



QNAP

QVP-xxB

QVP-63B

QVP-85B

User Guide

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1. Product Overview

This chapter provides basic information about the QNAP QVP-xxB surveillance server.

About the QVP-xxB

The QVP-xxB NVR network surveillance server supports real-time video/audio monitoring, high-resolution recording, and playback from multiple IP cameras. With six or eight 3.5-inch SATA drive bays, one HDMI 1.4b port, and two 2.5 GbE host management ports, the QVP-xxB provides great storage space and high-speed networking to meet the requirements of small/medium monitoring environments.

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](#).



Tip

Model specifications are subject to change without prior notice. To see the latest specifications, go to <https://www.qnap.com>.






Ordering P/N	Drive bays	Memory	Embedded channels	Maximum channels	Power supply
QVP-63B	6	16 GB	8	36	Single
QVP-85B	8	32 GB	8	64	Single





Tip

The QVP-xxB comes with a specified amount of free channels. To purchase additional channels, go to **Control Panel > System > License Center** for more details.

Component	QVP-63B	QVP-85B
Processor		
CPU	Intel® Core™ i3-12100	Intel® Core™ i5-12400
Frequency	4-core/8-thread 4.3 GHz burst	6-core/12-thread 4.4 GHz burst
Architecture	x86 64-bit	
Encryption engine	AES-NI	
Graphics	Intel® UHD Graphics 730	
Memory		
Pre-installed memory	16 GB RAM: 1 x 16 DDR4 SODIMM	32 GB RAM: 2 x 16 DDR4 SODIMM

Component	QVP-63B	QVP-85B
Memory slots	2 x SODIMM DDR4	
	 Important <ul style="list-style-type: none"> Use only QNAP memory modules to maintain system performance and stability. For NAS devices with more than one memory slot, use QNAP modules with identical specifications. Using unsupported modules may degrade performance, cause errors, or prevent the operating system from starting. 	
Maximum memory	64 GB (2 x 32 GB)	
Flash memory	5 GB (dual-boot OS protection)	
Storage		
Drive bays	6 x 3.5-inch SATA 6 Gbps	8 x 3.5-inch SATA 6 Gbps
	 Tip The drive bays are backward compatible with SATA 3 Gbps drives.	
Drive compatibility	3.5-inch bays: <ul style="list-style-type: none"> 3.5-inch SATA hard disk drives 2.5-inch SATA solid-state drives  Note For the list of compatible drive models and expansion cards, go to https://www.qnap.com/compatibility .	
M.2 SSD slots	2 x PCIe Gen 4 x4 NVMe	
M.2 SSD form factor	2280	
SSD cache acceleration support	This device supports SSD cache acceleration for all drives.	
Hot-swapping	The device supports hot-swapping drives except for the following: M.2 SSDs	
Network		
2.5 Gigabit network interface	2 x 2.5 GbE RJ45	
	 Note These ports provide 2.5 Gbps, 1 Gbps, 100 Mbps, and 10 Mbps network connection speeds.	
External I/O Ports & Expansion Slots		
PCIe slots	Slot 1: PCIe Gen 4 x16 Slot 2: PCIe Gen 4 x4	
	 Tip For the list of compatible drive models and expansion cards, go to https://www.qnap.com/compatibility .	
USB ports	<ul style="list-style-type: none"> 1 x USB 3.2 Gen 2 Type-C 2 x USB 3.2 Gen 2 Type-A 	
HDMI ports	1 x HDMI 1.4b	

Component	QVP-63B	QVP-85B
Interface		
Display panel	Monochrome backlit LCD display	
Buttons	<ul style="list-style-type: none"> • Power • Reset • LCD enter • LCD select • USB One Touch Copy 	
Dimensions		
Form factor	Tower	Tower
Dimensions (H x W x D)	188.2 x 264.3 x 279.6 mm (7.41 x 10.41 x 11.01 in)	188.2 x 329.3 x 280.8 mm (7.41 x 12.96 x 11.06 in)
Net weight	6.32 kg (13.93 lbs)	7.3 kg (16.09 lbs)
Others		
Power supply unit	1 x 250W, 100-240V AC, 50/60Hz	1 x 250W, 100-240V AC, 50/60Hz
System battery	CR2032 lithium battery (3V, 225 mAh) <div style="margin-top: 10px;">  Warning <ul style="list-style-type: none"> • This battery is a button battery. If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours. Keep batteries out of reach of children. • 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. </div> <div style="margin-top: 10px;">  Important <p>Dispose of used batteries according to local regulations or the instructions of the battery manufacturer.</p> </div>	
Fans	2 x 92 mm, 12 VDC	2 x 120 mm, 12 VDC
Operating temperature	0°C to 40°C (32°F to 104°F)	
Relative humidity	<ul style="list-style-type: none"> • Non-condensing relative humidity: 5% to 95% • Wet-bulb temperature: 27°C (80.6°F) 	


Tip

For the list of compatible drive models and expansion cards, go to <https://www.qnap.com/compatibility>.

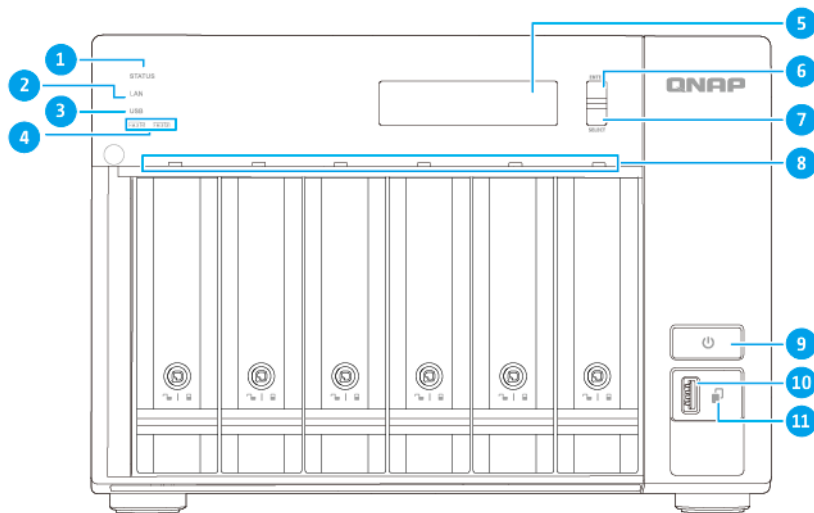
Package contents

Item	Quantity
QVP-xxB	1

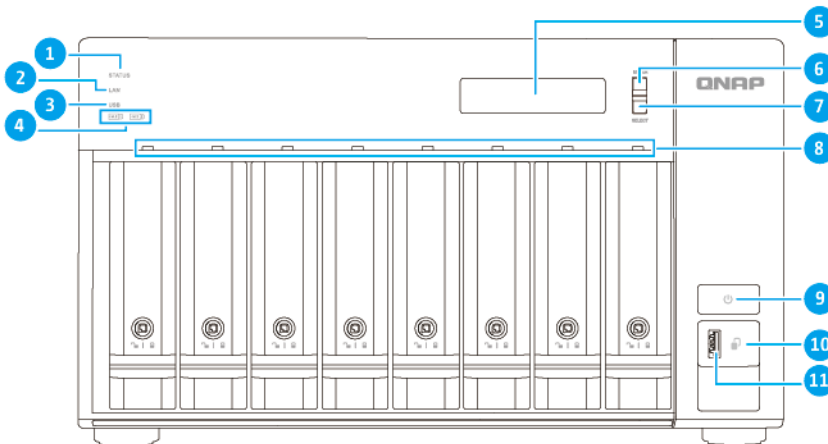
Item	Quantity
Power cords	1
Ethernet cable	1 x Cat5e (RJ45)
Screws for 3.5-inch drives	<ul style="list-style-type: none"> • QVP-63B: 24 • QVP-85B: 32
Screws for 2.5-inch drives	<ul style="list-style-type: none"> • QVP-63B: 18 • QVP-85B: 24
Heatsinks for M.2 SSDs	2
Drive tray keys	2
Quick Installation Guide (QIG)	1

Components

Front panel



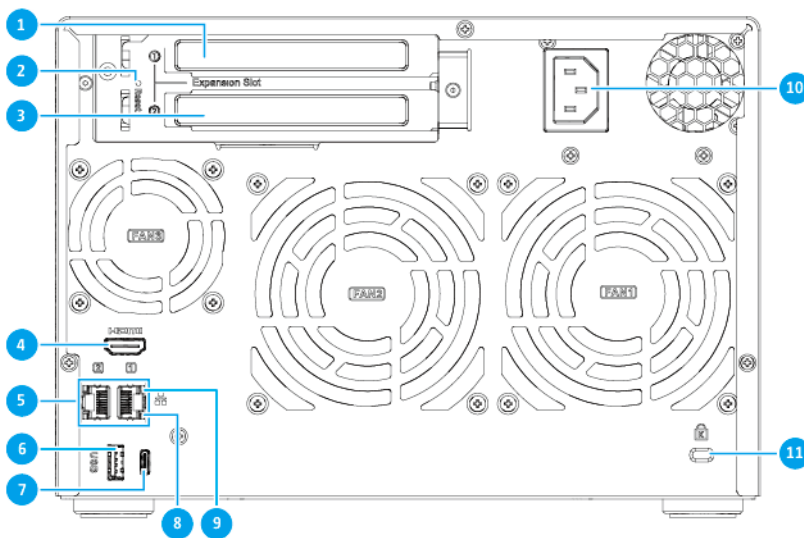
QVP-63B



QVP-85B

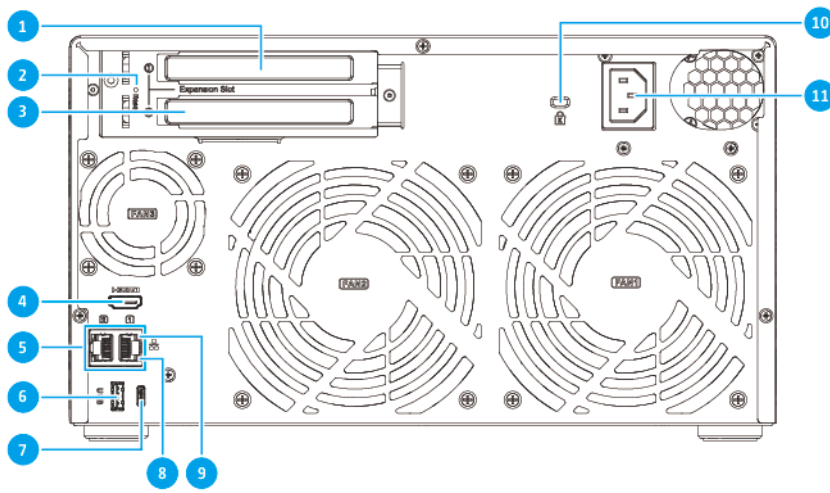
No.	Component	No.	Component
1	Status LED	7	LCD select button
2	LAN LED	8	Drive LEDs
3	USB LED	9	Power button
4	M.2 SSD LEDs	10	USB One Touch Copy button
5	LCD panel	11	USB 3.2 Gen 2 Type-A port
6	LCD enter button	-	-

Rear panel



QVP-63B

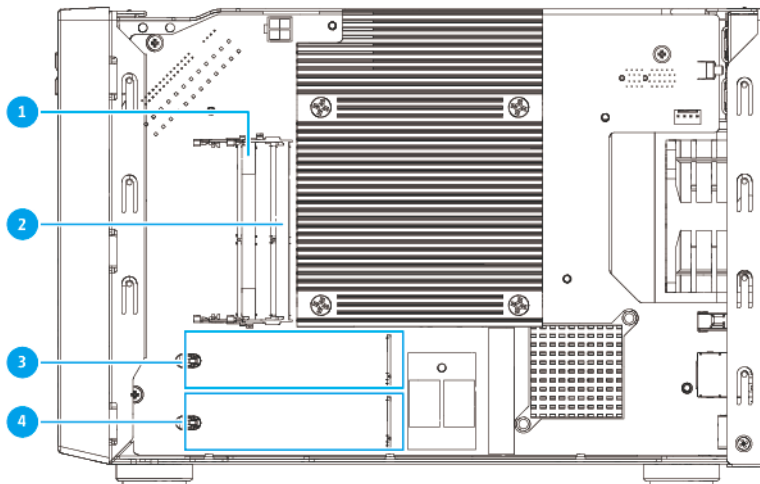
No.	Component	No.	Component
1	PCIe full-height cover	7	USB 3.2 Gen 2 Type-C port
2	Reset button	8	2.5 Gigabit Ethernet speed LED
3	PCIe full-height cover	9	2.5 Gigabit Ethernet activity LED
4	HDMI port	10	Power input
5	2.5 Gigabit Ethernet ports (RJ45)	11	Kensington security slot
6	USB 3.2 Gen 2 Type-A port	-	-



QVP-85B

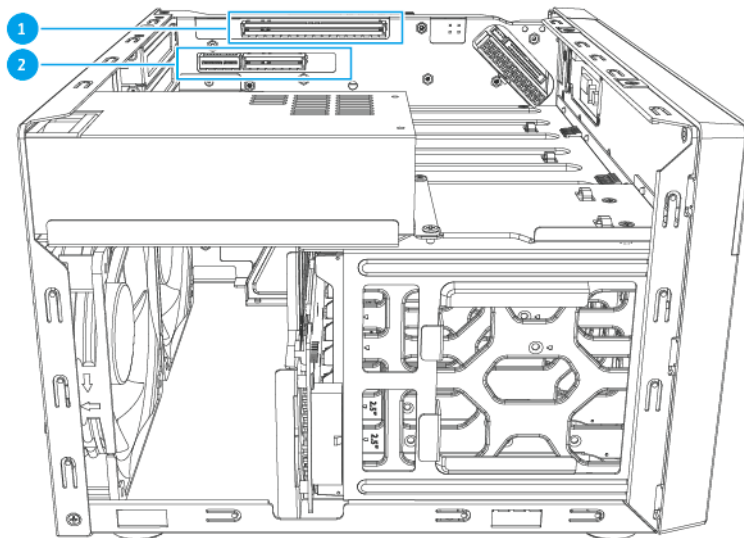
No.	Component	No.	Component
1	PCIe full-height cover	7	USB 3.2 Gen 2 Type-C port
2	Reset button	8	2.5 Gigabit Ethernet speed LED
3	PCIe full-height cover	9	2.5 Gigabit Ethernet activity LED
4	HDMI port	10	Kensington security slot
5	2.5 Gigabit Ethernet ports (RJ45)	11	Power input
6	USB 3.2 Gen 2 Type-A port	-	-

Right panel



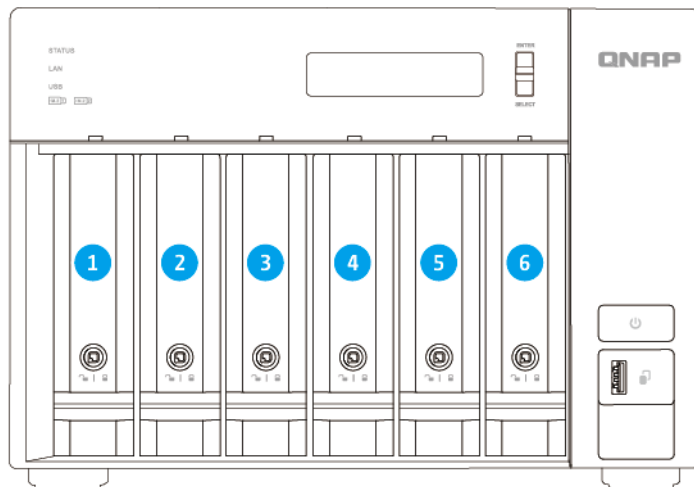
No.	Component	No.	Component
1	Memory slot 2	3	M.2 SSD slot 1
2	Memory slot 1	4	M.2 SSD slot 2

Left panel



No.	Component	No.	Component
1	PCIe slot 1 (PCIe 4.0 x16)	2	PCIe slot 2 (PCIe 4.0 x4)

Drive numbering



QVP-63B



QVP-85B

Safety information

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

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.
- To avoid serious injuries, a trained service technician must disconnect all PSU cords from the device before installing or replacing system components.

System Battery

- This product contains a button battery.
- If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.
- Keep batteries out of reach of children.
- If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.
- 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.

- The device is not suitable for use in locations where children are likely to be present.

Installation requirements

Category	Item
Environment	<ul style="list-style-type: none"> • 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

Category	Item
Hardware and peripherals	<ul style="list-style-type: none"> Storage drives For the list of compatible drive models, go to https://www.qnap.com/compatibility. Network cable
Tools	<ul style="list-style-type: none"> Phillips #1 or #2 screwdriver Anti-static wrist strap

Setting up the surveillance server



Important

Read all safety requirements and information carefully before setting up the NAS or installing NAS components.

- Place your device in an environment that meets the requirements.
For details, see [Installation requirements](#).
- Install drives.
For details, see the following topics:
 - [Installing 3.5-inch hard drives on 3.5-inch trays](#)
 - [Installing 2.5-inch solid-state drives on 3.5-inch trays](#)
 - [Installing M.2 solid-state drives](#)
- Optional: Replace memory modules.
For details, see [Replacing memory modules](#).
- Connect the power cord and all applicable cables.
- Connect the device to a computer or network.
For details, see [Connecting the device to a computer or network](#).
- Power on the device.
- Install QVP.
For details, see [QVP installation](#).
- Log on to QVP.

2. Installation and Configuration

This chapter provides specific hardware and firmware installation and configuration steps.

Hardware installation

This section provides information on installing drives, memory modules, and connecting to a computer or network.

Drive installation

The QVP-xxB series is compatible with 3.5-inch hard drives, 2.5-inch solid-state drives, and M.2 solid-state drives.

Installing 3.5-inch hard drives on 3.5-inch trays



Warning

- Installing a drive deletes all data on the drive.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.

-



Moving fan blades: Keep your hands and other body parts away from moving fan blades.

-



Other moving components: Keep your hands and other body parts away from other moving components.

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



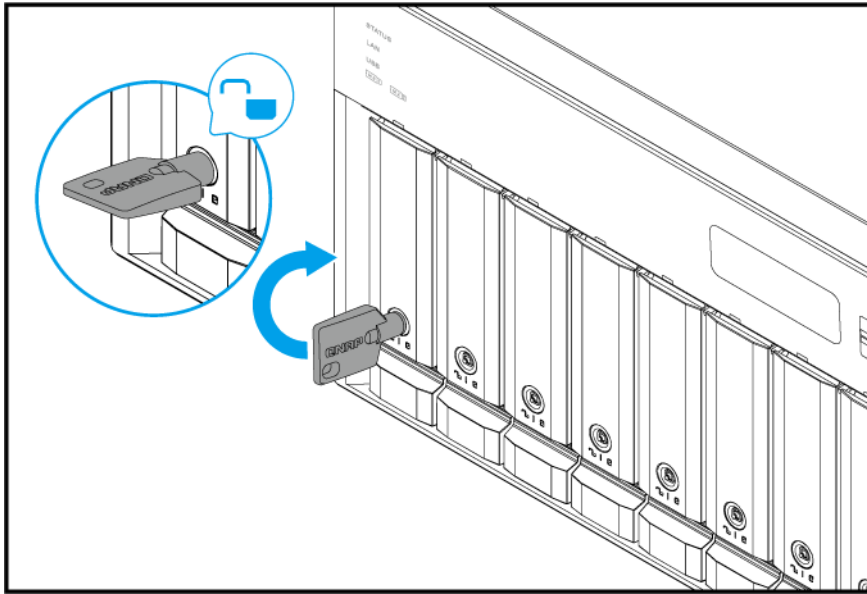
Note

The preinstalled drive trays come unlocked.

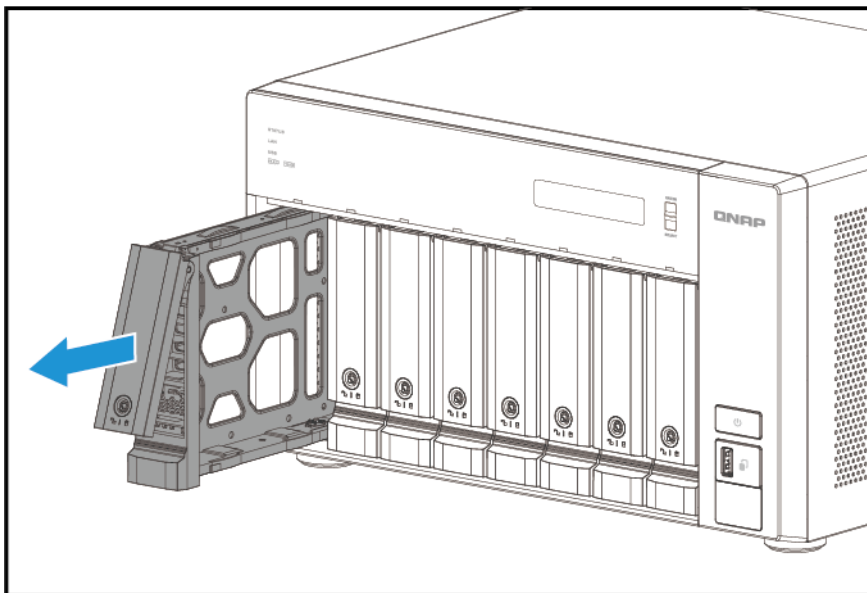


Important

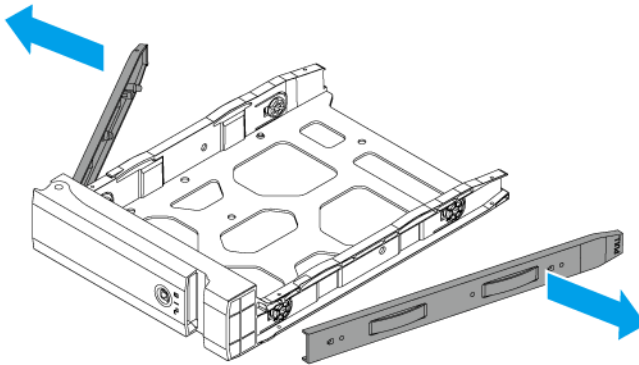
Ensure the drive tray keys are stored in a safe place.



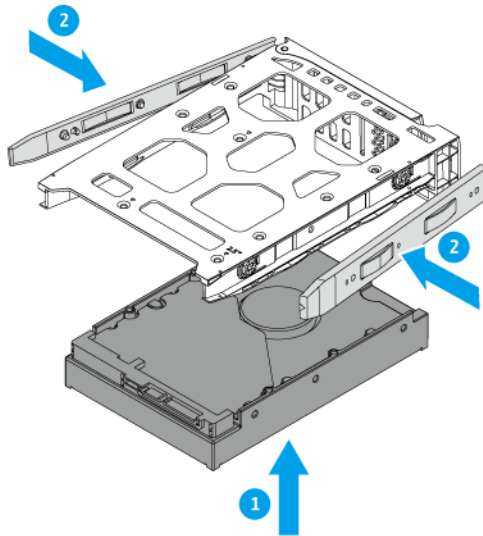
- b. Pull the tray handle outward.
- c. Pull the tray out.



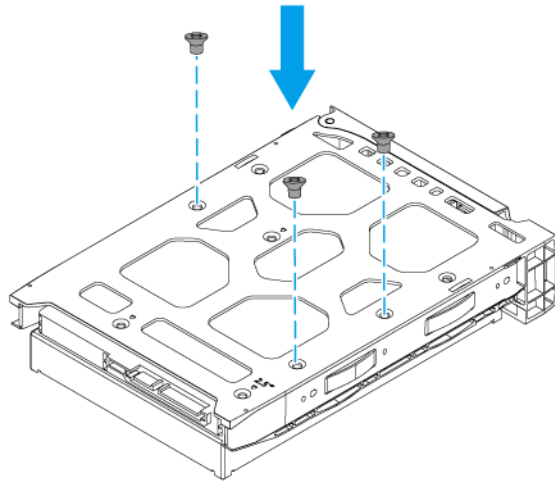
- 3. Install a drive on the tray.
 - a. Remove the fastening panels from the sides of the drive tray.



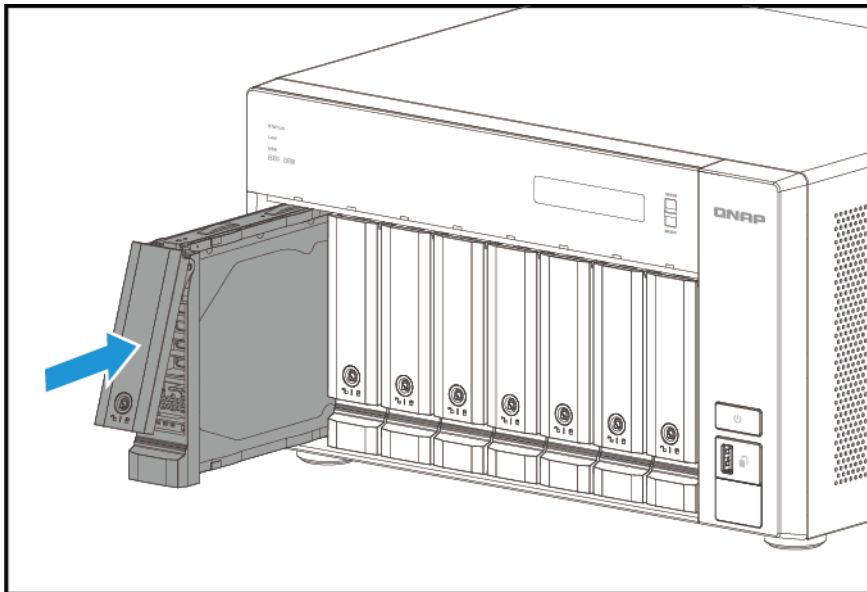
- b.** Place the drive on the tray so that the holes on the sides of the drive are aligned with the holes on the sides of the tray.
- c.** Attach the fastening panels to lock the drive to the tray.



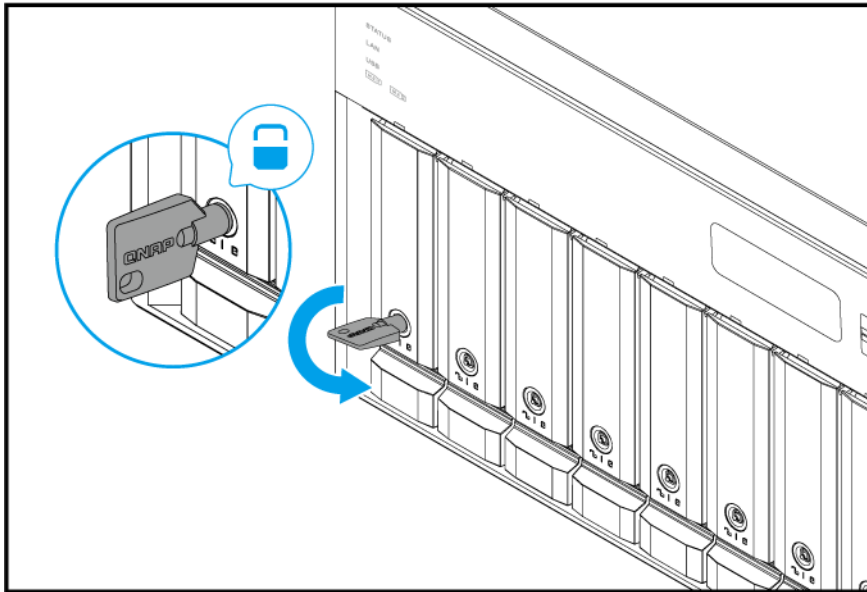
- d.** Optional: Attach the screws to further secure the drive.



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



- c. Lock the tray.



5. Power on the device.

Installing 2.5-inch solid-state drives on 3.5-inch trays



Warning

- Installing a drive deletes all data on the drive.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.

•



Moving fan blades: Keep your hands and other body parts away from moving fan blades.

•



Other moving components: Keep your hands and other body parts away from other moving components.

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



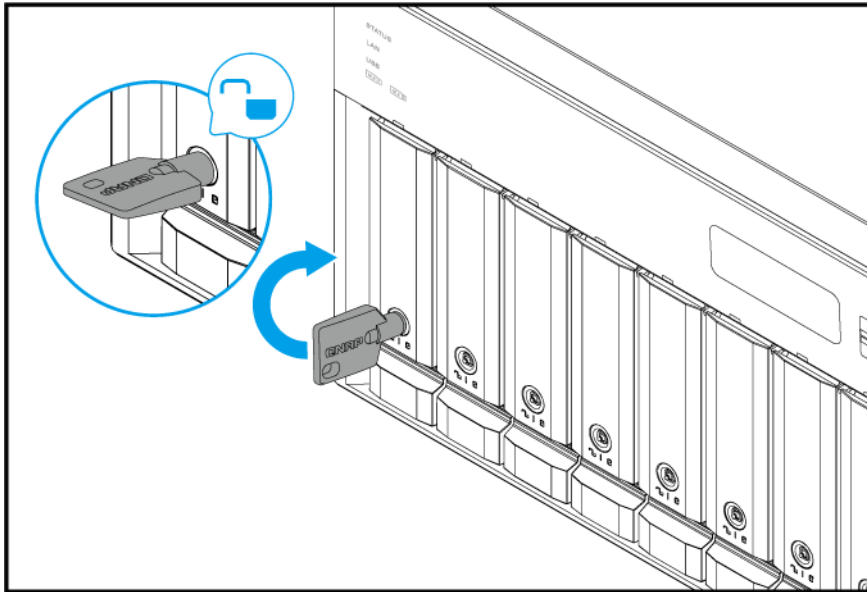
Note

The preinstalled drive trays come unlocked.

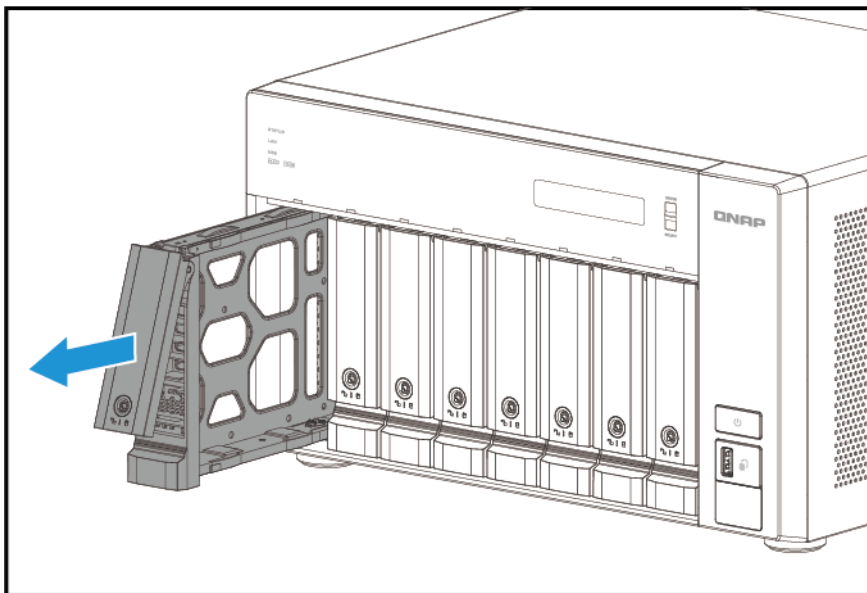


Important

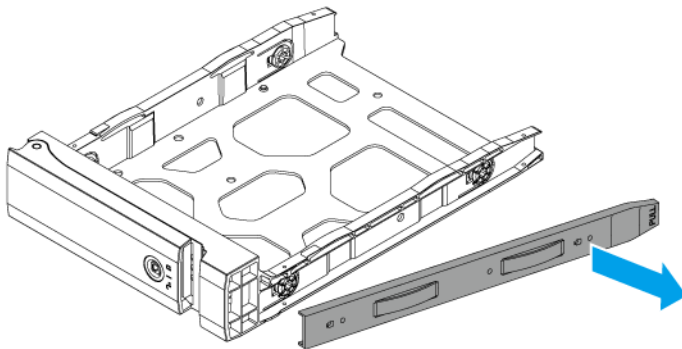
Ensure the drive tray keys are stored in a safe place.



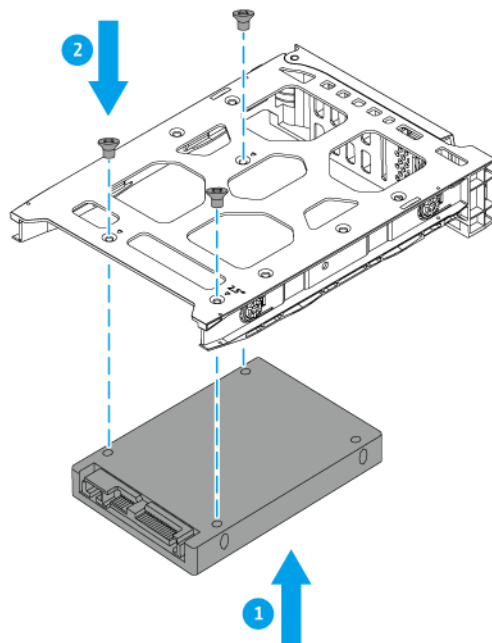
- b.** Pull the tray handle outward.
- c.** Pull the tray out.



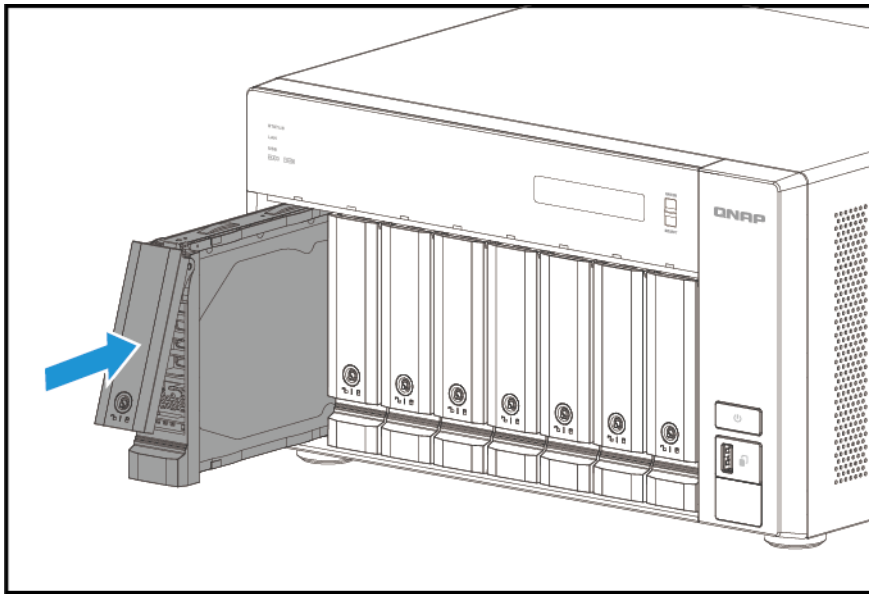
- 3.** Install a drive on the tray.
 - a.** Remove the right fastening panel from the drive tray.



- 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.

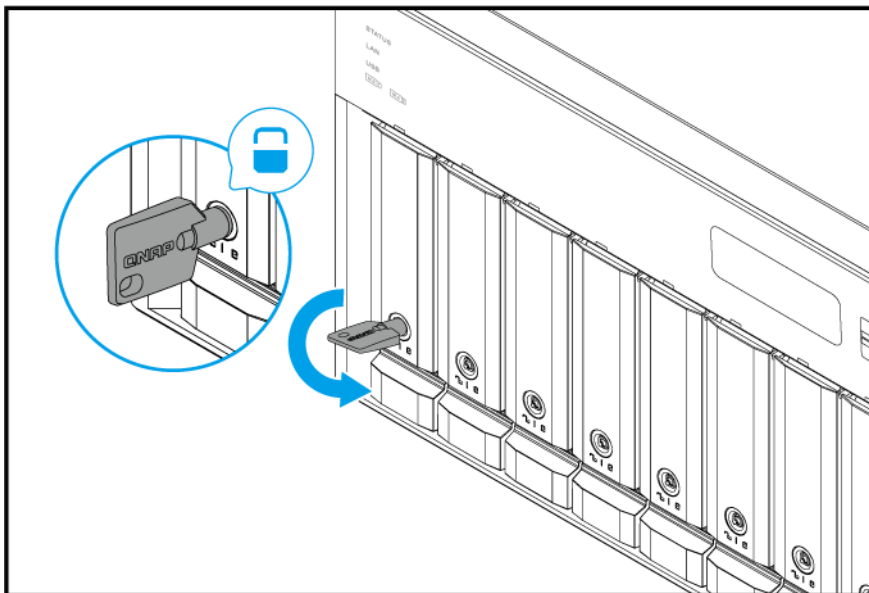


- 4.** Load the tray into the bay.
 - a.** Insert the tray into the bay.



b. Push the handle.

c. Lock the tray.



5. Power on the device.

Installing M.2 solid-state drives

The QVP-xxB series has two M.2 SSD slots on the [Right panel](#). For a list of compatible M.2 SSDs, go to <http://www.qnap.com/compatibility>.



Warning

- Installing a drive deletes all data on the drive.

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



Moving fan blades: Keep your hands and other body parts away from moving fan blades.



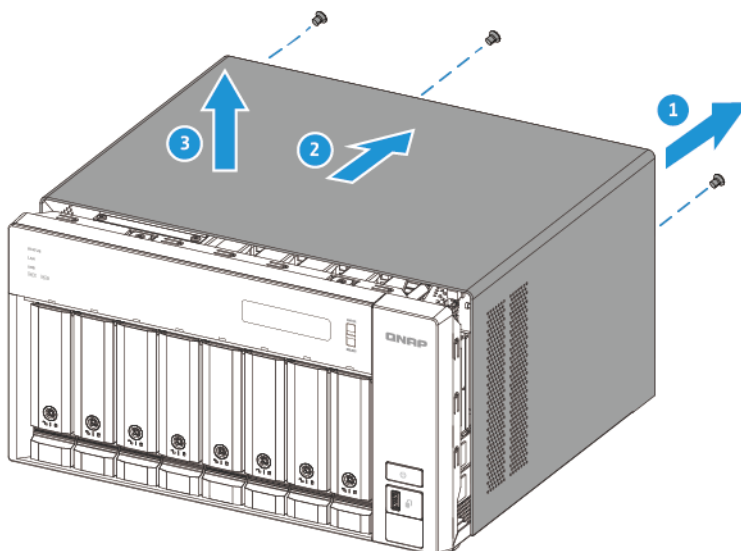
Other moving components: Keep your hands and other body parts away from other moving components.



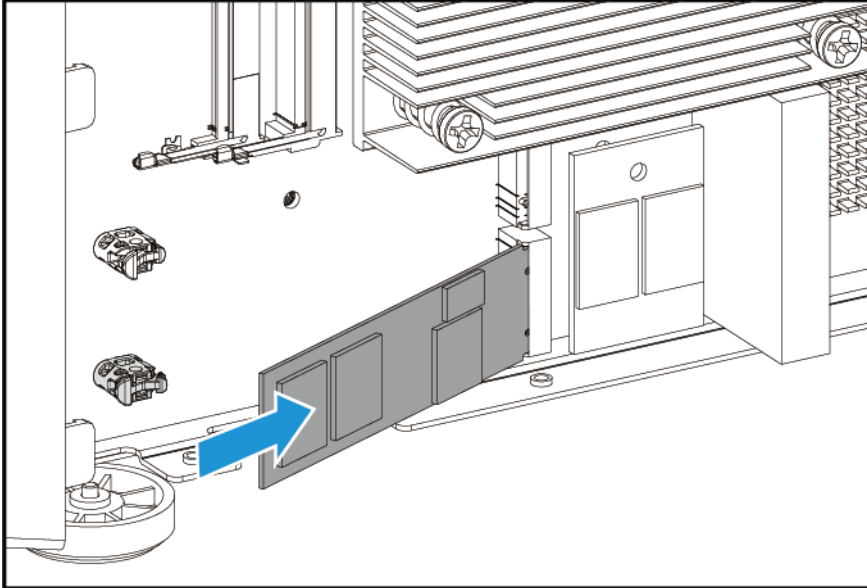
Note

- QNAP recommends installing heatsinks on the M.2 SSD controllers to enhance cooling efficiency and to ensure consistent performance.
- Before installing non-QNAP heatsinks, ensure that they are of the appropriate size and shape.

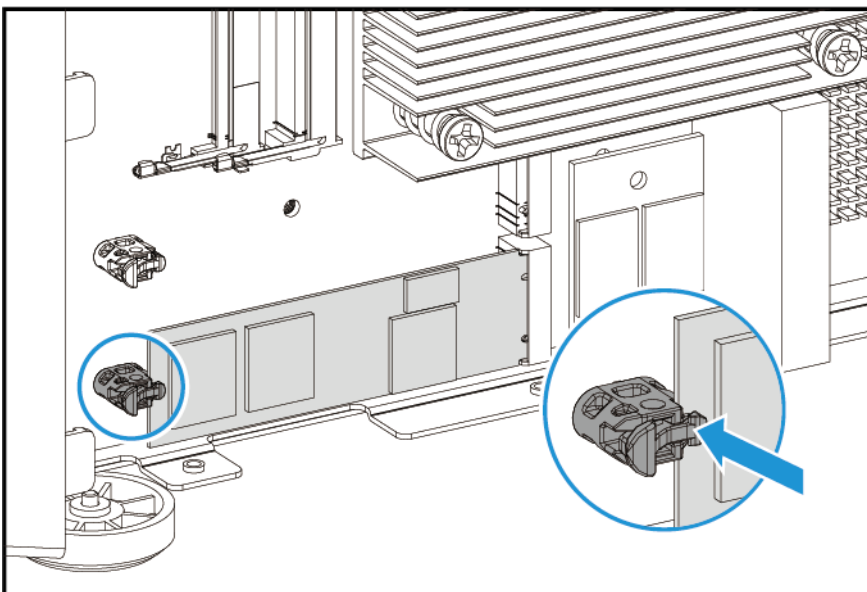
1. Power off the device.
2. Disconnect the power cord from the electrical outlet.
3. Disconnect all cables and external attachments.
4. Remove the case cover.
 - a. Remove the screws.
 - b. Slide the cover back.
 - c. Lift the cover off the device.



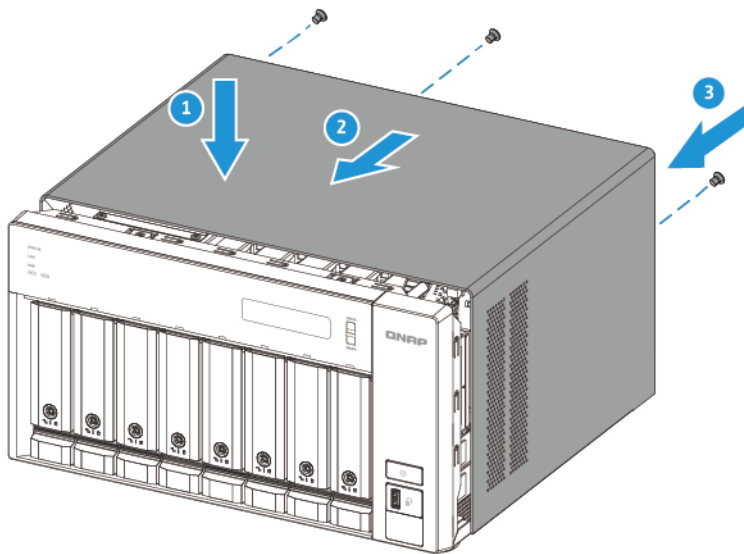
5. Install the M.2 SSD.
 - a. Unlock the M.2 spacer by pushing down on its edge.
 - b. Insert the M.2 SSD into the slot.



- c. Carefully press the M.2 SSD down until the spacer locks the drive into place.



- d. Verify that the M.2 spacer is firmly locking the M.2 SSD into place.
6. Attach the case cover.
 - a. Place the cover on the device.
 - b. Slide the cover forward.
 - c. Attach the screws.



7. Connect all cables and external attachments.
8. Connect the power cord to the electrical outlet.
9. Power on the device.

Replacing memory modules

The QVP-xxB series has two memory slots. You can increase the memory capacity of the NAS by upgrading memory modules.

Use only QNAP memory modules to maintain system performance and stability. You can purchase QNAP memory modules from authorized resellers.

For details on slot numbering, see [Right panel](#).



Warning

-



Moving fan blades: Keep your hands and other body parts away from moving fan blades.

-

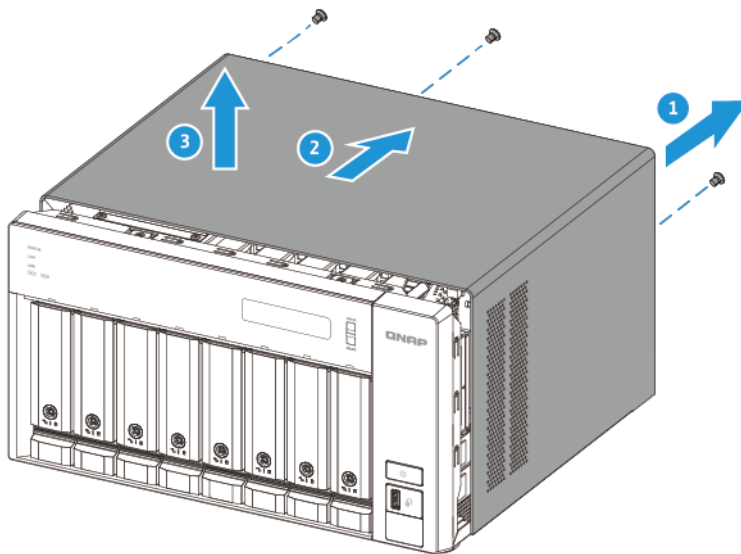


Other moving components: Keep your hands and other body parts away from other moving components.

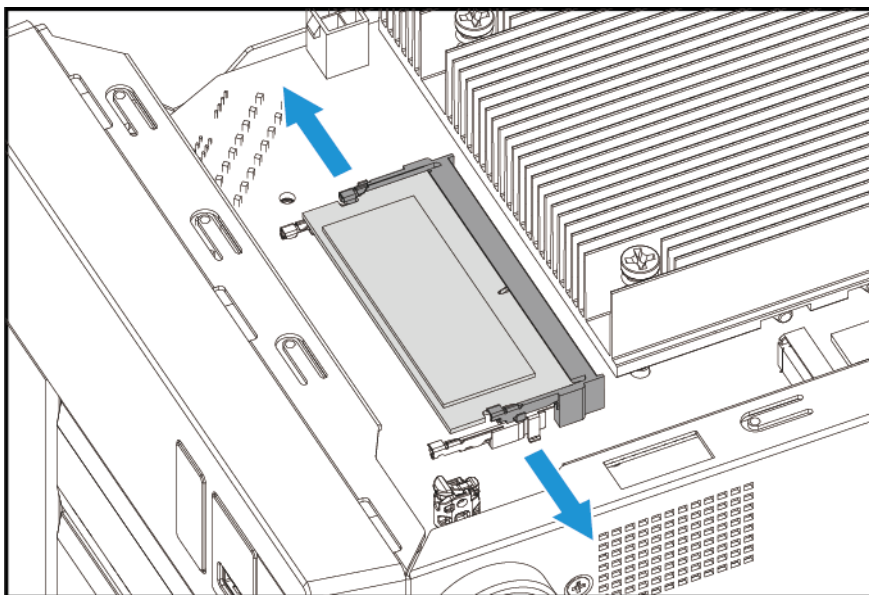
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.

1. Power off the device.

2. Disconnect the power cord from the electrical outlet.
3. Disconnect all cables and external attachments.
4. Remove the case cover.
 - a. Remove the screws.
 - b. Slide the cover back.
 - c. Lift the cover off the device.



5. Remove an existing module.
 - a. Push the retention clips outward simultaneously to release the module.

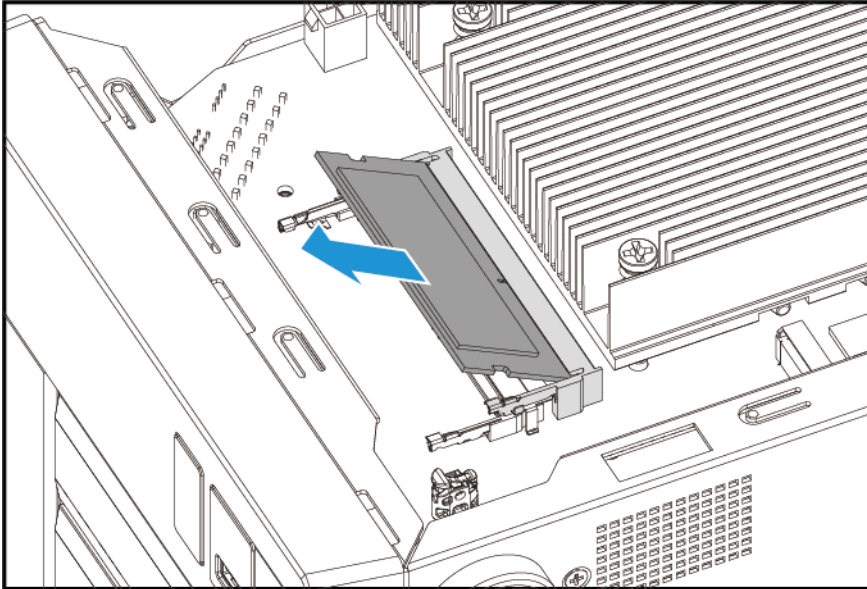


- b. Verify that the module has tilted upward and is completely released from the slot.

**Warning**

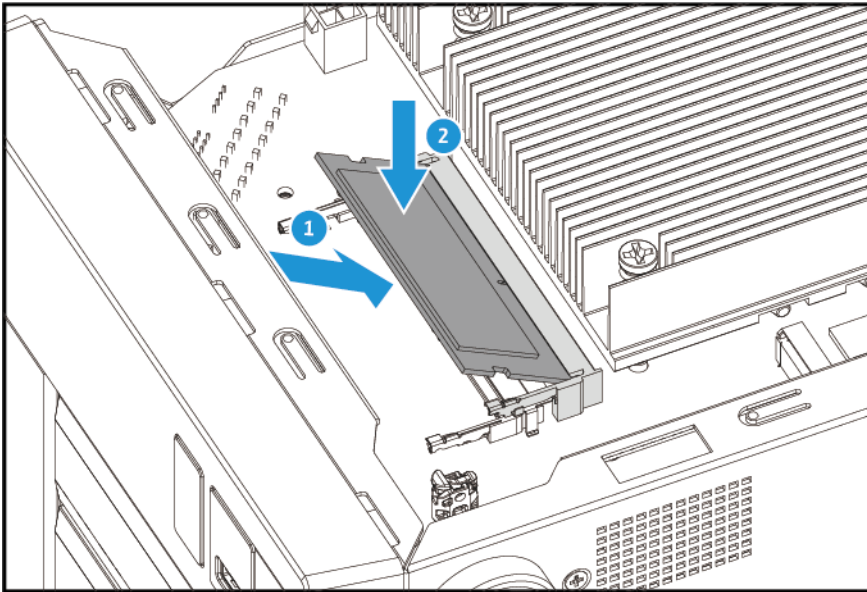
Attempting to remove a module that is not completely released may damage the module and the system board.

- c. Hold the module by the edges.
- d. Carefully slide the module out of the slot.

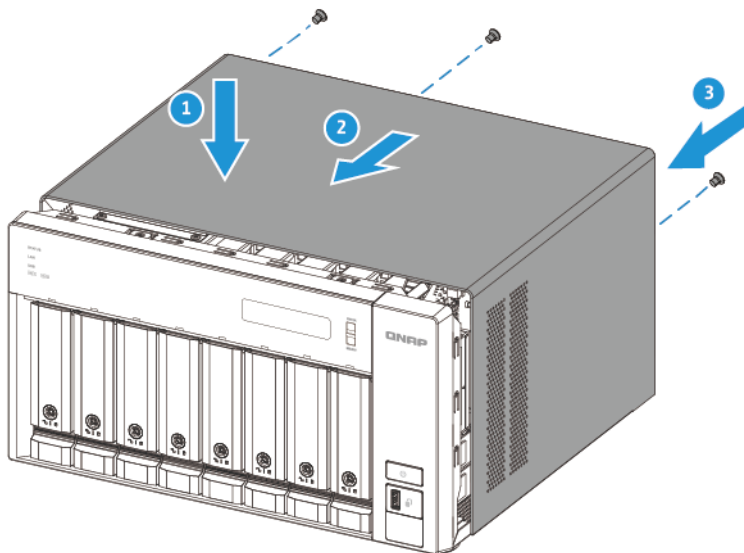
**Warning**

- Do not touch the internal components, particularly the metal connectors.
- Do not bend the module.

6. Install a new module.
 - a. Align the notch with the ridge in the slot.
 - b. Insert the module into the slot.
 - c. Verify that the metal connectors are completely inserted into the slot.
 - d. Carefully press down on the module until the retention clips lock the module into place.



7. Attach the case cover.
 - a. Place the cover on the device.
 - b. Slide the cover forward.
 - c. Attach the screws.



8. Connect all cables and external attachments.
9. Power on the device.
10. Verify that the module is recognized by the device.
 - a. Log on to QVP as administrator.

- b. Go to **Control Panel > System > System Status > Hardware Information** .
- c. Check the value for **Total memory**.

Connecting the device to a computer or network

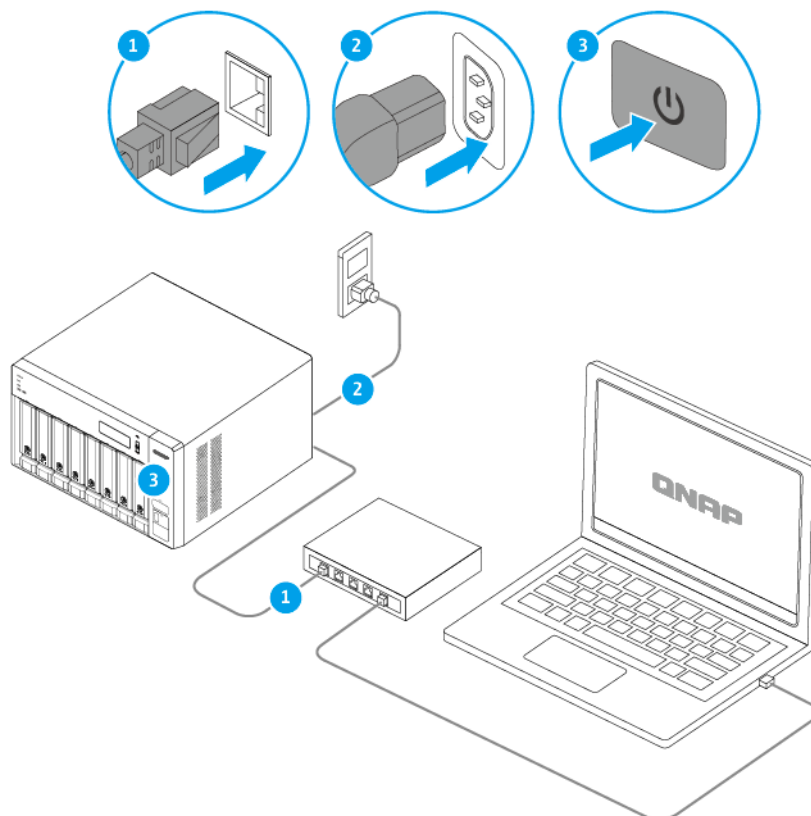
The QVP-xxB can be connected to a computer or local area network. For details, see the following topics:

- [Connecting the device to a computer](#)
- [Connecting the device to a network](#)

Connecting the device to a computer

Connecting the QVP-xxB to a QNAP NAS allows you to expand storage capacity and back up data to the NAS through Ethernet cable connections on the device. However, you must connect the QVP-xxB to a computer to configure device settings.

1. Power on the device.
2. Connect the device to a computer.
 - a. Connect an Ethernet cable to the device
 - b. Connect the Ethernet cable to a Gigabit Ethernet port on the computer.



3. Verify that the device is recognized by the computer.

- a. Open Qfinder Pro on the host computer.

**Note**

To download Qfinder Pro, go to <https://www.qnap.com/utilities>.

- b. Locate the device on the list.

Connecting the device to a network

You can connect the QVP-xxB to a local area network through the host port.

1. Power on the device.
2. Connect the device to your local area network:

Type	Method
Host port	Select the device IP address obtained from Adapter 1 on the LCD panel.

3. Run Qfinder Pro on a computer that is connected to the same local area network.

**Note**

To download Qfinder Pro, go to <https://www.qnap.com/utilities>.

4. Enter the IP address in the Qfinder Pro search bar.
5. Locate the device in the list and then double-click the name or IP address.
The QVP login screen appears.
6. Enter your QVP login information.
7. Click **Log In**.

QVP installation

The QVP-xxB uses the QNAP QVP operating system. You can install QVP using any of the following methods.

Method	Description	Requirements
Qfinder Pro installation (Recommended)	If the device is connected to your local area network, you can do the following: <ul style="list-style-type: none"> • Locate the device using Qfinder Pro. • Complete the steps in the Smart Installation Guide wizard. 	<ul style="list-style-type: none"> • Computer • Network cable • Qfinder Pro installer
Local installation	If the device supports HDMI output, you can do the following: <ul style="list-style-type: none"> • Connect the device to the required hardware. • Complete the steps in the Smart Installation Guide wizard. 	<ul style="list-style-type: none"> • Monitor • HDMI cable • USB keyboard or Remote control (not available on all models)

Installing QVP using Qfinder Pro



Warning

Installing QVP deletes all data on the drives. Back up your data before proceeding.

1. Power off the device.
2. Connect the device to your camera's local area network.



Note

For details, see "Adding Cameras" in the [QVP User Manual](#).

3. Run Qfinder Pro on a computer that is connected to the same local area network.



Note

To download Qfinder Pro, go to <https://www.qnap.com/utilities>.

4. Locate the device on the list and then double-click the name or IP address. The **Smart Installation Guide** opens in the default web browser.
5. Click **Start Smart Installation Guide**.
6. Specify the following information.
 - **NAS name:** Specify a name with 1 to 14 characters. The NAS name can contain the following characters:
 - Letters (A to Z, a to z)
 - Numbers (0 to 9)
 - Hyphens (-)



Note

The NAS name cannot end with a hyphen.

- **Password:** Specify an administrator password with 1 to 64 characters. The password supports all ASCII characters.

7. Click **Next**.
8. Specify the time zone, date, and time.



Tip

QNAP recommends connecting to an NTP server to ensure that the device follows the Coordinated Universal Time (UTC) standard.

9. Click **Next**.
10. Select **Obtain an IP address automatically (DHCP)**.
11. Click **Next**.
12. Select the types of devices that you will use to access shared folders on the device.
13. Click **Next**.
14. Configure the disk settings.

- a. Select disks for creating a volume.
 - b. Select a RAID type.
15. Click **Next**.
 16. Review the settings.
 17. Click **Apply**.
A confirmation message appears.

**Warning**

Clicking **Confirm** deletes all data on the drive before starting the installation.

18. Click **Confirm**.

QVP is installed.

**Note**

The QVP installation may take up to 20 minutes to complete.

Installing QVP using an HDMI connection

**Warning**

Installing QVP deletes all data on the drives. Back up your data before proceeding.

1. Connect an HDMI display to the device.
2. Connect a USB keyboard to the device.
3. Connect the device to the network switch or router that your cameras are connected to.

**Note**

For more details, see "Adding Cameras" in the [QVP User Manual](#).

4. Power on the device.
The **Welcome** screen of the **Smart Installation Guide** appears.
5. Select **Start Smart Installation Guide**.
The disk configuration screen appears.
6. Select disks for creating a storage pool.
7. Click **Next**.
8. Select the RAID type.
9. Click **Next**.
10. Review the settings.
11. Click **Next**.
The **Confirm** screen appears.

**Warning**

Clicking **Next** deletes all data on the drive before installation starts.

12. Click **Next**.

QVP is installed.


**Note**

The QVP installation may take up to 20 minutes to complete.


3. Basic Operations


This chapter describes basic device operations.

Power button

Operation	User Action	Result
Power on	Press the button once.	The device powers on.
Power off	Press and hold the button for 1.5 seconds.	The device powers off.
Force power off	Press and hold the button for 5 seconds.	The device powers off.  Important Use this method only when the device is unresponsive.

Reset button

Operation	User Action	Result
Basic system reset	Press and hold the button for 3 seconds.	<p>The following QVP settings are reset to default:</p> <ul style="list-style-type: none"> • System administrator password: The default password is the first MAC address in uppercase letters without special characters. For example, if the first MAC address is 00-08-9B-F6-15-75, then the admin password would be 00089BF61575. <p> Tip You can find the first MAC address with Qfinder Pro or attached to a label on the device listed as MAC1.</p> <ul style="list-style-type: none"> • TCP/IP configuration: <ul style="list-style-type: none"> • Obtain IP address settings automatically via DHCP • Disable jumbo frames • If port trunking is enabled (multi-LAN models only), the port trunking mode is reset to "Active Backup (Failover)". • System port: 8080 (system service port) • Security level: Low (Allow all connections) • LCD panel password: (blank) • VLAN: Disabled

Operation	User Action	Result
Advanced system reset	Press and hold the button for 10 seconds.	The default QVP settings are restored.  Tip To retrieve old data after an advanced system reset, recreate the previous folder structure on the device.

USB One Touch Copy button

The USB One Touch Copy button allows you to copy data backups from a USB device to the QNAP device or from the QNAP device to a USB device.

This feature supports incremental backups. The QNAP device only copies files that were modified or added after the last backup.

To configure the behavior of the button when an external device is connected to the button's USB port, install and use Hybrid Backup Sync on your QNAP operating system. For details, see the [Hybrid Backup Sync](#) documentation.

LCD panel

The LCD panel allows you to perform the following operations:

- Restart and power off the device
- Configure or change the LCD panel password
- View and configure network settings
- View information on the system, physical disks, and volumes

Viewing TCP/IP settings

You can view the following settings for each network adapter on the device.

- IP address
 - Subnet mask
 - Default gateway
 - Primary DNS
 - Secondary DNS
1. Press **Enter** or **Select**.
The panel displays the device name and QVP version.
 2. Press and hold **Enter** for two seconds.
The panel displays `Main Menu 1. TCP/IP`.
 3. Press and hold **Enter**.
The panel displays the IP address of the first network adapter.
 4. Press and hold **Select** to view the next TCP/IP screen.

Repeat this step as necessary.

Configuring TCP/IP settings

You can configure the following settings for each network adapter on the device:

- IP address
- Subnet mask
- Default gateway
- Primary DNS
- Secondary DNS

1. Press **Enter** or **Select**.
The panel displays the device name and QVP version.
2. Press and hold **Enter** for two seconds.
The panel displays `Main Menu 1. TCP/IP`.
3. Press and hold **Enter**.
The panel displays the IP address of the first network adapter.
4. Press **Select** repeatedly until the panel displays `Enter Network Settings`.
5. Press and hold **Enter**.
The panel displays the configurable network settings.
6. Press **Select** and then **Enter** to configure the settings.

Button	Usage
Enter	<ul style="list-style-type: none"> • Display a configuration screen. • Move to the next item on a configuration screen.
Select	<ul style="list-style-type: none"> • Move to the next item on a menu. • Modify a value on a configuration screen.

7. After configuring the settings, press **Select** repeatedly until the panel displays `Network Restart`.



Important

If you do not see `Network Restart`, the system will not save the configured settings.

The system saves the settings.

Viewing drive information

The LCD panel can display the temperature and capacity of each drive installed in the device.

1. Press **Enter** or **Select**.
The panel displays the device name and the QVP version.
2. Press and hold **Enter** for two seconds.
The panel displays `Main Menu 1. TCP/IP`.

3. Press **Enter** repeatedly until the panel displays `Main Menu 2. Physical disk`.
4. Press and hold **Enter**.
The panel displays the temperature and capacity of the drive in bay 1.
5. Press and hold **Select**.
Repeat this step as necessary.
The panel displays the temperature and capacity of the next drive.

Viewing system information

The LCD panel can display the CPU temperature, system temperature, and system fan speed.

1. Press **Enter** or **Select**.
The panel displays the device name and QVP version.
2. Press and hold **Enter** for two seconds.
The panel displays `Main Menu 1. TCP/IP`.
3. Press **Enter** repeatedly until the panel displays `Main Menu 4. System`.
4. Press and hold **Enter**.
The panel displays the CPU and system temperature.
5. Press and hold **Select**.
The panel displays the system fan speed.

Powering off the device

1. Press **Enter** or **Select**.
The panel displays the device name and QVP version.
2. Press and hold **Enter** for two seconds.
The panel displays `Main Menu 1. TCP/IP`.
3. Press **Enter** repeatedly until the panel displays `Main Menu 5. Shut down`.
4. Press and hold **Enter**.
The device powers off.

Restarting the device

1. Press **Enter** or **Select**.
The panel displays the device name and QVP version.
2. Press and hold **Enter** for two seconds.
The panel displays `Main Menu 1. TCP/IP`.
3. Press **Enter** repeatedly until the panel displays `Main Menu 6. Reboot`.
4. Press and hold **Enter**.
The device restarts.

Changing the LCD password

Specifying a password for the LCD panel prevents unauthorized access.

1. Press **Enter** or **Select**.
The panel displays the device name and QVP version.
2. Press and hold **Enter** for two seconds.
The panel displays `Main Menu 1. TCP/IP`.
3. Press **Enter** repeatedly until the panel displays `Main Menu 7. Password`.
4. Press and hold **Enter**.
The `Change Password` screen appears.
5. Select **Yes** by pressing and holding **Enter**.
The `New Password` screen appears.
6. Press **Select** and **Enter** to specify a new password.
 - Specify a password.
 - Length: 1-8 characters
 - Valid characters: 0-9
 - To delete a password, leave the password field blank.

Button	Usage
Enter	Move to the next item in the <code>New Password</code> screen.
Select	Change a character in the <code>New Password</code> and <code>Verify Password</code> screens.

7. Press **Enter**.
The device saves the password.

LCD error messages


System Message	Description
Sys. Fan Failed	System fan has failed.
Sys. Overheat	System has overheated.
HDD Overheat	Drive has overheated.
CPU Overheat	CPU has overheated.
Network Lost	LAN 1 and LAN 2 disconnected in failover or load-balancing mode.
LAN [number] Lost	LAN [number] has disconnected.
HDD Failure	Drive has failed.
Vol [number] Full	Volume [number] is full.
HDD Ejected	Drive has ejected.
Vol [number] Degraded	Volume [number] is in degrade mode.
Vol [number] Unmounted	Volume [number] has unmounted.
Vol [number] Inactive	Volume [number] is inactive.

LEDs

LEDs indicate the system status and related information when the device is powered on. The following LED information applies only when the drive is correctly installed and when the device is connected to the network or to a host.

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

System Status LED

Status	Description
Flashes green and red alternately every 0.5 seconds	<ul style="list-style-type: none"> A drive is being formatted. The device is being initialized. The operating system is being updated. RAID rebuilding is in progress. Online RAID Capacity Expansion is in progress. Online RAID Level Migration is in progress. The firmware is being updated. <p> Important When updating the firmware, do not remove the power cord or USB cable, and do not force-exit the application.</p>
Red	<ul style="list-style-type: none"> A drive is invalid. A disk volume has reached its full capacity. A disk volume is about to reach its full capacity. A system fan is not functioning. An error occurred when accessing (read/write) the data. A bad sector is detected on the hard drive. The device is in degraded read-only mode (two member drives failed in RAID 5 or RAID 6 but the data can still be read). A hardware self-test error occurred.
Flashes red every 0.5 seconds	The device is in degraded mode (one member drive failed in RAID 1, RAID 5, or RAID 6).
Green	The device is ready.
Flashes green every 0.5 seconds	<ul style="list-style-type: none"> The device is starting up. The device is not configured. A drive is not formatted.
Off	<ul style="list-style-type: none"> All drives are in standby mode. The device is powered off.

Drive LED

Status	Description
Flashes red	Data is being accessed, and during the process a drive read/write error occurred.
Red	A drive read/write error occurred.
Flashes green	Data is being accessed.
Green	The drive is ready.
Off	No drive was detected.

M.2 SSD LED

Status	Description
Flashes red	Data is being accessed, and during the process a drive read/write error occurred.
Red	A drive read/write error occurred.
Flashes green	Data is being accessed.
Green	The drive is ready.
Off	No drive was detected.

Drive Status LED

Status	Description
Green	The drive is ready.
Red	A drive read/write error occurred.
Flashes red 5 times per second	The drive is being located in the operating system.
Off	No drive was detected.

Drive Activity LED

Status	Description
Green	The drive is ready.
Flashes green	The drive is being accessed.
Off	No drive was detected.

LAN LED

Status	Description
Orange	The network connection is operating.
Flashes orange	The device is being accessed from the network.
Off	The device is not connected to a network.

2.5 Gigabit Ethernet Speed LED

Status	Description
Green	The network connection is operating at 2.5 Gbps.

Status	Description
Orange	The network connection is operating at 1 Gbps. The network connection is operating at 1 Gbps or 100 Mbps.
Off	<ul style="list-style-type: none"> The network connection is operating at 100 Mbps. The network connection is operating at 10 Mbps. There is no network connection.

2.5 Gigabit Ethernet Activity LED

Status	Description
Orange	A network connection has been established.
Flashes orange	The device is being accessed from the network.
Off	There is no network connection.

USB LED

Status	Description
Blue	A USB device connected to the front USB port is detected.
Off	No USB expansion unit has been detected.

USB One Touch Copy LED

Status	Description
Flashes blue every 0.5 seconds	<ul style="list-style-type: none"> A USB device connected to the USB One Touch Copy port is detected. A USB device connected to the front USB port is being removed from the device. A USB device connected to the front USB port is being accessed.
Blue	A USB device is detected in the front USB port.
Off	<ul style="list-style-type: none"> No USB device is detected. The NAS has finished copying data to or from the USB device connected to the front USB port.

Audio alert

Duration	Frequency	Description
Short beep (0.5 seconds)	1	<ul style="list-style-type: none"> The device is starting up. When the reset button is pressed for 3 seconds, the device resets configuration. When the reset button is pressed for 10 seconds, the device resets configuration and reboots. The operating system was updated.
	3	Cannot detect installed disk.

Duration	Frequency	Description
Long beep (1.5 seconds)	3 (every 5 minutes)	<ul style="list-style-type: none"> • A power error occurred. • A system fan is not functioning. • A fan module has been removed. • The device data cannot be copied to the external storage device connected to the front USB port.
	2	<ul style="list-style-type: none"> • A disk volume is about to reach its full capacity. • A disk volume has reached its full capacity. • A volume status error occurred. • A drive is plugged in or out.
	1	<ul style="list-style-type: none"> • The device was powered off by force shutdown (hardware shutdown). • The device was powered on successfully and is ready.
Long beep (5 seconds)	1	QVP is restarting.

4. Troubleshooting

This chapter describes basic troubleshooting information.

Hot-swapping failed drives

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

RAID Type	Number of Disks	Situation
RAID 1	2	One member drive fails.
RAID 5	≥ 3	One member drive fails.
RAID 6	≥ 4	One or two member drives fail.
RAID 10	≥ 4 (Must be an even number)	One or two member drives in two different pairs fail.

1. Log on to QVP.
2. Go to **Main Menu > Storage & Snapshots > Storage > Disks/VJBOD** .
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 device.
6. Wait for 20 seconds or until the device 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 device beeps twice.
10. Go to **Main Menu > Storage & Snapshots > Storage > Storage/Snapshots** .
11. Locate the volume that contains the new drive and then verify that the status is `Rebuilding`.

Recovering unintentionally removed healthy drives

The device supports exclusive RAID recovery technology to recover failed RAID disk volumes from unintentional disconnection or removal of drives. Users can recover an inactive RAID 1, RAID 5, RAID 6, or RAID 10 volume from degraded mode.

RAID Type	RAID Recovery Support	Number of Disks	Disk Failure Tolerance
Single	No	1	N/A
JBOD	Yes	≥ 2	N/A
RAID 0	Yes	≥ 2	N/A
RAID 1	Yes	2	1
RAID 5	Yes	≥ 3	1
RAID 6	Yes	≥ 4	2

RAID Type	RAID Recovery Support	Number of Disks	Disk Failure Tolerance
RAID 10	Yes	≥ 4 (Must be an even number)	One disk per subgroup fails.

Forcing Qfinder Pro to locate the device

If Qfinder Pro is unable to locate the device during QVP installation, the drives or data may be faulty.

1. Power off the device.
2. Remove all drives.
3. Power on the device.
4. Locate the device using Qfinder Pro.
5. Reinsert the drives.
6. Continue with the QVP installation.

Support and other resources

QNAP provides the following resources:

Resource	URL
Documentation	https://download.qnap.com
Compatibility List	https://www.qnap.com/compatibility
NAS Migration Compatibility	https://www.qnap.com/go/nas-migration
Expansion Unit Compatibility	https://www.qnap.com/go/compatibility-expansion
Service Portal	https://service.qnap.com
Product Support Status	https://www.qnap.com/go/product/eol.php
Downloads	https://download.qnap.com
Community Forum	https://forum.qnap.com
QNAP Accessories Store	https://shop.qnap.com

5. Glossary

myQNAPcloud

Provides various remote access services such as DDNS and myQNAPcloud Link

myQNAPcloud Link

Enables you to access QNAP devices over the internet without configuring complex port forwarding settings

Qfinder Pro

QNAP utility that lets you locate and access QNAP NAS devices in your local area network

QVP

Operating system dedicated for QNAP surveillance services

6. Notices

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Version 3, 29 June 2007

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7. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a. Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b. Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c. Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d. Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- e. Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

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"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

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The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

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END OF TERMS AND CONDITIONS

CE notice



This device complies with CE Compliance Class B.

UKCA notice



This device complies with the UKCA requirements for products sold in Great Britain.

FCC notice

FCC Class B Notice



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

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

**Note**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 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.

**Important**

Any modifications made to this device that are not approved by QNAP Systems, Inc. may void the authority granted to the user by the FCC to operate this equipment.

VCCI notice

VCCI-B

BSMI notice

SJ/T 11364-2006



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部件名称	有毒有害物质或元素					
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壳体	0	0	0	0	0	0
显示	0	0	0	0	0	0
印刷电路板	0	0	0	0	0	0
金属螺帽	0	0	0	0	0	0
电缆组装	0	0	0	0	0	0
风扇组装	0	0	0	0	0	0
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电池	0	0	0	0	0	0
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