E-Series Upgrade Kit Instructions

This document describes how to upgrade a legacy NEO 8000 library to include NEO 8000e functionality and features.

IMPORTANT: Only older libraries with LTO-3, LTO-4, or LTO-5 drives can be upgraded to a NEO 8000e library. The upgrade does not support LTO-1 or LTO-2 drives.

It is **recommended** that the upgrade be performed by an Authorized Service Provider. Improper installation may result in damage which voids existing warranties.

WARNING: To reduce the risk of electric shock or damage to equipment, always remove the power cords.

AVERTISSEMENT: pour réduire le risque de choc électrique ou endommagement de l'équipement, retirez toujours les cordons électriques.

CAUTION: While working with the unit, observe standard Electrostatic Discharge (ESD) precautions to prevent damage to micro-circuitry or static-sensitive devices.

Re-Register Your Library

It is **essential** that you re-register your library showing the upgrade to an E-Series unit to receive appropriate technical and warranty support. Help is **not available** until the following is done:

1. Go to the **Overland Storage** web site (http://www.overlandstorage.com/).
2. Click the **Service & Support** tab.
3. At the Site Login, enter your **e-mail address** and **password** and click **GO**.

> **NOTE:** If you are not yet a member, click "New member?" and follow the instructions given. It's free and easy!

4. At the Support Home page, click **Manage Products**.
5. From **Product Selector**, select your NEO library.
6. From Actions, click **Add a Component**.
7. From the component drop-down list, select **KIT,UPGRAGE E-SERIES,LXN**.
8. Fill in the **information** requested.
9. Click **Save & Exit** (or Save & Add Another).

   The E-Series Upgrade is shown on your list.

Update the Drive Firmware

CAUTION: The drive firmware MUST be upgraded to the latest version to be compatible with the NEO 8000e upgrade.

Tape drive firmware is stored on the Overland FTP site in specific directories for each tape drive model (LTO-3, LTO-4, etc.) and interface type (SCSI, FC, or SAS). The file naming convention is the same for all firmware files:

- M##H.E
- M##H.FRM

where:

M = Model Designator

= Version Number

"H" = Overland Personality Code

"E" = Code for firmware file version used to update using the NEO remote GUI

"FRM" = Code for firmware file version used to update using the HP Library and Tape Tools application.

1. For each tape drive, using the front GUI, press **Status > Drive n LTO > Drive Identification** and note the **Product Revision Level**.
2. Check the Overland Storage **FTP site** to determine the latest version of firmware for your tape drive:

   ftp://ftp.overlandstorage.com/Firmware/

Using your drive model and interface type, locate the proper subfolder, and inside, note the file with the highest version number:

- If the version number of the FTP file is **higher** than the one on the drives, continue with Step 3.
- **Otherwise**, skip to Step 6

IMPORTANT: The following examples outline the steps to upgrade the firmware in an LTO-4 Fibre Channel drive to version H43H. Other drive types would use the same procedure with **different** firmware names.

3. Using your preferred browser or FTP client, download the drive **firmware** to your local computer, saving it in an easy-to-find location:

   ftp://ftp.overlandstorage.com/Firmware/
   HP_LTO4_Drive/Fibre/H43H.E

   NOTE: If blocked by a firewall, you need to obtain access at a different location and then load the file on the local network computer.

4. Using your preferred browser or FTP client, upload the tape drive firmware to the **NEO library**.

   NOTE: To FTP into the NEO library, you must use the Level 1 password that has been set for the library (the default password = 1).

   - If using a **browser**, use this address:

     ftp://*<user_name>*:*<L1_password>*
     @*<neo_ip_address>*/upload

     and follow the prompts.

   - If using the DOS command line **FTP client** on a Windows system, follow this procedure:

     ```
     ftp <neo_ip_address>
     (Login:) guest
     (Password:) 1 (or new_password)
     cd /upload
     bin
     put H43H.E
     bye
     ```

5. Using your browser, update the drive **flash**:

IMPORTANT: If using Microsoft Internet Explorer 8, you must change the Advanced Internet Options by deselecting the "Use Passive FTP (for firewall and DSL modem compatibility) option. If this is not possible, enter the FTP address directly into Windows Explorer file manager.

   a. Using a Level 2 password (default password = 2), log into the **remote GUI**.
   b. Click **Functions**.
   c. From the **Drive Flash Operation** drop-down menu, select **Flash Drive *n* (*<drive_type>*) from Local File**.

   d. Click **Start the Flash**, select the file name, and click **OK**.

      When the flash operation is finished, the remote GUI displays a successful completion message.

6. It is recommended for a **Master module**, to have a record of the current settings of the library:

   a. Log into the **remote GUI**, and click **History > Display Trace**.
   b. Print (or save) the first few pages that show the **library configuration**.

Replacing the Controller Card

This upgrade requires the controller card to be replaced.

Power Down the Library

1. Press the **Power** button and confirm the shut down.
2. Set the power supply circuit breakers to **OFF** (O).
3. Remove and retain the **power cords**.
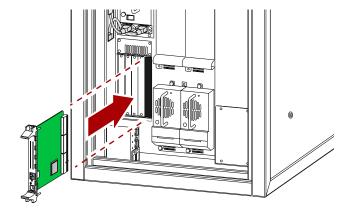4. Remove any **cables** from the Library Controller card.

Remove the Old Controller

1. Using a Phillips screwdriver, loosen the **retaining screws** at the top and bottom of the old controller.
2. Push the **top** ejector handle **up** and the **bottom** ejector handle **down** to release the card.
3. Slide the **card** out of the bay.

Insert the New Controller

CAUTION: The Library Controller card only functions in the **right-most slot** of the **Primary** card cage.

1. Carefully insert the **new E-Series Library Controller card** into the right-most slot and slide the card into the bay until resistance is felt.

2. Using the card handles, apply just enough force to **seat the card snugly** into the library backplane.
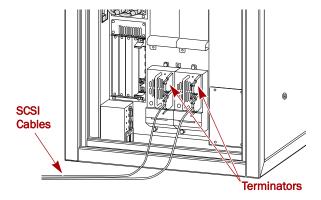3. Tighten the hold-down **screws** on the card handles.

Cabling Changes

The following figures show some common cabling configurations. Refer to *NEO 8000e User Guide* for more information on cabling your library. It is available at:

http://support.overlandstorage.com/support/neo-series.htm

SCSI

With the new Library Controller card for the E-Series, the SCSI VHDCI connections on the drives are used to connect to the host following SCSI wiring protocols of one drive per bus for LTO-3 or higher drives. Any SCSI connectors on the controller card are no longer used.

FC

With the new Library Controller card for the E-Series, Fibre cables connect directly to the FC sockets on the drive assemblies. An FCO card is no longer needed.

SAS

SAS cables connect directly to the SAS sockets on the drive assemblies.

Partitioning Considerations

For libraries using partitioning, the Partitioning V.I.A. card is no longer required with the upgraded NEO 8000e library. Native partitioning support is a standard feature of NEO 8000e.

The previously configured partitions are lost when the new Library Controller card is installed. They must be reconfigured using the information in the log printout and the partitioning chapter in the user guide.

Completing the Upgrade

Power Up the Library

1. Reconnect any **data cables** to the Controller card.
2. Reattach the **power cords**.
3. Set the power supply switches to **ON** (|).
4. Touch the **GUI** to power the library ON.

   NOTE: During power up, a Fault Code 3031, Chassis S/N Mismatch, appears. This is normal and is only displayed the first time the new Library Controller card is activated.

5. Press the **Resume** button to clear Fault Code 3031.

Configure the Library

The new Library Controller card comes pre-configured for your NEO 8000 library. If it becomes necessary, **reenter the Capacity Key** (Step 1); otherwise, continue with Step 2.

   NOTE: The new Controller card comes configured to use DHCP and has a default Administrator password of "2".

1. To reestablish the full library capacity, enter the 32-digit **Capacity Key**:
   a. Log into the **remote GUI**, and click **Setup**.
   b. Click **Capacity Configuration**, then click **Confirm**.
   c. Enter the full 32-digit **key code** in the field.
      Hyphens and spaces are ignored.
   d. Click **Submit**.
2. Using the previously printed **Trace Log**, reconfigure the library to match its previous configuration.
3. Open the left door and attach the **upgrade code sticker** inside the door. Close the door.

Return the Old Card

1. Place the **old controller card** in the anti-static bag, and put it in the upgrade card's box.
2. Return the old card to **Overland Storage**.

   For return shipping details and RMA number, go to:
   http://support.overlandstorage.com/support/support-return-instructions.html

You can get additional technical support on the Internet at http://support.overlandstorage.com, or by contacting Overland Storage using the information found on the Contact Us page on our web site.