



Google Pixel 3a Loudspeaker Replacement

This repair guide was authored by the iFixit...

Written By: Arthur Shi



INTRODUCTION

This repair guide was authored by the iFixit staff and hasn't been endorsed by Google. Learn more about our repair guides [here](#).

This guide shows how to remove and replace the loudspeaker for the Pixel 3a. During removal, a loudspeaker corner is pinned under the right squeeze sensor's support bracket. This guide shows how to loosen the support bracket in order to wiggle the loudspeaker out. Alternatively, you can remove the motherboard and the support bracket first to gain unrestricted access to the loudspeaker.

The Pixel 3a's unreinforced display panel is fragile. If you are reusing the screen, be sure to pay special attention to the warnings in the opening procedure.

The procedure requires re-attaching the proximity sensor connector, which requires some patience and finesse.

TOOLS:

[iOpener](#) (1)

[Suction Handle](#) (1)

[iFixit Opening Picks \(Set of 6\)](#) (1)

[T3 Torx Screwdriver](#) (1)

[Tweezers](#) (1)

[Spudger](#) (1)

[iFixit Opening Tool](#) (1)

Step 1 — Screen



- Take note of the two seams on the phone:
 - *Screen seam*: This seam separates the screen from the rest of the phone. This is where you should pry.
 - *Frame seam*: This is where the plastic frame meets the back cover. It is held in place by screws. **Do not pry at this seam.**
- Before you begin prying, note the following areas on the screen:
 - *Screen flex cable*: Do not pry deeper than instructed, or you risk damaging this cable.
 - *Adhesive perimeter*: Prying beyond the narrow perimeter without angling the pick will damage the display panel.

Step 2



- [Heat an iOpener](#) and apply it to the right edge of the display for a minute.
- ⓘ You can choose to skip this step since the Pixel 3a's screen adhesive is not very strong. Heating it, however, will decrease the chance of cracking the screen.

Step 3



- Place a suction cup near the right edge of the screen.
- Pull on the suction cup with strong steady force.
- Insert the pick into the gap, **no more than 1 mm.**

Step 4



ⓘ This step shows how to insert the pick without damaging the OLED panel. Do this before you slice either long edges of the phone.

- With the pick 1 mm in the gap, pivot the pick upwards to a steep angle.
- At this angle, carefully push the pick into the gap about 1/4" (6 mm). The pick should slide in **below the OLED panel**.

⚠ **Stop if you feel the point of the pick hitting a ridge.** The pick may be pressing against the edge of the OLED panel. Angle the pick and try again.

Step 5



- Slide the pick along the right edge, slicing through the adhesive.

⚠ **Do not insert the pick more than 1/4" (6 mm), or you may damage the screen's flex cable.**

- Leave a pick in place to prevent the adhesive from resealing.

Step 6



- ⓘ As you slice around the bottom edge of the phone, do not insert the pick more than 1/4" (6 mm).
- Slide the pick around the bottom right corner to slice through the adhesive.
 - ⓘ If the corner feels hard to slice, apply a heated iOpener to the corner for a minute and try again.
- Continue slicing along the bottom edge of the phone and around the left corner.

Step 7



- Slice through the left edge of the phone, making sure to properly angle the pick below the OLED panel and insert it in no more than 1/4" (6 mm).
- To angle the pick below the OLED panel, insert the point of the pick no more than 1 mm in, angle the pick upwards, and then slowly push the pick in 1/4".

Step 8



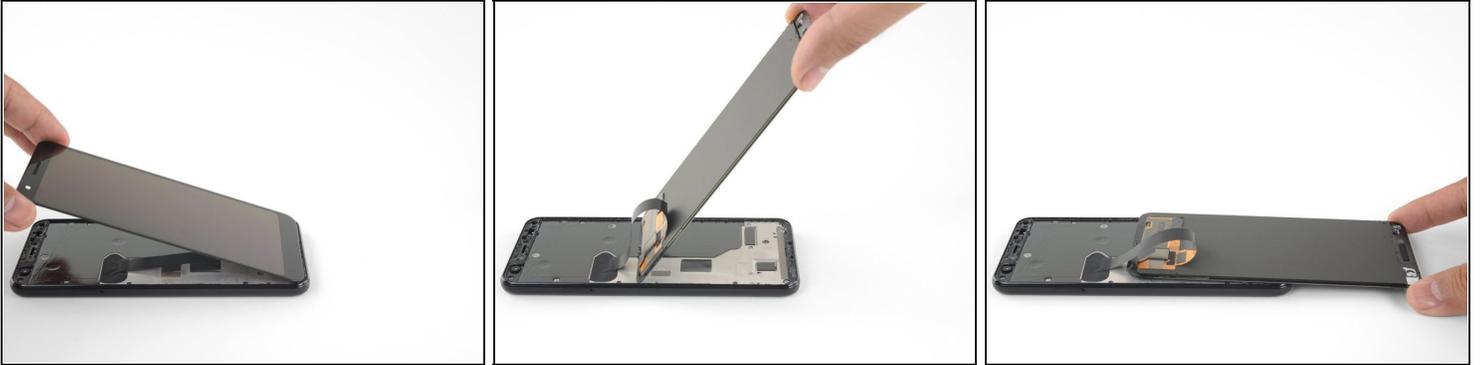
- Slice along the top edge while keeping the pick no more than 5/16" (8 mm) in.

Step 9



- With all of the edges cut, carefully hinge open the **right edge of the screen**.
- ⓘ Do not remove the screen. It is still attached to the phone by a flex cable near the left edge.
- Use an opening pick to carefully cut through any remaining adhesive.

Step 10



- With all of the adhesives cut, flip the attached screen glass side down and rest it on top of the phone. The screen flex cable should be loosely arched.

Step 11



- Carefully peel the black tape covering the screen connector bracket.
 - If it is in good condition, you can re-use this tape during reassembly. Otherwise, replace it with a piece of electrical tape.
- Remove the two 4.4 mm long T3 screws securing the screen connector bracket.
- Remove the screen connector bracket.

Step 12



- Use the point of a spudger to pry up and disconnect the screen flex cable.
 - ⓘ When you disconnect connectors like these, be careful not to dislodge the small surface-mounted components surrounding the socket.
- ☑ 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.

Step 13



- Remove the screen.
 - Carefully compare your replacement screen with your original part. You may need to transfer additional components (such as the speaker mesh) to the new part.
- To reinstall the screen:
- [Follow this guide](#) if you are using custom-cut adhesives.
 - If you are using double-sided tape such as Tesa tape, [follow this guide](#).
- 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 14 — Plastic Midframe



- Remove the fourteen T3 screws of the following lengths securing the plastic midframe:
 - Twelve 4.3 mm silver T3 screws
 - Two 4.3 mm black T3 screws
- ☑ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from.

Step 15



ⓘ The midframe is still held in place by plastic clips.

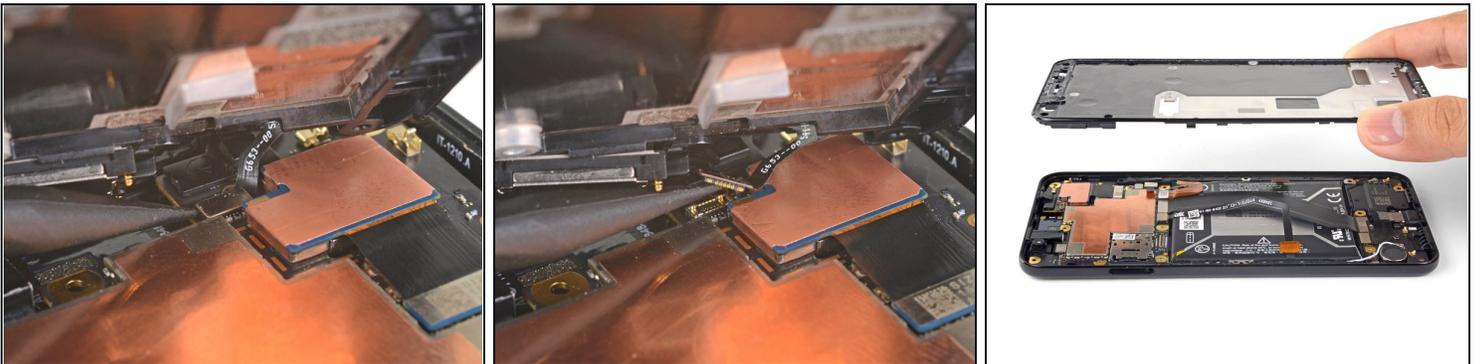
- Insert an opening pick into frame seam at the bottom of the phone. This seam sits between the plastic midframe and the back cover.
- Slide the pick along the seam to release the clips holding the plastic midframe.

Step 16



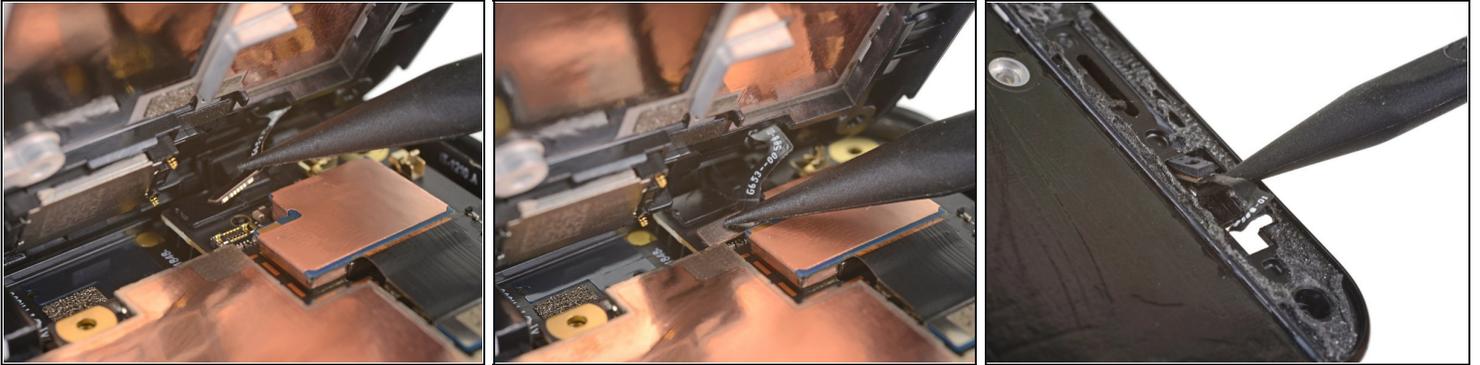
- Slide the opening pick along the left and right edges of the phone to release the midframe clips.
- Lift the bottom edge of the plastic midframe up but **do not remove the midframe**. The midframe is still tethered to the phone by the fragile proximity sensor cable at the top edge.
- ✦ To reinstall the plastic midframe, align the midframe to the back cover, and [squeeze the perimeter of the phone with your fingers](#) to snap the clips back into position.

Step 17



- Use the point of a spudger to carefully pry up and disconnect the proximity sensor connector from the motherboard.
- ⓘ Your proximity sensor connector may have automatically disconnected itself when you lifted the midframe.
- Remove the plastic midframe.

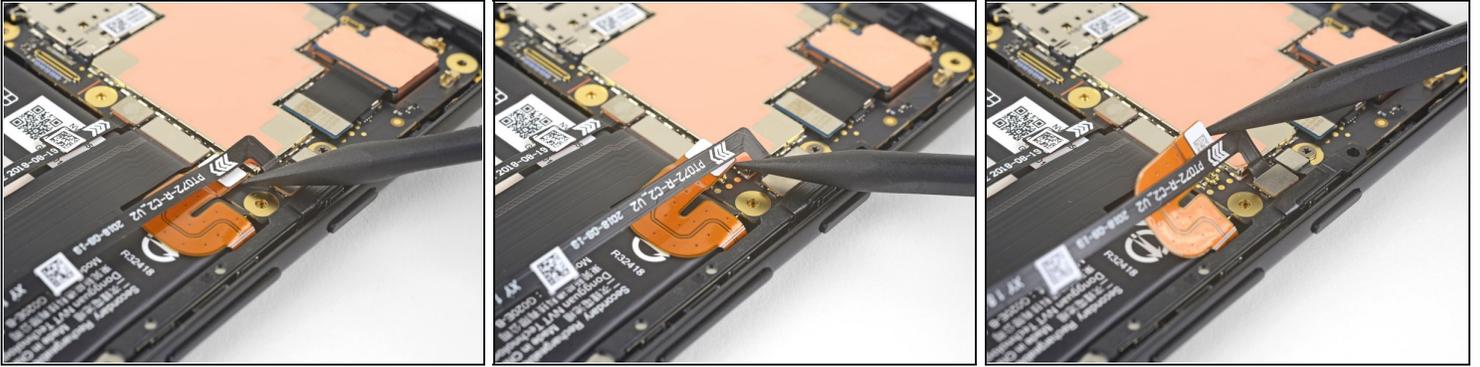
Step 18



☑ This step shows how to reconnect the proximity sensor during re-assembly.

- Align the top edge of the plastic midframe with the phone.
- Use the point of a spudger to carefully align and push the proximity sensor connector onto the motherboard socket.
 - This takes a bit of patience and finesse. Once you have the connector in place, you can also use a finger to gently press the connector onto the socket.
- ⓘ Alternatively, you can remove the proximity sensor from the midframe to reattach it to the motherboard first.
 - Use the point of a spudger to carefully pry the proximity sensor out of its recess on the midframe. The sensor is lightly adhered to the midframe.
 - Remove the sensor from the midframe. [Attach the sensor connector onto its motherboard socket.](#)
 - [Thread the sensor cable through the midframe](#) and reposition the sensor in the recess. Press down with your finger to adhere the sensor back onto the midframe.

Step 19 — Google Pixel 3a Battery Disconnect



- Use the point of a spudger to pry up and disconnect the battery connector from its motherboard socket.
- Bend the battery flex cable slightly so that it will not accidentally make contact with the socket.

Step 20 — USB-C Port



- Remove the two 3.3 mm T3 screws securing the USB-C port.

Step 21



- Use the point of a spudger to pry up and disconnect the USB-C port connector from the daughterboard.
- Remove the USB-C port module.

Step 22 — Daughterboard



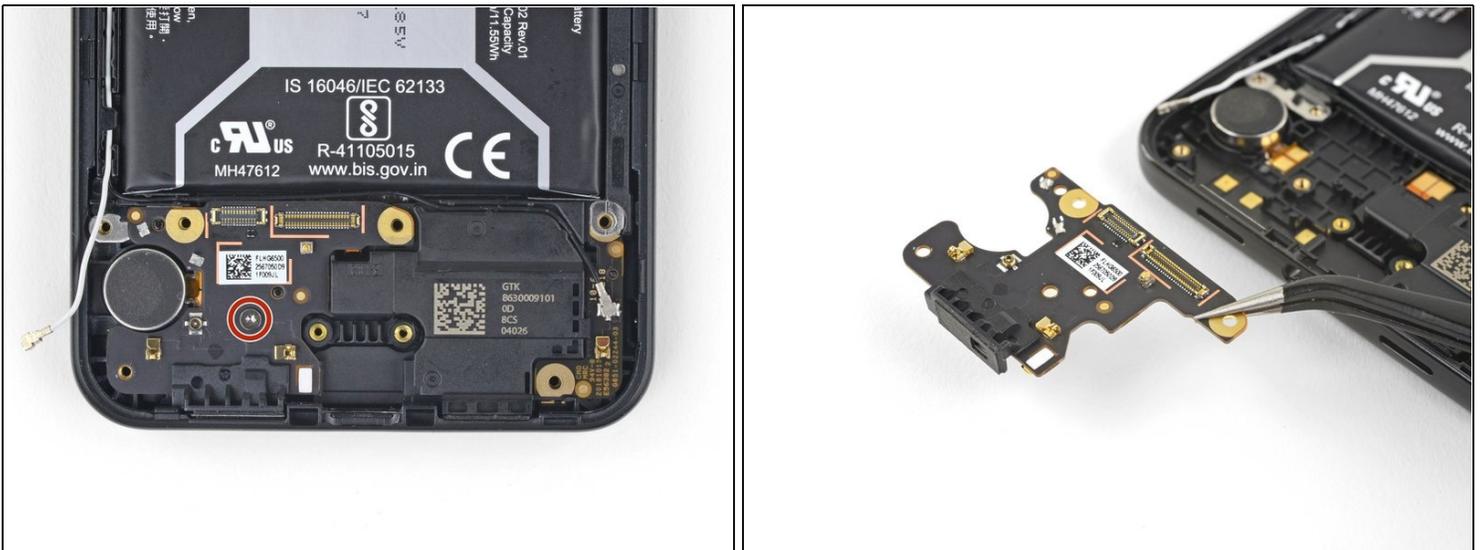
- Use the point of a spudger to pry up and disconnect the interconnect cable from its daughterboard socket.

Step 23



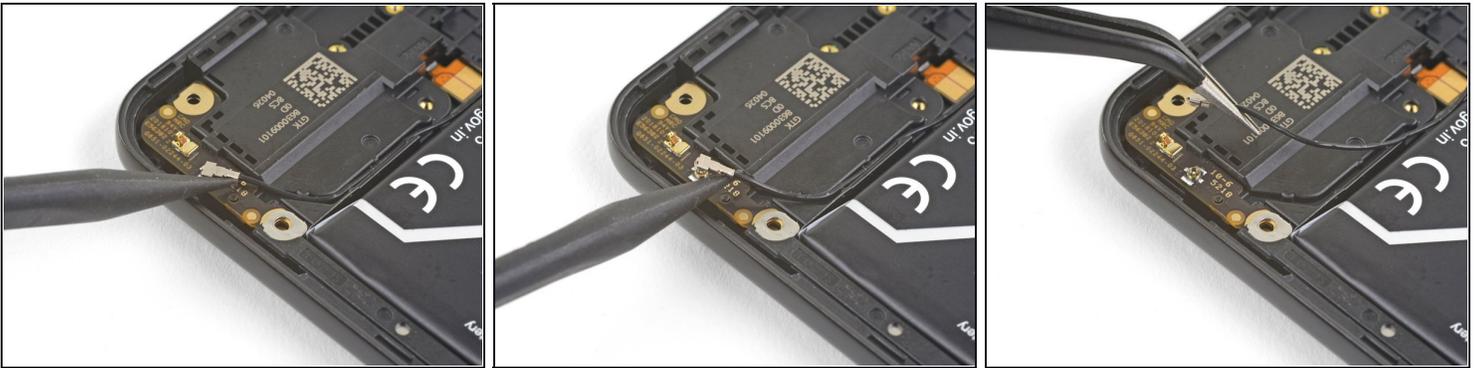
- Use the point of a spudger to pry up and disconnect the white antenna cable from its daughterboard socket.
- Carefully de-route the antenna cable out of its retaining clips.

Step 24



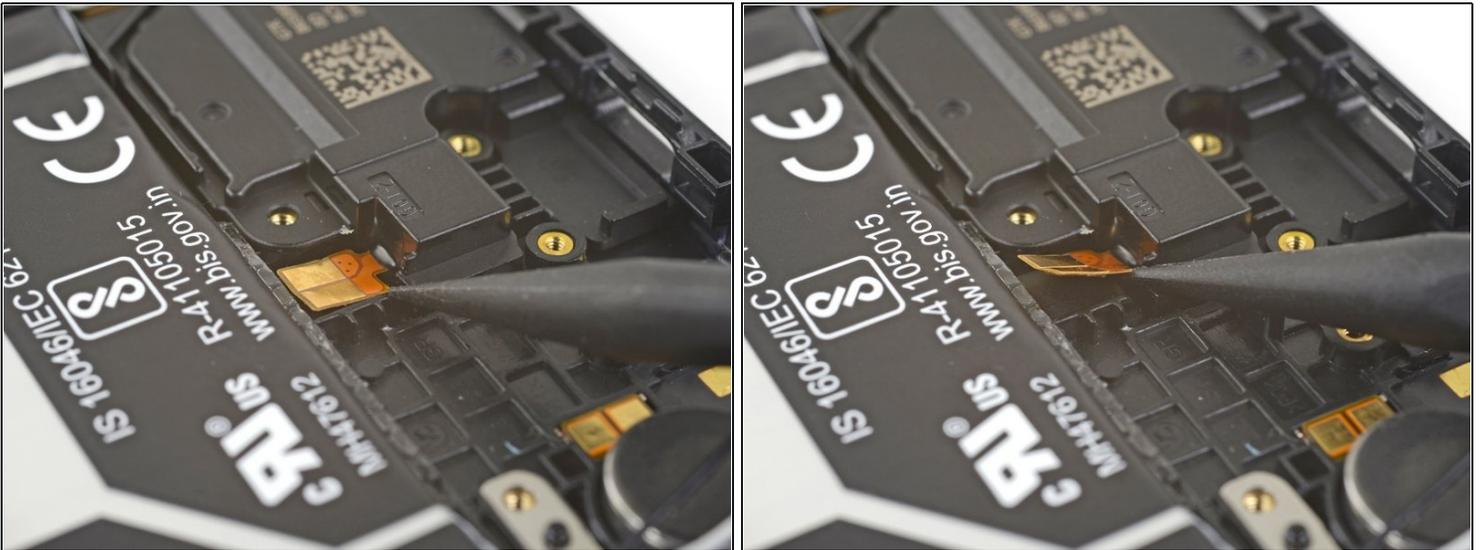
- Remove the single 2.7 mm long T3 screw securing the daughterboard to the frame.
- Remove the daughterboard.

Step 25 — Loudspeaker



- Use the point of a spudger to pry up and disconnect the black antenna cable from its board socket.
- De-route the black antenna cable from the retaining clips and bend it out of the way.

Step 26



- Slide the point of a spudger underneath the loudspeaker's flex contact pad and pry it loose from the phone frame.

Step 27



ⓘ The next two steps show how to loosen the right squeeze sensor bracket enough to free the loudspeaker pinned underneath it.

- Insert the point of a spudger underneath the right squeeze sensor's lower screw hole. This resides at the loudspeaker's top-right corner.

⚠ Be careful not to puncture the battery with the spudger.

- Pry the bracket upwards enough to slide an opening tool underneath the screw hole.

Step 28



- Pry the opening tool upwards to loosen the adhesive holding the right squeeze sensor bracket to the bottom of the phone.

ⓘ You only need to lift the bracket up a few millimeters to loosen the adhesive. Do not try to remove the bracket.

Step 29



ⓘ The loudspeaker itself is adhered to the phone frame near the right edge of the phone.

- Slide the flat end of a spudger 1/2" (13 mm) underneath the loudspeaker's top-left screw hole and keep it there.

Step 30



- Insert the edge of an opening tool behind the loudspeaker's bottom edge.
- Pry with the opening tool to loosen the loudspeaker enough to wiggle it out of its recess.
- Remove the loudspeaker.

Step 31



 This step shows how to reinstall the loudspeaker back into its recess.

- Slide the top-right corner of the loudspeaker underneath the right support bracket's screw hole.
- Use your fingers to push the bottom edge of the loudspeaker in place.
- Push the remaining edges into place. The loudspeaker should pop into its recess and sit flush against the bottom of the phone.
- ⓘ The loudspeaker is a tight fit and may require some wiggling and light pressure to snap it in place.

Step 32



- ⓘ If your replacement loudspeaker did not come with an antenna board, transfer the old one to your replacement.
- The antenna board is adhered lightly in place. Gently bend the antenna board's right edge slightly upwards to break the adhesive and clear the alignment peg.
 - Slide the antenna board away from the loudspeaker and transfer it to your replacement.

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 these instructions in reverse order.

Repair didn't go as planned? Check out our [Google Pixel 3a Answers community](#) for troubleshooting help.