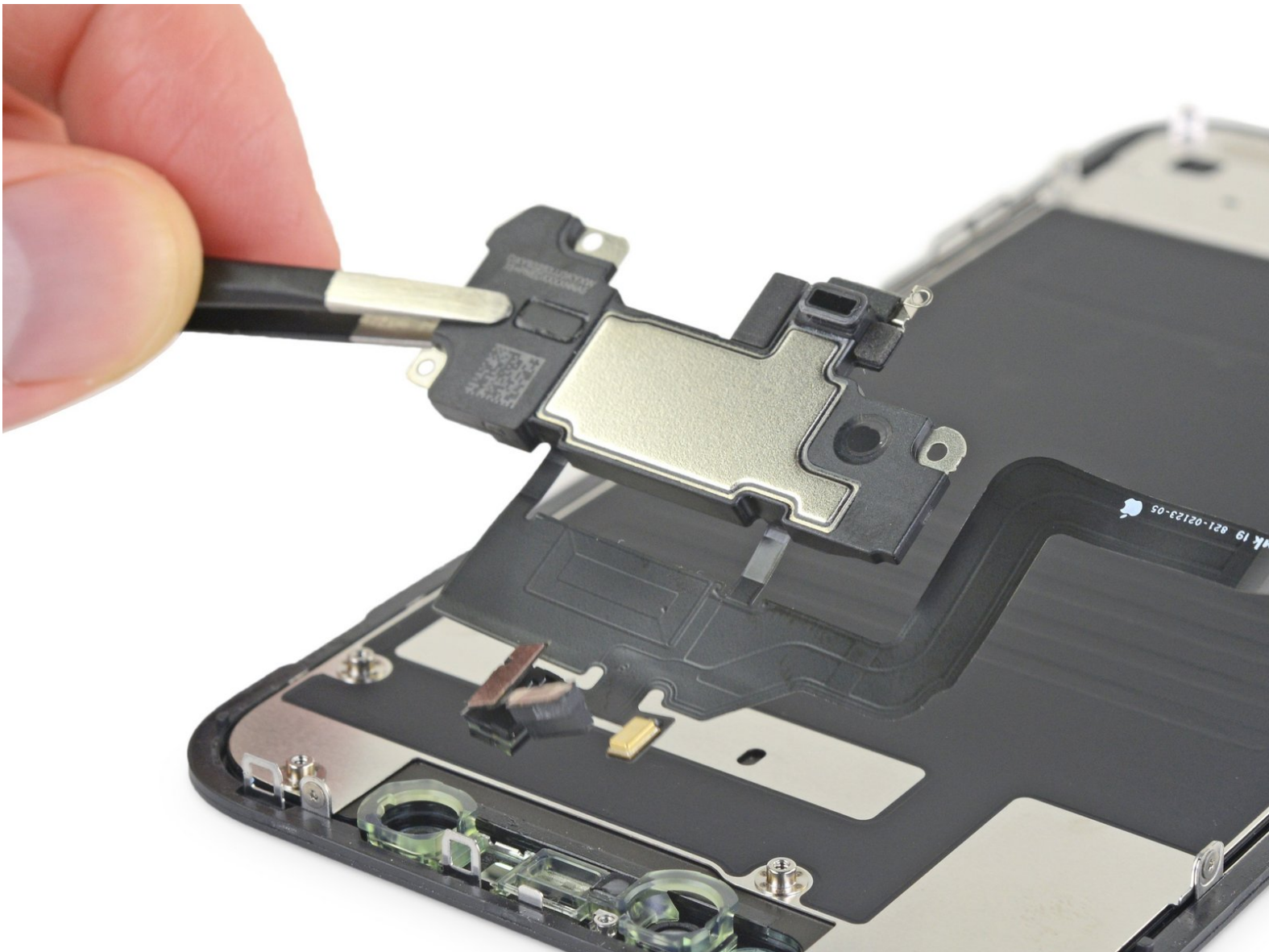




iPhone 11 Earpiece Speaker and Front Sensor Assembly Replacement

Remove/replace the earpiece speaker assembly in an iPhone 11, including the flood illuminator, proximity sensor, ambient light sensor, and microphone.

Written By: Jeff Suovanen



INTRODUCTION

Follow the steps in this guide to remove, transfer, and/or replace the earpiece speaker and front sensor assembly in your iPhone 11. This single part includes the earpiece speaker, microphone, ambient light sensor, flood illuminator, and proximity sensor.

This assembly is paired to your individual iPhone from the factory , so you must transfer it from your old display to your new one during any display replacement.

The flood illuminator is critical to Face ID, and Face ID will stop working if the original flood illuminator is replaced, damaged, or installed incorrectly—so take extra care not to damage anything during this procedure. If damaged, only Apple's authorized service providers can restore Face ID function.



TOOLS:

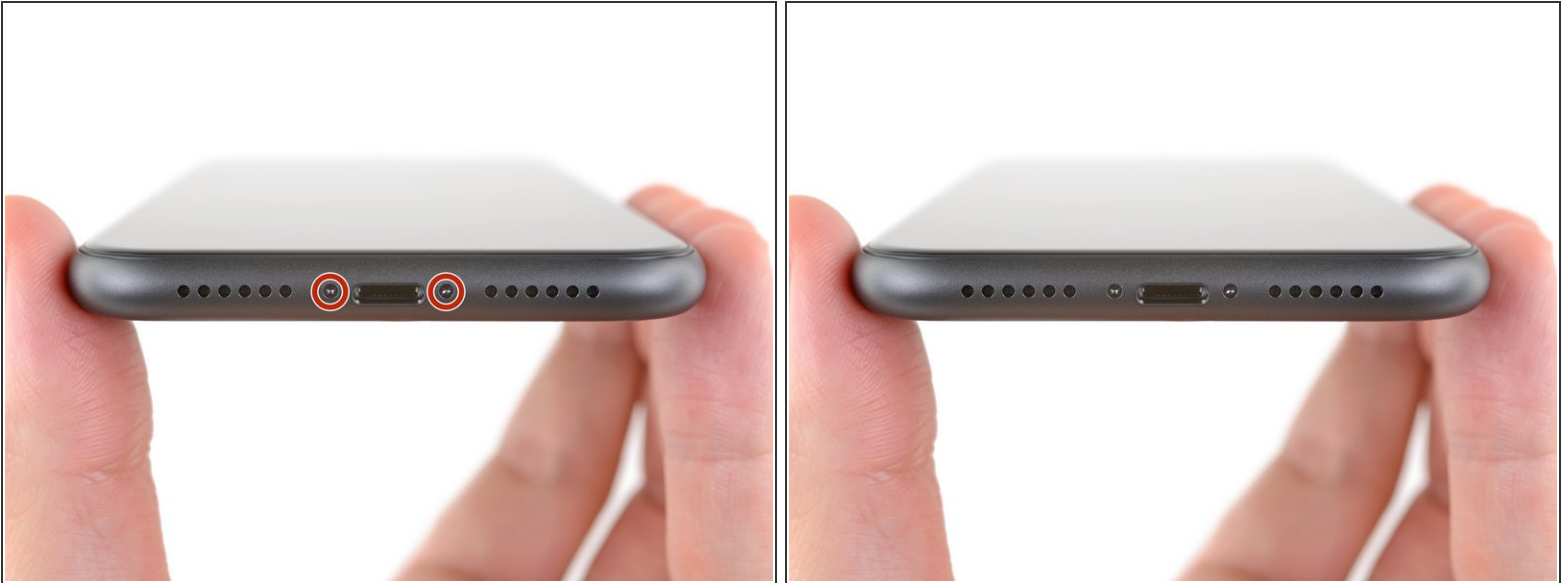
- [iOpener](#) (1)
- [iFixit Opening Picks set of 6](#) (1)
- [Suction Handle](#) (1)
- [iSlack](#) (1)
- [P2 Pentalobe Screwdriver iPhone](#) (1)
- [Tri-point Y000 Screwdriver Bit](#) (1)
- [Phillips #000 Screwdriver](#) (1)
- [Spudger](#) (1)
- [Tweezers](#) (1)



PARTS:

- [iPhone 11 Earpiece Speaker and Sensor Assembly](#) (1)

Step 1 — Remove the pentalobe screws



 Before you begin, discharge your iPhone battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.

- Power off your iPhone before beginning disassembly.
- Remove the two 6.7 mm-long pentalobe screws at the bottom edge of the iPhone.
-  Opening the iPhone's display will compromise its waterproof seals. Have replacement seals ready before you proceed past this step, or take care to avoid liquid exposure if you reassemble your iPhone without replacing the seals.

Step 2 — Heat the lower edge of the phone



- ⓘ Heating the lower edge of the iPhone helps soften the adhesive securing the display, making it easier to open.
- Use a hairdryer or heat gun or [prepare an iOpener](#) and apply it to the lower edge of the iPhone for about a minute.

Step 3 — Apply suction cup(s)



- ❗ The next two steps demonstrate the iSlack, a handy tool that we recommend for anyone doing frequent repairs. **If you aren't using the iSlack, skip down two steps for an alternate method.**
- If the plastic depth gauge is attached at the center of the iSlack, remove it now—it's not needed for larger iPhones like the iPhone 11.
- Position the suction cups near the bottom edge of the iPhone—one on the front, and one on the back.
- Press both suction cups firmly into place.
- ❗ If your display or back glass is badly cracked, [covering it with a layer of clear packing tape](#) may help the suction cups adhere. The iSlack also includes two pieces of tape for this purpose.

Step 4



- Hold onto your iPhone securely and close the handle of the iSclack to slightly separate the screen from the rear case of the phone.
 - ⚠ Don't try to completely separate the screen; a small opening along the bottom edge is all you need.
- Insert an opening pick into the gap under the display on the lower edge of the iPhone.
- **Skip the next two steps.**

Step 5



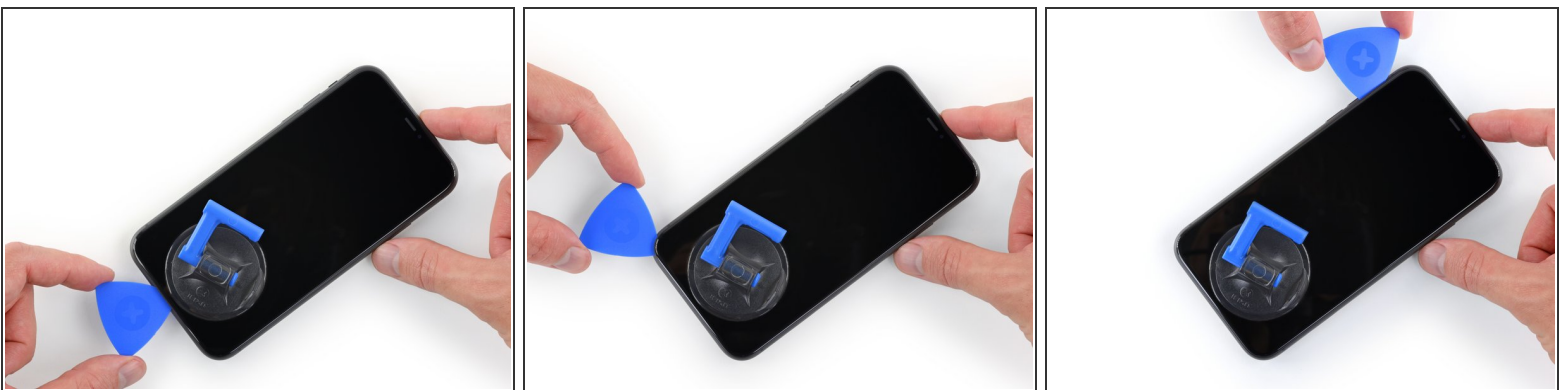
- If you're using a single suction handle, apply it to the bottom edge of the phone, while avoiding the curved portion of the glass.
- ⓘ If your display is badly cracked, [covering it with a layer of clear packing tape](#) may help the suction cup to stick. Alternatively, you can use very sticky tape [instead of the suction cup](#). Or if all else fails, you can superglue the suction cup to the broken screen.

Step 6 — Lift the display slightly



- Pull up on the suction cup with firm, constant pressure to create a slight gap between the front panel and rear case.
 - Insert an opening pick into the gap.
- i** The watertight adhesive holding the display in place is very strong; creating this initial gap takes a significant amount of force. If you're having a hard time opening a gap, apply more heat, and gently rock the screen up and down to weaken the adhesive until you create enough of a gap to insert your tool.

Step 7 — Separate the screen adhesive



- Slide the opening pick around the lower left corner and up the left edge of the iPhone, slicing through the adhesive holding the display in place.
- ⚠** Don't insert the opening pick too far into the iPhone, or you may cause damage to internal components.

Step 8



- Re-insert your pick at the bottom edge of the iPhone, and slide it up the right side to continue separating the adhesive.

 Don't insert the pick very far, or you may damage the display cables along this side of the iPhone. Insert it only a few millimeters, or about the width of the display bezel.

Step 9



 The top edge of the display is secured with both glue and clips.

- Gently pull the right edge of the display **down** slightly (in the direction of the Lightning port).
- Insert your pick into the top-right corner of the phone.

Step 10



- Continue pulling the display down (toward the Lightning port) as needed in order to make a gap large enough for the pick.
 - Slide the pick to the top right corner and cut any remaining adhesive securing the display.
- ⚠ Again, don't insert the pick more than a few millimeters—about the width of the display bezel—or you may damage the Face ID sensor array.

Step 11 — Remove the suction cup(s)



- Pull the small nub on the suction cup to detach it from the front panel.
- If you used an iSlack and it's still affixed to the iPhone, remove it now.

Step 12 — Open the iPhone



- Open the iPhone by swinging the display up from the left side, like the back cover of a book.

 Don't try to fully separate the display yet, as several fragile ribbon cables still connect it to the iPhone's logic board.

- Prop the display up against something sturdy.

 During reassembly, lay the display in position, align the clips along the top edge, and carefully press the top edge into place before snapping the rest of the display down. If it doesn't click easily into place, check the condition of the clips around the perimeter of the display and make sure they aren't bent.

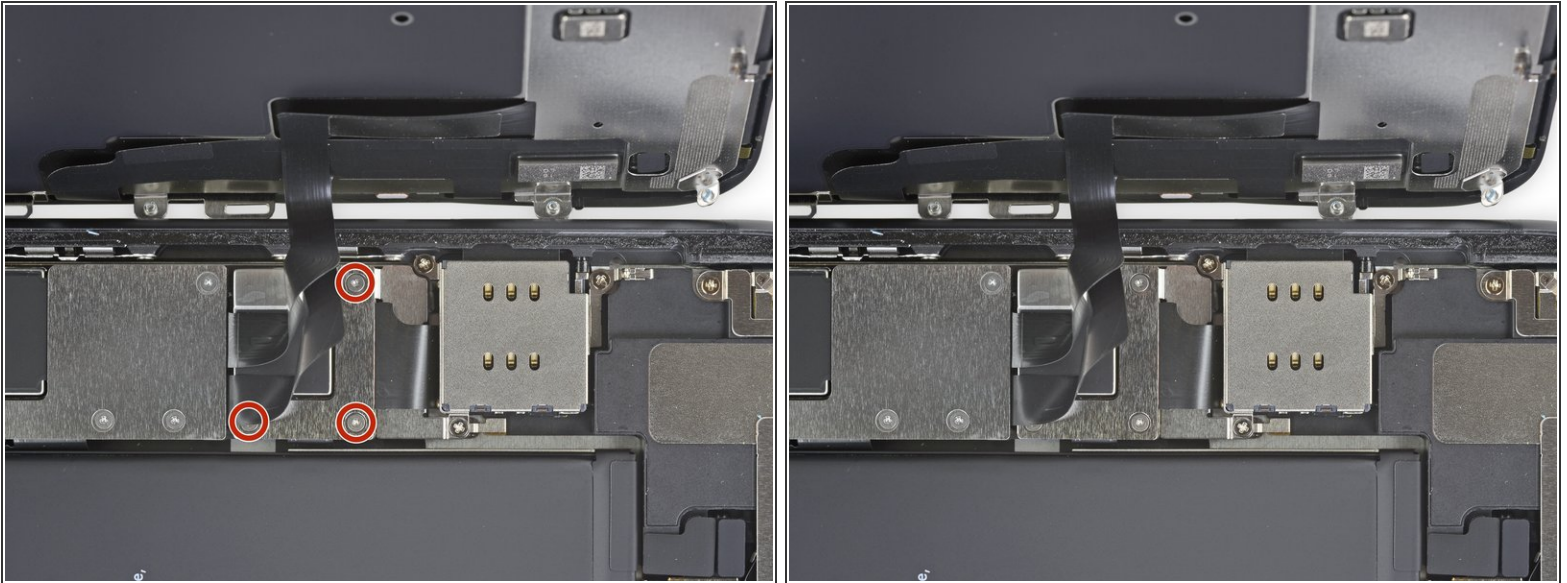
Step 13 — Display Assembly



- To access the screws in the following step, tilt the display by slightly lifting its lower edge.

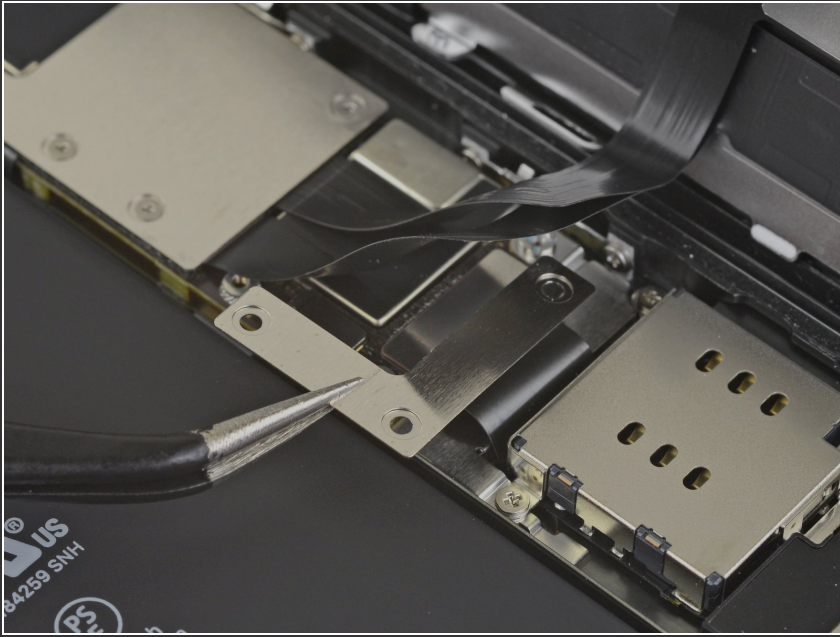
⚠ Be careful not to strain or tear the display cables.

Step 14 — Unscrew the battery connector cover



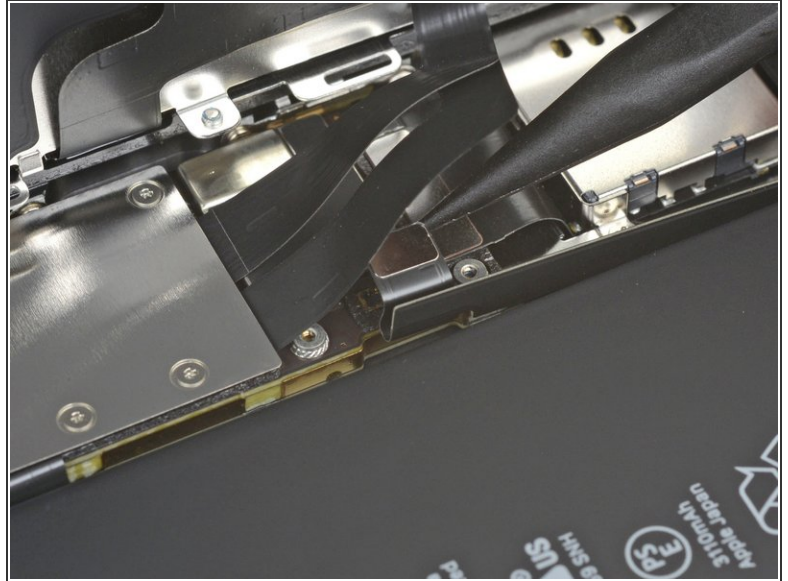
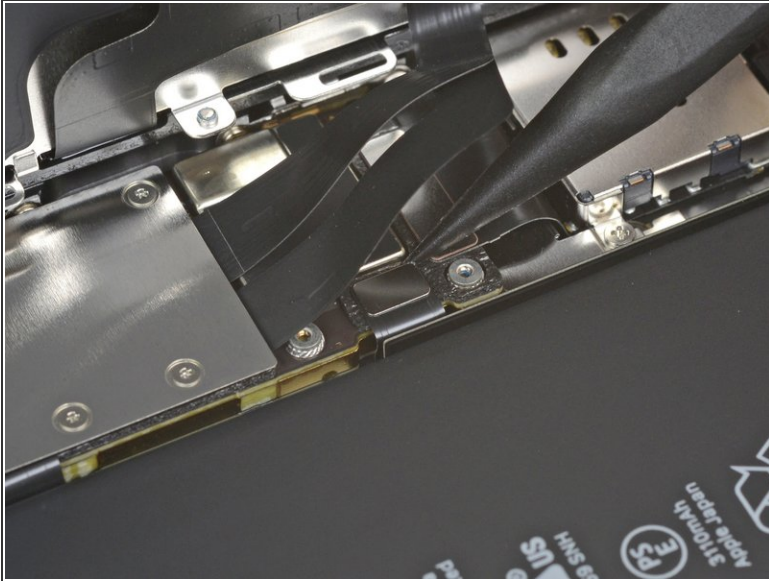
- Use a Y000 driver to remove the three 1.1 mm-long screws securing the battery connector bracket.
- ⓘ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from.
- ✦ During reassembly, this is a good point to power on your iPhone and test all functions before you seal the display in place. Be sure to power your iPhone back down completely before you continue working.

Step 15 — Remove the battery connector cover



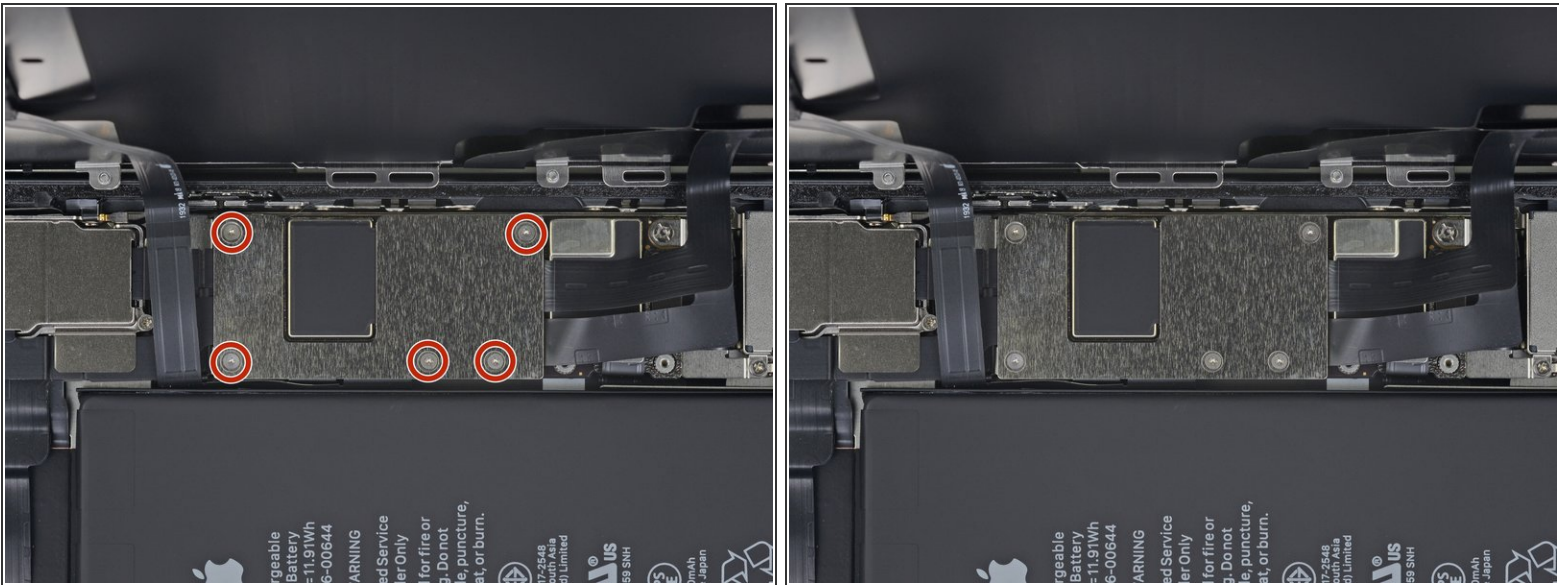
- Remove the bracket.

Step 16 — Disconnect the battery



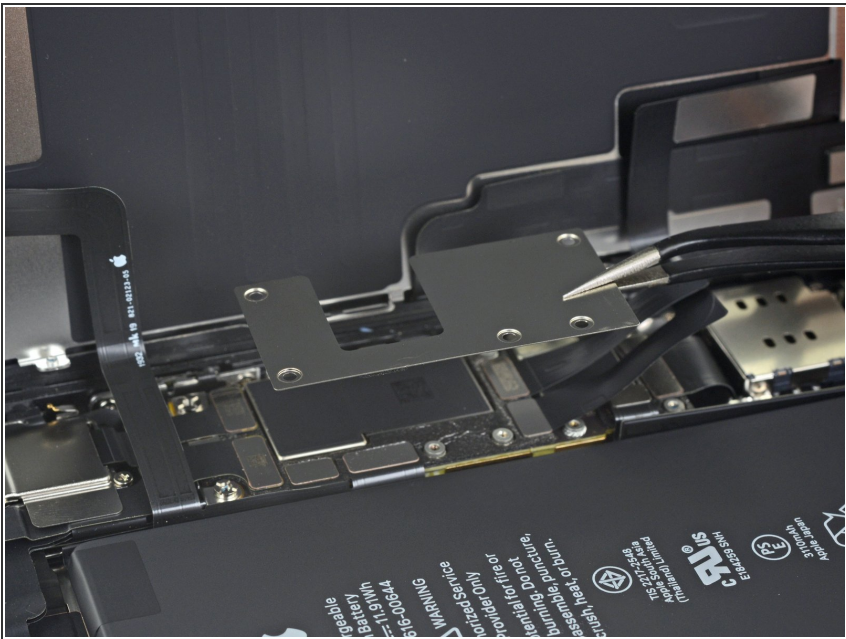
- Use a spudger or a clean fingernail to pry the battery connector up from its socket on the logic board.
 - ⓘ Try not to damage the black silicone seal surrounding this and other board connections. These seals provide extra protection against water and dust intrusion.
- Bend the connector slightly away from the logic board to prevent it from accidentally contacting the socket.

Step 17 — Unscrew the logic board cover screws



- Use a Y000 driver to remove the five 1.1 mm screws securing the logic board cover bracket.

Step 18 — Remove the logic board cover bracket



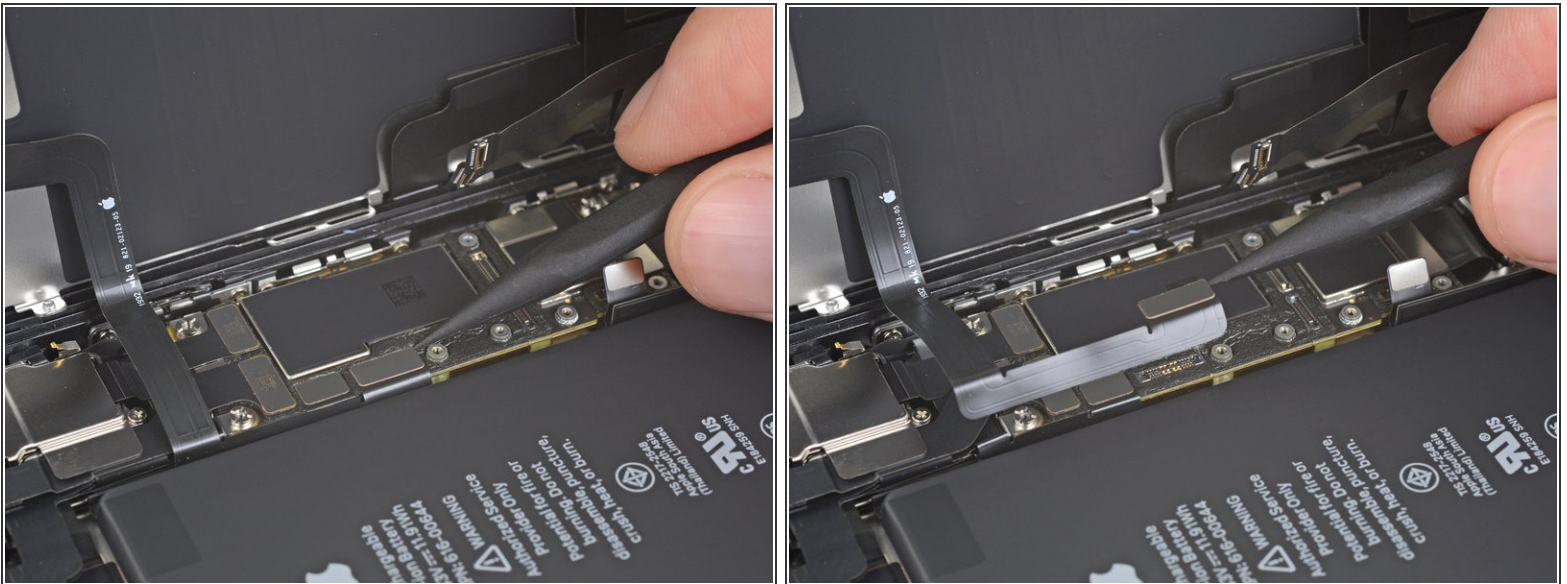
- Remove the bracket.

Step 19 — Disconnect the display



- Use a spudger or a fingernail to disconnect the LCD panel cable connector.
- Disconnect the digitizer connector next to it.

Step 20 — Disconnect the front sensors



- Use the point of a spudger or a fingernail to disconnect the front panel sensor assembly connector.

Step 21 — Remove the display assembly



- Remove the display assembly.
- ★ During reassembly, pause here if you wish to [replace the waterproof adhesive around the edges of the display](#).

Step 22 — Unscrew the front assembly



- Remove four screws securing the speaker/sensor assembly:
 - Three 1.6 mm Phillips screws
 - One 1.3 mm Y000 screw

Step 23 — Flip the speaker assembly over



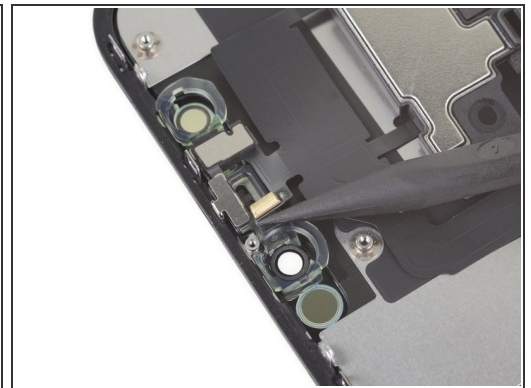
- Use the point of a spudger to gently pry up the top edge of the speaker.
 - Flip the speaker assembly over—down and away from the top edge of the display.
- ⚠ The speaker remains attached via very thin ribbon cables. Be careful not to strain or damage the cables.

Step 24 — Heat up the top edge of the display



- Use a hairdryer or heat gun or [prepare an iOpener](#) and apply it to the top front of the display for 1-2 minutes, in order to soften the adhesive securing the sensors.

Step 25 — Pry up the microphone



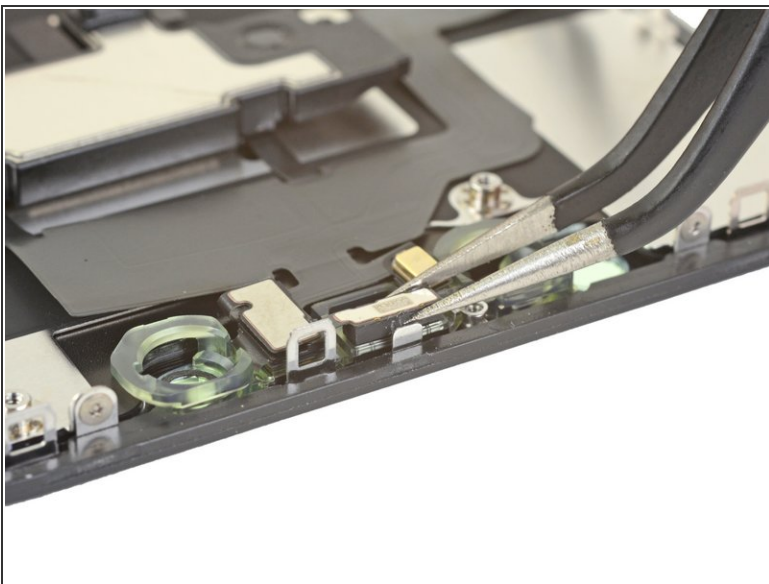
- Carefully slide the edge of your opening pick underneath the flex cable below the microphone.
- Twist gently to separate the microphone, while being careful not to strain or damage the flex cable.
- If needed, use the point of the spudger to finish separating the microphone from its notch in the front panel.

Step 26 — Remove the ambient light sensor bracket



- Use tweezers to slide the small bracket straight up and off of the ambient light sensor.

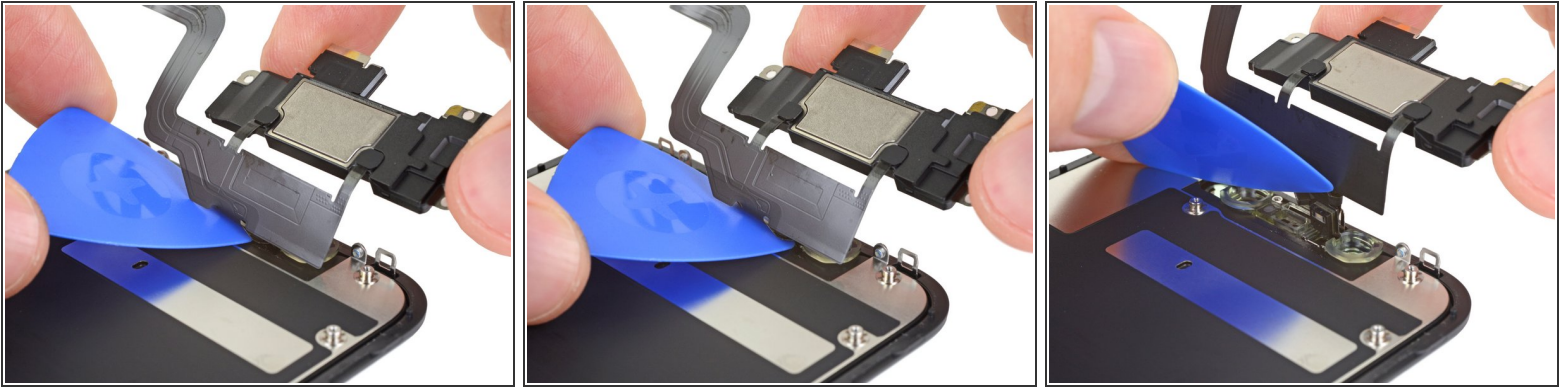
Step 27 — Loosen the ambient light sensor



- Use tweezers to wiggle the ambient light sensor and lift it from its notch in the display.
 - ⓘ If the sensor does not wiggle free after a few seconds, apply more heat and try again.

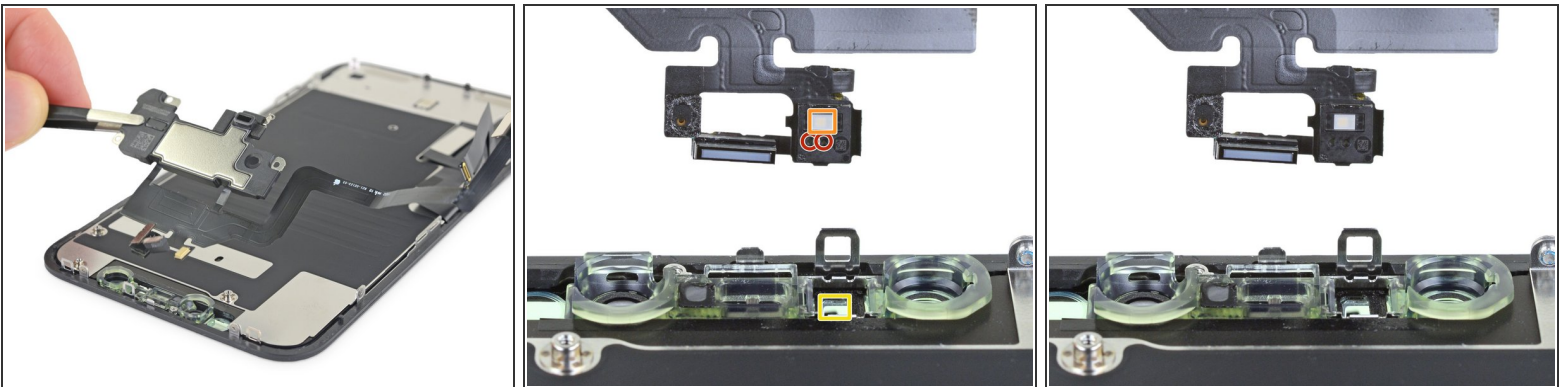
⚠ The sensor remains attached to the rest of the sensor assembly via a very thin flex cable. Be careful not to strain or damage the cable.

Step 28



- Working left to right, slide an opening pick beneath the flex cable and underneath the proximity sensor + flood illuminator module.
 - Gently wiggle and lift to separate the module from its notch in the front panel.
- i** It's helpful to lift and hold the speaker out of the way for access. Just be careful not to pull on the thin flex cable while you work.

Step 29 — Remove the speaker + front sensors



- Remove the earpiece speaker and front sensor assembly.
- ⚠** During reassembly, check the position of the black plastic module containing these components:
- Proximity sensor
 - Flood illuminator
- The module must be positioned so that these components are not obstructed by any adhesive.

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 [iPhone 11 Answers community](#) for help.