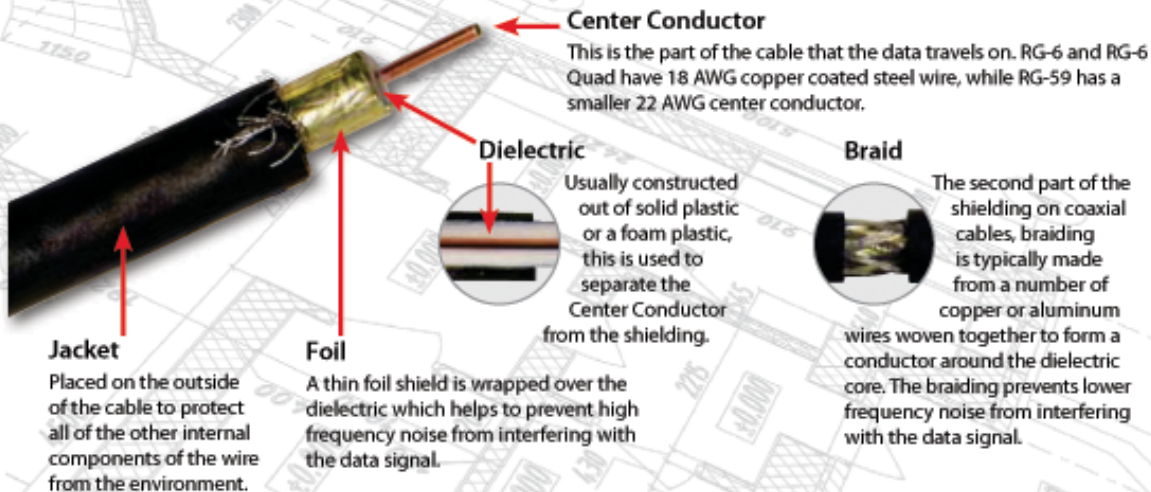


TERMINATING COAXIAL CABLE – TERMINOLOGY

Parts of the Cable



Cable Types

RG-6 is the recommended standard cable for use in satellite and cable television networks. RG-6 loses only about 50% of the signal every 100 ft., due to its 18 AWG center conductor and combination aluminum foil/aluminum braid shield.

RG-6 Quad has the same center conductor and signal loss ratio as the RG-6, but features an extra layer of shielding. This cable is optimal for use where

extra protection from outside interference is needed.

RG-59 is no longer the recommended standard for cable or satellite television networks, due to its smaller center conductor and less shielding. This combination results in an 80-90% data loss over 100 ft. span.



Connectors

The most common type of coaxial cable connector.

Compression (Professional)

The compression connector is approved by cable and satellite providers because of the permanent and water tight connection it makes with the cable. Although this connector creates a professional quality connection it is easy enough for anyone to install. (GB Part #: GDC-6CM)



Push On (Best)

This connector provides the same permanent install as the compression connector, but does not need a compression tool to install. (GB Part #: ITC-6)



Crimp On (Better)

This connector works by pushing the connector over the stripped end of the RG-6 or RG-6 Quad coaxial cable and using a special crimping tool the connector is squeezed or crimped onto the cable.



Twist On (Good)

The twist on connector threads onto the stripped end of the coaxial connector until it is fully seated on the cable, this connector requires no other tools.



CREATING A COAX CABLE

Step 1 – Connector Selection

Select the type of connector that will be needed for your application from the connector selection guide.



Step 2 – Cut Cable

Note: It is important that you use a round cutter to maintain the cable geometry. (GB Part #: GC-330)



Step 3 – Strip Cable

Note: F-Connectors require a two step 1/4" x 1/4" strip, make sure you are using an F-connector wire stripper. (GB Part #: SE-398)

To strip the cable place the cable in the blade end of the stripper, press down on the stripper handle, and while applying pressure rotate the stripper multiple times.

Before placing the connector over the stripped end of the wire the metal braiding needs to be pushed back over the jacket of the cable, then push on the connector until the white dielectric is even with the center hole of the connector.



Step 4 – Terminate

Compression

Insert the cable, with the compression connector placed on the end, into the compression tool and squeeze the handle until the handle is flush with the tool. (GB Part #: COM-310 or COM-320 Pro)

Crimp

Strip cable, fold braid back. Insert the cable, push white dielectric until flush with center hole. Place connector in tool. Squeeze and crimp. (GB Part #: GS-389)



Step 5 – Testing

Test the cable with a continuity tester to make sure cable is properly terminated with no opens or shorts. (GB Part #: TT64202)



**TERMINATING TWISTED PAIR
CABLES TERMINOLOGY****Twisted Pair Cable**

is given this name because of how the pairs of conductors from a single circuit are twisted together for the purpose of cancelling out electromagnetic interference.

Cable Types

Category 3 Cable (Cat 3) is the FCC recommended cable for phone use, but can also be used for data networks that are limited to 10 Mbs.

Category 5e and 6 Cable (Cat 5e and Cat 6) both of these cables are used for computer data networking. Both of these cables will support 10/100/1000 Mbs network speeds, the only difference being that Cat 6 cables will have lower transmission errors in a 1000 Mbs environment.

Data Jack

is used when more than one connection is going to be used in a fixed location. Most commonly the cables will be run through the wall to a data jack in an office or at a work station.

Connectors

RJ-11 Modular Plug is a 2 pair or 4 wire connector that is used when creating phone line patch cords. Each connector can support up to two phone lines.

RJ-45 Modular Plug is a 4 pair or 8 wire connector that is used when creating patch cables for computer data networks.

CREATING A TWISTED PAIR PATCH CABLE (RJ-45)**Step 1**

Strip back 2 inches of outer jacket.
(GB Part #: GTPS-3200)

**Step 2**

Separate pairs into proper sequence based on type of cable being made:

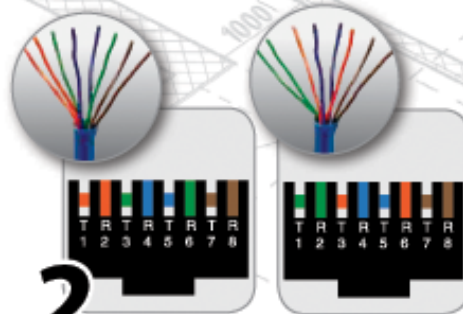
Straight Thru (most commonly used):

Wire both ends of the cable as noted in the diagram.
(Dashed Orange, Orange, Dashed Green, Blue, Dashed Blue, Green, Dashed Brown, Brown)

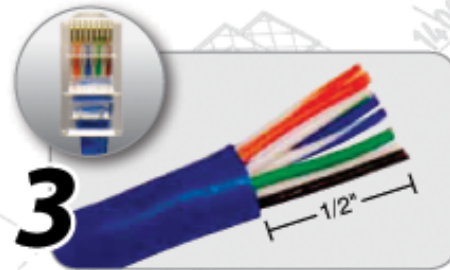
Crossover Cable (used to connect like devices (ie. router to router):

Wire one end as shown above and wire the other end as shown in below diagram.

(Dashed Green, Green, Dashed Orange, Blue, Dashed Blue, Orange, Dashed Brown, Brown)

**Step 3**

Now group and flatten the wires so they are laying side by side and trim them to 1/2" from the outer jacket. Slide the RJ-45 Plug onto the trimmed wires with the release down (brown pair should be on the right).

**Step 4**

Terminate the plug using a modular plug crimping tool by inserting the plug into the RJ-45 die and squeeze the handles. (GB Part #: GMC-1145D)

**Step 5**

Test the cable with a continuity tester to make sure the cable is properly terminated. (GB Part #: TT64202)



TERMINATING INTO A DATA JACK

Step 1

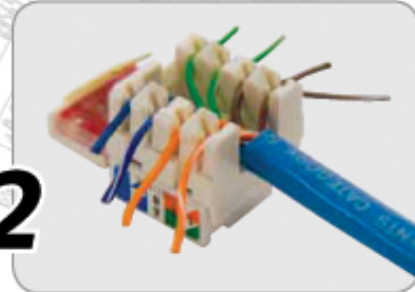
Strip back 2 inches of outer jacketing. Avoid damaging or nicking the pairs. (GB Part #: GTPS-3200)



1

Step 2

Place the wires into the data jack based on the color diagram printed on the wiring jack (T568B is most common). Leave no more than 1/2" of the wire untwisted.



2

Step 3

Terminate the wires in the jack using a punch down tool, making sure the cutting edge is on the outside of the jack. For easy termination use GB impact punchdown. (GB Part #: PDT-3110)



3

Step 4

Test the connections by using a wiremap tester. (GB Part #: TT64202)



4