Technical Note
Exabyte Mammoth Tape Drive

Manually Ejecting a Cartridge and Identifying Cartridges that Cause Eject Failures

Contents

1005270-000

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1   Introduction

Exabyte has discovered a problem that may occur when 170m AME media from one of Exabyte's media suppliers is used in early-production Mammoth-1 (EXB-8900) tape drives that include an early version of the cartridge loader assembly. This combination of cartridge and cartridge loader can prevent the tape drive from properly ejecting the cartridge after the tape is unloaded from the tape path. The tape drive LCD indicates a fault symptom code (FSC) of ADh (servo hardware failure).

Note: This problem only affects the first 40,000 Mammoth tape drives manufactured. These tape drives have serial numbers below 60040000.

A small feature on the back lid of cartridges from the affected supplier can catch on the vertical tab of the early version of the cartridge loader's shock spring (see the following figure). When this occurs, the tape drive cannot eject the cartridge. The tape drive posts an FSC ADh error.

Note: The feature is not visible without disassembling the cartridge. All cartridges from this supplier are within manufacturing and ECMA specifications. The cartridges eject properly when used in tape drives with the newer design cartridge loader.

Cartridge back lid

Lid catches in this area

Cartridge loader shock spring
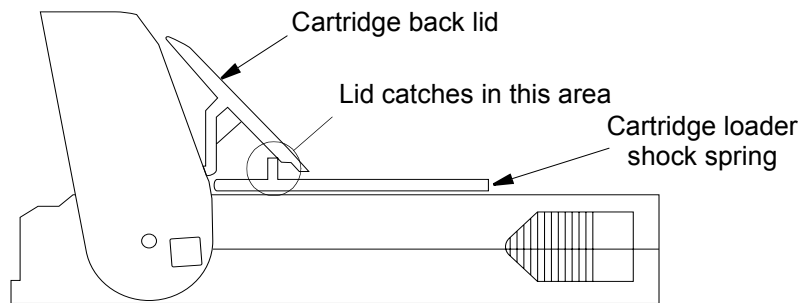
This technical note describes how to manually eject a data cartridge from an Exabyte Mammoth tape drive and determine whether the cartridge is from the affected supplier.

Use this procedure only as a last option when it is necessary to preserve the data on the tape.

CAUTION

Exabyte does not assume responsibility for any damage to the tape drive, the data cartridge, or the tape or for the loss of any data resulting from incorrectly performing this procedure. Any damage to the tape drive caused by incorrectly performing this procedure will be repaired as a nonwarranty repair and may void the existing warranty for the tape drive.

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2   Procedure for ejecting the cartridge

Before you begin...

- Power the tape drive off and back on again to attempt to clear a possible hang condition. This may cause the tape to be unloaded from the tape path.

- If the middle LED is lit, indicating Ready status, press the unload button or try to unload the cartridge with the host software. (Also make sure that the unload operation hasn't been prevented from the software.) If the data cartridge does not unload or the middle LED is off, continue with these instructions.

Required tools

- Torque limiting screwdriver
- T-6 TORX bit
- 2.5 mm ballpoint Allen hex driver, at least 60 mm in length

Step 1: Disconnect the drive and remove it from its enclosure

> ### WARNING!
>
> Before beginning this procedure, turn off the system in which your tape drive is installed and disconnect the power cord.

Following all procedures appropriate to the system in which the tape drive is installed, disconnect the tape drive from the power supply and the SCSI bus, and remove the tape drive from its enclosure. You may need to consult your computer owner's manual and *Exabyte Mammoth Tape Drive Installation and Operation* (306484) for information about how the tape drive has been installed.

Step 2: Remove the tape drive's top cover

1. Remove the screws on the right and left of the tape drive, then remove the screw on the back, as shown in the following figure.

2. Slide the cover back about one-half inch (1.3 cm).

3. Place your fingers under the front of the cover and lift the cover off.
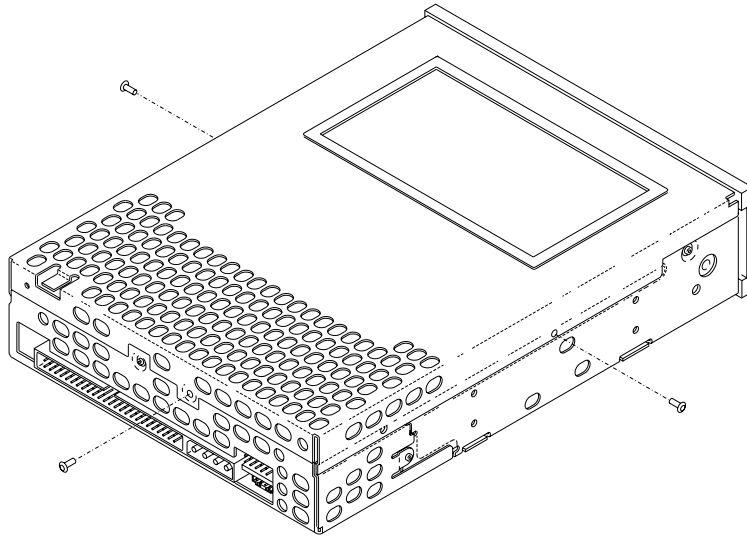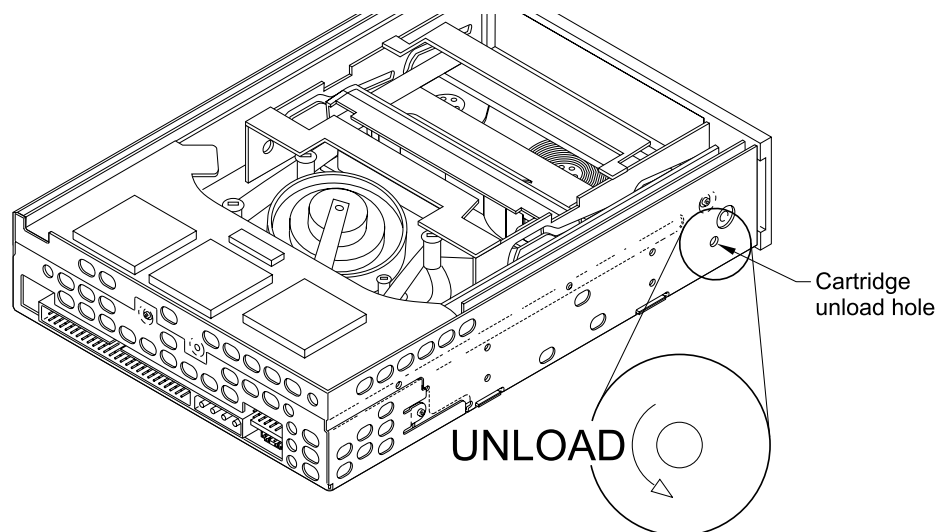
Step 3: Verify that the tape is unloaded from the tape path

Inspect the tape path and verify that the tape is completely unloaded and retracted into the cartridge. If the tape is completely unloaded from the tape path and retracted into the cartridge, go to Step 4. If the tape is not completely unloaded, the failure to eject the cartridge is not related to the type of cartridge. Your tape drive requires repair. Contact Exabyte Technical Support for assistance.

Step 4: Eject the cartridge

1. Locate the cartridge unload hole on the left side of the tape drive, as shown in the following figure.

Cartridge unload hole

UNLOAD

2. Insert the ball Allen hex driver into this hole approximately 0.65 inches (16.5 mm), guiding it through a hole in the circuit card until it mates with a plastic connector.

3. Turn the driver in the direction of the arrow in the above figure to eject the cartridge from the tape drive.

Step 5: Replace the tape drive's top cover

1. Replace the tape drive cover and slide toward the front of the drive about one-half inch (1.3 cm).

2. Reinstall the screw on the back, followed by the screws on the right and left of the tape drive, as shown in the following figure.
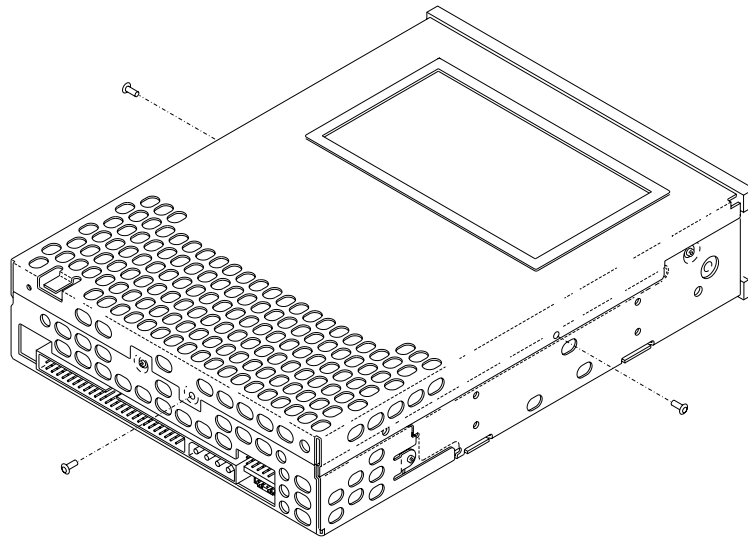
Step 6: Reinstall the tape drive

Following all procedures appropriate to the system in which the tape drive is installed, connect the tape drive to the power supply and the SCSI bus, and reinstall the tape drive in its enclosure. You may need to consult your computer owner's manual and *Exabyte Mammoth Tape Drive Installation and Operation* (306484) for information about how to install the tape drive.

3   Identify the cartridge

After ejecting the cartridge, check the lot code stamped on the end of the cartridge in the label area. The lot code for affected cartridges begins with alpha characters. The lot code for unaffected cartridges begins with numeric characters.

Note: If the cartridge is labeled, you may need to remove the label to see the lot number.

If the cartridge you ejected has a lot code beginning with alpha characters, avoid using the cartridge, and any other cartridges of the same type, in your tape drive. Contact Exabyte Technical Support for warranty replacement of the affected cartridges and assistance in retrieving data from them.

Notes