

Google Pixel 4 XL Screen 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 replace the screen on your Google Pixel 4 XL.

Note: Follow this guide to replace a screen that's pre-installed in a new frame (a.k.a. chassis). You'll need to transplant all of your phone's internals to the new screen. If you're replacing the display panel by itself, <u>follow this guide instead</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.

This guide requires a replacement battery. Do not reuse the battery after it has been removed, as doing so is a potential safety hazard.

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>.

2

TOOLS:

Tweezers (1)

Isopropyl Alcohol (90% or Greater) (1)

Coffee Filters or a lint-free cloth (1)

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)



PARTS:

Google Pixel 4 XL Screen Assembly - Genuine (1)

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

Google Pixel 4 XL Battery - Genuine (1)

Google Pixel 4 XL Battery Adhesive Strips - Genuine (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.





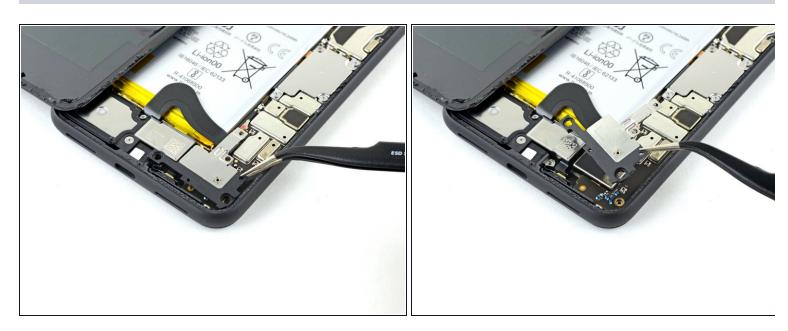
- Continue swinging open the back panel until you can rest it on the left edge the phone, being careful not to put any stress on the attached ribbon cable.
 - During reassembly, this is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.

Step 14 — Disconnect the battery

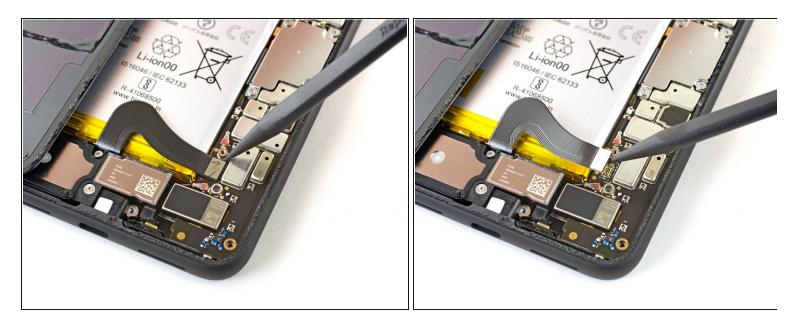


- Remove the four T3 Torx screws securing the battery connector shield:
 - One 1.8 mm screw
 - One 4.1 mm screw
 - One 4.4 mm shouldered screw
 - One 4.0 mm shouldered screw
- i Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from.

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 <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 4.1 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



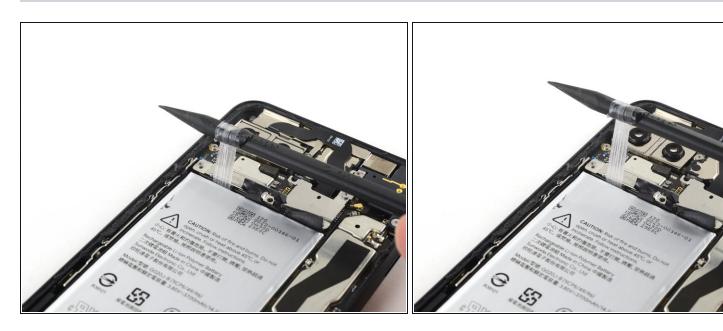
- Remove the back panel.
- During reassembly, follow this quide to install custom-cut adhesives for your device.
- Follow this guide if you are using a pre-cut adhesive card.

Step 22 — Remove the battery's adhesive pull tabs





- Use blunt tweezers 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.
 - 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 24 — 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.
 - i Even if you successfully removed all three adhesive pull tabs, using an opening pick to dislodge the battery may be helpful.

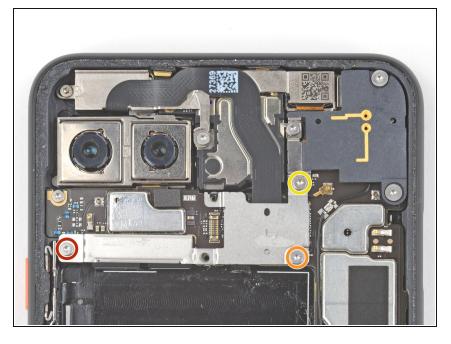
1 Don't insert the opening pick on or anywhere below the grip sensor cable, as the pick can damage the charge port flex cable located underneath the battery.





- ① 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 re-assembly.

Step 26 — Remove the rear-facing camera cover

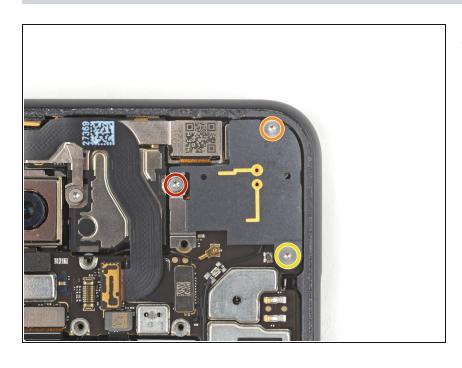


- Use your T3 Torx screwdriver to remove the following screws securing the rear-facing camera connector cover:
 - One 2.7 mm screw
 - One 4.1 mm screw
 - One 4.2 mm screw

Step 27



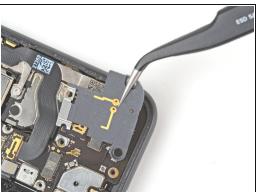
• Use a pair of tweezers to remove the rear-facing camera connector cover.



- Use your T3 Torx screwdriver to remove the following 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

Step 29







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

Step 30 — Disconnect the camera and sensor connectors





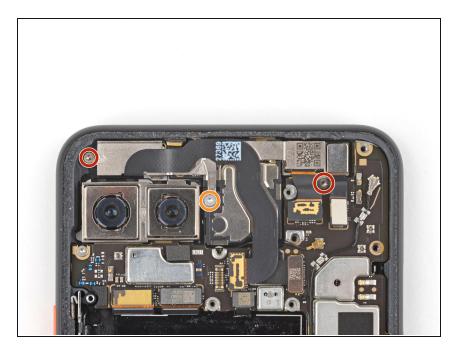


• Use the pointed end of your spudger to pry the camera and sensor connectors straight up from the motherboard to disconnect them.



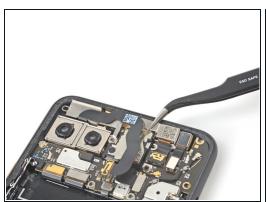
- Use the pointed end of your spudger to pry up and disconnect the remaining sensor connector from the motherboard.
 - i This cable is secured to the phone with some light adhesive.

Step 32 — Remove the front camera and sensor assembly



- Use your T3 Torx screwdriver to remove the following screws from the front camera and sensor assembly:
 - Two 2.7 mm screws
 - One 3.1 mm screw

Step 33







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

Step 34 — Remove the screws securing the display connector cover



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

Step 35 — Remove the display connector cover





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

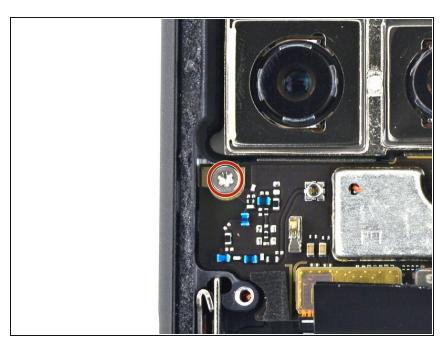
Step 36 — Disconnect the display connector





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

Step 37 — Remove the motherboard screw



 Use your T3 Torx driver to remove the 2.7 mm screw securing the motherboard to the frame.

Step 38 — Disconnect the motherboard press connectors







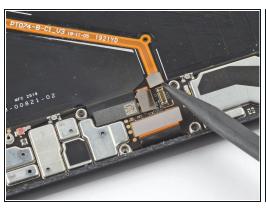
• Use the pointed end of your spudger to disconnect the three side button and rear-facing camera connectors from the motherboard.

Step 39

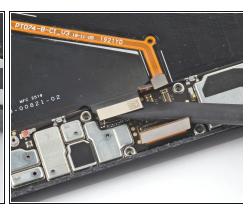




 Use the pointed end of your spudger to disconnect the earpiece speaker from the motherboard.







- Use the pointed end of your spudger to disconnect the two grip sensor connectors from the motherboard.
- Use the flat end of your spudger to disconnect the charge port connector from the motherboard.

Step 41 — Disconnect the antennas

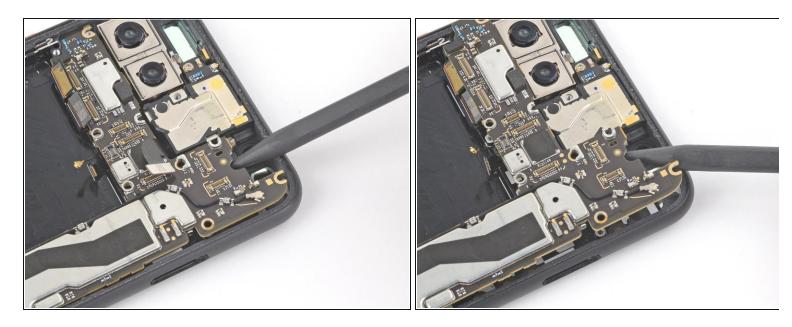






 Use a pair of tweezers to disconnect the two coaxial antenna connectors from the motherboard.

Step 42 — Remove the motherboard

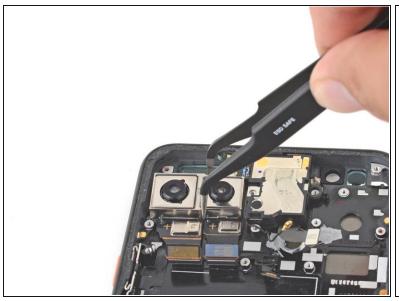


Use your spudger to pry up and loosen the top edge of the motherboard.



- Slowly lift out the motherboard, being careful not to snag any ribbon cable connectors.
 - i The rear-facing camera module connectors loop around the motherboard, and the camera module is not secured to the phone, so it may lift out with the motherboard during this step.
- Completely remove the motherboard.
- When reinstalling the motherboard, check that no ribbon cable connectors are caught underneath.

Step 44 — Remove the rear cameras



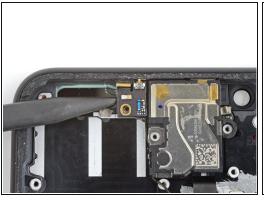


• Use a pair of tweezers to remove the rear-facing camera module.

Step 45 — Remove the earpiece module



 Use a T3 Torx driver to remove the 2 mm screw securing the antenna connector board board to the phone.







- Using the pointed end of a spudger, slide the board slightly to the side, away from the top of the phone.
 - i Do not attempt to entirely remove this board; it's still connected to the earpiece speaker.







- Use the pointed end of your spudger to peel the microphone away from the light adhesive securing it to the phone.
 - i Ensure the microphone is <u>completely detached</u> from the top frame before continuing to the next step.





- Use the flat end of your spudger to pry the earpiece module away from the phone's midframe.
 - The earpiece module is attached with some light adhesive, and should come up without too much force.







- Use a pair of tweezers or your fingers to pull the earpiece module away from the light adhesive holding it to the phone's top frame.
- Remove the earpiece module.





• Use a pair of tweezers to remove the earpiece speaker and Soli motion sensor assembly.

Step 51 — Remove the loudspeaker



- Use your T3 Torx screwdriver to remove the three screws securing the loudspeaker:
 - One 4.1 mm screw
 - One 2.7 mm screw
 - One 4.4 mm shouldered screw



- Use a pair of tweezers to lift the loudspeaker up and away from the frame.
- Remove the loudspeaker.

Step 53 — Isolate the charging assembly



 Use the pointed end of your spudger to disconnect the two antenna press connectors from the charging assembly.



Disconnect the antenna press connectors from the charging assembly.

Step 55 — Remove the charging assembly







- Peel back the ribbon cable until it is fully separated from the frame.
 - i The ribbon cable is secured to the frame with some light adhesive.
- Remove the charging assembly.

Step 56 — Remove the microphone assembly



 Use a T3 Torx driver to remove the 3 mm screw securing the bottom microphone assembly to the bottom right corner of the frame.







- Insert the pointed end of a spudger into the divot between the microphone assembly and the frame.
- Slide the pointed end of the spudger from left to right, separating the microphone assembly and the frame.
- Remove the microphone assembly using your fingers or a pair of tweezers.







- Use a T3 Torx driver to remove the two screws securing the antenna to the frame:
 - One 2 mm screw on the left side of the frame
 - One 2 mm screw on the bottom side of the frame

Step 59 — Remove the antenna





- Insert the pointed end of a spudger underneath the antenna's ribbon cable and gently pry up to peel the cable from the frame.
 - i The antenna's ribbon cable is secured to the frame with some light adhesive.
- Remove the antenna.

Step 60 — Remove the vibration motor





- Use a pair of pliers to firmly grip the vibration motor near the bottom right of the device.
- Pull straight up with steady force until the motor separates from the frame.
 - (i) Grip the vibration motor by the side opposite its cable and be sure not to damage the cables covering the rest of the motor.

Step 61 — Only the screen remains



You're now left with the screen.

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 community</u> for help.