

# Rack-Mounting Instructions for Two-Post Telco Racks

This document provides information on installing a StoneGate FW-1020, FW-1050, FW-1200, IPS-2000, or SSL-2000 appliance into a two-post Telco rack unit.

## Preparing for Rack-Mounting

The appliance delivery includes two sets of rail assemblies, two sets of rail-mounting brackets, as well as screws and washers for attaching the rails and the brackets.



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**Caution** – Read the sections below before you begin the installation.

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## Choosing a Setup Location

Decide on a suitable location for the rack unit that will hold the appliance:

- The appliance must be situated in a clean, dust-free area that is well ventilated.
- Avoid areas where heat, electrical noise and electromagnetic fields are generated.
- Leave enough clearance in front of the rack to enable you to open the front door completely (~63 cm/25 inches).
- Leave enough clearance in the back of the rack to allow for sufficient airflow and ease in servicing (~76 cm/30 inches).

## Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on them.
- In single rack installation, stabilizers must be attached to the rack.
- In multiple rack installations, the racks must be coupled together.
- Always make sure the rack is stable before extending a component from the rack.
- Extend only one component at a time—extending two or more simultaneously may cause the rack to become unstable.

## Device Precautions

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**Caution** – Never open the appliance covers! There are no user serviceable parts inside. Opening the covers may lead to serious injury and will void the warranty.

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- Determine the placement of each component in the rack before you install the rails.
- Install the heaviest appliance components on the bottom of the rack first, and then work up.
- The appliance must be connected to a grounded power outlet.
- Use a regulating uninterruptible power supply (UPS) to protect the appliance from power surges, voltage spikes and to keep your system operating in case of a power failure.
- Always keep the rack's front door and all panels and components on the appliances closed when not servicing to maintain proper cooling.

### Before Installing the Appliance Into a Rack

1. Make sure that the rack is securely anchored onto an unmovable surface or structure before installing the appliance into the rack.
2. Unplug the power cord(s) of the rack before installing the appliance into the rack.
3. Make sure that the system is adequately supported. Make sure that all the components are securely fastened to the appliance to prevent components falling off from the appliance.
4. Be sure to install an AC power disconnect for the entire rack assembly. This power disconnect must be clearly marked.
5. The rack assembly shall be properly grounded to avoid electric shock.
6. The rack assembly must provide sufficient airflow to the appliance for proper cooling.

## Installing the Appliance into a Two-Post Telco Rack

There are two alternative methods for installing the appliance into a two-post Telco rack. You can either use brackets or both brackets and rails to install the appliance into the rack. As there are a variety of rack units on the market, the assembly procedure may differ slightly from what is instructed. If necessary, refer to the instructions that came with the rack unit you are using.

The easiest way to install the appliance into the rack is to secure the appliance to the rack with brackets. If you want to use this method, proceed to [Installing the Appliance with Brackets](#) below.

If you want to use both brackets and rails in the installation, proceed to [Installing the Appliance with Brackets and Rails](#), on page 4.

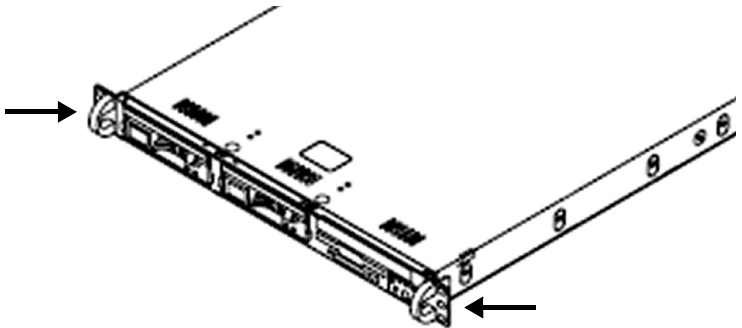
### Installing the Appliance with Brackets

You can secure the appliance into the rack using the brackets that are attached on each side of the appliance. If your delivery includes additional brackets, you can use them instead.

#### ▼ To remove the brackets

- ◆ Unscrew the screws that hold the brackets to each side of the appliance (see [Illustration 1](#)). If the delivery includes additional brackets, leave these brackets where they are and use the additional brackets as described in the next step.

Illustration 1 Removing the Brackets



### ▼ To attach the brackets to the appliance

1. Attach a bracket to the appliance further down on the appliance's side where there are additional holes. Use the screws provided.
2. Repeat the same for the other side of the appliance.

### ▼ To install the appliance to the rack

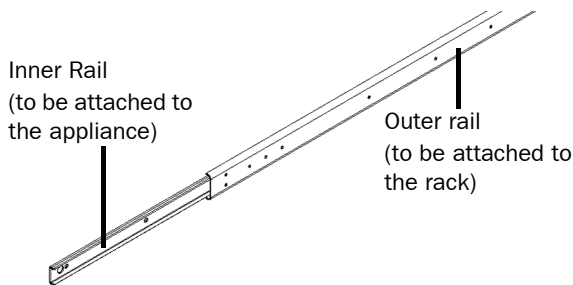
1. Determine where you want to place the appliance in the rack.
2. Attach the bracket on the side of the appliance to the front end of the rack with screws.
3. Repeat the same for the other post.

## Installing the Appliance with Brackets and Rails

You have received two rack rail assemblies with the appliance. Each of these rail assemblies consist of three sections: an inner fixed rail that secures to the appliance and an outer fixed rack rail that secures directly to the rack itself. A sliding rail guide sandwiched between the two should remain attached to the fixed rack rail. (See [Illustration 2](#).) The inner and outer rails must be detached from each other when you install the appliance.

### ▼ To detach the inner rails

Illustration 2 Identifying the Sections of the Rack Rails



1. Pull the inner rail out as far as possible. You should hear a “click” sound as a locking tab emerges from inside the rail assembly and locks the inner rail.
2. Depress the locking tab to pull the inner rail completely out.
3. Repeat for the other side's rack rail assembly.

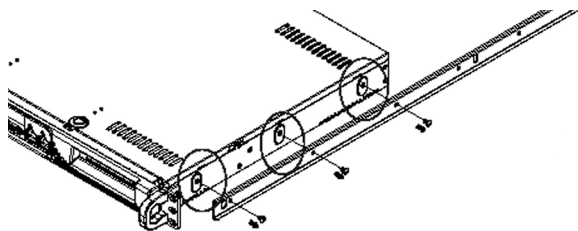
**Locking Tabs:** As you have seen, both rails have a locking tab, which serves two functions.

- To lock the appliance into place when installed and pushed fully into the rack, which is its normal position.
- To lock the appliance in place when fully extended from the rack to prevent the appliance from coming completely out of the rack when you pull it out for servicing.

### ▼ To attach the inner rails to the appliance

1. Position the inner rail sections you just removed along the side of the appliance making sure the screw holes line up. Note that these two rails are left/right specific.

Illustration 3 Attaching the Inner Rail to the Appliance

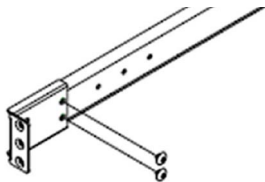


2. Screw the rail securely to the side of the appliance with the supplied screws.
3. Repeat the procedure for the other side of the appliance.

### ▼ To attach the outer rails to the rack

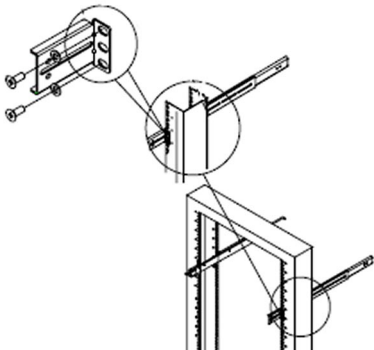
1. Locate a pair of front (short) and rear (long) brackets supplied with the appliance. The front brackets are marked with Up/Front arrows and the back brackets with Up/Rear arrows.
2. Secure the front (short) bracket (marked with Up/Front arrows) to the outer rail with two screws (see [Illustration 4](#).)

Illustration 4 Securing Front Bracket to Outer Rail



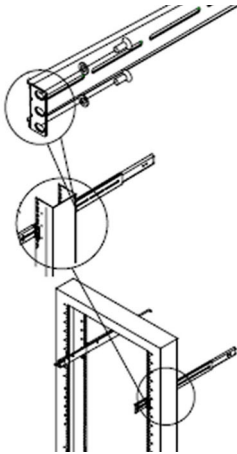
3. Attach the front (short) bracket to the front end of the rack and secure it to the rack with two screws and two washers. See [Illustration 5](#).

Illustration 5 Attaching Front Bracket to the Two-Post Telco Rack



4. Attach the rear (long) bracket to the rear end of the rack, and secure it to the rack with two screws and two washers. See [Illustration 6](#).

Illustration 6 Attaching Rear Bracket to the Two-Post Telco Rack

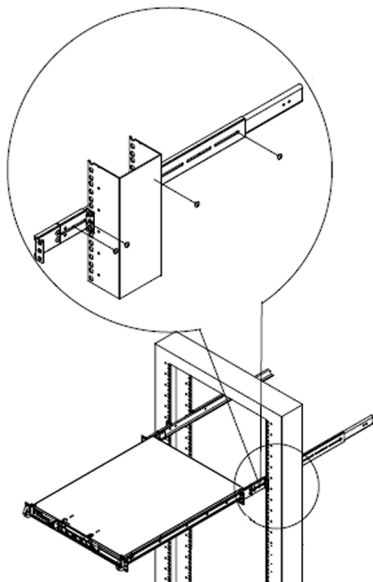


5. Repeat steps 2-4 to install the other outer rail to the other side of the rack.

▼ **To install the appliance into the rack**

1. Measure the depth of your rack and adjust the length of the rails accordingly.
2. Secure the rails to the appliance with screws (see [Illustration 7](#)).

Illustration 7 Securing the Rails to the Appliance



3. Line up the rear of the inner rails with the front of the outer rails.

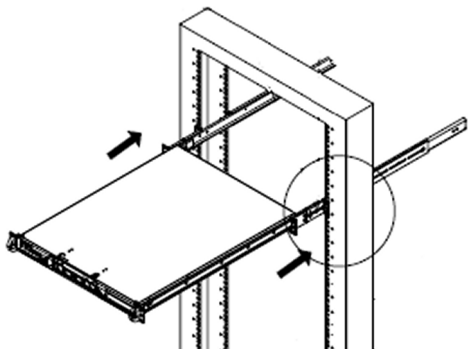
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**Note** – Do not install the appliance upside down.

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4. Slide the inner rails which are attached to the appliance into the outer rails on the rack. Keep the pressure even on both sides (you may have to depress the locking tabs when inserting). When the appliance has been pushed completely into the rack, you should hear the locking tabs "click" (see [Illustration 8](#)).

Illustration 8 Installing the Appliance into the Two-Post Telco Rack



5. Finish by inserting and tightening the thumbscrews that hold the front of the appliance to the rack.