

iPhone 6 Plus LCD and Digitizer Replacement

For an easier repair, use our fix kit and...

Written By: Walter Galan



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's 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.

For all screen/display repairs, it's important to transfer the original home button onto the new display in order for Touch ID (fingerprint scanning) to function.

[video: https://www.youtube.com/watch?v=-uGY9cmERZY]

TOOLS:

P2 Pentalobe Screwdriver iPhone (1)

Anti-Clamp (1)

Suction Handle (1)

iFixit Opening Tool (1)

Scissors (1)

Tweezers (1)

iOpener (1)

Phillips #000 Screwdriver (1)

PARTS:

iPhone 6 Plus LCD and Digitizer (1)

iPhone 6 Plus Front Panel Assembly

Cable Bracket (1)

iPhone 6 Plus LCD Shield Plate with

Sticker and Home Cable (1)

iPhone 6 Plus LCD Shield Plate (1)

iPhone 6 Plus LCD Shield Plate Sticker

(1)

iPhone 6 Plus Home Button Link Cable

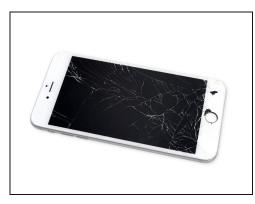
(1)

Step 1 — Pentalobe Screws



- A Before disassembling your iPhone, discharge the battery below 25%. A charged lithiumion battery can catch fire and/or explode if accidentally punctured.
- Power off your iPhone before beginning disassembly.
- Remove the two 3.6 mm P2
 Pentalobe screws next to the Lightning connector.

Step 2 — Taping Over The Display







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

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

• If the broken glass makes it difficult to get a suction cup to stick in the next few steps, try folding a strong piece of tape (such as duct tape) into a handle and lifting the display with that instead.

Step 3 — Anti-Clamp instructions







- (i) The next two steps demonstrate the <u>Anti-Clamp</u>, a tool we designed to make the opening procedure easier. **If you aren't using the Anti-Clamp, skip down three steps for an alternate method.**
 - (i) 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.
 - (i) If you find that the surface of your iPhone is too slippery for the Anti-Clamp to hold onto, you can <u>use tape</u> to create a grippier surface.







- Pull the blue handle forwards to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
 - (i) Make sure the suction cups <u>remain aligned with each other</u>. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.
- Insert an opening pick or tool under the screen when the Anti-Clamp creates a large enough gap.
 - (i) 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 three steps.

Step 5 — Front Panel Assembly



- Use a single suction cup to lift the front panel:
 - Press a suction cup onto the screen, just above the home button.
 - i Be sure the cup is pressed securely onto the screen to get a tight seal.
- if your display is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken screen.



- 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.
- Using a plastic opening tool, begin to gently pry the rear case down, away from the display assembly, while continuing to 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.

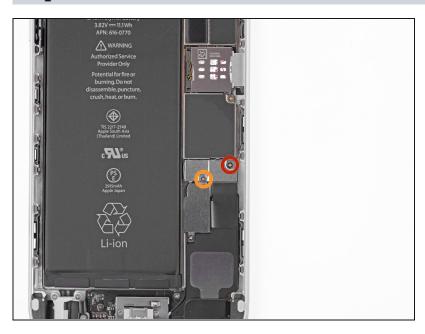


- Pull the home button end of the front panel assembly away from the rear case, using the top of the phone as a hinge.
- Open the display to about a 90° angle, and lean it against something to keep it propped up while you're working on the phone.
 - Add a rubber band to keep the display securely in place 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.





- (i) Several clips along the top edge of the front panel form a partial hinge, allowing the front panel assembly to swing open like a book.
- During reassembly, align the clips just below the top edge of the rear case. Then, slide the front panel upward until its top edge is flush with that of the rear case.



- Remove the following Phillips screws from the battery connector bracket:
 - One 2.3 mm screw
 - One 3.1 mm screw



 Remove the metal battery connector bracket from the iPhone.



- Use a clean fingernail or the edge of an opening tool to gently pry the battery connector up from its socket on the logic board.
- ⚠ Take care 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.

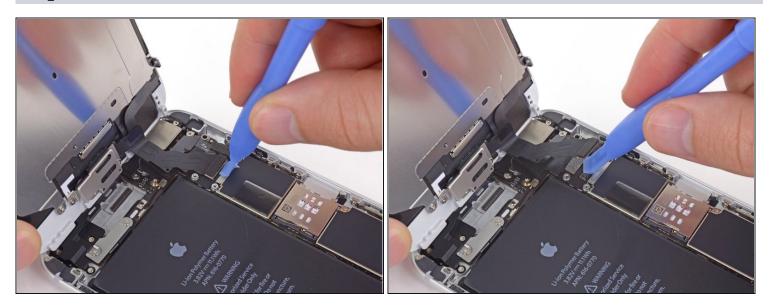


- Remove the following Phillips screws securing the front panel assembly cable bracket:
 - Three 1.2 mm screws
 - One 1.5 mm screw
 - One 2.9 mm screw
- ⚠ Do not attempt to insert longer screws into the red marked screw holes. Doing so may result in irreparable damage to the logic board.

Step 14

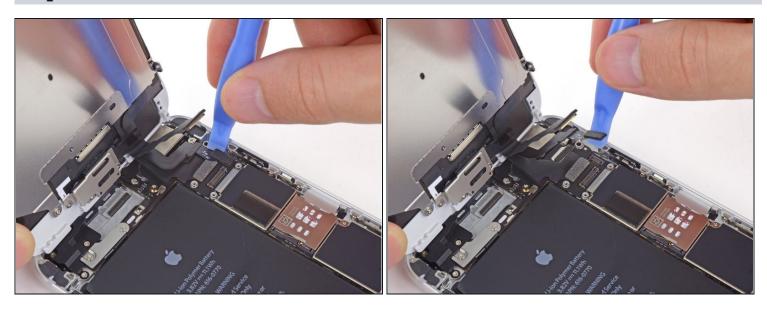


 Remove the front panel assembly cable bracket from the logic board.

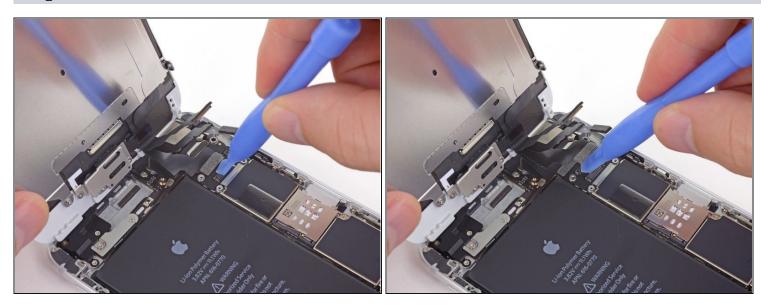


- ⚠ In the next four steps, take care to pry up **only** on the cable connectors, and not on their sockets on the logic board.
- While still supporting the front panel, use a fingernail or the edge of an opening tool to disconnect the front-facing camera and earpiece speaker connector.

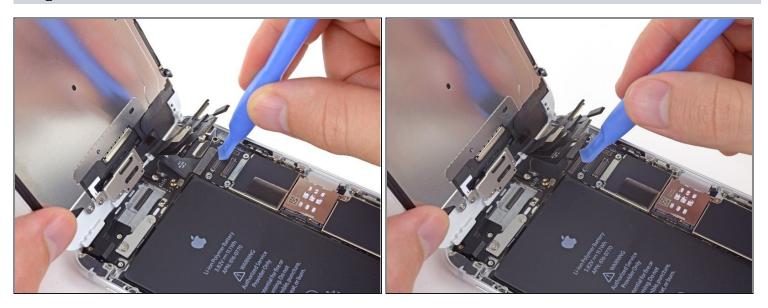
Step 16



Disconnect the home button cable connector.



- ⚠ Make sure the battery is disconnected before you disconnect or reconnect the cable in this step.
- Use a plastic opening tool to disconnect the display data cable connector.
- When reassembling your phone, the display data 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 connector.



- Finally, disconnect the digitizer cable connector.
- When reconnecting the digitizer cable, **do not press the center of the connector**. Press one end of the connector, then press the opposite end. Pressing in the center of the connector can bend the component and cause digitizer damage.

Step 19



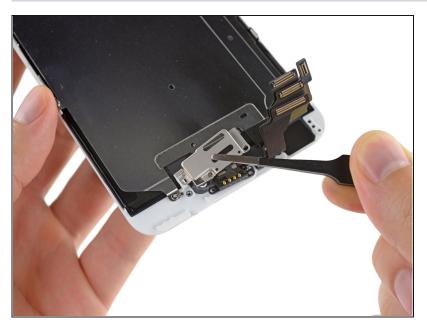
• Remove the front panel assembly from the rear case.

Step 20 — Earpiece Speaker

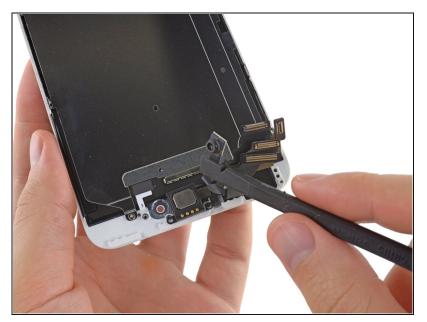


- Remove the following Phillips screws securing the upper component bracket:
 - One 1.5 mm screw
 - Two 2.3 mm screws

Step 21



 Lift and remove the earpiece bracket from the display assembly.



 Use a the flat end of a spudger to pry up the front-facing camera and display cables, and gently push them aside.

Step 23



 Use a pair of <u>tweezers</u> to firmly grasp and remove the earpiece speaker from the display assembly.

Step 24 — Front Facing Camera and Sensor Assembly

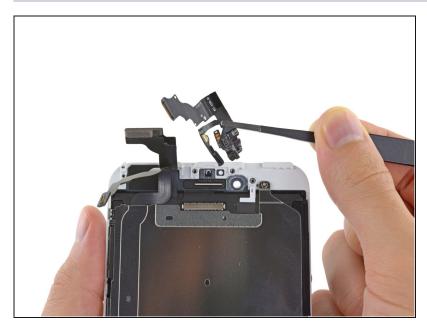


- Use the tip of a spudger to gently pry up the sensor cable assembly from its recess in the display assembly.
- *i* The cable is held in place with a mild adhesive.

Step 25



 Pry the microphone portion of the front-facing camera and sensor cables from the display assembly.



- Remove the front-facing camera and sensor cable assembly off the display assembly.
- Replacement assemblies may or may not come with the speaker mesh already attached. If it's missing, save your old one and re-use it. You can separate it with some heat from a hair dryer and gentle prying or pulling with tweezers.

Step 27 — Home Button Assembly



Remove the two 1.8 mm
 Phillips screws securing the
 home button bracket to the
 front panel.



 Remove the home button bracket from the front panel assembly.

Step 29





• Use the tip of a spudger to disconnect the home button connector from its socket on the home button cable.



- Carefully wedge the tip of a spudger underneath the home button connector cable.
- Gently move the spudger across to separate the home button connector cable from the adhesive securing it to the front panel assembly.
- ⚠ If the cable doesn't separate easily, apply heat using an iOpener or hair dryer to soften the adhesive, and try again. Be careful not to damage the cable.



⚠ The rubber gasket surrounding the home button is very thin and tears easily.

- Apply mild heat (with an <u>iOpener</u>, heat gun, or hair dryer) to soften the adhesive securing the home button gasket.
- Using your fingertip, gently press up on the home button from the front side of the display assembly. Use firm, constant pressure to slowly separate the home button's rubber gasket from the front panel.





• Carefully use the tip of a spudger to finish separating the home button from the front panel.

Step 33



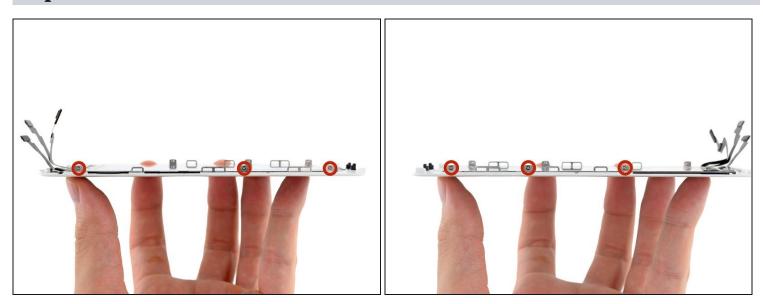
 Lift and remove the home button assembly off the front panel assembly.

Step 34 — LCD and Digitizer



• Remove the two 1.7 mm Phillips screws (one on top and one on bottom) securing the LCD shield plate to the display assembly.

Step 35



• Remove three 1.3 mm Phillips screws from each side of the LCD shield plate (six total).



(i) The next step requires peeling one end of the home button cable (highlighted in red in the second picture) that is affixed to the back of the display assembly with strong adhesive. We highly recommend <u>using an iOpener</u> to heat the bottom of the display assembly, directly on top of the home button.







- Carefully lift—but do **not** remove—the LCD shield plate by lifting the end nearest the earpiece speaker a few millimeters from the display assembly.
- Gently lift the other end (nearest the home button) to peel the home button cable off the display assembly.

⚠ Be extremely cautious as you peel the home button cable. It is a fragile cable. If you feel more than slight resistance, we recommend reheating and reusing the iOpener to soften the adhesive.

- Remove the LCD shield plate off the display assembly.
- Display assembly remains.

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