

iPhone 5s Lightning Connector Replacement

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INTRODUCTION

Use this guide to replace a nonfunctioning Lightning connector assembly, including headphone jack and microphone.

You can also use this guide for reference when replacing the following parts:

- Headphone Jack Interconnect Cable
- Microphone Gasket

[video: https://www.youtube.com/watch?v=BsRD9cq2U8A]



TOOLS:

- SIM Card Eject Tool (1)
- 2.5 mm Flathead Screwdriver (1)
- P2 Pentalobe Screwdriver iPhone (1)
- iSclack (1)
- iFixit Opening Tools (1)
- Suction Handle (1)
- Spudger (1)
- Phillips #000 Screwdriver (1)
- Tweezers (1)



PARTS:

- iPhone 5s Lightning Connector and Headphone Jack (1)
- iPhone 5s Headphone Jack Interconnect Cable (1)
- iPhone 5s Microphone Gasket (1)

Step 1 — Lightning Connector







- 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.

Mear 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 3.9 mm Pentalobe screws from either side of Lightning connector.

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- 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







- (i) The next two steps demonstrate using the , a great tool for safely opening the iPhone 5s 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.



- 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 the home button cable.
- (i) Peel the two suction cups off your iPhone.
- Skip the next three steps and continue on Step 9.

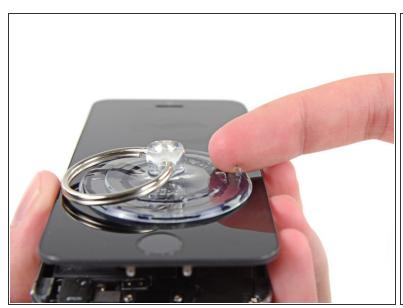
Step 6 — Manual Opening Procedure



- If you don't have an iSclack, 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.



- 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 5s front panel assembly is a much tighter fit than most devices.





- ⚠ 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 display assembly.







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





- i 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, and the front must latch down over the connector.
- Slide the top of the bracket over the Touch ID cable connector from left to right.





- Use the flat end of a spudger to snap the front portion of the Touch ID cable bracket down over the cable connector.
- (i) 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.





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

A 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.







- 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.
 - (i) 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.

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 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.

A 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, you may break the connector entirely.

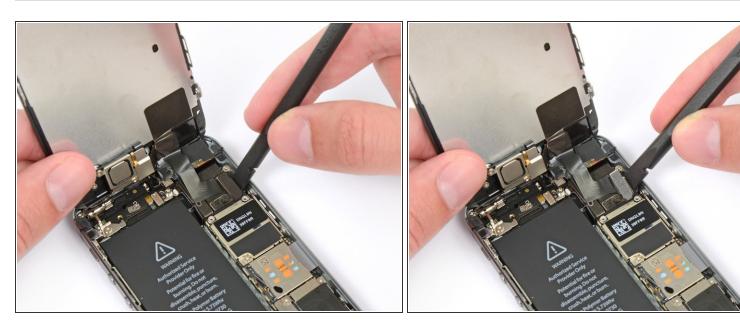


- Remove the following screws securing the front panel assembly cable bracket to the logic board:
 - One 1.7 mm Phillips #000 screw
 - One 1.2 mm Phillips #000 screw
 - One 1.3 mm Phillips #000 screw
 - One more 1.7 mm Phillips #000 screw
 - This 1.7 mm screw tends to not be attracted to a magnetized 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.
 - A 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.

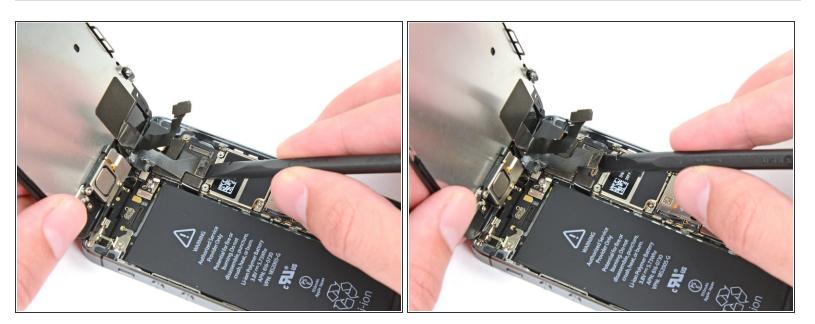


 Remove the front panel assembly cable bracket from the logic board.

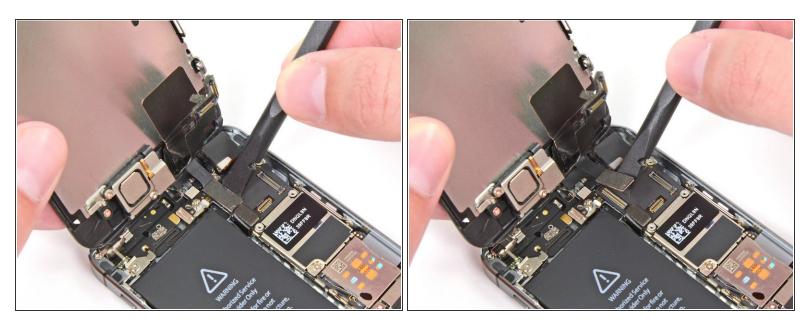
Step 19



• Use the flat end of a spudger to disconnect the front-facing camera and sensor cable.



- While still supporting the front panel, 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.



• Finally, disconnect the digitizer cable connector.

Step 22



 Remove the front panel assembly from the rear case.





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



- Remove the SIM Card tray assembly from the iPhone.
- When reinserting the SIM card, ensure that it is in the proper orientation relative to the tray.





Use a spudger to gently pry the button assembly cable up from its socket on the logic board.

A Be very careful to only pry up on the connector and not the socket on the logic board. If you pry up on the logic board socket, you may break the connector entirely.





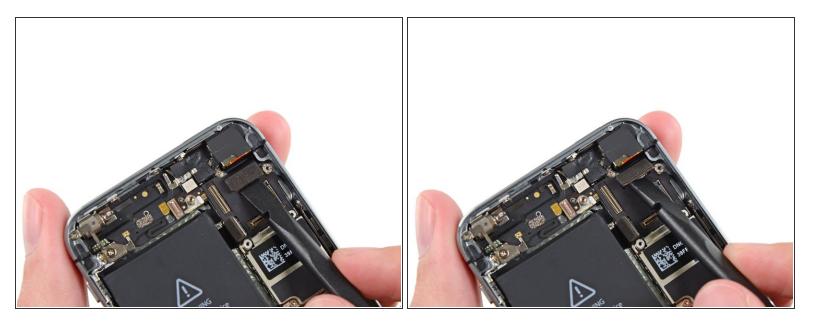


- Use a spudger to pry the Lightning connector cable up from its socket on the logic board.
- Fold the Lightning connector cable out of the way of the logic board.

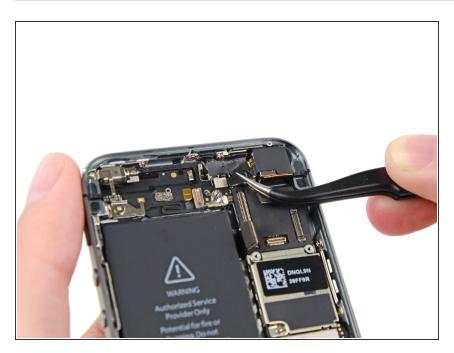


Use the tip of a spudger to pry the antenna cable up from its socket on the logic board.

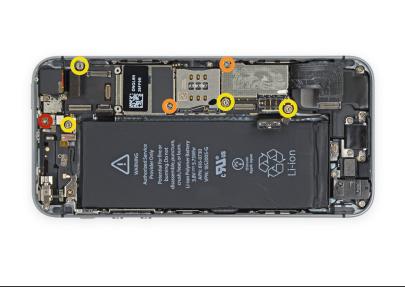
Step 28



 Use the flat end of a spudger to disconnect the rear-facing camera cable from its socket on the logic board.



 Remove any tape covering the camera flash bracket.



- Remove the following screws from the logic board:
 - One 2.4 mm Phillips #000 screw
 - This screw also holds a small metal contact beneath the logic board. It's held in place underneath a plastic bracket, but if you see it slipping out, refer to this step to remove it.
 - Two 2.3 mm Phillips #000 screws
 - Four 2.8 mm standoff screws
 - Use a small flathead screwdriver to remove these standoff screws.
 - During reassembly, you can use the tip of a spudger to get the standoff screw started.





Use a plastic opening tool to lift the logic board up enough to grab with your fingers.







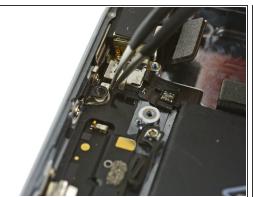
- Pull the logic board slightly away from the rear facing camera.
- ♠ Do not try to remove the logic board just yet, as it is still connected by an antenna cable on the back.
- Flip the logic board toward the battery, as if you are turning the page in a book.





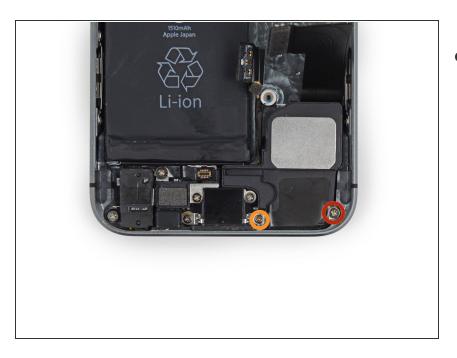
- Use the flat end of a spudger to disconnect the antenna cable on the back of the logic board.
- Remove the logic board from the iPhone.







- At this point, a small metal plate near the rear facing camera is loose and may come free from its recess.
- Because it is very small and easy to lose, it's best to remove this plate and set it aside while you continue to work on your phone.
- Use tweezers to remove the plate from beneath the bracket to the left of the rear-facing camera.
- When reassembling, orient the plate with the small tab to the right and the longest flat edge against the top of the phone.



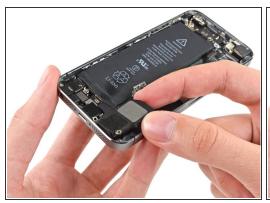
- Remove the following screws:
 - One 2.9 mm Phillips #000 screw
 - One 1.5 mm Phillips #000 screw





Use the flat end of a spudger to gently lift the speaker from the rear case.

No not attempt to pry the speaker entirely out of the case.







- (i) The speaker has a small peg that slides into a slot beneath the home button cable socket.
- Lift the speaker and pull it toward the side of the phone to free this peg from the Lightning connector assembly.
- Remove the speaker.



- Remove the following five Phillips #000 screws:
 - 3.1 mm
 - 2.9 mm
 - _ 1.5 mm
 - 3.6 mm
 - 3.4 mm







- (i) The Lightning connector data cable is held to the rear case with mild adhesive.
- Use the flat end of a spudger to slowly separate the cable from the rear case.

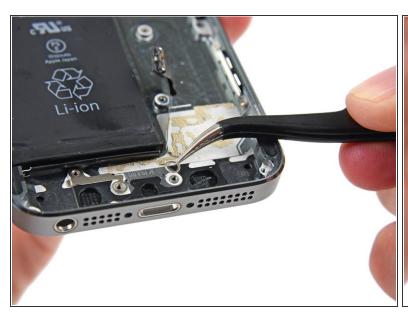




- Continue prying with the spudger to separate the Lightning connector assembly from the rear case.
- Be sure to loosen all parts of the assembly, including the Lightning connector, headphone jack and home button cable socket.



- Remove the Lightning connector assembly.
- Examine your replacement part, and your original cable carefully to be sure they match. Your replacement new Lightning connector assembly may be missing certain components that need to be transferred from the original.
 - Components that commonly need to be transferred include a clip routed along the left and top edges of the headphone jack, the bracket for the Touch ID cable connector, and the rubber microphone cover.





- (i) There are two small metal pieces—a bracket and a washer—that may come loose or fall out of the phone with the Lightning connector assembly removed.
- If you are removing more components, take these pieces out and set them aside for safe keeping.

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