

Google Pixel 4 Flash 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 here.

Use this guide to remove or replace the flash assembly in your Google Pixel 4.

The flash assembly contains the Pixel's **LED flash module**, **spectral and flicker sensor**, **and back panel microphone**.

The microphone section is sealed against the frame with an adhesive gasket. If you remove the flash module, the Pixel will no longer retain its water resistance.

Caution: The flash module is secured to the back panel under an insulating / heat-dissipating graphite adhesive layer which will need to be destructively removed and will need to be replaced.

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)

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.
 - 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.

Step 5 — Begin to slice the adhesive





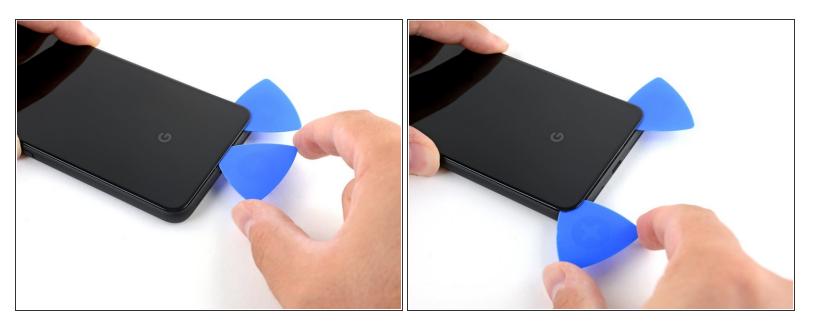


- Slide the opening pick across the bottom towards the left corner to slice the adhesive.
- With the pick still inserted, slide it from the bottom left corner over to the bottom right corner to completely slice the bottom side adhesive.
- Leave the pick inserted in the bottom right corner to prevent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

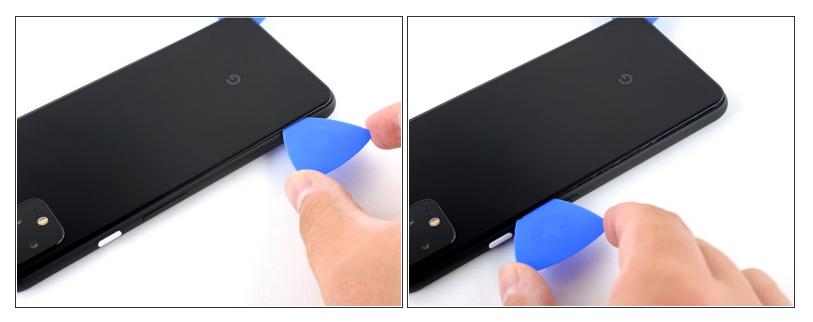
Step 6 — Slice the lefthand-side adhesive



 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.

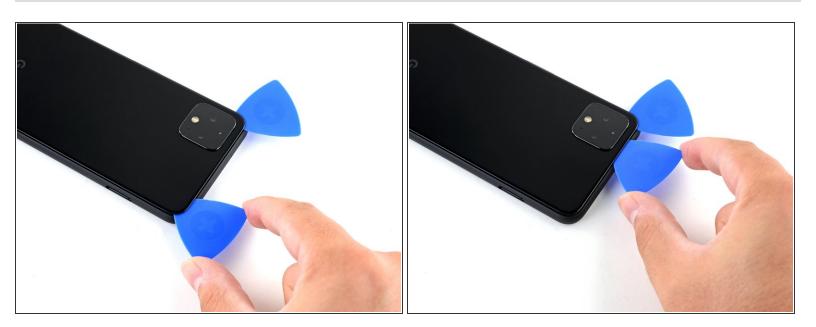






- With the first two opening picks still in place, insert a third pick on the lower part of the righthand side.
- Slide the opening pick up towards the top of the phone, slicing the right side's adhesive.
 - Stop when you reach the top right corner, and leave the pick inserted.

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.

Step 12 — 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 resealing the back panel. Be sure to power your phone back down completely before you continue working.

Step 14 — Disconnect the battery

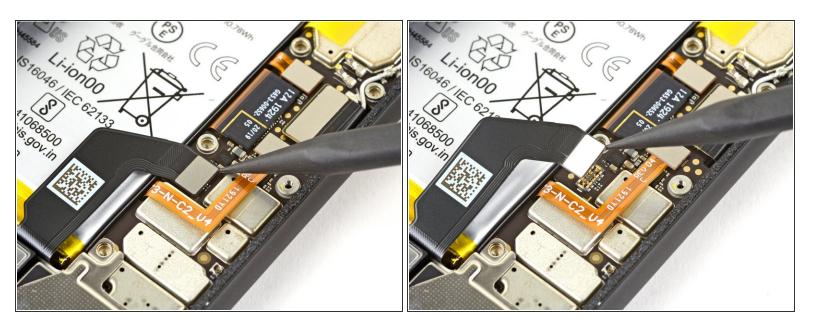


- Remove the five T3 Torx screws securing the battery connector shield:
 - Four 4.0 mm screws
 - One 2.1 mm screw
- i Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from.

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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 <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 18 — Disconnect the back panel connector

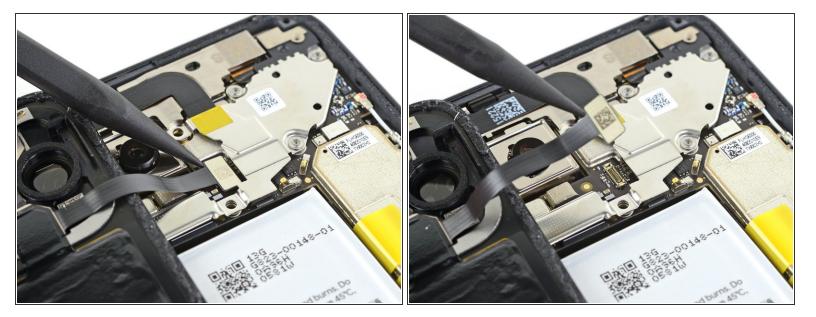


 Use a T3 Torx driver to remove the two 4 mm screws securing the back panel connector cover.



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, follow this guide to install custom-cut adhesives for your device.
- Follow this guide if you are using a pre-cut adhesive card.

Step 22 — Peel off the graphite adhesive layer



- The LED flash module is secured to the back panel underneath a graphite adhesive layer which will need to be removed.
- Use tweezers on one of the bottom corners to pull up the adhesive enough to grab it with your fingers.





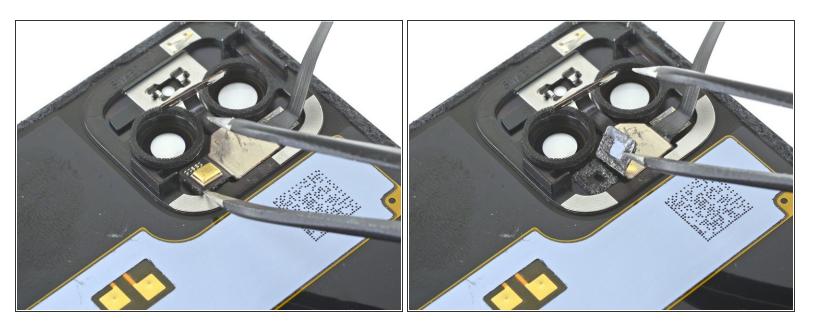
- Peel back the graphite adhesive layer to expose the wireless charging coil, NFC pads, and LED flash module.
- Completely remove the graphite adhesive layer.







- (i) All sections of the flash module are secured to the back panel with some light adhesive.
- Use a pair of tweezers to gently pry up and peel back the spectral and flicker sensor portion of the flash module.



- Use a pair of tweezers or the pointed end of a spudger to peel up the back panel's microphone.
- Before you install a replacement LED flash module, check the microphone's adhesive gasket:
 - If it is in good condition, you can re-use the gasket. Make sure that the gasket does not cover the hole.
 - If the gasket is pulled out of place, remove it and replace the adhesive with a pre-cut strip or Tesa tape.



- Pull the LED flash housing out of its hole on the back panel.
- Remove the flash module.

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 basic troubleshooting, or ask our Answers community for help.