Samsung Galaxy S21 Wireless Charging Coil Replacement

Use this guide to remove or replace the...

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INTRODUCTION

Use this guide to remove or replace the wireless charging coil in your Samsung Galaxy S21.

For your safety, discharge the battery below 25% before disassembling your phone. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair. If your battery is swollen, take appropriate precautions.

You'll need replacement adhesive in order to complete this repair.

🔧 TOOLS:

- iFixit Opening Picks (Set of 6) (1)
- iOpener (1)
- Suction Handle (1)
- Spudger (1)
- Phillips #00 Screwdriver (1)
- Tweezers (1)

⚙ PARTS:

- Precut Adhesive Card (1)
- Galaxy S21 Wireless Charging Coil (1)

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Step 1 — Heat the bottom edge

⚠️ Completely 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, internal battery, and plastic back cover are both susceptible to heat damage.

Step 2 — Separate the bottom adhesive

- Apply a suction cup to the back of the phone, as close to the center of the bottom edge as possible.

- Pull up on the suction cup with strong, steady force to create a gap between the back cover and the frame.

  - (i) Depending on the age of your phone, this may be difficult. If you're having trouble, apply more heat to the edge and try again.

- Insert an opening pick into the gap.

  - ⚠ Only insert the pick up to 5 mm, as you may damage internal components if you go further.

Step 3 — Slice the bottom adhesive

- Slide the pick back and forth along the bottom edge to slice through the adhesive.

- Leave the pick in to prevent the adhesive from resealing.

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Step 4 — Heat the left edge

● Apply a heated iOpener to the back cover's left edge for two minutes.

Step 5 — Separate the left adhesive

● Apply a suction cup to the back of the phone, as close to the center of the left edge as possible.

● Pull up on the suction cup with strong, steady force to create a gap between the back cover and the frame.

● Insert an opening pick into the gap.

⚠ Only insert the pick up to 5 mm, as you may damage internal components if you go further.

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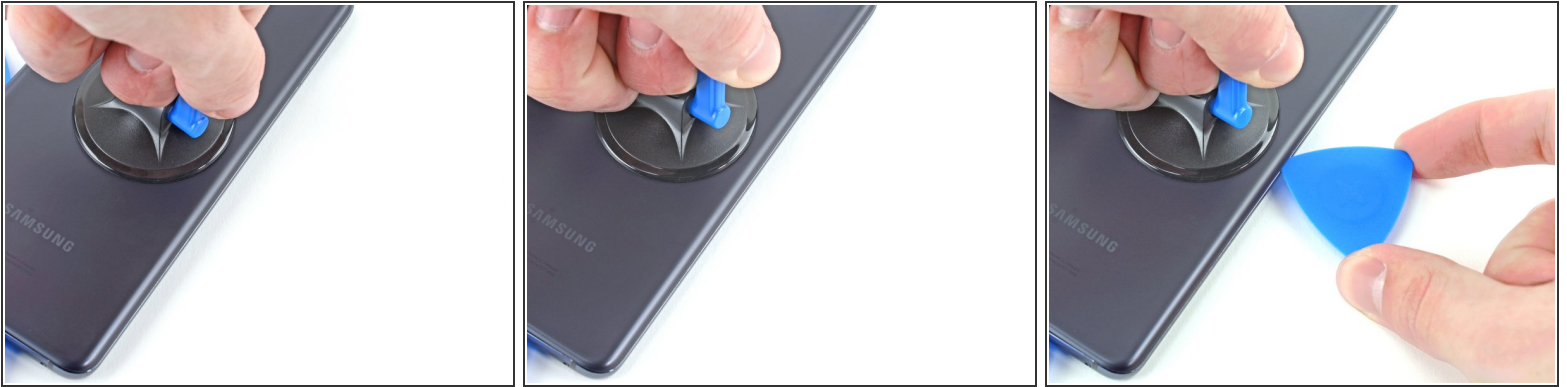
Step 6

- Slide an opening pick along the left edge towards the bottom left corner to cut the adhesive.
  ⚠️ Don't cut past where the camera shell meets the back cover, as you risk cracking the plastic.
- Leave the pick in to prevent the adhesive from resealing.

Step 7 — Heat the right edge

- Apply a heated iOpener to the back cover's right edge for two minutes.

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Step 8 — Separate the right adhesive

- Apply a suction cup to the back of the phone, as close to the center of the right edge as possible.

- Pull up on the suction cup with strong, steady force to create a gap between the back cover and the frame.

- Insert an opening pick into the gap.

  ⚠ Only insert the pick up to 3 mm, as you may damage the secondary interconnect cable, which runs parallel to the right edge.

Step 9

- Slide an opening pick back and forth along the back cover's right edge to cut the adhesive.

- Leave the pick in to prevent the adhesive from resealing.

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Step 10 — Separate the corner adhesive

- Rotate the right-edge opening pick around the top-right corner of the phone.

  ⚠ Only insert the pick up to 5 mm, as you may damage internal components if you go further.

ⓘ This procedure can be applied to each corner, except the top-left where the rear-facing camera is located.

Step 11 — Reposition the opening picks

- Slide the top-most opening pick as close to the camera shell as possible.

- Repeat for the left-edge pick.

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Step 12 — Heat the camera shell

- Heat an iOpener and apply it to the camera shell for two minutes.

Step 13 — Separate the camera shell adhesive

- Rotate the back cover counterclockwise to create a gap between the camera shell and the frame.
  ⚠ Only insert the pick up to 5 mm to avoid scratching the camera.

- Insert an opening pick in the gap.

- ⓘ If this method doesn't work, move to the next step for an alternative method; otherwise, skip the next step.

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Step 14 — Separate the camera shell adhesive (alternate method)

- Gently slide the two picks toward the camera shell so they are under the corners of the back cover adjacent to the camera shell.

- Move the picks back and forth along the bridge between the back cover and the camera shell until you create a gap between the camera shell and the frame.

⚠ Be careful with this method, as you risk cracking the plastic back cover.

Step 15

- Slide an opening pick between the camera shell and the frame to cut the adhesive.

- ⓘ There's a significant amount of adhesive securing the frame to the camera shell, so multiple rounds of heating may be needed.

Step 16

- There's additional adhesive to the right of the camera that you need to cut through.

⚠ There's a plate on the back cover surrounding the phone's flash that the pick can get stuck on:

 - Angle the pick downward to avoid any damage.

Step 17

- Line up the opening pick's tip with your phone's flash

- Insert the pick slowly, making sure to avoid the flash's plate.

  ⚠ The plate's resistance can feel similar to adhesive. Angle the pick downward to keep the pick from sliding into the plate.

- Slice the adhesive to the right of the camera.

## Step 18 — Remove the back cover

- Remove the back cover.
  - (i) If your back cover is still sticking to the frame, slide the pick around the edges of the phone until the back cover completely separates.

- 📌 During reassembly:
  - This is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.
  - Remove any adhesive chunks with a pair of tweezers or your fingers. Use some high concentration (over 90%) isopropyl alcohol to wipe away any adhesive residue.
  - If you're using Samsung custom-cut adhesives, <u>follow this guide</u>.
  - If you're using double-sided tape, <u>follow this guide.</u>

Step 19 — Unfasten the motherboard bracket
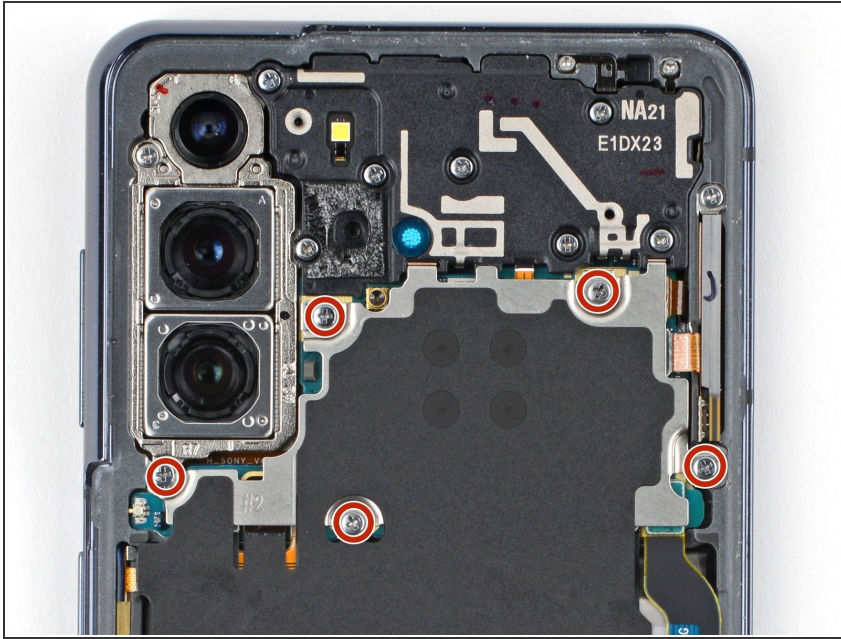
- Use a Phillips screwdriver to remove the five 4 mm-long screws securing the motherboard bracket to the frame.

- (i) Throughout this repair, keep track of each screw, and make sure it goes back exactly where it came from.
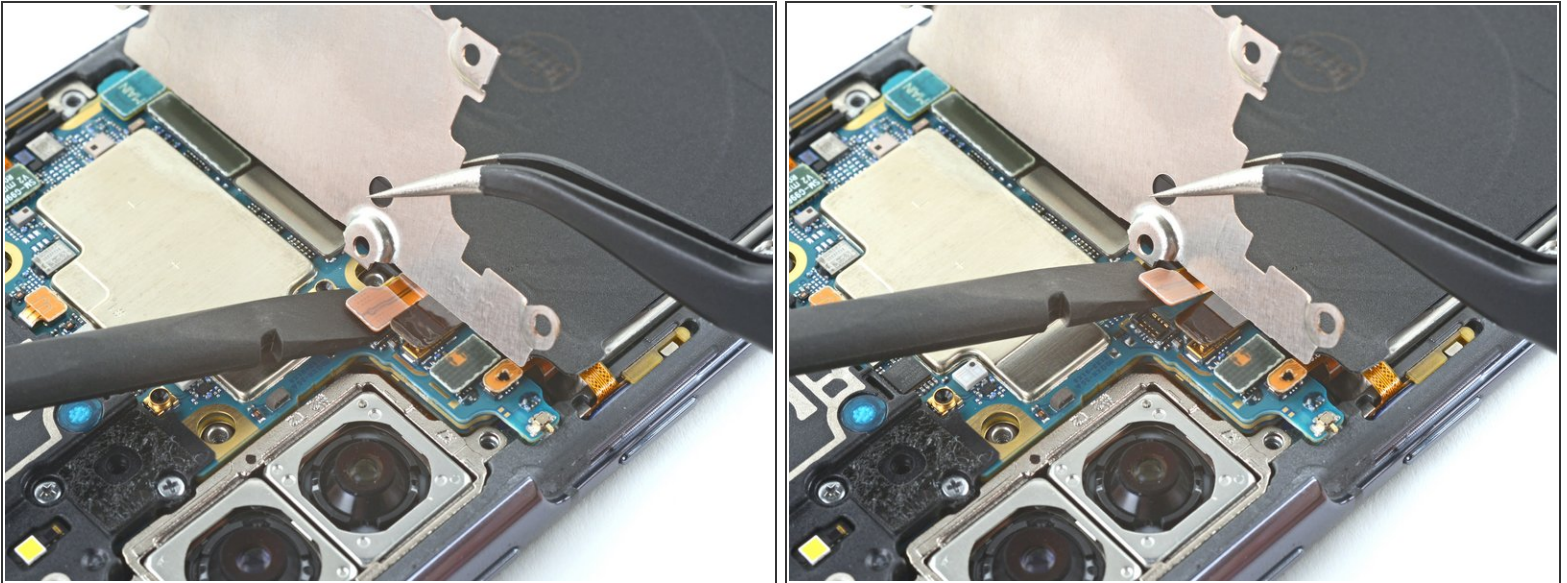
Step 20 — Unclip the motherboard bracket
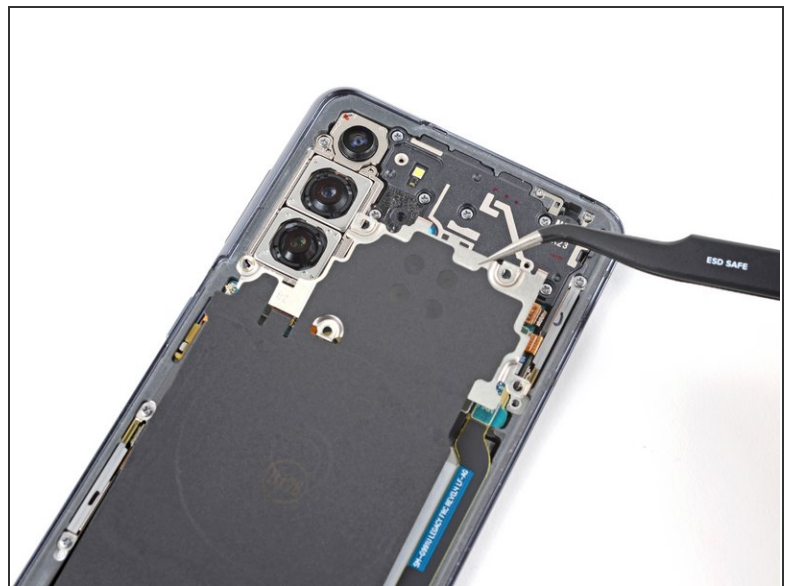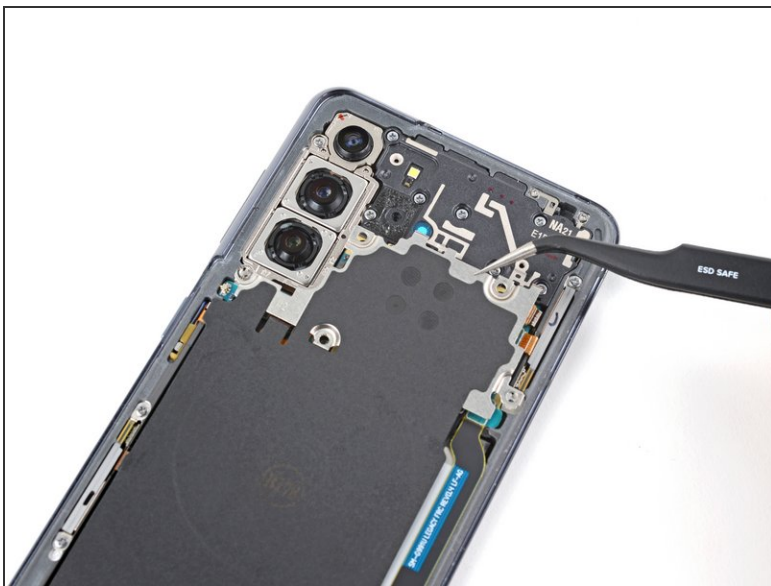
- Use a pair of tweezers to gently pull up and unclip the motherboard bracket from the frame.

- ⚠ Do not completely remove the bracket yet, as it's still attached to the wireless charging coil.

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Step 21 — Disconnect the battery

- While using tweezers, or your fingers, to hold the motherboard bracket out of the way, use a spudger to pry up the battery press connector.

  ⚠️ Take care to pry only under the edge of the connector to prevent damaging the socket itself and surrounding components.

- 📌 To re-attach press connectors 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 22 — Disconnect the wireless charging coil
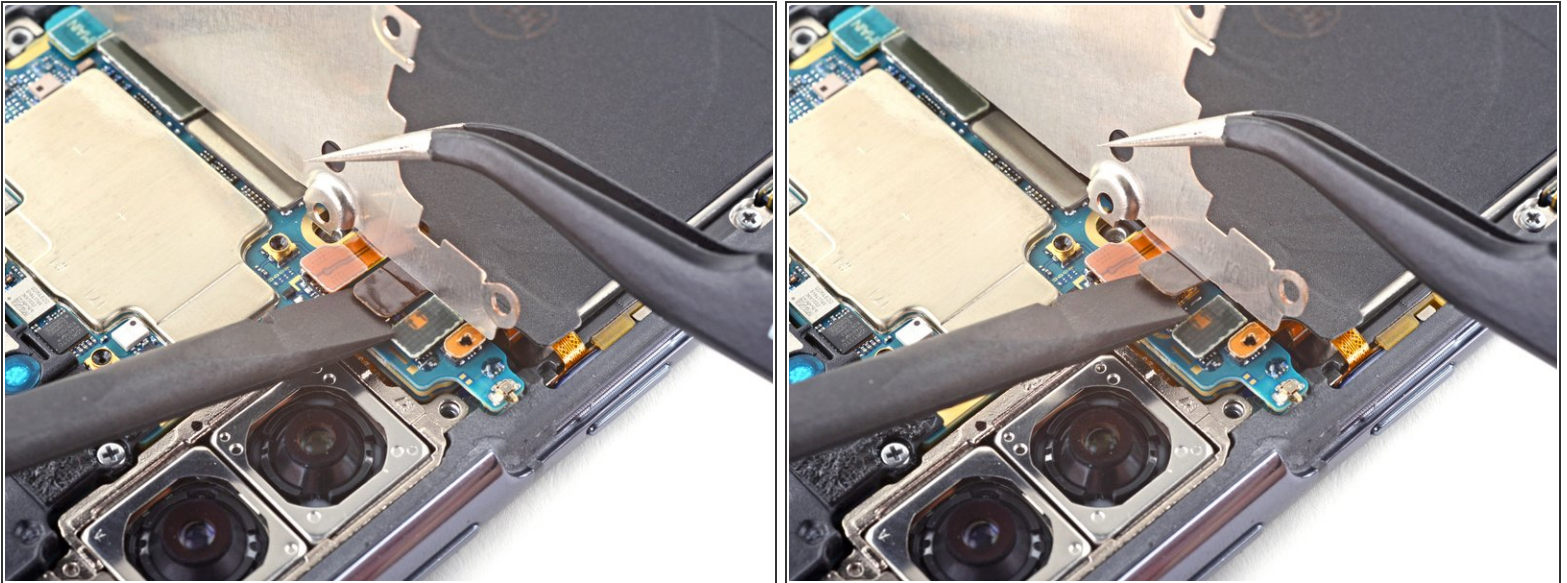
- While still holding the motherboard bracket out of the way, use a spudger to pry up and disconnect the wireless charging coil's press connector.

Step 23 — Remove the wireless charging coil

- ⓘ The wireless charging coil is secured to the phone with light adhesive.

- Use your fingers to gently peel the wireless charging coil away from the phone.

- ⚑ During reassembly, refasten the motherboard bracket screws first to properly align the charging coil into place, then firmly press the rest of the coil down to adhere it.

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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.

After you've completed the repair, [follow this guide](#) to test your repair.

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Check out our [Answers community](#) for troubleshooting help.

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