

Installation Manual for Category 5e and Category 6 Unshielded Modular Cords

Material List:

CAT 5e Cable: HCS P/N F5E-00401 (PVC) or F5E-00402 (LS0H)
CAT 5e Plugs: HCS P/N J5E-00803
CAT 6 Cable: HCS P/N F06-00401 (PVC) or F06-00402 (LS0H)
CAT 6 Plugs: HCS P/N J06-00803

Tools list:

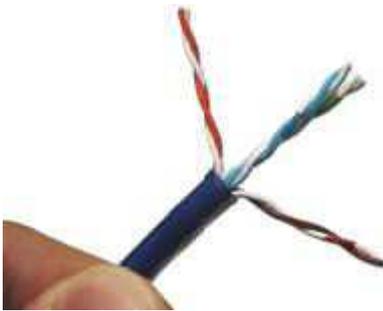
Crimping tool for RJ-45 8P8C Plug: HCS P/N K00-00311 or K00-00313.
Cable Cutting tool (generic)
Cable Stripping tool (generic)
Testing instrument: Fluke DSP-4300 with Cord Testing Kit.



1. Cut the required length of CAT 5e or CAT6 cable.

Strip approx. 25mm of the jacket from each end, using a suitable stripping tool.

Note: Exercise caution when stripping the jacket, making certain that the blade depth of your strippers will not damage the conductors but will still cut through the jacketing. If you nick the conductors, it may work fine at first, however, after time the conductors will break or begin to short out.

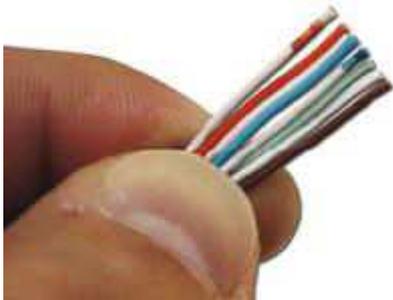
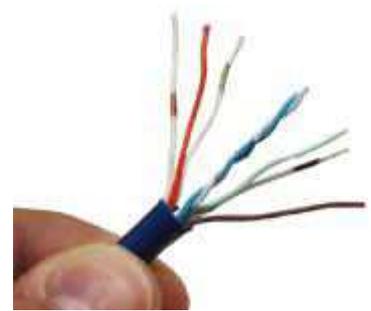


2. Pull the Orange pair to the left and Brown pair to the right. Untwist them back to the stripped jacket.

Split the green pair as follows:

Pull the white/green conductor to the left and the green to the right. This leaves you with the blue pair in the middle.

Untwist the blue leaving the white/blue conductor on the left and the blue on the right.



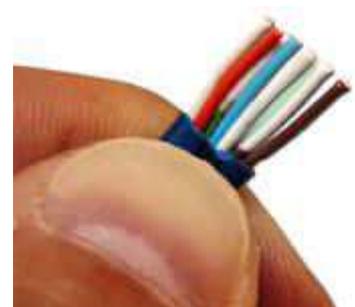
3: Now that we have separated and straightened all of the pairs, we need to arrange the conductors into the proper order according to which of the wiring standards you would like to use.

The wiring shown here is T568B

Verify that the wires are still in the proper order before continuing to step 4.



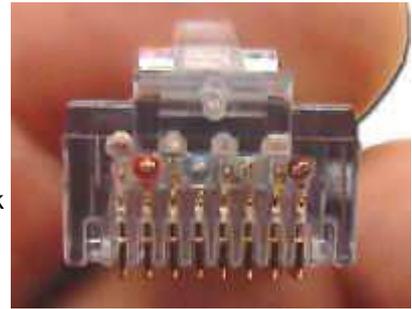
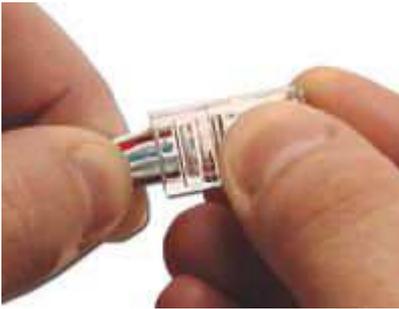
4. Now we'll trim the conductors down to fit into the RJ45 connector. When trimming, make sure to make a nice clean cut at a 90 degree angle about 12mm from the end of the jacket. If you fail to make a straight cut or cut too short, some of the conductors may not reach the contacts in the connector. If you leave the conductors too long, when crimping the connector, the jacketing will not be gripped leaving all the strain on the conductors. For proper trimming, hold the wires securely in their proper order just at the end of the jacket.



Installation Manual for Category 5e and Category 6 Unshielded Modular Cords

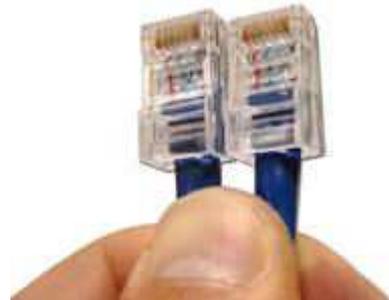
Page 2

5. We now need to place the conductors into their proper location in the RJ45 Modular Connector. Hold the RJ45 modular plug with the pins facing up (towards you) and carefully insert the conductors holding firmly to be certain they retain their order. You will need to use a moderate amount of force to properly seat the wires against the contacts in the connector. When this is done, look at the tip of the connector. As illustrated in the picture to the right you should be able to see the end of each conductor indicating that they were fully inserted. Also take note of the colors. All whites on the top and all the colored conductors on the bottom.



6. Carefully insert the assembly which you have just completed into the modular crimping tool. When crimping the connector make sure you use the full stroke of the crimp tool so that the contacts properly "bite" into the conductors. After you have completed the crimp take time to look at the connector and make sure all the pins were crimped and that they made good contact with the conductors.

7. If you are building a straight through (standard) patch cord, terminate the other end by repeating this process from step one using the same wiring scheme as the first. If this is a Crossover cable, return to step one and continue, however, be sure to terminate this end using the wiring scheme that you did not use for the first end. Terminating one end with 568-B and the other with 568-A creates a crossover.



8. CAT 6 Cords: Test the terminated cord according to TIA CAT 6 limits, (selecting the relevant cord length) from both ends and save the results with Plots Enabled.
 CAT 5e Cords: Test 2 terminated cords connected to a 15m CAT 5e UTP HCS Permanent Link as a TIA CAT 5e Channel.
 If any side fails, cut the failing plug, re-terminate the cord and retest it.
 Note: Testing can be done only if the termination is straight through.



Final Testing



Modular Cords Wiring Options		
T568A Wiring	Conductor Color Code	T568B Wiring
Pin #		Pin #
1	white/green	3
2	green	6
3	white/orange	1
4	blue	4
5	white/blue	5
6	orange	2
7	white/brown	7
8	brown	8