



# Installing a 2U 12-drive enclosure in a four-post rack or cabinet

A 2U 12-drive enclosure can be a shelf or a system and can be installed in a four-post rack or system cabinet.

## Before you begin

You have the rail kit that includes the following items:

- A pair of slide rails for four-post racks or system cabinets
- (Optional) rack alignment guide tool
- M5 screws
- Alignment screws

Verify that you have the correct rail type by examining the P/N label located on the rail for the following:

- **Four-Post:** 111-02657-XX

The kit includes the following types of screws:

Type of hardware	Description	Quantity
M5 screw; 14 mm long	You use six M5 screws for attaching the rails to the rack or system cabinet, and two M5 screws for attaching the brackets at the back of the enclosure to the brackets at the back of the rails.	8
M5 screw; 12 mm long	You use these screws to attach the enclosure to the rails.	2
Alignment screws for racks with square holes 9.4 mm (head) X 7.5 mm (length)	You use alignment screws to help align the screw holes on the rail with the holes on the rack.  <b>Note:</b> Alignment screws for square-hole racks come preinstalled in the rails.	8
Alignment screws for racks with round holes 7 mm (head) X 7.5 mm (length)		8

## About this Procedure

- You can install the enclosure in either a square-hole or round-hole rack.
- If you are installing the enclosure in a cabinet not provided by NetApp, you must calculate the thermal output of your equipment and compare the results with the target system cabinet's thermal rating.  
You might need to remove the system cabinet doors to improve airflow through the system cabinet. See [NetApp Hardware Universe](#) and your cabinet manufacturer's guide for thermal rating information.
- You must use only the screws that are provided in the kit.

## Steps

### 1. Determine where you want to install the enclosure in the rack or system cabinet.

Use the rack alignment guide tool to ensure that you install the enclosure at the same level on either post of the rack or system cabinet.

**Note:** When possible, install enclosures from the bottom of the rack up, so that you can use the enclosures underneath as a guide for installing the next set of rails.

### 2. Attach the rails to the rack or system cabinet:

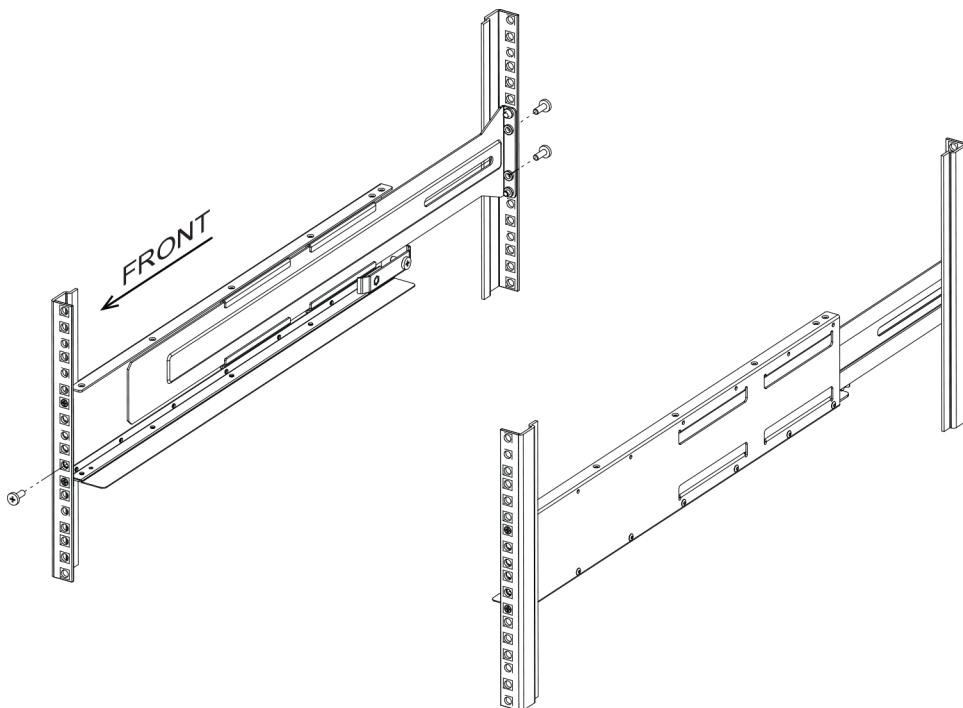
a. Place the rail inside the rack or system cabinet where you want to install the enclosure, and align the alignment screws on the rail with the holes on the front post of the rack.

b. If you have a round-hole rack, remove the eight preinstalled square-hole rack alignment screws and install the eight round-hole rack alignment screws.

**Note:** Ensure that you use the screws that are appropriate for your rack.

c. Extend the rail to the back post of the rack or system cabinet until the flanges on the rail touch the inside of the rack or system cabinet.

d. Insert one M5 screw through the hole in the front of the rack or system cabinet, and two M5 screws through the holes at the back of the rack or system cabinet.



e. Repeat these steps for the other rail.

### 3. Place the back of the enclosure (the end with the connectors) on the rails.

**Warning:** A fully loaded enclosure weighs approximately 65 lb (29 kg). Two persons are required to safely move the enclosure.

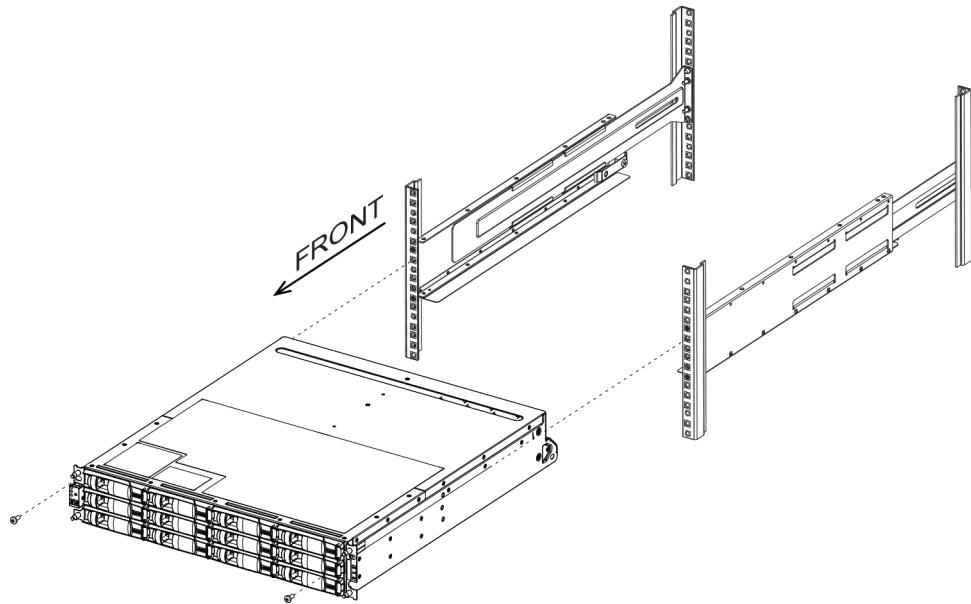
### 4. Carefully slide the enclosure all the way onto the rails.

**Note:** If applicable, you might need to remove the shelf end caps or the system bezel to secure the enclosure to the rack post; if so, you need to replace the end caps or bezel when you are done.

**Warning:** You might need to adjust the rails to ensure that the enclosure slides all the way onto the rails.

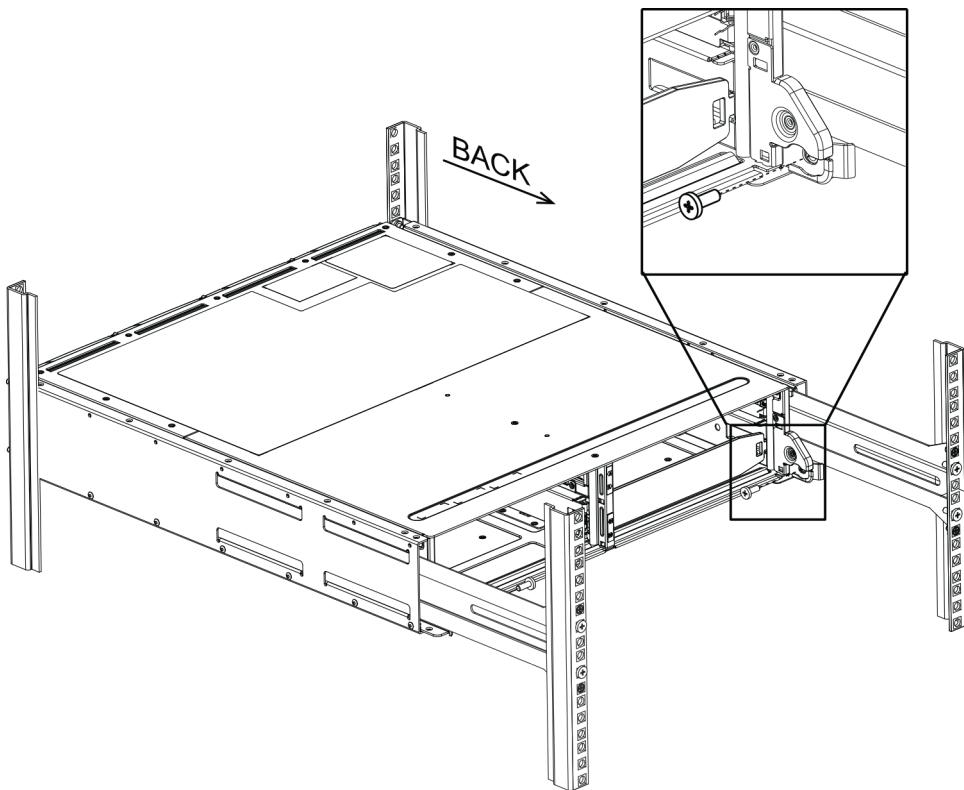
**Attention:** Do not place additional equipment on the rails after you finish installing the enclosure. The rails are not designed to bear additional weight.

5. Secure the enclosure to the front of the rack or system cabinet and rails by inserting two M5 screws through the mounting brackets (preinstalled on either side of the front of the enclosure), the holes on the rack or system cabinet, and the holes on the front of rails.



**Note:** Although the illustration above shows a shelf, it is also applicable to systems.

6. Secure the enclosure to the back of the rails by inserting two M5 screws through the brackets at the enclosure and the rail kit bracket.



7. If applicable, replace the shelf end caps or the system bezel.
8. See the appropriate installation instructions or upgrade guide for your shelf or system to complete the installation and setup tasks.

Documentation can be found on the NetApp Support Site.

[mysupport.netapp.com](http://mysupport.netapp.com) > Documentation > A-Z Documentation



## Copyright information

Copyright © 1994–2017 NetApp, Inc. All rights reserved. Printed in the U.S.

No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER

IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

**RESTRICTED RIGHTS LEGEND:** Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## Trademark information

Active IQ, AltaVault, Arch Design, ASUP, AutoSupport, Campaign Express, Clustered Data ONTAP, Customer Fitness, Data ONTAP, DataMotion, Element, Fitness, Flash Accel, Flash Cache, Flash Pool, FlexArray, FlexCache, FlexClone, FlexPod, FlexScale, FlexShare, FlexVol, FPolicy, Fueled by SolidFire, GetSuccessful, Helix Design, LockVault, Manage ONTAP, MetroCluster, MultiStore, NetApp, NetApp Insight, OnCommand, ONTAP, ONTAPI, RAID DP, RAID-TEC, SANscreen, SANshare, SANtricity, SecureShare, Simplicity, Simulate ONTAP, Snap Creator, SnapCenter, SnapCopy, SnapDrive, SnapIntegrator, SnapLock, SnapManager, SnapMirror, SnapMover, SnapProtect, SnapRestore, Snapshot, SnapValidator, SnapVault, SolidFire, SolidFire Helix, StorageGRID, SyncMirror, Tech OnTap, Unbound Cloud, and WAFL and other names are trademarks or registered trademarks of NetApp, Inc., in the United States, and/or other countries. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such. A current list of NetApp trademarks is available on the web.

<http://www.netapp.com/us/legal/netapptmlist.aspx>

## How to send comments about documentation and receive update notifications

You can help us to improve the quality of our documentation by sending us your feedback. You can receive automatic notification when production-level (GA/FCS) documentation is initially released or important changes are made to existing production-level documents.

If you have suggestions for improving this document, send us your comments by email.

[doccomments@netapp.com](mailto:doccomments@netapp.com)

To help us direct your comments to the correct division, include in the subject line the product name, version, and operating system.

If you want to be notified automatically when production-level documentation is released or important changes are made to existing production-level documents, follow Twitter account @NetAppDoc.

You can also contact us in the following ways:

- NetApp, Inc., 495 East Java Drive, Sunnyvale, CA 94089 U.S.
- Telephone: +1 (408) 822-6000
- Fax: +1 (408) 822-4501
- Support telephone: +1 (888) 463-8277