

Making Ethernet Cables - Tricks of the Trade



HOW TO MAKE AN ETHERNET CABLE

Purchasing fully made Ethernet cables from the store can be quite expensive. It is far easier to simply buy a box of bulk Category 5 Ethernet cable and then attach your own RJ-45 connectors to the cut ends to your preferred length.



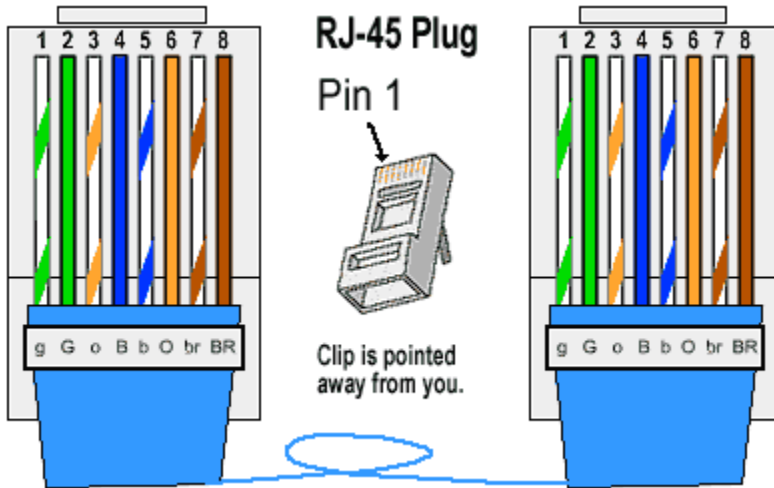
Bulk Ethernet Cable - Category 5
or Cat-5



Bulk RJ45 Crimpable Connectors



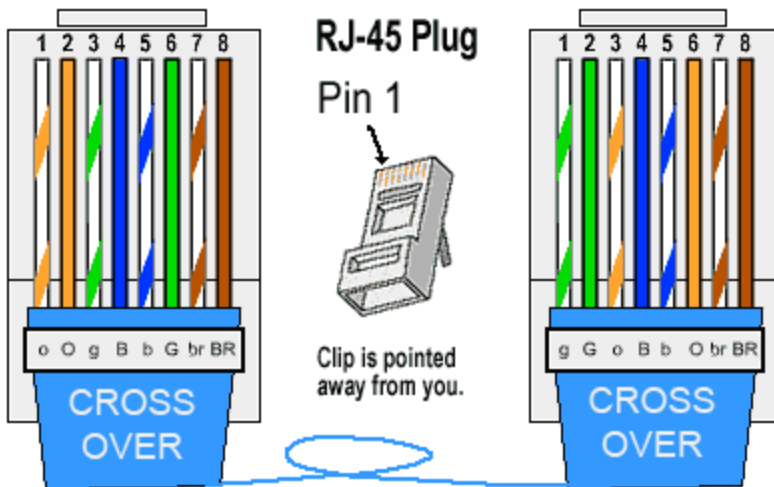
RJ-45 Crimping tool



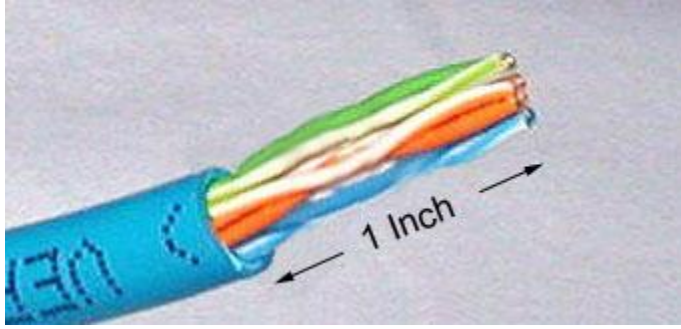
There are two kinds of Ethernet cables you can make. **Straight Through** and **Crossover**.

STRAIGHT THROUGH - Ethernet cables are the standard cable used for almost all purposes. It is highly recommend you duplicate the color order as shown on the left. Note how the orange pair is not side by side as are all the

other pairs. This configuration allows for longer wire runs.

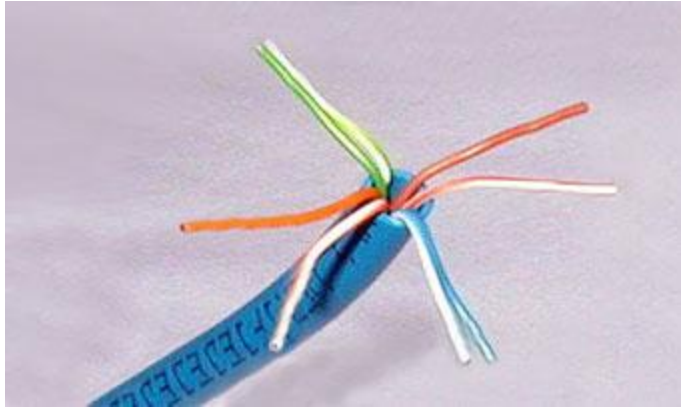


CROSSOVER CABLES - The purpose of a Crossover Ethernet cable is to directly connect one computer to another computer (or device) without going through a router, switch or hub.



Here's how to make a standard cable:

cut into the plastic sheath **1 inch** from the end of the cut cable. The crimping tool has a razor blade that will do the trick with practice.



Unwind and pair of the similar colors.



Pinch the wires between your fingers and straighten them out as shown.

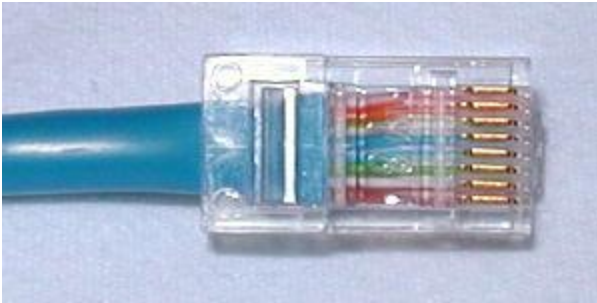
(The wire colors line up to form a straight through standard cat 5 cable as described above)



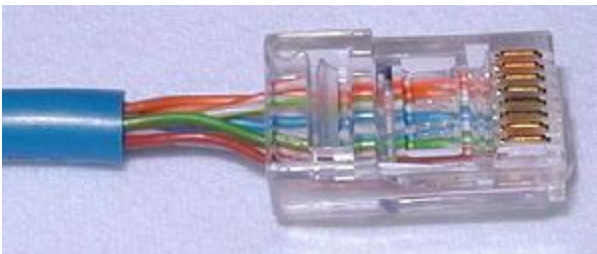
Use scissors to make a straight cut across the wires **1/2 Inch** from the cut sleeve to the end of the wires.



Push the wires into the connector. Note the position of the blue plastic shielding. Also note how the wires go all the way to the end.



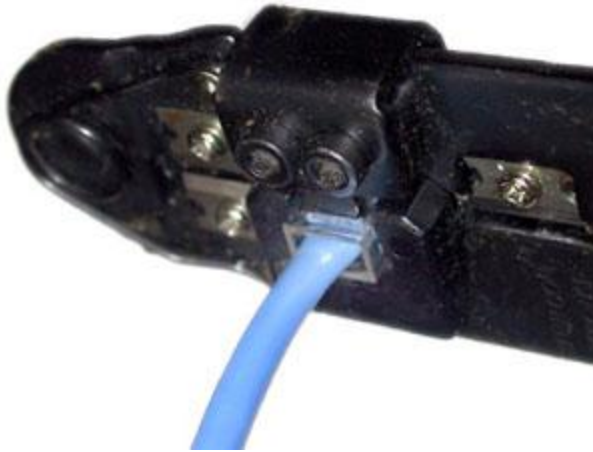
A view from the top. All the wires are all the way in. There are no short wires.



WRONG WAY - Note how the blue plastic shielding is not inside the connector where it can be locked into place. The wires are too long. They should be 1/2 inch from the sleeve.



WRONG WAY - Note how the cables do not go all the way to the end of the connector.



CRIMPING THE CABLE ...
carefully place the connector into the Ethernet Crimper and cinch down on the handles tightly. The copper splicing tabs on the connector will pierce into each of the eight wires. There is also a locking tab that holds the blue plastic sleeve in place for a tight compression fit. When you remove the cable from the crimper, the cable is ready to use.



Repeat all steps on the other end of the Ethernet cable exactly. There is no need to reverse any order of the wires.



Make sure to test the cables before installing them. An inexpensive Ethernet cable tester does this quite well.

NOTE - The maximum cable length of Cat-5E Ethernet cable is 328 feet or 100 meters.