

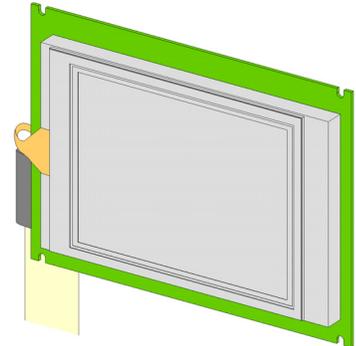
Spare Touchscreen Replacement

This document describes how to remove and replace the touchscreen of a NEO 2000e or NEO 4000e tape library from Overland Storage.

WARNING: To reduce the risk of electric shock or damage to equipment, always remove any power cords while working with the unit.

AVERTISSEMENT: Pour réduire le risque de choc électrique ou endommagement de l'équipement, retirez toujours les cordons électriques en travaillant avec l'appareil.

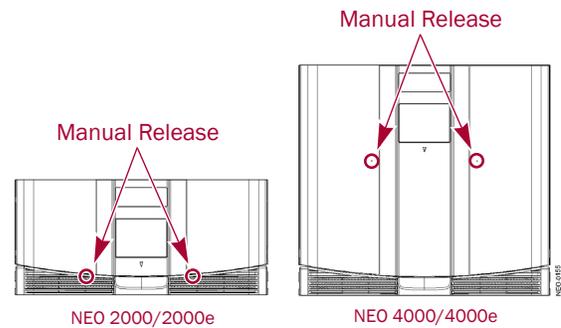
CAUTION: While working with the unit, observe standard Electrostatic Discharge (ESD) precautions to prevent damage to micro-circuitry or static-sensitive devices.



Prepare the Unit

Remove Cartridges

- If the **library** is operational:
 - a. Exit the **application software** and, if necessary, stop the software services.
 - b. Using the front panel or Web Management Interface, remove any **cartridges** from the drives.
 - c. Use the front panel to remove **all** the magazines.
- If the library is **non-operational** (and OFF), the doors can be manually opened by pushing a stiff wire against the mechanical releases behind the front panel.



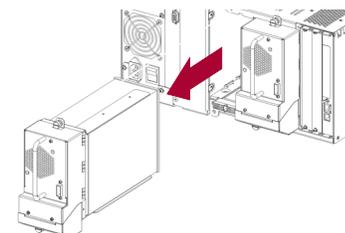
Power Off Library

1. At the **front panel**, press **Power > OK** (at Confirm).
2. Turn the **power supply** switch to OFF (O).
3. Remove the **power cord**.
4. Remove all **external cables**.
For SCSI drives, leave the terminators attached.
5. If XpressChannel is installed, release it by loosening the **two captive screws** on the back side and, if working on a Master unit, unplugging the **DB-15 cable**.



Remove Drive Assemblies

1. Loosen the captive **thumbscrews** at the top and bottom of the drive assembly.
2. Fully supporting the assembly, pull the handle to remove the **drive assembly**.
3. Label each drive assembly with the **bay number** and place it on its side on an **ESD surface** to prevent the bending of its tabs.



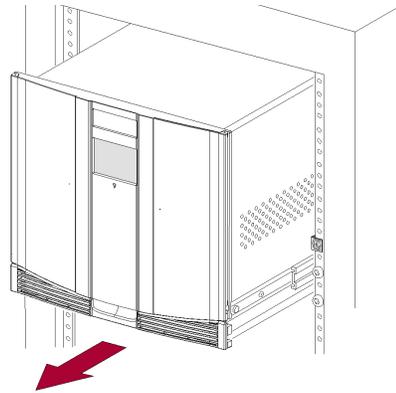
Remove Library from Rack

WARNING: It is recommended that a mechanical lifter (or at least two people) be used during rack installation or removal to prevent injury.

AVERTISSEMENT: Afin d'éviter des blessures pendant l'installation, il est recommandé d'utiliser un monte-charge (ou au moins deux personnes) pour élever ou aligner l'appareil.

Using a mechanical lifter (or two people), remove the **unit** from the rack:

1. Release the **captive screws** inside the doors.
2. Slide **library** out until it stops.
3. Release the **rail catches** on each side and slide the library out onto the lifter.
4. Place the unit on a secure **ESD surface**.

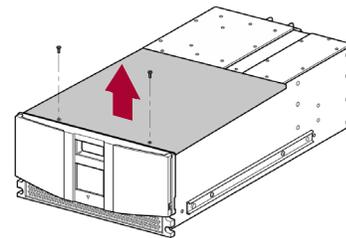


IMPORTANT: Depending on the model of your library, continue with either “Replace the NEO 2000/2000e Touchscreen” or “Replace the NEO 4000/4000e Touchscreen”.

Replace the NEO 2000/2000e Touchscreen

Remove Top Front Cover

1. Remove and retain the **two screws** securing the front cover.
On a NEO 2000e, the screws are inside the front doors.
2. Remove the **front top cover**, and set aside.



Disconnect Panel from Controller Card

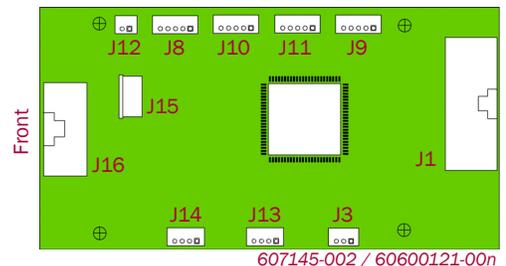
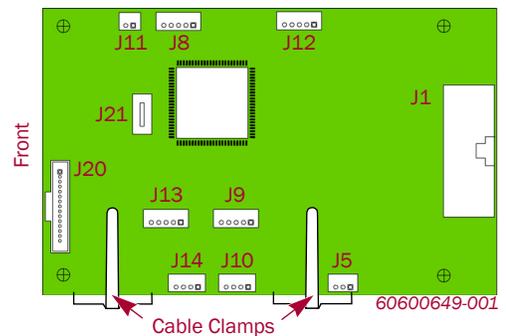
The card is located on the chassis floor near the front left side. Different cards, both wide and slim, have been used over the life of the library. Use the graphics and lists to help you.

1. Disconnect the touchscreen zero insertion force **flex cable (J15 / J21)** by pulling out the connector body to release the cable, and then gently remove the flex cable from it.
2. Label and disconnect these **four cables**:

NOTE: Some cables are positioned, labeled, or numbered differently in the different libraries. This list shows top graphic/bottom graphic port numbers shown to the right.

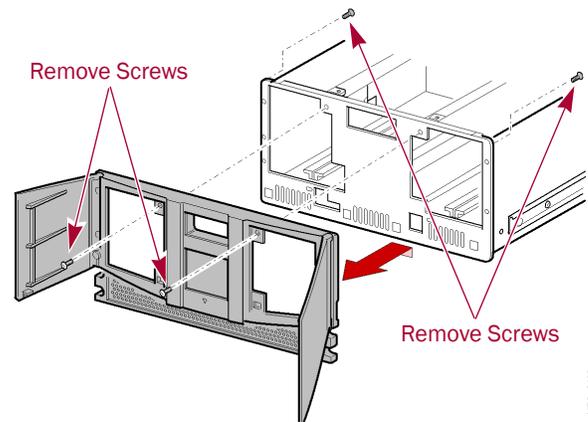
- **J5 / J3** Status/Fault LED (black)
- **J10 / J14** Right Door Latch (black)
- **J14 / J13** Left Door Latch (black)
- **J20 / J16** LCD Panel (white)

3. If necessary, either release the **two cable clamps** holding the cables to the edge of the card or cut the **cable tie** holding the Front Panel cables.



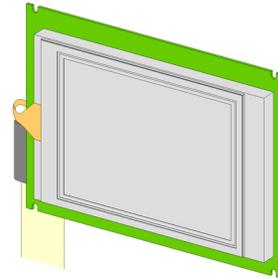
Remove Front Panel

1. Remove the **two screws** on the **top back side** of the outer edge of the existing Front Panel.
2. Open the magazine doors using the **manual door releases**.
3. While holding the Front Panel against the chassis, remove the **two screws** inside the doors.
4. Pivot the top of the **Front Panel** away from the chassis, lift the panel bottom out of the alignment holes, and set it down just in front of the chassis.
5. Carefully guiding the **cables out** through the lower chassis opening, remove the front panel and set it aside on a **padded flat surface**.



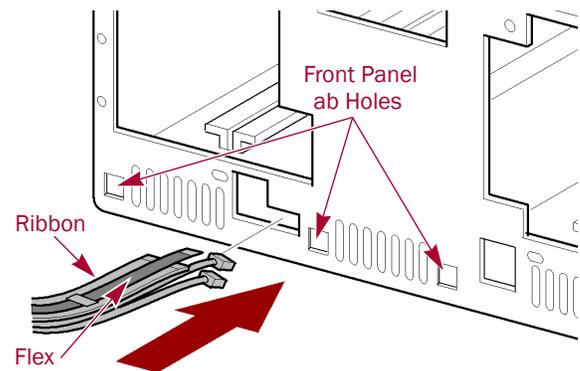
Change Touchscreen Assembly

1. At the inside of the Front Panel, carefully remove and discard the **four screws and plastic washers** securing the Touchscreen assembly to the panel.
Set the old assembly aside.
2. Align the replacement assembly over the Front Panel holes and using four new **M3x5 SEMS screws and plastic washers**, secure the new assembly in place.



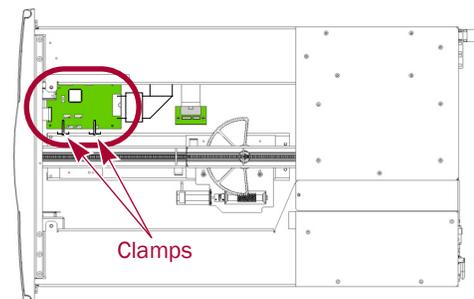
Reinstall Front Panel

1. Position the **bottom edge** of the Front Panel next to the bottom edge of the chassis.
2. Insert the **cables** through the lower chassis opening.
The cables are routed through the lower-right part of the L-shaped opening at the bottom of the chassis. Ensure that the flex cable is **on top** of the ribbon cable and does not get twisted or folded as it goes into the chassis.
3. With the Front Panel pivoted at a slight angle, insert the **four tabs** at the bottom of the Front Panel into the chassis openings.
4. While holding the Front Panel against the chassis, use the manual door releases to open the doors and install the **two new M4x10mm screws** inside to secure the panel.
5. Install the **two new M3x8mm screws** to the **back side** of the outer edge of the Front Panel.



Reconnect Controller Card Cables

1. Reconnect these **four cables** back to their ports:
 - **J5 / J3** Status/Fault LED (black)
 - **J10 / J14** Right Door Latch (black)
 - **J14 / J13** Left Door Latch (black)
 - **J20 / J16** LCD Panel (white)



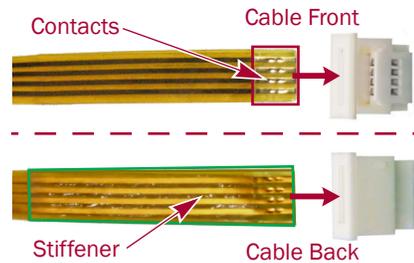
- Reconnect the zero insertion force **flex cable (J15/J21)** by sliding up the connector body, inserting the flex cable, and sliding the connector body back in to relock it.

CAUTION: The contacts on the flex cable must face the front. The plastic stiffener is on the back side.

- If available, bend the **cable clamps** back over the cables to secure them to the edge of the PCB.

Verify that the cables are parallel to the card on the chassis floor and not in the way of the shuttle.

Continue with “Reactivate the Library.”



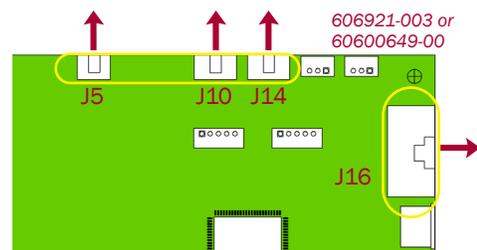
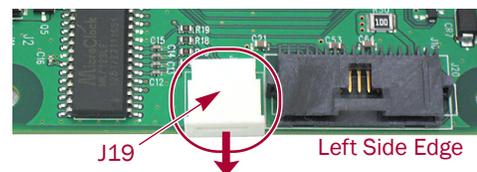
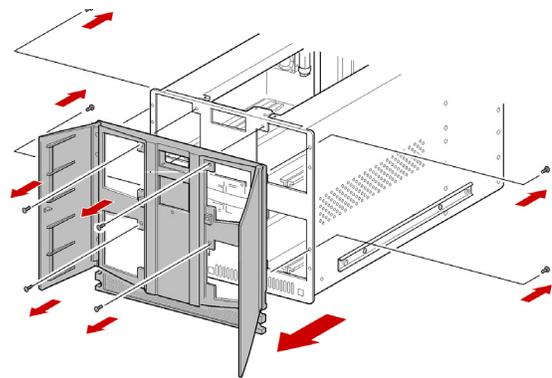
Replace the NEO 4000/4000e Touchscreen

Remove Old Front Panel

- Remove the **four screws** on the **back side** of the outer edge of the Front Panel.
- Manually open the **magazine doors**.
- Carefully remove the **Front Panel**:
 - While holding the Front Panel against the chassis, remove the **four screws** inside the doors.

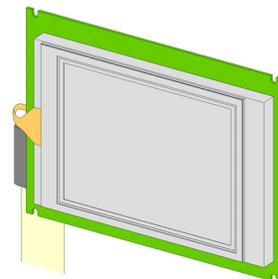
IMPORTANT: To prevent damage, continue to hold the front panel without putting strain on the cables.

- Carefully pivot the **panel top** away from the chassis
 - Lift the **panel bottom** out of the alignment holes.
 - Set the **bottom edge** down just in front of the chassis and hold it there to remove the cables.
- Disconnect the **Front Panel cables** from the Controller card:
 - Disconnect the touchscreen zero insertion force **flex cable (J19)** by sliding out the connector body to release the cable, and then gently removing the flex cable from the connector.
 - Disconnect the other **Front Panel cables**:
 - J5** Status/Fault LED (black)
 - J10** Right Door Latch (black)
 - J14** Left Door Latch (black)
 - J16** LCD Display (white)
 - Set the Front Panel aside, face down on a **padded flat surface**.



Change Touchscreen Assembly

- At the inside of the Front Panel, carefully remove and discard the **four screws and plastic washers** securing the Touchscreen assembly to the panel. Set the old assembly aside.
- Align the replacement assembly over the Front Panel holes and using four new **M3x5 SEMS screws and plastic washers**, secure the new assembly in place.



Reinstall Front Panel Cables

1. Position the **bottom edge** of the new Front Panel next to the bottom edge of the chassis.

 **IMPORTANT:** To prevent damage, continue to hold the front panel in place without putting strain on the cables as you connect them to the Controller card.

2. Reconnect the zero insertion force **flex cable** at **J19** by sliding out the connector body, inserting the flex cable, and sliding the connector body back in to relock it.

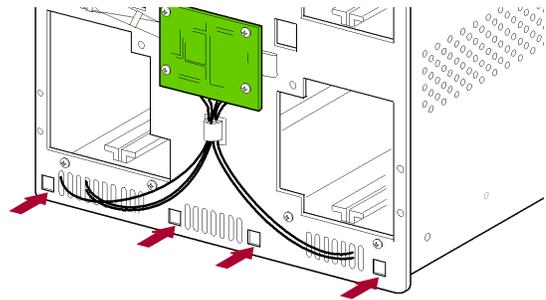
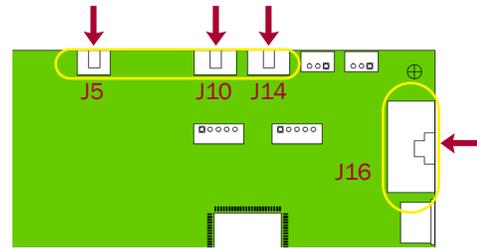
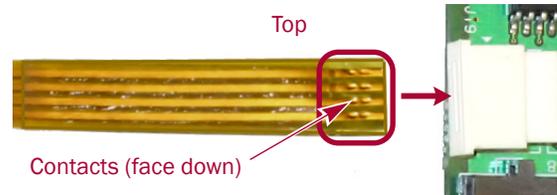
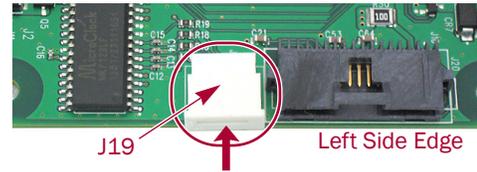
 **CAUTION:** The contacts on the flex cable must face down toward the card.

3. Reconnect the other **Front Panel cables**:

- **J5** Status/Fault LED (black)
- **J10** Right Door Latch (black)
- **J14** Left Door Latch (black)
- **J16** LCD Display (white)

4. Secure the **Front Panel**:

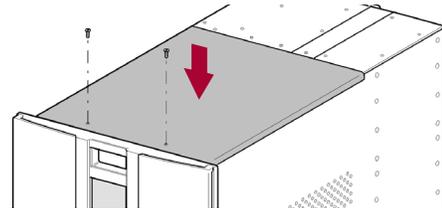
- a. Carefully lift and insert the Front Panel bottom **four alignment tabs** into the chassis bottom.
- b. Carefully pivot the **top** of the Front Panel up to the chassis.
- c. While holding the Front Panel against the chassis, use the manual door releases to open the doors and install the **four new M4x10mm screws** inside to secure the panel.
- d. Install the **four new M3x8mm screws** to the **back side** of the outer edge of the Front Panel.



Reactivate the Library

Replace Top Cover

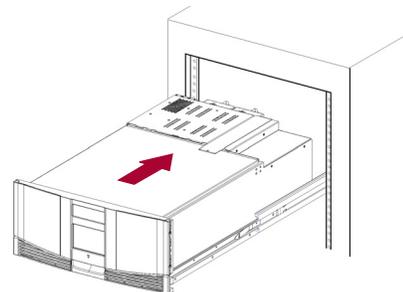
1. On the library, slide the front **top cover tabs** into their slots and gently set the cover into place.
2. Insert the **two retained screws** and tighten them.
On a NEO 2000e, the screws are inside the front doors.



Reinstall Library into Rack

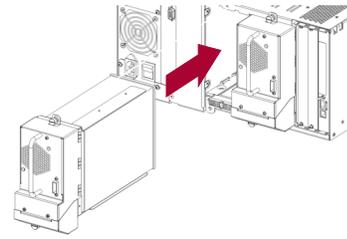
Using a mechanical lifter (or two people), reinstall the **library** into the rack.

1. Extend the **rack rails**.
2. Align the **inner rails** on the library with the rack rails and insert the library into those rails.
3. Slide the **library** into the rack until it stops.
4. Release the **rail catches** and slide the library all the way into the rack.



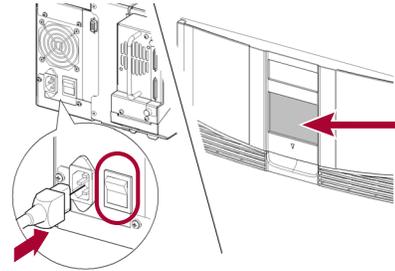
Reinstall Magazines and Drives

1. Reinstall the **magazines** into the same positions.
2. Using the attached labels, reinstall the **drive assemblies** in the same bay positions.
3. If used, reconnect the **XpressChannel**.
4. Reconnect the **external cables**.
5. For SCSI systems, verify the **terminators** are still in place.



Power On the Library

1. Plug in all the **power cords**.
2. Turn all the power supply **switches** to ON (I).
3. Press the **touchscreen** on the front of the library module to power the unit ON.



Test the Library

Verify the **new touchscreen**:

- Verify the **screens** change when a button is touched.
- Verify the correct **front panel** functions are accessed based on the button pressed.

 **IMPORTANT:** If problems occur, contact Overland Storage Technical Support.



Return Old Parts to Overland

1. Place the **old part** in the anti-static bag and put it in the replacement part's box.
2. Use an RMA to return the part to **Overland Storage**.
For return shipping details and RMA number, go to:
<http://docs.overlandstorage.com/return-instructions>

