Motorola Moto Z2 Force Battery Replacement

How to remove or replace the battery in your Moto Z2 Force.

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INTRODUCTION

Use this guide to remove and replace a dead or low battery in a Motorola Moto Z2 Force. If your battery is swollen, take appropriate precautions.

Warning: The screen assembly of this device is comprised of a rigid midframe and a flexible plastic display that can split apart during disassembly. Excessive heat on the display can also cause it to bubble up or warp, and this is very difficult to remedy. If you plan on reusing the screen assembly, heed all warnings carefully and **take care to not overheat the display.**

TOOLS:

- iFixit Opening Picks set of 6 (1)
- Tweezers (1)
- Suction Handle (1)
- Spudger (1)
- iOpener (1)

PARTS:

- Moto Z2 Force Replacement Battery (1)
- Moto Z2 Force Display Adhesive (1)
- Precut Adhesive Card (1)

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Step 1 — Heat the Screen Adhesive

Power your phone off before you begin.

If possible, drain the battery before disassembly. When the battery is charged, there's increased risk of a dangerous thermal event if the battery is overheated or damaged during repairs.

- Prepare an iOpener and heat the front of the phone along its bottom edge for about two minutes, or until it's slightly too hot to touch. This will help soften the adhesive securing the screen assembly.

  You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.

Since the display is made of plastic, it is especially susceptible to warping and display damage. If you notice the display bubbling up or wrinkling, stop heating immediately and cool down the device before trying again.

A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the device.

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Step 2 — Release the Screen Assembly



- Apply a suction cup to the right edge of the display as close as possible to the bottom of the device without overlapping the fingerprint sensor.
- Pull up on the suction cup with firm, constant pressure to create a slight gap along the bottom edge between the screen assembly and rear case.

This may require a significant amount of force, but you only need to open a very slight gap with the suction cup to insert your tool.

As the display on top of the screen assembly is flexible, you may end up separating the right edge of the display from the screen assembly instead of lifting the entire assembly. Try to pull up just the bottom edge of the screen assembly to prevent warping the display.

If you have trouble, apply more heat to further soften the adhesive, and try again. The adhesive cools quickly, so you may need to heat it repeatedly.

- Insert an opening pick into the gap you opened behind the screen assembly.

Ensure your tool is behind the entire screen assembly and not just the display. You should notice a small plastic tab unclip from the device's frame if you have done this correctly.

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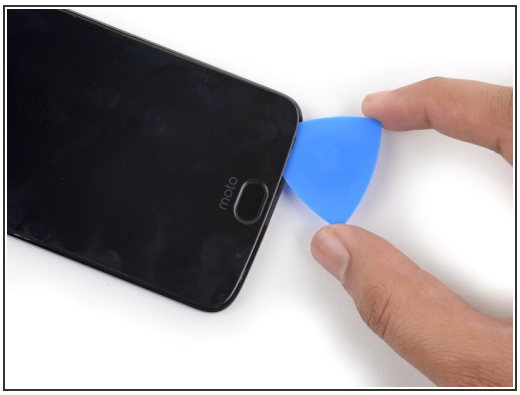
Step 3



- Slide the tool all along the bottom edge of the phone to slice through the adhesive securing the screen assembly and release the plastic clips.
- Leave your tool here underneath the bottom edge of the screen assembly to prevent it from re-adhering to the frame. Continue to the next step with a new tool.

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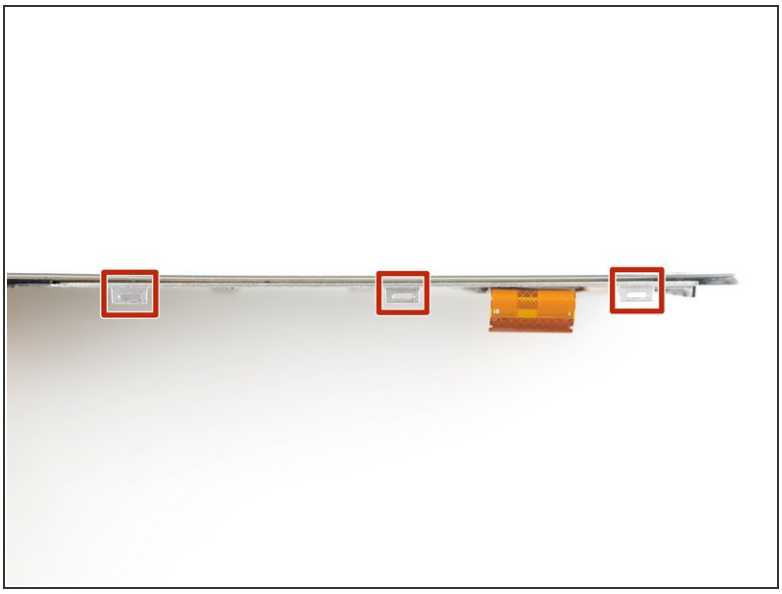
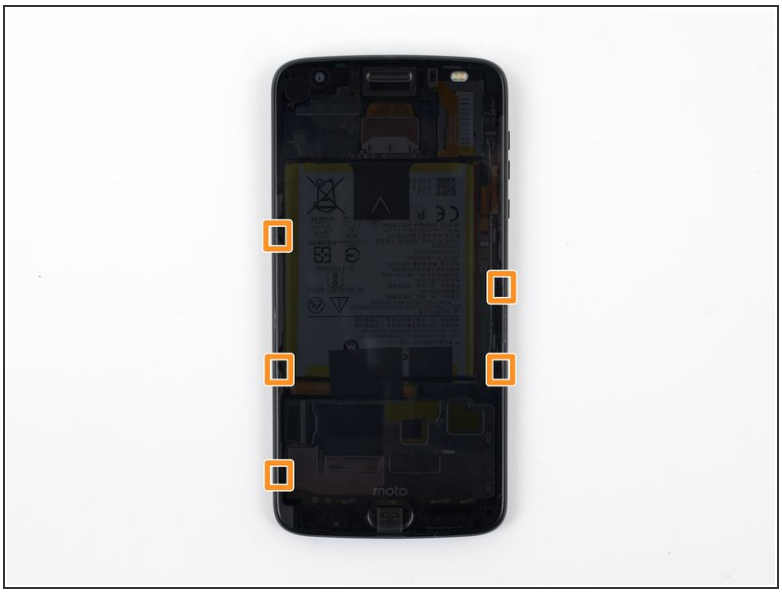
Step 4





- When separating the screen assembly from the rest of the device, you will need to disengage five metal clips securing it to the device's frame.
  - Three of these clips are located on the left side of the device, and two are located on the right side.
  - You will need to work around these clips with your tool in order to fully disengage them.
  - You can either carefully slide the tool around these clips, or leave a pick on one side of the clip while prying the other side with another pick.

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Step 5



- Slide your tool all along the right side of the device to release the clips and adhesive securing the screen assembly.

Step 6


- When separating the left side of the screen assembly, take care to not snag the display cable located on the left edge near the bottom of the display.

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Step 7



- Slide your tool all along the left edge of the phone to separate the clips and adhesive securing the screen.

Step 8

- Apply an iOpener to the top edge of the phone to soften the adhesive underneath.

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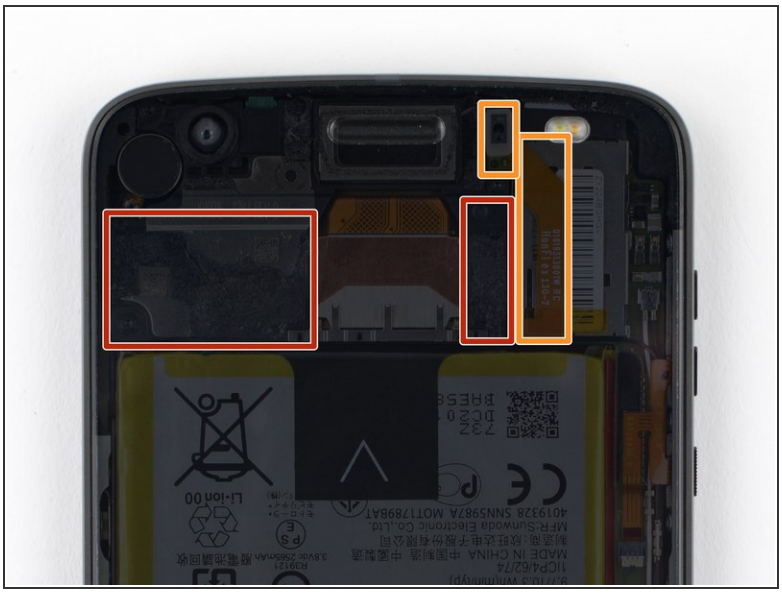
Step 9



- Slide your tool along the top edge of the screen to slice through its adhesive.

⚠ Take care to not insert your tool more than ~4 mm past the edge of the display to prevent damaging the front facing sensor array.

Step 10




- There are two large pads of adhesive securing the screen assembly near the top edge but further past the 4 mm that have already been sliced through.
- The front facing sensor array and cable surround the right patch of adhesive from the top and right, so prying or slicing from the top or right edge may damage the cable. The following steps will describe how to separate the adhesive from the left edge.

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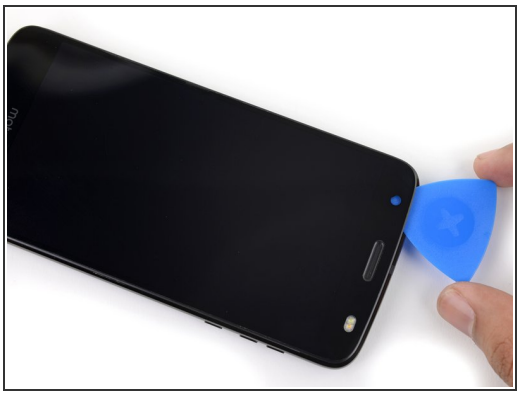
Step 11



- Insert an opening pick as deep as possible under the left corner of the display to slice through the left patch of adhesive.

Step 12 — Pry Up the Screen Assembly



- Slowly and carefully slide the flat end of a spudger under the left edge of the device. Gradually insert it deeper to pry up the top edge of the screen assembly and release the right patch of adhesive.
  - Reheat the adhesive to soften it as needed.

Alternatively, you can apply high concentration (>90%) isopropyl alcohol underneath the screen assembly and wait ~5 minutes to allow it to penetrate and weaken the adhesive.

Only pry the assembly up enough to slide the spudger underneath and release the adhesive. The assembly is still attached via the display cable, and prying the left side too much may damage it.

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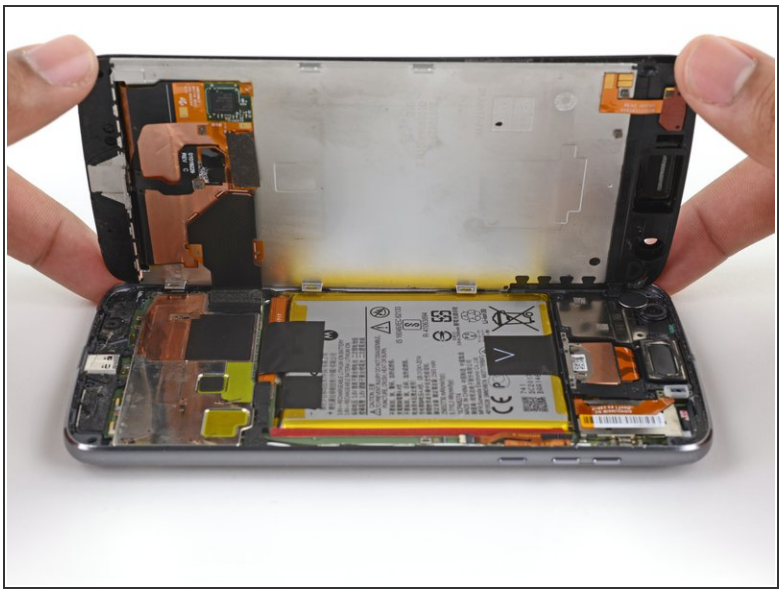
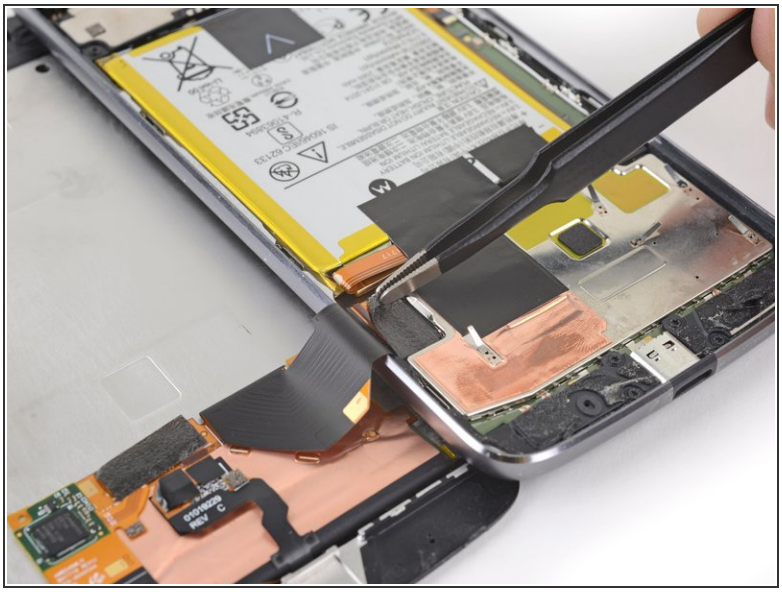
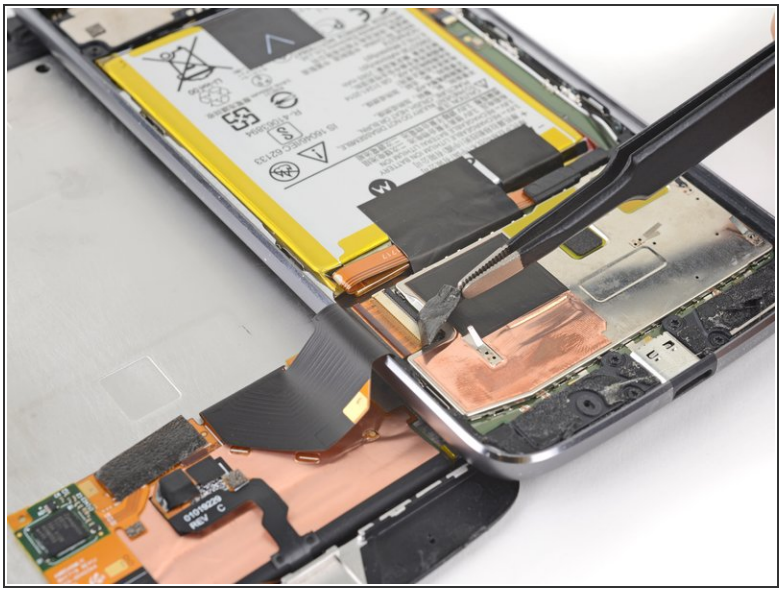
Step 13 — Open the Screen Assembly



- If the screen assembly remains stuck, re-heat and slice the adhesive repeatedly as needed.
- Lift the screen assembly from the right edge and swing it open, away from the phone. It is still attached to the phone chassis at the lower left edge, so do not fully remove it yet.

Step 14 — Disconnect the Display Cable





- Use a pair of tweezers to remove the black piece of tape covering the battery connector.

ⓘ Try your best to keep this piece of tape intact and retain it for reassembly.

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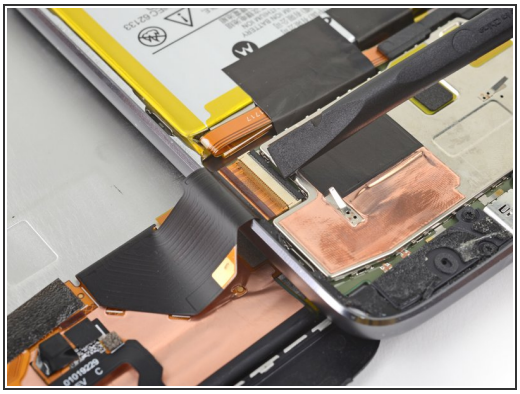
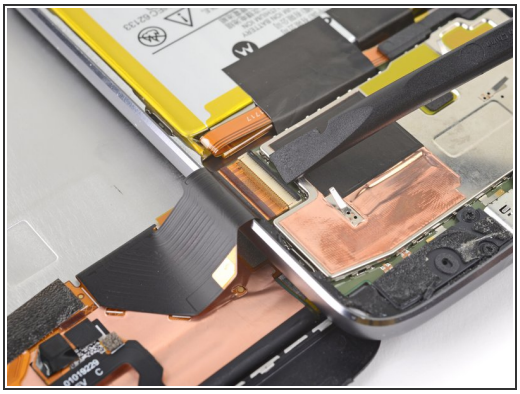
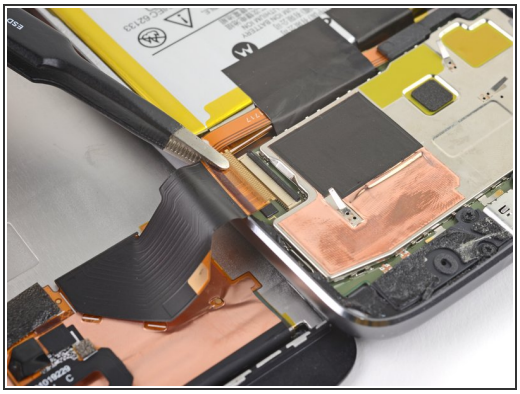
Step 15

- Use a spudger to pry up the locking tab on the display cable's ZIF connector.
- Slide the display ribbon cable out of the connector.

Step 16 — Remove the Screen Assembly

- Remove the screen assembly.

When putting your device back together, be sure to reconnect the display, turn the device on, and test all functionality before closing your device and sealing it back up.

During reassembly, pause here and replace the adhesive around the edges of the display if you are reusing your screen assembly.

After closing your device back up, stack something heavy, like a textbook or two, on top of the device for 30-60 minutes. This ensures a strong adhesive bond.

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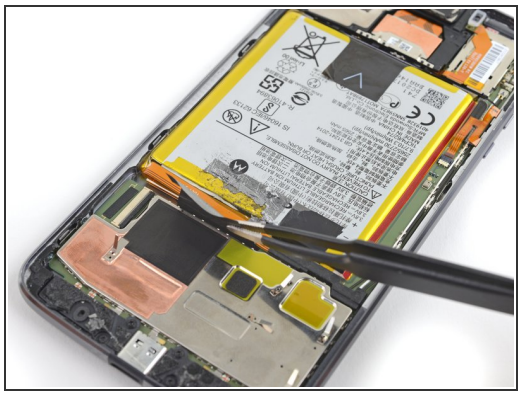
Step 17 — Remove the Battery Tape


- Use a pair of tweezers to remove the two black pieces of tape securing the battery.

Take care to keep these tape pieces intact so they can be reused.

While not crucial, this tape helps dissipate heat from the battery. They won't stick back down by themselves, but if the tape pieces are still mostly intact, re-attach them with some adhesive during reassembly.

Step 18 — Remove the Battery Connector Bracket



- Use an opening pick to pry up the small black bracket covering the battery connector. It is secured with a small bit of adhesive.
- Use a pair of tweezers or your fingers to remove the bracket.

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Step 19 — Disconnect the Battery Connector

- Use a spudger to pry up and disconnect the battery connector.

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Step 20 — Heat the Battery Adhesive

- Apply a freshly heated iOpener to the back of the phone directly behind the battery for two minutes to help soften the adhesive. Re-heat and reapply the iOpener as necessary.
- Alternatively, apply high-concentration (>90%) isopropyl alcohol under the edge of the battery to weaken the adhesive underneath.
  - Let the phone sit for several minutes to allow the alcohol to penetrate and weaken the adhesive.

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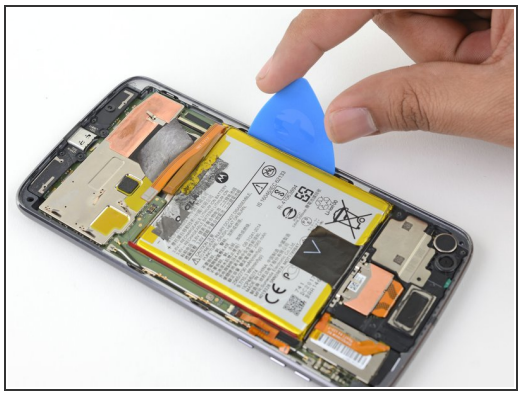
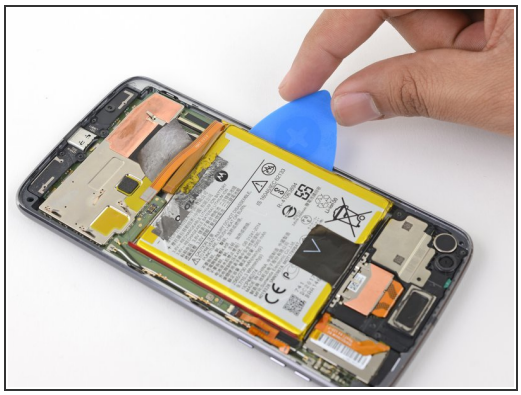
Step 21 — Remove the Battery


- Insert a flexible plastic tool on the left edge of the battery. We use an opening pick here, but a playing card is a safer (albeit slower) option.
- Gently pry up the battery with constant steady force.
  - Try to slowly release the battery's adhesive without deforming the battery. If the battery begins to bend out of shape, pry slower or apply more heat/isopropyl alcohol. Several rounds of heating or alcohol may be necessary.

⚠ **Do not** use excessive force or pry at the battery with metal tools.

- Slowly work your tool underneath the battery and continue prying until it is completely released from its adhesive.

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Step 22

- Remove the battery from the device.

⚠ Reusing a deformed or bent battery after it has forcefully been removed is a safety hazard. Replace it with a new battery.

Before installing your new battery, peel up all the old adhesive and remove it from the phone.

For best results, clean the area underneath the battery with isopropyl alcohol and a lint-free cloth or coffee filter. This helps prep the surface so the new battery can adhere more strongly. Use a pre-cut adhesive sheet or high-strength, double-sided tape to install the new battery.

Compare your new replacement part to the original part—you may need to transfer remaining components or remove adhesive backings from the new part before installing.

To reassemble your device, follow the above steps in reverse order.

For optimal performance, **calibrate your newly installed battery**: Charge it to 100%, and keep charging it for at least two more hours. Then, use it until it shuts off due to low battery. Finally, charge it uninterrupted to 100%.

Take your e-waste to an R2 or e-Stewards certified recycler.

Repair didn't go as planned? Check out our Answers Community for troubleshooting help.

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