

JBOD Enclosure

TL-D800C

User Guide

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1. Preface

About This Guide

This guide provides information on the QNAP TL-D800C JBOD enclosure and step-by-step instructions on installing the hardware. It also provides instructions on basic operations and troubleshooting information.

Audience

This document is intended for consumers and storage administrators. This guide assumes that the user has a basic understanding of storage and backup concepts.

Document Conventions

Symbol	Description
	Notes provide default configuration settings and other supplementary information.
	Important notes provide information on required configuration settings and other critical information.
	Tips provide recommendations or alternative methods of performing tasks or configuring settings.
	Warnings provide information that, when ignored, may result in potential loss, injury, or even death.

2. Product Overview

This chapter provides basic information about the QNAP TL-D800C JBOD enclosure.

About the TL-D800C

QNAP JBOD enclosures are designed to increase the capacity and utility of your NAS or computer and provide a wide range of storage applications. Drives installed in the JBOD enclosure can be managed independently or be configured as software RAID by the host device. The TL-D800C features a USB 3.1 Gen 2 Type-C port to ensure quick and efficient data transfer between the JBOD enclosure and the host device. The TL-D800C is compatible with devices running on Windows®, Mac®, or Linux® operating systems.

Hardware Specifications



Warning

- If your QNAP product has hardware defects, return the product to QNAP or a QNAP-authorized service center for maintenance or replacement. Any attempt to repair or perform maintenance procedures on the product by you or an unauthorized third party invalidates the warranty.
- QNAP is not responsible for any damage or data loss caused by unauthorized modifications and installation of unsupported third-party applications. For details, see the [QNAP Warranty Terms and Conditions](#).

Component	TL-D800C
Ordering Information	
Ordering P/N	TL-D800C
Storage	
Drive bays	8 x 3.5-inch SATA 6 Gbps
Drive compatibility	3.5-inch bays: • 3.5-inch SATA hard disk drives • 2.5-inch SATA hard disk drives • 2.5-inch SATA solid-state drives
Drive tray type	Key lock
Hot-swapping	Supported
External I/O Ports & Expansion Slots	
USB ports	1 x USB 3.1 Gen 2 Type-C
Interface	

Component	TL-D800C
Switches	• Power  Important QNAP recommends waiting at least two seconds after powering off the JBOD enclosure before powering it on again. • Fan speed • Audio alert
Dimensions	
Form factor	Tower
Dimensions (H x W x D)	188.20 x 329.30 x 281.40 cm (7.41 x 12.96 x 11.08 inches)
Net weight	6.18 kg (13.62 lbs)
Others	
Power supply unit	250W, 100 - 240V AC, 50/60 Hz  Warning To reduce the risk of fire or electric shock, ensure that you only connect the power cord to a properly grounded electrical outlet.
Sound level	26.2 db(A)  Note The sound level was tested at a bystander position, which is within one meter of the NAS. The test NAS operated at low speed with the maximum number of drives installed.
Fans	System: 2 x 12 cm, 12V DC smart fans  Warning  To avoid potential injury or damage to components, do not touch the fans while the NAS is connected to a power source.
Operating temperature	0°C to 40°C (32°F to 104°F)
Relative humidity	• Non-condensing relative humidity: 5% to 95% • Wet-bulb temperature: 27°C (80.6°F)
Security slot	Kensington security slot

Package Contents

Item	Quantity
TL-D800C	1

Item	Quantity
Power cord	1
USB Type-C to USB Type-A connector cable	1
USB cable clip	1
Drive tray keys	2
Screws for 3.5-inch drives	32
Screws for 2.5-inch drives	24
Quick Installation Guide (QIG)	1

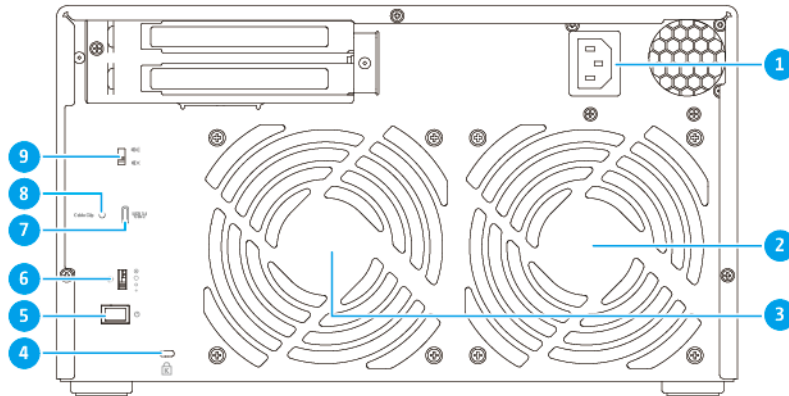
Components

Front Panel



No.	Component	No.	Component
1	Drive LEDs	3	Link LED
2	Fan error LED	4	Status LED

Rear Panel



No.	Component	No.	Component
1	Power input	6	Fan speed switch
2	System fan 1	7	USB 3.1 Gen 2 Type-C port
3	System fan 2	8	USB cable clip slot
4	Kensington security slot	9	Audio alert switch
5	Power switch	-	-

Drive Numbering



Safety Information

The following instructions help ensure personal safety and environmental safety. Read these instructions carefully before performing any operations.

General Instructions

- The device should be stored in a secure location with restricted access, controlled through the use of a tool, lock and key, or any means of security.
- Only qualified, skilled, and authorized persons with knowledge of all restrictions, safety precautions, and installation and maintenance procedures should have physical access to the device.
- To avoid potential injury or damage to components, ensure that the drives and other internal system components have cooled before touching them.
- Observe electrostatic discharge (ESD) procedures to avoid potential injury or damage to components.

Power

- To reduce the risk of fire or electric shock, ensure that you only connect the power cord to a properly grounded electrical outlet.

•



Devices with redundant power supply may have one or more power supply unit (PSU) cords. To avoid serious injuries, a trained service technician must disconnect all PSU cords from the device before installing or replacing system components.

System Battery

- To avoid potential battery explosion, causing injury or damage to components, ensure that you replace the existing battery with a battery of the same type.
- Dispose of used batteries properly according to local regulations or the instructions of the battery manufacturer.

Moving Parts

•



Moving fan blades: Keep your body parts away from moving fan blades while the device is connected to a power source.

•



Moving components: Keep your body parts away from other moving components.

Installation Requirements

Category	Item
Environment	• Room temperature: 0°C to 40°C (32°F to 104°F) • Non-condensing relative humidity: 5% to 95% • Wet-bulb temperature: 27°C (80.6°F) • Flat, anti-static surface without exposure to direct sunlight, liquids, or chemicals
Hardware and peripherals	• NAS or computer • Storage drives  Tip For the list of compatible drive models, go to https://www.qnap.com/compatibility. • USB connector cable
Tools	• Phillips #1 or #2 screwdriver • Anti-static wrist strap

Setting Up the JBOD Enclosure

1. Place the JBOD enclosure in an environment that meets the requirements.
For details, see [Installation Requirements](#).
2. Install the drives.
For details, see the following topics:
 - [Installing 3.5-inch Drives on 3.5-inch Trays](#)
 - [Installing 2.5-inch Drives on 3.5-inch Trays](#)
3. Connect the power cord.
4. Connect the JBOD enclosure to your NAS or computer.
For details, see the following topics:
 - [Connecting the JBOD Enclosure to a NAS](#)
 - [Connecting the JBOD Enclosure to a Computer](#)
5. Power on the JBOD enclosure.

3. Hardware Installation

This section provides information on installing drives and connecting the JBOD enclosure to a NAS or computer.

Drive Installation

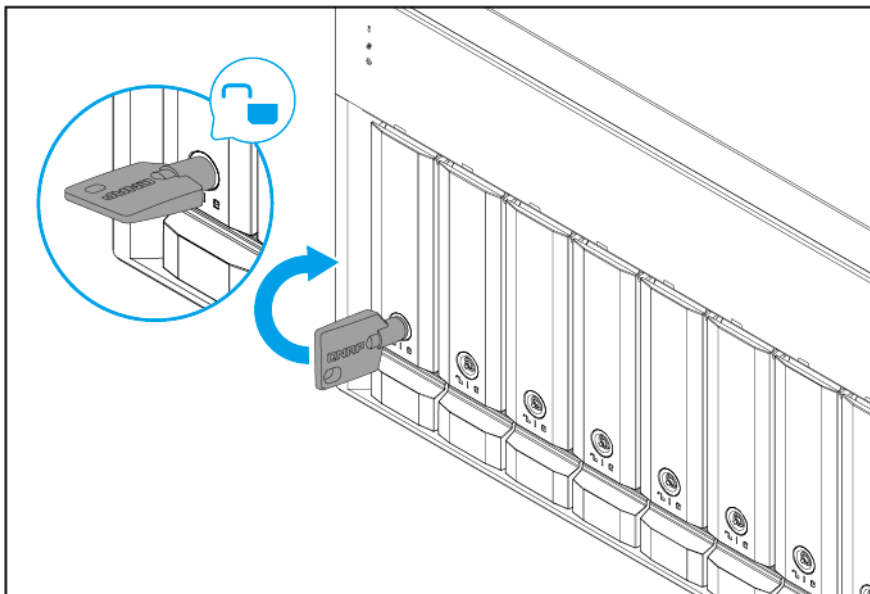
QNAP JBOD enclosures are compatible with 3.5-inch hard drives, 2.5-inch hard drives, and 2.5-inch solid-state drives.

Installing 3.5-inch Drives on 3.5-inch Trays

**Warning**

Observe electrostatic discharge (ESD) procedures to avoid damage to components.

1. Power off the JBOD enclosure.
2. Remove a drive tray.
 - a. Optional: Unlock the tray.

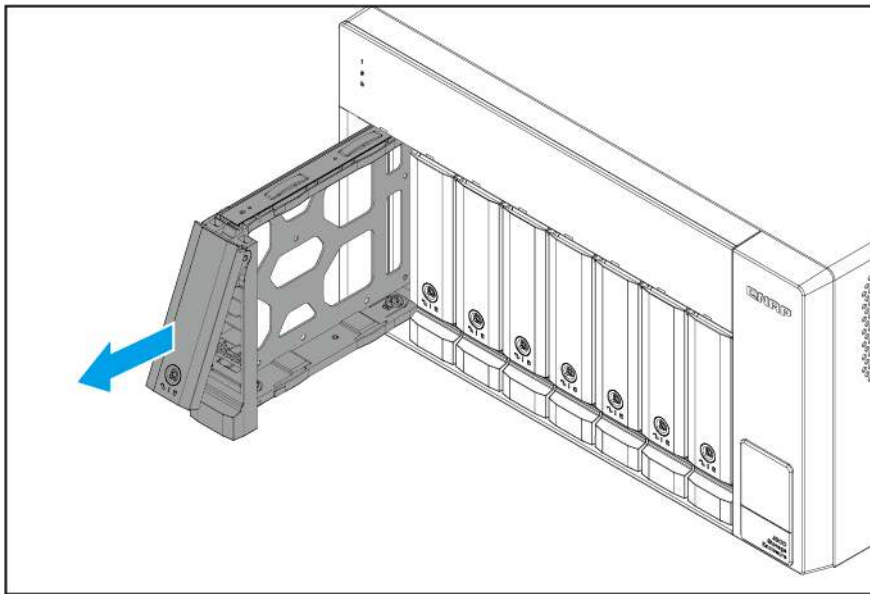
**Note**

The preinstalled drive trays come unlocked.

**Important**

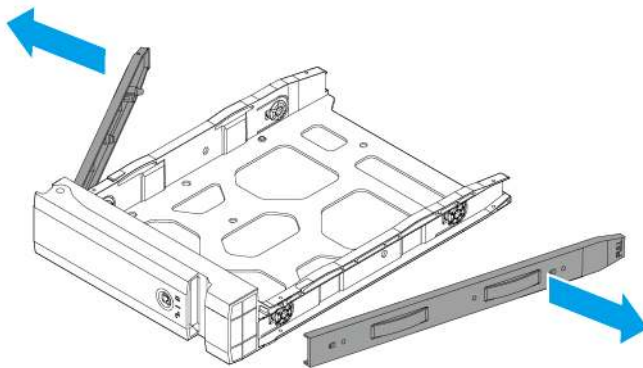
Ensure that the drive tray keys are stored in a safe place.

- b. Pull the handle to release the tray.
 - c. Pull the tray out.

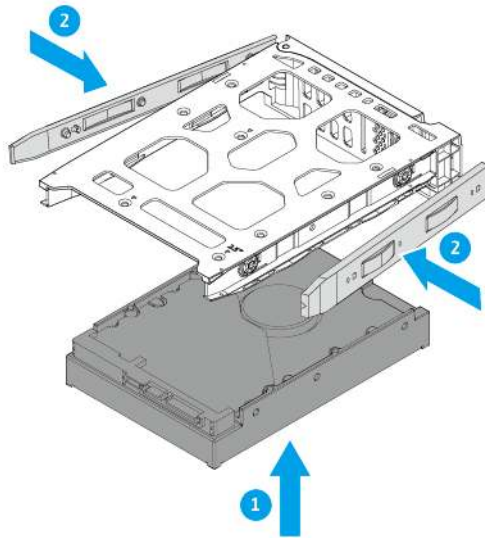


3. Install a drive on the tray.

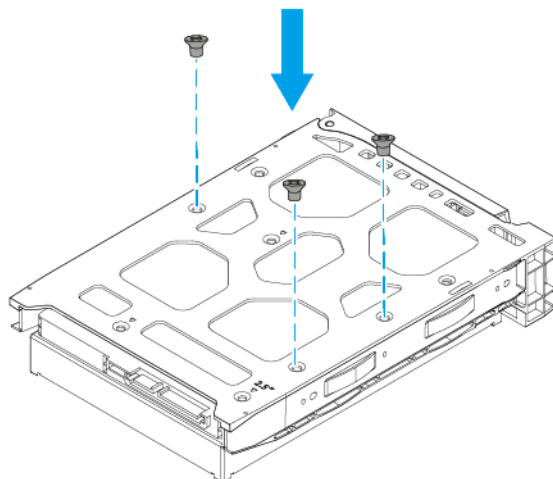
- a. Remove the fastening panels from the sides of the tray.**



- b. Place the drive on the tray so that the holes on the sides of the drive are aligned with the holes on the sides of the tray.**
- c. Attach the fastening panels.**



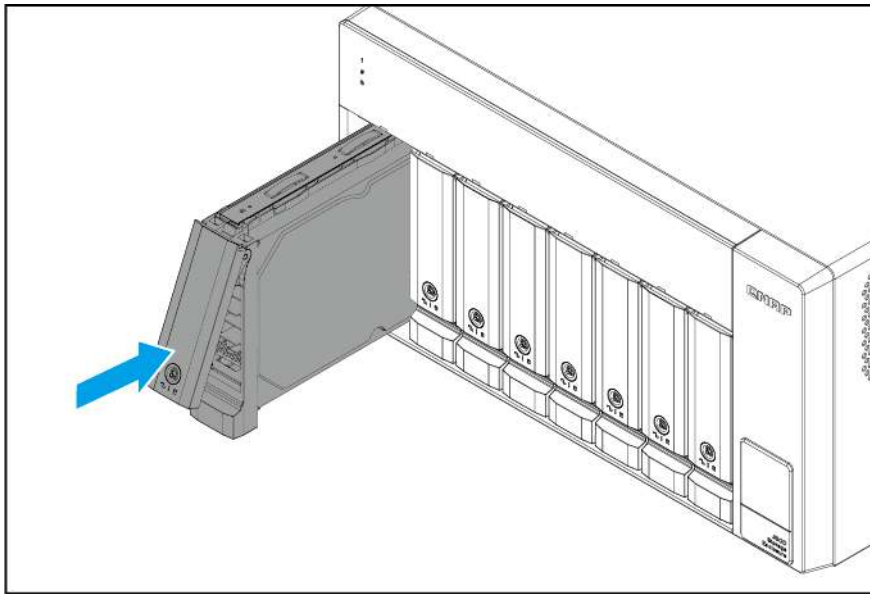
d. Optional: Attach the screws to further secure the drive.



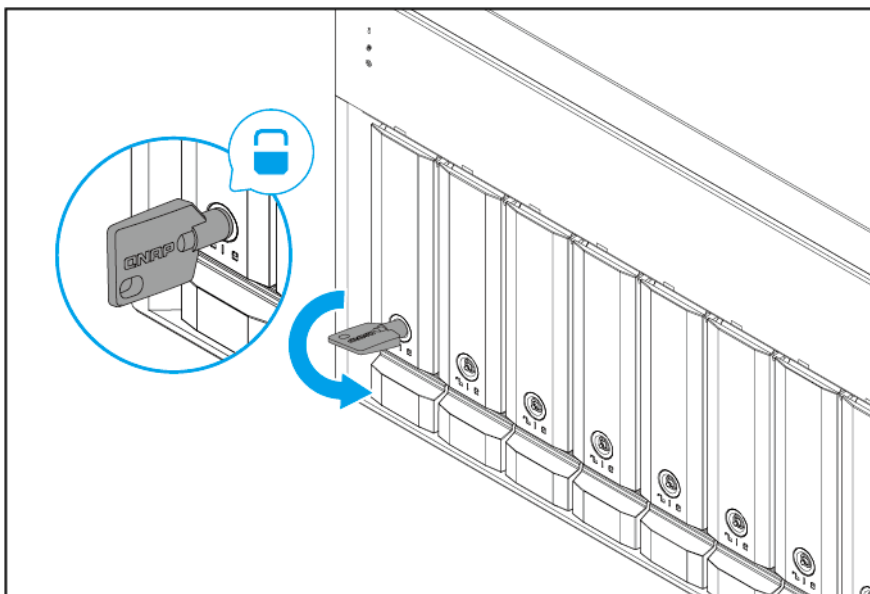
Important

QNAP recommends attaching the screws to the drive trays when transporting the device.

4. Load the tray into the drive bay.
 - a. Insert the tray into the bay.
 - b. Push the handle.



c. Optional: Lock the tray.



5. Power on the JBOD enclosure.



Note

The JBOD enclosure may take up to 30 seconds to detect the new drive.

Installing 2.5-inch Drives on 3.5-inch Trays



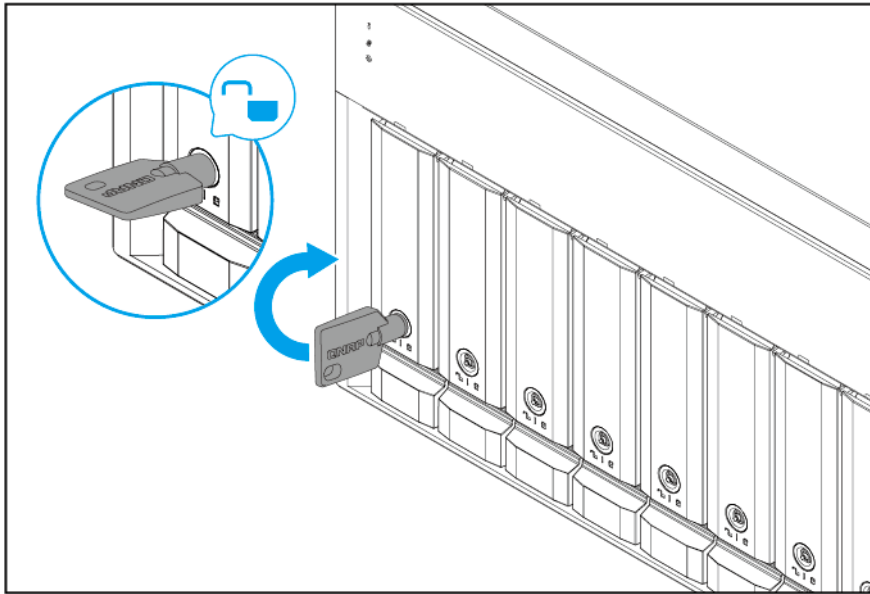
Warning

Observe electrostatic discharge (ESD) procedures to avoid damage to components.

1. Power off the JBOD enclosure.

2. Remove a drive tray.

a. Optional: Unlock the tray.



Note

The preinstalled drive trays come unlocked.

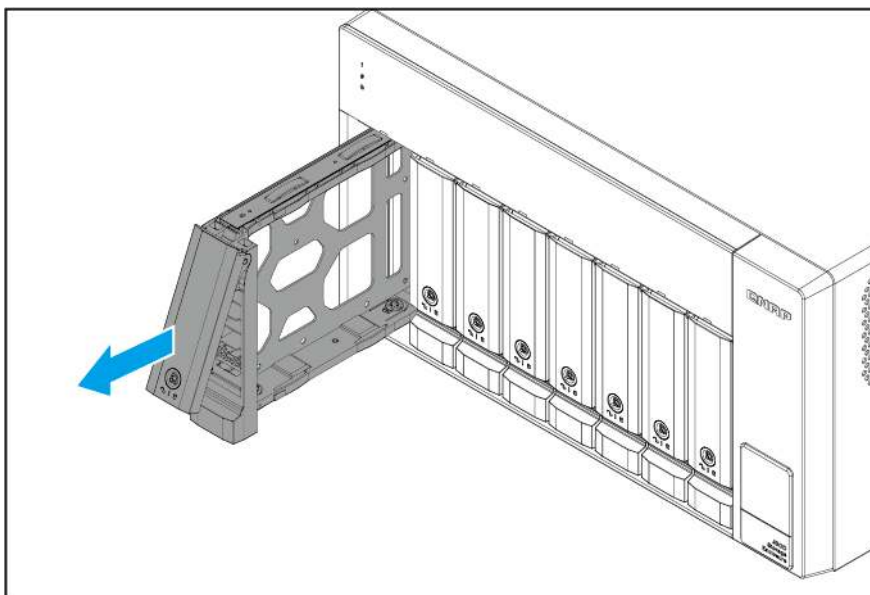


Important

Ensure that the drive tray keys are stored in a safe place.

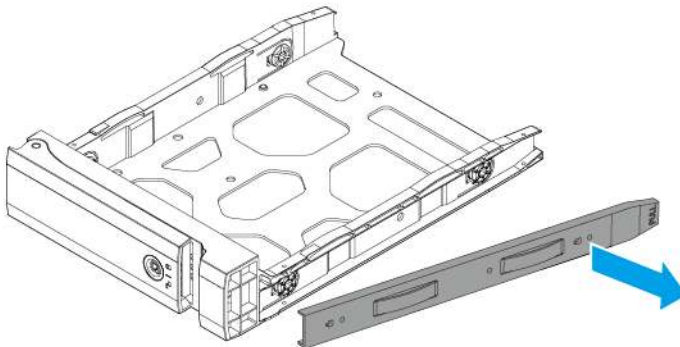
b. Pull the handle to release the tray.

c. Pull the tray out.

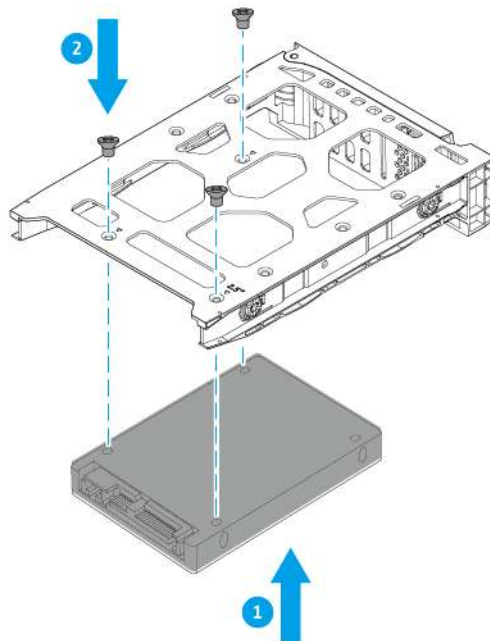


3. Install a drive on the tray.

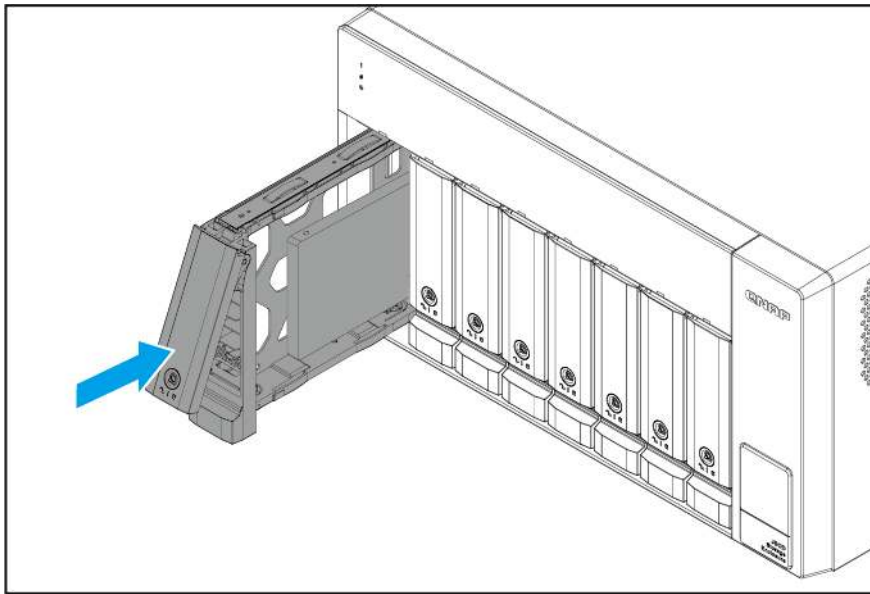
- a. Remove the right fastening panel from the tray.



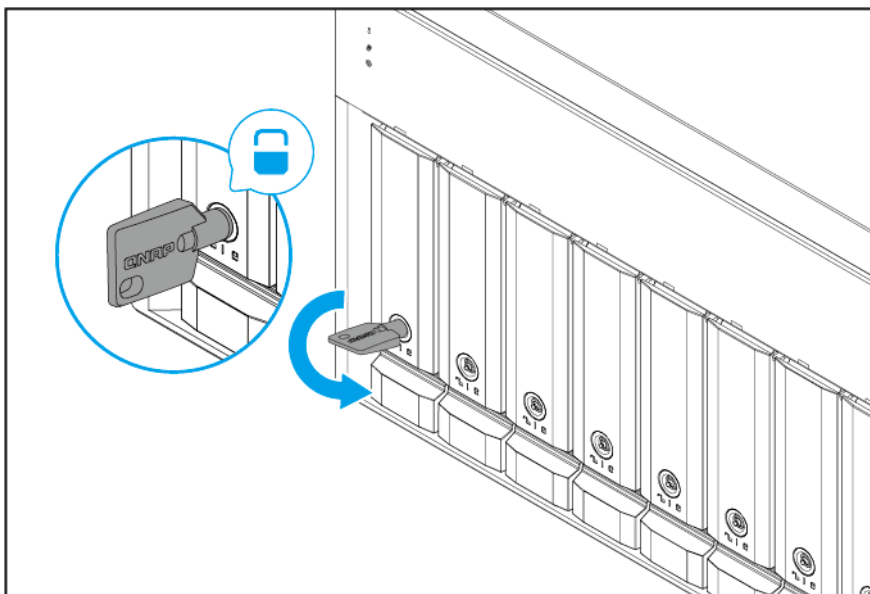
- b. Place the drive on the tray so that the holes on the bottom of the drive are aligned with the holes on the bottom of the tray.
- c. Attach the screws.



4. Load the tray into the drive bay.
- a. Insert the tray into the bay.
- b. Push the handle.



c. Optional: Lock the tray.



5. Power on the JBOD enclosure.



Note

The JBOD enclosure may take up to 30 seconds to detect the new drive.

Connecting the JBOD Enclosure to a NAS



Important

- QTS supports a maximum of two JBOD enclosures.
- QNAP JBOD enclosures do not support USB 2.0 connections.

- Depending on the number of installed drives, the JBOD enclosure may consume more USB endpoints than the host device can support on a single USB connection. Therefore, the host device may not recognize all drives installed in the JBOD enclosure. You can resolve this issue by installing a USB expansion card in the host device. Compatible USB expansion cards can be purchased from QNAP or an authorized reseller.
- The NAS must run QTS hero or QTS 4.4.2 (or later version).



Warning

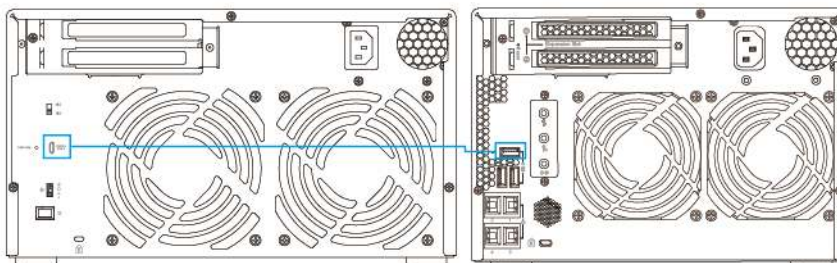
- Do not connect the JBOD enclosure to a host device using a USB hub.
- Boot failures may occur when disconnecting and reconnecting the external device from the host device repeatedly within a short time. QNAP recommends waiting 10 seconds before reconnecting the external device to the host device.

1. Power off the NAS.
2. Power off the JBOD enclosure.
3. Connect the JBOD enclosure to the NAS.
 - a. Connect a USB cable to the USB 3.1 Gen 2 Type-C port on the JBOD enclosure.



Note

- Refer to the hardware installation section of the NAS user guide for instructions on installing expansion cards.
 - For hosts with USB Type-C ports, you can purchase an optional USB Type-C to USB Type-C cable. For details, see <https://store.qnap.com/>.
- b. Connect the USB cable to a USB Type-A port on a NAS.
 - c. Optional: Connect a second JBOD enclosure to the NAS.



4. Power on the JBOD enclosure.
5. Power on the NAS.
6. Verify that the JBOD enclosure is recognized by the NAS.
 - a. Log on to QTS as administrator.
 - b. Go to **Main Menu > Storage & Snapshots > Overview > Storage**.
 - c. Verify that the JBOD enclosure is listed.

**Note**

The NAS may take up to 30 seconds to detect the JBOD enclosure and the installed drives.

Connecting the JBOD Enclosure to a Computer

**Important**

- QNAP JBOD enclosures cannot be connected to more than one host at a time.
- QNAP JBOD enclosures do not support USB 2.0 connections.
- Depending on the number of installed drives, the JBOD enclosure may consume more USB endpoints than the host device can support on a single USB connection. Therefore, the host device may not recognize all drives installed in the JBOD enclosure.
You can resolve this issue by installing a USB expansion card in the host device. Compatible USB expansion cards can be purchased from QNAP or an authorized reseller.

**Warning**

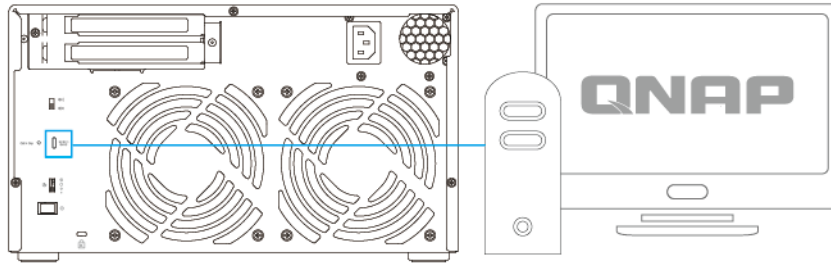
- Do not connect the JBOD enclosure to a host device using a USB hub.
- Boot failures may occur when disconnecting and reconnecting the external device from the host device repeatedly within a short time. QNAP recommends waiting 10 seconds before reconnecting the external device to the host device.

1. Power off the computer.
2. Power off the JBOD enclosure.
3. Connect the JBOD enclosure to a computer.
 - a. Connect a USB cable to the USB 3.1 Gen 2 Type-C port on the JBOD enclosure.
 - b. Connect the USB cable to a USB port on the computer.

**Note**

For hosts with USB Type-C ports, you can purchase an optional USB Type-C to USB Type-C cable. For details, see <https://store.qnap.com/>.

- c. Optional: Connect additional JBOD enclosures to the computer.



4. Power on the JBOD enclosure.
5. Power on the computer.
6. Verify that the JBOD enclosure is recognized by the computer.
 - a. Go to your computer's disk management utility or open QNAP JBOD Manager in Windows or Ubuntu.

**Note**

To download QNAP JBOD Manager, go to <https://download.qnap.com>.

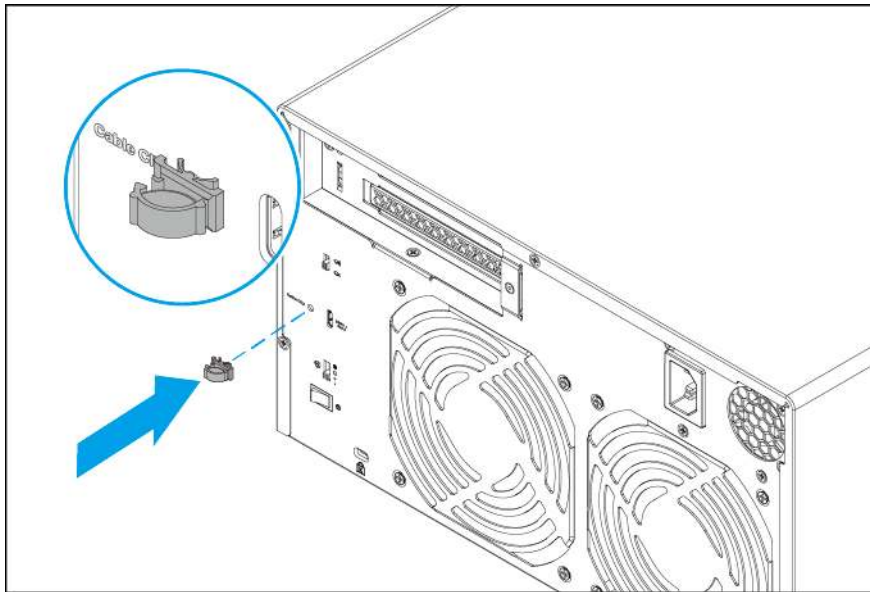
- b. Verify that the JBOD enclosure is listed.

Attaching the USB Cable Clip

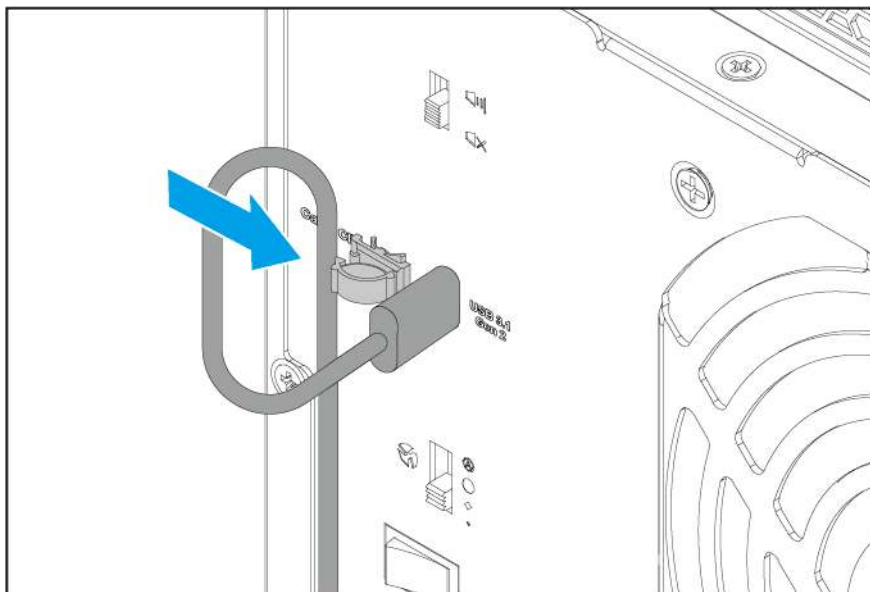
**Important**

- The USB cable clip keeps the cable near the enclosure to avoid potential damage to the cable or any nearby components.
- The clip cannot be removed after attaching it to the JBOD enclosure.

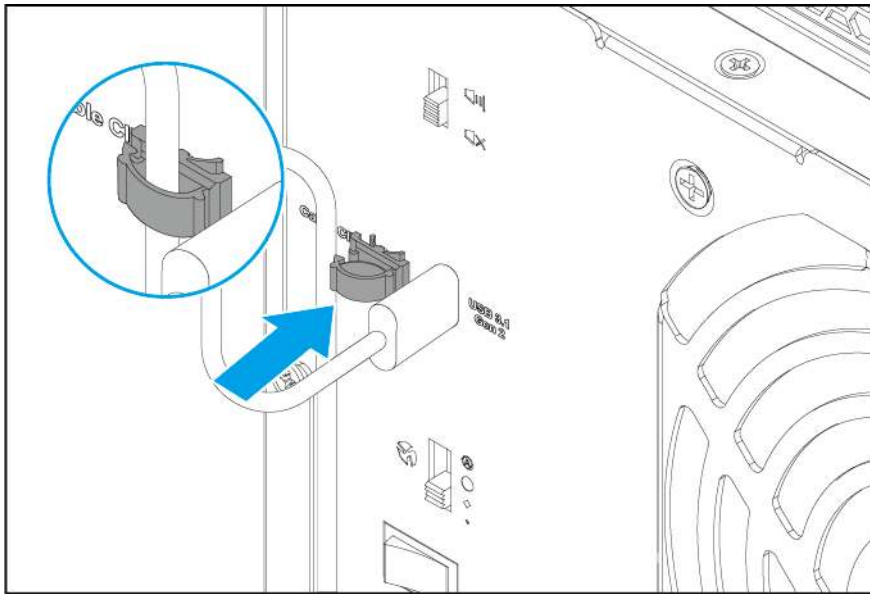
1. Insert the cable clip into the cable clip slot.



2. Insert the cable into the clip.

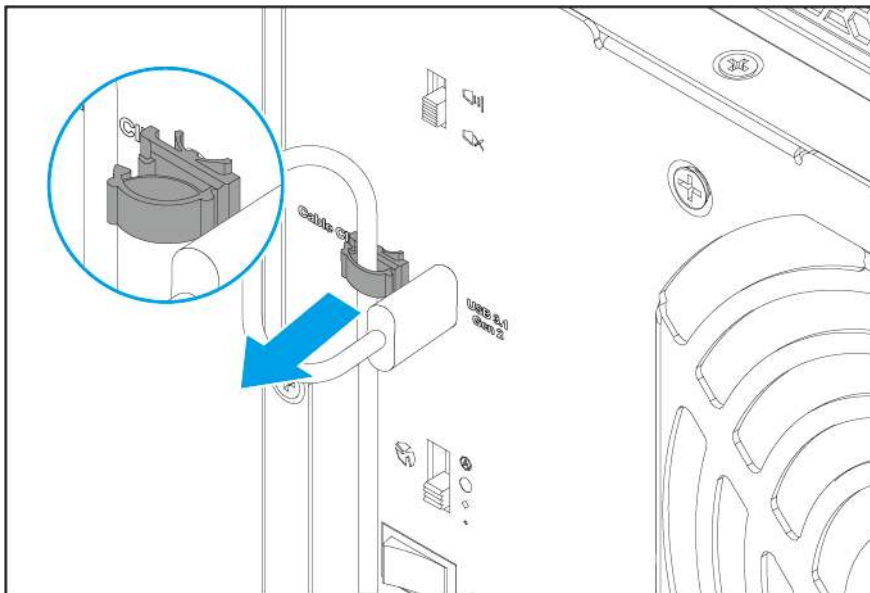


3. Close the clip to secure the cable.

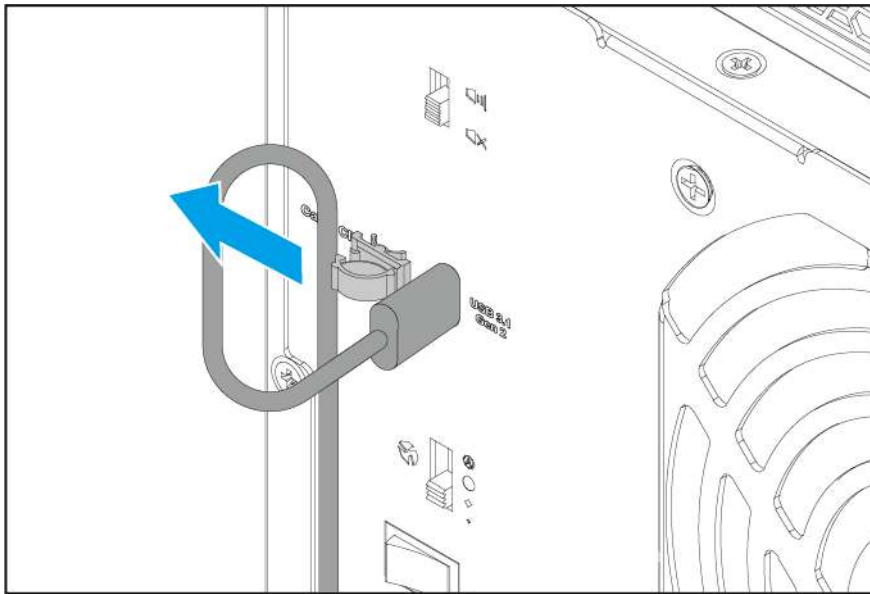


Removing a USB Cable from the USB Cable Clip

1. Open the cable clip.



2. Remove the cable from the clip.



4. Basic Operations

This chapter describes basic operations of the JBOD enclosure.

LEDs

LEDs indicate system status and related information when the JBOD enclosure is powered on. The following LED information applies only when the drive is correctly installed and when the JBOD enclosure is connected.

For details on the location of the LEDs, see [Components](#).

LED	Status	Description
System Status	Green	The JBOD enclosure is ready.
	Red	- The system fan is not functioning. - The system temperature is over 65°C.
Link	Green	The JBOD enclosure is connected to a host device.
	Off	The JBOD enclosure is not connected to a host device.
Fan	Red	The system fan is not functioning.
Drive	Green	- The JBOD enclosure is powered on. - The drive can be accessed.
	Red	A drive read/write error occurred.



Note

The drive LEDs only function when connected to a NAS or computer running QTS, QTS hero, or QNAP JBOD Manager.

Audio Alert



Note

The audio alert can be toggled on and off by using the audio alert switch on the rear panel of the JBOD enclosure.
For details, see [Rear Panel](#).

Duration	Frequency	Description
Short beep (0.5 seconds)	1	- The link to the JBOD enclosure is up. - The link to the JBOD enclosure is down.

Duration	Frequency	Description
Long beep (2 seconds)	3 (every 5 minutes)	- The system fan is not functioning. - The system temperature is over the threshold.  Note - The default temperature warning threshold is 65°C. You can set the threshold to a temperature between 55°C and 69°C using QNAP JBOD Manager. - The temperature critical threshold is 70°C.

Fan Speed Switch

The rear panel of the JBOD enclosure includes a fan speed switch for manually configuring the speed of the system fans.

Fan speed settings:

- Auto
When set, the fan speed changes automatically according to the internal temperature of the JBOD enclosure.
- High
- Medium
- Low

For details, see [Rear Panel](#).

5. Troubleshooting

This chapter describes basic troubleshooting information.

Forcing Storage & Snapshots or QNAP JBOD Manager to Recognize the JBOD Enclosure

If Storage & Snapshots or QNAP JBOD Manager is unable to locate the JBOD enclosure during operation, the drives or data may be faulty.

1. Power off the JBOD enclosure.
2. Remove all drives.
3. Power on the JBOD enclosure.
4. Locate the JBOD enclosure using Storage & Snapshots or QNAP JBOD Manager.
5. Reinsert the drives.
6. Continue with operation.

Hot-swapping Failed Drives

The JBOD enclosure supports hot-swapping of drives in the following situations:

- RAID 1: One member drive fails
- RAID 5: One member drive fails
- RAID 10:
 - One member drive fails
 - Two member drives fail (one in bay 1 or 2 and one in bay 3 or 4)

1. Log on to QTS.
2. Go to **Main Menu > Storage & Snapshots > Storage > External Storage** .
3. Locate the failed drive.
4. Prepare a new hard drive with a capacity that is the same as or larger than the failed hard drive.
5. Remove the failed drive from the JBOD enclosure.
6. Wait for 30 seconds or until the JBOD enclosure beeps twice.
7. Remove the failed drive from the drive tray.
8. Insert the new drive into the drive tray.
9. Install the new drive.
The JBOD enclosure beeps twice.
10. Wait for 30 seconds or until the JBOD enclosure beeps twice.
11. Go to **Main Menu > Storage & Snapshots > Storage > Storage/Snapshots** .

12. Locate the volume that contains the new drive and then verify that the status is `Rebuilding`.

Support and Other Resources

QNAP provides the following resources:

Resource	URL
Documentation	https://docs.qnap.com
Service Portal	https://service.qnap.com
Downloads	https://download.qnap.com
Community Forum	https://forum.qnap.com

6. Glossary

QTS

QNAP NAS operating system

QNAP JBOD Manager

Software utility for Windows, Linux, and macOS that allows you to view and configure QNAP JBOD enclosures

Storage & Snapshots

QTS utility that allows you to view and configure QNAP JBOD enclosures connected to a QNAP NAS

7. Notices

This chapter provides information about warranty, disclaimers, licensing, and federal regulations.

Limited Warranty

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Back up the system periodically to avoid any potential data loss is recommended. QNAP disclaims any responsibility of all sorts of data loss or recovery.

Should you return any components of the package of QNAP products such as NAS (Network Attached Storage) for refund or maintenance, make sure they are carefully packed for shipping. Any form of damages due to improper packaging will not be compensated.

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Version 3, 29 June 2007

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Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

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FCC Notice

FCC Class B Notice



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1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.



Note

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- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.



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VCCI Notice



VCCI-B

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SJ/T 11364-2006



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