

# Samsung Galaxy S6 Edge Battery Replacement

This guide demonstrates the necessary procedure...

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## **INTRODUCTION**

This guide demonstrates the necessary procedure to replace a defective battery in a Samsung Galaxy S6 Edge.

**Before disassembling your phone, discharge the battery below 25%**. A charged lithiumion battery can catch fire and/or explode if accidentally punctured.

If your battery is swollen, <u>take appropriate precautions</u>. **Do not heat your phone**. If needed, you can use a dropper or syringe to inject isopropyl alcohol (90+%) around the edges of the back cover to weaken the adhesive. Swollen batteries can be very dangerous, so wear eye protection and exercise due caution, or take it to a professional if you're not sure how to proceed.

This guide involves removing the rear glass. Removing the rear glass destroys the adhesive holding it in place. Follow <u>this guide</u> to reinstall the rear glass.

## TOOLS:

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Suction Handle (1)
Tweezers (1)
SIM Card Eject Tool (1)
iFixit Opening Picks (Set of 6) (1)
iOpener (1)
Phillips #00 Screwdriver (1)
Spudger (1)
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## 🌣 PARTS:

Galaxy S6 Edge Battery (1) Galaxy S6 Edge Battery Adhesive Strips (1) Galaxy S6 Edge Rear Cover Adhesive (1)

### Step 1 — SIM Tray



• Insert a paper clip or SIM eject tool into the hole in the SIM card slot on top of the phone.

⚠ Do not insert the tool into the microphone hole or you could cause damage. Look for the outline of the SIM tray.

- Press to eject the SIM card tray.
- Remove the SIM card tray from the phone.

## Step 2 — iOpener Heating



- (i) We recommend that you clean your microwave before proceeding, as any nasty gunk on the bottom may end up stuck to the iOpener.
- Place the iOpener in the center of the microwave.

A For carousel microwaves: Make sure the plate spins freely. If your iOpener gets stuck, it may overheat and burn.



- Heat the iOpener for **thirty seconds**.
- Throughout the repair procedure, as the iOpener cools, reheat it in the microwave for an additional thirty seconds at a time.
- Be careful not to overheat the iOpener during the repair. Overheating may cause the iOpener to burst. Do not attempt to heat over 100°C (212°F).
- A Never touch the iOpener if it appears swollen.
- ▲ If the iOpener is still too hot in the middle to touch, continue using it while waiting for it to cool down some more before reheating. A properly heated iOpener should stay warm for up to 10 minutes.



- Remove the iOpener from the microwave, holding it by one of the two flat ends to avoid the hot center.
- ⚠ The iOpener will be very hot, so be careful when handling it. Use an oven mitt if necessary.

#### Step 5 — Alternate iOpener heating method



(i) If you don't have a microwave, follow this step to heat your iOpener in boiling water.

- Fill a pot or pan with enough water to fully submerge an iOpener.
- Heat the water to a boil. **Turn off the heat.**
- Place an iOpener into the hot water for 2-3 minutes. Make sure the iOpener is fully submerged in the water.
- Use tongs to extract the heated iOpener from the hot water.
- Thoroughly dry the iOpener with a towel.
   The iOpener will be very hot, so be careful to hold it only by the end tabs.
- Your iOpener is ready for use! If you need to reheat the iOpener, heat the water to a boil, turn off the heat, and place the iOpener in the water for 2-3 minutes.

#### Step 6 — Rear Glass

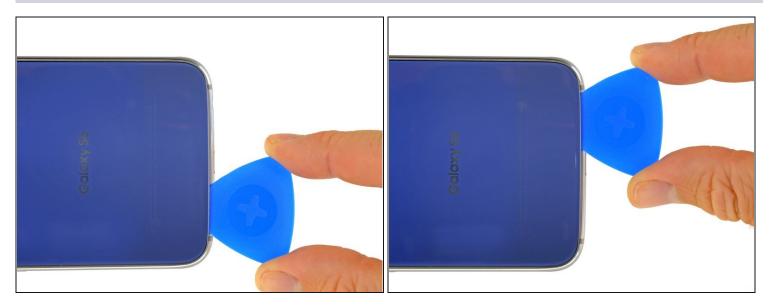


- (i) Opening your phone will compromise its waterproof seals. Have replacement adhesive ready before you proceed, or take care to avoid liquid exposure if you reassemble your phone without replacing the adhesive.
- (i) If your glass is shattered, put packing tape over the entire panel to hold it together during the removal process.
- Lay the heated iOpener over the rear panel for about two minutes to loosen the adhesive around the edge of the glass.
  - ② You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.
- Shift the iOpener to heat the remaining section of the panel for another two minutes.

A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the OLED display and internal battery are both susceptible to heat damage.



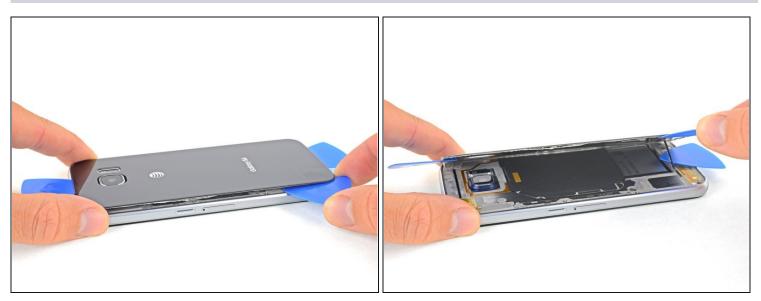
- Once the rear glass is hot to the touch, apply a suction cup near the bottom edge of the glass.
- Lift on the suction cup to create a small gap underneath the rear glass, and insert an opening pick into the gap.
- Optionally, once the pick is inserted, you can add a few drops of isopropyl alcohol into the gap to help weaken the adhesive in the following steps.



- Slide the pick along the bottom edge of the phone to slice through the adhesive securing the rear glass.
- (i) Afterward, it may help to leave the pick in place and grab a second pick as you proceed to the next step. Leaving the pick inserted can help prevent the glue you just separated from re-adhering.
- (i) Re-heat the rear glass as needed to prevent the glue from cooling and hardening.



- Repeat the heating and cutting procedure for the remaining three sides of the phone.
- Leave an opening pick under each edge to prevent the adhesive from resealing.



- Use an opening pick to slice through any remaining adhesive.
- Remove the rear glass.



🗷 To install new rear glass:

- Use tweezers to peel away any remaining adhesive from the phone's chassis.
- Clean the adhesion areas with high concentration isopropyl alcohol (at least 90%) and a lint-free cloth. Swipe in one direction only, not back and forth. This will help prep the surface for the new adhesive.
- Peel the adhesive backing off of the new rear glass, carefully line up one edge of the glass against the phone chassis, and firmly press the glass onto the phone.

If you're reinstalling the old rear glass, or using rear glass without adhesive preinstalled, follow <u>this guide</u>.

### Step 12 — Midframe Assembly



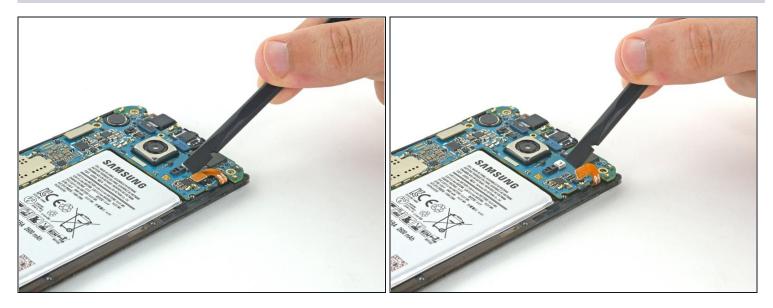
• Remove the thirteen 3.3 mm Phillips #00 screws from the midframe.

## Step 13



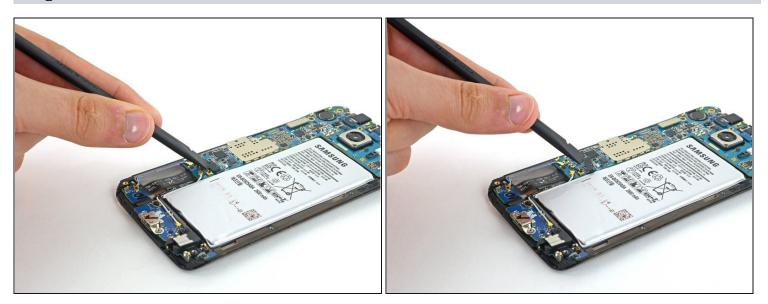
• Press down on the back of the battery and lift up on the edges of the midframe to separate it from the rest of the phone.

## Step 14 — Motherboard Removal



• Using the flat end of the spudger, disconnect the battery ribbon cable from the motherboard.

## Step 15

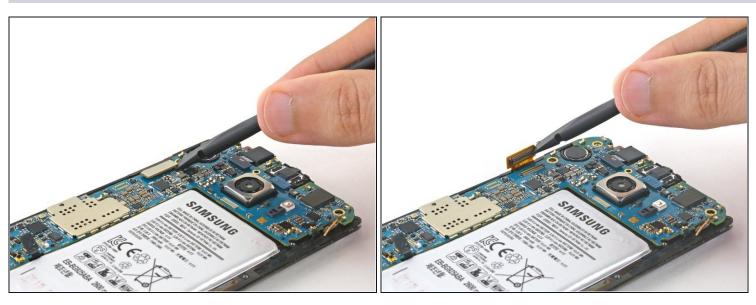


• Disconnect the home button ribbon cable from the motherboard.

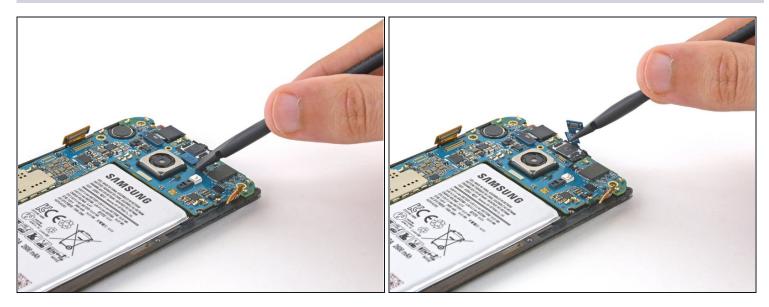


• Use the pointed end of a spudger to disconnect the two antenna interconnect cables from the motherboard.

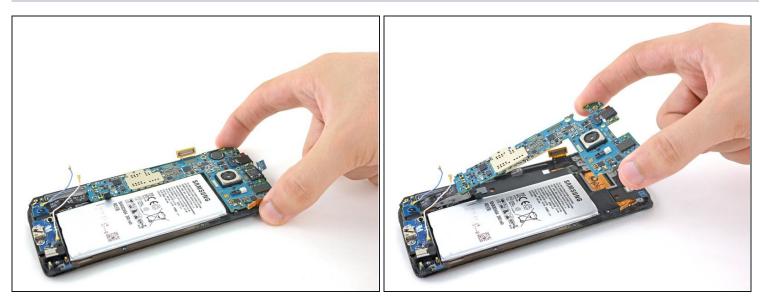
## Step 17



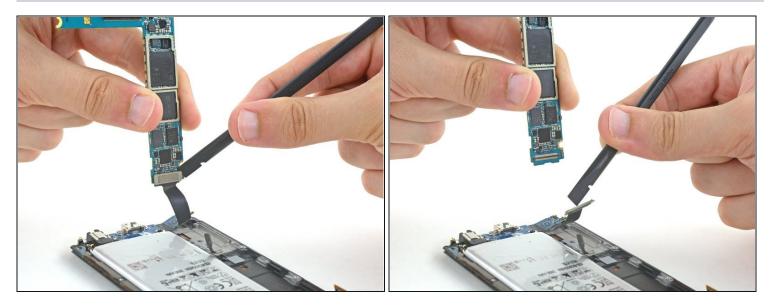
• Disconnect the display ribbon cable from the motherboard using the flat end of the spudger.



• Disconnect the earpiece ribbon cable from the motherboard.



- The motherboard is an ESD sensitive component and should be handled with care. iFixit recommends using a anti-static bracelet whenever handling components of this nature to avoid damage.
- Grip the motherboard on both edges toward the top of the device.
- ⚠ Do not lift the motherboard all the way out in this step; the ribbon cable on the underside needs to be disconnected first.
- Lift the motherboard up and away from the display, taking care not to put too much stress on the daughterboard ribbon cable.

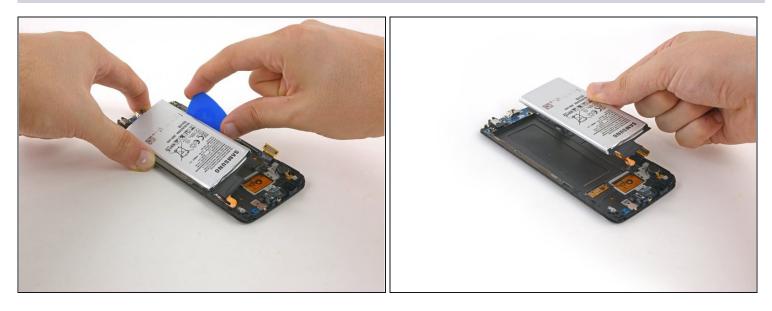


• Disconnect the daughterboard ribbon cable from the underside of the motherboard.

#### Step 21 — Battery



- Insert an opening pick underneath the battery and slide it across to break up the adhesive underneath.
- (i) The <u>center area underneath the battery</u> has no frame reinforcement. Be careful not to damage the fragile exposed display panel when prying.
- Try your best not to deform the battery while prying. Soft-shell lithium-ion batteries can leak dangerous chemicals, catch fire, or even explode if damaged. Do not use excessive force or pry at the battery with metal tools.



- Twist the opening pick to fully dislodge the battery and remove it.
- ⚠ Do not reuse the battery after it has been removed, as doing so is a potential safety hazard. Replace it with a new battery.

To install a new battery and ensure that is is properly aligned:

- Remove any remaining adhesive from the phone, and clean the glued areas with isopropyl alcohol and a lint-free cloth.
- Lay the replacement battery in place, but do not apply adhesive yet. Resume reassembly until the motherboard is in place (<u>STEP 18</u>).
- Apply new pre-cut adhesive or double-sided tape onto the phone frame, around the perimeter of the battery compartment, but not in the rectangular cutout in the center (which is actually the back side of the display).
- *Temporarily* connect the battery connector to the motherboard to ensure proper battery alignment.
- Press the battery firmly into place for 5-10 seconds. Disconnect the battery and resume re-assembly.

To reassemble your device, follow these instructions in reverse order. Follow <u>this guide</u> to reinstall the rear glass.

After completing this guide, <u>calibrate your newly-installed battery</u>.