Cisco Catalyst 4900M Switch Installation Guide

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The following information is for FCC compliance of Class A devices: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case users will be required to correct the interference at their own expense.

The following information is for FCC compliance of Class B devices: The equipment described in this manual generates and may radiate radio-frequency energy. If it is not installed in accordance with Cisco's installation instructions, it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in part 15 of the FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

Modifying the equipment without Cisco's written authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the Cisco equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

• Turn the television or radio antenna until the interference stops.

• Move the equipment to one side or the other of the television or radio.

• Move the equipment farther away from the television or radio.

• Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

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Preface

This preface describes the audience, organization, and conventions of the *Cisco Catalyst 4900M Switch Installation Guide* and provides information on how to obtain related documentation.

Audience

Only trained and qualified service personnel (as defined in IEC60950 and AZ/NZS 60950) should install, replace, or service the equipment.

Organization

This guide is organized as follows:

Chapter	**Title**	**Description**
Chapter 1	Product Overview	Describes the hardware features and functionality of the Catalyst 4900M switch.
Chapter 2	Site Planning	Describes how to prepare your site for the installation of the switch.
Chapter 3	Installing the Switch	Details how to install the Catalyst 4900M switch.
Chapter 4	Troubleshooting the Installation	Provides troubleshooting guidelines for the initial hardware installation and suggests steps to help isolate and resolve problems.
Appendix A	Specifications	Lists the Catalyst 4900M switch system specifications.
Appendix B	Translated Safety Warnings	Repeats in multiple languages the warnings in this guide.

Related Documentation

Although their Release Notes are unique, the 4 platforms (Catalyst 4500, Catalyst 4900, Catalyst ME 4900, and Catalyst 4900M) use the same *Software Configuration Guide*, *Command Reference Guide*, and *System Message Guide*. Refer to the following home pages for additional information:

- Catalyst 4500 Series Switch Documentation Home

  http://www.cisco.com/go/cat4500/docs
- Catalyst 4900 Series Switch Documentation Home

  http://www.cisco.com/go/cat4900/docs
- Cisco ME 4900 Series Ethernet Switches Documentation Home

  http://www.cisco.com/en/US/products/ps7009/tsd_products_support_series_home.html

Hardware Documents

Installation guides and notes including specifications and relevant safety information are available at the following URLs:

- *Catalyst 4500 Series Switches Installation Guide*

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/installation/guide/78-14409-08/4500inst.html
- *Catalyst 4500 E-series Switches Installation Guide*

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/catalyst4500e/installation/guide/Eseries.html
- For information about individual switching modules and supervisors, refer to the *Catalyst 4500 Series Module Installation Guide* at:

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/module/guide/mod_inst.html
- *Regulatory Compliance and Safety Information for the Catalyst 4500 Series Switches*

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/regulatory/compliance/78_13233.html
- Installation notes for specific supervisor engines or for accessory hardware are available at:

  http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_installation_guides_list.html
- Catalyst 4900 and 4900M hardware installation information is available at:

  http://www.cisco.com/en/US/products/ps6021/prod_installation_guides_list.html
- Cisco ME 4900 Series Ethernet Switches installation information is available at:

  http://www.cisco.com/en/US/products/ps7009/prod_installation_guides_list.html

Software Documentation

Software release notes, configuration guides, command references, and system message guides are available at the following URLs:

- Catalyst 4500 release notes are available at:

  http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_release_notes_list.html

- Catalyst 4900 release notes are available at:

  http://www.cisco.com/en/US/products/ps6021/prod_release_notes_list.html

- Cisco ME4900 4900 Series Ethernet Switch release notes are available at:

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/release/note/OL_11511.html

Software documents for the Catalyst 4500 Classic, Catalyst 4500 E-Series, Catalyst 4900, and Cisco ME 4900 Series Ethernet Switches are available at the following URLs:

- *Catalyst 4500 Series Software Configuration Guide*

  http://www.cisco.com/en/US/products/hw/switches/ps4324/products_installation_and_configuration_guides_list.html

- *Catalyst 4500 Series Software Command Reference*

  http://www.cisco.com/en/US/products/hw/switches/ps4324/prod_command_reference_list.html

- *Catalyst 4500 Series Software System Message Guide*

  http://www.cisco.com/en/US/products/hw/switches/ps4324/products_system_message_guides_list.html

Cisco IOS Documentation

Platform-independent Cisco IOS documentation may also apply to the Catalyst 4500 and 4900 switches. These documents are available at the following URLs:

- Cisco IOS configuration guides, Release 12.x

  http://www.cisco.com/en/US/products/ps6350/products_installation_and_configuration_guides_list.html

- Cisco IOS command references, Release 12.x

  http://www.cisco.com/en/US/products/ps6350/prod_command_reference_list.html

  You can also use the Command Lookup Tool at:

  http://tools.cisco.com/Support/CLILookup/cltSearchAction.do

- Cisco IOS system messages, version 12.x

  http://www.cisco.com/en/US/products/ps6350/products_system_message_guides_list.html

  You can also use the Error Message Decoder tool at:

  http://www.cisco.com/pcgi-bin/Support/Errordecoder/index.cgi

- For information about MIBs, refer to:

  http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml

Conventions

This document uses the following conventions:

Convention	Description
boldface font	Commands and keywords are in **boldface**.
italic font	Arguments for which you supply values are in *italics*.
[ ]	Elements in square brackets are optional.
{ **x** | **y** | **z** }	Alternative keywords are grouped in braces and separated by vertical bars.
[**x** | **y** | **z**]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A non-quoted set of characters. Do not use quotation marks around the string, because the string will include the quotation marks.
`screen` font	Terminal sessions and information that the system displays are in `screen` font.
`boldface screen` font	Information that you must enter is shown in **`boldface screen`** font.
`italic screen` font	Arguments for which you supply values are in *`italic screen`* font.
Ctrl-	Ctrl- represents the key labeled Control—for example, the key combination **Ctrl-D** means to hold down the Control key while you press the D key.
< >	Characters that do not print, such as passwords, are shown within angle brackets.

Notes use the following conventions:

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

Cautions use the following conventions:

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Warnings use the following conventions:

Statement 1071—Warning Definition

Warning **IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device.

SAVE THESE INSTRUCTIONS

Waarschuwing **BELANGRIJKE VEILIGHEIDSINSTRUCTIES**

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van de standaard praktijken om ongelukken te voorkomen. Gebruik het nummer van de verklaring onderaan de waarschuwing als u een vertaling van de waarschuwing die bij het apparaat wordt geleverd, wilt raadplegen.

BEWAAR DEZE INSTRUCTIES

Varoitus **TÄRKEITÄ TURVALLISUUSOHJEITA**

Tämä varoitusmerkki merkitsee vaaraa. Tilanne voi aiheuttaa ruumiillisia vammoja. Ennen kuin käsittelet laitteistoa, huomioi sähköpiirien käsittelemiseen liittyvät riskit ja tutustu onnettomuuksien yleisiin ehkäisytapoihin. Turvallisuusvaroitusten käännökset löytyvät laitteen mukana toimitettujen käännettyjen turvallisuusvaroitusten joukosta varoitusten lopussa näkyvien lausuntonumeroiden avulla.

SÄILYTÄ NÄMÄ OHJEET

Attention **IMPORTANTES INFORMATIONS DE SÉCURITÉ**

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures [illegible] des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-[illegible] les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

CONSERVEZ CES INFORMATIONS

Warnung **WICHTIGE SICHERHEITSHINWEISE**

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

BEWAHREN SIE DIESE HINWEISE GUT AUF.

Avvertenza **IMPORTANTI ISTRUZIONI SULLA SICUREZZA**

Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di intervenire su qualsiasi apparecchiatura, occorre essere al corrente dei pericoli relativi ai circuiti elettrici e conoscere le procedure standard per la prevenzione di incidenti. Utilizzare il numero di istruzione presente alla fine di ciascuna avvertenza per individuare le traduzioni delle avvertenze riportate in questo documento.

CONSERVARE QUESTE ISTRUZIONI

Advarsel **VIKTIGE SIKKERHETSINSTRUKSJONER**

Dette advarselssymbolet betyr fare. Du er i en situasjon som kan føre til skade på person. Før du begynner å arbeide med noe av utstyret, må du være oppmerksom på farene forbundet med elektriske kretser, og kjenne til standardprosedyrer for å forhindre ulykker. Bruk nummeret i slutten av hver advarsel for å finne oversettelsen i de oversatte sikkerhetsadvarslene som fulgte med denne enheten.

TA VARE PÅ DISSE INSTRUKSJONENE

Aviso **INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você está em uma situação que poderá ser causadora de lesões corporais. Antes de iniciar a utilização de qualquer equipamento, tenha conhecimento dos perigos envolvidos no manuseio de circuitos elétricos e familiarize-se com as práticas habituais de prevenção de acidentes. Utilize o número da instrução fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham este dispositivo.

GUARDE ESTAS INSTRUÇÕES

¡Advertencia! **INSTRUCCIONES IMPORTANTES DE SEGURIDAD**

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y fa[illegible] con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que [illegible] ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

GUARDE ESTAS INSTRUCCIONES

Varning! **VIKTIGA SÄKERHETSANVISNINGAR**

Denna varningssignal signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanliga förfaranden för att förebygga olyckor. Använd det nummer som finns i slutet av varje varning för att hitta dess översättning i de översatta säkerhetsvarningar som medföljer denna anordning.

SPARA DESSA ANVISNINGAR

Figyelem **FONTOS BIZTONSÁGI ELOÍRÁSOK**

Ez a figyelmezeto jel veszélyre utal. Sérülésveszélyt rejto helyzetben van. Mielott bármely berendezésen munkát végezte, legyen figyelemmel az elektromos áramkörök okozta kockázatokra, és ismerkedjen meg a szokásos balesetvédelmi eljárásokkal. A kiadványban szereplo figyelmeztetések fordítása a készülékhez mellékelt biztonsági figyelmeztetések között található; a fordítás az egyes figyelmeztetések végén látható szám alapján keresheto meg.

ORIZZE MEG EZEKET AZ UTASÍTÁSOKAT!

Предупреждение **ВАЖНЫЕ ИНСТРУКЦИИ ПО СОБЛЮДЕНИЮ ТЕХНИКИ БЕЗОПАСНОСТИ**

Этот символ предупреждения обозначает опасность. То есть имеет место ситуация, в которой следует опасаться телесных повреждений. Перед эксплуатацией оборудования выясните, каким опасностям может подвергаться пользователь при использовании электрических цепей, и ознакомьтесь с правилами техники безопасности для предотвращения возможных несчастных случаев. Воспользуйтесь номером заявления, приведенным в конце каждого предупреждения, чтобы найти его переведенный вариант в переводе предупреждений по безопасности, прилагаемом к данному устройству.

СОХРАНИТЕ ЭТИ ИНСТРУКЦИИ

警告 重要的安全性说明

此警告符号代表危险。您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警[illegible]尾提供的声[illegible]号码[illegible]找到此设备的安全性警告说明的翻译文本。

请保存这些安全性说明

警[illegible] 安全上の[illegible]要な注意事項

「危険」の意味です。人身事故を予防するための注意事項が記述されています。装置の取り扱い作業を行うときは、電気回路の危険性に注意し、一般的な事故防止策に留意してください。警告の各国語版は、各注意事項の番号を基に、装置に付属の「Translated Safety Warnings」を参照してください。

これらの注意事項を保管しておいてください。

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이 지시 사항을 보관하십시오.

Aviso **INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você se encontra em uma situação em que há risco de lesões corporais. Antes de trabalhar com qualquer equipamento, esteja ciente dos riscos que envolvem os circuitos elétricos e familiarize-se com as práticas padrão de prevenção de acidentes. Use o número da declaração fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham o dispositivo.

GUARDE ESTAS INSTRUÇÕES

Advarsel **VIGTIGE SIKKERHEDSANVISNINGER**

Dette advarselssymbol betyder fare. Du befinder dig i en situation med risiko for legemesbeskadigelse. Før du begynder arbejde på udstyr, skal du være opmærksom på de involverede risici, der er ved elektriske kredsløb, og du skal sætte dig ind i standardprocedurer til undgåelse af ulykker. Brug erklæringsnummeret efter hver advarsel for at finde oversættelsen i de oversatte advarsler, der fulgte med denne enhed.

GEM DISSE ANVISNINGER

تحذير **إرشادات الأمان الهامة**

يوضح رمز التحذير هذا وجود خطر. وهذا يعني أنك متواجد في مكان قد ينتج عنه التعرض لإصابات. قبل بدء العمل، احذر مخاطر التعرض للصدمات الكهربائية وكن على علم بالإجراءات القياسية للحيلولة دون وقوع أي حوادث. استخدم رقم البيان الموجود في أخر كل تحذير لتحديد مكان ترجمته داخل تحذيرات الأمان المترجمة التي تأتي مع الجهاز.

قم بحفظ هذه الإرشادات

Upozorenje **VAŽNE SIGURNOSNE NAPOMENE**

Ovaj simbol upozorenja predstavlja opasnost. Nalazite se u situaciji koja može prouzročiti tjelesne ozljede. Prije rada s bilo kojim uređajem, morate razumjeti opasnosti vezane uz električne sklopove, te biti upoznati sa standardnim načinima izbjegavanja nesreća. U prevedenim sigurnosnim upozorenjima, priloženima uz uređaj, možete prema broju koji se nalazi uz pojedino upozorenje pronaći i njegov prijevod.

SAČUVAJTE OVE UPUTE

Upozornění

DŮLEŽITÉ BEZPEČNOSTNÍ POKYNY

Tento upozorňující symbol označuje nebezpečí. Jste v situaci, která by mohla způsobit nebezpečí úrazu. Před prací na jakémkoliv vybavení si uvědomte nebezpečí související s elektrickými obvody a seznamte se se standardními opatřeními pro předcházení úrazům. Podle čísla na konci každého upozornění vyhledejte jeho překlad v přeložených bezpečnostních upozorněních, která jsou přiložena k zařízení.

USCHOVEJTE TYTO POKYNY

Προειδοποίηση

ΣΗΜΑΝΤΙΚΕΣ ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ

Αυτό το προειδοποιητικό σύμβολο σημαίνει κίνδυνο. Βρίσκεστε σε κατάσταση που μπορεί να προκαλέσει τραυματισμό. Πριν εργαστείτε σε οποιοδήποτε εξοπλισμό, να έχετε υπόψη σας τους κινδύνους που σχετίζονται με τα ηλεκτρικά κυκλώματα και να έχετε εξοικειωθεί με τις συνήθεις πρακτικές για την αποφυγή ατυχημάτων. Χρησιμοποιήστε τον αριθμό δήλωσης που παρέχεται στο τέλος κάθε προειδοποίησης, για να εντοπίσετε τη μετάφρασή της στις μεταφρασμένες προειδοποιήσεις ασφαλείας που συνοδεύουν τη συσκευή.

ΦΥΛΑΞΤΕ ΑΥΤΕΣ ΤΙΣ ΟΔΗΓΙΕΣ

אזהרה

ВАЖНИ БЕЗБЕДНОСНИ НАПАТСТВИЈА
Симболот за предупредување значи опасност. Се наоѓате во ситуација што може да предизвика телесни повреди. Пред да работите со опремата, бидете свесни за ризикот што постои кај електричните кола и треба да ги познавате стандардните постапки за спречување на несреќни случаи. Искористете го бројот на изјавата што се наоѓа на крајот на секое предупредување за да го најдете неговиот период во преведените безбедносни предупредувања што се испорачани со уредот.
ЧУВАЈТЕ ГИ ОВИЕ НАПАТСТВИЈА

Ostrzeżenie

WAŻNE INSTRUKCJE DOTYCZĄCE BEZPIECZEŃSTWA

Ten symbol ostrzeżenia oznacza niebezpieczeństwo. Zachodzi sytuacja, która może spowodować obrażenia ciała. Przed przystąpieniem do prac przy urządzeniu należy zapoznać się z zagrożeniami związanymi z układami elektrycznymi oraz ze standardowymi środkami zapobiegania wypadkom. Na końcu każdego ostrzeżenia podano numer, na podstawie którego można odszukać tłumaczenie tego ostrzeżenia w dołączonym do urządzenia dokumencie z tłumaczeniami ostrzeżeń.

NINIEJSZE INSTRUKCJE NALEŻY ZACHOWAĆ

Upozornenie **DÔLEŽITÉ BEZPEČNOSTNÉ POKYNY**

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CHAPTER 1

Product Overview

Revised: January 4, 2012

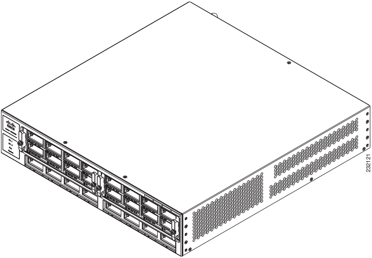
This chapter describes the Catalyst 4900M switch and the supported half-card Ethernet modules. The chapter contains these sections:

- Catalyst 4900M Switch Chassis, page 1-1
- Catalyst 4900M Half-Card Modules, page 1-8
- Serial Number Location, page 1-14

Catalyst 4900M Switch Chassis

The Catalyst 4900M switch is a 2 RU horizontal high-performance dedicated Ethernet switch. The chassis has 8 fixed 1-GB or 10-GB ports and two half-card Ethernet module slots that can accommodate a several different styles of half-card Ethernet modules. The switch has one removable variable-speed fan tray and supports redundant power supplies. Figure 1-1 shows the front of the chassis.

Figure 1-1 Catalyst 4900M Switch Chassis



Catalyst 4900M Switch Chassis Features

Table 1-1 lists the features of the Catalyst 4900M switch chassis.

Table 1-1 Catalyst 4900M Switch Features

Feature	**Description**
Chassis	8-port fixed configuration plus 2 half-card module slots
Uplink ports	8 10-Gigabit ports that support X2 transceivers. By using the C[illegible] OneX converter, the 8-ports also support SFP+ transceivers.
Slots	[illegible] half-card module slots [illegible] available allowing you to configure the chassis to your specific needs.
Memory	512-MB SDRAM, 128-MB Flash (onboard and fixed), 25[illegible] bytes serial [illegible]EROM
Console port	A console serial port (RJ-45) provides for switch management using standard console equipment. (See Figure 1-2.) **Note** A console cable is not provided in the accessory kit. It can be ordered as an option.
Ethernet management port	The management port on the rear panel offers the same TCP/IP based management services available via inband access (telnet SNMP etc.). IP address configuration via BOOTP is supported on the Management port; it also supports image download to the switch.

Table 1-1 Catalyst 4900M Switch Features (continued)

Feature	Description
Reset switch	The Reset button is used to restart the switch. Use a paper clip or other small, pointed object to press the Reset button.
Fan tray	Variable-speed. Field replaceable.
Power supplies	1000 W AC-input and 1000 W DC-input power supplies are supported.

Note A console cable is not provided as part of the accessory kit. It is available as an option.

Catalyst 4900M Switch Chassis Physical and Environmental Specifications

Table 1-2 lists the Catalyst 4900M switch chassis environmental and physical specifications.

Table 1-2 Catalyst 4900M Switch Specifications

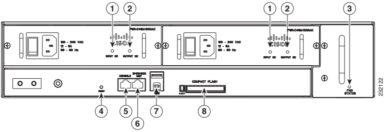
Item	Specification
Environmental	
Temperature, operating	Certified for operation: 32° to 104°F (0° to40°C)
	Designed and tested for operation: 32° to 131°F (0° to 55°C)
	Note The Catalyst 4900M switch is equipped with internal air temperature sensors that are triggered at 49°C (120.2°F) generating a minor alarm and at 64°C (147.2°F) generating a major alarm. The system will shut down at 67°C (152.6°F).
Temperature, nonoperating and storage	–40° to 167°F (–40° to 75°C)
Humidity (RH), ambient (noncondensing) operating	10% to 90%
Altitude, operating	Certified for operation: –197 to 6562 ft (–60 to 2000 m)
Heat Dissipation	1364 BTU/hour (worst case)
Physical Characteristics	
Dimensions (H x W x D)	• 3.[illegible] x 17.[illegible] x 17.9 [illegible] (8.9 x [illegible]3.7 x 45.5 cm). • Chassis requires [illegible] RU[1]. • The Catalyst 4900M switch chassis is designed to install in standard 19-inch equipment racks that meet ANSI/EIA 310-D, IEC 60297, and ETS 300-119 standards.
Weight	34.0 lb (15.4 kg) (max)
Airflow	151.7 CFM (max)

[1] RU = rack units

Catalyst 4900M Switch Chassis Rear Panel Connections and Features

Figure 1-2 shows the chassis rear panel with the major features identified.

Figure 1-2 View of the Rear Panel



1	Input OK LED (power supply)	**5**	Console port
2	Output OK LED (power supply)	**6**	Management port
3	Fan Status LED	**7**	USB connector
4	Reset button	**8**	Compact Flash slot

The chassis rear panel features include:

- Reset button—The Reset button is used to restart the switch. Use a paper clip or other small, pointed object to press the Reset button.
- Console port—A console serial port (RJ-45) provides for switch management using standard console equipment. (See Figure 1-2.) A connector pinout table is provided in Appendix A, "Specifications," for the console and management ports.
- Management port—The Management port on the rear panel offers the same TCP/IP based management services available via inband access (telnet SNMP etc.). IP address configuration via BOOTP is supported on the Management port; it also supports image download to the switch.
- USB connector—A USB connector is provided for future expansion.
- Compact Flash slot—The Compact Flash slot accepts both 64-MB and 128-MB Type I compact Flash cards. You can use it for file transfer tasks such as loading a new software image. The flash card is optional and can be obtained from third-party suppliers.

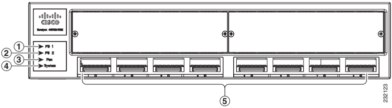
  For more information, refer to *Using the Compact Flash on the Catalyst 4500 Series Supervisor Engines* at the following URL:

  http://www.cisco.com/en/US/docs/switches/lan/catalyst4500/hardware/configuration/notes/OL_2788.html

Front Panel LEDs

A set of LEDS on the chassis front panel (see Figure 1-3) provide visual status for the switch. Table 1-3 lists the front panel LEDS and their meanings.

Figure 1-3 Chassis Front Panel LEDs



1	PS1 LED	**4**	System LED
2	PS2 LED	**5**	10Gig port LEDs
3	Fan LED		

Table 1-3 Front Panel LED Descriptions

LED	Description
System (front)	The system LED indicates the operating state of the Catalyst 4900M switch. At startup, the Catalyst 4900M performs a series of diagnostic tests: • Green—All tests pass • Red—A test other than an individual port test fails • Off—System is in rommon mode or a power supply has failed Switch is disabled
CON Console port (rear)	• Green—10/100 BASE-T console port is in link-up state • Off—10/100 BASE-T console port is in link-down state or not connected **Note** There are no blinking, red, or yellow states for this port
MGT (rear)	• Green—10/100/1000BASE-T Management port is in link-up state. • Off—10/100/1000BASE-T Management port is in link-down state or not connected. **Note** There are no blinking, red, or yellow states for this port.
Port (front)	• Green—Port is operational. • Yellow—Port is disabled by user. • Flashing yellow—Power-on self-test indicates faulty port. • Off—No signal detected or link configuration failure.

Table 1-3 Front Panel LED Descriptions (continued)

LED	Description
Fan (front and rear)	FAN LED indicates the fan tray status. • Green—Fan tray operational. • Red—Fault detected. One or more fans not functional. • Off—No power to the fan tray.
PS1 and PS2 (front)	PS1 and the PS2 LEDs indicates the internal power supply status. • Off—No power to the power supply. • Green—Operational.[1] • Red—Fault detected or the on/off switch is set to off while the power supply is plugged in.
LINK	A link status LED is located below the 10-GB uplink ports.

[1] If either LED is green and the other is OFF the power supply is probably not plugged in. If it is red, the supply is either plugged in and not switched on or it is faulty. It may be necessary to interrogate the system for further status using the CLI.

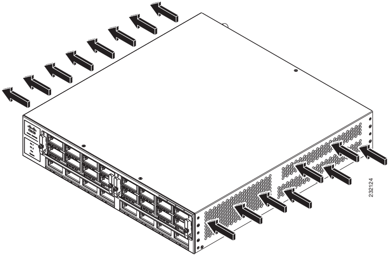
Chassis Cooling

The hot-swappable chassis fan tray (WS-X4992) provides cooling air for the internal chassis components. The fans draw air in from the right side of the chassis and exhaust the heated air through perforations on the right side of the chassis.

Caution When the fan tray is removed, internal circuitry is exposed that should not be touched by tools or fingers. The system should not operate without a fan tray for longer than is necessary to replace a faulty fan tray with a new fan tray.

Figure 1-4 shows the direction of airflow through the switch.

Figure 1-4 Catalyst 4900M Chassis Airflow



There are five fans in the fan tray. If an individual fan fails, the other fans continue to run. Sensors monitor the internal air temperatures. The number of fans in operation and their speed varies according to the internal temperature for the quietest operation possible. If the air temperature exceeds a desired threshold, the environmental monitor displays warning messages.

Note Individual fans in the fan tray cannot be replaced; the entire fan tray must be replaced.

Power Supplies

Note For complete power specifications for the Catalyst 4900M switch, see Appendix A, "Specifications."

The Catalyst 4900M switch has two redundant internal 1000 W AC-input or 1000 W DC-input power supplies.

The internal power supplies have individual power cords and status LEDs (PS1 and PS2 on the front panel). There are also LEDs on the power supplies that show status for the input (Input OK) and output (Output OK) currents. A power cord is used to connect the power supplies to the site AC source. There is a power switch on the AC-input power supplies; AC power is present when a power cord is plugged into a power supply and the switch is set to the On position. DC-input power supplies attach to source DC using customer-supplied cables.

The switch starts with only one power supply plugged in, but redundant failover and load sharing is not available in this configuration. Cisco recommends that you always connect both power supplies to separate AC or DC circuits for optimal power reliability.

For safety reasons, the AC power supply must be switched off and unplugged before it is removed from a chassis or inserted into a chassis. DC supplies should have power shut off from the source before they are removed.

If only one power supply is used, you must use the supplied blank faceplate to cover the empty power bay. The blank power supply cover maintains EMI shielding and proper air flow through the chassis.

Environmental Monitoring of the Power Supplies

Using the environmental monitoring and reporting functions, you can maintain normal system operation by resolving adverse environmental conditions prior to loss of operation.

Each power supply monitors its own temperature and output voltages. The Catalyst 4900M switch senses the operating condition of the power supply and reports status through software.

Power Management for the Catalyst 4900M Switch

You can select either AC-input or DC-input power supplies for your switch. The Catalyst 4900M switch supports the following power supplies:

- 1000 W AC-input
- 1000 W DC-input

A redundant power supply can be identified and diagnosed by a running system regardless of its input status. The AC-input and DC-input supplies are interchangeable.

Power Management Modes

The Catalyst 4900M switch supports the redundant power management mode. In this mode, if both power supplies are operating normally, each provides from 20/80 to 45/55 percent of the total system power requirements at all times. If one power supply fails, the other unit increases power to 100 percent of the total power requirement.

Catalyst 4900M Half-Card Modules

The Catalyst 4900M switch chassis has two half-card slots available allowing two half-card modules to be installed. The following half-card modules are available:

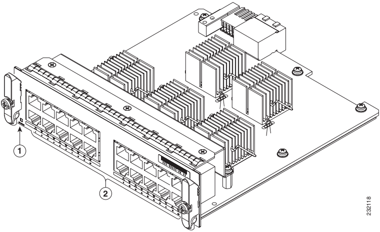
- WS-X[illegible]20-GB-R[illegible]5 Half-Card Ethernet Module, page 1-9
- WS-X[illegible]04-10GE Half-Card Ethernet Module, page 1-10
- WS-X490[illegible]E Half-Card Ethernet Module, page 1-11
- WS-X4908-10G-RJ45 Half-Card Ethernet Module, page 1-13

The half-card modules can be mixed in a chassis.

WS-X4920-GB-RJ45 Half-Card Ethernet Module

The WS-X4920-GB-RJ45 half-card Ethernet module provides 20 10/100/1000-Mbps full-or half-duplex ports. Figure 1-5 shows the module with the major features identified.

Figure 1-5 WS-X4920-GB-RJ45 Half-Card Ethernet Module



1	Module status LED	**2**	Port LEDs

Table 1-4 lists the specifications for the WS-X4920-GB-RJ45 half-card Ethernet Module.

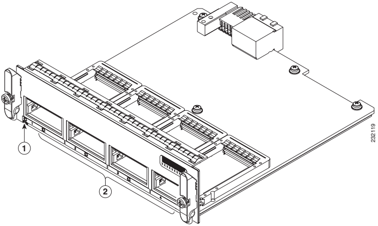
Table 1-4 WS-X4920-GB-RJ45 Half-Card Module Specifications

Specification	**Description**
Module type	10/100/1000BASE-T half-card Ethernet module
Full duplex mode	Full- or half-duplex mode
Port speed	10, 100, or 1000 Mbps
Number of ports	20
Connector	RJ-45
Cable type	Category 5 and Category 6
Cabling distance	328 ft (100 m)
Pluggable transceivers support	Not supported
Module upgrades available	None
Power over Ethernet	Not supported

WS-X4904-10GE Half-Card Ethernet Module

The WS-X4904-10GE half-card Ethernet module provides 4 10-Gigabit Ethernet ports. Figure 1-6 shows the module.

Figure 1-6 WS-X4904-10GE Half-Card Ethernet Module



1	Module Status LED	**2**	Port LEDs

Table 1-5 list the specifications for the WS-X4904-10GE half-card Ethernet module.

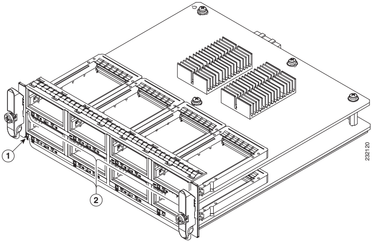
Table 1-5 WS-X4904-10GE Half-Card Ethernet Module Specifications

Specification	Description
Module type	10-Gigabit Ethernet module
Port duplex mode	Full duplex mode
Port speed	1[illegible] Mbps
Number of ports	4
Connector type	SC (optical)
Cable type	MMF or SMF
Cabling distance	Dependent on the type of X2 transceiver installed
Pluggable transceivers support	X2 transceivers
Module upgrades available	None
Power over Ethernet	Not supported

WS-X4908-10GE Half-Card Ethernet Module

The WS-X4908-10GE module (Figure 1-7) is an 8-port 10-Gigabit Ethernet module that has the ability to operate as a 16 port 1-Gigabit module by installing a Cisco TwinGig converter module in the X2 transceiver socket and then installing two 1-Gigabit SFP transceivers in the TwinGig converter.

Figure 1-7 8-Port 10-Gigabit Ethernet Module (WS-X4908-10GE)



1	Module Status LED	**2**	Port LEDs

Table 1-6 list the specifications for the WS-X4908-10GE half-card Ethernet module.

Table 1-6 WS-X4908-10GE Half-Card Ethernet Module Specifications

Specification	**Description**
Module type	10-Gigabit Ethernet module
Port duplex mode	Full-duplex mode
Port speed	10G Mbps
Number of ports	8 (10-Gigabit) or 16 (1-Gigabit). Each 10-Gigabit port on the module can be converted into two 1-Gigabit ports using a Cisco TwinGig converter module (CVR-X2-SFP) and SFP transceivers. Each 10-Gigabit X2 port can also be converted into one 10-Gigabit SFP+ transceiver port by installing a Cisco OneX converter module ((CVR-X2-SFP10G).
Connector type	SC (optical) or RJ-45 (copper)

Table 1-6 WS-X4908-10GE Half-Card Ethernet Module Specifications (continued)

Specification	Description
Cable type	MMF or SMF (optical) or Category 5 or Category 6 (copper)
Cabling distance	Dependent on the type of X2, SFP, or SFP+ transceiver installed
Pluggable transceivers support	• X2 transceivers • SFP+ transceiver (using a Cisco OneX converter module) • SFP transceiver (using a Cisco TwinGig converter module)
Module upgrades available	None
Power over Ethernet	Not supported

Note TwinGig converter modules may be installed in place of X2 transceiver modules if you need 1-GB SFP transceiver connections. When you insert the TwinGig into one port, its neighbor port automatically converts to 1 GE interfaces whether it has a TwinGig installed or not, so you must position your TwinGig converters next to each other. The neighboring port to a TwinGig port cannot support an X2. Installation documentation for Cisco TwinGig converter modules can be found at: http://www.cisco.com/en/US/docs/switches/lan/catalyst3750e_3560e/hardware/install/notes/1757202.html

Note When using TwinGig converters and X2 transceivers on this module, keep them grouped in pairs as follows: ports 1–2, ports 3–4, ports 5–6 and ports 7–8. Inserting a TwinGig converter or X2 transceiver in any port will affect the capability of its neighbor port, and both will be set to handle the same type automatically. Mixing within a port group does not work. As an example, you would not be able to have an X2 transceiver in port 1 and a TwinGig converter in port 2.

WS-X4908-10G-RJ45 Half-Card Ethernet Module

The WS-X4908-10G-RJ45 half-card Ethernet module provides 8 10Gbps full-or half-duplex ports. Figure 1-8 shows the module with major features identified.

Figure 1-8 WS-X4908-10G-RJ45 Half-Card Ethernet Module

1	Module status LED	**3**	1G LED (port operating in 1-Gbps mode)
2	LINK LED		

Table 1-7 lists the specifications for the WS-X4908-G-RJ45 half-card Ethernet module.

Table 1-7 WS-X4908-10G-RJ45 Half-Card Module Specifications

Specification	**Description**
Module type	[illegible]GB or [illegible]-G half-card Ethernet module
Port duplex mode	Half- or full-duplex mode
Port speed	[illegible]-Gbps [illegible] 10-Gb[illegible]
Number o[illegible]	8
Connector type	RJ-45
Cable type	Category 6, Category 6a, and Category
Cabling distance	Category 6—Up to 180.5 ft (55 m) at 10-Gbps. Up to 328 ft (100 m) at 1-Gbps. Category 6a and Category 7—Up to 328 ft (100 m) at both 10-Gbps and 1-Gbps.

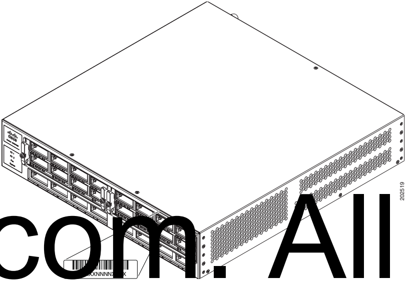
Table 1-7 WS-X4908-10G-RJ45 Half-Card Module Specifications (continued)

Specification	Description
Pluggable transceivers support	Not supported
Module upgrades available	None
Power over Ethernet	Not supported

Serial Number Location

Figure 1-9 shows the location of the serial number for your switch. You will need this information when contacting Cisco for support.

Figure 1-9 Catalyst 4900M Chassis Serial Number



CHAPTER 2

Site Planning

This chapter describes how to prepare your site for installation of the Catalyst 4900M switch and contains these sections:

- Site Environmental Requirements, page 2-1
- Site Power Requirements, page 2-2
- Grounding Requirements, page 2-7
- Safety Overview, page 2-7
- Site Planning Checklist, page 2-9

Note A site planning checklist is provided on page 2-8 to help ensure that you complete all site planning activities before you install the switch.

Site Environmental Requirements

Planning a proper location for the switch and layout for your equipment rack or wiring closet is essential for successful system operation. You should install the switch in an enclosed, secure area, ensuring that only qualified personnel have access to the switch and control of the environment. Equipment that is placed too closely together or that is inadequately ventilated can cause system overtemperature conditions. In addition, poor equipment placement can make chassis panels inaccessible and difficult to maintain.

The switch operates as a standalone system mounted in a rack in a secure wiring closet. It requires a dry, clean, well-ventilated, and air-conditioned environment. To ensure normal operation, maintain ambient airflow. If the airflow is blocked or restricted, or if the intake air is too warm, an overtemperature condition can occur. The switch environmental monitor can then shut down the system to protect the system components.

To ensure normal operation and avoid unnecessary maintenance, plan your site configuration and prepare your site *before* installation. After installation, make sure that the site maintains an ambient temperature of 0 to 40°C (32 to 104°F). It is essential to keep the area around the chassis as free from dust and foreign conductive material (such as metal flakes from nearby construction activity) as is possible.

Multiple switches can be rack-mounted with little or no clearance above and below the chassis. However, when mounting a switch in a rack with other equipment, or when placing it on the floor near other equipment, ensure that the exhaust from other equipment does not blow into the intake vents of the chassis.

Cooling air is drawn in through the right side and exhausted through the left side of the chassis. Keep the sides and rear clear of obstructions, including dust and foreign conductive material, and away from the exhaust ports of other equipment.

Appendix A, "Specifications," lists the operating and nonoperating environmental site requirements for the switches. To maintain normal operation and ensure high system availability, maintain an ambient temperature and EMI-free and continuous power at your site. The environmental ranges listed in Appendix A are those within which the switch will continue to operate; however, a measurement that approaches the minimum or maximum of a range indicates a potential problem. You can maintain normal operation by anticipating and correcting environmental anomalies before they exceed the maximum operating range.

Site Power Requirements

This section describes the installation site power requirements for the Catalyst 4900M switch. Verify your site power before you install the switch.

This section consists of the following sections:

- Preinstallation Requirements, page 2-2
- Warnings and Cautions, page 2-2
- EMI Recommendations, page 2-3
- Power Requirements and Heat Dissipation, page 2-3

Preinstallation Requirements

Follow these requirements when preparing your site for the Catalyst 4900M switch installation:

- Connect each switch to separate wiring on a dedicated circuit; provide each switch with its own branch circuit connection with sufficient overcurrent protection and direct grounding to the branch circuit.
- To prevent a loss of input power, be sure the total maximum load on each AC circuit is within the current ratings of the wiring and breakers.

Warnings and Cautions

Follow these precautions when preparing your site for the Catalyst 4900M switch installation:

Caution The total maximum load on each AC or DC-input power circuit must be within the ratings of the wiring and breaker. An overload of input power can result if this requirement is not met.

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

Warning **Installation of the equipment must comply with local and national electrical codes.** Statement 1074

Warning **Ultimate disposal of this product should be handled according to all national laws and regulations.** Statement 1040

EMI Recommendations

Follow these guidelines when setting up the site wiring. When planning the location of the new system, consider electromagnetic interface (EMI), the distance limitations for signaling, and connector compatibility.

When wires are run for any significant distance in an electromagnetic field, radio frequency interference (RFI) can occur between the field and the signals on the wires.

- Bad plant wiring can result in radio frequency interference.
- Strong EMI, especially when caused by lightning or radio transmitters, can destroy the signal drivers and receivers in the switch and can create an electrical hazard by conducting power surges through lines and into equipment.

Note To predict and remedy strong EMI, you might need to consult RFI experts.

Power Requirements and Heat Dissipation

The power requirements might be useful for planning the power distribution system needed to support the switches. Heat dissipation is an important consideration for sizing the air-conditioning requirements for an installation. Refer to Appendix A, "Specifications," for the power and heat ratings for a Catalyst 4900M switch.

You will also need to provide power to the switch with the appropriate AC power cord for your location. Table 2-1 lists the specifications for the AC power cords that are available for the 1000 W AC-input power supply. The table includes references to illustrations of the AC power cords.

Table 2-1 1000 W AC-Input Power Supply Power Cords

Locale	Power Cord Part Number	AC Source Plug Type	Current Rating	Power Cord Reference Illustration
Argentina	CAB-IR2073-C15-AR= (was CAB-7KACR=)	IRAM 2073	10 A, 250 VAC	Figure 2-1
Australia, New Zealand	CAB-AS3112-C15-AU= (was CAB-7KACA=)	SAA AS 3112	10 A, 250 VAC	Figure 2-2
Continental Europe	CAB-CEE77-C15-EU= (was CAB-7KACE=)	CEE 7/7	10 A, 250 VAC	Figure 2-3
Italy	CAB-C2316-C15-IT= (was CAB-7KACI=)	CEI 23-16/7	10 A, 250 VAC	Figure 2-4
North America, Japan	CAB-US515-C15-US= (was CAB-7KAC=)	NEMA 5-15[1]	13 A, 125 VAC	Figure 2-5

Table 2-1 1000 W AC-Input Power Supply Power Cords (continued)

Locale	**Power Cord Part Number**	**AC Source Plug Type**	**Cordset Rating**	**Power Cord Reference Illustration**
North America	CAB-N5K6A-NA=	NEMA 6-15P	10 A, 250 VAC	Figure 2-6
South Africa, India	CAB-BS546-C15-SA=	BS 546 (SABS 164-1)	10 A, 250 VAC	Figure 2-7
Switzerland	CAB-9K10A-SW= (was CAB-7KACSW=)	SEV 1011	10 A, 250 VAC	Figure 2-8
United Kingdom	CAB-BS1363-C15-UK= (was CAB-7KACU=)	BS 1363[2]	13 A, 250 VAC	Figure 2-9

1. For Japan, ask your local electrical contractor to prepare the NEMA 5-20 power plug.
2. Plug contains a 13 A fuse.

Figure 2-1 CAB-IR2073-C15-AR=, CAB-7KACR= (Argentina)

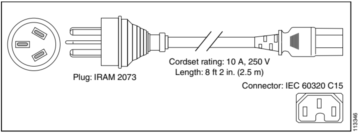


Figure 2-2 CAB-AS3112-C15-AU=, CAB-7KACA= (Australia and New Zealand)

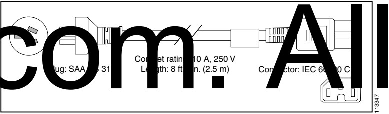


Figure 2-3 CAB-CEE77-C15-EU=, CAB-7KACE= (Continental Europe)

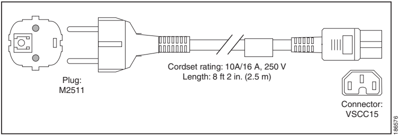


Figure 2-4 CAB-C2316-C15-IT=, CAB-7KACI= (Italy)

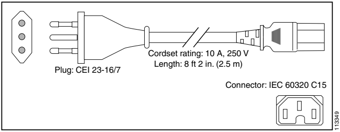


Figure 2-5 CAB-US515-C15-US=, CAB-7KAC= (North America)

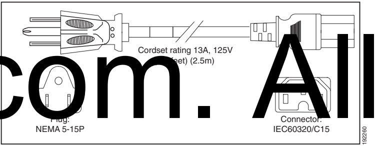


Figure 2-6 CAB-N5K6A-NA (North America)

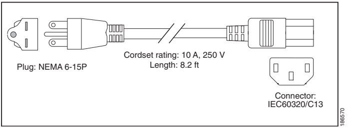


Figure 2-7 CAB-BS546-C15-SA (South Africa, India)

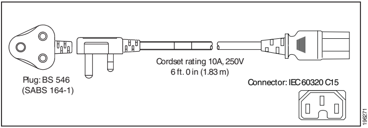


Figure 2-8 CAB-9K10A-SW=, CAB-7KACSW= (Switzerland)

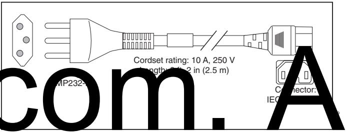
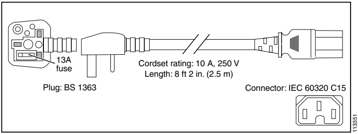


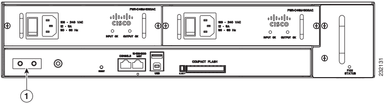
Figure 2-9 CAB-BS1363-C15-UK=, CAB-7KACU= (United Kingdom)



Grounding Requirements

Grounding is recommended on all AC-input or DC-input installations, using only approved copper connectors. Attach the provided two hole ground lug to the chassis using M4 x 8mm bolts and then to the central office (CO) or other interior ground system with number 6 AWG wire. The grounding pad is located on the rear of the chassis, as shown in Figure 2-10.

Figure 2-10 Grounding Pad Location



1	Grounding pad

Safety Overview

This section provides safety information that you should read and understand to ensure a safe switch installation.

Ensuring Safety

Follow these guidelines to ensure your safety and protect the equipment. This list is not inclusive of all potentially hazardous situations that you may be exposed to as you install the switch, so be alert.

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

Warning **This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.** Statement 1024

Note To completely de-energize the system, unplug the power cord.

- Always use caution when lifting heavy equipment.
- Always turn all power supplies off by unplugging all power cords before installing or removing a chassis.
- Keep the chassis area clear and free of dust during and after installation.
- Keep tools and chassis components off of the floor and away from foot traffic.
- Avoid wearing jewelry (including rings and chains) or other items that could get caught in the chassis. Avoid wearing any loose clothing, or securely fasten items such as ties, scarves, or sleeves.
- Install the system in compliance with the following local and national electrical codes.

Working Safely with Electricity

Follow these basic guidelines when working with any electrical equipment:

- Locate the emergency power-off switch for the room in which you are working before beginning installation.
- Disconnect all power and external cables before installing or removing 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.
- Examine your work area carefully for possible hazards such as moist floors, ungrounded power extension cables, and missing safety grounds.

Preventing Electrostatic Discharge Damage

Electrostatic discharge (ESD) damage occurs when electronic cards or components are improperly handled and can result in complete or intermittent failures. Follow these guidelines to prevent ESD damage:

- Always use an ESD-preventive wrist or ankle strap, and ensure that it makes maximum contact with the skin.
- When coming into contact with any internal components, always use a wrist strap connected to one of the following:
  - ESD wrist strap connector
  - Any unpainted grounded surface on the chassis or equipment rack

Caution Periodically check the resistance value of the antistatic strap. The measurement should be between 1 and 10 megohms (Mohms).

- Handle cards by the edges only.
- Avoid contact between the modules and clothing. The wrist strap protects only the card from ESD voltages on the body; ESD voltages on clothing can still cause damage.

Site Planning Checklist

Table 2-2 lists the site planning activities that you should perform before you install the Catalyst 4900M switch. Completing each activity helps to 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 Shock and vibration Lighting Maintenance access			
2	Environmental evaluation: Ambient temperature Humidity Altitude Atmospheric contamination Airflow			
3	Power evaluation: Input power type Receptacle proximity to the equipment Dedicated (separate) circuits for redundant power supplies UPS for power failures			

Table 2-2 Site Planning Checklist (continued)

Task No.	Planning Activity	Verified By	Time	Date
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			

CHAPTER 3

Installing the Switch

Revised: January 4, 2012

This chapter describes how to install the Catalyst 4900M switch. For first-time installations, perform the procedures in the following sections in the order listed.

- Checking the Contents, page 3-1
- Rack-Mounting the Switch, page 3-2
- Connecting Power to the Catalyst 4900M Switch, page 3-7
- Connecting DC-Input Power to the Catalyst 4900M Switch, page 3-9
- Optical Connections, page 3-14
- Configurable Modules, page 3-14

Note Before starting the installation procedures in this chapter, complete the site planning checklist in Chapter 2, "Site Planning," to verify that all planning activities were completed.

Checking the Contents

Note Do not discard the shipping container when you unpack the switch. Flatten the shipping cartons and store them. You will need the container if you need to move or ship the switch in the future.

To check the contents of the shipping container follow these steps:

Step 1 Check the contents of the accessories kit against the packing slip. Verify that you received all listed equipment, which should include the following:

- Switch hardware and software documentation, if ordered
- Optional equipment that you ordered, such as network interface cables, transceivers, or special connectors. A console cable is not provided as part of the accessory kit. It can ordered as an option.

Step 2 To begin installation, proceed to the "Rack-Mounting the Switch" section on page 3-2.

Rack-Mounting the Switch

A rack-mount kit (69-1821-03) is included in the accessory kit for mounting the switch in a standard 19-inch (48.3 cm) four-post equipment rack where the depth of the rack (the distance measured between the front and the rear posts) does not exceed 32.5 inches (82.5 cm). This rack-mount kit is not suitable for racks with obstructions (such as a power strip) that could impair access to the switch, four-post rack enclosures that exceed 32.5 inches (82.5 cm) in depth, or for two-post equipment racks.

An optional rack-mounting kit (C4900M-BKTS-KIT=) is available for installing the chassis in two-post telco racks and in four-post equipment racks that exceed 32.5 inches (82.5 cm) in depth.

Caution Before installing the chassis in a rack, read the "Site Environmental Requirements" section on page 2-1 to become familiar with the proper site and environmental conditions. Failure to read and follow these guidelines could lead to an unsuccessful installation and possible damage to the system and components.

Caution This unit is meant to be rack-mounted, and is not intended to bear more than its own weight. Do not stack more than two on a table top, the added weight may damage the bottom chassis.

Warning **To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:**

- **This unit should be mounted at the bottom of the rack if it is the only unit in the rack.**
- **When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.**
- **If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.** Statement 1006

Rack-Mounting Guidelines

Before rack-mounting the switch, ensure the following:

- The equipment rack is the proper size.
  - The width of the rack, between the two front mounting strips or rails, must be 17.75 inches (45.09 cm).
  - The depth of the rack, between the front and rear mounting strips, must be at least 19.25 inches (48.9 cm) but not more than 32.5 inches (82.5 cm).

Note If your four-post rack enclosure exceeds 32.5 inches (82.5 cm) in depth, or you are installing the chassis in a two-post equipment rack, you must order and use the optional rack-mount kit (C4900M-BKTS-KIT=).

  - The rack must have sufficient vertical clearance to insert the chassis. The chassis height is 2 U (3.5 inches (8.9 cm)).
- The equipment rack is stable and in no danger of falling over.
  - Ensure that the shelf is constructed to support the weight and dimensions of the chassis. For physical specifications, see Appendix A, "Specifications."
  - We recommend that you bolt the rack to the floor.
  - Mount the unit at the bottom of the rack if it is the only unit in the rack.
  - Install heavier equipment in the lower half of the rack to maintain a low center of gravity and prevent the rack from becoming top-heavy and tipping over.
  - Install the stabilizers before mounting or servicing the switch in the rack (if the rack is provided with stabilizing devices).
- The equipment rack is properly ventilated.
  - Install the chassis in an enclosed rack only if it has adequate ventilation or an exhaust fan; use an open rack whenever possible.
  - Ensure that the ambient temperature of the rack environment does not exceed a maximum temperature of 104°F (40°C). Note that if the switch is installed in a closed or multiunit rack assembly, the ambient operating temperature of the rack environment might be higher than the ambient room temperature.
  - Note that a ventilation system in a closed rack that is too powerful might also prevent cooling by creating negative pressure around the chassis and redirecting the air away from the chassis intake vent. If necessary, operate the chassis with the rack open.
  - To prevent airflow restriction, allow at least 3 inches (7.6 cm) of clearance around the ventilation openings on the sides of the chassis.
  - Use baffles correctly to assist in cooling the chassis.
  - Note that equipment near the bottom of a rack may generate excessive heat that is drawn upward and into the intake ports of equipment above, leading to overtemperature conditions in the chassis at or near the top of the rack.
  - Consider the equipment and cabling that is already installed in the rack. Ensure that cables from other equipment will not obstruct the airflow through the chassis or impair access to the power supplies or switching modules. Route cables away from field-replaceable components to avoid disconnecting cables unnecessarily for equipment maintenance or upgrades.
  - Allow at least 3 to 4 feet (91.4 to 121.9 cm) of clearance behind the rack for maintenance and removal of switch assemblies. [illegible] rack is mobile, you can push it back within 1 foot (30.45 cm) of a wall or cabinet for normal operation and pull it out when necessary for maintenance.

Lifting the Chassis Safely

The chassis is not intended to be moved frequently. Before you install the switch, ensure that your site is properly prepared so that you can avoid moving the chassis later to accommodate power sources and network connections.

Whenever you lift a chassis or any heavy object, follow these guidelines:

- Ensure that your footing is solid, and balance the weight of the chassis between your feet.
- Lift the chassis slowly; never move suddenly or twist your body as you lift.

- Keep your back straight and lift with your legs, not your back. If you must bend down to lift the chassis, bend at the knees, not at the waist, to reduce the strain on your lower back muscles.
- Always disconnect all external cables before lifting or moving the chassis.

Required Installation Tools

The following tools and equipment are required to install the chassis:

- Number 1, number 2 Phillips, and 3/16-inch flat-blade screwdriver
- Antistatic mat or antistatic foam
- Your own ESD grounding strap or the disposable ESD strap included with the system

The following tools and equipment are required to install the chassis in a rack:

- Rack-mount kit
- Tape measure and level

Rack-Mounting the Catalyst 4900M Switch

Follow these steps to install the Catalyst 4900M switch in a four-post rack.

Step 1 Prepare for installation:

a. Place the chassis on the floor or on a sturdy table as close as possible to the rack. Leave enough clearance to allow you to move around the chassis.

b. Use a tape measure to measure the depth of the rack. Measure from the outside of the front mounting posts to the outside of the rear mounting strip. The four-post rack depth must be at least 19.25 inches (48.9 cm) but not more than 32.5 inches (82.5 cm). If the 4-post rack depth is greater than 32.5 inches (82.5 cm), order and use the optional rack-mount kit (C4900M-BKTS-KIT=).

c. Measure the space between the inner edges of the left front and right front mounting posts to ensure that it is 17.75 inches (45.09 cm) wide. (The chassis is 17.5 inches [44.5 cm] wide and must fit between the mounting posts.)

d. Open the standard rack-mount kit, and refer to Table 3-1 to verify that all parts are included.

Table 3-1 Standard Rack-Mount Kit Checklist

Quantity	Part Description	Received
1	Left mounting bracket	
1	Right mounting bracket	
2	Rear mounting brackets	
12	M4 Phillips Flat-head screws	
8	12-24 x 3/4-inch Phillips binder-head screws	
8	10-32 x 3/4-inch Phillips binder-head screws	

Note Figure 3-1 illustrates how to attach the front of the switch to the rack. You will also need to attach the rear of the switch to the rack.

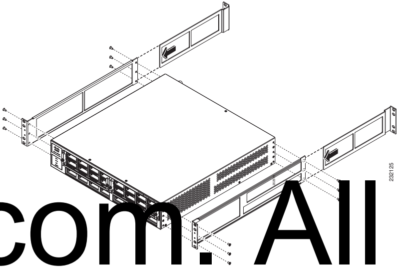
Step 2 Attach the left and right L brackets using the 12 M4 Phillips pan-head screws (six on each side) provided in the rack-mount kit. (See Figure 3-1.)

Note that the L brackets connect the chassis to the rack. You can mount the L brackets to the front or rear mounting holes of the chassis, depending on which end is in the front of the rack.

Note Some equipment racks provide a power strip along the length of one of the rear posts. If the rack has this feature, consider the position of the strip when planning fastener points. Before installing the L brackets on the chassis, determine whether to install the chassis from the front or the rear of the rack.

Step 3 Slide the rear brackets into the front brackets. (See Figure 3-1.)

Figure 3-1 Attaching the L Brackets to the Switch



Step 4 Install the chassis in the rack as follows:

a. Position the chassis in the rack (see Figure 3-2):

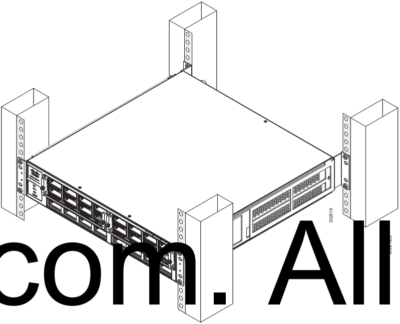
- If the chassis front panel is in the front of the rack, insert the rear of the chassis between the mounting posts.
- If the rear of the chassis is in the front of the rack, insert the front of the chassis between the mounting posts.

b. Align the mounting holes in the front and rear L brackets with the mounting holes in the equipment rack.

c. Secure the chassis using eight (two on each flange) 12-24 x 3/4-inch screws through the elongated holes in the L brackets and into the threaded holes in the mounting posts.

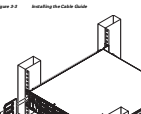
d. Use a tape measure and level to ensure that the chassis is installed straight and level.

Figure 3-2 Installing the Switch in the Rack



Step 5 Attach the cable guide to the right or left side of the chassis mount.

Figure 3-3 Installing the Cable Guide



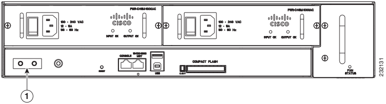
Step 6 Do not connect the power cord at this time. Proceed to the "Connecting Power to the Catalyst 4900M Switch" section on page 3-7.

Connecting Power to the Catalyst 4900M Switch

Follow these steps and warnings when connecting power to the Catalyst 4900M switch.

Step 1 Prior to connecting the power supply to a power source, ensure that all of the site power and grounding requirements described in Chapter [illegible], "Site Planning," have been met and the chassis is properly grounded as described in the "Grounding Requirements" section on page 2-7. The grounding pad for the switch is [illegible] in Figure [illegible]-4.

Figure 3-4 *Grounding Pad Location*

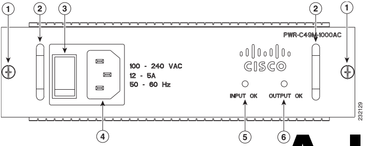


1	Grounding pad

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

Step 2 Plug the power cords into the power supplies. Refer to Figure 3-5 for the plug location.

Figure 3-5 *AC-Input Power Supply*



1	Captive screw	4	AC power connection
2	Handle	**5**	INPUT OK LED
3	On/off switch	**6**	OUTPUT OK LED

Step 3 Connect the other end of the power cords to an AC power source. If both power supplies will be used, make sure they are on different source AC circuits.

Step 4 Turn the power switches to the ON position.

Step 5 Verify power supply operation by looking at the power supply LEDs:

- The INPUT OK LED is lit green when the source AC voltage is within operating limits.
- The OUTPUT OK LED is lit green when the measured DC output from the power supply is within operating limits.

Step 6 Verify power supply operation by looking at the chassis front panel power supply LEDs:

- The PS1 or PS2 LED is lit green when the power supply and fans are functioning normally.
- The PS1 or PS2 LED is lit red when the power supply is not functioning normally. The on/off switch may be set to off while the power supply is plugged in, or the power supply may be defective and not providing DC power to the switch. There may also be a fan failure.
- The PS1 or PS2 LED is off when there is no power supply installed.

From the system console, enter the **show power** command to display the power supply and system status. For more information on this command, see the command reference publication for your software release.

If the LEDs or **show power** command indicate a power or other system problem, see Chapter 4, "Troubleshooting the Installation," for troubleshooting information.

Connecting DC-Input Power to the Catalyst 4900M Switch

Before you connect the power supply to a power source, ensure that all of the site power and grounding requirements described in Chapter 2, "Site Planning," have been met and the chassis is properly grounded as described in the "Grounding Requirements" section on page 2-7.

Warning **Before performing any of the following procedures, ensure that power is removed from the DC circuit.** Statement 1003

Warning **This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security.** Statement 1017

Warning **This product requires short-circuit (overcurrent) protection, to be provided as part of the building installation. Install only in accordance with national and local wiring regulations.** Statement 1045

Warning **Hazardous voltage or energy may [illegible] present on DC power terminals. Always replace cover when terminals are not in service. Be sure uninsulated conductors are not accessible when cover is in place.** Statement 10[illegible]

To connect [illegible] DC to the DC-input power supply, perform the following steps:

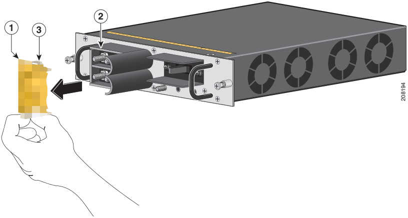
Step 1 Set the power switch or circuit breaker to the off (0) position on the source DC circuit that feeds the power supply that you are installing.

As an added precaution, place the appropriate safety flag and lockout devices at the source power circuit breaker, or place a piece of adhesive tape over the circuit breaker handle to prevent accidental power restoration while you are working on the circuit.

Step 2 Verify that the power switch is in the off (0) position on the power supply that you are installing.

Step 3 Remove the terminal block cover by simultaneously squeezing the top and bottom sides of the cover, and at the same time, use a fingernail to carefully pry up on the top and bottom clips on the terminal block cover to release the cover from the terminal block. Pull the cover off of the terminal block and set the cover aside. (See Figure 3-6.)

Figure 3-6 Removing the Terminal Block Cover



1	Terminal block cover	**3**	Terminal block cover clip
2	Terminal block		

Step 4 Using a 5/16-inch nutdriver, loosen and remove the four nut and lockwasher pairs on the terminal block posts. Set the nuts and lockwashers aside.

Step 5 Using an M4 nutdriver, loosen and remove the nut and lockwasher from the power supply ground terminal.

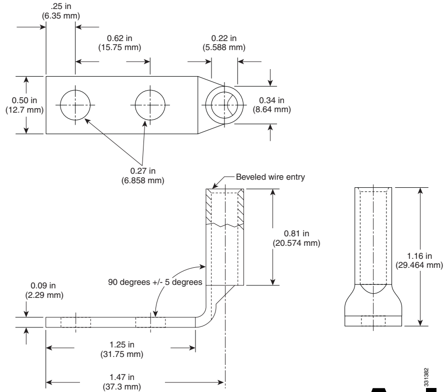
Step 6 Attach appropriate type and sized lugs to the source DC cables.

Note The lugs are not supplied as part of the chassis accessory kit; you [illegible] purchase them separately. See Figure 3-7 for the physical dimensions of a suitably-sized DC power cable lug.

The lugs must have:

- Two holes with 0.62 ±0.02-inch spacing between the hole centers to accommodate the power supply terminal posts.
- A 90-degree bend in the barrel to allow the source DC cables to exit the terminal block.
- Suitable DC power cable lugs include:
  - For 4 AWG-sized cable—Panduit LCD4-14AF-L or Burndy YA4C-2L-90
  - For 6 AWG-sized cable—Panduit LCD6-14AF-L

Figure 3-7 DC Power Cable Lug Dimensions



Note The source DC cables and the terminal block lugs should be sized according to local and national installation requirements and electrical codes. Use only cop [illegible]

Step 7 Attach the appropriate size lug to the source DC ground wire. The lug must have:

- A single hole able to accommodate the 4 mm ground post.
- The barrel can be either straight or bent as necessary.

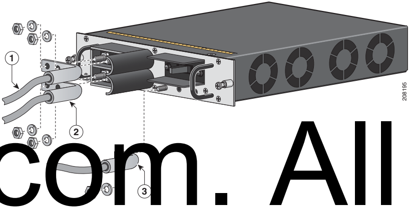
The ground lug is not supplied as part of the chassis accessory kit; you need to purchase it separately.

Step 8 Connect the source DC cables to the teminal block in this order (see Figure 3-8):

- Position the ground cable lug on the power supply ground terminal post. Slide the lockwasher over the ground post and tighten the nut to secure the source DC ground wire. Do not overtighten the nut. (15 in-lbs (1.7 Nm))
- Position the negative (–) source DC cable lug on the power supply negative (–) terminal posts. Slide the lockwashers over the terminal posts and tighten the nuts to secure the source lug to the posts. Do not overtighten the nuts. (35 in-lbs (3.6 Nm))
- Position the positive (+) source DC cable lug to the power supply positive (+) terminal posts. Slide the lockwashers over the terminal posts and tighten the nuts to secure the source lug to the posts. Do not overtighten the nuts. (35 in-lbs (3.6 Nm))

Note The terminal block on the 1000 W DC-input power supply is labeled positive(+) (top two posts) and negative (–) (bottom two posts). The ground post is located on the DC-input power supply faceplate, separate from the terminal block.

Figure 3-8 Attaching the Source DC Cables to the Power Supply

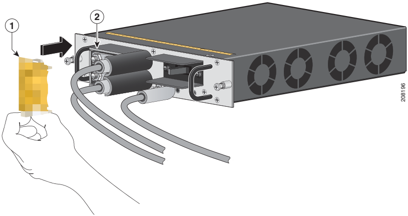


1	Source DC positive (+) cable	3	Source DC ground cable
2	Source DC negative (–) cable		

Step 9 Route the two source DC cables out of the terminal block, position the terminal block cover over the terminal block, and snap the cover into place. (See Figure 3-9.) Make sure that both the top and the bottom clips on the terminal block cover have fully engaged the tabs on the terminal block.

Caution To prevent short circuit or shock hazard after wiring the DC-input power supply, you must reinstall the terminal block cover.

Figure 3-9 Reinstalling the Terminal Block Cover



1	Terminal block cover	**2**	Terminal block

Step 10 Remove any safety flag and lockout devices or any tape from the source DC circuit breaker switch handle, and restore power by moving the circuit breaker switch handle to the on (|) position.

Step 11 Turn the 1000 W DC-input supply on/off switch to ON.

Step 12 Verify that the power supply operation is correct by looking at the power supply front panel power supply LEDs:

- The INPUT OK LED is green when the source DC voltage measured at the power supply is within specifications.
- The OUTPUT OK LED is green when the voltages provided by the power supply are within specifications.

You should also check the chassis front panel LEDs:

- The PS1 or PS2 LED is green.
- The PS1 or PS2 LED is red when the power supply is not functioning normally.
- The PS1 or PS2 LED is off when the power supply is not connected to a power source.

From the system console, enter the **show power** command to display the power supply and system status. For more information on this command, see the command reference publication for your software release.

If the LEDs or **show power** command indicate a power problem or other system problem, see Chapter 4, "Troubleshooting the Installation," for troubleshooting information.

Optical Connections

The Cisco 4900M switch has up to 24 ports that can be configured with X2 modules with SC connectors. Module types supported are documented at:

http://www.cisco.com/en/US/docs/interfaces_modules/transceiver_modules/compatibility/matrix/OL_6974.html

Generic connection instructions for the X2 modules are at:

http://www.cisco.com/en/US/docs/interfaces_modules/transceiver_modules/installation/note/OL_23589.html

Installation documentation for Cisco TwinGig converter modules can be found at:

http://www.cisco.com/en/US/docs/switches/lan/catalyst3750e_3560e/hardware/install/notes/175720 2.html

Configurable Modules

All Catalyst 4900M modules support hot swapping, which lets you install, remove, replace, and rearrange switching modules without turning off the system power. When the system detects that a switching module has been installed or removed, it runs diagnostic and discovery tests automatically, acknowledges the presence or absence of the module, and resumes system operation with no operator intervention.

This section describes the following topics:

- Required [illegible], page 3-[illegible]
- Removing Switching Modules, page 3-15
- Installing Switching Modules, page 3-17

Required Tools

You will need these tools to install switching modules in the Catalyst 4900M series switches:

- Number 1 and number 2 Phillips screwdrivers for the captive installation screws
- 3/16-inch flat-blade screwdriver for the captive installation screws
- Antistatic mat or antistatic foam
- Wrist strap or other grounding device

Note Whenever you handle switching modules, use a wrist strap or other grounding device to prevent ESD damage.

Removing Switching Modules

Warning **Invisible laser radiation may be emitted from disconnected fibers or connectors. Do not stare into beams or view directly with optical instruments.** Statement 1051

Warning **Hazardous voltage or energy is present on the backplane when the system is operating. Use caution when servicing.** Statement 1034

Warning **Voltages that present a shock hazard may exist on Power over Ethernet (PoE) circuits if interconnections are made using uninsulated exposed metal contacts, conductors, or terminals. Avoid using such interconnection methods, unless the exposed metal parts are located within a restricted access location and users and service people who are authorized within the restricted access location are made aware of the hazard. A restricted access area can be accessed only through the use of a special tool, lock and key or other means of security.** Statement 1072

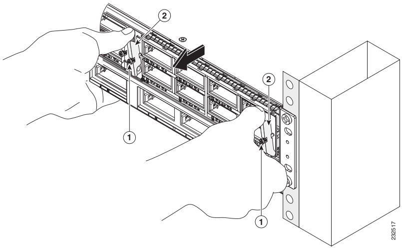
Caution To prevent ESD damage, handle switching modules by the carrier edges only.

To remove a switching module from a Catalyst 4900M series switch, perform the following steps:

Step 1 Disconnect any network interface cables attached to the ports on the switching module that you intend to remove.

Step 2 Loosen the captive installation screws. (See Figure 3-10.)

Figure 3-10 Captive Installation Screws and Ejector Levers



1	Captive screw	**2**	Ejector lever

Step 3 Grasp the left and right ejector levers, and simultaneously pivot the levers downward to release the switching module from the backplane connector.

Step 4 Grasp the front panel of the switching module with one hand, and place your other hand under the carrier to support and guide it out of the slot. Do not touch the printed circuit boards or the connector pins.

Step 5 Carefully pull the switching module straight out of the slot, keeping your other hand under the carrier to guide it.

Step 6 Place the switching module on an antistatic mat or antistatic foam, or immediately install it in another slot.

Step 7 If the slot is to remain empty, install a switching-module filler plate.

Warning **Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.** Statement 1029

Installing Switching Modules

Warning **Invisible laser radiation may be emitted from disconnected fibers or connectors. Do not stare into beams or view directly with optical instruments.** Statement 1051

Warning **Voltages that present a shock hazard may exist on Power over Ethernet (PoE) circuits if interconnections are made using uninsulated exposed metal contacts, conductors, or terminals. Avoid using such interconnection methods, unless the exposed metal parts are located within a restricted access location and users and service people who are authorized within the restricted access location are made aware of the hazard. A restricted access area can be accessed only through the use of a special tool, lock and key or other means of security.** Statement 1072

Caution To prevent ESD damage, handle switching modules by the carrier edges only.

To install a switching module in a Catalyst 4900M series switch, perform the following steps:

Step 1 Take the necessary precautions to prevent ESD damage as described in Appendix B and in Chapter 2.

Step 2 Choose a slot for the new switching module. Ensure that you have enough clearance to accommodate any interface equipment that you will connect directly to the switching module ports.

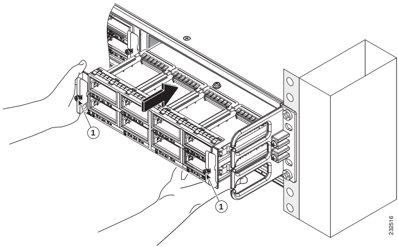
Step 3 Loosen the captive installation screws that secure the switching-module filler plate (or the existing switching module) to the desired slot.

Step 4 Remove the switching-module filler plate (or the existing switching module). Save the switching-module filler plate for future use. If you are removing an existing switching module, see the "Removing Switching Modules" section on page 3-15.

Step 5 To install the new switching module, grasp the switching-module front panel with one hand, and place your other hand under the carrier to support the switching module, as shown in Figure 3-[illegible]. Do not touch the printed circuit boards or connector pins.

Step 6 Align the edges of the circuit board with the slot guides on the sides of the switch chassis, as shown in Figure 3-11.

Figure 3-11 Installing the Switching Module in the Chassis



1	Captive screw

Step 7 Carefully slide the switching module into the slot until both ejector levers engage the chassis sides equally and the module is seated in the backplane.

Step 8 Use a screwdriver to tighten the captive installation screws on each end of the switching module faceplate.

To check the status of the module, perform the following steps:

Step 1 [illegible] that the STATUS LED is [illegible] ([illegible] operational).

Step 2 When the switch is online, enter the **show module** command. Verify that the system acknowledges the new module and that the module's status is listed as good in the [illegible]

Step 3 If the module is not operational, reset it. If the module is still not operational, contact your customer [illegible] representative.

Removing and Replacing the Power Supply

This section describes how to remove and install the AC and DC-input power supplies. This information is presented in the following sections:

- Required Tools, page 3-19
- Removing a Power Supply, page 3-19
- Installing a Power Supply, page 3-20

Warning **Hazardous voltage or energy is present on the backplane when the system is operating. Use caution when servicing.** Statement 1034

Locate your power supply and notice the location of the captive installation screws.

Note The power supplies are hot-swappable, so in redundant mode you will not need to power down the switch to replace most power supplies. In combined mode some slots may lose power during power supply replacement.

Required Tools

You will need a flathead or Phillips screwdriver or 5/16" nut driver or socket to perform these procedures.

Removing a Power Supply

Follow these steps to remove a power supply:

Step 1 Set the power switch to the off (O) position.

Caution For DC installations, the DC power source or panel breaker should be powered down before disconnecting input power cables from the 1000W DC power supply.

Step 2 Disconnect the power cord or cords from the power supply being removed.

Step 3 Loosen the captive screws.

Caution Use both hands to remove a power supply.

Step 4 Grasp the power supply handles and pull the power supply out an inch to unseat the backplane connections. Place one hand underneath to support the bottom of the power supply.

Step 5 Pull the power supply out of the bay and set it aside.

Warning **Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.** Statement 1029

Step 6 If the power supply bay is to remain empty, install a blank power supply filler plate over the opening. Secure the filler plate with the two mounting screws and tighten them with a screwdriver.

Installing a Power Supply

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

Follow these steps to install a power supply:

Step 1 Make sure that the power supply you are installing is not connected to a power source and that a power cord is not connected to the power supply.

Step 2 Loosen the two Phillips-head screws from the power supply filler plate (if a filler plate is present).

Step 3 Remove the power supply filler plate (if one is present) and set it aside.

Caution Use both hands to grasp a power supply.

Step 4 Grasp a power supply handle with one hand. Place your other hand underneath to support the bottom of the power supply.

Step 5 Slide the power supply almost all the way into the power supply bay. Press with both thumbs evenly to correctly seat the power supply into the connections inside.

Step 6 Using a screwdriver, tighten the two captive installation screws on the front panel of the power supply.

Step 7 Make sure the power supply power switch is in the off position (O).

Step 8 Before you connect the power supply to a power source, ensure that all site power and grounding requirements have been met.

Step 9 Plug the power cord or cords into the power supply.

Step 10 Connect the other end of the power cord to a power input source.

Caution In a system with multiple power supplies, connect each power supply to a separate power source. In the event of a power source failure, if the second source is still available, it can maintain maximum overcurrent protection for each power connection.

Step 11 Press the power switch to the on (|) position.

Step 12 Verify power supply operation by checking the power supply's front-panel LEDs. You should see the following:

- The LED labeled INPUT OK is green.
- The LED labeled OUTPUT OK is green.

Step 13 Check the power supply and system status from the system console by entering **show power** command. For more information on this command, refer to the command reference publication for your switch.

Step 14 If the LEDs or **show power** command output indicate a power problem or other system problem, see Chapter 4, "Troubleshooting the Installation," for more information.

Removing and Replacing the Fan Assembly

This section describes how to remove and install the fan assembly.

Required Tools

You will need a Phillips screwdriver for the following two procedures.

Removing the Fan Assembly

Warning **When removing the fan tray, keep your hands and fingers away from the spinning fan blades. Let the fan blades completely stop before you remove the fan tray.** Statement 258

Caution Never operate the system for an extended period if the fan assembly is removed or if it is not functioning properly. An over-temperature condition can cause severe equipment damage.

To remove the existing fan assembly, perform the following steps:

Step 1 Loosen the two captive installation screws on the fan assembly by turning them counterclockwise.

Step 2 Grasp the fan assembly with both hands and pull it outward; gently move it side to side if necessary to unseat it from the backplane. Slide it out of the chassis and place it in a safe place.

Installing the Fan Assembly

To install the new fan assembly, perform the following steps:

Step 1 Hold the fan assembly with the captive screws on the left.

Step 2 Place the fan assembly into the fan assembly bay so it rests on the chassis, and then lift the fan assembly up slightly, aligning the top and bottom guides.

Step 3 Slide the fan assembly into the chassis until the two captive installation screws make contact with the chassis.

Step 4 Using a screwdriver, tighten the two captive installation screws by turning them clockwise.

Verifying the Installation

Note To check the operation of the fans, you need to power up the chassis.

To verify that the new fan assembly was installed correctly, perform the following steps:

Step 1 Listen for the fans; you should immediately hear them operating. If you do not hear them, ensure that the fan assembly is inserted completely in the chassis and that the faceplate is flush with the switch back panel.

Step 2 The fan tray LED should be lit green.

Step 3 If after several attempts the fans do not operate, or if you experience trouble with the installation (for instance, if the captive installation screws do not align with the chassis holes), contact the Cisco TAC for assistance.

CHAPTER 4

Troubleshooting the Installation

This chapter describes how to troubleshoot the Catalyst 4900M switch hardware installation and contains these sections:

- Getting Started, page 4-1
- Problem Solving to the System Component Level, page 4-2
- Identifying Startup Problems, page 4-2
- Troubleshooting the Power Supply, page 4-4
- Contacting Customer Service, page 4-4

If your system has problems starting up, use the information in this chapter to help isolate the cause. Problems with the initial startup are often caused by poor or improper connections. Although temperature conditions above the maximum acceptable level rarely occur at initial startup, environmental monitoring functions are included because they also monitor DC-line voltages.

Note For configuration questions or problems, refer to the software configuration guide or the command reference publication to configure or enable the interfaces.

Getting Started

When the initial system boot is complete, verify the following:

- Power supplies are supplying power to the system.
- The system fan assembly is operating.
- System software boots successfully.

If all of these conditions are met and the hardware installation is complete, refer to the software configuration guide and the command reference publications to troubleshoot the software. However, if any of these conditions are not met, use the procedures in this chapter to isolate and, if possible, resolve the problem.

Problem Solving to the System Component Level

The key to success when troubleshooting the system is to isolate the problem to a specific system component. The first step is to compare what the system *is doing* to what it *should be doing*. Because a startup problem can usually be attributed to a single component, it is more efficient to isolate the problem to a subsystem rather than troubleshoot each separate component in the system.

The switch consists of the following subsystems:

- Power supply—Includes the power supply and power supply cooling. (See the "Troubleshooting the Power Supply" section on page 4-4.)
- Fan assembly system—The chassis fan assembly should operate whenever system power is on. Usually, it continues to operate even when the environmental monitor shuts down the system because of an overtemperature or overvoltage condition. (It will shut down for a power supply shutdown.) You should be able to hear the fan assembly to determine whether or not it is operating. If the FAN LED is orange and you determine that the fan assembly is not operating, you should immediately contact a customer service representative. There are no installation adjustments that you can make if the fan assembly does not function properly at the initial startup.

Identifying Startup Problems

When you connect the power cords to the Catalyst 4900M switch, follow these steps:

Step 1 Flip the power switches to the on position (AC powered systems only).

Step 2 Verify that power is available to the power supplied from the site AC or DC source. Flip breakers and fuses if necessary.

Step 3 Listen for the system fan assembly. If you do not immediately hear the system fan assembly begin to operate, see "Troubleshooting the Power Supply" section on page 4-4.

Step 4 If you determine that the power supplies are functioning normally and that the fan assembly is faulty, contact a customer service representative. If the system fan assembly does not function properly at initial startup, there are no installation adjustments that you can make.

LED Readings

LEDs indicate all system states in the startup sequence. By checking the LEDs, you can determine when and where the system failed [illegible] the startup sequence. To check the LEDs, follow these steps:

Step 1 Compare the LED states to those listed in Table 4-1.

Table 4-1 Power Supply LED Meanings

LED	Meaning
INPUT OK (AC)	This LED should turn green immediately when power is applied to the supply and the power switch is set to ON. Green—AC input voltage is greater than 80.5 VAC ±4.5 VAC. Red—In a dual power supply configuration (alternate unit powered) the AC input is less than 73 VAC ±3 VAC, or the power supply is turned off. Off—In a single supply configuration, signals that AC input voltage is less than 73 VAC ±3 VAC, or the power supply is turned off.
INPUT OK (DC)	This LED should turn green immediately when power is applied to the supply. Green—DC input voltage is greater than –38.25 VDC ±2.25 VDC. Red—In a dual power supply configuration (alternate unit powered) the DC input is less than 33 VDC ±3 VDC, or the power supply is turned off. Off—In a single supply configuration, the LED shall be off to signal that DC input is less than 33 VDC ±3 VDC, or the power supply is turned off.
OUTPUT OK	Green—DC output voltages are within the normal operating range. Red—Output voltages below the minimum or above the maximum will create an output fail alarm and cause the LED to illuminate red.

Step 2 Verify that the LEDs on the front panel are lit:

- The STATUS LED flashes yellow during diagnostic boot tests. It is green when the switch is operational (online). If the system software is unable to start up, this LED stays orange.
- The port LEDs (1-48) are green when the module is operational (online). If no signal is detected, the LINK LED is off. The port LED remains yellow if the port is disabled. The port LED flashes yellow if the port tested faulty at startup.

Step 3 If [illegible] STATUS LED [illegible] red, contact [illegible] customer service representative for instructions.

Step [illegible] If the boot information and system banner are not displayed, verify that the terminal is set correctly and that it is connected properly to the console port.

Troubleshooting the Power Supply

To help isolate a power subsystem problem, perform the following steps:

Step 1 Verify that the power supply is plugged in and that the on/off switch is set to ON (if the power supply is an AC supply).

Step 2 Look at the power supply LED (PS1 or PS2). If the LED is off or if the LED is red, unplug the power cord, and then plug the power cord in. Be sure the on/off switch is OFF before removing the power cord from the power supply.

Step 3 If the LED remains off, there might be a problem with the AC or DC source or the power cable.

Step 4 Connect the power cord to another power source if one is available.

Step 5 If the LED then lights, the problem is the first power source.

Step 6 If the LED fails to light after you connect the power supply to a new power source, replace the power cord.

Step 7 If the LED still fails to light when the switch is connected to a different power source with a new power cord, the power supply is probably faulty.

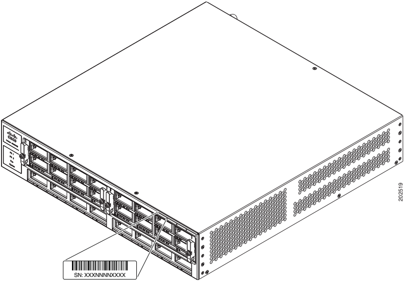
If you are unable to resolve the problem, contact a customer service representative for instructions.

Contacting Customer Service

If you are unable to solve a startup problem after using the troubleshooting suggestions in this chapter, contact a customer service representative for assistance and further instructions. Before you call, have the following information ready to help your service provider assist you as quickly as possible:

- Date you received the switch
- Chassis serial number (located on a label on the right of the rear of the chassis, see Figure 4-1)
- Type of software and release number
- Maintenance agreement or warranty information
- Brief description of the problem
- Brief explanation of the steps you have already taken to isolate and resolve the problem

Figure 4-1 Serial Number Location



APPENDIX A

Specifications

Revised: January 4, 2012

This appendix provides cable and power supply technical specifications for the Catalyst 4900M switches.

Console Port

The console port is an RJ-45 receptacle. The Request to Send (RTS) signal tracks the state of the Clear to Send (CTS) input. Table A-1 lists the console port pinouts.

Table A-1 Console Port Pinouts

Pin	Signal	Direction	Description
1	RTS	output	request to send
2	DTR	output	data terminal ready
3	TXD	output	transmit data
4	GND	—	—
5	GND	—	—
6	RXD	input	receive data
7	DSR	input	data set ready
8	CTS	input	clear to send

Note A console cable is not provided in the accessory kit. It can be ordered as an option.

10/100/1000BASE-T Management Port

The 10/100/1000BASE-T management port is an RJ-45 receptacle with a Link Status LED. Table A-2 lists the 10/100BASE-T port pinouts.

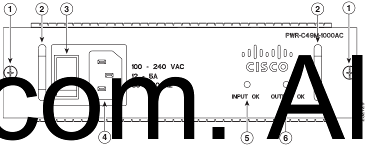
Table A-2 10/100BASE-T Port Pinouts

Pin	Signal	Direction	Description
1	RXDP	input	receive data
2	RXDN	input	receive data
3	TXDP	output	transmit data
4	unused	—	—
5	unused	—	—
6	TXDN	output	transmit data
7	unused	—	—
8	unused	—	—

Catalyst 4900M Switch Power Supply Specifications

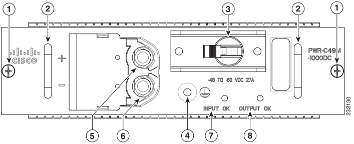
The Catalyst 4900M switch 1000 W AC-input power supply (PWR-C49M-1000AC) is shown in Figure A-1 with the major features identified. The 1000 W DC-input power supply (PWR-C49M-1000DC) is shown in Figure A-2 with the major features identified. Table A-3 list the power supply specifications.

Figure A-1 1000 W AC-Input Power Supply (PWR-C49M-1000AC)



1	Captive installation screw	**4**	AC-in connector
2	Handle	**5**	INPUT OK LED
3	Power on/off switch	**6**	OUTPUT OK LED

Figure A-2 1000 W DC-Input Power Supply (PWR-C49M-1000DC)



1	Captive installation screws	**5**	DC-in connector (positive (+) post)
2	Handles	**6**	DC-in connector (negative (–) post)
3	Power on/off switch	**7**	INPUT OK LED
4	Ground post	**8**	OUTPUT OK LED

Note DC power cable lugs are not supplied as part of the accessory kit; they must be purchased separately. Suitable DC power cable lugs include:

- For 4 AWG-sized cable—Panduit LCD4-14AF-L or Burndy YA4C-2L-90
- For 6 AWG-sized cable—Panduit LCD6-14AF-L

See Figure A-3 for the dimensions of a suitably-sized lug.

Figure A-3 DC Power Cable Lug Dimensions

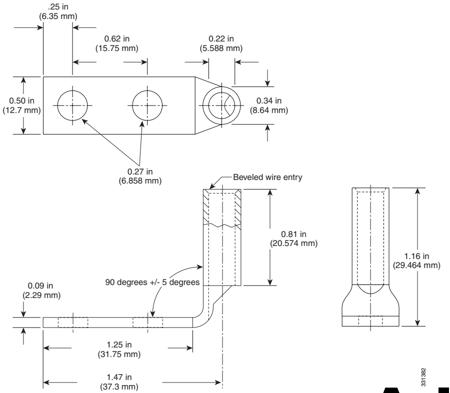


Table A-3 lists the AC-input and DC-input power supply specifications.

Table A-3 Catalyst 4900M Series Power Supply Specifications

Item	Specification
AC-input power supply	
Power supply output	960 W
Power supply dissipation	240 W
AC-input	12 A maximum @ 100 VAC 5 A maximum @ 240 VAC
AC frequency	50 to 60 Hz
Output current	80 A maximum

Table A-3 Catalyst 4900 Series Power Supply Specifications (continued)

Item	**Specification**
Inrush value	Cold turn on (PSU on for < 1 hour) 50 A for one cycle of AC
Output voltage	12 VDC
Input KVA rating	1.200 KVA
DC-input power supply	
Power supply output	960 W
Power supply dissipation	320 W
DC-input	27 A @ –48 VDC (Operating range –40.5 to –56 VDC)
	21.6 A @ –60 VDC (Operating range –55 to –72 VDC)
Output current	80 A maximum
Inrush value	Hot turn on (PSU on for > 1 hour) 75 A
Output voltage	12 VDC
Input KVA rating	1.296 KVA

APPENDIX **B**

Compliance Information and Translated Safety Warnings

Note Only trained and qualified service personnel (as defined in IEC 60950-1 and AS/NZS 60950) should install, replace, or service the equipment. Install the system in accordance with the U.S. National Electric Code if you are in the United States.

This appendix contains the following sections:

- Translated Safety Warnings, page B-1
- European Directives, page B-38
- Statement 6003—Taiwan Battery, page B-40
- Statement 6004—EU Battery Disposal and Recycling, page B-40
- Statement 6005—California Perchlorate Contamination Prevention Act (Title 22, California Code of Regulations, Chapter 33), page B-40
- Statement 8000—Standards Compliance, page B-40
- Statement 2007—EMC Environmental Conditions for Products Installed in the European Union, page B-42
- EMC Class A Notices and Warnings, page B-42
- GR-1089-CORE Issue 3 Documentation Statements, page B-46
- GR-1089-CORE Issue 4 Documentation Statements, page B-46
- Statement 80[illegible]—Telecom Approvals Listing, page B-47
- Japanese Electrical Appliance and Radio Laws, page B-50

Translated Safety Warnings

This section repeats in multiple languages the warnings in this guide.

Statement 258—Fan Tray Removal Warning

Warning	**When removing the fan tray, keep your hands and fingers away from the spinning fan blades. Let the fan blades completely stop before you remove the fan tray.**
Waarschuwing	**Houd tijdens het verwijderen van de ventilator de handen en vingers uit de buurt van de draaiende ventilatorschoepen. Laat de ventilatorschoepen volledig tot stilstand komen alvorens de ventilator te verwijderen.**
Varoitus	**Pidä kädet ja sormet pois tuulettimen pyörivistä siivistä tuuletinalustaa poistaessasi. Anna tuulettimen siipien pysähtyä kokonaan ennen kuin irrotat tuuletinalustan.**
Attention	**Lors du retrait du plateau du ventilateur, veillez à ce que vos mains et doigts restent à l'écart des pales en rotation du ventilateur. Attendez que les pales du ventilateur soient parvenues à une immobilité complète avant de retirer le plateau du ventilateur.**
Warnung	**Beim Herausnehmen des Lüfterkastens Hände und Finger von den sich drehenden Gebläseflügeln fern halten. Vor Herausnehmen des Gebläsekastens warten, bis die Gebläseflügel völlig zum Stillstand gekommen sind.**
Avvertenza	**Quando si toglie il vano della ventola, fare attenzione che le mani e le dita non vengano in contatto con la ventola in movimento. Attendere che la ventola si fermi completamente prima di togliere il vano.**
Advarsel	**Når du fjerner viftedekselet, hold hender og fingre borte fra de roterende viftebladene. La viftebladene stanse helt før du fjerner viftedekselet.**
Aviso	**Mantenha as suas mãos e dedos afastados das lâminas em movimento da ventoinha, ao retirar a respectiva bandeja. Deixe as lâminas da ventoinha parar completamente antes de retirar a bandeja.**
¡Advertencia!	**Cuando quite la bandeja del abanico, mantenga las manos y los dedos alejados de las aspas en movimiento. Deje que las aspas se detengan completamente antes de quitar la bandeja del abanico.**
Varning!	**Håll händer och fingrar borta från de roterande fläktbladen när du tar av fläktskyddet. Låt fläkten stanna helt innan du tar av fläktskyddet.**
Figyelem	**Ha eltávolítja a ventilátor borítóját, ügyeljen rá, hogy ne tegye kezét vagy ujjait a ventilátor forgó lapátjai közelébe. A ventilátor borítójának eltávolítása előtt várja meg, hogy a ventilátor lapátjai teljesen megálljanak.**
Предупреждение	При снятии вентиляторного блока не подносите руки близко к вращающимся лопастям вентилятора. Перед снятием вентиляторного блока дождитесь полной остановки лопастей вентилятора.

警告 在拆卸风扇架时，手和手指不要碰到旋转着的风扇叶片。待风扇叶片完全停止旋转后再拆卸风扇架。

警告 ファン トレイを取り外すときは、回転しているファン ブレードに手や指が触れないように注意してください。ファン ブレードが完全に静止してから、ファン トレイを取り外してください。

Statement 1003—DC Power Disconnection

Warning **Before performing any of the following procedures, ensure that power is removed from the DC circuit.**

Waarschuwing **Voordat u een van de onderstaande procedures uitvoert, dient u te controleren of de stroom naar het gelijkstroom circuit uitgeschakeld is.**

Varoitus **Varmista, että tasavirtapiirissä ei ole virtaa ennen seuraavien toimenpiteiden suorittamista.**

Attention **Avant de pratiquer l'une quelconque des procédures ci-dessous, vérifier que le circuit en courant continu n'est plus sous tension.**

Warnung **Vor Ausführung der folgenden Vorgänge ist sicherzustellen, daß die Gleichstromschaltung keinen Strom erhält.**

Avvertenza **Prima di svolgere una qualsiasi delle procedure seguenti, verificare che il circuito CC non sia alimentato.**

Advarsel **Før noen av disse prosedyrene utføres, kontroller at strømmen er frakoblet likestrømkretsen.**

Aviso **Antes de executar um dos seguintes procedimentos, certifique-se que desligou a fonte de alimentação de energia do circuito de corrente contínua.**

¡Advertencia! **Antes de proceder con los siguientes pasos, comprobar que la alimentación del circuito de corriente continua (CC) esté cortada (OFF).**

Varning! **Innan du utför någon av följande procedurer måste du kontrollera [illegible] strömförsörjningen till likströmskretsen är bruten.**

Figyelem **Mielőtt a következő eljárások bármelyikét végrehajtaná, feltétlenül szakítsa meg az egyenáramú áramkör tápellátását.**

Предупреждение Перед выполнением любых описанных ниже действий убедитесь, что цепь питания постоянным током отключена.

警告 在进行下述任一操作过程之前，要确保将电源从直流电路上断开。

警告 次の手順を開始する前に、DC回路から電源が切断されていることを確認してください。

주의 다음 작업을 진행하기 전에, 직류 회로에서 전원이 차단되었는지 확인하십시오.

Aviso **Antes de executar qualquer um dos procedimentos a seguir, verifique se a energia foi removida do circuito DC.**

Advarsel **Før du udfører nogen af følgende procedurer, skal du sikre dig, at der ikke er strøm til jævnstrømskredsløbet.**

تحذير **قبل القيام بأي من الإجراءات التالية، تأكد من فصل التيار من دائرة التيار المباشر.**

Upozorenje **Prije obavljanja nekog od sljedećih postupaka, provjerite da u krugovima s istosmjernom strujom nema napajanja.**

Upozornění **Před provedením kterékoliv z následujících operací odpojte napájení od stejnosměrného obvodu.**

Προειδοποίηση Πριν να ακολουθήσετε οποιαδήποτε από τις παρακάτω διαδικασίες, βεβαιωθείτε ότι έχει διακοπεί η τροφοδοσία από το κύκλωμα συνεχούς ρεύματος.

אזהרה לפני ביצוע אחד מהנהלים הבאים, ודא שאספקת החשמל למעגל הזרם הישר (DC) מנותקת.

Пред вршење на која и да е од следните постапки, погрижете се да нема напојување на струјните кола со едночасовна струја.

Ostrzeżenie **Przed przystąpieniem do wykonywania poniższych procedur należy upewnić się, że odłączono zasilanie od obwodu prądu stałego.**

Upozornenie **Pred vykonaním ktorejkoľvek z nasledujúcich operácií odpojte napájanie od jednosmerného obvodu.**

Statement 1004—Installation Instructions

Warning **Read the installation instructions before connecting the system to the power source.**

Waarschuwing **Raadpleeg de installatie-instructies voordat u het systeem op de voedingsbron aansluit.**

Varoitus **Lue asennusohjeet ennen järjestelmän yhdistämistä virtalähteeseen.**

Attention	**Avant de brancher le système sur la source d'alimentation, consulter les directives d'installation.**
Warnung	**Vor dem Anschließen des Systems an die Stromquelle die Installationsanweisungen lesen.**
Avvertenza	**Consultare le istruzioni di installazione prima di collegare il sistema all'alimentatore.**
Advarsel	**Les installasjonsinstruksjonene før systemet kobles til strømkilden.**
Aviso	**Leia as instruções de instalação antes de ligar o sistema à fonte de energia.**
¡Advertencia!	**Lea las instrucciones de instalación antes de conectar el sistema a la red de alimentación.**
Varning!	**Läs installationsanvisningarna innan du kopplar systemet till strömförsörjningsenheten.**
Figyelem	**Mielőtt áramforráshoz csatlakoztatná a rendszert, olvassa el az üzembe helyezési útmutatót!**
Предупреждение	Перед подключением устройства к источнику электропитания ознакомьтесь с данной инструкцией по установке.
警告	在将系统与电源连接之前，请仔细阅读安装说明。
警告	必ず設置手順を読んでから、システムを電源に接続してください。
주의	시스템을 전원에 연결하기 전에 설치 지침을 읽으십시오.
Aviso	**Leia as instruções de instalação antes de conectar o sistema à fonte de energia.**
Upozornění	**Před připojením systému k elektrické síti si prostudujte pokyny k instalaci.**
Προειδοποίηση	**Διαβάστε τις οδηγίες εγκατάστασης προτού συνδέσετε το σύστημα στην πηγή τροφοδοσίας ρεύματος.**
[illegible]זהרה	י[illegible] לקרוא את הוראות הה[illegible]קנה [illegible] חיב[illegible] המע[illegible]ת למק[illegible] המ[illegible].
Ostrzeże[illegible]	**Prz[illegible]d p[illegible]dłączeni[illegible] sy[illegible]emu d[illegible] źródła [illegible]silania należy prze[illegible]tać instru[illegible]je d[illegible]czą[illegible] in[illegible]alacj[illegible]**
Upozornenie	**Pred pripojením systému k napájaciemu zdroju si prečítajte inštalačné pokyny.**
Opozorilo	**Preden sistem priključite, preberite navodila za priključitev.**
警告	將系統連接供電系統前，請先閱讀安裝指南。

Statement 1006—Chassis Warning for Rack-Mounting and Servicing

Warning **To prevent bodily injury when mounting or servicing this unit in a rack, you must take special precautions to ensure that the system remains stable. The following guidelines are provided to ensure your safety:**

- This unit should be mounted at the bottom of the rack if it is the only unit in the rack.
- When mounting this unit in a partially filled rack, load the rack from the bottom to the top with the heaviest component at the bottom of the rack.
- If the rack is provided with stabilizing devices, install the stabilizers before mounting or servicing the unit in the rack.

Waarschuwing **Om lichamelijk letsel te voorkomen wanneer u dit toestel in een rek monteert of het daar een servicebeurt geeft, moet u speciale voorzorgsmaatregelen nemen om ervoor te zorgen dat het toestel stabiel blijft. De onderstaande richtlijnen worden verstrekt om uw veiligheid te verzekeren:**

- Dit toestel dient onderaan in het rek gemonteerd te worden als het toestel het enige in het rek is.
- Wanneer u dit toestel in een gedeeltelijk gevuld rek monteert, dient u het rek van onderen naar boven te laden met het zwaarste onderdeel onderaan in het rek.
- Als het rek voorzien is van stabiliseringshulpmiddelen, dient u de stabilisatoren te monteren voordat u het toestel in het rek monteert of het daar een servicebeurt geeft.

Varoitus **Kun laite asetetaan telineeseen tai huolletaan sen ollessa telineessä, on noudatettava erityisiä varotoimia järjestelmän vakavuuden säilyttämiseksi, jotta vältytään loukkaantumiselta. Noudata seuraavia turvallisuusohjeita:**

- Jos telineessä ei ole muita laitteita, aseta laite telineen alaosaan.
- Jos laite asetetaan osaksi täytettyyn telineeseen, aloita kuormittaminen sen alaosasta kaikkein raskaimmalla esineellä ja siirry sitten sen yläosaan.
- Jos telinettä varten on vakaimet, asenna ne ennen laitteen asettamista telineeseen tai sen huoltamista siinä.

Attention **Pour éviter toute blessure corporelle pendant les opérations de montage [illegible] de réparation de cette unité en casier, il convient de prendre des précautions spéciales afin de maintenir la stabilité du système. Les directives ci-dessous sont destinées à assurer la protection du personnel:**

- Si cette unité constitue la seule unité montée en casier, elle doit être placée dans le [illegible]
- Si cette unité est montée dans un casier partiellement rempli, charger le casier de bas [illegible] haut en plaçant l'élément le plus lourd dans le bas.
- Si le casier est équipé de dispositifs stabilisateurs, installer les stabilisateurs avant de monter ou de réparer l'unité en casier.

Warnung **Zur Vermeidung von Körperverletzung beim Anbringen oder Warten dieser Einheit in einem Gestell müssen Sie besondere Vorkehrungen treffen, um sicherzustellen, daß das System stabil bleibt. Die folgenden Richtlinien sollen zur Gewährleistung Ihrer Sicherheit dienen:**

- Wenn diese Einheit die einzige im Gestell ist, sollte sie unten im Gestell angebracht werden.
- Bei Anbringung dieser Einheit in einem zum Teil gefüllten Gestell ist das Gestell von unten nach oben zu laden, wobei das schwerste Bauteil unten im Gestell anzubringen ist.
- Wird das Gestell mit Stabilisierungszubehör geliefert, sind zuerst die Stabilisatoren zu installieren, bevor Sie die Einheit im Gestell anbringen oder sie warten.

Avvertenza **Per evitare infortuni fisici durante il montaggio o la manutenzione di questa unità in un supporto, occorre osservare speciali precauzioni per garantire che il sistema rimanga stabile. Le seguenti direttive vengono fornite per garantire la sicurezza personale:**

- Questa unità deve venire montata sul fondo del supporto, se si tratta dell'unica unità da montare nel supporto.
- Quando questa unità viene montata in un supporto parzialmente pieno, caricare il supporto dal basso all'alto, con il componente più pesante sistemato sul fondo del supporto.
- Se il supporto è dotato di dispositivi stabilizzanti, installare tali dispositivi prima di montare o di procedere alla manutenzione dell'unità nel supporto.

Advarsel **Unngå fysiske skader under montering eller reparasjonsarbeid på denne enheten når den befinner seg i et kabinett. Vær nøye med at systemet er stabilt. Følgende retningslinjer er gitt for å verne om sikkerheten:**

- Denne enheten bør monteres nederst i kabinettet hvis dette er den eneste enheten i kabinettet.
- Ved montering av denne enheten i et kabinett som er delvis fylt, skal kabinettet lastes fra bunnen og opp med den tyngste komponenten nederst i kabinettet.
- Hvis kabinettet er utstyrt med stabiliseringsutstyr, skal stabilisatorene installeres før montering eller utføring av reparasjonsarbeid på enheten i kabinettet.

Aviso **Para se prevenir contra danos corporais ao montar ou reparar esta unidade numa estante, deverá tomar precauções especiais para se certificar de que o sistema possui um suporte estável. As seguintes directrizes ajudá-lo-ão a efectuar o seu trabalho com segurança:**

- Esta unidade deverá ser montada na parte inferior da estante, caso seja esta a única unidade a ser montada.
- Ao montar esta unidade numa estante parcialmente ocupada, coloque os it[illegible] [illegible]is pesados [illegible] par[illegible]nferior da esta[illegible] [illegible]mando-[illegible] d[illegible] pa[illegible].
- Se a[illegible]stante pos[illegible]ir um [illegible]spositi[illegible] de esta[illegible]zação, instale-o antes de [illegible]ntar ou [illegible]parar a [illegible]idad[illegible]

¡Advertenc[illegible] **Pa[illegible] [illegible]ev[illegible]r lesion[illegible] dura[illegible]te el m[illegible]taje de[illegible]ste equipo sobre un [illegible]stidor, o po[illegible]erio[illegible]ente [illegible]urante [illegible]antel[illegible]ior[illegible] se de[illegible] poner [illegible]ucho c[illegible]dado[illegible] que el sist[illegible]a quede bien [illegible]sta[illegible]e. Pa[illegible] garantizar su seguridad, proceda según las siguientes instrucciones:**

- Colocar el equipo en la parte inferior del bastidor, cuando sea la única unidad en el mismo.
- Cuando este equipo se vaya a instalar en un bastidor parcialmente ocupado, comenzar la instalación desde la parte inferior hacia la superior colocando el equipo más pesado en la parte inferior.
- Si el bastidor dispone de dispositivos estabilizadores, instalar éstos antes de montar o proceder al mantenimiento del equipo instalado en el bastidor.

Varning! **För att undvika kroppsskada när du installerar eller utför underhållsarbete på denna enhet på en ställning måste du vidta särskilda försiktighetsåtgärder för att försäkra dig om att systemet står stadigt. Följande riktlinjer ges för att trygga din säkerhet:**

- **Om denna enhet är den enda enheten på ställningen skall den installeras längst ned på ställningen.**
- **Om denna enhet installeras på en delvis fylld ställning skall ställningen fyllas nedifrån och upp, med de tyngsta enheterna längst ned på ställningen.**
- **Om ställningen är försedd med stabiliseringsdon skall dessa monteras fast innan enheten installeras eller underhålls på ställningen.**

Figyelem **A készülék rackbe történő beszerelése és karbantartása során bekövetkező sérülések elkerülése végett speciális óvintézkedésekkel meg kell őrizni a rendszer stabilitását.**
A személyes biztonsága érdekében tartsa be a következő szabályokat:

- **Ha a rackben csak ez az egy készülék található, a rack aljába kell beszerelni.**
- **Ha nincs teljesen tele az a rack, amelybe beszerelik a készüléket, alulról fölfelé haladva töltse fel a racket úgy, hogy a legnehezebb készülék kerüljön a rack aljába.**
- **Ha stabilizáló eszközök is tartoznak a rackhez, szerelje fel a stabilizátorokat, mielőtt beszerelné az egységet a rackbe, vagy karbantartást végezne rajta.**

Предупреждение Во избежание травм при монтаже и обслуживании устройства в стойке следует принять особые меры предосторожности, чтобы убедиться в устойчивости оборудования.
Для обеспечения безопасности работ необходимо соблюдать следующие правила.

- Если в стойке находится одно устройство, оно должно быть установлено в нижней части.
- При монтаже устройств в частично заполненную стойку устанавливайте оборудование снизу вверх, размещая наиболее тяжелые устройства в нижней части.
- Если стойка снабжена приспособлениями для стабилизации, их необходимо установить до начала монтажа или обслуживания оборудования.

警告 为避免在机架中安装或维修该部件时使身体受伤，您必须采取特殊的预防措施确保系统固定。以下是确保安全的原则：

- 如果此部件是机架中唯一的部件，应将其安装在机架的底部。
- 如果在部分装满的机架中安装此部件，请按从下往上的顺序安装各个部件，并且最重的组件应安装在机架的底部。
- 如果机架配有固定装置，请先装好固定装置，然后再在机架中安装或维修部件。

警告 この装置をラックに設置したり保守作業を行ったりするときは、人身事故を防ぐため、システムが安定しているかどうかを十分に確認する必要があります。次の注意事項に従ってください。

- ラックにこの装置を単独で設置する場合は、ラックの一番下に設置します。
- ラックに別の装置がすでに設置されている場合は、最も重量のある装置[illegible]一番[illegible]にして、[illegible]い順に下[illegible]ら上へ設置[illegible]ます[illegible]
- ラック[illegible]安定器具が付属[illegible]ている場合は、そ[illegible]安定器具を取り付けて[illegible]ら、装置を[illegible]ック[illegible]設置[illegible]るか[illegible]または[illegible]ック内の装置の保守作業[illegible]行ってください。

주의 이 장치를 랙에 장착하거나 서비스할 때 신체 부상을 방지하려면, 시스템이 안정된 상태를 유지하도록 특별히 주의해야 합니다. 사용자의 안전을 위해 다음 지침 사항을 준수하십시오.

- 이 장치가 랙에 장착되는 유일한 것일 경우, 랙의 맨 아래 부분에 장착되어야 합니다.
- 부분적으로 차 있는 랙에 이 장치를 장착할 경우, 가장 무거운 장치를 랙의 맨 아래 부분부터 차례로 장착하십시오.
- 안정기가 랙과 함께 제공되는 경우, 이 안정기를 설치한 후 이 장치를 랙에 장착하거나 서비스하십시오

Aviso **Para evitar lesões corporais ao montar ou dar manutenção a esta unidade em um rack, é necessário tomar todas as precauções para garantir a estabilidade do sistema. As seguintes orientações são fornecidas para garantir a sua segurança:**

- **Se esta for a única unidade, ela deverá ser montada na parte inferior do rack.**
- **Ao montar esta unidade em um rack parcialmente preenchido, carregue-o de baixo para cima com o componente mais pesado em sua parte inferior.**
- **Se o rack contiver dispositivos estabilizadores, instale-os antes de montar ou dar manutenção à unidade existente.**

Advarsel **For at forhindre legemesbeskadigelse ved montering eller service af denne enhed i et rack, skal du sikre at systemet står stabilt. Følgende retningslinjer er også for din sikkerheds skyld:**

- **Enheden skal monteres i bunden af dit rack, hvis det er den eneste enhed i racket.**
- **Ved montering af denne enhed i et delvist fyldt rack, skal enhederne installeres fra bunden og opad med den tungeste enhed nederst.**
- **Hvis racket leveres med stabiliseringsenheder, skal disse installeres for enheden monteres eller serviceres i racket.**

تحذير **لتجنب حدوث أي إصابات عند تركيب هذه الوحدة، يجب اتباع بعض الاحتياطات لضمان عمل النظام بشكل سليم.**
يتم ذكر الإرشادات التالية لضمان الأمان.
يجب تركيب هذه الوحدة في الجزء السفلي من الدولاب المتضمن قضبان إذا كانت هذه الوحدة هي الوحدة الوحيدة في الدولاب الذي يحتوي على قضبان.
عند تركيب هذه الوحدة في دولاب شبه ممتلئ، قم برفع الدولاب من الجزء السفلي لأعلى بحيث يكون الجزء الأثقل وزناً أسفل الدولاب.
إذا كان الدولاب المتضمن قضباناً يحتوي على أجهزة حفظ التوازن، قم بتثبيت هذه الأجهزة قبل تركيب الوحدة في الدولاب.

Upozorenje **Kako ne bi došlo do tjelesnih ozljeda kod postavljanja ili servisiranja uređaja na polici, potrebno je poduzeti mjere predostrožnosti kako bi sustav uvijek bio stabilan. Sigurnost se može osigurati poštivanjem sljedećih smjernica:**

- **Ovaj uređaj treba ugraditi na dno police, ukoliko je to jedini uređaj na polici.**
- **Kod ugradnje uređaja u policu na kojoj se već nalaze drugi uređaji, policu treba opremati počevši od dna, te tako da se na dno stave najteži dijelovi.**
- **Ukoliko su na polici ugrađeni stabilizatori, njih montirajte prije ugradnje ili servisiranja uređaja na polici.**

Upozornění **Abyste předešli zranění osob při montáži nebo opravě zařízení v montážním rámu, musíte dodržovat zvláštní preventivní opatření pro zajištění udržení stability systému. Pro zajištění bezpečnosti obsluhy jsou určeny následující zásady:**

- **Pokud je toto zařízení jedinou jednotkou v montážním rámu, musí být namontováno na nejnižší místo rámu.**
- **Pokud je toto zařízení montováno do částečně obsazeného montážního rámu, obsazujte montážní rám ve směru zdola nahoru tak, aby byla nejtěžší součást nejníže.**
- **Pokud je montážní rám vybaven stabilizačními zařízeními, nainstalujte stabilizátory ještě před montáží nebo opravou zařízení v montážním rámu.**

Προειδοποίηση

Για να αποφύγετε τον τραυματισμό κατά την τοποθέτηση ή τη συντήρηση αυτής της συσκευής σε αρθρωτό σύστημα, πρέπει να λάβετε ειδικές προφυλάξεις για να διασφαλίσετε τη σταθερότητα του συστήματος. Οι παρακάτω οδηγίες παρέχονται για να εξασφαλίσουν την ασφάλειά σας:

- Αυτή η συσκευή πρέπει να τοποθετείται στο κάτω μέρος του αρθρωτού συστήματος αν είναι η μοναδική συσκευή σε αυτό.
- Όταν τοποθετείτε αυτήν τη συσκευή σε εν μέρει γεμάτο αρθρωτό σύστημα, τοποθετήστε συσκευές στο αρθρωτό σύστημα από κάτω προς τα επάνω, με τη βαρύτερη συσκευή στο κάτω μέρος του συστήματος.
- Εάν το αρθρωτό σύστημα διαθέτει διατάξεις σταθεροποίησης, τοποθετήστε τους σταθεροποιητές πριν τοποθετήσετε ή συντηρήσετε τη συσκευή στο αρθρωτό σύστημα.

אזהרה

כדי למנוע פציעה בעת הרכבת יחידה זו במעמד או טיפול בה, עליך לנקוט אמצעי זהירות מיוחדים כדי להבטיח את יציבות המערכת. הקווים המנחים הבאים ניתנים על מנת להבטיח את ביטחונך:

- אם יחידה זו היא יחידה בודדת במעמד, יש להרכיב את היחידה בחלקו התחתון של המעמד.
- בעת הרכבת יחידה זו במעמד המלא בחלקו, טען את המעמד החל בחלק התחתון וכלפי מעלה כאשר הרכיב הכבד ביותר נמצא בחלקו התחתון של המעמד.
- אם המעמד מסופק עם התקני ייצוב, התקן את המייצבים לפני הרכבה היחידה במעמד או טיפול בה.

За да се не повредите кога го монтирате или го сервисирате уредот на полица, мора да бидете особено претпазливи за да ја обезбедите стабилноста на системот. Следите напатствија се дадени за да ја осигураат Вашата безбедност:

- Уредот треба да се монтира најдолу на полицата ако е единствен уред на полицата.
- Кога го монтирате уредот на делумно пополнета полица, полнете ја полицата од дното кон врвот со најтешката компонента на дното на полицата.
- Ако полицата има стабилизаторски делови, наместете ги стабилизаторите пред да го монтирате или сервисирате уредот на полицата.

Ostrzeżenie

Aby zapobiec urazom podczas montażu lub serwisowania tego urządzenia w stojaku, należy zastosować szczególne środki ostrożności w celu zapewnienia stabilności układu. Poniżej przedstawiono wskazówki, których przestrzeganie zapewni bezpieczeństwo:

- **Jeśli urządzenie to jest jedynym urządzeniem w stojaku, powinno być zamontowane na dole.**
- **W przypadku montażu urządzenia w częściowo zapełnionym stojaku należy instalować kolejne urządzenia od najniższego do najwyższego, przy czym element najcięższy powinien być zamontowany najniżej w stojaku.**
- **Jeśli stojak jest wyposażony w elementy stabilizujące, należy zamontować stabilizatory przed przystąpieniem do montażu lub serwisowania urządzeń w stojaku.**

Upozornenie Aby ste predišli poraneniu osôb pri montáži alebo oprave zariadenia v montážnom ráme, musíte dodržiavať zvláštne preventívne opatrenia na zaistenie udržania stability systému. Na zaistenie bezpečnosti obsluhy sú určené nasledujúce zásady:

- Pokiaľ je toto zariadenie jedinou jednotkou v montážnom ráme, musí byť namontované na najnižšie miesto v ráme.
- Pokiaľ je toto zariadenie montované do čiastočne obsadeného montážneho rámu, obsadzujte montážny rám v smere zdola nahor tak, aby bola najťažšia súčasť najnižšie.
- Pokiaľ je montážny rám vybavený stabilizačnými zariadeniami, nainštalujte stabilizátory ešte pred montážou alebo opravou zariadenia v montážnom ráme.

警告 在機架上裝載或維修本裝置時，為避免人身傷害，請務必採取特殊措施以確保系統保持穩固。下列指導方針為確保您的安全而提供：

- 如果只在機架上裝載一個裝置，必須裝載在機架底部。
- 如果機架上已經裝載其他裝置，請從底到頂依序裝載最重到最輕的裝置。
- 如果機架附有穩定設備，請先安裝該設備，再於機架上裝載或維修裝置。

Statement 1008—Class 1 Laser Product

Warning	**Class 1 laser product.**
Waarschuwing	**Klasse-1 laser produkt.**
Varoitus	**Luokan 1 lasertuote.**
Attention	**Produit laser de classe 1.**
Warnung	**Laserprodukt der Klasse 1.**
Avvertenza	**Prodotto laser di Classe 1.**
Advarsel	**Laserprodukt av klasse 1.**
Aviso	**Produto laser de classe 1.**
¡Advertencia!	**Producto láser Clase I.**
Varning!	**Laserprodukt av klass 1.**
Figyelem	**Class 1 besorolású lézeres termék.**
Предупреждение	Лазерное устройство класса 1.

警告	这是 1 类激光产品。
警告	クラス1レーザー製品です。
주의	클래스 1 레이저 제품.
Aviso	**Produto a laser de classe 1.**
Advarsel	**Klasse 1 laserprodukt.**
تحذير	**Class 1 Laser ١ منتج**
Upozorenje	**Laserski proizvod klase 1**
Upozornění	**Laserový výrobek třídy 1.**
Προειδοποίηση	Προϊόν λέιζερ κατηγορίας 1.
אזהרה	.Class 1 מוצר לייזר
	Ласерски производ од класа 1.
Ostrzeżenie	**Produkt laserowy klasy 1.**
Upozornenie	**Laserový výrobok triedy 1.**
Opozorilo	**Laserski izdelek 1. razreda.**
警告	**類別 1 雷射產品。**
Предупреждение	**Лазерен продукт от клас**

Statement 1011—Staring into Laser Beam

Warning	**Do not stare into the beam or view it directly with optical instruments.**
Waarschuwing	**Niet in de straal staren of hem rechtstreeks bekijken met optische instrumenten.**
Varoitus	**Älä katso säteeseen äläkä tarkastele sitä suoraan optisen laitteen avulla.**
Attention	**Ne pas fixer le faisceau des yeux, ni l'observer directement à l'aide d'instruments optiques.**
Warnung	**Nicht direkt in den Strahl blicken und ihn nicht direkt mit optischen Geräten prüfen.**
Avvertenza	**Non fissare il raggio con gli occhi né usare strumenti ottici per osservarlo direttamente.**
Advarsel	**Stirr eller se ikke direkte pŒ strŒlen med optiske instrumenter.**
Aviso	**Não olhe fixamente para o raio, nem olhe para ele directamente com instrumentos ópticos.**
¡Advertencia!	**No mirar fijamente el haz ni observarlo directamente con instrumentos ópticos.**
Varning!	**Rikta inte blicken in mot strålen och titta inte direkt på den genom optiska instrument.**
Figyelem	**Ne nézzen bele a sugárba, és ne nézze közvetlenül optikai berendezések segítségével!**
Предупреждение	Не допускайте попадания лазерного луча в глаза и не смотрите на него через оптические приборы.
警告	请勿直视光束或直接用光学仪器观看光束·
警告	光線をのぞきこんだり、光学機器を使用して光線を直接見たりしないでください。

Statement 1017—Restricted Area

Warning **This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security.**

Waarschuwing **Deze eenheid is bestemd voor installatie in plaatsen met beperkte toegang. Toegang tot een dergelijke plaats kan alleen verkregen worden door middel van een speciaal instrument, een slot en sleutel of een ander veiligheidsmiddel.**

Varoitus **Tämä laite on tarkoitettu asennettavaksi paikkaan, johon pääsy on rajoitettua. Tällaiseen paikkaan pääsee vain erikoistyökalua, lukkoon sopivaa avainta tai jotakin muuta turvalaitetta käyttämällä.**

Attention **Cet appareil est à installer dans des zones d'accès réservé. L'accès à une zone d'accès réservé n'est possible qu'en utilisant un outil spécial, un mécanisme de verrouillage et une clé, ou tout autre moyen de sécurité.**

Warnung **Diese Einheit ist zur Installation in Bereichen mit beschränktem Zutritt vorgesehen. Der Zutritt zu derartigen Bereichen ist nur mit einem Spezialwerkzeug, Schloss und Schlüssel oder einer sonstigen Sicherheitsvorkehrung möglich.**

Avvertenza **Questa unità è prevista per essere installata in un'area ad accesso limitato, vale a dire un'area accessibile solo mediante l'uso di un attrezzo speciale, come lucchetto e chiave, o altri dispositivi di sicurezza.**

Advarsel **Denne enheten er beregnet på installasjon i områder med begrenset tilgang. Et begrenset tilgangsområde kan bare nås ved hjelp av et spesielt verktøy, lås og nøkkel, eller andre sikkerhetsanordninger.**

Aviso **Esta unidade foi concebida para instalação em áreas de acesso restrito. Uma área de acesso restrito é uma área à qual apenas tem acesso o pessoal de serviço autorizado, que possua uma ferramenta, chave e fechadura especial, ou qualquer outra forma de segurança.**

¡Advertencia! **Esta unidad ha sido diseñada para instalación en áreas de acceso restringido. Sólo puede obtenerse acceso a una de estas áreas mediante la utilización de una herramienta especial, cerradura con llave u otro medio de seguridad.**

Varning! **Denna enhet är avsedd för installation i områden med begränsat tillträde. Ett område med begränsat tillträde kan endast tillträdas med hjälp av specialverktyg, lås och nyckel eller annan säkerhetsanordning.**

Figyelem **A készülék korlátozottan hozzáférhető területre történő beszerelésre készült. A korlátozottan hozzáférhető területekhez csak speciális szerszám, zár és kulcs vagy más biztonsági berendezés segítségével lehet hozzáférni.**

Предупреждение Данное устройство предназначено для установки в помещениях с ограниченным доступом. В такие помещения можно попасть, только имея специальное устройство доступа, карту или ключ или пройдя проверку другими средствами обеспечения безопасности.

警告　此部件应安装在限制进出的场所。限制进出的场所指只能通过使用特殊工具、锁和钥匙或其它安全手段进出的场所。

警告　この装置は立ち入り制限区域内に設置することが前提になっています。立ち入り制限区域とは、鍵、錠、またはその他の保全手段を使用しないと立ち入ることができない区域です。

주의　이 장치는 접근이 제한된 영역에 설치하도록 제작되었습니다. 특수 도구, 잠금 장치 및 키, 또는 기타 보안 수단을 통해서만 이 접근 제한 영역에 액세스할 수 있습니다.

Aviso **Esta unidade deve ser instalada em áreas de acesso restrito. Uma área de acesso restrito só pode ser acessada com o uso de uma ferramenta especial, cadeado e chave ou outros meios de segurança.**

Advarsel **Denne enhed er beregnet til installation i områder med begrænset adgang. Der kan kun opnås adgang til et begrænset område ved at bruge et særligt stykke værktøj, lås og nøgle, eller en anden form for sikkerhed.**

تحذير **تم تخصيص هذه الوحدة ليتم تثبيتها في مناطق محظور الوصول إليها. يمكن الوصول إلى المنطقة المحظورة فقط من خلال استخدام أداة خاصة أو قفل أو مفتاح أو أي وسيلة أخرى من التأمين.**

Upozorenje **Uređaj je namijenjen ugradnji na teško dostupnim mjestima. Teško su dostupna mjesta takva mjesta koja su dostupna samo uz pomoć posebnih alata, lokota i ključa, ili nekog drugog načina osiguravanja sigurnosti.**

Upozornění **Toto zařízení je určeno pro instalaci v prostorech s omezeným přístupem. Do prostoru s omezeným přístupem lze získat přístup pouze pomocí zvláštního nástroje, zámku a klíče nebo jiných zabezpečovacích prostředků.**

Προειδοποίηση Αυτή η συσκευή προορίζεται για να τοποθετηθεί σε χώρους στους οποίους η πρόσβαση είναι περιορισμένη. Η πρόσβαση σε ένα χώρο με περιορισμένη πρόσβαση είναι δυνατή μόνο με τη χρήση ενός ειδικού εργαλείου, κλειδαριάς και κλειδιού ή άλλου μέσου ασφαλείας.

אזהרה יחידה ז[illegible] מיוע[illegible] להתקנה [illegible]רים עם גישה מוגבלת. הגישה לאזורים המיועדים לגישה מוגבלת אפשרי[illegible]ק באמצעות כ[illegible] מיו[illegible], מנעול ומפתח, או אמצ[illegible]

[illegible] Уредот [illegible] наменет [illegible] монтирање во области со ограничен пристап. Во областите со ограничен пристап може да се влезе само [illegible] употреба на специјална алатка, брава [illegible] клуч [illegible] со други средства за обезбедување.

Ostrzeżenie **To urządzenie jest przystosowane do instalacji w miejscach o ograniczonym dostępie. Przez miejsce o ograniczonym dostępie rozumie się miejsce, do którego dostęp uzyskać można wyłącznie za pomocą specjalnego narzędzia, zamka z kluczem lub innego zabezpieczenia.**

Upozornenie Toto zariadenie je určené na inštaláciu v priestoroch s obmedzeným prístupom. Do priestoru s obmedzeným prístupom je možné získať prístup iba pomocou špeciálneho nástroja, zámku a kľúča, alebo iných zabezpečovacích prostriedkov.

Opozorilo Ta enota je namenjena priključitvi na območjih z omejenim dostopom. Dostop do območja z omejenim dostopom je mogoč le z uporabo posebnega orodja, ključavnice, ključa ali kakšnega drugega varnostnega pripomočka.

警告 本裝置最好安裝於限制區域。限制區域只能透過特殊工具、鎖/鑰匙或其他保全工具出入。

Statement 1019—Main Disconnecting Device

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

Waarschuwing De combinatie van de stekker en het elektrisch contactpunt moet te allen tijde toegankelijk zijn omdat deze het hoofdmechanisme vormt voor verbreking van de aansluiting.

Varoitus Pistoke/liitinkohta toimii pääkatkaisumekanismina. Pääsy siihen on pidettävä aina esteettömänä.

Attention La combinaison de prise de courant doit être accessible à tout moment parce qu'elle fait office de système principal de déconnexion.

Warnung Der Netzkabelanschluß am Gerät muß jederzeit zugänglich sein, weil er als primäre Ausschaltvorrichtung dient.

Avvertenza Il gruppo spina-presa deve essere sempre accessibile, poiché viene utilizzato come dispositivo di scollegamento principale.

Advarsel Kombinasjonen støpsel/uttak må alltid være tilgjengelig ettersom den fungerer som hovedfrakoplingsenhet.

Aviso A combinação ficha-tomada deverá ser sempre acessível, porque funciona como interruptor principal.

¡Advertencia! El conjunto de clavija y toma ha de encontrarse siempre accesible ya que hace las veces de dispositivo de desconexión principal.

Varning! Man måste alltid kunna komma åt stickproppen i uttaget, eftersom denna koppling utgör den huvudsakliga frånkopplingsanordningen.

Figyelem A dugaszolóaljzat és a dugasz együttesének mindig hozzáférhetőnek kell lennie, mivel ez szolgál főmegszakítóként.

Предупреждение Штепсельная розетка всегда должна быть доступна, поскольку она служит основным устройством отключения.

警告 插销和插座必须便于随时插拔，因为它是主要断电设备。

警告 主要な切断装置となるので、プラグとソケットは常に手が届く場所に置く必要があります。

주의 플러그와 소켓은 주 연결 해제 장치의 역할을 하기 때문에 항상 손에 닿는 곳에 있어야 합니다.

Aviso **A combinação de plugue-soquete deverá estar sempre acessível, pois serve como principal dispositivo de desconexão.**

Upozornění **Elektrická zásuvka a zástrčka musí být vždy přístupné, protože představují hlavní možnost odpojení od elektrické sítě.**

אזהרה יש לאפשר גישה לתקע ולשקע בכל עת, מכיוון שזהו אמצעי הניתוק העיקרי.

Ostrzeżenie **Połączenie wtyczki i gniazdka musi być zawsze dostępne, ponieważ służy ono jako główne urządzenie rozłączające.**

Upozornenie **Kombinovaná zásuvka so zástrčkou musí byť vždy dostupná, pretože slúži ako hlavné odpájacie zariadenie.**

Opozorilo **Vtikač in vtičnica morata biti ves čas dostopna, da lahko napravo kadar koli izklopite.**

警告 插頭和插座兩者必須隨時可用，因為這是切斷電源的主要裝置。

Statement 1024—Ground Conductor

Warning **This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.**

Waarschuwing **Deze apparatuur dient geaard te zijn. De aardingsleiding mag nooit buiten werking worden gesteld en de apparatuur mag nooit bediend worden zonder dat er een op de juiste wijze geïnstalleerde aardingsleiding aanwezig is. Neem contact op met de bevoegde instantie voor elektrische inspecties of met een elektricien als u er niet zeker van bent dat er voor passende aarding gezorgd is.**

Varoitus **Laitteiden on oltava maadoitettuja. Älä koskaan ohita maajohdinta tai käytä laitteita ilman oikein asennettua maajohdinta. Ota yhteys sähkötarkastusviranomaiseen tai sähköasentajaan, jos olet epävarma maadoituksen sopivuudesta.**

Attention **Cet équipement doit être mis à la masse. Ne jamais rendre inopérant le conducteur de masse ni utiliser l'équipement sans un conducteur de masse adéquatement installé. En cas de doute sur la mise à la masse appropriée disponible, s'adresser à l'organisme responsable de la sécurité électrique ou à un électricien.**

Warnung **Dieses Gerät muss geerdet sein. Auf keinen Fall den Erdungsleiter unwirksam machen oder das Gerät ohne einen sachgerecht installierten Erdungsleiter verwenden. Wenn Sie sich nicht sicher sind, ob eine sachgerechte Erdung vorhanden ist, wenden Sie sich an die zuständige Inspektionsbehörde oder einen Elektriker.**

Avvertenza **Questa apparecchiatura deve essere dotata di messa a terra. Non escludere mai il conduttore di protezione né usare l'apparecchiatura in assenza di un conduttore di protezione installato in modo corretto. Se non si è certi della disponibilità di un adeguato collegamento di messa a terra, richiedere un controllo elettrico presso le autorità competenti o rivolgersi a un elettricista.**

Advarsel **Dette utstyret må jordes. Omgå aldri jordingslederen og bruk aldri utstyret uten riktig montert jordingsleder. Ta kontakt med fagfolk innen elektrisk inspeksjon eller med en elektriker hvis du er usikker på om det finnes velegnet jordning.**

Aviso **Este equipamento deve ser aterrado. Nunca anule o fio terra nem opere o equipamento sem um aterramento adequadamente instalado. Em caso de dúvida com relação ao sistema de aterramento disponível, entre em contato com os serviços locais de inspeção elétrica ou um eletricista qualificado.**

¡Advertencia! **Este equipo debe estar conectado a tierra. No inhabilite el conductor de tierra ni haga funcionar el equipo si no hay un conductor de tierra instalado correctamente. Póngase en contacto con la autoridad correspondiente de inspección eléctrica o con un electricista si no está seguro de que haya una conexión a tierra adecuada.**

Varning! **Denna utrustning måste jordas. Koppla aldrig från jordledningen och använd aldrig utrustningen utan en på lämpligt sätt installerad jordledning. Om det föreligger osäkerhet huruvida lämplig jordning finns skall elektrisk besiktningsauktoritet eller elektriker kontaktas.**

Figyelem **A berendezést csak megfelelő védőföldeléssel működtethető. Ne iktassa ki a földelés csatlakozóját, és ne üzemeltesse a berendezést szabályosan felszerelt földelő vezeték nélkül! Ha nem biztos benne, hogy megfelelő földelés áll rendelkezésbe, forduljon a helyi elektromos hatóságokhoz vagy egy villanyszerelőhöz.**

Предупреждение Данное устройство должно быть заземлено. Никогда не отключайте провод заземления и не пользуйтесь оборудованием при отсутствии правильно подключенного провода заземления. За сведениями об имеющихся возможностях заземления обратитесь к соответствующим контролирующим организациям по энергоснабжению или к инженеру-электрику.

警告 此设备必须接地，切勿使接地导体失效，或者在没有正确安装接地导体的情况下操作该设备。如果您不能肯定接地导体是否正常发挥作用，请咨询有关电路检测方面的权威人士或电工。

警告　この装置はアース接続する必要があります。アース導体を破損しないよう注意し、アース導体を正しく取り付けないまま装置を稼働させないでください。アース接続が適正であるかどうか分からない場合には、電気検査機関または電気技術者に相談してください。

주의　이 장비는 접지되어야 합니다. 접지 도체를 결코 파기하거나 적절히 설치된 접지 도체 없이 장비를 작동하지 마십시오. 사용 가능한 적절한 접지가 확실치 않은 경우 해당 전기 검사 관청 또는 전기 기술자에게 문의하십시오.

Aviso **Este equipamento deve ser aterrado. Nunca anule o fio terra nem opere o equipamento sem um fio terra adequadamente instalado. Fale com uma autoridade de fiscalização de instalações elétricas apropriada ou com um eletricista se você não tiver certeza quanto à eficiência do aterramento.**

Upozornění **Toto zařízení musí být uzemněno. Nikdy nepřerušujte zemnící vodič ani nepoužívejte zařízení bez odpovídajícího zemnícího vodiče. Nejste-li si jisti, zda je zařízení vhodně uzemněno, obraťte se na revizního technika či elektrikáře.**

Προειδοποίηση **Ο παρών εξοπλισμός πρέπει να είναι γειωμένος. Μην καταστρέψετε ποτέ τον αγωγό γείωσης και μη χρησιμοποιήσετε ποτέ τον εξοπλισμό χωρίς να υπάρχει κατάλληλα εγκατεστημένος αγωγός γείωσης. Εάν δεν είστε βέβαιοι ότι υπάρχει κατάλληλη γείωση, επικοινωνήστε με τις αρμόδιες αρχές ή συμβουλευθείτε έναν ηλεκτρολόγο.**

אזהרה

ציוד זה חייב להיות מוארק. לעולם אין לנתק את מוליך ההארקה
או להפעיל את הציוד בהעדר מוליך הארקה מותקן כראוי.
אם אינך בטוח שקיימת הארקה הולמת, פנה לרשות המפקחת על החשמל או לחשמלאי.

Ostrzeżenie **Sprzęt ten musi być uziemiony. Nigdy nie należy usuwać przewodu uziemiającego lub używać sprzętu bez prawidłowo zainstalowanego przewodu uziemiającego. W przypadku braku pewności czy zapewnione jest prawidłowe uziemienie, należy skontaktować się z odpowiednim urzędem inspekcji elektrycznych lub elektrykiem.**

Upozornenie **Toto zariadenie musí byť uzemnené. Uzemňovací vodič nikdy neodpájajte a zariadenie nikdy neprevádzkujte bez správne pripojeného uzemňovacieho vodiča. Ak máte pochybnosti o dostupnosti vhodného uzemnenia, obráťte sa na príslušný úrad na kontrolu elektrický zariadení alebo na elektrikára.**

Opozorilo **Ta naprava mora biti ozemljena. Nikoli ne odklapljajte ozemljitve oz. upravljajte naprave, ki ni primerno ozemljena. V primeru, da niste sigurni, ali imate primerno ozemljitev, nemudoma pokličite pooblaščeni električni servis ali električarja.**

警告　本設備必須接地。切勿使接地連接器失效，或缺乏適當安裝的接地連接器就貿然操作裝置。若您不確定是否有適當的接地安排，請聯絡合適的專業電氣檢查機構或電氣專家。

Statement 1028—More Than One Power Supply

Warning **This unit might have more than one power supply connection. All connections must be removed to de-energize the unit.**

Waarschuwing **Deze eenheid kan meer dan één stroomtoevoeraansluiting bevatten. Alle aansluitingen dienen ontkoppeld te worden om de eenheid te ontkrachten.**

Varoitus **Tässä laitteessa voi olla useampia kuin yksi virtakytkentä. Kaikki liitännät on irrotettava, jotta jännite poistetaan laitteesta.**

Attention **Cette unité peut avoir plus d'une connexion d'alimentation. Pour supprimer toute tension et tout courant électrique de l'unité, toutes les connexions d'alimentation doivent être débranchées.**

Warnung **Dieses Gerät kann mehr als eine Stromzufuhr haben. Um sicherzustellen, dass der Einheit kein Strom zugeführt wird, müssen alle Verbindungen entfernt werden.**

Avvertenza **Questa unità può avere più di una connessione all'alimentazione elettrica. Tutte le connessioni devono essere staccate per togliere la corrente dall'unità.**

Advarsel **Denne enheten kan ha mer enn én strømtilførselskobling. Alle koblinger må fjernes fra enheten for å utkoble all strøm.**

Aviso **Esta unidade poderá ter mais de uma conexão de fonte de energia. Todas as conexões devem ser removidas para desligar a unidade.**

¡Advertencia! **Puede que esta unidad tenga más de una conexión para fuentes de alimentación. Para cortar por completo el suministro de energía, deben desconectarse todas las conexiones.**

Varning! **Denna enhet har eventuellt mer än en strömförsörjningsanslutning. Alla anslutningar måste tas bort för att göra enheten strömlös.**

Figyelem **Előfordulhat, hogy a készülék többszörösen van csatlakoztatva az áramforráshoz. A készülék áramtalanításához mindegyik csatlakozást meg kell szüntetni.**

Предупреждение В данном устройстве может использоваться несколько подключений к электросети. Чтобы обесточить устройство, необходимо отключить все эти подключения.

警告 此部件连接的电源可能不止一个。必须将所有电源断开才能停止给该部件供电。

警告 この装置には、複数の電源が接続されている場合があります。装置の電源を完全にオフにするには、すべての電源を切断する必要があります。

주의 본 장치에는 2개 이상의 전원 공급 연결 단자가 있을 수 있습니다. 이 장치의 전원을 차단하려면 모든 연결 단자를 제거해야 합니다.

Aviso Esta unidade pode ter mais de uma conexão de fonte de alimentação. Todas as conexões devem ser removidas para interromper a alimentação da unidade.

Advarsel Denne enhed har muligvis mere end en strømforsyningstilslutning. Alle tilslutninger skal fjernes for at aflade strømmen fra enheden.

تحذير قد تتضمن هذه الوحدة أكثر من اتصال بمورد الطاقة. يجب فصل كافة التوصيلات حتى يمكن إفراغ طاقة الوحدة.

Upozorenje Uređaj može imati više priključaka za izvore napajanja. Za potpuno isključivanje napajanja potrebno je iskopčati sve priključke.

Upozornění Toto zařízení může být připojeno k více než jednomu zdroji napájení. Aby se zařízení zcela odpojilo od proudu, musí být odpojeno od všech zdrojů napájení.

Προειδοποίηση Αυτή η συσκευή ίσως να έχει περισσότερες συνδέσεις τροφοδοσίας.
Για να απενεργοποιηθεί η συσκευή, πρέπει να αφαιρεθούν όλες οι συνδέσεις.

אזהרה ייתכן שביחידה זו קיים יותר מחיבור אחד לספק כוח. יש להסיר את כל החיבורים כדי להפסיק את אספקת המתח ליחידה.

Уредот може да има повеќе од еден приклучок за напојување. Сите приклучоци мора да се извадат за да се прекине доводот на енергија во уредот.

Ostrzeżenie To urządzenie może mieć podłączone więcej niż jedno źródło zasilania. Aby całkowicie odciąć dopływ energii do urządzenia, należy odłączyć wszystkie źródła zasilania.

Upozornenie Toto zariadenie môže byť pripojené k viac ako jednému zdroju napájania. Aby sa zariadenie odpojilo od prúdu, musí byť odpojené od všetkých zdrojov.

警告 本裝置可能有一個以上的供電連線。必須移除所有連線才能將裝置斷電。

Statement 1029—Blank Faceplates and Cover Panels

Warning Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.

Waarschuwing Lege vlakplaten en afdekpanelen vervullen drie belangrijke functies: ze voorkomen blootstelling aan gevaarlijke voltages en stroom binnenin het frame, ze bevatten elektromagnetische storing (EMI) hetgeen andere apparaten kan verstoren en ze leiden de stroom van koellucht door het frame. Het systeem niet bedienen tenzij alle kaarten, vlakplaten en afdekkingen aan de voor- en achterkant zich op hun plaats bevinden.

Varoitus Tyhjillä tasolaikoilla ja suojapaneeleilla on kolme tärkeää käyttötarkoitusta: Ne suojaavat asennuspohjan sisäisille vaarallisille jännitteille ja sähkövirralle altistumiselta; ne pitävät sisällään elektromagneettisen häiriön (EMI), joka voi häiritä muita laitteita; ja ne suuntaavat tuuletusilman asennuspohjan läpi. Järjestelmää ei saa käyttää, elleivät kaikki tasolaikat, etukannet ja takakannet ole kunnolla paikoillaan.

Attention Ne jamais faire fonctionner le système sans que l'intégralité des cartes, des plaques métalliques et des panneaux avant et arrière ne soient fixés à leur emplacement. Ceux-ci remplissent trois fonctions essentielles : ils évitent tout risque de contact avec des tensions et des courants dangereux à l'intérieur du châssis, ils évitent toute diffusion d'interférences électromagnétiques qui pourraient perturber le fonctionnement des autres équipements, et ils canalisent le flux d'air de refroidissement dans le châssis.

Warnung Blanke Faceplates und Abdeckungen haben drei wichtigen Funktionen: (1) Sie schützen vor gefährlichen Spannungen und Strom innerhalb des Chassis; (2) sie halten elektromagnetische Interferenzen (EMI) zurück, die andere Geräte stören könnten; (3) sie lenken den kühlenden Luftstrom durch das Chassis. Das System darf nur betrieben werden, wenn alle Karten, Faceplates, Voder- und Rückabdeckungen an Ort und Stelle sind.

Avvertenza Le piattaforme bianche e i panelli di protezione hanno tre funzioni importanti: Evitano l'esposizione a voltaggi e correnti elettriche pericolose nello chassis, trattengono le interferenze elettromagnetiche (EMI) che potrebbero scombussolare altri apparati e dirigono il flusso di aria per il raffreddamento attraverso lo chassis. Non mettete in funzione il sistema se le schede e le piattaforme e i panelli frontali e posteriori non sono in posizione.

Advarsel Blanke ytterplater og deksler sørger for tre viktige funksjoner: de forhindrer utsettelse for farlig spenning og strøm inne i kabinettet; de inneholder elektromagnetisk forstyrrelse (EMI) som kan avbryte annet utstyr; og de dirigerer luftavkjølingsstrømmen gjennom kabinettet. Kjør ikke systemet med mindre alle kort, ytterplater, frontdeksler og bakdeksler sitter på plass.

Aviso As faces furadas e os painéis de protecção desempenham três importantes funções: previnem contra uma exposição perigosa a voltagens e correntes existentes no interior do chassis; previnem contra interferência electromagnética (EMI) que poderá danificar outro equipamento; e canalizam o fluxo do ar de refrigeração através do chassis. Não deverá operar o sistema sem que todas as placas, faces, protecções anteriores e posteriores estejam nos seus lugares.

¡Advertencia! **Las placas frontales y los paneles de relleno cumplen tres funciones importantes: evitan la exposición a niveles peligrosos de voltaje y corriente dentro del chasis; reducen la interferencia electromagnética (EMI) que podría perturbar la operación de otros equipos y dirigen el flujo de aire de enfriamiento a través del chasis. No haga funcionar el sistema a menos que todas las tarjetas, placas frontales, cubiertas frontales y cubiertas traseras estén en su lugar.**

Varning! **Tomma framplattor och skyddspaneler har tre viktiga funktioner: de förhindrar att personer utsätts för farlig spänning och ström som finns inuti chassit; de innehåller elektromagnetisk interferens (EMI) som kan störa annan utrustning; och de styr riktningen på kylluftsflödet genom chassit. Använd inte systemet om inte alla kort, framplattor, fram- och bakskydd är på plats.**

Figyelem **Az előlapok és burkolópanelek három fontos funkciót töltenek be: biztosítják a veszélyes feszültségű és áramerősségű területek érintésvédelmét; elnyelik a más berendezések működésében működési zavarokat okozó elektromágneses interferenciát (EMI); a gépházon belül terelik a hűtőlevegőt. Csak úgy működtesse a rendszert, ha minden kártya, lemez, elülső és hátulsó burkolat a helyén van.**

Предупреждение Заглушки передней панели и защитные панели выполняют три важные функции: помогают избежать поражения электротоком высокого напряжения при прикосновении к внутренним элементам, экранируют электромагнитное излучение, которое может нарушить работу другого оборудования, а также направляют охлаждающий воздушный поток внутри корпуса. Не пользуйтесь устройством со снятыми крышками, заглушками, передними и задними защитными панелями.

警告 空白面板和盖板具有三个重要的功能：它们可以防止接触到底盘内危险的电压和电流；它们将可能破坏其它设备的电磁干扰(EMI)封闭起来；它们可以使冷气流从底盘通过。请勿在全部卡、面板、前盖和后盖未安装完毕时操作系统。

警告 ブランクの前面プレートおよびカバー パネルは、3つの重要な役割を果たします。シャーシ内部の危険な電圧および電流に接触しないように防御の役割を果たします。他の機器に悪影響を与えるEMI(電磁波干渉)を外に出しません。さらに、シャーシ全体に冷却用の空気を流します。カード、前面プレート、前面カバー、および背面カバーがすべて取り付けられてから、システムを稼働させてください。

주의 비어있는 전면케이스 커버와 커버 패널은 다음과 같은 세가지 중요한 역할을 합니다. 섀시 내부의 위험한 전압 및 전류에 노출되는 것을 방지, 기타 장비에 영향을 끼칠 수 있는 전자파 간섭(EMI)을 포함, 냉각 공기를 섀시로 유입. 모든 카드, 전면케이스 커버, 전면 및 후면 커버가 장착되어 있지 않은 경우, 시스템을 작동하지 마십시오.

Aviso **Plaquetas vazias e painéis de proteção têm três funções importantes: impedem a exposição a tensões e correntes elétricas perigosas dentro do chassi; apresen[illegible]ência eletromagnética (EMI) que pode danificar outros equipamentos: direcionam o fluxo de ar refrigerado pelo chassi. Não opere o sistema a menos que todas as placas, plaquetas, tampas frontais e tampas traseiras estejam em seu devido lugar.**

Advarsel **Blanke frontplader og sidepaneler tjener tre vigtige formål: de forhinder udsættelse for farlig spænding og strøm inde i chassiset, de isolerer elektromagnetisk interferens (EMI), der kan forstyre andet udstyr, og de leder en strøm af kølig luft gennem chassiset. Betjen ikke systemet medmindre alle kort, frontplader, sidepaneler og bagpaneler er på plads.**

تحذير تؤدي كل من الواجهات الفارغة ولوحات التغطية ثلاث وظائف هامة: الحيلولة دون التعرض للجهد الكهربي الخطير والتيارات الموجودة في الهيكل المعدني، حيث يحتوي كلاً منهما على واجهة كهرومغناطيسية () والتي قد تعيق عمل الأجهزة الأخرى كما يقوما بتوجيه تيار التبريد داخل الهيكل المعدني. لا تحاول تشغيل النظام إلا إذا كانت كافة البطاقات والواجهات والأغطية الأمامية والخلفية موضوعة في مكانها.

Upozorenje **Prazna prednja ploča i pokrovne ploče imaju tri važne funkcije: sprječavaju izlaganje opasnome visokom naponu i struji unutar kućišta, proizvode elektromagnetnu interferenciju koja može ometati rad ostalih uređaja, te usmjeravaju protok rashladnog zraka kroz kućište. Sustav nemojte koristiti ako sve kartice, prednje, pokrovne i stražnje ploče nisu pravilno ugrađene.**

Upozornění **Prázdné lícové desky a krycí panely mají tři důležité funkce: zabraňují odkrytí nebezpečného napětí a proudu uvnitř skříně; obsahují elektromagnetické rušení, které může rušit jiná zařízení; směřují proud chladícího vzduchu skříní. Nepoužívejte systém, pokud nejsou všechny karty, lícové desky, přední kryty a zadní kryty na svém místě.**

Προειδοποίηση Οι κενές προσόψεις και τα κενά πλαίσια καλύμματος χρησιμεύουν για τρεις σημαντικές λειτουργίες: Αποκλείουν την έκθεση σε επικίνδυνες τάσεις και ρεύματα στο εσωτερικό του σασί, περικλείουν τις ηλεκτρομαγνητικές παρεμβολές (EMI) που ενδέχεται να προκαλέσουν προβλήματα σε άλλο εξοπλισμό και κατευθύνουν τη ροή του αέρα ψύξης μέσα στο σασί. Μην θέτετε το σύστημα σε λειτουργία αν δεν βρίσκονται στη θέση τους όλες οι κάρτες, οι μπροστινές πλάκες, οι προσόψεις και οι πλάτες.

אזהרה לוחות כיסוי ריקים ולוחות כיסוי משמשים לשלוש פונקציות חשובות: הם מונעים חשיפה למתחים מסוכנים ולזרם בתוך התושבת; הם מכילים הפרעות אלקטרומגנטיות (EMI) העלולות לשבש ציוד אחר; והם מכוונים את זרימת האוויר המצנן דרך התושבת. אל תפעיל את המערכת אלא אם כל הכרטיסים, לוחות הכיסוי, הלוחות הקדמיים והכיסויים האחוריים נמצאים במקומם.

Празните предни плочи и плочите за покривање служат за три важни функции: го спречуваат изложувањето на ризични напони и струи во куќиштето; содржат електромагнетни интерференции (EMI) што можат да попречуваат друга опрема; и го насочуваат протокот на воздухот за разладување низ куќиштето. Не работете со системот ако сите картички, предни плочи, предни капаци и задни капаци не се на своите места.

Ostrzeżenie **Zaślepki i panele osłonowe pełnią trzy ważne funkcje: zapobiegają kontaktowi użytkownika z niebezpiecznymi napięciami i prądami występującymi wewnątrz obudowy, pochłaniają zakłócenia elektromagnetyczne, które mogłyby negatywnie wpływać na działanie innych urządzeń; kierują przepływem powietrza chłodzącego wewnątrz obudowy. System można eksploatować wyłącznie wtedy, gdy zamontowane są wszystkie karty, zaślepki oraz przednie i tylne osłony.**

Upozornenie Prázdne lícne dosky a krycie panely majú tri dôležité funkcie: zabraňujú odkrytiu nebezpečného napätia a prúdu vnútri skrine; obsahujú elektromagnetické rušenie, ktoré môže rušiť iné zariadenia; smerujú prúd chladiaceho vzduchu cez skriňu. Nepoužívajte systém, pokiaľ nie sú všetky karty, lícne dosky, predné kryty a zadné kryty na svojom mieste.

警告 空白面板和外殼有三個重要的功能：隔絕機箱內的有害電壓和電流；隔絕可能會影響其他設備的電磁干擾（EMI）；引導機箱內的空氣流通，以助降溫。除非所有的卡片、面板、前蓋和後蓋均已安裝妥當，否則請勿操作系統。

Statement 1030—Equipment Installation

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

Waarschuwing Deze apparatuur mag alleen worden geïnstalleerd, vervangen of hersteld door bevoegd geschoold personeel.

Varoitus Tämän laitteen saa asentaa, vaihtaa tai huoltaa ainoastaan koulutettu ja laitteen tunteva henkilökunta.

Attention Il est vivement recommandé de confier l'installation, le remplacement et la maintenance de ces équipements à des personnels qualifiés et expérimentés.

Warnung Das Installieren, Ersetzen oder Bedienen dieser Ausrüstung sollte nur geschultem, qualifiziertem Personal gestattet werden.

Avvertenza Questo apparato può essere installato, sostituito o mantenuto unicamente da un personale competente.

Advarsel Bare opplært og kvalifisert personell skal foreta installasjoner, utskif[illegible]er eller s[illegible]vice[illegible] dette utstyret.

Av[illegible]o Apenas [illegible]essoal tr[illegible]nado [illegible] qualif[illegible]ado dev[illegible]ser autorizado a instal[illegible], subst[illegible]ir ou f[illegible]er a [illegible]visão deste e[illegible]ipamento[illegible]

¡A[illegible]rtencia! [illegible]amente [illegible]onal c[illegible]ificado [illegible]ebe ins[illegible]lar, r[illegible]mplazar o u[illegible]zar este equ[illegible]

Varning! Endast utbildad och kvalificerad personal bör få tillåtelse att installera, byta ut eller reparera denna utrustning.

Figyelem A berendezést csak szakképzett személyek helyezhetik üzembe, cserélhetik és tarthatják karban.

Предупреждение Установку, замену и обслуживание этого оборудования может осуществлять только специально обученный квалифицированный персонал.

警告 只有经过培训且具有资格的人员才能进行此设备的安装、更换和维修。

警告 この装置の設置、交換、保守は、訓練を受けた相応の資格のある人が行ってください。

주의 교육을 받고 자격을 갖춘 사람만 이 장비를 설치, 교체, 또는 서비스를 수행해야 합니다.

Aviso **Somente uma equipe treinada e qualificada tem permissão para instalar, substituir ou dar manutenção a este equipamento.**

Advarsel **Kun uddannede personer må installere, udskifte komponenter i eller servicere dette udstyr.**

تحذير يسمح للفنيين المتخصصين فقط بتركيب المعدة أو استبدالها أو إجراء الصيانة عليها.

Upozorenje **Uređaj smije ugrađivati, mijenjati i servisirati samo za to obučeno i osposobljeno servisno osoblje.**

Upozornění **Instalaci, výměnu nebo opravu tohoto zařízení smějí provádět pouze proškolené a kvalifikované osoby.**

Προειδοποίηση Η τοποθέτηση, η αντικατάσταση και η συντήρηση του εξοπλισμού επιτρέπεται να γίνονται μόνο από καταρτισμένο προσωπικό με τα κατάλληλα προσόντα.

אזהרה

Местењето, заменувањето и сервисирањето на оваа опрема треба да му биде дозволено само на обучен и квалификуван персонал.

Ostrzeżenie **Do instalacji, wymiany i serwisowania tych urządzeń mogą być dopuszczone wyłącznie osoby wykwalifikowane i przeszkolone.**

Upozornenie **Inštaláciu, výmenu alebo opravu tohto zariadenia smú vykonávať iba vyškolené a kvalifikované osoby.**

Opozorilo **Opremo lahko priključi, zamenja ali popravi le za to usposobljeno osebje.**

警告 唯有經訓練的合格人員才能安裝、替換或維修該設備。

Statement 1040—Product Disposal

Warning **Ultimate disposal of this product should be handled according to all national laws and regulations.**

Waarschuwing **Het uiteindelijke wegruimen van dit product dient te geschieden in overeenstemming met alle nationale wetten en reglementen.**

Varoitus **Tämä tuote on hävitettävä kansallisten lakien ja määräysten mukaisesti.**

Attention **La mise au rebut ou le recyclage de ce produit sont généralement soumis à des lois et/ou directives de respect de l'environnement. Renseignez-vous auprès de l'organisme compétent.**

Warnung **Die Entsorgung dieses Produkts sollte gemäß allen Bestimmungen und Gesetzen des Landes erfolgen.**

Avvertenza **Lo smaltimento di questo prodotto deve essere eseguito secondo le leggi e regolazioni locali.**

Advarsel **Endelig kassering av dette produktet skal være i henhold til alle relevante nasjonale lover og bestemmelser.**

Aviso **Deitar fora este produto em conformidade com todas as leis e regulamentos nacionais.**

¡Advertencia! **Al deshacerse por completo de este producto debe seguir todas las leyes y reglamentos nacionales.**

Varning! **Vid deponering hanteras produkten enligt gällande lagar och bestämmelser.**

Figyelem **A készülék végső elhelyezéséről az adott országban érvényes törvények és előírások szerint kell intézkedni.**

Предупреждение Утилизация данного изделия должна производиться в соответствии со всеми региональными и местными правилами и нормами.

警告 [illegible]产品的废弃[illegible]根据所有国家的[illegible]规章[illegible]

警告 この製[illegible]を廃棄処分する[illegible]は、各[illegible]の法律[illegible]よび規制に従って取り[illegible]い。

주의 해당 국가의 관련 법규 및 규정에 따라 이 장치를 폐기해야 합니다.

Aviso **O descarte definitivo deste produto deve estar de acordo com todas as leis e regulamentações nacionais.**

Advarsel **Endelig bortskaffelse af dette produkt skal ske i henhold til gældende love og regler.**

تحذير عند التخلص من المنتج يجب اتباع القوانين والتشريعات المحلية.

Upozorenje **Zbrinjavanje ovoga proizvoda u otpad treba provesti u skladu s važećim zakonima i odredbama.**

Upozornění **Upozornění: Likvidace tohoto výrobku musí být provedena podle platných zákonů a předpisů.**

Προειδοποίηση Η τελική απόρριψη αυτού του προϊόντος πρέπει να γίνεται σύμφωνα με όλους τους εθνικούς νόμους και κανονισμούς.

אזהרה סילוק סופי של מוצר זה חייב להיות בהתאם להנחיות ולחוקי המדינה.

Крајното фрлање на овој производ треба да се изврши во согласност со сите национални закони и прописи.

Ostrzeżenie **Ostateczna likwidacja tego urządzenia po jego wycofaniu z eksploatacji powinna odbywać się zgodnie z przepisami krajowymi.**

Upozornenie **Upozornenie Likvidácia tohto výrobku musí byť vykonaná podľa platných zákonov a predpisov.**

Opozorilo **Uničenje izdelka, ki ni več uporaben, mora potekati po državnih zakonih in predpisih.**

警告 本產品的最終處理必須遵照國家/地區的所有法律與法規。

Statement 1045—Short-circuit Protection

Warning **This product requires short-circuit (overcurrent) protection, to be provided as part of the building installation. Install only in accordance with national and local wiring regulations.**

Waarschuwing **Voor dit product moet kortsluitbeveiliging (overstroombeveiliging) deel uitmaken van de installatie in het gebouw. De installatie moet voldoen aan de nationale en lokale bedradingsvoorschriften.**

Varoitus **Tämä tuote vaatii suojauksen oikosulkuja (ylivirtaa) vastaan osana asennusta rakennukseen. Asenna ainoastaan kansallisten ja paikallisten johdotussäännösten mukaisesti.**

Attention **La protection de ce produit contre les courts-circuits (surtensions) doit être assurée par la configuration électrique du bâtiment. Vérifiez que l'installation a lieu uniquement en conformité avec les normes de câblage en vigueur au niveau national et local.**

Warnung **Für dieses Produkt ist eine Kurzschlußsicherung (Überstromsicherung) erforderlich, die als Teil der Gebäudeinstallation zur Verfügung gestellt wird. Die Installation sollte nur in Übereinstimmung mit den nationalen und regionalen Vorschriften zur Verkabelung erfolgen.**

Avvertenza **Questo prodotto richiede una protezione contro i cortocircuiti, da fornirsi come parte integrante delle dotazioni presenti nell'edificio. Effettuare l'installazione rispettando le Norme CEI pertinenti.**

Advarsel **Dette produktet krever beskyttelse mot kortslutninger (overspenninger) som en del av installasjonen. Bare installer utstyret i henhold til nasjonale og lokale krav til ledningsnett.**

Aviso **Este produto requer proteção contra curto-circuitos (sobreintensidade de corrente), que deve estar instalada nos edifícios. Instale apenas de acordo com as normas de instalação elétrica nacionais e locais.**

Advertencia **Este producto necesita estar conectado a la protección frente a cortacircuitos (sobretensiones) que exista en el edificio. Instálelo únicamente en conformidad con las regulaciones sobre cableado, tanto locales como nacionales, a las que se tenga que atener.**

Varning! **Denna produkt kräver att kortslutningsskydd (överström) till handahålles som en del av byggnadsinstallationen. Installera bara i enlighet med nationella och lokala kabeldragningsbestämmelser.**

Figyelem **A termékhez kötelező rövidzárlat (túláram) elleni védelmet használni, amelyet az épület kábelezésének részeként kell biztosítani. Csak az országos és helyi kábelezési előírásoknak megfelelően helyezhető üzembe.**

Предупреждение Для этого устройства необходима защита от короткого замыкания (перегрузки), являющаяся частью электропроводки здания. При установке устройства необходимо соблюдать региональные и местные требования к электрооборудованию.

警告 此产品需要短路（过载电流）保护，这种保护要由建筑物内的供电电路提供，安装时必须遵守国家和当地有关布线的规章。

警告 この製品は、設置する建物にショート（過電流）保護機構が備わっていることを前提に設計されています。電気配線に関する一般規定および地域の規定に従って設置してください。

주의 [illegible] 제품은 [illegible](과전류) [illegible] 건물 설치의 일부로 제[illegible]됩니다. 국가 [illegible] 해당 지역 배[illegible] 규[illegible]에 따라 [illegible]치하십시오.

Aviso **Este produto requer uma proteção contra curto-circuito (sobrecorrente) que deve fazer parte da instalação do edifício. Faça a instalação somente de acordo com as regulamentações de [illegible]eamento [illegible]nais e locais.**

Advarsel **Dette produkt kræver beskyttelse mod kortslutning (overstrøm). Dette skal være en del elinstallationen i bygningen. Installation skal ske i overensstemmelse med nationale og lokale ledningsregler.**

تحذير يجب وجود حماية من الدوائر الكهربائية القصير كجزء من تركيب الجهاز. قم بالتركيب طبقاً للتشريعات السلكية المحلية.

Upozorenje **Za ovaj je proizvod potrebna zaštita od prekomjerne količine struje (kratkoga spoja), koja mora biti ugrađena kao dio električnoga strujnog kruga. Zaštitu ugradite samo u skladu s važećim zakonima i propisima o ožičenju.**

Upozornění **Upozornění: Tento výrobek vyžaduje ochranu proti zkratu (nadproudu), která je součástí instalace budovy. Instalaci provádějte pouze v souladu s platnými předpisy pro elektroinstalaci.**

Προειδοποίηση Αυτό το προϊόν απαιτεί στην κτιριακή εγκατάσταση να περιλαμβάνεται προστασία από βραχυκύκλωμα (υπέρ-ένταση). Η τοποθέτηση να γίνεται μόνο σύμφωνα με τους εθνικούς και τοπικούς κανονισμούς για την καλωδίωση.

אזהרה למוצר זה נדרשת הגנה מפני קצר (זרם-יתר), המסופקת כחלק ממערך ההתקנה. יש להתקין רק בהתאם להנחיות החיווט הנהוגות המדינה וההנחיות המקומיות.

За производот треба да се обезбеди заштита од краток спој (преголем напон) што е вградена во инсталацијата на зградата. Местете ја инсталацијата само во согласност со националните и помесните прописи за електрично ожичување.

Ostrzeżenie **To urządzenie wymaga zastosowania zabezpieczenia przeciwzwarciowego (nadprądowego) jako elementu instalacji elektrycznej budynku. Należy je instalować zgodnie z krajowymi i lokalnymi przepisami dotyczącymi instalacji elektrycznych.**

Upozornenie **Upozornenie Tento výrobok vyžaduje ochranu proti krátkemu spojeniu (nadprúdu), ktorá je súčasťou inštalácie budovy. Inštaláciu uskutočňujte iba v súlade s platnými predpismi pre elektroinštaláciu.**

警告 本產品必須有短路（過電流）保護，且該保護機制必須為建築安裝的一部份。安裝務必僅遵照國家/地區法規。

Statement 1051—Laser Radiation

Warning **Invisible laser radiation may be emitted from disconnected fibers or connectors. [illegible] not stare into beams or view directly with optical instruments.**

Waarschuwing **Losgekoppelde of losgeraakte glasvezels of aansluitingen kunnen onzichtbare laserstraling produceren. Kijk niet rechtstreeks in de straling en gebruik geen optische instrumenten rond deze glasvezels of aansluitingen.**

Varoitus **Irrotetuista kuiduista tai liittimistä voi tulla näkymätöntä lasersäteilyä. Älä tuijota säteitä tai katso niitä suoraan optisilla välineillä.**

Attention	**Les fibres ou connecteurs débranchés risquent d'émettre des rayonnements laser invisibles à l'œil. Ne regardez jamais directement les faisceaux laser à l'œil nu, ni d'ailleurs avec des instruments optiques.**
Warnung	**Unterbrochene Fasern oder Steckerverbindungenkönnen unsichtbare Laserstrahlung abgeben. Blicken Sie weder mit bloßem Auge noch mit optischen Instrumenten direkt in Laserstrahlen.**
Avvertenza	**Le fibre ottiche ed i relativi connettori possono emettere radiazioni laser. I fasci di luce non devono mai essere osservati direttamente o attraverso strumenti ottici.**
Advarsel	**Det kan forekomme usynlig laserstråling fra fiber eller kontakter som er frakoblet. Stirr ikke direkte inn i strålene eller se på dem direkte gjennom et optisk instrument.**
Aviso	**Radiação laser invisível pode ser emitida de conectores ou fibras desconectadas. Não olhe diretamente para os feixes ou com instrumentos ópticos.**
¡Advertencia!	**Es posible que las fibras desconectadas emitan radiación láser invisible. No fije la vista en los rayos ni examine éstos con instrumentos ópticos.**
Varning!	**Osynlig laserstrålning kan avges från frånkopplade fibrer eller kontaktdon. Rikta inte blicken in i strålar och titta aldrig direkt på dem med hjälp av optiska instrument.**
Figyelem	**A nem csatlakoztatott üvegszálak és csatlakozók láthatatlan lézersugárzást bocsáthatnak ki. Ne nézzen bele a sugárba, és ne nézze közvetlenül, optikai berendezések segítségével!**
Предупреждение	Отключенные световоды и разъемы могут испускать невидимое лазерное излучение. Не допускайте попадания лазерного луча в глаза и не смотрите на него через оптические приборы.
警告	断开的光纤或接头有可能发出不可见的激光辐射。请勿直视光束或直接用光学仪器观看光束。
警告	光ファイバ ケーブルまたはコネクタを取り外した状態では、目に見えないレーザー光が放射されていることがあります。光線をのぞきこんだり、光学機器を使用して光線を直接見たりしないでください。
주의	[illegible]결이 해제[illegible]유나 커[illegible]터에[illegible] 눈에 [illegible]이지 않는 레이저 방사열이 [illegible]출[illegible] 수 있습[illegible]다. 레이저 빔을 [illegible]으로 [illegible]쳐다 보[illegible]나 광[illegible] 기구[illegible] 사용하[illegible] 직접 보지 마십시오.
Aviso	**Radiação laser invisível pode ser emitida a partir de fibras ou co[illegible]onectados. Não fixe o olhar nos feixes nem olhe diretamente com instrumentos ópticos.**
Advarsel	**Usynlig laserstråling kan forekomme fra brugte fibre eller stik. Stir ikke ind i stråler eller direkte med optiske instrumenter.**
تحذير	**من المحتمل انبعاث أشعة الليزر من الألياف غير المتصلة أو التوصيلات. لا تحدق النظر في الشعاع أو النظر مباشرة بدون أي أداة بصرية.**

Upozorenje **Postoji mogućnost laserskog zračenja iz iskopčanih vlakana ili priključaka. Nemojte gledati izravno u zrake niti ih promatrati optičkim instrumentima.**

Upozornění **Odpojená vlákna kabelů či konektory mohou vyzařovat neviditelné laserové záření. Nedívejte se do paprsků ani nepozorujte přímo pomocí optických přístrojů.**

Προειδοποίηση Από αποσυνδεδεμένες ίνες ή υποδοχές μπορεί να εκπέμπεται αόρατη ακτινοβολία λέιζερ. Μην κοιτάτε απευθείας τις δέσμες φωτός και μην τις απεικονίζετε απευθείας με οπτικά όργανα.

אזהרה תתיכן פליטה של קרינת לייזר בלתי-נראית מסיבים או ממחברים מנותקים. אל תביט ישירות לתוך קרני אור ואל תביט באמצעות במכשירים אופטיים.

Невидливо ласерско зрачење може да зрачи од исклучените влакна или приклучоци. Не гледајте во зраци и не прегледувајте ги директно со оптички инструменти.

Ostrzeżenie **Odłączone światłowody lub złącza mogą emitować niewidzialne promieniowanie laserowe. Nie należy patrzeć prosto w wiązkę lasera ani bezpośrednio obserwować jej przy użyciu przyrządów optycznych.**

Upozornenie **Odpojené vlákna káblov alebo konektory môžu vyžarovať neviditeľné laserové žiarenie. Nepozerajte sa do lúčov ani ich nepozorujte priamo pomocou optických prístrojov.**

Opozorilo **Izključena vlakna ali konektorji lahko oddajajo nevidno lasersko sevanje. Ne glejte neposredno v laserske žarke oziroma pri tem ne uporabljajte optičnih naprav.**

Statement 1072—Shock Hazard from Interconnections

Warning **Voltages that present a shock hazard may exist on Power over Ethernet (PoE) circuits if interconnections are made using uninsulated exposed metal contacts, conductors, or terminals. Avoid using such interconnection methods, unless the exposed metal parts are located within a restricted access location and users and service people who are authorized within the restricted access location are made aware of the hazard. A restricted access area can be accessed only through the use of a special tool, lock and key or other means of security.**

Waarschuwing **Voltages kunnen elektrische schokken veroorzaken in PoE (Power over Ethernet)-circuits als er verbindingen worden gemaakt met blootliggende metalen contactpunten, geleiders of aansluitingspunten die niet zijn geïsoleerd. Gebruik dit type verbinding niet tenzij de blootliggende metalen onderdelen zich bevinden op een locatie met beperkte toegang en de gebruikers en onderhoudstechnici die toegang tot deze locatie hebben, op het gevaar worden gewezen. De locatie met beperkte toegang kan alleen worden geopend met speciaal gereedschap, slot en sleutel of een andere beveiligingsmethode.**

Varoitus Sisäisissä Ethernet (PoE) -virtapiireissä voi olla sähköiskun vaaran aiheuttavia jännitteitä, jos kytkentöihin käytetään eristämättömiä paljaita metalliliittimiä tai -johtimia. Vältä tällaisia kytkentöjä, elleivät paljaat metalliosat ole rajatussa paikassa. Ilmoita valtuutetuille käyttäjille ja huoltohenkilöille vaarasta. Rajattuun alueeseen pääsee käsiksi ainoastaan erityistyökalua, lukkoa ja avainta tai muuta turvallista menetelmää käyttämällä.

Attention Les tensions existant sur les alimentations utilisant la technologie PoE (Power over Ethernet) peuvent constituer un risque d'électrocution si les interconnexions sont effectuées en utilisant des terminaux, conducteurs ou contacts métalliques exposés non isolés. Évitez d'utiliser de telles méthodes d'interconnexion à moins que les pièces métalliques exposées ne se trouvent dans un emplacement d'accès restreint et que les utilisateurs et les responsables du service autorisés dans cet emplacement d'accès restreint ne soient conscients du danger. Une zone d'accès restreint peut être accédée uniquement à l'aide d'une clé, d'un outil et d'un verrou spécial, ou d'autres moyens de sécurité.

Warnung Bei Power-over-Ethernet-(PoE-)Schaltkreisen besteht u.U. Stromschlaggefahr, wenn Verbindungen unter Verwendung nicht isolierter, freiliegender Metallkontakte, Leiter oder Anschlussklemmen hergestellt werden. Vermeiden Sie das Herstellen solcher Verbindungen, es sei denn, die freiliegenden Metallteile befinden sich an Orten mit beschränktem Zugang, und Personen, die Zugang dazu haben, sind ausdrücklich über diese Gefahr informiert worden. Ein Ort mit beschränktem Zugang ist nur mit Hilfe eines speziellen Werkzeugs, Schloss und Schlüssels oder anderen Sicherheitseinrichtungen zugänglich.

Avvertenza Nei circuiti con alimentazione via Ethernet (PoE) possono verificarsi pericoli di scosse elettriche se si creano connessioni con contatti metallici, conduttori o terminali scoperti. Evitare di utilizzare i metodi di connessione sopraelencati a meno che le parti metalliche esposte non si trovino in una zona riservata e gli utenti e il personale di assistenza, che sono autorizzati ad accedere nella suddetta zona, siano stati messi al corrente del pericolo. È possibile accedere alla zona riservata solamente utilizzando gli appositi elementi di sicurezza.

Advarsel I strømkretser med PoE (Power over Ethernet) kan det være spenninger som kan utgjøre støtfare hvis det blir foretatt sammenkoblinger med uisolerte, eksponerte kontakter, ledere eller terminaler av metall. Unngå å bruke slike sammenkoblingsmetoder med mindre de eksponerte metalldelene er i et område med begrenset tilgang, og brukere og servicepersonell som har tilgang til det begrensede området, blir gjort oppmerksom på faren. Et område med begrenset tilgang kan bare åpnes ved hjelp av spesialverktøy, nøkkel eller andre sikkerhetstiltak.

Aviso Pode haver voltagens que representam perigo de choque em circuitos [illegible] (Power over Ethernet) se as interconexões forem feitas utilizando-se terminais, condutores ou contatos de metal exposto e sem isolamento. Evite utilizar tais métodos de interconexão a não ser que as partes de metal expostas estejam em um local de acesso restrito e os usuários e o pessoal de serviço com acesso autorizado a este local restrito estejam cientes do perigo. Uma área [illegible] restrito só pode ser acessada com o uso de uma ferramenta, fechadura e chave especial ou de outros meios de segurança.

¡Advertencia! Puede haber voltajes con riesgo de shock en circuitos de alimentación sobre el cableado Ethernet (PoE), si para las interconexiones se utilizan contactos, conductores o terminales metálicos descubiertos. Evite tales métodos de interconexión, a menos que las partes metálicas descubiertas se encuentren en un lugar de acceso restringido y tanto los usuarios como el personal de servicios en dicho lugar sean conscientes de la existencia de tal riesgo. Sólo se puede tener acceso a una zona de acceso restringido mediante el uso de una herramienta especial, un candado y una llave u otros medios de seguridad.

Varning! Det kan finnas spänningar på PoE-kretsarna (Power over Ethernet) som utgör risk för stötar om sammankopplingarna görs med ej isolerade, exponerade kontakter, ledare och/eller terminaler av metall. Undvik att använda sådana sammankopplingsmetoder, såvida inte de exponerade metalldelarna finns i en plats med begränsad åtkomst. Användare och servicepersonal som tillåts inom platsen med begränsad åtkomst måste vara medvetna om risken. Ett begränsat område kan bara nås med ett speciellt verktyg eller lås, en speciell nyckel eller någon annan säkerhetsmetod.

Figyelem Áramütést okozó feszültség keletkezhet a feszültség alatt lévő Ethernet (Power over Ethernet, PoE) áramkörökben, amennyiben összeköttetés jön létre a szigeteletlen fém érintkezők, vezetékek vagy csatlakozók között. Ne alkalmazzon ilyen összeköttetéseket, kivéve, ha az érintésnek kitett fém alkatrészek korlátozottan hozzáférhető területen találhatók, és a terület elérésére felhatalmazott felhasználók és szervizszakemberek tudatában vannak az áramütés veszélyének. A korlátozottan hozzáférhető területekhez csak speciális szerszám, zár és kulcs, vagy más biztonsági berendezés segítségével lehet hozzáférni.

Предупреждение При выполнении соединений с использованием неизолированных металлических контактов, проводников или разъемов в электроцепях Power over Ethernet (PoE) могут возникать напряжения, представляющие опасность поражения электрическим током. Старайтесь не использовать такие способы соединений, если только неизолированные металлические части не находятся в местах, доступ к которым разрешен для ограниченного круга лиц, а пользователи и специалисты по обслуживанию, уполномоченные выполнять работы в таких местах, предупреждены о наличии такой опасности. При работе в местах, доступ к которым разрешен для ограниченного круга лиц, следует использовать только специальные инструменты, закрывать их на ключ или предпринимать другие меры безопасности.

警告 如果使用不绝缘、暴露的金属接头、导体或终端进行互联、在以太网供电（PoE）电路中就会产生导致电击危险的电压。只有暴露的金属部件处于限制进入的位置、并且被授权进入此位置的用户和服务人员意识到此危险、才能使用这样的互联方式。要进入受限区域、仅能使用特殊的工具、锁和密钥或其他安全方法。

警告 絶縁処理が施されていない金属製の部品、コンダクタ、またはターミナルを使用して内部接続されている場合、感電を引き起こす電圧が Power over Ethernet（PoE）回路に存在する可能性があります。絶縁処理が施されていない金属製の部品がアクセス制限区域にのみ存在する場合や、アクセス制限区域への立ち入りが認められているユーザおよびサービス担当者が感電の可能性について熟知している場合を除き、そのような内部接続の方法は避けてください。アクセス制限区域には、特殊な工具や錠などのセキュリティ手段を使用しなければアクセスできません。

Statement 1074—Comply with Local and National Electrical Codes

Warning **Installation of the equipment must comply with local and national electrical codes.**

Waarschuwing **Bij installatie van de apparatuur moet worden voldaan aan de lokale en nationale elektriciteitsvoorschriften.**

Varoitus **Laitteisto tulee asentaa paikallisten ja kansallisten sähkömääräysten mukaisesti.**

Attention **L'équipement doit être installé conformément aux normes électriques nationales et locales.**

Warnung **Die Installation der Geräte muss den Sicherheitsstandards entsprechen.**

Avvertenza **L'installazione dell'impianto deve essere conforme ai codici elettrici locali e nazionali.**

Advarsel **Installasjon av utstyret må samsvare med lokale og nasjonale elektrisitetsforskrifter.**

Aviso **A instalação do equipamento tem de estar em conformidade com os códigos eléctricos locais e nacionais.**

¡Advertencia! **La instalación del equipo debe cumplir con las normativas de electricidad locales y nacionales.**

Varning! **Installation av utrustningen måste ske i enlighet med gällande elinstallationsföreskrifter.**

Figyelem **A berendezés üzembe helyezését a helyi és a nemzeti elektromossági előírások figyelembevételével kell elvégezni.**

Предупреждение **Установка оборудования должна соответствовать местным и национальным электротехническим нормам.**

警告 设备安装必须符合本地与本国电气法规。

警[illegible] 機[illegible]の取[illegible]付けは地域およ[illegible]国内の[illegible]気工事[illegible]定に遵守する必要があり[illegible]す。

주[illegible] 현[illegible] 및 [illegible]가 전기 [illegible]정에 [illegible]라 장비[illegible]설치해[illegible]합니다.

Aviso **A instalação do equipamento deve estar em conformidade com os códigos elétricos nacionais.**

Upozornění **Instalace zařízení musí splňovat příslušné místní a státní elektrotechnické normy.**

Προειδοποίηση **Η εγκατάσταση του εξοπλισμού πρέπει να συμμορφώνεται με τους τοπικούς και εθνικούς κώδικες ηλεκτρολογικών εγκαταστάσεων.**

אזהרה	התקנת הציוד חייבת להיות תואמת את חוקי החשמל המקומיים והארציים.
Ostrzeżenie	**Instalacja sprzętu musi być zgodna z lokalnymi i krajowymi normami elektrycznymi.**
Upozornenie	**Inštalácia zariadenia sa musí vykonať v súlade s miestnymi a národnými predpismi pre inštaláciu elektrických zariadení.**
Opozorilo	**Priključitev opreme mora potekati v skladu z lokalnimi in državnimi predpisi o električni opremi.**
警告	設備安裝作業必須符合當地或國家電工法。

Statement 1075—Hazardous Voltage or Energy Present on DC Power Terminals

Warning	**Hazardous voltage or energy may be present on DC power terminals. Always replace cover when terminals are not in service. Be sure uninsulated conductors are not accessible when cover is in place.**
Waarschuwing	**Op DC-aansluitingspunten kunnen zich gevaarlijke voltages of energieën voordoen. Plaats altijd de afsluiting wanneer de aansluitingspunten niet worden gebruikt Zorg ervoor dat blootliggende contactpunten niet toegankelijk zijn wanneer de afsluiting is geplaatst.**
Varoitus	**Tasavirtaliittimissä saattaa olla huomattava jännite tai teho. Sulje suojus aina, kun liittimet eivät ole käytössä. Suojuksen ollessa suljettuna varmista, että kohde on suojattu eristämättömiltä johtimilta.**
Attention	**Le voltage ou l'énergie électrique des terminaux à courant continu peuvent être dangereux. Veillez à toujours replacer le couvercle lors les terminaux ne sont pas en service. Assurez-vous que les conducteurs non isolés ne sont pas accessibles lorsque le couvercle est [illegible] place.**
Warnung	**[illegible] mit Gleichstrom betriebenen Terminals kann es zu gefährlicher Spannung kommen. Die Terminals müssen abgedeckt werden, wenn sie nicht in Betrieb sind. Stellen Sie bei Benutzung der Abdeckung sicher, dass alle nicht isolierten, stromführenden Kabel abgedeckt sind.**
Avvertenza	**I terminali di alimentazione DC potrebbero contenere voltaggio o energia pericolosi. Accertarsi di sostituire il coperchio ogni qualvolta i terminali non sono operativi. Accertarsi che i conduttori scoperti non siano accessibili quando il coperchio è inserito.**
Advarsel	**Det kan forekomme farlig spenning eller energi i likestrømsterminaler. Sett alltid dekselet på plass når terminalene ikke er i bruk. Kontroller at uisolerte ledere ikke er tilgjengelige når dekselet er på plass.**

Aviso **Os terminais de corrente contínua podem fornecer tensão ou energia perigosa. Volte a colocar a tampa, sempre que os terminais não estiverem a ser utilizados. Certifique-se de que os condutores sem isolamento não estão acessíveis, quando a tampa estiver colocada.**

¡Advertencia! **Puede haber energía o voltaje peligrosos en los terminales eléctricos de CC. Reemplace siempre la cubierta cuando no estén utilizándose los terminales. Asegúrese de que no haya acceso a conductores descubiertos cuando la cubierta esté colocada.**

Varning! **Farlig spänning eller skadlig energi kan finnas i likströmsterminalerna. Sätt alltid tillbaka höljet när terminalerna inte används. Försäkra att inga oisolerade ledare kan nås när höljet sitter på plats.**

Figyelem **Az egyenáramú csatlakozókon veszélyes feszültség vagy energia léphet fel. Ha a csatlakozók nincsenek bekötve, feltétlenül tegye vissza a fedelet. Ügyeljen rá, hogy a szigeteletlen vezetékeket ne lehessen megérinteni, ha a fedél fel van szerelve.**

Предупреждение **На контактах питания постоянного тока может присутствовать опасное напряжение или энергия. Всегда устанавливайте крышку на место после завершения обслуживания. Когда крышка установлена, все неизолированные проводники должны быть недоступны.**

警告 直流电源终端可能产生危险的电压或能量。终端不使用时，务必将机盖盖上。确认机盖盖上时，无法使用不绝缘导体。

警告 直流電力端子に危険な電圧やエネルギーが発生している可能性があります。使用していない端子には常にカバーを付けてください。カバーが付いているときは非絶縁形コンダクタに接触できないことを確認してください。

警告 DC 電源終端機上電壓高，十分危險。不使用終端機時請務必蓋上外罩。請檢查外罩蓋好後是否的確無法接觸未絕緣導線。

European Directives

Statement 287—Declaration of Conformity to R&TTE Directive 1999/5/EC for the European Community, Switzerland, Norway, Iceland and Liechtenstein

English:	**This equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.**
[Bulgarian]:	**Това оборудване отговаря на съществените изисквания и приложими к Директива 1999/5/EC.**
[Czech]:	**Toto zařízení je v souladu se základními požadavky a ostatními odpovídajíc ustanoveními Směrnice 1999/5/EC.**
Dansk [Danish]:	**Dette udstyr er i overensstemmelse med de væsentlige krav og andre relevante bestemmelser i Direktiv 1999/5/EF.**
Deutsch [German]:	**Dieses Gerät entspricht den grundlegenden Anforderungen und den weiteren entsprechenden Vorgaben der Richtlinie 1999/5/EU.**
Eesti [Estonian]:	**See seade vastab direktiivi 1999/5/EÜ olulistele nõuetele ja teistele asjakohastele sätetele.**
Español [Spanish]:	**Este equipo cumple con los requisitos esenciales asi como con otras disposiciones de la Directiva 1999/5/CE.**
[Greek]:	**Αυτός ο εξοπλισμός είναι σε συμμόρφωση με τις ουσιώδεις απαιτήσεις και διατάξεις της Οδηγίας 1999/5/EC.**
Français [French]:	**Cet appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la Directive 1999/5/EC.**
Íslenska [Icelandic]:	**Þetta tæki er samkvæmt grunnkröfum og öðrum viðeigandi ákvæðum Tilskipunar 1999/5/EC.**
Italiano [Italian]:	**[illegible]uesto [illegible]pa[illegible]o é co[illegible]rme [illegible]equisi[illegible]ssenz[illegible]li ed agli altri principi s[illegible]citi dalla Dirett[illegible] 1999/5/[illegible]**
Latviski [La[illegible]n]:	**Šī iek[illegible]a at[illegible]st Dir[illegible]ivas [illegible]999/5/E[illegible] būtisk[illegible]ām prasībām un ci[illegible]m a[illegible] saistītajiem [illegible]oteikumiem.**
[Lithuanian]:	**Šis įrenginys tenkina 1999/5/EB Direktyvos esminius reikalavimus ir kitas š direktyvos nuostatas.**
Nederlands [Dutch]:	**Dit apparaat voldoet aan de essentiele eisen en andere van toepassing zijnde bepalingen van de Richtlijn 1999/5/EC.**

Malti [Maltese]:	Dan l-apparat huwa konformi mal-htigiet essenzjali u l-provedimenti l-ohra rilevanti tad
Magyar [Hungarian]:	Ez a készülék teljesíti az alapvető követelményeket és más 1999/5/EK iránye meghatározott vonatkozó rendelkezéseket.
Norsk [Norwegian]:	Dette utstyret er i samsvar med de grunnleggende krav og andre relevante bestemmelser i EU-direktiv 1999/5/EF.
Polski [Polish]:	Urządzenie jest zgodne z ogólnymi wymaganiami oraz szczególnymi warun Dyrektywą UE: 1999/5/EC.
Português [Portuguese]:	Este equipamento está em conformidade com os requisitos essenciais e outras provisões relevantes da Directiva 1999/5/EC.
Română [Romanian]:	Acest echipament este in conformitate cu cerintele esentiale si cu alte prevederi relevante ale Directivei 1999/5/EC.
Slovensko [Slovenian]:	Ta naprava je skladna z bistvenimi zahtevami in ostalimi relevantnimi pogoji Direktive 1999/5/EC.
Slovensky [Slovak]:	Toto zariadenie je v zhode so základnými požiadavkami a inými príslušnými nariadeniami direktív: 1999/5/EC.
Suomi [Finnish]:	Tämä laite täyttää direktiivin 1999/5/EY olennaiset vaatimukset ja on siinä a laitetta koskevien määräysten mukainen.
Svenska [Swedish]:	Denna utrustning är i överensstämmelse med de väsentliga kraven och anc bestämmelser i Direktiv 1999/5/EC.

Statement 2002—Declaration of Conformity with Regard to the Directives 2006/95/EC and 2004/108/EC

This equipment complies with the essential requirements and other provisions of Directives 2006/95/EC and 2004/108/EC. For more information, please refer to the Declaration of Conformity

Statement 6005—California Perchlorate Contamination Prevention Act (Title 22, California Code of Regulations, Chapter 33)

The battery inside this product might contain perchlorate, a known hazardous substance, so special handling and disposal of this product might be necessary. For more information about perchlorate and best management practices for perchlorate-containing substances, see http://www.dtsc.ca.gov/HazardousWaste/Perchlorate/index.cfm.

Statement 6003—Taiwan Battery

廢電池請回收

Statement 6004—EU Battery Disposal and Recycling

This product may contain a battery. Recycle or dispose of batteries in accordance w\ith the battery manufacturer's instructions and local/national disposal and recycling regulations.

Statement 6005—California Perchlorate Contamination Prevention Act (Title 22, California Code of Regulations, Chapter 33)

The battery inside this product might contain perchlorate, a known hazardous substance, so special handling and disposal of this product might be necessary. For more information about perchlorate and best management practices for perchlorate-containing substances, see http://www.dtsc.ca.gov/HazardousWaste/Perchlorate/index.cfm.

Statement 8000—Standards Compliance

This section includes all regulatory, safety, EMC (Class A or Class B), telecom, and NEBS standards. The Catalyst 4900M switch products are in compliance with the national and international standards as described in Table 1.

Table 1 Standards Compliance

Specification	**Description**
Regulatory Compliance	Products should comply with CE Markings per directives 2[illegible]8/EC and 2006/95/EC.
Safety	UL 60950-1 CAN/CSA-C22.2 No. 60950-1 EN 60950-1 IEC 60950-1 AS/NZS 60950-1

Table 1 ***Standards Compliance (continued)***

Specification	**Description**
EMC	47CFR Part 15 Class A (FCC Regulations) AS/NZS CISPR22 Class A CISPR22 Class A EN55022 Class A ICES003 Class A VCCI Class A EN50082-1 EN61000-6-1 EN55024 EN300386 EN61000-3-2 EN61000-3-3 KN22 Class A KN24 CISPR24
Telecom (E1)	AS/ACIF S016:2001 CTR12 (97/520/EC) CTR13 (97/521/EC) TNA 117 IDA TS DCLN1 Jate Green Book
Telecom (T1)	EIA/TIA-968-A IC CS-03 ID002 Jate Green Book

For specific details about the years, revisions, and relevant amendments, refer to the applicable declaration of conformity available at http://www.cisco.com.

The Catalyst 4900M switches meet the industry EMC, safety, and environmental standards described in Table 2.

Table 2 ***Industry EMC, Safety, and Environmental Standards***

Specification	**Description**
NEBS	GR-[illegible]-Core NEBS Level 3 GR-[illegible]089-Core NEBS Level 3
Verizon NEBS Compliance	Telecommunications Carrier Group (TCG) checklist
Qwest NEBS requirements	Telecommunications Carrier Group (TCG) checklist
ATT NEBS requirements	ATT TP76200 level 3 and TCG checklist
ETSI	ETS 300 019-1-1, Class 1.2 Storage ETS 300 019-1-2, Class 2.3 Transportation ETS 300 019-1-3, Class 3.2 Stationary Use

Statement 2007—EMC Environmental Conditions for Products Installed in the European Union

This section applies to products to be installed in the European Economic Union.

The equipment is intended to operate under the following environmental conditions with respect to EMC:

- A separate, defined location that is under user's control.
- As a minimum, earthing and bonding shall meet the requirements of ETS 300 253:1995 or CCITT K27:1996.
- AC power distribution inside the building shall be, as a minimum, one of the following types (as defined in IEC 60364-3:1993):
  - TN-S
  - TN-C
  - TT
  - IT

In addition, if equipment is operated in a domestic environment, radio-frequency interference may occur.

EMC Class A Notices and Warnings

This section includes the EMC Class A warnings for the Catalyst 4900M switches.

Statement 257—Class A Notice for Taiwan and Other Traditional Chinese Markets

Warning **This is a Class A Information Product, when used in residential environment, it may cause radio frequency interference, under such circumstances, the user may be required to take appropriate countermeasures.**

警告 這是甲類資訊產品，在居住的環境中使用時，可能會造成射頻干擾，
在這種情況下，使用者會被要求採取某些適當的對策。

Statement 340—Class A Warning for CISPR22

Warning	**This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.**
Waarschuwing	**Dit is een product van klasse A. In een woonomgeving kan dit product radiostoring veroorzaken. In dat geval moet de gebruiker de juiste maatregelen nemen.**
Varoitus	**Tämä on A-luokan tuote. Kotona käytettynä tämä tuote voi aiheuttaa radiotaajuushäiriöitä, jolloin käyttäjän tulisi ryhtyä vaadittaviin toimenpiteisiin häiriöiden ehkäisemiseksi.**
Attention	**Il s'agit d'un produit de classe A. Dans un environnement local, ce produit peut entraîner des perturbations radioélectriques, auquel cas l'utilisateur devra éventuellement prendre des mesures adéquates.**
Warnung	**Dies ist ein Produkt der Klasse A. Bei der Verwendung dieses Produkts im Haus- oder Wohnungsbereich kann es zu Funkstörungen kommen. In diesem Fall muss der Benutzer u. U. angemessene Maßnahmen ergreifen.**
Avvertenza	**Prodotto di classe A. È possibile che il prodotto generi interferenze radio in un ambienti chiusi. In questo caso l'utente deve intraprendere le misure adeguate per risolvere il problema.**
Advarsel	**Dette er et produkt i klasse A. I et hjemmemiljø kan dette produktet forårsake radioforstyrrelser, og brukeren kan da være nødt til å ta de nødvendige forholdsregler.**
Aviso	**Este é um produto de classe A. Em um ambiente doméstico, este produto pode causar interferência de rádio. Nesse caso, talvez o usuário precise tomar as medidas adequadas.**
¡Advertencia!	**Este es un producto de clase A. En el ámbito doméstico, este producto puede causar radiointerferencias, lo que puede hacer necesaria la puesta en marcha de medidas adecuadas.**
Varning!	**Detta är en klass A-produkt. Denna produkt kan orsaka radiostörningar inomhus. Det kan då vara ett krav att användaren vidtar lämpliga åtgärder.**
Figyelem	**Ez egy A osztályba tartozó termék. [illegible] belüli környezetben előfordulhat, hogy a termék rádióvételi interferenciát okoz; ilyen esetben megfelelő lépéseket kell tenni a zavar megszüntetése érdekében.**
Предупреждение	**Данное изделие относится к классу A. При установке в жилых помещениях данное изделие может стать причиной радиопомех, в результате чего пользователю может потребоваться предпринять соответствующие меры.**
警告	这是类别 A 产品。在家用环境中，该产品可能会引起无线电干扰，此时用户需要采取适当措施。
警告	この装置はクラスA製品です。この装置を住宅地で使用した場合、電波妨害を引き起こすことがあります。その場合、ユーザが適切な防止措置を講じるよう求められることがあります。

Upozornění **Toto je produkt třídy A. V domácím prostředí může způsobovat rušení radiových vln. V takovém případě musí uživatel provést příslušná opatření.**

Προειδοποίηση **Αυτό είναι ένα προϊόν κλάσης A. Σε οικιακό περιβάλλον, αυτό το προϊόν ενδέχεται να προκαλέσει παρεμβολές ("παράσιτα") και σε μια τέτοια περίπτωση ο χρήστης ενδέχεται να χρειαστεί να λάβει τα κατάλληλα μέτρα.**

Ostrzeżenie **Jest to produkt klasy A. W środowisku domowym produkt ten może powodować zakłócenia radiowe, wymagające od użytkownika podjęcia odpowiednich czynności zaradczych.**

Upozornenie **Toto je výrobok triedy A. Tento výrobok môže v domácom prostredí spôsobovať rádiofrekvenčné rušenie a v takom prípade sa môže vyžadovať, aby jeho používateľ vykonal adekvátne opatrenia.**

Upozornění **Toto je produkt třídy A. V domácím prostředí může způsobovat rušení radiových vln. V takovém případě musí uživatel provést příslušná opatření.**

Statement 2017—Class A Notice for FCC

Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

Statement 2021—Class A Notice for Canada

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Statement 191—VCCI Class A Warning for Japan

Warning **This is a Class A product based on the standard of the VCCI Council. If this equipment is used in a domestic environment, radio interference may occur, in which case, the user may be required to take corrective actions.**

VCCI-A

警告 この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI-A

Statement 256—Class A Warning for Hungary

Warning **This equipment is a class A product and should be used and installed properly according to the Hungarian EMC Class A requirements (MSZEN55022). Class A equipment is designed for typical commercial establishments for which special conditions of installation and protection distance are used.**

Figyelem **Figyelmeztetés a felhasználói kézikönyv számára: Ez a berendezés "A" osztályú termék, felhasználására és üzembe helyezésére a magyar EMC "A" osztályú követelményeknek (MSZ EN 55022) megfeleloen kerülhet sor, illetve ezen "A" osztályú berendezések csak megfelelo kereskedelmi forrásból származhatnak, amelyek biztosítják a megfelelo speciális üzembe helyezési körülményeket és biztonságos üzemelési távolságok alkalmazását.**

Statement 294—Class A Warning for Korea

Warning **This is a Class A Device and is registered for EMC requirements for industrial use. The seller or buyer should be aware of this. If this type was sold or purchased by mistake, it should be replaced with a residential-use type.**

주의 A급 기기 이 기기는 업무용으로 전자파 적합 등록을 한 기기이
오니 판매자 또는 사용자는 이 점을 주의하시기 바라며 만약
잘못 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

GR-1089-CORE Issue 3 Documentation Statements

Statement 7016—GR-1089-Core Intrabuilding Lightning—Immunity Requirements

Caution To comply with GR-1089-Core intrabuilding lightning-immunity requirements, you must use shielded (screened) cable that is grounded at both ends.

GR-1089-CORE Issue 4 Documentation Statements

Statement 7001—ESD Mitigation

This equipment may be ESD sensitive. Always use an ESD ankle or wrist strap before handling equipment. Connect the equipment end of the ESD strap to an unfinished surface of the equipment chassis or to the ESD jack on the equipment if provided.

Statement 7005—Intrabuilding Lightning Surge and AC Power Fault

Warning **The intra-building port(s) of the equipment or subassembly is suitable for connection to intra-building or unexposed wiring or cabling only. The intra-building port(s) of the equipment or subassembly MUST NOT metallically connect to interfaces that connect to the OSP or its wiring. These interfaces are designed for use as intra-building interfaces only (Type 2 or Type 4 ports as described in GR-1089-CORE, Issue 4) and require isolation from the exposed OSP cabling. The addition of Primary Protectors is not sufficient protection in order to connect these interfaces metallically to OSP wiring.**

Statement 7012—Equipment Interfacing with AC Power Ports

This equipment shall be connected to AC mains provided with a surge protective device (SPD) at the service equipment complying with NFPA 70, the National Electrical Code (NEC).

Statement 7013—Equipment Bonding Networks

This equipment is suitable for installations utilizing the Common Bonding Network (CBN).

Statement 7014—Installation Location

This equipment is suitable for installation in Network Telecommunications Facilities and locations where the NEC applies.

Statement 7015—Equipment Bonding and Grounding

Paint and non-conductive coatings shall be removed before joining the surfaces between the equipment chassis and mounting metalwork. The surfaces shall be cleaned and an anti-oxidant compound applied before joining the surfaces.

Statement 7016—Battery Return Conductor

The battery return conductor of this equipment shall be treated as DC Isolated (DC-I).

Statement 7017—Minimum Steady State DC Input Voltage

This equipment will operate without degradation at a minimum steady state voltage of –40.5 VDC. The nominal DC input voltage rating is –48 VDC.

Statement 8003—Telecom Approvals Listing

The Catalyst 4900M switches meet the requirements listed in this section for telecommunications equipment.

Statement 3023—FCC Part 68 Notice

This equipment complies with Part 68 of the FCC rules. A label on the bottom of the chassis contains the FCC registration number among other information. If requested, this information must be provided to the telephone company.

This equipment cannot be used on telephone company-provided coin services. Connection to the Party Line Service is subject to state tariffs.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice is not practical, the telephone company will notify you as soon as possible. You will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that might affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service.

If you experience trouble with this equipment, please contact Cisco Systems for repair and warranty information. If the problem is causing harm to the telephone network, the telephone company might request that you remove the equipment from the network until the problem is resolved. All repairs should be handled by authorized Cisco Systems service personnel.

We recommend that you install an AC surge arrestor in the AC outlet to which this device is connected. This action will help to avoid damage to the equipment caused by local lightning strikes and other electrical surges.

This equipment uses the Uniform Service Order Code (USOC) jacks that is described in Table 3.

Table 3 USOC Jacks

Model Number	**Facility Interface Code**	**Service Order Code**	**Jack Type**
WS-X6608-T1	04DU9-ISN	6.0Y	RJ-48C
WS-SVC-CMM-6T1	04DU9-BN/DN/ 1KN/ISN	6.0Y	RJ-48C

Statement 3015—CS-03 Certification for Canada

The Catalyst 4900M switch meets the requirements of the Industry Canada label (CS-03) for telecommunications equipment. Table 4 lists the CS-03 approval numbers for the equipment.

Table 4 CS-03 Approval

Model Number	Approval Number
WS-X6608-T1	2461 10550A
WS-SVC-CMM-6T1	2461B-0008

Observe the following general information and safety precautions:

- The industry Canada label identifies CS-03 certified equipment. This certification means that the equipment meets certain telecommunications network protection, operation, and safety requirements as described in the appropriate terminal equipment requirements document(s). The department does not guarantee the equipment will operate to the user's satisfaction.
- Before installing the equipment, check that you have permission to connect it to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.
- Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or any equipment malfunctions, may cause the telecommunications company to request that the user disconnect the equipment.
- Ensure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Warning **Do not attempt to make such connections yourself. Contact the appropriate electric inspection authority or electrician as appropriate.** Statement 285

Statement 8001—JATE Certification for Japan

The Catalyst 4900M switches meet the requirements of the Japan Approval Institute for Telecommunications Equipment (JATE). Table 5 lists the JATE approval details.

Table 5 JATE Approval

Applicant	Model Number	Approval Number
Nihon Cisco Systems	WS-X6608-T1	L00-0071

Japanese Electric Appliance and Radio Laws

Statement 371—Power Cable and AC Adapter

接続ケーブル、電源コード、ACアダプタなどの部品は、必ず添付品または指定品をご使用ください。添付品・指定品以外の部品をご使用になると故障や動作不良、火災の原因となります。また、電気用品安全法により、当該法の認定（PSEとコードに表記）でなくUL認定（ULまたはCSAマークがコードに表記）の電源ケーブルは弊社が指定する製品以外の電気機器には使用できないためご注意ください。

Statement 372—Wireless LAN Products

5.2/5.3GHz帯の無線LAN製品は法令により屋外では使用できません。屋内のみでご使用ください。

Statement 384—Japanese Safety Reference Information

日本国内向けの最新の安全上の注意については、本資料と合わせて以下ページも参照ください。
http://www.cisco.com/jp/go/safety_warning/
For the latest safety information for Japan, please refer to
http://www.cisco.com/jp/go/safety_warning/

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