

HP StorageWorks

1U Rackmount Tape Enclosure

Reference Guide



Part number: AE459-96001
First Edition May 2006



Legal and notice information

© Copyright 2006 Hewlett-Packard Development Company, L.P.

Hewlett-Packard Company makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

This document contains proprietary information, which is protected by copyright. No part of this document may be photocopied, reproduced, or translated into another language without the prior written consent of Hewlett-Packard. The information is provided "as is" without warranty of any kind and is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

Intel and Itanium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Microsoft, Windows, Windows NT, and Windows XP are U.S. registered trademarks of Microsoft Corporation.

Oracle® is a registered U.S. trademark of Oracle Corporation, Redwood City, California.

UNIX® is a registered trademark of The Open Group.

Printed in the US

1U Rackmount Tape Enclosure Reference Guide

Contents

About this guide	5
Intended audience	5
Related documentation	5
Document conventions and symbols	5
Rack stability	6
HP technical support	6
HP-authorized reseller	7
Helpful web sites	7
1 Introduction	9
Standard features	9
Tape enclosure components	10
2 Tape Drive Installation	13
SCSI cable configurations	17
Two drives on one SCSI bus	17
One drive per SCSI bus	18
3 Rack Installation	19
Rail mounting kit	19
Tools required	19
Installing the tape enclosure in a rack	20
Before you begin	20
Installing the component rails	20
Installing the rack rails	21
Installation in racks with round or square holes	21
Installation in racks with 10-32 threaded holes	24
Completing the installation	26
A Regulatory Compliance Notices	29
Federal Communications Commission Notice	29
Class A Equipment	29
Class B Equipment	29
Modifications	30
Cables	30
Declaration of Conformity for products marked with the FCC logo - United States only	30
Canadian notice (Avis Canadien)	30
Class A equipment	30
Class B equipment	30
European Union notice	31
BSMI notice	31
Japanese notice	32

Japanese power cord notice	32
Korean notices	32
Czechoslovakian notice	33
Danish notice	33
Dutch notice	33
English notice	34
Estonian notice	34
Finnish notice	34
French notice	35
German notice	35
Greek notice	35
Hungarian notice	36
Italian notice	36
Latvian notice	36
Lithuanian notice	37
Polish notice	37
Portuguese notice	37
Slovakian notice	38
Slovenian notice	38
Spanish notice	38
Swedish notice	38
B Electrostatic Discharge	41
Grounding methods	41
C Specifications	43
Index	45

About this guide

This guide provides information about:

- Rack installation of the HP 1U Storage Enclosure
- Tape drive installation

Intended audience

This guide is intended for:

- System administrators
- Field technicians

Related documentation

Other HP documents can be found on the HP documents web site: <http://www.docs.hp.com>.

Document conventions and symbols

Table 1 Document conventions

Convention	Element
Medium blue text: Figure 1	Cross-reference links and e-mail addresses
Medium blue, underlined text (http://www.hp.com)	Web site addresses
Bold font	• Key names • Text typed into a GUI element, such as into a box • GUI elements that are clicked or selected, such as menu and list items, buttons, and check boxes
<i>Italics font</i>	Text emphasis
Monospace font	• File and directory names • System output • Code • Text typed at the command-line
<i>Monospace, italic font</i>	• Code variables • Command-line variables
Monospace, bold font	Emphasis of file and directory names, system output, code, and text typed at the command line

 **WARNING!** Indicates that failure to follow directions could result in bodily harm or death.

 **CAUTION:** Indicates that failure to follow directions could result in damage to equipment or data.

 **IMPORTANT:** Provides clarifying information or specific instructions.

 **NOTE:** Provides additional information.

 **TIP:** Provides helpful hints and shortcuts.

Rack stability

 **WARNING!** To reduce the risk of personal injury or damage to equipment:

- Extend leveling jacks to the floor.
 - Ensure that the full weight of the rack rests on the leveling jacks.
 - Install stabilizing feet on the rack.
 - In multiple-rack installations, secure racks together.
 - Extend only one rack component at a time. Racks may become unstable if more than one component is extended.
-

HP technical support

Telephone numbers for worldwide technical support are listed on the HP support web site:
<http://www.hp.com/support/>.

Collect the following information before calling:

- Technical support registration number (if applicable)
- Product serial numbers
- Product model names and numbers
- Applicable error messages
- Operating system type and revision level
- Detailed, specific questions

For continuous quality improvement, calls may be recorded or monitored.

HP strongly recommends that customers sign up online using the Subscriber's choice web site at <http://www.hp.com/go/e-updates>.

- Subscribing to this service provides you with e-mail updates on the latest product enhancements, newest versions of drivers, and firmware documentation updates as well as instant access to numerous other product resources.
- After signing up, you can quickly locate your products by selecting **Business support** and then **Storage** under Product Category.

HP-authorized reseller

For the name of your nearest HP-authorized reseller:

- In the United States, call 1-800-345-1518.
- Elsewhere, visit the HP web site: <http://www.hp.com>. Then click **Contact HP** to find locations and telephone numbers.

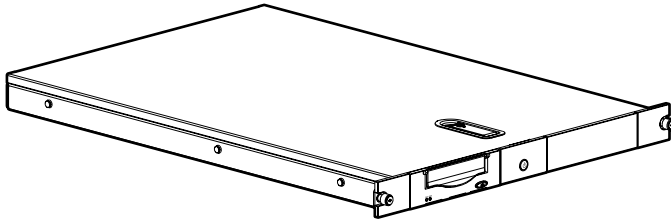
Helpful web sites

For third-party product information, see the following HP web sites:

- <http://www.hp.com>
- <http://www.hp.com/go/storage>
- <http://www.hp.com/support/>
- <http://www.docs.hp.com>

1 Introduction

The HP StorageWorks 1U Rackmount Tape Enclosure is a rack-mountable storage system capable of holding up to two half-height 5.25 inch tape drives. It is compatible with HP 7000, 9000, & 10000 series, HP Rack System/E, HP AlphaServer, and other standard 19 inch racks.



15100

Figure 1 1U Rackmount Tape Enclosure

Standard features

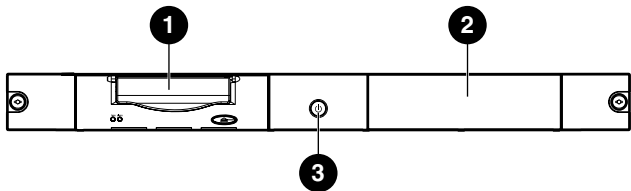
The standard features of the 1U tape enclosure are summarized below:

- Supports one or two 5.25 inch half-height tape drives
- Installation in standard 19 inch racks with round, square, or threaded holes

 **NOTE:** Daisy-chaining of two or more SCSI version 1U Rackmount Tape Enclosures is not supported.

 **NOTE:** The 1U tape enclosure must be powered up manually after a power interruption. It will not automatically power up.

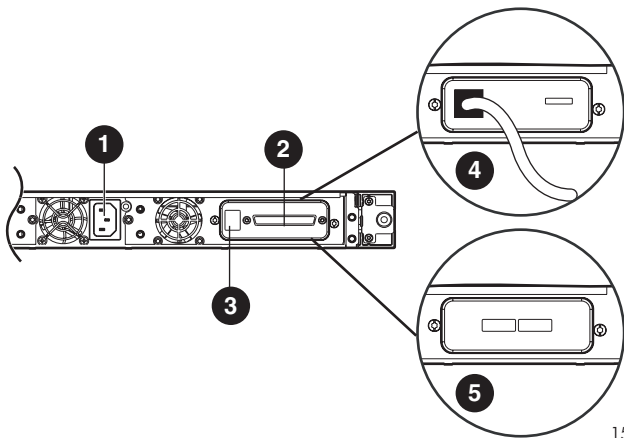
Tape enclosure components



15101

Figure 2 Tape enclosure front panel components

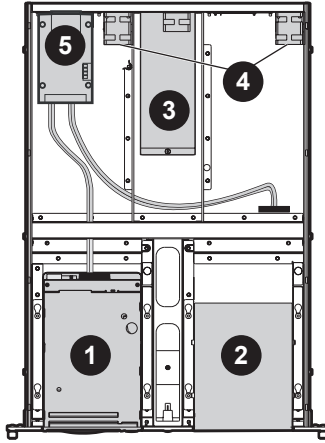
- 1 Tape drive
- 2 Expansion drive bay
- 3 Power switch/LED



15356

Figure 3 Tape enclosure rear panel (USB and SCSI models shown)

- | | |
|-----------------------------------|--------------------------------|
| 1 AC Power Connector | 2 SCSI Connector (SCSI models) |
| 3 SCSI ID Switch (SCSI mode Only) | 4 USB Connector (USB models) |
| 5 SAS Connector (SAS models) | |



15355

Figure 4 Tape enclosure internal components (SAS version shown)

- | | | | |
|---|--------------------------------------|---|--------------------|
| 1 | Tape drive | 2 | Tape drive blank |
| 3 | Power supply | 4 | Fan assemblies (2) |
| 5 | SAS Repeater Board (SAS Models only) | | |

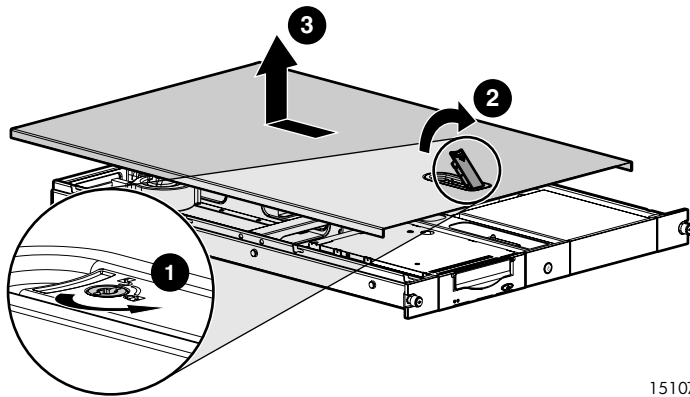
2 Tape Drive Installation

A 3/16" (5mm) flat-blade screwdriver or T-15 Torx driver may be required to install a tape drive in the 1U tape enclosure.

△ **CAUTION:** To avoid damaging the equipment due to electrostatic discharge, be sure to review and practice the procedures in Appendix B before handling the tape drives.

To install a tape drive:

1. Remove the top access panel as shown.

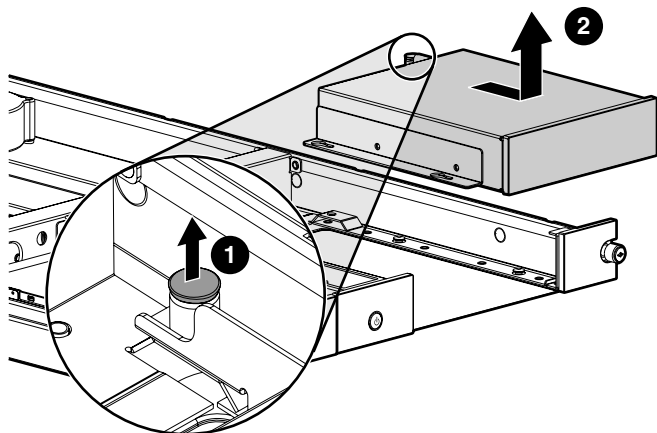


15107

Figure 5 Removing top access panel

2. Remove the drive blank:

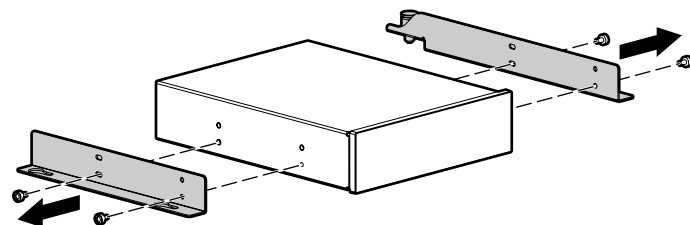
- ❶ Pull the spring-loaded button on the right mounting rail up
- ❷ Slide the assembly forward and lift up.



15104

Figure 6 Removing drive blank

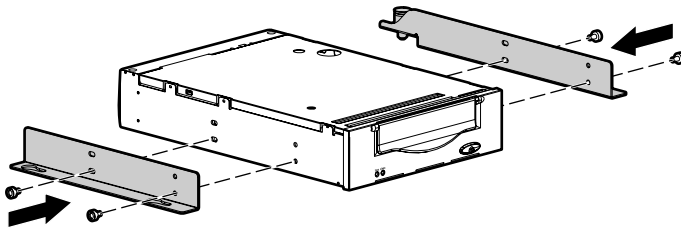
3. Remove the mounting brackets from the tape drive blank.



15110

Figure 7 Remove the mounting brackets

4. Install the mounting brackets to the sides of the tape drive.

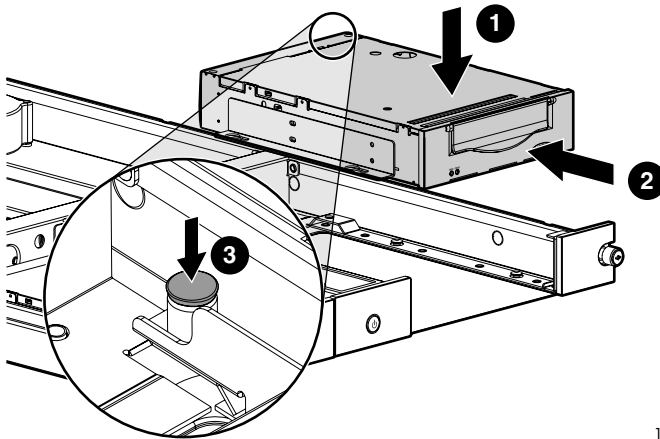


15127

Figure 8 Install the mounting brackets

5. Install the tape drive into the enclosure

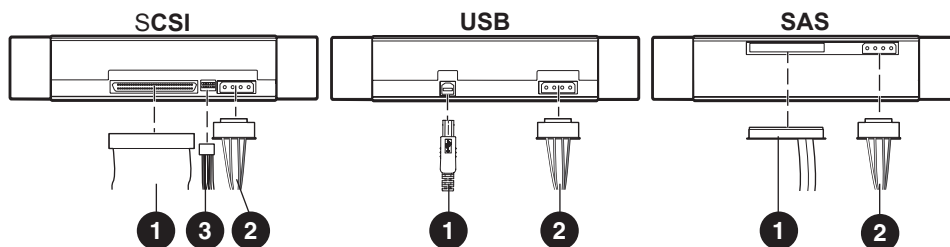
- ① Position the mounting bracket keyhole slots over the mounting posts
- ② Slide the drive toward the back of the enclosure
- ③ The spring-loaded button will automatically snap into place



15106

Figure 9 Inserting tape drive in enclosure

6. Attach the following cables:
- ① signal
 - ② power
 - ③ SCSI ID selector switch (SCSI drives only)

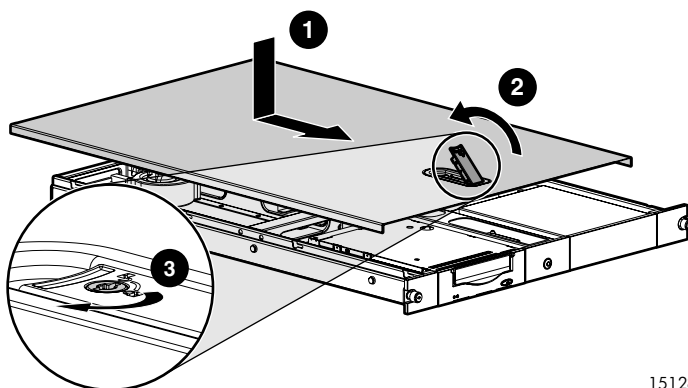


15057

Figure 10 Attach cables to the drive

 **NOTE:** Fold excess cable length and secure with the clips provided in the tape enclosure.

7. Replace the top access panel as shown.



15128

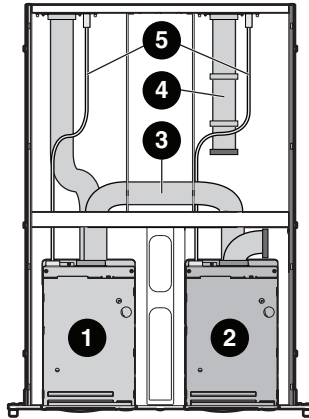
Figure 11 Replace access panel

SCSI cable configurations

The 1U Tape Enclosure supports operation of two tape drives on either 1 or 2 SCSI buses. Two internal 2-port SCSI cables are installed in the enclosure, so completing the drive installations just a matter of connecting the correct SCSI port according to your configuration.

Two drives on one SCSI bus

Use the configuration shown in Figure 13 when connecting both tape drives to the same SCSI bus.



15103

Figure 12 Two drives on one SCSI bus

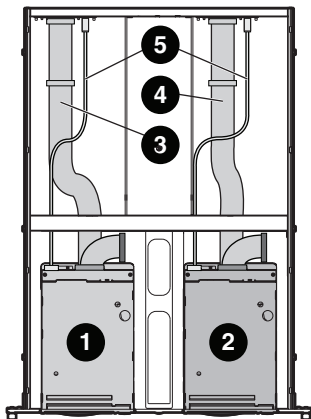
- | | |
|---|-------------------------------|
| 1 Tape drive 1 | 2 Tape drive 2 |
| 3 SCSI bus 1 cable; SCSI connector nearest terminator is used for drive 2, center connector is used for drive 1 | 4 SCSI bus 2 cable (not used) |
| 5 SCSI ID cables, one for each tape drive | |

 **NOTE:** When adding a second tape drive for configurations using a single SCSI bus unplug the SCSI cable from drive 1, pass the end of the cable through internal chassis openings, and plug the end port into drive 2. Then plug the middle port into drive 1. The SCSI terminator is at the end of the cable and should be behind drive 2.

 **NOTE:** Each SCSI device on the same SCSI bus must have a unique SCSI ID. Be sure that the SCSI ID is different for each drive and that neither is set to SCSI ID 7

One drive per SCSI bus

Use the configuration shown in Figure 14 when connecting each drive to a separate SCSI bus.



15105

Figure 13 One drive per SCSI bus

- | | |
|---|---|
| 1 Tape drive 1 | 2 Tape drive 2 |
| 3 SCSI bus 1 cable, SCSI connector nearest terminator is used for drive 1 | 4 SCSI bus 2 cable, SCSI connector nearest terminator is used for drive 2 |
| 5 SCSI ID cables, one for each tape drive | |

△ **CAUTION:** To prevent possible data errors, when there is only one drive on a SCSI bus that drive must be connected to the SCSI port closest to the terminator.

△ **CAUTION:** To avoid damaging the equipment due to electrostatic discharge, be sure to review and practice the procedures in Appendix B before handling the tape drives.

3 Rack Installation

Rail mounting kit

The rack rails supplied with the 1U rackmount tape enclosure can be used to install the unit in racks that have round, square, or threaded holes in the vertical mounting bars. The rails will fit racks with 23 - 34 inches (58 - 86 cm) separation between the front and rear vertical mounting bars. The rails are identical and may be mounted on either the left or the right side.

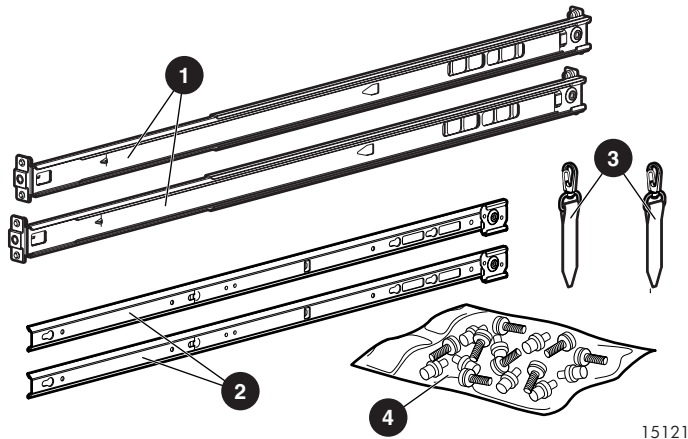


Figure 14 Rail mounting kit components

- 1 Outer rack rails
- 2 Inner component rails
- 3 Cable support clips
- 4 Fasteners

Tools required

If you are installing the tape enclosure in a rack with unmarked holes in the vertical mounting bars the following items will make the rack installation easier:

- Pencil
- Tape measure

If you are installing the tape enclosure in a rack with threaded holes in the vertical mounting bars you will need the following tool:

- 3/16" (5mm) flat-blade screwdriver

Installing the tape enclosure in a rack

- ⚠ **WARNING!** To reduce the risk of personal injury or equipment damage, be sure that:
- The rack leveling jacks are extended to the floor
 - The full weight of the rack rests on the leveling jacks
 - The stabilizing feet are attached to the rack if it is a single rack installation
 - The racks are coupled in multiple rack installations
 - Only one component is extended at a time. A rack may become unstable if more than one component is extended for any reason.
-

When installing the enclosure in a rack:

- Start at the bottom of the rack, or at the top of a previously mounted component, and work upward.
- If possible, install the heaviest components at the bottom and lighter ones toward the top of the rack.
- Make sure that the rack-mounting rails are level from front to back.

Before you begin

If you are installing the tape enclosure in a rack with unmarked holes in the vertical mounting bars, identify and mark the correct mounting holes in the rack before you begin rail installation.

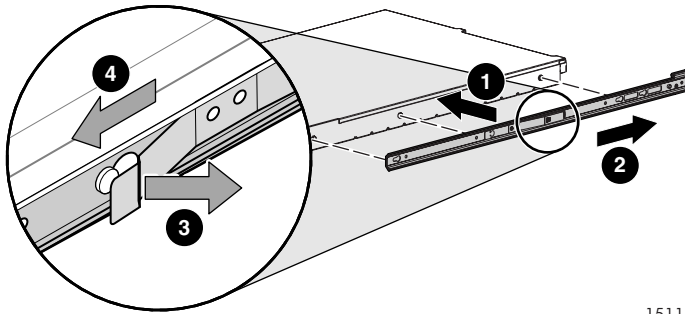
- ⚠ **CAUTION:** It is important to install rack components level. To ensure that the 1U tape enclosure is installed correctly it may be necessary to measure the height of the correct mounting holes in the front and rear vertical mounting bars.
-

Installing the component rails

Component rails are the inner portion of the rack rail system that attached to the tape enclosure.

1. Align the slotted holes on the left and right component rails with the three pins on the sides of the enclosure ❶. See [Figure 15](#).

2. Slide the component rails toward the rear of the enclosure ② until they lock into place.



15118

Figure 15 Attaching the component rails to the enclosure

 **NOTE:** To remove the component rail, pull out the spring-loaded tab ③ on the side of the rail and slide it forward ④.

 **CAUTION:** If you are returning the 1U Rackmount Tape Enclosure for service, be sure to remove and save the component rails.

Installing the rack rails

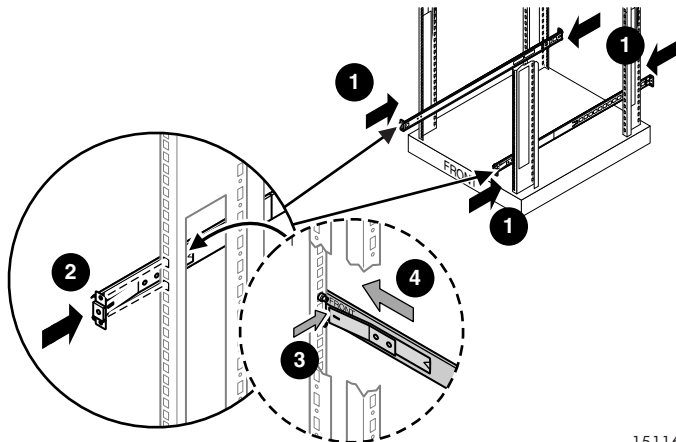
Installation procedures vary depending on the rack type. The rails are shipped ready for installation in racks with round or square holes. If the rails are to be installed in racks with 10-32 threaded holes, the mounting pins must first be removed. Refer to one of the following sections for installation instructions for your rack.

- ["Installation in racks with round or square holes"](#) on page 21
- ["Installation in racks with 10-32 threaded holes"](#) on page 24

Installation in racks with round or square holes

NOTE: The ends of the rack rails are marked FRONT and REAR for proper orientation.

1. Insert the pins in front mounting plate of the outer rack rails into the previously marked holes in the front vertical mounting bars of the rack. See [Figure 16](#). The rack rails will lock securely into place.

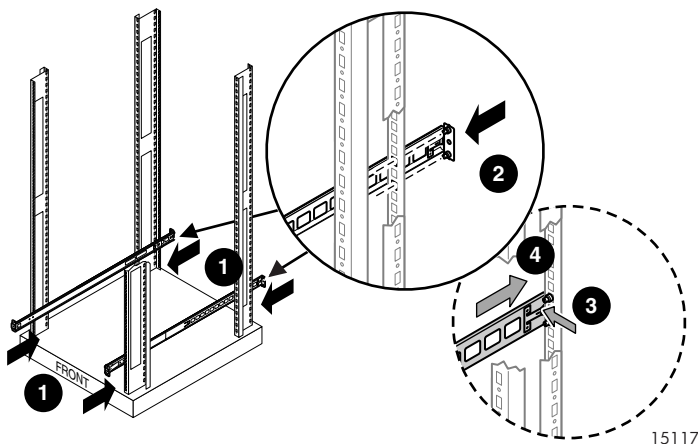


15116

Figure 16 Installing the rack rails in front of rack

NOTE: To remove the rail for repositioning, push the spring-loaded tab **3** on the outside of the rack rail and slide it forward **4**.

2. Extend the rack rails past the rear vertical mounting bar and insert the pins in the mounting bracket into the previously marked holes in the rack. See [Figure 17](#). The rack rails will lock securely into place when the end of the rails are pushed forward.



15117

Figure 17 Installing the rack rails in rear of rack

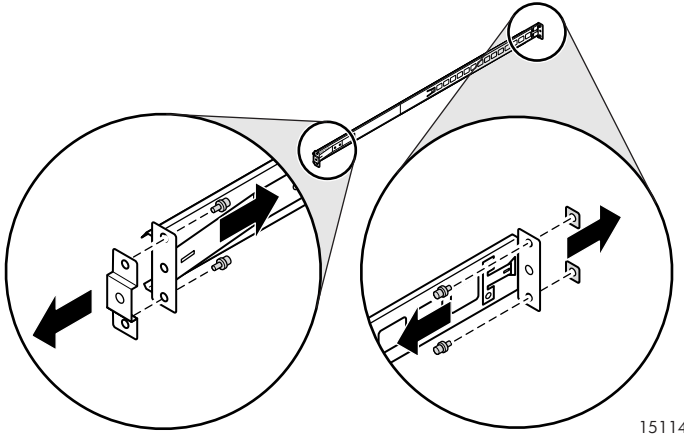
 **NOTE:** To remove the rail for repositioning, push the spring-loaded tab ❸ on the outside of the rack rail and slide rearward ❹.

Rail installation in a rack is complete. Continue with "[Completing the installation](#)" on page 26.

Installation in racks with 10-32 threaded holes

For installation in racks with 10-32 threaded holes in the vertical mounting bars the pins supplied on the rails must be removed. The rails will be attached with user-supplied 10-32 x.375 screws.

1. Remove the pins and threaded plates from both ends of each outer rack rail. See [Figure 18](#). These pieces will not be used.

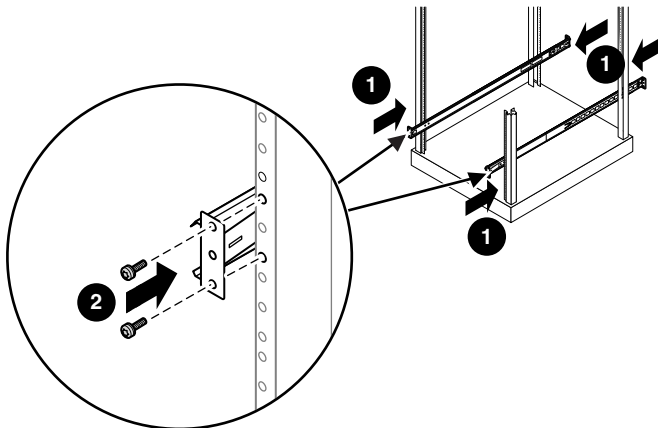


15114

Figure 18 Remove the pins and mounting hardware from the rack rail

 **NOTE:** The ends of the rack rails are marked FRONT and REAR for proper orientation.

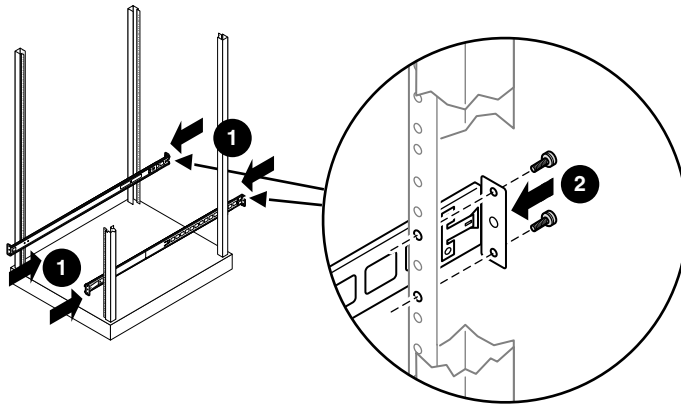
2. Attach the front mounting plate of each outer rail to the rack using four 10-32 screws in the previously marked holes in the front vertical mounting bars of the rack. See [Figure 19](#).



15119

Figure 19 Installing the rack rails in front of rack

3. Extend the rack rails past the rear vertical mounting bars and attach the back mounting plate of each outer rail to the rack using four 10-32 screws in the previously marked holes. See [Figure 20](#).



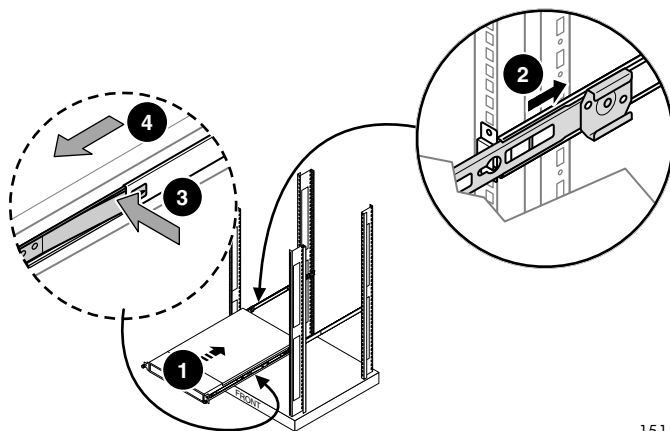
15120

Figure 20 Installing the rack rails in rear of rack

Rail installation is complete. Continue with [Completing the installation](#), page 26.

Completing the installation

1. Extend the stabilizing feet if provided on your rack.
2. Extend the left and right rack rails from the front of the rack.
3. Align the rear of the component rails on the tape enclosure with the front ends of the rack rails, then slide the unit fully into the rack. See [Figure 21](#).



15111

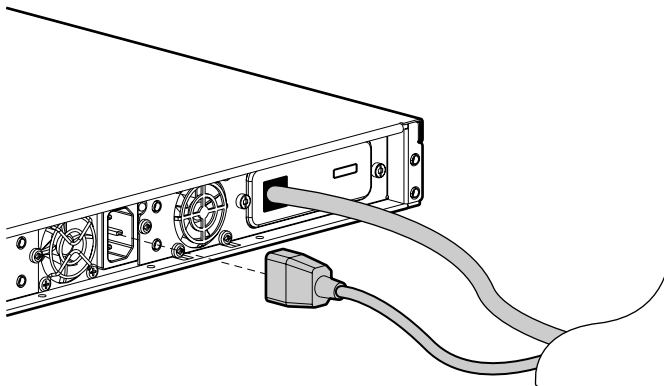
Figure 21 Slide 1U tape enclosure into rack

△ **CAUTION:** Be sure to keep the enclosure parallel to the floor when sliding the component rails into the rack rails. Tilting the enclosure up or down could damage the rails.

📝 **NOTE:** To remove the enclosure from the rack, disconnect the cables from the back of the unit. Press the latches on each side ③ and pull the enclosure from the rack ④. See [Figure 21](#) for the location of the latches.

4. Tighten the front panel thumbscrews.
5. If used, retract the stabilizing feet of the rack.
6. Plug the USB cable from the server into the USB connector(s) on the rear panel of the enclosure. See [Figure 22](#).

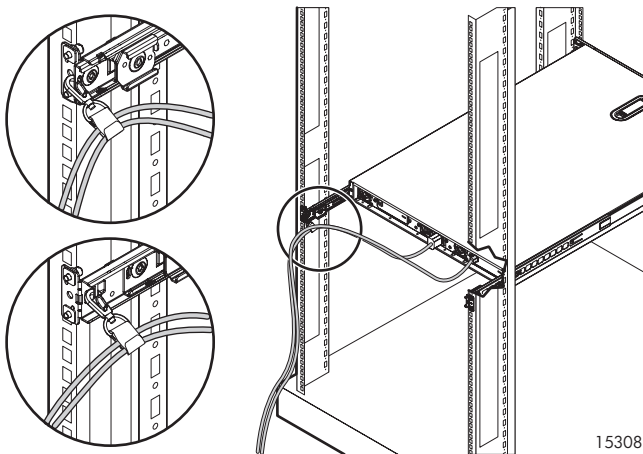
7. Plug the AC power cord into the power cord connector, then into a grounded outlet. See [Figure 22](#).



15309

Figure 22 Connecting the power and USB cables to the tape enclosure

8. Install the cable support clip(s) at the back of the rack rail(s) on one or both sides of the enclosure. See [Figure 23](#).



15308

Figure 23 Install the cable support clips

9. Turn on the power to the tape enclosure with the front panel power button.

A Regulatory Compliance Notices

Federal Communications Commission Notice

Part 15 of the Federal Communications Commission (FCC) Rules and Regulations has established Radio Frequency (RF) emission limits to provide an interference-free radio frequency spectrum. Many electronic devices, including computers, generate RF energy incidental to their intended function and are, therefore, covered by these rules. These rules place computers and related peripheral devices into two classes, A and B, depending upon their intended installation. Class A devices are those that may reasonably be expected to be installed in a business or commercial environment. Class B devices are those that may reasonably be expected to be installed in a residential environment (for example, personal computers). The FCC requires devices in both classes to bear a label indicating the interference potential of the device as well as additional operating instructions for the user.

The rating label on the device shows which class (A or B) the equipment falls into. Class B devices have an FCC logo or FCC ID on the label. Class A devices do not have an FCC logo or FCC ID on the label. Once the class of the device is determined, refer to the following corresponding statement.

Class A Equipment

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at personal expense.

Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hewlett-Packard Company may void the user's authority to operate the equipment.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods in order to maintain compliance with FCC Rules and Regulations.

Declaration of Conformity for products marked with the FCC logo - United States only

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions regarding your product, contact:

Hewlett-Packard Company
P. O. Box 692000, Mail Stop 530113
Houston, Texas 77269-2000

Or, call

1-800- 652-6672

For questions regarding this FCC declaration, contact:

Hewlett-Packard Company
P. O. Box 692000, Mail Stop 510101
Houston, Texas 77269-2000

Or, call

(281) 514-3333

To identify this product, refer to the part, series, or model number found on the product.

Canadian notice (Avis Canadien)

Class A equipment

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Class B equipment

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Union notice



Products bearing the CE marking comply with the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community and if this product has telecommunication functionality, the R&TTE Directive (1999/5/EC).

Compliance with these directives implies conformity to the following European Norms (in parentheses are the equivalent international standards and regulations):

- EN 55022 (CISPR 22) - Electromagnetic Interference
- EN55024 (IEC61000-4-2, 3, 4, 5, 6, 8, 11) - Electromagnetic Immunity
- EN61000-3-2 (IEC61000-3-2) - Power Line Harmonics
- EN61000-3-3 (IEC61000-3-3) - Power Line Flicker
- EN 60950 (IEC 60950) - Product Safety

BSMI notice

警告使用者：

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Japanese notice

ご使用になっている装置にVCCIマークが付いていましたら、次の説明文をお読み下さい。

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

VCCIマークが付いていない場合には、次の点にご注意下さい。

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Japanese power cord notice

製品には、同梱された電源コードをお使い下さい。
同梱された電源コードは、他の製品では使用出来ません。

Korean notices

A급 기기 (업무용 정보통신기기)

이 기기는 업무용으로 전자파적합등록을 한 기기이오니
판매자 또는 사용자는 이 점을 주의하시기 바라며, 만약
잘못판매 또는 구입하였을 때에는 가정용으로 교환하시기
바랍니다.

B급 기기 (가정용 정보통신기기)

이 기기는 가정용으로 전자파적합등록을 한 기기로서
주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

Disposal of Waste Equipment by Users in Private Household in the European Union

Czechoslovakian notice

Likvidace zařízení soukromými domácími uživateli v Evropské unii



Tento symbol na produktu nebo balení označuje výrobek, který nesmí být vyhozen spolu s ostatním domácím odpadem. Povinností uživatele je předat takto označený odpad na předem určené sběrné místo pro recyklaci elektrických a elektronických zařízení. Okamžité třídění a recyklace odpadu pomůže uchovat přírodní prostředí a zajistí takový způsob recyklace, který ochrání zdraví a životní prostředí člověka.

Další informace o možnostech odevzdání odpadu k recyklaci získáte na příslušném obecním nebo městském úřadě, od firmy zabývající se sběrem a svozem odpadu nebo v obchodě, kde jste produkt zakoupili.

Danish notice

Bortskaffelse af affald fra husstande i den Europæiske Union



Hvis produktet eller dets emballage er forsynet med dette symbol, angiver det, at produktet ikke må bortskaffes med andet almindeligt husholdningsaffald. I stedet er det dit ansvar at bortskaffe kasseret udstyr ved at aflevere det på den kommunale genbrugsstation, der forestår genvinding af kasseret elektrisk og elektronisk udstyr. Den centrale modtagelse og genvinding af kasseret udstyr i forbindelse med bortskaffelsen bidrager til bevarelse af naturlige ressourcer og sikrer, at udstyret genvindes på en måde, der beskytter både mennesker og miljø. Yderligere oplysninger om, hvor du kan aflevere kasseret udstyr til genvinding, kan du få hos kommunen, den lokale genbrugsstation eller i den butik, hvor du købte produktet.

Dutch notice

Verwijdering van afgedankte apparatuur door privé-gebruikers in de Europese Unie



Dit symbool op het product of de verpakking geeft aan dat dit product niet mag worden gedeponeerd bij het normale huishoudelijke afval. U bent zelf verantwoordelijk voor het inleveren van uw afgedankte apparatuur bij een inzamelingspunt voor het recyclen van oude elektrische en elektronische apparatuur. Door uw oude apparatuur apart aan te bieden en te recyclen, kunnen natuurlijke bronnen worden behouden en kan het materiaal worden hergebruikt op een manier waarmee de volksgezondheid en het milieu worden beschermd. Neem contact op met uw gemeente, het afvalinzamelingsbedrijf of de winkel waar u het product hebt gekocht voor meer informatie over inzamelingspunten waar u oude apparatuur kunt aanbieden voor recycling.

English notice

Disposal of waste equipment by users in private household in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service, or the shop where you purchased the product.

Estonian notice

Seadmete jäätmete kõrvaldamine eramajapidamistes Euroopa Liidus



See tootel või selle pakendil olev sümbol näitab, et kõnealust toodet ei tohi koos teiste majapidamisjäätmetega kõrvaldada. Teie kohus on oma seadmete jäätmed kõrvaldada, viies need elektri- ja elektroonikaseadmete jäätmete ringlussevõtmiseks selleks ettenähtud kogumispunkti. Seadmete jäätmete eraldi kogumine ja ringlussevõtmine kõrvaldamise ajal aitab kaitsta loodusvarasid ning tagada, et ringlussevõtmine toimub viisil, mis kaitseb inimeste tervist ning keskkonda. Lisateabe saamiseks selle kohta, kuhu oma seadmete jäätmed ringlussevõtmiseks viia, võtke palun ühendust oma kohaliku linnakantselei, majapidamisjäätmete kõrvaldamise teenistuse või kauplusega, kust Te toote ostsite.

Finnish notice

Laitteiden hävittäminen kotitalouksissa Euroopan unionin alueella



Jos tuotteessa tai sen pakkauksessa on tämä merkki, tuotetta ei saa hävittää kotitalousjätteiden mukana. Tällöin hävitettävä laite on toimitettava sähkölaitteiden ja elektronisten laitteiden kierrätyspisteeseen. Hävitettävien laitteiden erillinen käsittely ja kierrätys auttavat säästämään luonnonvaroja ja varmistamaan, että laite kierrätetään tavalla, joka estää terveyshaitat ja suojelee luontoa. Lisätietoja paikoista, joihin hävitettävät laitteet voi toimittaa kierrätettäväksi, saa ottamalla yhteyttä jätehuoltoon tai liikkeeseen, josta tuote on ostettu.

French notice

Élimination des appareils mis au rebut par les ménages dans l'Union européenne



Le symbole apposé sur ce produit ou sur son emballage indique que ce produit ne doit pas être jeté avec les déchets ménagers ordinaires. Il est de votre responsabilité de mettre au rebut vos appareils en les déposant dans les centres de collecte publique désignés pour le recyclage des équipements électriques et électroniques. La collecte et le recyclage de vos appareils mis au rebut indépendamment du reste des déchets contribue à la préservation des ressources naturelles et garantit que ces appareils seront recyclés dans le respect de la santé humaine et de l'environnement. Pour obtenir plus d'informations sur les centres de collecte et de recyclage des appareils mis au rebut, veuillez contacter les autorités locales de votre région, les services de collecte des ordures ménagères ou le magasin dans lequel vous avez acheté ce produit.

German notice

Entsorgung von Altgeräten aus privaten Haushalten in der EU



Das Symbol auf dem Produkt oder seiner Verpackung weist darauf hin, dass das Produkt nicht über den normalen Hausmüll entsorgt werden darf. Benutzer sind verpflichtet, die Altgeräte an einer Rücknahmestelle für Elektro- und Elektronik-Altgeräte abzugeben. Die getrennte Sammlung und ordnungsgemäße Entsorgung Ihrer Altgeräte trägt zur Erhaltung der natürlichen Ressourcen bei und garantiert eine Wiederverwertung, die die Gesundheit des Menschen und die Umwelt schützt. Informationen dazu, wo Sie Rücknahmestellen für Ihre Altgeräte finden, erhalten Sie bei Ihrer Stadtverwaltung, den örtlichen Müllentsorgungsbetrieben oder im Geschäft, in dem Sie das Gerät erworben haben.

Greek notice

Απόρριψη άχρηστου εξοπλισμού από χρήστες σε ιδιωτικά νοικοκυριά στην Ευρωπαϊκή Ένωση



Το σύμβολο αυτό στο προϊόν ή τη συσκευασία του υποδεικνύει ότι το συγκεκριμένο προϊόν δεν πρέπει να διατίθεται μαζί με τα άλλα οικιακά σας απορρίμματα. Αντίθετα, είναι δική σας ευθύνη να απορρίψετε τον άχρηστο εξοπλισμό σας παραδίδοντάς τον σε καθορισμένο σημείο συλλογής για την ανακύκλωση άχρηστου ηλεκτρικού και ηλεκτρονικού εξοπλισμού.

Η ξεχωριστή συλλογή και ανακύκλωση του άχρηστου εξοπλισμού σας κατά την απόρριψη θα συμβάλει στη διατήρηση των φυσικών πόρων και θα διασφαλίσει ότι η ανακύκλωση γίνεται με τρόπο που προστατεύει την ανθρώπινη υγεία και το περιβάλλον. Για περισσότερες πληροφορίες σχετικά με το πού μπορείτε να παραδώσετε τον άχρηστο εξοπλισμό σας για ανακύκλωση, επικοινωνήστε με το αρμόδιο τοπικό γραφείο, την τοπική υπηρεσία διάθεσης οικιακών απορριμμάτων ή το κατάστημα όπου αγοράσατε το προϊόν.

Hungarian notice

Készülékek magánháztartásban történő selejtezése az Európai Unió területén



A készüléken, illetve a készülék csomagolásán látható azonos szimbólum annak jelzésére szolgál, hogy a készülék a selejtezés során az egyéb háztartási hulladéktól eltérő módon kezelendő. A vásárló a hulladékká vált készüléket köteles a kijelölt gyűjtőhelyre szállítani az elektromos és elektronikai készülékek újrahasznosítása céljából. A hulladékká vált készülékek selejtezés kori begyűjtése és újrahasznosítása hozzájárul a természeti erőforrások megőrzéséhez, valamint biztosítja a selejtezett termékek környezetre és emberi egészségre nézve biztonságos feldolgozását. A begyűjtés pontos helyéről bővebb tájékoztatást a lakhelye szerint illetékes önkormányzattól, az illetékes személteltakarító vállalattól, illetve a terméket elárúsító helyen kaphat.

Italian notice

Smaltimento delle apparecchiature da parte di privati nel territorio dell'Unione Europea



Questo simbolo presente sul prodotto o sulla sua confezione indica che il prodotto non può essere smaltito insieme ai rifiuti domestici. È responsabilità dell'utente smaltire le apparecchiature consegnandole presso un punto di raccolta designato al riciclo e allo smaltimento di apparecchiature elettriche ed elettroniche. La raccolta differenziata e il corretto riciclo delle apparecchiature da smaltire permette di proteggere la salute degli individui e l'ecosistema. Per ulteriori informazioni relative ai punti di raccolta delle apparecchiature, contattare l'ente locale per lo smaltimento dei rifiuti, oppure il negozio presso il quale è stato acquistato il prodotto.

Latvian notice

Nolietotu iekārtu iznīcināšanas noteikumi lietotājiem Eiropas Savienības privātajās mājāsniecībās



Šāds simbols uz izstrādājuma vai uz tā iesaiņojuma norāda, ka šo izstrādājumu nedrīkst izmest kopā ar citiem sadzīves atkritumiem. Jūs atbildat par to, lai nolietotās iekārtas tiktu nodotas speciāli iekārtotos punktos, kas paredzēti izmantoto elektrisko un elektronisko iekārtu savākšanai otrreizējai pārstrādei. Atsevišķa nolietoto iekārtu savākšana un otrreizējā pārstrāde palīdzēs saglabāt dabas resursus un garantēs, ka šīs iekārtas tiks otrreizēji pārstrādātas tādā veidā, lai pasargātu vidi un cilvēku veselību. Lai uzzinātu, kur nolietotās iekārtas var izmest otrreizējai pārstrādei, jāvēršas savas dzīves vietas pašvaldībā, sadzīves atkritumu savākšanas dienestā vai veikalā, kurā izstrādājums tika nopirkts.

Lithuanian notice

Vartotojų iš privačių namų ūkių įrangos atliekų šalinimas Europos Sąjungoje



Šis simbolis ant gaminio arba jo pakuotės rodo, kad šio gaminio šalinti kartu su kitomis namų ūkių atliekomis negalima. Šalintinas įrangos atliekas privalote pristatyti į specialią surinkimo vietą elektros ir elektroninės įrangos atliekoms perdirbti. Atskirai surenkamos ir perdirbamos šalintinos įrangos atliekos padės saugoti gamtinius išteklius ir užtikrinti, kad jos bus perdirbtos tokiu būdu, kuris nekenkia žmonių sveikatai ir aplinkai. Jeigu norite sužinoti daugiau apie tai, kur galima pristatyti perdirbtinas įrangos atliekas, kreipkitės į savo seniūniją, namų ūkių atliekų šalinimo tarnybą arba parduotuvę, kurioje įsigijote gaminį.

Polish notice

Pozbywanie się zużytego sprzętu przez użytkowników w prywatnych gospodarstwach domowych w Unii Europejskiej



Ten symbol na produkcie lub jego opakowaniu oznacza, że produktu nie wolno wyrzucać do zwykłych pojemników na śmieci. Obowiązkiem użytkownika jest przekazanie zużytego sprzętu do wyznaczonego punktu zbiórki w celu recyklingu odpadów powstałych ze sprzętu elektrycznego i elektronicznego. Osobna zbiórka oraz recykling zużytego sprzętu pomogą w ochronie zasobów naturalnych i zapewnią ponowne wprowadzenie go do obiegu w sposób chroniący zdrowie człowieka i środowisko. Aby uzyskać więcej informacji o tym, gdzie można przekazać zużyty sprzęt do recyklingu, należy się skontaktować z urzędem miasta, zakładem gospodarki odpadami lub sklepem, w którym zakupiono produkt.

Portuguese notice

Descarte de Lixo Elétrico na Comunidade Européia



Este símbolo encontrado no produto ou na embalagem indica que o produto não deve ser descartado no lixo doméstico comum. É responsabilidade do cliente descartar o material usado (lixo elétrico), encaminhando-o para um ponto de coleta para reciclagem. A coleta e a reciclagem seletivas desse tipo de lixo ajudarão a conservar as reservas naturais; sendo assim, a reciclagem será feita de uma forma segura, protegendo o ambiente e a saúde das pessoas. Para obter mais informações sobre locais que reciclam esse tipo de material, entre em contato com o escritório da HP em sua cidade, com o serviço de coleta de lixo ou com a loja em que o produto foi adquirido.

Slovakian notice

Likvidácia vyradených zariadení v domácnostiach v Európskej únii



Symbol na výrobku alebo jeho balení označuje, že daný výrobok sa nesmie likvidovať s domovým odpadom. Povinnosťou spotrebiteľa je odovzdať vyradené zariadenie v zbernom mieste, ktoré je určené na recykláciu vyradených elektrických a elektronických zariadení. Separovaný zber a recyklácia vyradených zariadení prispieva k ochrane prírodných zdrojov a zabezpečuje, že recyklácia sa vykonáva spôsobom chrániacim ľudské zdravie a životné prostredie. Informácie o zberných miestach na recykláciu vyradených zariadení vám poskytne miestne zastupiteľstvo, spoločnosť zabezpečujúca odvoz domového odpadu alebo obchod, v ktorom ste si výrobok zakúpili.

Slovenian notice

Odstranjevanje odslužene opreme uporabnikov v zasebnih gospodinjstvih v Evropski uniji



Ta znak na izdelku ali njegovi embalaži pomeni, da izdelka ne smete odvreči med gospodinjske odpadke. Nasprotno, odsluženo opremo morate predati na zbirališče, pooblaščen za recikliranje odslužene električne in elektronske opreme. Ločeno zbiranje in recikliranje odslužene opreme prispeva k ohranjanju naravnih virov in zagotavlja recikliranje te opreme na zdravju in okolju neškodljiv način. Za podrobnejše informacije o tem, kam lahko odpeljete odsluženo opremo na recikliranje, se obrnite na pristojni organ, komunalno službo ali trgovino, kjer ste izdelek kupili.

Spanish notice

Eliminación de residuos de equipos eléctricos y electrónicos por parte de usuarios particulares en la Unión Europea



Este símbolo en el producto o en su envase indica que no debe eliminarse junto con los desperdicios generales de la casa. Es responsabilidad del usuario eliminar los residuos de este tipo depositándolos en un "punto limpio" para el reciclado de residuos eléctricos y electrónicos. La recogida y el reciclado selectivos de los residuos de aparatos eléctricos en el momento de su eliminación contribuirá a conservar los recursos naturales y a garantizar el reciclado de estos residuos de forma que se proteja el medio ambiente y la salud. Para obtener más información sobre los puntos de recogida de residuos eléctricos y electrónicos para reciclado, póngase en contacto con su ayuntamiento, con el servicio de eliminación de residuos domésticos o con el establecimiento en el que adquirió el producto.

Swedish notice

Bortskaffande av avfallsprodukter från användare i privathushåll inom Europeiska Unionen



Om den här symbolen visas på produkten eller förpackningen betyder det att produkten inte får slängas på samma ställe som hushållssopor. I stället är det ditt ansvar att bortskaffa avfallet genom att överlämna det till ett uppsamlingsställe avsett för återvinning av avfall från elektriska och elektroniska produkter. Separat insamling och återvinning av avfallet hjälper till att spara på våra naturresurser och gör att avfallet återvinns på ett sätt som skyddar människors hälsa och miljön. Kontakta ditt lokala kommunkontor, din närmsta återvinningsstation för hushållsavfall eller affären där du köpte produkten för att få mer information om var du kan lämna ditt avfall för återvinning.

B Electrostatic Discharge

To prevent damage to the system, be aware of the precautions you need to follow when setting up the system or handling parts. A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the device.

To prevent electrostatic damage, observe the following precautions:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always be properly grounded when touching a static-sensitive component or assembly.

Grounding methods

There are several methods for grounding. Use one or more of the following methods when handling or installing electrostatic-sensitive parts:

- Use a wrist strap connected by a ground cord to a grounded workstation or computer chassis. Wrist straps are flexible straps with a minimum of 1 megohm $\pm$ 10 percent resistance in the ground cords. To provide proper grounding, wear the strap snug against the skin.
- Use heel straps, toe straps, or boot straps at standing workstations. Wear the straps on both feet when standing on conductive floors or dissipating floor mats.
- Use conductive field service tools.
- Use a portable field service kit with a folding static-dissipating work mat.

If you do not have any of the suggested equipment for proper grounding, have an authorized reseller install the part.

NOTE: For more information on static electricity, or for assistance with product installation, contact your authorized reseller.

C Specifications

Table 2 HP StorageWorkds 1U Rackmount Tape Enclosure

Parameter	English	Metric
Dimensions		
Height	1.75 in	4.44 cm
Depth	25.25 in	64.1 cm
Width	19.0 in	48.3 cm
Weight (1 drive installed)	20 lb	9.07 kg
Input power requirements		
Rated input voltage	90 to 264 VAC	90 to 264 VAC
Rated input current	2.4 A	2.4 A
Rated input frequency	47 - 63 Hz	47 - 63 Hz
Input power (max)	140 W*	140 W*
Heat Dissipation (max)	478 BTU/hr*	478 BTU/hr*
Temperature range		
Operating	41° to 104° F	5° to 40° C
Non-operating	-40° to 158° F	-40° to 70° C
Relative humidity		
Operating (non-condensing)	20% to 80%	20% to 80%
Non-operating	5% to 95%	5% to 95%
Wet bulb temperature (max)	79° F	26° C
Altitude (max)		
Operating	0 to 15,000 ft	0 to 4600 m
Non-operating	0 to 50,000 ft	0 to 15200 m
* Input power and Heat dissipation specifications are maximum values and apply to worst-case conditions at full rated power supply load. The power/heat dissipation for your installation will vary depending on the equipment configuration.		

Index

- A**
 - audience 5
 - authorized reseller, HP 7
- C**
 - capacity 9
 - compatibility 9
 - conventions
 - document 5
 - text symbols 6
- D**
 - disposal
 - waste equipment for EU private households 34
 - document
 - conventions 5
 - prerequisites 5
 - related documentation 5
- E**
 - electrostatic discharge 41, 43
 - enclosure
 - front view 9
 - installing into the rack 20
 - standard features 9
 - European Union Notice 31
- F**
 - features 9
 - front panel components 10
- H**
 - help, obtaining 6, 7
 - HP
 - authorized reseller 7
 - storage web site 7
 - Subscriber's choice web site 7
 - technical support 6
- I**
 - internal components 11
- P**
 - prerequisites 5
- R**
 - rack stability, warning 6
 - rear panel components 10
 - regulatory compliance notices 29
 - related documentation 5
- S**
 - Subscriber's choice, HP 7
 - symbols in text 6
- T**
 - technical support, HP 6
 - text symbols 6
- W**
 - warning
 - rack stability 6
 - waste equipment disposal for EU private households 34
 - web sites
 - HP storage 7
 - HP Subscriber's choice 7

