LTO Cartridge Barcode Label Specifications

Format and content of barcode labels on cartridges used with NEO tape library products

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Introduction

Overland-Tandberg recommends putting a bar code label on each LTO data and cleaning cartridge used with the NEO tape library.

The bar code label consists of 8 characters and contains:

- A human-readable volume serial number, and
- A bar code the NEO library can read

When read by the library's bar code reader, the bar code identifies the cartridge's volume serial number to the tape library. The bar code also tells the library whether the cartridge is a data, cleaning, or diagnostic cartridge.

In addition to a 6 individual alphanumeric (upper case alpha) combination, the bar code includes the two-character media-type identifier Lx, where L identifies the cartridge as an LTO cartridge and x equals the generation number of either a LTO data cartridge (1-9) or a WORM cartridge (R-Z).

Examples

The following examples show barcodes for different cartridge types:

- LTO-8 data cartridge barcode label (**L8**) with individual alphanumeric characters

- LTO-6 WORM data cartridge barcode label (**LW**) with individual alphanumeric characters (the word "WORM" does not need to be specified)

- Universal cleaning cartridge (**CU**) barcode label with **CLN** as a prefix, followed by a 3 digit number.

Overland-Tandberg offers labeled and unlabeled LTO-media as well as barcode-label packages without media.

Specifications

This document provides specifications for creating bar code labels used on cartridges in Overland-Tandberg LTO Ultrium libraries. The specifications are defined to both standardize labels and allow users the option of purchasing or printing their own labels.

Symbology

The LTO Ultrium cartridge label uses the bar code symbology of USS-39. A description and definition of this symbology is available from the Automatic Identification Manufacturers (AIM) specification Uniform Symbol Specification (USS-39 or 3 of 9) and the ANSI MH10.8M-1993 ANSI Barcode specification.

Quiet Zone

The quiet zones are the areas preceding the start and after the stop characters. They are clear of any printing or reflective properties that could cause spurious reflections. The quiet zones are further defined in the AIM Uniform Symbol USS-39 specification.

Label Dimensions

The following figure shows the bar code label dimensions.

Note: Dimensions are given in inches with millimeters in parentheses.
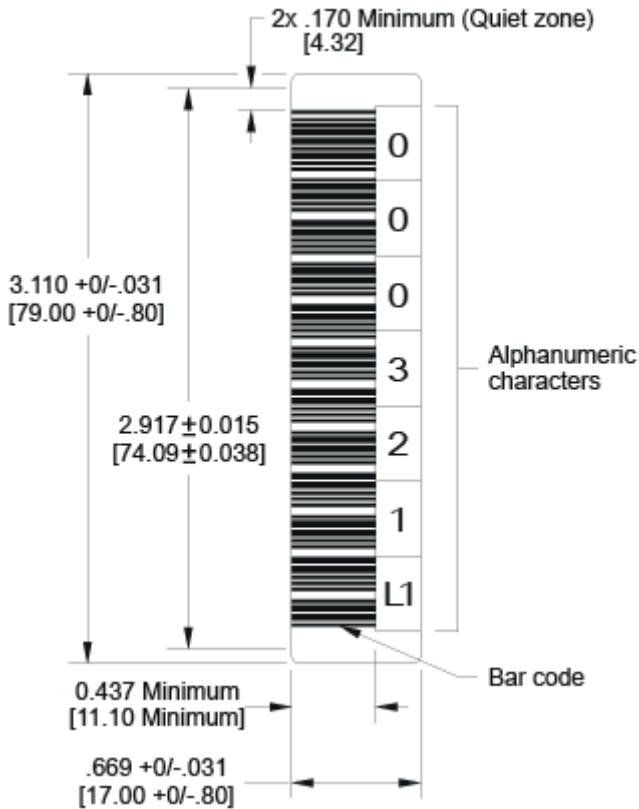
Label Placement

When attaching a bar code label to a tape cartridge, place the label only in the recessed bar code label area. A label that extends outside of the recessed area can cause loading problems in the drive or the library.
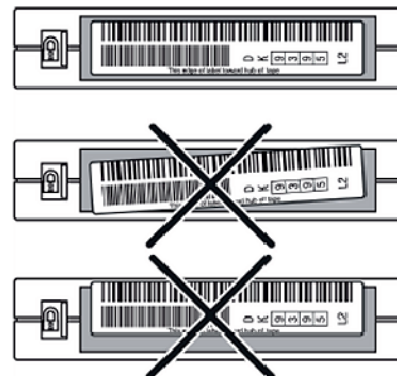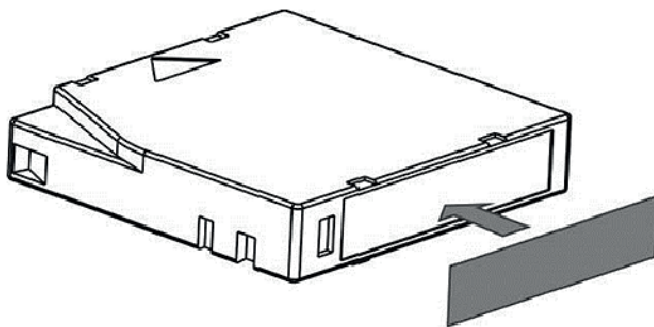
Potential Issues Caused by the Improper Use of Bar Code Labels

When attaching a bar code label to a tape cartridge, place the label only in the recessed bar code label area. A label that extends outside of the recessed area can cause loading problems in the drive or the library.

- Do not place any type of mark on the white space at either end of the bar code. A mark in this area may prevent the NEO tape library from reading the label.

- Tapes labeled with the wrong media identifier may be prevented from being inserted into a drive by the library or the ISV application.

- Cleaning cartridges that are not labeled as cleaning cartridges may be prevented from being used in a cleaning operation.

- Data cartridges labeled as cleaning cartridges may be inserted in a drive for a cleaning operation, but the cleaning will not be possible.

- Disoriented labels located in the correct recessed location of the cartridges may fall off or become jammed in the drive and cause a drive failure.

- Disoriented labels may be read by some libraries in some locations but not by all libraries or in all slot locations.

- Labels placed anywhere but the correct recessed location of the cartridge specifically designed for them may become jammed in the drive and cause a drive failure.

- Labels with more characters than recommended may lead to inconsistent ability to read the label.