

# **Google Pixel 4 XL Battery Replacement**

This repair guide was authored by the iFixit...

Written By: Carsten Frauenheim



#### INTRODUCTION

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

Use this guide to remove or replace a worn battery in the Google Pixel 4 XL. If your battery is swollen, <u>take appropriate precautions</u>.

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.

Note: Some photos in this guide show the SIM card tray ejected from the phone. You don't need to eject the SIM card tray for this procedure.

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

### TOOLS:

iFixit Opening Picks (Set of 6) (1)

iOpener (1)

Suction Handle (1)

Tweezers (1)

ESD Safe Blunt Nose Tweezers (1)

Spudger (1)

T3 Torx Screwdriver (1)

Isopropyl Alcohol (90% or Greater) (1)

Coffee Filters or a lint-free cloth (1)

### PARTS:

Google Pixel 4 XL Battery - Genuine (1) Google Pixel 4 XL Battery Adhesive Strips - Genuine (1) Google Pixel 4 XL Rear Cover Adhesive - Genuine (1)

#### Step 1 — Heat the back panel glass



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

#### Step 2 — 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.
  - 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 3 — 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.
  - ② 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.

### Step 4 — Begin to slice the adhesive

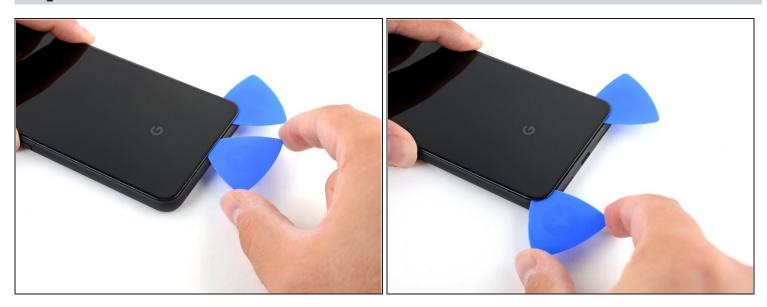


- Slide the opening pick across the bottom towards the left corner to slice the adhesive.
- With the pick still inserted, slide it from the bottom left corner over to the bottom right corner to completely slice the bottom side adhesive.
- Leave the pick inserted in the bottom right corner to prevent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

# Step 5 — 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 8 — Slice righthand-side adhesive

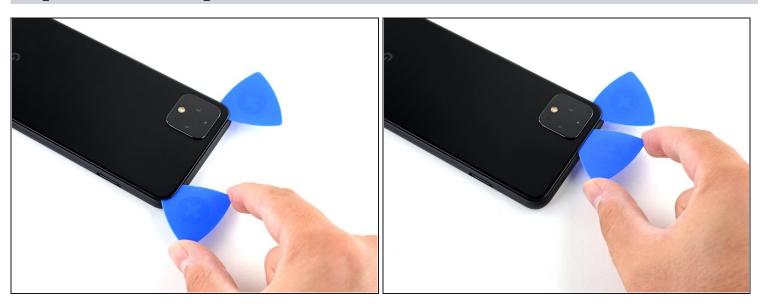


 Prepare an iOpener and apply it on the right edge of the phone for one minute.



- 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 10 — 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.

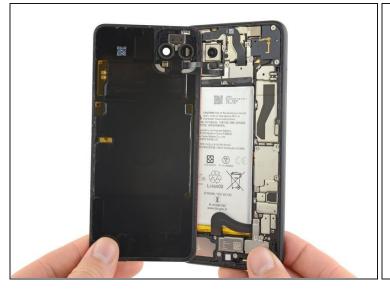
#### Step 11 — Lift up the back panel







- 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 13 — Disconnect the battery

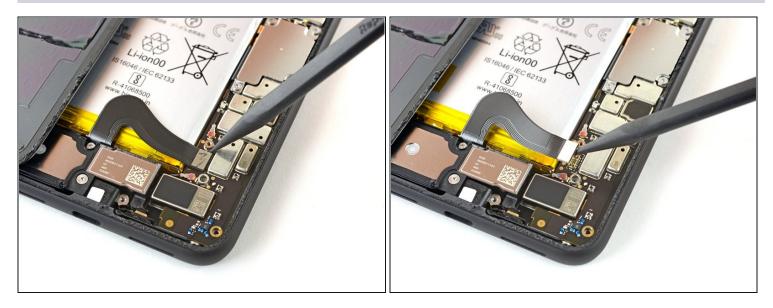


- Remove the four T3 Torx screws securing the battery connector shield:
  - One 1.8 mm screw
  - One 4.1 mm screw
  - One 4.4 mm shouldered screw
  - One 4.0 mm shouldered screw
- (i) Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from.

# Step 14



• Use a pair of <u>tweezers</u> to remove the battery connector shield.



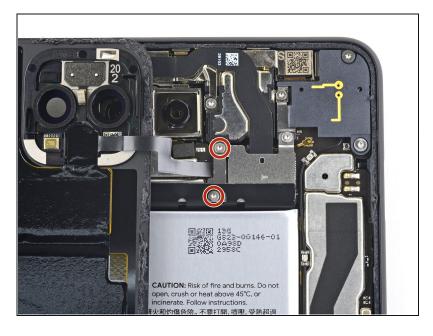
- ⚠ Whenever you use the spudger near the battery, be very careful not to puncture the battery.
- Using the pointed end of a spudger, pry the battery connector straight up from the motherboard to disconnect the battery.
- To re-attach <u>press connectors</u> like this one, carefully align and press down 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.





• 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 17 — 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 19



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

#### Step 20 — Remove the back panel



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

#### Step 21 — Remove the battery's adhesive pull tabs



- Use blunt <u>tweezers</u> to lift up the battery adhesive pull tabs so you can more easily grip them with your fingers.
- (i) The battery is held in place with three separate stretch adhesive strips, which are connected to a single black pull tab. You can try to pull all three strips out together, but it is easier to cut the black pull tab where it is notched and pull each strip out individually.



- Pull on the black pull tab at a shallow angle with steady force. When the adhesive grows long, roll it around a spudger and continue pulling.
- Continue firmly pulling up on the adhesive strip with constant force, spinning the spudger every so often to keep the exposed section of the pull tab as short as possible.
  - *i* This may take a lot of force.
  - (i) These adhesive pull tabs are very prone to snapping in half during this process. Try pulling as slowly as possible.
- (i) If the adhesive pull tabs are not stretching, you can fill a plastic dropper or syringe with high concentration isopropyl alcohol and apply a few drops under the left edge of the battery. Give the alcohol a minute to weaken the battery adhesive.
- Continue this process for each of the three pull tabs, until all are either out or have snapped in half.

### Step 23 — Remove the battery







- If the battery tabs snapped during removal, insert an opening pick on the upper right edge of the battery, slicing the adhesive underneath.
  - ② Even if you successfully removed all three adhesive pull tabs, using an opening pick to dislodge the battery may be helpful.

Don't insert the opening pick on or anywhere below the grip sensor cable, as the pick can damage the charge port flex cable located underneath the battery.





- ⚠ Don't reuse the battery if it has been deformed or damaged, as doing so is a potential safety hazard. Replace it with a new battery.
- Lift the battery up, away from the phone to remove it.
- To install a replacement battery:
  - Remove any remaining adhesive from the battery well.
  - If you're using stretch release adhesive, <u>apply them onto the battery</u>. Otherwise, apply some <u>double-sided tape</u>, or <u>pre-cut adhesive strips</u> in the phone's battery well, being careful not to cover the charge port flex cable. Peel away any tape liners to expose the adhesive.
  - *Temporarily* re-connect the battery's connector to the motherboard socket. This ensures that the battery is properly positioned.
  - Lay the battery in place and press firmly.
  - Disconnect the battery connector from its motherboard socket and resume reassembly.

For optimal performance, <u>calibrate your newly installed battery</u> after completing this guide.

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 R2 or e-Stewards certified recycler.

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