

Family 3584+15 IBM TS4500 Tape Library L55,D55,S55,L2

IBM Europe Sales Manual

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Table of contents

↓ Product life cycle dates	↓ Technical description
↓ Abstract	↓ Publications
↓ Highlights	↓ Features
↓ Description	↓ Accessories
↓ Product positioning	↓ Supplies
↓ Models	

Product life cycle dates

Type Model	Announced	Available	Marketing Withdrawn	Service Discontinued
3584-D25	2014-05-19	2014-06-13	-	-
3584-D55	2014-05-19	2014-06-13	-	-
3584-L25	2014-05-19	2014-06-13	-	-
3584-L55	2014-05-19	2014-06-13	-	-
3584-S25	2014-05-19	2014-06-13	-	-
3584-S55	2014-05-19	2014-06-13	-	-
3584-TR1	2014-05-19	2014-06-13	-	-

[↑ Back to top](#)

Abstract

The IBM 3584, a TS4500 tape library, is a next-generation storage solution designed to help midsize and large enterprises address these challenges include high data volume, growth in data centers, increasing cost of data center storage footprints, difficult platforms, and increased complexity of IT training and management as staff resources shrink.

Model abstract 3584-L25

The IBM 3584 TS4500 tape library Model L25 is a base frame designed for TS1140 or 3592 Tape Drives and 3592 data cartridges up to 660 cartridge slots (up to 550 in frame 1) and support for up to 16 tape drives (up to 12 in frame 1). Up to 16 logical libraries can be configured for each frame.

Each Model L25 library has two standard 16-slot cartridge I/O stations for importing or exporting 3592 tape cartridges from inventory. For bulk loading of tape cartridges, the library door can be opened. Each time the library door is closed, a bar code scanner is designed to scan the cartridge labels enabling a re-inventory of the cartridges in the library frame in as little as 60 seconds without physical access to cartridges in the library.

Model abstract 3584-L55

The IBM 3584 TS4500 tape library Model L55 is a base frame designed for IBM TS1060 LTO Ultrium Fibre Channel, IBM 7130 Tape Drives, and LTO data cartridges. The Model L55 base frame has up to 882 cartridge slots (up to 730 in frame 1) and support for up to 16 tape drives (up to 12 in frame 1). Up to 16 logical libraries (one per tape drive) can be configured for each frame.

Each Model L55 library has two standard 18-slot cartridge I/O stations for importing or exporting LTO tape cartridges from inventory. For bulk loading of tape cartridges, the library door can be opened. Each time the library door is closed, a bar code scanner is designed to scan the cartridge labels enabling a re-inventory of the cartridges in the library frame in as little as 60 seconds without physical access to cartridges in the library.

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Model abstract 3584-D25

The IBM 3584 TS4500 tape library Model D25 expansion frame is designed for TS1140 or 3592 Tape Drives and 3592 data cartridge slots. Expansion frames may be added to the TS4500 Model L25 base frame to increase 3592 cartridge storage or drive capacity to 3592 cartridge slots (up to 590 in frame 1) and up to 16 3592 Tape Drives (up to 12 in frame 1). Each frame can have up to 16 (one per tape drive).

Model abstract 3584-D55

The IBM 3584 TS4500 tape library Model D55 expansion frame is designed for IBM TS1060 LTO Ultrium Fibre Channel, LTO Tape Drives, and LTO data cartridges. Up to three Model D55 expansion frames may be added to the TS4500 tape library base frame to increase cartridge storage or drive capacity. Each Model D55 supports up to 970 LTO cartridge slots (up to 774 in frame 1) and up to 16 (up to 12 in frame 1). Each frame can have up to 16 logical libraries or 16 control paths (one per tape drive).

Model abstract 3584-TR1

The IBM 3584 Model TR1 optional top rack offering can reduce the storage footprint and simplify cabling by providing 10U of Fibre Channel switches, tape data movers, or LTFS nodes.

Model abstract 3584-S25

The IBM 3584 TS4500 tape library Model S25 is a driveless, storage-only expansion frame, with Model S25 designed to increase slot capacity. Model S25 delivers a 2.5 to 1 increase in slot capacity over Model D25. The TS4500 Model S25 can be attached to Model L25 Tape Drives.

Model abstract 3584-S55

The IBM 3584 TS4500 tape library Models S55 is a driveless, storage-only expansion frame, with Model S55 designed to increase slot capacity. Model S55 offers a 3 to 1 increase in slot capacity over Model D55.

The TS4500 Model S55 can be attached to installed Model D55 and L55 with IBM TS1060, TS1050, or LTO Ultrium Tape Drives.

[↑ Back to top](#)

Highlights

The IBM TS4500 tape library combines IBM tape and automation reliability at open systems prices. New models expand capacity to deliver the following enhancements:

- Storage for up to 2.2 PB of data in a single frame library, up to 3.4 times improvement over the previous generation of tape libraries
- Improved storage density with expansion frame capacity increase of up to 2.4 times and support for 33 percent more tape drives
- Dynamic storage management through the Advanced Library Management System (ALMS) which is now standard in IBM tape libraries
- Improved business continuity and disaster recovery with automatic control path and data path failover
- Data security and regulatory compliance through support for tape drive encryption and WORM media
- Support LTO Ultrium 6, LTO Ultrium 5, and IBM TS1140 HD2-compatible tape drives

[↑ Back to top](#)

Description

The TS4500 delivers the density needed for current and future business data growth with the cost efficiency and manageability of IBM tape library products. Now organizations can achieve both low cost per terabyte (TB) and a high TB density per square foot. The TS4500 delivers 2.2 PB of native storage capacity in a single 10 square foot library frame, up to 3.4 times more capacity than the IBM TS3500.

The TS4500 offers deeper integration of tape drive and media management for a seamless, single pane of glass user experience through the IBM Storage Unified UI. The GUI is designed to lead the user directly to task completion and includes persistent, at-a-glance status indicators.

TS4500 features such as capacity on demand, automatic control-path and data-path failover, and support for tape drive expansion over from previous generations of industry-leading IBM tape libraries.

Automates solutions for open environments

TS4500 is an industry leader in tape drive integration with features such as a persistent worldwide name, multipath architecture, remote drive/media management, and host-based path failover. TS4500 L25, D25, and S25 frames support the L55 and S55 frames support LTO Ultrium 6 and 5 tape drives. L-frame and D-frame models support improved hot-swappable drive bays and high-density (HD) slot technology that can significantly increase a library's total capacity.

Delivering more flexibility in the use of data center floor space than previous versions, the new frame models can be placed side-by-side and can grow from both the right and the left side of the first L frame. The previous library allowed the addition of frames only to the right of the first L frame.

Available with top rack (Model TR1) option

The optional top rack offering can reduce the storage footprint and simplify cabling by providing 10U of rack space on top of the tape data movers, or LTFS nodes.

Delivers capacity on demand

The TS4500 library frame provides a more flexible upgrade path for users wanting to expand their tape storage as their needs change. Configurations for TS4500 L-frame models include an **entry-level** configuration, an **intermediate** configuration, and a **base** configuration. All configurations support HD capacity-on-demand configurations.

Includes advanced features

TS4500 is designed with a number of advanced features to deliver cutting-edge performance and long-term value. The ALM (Automated Library Management) management, enabling users to dynamically create and change logical libraries and configure any drive into any logical library. It also includes automatic control-path and data-path failover to support improved business continuity and disaster recovery.

Centralizes management of tape resources

IBM offers a wide range of management software options for TS4500.

IBM TS4500 command line interface (CLI): Enables users to interact with the TS4500 with automated scripts to perform common tasks.

IBM Tape System Library Manager: Enables clients to manage large tape environments that span multiple libraries as a single entity.

IBM Security Key Lifecycle Manager: Simplifies encryption key management with an intuitive user interface.

Product preview

IBM intends to introduce IBM Linear Tape File System (LTFS) Library Edition (LE), Storage Manager, and Enterprise Edition libraries in the third quarter of 2014.

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

IBM TS4500 is a highly scalable, stand-alone device that delivers high-density tape storage and high-performance, automated management in open environments. IBM TS4500 tape library consists of a high-density base frame with up to three high-density expansion frames.

The TS4500 tape library is built from a single frame model, called the base frame. The scalability of the library allows an unlimited number of additional frames, called expansion frames. The frames join side by side and can grow to the left or to the right of the base frame. The library is accessed through a single cartridge accessor.

The TS4500 tape library supports second-generation HD (HD2) frames, which like the first generation HD frames, offer increased capacity per frame size or required floor space by using high-density storage slots for tape cartridges. In addition, HD2 frames provide

- HD2 expansion frames can be installed in the leftmost position of the library (frame number 1)
- Drive-capable HD2 frames support up to 16 HD2-compatible tape drives when positioned at frame number 2 or higher

Note: Non-HD2 frames cannot be upgraded to HD2 frames.

The L25 and L55 (Lx5) frames and D25 and D55 (Dx5) frames are HD2, drive-capable frames, meaning they contain HD c house up to sixteen tape drives. The S25 and S55 (Sx5) frames are HD2, storage-only frames, meaning they contain HD c drives. All HD frames provide internal LED lighting.

Note: The LED lighting in the HD frames is specifically designed for use only in the TS4500 tape library and is not

The TS4500 tape library supports IBM TS1060 LTO Ultrium 6, TS1050 LTO Ultrium 5, and IBM TS1140 Tape Drives. I/O st to facilitate tape loading and unloading.

The TS4500 tape library is designed to deliver an excellent network data backup/archive solution. With the granularity and from a few servers to hundreds of clients, from gigabytes to terabytes, this powerful pairing can grow with you, helping to p

HD technology

The TS4500 tape library offers HD, drive-capable, and storage-only frame models that are designed to greatly increase stc size or required floor space.

HD slots contain tape cartridges in a tiered architecture. The cartridge immediately accessible in the HD slot is a Tier 1 cart The maximum tier in an LTO HD slot is Tier 5. The maximum tier in a 3592 HD slot is Tier 4 because the 3592 tape cartridg cartridge. The single-deep slots on the door side of HD frames are referred to as Tier 0 slots.

HD2 frames can be installed in the leftmost library position (frame position 1) and offer drive-capable models that support u when in frame position 2 or higher.

Note: Non-HD2 frames cannot be upgraded to HD2 frames.**TS4500 tape library delivers high performance**

The IBM TS1060 LTO Ultrium, IBM TS1050 LTO Ultrium Tape Drives, and TS1140 Tape Drives are designed for high perfo operation. Automatic data caching, using an expanded cache memory and read/write buffering, helps enhance performanc is designed for high data transfer performance.

Cartridge move time within the TS4500 tape library can be as fast as 3.0 seconds or less in a single-frame library. The dua retrieve the next cartridge to be mounted, unload the current cartridge, and load the next cartridge, helping provide the folk a single gripper:

- Save complete move operations
- Improve overall library performance
- Increase redundancy and reliability

TS4500 tape library defines high reliability

Leading-edge technology positions the TS1140, TS1060 LTO Ultrium, and TS1050 LTO Ultrium Tape Drives among the top recording is supported by an exclusive thin-film write module designed by IBM with read-after-write data verification. Data r Resistive (MR) heads, designed for accuracy, high reliability, and durability. The TS4500 drives and library robotics are Tap provide tape drive and library errors, and diagnostic reporting. Drive cleaning is an automatic function that can be performe drive, without requiring operator intervention.

High granularity in library configurations

Features and capacities are designed to address a wide variety of customer requirements. You can attach up to three Mod Model L25 or L55 base frame to tailor the library to match your system capacity and performance needs. This provides a c cartridges of up to 4,690 cartridges with up to 11.7 PB of physical capacity per library (up to 29.3 PB with 2.5:1 compressio 3,550 cartridges with up to 14.2 PB of physical capacity per library (up to 42.6 PB with 3:1 compression).

Model L25 (base frame)

TS4500 tape library Model L25 is a base frame designed for TS1140 or 3592 Tape Drives and 3592 data cartridges. The IV cartridge slots (up to 550 in frame 1) and support for up to 16 tape drives (up to 12 in frame 1). Up to 16 logical libraries (or each frame.

Each Model L25 library has two standard 16-slot cartridge I/O stations for importing or exporting 3592 tape cartridges from inventory. For bulk loading of tape cartridges, the library door can be opened. Each time the library door is closed, a bar co is designed to scan the cartridge labels enabling a re-inventory of the cartridges in the library frame in as little as 60 secon physical access to cartridges in the library.

Model L55 (base frame)

TS4500 tape library Model L55 is a base frame designed for IBM TS1060 LTO Ultrium Fibre Channel, IBM TS1050 LTO Ultrium LTO data cartridges. The Model L55 base frame has up to 882 cartridge slots (up to 730 in frame 1) and support for up to 16 logical libraries (one per tape drive) can be configured for each frame.

Each Model L55 library has two standard 18-slot cartridge I/O stations for importing or exporting LTO tape cartridges from the inventory. For bulk loading of tape cartridges, the library door can be opened. Each time the library door is closed, a bar code reader is designed to scan the cartridge labels enabling a re-inventory of the cartridges in the library frame in as little as 60 seconds. This provides physical access to cartridges in the library.

Model D25 (expansion frame)

The TS4500 tape library Model D25 expansion frame is designed for TS1140 or 3592 Tape Drives and 3592 data cartridge frames may be added to the TS4500 Model L25 base frame to increase 3592 cartridge storage or drive capacity. Each Model D25 expansion frame has up to 590 cartridge slots (up to 590 in frame 1) and up to 16 3592 Tape Drives (up to 12 in frame 1). Each frame can have up to 16 logical libraries (one per tape drive).

Model D55 (expansion frame)

The TS4500 tape library Model D55 expansion frame is designed for IBM TS1060 LTO Ultrium Fibre Channel, IBM TS1050 LTO Ultrium Drives, and LTO data cartridges. Up to three Model D55 expansion frames may be added to the TS4500 tape library Model L25 base frame to increase cartridge storage or drive capacity. Each Model D55 supports up to 970 LTO cartridge slots (up to 774 in frame 1) and up to 16 3592 Tape Drives (up to 12 in frame 1). Each frame can have up to 16 logical libraries or 16 control paths (one per tape drive).

Designed for availability

If you are looking to maximize availability with minimum downtime for service-related activities, you will appreciate that the TS4500 tape library is designed for high availability. The drive configuration settings, such as Fibre Channel World Wide Node Names (WWNN), when a tape drive is replaced. This drive has the same WWNN as the original drive and may help avoid the need to re-IPL or reconfigure host systems. Fibre Channel zoning is maintained on the individual drive. Redundant hot-swap library and drive power supplies can also be replaced while avoiding impact to hosts.

The TS4500 tape library includes an enhanced power architecture and frame control assembly. This enhanced power architecture includes hot-swappable 2N power supplies and line cords. The enhanced frame control assembly includes features that were not available in the 3584 frame control assembly, including dual ac power, a Fibre Channel patch panel, additional redundant power supplies, and a redundant control path.

Multi-Path support

The Multi-Path Architecture of the TS4500 tape library is designed to provide the capability for sharing of the library robotic resources. The library is partitioned into up to 60 multiple logical libraries (up to the number of drives installed), and providing each logical library its own set of storage slots, and control paths. I/O slots are shared on a first-come, first-served basis. This type of partitioning is designed to share the library robotics independent of each other. Cartridges under library control are not shared between logical libraries. An example of heterogeneous sharing is a Microsoft Windows 2003 application using the drive and storage of one logical library. A UNIX application uses the drive and slots of another logical library.

Logical libraries can also be used for separating Ultrium 6 Tape Drives and cartridges from Ultrium 5 Tape Drives and cartridges, for applications which do not support mixing the drives in the same logical library.

Advanced Library Management System (ALMS)

ALMS virtualizes the locations of cartridges in the TS4500 tape library and is an extension of patented IBM Multi-Path Architecture. The library is able to virtualize the locations of cartridges (called SCSI element addresses) while maintaining native SAN attach information. Logical libraries to consist of unique drives and ranges of volume serial (VOLSER) numbers instead of fixed locations.

The TS4500 tape library comes with ALMS so that you can immediately start assigning tape drives to any logical library by drive name. Logical libraries can also be added, deleted, or easily changed without disruption. Storage capacity can be changed without reformatting.

ALMS offers dynamic management of cartridges, cartridge storage slots, tape drives, and logical libraries. It enables the TS4500 tape library to provide unprecedented levels of integration for functionality through dynamic partitioning, storage slot pooling, and flexible drive assignment. When you add Capacity On Demand (CoD) or High Density Capacity on Demand (HD CoD) storage, add or remove logical libraries, or change storage allocation. ALMS also reduces downtime when you add expansion frames, add or remove tape drives, or change logical libraries.

ALMS provides the following capabilities:

- Dynamic partitioning through storage slot pooling and flexible drive assignment
- The transparent ability to add or remove storage capacity to any host application
- The ability to configure drives or to configure storage capacity without taking the library offline
- Continuously enabled virtual I/O slots to automatically manage the movement of cartridges between I/O slots and storage

Control path failover, data path failover, and load balancing

The path failover feature of the TS4500 tape library ensures the use of a redundant path in the event that communication c

Command failures and time-outs are costly. You want your library to run smoothly and efficiently. To ensure continued proc
Fibre Channel LTO and 3592 tape drives offer path failover and load balancing capabilities that enable the IBM device driv
path. The alternate path can include another host bus adapter (HBA), Storage Area Network (SAN), or library control path
recovery and continues the operation on the alternate path without interrupting the application. Path failover and load balanc
enabled by using a purchased license key.

There are two types of path failover capabilities exist: control path failover (CPF) and data path failover (DPF). Control refe
library (the SCSI Medium Changer command set on LUN 1 of the tape drives). Data refers to the command set that carries
drives (the SCSI-3 Stream Commands (SSC) device on LUN 0 of the tape drives). Path failover refers to when there is red
to the intended target (the library accessor or the drive mechanism, respectively), the device driver transparently fails over
in the active path.

Both types of failover include host-side failover when configured with multiple HBA ports into a switch, but CPF includes tai
paths that are enabled on more than one tape drive. DPF includes target-side failover for the dual-ported tape drives that a

DPF includes load balancing of the HBAs because the channel is a data-intensive path. This means that the control path c
is not an issue. Dynamic load balancing support optimizes resources for devices that have physical connections to multiple
application opens a device that has multiple HBA paths configured, the device driver determines which path has the HBA v
path to the application. When another application opens a different device with multiple HBA paths, the device driver again
HBA usage and assigns that path to the second application. The device driver updates the usage on the HBA assigned to
closed. Dynamic load balancing uses all HBAs whenever possible and balances the load between them to optimize the res

Fibre Channel connectivity

Tape drives in TS4500 tape library Models D25, D55, L25, and L55 are designed to connect to host systems using Fibre C
Drive with a Fibre Channel interface or 3592 Tape Drive can be selected for attachment to host systems and servers utilizi
Channel connection distances up to 500 meters are possible. By utilizing selected Fibre Channel switches, it is possible to

Storage-only expansion frame

TS4500 tape library Models S55 and S25 are driveless, storage-only expansion frames, with Model S55 designed to conta
cartridges and Model S25 designed to contain up to 1,000 3592 tape cartridges. Model S55 offers a 3 to 1 increase in slot
S25 delivers a 2.5 to 1 increase in slot capacity over Model D25.

The TS4500 Model S55 can be attached to installed Model D55 and L55 with IBM TS1060, TS1050, or LTO Ultrium Tape L
attached to Model D25 and L25 with Enterprise or 3592 Tape Drives.

The TS4500 Models S25 and S55 incorporate patented IBM HD slot technology, which allows multiple cartridges to be stor
a cartridge location in a high-density slot is known as a tier. Previous model frames supported only one cartridge per storag
multiple cartridges in Tiers 1 through 4 (Model S25) or Tiers 1 through 5 (Model S55).

The TS4500 tape library frames support HD CoD features (#1645 or #1646) that provide a license key to nondisruptively in
These advancements reduce automation floor space requirements, enhance library management, and provide flexibility, gr
across an enterprise or business installation.

The TS4500 tape library (machine type 3584) is part of the family of tape library storage solutions designed for the large, u
today's midrange to high-end systems. Each aspect of the subsystem is designed to optimize access to data and reliability.
IBM LTO Ultrium and Enterprise Tape Drives.

The TS4500 tape library includes support for HD2 expansion frames, Models S55 and S25, which are compatible with curr
and S25, are driveless, storage-only expansion frames, with Model S55 designed to contain up to 1,320 Ultrium (LTO) tape
contain up to 1,000 3592 tape cartridges. Model S55 offers a 3 to 1 increase in slot capacity over Model D55, and Model S
capacity over Model D25.

The TS4500 tape library is designed to provide an excellent network data backup/archive solution. With the granularity and
from a few servers to hundreds of clients, from gigabytes to petabytes, this powerful pairing can grow with you, helping to p

Model S25

TS4500 tape library Model S25 is a high-density, storage-only expansion frame that can contain up to 1,000 3592 tape car
cartridges in Model D25. The base capacity for a Model S25 frame consists of up to 600 storage slots available in Tiers 0,
high-density capacity of up to 400 storage slots in Tiers 3 and 4, the CoD feature #1645 for Model S25 is required. ALMS a
required for any library with a Model S25 frame.

Model S55

TS4500 tape library Model S55 is a high-density, storage-only expansion frame that can contain up to 1,320 LTO Ultrium 6 cartridges in Model D55. The base capacity for a Model S55 frame consists of up to 660 storage slots available in Tiers 0, high-density capacity of up to 660 storage slots in Tiers 3, 4, and 5, the CoD feature #1646 for Model S55. ALMS and an e for any library with a Model S55 frame.

Top Rack Option Model 3584-TR1

The 3584 TS4500 tape library also offers an optional top rack to provide an additional 10U of rack space on any frame in a floor space. A top rack is installed by an IBM service representative on one or more frames in a TS4500 tape library. Top racks are required for both ends of one or more adjacent top racks. A power distribution unit, feature number 1751, can optionally

TS1060 Model F6C Ultrium 6 Tape drive

IBM TS1060 Model F6C is an IBM LTO Ultrium 6 Tape Drive designed for the heavy demands of backup and archive tape designed to mount in a TS4500 tape library and has an 8 Gbps Fibre Channel dual-ported interface for attachment to a wide select IBM Power Systems, IBM System i, IBM System p, IBM System x, IBM System z (zLinux), other servers running Linux and Windows operating system environments.

TS1060 Model F6C incorporates sixth-generation IBM LTO Ultrium technology. It offers the following significant improvements:

- **Increased performance:** Maximum tape drive throughput native data rate performance is up to 160 MB/sec. Data Transfer Rates: Tape Drives can read and write LTO Ultrium 5 Data Cartridges at Ultrium 5 capacities and rates, and read LTO Ultrium 6 Data Cartridges at Ultrium 6 capacities and rates.
Note: Although the Ultrium 6 Tape Drive provides the capability for excellent tape performance, other components can affect actual performance achieved. Although the compression technology used in the tape drive can typically double the amount of data stored on the media, the actual degree of compression achieved is highly sensitive to the characteristics of the data being stored.
- **Increased tape cartridge capacity:** The LTO Generation 6 media specification tape cartridge physical capacity is up to 6.25 TB native capacity, more than double that of the Ultrium 4 and 5 Data Cartridge. This is achieved by increasing the linear density of the tape. IBM Ultrium 6 tape itself is an advanced Barium Ferrite tape developed to help provide durability and increased capacity.
- **Encryption:** The IBM TS1060 LTO Ultrium 6 Tape Drive supports data encryption on the base drive with Ultrium 6 or LTO Ultrium 6 Library Managed Encryption and associated IBM Security Key Lifecycle Manager access are all available as a chargeable option (Library Managed Encryption) under the TS4500 Tape Library L-frames. IBM Security Key Lifecycle Manager is required for encryption.
- **Attachment options:** The TS1060 Tape Drive comes with 8 Gbps Fibre Channel dual-ported attachment models for connection to system servers. They are supported on a wide range of environments including select IBM Power Systems, IBM System i, IBM System p, IBM System x, IBM System z (zLinux), other servers running Linux, Oracle Solaris, and Microsoft Windows operating system environments.
- **WORM media support:** LTO Generation 6 with media specification provides up to 2.5 TB native capacity, up to 6.25 TB compressed capacity, and up to 160 MB/sec native data rate. IBM 3589 Ultrium 6 WORM Tape Cartridges are designed for archiving and data retention applications requiring an audit trail. These cartridges work with the IBM LTO Ultrium 6 Tape Drive to help prevent the alteration or deletion of data. Tape Cartridges can be ordered as unique 3589 models with the following features:
 - Prelabeling with the ability to specify a starting volume serial and color coding
 - Packaging in individual jewel cases or in bulk
 - Cartridge memory, built into every cartridge, enhances functionality and media reliability by storing access history information used by the tape drive every time the cartridge is accessed
 - Half-inch particle tape with up to 6.25 TB WORM compressed capacity in a single cartridge
- **Larger internal data buffer:** There is a 1 GB internal data buffer in the Ultrium 6 Tape Drive.
- **Digital speed matching:** The Ultrium 6 Tape Drive is designed to perform dynamic speed matching (at one of fourteen rates: 123.1, 113.8, 104.6, 95.4, 86.2, 76.9, 67.7, 58.5, 49.2 or 40.0 MB/s) to adjust the drive's native data rate as closely as possible to the data compressibility has been factored out). This helps reduce the number of backhitch repositions and improve throughput. Ultrium 6 ranges from 40 to 160 MB/sec versus 40 to 140 MB/sec on Ultrium 5.
- **Giant Magneto Resistive (GMR) head design:** Use of flat lap head technology in GMR heads from our Enterprise Tape Drive helps reduce contact, edge damage, debris accumulation, and wear on the tape as it moves over the read/write heads.
- **Dual-stage 16-channel head skew actuator:** The actuator is designed to provide precision head alignment to help ensure improved data integrity. Track following skew actuator supports flangeless tape guide rollers and dynamic skew to ensure proper tape alignment and improve linear actuation.
- **Power management:** The Ultrium 6 Tape Drive power management function is designed to control the drive electronics to a low-power mode when the circuit functions are not needed for drive operation. Improvements specifically in idle mode power consumption.
- **IBM LTFS partitioning support:** The principal function of the media partitioning is to allow for faster data access by splitting data into partitions. LTFS media partitioning is supported in the TS1060 Tape Drive, and LTFS LE, LTFS EE, and LTFS Storage are supported in the TS4500 Tape Library. WORM media cannot be partitioned.

IBM LTFS software leverages LTO6 tape partitioning. It is designed to enable a self-describing tape file format and to deliver solution without the use of additional database applications. Customers of IBM LTFS software are those who require a star and will use standalone IBM LTO6 tape drives. IBM LTFS is the perfect solution for those in the media and entertainment or massive data storage on tape for long retention periods, such as banking, scientific research, and government sectors. For operating systems, refer to the following website

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

IBM maintains the latest levels of tape drive and library device drivers and documentation on the Internet. Utilize the Fix Center following website

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

There are several menus to navigate to the correct download as follows:

1. On the first menu item Click **Select Product > Product Group > System Storage**
2. Expand **Select from System Storage > Tape Systems**
3. Expand **Select from Tape systems > Tape drivers and software**
4. Expand **Select from Tape drivers and software > user product**
5. Expand **Platform > user operating system**
6. Click **Continue** to view what drivers are available

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

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

IBM LTO Ultrium features enhanced in the IBM LTO Ultrium 6 Tape Drive include:

- **Independent tape loader and threader motors and positive pin retention:** These are designed to help improve the cartridge, and to retain the pin even if tension is dropped. An independent loader motor, coupled with positive pin retention, provides a higher level of reliability.
- **Graceful dynamic braking:** In the event of power failure, reel motors are designed to maintain tension and gradually helping reduce tape breakage, stretching, or loose tape wraps during a sudden power outage.
- **Servo and track layout technology:** There are 2,176 data tracks in Ultrium 6 versus 1,280 data tracks in Ultrium 5. The Ultrium 6 features a low-mass servo to help more effectively track servo bands and improve data throughput with damaged mechanical vibration environments.
- **Surface Control Guiding Mechanism:** The patented Surface Control Guiding Mechanism from IBM is designed to guide the Ultrium 6, 5, and 4 Tape Drives. This method uses the surface of the tape, rather than the edges, to control tape motion (especially to the edges of the tape) and tape debris, which comes from the damaged edges and can accumulate in the drive.
- **Robust drive components optimized for automation environments:** Using some of the most robust components and steel ball bearings in loader, robust leader block design, and a single circuit card, helps to enhance reliability and protect the drive.
- **Adaptive read equalization:** This feature is designed to automatically compensate for dynamic changes in readback.
- **Dynamic amplitude asymmetry compensation:** This feature optimizes readback signals for linear readback response.
- **Separate writing of multiple filemarks:** Separate writing of multiple filemarks is designed to cause any write comma separate data set to be written containing all filemarks after the first. This feature helps improve performance if a subset after the first filemark. A write of multiple filemarks typically indicates a point where an append operation might occur and change helps prevent having to rewrite datasets containing customer data and the first filemark, if such an append occurs.
- **LTO Data Compression (LTO-DC):** The Ultrium 6 uses LTO-DC, which is an implementation of a Lempel-Ziv class 1 LTO-DC is an extension of Adaptive Lossless Data Compression (ALDC) and an improvement over previous IBM loss Swapping compression, patented by IBM, is designed to look ahead at incoming data and determine the most efficient thru mode) to help provide optimal data compression and increase data throughput. The compression ratio for LTO Ultrium 6 is 2:1.
- **LTO Cartridge Memory (LTO-CM):** Contained within the LTO Ultrium data cartridge is the LTO-CM, which is a passive is a physical part of the cartridge. The LTO-CM is designed to hold information about that specific cartridge, the media media. The storage capacity of the Generation 6 LTO-CM is 16320 bytes, double the capacity of Generation 5 and 4 L between the drive and the LTO-CM is through a low-level RF field transmitted by the drive to the cartridge.
- **Statistical Analysis and Reporting System (SARS):** The Ultrium 6 Tape Drive uses SARS to help isolate failures by the cartridge performance history saved in the CM module and the drive performance history kept in the drive flash EEPROM cause of failure. SARS is designed to cause the drive to request a cleaner tape, to mark the media as degraded, and to degraded.
- **Highly integrated electronics using IBM-engineered copper technology:** This technology is designed to reduce the drive, help lower chip temperatures, and reduce power requirements to deliver a more reliable drive. The sixth-generation provide error correction of soft errors in the memory arrays in data and control paths.

With support for LTO Ultrium-format tape data cartridges, TS1060 Model F6C with the TS4500 Tape Library can be a cost-restore, and archiving functions.

Ultrium 6 Data Cartridge

The LTO Generation 6 media specification tape cartridge physical compressed capacity of the LTO 6 Data Cartridge has more than double the capacity of the LTO 5 Data Cartridge with a capacity of up to 6.25 TB with 2.5 to 1 compression. IBM LTO Ultrium 6 Tape Drives can read and write Ultrium 6 data cartridges, and read Ultrium 4 data cartridges. IBM LTO 6 cartridges can be resident in the same TS4500 Tape Library with Ultrium 4 cartridges. IBM LTO 6 data cartridges can be ordered using IBM machine type 3589, IBM LTO Ultrium Tape Cartridges.

These cartridges have been designed to provide several enhancements over previous tape technologies. They are designed for increased tape speeds and high-density data recording. The case is specially designed for use in automated libraries and in automated handling.

TS1050 Model F5C Ultrium 5 Tape drive

IBM TS1050 Model F5C is an IBM LTO Ultrium 5 Tape Drive designed for the heavy demands of backup and archive tape. It is designed to mount in a TS4500 Tape Library and has an 8 Gbps Fibre Channel dual-ported interface for attachment to a wide range of select IBM Power Systems, IBM System i, IBM System p, IBM System x, IBM System z (zLinux), other servers running Linux, Windows operating system environments.

TS1050 Model F5C incorporates fifth-generation IBM LTO Ultrium technology. It offers the following significant improvements:

- **Increased performance:** Maximum tape drive throughput native data rate performance is up to 140 MB/sec. Data rate performance of the TS1050 Tape Drive can read and write LTO Ultrium 4 Data Cartridges at Ultrium 4 capacities and rates, and read LTO Ultrium 5 Data Cartridges at Ultrium 5 capacities and rates.
Note: Although the Ultrium 5 Tape Drive provides the capability for excellent tape performance, other components can affect the actual performance achieved. Although the compression technology used in the tape drive can typically double the capacity of the media, the actual degree of compression achieved is highly sensitive to the characteristics of the data being stored on the media.
- **Increased tape cartridge capacity:** The LTO Generation 5 media specification tape cartridge physical capacity is up to more than double that of the Ultrium 4 and 5 Data Cartridge. This is achieved by increasing the linear density, track density, and track width. Ultrium 5 tape itself is an advanced Barium Ferrite tape developed to help provide durability and increased capacity.
- **Encryption:** The IBM TS1050 LTO Ultrium 5 Tape Drive supports data encryption on the base drive with Ultrium 5 media. Managed Encryption and associated IBM Security Key Lifecycle Manager access are all available as a chargeable license (IBM Security Key Lifecycle Manager is required with the TS1050 Tape Drive).
- **Attachment options:** The TS1050 Tape Drive comes with 8 Gbps Fibre Channel dual-ported attachment models for connection to a wide range of system servers. They are supported on a wide range of environments including select IBM Power Systems, IBM System i, IBM System p, IBM System z (zLinux), other servers running Linux, Oracle Solaris, and Microsoft Windows operating system environments.
- **WORM media support:** LTO Generation 5 with media specification provides up to 1.5 TB native capacity, up to 3.0 TB compressed capacity, and up to 140 MB/sec native data rate. IBM 3589 Ultrium 5 WORM Tape Cartridges are designed for archiving and data retention applications requiring an audit trail. These cartridges work with the IBM LTO Ultrium 5 Tape Drive to help prevent the alteration or deletion of data. Tape Cartridges can be ordered as unique 3589 models with the following features:
 - Prelabeling with the ability to specify a starting volume serial and color coding
 - Packaging in individual jewel cases or in bulk
 - Cartridge memory, built into every cartridge, enhances functionality and media reliability by storing access history and use by the tape drive every time the cartridge is accessed
 - Half-inch particle tape with up to 3.0 TB WORM compressed capacity in a single cartridge
- **Larger internal data buffer:** There is a 512 MB internal data buffer in the Ultrium 5 Tape Drive.
- **Digital speed matching:** The Ultrium 5 Tape Drive is designed to perform dynamic speed matching to adjust the drive speed to the net host data rate (after data compressibility has been factored out). This helps reduce the number of seeks and improves throughput performance. Speed matching is 40 to 140 MB/sec on Ultrium 5.
- **IBM LTFS partitioning support:** The principal function of the media partitioning is to allow for faster data access by segmenting the media into partitions. LTFS media partitioning is supported in the TS1050 Tape Drive, and LTFS LE, LTFS EE, and LTFS Storage are supported in the TS4500 Tape Library. WORM media cannot be partitioned.

The IBM LTFS software leverages LTO5 tape partitioning. It is designed to enable a self-describing tape file format and to provide a distribution solution without the use of additional database applications. Customers of IBM LTFS software are those who require a low cost and will use standalone IBM LTO5 tape drives. IBM LTFS is the perfect solution for those in the media and entertainment industries that need massive data storage on tape for long retention periods, such as banking, scientific research, and government sectors. For more information on supported operating systems, refer to the following website:

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

IBM maintains the latest levels of tape drive and library device drivers and documentation on the Internet. Utilize the Fix Center for the following website:

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

There are several menus to navigate to the correct download as follows:

1. On the first menu item Click **Select Product > Product Group > System Storage**
2. Expand **Select from System Storage > Tape Systems**
3. Expand **Select from Tape systems > Tape drivers and software**
4. Expand **Select from Tape drivers and software > user product**
5. Expand **Platform > user operating system**
6. Click **Continue** to view what drivers are available

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

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

IBM LTO Ultrium features enhanced in the IBM LTO Ultrium 5 Tape Drive include:

- **Independent tape loader and threader motors and positive pin retention:** These are designed to help improve the cartridge, and to retain the pin even if tension is dropped. An independent loader motor, coupled with the positive pin retention, provides a higher level of reliability.
- **Graceful dynamic braking:** In the event of power failure, reel motors are designed to maintain tension and gradually helping reduce tape breakage, stretching, or loose tape wraps during a sudden power outage.
- **Servo and track layout technology:** There are 1,280 data tracks in Ultrium 5. The high-bandwidth servo system effectively track servo bands and improve data throughput with damaged media in less-than-optimal shock and vibration.
- **Surface Control Guiding Mechanism:** The patented Surface Control Guiding Mechanism from IBM is designed to guide the tape in Ultrium 5 and 4 Tape Drives. This method uses the surface of the tape, rather than the edges, to control tape motion. This helps to control tape motion (especially to the edges of the tape) and tape debris, which comes from the damaged edges and can accumulate in the drive.
- **Robust drive components optimized for automation environments:** Using some of the most robust components and design, such as steel ball bearings in the loader, robust leader block design, and a single circuit card, helps to enhance reliability and performance.
- **Adaptive read equalization:** This feature is designed to automatically compensate for dynamic changes in readback signals.
- **Dynamic amplitude asymmetry compensation:** This feature optimizes readback signals for linear readback response.
- **Separate writing of multiple filemarks:** Separate writing of multiple filemarks is designed to cause any write comma to be written containing all filemarks after the first. This feature helps improve performance if a subset of data is written after the first filemark. A write of multiple filemarks typically indicates a point where an append operation might occur and helps prevent having to rewrite datasets containing customer data and the first filemark, if such an append occurs.
- **LTO-DC:** The Ultrium 5 uses LTO-DC, which is an implementation of a Lempel-Ziv class 1 (LZ-1) data compression algorithm, an improvement over previous IBM lossless compression algorithms. Scheme-Swapping compression, patented by IBM, examines incoming data and determine the most efficient storage method (either ALDC or pass-thru mode) to help provide optimal data throughput. The compression ratio for LTO Ultrium 5 is 2 to 1.
- **LTO-CM:** Contained within the LTO Ultrium data cartridge is the LTO-CM, which is a passive, contactless silicon storage module. The LTO-CM is designed to hold information about that specific cartridge, the media in the cartridge, and the capacity of the Generation 5 and 4 LTO-CM is 8160 bytes. Communication between the drive and the LTO-CM is through the drive to the cartridge.
- **SARS:** The Ultrium 5 Tape Drive uses SARS to help isolate failures between media and hardware. SARS uses the cartridge module and the drive performance history kept in the drive flash EEPROM to help determine the most likely cause of the drive to request a cleaner tape, to mark the media as degraded, and to indicate that the hardware has degraded.
- **Highly integrated electronics using IBM-engineered copper technology:** This technology is designed to reduce the size of the drive, help lower chip temperatures, and reduce power requirements to deliver a more reliable drive. The fifth-generation drive provides error correction of soft errors in the memory arrays in data and control paths.

With support for LTO Ultrium-format tape data cartridges, TS1050 Model F5C with the TS4500 Tape Library can be a cost-effective solution for backup, restore, and archiving functions.

Ultrium 5 Data Cartridge

The LTO Generation 5 media specification tape cartridge physical compressed capacity of the LTO 5 Data Cartridge has more than double the capacity of the IBM Ultrium 4 Data Cartridge with a capacity of up to 3.0 TB with 2 to 1 compression. IBM LTO Ultrium 5 Tape Drives can read and write Ultrium 3 data cartridges. IBM LTO 5 cartridges can be resident in the same TS4500 tape library with the Ultrium 4 LTO 5 data cartridges can be ordered using IBM machine type 3589, IBM LTO Ultrium Tape Cartridges.

These cartridges have been designed to provide several enhancements over previous tape technologies. They are designed to provide increased tape speeds and high-density data recording. The case is specially designed for use in automated libraries and in

handling.

TS1060 Model F6C and TS1050 Model F5C Tape Drive supports IBM LTFS partitioning which enables data to be written in data on another partition.

TS4500 features and functions

LTO tape drives

The TS4500 tape library supports LTO 5 and later LTO tape drives.

The LTO 5 and LTO 6 tape drives are dual-ported drives that facilitate 8 Gbps Fibre Channel connectivity. These drives are their machine type and model numbers. You can identify the LTO tape drives by the label at the rear of the drive's canister. compatible LTO drives are supported by the HD2 frames of the TS4500 tape library:

- IBM TS1060 Tape Drive (Model 3588 F6C)
- IBM TS1050 Tape Drive (Model 3588 F5C)

Note: Drive models 3588 F6A and 3588 F5A are not supported by the HD2 frames of the TS4500 tape library.

The LTO tape drives communicate with the TS4500 tape library through an internal Ethernet interface and use SARS to is hardware.

LTO tape drives read and write non-WORM media, so you can load WORM-capable firmware on your tape drives and use drives. In this case, only the data that is written on WORM media is treated as WORM data. Data that is written on other ty

LTO tape drives do not read from or write to 3592 tape cartridges, and 3592 tape drives do not read or write to LTO tape ca

The LTO tape drives can read tapes that were written by non-IBM LTO drives. They also write to tapes that can be read by

All supported generations of LTO tape drives and cartridges can reside in the same frame.

When a cartridge is labeled according to IBM bar code label specifications, the last character of its VOLSER number indic example, a cartridge with a VOLSER of 000764L6 is an LTO 6 cartridge and a cartridge with a VOLSER of 000764L5 is an

To enhance library performance, the LTO tape drives include speed matching, channel calibration, and power management the drive's native (uncompressed) data rate to the slower data rate of a server. Channel calibration customizes each read a performance. The customization enables compensation for variations in the recording channel transfer function, media cha characteristics. Power management reduces the drive's power consumption during idle power periods.

To ensure that your tape drive conforms to IBM specifications for reliability, use only IBM LTO tape cartridges.

Encryption

The LTO 5 and later LTO tape drives are encryption capable, which means they can convert data into a cipher for data sec must be encryption enabled by your selection of one of three methods of encryption management. Two of these methods, : encryption, require the purchase of feature number 1604 (LTO Library Managed Encryption). A key is required to encrypt a generated, maintained, controlled, and transmitted depends on the operating environment where the tape drive is installed are capable of performing key management. For an alternative solution, IBM provides a key manager that works in conjunc perform all necessary key management tasks. There is no recovery for lost encryption keys. Also refer to the IBM Encryptic Lifecycle Manager (formerly Tivoli Key Lifecycle Manager) publications.

3592 tape drives

The TS4500 tape library supports the TS1140 tape drive.

The TS1140 tape drive offers a dual-port Fibre Channel host attachment interface. This feature provides flexibility in open s drives can directly attach to Open Systems servers with Fibre Channel attachments. All TS1140 tape drives are encryption EH7) HD2-compatible 3592 tape drive is supported by the HD2 frames of the TS4500 tape library.

Note: Drive model 3592 E07 is not supported by the HD2 frames of the TS4500 tape library.

The 3592 tape drive communicates with the TS4500 tape library through an internal Ethernet interface and uses the SARS hardware.

The 3592 tape drives provide the following performance, capacity, and availability features:

- N+1 power supplies

- Speed matching
- High-resolution tape directory
- Channel calibration and dynamic adaptive equalization
- Recursive accumulating backhitchless flush
- Backhitchless backspace
- Capacity scaling
- WORM
- Capacity-based and position-based LEOT reporting
- Enhanced format for recording error-correction codes
- Drive mechanical and electrical reliability
- Data compression
- Data buffer with read ahead feature
- Offboard data string searching
- Encryption

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be re

http://www.ibm.com/able/product_accessibility/index.html

[↑ Back to top](#)

Product positioning

As you compare competitive tape solutions, consider:

- Library scalability, one base frame, up to 3 expansion frames, up to 16 tape drives per frame (up to 12 in frame 1) and
- Capacity, performance, and library management requirements
- Data integrity, reliability, and availability
- Storage usage and application requirements
- Affordability
- Loyalty to legacy or existing tape formats, including LTO and 3592 drive technology
- Server attachment and operating system support

The TS4500 tape library and related software applications excel in addressing these requirements and can constitute a fun incorporating LTO Ultrium and 3592 tape technology. You also gain flexibility of automated tape library management and ui

TS4500 tape library models are a smart choice for tape automation for IBM System i, IBM System p, or IBM System z prod systems. The TS4500 tape library utilizes the patented Multi-Path Architecture, designed to allow homogeneous or heteroc share the library robotics, with ALMS for storage slot pooling and flexible drive assignment.

The TS4500 tape library Base Frame Model L55 offers up to 882 (up to 730 in frame 1) slots for LTO Ultrium tape cartridge 1) IBM LTO Ultrium Fibre Channel Tape Drives. It is designed to provide excellent price and performance in the open syste automation requirements are satisfied by 1 to 16 drives or a library native capacity of up to 11.7 PB.

The TS4500 tape library Base Frame Model L25 offers up to 660 (up to 550 in frame 1) slots for 3592 tape cartridge media TS1140 Tape Drives, with a library native capacity of up to 14.2 PB. The TS1140 Tape Drives are designed to provide high open systems environments with tape drive flexibility to accommodate capacity, as well as fast access where these require

Up to 3 TS4500 tape library Expansion Frame 3584 Model D25 or D55 can be added to either Model L25 or L55. Model D2 3592 media (up to 590 in frame 1), and can contain up to 16 TS1140 Tape Drives (up to 12 in frame 1). Model D55 provide 774 in frame 1), and can contain up to 16 Ultrium Fibre Channel Tape Drives (up to 12 in frame 1). This can provide a total LTO Ultrium or TS1140 Tape Drives per library string.

The Model S25 HD frame provides storage for up to 1,000 3592 cartridges (up to 798 in frame 1), while the Model S55 HD LTO cartridges (up to 1054 in frame 1). This can provide a total TS4500 library capacity of up to 3,550 3592 cartridge slots capacity or with up to 4,690 LTO Ultrium cartridge slots holding up to 11.7 PB of native physical capacity.

The TS4500, part of a family of IBM tape products, can be the answer to growing storage requirements and shrinking back performance, automated tape backup, the TS4500 Tape Library constitutes an excellent tape storage solution.

If you have existing digital linear tape experience or require high-performance automated tape backup, the TS4500 tape lib storage solution. In addition to reading and writing on LTO Ultrium-format tape cartridges, the TS4500 tape drives provide : DLT/SDLT, 1/4-inch, 4mm, 8mm, or IBM Magstar MP 3570 tape drives.

For lower capacity requirements, a wide spectrum of tape libraries are available from the family of IBM Ultrium Tape product and requirements. Tape automation products to choose from include the IBM TS3310 Tape Library (up to 169.6 TB compressed 35.2 TB compressed), and IBM TS3100 Tape Library (up to 17.6 TB compressed).

[↑ Back to top](#)

Models

Model summary matrix

Model	Frame Definition	Tape Drive Types	Number of Frames per Library	Number of Drives
L25	Base frame for TS1140 (3592) drives and cartridges - includes 32 I/O slots	TS1140 (3592), LTO Ultrium 6, LTO Ultrium 5 tape drives	One base frame, up to 3 expansion frames	Up to 16 per frame Up to 60 per library
D25	Drive-capable and storage expansion (3592) drives and cartridges	TS1140 (3592), LTO Ultrium 6, LTO Ultrium 5 tape drives	One base frame, up to 3 expansion frames	Up to 16 per frame Up to 60 per library
S25	Storage-only expansion frame for TS1140 (3592) cartridges	TS1140 (3592), LTO Ultrium 6, LTO Ultrium 5 tape drives	One base frame, up to 3 expansion frames	Up to 16 per frame Up to 60 per library
L55	Base frame for LTO drives and cartridges - includes 38 I/O slots	TS1140 (3592), LTO Ultrium 6, LTO Ultrium 5 tape drives	One base frame, up to 3 expansion frames	Up to 16 per frame Up to 60 per library
D55	Drive-capable and storage expansion frame for LTO drives and cartridges	TS1140 (3592), LTO Ultrium 6, LTO Ultrium 5 tape drives	One base frame, up to 3 expansion frames	Up to 16 per frame Up to 60 per library
S55	Storage-only expansion frame for LTO cartridges	TS1140 (3592), LTO Ultrium 6, LTO Ultrium 5 tape drives	One base frame, up to 3 expansion frames	Up to 16 per frame Up to 60 per library

Customer setup (CSU)

No.

Devices supported

IBM provides device driver support for the LTO and 3592 tape drives, as well as the robotics in the TS4500 tape library. IBM drivers and driver documentation on the web. Go to

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

and perform the following steps in order to access this material.

From the Fix Central Web page, select System Storage from the Product Group list.

1. Select Tape Systems from the System Storage list.
2. Select Tape drivers and software from the Tape systems list.
3. Select Tape device drivers from the Tape drivers and software list.
4. Select the appropriate operating system from the Platform list and click Continue.
5. Select the appropriate driver from the list that displays.

For a complete description of the mtlib program and command syntax, see the IBM Tape Device Drivers Installation and User's Guide.

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

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

Communication with TSLM

The IBM Tape System Library Manager (TSLM) provides a resource management layer between applications such as Sec tape library hardware.

Model conversions

Not applicable.

Feature conversions

Not applicable.

[↑ Back to top](#)

Technical description

↓ [Physical specifications](#)

↓ [Operating environment](#)

↓ [Limitations](#)

↓ [Hardware requirements](#)

↓ [Software requirements](#)

IBM TS4500 is a highly scalable, stand-alone device that delivers high-density tape storage and high-performance, automatic environments. IBM TS4500 tape library consists of a high-density base frame with up to three high-density expansion frames.

The TS4500 tape library is built from a single frame model, called the base frame. The scalability of the library allows an infinite number of additional frames, called expansion frames. The frames join side by side and can grow to the left or to the right of the base frame. The single cartridge accessor.

The TS4500 tape library supports second-generation HD (HD2) frames, which like the first generation HD frames, offer increased frame size or required floor space by using high-density storage slots for tape cartridges. In addition, HD2 frames provide

- HD2 expansion frames can be installed in the leftmost position of the library (frame number 1)
- Drive-capable HD2 frames support up to 16 HD2-compatible tape drives when positioned at frame number 2 or higher

Note: Non-HD2 frames cannot be upgraded to HD2 frames.

The L25 and L55 (Lx5) frames and D25 and D55 (Dx5) frames are HD2, drive-capable frames, meaning they contain HD cartridge housings up to sixteen tape drives. The S25 and S55 (Sx5) frames are HD2, storage-only frames, meaning they contain HD cartridge drives. All HD frames provide internal LED lighting.

Note: The LED lighting in the HD frames is specifically designed for use only in the TS4500 tape library and is not

The TS4500 tape library supports IBM TS1060 LTO Ultrium 6, TS1050 LTO Ultrium 5, and IBM TS1140 Tape Drives. I/O stations to facilitate tape loading and unloading.

The TS4500 tape library is designed to deliver an excellent network data backup/archive solution. With the granularity and performance from a few servers to hundreds of clients, from gigabytes to terabytes, this powerful pairing can grow with you, helping to protect your data.

HD technology

The TS4500 tape library offers HD, drive-capable, and storage-only frame models that are designed to greatly increase storage size or required floor space.

HD slots contain tape cartridges in a tiered architecture. The cartridge immediately accessible in the HD slot is a Tier 1 cartridge. The maximum tier in an LTO HD slot is Tier 5. The maximum tier in a 3592 HD slot is Tier 4 because the 3592 tape cartridge is a Tier 4 cartridge. The single-deep slots on the door side of HD frames are referred to as Tier 0 slots.

HD2 frames can be installed in the leftmost library position (frame position 1) and offer drive-capable models that support up to 16 tape drives when in frame position 2 or higher.

Note: Non-HD2 frames cannot be upgraded to HD2 frames.

TS4500 tape library delivers high performance

The IBM TS1060 LTO Ultrium, IBM TS1050 LTO Ultrium Tape Drives, and TS1140 Tape Drives are designed for high performance operation. Automatic data caching, using an expanded cache memory and read/write buffering, helps enhance performance. The TS4500 tape library is designed for high data transfer performance.

Cartridge move time within the TS4500 tape library can be as fast as 3.0 seconds or less in a single-frame library. The dual robot retrieves the next cartridge to be mounted, unloads the current cartridge, and loads the next cartridge, helping provide the fastest move times.

- Save complete move operations
- Improve overall library performance
- Increase redundancy and reliability

TS4500 tape library defines high reliability

Leading-edge technology positions the TS1140, TS1060 LTO Ultrium, and TS1050 LTO Ultrium Tape Drives among the top performing tape drives. Recording is supported by an exclusive thin-film write module designed by IBM with read-after-write data verification. Data is written using Resistorless (MR) heads, designed for accuracy, high reliability, and durability. The TS4500 drives and library robotics are designed to prevent tape drive and library errors, and diagnostic reporting. Drive cleaning is an automatic function that can be performed without requiring operator intervention.

High granularity in library configurations

Features and capacities are designed to address a wide variety of customer requirements. You can attach up to three Model L25 or L55 base frame to tailor the library to match your system capacity and performance needs. This provides a choice of up to 4,690 cartridges with up to 11.7 PB of physical capacity per library (up to 29.3 PB with 2.5:1 compression) or up to 3,550 cartridges with up to 14.2 PB of physical capacity per library (up to 42.6 PB with 3:1 compression).

Model L25 (base frame)

TS4500 tape library Model L25 is a base frame designed for TS1140 or 3592 Tape Drives and 3592 data cartridges. The Model L25 has up to 550 cartridge slots (up to 550 in frame 1) and support for up to 16 tape drives (up to 12 in frame 1). Up to 16 logical libraries (one per tape drive) can be configured for each frame.

Each Model L25 library has two standard 16-slot cartridge I/O stations for importing or exporting 3592 tape cartridges from inventory. For bulk loading of tape cartridges, the library door can be opened. Each time the library door is closed, a bar code reader is designed to scan the cartridge labels enabling a re-inventory of the cartridges in the library frame in as little as 60 seconds. This provides physical access to cartridges in the library.

Model L55 (base frame)

TS4500 tape library Model L55 is a base frame designed for IBM TS1060 LTO Ultrium Fibre Channel, IBM TS1050 LTO Ultrium, and LTO data cartridges. The Model L55 base frame has up to 882 cartridge slots (up to 730 in frame 1) and support for up to 16 logical libraries (one per tape drive) can be configured for each frame.

Each Model L55 library has two standard 18-slot cartridge I/O stations for importing or exporting LTO tape cartridges from inventory. For bulk loading of tape cartridges, the library door can be opened. Each time the library door is closed, a bar code reader is designed to scan the cartridge labels enabling a re-inventory of the cartridges in the library frame in as little as 60 seconds. This provides physical access to cartridges in the library.

Model D25 (expansion frame)

The TS4500 tape library Model D25 expansion frame is designed for TS1140 or 3592 Tape Drives and 3592 data cartridge frames may be added to the TS4500 Model L25 base frame to increase 3592 cartridge storage or drive capacity. Each Model D25 has up to 590 cartridge slots (up to 590 in frame 1) and up to 16 3592 Tape Drives (up to 12 in frame 1). Each frame can have up to 16 logical libraries (one per tape drive).

Model D55 (expansion frame)

The TS4500 tape library Model D55 expansion frame is designed for IBM TS1060 LTO Ultrium Fibre Channel, IBM TS1050 LTO Ultrium, and LTO data cartridges. Up to three Model D55 expansion frames may be added to the TS4500 tape library Model L55 base frame to increase LTO cartridge storage or drive capacity. Each Model D55 supports up to 970 LTO cartridge slots (up to 774 in frame 1) and up to 16 logical libraries (one per tape drive).

Designed for availability

If you are looking to maximize availability with minimum downtime for service-related activities, you will appreciate that the drive configuration settings, such as Fibre Channel World Wide Node Names (WWNN), when a tape drive is replaced. This drive has the same WWNN as the original drive and may help avoid the need to re-IPL or reconfigure host systems. Fibre Channel is the individual drive. Redundant hot-swap library and drive power supplies can also be replaced while avoiding impact to hosts.

The TS4500 tape library includes an enhanced power architecture and frame control assembly. This enhanced power architecture has hot-swappable 2N power supplies and line cords. The enhanced frame control assembly includes features that were previously in the 3584 frame control assembly, including dual ac power, a Fibre Channel patch panel, additional redundant power supplies, and more.

Multi-Path support

The Multi-Path Architecture of the TS4500 tape library is designed to provide the capability for sharing of the library robotic resources into up to 60 multiple logical libraries (up to the number of drives installed), and providing each logical library its own set of storage slots, and control paths. I/O slots are shared on a first-come, first-served basis. This type of partitioning is designed to share the library robotics independent of each other. Cartridges under library control are not shared between logical libraries. An example of heterogeneous sharing is a Microsoft Windows 2003 application using the drive and storage of one logical library. A UNIX application uses the drive and slots of another logical library.

Logical libraries can also be used for separating Ultrium 6 Tape Drives and cartridges from Ultrium 5 Tape Drives and cartridges, for applications which do not support mixing the drives in the same logical library.

Advanced Library Management System (ALMS)

ALMS virtualizes the locations of cartridges in the TS4500 tape library and is an extension of patented IBM Multi-Path Architecture. The library is able to virtualize the locations of cartridges (called SCSI element addresses) while maintaining native SAN attach information. Logical libraries to consist of unique drives and ranges of volume serial (VOLSER) numbers instead of fixed locations.

The TS4500 tape library comes with ALMS so that you can immediately start assigning tape drives to any logical library by name. Logical libraries can also be added, deleted, or easily changed without disruption. Storage capacity can be changed without reformatting.

ALMS offers dynamic management of cartridges, cartridge storage slots, tape drives, and logical libraries. It enables the TS4500 to provide unprecedented levels of integration for functionality through dynamic partitioning, storage slot pooling, and flexible drive assignment. When you add Capacity On Demand (CoD) or High Density Capacity on Demand (HD CoD) storage, add or remove logical libraries, or change storage allocation. ALMS also reduces downtime when you add expansion frames, add or remove tape drives, or change logical library configurations.

ALMS provides the following capabilities:

- Dynamic partitioning through storage slot pooling and flexible drive assignment
- The transparent ability to add or remove storage capacity to any host application
- The ability to configure drives or to configure storage capacity without taking the library offline
- Continuously enabled virtual I/O slots to automatically manage the movement of cartridges between I/O slots and storage

Control path failover, data path failover, and load balancing

The path failover feature of the TS4500 tape library ensures the use of a redundant path in the event that communication with the library fails.

Command failures and time-outs are costly. You want your library to run smoothly and efficiently. To ensure continued processing, the TS4500 tape library offers path failover and load balancing capabilities that enable the IBM device driver to use an alternate path. The alternate path can include another host bus adapter (HBA), Storage Area Network (SAN), or library control path. Path failover and load balancing are enabled by using a purchased license key.

There are two types of path failover capabilities; control path failover (CPF) and data path failover (DPF). Control refers to the library control path (the SCSI Medium Changer command set on LUN 1 of the tape drives). Data refers to the command set that carries data between the application and the drives (the SCSI-3 Stream Commands (SSC) device on LUN 0 of the tape drives). Path failover refers to when there is redundancy in the intended target (the library accessor or the drive mechanism, respectively), the device driver transparently fails over to the active path.

Both types of failover include host-side failover when configured with multiple HBA ports into a switch, but CPF includes target-side failover that are enabled on more than one tape drive. DPF includes target-side failover for the dual-ported tape drives that are configured with multiple HBAs.

DPF includes load balancing of the HBAs because the channel is a data-intensive path. This means that the control path failover is not an issue. Dynamic load balancing support optimizes resources for devices that have physical connections to multiple HBAs. When an application opens a device that has multiple HBA paths configured, the device driver determines which path has the HBA usage and assigns that path to the application. When another application opens a different device with multiple HBA paths, the device driver again determines HBA usage and assigns that path to the second application. The device driver updates the usage on the HBA assigned to the first application when it is closed. Dynamic load balancing uses all HBAs whenever possible and balances the load between them to optimize the resource usage.

Fibre Channel connectivity

Tape drives in TS4500 tape library Models D25, D55, L25, and L55 are designed to connect to host systems using Fibre Channel Drive with a Fibre Channel interface or 3592 Tape Drive can be selected for attachment to host systems and servers utilizing Channel connection distances up to 500 meters are possible. By utilizing selected Fibre Channel switches, it is possible to

Storage-only expansion frame

TS4500 tape library Models S55 and S25 are driveless, storage-only expansion frames, with Model S55 designed to contain cartridges and Model S25 designed to contain up to 1,000 3592 tape cartridges. Model S55 offers a 3 to 1 increase in slot capacity over Model D25. Model S25 delivers a 2.5 to 1 increase in slot capacity over Model D25.

The TS4500 Model S55 can be attached to installed Model D55 and L55 with IBM TS1060, TS1050, or LTO Ultrium Tape Drive attached to Model D25 and L25 with Enterprise or 3592 Tape Drives.

The TS4500 Models S25 and S55 incorporate patented IBM HD slot technology, which allows multiple cartridges to be stored in a cartridge location in a high-density slot is known as a tier. Previous model frames supported only one cartridge per storage slot. Models S25 and S55 support multiple cartridges in Tiers 1 through 4 (Model S25) or Tiers 1 through 5 (Model S55).

The TS4500 tape library frames support HD CoD features (#1645 or #1646) that provide a license key to nondisruptively in-place upgrade. These advancements reduce automation floor space requirements, enhance library management, and provide flexibility, growth, and scalability across an enterprise or business installation.

The TS4500 tape library (machine type 3584) is part of the family of tape library storage solutions designed for the large, enterprise, and today's midrange to high-end systems. Each aspect of the subsystem is designed to optimize access to data and reliability. Models S55, S25, L55, L25, D55, D25, and L55 support IBM LTO Ultrium and Enterprise Tape Drives.

The TS4500 tape library includes support for HD2 expansion frames, Models S55 and S25, which are compatible with current and future tape drives. Models S55 and S25, are driveless, storage-only expansion frames, with Model S55 designed to contain up to 1,320 Ultrium (LTO) tape cartridges and Model S25 designed to contain up to 1,000 3592 tape cartridges. Model S55 offers a 3 to 1 increase in slot capacity over Model D55, and Model S25 offers a 2.5 to 1 increase in slot capacity over Model D25.

The TS4500 tape library is designed to provide an excellent network data backup/archive solution. With the granularity and flexibility of the TS4500 tape library, from a few servers to hundreds of clients, from gigabytes to petabytes, this powerful pairing can grow with you, helping to protect your data and simplify your backup/archive strategy.

Model S25

TS4500 tape library Model S25 is a high-density, storage-only expansion frame that can contain up to 1,000 3592 tape cartridges in Model D25. The base capacity for a Model S25 frame consists of up to 600 storage slots available in Tiers 0, 1, 2, and 3, and an additional high-density capacity of up to 400 storage slots in Tiers 3 and 4, the CoD feature #1645 for Model S25 is required. ALMS is required for any library with a Model S25 frame.

Model S55

TS4500 tape library Model S55 is a high-density, storage-only expansion frame that can contain up to 1,320 LTO Ultrium cartridges in the Model D55. The base capacity for a Model S55 frame consists of up to 660 storage slots available in Tiers 0, 1, 2, and 3, and an additional high-density capacity of up to 660 storage slots in Tiers 3, 4, and 5, the CoD feature #1646 for Model S55. ALMS is required for any library with a Model S55 frame.

Top Rack Option Model 3584-TR1

The 3584 TS4500 tape library also offers an optional top rack to provide an additional 10U of rack space on any frame in a floor space. A top rack is installed by an IBM service representative on one or more frames in a TS4500 tape library. Top racks are required for both ends of one or more adjacent top racks. A power distribution unit, feature number 1751, can optionally be installed on the top rack.

TS1060 Model F6C Ultrium 6 Tape drive

IBM TS1060 Model F6C is an IBM LTO Ultrium 6 Tape Drive designed for the heavy demands of backup and archive tape drives. It is designed to mount in a TS4500 tape library and has an 8 Gbps Fibre Channel dual-ported interface for attachment to a wide range of IBM Power Systems, IBM System i, IBM System p, IBM System x, IBM System z (zLinux), other servers running Linux or Windows operating system environments.

TS1060 Model F6C incorporates sixth-generation IBM LTO Ultrium technology. It offers the following significant improvements:

- **Increased performance:** Maximum tape drive throughput native data rate performance is up to 160 MB/sec. Data Transfer Rates: Tape Drives can read and write LTO Ultrium 5 Data Cartridges at Ultrium 5 capacities and rates, and read LTO Ultrium 6 Data Cartridges at Ultrium 6 capacities and rates.

Note: Although the Ultrium 6 Tape Drive provides the capability for excellent tape performance, other components must be configured to achieve the actual performance achieved. Although the compression technology used in the tape drive can typically double the capacity of the tape, the actual degree of compression achieved is highly sensitive to the characteristics of the data being stored on the media, the actual degree of compression achieved is highly sensitive to the characteristics of the data being stored on the media.

- **Increased tape cartridge capacity:** The LTO Generation 6 media specification tape cartridge physical capacity is up to 6.25 TB, more than double that of the Ultrium 4 and 5 Data Cartridge. This is achieved by increasing the linear density of the tape. IBM Ultrium 6 tape itself is an advanced Barium Ferrite tape developed to help provide durability and increased capacity.
- **Encryption:** The IBM TS1060 LTO Ultrium 6 Tape Drive supports data encryption on the base drive with Ultrium 6 or LTO Ultrium 6 Library Managed Encryption and associated IBM Security Key Lifecycle Manager access are all available as a chargeable option (Library Managed Encryption) under the TS4500 Tape Library L-frames. IBM Security Key Lifecycle Manager is required for encryption.
- **Attachment options:** The TS1060 Tape Drive comes with 8 Gbps Fibre Channel dual-ported attachment models for use with system servers. They are supported on a wide range of environments including select IBM Power Systems, IBM System z (zLinux), other servers running Linux, Oracle Solaris, and Microsoft Windows operating system environment.
- **WORM media support:** LTO Generation 6 with media specification provides up to 2.5 TB native capacity, up to 6.25 TB compressed capacity, and up to 120 MBps native data rate. IBM 3589 Ultrium 6 WORM Tape Cartridges are designed for archiving and data retention applications requiring an audit trail. These cartridges work with the IBM LTO Ultrium 6 Tape Drive to help prevent the alteration or deletion of data. Tape Cartridges can be ordered as unique 3589 models with the following features:
 - Prelabeling with the ability to specify a starting volume serial and color coding
 - Packaging in individual jewel cases or in bulk
 - Cartridge memory, built into every cartridge, enhances functionality and media reliability by storing access history and use by the tape drive every time the cartridge is accessed
 - Half-inch particle tape with up to 6.25 TB WORM compressed capacity in a single cartridge
- **Larger internal data buffer:** There is a 1 GB internal data buffer in the Ultrium 6 Tape Drive.
- **Digital speed matching:** The Ultrium 6 Tape Drive is designed to perform dynamic speed matching (at one of fourteen speeds: 123.1, 113.8, 104.6, 95.4, 86.2, 76.9, 67.7, 58.5, 49.2 or 40.0 MB/s) to adjust the drive's native data rate as closely as possible to the data compressibility has been factored out). This helps reduce the number of backhitch repositions and improve throughput. Ultrium 6 ranges from 40 to 160 MB/sec versus 40 to 140 MB/sec on Ultrium 5.
- **Giant Magneto Resistive (GMR) head design:** Use of flat lap head technology in GMR heads from our Enterprise Tape Drive helps reduce contact, edge damage, debris accumulation, and wear on the tape as it moves over the read/write heads.
- **Dual-stage 16-channel head skew actuator:** The actuator is designed to provide precision head alignment to help ensure improved data integrity. Track following skew actuator supports flangeless tape guide rollers and dynamic skew to enable and improve linear actuation.
- **Power management:** The Ultrium 6 Tape Drive power management function is designed to control the drive electronics in a low-power mode when the circuit functions are not needed for drive operation. Improvements specifically in idle mode.
- **IBM LTFS partitioning support:** The principal function of the media partitioning is to allow for faster data access by splitting data into partitions. LTFS media partitioning is supported in the TS1060 Tape Drive, and LTFS LE, LTFS EE, and LTFS Storage in the TS4500 Tape Library. WORM media cannot be partitioned.

IBM LTFS software leverages LTO6 tape partitioning. It is designed to enable a self-describing tape file format and to deliver a backup solution without the use of additional database applications. Customers of IBM LTFS software are those who require a standard backup solution and will use standalone IBM LTO6 tape drives. IBM LTFS is the perfect solution for those in the media and entertainment industries who require massive data storage on tape for long retention periods, such as banking, scientific research, and government sectors. For more information on operating systems, refer to the following website:

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

IBM maintains the latest levels of tape drive and library device drivers and documentation on the Internet. Utilize the Fix Center for the following website:

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

There are several menus to navigate to the correct download as follows:

1. On the first menu item Click **Select Product > Product Group > System Storage**
2. Expand **Select from System Storage > Tape Systems**
3. Expand **Select from Tape systems > Tape drivers and software**
4. Expand **Select from Tape drivers and software > user product**
5. Expand **Platform > user operating system**
6. Click **Continue** to view what drivers are available

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

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

IBM LTO Ultrium features enhanced in the IBM LTO Ultrium 6 Tape Drive include:

- **Independent tape loader and threader motors and positive pin retention:** These are designed to help improve the cartridge, and to retain the pin even if tension is dropped. An independent loader motor, coupled with positive pin retention, provides a higher level of reliability.
- **Graceful dynamic braking:** In the event of power failure, reel motors are designed to maintain tension and gradually helping reduce tape breakage, stretching, or loose tape wraps during a sudden power outage.
- **Servo and track layout technology:** There are 2,176 data tracks in Ultrium 6 versus 1,280 data tracks in Ultrium 5. The drive features a low-mass servo to help more effectively track servo bands and improve data throughput with damaged mechanical vibration environments.
- **Surface Control Guiding Mechanism:** The patented Surface Control Guiding Mechanism from IBM is designed to guide the Ultrium 6, 5, and 4 Tape Drives. This method uses the surface of the tape, rather than the edges, to control tape motion (especially to the edges of the tape) and tape debris, which comes from the damaged edges and can accumulate in the drive.
- **Robust drive components optimized for automation environments:** Using some of the most robust components available, such as steel ball bearings in loader, robust leader block design, and a single circuit card, helps to enhance reliability and protect the drive.
- **Adaptive read equalization:** This feature is designed to automatically compensate for dynamic changes in readback signal.
- **Dynamic amplitude asymmetry compensation:** This feature optimizes readback signals for linear readback response.
- **Separate writing of multiple filemarks:** Separate writing of multiple filemarks is designed to cause any write command to be written containing all filemarks after the first. This feature helps improve performance if a subsequent write occurs after the first filemark. A write of multiple filemarks typically indicates a point where an append operation might occur and helps prevent having to rewrite datasets containing customer data and the first filemark, if such an append occurs.
- **LTO Data Compression (LTO-DC):** The Ultrium 6 uses LTO-DC, which is an implementation of a Lempel-Ziv class 1 lossless data compression. LTO-DC is an extension of Adaptive Lossless Data Compression (ALDC) and an improvement over previous IBM lossless data compression. Swapping compression, patented by IBM, is designed to look ahead at incoming data and determine the most efficient compression mode to help provide optimal data compression and increase data throughput. The compression ratio for LTO Ultrium 6 is up to 2.5 to 1.
- **LTO Cartridge Memory (LTO-CM):** Contained within the LTO Ultrium data cartridge is the LTO-CM, which is a passive memory module. It is a physical part of the cartridge. The LTO-CM is designed to hold information about that specific cartridge, the media type, and the media capacity. The storage capacity of the Generation 6 LTO-CM is 16320 bytes, double the capacity of Generation 5 and 4 LTO-CM. The communication between the drive and the LTO-CM is through a low-level RF field transmitted by the drive to the cartridge.
- **Statistical Analysis and Reporting System (SARS):** The Ultrium 6 Tape Drive uses SARS to help isolate failures by analyzing the cartridge performance history saved in the CM module and the drive performance history kept in the drive flash EEPROM. SARS is designed to cause the drive to request a cleaner tape, to mark the media as degraded, and to report the degraded status.
- **Highly integrated electronics using IBM-engineered copper technology:** This technology is designed to reduce the size of the drive, help lower chip temperatures, and reduce power requirements to deliver a more reliable drive. The sixth-generation LTO Ultrium 6 Tape Drive provides error correction of soft errors in the memory arrays in data and control paths.

With support for LTO Ultrium-format tape data cartridges, TS1060 Model F6C with the TS4500 Tape Library can be a cost-effective solution for backup, restore, and archiving functions.

Ultrium 6 Data Cartridge

The LTO Generation 6 media specification tape cartridge physical compressed capacity of the LTO 6 Data Cartridge has more than double the capacity of the LTO 5 Data Cartridge with a capacity of up to 6.25 TB with 2.5 to 1 compression. IBM LTO Ultrium 6 Tape Drives can read and write LTO 6 data cartridges, and read Ultrium 4 data cartridges. IBM LTO 6 cartridges can be resident in the same TS4500 Tape Library with LTO 5 and LTO 4 cartridges. IBM LTO 6 data cartridges can be ordered using IBM machine type 3589, IBM LTO Ultrium Tape Cartridges.

These cartridges have been designed to provide several enhancements over previous tape technologies. They are designed for increased tape speeds and high-density data recording. The case is specially designed for use in automated libraries and for easy handling.

TS1050 Model F5C Ultrium 5 Tape drive

IBM TS1050 Model F5C is an IBM LTO Ultrium 5 Tape Drive designed for the heavy demands of backup and archive tape. It is designed to mount in a TS4500 Tape Library and has an 8 Gbps Fibre Channel dual-ported interface for attachment to a wide range of select IBM Power Systems, IBM System i, IBM System p, IBM System x, IBM System z (zLinux), other servers running Linux or Windows operating system environments.

TS1050 Model F5C incorporates fifth-generation IBM LTO Ultrium technology. It offers the following significant improvements:

- **Increased performance:** Maximum tape drive throughput native data rate performance is up to 140 MB/sec. Data transfer rates. LTO 6 Tape Drives can read and write LTO Ultrium 4 Data Cartridges at Ultrium 4 capacities and rates, and read LTO Ultrium 5 Data Cartridges at Ultrium 5 capacities and rates.

Note: Although the Ultrium 5 Tape Drive provides the capability for excellent tape performance, other components affect the actual performance achieved. Although the compression technology used in the tape drive can typically double the data stored on the media, the actual degree of compression achieved is highly sensitive to the characteristics of the data.

- **Increased tape cartridge capacity:** The LTO Generation 5 media specification tape cartridge physical capacity is up to more than double that of the Ultrium 4 and 5 Data Cartridge. This is achieved by increasing the linear density, track density, and track pitch. The Ultrium 5 tape itself is an advanced Barium Ferrite tape developed to help provide durability and increased capacity.
- **Encryption:** The IBM TS1050 LTO Ultrium 5 Tape Drive supports data encryption on the base drive with Ultrium 5 media Managed Encryption and associated IBM Security Key Lifecycle Manager access are all available as a chargeable license (IBM Security Key Lifecycle Manager Encryption) under the TS4500 Tape Library L-frames. IBM Security Key Lifecycle Manager is required with the TS1050 Tape Drive.
- **Attachment options:** The TS1050 Tape Drive comes with 8 Gbps Fibre Channel dual-ported attachment models for connecting to system servers. They are supported on a wide range of environments including select IBM Power Systems, IBM System z (zLinux), other servers running Linux, Oracle Solaris, and Microsoft Windows operating system environments.
- **WORM media support:** LTO Generation 5 with media specification provides up to 1.5 TB native capacity, up to 3.0 TB compressed capacity, and up to 3.0 TB native data rate. IBM 3589 Ultrium 5 WORM Tape Cartridges are designed for archiving and data retention applications requiring an audit trail. These cartridges work with the IBM LTO Ultrium 5 Tape Drive to help prevent the alteration or deletion of data. Tape Cartridges can be ordered as unique 3589 models with the following features:
 - Prelabeling with the ability to specify a starting volume serial and color coding
 - Packaging in individual jewel cases or in bulk
 - Cartridge memory, built into every cartridge, enhances functionality and media reliability by storing access history and use by the tape drive every time the cartridge is accessed
 - Half-inch particle tape with up to 3.0 TB WORM compressed capacity in a single cartridge
- **Larger internal data buffer:** There is a 512 MB internal data buffer in the Ultrium 5 Tape Drive.
- **Digital speed matching:** The Ultrium 5 Tape Drive is designed to perform dynamic speed matching to adjust the drive speed to the net host data rate (after data compressibility has been factored out). This helps reduce the number of seeks and improve throughput performance. Speed matching is 40 to 140 MB/sec on Ultrium 5.
- **IBM LTFS partitioning support:** The principal function of the media partitioning is to allow for faster data access by splitting data into partitions. LTFS media partitioning is supported in the TS1050 Tape Drive, and LTFS LE, LTFS EE, and LTFS Storage are supported on the TS4500 Tape Library. WORM media cannot be partitioned.

The IBM LTFS software leverages LTO5 tape partitioning. It is designed to enable a self-describing tape file format and to provide a distribution solution without the use of additional database applications. Customers of IBM LTFS software are those who require a low cost and will use standalone IBM LTO5 tape drives. IBM LTFS is the perfect solution for those in the media and entertainment industries that need massive data storage on tape for long retention periods, such as banking, scientific research, and government sectors. For more information on supported operating systems, refer to the following website:

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

IBM maintains the latest levels of tape drive and library device drivers and documentation on the Internet. Utilize the Fix Central website for the following website:

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

There are several menus to navigate to the correct download as follows:

1. On the first menu item Click **Select Product > Product Group > System Storage**
2. Expand **Select from System Storage > Tape Systems**
3. Expand **Select from Tape systems > Tape drivers and software**
4. Expand **Select from Tape drivers and software > user product**
5. Expand **Platform > user operating system**
6. Click **Continue** to view what drivers are available

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

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

IBM LTO Ultrium features enhanced in the IBM LTO Ultrium 5 Tape Drive include:

- **Independent tape loader and threader motors and positive pin retention:** These are designed to help improve the tape drive's reliability, and to retain the pin even if tension is dropped. An independent loader motor, coupled with the positive pin retention, helps provide a higher level of reliability.
- **Graceful dynamic braking:** In the event of power failure, reel motors are designed to maintain tension and gradually helping reduce tape breakage, stretching, or loose tape wraps during a sudden power outage.

- **Servo and track layout technology:** There are 1,280 data tracks in Ultrium 5. The high-bandwidth servo system effectively track servo bands and improve data throughput with damaged media in less-than-optimal shock and vibrati
- **Surface Control Guiding Mechanism:** The patented Surface Control Guiding Mechanism from IBM is designed to gu Ultrium 5 and 4 Tape Drives. This method uses the surface of the tape, rather than the edges, to control tape motion. (especially to the edges of the tape) and tape debris, which comes from the damaged edges and can accumulate in th
- **Robust drive components optimized for automation environments:** Using some of the most robust components a steel ball bearings in the loader, robust leader block design, and a single circuit card, helps to enhance reliability and p
- **Adaptive read equalization:** This feature is designed to automatically compensate for dynamic changes in readback
- **Dynamic amplitude asymmetry compensation:** This feature optimizes readback signals for linear readback respon
- **Separate writing of multiple filemarks:** Separate writing of multiple filemarks is designed to cause any write comma separate data set to be written containing all filemarks after the first. This feature helps improve performance if a subs after the first filemark. A write of multiple filemarks typically indicates a point where an append operation might occur a change helps prevent having to rewrite datasets containing customer data and the first filemark, if such an append oc
- **LTO-DC:** The Ultrium 5 uses LTO-DC, which is an implementation of a Lempel-Ziv class 1 (LZ-1) data compression al ALDC and an improvement over previous IBM lossless compression algorithms. Scheme-Swapping compression, pat at incoming data and determine the most efficient storage method (either ALDC or pass-thru mode) to help provide op data throughput. The compression ratio for LTO Ultrium 5 is 2 to 1.
- **LTO-CM:** Contained within the LTO Ultrium data cartridge is the LTO-CM, which is a passive, contactless silicon stora cartridge. The LTO-CM is designed to hold information about that specific cartridge, the media in the cartridge, and the capacity of the Generation 5 and 4 LTO-CM is 8160 bytes. Communication between the drive and the LTO-CM is throu the drive to the cartridge.
- **SARS:** The Ultrium 5 Tape Drive uses SARS to help isolate failures between media and hardware. SARS uses the ca CM module and the drive performance history kept in the drive flash EEPROM to help determine the most likely cause the drive to request a cleaner tape, to mark the media as degraded, and to indicate that the hardware has degraded.
- **Highly integrated electronics using IBM-engineered copper technology:** This technology is designed to reduce th drive, help lower chip temperatures, and reduce power requirements to deliver a more reliable drive. The fifth-generati provide error correction of soft errors in the memory arrays in data and control paths.

With support for LTO Ultrium-format tape data cartridges, TS1050 Model F5C with the TS4500 Tape Library can be a cost-restore, and archiving functions.

Ultrium 5 Data Cartridge

The LTO Generation 5 media specification tape cartridge physical compressed capacity of the LTO 5 Data Cartridge has m IBM Ultrium 4 Data Cartridge with a capacity of up to 3.0 TB with 2 to 1 compression. IBM LTO Ultrium 5 Tape Drives can r and read Ultrium 3 data cartridges. IBM LTO 5 cartridges can be resident in the same TS4500 tape library with the Ultrium LTO 5 data cartridges can be ordered using IBM machine type 3589, IBM LTO Ultrium Tape Cartridges.

These cartridges have been designed to provide several enhancements over previous tape technologies. They are design increased tape speeds and high-density data recording. The case is specially designed for use in automated libraries and i handling.

TS1060 Model F6C and TS1050 Model F5C Tape Drive supports IBM LTFS partitioning which enables data to be written ir data on another partition.

TS4500 features and functions

LTO tape drives

The TS4500 tape library supports LTO 5 and later LTO tape drives.

The LTO 5 and LTO 6 tape drives are dual-ported drives that facilitate 8 Gbps Fibre Channel connectivity. These drives are their machine type and model numbers. You can identify the LTO tape drives by the label at the rear of the drive's canister. compatible LTO drives are supported by the HD2 frames of the TS4500 tape library:

- IBM TS1060 Tape Drive (Model 3588 F6C)
- IBM TS1050 Tape Drive (Model 3588 F5C)

Note: Drive models 3588 F6A and 3588 F5A are not supported by the HD2 frames of the TS4500 tape library.

The LTO tape drives communicate with the TS4500 tape library through an internal Ethernet interface and use SARS to isc hardware.

LTO tape drives read and write non-WORM media, so you can load WORM-capable firmware on your tape drives and use drives. In this case, only the data that is written on WORM media is treated as WORM data. Data that is written on other ty

LTO tape drives do not read from or write to 3592 tape cartridges, and 3592 tape drives do not read or write to LTO tape ca

The LTO tape drives can read tapes that were written by non-IBM LTO drives. They also write to tapes that can be read by

All supported generations of LTO tape drives and cartridges can reside in the same frame.

When a cartridge is labeled according to IBM bar code label specifications, the last character of its VOLSER number indica example, a cartridge with a VOLSER of 000764L6 is an LTO 6 cartridge and a cartridge with a VOLSER of 000764L5 is an

To enhance library performance, the LTO tape drives include speed matching, channel calibration, and power managemen the drive's native (uncompressed) data rate to the slower data rate of a server. Channel calibration customizes each read & performance. The customization enables compensation for variations in the recording channel transfer function, media cha characteristics. Power management reduces the drive's power consumption during idle power periods.

To ensure that your tape drive conforms to IBM specifications for reliability, use only IBM LTO tape cartridges.

Encryption

The LTO 5 and later LTO tape drives are encryption capable, which means they can convert data into a cipher for data sec must be encryption enabled by your selection of one of three methods of encryption management. Two of these methods, : encryption, require the purchase of feature number 1604 (LTO Library Managed Encryption). A key is required to encrypt a generated, maintained, controlled, and transmitted depends on the operating environment where the tape drive is installed are capable of performing key management. For an alternative solution, IBM provides a key manager that works in conjunc perform all necessary key management tasks. There is no recovery for lost encryption keys. Also refer to the IBM Encryptio Lifecycle Manager (formerly Tivoli Key Lifecycle Manager) publications.

3592 tape drives

The TS4500 tape library supports the TS1140 tape drive.

The TS1140 tape drive offers a dual-port Fibre Channel host attachment interface. This feature provides flexibility in open s drives can directly attach to Open Systems servers with Fibre Channel attachments. All TS1140 tape drives are encryption EH7) HD2-compatible 3592 tape drive is supported by the HD2 frames of the TS4500 tape library.

Note: Drive model 3592 E07 is not supported by the HD2 frames of the TS4500 tape library.

The 3592 tape drive communicates with the TS4500 tape library through an internal Ethernet interface and uses the SARS hardware.

The 3592 tape drives provide the following performance, capacity, and availability features:

- N+1 power supplies
- Speed matching
- High-resolution tape directory
- Channel calibration and dynamic adaptive equalization
- Recursive accumulating backhitchless flush
- Backhitchless backspace
- Capacity scaling
- WORM
- Capacity-based and position-based LEOT reporting
- Enhanced format for recording error-correction codes
- Drive mechanical and electrical reliability
- Data compression
- Data buffer with read ahead feature
- Offboard data string searching
- Encryption

Physical specifications

Height and length of the frames of the library

This section provides the height of TS4500 tape library frames to help plan for shipment and installation.

Each frame of the TS4500 tape library has a set of casters and four leveling jackscrews. The casters and leveling jackscrews affect its height.

- The nominal height from the bottom of the jackscrews to the top of the frame is 1840 mm (72.4 in). This height can vary.
- The shipping height of the library (on its casters and with jackscrews raised and not including the pallet) is 1800 mm (70.9 in).
- The height of a frame with a top rack is 2320 mm (91.34 in).

The physical specifications by frame model provide detailed information about the height and weight of frames in various configurations for planning for TS4500 tape library in your data storage environment.

Physical characteristics of the TS4500 tape library, Models L25 and D25

- Height of L25 and D25 frames (on casters) 1800 mm (70.9 in)
- Height of L25 and D25 frames with top rack 2320 mm (91.34 in)
- Width of L25 frame with covers 782 mm (30.8 inches)
- Width of L25 or D25 frame without covers(2) 725 mm (28.5 in)
- Depth of L25 or D25 frame (including front and rear doors) 1212 mm (47.72 in)
- Minimum weight of frame (with no tape drives or cartridges)(5):
 - Model L25 in Position 1 (Leftmost frame) 407.8 kg (899 lb)
 - Model D25 in Position 1 (Leftmost frame) 310.7 kg (685 lb)
 - Model L25 in Position 2+ 407.8 kg (899 lb)
 - Model D25 in Position 2+ 310.7 kg (685 lb)
- Maximum weight of frame (with maximum tape drives and cartridges) (3)(4)(5):
 - Model L25 in Position 1 (Leftmost frame) 586.5 kg (1293 lb)
 - Model D25 in Position 1 (Leftmost frame) 500 kg (1103 lb)
 - Model L25 in Position 2+ 630.5 kg (1390 lb)
 - Model D25 in Position 2+ 552.5 kg (1218 lb)
- Weight of top rack (empty)(1) 24.5 kg (54 lb)

Note: (1) A top rack can optionally be installed on any HD2 frame. Side panels and PDUs are also optional. Each side panel adds 12.25 kg (27 lb).

Note: (2) Frame width only. Extra inter-frame spacing of 30 mm (1.2 in) is required.

Note: (3) The weight with drives and cartridges assumes a weight of 3.97 kg (8.75 lb) for a 3592 EH7 tape drive and 0.24 kg (0.5 lb) for a cartridge. The actual weight of the frame varies, depending on the configuration and cartridge capacity. Listed weights are plus or minus 0.5 kg (1 lb).

Note: (4) Frames in position 1 (the leftmost frame in a library string) can have a maximum of 12 tape drives and 550 (L25) or 590 (D25) cartridges.

Note: (5) Weights listed for the Lx5 frames include the accessor, IMC, side doors and side panels. After the initial library installation, the weight of the frames within the library string, which shifts some of the weight to other frames.

Physical characteristics of the TS4500 tape library, Models L55 and D55

- Height of L55 and D55 frames (on casters) 1800 mm (70.9 in)
- Height of L55 and D55 frames with top rack 2320 mm (91.34 in)
- Width of L55 frame with covers 782 mm (30.8 inches)
- Width of L55 or D55 frame without covers(2) 725 mm (28.5 in)
- Depth of L55 or D55 frame (including front and rear doors) 1212 mm (47.72 in)
- Minimum weight of frame (with no tape drives or cartridges)(5):
 - Model L55 in Position 1 (Leftmost frame) 410 kg (904 lb)
 - Model D55 in Position 1 (Leftmost frame) 316 kg (697 lb)
 - Model L55 in Position 2+ 410 kg (904 lb)
 - Model D55 in Position 2+ 316 kg (697 lb)
- Maximum weight of frame (with maximum tape drives and cartridges) (3)(4)(5):
 - Model L55 in Position 1 (Leftmost frame) 592 kg (1305 lb)

- Model D55 in Position 1 (Leftmost frame) 503.5 kg (1110 lb)
- Model L55 in Position 2+ 637 kg (1404 lb)
- Model D55 in Position 2+ 557 kg (1228 lb)
- Weight of top rack (empty)(1) 24.5 kg (54 lb)

Note: (1) A top rack can optionally be installed on any HD2 frame. Side panels and PDUs are also optional. Each side panel adds 11.3 kg (25 lb).

Note: (2) Frame width only. Additional interframe spacing of 30 mm (1.2 in) is required.

Note: (3) The weight with drives and cartridges assumes a weight of 3.29 kg (7.25 lb) for an LTO 5 or LTO 6 tape drive and 0.2 kg (0.44 lb) for a standard 3592 tape cartridge. The actual weight of the frame varies, depending on the configuration and cartridge capacity. Listed weights are plus or minus 2.3 kg (5 lb).

Note: (4) Frames in position 1 (the leftmost frame in a library string) can have a maximum of 12 tape drives and 730 (L55) or 774 (D55) cartridges. Frames in position 2+ can accommodate 16 tape drives and 882 (L55) or 970 (D55) cartridges.

Note: (5) Weights listed for the Lx5 frames include the accessor, IMC, side doors and side panels. After the initial library installation, the weight of the frames within the library string, which shifts some of the weight to other frames.

Physical characteristics of the TS4500 tape library, Model S25

- Height of S25 frame (on casters) 1800 mm (70.9 in)
- Height of S25 frame with top rack 2320 mm (91.34 in)
- Width of S25 frame with covers 782 mm (30.8 in)
- Width of S25 frame without covers(1) 725 mm (28.5 in)
- Depth of S25 frame (including front and rear doors) 1212 mm (47.7 in)
- Minimum weight of frame (0 cartridges):
 - Model S25 in Position 1 (Leftmost frame) 299 kg (660 lb)
 - Model S25 in Position 2+ 299 kg (660 lb)
- Maximum weight of frame (with 0 drives and maximum cartridges)(3)(4):
 - Model S25 in Position 1 (Leftmost frame) 491.2 kg (1083 lb)
 - Model S25 in Position 2+ 540.2 kg (1191 lb)
- Weight of top rack (empty)(2) 24.5 kg (54 lb)

Note: (1) Frame width only. Additional interframe spacing of 30 mm (1.2 in) is required.

Note: (2) A top rack can optionally be installed on any HD2 frame. Side panels and PDUs are also optional. Each side panel adds 11.3 kg (25 lb).

Note: (3) The weight with cartridges assumes a weight of .24 kg (0.5 lb) for a standard 3592 tape cartridge. The actual weight of the frame varies, depending on the configuration and cartridge capacity. Listed weights are plus or minus 2.3 kg (5 lb).

Note: (4) Frames in position 1 (the leftmost frame in a library string) can have a maximum of 798 cartridges. Frames in position 2+ can accommodate 16 tape drives and 882 (L55) or 970 (D55) cartridges.

Physical characteristics of the TS4500 tape library, Model S55

- Height of S55 frame (on casters) 1800 mm (70.9 in)
- Height of S55 frame with top rack 2320 mm (91.34 in)
- Width of frame with covers 782 mm (30.8 in)
- Width of frame without covers(1) 725 mm (28.5 in)
- Depth of S55 frame (including front and rear doors) 1212 mm (47.7 in)
- Minimum weight of frame (with 0 cartridges):
 - Model S55 in Position 1 (Leftmost frame) 304 kg (670 lb)
 - Model S55 in Position 2+ 304 kg (670 lb)
- Maximum weight of frame (with 0 drives and maximum cartridges)(3)(4):
 - Model S55 in Position 1 (Leftmost frame) 509.4 kg (1123 lb)
 - Model S55 in Position 2+ 564 kg (1244 lb)
- Weight of top rack (empty)(2) 24.5 kg (54 lb)

Note: (1) Frame width only. Additional interframe spacing of 30 mm (1.2 in) is required.

Note: (2) A top rack can optionally be installed on any HD2 frame. Side panels and PDUs are also optional. Each side panel adds 11.3 kg (25 lb).

Note: (3) The weight with cartridges assumes a weight of .2 kg (0.44 lb) for a standard LTO tape cartridge. The actual weight of the frame varies, depending on the configuration and cartridge capacity. Listed weights are plus or minus 2.3 kg (5 lb).

configuration and cartridge capacity. Listed weights are plus or minus 2.3 kg (5 lb).

Note: (4) Frames in position 1 (the leftmost frame in a library string) can have a maximum of 1054 cartridges. Frames in position 2 through 4 can have a maximum of 1053 cartridges.

Operating environment

- Equipment environment specifications for the IBM TS4500 tape library
 - Temperature: 15 to 32 degrees C (60 to 90 degrees F)
 - Relative humidity: 20 to 80 percent non-condensing
 - Electrical power: 5.1 amps at 200-240 V ac, 1.1 kVA (max per frame)

The TS4500 tape library is classified as a Category 1 product as defined in C-S 1-1710-006. The following table shows the sound power levels (at recommended ambient temperature):

- Sound power level (LwAd):
 - Operating: 7.5 bels

For more information and documentation, refer to TS4500 Knowledge Center at

http://www.ibm.com/support/knowledgecenter/STQRQ9/ts4500_kcwelcome.html

Homologation

The TS4500 non-broadband Call Home option (#2735) are qualified for use in the following countries:

Abu Dhabi City, Afghanistan, Albania, Andorra, Angola, Anguilla, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Bangladesh, Barbados, Belarus, Belize, Bermuda, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, British Virgin Island, Chile, China CCC, China NALTE, Colombia, Congo (Republic of the), Croatia, Dominica, Dominican Republic, Ecuador, El Salvador, Equatorial Guinea, Faroe Islands, Federated States of Micronesia, Fiji, French Polynesia, Georgia, Gibraltar, Greenland, Guatemala, Guyana, Honduras, Hong Kong, India, Indonesia, Isle of Man, Israel, Jamaica, Japan, Jersey, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Lebanon, Lesotho, Macedonia, Malaysia, Mauritius, Mexico, Montenegro, Monaco, Montserrat, Morocco (Western Sahara), Netherlands Antilles, Nepal, New Caledonia, New Zealand, Nicaragua, Nigeria, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Saint Lucia, Saint Kitts and Nevis, Saint Pierre and Miquelon, Saint Vincent and the Grenadines, San Marino, Saudi Arabia, Senegal, South Africa, Suriname, Swaziland, Taiwan, Tajikistan, Thailand, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands, United States, Uruguay, Uzbekistan, Vatican City, Venezuela, Vietnam, Wallis and Futuna, and Zimbabwe.

EEA = EU and EFTA: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

Overseas areas part of EU: Portugal: Azores, Madeira, Spain: Canarias,

France: Guyane, Guadeloupe, Martinique, Mayotte, and Reunion.

USA includes US Territories: American Samoa, Baker Island, Guam, the Commonwealth of the Northern Mariana Islands, Johnston Atoll, Kingman Reef, Midway Islands, Navassa Islands, Palmyra, Puerto Rico, US Virgin Islands, and Wake Island.

Limitations

- The TS4500 tape library supports a mixture of LTO drive types in a logical library, but it does not support a mixture of LTO and QIC drive types. Some ISVs support mixed drive types within logical libraries; others do not. Some ISVs that support mixed drive types may require specific configuration details, contact your ISV.
- For situations where the ISV support does not exist or does not meet your requirements, the TS4500 tape library provides a workaround by partitioning the tape drives into separate logical libraries. You can customize the partition to any number of drives.
- Although the compression technology can increase the amount of data stored on the media, the actual degree of compression is dependent on the characteristics of the data being compressed.
- Fibre Channel cable lengths are limited to 500 meters (1,650 ft).
- Although multiple systems may be attached to a tape drive, the systems cannot use the drive simultaneously.
- 3584-TR1 (Top Rack Option) cannot be ordered for frames with the shuttle Tape Library Connector Model SC1.
- Under-floor power and data connections to the 3584-TR1 cannot be routed through a single-frame TS3500 or TS4500. Under-floor power and data connections to the 3584-TR1 can be routed between frames in the TS4500 tape library.
- Feature #0983 is not available in India.

Hardware requirements

The TS4500 tape library can be attached to select IBM Power Systems, IBM System i, IBM System p, IBM System x, and IBM System z servers, IBM Solaris SPARC, and Microsoft Windows servers supporting Fibre Channel interfaces.

One base frame and up to three expansion frame Models D25, D55, S25, or S55 can be added as active frames to either Model L25 or L55 designed to provide up to 1,000 cartridge slots for 3592 media, while Model D25 provides up to 740 cartridge slots for 3592 media, while Model D55 provides up to 1,320 cartridge slots for LTO media, while Model D55 provides up to 970 cartridge slots LTO media.

Model D55 and L55 can contain up to 16 IBM TS1060 or TS1050 LTO Ultrium Fibre Channel Tape Drives per frame. Model L25 and L55 can contain up to 16 IBM TS1140 Tape Drives per frame. The TS1140 Model EH7 Tape Drives have a 8-Gbps dual-ported Fibre Channel interface.

The cartridge storage capacity of the TS4500 can be expanded with the HD CoD features for licensing additional library capacity expansion frame Models D25, D55, S25, or S55.

The TS4500 tape library can be attached to select IBM System i, IBM System p, or IBM System z products, and xSeries, C-Series, and zSeries servers that support Fibre Channel interfaces.

The TS4500 tape library is supported by a wide variety of servers, operating systems, and adapters. There are many ways that support the TS4500 tape library. These attachments can change throughout the lifecycle of the product. To determine a comprehensive list of compatible software, perform one of the following actions:

For a list of compatible software, operating systems, and servers for LTO tape drives, visit

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

1. On menu item Click **IBM TS4500 Tape Library > Product details**
2. Click **Learn more > Interoperability matrix**
3. Click **Learn more > Independent Software Vendor (ISV) matrix for LTO**

For a list of compatible software, operating systems, and servers for 3592 tape drives, visit

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

1. Click **user tape drive > Product details**
2. Click **Learn more > Interoperability matrix**
3. Click **Learn more > Independent Software Vendor (ISV) matrix**

One First Expansion Frame Attachment feature (#9002) or one Additional Expansion Frame Attachment feature (#9003) must be installed on L25 or L55 for each Model D25, D55, S25, or S55 expansion frame that is attached. This assures the proper cables are shipped. Up to three Model D25, D55, S25, or S55 expansion frames can be attached to Model L25 or L55, for a total of four frames.

The cartridge storage capacity of Model L25 or L55 can be expanded by enabling the CoD features in that frame. An Interruption is required to add a Base Capacity feature (#1644). The Base Capacity feature (#1644) is required to attach an optional expansion frame S55.

When the total number of frames in the TS4500 tape library coming from the plant is going to number three to four frames, be shipped with the library.

When frames are added to the library as a field upgrade, a new X-Track Cable may be required according to the following information:

Installed frame qty	New frame qty	X-Track Cable feature number required
1 - 2	3 - 6	1806

When frames are removed from the library, a new X-Track Cable is required according to the following information:

Installed frame qty	New frame qty	X-Track Cable feature number required
3 - 6	1 - 2	1802

TS4500 tape library Models D55 and L55

The TS4500 tape library Models D55 or L55 can contain a maximum of 16 IBM TS1060 or TS1050 LTO Ultrium Fibre Channel up to 60 per library string. The TS1060 or TS1050 Tape Drive must be ordered separately, and is designed for customer selection. The following features should be ordered on the library frame into which a TS1060 or TS1050 (3588) Tape Drive is installed:

- 9690 - 3588/3592 drive field install - one feature should be ordered on the library frame coming from the plant for each that frame
- 9697 - 3588 F6A/F6C tape drive - plant install - one feature should be ordered on both the tape drive and library frame drive that will be installed in that frame by the plant
- 9695 - 3588 F5A/F5C tape drive - plant install - one feature should be ordered on both the tape drive and library frame drive that will be installed in that frame by the plant

If a drive mounting kit feature is not ordered on the Model D55 or L55, then #9001 Driveless Frame feature must be specified. Cord feature number, if applicable, should also be specified. Labeled or bulk quantities of LTO cartridges can be ordered through distributors. Refer to the **Supplies** section for additional information.

Note: The TS4500 tape library requires that cartridges have appropriate bar code labels.

A Quad Drive Mounting Kit feature (#1521, #1522, #1523, #1524) is required for installing each set of up to four TS1060 M Tape Drives in a TS4500 tape library Model L55 or D55 frame:

- 1521 - 1st TS4500 Quad Drive Mounting Kit
- 1522 - 2nd TS4500 Quad Drive Mounting Kit
- 1523 - 3rd TS4500 Quad Drive Mounting Kit
- 1524 - 4th TS4500 Quad Drive Mounting Kit

TS4500 tape library Models D25 and L25

The TS4500 tape library Models D25 or L25 can contain a maximum of 16 of the TS1140 Tape Drive Model EH7 or the TS1150 Tape Drive Model EH8 for a total of up to 60 TS1140 or TS1150 Tape Drives per library string. The TS1140 Tape Drive Model EH7 and the TS1150 Tape Drive Model EH8 offer a dual-port 8-Gbps Fibre Channel interface for redundancy.

A 3592 Quad Drive Mounting Kit feature is required for installing each set of up to four TS1140 Model EH7 or TS1150 Model EH8 Tape Drives in a TS4500 tape library Model D25 or L25 frame:

- 1521 - 1st TS4500 Quad Drive Mounting Kit
- 1522 - 2nd TS4500 Quad Drive Mounting Kit
- 1523 - 3rd TS4500 Quad Drive Mounting Kit
- 1524 - 4th TS4500 Quad Drive Mounting Kit

The TS1140 Model EH7 Tape Drive or the TS1150 Model EH8 Tape Drive must be ordered separately, and is installed in a library frame. The following feature numbers:

- 9690 - 3588/3592 drive field install
- 9692 - 3592 E07/EH7 tape drive - plant install
- 9699 - 3592 E08/EH8 tape drive - plant install

If one of these drive features is not on the Model D25 or L25, then #9001 Driveless Frame feature must be specified on the library frame. The feature number should also be specified.

Labeled or initialized 3592 Tape Cartridges can be ordered using machine 3599. Refer to the **Supplies** section for additional information.

Note: The TS4500 tape library requires that cartridges have appropriate bar code labels.

Cables: Cables are required to attach tape drives in the TS4500 tape library to each server connection, up to the number of connections. If host attachment cables are required to be shipped with TS4500 frame from the plant, then the No Host/SAN Cable from Plant should be ordered on the frame. Otherwise, one or more of the following Fibre Channel cables should be specified on the frame.

Fibre Channel cables: Fibre Channel technology combines the best features of traditional input/output interfaces such as SCSI and Programmed Control Interrupt, with the best features of networking interfaces such as the connectivity and scalability of Ethernet. Fibre Channel technology offers a transport mechanism for delivering commands and provides high performance by allowing processing of large data blocks.

You can establish Fibre Channel connections between Fibre Channel ports that reside in the TS4500 tape library, one or more tape drives, and host adapters. The network can consist of such elements as switches, hubs, bridges, and repeaters used in the interconnectivity.

Features available for Fibre Channel cables, and their respective lengths, are available with the following feature numbers:

- 6013 - 13 m LC-LC Fibre Channel Cable
- 6025 - 25 m LC-LC Fibre Channel Cable
- 6061 - 61 m LC-LC Fibre Channel Cable
- AGK1 - 10 meter OM3 fiber Cable (LC)
- AGK2 - 25 meter OM3 fiber Cable (LC)
- AGK3 - 80 meter OM3 fiber Cable (LC)

Software requirements

LTO Ultrium or Enterprise Tape Drives in the TS4500 tape library

For the latest supported hardware interoperability configurations, refer to the Interoperation Center website

<http://www.ibm.com/systems/support/storage/config/ssic/>

The installation of a TS4500 or 3584 Tape Library may require code updates for supported open systems device drivers or According to the **Solutions Assurance Product Review (SAPR) Guide**, the account team or Business Partner should ensure support levels required for their particular software environment prior to the installation of the TS1140. A Solutions Assurance installation of the first TS1140 in an account.

Security Key Lifecycle Manager and other industry-leading compatible software offerings provide storage and tape management type 3584). Supporting software and applications must be obtained separately from IBM, IBM Business Partners, or ISVs. For more information from your IBM representative at

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

The **IBM Tape Device Drivers Installation and User's Guide** can be found at

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

Application software

Security Key Lifecycle Manager and other industry-leading compatible software offerings provide storage and tape management EH7. Supporting software and applications must be obtained separately from IBM, IBM Business Partners, or independent compatible software and additional information, refer to the TS1140 Model EH7 ISV Matrix at

<http://www.ibm.com/servers/storage/tape/3592>

For a list of compatible software, operating systems, and servers for LTO tape drives, visit

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

1. On menu item Click **IBM TS4500 Tape Library > Product details**
2. Click **Learn more > Interoperability matrix**
3. Click **Learn more > Independent Software Vendor (ISV) matrix for LTO**

For a list of compatible software, operating systems, and servers for 3592 tape drives, visit

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

1. Click **user tape drive > Product details**
2. Click **Learn more > Interoperability matrix**
3. Click **Learn more > Independent Software Vendor (ISV) matrix**

For complete IBM storage interoperability information, including operating systems, servers, switches, and adapters support configuration, visit the IBM Interoperation Center (SSIC) at

<http://www-03.ibm.com/systems/support/storage/ssic/interoperability.wss>

[↑ Back to top](#)

Publications

The following publications are shipped with the product. Additional copies are available. To order, contact your IBM representative

Title

IBM TS4500 Lx5 Base Frame Installation Roadmap, SC27-5987

IBM TS4500 Product Information CD

The following publications will be available at

<http://www-05.ibm.com/e-business/linkweb/publications/servlet/pbi.ws>

Title	Order number
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IBM TS4500 Introduction and Planning Guide	SC27-5990

The following device driver publication is also available at

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

Title	Order number
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IBM Tape Device Drivers Installation and User's Guide	GC27-2130

TS4500 Knowledge Center

http://www-01.ibm.com/support/knowledgecenter/STQRQ9/com.ibm.storage.ts4500.doc/ts4500_ichome.html

[↑ Back to top](#)

Features

↓ [Features - No charge](#)

↓ [Feature descriptions](#)

↓ [Features - Chargeable](#)

Features - No charge

Description	Machine type	Model	Feature number	Plant/Field Install
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TAA Compliance	3584	D25	0983	Plant
US RoHS Indicator			1776	Plant
OEM - No IBM Logo			7703	Plant
Bull OEM Logo			7704	Plant
Driveless Frame			9001	Both
Flex Track Guide Expansion			9072	Plant
3 Phase PDU Capable			9073	Plant
Gen-3 Frame			9074	Plant
3588/3592 Field Install			9690	Both
3592 E07/EH7 Plant Install			9692	Plant
3592 E08/EH8 Plant Install			9699	Plant
No Host/SAN Cable from Plant			9700	Plant
3592 55E Plant Install			9704	Plant
3592 55F Plant Install			9705	Plant
3592 60F/60G Plant Install in 3584			9706	Plant
3592 60E Plant Install 3584			9707	Plant
3592 60S Plant Install in 3584			9708	Plant
No Patch Panel Cables			9713	Both

TS1160 Field Install Drive in 3584	9726	Both
New order install	9906	Plant
Shipping and Handling - No charge	AG00	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
OEM - No IBM Logo	3584	D55	7703	Plant
Bull OEM Logo			7704	Plant
Ultrium Cleaning Cartridge			8750	Plant
Driveless Frame			9001	Both
Flex Track Guide Expansion			9072	Plant
3 Phase PDU Capable			9073	Plant
Gen-3 Frame			9074	Plant
3588 F7A/F7C Plant Install			9607	Plant
3588 F8A/F8C Plant Install			9609	Plant
3588 F8S Plant Install			9611	Plant
3588/3592 Field Install			9690	Both
3588 F5A/F5C Plant Install			9695	Plant
3588 F6A/F6C Plant Install			9697	Plant
No Host/SAN Cable from Plant			9700	Plant
No Patch Panel Cables			9713	Both
New order install			9906	Plant
Shipping and Handling - No charge			AG00	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
US RoHS Indicator	3584	L25	1776	Plant
OEM - No IBM Logo			7703	Plant
Bull OEM Logo			7704	Plant
Driveless Frame			9001	Both
First Expansion Frame Attch			9002	Both
Add Expansion Frame Attch			9003	Both
High Availability Library			9040	Both
Flex Track Guide Base			9071	Plant
3 Phase PDU Capable			9073	Plant
Gen-3 Frame			9074	Plant
Mixed Media Library			9080	Both
Attached to HP-UX System			9210	Plant
Attached to Solaris System			9211	Plant
Attached to Windows System			9212	Plant
Attached to Other Non-IBM System			9213	Plant
Attached to Linux System			9215	Plant
Attached to TS7700			9217	Both
Attached to HPSS			9218	Plant
Attached to i5/OS or OS/400			9400	Plant
Attach to AIX System			9600	Plant
3588/3592 Field Install			9690	Both
3592 E07/EH7 Plant Install			9692	Plant
3592 E08/EH8 Plant Install			9699	Plant
No Host/SAN Cable from Plant			9700	Plant
3592 55E Plant Install			9704	Plant
3592 55F Plant Install			9705	Plant
3592 60F/60G Plant Install in 3584			9706	Plant
3592 60E Plant Install 3584			9707	Plant
3592 60S Plant Install in 3584			9708	Plant
No Patch Panel Cables			9713	Both
TS1160 Field Install Drive in 3584			9726	Both
IMC Broadband Call Home			9735	Both
Shipping and Handling - No charge			AG00	Plant
Petroleum Solutions Non-Analytics Large			AJGF	Plant
Petroleum Solutions Analytics Enabled Large			AJGG	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
OEM - No IBM Logo	3584	L55	7703	Plant
Bull OEM Logo			7704	Plant
Driveless Frame			9001	Both
First Expansion Frame Attch			9002	Both
Add Expansion Frame Attch			9003	Both
High Availability Library			9040	Both
Flex Track Guide Base			9071	Plant
3 Phase PDU Capable			9073	Plant
Gen-3 Frame			9074	Plant
Mixed Media Library			9080	Both
Attached to HP-UX System			9210	Plant
Attached to Solaris System			9211	Plant
Attached to Windows System			9212	Plant
Attached to Other Non-IBM System			9213	Plant
Attached to Linux System			9215	Plant
Attached to TS7700			9217	Both
Attached to HPSS			9218	Plant
Attached to i5/OS or OS/400			9400	Plant
Attach to AIX System			9600	Plant
3588 F7A/F7C Plant Install			9607	Plant
3588 F8A/F8C Plant Install			9609	Plant
3588 F8S Plant Install			9611	Plant
3588/3592 Field Install			9690	Both
3588 F5A/F5C Plant Install			9695	Plant
3588 F6A/F6C Plant Install			9697	Plant
No Host/SAN Cable from Plant			9700	Plant
No Patch Panel Cables			9713	Both
IMC Broadband Call Home			9735	Both
Shipping and Handling - No charge			AG00	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
OEM - No IBM Logo	3584	S25,S55	7703	Plant
Bull OEM Logo			7704	Plant
Flex Track Guide Expansion			9072	Plant
3 Phase PDU Capable			9073	Plant
Gen-3 Frame			9074	Plant
New order install			9906	Plant
Shipping and Handling - No charge			AG00	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
US RoHS Indicator	3584	TR1	1776	Plant
3 Phase PDU Capable			9073	Plant
New order install			9906	Plant
outlets in the Enhanced PDU				
Shipping and Handling - No charge			AG00	Plant

Features - Chargeable

Description	Machine type	Model	Feature number	Plant/Field Install
HA Kit w/Second Accessor	3584	D25	1442	Plant

TS4500 Frame Control Assembly	1450	Both
1st Quad Drive Mounting Kit	1521	Both
2nd Quad Drive Mounting Kit	1522	Both
3rd Quad Drive Mounting Kit	1523	Both
4th Quad Drive Mounting Kit	1524	Both
Web Camera Mounting Hardware	1530	Both
1st Quad Drive Mounting Kit	1531	Both
2nd Quad Drive Mounting Kit	1532	Both
3rd Quad Drive Mounting Kit	1533	Both
4th Quad Drive Mounting Kit	1534	Both
MMF Quad Drive-to-Patch Panel cables	1536	Both
HD CoD for D25	1649	Both
2 Additional I/O Stations	1652	Plant
Drive removal	1663	Field
Single Power Source Bifurcated Cable	1909	Both
Power Distribution Units	1951	Both
Enhanced PDUs	1952	Both
Flex Track Guide Expansion	2072	Field
TS4500 Accessor Refresh	2309	Field
TS7700 BE Sw Mounting Hdw	4879	Both
TS7700 BE 16 Gb Switch	4880	Both
Rear Door Sensor	4892	Initial
13 Meter LC-LC Fibre Cable	6013	Both
25 Meter LC-LC Fibre Cable	6025	Both
61 Meter LC-LC Fibre Cable	6061	Both
3592 Cleaning Cartridge	8802	Plant
3 Phase Power Cord	9948	Both
C20-C13 Power Cord for Spare outlets in the Enhanced PDU	9949	Both
Nema L6-30 Power Cord	9954	Both
RS 3750DP Power Cord	9955	Both
IEC 309 Power Cord	9956	Both
PDL 4.3m Power Cord	9957	Both
Korean 4.3m Power Cord	9958	Both
Unterminated Power Cord	9959	Both
Unterminated Power Cord - China	9966	Both
Dual 4.3M Pwr Cord WT	9970	Both
Dual 4.3M Pwr Cord Non-WT	9972	Both
Dual 4.3M Pwr Cord Argentina	9976	Both
Dual 4.3M Pwr Cord Brazil	9977	Both
Dual 4.3M Pwr Cord Aust/NZ	9978	Both
Dual 4.3M Pwr Cord Japan	9979	Both
Dual 4.3M Pwr Cord China	9980	Both
Dual 4.3M Pwr Cord Korea	9981	Both
Dual 4.3M Pwr Cord Taiwan	9982	Both
Dual 4.3M Pwr Cord So.Africa	9983	Both
Dual 4.3M Power Cord NEMA L6-20 Non-Watertight	9984	Both
Dual 4.3M Power Cord Russellstoll watertight	9985	Both
Power Cord to adjacent frame PDUs	9989	Both
10 meter OM3 fiber Cable (LC)	AGK1	Both
25 meter OM3 fiber Cable (LC)	AGK2	Both
80 meter OM3 fiber Cable (LC)	AGK3	Both
3m Mini-SAS HD/Mini-SAS HD Cable	AGKA	Both
3 Meter OM3 Quad Cables (LC)	AGKQ	Both
Shipping and Handling D2x	AGG4	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
HA Kit w/Second Accessor	3584	D55	1442	Plant
TS4500 Frame Control Assembly			1450	Both
1st Quad Drive Mounting Kit			1521	Both
2nd Quad Drive Mounting Kit			1522	Both
3rd Quad Drive Mounting Kit			1523	Both

4th Quad Drive Mounting Kit	1524	Both
Web Camera Mounting Hardware	1530	Both
1st Quad Drive Mounting Kit	1531	Both
2nd Quad Drive Mounting Kit	1532	Both
3rd Quad Drive Mounting Kit	1533	Both
4th Quad Drive Mounting Kit	1534	Both
MMF Quad Drive-to-Patch Panel cables	1536	Both
SMF Quad Drive-to-Patch Panel cables	1537	Both
HD CoD for D55	1650	Both
2 Additional I/O Stations	1652	Plant
Drive removal	1663	Field
Single Power Source Bifurcated Cable	1909	Both
Power Distribution Units	1951	Both
Enhanced PDUs	1952	Both
Flex Track Guide Expansion	2072	Field
TS4500 Accessor Refresh	2309	Field
Rear Door Sensor	4892	Initial
13 Meter LC-LC Fibre Cable	6013	Both
25 Meter LC-LC Fibre Cable	6025	Both
61 Meter LC-LC Fibre Cable	6061	Both
Ultrium Cleaning Cartridge	8750	Plant
3 Phase Power Cord	9948	Both
C20-C13 Power Cord for Spare outlets in the Enhanced PDU	9949	Both
Nema L6-30 Power Cord	9954	Both
RS 3750DP Power Cord	9955	Both
IEC 309 Power Cord	9956	Both
PDL 4.3m Power Cord	9957	Both
Korean 4.3m Power Cord	9958	Both
Unterminated Power Cord	9959	Both
Unterminated Power Cord - China	9966	Both
Dual 4.3M Pwr Cord WT	9970	Both
Dual 4.3M Pwr Cord Non-WT	9972	Both
Dual 4.3M Pwr Cord Argentina	9976	Both
Dual 4.3M Pwr Cord Brazil	9977	Both
Dual 4.3M Pwr Cord Aust/NZ	9978	Both
Dual 4.3M Pwr Cord Japan	9979	Both
Dual 4.3M Pwr Cord China	9980	Both
Dual 4.3M Pwr Cord Korea	9981	Both
Dual 4.3M Pwr Cord Taiwan	9982	Both
Dual 4.3M Pwr Cord So.Africa	9983	Both
Dual 4.3M Power Cord NEMA L6-20 Non-Watertight	9984	Both
Dual 4.3M Power Cord Russellstoll watertight	9985	Both
Power Cord to adjacent frame PDUs	9989	Both
10 meter OM3 fiber Cable (LC)	AGK1	Both
25 meter OM3 fiber Cable (LC)	AGK2	Both
80 meter OM3 fiber Cable (LC)	AGK3	Both
Shipping and Handling D5x	AGG5	Plant
3 Meter OM3 Quad Cables (LC)	AGKQ	Both

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature

Library & Drive Code Update	3584	L25	0500	Field
TS1140 and TS1150 tape drive support			1404	Both
LT05 and LT06 tape drive support			1405	Both
TS1150 TS1155 TS1160 tape drive support			1406	Both
LT06 and LT07 tape drive support			1407	Both
LT07 and LT08 tape drive support			1408	Both
SAS tape drive support			1412	Both
Redundant Accessor Power/Network			1460	Both
1st Quad Drive Mounting Kit			1521	Both
2nd Quad Drive Mounting Kit			1522	Both
3rd Quad Drive Mounting Kit			1523	Both

4th Quad Drive Mounting Kit	1524	Both
Web Camera Mounting Hardware	1530	Both
1st Quad Drive Mounting Kit	1531	Both
2nd Quad Drive Mounting Kit	1532	Both
3rd Quad Drive Mounting Kit	1533	Both
4th Quad Drive Mounting Kit	1534	Both
MMF Quad Drive-to-Patch Panel cables	1536	Both
LTO Library Managed Encryption	1604	Both
Additional LTO Cartridge Magazine	1628	Both
Additional 3592 Cartridge Magazine	1629	Both
Intermed. Cap. On Demand	1643	Both
Base Capacity on Demand	1644	Both
HD CoD for L25	1647	Both
Drive removal	1663	Field
Path Failover	1682	Both
1-2 Frame X-Track Cable	1802	Field
3-6 Frame X-Track Cable	1806	Field
7-14 Frame X-Track Cable	1814	Field
9-18 Frame X-Track Cable	1818	Field
Overhead Access Ladder	1856	Both
Single Power Source Bifurcated Cable	1909	Both
Power Distribution Units	1951	Both
Enhanced PDUs	1952	Both
1-2 Frame Flex-Track A cable	2002	Both
3-6 Frame Flex-Track A cable	2006	Both
7-14 Frame FlexTrack A Cable	2014	Both
9-18 Frame FlexTrack A Cable	2018	Both
Flex Track Guide Base	2071	Field
TS4500 Accessor Refresh	2309	Field
2 Frame Flex Track B Cable	2402	Both
3-6 Frame Flex Track B Cable	2406	Both
7-14 Frame FlexTrack B Cable	2414	Both
9-18 Frame FlexTrack B cable	2418	Both
Console Expansion 26Port Enet Switch/Rackmount	2704	Both
Console Attachment	2715	Both
USB Optical Drive	2735	Both
TS7700 BE Sw Mounting Hdw	4879	Both
TS7700 BE 16 Gb Switch	4880	Both
Rear Door Sensor	4892	Initial
13 Meter LC-LC Fibre Cable	6013	Both
25 Meter LC-LC Fibre Cable	6025	Both
61 Meter LC-LC Fibre Cable	6061	Both
3592 Cleaning Cartridge	8802	Plant
3 Phase Power Cord	9948	Both
C20-C13 Power Cord for Spare outlets in the Enhanced PDU	9949	Both
Nema L6-30 Power Cord	9954	Both
RS 3750DP Power Cord	9955	Both
IEC 309 Power Cord	9956	Both
PDL 4.3m Power Cord	9957	Both
Korean 4.3m Power Cord	9958	Both
Unterminated Power Cord	9959	Both
Unterminated Power Cord - China	9966	Both
Dual 4.3M Pwr Cord WT	9970	Both
Dual 4.3M Pwr Cord Non-WT	9972	Both
Dual 4.3M Pwr Cord Argentina	9976	Both
Dual 4.3M Pwr Cord Brazil	9977	Both
Dual 4.3M Pwr Cord Aust/NZ	9978	Both
Dual 4.3M Pwr Cord Japan	9979	Both
Dual 4.3M Pwr Cord China	9980	Both
Dual 4.3M Pwr Cord Korea	9981	Both
Dual 4.3M Pwr Cord Taiwan	9982	Both
Dual 4.3M Pwr Cord So.Africa	9983	Both
Dual 4.3M Power Cord NEMA L6-20 Non-Watertight	9984	Both
Dual 4.3M Power Cord Russellstoll watertight	9985	Both

Power Cord to adjacent frame PDUs	9989	Both
10 meter OM3 fiber Cable (LC)	AGK1	Both
25 meter OM3 fiber Cable (LC)	AGK2	Both
80 meter OM3 fiber Cable (LC)	AGK3	Both
3m Mini-SAS HD/Mini-SAS HD Cable	AGKA	Both
3 Meter OM3 Quad Cables (LC)	AGKQ	Both
Shipping and Handling L2x	AGG2	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
Library & Drive Code Update	3584	L55	0500	Field
TS1140 and TS1150 tape drive support			1404	Both
LTO5 and LTO6 tape drive support			1405	Both
TS1150 TS1155 TS1160 tape drive support			1406	Both
LTO6 and LTO7 tape drive support			1407	Both
LTO7 and LTO8 tape drive support			1408	Both
SAS tape drive support			1412	Both
Redundant Accessor Power/Network			1460	Both
1st Quad Drive Mounting Kit			1521	Both
2nd Quad Drive Mounting Kit			1522	Both
3rd Quad Drive Mounting Kit			1523	Both
4th Quad Drive Mounting Kit			1524	Both
Web Camera Mounting Hardware			1530	Both
1st Quad Drive Mounting Kit			1531	Both
2nd Quad Drive Mounting Kit			1532	Both
3rd Quad Drive Mounting Kit			1533	Both
4th Quad Drive Mounting Kit			1534	Both
MMF Quad Drive-to-Patch Panel cables			1536	Both
SMF Quad Drive-to-Patch Panel cables			1537	Both
LTO Lib Managed Encryption			1604	Both
Additional LTO Cartridge Magazine			1628	Both
Additional 3592 Cartridge Magazine			1629	Both
Intermed. Cap. On Demand			1643	Both
Base Capacity on Demand			1644	Both
HD CoD for L55			1648	Both
Drive removal			1663	Field
Path Failover			1682	Both
1-2 Frame X-Track Cable			1802	Field
3-6 Frame X-Track Cable			1806	Field
7-14 Frame X-Track Cable			1814	Field
9-18 Frame X-Track Cable			1818	Field
Overhead Access Ladder			1856	Both
Single Power Source Bifurcated Cable			1909	Both
Power Distribution Units			1951	Both
Enhanced PDUs			1952	Both
1-2 Frame Flex-Track A cable			2002	Both
3-6 Frame Flex-Track A cable			2006	Both
7-14 Frame FlexTrack A Cable			2014	Both
9-18 Frame FlexTrack A Cable			2018	Both
Flex Track Guide Base			2071	Field
TS4500 Accessor Refresh			2309	Field
2 Frame Flex Track B Cable			2402	Both
3-6 Frame Flex Track B Cable			2406	Both
7-14 Frame FlexTrack B Cable			2414	Both
9-18 Frame FlexTrack B cable			2418	Both
Console Expansion 26Port Enet Switch/Rackmount			2704	Both
Console Attachment			2715	Both
USB Optical Drive			2735	Both
Rear Door Sensor			4892	Initial
13 Meter LC-LC Fibre Cable			6013	Both
25 Meter LC-LC Fibre Cable			6025	Both
61 Meter LC-LC Fibre Cable			6061	Both
Ultrium Cleaning Cartridge			8750	Plant

3 Phase Power Cord	9948	Both
C20-C13 Power Cord for Spare outlets in the Enhanced PDU	9949	Both
Nema L6-30 Power Cord	9954	Both
RS 3750DP Power Cord	9955	Both
IEC 309 Power Cord	9956	Both
PDL 4.3m Power Cord	9957	Both
Korean 4.3m Power Cord	9958	Both
Unterminated Power Cord	9959	Both
Unterminated Power Cord - China	9966	Both
Dual 4.3M Pwr Cord WT	9970	Both
Dual 4.3M Pwr Cord Non-WT	9972	Both
Dual 4.3M Pwr Cord Argentina	9976	Both
Dual 4.3M Pwr Cord Brazil	9977	Both
Dual 4.3M Pwr Cord Aust/NZ	9978	Both
Dual 4.3M Pwr Cord Japan	9979	Both
Dual 4.3M Pwr Cord China	9980	Both
Dual 4.3M Pwr Cord Korea	9981	Both
Dual 4.3M Pwr Cord Taiwan	9982	Both
Dual 4.3M Pwr Cord So.Africa	9983	Both
Dual 4.3M Power Cord NEMA L6-20 Non-Watertight	9984	Both
Dual 4.3M Power Cord Russellstoll watertight	9985	Both
Power Cord to adjacent frame PDUs	9989	Both
10 meter OM3 fiber Cable (LC)	AGK1	Both
25 meter OM3 fiber Cable (LC)	AGK2	Both
80 meter OM3 fiber Cable (LC)	AGK3	Both
Shipping and Handling L5x	AGG3	Plant
3 Meter OM3 Quad Cables (LC)	AGKQ	Both

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
HA Kit w/Second Accessor	3584	S25,S55	1442	Plant
Web Camera Mounting Hardware			1530	Both
HD COD for S24/S25			1645	Both
HD COD for S54/S25			1646	Both
Power Distribution Units			1951	Both
Enhanced PDUs			1952	Both
Flex Track Guide Expansion			2072	Field
TS4500 Accessor Refresh			2309	Field
IMC Separate Power Source			2737	Both
Rear Door Sensor			4892	Initial
3 Phase Power Cord			9948	Both
C20-C13 Power Cord for Spare outlets in the Enhanced PDU			9949	Both
Nema L6-30 Power Cord			9954	Both
RS 3750DP Power Cord			9955	Both
IEC 309 Power Cord			9956	Both
PDL 4.3m Power Cord			9957	Both
Korean 4.3m Power Cord			9958	Both
Unterminated Power Cord			9959	Both
Unterminated Power Cord - China			9966	Both
Dual 4.3M Pwr Cord WT 3584			9970	Both
Dual 4.3M Pwr Cord Non-WT			9972	Both
Dual 4.3M Pwr Cord Argentina			9976	Both
Dual 4.3M Pwr Cord Brazil			9977	Both
Dual 4.3M Pwr Cord Aust/NZ			9978	Both
Dual 4.3M Pwr Cord Japan			9979	Both
Dual 4.3M Pwr Cord China			9980	Both
Dual 4.3M Pwr Cord Korea			9981	Both
Dual 4.3M Pwr Cord Taiwan			9982	Both
Dual 4.3M Pwr Cord So.Africa			9983	Both
Dual 4.3M Power Cord NEMA L6-20 Non-Watertight			9984	Both
Dual 4.3M Power Cord Russellstoll watertight			9985	Both

Power Cord to adjacent frame PDUs	9989	Both
Shipping and Handling S2x	AGG6	Plant
Shipping and Handling S5x	AGG7	Plant

Description	Machine type	Model	Feature number	Plant/Field Only Install Feature
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Top Rack Option	3584	TR1		
End Covers			1750	Both
Power Distribution Unit			1751	Both
Enhanced PDU			1752	Both
TS7700 BE Sw Mounting Hdw			4879	Both
TS7700 BE 16 Gb Switch			4880	Both
3 Phase Power Cord			9948	Both
C20-C13 Power Cord for Spare			9949	Both
Nema L6-30 Power Cord			9954	Both
RS 3750DP Power Cord			9955	Both
IEC 309 Power Cord			9956	Both
PDL 4.3m Power Cord			9957	Both
Korean 4.3m Power Cord			9958	Both
Unterminated Power Cord			9959	Both
Unterminated Power Cord - China			9966	Both
Shipping and Handling TR1/TR2			AGG9	Plant

Feature descriptions

Note: Not all of the following features are available in all countries. Check with your country representative for specific feature
TS4500 HD2 Expansion Frame 3584 Model D25

(#0983) TAA Compliance

This feature indicates that product is TAA compliant.

- Feature type: No Charge.
- Required feature: No.
- Minimum required: Zero.
- Maximum allowed: One.
- Plant install / field install: Plant only.
- Limitations: Feature #0983 is not available in India for use.

(#1412) - SAS tape drive support

This feature provides a mini SAS HD wrap tool. Only one mini SAS HD wrap tool feature #1412 is required in a TS4500 Lit drive sled problems.

- For 3584-L25: (#1412)
 - Minimum required: 0
 - Maximum allowed: 10 (Initial order maximum: 10)
 - Prerequisites: One mini SAS HD wrap tool is required when the first TS1160 model 60S Tape drive is ordered
 - Corequisites: None
 - Compatibility conflicts: None
 - Customer setup: Yes
 - Limitations: None
 - Plant / Field installable: Both
 - Cable order: N/A

- Comments: None
- For 3584-L55: (#1412)
 - Minimum required: 0
 - Maximum allowed: 10 (Initial order maximum: 10)
 - Prerequisites: One mini SAS HD wrap tool is required when the first TS1160 model 60S Tape drive is ordered
 - Corequisites: None
 - Compatibility conflicts: None
 - Customer setup: Yes
 - Limitations: None
 - Plant / Field installable: Both
 - Cable order: N/A
 - Comments: None

(#1442) HA Kit w/Second Accessor

Includes Accessor B and the parts for integrated service bays A and B to be field installed on the left-most and right-most frame that includes this feature code must be installed as frame 1. For a 3-18 frame library, the frame that includes this feature code is the library.

- Feature Type: Chargeable .
- Required feature: No.
- Minimum Number of Features: 0.
- Maximum Number of Features: 1.
- Prerequisite: One of Feature #2072 or #9072.
- Customer setup: No.
- Installation: Plant only.

(#1450) TS4500 Frame Control Assembly

Includes 1x LCC and 2x power supplies.

- Feature type: Chargeable.
- Minimum number of features: None
- Maximum number of features: One
- Corequisite: None
- Prerequisite:
 - If PDU feature #1951 is ordered, one of Power Cord features #9954-9959, #9966 is required.
 - If PDU feature #1952 is ordered, one of Power Cord features #9948, #9954-9958 is required.
 - If PDU feature #1951 or #1952 is NOT ordered, one of Power Cord features #9970, #9972, #9976-9985, #9989 is required.
- Installation: Both
- Customer Setup: No

(#1521) 1st Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature Includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.

- Prerequisite:
 - On Models L25/L55: None.
 - On Models D25/D55: Feature number 1450 is required.
- Installation: Plant or Field.
- Customer Setup: No.

(#1522) 2nd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables **is not supported in the leftmost frame of a dual accessor library.**

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1521 is required.
- Installation: Plant or Field.
- Customer Setup: No.

(#1523) 3rd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost or rightmost frame of a dual accessor library.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1522.
- Installation: Plant or Field.
- Customer Setup: No.

(#1524) 4th Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost frame of a single accessor library. This feature is not supported in the leftmost or rightmost

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1523 and, for model L25/L55, feature number 9002.
- Installation: Plant or Field.
- Customer Setup: No.

(#1530) Web Camera Mounting Hardware

This feature provides mounting brackets for attaching a customer provided video camera for the TS4500 frames including I

For additional details including mounting guidelines and an example camera, see the [TS4500 Knowledge Center](#) website.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: Two.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1531) - 1st Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables).

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - On Models D25/D55: Feature #1450 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1521
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Note for e-config: Default add one feature 1536 or client must change to 1537 or 9713

(#1532) - 2nd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1521 or #1531 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1522
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1533) - 3rd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature rightmost frame of a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1522 or #1532 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1523
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1534) - 4th Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature #1536 (SMF Quad Drive-to-Patch Panel cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature is a single accessor library. This feature is not supported in the leftmost or rightmost frame of a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1523 or #1533 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1524
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1536) - MMF Quad Drive-to-Patch Panel cables

This feature Includes all fiber cables required for a column of 4 drives, 8x LC-LC Multimode Fiber (MMF) Drive-to-Patch Panel cables.

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature #1537
- Comments: Maximum number of features is four of #1536, or four of #1537, or four of #9713
- Plant / Field installable: Both
- Cable order: N/A

(#1649) HD CoD for D25

On top of base capacity of 500 slots, provides additional 240 slots of capacity (160 slots if I/O FC 1652 installed, 90 slots if installed and frame 1).

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1652) 2 Additional I/O Stations

Add 2 I/O Stations including magazines with addition of 36/32 LTO/3592 I/O slots. See HD COD feature code for impact to in the leftmost frame of a dual accessor library.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1450 is required.
- Installation: Plant.
- Customer Setup: No.

(#1663) Drive Removal

This feature is intended for those customers who may have the need to remove drives from existing frames. One 3592 tape drive install feature should be removed from the library frame when a tape drive is removed.

- Feature type: Chargeable
- Minimum number of features: Zero
- Maximum number of features: 99
- Installation: Field Only

(#1776) US RoHS Indicator

The state of Wisconsin requires RoHS compliant equipment. This feature will be selected as needed in the configurator for use in Wisconsin.

- Feature type: No charge.
- Minimum number of features per Model: None.
- Maximum number of features per Model: One.
- Prerequisites: None.
- Corequisites: None.
- Compatibility Conflicts: None.
- Customer Setup: No.
- Limitations: None.
- Installation: Plant only.

(#1909) Single Power Source Bifurcated Cable

This feature provides a single power outlet connection while maintaining drive redundant power to L25,L55, D25,D55 frame in conjunction with normal power cord options.

- Feature type: Chargeable
- Required feature: No

- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: One of Power Cord feature number 9970, 9972, 9976, 9977, 9978, 9979, 9980, 9981, 9982, 9983, 9984,
- Installation: Plant or Field
- Customer Setup: No.

(#1951) Power Distribution Units

This feature provides two power distribution units (PDUs) for adjacent frame AC line cord aggregation or unique AC outlet internal power cables to provide power to the local frame control assembly. When ordering feature code #1951, customers cord features #9954, #9955, #9956, #9957, #9958, #9959, or #9966. Note that these line cord features may require differe without feature code #1951.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None
- Maximum number of features: One of feature #1951 or #1952
- Corequisite: None
- Prerequisite: One of Power Cord feature #9954, #9955, #9956, #9957, #9958, #9959, or #9966 is required. Mutually e
- Installation: Plant or Field
- Customer Setup: No
- Removable: Yes
- Limitations: Mutually exclusive with PDU feature #1952

(#1952) - Enhanced PDUs

Provides two PDUs with 3-phase (wye) or single phase input power, mounting hardware including rack brackets, and interr local frame control assembly. For single phase input power, must order one power cord feature #9954 thru #9958. For 3-pt power cord feature #9948. Note that these line cord features may require different customer facility outlets than frames with six C13 outlets and three C19 outlets. Can be used for adjacent frame AC power cord aggregation, or for unique facility AC combination of up to 3 pairs of power cords for feature #9989 on adjacent frames.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One of Power Cord feature #9948, #9954, #9955, #9956, #9957, or #9958, is required. Mutually exclusive with fe
 - Feature #9073 or #9074 is required
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations:
 - Mutually exclusive with legacy PDU feature #1951, Fibre Channel switch mounting feature #4879, and Ethernet s
 - Mutually exclusive with Unterminated Power Cord features #9959 and #9966
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of feature #1951 or #1952

(#2072) Flex Track Guide Expansion

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgra

tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track (plant). TS4500 expansion frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One of either #2072 or #9072.
- Corequisites: Feature #2071 or #9071 on the Lx5 frame.
- Prerequisites : None.
- Installation: Field only.
- Customer Setup: No.

(#2309) TS4500 Accessor Refresh

For customers wishing to proactively replace a highly utilized accessor, this feature provides a new accessor assembly with are included in the assembly.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.
- Prerequisites : For model Lx5, feature #2071 or #9071. For model Dx5/Sx5, feature #1442.
- Installation: Field only.
- Customer Setup: No.

(#4879) TS7700 BE Sw Mounting Hdw

This feature provides 2x Fibre channel switch mounting hardware (including power cords) for 2x TS7700 backend fibre 16 ordered with a model TR1 and the power cords are attached to feature #1751 or #1752 PDUs. For TS4500, this feature is power cords can either be combined with local frame power or can be attached to feature #1951 or #1952 PDUs in an adjacent local frame power or attached to PDUs, no additional facility AC outlets are required for the Fibre Channel switches.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Prerequisite: Mutually exclusive with PDU feature #1951 or #1952 and Ethernet Switch feature #2704
- Customer setup: No.
- Installation: Plant or Field.

(#4880) TS7700 BE 16 Gb Switch

This feature provides one 16 Gb Fibre channel switch with 24 LC Shortwave ports. The 16 Gb switch supports attachment TS7700. Patch-panel-to-switch Fibre Channel cables are ordered against the frame containing the tape drives using feature frames away from the switch) or AGKQ (if tape drives are less than 2 frames away from the switch).

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: Two.
- Prerequisite: Feature #4879 and minimum one feature #AGKQ.
- Customer setup: No.
- Installation: Plant or Field.

(#4892) - Rear Door Sensor

This feature provides rear door sensor components for notifying the customer of rear door open/close events.

- For 3584-D25: (#4892)
 - Minimum required: 0
 - Maximum allowed: 1 (Initial order maximum: 1)
 - Prerequisites: Feature #9074 is required
 - Corequisites: NONE
 - Compatibility conflicts: NONE
 - Customer set up: No
 - Limitations: NONE
 - Plant / Field installable: Initial
 - Cable order: n/a
 - Comments: NONE

(#6013) 13 Meter LC-LC Fibre Cable

This feature provides a 13 meter (43 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6025) 25 Meter LC-LC Fibre Cable

This feature provides a 25 meter (82.5 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6061) 61 Meter LC-LC Fibre Cable

(No Longer Available as of July 14, 2015)

This feature provides a 61 meter (201 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.

- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#9707) - 3592 60E Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model 60E into a 3584 Model D25 or Model L25 coming from the Tape Drive requires a Quad Drive mounting kit to contain the drive.

- Minimum required: 0
- Maximum allowed: 16 (Initial order maximum: 16) Sixteen per frame of #9690, plus #9692, plus #9699, plus #9705, plus #9708, plus #9726
- Prerequisites:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than zero
 - On L25/D25 Models, feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than four
 - On L25/D25 Models, feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than eight
 - On L25/D25 Models, feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than twelve
 - On L25/D25 models, one of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9726
 - On L25/D25 models, two of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9726
 - On L25/D25 models, three of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9726
 - On L25/D25 models, four of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9726
- Corequisites: Feature #1531 or #1532 or #1533 or #1534
- Customer setup: No
- Comments:
 - The TS1160 Tape Drive Model 60E must be separately ordered and feature #9677 must be specified on that drive
 - One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Model 60F/60G/60E) Tape drive ordered.
- Plant / Field installable: Initial

(#9708) - 3592 60S Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model 60S into a 3584 Model D25 or Model L25 coming from the Tape Drive requires a Quad Drive mounting kit to contain the drive.

- For 3584-D25: (#9708)
 - Minimum number of features: None
 - Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9705, plus #9704, plus #9726
 - Corequisite: Feature #1531 or #1532 or #1533 or #1534
 - Prerequisite:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than zero
 - On L25/D25 Models, feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than four
 - On L25/D25 Models, feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than eight
 - On L25/D25 Models, feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, #9726 greater than twelve
 - On L25/D25 models, one of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9726

- On L25/D25 models, two of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708
- On L25/D25 models, three of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708
- On L25/D25 models, four of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708
- Plant / Field installable: Initial
- For 3584-L25: (#9708)
 - Minimum number of features: None
 - Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9705, plus #9704, plus #9726
 - Corequisite: Feature #1531 or #1532 or #1533 or #1534
 - Prerequisite:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, greater than zero
 - On L25/D25 Models, feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, greater than four
 - On L25/D25 Models, feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, greater than eight
 - On L25/D25 Models, feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, greater than twelve
 - On L25/D25 models, one of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708
 - On L25/D25 models, two of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708
 - On L25/D25 models, three of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708
 - On L25/D25 models, four of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708
 - Plant / Field installable: Initial

Notes:

- The TS1160 Tape Drive Model 60S must be separately ordered and feature #9677 must be specified on that drive.
- One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Model 60F/60G/60E) Tape drive ordered.
- One feature #1412 is required per Tape Library if this is the first TS1160 (3592 Model 60S) Tape drive ordered.

(#9906) New order install

This feature indicates this machine model is part of a new library order.

- Minimum number of features: None
- Maximum number of features: One
- Prerequisites: 3584-Dx5/Sx5/TR1 must have a 3584-Lx5 on the same order
- Corequisites: None
- Compatibility conflicts: None
- Limitations: None
- Customer setup: No
- Field/Plant Installable: Plant only
- Comments: e-config to default assign feature #9906 when the order is part of a new Library order

(#AGK1) 10 meter OM3 fiber Cable (LC)

This feature provides a 10 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.

- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGK2) 25 meter OM3 fiber Cable (LC)

This feature provides a 25 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGK3) 80 meter OM3 fiber Cable (LC)

This feature provides a 80 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGKA) - 3m Mini-SAS HD/Mini-SAS HD 4x Cable

3 meters Mini-SAS HD to Mini-SAS HD cable for attachment of up to four Tape Drives in the same column (from HBA with Order one or two #AGKA for each associated quad drive mounting kit feature #1531, #1532, #1533, #1534.

- For 3584-D25: (#AGKA)
 - Minimum required: 0
 - Maximum allowed: 8 (Initial order maximum: 8)
 - Prerequisites:
 - First #AGKA, feature #1531
 - Third #AGKA, feature #1532
 - Fifth #AGKA, feature #1533
 - Seventh #AGKA, feature #1534
 - Corequisites: None
 - Compatibility conflicts: None
 - Customer setup: No
 - Limitations: None
 - Plant / Field installable: Both
 - Cable order: N/A
 - Comments: None

(#AGKQ) 3 Meter OM3 Quad Cables (LC)

Provides two space-efficient bundles of OM3 Fibre Channel cables for attaching a group of up to four drives to two nearby (mainframe). In order to attach TS4500 tape drives in the same frame or 1 frame away from a model x25 frame containing for each associated quad drive mounting kit feature #1521, #1522, #1523, #1524, #1531, #1532, #1533, #1534.

- Prerequisites:
 - Mutually exclusive with feature #9700
 - First #AGKQ, feature #1521 or #1531
 - Second #AGKQ, feature #1522 or #1532
 - Third #AGKQ, feature #1523 or #1533
 - Fourth #AGKQ, feature #1524 or #1534
 - #AGKQ, with #1531 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1532 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1533 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1534 must have one #1536, feature #1536 are cumulative

(#AGG4) Shipping and Handling D2x

This feature indicates each Model D2x on the order will have a shipping and handling charge added to the order.

Note: Select either feature #AGG4 or feature #AG00 on the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#7703) OEM - No IBM Logo

This feature directs the plant to ship the TS4500 tape library Model without "IBM" or "System Storage" logos on the front d

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#7704) Bull OEM Logo

(No longer available as of August 14, 2020)

This feature directs the plant to ship the tape library Model without IBM or System Storage logos and provides the OEM BL

- Feature Type: No Charge.
- Required Feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 7703 is required.
- Installation: Plant only.

(#8802) 3592 Cleaning Cartridge

This feature provides one 3592 cleaning cartridge, used to clean the 3592 Tape Drive.

- Feature type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Ten.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9001) Driveless Frame

This feature directs the plant to ship the 3584 Tape Library frame without any tape drives installed.

- Feature type: No Charge
- Required feature: This feature is required if there is no tape drive feature ordered (#9690, #9692, #9699, #9704, #970 Models L25/D25, or #9607, #9609, #9611, #9690, #9695, #9697 on a Models L55/D55)
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.

(#9072) Flex Track Guide Expansion

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgraded tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track (plant). TS4500 expansion frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: No Charge
- Minimum: Zero
- Maximum: One of either #2072 or #9072.
- Prerequisite:
- Corequisite: #2071 or #9071 on the Lx5 frame.
- Installation: Plant .

(#9073) 3 Phase PDU Capable

(No longer available as of October 30, 2020)

This feature indicates that the frame is capable of supporting Enhanced PDUs and their associated power cords. Feature # feature #1952.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No

Note: The TS1140 Tape Drive Model EH7 must be separately ordered and feature #9677 must be specified on that c

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 twelve
- Installation: Plant Only

Note: One feature #1404 is required per Tape Library if this is the first TS1140 (3592 Model E07/EH7) or TS1150 (3592 Model EH8) (#9699) 3592 E08/EH8 Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model EH8 into a 3584 Model D25 or Model L25 coming from the EH8 Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1150 Tape Drive Model EH8 must be separately ordered and feature #9677 must be specified on that c

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than zero,
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than four,
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than eight,
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than twelve
- Installation: Plant only

Note: One feature #1404 is required per Tape Library if this is the first TS1150 (3592 Model EH8) Tape drive ordered.

(#9700) No Host/SAN Cable from Plant

This feature must be placed on any 3584 frame shipping from the plant with no SAN attachment cables specified when a tape drive feature is not required if the Driveless Frame feature (#9001) is specified. When this feature is on the order, the plant will not ship SAN attachment cables with the shipment of this 3584 frame. Any required cables must be supplied by the customer.

- Prerequisites: Mutually exclusive with features #6013, #6025, #6061, #AGK1, #AGK2, #AGK3, and #AGKQ.
- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: None.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#9704) 3592 55E Plant Install in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model 55E into a 3584 Model D25 or Model L25 coming from the Tape Drive requires a Quad Drive mounting kit to contain the drive

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 twelve
- Installation: Plant only

Notes:

- The TS1155 Tape Drive Model 55E must be separately ordered and feature #9677 must be specified on that drive.
- One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Model 60E/60F/60G) Tape drive ordered

(#9705) 3592 55F/55G Plant Install in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model 55F into a 3584 Model D25 or Model L25, or one 3592 Tape Drive Model 55G into a 3584 Model D25 or Model L25, or one 3592 Tape Drive Model 55G into a 3584 Model D23 coming from the plant. Installation of the 3592 Model 55F Tape Drive requires a Quad Drive mounting kit to contain the drive. Installation of the 3592 Model 55G Tape Drive requires a Fibre Drive Mounting Kit feature (#1515) or (#1535).

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 twelve
- Installation: Plant only

Notes:

- The TS1155 Tape Drive Model 55F must be separately ordered and feature #9677 must be specified on that drive.
- One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Model 60E/60F /60G) Tape drive ordered.

(#9706) - 3592 60F/60G Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model 60F into a 3584 Model D25 or Model L25, or one 3592 Tape Drive Model 60G into a 3584 Model D25 or Model L25, or one 3592 Tape Drive Model 60G into a 3584 Model D23 coming from the plant. Installation of the 3592 Model 60F Tape Drive requires a Quad Drive mounting kit to contain the drive. Installation of the 3592 Model 60G Tape Drive requires a Fibre Drive Mounting Kit feature (#1515) or (#1535).

- Minimum required: Zero
- Maximum allowed: 16 (Initial order maximum: 16)

- Corequisites: None
- Prerequisites:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706, #9707, #9708, #9709, #9710, #9711, #9712, #9713, #9714, #9715, #9716, #9717, #9718, #9719, #9720, #9721, #9722, #9723, #9724, #9725, #9726, #9727, #9728, #9729, #9730, #9731, #9732, #9733, #9734, #9735, #9736, #9737, #9738, #9739, #9740, #9741, #9742, #9743, #9744, #9745, #9746, #9747, #9748, #9749, #9750, #9751, #9752, #9753, #9754, #9755, #9756, #9757, #9758, #9759, #9760, #9761, #9762, #9763, #9764, #9765, #9766, #9767, #9768, #9769, #9770, #9771, #9772, #9773, #9774, #9775, #9776, #9777, #9778, #9779, #9780, #9781, #9782, #9783, #9784, #9785, #9786, #9787, #9788, #9789, #9790, #9791, #9792, #9793, #9794, #9795, #9796, #9797, #9798, #9799, #9800, #9801, #9802, #9803, #9804, #9805, #9806, #9807, #9808, #9809, #9810, #9811, #9812, #9813, #9814, #9815, #9816, #9817, #9818, #9819, #9820, #9821, #9822, #9823, #9824, #9825, #9826, #9827, #9828, #9829, #9830, #9831, #9832, #9833, #9834, #9835, #9836, #9837, #9838, #9839, #9840, #9841, #9842, #9843, #9844, #9845, #9846, #9847, #9848, #9849, #9850, #9851, #9852, #9853, #9854, #9855, #9856, #9857, #9858, #9859, #9860, #9861, #9862, #9863, #9864, #9865, #9866, #9867, #9868, #9869, #9870, #9871, #9872, #9873, #9874, #9875, #9876, #9877, #9878, #9879, #9880, #9881, #9882, #9883, #9884, #9885, #9886, #9887, #9888, #9889, #9890, #9891, #9892, #9893, #9894, #9895, #9896, #9897, #9898, #9899, #9900, #9901, #9902, #9903, #9904, #9905, #9906, #9907, #9908, #9909, #9910, #9911, #9912, #9913, #9914, #9915, #9916, #9917, #9918, #9919, #9920, #9921, #9922, #9923, #9924, #9925, #9926, #9927, #9928, #9929, #9930, #9931, #9932, #9933, #9934, #9935, #9936, #9937, #9938, #9939, #9940, #9941, #9942, #9943, #9944, #9945, #9946, #9947, #9948, #9949, #9950, #9951, #9952, #9953, #9954, #9955, #9956, #9957, #9958, #9959, #9960, #9961, #9962, #9963, #9964, #9965, #9966, #9967, #9968, #9969, #9970, #9971, #9972, #9973, #9974, #9975, #9976, #9977, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, #9986, #9987, #9988, #9989, #9990, #9991, #9992, #9993, #9994, #9995, #9996, #9997, #9998, #9999, #10000
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Plant
- Cable order: N/A
- Comments:
 - Maximum number of features is 16 per frame of #9690, plus #9692, plus #9699, plus #9705, plus #9704, plus #9706, plus #9707, plus #9708, plus #9709, plus #9710, plus #9711, plus #9712, plus #9713, plus #9714, plus #9715, plus #9716, plus #9717, plus #9718, plus #9719, plus #9720, plus #9721, plus #9722, plus #9723, plus #9724, plus #9725, plus #9726, plus #9727, plus #9728, plus #9729, plus #9730, plus #9731, plus #9732, plus #9733, plus #9734, plus #9735, plus #9736, plus #9737, plus #9738, plus #9739, plus #9740, plus #9741, plus #9742, plus #9743, plus #9744, plus #9745, plus #9746, plus #9747, plus #9748, plus #9749, plus #9750, plus #9751, plus #9752, plus #9753, plus #9754, plus #9755, plus #9756, plus #9757, plus #9758, plus #9759, plus #9760, plus #9761, plus #9762, plus #9763, plus #9764, plus #9765, plus #9766, plus #9767, plus #9768, plus #9769, plus #9770, plus #9771, plus #9772, plus #9773, plus #9774, plus #9775, plus #9776, plus #9777, plus #9778, plus #9779, plus #9780, plus #9781, plus #9782, plus #9783, plus #9784, plus #9785, plus #9786, plus #9787, plus #9788, plus #9789, plus #9790, plus #9791, plus #9792, plus #9793, plus #9794, plus #9795, plus #9796, plus #9797, plus #9798, plus #9799, plus #9800, plus #9801, plus #9802, plus #9803, plus #9804, plus #9805, plus #9806, plus #9807, plus #9808, plus #9809, plus #9810, plus #9811, plus #9812, plus #9813, plus #9814, plus #9815, plus #9816, plus #9817, plus #9818, plus #9819, plus #9820, plus #9821, plus #9822, plus #9823, plus #9824, plus #9825, plus #9826, plus #9827, plus #9828, plus #9829, plus #9830, plus #9831, plus #9832, plus #9833, plus #9834, plus #9835, plus #9836, plus #9837, plus #9838, plus #9839, plus #9840, plus #9841, plus #9842, plus #9843, plus #9844, plus #9845, plus #9846, plus #9847, plus #9848, plus #9849, plus #9850, plus #9851, plus #9852, plus #9853, plus #9854, plus #9855, plus #9856, plus #9857, plus #9858, plus #9859, plus #9860, plus #9861, plus #9862, plus #9863, plus #9864, plus #9865, plus #9866, plus #9867, plus #9868, plus #9869, plus #9870, plus #9871, plus #9872, plus #9873, plus #9874, plus #9875, plus #9876, plus #9877, plus #9878, plus #9879, plus #9880, plus #9881, plus #9882, plus #9883, plus #9884, plus #9885, plus #9886, plus #9887, plus #9888, plus #9889, plus #9890, plus #9891, plus #9892, plus #9893, plus #9894, plus #9895, plus #9896, plus #9897, plus #9898, plus #9899, plus #9900, plus #9901, plus #9902, plus #9903, plus #9904, plus #9905, plus #9906, plus #9907, plus #9908, plus #9909, plus #9910, plus #9911, plus #9912, plus #9913, plus #9914, plus #9915, plus #9916, plus #9917, plus #9918, plus #9919, plus #9920, plus #9921, plus #9922, plus #9923, plus #9924, plus #9925, plus #9926, plus #9927, plus #9928, plus #9929, plus #9930, plus #9931, plus #9932, plus #9933, plus #9934, plus #9935, plus #9936, plus #9937, plus #9938, plus #9939, plus #9940, plus #9941, plus #9942, plus #9943, plus #9944, plus #9945, plus #9946, plus #9947, plus #9948, plus #9949, plus #9950, plus #9951, plus #9952, plus #9953, plus #9954, plus #9955, plus #9956, plus #9957, plus #9958, plus #9959, plus #9960, plus #9961, plus #9962, plus #9963, plus #9964, plus #9965, plus #9966, plus #9967, plus #9968, plus #9969, plus #9970, plus #9971, plus #9972, plus #9973, plus #9974, plus #9975, plus #9976, plus #9977, plus #9978, plus #9979, plus #9980, plus #9981, plus #9982, plus #9983, plus #9984, plus #9985, plus #9986, plus #9987, plus #9988, plus #9989, plus #9990, plus #9991, plus #9992, plus #9993, plus #9994, plus #9995, plus #9996, plus #9997, plus #9998, plus #9999, plus #10000
 - The TS1160 Tape Drive Model 60G must be separately ordered and feature #9677 must be specified on that drive
 - One feature #1406 is required per Tape Library if this is the first TS1155 (3592 Model 55F/55G/55E) or TS1160 (3592 Model 60E/60F/60S) drive ordered

(#9713) - No Patch Panel Cables

This feature should be specified if you do not want the factory to ship any Fiber Channel cable features #1536 (MMF Quad) or #1537 (SMF Quad Drive-to-Patch Panel cables).

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is four of #1536, or four of #1537, or four of #9713
 - Feature #9713 is recommended when one of feature #1521, #1522, #1523, or #1524 is being replaced by one of Single Mode Cable feature #1537 is not being added. Multi Mode cables equal to feature #1536 are embedded in #1523, or #1524

(#9726) TS1160 Field Install Drive in 3584

This feature field installs one 3592 Model 60E or 60F or 60S Tape Drive into an installed 3584 Model D25 or L25. This feature field installs one 3592 Model 60E or 60F or 60S Tape Drive into a 3584 frame coming from the plant. The Tape Drive requires a Quad Drive

- Minimum required: Zero.
- Maximum allowed: 16 (Initial order maximum: 16)
- Prerequisite:

- On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706, #9707, #9708, #9709, #9710, #9711, #9712, #9713, #9714, #9715, #9716, #9717, #9718, #9719, #9720, #9721, #9722, #9723, #9724, #9725, #9726, #9727, #9728, #9729, #9730, #9731, #9732, #9733, #9734, #9735, #9736, #9737, #9738, #9739, #9740, #9741, #9742, #9743, #9744, #9745, #9746, #9747, #9748, #9749, #9750, #9751, #9752, #9753, #9754, #9755, #9756, #9757, #9758, #9759, #9760, #9761, #9762, #9763, #9764, #9765, #9766, #9767, #9768, #9769, #9770, #9771, #9772, #9773, #9774, #9775, #9776, #9777, #9778, #9779, #9780, #9781, #9782, #9783, #9784, #9785, #9786, #9787, #9788, #9789, #9790, #9791, #9792, #9793, #9794, #9795, #9796, #9797, #9798, #9799, #9800, #9801, #9802, #9803, #9804, #9805, #9806, #9807, #9808, #9809, #9810, #9811, #9812, #9813, #9814, #9815, #9816, #9817, #9818, #9819, #9820, #9821, #9822, #9823, #9824, #9825, #9826, #9827, #9828, #9829, #9830, #9831, #9832, #9833, #9834, #9835, #9836, #9837, #9838, #9839, #9840, #9841, #9842, #9843, #9844, #9845, #9846, #9847, #9848, #9849, #9850, #9851, #9852, #9853, #9854, #9855, #9856, #9857, #9858, #9859, #9860, #9861, #9862, #9863, #9864, #9865, #9866, #9867, #9868, #9869, #9870, #9871, #9872, #9873, #9874, #9875, #9876, #9877, #9878, #9879, #9880, #9881, #9882, #9883, #9884, #9885, #9886, #9887, #9888, #9889, #9890, #9891, #9892, #9893, #9894, #9895, #9896, #9897, #9898, #9899, #9900, #9901, #9902, #9903, #9904, #9905, #9906, #9907, #9908, #9909, #9910, #9911, #9912, #9913, #9914, #9915, #9916, #9917, #9918, #9919, #9920, #9921, #9922, #9923, #9924, #9925, #9926, #9927, #9928, #9929, #9930, #9931, #9932, #9933, #9934, #9935, #9936, #9937, #9938, #9939, #9940, #9941, #9942, #9943, #9944, #9945, #9946, #9947, #9948, #9949, #9950, #9951, #9952, #9953, #9954, #9955, #9956, #9957, #9958, #9959, #9960, #9961, #9962, #9963, #9964, #9965, #9966, #9967, #9968, #9969, #9970, #9971, #9972, #9973, #9974, #9975, #9976, #9977, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, #9986, #9987, #9988, #9989, #9990, #9991, #9992, #9993, #9994, #9995, #9996, #9997, #9998, #9999, #10000, #10001, #10002, #10003, #10004, #10005, #10006, #10007, #10008, #10009, #10010, #10011, #10012, #10013, #10014, #10015, #10016, #10017, #10018, #10019, #10020, #10021, #10022, #10023, #10024, #10025, #10026, #10027, #10028, #10029, #10030, #10031, #10032, #10033, #10034, #10035, #10036, #10037, #10038, #10039, #10040, #10041, #10042, #10043, #10044, #10045, #10046, #10047, #10048, #10049, #10050, #10051, #10052, #10053, #10054, #10055, #10056, #10057, #10058, #10059, #10060, #10061, #10062, #10063, #10064, #10065, #10066, #10067, #10068, #10069, #10070, #10071, #10072, #10073, #10074, #10075, #10076, #10077, #10078, #10079, #10080, #10081, #10082, #10083, #10084, #10085, #10086, #10087, #10088, #10089, #10090, #10091, #10092, #10093, #10094, #10095, #10096, #10097, #10098, #10099, #10100, #10101, #10102, #10103, #10104, #10105, #10106, #10107, #10108, #10109, #10110, #10111, #10112, #10113, #10114, #10115, #10116, #10117, #10118, #10119, #10120, #10121, #10122, #10123, #10124, #10125, #10126, #10127, #10128, #10129, #10130, #10131, #10132, #10133, #10134, #10135, #10136, #10137, #10138, #10139, #10140, #10141, #10142, #10143, #10144, #10145, #10146, #10147, #10148, #10149, #10150, #10151, #10152, #10153, #10154, #10155, #10156, #10157, #10158, #10159, #10160, #10161, #10162, #10163, #10164, #10165, #10166, #10167, #10168, #10169, #10170, #10171, #10172, #10173, #10174, #10175, #10176, #10177, #10178, #10179, #10180, #10181, #10182, #10183, #10184, #10185, #10186, #10187, #10188, #10189, #10190, #10191, #10192, #10193, #10194, #10195, #10196, #10197, #10198, #10199, #10200, #10201, #10202, #10203, #10204, #10205, #10206, #10207, #10208, #10209, #10210, #10211, #10212, #10213, #10214, #10215, #10216, #10217, #10218, #10219, #10220, #10221, #10222, #10223, #10224, #10225, #10226, #10227, #10228, #10229, #10230, #10231, #10232, #10233, #10234, #10235, #10236, #10237, #10238, #10239, #10240, #10241, #10242, #10243, #10244, #10245, #10246, #10247, #10248, #10249, #10250, #10251, #10252, #10253, #10254, #10255, #10256, #10257, #10258, #10259, #10260, #10261, #10262, #10263, #10264, #10265, #10266, #10267, #10268, #10269, #10270, #10271, #10272, #10273, #10274, #10275, #10276, #10277, #10278, #10279, #10280, #10281, #10282, #10283, #10284, #10285, #10286, #10287, #10288, #10289, #10290, #10291, #10292, #10293, #10294, #10295, #10296, #10297, #10298, #10299, #10300, #10301, #10302, #10303, #10304, #10305, #10306, #10307, #10308, #10309, #10310, #10311, #10312, #10313, #10314, #10315, #10316, #10317, #10318, #10319, #10320, #10321, #10322, #10323, #10

(#9948) - 3 Phase Power Cord

This feature provides a 4.3 meter (14 foot) long power cord with an IEC 309 3P+N+G 32A plug, rated for 230 Vac, 24 Amp (wye) power.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - On L25, L55, S25, S55, D25, D55: Feature #1952 is required if a Power Cord Feature (#9948) is ordered
 - On TR1: Feature #1752 if a Power Cord Feature (#9948) is ordered.
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: Mutually exclusive with feature #1751 and #1951
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of features #9948, #9954, #9955, #9956, #9957, #9958, #9959, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, or #9989 on D25, D55, L25, L55, S25, or S55

(#9949) - C20-C13 Power Cord for Spare outlets in the Enhanced PDU

This feature provides a 2.8 meter long C20-C13 Power Cord to be used between computer equipment and the intelligent PDU customer-supplied PDU with C19 outlets. C13 connects to the male C14 inlet or power cord plug and the C20 mates with the PDU. This power cord is intended to be used on PDUs with C19 outlets.

- Feature type: Chargeable
- Minimum required: Zero

- Maximum allowed: Six (Initial order maximum: Six)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#9954) Nema L6-30 Power Cord

This feature provides a NEMA L6-30 non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in U

- Feature type: Chargeable
- Required feature: No
- Minimum Number of Features: None
- Maximum Number of Features: One
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55
- Corequisite: None
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field
- Removable: No

(#9955) RS 3750DP Power Cord

This feature provides a Russellstoll 3750DP Watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used i Japan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9956) IEC 309 Power Cord

This feature provides two IEC 309, p+n+g, 32A, 4.3 meter (14 foot) power cord, 230 Vac, 24 Amps, used in EMEA.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.

- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9957) PDL 4.3m Power Cord

This feature provides a PDL 4.3 meter (14 foot) power cord, 230-240 Vac, 23 Amps, used in Australia and New Zealand.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9958) Korean 4.3m Power Cord

This feature provides a non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, with Korean plug SJ-3S.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9959) Unterminated Power Cord

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord certifications. This is the recommended cord for Argentina and Taiwan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.

- One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9966) Underminated Power Cord - China

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord is the recommended power cord for China.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9970) Dual 4.3M Pwr Cord WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 16 Amp power cords with IEC 309 Type 2P+GND 16A connection to Hubbell type HBL316R6W receptacles. This is the default power cord if no other feature is specified, in all countries except Brazil, Canada, China, Japan, Korea, New Zealand, Philippines, South Africa, Taiwan, and the United States. If feature code Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9972) Dual 4.3M Pwr Cord Non-WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with a non-watertight connector NEMA receptacles. This is the default power cord if no other feature is specified, in the United States, Canada, and Philippines. If

Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Installation: Plant or Field.
- Removable: No.

(#9976) Dual 4.3M Pwr Cord Argentina

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an IRAM 2073 plug for Argentina. This feature is provided if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9977) Dual 4.3M Pwr Cord Brazil

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with an Earth Pin InMetro NBR 14136 plug for Brazil if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.

- Removable: No.

(#9978) Dual 4.3M Pwr Cord Aust/New Zealand

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an AS/NZS 3112/2000 plug for Australia and New Zealand if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9979) Dual 4.3M Pwr Cord Japan

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with a JIS C8303, C8306 plug for Japan. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Installation: Plant or Field.
- Removable: No.

(#9980) Dual 4.3M Pwr Cord China

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a GB 2099.1, 1002 plug for China. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:

- On L25, L55: None.
- On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
- On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9981) Dual 4.3M Pwr Cord Korea

This feature provides dual (2x) 4.3 meter (14-foot) 12 Amp 250 Vac power cords with an earth pin KS C8305, K60884-1 plug for Korea if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9982) Dual 4.3M Pwr Cord Taiwan

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a CNS 10917-3 plug for Taiwan. This feature provides dual 4.3 meter power cords if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9983) Dual 4.3M Pwr Cord So.Africa

This feature provides dual (2x) 4.3 meter (14-foot) 16 Amp 250 Vac power cords with a SANS 164-1 plug for South Africa. This feature provides dual 4.3 meter power cords if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual 4.3 meter power cords.

- Feature type: Chargeable

- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9984) Dual 4.3M Power Cord NEMA L6-20 Non-Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with NEMA L6-20P non-watertight plug receptacles. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one o

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9985) Dual 4.3M Power Cord Russellstoll Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with Russellstoll 3720DPU2 watertight , 3743U2 or 9R23U2W receptacles, or Russellstoll 3913U2 or 9C23U2 connectors. If feature code 1909 (Single Power Sour order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9989) Power Cord to adjacent frame PDUs

This feature provides two power cords 4.3 meters (14 feet) in length, rated at 250 Vac, 10 amps with IEC C14 plugs. These spare outlets on the two PDUs provided by a FC 1951/1952 that is installed in an adjacent frame of the library or into customer external to the library frames. One or two adjacent frames may be powered by the spare outlets available on the FC 1951/1952. Up to three frames away from the frame containing the FC 1951/1952 PDUs. By using this feature, up to the two customer facility outlets that feed the FC 1951/1952 PDUs.

- Feature type: Chargeable
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisites:
 - None on Models L25 or L55.
 - Feature #1450 on Model D25 or Model D55.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Comments: Maximum number of features is One of features #9948, #9954 #9955, #9956, #9957, #9958, #9959, #9960, #9979, #9980, #9981, #9982, #9983, #9984, #9985, or #9989 on D25, D55, L25, L55, S25, or S55.
- Installation: Plant or Field.

(#AG00) Shipping and Handling - No charge

This feature indicates Model will have no shipping and handling charge added to the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

TS4500 HD2 Expansion Frame 3584 Model D55

(#1442) HA Kit w/Second Accessor

Includes Accessor B and the parts for integrated service bays A and B to be field installed on the left-most and right-most frame that includes this feature code must be installed as frame 1. For a 3-18 frame library, the frame that includes this feature code is the library.

- Feature Type: Chargeable .
- Required feature: No.
- Minimum Number of Features: 0.
- Maximum Number of Features: 1.
- Prerequisite: One of Feature #2072 or #9072.
- Customer setup: No.
- Installation: Plant only.

(#1450) TS4500 Frame Control Assembly

Includes 1x LCC and 2x power supplies.

- Feature type: Chargeable.
- Minimum number of features: None
- Maximum number of features: One
- Corequisite: None

- Prerequisite:
 - If PDU feature #1951 is ordered, one of Power Cord features #9954-9959, #9966 is required.
 - If PDU feature #1952 is ordered, one of Power Cord features #9948, #9954-9958 is required.
 - If PDU feature #1951 or #1952 is NOT ordered, one of Power Cord features #9970, #9972, #9976-9985, #9989 is required.
- Installation: Both
- Customer Setup: No

(#1521) 1st Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature Includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite:
 - On Models L25/L55: None.
 - On Models D25/D55: Feature number 1450 is required.
- Installation: Plant or Field.
- Customer Setup: No.

(#1522) 2nd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost frame of a dual accessor library.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1521 is required.
- Installation: Plant or Field.
- Customer Setup: No.

(#1523) 3rd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost or rightmost frame of a dual accessor library.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1522.
- Installation: Plant or Field.
- Customer Setup: No.

(#1524) 4th Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost frame of a single accessor library. This feature is not supported in the leftmost or rightmost

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1523 and, for model L25/L55, feature number 9002.
- Installation: Plant or Field.
- Customer Setup: No.

(#1530) Web Camera Mounting Hardware

This feature provides mounting brackets for attaching a customer provided video camera for the TS4500 frames including I

For additional details including mounting guidelines and an example camera, see the [TS4500 Knowledge Center](#) website.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: Two.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1531) - 1st Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables).

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - On Models D25/D55: Feature #1450 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1521
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Note for e-config: Default add one feature 1536 or client must change to 1537 or 9713

(#1532) - 2nd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)

- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1521 or #1531 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1522
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1533) - 3rd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature #1536 (SMF Quad Drive-to-Patch Panel cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature is supported in the rightmost frame of a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1522 or #1532 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1523
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1534) - 4th Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature #1536 (SMF Quad Drive-to-Patch Panel cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature is supported in the leftmost or rightmost frame of a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1523 or #1533 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1524
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1536) - MMF Quad Drive-to-Patch Panel cables

This feature Includes all fiber cables required for a column of 4 drives, 8x LC-LC Multimode Fiber (MMF) Drive-to-Patch Panel cables.

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature #1537
- Comments: Maximum number of features is four of #1536, or four of #1537, or four of #9713
- Plant / Field installable: Both
- Cable order: N/A

(#1537) - SMF Quad Drive-to-Patch Panel cables

This feature Includes all fiber cables required for a column of 4 drives, 8x LC-LC Single Mode Fiber (SMF) Drive-to-Patch F

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature #1536
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is four of #1536, or four of #1537, or four of #9713
 - Note for e-config: Model 3588-F8S needs to be in the order or exist in the library

(#1650) HD CoD for D55

On top of base capacity of 500 slots, provides additional 470 slots of capacity (382 slots if I/O FC 1652 installed, 274 slots installed and frame 1).

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1652) 2 Additional I/O Stations

Add 2 I/O Stations including magazines with addition of 36/32 LTO/3592 I/O slots. See HD COD feature code for impact to **supported in the leftmost frame of a dual accessor library.**

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1450 is required.

- Installation: Plant.
- Customer Setup: No.

(#1663) Drive Removal

This feature is intended for those customers who may have the need to remove drives from existing frames. One 3592 tape drive install feature should be removed from the library frame when a tape drive is removed.

- Feature type: Chargeable
- Minimum number of features: Zero
- Maximum number of features: 99
- Installation: Field Only

(#1909) Single Power Source Bifurcated Cable

This feature provides a single power outlet connection while maintaining drive redundant power to L25,L55, D25,D55 frame conjunction with normal power cord options.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: One of Power Cord feature number 9970, 9972, 9976, 9977, 9978, 9979, 9980, 9981, 9982, 9983, 9984,
- Installation: Plant or Field
- Customer Setup: No.

(#1951) Power Distribution Units

This feature provides two power distribution units (PDUs) for adjacent frame AC line cord aggregation or unique AC outlet internal power cables to provide power to the local frame control assembly. When ordering feature code #1951, customers must order one of the following power cord features: #9954, #9955, #9956, #9957, #9958, #9959, or #9966. Note that these line cord features may require different facility AC outlets than frames without feature code #1951.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None
- Maximum number of features: One of feature #1951 or #1952
- Corequisite: None
- Prerequisite: One of Power Cord feature #9954, #9955, #9956, #9957, #9958, #9959, or #9966 is required. Mutually exclusive with feature #1952
- Installation: Plant or Field
- Customer Setup: No
- Removable: Yes
- Limitations: Mutually exclusive with PDU feature #1952

(#1952) - Enhanced PDUs

Provides two PDUs with 3-phase (wye) or single phase input power, mounting hardware including rack brackets, and internal frame control assembly. For single phase input power, must order one power cord feature #9954 thru #9958. For 3-phase input power, must order one power cord feature #9948. Note that these line cord features may require different customer facility outlets than frames with six C13 outlets and three C19 outlets. Can be used for adjacent frame AC power cord aggregation, or for unique facility AC combination of up to 3 pairs of power cords for feature #9989 on adjacent frames.

- Minimum required: Zero

- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One of Power Cord feature #9948, #9954, #9955, #9956, #9957, or #9958, is required. Mutually exclusive with fe
 - Feature #9073 or #9074 is required
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations:
 - Mutually exclusive with legacy PDU feature #1951, Fibre Channel switch mounting feature #4879, and Ethernet s
 - Mutually exclusive with Unterminated Power Cord features #9959 and #9966
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of feature #1951 or #1952

(#2072) Flex Track Guide Expansion

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One of either #2072 or #9072.
- Corequisites: Feature #2071 or #9071 on the Lx5 frame.
- Prerequisites : None.
- Installation: Field only.
- Customer Setup: No.

(#2309) TS4500 Accessor Refresh

For customers wishing to proactively replace a highly utilized accessor, this feature provides a new accessor assembly with are included in the assembly.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.
- Prerequisites : For model Lx5, feature #2071 or #9071. For model Dx5/Sx5, feature #1442.
- Installation: Field only.
- Customer Setup: No.

(#4892) - Rear Door Sensor

This feature provides rear door sensor components for notifying the customer of rear door open/close events.

- For 3584-D55: (#4892)
 - Minimum required: 0
 - Maximum allowed: 1 (Initial order maximum: 1)
 - Prerequisites: Feature #9074 is required
 - Corequisites: NONE
 - Compatibility conflicts: NONE

- Customer set up: No
- Limitations: NONE
- Plant / Field installable: Initial
- Cable order: n/a
- Comments: NONE

(#6013) 13 Meter LC-LC Fibre Cable

This feature provides a 13 meter (43 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6025) 25 Meter LC-LC Fibre Cable

This feature provides a 25 meter (82.5 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6061) 61 Meter LC-LC Fibre Cable

(No Longer Available as of July 14, 2015)

This feature provides a 61 meter (201 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#9073) 3 Phase PDU Capable

(No longer available as of October 30, 2020)

This feature indicates that the frame is capable of supporting Enhanced PDUs and their associated power cords. Feature # feature #1952.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#9074) GEN-3 FRAME

This feature indicates that the frame includes third generation modifications to support future enhancements.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#AGK1) 10 meter OM3 fiber Cable (LC)

This feature provides a 10 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGK2) 25 meter OM3 fiber Cable (LC)

This feature provides a 25 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGK3) 80 meter OM3 fiber Cable (LC)

This feature provides a 80 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGG5) Shipping and Handling D5x

This feature indicates each Model D5x on the order will have a shipping and handling charge added to the order.

Note: Select either feature #AGG5 or feature #AG00 on the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#7703) OEM - No IBM Logo

This feature directs the plant to ship the tape library Model without "IBM" or "System Storage" logos on the front doors.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#7704) Bull OEM Logo

(No longer available as of August 14, 2020)

This feature directs the plant to ship TS4500 tape library Model without IBM or System Storage logos and provides the OE

- Feature Type: No Charge.
- Required Feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 7703 is required.
- Installation: Plant only.

(#8750) IBM LTO Ultrium cleaning cartridge

This feature provides one cleaning cartridge, used to clean the IBM LTO Ultrium tape drives.

- Installation: Plant only

Note: One feature #1407 or #1408 is required per Tape Library if this is the first TS1070 (3588 Model F7C) Tape drive ordered (#9609) 3588 F8A/F8C Plant Install

This feature informs the plant to install one TS1080 Tape Drive Model F8A/F8C (3588 Model F8A or F8C) into a Tape Library Model D55. Installation of a 3588 Tape Drive canister requires that a LTO Fibre Drive Mounting Kit feature (#1514) be installed on the canister or that a Quad Drive Mounting Kit feature (#1521, #1522, #1523, #1524, or #1531, #1532, #1533, or #1534) be installed on the canister.

Note: The TS1080 Tape Drive Model F8A, F8C must be separately ordered and feature #9609 must also be specified on the order.

- Feature type: No Charge.
- Minimum Number of Features: None
- Maximum Number of Features: 16 per frame of #9690, plus #9695, plus #9697, plus #9607, plus #9609 plus #9611
- Corequisites: None
- Prerequisites:
 - On L55/D55 Models, Feature #1521 or #1531 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
 - On L55/D55 Models, Feature #1522 or #1532 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
 - On L55/D55 Models, Feature #1523 or #1533 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
 - On L55/D55 Models, Feature #1524 or #1534 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
- Installation: Plant only

Note: One feature #1408 is required per Tape Library if this is the first TS1080 (3588 Model F8A, F8C or F8S) tape drive ordered (#9611) - 3588 F8S Plant Install

This feature informs the plant to install one TS1080 Tape Drive Model F8S (3588 Model F8S) into a Tape Library Model D55. Installation of a 3588 Tape Drive canister be installed in the TS4500 Frame with a Quad Drive Mounting Kit feature (#1531, #1532, #1533, or #1534) be installed on the canister.

Note: The TS1080 Tape Drive Model F8S must be separately ordered and feature #9611 must also be specified on the order.

- Minimum required: Zero
- Maximum allowed: 16 (Initial order maximum: 16)
- Prerequisites:
 - On L55/D55 Models, Feature #1521 or #1531 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
 - On L55/D55 Models, Feature #1522 or #1532 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
 - On L55/D55 Models, Feature #1523 or #1533 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
 - On L55/D55 Models, Feature #1524 or #1534 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611
 - On L55/D55 models, one of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero
 - On L55/D55 models, two of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero
 - On L55/D55 models, three of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero
 - On L55/D55 models, four of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Plant
- Cable order: N/A
- Comments:
 - Maximum number of features is 16 per frame of #9690, plus #9695, plus #9697, plus #9607, plus #9609, plus #9611
 - One feature #1408 is required per Tape Library if this is the first TS1080 (3588 Model F8A, F8C or F8S) tape drive ordered

(#9690) LTO, TS1140, TS115x Field Install Drive in 3584

This feature field installs one 3592 Model EH7 or EH8 or 55E or 55F, or one 3588 Model F5C or F6C or F7C or F8C or F8S Model D25 or L25, or D55 or L55. This feature is also required to field merge a 3592 Model EH7, EH8, 55E, 55F, or 3588 Model D25 or L25 into a 3584 frame coming from the plant. The Tape Drive requires a Quad Drive mounting kit to contain the drive.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9695, plus #9697, plus #9698, plus #9707, plus #9708, plus #9726, plus #9611, plus #9609
- Corequisite: None
- Prerequisite:
 - Feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than zero,
 - Feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than four,
 - Feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than eight,
 - Feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than twelve.
- Installation: Plant or Field.
- One feature #1404 is required per Tape Library if this is the first TS1140 (3592 Model E07/EH7) Tape drive ordered.
- One feature #1404 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) Tape drive ordered.
- One feature #1405 is required per Tape Library if this is the first TS1050 (3588 Model F5C) Tape drive ordered.
- One feature #1405 or one feature #1407 is required per Tape Library if this is the first TS1060 (3588 Model F6C) Tape drive ordered.
- One feature #1406 is required per Tape Library if this is the first TS1155 (3592 Model 55F/55G/55E) or TS1160 (3592 Model 55F/55G/55E) Tape drive ordered.
- One feature #1407 is required per Tape Library if this is the first TS1070 (3588 Model F7C) Tape drive ordered.
- One feature #1408 is required per Tape Library if this is the first TS1080 (3588 Model F8A, F8C or F8S) tape drive ordered.

(#9692) Plant Install 3592 E07 in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model EH7 into a 3584 Model D25 or Model L25 coming from the EH7 Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1140 Tape Drive Model EH7 must be separately ordered and feature #9677 must be specified on that configuration.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9707, plus #9708, plus #9726, plus #9611, plus #9609
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9609 are greater than zero,
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9609 are greater than four,
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9609 are greater than eight,
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9609 are greater than twelve.
- Installation: Plant Only

Note: One feature #1404 is required per Tape Library if this is the first TS1140 (3592 Model E07/EH7) or TS1150 (3592 Model E08/EH8) Tape drive ordered.

(#9695) 3588 F5A/F5C Plant Install

(No Longer Available as of March 17, 2018)(For Models D55, L55)

This feature informs the plant to install one TS1050 Tape Drive Model F5C (3588 Model F5C) into a tape library Model D55. Installation of the 3588 Model F5C Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1050 Tape Drive Model F5C must be separately ordered and feature #9695 must also be specified on the order.

- Feature type: No Charge.
- Minimum number of features: None.
- Maximum number of features: Sixteen per frame of #9690, plus #9695, plus #9697, plus #9607.
- Corequisite: None.
- Prerequisite:
 - On L55/D55 Models, Feature #1521 when tape drive features #9690, #9695, #9697, #9607 are greater than zero
 - On L55/D55 Models, Feature #1522 when tape drive features #9690, #9695, #9697, #9607 are greater than four,
 - On L55/D55 Models, Feature #1523 when tape drive features #9690, #9695, #9697, #9607 are greater than eight
 - On L55/D55 Models, Feature #1524 when tape drive features #9690, #9695, #9697, #9607 are greater than twelve
- Installation: Plant Only.

Note: One feature #1405 is required per Tape Library if this is the first TS1050 (3588 Model F5C) Tape drive ordered.

(#9697) - 3588 F6A/F6C Plant Install

(No longer available as of August 30, 2021)

This feature informs the plant to install one TS1060 Tape Drive Model F6C (3588 Model F6C) into a tape library Model D55. Installation of the 3588 Model F6C Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1060 Tape Drive Model F6C must be separately ordered and feature #9697 must also be specified on the order.

- Feature type: No Charge.
- Minimum number of features: None.
- Maximum allowed: 16 (Initial order maximum: 16)
- Corequisite: None.
- Prerequisites:
 - On L55/D55 Models, Feature #1521 or #1531 when tape drive features #9690, #9695, #9697, #9607, #9609, #9610
 - On L55/D55 Models, Feature #1522 or #1532 when tape drive features #9690, #9695, #9697, #9607, #9609, #9610
 - On L55/D55 Models, Feature #1523 or #1533 when tape drive features #9690, #9695, #9697, #9607, #9609, #9610
 - On L55/D55 Models, Feature #1524 or #1534 when tape drive features #9690, #9695, #9697, #9607, #9609, #9610
- Comments: Maximum number of features is 16 per frame of #9690, plus #9695, plus #9697, plus #9607, plus #9609,
- Installation: Plant Only.

(#9699) 3592 E08/EH8 Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model EH8 into a 3584 Model D25 or Model L25 coming from the EH8 Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1150 Tape Drive Model EH8 must be separately ordered and feature #9677 must be specified on that order.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 twelve
- Installation: Plant only

Note: One feature #1404 is required per Tape Library if this is the first TS1150 (3592 Model EH8) Tape drive ordered.

(#9700) No Host/SAN Cable from Plant

This feature must be placed on any 3584 frame shipping from the plant with no SAN attachment cables specified when a tape drive feature is not required if the Driveless Frame feature (#9001) is specified. When this feature is on the order, the plant will not ship SAN attachment cables with the shipment of this 3584 frame. Any required cables must be supplied by the customer.

- Prerequisites: Mutually exclusive with features #6013, #6025, #6061, #AGK1, #AGK2, #AGK3, and #AGKQ.
- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: None.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#9704) 3592 55E Plant Install in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model 55E into a 3584 Model D25 or Model L25 coming from the plant. The Tape Drive requires a Quad Drive mounting kit to contain the drive.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
- Installation: Plant only

Notes:

- The TS1155 Tape Drive Model 55E must be separately ordered and feature #9677 must be specified on that drive.
- One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Model 60E/60F/60G) Tape drive ordered

(#9705) 3592 55F/55G Plant Install in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model 55F into a 3584 Model D25 or Model L25, or one 3592 Tape Drive Model 55G into a 3584 Model D23 coming from the plant. Installation of the 3592 Model 55F Tape Drive requires a Quad Drive mounting kit to contain the drive. The 55G Tape Drive requires a Fibre Drive Mounting Kit feature (#1515) or (#1535).

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706

- On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
- On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706
- On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 twelve
- Installation: Plant only

Notes:

- The TS1155 Tape Drive Model 55F must be separately ordered and feature #9677 must be specified on that drive.
- One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Model 60E/60F /60G) Tape drive ordered.

(#9706) - 3592 60F/60G Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model 60F into a 3584 Model D25 or Model L25, or one 3592 Tape Drive Model 60G into a 3584 Model D25 or Model L25, or one 3592 Tape Drive Model 60G into a 3584 Model D23 coming from the plant. Installation of the 3592 Model 60F Tape Drive requires a Quad Drive mounting kit to contain the 60G Tape Drive requires a Fibre Drive Mounting Kit feature (#1515) or (#1535).

- Minimum required: Zero
- Maximum allowed: 16 (Initial order maximum: 16)
- Corequisites: None
- Prerequisites:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706 twelve
 - On L25/D25 models, one of feature #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726 are ordered
 - On L25/D25 models, two of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726 are ordered
 - On L25/D25 models, three of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726 are ordered
 - On L25/D25 models, four of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726 are ordered
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial
- Cable order: N/A
- Comments:
 - Maximum number of features is 16 per frame of #9690, plus #9692, plus #9699, plus #9705, plus #9704, plus #9706
 - The TS1160 Tape Drive Model 60G must be separately ordered and feature #9677 must be specified on that drive
 - One feature #1406 is required per Tape Library if this is the first TS1155 (3592 Model 55F/55G/55E) or TS1160 (3592 Model 60E/60F /60G) Tape drive ordered

(#9713) - No Patch Panel Cables

This feature should be specified if you do not want the factory to ship any Fiber Channel cable features #1536 (MMF Quad) or #1537 (SMF Quad Drive-to-Patch Panel cables).

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None

- Customer setup: No
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is four of #1536, or four of #1537, or four of #9713
 - Feature #9713 is recommended when one of feature #1521, #1522, #1523, or #1524 is being replaced by one of Single Mode Cable feature #1537 is not being added. Multi Mode cables equal to feature #1536 are embedded in #1523, or #1524

(#9726) TS1160 Field Install Drive in 3584

This feature field installs one 3592 Model 60E or 60F Tape Drive into an installed 3584 Model D25 or L25. This feature is a 60E or 60F Tape Drive into a 3584 frame coming from the plant. The Tape Drive requires a Quad Drive mounting kit to con

- Minimum required: Zero.
- Maximum allowed: 16 (Initial order maximum: 16)
- Prerequisite:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706
 - On L25/D25 Models, feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706 twelve
 - On L25/D25 models, one of feature #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726
 - On L25/D25 models, two of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726 are
 - On L25/D25 models, three of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726 are
 - On L25/D25 models, four of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9726 are
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plu
 - One feature #1406 is required per Tape Library if this is the first TS1155 (3592 Model 55F/55G/55E) or TS1160 (3

(#9735) IMC Broadband Call Home

(No longer available as of September 7, 2019)

This feature indicates the customer will allow broadband call home.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: Zero.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.

(#9906) New order install

This feature indicates this machine model is part of a new library order.

- Minimum number of features: None
- Maximum number of features: One
- Prerequisites: 3584-Dx5/Sx5/TR1 must have a 3584-Lx5 on the same order
- Corequisites: None
- Compatibility conflicts: None
- Limitations: None
- Customer setup: No
- Field/Plant Installable: Plant only
- Comments: e-config to default assign feature #9906 when the order is part of a new Library order

(#9948) - 3 Phase Power Cord

This feature provides a 4.3 meter (14 foot) long power cord with an IEC 309 3P+N+G 32A plug, rated for 230 Vac, 24 Amp (wye) power.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - On L25, L55, S25, S55, D25, D55: Feature #1952 is required if a Power Cord Feature (#9948) is ordered
 - On TR1: Feature #1752 if a Power Cord Feature (#9948) is ordered.
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: Mutually exclusive with feature #1751 and #1951
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of features #9948, #9954, #9955, #9956, #9957, #9958, #9959, #9960, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, or #9989 on D25, D55, L25, L55, S25, or S55

(#9949) - C20-C13 Power Cord for Spare outlets in the Enhanced PDU

This feature provides a 2.8 meter long C20-C13 Power Cord to be used between computer equipment and the intelligent P customer-supplied PDU with C19 outlets. C13 connects to the male C14 inlet or power cord plug and the C20 mates with the PDU. This power cord is intended to be used on PDUs with C19 outlets.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: Six (Initial order maximum: Six)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#9954) Nema L6-30 Power Cord

This feature provides a NEMA L6-30 non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in U

- Feature type: Chargeable
- Required feature: No
- Minimum Number of Features: None
- Maximum Number of Features: One
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55
- Corequisite: None
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field
- Removable: No

(#9955) RS 3750DP Power Cord

This feature provides a Russellstoll 3750DP Watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used i Japan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9956) IEC 309 Power Cord

This feature provides two IEC 309, p+n+g, 32A, 4.3 meter (14 foot) power cord, 230 Vac, 24 Amps, used in EMEA.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9957) PDL 4.3m Power Cord

This feature provides a PDL 4.3 meter (14 foot) power cord, 230-240 Vac, 23 Amps, used in Australia and New Zealand.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9958) Korean 4.3m Power Cord

This feature provides a non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, with Korean plug SJ-3C.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9959) Underminated Power Cord

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord certifications. This is the recommended cord for Argentina and Taiwan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9966) Underminated Power Cord - China

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord is the recommended power cord for China.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9970) Dual 4.3M Pwr Cord WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 16 Amp power cords with IEC 309 Type 2P+GND 16A connection to Hubbell type HBL316R6W receptacles. This is the default power cord if no other feature is specified, in all countries except Brazil, Canada, China, Japan, Korea, New Zealand, Philippines, South Africa, Taiwan, and the United States. If feature code Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9972) Dual 4.3M Pwr Cord Non-WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with a non-watertight connector NEMA 5-15P receptacles. This is the default power cord if no other feature is specified, in the United States, Canada, and Philippines. If feature code Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.

- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9976) Dual 4.3M Pwr Cord Argentina

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an IRAM 2073 plug for Argentina. This feature provides one of the above 4.3 meter power cords if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9977) Dual 4.3M Pwr Cord Brazil

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with an Earth Pin InMetro NBR 14136 plug for Brazil if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9978) Dual 4.3M Pwr Cord Aust/New Zealand

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an AS/NZS 3112/2000 plug for Australia and New Zealand if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.

- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9979) Dual 4.3M Pwr Cord Japan

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with a JIS C8303, C8306 plug for Japan. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Installation: Plant or Field.
- Removable: No.

(#9980) Dual 4.3M Pwr Cord China

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a GB 2099.1, 1002 plug for China. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9981) Dual 4.3M Pwr Cord Korea

This feature provides dual (2x) 4.3 meter (14-foot) 12 Amp 250 Vac power cords with an earth pin KS C8305, K60884-1 plug for Korea if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual (2x) 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9982) Dual 4.3M Pwr Cord Taiwan

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a CNS 10917-3 plug for Taiwan. This feature provides dual (2x) 4.3 meter power cords if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual (2x) 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9983) Dual 4.3M Pwr Cord So.Africa

This feature provides dual (2x) 4.3 meter (14-foot) 16 Amp 250 Vac power cords with a SANS 164-1 plug for South Africa. This feature provides dual (2x) 4.3 meter power cords if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual (2x) 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.

- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9984) Dual 4.3M Power Cord NEMA L6-20 Non-Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with NEMA L6-20P non-watertight plug receptacles. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one o

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9985) Dual 4.3M Power Cord Russellstoll Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with Russellstoll 3720DPU2 watertight 3743U2 or 9R23U2W receptacles, or Russellstoll 3913U2 or 9C23U2 connectors. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9989) Power Cord to adjacent frame PDUs

This feature provides two power cords 4.3 meters (14 feet) in length, rated at 250 Vac, 10 amps with IEC C14 plugs. These spare outlets on the two PDUs provided by a FC 1951/1952 that is installed in an adjacent frame of the library or into customer facility external to the library frames. One or two adjacent frames may be powered by the spare outlets available on the FC 1951/1952. The number of frames powered may be up to three frames away from the frame containing the FC 1951/1952 PDUs. By using this feature, up to the two customer facility outlets that feed the FC 1951/1952 PDUs.

- Feature type: Chargeable
- Minimum number of features: None.
- Maximum number of features: One.

- Corequisite: None.
- Prerequisites:
 - None on Models L25 or L55.
 - Feature #1450 on Model D25 or Model D55.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Mutually exclusive with #1951, #9954 thru #9959 and #9966 and #9948.
- Mutually exclusive with #1909, #9970, #9972, and #9976 thru #9985.
- Installation: Plant or Field.

(#AG00) Shipping and Handling - No charge

This feature indicates Model will have no shipping and handling charge added to the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#AGKQ) 3 Meter OM3 Quad Cables (LC)

Provides two space-efficient bundles of OM3 Fibre Channel cables for attaching a group of up to four drives to two nearby (mainframe). In order to attach TS4500 tape drives in the same frame or 1 frame away from a model x25 frame containing for each associated quad drive mounting kit feature #1521, #1522, #1523, #1524, #1531, #1532, #1533, #1534.

- Prerequisites:
 - Mutually exclusive with feature #9700
 - First #AGKQ, feature #1521 or #1531
 - Second #AGKQ, feature #1522 or #1532
 - Third #AGKQ, feature #1523 or #1533
 - Fourth #AGKQ, feature #1524 or #1534
 - #AGKQ, with #1531 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1532 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1533 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1534 must have one #1536, feature #1536 are cumulative

TS4500 HD2 Base Frame 3584 L25

(#0500) Library and Drive Code Update

(No Longer Available as of July 14, 2015)

This feature provides the customer the ability to have library and drive code updated by a CE. This feature should be charged. This feature should not be ordered for customers who are upgrading function on existing libraries.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: None (maximum of one per order).
- Corequisite: None.
- Prerequisite: None.
- Installation: Field Only.
- Customer Setup: No.

(#1404) TS1140 and TS1150 tape drive support

This feature provides a JK diagnostic cartridge. Only one JK diagnostic cartridge feature #1404 is required in a TS4500 Lib

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: Ten.
- Corequisites: None.
- Prerequisites: One JK diagnostic cartridge is required when the first TS1140 (3592 Model EH7) or TS1150 (3592 Mod
- Installation: Plant and Field.
- Customer setup: No.

(#1405) LTO5 and LTO6 tape drive support

This feature provides a L5 diagnostic cartridge. Only one L5 diagnostic cartridge feature #1405 is required in a TS3500 or 1

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: Ten.
- Corequisites: None.
- Prerequisites: Feature #1405 is a prerequisite to the first TS1050 (3588 Model F5x) Tape drive ordered. One of either to the first TS1060 (3588 Model F6x) Tape drive ordered.
- Installation: Plant and Field.
- Customer setup: No.

(#1406) TS1150 TS1155 TS1160 tape drive support

This feature provides a JL diagnostic cartridge. Only one JL diagnostic cartridge feature #1406 is required in a TS3500 or 1

- Feature type: Chargeable
- Minimum Number of Features: None
- Maximum Number of Features: Ten.
- Corequisites: None
- Prerequisites: One JL diagnostic cartridge is required when the first TS1150 (3592 Model E08/EH8), or TS1155 (3592 TS1160 (3592 Model 60E or Model 60F or Model 60G or Model 60S) Tape drive is ordered
- Installation: Plant and Field
- Customer setup: No

(#1407) LTO6 and LTO7 tape drive support

This feature provides a L6 diagnostic cartridge. Only one L6 diagnostic cartridge feature #1407 is required in a TS3500 or 1

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: Ten.
- Corequisites: None.
- Prerequisites: One of either feature #1405 or #1407 is a prerequisite to the first TS1060 (3588 Model F6x) Tape drive to the first TS1070 (3588 Model F7x) Tape drive ordered.
- Installation: Plant and Field.
- Customer setup: No.

(#1408) LTO7 and LTO8 tape drive support

This feature provides a L7 CE cartridge. Only one L7 CE cartridge feature #1408 is required in a TS3500 or TS4500 Librar

- Feature type: Chargeable
- Minimum number of features: None
- Maximum Number of Features: Ten.
- Corequisites: None
- Prerequisites: One of either feature #1407 or #1408 is a prerequisite to the first TS1070 (3588 Model F7x) tape drive c to the first TS1080 (3588 Model F8x) Tape drive ordered.
- Installation: Plant and Field
- Customer setup: No

(#1460) Redundant Accessor Power/Network

This provides full power and internal network redundancy for the L25/L55 frame.

- Feature type: Chargeable.
- Minimum number of features: One.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1521) 1st Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature Includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite:
 - On Models L25/L55: None.
 - On Models D25/D55: Feature number 1450 is required.
- Installation: Plant or Field.
- Customer Setup: No.

(#1522) 2nd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost frame of a dual accessor library.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1521 is required.
- Installation: Plant or Field.
- Customer Setup: No.

(#1523) 3rd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost or rightmost frame of a dual accessor library.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1522.
- Installation: Plant or Field.
- Customer Setup: No.

(#1524) 4th Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost frame of a single accessor library. This feature is not supported in the leftmost or rightmost

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1523 and for model L25/L55 feature number 9002.
- Installation: Plant or Field.
- Customer Setup: No.

(#1530) Web Camera Mounting Hardware

This feature provides mounting brackets for attaching a customer provided video camera for the TS4500 frames including I For additional details including mounting guidelines and an example camera, see the [TS4500 Knowledge Center](#) website.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: Two.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1531) - 1st Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables).

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - On Models D25/D55: Feature #1450 is required

- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1521
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Note for e-config: Default add one feature 1536 or client must change to 1537 or 9713

(#1532) - 2nd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1521 or #1531 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1522
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1533) - 3rd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature rightmost frame of a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1522 or #1532 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1523
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1534) - 4th Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature a single accessor library. This feature is not supported in the leftmost or rightmost frame of a dual accessor library.

- Minimum required: Zero

- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1523 or #1533 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1524
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1536) - MMF Quad Drive-to-Patch Panel cables

This feature Includes all fiber cables required for a column of 4 drives, 8x LC-LC Multimode Fiber (MMF) Drive-to-Patch Pa

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature #1537
- Comments: Maximum number of features is four of #1536, or four of #1537, or four of #9713
- Plant / Field installable: Both
- Cable order: N/A

(#1604) LTO Library Managed Encryption

This feature provides a license key to support Library Managed Encryption on LTO Tape Drives (3588 models)

- Feature type: Chargeable.
- Minimum number of features: None
- Maximum number of features: One
- Corequisite: None
- Prerequisite: None
- Installation: Plant and Field install
- Customer Setup: Yes

(#1628) Additional LTO Cartridge Magazine

This feature provides Magazine and cover for transport and/or storage of up to 18 cartridges.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum number of features: 250 (Initial order limit of 4 for plant order, must be ordered in pairs)
- Corequisites: None.
- Prerequisites:
 - On L25: Feature #9080 is required.
 - On L55: None.
- Installation: Plant and Field.

- Customer setup: Yes.

(#1629) Additional 3592 Cartridge Magazine

This feature provides Magazine and cover for transport and/or storage of up to 16 cartridges.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: 250 (Initial order limit of 4 for plant order, must be ordered in pairs)
- Corequisite: None.
- Prerequisite:
 - On L25: None.
 - On L55: Feature #9080 is required.
- Installation: Plant and Field.
- Customer Setup: Yes.

(#1643) Intermediate Capacity on Demand

This feature provides a license key to increase storage from entry capacity to intermediate capacity. For Lx5, entry capacity is 200 slots.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1644) Base Capacity on Demand

This feature provides a license key to increase storage from intermediate capacity to base capacity. For Lx5, intermediate capacity is 400 slots.

- Feature type: Chargeable.
- Minimum: None.
- Maximum number of plant or field features: One per frame.
- Prerequisites: Feature number 1643.
- Required feature: Yes, if an Expansion Frame is attached (feature number 9002 is installed).
- Customer Setup: Yes.
- Installation: Plant or Field.

(#1647) HD CoD for L25

This feature provides a license key to increase storage capacity. On top of the base capacity of 400 slots, this feature provides 150 slots if frame 1).

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1644.

- Installation: Plant or Field.
- Customer Setup: Yes.

(#1663) Drive Removal

This feature is intended for those customers who may have the need to remove drives from existing frames. One 3592 tape drive install feature should be removed from the library frame when a tape drive is removed.

- Feature type: Chargeable
- Minimum number of features: Zero
- Maximum number of features: 99
- Installation: Field Only

(#1682) Path Failover

This optional feature provides automatic control path and data path failover for tape drives in the library. The control path failover provides automatic control path failover to a pre-configured redundant control path in the event of a loss of a host adapter or control path drive progress. The data path failover is designed to provide a failover mechanism for configuring multiple redundant paths in a library. In the event of a host adapter or component failure, the failover mechanism is designed to automatically provide error recovery to retry the current operation path without aborting the current job in progress. This can provide flexibility in SAN configuration, availability, and management.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1776) US RoHS Indicator

The state of Wisconsin requires RoHS compliant equipment. This feature will be selected as needed in the configurator for equipment used in Wisconsin.

- Feature type: No charge.
- Minimum number of features per Model: None.
- Maximum number of features per Model: One.
- Prerequisites: None.
- Corequisites: None.
- Compatibility Conflicts: None.
- Customer Setup: No.
- Limitations: None.
- Installation: Plant only.

(#1802) 1-2 Frame X-Track cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being removed from a library, such as a 3592 tape drive.

- Removable: Yes
- Feature type: Chargeable.
- Minimum number of features: None.

- Maximum number of features: One (One of feature #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1806) 3-6 Frame X-Track cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being added or removed from a library six frames remaining.

- Removable: Yes
- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One (One of feature #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1814) 7-14 Frame X-Track Cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being added or removed from a library fourteen frames remaining.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One (One of feature number #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1818) 9-18 Frame X-Track Cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being added or removed from a library eighteen frames remaining.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One (One of feature number #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1856) Overhead Access Ladder

This feature provides top rack access (a ladder will be required although can use an existing ladder, if desired).

- Feature type: Chargeable
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field
- Customer Setup: No.

(#1909) Single Power Source Bifurcated Cable

This feature provides a single power outlet connection while maintaining drive redundant power to L25,L55, D25,D55 frame in conjunction with normal power cord options.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: One of Power Cord feature number 9970, 9972, 9976, 9977, 9978, 9979, 9980, 9981, 9982, 9983, 9984.
- Installation: Plant or Field
- Customer Setup: No.

(#1951) Power Distribution Units

This feature provides two power distribution units (PDUs) for adjacent frame AC line cord aggregation or unique AC outlet internal power cables to provide power to the local frame control assembly. When ordering feature code #1951, customers must order one of the following power cord features: #9954, #9955, #9956, #9957, #9958, #9959, or #9966. Note that these line cord features may require different facility outlets than frames without feature code #1951.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None
- Maximum number of features: One of feature #1951 or #1952
- Corequisite: None
- Prerequisite: One of Power Cord feature #9954, #9955, #9956, #9957, #9958, #9959, or #9966 is required. Mutually exclusive with feature #1952
- Installation: Plant or Field
- Customer Setup: No
- Removable: Yes
- Limitations: Mutually exclusive with PDU feature #1952

(#1952) - Enhanced PDUs

Provides two PDUs with 3-phase (wye) or single phase input power, mounting hardware including rack brackets, and internal local frame control assembly. For single phase input power, must order one power cord feature #9954 thru #9958. For 3-phase input power, must order one power cord feature #9959 thru #9966. Note that these line cord features may require different customer facility outlets than frames with six C13 outlets and three C19 outlets. Can be used for adjacent frame AC power cord aggregation, or for unique facility AC combination of up to 3 pairs of power cords for feature #9989 on adjacent frames.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One of Power Cord feature #9948, #9954, #9955, #9956, #9957, or #9958, is required. Mutually exclusive with feature #1951

- Feature #9073 or #9074 is required
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations:
 - Mutually exclusive with legacy PDU feature #1951, Fibre Channel switch mounting feature #4879, and Ethernet s
 - Mutually exclusive with Unterminated Power Cord features #9959 and #9966
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of feature #1951 or #1952

(#2002) 1-2 Frame Flex-Track A cable

This feature is required for any new 1-2 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: Plant and Field.
- Customer setup: No.

(#2006) 3-6 Frame Flex-Track A cable

This feature is required for any new 3-6 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: : Plant and Field.
- Customer setup: No.

(#2014) 7-14 Frame Flex Track A Cable

This feature is required for any new 7-14 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: Plant and Field.

- Customer setup: No.

(#2018) 9-18 Frame FlexTrack A cable

This feature is required for any new 9-18 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade of a 9-18 frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: Plant and Field.
- Customer setup: No.

(#2071) Flex Track Guide Base

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that use #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgraded to HA. TS4500 tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track guide (plant). TS4500 expansion frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One of either #2071 or #9071.
- Corequisites: Feature #2072 or #9072 on every Dxx/Sxx frame in the library.
- Prerequisites: One of feature #2002, #2006, #2014, or #2018.
- Installation: Field only.
- Customer setup: No.

(#2309) TS4500 Accessor Refresh

For customers wishing to proactively replace a highly utilized accessor, this feature provides a new accessor assembly with all components included in the assembly.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.
- Prerequisites : For model Lx5, feature #2071 or #9071. For model Dx5/Sx5, feature #1442.
- Installation: Field only.
- Customer Setup: No.

(#2402) 2 Frame Flex Track B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 2 frame HA library. This feature is automatically added as a prerequisite to other features.

- Feature Type: Chargeable .
- Required feature: No .
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).

- Prerequisite: Feature #2002.
- Customer setup: No.
- Installation: Plant or Field.

(#2406) 3-6 Frame Flex Track B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 3-6 frame HA library. This feature is automatically added as a prerequisite to other features.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).
- Prerequisite: Feature #2006.
- Customer setup: No.
- Installation: Plant or Field.

(#2414) 7-14 Frame FlexTrack B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 7-14 frame HA library. This feature is automatically added as a prerequisite to other features.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).
- Prerequisite: Feature #2014.
- Customer setup: No.
- Installation: Plant or Field.

(#2418) 9-18 Frame FlexTrack B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 9-18 frame HA library. This feature is automatically added as a prerequisite to other features.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).
- Prerequisite: : Feature #2018.
- Customer setup: No.
- Installation: Plant or Field.

(#2704) Console Expansion 26Port Enet Switch/Rackmount

This feature provides a 26-Port Ethernet switch and an attachment cable for connection to a TS3000 System Console or M additional connections are provided by this feature. This feature is supported on Lx5 models to allow other products or other

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Removable: Yes.

- Prerequisite: Mutually exclusive with feature #1951 and #4879.
- Corequisite: None.
- Installation: Plant or Field.
- Limitations: Refer to the Limitations section to see a list of countries in which the switch has been qualified for use.

(#2715) Console Attachment

This feature provides a cable to attach a unit to the Ethernet switch provided by the TS3000 System Console or Master Console. The feature #2715 may be included in a single master console facility.

- Feature Type: Chargeable.
- Required Feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Field Installable: Yes.
- Installation: Plant or Field.

(#2735) USB Optical Drive

This feature is required for all new plant orders. This feature provides a USB optical drive for use with the Integrated Management Console. The feature #2735 is required for IMC code and service Knowledge Center updates.

- Feature type: Chargeable.
- Required feature: Yes.
- Minimum number of features: One.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#4879) TS7700 BE Sw Mounting Hdw

This feature provides 2x Fibre channel switch mounting hardware (including power cords) for 2x TS7700 backend fibre 16 Gb switches. If the feature is ordered with a model TR1 and the power cords are attached to feature #1751 or #1752 PDUs. For TS4500, this feature is required. If the power cords can either be combined with local frame power or can be attached to feature #1951 or #1952 PDUs in an adjacent frame, local frame power or attached to PDUs, no additional facility AC outlets are required for the Fibre Channel switches.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Prerequisite: Mutually exclusive with PDU feature #1951 or #1952 and Ethernet Switch feature #2704
- Customer setup: No .
- Installation: Plant or Field.

(#4880) TS7700 BE 16 Gb Switch

This feature provides one 16 Gb Fibre channel switch with 24 LC Shortwave ports. The 16 Gb switch supports attachment to TS7700. Patch-panel-to-switch Fibre Channel cables are ordered against the frame containing the tape drives using feature #4880 (if tape drives are more than 2 frames away from the switch) or AGKQ (if tape drives are less than 2 frames away from the switch).

- Feature Type: Chargeable.
- Required feature: No.

- Minimum Number of Features: None.
- Maximum Number of Features: Two.
- Prerequisite: Feature #4879 and minimum one feature #AGKQ.
- Customer setup: No.
- Installation: Plant or Field.

(#4892) - Rear Door Sensor

This feature provides rear door sensor components for notifying the customer of rear door open/close events.

- For 3584-L25: (#4892)
 - Minimum required: 0
 - Maximum allowed: 1 (Initial order maximum: 1)
 - Prerequisites: Feature #9074 is required
 - Corequisites: NONE
 - Compatibility conflicts: NONE
 - Customer set up: No
 - Limitations: NONE
 - Plant / Field installable: Initial
 - Cable order: n/a
 - Comments: NONE

(#6013) 13 Meter LC-LC Fibre Cable

This feature provides a 13 meter (43 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6025) 25 Meter LC-LC Fibre Cable

This feature provides a 25 meter (82.5 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6061) 61 Meter LC-LC Fibre Cable

(No Longer Available as of July 14, 2015)

This feature provides a 61 meter (201 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#9073) 3 Phase PDU Capable

(No longer available as of October 30, 2020)

This feature indicates that the frame is capable of supporting Enhanced PDUs and their associated power cords. Feature # feature #1952.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#9074) GEN-3 FRAME

This feature indicates that the frame includes third generation modifications to support future enhancements.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#AGK1) 10 meter OM3 fiber Cable (LC)

This feature provides a 10 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes

- Installation: Plant or Field.

(#AGK2) 25 meter OM3 fiber Cable (LC)

This feature provides a 25 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGK3) 80 meter OM3 fiber Cable (LC)

This feature provides a 80 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGKA) - 3m Mini-SAS HD/Mini-SAS HD 4x Cable

3 meters Mini-SAS HD to Mini-SAS HD cable for attachment of up to four Tape Drives in the same column (from HBA with Order one or two #AGKA for each associated quad drive mounting kit feature #1531, #1532, #1533, #1534.

- For 3584-L25: (#AGKA)
 - Minimum required: 0
 - Maximum allowed: 8 (Initial order maximum: 8)
 - Prerequisites:
 - First #AGKA, feature #1531
 - Third #AGKA, feature #1532
 - Fifth #AGKA, feature #1533
 - Seventh #AGKA, feature #1534
 - Corequisites: None
 - Compatibility conflicts: None
 - Customer setup: No
 - Limitations: None
 - Plant / Field installable: Both
 - Cable order: N/A
 - Comments: None

(#AGKQ) 3 Meter OM3 Quad Cables (LC)

Provides two space-efficient bundles of OM3 Fibre Channel cables for attaching a group of up to four drives to two nearby (mainframe). In order to attach TS4500 tape drives in the same frame or 1 frame away from a model x25 frame containing for each associated quad drive mounting kit feature #1521, #1522, #1523, #1524, #1531, #1532, #1533, #1534.

- Prerequisites:
 - Mutually exclusive with feature #9700
 - First #AGKQ, feature #1521 or #1531
 - Second #AGKQ, feature #1522 or #1532
 - Third #AGKQ, feature #1523 or #1533
 - Fourth #AGKQ, feature #1524 or #1534
 - #AGKQ, with #1531 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1532 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1533 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1534 must have one #1536, feature #1536 are cumulative

(#AGG2) Shipping and Handling L2x

This feature indicates each Model L2x on the order will have a shipping and handling charge added to the order.

Note: Select either feature #AGG2 or feature #AG00 on the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#AJGF) Petroleum Solutions Non-Analytics Large

(No Longer Available as of February 26, 2019)

This feature identifies the order as part of the IBM Petroleum Solutions for ProSource. It will tie together all AAS componen ordering simplicity. This feature is for administrative purposes only and does not affect the technical capabilities of the mac

- Minimum required: 0
- Maximum allowed: 1 (Initial order maximum: 1)
- Prerequisites: None
- Corequisites:
 - Quantity of 1 of feature #1404, #1407, #1460, #1531, #1532, #1643, #1644, #1647, #1682, #2006, #2715, #2735 #9735, and #AGG2
 - Quantity of 2 of feature #1628
 - Quantity of 2 of feature #1629
 - Quantity of 8 of feature #9692
 - Quantity of 16 of feature #AGK2
 - Quantity of 2 of MTM 3584-D55 and 3589-550
 - Quantity of 1 of MTM 3599-420, 3584-S55, 3589-004, and 3599-017
 - At least one of 3588-F6C (11 recommended) and one of 3592-EH7 (8 recommended)
 - Quantity of 1 of MTM 2076-624, 2076-24F, and 7014-T42
 - Quantity of 4 of MTM 2076-12F
- Compatibility conflicts: None
- Limitations: None
- Initial Order/MES/Both/Supported: Initial

(#AJGG) Petroleum Solutions Analytics Enabled Large

(No Longer Available as of February 26, 2019)

This feature identifies the order as part of the IBM Petroleum Solutions for ProSource. It will tie together all AAS component ordering simplicity. This feature is for administrative purposes only and does not affect the technical capabilities of the machine.

- Minimum required: 0
- Maximum allowed: 1 (Initial order maximum: 1)
- Prerequisites: None
- Corequisites:
 - Quantity of 1 of feature #1404, #1407, #1460, #1531, #1532, #1643, #1644, #1647, #1682, #2006, #2715, #2735, #9735, and #AGG2
 - Quantity of 2 of feature #1628
 - Quantity of 2 of feature #1629
 - Quantity of 8 of feature #9692
 - Quantity of 16 of feature #AGK2
 - Quantity of 2 of MTM 3584-D55 and 3589-550
 - Quantity of 1 of MTM 3599-420, 3584-S55, 3589-004, and 3599-017
 - At least one of 3588-F6C (11 recommended) and one of 3592-EH7 (8 recommended)
 - Quantity of 1 of MTM 2076-624, 2076-24F, and 7014-T42
 - Quantity of 4 of MTM 2076-12F
- Compatibility conflicts: None
- Limitations: None
- Initial Order/MES/Both/Supported: Initial

(#7703) OEM - No IBM Logo

This feature directs the plant to ship the tape library Model without "IBM" or "System Storage" logos on the front doors.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#7704) Bull OEM Logo

(No longer available as of August 14, 2020)

This feature directs the plant to ship the tape library Model without IBM or System Storage logos and provides the OEM BL

- Feature Type: No Charge.
- Required Feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 7703 is required.
- Installation: Plant only.

(#8802) 3592 Cleaning Cartridge

This feature provides one 3592 cleaning cartridge, used to clean the 3592 Tape Drive.

- Feature type: Chargeable.

- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Ten.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9001) Driveless Frame

This feature directs the plant to ship the 3584 Tape Library frame without any tape drives installed.

- Feature type: No Charge
- Required feature: This feature is required if there is no tape drive feature ordered (#9690, #9692, #9699, #9704, #970 Models L25/D25, or #9607, #9609, #9611, #9690, #9695, #9697 on a Models L55/D55)
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.

(#9002) First Expansion Frame Attachment

This features notifies the plant that an expansion frame will be attached to the Model Lxx base frame. Feature #9002 must Model D25, D55, S24, S25, S54, or S55 attached. Feature #9003 must be applied to the Lxx frame for each additional exp proper cables are shipped and configuration records are correct.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite:
 - The Base Capacity On Demand feature #1644 is required.
 - The Redundant Accessor Power/Network feature #1460 is required.
- Installation: Plant or Field.

(#9003) Additional Expansion Frame Attachment

This features notifies the plant that an expansion frame will be attached to the Model Lxx base frame. Feature #9002 must Model D25, D55, S24, S25, S54, or S55 attached. Feature #9003 must be applied to the Lxx frame for each additional exp proper cables are shipped and configuration records are correct.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Sixteen.
- Corequisite: None.
- Prerequisites: The first expansion frame attachment feature #9002 is required.
- Installation: Plant or Field.

(#9040) High Availability Library

This feature must be specified on the 3584 Model Lxx of a TS3500/TS4500 Tape Library that contains a second accessor for the HA TS3500/TS4500 Tape Library.

- Feature type: No Charge.
- Minimum: Zero.
- Maximum: One.
- Prerequisite: Feature #9071 or #2071; 1x Flex Track A Cable feature #2002, #2006, #2014, or #2018 and 1x Flex Track #2414, or #2418 of same length.
- Corequisite: A model D25, D55, S25, or S55 frame with feature #1442.
- Installation: Plant or Field.

(#9071) Flex Track Guide Base

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgraded. TS4500 tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track (plant). TS4500 expansion frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: No Charge.
- Minimum: One.
- Maximum: One.
- Prerequisite: One of #2002, #2006, #2014, or #2018.
- Corequisite: Feature #2072 or #9072 on all attached Dxx/Sxx frames.
- Installation: Plant Only.

(#9080) Mixed Media Library

This feature represents a 3584 Library has a mix of LTO and 3592 Frames.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.
- Prerequisites:
 - On L25 Feature #1628 is required .
 - On L55 Feature #1629 is required.
- Installation: Plant or Field.
- Customer setup: No.

(#9210) Attached to HP-UX

This indicates that tape drives in the library are attached to a server running HP-UX.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9211) Attached to Solaris System

This indicates that tape drives in the library are attached to a server running Oracle Solaris.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9212) Attached to Windows System

This indicates that tape drives in the library are attached to a server running Windows.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9213) Attached to other Non-IBM System

This indicates that tape drives in the library are attached to a non-IBM system running an other operating system.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9215) Attached to Linux System

This indicates that tape drives in the library are attached to a server running Linux.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9217) Attached to TS7700

This indicates that one or more tape drives in the library are attached to a TS7700.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of features: None.
- Maximum number of features: One.
- Prerequisites: Feature #2715.
- Installation: Plant or Field.

(#9218) Attached to HPSS

This indicates that the High Performance Storage System (HPSS) software is used to manage data on the tape library.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.
- Initial order only: Yes.

(#9400) Attached to I5/OS OR OS/400 System

This indicates that tape drives in the library are attached to a server running i5/OS or OS/400.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9600) Attached to AIX System

This indicates that tape drives in the library are attached to a server running AIX.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9690) LTO, TS1140, TS115x Field Install Drive in 3584

This feature field installs one 3592 Model EH7 or EH8 or 55E or 55F, or one 3588 Model F5C or F6C or F7C or F8C or F8S or Model D25 or L25, or D55 or L55. This feature is also required to field merge a 3592 Model EH7, EH8, 55E, 55F, or 3588 Model F5C or F6C or F7C or F8C or F8S Drive into a 3584 frame coming from the plant. The Tape Drive requires a Quad Drive mounting kit to contain the drive.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9695, plus #9697, plus #9607, plus #9704, plus #9705, plus #9706, plus #9707, plus #9708, plus #9726, plus #9611, plus #9609
- Corequisite: None
- Prerequisite:
 - Feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than zero,
 - Feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than four,
 - Feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than eight,
 - Feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than twelve.
- Installation: Plant or Field.
- One feature #1404 is required per Tape Library if this is the first TS1140 (3592 Model E07/EH7) Tape drive ordered.
- One feature #1404 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) Tape drive ordered.
- One feature #1405 is required per Tape Library if this is the first TS1050 (3588 Model F5C) Tape drive ordered.
- One feature #1405 or one feature #1407 is required per Tape Library if this is the first TS1060 (3588 Model F6C) Tape drive ordered.
- One feature #1406 is required per Tape Library if this is the first TS1155 (3592 Model 55F/55G/55E) or TS1160 (3592 Model 55F/55G/55E) Tape drive ordered.
- One feature #1407 is required per Tape Library if this is the first TS1070 (3588 Model F7C) Tape drive ordered.
- One feature #1408 is required per Tape Library if this is the first TS1080 (3588 Model F8A, F8C or F8S) tape drive ordered.

(#9692) Plant Install 3592 E07 in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model EH7 into a 3584 Model D25 or Model L25 coming from the plant. The EH7 Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1140 Tape Drive Model EH7 must be separately ordered and feature #9677 must be specified on that configuration.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706, plus #9707, plus #9708, plus #9726, plus #9611, plus #9609
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706, #9707, #9708, #9726, #9611, #9609 are greater than zero,
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706, #9707, #9708, #9726, #9611, #9609 are greater than four,
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706, #9707, #9708, #9726, #9611, #9609 are greater than eight,
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706, #9707, #9708, #9726, #9611, #9609 are greater than twelve.
- Installation: Plant Only

Note: One feature #1404 is required per Tape Library if this is the first TS1140 (3592 Model E07/EH7) or TS1150 (3592 Model E08/EH8) Tape drive ordered.

(#9699) 3592 E08/EH8 Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model EH8 into a 3584 Model D25 or Model L25 coming from the plant. The EH8 Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1150 Tape Drive Model EH8 must be separately ordered and feature #9677 must be specified on that configuration.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than zero,
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than four,
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than eight,
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than twelve
- Installation: Plant only

Note: One feature #1404 is required per Tape Library if this is the first TS1150 (3592 Model EH8) Tape drive ordered.

(#9700) No Host/SAN Cable from Plant

This feature must be placed on any 3584 frame shipping from the plant with no SAN attachment cables specified when a tape drive feature is not required if the Driveless Frame feature (#9001) is specified. When this feature is on the order, the plant will not ship SAN attachment cables with the shipment of this 3584 frame. Any required cables must be supplied by the customer.

- Prerequisites: Mutually exclusive with features #6013, #6025, #6061, #AGK1, #AGK2, #AGK3, and #AGKQ.
- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: None.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#9704) 3592 55E Plant Install in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model 55E into a 3584 Model D25 or Model L25 coming from the plant. The Tape Drive requires a Quad Drive mounting kit to contain the drive.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than zero,
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than four,
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than eight,
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9706 than twelve
- Installation: Plant only

Notes:

- The TS1155 Tape Drive Model 55E must be separately ordered and feature #9677 must be specified on that drive.

- One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Mod Model 60E/60F/60G) Tape drive ordered

(#9705) 3592 55F/55G Plant Install in 3584

(No longer available as of December 7, 2019)

This feature tells the plant to install one 3592 Tape Drive Model 55F into a 3584 Model D25 or Model L25, or one 3592 Tap D23 coming from the plant. Installation of the 3592 Model 55F Tape Drive requires a Quad Drive mounting kit to contain the 55G Tape Drive requires a Fibre Drive Mounting Kit feature (#1515) or (#1535).

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9712
- Corequisite: None
- Prerequisite:
 - On L25/D25 Models, Feature #1521 or #1531 when tape drive features #9690,#9692, #9699, #9704, #9705, #9712
 - On L25/D25 Models, Feature #1522 or #1532 when tape drive features #9690,#9692, #9699, #9704, #9705, #9712
 - On L25/D25 Models, Feature #1523 or #1533 when tape drive features #9690,#9692, #9699, #9704, #9705, #9712
 - On L25/D25 Models, Feature #1524 or #1534 when tape drive features #9690,#9692, #9699, #9704, #9705, #9712
twelve
- Installation: Plant only

Notes:

- The TS1155 Tape Drive Model 55F must be separately ordered and feature #9677 must be specified on that drive.
- One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Mod Model 60E/60F /60G) Tape drive ordered.

(#9706) - 3592 60F/60G Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model 60F into a 3584 Model D25 or Model L25, or one 3592 Tap D23 coming from the plant. Installation of the 3592 Model 60F Tape Drive requires a Quad Drive mounting kit to contain the 60G Tape Drive requires a Fibre Drive Mounting Kit feature (#1515) or (#1535).

- Minimum required: Zero
- Maximum allowed: 16 (Initial order maximum: 16)
- Corequisites: None
- Prerequisites:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706 are more than zero
 - On L25/D25 Models, feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706 are more than four
 - On L25/D25 Models, feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706 are more than eight
 - On L25/D25 Models, feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706 are more than twelve
 - On L25/D25 models, one of feature #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9709 are more than zero
 - On L25/D25 models, two of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9709 are more than zero
 - On L25/D25 models, three of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9709 are more than zero
 - On L25/D25 models, four of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9709 are more than zero
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Plant

- Cable order: N/A
- Comments:
 - Maximum number of features is 16 per frame of #9690, plus #9692, plus #9699, plus #9705, plus #9704, plus #9708, plus #9726
 - The TS1160 Tape Drive Model 60G must be separately ordered and feature #9677 must be specified on that drive
 - One feature #1406 is required per Tape Library if this is the first TS1155 (3592 Model 55F/55G/55E) or TS1160 (3592 Model 60F/60G/60E) Tape drive ordered

(#9707) - 3592 60E Plant Install in 3584

This feature tells the plant to install one 3592 Tape Drive Model 60E into a 3584 Model D25 or Model L25 coming from the Tape Drive requires a Quad Drive mounting kit to contain the drive.

- Minimum required: 0
- Maximum allowed: 16 (Initial order maximum: 16) Sixteen per frame of #9690, plus #9692, plus #9699, plus #9705, plus #9708, plus #9726
- Prerequisites:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, plus #9726 than zero
 - On L25/D25 Models, feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, plus #9726 than four
 - On L25/D25 Models, feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, plus #9726 than eight
 - On L25/D25 Models, feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9704, #9705, #9708, plus #9726 than twelve
 - On L25/D25 models, one of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9713
 - On L25/D25 models, two of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9713
 - On L25/D25 models, three of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9713
 - On L25/D25 models, four of FC #1531, #1532, #1533, #1534 when tape drive features #9706, #9707, #9708, #9713
- Corequisites: Feature #1531 or #1532 or #1533 or #1534
- Customer set up: No
- Comments:
 - The TS1160 Tape Drive Model 60E must be separately ordered and feature #9677 must be specified on that drive
 - One feature #1406 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) or TS1155 (3592 Model 60F/60G/60E) Tape drive ordered.
- Plant / Field installable: Initial

(#9713) - No Patch Panel Cables

This feature should be specified if you do not want the factory to ship any Fiber Channel cable features #1536 (MMF Quad) or #1537 (SMF Quad Drive-to-Patch Panel cables).

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is four of #1536, or four of #1537, or four of #9713

- Feature #9713 is recommended when one of feature #1521, #1522, #1523, or #1524 is being replaced by one of Single Mode Cable feature #1537 is not being added. Multi Mode cables equal to feature #1536 are embedded in #1523, or #1524

(#9726) TS1160 Field Install Drive in 3584

This feature field installs one 3592 Model 60E or 60F or 60S Tape Drive into an installed 3584 Model D25 or L25. This feat 3592 Model 60E or 60F or 60S Tape Drive into a 3584 frame coming from the plant. The Tape Drive requires a Quad Drive

- Minimum required: Zero.
- Maximum allowed: 16 (Initial order maximum: 16)
- Prerequisite:
 - On L25/D25 Models, feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9704, #9705, #9706, #9708, #9709, #9710, #9711, #9712, #9713, #9714, #9715, #9716, #9717, #9718, #9719, #9720, #9721, #9722, #9723, #9724, #9725, #9726, #9727, #9728, #9729, #9730, #9731, #9732, #9733, #9734, #9735, #9736, #9737, #9738, #9739, #9740, #9741, #9742, #9743, #9744, #9745, #9746, #9747, #9748, #9749, #9750, #9751, #9752, #9753, #9754, #9755, #9756, #9757, #9758, #9759, #9760, #9761, #9762, #9763, #9764, #9765, #9766, #9767, #9768, #9769, #9770, #9771, #9772, #9773, #9774, #9775, #9776, #9777, #9778, #9779, #9780, #9781, #9782, #9783, #9784, #9785, #9786, #9787, #9788, #9789, #9790, #9791, #9792, #9793, #9794, #9795, #9796, #9797, #9798, #9799, #9800, #9801, #9802, #9803, #9804, #9805, #9806, #9807, #9808, #9809, #9810, #9811, #9812, #9813, #9814, #9815, #9816, #9817, #9818, #9819, #9820, #9821, #9822, #9823, #9824, #9825, #9826, #9827, #9828, #9829, #9830, #9831, #9832, #9833, #9834, #9835, #9836, #9837, #9838, #9839, #9840, #9841, #9842, #9843, #9844, #9845, #9846, #9847, #9848, #9849, #9850, #9851, #9852, #9853, #9854, #9855, #9856, #9857, #9858, #9859, #9860, #9861, #9862, #9863, #9864, #9865, #9866, #9867, #9868, #9869, #9870, #9871, #9872, #9873, #9874, #9875, #9876, #9877, #9878, #9879, #9880, #9881, #9882, #9883, #9884, #9885, #9886, #9887, #9888, #9889, #9890, #9891, #9892, #9893, #9894, #9895, #9896, #9897, #9898, #9899, #9900, #9901, #9902, #9903, #9904, #9905, #9906, #9907, #9908, #9909, #9910, #9911, #9912, #9913, #9914, #9915, #9916, #9917, #9918, #9919, #9920, #9921, #9922, #9923, #9924, #9925, #9926, #9927, #9928, #9929, #9930, #9931, #9932, #9933, #9934, #9935, #9936, #9937, #9938, #9939, #9940, #9941, #9942, #9943, #9944, #9945, #9946, #9947, #9948, #9949, #9950, #9951, #9952, #9953, #9954, #9955, #9956, #9957, #9958, #9959, #9960, #9961, #9962, #9963, #9964, #9965, #9966, #9967, #9968, #9969, #9970, #9971, #9972, #9973, #9974, #9975, #9976, #9977, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, #9986, #9987, #9988, #9989, #9990, #9991, #9992, #9993, #9994, #9995, #9996, #9997, #9998, #9999, #10000
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is Sixteen per frame of #9690, plus #9692, plus #9699, plus #9704, plus #9705, plus #9706, plus #9708, plus #9709, plus #9710, plus #9711, plus #9712, plus #9713, plus #9714, plus #9715, plus #9716, plus #9717, plus #9718, plus #9719, plus #9720, plus #9721, plus #9722, plus #9723, plus #9724, plus #9725, plus #9726, plus #9727, plus #9728, plus #9729, plus #9730, plus #9731, plus #9732, plus #9733, plus #9734, plus #9735, plus #9736, plus #9737, plus #9738, plus #9739, plus #9740, plus #9741, plus #9742, plus #9743, plus #9744, plus #9745, plus #9746, plus #9747, plus #9748, plus #9749, plus #9750, plus #9751, plus #9752, plus #9753, plus #9754, plus #9755, plus #9756, plus #9757, plus #9758, plus #9759, plus #9760, plus #9761, plus #9762, plus #9763, plus #9764, plus #9765, plus #9766, plus #9767, plus #9768, plus #9769, plus #9770, plus #9771, plus #9772, plus #9773, plus #9774, plus #9775, plus #9776, plus #9777, plus #9778, plus #9779, plus #9780, plus #9781, plus #9782, plus #9783, plus #9784, plus #9785, plus #9786, plus #9787, plus #9788, plus #9789, plus #9790, plus #9791, plus #9792, plus #9793, plus #9794, plus #9795, plus #9796, plus #9797, plus #9798, plus #9799, plus #9800, plus #9801, plus #9802, plus #9803, plus #9804, plus #9805, plus #9806, plus #9807, plus #9808, plus #9809, plus #9810, plus #9811, plus #9812, plus #9813, plus #9814, plus #9815, plus #9816, plus #9817, plus #9818, plus #9819, plus #9820, plus #9821, plus #9822, plus #9823, plus #9824, plus #9825, plus #9826, plus #9827, plus #9828, plus #9829, plus #9830, plus #9831, plus #9832, plus #9833, plus #9834, plus #9835, plus #9836, plus #9837, plus #9838, plus #9839, plus #9840, plus #9841, plus #9842, plus #9843, plus #9844, plus #9845, plus #9846, plus #9847, plus #9848, plus #9849, plus #9850, plus #9851, plus #9852, plus #9853, plus #9854, plus #9855, plus #9856, plus #9857, plus #9858, plus #9859, plus #9860, plus #9861, plus #9862, plus #9863, plus #9864, plus #9865, plus #9866, plus #9867, plus #9868, plus #9869, plus #9870, plus #9871, plus #9872, plus #9873, plus #9874, plus #9875, plus #9876, plus #9877, plus #9878, plus #9879, plus #9880, plus #9881, plus #9882, plus #9883, plus #9884, plus #9885, plus #9886, plus #9887, plus #9888, plus #9889, plus #9890, plus #9891, plus #9892, plus #9893, plus #9894, plus #9895, plus #9896, plus #9897, plus #9898, plus #9899, plus #9900, plus #9901, plus #9902, plus #9903, plus #9904, plus #9905, plus #9906, plus #9907, plus #9908, plus #9909, plus #9910, plus #9911, plus #9912, plus #9913, plus #9914, plus #9915, plus #9916, plus #9917, plus #9918, plus #9919, plus #9920, plus #9921, plus #9922, plus #9923, plus #9924, plus #9925, plus #9926, plus #9927, plus #9928, plus #9929, plus #9930, plus #9931, plus #9932, plus #9933, plus #9934, plus #9935, plus #9936, plus #9937, plus #9938, plus #9939, plus #9940, plus #9941, plus #9942, plus #9943, plus #9944, plus #9945, plus #9946, plus #9947, plus #9948, plus #9949, plus #9950, plus #9951, plus #9952, plus #9953, plus #9954, plus #9955, plus #9956, plus #9957, plus #9958, plus #9959, plus #9960, plus #9961, plus #9962, plus #9963, plus #9964, plus #9965, plus #9966, plus #9967, plus #9968, plus #9969, plus #9970, plus #9971, plus #9972, plus #9973, plus #9974, plus #9975, plus #9976, plus #9977, plus #9978, plus #9979, plus #9980, plus #9981, plus #9982, plus #9983, plus #9984, plus #9985, plus #9986, plus #9987, plus #9988, plus #9989, plus #9990, plus #9991, plus #9992, plus #9993, plus #9994, plus #9995, plus #9996, plus #9997, plus #9998, plus #9999, plus #10000
 - One feature #1406 is required per Tape Library if this is the first TS1155 (359

(#9948) - 3 Phase Power Cord

This feature provides a 4.3 meter (14 foot) long power cord with an IEC 309 3P+N+G 32A plug, rated for 230 Vac, 24 Amp (wye) power.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - On L25, L55, S25, S55, D25, D55: Feature #1952 is required if a Power Cord Feature (#9948) is ordered
 - On TR1: Feature #1752 if a Power Cord Feature (#9948) is ordered.
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: Mutually exclusive with feature #1751 and #1951
- Plant / Field installable: Both

- Cable order: N/A
- Comments: Maximum number of features is One of features #9948, #9954, #9955, #9956, #9957, #9958, #9959, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, or #9989 on D25, D55, L25, L55, S25, or S55

(#9949) - C20-C13 Power Cord for Spare outlets in the Enhanced PDU

This feature provides a 2.8 meter long C20-C13 Power Cord to be used between computer equipment and the intelligent P customer-supplied PDU with C19 outlets. C13 connects to the male C14 inlet or power cord plug and the C20 mates with the PDU. This power cord is intended to be used on PDUs with C19 outlets.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: Six (Initial order maximum: Six)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#9954) Nema L6-30 Power Cord

This feature provides a NEMA L6-30 non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in U

- Feature type: Chargeable
- Required feature: No
- Minimum Number of Features: None
- Maximum Number of Features: One
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55
- Corequisite: None
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field
- Removable: No

(#9955) RS 3750DP Power Cord

This feature provides a Russellstoll 3750DP Watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in Japan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952

- On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9956) IEC 309 Power Cord

This feature provides two IEC 309, p+n+g, 32A, 4.3 meter (14 foot) power cord, 230 Vac, 24 Amps, used in EMEA.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9957) PDL 4.3m Power Cord

This feature provides a PDL 4.3 meter (14 foot) power cord, 230-240 Vac, 23 Amps, used in Australia and New Zealand.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9958) Korean 4.3m Power Cord

This feature provides a non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, with Korean plug SJ-3C.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.

- Removable: No.

(#9959) Underminated Power Cord

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power c certifications. This is the recommended cord for Argentina and Taiwan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9966) Underminated Power Cord - China

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power c is the recommended power cord for China.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9970) Dual 4.3M Pwr Cord WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 16 Amp power cords with IEC 309 Type 2P+GND 16A connection to Hubbell type HBL316R6W receptacles. This is the default power cord if no other feature is specified, in all cc Brazil, Canada, China, Japan, Korea, New Zealand, Philippines, South Africa, Taiwan, and the United States. If feature coc Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:

- On L25, L55: None.
- On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
- On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9972) Dual 4.3M Pwr Cord Non-WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with a non-watertight connector NEMA receptacles. This is the default power cord if no other feature is specified, in the United States, Canada, and Philippines. If Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9976) Dual 4.3M Pwr Cord Argentina

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an IRAM 2073 plug for Argentina. Th if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this featu power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9977) Dual 4.3M Pwr Cord Brazil

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with an Earth Pin InMetro NBR 14136 plu cord for Brazil if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your above 4.3 meter power cords.

- Feature type: Chargeable

- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9978) Dual 4.3M Pwr Cord Aust/New Zealand

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an AS/NZS 3112/2000 plug for Australia power cord for Australia and New Zealand if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9979) Dual 4.3M Pwr Cord Japan

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with a JIS C8303, C8306 plug for Japan. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Installation: Plant or Field.
- Removable: No.

(#9980) Dual 4.3M Pwr Cord China

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a GB 2099.1, 1002 plug for China. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9981) Dual 4.3M Pwr Cord Korea

This feature provides dual (2x) 4.3 meter (14-foot) 12 Amp 250 Vac power cords with an earth pin KS C8305, K60884-1 plug for Korea if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9982) Dual 4.3M Pwr Cord Taiwan

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a CNS 10917-3 plug for Taiwan. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.

- On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
- On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9983) Dual 4.3M Pwr Cord So.Africa

This feature provides dual (2x) 4.3 meter (14-foot) 16 Amp 250 Vac power cords with a SANS 164-1 plug for South Africa. Africa if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, the meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9984) Dual 4.3M Power Cord NEMA L6-20 Non-Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with NEMA L6-20P non-watertight plug receptacles. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9985) Dual 4.3M Power Cord Russellstoll Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with Russellstoll 3720DPU2 watertight receptacles, 3743U2 or 9R23U2W receptacles, or Russellstoll 3913U2 or 9C23U2 connectors. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.

- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9989) Power Cord to adjacent frame PDUs

This feature provides two power cords 4.3 meters (14 feet) in length, rated at 250 Vac, 10 amps with IEC C14 plugs. These spare outlets on the two PDUs provided by a FC 1951/1952 that is installed in an adjacent frame of the library or into customer external to the library frames. One or two adjacent frames may be powered by the spare outlets available on the FC 1951/1952. The number of frames powered may be up to three frames away from the frame containing the FC 1951/1952 PDUs. By using this feature, up to the two customer facility outlets that feed the FC 1951/1952 PDUs.

- Feature type: Chargeable
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisites:
 - None on Models L25 or L55.
 - Feature #1450 on Model D25 or Model D55.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Mutually exclusive with #1951, #9954 thru #9959 and #9966 and #9948.
- Mutually exclusive with #1909, #9970, #9972, and #9976 thru #9985.
- Installation: Plant or Field.

(#AG00) Shipping and Handling - No charge

This feature indicates Model will have no shipping and handling charge added to the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

TS4500 HD2 Base Frame 3584 L55

(#0500) Library and Drive Code Update

(No Longer Available as of July 14, 2015)

This feature provides the customer the ability to have library and drive code updated by a CE. This feature should be charged. This feature should not be ordered for customers who are upgrading function on existing libraries.

- Feature type: Chargeable.
- Minimum number of features: None.

- Maximum number of features: None (maximum of one per order).
- Corequisite: None.
- Prerequisite: None.
- Installation: Field Only.
- Customer Setup: No.

(#1404) TS1140 and TS1150 tape drive support

This feature provides a JK diagnostic cartridge. Only one JK diagnostic cartridge feature #1404 is required in a TS4500 Lib

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: Ten.
- Corequisites: None.
- Prerequisites: One JK diagnostic cartridge is required when the first TS1140 (3592 Model EH7) or TS1150 (3592 Mod
- Installation: Plant and Field.
- Customer setup: No.

(#1405) LTO5 and LTO6 tape drive support

This feature provides a L5 diagnostic cartridge. Only one L5 diagnostic cartridge feature #1405 is required in a TS3500 or 1

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: Ten.
- Corequisites: None.
- Prerequisites: Feature #1405 is a prerequisite to the first TS1050 (3588 Model F5x) Tape drive ordered. One of either to the first TS1060 (3588 Model F6x) Tape drive ordered.
- Installation: Plant and Field.
- Customer setup: No.

(#1406) TS1150 TS1155 TS1160 tape drive support

This feature provides a JL diagnostic cartridge. Only one JL diagnostic cartridge feature #1406 is required in a TS3500 or 1

- Feature type: Chargeable
- Minimum Number of Features: None
- Maximum Number of Features: Ten.
- Corequisites: None
- Prerequisites: One JL diagnostic cartridge is required when the first TS1150 (3592 Model E08/EH8), or TS1155 (3592 TS1160 (3592 Model 60E or Model 60F or Model 60G) Tape drive is ordered
- Installation: Plant and Field
- Customer setup: No

(#1407) LTO6 and LTO7 tape drive support

This feature provides a L6 diagnostic cartridge. Only one L6 diagnostic cartridge feature #1407 is required in a TS3500 or 1

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: Ten.
- Corequisites: None.

- Prerequisites: One of either feature #1405 or #1407 is a prerequisite to the first TS1060 (3588 Model F6x) Tape drive to the first TS1070 (3588 Model F7x) Tape drive ordered.
- Installation: Plant and Field.
- Customer setup: No.

(#1408) LTO7 and LTO8 tape drive support

This feature provides a L7 CE cartridge. Only one L7 CE cartridge feature #1408 is required in a TS3500 or TS4500 Librar

- Feature type: Chargeable
- Minimum number of features: None
- Maximum Number of Features: Ten.
- Corequisites: None
- Prerequisites: One of either feature #1407 or #1408 is a prerequisite to the first TS1070 (3588 Model F7x) tape drive c to the first TS1080 (3588 Model F8x) Tape drive ordered.
- Installation: Plant and Field
- Customer setup: No

(#1460) Redundant Accessor Power/Network

This provides full power and internal network redundancy for the L25/L55 frame.

- Feature type: Chargeable.
- Minimum number of features: One.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1521) 1st Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature Includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite:
 - On Models L25/L55: None.
 - On Models D25/D55: Feature number 1450 is required.
- Installation: Plant or Field.
- Customer Setup: No.

#1522) 2nd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost frame of a dual accessor library.

- Feature type: Chargeable.

- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1521 is required.
- Installation: Plant or Field.
- Customer Setup: No.

(#1523) 3rd Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost or rightmost frame of a dual accessor library.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1522.
- Installation: Plant or Field.
- Customer Setup: No.

(#1524) 4th Quad Drive Mounting Kit

(No longer available as of January 12, 2019)

This feature includes all cabling required for a column of 4 adjacent drives including 8x LC-LC Drive-to-Patch Panel cables is not supported in the leftmost frame of a single accessor library. This feature is not supported in the leftmost or rightmost

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1523 and for model L25/L55 feature number 9002.
- Installation: Plant or Field.
- Customer Setup: No.

(#1530) Web Camera Mounting Hardware

This feature provides mounting brackets for attaching a customer provided video camera for the TS4500 frames including I

For additional details including mounting guidelines and an example camera, see the [TS4500 Knowledge Center](#) website.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: Two.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1531) - 1st Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables).

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - On Models D25/D55: Feature #1450 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1521
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Note for e-config: Default add one feature 1536 or client must change to 1537 or 9713

(#1532) - 2nd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1521 or #1531 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1522
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1533) - 3rd Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature # cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature rightmost frame of a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1522 or #1532 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1523
- Plant / Field installable: Both
- Cable order: N/A

- Comments: None

(#1534) - 4th Quad Drive Mounting Kit

This feature provides signal and power cabling for a column of 4 adjacent drives. Fiber cables can be ordered via feature #1536 (MMF Quad Drive-to-Patch Panel cables) or feature #1537 (SMF Quad Drive-to-Patch Panel cables) or feature #9713 (No Patch Panel Cables). This feature is a single accessor library. This feature is not supported in the leftmost or rightmost frame of a dual accessor library.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
 - Feature #1523 or #1533 is required
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature # 1524
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#1536) - MMF Quad Drive-to-Patch Panel cables

This feature Includes all fiber cables required for a column of 4 drives, 8x LC-LC Multimode Fiber (MMF) Drive-to-Patch Panel cables.

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature #1537
- Comments: Maximum number of features is four of #1536, or four of #1537, or four of #9713
- Plant / Field installable: Both
- Cable order: N/A

(#1537) - SMF Quad Drive-to-Patch Panel cables

This feature Includes all fiber cables required for a column of 4 drives, 8x LC-LC Single Mode Fiber (SMF) Drive-to-Patch Panel cables.

- Minimum required: Zero
- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with Feature #1536
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is four of #1536, or four of #1537, or four of #9713

- Note for e-config: Model 3588-F8S needs to be in the order or exist in the library

(#1604) LTO Library Managed Encryption

This feature provides a license key to support Library Managed Encryption on LTO Tape Drives (3588 models)

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1628) Additional LTO Cartridge Magazine

This feature provides Magazine and cover for transport and/or storage of up to 18 cartridges.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: 250 (Initial order limit of 4 for plant order, must be ordered in pairs)
- Corequisite: None.
- Prerequisite:
 - On L25: Feature #9080 is required.
 - On L55: None.
- Installation: Plant and Field.
- Customer Setup: Yes.

(#1629) Additional 3592 Cartridge Magazine

This feature provides Magazine and cover for transport and/or storage of up to 16 cartridges.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum number of features: 250 (Initial order limit of 4 for plant order, must be ordered in pairs)
- Corequisites: None.
- Prerequisites:
 - On L25: None.
 - On L55: Feature #9080 is required.
- Installation: Plant and Field.
- Customer setup: Yes.

(#1643) Intermediate Capacity on Demand

This feature provides a license key to increase storage from entry capacity to intermediate capacity. For Lx5, entry capacity is 200 slots.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.

- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1644) Base Capacity on Demand

This feature provides a license key to increase storage from intermediate capacity to base capacity. For Lx5, intermediate capacity is 400 slots.

- Feature type: Chargeable.
- Minimum: None.
- Maximum number of plant or field features: One per frame.
- Prerequisites: Feature number 1643.
- Required feature: Yes, if an Expansion Frame is attached (feature number 9002 is installed).
- Customer Setup: Yes.
- Installation: Plant or Field.

(#1648) HD CoD for L55

On top of base capacity of 400 slots, provides additional 482 slots of capacity (330 slots if frame 1).

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 1644.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1663) Drive Removal

This feature is intended for those customers who may have the need to remove drives from existing frames. One 3592 tape drive install feature should be removed from the library frame when a tape drive is removed.

- Feature type: Chargeable
- Minimum number of features: Zero
- Maximum number of features: 99
- Installation: Field Only

(#1682) Path Failover

This optional feature provides automatic control path and data path failover for tape drives in the library. The control path feature provides control path failover to a pre- configured redundant control path in the event of a loss of a host adapter or control path drive progress. The data path failover is designed to provide a failover mechanism for configuring multiple redundant paths in a library. In the event of a host or component failure, the failover mechanism is designed to automatically provide error recovery to retry the current operation path without aborting the current job in progress. This can provide flexibility in SAN configuration, availability, and management.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.

- Installation: Plant or Field.
- Customer Setup: No.

(#1802) 1-2 Frame X-Track cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being removed from a library, such remaining.

- Removable: Yes
- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One (One of feature #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1806) 3-6 Frame X-Track cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being added or removed from a library, six frames remaining.

- Removable: Yes
- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One (One of feature #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1814) 7-14 Frame X-Track Cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being added or removed from a library, fourteen frames remaining.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One (One of feature number #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1818) 9-18 Frame X-Track Cable

(No longer available as of September 7, 2019)

This feature must be added to any single accessor 3584 Tape Library when frames are being added or removed from a lib eighteen frames remaining.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One (One of feature number #1802, #1806, #1814, or #1818).
- Corequisite: None.
- Prerequisites: Mutually exclusively with feature #2071 or #9071.
- Installation: Field Only.
- Customer Setup: No.

(#1856) Overhead Access Ladder

This feature provides top rack access (a ladder will be required although can use an existing ladder, if desired).

- Feature type: Chargeable
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field
- Customer Setup: No.

(#1909) Single Power Source Bifurcated Cable

This feature provides a single power outlet connection while maintaining drive redundant power to L25,L55, D25,D55 frame conjunction with normal power cord options.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: One of Power Cord feature number 9970, 9972, 9976, 9977, 9978, 9979, 9980, 9981, 9982, 9983, 9984.
- Installation: Plant or Field
- Customer Setup: No.

(#1951) Power Distribution Units

This feature provides two power distribution units (PDUs) for adjacent frame AC line cord aggregation or unique AC outlet internal power cables to provide power to the local frame control assembly. When ordering feature code #1951, customers cord features #9954, #9955, #9956, #9957, #9958, #9959, or #9966. Note that these line cord features may require differ without feature code #1951.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None
- Maximum number of features: One of feature #1951 or #1952
- Corequisite: None
- Prerequisite: One of Power Cord feature #9954, #9955, #9956, #9957, #9958, #9959, or #9966 is required. Mutually exclusive with feature #9967.
- Installation: Plant or Field
- Customer Setup: No
- Removable: Yes

- Limitations: Mutually exclusive with PDU feature #1952

(#1952) - Enhanced PDUs

Provides two PDUs with 3-phase (wye) or single phase input power, mounting hardware including rack brackets, and internal frame control assembly. For single phase input power, must order one power cord feature #9954 thru #9958. For 3-phase power cord feature #9948. Note that these line cord features may require different customer facility outlets than frames with six C13 outlets and three C19 outlets. Can be used for adjacent frame AC power cord aggregation, or for unique facility AC combination of up to 3 pairs of power cords for feature #9989 on adjacent frames.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - One of Power Cord feature #9948, #9954, #9955, #9956, #9957, or #9958, is required. Mutually exclusive with feature #9073 or #9074 is required
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations:
 - Mutually exclusive with legacy PDU feature #1951, Fibre Channel switch mounting feature #4879, and Ethernet switch mounting feature #4879
 - Mutually exclusive with Unterminated Power Cord features #9959 and #9966
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of feature #1951 or #1952

(#2002) 1-2 Frame Flex-Track A cable

This feature is required for any new 1-2 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade of a 1-2 frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: Plant and Field.
- Customer setup: No.

(#2006) 3-6 Frame Flex-Track A cable

This feature is required for any new 3-6 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade of a 3-6 frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: : Plant and Field.
- Customer setup: No.

(#2014) 7-14 Frame Flex Track A Cable

This feature is required for any new 7-14 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: Plant and Field.
- Customer setup: No.

(#2018) 9-18 Frame FlexTrack A cable

This feature is required for any new 9-18 frame TS4500 Tape Library. This feature is also a prerequisite for any field upgrade frame HA library. This feature is not selectable in e-config, it is automatically added as a prerequisite to other features.

- Removable: Yes.
- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2002, #2006, #2014, or #2018).
- Corequisites: None.
- Prerequisites: None.
- Installation: Plant and Field.
- Customer setup: No.

(#2071) Flex Track Guide Base

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgraded tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track (plant). TS4500 expansion frames support Flex-Track guide feature #2072 field) or #9072 (plant).

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One of either #2071 or #9071.
- Corequisites: Feature #2072 or #9072 on every Dxx/Sxx frame in the library.
- Prerequisites: One of feature #2002, #2006, #2014, or #2018.
- Installation: Field only.
- Customer setup: No.

(#2309) TS4500 Accessor Refresh

For customers wishing to proactively replace a highly utilized accessor, this feature provides a new accessor assembly with are included in the assembly.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.

- Prerequisites : For model Lx5, feature #2071 or #9071. For model Dx5/Sx5, feature #1442.
- Installation: Field only.
- Customer Setup: No.

(#2402) 2 Frame Flex Track B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 2 frame HA library. This feature automatically added as a prerequisite to other features.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).
- Prerequisite: Feature #2002.
- Customer setup: No.
- Installation: Plant or Field.

(#2406) 3-6 Frame Flex Track B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 3-6 frame HA library. This feature automatically added as a prerequisite to other features.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).
- Prerequisite: Feature #2006.
- Customer setup: No.
- Installation: Plant or Field.

(#2414) 7-14 Frame FlexTrack B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 7-14 frame HA library. This feature automatically added as a prerequisite to other features.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).
- Prerequisite: Feature #2014.
- Customer setup: No.
- Installation: Plant or Field.

(#2418) 9-18 Frame FlexTrack B cable

This feature is a prerequisite for any plant or field upgrade to HA (FC 9040) that results in a 9-18 frame HA library. This feature automatically added as a prerequisite to other features.

- Feature Type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One (One of features #2402, #2406, #2414, or #2418).
- Prerequisite: : Feature #2018.

- Customer setup: No.
- Installation: Plant or Field.

(#2704) Console Expansion 26Port Enet Switch/Rackmount

This feature provides a 26-Port Ethernet switch and an attachment cable for connection to a TS3000 System Console or Master Console. Additional connections are provided by this feature. This feature is supported on Lx5 models to allow other products or other features to be installed.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Removable: Yes.
- Prerequisite: Mutually exclusive with feature #1951 and #4879.
- Corequisite: None.
- Installation: Plant or Field.
- Limitations: Refer to the Limitations section to see a list of countries in which the switch has been qualified for use.

(#2715) Console Attachment

This feature provides a cable to attach a unit to the Ethernet switch provided by the TS3000 System Console or Master Console. The feature #2715 may be included in a single master console facility.

- Feature Type: Chargeable.
- Required Feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Field Installable: Yes.
- Installation: Plant or Field.

(#2735) USB Optical Drive

This feature is required for all new plant orders. This feature provides a USB optical drive for use with the Integrated Management Console (IMC). The feature #2735 is required for IMC code and service Knowledge Center updates.

- Feature type: Chargeable.
- Required feature: Yes.
- Minimum number of features: One.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#4892) - Rear Door Sensor

This feature provides rear door sensor components for notifying the customer of rear door open/close events.

- For 3584-L55: (#4892)
 - Minimum required: 0
 - Maximum allowed: 1 (Initial order maximum: 1)
 - Prerequisites: Feature #9074 is required
 - Corequisites: NONE

- Compatibility conflicts: NONE
- Customer set up: No
- Limitations: NONE
- Plant / Field installable: Initial
- Cable order: n/a
- Comments: NONE

(#6013) 13 Meter LC-LC Fibre Cable

This feature provides a 13 meter (43 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6025) 25 Meter LC-LC Fibre Cable

This feature provides a 25 meter (82.5 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#6061) 61 Meter LC-LC Fibre Cable

(No Longer Available as of July 14, 2015)

This feature provides a 61 meter (201 ft.) cable with male LC duplex connectors on each end.

- Feature type: Chargeable.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: 99.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#9073) 3 Phase PDU Capable

(No longer available as of October 30, 2020)

This feature indicates that the frame is capable of supporting Enhanced PDUs and their associated power cords. Feature # feature #1952.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#9074) GEN-3 FRAME

This feature indicates that the frame includes third generation modifications to support future enhancements.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#AGK1) 10 meter OM3 fiber Cable (LC)

This feature provides a 10 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGK2) 25 meter OM3 fiber Cable (LC)

This feature provides a 25 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGK3) 80 meter OM3 fiber Cable (LC)

This feature provides a 80 meter 50.0/125 micrometer fiber optic cable terminated with LC Duplex connectors.

- Feature Type: Chargeable.
- Required feature: No.
- Maximum Number of Features: 99
- Minimum Number of Features: 0.
- Prerequisite: Mutually exclusive with feature #9700
- Customer setup: Yes
- Installation: Plant or Field.

(#AGG3) Shipping and Handling L5x

This feature indicates each Model L5x on the order will have a shipping and handling charge added to the order.

Note: Select either feature #AGG3 or feature #AG00 on the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#7703) OEM - No IBM Logo

This feature directs the plant to ship the tape library Model without "IBM" or "System Storage" logos on the front doors.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#7704) Bull OEM Logo

(No longer available as of August 14, 2020)

This feature directs the plant to ship the tape library Model without IBM or System Storage logos and provides the OEM BL

- Feature Type: No Charge.
- Required Feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 7703 is required.
- Installation: Plant only.

(#8750) IBM LTO Ultrium cleaning cartridge

This feature provides one cleaning cartridge, used to clean the IBM LTO Ultrium tape drives.

- Feature type: Chargeable.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Ten.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9001) Driveless Frame

This feature directs the plant to ship the 3584 Tape Library frame without any tape drives installed.

- Feature type: No Charge
- Required feature: This feature is required if there is no tape drive feature ordered (#9690, #9692, #9699, #9704, #970 Models L25/D25, or #9607, #9609, #9611, #9690, #9695, #9697 on a Models L55/D55)
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.

(#9002) First Expansion Frame Attachment

This features notifies the plant that an expansion frame will be attached to the Model Lxx base frame. Feature #9002 must Model D25, D55, S24, S25, S54, or S55 attached. Feature #9003 must be applied to the Lxx frame for each additional exp proper cables are shipped and configuration records are correct.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite:
 - The Base Capacity On Demand feature #1644 is required.
 - The Redundant Accessor Power/Network feature #1460 is required.
- Installation: Plant or Field.

(#9003) Additional Expansion Frame Attachment

This features notifies the plant that an expansion frame will be attached to the Model Lxx base frame. Feature #9002 must Model D25, D55, S24, S25, S54, or S55 attached. Feature #9003 must be applied to the Lxx frame for each additional exp proper cables are shipped and configuration records are correct.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: 16.
- Corequisite: None.
- Prerequisites: The first expansion frame attachment feature #9002 is required.
- Installation: Plant or Field.

(#9040) High Availability Library

This feature must be specified on the 3584 Model Lxx of a TS3500/TS4500 Tape Library that contains a second accessor for the HA TS3500/TS4500 Tape Library.

- Feature type: No Charge.
- Minimum: Zero.
- Maximum: One.
- Prerequisite: Feature #9071 or #2071; 1x Flex Track A Cable feature #2002, #2006, #2014, or #2018 and 1x Flex Track #2414, or #2418 of same length.
- Corequisite: A model D25, D55, S25, or S55 frame with feature #1442.
- Installation: Plant or Field.

(#9071) Flex Track Guide Base

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgraded to HA. TS4500 tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track guide (plant). TS4500 expansion frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: No Charge.
- Minimum: One.
- Maximum: One.
- Prerequisite: One of #2002, #2006, #2014, or #2018.
- Corequisite: Feature #2072 or #9072 on all attached Dxx/Sxx frames.
- Installation: Plant Only.

(#9080) Mixed Media Library

This feature represents a 3584 Library has a mix of LTO and 3592 Frames.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.
- Prerequisites:
 - On L25 Feature #1628 is required .
 - On L55 Feature #1629 is required.
- Installation: Plant or Field.
- Customer setup: No.

(#9210) Attached to HP-UX

This indicates that tape drives in the library are attached to a server running HP-UX.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.

- Initial order only: Yes.

(#9211) Attached to Solaris System

This indicates that tape drives in the library are attached to a server running Oracle Solaris.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9212) Attached to Windows System

This indicates that tape drives in the library are attached to a server running Windows.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9213) Attached to other Non-IBM System

This indicates that tape drives in the library are attached to a non-IBM system running an other operating system.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9215) Attached to Linux System

This indicates that tape drives in the library are attached to a server running Linux.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.

- Installation: Plant only.
- Initial order only: Yes.

(#9217) Attached to TS7700

This indicates that one or more tape drives in the library are attached to a TS7700.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of features: None.
- Maximum number of features: One.
- Prerequisites: Feature #2715.
- Installation: Plant or Field.

(#9218) Attached to HPSS

This indicates that the High Performance Storage System (HPSS) software is used to manage data on the tape library.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.
- Initial order only: Yes.

(#9400) Attached to I5/OS OR OS/400 System

This indicates that tape drives in the library are attached to a server running i5/OS or OS/400.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.
- Initial order only: Yes.

(#9600) Attached to AIX System

This indicates that tape drives in the library are attached to a server running AIX.

- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant only.

- Initial order only: Yes.

(#9607) 3588 F7A/F7C Plant Install

This feature informs the plant to install one TS1070 Tape Drive Model F7A/ F7C (3588 Model F7A or F7C) into a Tape Library from the plant. Installation of a 3588 Tape Drive canister requires that a LTO Fibre Drive Mounting Kit feature (#1514) be in the canister or that a Quad Drive Mounting Kit feature (#1521, #1522, #1523, or #1524 or #1531, #1532, #1533, or #1534) contain the canister.

Note: The TS1070 Tape Drive Model F7C must be separately ordered and feature #9607 must also be specified on 1

- Feature type: No Charge
- Minimum Number of Features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9695, plus #9697, plus #9607, plus #9609, plus #9607
- Corequisite: None
- Prerequisite:
 - On L55/D55 Models, Feature #1521 or #1531 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1522 or #1532 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1523 or #1533 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1524 or #1534 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
- Installation: Plant only

Note: One feature #1407 or #1408 is required per Tape Library if this is the first TS1070 (3588 Model F7C) Tape drive ordered

(#9609) 3588 F8A/F8C Plant Install

This feature informs the plant to install one TS1080 Tape Drive Model F8A/F8C (3588 Model F8A or F8C) into a Tape Library from the plant. Installation of a 3588 Tape Drive canister requires that a LTO Fibre Drive Mounting Kit feature (#1514) be installed in the canister or that a Quad Drive Mounting Kit feature (#1521, #1522, #1523, #1524, or #1531, #1532, #1533, or #1534) be in the canister.

Note: The TS1080 Tape Drive Model F8A, F8C must be separately ordered and feature #9609 must also be specified on 1

- Feature type: No Charge.
- Minimum Number of Features: None
- Maximum Number of Features: 16 per frame of #9690, plus #9695, plus #9697, plus #9607, plus #9609 plus #9611
- Corequisites: None
- Prerequisites:
 - On L55/D55 Models, Feature #1521 or #1531 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1522 or #1532 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1523 or #1533 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1524 or #1534 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
- Installation: Plant only

Note: One feature #1408 is required per Tape Library if this is the first TS1080 (3588 Model F8A, F8C or F8S) tape drive ordered

(#9611) - 3588 F8S Plant Install

This feature informs the plant to install one TS1080 Tape Drive Model F8S (3588 Model F8S) into a Tape Library Model D55. Installation of a 3588 Tape Drive canister be installed in the TS4500 Frame with a Quad Drive Mounting Kit feature (#1531, #1532, #1533, or #1534).

Note: The TS1080 Tape Drive Model F8S must be separately ordered and feature #9611 must also be specified on 1

- Minimum required: Zero
- Maximum allowed: 16 (Initial order maximum: 16)
- Prerequisites:
 - On L55/D55 Models, Feature #1521 or #1531 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1522 or #1532 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607
 - On L55/D55 Models, Feature #1523 or #1533 when tape drive features #9690, #9695, #9697, #9607, #9609, #9607

- On L55/D55 Models, Feature #1524 or #1534 when tape drive features #9690, #9695, #9697, #9607, #9609, #9611 are greater than zero,
- On L55/D55 models, one of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero,
- On L55/D55 models, two of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero,
- On L55/D55 models, three of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero,
- On L55/D55 models, four of feature #1531, #1532, #1533, #1534 when tape drive feature #9611 is greater than zero,
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Plant
- Cable order: N/A
- Comments:
 - Maximum number of features is 16 per frame of #9690, plus #9695, plus #9697, plus #9607, plus #9609, plus #9611
 - One feature #1408 is required per Tape Library if this is the first TS1080 (3588 Model F8A, F8C or F8S) tape drive ordered.

(#9690) LTO, TS1140, TS115x Field Install Drive in 3584

This feature field installs one 3592 Model EH7 or EH8 or 55E or 55F, or one 3588 Model F5C or F6C or F7C or F8C or F8S or 3592 Model D25 or L25, or D55 or L55. This feature is also required to field merge a 3592 Model EH7, EH8, 55E, 55F, or 3588 Model F5C, F6C, F7C, F8C or F8S Drive into a 3584 frame coming from the plant. The Tape Drive requires a Quad Drive mounting kit to contain the drive.

- Feature type: No Charge
- Minimum number of features: None
- Maximum number of features: Sixteen per frame of #9690, plus #9692, plus #9699, plus #9695, plus #9697, plus #9607, plus #9609, plus #9707, plus #9708, plus #9726, plus #9611, plus #9609
- Corequisite: None
- Prerequisite:
 - Feature #1521 or #1531 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than zero,
 - Feature #1522 or #1532 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than four,
 - Feature #1523 or #1533 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than eight,
 - Feature #1524 or #1534 when tape drive features #9690, #9692, #9699, #9695, #9697, #9607, #9704, #9705, #9609 are greater than twelve.
- Installation: Plant or Field.
- One feature #1404 is required per Tape Library if this is the first TS1140 (3592 Model E07/EH7) Tape drive ordered.
- One feature #1404 is required per Tape Library if this is the first TS1150 (3592 Model E08/EH8) Tape drive ordered.
- One feature #1405 is required per Tape Library if this is the first TS1050 (3588 Model F5C) Tape drive ordered.
- One feature #1405 or one feature #1407 is required per Tape Library if this is the first TS1060 (3588 Model F6C) Tape drive ordered.
- One feature #1406 is required per Tape Library if this is the first TS1155 (3592 Model 55F/55G/55E) or TS1160 (3592 Model 55F/55G/55E) Tape drive ordered.
- One feature #1407 is required per Tape Library if this is the first TS1070 (3588 Model F7C) Tape drive ordered.
- One feature #1408 is required per Tape Library if this is the first TS1080 (3588 Model F8A, F8C or F8S) tape drive ordered.

(#9695) 3588 F5A/F5C Plant Install

(No Longer Available as of March 17, 2018)(For Models D55, L55)

This feature informs the plant to install one TS1050 Tape Drive Model F5C (3588 Model F5C) into a tape library Model D55 or L55. Installation of the 3588 Model F5C Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1050 Tape Drive Model F5C must be separately ordered and feature #9695 must also be specified on 1

- Feature type: No Charge.
- Minimum number of features: None.
- Maximum number of features: Sixteen per frame of #9690, plus #9695, plus #9697, plus #9607.
- Corequisite: None.
- Prerequisite:
 - On L55/D55 Models, Feature #1521 when tape drive features #9690, #9695, #9697, #9607 are greater than zero
 - On L55/D55 Models, Feature #1522 when tape drive features #9690, #9695, #9697, #9607 are greater than four,
 - On L55/D55 Models, Feature #1523 when tape drive features #9690, #9695, #9697, #9607 are greater than eight
 - On L55/D55 Models, Feature #1524 when tape drive features #9690, #9695, #9697, #9607 are greater than twelve
- Installation: Plant Only.

Note: One feature #1405 is required per Tape Library if this is the first TS1050 (3588 Model F5C) Tape drive ordered.

(#9697) - 3588 F6A/F6C Plant Install

(No longer available as of August 30, 2021)

This feature informs the plant to install one TS1060 Tape Drive Model F6C (3588 Model F6C) into a tape library Model D55. Installation of the 3588 Model F6C Tape Drive requires a Quad Drive mounting kit to contain the drive.

Note: The TS1060 Tape Drive Model F6C must be separately ordered and feature #9697 must also be specified on it.

- Feature type: No Charge.
- Minimum number of features: None.
- Maximum allowed: 16 (Initial order maximum: 16)
- Corequisite: None.
- Prerequisites:
 - On L55/D55 Models, Feature #1521 or #1531 when tape drive features #9690, #9695, #9697, #9607, #9609, #9610, #9611, #9612, #9613, #9614, #9615, #9616, #9617, #9618, #9619, #9620, #9621, #9622, #9623, #9624, #9625, #9626, #9627, #9628, #9629, #9630, #9631, #9632, #9633, #9634, #9635, #9636, #9637, #9638, #9639, #9640, #9641, #9642, #9643, #9644, #9645, #9646, #9647, #9648, #9649, #9650, #9651, #9652, #9653, #9654, #9655, #9656, #9657, #9658, #9659, #9660, #9661, #9662, #9663, #9664, #9665, #9666, #9667, #9668, #9669, #9670, #9671, #9672, #9673, #9674, #9675, #9676, #9677, #9678, #9679, #9680, #9681, #9682, #9683, #9684, #9685, #9686, #9687, #9688, #9689, #9690, #9691, #9692, #9693, #9694, #9695, #9696, #9697, #9698, #9699, #9700, #9701, #9702, #9703, #9704, #9705, #9706, #9707, #9708, #9709, #9710, #9711, #9712, #9713, #9714, #9715, #9716, #9717, #9718, #9719, #9720, #9721, #9722, #9723, #9724, #9725, #9726, #9727, #9728, #9729, #9730, #9731, #9732, #9733, #9734, #9735, #9736, #9737, #9738, #9739, #9740, #9741, #9742, #9743, #9744, #9745, #9746, #9747, #9748, #9749, #9750, #9751, #9752, #9753, #9754, #9755, #9756, #9757, #9758, #9759, #9760, #9761, #9762, #9763, #9764, #9765, #9766, #9767, #9768, #9769, #9770, #9771, #9772, #9773, #9774, #9775, #9776, #9777, #9778, #9779, #9780, #9781, #9782, #9783, #9784, #9785, #9786, #9787, #9788, #9789, #9790, #9791, #9792, #9793, #9794, #9795, #9796, #9797, #9798, #9799, #9800, #9801, #9802, #9803, #9804, #9805, #9806, #9807, #9808, #9809, #9810, #9811, #9812, #9813, #9814, #9815, #9816, #9817, #9818, #9819, #9820, #9821, #9822, #9823, #9824, #9825, #9826, #9827, #9828, #9829, #9830, #9831, #9832, #9833, #9834, #9835, #9836, #9837, #9838, #9839, #9840, #9841, #9842, #9843, #9844, #9845, #9846, #9847, #9848, #9849, #9850, #9851, #9852, #9853, #9854, #9855, #9856, #9857, #9858, #9859, #9860, #9861, #9862, #9863, #9864, #9865, #9866, #9867, #9868, #9869, #9870, #9871, #9872, #9873, #9874, #9875, #9876, #9877, #9878, #9879, #9880, #9881, #9882, #9883, #9884, #9885, #9886, #9887, #9888, #9889, #9890, #9891, #9892, #9893, #9894, #9895, #9896, #9897, #9898, #9899, #9900, #9901, #9902, #9903, #9904, #9905, #9906, #9907, #9908, #9909, #9910, #9911, #9912, #9913, #9914, #9915, #9916, #9917, #9918, #9919, #9920, #9921, #9922, #9923, #9924, #9925, #9926, #9927, #9928, #9929, #9930, #9931, #9932, #9933, #9934, #9935, #9936, #9937, #9938, #9939, #9940, #9941, #9942, #9943, #9944, #9945, #9946, #9947, #9948, #9949, #9950, #9951, #9952, #9953, #9954, #9955, #9956, #9957, #9958, #9959, #9960, #9961, #9962, #9963, #9964, #9965, #9966, #9967, #9968, #9969, #9970, #9971, #9972, #9973, #9974, #9975, #9976, #9977, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, #9986, #9987, #9988, #9989, #9990, #9991, #9992, #9993, #9994, #9995, #9996, #9997, #9998, #9999, #10000
- Comments: Maximum number of features is 16 per frame of #9690, plus #9695, plus #9697, plus #9607, plus #9609, plus #9610, plus #9611, plus #9612, plus #9613, plus #9614, plus #9615, plus #9616, plus #9617, plus #9618, plus #9619, plus #9620, plus #9621, plus #9622, plus #9623, plus #9624, plus #9625, plus #9626, plus #9627, plus #9628, plus #9629, plus #9630, plus #9631, plus #9632, plus #9633, plus #9634, plus #9635, plus #9636, plus #9637, plus #9638, plus #9639, plus #9640, plus #9641, plus #9642, plus #9643, plus #9644, plus #9645, plus #9646, plus #9647, plus #9648, plus #9649, plus #9650, plus #9651, plus #9652, plus #9653, plus #9654, plus #9655, plus #9656, plus #9657, plus #9658, plus #9659, plus #9660, plus #9661, plus #9662, plus #9663, plus #9664, plus #9665, plus #9666, plus #9667, plus #9668, plus #9669, plus #9670, plus #9671, plus #9672, plus #9673, plus #9674, plus #9675, plus #9676, plus #9677, plus #9678, plus #9679, plus #9680, plus #9681, plus #9682, plus #9683, plus #9684, plus #9685, plus #9686, plus #9687, plus #9688, plus #9689, plus #9690, plus #9691, plus #9692, plus #9693, plus #9694, plus #9695, plus #9696, plus #9697, plus #9698, plus #9699, plus #9700, plus #9701, plus #9702, plus #9703, plus #9704, plus #9705, plus #9706, plus #9707, plus #9708, plus #9709, plus #9710, plus #9711, plus #9712, plus #9713, plus #9714, plus #9715, plus #9716, plus #9717, plus #9718, plus #9719, plus #9720, plus #9721, plus #9722, plus #9723, plus #9724, plus #9725, plus #9726, plus #9727, plus #9728, plus #9729, plus #9730, plus #9731, plus #9732, plus #9733, plus #9734, plus #9735, plus #9736, plus #9737, plus #9738, plus #9739, plus #9740, plus #9741, plus #9742, plus #9743, plus #9744, plus #9745, plus #9746, plus #9747, plus #9748, plus #9749, plus #9750, plus #9751, plus #9752, plus #9753, plus #9754, plus #9755, plus #9756, plus #9757, plus #9758, plus #9759, plus #9760, plus #9761, plus #9762, plus #9763, plus #9764, plus #9765, plus #9766, plus #9767, plus #9768, plus #9769, plus #9770, plus #9771, plus #9772, plus #9773, plus #9774, plus #9775, plus #9776, plus #9777, plus #9778, plus #9779, plus #9780, plus #9781, plus #9782, plus #9783, plus #9784, plus #9785, plus #9786, plus #9787, plus #9788, plus #9789, plus #9790, plus #9791, plus #9792, plus #9793, plus #9794, plus #9795, plus #9796, plus #9797, plus #9798, plus #9799, plus #9800, plus #9801, plus #9802, plus #9803, plus #9804, plus #9805, plus #9806, plus #9807, plus #9808, plus #9809, plus #9810, plus #9811, plus #9812, plus #9813, plus #9814, plus #9815, plus #9816, plus #9817, plus #9818, plus #9819, plus #9820, plus #9821, plus #9822, plus #9823, plus #9824, plus #9825, plus #9826, plus #9827, plus #9828, plus #9829, plus #9830, plus #9831, plus #9832, plus #9833, plus #9834, plus #9835, plus #9836, plus #9837, plus #9838, plus #9839, plus #9840, plus #9841, plus #9842, plus #9843, plus #9844, plus #9845, plus #9846, plus #9847, plus #9848, plus #9849, plus #9850, plus #9851, plus #9852, plus #9853, plus #9854, plus #9855, plus #9856, plus #9857, plus #9858, plus #9859, plus #9860, plus #9861, plus #9862, plus #9863, plus #9864, plus #9865, plus #9866, plus #9867, plus #9868, plus #9869, plus #9870, plus #9871, plus #9872, plus #9873, plus #9874, plus #9875, plus #9876, plus #9877, plus #9878, plus #9879, plus #9880, plus #9881, plus #9882, plus #9883, plus #9884, plus #9885, plus #9886, plus #9887, plus #9888, plus #9889, plus #9890, plus #9891, plus #9892, plus #9893, plus #9894, plus #9895, plus #9896, plus #9897, plus #9898, plus #9899, plus #9900, plus #9901, plus #9902, plus #9903, plus #9904, plus #9905, plus #9906, plus #9907, plus #9908, plus #9909, plus #9910, plus #9911, plus #9912, plus #9913, plus #9914, plus #9915, plus #9916, plus #9917, plus #9918, plus #9919, plus #9920, plus #9921, plus #9922, plus #9923, plus #9924, plus #9925, plus #9926, plus #9927, plus #9928, plus #9929, plus #9930, plus #9931, plus #9932, plus #9933, plus #9934, plus #9935, plus #9936, plus #9937, plus #9938, plus #9939, plus #9940, plus #9941, plus #9942, plus #9943, plus #9944, plus #9945, plus #9946, plus #9947, plus #9948, plus #9949, plus #9950, plus #9951, plus #9952, plus #9953, plus #9954, plus #9955, plus #9956, plus #9957, plus #9958, plus #9959, plus #9960, plus #9961, plus #9962, plus #9963, plus #9964, plus #9965, plus #9966, plus #9967, plus #9968, plus #9969, plus #9970, plus #9971, plus #9972, plus #9973, plus #9974, plus #9975, plus #9976, plus #9977, plus #9978, plus #9979, plus #9980, plus #9981, plus #9982, plus #9983, plus #9984, plus #9985, plus #9986, plus #9987, plus #9988, plus #9989, plus #9990, plus #9991, plus #9992, plus #9993, plus #9994, plus #9995, plus #9996, plus #9997, plus #9998, plus #9999, plus #10000
- Installation: Plant Only.

(#9700) No Host/SAN Cable from Plant

This feature must be placed on any 3584 frame shipping from the plant with no SAN attachment cables specified when a tape drive feature is not required if the Driveless Frame feature (#9001) is specified. When this feature is on the order, the plant will not ship SAN attachment cables with the shipment of this 3584 frame. Any required cables must be supplied by the customer.

- Prerequisites: Mutually exclusive with features #6013, #6025, #6061, #AGK1, #AGK2, #AGK3, and #AGKQ.
- Feature type: No Charge.
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: None.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#9713) - No Patch Panel Cables

This feature should be specified if you do not want the factory to ship any Fiber Channel cable features #1536 (MMF Quad) or #1537 (SMF Quad Drive-to-Patch Panel cables).

- Minimum required: Zero

- Maximum allowed: Four (Initial order maximum: Four)
- Prerequisites: One feature #1536 or #1537 or #9713 per each feature #1531, #1532, #1533, and #1534
- Corequisites: One feature #1531 or #1532 or #1533 or #1534 for each feature #9713 ordered.
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is four of #1536, or four of #1537, or four of #9713
 - Feature #9713 is recommended when one of feature #1521, #1522, #1523, or #1524 is being replaced by one of Single Mode Cable feature #1537 is not being added. Multi Mode cables equal to feature #1536 are embedded in #1523, or #1524

(#9735) IMC Broadband Call Home

(No longer available as of September 7, 2019)

This feature indicates the customer will allow broadband call home.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: Zero.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.

(#9948) - 3 Phase Power Cord

This feature provides a 4.3 meter (14 foot) long power cord with an IEC 309 3P+N+G 32A plug, rated for 230 Vac, 24 Amp (wye) power.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - On L25, L55, S25, S55, D25, D55: Feature #1952 is required if a Power Cord Feature (#9948) is ordered
 - On TR1: Feature #1752 if a Power Cord Feature (#9948) is ordered.
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: Mutually exclusive with feature #1751 and #1951
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of features #9948, #9954, #9955, #9956, #9957, #9958, #9959, #9960, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, or #9989 on D25, D55, L25, L55, S25, or S55

(#9949) - C20-C13 Power Cord for Spare outlets in the Enhanced PDU

This feature provides a 2.8 meter long C20-C13 Power Cord to be used between computer equipment and the intelligent P customer-supplied PDU with C19 outlets. C13 connects to the male C14 inlet or power cord plug and the C20 mates with the PDU. This power cord is intended to be used on PDUs with C19 outlets.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: Six (Initial order maximum: Six)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#9954) Nema L6-30 Power Cord

This feature provides a NEMA L6-30 non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in U

- Feature type: Chargeable
- Required feature: No
- Minimum Number of Features: None
- Maximum Number of Features: One
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55
- Corequisite: None
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field
- Removable: No

(#9955) RS 3750DP Power Cord

This feature provides a Russellstoll 3750DP Watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used i Japan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9956) IEC 309 Power Cord

This feature provides two IEC 309, p+n+g, 32A, 4.3 meter (14 foot) power cord, 230 Vac, 24 Amps, used in EMEA.

- Feature type: Chargeable

- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9957) PDL 4.3m Power Cord

This feature provides a PDL 4.3 meter (14 foot) power cord, 230-240 Vac, 23 Amps, used in Australia and New Zealand.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9958) Korean 4.3m Power Cord

This feature provides a non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, with Korean plug SJ-3C.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9959) Unterminated Power Cord

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord certifications. This is the recommended cord for Argentina and Taiwan.

- Feature type: Chargeable
- Required feature: No.

- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9966) Underminated Power Cord - China

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord is the recommended power cord for China.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1952
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9970) Dual 4.3M Pwr Cord WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 16 Amp power cords with IEC 309 Type 2P+GND 16A connection to Hubbell type HBL316R6W receptacles. This is the default power cord if no other feature is specified, in all countries except Brazil, Canada, China, Japan, Korea, New Zealand, Philippines, South Africa, Taiwan, and the United States. If feature code Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant.
- Removable: No.

(#9972) Dual 4.3M Pwr Cord Non-WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with a non-watertight connector NEMA receptacles. This is the default power cord if no other feature is specified, in the United States, Canada, and Philippines. If Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9976) Dual 4.3M Pwr Cord Argentina

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an IRAM 2073 plug for Argentina. Th if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this featu power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9977) Dual 4.3M Pwr Cord Brazil

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with an Earth Pin InMetro NBR 14136 plug cord for Brazil if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.

- On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9978) Dual 4.3M Pwr Cord Aust/New Zealand

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an AS/NZS 3112/2000 plug for Australia and New Zealand if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9979) Dual 4.3M Pwr Cord Japan

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with a JIS C8303, C8306 plug for Japan. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9980) Dual 4.3M Pwr Cord China

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a GB 2099.1, 1002 plug for China. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.

- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9981) Dual 4.3M Pwr Cord Korea

This feature provides dual (2x) 4.3 meter (14-foot) 12 Amp 250 Vac power cords with an earth pin KS C8305, K60884-1 plug for Korea if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual (2x) 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9982) Dual 4.3M Pwr Cord Taiwan

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a CNS 10917-3 plug for Taiwan. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides dual (2x) 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9983) Dual 4.3M Pwr Cord So.Africa

This feature provides dual (2x) 4.3 meter (14-foot) 16 Amp 250 Vac power cords with a SANS 164-1 plug for South Africa. Africa if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, then meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9984) Dual 4.3M Power Cord NEMA L6-20 Non-Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with NEMA L6-20P non-watertight plug receptacles. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9985) Dual 4.3M Power Cord Russellstoll Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with Russellstoll 3720DPU2 watertight receptacles, or 3743U2 or 9R23U2W receptacles, or Russellstoll 3913U2 or 9C23U2 connectors. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.

- On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
- On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9989) Power Cord to adjacent frame PDUs

This feature provides two power cords 4.3 meters (14 feet) in length, rated at 250 Vac, 10 amps with IEC C14 plugs. These spare outlets on the two PDUs provided by a FC 1951/1952 that is installed in an adjacent frame of the library or into customer external to the library frames. One or two adjacent frames may be powered by the spare outlets available on the FC 1951/1952. The number of frames powered may be up to three frames away from the frame containing the FC 1951/1952 PDUs. By using this feature, up to the two customer facility outlets that feed the FC 1951/1952 PDUs.

- Feature type: Chargeable
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisites:
 - None on Models L25 or L55.
 - Feature #1450 on Model D25 or Model D55.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Mutually exclusive with #1951, #9954 thru #9959 and #9966 and #9948.
- Mutually exclusive with #1909, #9970, #9972, and #9976 thru #9985.
- Installation: Plant or Field.

(#AG00) Shipping and Handling - No charge

This feature indicates Model will have no shipping and handling charge added to the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#AGKQ) 3 Meter OM3 Quad Cables (LC)

Provides two space-efficient bundles of OM3 Fibre Channel cables for attaching a group of up to four drives to two nearby (mainframe). In order to attach TS4500 tape drives in the same frame or 1 frame away from a model x25 frame containing for each associated quad drive mounting kit feature #1521, #1522, #1523, #1524, #1531, #1532, #1533, #1534.

- Prerequisites:
 - Mutually exclusive with feature #9700
 - First #AGKQ, feature #1521 or #1531
 - Second #AGKQ, feature #1522 or #1532
 - Third #AGKQ, feature #1523 or #1533
 - Fourth #AGKQ, feature #1524 or #1534
 - #AGKQ, with #1531 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1532 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1533 must have one #1536, feature #1536 are cumulative
 - #AGKQ, with #1534 must have one #1536, feature #1536 are cumulative

TS4500 HD2 3584 S25,S55

(#1442) HA Kit w/Second Accessor

Includes Accessor B and the parts for integrated service bays A and B to be field installed on the left-most and right-most of the library. For a 3-18 frame library, the frame that includes this feature code must be installed as frame 1. For a 3-18 frame library, the frame that includes this feature code must be installed as frame 1.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Prerequisite: One of Feature #2072 or #9072.
- Customer setup: No.
- Installation: Plant only.

(#1530) Web Camera Mounting Hardware

This feature provides mounting brackets for attaching a customer provided video camera for the TS4500 frames including I. For additional details including mounting guidelines and an example camera, see the [TS4500 Knowledge Center](#) website.

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: Two.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1645) HD COD for S24/S25

On top of base capacity of 600 slots, provides additional 400 slots of capacity (198 slots if frame 1).

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: Yes.

(#1646) HD COD for S54/S55

On top of base capacity of 660 slots, provides additional 660 slots of capacity (394 slots if frame 1).

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.

- Customer Setup: Yes.

(#1951) Power Distribution Units

This feature provides two power distribution units (PDUs) for adjacent frame AC line cord aggregation or unique AC outlet internal power cables to provide power to the local frame control assembly. When ordering feature code #1951, customers cord features #9954, #9955, #9956, #9957, #9958, #9959, or #9966. Note that these line cord features may require differe without feature code #1951.

- Feature type: Chargeable
- Required feature: No
- Minimum number of features: None
- Maximum number of features: One of feature #1951 or #1952
- Corequisite: None
- Prerequisite: One of Power Cord feature #9954, #9955, #9956, #9957, #9958, #9959, or #9966 is required. Mutually e
- Installation: Plant or Field
- Customer Setup: No
- Removable: Yes
- Limitations: Mutually exclusive with PDU feature #1952

(#1952) - Enhanced PDUs

Provides two PDUs with 3-phase (wye) or single phase input power, mounting hardware including rack brackets, and interr local frame control assembly. For single phase input power, must order one power cord feature #9954 thru #9959, or #9961 order one power cord feature #9948. Note that these line cord features may require different customer facility outlets than f used for adjacent frame AC power cord aggregation, or for unique facility AC socket requirements. Supports any combinati feature #9989 on adjacent frames. Supports future power and environmental monitoring features.

- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisite:
 - One of Power Cord feature #9948, #9954, #9955, #9956, #9957, #9958, #9959, or #9966 is required
 - Feature #9073 or #9074 is required
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: Mutually exclusive with legacy PDU feature #1951, Fibre Channel switch mounting feature #4879, and Ett
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of feature #1951 or #1952

(#2072) Flex Track Guide Extension

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgrac tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Tra (plant). TS4500 expansion frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One of either #2072 or #9072.
- Corequisites: Feature #2071 or #9071 on the Lx5 frame.
- Prerequisites : None.

- Installation: Field only.
- Customer Setup: No.

(#2309) TS4500 Accessor Refresh

For customers wishing to proactively replace a highly utilized accessor, this feature provides a new accessor assembly with are included in the assembly.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.
- Prerequisites : For model Lx5, feature #2071 or #9071. For model Dx5/Sx5, feature #1442.
- Installation: Field only.
- Customer Setup: No.

(#2737) IMC Separate Power Source

This feature provide two ethernet cables for use between the IMC and an FCA.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
- Corequisites: None.
- Prerequisites: One of features #9970, #9972, #9976, #9977, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #99
- Installation: Plant or Field.
- Customer setup: No.

(#4892) - Rear Door Sensor

This feature provides rear door sensor components for notifying the customer of rear door open/close events.

- For 3584-S25: (#4892)
 - Minimum required: 0
 - Maximum allowed: 1 (Initial order maximum: 1)
 - Prerequisites: Feature #9074 is required
 - Corequisites: NONE
 - Compatibility conflicts: NONE
 - Customer set up: No
 - Limitations: NONE
 - Plant / Field installable: Initial
 - Cable order: n/a
 - Comments: NONE
- For 3584-S55: (#4892)
 - Minimum required: 0
 - Maximum allowed: 1 (Initial order maximum: 1)
 - Prerequisites: Feature #9074 is required
 - Corequisites: NONE
 - Compatibility conflicts: NONE
 - Customer set up: No
 - Limitations: NONE

- Plant / Field installable: Initial
- Cable order: n/a
- Comments: NONE

(#9072) Flex Track Guide Expansion

TS4500 base frames now ship with a Flex-Track guide feature #9071 replacing the X-Track cable trough used by TS3500 ; a TS4500 library must match the base frame usage of Flex-Track guide or X-Track cable trough. TS4500 base frames that #9071 (and all attached expansion frames) will continue to use the X-Track cable trough as long as the library is not upgraded to tape libraries or TS4500 tape libraries upgraded to HA require the Flex-Track guide. TS4500 base frames support Flex-Track guide feature #2072 (field) or #9072 (plant).

- Feature type: No Charge.
- Minimum: Zero.
- Maximum: One of either #2072 or #9072.
- Prerequisite:
- Corequisite: Feature #2071 or #9071 on the Lx5 frame.
- Installation: Plant.

(#9073) 3 Phase PDU Capable

(No longer available as of October 30, 2020)

This feature indicates that the frame is capable of supporting Enhanced PDUs and their associated power cords. Feature #1952.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#9074) GEN-3 FRAME

This feature indicates that the frame includes third generation modifications to support future enhancements.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#9906) New order install

This feature indicates this machine model is part of a new library order.

- Minimum number of features: None
- Maximum number of features: One
- Prerequisites: 3584-Dx5/Sx5/TR1 must have a 3584-Lx5 on the same order
- Corequisites: None
- Compatibility conflicts: None
- Limitations: None
- Customer setup: No
- Field/Plant Installable: Plant only
- Comments: e-config to default assign feature #9906 when the order is part of a new Library order

(#AGG6) Shipping and Handling S2x

This feature indicates each Model S2x on the order will have a shipping and handling charge added to the order.

Note: Select either feature #AGG6 or feature #AG00 on the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#AGG7) Shipping and Handling S5x

This feature indicates each Model S5x on the order will have a shipping and handling charge added to the order.

Note: Select either feature #AGG7 or feature #AG00 on the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#7703) OEM - No IBM Logo

This feature directs the plant to ship the tape library Model without "IBM" or "System Storage" logos on the front doors.

- Feature type: No Charge.
- Required feature: No.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant Only.

(#7704) Bull OEM Logo

(No longer available as of August 14, 2020)

This feature directs the plant to ship the tape library Model without IBM or System Storage logos and provides the OEM BL

- Feature Type: No Charge.
- Required Feature: No.
- Minimum number of features: None.

- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: Feature number 7703 is required.
- Installation: Plant only.

(#9948) - 3 Phase Power Cord

This feature provides a 4.3 meter (14 foot) long power cord with an IEC 309 3P+N+G 32A plug, rated for 230 Vac, 24 Amp (3 phase wye) power.

- Feature Type: Chargeable
- Minimum required: Zero
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites:
 - On L25, L55, S25, S55, D25, D55: Feature #1952 is required if a Power Cord Feature (#9948) is ordered
 - On TR1: Feature #1752 if a Power Cord Feature (#9948) is ordered.
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: Mutually exclusive with feature #1751 and #1951
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is One of features #9948, #9954, #9955, #9956, #9957, #9958, #9959, #9960, #9978, #9979, #9980, #9981, #9982, #9983, #9984, #9985, or #9989 on D25, D55, L25, L55, S25, or S55

(#9949) - C20-C13 Power Cord for Spare outlets in the Enhanced PDU

This feature provides a 2.8 meter long C20-C13 Power Cord to be used between computer equipment and the intelligent PDU with C19 outlets. C13 connects to the male C14 inlet or power cord plug and the C20 mates with the female C20 outlet on the PDU. This power cord is intended to be used on PDUs with C19 outlets.

- Feature Type: Chargeable
- Minimum required: Zero
- Maximum allowed: Six (Initial order maximum: Six)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A
- Comments: None

(#9954) Nema L6-30 Power Cord

This feature provides a NEMA L6-30 non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in U.S.

- Feature Type: Chargeable
- Required feature: No
- Minimum Number of Features: None
- Maximum Number of Features: One

- One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55
- Corequisite: None
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field
- Removable: No

(#9955) RS 3750DP Power Cord

This feature provides a Russellstoll 3750DP Watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in Japan.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9956) IEC 309 Power Cord

This feature provides two IEC 309, p+n+g, 32A, 4.3 meter (14 foot) power cord, 230 Vac, 24 Amps, used in EMEA.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9957) PDL 4.3m Power Cord

This feature provides a PDL 4.3 meter (14 foot) power cord, 230-240 Vac, 23 Amps, used in Australia and New Zealand.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.

- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9958) Korean 4.3m Power Cord

This feature provides a non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, with Korean plug SJ-3C.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9959) Unterminated Power Cord

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord certifications. This is the recommended cord for Argentina and Taiwan.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9966) Unterminated Power Cord - China

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power cord is the recommended power cord for China.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One.
 - One of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25,D55,L25,L55,S25 or S55.
- Corequisite: None.

- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9970) Dual 4.3M Pwr Cord WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 16 Amp power cords with IEC 309 Type 2P+GND 16A connection to Hubbell type HBL316R6W receptacles. This is the default power cord if no other feature is specified, in all cc Brazil, Canada, China, Japan, Korea, New Zealand, Philippines, South Africa, Taiwan, and the United States. If feature code Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9972) Dual 4.3M Pwr Cord Non-WT

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with a non-watertight connector NEMA receptacles. This is the default power cord if no other feature is specified, in the United States, Canada, and Philippines. If Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9976) Dual 4.3M Pwr Cord Argentina

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an IRAM 2073 plug for Argentina. This is the default power cord if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature Type: Chargeable

- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9977) Dual 4.3M Pwr Cord Brazil

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with an Earth Pin InMetro NBR 14136 plug for Brazil if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9978) Dual 4.3M Pwr Cord Aust/New Zealand

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with an AS/NZS 3112/2000 plug for Australia and New Zealand if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one of the above 4.3 meter power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9979) Dual 4.3M Pwr Cord Japan

This feature provides dual (2x) 4.3 meter (14-foot) 15 Amp 250 Vac power cords with a JIS C8303, C8306 plug for Japan. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Installation: Plant or Field.
- Removable: No.

(#9980) Dual 4.3M Pwr Cord China

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a GB 2099.1, 1002 plug for China. If no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9981) Dual 4.3M Pwr Cord Korea

This feature provides dual (2x) 4.3 meter (14-foot) 12 Amp 250 Vac power cords with an earth pin KS C8305, K60884-1 plug for Korea if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.

- On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9982) Dual 4.3M Pwr Cord Taiwan

This feature provides dual (2x) 4.3 meter (14-foot) 10 Amp 250 Vac power cords with a CNS 10917-3 plug for Taiwan. This no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9983) Dual 4.3M Pwr Cord So.Africa

This feature provides dual (2x) 4.3 meter (14-foot) 16 Amp 250 Vac power cords with a SANS 164-1 plug for South Africa. Africa if no other feature is specified. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides meter power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9984) Dual 4.3M Power Cord NEMA L6-20 Non-Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with NEMA L6-20P non-watertight plug receptacles. If feature code 1909 (Single Power Source Bifurcated Cable) is also on your order, this feature provides one o

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.

- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9985) Dual 4.3M Power Cord Russellstoll Watertight

This feature provides dual 4.3 meter (14-foot) 250 volt (V) AC 15 Amp power cords with Russellstoll 3720DPU2 watertight 3743U2 or 9R23U2W receptacles, or Russellstoll 3913U2 or 9C23U2 connectors. If feature code 1909 (Single Power Source), this feature provides one of the above 4.3 meter power cords.

- Feature Type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: One. (one of features number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9981, 9982, 9983, 9984, 9985, or 9989).
- Corequisite: None.
- Prerequisite:
 - On L25, L55: None.
 - On D25, D55: Feature number 1450 if a Power Cord Feature (#99xx) is ordered.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Limitations: Mutually exclusive with feature #1751, #1752, #1951 and #1952
- Installation: Plant or Field.
- Removable: No.

(#9989) Power Cord to adjacent frame PDUs

This feature provides two power cords 4.3 meters (14 feet) in length, rated at 250 Vac, 10 amps with IEC C14 plugs. These spare outlets on the two PDUs provided by a FC 1951/1952 that is installed in an adjacent frame of the library or into customer facility external to the library frames. One or two adjacent frames may be powered by the spare outlets available on the FC 1951/1952. Up to three frames away from the frame containing the FC 1951/1952 PDUs. By using this feature, up to four frames may be powered by the two customer facility outlets that feed the FC 1951/1952 PDUs.

- Feature Type: Chargeable
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisites:
 - None on Models L25 or L55.
 - Feature #1450 on Model D25 or Model D55.
 - On S25, S55: Feature number 2737 if a Power Cord Feature (#99xx) is ordered.
- Mutually exclusive with #1951, #9954 thru #9959 and #9966 and #9948.
- Mutually exclusive with #1909, #9970, #9972, and #9976 thru #9985.
- Installation: Plant or Field.

Top Rack Option 3584 TR1

(#1750) End Covers

This feature provides left-and right-side end covers. Only required for the first top rack ordered when multiple top racks will

- Feature type: Chargeable.
- Minimum number of features: None.
- Maximum number of features: One.
- Corequisite: None.
- Prerequisite: None.
- Installation: Plant or Field.
- Customer Setup: No.

(#1751) Power Distribution Unit

Provides one PDU to be mounted in top rack (max of two may be ordered). The first PDU in a top rack does not consume ; second PDU in a top rack consumes 1U of rack space. For each PDU ordered, must order one power cord feature 9954 th

- Feature type: Chargeable
- Minimum number of features: None
- Maximum number of features: Two of #1751 or #1752
- Corequisite: None
- Prerequisites: For each PDU ordered, must order one power cord feature #9954 thru #9959, or #9966
- Installation: Both
- Customer Setup: No
- Limitation: Mutually exclusive with feature #1752

(#1752) - Enhanced PDU

Provides one 1U PDU with 3-phase (wye) or single phase input power, to be mounted in top rack (max of two may be orde PDU ordered must order one power cord feature #9954 thru #9958. For 3-phase (wye) input power, each PDU ordered mu Each PDU provides six C13 outlets and three C19 outlets.

- Minimum required: Zero
- Maximum allowed: Two (Initial order maximum: Two)
- Prerequisites: For each PDU ordered, must order one power cord feature #9948, #9954 thru #9958
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations:
 - Mutually exclusive with feature #1751
 - Mutually exclusive with Unterminated Power Cord features #9959 and #9966
- Plant / Field installable: Both
- Cable order: N/A
- Comments: Maximum number of features is 2 of feature #1751 or #1752

(#1776) US RoHS Indicator

The state of Wisconsin requires RoHS compliant equipment. This feature will be selected as needed in the configurator for used in Wisconsin.

- Feature type: No charge.
- Minimum number of features per Model: None.
- Maximum number of features per Model: One.

- Prerequisites: None.
- Corequisites: None.
- Compatibility Conflicts: None.
- Customer Setup: No.
- Limitations: None.
- Installation: Plant only.

(#4879) TS7700 BE Sw Mounting Hdw

This feature provides 2x Fibre channel switch mounting hardware (including power cords) for 2x TS7700 backend fibre 16 ordered with a model TR1 and the power cords are attached to feature #1751 or #1752 PDUs. For TS4500, this feature is power cords can either be combined with local frame power or can be attached to feature #1951 or #1952 PDUs in an adjacent local frame power or attached to PDUs, no additional facility AC outlets are required for the Fibre Channel switches.

- Feature Type: Chargeable .
- Required feature: No.
- Minimum Number of Features: None.
- Maximum Number of Features: Four.
- Prerequisite: Two of feature #1751 or two of feature #1752
- Customer setup: No.
- Installation: Plant and Field.

(#4880) TS7700 BE 16 Gb Switch

Provides one 16 Gb Fibre channel switch. Drive-to-switch cables are ordered against the drive frames using features #AGI switches in a model TR1 that can be attached to tape drives using feature #AGKQ and those 2 switches must be mounted All other switches in the model TR1 must be attached to tape drives using features #AGK1 and #AGK2. Note that features #4880 will be installed by the SSR even though they are designated as CSU.

- Feature type: Chargeable.
- Minimum Number of Features: None.
- Maximum Number of Features: Eight (Maximum 2 per feature #4879)
- Corequisites: None.
- Prerequisites : Feature #4879
- Installation: Plant and Field.
- Customer Setup: No.

(#9073) 3 Phase PDU Capable

(No longer available as of May 28, 2021)

This feature indicates that the frame is capable of supporting Enhanced PDUs and their associated power cords. Feature # feature #1952.

- Feature type: No Charge
- Minimum required: One
- Maximum allowed: One (Initial order maximum: One)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup: No
- Limitations: None
- Plant / Field installable: Initial

(#9906) New order install

This feature indicates this machine model is part of a new library order.

- Minimum number of features: None
- Maximum number of features: One
- Prerequisites: 3584-Dx5/Sx5/TR1 must have a 3584-Lx5 on the same order
- Corequisites: None
- Compatibility conflicts: None
- Limitations: None
- Customer setup: No
- Field/Plant Installable: Plant only
- Comments: e-config to default assign feature #9906 when the order is part of a new Library order

(#9948) - 3 Phase Power Cord

This feature provides a 4.3 meter (14 foot) long power cord with an IEC 309 3P+N+G 32A plug, rated for 230 Vac, 24 Amp (wye) power.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: Two
- Prerequisites:
 - On L25, L55, S25, S55, D25, D55: Feature #1952 is required if a Power Cord Feature (#9948) is ordered
 - On TR1: Feature #1752 if a Power Cord Feature (#9948) is ordered.
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: Mutually exclusive with feature #1751 and #1951
- Plant / Field installable: Both
- Cable order: N/A
- Comments:
 - Maximum number of features is One of features #9948, #9954, #9955, #9956, #9957, #9958, #9959, #9966, #9979, #9980, #9981, #9982, #9983, #9984, #9985, or #9989 on D25, D55, L25, L55, S25, or S55
 - Maximum number of features is Two of features #9948, #9954, #9955, #9956, #9957, #9958, #9959, or #9966 or

(#9949) - C20-C13 Power Cord for Spare outlets in the Enhanced PDU

This feature provides a 2.8 meter long C20-C13 Power Cord to be used between computer equipment and the intelligent P customer-supplied PDU with C19 outlets. C13 connects to the male C14 inlet or power cord plug and the C20 mates with t PDU. This power cord is intended to be used on PDUs with C19 outlets.

- Feature type: Chargeable
- Minimum required: Zero
- Maximum allowed: Six (Initial order maximum: Six)
- Prerequisites: None
- Corequisites: None
- Compatibility conflicts: None
- Customer setup:
- Limitations: None
- Plant / Field installable: Both
- Cable order: N/A

- Comments: None

(#AGG9) Shipping and Handling TR1/TR2

This feature indicates each Model SC1/TR1 on the order will have a shipping and handling charge added to the order.

Note: Select either feature #AGG9 or feature #AG00 on the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

(#9954) Nema L6-30 Power Cord

This feature provides a NEMA L6-30 non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used in U

- Feature type: Chargeable
- Required feature: No
- Minimum Number of Features: None
- Maximum number of features: Two
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25, D55, L25, L55, S25, or S55
 - Two of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, or 9966 on TR1
- Corequisite: None
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field
- Removable: No

(#9955) RS 3750DP Power Cord

This feature provides a Russellstoll 3750DP Watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, used i Japan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Two
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25, D55, L25, L55, S25, or S55
 - Two of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, or 9966 on TR1
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9956) IEC 309 Power Cord

This feature provides two IEC 309, p+n+g, 32A, 4.3 meter (14 foot) power cord, 230 Vac, 24 Amps, used in EMEA.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Two
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25, D55, L25, L55, S25, or S55
 - Two of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, or 9966 on TR1
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9957) PDL 4.3m Power Cord

This feature provides a PDL 4.3 meter (14 foot) power cord, 230-240 Vac, 23 Amps, used in Australia and New Zealand.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Two
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25, D55, L25, L55, S25, or S55
 - Two of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, or 9966 on TR1
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9958) Korean 4.3m Power Cord

This feature provides a non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps, with Korean plug SJ-3C.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Two
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25, D55, L25, L55, S25, or S55
 - Two of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, or 9966 on TR1
- Corequisite: None.
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951 or 1952
 - On TR1: Feature number 1751 or 1752
- Installation: Plant or Field.
- Removable: No.

(#9959) Unterminated Power Cord

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power c certifications. This is the recommended cord for Argentina and Taiwan.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Two
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25, D55, L25, L55, S25, or S55
 - Two of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, or 9966 on TR1
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1752
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#9966) Unterminated Power Cord - China

This feature provides an unterminated, non-watertight 4.3 meter (14 foot) power cord, 200-208, 240 Vac, 24 Amps power c is the recommended power cord for China.

- Feature type: Chargeable
- Required feature: No.
- Minimum Number of Features: None.
- Maximum number of features: Two
 - One of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, 9966, 9970, 9972, 9976, 9977, 9978, 9979, 9989 on D25, D55, L25, L55, S25, or S55
 - Two of feature number 9948, 9954, 9955, 9956, 9957, 9958, 9959, or 9966 on TR1
- Corequisite: None.
- Limitations: Mutually exclusive with Enhanced PDU feature #1752
- Prerequisites:
 - On L25, L55, D25, D55, S25, S55: Feature number 1951
 - On TR1: Feature number 1751
- Installation: Plant or Field.
- Removable: No.

(#AG00) Shipping and Handling - No charge

This feature indicates Model will have no shipping and handling charge added to the order.

- Minimum required: None.
- Maximum allowed: One.
- Corequisites: None.
- Limitations: None.
- Plant install / field install: Plant only.

[↑ Back to top](#)

Accessories

None.

Customer replacement parts

Not available.

[↑ Back to top](#)

Supplies

None.

Supplemental media

None.

[↑ Back to top](#)

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