

Repair manual

Hammer Iron Va

HS2401 | HS2401e

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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.

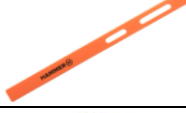


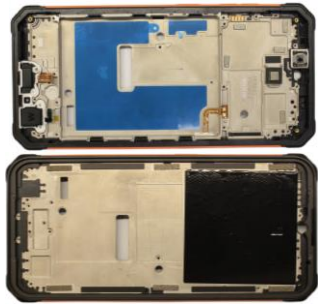
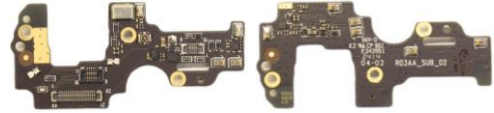
Failure to follow repair instructions, use of non-original parts or inappropriate tools may cause fire or other safety hazards and lead to property damage, personal injury or death.

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
NFC antenna	CZE005508	
DIV antenna	CZE005507	
Wi-Fi antenna	CZE005506	
Battery BM-77	CZE005535	
Speaker box	CZE005529	
Left decorative part	CZE005512	
Right decorative part	CZE005513	
Receiver	CZE005514	
Front camera 5M	CZE005533	
Rear camera 13M	CZE005534	
Back cover	CZE005510	
Glue	CZE005528	
LCD+TP	CZE005527	

Logo	CZE005531	
Mic sleeve	CZE005545	
LCD module	CZE005511	
Middle frame	CZE005550	
Rear plate bracket	CZE005505	
Connector foam	CZE005547	
USB connector foam	CZE005524	
Main PCBA	CZE005024	
Sub-PCBA	CZE005532	
Battery adhesive 1	CZE005525	
Battery adhesive 2	CZE005526	
Left decorative part adhesive	CZE005521	
Right decorative part adhesive	CZE005522	
Back cover adhesive	CZE005740	

Camera lens adhesive	CZE006210	
Copper axis	CZE005537	
Speaker net	CZE005520	
Receiver net	CZE005523	
Rear camera lens	CZE005731	
Screw M1.4x3.5 mm	CZE005538	
Screw M1.4x3.0 mm	CZE005539	
Flashlight FPC	CZE005509	
BB copper foil	CZE005542	
Bottom conductive tape	CZE005541	
Top conductive tape	CZE005540	
Secondary key FPC	CZE005515	
Volume key FPC	CZE005516	
PMU thermal pad	CZE005544	
PA thermal pad	CZE005543	
SIM tray	CZE005546	
USB bracket	CZE005519	
Light sensor gasket	CZE005530	
Front camera gasket	CZE005548	
Motor	CZE005536	
Waterproof receiver net	CZE005549	
Headphone FPC	CZE005518	
USB FPC	CZE005517	

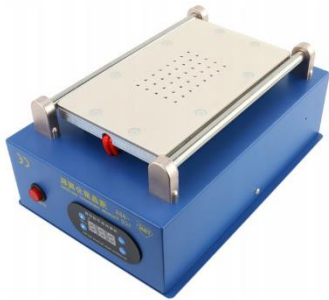
* Always use original manufacturer parts. Third-party parts may not function properly.

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
- Buzzer (*speaker*)
- Sub-PCBA (*microphone*)
- USB-C connector
- 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 9 points where the screws are located.
2. Remove all screws using a screwdriver.
3. Lift and tilt the cover with the flashlight FPC using antistatic tweezers.
4. Disconnect the flashlight FPC connector using antistatic tweezers.



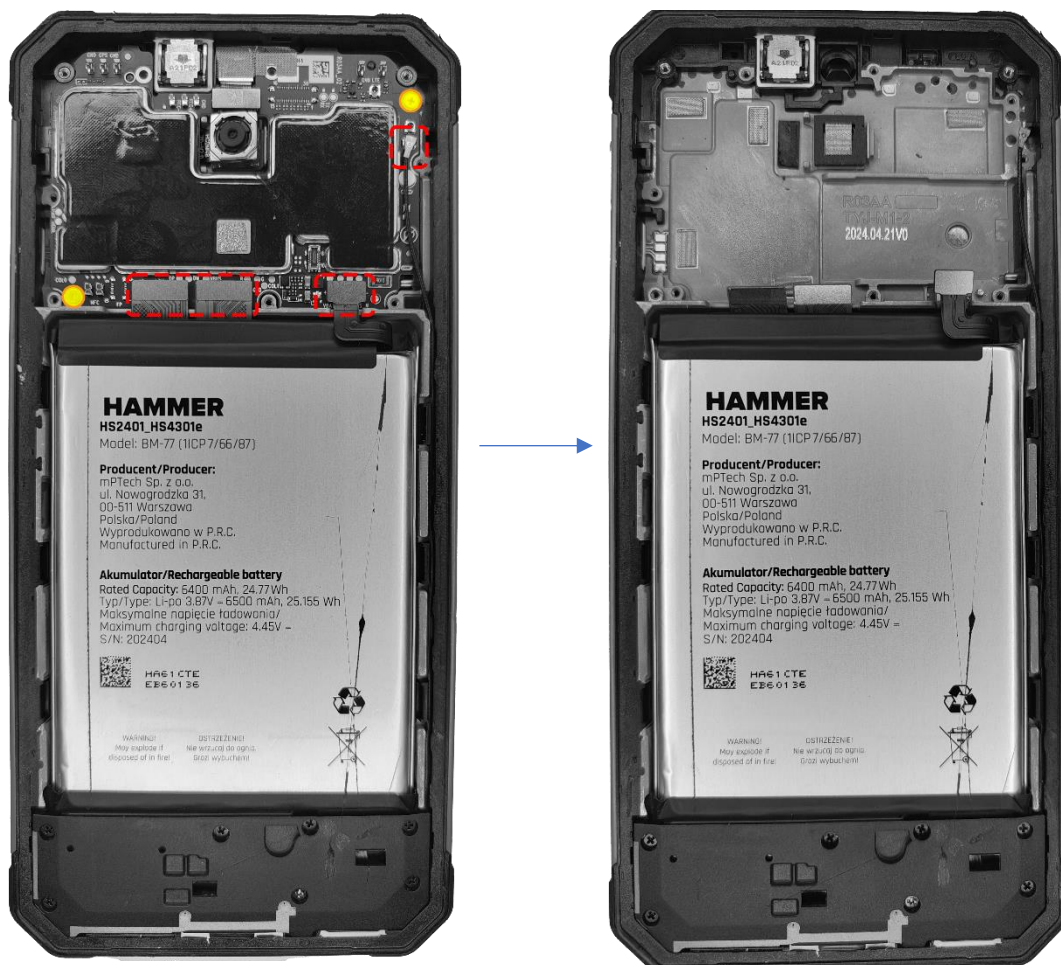
4| Motherboard

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. Disconnect the LCD, sub-PCBA and battery connectors using antistatic tweezers.
4. Disconnect the RF connector using antistatic tweezers.
5. Carefully grasp the motherboard with round-tipped tweezers and remove it from the case.



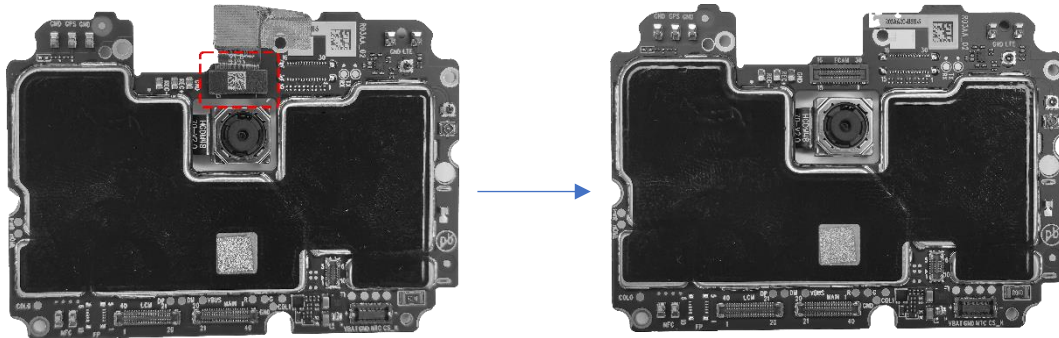
5| Front camera

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.



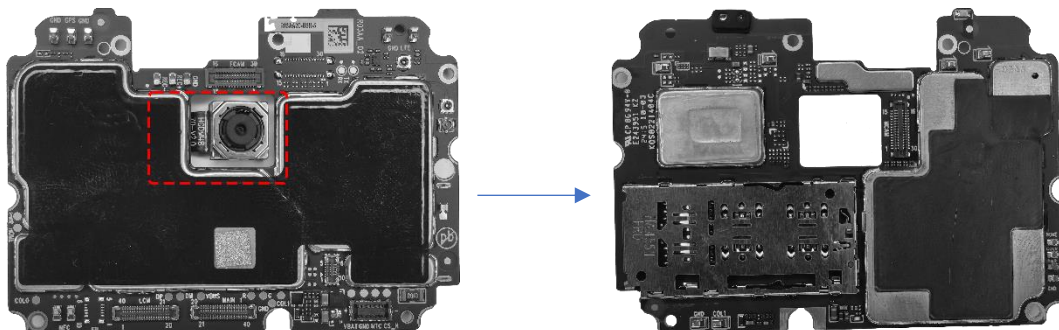
6| Main camera

Required tools

- antistatic tweezers

Steps

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



7| Buzzer

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 box with the buzzer using antistatic tweezers and remove it from the device.



8 | Sub-PCBA

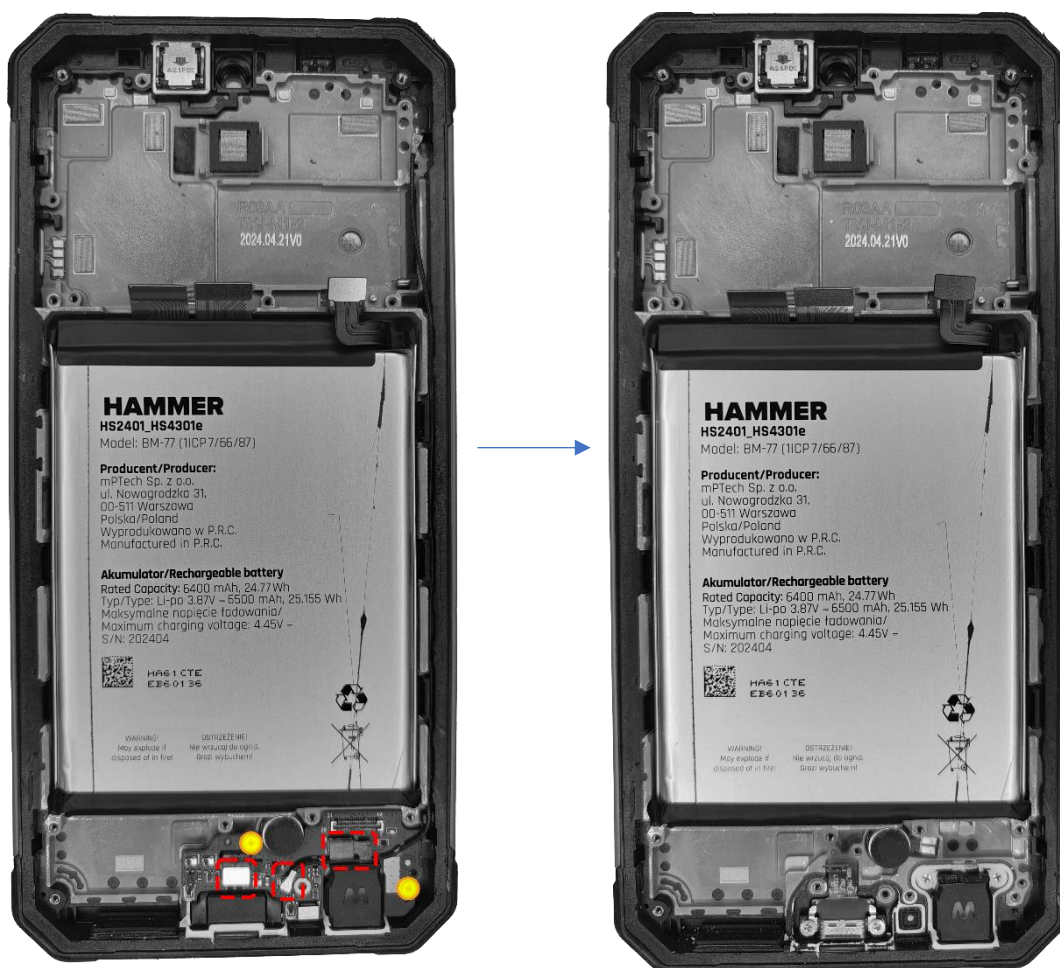
Includes: main microphone

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. Disconnect the USB and headphone connectors using antistatic tweezers.
4. Disconnect the RF connector using antistatic tweezers.
5. Carefully grasp the sub-PCBA with round-tipped tweezers and remove it from the case.



9| USB-C, HF

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. Carefully grasp the USB-C and HF with round-tipped tweezers and remove it from the case.



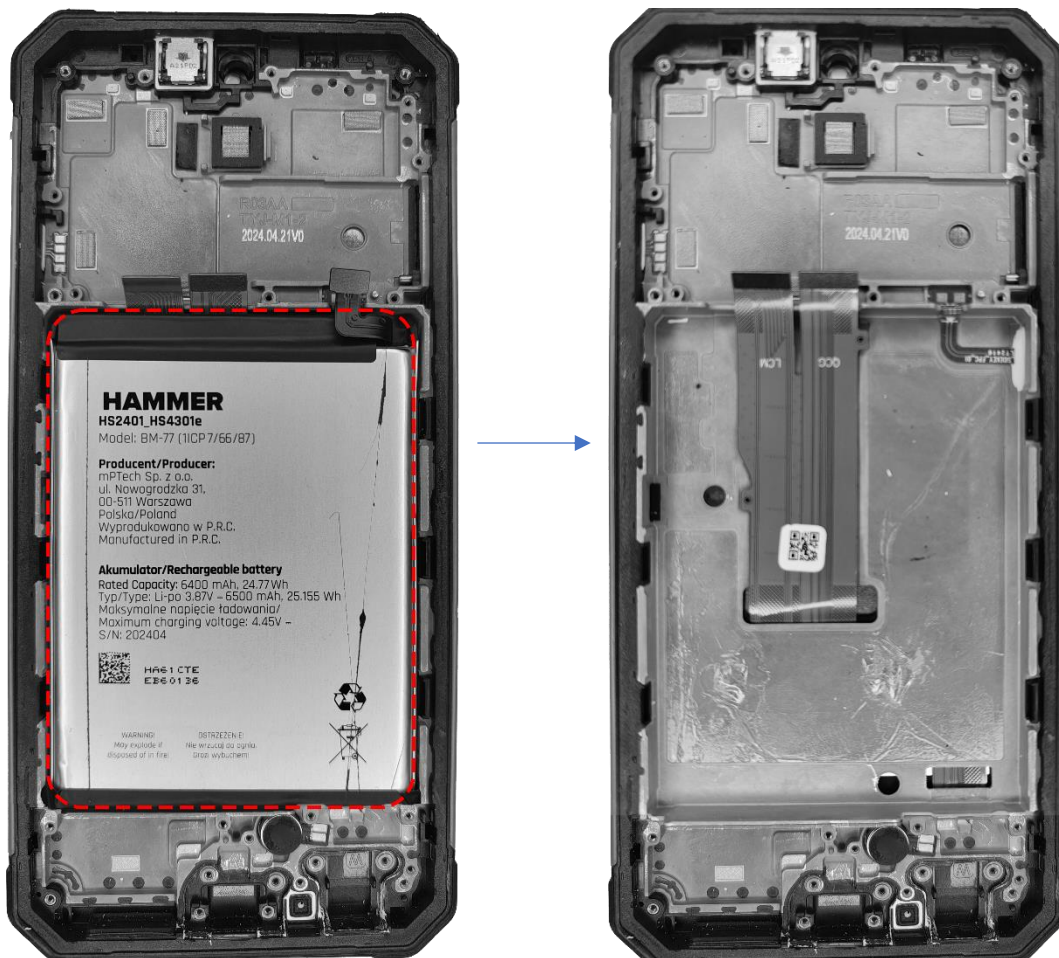
10| Battery

Required tools

- IPA (isopropyl alcohol)
- plastic opening tool

Steps

1. Use IPA (isopropyl alcohol) to loosen up the bond between the battery and its adhesive tape.
2. Place a plastic opening tool between the battery and housing and carefully lever the battery.
3. Carefully remove the battery from the case.



11 | 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.

