

Samsung Galaxy S10 Battery Replacement

This guide shows how to remove and replace the...

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INTRODUCTION

This guide shows how to remove and replace the battery in a Samsung Galaxy S10.

The battery is held in place with strong adhesive. Using iFixit's adhesive remover or high concentration (over 90%) isopropyl alcohol will make the battery removal process significantly easier.

Be sure to have replacement adhesive or <u>Tesa tape</u> at hand in order to re-adhere the battery and back cover.

If your battery is swollen, take appropriate precautions and do not heat your phone.

For your safety, discharge your 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.

Some steps may show the lower midframe/loudspeaker assembly removed. You do not need to remove it for the battery procedure.

✓ TOOLS:

Suction Handle (1)

iFixit Opening Picks (Set of 6) (1)

Tweezers (1)

Phillips #00 Screwdriver (1)

Spudger (1)

iFixit Adhesive Remover (1)

Plastic Cards (1)

iFixit Opening Tool (1)

iOpener (1)

Tesa 61395 Double-Sided Tape (1)

PARTS:

Galaxy S10 Battery (1)
Galaxy S10 Rear Cover Adhesive (1)

Step 1 — Heat the back cover







- Unplug and power off your phone before you begin.
- Heat an iOpener and apply it to the back cover's right edge for two minutes.
 - (i) 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.
- As you wait, take a look at the image of the removed back cover and take note of where the adhesive is located.

Step 2 — Create an opening gap



- Rest the heated right edge of the phone on something that is about 0.5 inches (13 mm) thick.
 This angles the phone for the opening tool.
- Brace the left edge of the phone with your fingers so that the phone won't slide. Pull on the suction cup with firm pressure.
- Press the edge of an opening tool into the seam between the back cover and the frame.
- With the opening tool in place in the seam, slide it back and forth along the seam to loosen the back cover.

Step 3 — Insert an opening pick







- Heat an iOpener and apply it to the same edge of the phone for two minutes.
- Apply a suction cup to the back of the phone, as close to the center of the right edge as possible (<u>where the adhesive is narrowest</u>).
- Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert the point of an opening pick into the gap.
- i Due to tight tolerances, this may take multiple attempts.
 - If you are having trouble creating a gap, your best bet is to apply more heat to the edge and try the previous step again. The glass is heated enough when it is barely too hot to touch.
 - You can try applying a few drops of high concentration (over 90%) isopropyl alcohol into the seam to help loosen the adhesive.

1 Do not apply excessive force with the pick, or you will risk cracking the back cover glass.

Step 4 — Slice through the adhesive



- Slide the opening pick along the edge of the phone, slicing through the adhesive.
 - ⚠ Do not attempt to slice the adhesive holding the corners down before applying heat. If you do, you may crack the back cover.
- Leave a pick in the seam to prevent the adhesive from re-sealing.



- Apply a heated iOpener to the bottom edge of the phone for two minutes.
- Insert an opening pick into the right edge near the bottom right corner.
- Carefully slide the pick around the corner. Continue cutting along the bottom edge and around the bottom left corner.
 - if the cutting feels difficult, re-apply heat to the edge before continuing.
- Leave an opening pick in the seam to prevent the adhesive from re-sealing.



- Continue heating and slicing around the remaining edges of the phone.
- (i) When cutting around corners, be sure that the corner is thoroughly heated.

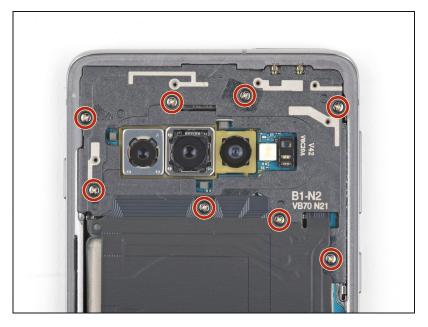




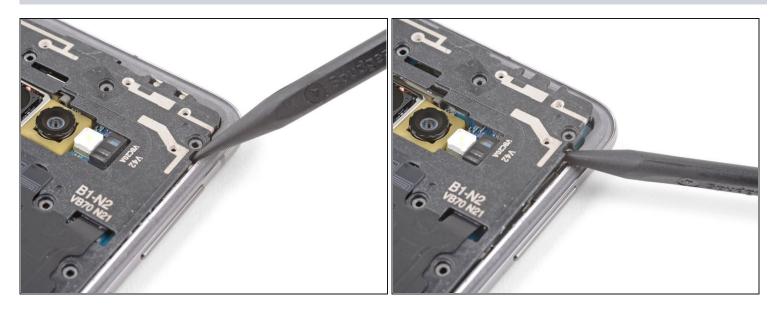


- Once you have sliced around the phone, twist an opening pick in one of the edges to help separate the back cover from the frame.
- Lift the back cover slowly. Use opening picks to slice any remaining adhesive.
- Remove the back cover.
- During reassembly, this is a good point to power on your phone and test all functions before you seal the back cover in place. Be sure to power your phone back down completely before you continue working.
- Follow this guide to reinstall the back cover, transfer and install the camera bezel, and replace the adhesive.
 - i If desired, you may reinstall the back cover without replacing the adhesive. Remove any large chunks of adhesive that might prevent the back cover from sitting down flush. After installation, heat the back cover and apply pressure to secure it.

Step 8 — Remove the midframe



 Remove the eight 4 mm Phillips screws securing the top midframe to the phone.



- The midframe is still held in place by a few plastic clips around the edge.
- Insert the point of a spudger into the notch on the right edge of the midframe, near the volume up button.
- Pry up to loosen the midframe from the phone.

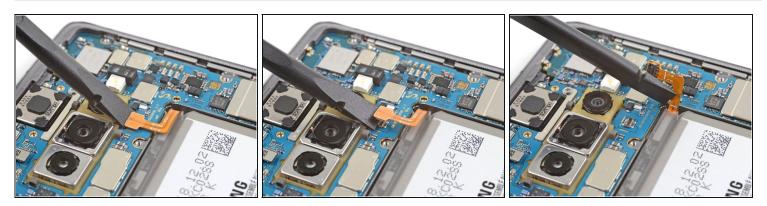






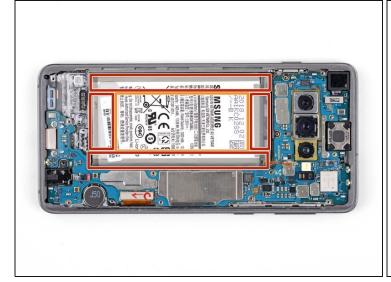
- Lift the midframe from the top corners and remove it from the phone.
 - (i) The top midframe may stick to the lower midframe at its bottom right corner. If that happens, slowly peel it off.
- To reinstall the top midframe:
 - Align the midframe's top edge to the phone and lay the frame down on the phone.
 - <u>Use fingers to apply pressure along the midframe perimeter</u> to snap the midframe clips back into place. The edges should sit flush against the phone edge.

Step 11 — Disconnect the battery



- Insert the flat end of a spudger underneath the battery connector, which is attached to the motherboard below the rear-facing camera.
- Pry upwards to disconnect the connector from its socket.
 - ⚠ When you disconnect connectors like these, be careful not to dislodge the small surface-mounted components surrounding the socket.
- Gently push the battery's flex cable away from the motherboard socket to prevent accidental contact.

Step 12 — Battery





- The battery is heavily glued in place. Note the marked areas under the battery:
- The frame, where the battery is held by strong adhesive.
- A cutout in the frame, exposing the fragile display assembly underneath. Be careful when prying in this area, or you may damage the display.







- (i) Applying <u>adhesive remover</u> or high concentration (over 90%) isopropyl alcohol to the battery will make the battery removal significantly easier.
 - If you are using adhesive remover, follow these preparation steps first.
 - Apply a few drops of adhesive remover or isopropyl alcohol in each battery corner.
 - A Be careful not to apply more than a few drops of liquid at a time, as liquid can seep into the frame cutout (under the battery) and damage the exposed display.
 - Wait for a minute to allow the liquid to weaken the adhesive.
- Alternatively, <u>heat an iOpener</u> and apply it to the <u>right side of the front of the phone</u> for two
 minutes or until the battery is warm to the touch (from the transferred heat).
- ⚠ Do not heat the battery directly. Only heat the front side of the display, underneath which the battery resides, to avoid overheating the battery and risking a fire.







- Insert the corner of an opening card into the crevice between the battery and the bottom midframe.
- Pry the battery out of its recess.
- if the battery does not budge, the adhesive is not sufficiently weakened.
 - Try using an opening pick, an opening tool, or a spudger to pry the battery out. Do not use metal tools.
 - Repeat the adhesive remover/isopropyl alcohol application step and try again.
 - Try applying more heat with an iOpener.



- Remove the battery.
- ⚠ 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 adhesive, follow this guide.

To reassemble your device, follow these instructions in reverse order.

For optimal performance, calibrate your newly installed battery after completing this guide.

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.