



iPhone 4S Speaker Enclosure Replacement

Replace the speaker enclosure near the bottom of the iPhone 4S.

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INTRODUCTION

Use this guide to replace a blown speaker enclosure closest to the bottom edge of the iPhone 4S.



TOOLS:

- [P2 Pentalobe Screwdriver iPhone](#) (1)
- [Phillips #000 Screwdriver](#) (1)
- [iFixit Opening Tool](#) (1)
- [Tweezers](#) (1)





PARTS:

- [iPhone 4S Speaker Enclosure](#) (1)


Step 1 — Rear Panel



-  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 3.6 mm Pentalobe P2 screws next to the dock connector.
-  Be sure the driver is well-seated when removing Pentalobe screws—they are easy to strip.

Step 2



- Push the rear panel toward the top edge of the iPhone.
-  The panel will move about 2 mm.

Step 3



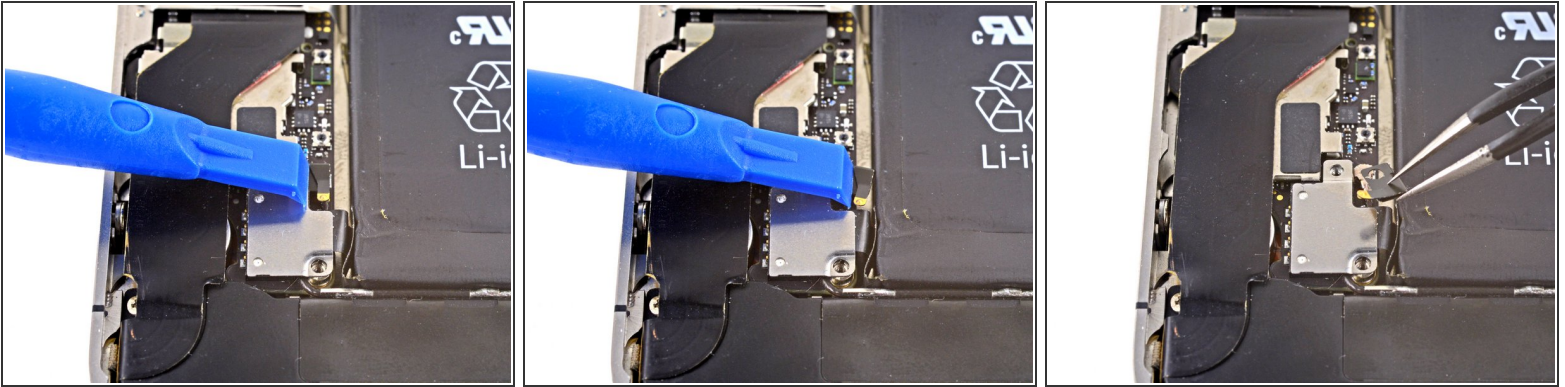
- Pull the rear panel away from the back of the iPhone, being careful not to damage the plastic clips attached to the rear panel.
- Remove the rear panel from the iPhone.

Step 4 — Battery



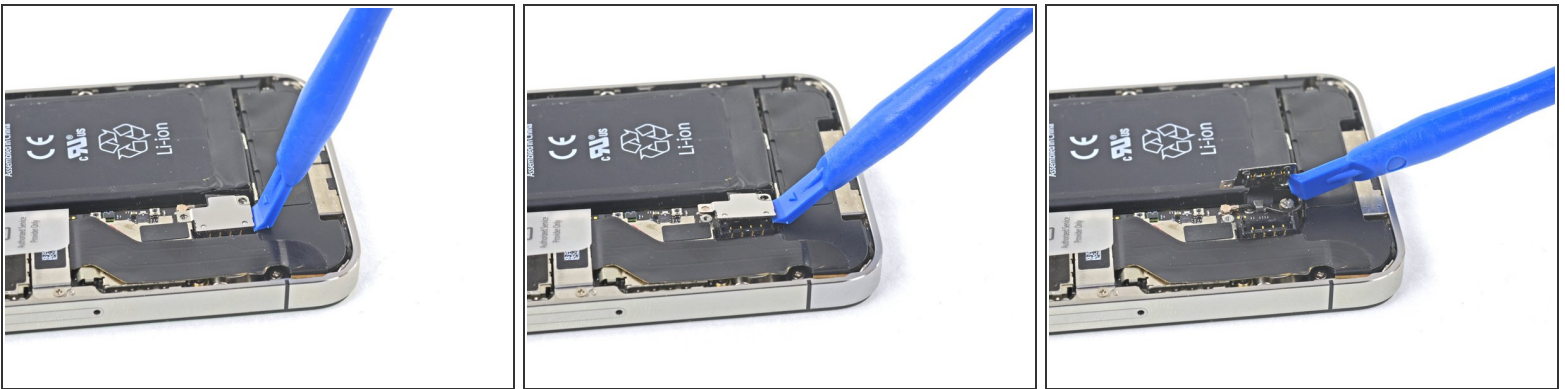
- Remove the following screws securing the battery connector to the logic board:
 - One 1.7 mm Phillips screw
 - One 1.5 mm Phillips screw

Step 5



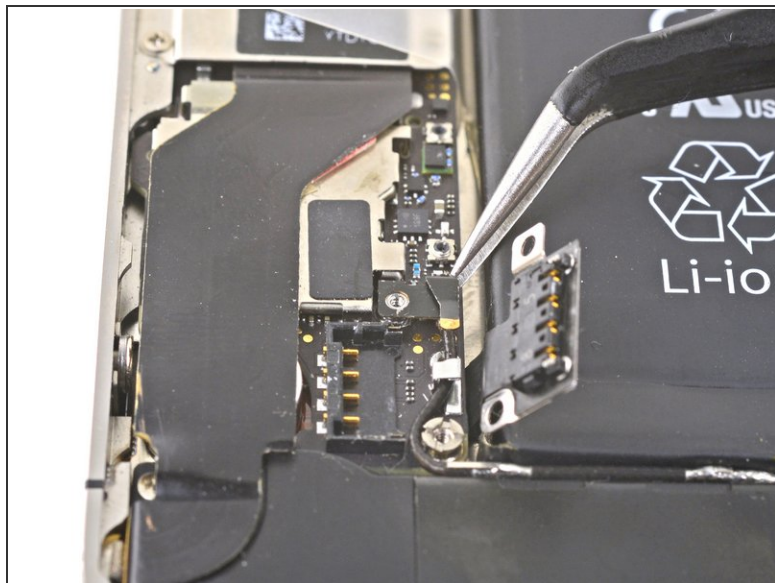
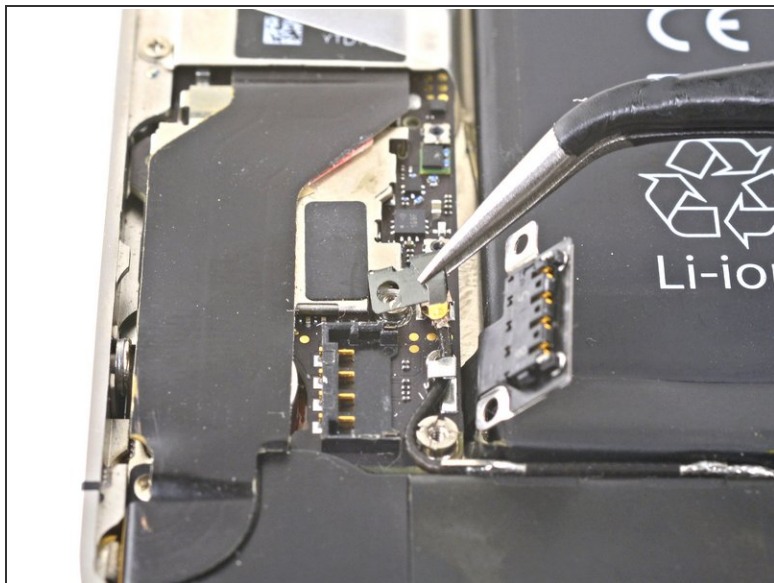
- Carefully push the pressure contact away from the battery connector until it slides free from its position.
- Remove the pressure contact.

Step 6



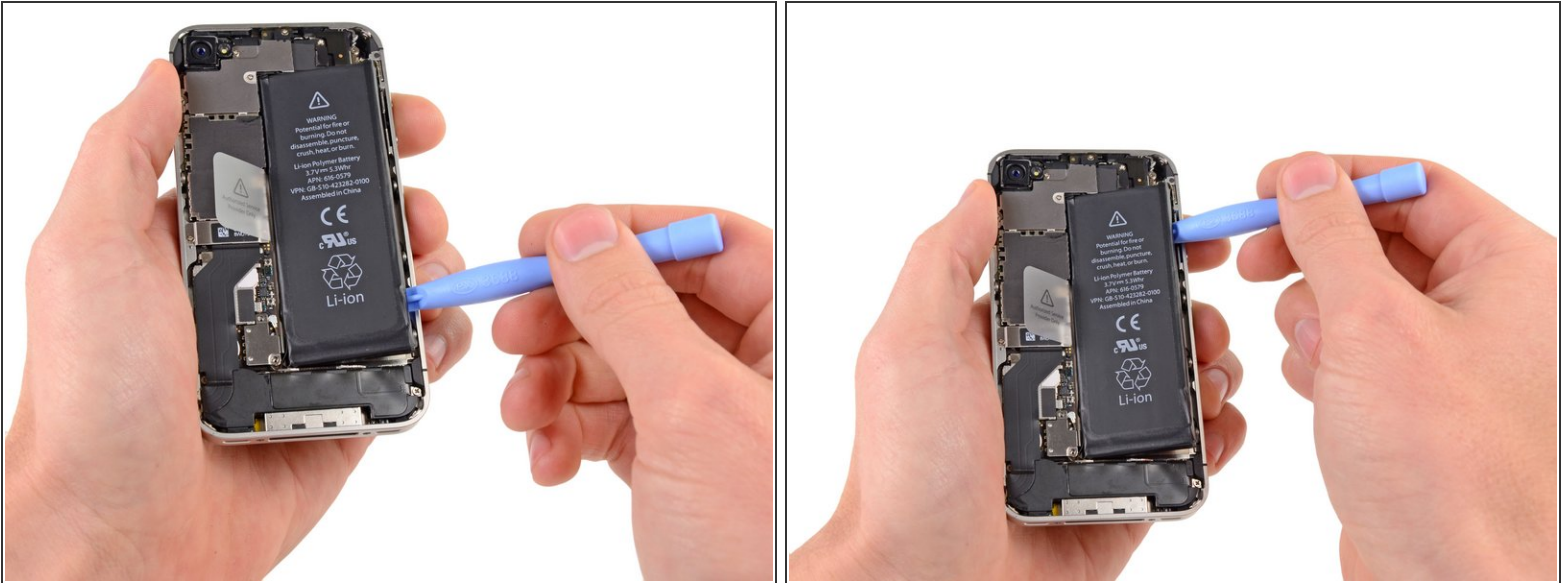
- Use a plastic opening tool to gently pry up the battery connector from its socket on the logic board.
 - Place the tip of the tool between the loudspeaker enclosure and the metal cover of the connector, and lift the bottom edge of the connector first.
- ⓘ The battery connector comes off vertically from the logic board. Do not apply force sideways.
- ⚠ Be careful not to pry at the battery connector socket itself, or it may detach from the logic board. There are four very small solder points awaiting this mistake!

Step 7 — Reassembly tip



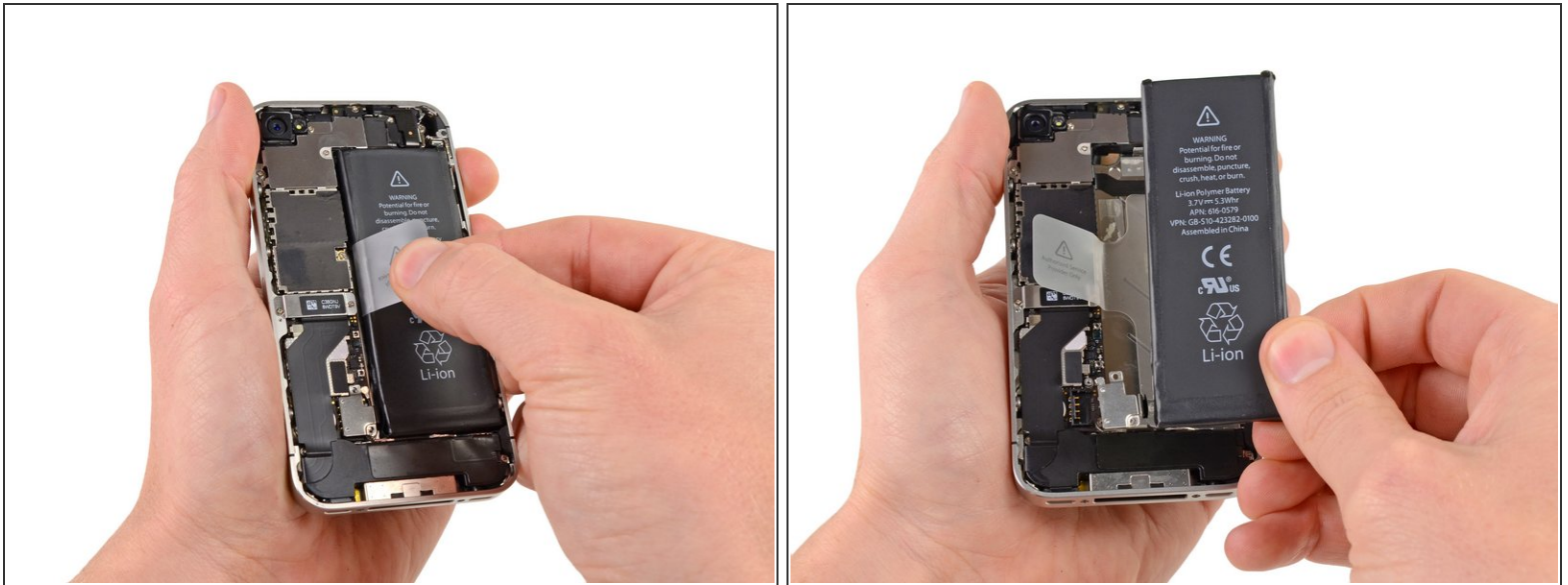
- ✦ During reassembly, be sure to carefully position the pressure contact back in place. It should rest on top of the Philips screw post shown, and the gold contact should point towards the battery connector.
- ⓘ Be sure to clean the pressure contact with a degreaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to create wireless interference.

Step 8



- Insert the edge of a plastic opening tool between the battery and the outer case near the bottom of the iPhone.
- Run the plastic opening tool along the right edge of the battery and pry up at several points to completely separate it from the adhesive securing it to the outer case.
- ⓘ If the adhesive is too strong, apply a few drops of high concentration (over 90%) isopropyl alcohol under the edge of the battery.
 - Wait about one minute for the alcohol solution to weaken the adhesive.
 - Use the flat end of a plastic opening tool to gently lift the battery.
- ⚠ **Don't try to forcefully lever the battery out. If needed, apply a few more drops of alcohol to further weaken the adhesive. Never deform or puncture the battery with your pry tool.**
- ✦ If there's any alcohol solution remaining in the phone, carefully wipe it off or allow it to air dry before installing your new battery.

Step 9



- Use the exposed clear plastic pull tab to peel the battery off the adhesive securing it to the iPhone.

⚠ Be careful not to pull the plastic pull tab too hard as it can be ripped off very easily.

- Remove the battery.

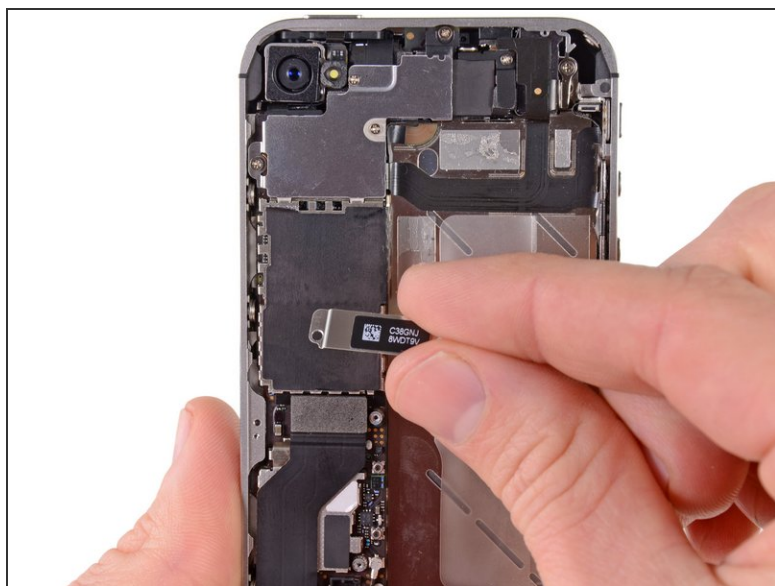
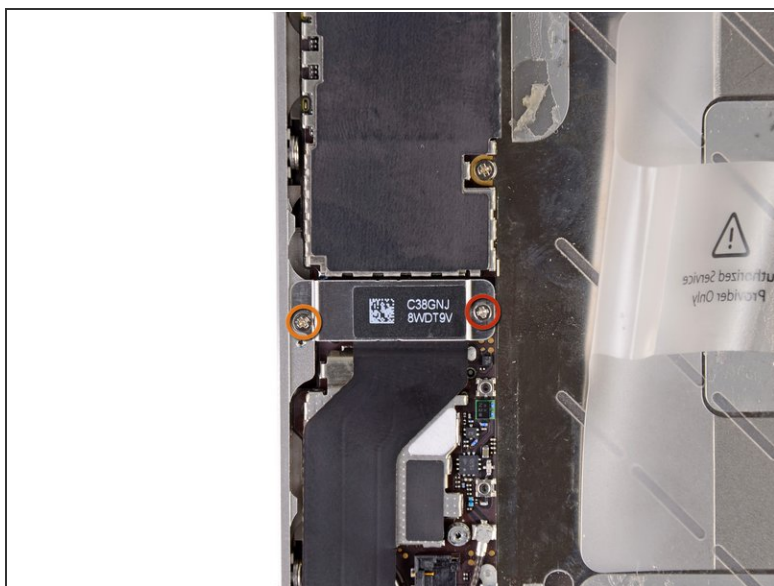
i If your replacement battery came in a plastic sleeve, remove it before installation by pulling it away from the ribbon cable.

✦ If your replacement battery came with an uncreased cable, carefully [crease the cable into the proper shape](#) before installing the battery into the phone.

✦ While installing the replacement battery, temporarily connect the battery connector to the phone to ensure proper alignment. Once the battery is glued in place, disconnect the battery connector.

✦ Perform a [hard reset](#) after reassembly. This can prevent several issues and simplify troubleshooting.

Step 10 — Speaker Enclosure Assembly



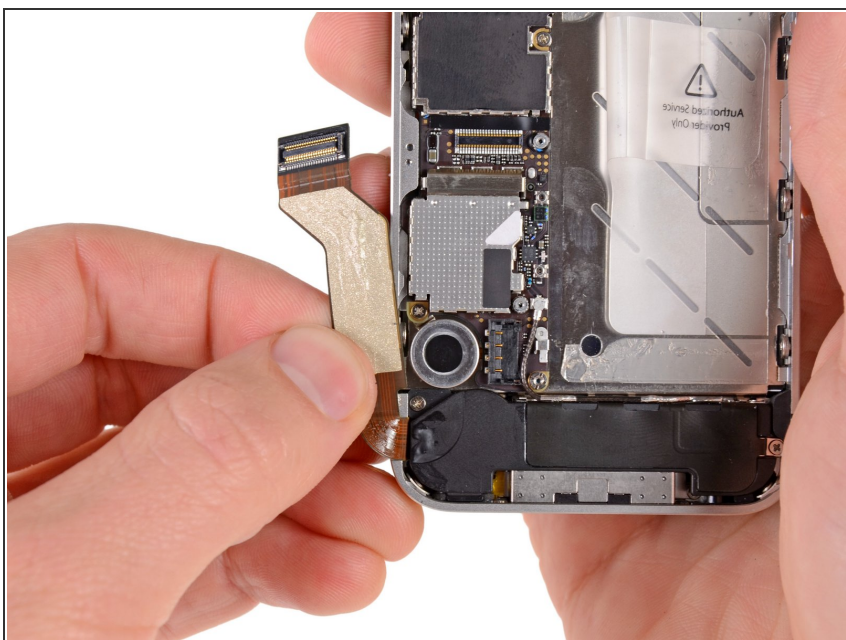
- Remove the following screws securing the dock connector cable cover to the logic board:
 - One 1.5 mm Phillips screw
 - One 1.2 mm Phillips screw
- Remove the metal dock connector cable cover.

Step 11



- Use the edge of a plastic opening tool to pry the dock cable up from its socket on the logic board.

Step 12



- Peel the dock connector cable off the adhesive securing it to the logic board and the side of the speaker enclosure.

Step 13



- Use the edge of a plastic opening tool to pry the cellular antenna cable up from its socket on the logic board.
- De-route the cellular antenna cable out from under the metal fingers attached to the logic board.

Step 14



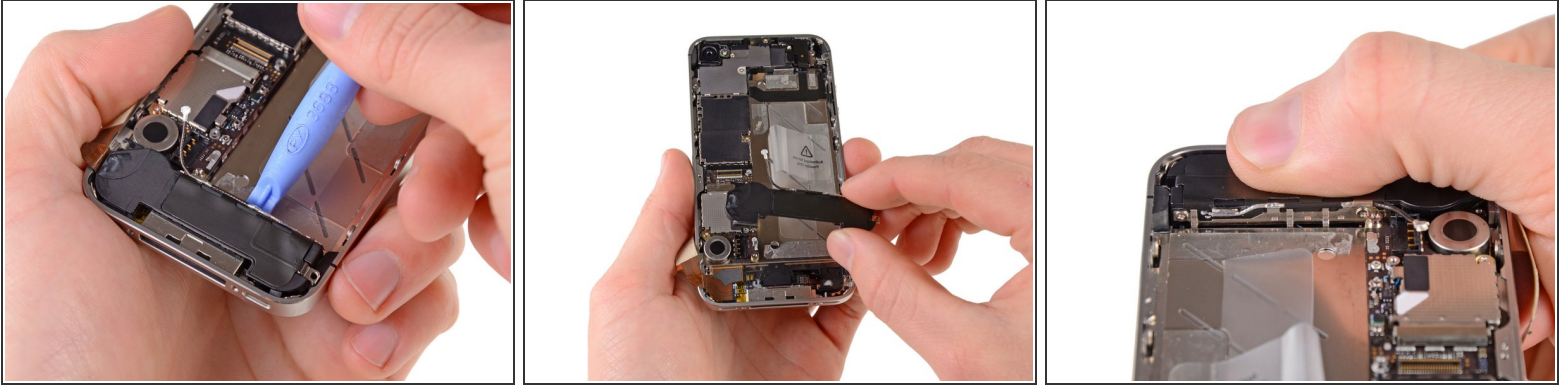
- Remove the two 2.4 mm Phillips screws securing the speaker enclosure assembly to the outer case.

Step 15





- Remove the small black spacer that was under the Phillips screw near the vibrator.

Step 16

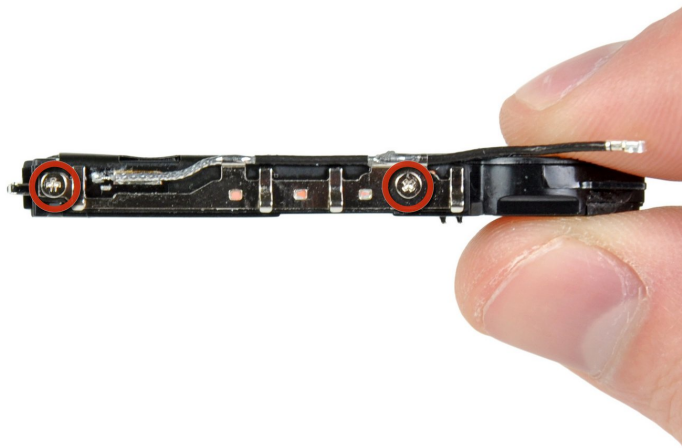


- Use a plastic opening tool to lift the speaker enclosure assembly out of the case, being sure not to damage the EMI fingers on the attached Wi-Fi antenna.
- Remove the speaker enclosure assembly.

 Before reinstalling the speaker enclosure assembly's screws, be sure the Wi-Fi grounding fingers are installed below the lip in the iPhone's metal case as seen in the third picture.

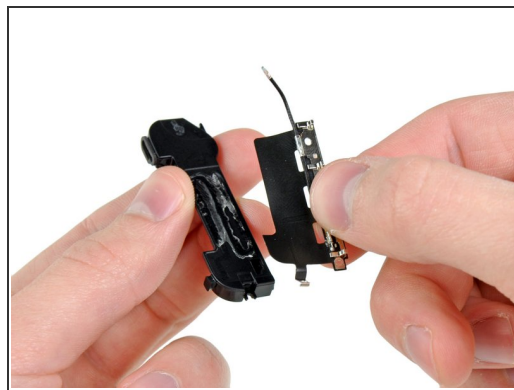
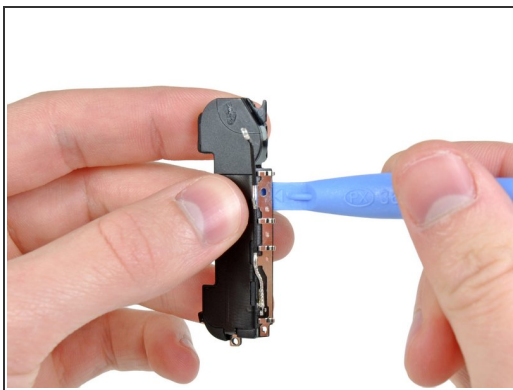
 Before reassembly, be sure to clean all metal-to-metal contact points between the grounding fingers of the Wi-Fi antenna and the case of the iPhone with a de-greaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to cause wireless interference issues.

Step 17 — Cellular Antenna



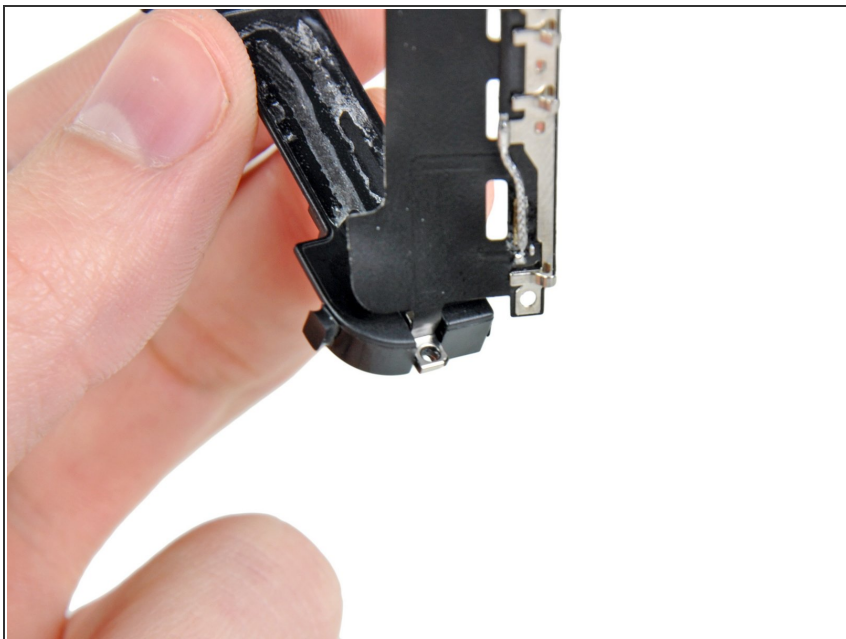
- Remove the two 1.6 mm Phillips screws securing the cellular antenna to the speaker enclosure.

Step 18



- Starting near the cellular antenna cable, use the edge of a plastic opening tool to peel the antenna off the speaker enclosure.
- Continue peeling the cellular antenna off the speaker enclosure, being careful not to rip the gold bracket attached to one of its edges.
- Remove the cellular antenna.

Step 19



- ★ When installing a new cellular antenna, be sure to slide the gold bracket over the ear molded into the speaker enclosure before sticking the antenna down.

Step 20 — Speaker Enclosure



- Speaker enclosure remains.

To reassemble your device, follow these instructions in reverse order.