						Mixed Drives (Ultrium 448, 920, 960, 1760 &
Upgrade to drive	Ultrium 448	Ultrium 920	Ultrium 960	Ultrium 1760	Ultrium 1840	1840)
			Ultra 320 SCSI or Native Fibre		Ultra 320 SCSI or Native Fibre	
Drive interface	Ultra 160 SCSI	Ultra 320 SCSI or 3Gb/s SAS	Channel	3Gb/s SAS	Channel	
MSL2024	Supported	Supported	Supported	Supported	Supported	Supported*
	AG118A LTO-2 Ultrium 448	AH173A LTO-3 Ultrium 920	AG327A LTO-3 Ultrium 960	AK383A LTO-4 Ultrium 1760	AJ041A LTO-4 Ultrium 1840	x
	SCSI Drive Upgrade Kit	SCSI Drive Upgrade Kit	SCSI Drive Upgrade Kit	SAS Drive Upgrade Kit (maximum	SCSI Drive Upgrade Kit	
	(maximum of two drives)	(maximum of two drives)	(maximum of one drive)	of two drives)	(maximum of one drive)	
requires						
		AH562A LTO-3 Ultrium 920	AG328B LTO-3 Ultrium 960		AJ042A LTO-4 Ultrium 1840	
		SAS Drive Upgrade Kit (maximum	4Gb FC Drive Upgrade Kit		4Gb FC Drive Upgrade Kit	
		of two drives)	(maximum of one drive)		(maximum of one drive)	
MSL4048	Supported	Supported	Supported	Supported	Supported	Supported*
	AG118A LTO-2 Ultrium 448	AH173A LTO-3 Ultrium 920	AG327A LTO-3 Ultrium 960	AK383A LTO-4 Ultrium 1760	AJ041A LTO-4 Ultrium 1840	х
	SCSI Drive Upgrade Kit	SCSI Drive Upgrade Kit	SCSI Drive Upgrade Kit	SAS Drive Upgrade Kit (maximum	SCSI Drive Upgrade Kit	
	(maximum of four drives)	(maximum of four drives)	(maximum of two drives)	of four drives)	(maximum of two drives)	
requires						
		AH562A LTO-3 Ultrium 920	AG328B LTO-3 Ultrium 960		AJ042A LTO-4 Ultrium 1840	
		SAS Drive Upgrade Kit (maximum	4Gb FC Drive Upgrade Kit		4Gb FC Drive Upgrade Kit	
		of four drives)	(maximum of two drives)		(maximum of two drives)	
MSL8096	Supported	Supported	Supported	Supported	Supported	Supported*
	AG118A LTO-2 Ultrium 448	AH173A LTO-3 Ultrium 920	AG327A LTO-3 Ultrium 960	AK383A LTO-4 Ultrium 1760	AJ041A LTO-4 Ultrium 1840	x
	SCSI Drive Upgrade Kit	SCSI Drive Upgrade Kit	SCSI Drive Upgrade Kit	SAS Drive Upgrade Kit (maximum	SCSI Drive Upgrade Kit	
	(maximum of four drives)	(maximum of four drives)	(maximum of four drives)	of four drives)	(maximum of four drives)	
requires						
		AH562A LTO-3 Ultrium 920	AG328B LTO-3 Ultrium 960		AJ042A LTO-4 Ultrium 1840	
		SAS Drive Upgrade Kit (maximum	4Gb FC Drive Upgrade Kit		4Gb FC Drive Upgrade Kit	
		of four drives)	(maximum of four drives)		(maximum of four drives)	

^{*} Mixed drive capability requires library partitioning (zoning) support by ISV backup application software; confirm if your backup software supports media partitioning.

1/8 G2 - MSL2024 - MSL4048 - MSL8096 drive interoperability matrix

							Mixed Drives (Ultrium 448, 920, 960,
Upgrade to drive	Ultrium 232	Ultrium 448	Ultrium 920	Ultrium 960	Ultrium 1760	Ultrium 1840	1760 & 1840)
			Ultra 320 SCSI or 3Gb/s	Ultra 320 SCSI or Native		Ultra 320 SCSI or Native	
Drive interface	Ultra 160 SCSI	Ultra 160 SCSI	SAS	Fibre Channel	3Gb/s SAS	Fibre Channel	
1/8 G2 AL	Supported	Supported	Supported	Not Supported	Supported	Not Supported	Not Supported
MSL2024	Supported	Supported	Supported	Supported	Supported	Supported	Supported*
MSL4048	Supported	Supported	Supported	Supported	Supported	Supported	Supported*
MSL8096	Supported	Supported	Supported	Supported	Supported	Supported	Supported*

NOTE: Drive SKU's can be re-deployed in each autoloader or library platform where appropriate

* Mixed drive capability requires library partitioning (zoning) support by ISV backup application software; confirm if your backup software supports media partitioning.

HP StorageWorks Tape Automation MSL6000 drive upgrade matrix

				Mixed Drives	Mixed Drives	Mixed Drives
Upgrade to drive	SDLT 600	Ultrium 960	Ultrium 1840	(DLT8000 & SDLT)	(SDLT & Ultrium)	(Ultrium 460, 960 & 1840)
Library interface	Ultra 160 SCSI	Ultra 320 SCSI	Ultra 320 SCSI			
MSL6030 &	Not supported	Supported	Supported	Not supported	Not supported*	Supported**
MSL6060						
(6-3 part number)						
(o-o part nomber)	х	AD612B Ultrium 960 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060) *** Configure single tape drive per SCSI bus.	AJ028A Ultrium 1840 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060) *** Configure single tape drive per SCSI bus.	х	x	х
requires		Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.†	Use the e1200-320 4Gb FC interface controller for best performance. NSR M2402 and e1200-160 are still supported, but performance will be limited.†			
MSL6030 &	Not supported	Supported	Supported	Not supported	Not supported*	Supported**
	i ioi sopponou	Сорронов	ворронов	т се ворронов	i toi sopponou	обрына
MSL6060						
(5 digit part number)						
	x	AD612B Ultrium 960 Drive Upgrade Kit	AJ028A Ultrium 1840 Drive Upgrade Kit	x	x	x
		(maximum of two drives in MSL6030;	(maximum of two drives in MSL6030;			
		maximum of four drives in MSL6060) ***	maximum of four drives in MSL6060) ***			
		Configure single tape drive per SCSI bus.	Configure single tape drive per SCSI bus.			
requires		Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.†	Use the e1200-320 4Gb FC interface controller for best performance. NSR M2402 and e1200-160 are still supported, but performance will be limited.†			
MSL6026 &	Supported	Supported	Supported	Not supported	Not supported*	Supported**
MSL6052						
	AD589B SDLT600 Drive Upgrade Kit Configure single tape drive per SCSI bus.	AD612B Ultrium 960 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060) ***	AJ028A Ultrium 1840 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060) ***	х	х	х
	Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are	Configure single tape drive per SCSI bus.	Configure single tape drive per SCSI bus.			
	still supported.†	Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are	Use the e1200-320 4Gb FC interface controller for best performance. NSR M2402			
requires		still supported.†	and e1200-160 are still supported, but performance will be limited.†			
		AD621A MSL Ultrium Dual Magazine Kit (one required for MSL6026; two required for MSL6052)	AD621A MSL Ultrium Dual Magazine Kit (one required for MSL6026; two required for MSL6052)			

NOTE: MSL6000 tape libraries with a 5 digit part number were available starting April 2005. These libraries offer the same number of slots, tape drives and specifications as the MSL6000 tape libraries with 6-3 part numbers, but use a different tape drive shoe.

^{*} MSL libraries will not support SDLT and Ultrium cartridges in the same library module because of differences in media magazine size. However, support for MSL libraries with SDLT and Ultrium drives in separate modules in a multi-unit stack is supported.

^{**} Mixed drive/media capability requires library partitioning (zoning) support by ISV backup application software; confirm if your backup software supports media partitioning.

^{***} ADXXXX drive upgrade kit is limited to Ultra 160 speeds; no limits on AJXXXX drive upgrade kit

[†] Interface controller cards should be installed in the left most slot for better cooling in the tape library.

				Mixed Drives	Mixed Drives	Mixed Drives
Upgrade to drive	SDLT 600	Ultrium 960	Ultrium 1840	(DLT8000 & SDLT)	(SDLT & Ultrium)	(Ultrium 460, 960 & 1840)
brary interface	Ultra 160 SCSI	Ultra 320 SCSI	Ultra 320 SCSI			
MSL5026DLX	Supported	Not supported	Not supported	Supported***	Not supported	Not supported
opal)						
-p,	AD589B SDLT600 Drive Upgrade Kit*	x	x	X	x	x
	Configure single tape drive per SCSI bus.					
equires						
equires	Use with e1200-320 4Gb FC interface controller;					
	NSR M2402 and e1200-160 are still					
	supported.†					
MSL5026SL	Supported	Not supported	Not supported	Supported***	Not supported	Not supported
	зорронеа	140/30pponed	1 to supported	зорронец	1401 supported	1401 30pponed
opal)	AD589B SDLT600 Drive Upgrade Kit*	x	x	X	x	x
	AD389B SDL1000 Drive Opgrade Kir	^	^	^	^	^
	Configure single tape drive per SCSI bus.					
	configure single tape arive per 3c3r bus.					
requires	Use with e1200-320 4Gb FC interface controller;					
	NSR M2402 and e1200-160 are still					
	supported.†					
MSL5026SL	Supported	Supported (capacity upgrade only)	Supported (capacity upgrade only)	Supported***	Not supported **	Not supported
graphite)						
and MSL5052SL						
	AD589B SDLT600 Drive Upgrade Kit*	AD612B Ultrium 960 Drive Upgrade Kit *	AJ028A Ultrium 1840 Drive Upgrade Kit *	x	х	x
	Configure single tape drive per SCSI bus.	Configure single tape drive per SCSI bus.	Configure single tape drive per SCSI bus.			
	Use with e1200-320 4Gb FC interface controller;	Use with e1200-320 4Gb FC interface controller;				
requires	NSR M2402 and e1200-160 are still	NSR M2402 and e1200-160 are still	NSR M2402 and e1200-160 are still			
equires	supported.†	supported.†	supported.†			
		AD621A MSL Ultrium Dual Magazine Kit (one	AD621A MSL Ultrium Dual Magazine Kit (one			
		required for MSL5026; two required for MSL5052)	required for MSL5026; two required for MSL5052)			
		M3L3U32)	M5L5U52)			
WSL5030L1 &	Not supported	Supported (capacity upgrade only)	Supported (capacity upgrade only)	Not supported	Not supported**	Supported***
MSL5060L1 W			11 (1) 10 //			
M3L3UUUL I	X	AD612B Ultrium 960 Drive Upgrade Kit *	AJ028A Ultrium 1840 Drive Upgrade Kit *	x	x	x
	^	ADD 1 2B Olifform 900 Drive Opgrade Kir	AJOZBA Oliflom 1840 Drive opgrade Kili	^	^	^
		Configure single tape drive per SCSI bus.	Configure single tape drive per SCSI bus.			
		Comigure single lape arrie per e cor bos.	comgare single tape arres per ecor pess			
equires		Use with e1200-320 4Gb FC interface controller;	Use with e1200-320 4Gb FC interface controller;			
		NSR M2402 and e1200-160 are still	NSR M2402 and e1200-160 are still			
		supported.†	supported.†			
MSL5026S2 &	Supported	Supported (capacity upgrade only)	Supported (capacity upgrade only)	Supported***	Not supported**	Not supported
MSL5052S2						
	AD589B SDLT600 Drive Upgrade Kit*	AD612B Ultrium 960 Drive Upgrade Kit *	AJ028A Ultrium 1840 Drive Upgrade Kit *	x	х	х
	Configure single tape drive per SCSI bus.	Configure single tape drive per SCSI bus.	Configure single tape drive per SCSI bus.			
	Use with e1200-320 4Gb FC interface controller;	Use with e1200-320 4Gb FC interface controller;	Use with e1200-320 4Gb FC interface controller;			
equires	NSR M2402 and e1200-160 are still	NSR M2402 and e1200-160 are still	NSR M2402 and e1200-160 are still			
•	supported.†	supported.†	supported.†			
		AD621A MSL Ultrium Dual Magazine Kit (one	AD621A MSL Ultrium Dual Magazine Kit (one			
		required for MSL5026; two required for	AD621A MSL Ultrium Dual Magazine Kit (one required for MSL5026; two required for			
		MSL5052)	MSL5052)			

^{**} Upgrading a MSL5000 Tape Library with SDLT 600 or Ultrium tape drives will limit the transfer rate to Ultra 80 SCSI speed.

^{**} MSL libraries will not support SDLT and Ultrium cartridges in the <u>same</u> library module because of differences in media magazine size. However, support for MSL libraries with SDLT and Ultrium drives in <u>separate</u> modules in a multi-unit stack is supported.

***Mixed drive/media capability requires library partitioning (zoning) support by ISV backup application software, confirm if you backup software supports media partitioning
† Interface controller cards should be installed in the left most slot for better cooling in the tape library.