Quantum.

SuperLoader™ DLT and SuperLoader™ LTO
Quick Start Guide

This Quick Start Guide explains how to unpack, install, and set up your SuperLoader, including how to correctly handle magazines and tape cartridges.

These instructions are for both the SuperLoader DLT (which includes the SuperLoader SDLT) and SuperLoader LTO due to the nature of their similarities. In general, the SuperLoader DLT is used in the illustrations. Though the components are similar in appearance, many component parts are not interchangeable. These include the magazines, cartridges, drive carrier assembly, magazine blank, magazine handle, and the bar code reader. Please order the appropriate part numbers when replacing these items.

For additional information, visit **www.quantum.com**, refer to the *Superloader Automated Tape Library User Manual* installed as a PDF (portable document format) file on the enclosed CD, or contact Quantum Technical Support and Customer Service by dialing (800) 284-5101.

> **Note**: Adobe® Acrobat® Reader 4.0 or later is required to view and print PDF documents. To download a free copy of Adobe Acrobat Reader, go to **www.adobe.com**.

Step 1: Unpack the SuperLoader

> **Warning:** At least two people are required to unpack the SuperLoader to reduce the risk of personal injury or equipment damage.

a. Look for markings on the shipping carton that indicate the top. If necessary, position the carton so that it is top-side up.

b. Using scissors, a utility knife, or other appropriate tool, carefully cut the packing tape along the length and ends of the carton.

c. Remove the accessories box from the shipping carton. The accessories box contains the following items:
   - SCSI cable (VHDCI to 68 pin or VHDCI to VHDCI)
   - SCSI terminator (VHDCI terminator)
   - Documentation CD
   - Mounting hardware (brackets and screws)
   - Power cable

d. To remove the SuperLoader from the shipping carton:

   (1) Position yourself along the long side of the carton. Instruct the other unpacker to position himself/herself so that he/she is facing you along the other long side of the carton.

   (2) Together with the other unpacker, reach in through the openings in the foam packaging and grip the SuperLoader securely.

   (3) In a coordinated motion with the other unpacker, lift the SuperLoader out of the shipping carton and onto a stable, flat surface.

e. Remove the foam packaging from the SuperLoader as follows:

   (1) While the other unpacker steadies one side of the SuperLoader, grip the front end of the SuperLoader with one hand and remove the foam packaging from the other side of the SuperLoader.
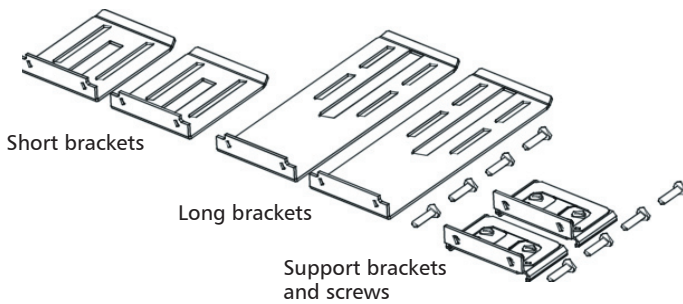
> **Caution:** Do not rest the SuperLoader on the unpacked side. The weight of the unit may bend the metal flange on the front end.

   (2) While you steady the unpacked side of the SuperLoader, have the other unpacker remove the foam packaging from the other side. Set the unit down.

   (3) Remove the foam inserts from the front of the SuperLoader.

Step 2: Prepare Parts and Tools

a. Check that you have the following parts from the SuperLoader accessories kit:
   • Two short SuperLoader brackets
   • Two long SuperLoader brackets
   • Two support brackets
   • Eight 10-32 x 1/4-inch button head support bracket screws

Short brackets

Long brackets

Support brackets and screws

b. Obtain the following items from the accessories kit that came with your rack:
   • Eight clip nuts
   • Eight screws

c. Make sure you have the following tools:
   • #2 PHILLIPS® screwdriver
   • Level

Step 3: Choose a Location for the SuperLoader

The SuperLoader has the following dimensions:
   • Length: 29.67 inches (753.7 mm)
   • Width: 17.693 inches (449.4 mm)
   • Height: 3.49 inches (88.6 mm)

The SuperLoader is designed to fit in a standard 19-inch rack using either the long or short brackets (depending on the depth of the rack).

When selecting a location for the SuperLoader, keep in mind the following guidelines:

   • Minimum clearances of 27 inches (686 mm) in front of the unit and 17 inches (432 mm) in back are required to facilitate component removal and installation.

   • The SuperLoader should be positioned away from cooling vents or exhaust from other devices to help minimize the amount of debris entering the tape path.
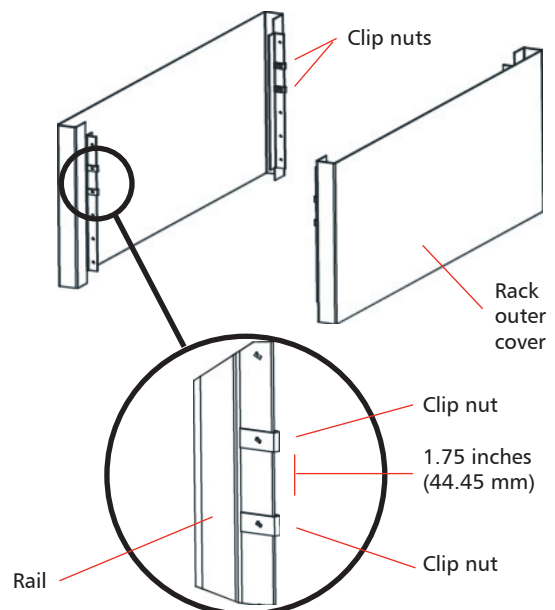
Caution: Excessive dust or other debris in the tape path can damage tapes and tape drives.
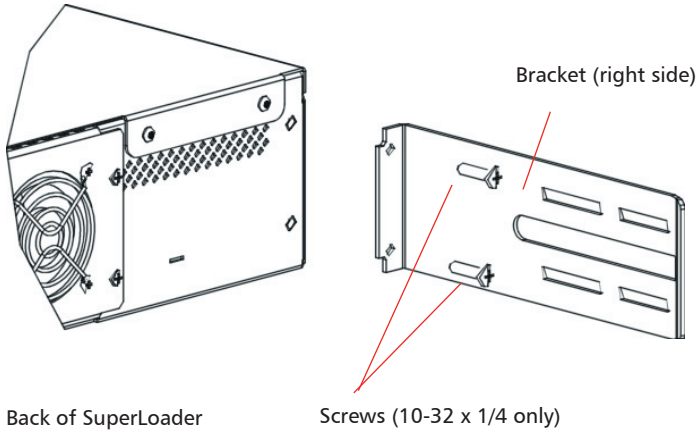
Step 4: Install the SuperLoader in the Rack

a. Take the following safety precautions for a rack mount installation:

   (1) Lower the rack's feet.

   (2) Extend the rack's anti-tip device (if available).

   (3) Ensure that the rack and all equipment mounted in the rack have a reliable ground connection.

   (4) Verify that the total current of the rack components (including SuperLoader) will not exceed the current rating of the power distribution unit or outlet receptacles. For SuperLoader specifications, refer to the User's Guide.

   (5) Have the help of at least one other person. At least two people are required to safely install the SuperLoader into a rack.

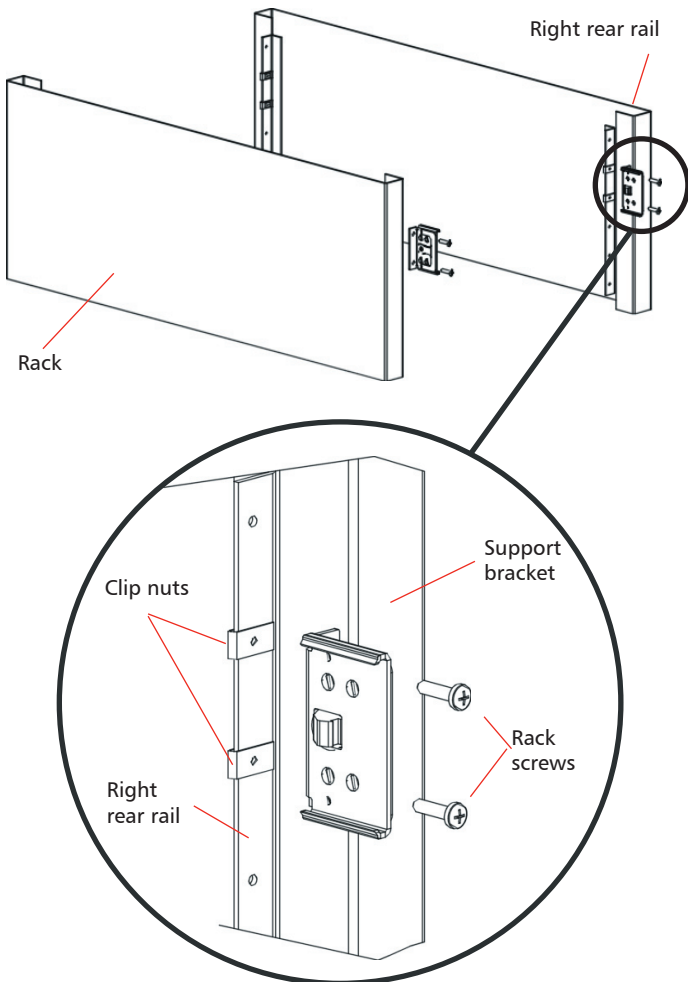**Caution: Failure to take these safety precautions may result in personal injury or equipment damage.**

b. Install two clip nuts onto each of the four rails of the rack, spacing the nuts 1.75 inches (44.45 mm) apart at exactly the same level.

Clip nuts

Rack outer cover

Clip nut

1.75 inches (44.45 mm)

Clip nut

Rail

c. Select the long or short SuperLoader brackets (depending on the depth of the rack) and attach them to the rear of the SuperLoader on the right and left sides.
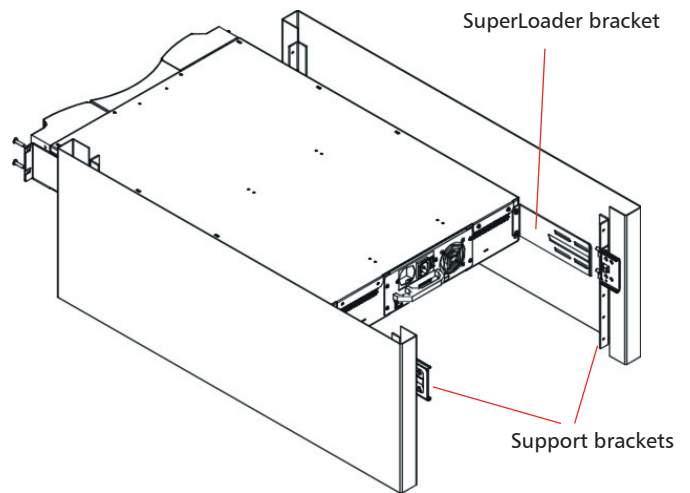

Bracket (right side)

Back of SuperLoader

Screws (10-32 x 1/4 only)

d. Using rack screws, attach a support bracket to the clip nuts on each rear rail. Tighten the screws just enough to hold the support brackets firmly against the rail while still allowing the support bracket to be slightly shifted by hand. This shifting will help facilitate the engagement of SuperLoader brackets as the SuperLoader is installed in the rack. You will fully tighten these screws later.

Right rear rail

Rack

Support bracket

Clip nuts

Right rear rail

Rack screws

Note: Be sure to attach the support brackets correctly; the side of the bracket with only two holes should be secured to the rail.
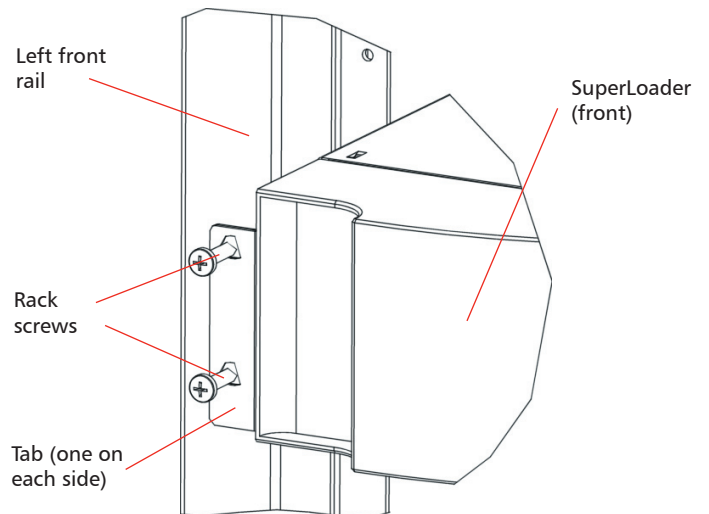
e. With the help of a second installer, insert the SuperLoader into the rack so that each SuperLoader bracket slides into the corresponding support bracket on the rear rails and the tabs at the front of the SuperLoader align flush with the clip nuts on the front rails.

Caution: Do not let go of the front end of the SuperLoader until it can be secured to the rack.
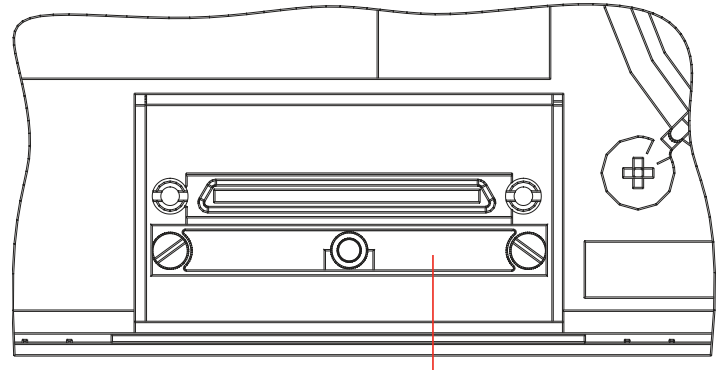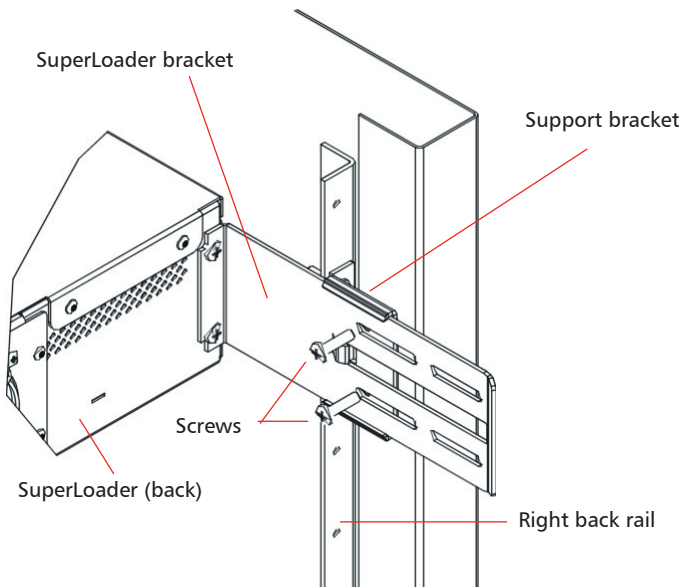

SuperLoader bracket

Support brackets

f. While the other installer holds the front end of the SuperLoader, secure the SuperLoader in the rack by doing the following:

(1) Secure the front end tabs of the SuperLoader to the rack using four rack screws (two per tab). Make sure the screws are finger tight.

Left front rail

SuperLoader (front)

Rack screws

Tab (one on each side)

(2) Install four screws (two per side) to secure the support brackets to the SuperLoader brackets.

SuperLoader bracket

Support bracket

Screws

SuperLoader (back)

Right back rail

g. Verify that the SuperLoader is level. Make installation adjustments as needed.

h. When the SuperLoader is level, tighten the screws securing the SuperLoader tabs to the front rails, the SuperLoader brackets to the support brackets, and the support brackets to the rear rails.

Step 5: Establish the SCSI Connection

a. Make sure the supplied SCSI cable matches the host computer HBA SCSI input. The host may support VHDCI or 68 pin.

SCSI 68-pin connector

VHDCI SCSI

VHDCI terminator

Properly turn off all peripheral devices connected to the host computer, then properly shut down the host computer.

Note: When connecting SCSI cables, make sure you correctly align the connector to avoid bending connector pins.

b. After the cables and terminators are connected properly, tighten all screws.

VHDCI terminator installed in bottom connection of unit.
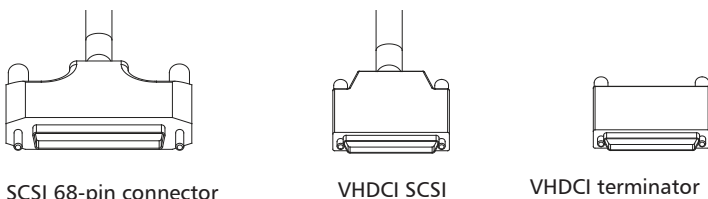*Note: Not all terminators have LEDs.*

Make sure the terminator is placed on the bottom connector of the unit and the host cable going to the server is located at the top, as pictured above.

Note: On all SuperLoaders, SCSI terminators must be used for proper operation of the drive.

Note: Do not turn on the host computer or any devices connected to the host computer until you have configured the SuperLoader and installed tape cartridges.
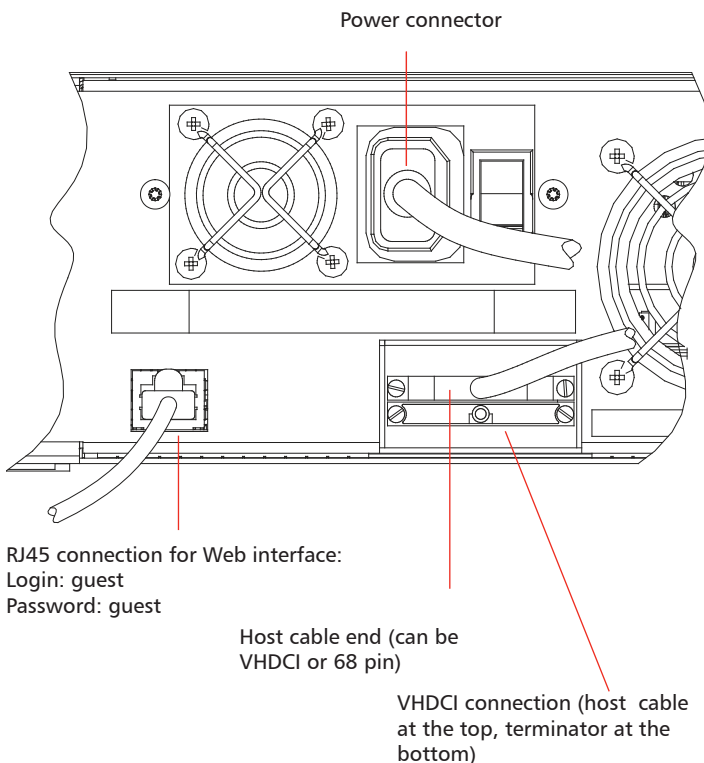
Step 6: Network Connection to the SuperLoader

Network connection is IP configurable through the front panel of the SuperLoader.
- DLT models auto negotiate speed of network connection 10/100.
- LTO models can select the network speed from the front panel under **Configuration>10/100**.

Connect the network cable to the RJ45 connector found on the back of the SuperLoader as illustrated on the next page.

Step 7: Power Supply Cable Connection

The power supply cable should be connected to the input power connection on the back of the SuperLoader as illustrated on the next page.

Power connector

RJ45 connection for Web interface:
Login: guest
Password: guest

Host cable end (can be
VHDCI or 68 pin)

VHDCI connection (host cable
at the top, terminator at the
bottom)

Step 8: Power Up Sequence

Note: Make sure that once the power, SCSI, and network connections are made, the library is powered up before the host is booted.

Boot the host computer after ensuring that the SuperLoader completed initialization without errors. A green LED should be visible on the LCD screen showing the unit is in the ready state. During the host computer boot sequence, ensure that the host adaptor can see all devices.

SCSI RAID adaptors are not suitable for running tape libraries. On-board SCSI host adaptors have problems with configuration, and make visibility of the robot and the drive very inconsistent.

Host adaptor requirements:
- LUN support: **enabled**
- Initiate wide negotiation: **enabled**
- Sync transfer rate: most tape drives should be set for **80.0 MB/sec**
- Robots could be set for **40.0 MB/sec**

If the robot cannot be seen during the boot sequence, check the front panel of the SuperLoader, under **Configuration>Change Mode** to make sure that **Random** is selected.

Step 9: Verify Robot/Drive Seen by the Operating System

Windows 2000:
Under Device Manager, an unknown media changer should be present. Under Tape Drive, you should see the drive that is configured for your SuperLoader.

Sun:
During reboot, break the standard initialization and do a *probe scsi all*. This should show the SuperLoader and the drive configured for the unit.

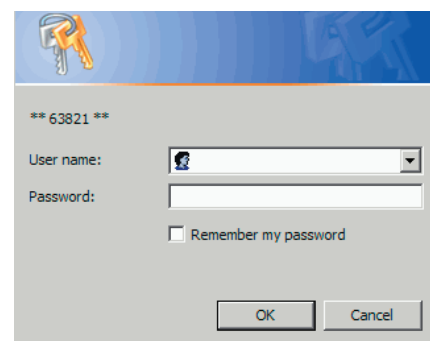## Step 10: Configuration of the Web Interface

Obtain the IP address from your network administrator, or the host DHCP server will provide you the IP address.

Under **Configuration>Ethernet** on the front panel of the SuperLoader, enter the appropriate settings for:
- Set IP
- Set Subnet Mask
- Set Gateway
- Set SNMP Server
- Set Time Server

Under **Set IP**, you can set the unit for DHCP or enter a static IP.

Once connected, you can enter the IP address in a browser and go directly to the Home page of the On-board Remote Management for the SuperLoader.

To use On-board Remote Management, other than the Home page, you must enter a User name and Password.
- Default User name: **guest**
- Default Password: **guest**

Both fields are case sensitive.

Step 11: Load Tape Cartridges

The SuperLoader can hold up to 16 tape cartridges in two magazines, one installed on the left side and the other installed on the right side of the SuperLoader. The cartridge slots in the left magazine are numbered 1 through 8, and the cartridge slots in the right magazine are numbered 9 through 16.

The SuperLoader can also be shipped with an eight-cartridge capacity. In this case, a magazine blank is inserted as well.

Note: The SuperLoader will not run unless both magazine openings are loaded with either a magazine or a magazine blank.

To load tape cartridges in the SuperLoader:

a. Eject and remove an empty magazine as follows:

(1) At the front panel of the SuperLoader, press Enter.

(2) Scroll to Commands and press Enter.

(3) Scroll to Eject and press Enter.

(4) If you are requested to enter a password, type 000000 (the default password) and press Enter.

(5) Scroll to Left Magazine (or Right Magazine as appropriate) and press Enter to eject that magazine.
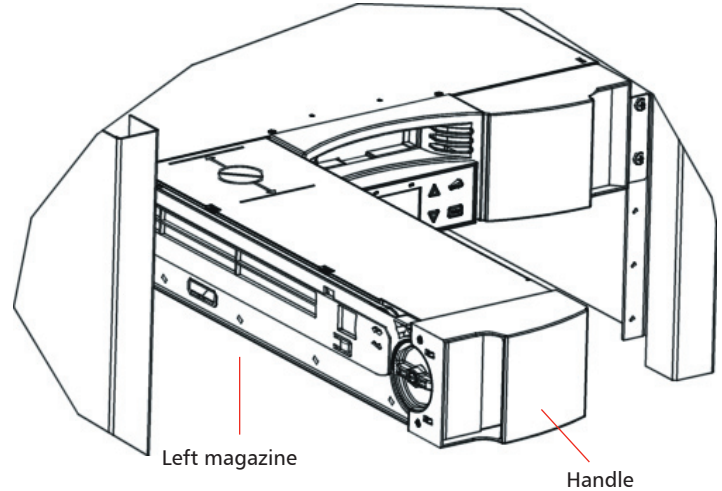
The selected magazine is released.

Caution: **To prevent damage to the SuperLoader or to the magazine, use both hands when removing the magazine from the SuperLoader.**

(6) Grasp the magazine by the handle with one hand and slide it out while supporting the length of the magazine from underneath with the other hand (see illustration following).

Note: When you eject a magazine, you must fully remove it, or fully insert it, before turning off the SuperLoader.
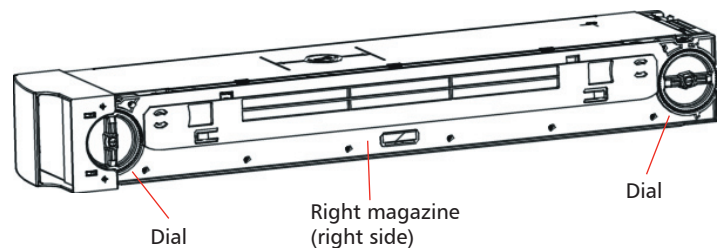
(7) To eject and remove the other magazine at this time, press Escape, then scroll to the other magazine, and press Enter. Then, repeat step 6.

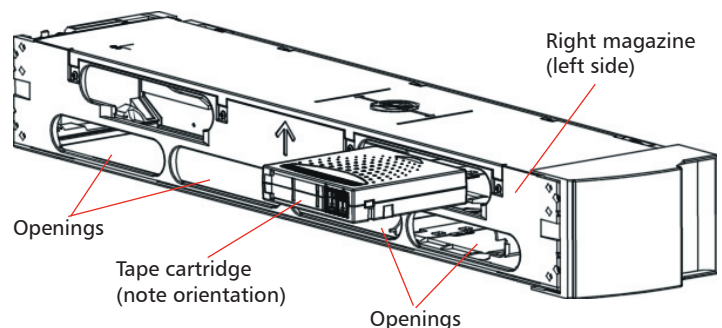To remove the other magazine later, repeat this procedure.

Left magazine

Handle

Note: If a magazine blank is installed, it does not need to be ejected. Instead, it can be installed/removed by sliding it in/out using the handle.

b. Load tape cartridges into the magazine(s).

(1) Using the dials on the magazine, move the slot conveyor belt within the magazine until a slot lines up with one of the six openings on the other side of the magazine.

Dial

Right magazine (right side)

Dial

(2) Correctly orient the cartridge for insertion in the slot.

Right magazine (left side)

Openings

Tape cartridge (note orientation)

Openings

(3) Insert the cartridge into the slot. As you push the cartridge in, you will feel some resistance until the cartridge latches into the slot.

Note: Each slot has a keying feature that prevents the cartridge from being inserted incorrectly.

(4) Repeat this procedure until all tape cartridges have been loaded into the magazine(s).

Note: You can remove a tape cartridge in the same manner as you inserted it. Use the dials on the magazine to line up the desired tape cartridge with one of the openings on the other side of the magazine. Then, using your thumb and index finger, pull out the cartridge. You will feel a slight resistance as you begin to pull but continue to pull until the cartridge comes free.

c. Install the magazine(s) into the SuperLoader.

(1) Grasp the magazine by the handle with one hand and support it from underneath with your other hand.

(2) Position the magazine correctly in the SuperLoader. The magazine can only be inserted into the SuperLoader in the correct orientation.

(3) Push the magazine in until it clicks and locks into place.

(4) Repeat this procedure to install the second magazine as appropriate.

The SuperLoader performs an auto-inventory of the tape cartridges in the magazine(s). Once completed, the SuperLoader is ready for normal operation.

Note: These instructions are for both the SuperLoader DLT and SuperLoader LTO due to the nature of their similarities. Many component parts are not interchangeable. These include the magazines, cartridges, drive carrier assemblies, magazine blanks, magazine handles, and the bar code scanner. Please order the appropriate part numbers when replacing these items.

Caution: **When removing magazines or blanks, be certain that no robotic operations are in process. Failure to do so will stop the robot, and possibly cause damage.**

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