



# Quick Installation Guide

For the 3Com Switch 4007R 8-slot Chassis

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# Quick Installation Guide

## For the 3Com Switch 4007R 8-slot Chassis

Read this document before you attempt to install the 3Com Switch 4007R 8-slot chassis. This guide includes the following:

- Switch Setup Tasks
- Unpacking Instructions
- Preinstallation Guidelines
- Installing the Mounting Shelves
- Installing the Chassis

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### Switch 4007R Kits

The Switch 4007R is available as a starter kit as described below:

- 3Com Gigabit Layer 2 Starter Kit (3C16817)
  - 8-slot chassis (3C16804)
  - 820W AC Power Supply (3CB9EP8)
  - Management Module (3CB9EME)
  - 24-Gigabit Ethernet Fabric (3CB9FG24T)
  - 2 of 9-port 1000BASE-SX Module (3CB9LG9MC)
- 3Com Gigabit Layer 3 Starter Kit (3C16818)
  - 8-slot chassis (3C16804)
  - 820W AC Power Supply (3CB9EP8)
  - Management Module (3CB9EME)
  - 24-Gigabit Ethernet Fabric (3CB9FG24T)
  - 9-port 1000BASE-SX Module (3CB9LG9MC)
  - 4-port Gigabit Multilayer Switch Module (GBIC) (3CB9RG4)

This guide is intended for the system or network administrator who is responsible for installing and managing the network hardware.

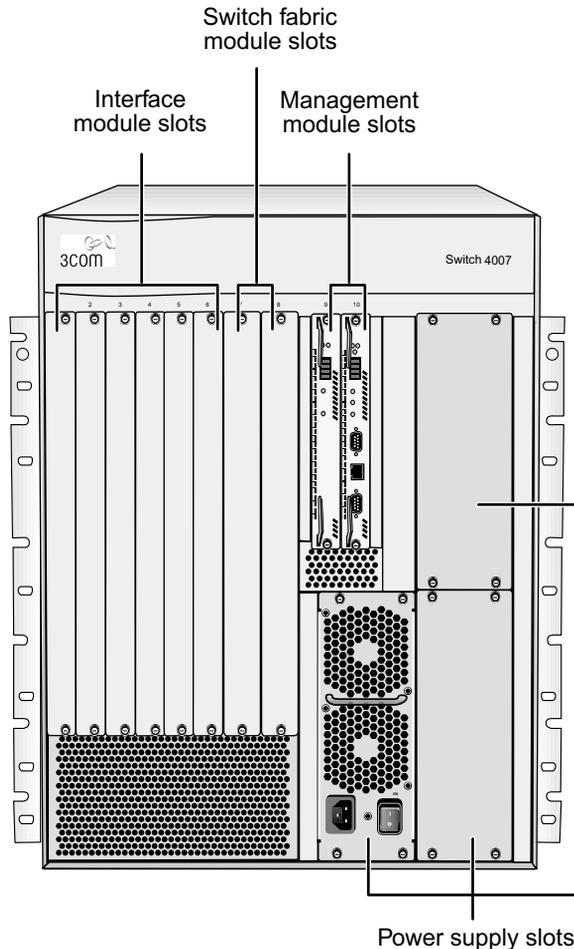


**WARNING:** The Switch 4007R chassis must be installed, removed, or replaced only by trained service personnel. Do not attempt to install, remove, or replace a Switch 4007R chassis if you have not had the proper training from 3Com.



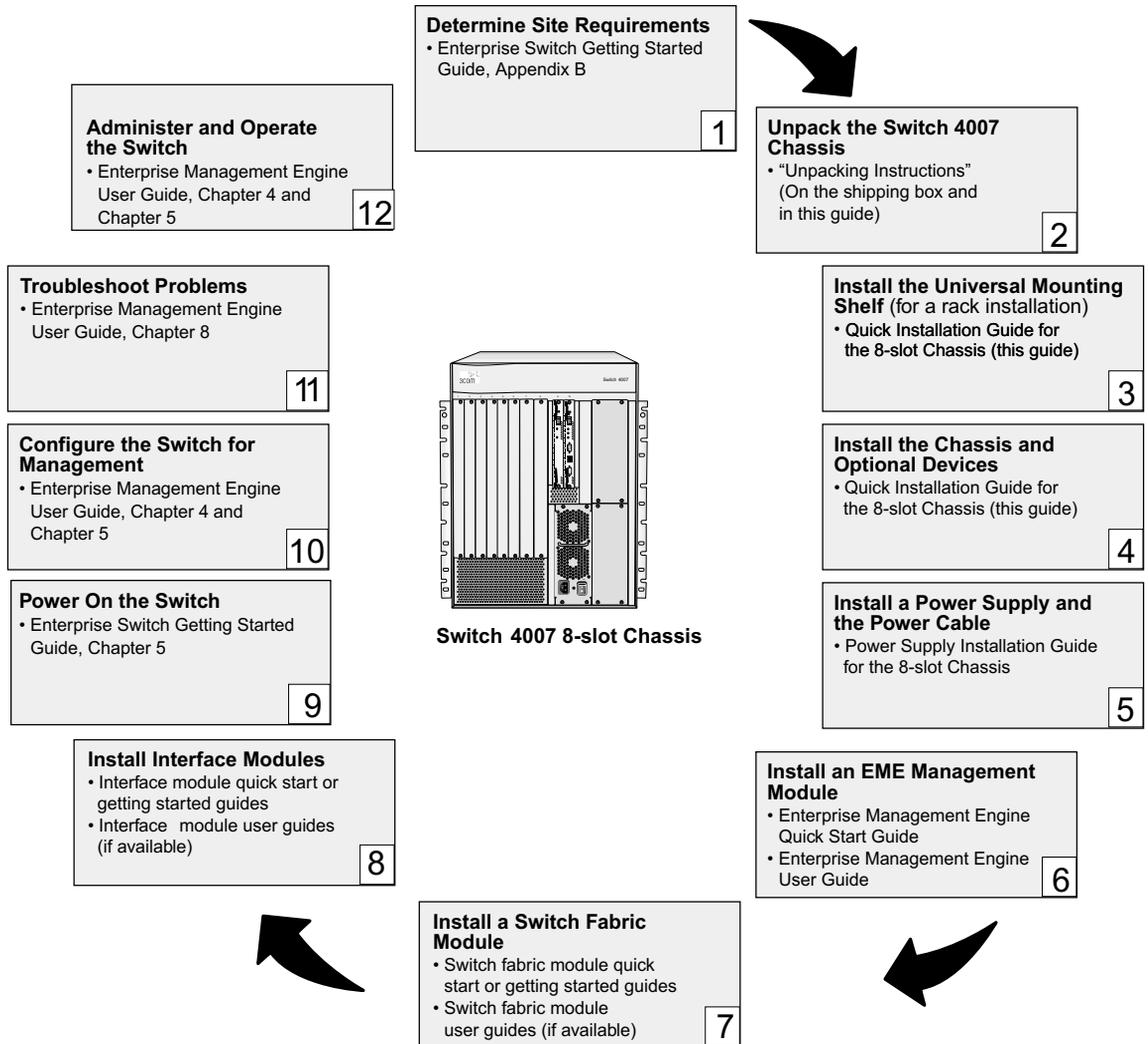
**WARNING:** You can install the Switch 4007R chassis on a table, a shelf, or a rack. To minimize the risk of personal injury or equipment damage, 3Com recommends that at least two people perform an installation.

**Figure 1** 3Com Switch 4007R 8-slot Chassis



**Switch Setup Tasks** Figure 2 illustrates the tasks to perform to set up a Switch 4007R 8-slot chassis.

**Figure 2** Setup Tasks for Switch 4007R 8-slot Chassis



## Unpacking Instructions

Follow these steps:

- 1 Place the chassis shipping box near the rack, the table, or the shelf where you plan to install the chassis.



**WARNING:** Safety regulations state that the selected table, shelf, or rack must be able to support at least three times the weight of a fully loaded chassis.

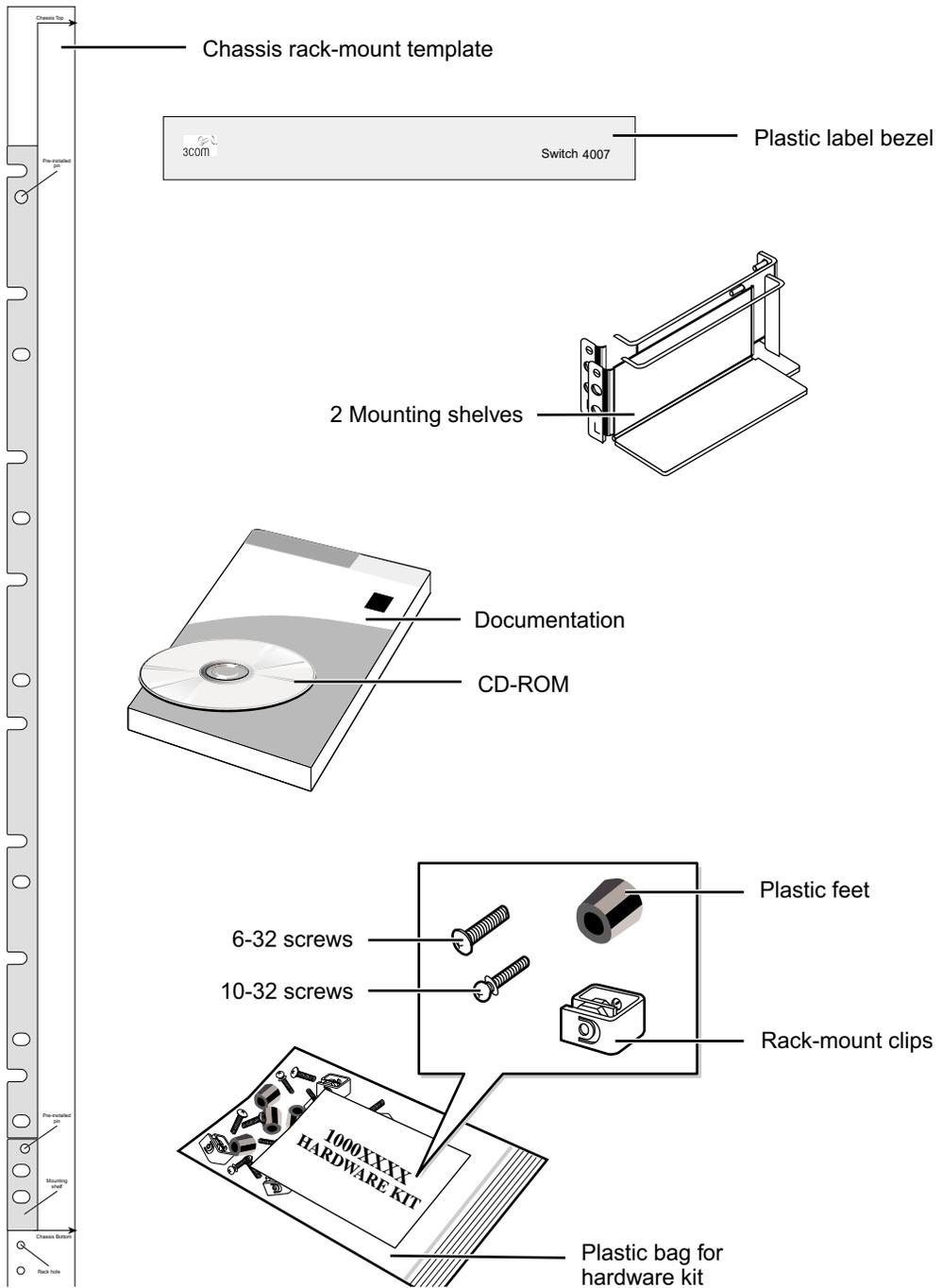
- A fully loaded 8-slot chassis weighs approximately 71.7 kg (158 lb). Therefore, the selected table, shelf, or rack must support at least 215.1 kg (474 lb).
- 2 Cut the tape that covers the seam on the top of the box.
  - 3 Remove the following items (Figure 3) from the top of the shipping box:
    - One hardware kit in a plastic bag (Part Number 10002489 16SL HDW)
      - Four plastic feet to mount to the bottom of the chassis (for a tabletop installation)
      - Four 6-32 Phillips-head screws to mount the feet
      - Twelve rack-mount clips for a rack-mount installation
      - Twelve 10-32 Phillips-head screws to attach the chassis to the rack
    - One plastic label bezel to snap into the top front of the 8-slot chassis



**NOTE:** To prevent the plastic label bezel from being damaged, do not attach it to the chassis until after you have installed all components into the chassis and you are ready to power on the Switch.

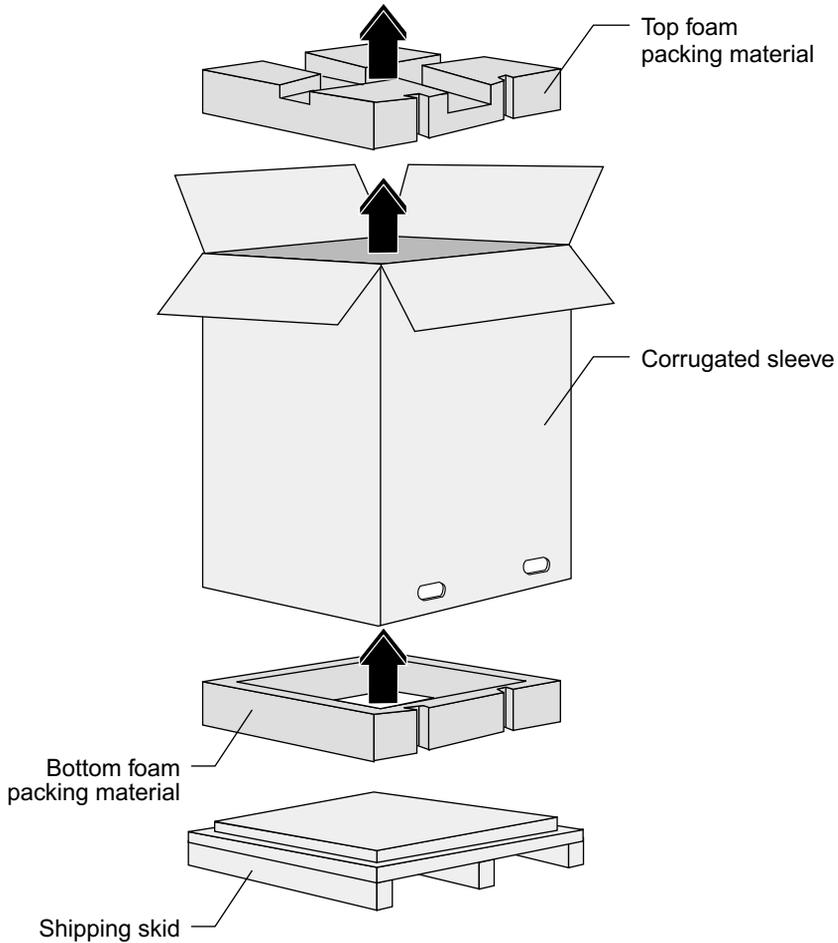
- Two universal mounting shelves (brackets)
- One documentation kit that contains:
  - Documentation CD-ROM
  - *Chassis Quick Installation Guide for the Switch 4007R 8-slot Chassis*
  - *Switch 4007R Getting Started Guide*
  - *Switch 4007 Web Management User Guide*
  - *Power Supply Installation Guide for the Switch 4007R*

**Figure 3** Contents of the Switch 4007R Chassis Shipping Box



- 4 Remove the top foam packing material (Figure 4).

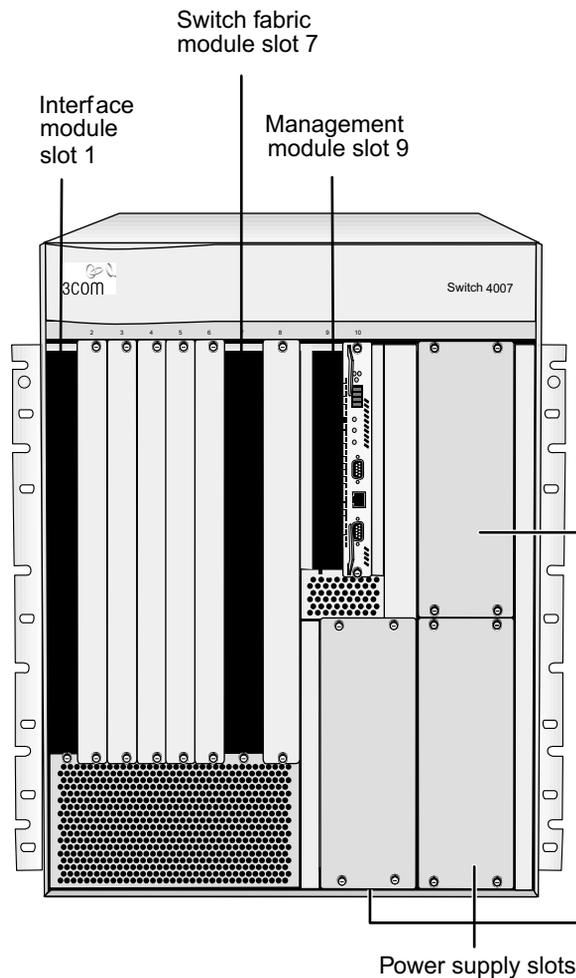
**Figure 4** Removing the Chassis Shipping Box



- 5 On the outside of the shipping box on the skid, cut the shipping bands.
- 6 Remove the corrugated sleeve by pulling it straight up (Figure 4).



*The 8-slot chassis is shipped with module slot 1, slot 7; management module slot 9 empty. No blank faceplate covers these slots. See Figure 5.*

**Figure 5** The Switch 4007R 8-slot Chassis is Shipped with These Slots Empty

*After you receive the chassis, remove the faceplate from power supply slot 3 to help make chassis installation easier. See step 8 in this section.*

- 7** While the 8-slot chassis is still in the base of the shipping box, have one person grasp the chassis and tilt the chassis backward.
- 8** To make chassis installation easier, remove another blank faceplate from a power supply slot. While the 8-slot chassis is in this position, and using a flat-blade screwdriver, remove the blank faceplate from power supply slot 3 only.
- 9** Using two people, lift the Switch 4007R 8-slot chassis out of the shipping box base and place the chassis on the floor in front of the rack, table, or

shelf that you plan to use. To help you hold onto the 8-slot chassis when you lift it, you can place one hand into the empty power supply slot 3. The other person places one hand into empty power supply slot 1.

- 10 Inspect the chassis for damage. If the chassis appears to be damaged, repack it in the shipping box and contact your local supplier.



*The shipping box is reusable; place all packing materials in the chassis shipping box and store the shipping box for future use.*

## Preinstallation Guidelines

This section provides safety precautions, installation guidelines, and location requirements to help you install the Switch 4007R 8-slot chassis into your environment.

### Safety Precautions

Read this section before you install the Switch 4007R 8-slot chassis.



**WARNING:** *The rack-mount installation requires at least two people. Do not attempt to install the chassis alone. To reduce the possibility of personal injury or serious damage to the chassis when you install the chassis into a rack, first install the mounting shelves that are shipped with your chassis. The mounting shelves help hold the chassis in place while you secure the chassis to the rack. Rest the chassis on the mounting shelves and continue to support the chassis until after you have securely installed at least four of the eight screws (two screws per rack-mount flange) for the chassis.*

*If you do not use the mounting shelves and then you attempt to place the weight of the rack-mounted chassis on fewer than four fully installed screws, the chassis may drop off of the rack. Personal injury or serious damage to the chassis may result. The tabletop or shelf installation also requires at least two people to lift the chassis onto the table or shelf.*



**WARNING:** *The chassis has two stationary, preinstalled flange pins located in the Telco rack slot. Use these flange pins only to help position the chassis. Do not use these pins to support the full weight of the chassis.*



**WARNING:** *When the Switch 4007R 8-slot chassis is fully loaded with modules and load-sharing power supplies, the chassis weighs approximately 71.7 kg (158 lb). Therefore, for a rack installation, install the mounting shelves and then your 8-slot chassis before you install modules and power supplies.*



**WARNING:** Safety regulations state that the selected table, shelf, or rack must be able to support at least three times the weight of a fully loaded chassis.

- A fully loaded 8-slot chassis weighs approximately 71.7 kg (158 lb). Therefore, the selected table, shelf, or rack must support at least 215.1 kg (474 lb).



**WARNING:** To ensure mechanical stability and to avoid circuit overloading and improper grounding, follow the rack manufacturer's instructions for rack installation. If the instructions are unclear, consult a qualified electrician.

### Location Requirements

Install a Switch 4007R 8-slot chassis in an area that meets the following requirements:

- Ambient (room) temperature is from 0 °C to 50 °C (32 °F to 122 °F).
- Relative humidity is between 10 and 90 percent, noncondensing.
- The table, shelf, or rack on which you mount the chassis supports at least three times the weight of a fully loaded chassis.
- There is at least 91.4 cm (36 in.) in back of the chassis to remove and replace fan trays and to ensure proper cooling in the chassis.
- The power source is within approximately 2 meters (6.6 feet) of the location where you plan to install the Switch 4007R.
- Each of the power supplies connects to a dedicated socket. Do not connect the power supplies to a power strip.
- For a tabletop or shelf installation, the surface on which you want to locate the Switch 4007R chassis is level.
- For rack installations, the selected rack is grounded in accordance with the rack manufacturer's recommendations.

### Before You Begin

Before you install the 8-slot chassis:

- Move the Switch 4007R chassis close to where you plan to install it. Place the chassis in front of the rack, table, or shelf that you plan to use.
- For a rack installation, make certain that you have a Phillips screwdriver and a flat-blade screwdriver, the two mounting shelves,

and the 12 screws (from the hardware kit) available when you begin to install the chassis.

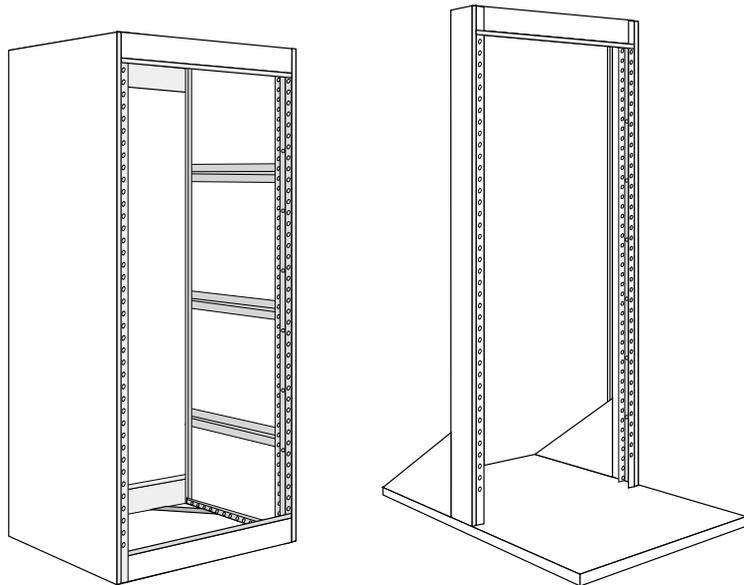
- For a tabletop or shelf installation, make certain that you have a Phillips screwdriver or flat-blade screwdriver and the hardware kit available.

Before you attempt to mount the chassis in a rack, use the following rack-mount installation guidelines to ensure your safety and optimal performance. Review the guidelines before you install the chassis in a rack.

- Because the equipment rack environment can cause increased ambient temperatures and reduced air flow, review the chassis specifications and site requirements in Appendix A and Appendix B of the *Switch 4007R Getting Started Guide*.

Figure 6 shows two types of racks that you can use.

**Figure 6** Rack Types



- 1 Bolt the rack to the floor.
- 2 Brace the top of the rack against the wall. Make certain that the rack is properly aligned and squared. Use a framing tool to ensure that the rack is squared.

- 3 To help support the chassis while you install it in a rack, install the mounting shelves that are shipped with your chassis. If you install more than one chassis in a rack, install the bottom chassis first. Make certain that there is sufficient space between the bottom chassis and the top chassis to provide space for an optional cable management device.
- 4 Position the rack-mount clips if you are going to use them for the rack-mount installation. If you install the chassis in Metric rack slots, install the clip nuts and screws in the closed slots of the rack-mount flanges. If you install the chassis in Telco rack slots, position the chassis and then install the screws and rack-mount clips in the open slots.

If you want to use an optional cable management device, install it above or below the chassis (depending on which type of device you choose). You can install the chassis in the rack either before or after you install a cable management device.

Use the following guidelines to tighten screws to Torque Specification:

- Faceplate thumbscrews — 5-7 in/lb (inch-pounds)
- #10 screws for holding the chassis and mounting shelves onto the rack rail — 22-25 in/lb

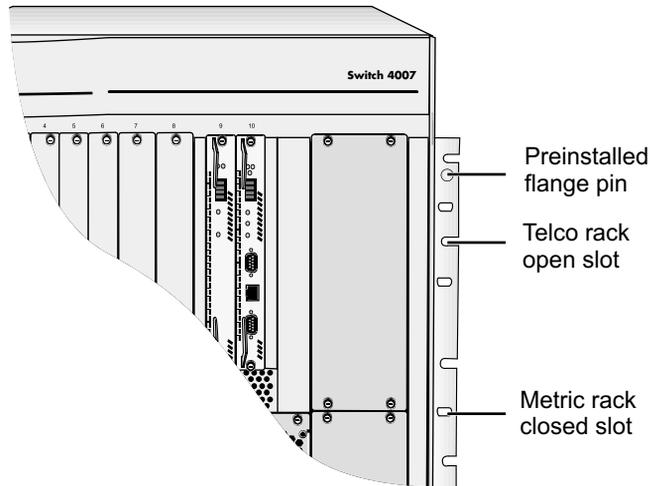


*To ensure that you tighten screws to Torque Specification, use a torque screwdriver.*

### **Selecting the Slot on the Rack**

The 8-slot chassis have two slot types on the rack-mount flanges to mount the chassis in a rack. Figure 7 shows the Telco and Metric slots and the location of the preinstalled rack-mount flange on the 8-slot chassis.

**Figure 7** Preinstalled Rack-mount Flange Location and Slot Types on the Switch 4007R 8-slot Chassis



### Using the Chassis Rack-mount Template

Use the paper rack-mount chassis template (which is an accurate copy of the chassis rack-mount flange) to help you position the mounting shelves and the Switch 4007R chassis when you install them into a rack. See Figure 2. The chassis rack-mount template is designed for use with:

- Racks that have rack slot hole distances as shown in Figure 8. Your rack can have either round or square rack slot holes.
- Telco (open) rack slots.

### Installing the Mounting Shelves

The 8-slot chassis are shipped with two mounting shelves and screws. Install one mounting shelf on each side of the rack. The top slot on the mounting shelf is equipped with an alignment pin to help you insert and position the mounting shelf in the rack.



**CAUTION:** On some racks, the mounting shelf may not align easily to install the two mounting shelf screws. One screw per mounting shelf can support an empty chassis. However, make certain to secure the chassis to the rack before you add any other components.

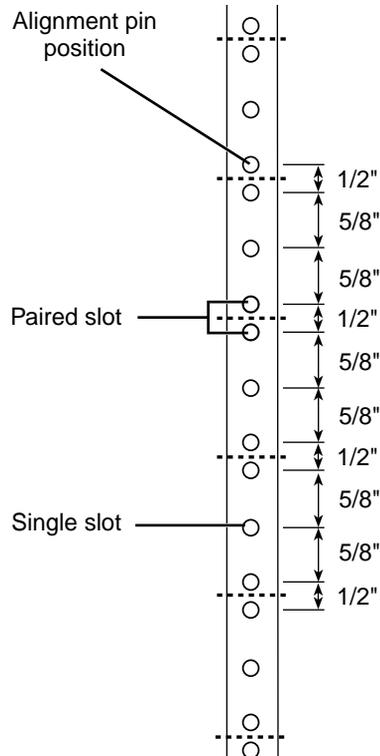
The use of clip nuts is optional.

To install the mounting shelves, follow these steps:

- 1 Obtain the chassis rack-mount template, two mounting shelves, four screws, and four clip nuts (optional) that you received in the shipping box.
- 2 Locate where you want to install the mounting shelves.
  - a While you hold the chassis rack-mount template in place, locate the slots on each rack rail to mount the shelves.
  - b Mark the desired positions on the rack.

The rack has a series of paired and single slots that are positioned with specific distances between each slot (Figure 8).

**Figure 8** Slots on the Rack and Distances Between Each Slot



- 3 Insert a mounting shelf in the rack.
  - a Select the desired rack slot position, using the top slot of a pair of slots for the mounting shelf alignment pin (Figure 9).
  - b Slide the two clip nuts onto the selected rack slot position (optional).

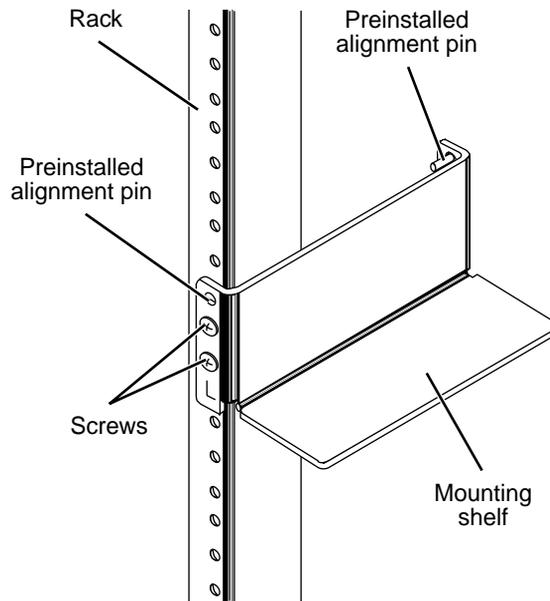
- c Insert the alignment pin (Figure 9) into the rack slot.



*If the rack you are using to install the chassis is not threaded, apply pressure and push up on the mounting shelf to align the hole properly with the rack slot hole. The alignment pin on the mounting shelf will then insert easily into the rack.*

- 4 Using a Phillips screwdriver or flat-blade screwdriver, insert the two screws and tighten (Figure 9).

**Figure 9** Installing a Mounting Shelf into the Rack



- 5 Repeat steps 3 and 4 to mount the other shelf on the opposite rack rail.



*Make certain that the mounting shelf is aligned to the same rack slot positions on both sides of the rack.*

**Installing the Chassis** This section describes how to install the chassis:

- In a rack without clip nuts
- In a rack with clip nuts
- On a table or a shelf



*You may have other types of racks at your site. Follow the manufacturer's suggested installation procedures.*



*Before you begin, examine the rack to determine if you need to use clip nuts in this installation.*

### **Installing the Chassis in a Rack Without Clip Nuts**

Follow these steps to mount the 8-slot chassis in a rack. Use at least two people to perform this installation.



*You have already installed the mounting shelves into the rack and you have the rack-mount screws and a Phillips screwdriver or flat-blade screwdriver available.*



*To prevent the plastic label bezel from being damaged, do not attach it to the chassis until after you have installed all components into the chassis and you are ready to power on the Switch.*

- 1 Obtain the chassis rack-mount template that you received in the shipping box.
- 2 Align the template to match the slots of one of the mounting shelves.
- 3 While you hold the template in place, locate the holes on the rack where you want to place the chassis. Make certain that the holes on the template match up with the rack slot holes.
- 4 Locate and mark the holes on the rack, at the top and the bottom where you want to place the chassis and the screws.
- 5 Prepare to lift the chassis.
  - a Standing on one side of the chassis, one person places a left hand in power supply slot 3 and with the right hand grasps the handle at the top rear of the chassis.
  - b The other person, who is standing on the opposite side of the chassis, places a right hand in power supply slot 1 and with the left hand grasps the handle on the top rear of the chassis.

- 6 Two people lift the chassis through the front of the rack and onto the mounting shelves. Continue to support the chassis until after you have securely installed at least four of the eight screws (two screws per rack-mount flange) for the chassis.
- 7 Slide the chassis into the rack, using the mounting shelves for support, until both rack-mount flanges are flush with the front of the rack.  
Use the preinstalled flange pins in the Telco rack slot to position the chassis at the desired slot position in the rack.



**WARNING:** Support the back of the chassis until the two bottom screws are fully inserted.

- 8 While the chassis rests on the mounting shelves and you support the chassis, insert one *bottom* screw on each side of the chassis and then tighten the screw.



*Tighten the #10 screws that hold the chassis onto the rail to a Torque Specification of 22-25 in/lb (inch-pounds).*

- 9 Insert one *top* screw on each side of the chassis and then tighten the screw.
- 10 Install all remaining screws and tighten them.
- 11 Attach the plastic label bezel to the 8-slot chassis.
  - a With both hands, grasp the plastic label bezel and face the front of the chassis.
  - b Snap the plastic label bezel onto the top front of the chassis to secure it.

### **Installing the Chassis in a Rack Using Rack-Mount Clip Nuts**

Follow these steps to mount the chassis in a rack when you use rack-mount clip nuts.



*Not all racks require that you use rack-mount clips. Use whatever method of rack-mount equipment that you have to meet installation requirements in a rack.*

Use at least two people to perform this installation.



*You have already installed the mounting shelves into the rack and you have the clip nuts with rack-mount screws and a Phillips screwdriver or flat-blade screwdriver available.*

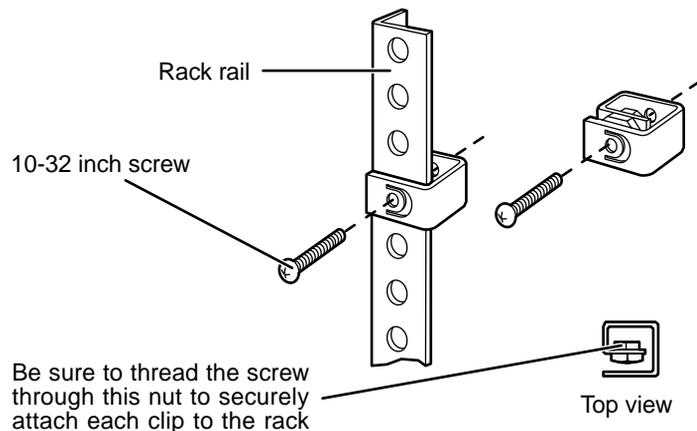


To prevent the plastic label bezel from being damaged, do not attach it to the chassis until after you have installed all components into the chassis and you are ready to power on the Switch.

- 1 Obtain the chassis rack-mount template that you received in the shipping box.
- 2 Align the template to match the slots of one of the mounting shelves.
- 3 While you hold the template in place, locate the holes on the rack where you want to place the clip nuts. Make certain that the holes on the template match up with the rack slot holes.
- 4 Mark the holes on the rack, at the top and the bottom where you want to place the clip nuts and the screws.
- 5 Install the clip nuts on the rack in the positions that you selected. See Figure 10.

The rack slots are not equally spaced, so align the clip nuts to the slots properly for the screws to be easily installed.

**Figure 10** Installing a Rack-mount Clip in the Rack



- 6 Slide the chassis into the rack, using the mounting shelves for support, until both chassis rack-mount flanges are up against the rack. Push until the chassis rack-mount flanges are flush with the rack.
- 7 Using the preinstalled flange pins for guidance, match the slots on the rack-mount flange to each clip nut on the rack.



**WARNING:** Support the back of the chassis until the two bottom screws are fully inserted.

- 8 Secure the chassis to the rack with the screws provided (eight 10-32 inch screws) and with the rack-mount clips.
  - a Install one screw on each side in the *bottom* slot on *each* rack-mount flange.
  - b Allow the weight of the chassis to rest on the mounting shelves and install the remaining screws while you continue to support the chassis.
  - c Tighten all screws completely.



*Tighten the #10 screws that hold the chassis onto the rail to a Torque Specification of 22-25 in/lb (inch-pounds).*

- 9 Attach the plastic label bezel to the chassis.
  - a With both hands, grasp the plastic label bezel and face the front of the chassis.
  - b Snap the plastic label bezel onto the top front of the chassis to secure it.

### Installing the Chassis on a Table or Shelf

This section describes how to attach plastic feet to the chassis and how to install the chassis on a table or a shelf.



**WARNING:** *When you install the chassis on a table or shelf, do not use the optional cable management device. The chassis can tip over under certain conditions. Hardware damage or personal injury can result.*



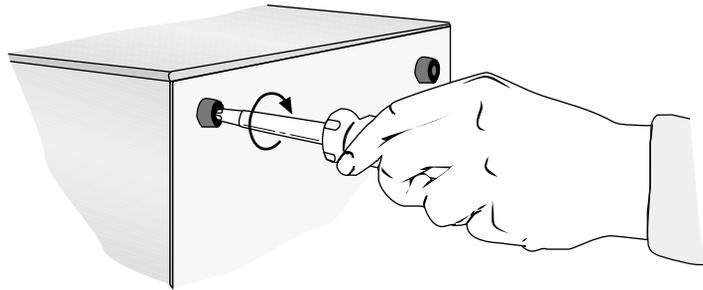
**WARNING:** *Safety regulations state that the selected table or shelf must be able to support at least 215.1 kg (474 lb), which is three times the weight of a fully loaded 8-slot chassis.*

**Attaching the Chassis Feet** To install plastic, molded feet on the Switch 4007R chassis, follow these steps:

- 1 Using at least two people, prepare to lift the chassis onto the table or shelf.
  - a Standing on one side of the chassis, one person places a left hand in power supply slot 3 and with the right hand grasps the handle at the top rear of the chassis.
  - b The other person, who is standing on the opposite side of the chassis, places a right hand in power supply slot 1 and with the left hand grasps the handle on the top rear of the chassis.
- 2 Two people lift the chassis onto the table or shelf.

- 3 Position the chassis on its side so that you can access the bottom of the chassis.
- 4 Remove the four feet and the four screws from the hardware kit.
- 5 Using a flat-blade screwdriver, screw the feet to the bottom of the chassis. See Figure 11.

**Figure 11** Attaching Plastic Feet to the Switch 4007R Chassis



**Installing the Chassis on a Table or Shelf** To install the chassis on a table or on a shelf, follow these steps:

- 1 Using at least two people, lift and turn the chassis upright on its installed plastic feet.
- 2 Position the chassis on the table or shelf so that the chassis rests upright squarely on the table or on the shelf (on all four feet).
- 3 Ensure that the front and the rear of the chassis are unobstructed and easy to reach.



**CAUTION:** To prevent the plastic label bezel from being damaged, do not attach it to the chassis until after you have installed all components into the chassis and you are ready to power on the Switch.

- 4 Attach the plastic label bezel to the chassis.
  - a With both hands, grasp the plastic label bezel and face the front of the chassis.
  - b Snap the plastic label bezel onto the top front of the chassis to secure it.

**Where to Go from Here**

To get your Switch 4007R and its components installed and configured so that you can connect it to your network, follow the setup tasks shown in

Figure 2. If you need more details about each setup task, see the indicated Switch 4007R documents.

**Locating 3Com  
User Documentation**

The *Switch 4007R Getting Started Guide* is available in Adobe Acrobat Portable Document Format (PDF) format on the Switch 4007R Documentation CD-ROM.

The CD-ROM also contains:

- Additional Switch 4007R documents in Adobe Acrobat format
- Adobe Acrobat Reader and Reader installation instructions

If you have difficulty installing the Acrobat Reader, use an Internet browser to download the reader from the Adobe home page at:

**<http://www.adobe.com>**

You can view additional 3Com technical documentation on the 3Com home page at:

**<http://www.3com.com>**