CHAPTER 3

Installing the Cisco AS5200 Universal Access Server

This chapter guides you through the installation of the Cisco AS5200 access server and includes the following sections:

- Required Tools and Parts
- Setting Up the Chassis
- Connecting to the Network
- Connecting the Console Terminal and Modem
- Wiring the DC Power Supply

Warning This unit is intended for installation in a restricted access area. A restricted access area is where access can only be gained by service personnel through the use of a special tool, or lock and key, or other means of security, and is controlled by the authority responsible for the location. (To see translated versions of this warning, refer to the appendix “Translated Safety Warnings.”)

Warning Only trained and qualified personnel should be allowed to install or replace this equipment. (To see translated versions of this warning, refer to the appendix “Translated Safety Warnings.”)

Warning This equipment is intended to be grounded. Ensure that the host is connected to earth ground during normal use. (To see translated versions of this warning, refer to the appendix “Translated Safety Warnings.“)

Required Tools and Parts

You need the following tools and parts to install the Cisco AS5200:

- Flat-blade screwdrivers: small, 3/16-inch (0.476 cm) and medium, 1/4-inch (0.625 cm).
- Electrostatic discharge (ESD)-preventive wrist strap.
- Rubber feet for setting the Cisco AS5200 on a desktop, or rack-mount brackets for mounting the Cisco AS5200 in a rack (screws not included).
- An interface cable (not included) for each LAN and WAN interface.

In addition, you might need the following external equipment:

- Ethernet transceiver, Ethernet 10BaseT hub, or PC with a network interface card for Ethernet LAN connections.
- Console terminal (an ASCII terminal or a PC running terminal emulation software) configured for 9600 baud, 8 data bits, no parity, and 2 stop bits. A terminal is required unless you are using the AutoInstall procedure. See the section "Connecting the Console Terminal and Modem," later in this chapter for instructions on connecting a console terminal.
- Modem for remote system access (optional).

Setting Up the Chassis

You can set the chassis on a desktop, install it in a rack, or other flat surface. Use the procedure in this section that best fits the needs of your network.

Setting the Chassis on a Desktop

Before setting the Cisco AS5200 on a desktop, shelf, or other flat, secure surface, perform the following steps to install the rubber feet:

Step 1 Locate the rubber feet on the black adhesive strip that shipped with the chassis.

Step 2 Place the Cisco AS5200 upside-down on a smooth, flat surface.

Step 3 Peel off the rubber feet from the black adhesive strip and place them adhesive-side down at each corner of the chassis bottom.

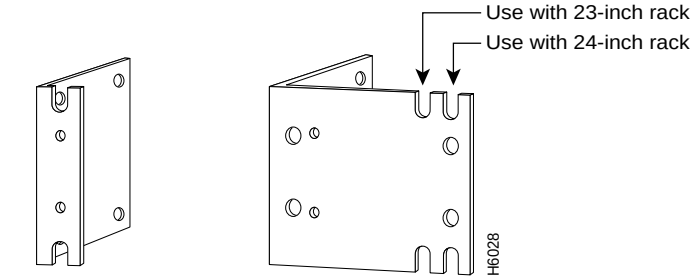
Step 4 Place the Cisco AS5200 right-side up on a flat, smooth, secure surface.

Caution Do not place anything on top of the Cisco AS5200 that weighs more than 10 pounds (4.5 kg). Excessive weight could damage the chassis.

Rack-Mounting the Chassis

This section describes the procedures for rack-mounting the chassis. The chassis comes with a bracket for use with a 19-inch rack or, if specified in your order, an optional larger bracket for use with a 23-inch or 24-inch rack. The brackets are similar to those shown in Figure 3-1.

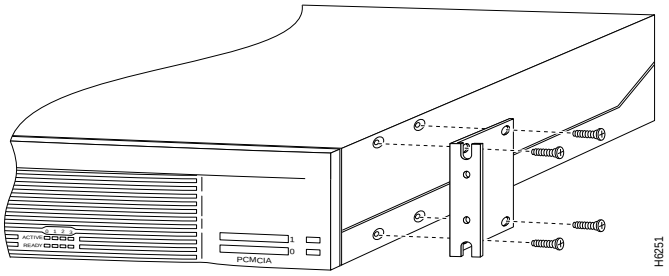
Figure 3-1 Identifying the Rack-Mounting Brackets



Attaching the Brackets

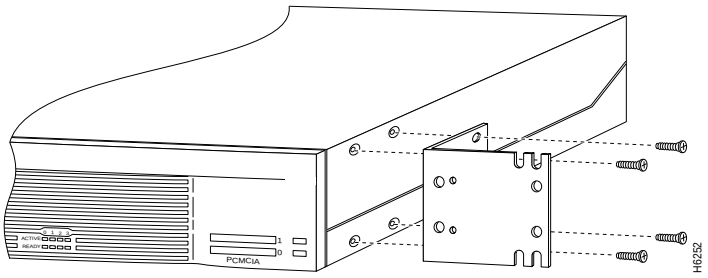
To install the chassis in a rack with the front panel forward, attach the brackets on each side of the chassis as shown in Figure 3-2 or Figure 3-3.

Figure 3-2 Bracket Installation for a 19-Inch Rack—Front Panel Forward



Note: The second bracket attaches to the other side of the chassis.

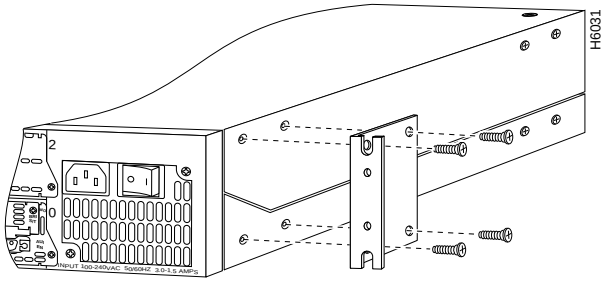
Figure 3-3 Bracket Installation for a 23-Inch or 24-Inch Rack—Front Panel Forward



Note: The second bracket attaches to the other side of the chassis.

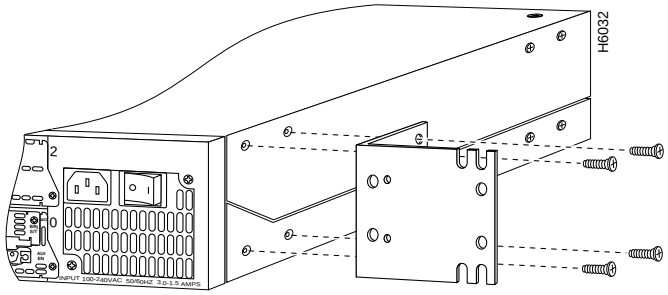
To install the chassis in a rack with the rear panel forward, attach the brackets on each side of the chassis as shown in Figure 3-4 or Figure 3-5.

Figure 3-4 Bracket Installation for a 19-Inch Rack—Rear Panel Forward



Note: The second bracket attaches to the other side of the chassis.

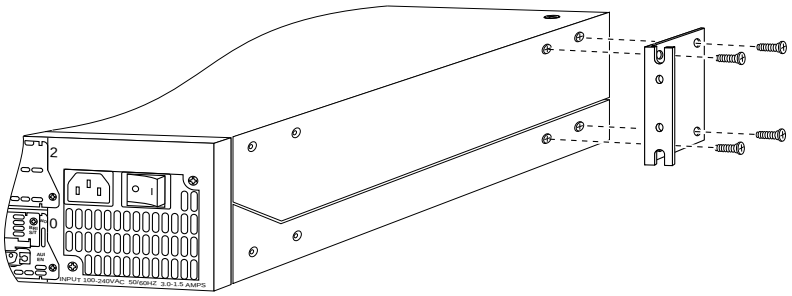
Figure 3-5 Bracket Installation for a 23-Inch or 24-Inch Rack—Rear Panel Forward



Note: The second bracket attaches to the other side of the chassis.

To install the chassis in a center-mount telco rack, attach the brackets on each side of the chassis as shown in Figure 3-6 or Figure 3-7.

Figure 3-6 Bracket Installation for a 19-Inch Rack—Rear Panel Forward



Note: The second bracket attaches to the other side of the chassis. The brackets can also be installed with the front panel forward.

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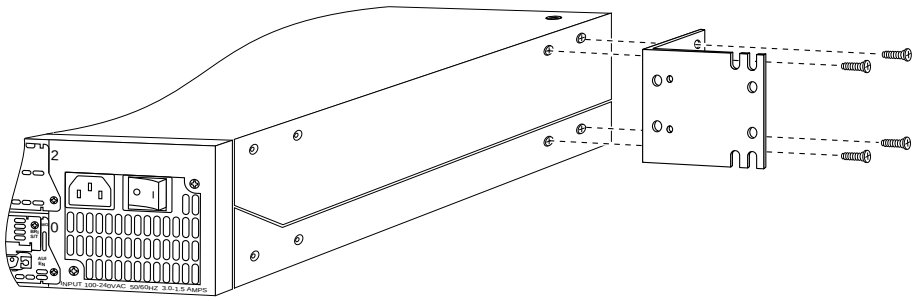
Figure 3-7 Bracket Installation for a 23-Inch or 24-Inch Rack—Rear Panel Forward



Note: The second bracket attaches to the other side of the chassis. The brackets can also be installed with the front panel forward.

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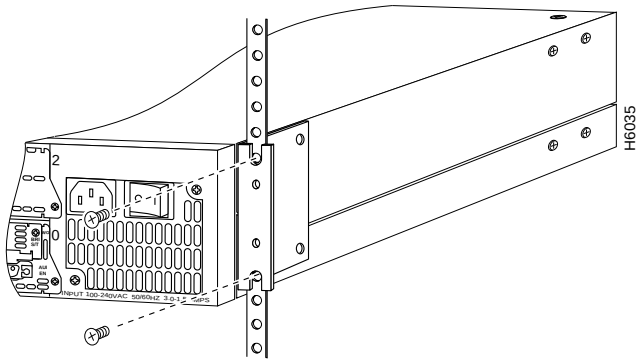
Installing in a Rack

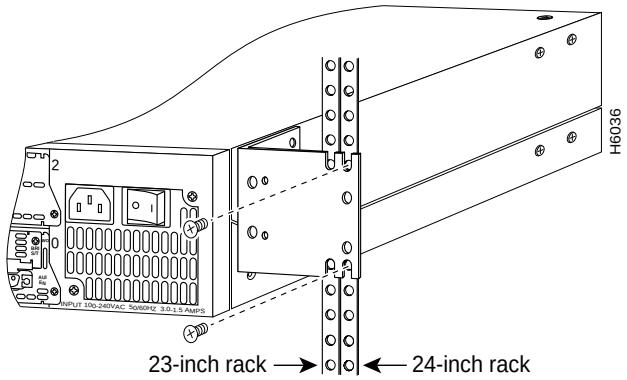
After the brackets are secured to the chassis, you can rack-mount the chassis. Using the screws you provide, attach the chassis to the rack as shown in Figure 3-8 or Figure 3-9.

Figure 3-8 Attaching the Chassis to the 19-Inch Rack—Rear Panel Forward



Note: The second bracket attaches to the rack at the other side of the chassis. The brackets can also be installed with the front panel forward.

Figure 3-9 Attaching the Chassis to the 23-Inch or 24-Inch Rack—Rear Panel Forward



Note: The second bracket attaches to the rack at the other side of the chassis. The brackets can also be installed with the front panel forward.

Connecting to the Network

This section describes how to connect the Cisco AS5200 to your network using the Ethernet (AUI) or dual T1 Primary Rate Interface (PRI) cards.

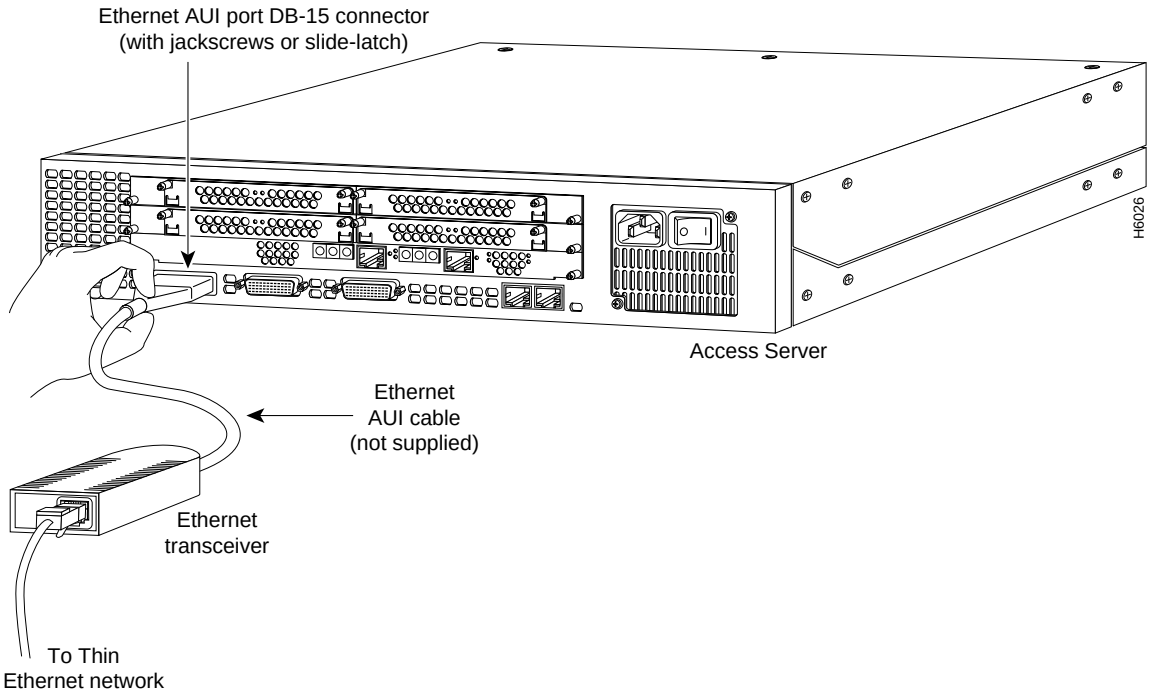
Warning Do not work on the system or connect or disconnect cables during periods of lightning activity. (To see translated versions of this warning, refer to the appendix "Translated Safety Warnings.")

Connecting to an Ethernet Network

The Cisco AS5200 uses an Ethernet AUI to connect to your Ethernet network. Connect the Cisco AS5200 to your Ethernet network with an Ethernet transition cable from the Ethernet AUI port to an Ethernet transceiver. (See Figure 3-10.)

Note If your Ethernet connection requires jackscrews, remove the slide-latch connector from the AUI connector and attach the jackscrews provided.

Figure 3-10 Connecting to an Ethernet Transceiver



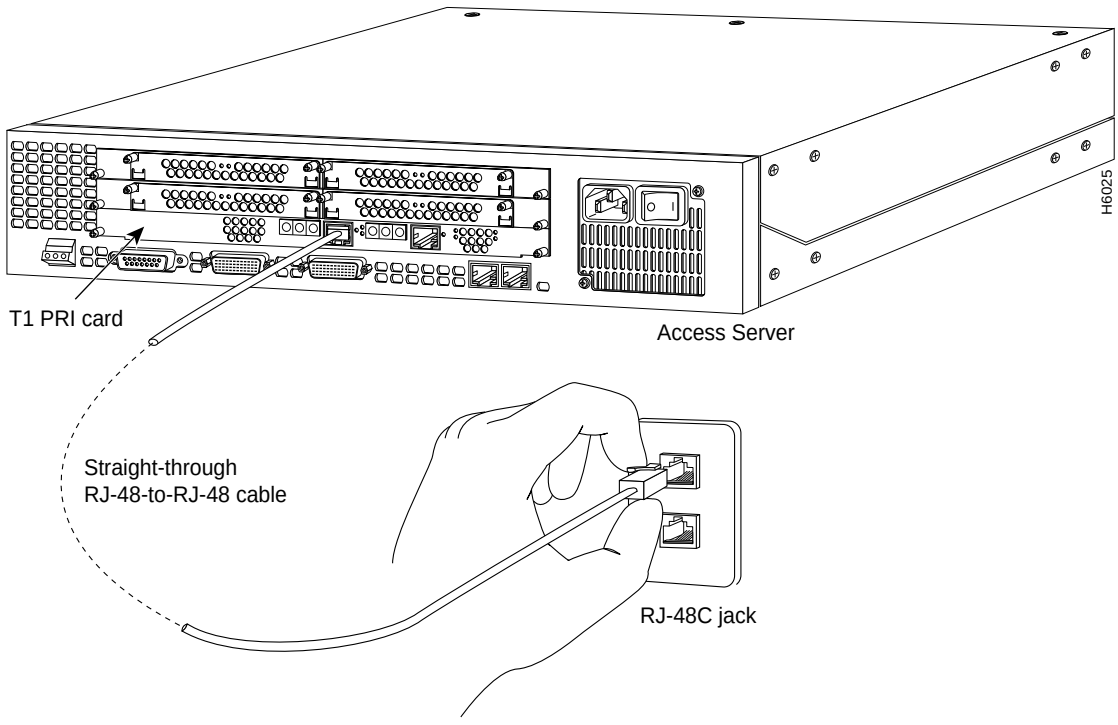
Connecting to a WAN

The illustrations in this section show how to make the WAN connections for the Cisco AS5200.

Perform the following steps to connect the Cisco AS5200 through the PRI card to your WAN:

Step 1 Use a straight-through RJ-48-to-RJ-48 cable to connect the RJ-48C port to an RJ-48C jack. (See Figure 3-11.)

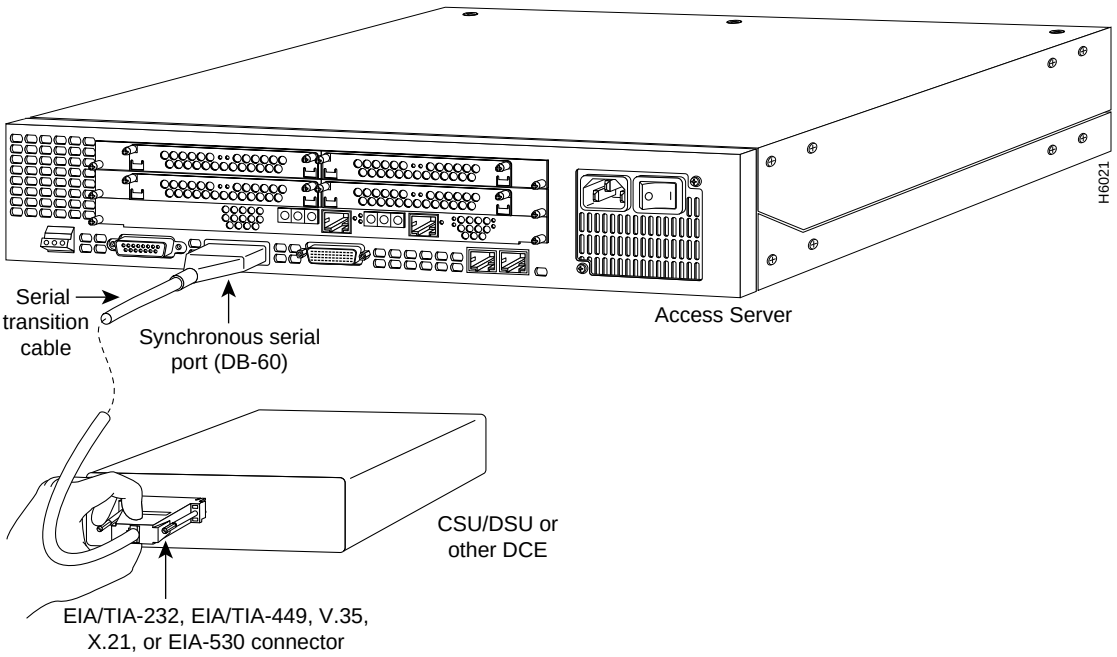
Figure 3-11 Connecting the T1 PRI Card to an RJ-48C (T1) Jack



Step 2 Use a serial transition cable to connect the synchronous serial port to a modem or channel service unit/data service unit (CSU/DSU). (See Figure 3-12.)

Step 3 If the Cisco AS5200 is configured with fewer than three feature cards, install a blank slot cover over each open slot to ensure proper airflow.

Figure 3-12 Connecting Synchronous Serial Cables



Connecting the Console Terminal and Modem

You use the console terminal for local administrative access to the Cisco AS5200. You can only connect a terminal to the console port. You can use the auxiliary port to connect a terminal or a modem for remote access to the Cisco AS5200.

Connecting to the Console Port

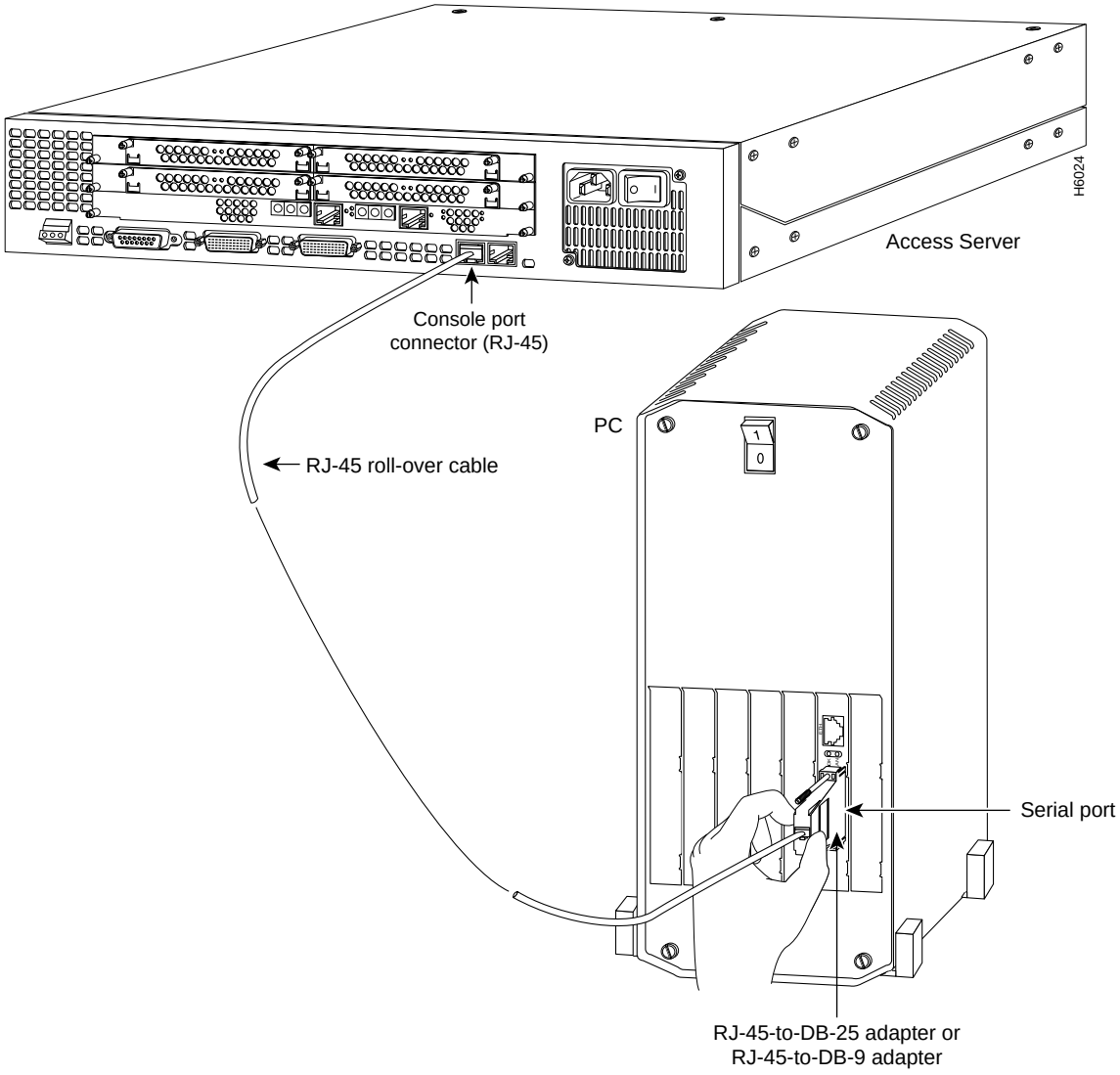
Perform the following steps to connect a terminal (an ASCII terminal or a PC running terminal emulation software) to the console port on the Cisco AS5200:

Step 1 Connect the terminal using an RJ-45 roll-over cable and an RJ-45-to-DB-25 or RJ-45-to-DB-9 adapter. The adapter provided by Cisco Systems is labeled Terminal. Other types of adapters are not included. (See Figure 3-13.)

For additional information on roll-over cable pinouts, see the appendix “Cabling Specifications for the Cisco AS5200.”

Step 2 Configure your terminal or PC terminal emulation software for 9600 baud, 8 data bits, no parity, and 2 stop bits.

Figure 3-13 Connecting the Console Terminal

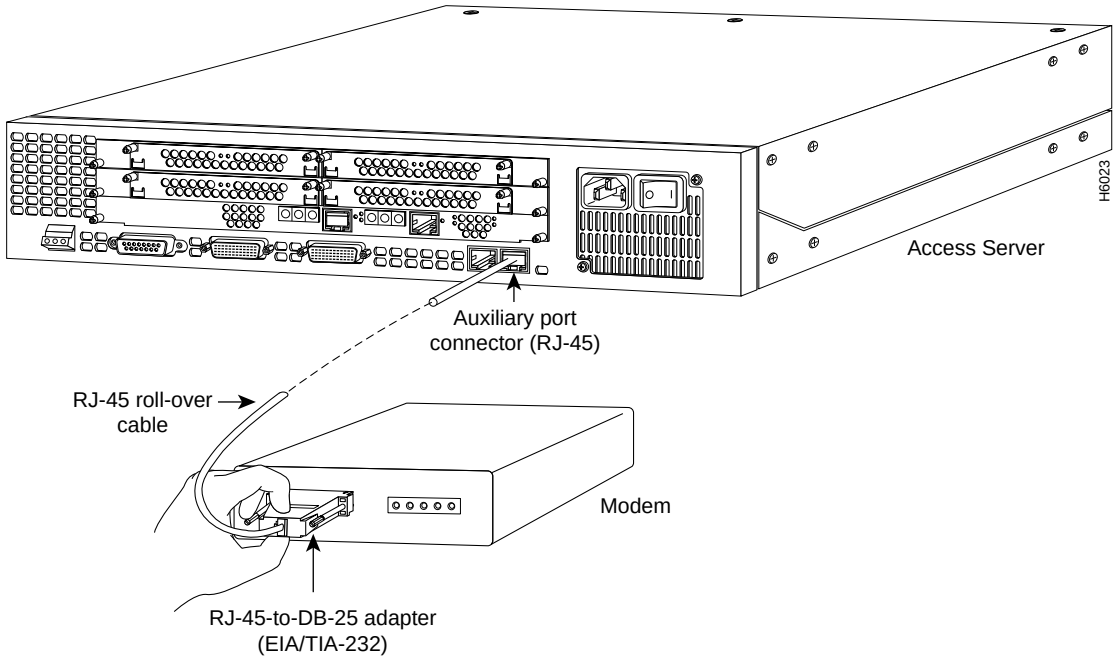


Connecting a Modem to the Auxiliary Port

Perform the following steps to connect a modem to the auxiliary port on the Cisco AS5200:

Step 1 Connect a modem to the auxiliary port using an RJ-45 roll-over cable with an RJ-45-to-DB-25 or RJ-45-to-DB-9 adapter. The adapter provided by Cisco Systems is labeled Modem. (See Figure 3-14.)

Figure 3-14 Connecting a Modem to the Auxiliary Port



Step 2 Make sure that your modem and the auxiliary port on the Cisco AS5200 are configured for the same transmission speed (38400 baud is typical) and hardware flow control with Data Carrier Detect (DCD) and Data Terminal Ready (DTR) operations.

Wiring the DC Power Supply

If you ordered a Cisco AS5200 with a DC power supply, follow the procedure in this section to wire the terminal block.

Warning Before performing any of the following procedures, ensure that power is removed from the DC circuit. To ensure that all power is off, locate the circuit breaker on the panel board that services the DC circuit, switch the circuit breaker to the off position, and tape the switch handle of the circuit breaker in the off position. (To see translated versions of this warning, refer to the appendix "Translated Safety Warnings.")

Note This product is intended for installation in restricted access areas and is approved for connection using minimum 14 AWG copper conductors only. The installation must comply with all applicable codes.

Figure 3-15 shows the DC power supply terminal block. Perform the following steps to wire the terminal block:

Step 1 Remove the terminal block cover plate.

Step 2 Attach the appropriate lugs at the wire end of the power supply cord.

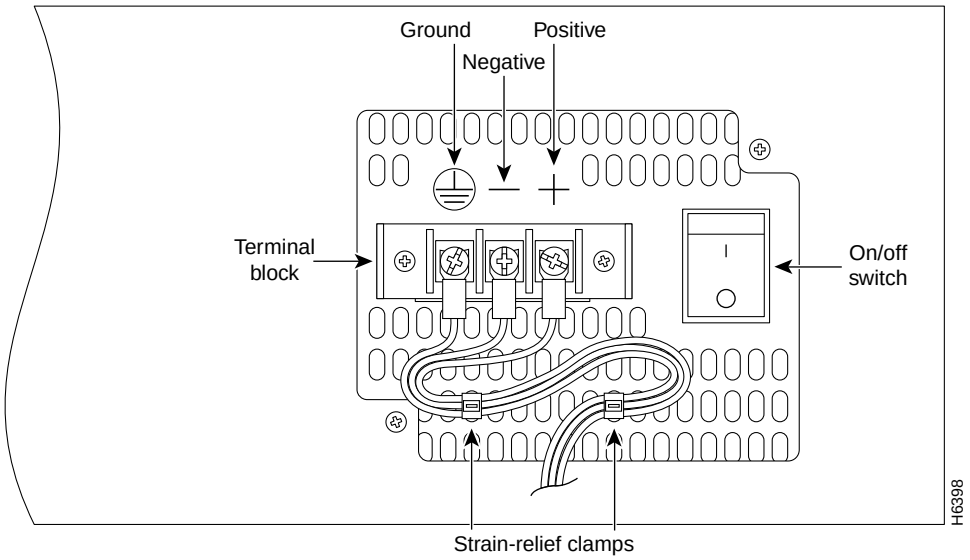
Step 3 Wire the DC power supply cord to the terminal block, as shown in Figure 3-15.

Step 4 Secure the power supply cord to the cable strain-relief clamps on the DC power supply with cable ties.

Step 5 Install the terminal block cover plate.

Warning The illustration shows the DC power supply terminal block. Wire the DC power supply using the appropriate lugs at the wiring end, as illustrated. The proper wiring sequence is ground to ground, positive to positive (line to L), and negative to negative (neutral to N). Note that the ground wire should always be connected first and disconnected last. (To see translated versions of this warning, refer to the appendix "Translated Safety Warnings.")

Figure 3-15 DC Power Supply Connections



Warning When stranded wiring is required, use approved wiring terminations, such as closed-loop or spade-type with upturned lugs. These terminations should be the appropriate size for the wires and should clamp both the insulation and conductor. (To see translated versions of this warning, refer to the appendix “Translated Safety Warnings.”)

Caution Do not overtorque the terminal block captive thumbscrew or terminal block contact screws. The recommended torque is 8.2 ± 0.4 inch-lb.

Warning After wiring the DC power supply, remove the tape from the circuit breaker switch handle and reinstate power by moving the handle of the circuit breaker to the on position. (To see translated versions of this warning, refer to the appendix “Translated Safety Warnings.”)