

## Compaq StorageWorks Fibre Channel Hub Mount Kit Installation Guide

This document describes how to install a fibre channel (FC) hub using a FC hub mount kit into an Enterprise Storage Array (ESA) 12000 cabinet.

Compaq recommends installing the hub below the lowest enclosure in the cabinet.

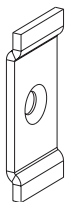
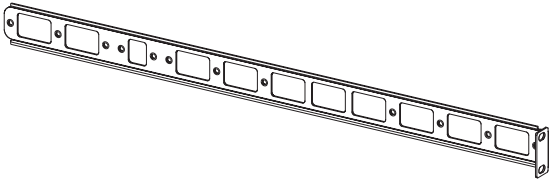
### Hub Mount Kit Contents

Use Table 1 to verify that all FC hub mount kit parts are available.

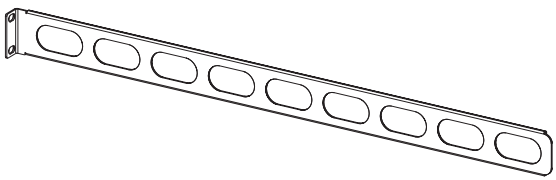
**Note**

This kit only applies to DIGITAL RETMA cabinets.

**Table 1 FC Hub Mounting Kit Parts List**

Description	Qty
10-32 x 5/8 in Pan Head SEMS Screw	8
Flat Head Screw	4
U-Nut	8
Mounting Plate Bracket (74-60157-01)	2
 CXO6622A	
Slide Bracket	2
 CXO6621A	

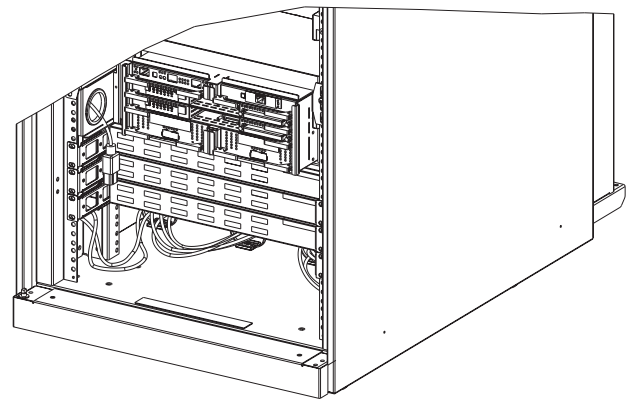
**Table 1 FC Hub Mounting Kit Parts List**

Description	Qty
Rear Mounting Bracket	2
 CXO6620A	

### Preliminary Information

If installing more than one hub, mount subsequent hubs (up to four) directly below the first hub (see Figure 1). Each hub installation requires a 1U space.

**Figure 1 Three-Hub Installation Example**



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Before installing a FC hub, a power cord for each hub being installed must be installed. For multiple FC hub configurations, Compaq recommends connecting primary hubs to the primary PDU and secondary hubs to the redundant PDU.

## Power Cord Installation Procedure

Complete the procedure in Table 2 to install a power cord for each FC hub being installed.

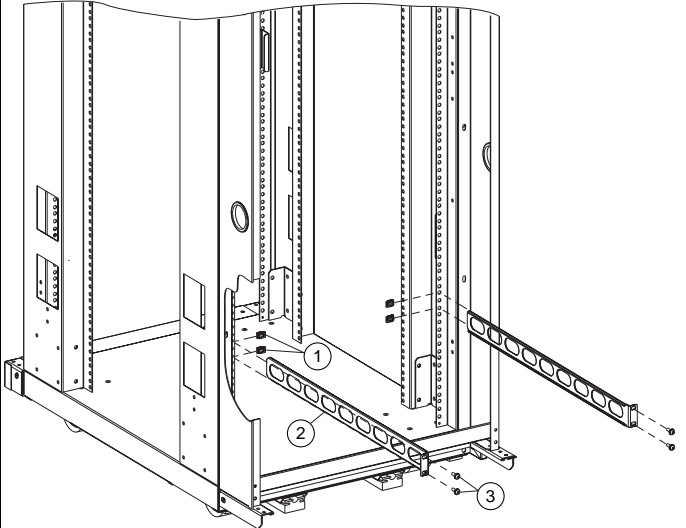
**Table 2 Power Cord Installation Procedure**

1. Identify the FC hub mounting location.
2. Remove any filler panels from the installation location.
3. Remove all power from the cabinet.  <p style="text-align: center;"><b>WARNING!</b></p> <p><b>High voltages exist in the cabinet when power is applied. Failure to remove power from the cabinet may result in personal injury.</b></p>
4. Remove four screws securing the redundant PDU located directly below the installation area.
5. Pull the redundant PDU outward and route the male plug end of each power cord under the PDU.  <p style="text-align: center;"><b>Note</b></p> <p>Ensure the appropriate number of power cords is routed under the PDU (one cord per hub).</p>
6. Plug each power cord into the appropriate primary or redundant PDU. For multiple FC hub configurations, consider labeling each power cord as primary or redundant.
7. Gently push the redundant PDU back into the cabinet and secure the PDU using the four screws removed in step 3.  <p style="text-align: center;"><b>Note</b></p> <p>Ensure the hub power cords exposed below the PDU are not pinched and are of sufficient length for plugging into the appropriate FC hub.</p>

## Hub Installation Procedure

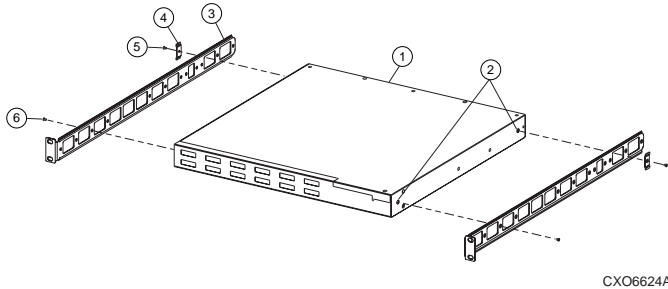
Complete the procedure in Table 3 to install a FC hub using the FC hub mount kit.

**Table 3 FC Hub Installation Procedure**

1. Reposition or remove any cabling that might interfere with installing a hub in the designated location.
2. Install two u-nuts (CALLOUT 1) in the first and third hole of the first U-space available under the lowest enclosure.
 <p style="text-align: right;">CXO6623A</p> <p style="text-align: center;"><b>Figure CALLOUTS Legend</b></p> <p>1) U-nuts 2) Rear mounting bracket 3) Pan head SEMS screws</p>
3. Align the first rear mounting bracket (CALLOUT 2) flange with the two u-nuts installed in the previous step and secure the bracket using two pan head SEMS screws (CALLOUT 3).
4. Repeat steps 2 and 3 for the second rear mounting bracket using the right-hand cabinet vertical rail.

**Table 3 FC Hub Installation Procedure (Continued)**

5. Remove four flat head screws (CALLOUT 2) that originally came with the FC hub and discard them (two screws on the left side and two on the right side).



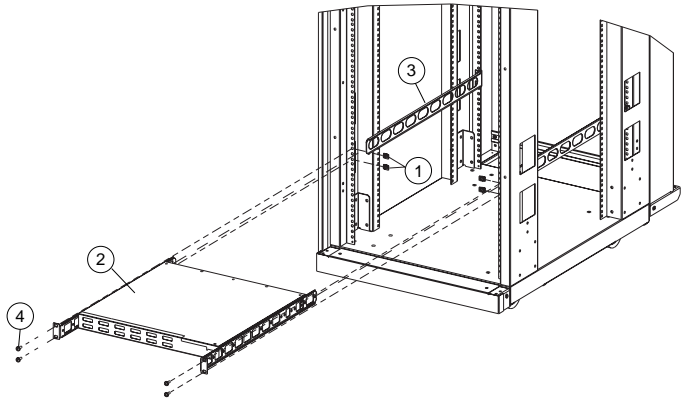
CXO6624A

**Figure CALLOUTS Legend**

- 1) FC hub
  - 2) Original flat head screw locations (left and right sides)
  - 3) Slide bracket
  - 4) Mounting plate bracket
  - 5) Rear flat head SEMS screw
  - 6) Front flat head SEMS screw
6. Attach the slide bracket (CALLOUT 3) to the left side of the hub (CALLOUT 1) using two flat head screws (CALLOUTS 5 and 6) that came with the kit and a mounting plate bracket (CALLOUT 4).
- a. Insert a flat head screw (CALLOUT 6) in the third hole from the front of the bracket and into the same hole from which a screw was removed from the left-front hub area, and secure it finger tight.
  - b. Insert a flat head screw (CALLOUT 5) through the mounting plate bracket and the second slide bracket opening from the rear.
  - c. Insert the screw (CALLOUT 5) into the hole from which a screw was removed from the left-rear hub area, securing it finger tight. Ensure the mounting plate bracket position clamps onto the slide bracket when secured to the hub.
  - d. Fully tighten both flat head screws securing the slide bracket to the hub.
7. Repeat step 6 to connect the second slide bracket to the right side of the hub.

**Table 3 FC Hub Installation Procedure (Continued)**

8. Install two u-nuts (CALLOUT 1) in the first and third hole of the first U-space available under the lowest enclosure on both the left and right cabinet vertical rails.



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**Figure CALLOUTS Legend**

- 1) U-nuts
  - 2) FC hub with slide brackets attached
  - 3) Rear mounting brackets
  - 4) Pan head SEMS screws
9. Align the hub slide brackets (CALLOUT 2) with both rear mounting brackets (CALLOUT 3) and insert the slide brackets into the mounting brackets, pushing inward until the slide bracket flange contacts the cabinet vertical rails.
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- Caution**
- Failure to support the hub in a relatively level position during installation can damage the rear mounting brackets. Maintain this position until the slide bracket is fully secured to the cabinet vertical rails.
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10. Align the two left slide bracket holes with the two u-nuts installed in step 8 and install two pan head SEMS screws (CALLOUT 4), securing the bracket to the cabinet rail.
  11. Repeat step 10 for the right slide bracket.
  12. Connect a power cord to each FC hub installed.
  13. Reposition or reconnect any cabling affected during the installation procedures in Table 2 or Table 3.

