APPENDIX A

Technical Specifications

This appendix contains the specifications, regulatory-agency approvals (see Table A-1), and descriptions of the connectors supported by the switch and their pinouts.

Table A-1 Technical Specifications

Specification	**Catalyst 1900**	**Catalyst 2820**
Operating temperature	32 to 104˚F (0 to 40˚C)	32 to 104˚F (0 to 40˚C)
Operating humidity	10 to 90% (noncondensing)	10 to 90% (noncondensing)
Operating altitude	Up to 10,000 ft (3050 m)	Up to 10,000 ft (3050 m)
Power consumption	65W	110W
AC input voltage	100 to 240V, 50 to 60 Hz	100 to 240V, 50 to 60 Hz
DC input voltage	5V@8A ± 12V@1A	5V@14A ± 12V@1A
Dimensions	**Catalyst 1900**	**Catalyst 2820**
Weight	10.5 lb (4.78 kg)	13 lb (5.90 kg)
Width	17.5 in. (44.45 cm)	17.5 in. (44.45 cm)
Depth	15.3 in. (38.86 cm)	12.4 in. (31.50 cm)
Height	1.73 in. (4.39 cm)	3.34 in. (8.76 cm)
Agency Approvals	**Safety (2820 and 1900)**	**EMI (2820 and 1900)**
	AS/NZS 3260, TS001	FCC Part 15 Class B
	UL 1950/CSA 22.2 No. 950	EN 55022B Class B (CISPR 22 Class B)
	IEC 950/EN 60950	VCCI Class II
	NOM 019	AS/NRZ 3548 Class B

Connector Pinouts

This section describes the following connectors used by the switch:

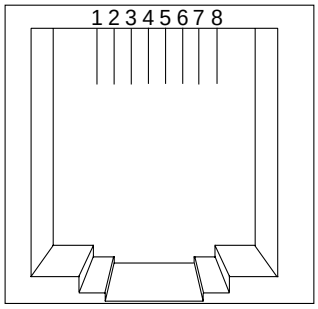
- 10BaseT RJ-45
- 100BaseT RJ-45
- 100BaseFX SC
- AUI
- Serial RS-232

10BaseT RJ-45 Connector

Ports 1 through 25 use standard RJ-45 connectors and 10BaseT pinouts with internal crossovers, as indicated by an X. These 10BaseT ports have their transmit (TD) and receive (RD) signals internally crossed for attachment of an adapter using a straight-through cable. Figure A-1 shows the connector and the pinout.

Figure A-1 10BaseT Pinout and Connector

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



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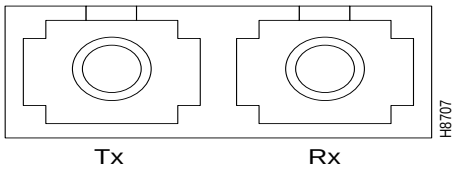
100BaseTX RJ-45 Connector

100BaseTX ports use an RJ-45 connector and pinout equivalent to the one shown in Figure A-1.

100BaseFX SC Connector

The Catalyst 1900 with a fixed 100BaseFX port uses a duplex SC connector, as shown in Figure A-2.

Figure A-2 SC Connector



AUI Connector

The AUI connector is a 15-pin female receptacle, as shown in Figure A-3 and described in Table A-2.

Figure A-3 AUI Connector

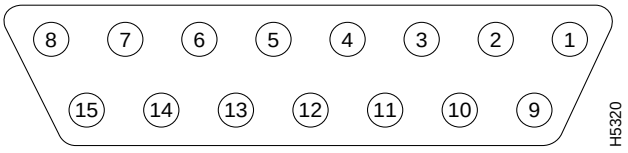


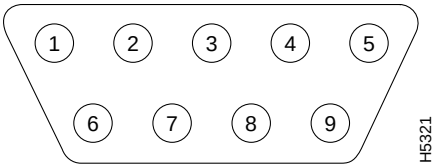
Table A-2 AUI Connector Pinout

1	GND	Ground
2	CI+	Positive AUI differential collision-data input
3	TX+	Positive AUI differential transmit-data input
4	GND	Ground
5	RX+	Positive AUI differential receive-data output
6	GND	Ground
7	NC	
8	GND	Ground
9	CI-	Negative AUI differential collision data
10	TX-	Negative AUI differential transmit-data input
11	GND	Ground
12	RX-	Negative AUI differential receive data output
13	+12V	12V supply for external MAU
14	GND	Ground
15	NC	

Serial RS-232 Connector Pinout

The serial RS-232 connector is a male 9-pin D-Sub connector, as shown in Figure A-4.

Figure A-4 Serial Connector



The pinout is shown in Table A-3.

Table A-3 Serial Connector Pinout

1	DCD
2	RD
3	TD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

The shell is connected to the chassis ground. Use a standard modem cable to connect to a modem. Use a null-modem cable to connect to a terminal.

Either piece of equipment can come with either 9- or 25-pin connectors, as shown in Figure A-5 and Figure A-6.

Figure A-5 Modem Cable Schematic with 9- and 25-Pin Devices

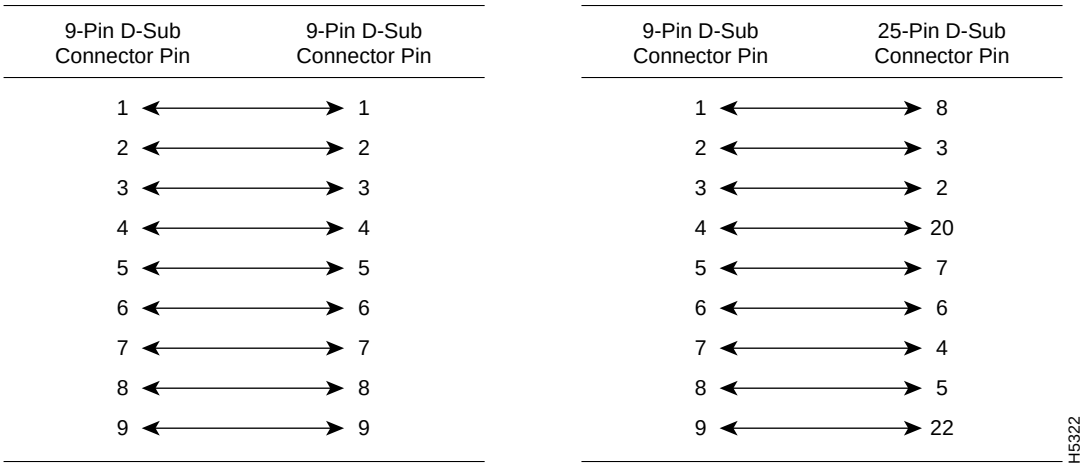
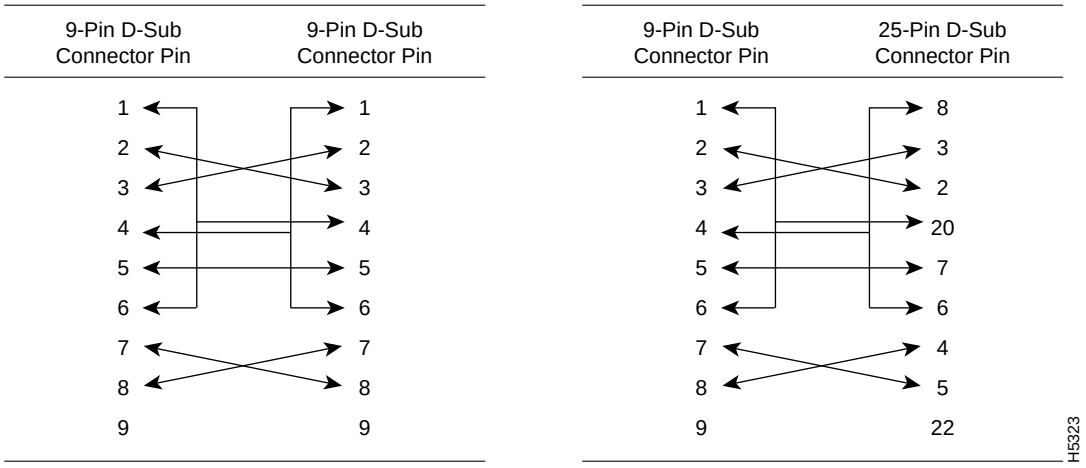


Figure A-6 Null-Modem Cable Schematic with 9- and 25-Pin Devices



Crossover and Straight-Through Cable Pinouts

The schematics of crossover and straight-through cables are shown in Figure A-7 and Figure A-8, respectively.

Figure A-7 Crossover Cable Schematic

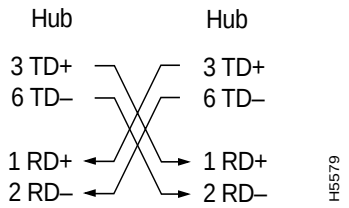


Figure A-8 Straight-Through Cable Schematic