iPhone SE 2020 Home/Touch ID Sensor Replacement

The iPhone SE 2020's home "button" is actually...

Written By: Adam O'Camb



INTRODUCTION

The iPhone SE 2020's home "button" is actually a solid-state sensor, which also includes Touch ID (fingerprint recognition) capability.

Most replacement home buttons won't work, so check carefully before starting your repair. Your iPhone's original home button is uniquely paired to the logic board at the factory—and without Apple's proprietary calibration process, even a genuine replacement home button from another iPhone won't work. To fix a broken home button, you should install a specially-made, universal-style home button. Note that these replacements only work as a button; Touch ID will not function.

If you are only replacing a broken screen, you can use this guide to carefully remove and transfer your working original home button to a new screen, preserving all functions, including Touch ID.

During this procedure, to avoid accidentally straining or tearing the display cables, it's best to completely detach the display assembly before beginning repairs on the home/Touch ID sensor. But if you are comfortable doing so, you may skip the display assembly section of this guide and go straight to the home/Touch ID sensor section.

TOOLS:

- P2 Pentalobe Screwdriver iPhone (1)
- Suction Handle (1)
- iFixit Opening Picks (Set of 6) (1)
- iOpener (1)
- Spudger (1)
- Tweezers (1)
- Phillips #000 Screwdriver (1)
- iFixit Opening Tool (1)
- Tri-point Y000 Screwdriver (1)

PARTS:

- iPhone 7/8/SE 2020 Replacement Home Button (1)
- iPhone 8/SE 2020/SE 2022 Display Assembly Adhesive (1)

Step 1 — Remove the pentalobe screws



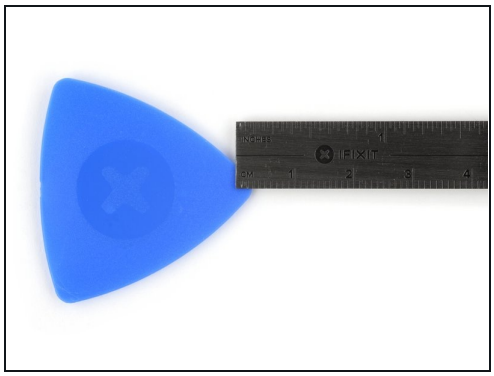
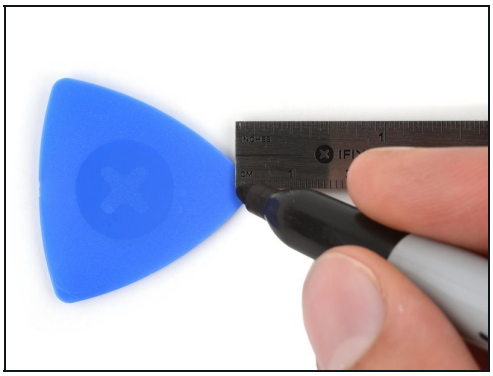
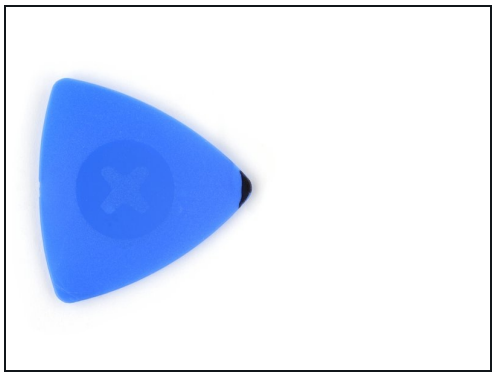
⚠ Before you begin, discharge your iPhone battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.

⚠ Power off your iPhone before beginning disassembly.

- Remove the two 3.5 mm pentalobe screws on the bottom edge of the iPhone.

ⓘ Opening the iPhone's display will compromise its waterproof seals. Have replacement seals ready before you proceed past this step, or take care to avoid liquid exposure if you reassemble your iPhone without replacing the seals.

Step 2 — Mark your opening picks

ⓘ 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.

ⓘ You can also mark the other corners of the pick with different measurements.

ⓘ Alternatively, tape a coin to a pick 3 mm from the tip.

Step 3 — Anti-Clamp instructions







The next three steps demonstrate the Anti-Clamp, 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.**

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.

If you find that the surface of your iPhone is too slippery for the Anti-Clamp to hold onto, you can use tape to create a grippier surface.

Step 4







- 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.

Step 5





- Heat an iOpener and thread it through the arms of the Anti-Clamp.
  - ⓘ You can also use a hair dryer, heat gun, 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 into the gap.
  - ⓘ 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 three steps.**

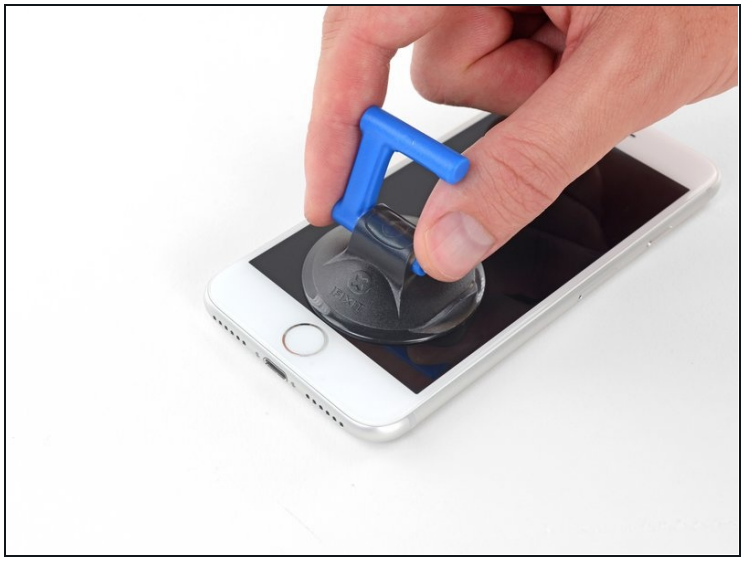
Step 6 — Heat the display



ⓘ The next three steps show how to separate the screen using a suction cup.

- Heating the lower edge of the iPhone will help soften the adhesive securing the display, making it easier to open.
- Use a hairdryer or prepare an iOpener and apply it to the lower edge of the phone for about 90 seconds in order to soften up the adhesive underneath.

Step 7 — Separate the display



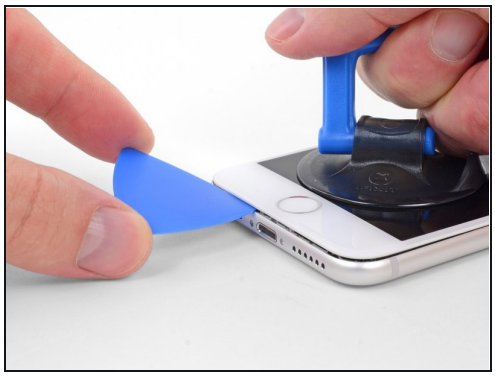


- Apply a suction cup to the lower half of the front panel, just above the home button.

ⓘ Be sure the suction cup does not overlap with the home button, as this will prevent a seal from forming between the suction cup and front glass.

Step 8



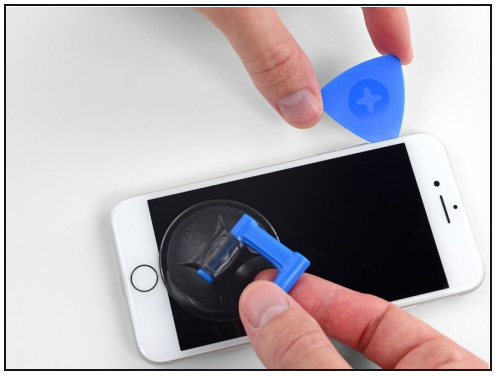


- Pull up on the suction cup with firm, constant pressure to create a slight gap between the screen and the frame.
- Insert an opening pick into the gap.

ⓘ The watertight adhesive holding the screen in place is very strong; creating this initial gap takes a significant amount of force. If you're having a hard time opening a gap, apply more heat, and gently rock the screen up and down to weaken the adhesive until you create enough of a gap to insert your tool.

Step 9





- Slide the opening pick up the left edge of the phone starting at the lower edge and moving towards the volume control buttons and silent switch, breaking up the adhesive holding the display in place.
- 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.

Step 10 — Screen information



⚠ There are delicate cables along the right edge of your iPhone. **Don't insert your pick here**, as you may damage the cables.

Step 11





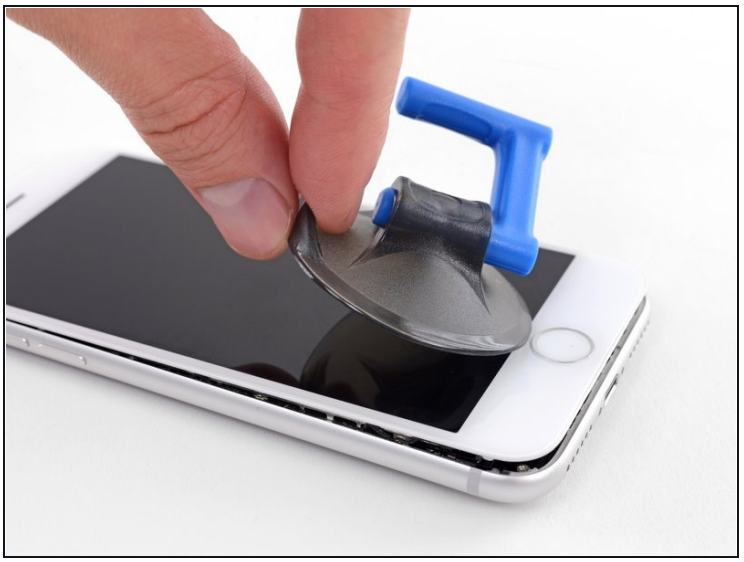


- Re-insert your tool at the lower right corner of the iPhone, and slide it around the corner and up the right side of the phone to separate the adhesive.

⚠ Don't insert your pick more than 3 mm, as you may damage the display cables.

Step 12





- Gently pull up on the suction cup to lift up the bottom edge of the display.

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

- Pull on the small nub on the suction cup to remove it from the front panel.

Step 13







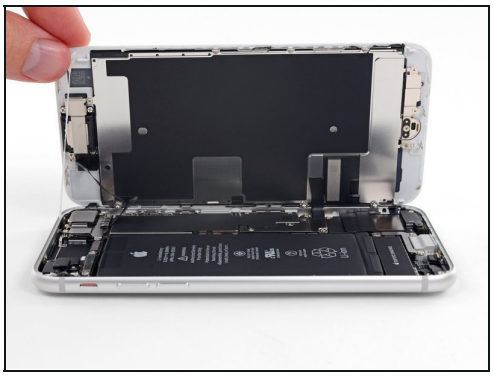
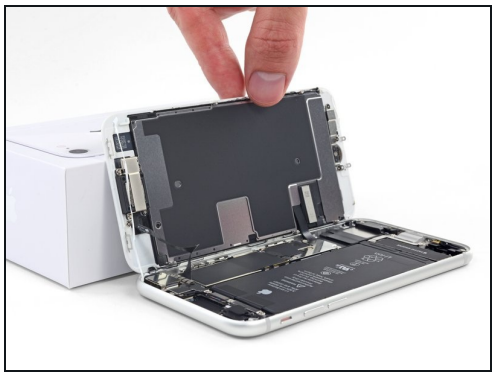
- Slide an opening pick underneath the display around the top left corner and along the top edge of the phone to loosen the last of the adhesive.

Step 14




- Slide the display assembly slightly down (away from the top edge of the phone) to disengage the clips holding it to the rear case.

Step 15

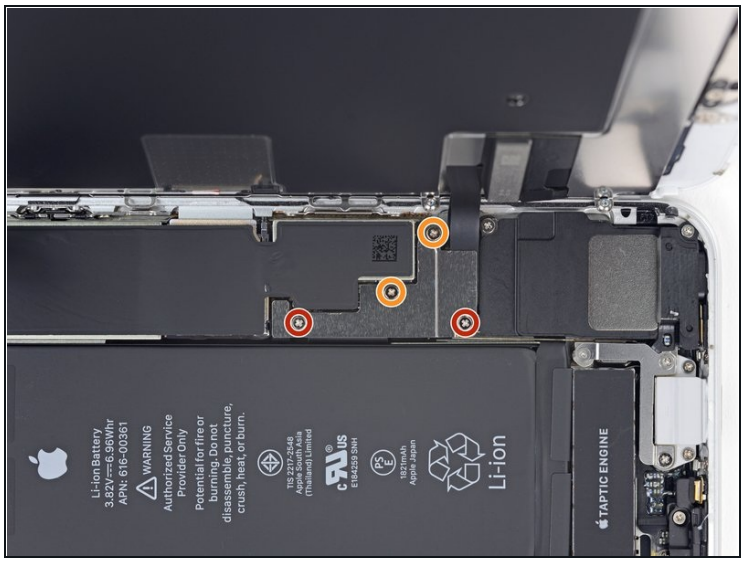




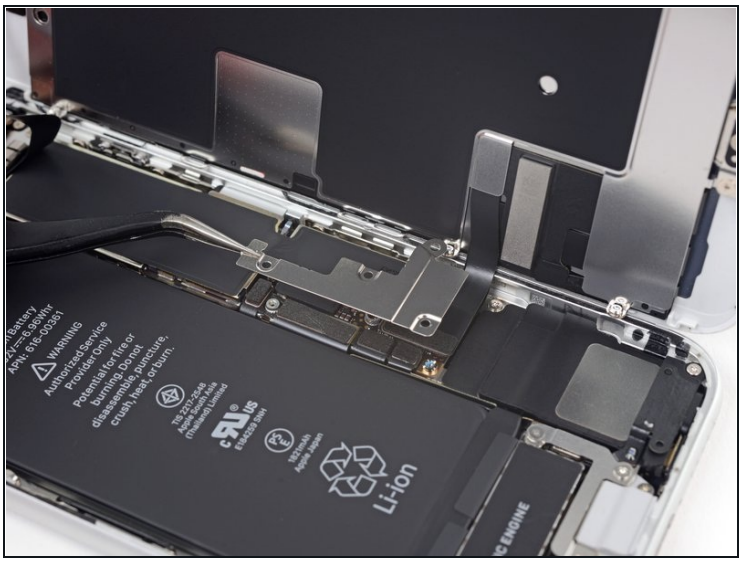
- Open the iPhone by swinging the display up from the left side, like the back cover of a book.

⚠ Don't try to fully separate the display yet, as several fragile ribbon cables still connect it to the iPhone's logic board.

- Lean the display against something to keep it propped up while you're working on the phone.

Step 16 — Disconnect the battery





- Remove four Phillips screws securing the lower display cable bracket to the logic board, of the following lengths:
  - Two 1.3 mm screws
  - Two 2.8 mm 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.

- Remove the bracket.

Step 17





- Use the point of a spudger to pry the battery connector out of its socket in the logic board.
- Bend the battery connector cable slightly away from the logic board to prevent it from accidentally making contact with the socket and providing power to the phone during your repair.

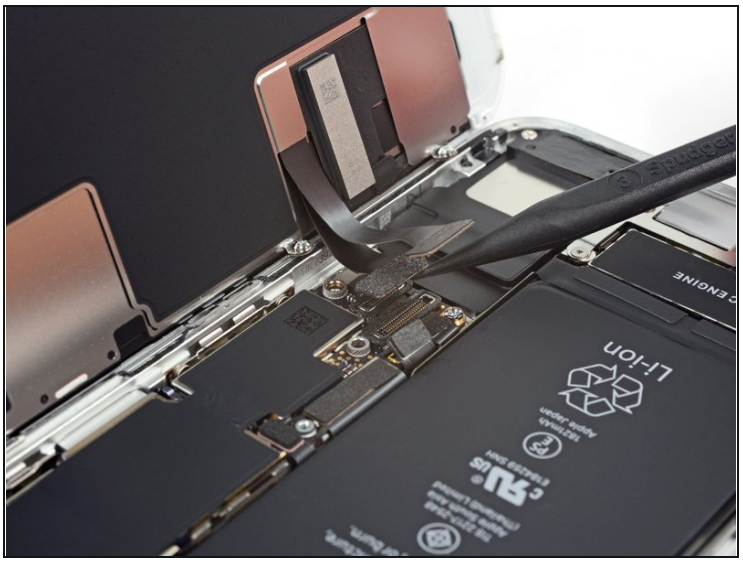
Step 18 — Disconnect the display and digitizer




- Use the point of a spudger to pry the lower display connector out of its socket.

To re-attach press connectors like this one, 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 19

- Use the point of a spudger to disconnect the second lower display cable.

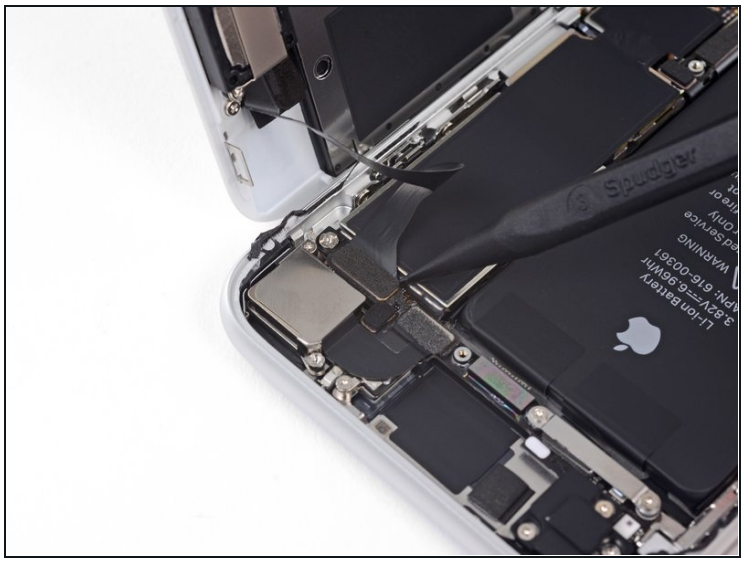
Step 20

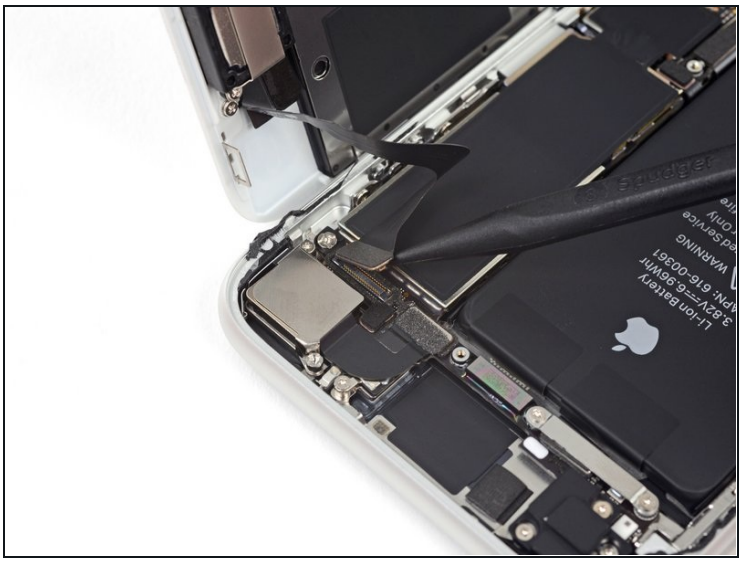




- Remove the three 1.3 mm Phillips screws securing the bracket over the front panel sensor assembly connector.
- Remove the bracket.

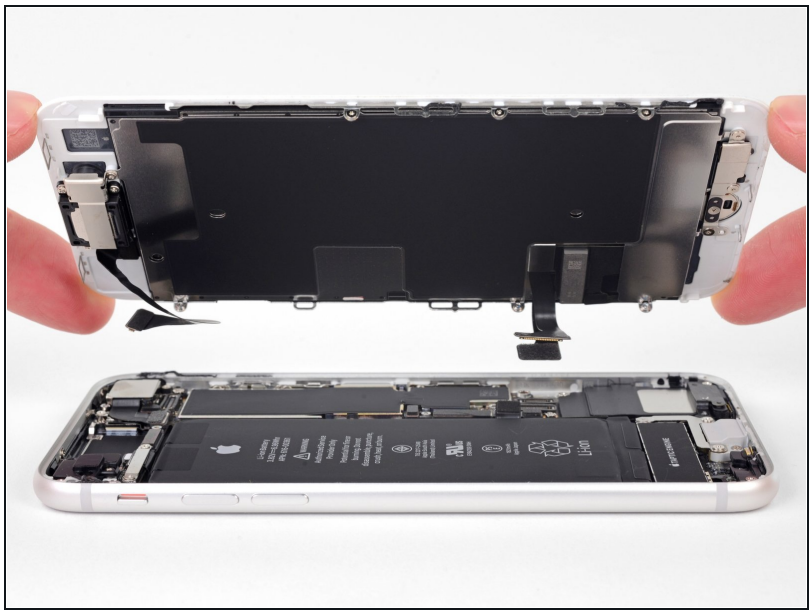
Step 21





- Use the point of a spudger to disconnect the front panel sensor assembly connector.

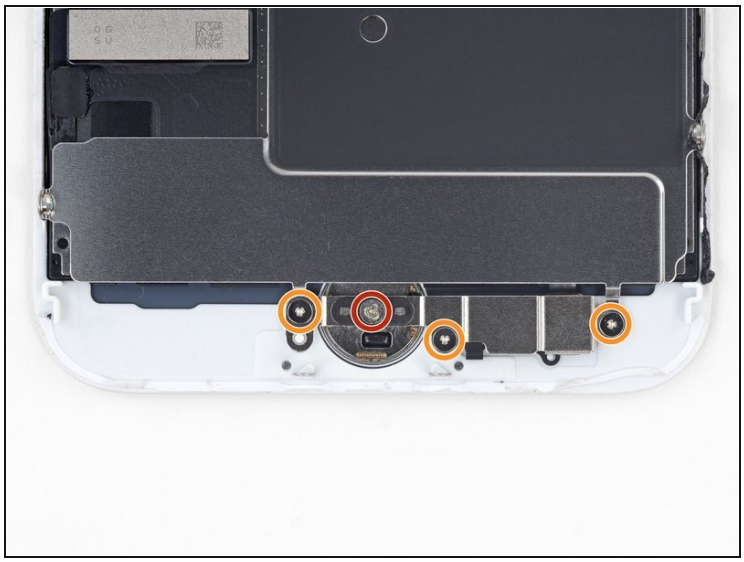
Step 22 — Remove the display assembly

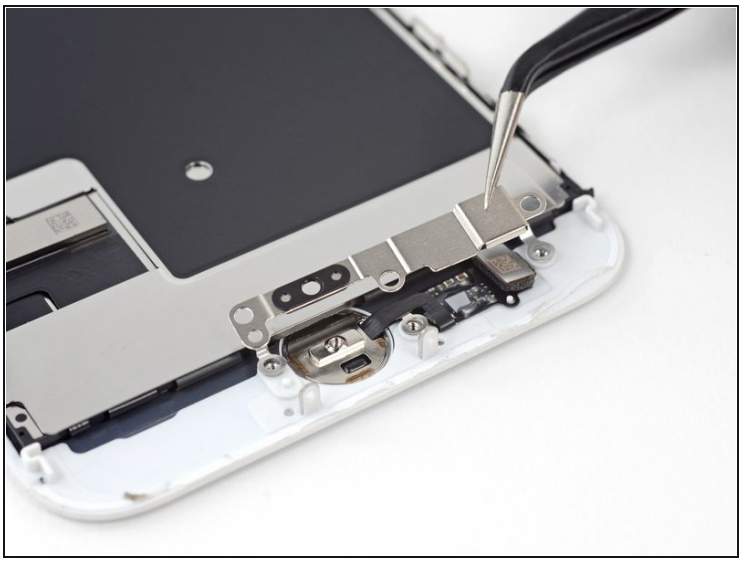


- Remove the display assembly.

During reassembly, pause here if you wish to replace the adhesive around the edges of the display.

Step 23 — Remove the home/Touch ID sensor bracket

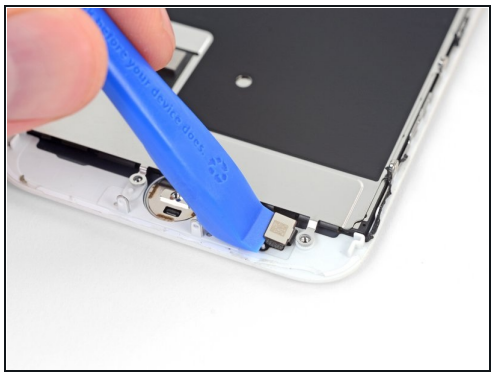




- Remove the four Y000 screws securing the bracket over the home/Touch ID sensor:
  - One 1.2 mm screw
  - Three 1.3 mm screws
- Remove the bracket.

During reassembly, be careful not to overtighten these screws, or your home button may not work.

Step 24 — Disconnect the Touch ID sensor





- Use an opening tool to pry under the left edge of the home button cable connector to disconnect it from its socket.

⚠ If the entire connector begins to flip up without separating, press down on the cable at the top edge of the connector with the flat end of your spudger, while simultaneously prying up the left edge of the connector. Be very careful not to damage the cable or connector, or you will permanently disable the sensor.

Step 25 — Remove the Touch ID sensor

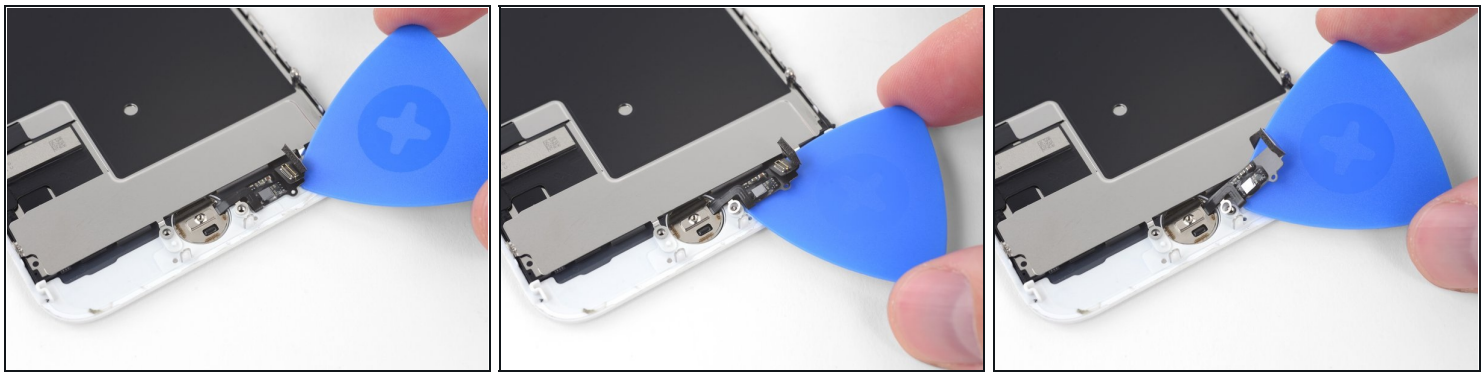


ⓘ Heating the area around the home/Touch ID sensor will help soften the adhesive holding its delicate cable in place, making it easier to remove safely.

- Flip the display assembly over. Use a hairdryer or prepare an iOpener and apply it to the lower edge of the display for about 90 seconds in order to soften up the adhesive underneath.

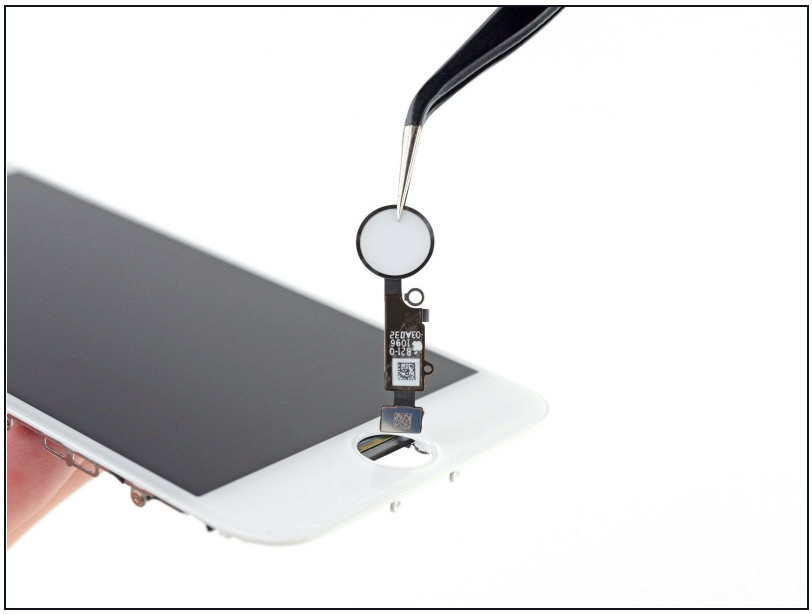
⚠ Don't overheat the display. It should be slightly too hot to touch comfortably.

Step 26



- Use an opening pick to gently separate the adhesive holding the home/Touch ID sensor cable to the back side of the display panel.

Step 27



- Remove the home/Touch ID sensor assembly by lifting it through the front side of the display.

- To reinstall, first feed the cable through the hole in the front of the display as shown.

- Your replacement part may come with extra Y000 screws already installed near the Home Button. Remove the unnecessary screws so that you can reinstall the home button bracket.

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 R2 or e-Stewards certified recycler.

Repair didn’t go as planned? Try some basic troubleshooting, or search our iPhone SE 2020 forum for help.