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Thank you for choosing Sourcefire!

Before installing this device, download and follow the instructions in the Sourcefire Support Welcome Kit (https://support.sourcefire.com) to get started with Sourcefire Support, and to set up your Customer Center account.

Included items:

- one of the following Sourcefire devices:
 - 3D8120 (1U model)
 - 3D8130 (1U model)
 - 3D8140 (1U model)
 - AMP8150 (1U model)

The 3D8120/8130/8140 have identical chassis. If you are not sure which model you have, see your packing list.

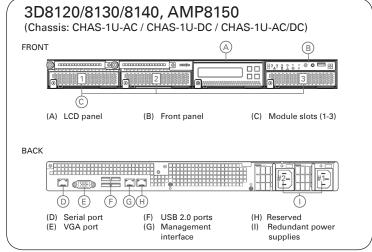
- 3D8250 (2U model)
- 3D8260 (4U stacked model), which includes a 3D8250 10G-capable primary device and one secondary (expansion) device
- 3D8270 (6U stacked model), which includes a 3D8250 40G-capable primary device and two secondary (expansion) devices
- 3D8290 ((8U stacked model), which includes a 3D8250 40G-capable primary device and three secondary (expansion) devices
- 3D8350 (2U model)
- 3D8360 (4U stacked model), which includes a 3D8350 40G-capable primary device and one secondary (expansion) device
- 3D8370 (6U stacked model), which includes a 3D8350 40G-capable primary device and two secondary (expansion) devices
- 3D8390 ((8U stacked model), which includes a 3D8350 40G-capable primary device and three secondary (expansion) devices
- a combination of Network Modules (NetMods)
- stacking module: optional for 3D8140, 3D8250, and 3D8350; included for 3D8260/8270/8290 and 3D8360/8370/8390
- two power cords per chassis
- two straight-through Cat 5e Ethernet cables per chassis
- rack-mounting kit per chassis

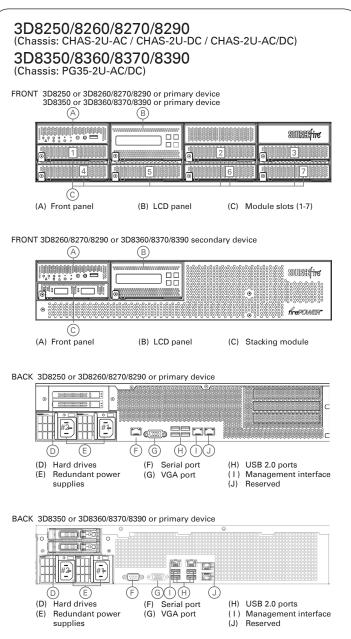
Required items:

• flathead and Phillips screwdrivers for rack-mounting kit

8000 Series Modules See page 3 for more information. Configurable Bypass NetMods Non-Bypass NetMods Quad-Port 1000BASE-SX Quad-Port 1000BASE-SX Fiber Non-Bypass NetMod 88 HE HE HE HE 88 4 Quad-Port 10GBASE (SR or LR) Stacking Module *:-:-Dual-Port 40GBASE-SR4 Fiber Bypass NetMod (3D82xx only) Stacking Module (3D8140, 3D82xx, 3D83xx only)

QUICK START GUIDE 8000 SERIES DEVICES





Deploying the Device

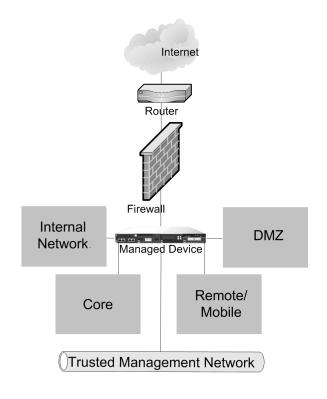
Your device is typically deployed inside a firewall, where it is connected to your trusted management network and the various network segments you want to monitor.

In a simple deployment scenario, you connect the management interface on your device to your trusted management network using an Ethernet cable, then connect the sensing interfaces to the network segments you want to monitor using the appropriate cables (copper or fiber) in either a passive or inline cabling configuration.

The trusted management network (a restricted network protected from unauthorized access) may have a single secure connection to the Internet for security updates and similar functions, but is separate from the rest of your network and is not accessible to hosts used in daily business operations.

You can connect sensing interfaces to different network segments dedicated to particular components of your business that have distinct security requirements to target policies based on the needs for specific segments. These segments can include the DMZ (outward-facing servers, such as mail, ftp, and web hosts), your internal network (hosts used in daily operation and similar applications), and the core (hosts reserved for critical business assets), and can also include segments dedicated to remote locations, mobile access, or other functions.

How you cable your sensing interfaces determines your configuration options. If you use passive cabling, you can configure passive sensing interfaces. If you use inline cabling, you can create passive, inline, inline with fail-open, virtual switch, virtual router, or hybrid sensing interfaces on your device. For more information on deployment options and interface configurations and how they affect product features, see the *Sourcefire 3D System User Guide* and the *Sourcefire 3D System Installation Guide*.



Cabling the Device

You can cable your device to configure passive or inline interfaces, depending on your deployment needs.

Use passive cabling if you want to:

- monitor traffic
- · collect information about hosts, operating systems, applications, users, files, networks, and vulnerabilities

Use inline cabling if you want to use the same features as a passive deployment, plus:

- configure a virtual switch, virtual router, or hybrid interface
- perform network address translation (NAT)
- use policies to block traffic based on access control features such as application control, user control, security intelligence, URL dispositions, file control, malware detection, or intrusion prevention

Use the appropriate cables (as indicated by your interface) and cabling diagram for the interface you want to configure, then use the web interface on the Defense Center to configure the interfaces. See Connecting the Sensing Interfaces on page 4.

NetMods

Network modules (NetMods) contain up to four copper or fiber, configurable bypass or non-bypass, sensing interfaces in either 1G, 10G, or 40G (3D8250 and 3D8350 primary device) capacity. Install NetMods on the primary device only, and one stacking module for each secondary device connected the primary device.

Use a single interface to passively monitor a network segment, or use paired interfaces in an inline configuration to deploy the device inline or inline with configurable bypass, or to configure a virtual switch, virtual router, or hybrid interface on the monitored network segment.

As an example, a NetMod with four sensing interfaces (copper or fiber) can be used to monitor:

- up to four network segments in a passive configuration
- up to two network segments in an inline configuration
- one network segment in a inline configuration and up to two network segments in a passive configuration

If you want to take advantage of the device's configurable bypass (fail-open) capability, you must connect either the two interfaces on the left or the two interfaces on the right of a configurable bypass NetMod to a network segment. This allows traffic to flow even if the device fails or loses power. Configure the interface set as inline with fail-open using the web interface on the Defense Center.

Quad-Port 1000BASE-T Copper Configurable Bypass NetMod

Cable: standard copper

Passive configurations: 1, 2, 3, or 4

Inline configurations: 1 or 2 (left pair or right pair)

Quad-Port 1000BASE-SX Fiber Configurable Bypass NetMod

Cable: Local Connector (LC) optical transceivers

Passive configurations: 1, 2, 3, or 4

Inline configurations: 1 or 2 (left pair or right pair)

Dual-Port 10GBASE Fiber Configurable Bypass NetMod

Cable: Local Connector (LC) optical transceivers, either MMSR or SMLR

Passive configurations: 1 or 2

Inline configurations: 1

Dual-Port 40GBASE-SR4 Fiber Configurable Bypass NetMod

For use only with 3D8270/8290, 3D8370/8390 or 40G-capable

3D8250/8260 or 3D8350/8360

Cable: Multiple-Fiber Push On (MPO) connector optical transceivers

Passive configurations: 1 or 2

Inline configurations: 1

Quad-Port 1000BASE-T Copper Non-Bypass NetMod

Cable: standard copper

Passive configurations: 1, 2, 3, or 4

Inline configurations: 1 or 2 (left pair or right pair)

Quad-Port 1000BASE-SX Fiber Non-Bypass NetMod

Cable: Local Connector (LC) optical transceivers

Passive configurations: 1, 2, 3, or 4

Inline configurations: 1 or 2 (left pair or right pair)

Quad-Port 10GBASE-SR or LR Fiber Non-Bypass NetMod

Cable: Local Connector (LC) optical transceivers

Passive configurations: 1, 2, 3, or 4

Inline configurations: 1 or 2 (left pair or right pair)

Stacking Module

A stacking module connects two like devices to increase the power of the primary device. A 3D8140 can be connected to another 3D8140 (not available for 3D8120/8130). You can connect a total of four 3D8250s or four 3D8350s. Note that you cannot connect a 3D8250 to a 3D8350. For more information, see Stacking Configurations on page 6.

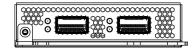
Stacking Module

Cable: 8000 Series stacking cable

3D8140: one per connection; up to two 2D8140 appliances

3D8250/8260/8270/8290: two per connection on up to four 3D8250 appliances

3D8350/8360/8370/8390: two per connection on up to four 3D8350 appliances



Connecting the Sensing Interfaces

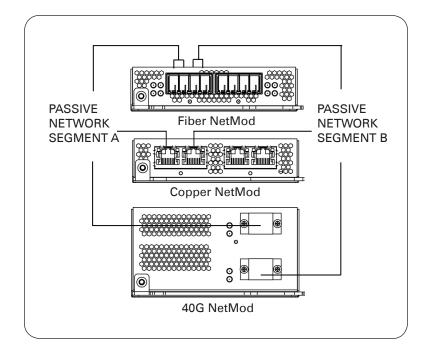
This section describes the physical connection of the sensing interfaces. After you cable the interfaces, use the web interface on the Defense Center that manages the device to configure the device's sensing interfaces as passive, inline, inline with fail-open, switched, routed, or hybrid. Use only the interfaces on the front of the device as sensing interfaces.

See the *Sourcefire 3D System Installation Guide* for detailed information on planning your deployment. After you have selected a deployment model, cable the sensing interfaces as needed for your configuration.

Passive Interface Cabling

For each network segment you want to monitor passively, connect the appropriate cables (either fiber or copper) to one sensing interface.

Use this cabling when you want to configure passive interfaces.

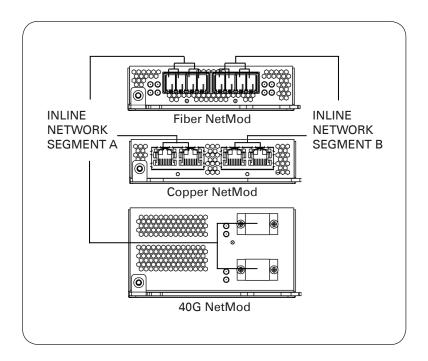


Inline Interface Cabling

For each network segment you want to monitor inline, connect the appropriate cables (either fiber or copper) sequentially to pairs of sensing interfaces.

Use this cabling when you want to configure inline, inline with fail-open, switched, routed, or hybrid interfaces.

If you want to take advantage of the device's configurable fail-open capability, cable the interfaces, then use the web interface on the Defense Center that manages the device to configure the interface as inline with fail-open.



Stacking Devices

You can stack devices in the following configurations:

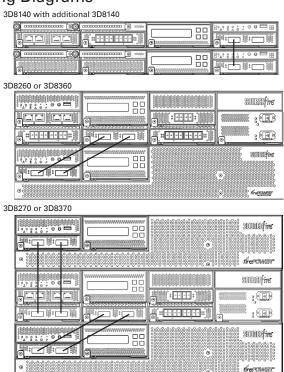
- two 3D8140s (not available for 3D8120/8130)
- up to four 3D8250s or up to four 3D8350s
 - a 3D8260 (a 10G-capable primary device and a secondary device)
 - a 3D8360 (a 40G-capable primary device and a secondary device)
 - a 3D8270 or 3D8370 (a 40G-capable primary device and two secondary devices)
 - a 3D8290 or 3D8390 (a 40G-capable primary device and three secondary devices)

One device is designated as the primary device and is connected to the network segments. All other devices are designated secondary devices, and are used to provide additional resources to the primary device.

Connect the primary device to the network segments you want to analyze in the same way that you would connect a single 3D8140, 3D8250, or 3D8350. Connect the secondary devices to the primary device as indicated in the stack cabling diagram. If a secondary device contains sensing interfaces, those interfaces are not used.

After the devices are physically connected to the network segments and to each other, use a Defense Center to establish and manage the stack. See the Sourcefire 3D System Installation Guide for complete information about using devices in stacked configurations.

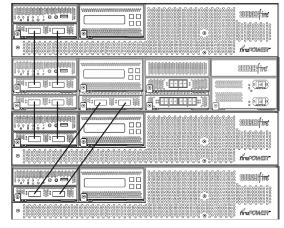
Cabling Diagrams







3D8290 or 3D8390

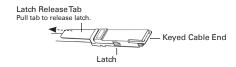


Using the 8000 Series Stacking Cable

Install the devices within reach of the three-foot (one-meter) 8000 Series stacking cable to create the physical connection between the primary and secondary devices. Stacking two 3D8140s requires one cable. Stacking the 3D8250/8260/8270/8290 or 3D8350/8360/8370/8390 requires two cables per connection. Devices do not need to be powered down to insert or remove the stacking cable.

To use the 8000 Series stacking cable:

- To insert the cable, hold the cable end with release tab facing up, then insert the keyed end into the port on the stacking module until you hear the latch click into place.
- To remove the cable, pull on the release tab to release the latch, then remove the cable end.



8000 SERIES INSTALLATION

Installing the Device

The Sourcefire 3D System is delivered on different hardware platforms that you can rack-mount. When you install a device, make sure that you can access the device's console for initial setup.

You can access the console for initial setup using a keyboard and monitor with KVM, or using an Ethernet connection to the management interface.

Keyboard and Monitor/KVM

You can connect a USB keyboard and VGA monitor to any Sourcefire device, which is useful for rack-mounted devices connected to a keyboard, video, and mouse (KVM) switch.

IMPORTANT! Do not use a KVM switch with USB mass storage to access the device because the device may attempt to use the mass storage device as a boot device.

Ethernet Connection to Management Interface

Configure a local computer, which must not be connected to the internet, with the following network settings:

IP address: 192.168.45.2
netmask: 255.255.255.0
default gateway: 192.168.45.1

Using an Ethernet cable, connect the network interface on the local computer to the management interface on the device. To interact with the device, use terminal emulation software such as HyperTerminal or XModem with the following software settings:

- 9600 baud
- 8 data bits
- · no parity checking
- 1 stop bit
- no flow control

Note that the management interface on a physical Sourcefire device is preconfigured with a default IPv4 address. However, you can reconfigure the management interface with an IPv6 address as part of the setup process.

To install the device:

- 1. Mount the device in your rack using the mounting kit and its supplied instructions.
- 2. Connect to the device using either a keyboard and monitor or an Ethernet connection.
 - If you are using a keyboard and monitor to set up the device, use an Ethernet cable now to connect the management interface to a protected network segment.
 - If you plan to perform the initial setup process by connecting a computer directly to the device's physical management interface, you will connect the management interface to the protected network when you finish setup.
- Connect the sensing interfaces to the network segments you want to analyze using the appropriate cables for your interfaces: See Connecting the Sensing Interfaces on page 4.
- 4. Attach the power cord to the device and plug into a power source.

If your device has redundant power supplies, attach power cords to both power supplies and plug them into separate power sources.

- 5. Turn on the device.
 - If you are using a keyboard and monitor to set up the device, continue with Configuring Network Settings Using a Script in the Sourcefire 3D System Installation Guide.
 - If you are using a direct Ethernet connection to set up the device, confirm that the link LED is on for both the network interface on the local computer and the management interface on the device. If the management interface and network interface LEDs are not lit, try using a crossover cable. For more information, see Cabling Inline Deployments on Copper Interfaces in the Sourcefire 3D System Installation Guide.
- 6. After you have configured network settings, make sure the device is connected to the protected management network with an Ethernet cable and continue the initial setup with Initial Setup: Devices in the Sourcefire 3D System Installation Guide.
 - You can find detailed information on additional configuration options (such as testing an inline bypass configuration, reconfiguring your console output, and so on) in the Sourcefire 3D System Installation Guide.

LEDS

A Management activity status LED B Reserved C Hard disk drive status LED D System status LED E Non-maskable interrupt button F Reset button G ID button H Power button I USB 2.0 port

LED	Description			
Management Activity	A green light indicates there is management network activity. No light indicates there is no management network activity.			
Hard Disk Drive Status	A green light indicates the fixed disk drive is active. An amber light indicates a fixed disk drive fault. No light indicates there is no drive activity, or the system is powered off.			
System Status	A green light indicates the system is operating normally. A blinking green light indicates the system is operating in a degraded condition. A blinking amber light indicates the system is in a non-critical condition. An amber light indicates the system is in a critical or non-recoverable condition. No light indicates the system is starting up. IMPORTANT! The amber status light takes precedence over the green status light. When the amber LED is on or blinking, the green LED is off.			
Power	A green light indicates the system has power. No light indicates the system does not have power.			
System ID	A blue light is visible at the rear of the chassis when the ID button is pressed.			

Management Interface LEDs

Left (Link)	If the LED is on, the link is up; if the LED is off, there is no link.
Right (Activity)	A blinking LED indicates activity; if the LED is off, there is no activity.

Regulatory Conformance

This Sourcefire appliance conforms to multiple national and international standards. For a full list of regulatory compliance, see the *Sourcefire 3D System Installation Guides*.

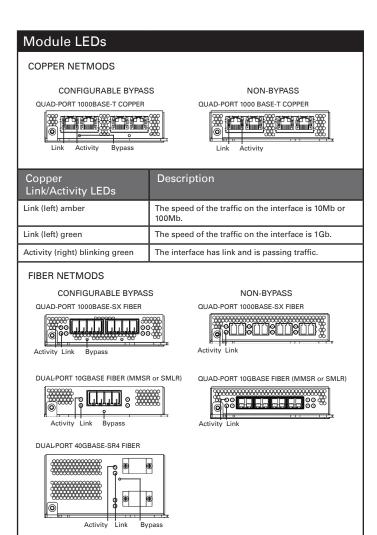
Security Considerations

Before you install your appliance, Sourcefire recommends that you consider the following:

- Locate your appliance in a lockable rack within a secure location that prevents access by unauthorized personnel.
- Allow only trained and qualified personnel to install, replace, administer, or service the appliance.
- Always connect the management interface to a secure internal management network that is protected from unauthorized access.

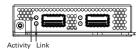
NETMOD WARNINGS!

- NetMods are not hot-swappable. See the Sourcefire Module Assembly Guide for more information on installing NetMods.
- The small form-factor pluggable (SFP) transceivers on the quad-port 10GBASE fiber non-bypass NetMod are not removable. Any attempt to remove the SFPs can damage the NetMod.



Fiber Activity/Link LEDs	Description		
Activity (top)	Inline or passive: the light is on when the interface has activity. If dark, there is no activity.		
Link (bottom)	Inline: the light is on when the interface has link. If dark, there is no link. Passive: the light is always on.		
Bypass LED (all)	Description		
Off	The interface is not in bypass mode or has no power.		
Steady green	The interface is ready to enter bypass mode.		
Steady amber	The interface has been placed in bypass mode and is not inspecting traffic.		
Blinking amber	The interface has failed open and is in bypass mode.		

STACKING MODULE



Stacking Link/Activity LEDs	Description	
Top (activity)	If the LED is blinking, there is activity. If the LED is off, there is no activity.	
Bottom (link)	If the LED is on, the link is up. If the LED is off, there is no link or the port is in a "down" state.	

Hardware Specifications

Physical and Environmental Parameters							
Parameter	3D8120/8130/8140, AMP8150	3D8250/8260/8270/8290	3D8350/8360/8370/8390				
Form Factor	1U	2U/4U/6U/8U					
Dimensions (D x W x H)	28.7" x 17.2" x 1.73" (72.8 cm x 43.3 cm x 4.4 cm)	29.0" x 17.2" x 3.48" (73.5 cm x 43.3 cm x 8.82 cm) each 2U appliance					
Weight (max installed)	43.5 lbs (19.8 kg)	58 lbs (25.3 kg) each 2U appliance	67 lbs (30.5 kg) each 2U appliance				
Power Supply	650W dual redundant (1+1) power supplies for AC or DC AC Voltage: 100VAC to 240VAC nominal (85VAC to 264VAC maximum) AC Current: 5.2A max over full range, per supply 2.6A max for 187VAC to 264VAC, per supply AC Frequency range: 47Hz to 63Hz DC Voltage: -48VDC nominal referenced to RTN -40VDC to -72VDC maximum DC Current: 11A maximum, per supply	750W dual redundant (1+1) power supplies for AC or DC AC Voltage: 100VAC to 240VAC nominal (85VAC to 264VAC maximum) AC Current: 8A max over full range, per supply 4A max for 187VAC to 264VAC, per supply AC Frequency range: 47Hz to 63Hz DC Voltage: -48VDC nominal referenced to RTN -40VDC to -72VDC maximum DC Current: 18A maximum, per supply	1000W dual redundant (1+1) power supplies for AC or DC AC Voltage: 100VAC to 240VAC nominal (85VAC to 264VAC maximum) AC Current: 11A max over full range, per supply 5.5A max for 187VAC to 264VAC, per supply AC Frequency range: 47Hz to 63Hz DC Voltage: -48VDC nominal referenced to RTN -40VDC to -72VDC maximum DC Current: 25A maximum, per supply				
Operating Temperature	10°C to 35°C (50°F to 95°F) 5°C to 40°C (41°F to 104°F)						
Non-Operating Temperature	-20°C to 70°C (-4°F to 158°F)	-20°C to 70°C (-4°F to 158°F)					
Operating Humidity	5% to 85%, non-condensing						
Altitude	0 (sea level) to 6000 ft (0 to 1800 m)						
Cooling Requirements	1725 BTU/hr	2410 BTU/hr	2900 BTU/hr				
Acoustic Noise	Max normal operating noise is 87.6 dB LWAd (high temp). Typical normal operating noise is 80 dB LWAd.	Max normal operating noise is 72.9 dba at full processor load, normal fan operation at 27°C. Meets GR-63-CORE 4.6 Acoustic Noise	Max normal operating noise is 72.9 dba at full processor load, normal fan operation at 27°C. Meets GR-63-CORE 4.6 Acoustic Noise				
Operating Shock	No errors with half a sine wave shock of 2G (with 11 milliseconds duration)						
Airflow	Front to back, 160 ft ³ (4.5 m ³) per minute	Front to back, 210 ft ³ (6 m ³) per minute					
RoHS	Complies with RoHS Directive 2002/95/EC						

Optical NetMod Parameters							
Parameter	1000BASE-SX	10GBASE-SR	10GBASE-LR	40GBASE-SR4			
Optical connectors	All optical connectors are LC duplex	All optical connectors are LC duplex	All optical connectors are LC duplex	All optical connectors are OTP/MTP single row twelve fiber positions. Only the outer eight fibers are used.			
Bit rate	1000Mbps	10.000Gbps	10.000Gbps	40.000Gbps			
Baud rate/encoding/ tolerance	1250Mbps / 8b/10b encoding	10.3125Gbps / 64/66b encoding / +/- 100 ppm	10.3125Gbps / 64/66b encoding / +/- 100 ppm	10.3125Gbps / 64/66b encoding / +/- 100 ppm			
Optical interface	Multimode	Multimode	Single mode only	Multimode			
Operating distance	200 m (656 ft) for 62.5 μm/125 μm fiber 500 m (1840 ft) for 50 μm/125 μm fiber	26 m (85 ft) to 33 m (108 ft) for 62.5 µm/125 µm fiber (modal BW 160 to 200 respectively) 66 m (216 ft) to 82 m (269 ft) for 50 µm/125 µm fiber (modal BW 400 to 500 respectively) Distances to 300 m (980 ft) are available with higher quality (OM3) fiber. Minimum distances (all): 2 m (6 ft)	2 m to 10 km for 9 µm/125 µm fiber	100m (320 ft) for 50 µm/125 µm fiber (OM3) Minimum distance: 0.5 m (2 ft) 40G optics are carried on eight fiber cables utilizing MPO connectors.			
Transmitter wavelength	770-860 nm (850 nm typical)	840-860 nm (850 nm typical)	1270-1355 nm (1310 nm typical)	840-860 nm (850 nm typical)			
Maximum average launch power	0 dBm	-1 dBm	-0.5 dBm	2.4 dBm			
Minimum average launch power	-9.5 dBm	-7.3 dBm	-8.2 dBm	-7.6 dBm			
Maximum average power at receiver	0 dBm	-1 dBm	-0.5 dBm	2.4 dBm			
Receiver sensitivity	-17 dBm	-9.9 dBm	-14.4 dBm	-9.5 dBm			

WARNING!

This Sourcefire device should be installed and maintained by qualified personnel only. Keep in mind the following safety information to avoid system damage or personal injury:

- Remove all factory packaging before using the device.
- Provide adequate ventilation to prevent overheating. Do not cover or block vents, or otherwise enclose the device.
- The device must be properly grounded when connecting power to the power outlet.
- At all times, keep the chassis area free from dust.
- Lifting the chassis for rack installation may require two people, as the unit is heavy.
- To avoid electrical shock, do not open or remove the chassis covers or metal parts without proper instruction.



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