

# Brocade SilkWorm Switch and SilkWorm Director Sun Rackmounting Guide

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For Mounting Brocade SilkWorm 3200, 3250,  
3800, 3850, 3900, 4100, and 200E Switches and  
SilkWorm 12000, 24000, and 48000 Directors  
in Sun Equipment Racks

Sun Microsystems, Inc.  
[www.sun.com](http://www.sun.com)

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# Contents

---

## **Preface   vii**

- 1. Rackmounting the SilkWorm 3200, 3250, and 3850 Switches   1**
  - Installing the Rails   1
  - Installing the SilkWorm 3200, 3250, and 3850 Switches   6
- 2. Rackmounting the SilkWorm 3800 Switch   9**
  - Installing the Rails   9
  - Installing the Silkworm 3800 Switch   13
- 3. Rackmounting the SilkWorm 3900, 4100, and 200E Switches   15**
  - Installing the Rails   15
  - Installing the SilkWorm 3900, 4100, and 200E Switches   19
- 4. Rackmounting the SilkWorm 12000, 24000, and 48000 Directors   21**
  - Installing the Rails for the Sun StorEdge 72-Inch Expansion Cabinet   21
  - Installing the Rails for the Sun Rack 900/1000 Equipment Rack   26
  - Installing the SilkWorm 12000, 24000, and 48000 Directors   29



# Figures

---

FIGURE 1-1	SilkWorm 3200, 3250, and 3850 Switch Inner Slide Rail Installation	3
FIGURE 1-2	SilkWorm 3200, 3250, and 3850 Switch and Outer Slide Rail Installation	5
FIGURE 2-1	SilkWorm 3800 Switch Inner Slide Rail Installation	11
FIGURE 2-2	SilkWorm 3800 Switch and Outer Slide Rail Installation	12
FIGURE 3-1	SilkWorm 3900 Switch Installed With Additional 0.5 RU Above L-Brackets	16
FIGURE 3-2	Installing the Inner Rail (Shown With Optional Lower Set of Holes)	17
FIGURE 3-3	SilkWorm 3900 Switch and Outer Slide Rail Installation	18
FIGURE 4-1	Sun StorEdge 72-Inch Expansion Cabinet Mounting Rail Bracket	22
FIGURE 4-2	Mounting Rail Assembly (One of Two) for the Cabinets	22
FIGURE 4-3	Installing Two Screws Before Installing the Mounting Rail	23
FIGURE 4-4	Positioning the Mounting Rail (One of Two) in the Cabinet	24
FIGURE 4-5	Attaching the Mounting Rail Flange (One of Two) to the Cabinet	25
FIGURE 4-6	Sun Rack 900/1000 Equipment Rack Mounting Rail Bracket	26
FIGURE 4-7	Mounting Rail Assembly (One of Two) for the Cabinets	27
FIGURE 4-8	Positioning the Mounting Rail (One of Two) in the Cabinet	28
FIGURE 4-9	Removing the Front Door of the Director	29
FIGURE 4-10	Placing the Director on the Hand Truck	30
FIGURE 4-11	Aligning the Director With the Cabinet	31
FIGURE 4-12	Installing the Director in the Cabinet	32

FIGURE 4-13	Securing the Director to the Cabinet	33
FIGURE 4-14	Attaching the Power Cords to the Director	34

# Preface

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This manual describes how to install the following:

- Brocade SilkWorm 3200, 3250, 3800, 3850, 3900, 200E, and 4100 switches in a Sun StorEdge™ 72-Inch Expansion Cabinet and a Sun™ Rack 900/1000 equipment rack
- Brocade SilkWorm 12000, 24000, and 48000 directors in a Sun StorEdge 72-Inch Expansion Cabinet and a Sun Rack 900/1000 equipment rack

A rackmounting kit comes bundled with the SilkWorm 3800, 3900, 4100, and 200E switches and with the SilkWorm 12000, 24000, and 48000 directors. You must order a separate rackmounting kit for the following switches:

- SilkWorm 3200 – Part number SG-XSWBRO3200-RK
- SilkWorm 3250 and 3850 – Part number SG-XSWBRO3X50-RK

This manual provides procedures that meet the air flow requirements and other criteria of Sun Microsystems for rackmounted systems.

---

## How This Book Is Organized

Chapter 1 describes how to install the SilkWorm 3200, 3250, and 3850 switches in a Sun StorEdge 72-Inch Expansion Cabinet and a Sun Rack 900/1000 equipment rack.

Chapter 2 describes how to install the SilkWorm 3800 switch in a Sun StorEdge 72-Inch Expansion Cabinet and a Sun Rack 900/1000 equipment rack.

Chapter 3 describes how to install the SilkWorm 3900, 4100, and 200E switches in a Sun StorEdge 72-Inch Expansion Cabinet and a Sun Rack 900/1000 equipment rack.

Chapter 4 describes how to install the SilkWorm 12000, 24000, and 48000 directors in a Sun StorEdge 72-Inch Expansion Cabinet and a Sun Rack 900/1000 equipment rack.

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## Using UNIX Commands

This document might not contain information on basic UNIX® commands and procedures such as shutting down the system, booting the system, and configuring devices. Refer to the following for this information:

- Software documentation that you received with your system
- Solaris™ Operating System documentation, which is at

<http://docs.sun.com>

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## Shell Prompts

Shell	Prompt
C shell	<i>machine-name%</i>
C shell superuser	<i>machine-name#</i>
Bourne shell and Korn shell	\$
Bourne shell and Korn shell superuser	#



---

# Typographic Conventions

Typeface*	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. % You have mail.
<b>AaBbCc123</b>	What you type, when contrasted with on-screen computer output	% <b>su</b> password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this. To delete a file, type <code>rm filename</code> .

\* The settings on your browser might differ from these settings.

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## Related Documentation

Application	Title	Part Number
SAN installation	<i>Sun StorEdge SAN Foundation Installation Guide</i>	817-3671
SAN configuration	<i>Sun StorEdge SAN Foundation Configuration Guide</i>	817-3672
Switch information	<i>Brocade SilkWorm 3200 QuickStart Guide</i>	53-0001620 *
	<i>Brocade SilkWorm 3200 Hardware Reference Manual</i>	53-0001619 *
	<i>Brocade SilkWorm 3250/3850 QuickStart Guide</i>	53-0000624 *
	<i>Brocade SilkWorm 3250/3850 Hardware Reference Manual</i>	53-0000623 *
	<i>Brocade SilkWorm 3800 QuickStart Guide</i>	53-0001577 *
	<i>Brocade SilkWorm 3800 Hardware Reference Manual</i>	53-0001576 *
	<i>Brocade SilkWorm 3900 QuickStart Guide</i>	53-0001596 *
	<i>Brocade SilkWorm 3900 Hardware Reference Manual</i>	53-0001595 *
	<i>Brocade SilkWorm 4100 QuickStart Guide</i>	53-0000564 *
	<i>Brocade SilkWorm 4100 Hardware Reference Manual</i>	53-0000563 *

Application	Title	Part Number
Switch configuration and management in a SAN	<i>Brocade SilkWorm 12000 QuickStart Guide</i>	53-0000152 *
	<i>Brocade SilkWorm 12000 Hardware Reference Manual</i>	53-0000148 *
	<i>Brocade SilkWorm 24000 QuickStart Guide</i>	53-0000620 *
	<i>Brocade SilkWorm 24000 Hardware Reference Manual</i>	53-0000619 *
	<i>Brocade Fabric OS Procedures Guide, Version 3.1.0</i>	53-0000501 *
	<i>Brocade Fabric OS Procedures Guide, Supporting Fabric OS v4.2.0, Supporting SilkWorm 24000, 12000, 3900, 4100, 3850, and 3250</i>	53-0000518 *
Latest switch information	<i>Brocade Slide Rack Mount Kit Installation Procedure</i>	53-0001625 *
	<i>Sun StorEdge Network 2 Gb Brocade SilkWorm 3200, 3800, and 12000 Core Fabric Switch Release Notes</i>	817-0771

\* This document is available on the Brocade Documentation CD that comes with the product, or from your Sun service representative.

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*Brocade SilkWorm Switch and SilkWorm Director Sun Rackmounting Guide*, part number 817-0066-18



# Rackmounting the SilkWorm 3200, 3250, and 3850 Switches

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The Brocade SilkWorm 3200, 3250, and 3850 switches require that the slide rails be mounted into a Sun StorEdge 72-Inch Expansion Cabinet or a Sun Rack 900/1000 equipment rack before installation of the switches. You must order the SG-XSWBRO3200-RK or SG-XSWBRO3X50-RK rackmounting kit separately for these switches.

The SilkWorm 3200, 3250, and 3850 switches are 1 RU (rack unit) in height.

This chapter contains the following sections:

- [“Installing the Rails” on page 1](#)
- [“Installing the SilkWorm 3200, 3250, and 3850 Switches” on page 6](#)

---

**Note** – Some hardware in the rackmounting kit parts list might not be used in this installation.

---

---

## Installing the Rails

1. Separate the inner and outer slide rails for both slide assemblies by performing the following steps.
  - a. Pull the inner slide rail out until the lock engages.
  - b. Depress the lock release lever that is located inside the inner slide rail, and pull the inner slide rail out of the outer slide rail.

**2. Install the rackmount brackets on the inner slide rails by performing the following steps on each.**

These rackmount brackets prevent the switches from sliding all the way out of the rack in the event the rack is accidentally moved.

---

**Note** – To meet air flow requirements, the SilkWorm 3200, 3250, and 3850 switches are mounted with their cable sides facing the back of the cabinet (rack).

---

- a. Position a rackmount bracket at the end of the inner slide rails (the end that does not contain the lock release lever), as shown in [FIGURE 1-1](#).
  - b. Attach the rackmount bracket to the slide rail using two of the slotted head 8-32 x 3/8-inch screws, with a lock nut on the end of each screw.
  - c. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).
- 3. Attach two of the three-hole slide mount L-brackets to each outer slide rail.**
- a. See [FIGURE 1-2](#). Insert two of the slotted head 8-32 x 3/8-inch screws per L-bracket, with the screw heads on the inside of the slide rails and a lock nut on the end of each screw.
  - b. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).
- 4. Install the inner slide rails to the SilkWorm 3200, 3250, or 3850 switch chassis by performing the following steps on each.**
- a. Position one of the inner slide rails with the flat side against the switch.  
To allow the fan side of the switch to slide out of the front of the rack, orient the rail as shown in [FIGURE 1-1](#), with the end containing the lock release lever toward the cable side of the switch.
  - b. Attach the rail to the SilkWorm 3200, 3250, or 3850 switch by using two of the Phillips 8-32 x 3/16-inch screws (see [FIGURE 1-1](#)).

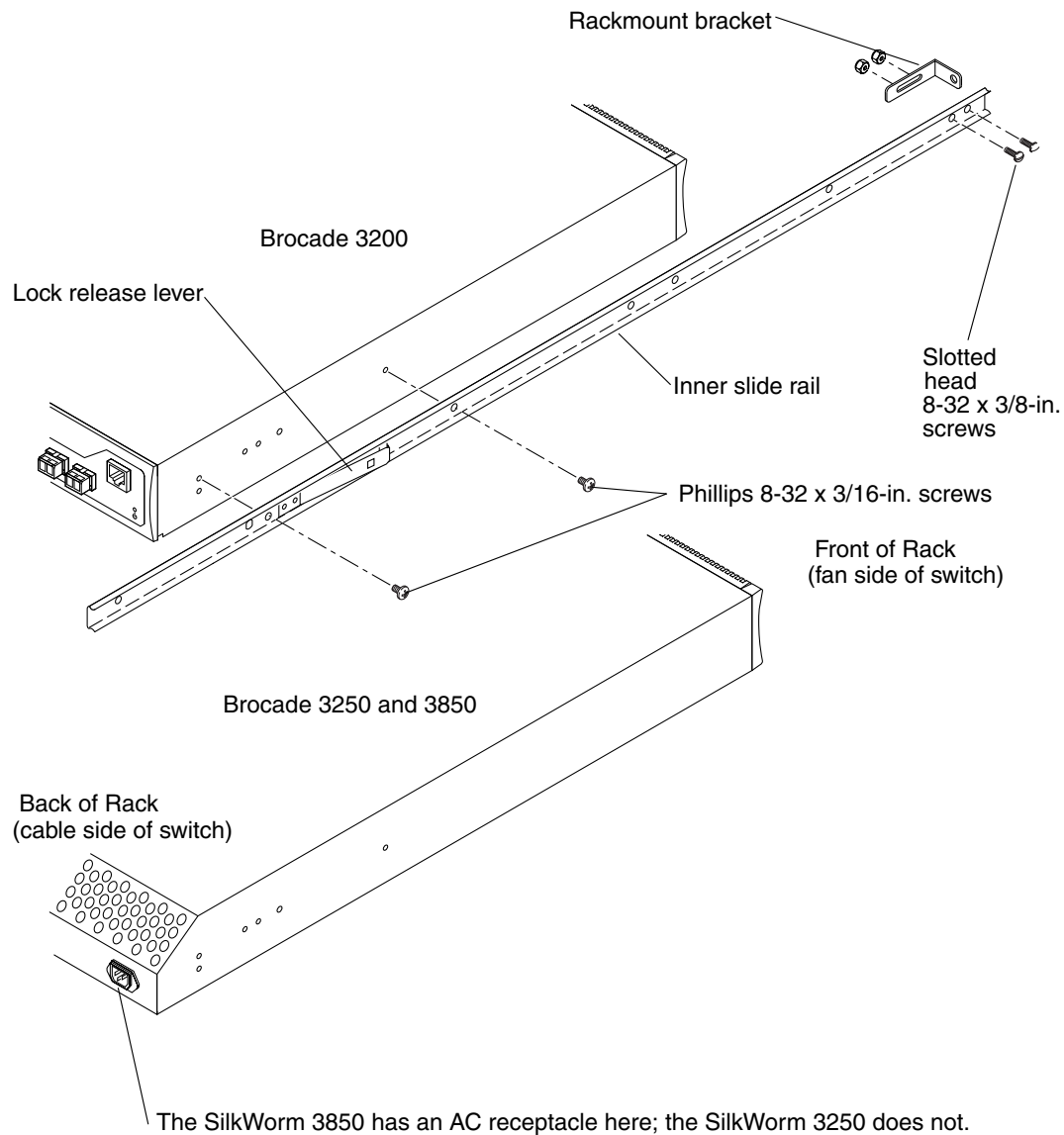


---

**Caution** – Using screws longer than 3/16-inch on the SilkWorm 3200, 3250, and 3850 switch chassis can damage the switch.

---

- c. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).



**FIGURE 1-1** SilkWorm 3200, 3250, and 3850 Switch Inner Slide Rail Installation

5. Install the outer slide rails in the rack by performing the following steps on each.

a. Loosen the screws of both of the three-hole slide mount L-brackets on the outer slide rail.

b. Position the outer slide rail in the rack and adjust the L-brackets to accommodate the depth of the cabinet. Refer to [FIGURE 1-2](#).

To allow the SilkWorm 3200, 3250, or 3850 switch to slide out of the front of the rack, orient the rail as shown in [FIGURE 1-2](#), with the closed end of the slide rail toward the back of the rack.

---

**Note** – For racks with a depth greater than 31.50 inches (80 cm), the rear L-brackets must be replaced with the 11-inch (27.9-cm) L-bracket. Adjust the length as required.

---

c. Re-tighten the screws.

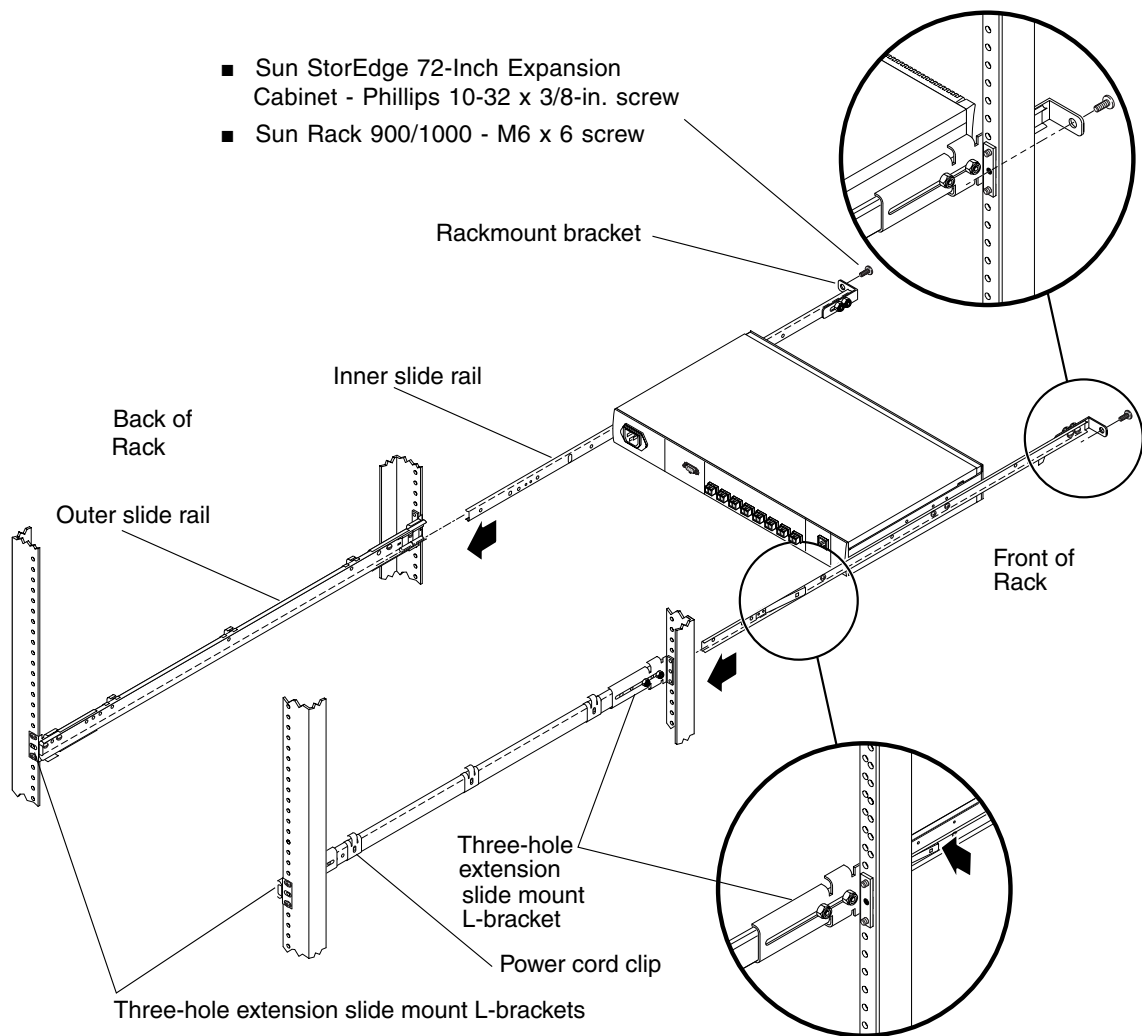
d. Attach the L-bracket on the front end of the outer slide rail to the corresponding rack vertical rail, using two of the Phillips 10-32 x 3/8-inch screws. See [FIGURE 1-2](#).

e. Tighten the screws to a torque of 25 inch-pounds (28.8 cm-kgs).

f. Repeat Steps d and e with the bracket on the back end of the same outer slide rail.

The bracket position can be adjusted to fit the rack. The back end uses three screws.





**FIGURE 1-2** SilkWorm 3200, 3250, and 3850 Switch and Outer Slide Rail Installation

---

# Installing the SilkWorm 3200, 3250, and 3850 Switches

1. Install the SilkWorm 3200, 3250, or 3850 switch in the rack by performing the following steps.
  - a. Position the switch next to the rack as shown in [FIGURE 1-2](#), and insert the inner slide rails into the outer slide rails.
  - b. Slide the switch into the rack.

---

**Note** – A screwdriver might be needed to depress the slide lock on the side of the slide rail when inserting or removing the switch from the rack.

---

- c. Check the alignment by sliding the switch in and out of the rack.

If there is any difficulty, pull the switch out of the rack and realign the slide rails.

2. Attach the rackmount brackets to the vertical rack rails using one Phillips 10-32 x 3/8-inch screw per bracket, tightening the screws to a torque of 25 inch-pounds (28.8 cm-kgs). See [FIGURE 1-2](#).
3. (Optional) Provide power to the SilkWorm 3200, 3250, or 3850 switch by performing the following steps.
  - a. Place the power cord clips on the outer slide rails. See [FIGURE 1-2](#).

The clips can be positioned with the tabs above or below the rail.

---

**Note** – The SilkWorm 3200 and 3250 switches have only one power cord.

---

- b. Insert each power cord into a power cord clip with a minimum service loop of six inches at the switch to ensure freedom to plug and unplug the power cord.



---

**Caution** – Do not plug a power cord into the power source or into the switch power supply until the switch is completely installed in the rack.

---

Ensure that all cables and cords are routed so that they will not be exposed to stress when the switch is moved on the slide rails.

---

- c. Connect the power cords to the SilkWorm 3200, 3250, or 3850 switch and to a power outlet.

---

**Note** – Always unplug each power cord from the SilkWorm 3200, 3250, or 3850 switch before moving it on the slide rails to prevent the cord from being pulled out of the power cord clips.

---

Refer to the following documents for important information on setting up the switches:

- SilkWorm 3200 switch
  - *Brocade Fabric OS Procedures Guide Version 3.1.0*, 53-0000501
  - *Brocade SilkWorm 3200 QuickStart Guide*, 53-0001620
  - *Brocade SilkWorm 3200 Hardware Reference Manual*, 53-0001619
- SilkWorm 3250 and 3850 switches
  - *Brocade Fabric OS Procedures Guide, Supporting Fabric OS v4.2.0, Supporting SilkWorm 24000, 12000, 3900, 3850, and 3250*, 53-0000518
  - *Brocade SilkWorm 3250/3850 QuickStart Guide*, 53-0000624
  - *Brocade SilkWorm 3250/3850 Hardware Reference Manual*, 53-0000623



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**Caution** – Do not connect the SilkWorm 3200, 3250, or 3850 switch to the network until the IP addresses are correctly set.

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## Rackmounting the SilkWorm 3800 Switch

---

The SilkWorm 3800 switch requires that the rails be mounted into a Sun StorEdge 72-Inch Expansion Cabinet or a Sun Rack 900/1000 equipment rack before installation of the switch. Each 3800 switch comes with a rackmounting kit.

The 3800 switch is 1 RU (rack unit) in height.

This chapter contains the following sections:

- [“Installing the Rails” on page 9](#)
- [“Installing the Silkworm 3800 Switch” on page 13](#)

---

**Note** – Some hardware in the rackmounting kit parts list might not be used in this installation.

---

---

## Installing the Rails

1. Separate the inner and outer slide rails for both slide assemblies by performing the following steps.
  - a. Pull the inner slide rail out until the lock engages.
  - b. Depress the lock release lever that is located inside the inner slide rail, and pull the inner slide rail out of the outer slide rail.

**2. Install the rackmount brackets on the inner slide rails by performing the following steps on each.**

These rackmount brackets prevent the switch from sliding all the way out of the rack in the event the rack is accidentally moved.

---

**Note** – To meet air flow requirements, the SilkWorm 3800 switch is mounted with the cable side facing the back of the cabinet (rack).

---

- a. Position a rackmount bracket at the end of the inner slide rail (the end that does not contain the lock release lever), as shown in [FIGURE 2-1](#).
  - b. Attach the rackmount bracket to the slide rail using two of the slotted head 8-32 x 3/8-inch screws, with a lock nut on the end of each screw.
  - c. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).
- 3. Attach two of the three-hole extension slide mount L-brackets to each outer slide rail.**
- a. See [FIGURE 2-2](#). Use two of the slotted head 8-32 x 3/8-inch screws per L-bracket, with the screw heads on the inside of the slide rails and a lock nut on the end of each screw.
  - b. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).
- 4. Install the inner slide rails to the SilkWorm 3800 switch chassis by performing the following steps on each.**
- a. Position one of the inner slide rails with the flat side against the SilkWorm 3800 switch.  
  
To allow the power supply side of the 3800 switch to slide out of the front of the rack, orient the rail as shown in [FIGURE 2-1](#), with the end containing the lock release lever toward the cable side of the 3800 switch.
  - b. Attach the rail to the SilkWorm 3800 switch by using the Phillips 8-32 x 3/16-inch screws.

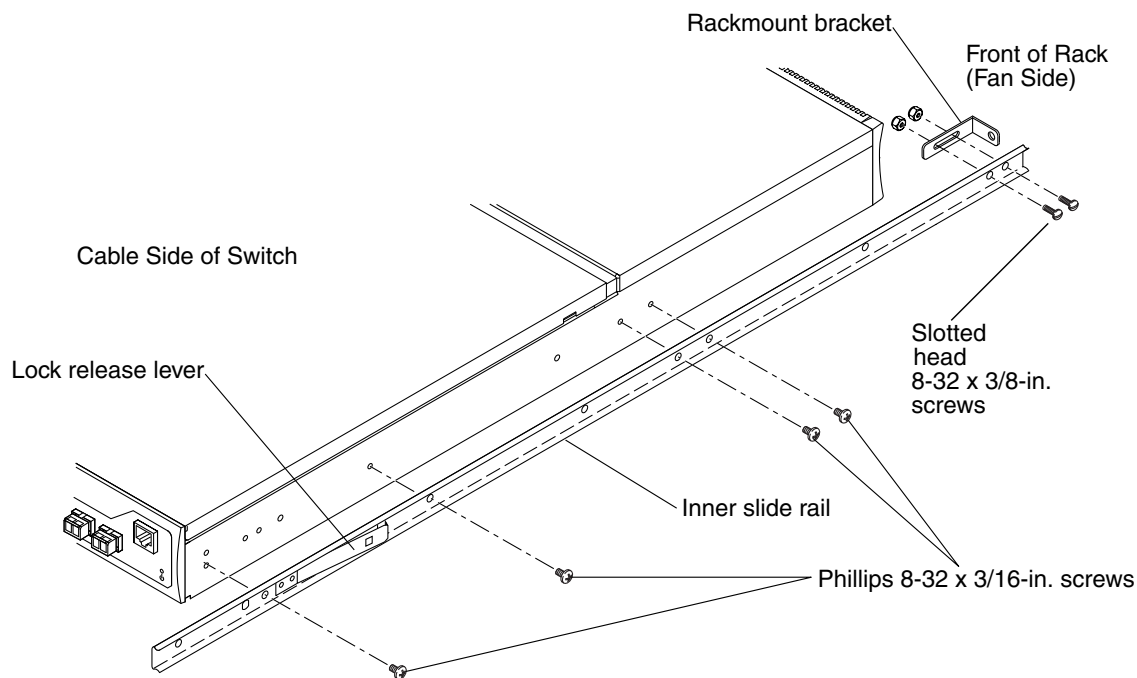


---

**Caution** – Using screws longer than 3/16-inch on the 3800 switch chassis can damage the SilkWorm 3800 switch.

---

- c. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).



**FIGURE 2-1** SilkWorm 3800 Switch Inner Slide Rail Installation

5. Install the outer slide rails in the rack by performing the following steps on each.
  - a. Loosen the screws of both of the three-hole extension slide mount L-brackets on the outer slide rail.
  - b. Position the outer slide rail in the rack and adjust the L-brackets to accommodate the depth of the cabinet. Refer to [FIGURE 2-2](#).

To allow the SilkWorm 3800 switch to slide out of the front of the rack, orient the rail as shown in [FIGURE 2-2](#), with the closed end of the slide rail toward the back of the rack.

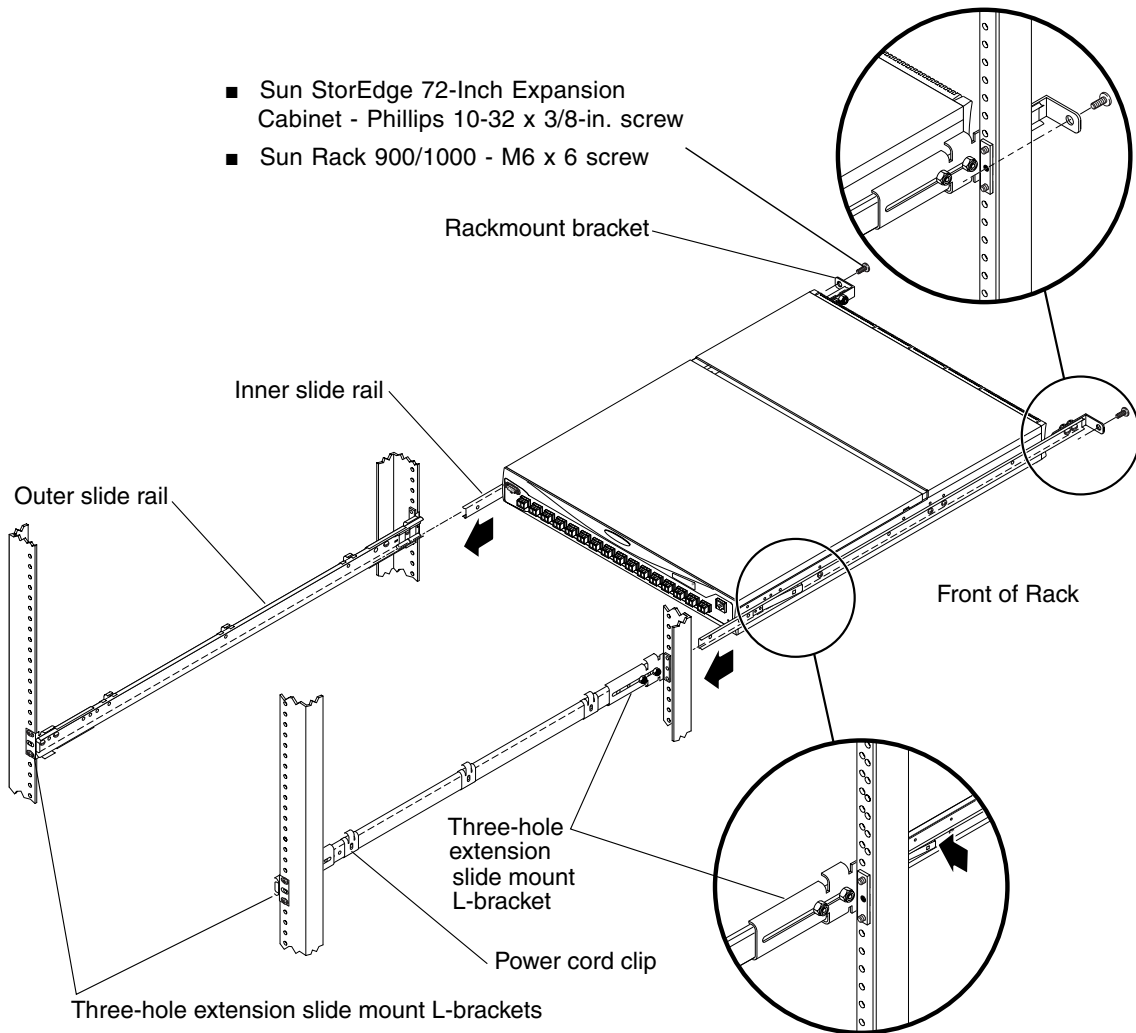
---

**Note** – For racks with a depth greater than 31.50 inches (80 cm), the rear L-brackets must be replaced with the 11-inch (27.9-cm) L-bracket. Adjust the length as required.

---

- c. Re-tighten the screws.

- d. Attach the L-bracket on the front end of the outer slide rail to the corresponding rack vertical rail, using two of the Phillips 10-32 x 3/8-inch screws. See [FIGURE 2-2](#).
  - e. Tighten the screws to a torque of 25 inch-pounds (28.8 cm-kgs).
  - f. Repeat Steps d and e with the bracket on the back end of the same outer slide rail.
- The bracket position can be adjusted to fit the rack. The back end uses three screws.



**FIGURE 2-2** SilkWorm 3800 Switch and Outer Slide Rail Installation



---

# Installing the SilkWorm 3800 Switch

1. Install the SilkWorm 3800 switch in the rack by performing the following steps.
  - a. Position the SilkWorm 3800 switch next to the rack as shown in [FIGURE 2-2](#), and insert the inner slide rails into the outer slide rails.
  - b. Slide the SilkWorm 3800 switch into the rack.

---

**Note** – A screwdriver might be needed to depress the slide lock on the side of the slide rail when inserting or removing the SilkWorm 3800 switch from the rack.

---

- c. Check the alignment by sliding the switch in and out of the rack.

If there is any difficulty, pull the switch out of the rack and realign the slide rails.

2. Attach the rackmount brackets to the vertical rack rails using one Phillips 10-32 x 3/8-inch screw per bracket, tightening the screws to a torque of 25 inch-pounds (28.8 cm-kgs). See [FIGURE 2-2](#).
3. (Optional) Provide power to the SilkWorm 3800 switch by performing the following steps.
  - a. Place the power cord clips on the outer slide rails. See [FIGURE 2-2](#).

The clips can be positioned with the tabs above or below the rail.
  - b. Insert the power cords into the power cord clips with a minimum service loop of six inches at the switch to ensure freedom to plug and unplug the power cord.



---

**Caution** – Do not plug a power cord into the power source or into the switch power supply until the switch is completely installed in the rack.

Ensure all cables and cords are routed so that they will not be exposed to stress when the switch is moved on the slide rails.

---

- c. Connect the power cords to the SilkWorm 3800 switch and to a power outlet.

---

**Note** – Always unplug the power cords from the SilkWorm 3800 switch before moving it on the slide rails to prevent the cords from being pulled out of the power cord clips.

---

**d. Flip the SilkWorm 3800 switch AC power switches to “I”.**

Refer to the following for important information on setting up the switch:

- *Brocade Fabric OS Procedures Guide Version 3.1.0*, 53-0000501
- *Brocade SilkWorm 3800 QuickStart Guide*, 53-0001577
- *Brocade SilkWorm 3800 Hardware Reference Manual*, 53-0001576



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**Caution –** Do not connect the SilkWorm 3200, 3250, or 3850 switch to the network until the IP addresses are correctly set.

---

## Rackmounting the SilkWorm 3900, 4100, and 200E Switches

---

The SilkWorm 3900, 4100, and 200E switches requires that the rails be mounted in a Sun StorEdge 72-Inch Expansion Cabinet or a Sun Rack 900/1000 equipment rack before installation of the switch. Each switch comes with a rackmounting kit.

The 3900 switch is 1.5 RU (rack unit) in height.

The 4100 and 200E switches are 1.0 RU in height.

---

**Note** – The three switches have essentially the same dimensions (except for the height) and are mounted with the same procedure.

---

This chapter contains the following sections:

- [“Installing the Rails” on page 15](#)
- [“Installing the SilkWorm 3900, 4100, and 200E Switches” on page 19](#)

---

**Note** – Some hardware in the rackmounting kit parts list might not be used in this installation.

---

---

## Installing the Rails

1. Separate the inner and outer slide rails for both slide assemblies by performing the following steps.
  - a. Pull the inner slide rail out until the lock engages.

- b. Depress the lock release lever that is located inside the inner slide rail, and pull the inner slide rail out of the outer slide rail.
2. For the SilkWorm 3900 switch, determine the vertical positioning of the switch in the cabinet before installing the inner slide rails on the switch chassis (FIGURE 3-1).
  - To install the switch so that the additional 0.5 RU is above the slide rail, install the inner slide rail in the lower row of holes on the switch. See FIGURE 3-2.
  - To install the switch so that the bulk of the switch is below the slide rail, install the inner slide rail in the upper row of holes on the switch.



**FIGURE 3-1** SilkWorm 3900 Switch Installed With Additional 0.5 RU Above L-Brackets

3. Install the inner slide rails to the SilkWorm 3900, 4100, and 200E switches chassis by performing the following steps on each.

- a. Position the inner slide rail with the flat side against the switch.

To allow the power supply side of the switch to slide out of the front of the rack, orient the rail as shown in FIGURE 3-2, with the end containing the lock release lever toward the cable side of the switch.

- b. Attach the rail using the Phillips 8-32 x 3/16-inch screws.



---

**Caution** – Using screws longer than 3/16-inch on the 3900 switch chassis can damage the switch.

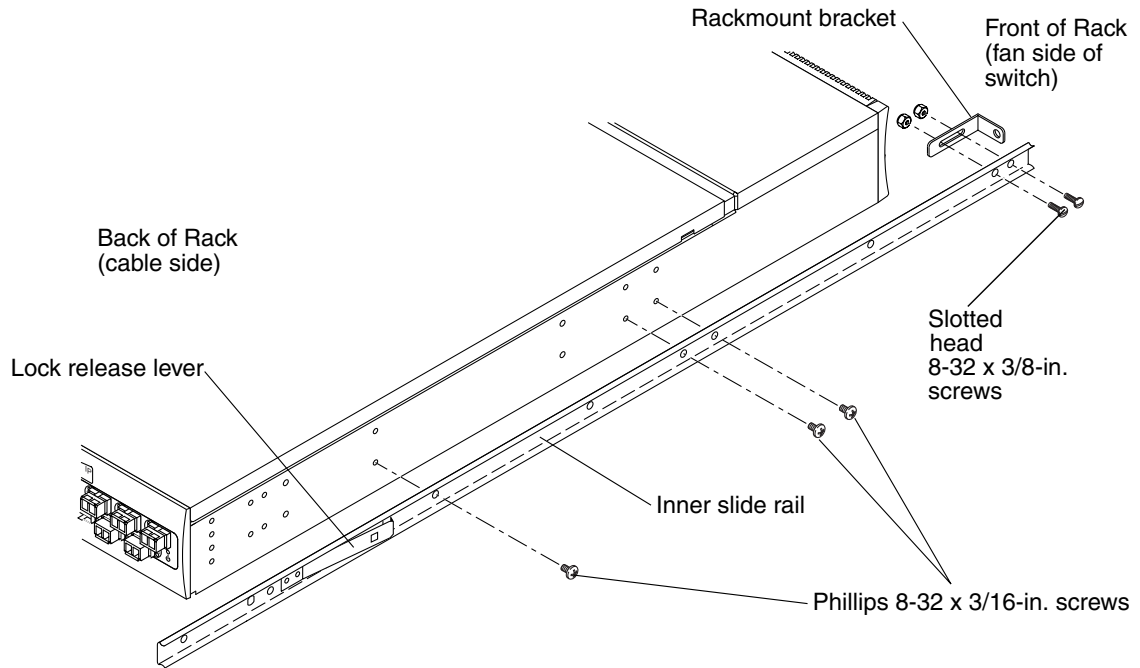
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- c. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).

---

**Note** – The SilkWorm 3900 switch illustrated in [FIGURE 3-2](#) has a height of 1.5 RU, whereas the SilkWorm 4100 and 200E switches have a height of 1.0 RU.

---



**FIGURE 3-2** Installing the Inner Rail (Shown With Optional Lower Set of Holes)

**4. Install the rackmount brackets on the inner slide rails by performing the following steps on each.**

These rackmount brackets prevent the switch from sliding all the way out of the rack if the rack is accidentally moved.

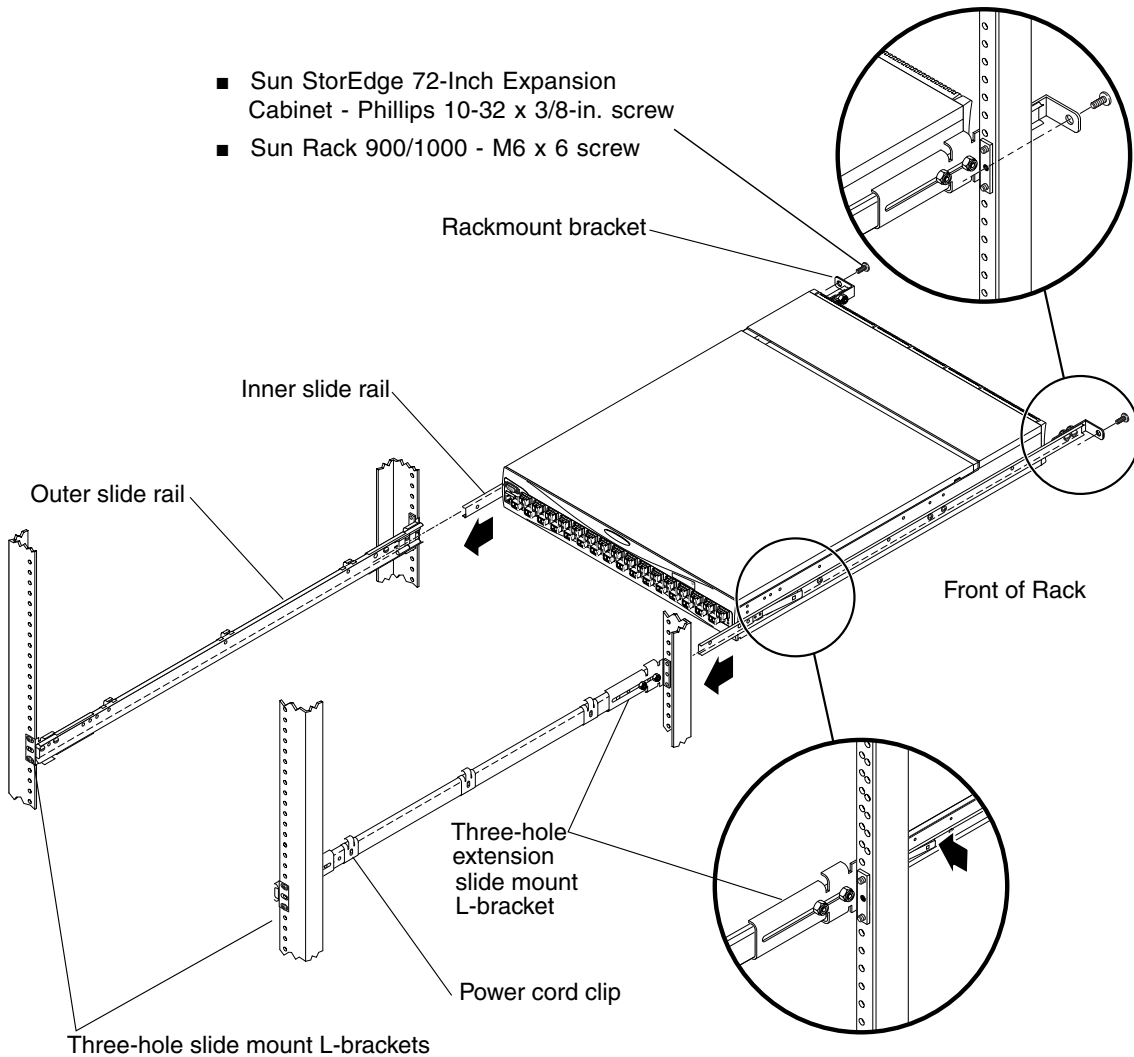
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**Note** – To meet air flow requirements, the SilkWorm 3900, 4100, and 200E switches are mounted with the cable side facing the back of the cabinet (rack).

---

- a. Position a rackmount bracket at the end of the inner slide rail (the end that does not contain the lock release lever), as shown in [FIGURE 3-2](#).
- b. Attach the rackmount bracket to the slide rail using two of the slotted head 8-32 x 3/8-inch screws with a lock nut on the end of each screw.

c. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).



**FIGURE 3-3** SilkWorm 3900 Switch and Outer Slide Rail Installation

5. Attach two of the three-hole extension slide mount L-brackets to each outer slide rail. See [FIGURE 3-3](#).

Use two of the slotted head 8-32 x 3/8-inch screws per L-bracket, with the screw heads on the inside of the slide rails and a lock nut on the end of each screw.

6. Tighten the screws to a torque of 15 inch-pounds (17.3 cm-kgs).

7. Install the outer slide rails in the rack by performing the following steps on each.
  - a. Loosen the screws of both of the three-hole extension slide mount L-brackets on the outer slide rail.

- b. Position the outer slide rail in the rack and adjust the L-brackets to accommodate the depth of the cabinet. Refer to [FIGURE 3-3](#).

To allow the switch to slide out of the front of the rack, orient the rail as shown in [FIGURE 3-3](#), with the closed end of the slide rail toward the back of the rack.

---

**Note** – For racks with a depth greater than 31.50 inches (80 cm), the rear L-brackets must be replaced with the 11-inch (27.9-cm) L-bracket. Adjust the length as required.

---

- c. Re-tighten the screws.
  - d. Attach the L-bracket on the front end of the outer slide rail to the corresponding rack vertical rail, using two of the Phillips 10-32 x 3/8-inch screws. See [FIGURE 3-3](#).
  - e. Tighten the screws to a torque of 25 inch-pounds (28.8 cm-kgs).
  - f. Repeat Steps d and e with the bracket on the back end of the same outer slide rail.

The bracket position can be adjusted to fit the rack. The back end uses three screws.

---

## Installing the SilkWorm 3900, 4100, and 200E Switches

1. Install the switch in the rack by performing the following steps.
  - a. Position the switch next to the rack as shown in [FIGURE 3-3](#), and insert the inner slide rails into the outer slide rails.
  - b. Slide the switch into the rack.

---

**Note** – A screwdriver might be needed to depress the slide lock on the side of the slide rail when inserting or removing the switch from the rack.

---

- c. Check alignment by sliding the switch in and out of the rack.

If there is any difficulty, pull the switch out of the rack and realign the slide rails.

2. Attach the rackmount brackets to the vertical rack rails using one Phillips 10-32 x 3/8-inch screw per bracket, tightening the screws to a torque of 25 inch-pounds (28.8 cm-kgs). See [FIGURE 3-3](#).

3. (Optional) Provide power to the switch by performing the following steps.

- a. Place the power cord clips on the outer slide rails. See [FIGURE 3-3](#).

The clips can be positioned with the tabs above or below the rail.

- b. Insert the power cords into the power cord clips with a minimum service loop of six inches at the switch to ensure freedom to plug and unplug the power cord.



---

**Caution** – Do not plug a power cord into the power source or into the switch power supply until the switch is completely installed in the rack.

Ensure all cables and cords are routed so that they will not be exposed to stress when the switch is moved on the slide rails.

---

- c. Connect the power cords to the switch and to a power outlet.

---

**Note** – Always unplug the power cords from the switch before moving it on the slide rails to prevent the cords from being pulled out of the power cord clips.

---

- d. Flip the switch AC power switches to “I”.

The SilkWorm 3900 switch automatically performs a power-on self-test (POST).

Refer to the following documents for important information on setting up the switches:

- *Brocade Fabric OS Procedures Guide, Supporting Fabric OS v4.4.0, Supporting SilkWorm 24000, 12000, 4100, 3900, 3850, and 3250*, 53-0000518
- *Brocade SilkWorm 3900 QuickStart Guide*, 53-0001596
- *Brocade SilkWorm 3900 Hardware Reference Manual*, 53-0001595
- *Brocade SilkWorm 4100 Quickstart Guide*, 53-0000564
- *Brocade SilkWorm 4100 Hardware Reference Manual*, 53-0000563



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**Caution** – Do not connect the switch to the network until the IP addresses are correctly set.

---



## Rackmounting the SilkWorm 12000, 24000, and 48000 Directors

---

The SilkWorm 12000, 24000, and 48000 directors require that the rails be mounted in the Sun StorEdge 72-Inch Expansion Cabinet or Sun Rack 900/1000 equipment rack before installation of the directors.

Each SilkWorm 12000, 24000, and 48000 director comes with a rackmounting kit. The rackmounting kit is used for the Sun StorEdge 72-inch Expansion and Sun Rack 900/1000 equipment racks.

The SilkWorm 12000, 24000, and 48000 directors have a height of 14 RU (rack unit).

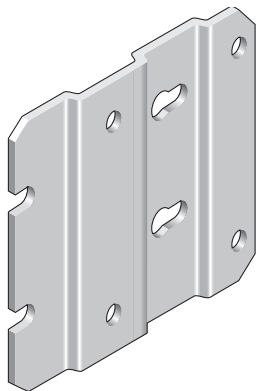
This chapter contains the following sections:

- [“Installing the Rails for the Sun StorEdge 72-Inch Expansion Cabinet” on page 21](#)
- [“Installing the Rails for the Sun Rack 900/1000 Equipment Rack” on page 26](#)
- [“Installing the SilkWorm 12000, 24000, and 48000 Directors” on page 29](#)

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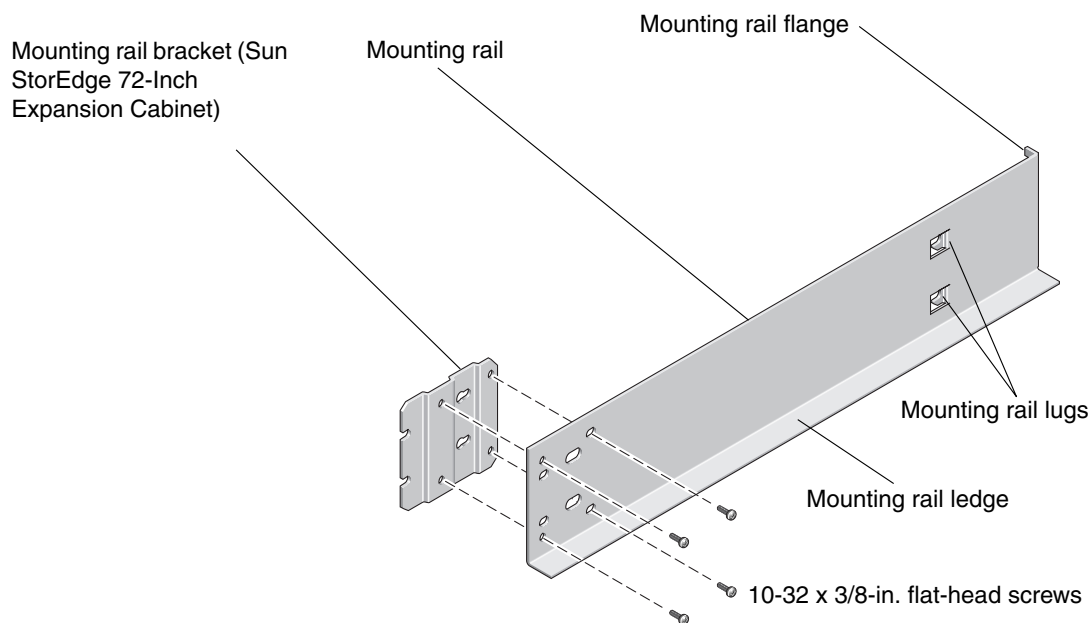
## Installing the Rails for the Sun StorEdge 72-Inch Expansion Cabinet

Each SilkWorm 12000, 24000, and 48000 director comes with a rackmounting kit that contains two mounting rails and two sets of mounting rail brackets. The mounting rail bracket shown in [FIGURE 4-1](#) is for the Sun StorEdge 72-Inch Expansion Cabinet.



**FIGURE 4-1** Sun StorEdge 72-Inch Expansion Cabinet Mounting Rail Bracket

One of two Sun StorEdge 72-Inch Expansion mounting assemblies, consisting of a mounting rail and bracket, is shown in [FIGURE 4-2](#). When mounted, the director rests on the mounting rail ledge.

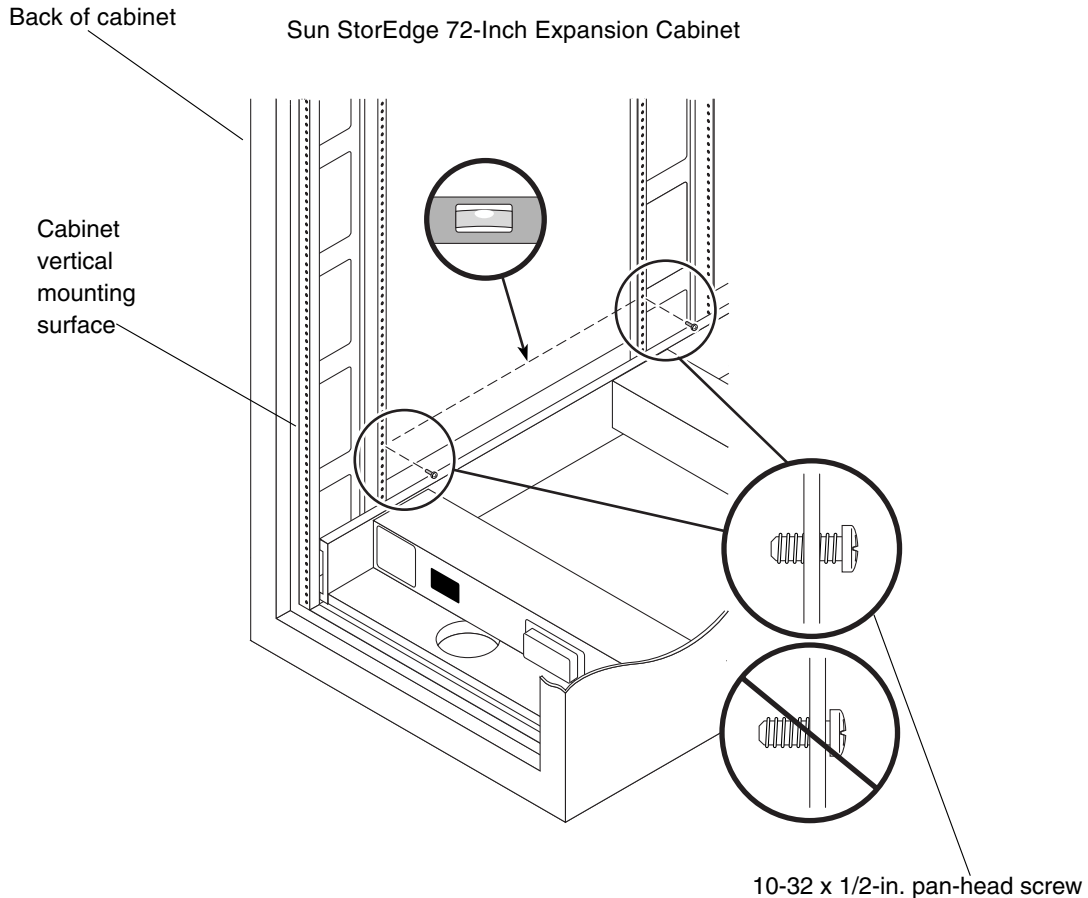


**FIGURE 4-2** Mounting Rail Assembly (One of Two) for the Cabinets

Install the two rail assemblies by performing the following steps for each.

**1. Assemble the mounting rail and mounting rail bracket as shown in [FIGURE 4-2](#).**

Tighten the four 10-32 x 3/8-in. flat-head screws to a torque of 25 inch-pounds (28.8 cm-kgs). Make sure the screw heads are flush with the mounting rail.

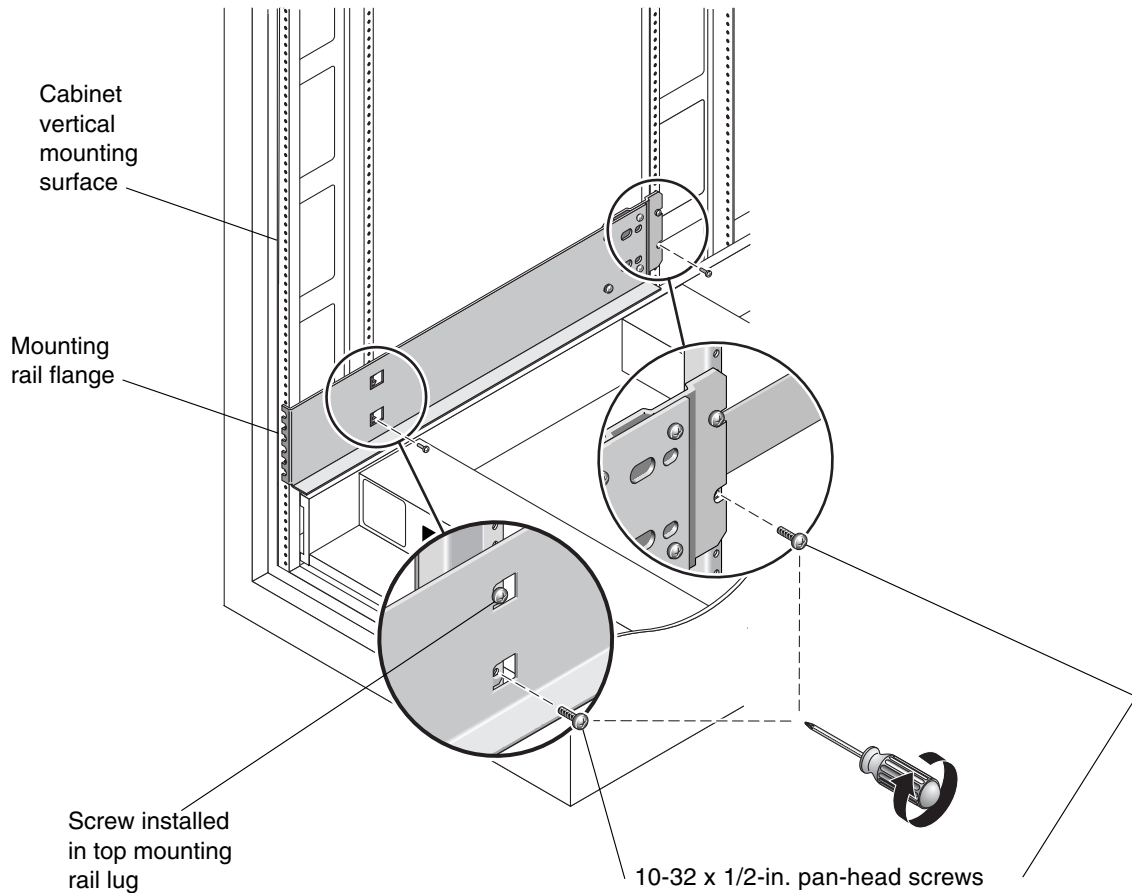


**FIGURE 4-3** Installing Two Screws Before Installing the Mounting Rail

**2. Partially install two of the 10-32 x 1/2-in. pan-head screws as shown in the cabinet vertical mounting surfaces. See [FIGURE 4-3](#).**

The top mounting rail lug and the top mounting rail bracket slot will slide onto these screws. The screws must be positioned so that the mounting rail will be in the lowest possible position in the cabinet. (The top screws will be in position 15.)

## Sun StorEdge 72-Inch Expansion Cabinet

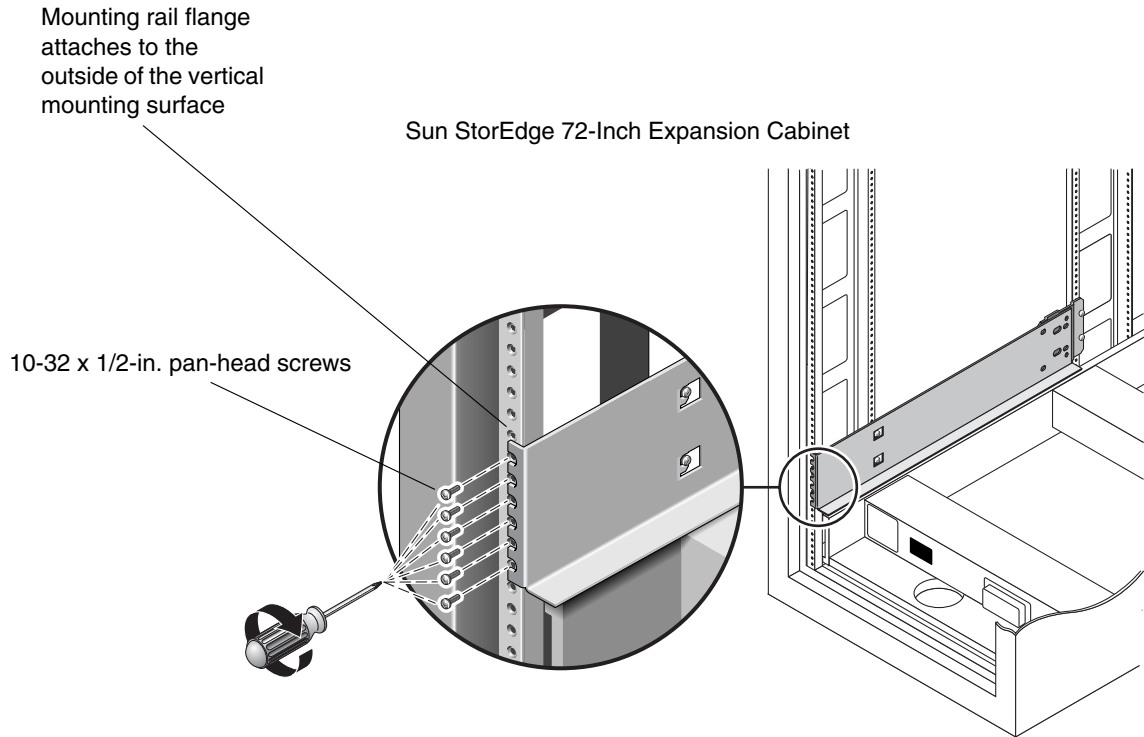


**FIGURE 4-4** Positioning the Mounting Rail (One of Two) in the Cabinet

3. Place the mounting rail assembly as shown and slide the rail to fully engage the two screws in the mounting rail lug and the mounting rail bracket slot. See [FIGURE 4-4](#).

The mounting rail flange attaches to the outside of the cabinet vertical mounting surface.

4. Install the remaining two 10-32 x 1/2-in. pan-head screws and tighten all four to a torque of 25 inch-pounds (28.8 cm-kgs).



**FIGURE 4-5** Attaching the Mounting Rail Flange (One of Two) to the Cabinet

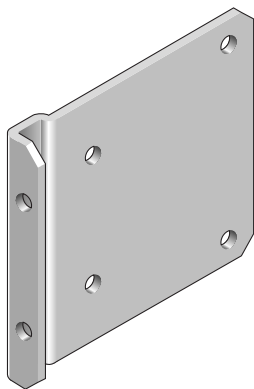
5. Secure the mounting rail flange in the front of the cabinet with six 10-32 x 1/2-in. pan-head screws.

Tighten the six 10-32 x 1/2-in. pan-head screws of each mounting rail flange to a torque of 25 inch-pounds (28.8 cm-kgs).

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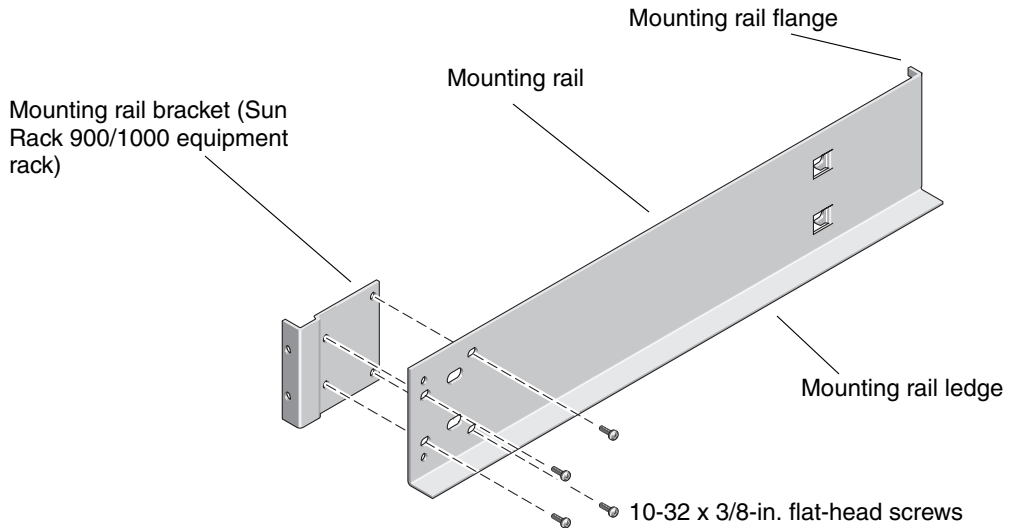
## Installing the Rails for the Sun Rack 900/1000 Equipment Rack

Each SilkWorm 12000, 24000, and 48000 director comes with a rackmounting kit that contains two mounting rails and two sets of mounting rail brackets. The mounting rail bracket shown in [FIGURE 4-6](#) is for the Sun Rack 900/1000 equipment rack.



**FIGURE 4-6** Sun Rack 900/1000 Equipment Rack Mounting Rail Bracket

One of two Sun Rack 900/1000 equipment rack mounting assemblies, consisting of a mounting rail and bracket, is shown in [FIGURE 4-7](#). When mounted the director rests on the mounting rail ledge.

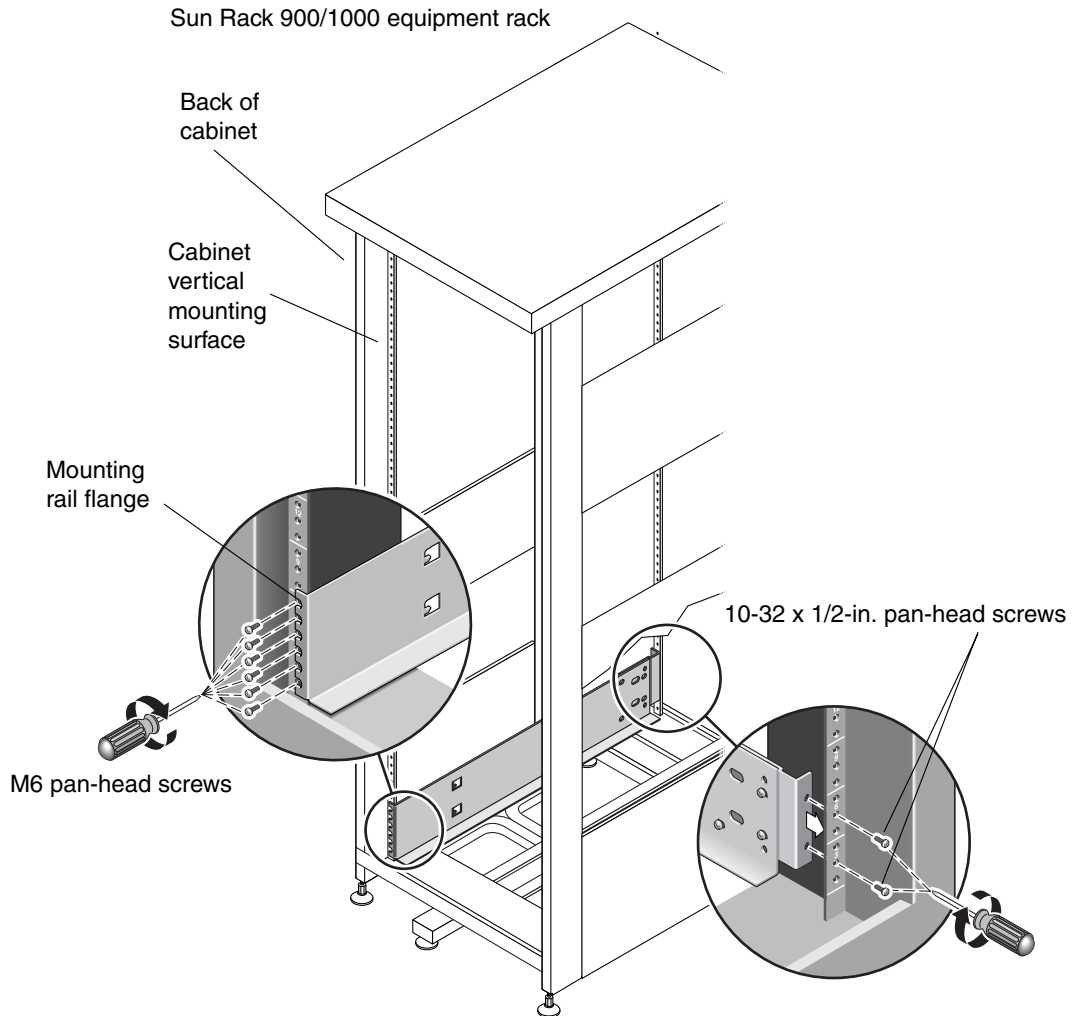


**FIGURE 4-7** Mounting Rail Assembly (One of Two) for the Cabinets

Install the two rail assemblies by performing the following steps for each.

**1. Assemble the mounting rail and mounting rail bracket as shown in [FIGURE 4-7](#).**

Tighten the four 10-32 x 3/8-in. flat-head screws to a torque of 25 inch-pounds (28.8 cm-kgs). Make sure the screw heads are flush with the mounting rail.



**FIGURE 4-8** Positioning the Mounting Rail (One of Two) in the Cabinet

2. Attach the mounting rail assemblies to the rack using the six M6 screws in the back of the cabinet and the two 10-32 x 1/2-in. screws in the front of the cabinet. See FIGURE 4-8.

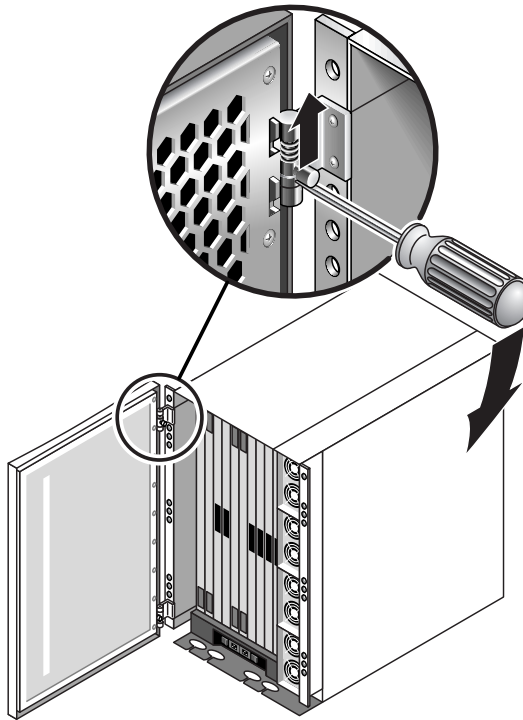
The mounting rail flange attaches to the outside of the cabinet vertical mounting surface. Align the bottom of the rail with the RU markings on the rack mounting rails. The mounting rail must be in the lowest possible position in the rack; the bottom of the rail will line up with RU marking 3.



3. Tighten the screws holding the front bracket to the rear bracket to a torque of 25 inch-pounds (28.8 cm-kgs).

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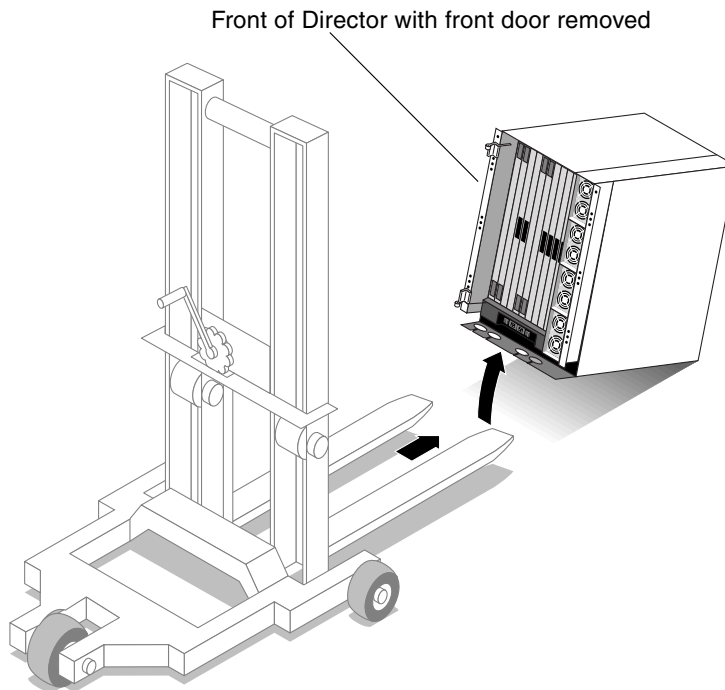
## Installing the SilkWorm 12000, 24000, and 48000 Directors



**FIGURE 4-9** Removing the Front Door of the Director

1. To remove the SilkWorm 12000, 24000 or 48000 director door, perform the following steps (see [FIGURE 4-9](#)):
  - a. Open the door and locate the spring hinge pins on the left side.
  - b. Press down on the lower spring hinge pin to release it, and press up on the upper spring hinge pin to release it.  
It might be helpful to use a screwdriver to pry the hinge pins.

- c. Pull the door out to remove it.



**FIGURE 4-10** Placing the Director on the Hand Truck

2. Bring a hand truck up to the front of the director.
3. Use four people to pivot the director on its back edge and slide the hand truck forks under the director to support it. See [FIGURE 4-10](#).

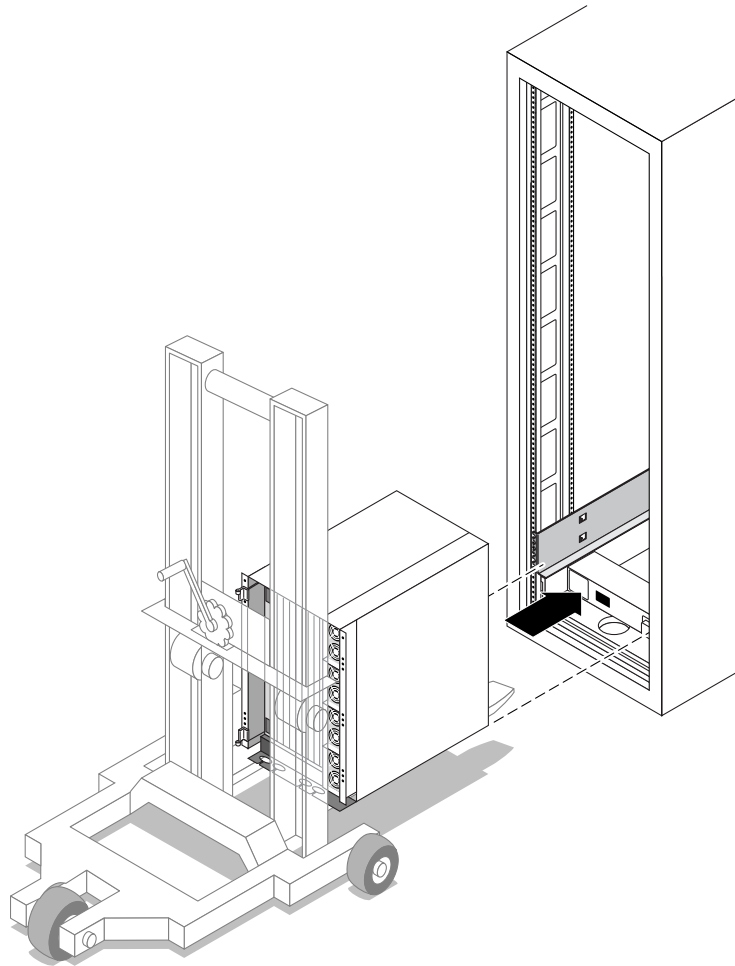


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**Caution** – The SilkWorm 12000, 24000, and 48000 directors weigh approximately 250 pounds (113.4 kg) each.

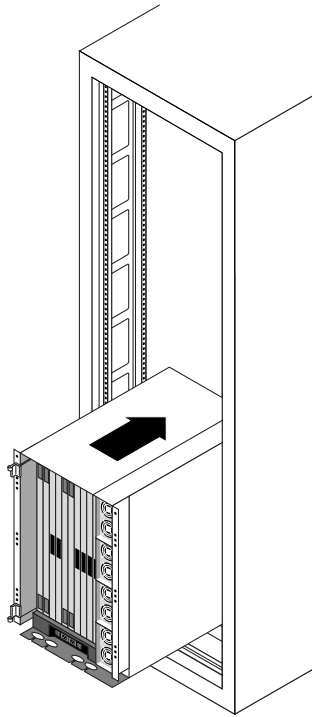
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The SilkWorm 12000, 24000, or 48000 director is installed in the back of the cabinet with the front of the director facing the back of the cabinet.



**FIGURE 4-11** Aligning the Director With the Cabinet

4. Use the hand truck to position the director on the mounting rail ledges. See [FIGURE 4-11](#).

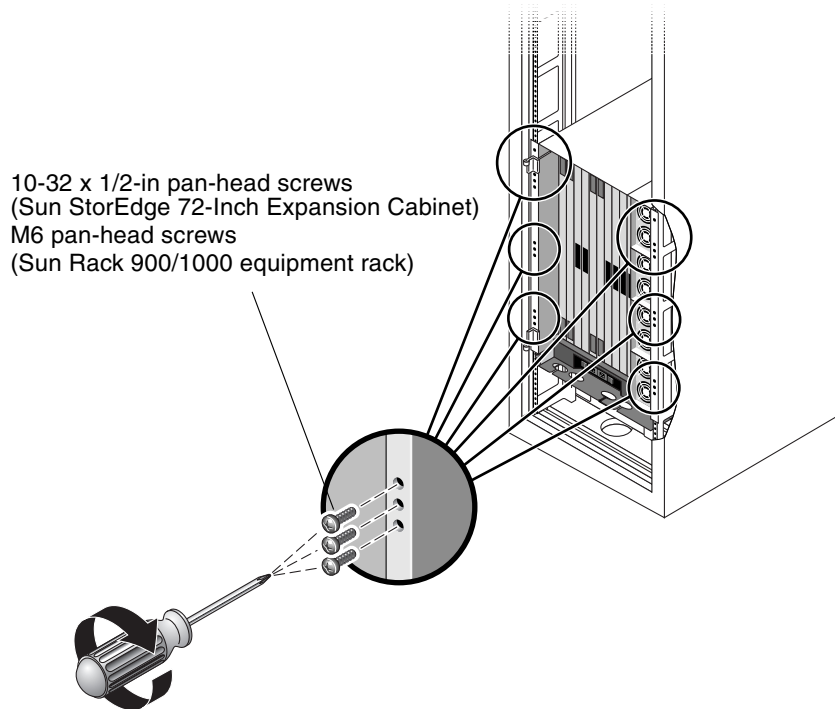


**FIGURE 4-12** Installing the Director in the Cabinet

- 5. Push the director to slide it all the way into the cabinet.** See [FIGURE 4-12](#).

Make sure the director clears any loose cables.

The director mounting flange holes must be aligned with the cabinet vertical mounting surface holes.



**FIGURE 4-13** Securing the Director to the Cabinet

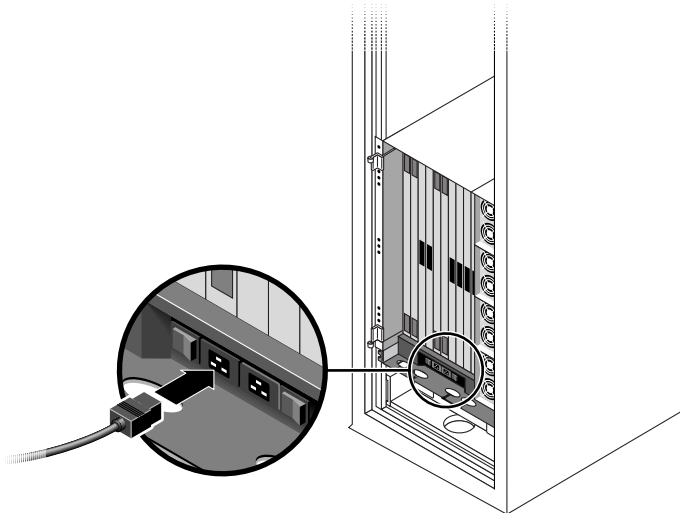
6. Insert and tighten the ten 10-32 x 1/2-in. pan-head screws for the Sun StorEdge 72-Inch Expansion Cabinet or the ten M6 screws for the Sun Rack 900/1000 equipment rack to a torque of 25 inch-pounds (28.8 cm-kgs) on each side of the director mounting flange.

---

**Note** – Do not replace the director front door.

---

7. To ensure the proper cooling air flow, remove any filler panels on the front of the cabinet that are directly in front of the director.



**FIGURE 4-14** Attaching the Power Cords to the Director

**8. (Optional) Provide power to the director. See [FIGURE 4-14](#).**

Refer to the following documents for important information on setting up the director:

- *Brocade Fabric OS Procedures Guide, Supporting Fabric OS v4.2.0, Supporting SilkWorm 24000, 12000, 3900, 3850, and 3250*, 53-0000518
- *Brocade SilkWorm 12000 QuickStart Guide*, 53-0000152
- *Brocade SilkWorm 12000 Hardware Reference Manual*, 53-0000148
- *Brocade SilkWorm 24000 QuickStart Guide*, 53-0000620
- *Brocade SilkWorm 24000 Hardware Reference Manual*, 53-0000619



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**Caution** – Do not connect the director to the network until the IP addresses are correctly set.

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