

iPhone 6s Plus LCD and Digitizer Replacement

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

Written By: Evan Noronha



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 6s Plus 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.

You can also reference this guide to replace the following parts:

- Earpiece speaker mesh
- <u>LCD shield plate</u>
- LCD shield plate sticker

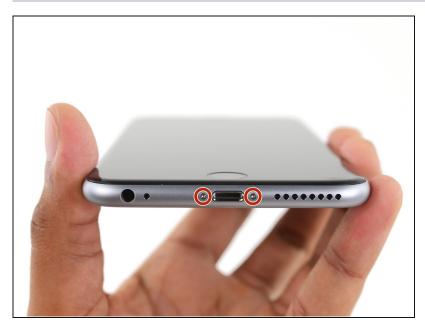
TOOLS:

Anti-Clamp (1) iOpener (1) Recommended, not required P2 Pentalobe Screwdriver iPhone (1) Suction Handle (1) Spudger (1) Tweezers (1) Phillips #000 Screwdriver (1) iFixit Opening Tool (1)

PARTS:

iPhone 6s Plus LCD and Digitizer (1) NuGlas Tempered Glass Screen Protector for iPhone 6 Plus/6s Plus (1) iPhone 6s Plus Earpiece Speaker Mesh (1) iPhone 6s Plus LCD Shield Plate (1) iPhone 6s Plus LCD Shield Plate Sticker (1) iPhone 6s Plus Display Assembly Adhesive (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 3.4 mm
 Pentalobe screws on either side of the Lightning port.

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.

A 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, <u>check out this guide</u>.

- 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 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 — Opening Procedure



- If you don't have an <u>Anti-</u> <u>Clamp</u>, follow the next three steps to use a suction handle.
- Apply mild heat to the lower edge of the iPhone using an <u>iOpener</u> or hair dryer for about a minute.
- (i) Heat softens the adhesive securing the display, making it easier to open.



- Opening the display on the 6s Plus separates a thin strip of adhesive around the perimeter of the display. If you prefer to replace the adhesive, have a set of new adhesive strips ready before you continue. It's possible to complete the repair without replacing the adhesive, and you probably won't notice any difference in functionality.
 - Apply a suction cup to the lower left corner of the display assembly.
 - (i) If your display is badly cracked, <u>covering it with a</u> <u>layer of clear packing tape</u> 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.



- Pull up on the suction cup with firm, constant pressure to create a slight gap between the front panel and rear case.
- A Pulling too hard may damage the display assembly. Apply just enough pressure to create a small gap between the display assembly and the rear case.



- The safest place to pry from is the notch in the front panel above the headphone jack.
- While still maintaining pressure on the suction cup, insert the flat tip of a spudger into the gap, directly above the headphone jack.



• Twist the spudger to widen the gap between the front panel and the rear case.

Step 10



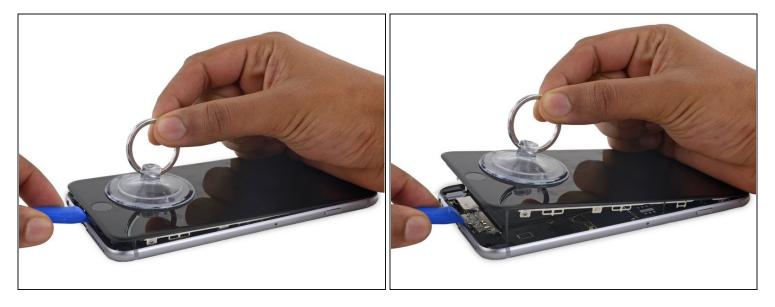
• While firmly pulling up on the suction cup, slide the edge of the spudger under the bottom left corner of the display.



• Slide the tip of the spudger up the left side of the phone, between the front panel and the rear case.

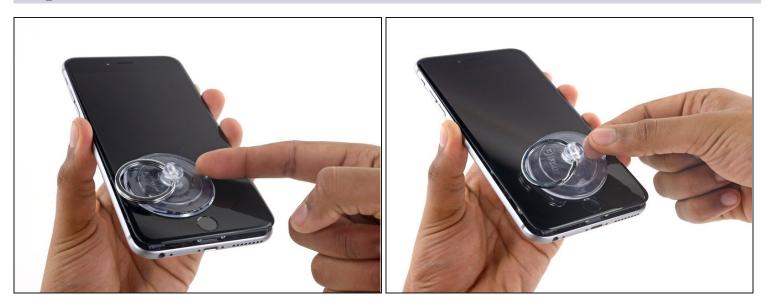


- Insert the flat tip of the spudger under the right edge of the display.
- Slide the spudger up the right side.



- Use a plastic opening tool to hold down the rear case while pulling up the suction cup to open the phone.
- ⚠ Do **not** remove the display completely, or you will damage the data cables connecting the display near the top edge of the iPhone.

Step 14



• Pull up on the small nub on the suction cup to remove it from the display.



- Gently grasp the display assembly and lift it up to open the phone, using the clips at the top of the front panel 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.
 - ⚠ Don't open the display more than 90°—it is still connected to the top of the phone by the display, digitizer, and front camera cables which can tear easily.
 - 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 support the display.

Step 16 — Battery Connector



- Remove two Phillips screws securing the battery connector bracket to the logic board, of the following lengths:
 - One 2.9 mm screw
 - One 2.3 mm screw
- Throughout this guide, <u>keep</u> <u>careful track of your screws</u> so that each one goes back where it came from during reassembly. Installing a screw in the wrong place can cause permanent damage.

Step 17



• Remove the battery connector bracket.



• Use a spudger or a clean fingernail to disconnect the battery connector by prying it straight up off the logic board.

Step 19



• Bend the connector back to ensure it doesn't make contact and power the iPhone on while you're working on it.

Step 20 — Display Assembly



- Remove the following Phillips screws:
 - Three 1.3 mm screws
 - One 1.6 mm screw
 - One 3.0 mm screw
 - During reassembly, it's critical to place this 3.0 mm screw in the top-right corner of the bracket. Placing it anywhere else may damage the logic board.

Step 21



• Remove the display cable bracket.

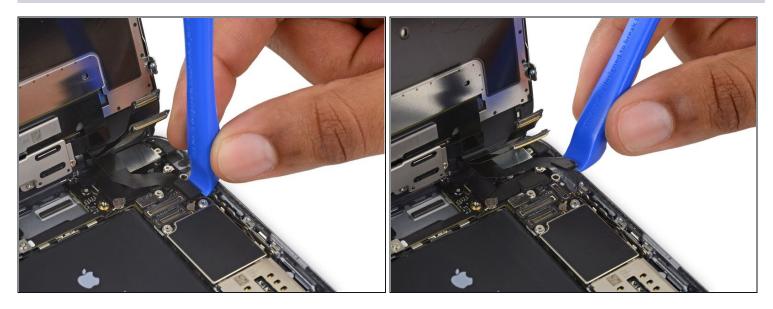


A Be careful to only pry up on the connector itself and not the socket on the logic board.

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

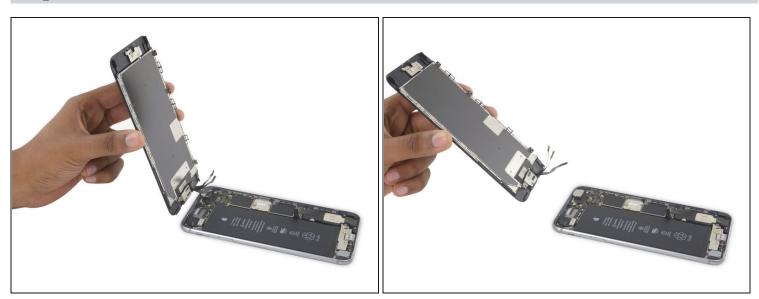


- Use a plastic opening tool to disconnect the digitizer cable by prying it straight up from its socket on the logic board.
- When reconnecting the digitizer cable, **do not press the center of the connector**. Press one end of the connector, then press the opposite end. Pressing in the center of the connector can bend the component and cause digitizer damage.



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

• Disconnect the home button/fingerprint sensor cable by prying it straight up from its socket on the logic board.



- Remove the display assembly.
- During reassembly, pause here if you wish to <u>replace the adhesive around the edges of</u> <u>the display</u>.

Step 26 — Home Button Assembly



• Remove the two 1.9 mm Phillips screws securing the home button bracket.

Step 27



• Remove the home button bracket.



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



A 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.

Step 30

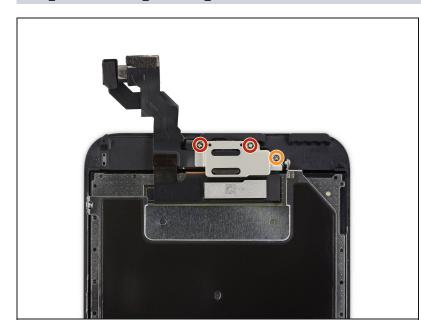


• Use the pointed end of a spudger to pry the lightly-adhered home button flex cable off the display assembly.



• Remove the home button assembly.

Step 32 — Earpiece Speaker

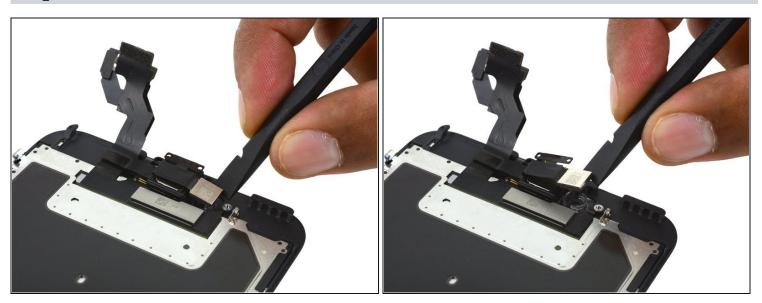


- Remove the following three Phillips screws:
 - Two 2.7 mm screws
 - One 1.4 mm screw



• Remove the earpiece speaker bracket.

Step 34

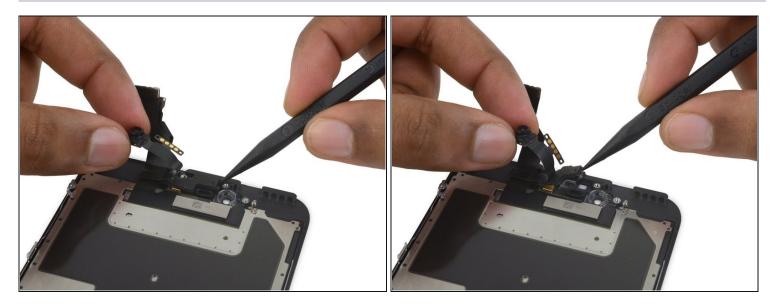


• Use the flat end of a spudger to lift the FaceTime camera out of its housing.

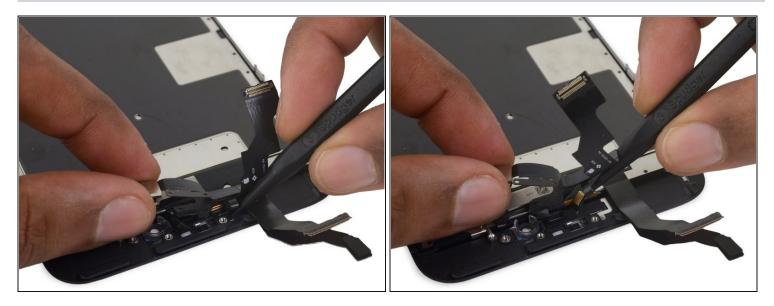


• Pull the FaceTime camera back and remove the earpiece speaker.

Step 36 — FaceTime Camera and Sensor Assembly

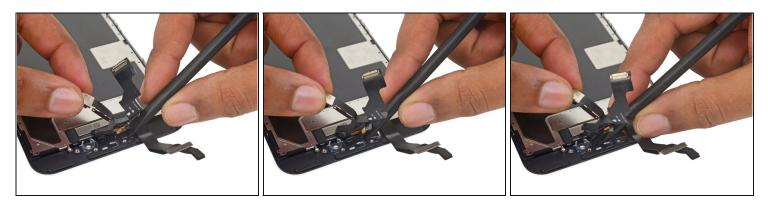


• Use the pointed tip of a spudger to lift the ambient light sensor from its housing in the front panel.



• Insert the pointed tip of a spudger between the microphone flex cable and the front panel to break the adhesive holding it in place.

Step 38

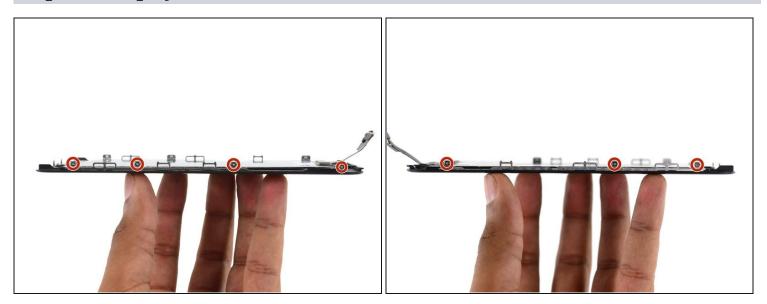


• Use the flat tip of a spudger to lift up the microphone and earpiece gasket.

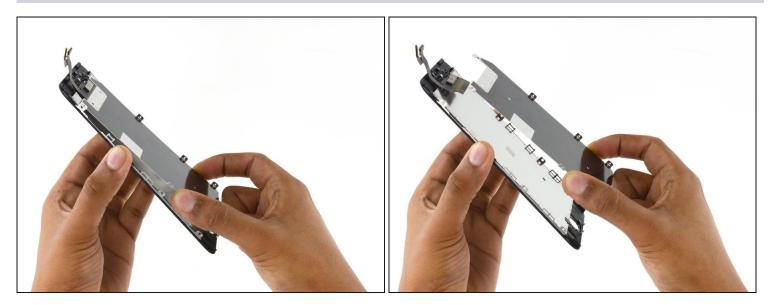


• Remove the FaceTime camera and sensor assembly.

Step 40 — Display EMI Shield



Remove the seven 1.5 mm Phillips screws holding the display EMI shield in place.
 The screw on the far right in the first photo is recessed about 1.8 cm from the edge of the display.



• Remove the EMI shield from the front panel.

Step 42 — LCD and Digitizer



- The LCD and digitizer remains.
- The Touch ID function will
 ONLY work with your phone's original home button assembly, so you'll need to transfer the home button assembly from your old display assembly to your new display assembly to retain Touch ID.
- After reassembly, clean the touchscreen surface with an alcohol wipe prior to turning the iPhone back on. The alcohol helps dissipate any lingering static electricity, which can cause problems with the display.
- After reassembly, connect the iPhone to an AC power source before turning it on for the first time. Once the iPhone has booted up successfully, you can disconnect the AC power.

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