

iPhone 6 Plus Battery Replacement

Use this guide to bring life back to your...

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INTRODUCTION

Use this guide to bring life back to your iPhone 6 Plus with a new battery. 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 **<u>battery connector bracket</u>**.

[video: https://www.youtube.com/watch?v=F3LQu3EVBX0]

TOOLS:

🌣 PARTS:

P2 Pentalobe Screwdriver iPhone (1) Anti-Clamp (1) Suction Handle (1) iFixit Opening Tool (1) Tweezers (1) iOpener (1) Phillips #000 Screwdriver (1) iPhone 6 Plus Battery (1) iPhone 6 Plus/6s Plus/7 Plus Battery Adhesive Strips (1) iPhone 6 Plus Battery Connector Bracket (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 — 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 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 4 — 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.
- (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 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 7



- 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.

(i) 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.



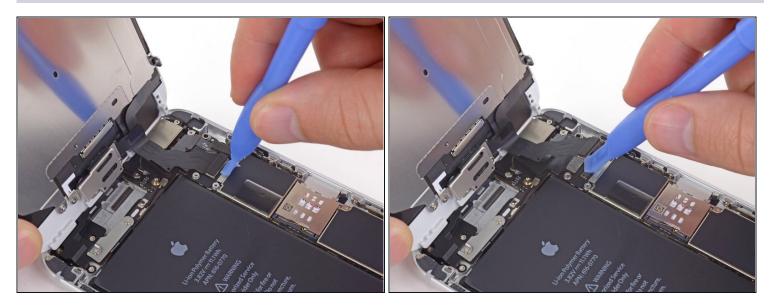
- Remove the following Phillips screws securing the front panel assembly cable bracket:
 - Three 1.2 mm screws
 - One 1.5 mm screw
 - One 2.9 mm screw

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 13



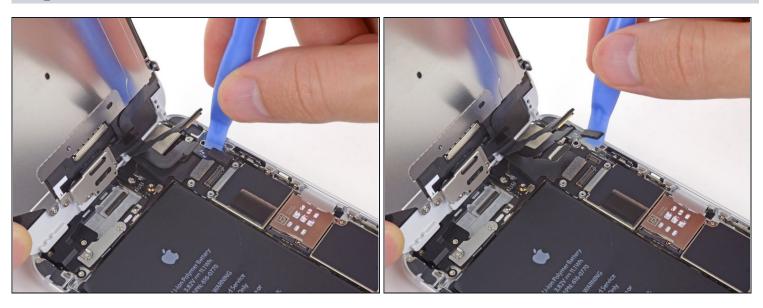
 Remove the front panel assembly cable bracket from the logic board.



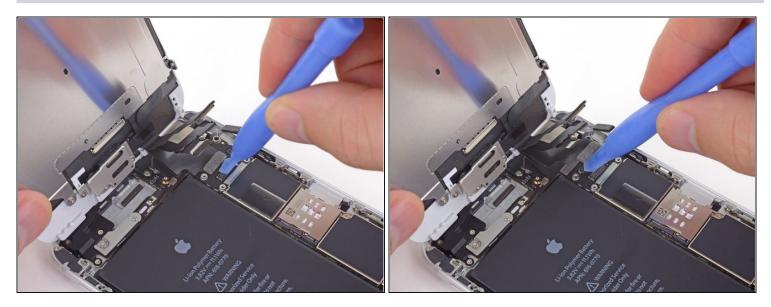
⚠ In the next four steps, take care to pry up **only** on the cable connectors, and not on their sockets on the logic board.

• 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 15

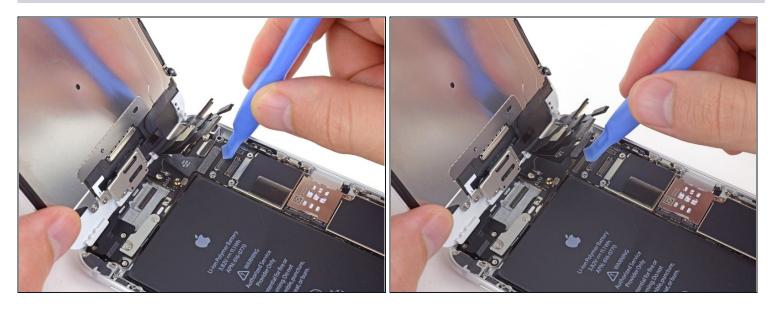


• Disconnect the home button cable connector.



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

- Use a 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 <u>disconnect and reconnect the battery connector</u>.



- 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 18



• Remove the front panel assembly from the rear case.

Step 19 — Battery

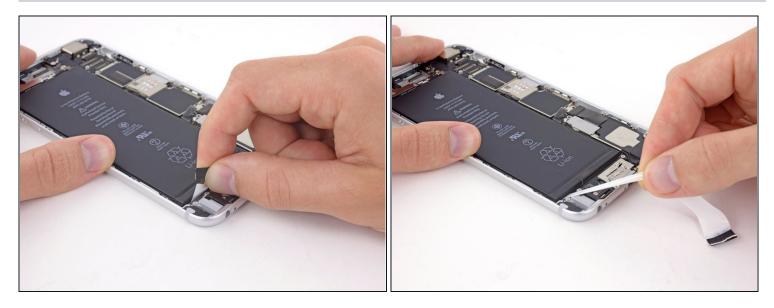


- Peel back the first battery adhesive tab from the bottom right edge of the battery.
- ▲ Use your fingers or blunt tweezers. Be extra careful when working near the battery; puncturing a lithiumion battery can release dangerous chemicals and cause a fire.



Try to keep the strips flat and unwrinkled during this procedure; wrinkled strips will stick together and break instead of pulling out cleanly.

- Very slowly, pull and stretch one adhesive strip away from the battery, toward the bottom of the iPhone.
- (i) Allow the strip to stretch out before pulling any harder. If you can't feel it stretching, ease up, or it will break.
- Pull at as low of an angle as you can without snagging the adhesive strip on any of the components along the lower edge of the phone.
- Don't press down on the battery as you pull the strip.
- (i) The strip will stretch to many times its original length. Continue pulling slowly until it releases and slips out from underneath the battery.
- (i) If the battery adhesive tabs break during the removal process, use your fingers or blunt tweezers to retrieve the remaining length of adhesive, and continue pulling.
 - If any of the adhesive strips break underneath the battery and cannot be retrieved, try to remove the remaining strips, and then **proceed as instructed below**.



- Peel back the second battery adhesive tab from the other side of the battery.
- Again, pull and slowly stretch the adhesive tab to slide it out from between the battery and the rear case.
- Continue pulling the adhesive tab until it releases completely from the battery. If it breaks, try to retrieve the remaining length and continue pulling, or proceed as instructed below.



• Peel back the final battery adhesive tab from the bottom edge of the battery. Gently pull the battery adhesive tab upward and away from the battery, allowing the adhesive strip to slowly slide out from between the battery and the rear case.

A Place one hand over the battery as the final strip comes out, or it may fling the battery out of the iPhone.

- Continue pulling until the final strip comes free from the iPhone.
- (i) If you removed all three adhesive strips successfully, continue to **step 24**. Otherwise, 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 permanently damage your iPhone. **Do not** pry under the topmost section of the battery, near the volume up button and mute switch, or you may damage the <u>audio controls cable</u>, which is adhered to the rear case just beneath the battery.

(*i*) For alternative methods to unstick the battery, **continue with the next step below**.

Step 23 — Alternative methods to unstick the battery from the case



- If the battery remains stuck to the rear case, prepare an <u>iOpener</u> or use a hair dryer to heat the rear case directly behind the battery.
 - Then, use a plastic opening tool to gently lift the battery.
 - ⚠ Overheating the iPhone may ignite the battery.
- Alternatively, a piece of dental floss may be used to separate the battery from the rear case. A stronger alternative to dental floss is an unwound guitar string, such as a 0.009 E string from a 12-string set.
 - Thread the floss or string underneath one end of the battery and pull side to side in a sawing motion to separate the adhesive.



- 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.