

Rack mounting 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 information:

- Two or more people are required to install the device in a rack cabinet.
- 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 provides proper airflow.
- Do not leave open spaces above or below an installed server in your rack cabinet. To help prevent damage to server components, always install a blank filler panel to cover the open space and to help ensure proper air circulation.
- Install your server only in a rack cabinet with perforated doors.
- Plan the device installation starting from 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.

You will need a flat-blade screwdriver and a Phillips screwdriver to install the server in the rack.

Statement 4:





≥ 18 kg (39.7 lb)



 \ge 32 kg (70.5 lb)



 $\geq 55 \text{ kg} (121.2 \text{ lb})$

CAUTION: Use safe practices when lifting.





>50 kg (110 lb)

Preparing for the installation

Complete the following steps to prepare the rails for installation:

- 1. Remove the rail kit from the system box; then, remove the rails from their packaging.
- 2. Fully extend the rails to the open and locked position.



3. Rotate the lever on each chassis rail and pull forward to remove the chassis rail from the rack-cabinet rail.

Note: The chassis rails might be a little difficult to slide out.



Attaching the chassis rails

Complete the following steps to attach the chassis rails to the server:

- 1. Align the keyhole slots on the chassis rails with the shoulder pins on the server.
- 2. Place the chassis rails against the sides of the server and pull the chassis rails forward until the shoulder pins lock into the back of the keyhole slots.



- 3. Hook the latches into the openings on the sides of the server.
 - **Note:** If you need to remove the chassis rails from the server, lift the latches slightly and move the rails toward the rear of the server until the shoulder pins are aligned with the largest area of the keyhole slots; then, remove the rails.

Preparing to install the rack-cabinet rails

Complete the following steps to prepare to install the rack-cabinet rails:

1. Verify that the length of the rack-cabinet rails is equal to the distance between the inner surface of the front vertical EIA rail and the inner surface of the rear vertical EIA rail.



2. Hold a rack-cabinet rail up to the vertical EIA rails of the rack cabinet with the outside of the flanges positioned inside the front and rear EIA rails.

Note: The adjustable bracket goes toward the rear of the rack cabinet.

3. If the flanges do not fit between the front and rear EIA rails, or if the gap is larger than (1/16 inch) 1.6mm, reposition the rear bracket to contact the rack-cabinet rail.



4. Repeat steps 2 and 3 to install the other rack-cabinet rail on the opposite side of the rack cabinet.

Mounting the rack-cabinet rails onto the rack cabinet

Complete the following steps to mount the rack-cabinet rails onto the rack cabinet:

- 1. Locate the following hardware:
 - #10-32 knurled thumb screw



- Six screws (come in the rail kit)
- A Phillips screwdriver
- 2. On cabinet racks with round holes, make sure that the larger diameter section of the pin protrudes through the hole in the EIA rails to be seated correctly.

The following illustration shows the alignment of the pins and screws for the rack-cabinet rails within the EIA rails.



- **3**. Hold the rack-cabinet rail up to the front and rear of the rack cabinet EIA rails, as close to the final mounting position as possible.
- 4. Install one thumb screw into the front rack cabinet EIA rail as shown in the following illustration.



- 5. Install two thumb screws into the rear rack cabinet EIA rail.
- 6. Repeat steps 3 through 5 for the other rack-cabinet rail on the opposite side of the rack cabinet, ensuring that the rack-cabinet rails are installed on the same horizontal plane.

Installing the server onto the rack-cabinet rail assembly

Complete the following steps to install the server onto the rack-cabinet rail assembly:

- 1. Pull the rack-cabinet rails to their fully open and locked position.
- 2. Make sure that the ball-bearing retainer goes forward until it stops.
- **3**. Lift the server with both hands (use two people to lift the server into the rack cabinet) and align the rear of the chassis rails with the black plastic guides on the rack-cabinet rails, keeping the server level and horizontal to the rack-cabinet rail assembly.
- 4. Insert the chassis rails into the guides. Continue to engage the ball bearings by sliding the server into the rack cabinet. Do not force the chassis rails into the ball bearings; the ball bearings will self-align.

Important: Make sure that the chassis rails are inserted correctly into the rack-cabinet rails. Otherwise, the server can fall out of the rack cabinet later, if the rails are not engaged correctly.



- 5. Continue to push the chassis rails into the rack cabinet.
- 6. After the chassis rails are inserted approximately half way, rotate the levers on the chassis rails forward to move the chassis rails to the closed position.
- 7. Slide the server out of the rack cabinet so that the chassis rails are in their fully opened and locked position.
- 8. Again, rotate the chassis rail levers and push the server back into the rear of the rack cabinet.

Note: The rails should move smoothly without binding. Pull the server out of the rack cabinet several times to make sure that it moves smoothly on the rails.

9. Slide the server out of the rack cabinet and tighten all screws completely with a screwdriver.

First Edition (August 2003)

Printed in the U.S.A.

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

© Copyright International Business Machines Corporation 2003. All rights reserved. US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

(1P) P/N: 02R3175

