



iPhone SE 2020 Lightning Connector Assembly Replacement

If you've tried cleaning the lightning port to...

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INTRODUCTION

If you've tried [cleaning the lightning port](#) to no avail, follow this guide to replace the Lightning connector assembly, which includes the lower microphones, antenna converter cable, and Lightning connector.



TOOLS:

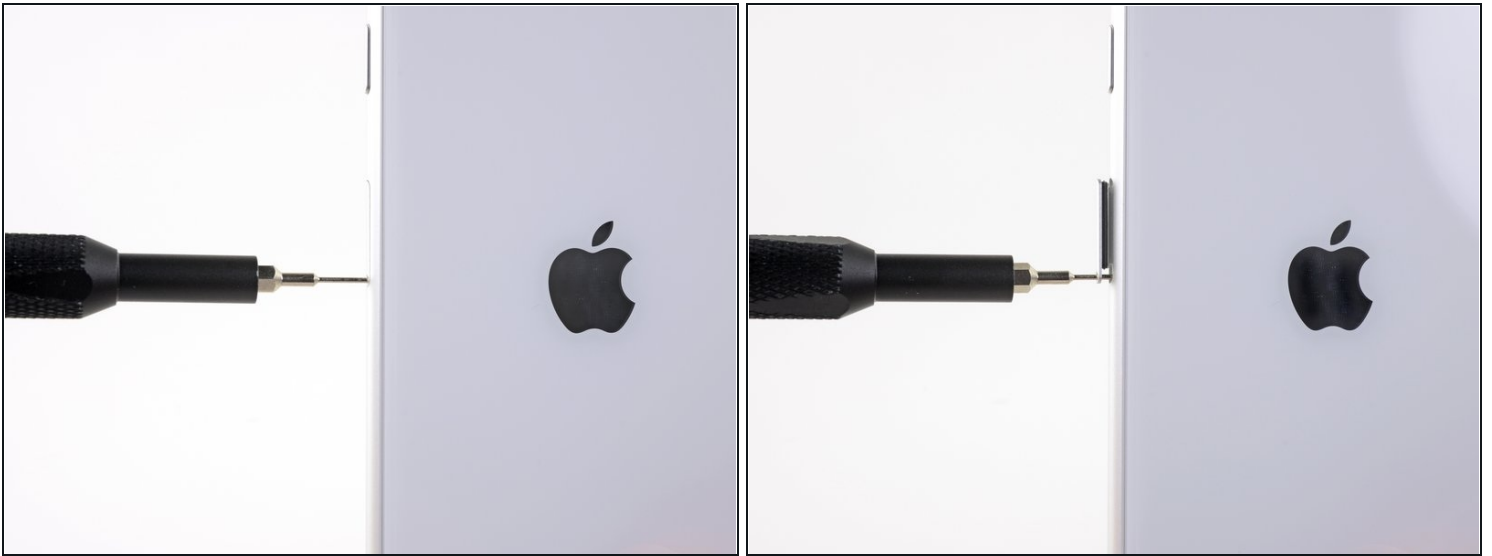
[SIM Card Eject Tool](#) (1)
[P2 Pentalobe Screwdriver iPhone](#) (1)
[Suction Handle](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[iOpener](#) (1)
[Spudger](#) (1)
[Tweezers](#) (1)
[Phillips #000 Screwdriver](#) (1)
[Tri-point Y000 Screwdriver](#) (1)
[Standoff Screwdriver for iPhones](#) (1)
[iFixit Opening Tool](#) (1)
[Isopropyl Alcohol](#) (1)



PARTS:

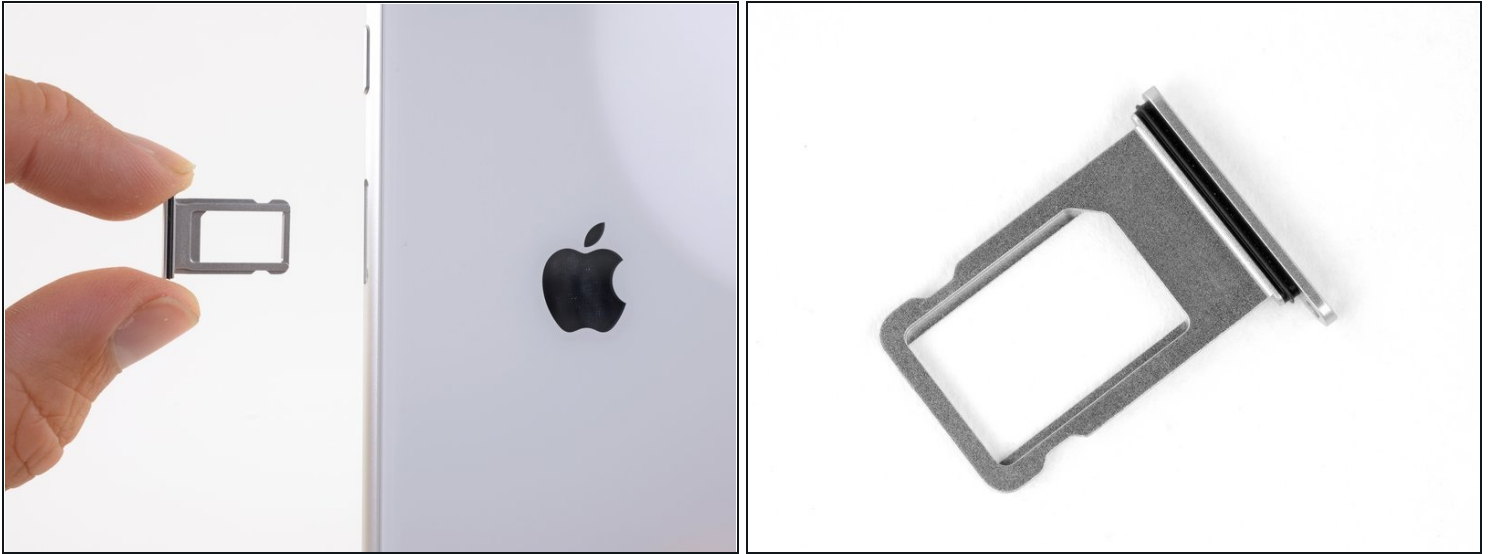
[iPhone 8/SE 2020/SE 2022 Display Assembly Adhesive](#) (1)

Step 1 — Remove the SIM card tray



- Insert a SIM card eject tool, bit, or a straightened paperclip into the small hole in the SIM card tray.
- Press to eject the tray.
 - ⓘ This may require a significant amount of force.

Step 2



- Remove the SIM card tray from the iPhone.
 - ① The SIM card will fall out of the tray easily.
- ☑ When reinserting the SIM card, ensure that it is in the proper orientation relative to the tray.
- ☑ A thin rubber gasket around the SIM card tray provides water and dust protection. If this gasket is damaged or missing, replace the gasket or the entire SIM card tray to protect your iPhone's internal components.

Step 3 — Remove the pentalobe screws



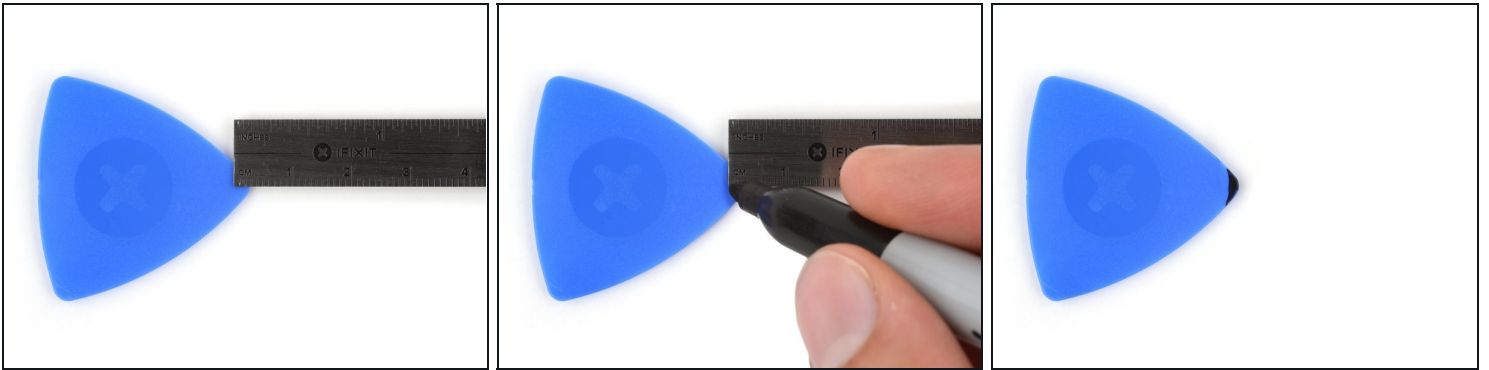
⚠ Before you begin, discharge your iPhone battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.

⚠ Power off your iPhone before beginning disassembly.

- Remove the two 3.5 mm pentalobe screws on 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 4 — Mark your opening picks



- ① If inserted too far, an opening pick can damage your device. Follow this step to mark your pick and prevent damage.
- Measure 3 mm from the tip and mark the opening pick with a permanent marker.
 - ① You can also mark the other corners of the pick with different measurements.
 - ① Alternatively, [tape a coin to a pick](#) 3 mm from the tip.

Step 5 — Anti-Clamp instructions



- ① The next three steps demonstrate the [Anti-Clamp](#), a tool we designed to make the opening procedure easier. **If you aren't using the Anti-Clamp, skip down three steps for an alternate method.**
- ① For complete instructions on how to use the Anti-Clamp, [check out this guide](#).
- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Slide the arms over either the left or right edge of your iPhone.
- Position the suction cups near the bottom edge of the iPhone just above the home button—one on the front, and one on the back.
- Squeeze the cups together to apply suction to the desired area.
- ① If you find that the surface of your iPhone is too slippery for the Anti-Clamp to hold onto, you can [use tape](#) to create a grippier surface.

Step 6



- Pull the blue handle forwards to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
- Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.

Step 7



- [Heat an iOpener](#) and thread it through the arms of the Anti-Clamp.
 - ① You can also use a [hair dryer](#), [heat gun](#), or hot plate—but extreme heat can damage the display and/or internal battery, so proceed with care.
- Fold the iOpener so it lays on the bottom edge of the iPhone.
- Wait one minute to give the adhesive a chance to release and present an opening gap.
- Insert an opening pick into the gap.
 - ① If the Anti-Clamp doesn't create a sufficient gap, apply more heat to the area and rotate the handle a quarter turn.
- ⚠ **Don't crank more than a quarter turn at a time, and wait one minute between turns. Let the Anti-Clamp and time do the work for you.**
- **Skip the next three steps.**

Step 8 — Heat the display



- ① The next three steps show how to separate the screen using a suction cup.
- Heating the lower edge of the iPhone will help soften the adhesive securing the display, making it easier to open.
- Use a hairdryer or [prepare an iOpener](#) and apply it to the lower edge of the phone for about 90 seconds in order to soften up the adhesive underneath.

Step 9 — Separate the display



- Apply a suction cup to the lower half of the front panel, just above the home button.
 - ① Be sure the suction cup does not overlap with the home button, as this will prevent a seal from forming between the suction cup and front glass.

Step 10



- Pull up on the suction cup with firm, constant pressure to create a slight gap between the screen and the frame.
 - Insert an opening pick into the gap.
- ⓘ The watertight adhesive holding the screen 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 11



- Slide the opening pick up the left edge of the phone starting at the lower edge and moving towards the volume control buttons and silent switch, breaking up the adhesive holding the display in place.
- Stop near the top left corner of the display.

⚠ Do not try to pry the top edge of the display away from the rear case, as it is held in place by plastic clips that may break.

Step 12 — Screen information



⚠ There are delicate cables along the right edge of your iPhone. **Don't insert your pick here,** as you may damage the cables.

Step 13



- Re-insert your tool at the lower right corner of the iPhone, and slide it around the corner and up the right side of the phone to separate the adhesive.

⚠ Don't insert your pick more than 3 mm, as you may damage the display cables.

Step 14



- Gently pull up on the suction cup to lift up the bottom edge of the display.
⚠ Do not raise the display more than 15° or you'll risk straining or tearing the ribbon cables connecting the display.
- Pull on the small nub on the suction cup to remove it from the front panel.

Step 15



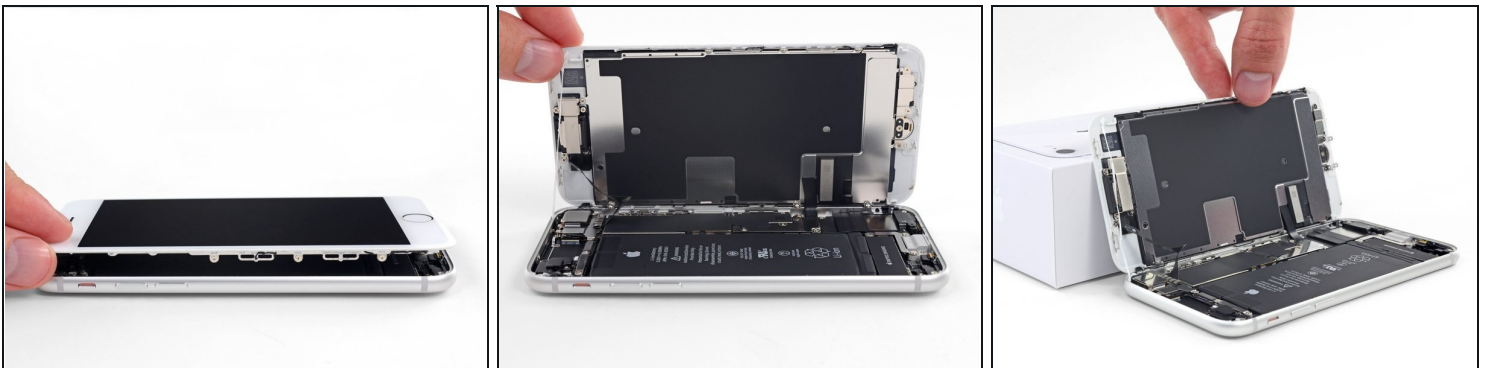
- Slide an opening pick underneath the display around the top left corner and along the top edge of the phone to loosen the last of the adhesive.

Step 16



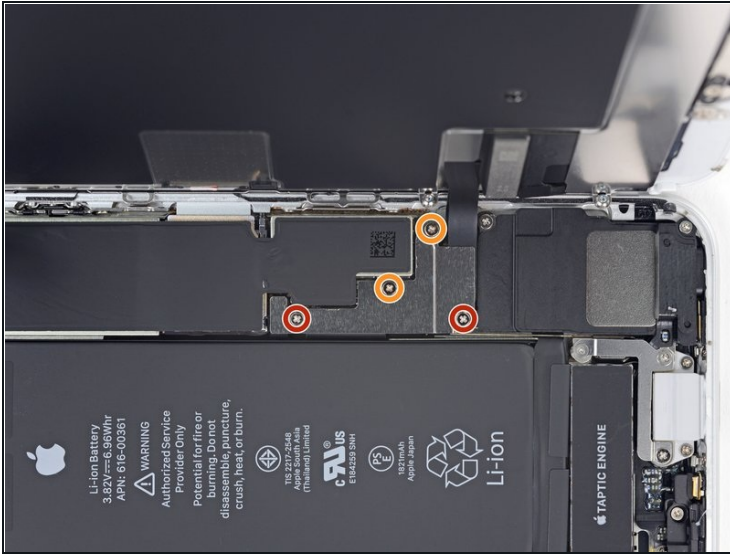
- Slide the display assembly slightly down (away from the top edge of the phone) to disengage the clips holding it to the rear case.

Step 17



- 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.
- Lean the display against something to keep it propped up while you're working on the phone.

Step 18 — Disconnect the battery



- Remove four Phillips screws securing the lower display cable bracket to the logic board, of the following lengths:
 - Two 1.3 mm screws
 - Two 2.8 mm screws
- ☑ Throughout this guide, [keep careful track of your screws](#) so that each one goes back where it came from during reassembly. Installing a screw in the wrong place can cause permanent damage.
- Remove the bracket.

Step 19



- Use the point of a spudger to pry the battery connector out of its socket in the logic board.
- Bend the battery connector cable slightly away from the logic board to prevent it from accidentally making contact with the socket and providing power to the phone during your repair.

Step 20 — Disconnect the display and digitizer



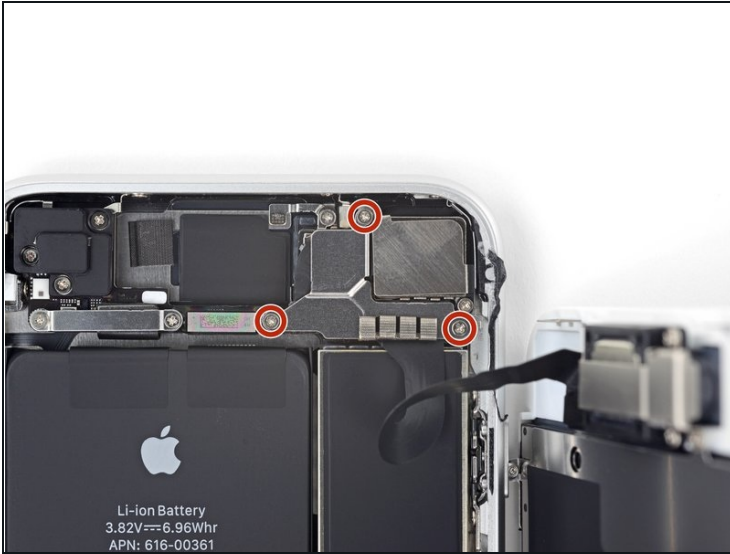
- Use the point of a spudger to pry the lower display connector out of its socket.
- ☑ To re-attach [press connectors](#) like this one, press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is even slightly misaligned, the connector can bend, causing permanent damage.

Step 21



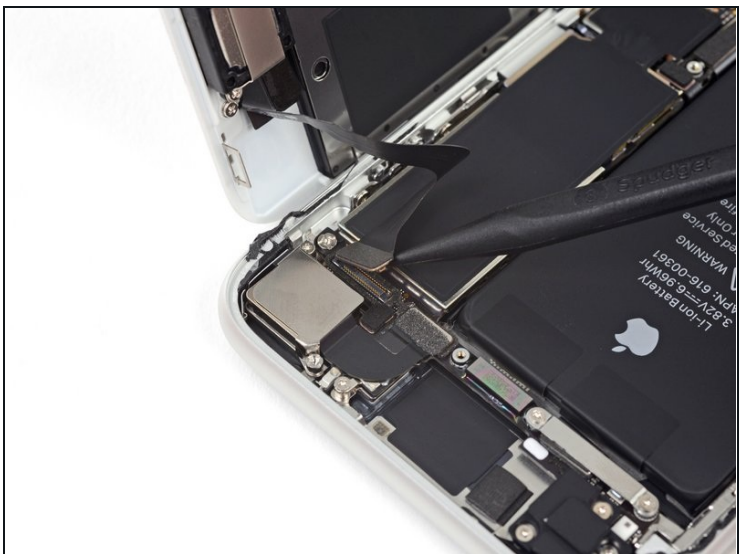
- Use the point of a spudger to disconnect the second lower display cable.

Step 22



- Remove the three 1.3 mm Phillips screws securing the bracket over the front panel sensor assembly connector.
- Remove the bracket.

Step 23



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

Step 24 — Remove the display assembly



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

Step 25 — Remove the Wi-Fi diversity antenna



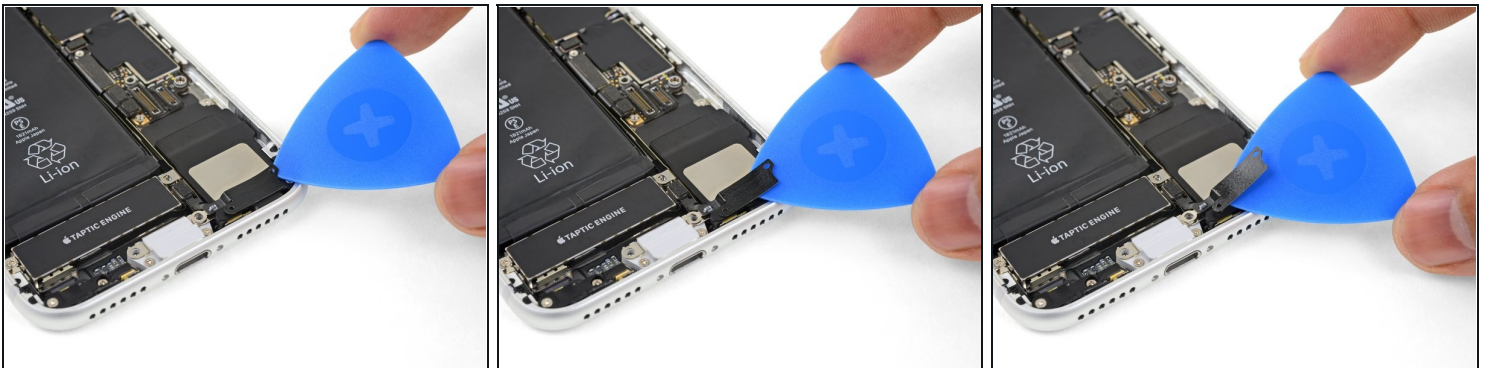
- Remove the three screws securing the bracket next to the Taptic Engine:
- One 1.3 mm Y000 screw
- One 2.7 mm Phillips screw
- One 2.9 mm Phillips screw

Step 26



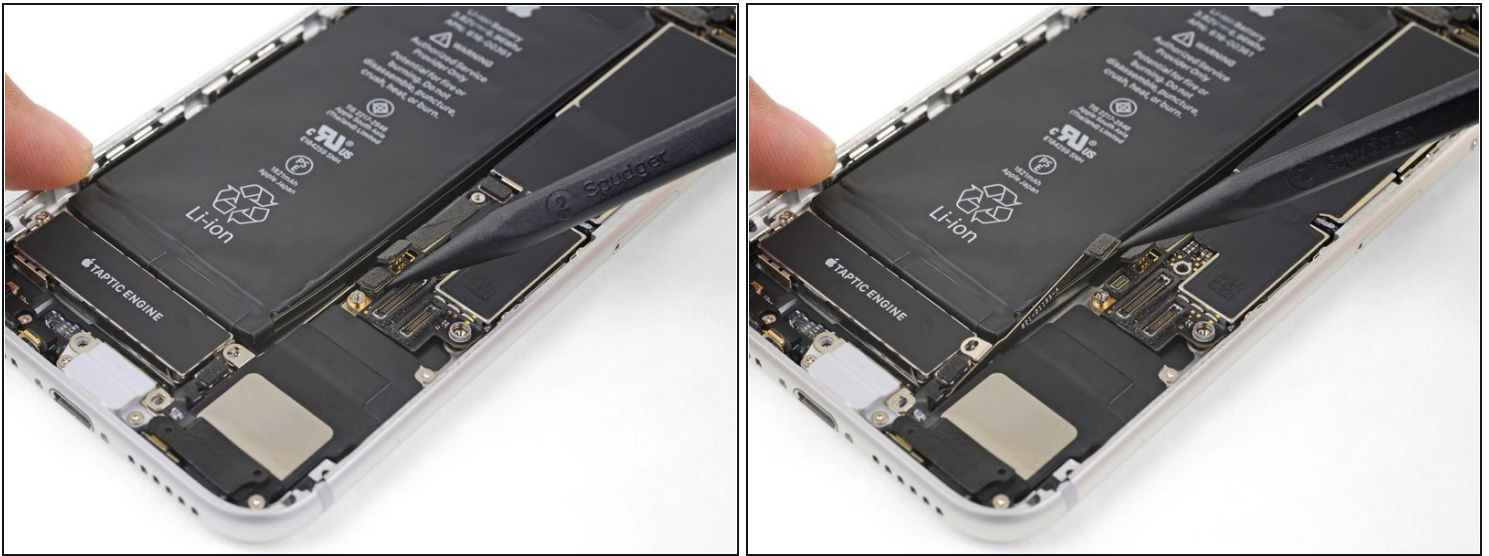
- Remove the bracket.

Step 27



- Gently slide an opening pick between the antenna flex cable and the top of the speaker.
 - ① This portion of the flex cable is lightly adhered in place. If necessary, apply a little heat from an iOpener or hair dryer to soften the adhesive. This will make it easier to separate the flex cable safely.

Step 28



- Use the point of a spudger to pry up and disconnect the diversity antenna flex cable from the logic board.

Step 29



- Slide an opening pick under the antenna flex cable to hold the socket down.
- Use the point of your spudger to pry up and disconnect the antenna flex cable from its socket, using the opening pick to hold the socket down.
 - ☑ Reconnecting this cable can be tricky. Make it easier by using your tweezers to hold the flex cable so the connector aligns with its socket. Then, gently press straight down on the connector with the flat of your spudger until it clicks into place.

Step 30



- Remove the Wi-Fi diversity antenna.

Step 31 — Remove the Taptic Engine



- Remove the two screws securing the Taptic Engine:
 - One 2.1 mm Phillips screw
 - One 2.1 mm standoff screw
- ⓘ Standoff screws are best removed using a [standoff screwdriver](#) or bit.

⚠ In a pinch, a small flathead screwdriver will do the job—but use extra caution to ensure it doesn't slip and damage surrounding components.

Step 32



- Use the point of your spudger to pry the antenna cable socket up and away from the connector below it.

Step 33



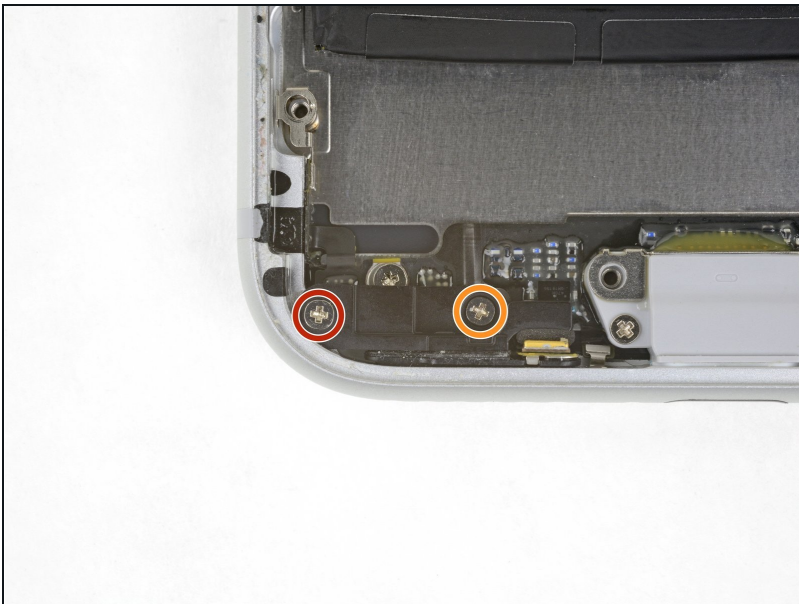
- Use the point of your spudger to pry up and disconnect the Taptic Engine flex cable.

Step 34



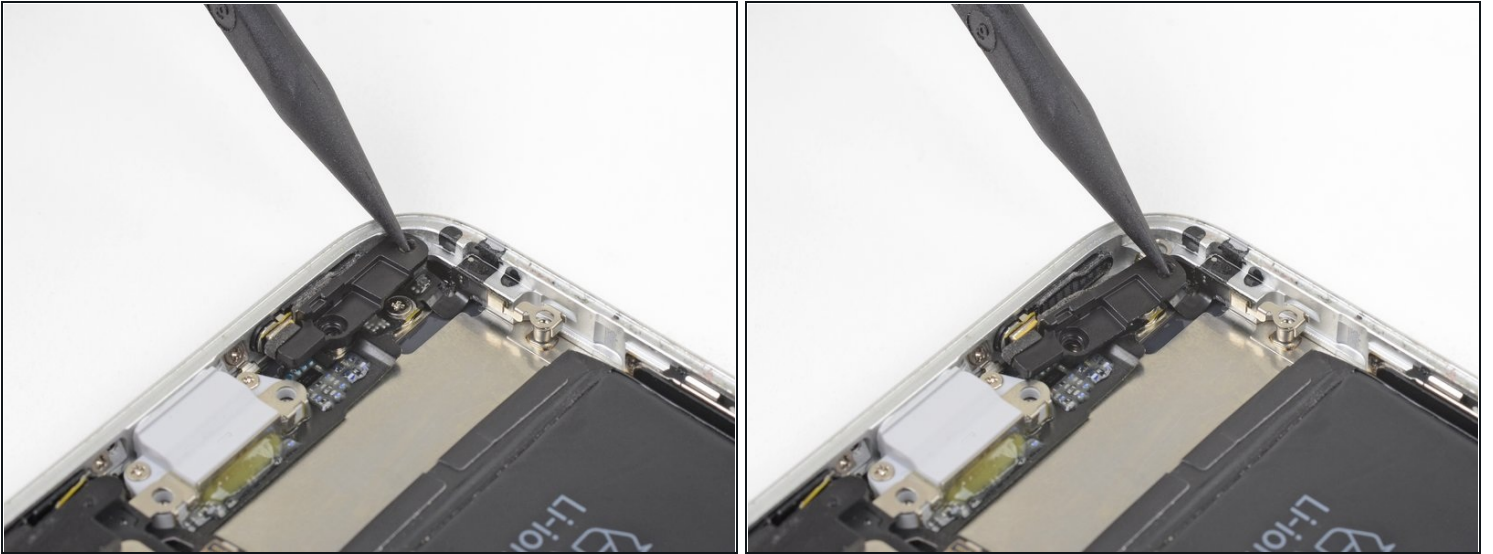
- Remove the Taptic Engine.

Step 35 — Remove the barometric vent



- Remove the two screws securing the barometric vent to the rear case:
 - One 2 mm Phillips screw
 - One 1.8 mm Phillips screw

Step 36



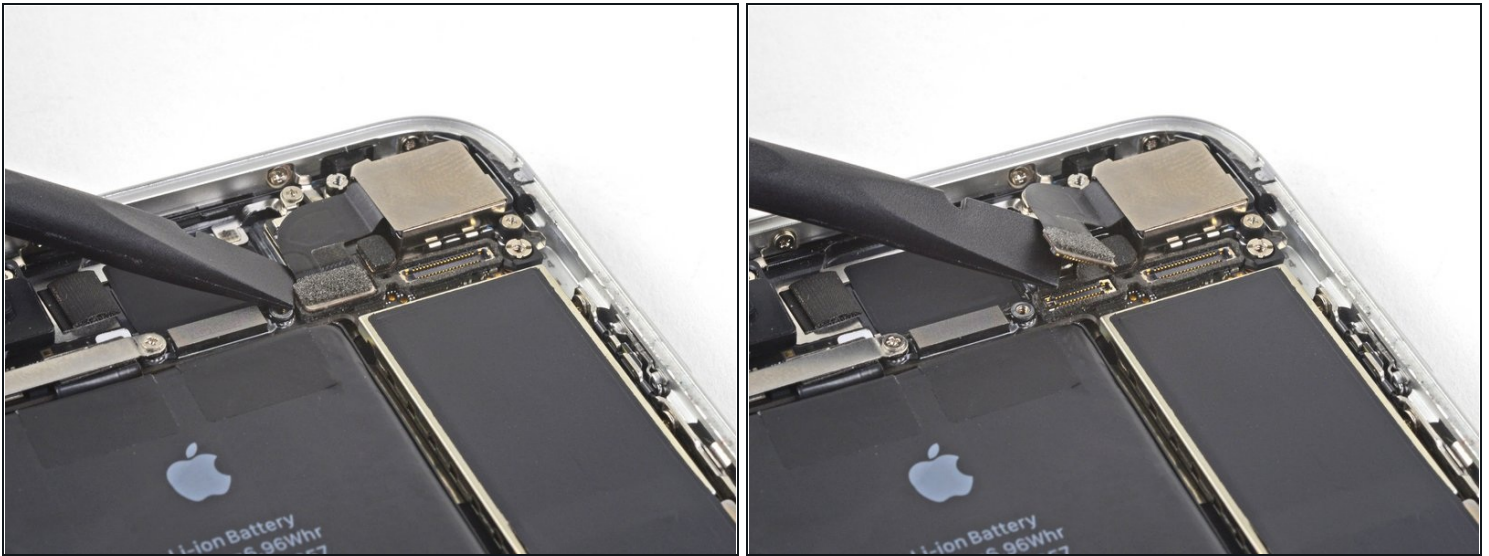
- Gently push the barometric vent in the direction of the battery to separate the adhesive securing the vent to the bottom edge of the iPhone.

Step 37



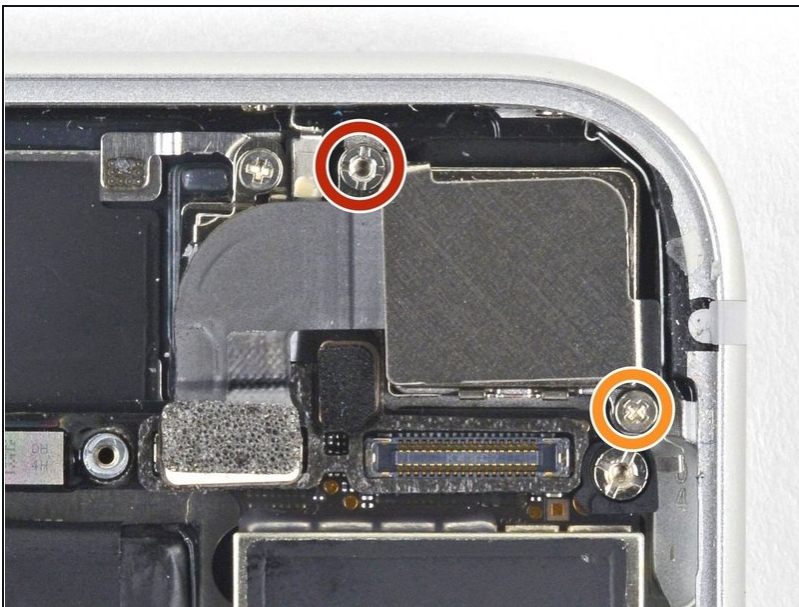
- Remove the barometric vent.

Step 38 — Disconnect the logic board



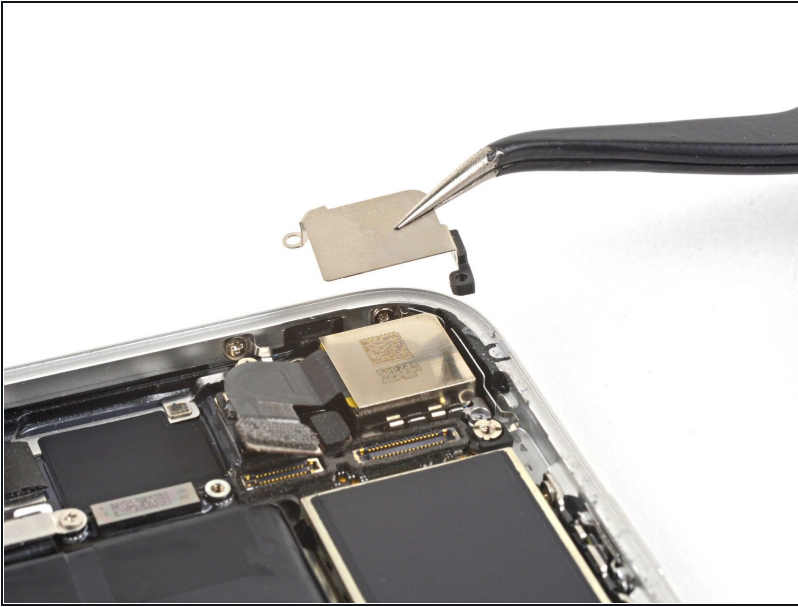
- Use the flat end of a spudger to disconnect the camera cable connector by prying it straight up from its socket.

Step 39



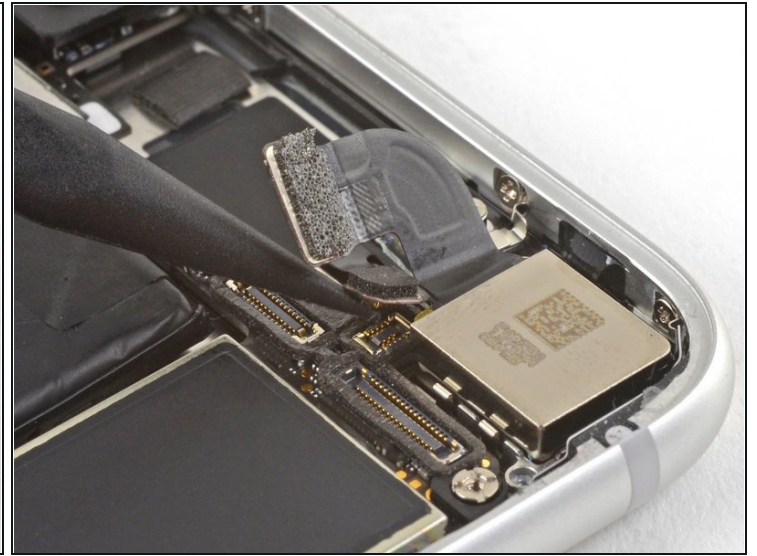
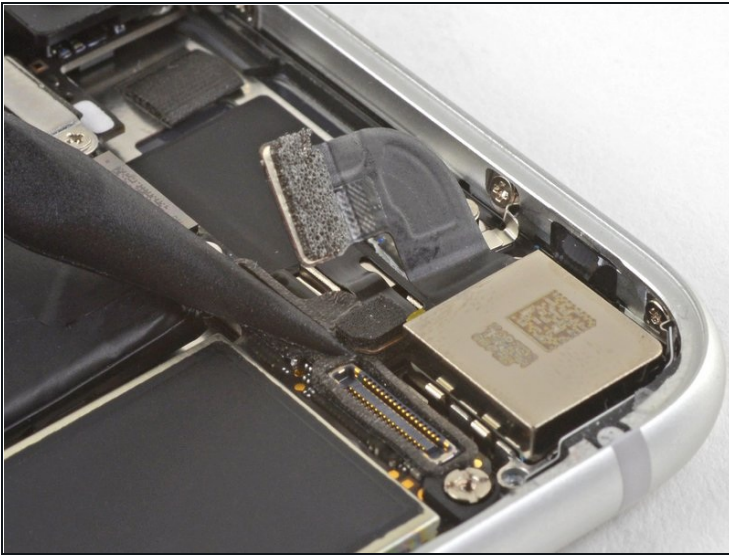
- Remove the two screws securing the rear-facing camera bracket:
 - One 3.0 mm standoff screw
 - One 3.1 mm Phillips screw
- ⓘ Standoff screws are best removed using a [standoff screwdriver](#) or bit.
- ⚠ In a pinch, a small flathead screwdriver will do the job—but use extra caution to ensure it doesn't slip and damage surrounding components.

Step 40



- Remove the rear-facing camera bracket.

Step 41



- Use the point of a spudger to disconnect the flash connector from its socket by prying it straight up.

Step 42



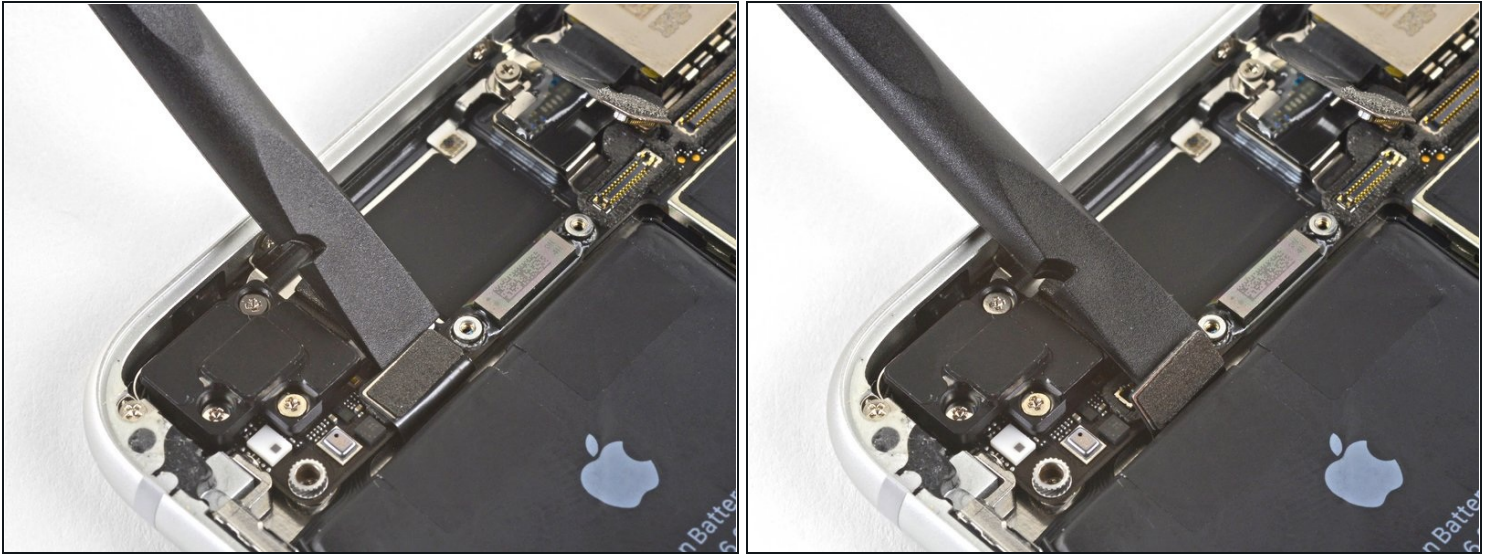
- Remove the two screws securing the upper cable bracket:
 - One 2.9 mm Phillips screw
 - One 1.3 mm Phillips screw

Step 43



- Remove the upper cable bracket.

Step 44



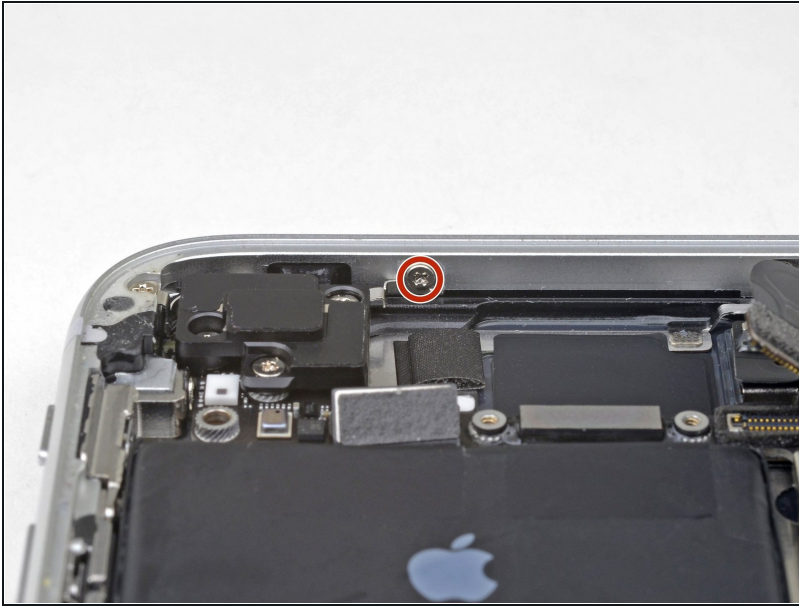
- Use the flat end of a spudger to pry the upper cable connector up from its socket.

Step 45 — Remove the top left antenna component



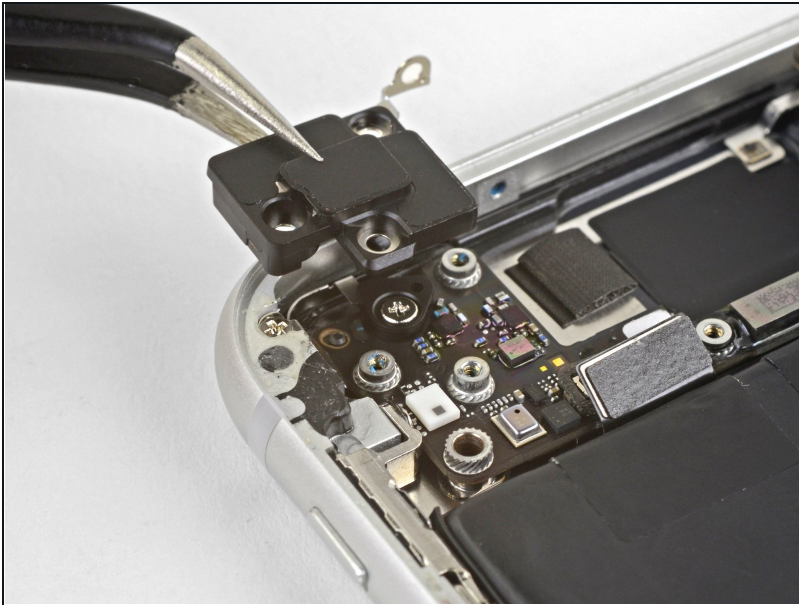
- Remove the three Phillips 1.3 mm screws securing the top left antenna component.

Step 46



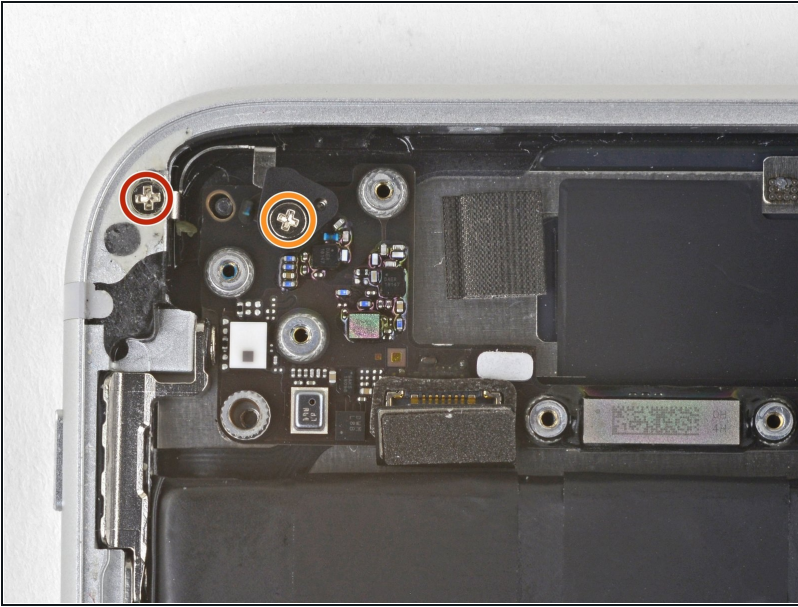
- Remove the 1.4 mm Phillips screw securing the antenna component to the top of edge of the case.

Step 47



- Remove the antenna component.

Step 48 — Remove the top left grounding clip



- Remove the two Phillips screws securing the grounding clip at the top left edge of the logic board:
 - One 1.5 mm Phillips screw
 - One 2.6 mm Phillips screw

Step 49



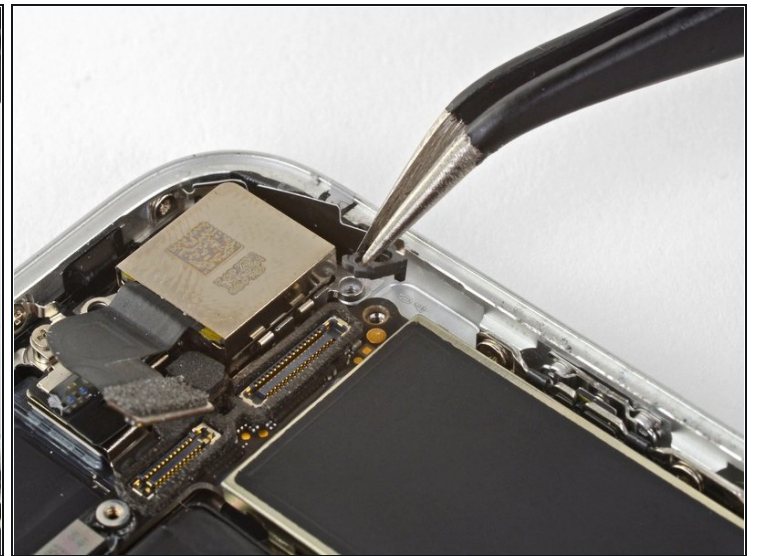
- Remove the grounding clip.

Step 50 — Unscrew the logic board



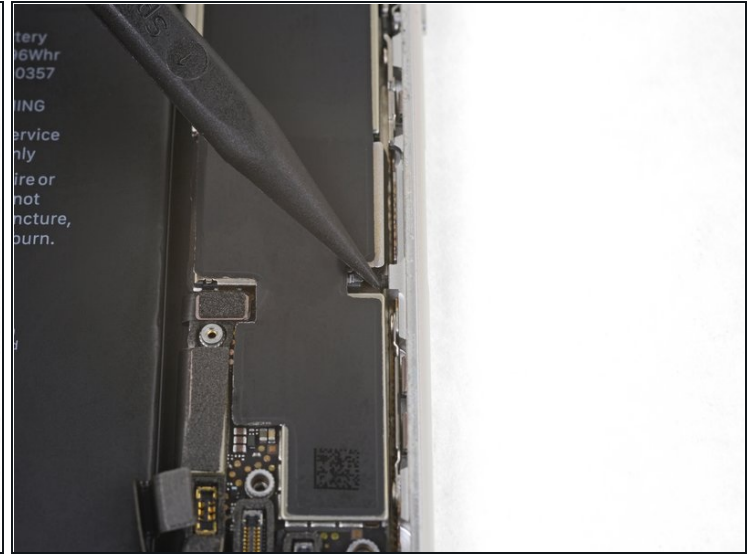
- Remove the three screws securing the motherboard:
 - One 1.8 mm Phillips screw
 - One 2.5 mm standoff screw
 - One 2.2 mm standoff screw

Step 51



- Use tweezers to gently bend the logic board grounding bracket out of the way.

Step 52



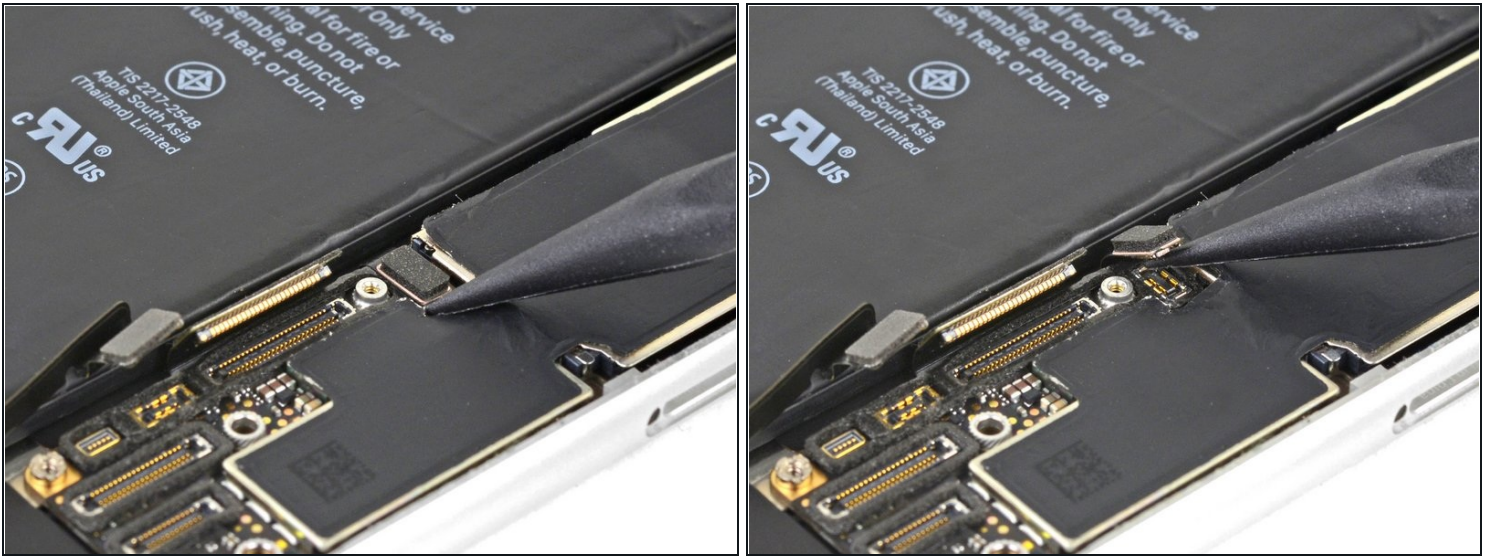
- Use the point of a spudger to move the SIM card eject plunger out of the logic board's way.

Step 53 — Disconnect the Lightning connector assembly



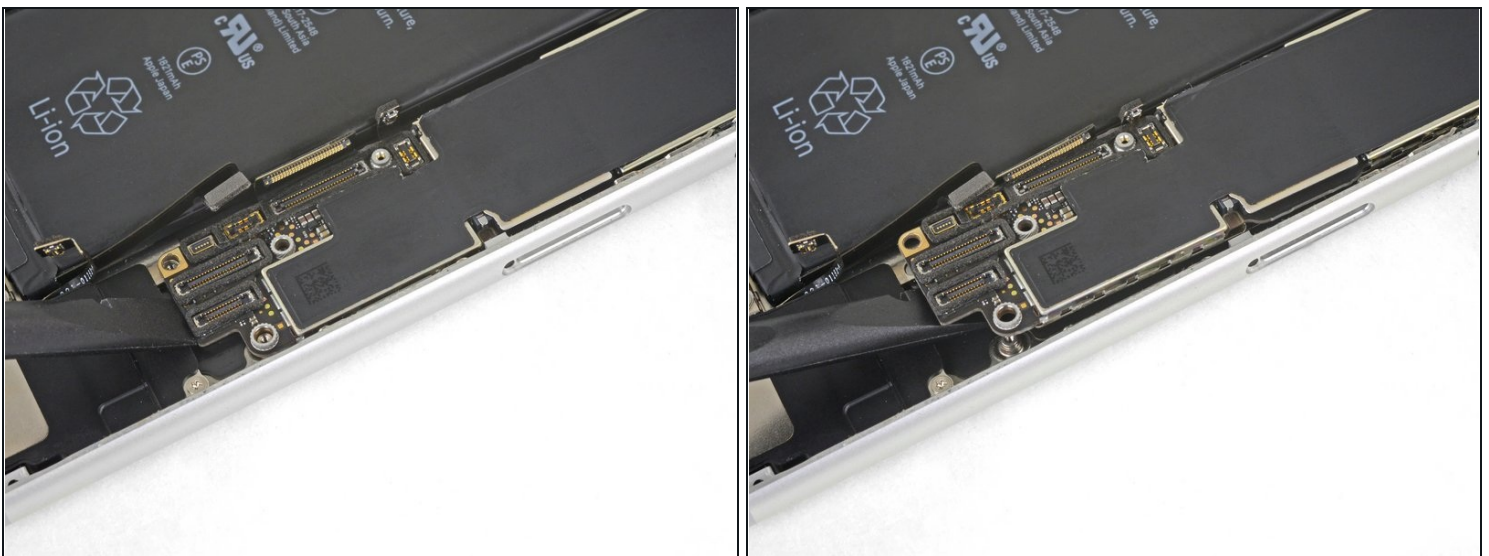
- Use the point of a spudger to pry up and disconnect the Lightning connector cable from the logic board.

Step 54 — Disconnect the wireless charging coil



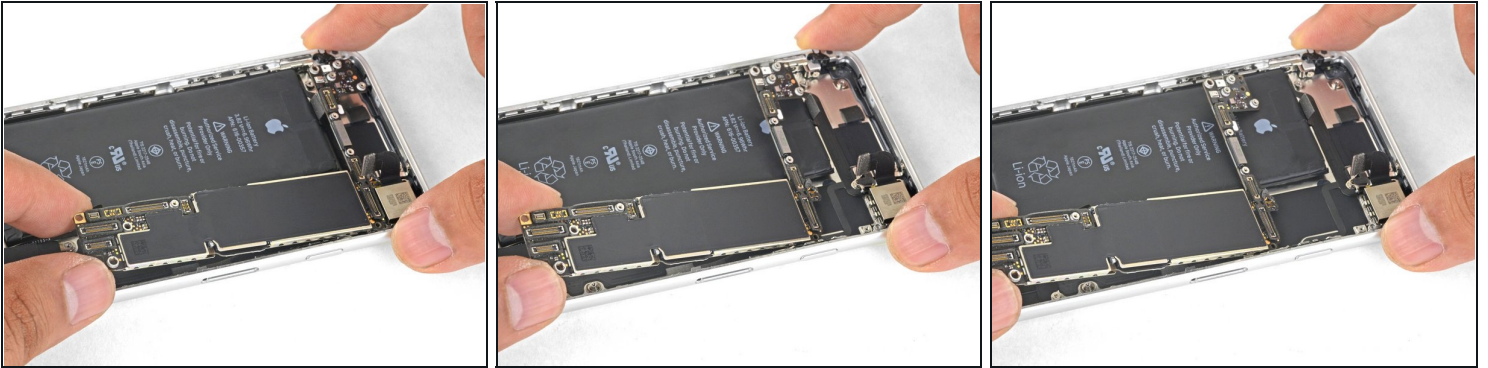
- Use the point of a spudger to pry up and disconnect the wireless charging coil connector.

Step 55 — Remove the logic board



- Use the flat end of a spudger to gently lift the battery connector end of the logic board up.
 - ⓘ Be careful not to pull against any cables. If you feel resistance, check that all cables, connectors, and components are clear of the board.

Step 56



- Grasping it by the edges, lift the logic board near the battery connector and remove it.

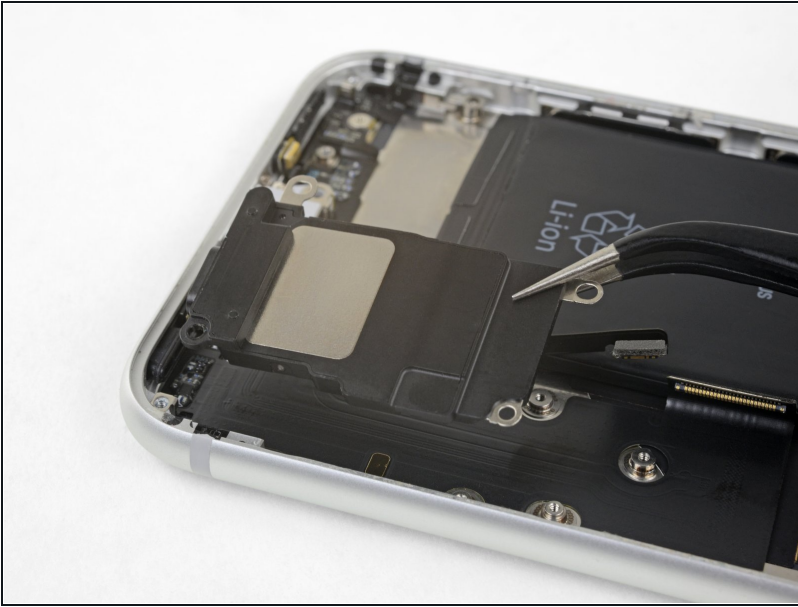
⚠ Be careful not to snag the logic board on any cables.

Step 57 — Remove the speaker



- Remove the two screws securing the speaker to the rear case:
 - One 1.5 mm Phillips screw
 - One 2.1 mm Phillips screw

Step 58



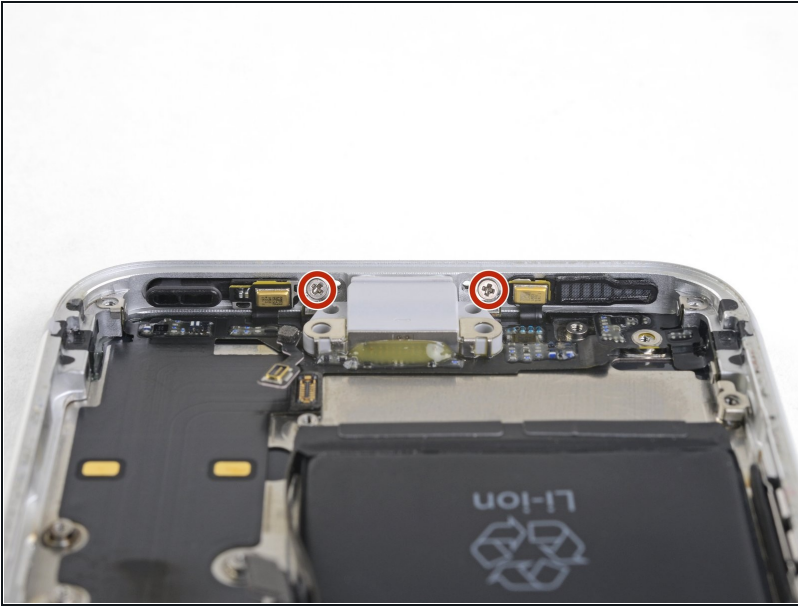
- Remove the speaker.

Step 59 — Remove the Lightning connector assembly



- Remove the three screws securing the Lightning connector cable in place:
 - One 1.3 mm Phillips screw
 - Two 2.2 mm Phillips screws

Step 60



- Remove the two 1.4 mm Phillips screws securing the Lightning port to the bottom edge of the phone.

Step 61



- Use the point of a spudger to gently pry the logic-board-side microphone free from the adhesive securing it in place.

⚠ Don't try to completely remove the microphone; just separate the adhesive as shown.

Step 62



- Use the point of a spudger to gently pry the battery-side microphone free from the adhesive securing it in place.

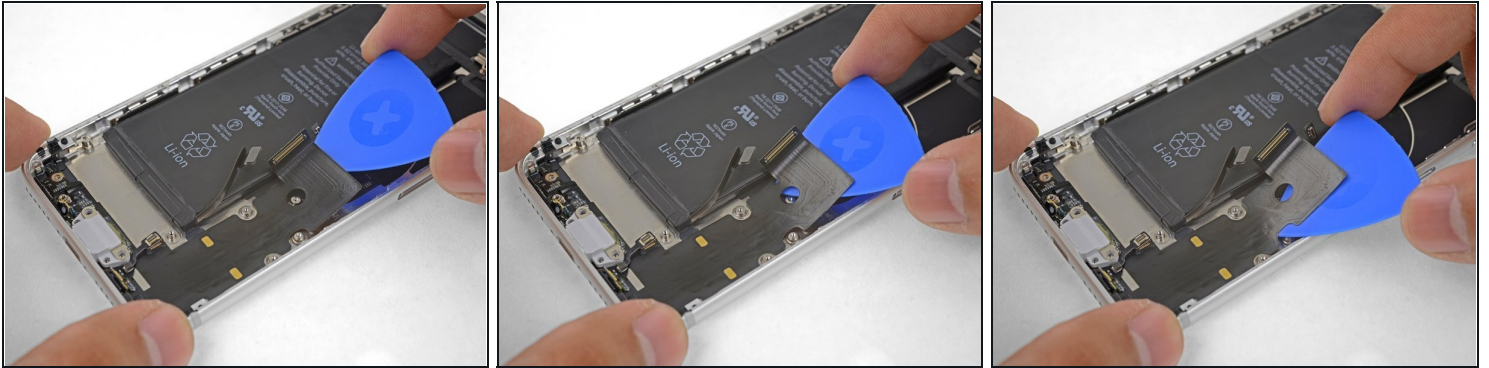
⚠ Don't try to completely remove the microphone; just separate the adhesive as shown.

Step 63



- Apply a [heated iOpener](#) to the bottom of the phone, angling it as shown. This will help loosen the flex cable adhesive.

Step 64



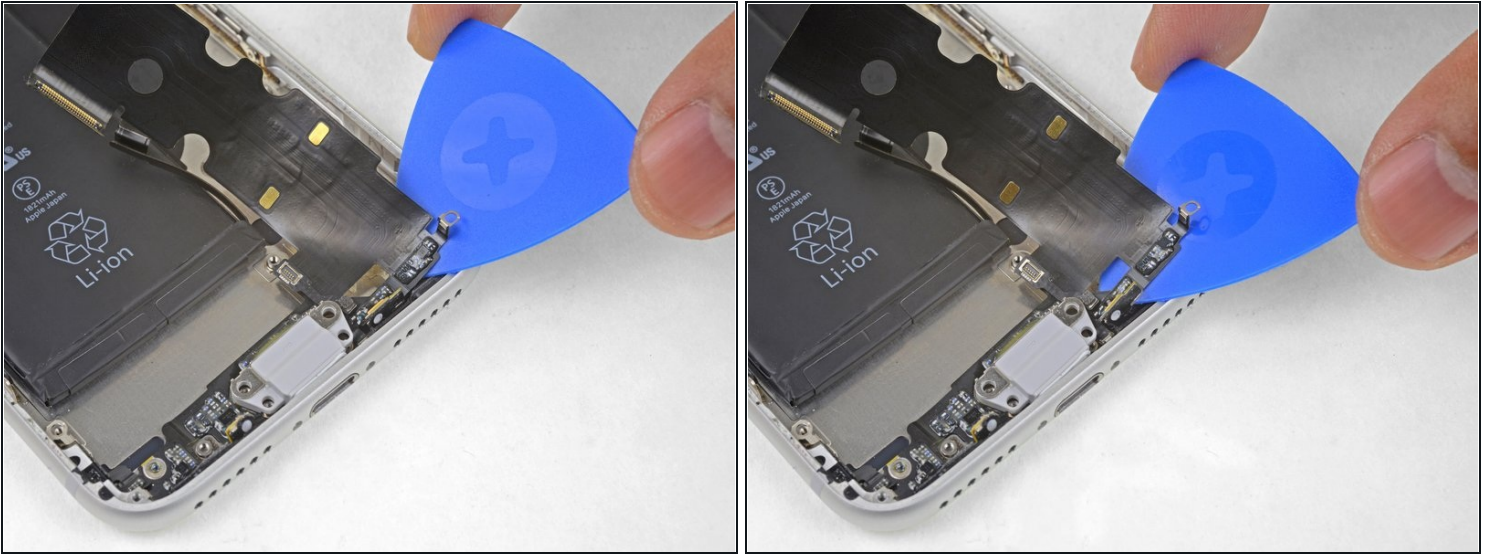
- Slide an opening pick underneath the top portion of the Lightning connector assembly flex cable, and begin separating the cable from the rear case.
- Gently slide the pick toward the *outside edge* of the iPhone (away from the battery).
 - ⚠ Part of the wireless charging coil lies directly underneath this portion of the Lightning connector flex cable. Aggressive prying may damage the coil.
- ⓘ If needed, use your hair dryer or iOpener repeatedly to re-heat the area behind the Lightning connector assembly flex cable in order to make it easier to separate.

Step 65



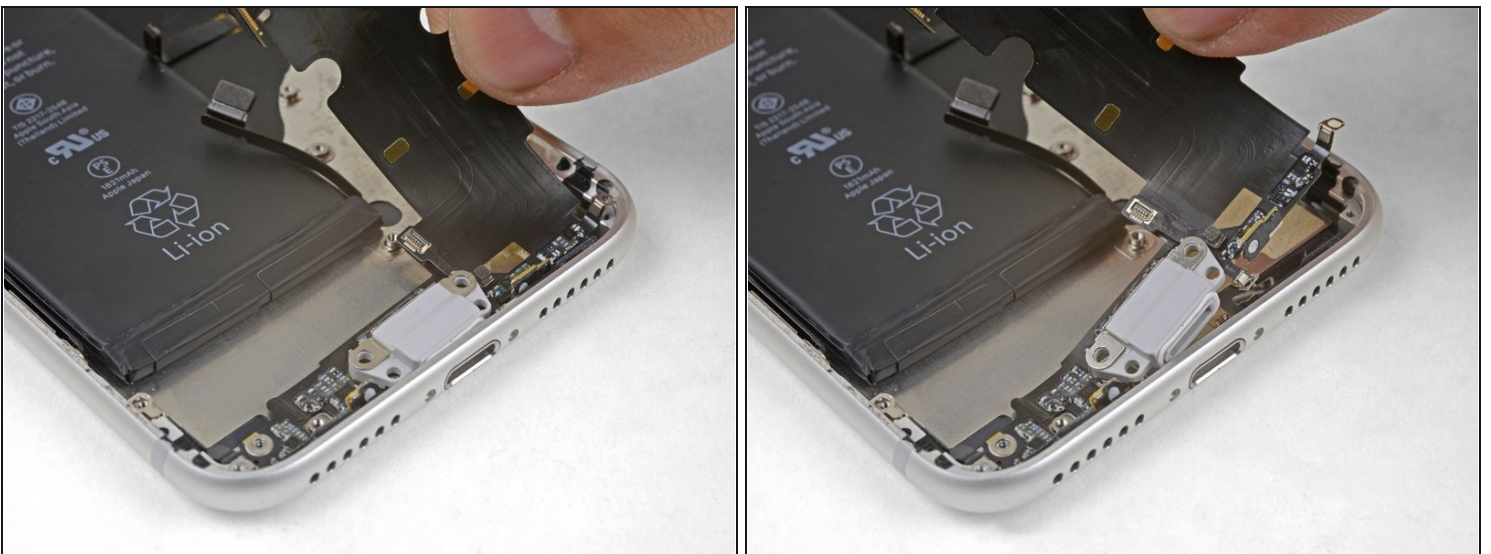
- Continue separating the upper portion of the flex cable, being careful not to damage any other components along the way.
 - ⚠ Keep the battery connector gently folded out of the way to avoid damaging it.
 - ⚠ Be very careful not to damage the battery itself. A punctured battery can leak dangerous chemicals and/or catch fire.
- Stop sliding the pick once it passes the lower edge of the battery.

Step 66



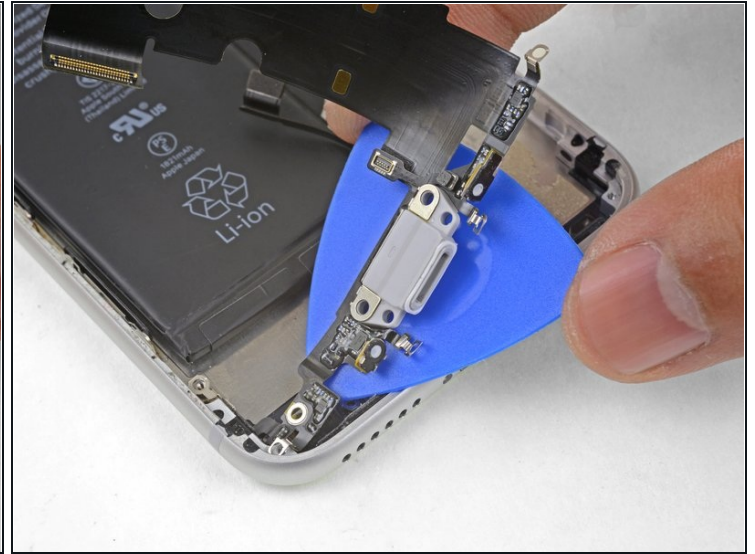
- Starting at the corner of the phone, slide the pick underneath the cable towards the Lightning connector.
- Stop sliding the pick when it reaches the Lightning connector.

Step 67



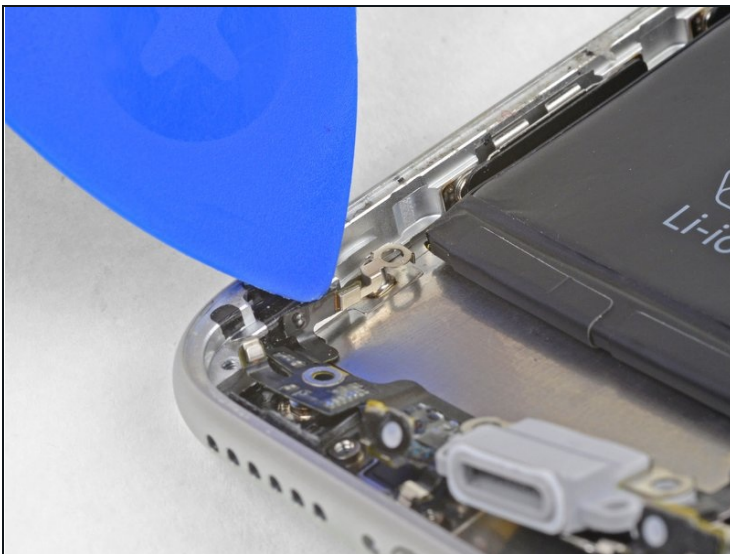
- Gently pull the Lightning connector out of its hole on the rear case.

Step 68



- Slide an opening pick below the Lightning connector to further separate the assembly from the rear case.
- Continue to slide the pick until the Lightning connector assembly is no longer adhered to the bottom of the rear case.

Step 69



- Slide an opening pick between the left edge of the case and the remaining adhered section of the Lightning assembly.

Step 70



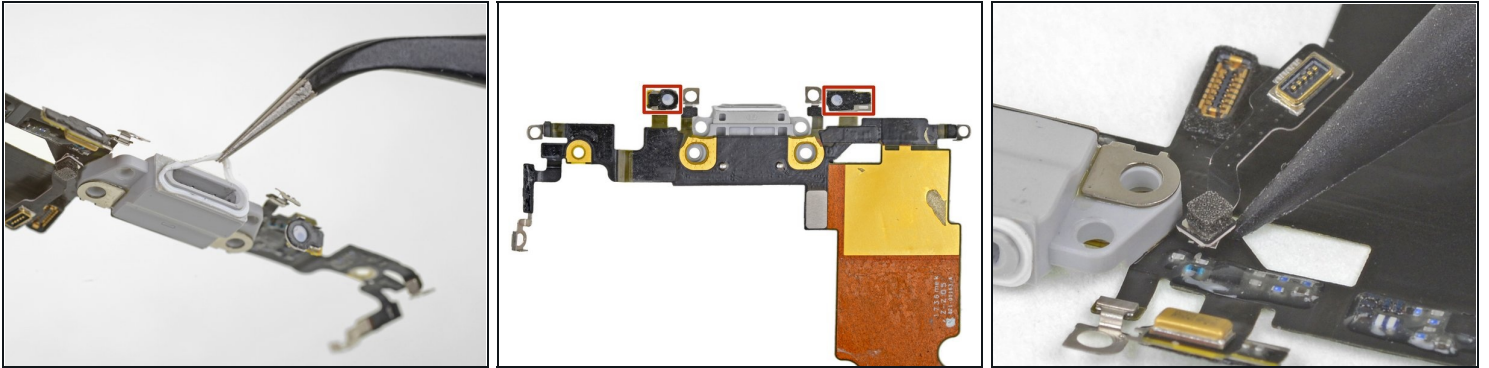
- Remove the Lightning connector assembly.

☒ Before installing or replacing the Lightning connector assembly:

- Use a plastic tool to scour any bits of adhesive residue from the rear case. You can use some high concentration isopropyl alcohol to help clean the surface.

⚠ Before removing the adhesive backing, make sure the Lightning connector assembly is correctly positioned by aligning the hole in the flex cable with the screw post. If the cable is misaligned, you won't be able to reconnect it to the logic board.

Step 71



- ☑ A rubber gasket on the bottom of the Lightning connector protects your iPhone from liquid and dust intrusion. If you are installing a new Lightning connector assembly, you may need to carefully remove and transfer the gasket to the new part.
- The small adhesive patch on the bottom of each microphone also protects your iPhone from liquid and dust intrusion. For best results, replace the two adhesive patches before installing your Lightning connector assembly.
- ☑ Check to see if your new part comes with an antenna converter cable. If it doesn't, use the point of your spudger to pry up and transfer the cable from your old Lightning assembly to the new one.

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, and follow these instructions in reverse order.

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Check out our [iPhone SE 2020 Answers community](#) for troubleshooting help.