



RJ45 (Twisted pair networking)

Pin	Wall socket wire colour	Function - MDI devices	Function - MDIX devices
Pin 1	White/Orange	TX+	RX+
Pin 2	Orange	TX-	RX-
Pin 3	White/Green	RX+	TX+
Pin 6	Green	RX-	TX-
Pin 4	Blue	BD3+	BD4+
Pin 5	White/Blue	BD3-	BD4-
Pin 7	White/Brown	BD4+	BD3+
Pin 8	Brown	BD4-	BD3-

Pins 1,2,3,6 are used in 10BaseT (10Mb/s) and 100BaseT (100Mb/s) networking. All pins are used in 1000BaseT (1000Mb/s) networking.

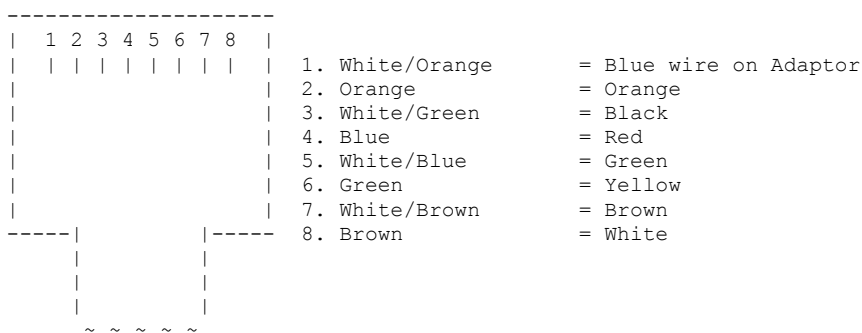
TX = Transmit RX = Receive BD = Bidirectional
Workstation network cards are MDI devices. Hubs are MDIX (crossover) devices.

To connect PCs and hubs together use straight-through wiring. To connect e.g. two hubs or two PCs together use cross-over wiring (many hubs have a port which can be switched between MDI and MDIX).

RJ45 Patch Lead Wiring

Viewing RJ45 plug with copper connectors uppermost

(looking from the front of the RJ45 Socket on the DB9 to RJ45 Socket adaptor)



Null Modem Cable

9-pin skt		9-pin skt
Pin 1+6		Pin 4
Pin 2		Pin 3
Pin 3		Pin 2
Pin 4		Pin 1+6
Pin 5 GROUND		Pin 5
Pin 7		Pin 8
Pin 8		Pin 7

Dumb Terminal to PC

Terminal	PC	PC
25-pin skt	9-pin skt	25-pin skt
Pin 7 GROUND	Pin 5	Pin 7
Pin 2	Pin 2	Pin 3
Pin 3	Pin 3	Pin 2
Pin 20	Pin 1+6+8	Pin 5+6+8
Pin 5+6+8	Pin 4	Pin 20