AssuredSAN Rackmount Bracket Kit Installation

P/N 83-00004524-13-01
Revision C
February 2016

Before you begin

- Verify that the installation site meets the enclosure's requirements for space and airflow, temperature, and power (see the web-posted *setup guide* for your enclosure). See Dot Hill's customer resource center (CRC) for additional information https://crc.dothill.com. Select **AssuredSAN & R/Evolution Products** > *product series* > **Current Documents**.
- Considering your system configuration and weight distribution, determine where you will install each enclosure within the rack or cabinet. Install the first enclosure in the lowest rack space you plan to use. Install each remaining enclosure into the next-higher available space within the rack, until all enclosures are secured in place.
- Confirm that you have cables of appropriate type and length to connect to hosts and to power outlets.

⚠ **CAUTION:** Be sure you are properly grounded before touching a static-sensitive component to minimize potential for electronic discharge.

The person using these instructions must be qualified to service and install storage products.

⚠ **CAUTION:** Two people are needed to lift and move the enclosure. Use care to avoid injury.

Required tools

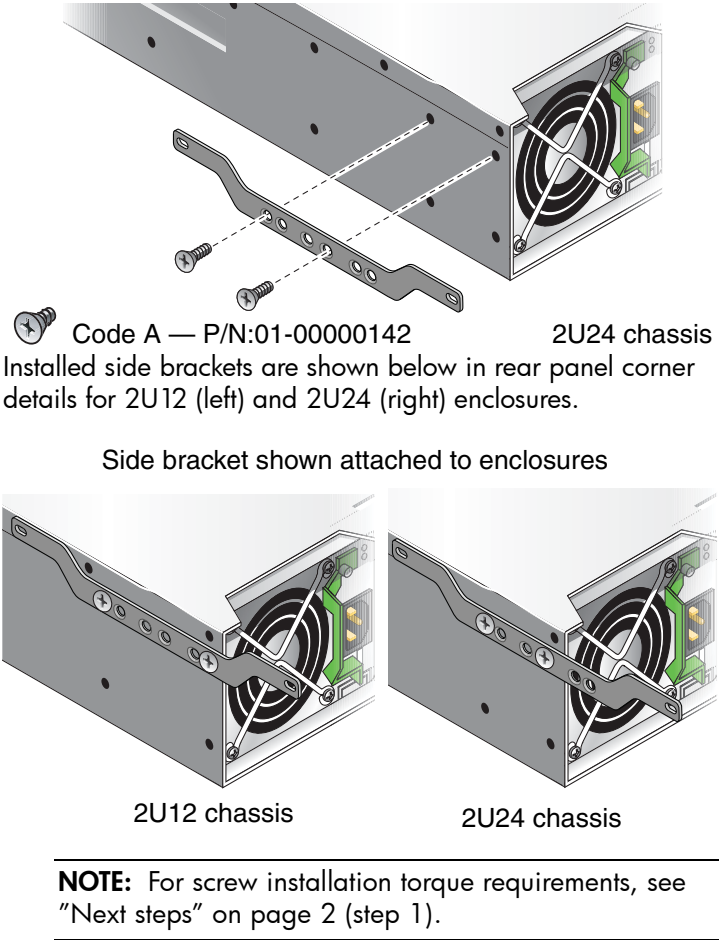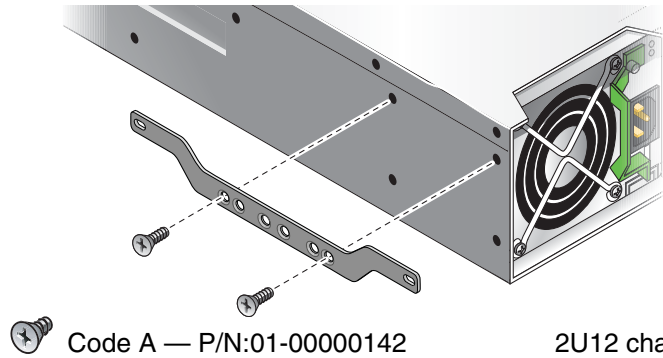#2 Phillips screwdriver and antistatic protection devices

Rackmount bracket kit hardware

Code	Item description	Qty
	Rails and brackets	
-	Side bracket	2
-	Left rail (front sleeve with rear insert)	1-ea.
-	Right rail (front sleeve with rear insert)	1-ea.
	Screws	
-	Hanger fasteners*	6
A	#8-32 x 3/16, FH100, PLP, SS	4
B	#8-32 x 3/8, FH, PLP2, SS	6
C	#10-32 x 3/4, Truss, PLP, SS; or M5 x 10, PH, PLP2, SS; or M6 x 10, PH, PLP2, SS	8
D	#10-32 x 5/8, FH100, PLP2, SS; or M5 x 10, FH, PLP2, SS; or M6 x 10, FH, PLP2, SS	2
E	#6-32 x 1/4, PH, PLP, SS, Patchlock	2
	Nuts	
F	#10-32, UNF - Cage Nut; or #10-32, UNF - Clip Nut	10
	Use fasteners that pertain to your rack type.	

* Hanger fasteners may be pre-installed on the rail's front and rear mounting flanges (noted in Step 2).
 Fasteners provided vary by rail kit. Alpha codes (in hardware table) correlate to numeric P/Ns within illustrated procedures.

1. Attach side brackets

Using a total of four #8-32 x 3/16 flathead Phillips screws (two per bracket), attach the side bracket to rear mounting holes on each side of the chassis. Bracket alignment and installed positions are shown for 2U12 and 2U24 chassis.

Code A — P/N:01-00000142   2U12 chassis

Code A — P/N:01-00000142   2U24 chassis

Installed side brackets are shown below in rear panel corner details for 2U12 (left) and 2U24 (right) enclosures.

Side bracket shown attached to enclosures

2U12 chassis   2U24 chassis

NOTE: For screw installation torque requirements, see "Next steps" on page 2 (step 1).
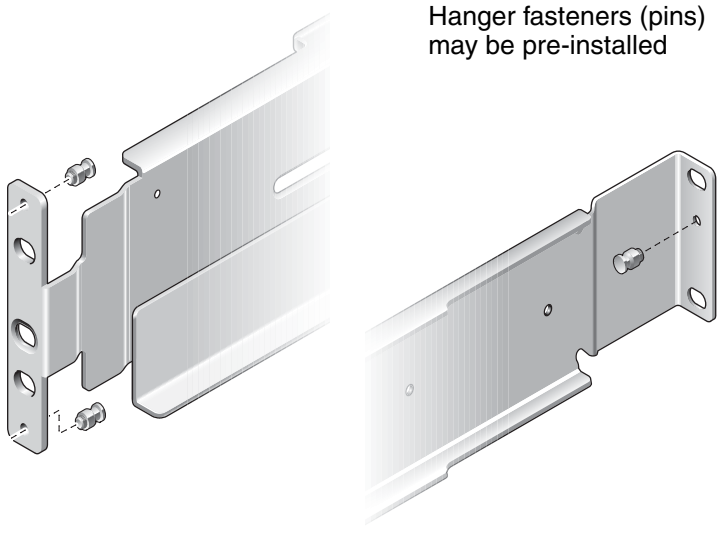
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2. Install hanger fasteners

NOTE: Proceed to Step 3 for either condition:
- Hanger fasteners are pre-installed in rail sets; or
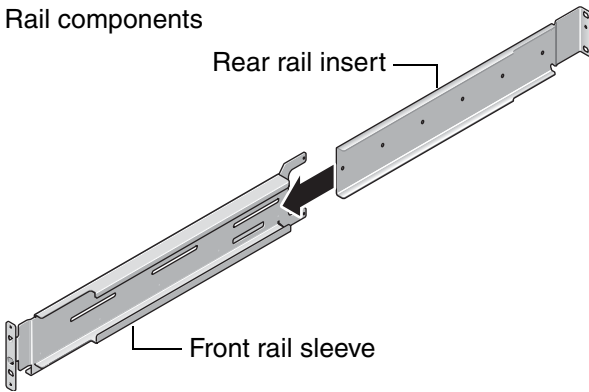- You are installing into a rack with pre-tapped holes.

If installing into square or round-hole racks, install the hanger fasteners in the front and rear rail components with the heads facing inward. Front rail sleeves require two pins each, and rear rail inserts each require one pin. Loosely attached fasteners temporarily hold the rails in place before being secured, enabling vertical and horizontal positioning for accurate alignment.
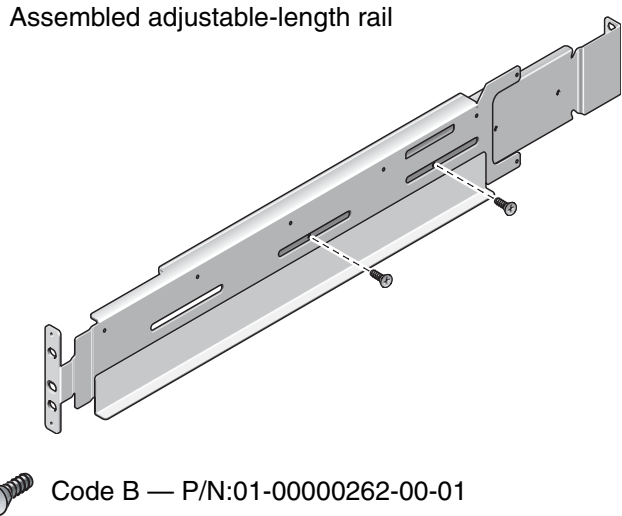

Hanger fasteners (pins) may be pre-installed

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3. Install rails

Complete sub-steps 1-9 (following) to install the rails.

1. Slide the rear rail insert into the front rail sleeve.

Rail components

Rear rail insert —

— Front rail sleeve

2. To determine the cabinet depth required by the rails, fit the rail assembly to the rack and note which tapped holes in the rear rails align with the front rail's slotted holes. If cage nuts are pre-installed, remove them from the locations where hanger screws are inserted.

3. Using the measurements recorded in sub-step 2 above, select two #8-32 x 3/8 flathead Phillips screws (using three screws per side is optional) to loosely attach the rear rail to the front rail. You will tighten the screws later.

Assembled adjustable-length rail
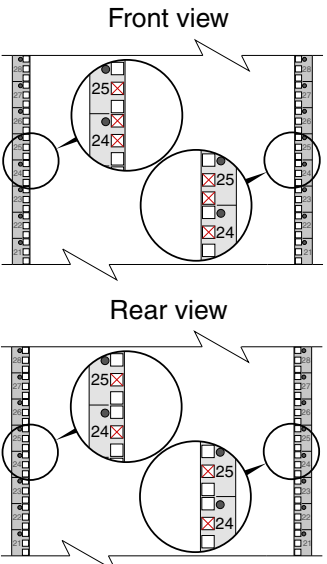

Code B — P/N:01-00000262-00-01

4. For square-hole racks, install cage nuts in the front and rear rack holes where rails will be attached (see first illustration on flip-side of page). For round-hole racks, use clip nuts instead.

Position the rail's front and back mounting flanges so that through holes align with corresponding rack holes, and note the locations. Attach three fasteners at the front of the rack, and two at the rear, per the "**X**" marks shown in the following installation detail views.

NOTE: The rail kit supports multiple 2U12 and 2U24 controller and expansion enclosure models. The following illustrations show a 12-drive enclosure.

Cage nut placement
(Elevation numbering is arbitrary)

Front view

Rear view

Code F — P/N: 01-00000148, or
01-00000270-00-01

5. If your rack does not have pre-tapped holes, hook the front and rear hanging pins into the rack's holes. Remove any cage nuts from the holes first.

6. Depending upon rack type, use one #10-32 x 5/8 or appropriate metric (5 or 6 mm) flathead Phillips screw to attach the front of the rail assembly to the front of the rack.
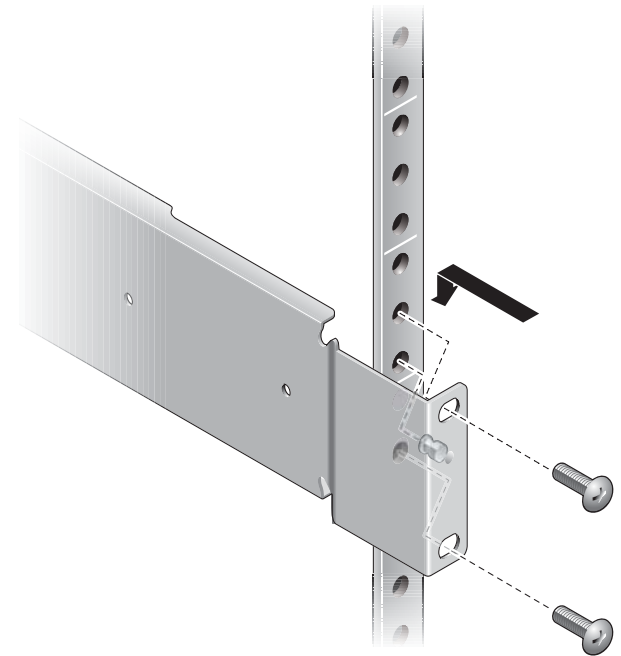
NOTE: In a rack with pre-tapped holes, while tightening the screws, push the rails outward to maximize the opening width.

Code D — P/N: 01-00000265-00-01, or
01-00000266-00-01, or
01-00000268-00-01

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7. Depending upon rack type, use two #10-32 x 3/4 truss Phillips screws or appropriate metric (5 or 6 mm) panhead screws to attach the rear rail assembly to the rear of the rack.

NOTE: In a rack with pre-tapped holes, while tightening the screws, push the rails outward to maximize the opening width.

Code C — P/N: 01-00000264-00-01, or
01-00000267-00-01, or
01-00000269-00-01

8. Tighten the screws that you loosely attached in Step 3 (sub-step 3).
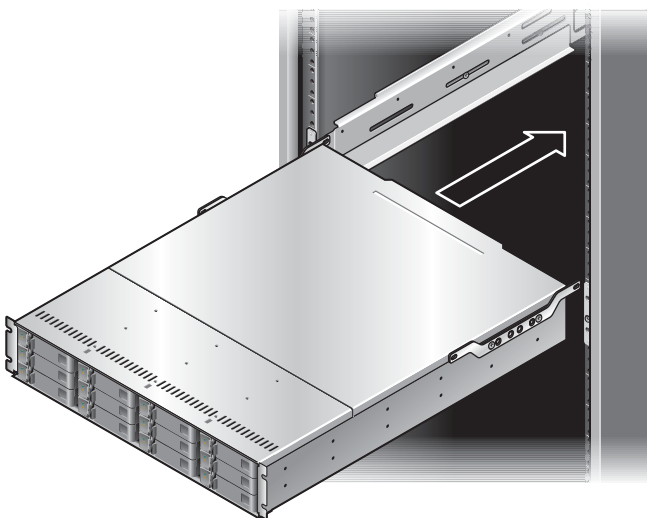

9. Repeat steps 1, 2, and 3 — with sub-steps — to secure the other side of the chassis.
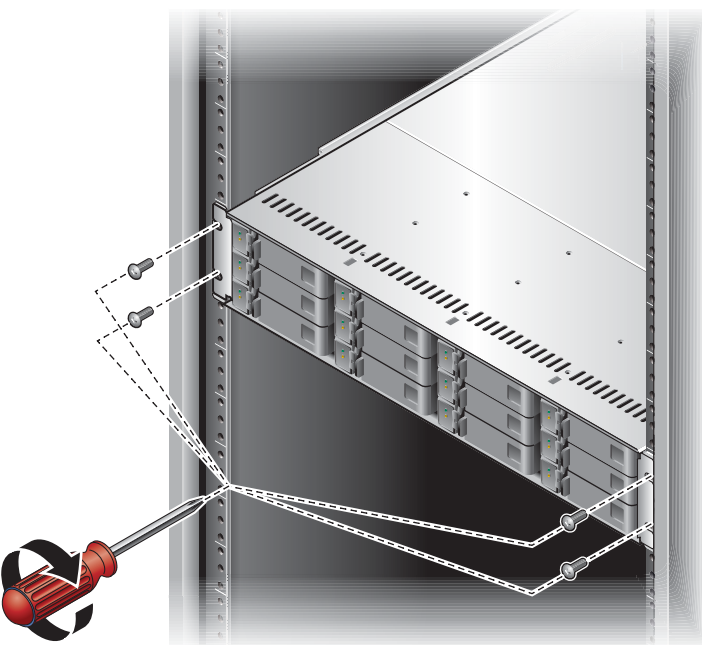
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4. Install and secure the enclosure

1. Carefully lift/align the chassis and slide it into the rack. Ensure that the enclosure is level.

⚠ **CAUTION:**
- Rails might bend if the chassis is not level when inserted.
- Replace the rail if it becomes deformed as a result of inserting the enclosure in an unlevel position during installation.

2. Using a total of four #10-32 x 3/4 truss Phillips or appropriate metric (5 or 6 mm) panhead screws (two per ear), secure the mounting ears on the front of the enclosure to the rack face.

Code C — P/N: 01-00000264-00-01, or
01-00000267-00-01, or
01-00000269-00-01

3. Using one #6-32 x 1/4 panhead Phillips screw for each rear bracket, secure the chassis to the horizontal rail spanning the depth of the rack.

NOTE: You can improve screwdriver access by removing the power supplies from a 12-drive enclosure, when securing the enclosure into the rack.

Code E — P/N: 01-00000522-00-01

4. Repeat sub-steps 1 - 3 for each enclosure.

5. Next steps

Perform the following steps to finish the installation of the storage system components:

1. Apply the following torque specifications to the screws installed with the rackmount bracket kit:
   - Use 10 in-lbs +/- 1.0 in-lbs on the rear tie-down screws attaching the back of the chassis to the telescoping rails.
   - Use 20 in-lbs +/- 2.0 in-lbs for the remainder of the screws installed with the rackmount bracket kit.

2. Install any additional disk drives and options per instructions provided with the options.

3. See your enclosure's installation instructions or Setup Guide for cabling and power cycling details.

4. Upon successful completion of the hardware installation, use the storage system's web-based management interface to configure and provision the system.

See Dot Hill's customer resource center (CRC) web site for additional information https://crc.dothill.com.

Select **AssuredSAN & R/Evolution Products** and go to the product series location pertaining to your controller enclosure model.