

Samsung Galaxy S20 Ultra USB-C Charging Port and Daughterboard Replacement

Use this guide to replace the USB-C charging...

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INTRODUCTION

Use this guide to replace the USB-C charging port and daughterboard on your Samsung Galaxy S20 Ultra.

Before you begin, refer to the <u>Samsung Self-Repair document</u> for safety information.

Note: Retaining water resistance after the repair will depend on how well you reapply the adhesive, but your device will lose its IP (Ingress Protection) rating.



TOOLS:

- iOpener (1)
- Suction Handle (1)
- iFixit Opening Picks (Set of 6) (1)



PARTS:

 Samsung Galaxy S20 Ultra (USA) USB-C Charge Port - Genuine (1)

Step 1 — Heat the bottom edge



- Unplug and power off your phone before you begin.
- Heat an iOpener and apply it to the back cover's bottom edge for two minutes.
 - 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 2 — Separate the bottom edge adhesive







- Apply a suction cup to the back of the phone, as close to the center of the bottom edge as possible.
 - if the back cover is badly cracked, covering it with a layer of clear packing tape 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 cover.
- Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert the point of an opening pick into the gap.
 - Due to tight tolerances, this may take multiple attempts of reheating with the iOpener and separating with the suction cup before you get it right.
 - (i) If you are having trouble creating a gap, apply more heat to the edge and try again.
 - ↑ Do not apply excessive force with the pick, or you risk cracking the back cover glass.

Step 3 — Slice the adhesive







- Slide the pick back and forth along the bottom edge to slice through the adhesive.
 - ⚠ Do not attempt to cut the adhesive near the corners of the phone where the glass is curved or you risk cracking the glass panel.
- Leave your opening pick in the seam to prevent the adhesive from resealing.

Step 4 — Heat the left edge



 Apply a heated iOpener to the left edge of the back cover for two minutes.

Step 5 — Separate the left edge adhesive







- Apply a suction cup to the back of the phone, as close to the center of the left edge as possible.
- Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert the point of an opening pick into the gap.
 - (i) As the glass on this edge is curved, you won't be able to insert this pick very far. As long as the very tip of the pick is underneath the glass's edge, you will be able to proceed.
- i Due to tight tolerances, this may take multiple attempts.
 - (i) If you are having trouble creating a gap, apply more heat to the edge and try again.
 - You can try also applying a few drops of high concentration (over 90%) isopropyl alcohol into the seam to help loosen the adhesive.
 - ♠ Do not apply excessive force with the pick, or you risk cracking the back cover glass.

Step 6



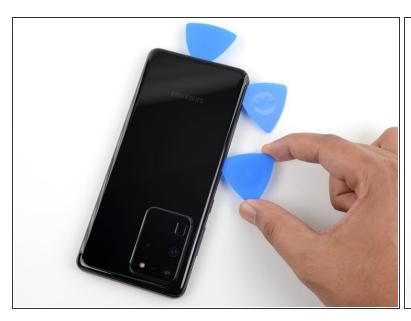
 Once the pick is underneath the glass's edge, tilt it downward and insert it further to fully separate the back cover's adhesive.

Step 7



- Slide the pick towards the bottom edge of the phone to separate the back cover's adhesive.
- Leave your pick under the left edge of the glass near the bottom of the device to prevent the adhesive from resealing.

Step 8





- Insert another pick under the center of the left edge of the back cover.
- Gradually slide the pick towards the top of the device to separate the back cover's adhesive.
 - ↑ Take care when sliding across the ridge in the frame surrounding the volume and power buttons—the cutout in the glass may make it more prone to cracking.
- Leave your pick under the left edge of the glass near the top of the device to prevent the adhesive from resealing.

Step 9 — Heat the right edge



- Apply a heated iOpener to the right edge of the back cover for two minutes.
 - 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 10 — Separate the right edge adhesive







- Apply a suction cup to the back of the phone, as close to the center of the right edge as possible.
- Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert the point of an opening pick into the gap.
 - Like with the previous edge, you will need to tilt the opening pick downward to fully insert it underneath the back cover.

Step 11





- Slide the pick towards the bottom edge of the phone to separate the back cover's adhesive.
- Leave your pick under the right edge of the glass near the bottom of the device to prevent the adhesive from resealing.

Step 12





- Insert another pick underneath the center of the right edge of the back cover.
- Gradually slide the pick towards the top of the device to separate the back cover's adhesive.
 - (i) As you do this, the bottom edge of the back cover may release the three picks located there. If this occurs, set these picks aside as the bottom edge shouldn't reseal from this point onward.

Step 13 — Heat the top edge



 Apply a heated iOpener to the top edge of the back cover for two minutes.

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Step 14 — Separate the top edge adhesive







- ↑ The glass near the corners of the back cover is curved and very susceptible to cracking. Be gentle during this step to prevent damaging your back cover.
- Gradually slide the pick from the right edge of the device around the top right corner.
- Continue slicing along the top edge to fully separate the back cover adhesive.
 - (i) If the slicing becomes difficult at any point, stop and reapply heat before continuing.

Step 15 — Remove the back cover





- Lift the back cover slowly. Use opening picks to slice any remaining adhesive.
- Remove the back cover.
- During reassembly:
 - This is a good point to power on your phone and test all functions before sealing it up.
 - Remove any adhesive chunks with a pair of tweezers or your fingers. Apply heat if you're having trouble separating the adhesive.
 - If you're using Samsung custom-cut adhesives, follow this guide.
 - If you're using double-sided tape, <u>follow this guide.</u>

Step 16 — Disconnect the wireless charging coil





- Use a spudger to pry up and disconnect the wireless charging coil connector.
 - Mhen you disconnect connectors like these, be careful not to dislodge the small surfacemounted components surrounding the socket.

Step 17 — Unfasten the loudspeaker





- Use a Phillips #00 screwdriver to remove the five 3.9 mm-long screws securing the loudspeaker and lower midframe.
 - Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from.
- If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled #3373.

Step 18 — Disconnect the loudspeaker





- Insert the point of a spudger into the notch in the top left corner of the loudspeaker.
- Pry up to release the clips holding it in place.

Step 19 — Remove the wireless charging coil





- Use tweezers, or your fingers, to gently peel the wireless charging coil away from the device.
- Remove the wireless charging coil.
- Set the charging coil aside. You'll reuse it during reassembly.

Step 20 — Unfasten the motherboard bracket

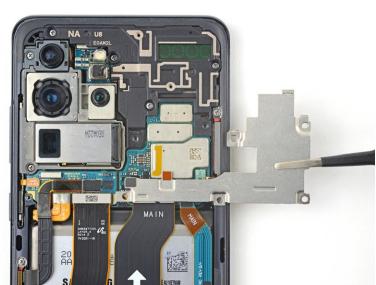




- Use a Phillips #00 screwdriver to remove the five 3.9 mm-long screws securing the motherboard bracket.
- If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled #3373.

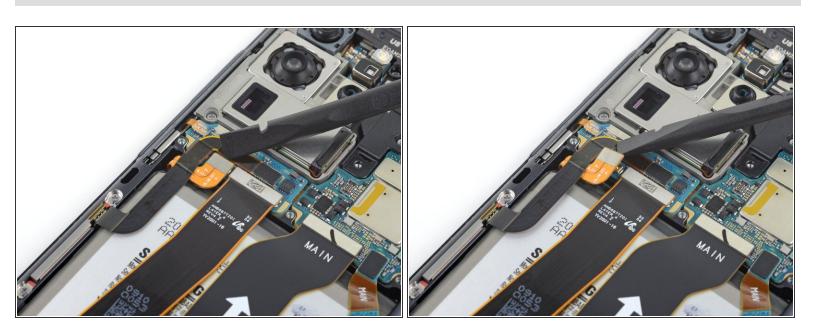
Step 21 — Remove the motherboard bracket





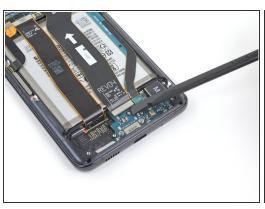
- Use a pair of blunt-nose tweezers to unclip and remove the motherboard bracket.
- Set the bracket aside. You'll reuse it during reassembly.

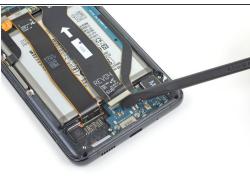
Step 22 — Disconnect the battery

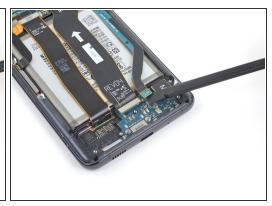


Use a spudger to pry up and disconnect the battery connector.

Step 23 — Disconnect the daughterboard







- Use a spudger to pry up and disconnect the primary and secondary interconnect cables from the daughterboard near the bottom of the device.
- To re-attach <u>press connectors</u> like this one, carefully align and 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 misaligned, the pins can bend, causing permanent damage.

Step 24 — Disconnect the flex cables



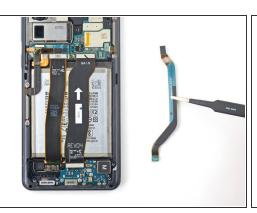




 Use a spudger to pry up and disconnect the primary and secondary interconnect cables from the motherboard.

Step 25 — Remove the flex cables







- Gently peel up and remove the primary and secondary interconnect cables.
- Set both cables aside. You'll reuse them during reassembly.

Step 26 — Unfasten the daughterboard





- Use a Phillips #00 screwdriver to remove the three 3.7 mm-long screws securing the USB-C port and daughterboard.
- If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled #3396.

Step 27 — Remove the daughterboard







- Insert the pointed end of a spudger under the left edge of the daughterboard and pry up to release
 it from its recess.
- Use tweezers, or your fingers, to pull the daughterboard up and away from the bottom of the device and remove it.

To reassemble your device, follow the instructions in reverse order and perform the opposite actions, e.g., "reattach" instead of "removing." Skip steps that use heating and prying, and pay close attention to the bullets as you work through the steps.

After you've completed the repair, download the Samsung Members App from the Galaxy Store or the Play Store, and <u>follow the Samsung Self-Repair document</u> (beginning page 9) to make sure your device is fully functional.

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

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