



Cisco ASA 5508-X and ASA 5516-X Hardware Installation Guide

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CHAPTER 1

Overview

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About the ASA 5508-X and 5516-X

The Cisco ASA 5508-X and the ASA 5516-X adaptive security appliances are part of the ASA 5500-X of next-generation mid-range ASAs, and are built on the same security platform as the rest of the ASA family.



Note Your ASA 5508-X and ASA 5516-X ship with either ASA or Firepower Threat Defense software preinstalled. To reimage your device, see [Reimage the Cisco ASA or Firepower Threat Defense Device](#).

This next-generation ASA delivers unprecedented levels of defense against threats to the network with deeper web inspection and flow-specific analysis, improved secure connectivity via end-point security posture validation, and voice and video over VPN support. It also provides enhanced support for intelligent information networks through improved network integration, resiliency, and scalability.

The ASA 5508-X and the ASA 5516-X are a standard 1 RU chassis. To compare the performance metrics and capabilities of the 5500-X ASAs, see [Cisco ASA 5500-X Series Next-Generation Firewalls](#).

The ASA 5508-X and 5516-X have been validated for the following security standards certifications:

- Federal Information Processing Standards (FIPS) 140-2 for FTD 6.4.x and ASA 9.12.x

- Common Criteria (CC) certification for the Network Device Collaborative Protection Profile, (NDcPPv2.2E), VPN Gateway Module (VPNGW_MOD_v1.1), and Firewall Module (FW_MOD_v1.4e) for ASA 9.16.x
- Common Criteria (CC) certification for the Network Device Collaborative Protection Profile, (NDcPPv2.2E), the IPS Extended Profile (IPSEP 2.11), Firewall Collaborative Protection Profile Module (MOD_FW_v1.4e), and Virtual Private Network Gateway Protection Profile Module (MOD_VPNGW_v1.1) for FTD 6.4.x

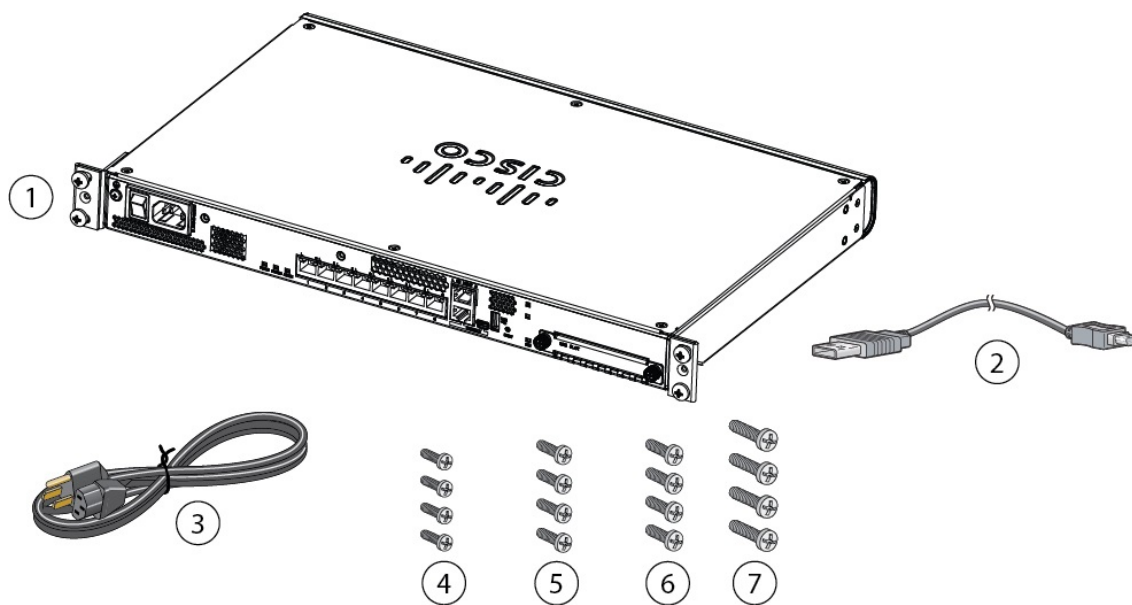


Note Before beginning any of the procedures described in this book, be sure to read the [Regulatory Compliance and Safety Information](#) document and follow proper safety procedures.

Package Contents

The following figure shows the package contents for the ASA 5508-X and ASA 5516-X. Note that the contents are subject to change, and your exact contents might contain additional or fewer items.

Figure 1: ASA 5508-X and ASA 5516-X Package Contents

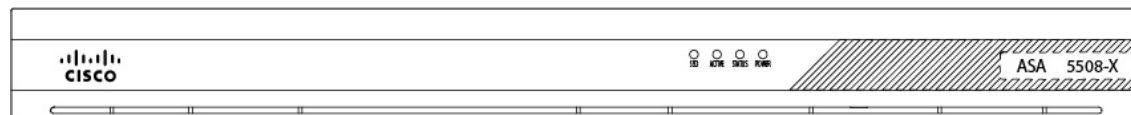


1	Chassis	2	USB console cable (Type A to Type B)
3	Power cord	4	Four 10-32-inch Phillips screws for rack mounting
5	Four 12-14-inch Phillips screws for rack mounting	6	Four M6 Phillip screws for rack mounting
7	Four M4 Phillips screws for rack mounting		

Front Panel

The following figure shows the front panel of the ASA 5508-X. The ASA 5516 has an identical front panel. There are four LEDs on the front panel. See [LEDs, on page 4](#) for the descriptions.

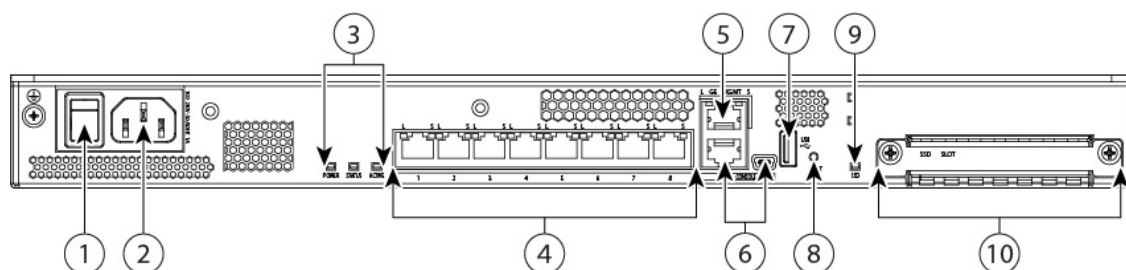
Figure 2: ASA 5508-X and ASA 5516-X Front Panel



Rear Panel

The following figure shows the rear panel of the Cisco ASA 5508-X and ASA 5516-X.

Figure 3: ASA 5508-X and ASA 5516-X Rear Panel



1 Power switch Standard rocker-type power on/off switch	2 Power cord socket The chassis power-supply socket. See Power Supply Modules, on page 7 for more information about the ASA power supply.
3 Status LEDs The locations and meanings of the status LEDs are described in LEDs, on page 4 .	4 Network data ports Eight Gigabit Ethernet RJ-45 (8P8C) network I/O interfaces. The ports are numbered (from left to right) 1, 2, 3, 4, 5, 6, 7, 8. Each port includes a pair of LEDs, one each for connection status and link status. The ports are named and numbered Gigabit Ethernet 1/1 through Gigabit Ethernet 1/8. See Network Ports, on page 6 for additional information.
5 Management port A Gigabit Ethernet interface restricted to network management access only. Connect with an RJ-45 cable.	6 Console ports Two serial ports, a mini USB Type B, and a standard RJ-45 (8P8C), are provided for management access via an external system. See Console Ports, on page 6 for additional information.

<p>7 USB port</p> <p>A standard USB Type A port is provided, allowing attachment of an external device such as mass storage. See Internal and External Flash Storage, on page 6 for additional information.</p>	<p>8 Reset button</p> <p>A small recessed button that if pressed for longer than three seconds resets the ASA to its default “as-shipped” state following the next reboot. Configuration variables are reset to factory default. However, the flash is not erased, and no files are removed.</p> <p>Note You can use the service sw-reset-button to disable the reset button. The default is enabled.</p>
<p>9 SSD LED</p> <p>Status light for installed solid-state drive (SSD). See LEDs, on page 4 and Solid State Drive, on page 7 for more information.</p>	<p>10 SSD bay</p> <p>Covered slot in which the SSD is installed. You can replace this drive if it fails. See Remove and Replace the SSD, on page 27 for more information.</p>

LEDs

The LEDs are located just off center on the front panel, and just to the left of the network ports on the rear panel, with the SSD LED to the right of the Reset port. See [Rear Panel, on page 3](#) for the locations.

LED	Description
Power	<p>Power supply status:</p> <ul style="list-style-type: none"> • Unlit—Power supply off. • Green—Power supply on. <p>See Power Supply Modules, on page 7 for additional power information.</p>
Status	<p>System operating status:</p> <ul style="list-style-type: none"> • Green—Normal system function. • Amber—Critical alarm indicating one or more of the following: <ul style="list-style-type: none"> • Major failure of a hardware or software component. • Over-temperature condition. • Power voltage outside the tolerance range.

LED	Description
Active	<p>Status of the failover pair:</p> <ul style="list-style-type: none"> • Green—Failover pair operating normally. • Unlit—Failover is not operational. <p>Status of a high-availability (HA) pair:</p> <ul style="list-style-type: none"> • Green—The active-mode unit. • Amber—The standby unit. <p>Role of a standalone device:</p> <ul style="list-style-type: none"> • Green —The device is active normally.
SSD	<p>SSD LED behavior at first customer ship:</p> <ul style="list-style-type: none"> • Unlit—No SSD present. • Green—SSD installed. <p>SSD LED behavior after June 2017:</p> <ul style="list-style-type: none"> • Unlit—No SSD present or no activity on the SSD. • Green—Activity on the SSD. <p>Note See Remove and Replace the SSD , on page 27 for information on replacing a failed SSD.</p>

Network Port Status

On the rear panel, a pair of LEDs (Link status and Connection status) for each of the eight Gigabit Ethernet network ports, and the Gigabit Ethernet Management port.

Link status (L):

- Unlit—No link, or port is not in use.
- Green—Link established.
- Green, flashing—Link activity.

Connection-speed status (S):

- One blink every three seconds—10 Mbps.
- Two rapid blinks—100 Mbps.
- Three rapid blinks—1000 Mbps.

Network Ports

Looking at the rear of the ASA, where the ports are located, port 1 is on the left, and port 8 is on the right, next to the console and management ports. Each port is accompanied by a pair of LEDs, one each for link status (L) and connection status (S). The ports are named and numbered Gigabit Ethernet 1/1 through Gigabit Ethernet 1/8. The ports are named and numbered Gigabit Ethernet 1/1 through Gigabit Ethernet 1/4.

Console Ports

The ASA has two external console ports, a standard RJ-45 port and a Mini USB Type B serial port. Only one console port can be active at a time. When a cable is plugged into the USB console port, the RJ-45 port becomes inactive. Conversely, when the USB cable is removed from the USB port, the RJ-45 port becomes active. The console ports do not have any hardware flow control. You can use the command-line interface (CLI) to configure your ASA through either serial console port by using a terminal server or a terminal emulation program on a computer.

RJ-45 Port

The RJ-45 (8P8C) port supports RS-232 signaling to an internal UART controller. The RJ-45 console port does not support a remote dial-in modem. You can use a standard management cable (Cisco part number 72-3383-01) to convert the RJ45-to-DB9 connection if necessary.

Mini USB Type B Port

The Mini USB Type B port lets you connect to a USB port on an external computer. For Linux and Macintosh systems, no special driver is required. For Windows systems, you must download and install a USB driver (available on software.cisco.com). You can plug and unplug the USB cable from the console port without affecting Windows HyperTerminal operations. We recommend shielded USB cables with properly terminated shields. Baud rates for the USB console port are 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200 bps.



Note For Windows operating systems, you must install a Cisco Windows USB Console Driver on any PC connected to the console port before using the USB console port. See [Connect to the Console Port with Microsoft Windows, on page 23](#) for information on installing the driver.

Internal and External Flash Storage

The ASA contains one internal USB flash drive, and a standard USB Type A port that you can use to attach an external device. The USB port can provide output power of 5 volts, up to a maximum of 500 mA (5 USB power units).

Internal USB Device

An embedded eUSB device is used as the internal flash; it is identified as *disk0*.

External USB Drive (Optional)

You can use the external Type A USB port to attach a data-storage device. The external USB drive identifier is *disk1*. When the ASA is powered on, a connected USB drive is mounted as *disk1* and is available for you to use. Additionally, the file-system commands that are available to *disk0* are also available to *disk1*, including **copy**, **format**, **delete**, **mkdir**, **pwd**, **cd**, and so on.

If you insert a USB drive with more than one partition, only the first partition is mounted.

FAT-32 File System

The ASA only supports FAT-32-formatted file systems for the internal eUSB and external USB drives. If you insert an external USB drive that is not in FAT-32 format, the system mounting process fails, and you receive an error message. You can enter the command **format disk1**: to format the partition to FAT-32 and mount the partition to *disk1* again; however, data might be lost.

Solid State Drive

The ASA 5508-X and 5516-X ship with an SSD installed that provides storage support. The SSD in the ASA 5508-X has 80 GB of useable space and is field-replaceable. The SSD in the ASA 5516-X has 1000 GB of usable space and is also field replaceable. See [Remove and Replace the SSD](#), on page 27 for information about replacing it.

Power Supply Modules

The ASA 5508-X and ASA 5516-X ship with an internal 100-240 V AC power supply that provides 60 W.

Hardware Specifications

The following table contains hardware specifications for the ASA 5508-X and the ASA 5516-X.

Table 1: Hardware Specifications

Physical Specifications	
Form factor	1 RU
Rack mountable	Side-mount “ear” brackets included. See Rack-Mount the Chassis , on page 21 for more information.
Wall mountable	No.
Dimensions	17.2 x 11.288 x 1.72 in. (43.688 x 28.672 x 4.369 cm)
Weight	8 lb
Memory	

DRAM	Total: 8 GB Allocated to FW/VPN: 4 GB Allocated to Module: 4 GB
Internal Flash	8 GB
Power	60 W
Environment	
Temperature	Operating: 0 to 40°C (32 to 104°F) Nonoperating: -25 to 70°C (-13 to 158°F)
Relative humidity	Operating: 90% Nonoperating: 10 to 90%
Maximum altitude	Operating: 3048 m (10,000 ft) Nonoperating: 4572 m (15,000 ft)
Acoustic Noise	Typical: 41.6 dBA Maximum: 67.2 dBA

Power Cord Specifications

Each power supply has a separate power cord. Standard power cords are available for connection to the security appliance.

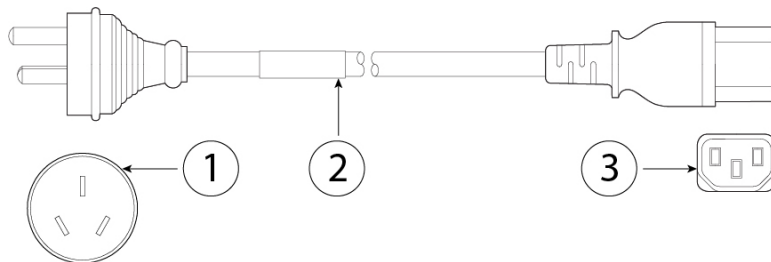
If you do not order the optional power cord with the system, you are responsible for selecting the appropriate power cord for the product. Using an incompatible power cord with this product may result in electrical safety hazard. Orders delivered to Argentina, Brazil, and Japan must have the appropriate power cord ordered with the system.



Note Only the approved power cords provided with the security appliance are supported. The following table lists the supported power cords.

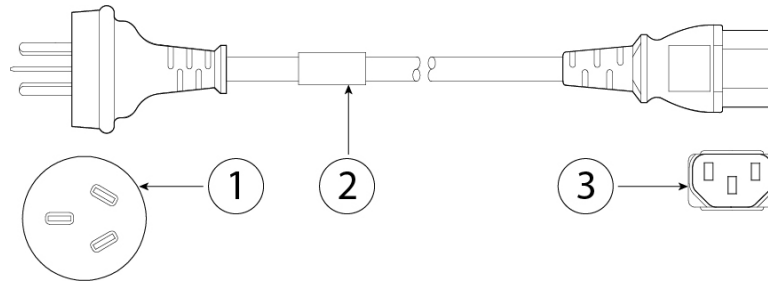
The following illustrations show the cord, connector, and plug for each country listed in the table above.

Figure 4: Argentina (CAB-ACR)



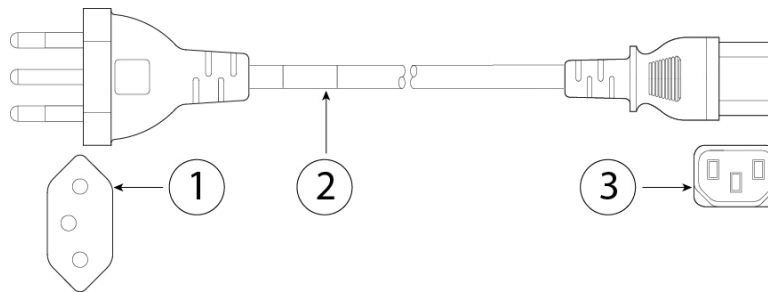
1	Plug: IRAM 2073	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 5: Australia (CAB-ACA)



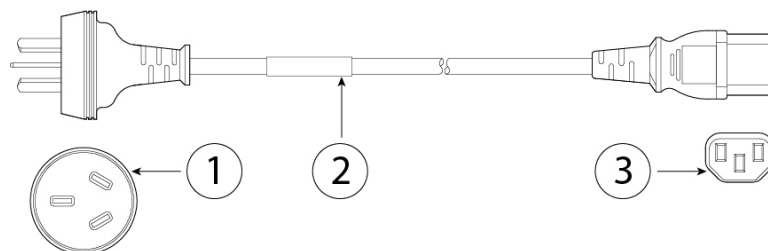
1	Plug: A.S. 3112	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 6: Brazil (CAB-C13-ACB)



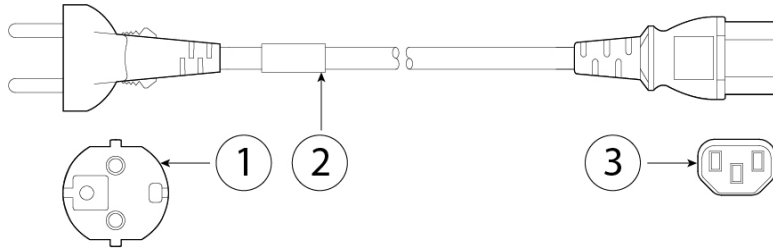
1	Plug: NBR 14136	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 7: China (CAB-ACC)



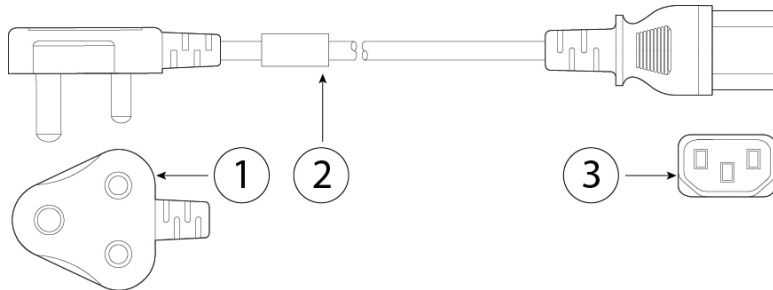
1	Plug: GB2009.1-2008	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 8: Europe (CAB-ACE)



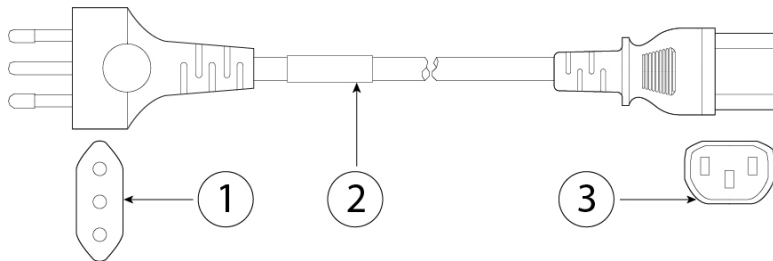
1	Plug: CEE 7 VII	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 9: India (CAB-IND-10A)



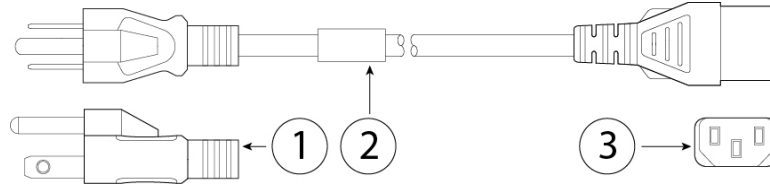
1	Plug: IS 6538-1971	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 10: Italy (CAB-ACI)



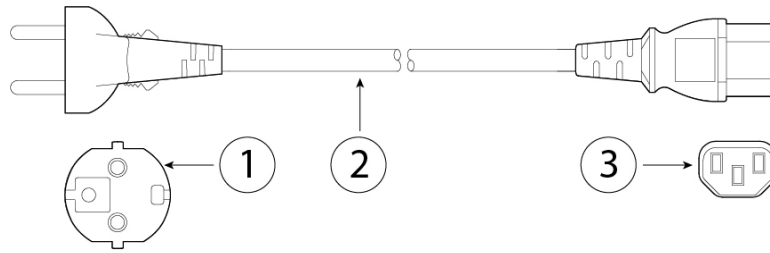
1	Plug: CE123-16-VII	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 11: Japan (CAB-JPN-3PIN)



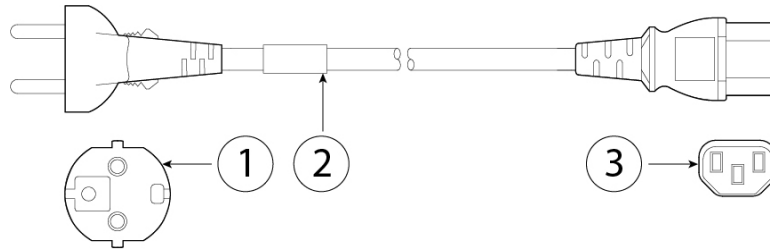
1	Plug: JIS C8303	2	Cord set rating: 12 A, 125 V
3	Connector: IEC 60320/C13		—

Figure 12: Korea (CAB-AC-C13-KOR)



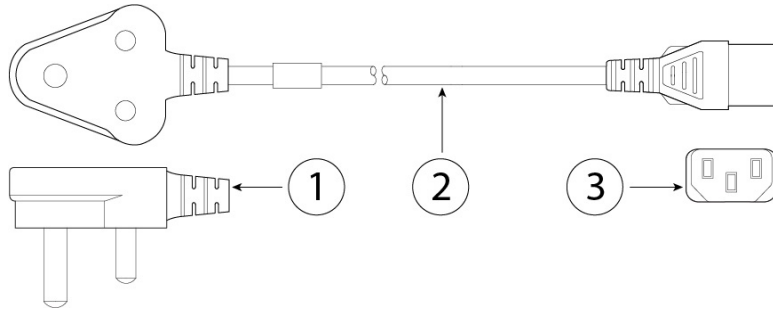
1	Plug: KSC8305	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 13: North America (CAB-AC)



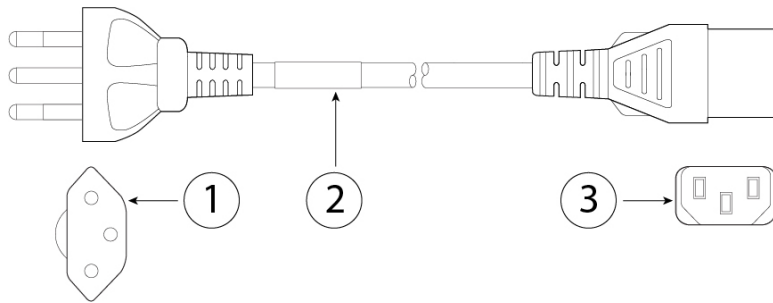
1	Plug: NEMA 5-15P	2	Cord set rating: 10 A, 125 V
3	Connector: IEC 60320/C13		—

Figure 14: South Africa (AIR-PWR-CORD-SA)



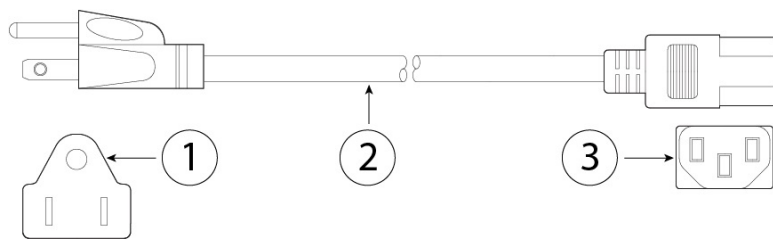
1	Plug: SABS 1661	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 15: Switzerland (CAB-ACS)



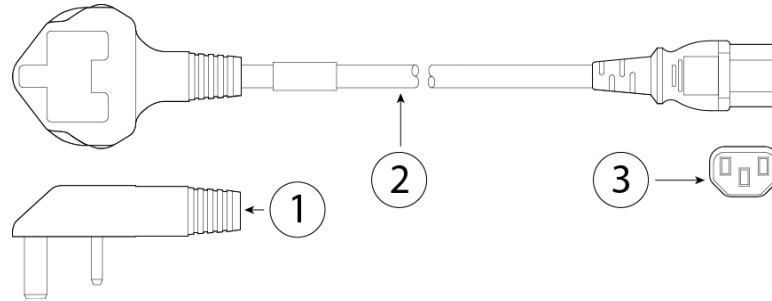
1	Plug: SEV 1011	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 16: Taiwan (CAB-ACTW)



1	Plug: CNS10917	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—

Figure 17: United Kingdom (CAB-ACU)



1	Plug: BS1363a/SS145	2	Cord set rating: 10 A, 250 V
3	Connector: IEC 60320/C13		—



CHAPTER 2

Installation Preparation

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Installation Warnings

Be sure to read the [Regulatory and Compliance Safety Information](#) document before installing the chassis.

Take note of the following warnings:



Warning IMPORTANT SAFETY INSTRUCTIONS

Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Read the installation instructions before using, installing, or connecting the system to the power source. Use the statement number provided at the end of each warning statement to locate its translation in the translated safety warnings for this device.

SAVE THESE INSTRUCTIONS



Warning Read the installation instructions before using, installing, or connecting the system to the power source.

Warning This unit is intended for installation in restricted access areas. Only skilled, instructed, or qualified personnel can access a restricted access area.



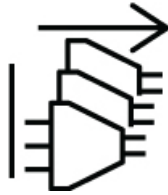
Warning To avoid electric shock, do not connect SELV circuits to telephone-network voltage (TNV) circuits. LAN ports contain SELV circuits, and WAN ports contain TNV circuits. Some LAN and WAN ports both use RJ-45 connectors. Use caution when connecting cables.



Warning This equipment must be grounded. To reduce the risk of electric shock, 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.



Warning This unit might have more than one power supply connection. To reduce risk of electric shock, remove all connections to de-energize the unit.



Warning Blank faceplates and cover panels serve three important functions: they reduce the risk of electric shock and fire, 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.



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



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



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.



Warning To reduce risk of electric shock or fire, installation of the equipment must comply with local and national electrical codes.

Safety Recommendations

Observe these safety guidelines:

- Keep the area clear and dust-free before, during, and after installation.
- Keep tools away from walkways, where you and others might trip over them.
- Do not wear loose clothing or jewelry, such as earrings, bracelets, or chains that could get caught in the chassis.
- Wear safety glasses if you are working under any conditions that might be hazardous to your eyes.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- Never attempt to lift an object that is too heavy for one person.

Maintain Safety with Electricity



Warning Before working on a chassis, be sure the power cord is unplugged.

Follow these guidelines when working on equipment powered by electricity:

- Before beginning procedures that require access to the interior of the chassis, locate the emergency power-off switch for the room in which you are working. Then, if an electrical accident occurs, you can act quickly to turn off the power.
- Do not work alone if potentially hazardous conditions exist anywhere in your work space.
- Never assume that power is disconnected; always check.
- Look carefully for possible hazards in your work area, such as moist floors, ungrounded power extension cables, frayed power cords, and missing safety grounds.
- Use the chassis within its marked electrical ratings and product usage instructions.
- The ASA 5508-X and the ASA 5516-X are equipped with an AC-input power supply, which is shipped with a three-wire electrical cord with a grounding-type plug that fits into a grounding-type power outlet only. Do not circumvent this safety feature. Equipment grounding should comply with local and national electrical codes.

Prevent ESD Damage

ESD occurs when electronic components are improperly handled, and it can damage equipment and impair electrical circuitry, resulting in intermittent or complete failure.

Always follow ESD-prevention procedures when removing and replacing components. Ensure that the chassis is electrically connected to an earth ground. Wear an ESD-preventive wrist strap, ensuring that it makes good skin contact. Connect the grounding clip to an unpainted surface of the chassis frame to safely ground ESD

voltages. To properly guard against ESD damage and shocks, the wrist strap and cord must operate effectively. If no wrist strap is available, ground yourself by touching the metal part of the chassis.

For safety, periodically check the resistance value of the antistatic strap, which should be between one and 10 megohms.

Site Environment

You can place the chassis on a desktop or in a rack. The location of the chassis and the layout of the equipment rack or wiring room are extremely important for proper system operation. Placing equipment too close together with inadequate ventilation and inaccessible panels can cause system malfunctions and shutdowns. Improper placement can also make it difficult for you to access the chassis for maintenance.

See [Hardware Specifications](#), on page 7 for information about physical specifications.

When planning the site layout and equipment locations, consider the information in the next section to help avoid equipment failures and reduce the possibility of environmentally caused shutdowns. If you are currently experiencing shutdowns or unusually high error rates with your existing equipment, these considerations may help you isolate the cause of failures and prevent future problems.

Site Considerations

Considering the following helps you plan an acceptable operating environment for the chassis, and avoid environmentally caused equipment failures.

- Electrical equipment generates heat. Ambient air temperature might not be adequate to cool equipment to acceptable operating temperatures without adequate circulation. Ensure that the room in which you operate your system has adequate air circulation.
- Ensure that the chassis cover is secure. The chassis is designed to allow cooling air to flow effectively within it. An open chassis allows air leaks, which may interrupt and redirect the flow of cooling air from the internal components.
- Always follow the ESD-prevention procedures described previously to avoid damage to equipment. Damage from static discharge can cause immediate or intermittent equipment failure.

Power Supply Considerations

When installing the chassis, consider the following:

- Check the power at the site before installing the chassis to ensure that it is “clean” (free of spikes and noise). Install a power conditioner, if necessary, to ensure proper voltages and power levels in the appliance input voltage.
- Install proper grounding for the site to avoid damage from lightning and power surges.
- The chassis does not have a user-selectable operating range. Refer to the label on the chassis for the correct appliance input-power requirement.
- Install an uninterruptible power source for your site, if possible.

Rack Configuration Considerations

Consider the following when planning an equipment-rack configuration:

- If you are mounting a chassis in an open rack, make sure that the rack frame does not block the intake or exhaust ports.
- The rack-mounting posts need to be 2 to 3.5 mm thick to work with the slide rail rack mounting.
- Front and rear doors—If your rack includes closing front and rear doors, the doors must have 65 percent open perforated area evenly distributed from top to bottom to permit adequate airflow.
- Be sure enclosed racks have adequate ventilation. Make sure that the rack is not overly congested as each chassis generates heat. An enclosed rack should have louvered sides and a fan to provide cooling air.
- In an enclosed rack with a ventilation fan in the top, heat generated by equipment near the bottom of the rack can be drawn upward and into the intake ports of the equipment above it in the rack. Ensure that you provide adequate ventilation for equipment at the bottom of the rack.
- Baffles can help to isolate exhaust air from intake air, which also helps to draw cooling air through the chassis. The best placement of the baffles depends on the airflow patterns in the rack. Experiment with different arrangements to position the baffles effectively.



CHAPTER 3

Rack-Mount the Chassis

- [Rack-Mount the Chassis](#) , on page 21

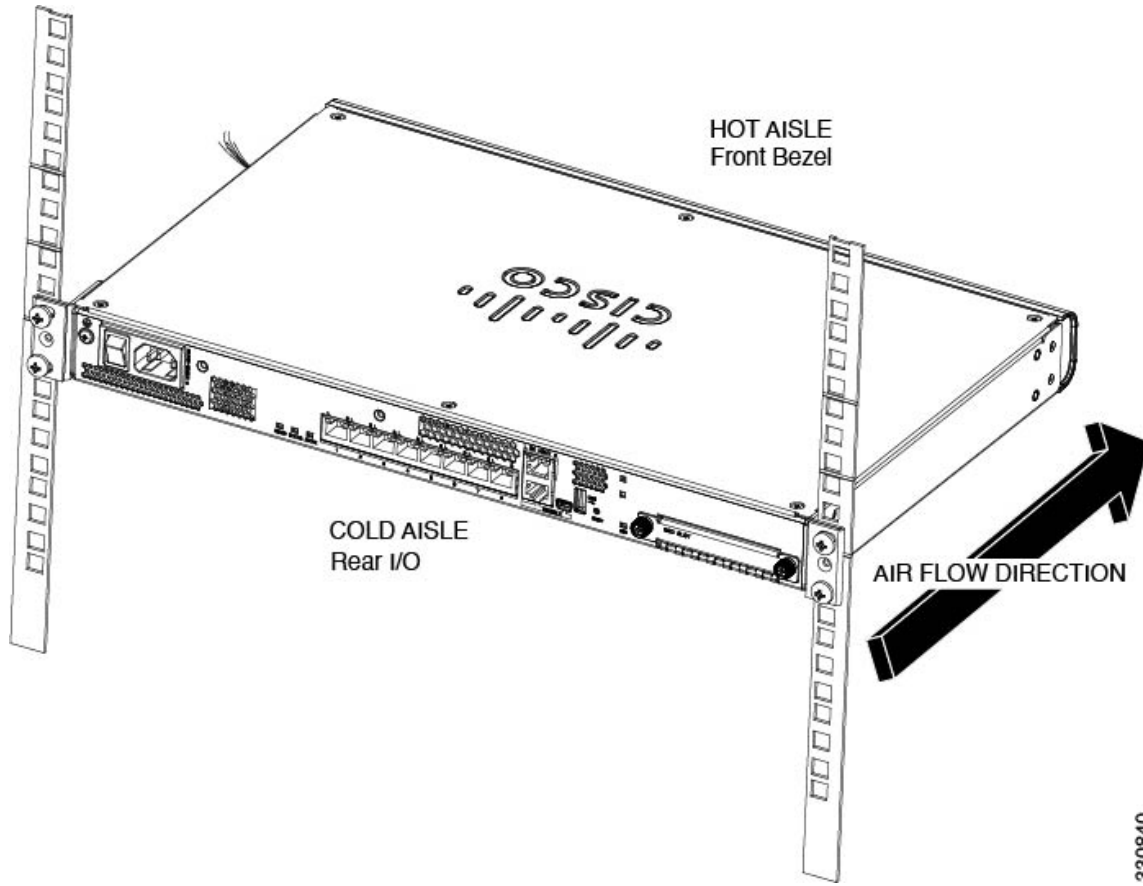
Rack-Mount the Chassis

The ASA ships with rack-mount brackets or “ears,” which you can install on the front or the rear of the chassis. Follow these steps to install your chassis in a rack.

Step 1 Attach both brackets to the sides of the chassis, either to the front or rear.
After the brackets are secured to the chassis, you can mount it in the rack.

Step 2 Attach the chassis to the rack.
We recommend that you install the chassis with the rear panel facing the cold aisle. (See the following illustration for an example of air flow from back to front.)

Figure 18: Chassis Installed in the Rack



What to do next

Install the cables as described in the [Cisco ASA 5506-X Series Quick Start Guide](#).



CHAPTER 4

Connect to the Console Port

The serial ports provide administrative access to the ASA either with a console terminal or a PC. To configure the ASA through the CLI, you must establish a connection between the ASA console port and either a terminal or a PC.

- [Connect to the Console Port with Microsoft Windows, on page 23](#)
- [Connect to the Console Port with Mac OS X, on page 25](#)
- [Connect to the Console Port with Linux, on page 25](#)

Connect to the Console Port with Microsoft Windows

You must install a USB device driver the first time a Microsoft Windows-based PC is connected to the USB serial port on the ASA, otherwise the connection fails.

To uninstall the driver, use the Add Remove Programs utility or the Setup-exe program.



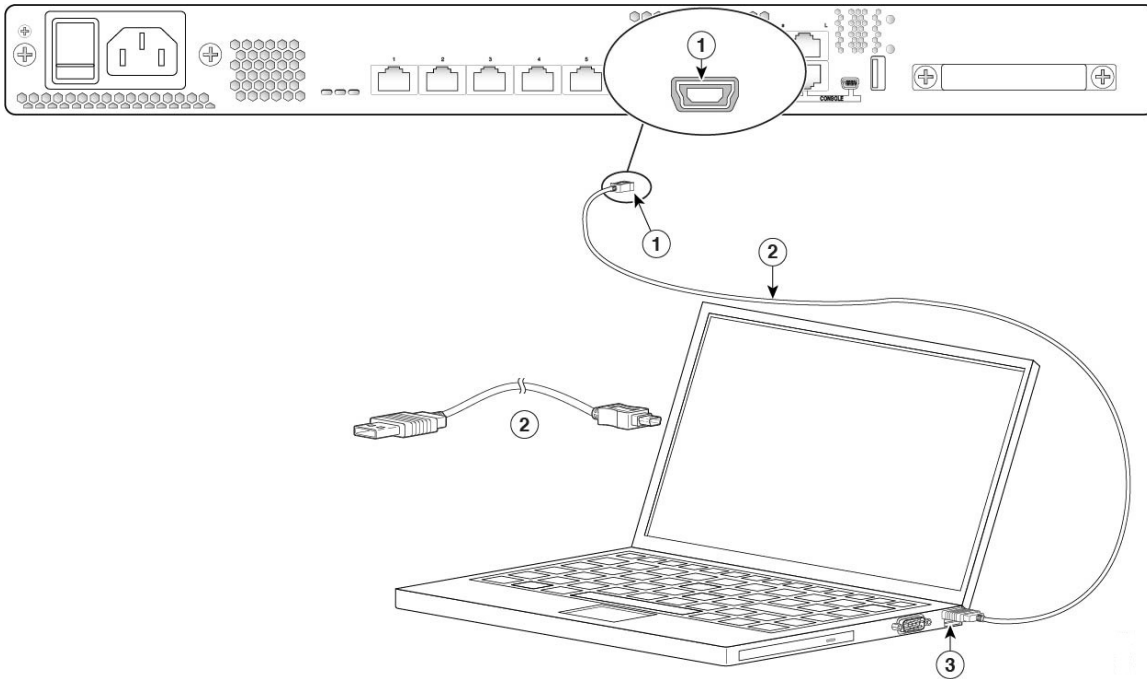
Note Disconnect the ASA console terminal before uninstalling the driver.

Step 1 Obtain the appropriate driver (Cisco_usbconsole_driver_X_X_zip, where X is a revision number) for your ASA model from the Cisco [Download Software](#) site, USB Console Software category.

Step 2 Install the driver.

Step 3 Connect a USB 5-pin Mini USB Type B to the USB console port as shown in the following figure.

Figure 19: ASA 5508-X and ASA 5516-X Console Port Connection



1	Mini USB Type B console port	2	Mini USB Type B to USB Type A console cable
3	USB Type A		

Step 4 Connect the end of the cable with the DB-9 connector (or USB Type A) to the terminal or PC. If your terminal or PC has a console port that does not accommodate a DB-9 connector, you must provide an appropriate adapter for that port. The LED for the console port turns green and within a few moments the Found New Hardware Wizard appears.

Step 5 Follow the instructions to complete the driver installation.

Step 6 To communicate with the ASA, start a terminal emulator application. This software should be configured with the following parameters:

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

Connect to the Console Port with Mac OS X

Follow these steps to connect a Mac OS X system USB port to the console using the built-in OS X Terminal utility, or alternatively you can use a separate terminal emulator application.

Step 1 Use the Finder to go to **Applications > Utilities > Terminal**.

Step 2 Connect the OS X USB port to the ASA.

Step 3 Enter the following commands to find the OS X USB port number:

Example:

```
macbook:user$ cd /dev
macbook:user$ ls -ltr /dev/*usb*
crw-rw-rw- 1 root wheel 9, 66 Apr 1 16:46 tty.usbmodem1a21
DT-macbook:dev user$
```

Step 4 Connect to the USB port with the following command followed by the ASA USB port speed:

Example:

```
macbook:user$ screen /dev/tty.usbmodem1a21 9600
```

Step 5 Enter **Ctrl-z** followed by **Ctrl-** to disconnect the OS X USB console from the Terminal window.

Connect to the Console Port with Linux

Follow these steps to connect a Linux system USB port to the console using the built-in Linux Terminal utility.

Step 1 Open the Linux Terminal window.

Step 2 Connect the Linux USB port to the ASA.

Step 3 Enter the following commands to find the Linux USB port number:

Example:

```
root@usb-suse# cd /dev
root@usb-suse /dev# ls -ltr *ACM*
crw-r--r-- 1 root root 188, 0 Jan 14 18:02 ttyACM0
root@usb-suse /dev#
```

Step 4 Connect to the USB port with the following command followed by the ASA USB port speed

Example:

```
root@usb-suse /dev# screen /dev/ttyACM0 9600
```

Step 5 To disconnect the Linux USB console from the Terminal window, enter **Ctrl-a** followed by **:** then **quit**.



CHAPTER 5

Installation, Maintenance, and Upgrade

- [Remove and Replace the SSD](#) , on page 27

Remove and Replace the SSD

As mentioned in [Solid State Drive, on page 7](#), the ASA ships with an SSD installed. You can replace this SSD should it fail; you do not need to power off the ASA to do so.

-
- Step 1** Loosen the thumb screws on both sides of the SSD bay and pull the existing SSD out of the bay.
- Step 2** Insert the new SSD into the bay and push it in until it is seated.
- Step 3** Tighten the thumb screws on both sides of the SSD bay.
- Step 4** Check the SSD LED to make sure the SSD is seated properly and functioning. See [LEDs, on page 4](#) for a description of the SSD LED.
- Step 5** When you replace the SSD, you need to reinstall the module using the appropriate boot image.
- For more information, see the [Cisco ASA 5508-X and 5516-X Getting Started Guide](#).

Note You *cannot* move an SSD from one ASA to another ASA.
