

Tech Tips

May 2008



Making the Connection

You find yourself coming down the home-stretch of a new-construction project, and you have just pulled the 75 ohm, Series 6 (RG-6 type) coax through the wall outlets. You are tempted to do a quick-and-dirty job installing the connector and call it a day. But then your professionalism kicks in, you take a deep breath and decide to do it right.

With f-type coax connectors, it is fair to say that the number of opinions about how to install connectors could be equal to the number of contractors in the field. However, whether you prefer compression or crimp, you must have proper tools, a quality connector and an approved installation method.

The necessary tools include a pair of cable cutters, a stripping or cable prep tool and a compression or crimp tool, along with the connector itself. Be sure to use a reputable brand that has a long history of providing quality connectors. Once you have the right tools, you can start the connectorization process, which can be broken down into two steps:

- Preparing the cable (which includes proper labeling)
- Installing the connector

Cutting & Stripping

Regardless of the method you use - compression or crimp - cable preparation (the cutting and stripping of the cable) is the first step (after proper labeling) and will be the same process regardless of connector type. First, cut the end of the cable squarely with a pair of sharp cutters.

Then, place the coax in the stripping/cable prep tool. Ensure the tool is on the correct setting for the cable type (note: if you are installing a 2-piece compression connector, place the 'ring' on the cable first. Then rotate the stripping tool around the cable until it no longer makes the crunching noise or the number of times recommended by the tool manufacturer. Remove the coax from the stripping tool and remove the stripped material (Note: you should never use the tool to remove the stripped materials). You should have approximately 5/16-inch center conductor and a quarter-inch braid. The braid material should remain intact; it should not be cut or falling off (Note: if the braid is cut i.e. sections falling off. start over at step 1). Fold back the braid so there is only one layer of foil left against the center white insulation.

For quad-shield cable, note that there are two layers of braid and one layer of foil. The foil between the two braids should be removed, then fold the braid back over the jacket. If you do not fold back everything except the innermost layer of foil, you will have difficulty pushing on the connector.

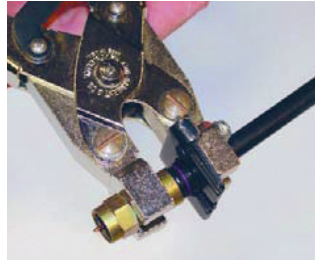
Whether standard, tri, or quad shield ensure that all exposed braid material is folded back over the jacket and that there is no braid wire in contact with the center conductor.



Installing the Connector

Crimp On

Slide the connector onto the cable; it helps to use a twisting motion while pushing the connector onto the cable. When inserted properly, the white insulator of the cable will be flush with the metal flange on the inside of the connector. If you cannot get the coax to go in all the way, pull it out and push it in again while rotating the connector. Open the jaws of the crimper and place the connector in the proper slot with the edge of the connector flush with the edge of the crimper (take care not to crimp or damage the 'connector nut'). Squeeze the handles all the way together and release. Remove the assembly from the crimper.



Compression

With a 2-piece compression connector, slide the ring onto the cable before beginning the cable preparation, then slide the connector onto the cable until the insulator is flush with the metal flange. For a 1-piece compression connector, slide the connector onto the cable until the insulator is flush with the metal flange. For the 2-piece connector, slide the ring into the connector and lay the assembly into the compression tool. For a 1-piece, insert the connector into the tool. Squeeze the handle until the connector seats all the way. Remove the connector and cable assembly from the tool.

The Right Tools for the Job

Regardless of the method you use to connectorize coax cables, be sure to use the right tools; good, quality connectors and follow the instructions closely. Once you have done this, give yourself a pat on the back and call it a day.

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