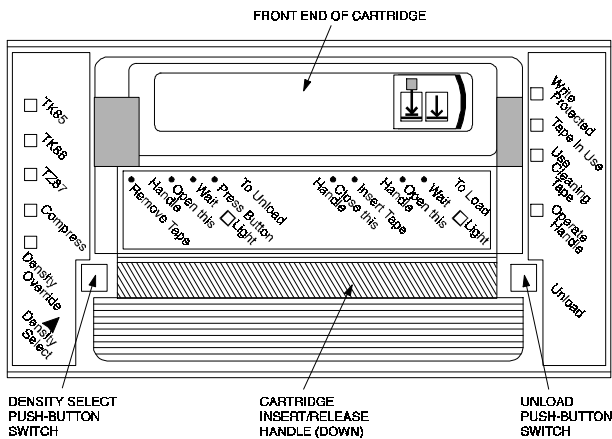*StorageWorks*™

10/20-GB DLT
Cartridge Tape Drive
Operator's Reference Card

Use this card as a quick reference when operating the 10/20-GB DLT tape drive. For detailed information, see the *User Guide* (EK-SM1TB-UG. A01).

1 10/20-GB DLT Front Panel

All normal-use operating controls and indicators are provided on the front panel of the 10/20-GB DLT tape drive, as shown below:

2 Power-On Self-Test (POST) Sequence

When you turn on operating power to the 10/20-GB DLT tape drive (i.e., turn on pedestal power if the DLT tape drive is mounted in a StorageWorks enclosure, or depress top ("1") portion of 1/0 rocker switch on rear panel if the DLT tape drive is a tabletop unit), the following results should occur, in sequence:

> **NOTE 1**
>
> If the WRITE-PROTECTED indicator flashes orange and the TAPE IN USE indicator flashes yellow continuously for more than 30 seconds in the following test, then the POST test has failed. Repeat the test to clear the failure (power off and then on); if the test still fails, replace the drive.

> **NOTE 2**
>
> The indicator sequence described in the following procedure describes what happens when the 10/20-GB DLT unit is connected to an active SCSI bus. If the SCSI bus is not connected, all left-side panel indicators remain on at all times while power is applied to the unit.

1. All left-side panel indicators will initially light, with all right-side indicators then lighting sequentially, from top to bottom.

2. If the SCSI bus is not connected, all left-side panel indicators will stay lit. If the SCSI bus is connected, all left-side panel indicators should go out within 1 second after power is applied, while all right-side panel indicators should remain lit for 3 to 5 seconds and then go out except for the TAPE IN USE indicator.

3. The TAPE IN USE indicator should continue to blink for a few seconds, while the tape mechanism searches for tape, and then go to one of the following two states:

a. If no tape cartridge is already mounted in the DLT tape drive, the TAPE IN USE indicator should go out within 20 seconds, with the green OPERATE HANDLE indicator then becoming steadily lit to indicate that the door latch is released and that the cartridge insert/release handle can be pulled up to allow insertion of tape. (To load tape, see Section 4.)

b. If a tape cartridge is already mounted in the DLT tape drive (left over from previous use), the TAPE IN USE indicator should continue to blink while the tape mechanism engages the tape and then moves the tape under the recording heads, at which time the TAPE IN USE indicator should become steadily lit. You can now either record on or read from that tape, or else press the Unload push-button switch to direct the DLT tape drive to unlatch the insert/release handle so that you can remove the mounted tape.

3 Meaning of Indicators and Controls

Use the information in the following table to determine the DLT tape drive's operating condition:

Indicator	State	Meaning
TZ87 (yellow)	On (default)	Tape in DLT tape drive was recorded in TZ87 format.
	Blinking	Tape in DLT tape drive was last recorded in some other density, but TZ87 density has been selected for new recording. (This selection will be written from beginning of tape.)
TZ85 & TZ86 (yellow)	Same as 10/20-GB DLT, preceding, except applicable to designated density format.	

Indicator	State	Meaning
Compress (yellow)	On	Compression mode is enabled.
	Off	Compression mode is disabled.
Density Override (yellow)	Blinking	DLT tape drive is in density selection mode.
	On	Density selection was set from front panel.
	Off (default)	Density selection was chosen by host computer (automatic mode).
DENSITY SELECT (PUSH-BUTTON)	Recessed (pushed in)	If the Density Override indicator is off, activates the density selection mode, causing that indicator to blink. If the Density Override indicator is blinking, selects the next higher density format option.
	At rest (out)	Normal inactive condition for this spring-loaded push-button switch.
WRITE PROTECTED (ORANGE)	On	Loaded tape is write-protected.
	Off	Loaded tape is write-enabled.
TAPE IN USE (yellow)	On	Tape is loaded, ready for use.
	Blinking	Tape is moving.
USE CLEANING TAPE (yellow)	On	Drive write/read heads need cleaning, or else current data cartridge is bad.

4

Indicator	State	Meaning
	Off	Cleaning is unnecessary (or complete if just done).
	Remaining on after you unload cleaning tape	Cleaning tape attempted to clean the drive heads, but was expired (insufficient cleaning area), so the heads were not adequately cleaned.
	Turns on again when the data cartridge is loaded after cleaning	Data cartridge may be defective; try another cartridge.
OPERATE HANDLE (green)	On	Cartridge insert/release handle is unlocked and can be operated.
	Off	Cartridge insert/release handle is locked. Do **not** operate handle.
UNLOAD (PUSH-BUTTON)	Recessed (pushed in)	Used to unlock the tape cartridge insert/release handle (press and hold for 1 to 2 seconds).
	At rest (out)	Normal inactive condition for this spring-loaded push-button switch.
All left or right indicators simultaneously	Steadily On	Power-on self-test is in progress (momentary sequence triggered whenever power is applied to the DLT tape drive unit).
	Blinking	A DLT tape drive fault has occurred. Press the Unload button or turn
		DLT tape drive unit power off and on again

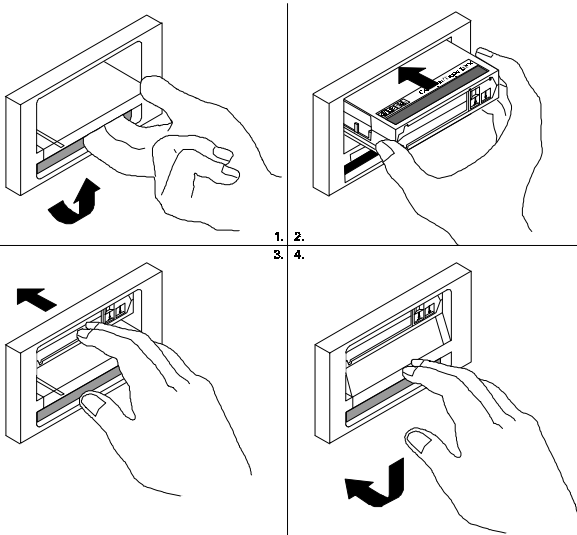| Indicator	State	Meaning
		to clear the error. If the error remains, contact service personnel.

4 Loading A Tape Cartridge Into the DLT Tape Drive

The cartridge insert/release handle on the front of the drive provides outline procedures for loading a cartridge into the DLT tape drive (right side of handle) and unloading a cartridge from the drive (left side of handle).

The following is a more detailed version of the procedure for loading a cartridge, as illustrated below.

CAUTION

Never operate the cartridge insert/release handle unless the green OPERATE HANDLE indicator is steadily lit.

1. When the green OPERATE HANDLE indicator is lit steadily, pull the cartridge insert/release handle open by pulling the bottom edge up and forward.

TZ870203

2. Insert rear end of cartridge (opposite from end containing write-protect switch) into the aperture behind the handle, right side up (name on top, with arrows on front write-protect switch pointing down).

3. Push the cartridge assembly into the drive until the cartridge reaches its full-stop position.

4. Push the insert/release handle closed by pushing front edge back and down.

After you close the door, the green OPERATE HANDLE indicator goes out and the yellow TAPE IN USE indicator blinks to show that the tape is loading. When the tape is at the BOT (beginning of tape) marker, the yellow TAPE IN USE indicator lights steadily. The tape is then ready for use.

5 Unloading a Tape Cartridge from DLT Tape Drive

CAUTION
Remove a cartridge from the DLT tape drive before turning off or powering down the host system. Failure to remove a cartridge can result in damage to the cartridge and/or to the DLT tape drive.
To prolong the life of a cartridge, return the cartridge to its plastic case and secure the case cover when you remove the cartridge from the DLT tape drive

The cartridge insert/release handle on the front of the drive provides outline procedures for loading a cartridge into the DLT tape drive (right side of handle) and unloading a cartridge from the drive (left side of handle).

The following text is a more detailed version of the procedure for unloading a cartridge, as illustrated on the next panel.
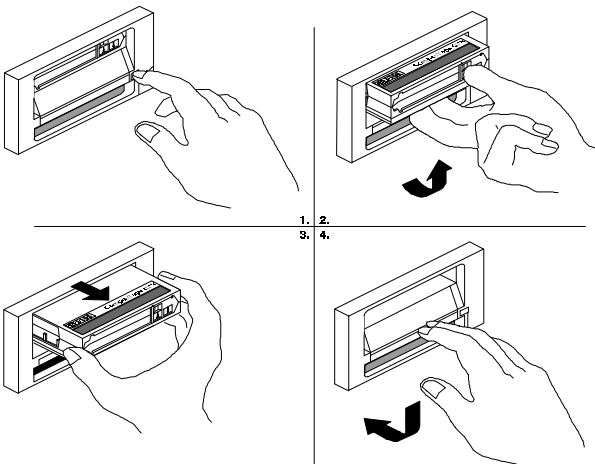
NOTE

The following procedure presumes that the operator manually initiates the unloading sequence by pressing the UNLOAD push-button. In some host-driven applications, the application software may issue the appropriate system software command to initiate the same unloading sequence.
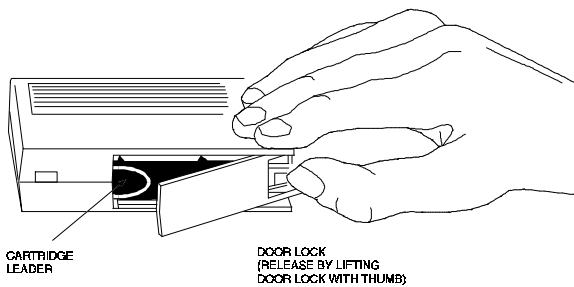
CAUTION

Never operate the cartridge insert/release handle unless the green OPERATE HANDLE indicator is lit steadily.

1. Press the UNLOAD push-button on the front panel's right side (or issue the appropriate system software command). The yellow TAPE IN USE indicator blinks as the tape rewinds.

2. When the green OPERATE HANDLE indicator lights steadily, pull the cartridge insert/release handle open by pulling the bottom edge up and forward.

3. Remove the cartridge by pulling it forward from the aperture.

4. Push the insert/release handle closed by pushing front edge back and down.

TZ370304

CARTRIDGE
LEADER

DOOR LOCK
(RELEASE BY LIFTING
DOOR LOCK WITH THUMB)

TZ970401

6 Operating Hints

- Never operate the cartridge insert/release handle if the green OPERATE HANDLE light is not on steadily or blinking.

- If DLT tape drive behaves erratically with a given tape cartridge, open inspection door at rear of cartridge to make sure that cartridge leader is in its correct position (see figure, below).

- When mounting a tape cartridge, insert the tape cartridge into the DLT tape drive with a slow, steady motion.

- If the yellow Use Cleaning Tape indicator lights, unload the data cartridge from the DLT tape drive and then load a CleaningTape III cartridge in its place. The cleaning cartridge automatically cleans the read/write heads and then unloads when cleaning is complete. Be sure to remove the cleaning cartridge after cleaning is complete, so as to avoid repeated operation, which would cause unnecessary wear to the read/write heads.

7 Cartridge Compatibility

Cartridge Type/Format (Capacity)	Read/Write Ability in the 10/20-GB DLT tape drive
CompacTape III/TK85 (2.6 GBF)	Read/write in 85 mode.
CompacTape III/TK86 (6.0 GBF)	Read/write in 86 mode.
CompacTape III/TK87 (10.0 GBF, uncompressed; 20.0 GBF with 2:1 compression)	Read/write in 87 mode.
CompacTape III/Blank	Read/write in 85[†], 86[†] or 87 mode, as selected.

[†]Read/write, backward compatible with DLT tape drive of selected density.

The 10/20-GB DLT tape drive cannot write TK70, TK50, or TZ30 format on any cartridge and cannot read any of those formats.