Installing Your Hub

This chapter provides the following information about unpacking and installing your Cisco Micro Hub:

- Safety Information
- Unpacking Your Micro Hub
- Installing the Hub

Timesaver   You can also use the quick reference card that came with your hub for quick instructions on how to install and configure your hub.

Safety Information

To ensure personal safety and protect the equipment, follow these guidelines:

- Keep the chassis area clear and dust-free during and after installation.
- Keep tools and chassis components away from walk areas.
- Do not wear loose clothing that could get caught in the chassis. Fasten your tie or scarf and roll up your sleeves.
- Wear safety glasses when working under conditions that might be hazardous to your eyes.
- Do not perform any action that creates a hazard to people or makes the equipment unsafe.

Caution Do not place anything on top of the hub that could block the air flow from the vents on top of the hub. Products designed specifically to interoperate with the hub and which are stacked on top of the hub with the included stacking clip will not block the air flow from the vents.

Warning Read the installation instructions before you connect the system to its power source.

Warning Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.

Warning Before working on a system that has an on/off switch, turn OFF the power and unplug the power cord.

Warning Ultimate disposal of this product should be handled according to all national laws and regulations.

Warning The power supply is designed to work with TN power systems.

**Warning** Do not work on the system or connect or disconnect cables during periods of lightening activity.

Warning The ports labeled "1X" through "8X," "CONSOLE," "OUT," and "IN" are safety extra-low voltage (SELV) circuits. SELV circuits should only be connected to other SELV circuits. Avoid connecting these circuits to telephone network voltage (TNV) circuits.
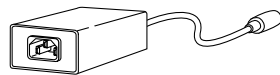
Unpacking Your Micro Hub

Make sure that you receive all the items shown below.
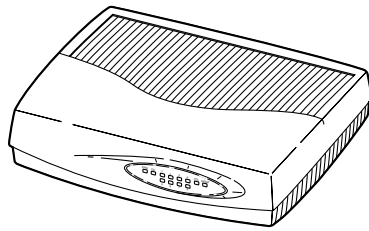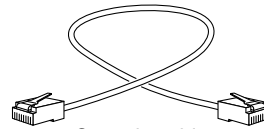
Cisco Micro Hub
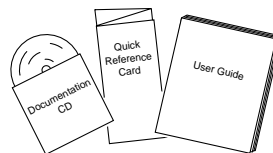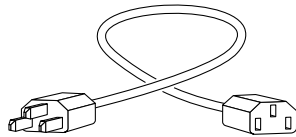
Product documentation

Power supply

Console cable
(light blue,RJ-45-to-RJ-45)
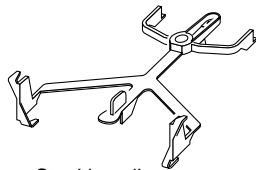(Cisco 1503 only)

Power cord (black)

Console DB-25-to-RJ-45 adapter
(light gray)

Backplane bus cable
(green, RJ-45-to-RJ-45)
(Cisco 1503 and Cisco 1502 only)

Console DB-9-to-RJ-45 adapter
(light gray)

Plastic fastener

Stacking clip

Rubber plug
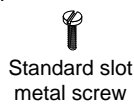
Standard slot
metal screw

H9839

> **Note**   If anything in the box appears to be missing or damaged, contact the Cisco reseller nearest you.

Installing the Hub

There are five major steps for installing the hub:

1   Stacking Hubs (if you are using more than one hub)

2   Connecting Hubs (if you are using more than one hub)

3   Connecting the Power and Turning the Hub On

4   Connecting Other Network Devices to the Hub

5   Connecting the CONSOLE Port (Micro Hub 1503 only)

Stacking Hubs

> **Timesaver**   If you are using only one hub, skip the next two sections, and go directly to the section "Connecting the Power and Turning the Hub On."

Up to four Cisco Micro Hubs can be stacked on top of one another and connected using ports on the rear panel. Each hub comes with a stacking clip and a screw that are used to keep multiple hubs together in a stack.

Before using the clip, you must assemble the clip and the screw, as shown below.

Push plastic screw
through small hole
at the end of the
stacking clip.

TOP

H10102
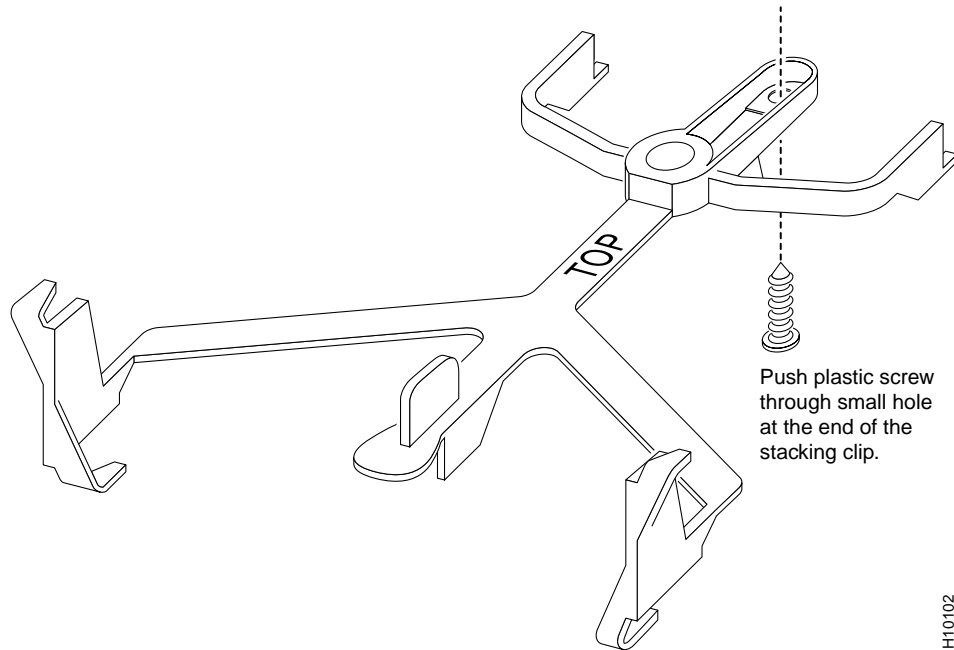
After pushing the screw into the stacking clip, use the clip as shown below.

Step 1

Place clip on top of lower hub. Slide the clip forward so the front tabs slide into the vent slots.

Step 2

Make sure the rear hooks fit over the edge of the lower hub.

Step 3

Position the upper hub onto the clip so that the rear hooks fit over the edge of the upper hub.

Step 4

Snap the upper hub to the clip by rotating it down. Make sure the plastic fastener fits into the bottom of the upper hub.

Bottom of
upper hub

Plastic
fastener

Front
tabs

Rear
hooks

Rear panel of
lower hub

Rear
hooks

H10104
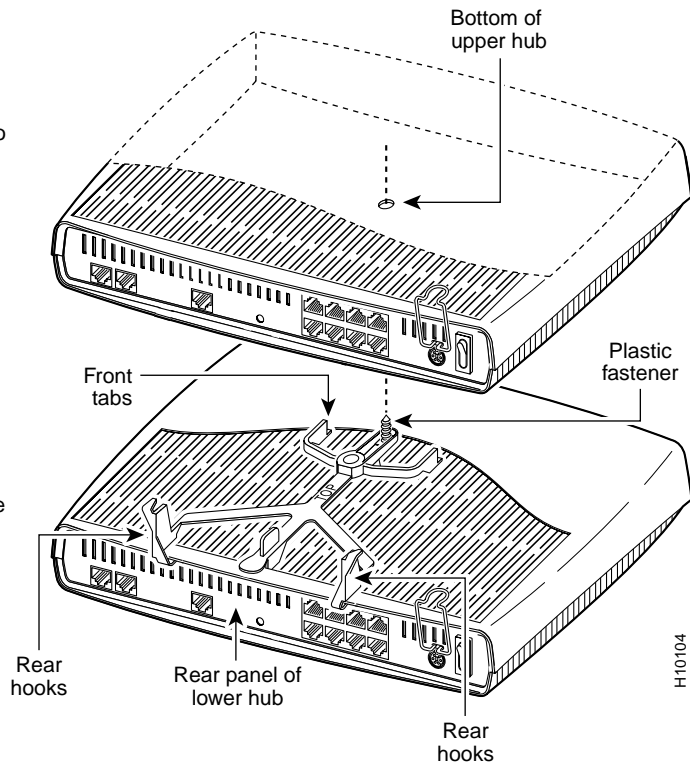
To separate hubs that are connected with the stacking clip, follow the instructions below:

Use both hands to lift upper router and stacking clip off of the lower hub. Afterwards, remove clip from upper hub.

Press up on the tab over the center of the lower hub.
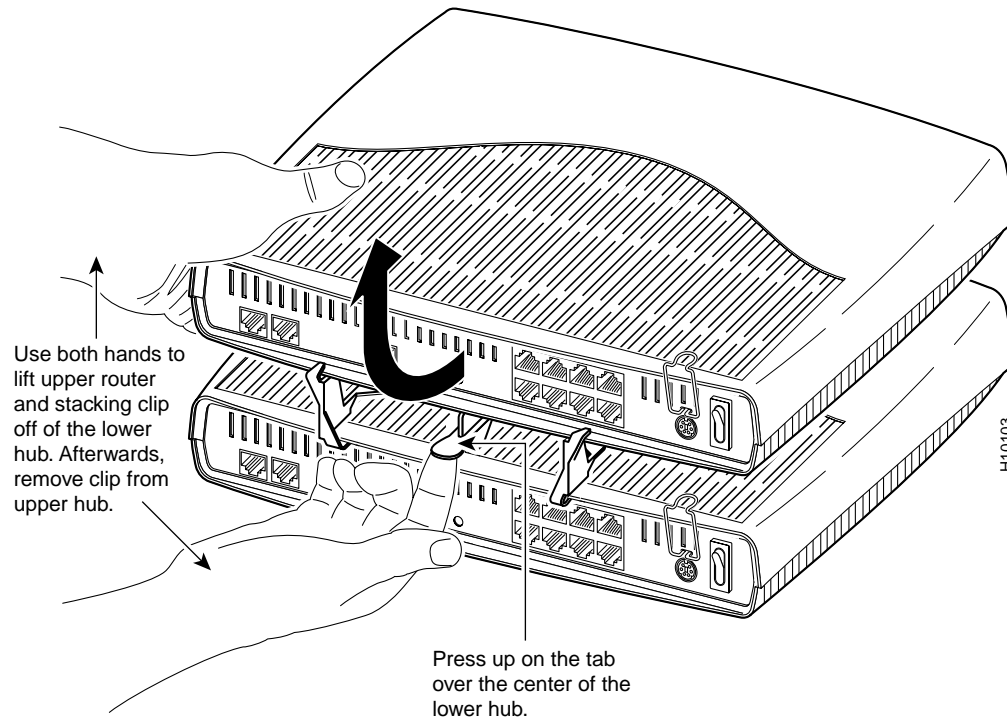
Connecting Hubs

This section describes the two ways that the hubs can be connected to each other.

Note   You can use up to four Cisco Micro Hubs in one stack. In order to manage stacked hubs, a stack should contain at least one Micro Hub 1503.

If the stack contains only Micro Hub 1503s and Micro Hub 1502s, connect the hubs as shown below.

Step 1
Connect one end of the backplane bus cable (green) to the top hub's OUT port.

Step 2
Connect the other end to the next hub's IN port.

Step 3
Repeat the above steps for every hub in a stack that has Micro Hub 1502s or Micro Hub 1503s.

Micro Hub 1503

Micro Hub 1502

Micro Hub 1502

H9836
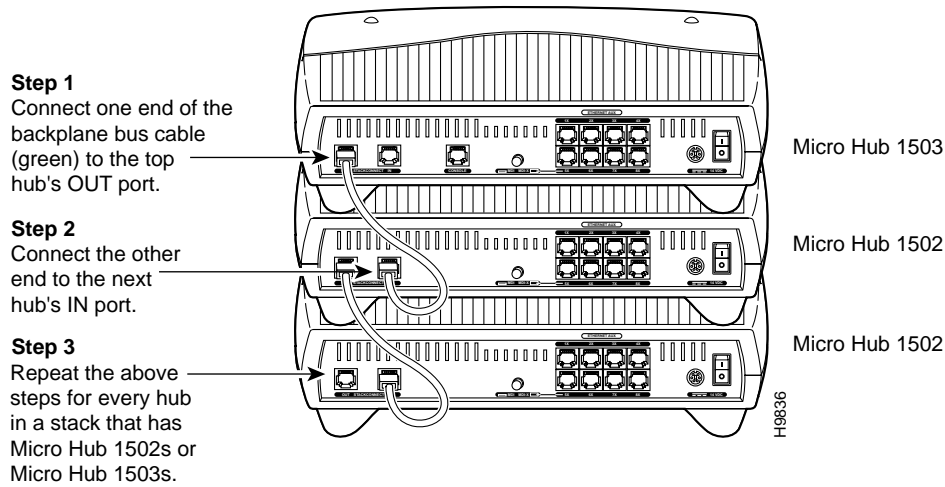
If the stack contains a Micro Hub 1501, connect it as shown below.

Micro Hub 1503

Micro Hub 1502

Micro Hub 1501

Step 1
Press the MDI/MDI-X button on the Micro Hub 1503 or Micro Hub 1502 that will be connected to the Micro Hub 1501, so that it is in the IN position (MDI).

Step 2
Connect one end of a 10Base T Ethernet cable to port 5 on the Micro Hub 1502. You must provide the cable for this connection.

Step 3
Connect the other end of the 10BaseT Ethernet cable to any numbered workstation port on the Micro Hub 1501.

H10101

Connecting the Power and Turning the Hub On

Connect power and turn the hub on as shown in the following illustration. (Do this for each hub in a stack of hubs.)

Warning This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a fuse or circuit breaker no larger than 120 VAC, 15A U.S. (240 VAC, 10A international) is used on the phase conductors (all current-carrying conductors).

Step 4
Turn the hub on by turning the power switch to the ON (I) position.

Step 3
Connect the male end of the power cord to the wall power outlet.

Step 1
Connect the power supply cord to the power socket on the rear panel of the hub.

Power outlet

Power cord (black)

Power supply

Step 2
Connect the female end of the power cord to the power socket on the power supply.

H9835
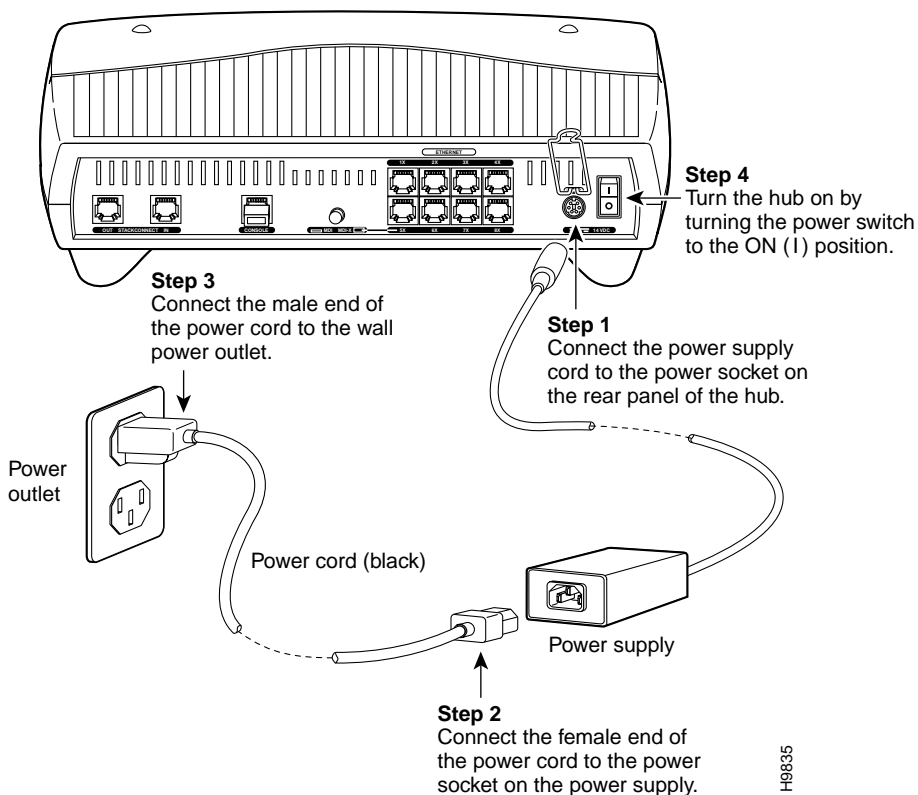
Using the Power-Cord Clip

To prevent the power cord from disconnecting from the hub, slip the power-cord clip down over the power cord, as shown in the following illustration.

Power cord

Clip

12091
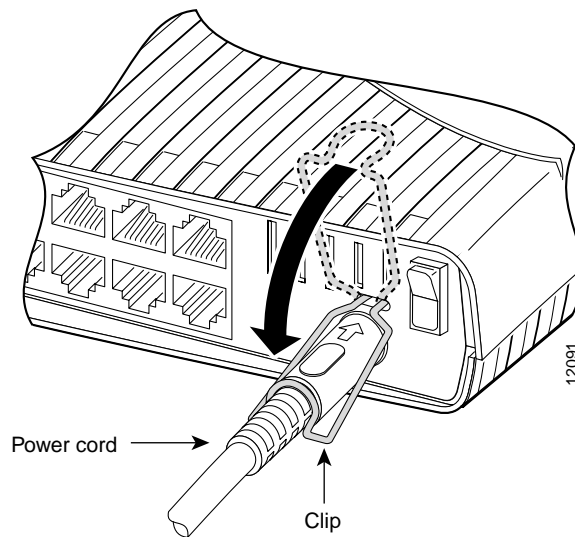
Note   If your Micro Hub does not have the clip on the rear panel, use the power-cord-clip kit that came in the hub accessory kit. This kit contains a clip that prevents the power cord from disconnecting and includes instructions for attaching the clip to the hub.

After turning the hub on, check the hub's front panel to make sure that certain LEDs are on.

Blinking indicates that the hub is performing self-tests. A
steady light indicates that all self-tests were successful.
If this light is off, refer to the diagnostic section of the
appendix "Troubleshooting."

On indicates that power is
being supplied to the hub.

| PWR | OK | 1 | 2 | 3 | 4 | COL | MGMT |

| 5 | 6 | 7 | 8 |

H10110

(Micro Hub 1503 only) Steady light indicates
that the hub is managed wth SNMP-based
software.
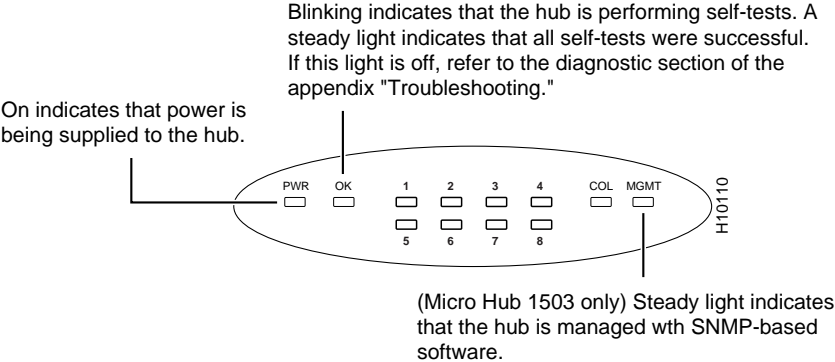
Connecting Other Network Devices to the Hub

There are two types of devices that you can connect to the hub's workstation ports, labeled 1 through 8:

- Network devices, such as PCs, workstations, or servers

- Compatible 10BaseT hubs or 10BaseT switches.

This section describes how to connect these devices to the hub.

Connecting a PC, Workstation, or Server to the Hub

Connect network devices such as a workstations, PCs, routers, or servers to the ports on the hub labeled 1 through 8, as shown in the following illustration. The network device must have a 10BaseT network interface in order for it to be connected to the hub.

Step 1

If you connect a workstation, PC, router, or server to the hub through port 5, be sure the button labeled MDI/MDI-X on the rear panel of the hub is set to MDI-X (default setting). (The button should be in the OUT position).

Step 2

Connect one end of the 10BaseT Ethernet cable to any of the eight workstation ports (yellow) on the hub. You must provide the cable for this connection.

Step 3

Connect the other end of the 10BaseT Ethernet cable to the network interface on the device you are connecting to the hub (PC, workstation, router, or server).

Note   If you connect a workstation, PC, or server to port 5, the MDI/MDI-X button on the rear panel should be in the OUT position.
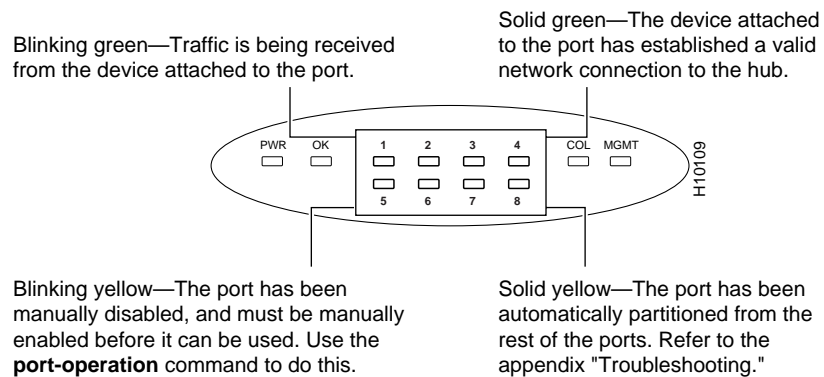

Note If you are not sure what kind of Ethernet cable to use, read the section "Ethernet Cable Specifications" in the appendix "Hub Specifications and Cable Wiring."

After connecting a network device to the hub, check the corresponding port LED (labeled 1 through 8) on the front panel. The color and blinking pattern of the LED indicate the activity for the corresponding workstation port.

Blinking green—Traffic is being received from the device attached to the port.

Solid green—The device attached to the port has established a valid network connection to the hub.

Blinking yellow—The port has been manually disabled, and must be manually enabled before it can be used. Use the **port-operation** command to do this.

Solid yellow—The port has been automatically partitioned from the rest of the ports. Refer to the appendix "Troubleshooting."

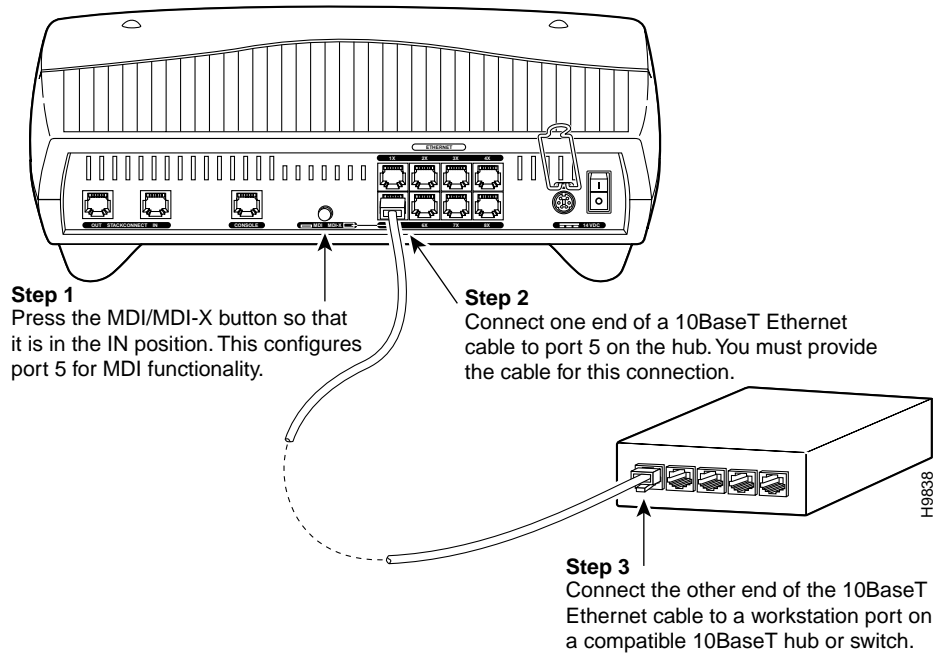## Connecting a Compatible 10BaseT Hub or Switch to the Hub

Connect compatible 10BaseT hubs or switches to the Cisco Micro Hub through port 5, as shown in the following illustration.

Note Hubs connected together in this way cannot be managed by a Micro Hub 1503 that is part of the same stack. Only Cisco Micro Hubs connected to the stack through the IN and OUT ports can be managed by a Micro Hub 1503.

Step 1
Press the MDI/MDI-X button so that it is in the IN position. This configures port 5 for MDI functionality.

Step 2
Connect one end of a 10BaseT Ethernet cable to port 5 on the hub. You must provide the cable for this connection.

Step 3
Connect the other end of the 10BaseT Ethernet cable to a workstation port on a compatible 10BaseT hub or switch.

Note If you are not sure what kind of Ethernet cable to use, read the section "Ethernet Cable Specifications" in the appendix "Hub Specifications and Cable Wiring."

After connecting a hub or switch to port 5, check the LED labeled 5 on the front panel. The color and blinking pattern of the LED indicate activity for port 5.

Blinking green–Traffic is being received from the device attached to port 5.

Solid green–The device attached to port 5 has established a valid network connection to the hub.

| PWR | OK | 1 | 2 | 3 | 4 | COL | MGMT |

5 6 7 8

H10108

Blinking yellow–Port 5 has been manually disabled, and must be manually enabled before it can be used. Use the **port-operation** command to do this.

Solid yellow–Port 5 has been automatically partitioned from the rest of the ports. Refer to the appendix "Troubleshooting."
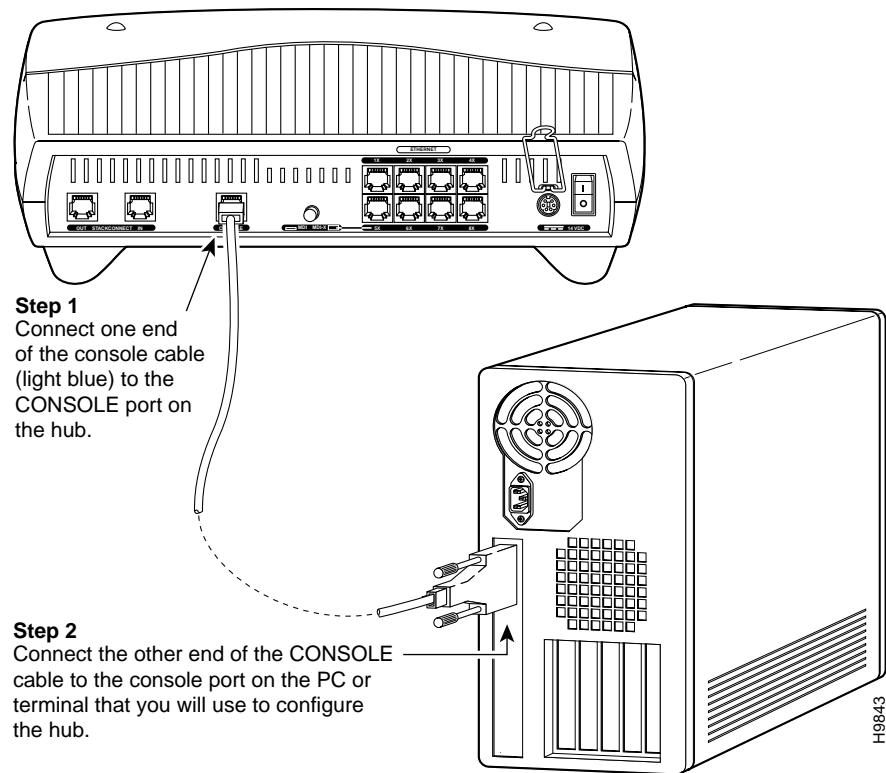
Connecting the CONSOLE Port

This section applies only to the Micro Hub 1503; the Micro Hub 1502 and the
Micro Hub 1501 do not have a CONSOLE port.

Connect the Micro Hub 1503's CONSOLE port to a PC, as shown below, or to a terminal,
so that you can control and monitor the hub using network management software or using
terminal emulation software.

The terminal or terminal emulation software should be configured with the following
settings: 9600 baud, 8 data bits, 1 stop bit, no parity, and no flow control.

Step 1
Connect one end
of the console cable
(light blue) to the
CONSOLE port on
the hub.

Step 2
Connect the other end of the CONSOLE
cable to the console port on the PC or
terminal that you will use to configure
the hub.

H9843

Note   You might have to use one of the two console cable adapters (light gray) that came with your hub, if the PC or terminal does not have an RJ-45 console interface.

You have now completed the basic hardware installation of the hub. To configure the hub, go to the next chapter, "Using Your Hub Software."