



# Preparing for Installation

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This section describes how to prepare your site for installation of the Catalyst 4224 Access Gateway Switch. This section contains the following topics:

- [Safety, page 2-1](#)
- [Site Requirements, page 2-2](#)
- [Site-Planning Checklist, page 2-4](#)



Note

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See the [“Site-Planning Checklist” section on page 2-4](#) to help ensure that you complete all site planning activities before you install the switch.

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## Safety



Warning

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Before you install, operate, or service the system, read *Regulatory Compliance and Safety Information for Catalyst 4200 Series Access Gateway Switch*. This guide contains important safety information you should know before working with the system.

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**Warning**

For Nordic countries (Norway, Finland, Sweden and Denmark) this system must be installed in a Restricted Access Location, where the voltage of the main ground connection of all equipment is the same (equipotential earth) and the system is connected to a grounded electrical outlet.

## Site Requirements

This section provides site power requirements for the Catalyst 4224. You should verify site power before you install a switch.

The following sections are included:

- [Environmental Requirements, page 2-2](#)
- [Power Requirements, page 2-3](#)

**Note**

For EMI recommendations, refer to the *Site Preparation and Safety Guide*.

## Environmental Requirements

[Table 2-1](#) describes the power requirements for the Catalyst 4224.

Unless otherwise noted, the information in [Table 2-1](#) assumes worst-case conditions. Typical numbers are approximately 30 percent below the numbers listed here.

**Table 2-1** *Power Requirements Specifications*

Model Number/ Module Type	Power Supply Output (Watts)	AC Input Power (Watts)	AC Input Current at 90 VAC (Amps)	AC Input Current at 120 VAC (Amps)	AC Input Current at 180 VAC (Amps)	AC Input Current at 240 VAC (Amps)
Catalyst 4224 Access Gateway Switch	240W	345W	3.8A	3A	2A	1.5A

## Power Requirements

Knowing the power requirements can be useful for planning the power distribution system needed to support the switches. Heat dissipation specifications are an important consideration for sizing air-conditioning requirements for an installation.

Follow these requirements when preparing your site for the switch installation:

- Use the redundant power option to provide a second, identical power supply for the chassis in case one power supply fails or input power on one line fails.
- In systems configured with the redundant power option, connect each of the two power supplies to a separate input power source. If you fail to do this, your system might be susceptible to total power failure due to a fault in the external wiring or a tripped circuit breaker.
- To prevent a loss of input power, be sure the total maximum load on each circuit supplying the power supplies is within the current ratings of the wiring and breakers.
- In some systems, you might use an uninterruptible power supply (UPS) to protect against power failures at your site. Avoid UPS types that use ferroresonant technology.

Use the information in [Table 2-1](#) to estimate the power requirements and heat dissipation of a Catalyst 4224.

## Site-Planning Checklist

[Table 2-2](#) lists the site-planning activities that you should complete before you install the Catalyst 4224. Complete each activity to help 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			
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			

