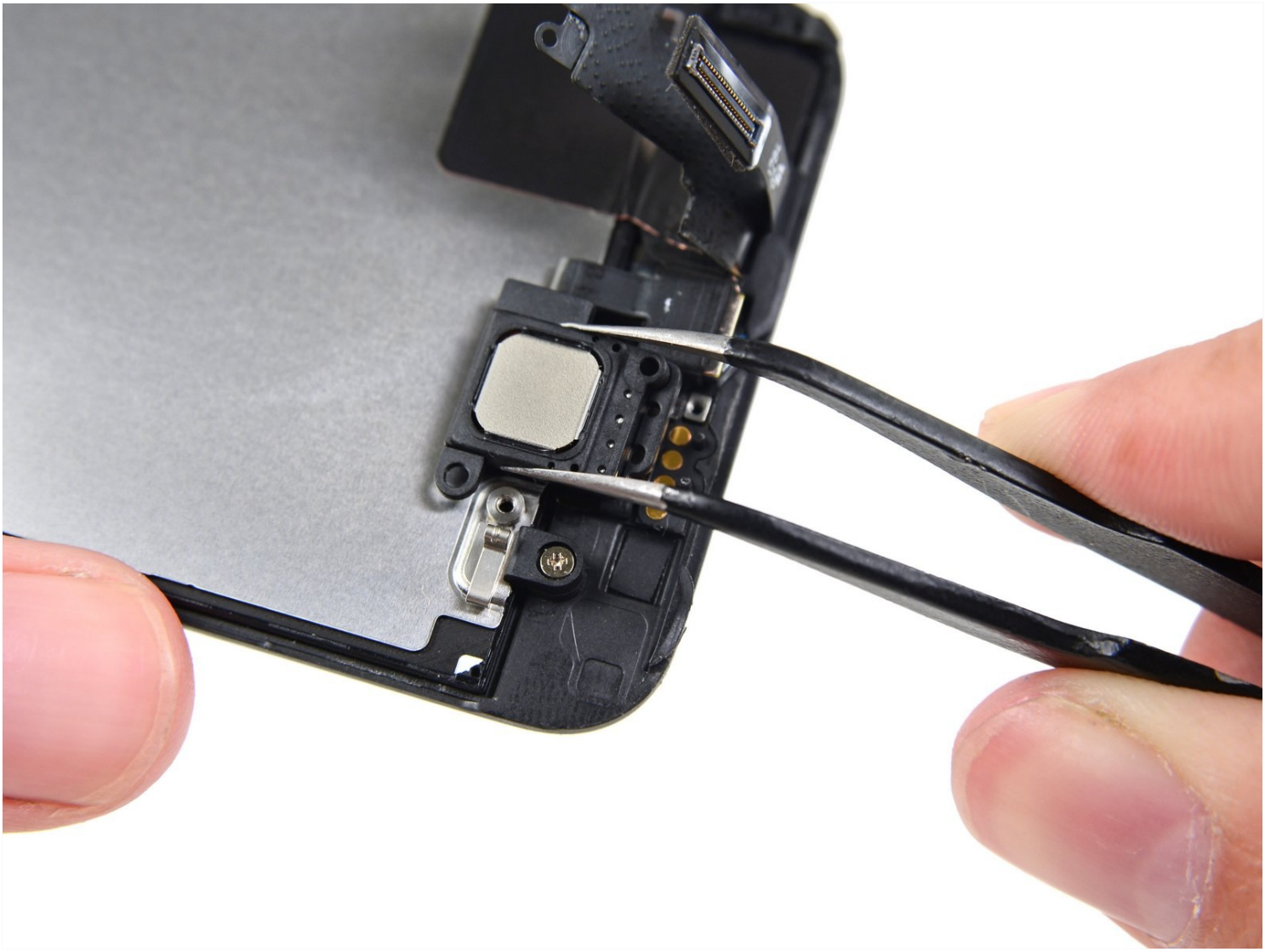
iPhone 5s Earpiece Speaker Replacement

Use this guide to replace a broken earpiece...

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INTRODUCTION

Use this guide to replace a broken earpiece speaker in your iPhone 5s.

TOOLS:

Anti-Clamp (1)
P2 Pentalobe Screwdriver iPhone (1)
Phillips #000 Screwdriver (1)
iFixit Opening Tool (1)
Suction Handle (1)
Spudger (1)
Tweezers (1)

PARTS:

iPhone 5s/SE (1st Gen) Earpiece Speaker (1)

Step 1 — Removing the Pentalobe screws



⚠ Before you proceed, 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 3.9 mm Pentalobe screws from either side of Lightning connector.

Step 2 — Taping the display glass





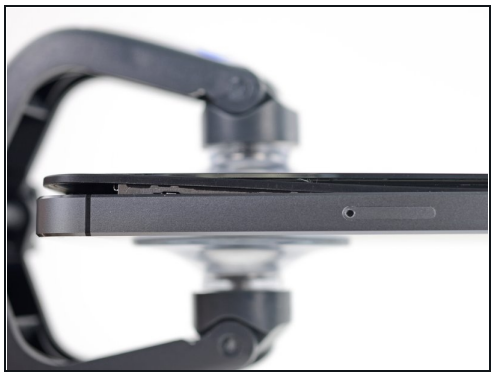
- If your display glass is cracked, keep further breakage contained and prevent bodily harm during your repair by taping the glass.

- Lay overlapping strips of clear packing tape over the iPhone's display until the whole face is covered.

ⓘ This will keep glass shards contained and provide structural integrity when prying and lifting the display.

⚠ Wear safety glasses to protect your eyes from any glass shaken free during the repair.

Step 3 — Display separation prevention





In the following steps you will be pulling the display up out of the phone body. The display is composed of a glass screen and a plastic bezel with metal clips.

- Regardless of the tool you use, **you need to be sure you pull up the entire display**.
- If the glass begins to separate from the plastic, as shown in the first image, slide a plastic opening tool between the plastic frame and the metal phone body to pry the metal clips out of the case.

If you are reassembling a phone with a separated display bezel, you may want to place a thin strip of adhesive between the plastic bezel and the glass to keep the phone closed.

Step 4 — Anti-Clamp instructions







The next two 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 two steps for an alternate method.**

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.

If the surface of your iPhone is too slippery for the Anti-Clamp to hold onto, you can use the included tape pad to create a grippier surface.

Step 5







- 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.
- Insert an opening pick under the screen when the Anti-Clamp creates a large enough gap.

  ⓘ If the Anti-Clamp doesn't create a sufficient gap, rotate the handle a quarter turn.

  ⚠ **Don't crank more than a quarter turn at a time and wait a few seconds between turns**. Let the Anti-Clamp and time do the work for you.
- **Skip the next two steps.**

Step 6 — Manual Opening Procedure



- If you don't have an Anti-Clamp, use a single suction cup to lift the front panel:
  - Press a suction cup onto the screen, just above the home button.

ⓘ Be sure the cup is completely on the screen to get a tight seal.

Step 7 — Start lifting the front panel assembly



⚠ The front panel is attached with clips, and there are several ribbon cables connecting it to the rest of the phone. Your goal here is to release the clips and **open the phone only enough to disconnect the cables**. Go slowly and carefully to avoid damage.

ⓘ Make sure the suction cup is firmly attached to the front panel assembly near the home button.

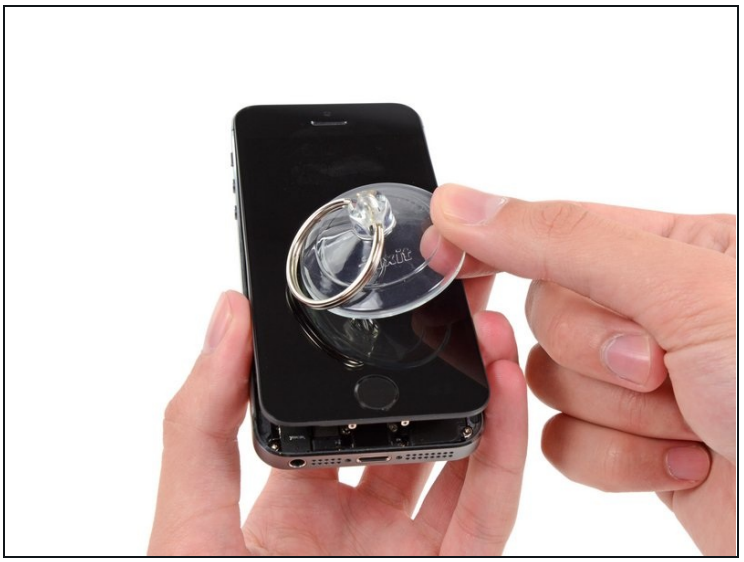
- While holding the iPhone down with one hand, pull up on the suction cup to slightly separate the home button end of the front panel from the rear case.

- With a plastic opening tool, gently pry the edges of the rear case down, away from the front panel assembly, while you pull up with the suction cup.

⚠ Take your time and apply firm, constant force. The front panel assembly is a much tighter fit than on most other devices.

Step 8





⚠ Do not try to completely remove the front panel assembly from the rear case, as there are several delicate ribbon cables connecting them.

- Pull the plastic nub to release the vacuum seal on the suction cup.
- Remove the suction cup from the screen.

Step 9 — Removing the Touch ID cable bracket





- Open the phone just enough to reveal the metal bracket covering the home button cable.

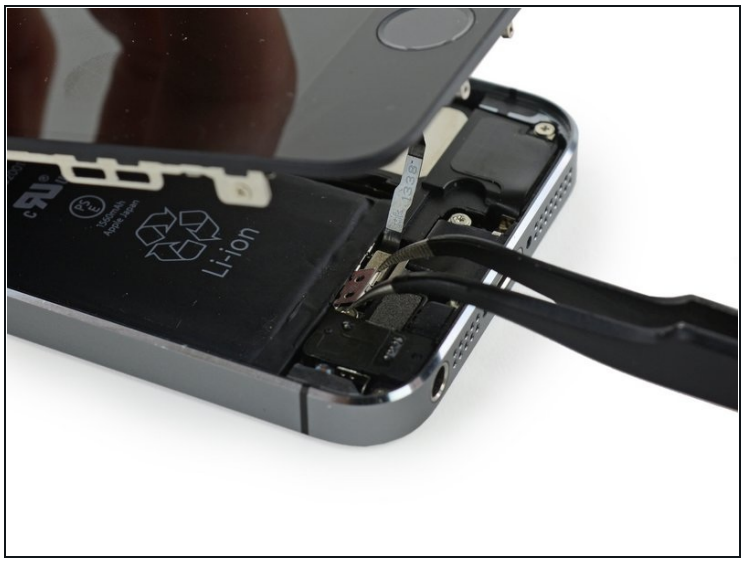
⚠ Do not open the phone too far or you risk damaging the home button cable, or the socket it plugs into. **Keep the cable loose—if it is stretched taut, that's too far.**

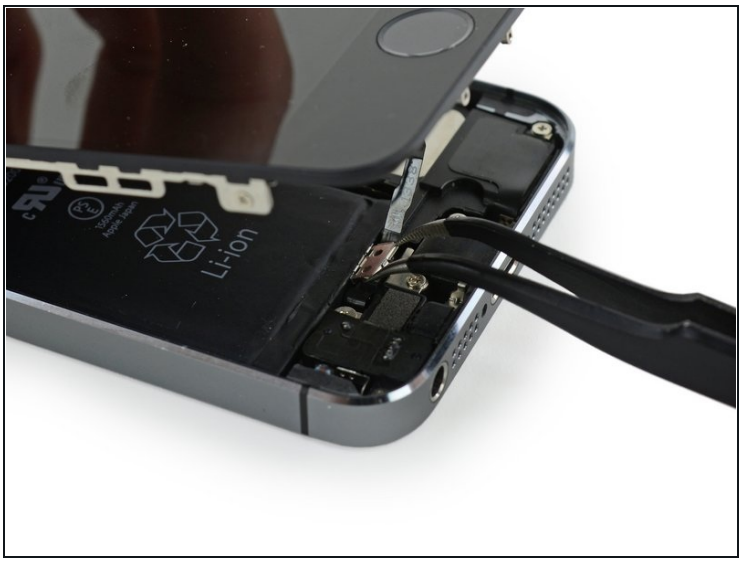
- Only the phone's original home button assembly will be capable of using the Touch ID functionality. **If you rip the cable, installing a new home button will only restore ordinary home button functions, not the Touch ID features.**

- Use the tip of a spudger to push the bracket free and remove it with tweezers.

ⓘ The next two steps apply to reassembly. Skip them and continue to Step 12 until reassembly.

Step 10

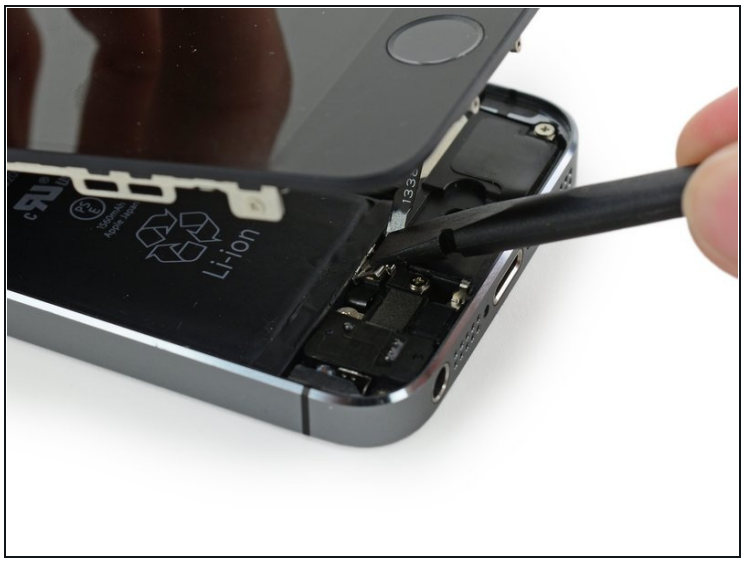




- During reassembly, you will need to reinstall the Touch ID cable bracket. The top of the bracket needs to slide between the battery and Touch ID cable connector, in front of the metal tab. The bottom must latch down over the connector.

- Slide the top of the bracket over the Touch ID cable connector from left to right.

Step 11





During reassembly, use the flat end of a spudger to snap the front portion of the Touch ID cable bracket down over the cable connector.

If the bracket does not snap down flush, you may need to remove the bracket and slide it over the cable connector again for a better fit.

Step 12 — Disconnecting the home button cable connector

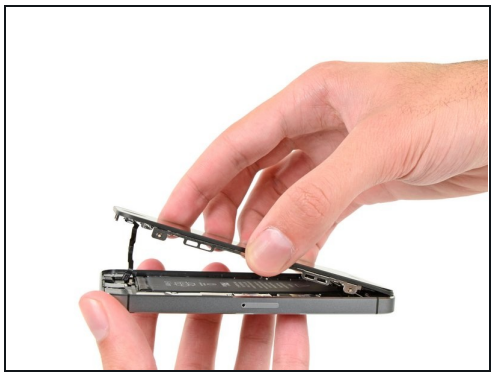


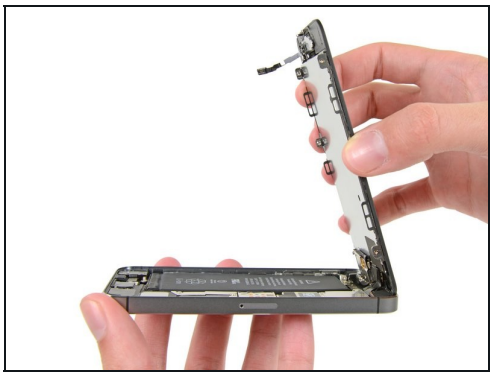


- Use the tip of a spudger to pry the home button cable connector up out of its socket.

⚠ Be sure you're separating the cable connector from its socket, and not prying the entire socket up. The socket is on its own glued-down cable that can be pried up if you aren't careful.

Step 13 — Opening up the phone







- Once the connector has been released, pull the home button end of the assembly away from the rear case, using the top of the phone as a hinge.
- Open the display to about a 90º angle, and lean it against something to keep it propped up while you're working on the phone.
  - Add a rubber band to keep the display securely in place while you work. This prevents undue strain on the display cables.

ⓘ In a pinch, you can use an unopened canned beverage to hold the display.

Step 14



- Remove the two 1.6 mm Phillips #000 screws securing the metal battery connector bracket to the logic board.

Step 15



- Remove the metal battery connector bracket from the iPhone.

Step 16





- Use the flat end of a spudger 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 itself and not the socket on the logic board. If you pry up on the logic board socket or the board itself, you may destroy the socket or damage nearby components on the board.

Step 17

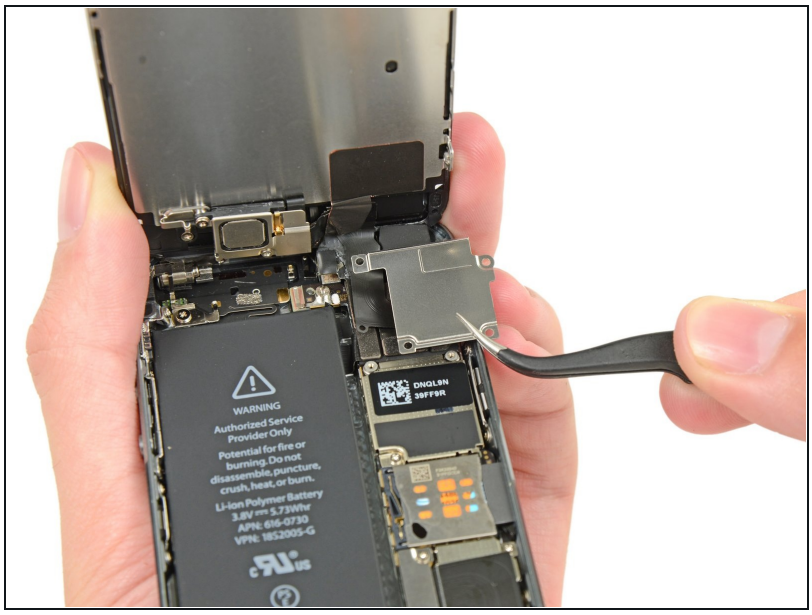


- Remove the following screws securing the front panel assembly cable bracket to the logic board:
  - One 1.7 mm Phillips #000 screw
  - One 1.2 mm Phillips #000 screw
  - One 1.3 mm Phillips #000 screw
  - One more 1.7 mm Phillips #000 screw
    - ⓘ This 1.7 mm screw tends to not be attracted to a magnetized screwdriver. Take care not to lose it when removing.

⚠ It is especially important to keep track of your screws in this step for reassembly. Accidentally using the 1.3 mm screw or one of the 1.7 mm screws in the bottom right hole will result in significant damage to the logic board causing the phone to no longer boot properly.

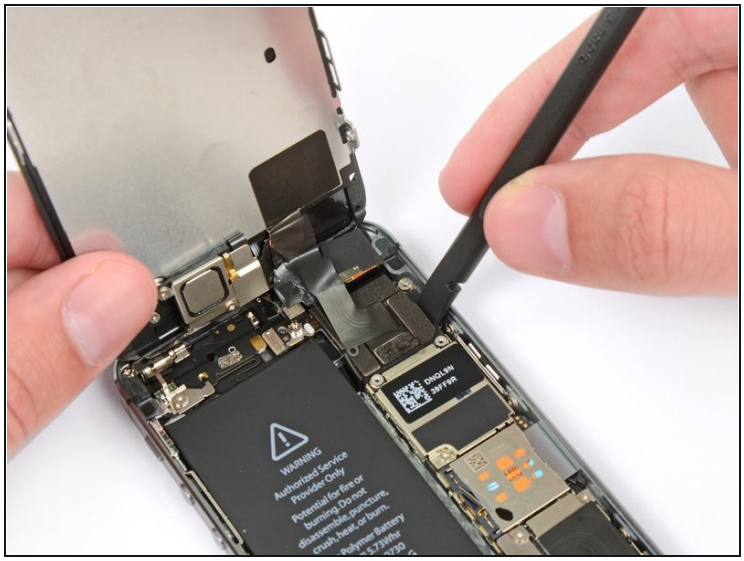
⚠ Be careful not to over-tighten the screws, and don't force them. If they don't fit easily when you are securing them, they may be the wrong size.

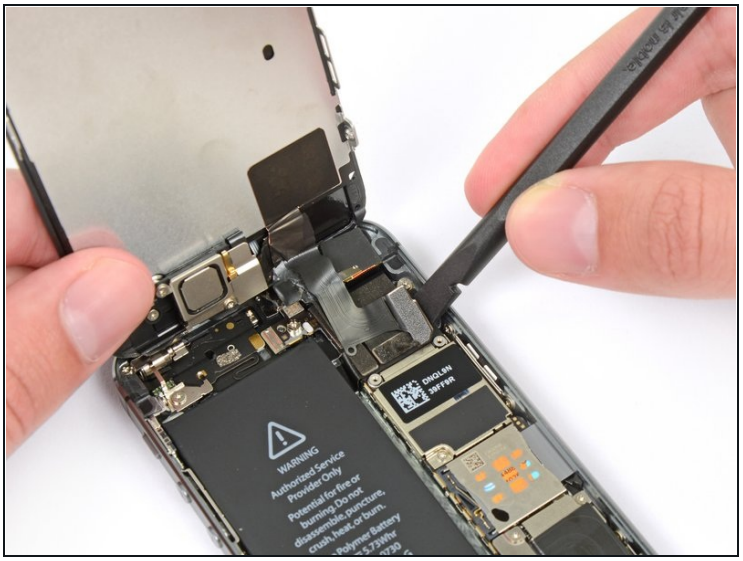
Step 18



- Remove the front panel assembly cable bracket from the logic board.

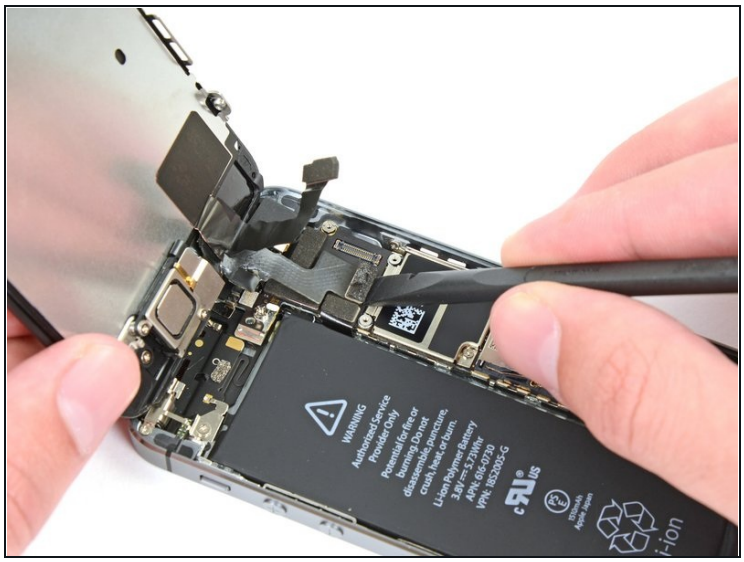
Step 19

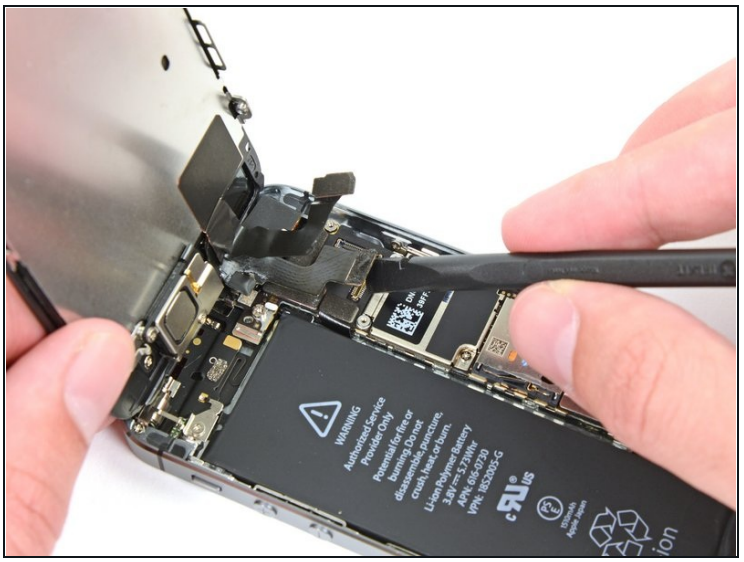




- Use a spudger or a fingernail to disconnect the front-facing camera and sensor cable.

Step 20





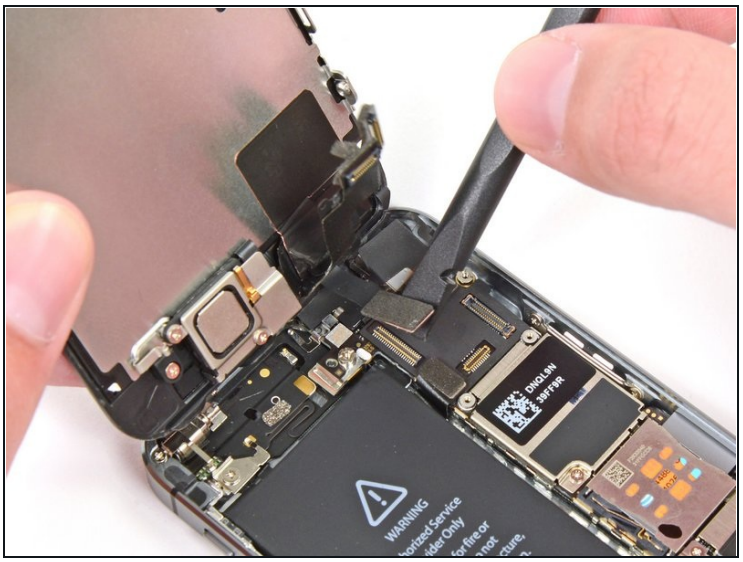
⚠ Make sure the battery is disconnected before you disconnect or reconnect the cable in this step.

- Disconnect the LCD cable connector.

When reassembling your phone, the LCD cable may pop off the connector. This can result in white lines or a blank screen when powering your phone back on. If that happens, simply reconnect the cable and power cycle your phone. The best way to power cycle your phone is to disconnect and reconnect the battery.

Step 21





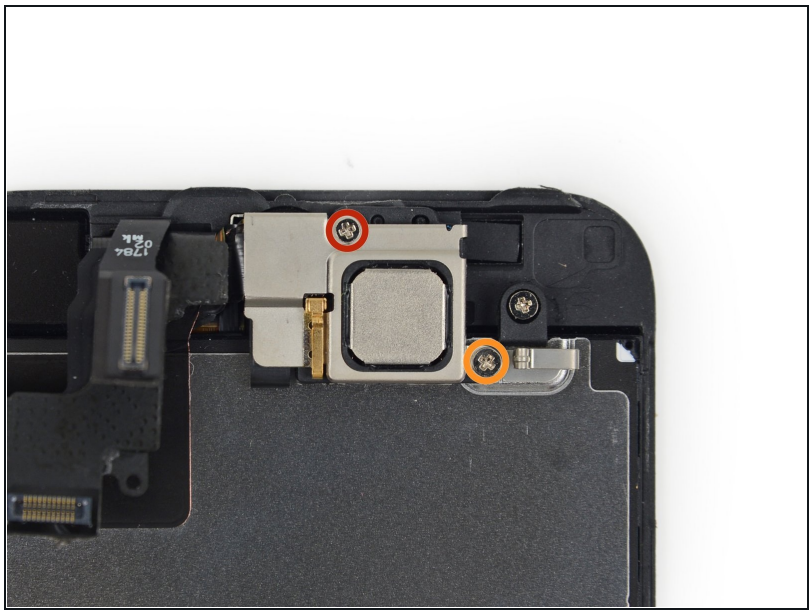
- Finally, disconnect the digitizer cable connector.

Step 22



- Remove the front panel assembly from the rear case.

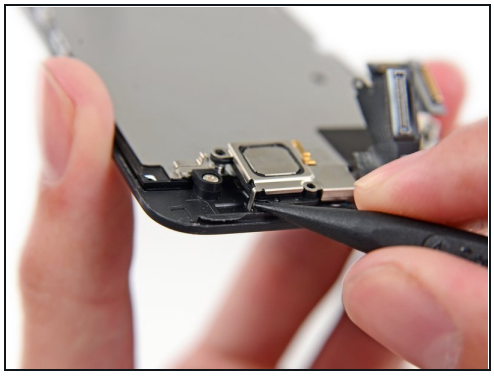
Step 23 — Earpiece Speaker

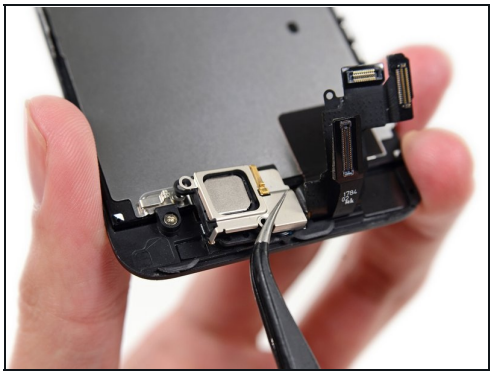


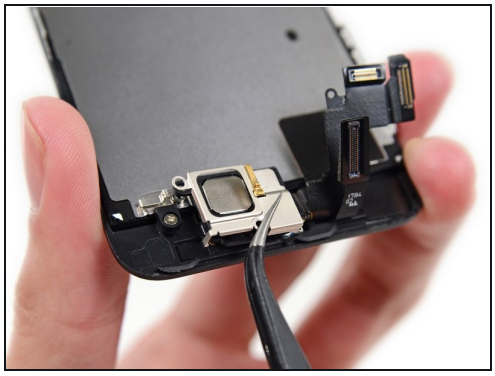
- Remove the two screws securing the upper component bracket:
  - 4.0 mm Phillips #000
  - 2.3 mm Phillips #000

⚠ It is imperative that the right screws are inserted into their respective holes. Otherwise it may cause severe damage to the LCD during reassembly.

Step 24







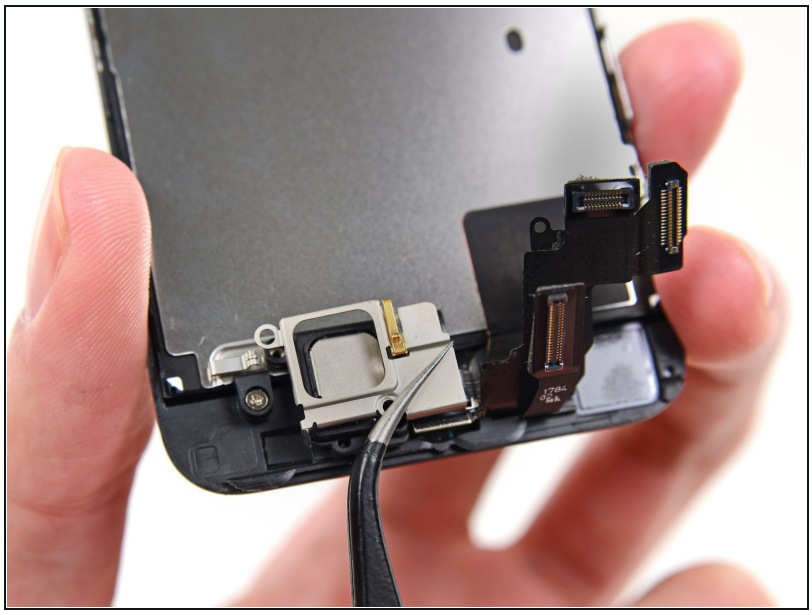
ⓘ Orient the phone as shown, with the home button on top and the earpiece speaker on bottom.

- Gently dislodge the clip, near the bottom left corner of the earpiece speaker bracket, outwards from its recess on the front panel assembly.

⚠ Do **not** pry with excessive force, as the earpiece speaker bracket is fragile and malleable.

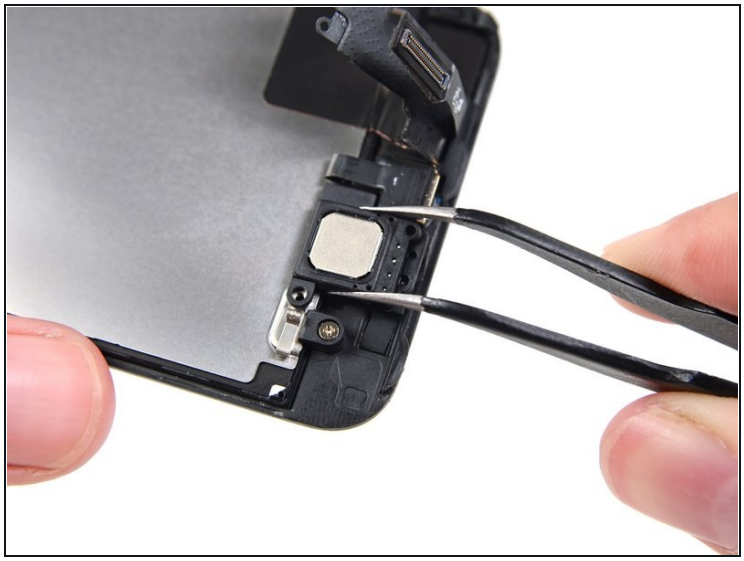
- With a set of tweezers, shift the bracket to the left to unclip it.

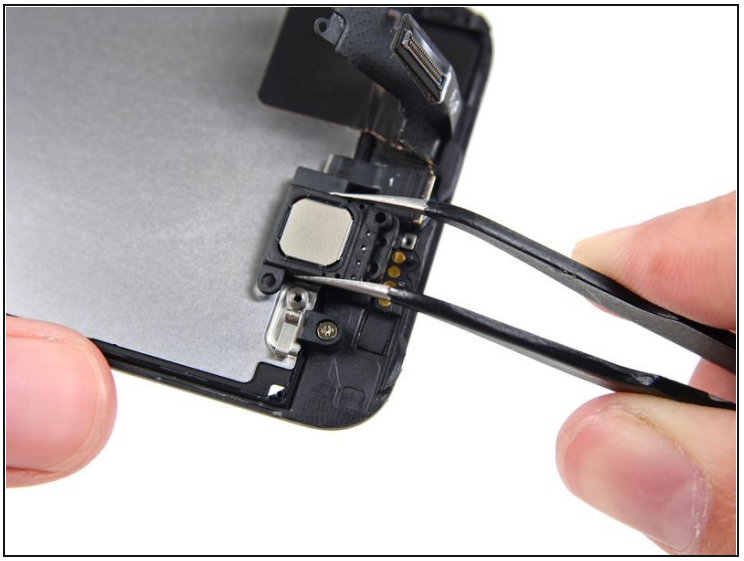
Step 25



- Remove the bracket from the display.

Step 26

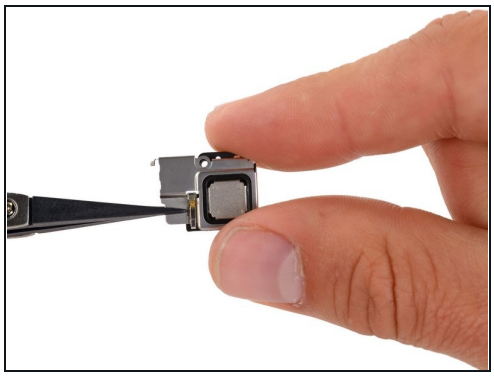
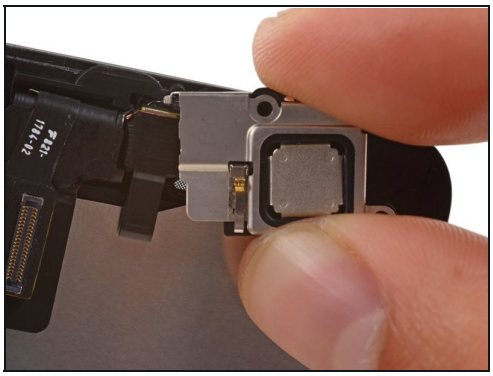
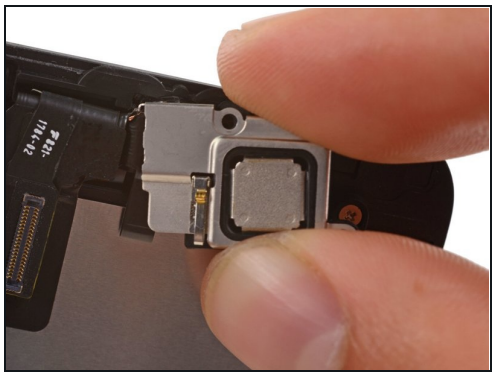




- Remove the earpiece speaker with a set of tweezers.

⚠ If you use your fingers, be very careful not to touch the gold contacts on the front panel. Finger oil can prevent good contact.

Step 27

To replace the earpiece speaker, it is easiest to install the speaker and bracket together:

- Place the earpiece speaker bracket over the speaker so that it fits snugly in its housing.
- Slide the left hook of the bracket into the notch above the top left corner of the front facing camera.
- Rotate the bracket so it lays flat on the rear case, aligning the two screw holes. Press the bracket into place, ensuring the hook on the right side of the metal bracket latches onto the display.

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