

Barcode Media Label Requirements for Dell PowerVault Tape Libraries

This document provides guidance to customers on LTO media label requirements to ensure operation in Dell's tape libraries.

The relevant Dell tape libraries are:

- PowerVault TL1000
- PowerVault TL2000 \ TL4000
- PowerVault ML6000 family

If non-Dell barcode labels are required for business reasons, the following requirements must be met to ensure the label is machine readable by the Dell tape libraries. Dell-supplied barcode labels provide the best results as they have been fully qualified and meet the required standards.

Note: Checksum characters are not supported on barcode labels.

- Comply with ANSI MH10.8M-1983 Standard.
- Font: Code 39 (3 of 9).
- Allowable characters: Uppercase letters A to Z and numeric values 0 to 9.
- Number of characters: 5 to 16 (default for LTO is 6+2).
- Background reflection: Greater than 25 percent.
- Print contrast: Greater than 75 percent.
- Ratio: Greater than 2.2.
- Module: Minimum .254 mm (10mil).
- Print tolerance: ± 57 mm.
- Length of the rest zones: $5.25 \text{ mm} \pm 0.25 \text{ mm}$.
- No black marks may be present in the intermediate spaces or rest zones.
- No white areas may be present on the bars.

Dell tape libraries support the following tape cartridge barcode formats:

- **Standard** — Five to 16 characters total, including a barcode number and optional two-character media ID. If a media ID is included, the label must have a five to 14 character barcode number followed by a media ID; example, "XXXXXXXXXXXXXL4".

Note: A maximum of 12 characters is recommended. A barcode label with more than 12 characters may not be printable according to the Code 39 label specifications for the tape cartridge area to which the label is attached. The effective tape cartridge barcode label length, including any media ID, may be limited to a maximum of 12 characters.

If a media ID is not included, the label must have a five to 16 character barcode number; example, "XXXXX" or "XXXXXXXXXXXXXXX". Note that only the barcode number is reported to the host.

- **Standard Six** — Six character barcode number with or without a two character media ID; example, "XXXXXXL4" or "XXXXXX". Note that only the six character barcode number is reported to the host.

- **Plus Six** — Six character barcode number followed by a two-character media ID; example, "XXXXXXL4". The six character barcode and media ID are reported to the host.

- **Extended** — Five to 16 characters total, including a barcode number and optional two-character media ID. All characters are reported to the host, regardless of the barcode label having a media ID or not. If a media ID is included, the label must have a five to 14 character barcode followed by a media ID; example, "XXXXXXXXXXXXXL4". If a media ID is not included, the label must have a five to 16 character barcode number; example, "XXXXX" or "XXXXXXXXXXXXXXX".

- **Media ID Last** — Five to 14 character barcode number followed by a two-character media ID, example, "XXXXXXXXXXXXXL4". The media ID is reported to the host last, as in "XXXXXXXXXXXXXL4".

- **Media ID First** — Five to 14 character barcode number followed by a two-character media ID, example, "XXXXXXXXXXXXXL4". The media ID is reported to the host first, as in "L4XXXXXXXXXXXXXX".

In addition to meeting the above requirements, all barcode labels must be correctly applied to the front of a cartridge. The customer should peel off the label and place it on the cartridge. The label must be placed entirely within the recessed area on the cartridge. Verify that the label is oriented so that the numbers appear above the barcode (see figure below).

Place the barcode label as level as possible in the provided space for the label. If the label is not placed horizontally level, barcode label scan/read operations may encounter difficulties reading the label.

The cartridge cannot have any stickers or labels attached to the top or bottom because if the labels come loose, they can get caught in the tape drives or become unreadable by the scanner.

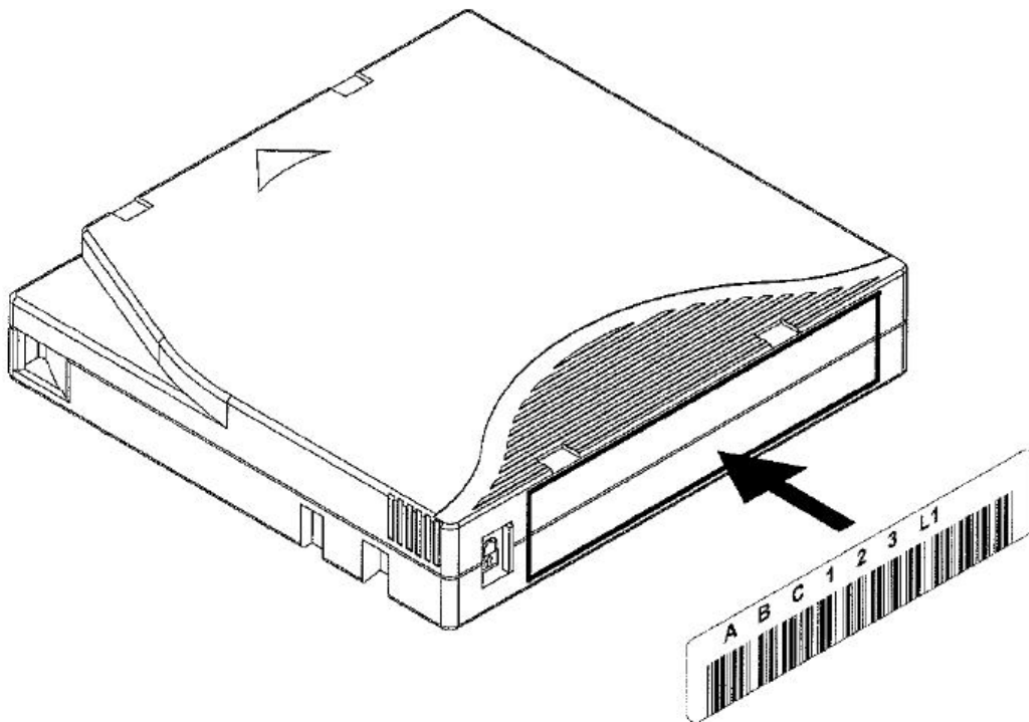


Figure: Barcode Label Orientation

Caution: Do not place a barcode label or any labels on the top or bottom of a cartridge. Doing so can cause the tape cartridge and tape drive operations to fail.