Rack Installation

Barracuda Appliances

TECHNICAL NOTES

This set of instructions applies to racking and rail kit installation for Barracuda Appliances 6XX and above. The **Rack Mounting Instructions** section below provides information on installing the SC825 chassis into a rack unit with the rails provided. There are a variety of rack units on the market, which may mean that the assembly procedure may differ slightly from that presented in this document. Please also refer to the installation instructions that came with the rack unit you are using.

Unpacking the System

You should inspect the box the chassis was shipped in and note if it was damaged in any way. If the chassis itself shows any damage you should file a damage claim with the carrier who delivered your Barracuda. Decide on a suitable location for the rack unit that will hold your chassis. It should be situated in a clean, dust-free area that is well ventilated. Avoid areas where heat, electrical noise and electromagnetic fields are generated. You will also need to place it near a grounded power outlet. Be sure to read the **Rack and Server Precautions** below.

The box your chassis was shipped in should include two sets of rail assemblies, two rail mounting brackets and the mounting screws you will need to install the system into the rack. Please read this section in its entirety before you begin the installation procedure outlined in the sections that follow.

Choosing a Setup Location

- Leave enough clearance in front of the rack to enable opening the front door completely (~25 inches).
- Leave approximately 30 inches of clearance in the back of the rack to allow for sufficient airflow and ease in servicing.
- This product is for installation only in a “Restricted Access Location” (dedicated equipment rooms, service closets and other secure, ventilated environments).

Please take the following precautions when installing the rack:

- 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 a single rack installation, stabilizers should be attached to the rack.
- In multiple rack installations, the racks should be coupled together.
- Always make sure the rack is stable before extending a component from the rack.
- You should extend only one component at a time - extending two or more simultaneously may cause the rack to become unstable.

General Server Precautions

Review the electrical and general safety precautions that came with the components you are adding to the chassis. Determine the placement of each component in the rack before you install the rails. Install the heaviest server components on the bottom of the rack first, and then work up.

Use a regulating uninterruptible power supply (UPS) to protect the server from power surges, voltage spikes and to keep your system operating in case of a power failure. Allow the hot plug

hard drives and power supply modules to cool before touching them. Always keep the rack's front door and all panels and components on the servers closed when not servicing to maintain proper cooling.

Ambient Operating Temperature
If installed in a closed or multi-unit rack assembly, the ambient operating temperature of the rack environment may be greater than the ambient temperature of the room. Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature (Tmra).

Proper Airflow and Mechanical Loading
Equipment should be mounted into a rack so that the amount of airflow required for safe operation is not compromised and to prevent any hazardous condition that could arise due to uneven mechanical loading.

Circuit Overloading
Consideration should be given to the connection of the equipment to the power supply circuitry and the effect that any possible overloading of circuits might have on overcurrent protection and power supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing these concerns.

Reliable Ground
To ensure a reliable ground at all times, the rack itself should be grounded. Particular attention should be given to power supply connections other than the direct connections to the branch circuit (i.e. the use of power strips, etc.).

Rack Mounting Instructions

This section provides information on installing the SC825 chassis into a rack unit with the rails provided. There are a variety of rack units on the market, which may mean that the assembly procedure may differ slightly from that presented here. You should also refer to the installation instructions that came with the rack unit you are using. NOTE: This rail will fit a rack between 26" and 33.5" deep.

Identifying the Sections of the Rack Rails

The chassis package includes two rack rail assemblies in the rack mounting kit. Each assembly consists of two sections: an inner fixed chassis rail that secures directly to the server chassis and an outer fixed rack rail that secures directly to the rack itself.

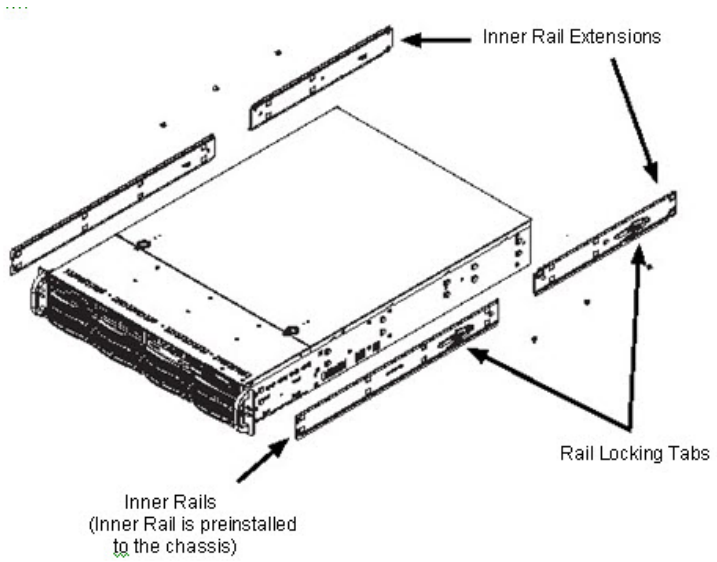

Figure 1. Identifying the Sections of the Rack

Locking Tabs

Both chassis rails have a locking tab. The tabs lock the server into place when it is installed and pushed fully into the rack. These tabs also lock the server into place when fully extended from the rack so as to prevent the server from coming completely out of the rack when you pull it out for servicing.

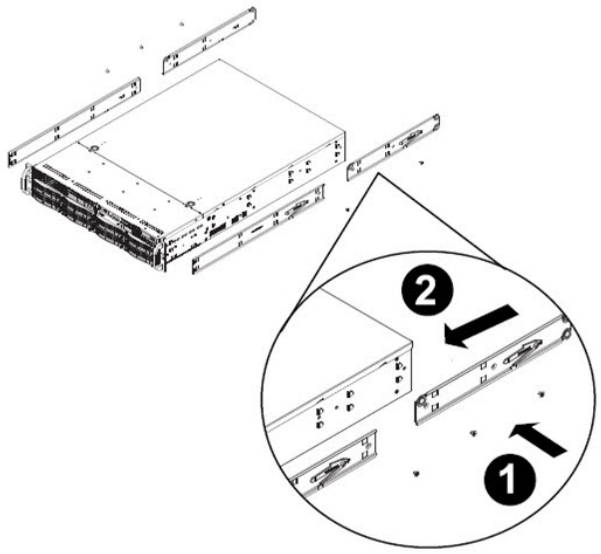

Figure 2. Identifying the Sections of the Rack Rails (right side rail shown)

Installing the Inner Rail Extension

The SC825 chassis includes a set of inner rails in two sections: inner rails and inner rail extensions. The inner rails are pre-attached and do not interfere with normal use of the chassis if you decide not to use a server rack. Attach the inner rail extension to stabilize the chassis within the rack.

To install the inner rails:

1. Place the inner rack extensions on the side of the chassis, aligning the hooks of the chassis with the rail extension holes. Make sure the extension faces "outward" just like the pre-attached inner rail.
2. Slide the extension toward the front of the chassis.
3. Secure the chassis with 2 screws as illustrated above. Repeat steps for the other inner rail extension.

Outer Rack Rails

Outer rails attach to the server rack and hold the server in place. The outer rails for the SC836 chassis extend between 30 inches and 33 inches.

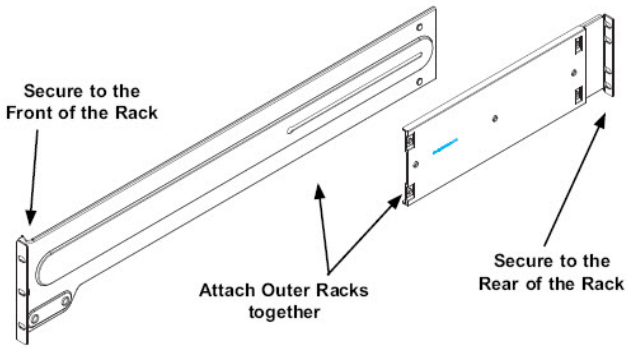

Figure 3: Assembling the Outer Rails

Installing the outer rails to the rack:

1. Attach the short bracket to the outside of the long bracket. You must align the pins with the slides. Also, both bracket ends must face the same direction.
2. Adjust both the short and long brackets to the proper distance so that the rail fits snugly into the rack.
3. Secure the long bracket to the front side of the outer rail with two M5 screws and the short bracket to the rear side of the outer rail with three M5 screws.
4. Repeat steps 1-4 for the left outer rail.

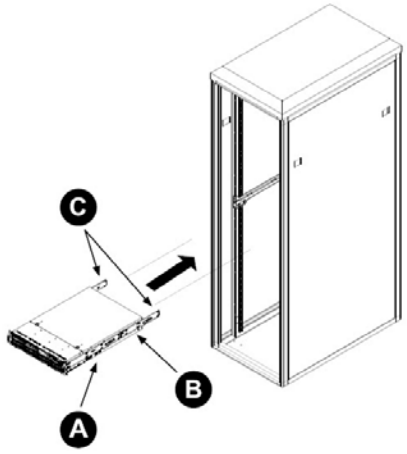

Figure 6-4: Installing the Rack Rails

Installing the chassis into a rack:

1. Confirm that the chassis includes the inner rails (A) and rail extensions (B). Also confirm that the outer rails (C) are installed on the rack.
2. Align chassis rails (A and B) with the front of the rack rails (C).
3. Slide the chassis rails into the rack rails, keeping the pressure even on both sides (you may have to depress the locking tabs when inserting). When the server has been pushed completely into the rack, you should hear the locking tabs "click".
4. (Optional) Insert and tighten the thumbscrews that hold the front of the server to the rack.

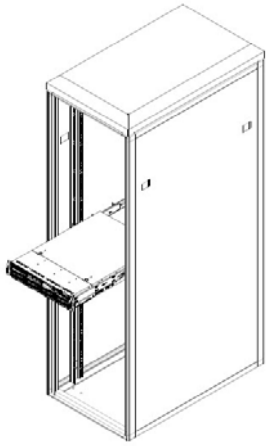

Figure 5. Fully installed SC825 Chassis