



CHAPTER 4

Installing Power Supply Units

This chapter describes how to install power supply units in any Cisco Nexus 7000 Series chassis. This chapter also explains how to connect the power supply to the AC power source. For information on managing power modes, see the [“Power Supply Configuration Modes”](#) section on page 6-8.

This chapter includes the following sections:

- [Installing Power Supply Units, page 4-1](#)
- [Connecting the Power Supply Units to AC Power, page 4-2](#)

Installing Power Supply Units

You can install two to three power supply units in the Cisco Nexus 7010 system and two to four power supply units in the Cisco Nexus 7018 system. In either system, you must fill each power supply bay with either a 6-kW or 7.5-kW power supply unit or cover the bay with a blank plate.



Caution

Although each AC power interface on every power supply unit includes a ground connection, you should also connect the chassis to an earth ground. For information on grounding the Cisco Nexus 7010 chassis, see the [“Grounding the Cisco Nexus 7010 Chassis”](#) section on page 2-11. For information on grounding the Cisco Nexus 7018 chassis, see the [“Grounding the Cisco Nexus 7018 Chassis”](#) section on page 3-12.

After you install the chassis and connect the chassis to an earth ground, you can install the power supply units.

To install the power supply units, follow these steps for each 6-kW or 7.5-kW power supply unit:

- Step 1** Ensure that the switch on the front of the power supply unit is in the STBY position and that the power supply unit is not connected to AC power sources.
- Step 2** Grasp the handle on the power supply unit with one hand, place the other hand under the unit, and orient the unit to an open power supply bay on the rear of the chassis.
- Step 3** Slide the unit all the way into the power supply bay until it is seated on the midplane and the four captive screws on the front of the unit are aligned with their holes in the chassis.
- Step 4** Secure each of the four capture screws into the chassis and tighten them to 8 in-lb (0.9 N·m).

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**Note**

If you do not have enough power supply units to fill all of the power supply bays, cover each empty power supply bay with a blank plate (Cisco part number 800-28658-01) and secure it by screwing in its captive screws to 8 in-lb (0.9 N·m).

Connecting the Power Supply Units to AC Power

To power your Cisco Nexus 7000 Series switch, you must connect the installed 6-kW or 7.5-kW power supply units to an AC power source. For a 6-kW power supply unit, you must connect one or two power cables to the power supply unit and to the AC power sources.

**Note**

The power cables required for each 6-kW power supply unit are shipped in the system accessory kit. Check the power cables with the list of available power cables in the *Cisco Nexus 7010 System Accessory Kit Contents* or *Cisco Nexus 7018 System Accessory Kit Contents* to be sure you have the correct cables. If you do not have the correct cables, contact Cisco Technical Support.

For a 7.5-kW power supply unit, you must connect one or two power cables, which are permanently attached to the power supply unit, to the AC power sources.

**Warning**

Read the installation instructions before connecting the system to the power source. Statement 1004

This section includes the following topics:

- [Prerequisites for Connecting Power Supply Units to AC Power, page 4-2](#)
- [Required Tools and Equipment, page 4-2](#)
- [Connecting 6-kW Power Supply Units, page 4-3](#)

Prerequisites for Connecting Power Supply Units to AC Power

Before you connect the power supply units to AC power sources, you must install the power supply units in the chassis, and you must make sure that the appropriate AC power source receptacles are located close enough to the power supply units so that the power cords can connect the power supply units to the AC power sources. For 6-kW power supply units, you must have one or two 20-A rated, 110-V or 220-V AC circuits. For 7.5-kW power supply units, you must have one or two 30-A rated, 220-V AC circuits.

You should connect each power supply input to a dedicated branch circuit. For North American installations, the 6-kW power supply unit requires one or two 20-A circuits, and the 7.5-kW power supply unit requires one or two 30-A circuits. For international installations, circuits must be sized by local and national codes. If you are using the input source redundancy mode, you must have at least two circuits.

Required Tools and Equipment

You need a Phillips screwdriver to secure power cables to the power supply units.

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Connecting 6-kW Power Supply Units

To connect a 6-kW power supply unit to one or more AC power sources, follow these steps:

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- Step 1** Ensure that the power supply switch located on the front of the power supply is set at STBY.
- Step 2** Plug one or two AC power cables into the power supply unit, and use a Phillips screwdriver to tighten the power cable retainer screws on the cable retention device.
- Step 3** Plug the other ends of the power cables into separate AC power sources supplied by the data center.



Note

If you are using the combined power mode or power supply redundancy, you can connect both power cables to the same 20-A circuit. If you are using the input source redundancy mode, you must connect each power cable to separate 20-A circuits.



Warning

Take care when connecting units to the supply circuit so that wiring is not overloaded. Statement 1018



Warning

**This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than:
250V, 20 A**

Statement 1005

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- Step 4** Turn the power supply switch from STBY to ON.
- Step 5** Verify that the power supply is receiving AC power by making sure that the INPUT and OUTPUT power supply LEDs are lit and the FAULT LED is not lit or blinking. For an explanation of all the power supply unit LEDs and the conditions that they indicate, see [Table C-5 on page C-5](#).



Note

When you first activate the power supply, you can verify the functionality of the LEDs by checking that each LED turns on for a couple of seconds.

If the Fault LED is blinking red, turn the power switch to STDBY, check the AC power connections on the power supply unit and the AC power source, and then turn the power switch back to ON. The Input and Output LEDs for the connected power supply units should be green and the Fault LED should be off.

Connecting 7.5-kW Power Supply Units

To connect a 7.5-kW power supply unit to one or more AC power sources, follow these steps:

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- Step 1** Ensure that the power supply switch located on the front of the power supply is set at STBY.
- Step 2** Plug each power cable into separate AC power sources supplied by the data center.

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**Note**

If you are using the combined power mode or power supply redundancy, you can connect both power cables to the same 30-A circuit. If you are using the input source redundancy mode, you must connect each power cable to separate 30-A circuits.

**Warning**

Take care when connecting units to the supply circuit so that wiring is not overloaded. Statement 1018

**Warning**

This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250V, 20 A Statement 1005

Step 3

Turn the power supply switch from STBY to ON.

Step 4

Verify that the power supply is receiving AC power by making sure that the INPUT and OUTPUT power supply LEDs are lit and the FAULT LED is not lit or blinking. For an explanation of all the power supply unit LEDs and the conditions that they indicate, see [Table C-5 on page C-5](#).

**Note**

When you first activate the power supply, you can verify the functionality of the LEDs by checking that each LED turns on for a couple of seconds.

If the Fault LED is blinking red, turn the power switch to STDBY, check the AC power connections on the power supply unit and the AC power source, and then turn the power switch back to ON. The Input and Output LEDs for the connected power supply units should be green and the Fault LED should be off.