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Cisco 7200 Series 280-Watt AC-Input Power Supply Replacement Instructions

Product Numbers: PWR-7200-AC=, PWR-7200-ACA=, PWR-7200-ACE=, PWR-7200-ACI=, PWR-7200-ACU=, MAS-7200PSCOVER=

This document explains how to remove and replace the 280-Watt (W) AC-input power supply in the Cisco 7200 series routers. It includes instructions for powering down the router, removing an installed power supply, and installing a new power supply. This document also includes steps for verifying the initialization of the system after you power up the router.

Note Use this document in conjunction with the *Cisco 72xx Installation and Configuration Guide* that shipped with your Cisco 7200 series router.

The following sections are included in this document:

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Corporate Headquarters Cisco Systems, Inc. 170 West Tasman Drive San Jose, CA 95134-1706 USA

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Additional Information

The Cisco Internetwork Operating System (Cisco IOS) software running your router contains extensive features and functionality. The effective use of many of these features is easier if you have more information at hand.

Cisco documentation and additional literature are available on a CD-ROM called Cisco Connection Documentation, Enterprise Series, which ships with your chassis. The CD is updated and shipped monthly, so it might be more up to date than printed documentation. To order additional copies of the Cisco Connection Documentation, Enterprise Series CD, contact a Cisco Sales or Customer Service representative. You can also access Cisco technical documentation on the World Wide Web URL http://www.cisco.com.

For additional information on configuring the Cisco 7200 series routers, the following documentation resources are available to you:

- Cisco Connection Documentation, Enterprise Series CD-ROM
- For systems with Cisco IOS Release 11.1(6), a Cisco-approved Release 11.1(6) beta software version, or a later Cisco IOS release, refer to the following modular configuration and modular command reference publications, as appropriate for your configuration:
 - Configuration Fundamentals Configuration Guide
 - Configuration Fundamentals Command Reference
 - Wide-Area Networking Configuration Guide
 - Wide-Area Networking Command Reference
 - Network Protocols Configuration Guide
 - Network Protocols Command Reference
 - Bridging and IBM Networking Configuration Guide
 - Bridging and IBM Networking Command Reference
 - Configuration Builder Getting Started Guide
 - Troubleshooting Internetworking Systems
- For hardware installation and maintenance information on the Cisco 7200 series routers, refer to the *Cisco 72xx Installation and Configuration Guide* that shipped with your router.
- To obtain general information about documentation, refer to the section "Cisco Connection Online," on page 18, or call Customer Service at 800 553-6387 or 408 526-7208. Customer Service hours are 5:00 a.m. to 6:00 p.m. Pacific time, Monday through Friday (excluding Cisco-observed company holidays). You can also send e-mail to cs-rep@cisco.com. You can also refer to the *Cisco Information Packet* that shipped with your router.

Product Overview

The following sections give brief overviews of the Cisco 7200 series routers and the AC-input power supply.

Cisco 7200 Series Overview

The Cisco 7200 series consists of the four-slot Cisco 7204 and the six-slot Cisco 7206. The Cisco 7200 series routers support multiprotocol, multimedia routing and bridging with a wide variety of protocols and any combination of Ethernet, Fast Ethernet, Token Ring, Fiber Distributed Data Interface (FDDI), and serial media. Network interfaces reside on port adapters that provide a connection between the routers' three Peripheral Component Interconnect (PCI) buses and external networks. Port adapters can be placed in any available port adapter slot, in any desired combination.

The front of the Cisco 7200 series routers provides access to an Input/Output (I/O) controller and up to four or six network interface port adapters. The I/O controller has a local console port for connecting a data terminal (or data terminal equipment [DTE]) and an auxiliary port for connecting a modem (or other data communications equipment [DCE]) or other devices for configuring and managing the router; two Personal Computer Memory Card International Association (PCMCIA) slots for Flash memory cards; and an optional Fast Ethernet port. The Fast Ethernet port provides a 100-Mbps connection to the network. Figure 1 shows the Cisco 7204. Figure 2 shows the Cisco 7206.

Note The I/O controller is available with or without a Fast Ethernet port. Figure 1 and Figure 2 show an I/O controller with a Fast Ethernet port.

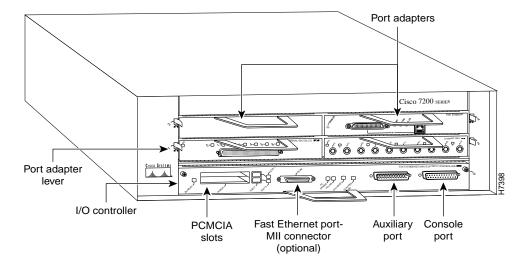


Figure 1 Cisco 7204—Front View

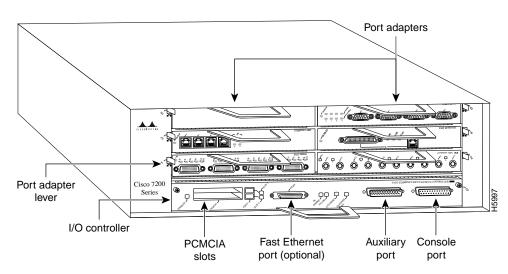


Figure 2 Cisco 7206—Front View

The port adapters installed in the Cisco 7200 series routers are of the same type as those installed on the second-generation Versatile Interface Processors (VIP2s) in the Cisco 7000 family routers. The port adapters installed in the Cisco 7200 series routers support online insertion and removal (OIR).

Port adapter slots in the Cisco 7200 series are numbered from left to right, beginning with port adapter slot 1 and continuing through port adapter slot 4 for the Cisco 7204, and slot 6 for the Cisco 7206. Port adapter slot 0 is the Fast Ethernet port on the I/O controller. Figure 3 shows the port adapter slot numbering for the Cisco 7206.

Note In Figure 3, a blank port adapter is installed in port adapter slot 5. To ensure adequate airflow across the router's internal components, ensure that each port adapter slot is filled with either a port adapter or a blank port adapter.

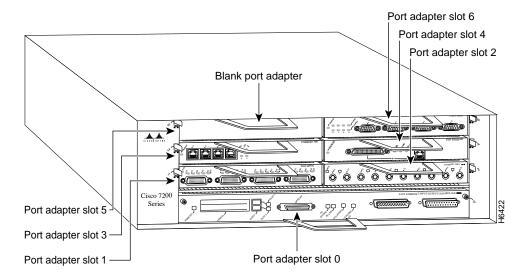


Figure 3 Port Adapter Slot Numbering—Cisco 7206 Shown

The rear of the Cisco 7200 series routers provides access to the network processing engine and up to two 280W, AC-input or DC-input power supplies (refer to Figure 4).

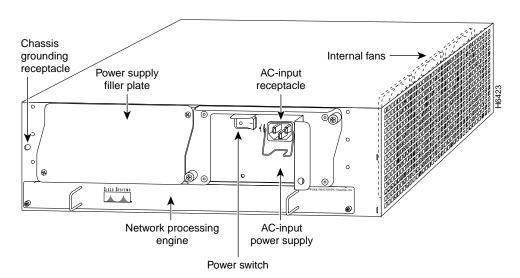


Figure 4 Cisco 7200 Series Router—Rear View

The network processing engine has no external connectors or LEDs. There are two handles for removing and installing the network processing engine and two captive installation screws for securing it to the chassis.

A fully configured Cisco 7200 series router operates with only one installed power supply; however, a second, optional power supply provides hot-swappable, load-sharing, redundant power. The power supply has the router's main power switch and either an AC-input power receptacle, or a hardwired DC-input power cable (depending on the type of installed power supply). Adjacent to the power supply bays there is a 10 x 32-inch chassis ground receptacle that provides a chassis ground connection for ESD equipment or a grounding wire (refer to Figure 4).

Note The Cisco 7200 routers come equipped with either one 280W AC-input or one 280W DC-input power supply; a second 280W AC-input or DC-input power supply is available for the router. Figure 4 shows the rear of a Cisco 7200 series router that is configured with a single 280W AC-input power supply. (A power supply filler plate is installed over the second power supply bay.)

Three internal fans draw cooling air into the chassis interior and across internal components to maintain an acceptable operating temperature (refer to Figure 4). The three fans are enclosed in a tray that is located in the subchassis.

The I/O controller, port adapters, power supplies, and network processing engine slide into their respective chassis slots and connect directly to the router's midplane; there are no internal cables to connect. The midplane distributes DC power from the power supplies to the I/O controller, port adapters, fan tray, and network processing engine.

AC-Input Power Supply Overview

A fully configured Cisco 7200 series router comes equipped with one 280W, AC-input power supply. An optional, second AC-input power supply is available for the router; it must be must be ordered. The router operates with one installed power supply; however, the second power supply provides hot-swappable, load-sharing redundant power.

The faceplate of the 280W AC-input power supply has a green OK LED, a power switch, a handle for removing, installing, and handling the powers supply, an AC-input power receptacle, and two captive installation screws (refer to Figure 5).

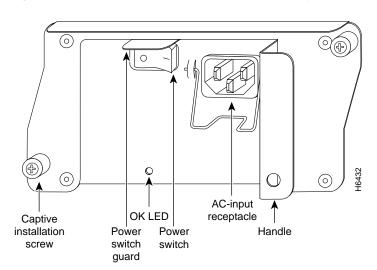


Figure 5 Cisco 7200 Series AC-Input Power Supply Faceplate

The AC-input power supply operates between 100 and 240-VAC input voltage and supplies +5V, +12V, -12V, and +3V DC power to the router's internal components through the router midplane.

Note Each AC-input power supply operating at 120 VAC requires a minimum of 5A service. We recommend powering the Cisco 7200 series routers from a 15A receptacle at the power source.

The power supply handle provides a grip point for pulling the power supply out of the router (refer to Figure 5). The two captive installation screws secure the power supply in the router. A modular power cable connects the AC-input power supply to the site AC power source.

A cable-retention clip on the power supply secures the cable in the power supply and provides strain relief for the power cable.

The power switch turns the power supply on and starts the system.

Installation Prerequisites

This section provides a list of parts and tools you need to remove and replace the AC-input power supply in the Cisco 7200 series routers. This section also includes safety and ESD-prevention guidelines to help you avoid injury to yourself and damage to the equipment.

List of Parts and Tools

You need the following tools and parts to remove and replace the subchassis and fan tray. If you need additional equipment, contact a service representative for ordering information.

- A new AC-input power supply
- Number 2 Phillips screwdriver
- 3/16-inch flat-blade screwdriver
- Several cable ties (if the router is mounted in an equipment rack)

Safety Guidelines

Following are safety guidelines that you should follow when working with any equipment that connects to electrical power or telephone wiring.

Electrical Equipment Guidelines

Follow these basic guidelines when working with any electrical equipment:

- Before beginning any procedures requiring access to the chassis interior, locate the emergency power-off switch for the room in which you are working.
- Disconnect all power and external cables before moving a chassis.
- Do not work alone when potentially hazardous conditions exist.
- Never assume that power has been disconnected from a circuit; always check.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- Carefully examine your work area for possible hazards such as moist floors, ungrounded power extension cables, and missing safety grounds.

Telephone Wiring Guidelines

Use the following guidelines when working with any equipment that is connected to telephone wiring or to other network cabling:

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.

Preventing Electrostatic Discharge Damage

Electrostatic discharge (ESD) damages equipment and impairs electrical circuitry. ESD occurs when printed circuit boards are improperly handled and results in complete or intermittent failures.

The I/O controller, network processing engine, and port adapters consist of a printed circuit board that is fixed in a metal carrier. Electromagnetic interference (EMI) shielding, connectors, and a handle are integral components of the carrier. Handle the I/O controller, network processing engine, and port adapters by their carrier edges and handle only; never touch the printed circuit board components or connector pins.

Although the metal carrier helps to protect the printed circuit boards from ESD, wear a preventive antistatic strap whenever handling the network processing engine, I/O controller, or port adapters. Ensure that the strap makes good skin contact and connect the strap's clip to an unpainted chassis surface to safely channel unwanted ESD voltages to ground.

If no wrist strap is available, ground yourself by touching the metal part of the chassis.



Caution Make sure to tighten the captive installation screws on the network processing engine and the I/O controller (use a number 2 Phillips's screwdriver). These screws prevent accidental removal, provide proper grounding for the router, and help to ensure that the network processing engine and the I/O controller are properly seated in the router midplane.

Following are guidelines for preventing ESD damage:

- Always use an ESD wrist strap or ankle strap when installing or replacing the I/O controller, network processing engine, or port adapters. Ensure that the ESD strap makes contact with your skin.
- Handle the I/O controller, network processing engine, or port adapters by their metal carrier edges and handles only; avoid touching the printed circuit board components or any connector pins.
- When removing the I/O controller, network processing engine, or port adapters, place them on an antistatic surface with the printed circuit board components facing upward, or in a static shielding bag. If you are returning an I/O controller, network processing engine, or port adapter to the factory, immediately place it in a static shielding bag.



Caution Periodically check the resistance value of the antistatic strap. The measurement should be within the range of 1 and 10 megohms.

Ensuring Easy Access to the Router

If your Cisco 7200 series router is installed in a standard 19-inch rack or in a 19-inch Telco rack, cables from other equipment in the rack may obstruct access to the rear of the router. Also, rack power strips or other permanent fixtures may obstruct access to the router. Review the following guidelines to ensure easy access to the rear of the router when it is installed in a rack. If the router is not installed in a rack, or if you already have clear access to the rear of the router, proceed to the following section "Removing and Replacing an AC-Input Power Supply."

Use the following guidelines to ensure easy access to the rear of the router when it is installed in a rack:

- Ensure that you have at least three to four feet of working space at the rear of the router.
- If cables from other equipment in the rack fall in front of the rear end of the router, carefully gather the cables (using care not to strain them) and use cable ties to anchor them away from the rear of the router.
- If access to the rear of the router is partially blocked by a power strip or some other permanent rack fixture, detach the router from the rack and carefully slide it forward until there is enough clearance to remove the power supply, the network processing engine, and the subchassis from the router. Detailed steps for detaching the router from the rack are contained in the following section "Removing and Replacing an AC-Input Power Supply."



Caution Make sure that at least one other person is available to support the front of the router as you slide it out from the rack and, if necessary, to continue to support it while you remove and insert the power supply, network processing engine, or subchassis.

Removing and Replacing an AC-Input Power Supply

The following sections explain how to remove and replace an AC-input power supply in a Cisco 7200 series router.

Single Power Supply Configuration

Removing and replacing the AC-input power supply in a single power supply configuration involves the following tasks:

- 1 Powering Down the Router and Disconnecting AC-Input Power
- 2 Removing the AC-Input Power Supply
- 3 Installing the AC-Input Power Supply and Connecting AC-Input Power
- 4 Reconnecting Input Power and Powering Up the Router

These tasks are described in detail in the following subsections.

Note The tasks for removing and replacing an AC-input power supply in a single Cisco 7204 or Cisco 7206 power supply configuration are the same. Therefore, the illustrations in the following sections show the Cisco 7206, unless indicated otherwise.

Powering Down the Router and Disconnecting AC-Input Power

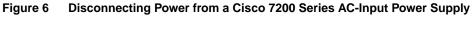
To power down a Cisco 7200 series router that has an installed AC-input power supply, complete the following steps:

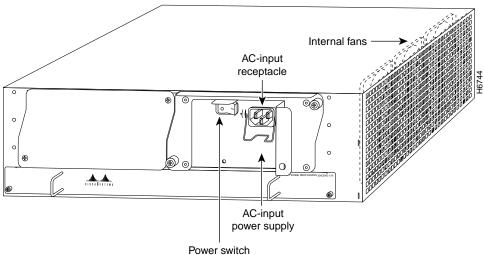
Note Before powering down the router, use the **copy running-config startup-config** command to save the router's running configuration to nonvolatile memory.

- Facing the rear of the router, place the power switch (on the power supply) in the OFF (0) position. Repeat this action if a second power supply is installed in the router.
- **Step 2** Observe the following items:
 - The green OK LED on the power supply turns off
 - The fans stop operating
 - The LEDs on the I/O controller turn off
 - The LEDs on the port adapters turn off

To disconnect AC input power to the Cisco 7200 series router, complete the following steps:

- **Step 1** Unplug input power cable from the power source.
- **Step 2** Push down on the cable-retention clip that secures the input power cable to the router's power supply.
- **Step 3** Unplug the other end of the input power cable from the power supply (refer to Figure 6).





Step 4 Repeat Step 2 through Step 1 if a second power supply is installed.

This completes the procedure for powering down the router and disconnecting AC-input power. Proceed to the section "Removing the AC-Input Power Supply."

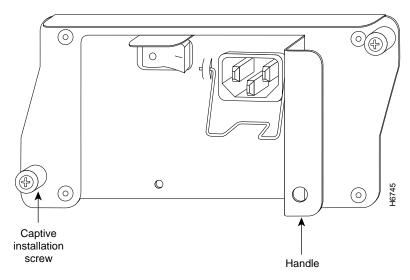
Removing the AC-Input Power Supply

To remove an AC-input power supply from a Cisco 7200 series router, complete the following steps:

Step 1 Using a number 2 Phillips screwdriver, loosen the two captive screws on the faceplate of the power supply (refer to Figure 7).

If the router is not installed in a standard 19-inch rack or in a Telco rack, skip to Step 5. If the router is installed in a rack, determine if any permanent rack fixtures, such as a power strip, are obstructing access to the power supply. If a rack fixture is obstructing access to the power supply, proceed to Step 2.

Figure 7 Captive Installation Screws and Handle on the AC-Input Power Supply



- **Step 2** Using a 3/16-inch flat-blade screwdriver, loosen the screws that secure the router to the front mounting strips of the rack.
- **Step 3** Position at least one person in front of the rack to support the front underside of the router.
- **Step 4** From the rear of the rack, carefully push the front of the router out of the rack until there is enough clearance to remove the power supply.
- **Step 5** Grasp the power supply handle and pull the AC-input power supply from the router.



Caution To maintain agency compliance requirements and meet EMI emissions standards for the Cisco 7200 series routers with a single power supply, the power supply filler plate must remain in the power supply bay adjacent to the installed power supply. Do not remove this filler plate from the router unless you intend to install a redundant power supply.

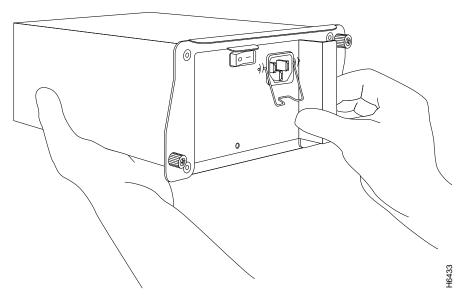
This completes the procedure for removing the AC-input power supply from a Cisco 7200 series router. Proceed to the following section "Installing the AC-Input Power Supply and Connecting AC-Input Power."

Installing the AC-Input Power Supply and Connecting AC-Input Power

To replace the AC-input power supply in a Cisco 7200 series chassis, complete the following steps:

- **Step 1** Make sure the power switch on the power supply is in the OFF (0) position.
- **Step 2** Grasp the power supply handle with one hand and place your other hand underneath the power supply for support (refer to Figure 8).

Figure 8 Holding the AC-Input Power Supply



- **Step 3** Align the power supply to the power supply bay.
- **Step 4** Slide the power supply completely in to the power supply bay until its faceplate is flush with the router's rear panel.



Caution When inserting a power supply into the router, do not use unnecessary force; slamming the power supply into the bay can damage the connectors on the rear of the supply and on the midplane.

Step 5 Seat the power supply in the router by tightening its captive screws with a number 2 Phillips screwdriver.

Note The power supply is not fully seated in the router midplane until you tighten its captive installation screws (use a number 2 Phillips screwdriver).

- **Step 6** If there is no second power supply, replace the filler plate on the empty power supply bay. Using a number 2 Phillips screwdriver, tighten the filler plate's captive screws.
- **Step 7** If you pushed the router from the rack, slowly guide the router back into the rack.
- **Step 8** Use a 3/16-inch flat-blade screwdriver to tighten the screws that secure the router to front mounting strips of the rack.



Caution To maintain agency compliance requirements and meet EMI emissions standards for the Cisco 7200 series routers with a single power supply, the power supply filler plate must remain in the power supply bay adjacent to the installed power supply. Do not remove this filler plate from the router unless you intend to install a redundant power supply.

This completes the procedures for replacing a power supply in the router. Proceed to the following section "Reconnecting Input Power and Powering Up the Router."

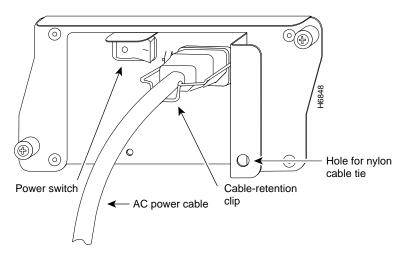
Reconnecting Input Power and Powering Up the Router

The following procedures explain how to reconnect AC-input power to a Cisco 7200 series router, power up the router, and verify a successful system boot.

To connect AC-input power to a Cisco 7200 series router, complete the following steps:

- Step 1 At the rear of the router, check that the power switch on the power supply is in the OFF (0) position.
- **Step 2** Slide the cable-retention clip down, away from the AC receptacle, and plug in the power cable.
- Step 3 Secure the cable in the power supply AC receptacle by sliding the cable-retention clip up until it snaps around the connector. The cable-retention clip provides strain relief for the AC power cable (refer to Figure 9).

Figure 9 Connecting AC-Input Power



Step 4 Plug the AC power supply cable into the AC power source.

Note Each AC-input power supply operating at 120 VAC requires a minimum of 5A service. We recommend powering the Cisco 7200 series routers from a 15A receptacle at the power source.

This completes the steps for connecting AC-input power to a Cisco 7200 series router.

To power up a Cisco 7200 series router that has an installed AC-input power supply, complete the following steps:

Step 1 Check for the following:

- Each port adapter is inserted in its slot and its respective port adapter lever is in the locked position
- The network processing engine and the I/O controller are inserted in their respective slots, and their captive installation screws are tightened
- All network interface cables are connected to the port adapters
- A Flash memory card is installed in its PCMCIA slot (if present)
- Each power cable is connected and secured with the cable-retention clip
- The console terminal is turned on
- Step 2 At the rear of the router, place the power switch on the power supply in the ON (|) position. Repeat this step if a second power supply is installed in the router. The green OK LED on the power supply turns on.
- **Step 3** Listen for the fans; you should immediately hear them operating.
- Step 4 During the boot process, observe the system's LEDs. The LEDs on most of the port adapters go on and off in irregular sequence. Some may go on, go out, and go on again for a short time. On the I/O controller, the IO Power OK LED comes on immediately.
- Observe the initialization process. When the system boot is complete (a few seconds), the network processing engine begins to initialize the port adapters and the I/O controller. During this initialization, the LEDs on each port adapter behave differently (most flash on and off). The enabled LED on each port adapter goes on when initialization is completed, and the console screen displays a script and system banner similar to the following:

```
Cisco Internetwork Operating System Software IOS (tm) 7200 Software (C7200-J-M), Version 11.1(472) [kpfjrgiu 100] Copyright (c) 1986-1996 by cisco Systems, Inc. Compiled Sun 21-Apr-96 04:10 by
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This completes the procedures for reconnecting input power and powering up the router. This also completes the procedure for replacing the AC-input power supply in a single Cisco 7200 series power supply configuration.

Dual Power Supply Configuration

Removing and replacing an AC-input power supply in a dual power supply configuration involves the following tasks:

- 1 Turning Off the Power Supply and Disconnecting AC Input Power
- 2 Removing the AC-Input Power Supply
- 3 Installing the AC-Input Power Supply and Connecting AC-Input Power
- 4 Reconnecting Input Power and Turning On the Power Supply

These tasks are described in detail in the following subsections.

Note The tasks for removing and replacing an AC-input power supply in a dual Cisco 7204 or Cisco 7206 power supply configuration are the same. Therefore, the illustrations in the following sections show the Cisco 7206, unless indicated otherwise.

Turning Off the Power Supply and Disconnecting AC Input Power

To turn off the AC-input power supply you plane to replace, complete the following steps:

- **Step 1** Facing the rear of the router, place the power switch (on the power supply) in the OFF (0) position.
- **Step 2** Observe the following items:
 - The green OK LED on the power supply turns off
 - The second power supply maintains full system power (the system continues to operate as normal)

To disconnect AC input power to the power supply, complete the following steps:

- **Step 1** Unplug the input power cable from the power source.
- **Step 2** Push down on the cable-retention clip that secures the input power cable to the router's power supply.
- **Step 3** Unplug the other end of the input power cable from the power supply.

This completes the procedure for turning off the power supply and disconnecting AC input power. Proceed to the section "Removing the AC-Input Power Supply."

Removing the AC-Input Power Supply

Complete the following steps to remove an AC-input power supply from a Cisco 7200 series router:

- **Step 1** Using a number 2 Phillips screwdriver, loosen the two captive screws on the faceplate of the power supply (refer to Figure 7).
 - If the router is not installed in a standard 19-inch rack or in a Telco rack, skip to Step 5. If the router is installed in a rack, determine if any permanent rack fixtures, such as a power strip, are obstructing access to the power supply. If a rack fixture is obstructing access to the power supply, proceed with Step 2.
- Step 2 Use a 3/16-inch flat-blade screwdriver to loosen the screws that secure the router to the front mounting strips of the rack.
- **Step 3** Position at least one person in front of the rack to support the front underside of the router.
- **Step 4** From the rear of the rack, carefully push the front of the router out of the rack until there is enough clearance to remove the power supply from the router.
- **Step 5** Grasp the power supply handle and pull the AC-input power supply from the router.

This completes the procedure for removing the AC-input power supply from a Cisco 7200 series router. Proceed to the following section "Installing the AC-Input Power Supply and Connecting AC-Input Power."

Installing the AC-Input Power Supply and Connecting AC-Input Power

To install an AC-input power supply in a Cisco 7200 series router, complete the following steps:

- **Step 1** Make sure the power switch on the power supply is in the OFF (0) position.
- **Step 2** Grasp the power supply handle with one hand and place your other hand underneath the power supply for support (refer to Figure 8).
- **Step 3** Align the power supply to the power supply bay.
- **Step 4** Slide the power supply completely in to the power supply bay until its faceplate is flush with the router's rear panel.



Caution When inserting a power supply into the router, do not use unnecessary force; slamming the power supply into the bay can damage the connectors on the rear of the supply and on the midplane.

Step 5 Seat the power supply in the router by tightening its captive screws with a number 2 Phillips screwdriver.

Note The power supply is not fully seated in the router midplane until you tighten its captive installation screws (use a number 2 Phillips screwdriver).

- **Step 6** If you pushed the router forward in the rack, slowly guide the router back into the rack.
- **Step 7** Use a 3/16-inch flat-blade screwdriver to tighten the screws that secure the router to front mounting strips of the rack.

This completes the procedures for replacing a power supply in the router. Proceed to the following section "Reconnecting Input Power and Turning On the Power Supply."

Reconnecting Input Power and Turning On the Power Supply

The following procedures explain how to reconnect AC-input power to a Cisco 7200 series router, turn on power supply, and verify the power supply is operating properly.

To connect AC-input power to a Cisco 7200 series router, complete the following steps:

- **Step 1** At the rear of the router, check that the power switch on the power supply is in the OFF (0) position (refer to Figure 10).
- **Step 2** Slide the cable-retention clip down, away from the AC receptacle, and plug in the power cable.

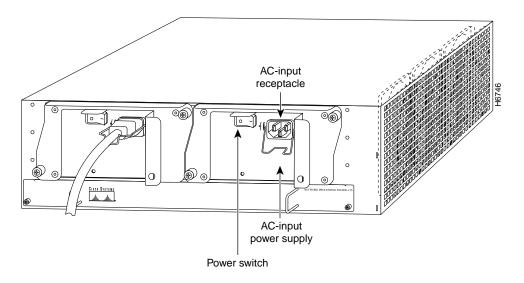


Figure 10 The Cisco 7200 Series Power Supply AC Receptacle and Power Switch

Note Each AC-input power supply operating at 120 VAC requires a minimum of 5A service. We recommend powering the Cisco 7200 series routers from a 15A receptacle at the power source.

- **Step 3** Secure the cable in the power supply AC receptacle by pushing the cable-retention clip up until it snaps into place around the connector. The cable-retention clip provides strain relief for the AC power cable.
- **Step 4** Plug the AC-input cable into the AC power source.

This completes the steps for connecting AC input power to a Cisco 7200 series router.

To turn on the power supply, complete the following steps:

- **Step 1** Place the power switch on the newly installed power supply in the ON (|) position.
- **Step 2** Observe the following:
 - The green OK LED on the power supply turns on
 - The system continues to operate as normal

This completes the procedures for reconnecting input power and turning on the power supply. This also completes the procedure removing and replacing the AC-input power supply in a Cisco 7200 series router.

Cisco Connection Online

Cisco Connection Online (CCO), formerly Cisco Information Online (CIO), is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional content and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously—a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com.
- WWW: http://www-europe.cisco.com.
- WWW: http://www-china.cisco.com.
- Telnet: cco.cisco.com.
- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and baud rates up to 14.4 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

This document is to be used in conjunction with the Cisco 7204 Installation and Configuration Guide and the Cisco 7206 Installation and Configuration Guide publications.

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