



## *Installing Adjustable Support Rails*

To download SANtricity™ ES Storage Manager and related product documentation, go to the NetApp Support Site at [support.netapp.com](http://support.netapp.com).

This kit instruction is applicable to these 2U (9 cm or 3.5 inch) trays:

- DE1600
- DE5600
- E2612
- E2624
- E5412
- E5424
- E5512
- E5524

When you install a controller-drive tray or a drive tray that was shipped separately (not already installed in the cabinet), you might need to install support rails in the cabinet.

The adjustable support rail kit includes these parts:

- Two support rails (left and right)
- Three M5 screws and one M4 screw for racks with round holes
- Six large washers for racks with square holes
- Six spacers for racks with square holes

---

**NOTE** If you use a torque driver to tighten the rail fasteners, use a value of 1.6 newton meters (14 inch lbs). If you use too high a value, you can strip out either the rail or the screw.

---

Complete the following sections to install the adjustable support rails:

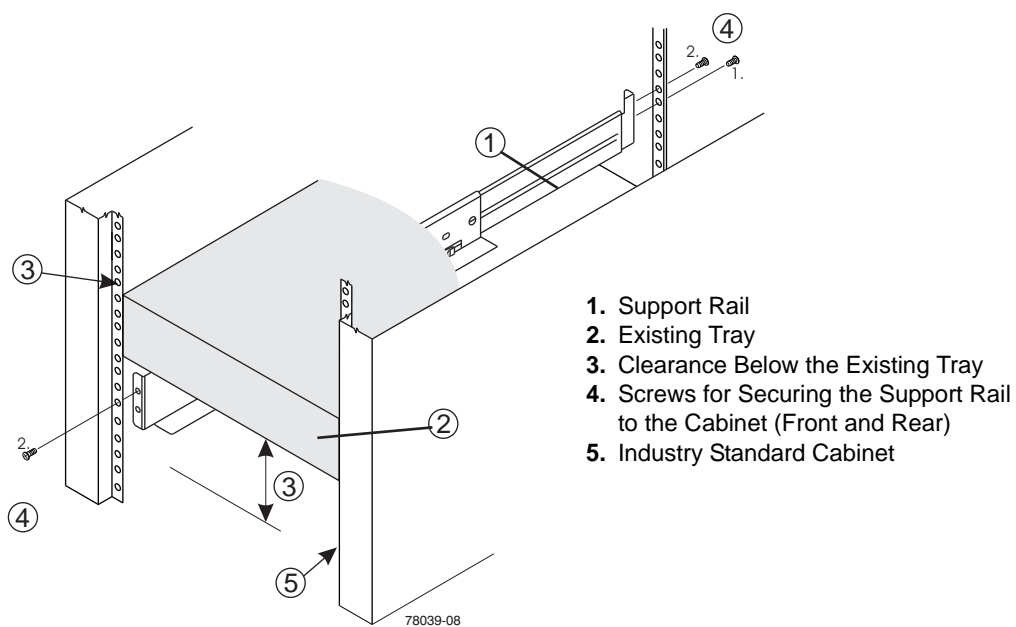
- 1 ["Positioning the Support Rails in the Cabinet"](#) on page 2.
- 2 ["Attaching the Support Rails to the Cabinet"](#) on page 3.
- 3 ["Installing Trays in the Cabinet"](#) on page 5.

## Positioning the Support Rails in the Cabinet

Figure 1 shows how the support rails are affixed to the inside of the cabinet. Position the support rails in the cabinet.

- If you are installing the support rails above an existing tray, position the rails directly above the tray.
- If you are installing the support rails below an existing tray, allow 2U (9 cm or 3.5 in) clearance for a controller-drive tray or a drive tray.

Figure 1 Positioning the Support Rails in the Cabinet



# Attaching the Support Rails to the Cabinet

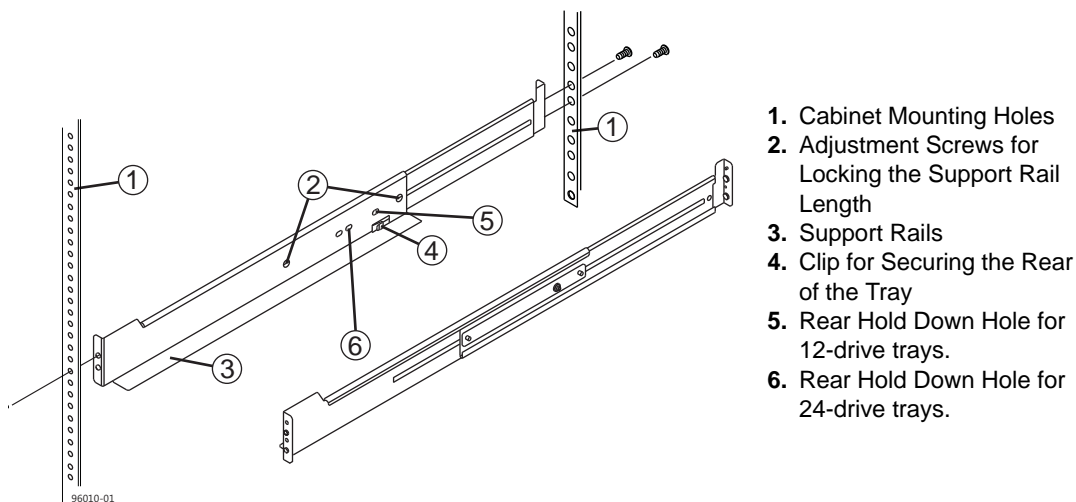
Use one of the following procedures:

- [“Attaching the Support Rails to a Square-Hole Cabinet”](#)
- [“Attaching the Support Rails to a Round-Hole Cabinet”](#) on page 4

## Attaching the Support Rails to a Square-Hole Cabinet

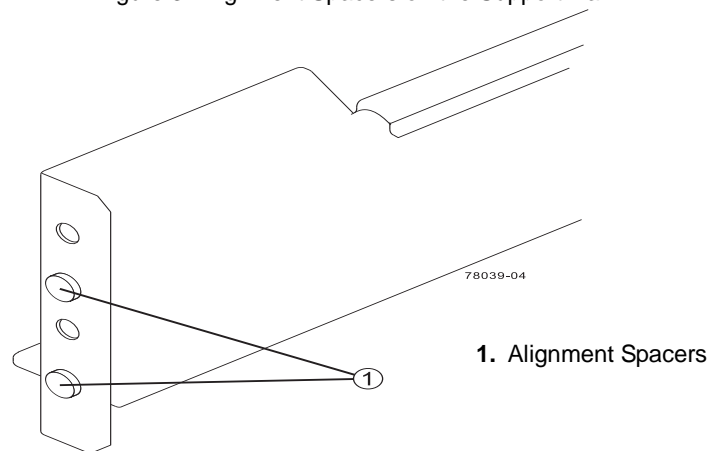
If you are installing adjustable support rails into a square-hole cabinet, complete the following steps (see [Figure 2](#)):

Figure 2 Attaching the Support Rails to the Cabinet



- 1 Make sure that the alignment spacers on the front flange of the support rail fit into the mounting holes in the cabinet by replacing the two small spacers in the front bracket and the two small spacers in the rear bracket with the large spacers that come with the rail kit (see [Figure 3](#)).

Figure 3 Alignment Spacers on the Support Rail

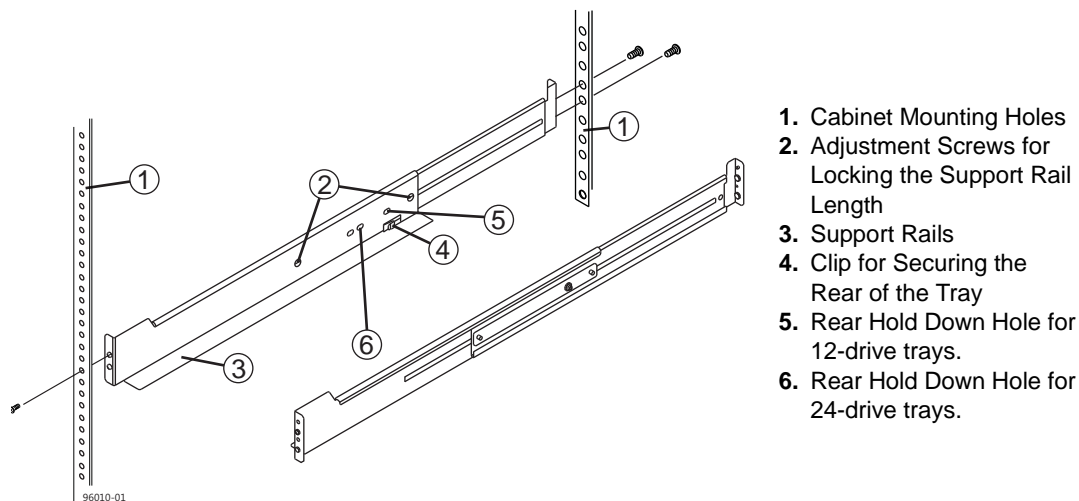


- 2 Make sure that the adjustment screws on the support rail are loose so that you can extend or contract the support rail as needed.
- 3 Place the support rail inside the cabinet and extend the support rail until the flanges on the support rail touch the inside of the cabinet.
- 4 Insert one M5 screw through the front of the cabinet and screw into the top captured nut in the support rail, adding a large washer between each M5 screw and the support rail bracket.
- 5 Insert two M5 screws through the rear of the cabinet and screw into the captured nuts in the rear flange in the support rail, adding a large washer between each M5 screw and the support rail bracket.
- 6 Tighten the adjustment screws on the support rail.
- 7 Insert one M4 screw in the appropriate rear hold down hole (for either the 12-drive tray or the 24-drive tray) on the rear of the support rail to attach it to the cabinet, adding a large washer between the M4 screw and the support rail bracket.
- 8 Repeat [step 1](#) on page 3 through [step 7](#) for the second support rail.

## Attaching the Support Rails to a Round-Hole Cabinet

If you are installing adjustable support rails into a round-hole cabinet, complete the following steps (see [Figure 4](#)):

Figure 4 Attaching the Support Rails to a Round-Hole Cabinet



- 1 Make sure that the alignment spacers on the front flange of the support rail fit into the round mounting holes in the cabinet.
- 2 Make sure that the adjustment screws on the support rail are loose so that you can extend or contract the support rail as needed.
- 3 Place the support rail inside the cabinet and extend the support rail until the flanges on the support rail touch the inside of the cabinet.

- 4** Insert one M5 screw through the front of the cabinet and screw into the top captured nut in the support rail.
- 5** Insert two M5 screws through the rear of the cabinet and screw into the captured nuts in the rear flange in the support rail.
- 6** Tighten the adjustment screws on the support rail.
- 7** Insert one M4 screw in the appropriate rear hold down hole (for either the 12-drive tray or the 24-drive tray) on the rear of the support rail to attach it to the cabinet.
- 8** Repeat [step 1](#) on page [4](#) through [step 7](#) for the second support rail.

## Installing Trays in the Cabinet

- 1** To install each tray, see the applicable tray installation instructions.
- 2** Is the cabinet completely filled with trays?
  - Yes** – Refer to the initial setup guides for the trays that are contained in the cabinet, and complete the power-on procedures described in them.
  - No** – Use front panel kits to cover the empty spaces above or below the installed trays.

