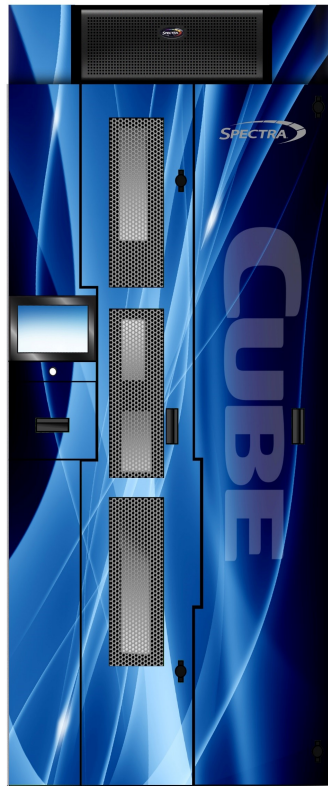




# **SPECTRA CUBE LIBRARY SITE PREPARATION GUIDE**



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## PART NUMBER

93940002 Revision B

## REVISION HISTORY

Revision	Date	Description
A	June 2024	Initial release.
B	May 2025	Updated for LTO-10.

- Notes:**
- To make sure you have the most current version of this guide check the Spectra Logic Technical Support portal at: [support.spectralogic.com/documentation/user-guides/](https://support.spectralogic.com/documentation/user-guides/).
  - To make sure you have the release notes for the most current version of the LumOS software, check the Spectra Logic Technical Support portal at: [support.spectralogic.com/documentation/release-notes/](https://support.spectralogic.com/documentation/release-notes/).

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**International:** 1.303.449.6400

**Fax:** 1.303.939.8844

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United Kingdom

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# WARNINGS

A document listing all warnings found in Spectra Tape Libraries documentation, in English and 27 other languages, is available on the Spectra Logic website at [supp](#).



## **WARNING**

The library frame is very heavy (see product specifications for details). Use extreme caution and proper equipment when moving it, and ensure that your floor has adequate structural integrity.



## **WARNING**

The ties around the shipping crates are secured very tightly; the tension may cause them to whip outward when cut. Use care when cutting the ties so that you will not be hit.

---

# ABOUT THIS GUIDE

This guide describes site preparation requirements and guidelines for the installation of a Spectra<sup>®</sup> Cube tape library. It includes precautions for safety and handling, as well as facility requirements for the library's environment, cabling, and placement. This guide also provides a checklist that you can use to help ensure that your site is prepared before your library arrives.

## INTENDED AUDIENCE

This guide is intended for data center administrators preparing a site for a Spectra Cube library installation. It provides reference information for facility managers, electricians, IT professionals, and other specialists who will have roles in preparing the site.

The library will be installed by a certified Spectra Logic field engineer. The information in this guide is provided for your reference only. This document is not an installation guide.

## RELATED INFORMATION

The following sections contain information about additional available documentation.

### Spectra Cube Library

This guide and the following documents related to the Spectra Cube are available as PDF files on the Spectra Logic website at: [support.spectralogic.com/documentation](https://support.spectralogic.com/documentation).

- The [\*Spectra Cube Library User Guide\*](#) describes how to configure, use, maintain, and troubleshoot the Spectra Cube library. It also provides specifications for the library.
- The [\*Spectra BlueScale Library Encryption Guide\*](#) provides detailed information about using BlueScale Encryption Standard and Professional Edition key management. It also provides useful information about encryption best practices and recycling encrypted media.
- The [\*Spectra Tape Libraries SCSI Developer's Guide\*](#) provides detailed information about the SCSI and Fibre Channel commands used in the library.
- The [\*Spectra Tape Libraries Warnings\*](#) document provides all of the warnings found in Spectra tape libraries documentation, in English and 27 other languages.

## LTO Ultrium Tape Drives

The following documents provide information that is applicable to all IBM LTO tape drives.

- [\*IBM Tape Device Drivers Installation and User's Guide\*](#)

**Note:** This guide also provides information about using the IBM Tape Diagnostic Tool (ITDT) to troubleshoot drive problems.

- [\*IBM TotalStorage LTO Ultrium Tape Drive: SCSI Reference\*](#) (LTO-6 and later)

For drive-specific information, search for the product name (for example, LTO 9) on the documentation page on the IBM website. You can also search the IBM Support Portal at: <https://ibm.com/support/knowledgecenter/>.

## Typographical Conventions

This document uses the following conventions to highlight important information:



### **WARNING**

Read text marked by the "Warning" icon for information you must know to avoid personal injury.

---



### **CAUTION**

Read text marked by the "Caution" icon for information you must know to avoid damaging the library, the tape drives, or losing data.

---



### **IMPORTANT**

Read text marked by the "Important" icon for information that helps you complete a procedure or avoid extra steps.

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# CHAPTER 1 - LIBRARY OVERVIEW

The Spectra Cube enterprise-class library is designed and built to meet the stringent requirements for data integrity, data security and high reliability in the enterprise environment. The following sections provide an overview of the library components.

Depending on the options you ordered, some of the components shown may not be included in your library. For detailed descriptions of the library components and media, see the Library Overview chapter in the [Spectra Cube Library User Guide](#).

**Note:** The library will be installed by a certified Spectra Logic field engineer. The information in the following sections is provided for your reference only. This document is not an installation guide.

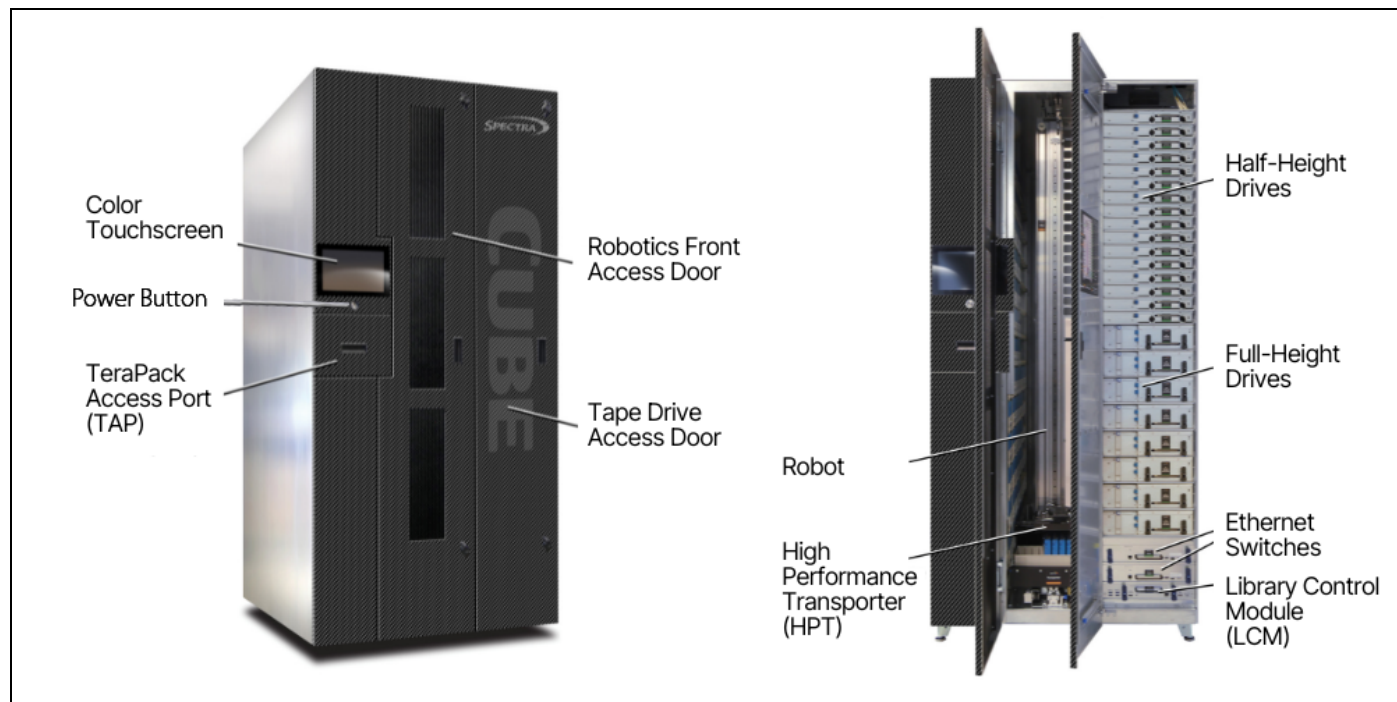
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# FRONT LIBRARY COMPONENTS

Figure 1 shows the front components of the library with the doors closed and open.

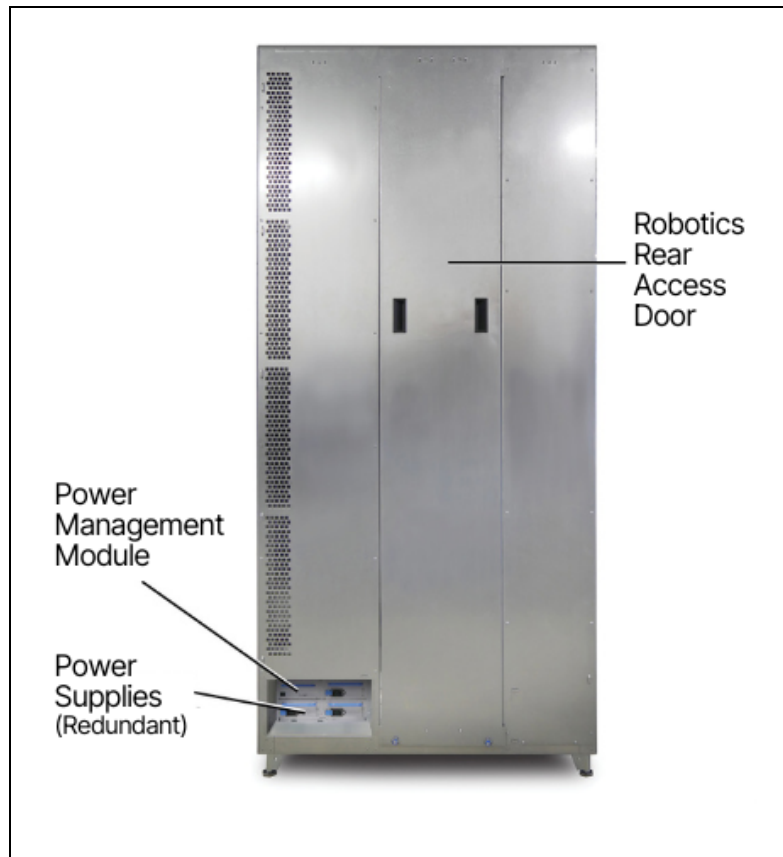
**Note:** Any unused drive bays have covers installed to ensure proper air circulation through the library.



**Figure 1** Front library components.

## REAR LIBRARY COMPONENTS

Figure 2 shows the rear components of the library.



**Figure 2** Rear library components.

## LIBRARY CAPACITY

The following table shows the library capacity by drive type in the Spectra Cube library. Compressed capacity assumes a 2.5:1 ratio.

Drive Type	Slots	Native Capacity	Compressed Capacity
LTO-6	1670	4,175 TB	10,437 TB
LTO-7	1670	10,020 TB	25,050 TB
LTO-7 Type M	1670	15,030 TB	37,575 TB
LTO-8	1670	20,040 TB	50,100 TB
LTO-9	1670	30,060 TB	75,150 TB
LTO-10	1670	50,100 TB	125,250 TB



# CHAPTER 2 - SITE REQUIREMENTS

This chapter describes the site requirements for the library. Make sure that the location where the library will be installed meets these requirements before the field engineer arrives to install the library.

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Fire Protection	32
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# PHYSICAL REQUIREMENTS

The location where you plan to install the library must meet the following physical requirements to successfully operate the library, as well as provide sufficient clearances for maintenance access to the library.



## WARNING

The library frame is very heavy (see product specifications for details). Use extreme caution and proper equipment when moving it, and ensure that your floor has adequate structural integrity.

## Library Size and Weight

The following table shows the size and weight specifications for the library frame and other components.

- Notes:**
- All dimensions and weights are approximate.
  - To calculate the approximate weight of a loaded library, use the weight of the library frame and then add the weight for each drive, power supply, library module, and the weight of each TeraPack magazine full of cartridges.
  - When calculating space requirements, include the service access requirements described in [Service Access on page 20](#).

Parameter	Specification
Height <sup>a</sup>	79.4 in. (201.7 cm)
Width	35.9 in. (91.2 cm)
Depth	45.4 in. (115.3 cm)
Weight <sup>b</sup>	885 lb (401.4 kg)
Each drive (in drive sled)	<ul style="list-style-type: none"> <li>• LTO-6: 11.6 lb (5.3 kg)</li> <li>• LTO-7: 11.2 lb (5.1 kg)</li> <li>• LTO-8: 11.0 lb (5.0 kg)</li> <li>• LTO-9: 11.1 lb (5.0 kg)</li> <li>• LTO-10: 11.1 lb (5.0 kg)</li> </ul>

<sup>a</sup>The height of the library can be adjusted to allow for leveling on uneven floors. Leveling feet can add an additional 1.3 in. (3.3 cm) to the library height.

<sup>b</sup>Weight with no drives or media installed.

Parameter	Specification
Each TeraPack magazine	With ten LTO cartridges: 5.1 lb (2.3 kg)
Library Control Module	7.3 lb (3.3 kg)
Ethernet Switch	5.2 lb (2.4 kg)
Power Management Module	4.5 lb (2 kg)
Each power supply	7.9 lb (3.6 kg)

## Data Center Flooring

The flooring where you plan to install the library is an important part of the installation and operation planning. Make sure that it has adequate structural integrity to handle the weight and leveling requirements of the library.

### Flooring Type

The floor where the library is to be installed must be level, and must be hard flooring, such as cement or tile — do not install the library on carpeting. Carpeting increases the risk of static discharge when operating the library.

A small amount of floor unevenness can be compensated for using the levelers on the library frame.

**CAUTION**

The library must be installed on a level, hard-surfaced floor such as cement or tile.

---

---

### Flooring Reinforcement

Data center floors may require reinforcement to hold the weight of the library. Check your site's flooring for load-bearing specifications.

**CAUTION**

Spectra Logic is not responsible for damage caused to the library or its surroundings if the floor is not adequately reinforced.

Inadequate floor reinforcement can allow the library to sag, causing misalignment of the frame and robotic motion failures.

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## Weight-Distribution Plate

If you want to install the library on a weight-distributing plate, Spectra Logic recommends a steel plate with the minimum dimensions of 37 x 45 x 0.25 inches (94 x 114.3 x 0.6 cm). Plates should be placed under the feet on all four corners of the library.

**Note:** After determining the positions for the plates, attach them to the floor to prevent them from moving as you roll the library into place.

## Service Access

The location where the library will be installed must meet the following requirements to allow for service access to the library.

**Note:** Meeting the service access requirements provides sufficient access to operate the library.

## Side Access Requirement

There is no side access requirement and other equipment can be located directly on both sides of the Cube library.

## Minimum Front and Back Access Requirements

A minimum of 2 feet (0.6 m) of clearance at the front and back of the library frame is required for airflow and service and operator access.

The library depth is 3.8 feet (1.2 m). The depth for the library frame plus the 2 feet (0.6 m) of required access space front and back is 7.8 feet (2.4 m).



### IMPORTANT

A minimum of 2 feet (0.6 m) of clearance at the front and back of the library frame is required for airflow and accessibility.

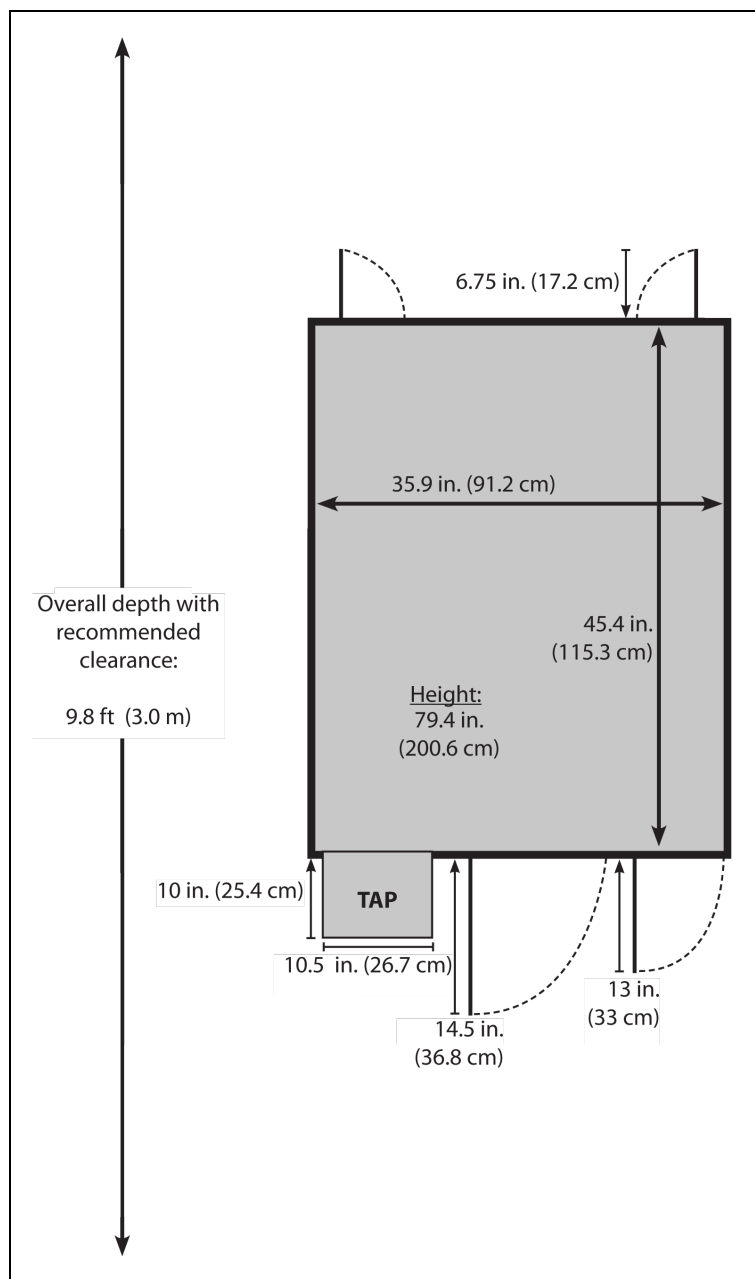
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## Recommended Front and Back Access Requirements

Spectra Logic recommends providing 3 feet (0.9 m) of clearance at the front and back of the library frame.

The library depth is 3.8 feet (1.2 m). The depth for the library frame plus the 3 feet (0.9 m) of recommended access space front and back is 9.8 feet (3.0 m).

Figure 3 shows the total space required for a Cube library, including the recommended access clearance.

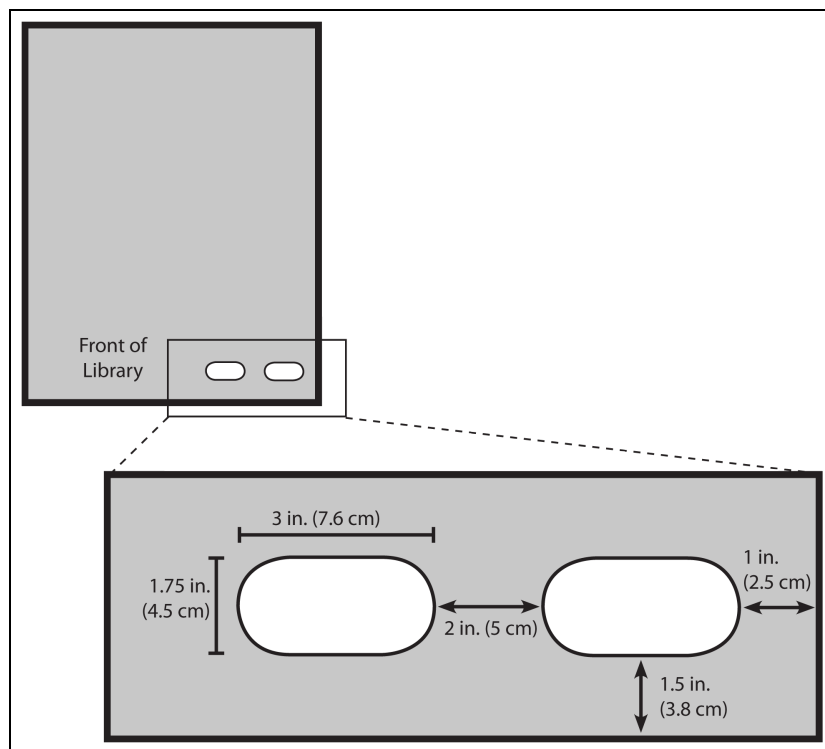


**Figure 3** Dimensions of recommended service access.

## Ceiling Cable Access

Figure 4 provides the dimensions for the cable access holes in the ceiling of the library frame.

**Note:** The dimensions listed below are subject to change.



**Figure 4** Ceiling cable access in library frame.

# POWER REQUIREMENTS

## Input Power

### Power Module Power Requirements

The library frame includes two or three AC power modules in a redundant power configuration. With drive quantity 0 - X there are two power supplies and with drives x - 30 there are three power supplies.

For additional protection, connect the input on each power module to a separate branch circuit, which allows for failover in the event of a power failure in one of the circuits.

### Power Module Receptacles

The two or three power receptacles for the library are located in the lower left-hand corner of the frame as you face the back of the library.

### Power Outlet Location

The twist lock supply-end connector is considered the power disconnect for the unit. The outlet must therefore be installed in an accessible location near the library.

## Power Rating

The Cube library frame is rated at 100-130 VAC or 200-240 VAC. The power rating required depends on the number and type of drives installed. A fully loaded library requires 200-240 VAC.

The power rating of a Cube library fully loaded with 30 half-height drives is 1975 watts, which is the configuration for maximum power consumption by the Cube library.

**Note:** Contact Spectra Logic Professional Services for assistance in determining acceptable power supply requirements for your library configuration.

## Power Cords

The power cords included with the library are considered part of the library and are not intended for use with any other equipment. See [Supply-End Connector Types on the next page](#) for the different types of cords available from Spectra Logic.

- Notes:**
- The supply-end connector is considered the disconnect for the unit. Make sure that the socket-outlet for the AC connection is in an accessible location near the library.
  - The power cord must meet the specifications for the country where the library will be installed.

### 100–130 VAC Power Cord for Use in North America

The criteria for a 100-volt to 130-volt AC power cord in North America are as follows:

Parameter	Specification
Power cordage	Three-conductor, 14 AWG
Power input connectors	<ul style="list-style-type: none"> <li>• <b>Male:</b> NEMA 5-15P</li> <li>• <b>Female:</b> IEC 60320 C19</li> </ul>

### North America and Korea 200–240 VAC Power Cord

The criteria for a 200-volt to 240-volt AC power cord in North America and Korea are as follows:

Parameter	Specification
Power cordage	SJT type, three-conductor, 14 AWG minimum <sup>a</sup>
Power input connectors	<ul style="list-style-type: none"> <li>• <b>Male:</b> Connector must be of the proper type, rating, and safety approval (see <a href="#">Supply-End Connector Types on the next page</a>).</li> <li>• <b>Female:</b> IEC 60320 C19</li> </ul>

<sup>a</sup>Power cord must comply with local electrical code.









## International 200–240 VAC Power Cord

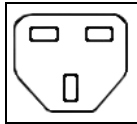

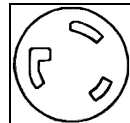

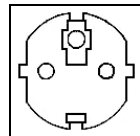

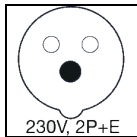

The criteria for an international 200-volt to 240-volt AC power cord are as follows:

Parameter	Specification
Power cordage	Flexible, HAR (harmonized) type H05VV-F, three conductor, cord with minimum conductor size of 1.7 square millimeters (0.0026350 square inches).
Power input connectors	<ul style="list-style-type: none"> <li>• <b>Male:</b> Connector must be of the proper type, rating, and safety approval for the intended country (see <a href="#">Supply-End Connector Types</a> below).</li> <li>• <b>Female:</b> IEC 60320 C19</li> </ul>

## Supply-End Connector Types

The type of connector on the supply end of the cord depends on the country where the library is installed. The following table shows the Spectra Logic part numbers for power cords with the supply-end connector types used in each country.

Part Number	Country of Use	Plug Style	Appearance	
8147	North America	NEMA 5-15P		
8297	North America	IEC-60320 C14		
5500	North America, Korea	NEMA L6-20P		
7029	North America, Korea	NEMA L6-30P		

Part Number	Country of Use	Plug Style	Appearance	
6805	United Kingdom	BS 1363A		
6807	Japan	NEMA L6-20P		
6808	Continental Europe	CEE(7)VII		
8665	United Kingdom, Continental Europe	IEC 60309		

## Optional Power Distribution Unit

Optionally, a Power Distribution Unit (PDU) can be purchased for the Cube library to distribute power from one three-phase power drop to all of the power modules in the library. If included with the library, the PDU is attached to the back of the library frame. Up to two PDUs can be installed.

## Power Consumption and Cooling

The power and cooling requirements for the library depend on the number and type of drives installed. The following table provides the maximum power consumption and heat load for the base library frame and for each additional component added to the base library frame. Use this information to calculate the total maximum power consumption and heat load values, which can be used to build a power budget for the library.

All values are measured at the AC input and include power supply efficiency. The values are averages of observed hardware. In general, the lighter the load on the power supplies, the less efficient they are. The power supply efficiency in turn affects the power draw of all components.

Component	Power Consumption (watts)	Heat Load, Continuous (BTU/hour)
<b>Library frame <sup>a</sup></b>	478	1630
<b>LCM</b>	40	136
<b>Ethernet Switch</b>	25	85
<b>LTO-10 Fibre Channel or SAS Full-Height</b>	Read/write: 40	Read/write: 136
<b>LTO-10 Fibre Channel or SAS Half-Height</b>	Read/write: 40	Read/write: 136
<b>LTO-9 Fibre Channel or SAS Full-Height</b>	• Read/write: 35	Read/write: 119
<b>LTO-9 Fibre Channel or SAS Half-Height</b>	• Read/write: 35	Read/write: 119
<b>LTO-8 Fibre Channel Full-Height</b>	• Read/write: 40 • Idle: 15 <sup>b</sup>	Read/write: 136

<sup>a</sup> No drives or components installed. Includes internal fans, robotics, and electronic boards.

<sup>b</sup> No cartridge loaded.

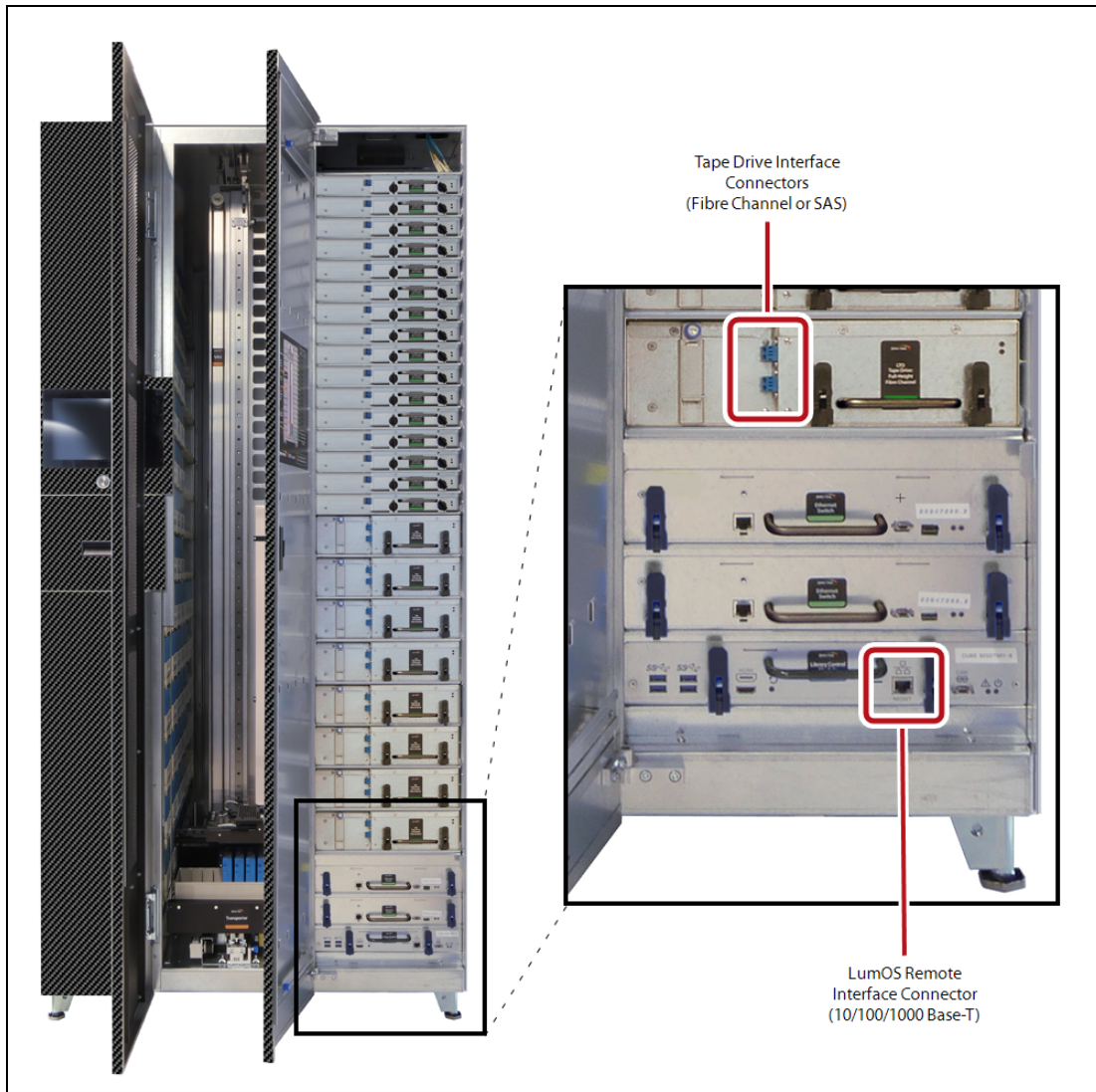
Component	Power Consumption (watts)	Heat Load, Continuous (BTU/hour)
<b>LTO-8 Fibre Channel or SAS Half-Height</b>	<ul style="list-style-type: none"><li>• Read/write: 43</li><li>• Idle: 14 <sup>b</sup></li></ul>	Read/write: 146
<b>LTO-7 Fibre Channel Full-Height</b>	<ul style="list-style-type: none"><li>• Read/write: 31</li><li>• Idle: 20 <sup>b</sup></li></ul>	Read/write: 106
<b>LTO-7 Fibre Channel or SAS Half-Height</b>	<ul style="list-style-type: none"><li>• Read/write: 31</li><li>• Idle: 20 <sup>c</sup></li></ul>	Read/write: 106
<b>LTO-6 Fibre Channel Full Height</b>	<ul style="list-style-type: none"><li>• Read/write: 28</li><li>• Idle: 8 <sup>b</sup></li></ul>	Read/write: 95

# NETWORK CABLING REQUIREMENTS

The library can accommodate cabling from the top of the library. See [Ceiling Cable Access](#) on page 22 for additional information.

**Note:** The external Ethernet ports on each Ethernet switch are not used at this time.

Use [Figure 5](#) and the descriptions that follow to plan network connectivity for the library installation. The components shown in [Figure 5](#) are examples and may not match your library configuration.



**Figure 5** Locations for network cable connections.

## LumOS Remote Interface Access

Provide a Category 5 (10/100/1000Base-T connection) data-grade Ethernet cable that is compliant with EIA/TIA 568 from an active Ethernet network to the Ethernet port on the LCM to support remote access to the library's LumOS interface.

The Ethernet port is a pin-through-hole RJ-45 shielded connector.

## Tape Drive Connection

- **Fibre Channel**

Provide one optical fiber cable from the arbitrated loop or switched fabric, to a Fibre Channel port on each drive, to provide the hosts with access to the partitions. Depending on the wavelength, the cables must comply with the following specifications in the Fibre Channel standard (FC-PI-2):

- **50-micron**—400-M5-SN-I classification

Use the following table to determine the maximum length for an M5 cable.

Data Rate / Link Speed	M5 (OM2) cable	M5E (OM3) cable	M5F (OM4) cable
<b>1 Gbps</b>	1640 ft (500 m)	Not Specified	Not Specified
<b>2 Gbps</b>	984 ft (300 m)	Not Specified	Not Specified
<b>4 Gbps</b>	492 ft (150 m)	1247 ft (380 m)	1312 ft (400 m)
<b>8 Gbps</b>	164 ft (50 m)	492 ft (150 m)	623 ft (190 m)

- **Serial Attached SCSI (SAS)**

SAS tape drives support the point-to-point Serial Attached SCSI protocol.

**LTO-6 through LTO-8** - Connecting these drives to the host network requires an SFF-8088 SAS cable rated for 6 Gb/second that does not exceed 13 feet (4 m).

**LTO-9 and LTO-10** - Connecting these drives to the host network requires an SFF-8644 SAS cable rated for 12 Gb/second that does not exceed 13 feet (4 m).

# ENVIRONMENTAL REQUIREMENTS

The following sections list the general environmental specifications for the library.

## Air Flow

Air flows through the library from front to back. In data centers using a hot aisle/cold aisle layout, position the library so that the cold aisle is in front of the library (cold air in), and the hot aisle is behind the library (hot air out).

## Air Quality

Keep the location as free of airborne particulates as possible. To eliminate obvious sources of particulates, do not permit anyone to smoke, eat, or drink near the storage area, and do not place the library near a copier or printer that may emit toner and paper dust.

## Temperature, Humidity, and Altitude

The following table outlines the necessary data center and storage area specifications.

Allowable Operating Environmental Specification <sup>a</sup>	
Ambient temperature	60° F to 90° F (16° C to 32° C)
Humidity	20% to 80% (non-condensing) 71.6° F (22° C) dew point maximum
Maximum humidity change rate	5% per hour with no condensation
Maximum temperature change rate	9° F per hour (5° C per hour), (non-condensing)
Altitude	Sea level to 10,000 ft (3,048 m)

<sup>a</sup>The temperature and humidity must be allowed to stabilize in the specified ambient environment for 24 hours.

Recommended Operating Environmental Specification <sup>a</sup>	
Ambient temperature	60° F to 77° F (16° C to 25° C)
Humidity	20% to 50% (non-condensing) 71.6° F (22° C) dew point maximum
Maximum humidity change rate	5% per hour with no condensation
Maximum temperature change rate	9° F per hour (5° C per hour), (non-condensing)
Altitude	Sea level to 10,000 ft (3,048 m)

Storing <sup>b</sup> and Shipping (Non-Operating) Environment Specification	
Humidity	10% to 95% (non-condensing)
Temperature	–40° F to 149° F (–40° C to 65° C)
Altitude	Sea level to 40,000 ft (12,192 m)

## Fire Protection

To comply with the OSHA Directive for Fixed Extinguishing Systems (General, 1910.160), the library has a punch-out in the cover for each frame and a corresponding cut-out in the top of each frame for the purpose of attaching a hose or nozzle from your site's fixed extinguishing system.

## Shock and Vibration

Contact Spectra Logic for current shock and vibration information.



<sup>a</sup>The temperature and humidity must be allowed to stabilize in the specified ambient environment for 24 hours.

<sup>b</sup>The library is in its original packaging. The packaging is designed to protect the library from condensation caused by extreme temperature variations of 27° F (15° C) or more. When the library is moved from a cold storage environment to a warm operating environment, it must be acclimated in its packaging for at least 24 hours before opening to prevent serious condensation damage from occurring.



# CHAPTER 3 - PREPARING FOR INSTALLATION

The library will be installed by a certified Spectra Logic field engineer. This chapter outlines the requirements for storing, moving, and unpacking the library and its components. Make sure that you review these requirements carefully. The information is provided to ensure that the installation site meets the necessary requirements *before* the Spectra Logic field representative arrives.

- **WARNING** The library frame is very heavy (see product specifications for details). Use extreme caution and proper equipment when moving it, and ensure that your floor has adequate structural integrity.
- **WARNING** The ties around the shipping crates are secured very tightly; the tension may cause them to whip outward when cut. Use care when cutting the ties so that you will not be hit.

<b>Receiving and Storing the Library</b>	<b>34</b>
Acclimating the Library	34
<b>Unpacking and Moving the Library</b>	<b>35</b>
Structural Integrity of Flooring	35
Required Equipment	35
Clearances	35
Tilting	36
<b>Moving the Library After Installation</b>	<b>37</b>

## RECEIVING AND STORING THE LIBRARY

Before the library arrives, make sure that your receiving and storage areas can accommodate the pallet and boxes used to ship the library and its components. The library is shipped in multiple boxes: one for the library frame, robotics, and (optionally) drives, and other boxes for library components such as drives, TeraPack magazines, and media. The boxes are shipped on pallets.

The following table provides the approximate dimensions and weights of the pallet and boxes used to ship the library.

	Height	Width	Depth	Weight
<b>Crated Frame</b>	7.25 ft (2.2 m)	3.5 ft (1.06 m)	4.95 ft (1.5 m)	1125 lb (510.3 kg)
<b>Component Pallet</b>	Contact Spectra Logic			

In preparation for the installation, locate the accessory box, which may have shipped and arrived separately from the library. This box contains a toolkit, library door keys, a touchscreen stylus, and library documentation. Additional items related to the operation of the library may be added to the accessory box at a later date.

### Acclimating the Library

After receiving the library, while still in the shipping create, allow time for the library to acclimate to the working environment before you move it from the loading dock.

**CAUTION**

When the library is moved from a cold storage environment to a warm operating environment, it must be acclimated in its packaging for at least 24 hours before opening to prevent serious condensation damage from occurring.

# UNPACKING AND MOVING THE LIBRARY

The following sections describe the requirements to safely unpack and maneuver library and component crates from storage to their operating location.

**CAUTION**

Keep all library and components crated while moving them to the data center. If the data center is not able to accommodate the crates, contact Spectra Logic Professional Services in advance of the installation date. See [Contacting Spectra Logic](#) on page 9.

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## Structural Integrity of Flooring

Ensure that all floors can withstand the weights of the crated components shown in [Receiving and Storing the Library on the previous page](#).

## Required Equipment

Ensure that any equipment used to move the library components can transport the weights shown in [Receiving and Storing the Library on the previous page](#).

### Level Surfaces

A pallet jack or forklift is required to move the library frame on a level surface.

### Stairways

A stair crawler or other special equipment must be used to traverse stairways. A ramp can sometimes be used to traverse one or two stairs.

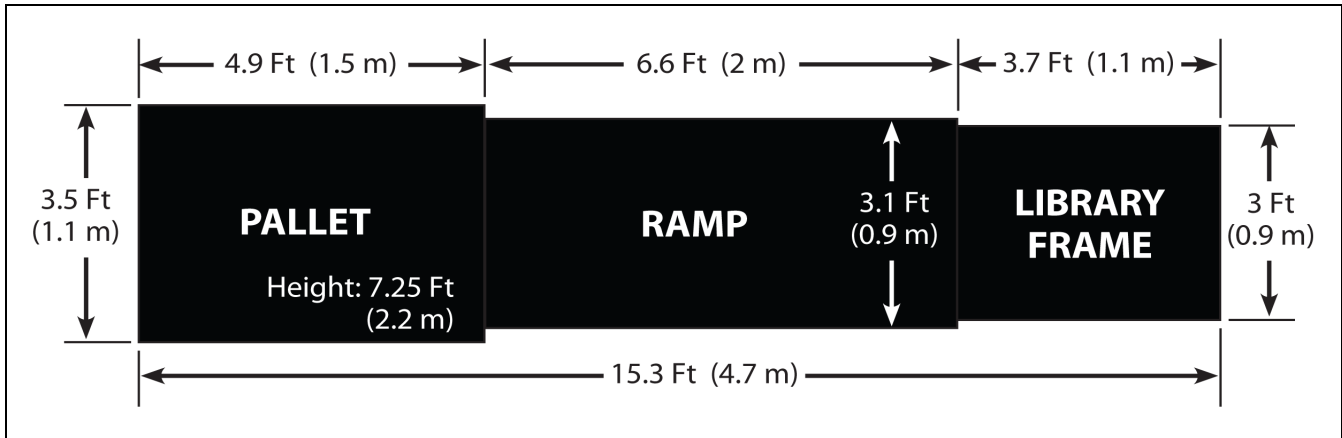
## Clearances

Before moving the library and components to the installation location, make sure that you have access to necessary doorways, stairways, hallways, and elevators, as well as adequate clearance to move through them with the equipment.

**Note:** All measurements are approximate.

## Unpacking

Sufficient space to both remove the library from its packaging and unpack the boxes containing the additional components.



- Allow approximately 4 feet (1.2 m) on each side and above the pallet crate to remove the packaging.
- Allow a minimum of approximately 15.3 feet (4.7 m) on the ramp side of the pallet to unload the library frame.
- Allow a minimum of 12 feet by 12 feet (3.6 m by 3.6 m) of open space for maneuvering the frame from the crate.

## Moving

Clearance for...	Requirement
Doorways	Doorways (including thresholds) must be taller than 6.7 feet (2 m) and wider than 4 feet (1.2 m).
Stairwell width and height	Stairwells must be taller than 7.5 feet (2.3 m) and wider than 4 feet (1.2 m).
Stairwell and hallway corners	Stairway and hallway corners should be wider than 5.6 feet (1.7 m).
Elevator width and height	Elevators and elevator doors should be taller than 7.5 feet (2.3 m) and wider than 4 feet (1.2 m). If using an elevator to move the crates, it must be able to accommodate the length of the crate containing each TeraPorter.

## Tilting

Make sure that you do not tilt the library from vertical while moving it.



**CAUTION**

If you tilt the library, Spectra Logic is not responsible for any damage caused to the library or its components, or for any damage caused to your site.

## MOVING THE LIBRARY AFTER INSTALLATION

The library hardware is installed to ensure proper operation and service access, thermal control, air flow, and dust filtering. After the library is installed, do not move the library.



### IMPORTANT

Moving the library without assistance from a Spectra Certified field engineer will void your service contract. Contact Spectra Logic Professional Services for assistance if you need to relocate your library (see [Contacting Spectra Logic on page 9](#)).

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Contact Spectra Logic Technical Support before making any changes to your library hardware or performing any service operations.

# SITE PREPARATION CHECKLIST

Use this checklist to ensure that all of the requirements have been met prior to delivery of your library.

Site Requirements	
Data Center Flooring	
<input type="checkbox"/>	Flooring is hard (not carpeted) and capable of supporting the weight of the library.
<input type="checkbox"/>	Weight distribution plates have been installed (optional).
<input type="checkbox"/>	Flooring is level.
Service Access	
<input type="checkbox"/>	Space is available for the library's height, width, and depth.
<input type="checkbox"/>	Space is available for service and operator access.
<input type="checkbox"/>	Cables can be routed to the library's cable access areas.
Power Requirements	
<input type="checkbox"/>	Electrical and peripheral equipment cabling is complete and organized.
<input type="checkbox"/>	Proper number and type of outlets are available at the required locations.
<input type="checkbox"/>	Electrical circuits meet power requirements.
<input type="checkbox"/>	Two separate branch circuits are available to allow for failover in the event of a power failure in one of the circuits (optional).
Network Cabling Requirements	
<input type="checkbox"/>	Cabling for remote access to the library's LumOS web interface is complete and organized.
<input type="checkbox"/>	Cabling for host access to the tape drives is complete and organized.
Environmental Requirements	
<input type="checkbox"/>	Airflow and air quality meet the library's specifications.
<input type="checkbox"/>	Temperature and humidity are within the library's specifications.
<input type="checkbox"/>	Fire suppression equipment is in place.
<input type="checkbox"/>	Vibration and shock will not exceed the library's specifications.

Preparing for Installation	
Receiving and Storing the Library	
<input type="checkbox"/>	The receiving/storage area can handle the size and weight of each crated library frame as well as the crate of library components.
<input type="checkbox"/>	The delivery and installation schedule allows 24 hours for the library to acclimate before installation.
Unpacking and Moving the Library	
<input type="checkbox"/>	Floors to be traversed can handle the weight of the crated library.
<input type="checkbox"/>	Transportation equipment—forklift, pallet jack, and/or stair crawler—is available and can handle the weight of the crated library.
<input type="checkbox"/>	Doorways, stairwells, hallways, and elevators allow the size of the crated library without tilting.
<input type="checkbox"/>	Elevators can handle the weight of the crated library.
<input type="checkbox"/>	Space is available in the data center where the library is to be installed for the crates and crate ramp, with extra space for maneuvering.
<input type="checkbox"/>	If the path, transportation equipment, or data center is not able to accommodate the crates, contact Spectra Logic Professional Services in advance of the installation date. See <a href="#">Contacting Spectra Logic on page 9</a> .