

DLTtape™ Cartridge Inspection Procedure

Overview

A tape backup solution is only as good as the tape you use in it. Even the world's best tape drive can be compromised by a bad tape cartridge. *Respect the media as you would your data.*

As with any removable media peripheral, the DLT™ tape drive is susceptible to being rendered unusable if a broken or damaged tape is loaded into the drive. The DLTtape™ cartridge is manufactured to extremely high standards and under normal circumstances the tape will provide many years of quality, reliable service. A DLTtape™ cartridge is a precision, complex piece of hardware. It contains special features such as reel locks to hold the tape under tension when not in the DLT™ drive. Problems can develop when a tape has been dropped or damaged, either by mishandling or other environmental conditions. For these reasons QUANTUM® has developed this brief Visual Mechanical Inspection (VMI) procedure that will help the user identify a tape cartridge problem before it damages the DLT™ drive.

When to perform a VMI

- As a general operating practice when changing or loading new tapes
- If a tape cartridge is dropped or subject to a hard physical shock
- If the DLT™ tape drive becomes inoperable after loading a tape
- If you receive a shipment of tapes that show any sign of shipping damage

General handling procedures

- Always keep the tape cartridge in its protective case when the tape is not in the drive
- When carrying the cartridges always orient the cartridge cases so the grooves in the cases interlock (this prevents the cases from slipping apart)
- Never stack the cartridges more than five high
- Always observe the proper tape storage environmental conditions
- Avoid high intensity magnetic fields (monitors, motors, etc.)

VMI Procedure

- Remove the tape cartridge from the protective case
- Then check the cartridge for obvious cracks or physical damage. Look for broken or missing parts
- Next gently shake the cartridge, listen for small rattles or the sound of pieces loose inside
- If you hear something loose inside, don't use the cartridge. On the front of the cartridge (the end that goes into the drive) there is a small opening on the left side, there should be a small white part visible near the center of the opening. This is one of the reel locks. If this part is not visible or missing don't use the cartridge.
- Look at the bottom of the cartridge. At the left rear bottom corner there is another small opening. There is a small white piece that is partially visible in the opening. This is the second reel lock, if it is not visible or missing don't use the cartridge. These two reel locks are susceptible to breakage if dropped and could make the rattling sound when shaken.
- Next on the bottom is the spring-loaded hub. This should be centered in the case and when pressed in it should spring back. Make sure it ends up in the center of the case.

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The next step is to insure the cartridge leader is in the correct position. To do this it is necessary to open the cartridge door. Refer to Figure 1 below. This is accomplished by holding the cartridge so you are looking at the front (the end that goes into the drive). On the right side (corner) there is a small tab in a cutout portion of the case. With your thumb, gently lift up on the tab and swing the door open. Inside you can now see the tape and cartridge leader loop. The loop should stick up about an eighth of an inch when viewed from the edge and is a closed loop. If it is torn, cupped, pulled in or not sticking up don't use the cartridge see Figure 2 below.

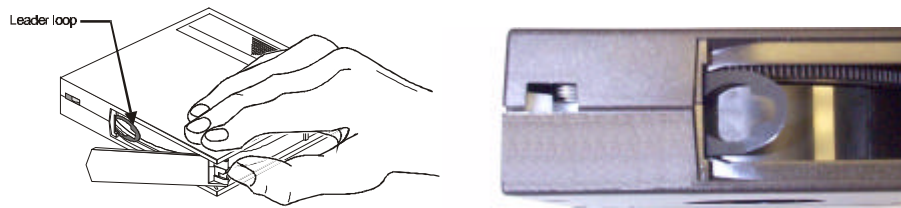


Figure 1




Cartridge problems	
	Swallowed cartridge leader
	Torn or broken leader loop
	Tape is loosely wound

Figure 2
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- The last thing is to check the proper operation of the Write Protect switch. This should snap back and forth and the orange tab should be visible when Write Protected.

If the above procedures become habit when handling all cartridges the risk of having problems with the tapes or damaging the drive are greatly reduced. This VMI should become a normal part of cartridge use.

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