



Convert Sennheiser G2/G3/G4 radio antennas to SMA connectors

This guide will aim to help the user: 1. Gain...

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INTRODUCTION

This guide will aim to help the user:

1. Gain entry to the chassis of the Sennheiser G2 radio pack.
2. Remove the stock antenna from the circuit board.
3. File down and modify an SMA connector to fit the chassis space.
4. Solder the new part to the board.



TOOLS:

[T6 Torx Bit](#) (1)
[Lead-Free Solder](#) (1)
[Soldering Iron](#) (1)
[Wire Stripping Tool](#) (1)
[File](#) (1)



PARTS:

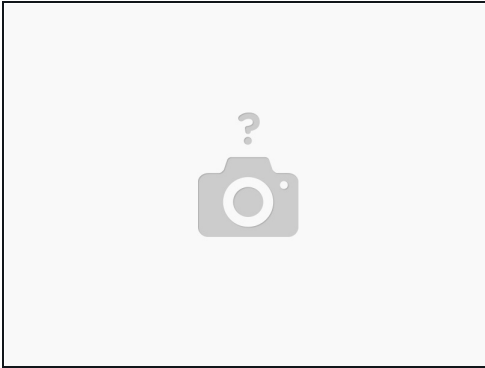
[Wire](#) (1)
[SMA Connector \(RS 512-0036\)](#) (1)

Step 1 — Antenna conversion to SMA plugs



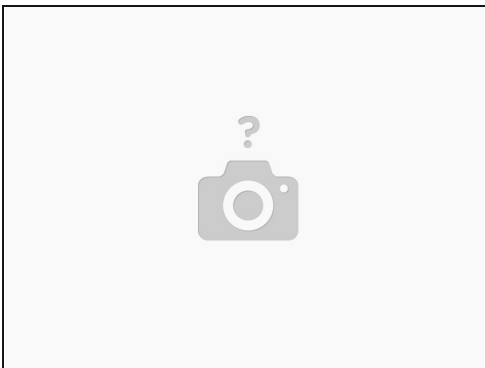
- This guide will cover the removal of old antennas from Sennheiser G2 (and also some crossover with how the G3 system come apart)
- I'll then describe how to prepare your parts for the addition of an SMA connector so you can use "whip" style antennae or wire in to a RF distribution system.
- If you follow the first half of the guide it should be fairly obvious how to attach a Sennheiser part to the board should that be all you wish/need to do.
- You will need at a minimum; a torx T6 driver bit and a soldering iron.
- For the SMA mod you will need, in addition to the other bits, a pair of wire cutters and/or stripper, an SMA connector (RS part number: 512-0036), a file and a 1cm length of fairly thin wire.

Step 2 — Remove the battery compartment cover



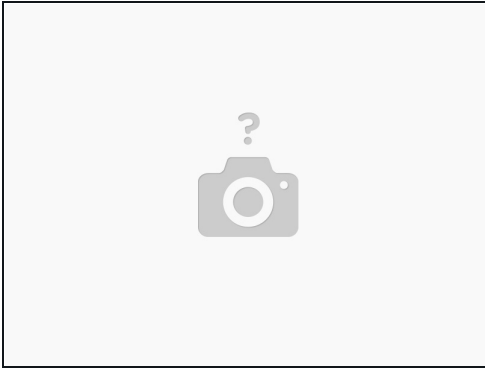
- Using a small screwdriver (i.e. the Torx T6) just push the plastic bar and it should slide out the other side.
- Now the cover should just come loose. It also separates all of the exterior components so you can take the back off without it pivoting around the bar!
- Be careful of the two plastic pieces in the sides of the case. They aren't really attached to anything and are basically just spacers. Keep them safe on your parts tray.

Step 3 — Remove the rear cover



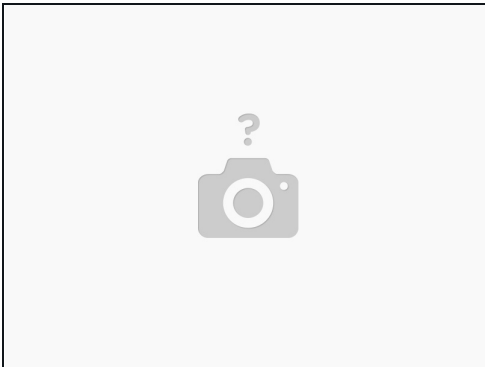
- Using a torx T6 driver bit unscrew each of the 4 screws pictured.
- Put them somewhere they're not going to go missing; like an anti static tray or a magnetic mat.

Step 4 — Disconnect the main boards from the chassis



- Just one more T6 screw as pictured above. It's the top left screw if the pictures aren't available.

Step 5 — Remove the previously installed antenna



- Hold your soldering iron on the solder point for a second and it should melt and come loose. If you have one use a [solder sucker](#) to clear the hole.

Step 6 — Prepare the SMA connector for the chassis space



- File or grind away the side of the SMA connector so that it will fit snugly into the gap in the case.
- I did this by hand a couple of times using the file on my multitool, but would recommend using a small power tool like a "Dremel" to speed up the process.

Step 7 — Wire the SMA to the board



- Cut a tiny piece of wire to length. Roughly 1cm.
- Tin the ends and solder the small piece to the original antenna solder point on the board.
- Solder the other end to the central pin on the SMA connector.

Step 8 — Reassemble



- Before reassembling just make sure your solder joints are conducting correctly using a multimeter set to beep test.
- Fit the connector in its snug little gap and follow the instructions in reverse to reassemble the chassis.
- Add the retention nut to the top of the SMA connector to stop it from moving. this also provides a ground to the chassis once tightened.

To reassemble your device, follow these instructions in reverse order.