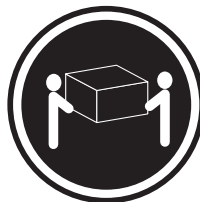# IBM TotalStorage DS4400 and DS4500 Rack Mounting Instructions

Before you install the IBM TotalStorage® DS4400 or DS4500 storage server in the rack, ensure that the following conditions are met:

- Review the documentation that comes with your rack cabinet.
- Maintain 15 cm (6 in.) of clearance around your controller unit for air circulation.
- Ensure the room air temperature is below 35° C (95° F).
- Plan the controller unit installation starting from the bottom of the rack.
- Remove the rack doors and side panels to provide easier access during installation.
- Position the template to the rack so that the edges of the template do not overlap any other devices.
- Use the attached stickers to mark the holes on the front and rear of the rack in the locations indicated by the arrows on the template.
- Connect all power cords to properly wired and grounded electrical outlets.
- Take precautions to prevent overloading the power outlets when you install multiple devices in a rack.
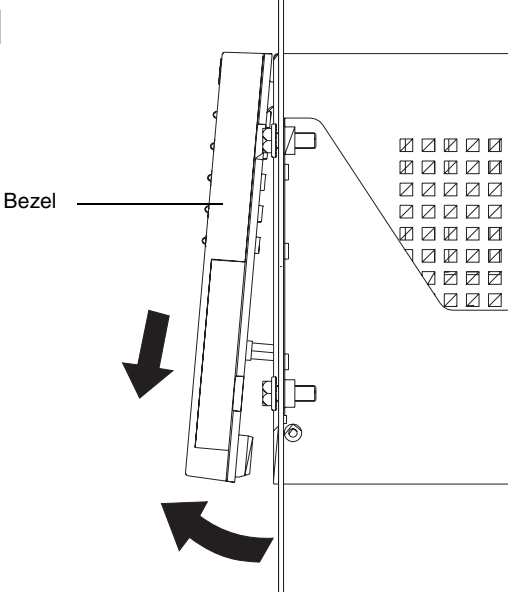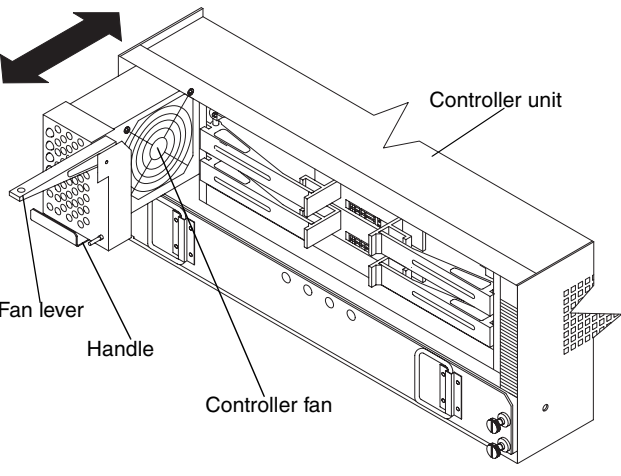
Use safe practices when lifting.
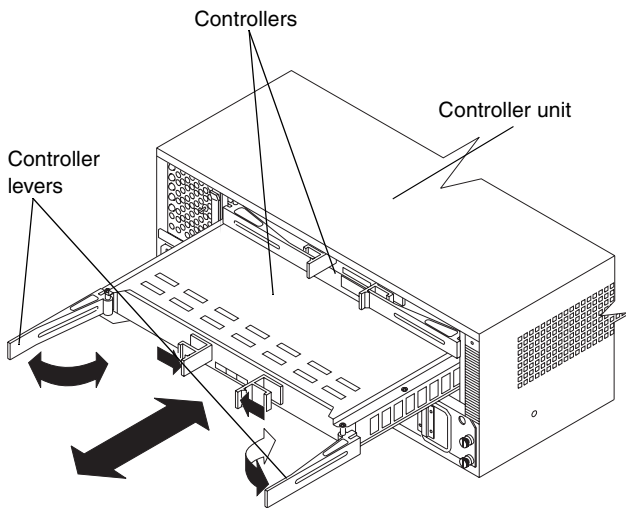
≥18 kg (37 lbs)          ≥32 kg (70.5 lbs)

You will need a flat-blade and a Phillips screwdriver during the installation. The following is a list of items that come with your controller unit. If any items are missing or damaged, contact your place of purchase.

- Cage nuts (8)
- Clip nuts (8)
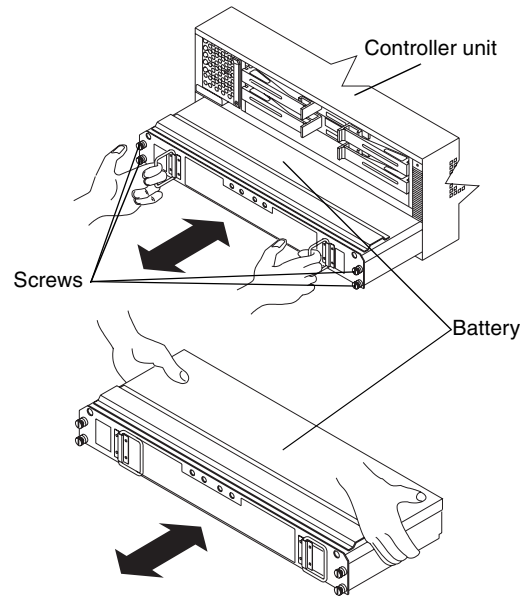- Black M6 hex screws (8)
- Side rails (2)

| 1 | 2 |
|---|---|
| | |
| Carefully pull out the bottom of the bezel on the front of the controller unit to release the pins; then, slide the bezel downward and set it aside for later. | Pull up on the controller fan lever to unlock it; then, grasp the fan handle and pull out firmly to remove the fan and save it for later reinstallation. |

**3**

Controllers

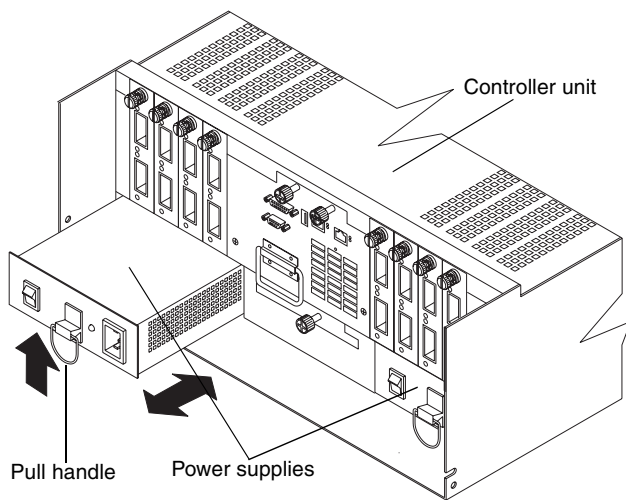Controller unit

Controller levers

Unlock and open the controller levers; then, use the levers to pull the controller out slightly. Grasp both sides of the controller to remove and save it for later reinstallation. Repeat step **3** for each controller.
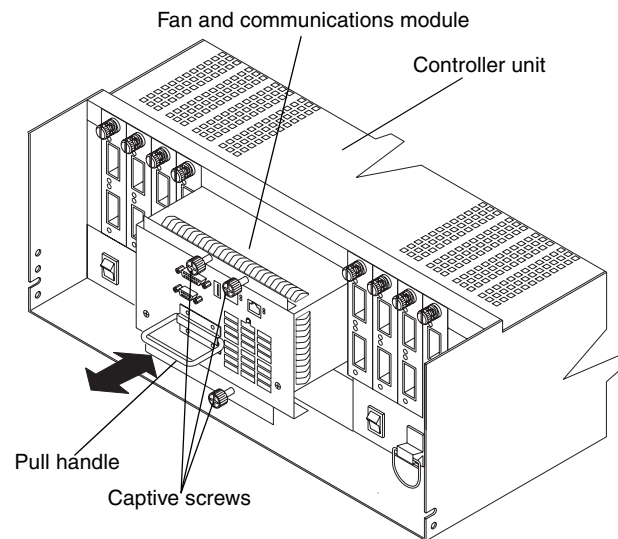
**4**

Controller unit

Screws

Battery

Loosen the four screws that secure the battery inside the controller unit; then, pull the battery out a few inches. Grasp both sides of the battery to remove it and save it for later reinstallation.

**5**

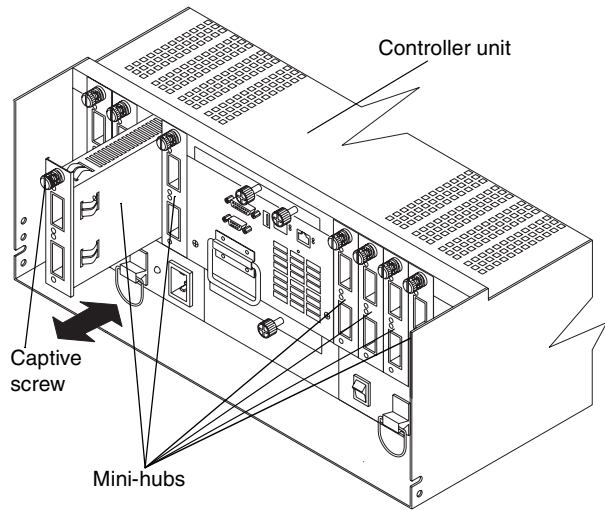Controller unit

Pull handle

Power supplies

Using the pull handle on a power supply, lift up and pull to release the power supply; then, slide the power supply out and save it for later reinstallation. Repeat step **5** for each power supply.

**6**

Fan and communications module
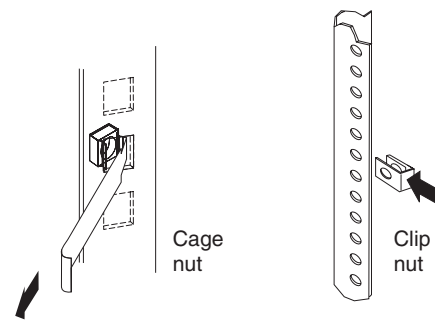
Controller unit

Pull handle

Captive screws

Loosen the three captive screws on the fan and communications module; then, grasp the pull handle and pull firmly to remove the module and save it for later reinstallation.
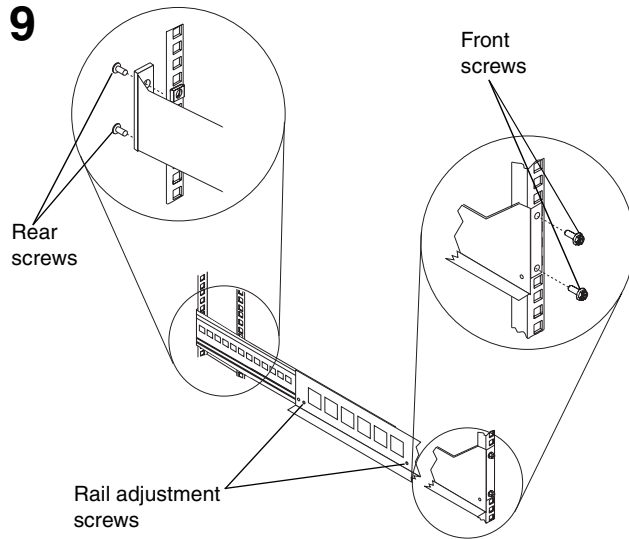
**7**



Controller unit

Captive screw

Mini-hubs

Loosen the captive screw on a mini-hub; then, grasp the screw to remove the mini-hub from the controller unit. Repeat step **7** for each mini-hub.
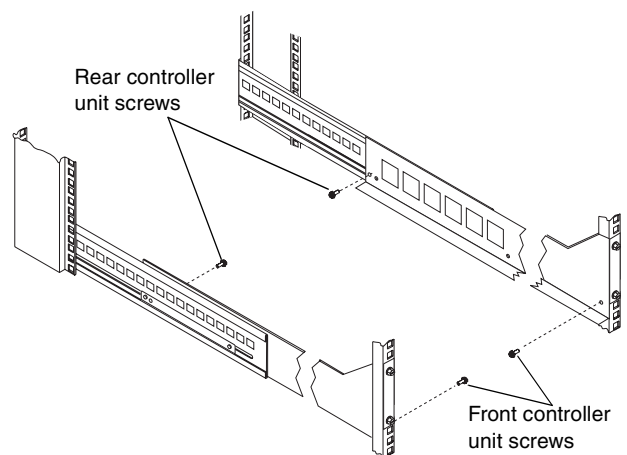
**8**



Cage nut

Clip nut

Insert cage nuts or slide clip nuts, as required for your rack, into all of the marked holes. Use the cage nut insertion tool or a flat-blade screwdriver to insert cage nuts.

**9**



Front screws

Rear screws

Rail adjustment screws

On the rail marked **R**, loosen both screws on the inside of the rail; then, extend the rail outside the rear rack mounting flange. Hold the front of the rail against the outside of the rack mounting flange and loosely insert the two front screws; then, insert and tighten the two rear screws and adjustment screws. Repeat step **9** for the rail marked **L**.

**10**



Rear controller unit screws
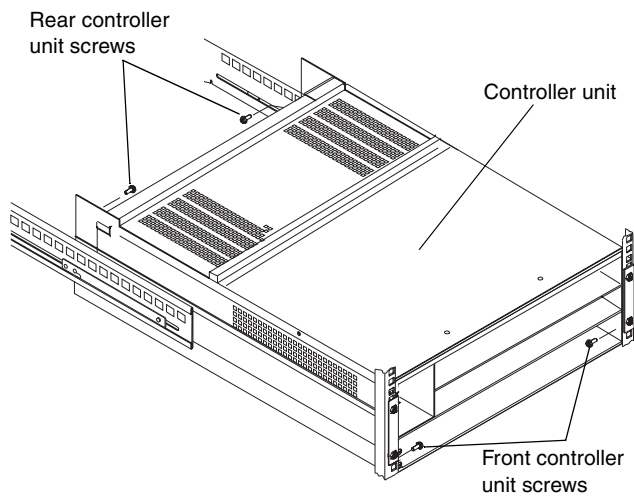
Front controller unit screws

Remove the front and rear controller unit screws and save them to secure the controller unit to the rails.
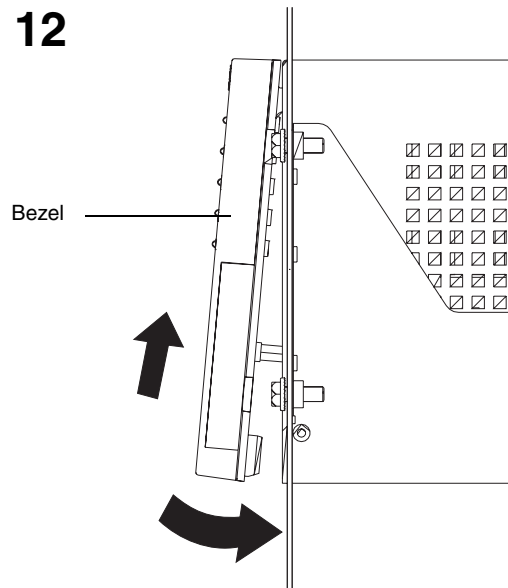**Note:** Front screws and rear screws are different sizes. Keep them separate when you remove them.

## 11

Rear controller
unit screws

Controller unit

Front controller
unit screws

Slide the controller unit into the rack; then, secure the
rear of the controller unit with two of the screws
removed in step **10**. Secure the front of the unit with
the other two screws.

## 12

Bezel

Reverse step **2** through step **7** to reinstall all of the
devices that you removed; then, reinstall the bezel by
sliding the top edge under the lip on the controller
unit. Push the bezel bottom until it snaps into place.

Refer to the documentation that comes with your controller unit for further information on configuring and operating
your controller unit. Store these instructions with your storage server documentation for future use.

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