

19 January 2025

RACK MOUNTING FOR QUANTUM SMART-1 600-S APPLIANCES



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Check Point Rack Mounting for Quantum Smart-1 600-S Appliances

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Revision History

Date	Description	
17 February 2022	Rebranding - New Check Point logo	
14 April 2021	First release of this document	

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Rack Mounting for Smart-1 600-S Appliances

Check Point Smart-1 600-S appliances are mounted in racks with fixed rails.

Alternatively, you can install telescopic rails (as an optional accessory) instead of the default fixed rails.

General Requirements for Racks

Check Point 1U appliances are designed for a standard 19-inch (48.26 cm) rack (see specification EIA-310-D).

Min Depth	Max Depth	SKU
22 inches (55.9 cm)	32 inches (81.3 cm)	For the SKUs, see the Accessories section in: https://www.checkpoint.com/downloads/products/smart-1- security-management-platform-datasheet.pdf
24 inches (61 cm)	36 inches (91.4 cm)	

Front and rear rack doors must have equally distributed holes on at least 65% of the surface area to give sufficient airflow. Make sure that the racks have sufficient clearance to service the Check Point appliances that are mounted on telescopic rails.

The telescopic rails can be used with racks that have round holes or square holes.

Rack Side	Clearance Requirement
Front	36 in (91.4 cm) plus additional clearance, if necessary, for the mechanical lift used to move the appliance and rails equipment.
Rear	16 in (40.6 cm) from the rear of the rack or appliance without the rear cabinet door 22 in (55.9 cm) from the rear of the rack or appliance with the rear cabinet door

These are the physical specifications of the Check Point appliance models that can be rack mounted with fixed or telescopic rails.

Appliance	Width	Depth	Height
Smart-1 600-S	17.24 in	20 in	1.73 in
	(43.8 cm)	(50.8 cm)	(4.4 cm) (1U)

Fixed Rails

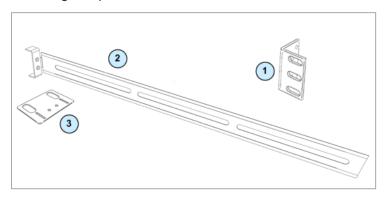
This section describes how to mount the appliance in a rack with fixed rails.



Important - We recommend that at least two people install the appliance in a rack to prevent injury, or damage to the appliance.

Rack Mounting Hardware and Tools

You must install rack mounting hardware on the appliance before you mount it in a rack. These rack mounting components are included in the kit.



Item	Hardware Description	Qty.	Use	Label
1	Ear mount bracket	2	Attaches to the appliance front panel. Both ear mount brackets are identical.	Assembly kit
	Ear mount screws	12	Secures the ear mount brackets to the appliance front panel. These screw heads are smaller (5 mm).	Rack Ear Screw: 12pcs
2	Mounting bracket	2	Attaches to the appliance. Both mounting brackets are identical.	No label
3	Adapter	2	Attaches to the mounting brackets. Both adapters are identical.	Assembly kit
	Mounting bracket screws	12	Secures the adapters to the mounting brackets and the mounting brackets to the appliance. These screw heads are larger (8 mm).	Rack Bracket Screw: 12pcs

Rack Mounting Tools

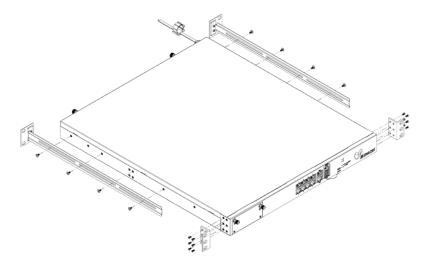
Phillips PH2 screwdriver. A magnetic head is recommended to hold screws in place and retrieve dropped screws. A powered screwdriver is also useful.



Note - Screws to attach the ear mount brackets and rail plates to the rack are not included.

Attaching the Ear Mount Brackets to the Appliance

Attach the two ear mount brackets to the front of the appliance.





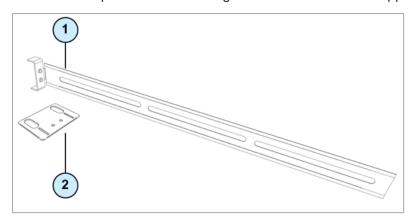
Note - The ear mount screws have 5 mm heads.

To attach the ear mount brackets to the appliance:

- 1. Attach the appliance ear bracket to one side of the appliance using six ear mount screws.
- 2. Do step 1 again for the other side of the appliance.

Attaching the Rail Plates

Attach the adapters to the mounting brackets to connect the appliance to the rear vertical rails of the rack.



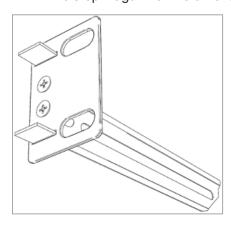
Item	Description	
1	Mounting bracket	
2	Adapter	



Note - The mounting bracket screws have 8 mm heads.

To attach the adapters:

- 1. Attach an adapter to a mounting bracket using two mounting bracket screws.
- 2. Do step 1 again for the other adapter and mounting bracket.



Attaching the Mounting Brackets to the Appliance

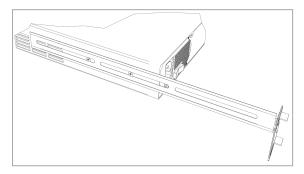
Attach the mounting brackets to the sides of the appliance. Align the adapters to connect the mounting brackets to the rear of the rack.



Note - The mounting bracket screws have 8 mm heads.

To attach the mounting brackets:

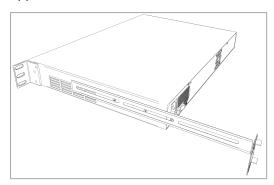
1. Place the mounting bracket on the side of the appliance with the protruding side of the bracket facing away from the appliance.



- 2. Attach the mounting bracket to the appliance using three mounting bracket screws.
- 3. Do steps 1 and 2 again for the other side of the appliance.

Installing the Appliance in the Rack

Install the appliance in the rack. It may be necessary to adjust the mounting brackets to secure the appliance to the rack.





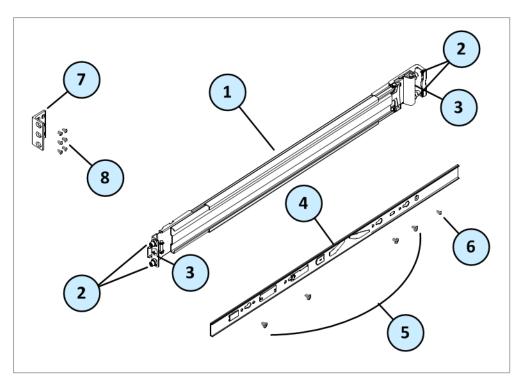
Important - Two people are required to install the appliance in a rack in order to prevent any possible damage.

To install the appliance in the rack:

- 1. Attach the ear mount brackets to the front of the rack and attach the adapters to the rear of the rack.
- 2. Confirm that the appliance is stable and secure in the rack.

Telescopic Rails

Telescopic Rails Hardware



Item	Hardware Description	Qty.	Use	Label
1	Outer rack rail section of the telescopic rail unit	2	Moves the appliance into position in the rack	No label
2	Square-hole rack screws	8	Come attached to the outer rack rails to be used with square holed racks	No label
2	Round-hole rack screws	8	For use with round-hole racks only. Replace the original square- hole rack screws with the round-hole rack screws.	Round-hole rack screws P/N for Round Hole 7.1 x8pcs
3	Rack mounting screws	4	At front of appliance - Attaches the ear mounts to the rack, which prevents movement of the appliance. At back of appliance - Attaches the outer rack rail to the rack.	Rack mounting screws M5x20L x4PCS

Item	Hardware Description	Qty.	Use	Label
4	Inner appliance rail section of the telescopic rail unit	2	Attaches to the sides of the appliance	No label
5	Appliance rail screws	8	Attaches the appliance rails to the appliance	Appliance rail screws #6-32 x8pcs
6	Appliance rail screws	2	Attaches the appliance rails to the appliance	Appliance rail screws #6-32 x2pcs
7	Ear mount bracket **	2	Attaches the appliance to the rack	Assembly kit
8	Ear mount bracket screws**	12	Attaches the ear mounts to the appliance.	Rack Ear screw

^{**} The ear mount bracket and screws are delivered as accessories together with the appliance.

Rack Mounting Tools

We recommend that you use a Phillips PH2 screwdriver with a magnetic head to hold and retrieve screws.

Installation Overview

Telescopic rails installation includes these procedures:

- Attaching the inner rails to the appliance
- Attaching the ear mounts to the appliance
- Attaching round-hole rack screws (if you are using round-hole racks)
- Attaching the outer rack rails to the rack
- Installing the appliance in the rack

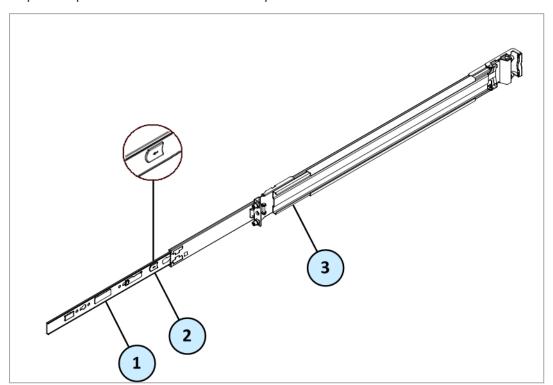
Attaching the Inner Appliance Rails

The outer rack rail section and the inner appliance rail section come as one unit when you open the box.

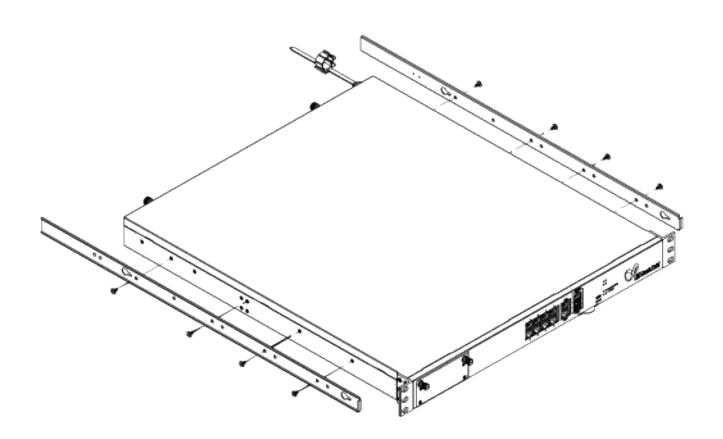
Before you can attach each appliance rail to the side of the appliance, you must remove the inner appliance rails from the outer rack rails.

To remove the inner appliance rail from the telescopic rail unit:

- 1. Extend the inner appliance rail from the outer rail until the rails locks in place.
- 2. Press the inner rail release latch, as shown, and pull the inner appliance rail straight out.
- 3. Repeat steps 1 and 2 for the other telescopic rack rail unit.

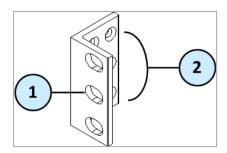


Item	Description
1	Inner rack rail
2	Release latch
3	Outer appliance rail



Attaching the Ear Mount Brackets

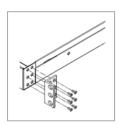
Attach the ear mounts to the left and right side of the front of the appliance to lock the appliance into the rack.



Item	Hardware Description	Use
1	Rack post mounting hole for the rack mounting screws	When the screw is fastened, the appliance cannot be pulled out of the rack
2	Holes for ear mount bracket screws	Attaches the ear mount to the appliance

To attach the ear mount brackets to the appliance:

- 1. Place the ear mount bracket on the side of the appliance near the front panel.
- 2. Attach the ear mount bracket to the appliance using the six ear mount bracket screws.



3. Do steps 1 - 2 again for the other side of the appliance.

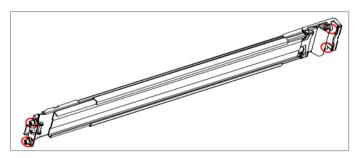
Preparing Round-Hole Rack Rails

If you use round-hole racks, you must replace the eight square-hole rack screws that come attached to the outer rack rails with the eight supplied round-hole rack screws.

Do this procedure before you attach the outer rack rails to the rack.

To attach the round-hole rack screws:

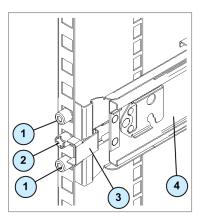
1. Use a screwdriver to remove the square-hole rack screws from the front and back of the outer rack rail.



- 2. Replace with four of the supplied round-hole rack screws.
- 3. Do steps 1 2 again for the other outer rack rail.

Attaching the Outer Rack Rails

Attach the outer rack rails to the rack. Make sure that you have the two rack rails ready.

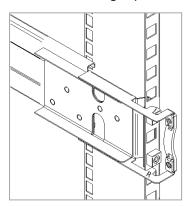


Item	Description
1	Rack rail screws (attached to the end of the rack rail)
2	Screw hole with rack mounting screw
3	Securing clip
4	Rack rail

To attach the outer rails to the rack:

- 1. If your rack has round holes, make sure to complete "Preparing Round-Hole Rack Rails" on the previous page.
- 2. Align the front end of the outer rail with the hole number.
 - Make sure that the securing clip faces the inner part of the rack.
- 3. Gently pull forward and connect the outer rail to the rack by inserting the rack rail screws into the rack holes
- 4. Do steps 1 3 again to attach the rear end of the outer rail to the rack.

The rear securing clips are marked with the letters \mathbb{R} (for the right rack rail) and \mathbb{L} (for the left rack rail).



- 5. Use a rack mounting screw to secure the rear end of the outer rail to the rack.
- 6. Do steps 1 5 again for the other outer rail.

Installing the Appliance in the Rack

Install the appliance in the telescopic rails in the rack.



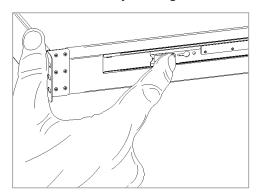
Important - We recommend that at least two people install the appliance in a rack to prevent injury, or damage to the appliance.



Important - Do not attempt to lift, drag, or otherwise move the appliance using the handles on the power supply units.

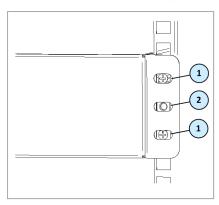
To install the appliance in the rack:

- 1. Align the inner rack rails to be level with the rack rails.
- 2. Move the appliance into the rack as far as it can go.
- 3. On the appliance rails:
 - Press and pull gently on the blue release strips on both sides of the appliance.
 - While continuously holding the blue release strips, push the appliance into the rack.



- 4. Tighten all of the rail mounting screws.
- 5. For each ear mount, use a rack mount screw to secure it to the rack and make sure that the appliance cannot move. This disables the telescopic rails.

Use the rack post mounting hole that is between the rack rail screws (see item 2 in the figure).



Item	Description
1	Rack rail screws attached to the outer rack rail
2	Rack post mounting hole for rack mount screw

Removing the Appliance

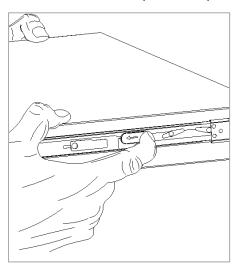
Unlock the telescopic rails to remove the appliance from the rack.



Important - Since the appliance is heavy, we recommend that at least two people work together to remove the appliance from a rack to prevent injury, or damage to the appliance.

To remove the appliance from the rack:

- 1. Remove the rack mounting screws in the ear mounts to enable the telescopic rails.
- 2. Move the appliance away from the rack as far as possible.
- 3. On the inner rack rail, press and pull on the white release levers on both sides of the appliance.



4. While holding the appliance, move the appliance away from the rack rail.

Appliance Air Vents

Make sure that the appliance air vents have sufficient airflow from front to rear when the appliance is mounted in a rack.



Important - If the appliance vents are blocked, the appliance can become too hot and it can be damaged.

The appliance and rack rails have been tested in extreme conditions and do not block air flow to the appliance. These appliances are specifically designed to install with these rails.

The air flow in Smart-1 600-S appliances:

