

# Installation

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This chapter is a detailed procedure for installing Catalyst 2100 on a table, shelf or rack, and connecting it to other devices. The first thing to do is to ensure that you have all the components. When unpacking the unit, turn to the section “Packing List” in the “Fast Install Guide” for the list of included items.

## Installing Catalyst 2100 in a Rack

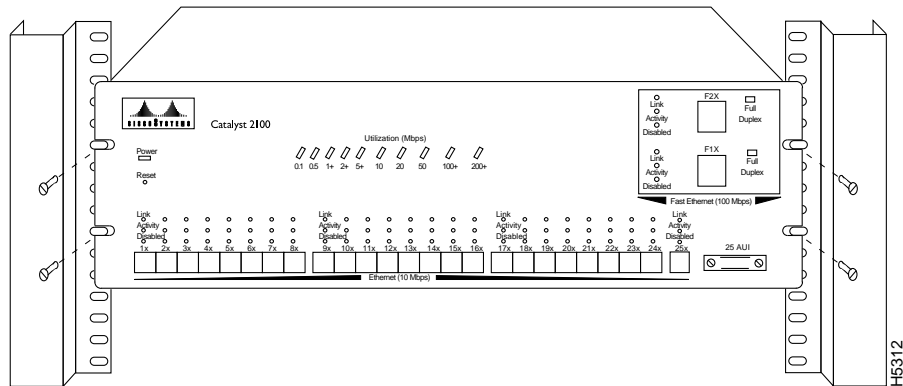
The nature of rack-mounted equipment requires that the following guidelines be observed:

- If installed in a closed or multi-rack assembly, the temperature may be greater than normal room temperature. Ensure that the temperature around the unit does not exceed 40° C.
- Install the Catalyst 2100 so that the amount of air flow required for safe operation is ensured.
- Do not mount the Catalyst 2100 in a rack that may be overloaded or unevenly loaded.
- Check the power supply to determine the effect power surges and overloading of circuits could have.

To install the unit in the rack:

**Step 1** Position the unit on the rack by lining up the integrated mounting ears with the holes in the rack, as shown in Figure 4-1.

**Figure 4-1 Catalyst 2100 Installed in a Rack**



**Step 2** Attach the Catalyst 2100 unit to the rack with the four provided screws.

**Step 3** Connect the power cord to Catalyst 2100 and to the power outlet.

**Step 4** Turn the unit on using the power switch on the rear panel.

The power LED will come on and Catalyst 2100 will automatically start a self-test. This test is described in the section “Power-On Self-Test (POST)” in this chapter.

## Table and Shelf Installation

Use these instructions to install Catalyst 2100 on a table or shelf.

**Step 1** Attach the four rubber feet included in the Catalyst 2100 cushioning kit to the bottom of the unit.

**Step 2** Place the Catalyst 2100 unit on the table or shelf near a power source.

**Step 3** Connect the power cord to Catalyst 2100 and to the power outlet.

**Step 4** Turn Catalyst 2100 on using the power switch on the rear panel.

The power LED will come on and Catalyst 2100 will automatically start the series of tests described in the section “Power-On Self-Test (POST).”

## Power-On Self-Test (POST)

When Catalyst 2100 is first turned on it lights all LEDs and executes a Power-On Self-Test (POST). There are 15 tests run in reverse order starting with number 15. As a test is running, the column of port LEDs with that test number are turned off. When the test passes, the LEDs are turned back on and the next test performed. A complete description of the 15 POST tests is included in the section “POST Failure” in the “Troubleshooting” chapter.

Tests 9 and 10 each take about 30 seconds; the other tests last a few seconds each. If a test fails, the associated LED column remains off during the remainder of the tests. When all the tests have completed, the LEDs for each passed test remain on, and the LEDs for each failed test remain off. When all tests pass, all LEDs are turned off.

For more details about the POST, see the section “POST Failure” in the “Troubleshooting” chapter.

## Default Settings

Catalyst 2100 is configured with the default settings shown in Table 4-1.

**Table 4-1**      **Default Settings and Their Menus**

<b>Catalyst 2100 Feature</b>	<b>Default Setting</b>	<b>Management Console Menu and Page</b>
Switching mode	FastForward	“System Configuration” in the “Out-of-Band Management” chapter
Spanning-Tree Protocol	Enabled	“Spanning-Tree Configuration” in the “Out-of-Band Management” chapter
Addressing security	Disabled	“Port Addressing” in the “Out-of-Band Management” chapter
VLAN configuration	All ports belong to VLAN1	“VLAN Configuration” in the “Out-of-Band Management” chapter
Port monitoring	Disabled	“Monitoring Configuration” in the “Out-of-Band Management” chapter

## Connecting to Catalyst 2100 Ports

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Catalyst 2100 Feature	Default Setting	Management Console Menu and Page
Flooding unknown unicast packets	Enabled	“Port Addressing” in the “Out-of-Band Management” chapter
Flooding unregistered multicast packets	Enabled	“Port Addressing” in the “Out-of-Band Management” chapter
Full duplex	Disabled	“Port Configuration” in the “Out-of-Band Management” chapter
Assign IP address to Catalyst 2100	0.0.0.0	“IP Configuration” in the “Out-of-Band Management” chapter
Define trap manager	0.0.0.0	“Network Management (SNMP) Configuration” in the “Out-of-Band Management” chapter
Action on address violation	Suspend	“System Configuration” in the “Out-of-Band Management” chapter

If you find some of these terms unfamiliar, they are described in detail in the “Concepts” chapter. See the section “Configuration Menus” in the “Out-of-Band Management” chapter for instructions on changing the default settings. If you’re using SNMP you can set these parameters according to the list of supported MIB objects found in the section “Standard MIBs and MIB Extensions” in the “In-Band Management” chapter.

## Connecting to Catalyst 2100 Ports

Once Catalyst 2100 is installed you can begin connecting devices to its ports. Note that all UTP connections, whether 10Base-T or 100Base-TX, must be within 100 meters of Catalyst 2100.

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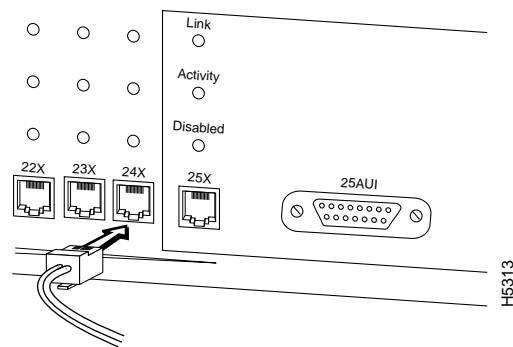
**Note** Spanning tree takes more than 30 seconds to configure its topology. No packet forwarding takes place during this time.

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## Connecting to 10Base-T Ports 1 Through 5

**Step 1** Insert the cable into one RJ-45 connector as shown in Figure 4-2.

**Figure 4-2** Inserting the Cable into the RJ-45 Connector



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**Note** Make sure the cable is wired for 10Base-T and that it is a straight-through twisted-pair cable. Pinouts for the cables are described in the section “Catalyst 2100 Connector Pinouts” in the Appendix.

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**Step 2** Insert the other end of the cable into the RJ-45 connector of the target device. The link LED will light when both Catalyst 2100 and the connected device are turned on. If the link LED does not light, the device at the other end may not be turned on, there may be a cable problem or a problem with the adapter installed in the attached device. See the “Troubleshooting” chapter for more information.

**Step 3** Reboot the connected device as needed.

Repeat steps 1 through 3 for each device that needs to be connected.

### Connecting to the 100Base-TX Ports

Use this procedure to connect the 100Base-TX ports to servers, hubs, routers or other Catalyst 2100s.

**Step 1** Insert the cable into the RJ-45 connector as shown in Figure 4-3.

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**Note** Ensure that the twisted-pair cable you are using is wired for 100Base-T. Use a straight-through cable to connect to a device not marked with an **X**, such as a server or workstation. Use a crossover cable to connect to a port marked with an **X**, such as another Catalyst 2100 or other 100Base-TX compatible hub, switch or router. Pinouts for these cables are described in “Catalyst 2100 Connector Pinouts” in the Appendix.

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**Step 2** Insert the other end of the cable into the RJ-45 connector of the target device. The link LED will light when both Catalyst 2100 and the connected device are turned on. If the link LED does not light, the device at the other end may not be turned on, there may be a cable problem or a problem with the adapter in the attached device. See the section “Diagnosing Problems” in the “Troubleshooting” chapter for more information.

**Step 3** Reboot the connected device as needed.

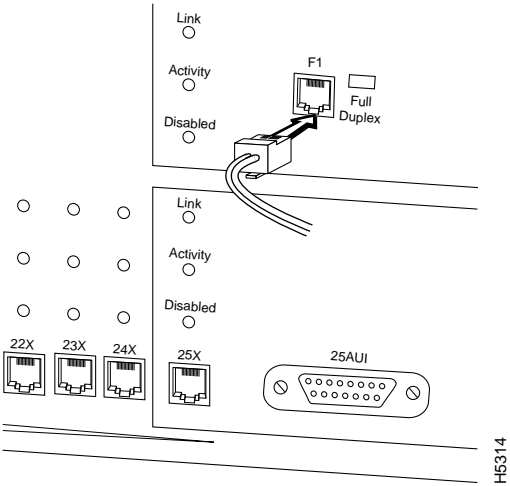
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**Note** Because of their frequent broadcast messages, servers and routers will not usually need to be rebooted.

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**Step 4** Repeat steps 1 through 4 for each device to be connected.

Figure 4-3 Connecting to the 100Base-TX Ports



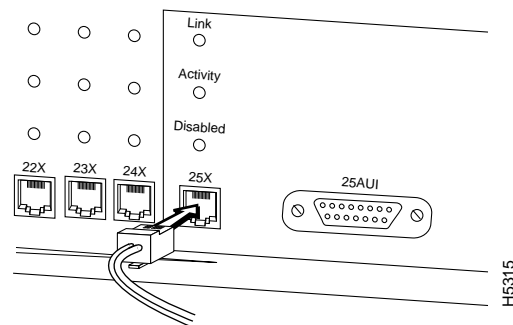
## Connecting to Catalyst 2100 Ports

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### Connecting to Port 25

Port 25 is described separately because it can be connected via an RJ-45 or AUI connector. Only one connector for the port can be used at a time. Catalyst 2100 can self-sense the connector being used and no configuration is necessary. You can also define which connector is to be used through the Catalyst 2100 management console or an SNMP MIB object.

**Figure 4-4** Connecting to Port 25



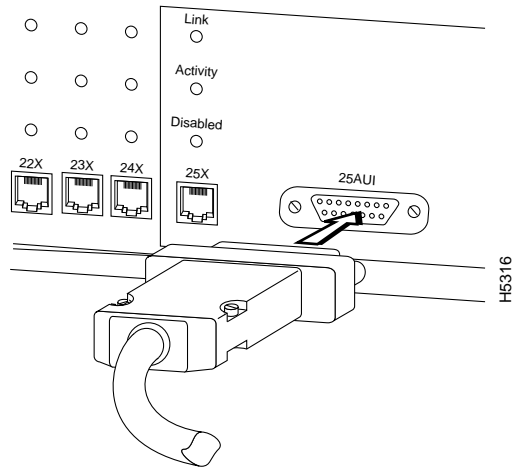
If you are using the RJ-45 connector, use the procedure in the section “Connecting to 10Base-T Ports 1 Through 5” in this chapter to connect to another device.

### Connecting via the AUI Connector

Use the AUI connector on the front panel to connect to an external transceiver for attachment to a thick coaxial, thin coaxial, or fiber-optic cable.

- Step 1** Install the appropriate external transceiver on the network. Refer to the transceiver manual for installation instructions.
- Step 2** Insert the AUI cable into the AUI connector on Catalyst 2100, as shown in Figure 4-5.
- Step 3** Slide the latch into the closed position.
- Step 4** Attach the other end of the cable to the transceiver.

**Figure 4-5** Connecting to the Network via the AUI Connector



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**Note** The maximum AUI cable length is 50 meters. The link LED is not active when the AUI connector is used.

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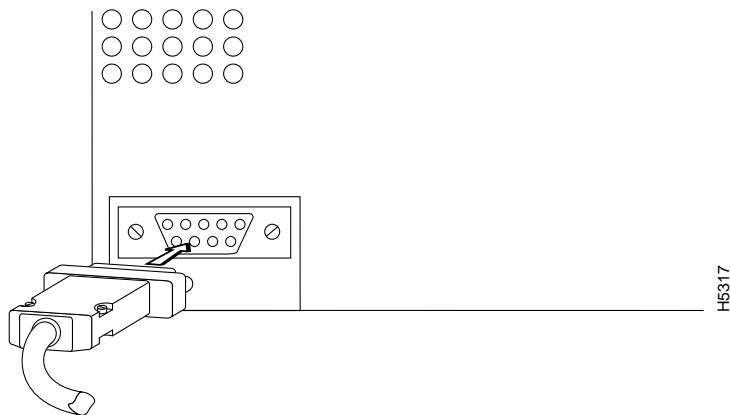
## Connecting to Catalyst 2100 Ports

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### Connecting a Terminal via the RS-232 Port

Use the RS-232 cable shipped with Catalyst 2100 to connect a terminal to the RS-232 port on the Catalyst 2100's back panel.

**Figure 4-6** Inserting the RS-232 Connector



- Step 1** Using the cable supplied with the Catalyst 2100, insert the connector into the receptacle as shown in Figure 4-6.
- Step 2** Insert the other end of the cable into the terminal.
- Step 3** Boot the terminal emulation program on your terminal.
- Step 4** The Catalyst 2100 logon panel appears.

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**Note** Use a null-modem cable when attaching to a modem.

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Catalyst 2100 is configured to expect the following parameters:

- 9600 baud
- Eight data bits
- One stop bit
- Parity: none
- XON/XOFF protocol.

## Connecting to Catalyst 2100 Ports

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