

BT60 and BT60X

Quick Start Guide

This Quick Start Guide is intended to help you quickly get your unit unpacked, mounted, and connected. For detailed instructions, see the relevant *Installation Guide* and the *Nexsan High-Density Storage User Guide*, which can be downloaded from <https://www.nexsan.com/support/e-series-and-beast/>

Required tools and equipment

To perform the installation, you will need the following tools and equipment:

- a suitable equipment rack (1,070mm deep recommended) with sufficient load capacity to hold the unit
- a size PH2 Phillips-head screwdriver

For a Nexsan BT60 (main unit), you will also need:

- enough CAT5e or CAT6 Ethernet cable to connect the unit to the local area network (LAN)
- enough suitable cable to connect the unit to the storage area network (SAN)

Before you begin

Before installing the Nexsan BEAST storage unit, prepare the installation site and rack. The Nexsan BEAST storage unit is designed to run from a 100–240V power supply and uses 4U of rack space.



CAUTION:

- Ensure that the ambient temperature at the installation is between 10°C (50°F) and 35°C (95°F).
- Always fully stabilize racks with wall anchors or stabilizing legs, or both, before mounting the Nexsan storage unit or any other components on the rack.
- Place the rack so that there is unrestricted air flow at both the front and rear of the unit.
- Ensure that the floor beneath the mounting rack has enough load-bearing capacity to support the rack and all mounted components.
- Ensure that the power drawn by the Nexsan storage unit does not overload the available electrical supply.

1

Unpack the unit

- 1 Remove the outer packaging sleeve.
- 2 Remove the accessory boxes and disk boxes.
- 3 Open the accessory boxes and make sure that all expected contents are present:
 - rack mounting hardware package:
 - two (2) rail assemblies, one left and one right
 - one (1) cable management arm
 - four (4) silver screws for securing the rails to the rack posts (PH 10-32 1/2")
 - four (4) clip nuts and four (4) black bolts (PH 10-32 3/4") for securing the front of the unit to the rack posts
 - two (2) power cables
 - one (1) disposable ESD strap
 - (BT60 main unit only) one (1) serial cable per RAID Controller
 - (BT60X expansion unit only) four (4) SAS cables for attaching the expansion unit to the main unit
 - any additional items that may have been ordered, such as Fibre Channel cables
- 4 Open the disk box and make sure that the proper number of disk drives is included.
- 5 With the **help of a second person**, and **using the lifting straps**, carefully lift the unit out of the box and set it on a flat surface, such as a cart, table, or work bench.



CAUTION:

- The Nexsan storage unit is heavy and requires two people to lift it and slide it onto the mounting rails. Do NOT attempt to mount the unit onto the rails by yourself.
- When removing the unit from the packaging, DO NOT lift the unit by any plastic parts or module handles on the chassis. Lift the unit ONLY using the lifting straps.

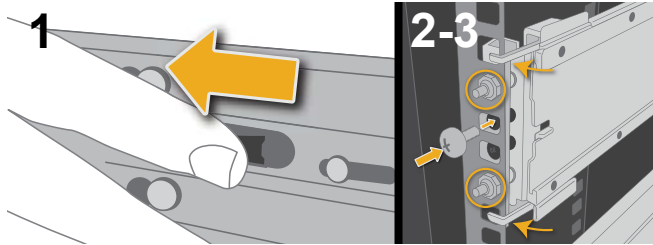
NOTE: The packaging that the unit ships in is reusable and should be retained for future re-shipment.

2 Attach the rails

NOTE: It is recommended that BEAST RAID storage units be installed low in the rack. A BEAST storage unit, when fully extended on its rails, can overbalance a rack if it is placed too high up.

NOTE: The rails are labeled “L” (left) and “R” (right) on the bags in which they are shipped and on the rails themselves. When installing them into the rack, be sure to place them on the correct sides. All references to “left” and “right” are as viewed while looking at the front of the rack.

1 Separate the inner and outer rails by extending them until the latches engage, sliding the rail latch tabs to disengage the latches, then pulling the two rails (inner and outer) apart.



2 Attach the outer rails to the rack by guiding the alignment posts into the rack mount holes and hooking the rail hooks over the outside of the rack posts. Do this for the front and back of each rail

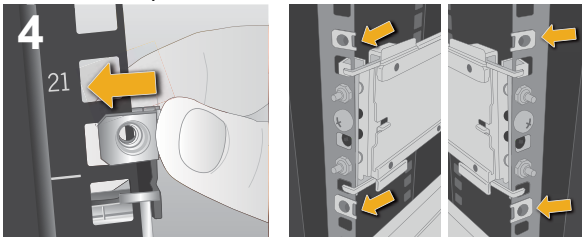
3 Using the four supplied silver bolts, bolt the front and back of each rail to the rack posts.

NOTE: The rails should be installed into the middle 2U of the 4U of rack space where you wish to install the BEAST. For example, if you want the BEAST to occupy U slots 18 through 21, install the rails into U slots 19 and 20.

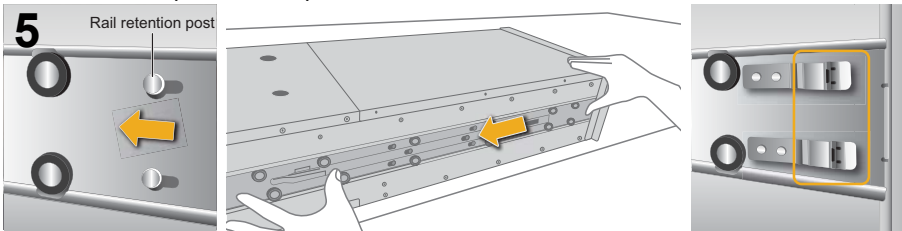


CAUTION: Ensure that the rack alignment posts are properly located in the rack post holes and that the retention hooks are clipped around the outside faces of the rack on both the front and rear of each rail. Failure to do so can result in equipment damage or injury to personnel.

4 On the front of the rack, attach the clip nuts above and below each rail.



5 Attach the inner rails to the unit by aligning the holes over the guide posts and sliding the rail backward until the two retention clips click into place.



3 Remove the PSUs

Remove the PSUs from the unit.



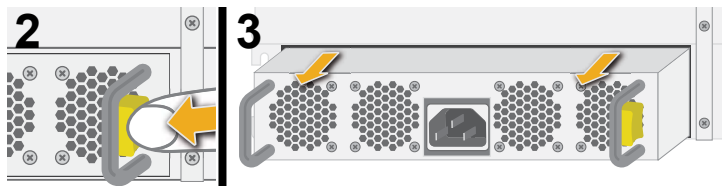
CAUTION: Handle the PSUs ONLY by the handles and outer coverings. DO NOT touch any internal components or connectors. Doing so may harm the electronics inside.



1 Ground yourself with the included anti-static wrist strap.

2 Press the spring lock tab on each power supply unit inward to disengage the latches.

3 Carefully remove the PSUs from the unit. Support the weight of the PSUs with your free hand while removing them.



NOTE: Due to the close fit, a firm steady pressure is required to remove the PSU.

4 Mount unit on rack



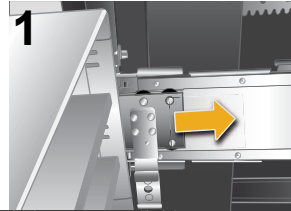
CAUTION:

- The Nexsan storage unit is heavy and requires two people to lift it and slide it onto the mounting rails. Do NOT attempt to mount the unit onto the rails by yourself.
- When removing the unit from the packaging, DO NOT lift the unit by any plastic parts or module handles on the chassis. Lift the unit ONLY by the bottom edges of the chassis.

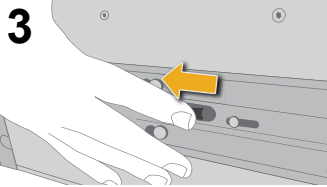
- 1 Remove the lifting straps from the bottom of the unit.

NOTE: Do not use the lifting straps for this procedure.

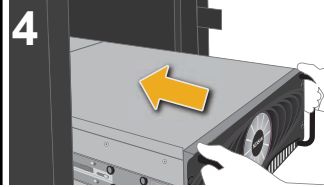
- 2 With the **help of a second person**, carefully lift the unit so that the inner rails on the chassis line up with the outer rails on the rack.
- 3 Slide the unit onto the mounting rails until the rail latches engage.



- 4 Pull the rail latch tab on each side of the unit forward to disengage the rail latches.



- 5 Slide the unit the rest of the way into the rack so that the front panel sits against the rack face.



5 Restore the PSUs



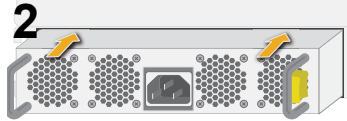
CAUTION: Handle the PSUs ONLY by the handles and outer coverings. DO NOT touch any internal components or connectors. Doing so may harm the electronics inside.



- 1 Ground yourself with the included anti-static wrist strap.
- 2 Replace the two Power Supply Units (PSUs) by sliding them into the PSU slots until the right tab clicks.

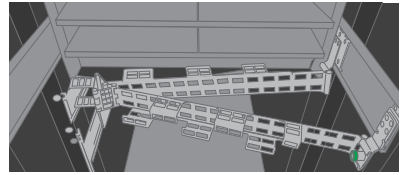
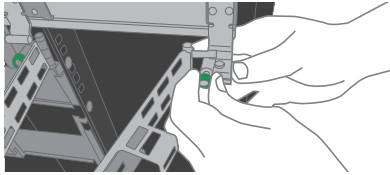
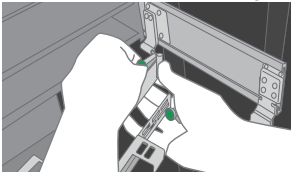
NOTE: Make sure that the PSU is right side up. The spring lock tab should be on the right.

NOTE: DO NOT connect the power cords to the PSUs at this time.

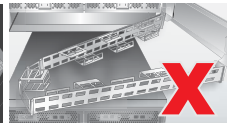
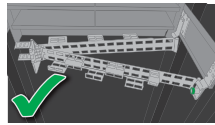


6 Attach the cable management arm

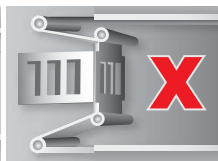
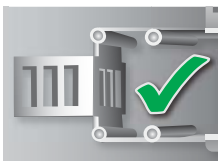
- Attach the cable management arm to the inner and outer rails in back of the unit.



CAUTION: Make certain that you mount the cable management arm with the solid part on the **INSIDE** and the hooked guides on the **OUTSIDE** (as shown below). Mounting the arm in the wrong orientation can result in damage to the arm or the unit's cables.



CAUTION: If the cable management arm is installed and operated without cables fitted, the linkages in the middle of the assembly must be in the outward position when closed rather than pivoted inward (as shown below). Failure to comply with this may result in damage to the cable management arm if it is operated without cables fitted.



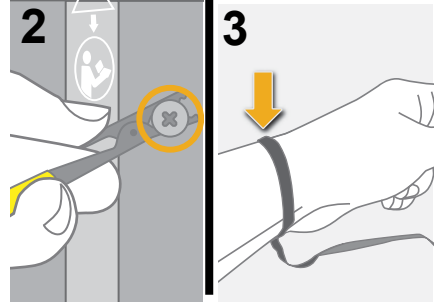
7 Load disk drives



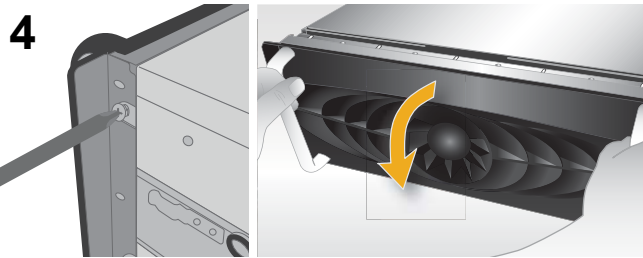
CAUTION:

- Do not lean on or place any heavy object on the unit while it is extended. Doing so may damage the drawer slide mechanism or overbalance the rack.
- Computer components and disk drives are sensitive to electrostatic discharge (ESD). Be sure to **ground any electrostatic charge from your person** before touching components with your hands or with any tools. While installing the unit, **use the anti-static wrist-strap** shipped with the unit.

- 1 Ground any electrostatic charge from your person by touching a metal part of the rack or any properly grounded conductive object (such as the ground point at an anti-static workstation).
- 2 Attach the clip end of the anti-static wrist strap to the rack's ESD grounding pin or to any bare metal part of the rack. Secure the loop end around your wrist.
- 3 Carefully slide the unit forward on the rails until the rail latches engage.



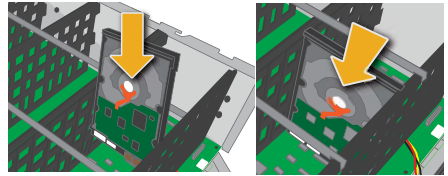
- 4 Unbolt each side of front panel and lower it.
- 5 Remove the chassis lid by pulling it forward, then lifting up.
- 6 Remove the disks from the disk boxes, gripping them by the guides on the sides of each disk.



NOTE: Do not remove disks from the disk boxes by pulling on the ejection handles.

- 7 Using the drive guides to help you orient the disks, carefully load each disk drive into a drive slot. Make sure that each disk is fully seated and that the drive ejection handles are flat against each drive.

NOTE: Don't let disks drop freely onto the connectors on the PCB. Doing so may damage disks or connectors.

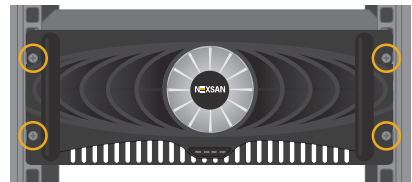


CAUTION: Always load disk drives in rows of 15 across the width of the drive drawer, starting at the front of the drive bay. Leaving gaps between disk drives decreases cooling efficiency and may result in some disk drives overheating.



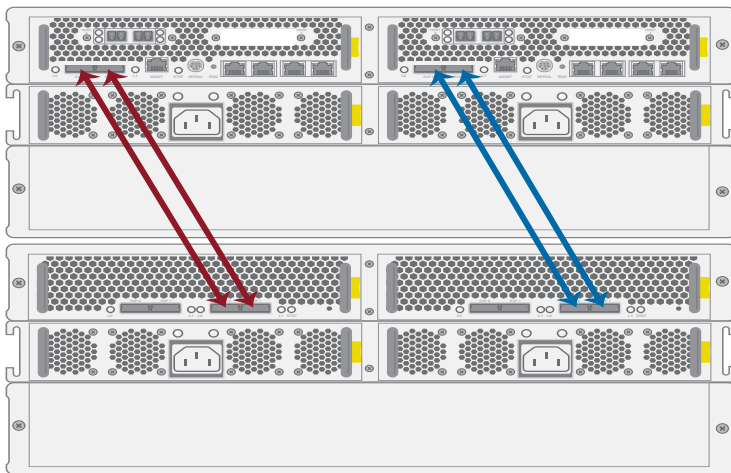
CAUTION: Be sure that you load all drives so that their connectors line up with the connectors on the motherboard and with their labels facing left. The drive holders are keyed so that inserting them in their correct orientation is easy. Do NOT force a drive into its slot if you encounter significant resistance.

- 8 Replace the chassis lid.
- 9 Release the front panel retainer arms by pressing down on the hinges.
- 10 Raise the front panel and bolt it back into place.
- 11 Disengage the rail latches by sliding the latch tabs on each side of the unit forward.
- 12 Carefully slide the unit all the way into the rack.
- 13 Using the four supplied black bolts, bolt the front of the unit to the rack.



8 Attach Cables

Connect BT60X expansion unit to BT60 main unit

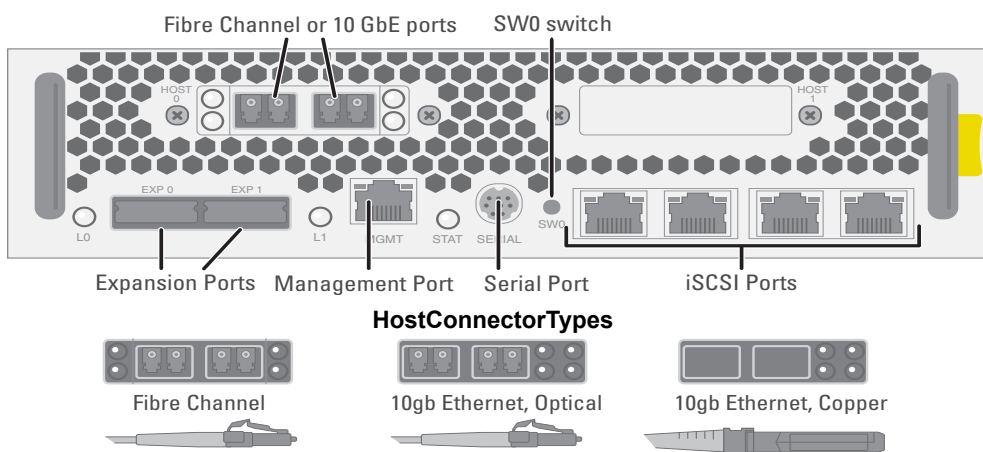


- 1 Insert one SAS cable into each expansion port (**EXP 0** and **EXP 1**) on the first RAID Controller of the main unit.
- 2 Insert the other ends of the SAS cables into the **EXP IN 0** and **1** expansion ports on the left Expansion Controller in the expansion unit.
- 3 Repeat Step 1 and Step 2 for the second RAID Controller and Expansion Controller.



CAUTION: If you are installing two expansion units onto a single main storage unit, or if you need to “hot-add” the expansion unit to a running main storage unit, you MUST follow the instructions under *Attach Expansion Unit to Main Storage Units* in the *Nexsan BEAST Installation Guide*, which is on the Product Manuals and Software Tools CD included with the unit.

Connect BT60 to LAN and SAN

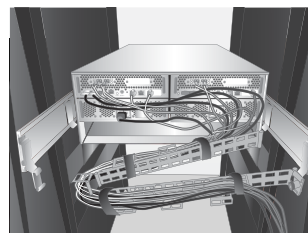


- 4 Connect the unit to your local area network (LAN) by attaching 100Mb/s Ethernet cable to the Management (**MGMT**) port. This enables you to access the unit’s graphical user interface (GUI).
- 5 Connect the unit to your storage area network (SAN) by attaching 1Gb/s Ethernet cables to the iSCSI ports, or by attaching Fibre Channel or 10Gb/s Ethernet cables to the Host ports on each controller.

NOTE: If a Fibre Channel or 10GbE card is installed, only the left two iSCSI ports are active.

- 6 Run all cables through the cable management arm and secure them with the included straps.

NOTE: Be sure to leave enough slack in all cables so that no cables are pulled taut when the unit is fully extended on the rails.



9 Power On the Unit



CAUTION:

- When applying power to the unit, use ONLY the IEC power cords originally supplied with the unit. Do NOT use other power cords, even if they appear identical to the supplied cords.
- The Nexsan BEAST storage units do not have power switches. Do NOT apply power to the unit until it is fully installed, with all disk drives in place.

BT60 with BT60X expansion unit

- 1 Attach the power cords to the PSUs on both the main unit and the expansion unit.

NOTE: DO NOT connect the other ends of the power cords to A/C power at this time.

- 2 Run the power cables through the cable management arm and secure them with straps or zip ties.

NOTE: Be sure to leave enough slack in all cables so that the cable management arm can fully extend.

- 3 Connect the power cords for the EXPANSION unit to A/C power.

- 4 Wait approximately 10 seconds, then connect the power cords for the MAIN unit to A/C power.

NOTE: You may need to use the SW0 switch to initiate the power up sequence. Press and hold the SW0 switch until you hear the systems cooling fans start up and then release. Do not hold the SW0 switch in for longer than that as that may cause the product's controllers to start in Emergency Mode.

NOTE: If the audible alarm sounds when the unit is first powered on, this may be because the controller batteries are discharged. Press either SW0 switch on the rear of the unit to silence the alarm.

- 5 When the main unit is fully powered up (this may take up to 5 minutes), check the EXP IN L0 and L1 LEDs next to the expansion ports on the Expansion Modules. Both LEDs should be green.

NOTE: If either of the EXP IN LEDs are flashing amber, you must power down both units, correct the cabling (see *Attach Cables*), and then repeat Step 1 through Step 5.

BT60 alone

- 1 Attach the two power cords to the PSUs.

NOTE: DO NOT connect the other ends of the power cords to A/C power at this time.

- 2 Run the power cables through the cable management arm and secure them with straps or zip ties.

NOTE: Be sure to leave enough slack in all cables so that the cable management arm can fully extend.

- 3 Connect each power cord to A/C power.

NOTE: You may need to use the SW0 switch to initiate the power up sequence. Press and hold the SW0 switch until you hear the systems cooling fans start up and then release. Do not hold the SW0 switch in for longer than that as that may cause the product's controllers to start in Emergency Mode.

NOTE: If the audible alarm sounds when the unit is first powered on, this may be because the controller batteries are discharged. Press either SW0 switch on the rear of the unit to silence the alarm.

10 Register the Unit

The Product ID is located on the bottom left of the rear panel. Go to <http://register.nexsan.com> to register your product.

11 Configure the Unit

- 1 When the unit has finished starting up, access it via a web browser from a computer that is on the same LAN as the unit's MGMT port is connected to by entering the IP address into the browser's address field.

NOTE: The default IP addresses for the RAID Controllers are 10.11.12.13 and 10.11.12.14. It is very important, however, that you change these IP addresses by following the instructions under *Initial Network Address Setup* in *Chapter 1* of the *Nexsan High Density Storage User Guide*.

- 2 Click the **Click Here To Log In** button.

- 3 Accept the EULA when it is displayed by clicking the **I Agree** button.

- 4 Follow the instructions in *Chapter 1, Basic Setup* of the *Nexsan High Density Storage User Manual* (which is on the Product Manuals and Software Tools CD included with the unit) to get started with your new Nexsan BEAST RAID storage system.

NEXSAN

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Part number: P0450111 Rev: E Release Date: October 2017

Related Documentation: Nexsan Beast Installation and FRU Removal and Replacement Guides, Nexsan High Density Storage User Manual

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