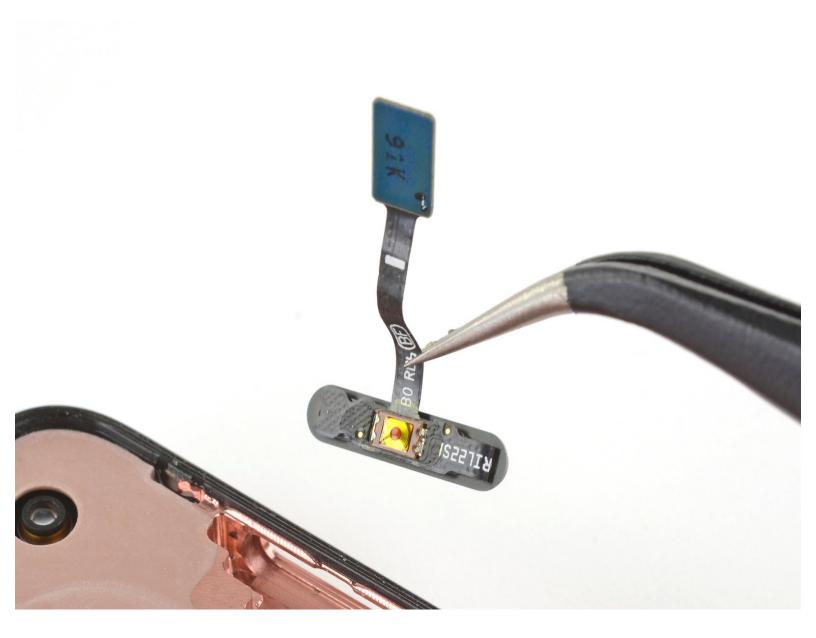


# Samsung Galaxy S10e Fingerprint Sensor Replacement

How to remove and replace the fingerprint sensor for the Samsung Galaxy S10e.

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# INTRODUCTION

This guide shows how to remove and replace the fingerprint sensor for the Samsung Galaxy S10e.

This is a very involved procedure that requires you to remove the screen, which will destroy it. Do not attempt this procedure unless you have a replacement screen.

# **TOOLS:**

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

# **PARTS**:

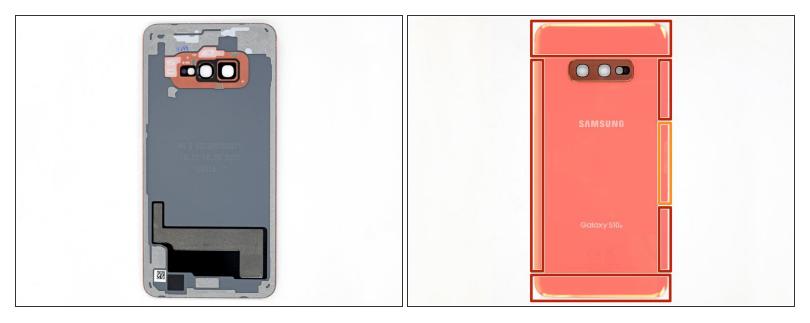
- Galaxy S10e Fingerprint Sensor (1)
- Galaxy S10e Screen and Digitizer (1)
- Precut Adhesive Card (1)
- Galaxy S10e Rear Cover Adhesive (1)

#### Step 1 — Heat the back cover



- 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.
- Turn your phone off completely before you begin this repair.
- Prepare an iOpener and heat the back of the phone along the right edge for about two minutes. This will help soften the adhesive securing the back cover.
  - 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.

#### Step 2 — Prepare to slice the adhesive



- In the following steps, you'll be cutting through the adhesive securing the back cover.
- The adhesive is laid out as seen in the first image, which shows the inside of the cover after it has been removed.
  - As seen from the outside of the phone, you'll be slicing through the adhesive in the highlighted areas.
  - The adhesive is the thinnest on the right side of the phone, just below the Bixby button.

# Step 3 — Secure a suction cup



- Secure a suction cup to the back cover, as close to the heated edge as possible, just under the Bixby button where the adhesive is thinnest.
  - (i) The suction cup will not make a good seal on the curved portion of the glass, so avoid putting it on the very edge.
  - (i) If the phone's back cover is cracked, the suction cup may not stick. <u>Try lifting it with strong tape</u>, or superglue the suction cup in place and allow it to cure so you can proceed.

# Step 4 — Create an opening gap



- Prop up the heated edge of the phone on something that is about 0.5 inches (13 mm) thick. This will angle the phone so that the opening tool is easier to insert.
- Lift the back cover's right edge with your suction cup, opening a slight gap between the back cover and the frame.
  - This may require a significant amount of force. 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.
    - (i) If you're using an iOpener, follow the heating <u>instructions</u> to avoid overheating it, or the gel pack may burst.
- Press the edge of an opening tool into the gap.

 $\bigwedge$  The rear glass can break if you use too much force or attempt to pry with metal tools.



 Slide the opening tool along the right edge of the phone to slice through the adhesive securing the back cover.

# Step 6



 Insert an opening pick into the edge next to the opening tool. Leave the pick here to prevent the separated glue from re-adhering.



• Apply a heated iOpener to the top edge of the phone for two minutes.

## Step 8



 Insert an opening pick near the top right corner of the phone and slide it around the corner and across the top edge of the phone.

(i) The glued area is <u>larger here</u>, so you'll need to insert your pick farther into the phone to separate it.

• Leave the opening pick in place to prevent the adhesive from re-adhering.



• Apply a heated iOpener to the left edge of the phone for two minutes.

# Step 10



- Insert a new opening pick near the top left corner and slide it along the left edge of the phone.
- Again, leave the opening pick in place in the left edge of the phone to prevent the adhesive from resealing.



 Apply a heated iOpener to the bottom edge of the phone for two minutes.

# Step 12



- Insert an opening pick near a bottom corner of the phone, and slide it along the bottom edge of the phone to separate the adhesive there.
  - (i) The glued area is larger here, so you'll need to insert your pick farther into the phone to fully separate it.

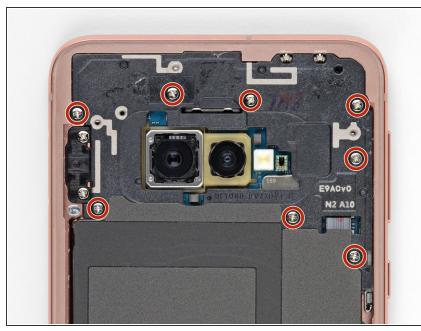


- Use the opening picks to very carefully pry up the back cover.
  - If you encounter any resistance, stop prying and use an opening pick to cut any remaining adhesive.
- Remove the back cover.



- Follow this guide to reinstall the back cover and replace the adhesive.
  - (i) Be sure to turn on your phone and test your repair before installing new adhesive and resealing the phone.
- 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 leftover adhesive is usually more than strong enough to hold.

# Step 15 — Remove the midframe



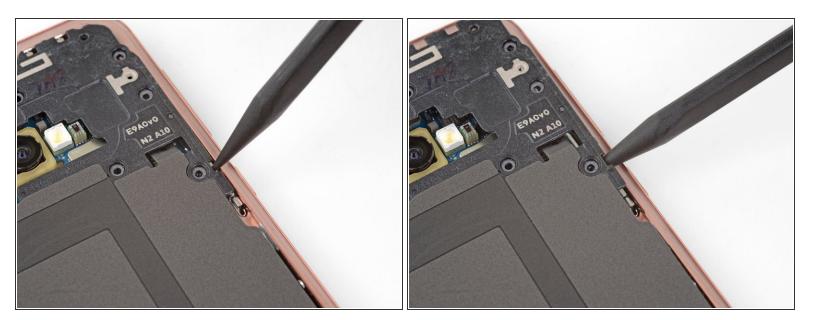
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Remove the eight 3.9 mm Phillips screws securing the upper midframe to the phone.

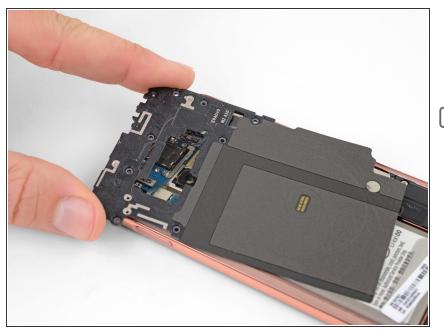


• Slide an opening pick under the bottom right corner of the upper midframe to separate the adhesive holding it to the lower midframe.

#### Step 17

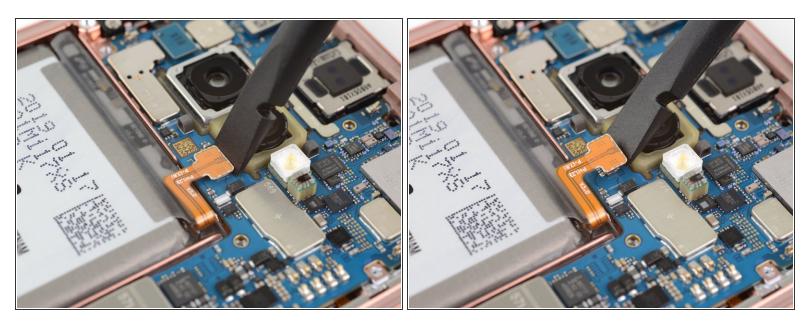


- Insert the point of a spudger in the small cutout on the right edge of the plastic part of the upper midframe, near the Bixby button.
- Use the point of the spudger to pry the midframe up from the phone chassis.



- Lift the midframe by the plastic section and remove it from the phone.
- To reinstall, first insert the top edge of the assembly into the phone's frame, and then gently press down on the rest of the assembly to snap it into place.

# Step 19 — Disconnect the battery



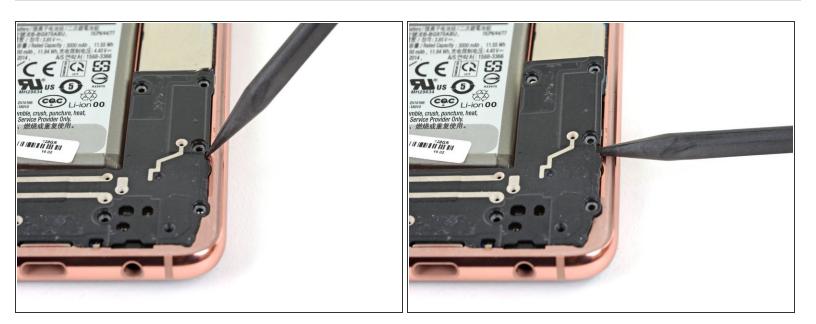
 Use the flat end of a spudger to pry the battery connector straight up from its socket and disconnect it.

# Step 20 — Remove the loudspeaker



 Use a Phillips driver to remove the seven 3.9 mm screws securing the loudspeaker.

# Step 21

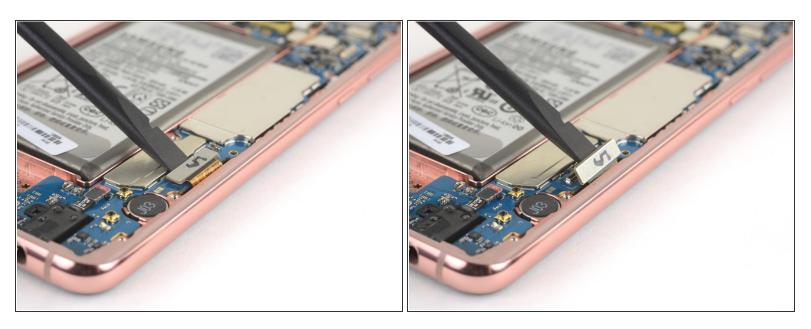


- Insert the point of a spudger into the notch on the right edge of the loudspeaker.
- Pry up with the spudger to loosen the loudspeaker.



- Lift the loudspeaker up and remove it.
- To reassemble, press the loudspeaker edges until it snaps into place.

#### Step 23 — Disconnect the screen



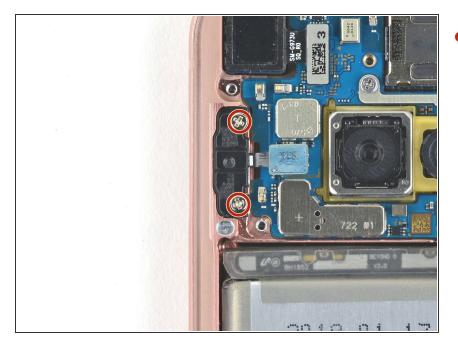
- Use the flat end of a spudger to pry up and disconnect the screen connector from its motherboard socket.
- (i) To re-attach <u>press connectors</u> like this one, carefully align and press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is misaligned, the pins can bend, causing permanent damage.

## Step 24 — Disconnect the fingerprint sensor

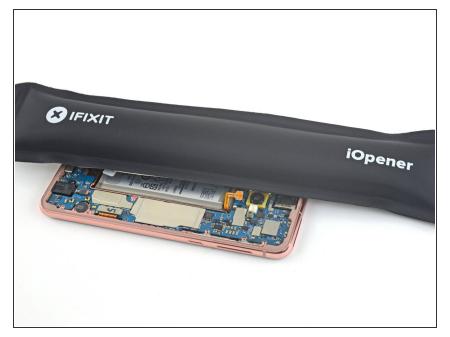


 Use the point of a spudger to pry up and disconnect the fingerprint sensor connector from its motherboard socket.

#### Step 25 — Remove the fingerprint sensor bracket

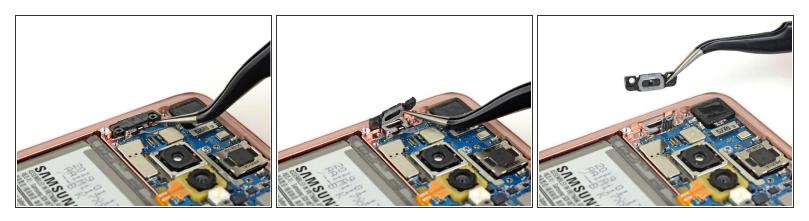


 Use a Phillips driver to remove the two 4 mm screws securing the fingerprint sensor bracket.



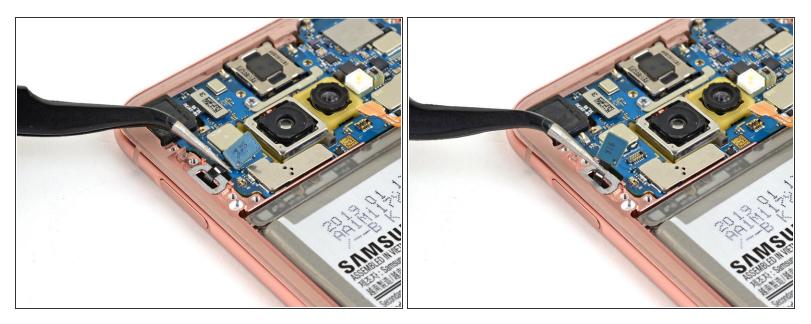
• Apply a heated iOpener to the fingerprint sensor bracket for one minute to loosen the adhesive.

# Step 27



- (i) The fingerprint sensor bracket is held in place with very strong adhesive.
- Use the points of your tweezers to slowly pry up the fingerprint sensor bracket.
  (i) If the bracket won't budge, apply more heat and try again.
- Remove the fingerprint sensor bracket.

# Step 28 — Loosen the fingerprint sensor cable



• Use a pair of tweezers to loosen the fingerprint sensor cable from the adhesive gasket.

#### Step 29 — Slice through the screen adhesive



- Flip the phone over so that the display is facing up.
- Apply a heated iOpener to the right edge of the screen for two minutes.
  - A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone
    —the internal battery is susceptible to heat damage.

(i) As you wait, note the following seams:

- *Display seam*—this seam sits above the thin plastic bezel. You need to pry along this seam to separate the display.
- *Frame seam*—this seam sits below the thin plastic bezel. **Do not pry along this seam** or you will damage the plastic bezel.



- Apply a suction cup to the heated edge of the display.
- Pull up on the suction up with strong, steady force to create a gap.
  - (i) Depending on the age of your device, this may be difficult. If you have trouble, apply more heat and try again.
- Insert the point of an opening pick into the display seam gap.

Make sure to insert the opening pick into the seam above the plastic bezel.

# Step 31



- Slide the opening pick along the right edge to slice through the adhesive.
- Leave the opening pick in the corner to prevent the adhesive from resealing.



 Apply a heated iOpener to the bottom edge of the display for one minute.

# Step 33



- Slide an opening pick along the bottom edge to slice through the adhesive.
- Leave the opening pick in the corner to prevent the adhesive from resealing.



• Repeat the heating and slicing procedure for the remaining display sides.

# Step 35 — Remove the display glass



- Lift up and remove the display glass.
- (i) The OLED panel is normally sealed against this glass panel. Once it's exposed to air, the panel will no longer work.

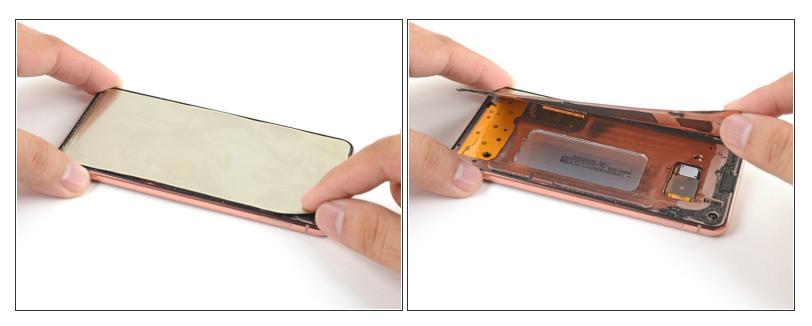
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# Step 36 — Remove the display panel

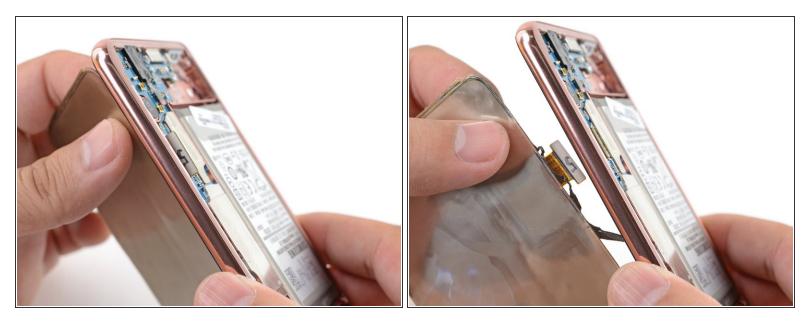


 Apply a heated iOpener to the OLED panel for a minute to soften up the panel adhesive.

#### Step 37



• Lift the display panel from the right edge and peel it away from the frame.



- Thread the display panel connector through the frame.
- (i) If you are having trouble, you can choose to cut the display panel cable in order to remove the display.



- Remove the display panel.
- If you are using a custom-cut adhesive, <u>follow this guide</u> for instructions on how to remove the old adhesive and attach the replacement screen.
- F If you are using Tesa tape to reattach the screen, follow this guide.

#### Step 40 — Remove the fingerprint sensor



- Use the flat end of a spudger to pry up the fingerprint cable cover from the frame.
- Remove the fingerprint cable cover.



• Use the point of a spudger to gently pull the fingerprint sensor cable through its frame cutout.

# Step 42



• Use a pair of tweezers to lift and remove the power button support bracket from its recess.

During reassembly, orient the bracket such that the indents face away from the button, and the center tab faces upwards.



• Remove the fingerprint sensor from its recess.

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

Take your e-waste to an <u>R2 or e-Stewards certified recycler</u>.

After you've completed the repair, <u>follow this guide</u> to test your repair.

Repair didn't go as planned? Try some basic troubleshooting, or ask our Answers community for help.