iPhone 5 Speaker Enclosure Replacement

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INTRODUCTION

Bring back the beats by replacing a blown out speaker on your iPhone 5.

TOOLS:

- SIM Card Eject Tool (1)

or paperclip

- Phillips #000 Screwdriver (1)
- iFixit Opening Tools (1)
- 2.5 mm Flathead Screwdriver (1)
- Suction Handle (1)
- Spudger (1)
- P2 Pentalobe Screwdriver iPhone (1)

PARTS:

- iPhone 5 Loudspeaker (1)
- iPhone 5 Cellular Antenna (1)

Step 1 — Speaker Enclosure

- 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.

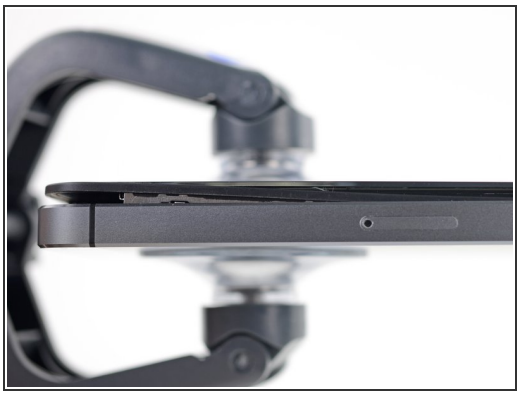
⚠ Wear safety glasses to protect your eyes from any glass shaken free during the repair.

Step 2

⚠ 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 3.6 mm Pentalobe screws next to the Lightning connector.

Step 3



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 — iSclack Opening Procedure



The next two steps demonstrate using the , a great tool for safely opening the iPhone 5 that we recommend for anyone doing more than one repair. **If you aren't using the iSclack, skip to [invalid guide link].**

- Close the handle on the iSclack, opening the suction-cup jaws.
- Place the bottom of your iPhone in between the suction cups, against the plastic depth gauge.
  - The top suction cup should rest just above the home button.
- Open the handles to close the jaws of the iSclack. Center the suction cups and press them firmly onto the top and bottom of the iPhone.

Step 5

- Hold onto your iPhone securely and close the handle of the iSclack to separate the suction cups, pulling the front panel up from the rear case.
- The iSclack is designed to safely open your iPhone just enough to separate the pieces, but not enough to damage any cables.
- Peel the two suction cups off your iPhone.
- **Skip the next three steps and continue on [invalid guide link].**

Step 6

- 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.

If you're opening an iPhone with cracked glass, neatly lay a couple strips of packing tape across the front and squeeze out as many bubbles as you can. This will give the suction cup a surface to grab, and minimize the spread of broken glass.

Step 7

Make sure the suction cup is firmly attached to the front panel assembly.

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

Take your time and apply firm, constant force. The display assembly is a much tighter fit than most devices.

- With a plastic opening tool, begin to gently pry the rear case down, away from the display assembly, while you pull up with the suction cup.

There are several clips attaching the front panel assembly to the rear case, so you may need to use a combination of the suction cup and plastic opening tool to free the front panel assembly.

Step 8

- Continue to pry up around the sides of the front panel assembly, detaching the clips along the left and right side.

Step 9

⚠ Do not try to completely remove the front panel assembly from the rear case, as there are several ribbon cables still attached at the top of the iPhone.

- Once the clips have been released on the bottom and sides of the front panel assembly, pull the bottom of the assembly away from the rear case.
- 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.

Step 10

- Remove the following two screws securing the metal battery connector bracket to the logic board:
  - One 1.8 mm Phillips screw
  - One 1.6 mm Phillips screw

Step 11

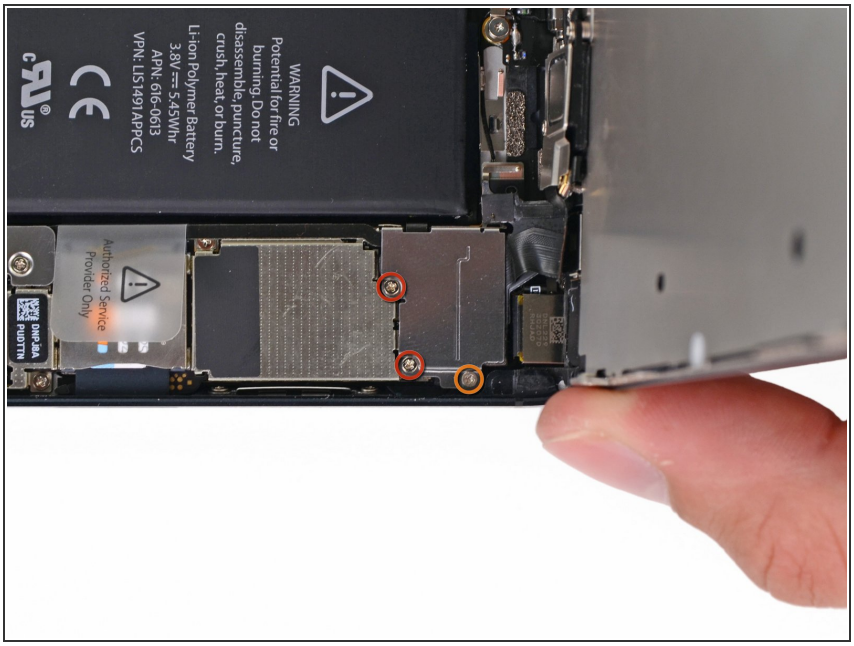
- Remove the metal battery connector bracket from the iPhone.

Step 12

- Use 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 the connector entirely.

Step 13



- Remove the following screws securing the front panel assembly cable bracket to the logic board:
  - Two 1.2 mm Phillips screws
  - One 1.6 mm Phillips screw

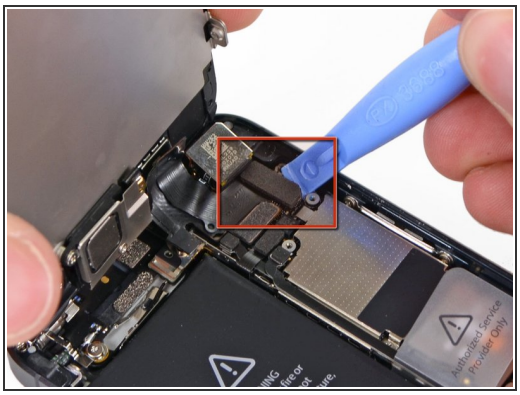
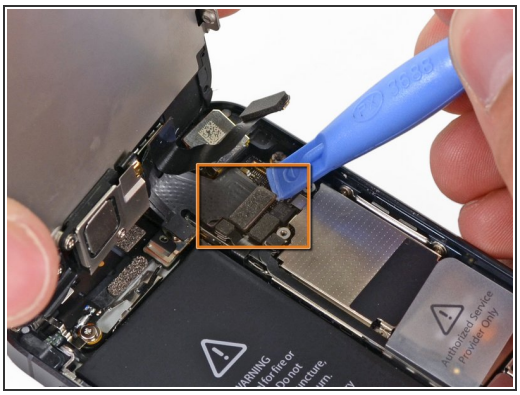
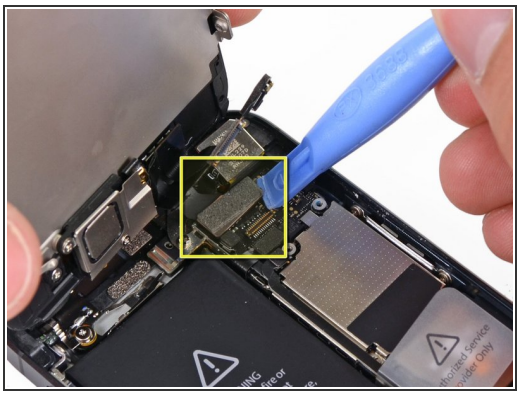
    ⓘ This screw tends to not be attracted to a magnetized screwdriver. Take care not to lose it when removing, and make sure it gets back into the right place—a magnetized screw may interfere with the compass.

Step 14

- Lift the display cable bracket toward the battery to unhook it, and remove it from the iPhone.

During reassembly, clip the left-hand hooks under the logic board and lower the bracket towards the outside of the phone.

Step 15

- Use a plastic opening tool to disconnect the three front panel assembly cables:
  - Front-facing camera and sensor cable
  - LCD cable
  - Digitizer cable

⚠ When reassembling your phone, the LCD cable may pop off the connector. This can cause white lines, or nothing at all to appear 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 [invalid guide link].

Step 16

- Remove the front panel assembly from the rear case.

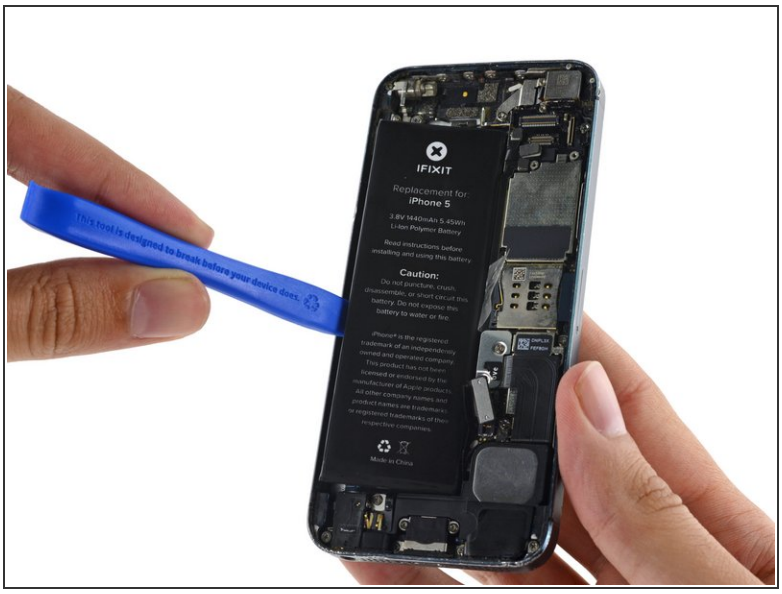
Step 17

- Use the exposed clear plastic pull tab to peel the battery off the adhesive securing it to the iPhone.
  - If you have trouble peeling the battery up, use an iOpener or hair dryer to heat the rear case of the iPhone and soften the adhesive.
  - The plastic tab is fragile and may break. If your tab breaks before the battery is freed, refer to the following steps.

Step 18

- If the tab breaks off and the battery remains stuck to the rear case, prepare an iOpener or use a hair dryer to heat the rear case directly behind the battery.
  - This will soften the adhesive holding the battery, making it easier and safer to pry out of the case.

Step 19



⚠ Use the plastic opening tool to **gently** pry the battery up, **only at the outside edge of the phone**. Prying anywhere else, especially near the logic board, **may result in damage to the logic board**.

- If the battery doesn't pry easily out of the case, reheat and reapply the iOpener and try again.

⚠ Pry gently and evenly to avoid deforming the battery. A bent battery can be a fire hazard.

- **Do not** pry at the top portion of the battery, you risk severing the volume control cables.

Step 20

- Remove the battery.

⚠ During reassembly, make sure the battery is seated firmly against the rear case. This will prevent any damage to other components when reinstalling the front panel assembly.

Perform a hard reset after reassembly. This can prevent several issues and simplify troubleshooting.

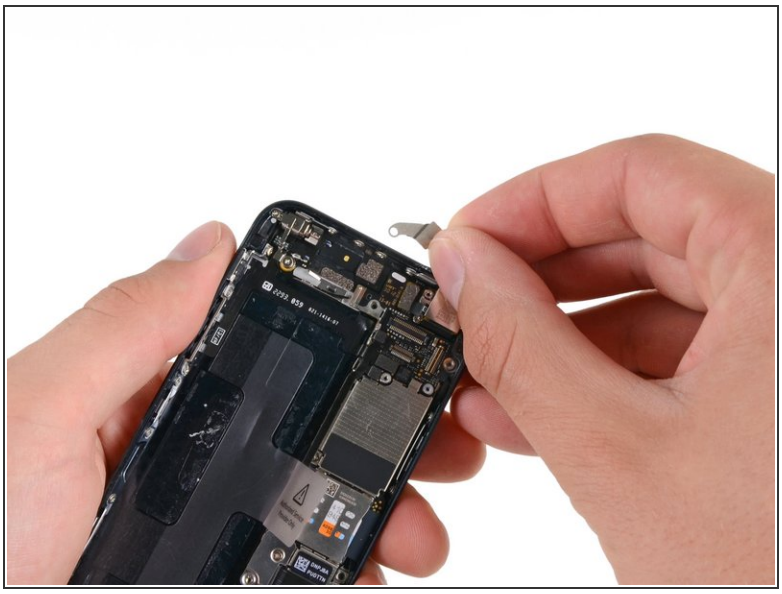
Step 21

- Use the tip of a spudger to pry the cellular data antenna cable connector up from its socket on the logic board, just above the speaker enclosure.

Step 22

- Remove the following two screws securing the top logic board bracket to the rear case:
  - One 1.5 mm Phillips screw
  - One 2.3 mm Phillips screw

Step 23

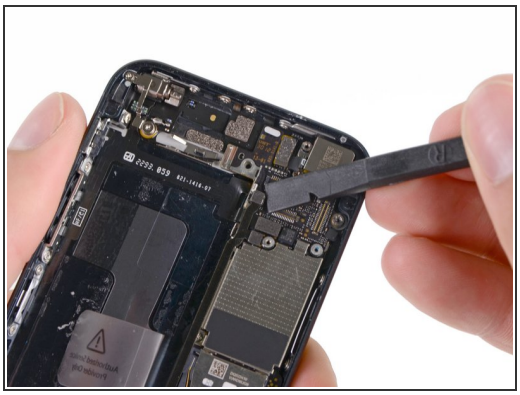


- Remove the bracket from the top of the logic board.

⚠ Be sure not to break off the tiny grounding tab that sticks up off of the bracket next to the rear facing camera.

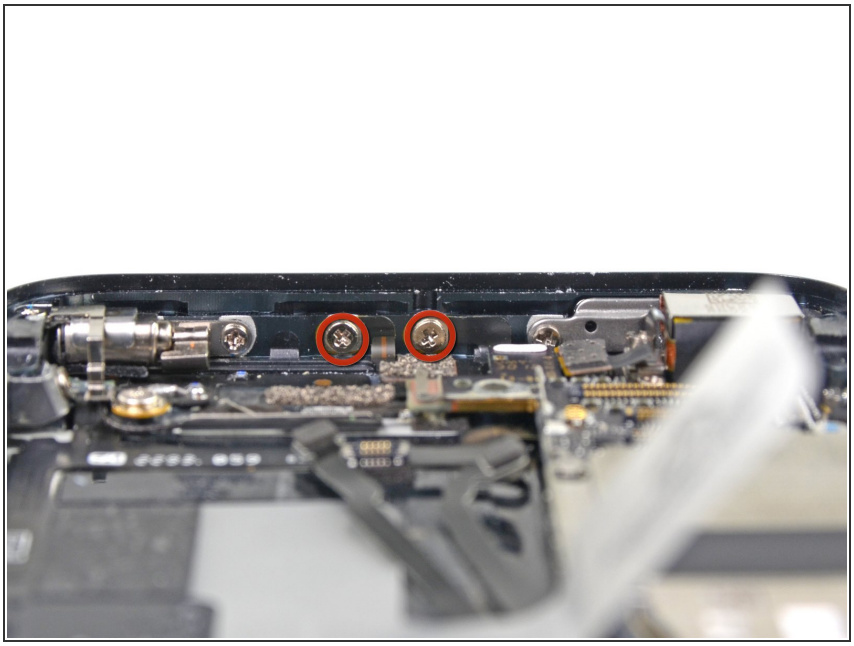
ⓘ On newer models, the bracket may be attached to the camera housing and will not come completely out.

Step 24



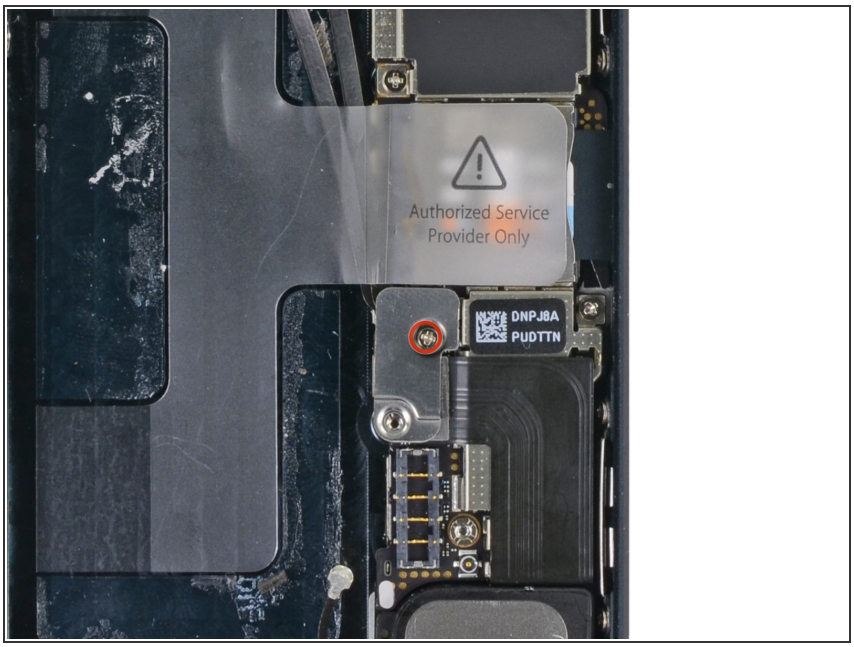
- Use the flat end of a spudger to disconnect the following three cables from the logic board:
  - Upper interconnect cable
  - Button assembly cable
  - Lower interconnect cable

Step 25



- Remove the two 1.3 mm Phillips screws from the inner top of the rear case.

Step 26

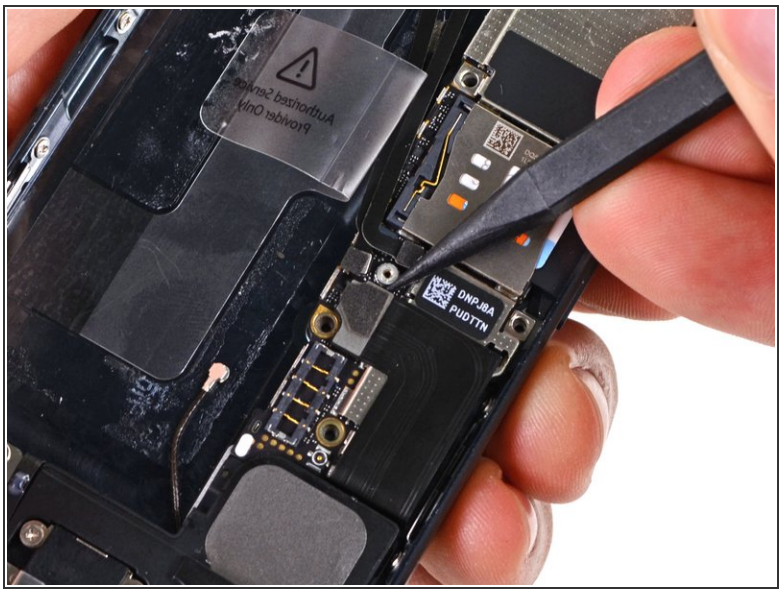


- Remove the single 1.2 mm Phillips screw remaining in the mid-section logic board bracket.

Step 27

- Remove the mid-section bracket from the logic board.

Step 28



- Use a spudger to pry the Lightning connector cable connector up from its socket on the logic board.
- Gently peel the cable back and out of the way of the logic board.

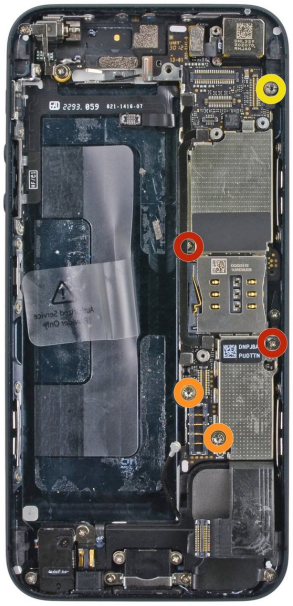
Step 29

- Depress the SIM card release on the right side of the iPhone with a SIM card eject tool or a bent paperclip to eject the SIM card tray.

  ⓘ Alternatively, you can press the SIM card eject lever from the inside with the flat end of a spudger.

- Remove the SIM card tray from the iPhone.

Step 30



- Remove the following screws securing the logic board to the rear case:
  - Two 2.3 mm Phillips screws
  - Two 2.7 mm standoff screws.
    - These screws have a Phillips bit pattern, but we found the best removal tool to be a 2.5 mm flathead driver.
  - One non-magnetic 2.7 mm standoff screw
    - Be sure to put this screw back in its original position at the top of the logic board. A magnetized screw may interfere with the digital compass.
    - Reassembly hint: when putting the standoffs back in, use the tip of a spudger like a screwdriver to get them started.

Step 31



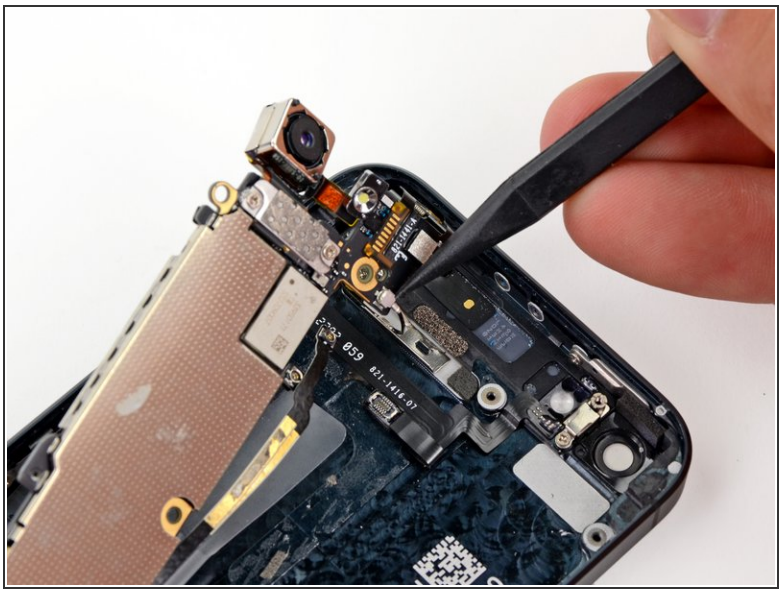
- Rotate the logic board assembly toward the battery side of the rear case.

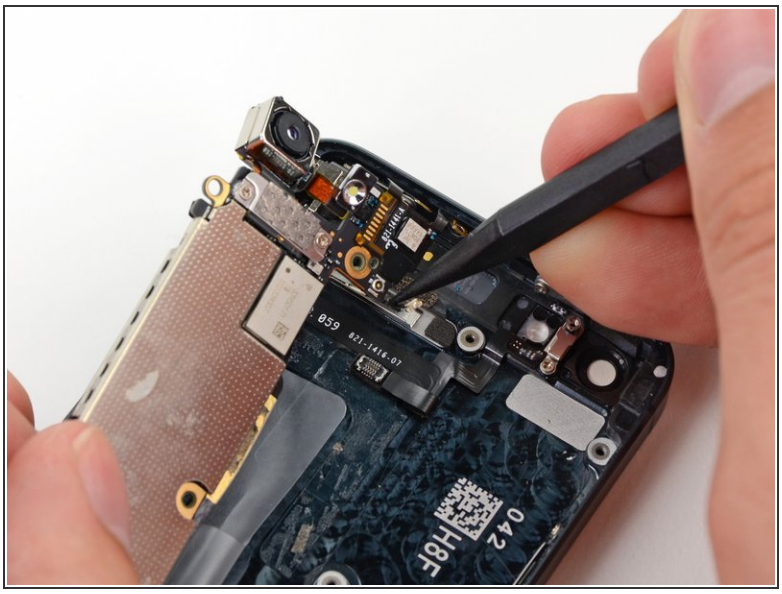
⚠ Do not attempt to completely remove the logic board assembly from the rear case, yet; there is still one cable connected to the underside of the logic board.

- The flash surround is adhered to the flash unit and the rear case. If it stays on the rear case remove with tweezers and mount it back on the flash unit.

- *Note: when reassembling your device, be sure that the lower interconnect cable is not tucked underneath the logic board.*

Step 32





- Use the tip of a spudger to pry the Wi-Fi antenna cable connector up from its socket on the underside of the logic board.

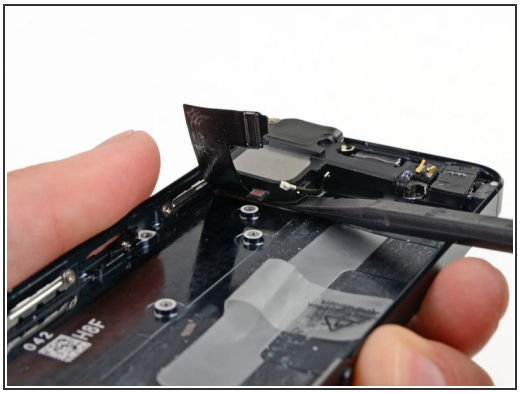
Step 33

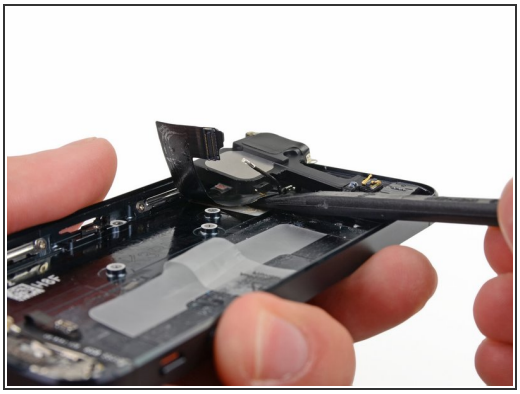
- Remove the logic board assembly from the rear case.
- While your logic board is out of your phone, keep it on a grounded anti-static mat to prevent any damage to the circuitry.

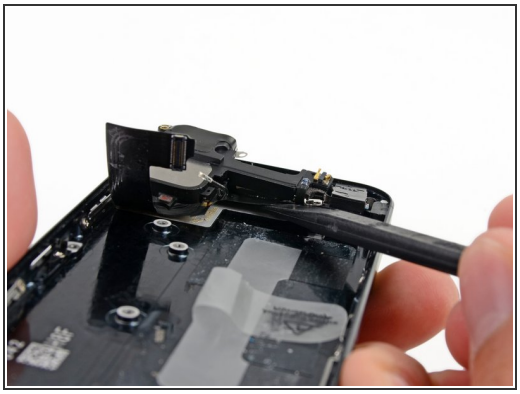
Step 34

- Remove the following screws securing the Lightning connector and speaker enclosure assembly to the rear case:
  - One 2.5 mm Phillips screw
  - Two 3.3 mm Phillips screws
  - One 2.9 mm Phillips screw
  - Two 1.5 mm Phillips screws
  - One 2.8 mm Phillips screw

Step 35



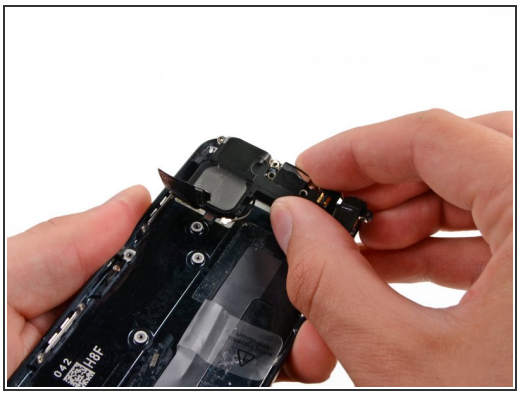
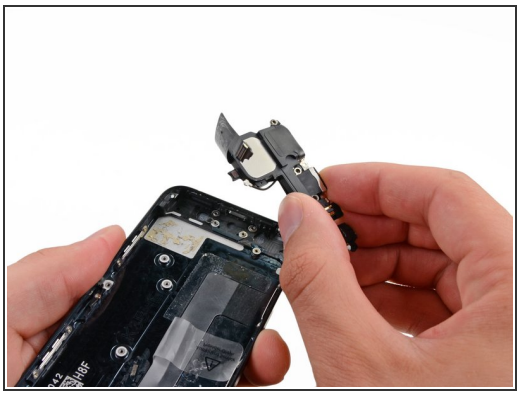
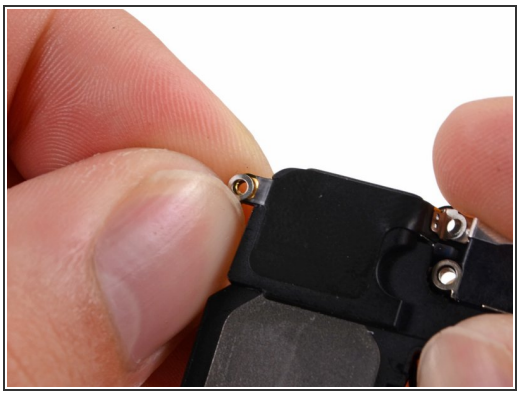




- Use the flat end of a spudger to gently pry the Lightning connector and speaker enclosure assembly cables up from the rear case.

⚠ Make sure you get the spudger under the large ribbon cable connected to the assembly. Prying the rest of the assembly away from the cable may result in a tear.

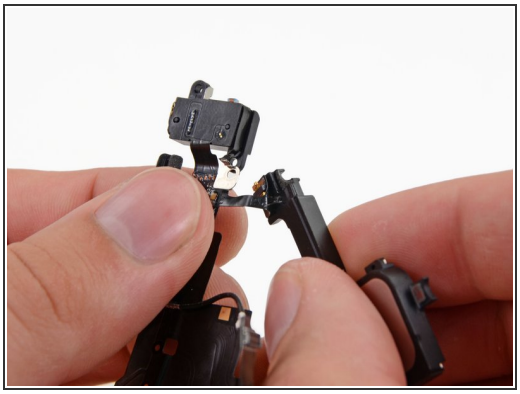
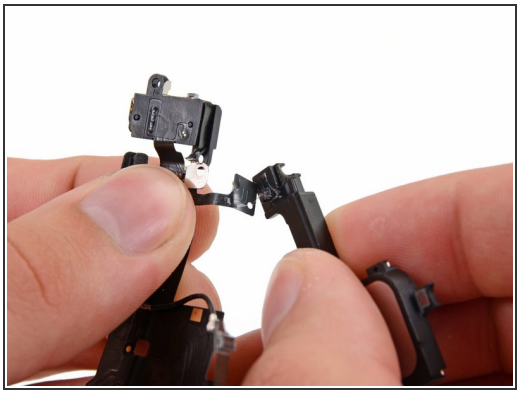
Step 36

- Remove the Lightning connector and speaker enclosure assembly from the rear case.

Take care not to lose the small metal washer on the speaker enclosure, or the four small metal washers beneath the Lightning connector screws.

Step 37


- Gently peel the speaker assembly off the Lightning connector ribbon cable.
- Remove the speaker enclosure from the assembly.

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