

iPhone 5c LCD and Digitizer Replacement

Replace the LCD and digitizer on your iPhone 5c.

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INTRODUCTION

For an easier repair, use our <u>fix kit</u> and follow <u>this shorter guide</u> to replace your iPhone's entire screen.

For more advanced fixers, this guide will help you replace *only* the iPhone 5c LCD and digitizer assembly (a.k.a. the bare "front panel"). This requires you to transfer several components from your original screen to the new one before installing it—including the front-facing camera, earpiece speaker, LCD shield plate, and home button assembly.

You can also use this guide to replace the front panel assembly cable bracket.

[video: https://www.youtube.com/watch?v=IA3SIqXv68E]

TOOLS:	DARTS:
 P2 Pentalobe Screwdriver iPhone (1) 	 iPhone 5c LCD and Digitizer (1)
 iFixit Opening Tools (1) 	 iPhone 5c Front Panel Assembly Cable
 Suction Handle (1) 	Bracket (1)
 Phillips #000 Screwdriver (1) 	 iPhone 5c LCD Shield Plate (1)
 Spudger (1) 	

Step 1 — 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.
 - (i) This will keep glass shards contained and provide structural integrity when prying and lifting the display.

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

Step 2 — Removing the Pentalobe screws



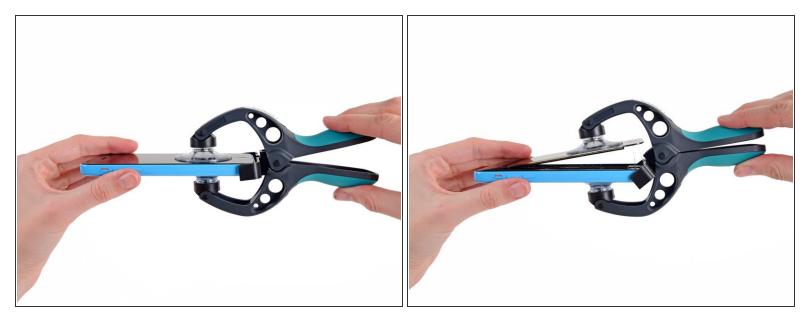
- Before you proceed, discharge your iPhone battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.
- Power off your iPhone before beginning disassembly.
- Remove the two 3.8 mm P2
 Pentalobe screws on either side of the Lightning connector.

Step 3 — Starting the iSclack Opening Procedure



- (i) The next two steps demonstrate using the <u>iSclack</u>, a great tool for safely opening the iPhone 5c that we recommend for anyone doing more than one repair on an iPhone 5, 5s, or 5c. If you aren't using the iSclack, skip to <u>Step 5</u>.
- 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 4 — Finishing the iSclack Opening Procedure



- 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.

(i) Peel the two suction cups off your iPhone.

• Skip the next three steps and continue on to <u>Step 8</u>.

Step 5 — Manual Opening Procedure



- Press a suction cup onto the screen, just above the home button.
- (i) Be sure the cup is completely on the screen to get a tight seal.

Step 6 — Start lifting the front panel assembly



- (i) 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.
- (i) 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.



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

Step 8 — Opening up the phone



- Lift the home button end of the front panel up to gain access to the connectors near the top of the phone.
- Open the display to about a 90° angle, and lean it against something to keep it propped up while you're working on the phone.
 - In a pinch, you can use an unopened canned beverage to hold the display.
- Add a rubber band to keep the display securely in place while you work. This prevents undue strain on the display cables.



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

Step 10

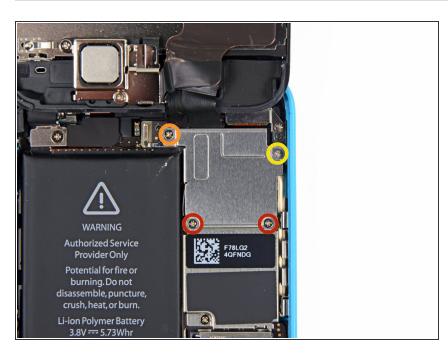


• Remove the metal battery connector bracket from the iPhone.

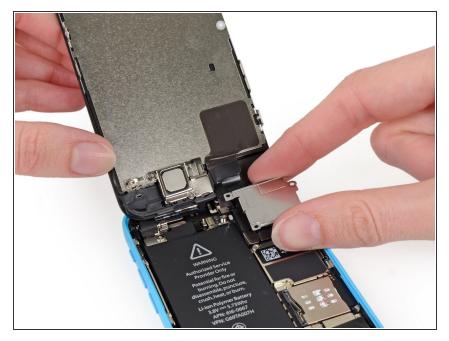
Step 11 — Disconnecting the battery connector



- Use a spudger or a clean fingernail 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.

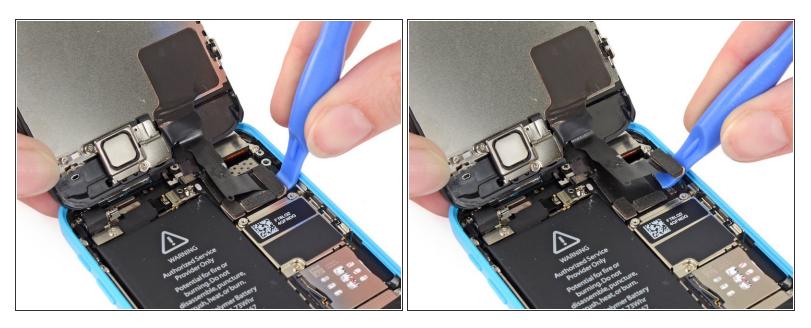


- Remove the following Phillips #000 screws securing the front panel assembly cable bracket to the logic board:
 - Two 1.3 mm screws
 - One 1.7 mm screw
 - One 3.25 mm screw
- It is especially important to keep track of your screws in this step for reassembly. Accidentally using the 3.25 mm screw or the 1.7 mm screw 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. If they don't fit easily when you are securing them, they may be the wrong size—don't force them.



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

Step 14 — Disconnecting the front panel assembly cables



• Use a plastic opening tool or a fingernail to disconnect the front-facing camera and sensor cable connector.

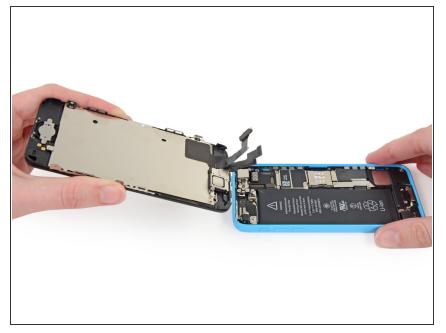
A Be sure to **only** pry up on the connector, and not on the socket on the logic board.



A Make sure the battery is disconnected before you disconnect or reconnect the cables in this step.

- Use a plastic opening tool or a fingernail to disconnect the LCD cable connector.
 - The LCD and Digitizer connectors are on the same cable assembly, so prying the LCD connector up should disconnect both connectors. Double check that the two cables are fully disconnected before removing the display.
- When reassembling your phone, the LCD cable may pop off its connector. A blank screen, or white lines on the display could be caused by a loose connection. Should this happen, reconnect the cable and power cycle your phone. The best way to power cycle your phone is to disconnect and reconnect the battery.

Step 16 — Separating front panel assembly and rear case

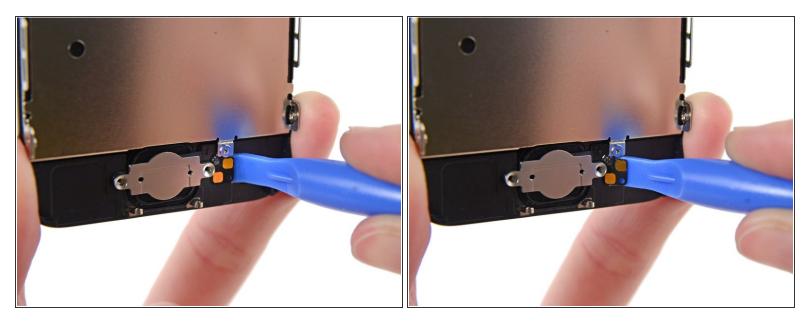


• Remove the front panel assembly from the rear case.

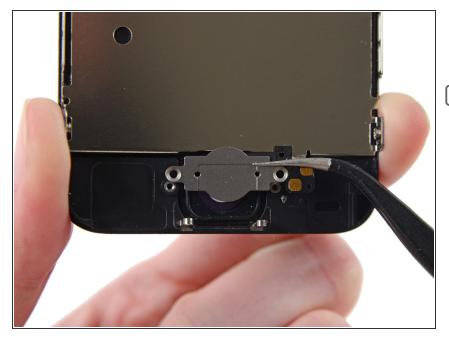
Step 17 — Home Button Ribbon Cable



 Remove the two 1.3 mm Phillips #000 screws securing the home button bracket to the display assembly.

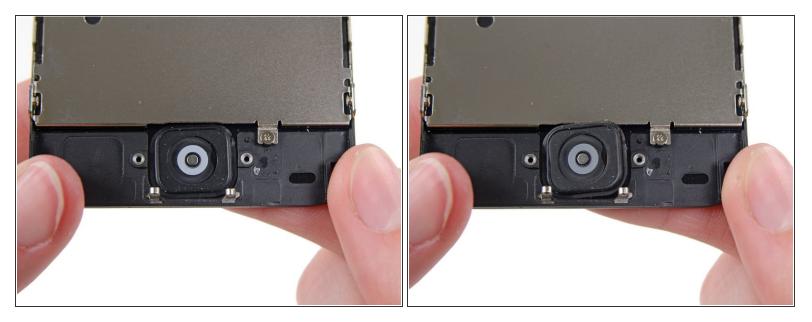


- Use a plastic opening tool to pry the edge of the home button ribbon cable up from the display assembly.
- Start under the contact points on the right and work to the left.
- Starting from the left and going right may rip your ribbon cable. The contacts are well adhered to the front panel and should be peeled up first.
- (i) If you have trouble sliding the plastic opening tool under the contact points, flip the tool over and gently push against the right side of the contact cable to loosen the adhesive, then try again.



- Remove the home button ribbon cable from the display assembly.
- If you're installing a new home button ribbon cable, be sure to keep the metal bracket and transfer it to your new ribbon cable during reassembly.

Step 20 — Home Button

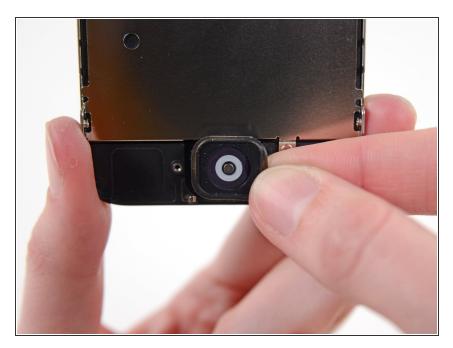


- Gently push the top right corner of the home button up away from the front panel.
- Do not push the home button all the way through; you only need to get a corner free so that you can pry it out with a spudger.
- (i) This membrane is very thin. If you feel like you are going to tear the button, apply heat and try again.



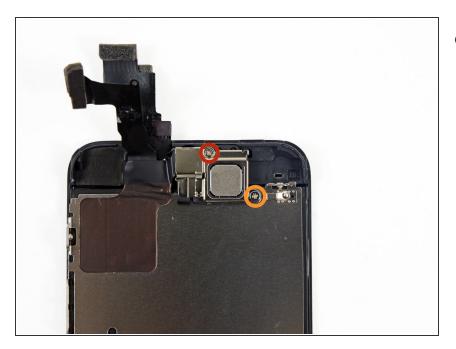
 Peel the home button the rest of the way off of the display by prying gently with a spudger.

Step 22



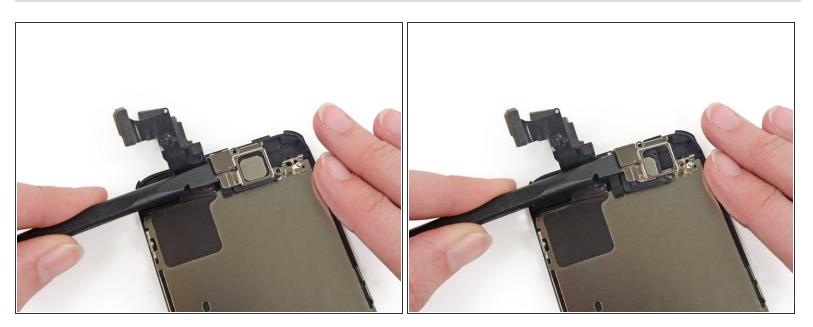
• Remove the home button assembly from the front panel.

Step 23 — Earpiece Speaker



- Remove two Phillips #000 screws securing the upper component bracket to the display assembly.
 - One 4.2 mm screw
 - One 2.3 mm screw

Step 24



• Use the flat edge of a spudger to push the earpiece speaker bracket off the display assembly.

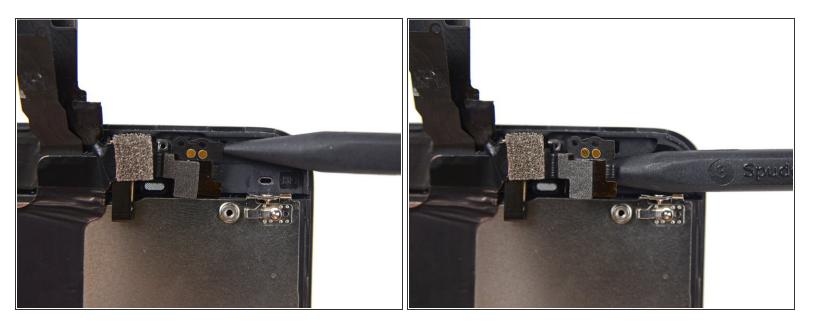


• Remove the earpiece speaker from the iPhone.

Step 26 — Front-Facing Camera and Sensor Cable



- The front-facing camera and sensor cable is adhered to the display assembly with mild adhesive.
- Using an <u>iOpener</u> to soften the adhesive will help safely remove it. <u>Follow our iOpener instructions</u> to use it.
 - While this step is not required, it will decrease the chances of damaging the delicate cable assembly.

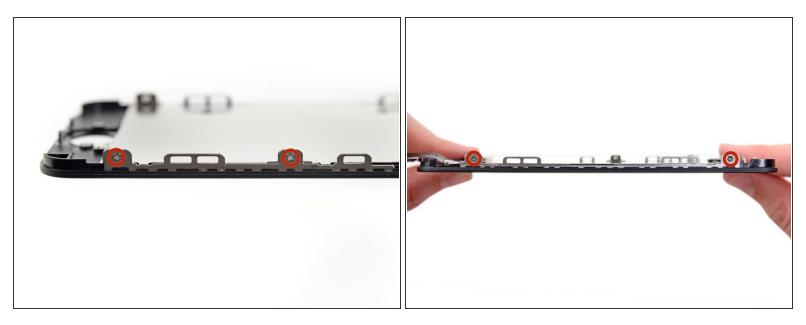


- Using the pointed end of a spudger, gently pry the earpiece speaker contact cable up, to separate this portion of the camera and sensor cable from the adhesive below.
- (i) There is a small, square, plastic and metal holder for the proximity sensor. This holder is essential for the proximity sensor to function correctly.
- (i) If replacing the proximity sensor make sure that the holder remains adhered to the back of the display. If it comes off with the old proximity sensor, remove it from the old sensor and use a tiny bit of adhesive to re-attach it to the back of the display.



• Slide the point of a spudger under the microphone to lift it out of its recess in the display assembly.

Step 29 — LCD and Digitizer



Remove two 1.2 mm Phillips #000 screws from each side of the LCD frame (four total).



- Remove the 1.6 mm Phillips #000 screws from the LCD shield plate.
 - One at bottom of the display assembly near the home button opening
 - One at the top of the display near the cables

Step 31



• Remove the LCD shield plate from the display assembly.



• Display Assembly remains.

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