

53-1001799-01  
January 31, 2010



# PowerConnect B-DCX-4S Rack Mount Kit

---

## Installation Procedure

**Supporting PowerConnect B-DCX-4S Backbone**

53-1001799-01



## Notes, Cautions, and Warnings

---

### NOTE

A NOTE indicates important information that helps you make better use of your computer.

---



### CAUTION

See the safety and regulatory information that shipped with your system. For additional regulatory information, see the Regulatory Compliance Homepage on [www.dell.com](http://www.dell.com) at the following location: [www.dell.com/regulatory\\_compliance](http://www.dell.com/regulatory_compliance).

---



### CAUTION

A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

---



### DANGER

A DANGER indicates a potential for property damage, personal injury, or death.

---

---

Information in this document is subject to change without notice.

© 2009 Dell Inc. All rights reserved.

Reproduction of these materials in any manner whatsoever without the written permission of Dell Inc. is strictly forbidden.

Trademarks used in this text: *Dell*, the *DELL* logo, *Inspiron*, *Dell Precision*, *Dimension*, *OptiPlex*, *Latitude*, *PowerEdge*, *PowerVault*, *PowerApp*, *Dell OpenManage* and the *YOURS IS HERE* logo are trademarks of Dell Inc.; *Intel*, *Pentium*, and *Celeron* are registered trademarks of Intel Corporation in the U.S. and other countries; *Microsoft*, *Windows*, *Windows Server*, *MS-DOS* and *Windows Vista* are either trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell Inc. disclaims any proprietary interest in trademarks and trade names other than its own.

Regulatory Model Codes: Brocade DCX-4S, Brocade DCX

# In this guide

- Introduction. . . . . 3
- Safety . . . . . 3
- Installation guidelines . . . . . 3
- Installing the DCX-4S in equipment cabinet. . . . . 4
- Unpacking the PowerConnect B-DCX-4S. . . . . 6
- Installing cabinet hardware . . . . . 6
- Install DCX-4S in cabinet . . . . . 7

# Introduction

This document provides instructions to install a DCX-4S Backbone in a 19 in. EIA equipment cabinet with a rail-to-rail depth of 27-31 in.(68.58 to 78.74 cm).

# Safety

Observe the caution notice in this manual. The caution notice has an ID, which is displayed in parentheses (C015). Use this ID to locate the translation of this caution notice in the *Brocade Product Safety Notices*.



**CAUTION**

**Use safe lifting practices when moving the product. (C015)**

---

**NOTE**

A fully populated PowerConnect B-DCX-4S weighs 103.50 kg (228.20 lb) with four FC8-48 port cards installed (192 ports) and requires a hydraulic or assisted lift to install it.

---

# Installation guidelines

---

**ATTENTION**

To ensure adequate cooling, install the chassis with the air intake (nonport side) facing the cool-air aisle.

---

Follow these general installation guidelines:

- Provide a space that is 8 rack units (8U) high, 61.19 cm (24.09 in.) deep, and 43.74 cm (17.22 in.) wide. 1U is equal to 4.45 cm (1.75 in.).
- To allow the quick removal of all power from the chassis, use AC power sources that are easily accessible and located near the chassis.
- Verify that the additional weight of the chassis does not exceed the weight limits of the cabinet.
- Plan for cable management before installing the chassis. Cables can be managed in a variety of ways, such as by routing cables below the chassis, to either side of the chassis, through cable channels on the sides of the cabinet, or using patch panels. Refer to the product’s Hardware Reference Manual for specific information.

- Ensure that one or two dedicated electrical branch circuits with the following characteristics are available:
  - 200-240 VAC, 50-60 Hz (refer to the corresponding Hardware Reference Manual for additional electrical specifications).
  - Protected by a circuit breaker in accordance with local electrical codes.
  - Supply circuit, line fusing, and wire size are adequate, according to the electrical rating on the chassis nameplate.
  - Grounded outlets are installed by a licensed electrician and compatible with the power cords.
  - Located close to the enterprise-class platform chassis and easily accessible.
- To maximize fault tolerance, connect each power cord to a separate power source.
- Ensure that all equipment installed in the cabinet is grounded through a reliable branch circuit connection. Do not rely on a secondary connection to a branch circuit, such as a power strip.
- Ensure that the product fans have access to a total minimum airflow of 350 cubic ft (9.91 cubic meters) per minute. Do not block intake vents. Allow for a minimum of 14 in. (35.66 cm) clearance.
- Ensure that the air temperature on the air intake side is less than 104<sup>o</sup> Fahrenheit (40<sup>o</sup> Celsius) during operation.

## Installing the DCX-4S in equipment cabinet

Use the following instructions to install the DCX-4S in an equipment cabinet using the 27-31 in. (68.58 to 78.74 cm) rail kit.

### Time required

Allow approximately one hour to unpack and install a chassis in a cabinet.

### Tools required

The following tools are required when installing the rack mount kit:

- Torque wrench with #2 Phillips screwdriver tip
- Flathead screwdriver
- Hydraulic or assisted lift with a minimum raise of 55 in. (140 cm) and a minimum capacity of 250 lbs (113 kg).

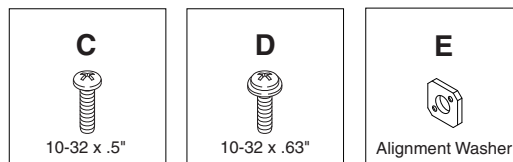
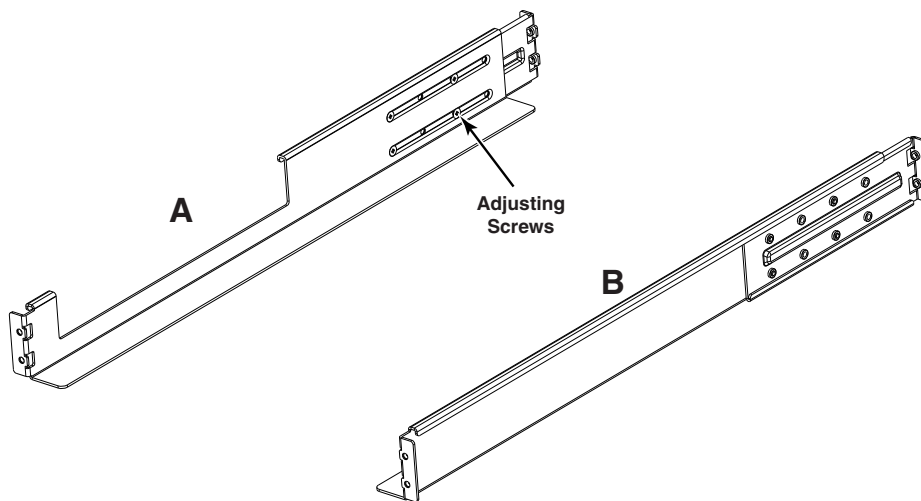
## Parts list

The following parts list refers to items illustrated in [Figure 1](#).

**TABLE 1** Items supplied with the DCX-4S rack mount kit

Item	Description
For all types of installations	
A	Left rail
B	Right rail
C	10-32 x .5 in. (1.27 cm) Phillips screw
D	10-32 x .63 in.(1.60 cm) Phillips screw. with square cone washer for cabinets that have rails with round holes.
E	Alignment washer for cabinets that have rails with square holes.

**FIGURE 1** DCX-4S 27 to 31 in. (68.58 to 78.74 cm) rail kit



# Unpacking the PowerConnect B-DCX-4S

Use the following procedure to unpack the PowerConnect B-DCX-4S.



## CAUTION

**Use safe lifting practices when moving the product. (C015)**

---

### NOTE

A fully populated PowerConnect B-DCX-4S weighs 103.50 kg (228.20 lb) with four FC8-48 port cards installed (192 ports) and requires a hydraulic or assisted lift to install it.

---

1. Unpack the PowerConnect B-DCX-4S.
  - a. Cut the bands that encircle the packaging.
  - b. Remove the lid and the kits and foam from the top of the chassis.
  - c. Lift the cardboard box off the chassis and remove the plastic bag from around the chassis. Save the packing materials for use when returning the old chassis.
  - d. Leave the chassis on top of the plastic shipping tray if the chassis must be transported to the installation location.
2. Use a pallet jack or other assisted lift to transport the new chassis to the installation area. Doorways must be wider than 36 in. (91 cm) to accommodate the chassis on the pallet.
3. Remove the rack-mount kit, accessory kit, packing foam, and antistatic plastic from the chassis and set aside.

## Installing cabinet hardware

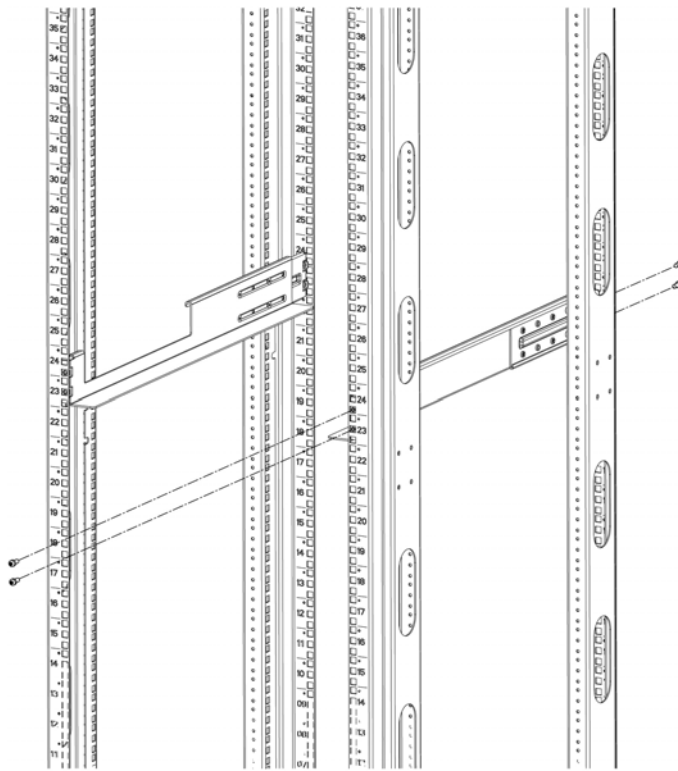
Use the following procedures to install the rail kit illustrated in [Figure 1](#) on page 5 into the equipment cabinet for mounting the DCX-4S.

1. On each rail (A and B in [Figure 1](#) on page 5), loosen the four 10-32 screws on the adjustable brackets and adjust the rails to the depth of your equipment cabinet. Tighten screws after adjustment.
2. Noting that the rails are designated “Left” and “Right,” install each rail in the cabinet using four 10-32 screws (C and D in [Figure 1](#) on page 5), two screws on each end of each rail. Refer to [Figure 2](#) on page 7.
  - Position the rails so that the adjustable ends are mounted on the intake aisle side of the cabinet.
  - For rails with round holes.

Use two 10-32 screws with square-cone washers (D in [Figure 1](#) on page 5) on each end of the rail assembly. Tighten screws to 32 in.-lbs (36.86 cm-kg).
  - For rails with square holes.

Use the two standard 10-32 screws with blue Loctite on the threads (C in [Figure 1](#) on page 5) and alignment washers (E in [Figure 1](#) on page 5) on each end of the rail assembly. Tighten screws to 32 in.-lbs (36.86 cm-kg).

**FIGURE 2** DCX-4S rails installed in equipment cabinet



## Install DCX-4S in cabinet

1. Ensure that the door is removed from the port side of the DCX-4S. For instructions, refer to the *DCX-4S Backbone Hardware Reference Manual*.
2. Ensure the chassis can be oriented so that the nonport side has access to intake air (cool).
3. Use a lift to raise the chassis to the correct level.

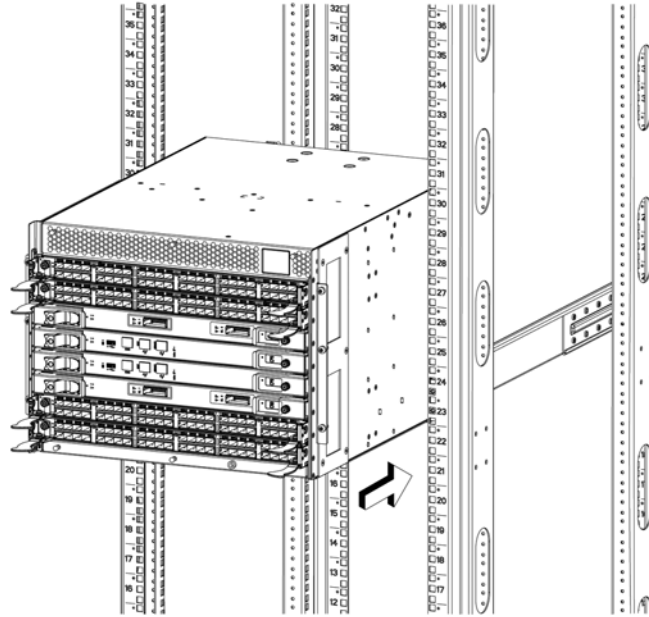


### **CAUTION**

**Use safe lifting practices when moving the product. (C015)**

4. If applicable, lock the wheels of the lift.
5. Gently slide the chassis onto the rack, ensuring that it remains supported during the transfer. Refer to [Figure 3](#) on page 8.

**FIGURE 3** Installing DCX-4S into equipment cabinet

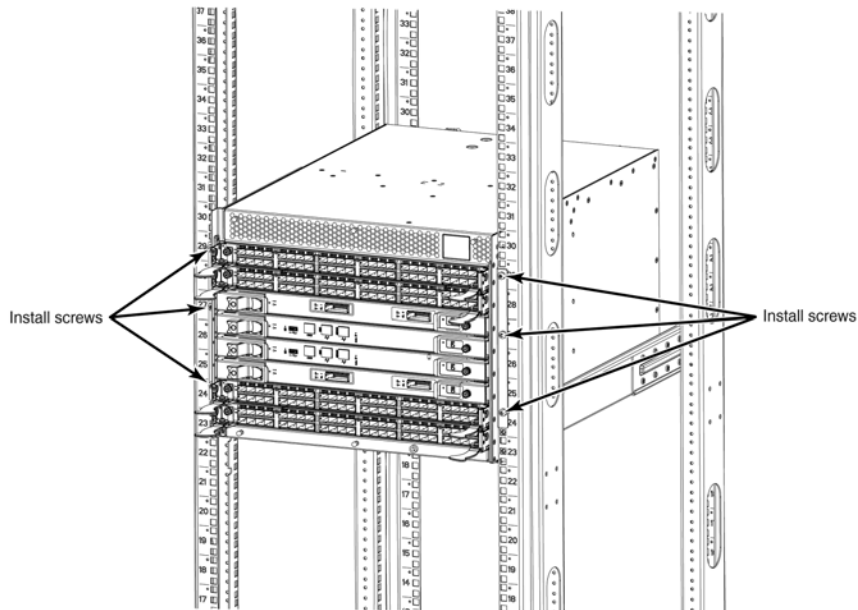


6. Secure the DCX-4S to the equipment cabinet racks with six 10-32 screws with square-cone washers (D in [Figure 1](#) on page 5), three screws on each side. Tighten screws to 32 in.-lbs (36.86 cm-kg).

**NOTE**

Screws, clip nuts, and retainer nuts for the DCS-4S are included in the DCX-4S hardware accessory kit.

**FIGURE 4** DCX-4S installed in equipment cabinet





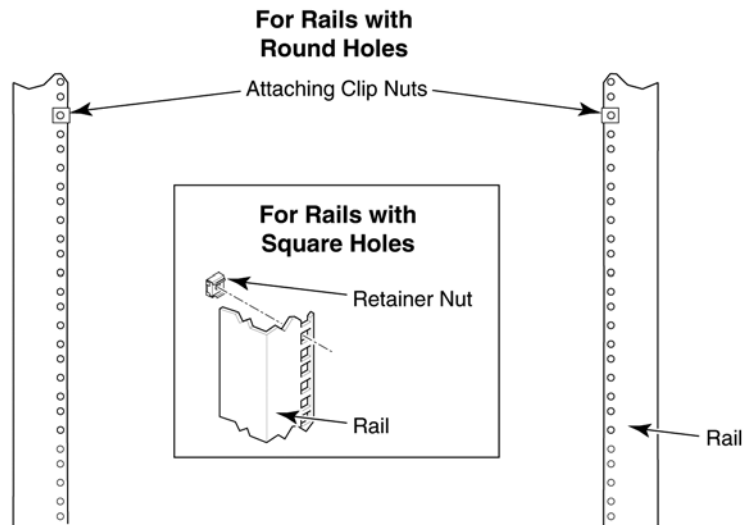
---

**NOTE**

For rails with round holes, use the clip nuts on the cabinet rails for securing 10-32 screws. For rails with square holes, use the retainer nuts. Refer to [Figure 5](#) on page 9.

---

**FIGURE 5** Using clip nuts and retainer nuts to secure screws to cabinet rails



7. Install the DCX-4S door and required cable management system using instructions in the *DCX-4S Backbone Hardware Reference Manual*.

