Fast Stor

Rack Mount Installation Instructions

Precautions

You must consider the following precautions when installing a FastStor unit in a rack system:

1. Maximum recommended ambient temperature is 40º C. Internal temperature of rack should be considered for continued safe operation.

2. Do not block the product rear vents or otherwise restrict airflow to these vents when unit is installed in rack.

3. Mechanical loading of rack should be considered so that the rack remains stable and unlikely to tip over.

4. Consideration to the overall loading of the branch circuit should be given before installing any equipment in a rack environment.

5. Ensure that a reliable earthing path is maintained in rack system. This unit is to be connected to Earth ground.

Table of Contents
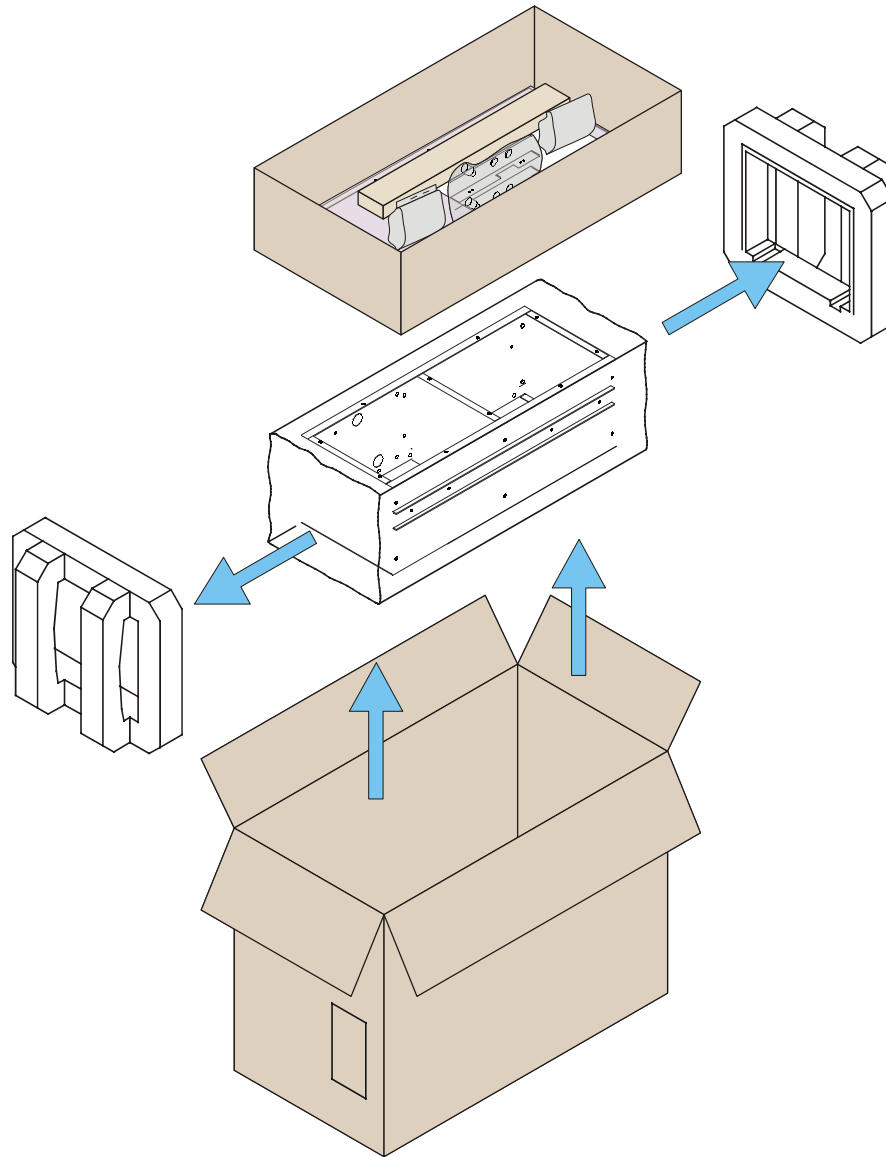
Rack Mounting a Single FastStor

These instructions provide detailed descriptions of the steps you must perform to install a single FastStor in a single slot of your rack. You'll need a work surface to assemble the parts on before installing your FastStor(s) in the rack.

Tools Required

- T-8 Torx driver
- #1 philips screwdriver
- #1 flat blade screwdriver
- 3/8" nutdriver or wrench
- 11/32" nut-driver or wrench

Unpacking the Rackmount Kit

Refer to the illustration below while performing the steps that follow:

1. Open the shipping carton and remove the square cardboard tube from the inner tray. Set the cardboard tube on the work surface.

2. Remove the inner tray from the carton and set it on the work surface.

3. Remove the support box from the carton by lifting the foam support braces out.

4. Remove the foam braces from the support box.

5. Pull the plastic bag off the support box and place the box on the work surface.

6. Remove the square cardboard tube from the inner tray, open it and place the contents on the work surface.

7. Remove the bubble-wrapped package from the inner tray; open it and place the rack mount brackets on the work surface.

8. Remove the bag of hardware from the inner tray, open it and place the contents on the work surface.

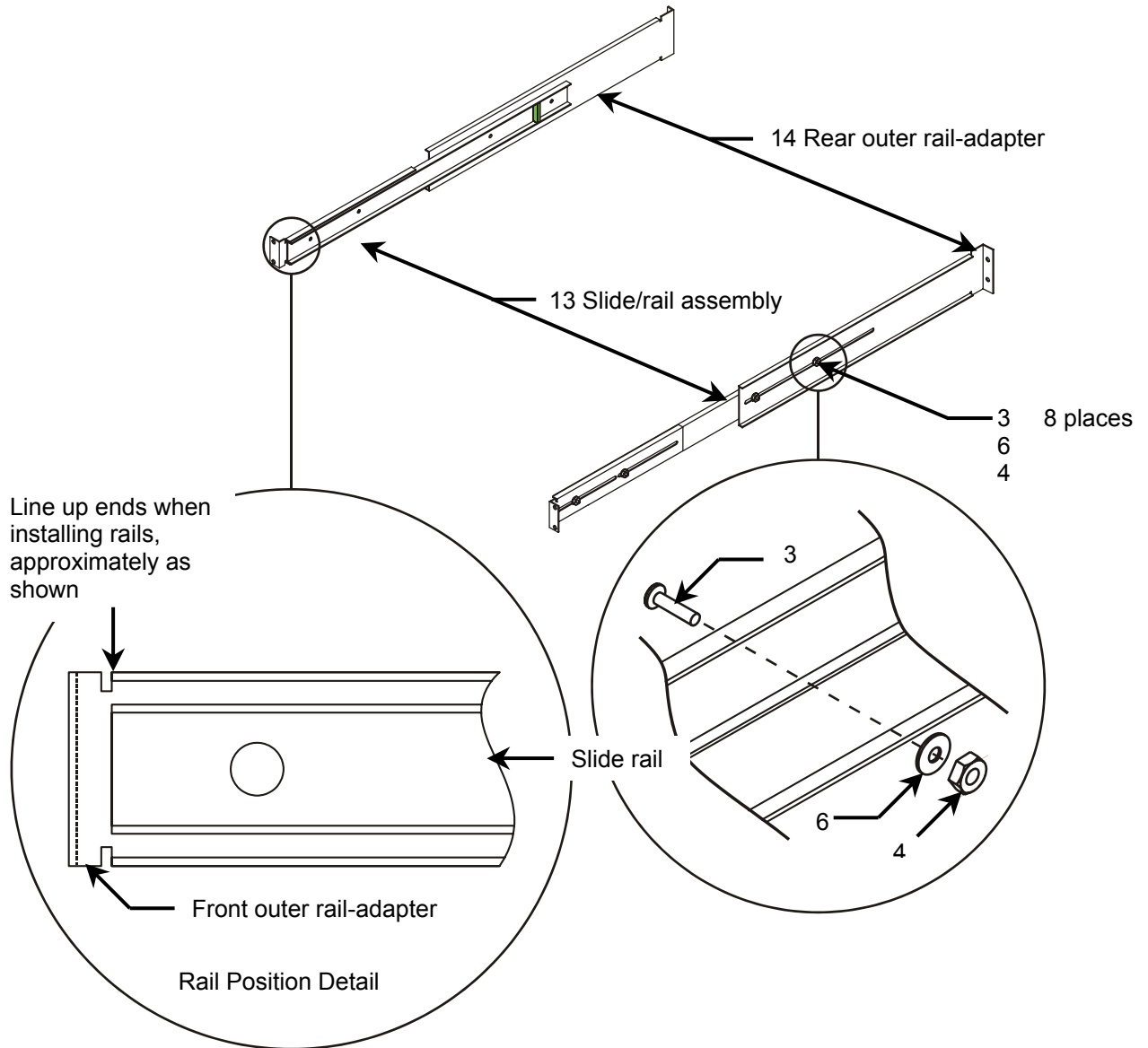9. Verify that you have the components listed in the following table:

FastStor Rackmount Kit Components				
Component ID	**Description**	**Quantity**		
1	Support box with attached inner slide rail	1		
2	Cover, top, support box	1		
3	Screw, panhead, slotted, 8-32 x 3/8"	10*		
4	Kepnut, 8-32	9*		
5	Screw, flathead, philips, 4-40 x ¼"	10		
6	Washer, flat, # 8	8*		
7	Screw, panhead, philips, 4-40 x ¼"	3		
8	Screw, panhead, philips, 10-32 x 3/8"	1		
9	Kepnut, 10-32	1		
10	Screw, panhead, philips, M6 x 10 x 10mm	8		
11	Nut plate	4		
12	Cage nut	2		
13	Slide/rail assembly; consisting of outer front rail adapter (9.5"), with attached outer slide rail	2		
14	Rail adapter, outer, rear (17.5")	2		
15	Inner slide rail.	1		
16	Mounting bracket, rack, with thumb screw	Left-hand	1	
		Right-hand	1	
17	Cable tie, 7.5"	5		
18	FastStor Rackmount Installation Instructions	1		
19	Screw, panhead, philips, 8-32 x 3/8"	2		

The component ID numbers listed in this table will be used throughout the remainder of these instructions in text and illustrations

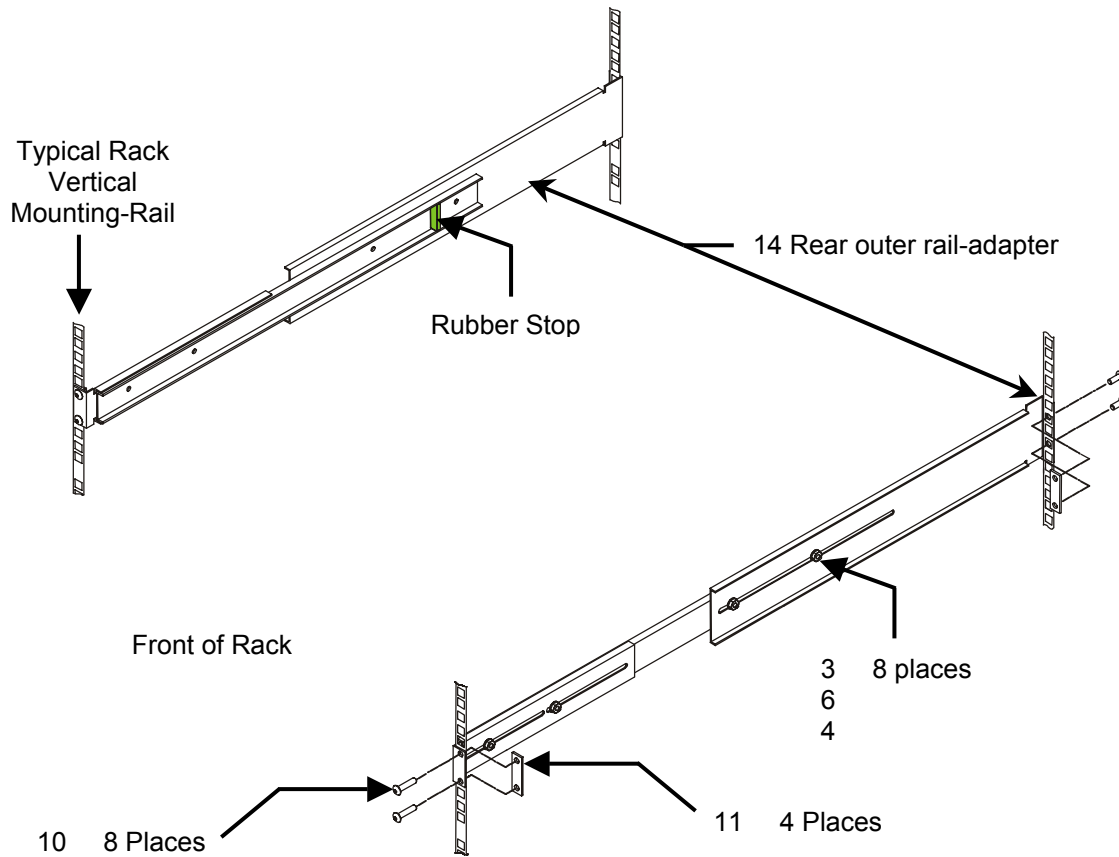* Some of these components are factory installed in the assembly.

Preparing the Rack

Refer to the following illustration while performing Steps 1 and 2:

14 Rear outer rail-adapter

13 Slide/rail assembly

3
6
4

8 places

Line up ends when installing rails, approximately as shown

3

Slide rail

6

4

Front outer rail-adapter

Rail Position Detail

1. Verify the alignment of the ends of the two front slide/rail assemblies (#13). The front edge of the slide rail should be aligned with the notch in the front outer rail-adapter as shown in Rail Position Detail in the illustration. If necessary, adjust the alignment of each rail assembly by loosening the two panhead screws (#3), reposition the ends of the slide rail until aligned, then tighten the two screws.

2. Using two slotted, panhead screws (#3), two flat washers (#6), and two Kepnuts (#4) for each assembly, attach the rear outer rail-adapters (#14) to the front slide/rail assemblies (#13) as shown. Do not fully tighten the screws at this time. Ensure that the flange on the rear outer rail adapter is facing the same direction as the flange on the front slide/rail assemblies, as shown in the illustration.

Refer to the following illustration while performing Steps 3 and 4:

Typical Rack
Vertical
Mounting-Rail

14 Rear outer rail-adapter

Rubber Stop

Front of Rack

3
6
4

8 places

11   4 Places

10   8 Places

3. Mount each slide rail assembly to your rack using four philips, panhead screws (#10) and a nut plate (#11) to secure them to the rack's vertical mounting-rails. Note that the rubber stop on the inner rail is positioned to the rear of the rack. Move the rear outer rail-adapter (#14) on each assembly rearward as necessary to fit your rack, and then fully tighten the two screws (#3) on the side of each rail.

4. If the rail assemblies are too short to fit your rack, fully tighten the two screws on the rear outer rail adapter. Now loosen the two screws that secure the front rail adapter to the assembly, and pull the front adapter away from the rail until the rail assembly fits your rack. After mounting both slide rail assemblies, fully tightening all screws on the slide rail assemblies.
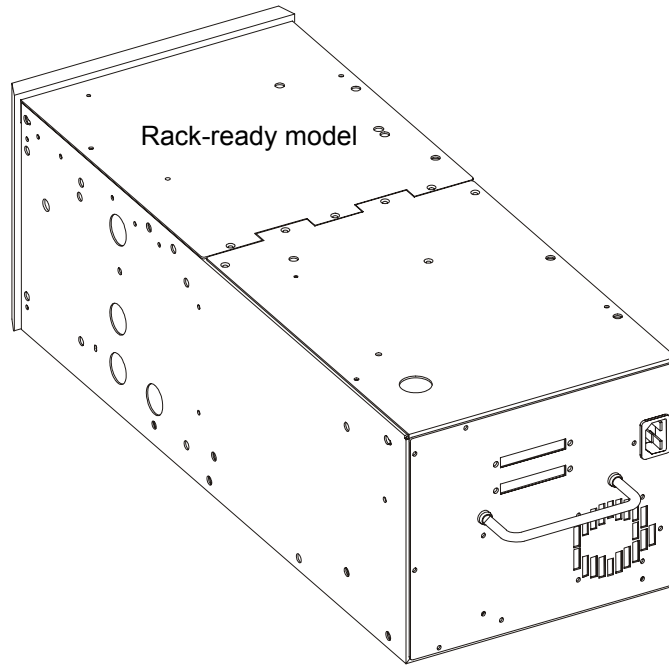
The next step in the process is to prepare the FastStor for rack mounting. If you are rack mounting a single FastStor unit, follow the instructions in the next section, titled: *Preparing a Single FastStor for Rack Mounting.* If you are rack mounting dual FastStor units, continue the installation procedure by going to the section titled *Preparing Dual FastStors for Rack Mounting*.

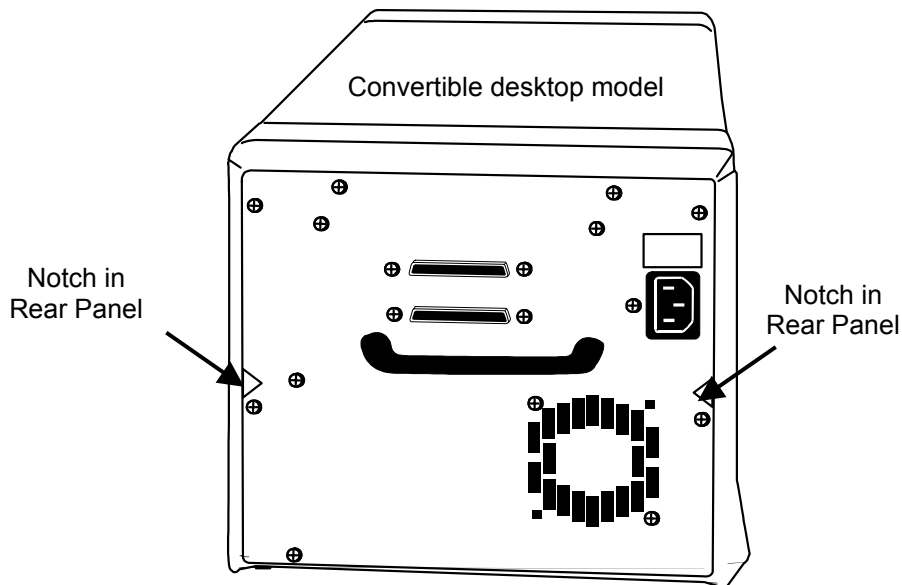# Preparing a Single FastStor for Rack Mounting

Determining Model

The first step in the rack mounting process is to determine the model of your FastStor. The following two illustrations represent different models of a rack-mountable FastStor.

If the chassis of your FastStor is fully visible as shown in the "Rack-ready model" illustration, it is a rack-ready model. Proceed to following section: *Installing Kit Components*.
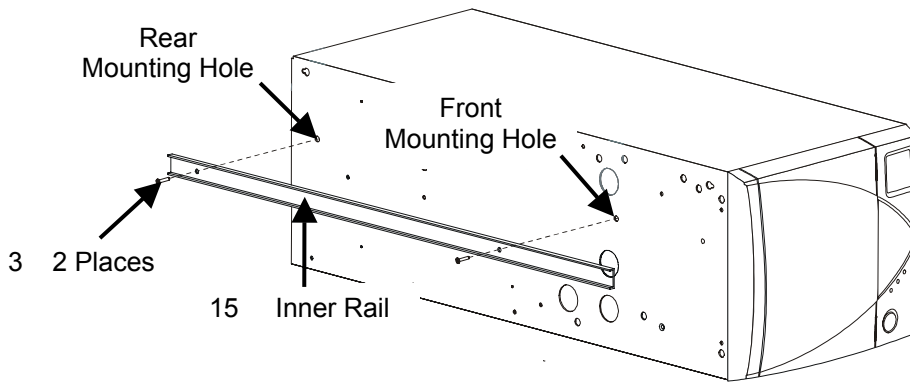

Rack-ready model

If your FastStor includes an outer cover and trim bezels that enclose the chassis, and the identifying notches in the rear panel, as shown in the following illustration, it is a convertible desktop unit and can be converted to a rack-ready model. Follow the detailed conversion procedure in document 62-0192-01 *FastStor Conversion Instructions (for Desktop/Rack Mount Applications)* to prepare your desktop FastStor for rack mounting. After completing the conversion, go to section: *Installing Kit Components* on page 7 of this document.

Convertible desktop model

Notch in Rear Panel

Notch in Rear Panel

Note: If your FastStor looks similar to the "Convertible desktop model" illustration, but does not have the identifying notches in the rear panel, you have an early Desktop model that is NOT designed for rack mounting. Do not attempt to complete these rack mounting instructions. Contact the ADIC Technical Assistance Center (ATAC) for assistance.
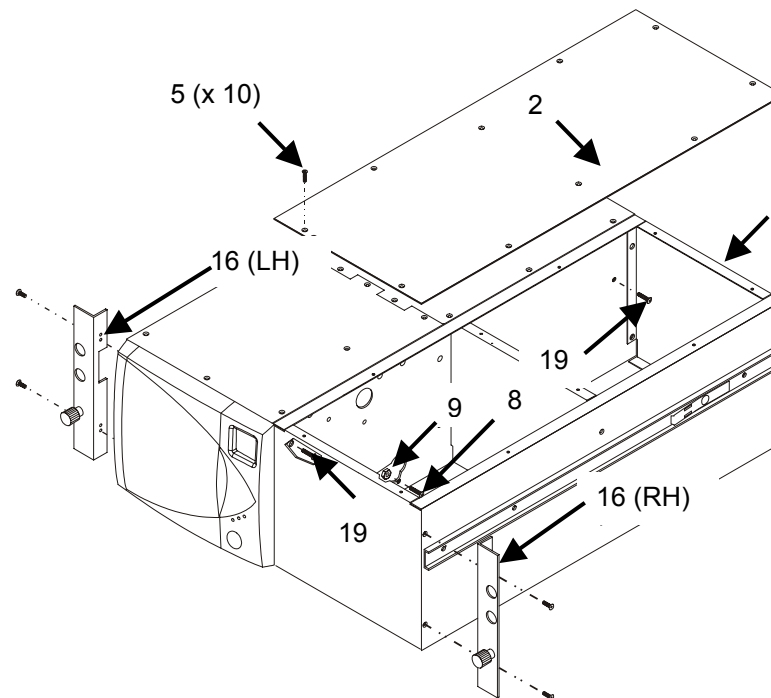
Installing Kit Components

1. Mount the left-hand inner slide rail (#15) to the FastStor using two slotted, pan head screws (# 3) as shown below.

Note: If the rear mounting-hole on the chassis is not threaded, you have an early rack-ready model. Perform the procedure detailed in *Appendix A: Side Rail Attachment for Early Model FastStor*, then return to the next step in this procedure.

Refer to the illustration below while performing Steps 2 through 6.

2. Fasten the support box (#1) and your FastStor together using two philips, pan head screws (#19) at the front and rear of the unit, and a philips, pan head screw (#8) with a Kepnut (#9) at the lower front of the unit. You must reach inside the front of the FastStor and hold the Kepnut in place when installing the philips, pan head screw (#8). The upper mounting hole for the front screw (#19) and the rear screw (#19) is threaded on the FastStor, and a Kepnut is not required.

3. Using a T-8 Torx driver, remove the upper and lower button head screws (#7) located at the front of the left side of the FastStor.

4. Mount the left-hand front bracket (#16) to the left side of the FastStor using the two button head screws (#7) removed from your FastStor during the previous step.

5. Remove the two button head screws (#7) located at the front on the right side of the support box. Mount the right-hand bracket (#16) to the right side of the support box using the two button head screws (#7). Be sure that the thumbscrews are positioned at the bottom as shown in the illustration above.

6. Using a #1 philips screwdriver, install the top cover (#2) to the support box using the 10 philips, flat head screws (#5).

The next step in the process is to install the FastStor into your rack. Follow the instructions in the section titled *Installing the FastStor/Support Box Assembly into the Rack* later in this document.

Rack Mounting Dual FastStors

These instructions provide detailed descriptions of the steps you must perform to install a pair of FastStors in a single slot of your rack. You'll need a work surface to assemble the parts on before installing your FastStors in the rack.
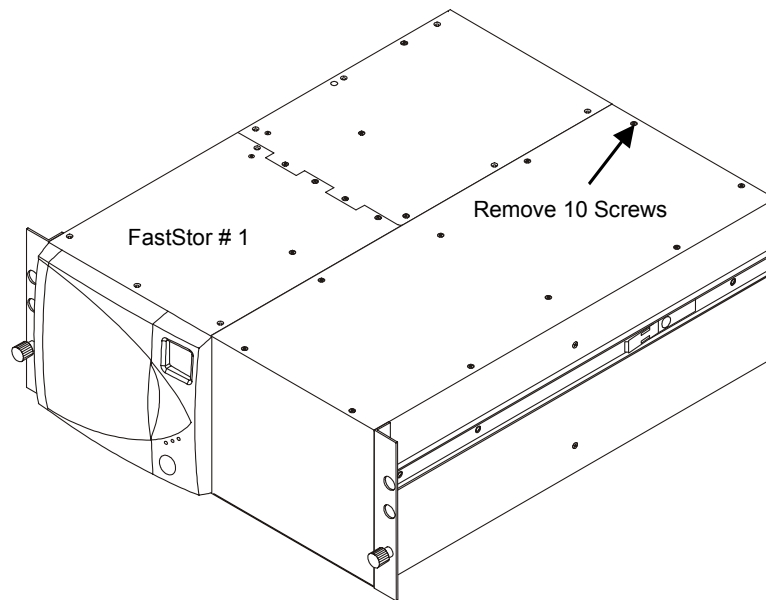
Preparing Dual FastStors for Rack Mounting

The FastStor is designed so that two units may be mounted side-by-side in a single rack slot. You can also add a second FastStor to one that you currently have mounted in a rack. Follow the instructions in this section to rack mount two FastStor units:

Note: If you are not adding a second unit to one already in a rack, perform the steps detailed in section *Unpacking the Rack Mount Kit*, earlier in this document, and continue until you have completed the section *Preparing the Rack*. After the rails are mounted in your rack, proceed to the section following this; *Attaching Two FastStor Units*.
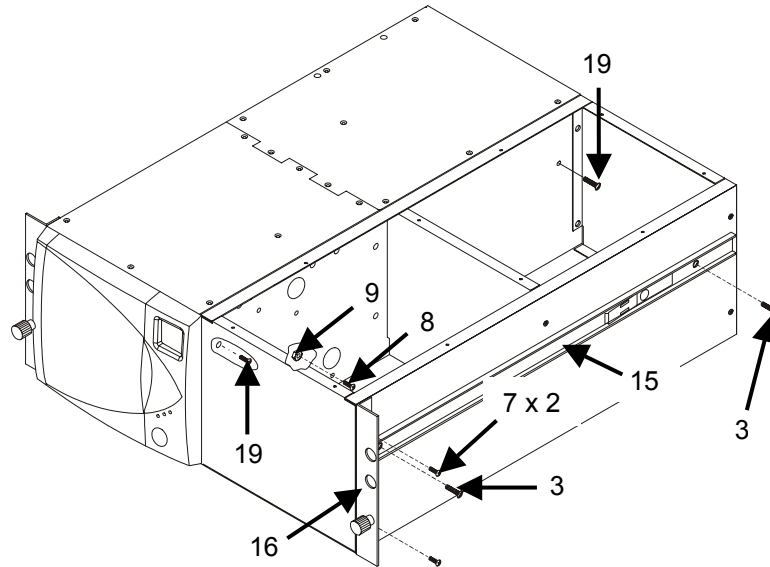
Separating the FastStor and Attached Support Box

These instructions assume that you are adding a FastStor to one already mounted in a rack. The FastStor should be removed from the rack, but the rails should not be removed (they will be used for both units).

1. Start by placing both FastStor units on a work surface so you can prepare them for installation. The unit with the attached support box will be referred to as FastStor #1 and should be placed on the left side of your work surface. The second unit will be referred to as FastStor #2 and should be placed on the right side of your work surface.

2. Using a #1 philips screwdriver, remove the 10 philips, flathead screws that secure the support box cover. Set the screws and cover aside.

3. Using a #1 philips screwdriver, remove the two philips, panhead screws (#19) in the front and rear compartment of the support box.
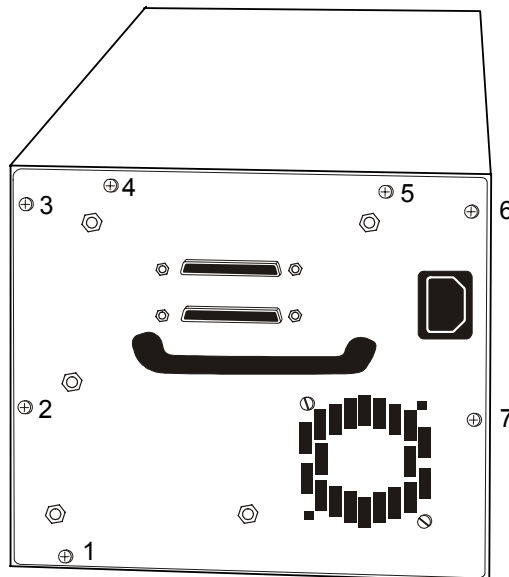

4. Using a #1 philips screwdriver, remove the philips, panhead screw (#8) and Kepnut (#9), in the front compartment of the support box. You must open the front door of the FastStor and reach inside to hold the Kepnut (#9) while removing the screw.

5. Using a #1 flat blade screwdriver, remove the two slotted, panhead screws (#3) that secure the slide (#15) to the right side of the support box. You will be mounting the slide onto FastStor #2.

6. Remove the front mounting bracket (#16) from the right side of the support box by removing the two philips, panhead screws (#7). You will be mounting the bracket on FastStor #2. Set the support box aside.
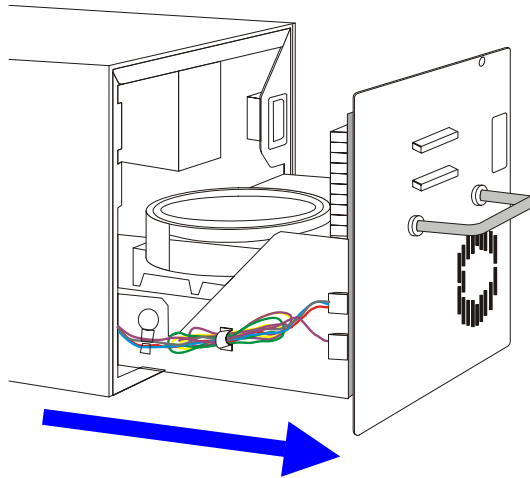
Attaching Two FastStor Units

1. Determine the model of FastStor #2 by performing the instructions detailed on page 6. Continue with these instructions when FastStor #2 is ready for rack mounting.

2. Using a #1 philips screwdriver, remove the seven philips, panhead screws that secure the drive assembly to the rear of FastStor #2 as shown in the following illustration.

CAUTION: Ensure that the AC power cord is disconnected from your FastStor before removing the drive assembly.
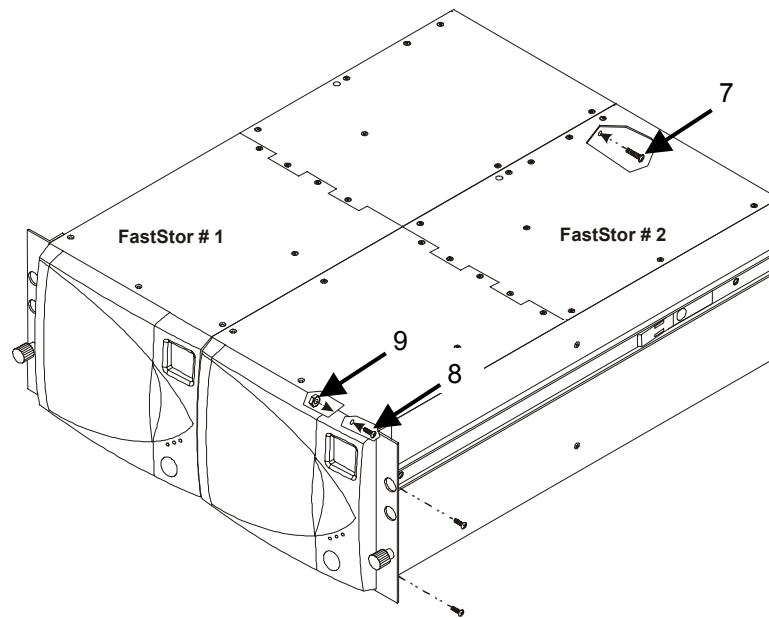
3. Grasp the handle and pull the drive assembly out from the chassis. There are two screws on the bottom of the drive assembly frame that act like stops when removing the assembly. To slide the assembly past these stop points, simply lift up slightly on the handle when the stops are encountered, and continue to pull the assembly out from the chassis. Set the drive assembly aside.
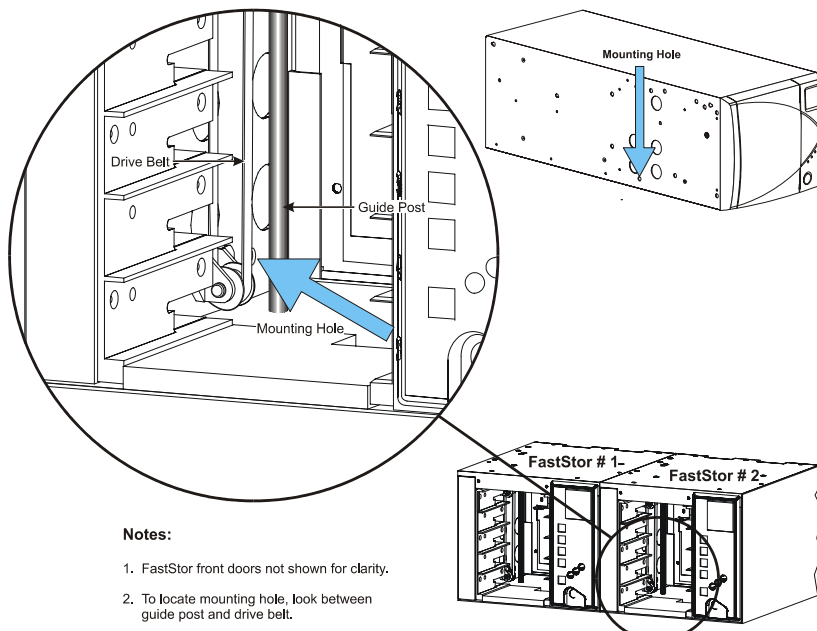

4. Place both FastStor units so that the right side of FastStor #1 is against the left side of FastStor #2 as shown in the following illustration.

As shown, the two FastStor units are connected together at the rear with a single philips screw (#7) installed inside FastStor #2, and at the front by a philips screw (#8) inside FastStor #2, used with a Kepnut (#9) inside FastStor #1.
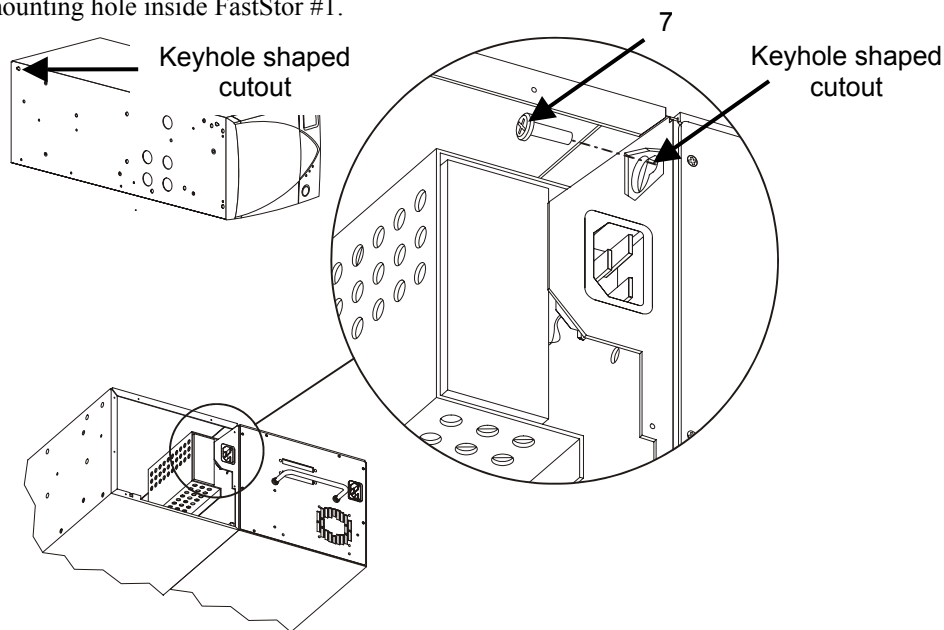

5. Open the front doors on both FastStor units.

6. With your right hand, reach inside through the front opening of FastStor #2 and insert the philips, panhead screw through the mounting hole located as shown in the illustration below. Continue to hold the screw in place

7. With your left hand, reach inside through the front opening of FastStor #1 and install the Kepnut onto the philips screw. Use a #1 Philips screwdriver to securely tighten the screw.

Mounting Hole

Drive Belt

Guide Post

Mounting Hole
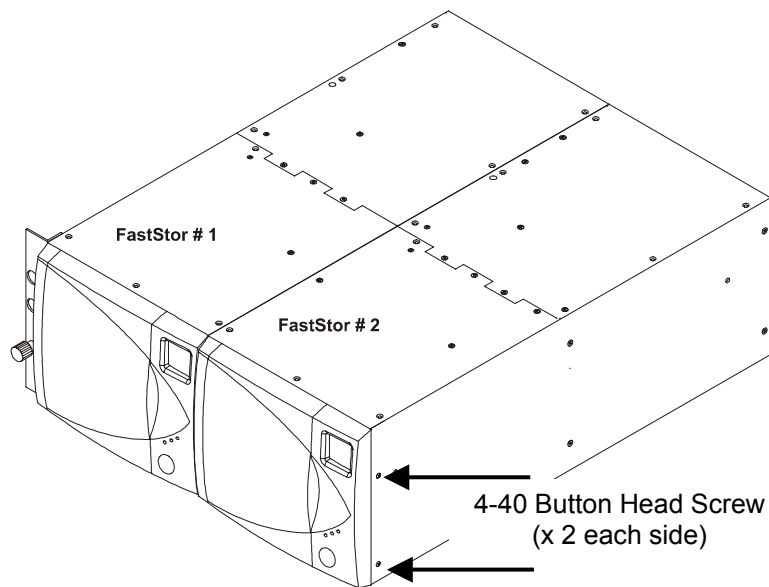
FastStor # 1

FastStor # 2

Notes:

1. FastStor front doors not shown for clarity.

2. To locate mounting hole, look between guide post and drive belt.

8. Using a #1 philips screwdriver, install the philips, panhead screw (#7) through the keyhole shaped cutout inside FastStor #2 into the threaded rear mounting hole inside FastStor #1.
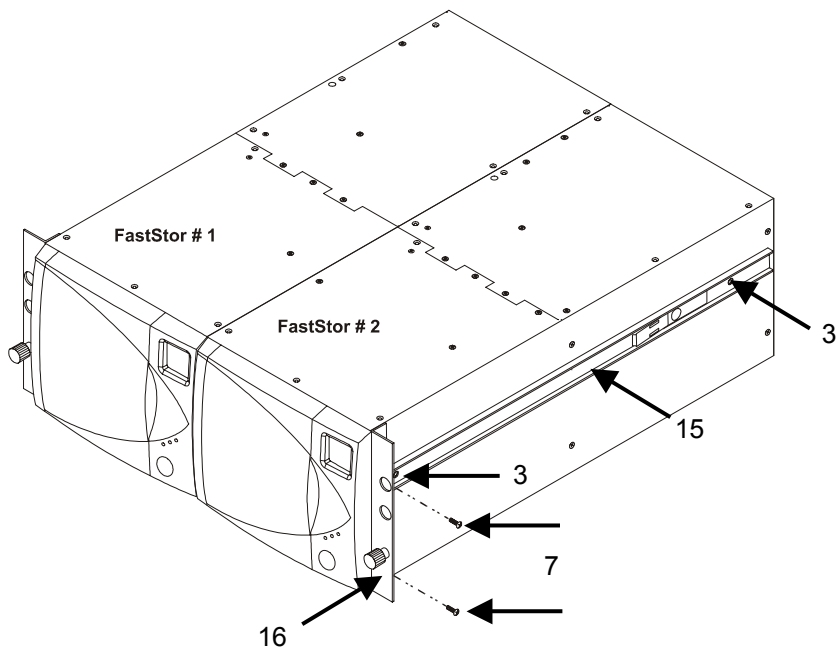

Keyhole shaped cutout

7

Keyhole shaped cutout

Note: If the threaded mounting hole is missing inside FastStor #1, it is an early rack-ready model. Complete the steps detailed in *Appendix B: Rear Mounting Point for Early Model Rack-Ready FastStor*, then continue this procedure with step 9 on page 11.

9. Using a T-8 Torx driver, remove the upper and lower button head screws located at the front right side of FastStor #2.

10. If not already mounted, use a #1 philips screwdriver to install the left-hand mounting bracket (#16) to the left side of FastStor #1 using two philips, panhead screws (#7). Be sure that the thumbscrews are positioned at the bottom.

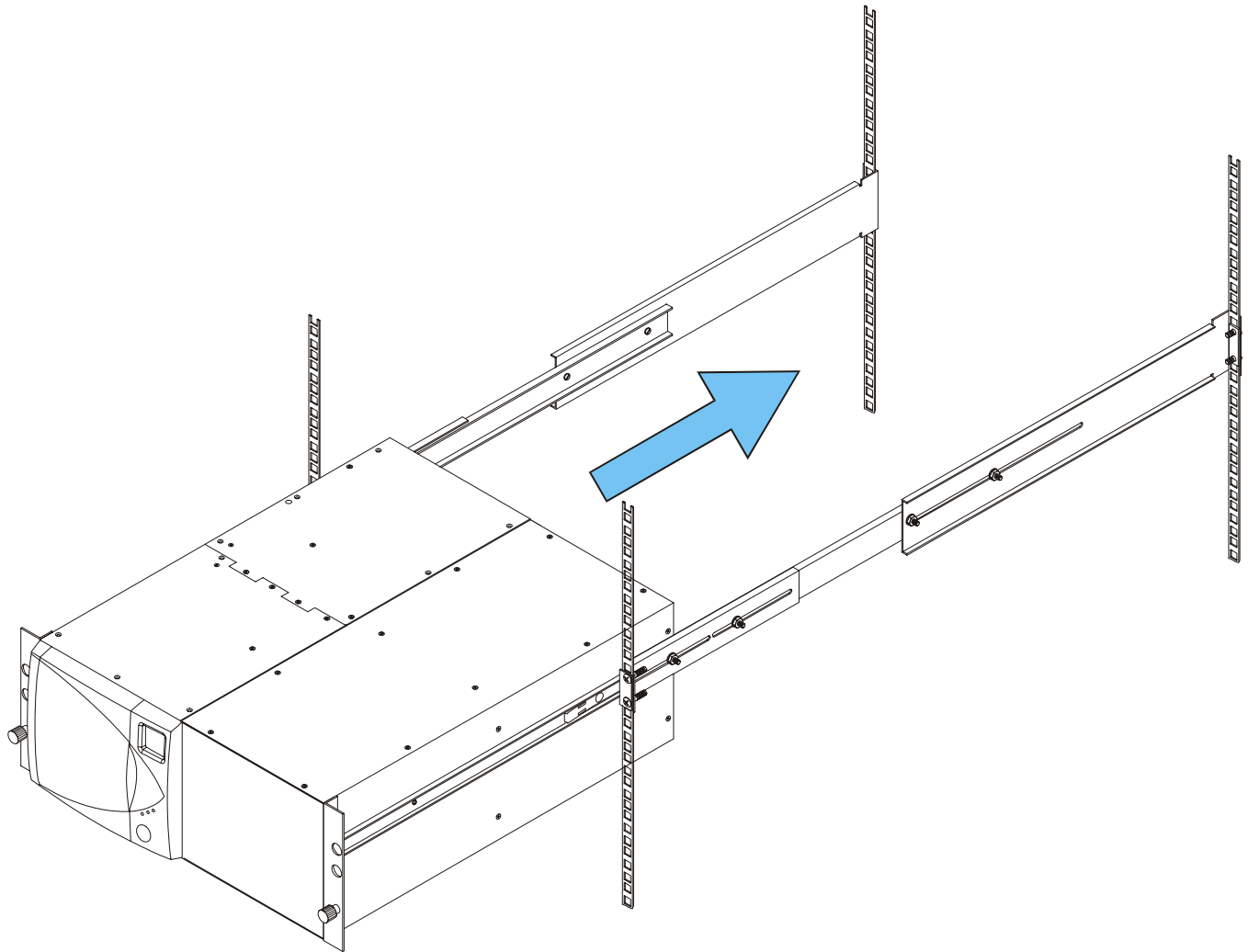4-40 Button Head Screw
(x 2 each side)

11. Using a #1 philips screwdriver, install the right-hand mounting bracket (#16) to the right side of FastStor #2 using two philips, panhead screws (#7). Be sure that the thumbscrews are positioned at the bottom.

12. If not already mounted, use a #1 philips screwdriver to install the left-hand mounting bracket (#16) to the left side of FastStor #1 using two philips, panhead screws (#7). Be sure that the thumbscrews are positioned at the bottom.

13. Using a #1 flat blade screwdriver, secure the inner slide rail (#15) to the right side of FastStor # 2 by installing two slotted, panhead screws (#3) as shown in the following illustration.

14. Replace the drive assembly in FastStor #2 using the seven philips screws removed earlier to secure the assembly to the rear.

15. Complete the rack mount installation of your dual FastStors by performing the steps detailed in the following section, keeping in mind that the dual FastStors are equivalent to the FastStor/support box assembly referred to in the section.

Installing the FastStor/Support Box Assembly into the Rack

1. With an assistant, lift the FastStor/support box assembly into position, and then guide the slides mounted on the FastStor and support box into the slide rail assemblies on the rack.

2. Push the FastStor/support box assembly rearward, until the front mounting brackets contact the rack's vertical mounting rails.

3. Install a cage nut in the mounting hole of each of the vertical mounting rails that lines up with the thumbscrews on the front mounting brackets. The spring flanges on the cage nuts are designed to lock into the holes.

4. Push in each of the thumbscrews on the front mounting brackets and turn the screws clockwise to secure the FastStor/support box assembly to the vertical mounting rails.

5. Install the AC line cord, SCSI cable and SCSI terminator to the rear of the FastStor by following the instructions in *Chapter 2 — Hardware Installation* of the *FastStor Installation and Operating Guide.*

6. Use the cable ties to secure the AC line cord and SCSI cable to your rack. Be sure to leave enough slack in them to allow the FastStor to be pulled out of the rack on its rails as far as possible.
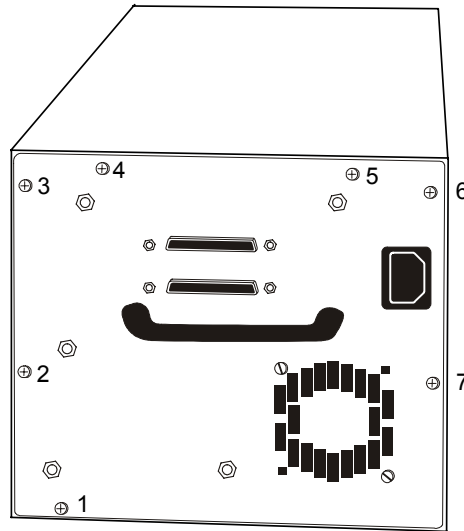
Your FastStor is now ready for use.

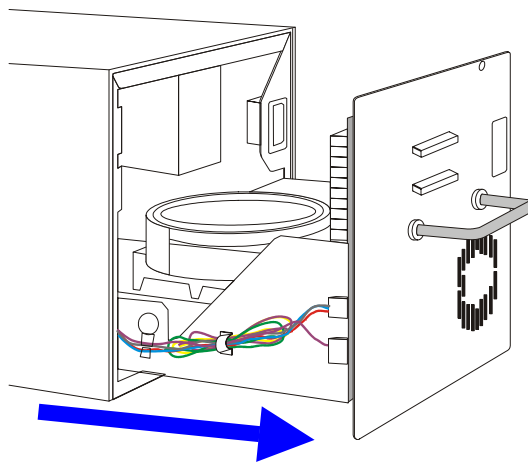# Appendix A: Slide Rail Attachment for Early Model FastStor

This appendix applies only to early model FastStor units with a non-threaded rear mounting-hole for the left slide rail attachment. When installing the slide rail, you will need to install a Kepnut (#4) onto the slotted, pan head screw (#3) used in the rear mounting-hole.

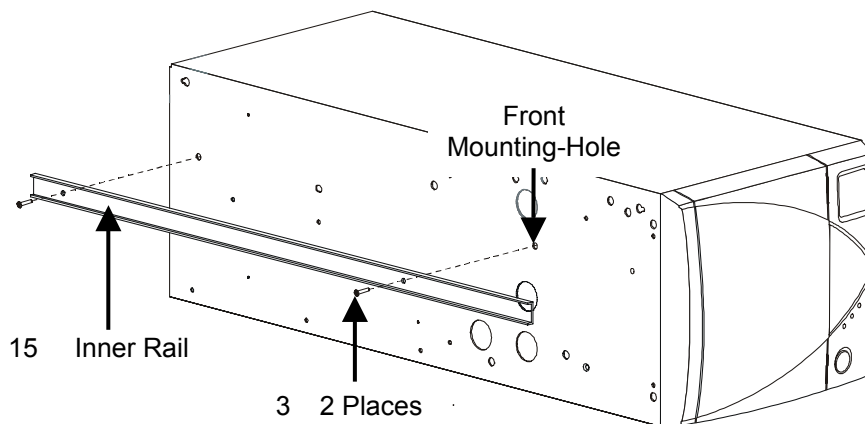**CAUTION:** Ensure that the AC power cord is disconnected from your FastStor before removing the drive assembly.

1. Remove the seven philips, pan head screws that secure the drive assembly in the FastStor.
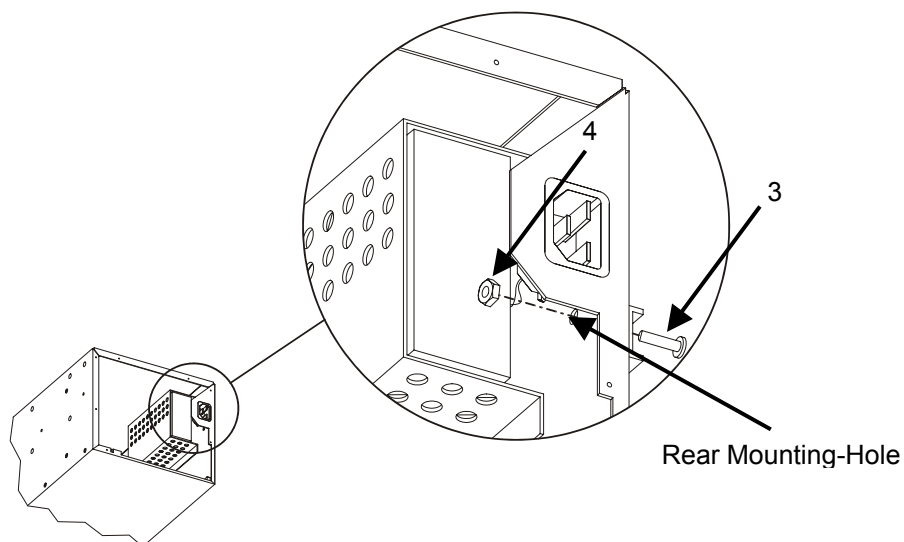

2. Grasp the handle and pull the drive assembly out from the chassis. There are two screws on the bottom of the drive assembly frame that act like stops when removing the assembly. Lift up on the handle slightly when the stops are encountered, and continue to pull the assembly out from the chassis. Set the drive assembly aside.

3. Mount the front of the left-hand inner slide rail (#15) to your FastStor at the front mounting-hole using a slotted, pan head screw (# 3). Refer to the illustration below for the location of the front mounting-hole.

Front
Mounting-Hole

15   Inner Rail

3   2 Places

4. Secure the rear of the left-hand inner slide rail (#15) to your FastStor at the rear mounting-hole using a slotted, pan head screw (# 3) and a Kepnut. Reach inside the rear opening of your FastStor and install the Kepnut (#4) onto the screw (#3). Refer to the exploded view in the following illustration for the location of the mounting-hole inside your FastStor.
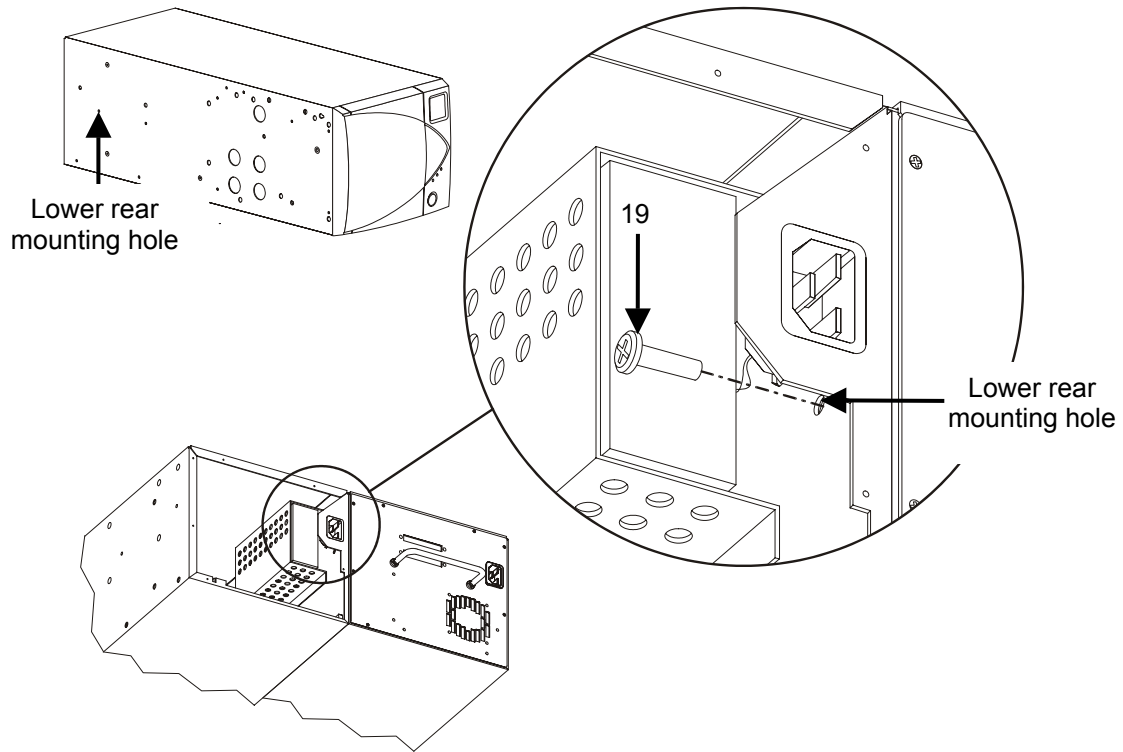
4

3

Rear Mounting-Hole

Note: be careful to not disturb the blue and brown wires that connect the AC input module to the power supply.

5. Re-install the drive assembly and secure the rear panel with the seven screws removed previously.

6. Return to section: *Installing Kit Components* earlier in this document.

Appendix B: Rear Mounting Point for Early Model Rack-Ready FastStor

Follow this procedure to attach an early model rack-ready FastStor to another FastStor.

1. Using a #1 philips screwdriver, install the philips, panhead screw (#19) into the rear mounting hole as shown in the illustration.

Rear-Mounting Hole Location

Return to section: *Attaching Two FastStor Units* earlier in this document.

June 27, 2001

Document Number 62-0125-01 Rev G

62-0125-01