

### Patch Cable Assembly Instructions



1. Skin off the cable jacket approximately 1" or slightly more.
2. Un-twist each pair, and straighten each wire between the fingers.
3. Place the wires in the order of one of the two diagrams shown above (568B or 568A). Bring all of the wires together, until they touch.
4. At this point, recheck the wiring sequence with the diagram.
5. Optional: Make a mark on the wires at 1/2" from the end of the cable jacket.



6. Hold the grouped (and sorted) wires together tightly, between the thumb, and the forefinger.
7. Cut all of the wires at a perfect 90 degree angle from the cable at 1/2" from the end of the cable jacket. This is a very critical step. If the wires are not cut straight, they may not all make contact. We suggest using a pair of scissors for this purpose.



- 7B. Conductors should be at a straight 90 degree angle, and be 1/2" long, prior to insertion into the connector.



8. Insert the wires into the connector (pins facing up).



9. Push moderately hard to assure that all of the wires have reached the end of the connector. Be sure that the cable jacket goes into the back of the connector by about 3/16".



9. Place the connector into a crimp tool, and squeeze hard so that the handle reaches it's full swing.

10. Repeat the process on the other end. For a straight through cable, use the same wiring. **For a "crossover" cable, wire one end 568A, and the other end 568B.**
11. Use a cable tester to test for proper continuity.

### Notes Regarding Making Category 5 Patch Cable

**1)** The RJ-45 plugs are normally made for either solid conductors or stranded conductors. It is very important to be sure that the plug that you use matches the conductor type. It is extremely difficult to tell the difference between the two by looking at them. When you buy these plugs, be sure to categorize, and store them carefully. Using the wrong type can cause intermittent problems. The [RJ-45, 8 Conductor Plugs](#) that we sell are rated for both [Solid and Stranded cable](#).

**2)** Ordinarily, it would be taboo to untwist the pairs of any category 5 cable. The one exception to this rule is when crimping on RJ-45 plugs. It would be impossible to insert the wires into the channels without first untwisting and straightening them. Be sure **not to** extend the un-twisting, past the skin point. If you do it properly, you will wind up with no more than 1/2" of untwisted conductors (up to 1/2" of untwist meets the cat 5 specification).

**3)** If the completed assembly does not pass continuity, you may have a problem in one, or both ends. First try giving each end another crimp. If that does not work, then carefully examine each end. Are the wires in the proper order? Do all of the wires fully extend to the end of the connector? Are all of the pins pushed down fully. Cut off the suspected bad connector, and re-terminate it. If you still have a problem, then repeat the process, this time giving more scrutiny to the end that was not replaced. **4)** It is good to be prepared to make your own patch cables. There may be many instances where you may fall short on supply, and making a cable will surely get you out of a jam. However, there comes a point where the practicality curve will lead you to factory made cables. Making several cables can be very labor intense. Factory made cables typically have better tolerances, and consequently have better quality than field made cables.