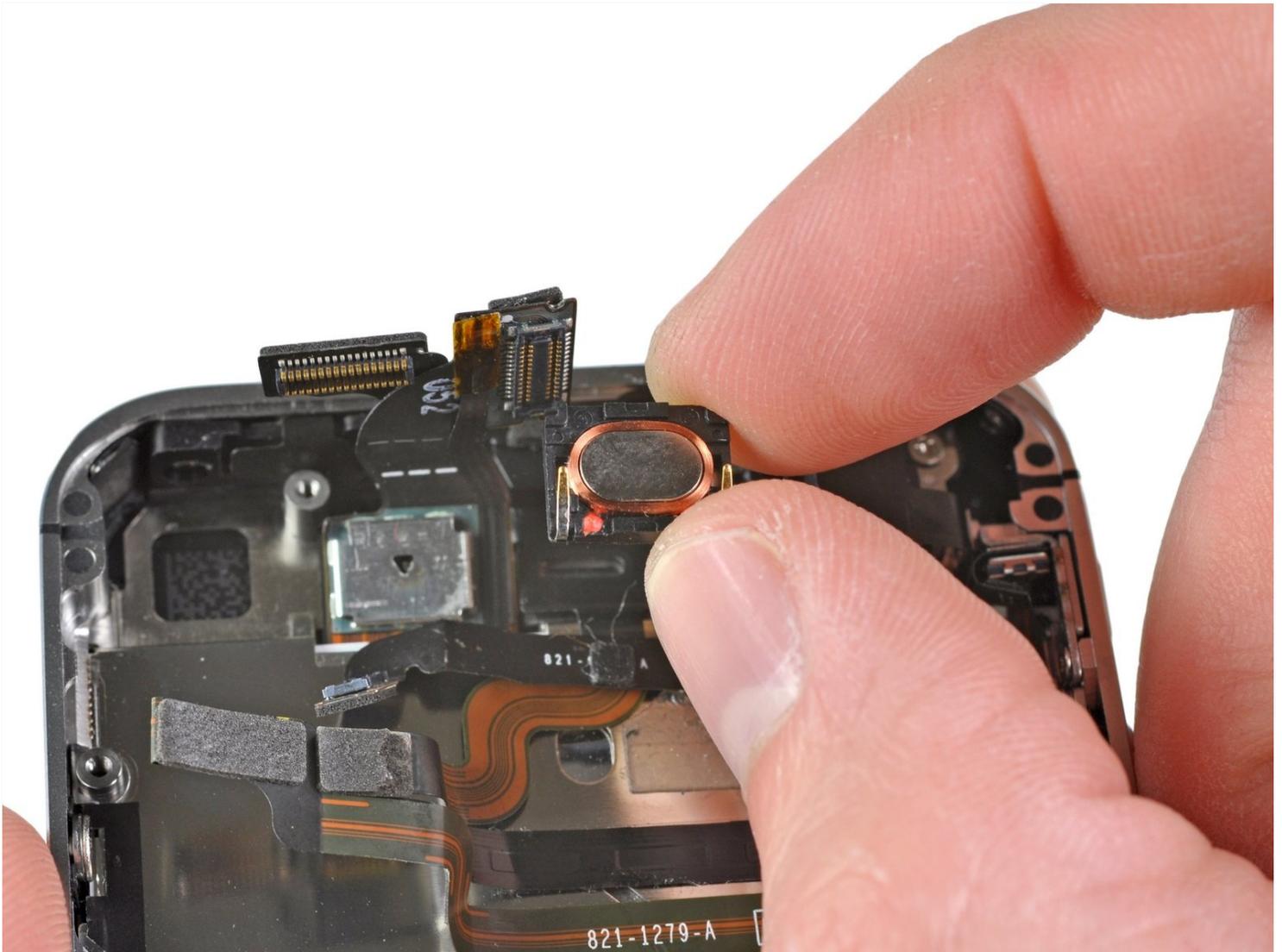




# iPhone 4 Verizon Earpiece Speaker Replacement

Use this guide to replace a blown-out earpiece...

Written By: Andrew Bookholt



# INTRODUCTION

Use this guide to replace a blown-out earpiece speaker.

## TOOLS:

[P2 Pentalobe Screwdriver iPhone](#) (1)  
[Phillips #000 Screwdriver](#) (1)  
[iFixit Opening Tool](#) (1)  
[Standoff Screwdriver for iPhones](#) (1)

## PARTS:

[iPhone 4 Earpiece Speaker](#) (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.
- Your phone's rear cover may have two #000 Phillips screws **or** Apple's 5-Point "Pentalobe" screws. Check which screws you have, and ensure you also have the correct screwdriver in order to remove them.
- Remove the two 3.6 mm Pentalobe or Phillips #000 screws next to the dock connector.

## Step 2



- Push the rear panel toward the top edge of the iPhone.

ⓘ The panel will move about 2 mm.

## Step 3



- Pinch the rear panel with your fingers, and lift it away from the iPhone. Alternatively, use a Small Suction Cup .

⚠ Be careful not to damage the plastic clips attached to the rear panel.

## Step 4 — Battery



- Remove the single 1.5 mm Phillips screw securing the battery connector to the logic board (if present).

## Step 5



- Use the edge of a plastic opening tool to gently pry the battery connector up from its socket on the logic board.
- ⚠ Be very careful to only pry up on the battery connector and not the socket on the logic board. If you pry up on the logic board socket, you may break it entirely.
- Remove the metal clip covering the antenna connector.

## Step 6



- Pull up on the exposed clear plastic tab to peel the battery off the adhesive securing it to the iPhone.
- ⓘ If the tab breaks before the battery is freed, 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. Carefully slide a spudger under the battery tab to release the adhesive.
- ⚠ Prying in other places may cause damage. 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.
- Remove the battery.
- ⓘ If your replacement battery came in a plastic sleeve, remove it before installation by pulling it away from the the ribbon cable.
- Before reassembly, clean metal-to-metal contact points with a de-greaser such as windex. The oils from your fingers have the potential to cause wireless interference issues.
- Perform a [hard reset](#) after reassembly. This can prevent several issues and simplify troubleshooting.

## Step 7 — Dock Connector Cable



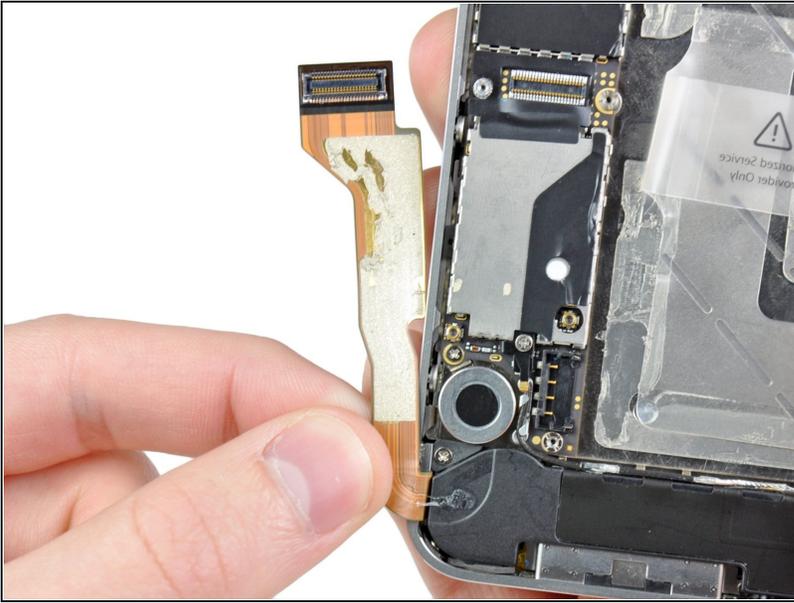
- Remove the two 1.8 mm Phillips screws securing the dock connector cable to the logic board.
- Remove the thin metal dock connector cable cover.

## Step 8



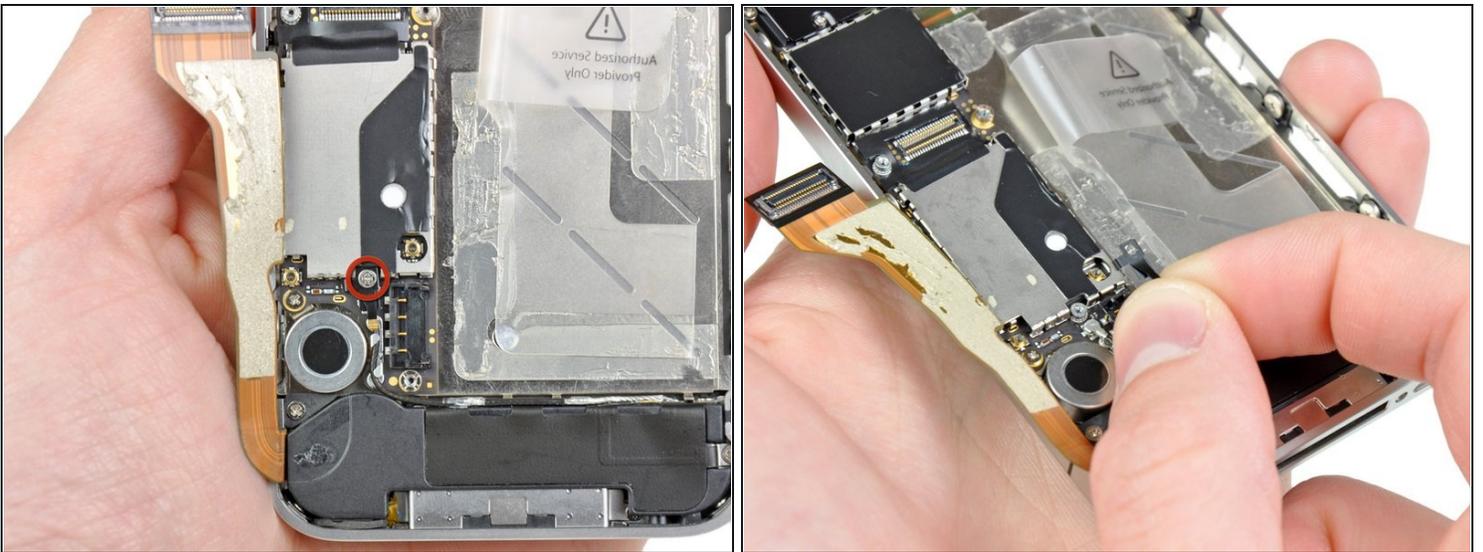
- Use the edge of a plastic opening tool to pry the dock cable up from its socket on the logic board.

## Step 9



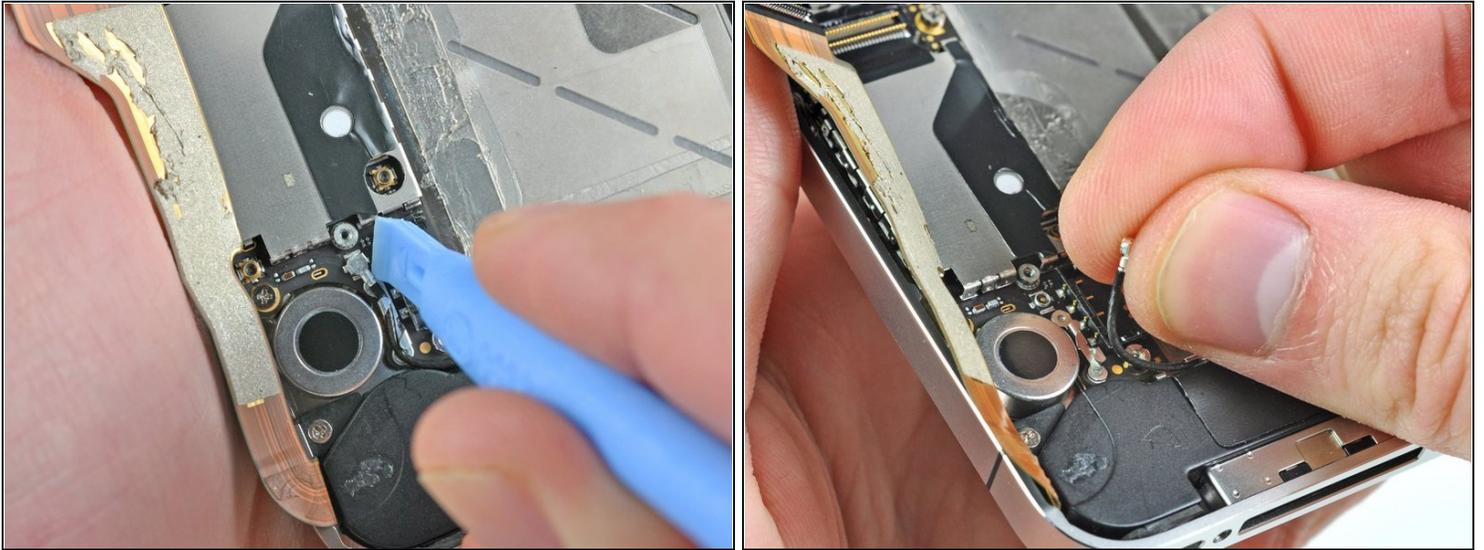
- Peel the dock connector cable off the adhesive securing it to the logic board and the side of the speaker enclosure.

## Step 10



- Remove the 1.6 mm Phillips screw securing the pressure contact to the logic board near the vibrator.
- Remove the pressure contact.

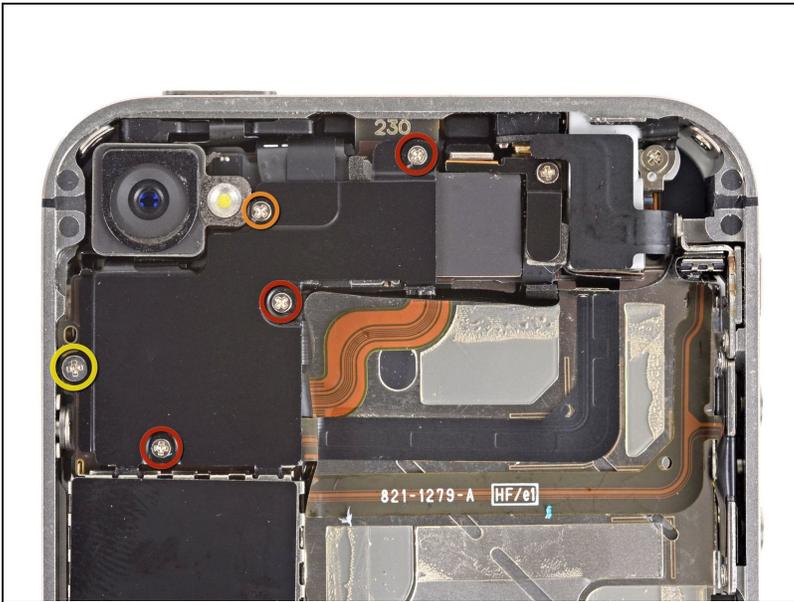
## Step 11



- 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.

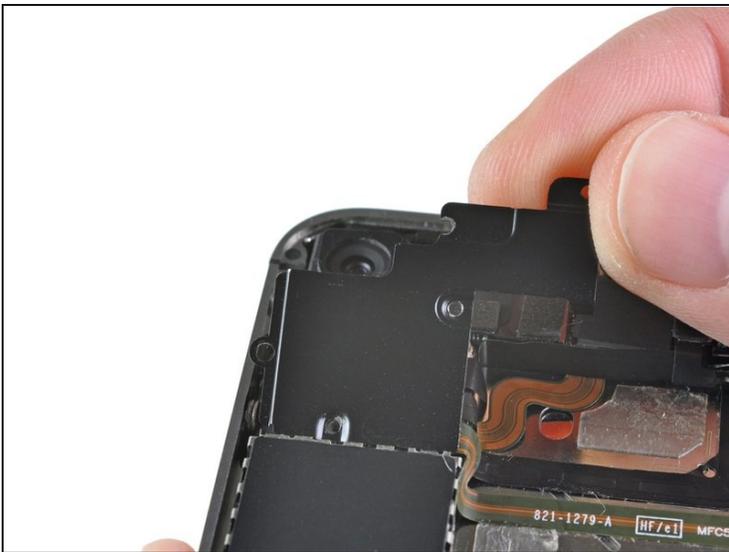
**⚠** When reconnecting the antenna wire be VERY certain that the round connector at the end of the wire is centered on its mating half on the motherboard before applying pressure. Failure to do so will likely destroy both halves of the connector.

## Step 12 — Rear Camera



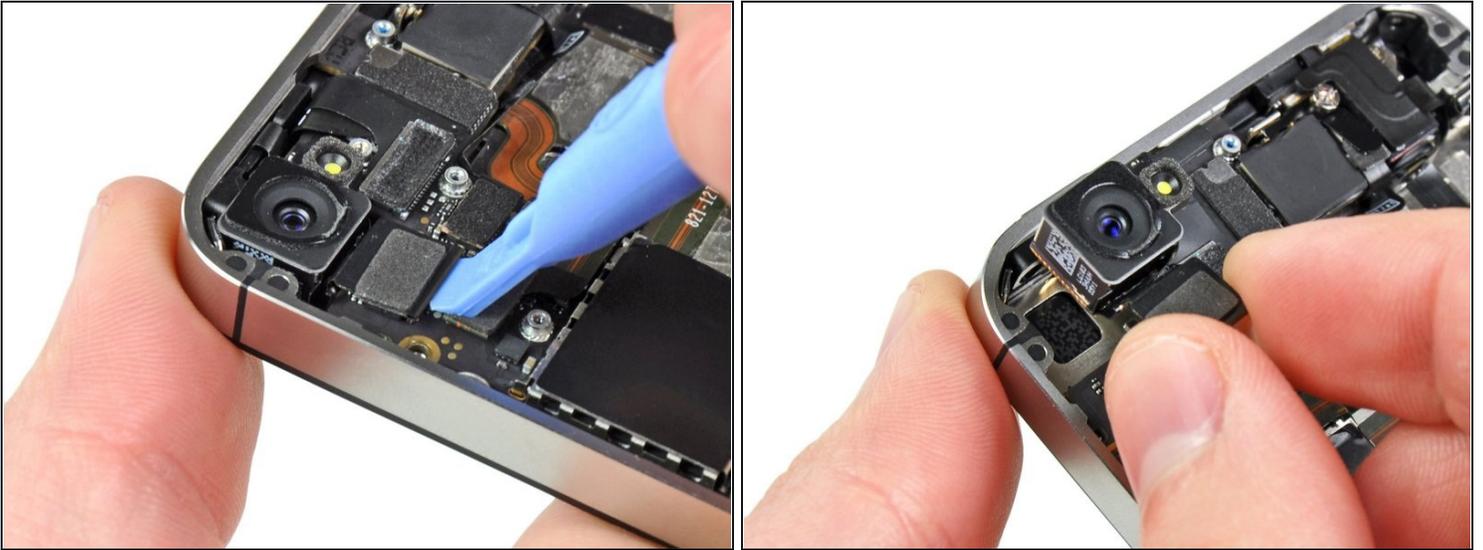
- Remove the following five screws:
  - Three 1.3 mm Phillips screws
  - One 1.5 mm Phillips screw
  - One 2.4 mm Phillips screw

## Step 13



- Lift the cable cover from its edge nearest the top of the iPhone.
- Pull the cable cover tabs out of their slots cut into the EMI shield on the logic board and remove it from the iPhone.

## Step 14



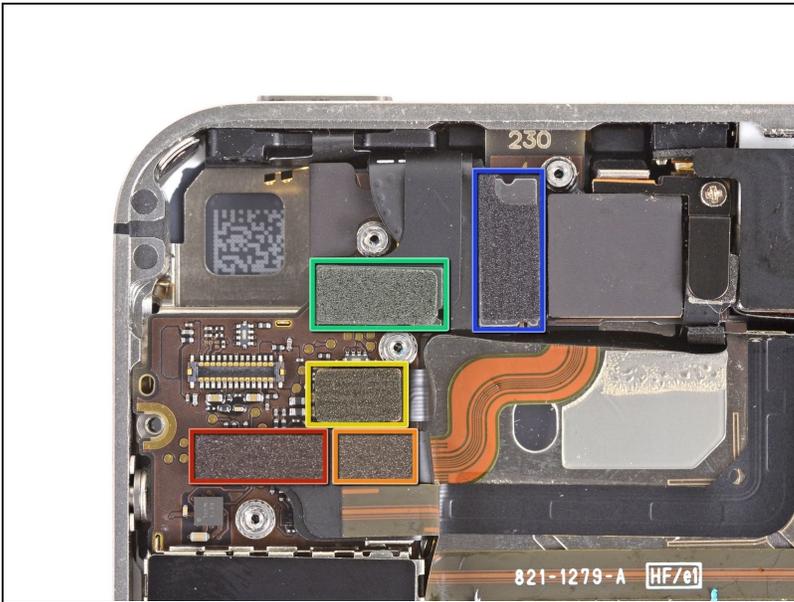
- Use the edge of a plastic opening tool to pry the rear camera connector up from its socket on the logic board.

⚠ Be careful not to break any components off the surrounding area on the logic board as you pry upwards.

- Remove the rear camera from the iPhone.

⚠ Be careful not to scratch the back of the display assembly after the removal of the rear facing camera.

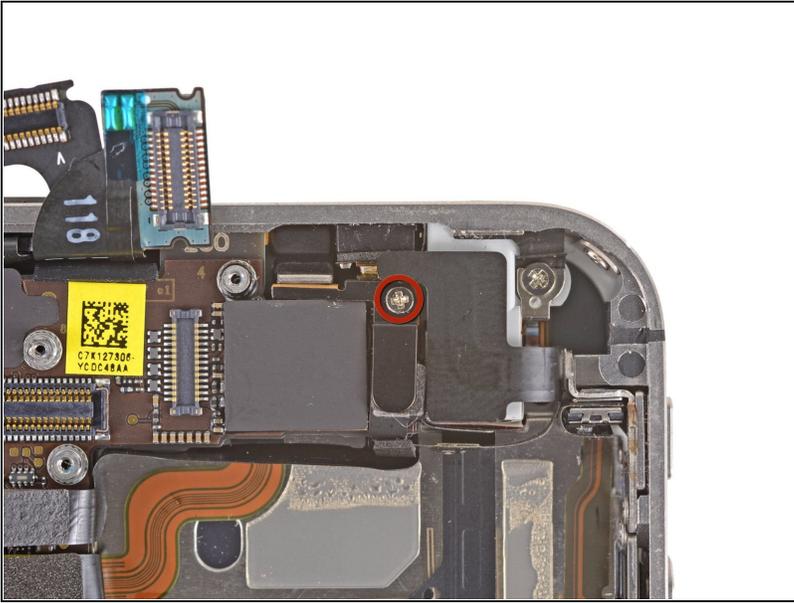
## Step 15 — Logic Board



- Disconnect the five cables near the top of the logic board in the following order:
  - Headphone jack/volume button cable
  - Power button cable
  - Front facing camera cable
  - Digitizer cable
  - Display data cable
- To disconnect the cables, use the edge of a plastic opening tool to gently lift their connectors up and out of the sockets on the logic board.

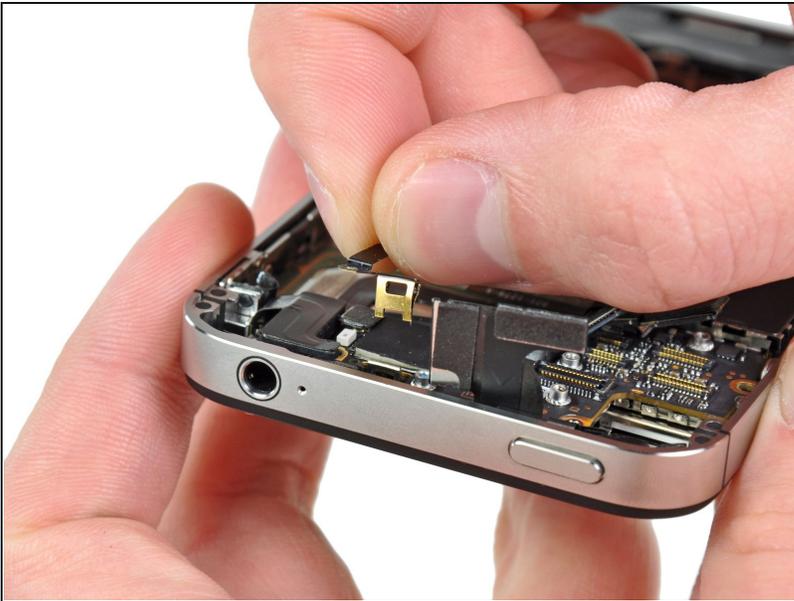
**⚠ Be careful not to break any of the small and delicate surface mount components as you disconnect the cables.**

## Step 16



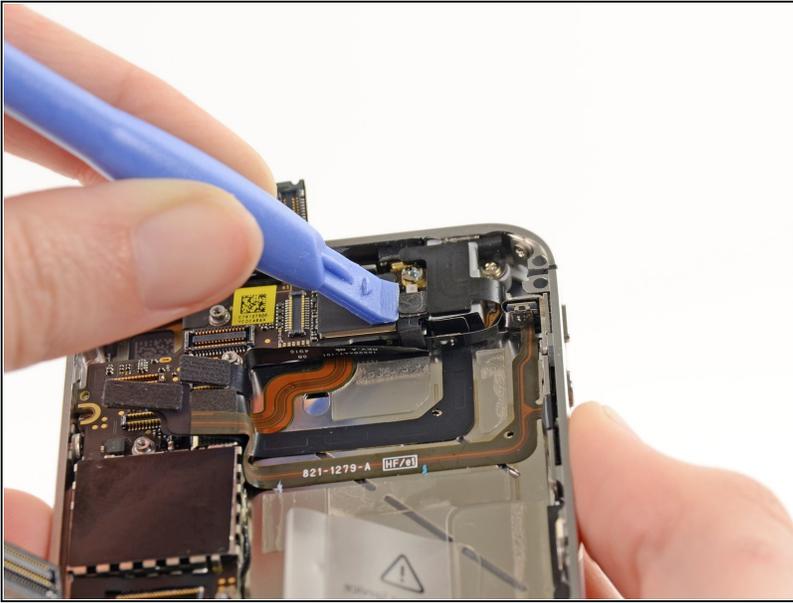
- Remove the 1.5 mm Phillips #000 screw near the headphone jack.

## Step 17



- Lift the small grounding clip up off the logic board and remove it from the iPhone.

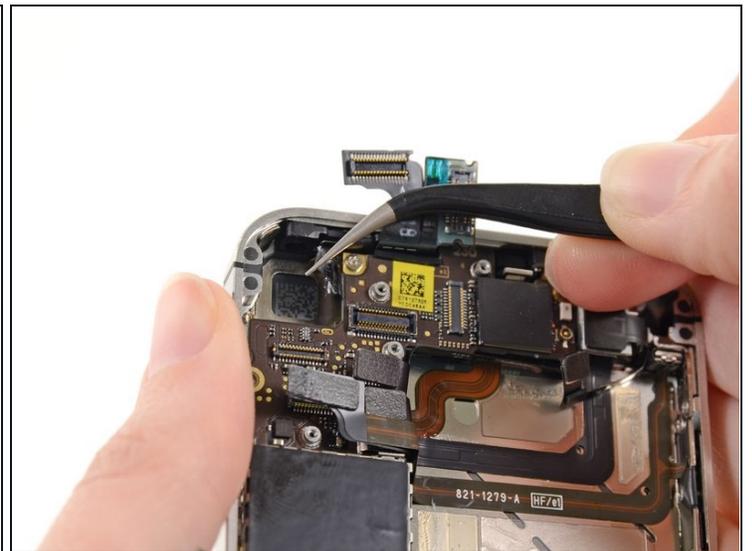
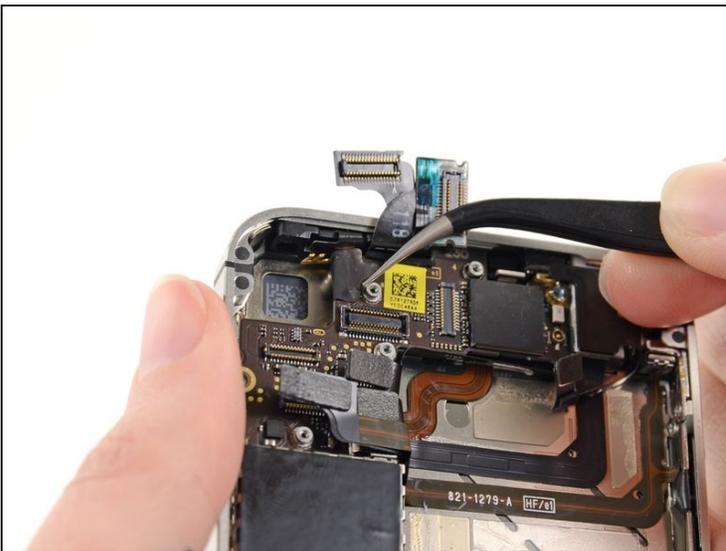
## Step 18



- Use the edge of a plastic opening tool to disconnect the Wi-Fi antenna cable connector from the logic board.

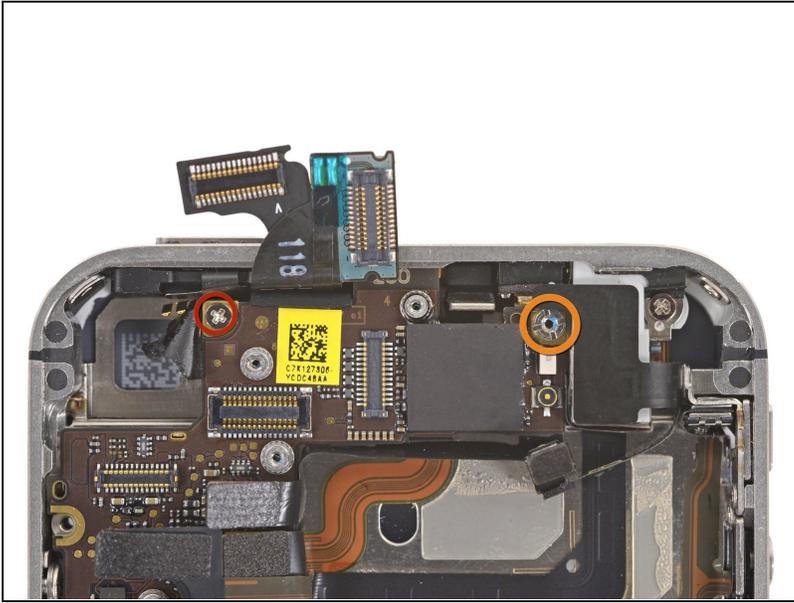
⚠ When reconnecting the wifi ribbon connector to the motherboard be VERY certain that the round connector at the end of the ribbon cable is centered on its mating half on the motherboard before applying pressure. Failure to do so will likely destroy both halves of the connection.

## Step 19



ⓘ If present, remove the piece of tape covering a Phillips screw near the power button.

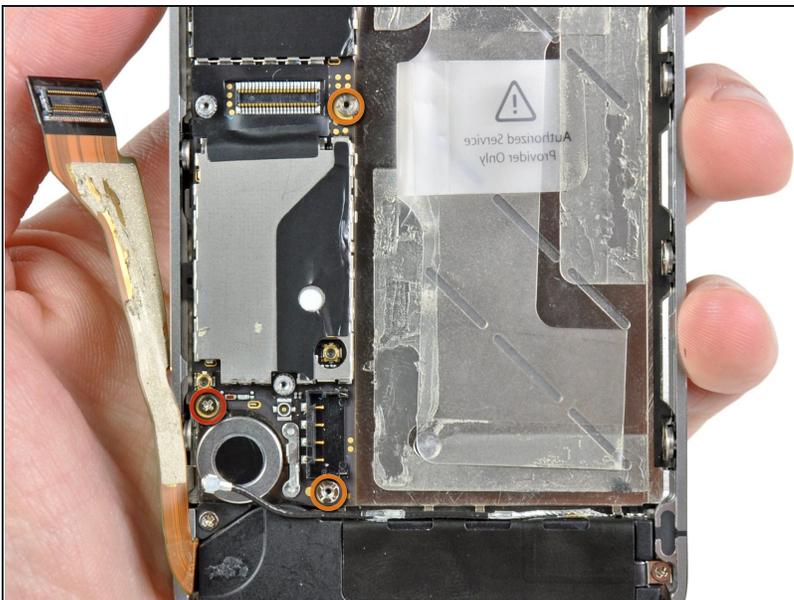
## Step 20



- Remove the 2.5 mm Phillips #000 screw securing the logic board near the power button.
- Remove the 4.8 mm standoff screw near the headphone jack.
- ⓘ 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 21



- Remove the 3.4 mm Phillips screw near the vibrator motor.
- Remove the two 3.6 mm standoff screws along the side of the logic board nearest the battery opening.

## Step 22

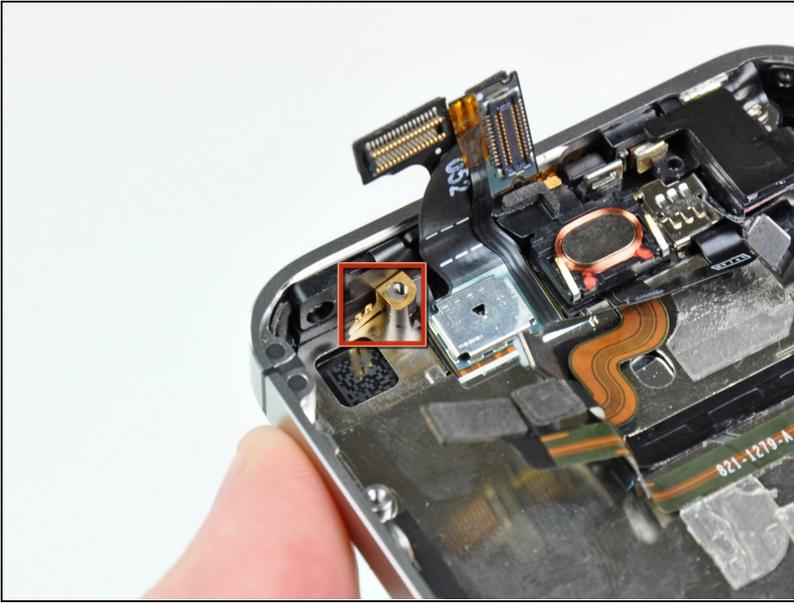


- Carefully lift the logic board from the end closest to the speaker enclosure and slide it away from the top edge of the iPhone.
- Remove the logic board.

⚠ Before reassembly, be sure to clean all metal-to-metal contact points on the logic board (**not** the mating halves of connectors) with a de-greaser such as windex or isopropyl alcohol. The oils on your fingers have the potential to cause grounding issues.

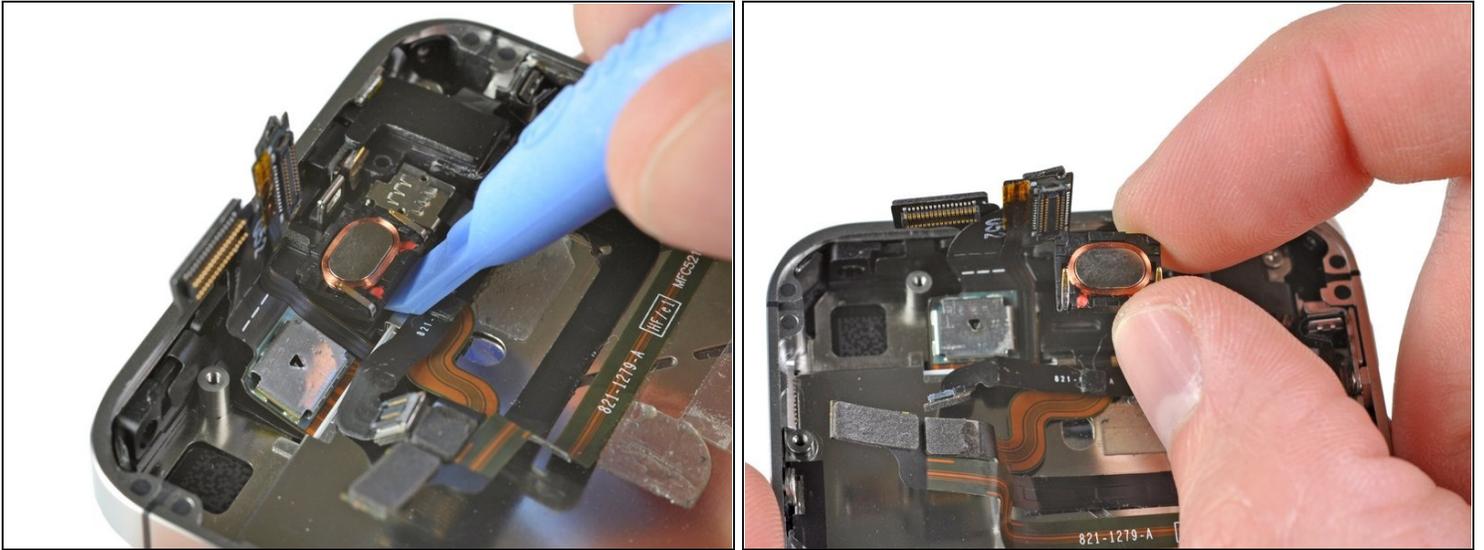
★ There's a small rectangular rubber pad at the top of the logic board that prevents the display cables from chafing against the edge of the board. If it comes loose during your repair, make sure to [position it correctly](#) when reinstalling your logic board.

## Step 23



⚠ Be sure not to lose the small grounding finger for the rear facing camera near the power button.

## Step 24 — Earpiece Speaker



- Use the edge of a plastic opening tool to peel the earpiece speaker off the foam adhesive securing it to the iPhone.
  - ⓘ If you wish to reuse the earpiece speaker, try not to tear the foam adhesive that secures it to the iPhone's case.
  - Remove the earpiece speaker.
- ⚠ The speaker may be glued to a ribbon cable. Use a second opening tool to hold the cable down.**

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