

Samsung Galaxy S7 Edge Display Assembly Replacement

Follow this guide to replace the Samsung Galaxy...

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INTRODUCTION

Follow this guide to replace the Samsung Galaxy S7 Edge's display assembly.

This guide instructs you to replace only the display while leaving the original frame and battery in place.

The curved edge and strong adhesive make the initial opening procedure very challenging. Be patient, repeat multiple heat and pull cycles, and the adhesive will eventually loosen.

Note: Some replacement screens for this phone come pre-installed in a new frame (a.k.a. chassis), which requires you to transplant all of your phone's internals and install a new battery. Make sure you have the correct part before starting this guide.

If the frame is damaged or bent, it's important to replace it, or else the new screen may not mount correctly and can suffer damage from uneven pressure.

The process of separating the display from the frame usually destroys the display, so don't follow this guide unless you intend to replace the display.

If your screen is badly shattered, wear eye protection, and apply a screen-protector, or tape, to the display to help contain glass shards.

TOOLS:

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

PARTS:

Galaxy S7 Edge Screen (1)
Galaxy S7 Edge Rear Cover Adhesive
(1)
Galaxy S7 Edge Touch Screen Adhesive
(1)

Step 1 — SIM Card Tray



- Insert a SIM card opening tool, SIM eject bit, or a paperclip into the small hole on the top edge of the phone.
 - (i) There are two holes on the top edge. The correct hole is within a long rectangular cutout.
- Press in the opening tool to eject the tray.
- Remove the SIM/SD card combo tray from the phone.

Step 2 — Rear Glass



- 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.
- Heat an iOpener and apply it to a long edge of the phone for about two minutes.
 - i You may need to reheat and reapply the iOpener several times to get the phone 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 OLED display and internal battery are both susceptible to heat damage.



- Once the back panel is warm to the touch, apply a suction cup as close to the heated edge of the phone as you can while avoiding the curved edge.
 - i The suction cup will not adhere well on the curved portion of the glass.
 - i If the phone's back cover is cracked, the suction cup may not stick. Try lifting it with strong tape, or superglue the suction cup in place and allow it to cure so you can proceed.
- Lift on the suction cup and insert an opening pick under the rear glass.
 - i Due to the curved glass, you will be pushing up, rather than inserting parallel to the plane of the phone.
 - i If you have trouble, apply more heat to further soften the adhesive, and try again. The adhesive cools very fast, so you may need to heat it repeatedly.



 Once you have the pick firmly inserted into the glass, reheat and reapply the iOpener to soften the adhesive.

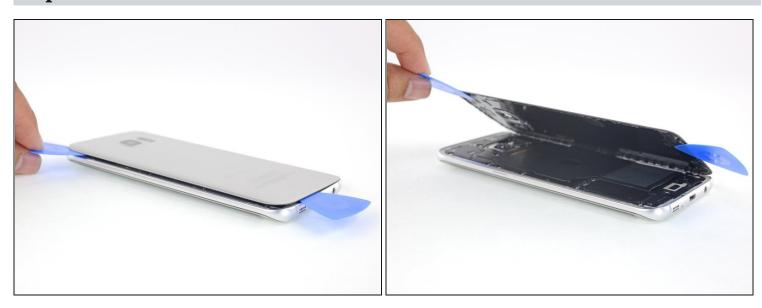


- Slide the opening pick up along the side of the phone, separating the adhesive.
- (i) Go slowly so that the tip doesn't slip out of the seam. If sliding becomes difficult, reheat and reapply the iOpener.
- Leave the pick in place and grab a second pick as you proceed to the next step. Leaving the pick inserted can help prevent the glue you just separated from re-adhering.



- Repeat the previous heating and cutting procedure for the remaining three sides of the phone.
- Leave an opening pick on each side as you continue to the next to prevent the adhesive from resealing.

Step 7



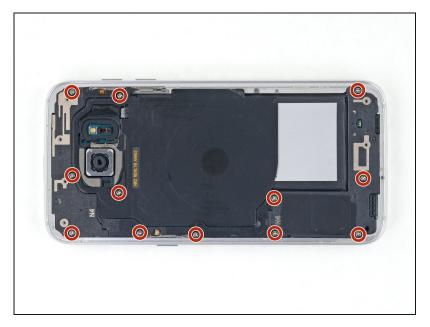
• Lift the glass and remove it from the phone.





- To install a new back cover:
 - Use <u>tweezers</u> to peel away any remaining adhesive from the phone's chassis. Then clean the adhesion areas with high concentration isopropyl alcohol (at least 90%) and a lint-free cloth to 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 back cover, or using a back cover without adhesive preinstalled, <u>follow this guide</u>.
 - i Be sure to turn on your phone and test your repair before installing new adhesive and resealing the phone.
- (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. It won't be waterproof, but the glue is usually more than strong enough to hold.

Step 9 — Loudspeaker Assembly



Remove the twelve 3.5 mm
 Phillips screws.



- Use the small notch on the lower left of the upper antenna to pry it out of the phone.
- Remove the upper antenna.



• Lift and remove the wireless charging coil from the phone.

Step 12



 Lift and remove the loudspeaker from the phone.

Step 13 — Battery Disconnect

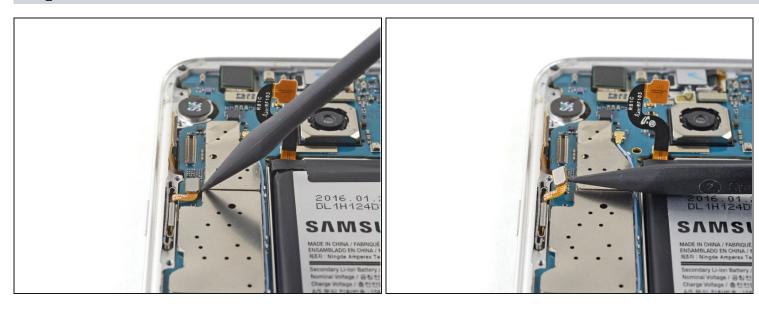


• Use the flat end of a spudger to disconnect the battery connector.

Step 14 — Display Assembly



• Use the flat end of a spudger to disconnect the display cable.

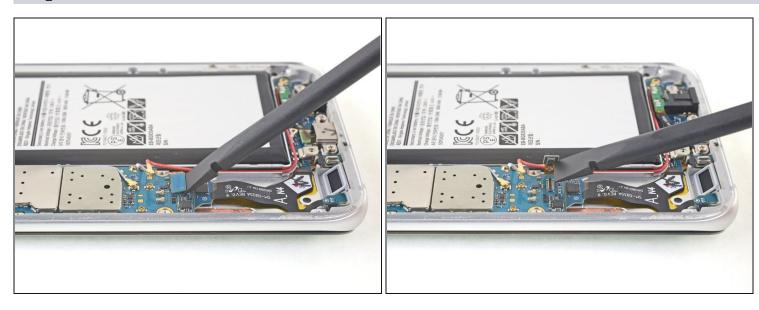


• Use the pointed end of a spudger to disconnect the power button cable.

Step 16



• Use the pointed end of a spudger to disconnect the red and white antenna cables.



• Use the flat end of a spudger to disconnect the home button connector.

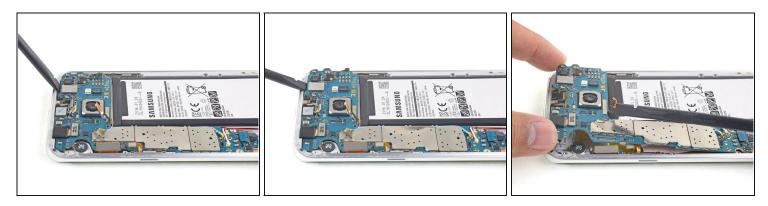
Step 18



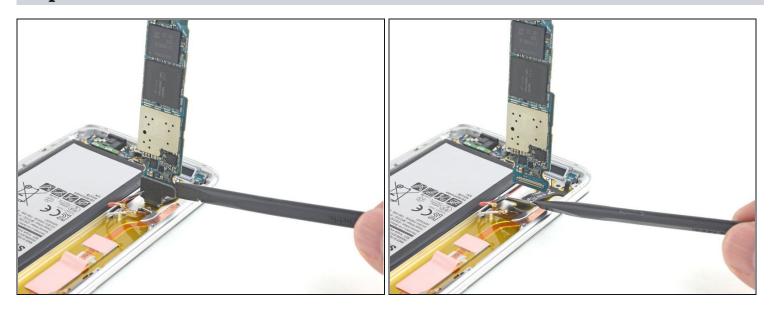
• Use the pointed end of a spudger to disconnect the front-facing sensory array cables.



• Use a pointed end of a spudger to disconnect the volume button cable.



- \triangle Do not lift the motherboard out all the way; it is still connected to the daughter board by a cable.
- Use the flat end of a spudger to gently pry the motherboard up.
- Grip the edges of the motherboard and hinge it up slowly, using the spudger to push cables out of its path.



- Use the flat end of the spudger to disconnect the daughterboard ribbon cable from the underside of the motherboard.
- Remove the motherboard.



- <u>Heat an iOpener</u> and apply it to top edge of the display.
 - i You may need to reheat and reapply the iOpener several times to get the phone 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 OLED display and internal battery are both susceptible to heat damage.
- (i) While you are waiting for the adhesive to soften, read the next step to get an idea of where to pry.







- The display assembly edges are secured by strips of very strong foam adhesive.
- Strong double-sided tape covers the entire copper surface.
- ⚠ In the following steps, extra caution is required in certain areas to avoid damage to the phone:
 - The capacitive buttons are adhered to the display and are very easy to tear. They must be reused for the repair.
- (i) While the OLED panel and display cable will be replaced with the new display, the capacitive buttons must be reused, so take extreme care not to damage them.
- (i) If you do break either of the capacitive buttons or ribbon cables, you can replace the daughterboard assembly, which includes new capacitive buttons.



- Once the edge is warm, apply a suction cup as close to the top edge as possible without overlapping the speaker grill.
 - (i) If your display is badly cracked, lay down a layer of tape on the display and try <u>lifting</u> the display with strong tape.
- Lift on the suction cup to create a small gap underneath the top edge of the display.
 - (i) 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.
- Insert an opening pick into the gap. Take care not to insert it more than 0.25 inches in.
- ② Due to the strong adhesive, this may require several attempts. Follow the iOpener heating instructions and repeat the heat-suction-lift procedure until you can get a pick in place.



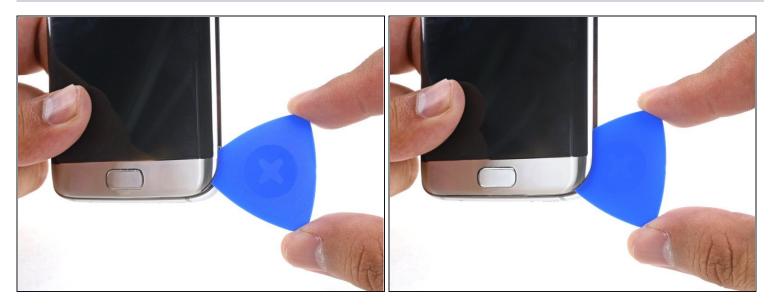
 With the opening pick in place, apply a heated iOpener to the top edge once more in order to soften the adhesive.



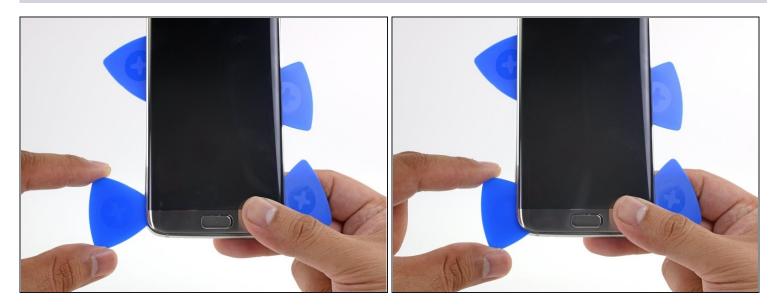
- Slide the opening pick along the top edge of the display taking care not to push deeper than 0.25 inches.
 - ⚠ Inserting the pick too far may damage the front-facing camera or earpiece speaker.
- Leave the pick on the top edge the prevent the adhesive from resealing.



- Repeat the previous heating and cutting procedure for the long edges of the phone. Do not cut the bottom edge yet.
 - (i) There are large areas of adhesive holding the display to the frame. Work slowly and methodically to slice through as much of the adhesive as possible.
- Leave an opening pick on each edge as you continue to the next to prevent the adhesive from resealing.
- (i) The display cable is located just above the midpoint on the right side, and may interfere with your pick if you pry too deeply.



- Insert an opening pick in the bottom right corner.
- Push the pick in slowly. Try to leverage the pick's cutting edge upward so that it slides against the back of the display.
 - (i) This allows the pick to slice between the display and the capacitive button without damaging the button cable.
- Once the pick has cut through the adhesive in the right corner, leave it in place to prevent the adhesive from resealing.

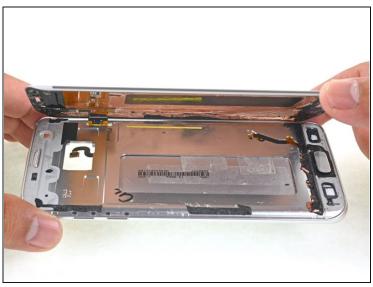


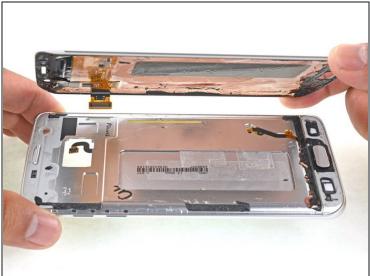
- Insert an opening pick in the bottom left corner.
- Push the pick in slowly. Try to leverage the pick's cutting edge upward so that it slides against the back of the display.
- Once the pick has cut through the adhesive in the left corner, leave it in place to prevent the adhesive from resealing.



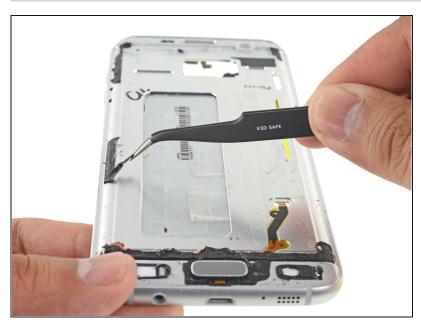


- Use the opening picks to slice through adhesive around the home button and any other remaining adhesive.
- Open the phone slightly, starting at the edge opposite the display cable.
 - ⚠ Do not remove the display assembly. There is a display cable threaded through the midframe that is connected to the display.





- Lift the display assembly away from the midframe, carefully threading the display cable through the hole in the midframe.
- Remove the display assembly.



- **Follow this link** for a detailed display adhesive application guide.
- ⚠ Before installing a new display, it's very important to remove all traces of the old adhesive from the frame, while taking special care to remove any small glass fragments.

- After removing all traces of glue and glass from the frame, clean the adhesion areas with 90% (or higher) isopropyl alcohol and a lint-free cloth or coffee filter. Swipe in one direction only, not back and forth.
- i This helps remove any remaining adhesive residue and preps the surface for the new display.
- ⚠ If the frame is bent, or if any glue or glass remnants are left behind, the new display will not mount correctly and may be damaged.
- The best way to secure the new screen is with a sheet of custom-cut double-sided tape. Apply the tape to the back of the screen, then carefully feed the display cable through the frame. Align the screen and press it into place.

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