

Optional Installations

This chapter describes some procedures that you might not need for your router:

- Installing the WAN Interface Card in the Router
- Installing a Flash PC Card
- Connecting an ISDN Telephone to the Cisco 1604
- Wall-Mounting the Router

Installing a WAN Interface Card

Cisco 1600 series routers can support an additional WAN port on a one-port WAN interface card that is installed in the router. This chapter describes the supported WAN interface cards and describes the general procedure for installing any WAN interface card in any Cisco 1600 series router.

For information about installing and connecting a specific card, refer to the *Cisco WAN Interface Cards Hardware Installation Guide* that came with the card.

This procedure describes how to install a WAN interface card in a Cisco 1600 series router. This example use an ISDN BRI U card and a Cisco 1601 router. The same procedure is used to install any of the Cisco 1600-compatible cards in any Cisco 1600 series router.

Safety Information

This section lists safety warnings that you should be aware of before installing a WAN interface card in the router.



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 document that accompanied the router.)



Warning Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals. (To see translated versions of this warning, refer to the document that accompanied the router.)



Warning Before opening the chassis, disconnect the telephone-network cables (from the card) to avoid contact with telephone-network voltages. (To see translated versions of this warning, refer to the document that accompanied the router.)



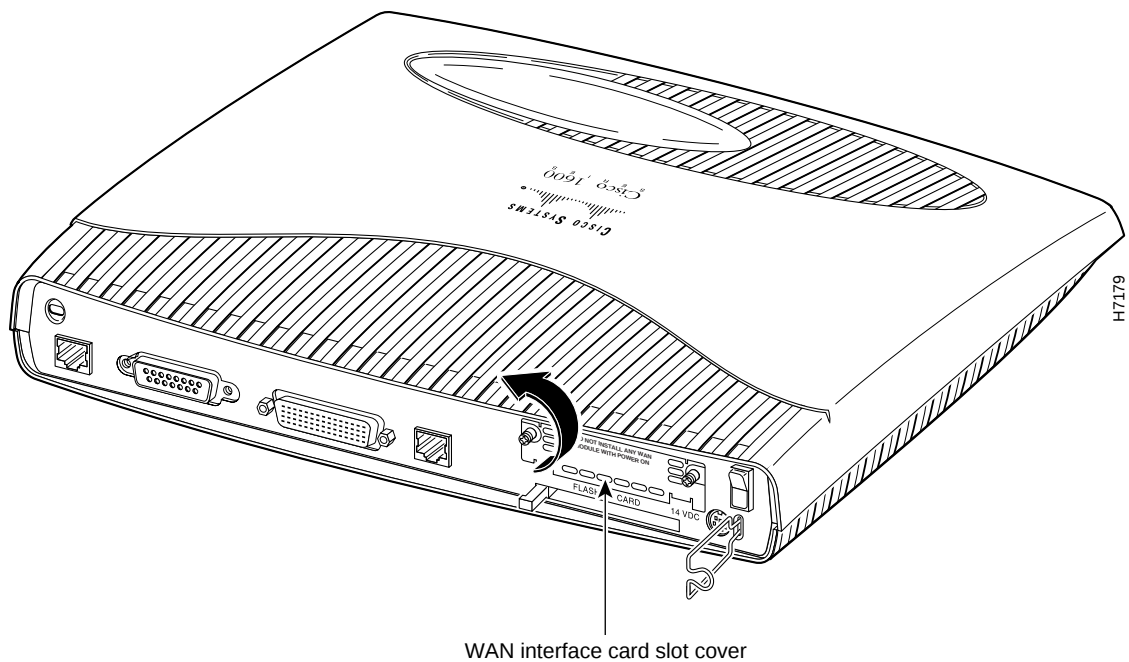
Warning Do not work on the system or connect or disconnect cables during periods of lightning activity. (To see translated versions of this warning, refer to the document that accompanied the router.)

Installing the WAN Interface Card in the Router

Follow these steps to install the card in a Cisco 1600 series router:

- Step 1** Turn the router OFF, and disconnect the cable from the socket labeled 14 VDC on the rear panel of the router.
- Step 2** Loosen the captive screws on the WAN interface card-slot cover on the rear panel of the router (Figure 3-1).

Figure 3-1 Removing the Slot Cover (Cisco 1601 Shown)



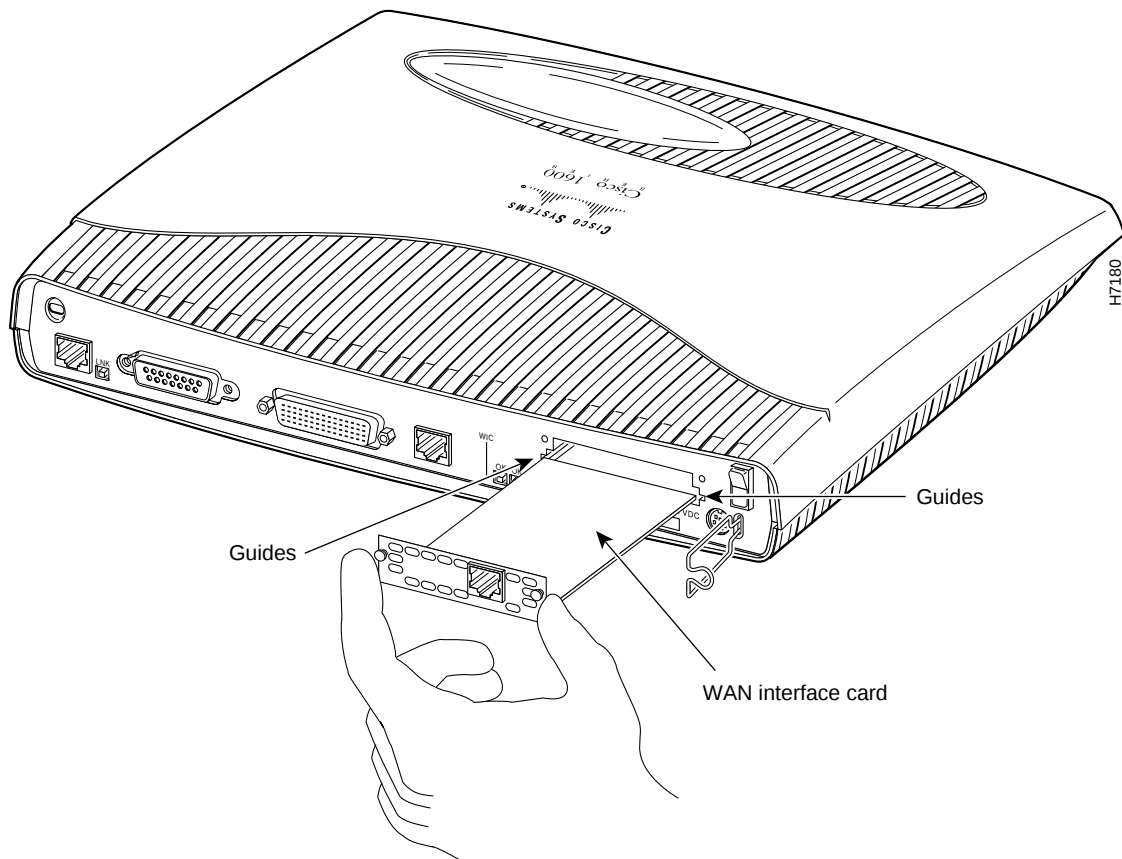
- Step 3** Remove the metal plate that covers the WAN interface card slot.
- Step 4** Hold the WAN interface card by the front panel, and line up the edges of the card with the guides (Figure 3-2).

Installing a WAN Interface Card



Caution Do not connect a WAN cable to the card until you have completed the installation procedure.

Figure 3-2 Installing the WAN Interface Card in the Router (Cisco 1601 and BRI U Card Shown)



Step 5 Insert the card in the slot and gently push it in until the front panel of the card is flush with the rear panel of the router.

Step 6 Tighten the card captive screws.

For more information about the card that you are using, refer to the *Cisco WAN Interface Cards Hardware Installation Guide* that came with the card.

Installing a Flash PC Card

This section explains how to install the Flash PC card. The Flash PC card is a writable card used to download new software to the router over the WAN.

Note Although the router is shipped from Cisco with the Flash PC card already installed, you might have to install it if someone has removed the card for any reason. For example, to configure your router, the system administrator might remove the card, add a configuration file to it, and then return it to you.

Follow these steps to install the Flash PC card:

- Step 1** Turn the router OFF.
- Step 2** Insert the connector end of the card in the router slot, aligning the card edges along the card-slot guides.
- Step 3** Push the Flash PC card into the slot (Figure 3-3) until the card is seated.

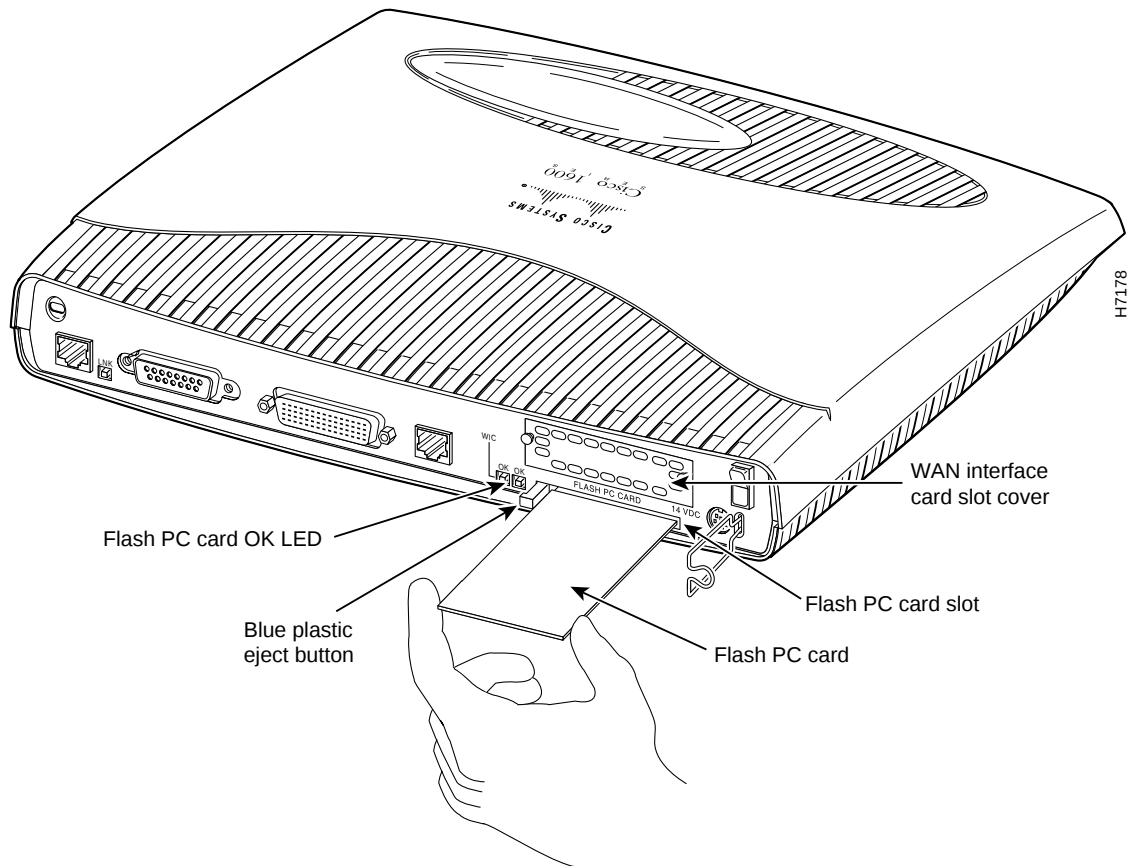
When the card is completely seated in the connector, the blue button left of the Flash PC card slot (Figure 3-3) pops out. If the blue button does not pop out, the card is not seated. Press the blue button, remove the card, and reinsert it.



Caution Do not remove the Flash PC card from RFF router models while the router is operating. The RFF models cannot operate without the Flash PC card.

Installing a Flash PC Card

Figure 3-3 Installing a Flash PC Card (Cisco 1601 Shown)



Note After you have powered up the router, you can check that the card is functioning correctly. Refer to the chapter “Installing the Router” earlier in this guide for information on how to power up the router.

Connecting an ISDN Telephone to the Cisco 1604

This section describes how to connect an ISDN telephone (or another ISDN device) to the ISDN PHONE port on the rear panel of the Cisco 1604. The ISDN PHONE port is only for connecting a second ISDN device. Routing cannot be performed over this port.

Note The router does not supply power to a device connected to the ISDN PHONE port. Any device connected to the ISDN PHONE port must have its own internal or external power supply.

Configuration Changes

When you are connecting a second ISDN device to the ISDN line through the router, you need to use subaddressing on the ISDN line.

For more information about using subaddressing, refer to the “ISDN BRI Line Configuration Requirements” section in the “Configuring the ISDN Line” appendix.

Before Installing the Telephone

This procedure in this section assumes that you have already connected the router ISDN Ø U port to the ISDN wall-jack as described in the “Connecting the Cisco 1604 to the WAN” section in the “Installing the Router” chapter earlier in this guide.

Installing the Telephone

This example procedure describes how to connect an AT&T ISDN telephone (model ISDN 8510T) and an AT&T external power supply (model MSP-1) that supplies power to this telephone. Depending on the model of telephone and power supply that you are installing, the procedure for connecting the telephone and power supply could differ slightly from the one shown in this section.

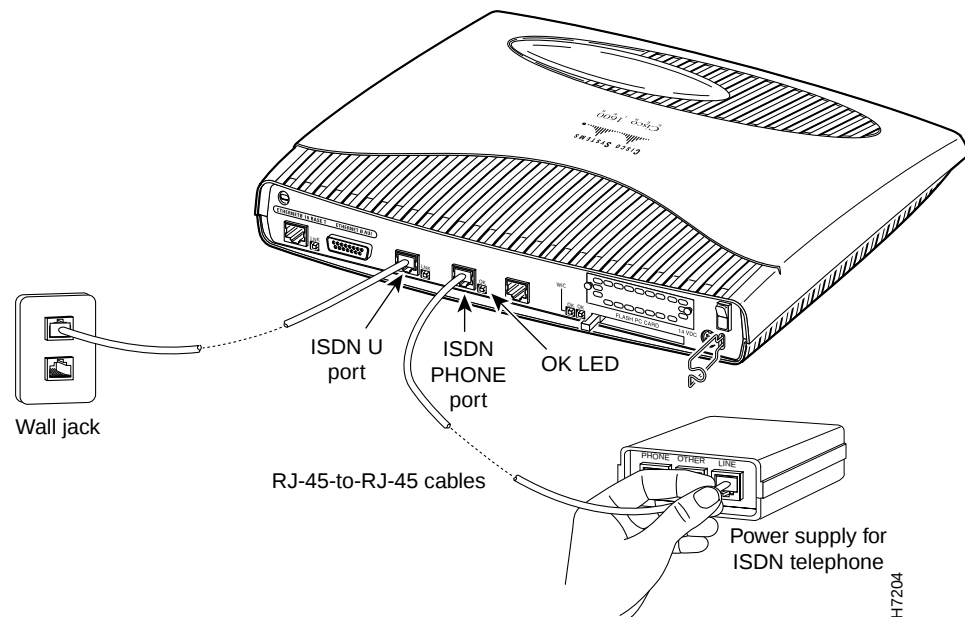
Connecting an ISDN Telephone to the Cisco 1604

Note If the ISDN telephone model you are using does not require an external power supply, connect the ISDN telephone RJ-45-to-RJ-45 cable directly to the router ISDN PHONE port.

Follow these steps to connect an ISDN telephone to the router:

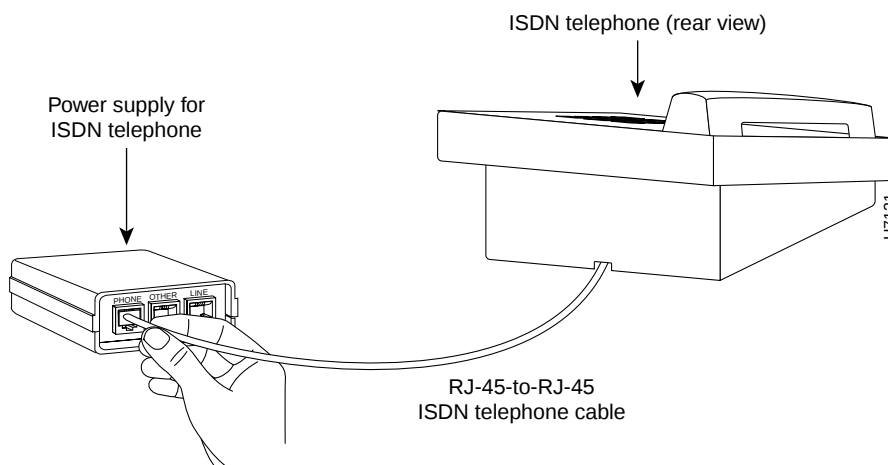
- Step 1** Connect an RJ-45-to-RJ-45 cable (included) to the ISDN PHONE on the router.
- Step 2** Connect the other end of the cable to the LINE port on the ISDN telephone power supply, as shown in Figure 3-4.

Figure 3-4 Connecting an ISDN Telephone Power Supply to a Cisco 1604



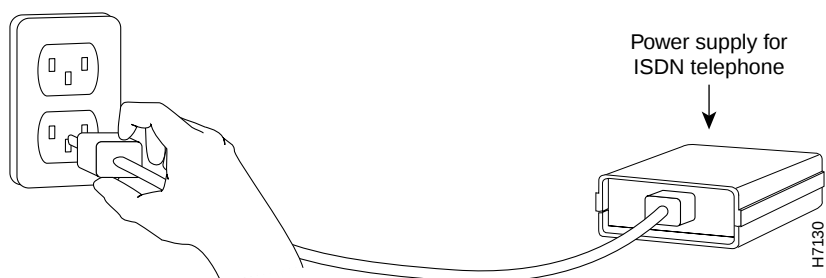
- Step 3** Connect the ISDN telephone RJ-45 cable to the PHONE port on the ISDN telephone power supply, as shown in Figure 3-5.

Figure 3-5 Connecting an ISDN Telephone to a Power Supply



Step 4 Connect the power supply cable to the power outlet, as shown in Figure 3-6.

Figure 3-6 Connecting an ISDN Telephone Power Supply to a Power Outlet



Step 5 The OK LED on the rear panel of the router (next to ISDN PHONE port) lights when the second ISDN device has synchronized with the central office switch.

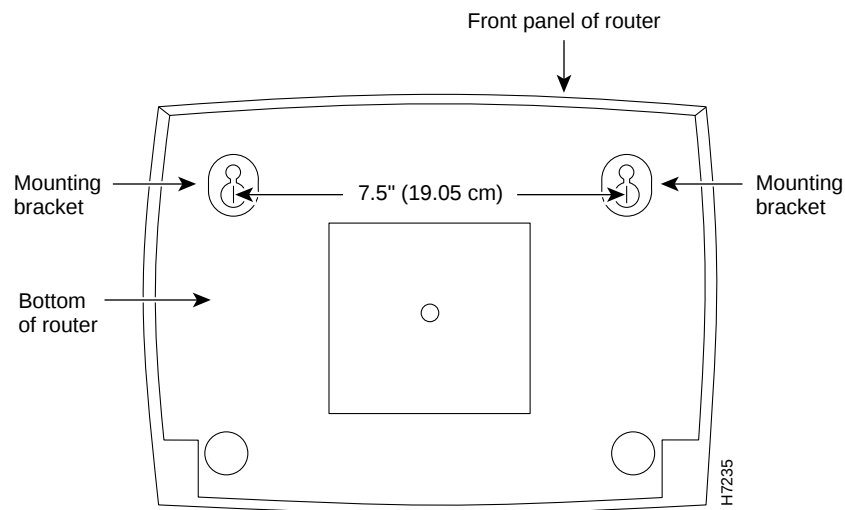
Wall-Mounting the Router

Cisco 1600 series routers can be wall-mounted by using two number-six, 3/4-inch screws (not included) and the molded mounting brackets on the bottom of the router (see Figure 3-7).



Caution If you install the screws in drywall, use hollow wall-anchors (1/8 inch by 5/16 inch) to secure the screws. If the screws are not properly anchored in wallboard or drywall, the strain of the network cable connections could pull the router from the wall.

Figure 3-7 Wall-Mount Brackets (Bottom of Router)

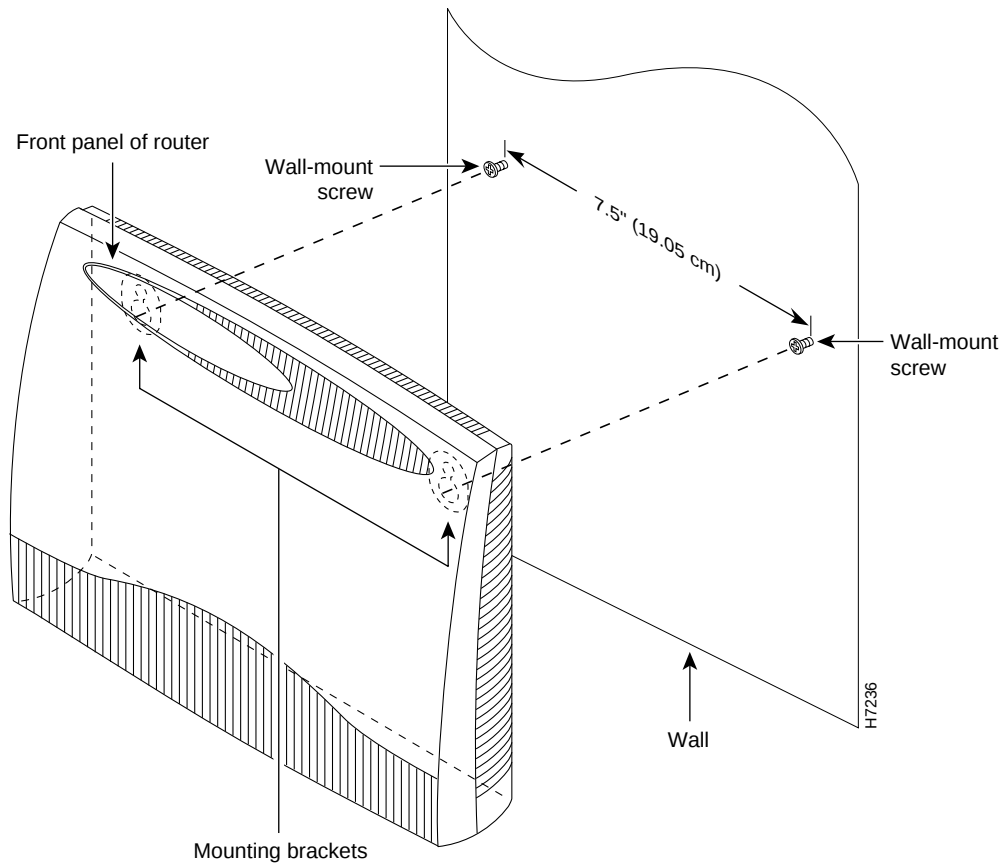


Follow these steps to mount the router on a wall or other vertical surface, as shown in Figure 3-8:

- Step 1** Install the two screws 7.5 inches (19.05 centimeters) apart on a wall or other flat surface.

- Step 2** Hang the router on the screws by the mounting brackets so that the following conditions are met:
- The front panel LEDs face upward and are easily visible. You will use these LEDs to verify that the router is operating properly. Mounting the router in this position also reduces strain on the network cable connections.
 - The desktop power supply does not hang from its cable. If the power supply is not supported, it will disconnect from its cable.

Figure 3-8 Mounting the Router on a Wall



Wall-Mounting the Router
