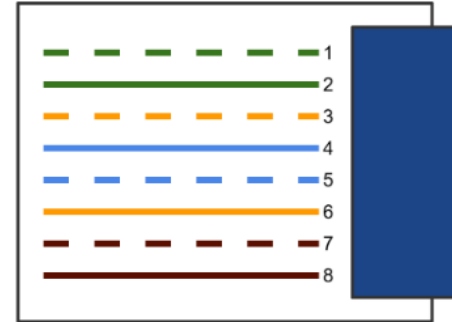
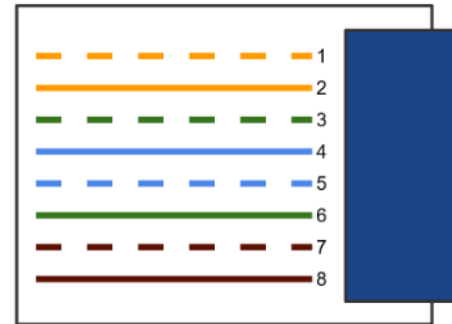


TIA/EIA 568A & 568B Wiring Standards

- Industry-standard that specifies the pin arrangement for RJ-45 connectors.
- Two Standards:
 - 568A & 568B
- 568B is newer and the recommended standard.
- Either can be used.
- Why are standards important?
 - Lower Costs
 - Increase Interoperability
 - Easier Maintenance



TIA/EIA 568A

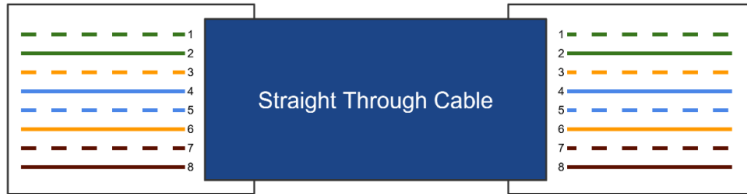


TIA/EIA 568B

Straight-Through & Crossover Cables

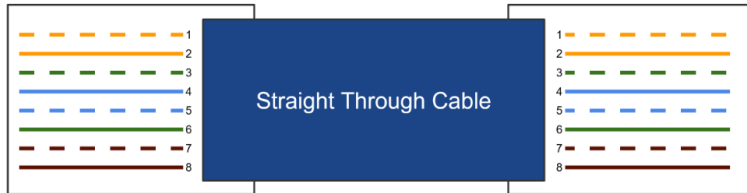
Straight-Through Cable

- Connecting “Unlike” Devices
 - Computer to Switch
 - Switch to Router



TIA/EIA 568A

TIA/EIA 568A



TIA/EIA 568B

TIA/EIA 568B

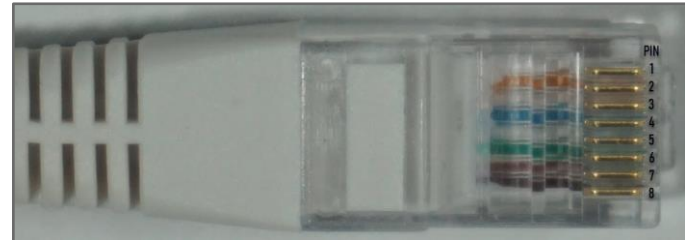
Crossover Cable

- Connecting “Like” Devices
 - Router to Router
 - Computer to Computer



TIA/EIA 568A

TIA/EIA 568B



Which Twisted Pairs Are Used?

Ethernet & Fast Ethernet

Cat 3 and Cat 5

Only Green and Orange Pairs Used:

- Pins 1, 2, 3, and 6
 - One Pair to Transmit Data (TX)
 - One Pair to Receive Data (RX)

Gigabit & 10 Gigabit Ethernet

Cat 5e & Faster

All Four Pairs Used:

- Supports bi-directional data transmission on each pair of wires.

