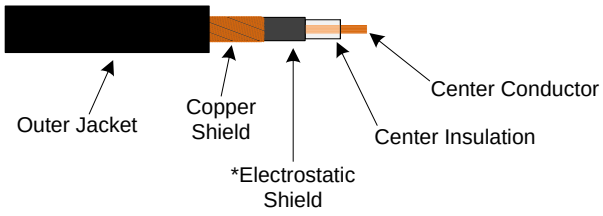
Instrument Cable Termination Guide

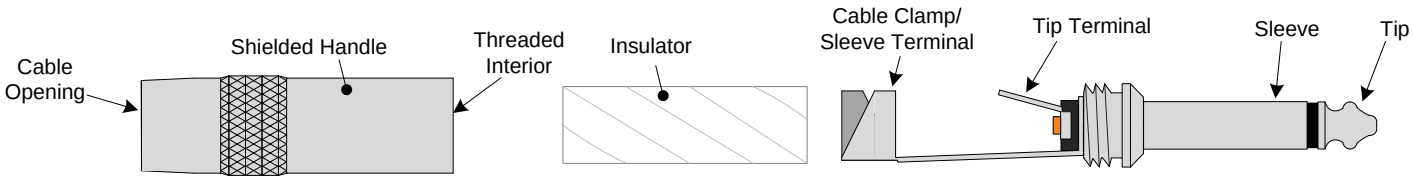
The Basic Parts of a Coaxial Instrument Cable



*The electrostatic shield acts as a semi-conducting barrier between the copper shield and the center insulation to discharge static electrical charges generated when the copper shield rubs against the insulation. This eliminates crackling noises that could otherwise be heard when the cable is moved.

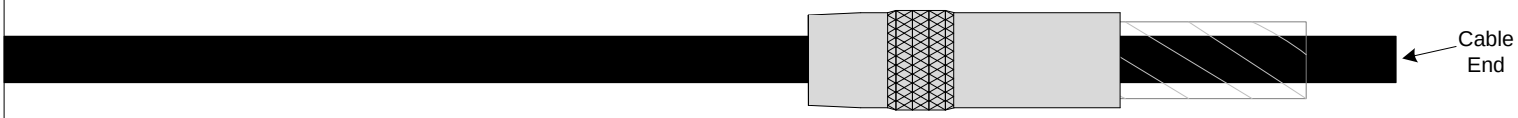
Warning: *Make sure to leave a length of center insulation exposed between the electrostatic shield and center conductor to avoid shorting the electrostatic shield to the center conductor.*

The Basic Parts of a Mono ¼" Plug

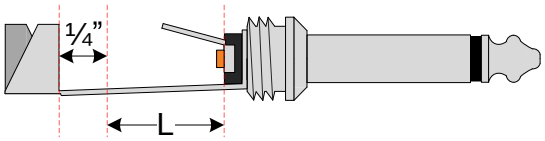


A Method for Connecting a Mono ¼" Plug to a Coaxial Instrument Cable

1. Slide the plug handle and insulator onto the coaxial cable with the threaded interior of the handle closer to the cable end you will be terminating.

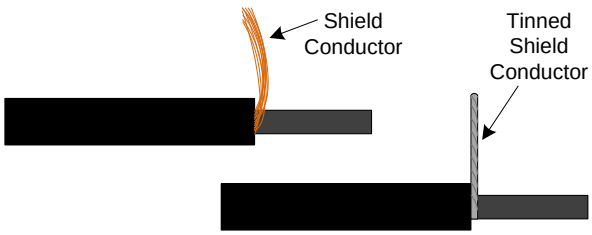


2. Measure the distance from the top of the tip terminal to about ¼" from the top of the cable clamp. This distance is labeled "L" in the drawing and should be between ½" to ¾" in length.

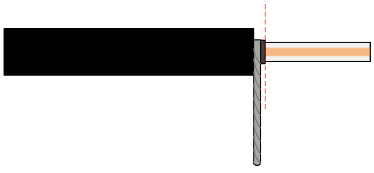


3. Remove a length (about equal to "L") of the cable's outer jacket from the cable end exposing the copper shielding beneath it. *Be careful not to accidentally cut through any of the shielding.*

4. Using your fingers, pull the copper shielding away from the electrostatic shield beneath. Push the shielding back down toward the outer jacket and twist the strands into a single conductive piece pointing out in one direction from the cable end. Tin these shield strands together with solder. *Be careful not to burn the electrostatic shield.*

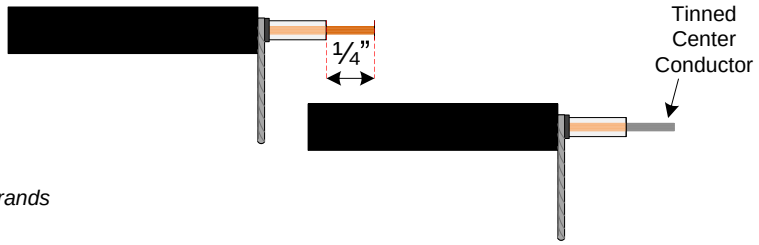


5. Remove the electrostatic shield from the cable end starting as far back as you can above the tinned shield conductor. *The electrostatic shield is very thin, so be careful not to cut through the insulation beneath it.*



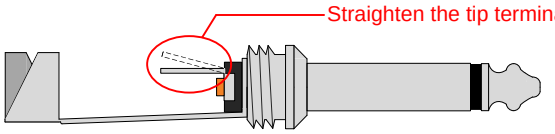
6. Remove ¼” of the center insulation from the cable end. *Be very careful not to cut off any of the strands from the center conductor.* Twist and tin the exposed center conductor strands together.

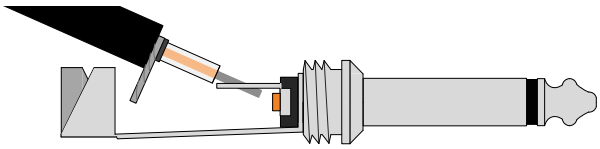
(Tinning the center conductor is optional, but recommended to prevent the strands from separating.)



7. Cut the shield conductor to a length between ¼” and ½”, according to your preference.

8. Straighten the tip terminal if it’s angled. Insert the tip conductor through the top of the tip terminal hole, solder the connection and trim any excess wire underneath the tip terminal.

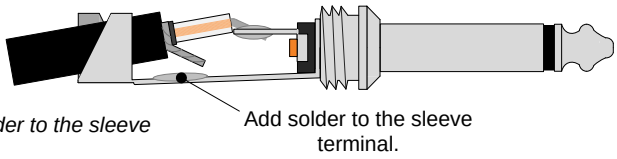




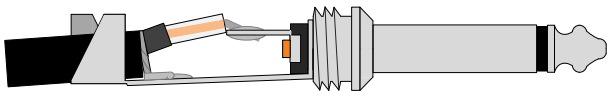
9. Connect the shield conductor to the sleeve terminal:

- Add some solder to the sleeve terminal for the shield conductor connection.

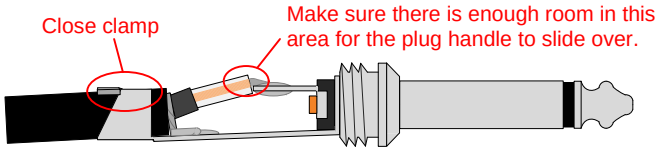
  (Depending on your soldering setup, you may decide it’s not necessary to add solder to the sleeve terminal before making the sleeve connection.)



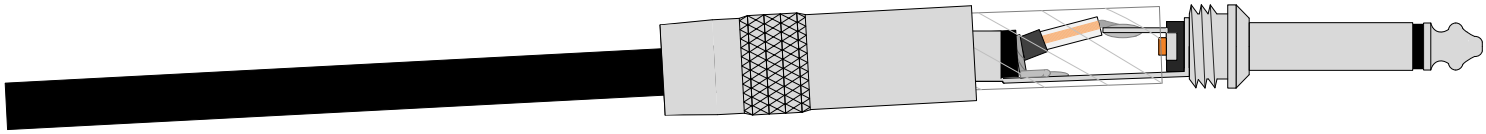
- Press and hold the shield conductor against the added solder with a pair of needle nose pliers.
- Heat up the added solder with the shield conductor pressing against it.
- Let the solder cool while holding the shield conductor against the shield terminal.



10. Close the cable clamp tightly around the outer jacket of the cable.



11. Push the plug handle and insulator over the connections. (The insulator helps ensure the tip terminal will be insulated from the shielded handle). Screw the handle onto the ¼” plug’s threading and that cable end is done.



Repeat the same process for the other end of the cable.