

iPhone 6 Battery Replacement

Bring life back to your iPhone 6 with a new...

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INTRODUCTION

Bring life back to your iPhone 6 with <u>a new replacement battery</u>—it's easy and will have a big impact! If your battery is swollen, <u>take appropriate precautions</u>.

This guide instructs you to remove the front panel assembly; this is intended to prevent damage to the display cables. If you feel comfortable supporting the display carefully while peeling the battery out of the iPhone, you can skip the display removal and go directly to the battery removal steps.

For optimal performance, after completing this guide, <u>calibrate</u> your newly installed battery: Charge it to 100% and keep charging it for at least two more hours. Then use your iPhone until it shuts off due to low battery. Finally, charge it uninterrupted to 100%.

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

- Battery Connector Bracket
- Front Panel Assembly Cable Bracket

[video: https://www.youtube.com/watch?v=KtK7b_pqnCU]

TOOLS:	ARTS:
Anti-Clamp (1) Spudger (1) P2 Pentalobe Screwdriver iPhone (1) Suction Handle (1) iFixit Opening Tool (1) Tweezers (1) iOpener (1) Phillips #000 Screwdriver (1)	iPhone 6 Battery (1) iPhone 6/6s/7 Battery Adhesive Strips (1) iPhone 6 Battery Connector Bracket (1) iPhone 6 Front Panel Assembly Cable Bracket (1)

Step 1 — Pentalobe Screws



- ▲ 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-long P2 Pentalobe screws next to the Lightning connector.

Step 2 — 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.

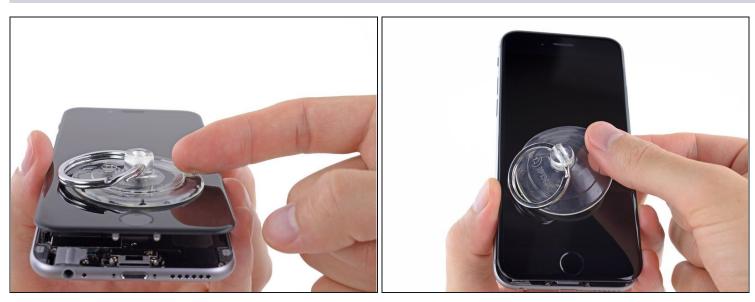
Step 4 — Manual Opening Procedure



- If you don't have an <u>Anti-</u> <u>Clamp</u>, 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.
- (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.



- 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 holding 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 7 — Opening up the phone



- Open the iPhone by swinging the home button end of the front panel assembly away from the rear case, using the top of the phone as a hinge.
 - (*i*) Several clips along the top edge of the front panel form a partial hinge.
 - 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.

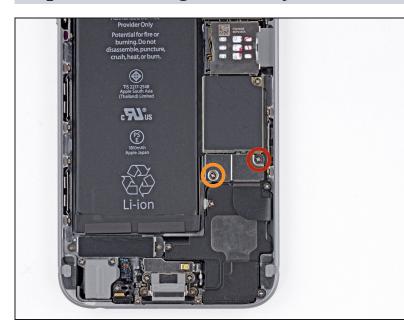
Step 6



• 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.

i In a pinch, an unopened canned beverage works well for this.

• Add a rubber band to keep the display securely in place while you work. This prevents undue strain on the display cables.



Step 9 — Removing the battery connector bracket screws

- Remove the following Phillips screws from the battery connector bracket:
 - One 2.2 mm screw
 - One 3.2 mm screw
- During your repair, keep track of each screw and make sure it goes back exactly where it came from to avoid damaging your phone.



• Remove the metal battery connector bracket from the iPhone.

Step 11 — **Disconnecting the battery connector**



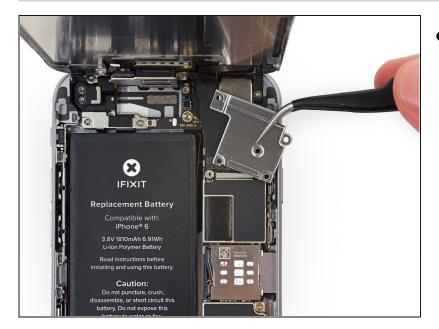
- Use a plastic opening tool to gently pry the battery connector up from its socket on the logic board.
- Take care to only pry up on the battery connector, and not the socket on the logic board. If you pry up on the logic board socket, you may break the connector entirely.

Step 12 — Removing the front panel assembly cable bracket screws

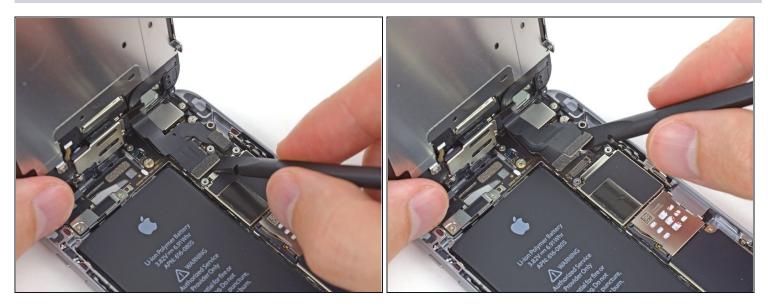


- Remove the following five Phillips screws securing the front panel assembly cable bracket:
 - Three 1.2 mm screws
 - One 1.7 mm screw
 - One 3.1 mm screw
- ▲ Incorrect placement of these screws during reassembly will cause permanent damage to your iPhone's logic board.

Step 13



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



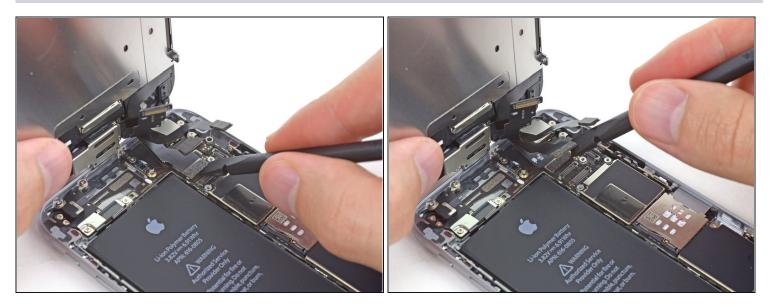
⚠ In the next four steps, take care to pry up **only** on the cable connectors, and not on their sockets on the logic board.

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

Step 15

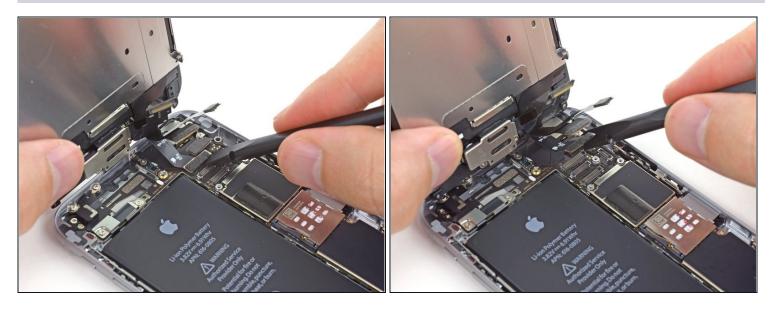


• Use a spudger or a fingernail to disconnect the home button cable connector.



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

- Use a spudger or a fingernail to disconnect the display data cable connector.
- When reassembling your phone, the display data cable may pop off its 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 <u>disconnect and reconnect the battery connector</u>.



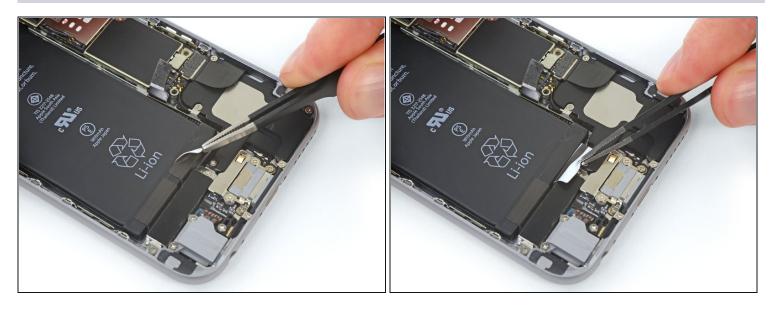
- Use the flat end of a spudger to disconnect the digitizer cable connector.
- When reconnecting the digitizer cable, **do not press the center of the connector**. Press one end of the connector, then press the opposite end. Pressing in the center of the connector can bend the component and cause digitizer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

Step 18 — Separating front panel assembly and rear case

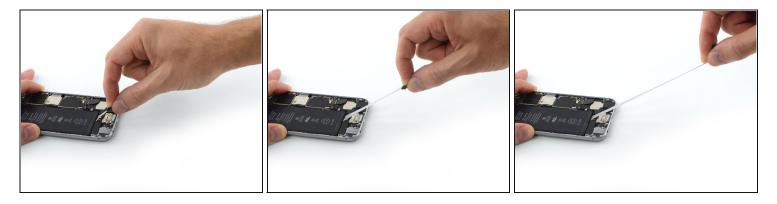


• Remove the front panel assembly from the rear case.

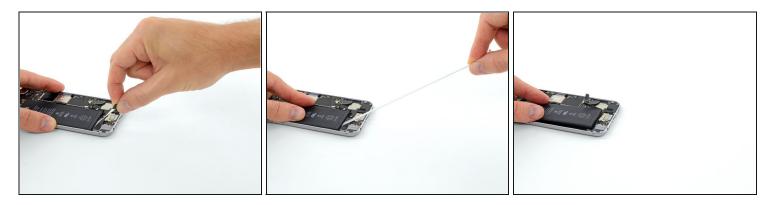
Step 19 — Battery



- Peel back the first battery adhesive tab from the bottom right edge of the battery.
- ⚠️ Use your fingers or blunt tweezers, and be extra careful when working near the battery —puncturing a lithium-ion battery can release dangerous chemicals and cause a fire.
- (i) Optionally, before proceeding further, you may <u>remove the two Phillips screws</u> <u>securing the vibrator</u> and lift the vibrator out to allow more clearance for extracting the battery strips successfully.



- Try to keep the strips flat and unwrinkled during this procedure; wrinkled strips will stick together and break instead of pulling out cleanly.
- Slowly pull the adhesive tab away from the battery, toward the bottom of the iPhone.
 To avoid tearing the adhesive strip, be careful not to snag it against the vibrator or other components near the battery.
 - Pull steadily, maintaining constant tension on the strip until it slips out from between the battery and the rear case. For best results, pull the strip at a 60° angle or less.
- In the strip will stretch to many times its original length. Continue pulling and re-grab the strip near the battery if necessary.
- If the strip breaks, carefully try to retrieve it with your tweezers (without damaging the battery) and continue pulling. If the strip breaks off underneath the battery and can't be retrieved, continue with the steps below.



• Repeat for the second strip.

A Hold down the battery as you remove the second strip, or the strip may fling the battery when it separates from the case.

- (i) If the adhesive breaks off underneath the battery and can't be retrieved, apply a few drops of high concentration (over 90%) isopropyl alcohol under the edge of the battery in the area of the broken adhesive strip(s).
 - Wait about one minute for the alcohol solution to weaken the adhesive. Use the flat end of a spudger to gently lift the battery.
 - ⚠️ Don't try to forcefully lever the battery out. If needed, apply a few more drops of alcohol to further weaken the adhesive. Never deform or puncture the battery with your pry tool.

Do not pry against the logic board or you may damage the phone.

- **Do not** insert the spudger in the area between the volume down (-) button and the top edge of the battery, or you may damage the <u>volume control cable</u> lying underneath.
- (i) For more alternative methods when either of the adhesive strips broke off underneath the battery and could not be retrieved, **continue with the next step below.**

Step 22 — Unstick the battery from the case



- If the battery remains stuck to the rear case, <u>prepare an iOpener</u> or use a hair dryer to heat the rear case directly behind the battery. It should be slightly too hot to touch comfortably.
 - Then, use a plastic opening tool to gently lift the battery.

⚠ Overheating the iPhone may ignite the battery.

- (i) Alternatively, if the battery remains stuck to the rear case, flip the iPhone back over and thread a piece of dental floss or strong string behind the battery. Then, slowly pull back and forth in a sawing motion to separate the adhesive.
 - A stronger alternative to floss is an unwound guitar string, such as a 0.009 E string from a 12-string set.

Step 23 — Removing the battery



- Remove the battery from the iPhone.
- (i) If your replacement battery came in a plastic sleeve, remove the sleeve before installation by pulling it away from the the ribbon cable.
- If there's any alcohol solution remaining in the phone, carefully wipe it off or allow it to air dry before installing your new battery.
- Before you adhere the replacement battery, temporarily reconnect the battery connector to the logic board socket. This ensures that the battery is properly aligned in its recess.
 - Adhere the battery, disconnect it, and continue reassembling your device.
- If your new battery doesn't have adhesive preinstalled, refer to <u>this guide</u> to replace the adhesive strips.
- Perform a <u>hard reset</u> after reassembly. This can prevent several issues and simplify troubleshooting.

Compare your new replacement part to the original part—you may need to transfer remaining components or remove adhesive backings from the new part before installing.

To reassemble your device, follow the above steps in reverse order.

Take your e-waste to an <u>R2 or e-Stewards certified recycler</u>.

Repair didn't go as planned? Check out our <u>Answers community</u> for troubleshooting help.