

Samsung Galaxy S9 Display Replacement

Replace a cracked screen or a broken display in the Samsung Galaxy S9.

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INTRODUCTION

Use this guide to replace a cracked or broken display on your Samsung Galaxy S9.

Before disassembling your phone, discharge the battery below 25%. The battery can catch fire and/or explode if accidentally punctured, but the chances of that happening are much lower if discharged.

Note: This guide instructs you to replace only the display while leaving the original frame, motherboard, and battery in place. However, some replacement screens for this phone come preinstalled in a new frame (a.k.a. chassis), which requires a very different procedure—transplanting your phone's internals and installing a new battery. Make sure you have the correct part before starting this guide.

This guide involves removing the rear glass cover; you will need replacement adhesive to reattach the back cover to the phone. If your replacement display does not come with adhesive, use a strong double-sided tape such as <u>Tesa 61395</u> to secure it.

Opening the Samsung Galaxy S9 will **damage the waterproof seals** on the device. If you do not replace the adhesive seals, your phone will **function normally**, but will **lose its water protection**.

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.



TOOLS:

- Isopropyl Alcohol (1)
- iOpener (1)
- iFixit Opening Picks (Set of 6) (1)
- Suction Handle (1)
- Spudger (1)
- Phillips #00 Screwdriver (1)



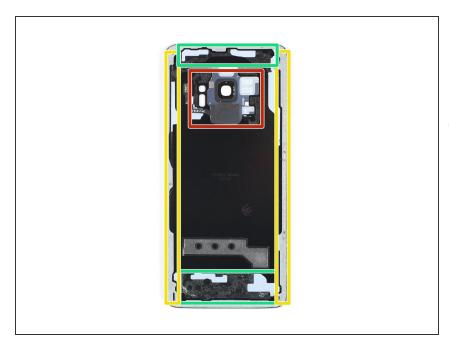
PARTS:

- Galaxy S9 Screen (1)
- Galaxy S9 Display Adhesive (1)
- Galaxy S9 Rear Cover Adhesive (1)

Step 1 — Rear Glass Removal



- Before you begin, switch off your phone.
- Apply a <u>heated iOpener</u> to a long edge of the phone to loosen the adhesive beneath the rear glass.
 Apply the iOpener for at least two minutes.
 - i You might need to reheat and reapply the iOpener several times during the removal procedure to get the adhesive warm enough to cut. Follow the iOpener instructions to avoid overheating.
- The adhesive of the Samsung
 Galaxy S9 is very strong. A hair
 dryer, heat gun, or hot plate may
 also be used if you aren't able to
 open the device with the iOpener.
 Be careful not to overheat the phone
 —the AMOLED display and internal
 battery are both susceptible to heat
 damage.



- In the following steps, you'll be cutting through the adhesive securing the back cover.
- The adhesive in the inside of the back cover is laid out as seen in the image.
- You'll be slicing through the adhesive in the areas shown:
 - Thick portions of adhesive
 - Thin areas of adhesive
 - Avoid prying or slicing in this area, to protect the fingerprint sensor flex cable.







- if the phone's rear glass is cracked, the suction cup may not stick. Try <u>lifting it with strong tape</u>, or superglue the suction cup in place and allow it to cure so you can proceed.
- Press a suction cup onto the back cover.
- Lift the back cover's bottom edge with your suction cup, opening a slight gap between the back cover and the frame.
 - 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. 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.
- Insert an opening pick in the gap you created and slide it to the bottom right corner.
- Insert a second opening pick and slide it to the bottom left corner.
- Insert a third opening pick to prevent the adhesive from resealing during the rest of the removal procedure.





- While inserting only the tip of the opening pick, slide it from the bottom left corner along the side to the top.
- Slide the pick around the top corner and leave it there to prevent the adhesive from resealing.







- Slide the opening pick from the bottom right corner along the side to the top.
 - Apply more heat if the adhesive becomes hard to cut. During the removal process, the back cover is under tension all the time and is likely to break if the adhesive isn't softened enough.
- Slide the opening pick around the corner and cut the remaining adhesive at the top of the phone.
- non't open the phone all the way yet. The fragile fingerprint sensor cable still connects the back cover to the motherboard.

Step 6





- Carefully lift the side of the rear glass where the volume button is located.
- Use the edge of a spudger to pry up and disconnect the fingerprint sensor flex cable.

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- Remove the rear glass.
- When reassembling follow this guide to replace the adhesive and reinstall the rear glass.
- In case you want to replace your rear glass follow this guide to transfer the rear camera bezel including the fingerprint.

Step 8 — NFC Antenna and Charging Coil



 Remove the eight 4 mm Phillips #00 screws.



- Insert an opening pick under the right side of the plastic cover containing the NFC antenna and charging coil.
- Twist or pry to release the plastic clips securing the cover.



- Insert an opening pick under the left side of the plastic cover.
- Twist or pry to release the plastic clips securing the cover.

Step 11



 Remove the plastic cover containing the NFC antenna and charging coil.

Step 12 — Battery Disconnection



 Use the flat end of a spudger to pry up and disconnect the battery flex cable.

Step 13 — Unfasten Motherboard Cover



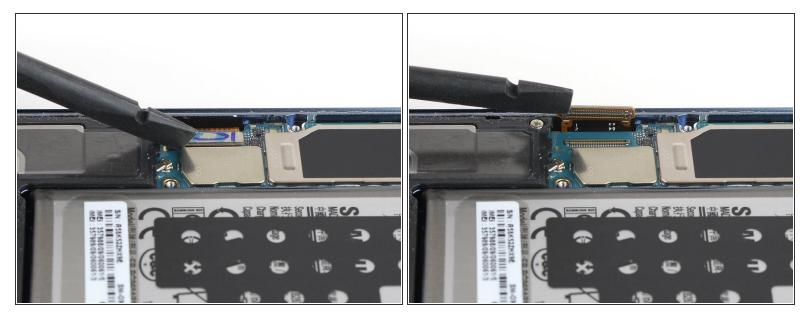
 Remove the two 4 mm Phillips #00 screws holding the plastic cover in place.

Step 14 — Remove Motherboard Cover



 Remove the plastic cover from the motherboard.

Step 15 — Screen



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



- Prepare an iOpener and apply it to the display for at least two minutes to loosen the adhesive beneath.
 - You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.
- Tape over the glass if your display is cracked to keep further breakage contained and prevent bodily harm during your repair.
 - Lay overlapping strips of clear packing tape over the display until the whole face is covered.
 - This will keep glass shards contained and provide structural integrity when prying and lifting the display.
 - Wear safety glasses to protect your eyes from any glass shaken free during the repair.





- Once the screen is warm to the touch, apply a suction cup to the upper edge of the phone.
- if the phone's screen is cracked, the suction cup may not stick. Try <u>lifting it with strong tape</u>, or superglue the suction cup in place and allow it to cure so you can proceed.
- Insert an opening pick in the gap and start to cut the adhesive by sliding it to the top left corner.



- Insert another opening pick and slide it to the top right corner of the phone.
- Insert a third opening pick to prevent the adhesive from resealing during the display removal.

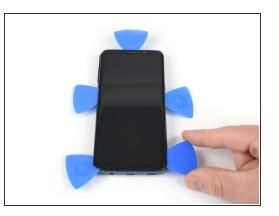




- Start to slide the right opening pick half way down the side of the frame to cut the adhesive.
- If cutting becomes too difficult, <u>reheat</u> and reapply the iOpener.
- Slide the left opening pick half way down the frame and leave it in its place.







- Insert a fourth opening pick at the left side of the frame and slide it down to the bottom left corner to cut the adhesive.
- The screen's flex cable is located just below the midpoint near the power button, and may interfere with your cutting tool.
- Insert a fifth opening pick at the right side and cut the remaining adhesive with it.





- Once you cut the adhesive on all sides of the phone you can slowly lift the display upwards and remove it.
 - (i) The display cable is threaded through a hole in the midframe; guide it through carefully in order to free the display.
- Before installing a new display remove any remaining adhesive from the frame, and clean the glued areas with isopropyl alcohol (>90%) and a lint-free cloth.
 - ⚠ 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. If necessary, replace the frame.

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.

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 the above steps in reverse order.

After you've completed the repair, follow this guide to test your repair.

If possible, turn on your phone and test your repair before installing new adhesive and resealing the phone.

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.