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> [HPE LTO 7 Ultrium C7977A Data Cartridge User Manual](#)

HP C7977A

HPE LTO 7 Ultrium C7977A Data Cartridge User Manual

Model: C7977A

INTRODUCTION

This manual provides essential information for the proper use, maintenance, and troubleshooting of your HPE LTO 7 Ultrium C7977A Data Cartridges. These cartridges are designed for high-capacity data storage, offering reliable performance for backup and archiving needs. Each cartridge provides a native capacity of 6TB, expandable up to 15TB with 2.5:1 compression, and supports high-speed data transfer.

PRODUCT OVERVIEW



Figure 1: HPE LTO 7 Ultrium 10-Pack Packaging. This image shows two sealed cardboard boxes, each containing multiple HPE LTO 7 Ultrium data cartridges. The product labels on the boxes indicate the model number C7977A and a capacity of 15TB (compressed).



Figure 2: HPE LTO 7 Ultrium Cartridges Inside Packaging. This image displays two open cardboard boxes, each containing five individual HPE LTO 7 Ultrium data cartridges, neatly arranged and ready for use.

SETUP

Before using your HPE LTO 7 Ultrium data cartridges, ensure you have a compatible LTO-7 tape drive or a drive that supports LTO-7 media (e.g., LTO-8 drives for read/write compatibility).

1. **Unpack the Cartridges:** Carefully remove the data cartridges from their packaging. Handle them by the edges to avoid touching the tape surface or internal components.
2. **Inspect for Damage:** Before insertion, visually inspect each cartridge for any signs of physical damage. Do not use damaged cartridges.
3. **Prepare the Tape Drive:** Ensure your LTO tape drive is powered on and ready to accept media. Refer to your tape drive's manual for specific loading instructions.
4. **Insert the Cartridge:** Gently insert the LTO cartridge into the tape drive's slot. The drive mechanism will pull the cartridge into position. Do not force the cartridge.
5. **Software Recognition:** Once inserted, your backup or archiving software should recognize the cartridge. If not, check the drive status and software configuration.

OPERATING INSTRUCTIONS

HPE LTO 7 Ultrium cartridges are designed for efficient data backup, archiving, and recovery.

- **Data Storage:** These cartridges offer a native capacity of 6 TB and up to 15 TB with 2.5:1 compression. Ensure your backup software is configured to utilize compression for maximum capacity.
- **Transfer Speeds:** The cartridges support native transfer speeds of 300 MB/s, and up to 750 MB/s with 2.5:1 compression. Optimal performance depends on the tape drive and host system capabilities.
- **Encryption:** HPE LTO 7 cartridges support tape drive hardware encryption. Configure your backup software and tape drive to enable encryption for sensitive data.
- **Linear Tape File System (LTFS):** These cartridges are compatible with LTFS, allowing them to be used like a file system, making data access and sharing easier. Consult your LTFS software documentation for setup and usage.
- **Writing Data:** Initiate backup or archiving jobs through your chosen software. Monitor the process to ensure successful data writing.
- **Reading Data:** To restore data, insert the cartridge into a compatible LTO drive and use your backup software to initiate the restore process.

MAINTENANCE

Proper maintenance ensures the longevity and reliability of your LTO cartridges.

- **Storage:** Store cartridges in their original protective cases or a dedicated tape library. Keep them in a clean, dry, and temperature-controlled environment (ideally 18-25°C / 64-77°F and 20-80% relative humidity). Avoid direct sunlight and extreme temperatures.
- **Handling:** Always handle cartridges by their plastic shell. Avoid touching the tape leader or the tape itself. Do not drop or subject cartridges to physical shock.
- **Cleaning:** LTO tape drives require periodic cleaning. Use an LTO universal cleaning cartridge as recommended by your tape drive manufacturer. Do not attempt to clean the data cartridges themselves.
- **Labeling:** Clearly label each cartridge with its contents and date of last use to facilitate organization and retrieval.
- **Rotation:** Implement a tape rotation strategy to distribute wear evenly across your cartridge inventory and ensure data integrity.

TROUBLESHOOTING

If you encounter issues with your HPE LTO 7 Ultrium cartridges, consider the following common solutions:

Problem	Possible Cause	Solution
Cartridge not recognized by drive/software.	Incorrect insertion, drive not powered, incompatible drive, dirty drive heads, software issue.	Re-insert cartridge correctly. Check drive power and connections. Ensure drive is LTO-7 compatible. Run a cleaning cartridge. Restart backup software or system.
Read/Write errors during operation.	Dirty drive heads, damaged cartridge, drive malfunction, environmental factors.	Run a cleaning cartridge. Try a different cartridge. Check drive diagnostics. Ensure proper operating environment.
Slow data transfer speeds.	Drive not optimized, host system bottleneck, compression not enabled, dirty drive heads.	Verify drive settings for optimal performance. Check host system resources (CPU, RAM, I/O). Enable hardware compression in software. Clean drive heads.

Problem	Possible Cause	Solution
Cartridge stuck in drive.	Mechanical issue with drive or cartridge.	Do not force removal. Refer to your tape drive's manual for emergency eject procedures or contact technical support.

If problems persist, consult your tape drive's user manual or contact HPE technical support.

SPECIFICATIONS

Feature	Detail
Model Number	C7977A
Native Capacity	6 TB
Compressed Capacity (2.5:1)	Up to 15 TB
Native Transfer Speed	300 MB/s
Compressed Transfer Speed (2.5:1)	Up to 750 MB/s
Technology	Barium Ferrite (BaFe)
Encryption Support	Hardware encryption via tape drive
Compatibility	Linear Tape File System (LTFS)
Package Dimensions	9.96 x 7.32 x 5.98 inches
Item Weight (10-pack)	6.44 pounds

WARRANTY AND SUPPORT

As an HP Authorized & Trusted Reseller, this item is warranted to be free from defects in materials and workmanship. For specific warranty terms and conditions, please refer to the official HPE warranty documentation included with your purchase or visit the official HPE support website.

For technical assistance, product information, or to report issues, please contact HPE customer support through their official channels.

HPE Support Website: www.hpe.com/support

