XCubeSAN Quick Installation Guide

Thank you for purchasing a QSAN XCubeSAN storage system.

This QIG will get you up and running quickly and is applicable to the following models :
XS5224, XS5216, XS5212, XS5226, XS3224, XS3216, XS3212, XS3226, XS1224, XS1216, XS1212, XS1226.

The QIGs in other languages can be downloaded from the QSAN website : https://www.qsan.com/download_center

1 BEFORE YOU BEGIN

Package Contents

A QSAN XCubeSAN model includes:

<table>
<tr><td colspan="2">System Chassis (x1)</td><td>Disk Drive Trays</td></tr>
<tr><td colspan="2"> </td><td>(x24 LFF[1]) for 4U 24-bay
(x16 LFF) for 3U 16-bay
(x12 LFF) for 2U 12-bay
(x26 SFF[2]) for 2U 26-bay
 </td></tr>
<tr><td>AC Power Cords (x2)</td><td>RS-232 Console Cable</td><td>Screws Pack for Disk Drives</td></tr>
<tr><td></td><td>(x2) for dual controller model
(x1) for single controller model
 </td><td></td></tr>
<tr><td colspan="3">This Quick Installation Guide</td></tr>
</table>

Optional Accessories

- 2 port 32Gb Fibre Channel host card (SFP28) (RHCF32P2)
- 4 port 16Gb Fibre Channel host card (SFP+) (HQ-16F4S2)
- 2 port 16Gb Fibre Channel host card (SFP+) (HQ-16F2S2)
- 2 port 25GbE iSCSI host card (SFP28) (RHCE25P2)
- 4 port 10GbE iSCSI host card (SFP+) (HQ-10G4S2)
- 2 port 10GBASE-T iSCSI host card (RJ45) (HQ-10G2T)
- 4 port 1GBASE-T iSCSI host card (RJ45) (HQ-01G4T)
- Cache-to-flash module
  - Battery back module + flash module (C2F-BM128G)
  - Super capacitor module + flash module (C2F-SP128G)
- Rail kit (SLR-RM3640)
- USB LCM module (LCM-U162)

Prepare for Installation

Before installing your storage system, it is highly recommend that you follow our configuration worksheet which can be downloaded from the QSAN website : https://www.qsan.com/download_center

Record System Information on the Configuration Worksheet

- System name
- Admin password
- NTP server address
- Management IP address at controller 1
- DNS server address

More Information

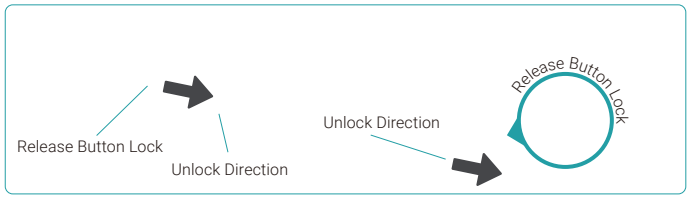
For additional hardware manual, software manual, or compatibility matrix which includes HDD, SSD, HBA, and switch requirements, please refer to the QSAN Download Center at :
https://www.qsan.com/download_center

[1] LFF : Large Form Factor / 3.5" disk drive [2] SFF : Small Form Factor / 2.5" disk drive

2 INSTALL THE DISK DRIVES

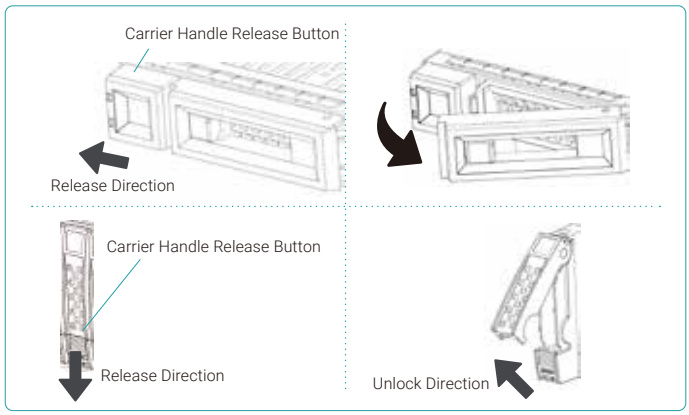
Unlock the Disk Drive Tray

- The standard position of the disk drive tray is locked to prevent damage during transport.
- To unlock LFF or SFF disk drive tray: shift the release button lock from left to right.



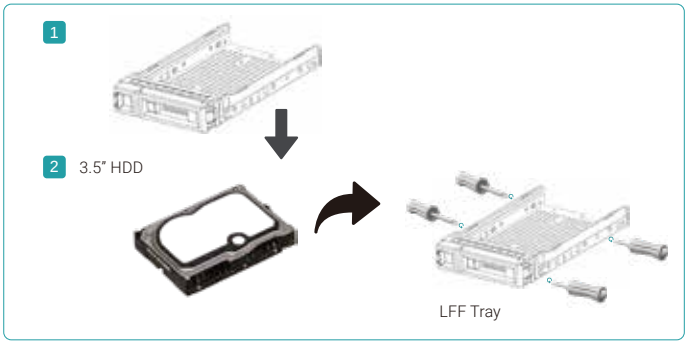
Open the Carrier Handle of a Disk Drive Tray

- The procedure of opening an LFF disk drive tray carrier handle: shift the carrier handle release button from right to left; then carrier handle will automatically pop out.
- Open an SFF disk drive tray carrier handle: shift the carrier handle release button from up to down; then carrier handle will automatically pop out.



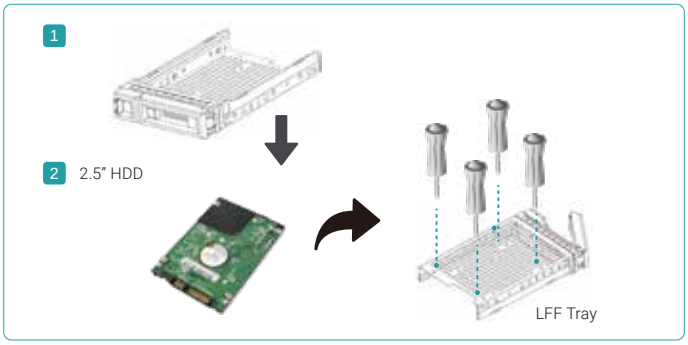
Install an LFF Disk Drive into an LFF Tray

1. Place a disk drive tray onto a stable surface.
2. Align the disk drive to the tray (with disk connector facing away from carrier handle) and align the four disk drive tray screw holes located on both sides of the hard drive.
3. Install and tighten all four screws to secure the disk drive within the tray.



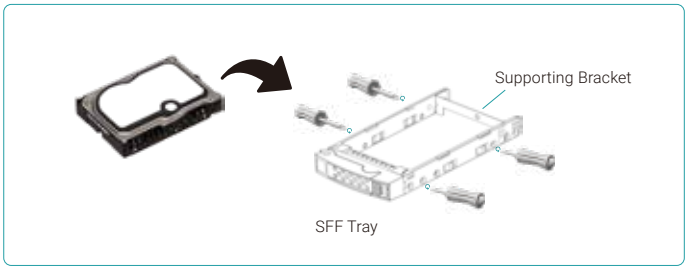
Install an SFF Disk Drive into an LFF Tray

1. Place a disk drive tray onto a stable surface.
2. Align the disk drive to the tray with the connector facing away from the carrier handle.
3. Align the four disk drive tray screw holes (front row at the bottom side of the tray for SAS interface disk drive; a rear row for SATA interface SSD) to the disk drive.
4. Install and tighten all four screws to secure disk drive.



Install an SFF Disk Drive into an SFF Tray

1. Place a disk drive tray onto a stable surface.
2. Remove the supporting bracket. Then align the disk drive with the connector facing away from the carrier handle.
3. Align the four disk drive tray screw holes on both sides of the disk tray.
4. Install and tighten all four screws to secure disk drive within the tray.



Install the Tray with the Disk Drive into the System Chassis

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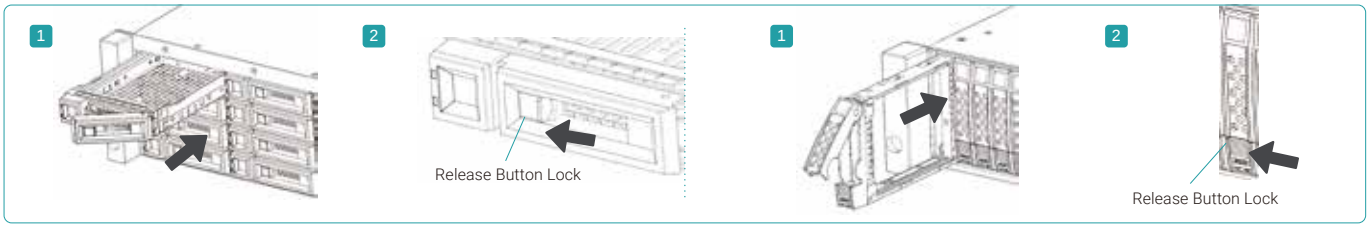
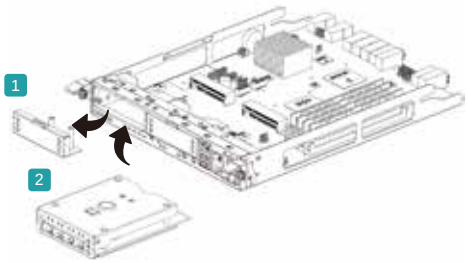
- Users must open the carrier handle of a drive tray before installing it into the empty bay of the system chassis.
- The following is the procedure for installing a disk drive with the tray into the system for both LFF and SFF disk drive trays.
  1. Align a disk drive with the tray to the empty bay you would like to install and then push it all the way into the disk drive bay until the carrier handle can be closed.
  2. Lock the release button lock by pushing the lock from right to left.
- Refer to the label on the system chassis for disk drive numbering. The disk drive numbering for 2U 26-bay system will be printed on the chassis.



3 INSTALL THE OPTIONAL HOST CARDS

Please refer to tne QSAN XCubeSAN Hardware Manual for detailed instructions.

1. Uninstall host card dummy bracket.
2. Insert host card to host card slot 1.



4 INSTALL THE OPTIONAL RAIL KIT

The rail kit is an optional accessory for XCubeSAN series product. If you have ordered the rail kit, please follow the racking instructions below.

CAUTION:
The populated XCubeSAN system can be very heavy, to avoid any potential injury or harm to installers, or damage to the system, we strongly recommend at least two certified operators or engineers perform the system installation.

1 Pull the inner rail out and slide the intermediate member back.

2 Install the inner rail onto the chassis.

3 Install the outer rail / bracket assembly to the frame.

Rear Bracket

Front Bracket

Note : Please repeat the installation steps for the other side.

4 Insert the chassis to complete the installation.

Step 1. Pull the middle rail fully extended in locked position.
Step 2. Ensure ball bearing retainer is located at the front of the middle rail.
Step 3. Insert chassis into middle-outer rail.
Step 4. When hit the stop, pull / push release tab to unlock and retract chassis into rack.
Step 5. Use M5x20 screws to fasten the chassis ear.

5 POWER ON THE STORAGE SYSTEM

Connect the Power Cables

1. Connect power cables from each power supply module to a power source.
2. Make sure to secure the power cables the power supply modules so they can not be pulled out accidentally.

Power on the System Components

1. Power on any network switches, routers, or other standalone components.
2. Power on any expansion enclosures that might be a part of the system.
3. Power on the XCubeSAN system by pressing the power button on the front of the system.

Power Cord Conncctor (left)

Power Cord Conncctor(right)

TIP:
Please wait for the controller status LED to turn green on the rear of the chassis before attempting to discover or manage the storage system. It may take a few minutes to boot the XCubeSAN system.

4. See the diagram below to determine the meaning of the lights and indicators on the front of the system.

1. System Power Button / LED
2. UID (Unique Identifier) Button / LED
3. System Access LED
4. System Status LED
5. USB Port

6 DISCOVER AND SETUP THE SYSTEM

Discover the System

The default setting for the management IP address is DHCP. We provide the XFinder Java utility to search for QSAN products on the network and aid quick access to the login page of the SANOS web interface.

XFinder Utility

To download XFinder, please visit : https://www.qsan.com/download_center
XFinder is a Java based program. To execute this program, JRE (Java Runtime Environment) is required. You can visit the following website to download and install JRE : http://www.java.com/download/
After JRE is installed, run the XFinder.jar program. The SAN storage system in your network will be detected and listed in the table.

Select the system you are looking for. Double clicking the selected entry will automatically bring up the browser and display the login page.

TIP:
If the LAN doesn't have a DHCP server, the management port will be assigned a fix IP address: 169.254.1.234/16. So you can configure the IP address of your management computer to the same subnet domain of the storage system, e.g.: 169.254.1.1/16. Then open a browser and enter http://169.254.1.234 to go into the login page.