



Connectors and Cables

This appendix describes the connectors, cables, and adapters that you use to connect the switch to other devices.

Connector Specifications

10/100 Ports

The 10/100 Ethernet ports use standard RJ-45 connectors, Category 5 UTP cabling, and Ethernet pinouts with internal crossovers, as shown by an **X** in the port name. These ports have the transmit (TD) and receive (RD) signals internally crossed so that a straight-through cable and adapter can be attached to the port. [Figure B-1](#) shows the pinout.

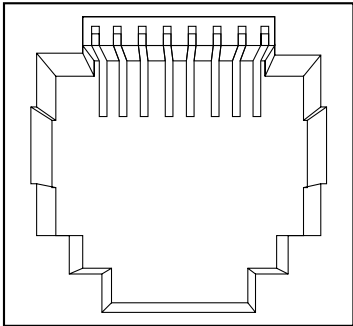
When connecting 10/100 ports to compatible servers, workstations, and routers, you must use a straight-through cable wired for 10BASE-T and 100BASE-TX. (See schematics in [Figure B-4](#).) When connecting the ports to other switches or repeaters, you must use a crossover cable. (See schematics in [Figure B-5](#).)



Note

Use a straight-through cable to connect two ports when one port is designated with an **X**. Use a crossover cable to connect two ports when both ports are designated with an **X** or when both ports do not have an **X**.

Figure B-1 10/100 Pinout

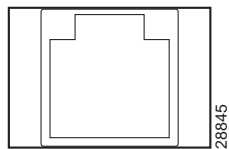
Pin	Label	1	2	3	4	5	6	7	8
1	RD+								
2	RD-								
3	TD+								
4	NC								
5	NC								
6	TD-								
7	NC								
8	NC								

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100BASE-FX Ports

The 100BASE-FX ports use MT-RJ connectors, shown in [Figure B-2](#), and 50/125- or 62.5/125-micron multimode fiber-optic cabling. You can connect a 100BASE-FX port to an SC or ST port on a target device by using one of the MT-RJ fiber-optic patch cables listed in [Table B-1](#). Use the Cisco part numbers in [Table B-1](#) to order the patch cables that you need.

Figure B-2 MT-RJ Connectors



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Table B-1 MT-RJ Patch Cables

Type	Cisco Part Number
1-meter, MT-RJ-to-SC multimode cable	CAB-MTRJ-SC-MM-1M
3-meter, MT-RJ-to-SC multimode cable	CAB-MTRJ-SC-MM-3M
5-meter, MT-RJ-to-SC multimode cable	CAB-MTRJ-SC-MM-5M
1-meter, MT-RJ-to-ST multimode cable	CAB-MTRJ-ST-MM-1M
3-meter, MT-RJ-to-ST multimode cable	CAB-MTRJ-ST-MM-3M
5-meter, MT-RJ-to-ST multimode cable	CAB-MTRJ-ST-MM-5M

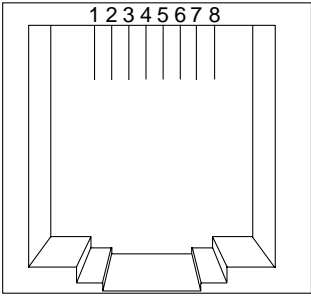
10/100/1000 Ports

The 10/100/1000 Ethernet ports use standard RJ-45 connectors, Category 5 UTP cabling, and Ethernet pinouts with internal crossovers. [Figure B-3](#) shows the pinout.

When connecting these ports to compatible servers, workstations, and routers, you must use a straight-through cable wired for 10BASE-T, 100BASE-TX, or 1000BASE-T. (See schematics in [Figure B-4](#).) When connecting the ports to other switches or repeaters, you must use a crossover cable. (See schematics in [Figure B-5](#).)

Figure B-3 10/100/1000 Pinout

Pin	Label
1	TP0+
2	TP0-
3	TP1+
4	TP2+
5	TP2-
6	TP1-
7	TP3+
8	TP3-



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Console Port

The console port uses an 8-pin RJ-45 connector. You can connect a switch to a PC through the console port and the supplied RJ-45-to-RJ-45 rollover cable and RJ-45-to-DB-9 adapter. If you want to connect a switch to a terminal, you need to provide an RJ-45-to-DB-25 female DTE adapter. You can order a kit (part number ACS-DSBUASYN=) with that adapter from Cisco. For console-port and adapter-pinout information, see [Table B-2](#) and [Table B-3](#).

Cable and Adapter Specifications

Straight-Through and Crossover Cable Pinouts

[Figure B-4](#) and [Figure B-5](#) show the schematics of straight-through and crossover cables.

Figure B-4 *Straight-Through Cable Schematic*

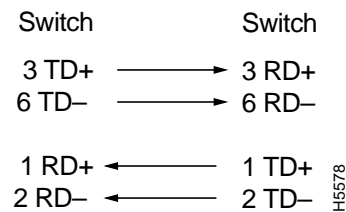
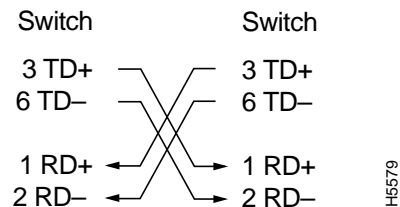


Figure B-5 *Crossover Cable Schematic*

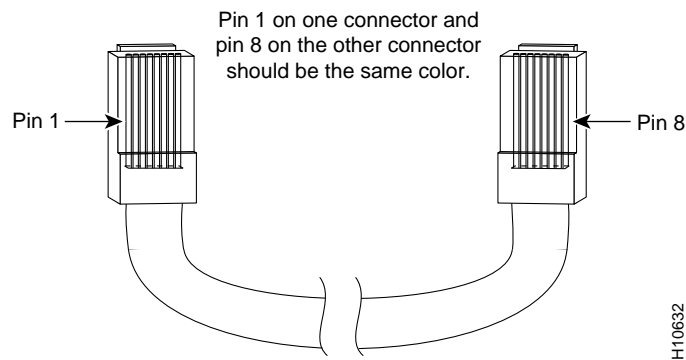


Rollover Cable and Adapter Pinouts

Identifying a Rollover Cable

You can identify a rollover cable by comparing the two modular cable ends. Hold the cable ends side-by-side, with the tab at the back. The wire connected to the pin on the outside of the left plug should be the same color as the wire connected to the pin on the outside of the right plug. (See [Figure B-6](#).)

Figure B-6 Identifying a Rollover Cable



Connecting to a PC

Use the supplied RJ-45-to-RJ-45 rollover cable and RJ-45-to-DB-9 female DTE adapter to connect the console port to a PC running terminal-emulation software. [Figure B-7](#) shows how to connect the console port to a PC. [Table B-2](#) lists the pinouts for the console port, the rollover cable, and the RJ-45-to-DB-9 adapter.

Figure B-7 Connecting the Console Port to a PC

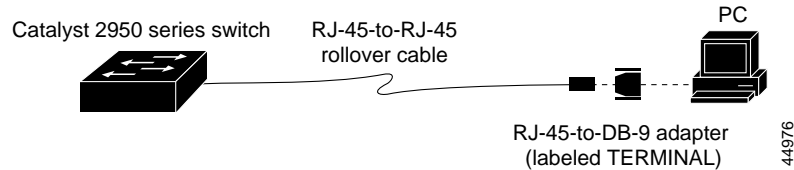


Table B-2 Console Port Signaling and Cabling Using a DB-9 Adapter

Console Port (DTE)	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-9 Terminal Adapter	Console Device
Signal	RJ-45 Pin	RJ-45 Pin	DB-9 Pin	Signal
RTS	1	8	8	CTS
Not connected	2	7	6	DSR
TxD	3	6	2	RxD
GND	4	5	5	GND
GND	5	4	5	GND
RxD	6	3	3	TxD
Not connected	7	2	4	DTR
CTS	8	1	7	RTS

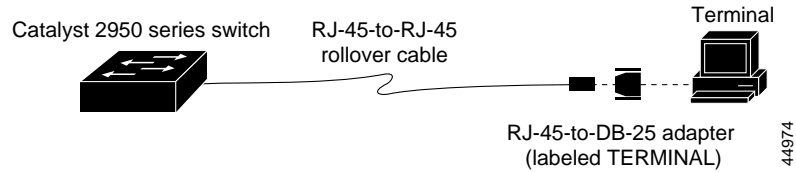
Connecting to a Terminal

Use the supplied RJ-45-to-RJ-45 rollover cable and an RJ-45-to-DB-25 female DTE adapter to connect the console port to a terminal. [Figure B-8](#) shows how to connect the console port to a terminal. [Table B-3](#) lists the pinouts for the console port, the rollover cable, and the RJ-45-to-DB-25 adapter.



Note

The RJ-45-to-DB-25 female DTE adapter is not supplied with the switch. You can order a kit (part number ACS-DSBUASYN=) with that adapter from Cisco.

Figure B-8 Connecting the Console Port to a Terminal**Table B-3 Console Port Signaling and Cabling Using a DB-25 Adapter**

Console Port (DTE)	RJ-45-to-RJ-45 Rollover Cable		RJ-45-to-DB-25 Terminal Adapter	Console Device
	RJ-45 Pin	RJ-45 Pin	DB-25 Pin	
Signal				Signal
RTS	1	8	5	CTS
Not connected	2	7	6	DSR
TxD	3	6	3	RxD
GND	4	5	7	GND
GND	5	4	7	GND
RxD	6	3	2	TxD
Not connected	7	2	20	DTR
CTS	8	1	4	RTS

