

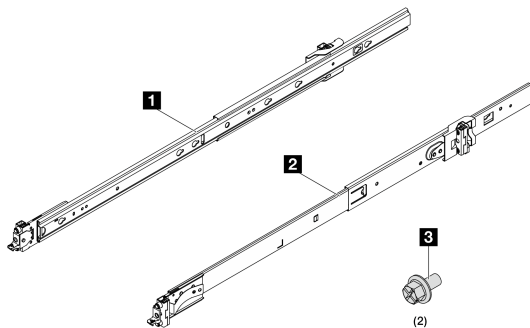
Rail Installation Guide

ThinkSystem Toolless Friction Rail Kit V4

This document provides important information about the ThinkSystem Toolless Friction Rail Kit V4.

Rail kit parts inventory

Each friction rail kit package contains the following items:



- 1** One left rail
- 2** One right rail
- 3** Two M6 screws

Note: If any part is missing, contact your local support.

Figure 1. Rail kit parts inventory

Note: Refer to the following for different types of rack hole supported.

ThinkSystem Toolless Friction Rail Kit V4 supports:

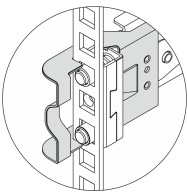


Figure 2. Square-hole rack

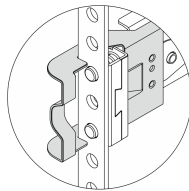


Figure 3. Round-hole rack

Read these guidelines first

Read the following guidelines before installing the rail kit and system to the rack.

- The rail travel distance is 395 mm (15.55 inches).
- The maximum system weight that a rail kit supports is 40 kg (88.18 lb).
- Install the system to a rack that meets the following requirements:
 - Minimum depth of 70 mm (2.76 inches) between the front mounting flanges and inside of the front door.
 - Minimum depth of 190 mm (7.48 inches) between the chassis rear wall and inside of the rear door.
 - Maximum distance between the front mounting flange and the rear mounting flange is 810 mm (31.89 inches).

- If you want to install the rails and a 0U PDU into the same rack, the rack must meet the following height and depth requirements:
 - 42U or higher
 - At least 1000 mm (39.37 inches) deep
- Only install the system into a rack with perforated doors. Remove the rack doors and side panels for easy access during installation.
- When installing multiple units, start with installing the heaviest device to the lowest part of the rack.
- See the server *User Guide* for the requirements of room air temperature.
- Do not block any air vents. Spare at least 15 cm (6 inches) of space for proper airflow.
- Do not leave the unoccupied space above or below an installed system in the rack empty. To prevent damage to system components, always install filler panels to cover unoccupied space to ensure proper air circulation.
- Do not leave more than one system slid out from the rack at the same time.
- Do not overload the power outlet when multiple devices are installed in the rack.

S036



18 - 32 kg (39 - 70 lb)



32 - 55 kg (70 - 121 lb)

CAUTION:
Use safe practices when lifting.

R006



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

Install the rail kit to the rack

Note: The rails are extensible as shown in the following illustration.

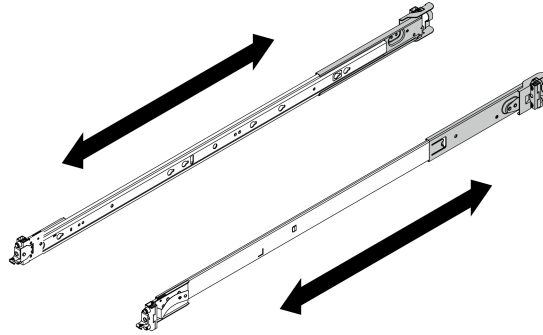


Figure 4. Extensible rails

- Step 1. Select the first rail that you want to install.
- Step 2. Make sure the rail is shortened to the shortest position.
- Step 3. Install the rail to the rack, starting from the rear and proceeding to the front.

Note: The rail mounting pins take up 1U space. Follow the U space marking on the rack when installing the rail kit.

- Step 4. Install the rear mounting pins to the rack.

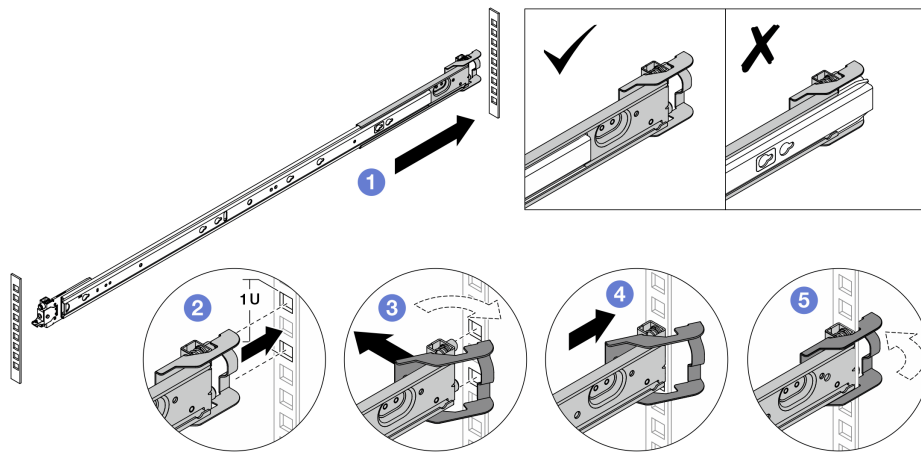


Figure 5. Installing rear mounting pins

- a. 1 Extend the outer rail toward the rear mounting flanges in the rack.
- b. 2 Align the mounting pins with the rear mounting flanges and set the opening of the rear latch against the rack frame.
- c. 3 Push the rail toward outside of the rack until the rear latch opens.
- d. 4 Push the rail toward the rear mounting flanges.

- e. 5 Rotate the rear latch back to the closed position.

Step 5. Install the front mounting pins to the rack.

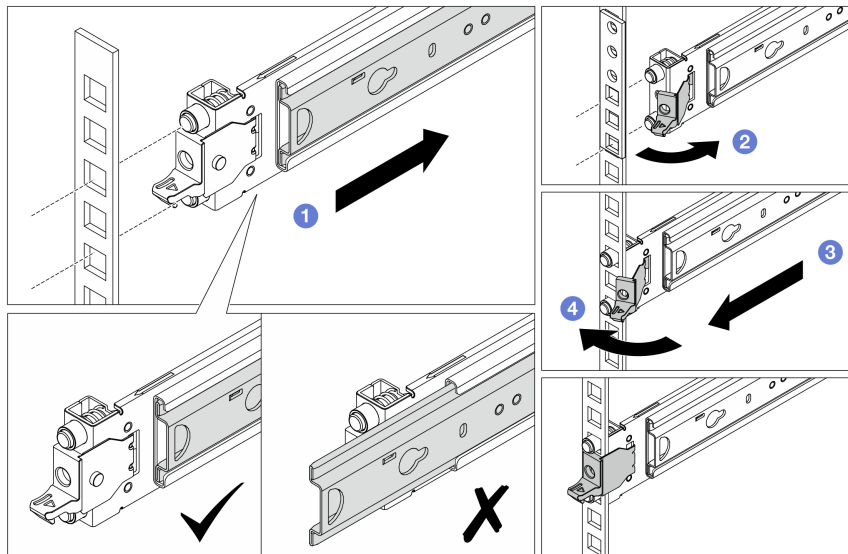
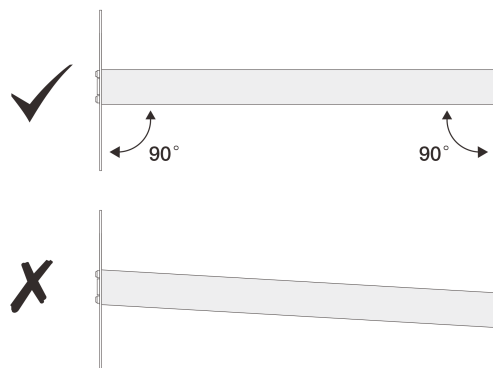


Figure 6. Installing front mounting pins

- a. 1 Slide the inner rail all the way in to allow the front latch to open.
- b. 2 Open the front latch and align the mounting pins with corresponding front mounting flanges.
- c. 3 Pull the rail forward until the mounting pins go through the holes.
- d. 4 Release the front latch to secure the rail to the rack.

Step 6. Make sure that the rail is securely engaged in the flange holes by inspecting that the hook has caught and by sliding back and forward to ensure the rail does not pop out.

Important: Make sure both ends of the rail are seated at the same height.



Step 7. Repeat Step 2 to Step 5 to install the other rail.

Install the server to rails

Step 1. From the front of the rack, pull the rails all the way out until they stop and remove the inner rails.

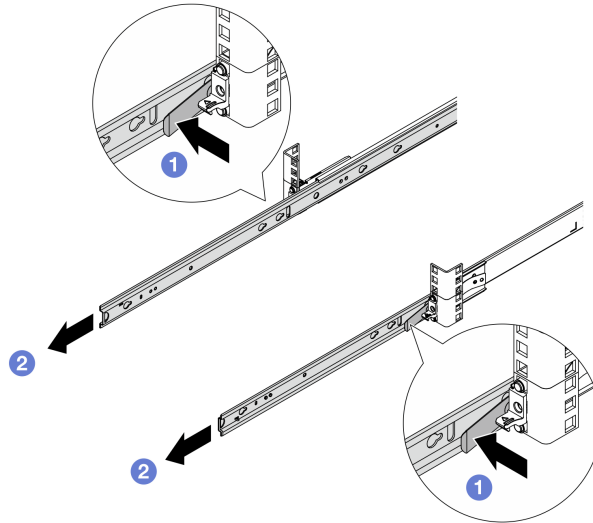


Figure 7. Removing the inner rails

- a. 1 Press the release latches.
- b. 2 Disengage the inner rails from the outer rails.

Step 2. Install the inner rails to the server.

Note: Make sure that the stamp “Front” always face toward the front when assembling the inner rails to the server.

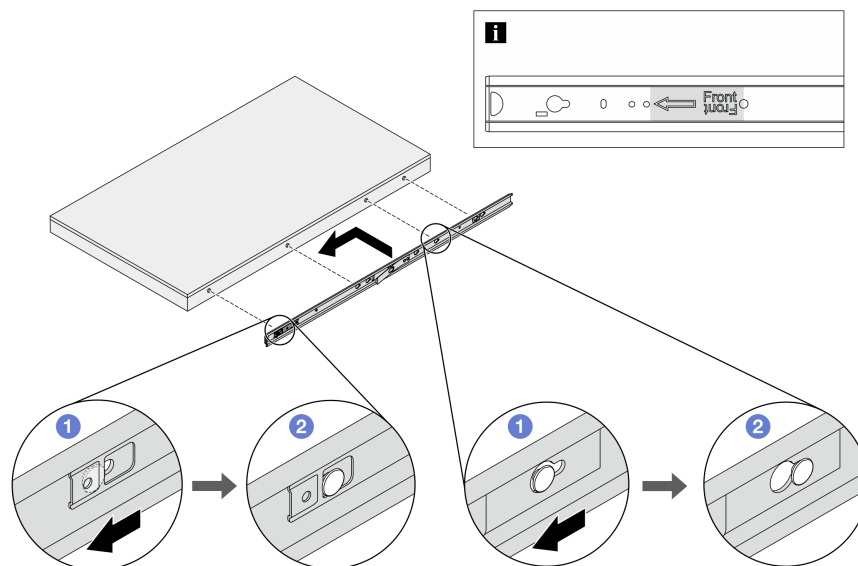


Figure 8. Installing an inner rail to the server

- a. ① Align the slots on the inner rail with the corresponding T-pins on the side of the server.
- b. ② Slide the inner rail forwards until the T-pins lock into place.

Step 3. Repeat the previous step to the other rail.

Step 4. Carefully lift up the server with three people.

CAUTION:

Make sure three people are lifting the sever by holding the ① lift points.

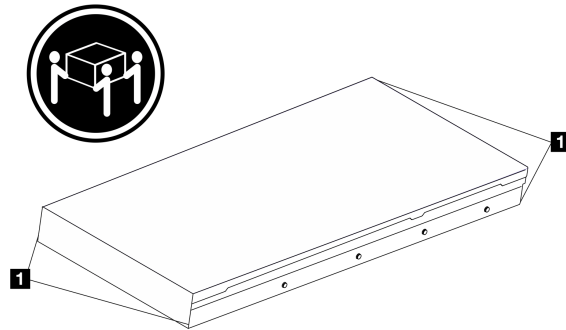


Figure 9. Lifting up the server

Step 5. From the front of the rack, install the server into the outer rails.

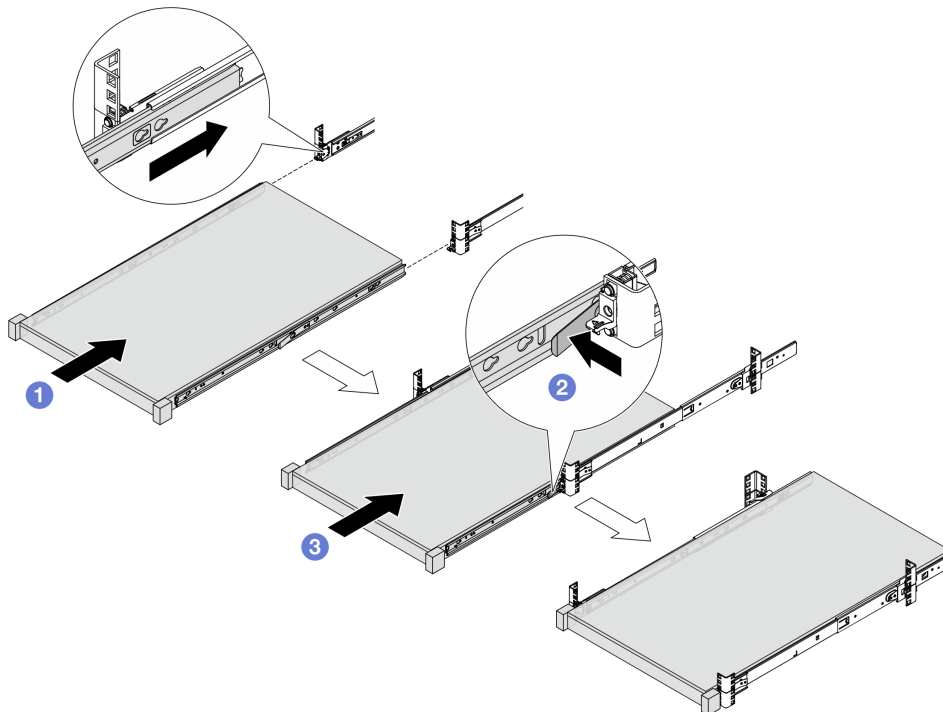


Figure 10. Installing the server

- a. ① Align the rail slots and push the server into the rack.
- b. ② Press the release latches.

- c. ③ Push the server all the way into the rack until the server locks into place with a click.

Step 6. Secure the server to the rack.

- a. Secure the server to the front of the rack. Fasten the two screws located on the rack latches.

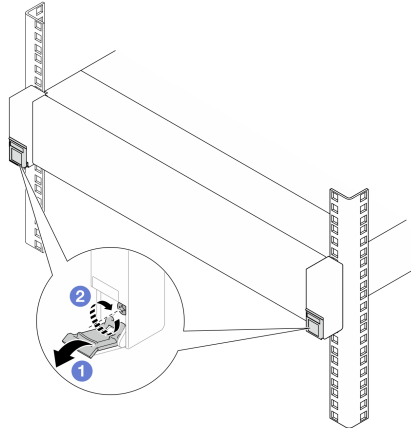


Figure 11. Securing the server to the front of the rack

- ① Flip down the covers on the rack latches.
- ② Tighten the screws to secure the server.
- b. (Optional) If the rack is shipped with servers or placed in a vibration-prone area, install one M6 screw to each of the rails to secure the server to the rear of the rack.

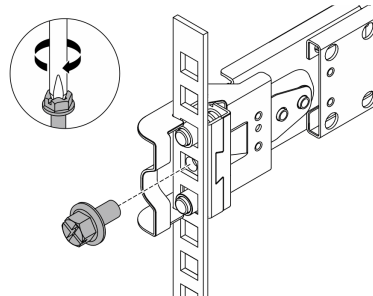


Figure 12. Securing the server to the rear of the rack

Server replacement

To “Remove the server from the rack” and to “Remove the rails from the rack”, refer to the “Hardware replacement procedures” chapter in the server *User Guide*. Search your server and select its *User Guide* at Lenovo server product portfolio page: <https://pubs.lenovo.com/>.



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