



Installing the Gateway

This chapter guides you through the installation of the Cisco Voice 200 Gateway (VG200) and includes the following sections:

- Required Tools and Equipment, page 3-2
- Setting Up the Chassis, page 3-3
- Connecting to a Network, page 3-11
- Connecting the Console Terminal and Modem, page 3-13
- What to Do After Installing the Gateway Hardware, page 3-16



Warning

Only trained and qualified personnel should be allowed to install or replace this equipment.



Warning

This unit is intended for installation in restricted access areas. A restricted access area is where access can only be gained by service personnel through the use of a special tool, lock and key, or other means of security, and is controlled by the authority responsible for the location.

Required Tools and Equipment

Installation might require some tools and equipment that are not provided as standard equipment with the gateway. Following are the tools and parts required for a typical gateway installation:

- Number 2 Phillips screwdriver.
- Flat-blade screwdrivers: small, 3/16-inch (0.476 cm) and medium, 1/4-inch (0.625 cm).
- Electrostatic discharge (ESD)-preventive wrist strap.
- Screws to secure the rack-mount brackets to the gateway.
- Ethernet 10BaseT hub or PC with a network interface card for connection to the Ethernet (LAN) port(s).
- Modem for connection to the auxiliary port for remote administrative access (optional).
- 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 “Connecting the Console Terminal and Modem” section on page 3-13 for instructions on connecting a console terminal.
- Cables for connection to the VG200 Ethernet ports (dependent on configuration):
 - Ethernet 10BaseT cable for connection to an Ethernet port (included).
 - Ethernet 100BaseT cable for connection to a Fast Ethernet port (included).

**Note**

For more information on cable specifications, refer to the publication *Cisco Modular Access Router Cabling Specifications* on the Documentation CD-ROM that accompanied your gateway.

Setting Up the Chassis

You can set the chassis on a desktop, install it in a rack, or mount it on a wall or other flat surface. Use the procedure in this section that best meets the needs of your network. The sections are as follows:

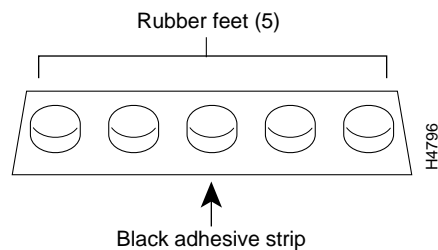
- Setting the Chassis on a Desktop, page 3-3
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Setting the Chassis on a Desktop

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

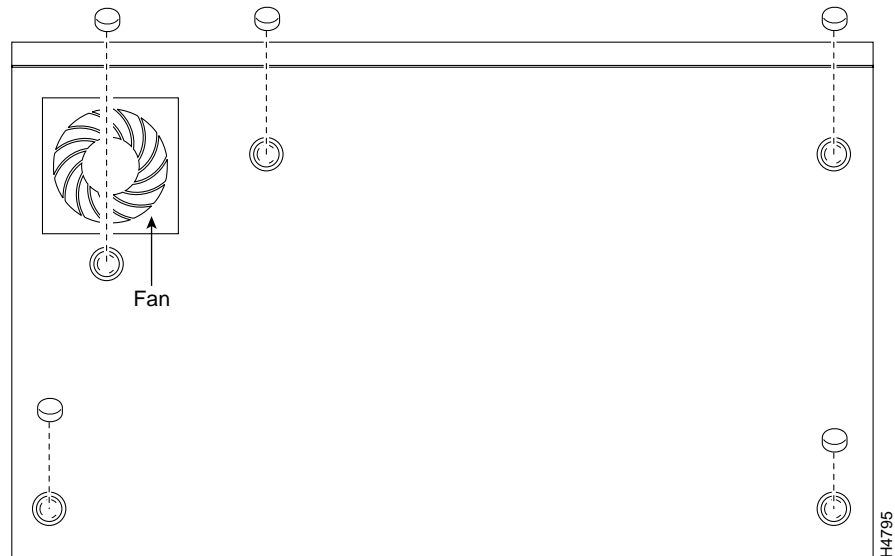
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- Step 1** Locate the rubber feet on the black adhesive strip that shipped with the chassis. (See Figure 3-1.)

Figure 3-1 Identifying the Rubber Feet



- Step 2** Place the gateway 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 onto the five round, recessed areas on the bottom of the chassis.

Figure 3-2 Installing the Rubber Feet



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



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

Mounting the Chassis in a Rack

This section describes the procedures for rack-mounting the chassis. The chassis comes with brackets for use with a 19-inch rack or, if specified in your order, optional larger brackets for use with a 23- or 24-inch rack. The brackets are shown below.

**Warning**

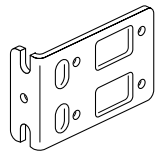
To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:

- If the rack contains only one unit, mount the unit at the bottom of the rack.
- If the rack is partially filled, load the rack from the bottom to the top, with the heaviest component at the bottom of the rack.
- If the rack contains stabilizing devices, install the stabilizers prior to mounting or servicing the unit in the rack.

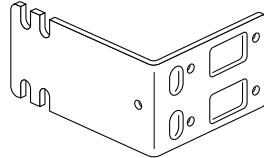
**Note**

There are two bracket sizes. You will need this information later to assist you with the mounting process.

Figure 3-3 Identifying the Brackets



Bracket for use
with a 19-inch rack



Bracket for use with
a 23- or 24-inch rack

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Attaching the Brackets

To install the chassis in a rack, attach the brackets in one of the following ways:

- With the front panel forward
- With the rear panel forward
- In a center-mount rack, with the rear panel forward

**Note**

Use the Cisco-supplied screws for this installation.

**Note**

If you are installing a Cisco VG200 in a 19-inch rack with a 17.5-inch opening, orient the rack-mount brackets so that, when installed, they do not increase the width of the chassis.

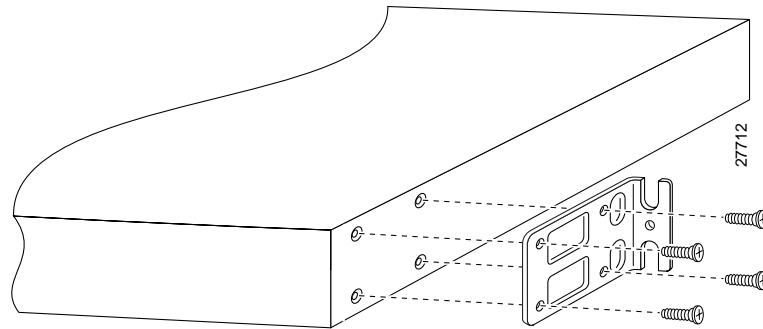
If you are installing a Cisco VG200 in a 19-inch EIA-standard rack with a 17.75-inch opening or a 23- or 24-inch rack, orient the rack-mount brackets so that, when installed, they increase the width of the chassis.

The following illustrations show how to connect the bracket to one side of the chassis. The second bracket connects to the opposite side of the chassis.

**Caution**

Use only screws provided with your Cisco VG200 to mount each brackets to the chassis.

Figure 3-4 Bracket Installation—Front Panel Forward (19-Inch Rack with a 17.5-Inch Opening)



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

**Note**

When installed in a 19-inch rack with a 17.75-inch opening, the Cisco VG200 will protrude beyond the front of the rack.

Figure 3-5 Bracket Installation—Front Panel Forward (19-Inch Rack with a 17.75-Inch Opening or a 23- or 24-Inch Rack)

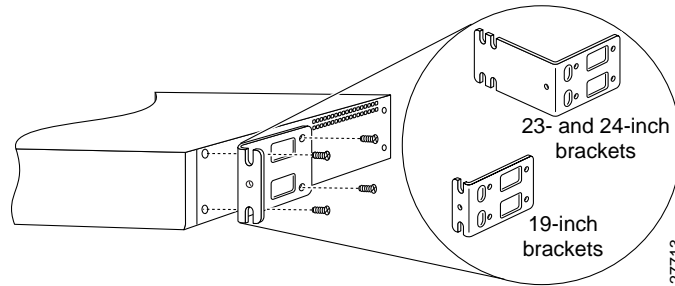


Figure 3-6 Bracket Installation—Rear Panel Forward (19-Inch Rack with a 17.5-Inch Opening)

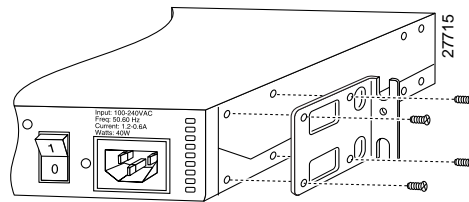


Figure 3-7 Bracket Installation—Rear Panel Forward (19-Inch Rack with a 17.75-Inch Opening or a 23- or 24-Inch Rack)

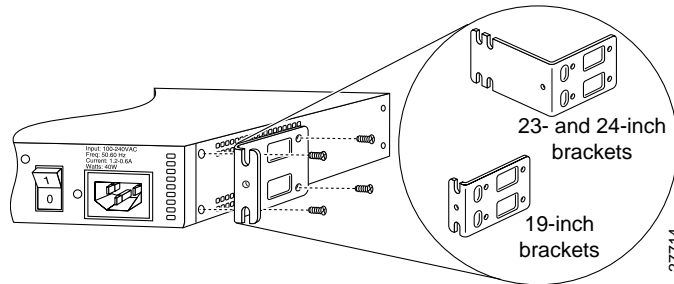
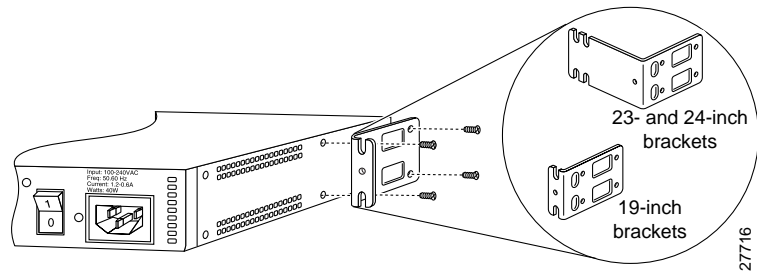


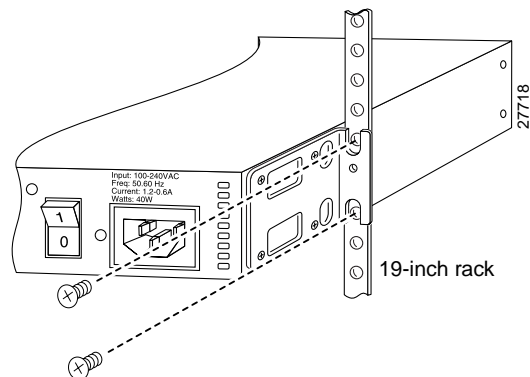
Figure 3-8 Center-Mount Bracket Installation—Rear Panel Forward



Installing the Gateway in a Rack

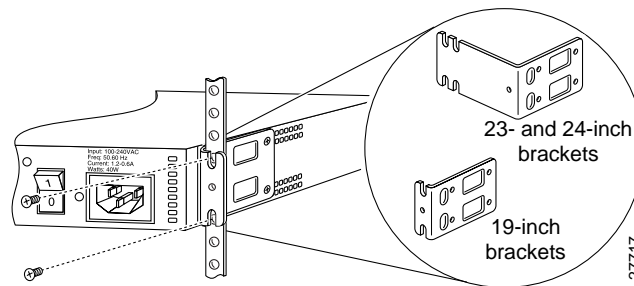
After the brackets are secured to the chassis, you can rack-mount it. Using screws that you provide, attach the chassis to the rack.

Figure 3-9 Mounting the Chassis in a Rack (19-Inch Rack with a 17.5-Inch Opening)



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 3-10 Mounting the Chassis in a Rack (19-Inch Rack with a 17.75-Inch Opening or a 23- or 24-Inch Rack)



Mounting the Chassis on a Wall



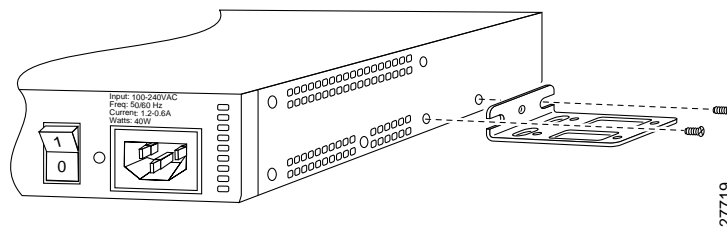
Note

Use 19-inch brackets to wall-mount the chassis. The small brackets provide the most stable installation for the chassis.

Perform the following steps to wall-mount the chassis:

- Step 1** Attach the brackets as shown in Figure 3-11.

Figure 3-11 Attaching the Wall-Mount Brackets

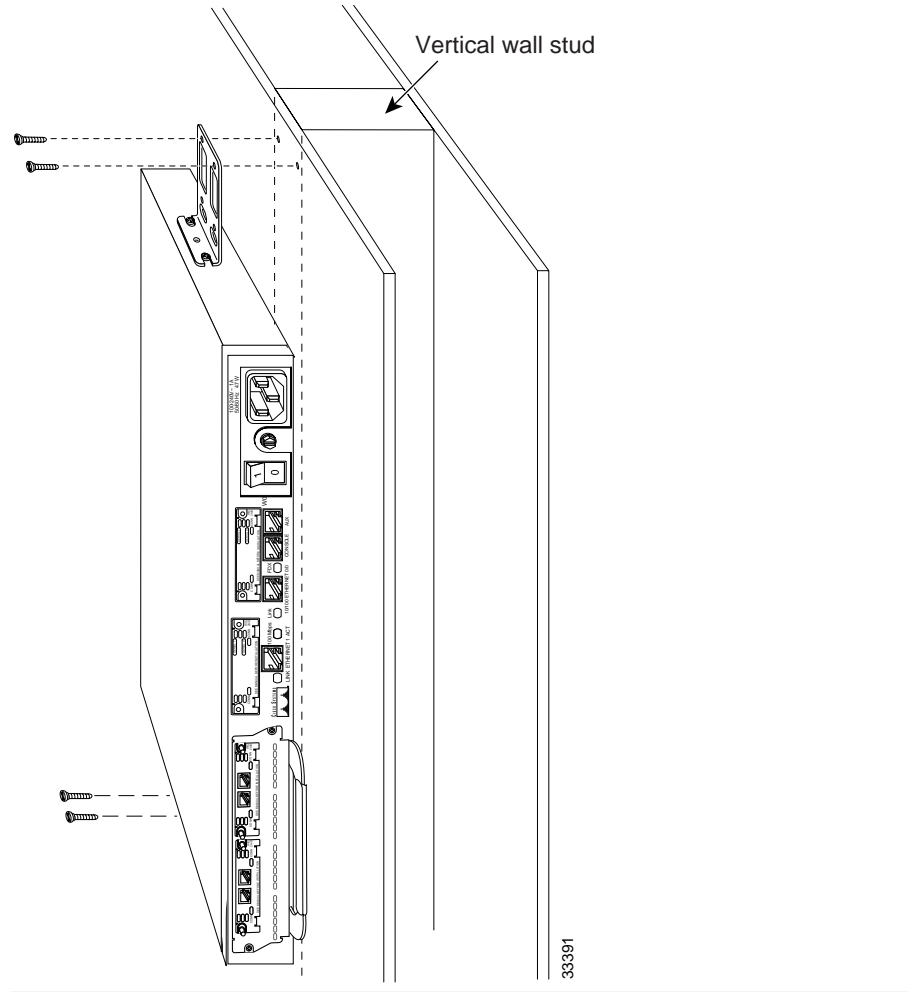


- Step 2** Attach the chassis assembly to the wall as shown in Figure 3-11, using screws and anchors that you provide. We recommend the following:

■ Setting Up the Chassis

- For the best support of the chassis and cables, attach the brackets so that the screws align with a vertical wall stud (see Figure 3-12). This position will prevent the chassis from pulling away from the wall when cables are attached.
- For the best ventilation of the chassis, mount the chassis with the power supply and fan at the top. Make sure there is clearance between the gateway and the wall.

Figure 3-12 Mounting the Cisco VG200 Chassis on the Wall



Connecting to a Network

This section explains how to use the Ethernet ports to connect the Cisco VG200 to the LAN.

For information about cable pinouts, refer to the publication *Cisco Modular Access Router Cabling Specifications*, available on the Documentation CD-ROM that came with your gateway, and on Cisco Connection Online (CCO).



Warning

The ports labeled Ethernet, 10BaseT, Serial, Console, and AUX contain safety extra-low voltage (SELV) circuits. PRI circuits are treated like telephone-network voltage (TNV) circuits. Avoid connecting the SELV circuit to the TNV circuits.

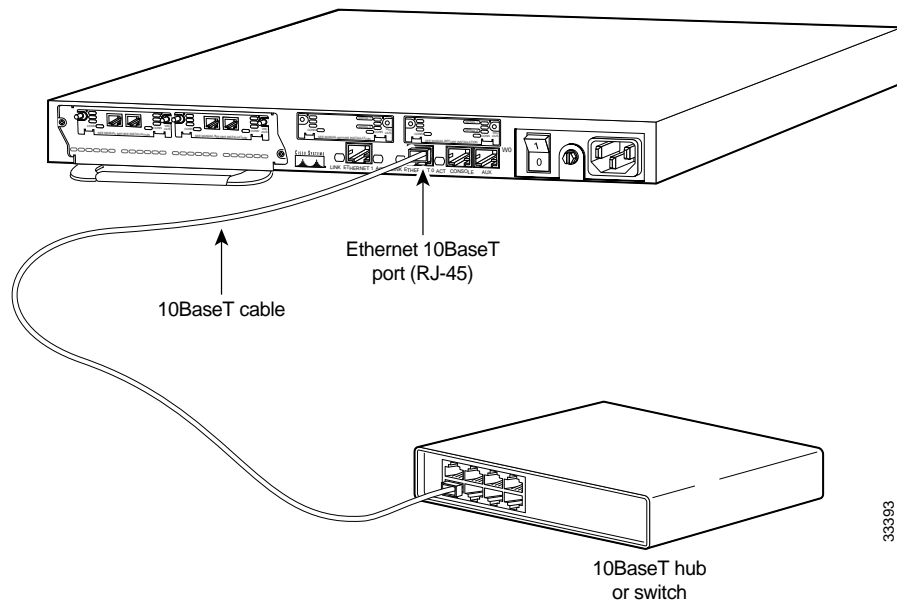


Warning

Do not work on the system, or connect or disconnect cables during periods of lightning activity.

To connect your gateway to a network, connect the Ethernet 10BaseT port to an Ethernet hub, as shown in Figure 3-13. Or, connect the Ethernet 10BaseT port directly to a switch such as a Cisco Catalyst 3900.

Figure 3-13 Connecting an Ethernet Hub or Switch



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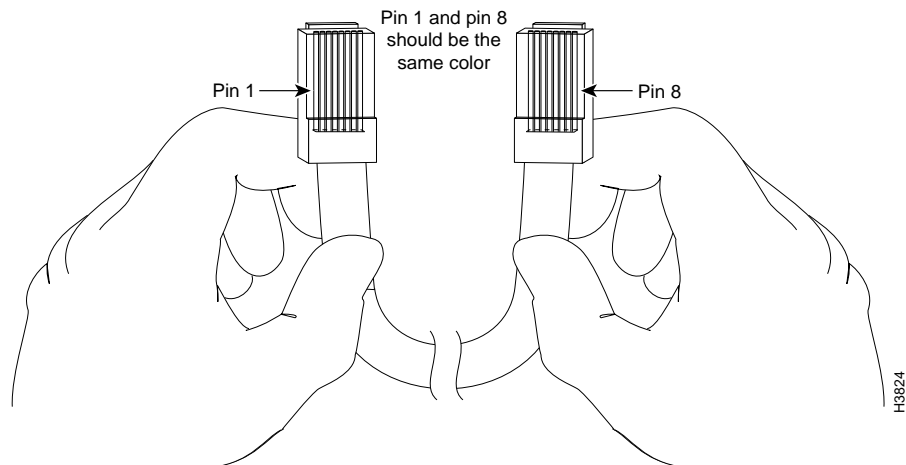
Connecting the Console Terminal and Modem

Your Cisco VG200 includes asynchronous serial console and auxiliary ports. These ports provide administrative access to your gateway either locally (with a console terminal) or remotely (with a modem).

Identifying a Rollover Cable

Use a rollover cable to connect to the asynchronous serial console and auxiliary ports. You can identify a rollover cable by comparing the two modular ends of the cable. Hold the cables 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 3-14.) If your cable came from Cisco Systems, pin 1 will be white on one connector, and pin 8 will be white on the other connector (a rollover cable reverses pins 1 and 8, 2 and 7, 3 and 6, and 4 and 5).

Figure 3-14 Identifying a Rollover Cable



Connecting to the Console Port

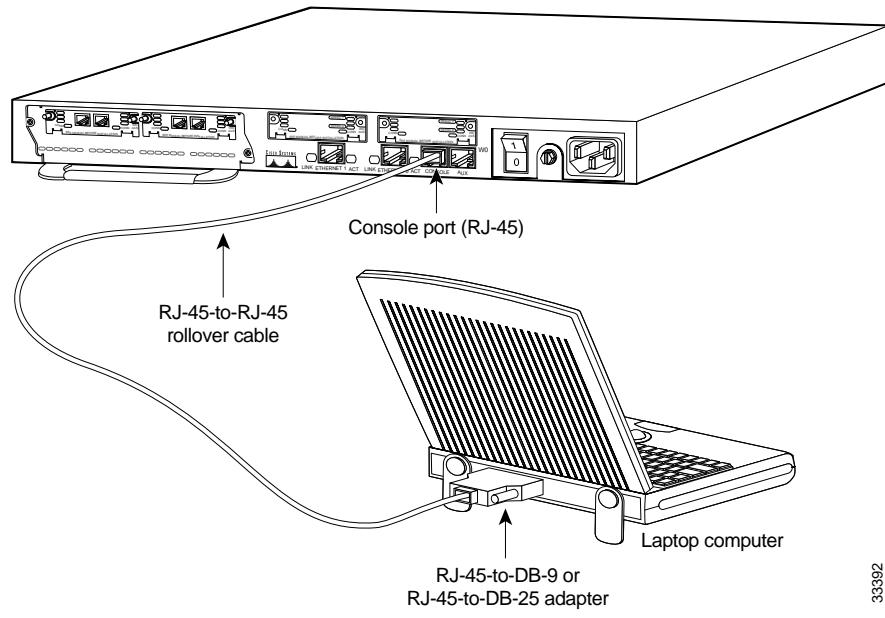
Perform the following steps to connect a terminal (an ASCII terminal or a PC running terminal emulation software) to the console port on the Cisco VG200:

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- Step 1** Connect the terminal using the thin, flat, RJ-45-to-RJ-45 rollover cable (looks like a telephone cable) and an RJ-45-to-DB-9 or RJ-45-to-DB-25 adapter (labeled TERMINAL) included with the gateway.
- Step 2** Configure your terminal or PC terminal emulation software for the following settings:

Setting	Value
Baud	9600
Data bits	8
Parity	No
Stop bits	2

For information on console port pinouts, refer to the online publication *Cisco Modular Access Router Cabling Specifications* on the Documentation CD-ROM that accompanied your gateway package, and on CCO.

Figure 3-15 Connecting a Console Terminal



Connecting a Modem to the Auxiliary Port

Perform the following steps to connect a modem to the auxiliary port on the Cisco VG200:

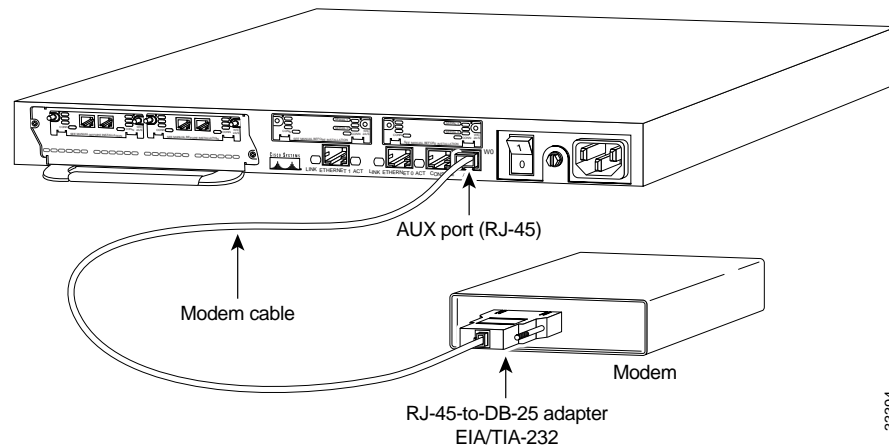


Warning

This equipment is intended to be grounded. Ensure that the host is connected to earth ground during normal use.

- Step 1** Connect a modem to the auxiliary port using the thin, flat, RJ-45-to-RJ-45 rollover cable (looks like a telephone cable) with the RJ-45-to-DB-25 adapter (labeled MODEM) included with the gateway.
- Step 2** Make sure that your modem and the auxiliary port on the gateway 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.

Figure 3-16 Connecting a Modem



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For information on console port pinouts, refer to the online publication *Cisco Modular Access Router Cabling Specifications* on the Documentation CD-ROM that accompanied your gateway package, and on CCO.

What to Do After Installing the Gateway Hardware

After you have installed the Cisco VG200, connect the power cable to the rear panel of the gateway and the power source, and then power on the unit. (If the gateway does not power on, proceed to Appendix A “Troubleshooting the Gateway.”)

Refer to the publication *Software Configuration Guide for the Cisco VG200*, included in your package, for software configuration information.