NEXSAN UNITY™ *Quick Start Guide*

U2F226™ Storage Expansion

NEXSAN
Firmware Version 7.4

This document provides installation steps for racking, cabling, and setting up the Nexsan UNITY™ U2F226™ Storage Expansion System, and cabling all Nexsan storage components for power and data/host connectivity. For additional documentation, please visit nexsan.com/support.

Taking delivery

Your Unity shipment includes the U2F226 Storage Expansion, and other Nexsan storage systems or hardware, depending on your configuration. Check to ensure no damage has been sustained to the packaging in transit. If anything appears damaged, you should file a claim with your reseller.

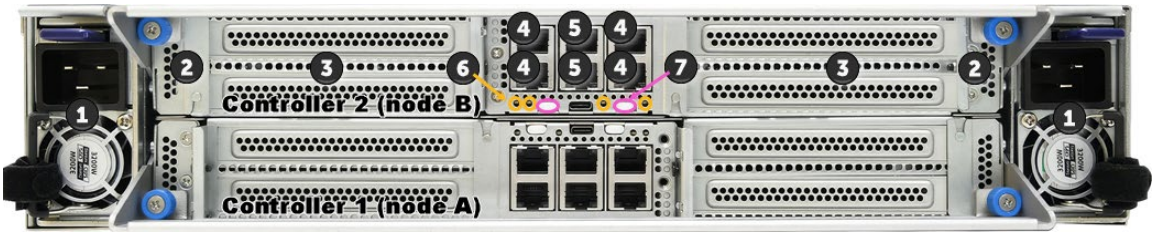
Hardware overview

The main components of the U2F226 are shown in the following front and rear view diagrams (image scale differs slightly on front view):

Front view



Rear view



Item	Name	Description
A	Front control panel	Node power buttons and status LEDs. See *page 5* for description.
B	Disk slots	26x hot swap Gen5 U.2 dual port NVMe 2.5" drives.
1	Power supplies	1+1 3200W redundant power supply 80+ Titanium.
2	Fan assembly vents.	7x 4056 PWM internal fans per node.
3	PCIe slots	4x PCIe 5.0 x16 slots FHHL (Full-Height Half-Length) per node.
4	I/O ports	4x GbE RJ45 per node, left and right sides in I/O group.
5	I/O ports	2x GbE RJ45 per node, center in I/O group, system management.
6	LEDs	4x bi-color red & green LEDs per node. See *page 6* for description.
7	Buttons	1x System ID button + 1x user-defined button per node.

1 Prepare for installation

A Carefully read ***Safety Notices*** on ***page 6***.

B Ensure ahead of time that you have a suitable rack; see ***Rack and enclosure specifications*** on ***page 6***.

C Ensure that you have a Phillips screwdriver.

D Have someone assist you during installation.

CAUTION: Acclimate new disk drives to room temperature for two hours before you install them.

2 Unpack the UNITY U2F226

A Remove all the components from the packaging. Reach under the chassis to pull it free from the foam insert.

Do NOT lift the UNITY U2F226 chassis from its packaging using the locking tabs or the attached rails.

B Place the components on an anti-static surface until you are ready to use them.

UNITY UF226 package contents

- One Unity Storage Expansion System
  - 2 outer-rack rail assemblies (inner-chassis rails are already installed).
  - Minor mounting hardware such as rack fastening screws, spare disk tray mounting screws, and cable ties.

    NOTE: With the toolless installation design, screws are not needed for basic mounting into a square rack.
- Up to twenty-six NVMe SSD drives. (Check that the components included in your shipment correspond to your packing slip.)
- Two power cords.
- One electrostatic discharge (ESD) wrist strap.

3 Rack the UNITY U2F226

CAUTION: Physical installation requires two people.

Example rack positions for components:

- UNITY NV12000™ on top, Unity Storage Expansion below

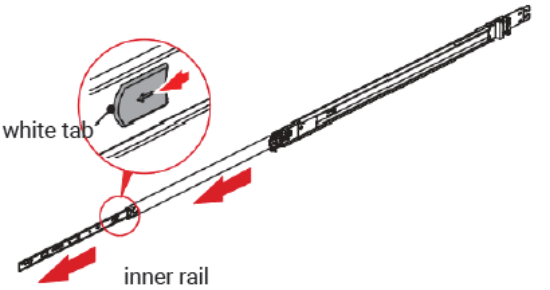
Example of UNITY NV12000™ with U2F226



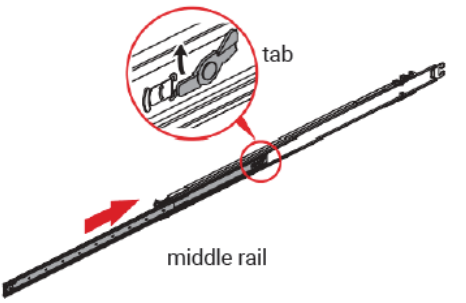
▶ Step 1: Install inner rail (if not already installed)

A Pull the inner rail out of the slide rail until it clicks.

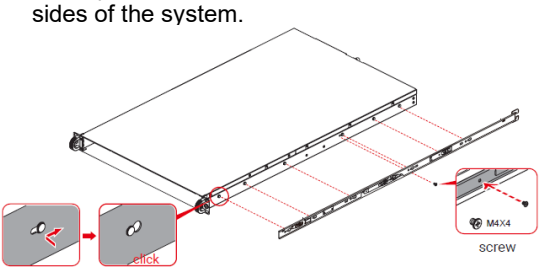
B Detach the inner rail completely from the slide rail by pulling the white tab forward.



C After inner rail removal, adjust the middle rail back to original position by pushing the tab.

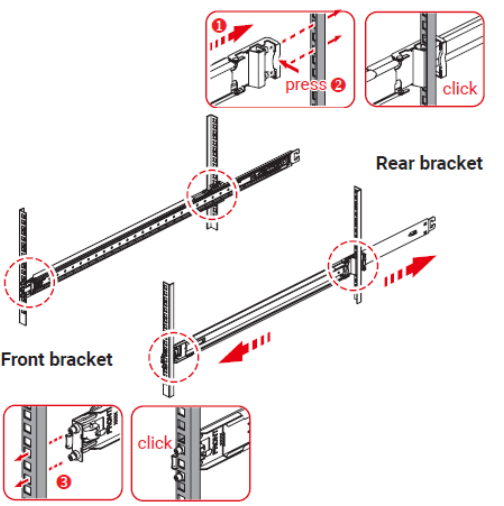


D Install the inner rail onto the chassis. Lock the keyholes and secure the screws on the sides of the system.



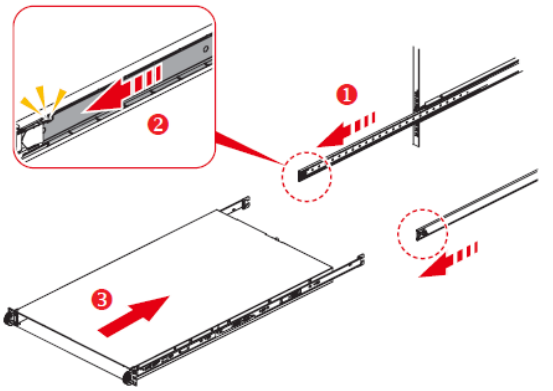
▶ Step 2: Attach the UNITY U2F226 on to the rack frame

A Attach the outer rail assembly to the rack frame and press the bracket to secure a fix on both ends. Repeat on other side.

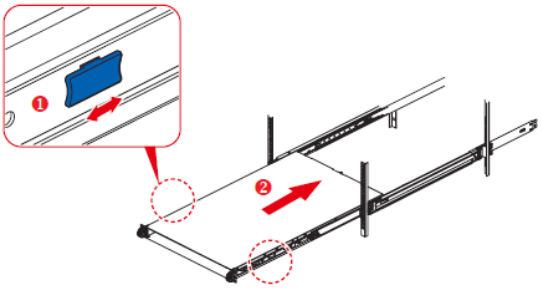


▶ Step 3: Insert the UNITY U2F226 into the rack frame

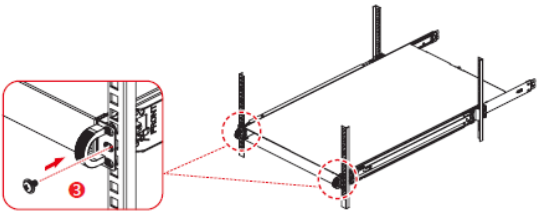
A Pull middle rail to fully extended lock position. Make sure the ball bearing retainer is located at the front of the middle rail.



B Insert the chassis into middle-outer rails until it comes to a stop, then pull/push the blue release tab on the outside of the inner rail.



C Use the fastening screws to further secure the chassis to the rack.



▶ Step 4: Install the NVMe SSDs

CAUTION: Put on the ESD wrist strap before starting:

A Slip the wrist loop over your hand (left or right), then tighten the loop against your wrist.

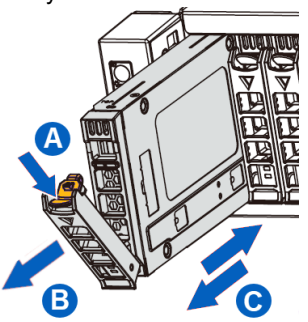
B Attach the clip end of the anti-static wrist strap to a properly grounded metal surface.

Remove empty drive carriers from chassis

A Press the ejector on the tray to release the handle.

B Pull the tray handle completely outward.

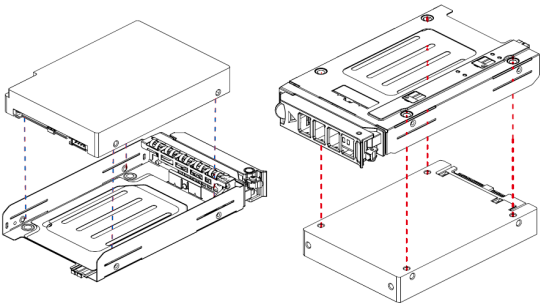
C Pull the drive tray out of the chassis.



Insert drive into tray

A Ensure that the dimples on the tray match the drive.

B For additional assurance, fasten the four screws on the tray to secure the drive.



Install drive tray into chassis

A Push the tray with the installed drive into the end of the drive slot in the chassis.

B Close the hard-drive carrier handle to lock the drive in place.

C Repeat the above steps for each drive.

D Install the NVMe SSDs in the slots as indicated on the label on the drives.

4 Install the Unity Storage System

Unpack and install any Unity Storage System included in your Unity shipment.

For detailed instructions, refer to the appropriate *Nexsan Unity Quick Start Guide* included in the Unity packaging, or visit: nexsan.com/support.

5 Connect to a Unity Storage System

This section describes the steps for connecting the U2F226 expansion to a Unity Storage System.

▶ Step 1: Connect the storage expansion to the storage system

A Connect the External MCIO (Mini Cool Edge I/O) cable from Slot1 of Controller1 (node A) on the NV12000 to Slot1 of Node1(lower node) on the U2F226, as shown in the *UNTY NV12000 connected to U2F226 Expansion* diagram just below.

B Connect the second MCIO cable from Slot1 of Controller2 on the NV12000 to Slot1of Node2(upper node) on the U2F226.

The Unity Storage System is hot pluggable: Once in service, powering down is not normally required to add a Unity Storage Expansion.

▶ Step 2: Connect the power cables

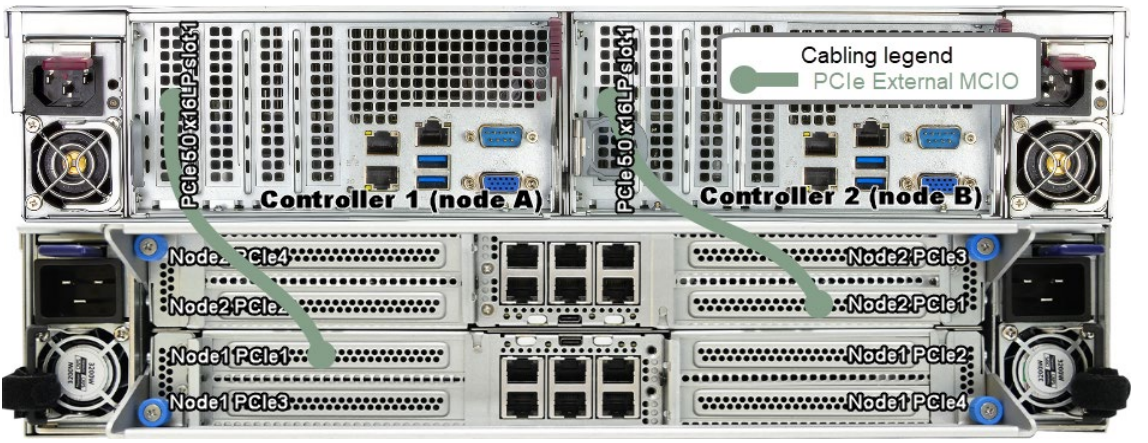
A Plug the power cords into their respective power supplies on the rear of the U2F226.

B Plug the power cords connected to the power supply units into a high-quality strip that offers protection from electrical noise & power surges.

CAUTION: Use only the power cords supplied with the U2F226. Do not use another type of cord or extension cords. If you require additional power cords, please contact your Nexsan sales representative or reseller.

NOTE: We strongly recommend that you use an Uninterruptible Power Supply (UPS).

UNITY NV12000™ connected to U2F226



6 Power on Unity components

Power on the Unity components for the first time in the sequence as described in this section.

▶ Step 1: Power on your Unity Storage Expansion

Press and hold the power buttons located on the front left panel of the U2F226 chassis until the power LEDs lights up.

NOTE: If you are adding multiple Unity Storage Expansions, power them on from last to first.

▶ Step 2: Power on Unity Storage System

A Press and hold the power buttons located on the right and left front panel of the NV12000 chassis until the power LEDs lights up.

B Verify that the power LEDs on the front control panel are illuminated to ensure that the controller nodes are receiving power and the power modules are functioning properly.

C Verify that the drive carrier LEDs are illuminated in blue. Blinking indicates disk I/O activity.

7 Monitor the Unity Storage Expansion

This section describes the front panel LEDs that help you to monitor the Nexsan Unity U2F226 Storage Expansion.

Control panel LEDs

The control panels located on the front left side of the U2F226 have a power button and three status LEDs. The upper control panel marked N2 is controller two (node B) and the lower panel marked N1 is controller one (node A). The table below identifies the functions and LED indicators with associated icons related to the system.



Icon	Status
	Apply/remove power from pwr supply to node
	Illuminated green LED, system operating
UID	Illuminated blue LED, locate server in rack
	Illuminated red LED, system alert

Drive carrier LEDs

Each drive carrier has two LEDs. If a drive fails, replace the drive as described in the *Nexsan Unity Hardware Maintenance Guide* at nexsan.com/unity-support.



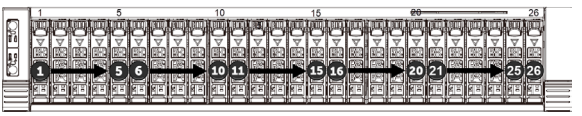
NOTE: Drives are vertically oriented in server. Upper LED is for Activity, and lower LED is for Status.

Activity LED	State	Status
Blue	Solid on	NVMe drive installed
Blue	Blinking	I/O activity

Status LED	State	Status
Green	Solid on	SSD Locate
Green	Off	SSD Normal
Yellow	On	SSD Fail
Yellow	Blinking	SSD Normal
Yellow	Off	SSD Rebuild

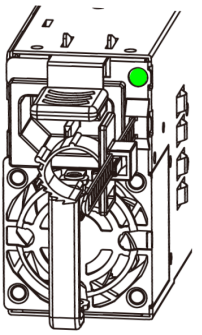
Drive slot map

The twenty-six 2.5" Hot-swappable NVMe drive bays are identified by the numbers printed on the front chassis in increments of five from left to right: 1, 5, 10, 15, 20, and finally 26 as the last drive bay on far right.



Rear Power Supply Unit (PSU) LEDs

The U2F226 has two power supply units accessible from the rear of the chassis, one on the left side and one on the right.

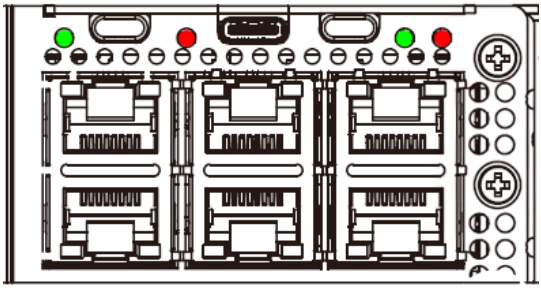


Rear PSU LED indicators are as follows:

Color, Status	Behavior
Green	12V Output is normal.
Off	No AC power to all power supplies.
Green (1Hz blink)	AC present / on Vsb on (PS off).
Green (2Hz blink)	Slave PSU is set as active standby mode (Cold Redudant).
Amber	AC cord unplugged / AC power lost; parallel AC power supply active.
Amber (2Hz blink)	Power supply critical event causing shutdown or failure.
Amber (1Hz blink)	Power supply warning events. High: temp, current, or power. Slow fan.
Green (2Hz blink)	Power supply firmware updating.

Rear panel LEDs

There are four bi-color red & green LEDs per node in the I/O cluster area of the back panel.



Rear panel LED indicators are as follows:

LED 1 to 4 from left to right, for corresponding DPU	
Color, Status	Data Processing Unit (DPU) Behavior
Green, solid	Corresponding DPU is present, powered, and PCIe link operational.
Green, blinking	Corresponding DPU booting, initializing, or updating firmware.
Red, solid	Corresponding DPU fault: PCIe link, health check, or firmware failure.
Red, blinking	Corresponding DPU requires service or in recovery/update failure state.
Off	Slot empty, DPU disabled, or not status being asserted.

Safety notices

- This equipment must be installed and operated in compliance with local laws and regulations.
- Ensure that the ambient temperature at the installation is between 5°C (41°F) and 30°C (86°F). If the temperature at the site is not actively regulated, ensure that daily and seasonal temperature changes will not result in the ambient temperature going outside the limits.
- Always fully stabilize racks with wall anchors or stabilizing legs, or both, before mounting Nexsan storage enclosures on the rack.
- Situate the rack so that full air flow at both the front and the rear of Nexsan storage enclosures is possible.
- Ensure that the floor beneath the mounting rack has enough load-bearing capacity to support the rack and all mounted components.
- Take precautions to discharge any electrostatic charge from your person before and while handling components with your hands or any tools. Use an anti-static wrist-strap.
- Always fully secure all rack-mounting hardware when installing Nexsan storage enclosures in a rack. Insufficient rack-mount support may allow the unit to fall onto other rack-mounted hardware or onto the floor, potentially damaging equipment or causing injury to nearby personnel.
- The system has multiple power connections; as a result, you must remove all power leads to completely isolate the power and always use the IEC power cords supplied with the system.
- Only a fully-trained Service Engineer is authorized to disassemble any other part of the hardware, and then only when the hardware is powered off.

Specifications

Rack and enclosure

- 2U enclosure height
- The rack must have square holes
- Maximum distances: 30" (800 mm)

Physical specs

- Height: 3.5" 88 mm
- Width: 17.2" 438 mm
- Depth: 29.5" 750 mm
- Weight: 83.8 lbs 38 kg (no drives installed)

Power requirements

- Power supply: 3200W 1+1 hot swap redundant 80+ Titanium.
- Power entry: Dual AC inlet.
- Universal AC Input: 100~240V AC full range.
- Power consumption varies depending on the number and size of drives, running fans, and room temperature.

NEXSAN
Part number: P04500199. Rev: 10.01. Release Date: Oct. 2026
Related Documentation: Nexsan Unity Hardware Maintenance Guide, Nexsan Unity Software User Guide, Nexsan Unity Help, Nexsan Unity nxadmin CLI Reference Guide.

Technical Support
By Email: support@nexsan.com
By Web: https://www.nexsan.com/support/

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