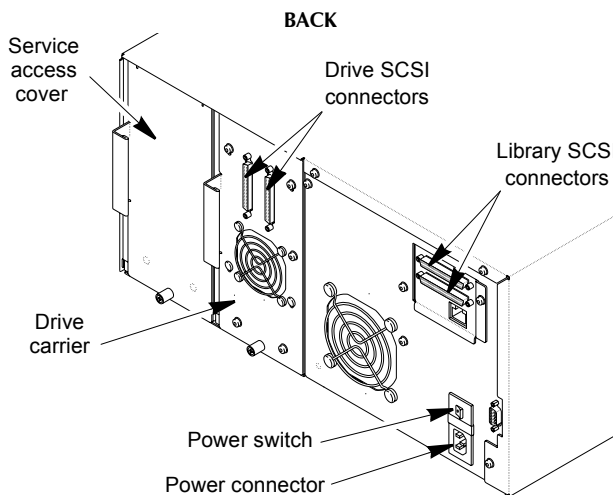
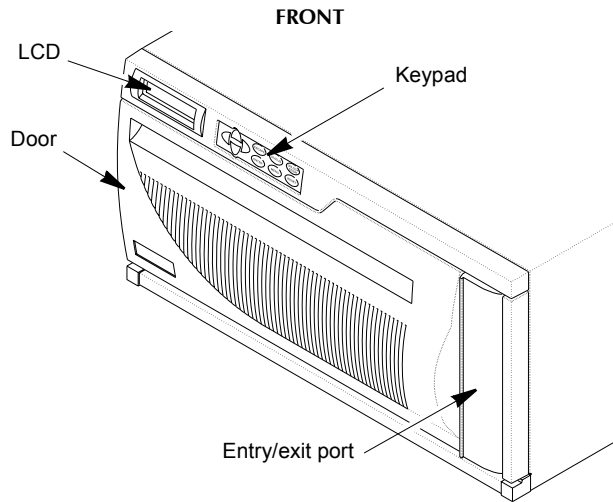


EXABYTE 221L LIBRARY QUICK START GUIDE

Use this guide to get your Exabyte 221L Library up and running quickly. If you need additional information, refer to the *Exabyte 221L Library Installation and Operation* manual on the CD included with the library.

As you install your library, refer to the illustrations below and the operator panel quick reference on [page 4](#).



1 | PREPARATION

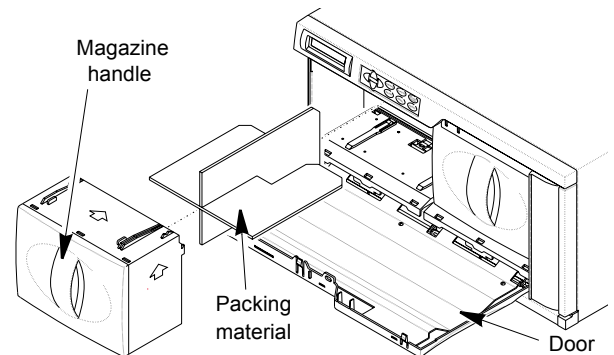
Make sure you have the equipment you need for installing and operating the library, as follows.

Power cord	Included. If you are using an input voltage other than 120 volts AC, or if you are outside the US or Canada, refer to the <i>Installation and Operation</i> manual for power cord requirements.
SCSI cables and terminator(s)	One wide LVD SCSI cable and terminator may be included. If you want to use your own cables or terminators, refer to the <i>Installation and Operation</i> manual for specifications.
Second tape drive	The library is shipped with one tape drive installed. If you want to install a second tape drive, contact Exabyte for the required kit.
Rack-mount hardware	If you want to install the library in a standard 19-inch rack, contact Exabyte for the required kit.

Cartridges	One or more data cartridges and a cleaning cartridge may be included. Use only data and cleaning cartridges designed specifically for LTO Ultrium tape drives: - LTO Ultrium 1 tape drives use Ultrium 1 data cartridges, which are black. - LTO Ultrium 2 tape drives support both Ultrium 1 data cartridges and Ultrium 2 data cartridges, which are purple. For maximum capacity, use Ultrium 2 cartridges with Ultrium 2 tape drives. - Both tape drive models use LTO Ultrium cleaning cartridges. You can purchase cartridges from Exabyte.
Bar code labels	If your library has a bar code scanner, sample bar code labels are included. To prepare your own labels, refer to the <i>Exabyte Bar Code Label Specification for LTO Ultrium Cartridges</i> on the CD.

Before beginning the installation:

- Locate an appropriate area for the library. The library must be placed on a level surface with approximately 15 cm (6 inches) of open area behind the library for adequate air flow.
- Ensure that the work area is free from conditions causing electrostatic discharge. Discharge static from your body by touching a grounded surface, such as your computer's metal chassis.
- Make sure that the SCSI host bus adapter card in the host computer and the backup software are compatible with the library. Compatibility information is available at www.exabyte.com.
- Grasp the library's front door at the top and pull downward to open it. Remove the cartridge magazine on the left side by grasping the handle and pulling it straight out. Remove the packing material from the magazine.



- If you plan to use two tape drives in your library and have obtained the tape drive kit, install the second drive using the instructions included on the library CD.
- If you plan to use your library in a rack and have obtained the rack-mount kit, install the library in the rack using the instructions on the CD.
- Power off the host computer and any devices on the SCSI bus.



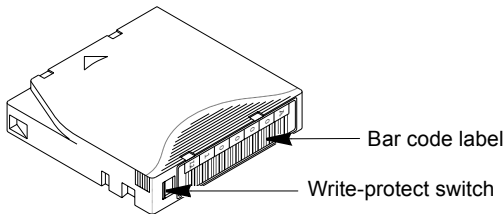
Warning

Be sure that the library's power switch is off (the 0 is pressed) and that the power cord is disconnected from the library and the outlet.

2 | PREPARING AND INSTALLING CARTRIDGES

- If your library includes a bar code scanner, you can affix bar code labels to the cartridges. Position each label using the guide on the cartridge for guidance, as shown in the following figure.
- Set the write-protect switch on each of your cartridges for the desired operation. Refer to your cartridge packaging for instructions for setting the write-protect switch.

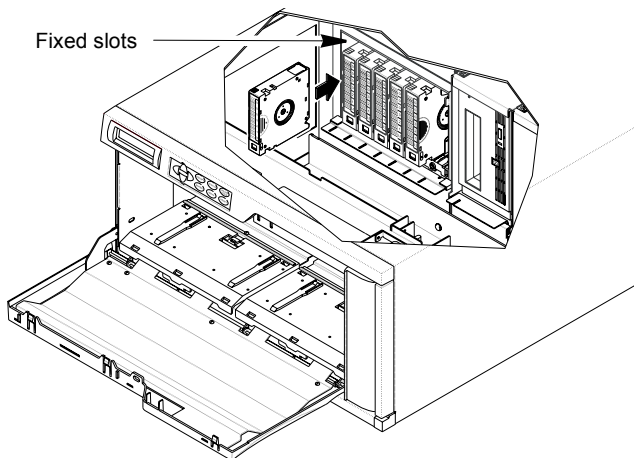




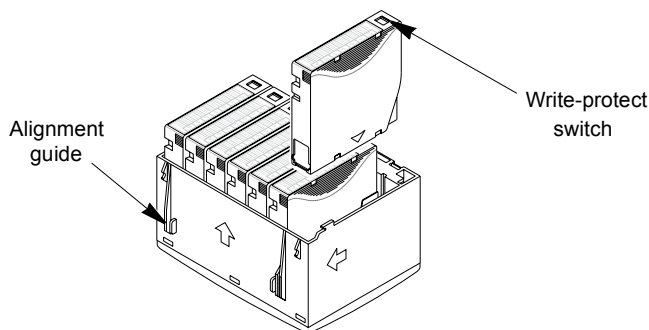
3. If you have not yet removed both cartridge magazines from the library, remove them now by grasping the handles and pulling straight out.
4. Install cartridges into the library's fixed cartridge slots, with the write-protect switches down and facing out, as shown below.

If you plan to use a separate cleaning cartridge to clean the tape drives, place a cleaning cartridge in the fixed slot closest to the tape drives.

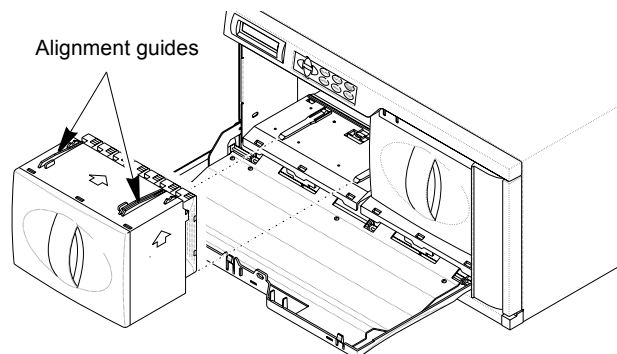
Note To use a slot for a cleaning cartridge, you must set the Clean Slot option during library configuration. In addition, if you want the library to automatically perform the cleaning process without interrupting normal operation, you must set the Autoclean and Clean Cycles Left options. Refer to the *Installation and Operation* manual for instructions.



5. Install cartridges in each magazine so that the write-protect switches are away from the alignment guides on top of the magazine, as shown below.



6. Insert each magazine into the library so that the alignment guides are up (as shown in the following figure) and the alignment grooves are down. The magazines can only be inserted one way; do not try to force them.
7. Close the library door.



3 | CONNECTING THE LIBRARY TO THE SCSI BUS

The library includes up to three SCSI devices: the library itself and two tape drives. Each device has a wide, low-voltage differential (LVD) SCSI configuration. If desired, you can connect the devices to separate SCSI buses.

Note: Although LVD SCSI is compatible with single-ended SCSI, Exabyte does not support single-ended devices on the library's LVD SCSI bus.

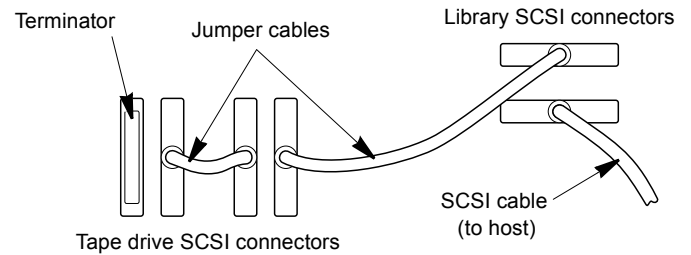


Caution

Do not connect an LVD library to a high-voltage differential (HVD) SCSI bus. Doing so may cause damage to the library or other devices on the bus.

1. Connect the host's SCSI cable to one of the library's SCSI connectors.
2. Connect other SCSI cables, as necessary, depending on your configuration. If the library and tape drives will share one bus, use jumper cables to daisy-chain the library and drive connectors. For the device at the end of the bus, install a terminator on one of the SCSI connectors for that device.

The illustration below is an example of how the library and tape drives might be connected to a single SCSI bus



4 | POWERING ON THE LIBRARY

1. Make sure that the library's power switch is off and that the door is closed.
2. Connect the female end of the power cord to the library's power connector. Connect the male end to a power outlet.
3. Power on the host computer system.
4. Push the power switch on the back of the library to the on position. After the library performs its power-on sequence, the Status screen appears on the LCD:

```

  E x a b y t e  2 2 1 L
  1 R e a d y - N o T a p e
  
```

This screen indicates that drive 1 is ready and does not have a tape loaded. If a second drive is installed, the Status screen cycles through status messages for drive 1 and drive 2. (Drive 1 is closest to the fixed cartridge slots; drive 2 is to the right of drive 1.)

5 | SETTING THE SCSI IDS

The library and the enclosed tape drives require separate SCSI IDs. If the library and tape drives are on the same SCSI bus, the IDs must be different. Default SCSI IDs are assigned at the factory. You can view these settings and change them as follows:

1. Press **[MENU]**. Then, press the down arrow key to scroll through the Main Menu selections until you see the following screen:

```

  ▶ S C S I  M e n u
  D 0 1    0 2    L 0 0
  
```

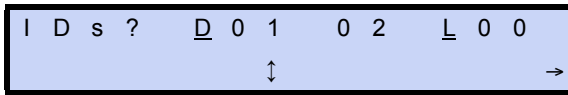
This screen indicates that the current ID for drive 1 is 01, drive 2 is 02, and the library is 00.

2. Press **[ENTER]**. The following screen appears:

```

  ▶ S C S I  I D s
  D 0 1    0 2    L 0 0
  
```

3. To change the current settings, press **[ENTER]**. The following screen appears:



4. To select a drive or the library, use the left and right arrow keys to move the arrow to the appropriate column. To change the ID, use the up and down arrow keys to scroll through values. Press **[ENTER]** to save your changes.

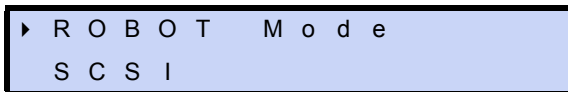
6 | SETTING THE ROBOT CONTROL MODE

The robot control mode determines which interface is used to control the motion of the library's robot. The control mode options are:

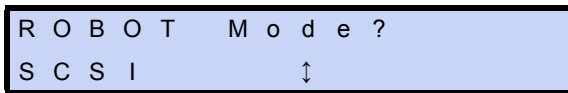
- ▶ **SCSI**—The robot is controlled by an application and can process cartridges in random order. This is the typical operating mode for the library.
- ▶ **Sequent1** or **Sequent2**—The robot processes the cartridges in sequential order with an application controlling the tape drive only. In Sequent1 mode, cartridges are processed in tape drive 1. In Sequent2 mode, cartridges are processed in tape drive 2.
- ▶ **LCD**—The robot is controlled from the library's operator panel, typically for testing library components.
- ▶ **Console**—The robot is controlled from a remote terminal emulation program, typically for downloading new firmware and performing diagnostics.

To change the robot control mode:

1. Press **[MENU]**. Then, press the down arrow key to scroll through the Main Menu selections until you see the following screen:



2. To change the control mode, press **[ENTER]**. The following screen appears:



3. Press the arrow keys to display the desired mode. Then, press **[ENTER]**.

Important If you set the control mode to Sequent1, Sequent2, or Console, you must set additional options. See the *Installation and Operation* manual for details.

7 | CHECKING THE SETUP

Check the library setup by performing the following exercises. While not required, it is a good idea to verify that your software and hardware are communicating properly before you begin operations.

- ▶ Use the Demo Menu or Command Menu to exercise the hardware. This determines whether the library hardware components are operating properly. See the *Installation and Operation* manual for more information.
- ▶ Use your backup software to load and unload cartridges into the drive(s). This determines whether the software, library, and drive(s) are communicating properly.
- ▶ Back up several megabytes of data and perform a comparison check on the backed up data. This determines whether the software and drive(s) are communicating properly.

If the library is not operating as expected, see the *Installation and Operation* manual for troubleshooting information.

8 | REMOVING AND REPLACING CARTRIDGES

During normal operation, you do not need to intervene in cartridge processing; however, you may occasionally need to remove the magazines or individual cartridges. You can remove magazines by opening the front door, or you can remove individual cartridges through the entry/exit port.

REMOVING AND REPLACING A CARTRIDGE MAGAZINE

1. Press **[UNLOCK DOOR]**. At the Unlock Door prompt, press **[ENTER]**. Wait while the robot moves to the park position (at the far right).



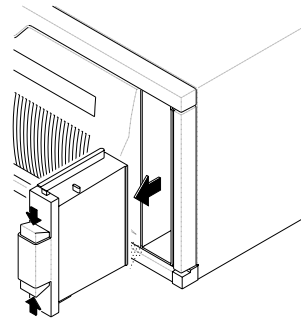
Caution

Do not force the door open. The door's interlock mechanism may be prevented from releasing by security or by the application. Check the security setting and disable security, if necessary (see the *Installation and Operation* manual).

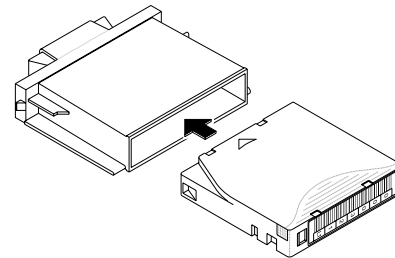
2. Pull the front door open. From inside the door, remove the magazine by grasping the handle and pulling it straight out.
3. Replace cartridges in the magazine or fixed cartridge slots, as desired.
4. Insert the magazine into the library so that the alignment guides are up (as shown on page 2) and the alignment grooves are down.
5. Close the library door. The door locks automatically.

REMOVING AND REPLACING CARTRIDGES THROUGH THE ENTRY/EXIT PORT

1. Change the robot control mode to LCD.
2. Use the Move Cartridge command to move a cartridge from one of the storage slots to the entry/exit port. For instructions on using the Move Cartridge command, see the *Installation and Operation* manual.
3. Press **[MENU]**, then press the up arrow until the "Unlock Entry/Exit Port" screen appears. Press **[ENTER]** to unlock the entry/exit port.
4. Rotate the entry/exit port door from left to right.
5. Press the top and bottom buttons to release the entry/exit port caddy, then pull it out.



6. Remove the cartridge and insert a new cartridge in the caddy, with the write-protect switch facing out, as shown below.



7. Press the top and bottom buttons on the caddy, then insert it back into the entry/exit port. Make sure the write-protect switch is at the bottom.
8. Close the entry/exit port door.
9. From the operator panel, display "Lock Entry/Exit Port" and press **[ENTER]**.
10. Use the Move Cartridge command to move the cartridge from the entry/exit port to a storage slot or tape drive.
11. Change the robot control mode back to its original operating mode.

9 | ADDITIONAL INFORMATION

- ▶ For information about setting library security, setting emulation, operating in sequential mode, viewing library information, storing cartridges, cleaning the tape drive, and correcting problems, refer to the 221L *Installation and Operation* manual on the library CD.
- ▶ For library specifications, refer to the 221L *Product Specification* on the library CD.

QUICK REFERENCE—221L LIBRARY OPERATOR PANEL KEYS AND MENU SELECTIONS

Operator Panel Keys	
	Move up, down, left, or right through the menus and screens.
ESCAPE	Returns to the previous menu or screen, or cancels an operation without saving changes.
ENTER	Selects the item next to the screen arrow or accepts a change.
STATUS	Displays the Status Screen, which shows library status, tape drive status, and operator messages.
MENU	Displays a menu of options for configuring the library, viewing information screens, and issuing commands.
UNLOCK DOOR	Stops robot operations and releases the door's interlock mechanism. The door can then be opened manually.
RESET	Displays the Reset menu, which allows you to reset the library, the library and tape drives, or the drives individually.

Main Menu Selections	
Cartridge Inventory	Displays the library's current cartridge inventory.
Security	Allows you to enable or disable security with a password.
Robot Mode	Displays the current robot control mode and allows you to change the mode.
SCSI Menu	Displays the SCSI IDs for the library and each drive. Allows you to set the SCSI IDs, emulation mode, and SCSI parity checking.

Main Menu Selections	
Config (Configuration) Menu	Allows you to change the serial port baud rate, set the autoclean function, reserve a slot for a cleaning cartridge, choose whether the library scans the cartridge bar code labels after power up, and set the maximum number of slots the library uses and reports to the software.
Sequential Mode	Allows you to select options for sequential mode operation.
Ethernet Menu	Allows you to configure the library for operation on an Ethernet network.
Library Information	Displays information about the library code versions, system statistics, and system sensors.
Drive Menu	Allows you to view the status of each tape drive and the drive LCD messages. This menu also allows you to unload a drive and clean a drive.
Demo Menu	Allows you to run various demonstration programs to observe how the library operates.
Command Menu	Allows you to issue commands for basic robot motion operations and perform diagnostic tests.
Park and Unlock for Shipping	Moves the robot to the park position for shipment and unlocks the door.
(Lock/Unlock) Entry/Exit Port	Allows you to lock or unlock the entry/ exit port to remove or add individual cartridges.

221L Menu Structure

