

# How to Solder 1/8" (3.5mm) Connectors – Switchcraft Brand

This section demonstrates How to Solder 1/8" 3.5mm TRS Connectors.



Note: An 1/8" mono connector is very similar to the 1/4" mono connector (see Handout), and the 1/8" TRS is very similar to the 1/4" TRS connector (see Handout). This section will only explain how to solder an 1/8" 3.5mm TRS connector. This connector is relatively small and requires a little more patience to solder.

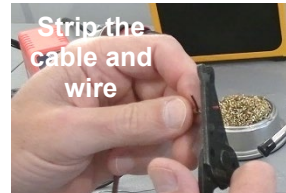
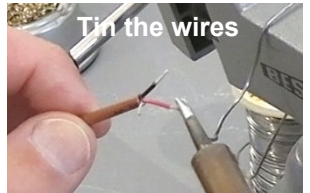
**First follow Steps 1 - 5:** 1) Clear the Work Area. 2) Turn on the Soldering Iron, Fan, Wet the Sponge. 3) Set up your Vice. 4) Ready the Solder, and Most Importantly 5) Put on your Safety Glasses Now!

**6. Prepare the Cable and Connectors:** The preparation of the cable and connectors go hand in hand (so they are combined in this step).

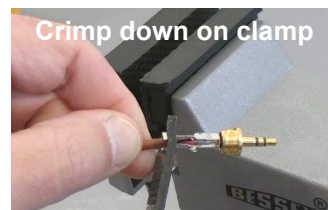
- Determine the cable length you need – roll the cable up slightly.
- Take the connectors apart.
- Slide the connector handles (and inner sleeves) on each end of the cable, and in the correct orientation. Do not skip this step or you will have to un-solder your connections to get the handles and inner sleeves on later.
- Place the connector in the vice, be careful not to over tighten the vice on the connector.
- Tin the connector leads.
- Prepare both cable ends by stripping the cable jacket back, and then stripping the wires to pre-determined lengths (size the wires up to the connector).
- Twist the wire strands together as needed – then Tin the wires on both ends of the cable.

**7. Soldering:** It's now time to solder the wires to the connector. First, "manipulate" the three wires so that they line up with the connector leads. With the connector firmly in the vice, hold the end of the cable and solder the "Shield" wire onto the "Sleeve" connection, then the "Red" wire on the "Tip" connection, and the "Black" wire on the "Ring" connection.

Take connector apart



Pin configuration: Tip = Hot, Ring = Common, and the Sleeve = Shield or Ground



Once you are finished soldering the wires to the connector, use needle nose pliers (or the "flat end" of your wire strippers) to crimp down on the cable clamp (tighten clamp over the cable – clamp down gently, don't pinch the cable jacket). Then slide the handle and inner sleeve up the wire and twist the handle on the connector (the handle should "twist" on the connector very easily, if not, there may be a problem with the connector). Next, solder a connector to the other end of the cable – follow the same steps as performed above.

**All finished:** Test the cable and connectors, then wrap the cable (see Handout). This type of connector may be a little difficult to solder at first, but will get easier with a little extra practice. The 1/8" 3.5mm Stereo Plug is used for patch cables, headphones, audio testers, mini recording devices, media players, iPads, Laptops, PC's, and video recorders, etc.

[Video Clip!](#)

**Safety must be made a priority whenever you solder – AVCSS Tech World cannot be held responsible or liable for any injuries incurred from any soldering method or technique shown in this Handout or on our Video Clips. Always use Caution!**