

## Cable Construction and Testing

It is easy for you to implement your own straight through or Crossover cable; you just need two RJ-45 connector, clamping tool and twisted-pair cable.

The steps below are general Ethernet Category 5 cable construction guidelines:

1. Start by stripping off about one inch on the plastic jacket off the end of the cable. Be very careful at this point, as to not nick or cut into the wires, which are inside. Doing so could alter the characteristics of your cable, or even worse render it useless. Check the wires, one more time for nicks or cuts. If there are any, just whack the whole end off, and start over.



2. Untwist the pairs so they will lay flat between your fingers

The white piece of thread can be cut off even with the jacket and disposed. For easier handling, cut the wires so that they are 3/4" (19 mm) long from the base of the jacket and even in length.

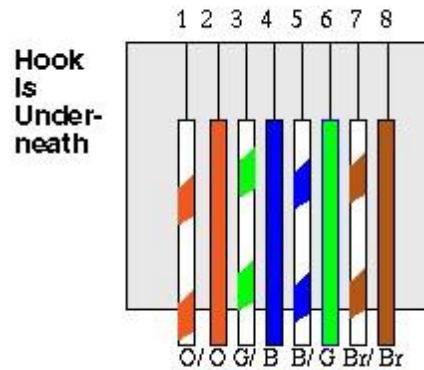


3. Arrange the wires based on the wiring specification you are following. Here is the **Wire Map** for 568B standard:



Hook Is On Top

Hook Is Underneath



Pin	Wire Color	Signal
1	White/Orange	Transmit -
2	Orange	Transmit +
3	White/Green	Receive -
4	Blue	
5	White/Blue	
6	Green	Receive +
7	White/Brown	
8	Brown	

4. Press all the wires flat and parallel between your thumb and forefinger.



5. Keep the wires flat and in order as you push them into the RJ-45 plug with the flat surface of the plug on top.



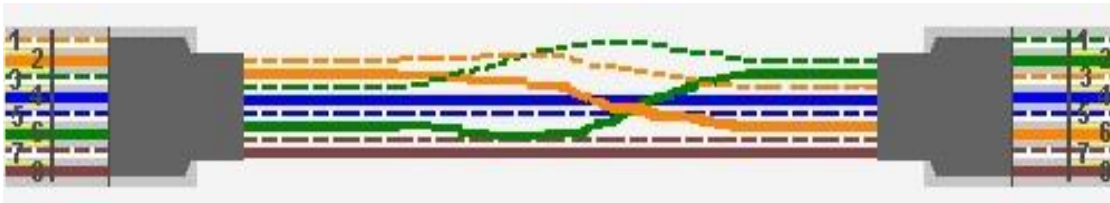
6. Place the wired plug into the crimping tool.

Give the handle a firm squeeze. You should hear a ratcheting noise as you continue. Once you have completed the crimp, the handle will reset to the open position. To ensure all pins are set, some prefer to double-crimp by repeating this step.



7. Repeat all of the above steps with the other end of the cable.

The way you wire the other end will depend on whether you're making a straight-through, or cross-over cable. In case of cross-over cable, the Wire Map will be changed as follow:



Hook Is On Top

Hook Is Underneath

8. Test the cable using Local Area Network (LAN) Cable Tester, to ensure that it will function in the field.

