

TECHDOCS

PA-800 Series Next-Gen Firewall Hardware Reference

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Before You Begin

Read the following topics before you install or service a Palo Alto Networks® next-generation firewall or appliance. **The following topics apply to all Palo Alto Networks firewalls and appliances except where noted.**

- [Upgrade/Downgrade Considerations for Firewalls and Appliances](#)
- [Tamper Proof Statement](#)
- [Third-Party Component Support](#)
- [Product Safety Warnings](#)

Upgrade/Downgrade Considerations for Firewalls and Appliances

The following table lists all hardware features that have upgrade or downgrade impact. Make sure you understand all upgrade/downgrade considerations before you upgrade or downgrade from the specified version of PAN-OS.

Feature	Release	Upgrade Considerations	Downgrade Considerations
PA-7000 Log Forwarding Card (LFC)	10.0	If you are using an LFC with a PA-7000 Series Firewall, when you upgrade to PAN-OS 10.0, you must configure the management plane or dataplane interface for the service route because the LFC ports do not support the requirements for the service route. We recommend using the dataplane interface for the Data Services service route.	n/a
Upgrading a PA-7000 Series Firewall with a first generation switch management card (PA-7050-SMC or PA-7080-SMC)	PAN-OS 8.0 and later	<p>Before upgrading the firewall, run the following CLI command to check the flash drive's status: debug system disk-smart-info disk-1.</p> <p>If the value for attribute ID #232, Available_Reservd_Space 0x0000, is greater than 20, then proceed with the upgrade. If the value is less than 20, then contact support for assistance.</p>	<p>Before downgrading the firewall, run the following CLI command to check the flash drive's status: debug system disk-smart-info disk-1.</p> <p>If the value for attribute ID #232, Available_Reservd_Space 0x0000, is greater than 20, then proceed with the downgrade. If the value is less than 20, then contact support for assistance.</p>

Tamper Proof Statement

To ensure that products purchased from Palo Alto Networks were not tampered with during shipping, verify the following upon receipt of each product:

- The tracking number provided to you electronically when ordering the product matches the tracking number that is physically labeled on the box or crate.
- The integrity of the tamper-proof tape used to seal the box or crate is not compromised.
- The integrity of the warranty label on the firewall or appliance is not compromised.



(PA-7000 Series firewalls only) PA-7000 Series firewalls are modular systems and therefore do not include a warranty label on the firewall.

Third-Party Component Support

Before you consider installing third-party hardware, read the [Palo Alto Networks Third-Party Component Support](#) statement.

Product Safety Warnings

To avoid personal injury or death for yourself and others and to avoid damage to your Palo Alto Networks hardware, be sure you understand and prepare for the following warnings before you install or service the hardware. You will also see warning messages throughout the hardware reference where potential hazards exist.



All Palo Alto Networks products with laser-based optical interfaces comply with 21 CFR 1040.10 and 1040.11.

The following safety warnings apply to all Palo Alto Networks firewalls and appliances, unless a specific hardware model is specified.

- When installing or servicing a Palo Alto Networks firewall or appliance hardware component that has exposed circuits, ensure that you wear an electrostatic discharge (ESD) strap. Before handling the component, make sure the metal contact on the wrist strap is touching your skin and that the other end of the strap is connected to earth ground.

French Translation: Lorsque vous installez ou que vous intervenez sur un composant matériel de pare-feu ou de dispositif Palo Alto Networks qui présente des circuits exposés, veillez à porter un bracelet antistatique. Avant de manipuler le composant, vérifiez que le contact métallique du bracelet antistatique est en contact avec votre peau et que l'autre extrémité du bracelet est raccordée à la terre.

- Use grounded and shielded Ethernet cables (when applicable) to ensure agency compliance with electromagnetic compliance (EMC) regulations.

French Translation: Des câbles Ethernet blindés reliés à la terre doivent être utilisés pour garantir la conformité de l'organisme aux émissions électromagnétiques (CEM).

- (PA-3200, PA-5200, PA-5400, PA-7050, and PA-7080 firewalls only) At least two people are recommended for unpacking, handling, and relocating the heavier firewalls.
- Do not connect a supply voltage that exceeds the input range of the firewall or appliance. For details on the electrical range, refer to electrical specifications in the hardware reference for your firewall or appliance.

French Translation: Veillez à ce que la tension d'alimentation ne dépasse pas la plage d'entrée du pare-feu ou du dispositif. Pour plus d'informations sur la mesure électrique, consulter la rubrique des caractéristiques électriques dans la documentation de votre matériel de pare-feu ou votre dispositif.

- (Devices with serviceable batteries only) Do not replace a battery with an incorrect battery type; doing so can cause the replacement battery to explode. Dispose of used batteries according to local regulations.

French Translation: Ne remplacez pas la batterie par une batterie de type non adapté, cette dernière risquerait d'exploser. Mettez au rebut les batteries usagées conformément aux instructions.

- I/O ports are intended for intra-building connections only and not intended for OSP (Outside Plant) connections or any network connections subject to external voltage surge events.

<ul style="list-style-type: none">  	<p>(All Palo Alto Networks appliances with two or more power supplies)</p> <p>Caution: Shock hazard</p> <p>Disconnect all power cords (AC or DC) from the power inputs to fully de-energize the hardware.</p> <p>French Translation: (Tous les appareils Palo Alto Networks avec au moins deux sources d'alimentation) Débranchez tous les cordons d'alimentation (c.a. ou c.c.) des entrées d'alimentation et mettez le matériel hors tension.</p>
<ul style="list-style-type: none">    	<p>(PA-7000 Series firewalls only)</p> <p>Caution: High touch current</p> <p>Connect to earth before connecting to the power supply.</p> <p>Ensure that the protective earthing conductor is connected to the provided ground lug on the rear side of the firewall.</p>
<ul style="list-style-type: none">  	<p>(PA-7000 Series firewalls only) When removing a fan tray from a PA-7000 Series firewall, first pull the fan tray out about 1 inch (2.5cm) and then wait a minimum of 10 seconds before extracting the entire fan tray. This allows the fans to stop spinning and helps you avoid serious injury when removing the fan tray. You can replace a fan tray while the firewall is powered on but you must replace it within 45 seconds and you can only replace one fan tray at a time to prevent the thermal protection circuit from shutting down the firewall.</p> <p>French Translation: (Pare-feu PA-7000 uniquement) Lors du retrait d'un tiroir de ventilation d'un pare-feu PA-7000, retirez tout d'abord le tiroir sur 2,5 cm, puis patientez au moins 10 secondes avant de retirer complètement le tiroir de ventilation. Cela permet aux ventilateurs d'arrêter de tourner et permet d'éviter des blessures graves lors du retrait du tiroir. Vous pouvez remplacer un tiroir de ventilation lors de la mise sous tension du pare-feu. Toutefois, vous devez le faire dans les 45 secondes et vous ne pouvez remplacer qu'un tiroir à la fois, sinon le circuit de protection thermique arrêtera le pare-feu.</p>

The following applies only to Palo Alto Networks firewalls that support a direct current (DC) power source:

French Translation: Les instructions suivantes s'appliquent uniquement aux pare-feux de Palo Alto Networks prenant en charge une source d'alimentation en courant continu (c.c.):

- Do not connect or disconnect energized DC wires to the power supply.

French Translation: Ne raccordez ni débranchez de câbles c.c. sous tension à la source d'alimentation.

- The DC system must be earthed at a single (central) location.

French Translation: Le système c.c. doit être mis à la terre à un seul emplacement (central).

- The DC supply source must be located within the same premises as the firewall.

French Translation: La source d'alimentation c.c. doit se trouver dans les mêmes locaux que ce pare-feu.

- The DC battery return wiring on the firewall must be connected as an isolated DC (DC-I) return.

French Translation: Le câblage de retour de batterie c.c. sur le pare-feu doit être raccordé en tant que retour c.c. isolé (CC-I).

- The firewall must be connected either directly to the DC supply system earthing electrode conductor or to a bonding jumper from an earthing terminal bar or bus to which the DC supply system earthing electrode conductor is connected.

French Translation: Ce pare-feu doit être branché directement sur le conducteur à électrode de mise à la terre du système d'alimentation c.c. ou sur le connecteur d'une barrette/d'un bus à bornes de mise à la terre auquel le conducteur à électrode de mise à la terre du système d'alimentation c.c. est raccordé.

- The firewall must be in the same immediate area (such as adjacent cabinets) as any other equipment that has a connection between the earthing conductor of the DC supply circuit and the earthing of the DC system.

French Translation: Le pare-feu doit se trouver dans la même zone immédiate (des armoires adjacentes par exemple) que tout autre équipement doté d'un raccordement entre le conducteur de mise à la terre du même circuit d'alimentation c.c. et la mise à la terre du système c.c.

- Do not disconnect the firewall in the earthed circuit conductor between the DC source and the point of connection of the earthing electrode conductor.

French Translation: Ne débranchez pas le pare-feu du conducteur du circuit de mise à la terre entre la source d'alimentation c.c. et le point de raccordement du conducteur à électrode de mise à la terre.

- Install all firewalls that use DC power in restricted access areas only. A restricted access area is where access is granted only to craft (service) personnel using a special tool, lock and key, or other means of security, and that is controlled by the authority responsible for the location.

French Translation: Tous les pare-feux utilisant une alimentation c.c. sont conçus pour être installés dans des zones à accès limité uniquement. Une zone à accès limité correspond à une zone dans laquelle l'accès n'est autorisé au personnel (de service) qu'à l'aide d'un outil spécial,

cadenas ou clé, ou autre dispositif de sécurité, et qui est contrôlée par l'autorité responsable du site.

- Install the firewall DC ground cable only as described in the power connection procedure for the firewall that you are installing. You must use the American wire gauge (AWG) cable specified and torque all nuts to the torque value specified in the installation procedure for your [firewall](#).

French Translation: Installez le câble de mise à la terre c.c. du pare-feu comme indiqué dans la procédure de raccordement à l'alimentation pour le pare-feu que vous installez. Utilisez le câble American wire gauge (AWG) indiqué et serrez les écrous au couple indiqué dans la procédure d'installation de votre pare-feu [pare-feu](#).

- The firewall permits the connection of the earthed conductor of the DC supply circuit to the earthing conductor at the equipment as described in the installation procedure for your [firewall](#).

French Translation: Ce pare-feu permet de raccorder le conducteur de mise à la terre du circuit d'alimentation c.c. au conducteur de mise à la terre de l'équipement comme indiqué dans la procédure d'installation du [pare-feu](#).

- A suitably-rated DC mains disconnect device must be provided as part of the building installation.

French Translation: Un interrupteur d'isolement suffisant doit être fourni pendant l'installation du bâtiment.

PA-800 Firewall Overview

The Palo Alto Networks® PA-800 Series next-generation firewalls are designed for data center and internet gateway deployments. This series is comprised of PA-820 and PA-850 firewalls. These models provide flexibility in performance and redundancy to help you meet your deployment requirements. All models in this series provide next-generation security features to help you secure your organization through advanced visibility and control of applications, users, and content.

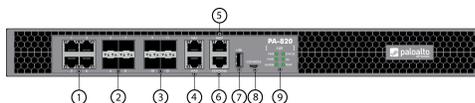
First Supported Software Release: PAN-OS® 8.0

The following topics describe the hardware features of the PA-800 Series firewalls. To view or compare performance and capacity information, refer to the [Product Selection tool](#).

- [PA-800 Front Panel](#)
- [PA-800 Back-Panel](#)

PA-800 Front Panel

The following image shows the front panel of the PA-800 Series firewall and the table describes each front panel component. The only differences between the PA-820 (shown) and PA-850 front panel is the model name and the Ethernet port speeds as described in the table.



Item	Component	Description
1	Ethernet ports 1 through 4	<p>Four RJ-45 10/100/1000Mbps ports for network traffic.</p> <p>You can set the link speed and duplex or choose auto-negotiate.</p>
2	SFP ports 5 through 8	<p>Four small form-factor pluggable (SFP) ports for network traffic.</p>
3	SFP/SFP+ ports 9 through 12	<p>These ports are for network traffic and their speed varies depending on your firewall and configuration.</p> <p>PA-820 Firewalls</p> <p>Four 1Gbps SFP ports; you cannot reconfigure these ports.</p> <p>PA-850 Firewalls</p> <p>Four 1Gbps SFP ports or four 10Gbps SFP+ ports (default); you can specify which you want to use but you cannot mix the two.</p> <p>You can install up to 4 of the same type transceivers (SFP or SFP+) as needed but if you install SFP transceivers, then you also need to reconfigure ports 9 through 12 (as a group) to SFP using the command line interface (CLI).</p> <p>To confirm the current settings for these four ports, run the following command:</p> <pre>admin@PA-850> show system setting ports-9-12-speed Device Ports 9-12 mode: sfp+</pre> <p>The output shows that the ports are set to SFP+. If the firewall is not already set to the correct port type for your transceivers, use the set system setting ports-9-12-speed command. For example,</p>

Item	Component	Description
		<p>if the output shows that these ports are set to SFP + and you are using SFP transceivers, then run the following commands to change the port type from SFP+ to SFP and then restart the firewall to apply the change:</p> <pre data-bbox="786 422 1455 491">admin@PA-850> set system setting port s-9-12-speed sfp</pre> <pre data-bbox="786 552 1455 585">admin@PA-850> request restart system</pre>
4	HA1 and HA2 ports	Two RJ-45 10/100/1000Mbps ports for high-availability control (HA1) and synchronization (HA2).
5	MGT port	Use this Ethernet 10/100/1000Mbps port to access the management web interface and perform administrative tasks. The firewall also uses this port for management services, such as retrieving licenses and updating the threat and application signatures.
6	CONSOLE port (RJ-45)	<p>Use this port to connect a management computer to the firewall using a 9-pin serial to RJ-45 cable and terminal emulation software.</p> <p>The console connection provides access to firewall boot messages, the Maintenance Recovery Tool (MRT), and the command line interface (CLI).</p> <p> <i>If your management computer does not have a serial port, use a USB-to-serial converter.</i></p> <p>Use the following settings to configure your terminal emulation software to connect to the console port:</p> <ul data-bbox="776 1455 1057 1675" style="list-style-type: none"> • Data rate: 9600 • Data bits: 8 • Parity: none • Stop bits: 1 • Flow control: None
7	USB port	<p>Use the USB port to bootstrap the firewall.</p> <p>Bootstrapping enables you to provision the firewall with a specific PAN-OS configuration and then license it and make it operational on your network.</p>

Item	Component	Description
8	CONSOLE port (Micro USB)	<p>Use this port to connect a management computer to the firewall using a standard Type-A USB-to-micro USB cable.</p> <p>The console connection provides access to firewall boot messages, the Maintenance Recovery Tool (MRT), and the command line interface (CLI).</p> <p>Refer to Micro USB Console Port for more information and to download the Windows driver or to learn how to connect from a Mac or Linux computer.</p>
9	LED status indicators	<p>Six LEDs that indicate the status of the firewall hardware components (see Interpret the LEDs on a PA-800 Series Firewall).</p>

PA-800 Back-Panel

The following images show the back panel of the PA-820 and PA-850 Series firewall and the table describes each back panel component. The only difference between the back panels of the two firewalls is that the PA-820 has one fixed power supply and the PA-850 firewall has two hot-swappable power supplies (the second power supply is for redundancy).

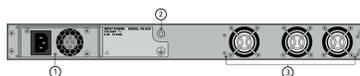


Figure 1: PA-820 Back Panel

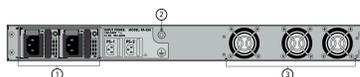


Figure 2: PA-850 Back Panel

Item	Component	Description
1	Power inputs	Use the power supply input(s) to connect power to the firewall. <ul style="list-style-type: none"> PA-820 firewall—Single fixed AC power supply and power input. PA-850 firewall—Two AC power supplies and power inputs.
2	Ground stud	Use the single post ground stud to connect the firewall to earth ground (ground cable not included).
3	Cooling fans	Fans that provide ventilation and cooling for the firewall.

Install the PA-800 Series Firewall

The PA-800 Series next-generation firewall ships with two rack-mount brackets for installation in a two-post 19" equipment rack. If you install the firewall in a four-post rack, purchase and install the four-post rack kit (PAN-PA-1RU-RACK4) to secure the firewall to the back rack-posts.

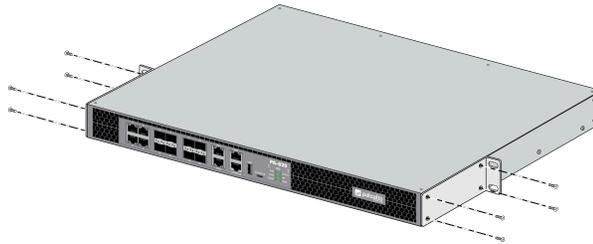
- [Install the PA-800 Series Firewall in a Two-Post 19-inch Equipment Rack](#)
- [Install the PA-800 Series Firewall in a Four-Post 19-inch Equipment Rack](#)

Install the PA-800 Series Firewall in a Two-Post 19-inch Equipment Rack

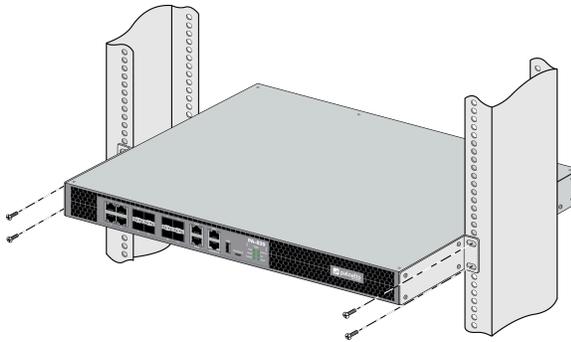
The following procedure describes how to install the PA-800 Series firewall in a two-post equipment rack.

- ⊖ *When installing the firewall in a two-post equipment rack, ensure the rack is properly anchored and it can support the weight of the installed equipment.*

STEP 1 | Attach one rack-mount bracket to each side of the firewall using four #6-32 x 5/16" screws for each bracket and torque to 9 in-lbs. For a two-post rack, we recommend you can install the front brackets in the mid-mount position as shown.



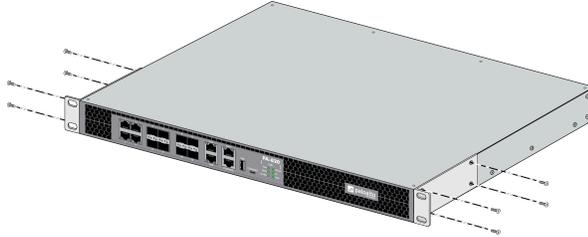
STEP 2 | With help from another person, hold the firewall in place in the rack and secure the rack-mount brackets to the rack using two screws for each bracket. Use the appropriate screws (#10-32 x 3/4" or #12-24 x 1/2") for your rack and torque to 25 in-lbs. Use cage nuts to secure the screws if the rack has square holes.



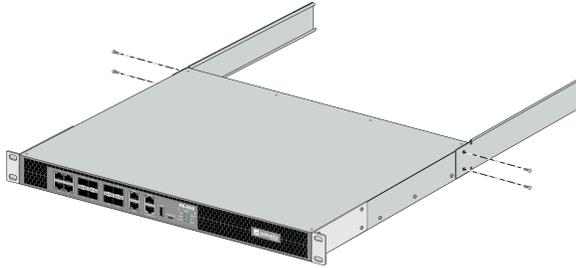
Install the PA-800 Series Firewall in a Four-Post 19-inch Equipment Rack

The following procedure describes how to install the PA-800 Series firewall in a four-post equipment rack. Before you begin, make sure you purchased the back brackets (PAN-PA-1RU-RACK4) to secure the firewall to the back rack-posts.

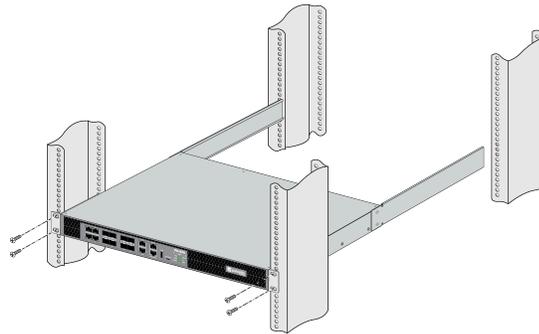
- STEP 1 |** Attach one rack-mount bracket to each side of the firewall in the front-mount position using four #6-32 x 5/16" screws for each bracket and torque to 9 in-lbs.



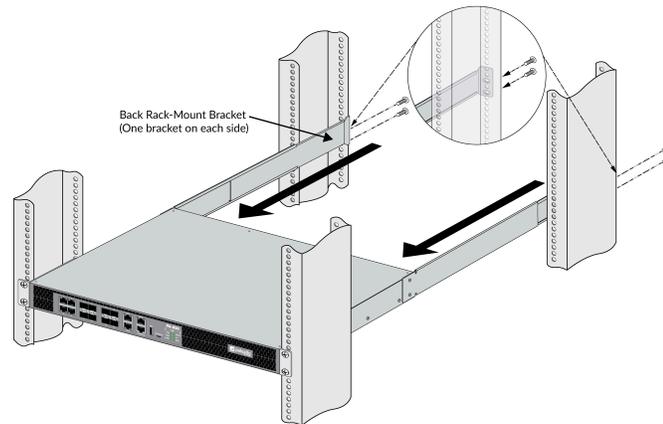
- STEP 2 |** Attach one rack-mount rail to each side of the firewall using two #6-32 x 5/16" screws for each rail and torque to 9 in-lbs.



- STEP 3 |** With help from another person, hold the firewall in the rack and secure the front rack-mount brackets to the front rack-posts using two screws for each bracket. Use the appropriate screws (#10-32 x 3/4" or #12-24 x 1/2") for your rack and torque to 25 in-lbs. Use cage nuts to secure the screws if the rack has square holes.



- STEP 4 |** Slide one back rack-mount bracket into each of the two previously installed side rack-mount rails and secure the brackets to the back rack-posts using the appropriate screws for your rack (#10-32 x 3/4" or #12-24 x 1/2") and torque to 25 in-lbs.



Connect Power to a PA-800 Series Firewall Overview

PA-800 Series firewalls operate on AC power and requires a 100-240VAC (50-60 Hz) power source. The PA-820 firewall has one power supply and the PA-850 firewall has two power supplies (the second power supply is for redundancy).

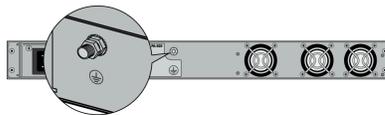
For details on power requirements and power consumption, see [PA-800 Series Electrical Specifications](#).

- [Connect Power to a PA-800 Series Firewall](#)

Connect Power to a PA-800 Series Firewall

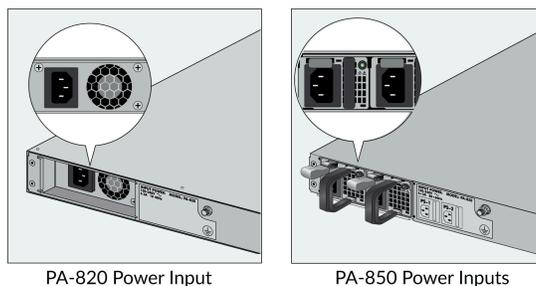
-  To avoid injury to yourself or damage to your Palo Alto Networks® hardware or the data that resides on the hardware, read the [Product Safety Warnings](#).

STEP 1 | Remove the nut and star washer from the ground stud.

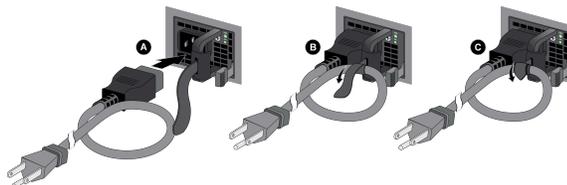


STEP 2 | Crimp a 14AWG ground cable to a ring lug (cable and lug not included) and then attach the ring lug to the ground stud on the firewall. Replace the star washers and nuts and torque to 25 in-lbs. Connect the other end of the cable to earth ground.

STEP 3 | Connect the AC power cord to the power input on the back of the firewall. On a PA-850 firewall, connect a second power cord to the second power input.



STEP 4 | (PA-850 firewall only) Secure the power cords to the power supplies using the Velcro straps.



STEP 5 | Connect the other end of the power cord to an AC power source. After power is connected, the firewall powers on as indicated by the PWR LED on the front of the firewall.

STEP 6 | (PA-850 firewall only) Connect the second power cord to an AC power source; the LED for the second power supply also turns green.

-  Connect the second power cord through a different circuit breaker to provide power redundancy and to allow for electrical circuit maintenance.

Service the PA-800 Series Firewall Hardware

The following topics describe how to interpret the PA-800 Series firewall status LEDs and how to replace a PA-850 power supply. The PA-820 firewall does not have serviceable components.

- [Interpret the LEDs on a PA-800 Series Firewall](#)
- [Replace a Power Supply on a PA-850 Firewall](#)

Interpret the LEDs on a PA-800 Series Firewall

LED	Description
Front Panel LEDs	
PWR (Power)	<p>Green—The firewall is powered on.</p> <p>Off—The firewall is not powered on or an error has occurred with the internal power system (for example, power is not within tolerance levels).</p>
FANS	<p>Green—All cooling fans are operational.</p> <p>Off—One or more fans failed.</p>
ALARM	<p>Red—A hardware component failed, such as a power supply failure, a firewall failure that caused an HA failover, a drive failure, or hardware is overheating and the temperature is above the high temperature threshold.</p> <p>Off—The firewall is operating normally.</p>
STATUS	<p>Green—The firewall is operating normally.</p> <p>Yellow—The firewall is booting.</p>
HA (High-Availability)	<p>Green—The firewall is the active peer in an active/passive configuration.</p> <p>Yellow—The firewall is the passive peer in an active/passive configuration.</p> <p>Off—High availability (HA) is not operational on this firewall.</p> <p> <i>In an active/active configuration, the HA LED indicates only HA status for the local firewall and has two possible states (green or off); it does not indicate HA connectivity of the peer. Green indicates that the firewall is either active-primary or active-secondary and off indicates that the firewall is in any other state (For example, non-functional or suspended).</i></p>
TEMP (Temperature)	<p>Green—The firewall temperature is normal.</p> <p>Yellow—The firewall temperature is outside tolerance levels.</p> <p>See PA-800 Series Environmental Specifications for the temperature range.</p>
Ethernet port LEDs	<p>Left LED—Solid green indicates a network link.</p>

LED	Description
	Right LED—Blinking green indicates network activity.
SFP and SFP+ LEDs	<p>These ports have one green LED:</p> <ul style="list-style-type: none"> • Solid green indicates a network link. • Blinking green indicates network activity.
Back Panel LEDs	
(PA-850 firewall only) Power supply LED	<p>Green—The power supply is operating normally.</p> <p>Off—The system detected a loss of power, either due to loss of power connection, a failed power supply, or incorrect input voltage. If this occurs, the front panel PWR and ALARM LEDs turn red.</p>

Replace a Power Supply on a PA-850 Firewall

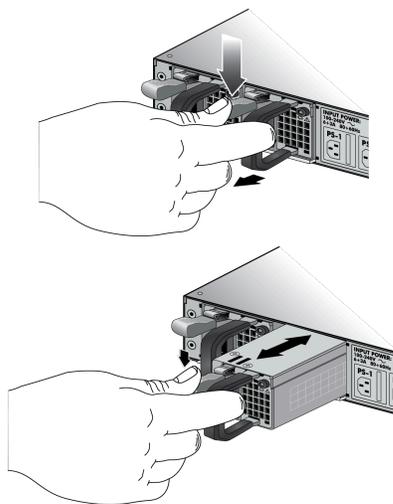
The PA-850 firewall has two power supplies for power redundancy. If one power supply fails, you can replace it without interruption as described in the following procedure.

 To avoid injury to yourself or damage to your Palo Alto Networks® hardware or the data that resides on the hardware, read the [Product Safety Warnings](#).

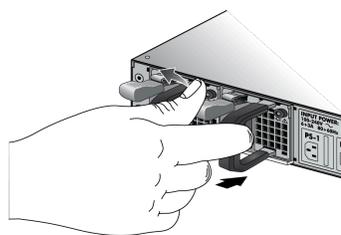
STEP 1 | Identify the failed power supply by viewing the power supply LEDs on the back of the firewall; the LED on the failed power supply will be off.

STEP 2 | Remove the Velcro strap that secures the AC power cord to the power supply and remove the power cord.

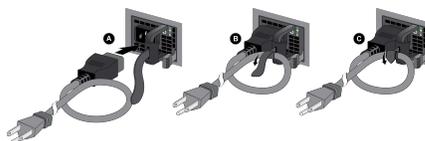
STEP 3 | Grasp the handle on the failed power supply while simultaneously pushing down on the release lever and then pull the power supply outward to remove it.



STEP 4 | Remove the replacement power supply from the packaging and slide it into the empty power supply slot. Push the power supply all the way in until the release lever clicks into place.



STEP 5 | Connect one end of the AC power cable to the power supply and connect the other end to a grounded AC power source. Secure the power cord to the power supply with the Velcro strap.



PA-800 Series Firewall Specifications

The following topics describe the PA-800 Series firewall hardware specifications. For feature, capacity, and performance information, refer to the [PA-800 Series firewall datasheet](#).

- [PA-800 Series Physical Specifications](#)
- [PA-800 Series Electrical Specifications](#)
- [PA-800 Series Environmental Specifications](#)
- [PA-800 Series Miscellaneous Specifications](#)

PA-800 Series Physical Specifications

The following table describes PA-800 Series firewall physical specifications.

Specification	Value
Rack units and dimensions	<ul style="list-style-type: none"> PA-820 firewall <ul style="list-style-type: none"> Rack units—1U Dimensions—1.75”H X 14”D X 17.125”W (4.44cm X 35.56cm X 43.49cm) PA-850 firewall <ul style="list-style-type: none"> Rack units—1U Dimensions—1.75”H X 14.5”D X 17.125”W (4.44cm X 36.83cm X 43.49cm) <p> <i>The depth dimension includes hardware that protrudes from the back of the firewall. The depth of the PA-850 firewall is slightly deeper due to the power supply handles.</i></p>
Weight	<ul style="list-style-type: none"> PA-820 firewall <ul style="list-style-type: none"> Firewall weight—11lbs (4.99Kg) Shipping weight—18lbs (8.17Kg) PA-850 firewall <ul style="list-style-type: none"> Firewall weight—13.5lbs (6.13Kg) Shipping weight—21.5lbs (9.76Kg)

PA-800 Series Electrical Specifications

The following table describes PA-800 Series firewall electrical specifications.

Specification	Value
Power supplies	<ul style="list-style-type: none"> PA-820 firewall—One fixed AC 200W power supply. PA-850 firewall—Two AC 450W power supplies. One power supply is redundant.
Input voltage	100-240VAC (50-60Hz)
Power consumption	<p>PA-820 firewall</p> <ul style="list-style-type: none"> Average—41W Maximum—120W <p>PA-850 firewall</p> <ul style="list-style-type: none"> Average—64W Maximum—240W
Maximum current consumption	<ul style="list-style-type: none"> PA-820 firewall—1.0A@100VAC, 0.5A@240VAC PA-850 firewall—2.0A@100VAC, 1.0A@240VAC
Maximum inrush current	<ul style="list-style-type: none"> PA-820 firewall—0.4A@230VAC, 0.96A@120VAC PA-850 firewall—1.0@230VAC, 1.84A@120VAC

PA-800 Series Environmental Specifications

The following table describes PA-800 Series firewall environmental specifications.

Specification	Value
Operating temperature range	32°F to 104°F (0° to 40°C)
Non-operating temperature	-4°F to 158°F (-20° to 70°C)
Humidity tolerance	5% to 90% non-condensing
Airflow	Front-to-back
Maximum BTUs/hour	<ul style="list-style-type: none"> PA-820 firewall—153 BTUs/hour PA-850 firewall—256 BTUs/hour
Electromagnetic Interference (EMI)	FCC Class A, CE Class A, VCCI Class A
Acoustic noise	Tested in bystander position (ISO 7779) <ul style="list-style-type: none"> PA-820 firewall <ul style="list-style-type: none"> Average—31.6 dB(A) Maximum—54.6 dB(A) PA-850 firewall <ul style="list-style-type: none"> Average—38.5 dB(A) Maximum—54.8 dB(A)
Maximum operating altitude	10,000ft (3,048m)

PA-800 Series Miscellaneous Specifications

The following table describes PA-800 Series firewall miscellaneous specifications.

Specification	Value
Storage capacity	One 240GB SSD for system files and log storage.
Mean time between failures (MTBF)	35 years

PA-800 Series Firewall Compliance Statements Overview

Palo Alto Networks obtains regulatory compliance certifications to comply with the laws and regulations in each country where there are requirements applicable to our products. Our products meet standards for product safety and electromagnetic compatibility when used for their intended purpose. To view compliance statements for the PA-800 Series firewalls, see .

PA-800 Series Firewall Compliance Statements

The following lists the PA-800 Series firewall hardware compliance statements:

- **VCCI**

This section provides the compliance statement for the Voluntary Control Council for Interference by Information Technology Equipment (VCCI), which governs radio frequency emissions in Japan. The following information is in accordance to VCCI Class A requirements:

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

Translation: 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 corrective actions.

- **BSMI EMC Statement**

User warning: This is a Class A product. When used in a residential environment it may cause radio interference. In this case, the user will be required to take adequate measures.

Manufacturer: Flextronics International

Country of Origin: Made in the USA with parts of domestic and foreign origin.

Input Frequency: 50-60 Hertz (Hz)

Input Voltage (AC): 100 to 240 Volts

BSMI EMC 聲明

警告使用者：

這是甲類的資訊產品，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

製造商：偉創力國際

原產地：美國 / 部份零組件產地為美國及其它國家。

輸入頻率：50-60 赫茲 (Hz)

輸入電壓 (AC)：100 ~ 240 伏特

- **CE (European Union (EU) Electromagnetic Compatibility Directive)**

This device is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive (2014/30/EU).

The above product conforms with Low Voltage Directive 2014/35/EC and complies with the requirements relating to electrical equipment designed for use within certain voltage limits.