



Site Planning



Warning

Before you install, operate, or service the system, read the *Site Preparation and Safety Guide*. This guide contains important safety information you should know before working with the system. Statement 200



Warning

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

This chapter describes how to prepare your site for the installation of your switch and contains these sections:

- [Site Power Requirements and Heat Dissipation, page 2](#)
- [System Ground Connection Guidelines \(Catalyst 2948G and 2980G Switches Only\), page 3](#)
- [Site-Planning Checklist, page 7](#)



Note

See the [“Site-Planning Checklist” section on page 7](#) to help ensure that you complete all site-planning activities before you install the switch.

Site Power Requirements and Heat Dissipation



Note

Catalyst 2948G, 2948G-GE-TX, and 2980G switches have internal power supplies. All of the switches support Cisco Redundant Power System (RPS) for redundant operation.

This section provides site power requirements and heat dissipation specifications for the Catalyst 2948G, 2948G-GE-TX, and 2980G switches. You should verify site power before you install a switch.

Power requirements can vary for each Catalyst switch. Knowing the power requirements can be useful for planning the power distribution system needed to support the switches. Heat specifications are used for determining the air-conditioning requirements for an installation.



Note

Refer to the *Site Preparation and Safety Guide* for site power requirements, preinstallation requirements, and EMI recommendations.

[Table 2-1](#) describes the power requirements and heat dissipation specifications for the Catalyst 2948G, 2948G-GE-TX, and 2980G switches.

Table 2-1 Power Requirements and Heat Dissipation Specifications

Model Number/ Module Type	Power Supply Output (Watts)	AC Input Power (Watts)	Heat Diss (BTU/Hr)	AC Input Current (Amps)
Catalyst 2948G switch	120	200	645	90 VAC: 2.0 120 VAC: 1.6 180 VAC: 1.0 240 VAC: 0.9
Catalyst 2948G-GE-TX switch	156	130	445	100 VAC: 1.5 240 VAC: 0.8

Table 2-1 Power Requirements and Heat Dissipation Specifications (continued)

Model Number/ Module Type	Power Supply Output (Watts)	AC Input Power (Watts)	Heat Diss (BTU/Hr)	AC Input Current (Amps)
Catalyst 2980G switch	175	300	950	90 VAC: 3.0 120 VAC: 2.4 180 VAC: 1.6 240 VAC: 1.0
Catalyst 2980G-A switch	156	208	670	90 VAC: 2.3 120 VAC: 1.7 180 VAC: 1.1 240 VAC: 0.9

System Ground Connection Guidelines (Catalyst 2948G and 2980G Switches Only)

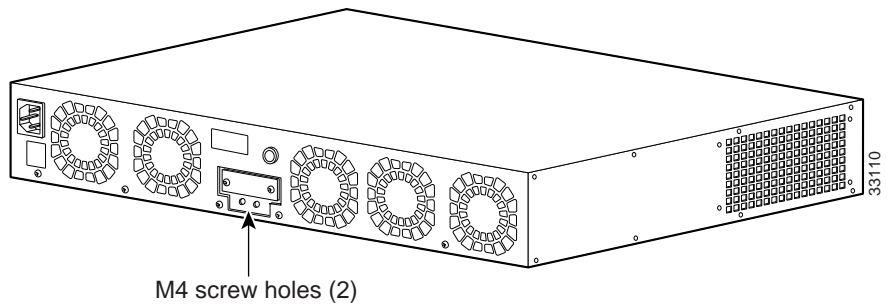
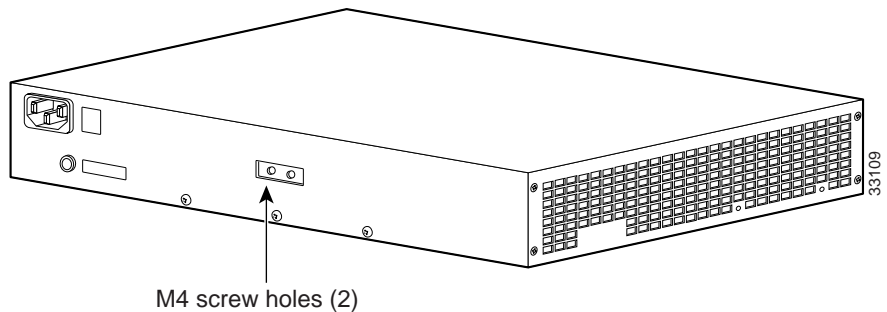
Two system (earth) grounding holes are provided in an enclosure near the power supplies.



Note

These guidelines do not apply to the Catalyst 2948G-GE-TX switches.

See [Figure 2-1](#) for the location of the grounding holes on the Catalyst 2948G switches and [Figure 2-2](#) for the location on the Catalyst 2980G switches.

Figure 2-1 Grounding Holes on the Catalyst 2948G Switch*Figure 2-2 Grounding Holes on the Catalyst 2980G Switch*

To make an adequate grounding connection, you need these components and tools:

- Grounding lug—The grounding lug must have two M4 screw holes. See [Figure 2-1](#) for the location of the M4 screw holes on the Catalyst 2948G switch and [Figure 2-2](#) for the Catalyst 2980G switch.
The grounding lugs are not available from Cisco Systems; any electrical-connector vendor can provide this lug.
- Two M4 (metric) hex-head screws with locking washers—These screws are not available from Cisco Systems; they are available from any commercial hardware vendor.
- One grounding wire (6 AWG recommended)—The length of the grounding wires depends on the location of your switch within the site and its proximity to proper grounding facilities. The grounding wire is not available from Cisco Systems; it is available from any commercial cable vendor.

- Number 2 Phillips head screwdriver.
- Crimping tool—This must be large enough to accommodate the girth of the grounding lug when you crimp the grounding cable into the lug.
- Wire-stripping tool.

Connecting the Switch to Earth Ground

This procedure describes how to connect the Catalyst 2948G, 2948G-GE-TX, and 2980G switches to earth ground. We strongly recommend that you complete this procedure before connecting system power or turning on your switch.

To attach the grounding lug and cable to the grounding pad on the Catalyst 2948G, 2948G-GE-TX, and 2980G switches, follow these steps:

-
- Step 1** Use a wire-stripping tool to remove approximately 0.75 inches (19 mm) of the covering from the end of the grounding wire.
 - Step 2** Insert the stripped end of the grounding wire into the open end of the grounding lug.
 - Step 3** Use the crimping tool to secure the grounding wire in place in the grounding lug.
 - Step 4** Locate the grounding pad on the switch.

See [Figure 2-3](#) for the location of the grounding pad on the Catalyst 2948G switch and [Figure 2-4](#) for the Catalyst 2980G switch.

Figure 2-3 Connecting System Ground on the Catalyst 2948G Switch

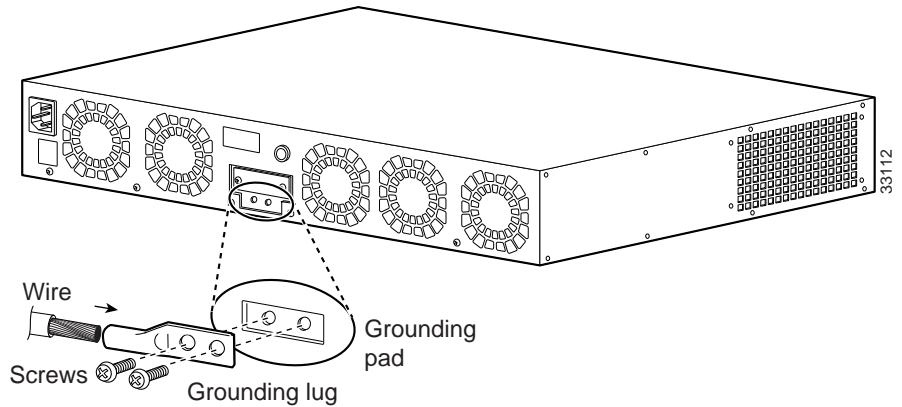
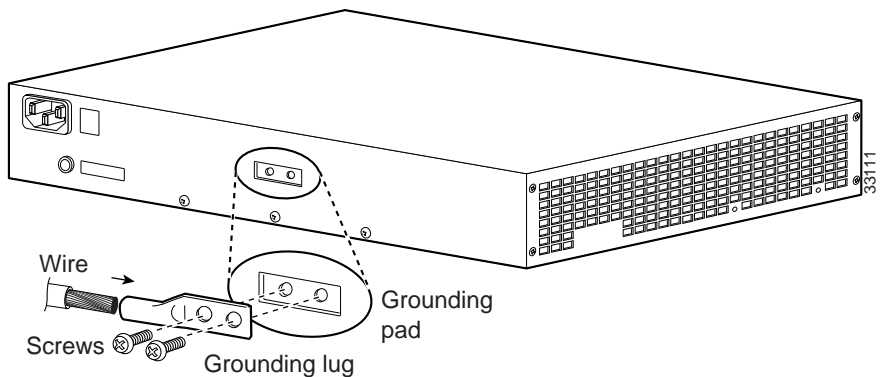


Figure 2-4 Connecting System Ground on the Catalyst 2980G Switch



- Step 5** Remove the label that covers the grounding pad.
- Step 6** Place the grounding lug against the grounding pad on the rear panel of the switch.
- Step 7** Install locking washers; tighten them to secure the grounding lug to the grounding pad.
- Step 8** Insert two screws through the holes in the grounding lug and the grounding pad. Ensure that the grounding lug and the attached wire will not interfere with other switch hardware or rack equipment.

- Step 9** Prepare the other end of the grounding wire and connect it to an appropriate grounding point at your site to ensure adequate earth ground for the switch.

Site-Planning Checklist

Table 2-2 lists the site-planning activities that you should complete before you install the Catalyst 2948G, 2948G-GE-TX, and 2980G switches. Completing each activity helps ensure a successful switch installation.

Table 2-2 Site-Planning Checklist

Task No.	Planning Activity	Verified By	Time	Date
1	Space evaluation: Space and layout Floor covering Impact and vibration Lighting Maintenance access			
2	Environmental evaluation: Ambient temperature Humidity Altitude Atmospheric contamination Airflow			
3	Power evaluation: Input power type Proximity of receptacle to the equipment Dedicated (separate) circuits for redundant power supplies UPS for power failures			
4	Grounding evaluation: Circuit breaker size			

Table 2-2 Site-Planning Checklist (continued)

Task No.	Planning Activity	Verified By	Time	Date
5	Cable and interface equipment evaluation: Cable type Connector type Cable distance limitations Interface equipment (transceivers)			
6	EMI evaluation: Distance limitations for signaling Site wiring RFI levels			