

Chapter 3

Hardware Installation

This chapter provides complete installation and cabling instructions for the Workgroup Concentrator. Specific topics covered in this chapter include the following:

- Unpacking and inspection
- Wall-mount installation
- Rack-mount installation
- Desktop installation

Before you install the concentrator, read the chapter “Preparing for Installation.”

Installation Overview

There are many ways to configure and connect the concentrator. The following overview is specific to a UTP installation.

- 1 Unpack and inspect the concentrator.
- 2 Install the line cards and optional A/B port card. (For instructions, see the appendix “Installing and Removing Port and Line Cards.”)
- 3 Install the wall-mount or rack-mount brackets on the concentrator.
- 4 Place the concentrator in a 19-inch rack, wall-mount it in a wiring closet, or place it on a desktop.
- 5 Connect the concentrator to a patch panel.
- 6 Connect each port through the patch panel to a punch-down block.
- 7 Install RJ-45 wall sockets at each workstation location.
- 8 Inspect the wiring from the wall plate to the punch-down block. Connect the cables to the wall plate and punch-down blocks according to AT&T 258A or the EIA-568-B standard. Use a time-domain reflectometer (TDR) to verify that the cable lengths do not exceed CDDI requirements (330 feet [100.6 m]) for category 5 UTP or STP.

- 9 Connect each workstation or MAU to the wall plate with the supplied data-grade modular cables.
- 10 Read the section “Applying Power” in the chapter “Connecting to the Network,” and pay particular attention to the warning messages.
- 11 Connect a terminal to the EIA/TIA-232 admin. port on the concentrator (optional).
- 12 Configure the attachment type and IP address for the concentrator with the commands **set attach** and **set ipaddress**.

Note The default for the **set attach** parameter is dual attachment. If you are using your concentrator in a dual attachment configuration, you do not need to set this parameter.

- 13 Test your local network for connectivity among the workstations using the **ping** command. (See the section “ping Command” in the appendix “Command Reference.”)
- 14 Connect the concentrator to your CDDI or FDDI network.

Unpacking and Inspection

Before you install the concentrator, examine all shipping containers and contents for damage and check for missing items. If damage occurred to the containers during shipping, please notify your carrier. Unpack and examine the contents of the containers. You should have the following items:

- The Workgroup Concentrator
- The *CDDI/FDDI Workgroup Concentrator User Guide*
- AC power cable
- Modular RJ-45-to-DB-25 adapter cable
- Rack-mount bracket kit
- Wall-mount bracket kit (optional)
- Warranty registration package

Fill out the warranty registration sheet and mail or fax it to Cisco Systems, Inc. today. Report any missing parts and any damage not related to shipping to your customer service representative.

Note Keep the packing materials for reuse. *All materials returned under warranty must be packed in their original packing materials.*

Installing the Hardware

You can mount the concentrator on a wall, in a standard 19-inch rack, or place it on a desktop.

Wall-Mount Installation

Figure 3-1 and Figure 3-2 show typical wall-mount installations. The optional wall-mount kit consists of the following items:

- Two wall-mount brackets.
- Four machine screws to secure the wall-mount brackets to the switch.
- Wall-mount template.
- You provide four wood screws to attach the concentrator to the wall.

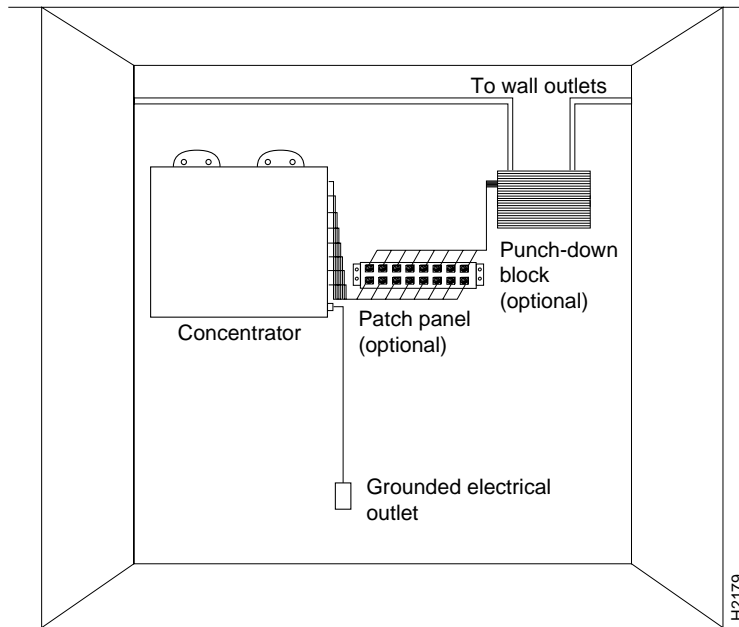


Figure 3-1 Wall-Mount Installation—CDDI

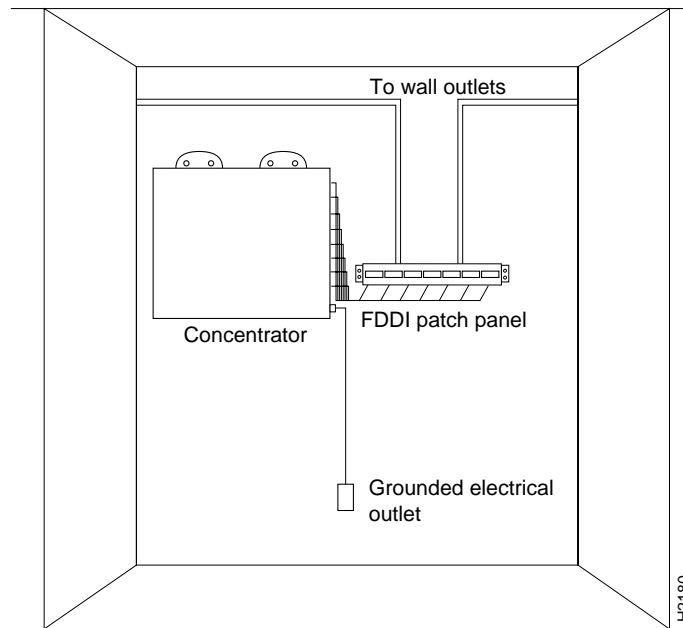


Figure 3-2 Wall-Mount Installation—FDDI

Following is the procedure for wall-mounting the concentrator:

- Step 1** Remove the rubber feet from the concentrator, if necessary.
- Step 2** Mark the location of the four support screws that will secure the concentrator to the wall. Use the template provided in the wall-mount kit. Make sure the screws will attach to a wall stud or some other support strong enough to hold the weight of the concentrator.
- Step 3** Drill a pilot hole with a 1/16-inch (0.159 cm) bit at each mark you made for the location of a support screw.
- Step 4** Screw the four 1/2-inch (1.27 cm) wood screws into the pilot holes, but not all the way. Allow them to protrude about 1/8-inch (0.317 cm).
- Step 5** Attach the wall-mount brackets to the concentrator with the supplied machine screws. Figure 3-3 shows where to install the brackets.

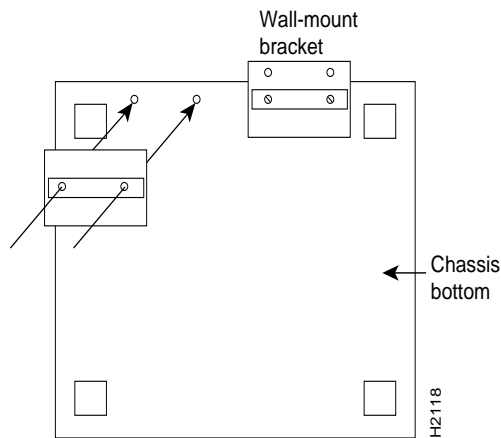


Figure 3-3 Attaching the Wall-Mount Brackets to the Bottom of the Concentrator



Caution Longer screws (longer than 0.375 inch [0.952 cm]) will cause severe internal damage to the concentrator. Use the machine screws supplied with the wall-mount kit to attach the brackets to the concentrator.

- Step 6** If the plastic side panels are installed, remove them from the concentrator. To remove a side panel, hold it firmly with both hands and rock it slowly while you pull it away from the concentrator.
- Step 7** Pick up the concentrator with both hands. The brackets should face away from you.
- Step 8** Align the support screws with the holes in the brackets and push the concentrator against the wall, allowing the screws to go through the holes in the brackets.
- Step 9** Hang the concentrator from the support screws.
- Step 10** Tighten the support screws to secure the concentrator to the wall. Do *not* overtighten them.
- Step 11** Replace the side panels on the concentrator.

Proceed to the section “What to Do after Installing the Hardware” later in this chapter.

Rack-Mount Installation

The concentrator can also be mounted in an open or closed EIA-standard 19-inch rack using the rack-mount bracket kit. The rack-mount bracket kit consists of the following materials:

- Two L-shaped brackets.
- Eight Phillips machine screws to attach the brackets to the concentrator.
- You provide the rack-mount screws.

Following is the procedure for rack-mounting the concentrator:

- Step 1** Remove the plastic front panel and two side panels from the concentrator. Use both hands and gently rock each panel back and forth while pulling it away from the concentrator.
- Step 2** Attach a rack-mount bracket to each side of the concentrator with the supplied Phillips machine screws. Mount each bracket with the tab positioned toward the front of the concentrator. (See Figure 3-4.)

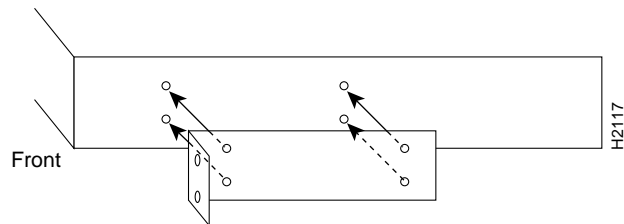


Figure 3-4 Attaching the Rack-Mount Brackets to the Concentrator

- Step 3** Secure both brackets tightly.
- Step 4** Position the concentrator in the rack at the desired location and align the holes on the bracket tabs with the holes in the rack.
- Step 5** Attach the concentrator to the rack using screws you provide. (See Figure 3-5.)

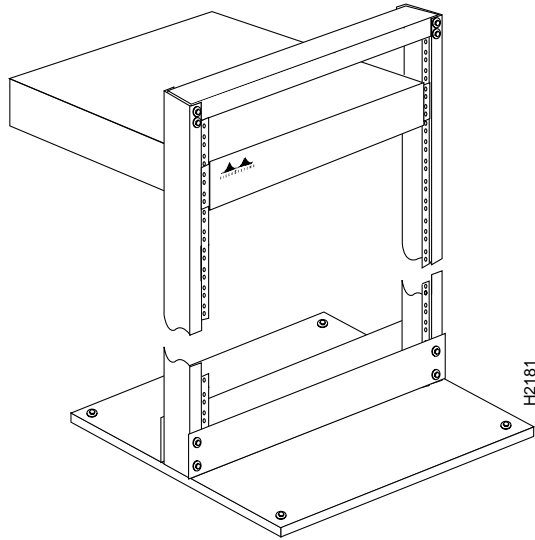


Figure 3-5 Rack-Mounted Concentrator—Open Rack Shown



Caution Before you mount the concentrator in a rack, make sure of the following: the rack is secure and in no danger of tipping over; the area around the rack does not exceed a maximum ambient temperature of 104F (40C); there is sufficient airflow around the rack.

Step 6 Replace the front panel and store the side panels.

Step 7 Proceed to the section “What to Do after Installing the Hardware.”

Desktop Installation

The concentrator operates at a low noise level, which makes it suitable for any desktop environment. Place it in a clear and level location. Leave at least three inches (7.6 cm) clearance at the front for proper ventilation, and sufficient room at the rear for easy cable access. Proceed to the section “What to Do after Installing the Hardware.”



Caution To prevent overheating damage, do not stack any other equipment on top of the concentrator chassis.

What to Do after Installing the Hardware

After the chassis hardware is installed, proceed to the chapter “Connecting to the Network” for the procedures required to attach all cables to the concentrator. For the information necessary to configure the software portion of the system based on your requirements, proceed to the chapter “Configuring the System Software” and the appendix “Command Reference.”

