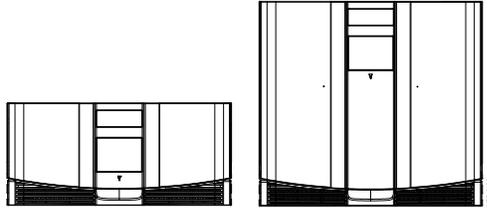


E-Series Upgrade Kit Instructions

This document describes how to upgrade a legacy NEO 2000 or NEO 4000 library to include some E-Series features such as use of an ADI (Automation/Drive Interface).

IMPORTANT: Only libraries with LTO-4 drives can be converted to an E-Series system using ADI.



It is **required** that the work be done 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.

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

NOTE: Depending on the model, different parts may need to be transferred from the old appliance to the new appliance.

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 this 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!

E-mail:

Password:

Remember Me

[Forgot your password?](#) [New member?](#)

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 work with the E-series controller being installed.

Tape drive firmware is stored on the Overland FTP site in specific directories for each tape drive model (LTO-4) 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 library web interface, the Remote Management Interface (RMI)

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

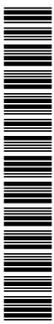
1. For each tape drive, using the front GUI, press **Status > Drive n LTO > Drive Identification** and note the **Product Revision Level**.
2. Check the Overland Storage **FTP site** to determine the latest version of firmware for your tape drive:

<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 FTP version is **higher** than those on the drives, continue with [Step 3](#).
- **Otherwise**, skip to [Step 6](#)

IMPORTANT: The following examples outlines 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.



- Using your preferred browser or FTP client, download the drive **firmware** to your local computer, saving it in a 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 elsewhere and then load the file on a local computer.

- 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
```

- Using your preferred browser, update the drive **flash**:
 - Using a Level 2 password (default password = 2), log into the **RMI**.
 - Click **Functions**.
 - From the **Drive Flash Operation** drop-down menu, select **Flash Drive n (<drive_type>)** from **Local File**.
 - Click **Start the Flash**, select the file name, and click **OK**.
When the flash operation is finished, the GUI displays a successful completion message.
- It is recommended for a **Master module**, to have a record of the current settings of the library:
 - Log into the **RMI** and click **History > Display Trace**.
 - Print (or save) the first few pages up to the **Factory Area** heading.

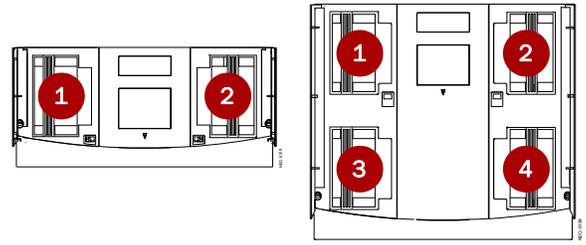
Replacing the Old Components

Upgrade the Tape Magazines



IMPORTANT: If your serial number is **2B64600001** or larger, you already have the newer single-piece tape magazines in your library and can skip this step and continue with “Power Down the Library.”

- Using the GUI, remove all your old **tape magazines**, number them based on their position, and set them aside laying them on their backs (tapes up).



CAUTION: The numbering is critical for partitioned libraries to maintain tapes within a partition.

- Number** the new tape magazines.
- Place a **new magazine** on its back next to an old magazine with the same number.
- Move the **tapes** from the old magazine slots to the same slots in the new magazine.
- Repeat **Steps 3–4** for the remaining **magazines**.
- Reinsert the **tape magazines** into the matching slots.

Power Down the Library

- Press the **Power** button and confirm the shut down.
- Set the power supply switches to **OFF (O)**.
- Remove and retain the **power cords**.
- Remove all **cables** from the Controller card.

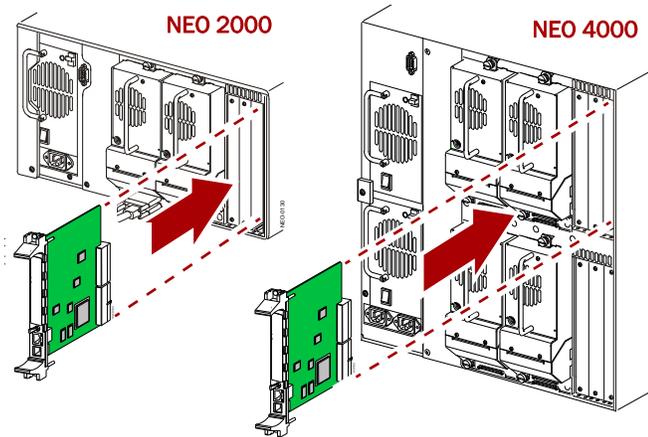
Remove the Old Controller

- Using a Phillips screwdriver, loosen the **retaining screws** at the top and bottom of the old card.
- Push the **top** ejector handle **up** and the **bottom** ejector handle **down** to release the card.
- 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 Library Controller card** into the right-most slot and slide the card into the bay until resistance is felt.



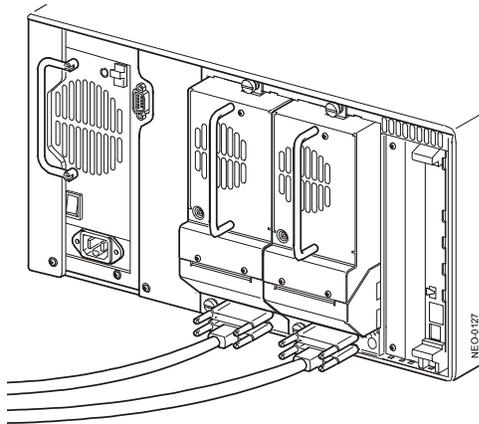
2. Using the card handles, apply just enough force to **seat the card snugly** into the library backplane.
3. Tighten the hold-down **screws** on the card handles.

Cabling Changes

The following figures show some common cabling configurations. Refer to your new *NEO 2000e/4000e User Guide* for more information on cabling your library.

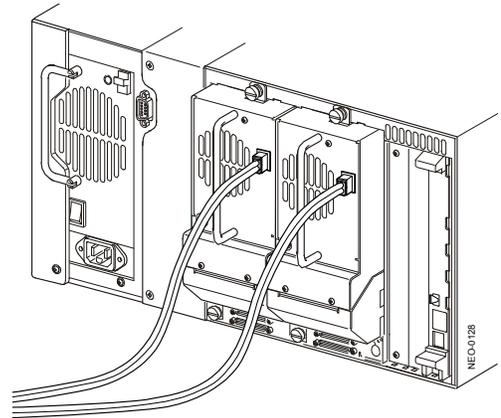
SCSI

The new Controller card for the E-Series doesn't have SCSI connections since it uses ADI. Use the standard connections under the drives following recommended SCSI wiring protocols of one drive per bus for LTO-4 or higher drives.



FC

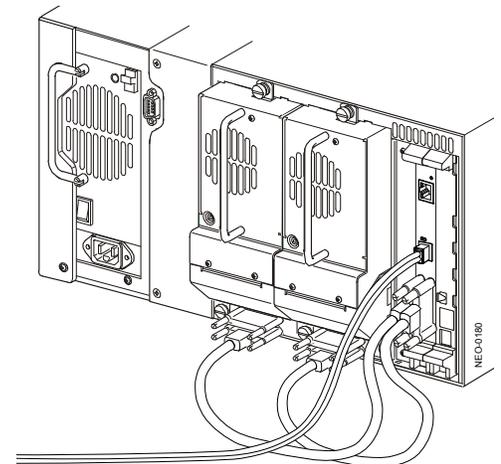
Fibre cables connect directly to the FC sockets on the drive assemblies.



FC with SCSI Drives

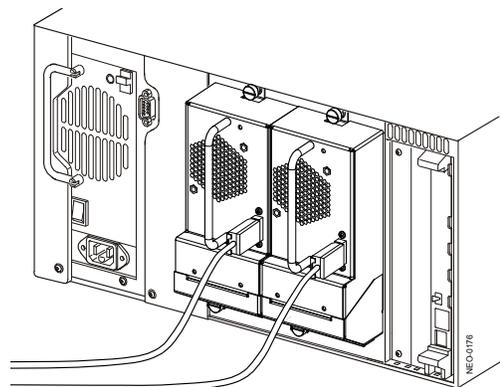
Fibre systems using a FCO V.I.A. card to run SCSI drives, leave the Fibre connection on the card and connect the card directly to the drives.

NOTE: Follow the same process for a system using a *GEO V.I.A. card*.



SAS

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



Partitioning Considerations

For library systems using partitioning, the Partitioning V.I.A. card is not necessary in the converted library. Instead, a special Partitioning feature key (available for purchase separately) is used to activate the partitioning of the library.

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



IMPORTANT: To preserve the tapes used by the partitions being reconfigured, be sure to follow the steps shown in “Upgrade the Tape Magazines” on page 2.

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** (I).
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. If it becomes necessary, **reenter the code** (Step 1); otherwise, continue with Step 2.

1. Enter the full 32-digit key through the GUI using:
Menu > Library > Feature Keys.
Hyphens and spaces are ignored.

NOTE: A Master or Standalone module can also be configured through the RMI (Setup > Feature Key).

2. Enter any other **key codes** (such as partitioning):
 - a. Log into the **RMI** and click **Setup**.

NOTE: The new Controller card comes configured to DHCP and the default Administrator password (“2”).

- b. Click **Feature Key**, then click **Confirm**.
 - c. Enter the full 32-digit **key code** in the field.
 - d. Click **Submit**.
3. Using the previously printed **Trace Log**, reconfigure the library to match its previous configuration.
 4. Using the GUI, open the left door and attach the **upgrade code sticker** inside the door. Close the door.

Return the Old Card

NOTE: It is not necessary to return the old magazines.

1. Place the old card in the **anti-static bag**, and put it in the replacement part’s box.
2. Return the **old part** to Overland Storage.
For return shipping details, go to:
<http://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.