

## RJ11, 14 & 45 CONNECTORS EXPLAINED

RJ refers to “Registered Jacks” and is a series of Universal service Ordering Codes (USOC) assigned by the FCC. It is important to note that the RJ system only identifies the style of the plug/socket and the number of pins used, not the purpose of the circuit or its electrical protocols.

RJ connectors are available with either a 4, 6 or 8 position modular jack. Not all of the available positions may have pins/wires connected:

- A 4 position plug can be connected to a 4, 6 or 8 position socket
- A 6 position plug can be connected to either a 6 or 8 position socket
- A 8 position plug can only be connected to a 8 position socket

Incorrectly RJ11 is often used to describe the 4 position modular jack and RJ12 the 6 position jack.

### RJ-xyy

Where “xx” includes:

- 11 – A 4, 6 or 8 position plug/socket with only the center two wire/plugs connected. The 4 & 6 position implementation is commonly used for telephone and modem connections
- 14 - Similar to above, but the next two outer pins/wires are also used, either for 4 wire devices, or for two phone lines
- 45 – A 8 position plug/socket with all 8 pins used. This is commonly used for computer network connections, but can be used for propriety telephone circuits – some use the connector for two separate telephone circuits, or to connect the propriety signals of office telephones back to the PBX.
- 48 – The same connector and number of wires as RJ45 but with different pairing. This is most commonly used for T1 & E1 circuits.

Where “y” includes:

- “C” – a surface of flush mount socket
- “W” – a wallmount jack
- “S” – a single-line jack
- “M” – a multiple line jack
- “X” – a complex multiline jack

Modular Connector Pin Assignment

