



Rack Installation Instructions

Review the documentation that comes with your rack cabinet for safety and cabling information. Before installing your server in a rack cabinet, review the following guidelines:

- Make sure that the room air temperature is below 35°C (95°F).
- Do not block any air vents; usually, 15 cm (6 in.) of air space in the rear and 5 cm (2 in.) in the front provides proper airflow.
- Plan the device installation starting at the bottom of the rack cabinet.
- Install the heaviest device in the bottom of the rack cabinet.
- Do not extend more than one device out of the rack cabinet at the same time.
- Remove the rack doors and side panels to provide easier access during installation.
- Connect the server to a properly grounded outlet.
- Do not overload the power outlet when installing multiple devices in the rack cabinet.
- The slide rails in this kit come preset to the correct length for installation in an IBM rack cabinet, and they are adjustable for other rack cabinets.
- The slide rails are marked (RIGHT/FRONT and LEFT/FRONT) for proper placement on the rack-cabinet flanges.



This symbol identifies a Caution statement. Always read the information that accompanies this symbol before you proceed with the installation.

Safety Information, Statement 4



Use safe practices when lifting.



≥18 kg (39.7 lb)



≥32 kg (70.5 lb)



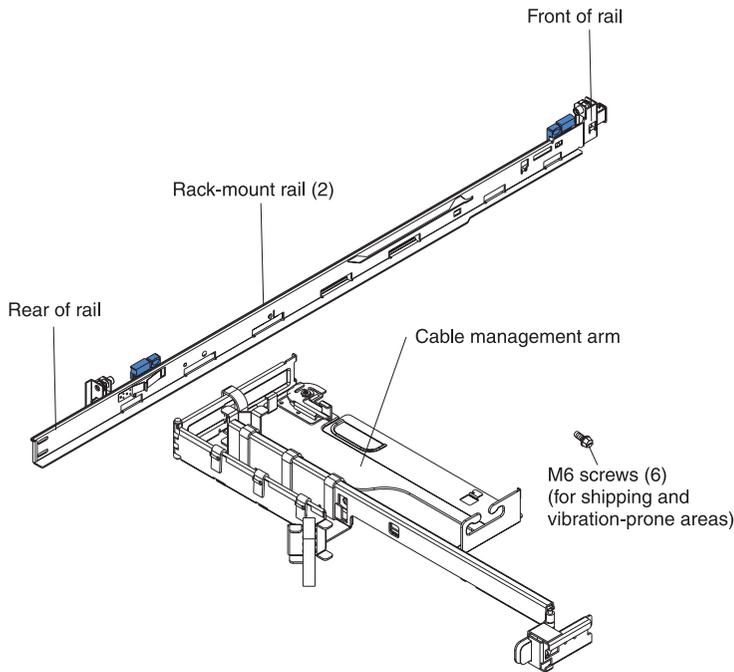
≥55 kg (121.2 lb)

Rack Safety Information, Statement 6



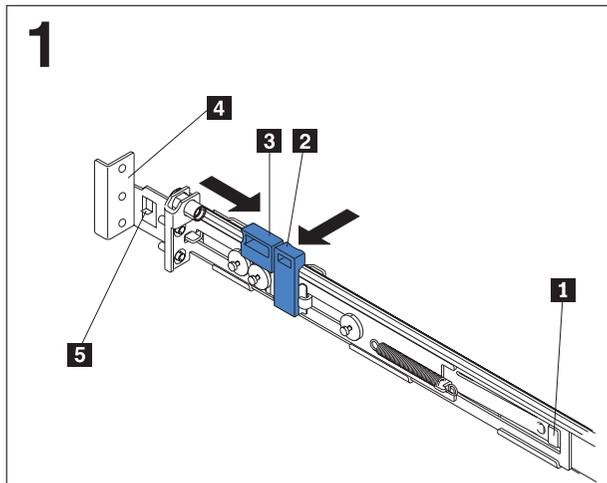
Do not place any objects on top of a rack-mounted device unless that rack-mounted device is intended for use as a shelf.

This server does not require any tools for the installation procedure unless you are shipping the server in the rack cabinet. If you are shipping the server in the rack cabinet, you need a Phillips screwdriver. The following illustration shows the items that you need for installing the server in a rack cabinet. If any items are missing or damaged, contact your place of purchase.



Attention:

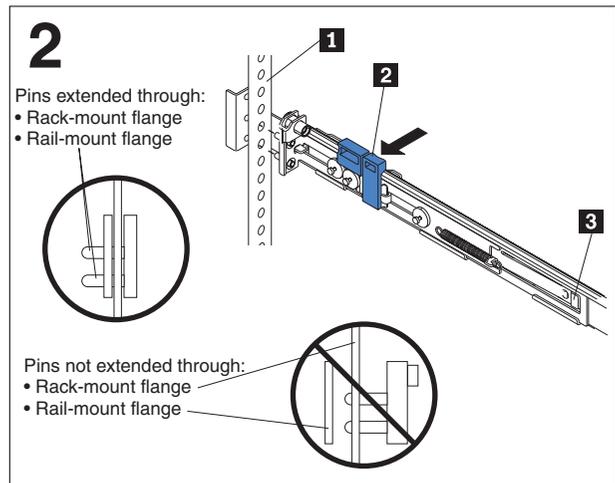
- Use the M6 screws and clipnuts to secure the server when transporting the rack cabinet to another location with the server installed, when installing a server in a rack that is in a vibration-prone environment, when installing a server in a non-IBM rack, or if the tab has been removed from the rack-mount rail as described in step 1.
- If the rack in which you are installing the server does not have threaded holes and the rack-flange thickness is greater than 3.175 mm (0.125 in.), you must use clipnuts with the M6 screws to secure the rail-mount flanges to the rack.
- If you are installing the server in a non-IBM rack and this rack has its own mounting screws, use the mounting screws that come with the rack, *not* the M6 screws and clipnuts that come with this rack installation kit.



Slide the pins away from the rail-mount flange:

Press behind the slide-rail release latch **1** and hold it to prevent the rail from sliding back. Press the tab **2** away from the rail. Press the tab **3** back, and slide the rear rack-bracket pins away from the rail-mount flange **4**. Slide the pins back until the bracket stays in an open position.

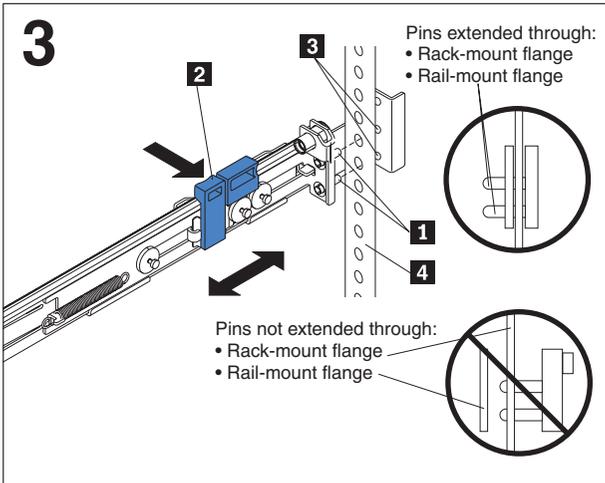
Attention: Do not remove tab **5** unless you are installing the rails on a non IBM rail-mount flange with a thickness greater than 3.175 mm (0.125 in.). If you remove tab **5**, you must insert an M6 screw through the top and bottom holes of the rail-mount flange **4** on all four flanges of the rack.



Attach the rear rail-adjustment bracket to the rack:

Place the rack-mount flange **1** between the rail-mount flange and the rack-bracket pins. Press the tab **2**; the rack-bracket pins snap into place, sliding through the rack-mount flange **1** and rail-mount flange. Lift the slide-rail release latch **3**, and then slide the front rail toward the front of the rack.

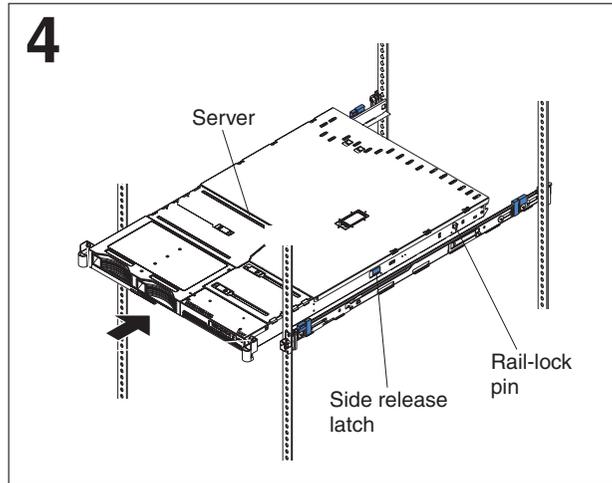
Attention: Make sure that the rail is securely clamped against the rack-mount flange.



Attach the front rail bracket to the rack:

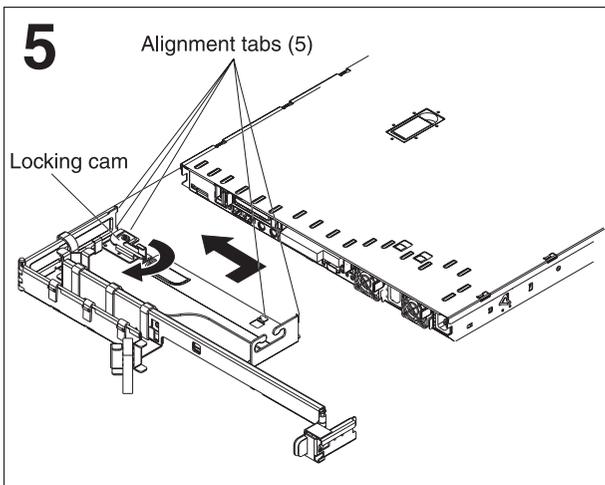
Press the tab **2** away from the rail. Slide the front rack-bracket pins **1** away from the rail-mount flange **3** until the front rail bracket stays open. Place the rack-mount flange **4** between the front rack-bracket pins **1** and the rail-mount flange **3**. Press the tab **2** away from the rail. The pins snap forward and extend through the rack-mount flange and the rail-mount flange.

Attention: Make sure that the rail is securely clamped against the rack-mount flange.



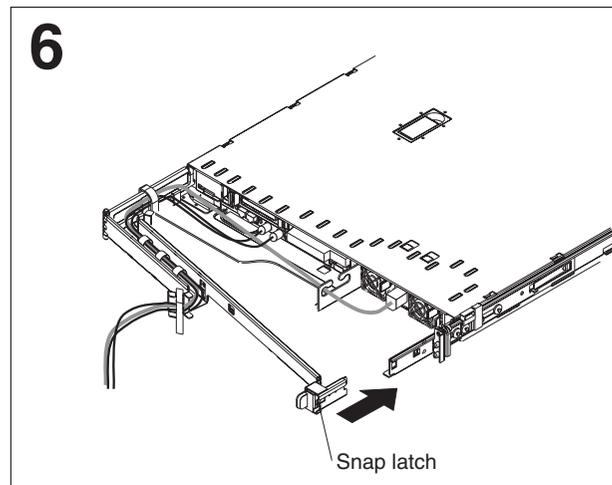
Insert the server into the rack cabinet:

Align the server on the slide rails and push the server into the rack cabinet. If the rail-lock pins are extended out, pull the side release latches toward you, which lifts up the rail-lock pins. Push the server into the rack the remainder of the way.



Install the cable-management arm:

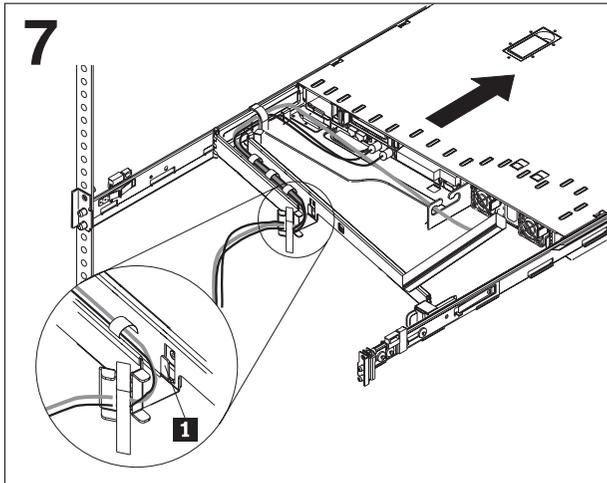
Insert the cable-management arm into the five slots in the rear of the server. When the cable-management arm is inside all five slots, slide the cable-management arm to the left by pulling the locking cam back, away from the server.



Connect the cables and secure the cable-management arm to the rack:

Pull the cable-management arm away from the server, and connect the cables to the server. Route the cables through the cable-management arm.

Move the cable-management arm toward the rail on the right side, and snap the latch onto the rail.

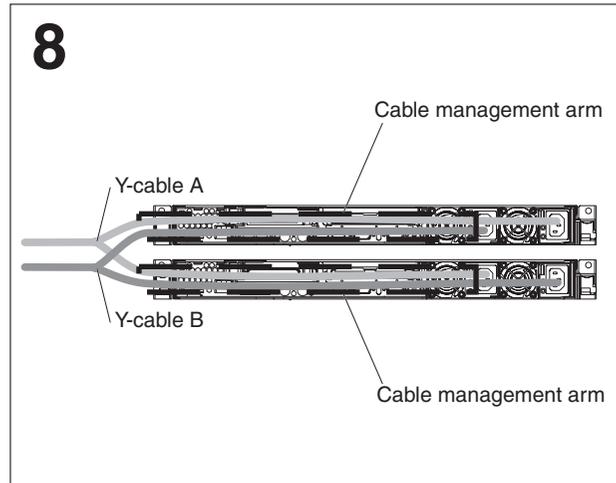


Extend the cable-management arm and fasten the cables:

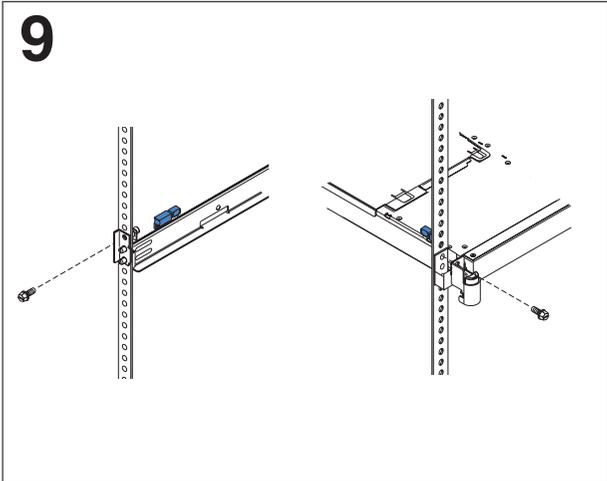
Attention: Make sure that you route Fibre Channel cables through the tab **1**, to ensure proper bend radius and prevent damage to these cables.

Extend the cable-management arm by sliding the server toward the front of the rack. The rail-lock pins stop the server halfway along the rack. Secure the cables by using the straps that are attached to the cable-management arm.

Slide the server back into the rack cabinet.



If you have installed a second power supply in your server, use the Y-power cable that came with the power supply option to ensure server redundancy. Cable your servers as shown, using one Y-power cable to provide power to two different servers. Each Y-power cable must be connected to a different power source, such as a power distribution unit (PDU), to maintain redundancy.



Secure the server to the rack:

Before you transport the rack cabinet to another location with the server installed, you must secure the server to the rack. If necessary, disconnect the cables from the rear of the server; then, slide the server out of the rack 150 mm (6 in.) and insert the M6 screws in each slide rail. Then, secure the server to the rack cabinet with the M6 screws and reconnect the cables.

To remove the server from the rack, reverse these instructions. Store this information with your server documentation for future use.

Second Edition (December 2005)

IBM is a trademark of the IBM Corporation in the United States, other countries, or both.

© **Copyright International Business Machines Corporation 2005. All rights reserved.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

(1P) P/N: 31R1666

