Power Supply and Fan Module Installation

This chapter describes how to remove or install a new or replacement power supply module or fan module in the RPS 2300. See these sections:

For module descriptions, see Power Supply Modules, page 1-13 and Fan Module, page 1-8.

Installation Overview

This section describes the tools and equipment needed for installation, the applicable safety warnings, and the installation guidelines:

Tools and Equipment

Obtain these necessary tools and equipment:

- Ratcheting torque screwdriver with a Number-2 Phillips head that exerts up to 15 pound-force inches (lbf-in.) or 240 ounce-force inches (ozf-in.) of pressure. For 1150-W power supplies, the screwdriver shaft length should be at least 6-inches long.

- Power supply power cord retainer in the switch accessory kit.

Installation Guidelines

Observe these guidelines when removing or installing a power supply module or fan module:

⚠️

Caution Do not force the power supply module or fan module into the slot. This can damage the pins on the RPS 2300 if they are not aligned with the unit.

- A power supply or fan module that is only partially connected to the RPS 2300 can disrupt the system operation.

- The RPS 2300 supports hot swapping of the power supply module when an external device is connected to it. When the RPS 2300 is not backing up an external device, you can remove and replace the power supply module without disconnecting the system power.

  - If two 1150-W power supply modules are installed in the RPS 2300, you can remove one of the modules when backing up an external device.

  - If two 750-W power supply modules are installed and the RPS 2300 is backing up a device with an 1150-W power supply, you cannot remove any of the modules from the RPS 2300.

  - When replacing the 1150-W or 750-W power supply module, verify that you are using the correct power cord (CAB-16AWG-AC).

⚠️

Warning **Do not reach into a vacant slot or chassis while you install or remove a module or a fan. Exposed circuitry could constitute an energy hazard.** Statement 206

⚠️

Warning   **The plug-socket combination must be accessible at all times, because it serves as the main disconnecting device.** Statement 1019

⚠️

Warning   **Only trained and qualified personnel should be allowed to install, replace, or service this equipment.** Statement 1030

⚠️

Warning   **Do not work on the system or connect or disconnect cables during periods of lightening activity.** Statement 1001

Installing an AC-Power Supply Module

This section describes how to remove and install a 750-W or a 1150-W AC-power supply module in the RPS 2300.

(Optional) A single ground screw and lug ring ships with the RPS 2300. Use the ground screw to attach to single ground lug to the RPS rear panel (see Figure 1-9 on page 1-16). Using a ratcheting torque screwdriver, torque the ground-lug screw to 60 lbf-in. (960 ozf-in.).

⚠️

Warning   **The plug-socket combination must be accessible at all times, because it serves as the main disconnecting device.** Statement 1019

To remove and install an AC-power supply module, follow these steps:

Step 1   Disconnect the power cord from the power source.

Step 2   Detach the power cord retainer from the power cord.

Step 3   Remove the power cord from the power connector.

Step 4   Use a Phillips screwdriver to loosen the two captive screws at the lower edge of the power supply module that secure the module to the RPS 2300 chassis.

⚠️
Caution   Make sure that the power supply slot is not open for more than 90 seconds while the system is operational.

Step 5   Remove the power supply module from the power supply slot by pulling on the extraction handle.

Step 6   Insert the new power supply module into the power supply slot, and gently push the module into the slot (Figure 3-1).
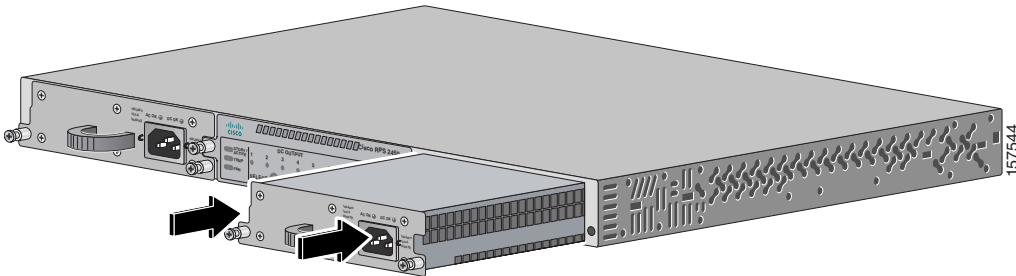
When correctly inserted, the 750-W power supply face plate is flush with the RPS 2300 front panel. The 1150-W power supply module extends 3.6 inches (9.14 cm) from the RPS 2300 front panel.

⚠️
Caution   When inserting a power supply module into the RPS 2300, do not use unnecessary force. Doing so can damage the connectors on the rear of the supply and on the midplane.

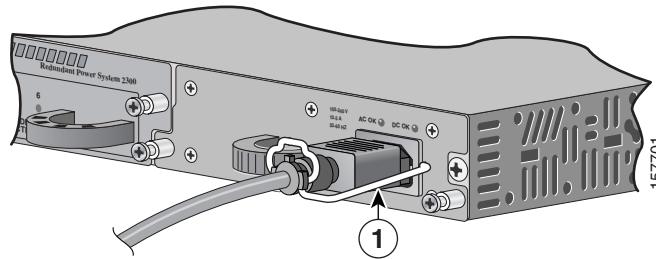*Figure 3-1*   *Inserting the AC-Power Supply Module*

Step 7   Align the two captive screws with the screw holes in the RPS 2300 front panel. Using a ratcheting torque screwdriver, torque each screw to 10 lbf-in. (160 ozf-in.).

Step 8   Connect the power cord (CAB-16AWG-AC) to the module and to an AC-power outlet.

Step 9   Snap the AC power cord retainer into place to secure the power cord (see Figure 3-2).

Figure 3-2   AC- Power Supply Module with Power Cord Retainer

| 1 | Power cord retainer |

Step 10   Confirm that the power supply module *AC OK* LED is green. See Table 1-4 on page 1-15 for a description of the RPS 2300 LEDs.

Installing a Fan Module

To remove and replace the fan module in the RPS 2300, follow these steps:

Step 1   Use a Phillips screwdriver to loosen the two captive screws at the upper edge of the fan module that secure the fan to the RPS 2300 chassis.

⚠

Caution   Replace the fan within 2 minutes to avoid overheating the RPS 2300.

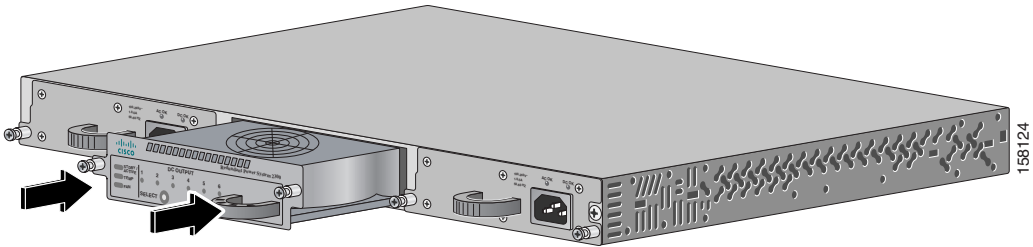**Step 2**   Remove the fan module from the fan slot by pulling on the extraction handle.

Step 3   Insert the new fan module into the fan slot, and gently push the module into the slot (Figure 3-3). When correctly inserted, the fan module is flush with the RPS 2300 front panel.

⚠

Warning   **Do not reach into a vacant slot or chassis while you install or remove a module or a fan. Exposed circuitry could constitute an energy hazard.** Statement 206

Figure 3-3   Inserting the Fan Module

Step 4   Align the two captive screws with the screw holes in the RPS 2300 front panel.
Using a ratcheting torque screwdriver, torque each screw to 5 lbf-in. (80 ozf-in.)