# PA-200 Firewall
# Hardware Reference Guide

**paloalto**
NETWORKS ®

## Contact Information

## About this Guide

This guide describes the PA-200 firewall hardware, provides instructions on installing the hardware, describes how to perform maintenance procedures, and provides product specifications. This guide is intended for system administrators responsible for installing and maintaining the PA-200 firewall.

All PA-200 firewalls run PAN-OS, a purpose-built operating system with extensive functionality. For additional information, refer to the following resources:

- For information on the additional capabilities and for instructions on configuring the features on the firewall, refer to https://www.paloaltonetworks.com/documentation.

- For access to the knowledge base, complete documentation set, discussion forums, and videos, refer to https://live.paloaltonetworks.com.

- For contacting support, for information on the support programs, or to manage your account or devices, refer to https://support.paloaltonetworks.com.

- For the latest release notes, go to the software downloads page at https://support.paloaltonetworks.com/Updates/SoftwareUpdates.

To provide feedback on the documentation, please write to us at:

documentation@paloaltonetworks.com.

# Table of Contents

# Chapter 1
# Overview

This chapter describes the front and back panels of the PA-200 firewall. For more information, refer to the following topics:

- "Front Panel" in the next section

- "Back Panel" on page 7

# Front Panel

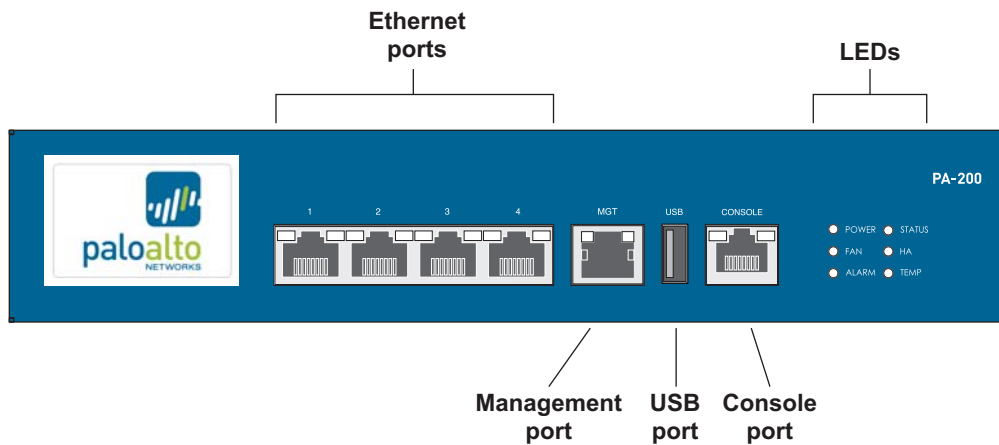Figure 1 shows the front panel of the PA-200 firewall.



**Figure 1.  Front Panel**

Table 1 describes the front panel features.

**Table 1.  Front Panel Features**

| Item | Description |
|------|-------------|
| Ethernet ports | 4 RJ-45 10/100/1000Mbps ports for network traffic. |
| Management port | 1 RJ-45 10/100Mbps port used to access the device management interface. |
| Console port | 1 RJ-45 port for connecting a serial console. |
| USB port | One USB port that accepts a USB flash drive that contains a bootstrap bundle (PAN-OS configuration) that enables you to bootstrap the firewall. Bootstrapping enables you to provision the firewall with a specific configuration, license it, and make it operational on the network. |
| | The firewall must have PAN-OS 7.1 or later installed to use this feature. Prior to PAN-OS 7.1, this port is disabled. For information on bootstrapping, refer to Bootstrap the Firewall in the PAN-OS® Administrator's Guide Version 7.1. |
| LED dashboard | 6 LEDs indicating system status. Refer to "Interpreting the Device LEDs" on page 12 for LED definitions. |

# Back Panel

Figure 2 shows the back panel of the PA-200 and Table 2 describes the back panel features.



**Figure 2.   Back Panel**

**Table 2.   Back Panel Features**

| Item | Description |
| --- | --- |
| Power inlet | DC power inlet for powering the device. |

Back Panel

# Chapter 2
# Installing the Hardware

This chapter describes how to install the PA-200 firewall. For more information, refer to the following topics:

- "Tamper Proof Statement" on page 9

- "Before You Begin" in the next section

- "Connecting Cables to the Device" on page 10

- "Connecting Power" on page 10

## Tamper Proof Statement

To ensure that products purchased from Palo Alto Networks have not been 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 has not been compromised.

- The warranty seals on the device itself do not show evidence of tampering.

## Before You Begin

- Verify that the intended location has adequate air circulation and meets the temperature requirements. Refer to "Environmental Specifications" on page 16.

- Unpack the device.

- Verify that power is not connected to the firewall.

- Allow clear space on all sides, back, and top of the firewall to allow for proper cooling. Do not stack PA-200 firewalls.

> *Note:* *The PA-200 firewall uses a combination of passive and active cooling and needs proper airflow on all surfaces to ensure proper operation. Do not install the PA-200 firewall in a small, confined space such as a closed shelf or drawer, as this could lead to insufficient cooling of the device.*

# Connecting Cables to the Device

Figure 3 shows the PA-200 cable connections. Refer to Table 1 for descriptions of the front panel interfaces.
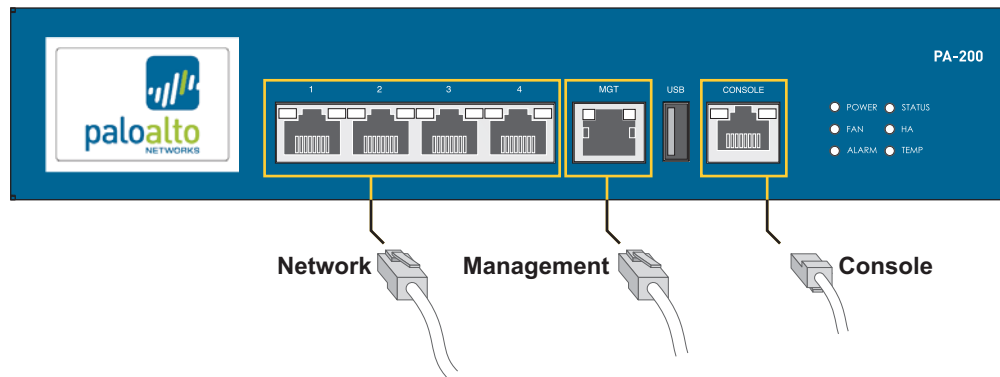


**Figure 3.   Cable Connections for the PA-200 Firewall**

# Connecting Power

To power the PA-200 firewall:

1.  Attach a power cable to the external power supply.

2.  Plug the power supply into the PA-200 firewall.

3.  Plug the cable into a grounded wall outlet.

# Chapter 3
# *Maintaining the Hardware*

This chapter provides maintenance information for the PA-200 hardware. For more information, refer to the following topics:

- "Cautions and Warnings" in the next section

- "Interpreting the Device LEDs" on page 12

- "Interpreting the Port LEDs" on page 13

# Cautions and Warnings

This section describes the cautions and warnings that you must be familiar with before working with the hardware:

- "Hardware Cautions" on page 11

- "Hardware Warnings" on page 12

## Hardware Cautions

- Disconnect the power cord before servicing the PA-200 firewall.

- Shielded Ethernet interface cables should be used to ensure agency compliance with electromagnetic emissions (EMC). Connecting a PoE enabled port to the firewall is not recommended because the system does not support the PoE operating mode.

- To prevent damage from electrical surges, use a Uninterruptible Power Supply (UPS) and implement the facilities lightning protection requirements outlined in the National Fire Protection Association (NFPA) 780: Standard for the Installation of Lightning Protection Systems (or similar effective measures per local regulations).

- The PA-200 firewall meet the requirements of IEC 61000.4.5 surge immunity test. To prevent damage from electrical surges on Ethernet ports, we recommend using an Ethernet surge protection device with the following specifications:

    – Rated for Gigabit Ethernet up to category 5E, 1 Gigabit rate minimum, or higher rate.

    – Protection provided on all eight signal leads.

    – Both line to line and line to ground/shield shall be provided.

    – Protection device must be connected to earth ground and shielded CAT 5E or higher Ethernet cable shall be used.

    **Technical specifications:**
    – Protective circuit complies with IEC test classification B2, C1, C2, C3, D1.

    – Normal discharge current (core to earth ground) 2kA per signal pair.

    – Normal discharge current (core to core) 100A.

    – Total discharge current 10kA.

## Hardware Warnings

- Risk of explosion if the battery is replaced with an incorrect type. Dispose of used batteries in accordance with government regulations.

- Removal of equipment top cover is to be performed only by trained service person(s).

## Interpreting the Device LEDs

Figure 4 shows the LEDs on the front panel of the PA-200 firewall.



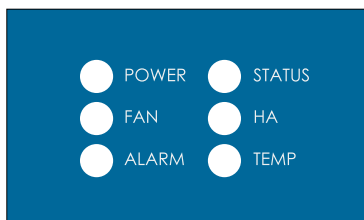**Figure 4.   Front Panel LEDs**

Table 3 describes the LED functions and states.

**Table 3.   LED Functions and States**

| Interface | State | Description |
| --- | --- | --- |
| POWER | Green | The device is powered. |
|  | Off | Power is off. |

**Table 3.  LED Functions and States (Continued)**

| Interface | State | Description |
|---|---|---|
| STATUS | Green | The device is operating normally. |
| | Yellow | The device is booting up. |
| FAN | Green | The fan is operating normally.<br>*Note: The fan is under the control of the firewall processor and may not run all the time. This is normal.* |
| | Red | The fan has failed. |
| HA | Green | This device is the current active device. |
| | Yellow | This device is the current passive device. |
| | Off | High availability is not enabled on this device. |
| ALARM | Red | There is a hardware failure, which may include power supply detected but not working, fan failure, HA failover, or temperature above high temperature threshold. |
| | Off | The device is operating normally. |
| TEMP | Green | The temperature is normal. |
| | Yellow | The temperature is outside the normal tolerance. |

# Interpreting the Port LEDs

Each Ethernet port on the PA-200 firewall has two LEDs. Table 4 describes the LEDs.

**Table 4.  Port LEDs**

| LED | Description |
|---|---|
| Left | Shows green if there is a network link. |
| Right | Blinks if there is network activity. |

# Chapter 4

# Specifications

This chapter provides specifications for the PA-200 firewall. For more information, refer to the following topics:

- "Physical Specifications" in the next section

- "Interface Specifications" on page 16

- "Electrical Specifications" on page 16

- "Environmental Specifications" on page 16

# Physical Specifications

Table 5 lists the physical specifications for the PA-200 firewall.

**Table 5.  Physical Specifications**

| Specification | Description |
| --- | --- |
| Height | 1.75 inches (4.5 cm) (1 RU). |
| Depth | 6.5 inches (16.5 cm). |
| Width | 9 inches (23 cm). |
| Weight | Firewall only: 2.8 lbs (1.3kg). As shipped: 5.1 lbs (2.3kg). |
| Fan | Single fan. *Note: The fan is under control of the firewall's processor and may not run all of the time. This is normal.* |

# Interface Specifications

Table 6 describes the interfaces for the PA-200 firewall.

**Table 6.   Interface Specifications**

| Specification | Description |
| --- | --- |
| Ethernet ports | 4 RJ-45 10/100/1000Mbps ports for network traffic. |
| Management port | 1 RJ-45 port to access the device management interfaces through an Ethernet interface. |
| Console port | 1 RJ-45 port for connecting a serial console. Use these settings:<br>• Data rate: 9600<br>• Data bits: 8<br>• Parity: none<br>• Stop bits: 1<br>• Flow control: none |
| USB port | One USB port that you can use to bootstrap the firewall. For details, see "Front Panel" on page 6. |

# Electrical Specifications

Table 7 lists the electrical specifications for the PA-200 firewall.

**Table 7.   Electrical Specifications**

| Specification | Description |
| --- | --- |
| Input frequency | 50-60 Hz |
| Average/maximum power consumption | 20W/30W |
| AC voltage | 100-240 VAC |

# Environmental Specifications

Table 8 lists the environmental specifications for the PA-200 firewall.

**Table 8.   Environmental Specifications**

| Specification | Description |
| --- | --- |
| Operating temperature range | 0° to 40° C |
| Storage temperature range | -20° to 70° C |
| System air flow | Side to side |

# Chapter 5
# Compliance Statements

## 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 (2004/108/EC).

The above product conforms with Low Voltage Directive 2006/95/EC and complies with the requirements in the Council Directive 2006/95/EC relating to electrical equipment designed for use within certain voltage limits and the Amendment Directive 93/68/EEC.

## KCC

B급 기기(가정용 방송통신기자재)
이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

## TUV

Product Ambient Temperature: 0~40 degree C

CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

# FCC

**Federal Communications Commission (FCC) Statement:**

**For a Class B digital device or peripheral**

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

# 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.

# ICES

**Canadian Department Compliance Statement:**

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.