



Targetfour

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Product Datasheet

HP StorageWorks MSL6030 Tape Library

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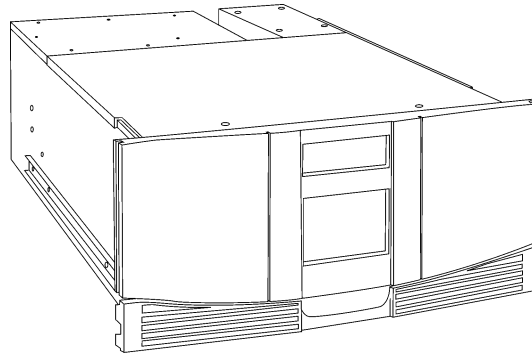
Overview

AT A GLANCE

- The HP StorageWorks MSL6000 Ultrium Tape Library Family provides performance and investment protection. Designed to maximize the performance of the Ultrium 460 drive, the MSL6000 also provides unparalleled flexibility. The MSL6000 can be scaled with other MSL libraries using a passthrough mechanism for up to 16 drives and 240 slots, allowing a single library to grow and change with capacity and technology needs. In addition, the MSL6000 libraries are easily managed through an intuitive GUI control panel and integrated remote Web management.

CUSTOMER BENEFITS

- MSL6030 Library Customer benefits include:
 - Ultra3 SCSI library interface to provide the maximum performance available from Ultrium 460 drives.
 - Multi-unit scalability permits future growth and provides investment protection.
 - Web-based remote management permits monitoring and managing the unit from across the room or across the world.
 - User-friendly intuitive front panel Graphical User Interface (GUI) makes operation fast and easy as well as minimizes future training costs.
 - Removable magazines for easy off-site backup storage.
 - Hot plug drives help to minimize downtime.
 - Reliable, cost effective backup, restoration and archival solution that fits a growing companies storage needs.
 - Efficient 5U form-factor provides 6TB (native) of storage without consuming much valuable rack space.
 - Compatible with a wide variety of operating systems, software applications, and server platforms, the MSL6030 will fit in your environment.



Standard Features

The HP StorageWorks MSL6030 tape library comes with 30 media slots (including one mail slot) and one or two HP LTO Ultrium 460 tape drives (number of drives determined by SKU chosen).

HP StorageWorks ESL9322 tape library Models	Libraries	
	MSL6030, 0 DRV, RM Library	330731-B21
	MSL6030, 1 DRV, LTO Ultrium 460, RM Library	330731-B22
	MSL6030, 2 DRV, LTO Ultrium 460, RM Library	330731-B23
	MSL6030, 1 DRV, LTO Ultrium 460, embedded Fibre, RM Library	330731-B24
	MSL 6030, 2 DRV, LTO Ultrium 460, embedded Fibre, RM Library	330731-B25
	MSL6030, 1 DRV, LTO Ultrium 460, TT Library	330788-B21
	MSL6030, 2 DRV, LTO Ultrium 460, TT Library	330788-B22
	Upgrade Accessories	
	MSL Ultrium 460 upgrade drive in hot plug canister	330729-B21
	MSL Universal passthrough mechanism	304825-B21
	MSL 5U passthrough extender	231824-B22

Each library installation will require, one (1) library system, one (1) geographically specific power cord, and up to 30 HP Ultrium 400GB Data Cartridges (C7972A) with bar code labels for each MSL6030. SCSI applications will require (1) SCSI cable for each drive. Fibre Channel applications will require one (1) Fibre Channel cable for each drive pair. Multiple configurations will require additional passthrough kits.

The minimum orderable configuration consists of a single library system (for instances where customer already has the necessary SCSI cables, power cord, and media). Installation services may also be ordered for customers who want to have a certified HP engineer perform an on-site library installation.

Key Features

- Multi-unit modular scalability – any combination of MSL6030 and 6060s up to 40U high
- Web-based remote management system
- Touch screen GUI panel for easy library operation
- Two 15-slot magazines
- Thirty data slots for a native capacity of 6.0 TB, giving the highest density in a 5U form factor in the mainstream segment (including one mail slot for quick load/unload and removable magazine)
- Hot plug drives for on line repair and capacity expansion, without interrupting library operations for minimum downtime
- One or two LTO Ultrium 460 drives, with a throughput of 30 MB/s (native) per drive for a backup performance of up to 108 GB/hr for a single unit
- Ultra3 LVD SCSI Interface or Embedded Fibre (2Gb)
- Two cPCI slots for added functionality through add-on cards in future
- Available as either a rackmount or tabletop configuration
- Qualified on a broad range of operating systems, ISV packages and hardware platforms (see Product Highlights for details)

Multi-Unit Modular Scalability

The MSL6030 has the capability for multi-unit scalability; up to eight libraries can be scaled together into a single library. The first two modules are linked using the MSL5000 passthrough mechanism, which has the elevator mechanism for tape movement. Additions of subsequent modules require the MSL5000 5U passthrough extender (one for each additional module).

High Availability and Hot Pluggable Drives

As data becomes more mission critical, and downtime becomes more costly, customers are requiring high availability features on tape automation devices. The MSL6030 uses hot pluggable drive carriers, allowing drive replacement without interrupting backup and restore functions. These hot pluggable drive trays allow for easy scalability of performance, as well as provide an easy upgrade path towards future drive technologies.

NOTE: The MSL6030 accepts only library ready drives specifically modified for use in the MSL6030 library.

Remote Management Interface

Web-based management is included to allow monitoring and managing the library from across the room or across the globe. Many of the functions that are available on the front panel are included in the remote management interface. These include, but are not limited to, library and drive status, moving media, load/unload tape drives, access to diagnostics, library configuration, library statistics, inventory check, and security settings.

Standard Features

Manageability	The MSL6030 library configurations are fully supported through Insight manager 7.0, providing information to administrators for robotic status, tape status changes and fault status. HP Library and Tape Tools (LTT) provide diagnostics and easy firmware upgrade capabilities.																						
Proven Reliability	Using LTO Ultrium tape drives, and proven library robotics with a rating of 2,000,000 robot load/unload cycles, the MSL6030 provides the necessary high reliability for today's demanding environment.																						
LTO Ultrium Technology	<p>HP's Ultrium tape technology uses a "best of breed" technology approach, taking the best features from other tape technologies and combining them into a single "superdrive" without the need for design compromises. Ultrium 2 builds on the strengths and success of Ultrium 1 to deliver even better resilience than before. The Ultrium 460 tape drive has a mean time between failures (MTBF) rating of 250,000 hours at a 100 percent duty cycle, making it a truly enterprise class tape drive.</p> <p>Additionally, Ultrium 460 tape drives are fully backwards compatible with all Ultrium Generation 1 products from all licensed manufacturers, and can both read and write Ultrium 1 tapes.</p>																						
HP Ultrium Storage Media	HP's test program for HP branded Ultrium Generation 2 media is probably the most thorough and comprehensive in the industry. HP cartridges must satisfy an exhaustive battery of additional tests that relate directly to real life situations, where real data and real businesses are at stake. For example, each HP Ultrium 2 cartridge is specified for 20,000 load/unloads and must complete a torturous 'shoeshine' test. This measures the ability of the media to withstand repeated passes over the tape head by simulating excessive repositioning or error recovery on a short length of tape. It is particularly relevant to the library environment where media may be frequently loaded or unloaded by the operating system. Both of these procedures are unique to HP.																						
Server Support	<table border="1"> <tr> <td>Enterprise ProLiant Servers</td> <td>ProLiant DL760 ProLiant ML750</td> <td></td> </tr> <tr> <td>Departmental ProLiant Servers</td> <td>ProLiant DL580 G2 ProLiant ML 570 G2 ProLiant ML530G2</td> <td></td> </tr> <tr> <td>Workgroup ProLiant Servers</td> <td>ProLiant ML330 G2 ProLiant DL380 G2 ProLiant ML370</td> <td>ProLiant ML350 ProLiant DL360 ProLiant DL320</td> </tr> <tr> <td>HP Netservers</td> <td>HP lxr8500 HP lh6000 HP lh6000r HP lt6000r HP tc4100 HP tc3100</td> <td>HP lh3000 HP lc2000r HP lp2000r HP lp1000r HP e200 HP e800</td> </tr> <tr> <td>HP-UX servers</td> <td>Superdome rp8400 rp7400 (N class) rp5400 series (L Class) rp2450/2470 (A Class)</td> <td>K class D Class A class workstations C class workstations J class workstations</td> </tr> <tr> <td>AlphaServer Systems</td> <td>AlphaServer GS160 and GS80 AlphaServer ES40</td> <td>AlphaServer ES45 AlphaServer DS20E</td> </tr> <tr> <td>Non-HP systems</td> <td>Dell PowerEdge IBM Netfinity</td> <td>IBM RS6000 SUN™ Sparc</td> </tr> </table>		Enterprise ProLiant Servers	ProLiant DL760 ProLiant ML750		Departmental ProLiant Servers	ProLiant DL580 G2 ProLiant ML 570 G2 ProLiant ML530G2		Workgroup ProLiant Servers	ProLiant ML330 G2 ProLiant DL380 G2 ProLiant ML370	ProLiant ML350 ProLiant DL360 ProLiant DL320	HP Netservers	HP lxr8500 HP lh6000 HP lh6000r HP lt6000r HP tc4100 HP tc3100	HP lh3000 HP lc2000r HP lp2000r HP lp1000r HP e200 HP e800	HP-UX servers	Superdome rp8400 rp7400 (N class) rp5400 series (L Class) rp2450/2470 (A Class)	K class D Class A class workstations C class workstations J class workstations	AlphaServer Systems	AlphaServer GS160 and GS80 AlphaServer ES40	AlphaServer ES45 AlphaServer DS20E	Non-HP systems	Dell PowerEdge IBM Netfinity	IBM RS6000 SUN™ Sparc
Enterprise ProLiant Servers	ProLiant DL760 ProLiant ML750																						
Departmental ProLiant Servers	ProLiant DL580 G2 ProLiant ML 570 G2 ProLiant ML530G2																						
Workgroup ProLiant Servers	ProLiant ML330 G2 ProLiant DL380 G2 ProLiant ML370	ProLiant ML350 ProLiant DL360 ProLiant DL320																					
HP Netservers	HP lxr8500 HP lh6000 HP lh6000r HP lt6000r HP tc4100 HP tc3100	HP lh3000 HP lc2000r HP lp2000r HP lp1000r HP e200 HP e800																					
HP-UX servers	Superdome rp8400 rp7400 (N class) rp5400 series (L Class) rp2450/2470 (A Class)	K class D Class A class workstations C class workstations J class workstations																					
AlphaServer Systems	AlphaServer GS160 and GS80 AlphaServer ES40	AlphaServer ES45 AlphaServer DS20E																					
Non-HP systems	Dell PowerEdge IBM Netfinity	IBM RS6000 SUN™ Sparc																					

Standard Features

Application Support	Automation and Network Utilities HP Tape Storage Management Console (v2.3 for Windows® NT®/Windows 2000, 2.0 for NetWare™) MRU (media robot utility) v1.4 (Windows NT/ Windows 2000 only) HP Library and Tape Tools v2.9
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MSL6030 Supported under Direct Attach SCSI (DAS), Direct Attach Fibre, and Storage Area Networks (SAN)	Windows NT 4.0 SP6a	Windows 2000	Windows Server 2003	NetWare 5.1	NetWare 6.0	HP-UX 11.0	HP-UX 11.i	HP-UX 10.2
HP Storage Data Protector 5.0	✓	✓				✓	✓	
HP Omniback 4.1	✓	✓				✓	✓	
CA BrightStor ARCserve 2000	✓	✓						
CA BrightStor ARCserve 7				✓				
Legato NetWorker 6.1.3	✓	✓				✓	✓	
VERITAS Backup Exec 9.0 *	✓	✓						
VERITAS NetBackup 4.5	✓	✓				✓	✓	
MSL6030 Supported under Direct Attach SCSI (DAS), Direct Attach Fibre, and Storage Area Networks (SAN)	Tru64 UNIX®	Open VMS	Solaris™ v7, v8, v9	AIX 5.1a, 4.3.3	Linux® Red Hat® 7.1	Linux Red Hat 7.2	Linux SuSe® 7.3	
HP Storage Data Protector 5.0			✓	✓				
HP Omniback 4.1			✓	✓				
CA BrightStor ARCserve 2000								
CA BrightStor ARCserve 7								
Legato NetWorker 6.1.3	✓		✓	✓		✓	✓	
VERITAS Backup Exec 9.0 *								
VERITAS NetBackup 4.5	✓		✓	✓				
✓ = supported								
* NOTE: the Intelligent Disaster Recover (IDR) function in VERITAS Backup Exec is not supported for the MSL6000 libraries with Ultrium 460 drives.								

Hewlett-Packard Installation and CarePaq

Hewlett-Packard Services	<p>Hewlett-Packard Services provides warranty support for the MSL6030 via HP services and a worldwide network of authorized service providers. Toll-free 7 x 24 hardware technical phone support is provided for the duration of the product warranty. In addition, available service offerings include a full range of CarePaqs packaged hardware and software services:</p> <ul style="list-style-type: none">• Installation and start up• Extended coverage hours and enhanced response times• System management and performance services
Software Product Services	<ul style="list-style-type: none">• Stand-alone telephone support• Rights to a new license• Media and documentation updates
Hardware Product Services	<ul style="list-style-type: none">• Installation services• On-site maintenance (includes warranty support)• Response time upgrades during the warranty period• Post-warranty coverage <p>For additional hardware installation and maintenance information please refer to the URLs listed below: http://www.compaq.com/services/CarePaq/us/hardware/cp_storage.html http://www.compaq.com/services/CarePaq/us/install/cp_storage.html</p>
Warranty Upgrade Options	<ul style="list-style-type: none">• Response – Upgrade on-site response from next business day to same day 4-hours• Coverage – Extend hours of coverage from 5 days x 9 hours to 7 days x 24 hours• Duration – Select duration of coverage for a period of 1, 3, or 5 years
NA CarePaq Information	<ul style="list-style-type: none">• CarePaq is defined as an upgrade to the product warranty attribute, available for a specific duration and hours of coverage.• CarePaq is not available for less than the products warranty duration.• CarePaq is available for sale anytime during the warranty period for most products, but the commencement date will be the same as the warranty start date (delivery date to end user customer). Proof of purchase may be required.• CarePaq services are prepaid. <p>For additional CarePaq (hardware & software) information, as well as, orderable part numbers please refer to the URL listed below: http://www.compaq.com/services/CarePaq/index.html</p>
EMEA CarePaq Information	<p>Additional CarePaq services are being developed to cover a broader range of HP StorageWorks hardware and software. Existing CarePaqs are available today for LTO and SDLT technologies. Ask your local CarePaq Business Manager for the latest details.</p>
CarePaq Priority Services (PS) Information for EMEA	<ul style="list-style-type: none">• CarePaq Priority Services brings a totally new approach that removes the complexity from evaluating, planning and purchasing services on Hewlett-Packard Alpha and Storage platforms.• CarePaq Priority Services are easy to purchase and easy to use and cover all external storage products not covered under server-based CarePaq services. <p>Standard Offerings</p> <ul style="list-style-type: none">• CarePaq Priority Services provide an integrated hardware and software support that ensure consistent coverage across storage configurations.• CarePaq Priority Service offers a rapid four-hour response with guaranteed work-through to completion for three years.• CarePaq Priority Services have a standard call window of Monday to Friday 08:00 – 17:00 with uplifts to full 24x7 over three years with four-hour response time and work through to completion.• CarePaq Priority Services also provide software support, with a two-hour response time for telephone access to highly trained support personnel.• For more information on how to order CarePaq Priority Services in EMEA please contact you local Certified Integration Partner or Authorized Reseller.• Customized Installation Services (including installation of vendor backup software) and contract based support services are available by contacting your local Services department.

Related Options

	Description	UPC Code	Part Number	
MSL6030 Library System	MSL6030, 0 DRV, RM Library	808736892650	330731-B21	
	MSL6030, 1 DRV, LTO Ultrium 460, RM Library	808736892674	330731-B22	
	MSL6030, 2 DRV, LTO Ultrium 460, RM Library	808736892698	330731-B23	
	MSL6030, 1 DRV, LTO Ultrium 460, embedded Fibre, RM Library	808736892711	330731-B24	
	MSL6030, 2 DRV, LTO Ultrium 460, embedded Fibre, RM Library	808736892735	330731-B25	
	MSL6030, 1 DRV, LTO Ultrium 460, TT Library	808736892612	330788-B21	
	MSL6030, 2 DRV, LTO Ultrium 460, TT Library	808736891899	330788-B22	
	Supplied with each Library Unit			
	Library Unit (pre-configured with drives)			
	Documentation Kit			
EFIJS Translation CD				
Users Guide				
Diagnostic diskette/Software Guide				
Warranty Card				
Safety Card				
Driver CD				
One (1) HP LTO Ultrium 400GB Data Cartridge				
Bar Code Labels (35 ea)				
SCSI Terminators (1 per drive)				
SCSI Jumper Cable VHDCI				
Diagnostic Cable (for PC attach)				
Power Cord (Pair Required)	Power Cord, US/Canada/Mexico (shipped with all units)	720591673581	227099-001	
	Power Cord, (Australia/China/New Zealand)	720591673567	227098-011	
	Power Cord, (South East Asia/India)		157220-AR1	
	Power Cord, (Central Europe)		157215-021	
	Power Cord, (United Kingdom/Hong Kong)	720591547288	157216-031	
	Power Cord, (Switzerland)	743172633156	157219-111	
	Power Cord, (Italy)		157217-061	
	Power Cord, (Denmark)		157218-081	
	Power Cord, (Japan)		139867-006	
	*NOTE: US/Canada/Mexico power cords are shipped with all units. Order geographically specific power cords as needed.			
Passthrough Mechanism	MSL universal passthrough mechanism (includes elevator mechanism and router, required to connect first two units in a stack) (capable of handling DLT, SDLT and LTO media)	613326628447	304825-B21	
	MSL 5U passthrough extender (required one for each unit connected to the stack, for third and additional units)	720591730079	231824-B22	
Drives	MSL Ultrium 460 upgrade drive in hot plug canister	808736892636	330729-B21	
Interface Cards	e1200-160 Fibre Channel Interface Card	808736892018	330728-B21	
	MSL embedded fibre option kit - graphite			

Related Options

	Description	UPC Code	Part Number
Media and Bar Code Labels	MSL Dual Magazine LTO (2 x 15 slot magazines, left and right) LTO Ultrium Media	613326560617	301902-B21
	HP Ultrium 400GB Data Cartridge		C7972A
	HP Ultrium Universal Cleaning Cartridge		C7978A
	HP Ultrium Barcode Labels, 100-Pack		C7970B
	<hr/>		
SCSI Cables	SCSI Cable, VHDCI/VHDCI, 6 feet	743172660817	341174-B21
	SCSI Cable, VHDCI/VHDCI, 12 feet	743172660824	341175-B21
	SCSI Cable, VHDCI/Wide, 6 feet	743172660831	341176-B21
	SCSI Cable, VHDCI/Wide, 12 feet	743172660848	341177-B21
	SCSI Cable, VHDCI/Wide, 10 meter	720591469108	201160-B21
	Check the cable-adapter matrix for tape libraries on: ftp://ftp.compaq.com/pub/products/storageworks/tape-and-optical-storage/adapter-cable-matrix.pdf		
FC Host Bus Adapters	HSC-eff Tachlite Fibre Channel Adapter		A6684A
	HSC Tachlite Fibre Channel Adapter		A6685A
	PCI 4X 2Gbps single port Fibre Channel Adapter		A6795A
	1 Gb PCI Fibre Channel Adapter		176479-B21
	2 Gb PCI Fibre Channel Adapter		245299-B21
	For more information on FC HBAs please consult the EBS connectivity matrix at http://www.hp.com/go/ebs		
SCSI Host Bus Adapters	ProLiant/Netserver		
	64-bit 66 MHz PCI Dual Channel Wide Ultra3 SCSI adapter	743172876379	129803-B21
	Ultra3 LVD, single channel controller	743172991447	154457-B21
	HP-UX		
	Ultra2 LVD single port		A5149A
	Ultra2 LVD dual port		A5150A
	Ultra3 LVD single port		A682E
	Ultra3 LVD dual port		A682S
	LVD single port		A4999A
	For more information on FC HBAs please consult the EBS connectivity matrix at http://www.hp.com/go/ebs		
Rackmounting Kits	MSL5000 system/e RM kit (HP racks)	613326628423	304826-B21
	MSL5026 TT-RM KIT, ProLiant Rack	720591734336	231894-B22
	MSL5026 TT-RM KIT, Alpha/HP Rack	720591734312	231894-B21
	Alpha Rail Kit	720591166243	254795-001

Related Options

	Description	UPC Code	Part Number
HP OpenView Storage Data Protector Backup Software	Storage Data Protector 5.0		
	Starter Packs		
	Cell Manager		B6961AA/
	(Required once as starter pack; includes license-to-use, unlimited number of disk agents and media agents, one drive extension, libraries with up to 60 slots, CD-ROM media, manuals, and more; for Windows NT, 2000, XP/HP-UX/Solaris)		B6951AA/ B6951DA
	Drive Extensions		
	Drive License		B6963AA
	(License-to-use for one concurrently used backup drive; for Windows NT, 2000, XP/Novell™ NetWare/Linux)		
	Drive License		B6953AA
	(License-to-use for one concurrently used backup drive; for UNIX, NAS, SAN)		
	For the most up-to-date information, visit: http://openview.hp.com/products/dataprotector/specifications/		

CONFIGURATION INFORMATION (FOR RACKMOUNT UNITS ONLY)

STEP 1 – SELECT A CONFIGURATION

The list below is not intended to show all possible configurations, but to show some of the most common. In some cases, it is advantageous to utilize MSL6030 libraries in the scaled stack. Please refer to the MSL6030 library QuickSpecs for more details. The Ultrium MSL6000 series of libraries is scalable to 40U resulting in 16 drives and 240 slots.

IMPORTANT NOTE: Each library unit comes with a rack kit specially designed for HP 9000 and 10000 racks. If the unit is going to be installed into a HP restore SystemE rack or an Alpha rack, then one rack mount kit per library unit must be purchased. Please utilize "STEP 2" of the configuration information.

COMMON SCALED CONFIGURATIONS FOR MSL6000 LIBRARIES DIRECT ATTACH SCSI

Description	Quantity	Slots	Drives	Interface	Product Number
MSL6030 2-drive RM	1	60	2	SCSI	330731-B22
MSL6030 0-drive RM	1				330731-B21
Universal passthrough mechanism	1				304825-B21
Rack kits	2				See step 2 for details
MSL6030 2-drive RM	1	60	3	SCSI	330731-B23
MSL6030 1-drive RM	1				330731-B22
Universal passthrough mechanism	1				304825-B21
Rack kits	2				See step 2 for details
MSL6030 2-drive RM	2	60	4	SCSI	330731-B23
Universal passthrough mechanism	1				304825-B21
Rack kits	2				See step 2 for details
MSL6030 2-drive RM	1	90	2	SCSI	330731-B23
MSL6060 0-drive RM	1				331196-B23
Universal passthrough mechanism	1				304825-B21
5U pass through extender kit	1				231824-B22
Rack kits	2				See step 2 for details

Related Options

CONFIGURATION INFORMATION (FOR RACKMOUNT UNITS ONLY) *(continued)*

STEP 1 – SELECT A CONFIGURATION *(continued)*

COMMON SCALED CONFIGURATIONS FOR MSL6000 LIBRARIES DIRECT ATTACH SCSI *(continued)*

Description	Quantity	Slots	Drives	Interface	Product Number
MSL6030 1-drive RM	1	90	3	SCSI	330731-B22
MSL6060 2-drive RM	1				331196-B22
Universal passthrough mechanism	1				304825-B21
5U passthrough extender kit	1				231824-B22
Rack kits	2				See step 2 for details
MSL6030 2-drive RM	1	90	4	SCSI	330731-B23
MSL6060 2-drive RM	1				331196-B22
Universal passthrough mechanism	1				304825-B21
5U passthrough extender kit	1				231824-B22
Rack kits	2				See step 2 for details
MSL6030 2-drive RM	1	90	6	SCSI	330731-B23
MSL6060 2-drive RM	1				331196-B22
MSL Ultrium 460 add-on drives	2				330729-B21
Universal passthrough mechanism	1				304825-B21
5U passthrough extender kit	1				231824-B22
Rack kits	2				See step 2 for details
MSL6060 2-drive RM	2	120	4	SCSI	331196-B22
Universal passthrough mechanism	1				304825-B21
10U passthrough extender kit	1				231824-B23
Rack kits	2				See step 2 for details
MSL6060 2-drive RM	2	120	6	SCSI	331196-B22
MSL Ultrium 460 add-on drives	2				330729-B21
Universal passthrough mechanism	1				304825-B21
10U passthrough extender kit	1				231824-B23
Rack kits	2				See step 2 for details
MSL6060 2-drive RM	2	120	8	SCSI	331196-B22
MSL Ultrium 460 add-on drives	4				330729-B21
Universal passthrough mechanism	1				304825-B21
10U passthrough extender kit	1				231824-B23
Rack kits	2				See step 2 for details

Related Options

CONFIGURATION INFORMATION (FOR RACKMOUNT UNITS ONLY) *(continued)*

STEP 1 – SELECT A CONFIGURATION *(continued)*

COMMON SCALED CONFIGURATIONS FOR MSL6000 LIBRARIES SAN OR DIRECT ATTACH FIBRE

Description	Quantity	Slots	Drives	Interface	Product Number
MSL6030FC 2-drive RM	1	60	2	Fibre Channel	330731-B25
MSL6030 0-drive RM	1				330731-B21
Universal passthrough mechanism	1				304825-B21
Rack kits	2				See step 2 for details
MSL6030FC 2-drive RM	1	60	3	Fibre Channel	330731-B25
MSL6030FC 1-drive RM	1				330731-B24
Universal passthrough mechanism	1				304825-B21
Rack kits	2				See step 2 for details
MSL6030FC 2-drive RM	2	60	4	Fibre Channel	330731-B25
Universal passthrough mechanism	1				304825-B21
Rack kits	2				See step 2 for details
MSL6030FC 2-drive RM	1	90	2	Fibre Channel	330731-B25
MSL6060 0-drive RM	1				331196-B23
Universal passthrough mechanism	1				304825-B21
5U passthrough extender kit	1				231824-B22
Rack kits	2				See step 2 for details
MSL6060FC 2-drive RM	1	90	3	Fibre Channel	331196-B22
MSL6030FC 1-drive RM	1				330731-B24
Universal passthrough mechanism	1				304825-B21
5U passthrough extender kit	1				231824-B22
Rack kits	2				See step 2 for details
MSL6060FC 2-drive RM	1	90	4	Fibre Channel	331196-B22
MSL6030FC 2-drive RM	1				330731-B25
Universal passthrough mechanism	1				304825-B21
5U passthrough extender kit	1				231824-B22
Rack kits	2				See step 2 for details
MSL6060FC 2-drive RM	1	90	6	Fibre Channel	331196-B22
MSL6030FC 2-drive RM	1				330731-B25
Universal passthrough mechanism	1				304825-B21
5U passthrough extender kit	1				231824-B22
Rack kits	2				See step 2 for details

Related Options

CONFIGURATION INFORMATION (FOR RACKMOUNT UNITS ONLY) *(continued)*

STEP 1 – SELECT A CONFIGURATION *(continued)*

COMMON SCALED CONFIGURATIONS FOR MSL6000 LIBRARIES SAN OR DIRECT ATTACH FIBRE *(continued)*

Description	Quantity	Slots	Drives	Interface	Product Number
MSL6060FC 2-drive RM	2	120	4	Fibre Channel	331196-B22
Universal passthrough mechanism	1				304825-B21
10U passthrough extender kit	1				231824-B23
Rack kits	2				See step 2 for details
MSL6060FC 2-drive RM	2	120	6	Fibre Channel	331196-B22
MSL Ultrium 460 add-on drives	2				330729-B21
Universal passthrough mechanism	1				304825-B21
10U passthrough extender kit	1				231824-B23
Rack kits	2				See step 2 for details
MSL6060FC 2-drive RM	2	120	8	Fibre Channel	331196-B22
MSL Ultrium 460 add-on drives	4				330729-B21
Universal passthrough mechanism	1				304825-B21
10U passthrough extender kit	1				231824-B23
Rack kits	2				See step 2 for details

STEP 2 – SELECT THE APPROPRIATE RACK

Depending on the environment, different rack kits are required. Each rackmounted version of MSL5000 libraries includes a rack kit designed for HP/Compaq 9000, 10000 and millennium racks. If installing into these racks no additional kits are needed. If the environment is different, one of the following kits is necessary (one for each library in a stack)

	Description	UPC Code	Part Number
Rackmounting Kits	MSL5000 system/e RM kit (HP racks)	613326628423	304826-B21
	Alpha Rail Kit	720591166243	254795-001

Technical Specifications

Control Panel	Library and drive status Move tape cartridges Load/unload tape drives Maintenance (diagnostics) Library configuration Statistics Inventory check Security level set: operator, user, service Mail slot access Offline/online status Auto-power-on selection							
	Magazine removal/replacement							
SCSI Interface	Ultra3 LVD SCSI, VHDCI interconnect							
Form-factor	5U Rackmount Tabletop							
Shipping Dimensions	Height [inches]	Height [cm]	Width [inches]	Width [cm]	Depth [inches]	Depth [cm]	Weight [lb]	Weight [kg]
Product Only								
MSL6030 0 Drive, RM	8.75	22.2	17.00	43.2	30.00	76.2	43.0	19.5
MSL6030 1 Drive, RM	8.75	22.2	17.00	43.2	31.50	80.0	52.0	23.6
MSL6030 2 Drive, RM	8.75	22.2	17.00	43.2	31.50	80.0	61.0	27.7
MSL6030 1 Drive, TT	10.00	25.4	19.00	48.3	31.50	80.0	61.0	27.2
MSL6030 2 Drive, TT	10.00	25.4	19.00	48.3	31.50	80.0	69.0	31.3
Packaged								
MSL6030 0 Drive, RM	15.25	38.7	23.00	58.4	38.25	97.2	75.0	34.0
MSL6030 1 Drive, RM	15.25	38.7	23.00	58.4	38.25	97.2	84.0	38.1
MSL6030 2 Drive, RM	15.25	38.7	23.00	58.4	38.25	97.2	93.0	42.2
MSL6030 1 Drive, TT	15.75	40.0	25.25	64.1	40.00	101.6	90.0	40.8
MSL6030 2 Drive, TT	15.75	40.0	25.25	64.1	40.00	101.6	99.0	44.9
Capacity (native)	MSL6030 base unit		6.0 TB					
Performance (native)	30MB/s per drive		Adaptive Tape Speed provides data-rate matching from 10 MB/s to 30 MB/s					
	MSL6030 base unit		Supports one or two LTO Ultrium 460 drives for native transfer rates up to 216 GB/hr					
	Maximum configuration (8 modules with multi-unit scalability)		Supports up to 16 LTO Ultrium 460 drives for native transfer rates up to 1728 GB/hr					
Storage Capacity (compressed @ 2:1)	400GB per cartridge							
	MSL6030 base unit		30 slots (including one mail slot), for compressed (2:1) capacity up to 12.0 TB					
	Maximum configuration (8 modules with multi-unit scalability)		8 * 30 slots, for compressed (2:1) capacity up to 96 TB					
Power Consumption	MSL6030 base unit		90 to 140V AC @ 47 to 63Hz 176 to 259V AC @ 47 to 63Hz					
	Power requirement		180 Watts (typical) 200 Watts (maximum)					
	Heat dissipation		612 BTU's/hour (typical) 671 BTU's/hour (maximum)					
Acoustic Noise	Noise power emission level		8 bels, maximum					
	Avg. sound pressure level		52 dBA					

Technical Specifications

Robotics Performance	Initialization time	100 sec	
	Inventory time	60 sec	
	Cartridge swap (drive to slot)	15 sec average	
Reliability	MTBF	250,000 hours (100% duty cycle) (excludes drives)	
	MSBF	2,000,000 robot load/unload cycles	
Environmental	Temperature range	Operating	50°F to 95°F/10°C to 35°C
		Storage	-40°F to 140°F/-40°C to 60°C
	Humidity (wet bulb)	Operating	10 to 80% @ 82°F/28°C
		Storage	10 to 90% @ 82°F/28°C
Product Safety Requirements and Approvals	Safety EN60950/IEC950, UL, CSA/cUL, CE, VDE/TUV, GOST, EMI, Class A FCC, C.I.S.P.R., ICES-003, CE, VCCI; BSMI Regulatory Series ED1005 Class A		
Warranty	One year parts exchange, one year onsite next day service Additional warranty protection can be purchased for all MSL6030 library products. NOTE: Certain restrictions and exclusions apply. Consult the Hewlett-Packard Customer Support Center for details.		

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