

# Google Pixel 4 XL Display Assembly Replacement

This repair guide was authored by the iFixit...

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# INTRODUCTION

This repair guide was authored by the iFixit staff and hasn't been endorsed by Google. Learn more about our repair guides <u>here</u>.

Use this guide to remove or replace the display assembly on your Google Pixel 4 XL.

**Note:** Follow this guide to replace the display assembly by itself. Some replacement assemblies 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. If you're replacing the display assembly attached to a frame, <u>follow this guide instead</u>.

Due to the Pixel's design, you will have to remove the back panel in order to disconnect the display connector.

Before you begin this procedure, be sure to have a set of replacement adhesives for both the back panel and the display panel.

This procedure will almost always destructively remove the Pixel 4 XL's display assembly. OLEDs cease to work when exposed to oxygen or moisture, and are thus sealed in an airtight encapsulation (this is also why OLED panels turn black underneath a display assembly crack). It is very difficult to replace the front glass alone— the Pixel's OLED layers are laminated to the glass, and the display assembly will come out as one unit.

**Caution:** Google warns that disassembly of the front laser assembly could result in hazardous exposure to invisible infrared laser emissions. Read their safety warnings <u>here</u>.

**TOOLS:** 

```
SIM Card Eject Tool (1)

iFixit Opening Picks (Set of 6) (1)

iOpener (1)

Suction Handle (1)

Tweezers (1)

Spudger (1)

T3 Torx Screwdriver (1)

Isopropyl Alcohol (1)
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Google Pixel 4 XL Rear Cover Adhesive -Genuine (1) Tesa 61395 Tape (1)

#### Step 1 — Remove the SIM card tray



- Insert a SIM eject tool, bit, or a straightened paper clip into the small hole on the SIM card tray on the left edge of the phone.
- Press firmly to eject the tray.
- Remove the SIM card tray.

#### Step 2 — Heat the back panel glass



- Prepare an iOpener and apply it to the bottom edge of the back panel for one minute.
  - 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.

## Step 3 — Apply a suction cup



- Apply a suction cup to the heated edge of the back panel by pressing down on it to create suction, as close to the edge as possible.
  - *i* If your back glass is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken panel.

# Step 4 — Insert an opening pick



- Pull up on the suction cup with strong, steady force to create a gap between the back panel and the frame.
  - (i) Depending on the age of your phone, this may be difficult. If you are having trouble, apply more heat to the edge and try again.
- Insert the point of an opening pick into the gap.

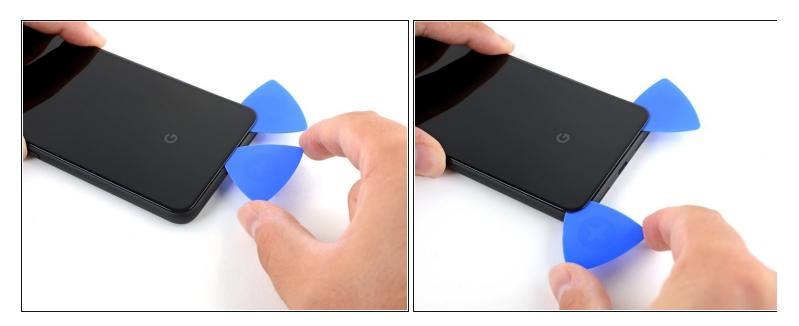


- Slide the opening pick across the bottom towards the left corner to slice the adhesive.
- With the pick still inserted, slide it from the bottom left corner over to the bottom right corner to completely slice the bottom side adhesive.
- Leave the pick inserted in the bottom right corner to prevent the adhesive from re-sealing.



## Step 6 — Slice the lefthand-side adhesive

 Prepare an iOpener and apply it on the left edge of the phone for one minute.



- Insert a second opening pick underneath the back panel directly over the charge port.
- Slide the opening pick to the bottom left corner of the phone.



- Slide the opening pick around the bottom left corner and across the left side of the phone to slice the adhesive.
  - *i* The adhesive can be very gummy. Push the pick in and out in a sawing motion to help with slicing.
- Stop when you reach the top left corner, near the camera, and leave the pick inserted.



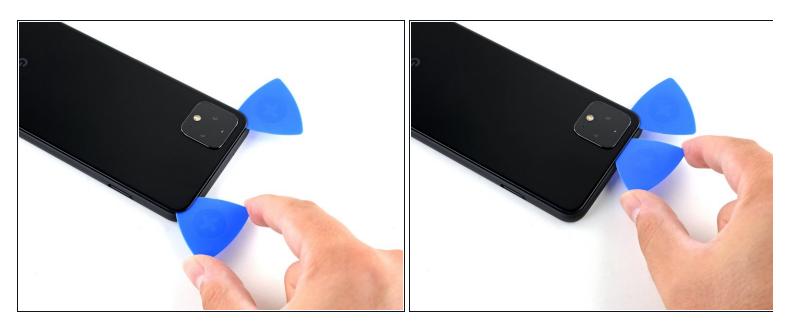
## Step 9 — Slice righthand-side adhesive

 Prepare an iOpener and apply it on the right edge of the phone for one minute.



- With the first two opening picks still in place, insert a third pick on the lower part of the righthand side.
- Slide the opening pick up towards the top of the phone, slicing the right side's adhesive.
  - Stop when you reach the top right corner, and leave the pick inserted.

#### Step 11 — Slice the top-side adhesive



 Slide the third opening pick around the top right corner and across the top side of the phone, slicing the final strip of adhesive.



- Once you have sliced around the perimeter of the phone, carefully lift the **right edge** of the back cover, opening it like a book.
  - Do not try to pull the panel all the way off yet, as it is still connected to the phone.



• Continue swinging open the back panel until you can rest it on the left edge the phone, being careful not to put any stress on the attached ribbon cable.

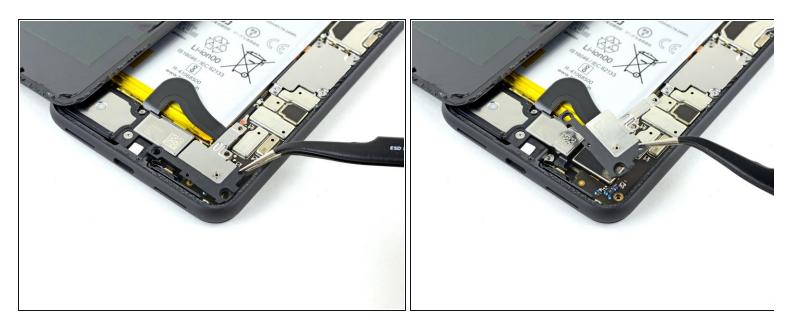
During reassembly, this is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.

## Step 14 — Disconnect the battery

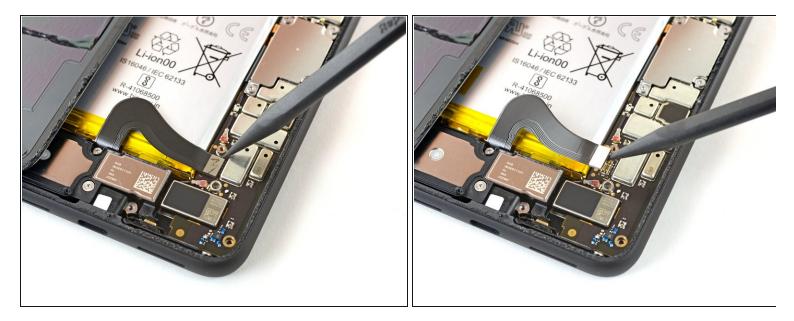


- Remove the four T3 Torx screws securing the battery connector shield:
  - One 1.8 mm screw
  - One 4.1 mm screw
  - One 4.4 mm shouldered screw
  - One 4.0 mm shouldered screw
- *i* Throughout this repair, <u>keep track of</u> <u>each screw</u>

# Step 15



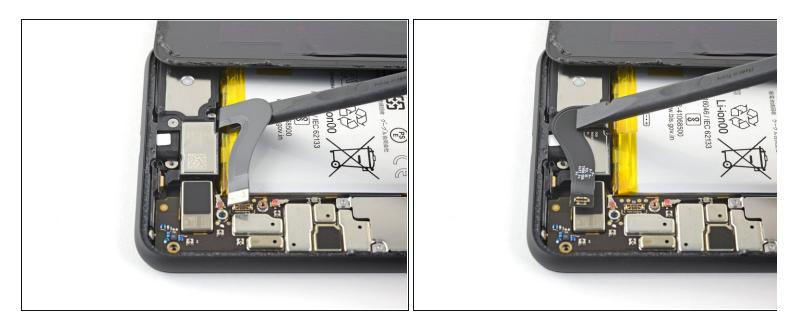
• Use a pair of tweezers to remove the battery connector shield.



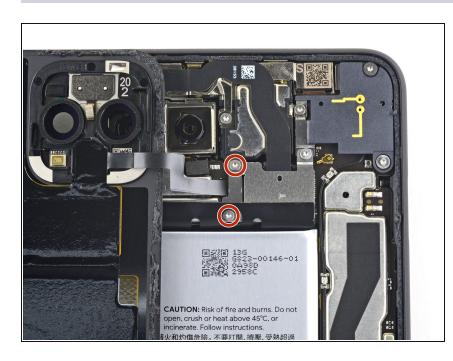
Mhenever you use the spudger near the battery, be very careful not to puncture the battery.

- Using the pointed end of a spudger, pry the battery connector straight up from the motherboard to disconnect the battery.
- To re-attach press connectors

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.



• Using the flat end of a spudger, gently fold the battery cable over so it doesn't accidentally make contact during the rest of your repairs.



# Step 18 — Disconnect the back panel connector

 Use a T3 Torx driver to remove the two 4.1 mm screws securing the back panel connector cover.



• Use a pair of tweezers to remove the back panel connector cover.

# Step 20



• Using the pointed end of a spudger, pry up and disconnect the back panel connector.

#### Step 21 — Remove the back panel



- Remove the back panel.
- During reassembly, <u>follow this guide</u> to install custom-cut adhesives for your device.
- Follow this guide if you are using a pre-cut adhesive card.

#### Step 22 — Remove the camera connector covers



 Gently pry back the battery adhesive pull tab to allow easier access to the screws underneath it.



- Remove the three T3 Torx screws securing the rear-facing camera connector cover:
  - One 2.7 mm screw
  - One 4.1 mm screw
  - One 4.2 mm screw

# Step 24



• Use a pair of tweezers to remove the rear-facing camera connector cover.



- Remove the three T3 Torx screws securing the front-facing camera connector cover:
  - One 4.1 mm screw
  - One 4.0 mm shouldered screw
  - One 4.1 mm shouldered screw



• Use a pair of tweezers to remove the front-facing camera connector cover.

## Step 27 — Disconnect the camera and sensor connectors

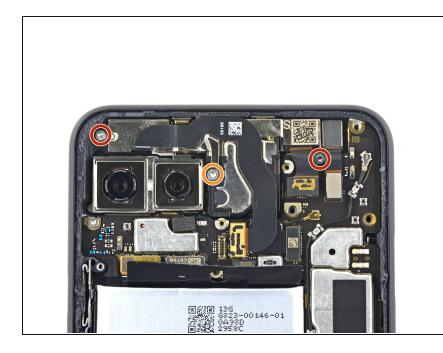


• Using the pointed end of a spudger, pry the camera and sensor connectors straight up from the motherboard.



- Disconnect the additional sensor connector.
  - *i* This cable is secured to the phone with some light adhesive.

## Step 29 — Remove the front camera and sensor assembly



- Remove the three T3 Torx screws securing the front camera and sensor assembly:
  - Two 2.7 mm screws
  - One 3.1 mm screw

# Step 30



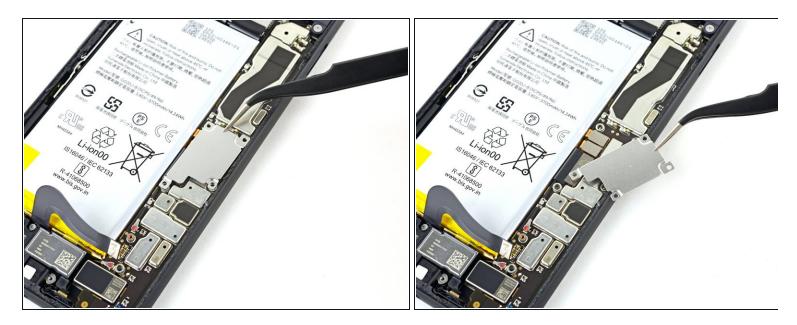
• Use a pair of tweezers to remove the front camera and sensor assembly.

# Step 31 — Disconnect the display assembly



 Use a T3 Torx driver to remove the four 3.5 mm screws securing the display connector cover.

# Step 32



• Use a pair of tweezers to remove the display connector cover.



• Use the flat end of a spudger to disconnect the display connector from the motherboard.



## Step 34 — Slice the display adhesive

• <u>Prepare an iOpener</u> and apply it to the right edge of the display near the power button for one minute.



- This process will almost always destroy the OLED display panel. Only proceed if you are replacing an already-broken display assembly.
- Apply a suction cup to the heated edge of the display assembly.
  - (i) If your display is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken display assembly.
- Pull up on the suction cup with strong, steady force to create a gap between the display assembly and the frame.
  - Depending on the age of your phone, this may be difficult. If you are having trouble, apply heat to the edge and try again.
- Insert the point of an opening pick into the gap.
  - Depending on the age of your phone, this may take significant force. If you are having trouble, apply more heat and try again.



- Slide the opening pick down the right bezel of the phone, between the display and the frame, to slice the adhesive.
- Leave the pick inserted in the bottom right corner.

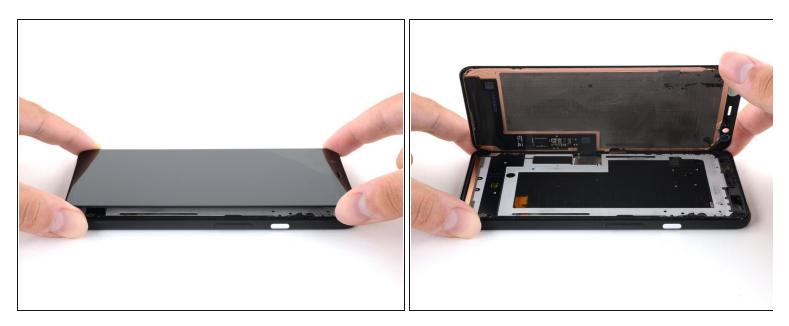


- Insert a second opening pick underneath the display assembly in the top left corner of the phone, near the front-facing camera cutout.
  - (i) If this is difficult, you may need to reapply an iOpener to the upper edge of the display assembly.
- Slide the opening pick around the corner and down the left side of the phone, stopping about halfway down, and leave the pick inserted.



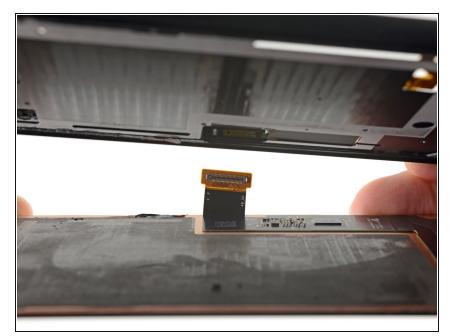
• Insert a third opening pick under the display assembly in the middle of the right edge of the phone and twist to separate the assembly.

## Step 39 — Tilt the display up



- Tilt the display assembly up along the left edge of the phone.
  - (i) Don't fully remove the assembly yet, as the display cable is still routed through the phone's frame.

## Step 40 — Thread the display connector through the frame



- Slide the display connector out of the hole near the motherboard to separate the display assembly from the rest of the phone.
  - You may need to tilt the assembly side to side to allow the connector to slide through the hole on the phone's frame.
  - (i) The connector will slide out without any force.

#### Step 41 — Remove the display assembly



- Remove the display assembly.
- You will have to carefully thread the replacement assembly's display cable through the motherboard cutout. If you are having trouble, you can always loosen and partially remove the motherboard.
- Follow this guide for instructions on how to apply adhesive to the replacement display assembly.
  - Be sure to test your repairs before you affix the display assembly with adhesives.
- If you are using Tesa tape to reattach the assembly, <u>follow this</u> <u>guide</u>.
- During the boot-up process after reassembly, the display assembly will go through a calibration sequence. Do not touch the display assembly during this process, as it could result in improper touch calibration and create touch issues.

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.

### To reassemble your device, follow the above steps in reverse order.

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

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