



Protect Your Asset

Proper Media Care

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How to care for, handle, inspect, and ship your Quantum media cartridges.



Why Media Care Is Important

Quantum media cartridges are engineered to be reliable, robust, and durable. They are manufactured to withstand up to a million head passes, and have an archive life of up to 30 years.

The safety of your data relies on proper handling. Follow the guidelines in this booklet to get the most from your tape.

1

Get to Know Your Cartridge

- Cartridge features

2

Media Care Overview

- Protecting your cartridge
- If you drop your cartridge
- Proper storage conditions
- Labeling your cartridge

3

Visual Inspection

- When to perform a visual inspection
- Performing a visual inspection
- Spotting a damaged cartridge

4

Shipping Cartridges

- How to pack and ship cartridges

5

Quick Guide: Dos and Don'ts

- A quick and easy guide to caring for your media

1.1

Get to Know
Your Cartridge

LTO Cartridge Features

1. Tape Leader Pin

Metal pin connects with grabber arm to pull media from cartridge.

2. Reel Lock

Prevents media reel in the cartridge from spinning when the cartridge is not loaded in a drive. This ensures that proper media tension is maintained.

3. Cartridge Hub

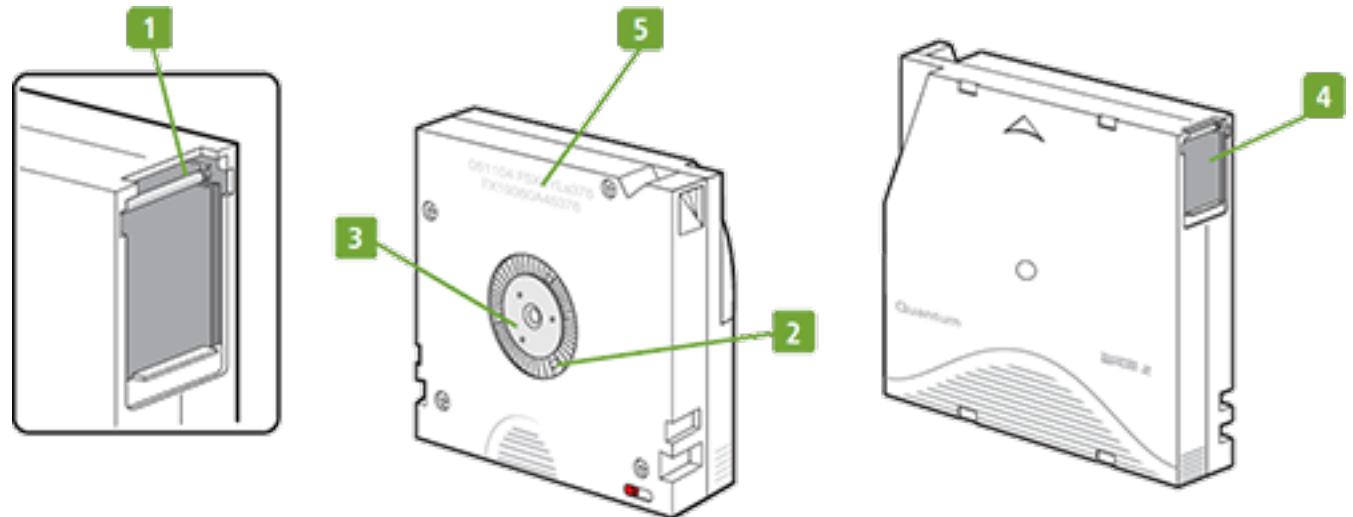
Mechanical interconnect between the cartridge and the drive reel motor.

4. Cartridge Door

Provides access to the tape leader.

5. Serial Number

May be needed for identification purposes if you call for service.

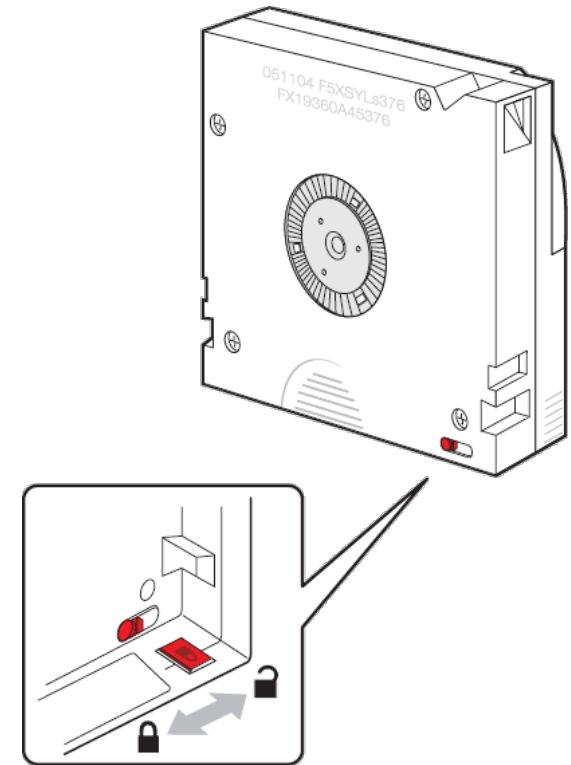


1.2

Get to Know Your Cartridge

Write Protect Switch

Prevents overwrite or erasure of data. You can change the position of the write protect switch at any time.



Slide indicator left to close the lock.

2.1

Media Care
Overview

Protecting Your Cartridge



- Protect cartridges from shock, vibration, moisture, and magnetic fields.
- Keep cartridges in protective cases and store vertically when not in use.
- Ensure that no loose labels in the storage container stick to the bottom of the cartridge, covering the hub.
- Never touch the tape or tape leader. Dust and oils from skin can contaminate the tape, and affect performance.
- Avoid direct sunlight – it can deform cartridge and ruin media.
- Allow cartridge 24 hours to adjust to the present operating temperature and humidity before use.

Proper Storage Conditions – LTO Tape

Operational Storage	16 to 35° C (61 to 95° F) 20 to 80% relative humidity
Archival Storage	16 to 25° C (61 to 77° F) 20 to 50% relative humidity

2.2

Media Care
Overview

If You Drop Your Cartridge

- Inspect case for any signs of cracks or protruding material.
- Open cartridge door to check for damage. See Section 4 – Visual Inspection.
- If damage is present:
 - Do not insert cartridge in tape drive.
 - Discard, or contact the manufacturer.
- If cartridge appears usable, transfer data to a new cartridge, and discard the old one.

Media Usage and Durability

- The usage and durability of your media is influenced by its care and handling as described in this document.
- Many of the newer drives monitor the usage of the media and will alert you as to when to replace a cartridge. Refer to your drive documentation for available alerts or software utilities.
- An LTO tape can sustain from 200 to 364 full file passes. The actual amount can vary, depending on drive wear, environmental factors, and media handling.

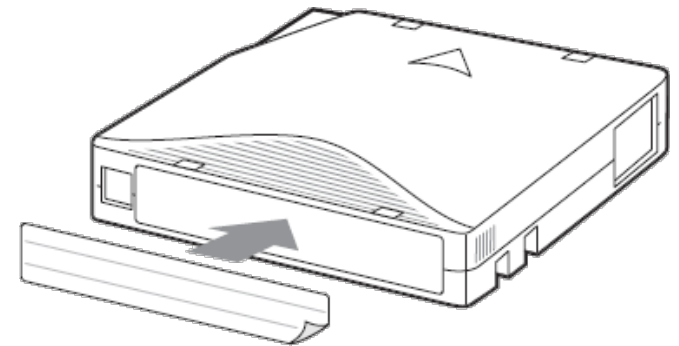
2.3

Media Care
Overview

Labeling Your Cartridge



- Use the Quantum-provided labels with your cartridge. Never use non-standard adhesive labels or sticky notes.
- Use barcode labels designed specifically for your cartridge.
- To avoid drive and cartridge damage, make sure only one label is stuck to the designated label area of the cartridge. Multiple labels may cause jamming.
- Do not write directly on the cartridge.
- Write in pen, not pencil. Pencil can contaminate the tape path. Never use a grease pencil to write on the label, or write directly on cartridge.



Stick **ONLY** one label in the indented area on the back of the cartridge.

3.1

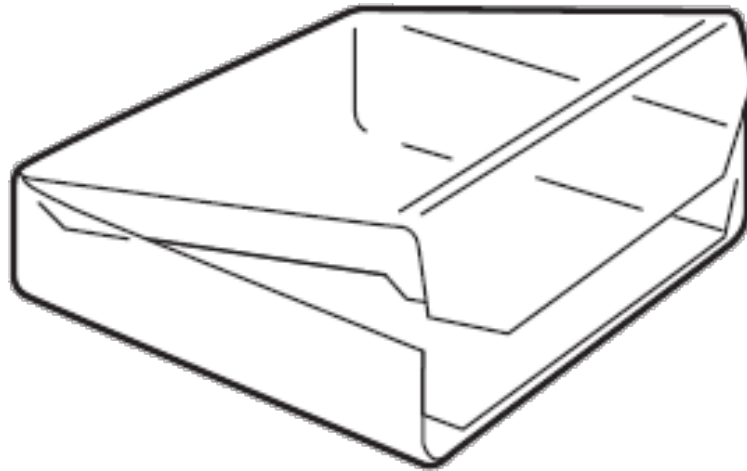
Visual
Inspection

When to Perform a Visual Inspection

- Each time a tape is loaded or changed.
- When a tape cartridge is dropped or subjected to a hard physical shock.
- When a shipment of tapes shows any signs of shipping damage.
- If the drive becomes inoperable after loading a tape.
- If a drive error occurs, inspect the current and previous cartridges used in that drive.

How to Perform a Visual Inspection

- Complete all the inspection steps listed below.
- Except where noted, data from damaged cartridges should be copied to a new cartridge (if possible) and **the damaged cartridge should be retired.**

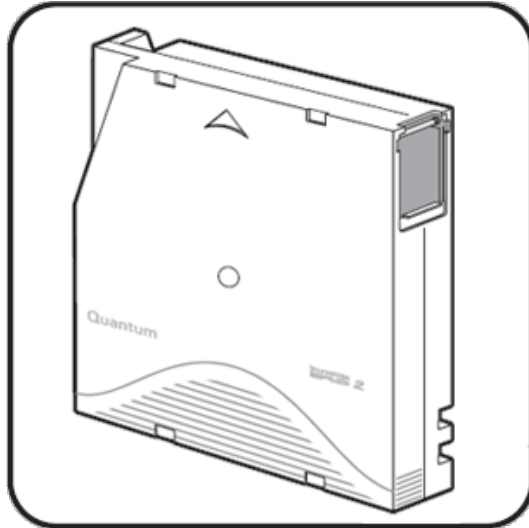


Inspect the protective case for cracks, chips, distortion, or other signs of damage. If the case is damaged the cartridge may be damaged as well.

3.2

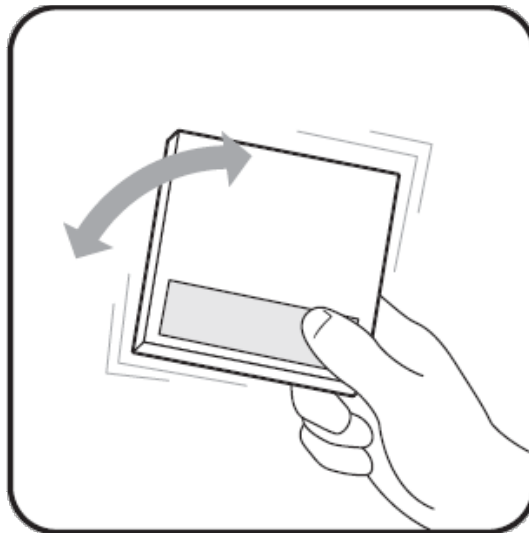
Visual Inspection

External Cartridge Inspection



Cartridge

Inspect the exterior of the cartridge for chips, cracks, dents, or missing screws. Inspect the seam around the circumference of the cartridge for separation.



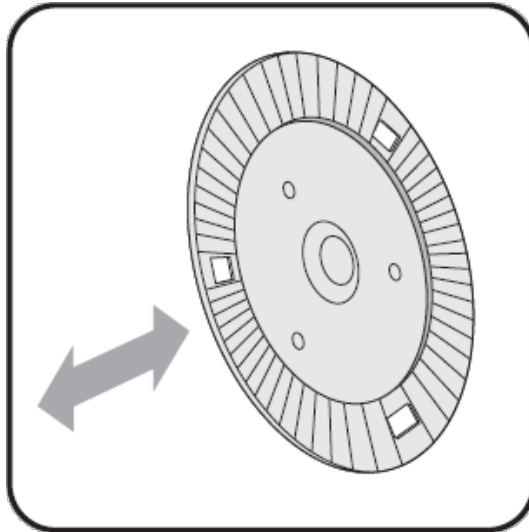
Shake the Cartridge

Gently shake the cartridge, listening for rattles or loose pieces.

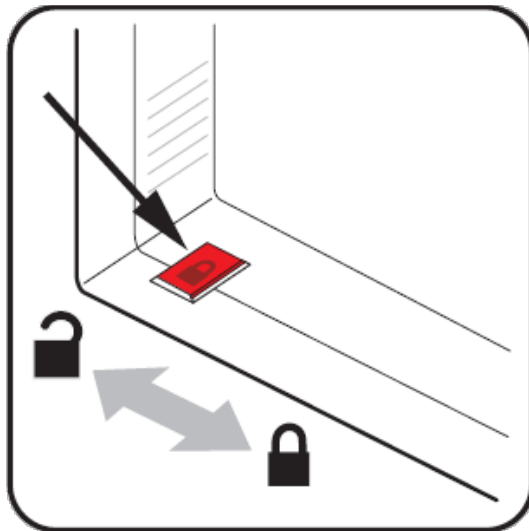
3.3

Visual
Inspection

External Cartridge Inspection

**Cartridge Hub and Reel Locks**

Confirm that the spring-loaded hub on the bottom of the cartridge is centered. Press the hub. It should spring back if it is operating properly. Operation of the reel locks may release the hub and re-center. Check that the reel locks are visible and out. The hub should not turn.

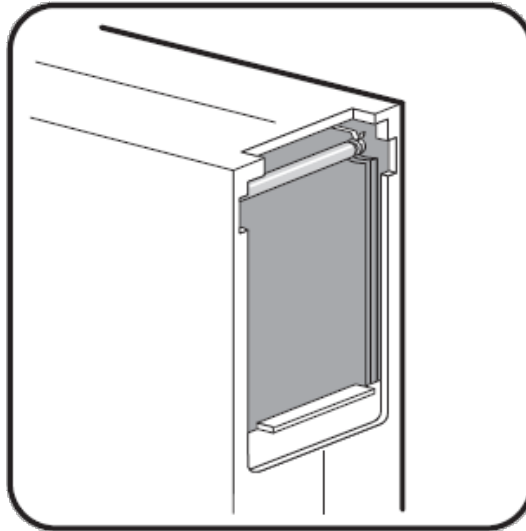
**Write-Protection Switch**

Move the switch. It should be able to snap into write-protected and write-enabled modes. Note: the cartridge can be used even if the write-protection switch can't be moved. If it's locked in the write-protected position, the cartridge can be used in read-only operations. If the switch is locked in the write-enabled position, the cartridge can be used for both read and write operations.

3.4

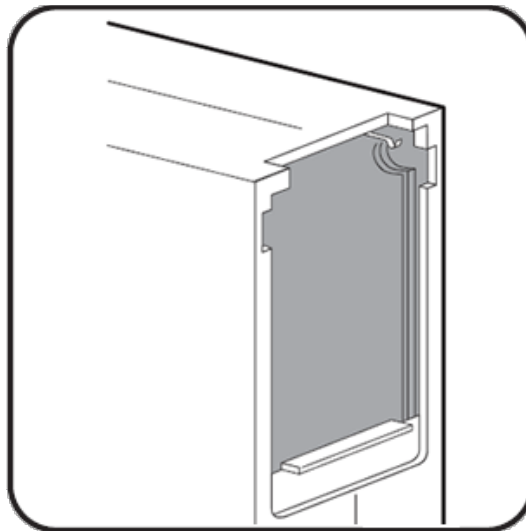
Visual Inspection

Cartridge Door and Leader Inspection



Cartridge Door

Ensure the door is movable and springs closed when released.



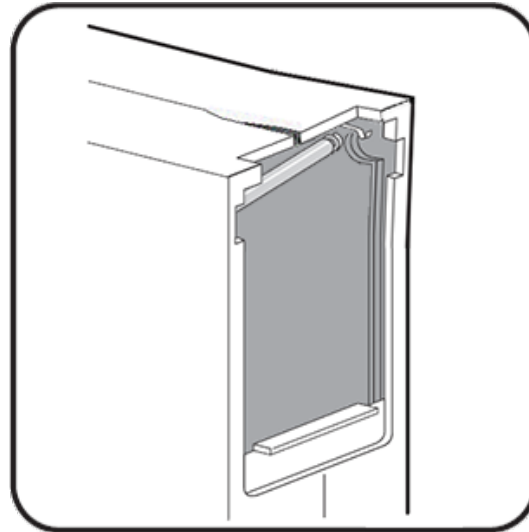
Tape Leader Pin Missing

Check that the leader pin is securely held by both clips. A missing leader pin may indicate a broken tape.

3.5

Visual Inspection

Cartridge Door and Leader Inspection



Tape Leader Pin Dislodged

The leader pin will damage the cartridge case if it is not securely held by its clip, and it is misaligned. This could split the cartridge along its seam.

4.1

Shipping
Cartridges

How to Pack and Ship Cartridges

Note: This procedure assumes you DO NOT have the original packaging the cartridges were shipped in. If the original packaging will be used, ensure any empty space created by removed cartridges is filled with bubble wrap to prevent the shipped cartridges from shifting inside the box.

**Do Not Use the Following Shipping Materials:**

Air pillows, peanut packaging, oversized boxes, standard flat boxes (e.g. FedEx boxes)

Wrap Each Cartridge Properly

2' x 2' sheets of bubble wrap, 1" thick

Use the Correct Shipping Box

Small box: 10" x 6" x 6" (Holds one cartridge ONLY). Large box: 14" x 10" x 6" / multiple cartridge box (Holds three cartridges ONLY).

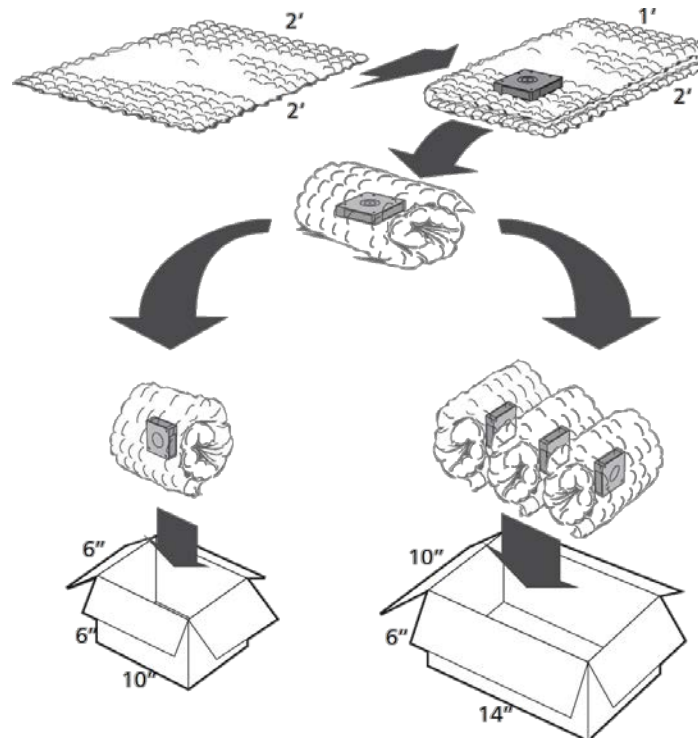
Do not ship fewer than three cartridges.

4.2

Shipping Cartridges

Packing Single or Multiple Cartridges

# of Cartridges	Bubble Wrap	# of Boxes
1	1 sheet	1 small box
2	2 sheets	2 small boxes
3	3 sheets	1 large box
4	4 sheets	1 large box, 1 small box
5	5 sheets	1 large box, 2 small boxes
6+	Ship in multiple boxes in combination using the above guidelines.	



Orient tapes vertically in the shipping box. Fill air space in large-sized boxes.

5

Quick Guide: Media Care Do's and Don'ts

Media Care Dos

Storage

- Store cartridges in their protective cases.
- Align cartridges so grooves interlock.
- Store media vertically.

Handling

- Handle cartridges with great care.
- Use the right label for your cartridge.

Usage

- Inspect cartridges prior to each use.
- Unload cartridges prior to powering down the drive.
- Before using a new or stored cartridge, allow the cartridge 24 hours to adjust to the current operating temperature and humidity.

Media Care Don'ts

Storage and Shipping

- Don't store cartridges near magnetic fields.
- Don't ship cartridges in a drive.
- Don't stack cartridges horizontally.

Handling

- Don't touch the media or leader with bare fingers.
- Don't use pens or pencils during cartridge inspection.
- Don't disassemble cartridges.

Usage

- Don't drop a cartridge.
- Don't use a dropped cartridge.