



Preface

Overview

This document describes the hardware components and installation procedures that must be completed to deploy Cisco Video Surveillance Storage System components. It provides information for the following Cisco Video Surveillance Storage System models:

- CPS-SS-4RU—A three-drawer, 60-disk RAID storage unit
- CPS-SS-4RU-EX—A three-drawer, 60-disk expansion storage unit which connects to a CPS-SS-4RU via a Fibre Channel interface.

These systems are capable of two RAID or Expansion controllers for host failover and redundancy.

This document it is intended for experienced system integrators and technicians who are installing these devices.

Organization

This document is organized as follows:

Chapter	Description
Chapter 1, “Cisco Video Surveillance Storage System Component Overview”	Describes connectors and LED status for the CPS-SS-4RU and CPS-SS-4RU-EX.
Chapter 2, “Unpacking and Preparing Components”	Describes procedures for unpacking and preparing the CPS-SS-4RU and CPS-SS-4RU-EX for rack mounting.
Chapter 3, “Rack Mounting Components”	Describes the procedures for rack mounting the CPS-SS-4RU and CPS-SS-4RU-EX.
Chapter 4, “Cabling & Power-up Procedures”	Describes the cabling and power-up procedures for the CPS-SS-4RU and CPS-SS-4RU-EX.
Chapter 5, “Field-Replaceable Units”	Describes the installation and replacement procedures for the CPS-SS-4RU and CPS-SS-4RU-EX FRUs.
Appendix A, “CPS-SS-4RU Technical Specifications”	CPS-SS-4RU Specifications
Appendix B, “CPS-SS-4RU-EX Technical Specifications”	CPS-SS-4RU-EX Specifications

Chapters 1 through 5 contain common procedures and specifications for Cisco Video Surveillance Storage System components. Any variation for an individual component is documented beneath the specific component heading. The paragraphs below are an example of specifying individual differences in specific components:

CPS-SS-4RU and CPS-SS-4RU-EX

The CPS-SS-4RU and CPS-SS-4RU-EX are designed to run from a nominal 200-240V supply, owing to their high peak power loading.

Safety Precautions

This section covers safety precautions for the Cisco Video Surveillance Storage System, including the CPS-SS-4RU and CPS-SS-4RU-EX.



Caution

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 Statement 1071



Caution

Cisco Storage Series products contain hazardous materials. Only a trained operator may remove certain field-replaceable units (FRUs). Only trained service engineers are authorized to disassemble any other part of the unit, and only when the unit is powered off.



Caution

There are multiple power connections. Remove all power leads completely to isolate the power. Always use the IEC power cords supplied with Cisco Storage Series products.



Caution

The Cisco Video Surveillance Storage System units are heavy and require two people to lift them out of the packaging or slide them onto the mounting rails. Do NOT attempt to lift or mount the units by yourself.



Caution

When removing Cisco Video Surveillance Storage System units from their packaging, DO NOT lift the unit by any module handles or plastic parts on the chassis. Doing so may cause damage to the chassis or to internal components, or both. Lift the unit ONLY by the bottom edges of the chassis, using safe lifting practices.



Caution

Computer components and disk drives are sensitive to electrostatic discharge (ESD). Be sure to ground any electrostatic charge from your person before touching components with your hands or with any tools. While installing the unit, use the anti-static wrist-strap shipped with the Cisco Video Surveillance Storage System units.

Please refer to the Regulatory Compliance and Safety Information (RCSI) document for complete and translated warnings.

**Note**

The statement number following each definition references the Warning Statement in the RCSI document.

**Warning**

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

**Warning**

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

**Warning**

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

**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

**Warning**

This equipment has been designed for connection to TN and IT power systems. Statement 1007

**Warning**

There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions. Statement 1015

**Warning**

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

**Warning**

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

**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

**Warning**

This unit might have more than one power supply connection. All connections must be removed to de-energize the unit. Statement 1028

**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

**Warning**

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

**Warning**

To prevent personal injury or damage to the chassis, never attempt to lift or tilt the chassis using the handles on modules (such as power supplies, fans, or cards); these types of handles are not designed to support the weight of the unit. Statement 1032

**Warning**

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

**Warning**

When installing or replacing the unit, the ground connection must always be made first and disconnected last. Statement 1046

**Warning**

To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of 35°C. Statement 1047

**Warning**

Stability hazard. The rack stabilizing mechanism must be in place, or the rack must be bolted to the floor before you slide the unit out for servicing. Failure to stabilize the rack can cause the rack to tip over. Statement 1048

**Warning**

The chassis should be mounted on a rack that is permanently affixed to the building. Statement 1049

**Warning**

Never install an AC power module and a DC power module in the same chassis. Statement 1050

**Warning**

Invisible laser radiation may be emitted from the end of the unterminated fiber cable or connector. Do not view directly with optical instruments. Viewing the laser output with certain optical instruments (for example, eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. Statement 1056

**Warning**

When you connect or disconnect the power and relay connector with power applied, an electrical arc can occur. This could cause an explosion in hazardous area installations. Be sure that power is removed from the switch and alarm circuit. Be sure that power cannot be accidentally turned on or verify that the area is nonhazardous before proceeding.

Failure to securely tighten the power and relay connector captive screws can result in an electrical arc if the connector is accidentally removed. Statement 1058

**Warning**

Do not disconnect connections to this equipment unless power has been removed or you have verified that the area is nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.

Substitution of components may impair suitability for Class I, Division 2. Statement 1062

**Warning**

This equipment is intended to be grounded to comply with emission and immunity requirements. Ensure that the switch functional ground lug is connected to earth ground during normal use. Statement 1064

**Warning**

To prevent airflow restriction, allow clearance around the ventilation openings to be at least: 300 mm. Statement 1076

**Warning**

The covers are an integral part of the safety design of the product. Do not operate the unit without the covers installed. Statement 1077

**Warning**

Explosion Hazard—Do not connect or disconnect wiring while the field-side power is on; an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or that the area is nonhazardous before proceeding. Statement 1081

**Warning**

Explosion Hazard—Substitution of components may impair suitability for Class I, Division 2/Zone 2. Statement 1083

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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