

# iPhone 14 Plus Taptic Engine Replacement

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

Written By: Dominik Schnabelrauch



# **INTRODUCTION**

Use this guide to remove and replace the Taptic Engine in an iPhone 14 Plus. The Taptic Engine produces your iPhone's vibration and haptic feedback functions.

This guide was created using the **A2886** (international) model. If you're fixing a different iPhone 14 Plus model, there may be some visual discrepancies, but the procedure should be the same.

**For your safety, discharge the battery below 25% before disassembling your device.** This reduces the risk of fire if the battery is accidentally damaged during the repair. If your battery is swollen, <u>take appropriate precautions</u>.

You'll need replacement adhesive to reattach the screen when reassembling the device. Your device will function normally, but will most likely lose its IP (Ingress Protection) rating.

## TOOLS:

```
P2 Pentalobe Screwdriver iPhone (1)
Anti-Clamp (1)
Hair Dryer (1)
iFixit Opening Picks (Set of 6) (1)
Suction Handle (1)
Tri-point Y000 Screwdriver (1)
Spudger (1)
Tweezers (1)
Safety Glasses (1)
Packing Tape (1)
Heat Gun (1)
Standoff Screwdriver for iPhones (1)
Phillips #00 Screwdriver (1)
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🌣 PARTS:

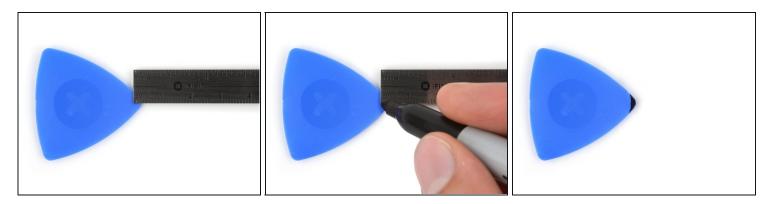
iPhone 14 Plus Vibrator (1) Tesa 61395 Tape (1)

## Step 1 — Remove the pentalobe screws



- Power off your iPhone before beginning disassembly.
- Remove the two 6.8 mm-long pentalobe P2 screws at 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.
   i You can also mark the other corners of the pick with different measurements.
  - (i) Alternatively, <u>tape a coin to a pick</u> 3 mm from the tip.

## Step 3 — Tape over any cracks



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

A 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 rear glass with that instead.

i If all else fails, you can superglue the suction cup to the rear glass.

## 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 <u>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—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.

# Step 5



- 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 6



- Support your iPhone on something sturdy such as a hardcover book so it rests handsfree and parallel to the ground; this makes it easier to work with in the following steps.
- Use a hair dryer to heat along the bottom edge of the iPhone. The glass should feel slightly too hot to touch.

*i* For complete instructions on how to use a hair dryer, <u>check out this guide</u>.

- Wait one minute to give the adhesive a chance to release and present an opening gap.
- Insert an opening pick under the rear glass when the Anti-Clamp creates a large enough gap.
  - (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 bottom edge



- If you're using a suction handle, follow the next two steps to loosen the rear glass.
- Use a hair dryer or a heat gun to heat the bottom edge of the iPhone for 90 seconds or until the rear glass is slightly too hot to touch.
- A Never leave your hair dryer in one spot for an extended period of time.

#### Step 8 — Insert an opening pick



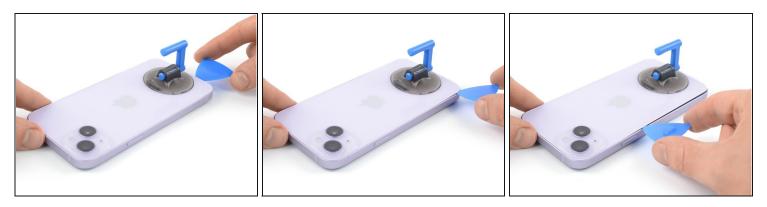
- Apply a suction handle to the bottom edge of the rear glass, while avoiding the very edge of the glass.
- Pull up on the suction cup with firm, constant pressure to create a slight gap between the rear glass and the frame.
- Insert an opening pick into the gap.
- (i) The adhesive holding the rear glass 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 rear glass up and down to weaken the adhesive until you create enough of a gap to insert your opening pick.

#### Step 9 — Heat the left edge



• Use a hair dryer to heat the left edge of the iPhone for 90 seconds or until the rear glass is slightly too hot to touch.

# Step 10 — Slice the left edge adhesive



• Slide the opening pick around the lower left corner and up the left edge of the iPhone, slicing through the adhesive holding the rear glass in place.

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

## Step 11 — Heat the right edge



• Use a hair dryer to heat the right edge of the iPhone (the edge with the power button) for 90 seconds or until the rear glass is slightly too hot to touch.

#### Step 12 — Screen information



 There's a delicate cable along the right edge of your iPhone.
 Don't insert your pick here, as you may damage the cable.

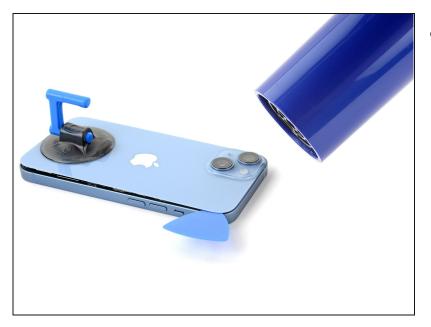
# Step 13 — Slice the right edge adhesive



• Re-insert your pick at the bottom edge of the iPhone, and slide it up the right side to continue separating the adhesive.

A Don't insert your pick more than 3 mm, as you may damage the charging coil cable.

# Step 14 — Heat the top edge



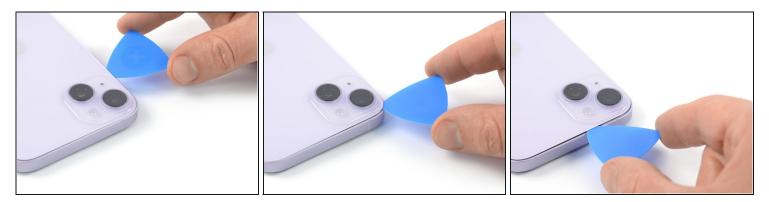
• Use a hair dryer to heat the top edge of the iPhone for 90 seconds or until the rear glass is slightly too hot to touch.

#### Step 15 — Slice the top edge adhesive



• Insert your pick underneath the top right edge of the phone. Slide it around the topright corner and halfway across the top edge.

## Step 16



• Insert your pick underneath the top-left edge of the phone. Slide it around the top-left corner and halfway across the top edge.

🗥 Don't insert the pick more than 3 mm, as you may damage or smear the camera array.

⚠ Don't try to fully separate the rear glass yet, as there's a fragile ribbon cable connecting it to the iPhone's logic board.

## Step 17 — Open the iPhone

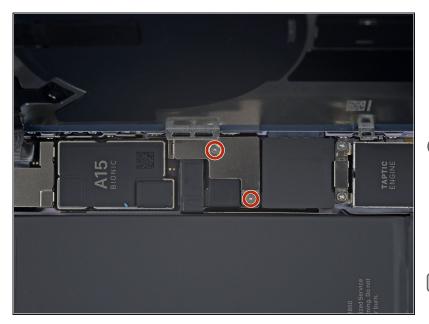


- Remove your suction handle from the rear glass.
- Slowly open your iPhone by swinging the rear glass up from the left side, like the back cover of a book.

 $\triangle$  Be careful not to strain the short charging coil flex cable.

- Lean the rear glass against something to keep it propped up while you're working on the phone.
  - If you don't have anything at hand to lean the rear glass against, your <u>suction handle</u> <u>can do the trick</u>.
- During reassembly, lay the rear glass in position, align the clips along the top edge, and carefully press the top edge into place before snapping the rest down. If it doesn't click easily into place, check the condition of the clips around the perimeter of the rear glass and make sure they aren't bent.

#### Step 18 — Unfasten the battery connector cover screws



- Use a Y000 screwdriver to remove the two 1.3 mm-long screws securing the battery connector cover.
- Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from to avoid damaging your iPhone.
- During reassembly, this is a good point to power on your iPhone and test all functions before you seal the display in place. Be sure to power your iPhone back down completely before you continue working.

#### Step 19 — Remove the battery connector cover



- Grasp the battery connector cover with a pair of tweezers and slide it upwards (towards the A15 print) to unlatch the <u>top hook</u>.
- Remove the battery connector cover.

#### **Step 20** — **Disconnect the battery**



- Use the pointed end of a spudger to disconnect the battery cable by prying the connector straight up from its socket.
- Try not to damage the black silicone seal surrounding this and other board connections. These seals provide extra protection against water and dust intrusion.
- Bend the connector 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 21 — Unfasten the charging coil connector cover



 Use a Y000 screwdriver to remove the single 1.0 mm-long screw securing the charging coil connector cover.

# Step 22 — Remove the charging coil connector bracket



• Use a pair of tweezers to remove the charging coil connector cover.

# Step 23 — Disconnect the charging coil



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

#### Step 24 — Remove the rear glass assembly



- Remove the rear glass assembly.
- Apply new adhesive where it's necessary after cleaning the relevant areas with isopropyl alcohol (>90%).
- During reassembly, pause here if you wish to <u>replace the rear glass adhesives</u>.

#### Step 25 — Remove the Taptic Engine screws



- Use a Phillips screwdriver to remove the four screws securing the Taptic Engine.
  - Two 1.7 mm-long screws
  - One 1.4 mm-long screw
  - One 1.8 mm-long screw

# Step 26 — Remove the Taptic Engine connector bracket



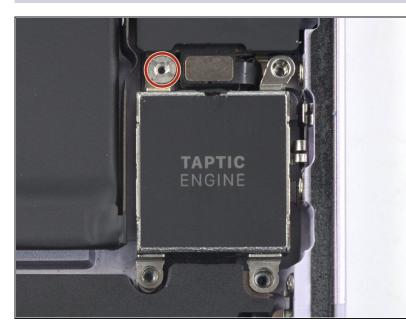
• Use a pair of tweezers to remove the Taptic Engine connector bracket.

# Step 27 — 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 28 — Remove the standoff screw



- Use a standoff driver to remove the 3.1 mm-long standoff screw.
- Standoff screws are best removed using a dedicated <u>standoff driver</u> or driver 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 29 — Remove the Taptic Engine



• Use a pair of tweezers or your fingers to remove the Taptic Engine.

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.

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

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