

Quantum ATL P4000 Unpacking Instructions

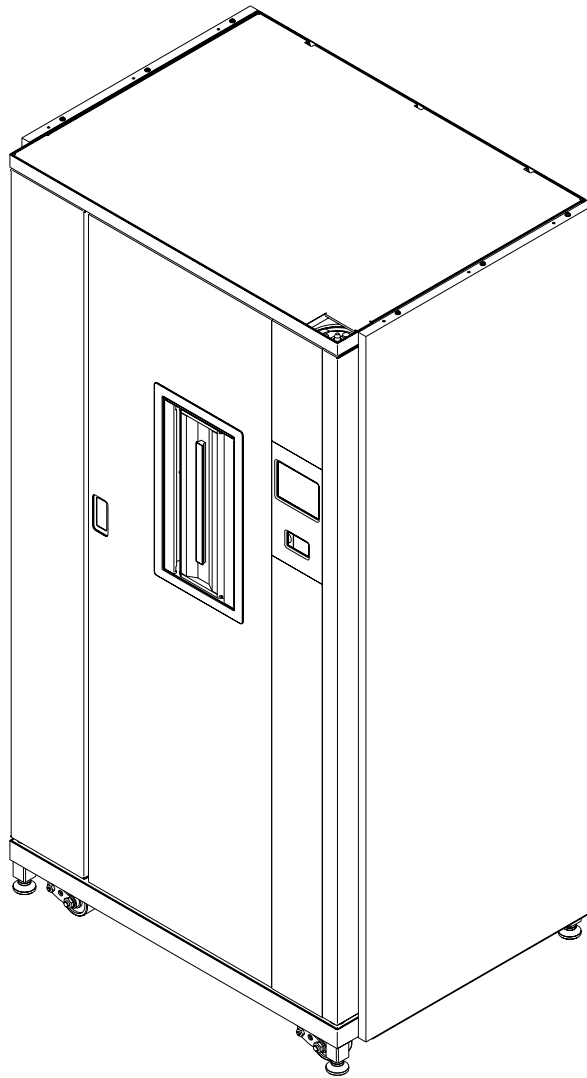
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Introduction

The ATL P4000 is an automated storage and retrieval library consisting of up to 10 tape drives and up to 322 tape cartridges (see [figure 1](#)).

This document explains how to unpack the ATL P4000. Once the library is unpacked and moved to the desired installation location, set up the library using the instructions in the *ATL P4000 and ATL P7000 User's Guide* (PN 6434003).

Figure 1 ATL P4000 Library



Selecting an Installation Location

When choosing an installation site for the ATL P4000, consider the following requirements:

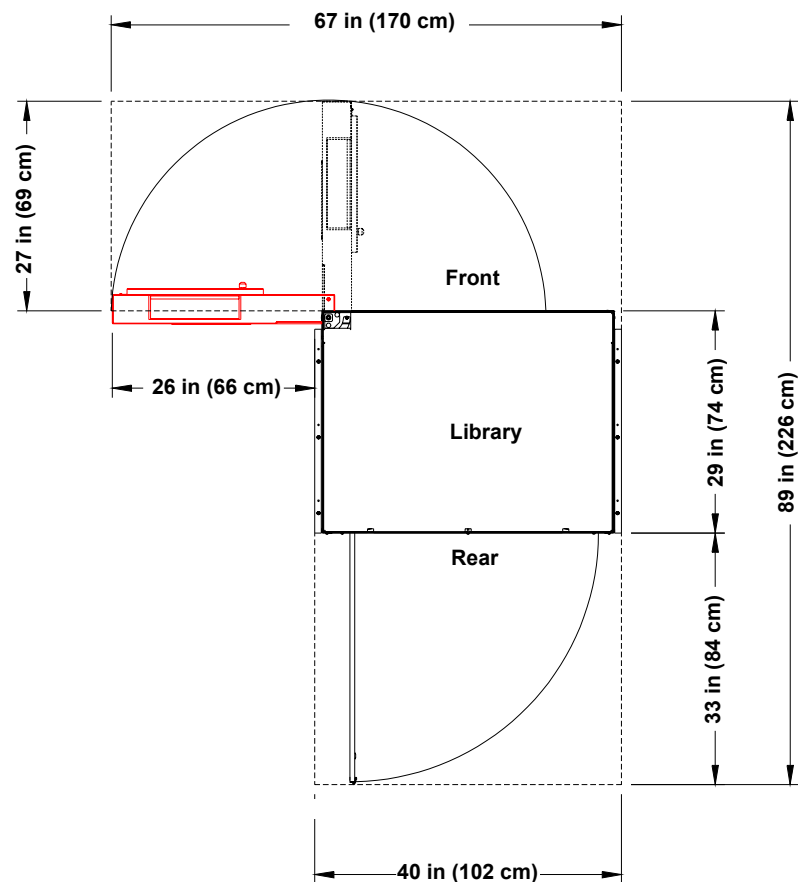
- Floor space
- Floor clearance
- Floor strength and inclination
- Power and grounding
- Environmental conditions

These requirements are also described in the *ATL P4000 and ATL P7000 User's Guide* (PN 6434003).

Floor Space

[Figure 2](#) shows the minimum floor space required by the ATL P4000.

Figure 2 Floor Space Requirements



Floor Clearance

The library has a floor clearance of 0.75 inch (19 mm). Place the library on a level, uncarpeted floor free of defects.

Floor Strength and Inclination

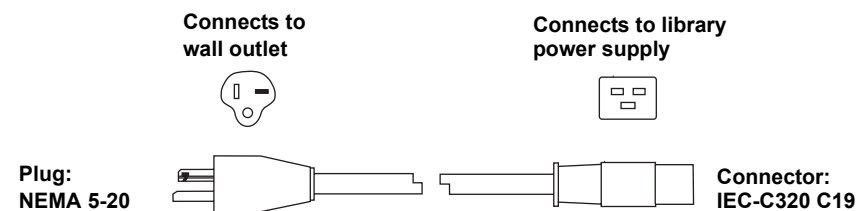
The floor at the installation site must be rated at 250 lb/ft² (1221 kg/m²). This is sufficient to support a fully loaded ATL P4000 library.

The floor must be level to within 0.25 inch (6.4 mm) over a 6-foot-by-6-foot (1.83-meter-by-1.83-meter) area.

Power and Grounding

For the United States and Canada, one or two UL/CSA certified power cords are furnished. Each uses a 14/3 SJT cord, a 5-20P plug, and an IEC-C320 C19 female connector (see [figure 3](#)).

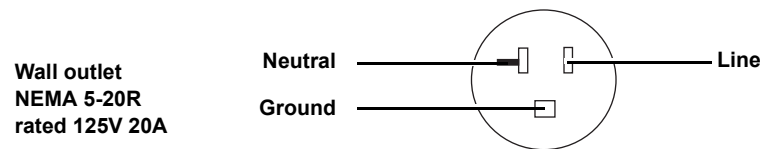
Figure 3 Power Supply Cord



The library is rated 100-240V~, 50-60Hz, 12A-8A, 1200W.

The library power requirements may require modification of the facilities existing power capabilities by a qualified electrician. The required wall outlet for the United States and Canada is rated at 125V 20A (see [figure 4](#)).

Figure 4 Wall Outlet



The dedicated wall outlet and a 20 amp circuit breaker must provide power to the ATL P4000 library only. Outside North America, replace the supplied power cord with a harmonized 3 x 1.5 mm² power cord that is approved by the country where used, and install the appropriate wall outlet. More information on the electrical requirements is provided in the *ATL P4000 Pre-Installation Site Survey Instructions*.

Caution: The ATL P4000 library must be connected to a grounded electrical outlet.

Environmental Conditions

The installation site must have the following environmental conditions:

- Humidity: 20%-80% non-condensing
- Temperature: 15°C-32°C (59°F-90°F)
- Altitude: sea level to 10,000 feet
- Air: free of airborne contaminants; e.g., dust, paper particles

These environmental conditions apply when the library is in operation.

Note: For additional library specifications (including environmental requirements during shipping and storage), see appendix A in the *ATL P4000 and ATL P7000 User's Guide* (PN 6434003).

Preparing for the Installation

Before you begin the installation procedure, make the following preparations:

- Providing necessary tools and equipment for installation
- Taking ESD precautions

Providing Necessary Tools and Equipment

Provide the following tools for unpacking the library:

- Scissors
- Ratchet with 15/16 inch socket (or 15/16 inch open-end wrench)

Provide the following tools for removing the shipping restraints:

- #2 Phillips® screwdriver
- Tie wrap

Provide the following tools for leveling the library:

- 3/4-inch open-end wrench
- Carpenter's level

Taking ESD Precautions

Some components within the ATL P4000 library contain static-sensitive parts. To avoid damaging these parts while performing installation procedures, always observe the following precautions:

- Keep the library turned off during all installation procedures.
- Keep the library power cord plugged into a grounded power outlet except when working with AC electrical components.
- Avoid contact with power supplies, EMI filters, and AC electrical components while the library is connected to a power outlet.
- Use an antistatic wrist strap.
- Keep static-sensitive parts in their original shipping containers until ready for installation.
- Do not place static-sensitive parts on a metal surface. Place them inside their protective shipping bag or on an antistatic mat.
- Avoid touching connectors and other components.

Note: Dry climates and cold-weather heating environments have lower relative humidity and are more likely to produce static electricity.

Unpacking the Library

This section explains how to unpack the library and move it to its final installation location. The ATL P4000 is shipped in packing materials designed to protect it from damage during transit. By following these instructions, you help ensure that the library will continue to be safeguarded after it arrives at the installation site.

The following are the major steps in this procedure:

- Receiving the library
- Unboxing the library
- Positioning the library
- Unpacking the library
- Leveling the library

Receiving the Library

Unpack the library as close to the installation site as possible. Inspect the shipping pallet and carton for damage that may have occurred during shipment. Report any damage to the shipper.

Caution: The ATL P4000 weighs approximately 1072 pounds (486 kg), without drives. Each drive weighs approximately 13.5 lbs. It is strongly advised to use at least two people to move and install the library.

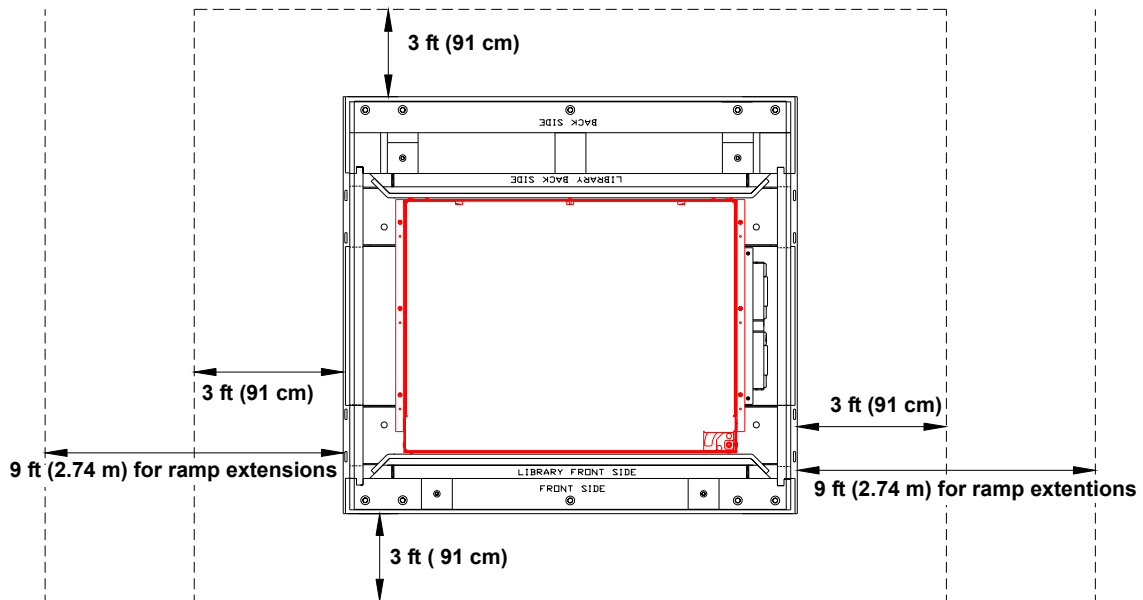
Unboxing the Library

To unbox the library:

- 1 Choose the unloading side. The ATL P4000 may be unloaded from either the right or left side of the pallet.
- 2 Verify the minimum floor space requirements.

Note: Uncrating the library requires a minimum of 3 feet (91 cm) on all sides. For the side being used for the ramp, uncrating the library requires 9 feet (2.74 m). [Figure 5](#) shows the minimum floor space required by the ATL P4000 at its uncrating site. The minimum height required for unpacking the ATL P4000 is 85 inches (2.16 meters).

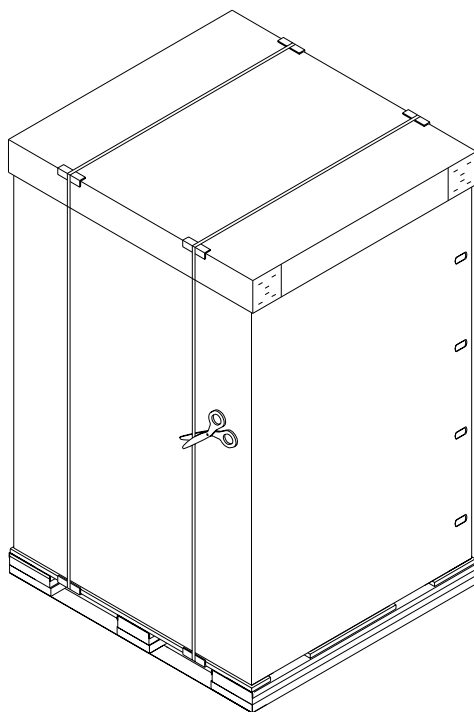
Figure 5 Minimum Floor
Space Requirements—
Uncrating Site



- 3 Cut the two steel bands that secure the library and packing material to the pallet (see [figure 6](#)).

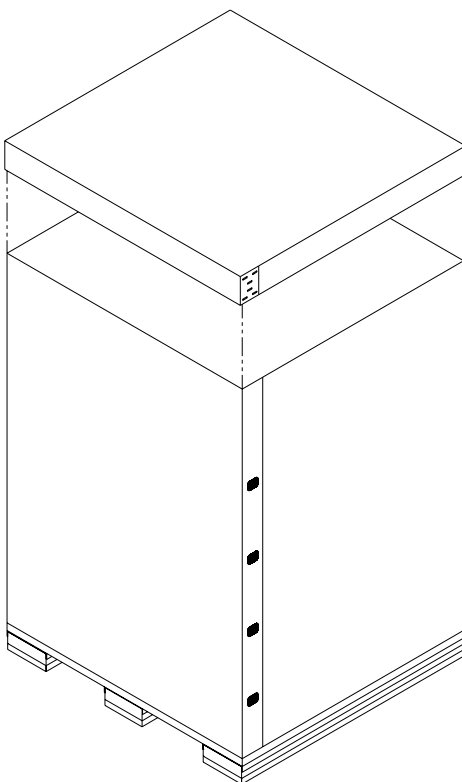
Caution: The steel bands are under tension and will snap away when cut.

Figure 6 Removing the
Steel Bands



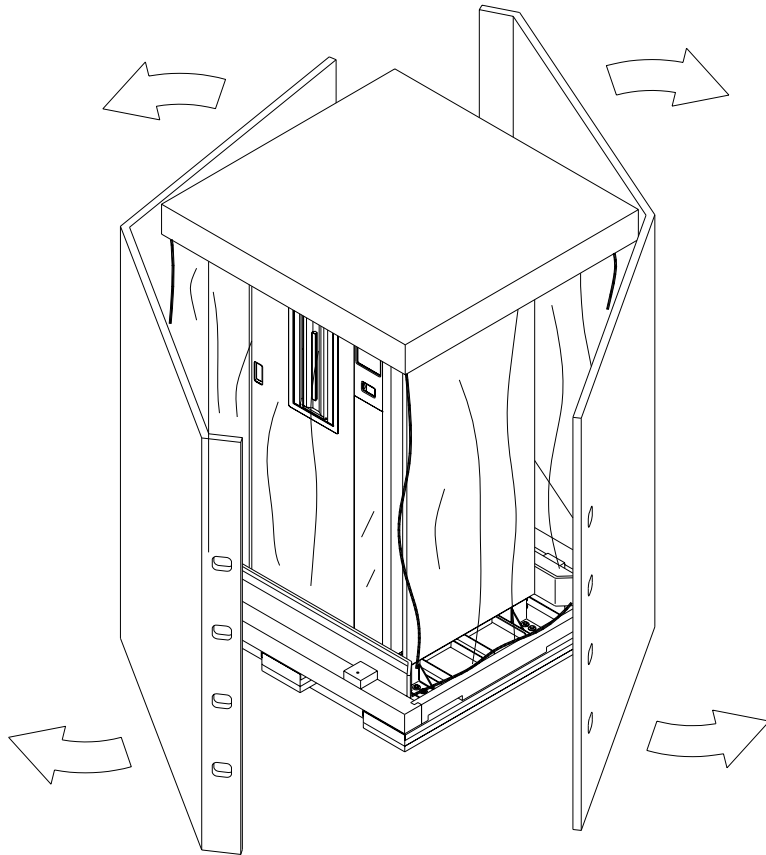
- 4 Lift the cardboard box top cover straight up and off of the pallet (see [figure 7](#)).

Figure 7 Removing the
Box Top Cover



- 5 Pull the eight cardboard box retaining clips to their open position.
- 6 Unwrap the cardboard box from the library (see [figure 8](#)).

Figure 8 Removing the
Cardboard Box

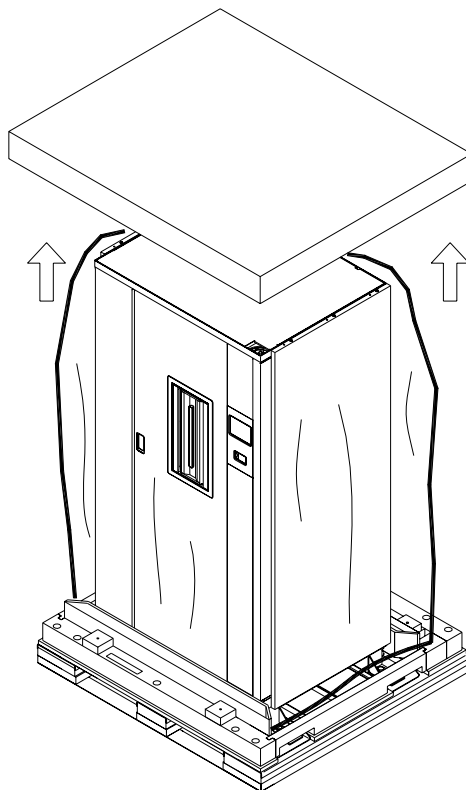


- 7 Remove the accessory kit from the rear compartment of the crate.
- 8 Check the packing list and verify that all accessories have been received.

Note: If any part is missing or damaged, contact your authorized reseller.

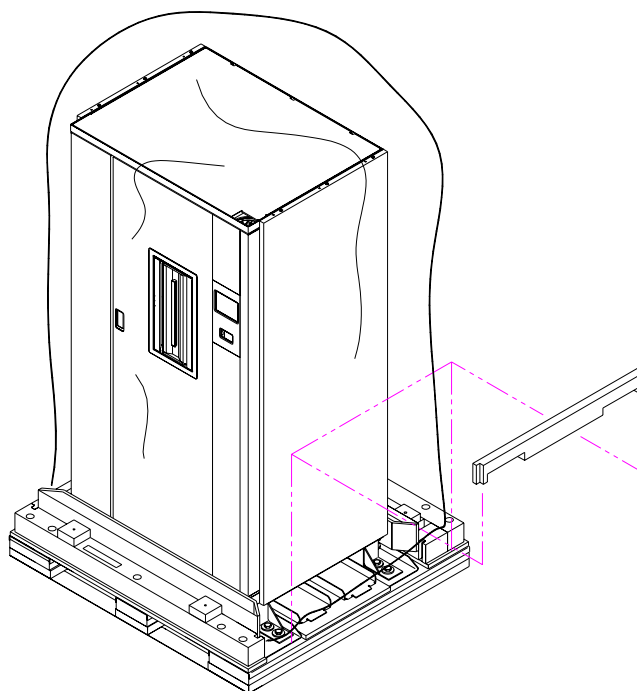
- 9 Lift the foam cap up and off of the library (see [figure 9](#)).

Figure 9 Removing the
Foam Cap



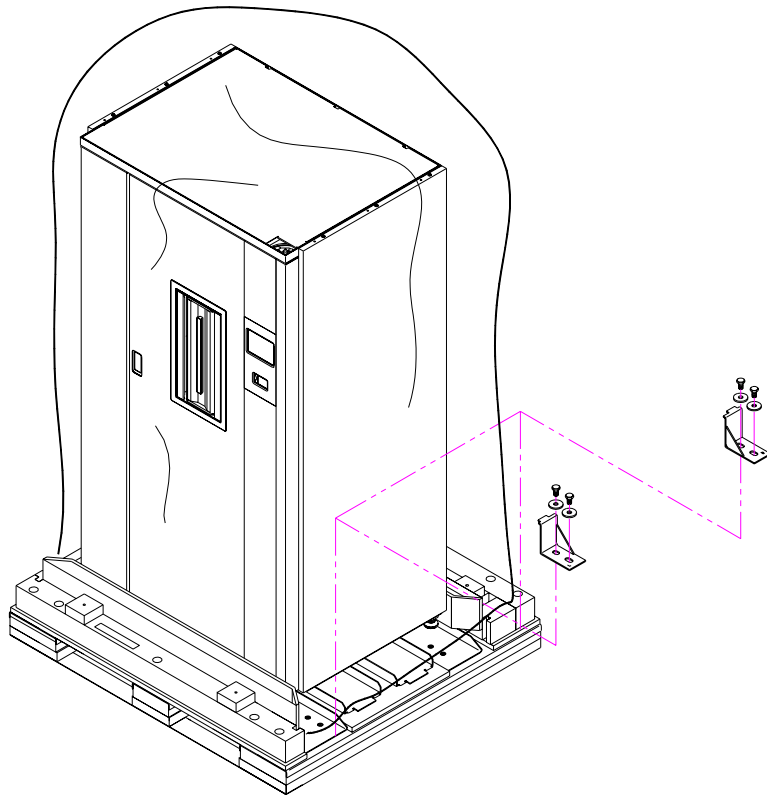
- 10** On the right side of the library, lift the wooden bar out of its brackets on the pallet (see [figure 10](#)).

Figure 10 Removing the
Wooden Bar



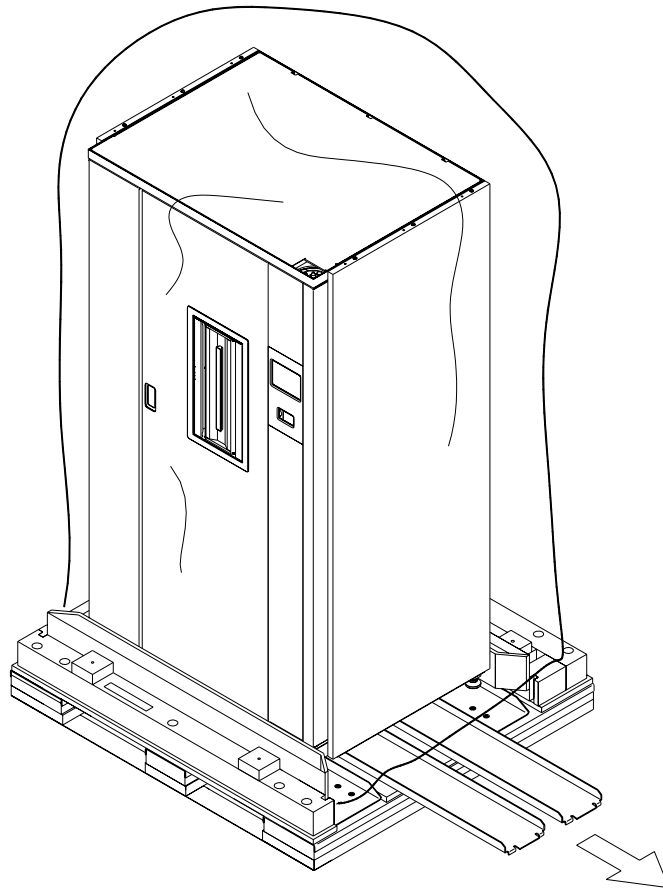
- 11 On the right side of the library, unscrew the bolts that secure the hold-down brackets. Each hold-down bracket is secured with two bolts .
- 12 Remove each hold-down bracket from under the library (see [figure 11](#)), using the supplied wrench.

Figure 11 Removing the
Stop Blocks



- 13 Re-insert the left-side wooden bar in its brackets on the pallet to hold the library in place.
- 14 Repeat steps 10, 11, and 12 for the right side of the library. Do not replace the right-side wooden bar.
- 15 Slide out the two ramp extensions and the foam block, all located under the library on the right side (see [figure 12](#)).

Figure 12 Removing the
Ramp Extensions



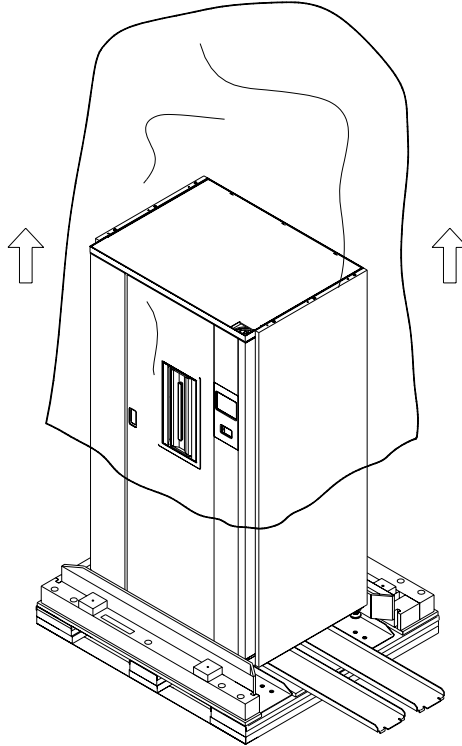
- 16** Place the ramp extensions aside until the library is ready to be positioned.
- 17** Re-insert the right-side wooden bar into its brackets on the pallet to hold the library in place.

Positioning the Library

To position the library:

- 1** Map out a route to the installation site.
- 2** Carefully lift the shipping bag off of the library (see [figure 13](#)).

Figure 13 Removing the Shipping Bag

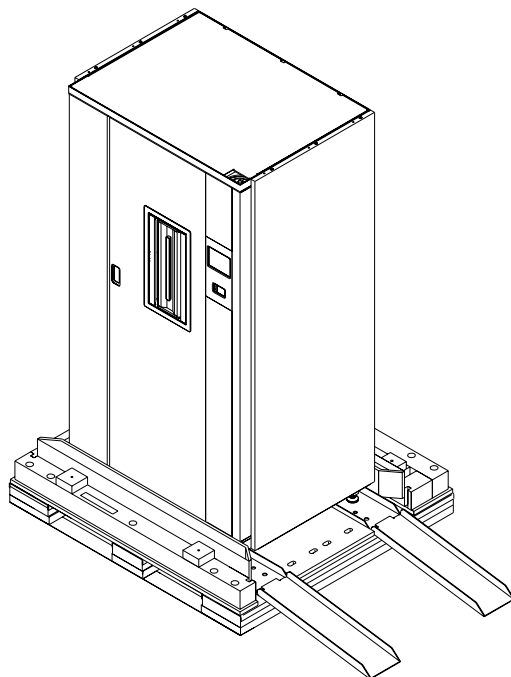


- 3 Inspect the library for any damage that may have occurred during shipment.

Note: The ramp may be set up on either the right side or the left side of the pallet. The following illustrations show the ramp set-up procedure when the right side of the library is used.

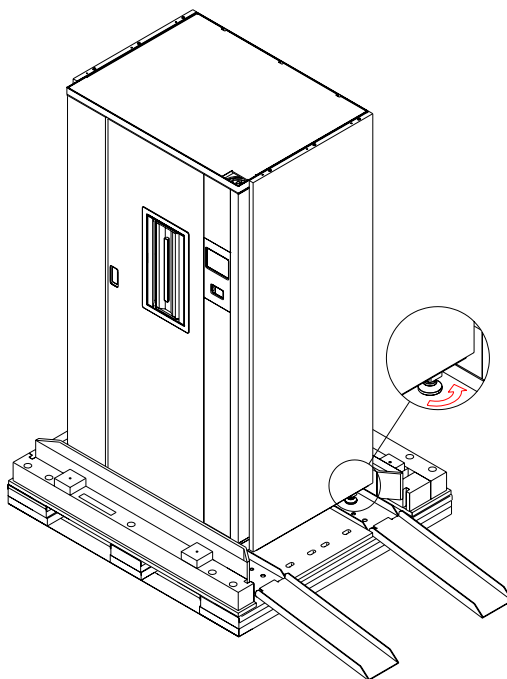
- 4 Place the two ramp extensions in the slots provided at the edge of the pallet (see [figure 14](#)).

Figure 14 Preparing the
Ramp



- 5 Verify that the library's four leveling feet are raised. If not, raise each foot as needed as by turning the leveling foot until it is 1/2 inch above the pallet (see [figure 15](#)).

Figure 15 Raising the
Leveling Feet

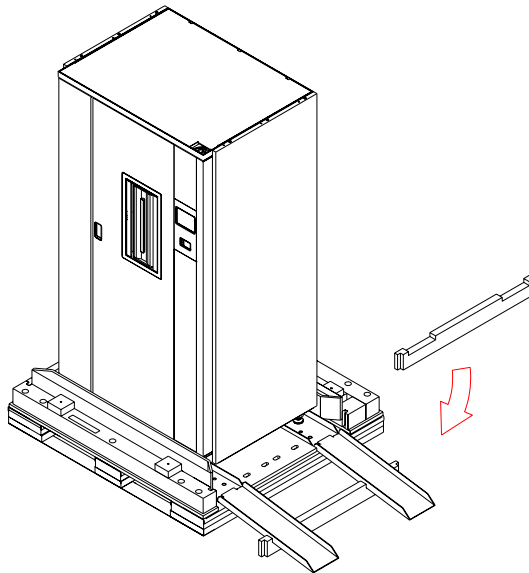


6 Move the wooden bar:

- a** Remove the wooden bar from the ramp-side of the pallet.
- b** Turn the bar over and place it under the ramp extensions for support (see [figure 16](#)).

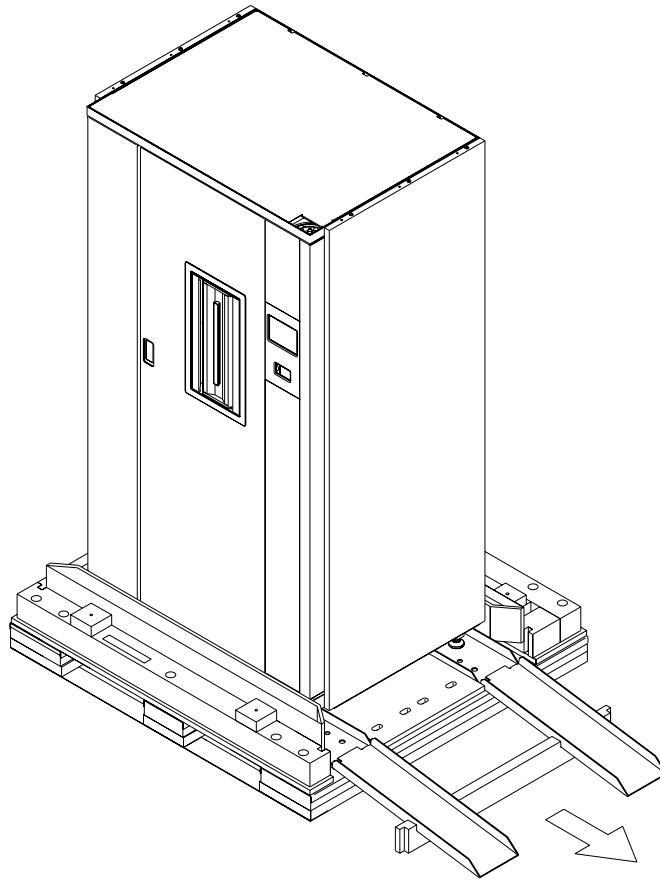
Note: Align the notches in the wooden bar with the ramp extensions.

Figure 16 Moving the Wooden Bar



- 7** With the help of one or more people, carefully guide the library down the ramp (see [figure 17](#)). Control the speed of its descent.
- 8** Guide the library to its final installation site.

Figure 17 Rolling the
Library Down the Ramp



Unpacking the Library

To unpack the library:

- 1 Using the power cable from the accessory kits, connect the library to a grounded power source.

Note: Do not turn on the library.

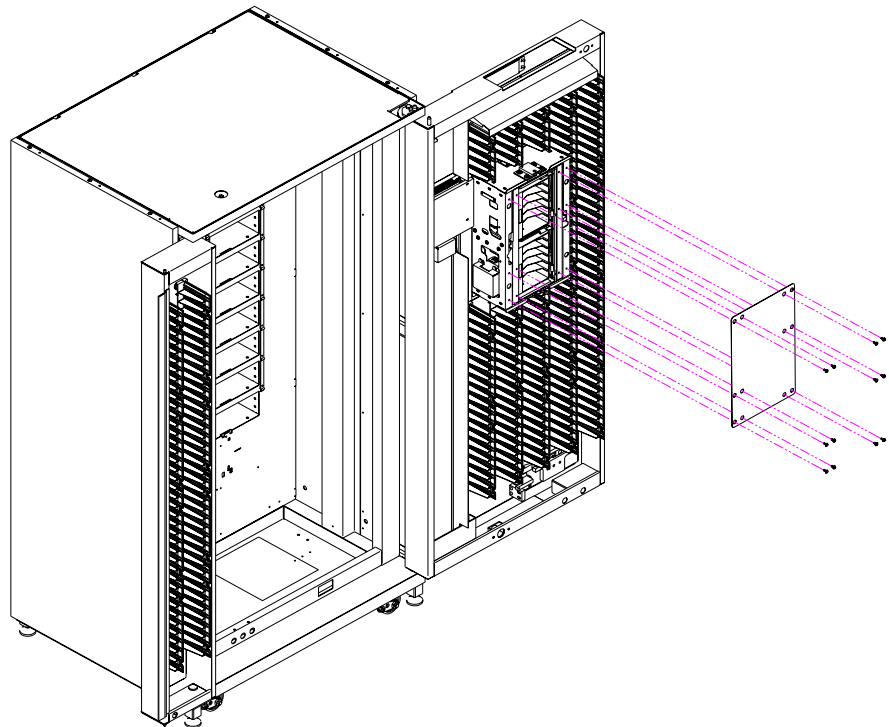
- 2 Unlock and open the library door:
 - a Using the key from the accessories kit, unlock the door.
 - b Lift the door handle straight up and then turn the handle to unlatch the door.
 - c Gently pull on the door handle to open the door.

Note: Save the bolts, washers and shipping plate for use in repacking the library, if required at a later date.

- 3 Remove the foam pads from inside the front doors and around the robotics.

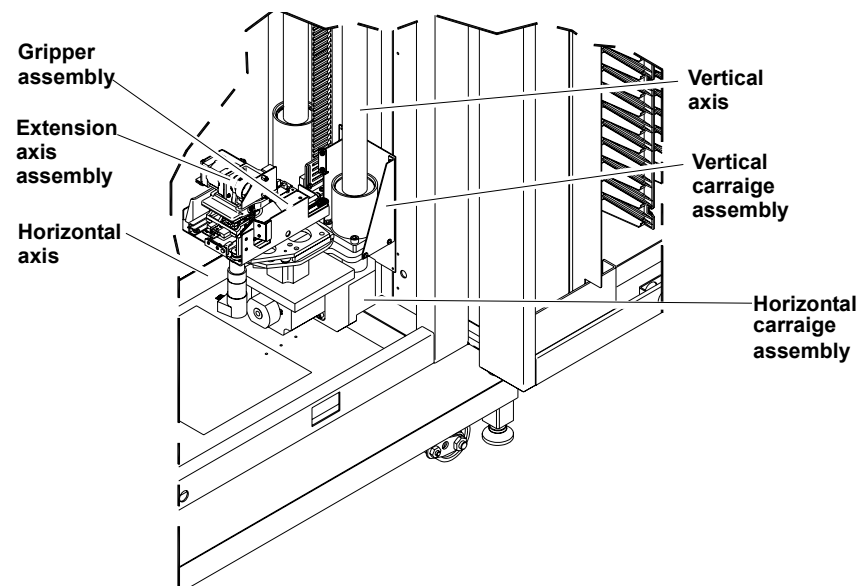
- 4 Remove the shipping plate that protects the load port:
 - a Unscrew and remove the bolts and washers securing the plate to the load port (see [figure 18](#)).
 - b Remove the shipping plate from the load port.

Figure 18 Removing the Load Port Shipping Plate



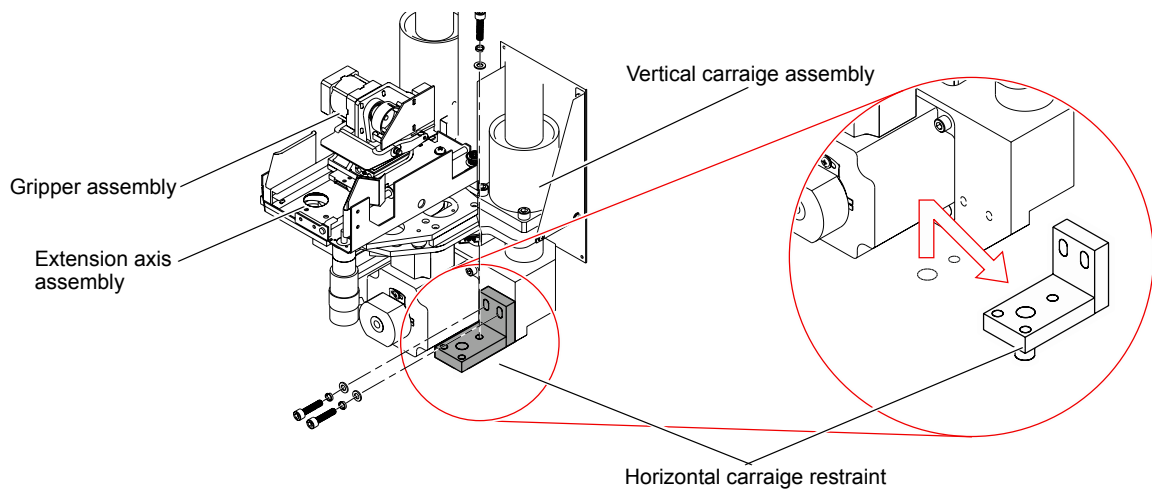
- 5 Locate the vertical carriage assembly (see [figure 19](#)).

Figure 19 Locating the Vertical Carriage Assembly



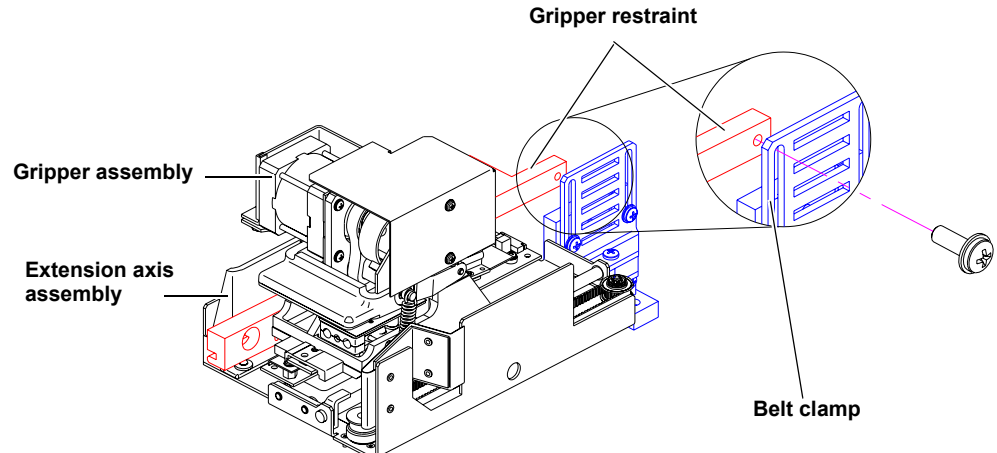
- 6** Remove the horizontal carriage restraint (see [figure 20](#)):
 - a** Remove the two screws that secure the horizontal carriage restraint to the horizontal carriage.
 - b** Remove the screw that secures the horizontal carriage restraint to the floor of the library.
 - c** Remove the horizontal carriage restraint.

Figure 20 Removing the
Horizontal Carriage
Restraint



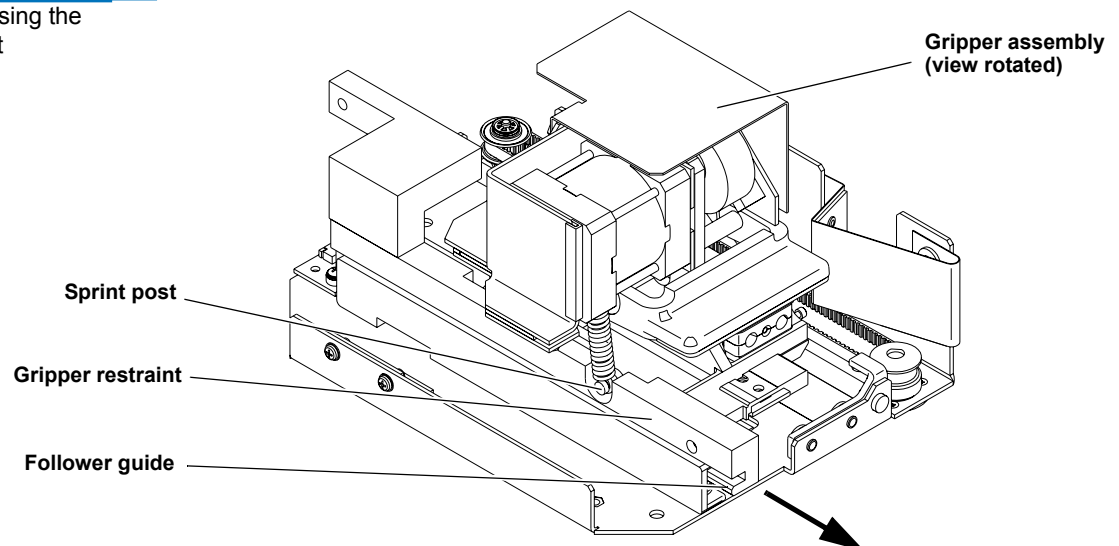
- 7** Slide the horizontal carriage along the horizontal axis toward the middle of the library.
- 8** Remove the gripper restraint:
 - a** Remove the screw that secures the gripper restraint to the belt clamp (see [figure 21](#)).

Figure 21 Removing the
Gripper Restraint Screw



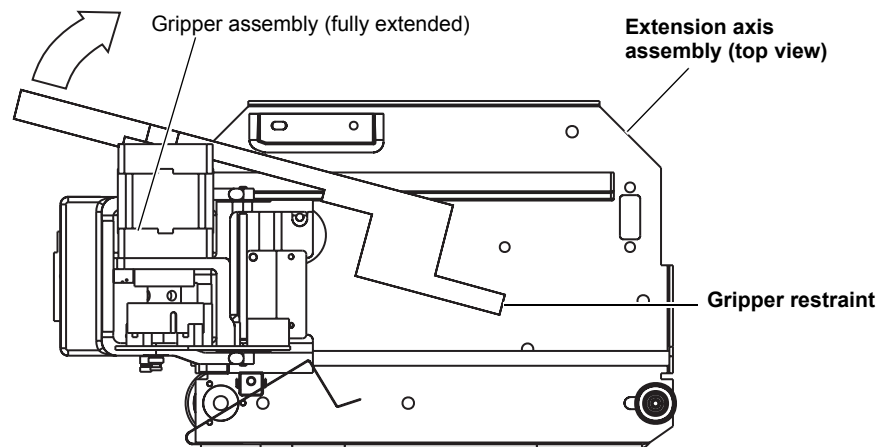
- b** Slide the gripper assembly away from the vertical axis until the gripper assembly is fully extended and the gripper restraint disengages from the follower guide (see [figure 22](#)).

Figure 22 Releasing the
Gripper Restraint



- c** Pivot the gripper restraint until it clears the motor, and spring post (see [figure 23](#)).

Figure 23 Removing the
Gripper Restraint

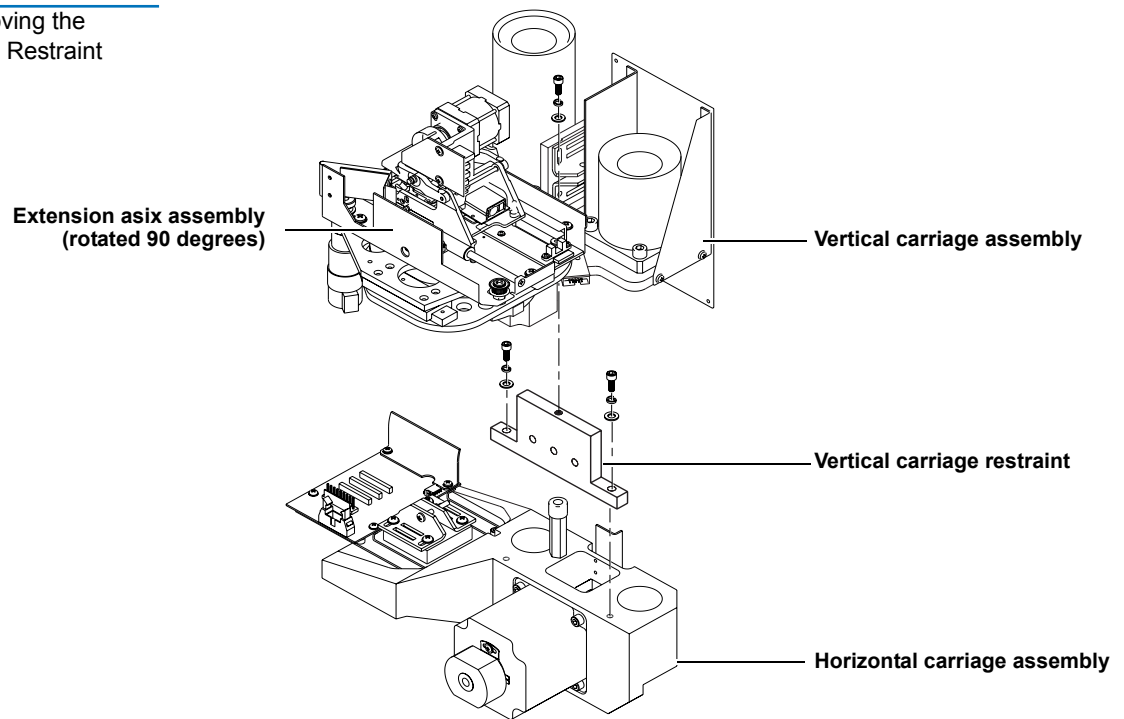


- d Remove the gripper restraint by gently pulling it back toward the vertical axis.
- e Slide the gripper assembly toward the vertical axis.
- 9 Remove the vertical carriage restraint (see [figure 24](#)):

Warning: The vertical carriage is extremely heavy.

- a Rotate the extension axis assembly 90 degrees.
- b Remove the screw that secures the vertical carriage restraint to the vertical carriage.
- c Gently lift the vertical carriage to eye-level.
- d Squeeze the two sides of the vertical belt together, making sure to interlock the belt cogs.
- e Secure the vertical belt with a tie wrap.
- f Remove the two screws that secure the vertical carriage restraint to the horizontal carriage.
- g Remove the vertical carriage restraint.
- h Remove the tie wrap installed in [step e](#).
- i Gently lower the vertical carriage.

Figure 24 Removing the
Vertical Carriage Restraint



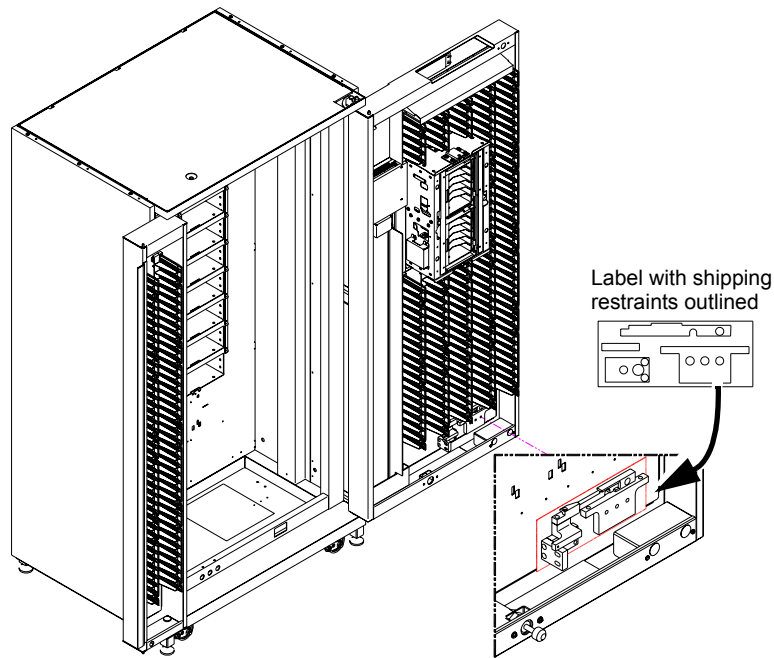
Storing the Shipping Materials

To store the shipping and packaging materials for future use:

- 1 Use the screws removed in steps [6](#), [8](#), and [9](#) to secure the shipping restraints to the inside of the library (see [figure 25](#)).

Note: The profile of each shipping restraint is clearly outlined on the storage label.

Figure 25 Storing the Shipping Restraints



- 2 Slide the two ramp extensions into their shipping position on top of the pallet.
- 3 Secure the ramp extensions with the foam block.
- 4 Re-insert the wooden bar into its brackets on the pallet.
- 5 Fold the shipping bag.
- 6 Place the shipping bag, load port shipping plate, stop blocks, foam cap, screws, and other packaging materials on the pallet.
- 7 Collapse the cardboard box.
- 8 Place the cardboard box on top of the packaging materials on the pallet.
- 9 Secure the pallet, packaging materials, and cardboard box for future use.

Leveling the Library

To level the library:

- 1 Rotate each foot of the library until it makes contact with the floor.
- 2 Rotate each foot an additional 1/4 turn clockwise with the open-end wrench to begin raising the library.
- 3 Center a carpenter's level on the top front edge of the library.
- 4 Check the gauge on the level. If the front of the library is level, proceed to [step 6](#). If it is not level:

- a** Determine which side of the library is low.
 - b** Adjust the leveling foot on the low side of the library by rotating the leveling foot with the open-end wrench.
- 5** Repeat [step 4](#) until the front is level.
- 6** Repeat steps [3](#) and [4](#) for the left edge, back edge, and right edge of the library.
- 7** Recheck the level on all top edges.
- 8** If necessary, repeat steps [3](#) and [4](#) until all four top edges of the library are level.

