

IBM System Storage TS2900 Tape Autoloader supports LTO Ultrium 6 SAS Half-high Tape Drive (HVEC/Xcc)

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At a glance



IBM® System Storage® TS2900 Tape Autoloader is designed to address capacity, data protection, reliability, availability, and affordability. It is a low-entry tape storage solution incorporating half-high LTO™ Ultrium™ tape technology. IBM System Storage TS2900 Model S6H Tape Autoloader offers:

- IBM Ultrium 6 Tape Drive increased data transfer rate of up to 160 MB/sec native
- Support for LTO Generation 6 media specification tape cartridge compressed capacity of up to 6.25 TB with 2.5 to 1 compression per cartridge
- A 6-Gbps SAS interface attachment
- Support for media partitioning and self-describing tape with Linear Tape File System™ (LTFS) Library Edition and LTFS Storage Manager software
- Support for encryption capabilities with IBM Tivoli® Key Lifecycle Manager
- An entry level and compact tape library that is designed for high capacity, high performance, and high reliability
- One removable magazine providing nine cartridge slots, including a single I/O station
- A bar code reader that is standard and allows operation of the TS2900 in sequential or random access mode
- Remote management capabilities to allow for remote administration of the TS2900 through a web interface
- Optional features such as rack mount kits, desktide covers, and additional cartridge magazines
- Adherence to LTO Generation 6 media specifications

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: YE001).

Overview

IBM System Storage TS2900 Tape Autoloader (SEO/Part number 3572S6R) offers IBM tape reliability, density, and performance for entry level and compact tape libraries at a cost-effective price in open system environments. The TS2900 is part of the IBM System Storage tape library family of offerings.

TS2900 Tape Autoloader, with a capacity of nine cartridges employing IBM patented high density (HD) slot technology, is a rack-mountable or deskside unit that contains a single IBM LTO Ultrium 6 Half-high (HH) SAS Tape.

TS2900 Model S6H with the IBM Ultrium 6 HH SAS Tape Drive is designed to support the LTO Generation 6 native data rate performance of up to 160 MB/sec compared to the IBM LTO Ultrium 5 HH Tape Drive at up to 140 MB/sec native data transfer rate. The TS2900 Tape Drive supports the LTO Generation 6 media specifications for LTO tape drive technology and LTO Generation 6 media with a compressed capacity of up to 6.25 TB with 2.5 to 1 compression (up to 2.5 native capacity) compared to previous LTO 5 compressed capacity of up to 3.0 TB with 2:1 compression (up to 1.5 TB native capacity) per tape cartridge.

TS2900 Model S6H can also read and write to Ultrium 5 cartridges, and read Ultrium 4 cartridges. The Ultrium 6 Tape Drive is encryption-capable and designed to support library managed encryption. TS2900 Models S6H and S5H also support IBM LTFS Library Edition and IBM LTFS Storage Manager software.

The TS2900 comes standard with a bar code reader and a removable magazine to provide nine cartridge slots, including a single I/O station. It has remote management capabilities to allow for remote administration of the TS2900 through a web interface. The TS2900 can be configured to run in sequential (autoloader) or random (library) access mode. Optional features available for the TS2900 include rack-mount kits, deskside covers, and additional cartridge magazines.

Key prerequisites

Appropriate levels of host software are required to attach the TS2900 Tape Library with IBM LTO Ultrium 6 to a wide range of environments, including selected IBM Power Systems™, IBM System i®, IBM System p®, IBM System x®, IBM System z® (zLinux), and other servers running HP-UX, Linux™, Sun Solaris, and Microsoft™ Windows™ operating system environments with SAS interface support. Refer to the [Technical information](#) section for details.

TS2900 Model S6H also supports IBM LTFS Library Edition and IBM LTFS Storage Manager software which are ordered separately.

Planned availability date

December 7, 2012

Description

IBM System Storage TS2900 Tape Autoloader (machine type 3572) is an entry-level, compact 1U tape library (autoloader) that is designed to offer IBM tape reliability, density, and performance for entry-level and compact tape libraries at a cost-effective price.

The TS2900 Tape Autoloader, with a capacity of nine cartridges and employing patented IBM HD slot technology, is a rack-mountable or deskside unit that contains either a single IBM LTO Ultrium 6 Half-High SAS Tape Drive (Model S6H), an IBM LTO

Ultrium 5 Half-High SAS Tape Drive (Model S5H), or an IBM LTO Ultrium 4 Half-High SAS Tape Drive (Model S4H) in a 1U form factor height.

The TS2900 is suitable for use in network-attached storage implementations, such as backups and mass storage archives where multi-terabyte capacities are required. Storage and tape management is provided by software such as Tivoli Storage Manager and other compatible software offerings.

The TS2900 Tape Autoloader includes:

- Ultrium 6 and Ultrium 5 tape drive encryption support, including Application Managed Encryption, System Managed Encryption, and Library Managed Encryption. Transparent LTO Encryption is enabled through a license key Encryption Key Manager for LTO Ultrium 6 and LTO Ultrium 5 SAS drives.
- A single I/O station to help support continuous library operations while importing and exporting media, with little or no disruption to library operation.
- Remote management capabilities to allow for remote administration of the tape library through a web interface.
- One removable magazine that houses nine data cartridges to allow for quick population of the tape library, as well as ease of storage for media. Additional magazines may be ordered as an option (feature number 8111).
- A standard bar code reader that allows operation of the TS2900 in sequential (autoloader) or random (library) access mode with labeled media. Labeled Ultrium 5 and Ultrium 4 media can be ordered as feature numbers 8505 and 8405 via the 3589 LTO Ultrium media machine type. You can also order through IBM Media at 888-IBM-MEDIA (426-6334).

Refer to the [Supplies](#) section for additional information.

- Rack mount kits, desktide covers, and additional cartridge magazines are available options for the TS2900.
- Increased performance for maximum tape drive throughput and LTO Generation 6 media native data rate performance of up to 160 MB/sec for IBM Ultrium 6 Tape Drives.
- Mixed media support, including IBM 6, 5, and 4 WORM media. IBM 6 tape drives can read and write LTO Ultrium 6 Data Cartridges, read and write LTO Ultrium 5 Data Cartridges at original Ultrium 5 capacities, and also read LTO Ultrium 4 data cartridges with improved data rates.
- A 6 Gbps SAS attachment for connection to selected IBM Power®, IBM System p, IBM System I, IBM System x, and other Microsoft Windows and Linux servers, including HP and Sun Sparc servers.

LTO Generation 6 media specification compressed of up to 6.25 TB WORM tape cartridges are designed for applications such as archiving and data retention and those applications requiring an audit trail, preventing the alteration or deletion of user data. IBM Ultrium WORM Tape Cartridges can be ordered as unique 3589 models with the following features:

- Prelabeling with the ability to specify a starting volume serial and use color-coding
- Packaging in individual jewel cases or in bulk
- Cartridge memory built into every cartridge to enhance functionality and media reliability by storing access history and media performance information for use by the tape drive every time the cartridge is accessed
- Half-inch barium-ferrite tape with up to 2.5 TB WORM compressed capacity in a single cartridge

Statement of general direction

IBM intends to introduce tape cartridge media meeting the LTO Generation 6 media specifications.

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.

Product number

Description	Machine type	Model	Feature
TS2900 Tape Autoloader with LTO Ultrium 6 Half-high SAS Tape Drive	3572	S6H	
2.0 m SAS/Mini-SAS 1x Cable			5402
2.0 m Mini-SAS/Mini-SAS 1x Cable			5502
Transparent LTO Encryption			5901
3572 Rack Mount Kit			7006
3572 Deskside Covers			7010
OEM - No IBM Logo			7703
Ultrium Cleaning Cartridge L1 UCC			8002
TAA Compliant			8067
3572 Additional Magazine			8111
Ultrium 4 Data Cartridges (5-pack)			8405
Ultrium 5 Data Cartridges (5-Pack)			8505
2.8 m Power Cord 125V US/Canada			9800
2.8 m Power Cord 250V France/Germany			9820
2.8 m Power Cord 250V Denmark			9821
2.8 m Power Cord 250V UK/China			9825
2.8 m Power Cord 250V Israel			9827
2.8 m Power Cord 250V Switzerland			9828
2.8 m Power Cord 250V S.Africa			9829
2.8 m Power Cord 250V Italy			9830
2.8 m Power Cord 250V Australia			9831
2.8 m Power Cord 250V US/Canada			9833
2.8 m Power Cord 250V Uruguay/Argentina			9834
2.8 m Power Cord 125V Taiwan			9835
2.8 m Power Cord 250V China (PRC)			9840
2.8 m Power Cord 250V Taiwan			9841
2.8 m Power Cord 125V Japan			9842
2.8 m Power Cord 250V Japan			9843
2.8 m Power Cord 250V Korea			9844
2.8 m Power Cord 250V India			9845
2.8 m Power Cord 250V Brazil			9847

Single Entity Offerings (SEOs)

Description	Machine type	Model	SEO number
TS2900 Tape Autoloader with LTO Ultrium 5 Half-high SAS Tape Drive	3572	S6H	3572S6R
2.0 m SAS/Mini-SAS 1x Cable			95P4711
2.0 m Mini-SAS/Mini-SAS 1x Cable			95P4713
Transparent LTO Encryption			45E3797
3572 Rack Mount Kit			45E3785
3572 Deskside Covers			45E3789

OEM - No IBM Logo	
Ultrium Cleaning Cartridge L1 UCC	23R7008
TAA Compliant	
3572 Additional Magazine	45E3793
Ultrium 4 Data Cartridges (5-pack)	95P4278
Ultrium 5 Data Cartridges (5-Pack)	46C2084
2.8 m Power Cord 125V US/Canada	23R7141
2.8 m Power Cord 250V France/Germany	23R7146
2.8 m Power Cord 250V Denmark	23R7147
2.8 m Power Cord 250V UK/China	23R7148
2.8 m Power Cord 250V Israel	23R7149
2.8 m Power Cord 250V Switzerland	23R7150
2.8 m Power Cord 250V S.Africa	23R7151
2.8 m Power Cord 250V Italy	23R7152
2.8 m Power Cord 250V Australia	23R7153
2.8 m Power Cord 250V US/Canada	23R7145
2.8 m Power Cord 250V Uruguay/Argentina	23R7154
2.8 m Power Cord 125V Taiwan	23R7158
2.8 m Power Cord 250V China (PRC)	23R7155
2.8 m Power Cord 250V Taiwan	23R6981
2.8 m Power Cord 125V Japan	23R6982
2.8 m Power Cord 250V Japan	23R6983
2.8 m Power Cord 250V Korea	23R6984
2.8 m Power Cord 250V India	23R6985
2.8 m Power Cord 250V Brazil	23R6987

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM , you may link directly to Business Partner information for this announcement. A PartnerWorld® ID and password are required (use IBM ID).

<https://www.ibm.com/partnerworld/mem/sla.jsp?num=112-159>

Publications

The following publications are shipped with the product. Additional copies will be available by December 7, 2012.

Title	Order number
IBM System Storage TS2900 Tape Autoloader Setup, Operator, and Service Guide	GC27-2212-03
IBM System Storage TS2900 Tape Autoloader Installation Quick Reference Guide	GA76-0423-00
IBM System Storage Translated Safety Notices	G229-9054-05
Multi-language Statement of Limited Warranty	TS02-0114-00

The following publications will be available by December 7, 2012. To order, contact your IBM representative.

Title	Order number
IBM System Storage TS2900 Tape Autoloader Setup, Operator, and Service Guide	GC27-2212-03
IBM System Storage TS2900 Tape Autoloader Installation Quick Reference Guide	GA76-0423-00
IBM System Storage Translated Safety Notices	G229-9054-05

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<http://publib14.boulder.ibm.com/infocenter/systems>

IBM Publications Center Portal

<http://www.ibm.com/shop/publications/order>

The Publications Center is a worldwide central repository for IBM product publications and marketing material with a catalog of 70,000 items. Extensive search facilities are provided, as well as payment options via credit card. A large number of publications are available online in various file formats, which can currently be downloaded free of charge.

Services

Global Technology Services

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure to be an On Demand Business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For details on available services, contact your IBM representative or visit

<http://www.ibm.com/services/>

For details on available IBM Business Continuity and Recovery Services, contact your IBM representative or visit

<http://www.ibm.com/services/continuity>

For details on education offerings related to specific products, visit

<http://www.ibm.com/services/learning/index.html>

Select your country, and then select the product as the category.

Technical information

Specified operating environment

Physical specifications

- Width: 445 mm (17.6 in)
 - 445 mm (17.52 in.) (chassis)
 - 483 mm (19.02 in.) (bezel)
- Depth: 847 mm (33.3 in)
- Height: 43.6 mm (1.7 in)
- Weight: 13 kg (28.66 lb)

To assure installability and serviceability in non-IBM industry-standard racks, review the installation planning information for any product-specific installation requirements.

Operating environment

- Temperature: 10° to 38° C (50° to 100° F)
- Relative humidity: 20% to 80%
- Wet bulb (caloric value): 26° C (78.8° F) max.
- Electrical power: (100 V ac) 1.3 A; (240 V ac) 0.7 A
- Noise level: 6.6 dBa (idle), 6.8 dBa (max.)

Hardware requirements

The TS2900 Tape Autoloader can contain a single IBM LTO Ultrium Half-High SAS Tape Drive in a 1U form factor height.

The TS2900 will attach to selected IBM Power Systems , IBM System p , IBM System i , IBM System x , and other Microsoft Windows and Linux operating systems, including HP and Sun Sparc servers.

A current list of supported open system configurations is available at

<http://www-03.ibm.com/systems/support/storage/config/ssic/index.jsp>

Cables

A SAS cable is required to attach a TS2900 Tape Autoloader with a LTO Ultrium SAS Tape Drive to a host SAS adapter. At least one SAS cable must be specified on the initial plant order.

The IBM Ultrium 6 single port SAS Tape Drive comes with two Mini-SAS (SFF-8088) connectors.

The following cable options are available for SAS attachment:

- #5402 - 2 m SAS/Mini-SAS 1x Cable (host SFF-8470 to target SFF-8088)
- #5502 - 2 m Mini-SAS/Mini-SAS 1x Cable (host SFF-8088 to target SFF-8088)

Refer to the **Specify or Special Features** section of the Sales Manual for a detailed description of the above features.

Software requirements

For a current list of host software versions and release levels that support the TS2900, refer to the following website

<http://www-03.ibm.com/systems/support/storage/config/ssic/index.jsp>

IBM Tivoli Storage Manager and other compatible software offerings can provide storage and tape management software for the TS2900. Supporting software and applications must be obtained separately from IBM , IBM Business Partners, or independent software vendors (ISVs). A list of compatible software is available from your IBM representative or at

<http://www-03.ibm.com/systems/storage/tape/library.html#compatibility>

Select *Compatibility Information* , then *Independent Software Vendor (ISV) matrix for LTO* for the product.

IBM continues to work together with the ISVs to support the TS2900. Individual application vendors should be contacted for specific information and availability dates.

Note: All new IBM tape device drivers will be posted to the web through the Fix Central download portal. IBM maintains the latest levels of System Storage tape drive and library device drivers and documentation on the Internet. Utilize the Fix Central download portal by accessing the following website

<http://www.ibm.com/support/fixcentral>

There are a few pull down menus to navigate to the correct download as follows:

1. In the first pull down menu labeled *Product Group* select *System Storage* .
2. In the next pull down menu that appears which is labeled *Product Family* select *Tape Systems* .
3. With the next pull down menu, *Product Type* , select *Tape drivers and software* .
4. This will bring up the *Product* menu, which provides selections for *Platform drivers, Tools, or Software* .
5. Under *Platform drivers* , in order to download your driver, select the correct operating system.
6. Two more pull down menus will appear with information. Click *Continue* .
7. The next screen can be used to narrow the search, however just click *Continue* to view what is available.

The IBM Tape Device Drivers Installation and User's Guide can be found at the following website

<http://www-01.ibm.com/support/docview.wss?rs=577&uid=ssg1S7002972>

LTO Ultrium Encryption

Encryption for the TS2900 Tape Autoloader, with LTO Ultrium 6 Half-High SAS Tape Drive and Ultrium 5 Half-High SAS Tape Drive is provided in AIX, HP-UX, Linux, Oracle Solaris, and Microsoft Windows operating system environments.

The installation of an Ultrium 6 and 5 Tape Drive with encryption may require code updates for System p and supported open systems device drivers or storage management software. An update of the open systems device drivers can be obtained from the Fix Central download portal by accessing the following website

<http://www.ibm.com/support/fixcentral>

There are a few pull down menus to navigate to the correct download as follows:

1. In the first pull down menu labeled *Product Group* select *System Storage* .
2. In the next pull down menu that appears which is labeled *Product Family* select *Tape Systems*
3. With the next pull down menu, *Product Type* , select *Tape drivers and software* .
4. This will bring up the *Product* menu, which provides selections for *Platform drivers, Tools, or Software* .
5. Under *Platform drivers* , in order to download your driver, select the correct operating system.
6. Two more pull down menus will appear with information. Click *Continue* .
7. The next screen can be used to narrow the search, however just click *Continue* to view what is available.

The IBM Tape Device Drivers Installation and User's Guide can be found at the following website

<http://www-01.ibm.com/support/docview.wss?rs=577&uid=ssg1S7002972>

For details on supported software versions and release levels for the Ultrium 6 and 5 Tape Drive, as well as hardware support information, refer to the following website

<http://www.ibm.com/storage/tape>

Three modes of encryption management are supported:

- System Managed (available for AIX® , Linux , Solaris, Windows)
- Library Managed (available for OS/400® , i5/OS™ , AIX , Linux , HP-UX, Solaris, and Windows)
- Application Managed (IBM Tivoli Storage Manager)

LTFS

IBM LTFS Library Edition and IBM LTFS Storage Manager are separately ordered software offerings that are supported on TS2900 Models S6H and S5H.

Limitations

IBM Ultrium 5 Tape Cartridges can be used with the IBM Ultrium 6 Tape Drives.

Ultrium 6, Ultrium 5, and Ultrium 4 tape drives have encryption capability.

LTFS software offerings only supported with Ultrium 6 and Ultrium 5 tape drives.

For LTO Ultrium 6 and 5, IBM Tivoli Key Lifecycle Manager V1.0 or V2.0 is required for enabling System Managed and Library Managed Encryption.

Planning information

Customer responsibilities

Physical planning and installation is a customer responsibility. Detailed planning information is in the *IBM System Storage TS2900 Tape Autoloader Setup, Operator, and Guide* (GC27-2212-03). The TS2900 is designated as a customer setup unit (CSU).

It is the customer's responsibility to install and service the unit. Customers are responsible for obtaining the appropriate adapters and cables for system attachment. Customers are also responsible for ordering media. For optimum performance the customer must obtain the latest level of firmware prior to installing the unit and must update the unit as new firmware release become available. Customers can download the latest level of drive and library firmware from the LTO website

<http://www.ibm.com/storage/tape/lto>

IBM offers IBM Installation and Maintenance support at an additional cost if the customer does not wish to install or maintain the TS2900 Tape Autoloader. The customer is responsible for downloading or obtaining from IBM , and installing designated Machine Code (microcode, basic input/output system code (called BIOS), utility programs, device drivers, and diagnostics delivered with an IBM machine) and other software updates in a timely manner from an IBM Internet website or from other electronic media, and following the instructions that IBM provides. Customers may request IBM to install Machine Code changes; however, there is a charge for that service.

Cable orders

SAS cables for the IBM LTO Ultrium 6 SAS Half-high Tape Drive are required to attach the TS2900 to the server. At least one cable should be specified on the initial plant order. Customers are responsible for selecting and ordering the correct cables to match the IBM LTO Ultrium Tape Drive interface and the server interface. Refer to the **Cables** section at the end of [Hardware requirements](#) section for a list of available cables. Refer to the **Specify or Special Features** section of the TS2900 Tape Autoloader Sales Manual for a detailed description of the cables available.

Packaging

Product	Shipment group	Number of boxes
3572S6R	TS2900 Tape Autoloader Model S6H with LTO Ultrium 6 Half-high SAS Tape Drive	1
95P4711	2.0 m SAS/Mini-SAS 1x Cable	1
95P4713	2.0 m Mini-SAS/Mini-SAS 1x Cable	1
45E3797	Transparent LTO Encryption	1
45E3785	3572 Rack Mount Kit	1
45E3789	3572 Deskside Covers OEM - No IBM Logo	1
23R7008	Ultrium Cleaning Cartridge L1 UCC TAA Compliant	1
45E3793	3572 Additional Magazine	1
95P4278	Ultrium 4 Data Cartridges (5-pack)	1
46C2084	Ultrium 5 Data Cartridges (5-Pack)	1
23R7141	2.8 m Power Cord 125V US/Canada	1
23R7146	2.8 m Power Cord 250V France/Germany	1
23R7147	2.8 m Power Cord 250V Denmark	1
23R7148	2.8 m Power Cord 250V UK/China	1
23R7149	2.8 m Power Cord 250V Israel	1
23R7150	2.8 m Power Cord 250V Switzerland	1
23R7151	2.8 m Power Cord 250V S.Africa	1
23R7152	2.8 m Power Cord 250V Italy	1
23R7153	2.8 m Power Cord 250V Australia	1
23R7145	2.8 m Power Cord 250V US/Canada	1
23R7154	2.8 m Power Cord 250V Uruguay/Argentina	1
23R7158	2.8 m Power Cord 125V Taiwan	1
23R7155	2.8 m Power Cord 250V China (PRC)	1
23R6981	2.8 m Power Cord 250V Taiwan	1
23R6982	2.8 m Power Cord 125V Japan	1
23R6983	2.8 m Power Cord 250V Japan	1
23R6984	2.8 m Power Cord 250V Korea	1
23R6985	2.8 m Power Cord 250V India	1
23R6987	2.8 m Power Cord 250V Brazil	1

Supplies

For users and remarketers

IBM System Storage TS2900 Tape Autoloader media and supplies can be ordered directly through HVEC/Xcc using the SEO/Part numbers specified in the [Product number](#) section or IBM media machine type 3589.

IBM System Storage TS2900 Tape Autoloader supplies can be also purchased through Priority Fulfillment Services and its distribution channel in North America, Latin America and Asia Pacific. These IBM System Storage TS2900 Tape Autoloader supplies can be purchased through Forex Telegistics BV and its distribution channel in Europe, the Middle East, and Africa.

For information about Priority Fulfillment Services distribution channels, call 1-888-IBM Media in the U.S. and Canada or visit

<http://www.ibm.com/storage/media>

Security, auditability, and control

This product uses the security and auditability features of host hardware, host software, and/or application software to which is attached.

Terms and conditions

Volume orders: Contact your IBM representative.

IBM Global Financing

Yes

Warranty period

- One year. IBM media is warranted separately.

An IBM part or feature installed during the initial installation of an IBM machine is subject to a full warranty effective on the date of installation of the machine. An IBM part or feature which replaces a previously installed part or feature assumes the remainder of the warranty period for the replaced part or feature. An IBM part or feature added to a machine without replacing a previously installed part or feature is subject to a full warranty effective on its date of installation. Unless specified otherwise, the warranty period, type of warranty service, and service level of a part or feature is the same as the machine it is installed.

Warranty service

If required, IBM provides repair or exchange service, depending on the type of warranty service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts.

Standard Warranty Service level is:

- 9 hours per day, Monday through Friday, excluding holidays, next business day response

Service levels are response-time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country - and location- specific information.

Customer Replaceable Unit (CRU) Service

IBM provides a replacement CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request. A CRU is designated as being either a Tier 1 (mandatory) or a Tier 2 (optional) CRU. Installation of Tier 1 CRUs, as specified in this announcement, is your responsibility. If IBM installs a Tier 1 CRU at your request, you will be charged for the installation. You may install a Tier 2 CRU yourself or request IBM to install it, at no additional charge, under the type of warranty service designated for your Machine.

Based upon availability, a CRU will be shipped for next business day (NBD) delivery. IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM . When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

The following parts or features have been designated as Tier 1 CRUs:

- TS2900 Model S5H LTO Ultrium 5 Tape Autoloader

Licensing

Programs included with this product are licensed under the terms and conditions of the License Agreements that are shipped with the system.

Maintenance services

ServicePac , ServiceSuite , ServiceElect, and ServiceElite

ServicePac® , ServiceSuite® , ServiceElect, and ServiceElite provide hardware warranty service upgrades, maintenance, and selected support services in one agreement.

Warranty service upgrade

Not available

Maintenance service

If required, IBM provides repair or exchange service, depending on the type of maintenance service specified below for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed.

CRU Service

If your problem can be resolved with a CRU (for example, keyboard, mouse, speaker, memory, or hard disk drive), IBM will ship the CRU to you for you to install. CRU information and replacement instructions are shipped with your machine and are available from IBM at any time on your request.

IBM specifies in the materials shipped with a replacement CRU whether a defective CRU must be returned to IBM . When return is required, return instructions and a container are shipped with the replacement CRU, and you may be charged for the replacement CRU if IBM does not receive the defective CRU within 15 days of your receipt of the replacement.

On-site Service

IBM On-site Exchange (IOE) is provided. IBM will exchange the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well lit, and suitable for the purpose.

See the Prices section for specific offerings.

Non-IBM parts support

Warranty service

IBM is now shipping machines with selected non-IBM parts that contain an IBM field replaceable unit (FRU) part number label. These parts are to be serviced during the IBM machine warranty period. IBM is covering the service on these selected non-IBM parts as an accommodation to its customers, and normal warranty service procedures for the IBM machine apply.

Maintenance service (ICA)

Maintenance services are available for ICA legacy contracts.

Alternative service (warranty service upgrades)

Not available

Maintenance service

If required, IBM provides exchange service for the machine. IBM will attempt to resolve your problem over the telephone or electronically by access to an IBM Web site. Certain machines contain remote support capabilities for direct problem reporting, remote problem determination, and resolution with IBM . You must follow the problem determination and resolution procedures that IBM specifies. Following problem determination, if IBM determines On-site Service is required, scheduling of service will depend upon the time of your call, machine technology and redundancy, and availability of parts. Service levels are response-time objectives and are not guaranteed.

On-site Service

IBM On-site Exchange (IOE) is provided. IBM will exchange the failing machine at your location and verify its operation. You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

Warranty service upgrades

IBM hourly service rate classification

One

Field-installable features

Yes

Model conversions

No

Machine installation

Customer setup. Customers are responsible for installation according to the instructions IBM provides with the machine.

Graduated program license charges apply

No

Licensed internal code and licensed machine code

This product does not contain Licensed Internal Code or Licensed Machine Code.

Educational allowance

None

Pricing

Product charges

Description	Machine type	Model	Feature	Field/ Plant install
TS2900 Tape Autoloader with LTO Ultrium 5 Half-high SAS Tape Drive	3572	S6H		Plant
2.0 m SAS/Mini-SAS 1x Cable			5402*	Both
2.0 m Mini-SAS/Mini-SAS 1x Cable			5502*	Both
Transparent LTO Encryption			5901*	Both
3572 Rack Mount Kit			7006*	Both
3572 Deskside Covers			7010*	Both
OEM - No IBM Logo			7703*	Plant
Ultrium Cleaning Cartridge L1 UCC			8002*	Plant
TAA Compliant			8067*	Plant
3572 Additional Magazine			8111*	Field
Ultrium 4 Data Cartridges (5-pack)			8405*	Plant
Ultrium 5 Data Cartridges (5-Pack)			8505*	Plant
2.8 m Power Cord 125V US/Canada			9800*	Plant
2.8 m Power Cord 250V France/Germany			9820*	Plant
2.8 m Power Cord 250V Denmark			9821*	Plant
2.8 m Power Cord 250V UK/China			9825*	Plant
2.8 m Power Cord 250V Israel			9827*	Plant
2.8 m Power Cord 250V Switzerland			9828*	Plant
2.8 m Power Cord 250V S.Africa			9829*	Plant
2.8 m Power Cord 250V Italy			9830*	Plant
2.8 m Power Cord 250V Australia			9831*	Plant
2.8 m Power Cord 250V US/Canada			9833*	Plant
2.8 m Power Cord 250V Uruguay/Argentina			9834*	Plant
2.8 m Power Cord 125V Taiwan			9835*	Plant
2.8 m Power Cord 250V China (PRC)			9840*	Plant
2.8 m Power Cord 250V Taiwan			9841*	Plant
2.8 m Power Cord 125V Japan			9842*	Plant
2.8 m Power Cord 250V Japan			9843*	Plant
2.8 m Power Cord 250V Korea			9844*	Plant
2.8 m Power Cord 250V India			9845*	Plant
2.8 m Power Cord 250V Brazil			9847*	Plant

* Feature previously announced on other product models

Single Entity Offerings (SEOs)

Description	Machine type	Model	SEO number	Field/ Plant install
TS2900 Tape Autoloader with LTO Ultrium 5 Half-high SAS Tape Drive	3572	S6H	3572S6R	Plant
2.0 m SAS/Mini-SAS 1x Cable			95P4711*	Both
2.0 m Mini-SAS/Mini-SAS 1x Cable			95P4713*	Both
Transparent LTO Encryption			45E3797*	Both
3572 Rack Mount Kit			45E3785*	Both
3572 Deskside Covers			45E3789*	Both
OEM - No IBM Logo				Plant
Ultrium Cleaning Cartridge L1 UCC			23R7008	Plant
TAA Compliant				Plant
3572 Additional Magazine			45E3793*	Field
Ultrium 4 Data Cartridges (5-pack)			95P4278*	Plant
Ultrium 5 Data Cartridges (5-Pack)			46C2084*	Plant
2.8 m Power Cord 125V US/Canada			23R7141*	Plant
2.8 m Power Cord 250V France/Germany			23R7146*	Plant

2.8 m Power Cord 250V Denmark	23R7147*	Plant
2.8 m Power Cord 250V UK/China	23R7148*	Plant
2.8 m Power Cord 250V Israel	23R7149*	Plant
2.8 m Power Cord 250V Switzerland	23R7150*	Plant
2.8 m Power Cord 250V S.Africa	23R7151*	Plant
2.8 m Power Cord 250V Italy	23R7152*	Plant
2.8 m Power Cord 250V Australia	23R7153*	Plant
2.8 m Power Cord 250V US/Canada	23R7145*	Plant
2.8 m Power Cord 250V Uruguay/Argentina	23R7154*	Plant
2.8 m Power Cord 125V Taiwan	23R7158*	Plant
2.8 m Power Cord 250V China (PRC)	23R7155*	Plant
2.8 m Power Cord 250V Taiwan	23R6981*	Plant
2.8 m Power Cord 125V Japan	23R6982*	Plant
2.8 m Power Cord 250V Japan	23R6983*	Plant
2.8 m Power Cord 250V Korea	23R6984*	Plant
2.8 m Power Cord 250V India	23R6985*	Plant
2.8 m Power Cord 250V Brazil	23R6987*	Plant

* Feature previously announced on other product models

Pricing terms

Prices in the following PDF prices link are suggested list prices on day of announcement for the U.S. only. They are provided for your information only. Dealer prices may vary, and prices may also vary by country. IBM list price does not include tax or shipping and is subject to change without notice.

[ENUS-112-159-LIST_PRICES_2012_11_06.PDF](#)

Maintenance charges

ServicePac for warranty and maintenance charges

Machine type/ model	ServicePac MTM	ServicePac SEO	Description
warranty and maintenance			
3572-S6H	675686C	00AA247	3 Year Onsite Repair 9x5 Next Business Day
3572-S6R	675686C	00AA247	3 Year Onsite Repair 9x5 Next Business Day
3572-S6H	675686D	00AA248	3 Year Onsite Repair 24x7 4 hour response
3572-S6R	675686D	00AA248	3 Year Onsite Repair 24x7 4 hour response
3572-S6H	675686F	00AA249	5 Year Onsite Repair 24x7 4 hour response
3572-S6R	675686F	00AA249	5 Year Onsite Repair 24x7 4 hour response
Maintenance agreement			
3572-S6H	6756F6D	00AA250	1 Year Onsite Repair 9x5 Next Business Day
3572-S6R	6756F6D	00AA250	1 Year Onsite Repair 9x5 Next Business Day
3572-S6H	6756F6F	00AA251	1 Year Onsite Repair 24x7 4 hour response
3572-S6R	6756F6F	00AA251	1 Year Onsite Repair 24x7 4 hour response
3572-S6H	6756F6G	00AA252	2 Year Onsite Repair 9x5 Next Business Day
3572-S6R	6756F6G	00AA252	2 Year Onsite Repair 9x5 Next Business Day
3572-S6H	6756F6H	00AA253	2 Year Onsite Repair 24x7 4 hour response
3572-S6R	6756F6H	00AA253	2 Year Onsite Repair 24x7 4 hour response

ServicePac prices

For ServiceElect (ESA) maintenance service charges, contact IBM Global Services at 888-IBM-4343 (426-4343).

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Corrections

(Corrected on January 23, 2013)

LTO Ultrium Encryption under the Software requirements section has been updated.