

Google Pixel Battery Replacement

Follow this guide to replace an aging Google Pixel battery.

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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 replace the battery in your Google Pixel. With daily use, a typical battery will last around 18-24 months before losing significant capacity. If your phone has to be recharged constantly or turns off suddenly, replacing the battery may be a solution.

Warning: Because of the strong adhesive securing the display, minimal clearance for inserting your tools, and high heat required, there is a good chance of accidentally damaging your display during this procedure. Unless you plan to replace your display in conjunction with this repair, work very carefully and be prepared to replace the display, should it not work upon reassembly. Follow the instructions carefully and observe all warnings to increase your odds of success.

Before disassembling your phone, discharge the battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured. If your battery is swollen, <u>take</u> <u>appropriate precautions</u>.

The battery is held in place by very strong adhesive. You may need to use high concentration (over 90%) isopropyl alcohol in order to loosen the battery from the phone.

TOOLS:

- Suction Handle (1)
- iFixit Opening Picks (Set of 6) (1)
- Spudger (1)
- T5 Torx Screwdriver (1)
- Tweezers (1)
- iOpener (1)
- Isopropyl Alcohol (1)

PARTS:

- Google Pixel Display Adhesive (1)
- Tesa 61395 Tape (1)

Step 1 — Display



- Turn off the device.
- Prepare an iOpener to heat the edges of the display and soften the adhesive underneath. Alternatively, you may use a heat gun or a hair dryer.
 - (i) The surfaces near the speaker and microphone (top and bottom respectively) have larger adhesive sections. These areas may require slightly longer heat exposure. The display should be heated until it's slightly too hot to touch, for roughly two minutes.

Step 2



- (i) In the following steps, you will separate the display panel by slicing though the adhesive bonding the display to the Pixel's chassis.
- For reference, the back of the display panel is shown at left. Note the narrow clearance between the side of the display unit and the OLED panel. (The bezels indicate this spacing on the front.)

Inserting an opening tool deeper than 1.5 mm into the sides of the device, or 9 mm into the top and bottom can permanently damage the display.



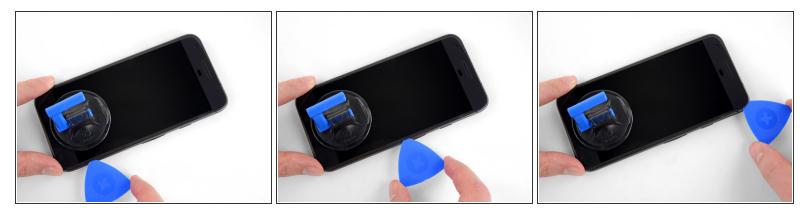
- Use a <u>suction handle</u> to pull up on the display and create a slight gap between the display and the phone's chassis.
- *i* If your display is cracked, <u>cover it with packing tape</u> to help the suction cup adhere and prevent glass shards from popping loose.
- You may need to apply more heat if this doesn't come up. Don't be impatient, this will take time. Once you can gently insert a tool in the gap, move on to the next step.



- Insert an opening pick or a playing card into the gap between the chassis and the display assembly.
- Begin to slide the opening pick around the edge of the display, cutting through the adhesive that secures it.

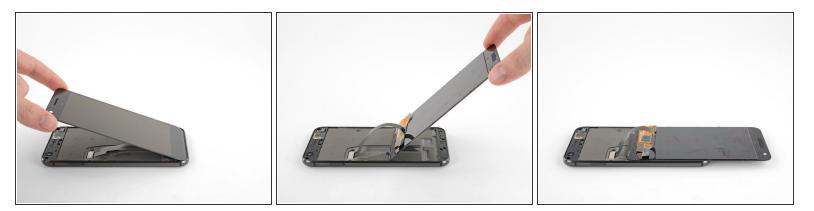
A Do not try to lift or pry the screen off with the pick. Simply slide it around to detach the adhesive.

The display panel is extremely fragile. If you plan to re-use your display, take care to insert your tool only as far as necessary to separate the adhesive. Inserting the tool any further can damage the OLED panel under the glass.

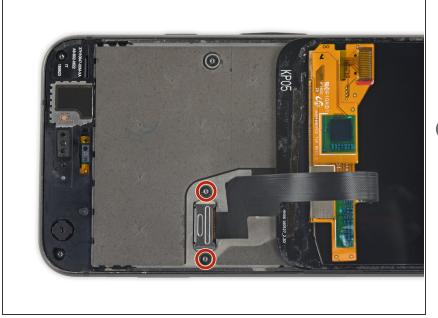


- Continue carefully separating the adhesive around the rest of the device.
- A There's a mesh covering the earpiece speaker on the top edge of the screen. If you don't have a replacement mesh, take care not to damage or lose this component.
- \bigwedge Take extra care with the side bezels, which are only 1.5 mm deep.

Step 6

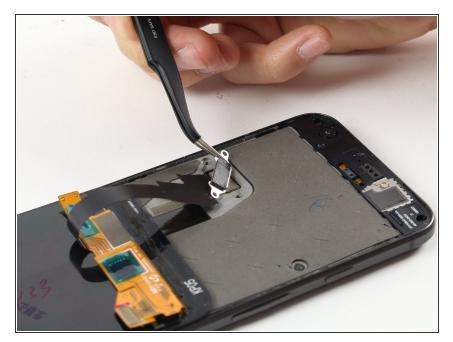


- With the adhesive cut, slowly lift the display up from the top (the side with the speaker-grille cutout), carefully flip it over vertically toward the bottom of the device, and rest it on its face, as shown.
 - Don't forget there's sticky adhesive everywhere, so consider resting an <u>opening pick</u> between the screen and display, to avoid spreading the gunk!
- ▲ Do not attempt to completely remove the display yet, as it is still connected by a fragile ribbon cable. Be careful to not to strain the cable while positioning the display.

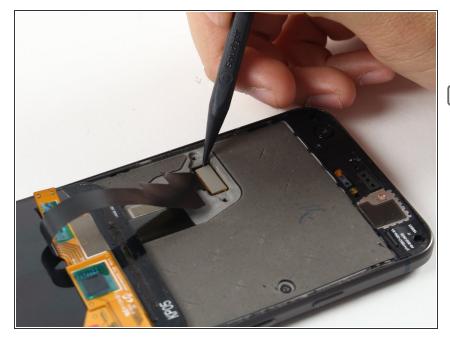


- Use a T5 Torx driver to remove the two black 3.5 mm T5 screws securing the display cable connector bracket.
- (i) Throughout this repair, <u>keep track of</u> <u>each screw</u> and make sure it goes back exactly where it came from.

Step 8



- Use tweezers to remove the bracket that holds the display connector in place.
- This is just a piece of metal, and should come up very easily. (The cable is removed in the next step.)



- Use a spudger to pry up the <u>display</u> <u>cable connector</u>, freeing the display.
- On reassembly, gently snap one side in, then the other.
 - Do not force this type of connector into place, as damage can occur. (You will need to feel a light snap, but force beyond this will permanently damage your connector.)



- Remove the display.
- Some replacement displays do not come with an <u>earpiece speaker</u> <u>grille</u>. If your replacement screen doesn't have one, be sure to transfer the grille from your old display to the new one.
- During reassembly, pause here to test the functionality of your new part and replace the display adhesive.
- During the boot-up process after reassembly, the screen will go through a calibration sequence. Do not touch the screen during this process, as it could result in improper touch calibration and create touch issues.

Step 11 — Midframe



 Use a T5 Torx driver to remove the nine 3.5 mm screws securing the midframe.



 The midframe is held tightly in place by five clips. To release these clips, apply inward pressure with an opening tool as shown in the steps below.

Step 13



• Wedge an opening pick into the notch that is located at the bottom right corner of the phone.



- Slide the opening pick up both sides of the device in the small space between the midframe and the rear case to release the clips holding it in place.
 - (i) Note that the clips are not released by sliding *through* them, but rather the inward pressure the opening pick creates as it enters the gap *around* them.
- (i) If the clasps fail to come undone, try pushing the edge you're working on inward with your hand, or using a thicker tool like a spudger.
- ▲ Do not attempt to remove the midframe yet! There is still a fragile ribbon cable underneath connecting the earpiece speaker to the motherboard.



- Use a spudger to pry the earpiece speaker cable connector straight up, disconnecting it from the motherboard.
- Remove the mid-frame from the device.
- During reassembly, reattach the earpiece speaker cable and insert the top side of the midframe before you snap the clips back into place.

Step 16 — Battery



• Use a spudger to pry up the battery ribbon cable, disconnecting it from the motherboard.

Step 17



- Using tweezers, peel back the silver tape that covers the cable connecting the motherboard to the daughterboard. Peel just enough to see the connector underneath.
- Use a spudger to pry the connector straight up and disconnect it from the motherboard.



- Peel up the sticker covering the interconnect cable on the daughterboard side.
- Use a spudger to disconnect the cable from the daughterboard.
- Remove the cable from the device.
 - During reassembly, make sure this interconnect cable is positioned correctly. The phone will not boot up if the cable is installed upside down.



- The battery has a jacket that can double as a battery removal tab, pull it to remove the battery. If that doesn't work, follow the instructions below.
- Carefully wedge an opening pick underneath the battery to break the adhesive.
- If the battery does not come out easily, **don't pry aggressively**. Apply heat to the back of the phone with an iOpener or a heat gun to loosen the adhesive.
- Try your best not to deform the battery during this process. Soft-shell lithium-ion batteries can leak dangerous chemicals, catch fire, or even explode if damaged. Do not use excessive force or pry at the battery with metal tools.
- Do not reuse the battery after it has been removed, as doing so is a potential safety hazard. Replace it with a new battery.



- Remove the battery.
- To install a new battery:
 - Remove any remaining adhesive from the phone, and clean the glued areas with isopropyl alcohol and a lint-free cloth.
 - Secure the new battery with precut adhesive or double-sided adhesive tape. Apply the new adhesive to the phone, not directly onto the battery.
 - Press the new battery firmly into place for 5-10 seconds.

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.

After completing this guide, <u>calibrate your newly-installed battery</u>.

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

Repair didn't go as planned? Check out our <u>Answers community</u> for troubleshooting help.