HP StorageWorks Tape Automation
MSL comparison

When upgrading your HP StorageWorks MSL Tape Library with new tape drives, ensure compatibility with the following upgrade matrices.

MSL2024—MSL4048—MSL8096 drive upgrade matrix

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

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

Upgrade to drive	Ultrium 232	Ultrium 448	Ultrium 920	Ultrium 960	Ultrium 1760	Ultrium 1840	Mixed drives (Ultrium 448, 920, 960, 1760 and 1840)
Drive interface	Ultra 160 SCSI	Ultra 160 SCSI	Ultra 320 SCSI or 3Gb/s SAS	Ultra 320 SCSI or Native Fibre Channel	3Gb/s SAS	Ultra 320 SCSI or Native 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*

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

Technology for better business outcomes

HP StorageWorks Tape Automation
MSL comparison

MSL6000 drive upgrade matrix

Upgrade to drive	SDLT 600	Ultrium 960	Ultrium 1840	Mixed drives (DLT8000 and SDLT)	Mixed drives (SDLT and Ultrium)	Mixed drives (Ultrium 460, 960 and 1840)
Library interface	**Ultra 160 SCSI**	**Ultra 320 SCSI**	**Ultra 320 SCSI**			
MSL6030 and MSL6060 (6-3 part number)	Not supported	Supported	Supported	Not supported	Not supported[1]	Supported[2]
requires	X	**AD612B** Ultrium 960 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060)[3] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	**AJ028A** Ultrium 1840 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060)[3] Configure single tape drive per SCSI bus. Use the e1200-320 4Gb FC interface controller for best performance. NSR M2402 and e1200-160 are still supported, but performance will be limited.[4]	X	X	X
MSL6030 and MSL6060 (5 digit part number)	Not supported	Supported	Supported	Not supported	Not supported[1]	Supported[2]
requires	X	**AD612B** Ultrium 960 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060)[3] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	**AJ028A** Ultrium 1840 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060)[3] Configure single tape drive per SCSI bus. Use the e1200-320 4Gb FC interface controller for best performance. NSR M2402 and e1200-160 are still supported, but performance will be limited.[4]	X	X	X
MSL6026 and MSL6052	Supported	Supported	Supported	Not supported	Not supported[1]	Supported[2]
requires	**AD589B** SDLT600 Drive Upgrade Kit Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	**AD612B** Ultrium 960 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060)[3] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4] **AD621A** MSL Ultrium Dual Magazine Kit (one required for MSL6026; two required for MSL6052)	**AJ028A** Ultrium 1840 Drive Upgrade Kit (maximum of two drives in MSL6030; maximum of four drives in MSL6060)[3] Configure single tape drive per SCSI bus. Use the e1200-320 4Gb FC interface controller for best performance. NSR M2402 and e1200-160 are still supported, but performance will be limited.[4] **AD621A** MSL Ultrium Dual Magazine Kit (one required for MSL6026; two required for MSL6052)	X	X	X

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.

[1]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.

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

[3]ADXXXX drive upgrade kit is limited to Ultra 160 speeds; no limits on AJXXXX drive upgrade kit

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

HP StorageWorks Tape Automation
MSL comparison

MSL5000 drive upgrade matrix

Upgrade to drive	SDLT 600	Ultrium 960	Ultrium 1840	Mixed drives (DLT8000 and SDLT)	Mixed drives (SDLT and Ultrium)	Mixed drives (Ultrium 460, 960 and 1840)
Library interface	**Ultra 160 SCSI**	**Ultra 320 SCSI**	**Ultra 320 SCSI**			
MSL5026DLX (opal)	Supported	Not supported	Not supported	Supported[3]	Not supported	Not supported
requires	**AD589B** SDLT600 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	X	X	X	X	X
MSL5026SL (opal)	Supported	Not supported	Not supported	Supported[3]	Not supported	Not supported
requires	**AD589B** SDLT600 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	X	X	X	X	X
MSL5026SL (graphite) and MSL5052SL	Supported	Supported (capacity upgrade only)	Supported (capacity upgrade only)	Supported[3]	Not supported[2] X	Not supported X
requires	**AD589B** SDLT600 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	**AD612B** Ultrium 960 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4] **AD621A** MSL Ultrium Dual Magazine Kit (one required for MSL5026; two required for MSL5052)	**AJ028A** Ultrium 1840 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4] **AD621A** MSL Ultrium Dual Magazine Kit (one required for MSL5026; two required for MSL5052)			

[1]Upgrading a MSL5000 Tape Library with SDLT 600 or Ultrium tape drives will limit the transfer rate to Ultra 80 SCSI speed.
[2]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.
[3]Mixed drive/media capability requires library partitioning (zoning) support by ISV backup application software, confirm if you backup software supports media partitioning.
[4]Interface controller cards should be installed in the left most slot for better cooling in the tape library.

MSL5000 drive upgrade matrix (continued)

Upgrade to drive	SDLT 600	Ultrium 960	Ultrium 1840	Mixed drives (DLT8000 and SDLT)	Mixed drives (SDLT and Ultrium)	Mixed drives (Ultrium 460, 960 and 1840)
Library interface	**Ultra 160 SCSI**	**Ultra 320 SCSI**	**Ultra 320 SCSI**			
MSL5030L1 and MSL5060L1	Not supported	Supported (capacity upgrade only)	Supported (capacity upgrade only)	Not supported	Not supported[2]	Supported[3]
requires		**AD612B** Ultrium 960 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	**AJ028A** Ultrium 1840 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	X	X	X
MSL5026S2 and MSL5052S2	Supported	Supported (capacity upgrade only)	Supported (capacity upgrade only)	Supported[3]	Not supported[2]	Not supported
requires	**AD589B** SDLT600 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4]	**AD612B** Ultrium 960 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4] **AD621A** MSL Ultrium Dual Magazine Kit (one required for MSL5026; two required for MSL5052)	**AJ028A** Ultrium 1840 Drive Upgrade Kit[1] Configure single tape drive per SCSI bus. Use with e1200-320 4Gb FC interface controller; NSR M2402 and e1200-160 are still supported.[4] **AD621A** MSL Ultrium Dual Magazine Kit (one required for MSL5026; two required for MSL5052)	X	X	X

[1]Upgrading a MSL5000 Tape Library with SDLT 600 or Ultrium tape drives will limit the transfer rate to Ultra 80 SCSI speed.

[2]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.

[3]Mixed drive/media capability requires library partitioning (zoning) support by ISV backup application software, confirm if you backup software supports media partitioning.

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

To get the most up-to-date interoperability information, please visit www.hp.com/go/ebs.

April 2008