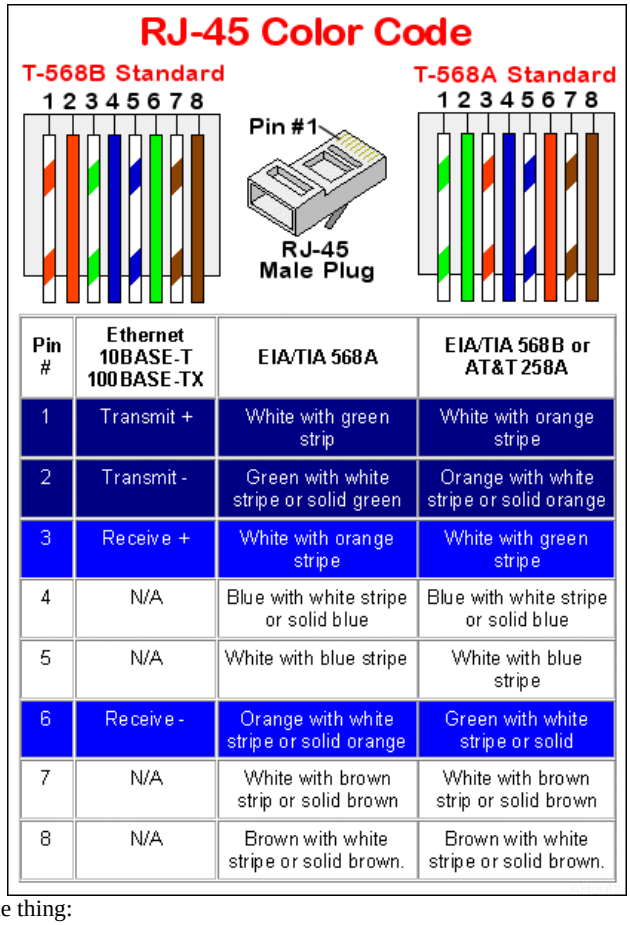
Wiring of an RJ45 jack

Check this FAQ out for a "picture" and the official wiring code. Of course nobody says you have to be official..... Color blind people like me have trouble being "official!" Please note that the 10baseT and 100baseT ethernet variants use only pairs 1 and 2, and 3 and 6. These are the colored ones in the diagram. Hey, I can at least "see" color - I just can't tell you what the color IS. But nobody understands that. Almost all RJ45 cabling you will buy has all 4 pair, but of course you rarely use more than two pair. But it is nice to know that you could use that second pair in your house wiring to provide another ethernet jack.

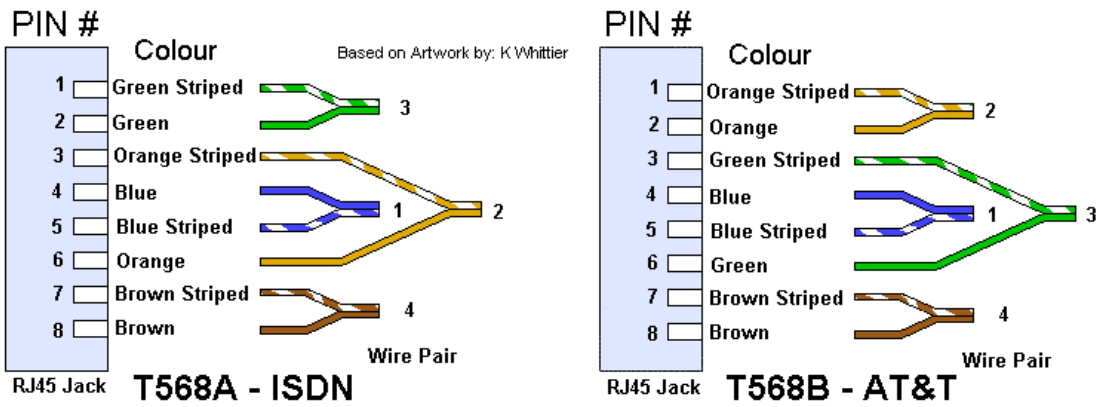
The exception is, of course, Gigabit Ethernet, or "GigE," or "GE" to the in-crowd. GE uses all 4 pair and special coding. It will still work up to 100 meters, but it only uses a point to point architecture, i.e. a PC/Workstation to a switch port. So you are gonna have to learn to do all 4 pair if you ever plan on doing "GigE."

Maybe Andy wouldn't mind if I copied his picture in here? [I'm sure he probably copied this from some other source...]



Pin #	Ethernet 10BASE-T 100BASE-TX	EIA/TIA 568A	EIA/TIA 568B or AT&T 258A
1	Transmit +	White with green strip	White with orange stripe
2	Transmit -	Green with white stripe or solid green	Orange with white stripe or solid orange
3	Receive +	White with orange stripe	White with green stripe
4	N/A	Blue with white stripe or solid blue	Blue with white stripe or solid blue
5	N/A	White with blue stripe	White with blue stripe
6	Receive -	Orange with white stripe or solid orange	Green with white stripe or solid
7	N/A	White with brown strip or solid brown	White with brown strip or solid brown
8	N/A	Brown with white stripe or solid brown.	Brown with white stripe or solid brown.

Here is another diagram of the same thing:



Here is a picture of an RJ11 jack, the original telephone quick connect: Notice the normal telephone drop cord uses the center two pins, and which are usually the red and green wires. Second lines in a house are usually wired on the second line,

which uses the yellow and black wires. Most houses are wired with two pair cable to provide these two lines. This cable is rarely color coded as red/green and yellow/black however.