

iPhone SE 2022 Battery Replacement

Use this guide shows to remove and replace the...

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INTRODUCTION

Use this guide shows to remove and replace the battery in the iPhone SE 2022.

This guide was performed on the A2783 (international) model.

If your battery is swollen, take appropriate precautions.

For your safety, *discharge your battery below 25%* before disassembling your device. This reduces the risk of fire if the battery is accidentally damaged during the repair.

Note: This guide instructs you to fully detach the display assembly; this is intended to prevent accidental damage to the display cables. If you feel comfortable removing the battery without putting undue strain on the display cables, you can skip the steps for detaching the display. Additionally, while it's possible to remove the adhesive strips securing the battery as soon as you open the phone, this guide recommends first removing the Taptic Engine. Doing so reduces the risk of breaking the lower adhesive strips accidentally, either by snagging them on the Taptic Engine, or by pulling the strips at too sharp of an angle.

If you do not replace the adhesive seals when reassembling, your device will function normally, but will most likely lose its water protection.

You'll need replacement adhesive to reattach components when reassembling the device.

TOOLS:

P2 Pentalobe Screwdriver iPhone (1)

iOpener (1)

Suction Handle (1)

iFixit Opening Picks (Set of 6) (1)

Heat Gun (1)

Microfiber Cleaning Cloths (1)

Isopropyl Alcohol (90% or Greater) (1)

Phillips #000 Screwdriver (1)

Spudger (1)

Tweezers (1)

Tri-point Y000 Screwdriver (1)

Standoff Screwdriver for iPhones (1)

ESD Safe Blunt Nose Tweezers (1)

PARTS:

iPhone SE 2022 Battery (1)

Tesa 61395 Tape (1)

iFixit Adhesive Remover (1)

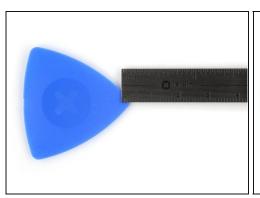
Step 1 — Remove the pentalobe screws



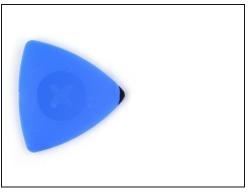


- Power off your phone before beginning disassembly.
- Remove the two 3.4 mm P2 pentalobe screws on the bottom edge of the iPhone.

Step 2 — Mark your opening picks







- (i) If inserted too far, an opening pick can damage your device. Follow this step to mark your pick and prevent damage.
- Measure 3 mm from the tip and mark the opening pick with a permanent marker.
 - ② You can also mark the other corners of the pick with different measurements.
- (i) Alternatively, tape a coin to a pick 3 mm from the tip.

Step 3 — Tape over any cracks







- (i) If your iPhone has a cracked screen, 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 screen until the whole face is covered.

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

- If you can't get the suction cup to stick in the next few steps, fold a strong piece of tape (such as duct tape) into a handle and lift the screen with that instead.
 - (i) If all else fails, you can superglue the suction cup to the screen.

Step 4 — Anti-Clamp instructions







- (i) The next three 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.
- Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.



- Heat an iOpener and thread it through the arms of the Anti-Clamp.
 - ② You can also use a <u>hair dryer</u>, <u>heat gun</u>, or hot plate—but extreme heat can damage the display and/or internal battery, so proceed with care.
- Fold the iOpener so it lays on the bottom edge of the iPhone.
- Wait one minute to give the adhesive a chance to release and present an opening gap.
- Insert an opening pick under the screen's plastic bezel, not the screen itself.
 - (i) If the Anti-Clamp doesn't create a sufficient gap, apply more heat to the area and rotate the handle a quarter turn.
 - ⚠ Don't crank more than a quarter turn at a time, and wait one minute between turns. Let the Anti-Clamp and time do the work for you.
- Skip the next two steps.

Step 7 — Heat the front panel adhesive



- i If you're using a suction handle, follow the next two steps to loosen the rear glass.
- Prepare an iOpener and apply it to the screen for at least two minutes to loosen the adhesive underneath.
- (i) A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the display and internal battery are both susceptible to heat damage.

Step 8 — Insert an opening pick







- Secure a suction handle to the lower half of the front panel, as close to the home button as possible.
- Lift the front panel with the suction handle to create a small gap between the front panel and the frame.
 - i If you have trouble creating a gap, apply more heat to the bottom half of the screen to further soften the adhesive. Follow the iOpener instructions to avoid overheating.
- Insert an opening pick into the gap <u>under the screen's plastic bezel</u>.

Step 9 — Slice the adhesive



- Slide the opening pick to the bottom right corner to slice the front panel adhesive.
- Insert a second opening pick at the bottom edge of your phone.
- Slide the opening pick to the bottom left corner to slice the adhesive.
- Leave the opening picks in place to prevent the adhesive from resealing.

Step 10 — Slice the adhesive



- (i) If the adhesive becomes hard to cut, it has most likely cooled down. <u>Use your iOpener</u> for two to three minutes to reheat it.
- Slide the bottom left opening pick along the left edge of your phone to slice the adhesive.
- Stop near the top left corner of the display.

⚠ Do not try to pry the top edge of the display away from the rear case, as it is held in place by plastic clips that may break.







• Slide the bottom right opening pick along the right edge of your phone to slice the adhesive.

🛆 Don't insert your pick more than 3 mm, as you may damage internal components.

• Stop near the top right corner of the display.

Step 12 — Lift the screen





- Remove the opening picks.
- Gently pull up on the suction handle to lift up the bottom edge of the display.

⚠ Do not raise the display more than 15° or you'll risk straining or tearing the ribbon cables connecting the display.

Remove the suction handle.

Step 13 — Slice the remaining adhesive



- Slide an opening pick underneath the top left corner of the display.
- Slide the opening pick around the top left corner and along the top edge of the phone to slice the remaining adhesive.

Step 14 — Disengage the front panel clips



• Slide the display assembly slightly down in direction of the charging port to disengage the clips holding it to the rear case.

Step 15 — Lift up the display

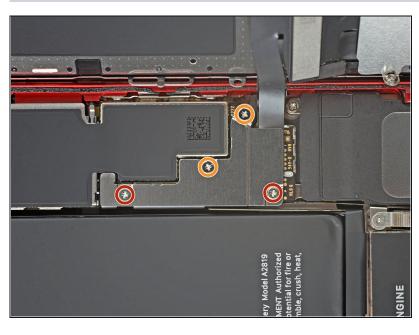






- Open the phone by swinging the display up from the left side, like the back cover of a book.
 - ⚠ Don't try to fully separate the display from the phone assembly yet, as several fragile ribbon cables still connect it to the logic board.
- Lean the display against something to keep it propped up while you're working on the phone.

Step 16 — Unfasten the lower display cable bracket screws



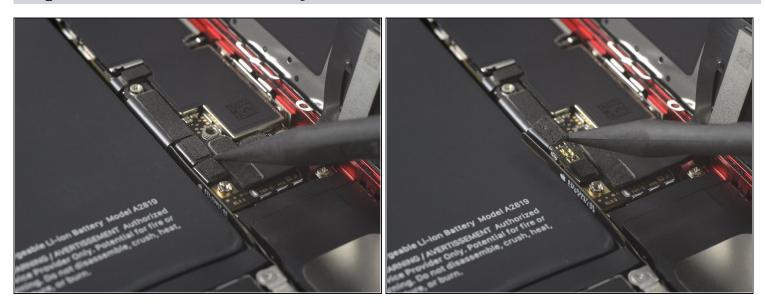
- Remove the four Phillips screws securing the lower display cable bracket:
 - Two 1.2 mm-long screws
 - Two 2.8 mm-long screws
- Throughout this guide, keep careful track of your screws so that each one goes back where it came from during reassembly. Installing a screw in the wrong place can cause permanent damage.

Step 17 — Remove the lower display cable bracket



Use a pair of tweezers to carefully remove the lower display cable bracket.

Step 18 — Disconnect the battery



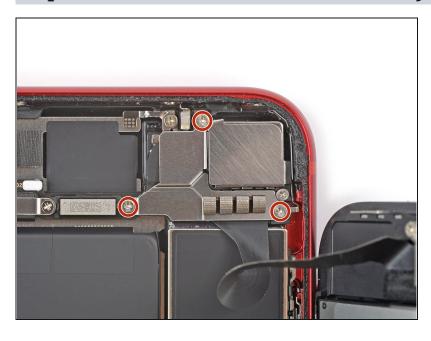
• Use the pointed end of a spudger to disconnect the battery by prying the connector straight up from its socket.

Step 19 — Disconnect the display and digitizer cables



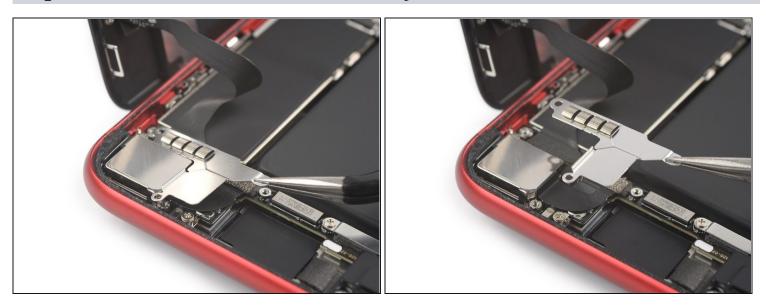
- (i) The display and digitizer cables run on top of each other. To avoid cable damage always start by disconnecting the upper cable first and never try to disconnect both at the same time.
- Use the pointed end of a spudger to disconnect the bottom two display cables by prying the connectors straight up from their sockets.
 - To re-attach <u>press connectors</u> like this, press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is even slightly misaligned, the connector can bend, causing permanent damage.

Step 20 — Unfasten the front sensor assembly bracket screws



 Use a Phillips screwdriver to remove the three 1.2 mm-long screws securing the front sensor assembly bracket.

Step 21 — Remove the front sensor assembly bracket



• Use a pair of tweezers to carefully remove the front sensor assembly bracket.

Step 22 — Disconnect the front sensor assembly cable



• Use the pointed end of a spudger to disconnect the front sensor assembly by prying the connector straight up from its socket.

Step 23 — Remove the display assembly





• Remove the display assembly.

Step 24 — Unfasten the Lightning connector bracket screws



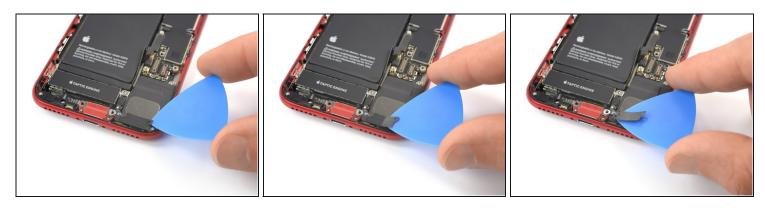
- Unfasten the three screws securing the Lighting connector bracket:
 - One 1.2 mm-long Y000 screw
 - One 2.7 mm-long Phillips screw
 - One 2.9 mm-long Phillips screws

Step 25 — Remove the Lightning connector bracket



• Use a pair of tweezers to remove the Lightning connector bracket.

Step 26 — Loosen the Wi-Fi diversity antenna flex cable



- Carefully slide an opening pick between the antenna flex cable and the top of the speaker.
 - (i) This portion of the flex cable is lightly adhered to the speaker. If you're struggling to separate the cable from the speaker, apply a little heat from an iOpener or hair dryer to soften the adhesive. This will make it easier to separate the flex cable safely.

Step 27 — Disconnect the Wi-Fi diversity antenna





- Use the pointed end of a spudger to disconnect the Wi-Fi diversity antenna by prying its connector straight up from its socket.
 - (i) The socket of this connector sits loosely between the speaker and the Taptic Engine and it's a bit fiddly to disconnect the cable. To make the disconnection easier, you can use an opening pick to hold down the connector socket during this procedure.
 - Reconnecting this cable can be tricky. Make it easier by using tweezers to hold the flex cable so the connector aligns with its socket. Then, gently press straight down on the connector with the flat of your spudger until it clicks into place.



• Use the pointed end of a spudger to disconnect the Wi-Fi diversity antenna from the logic board by prying the connector straight up from its socket.

Step 29 — Remove the Wi-Fi diversity antenna



• Use a pair of tweezers to remove the Wi-Fi diversity antenna.

Step 30 — Unfasten the Taptic Engine screws



- Remove the two screws securing the Taptic Engine:
 - One 2.1 mm Phillips screw
 - One 2.1 mm standoff screw
 - i Standoff screws are best removed using a standoff screwdriver or bit.
 - ⚠ In a pinch, a small flathead screwdriver will do the job —but use extra caution to ensure it doesn't slip and damage surrounding components.

Step 31 — Remove the grounding bracket





• Use a pair of tweezers to remove the grounding bracket at the left edge of the Taptic Engine.

Step 32 — Pry the antenna cable socket





• Use the pointed end of your spudger to pry the antenna cable socket up and away from the Taptic Engine connector below.

Step 33 — Disconnect the Taptic Engine





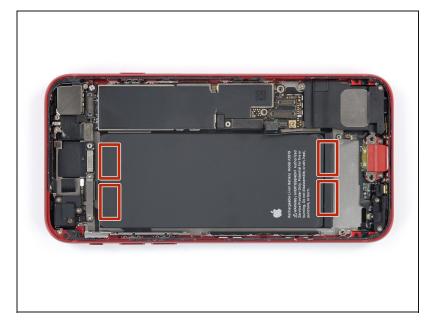
• Use the pointed end of a spudger to disconnect the Taptic Engine by prying the connector straight up from its socket.

Step 34 — **Remove the Taptic Engine**



Use a pair of tweezers to carefully remove the Taptic Engine.

Step 35 — Battery stretch-release adhesive



- The iPhone's battery is secured by four pieces of stretchrelease adhesive—two at the top, and two at the bottom.
- Each piece of adhesive has a black pull-tab at the end, which is lightly adhered to the front surface or sometime only to the short edge of the battery.

Step 36 — Peel off the battery pull-tab



- ⚠ Take care not to puncture or bend the battery with your tool—a punctured or bent battery may leak dangerous chemicals or cause a fire. If possible, use your fingernails or blunt tweezers. Only use pointed tweezers if you can't manage to peel off the adhesive with another tool.
- Peel back the first battery adhesive tab from the bottom right edge of the battery.

Step 37 — Remove the stretch-release adhesive



- Grab the first pull tab with your fingers or blunt nosed tweezers and *slowly* pull it away from the battery, toward the bottom of the iPhone.
 - Pull hard enough to maintain tension on the strip, but don't force it. Give it plenty of time to stretch and un-stick from under the battery.
 - Don't press down on the battery. Hold the iPhone firmly by its sides.
 - Keep the strip flat and unwrinkled. Try to pull evenly on the whole strip, rather than pulling mainly in the middle or on one side.
 - Pull at a low angle so the strip doesn't snag on the edge of the battery.
 - The strip is less likely to tear if you use a combination of pulling and then <u>reeling the</u> <u>strip around your tweezers</u>. Slowly repeat this procedure until the strip is removed.
- If the adhesive strip breaks off, try to retrieve it using your fingers or blunt tweezers, and continue pulling—but **do not** pry under the battery.

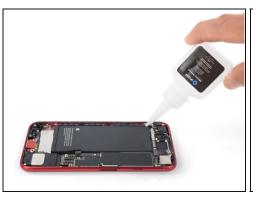
⚠ If any of the adhesive strips break off underneath the battery and can't be retrieved, try to remove the other strips, and then proceed as instructed below.



- Grab the three other pull-tabs with your fingers or blunt nosed tweezers and pull them away from the battery, toward the bottom of the iPhone.
 - Follow the same procedure as with the previous strip: don't press down on the battery, keep the strip flat and unwrinkled, and pull at a low angle.
- If the adhesive strip breaks off, try to retrieve it using your fingers or blunt tweezers, and continue pulling—but **do not** pry under the battery.

⚠ If the adhesive breaks off underneath the battery and can't be retrieved, continue with the next step.

Step 39 — If the adhesive strips broke off







- If any of the adhesive strips broke off and the battery remains stuck to the rear case, remove it by adding a few drops of isopropyl alcohol (90% or greater) underneath the battery near the stuck strip(s).
- Wait about one minute for the alcohol solution to weaken the adhesive.
- Use an opening pick or 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.







- If you don't have any high concentration (over 90%) isopropyl alcohol at hand you can <u>prepare an iOpener</u> and apply it to the rear glass for at least three minutes to loosen the stretch-release adhesive underneath the battery.
- Insert a <u>plastic card</u> underneath the bottom edge of the battery.
- Slide the plastic card along the edge of the battery to separate it from the rear case and to cut the adhesive.
- Use your plastic card to carefully pry up the battery.

Step 41 — Remove the battery







- Remove the battery.
- If there's any alcohol solution remaining in the phone, carefully wipe it off with a coffee filter or lint-free cloth or allow it to air dry before installing your new battery.
- If your new battery didn't come with adhesive preinstalled, refer to this guide for help replacing the adhesive strips.
- Perform a <u>force restart</u> after reassembly. This can prevent several issues and simplify troubleshooting.

If possible, turn on your device and test your repair before installing new adhesive and resealing.

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 these instructions in reverse order. During reassembly apply new adhesive where necessary after cleaning the relevant areas with isopropyl alcohol (>90%).

For optimal performance, <u>calibrate your newly installed battery</u> after completing this guide.

Take your e-waste to an R2 or e-Stewards certified recycler.

Repair didn't go as planned? Try some <u>basic troubleshooting</u>, or ask our <u>Answers community</u> for help.