



# Cisco 12016, Cisco 12416, and Cisco 12816 Router Unpacking Instructions

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This document contains important instructions for unpacking Cisco 12016, Cisco 12416, and Cisco 12816 Routers. The unpacking instructions cover both the original 12016 series routers and the newer 12016 enhanced series routers.

Review these instructions *before* you open the shipping container. After you unpack the system, follow the instructions in the *Cisco 12016, Cisco 12416, and Cisco 12816 Router Installation and Configuration Guide* to install the router.



## Note

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Original models of the 12016 series routers ship with their front covers packaged, but newer enhanced models ship with their front doors already attached to the chassis. The illustrations in this guide reflect the original series and do not show the front door in place. References to the enhanced series front doors are noted where appropriate.

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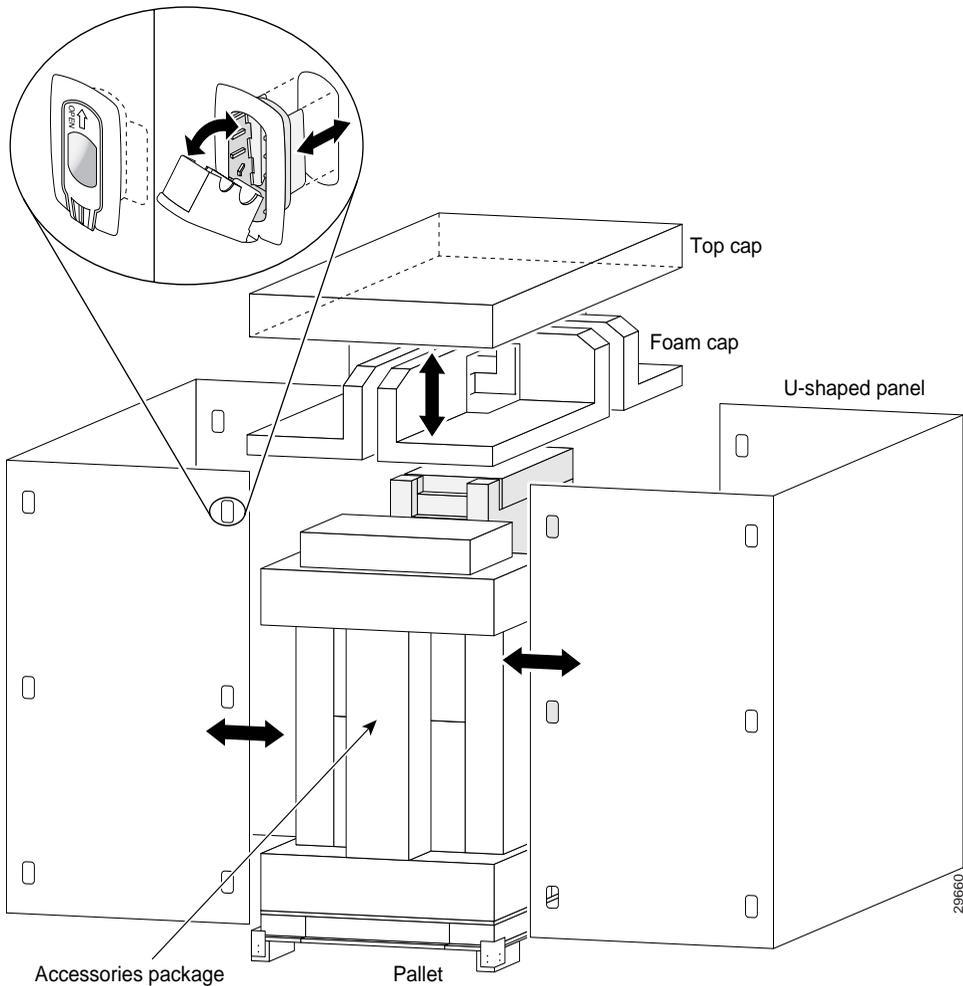
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# System Unpacking Overview

Figure 1 shows an exploded view of the shipping package for the router.

Figure 1 Router Shipping Package Components



When it is packaged for shipment, the router is equipped as ordered, with all components installed. Because of the weight and height of the router, the router shipping pallet incorporates a scissor-jack platform that enables a team of two installers to remove a fully loaded router from the pallet and insert it into an equipment rack, or extract a fully loaded router from a rack, without removing any of the components from the chassis.

The router is bagged to protect it against dust and electrostatic discharge (ESD) and secured to the scissor-jack platform by four anchor clips. The anchor clips are inserted into slots along the bottom edges of the chassis side panels and secured to the scissor-jack platform by four bolts. In turn, the scissor-jack platform is secured to the shipping pallet by eight hold-down brackets that are bolted to the top of the shipping pallet.



**Note**

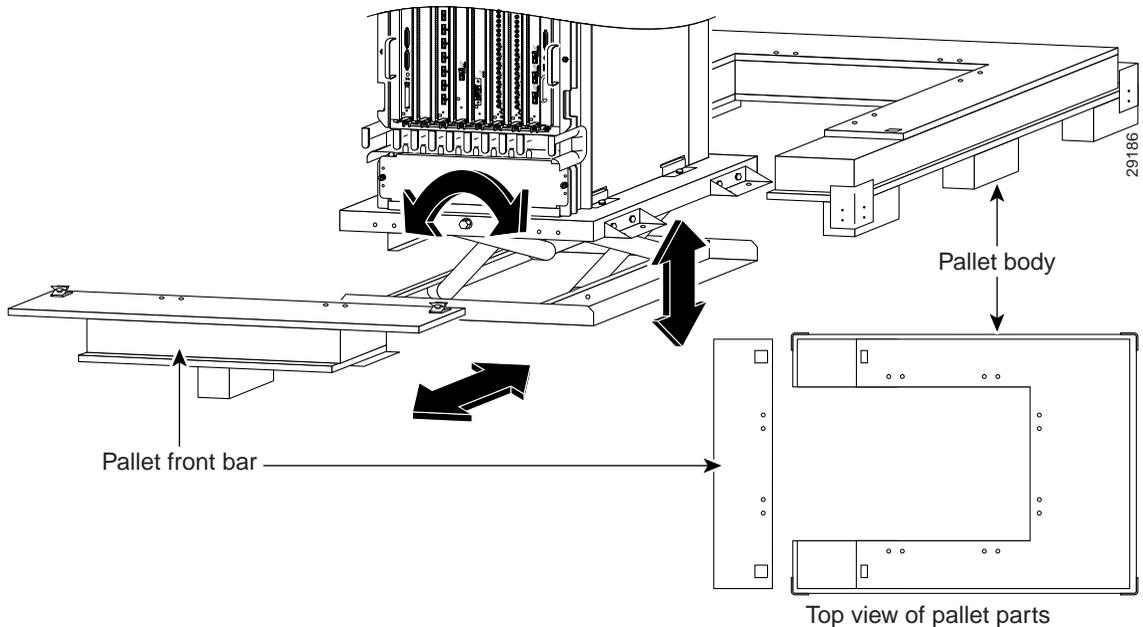
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The scissor-jack platform remains attached to the router until the router is inserted into the equipment rack. After the router is inserted in the rack, the scissor-jack platform should be reinstalled on the shipping pallet. The entire shipping container should be reassembled and stored.

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The shipping pallet consists of a U-shaped wood and foam pallet body and a wood and foam pallet front bar (Figure 2). The pallet front bar fastens to the open end of the pallet body to create the fourth bearing surface for the scissor-jack platform and to complete the base needed to support the walls of the shipping container.

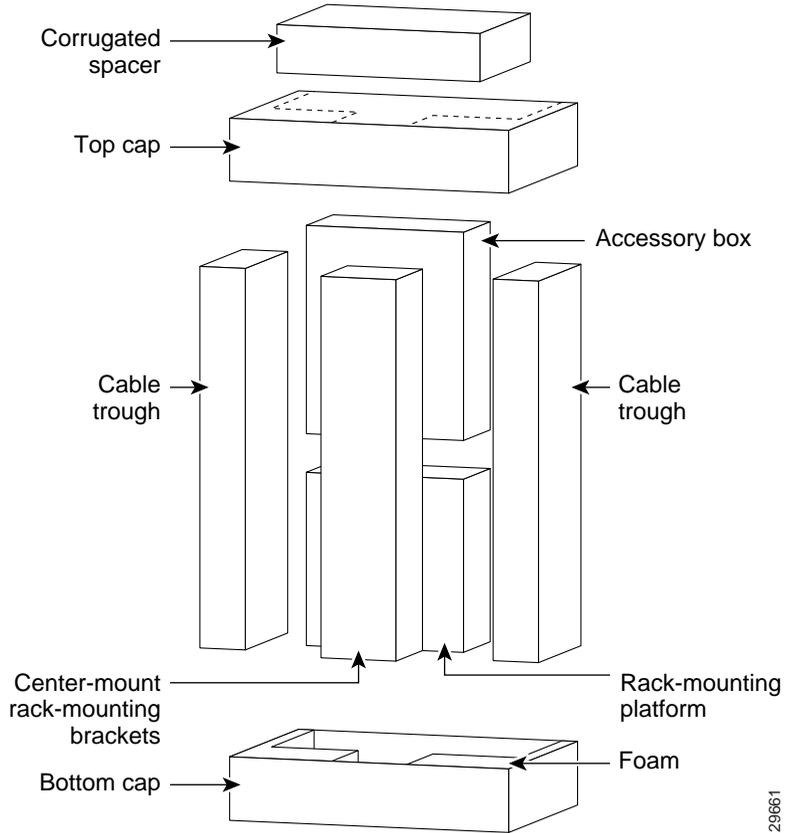
**Figure 2 Router Shipping Pallet Assembly**



When the router and scissor-jack platform are installed on the pallet, the router and scissor-jack platform are suspended over the well formed by the pallet body and pallet front bar. By removing the front hold-down brackets from the pallet and scissor-jack platform, you can remove the pallet front bar and expand the scissor-jack platform to lower the platform base so that it supports the weight of the router. After the bolts in the remaining hold-down brackets are removed from the pallet, the router and scissor-jack platform can be separated from the pallet by pulling the pallet body away from the scissor-jack platform.

The accessories for the router ship in five boxes that are assembled into an accessory package (Figure 3).

**Figure 3**      **Accessory Package—Exploded view**



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The five accessory boxes include:

- One box that contains the rack-mounting platform, which must be installed in the equipment rack before inserting the router.
- One box that contains two optional center-mount rack-mounting brackets.
- Two boxes that contain the two vertical cable-management troughs, which are installed on either side of the router after it has been installed in the equipment rack.
- One box that contains the remaining small accessory items, including:
  - The plastic front cover for the power shelf and upper blower module (removed and packaged separately to allow the two foam inserts to be fitted around the top of the router).



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**Note** Enhanced models of the 12016 series routers ship with their front door in place.

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- Printed copies of the customer documents that ship with the router.
- Miscellaneous small hardware needed to install the router.

The side walls of the shipping container are formed by two U-shaped, interlocking corrugated panels. The panels overlap to form the narrow ends of the container and are locked together by 12 plastic locking clips inserted into holes in the corrugated panels. Two foam inserts fit around the top of the router to act as a protective cushion and add rigidity to the packaging scheme by serving as a fixed buffer between the router, the corrugated side walls of the shipping container, and the corrugated top cap that holds the side walls in place. With the corrugated top cap installed, the entire shipping package is double-strapped end-to-end and side-to-side to secure the shipping container and its contents to the pallet.



**Note**

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Do not destroy the components of the shipping package. After installing the router, reassemble and store one complete router shipping package so that you can remove the router from the equipment rack and repackage the router in the event it must be shipped to another site or—if necessary—returned to the factory.

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If you do not receive the items you ordered, contact a Cisco customer service representative for assistance.

# Tools and Equipment

You need the following tools and equipment to unpack the router:

- A knife or scissors (to cut the packaging straps on the shipping container)
- 9/16-inch (14-mm) wrench (for chassis hold-down bolts and pallet hold-down bracket bolts)
- 3/4-inch (19-mm) socket and ratchet wrench
- Wire cutters
- Safety hand truck with retractable safety leg wheels and security strap, such as the Stevens Appliance Truck Company “Escort,” Model STEV SRT-M-66 (distributed by McMaster-Carr as Model 2654T6), or an equivalent safety hand truck.

## Unpacking the Router

Unpack the router in two phases:

- Open and disassemble the shipping package to expose the router on the shipping pallet
- Remove the router and scissor-jack platform from the shipping pallet

These two procedures are described next.

## Opening and Disassembling the Shipping Package

To expose the router on the shipping pallet, use [Figure 1 on page 3](#) as a reference and follow these steps:

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- Step 1** Use a pallet jack or forklift to place the shipping container as close to the installation location as possible. The unpacking site should be a large, open space with a level, solid floor. The work space must be large enough to allow easy access to all four sides of the shipping container.

- Step 2** To remove the corrugated top cap from the shipping container, follow these steps:
- Cut the four straps that wrap around the sides of the container from top to bottom.
  - Separate the top cap from the side panels and lift off the cap from the shipping container.
  - Safely set aside the top cap.
- Step 3** To remove the corrugated U-shaped side panels, follow these steps:
- At one of the narrow side panels containing the six plastic locking clips, insert a finger into the hole in one of the plastic locking clips and pull the wedge block out of the clip to release the butterfly tabs on the sides of the clip (see the exploded detail of the plastic locking clip shown in [Figure 1](#).)
  - Grasp the clip and pull it out of the hole in the corrugated panel.
  - Repeat [Step a](#). and [Step b](#). for the other five clips on the narrow side panel.
  - Repeat [Step a](#). through [Step c](#). for the opposite narrow side panel.
  - Lift the U-shaped side panel, pull it off the pallet, fold it flat, and set it safely aside.
  - Repeat [Step e](#). for the other U-shaped side panel.
- Step 4** Remove the two foam inserts from the top of the router.
- Step 5** Remove the corrugated, folded spacer from the top of the accessory package.
- Step 6** Remove the accessory package from the pallet and set it away from the pallet.
- Step 7** Slide the top cap off the accessory package.
- Step 8** Remove each of the five accessory boxes and set them safely aside.
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**Note**

Do not destroy the components of the shipping package. After installing the router, reassemble and store one complete router shipping package so that you can remove the router from the equipment rack and repackage the router in the event it must be shipped to another site or—if necessary—returned to the factory.

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## Removing the Router from the Shipping Pallet

This section describes how to remove the router from the shipping pallet. Refer to [Figure 4](#) and [Figure 5](#) for the location of items referred to in the steps.

[Figure 4](#) shows the router and scissor-jack platform mounted on the shipping pallet.

**Figure 4** Router and Scissor-Jack Platform Mounted on the Shipping Pallet

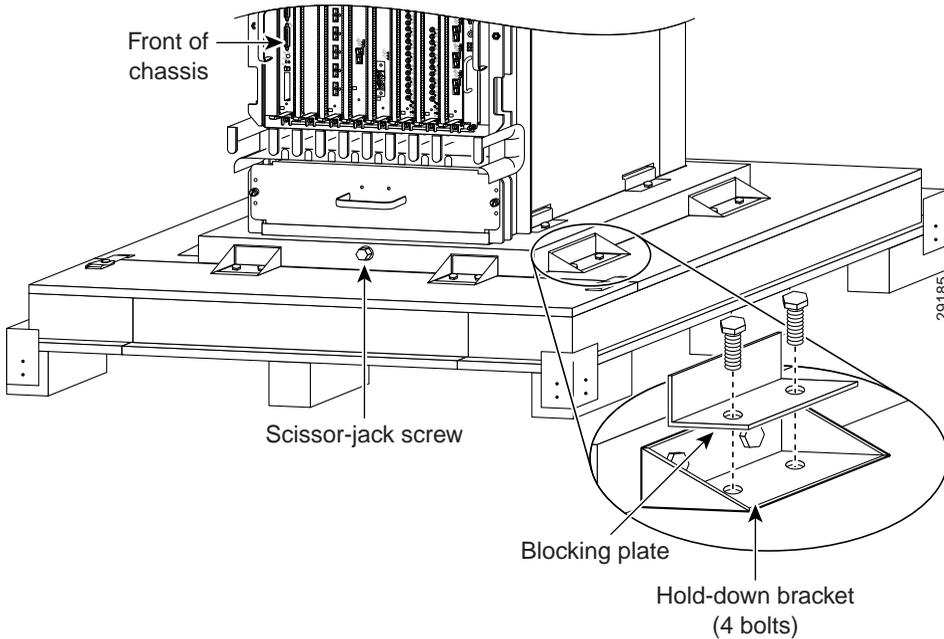
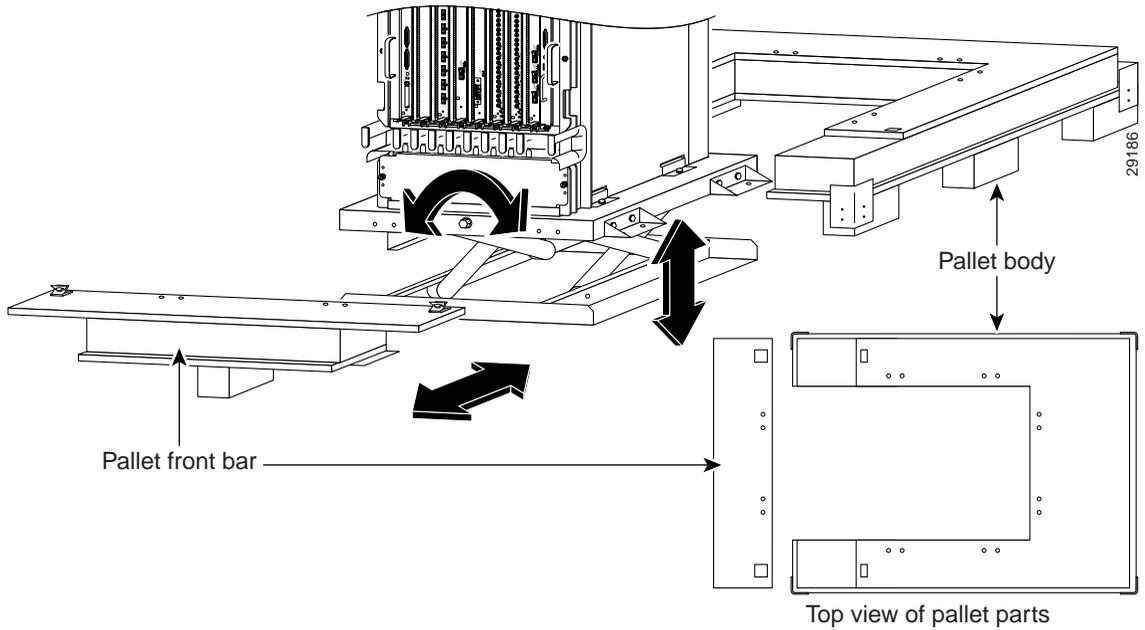


Figure 5 shows a summary view of how to separate the chassis and scissor-jack platform from the shipping pallet.

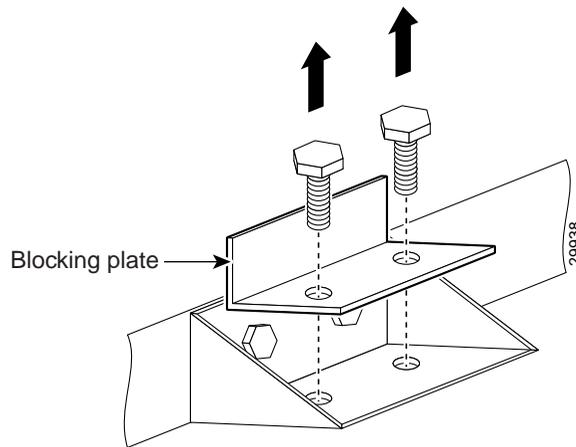
**Figure 5** *Removing the Router and Scissor-Jack Platform from the Shipping Pallet*



To remove the router from the shipping pallet and move it to the rack, follow these steps:

- Step 1** Remove the two hold-down brackets attached to the *front* of the scissor-jack platform.
- a. Remove the bolts that fasten the two front hold-down brackets to the *top* of the shipping pallet (**Figure 6**).

**Figure 6** Removing Hold-Down Bracket Bolts from the Shipping Pallet

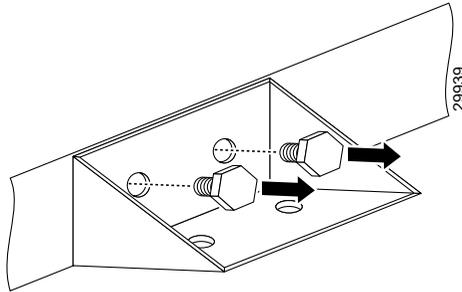


**Caution**

The blocking plate is a safety feature to prevent you from removing the lateral bolts from the sides of the scissor-jack platform. Do not do inhibit the intent of the blocking plate.

- b. Remove the blocking plates from the two front hold-down brackets.
- c. Remove the bolts that fasten the two hold-down brackets to the *front side* of the scissor-jack platform (Figure 7).

**Figure 7**      **Removing Hold-Down Bracket Bolts from the Scissor-Jack Platform**



- d. Set the hold-down brackets, blocking plates, and bolts safely aside.



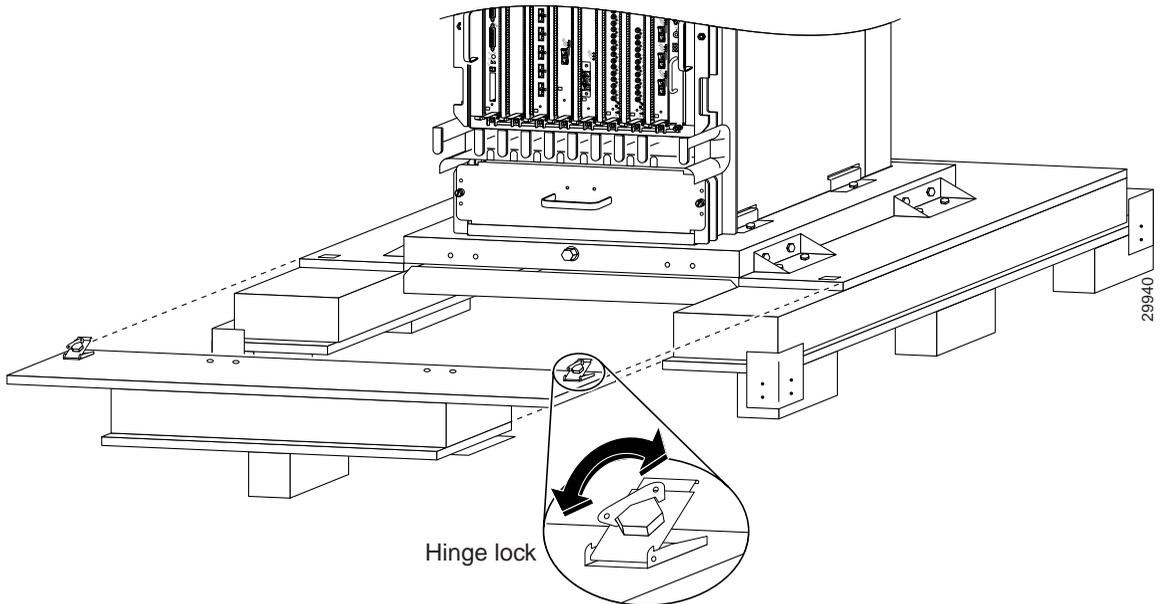
**Note** You must reinstall the empty scissor-jack platform on the pallet before storing it with the remainder of the shipping container so that you can use it later to remove the router from the equipment rack and repackage the router in the event it must be shipped to another site or—if necessary—returned to the factory.

- Step 2** Remove the pallet front bar from the U-shaped pallet body (**Figure 8**).
- e. Pivot the butterfly handle on the hinge lock so that it is perpendicular to the body of the hinge lock.
  - f. Twist the butterfly handle counterclockwise to release the hinge lock hook from the hinge lock catch on the pallet body.
  - g. Lift the hinge lock hook off the catch to free the pallet front bar.
  - h. Pull the pallet front bar away from the pallet body and safely set it aside.



**Note** You can visually verify that the scissor-jack platform is closed (the platform top and base are clamped together), and that the weight of the router and scissor-jack are supported entirely by the U-shaped pallet body.

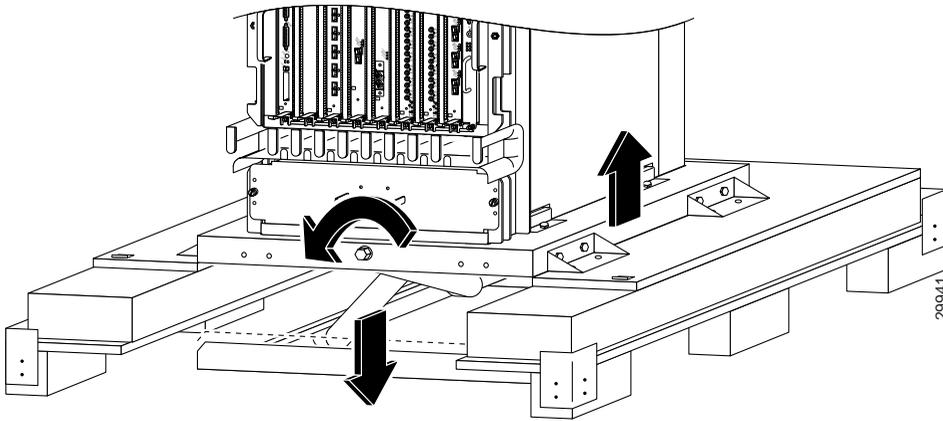
**Figure 8** *Removing the Pallet Front Bar*



- Step 3** Use the 3/4-inch (19-mm) socket and ratchet wrench to turn the scissor-jack screw *counterclockwise* to expand the scissor-jack platform and lower the base of the scissor-jack platform to the floor ([Figure 9](#)).

Continue turning the screw until the platform supports the weight of the router and barely begins to lift the pallet.

**Figure 9** Expanding the Scissor-Jack Platform to Support the Router



- Step 4** Remove the bolts that fasten the remaining six hold-down brackets to the *top* of the pallet body (see [Figure 4 on page 10](#)).



**Caution**

At this point, the weight of the chassis is supported by the scissor-jack platform. Have one person hold the chassis to ensure that it is stable.

- Step 5** Slide the pallet body away from the base of the scissor-jack platform and set it safely aside (see [Figure 5 on page 11](#)).

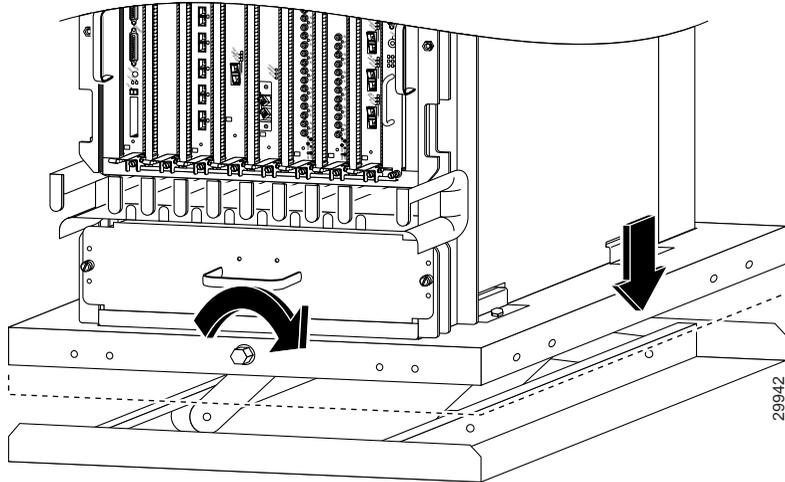


**Warning**

Do not attempt to lift the chassis with the handles on the back and sides of the router chassis. These handles are not designed to support the weight of the chassis, and should be used only to steady and guide the chassis while it is being inserted into or removed from an equipment rack. To reduce the risk of damage to the chassis and serious bodily injury, do not use these handles to lift or support the chassis.

- Step 6 Remove the lateral bolts that fasten the remaining six hold-down brackets to the sides of the scissor-jack platform.
- Step 7 Use the 3/4-inch (19-mm) socket and ratchet wrench to turn the scissor-jack screw *clockwise* to close the scissor-jack platform and lower the router (**Figure 10**).

**Figure 10** Closing the Scissor-Jack Platform



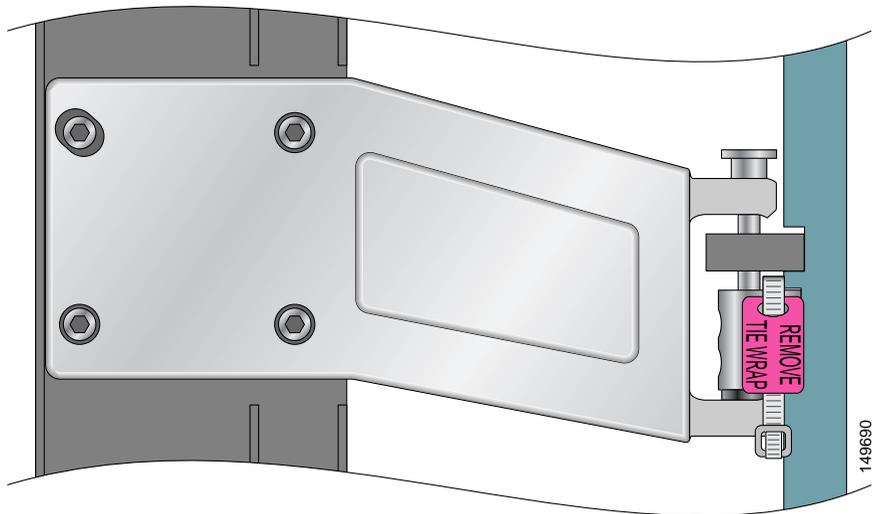
If you are installing an enhanced version of the router, go to [Step 8](#). For all other models, go to [Step 10](#).

- Step 8** Cut the plastic tie-wrap and remove it from the upper left hinge bracket (Figure 11).



**Note** The plastic tie-wrap secures the front door to the chassis during shipment.

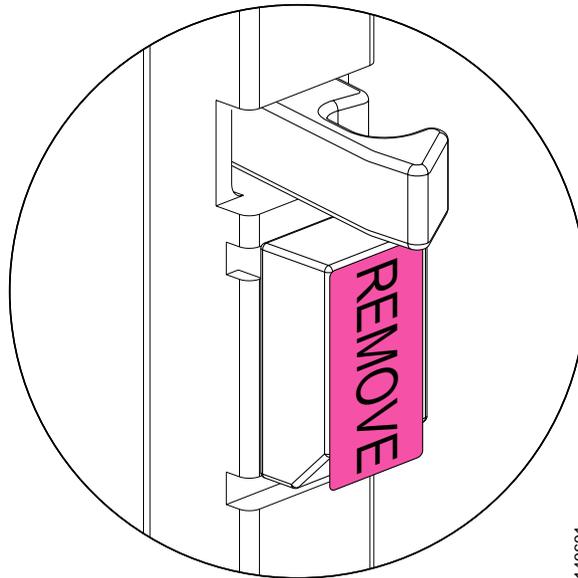
**Figure 11** *Removing the Tie-Wrap and Label*



**Step 9** Open the front door and remove the labels (labeled REMOVE) that protect the rubber bumpers during shipment (Figure 12).

Close the front door.

**Figure 12** *Removing the Rubber Bumper Shipping Label*



**Step 10** Position the hand truck at one side of the router and slide the router and scissor-jack platform onto the hand truck (Figure 13).

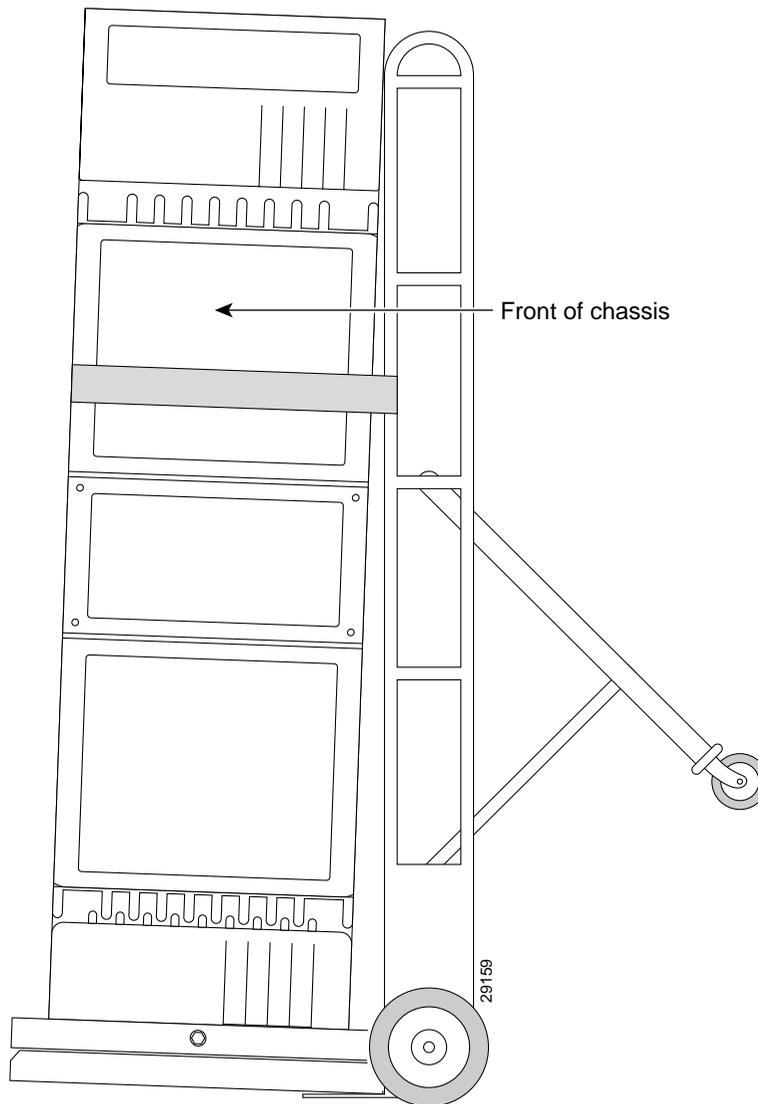
Secure the router to the hand truck using the locking safety strap.



**Caution**

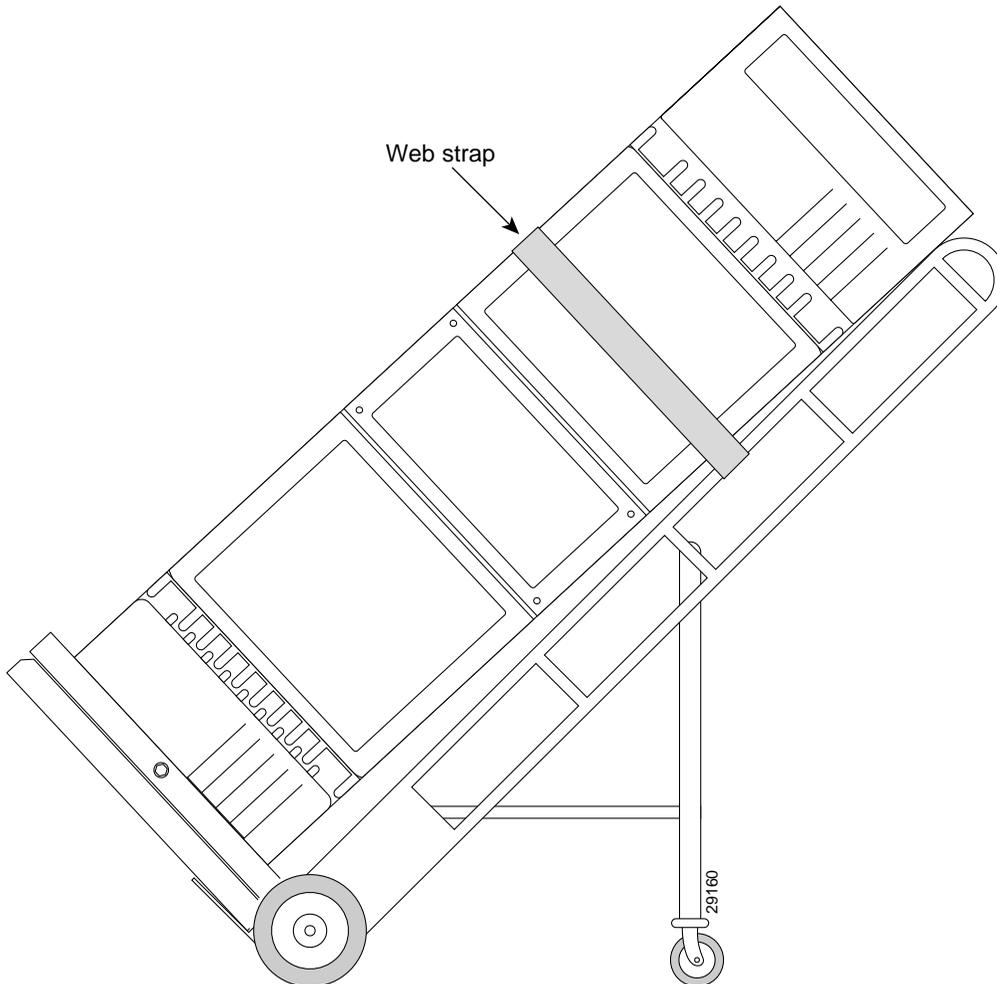
The safety strap should be snug, but not so tight as to damage the router or its components. Do not overtighten the safety strap.

**Figure 13** Loading the Router and Scissor-Jack Platform on the Hand Truck



- Step 11 Tilt the hand truck onto its outrigger wheels to move the router to the rack site (Figure 14).

**Figure 14** *Moving the Router and Scissor-Jack Platform*



- Step 12** At the rack site, tilt the chassis upright so that it stands on the scissor-jack platform, then remove the hand truck.
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The system is ready to be installed. Follow the installation procedures in the *Cisco 12016, Cisco 12416, and Cisco 12816 Router Installation and Configuration Guide* to install your router.

## Regulatory, Compliance, and Safety Information

The complete list of translated safety warnings and agency approvals is available in the *Regulatory Compliance and Safety Information for Cisco 12000 Series Internet Routers* publication (Document Number 78-4347-xx).

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/techsupport>

You can access the Cisco website at this URL:

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The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

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Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>



### Note

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## Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

## Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

**Severity 1 (S1)**—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

**Severity 2 (S2)**—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

**Severity 3 (S3)**—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

**Severity 4 (S4)**—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

# Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

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- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

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- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

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- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

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or view the digital edition at this URL:

<http://ciscoiq.texterity.com/ciscoiq/sample/>

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

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- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

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- World-class networking training is available from Cisco. You can view current offerings at this URL:

<http://www.cisco.com/en/US/learning/index.html>

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