

# **Motorola Moto Z Force Droid Battery Replacement**

Use this guide to replace a dead or faulty...

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#### INTRODUCTION

Use this guide to replace a dead or faulty battery in your Moto Z Force Droid.

Before you begin, download the <u>Rescue and Smart Assistant</u> app to backup your device and diagnose whether your problem is software or hardware related.

For your safety, discharge your existing battery below 25% before disassembling your phone. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair.

If your battery is swollen, take appropriate precautions.



### **Step 1 — Opening Procedure**



- Apply a <u>heated iOpener</u> to the lower glass panel on the back of the phone for five minutes.
  - i The panel is extremely stubborn, and you may need to reheat and reapply the iOpener several times to get the panel warm enough. Follow the iOpener instructions to avoid overheating.
  - ⚠ A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the display and internal battery are both susceptible to heat damage.



- Insert an opening pick into the small gap between the rear case and the glass panel.
- i The gap between the panel and the frame is very tight, so it may help to rock or slide the pick back and forth as you push it down into the gap. Alternatively, you can use a thin blade or metal pry tool to lift the panel before prying the rest of the way with a pick, but work slowly and gently to avoid damaging the glass.
- (i) If you're having trouble inserting your pick, go back a step and heat the panel further. Loosening the panel requires significant heat, but avoid heating the middle of the phone where the battery is.
- (i) A few drops of high-concentration (at least 90%) isopropyl alcohol applied to the edges of the panel may help to loosen the adhesive as well.
- ⚠ Do not pry over the <u>charging port</u>. It is framed with plastic that can be damaged when prying.
- With tip of the pick under the glass panel, carefully pry upward to slightly separate the rear case and the panel.



- Slide the pick in between the panel and the rear case.
- Slide the pick across the length of the panel to slice the adhesive holding it to the rear case.

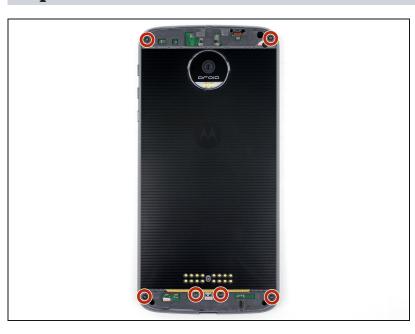


- Use the opening pick to carefully pry up the glass panel.
- Remove the glass panel.



- Repeat the previous four heating and removal steps for the upper glass panel.
- During reassembly, remove leftover adhesive from the panels and the rear case. Then clean those areas with high concentration isopropyl alcohol (greater than 90%) and a lint-free cloth. This will ensure proper adhesion of the panels.
- Reinstall the panels using a pre-cut adhesive strip or double-sided tape.

#### Step 6



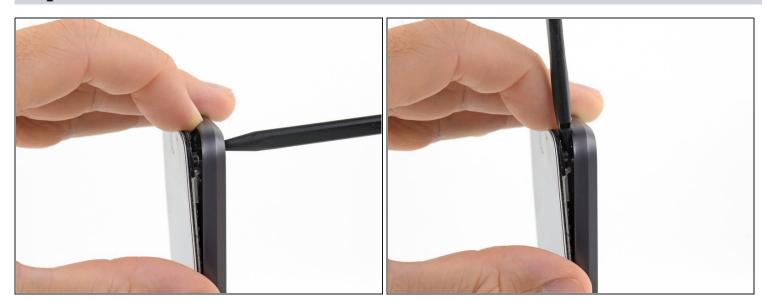
Remove the six 4 mm T3 Torx screws securing the display assembly.







- Insert the point of a spudger into the hole in the bottom right corner of the rear case.
- Press the spudger into the hole to separate the display from the rear case.



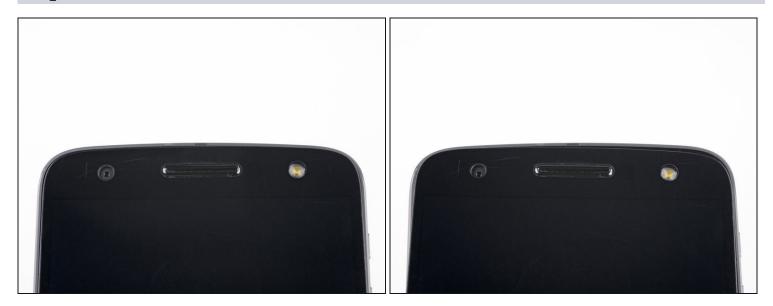
- Use a finger to maintain separation between the display assembly and the rear case while you remove the spudger.
- Reinsert the flat end of the spudger in the gap between the display assembly and the rear case.



- Slide the spudger along the side of the phone until you get to the <u>clip securing the</u> <u>display to the rear case</u>.
- With the spudger right next to the clip, carefully twist the spudger to pry the display away from the rear case and release the clip.



- Repeat the separation and prying process for the other side of the phone.
- (i) There is one <u>clip</u> on each side of the phone—make sure both are free before you continue.
- A Be careful not to separate the bottom edge of the display more than 0.5 inches (13 mm) from the rear case. The display cable is still connected and can be damaged if the bottom of the phone is opened too far.



- Tilt the top right corner of the display down to disengage one of the <u>tabs that secure the</u> <u>top of the display</u>.
- Tilt the other corner down next, to disengage the other tab.

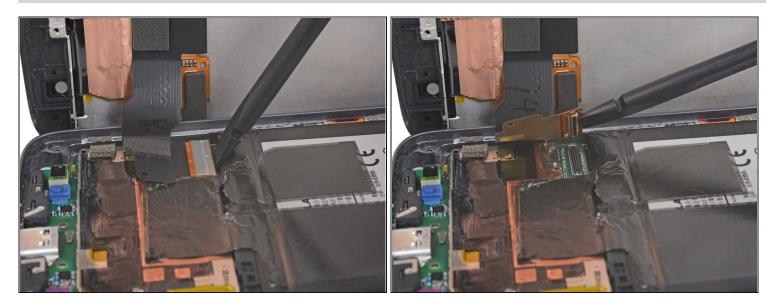
⚠ The display cable is still connected and can be damaged by too much display movement. Tilt the display carefully and stop if you encounter significant resistance.







- Lift the right edge of the display to hinge the phone open like a book, no more than 45°.
- Gently lift the display enough to clear the <u>clip</u> from the edge of the rear case, maintaining the 45° angle.
- Rest the display on the table behind the phone and open to 90° to allow access to the display cable.



- Use the flat end of a spudger to lift the display cable connector up out of its socket.
- $\triangle$  Only pry up on the display connector itself and **not** the socket on the motherboard.
- At this point during reassembly after the display is connected, turn the phone on and verify that the display functions correctly. If it does, turn the phone off and proceed with reassembly.
  - (i) If it does not work, check that everything is assembled correctly and the connectors are clean. For further troubleshooting, visit our <u>Answers Forum</u>.



- Remove the display.
- During reassembly, if you wish to replace the display adhesive strips, first use a spudger to scrape away all the old adhesive, and clean the adhesion area with some high-concentration (at least 90%) isopropyl alcohol on a lint-free cloth.
- Apply a thin, high-bond tape, like 1 mm Tesa 61395, or a strip from a precut adhesive card, where the old adhesive was.
  - If you're installing a new display assembly, note where the adhesive is on the original assembly and apply adhesive in the same places on the new assembly.

### Step 15 — Battery





- Use <u>tweezers</u> to peel the black tape on the top of the battery up from the motherboard EMI shielding.
  - (i) Applying a little heat to the tape before lifting it can help loosen its adhesive.
- If your replacement battery does not come with this tape, note its position and transfer it to the replacement.







- ⚠ In the following steps you will only lift the battery, **do not completely remove it**—it's still connected to the motherboard.
- Use tweezers to gently peel the battery pull tab up enough to grab.
- Use your fingers to grip the battery pull tab and lift the battery up from the phone.
- *i* If the battery is hard to remove, applying a small amount of high concentration (over 90%) isopropyl alcohol or adhesive remover under the battery may help.
- If the pull tab breaks, use the flat end of a spudger or an old credit card to pry up carefully on the edges of the battery until it comes loose.

⚠ The battery can catch fire and/or explode if damaged so be extremely careful.

⚠ Never reinstall a damaged or deformed battery. Replace the battery.







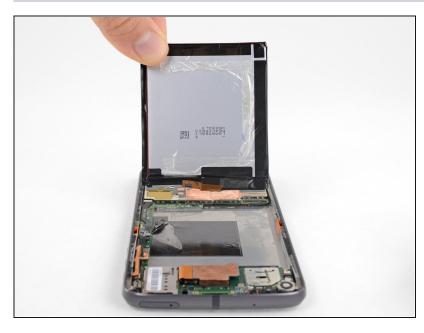
- Fold the battery up to reveal the battery connector cover.
- Use the point of a spudger to pry up and remove the plastic cover from the battery connector.

# Step 18





• Use the tip of a spudger to lift the battery connector up out of its socket on the motherboard.



- Remove the battery.
- Before installing your replacement, remove any remaining adhesive from the phone, and clean the glued areas with isopropyl alcohol and a lint-free cloth.
- Use a few <u>strips of precut</u>
  <u>adhesive</u>, or other thin <u>double-</u>
  <u>sided adhesive tape</u> to secure
  the new battery.

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

After completing this guide, calibrate your newly-installed battery.

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.