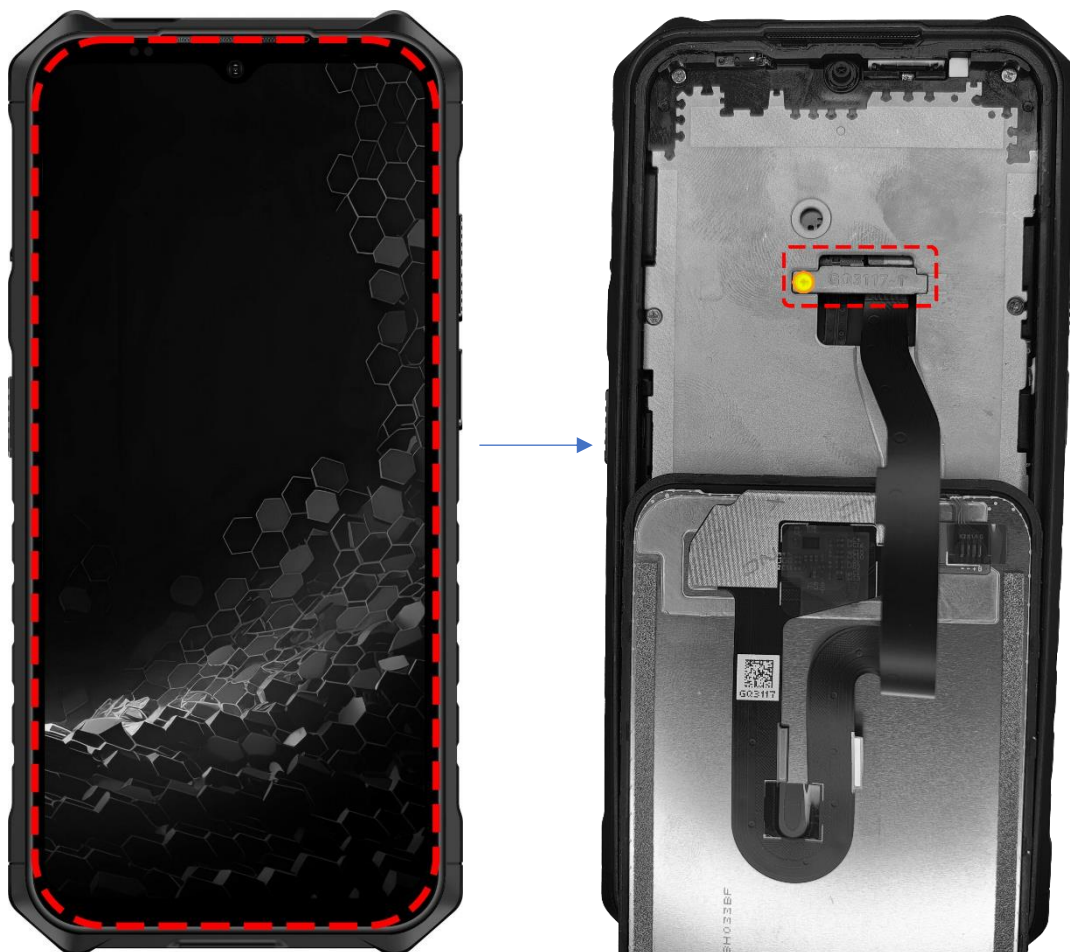
- LCD heater
- suction cup
- triangular opening tool
- Philips PH0 screwdriver
- antistatic tweezers

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 11 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 7 points where the screws are located.
2. Remove all screws using a screwdriver.
3. Disconnect the battery connector, sub-PCBA and button connectors using antistatic tweezers.
4. Disconnect the RF connector on the sub-PCBA.
5. Carefully grasp the motherboard with round-tipped tweezers and remove it from the case.



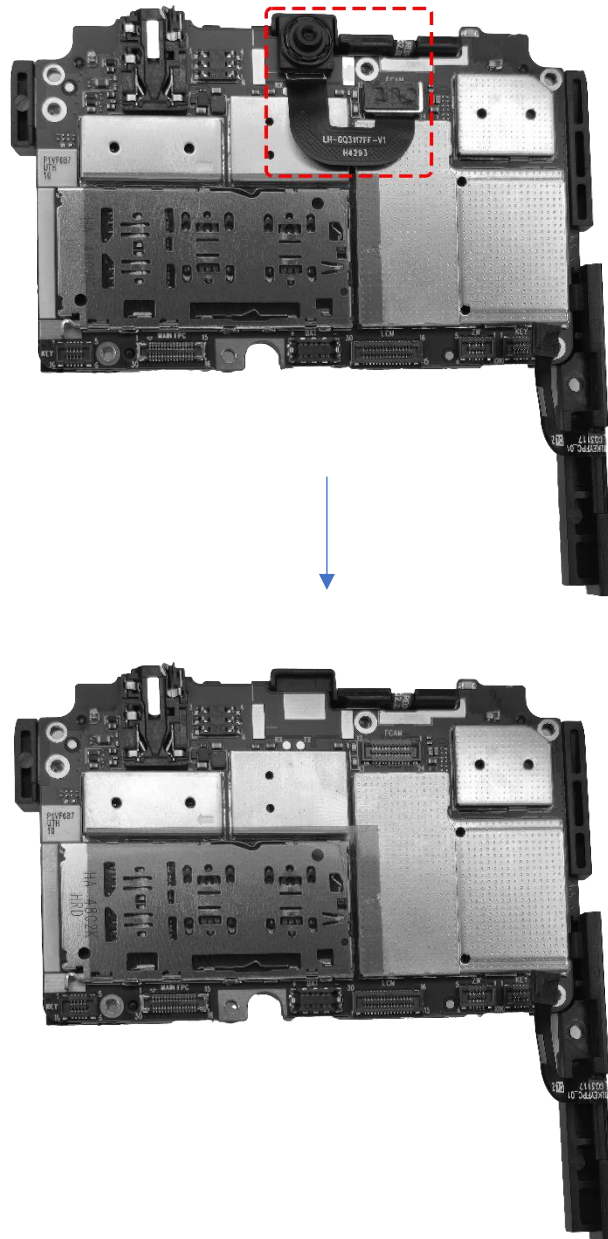
5| Front camera

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.



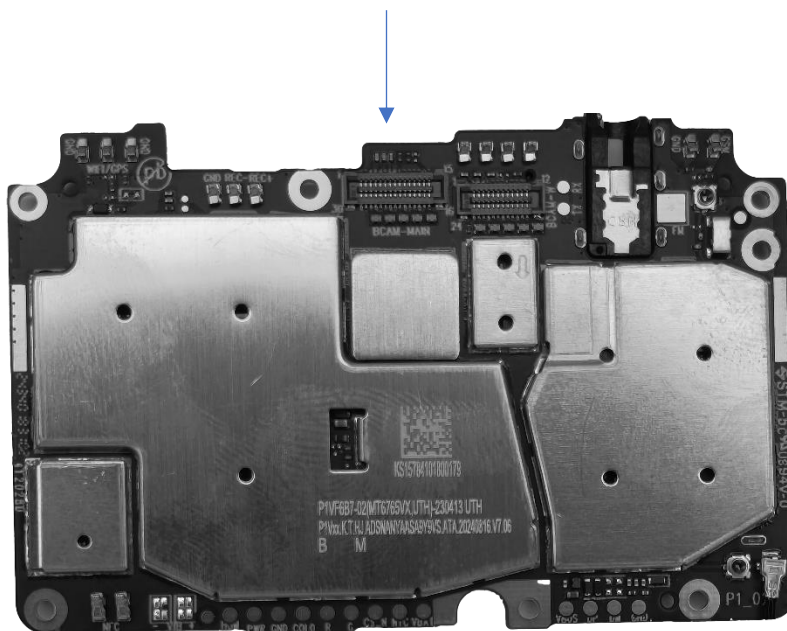
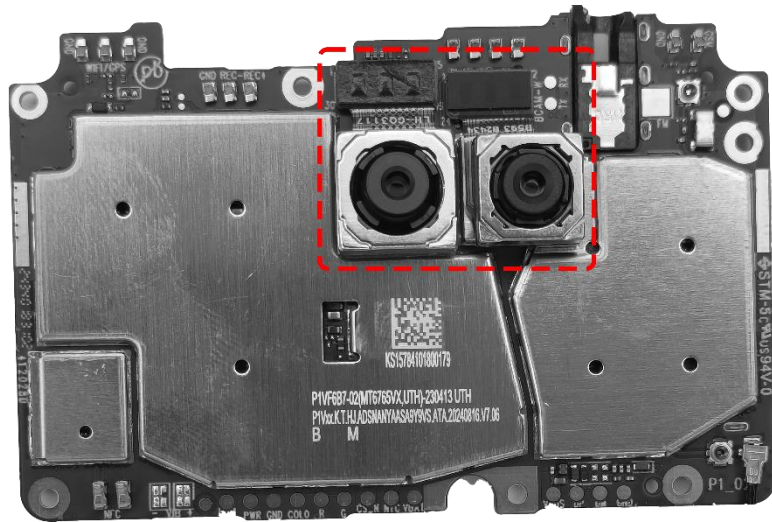
6| Main camera

Required tools

- antistatic tweezers

Steps

1. Carefully separate the motherboard from its bracket using antistatic tweezers.
2. Disconnect the ribbon connectors and remove the cameras using antistatic tweezers.



7| Sub-PCBA

Contains: USB-C

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

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



8| Buzzer

Required tools

- Philips PH0 screwdriver
- antistatic tweezers

Steps

1. Find the 2 points where the screws are located.
2. Remove all screws using a screwdriver.
3. Lift the box with the buzzer using antistatic tweezers and remove it from the device.



9| 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 housing.



10| 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.

