



**QNAP**

# **TS-x31P2**

**TS-231P2**

**TS-431P2**

**User Guide**

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# 1. Preface





## About This Guide

This guide provides information on the QNAP TS-x31P2 NAS 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 a task or configuring settings.
	Warnings provide information, that when ignored, may result to potential loss, injury, or even death.

## 2. Product Overview

This chapter provides basic information about the QNAP TS-x31P2 NAS.

### About the TS-x31P2




The TS-x31P2 is powered by an Annapurna Labs Alpine AL-314 quad-core 1.7 GHz processor and DDR3 RAM. The NAS provides two or four hot-swappable SATA drive bays that support both hard disk drives and solid state drives. The TS-x31P2 also includes three USB 3.0 ports and two gigabit LAN ports.

### Hardware Specifications



#### Important

Modifying the hardware or software of your QNAP product invalidates the warranty. QNAP is not responsible for any damage or data loss caused by unauthorized modifications and installation of unsupported third-party applications.

Component	TS-231P2	TS-431P2
Ordering P/N	<ul style="list-style-type: none"> <li>TS-231P2-1G</li> <li>TS-231P2-4G</li> </ul>	<ul style="list-style-type: none"> <li>TS-431P2-1G</li> <li>TS-431P2-4G</li> </ul>
Processor		
CPU	Annapurna Labs Alpine AL-314 quad-core 1.7 GHz	
Architecture	64-bit	
Encryption engine	AES-256	
Memory		
Pre-installed memory	<ul style="list-style-type: none"> <li>TS-231P2-1G: 1 GB (1 x 1 GB) of DDR3 SODIMM</li> <li>TS-231P2-4G: 4 GB (1 x 4 GB) of DDR3 SODIMM</li> </ul>	<ul style="list-style-type: none"> <li>TS-431P2-1G: 1 GB (1 x 1 GB) of DDR3 SODIMM</li> <li>TS-431P2-4G: 4 GB (1 x 4 GB) of DDR3 SODIMM</li> </ul>
Total memory slots	1	
Maximum memory	8 GB (1 x 8 GB)	
Storage		
Drive bays	2 x SATA 6 Gbps	4 x SATA 6 Gbps
Drive compatibility	<ul style="list-style-type: none"> <li>3.5-inch SATA hard disk drives</li> <li>2.5-inch SATA hard disk drives</li> <li>2.5-inch SATA solid state drives</li> </ul>	
SSD cache acceleration support	Yes  <b>Note</b> SSD cache drives are not hot-swappable.	Yes  <b>Note</b> SSD cache drives are not hot-swappable.
Hot-swappable	Yes  <b>Note</b> SSD cache drives are not hot-swappable.	
Network		

Component	TS-231P2	TS-431P2
Gigabit Ethernet ports	2 x RJ45	
External I/O Ports & Expansion Slots		
USB ports	<ul style="list-style-type: none"> <li>• 3 x USB 3.0</li> <li>• Front: 1 x USB 3.0 Type-A One Touch Copy</li> <li>• Back: 2 x USB 3.0 Type-A</li> </ul>	
Interface		
USB One Touch Copy	Front: USB 3.0 Type-A	
Dimensions		
Dimensions (H x W x D)	169 x 102 x 219 mm 6.65 x 4.02 x 8.62 in	169 x 160 x 219 mm 6.65 x 6.3 x 8.62 in
Net weight	1.28 kg (2.82 lb)	3.0 kg (6.61 lb)
Form factor	Tower	
Other		
Power supply unit	65W AC adapter, 100-240V	90W AC adapter, 100-240V
Fans	1 x 70 mm	1 x 120 mm
Sound level	Sound pressure (LpAm) (bystander position): 19.2 dB (with 2 hard drives installed)	Sound pressure (LpAm) (bystander position): 19.5 dB (with 4 hard drives installed)
Operating temperature	0 to 40°C (32 to 104°F)	
Relative humidity	<ul style="list-style-type: none"> <li>• Non-condensing relative humidity: 5 to 95%</li> <li>• Wet-bulb temperature: 27°C (80.6°F)</li> </ul>	
Security slot	Kensington security slot	

**Note**

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

## Package Contents

### TS-231P2

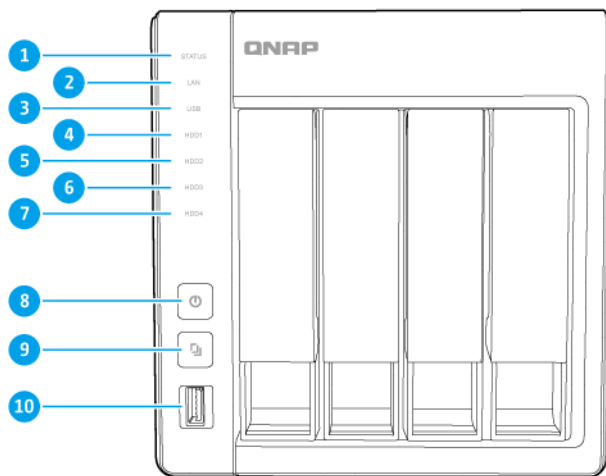
Item	Quantity
TS-231P2 NAS	1
AC power adapter	1
Power cord	1
Ethernet cables	2
Screws for 2.5-inch drives	8
Screws for 3.5-inch drives	10
Quick Installation Guide (QIG)	1

### TS-431P2

Item	Quantity
TS-431P2 NAS	1
AC power adapter	1
Power cord	1
Ethernet cables	2
Screws for 2.5-inch drives	16
Screws for 3.5-inch drives	20
Quick Installation Guide (QIG)	1

## Components

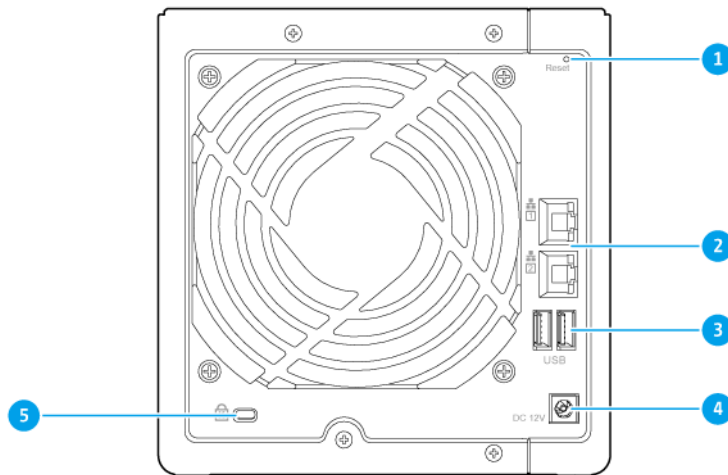
### Front Panel



### TS-431P2

No.	Component	No.	Component
1	Status LED	6	Drive 3 LED
2	LAN LED	7	Drive 4 LED
3	USB LED	8	Power button
4	Drive 1 LED	9	USB One Touch Copy button
5	Drive 2 LED	10	USB 3.0 One Touch Copy port

## Back Panel

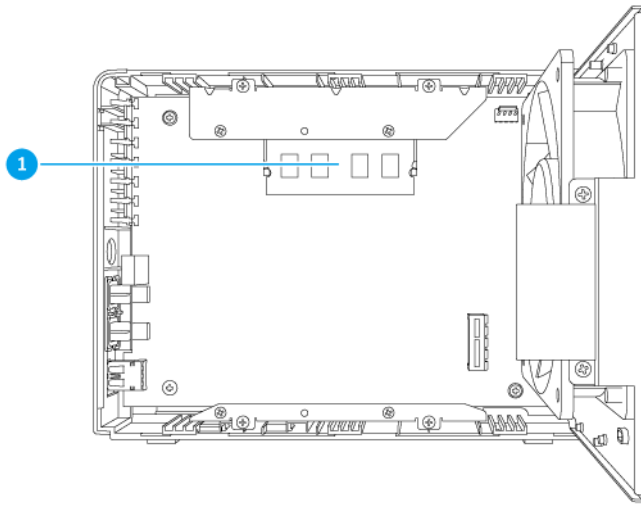


### TS-431P2

No.	Component	No.	Component
1	Reset button	4	Power port
2	Gigabit RJ45 Ethernet ports	5	Kensington security slot
3	USB 3.0 ports	-	-



## System Board



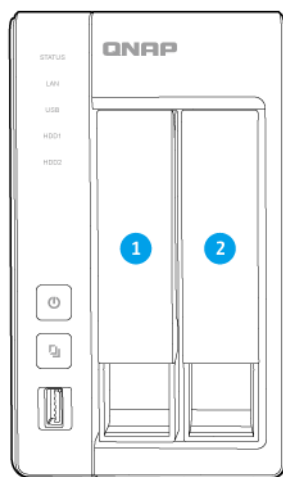
**Note**

The image does not include the chassis.

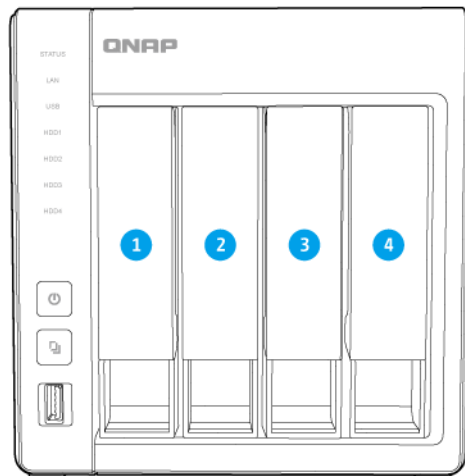
**TS-431P2**

No.	Component	No.	Component
1	Memory slot	-	-

## Drive Numbering



**TS-231P2**



## TS-431P2

### Installation Requirements

Category	Item
Environment	<ul style="list-style-type: none"> <li>• Room temperature: 0 to 40°C (32 to 104°F)</li> <li>• Non-condensing relative humidity: 5 to 95%</li> <li>• Wet-bulb temperature: 27°C (80.6°F)</li> <li>• Flat, anti-static surface with no exposure to direct sunlight, liquids, and chemicals</li> </ul>
Hardware and peripherals	<ul style="list-style-type: none"> <li>• Storage drives For details on compatible drives, go to <a href="https://www.qnap.com/compatibility/">https://www.qnap.com/compatibility/</a>.</li> <li>• Network cable</li> </ul>
Tools	<ul style="list-style-type: none"> <li>• Phillips #1 or #2 screwdriver</li> <li>• Anti-static wrist strap</li> </ul>

### Setting Up the NAS

1. Place your NAS device in an environment that meets the requirements.  
For details, see [Installation Requirements](#).
2. Install the drives.  
For details, see [Installing 3.5-inch Hard Drives](#) and [Installing 2.5-inch Hard Drives or Solid State Drives](#).
3. Connect the power cord and all applicable cables.
4. Power on the NAS.
5. Install QTS.  
For details, see [QTS Installation](#).

**6.** Log on to QTS.

## 3. Installation and Configuration

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

### Hardware Installation

This section provides information on installing drives and memory modules.

#### Installing Drives

The TS-x31P2 is compatible with 3.5-inch and 2.5-inch hard drives, and solid state drives. All drive bays support SSD cache acceleration.

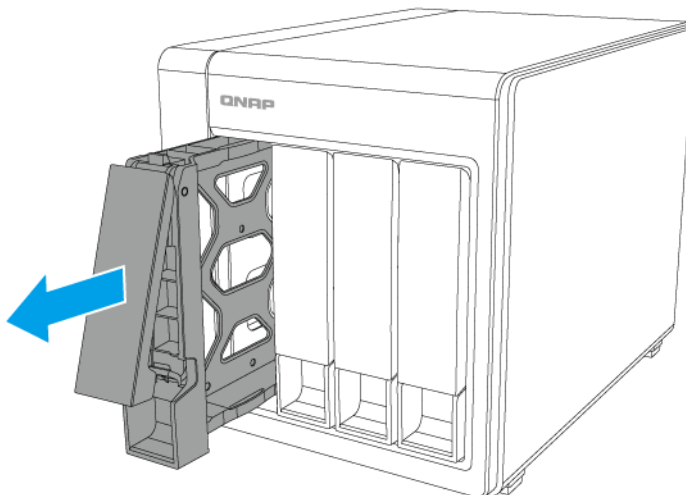
#### Installing 3.5-inch Hard Drives



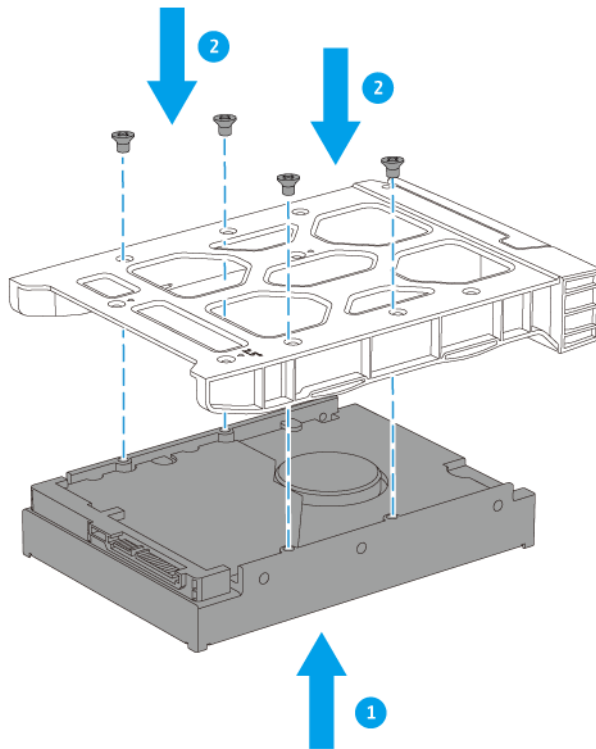
#### Warning

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

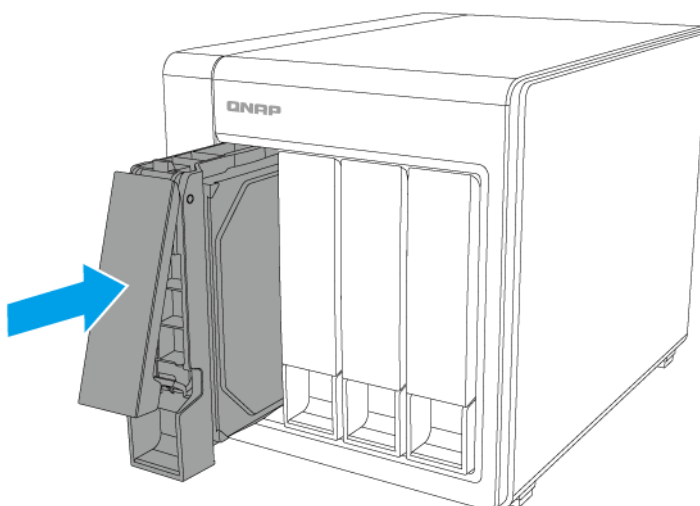
1. Power off the NAS.
2. Remove the drive tray.
  - a. Pull the handle to release the tray.
  - b. Pull the tray out.



3. Install a drive on the tray.
  - a. Place the tray on the drive so that the holes on the tray are aligned with those on the drive.
  - b. Attach the screws to lock the drive to the tray.



4. Load the drive tray into the drive bay.
  - a. Insert the tray into the bay.
  - b. Push the handle until it is locked into place.



5. Power on the NAS.

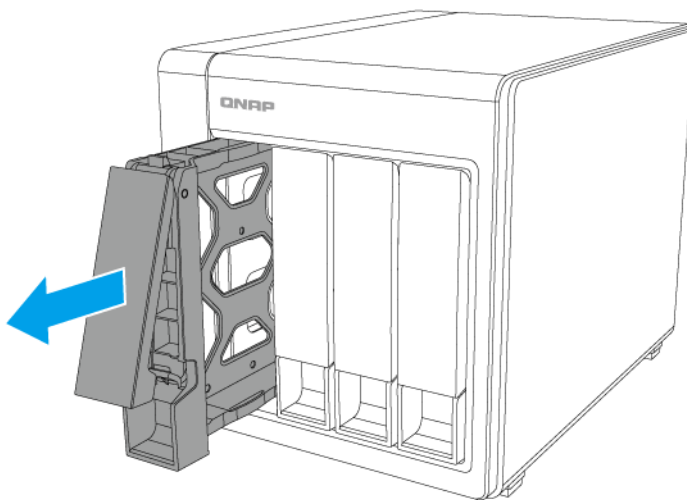
## Installing 2.5-inch Hard Drives or Solid State Drives



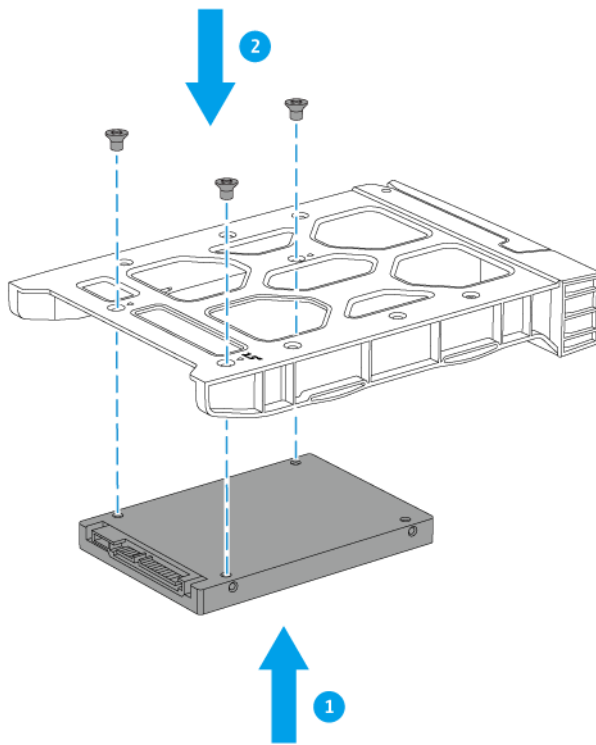
### Warning

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

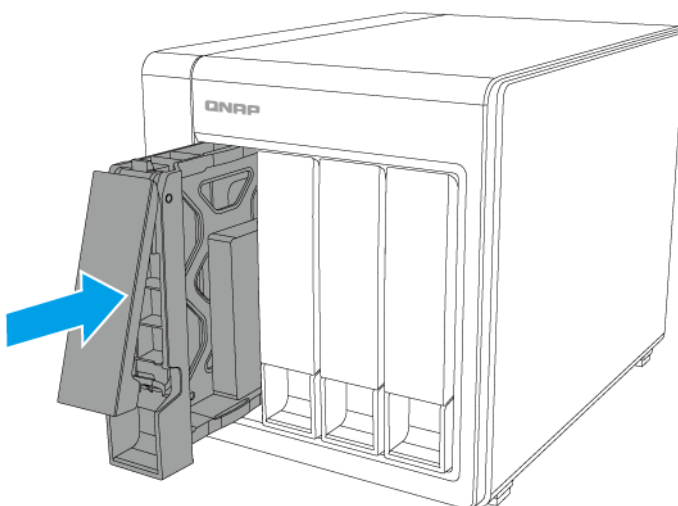
1. Power off the NAS.
2. Remove the drive tray.
  - a. Pull the handle to release the tray.
  - b. Pull the tray out.



3. Install a drive on the tray.
  - a. Place the tray on the drive so that the holes on the tray are aligned with those on the drive.
  - b. Attach the screws to lock the drive to the tray.



4. Load the drive tray into the drive bay.
  - a. Insert the tray into the bay.
  - b. Push the handle until it is locked into place.



5. Power on the NAS.

## Replacing Memory Modules

The NAS has one memory slot. You can increase the memory capacity of the NAS by upgrading the memory module.

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



### Warning

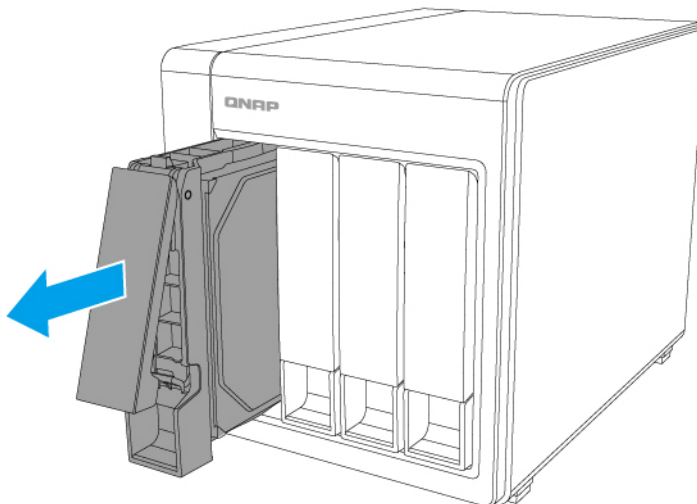
- Only qualified personnel should perform the following steps. Failure to follow instructions can result in serious injury or death.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.

1. Power off the NAS.
2. Unplug the power cord from the electrical outlet.
3. Disconnect all cables and external attachments.
4. Remove the drive trays.
  - a. Pull the handle to release the tray.
  - b. Pull the tray out.



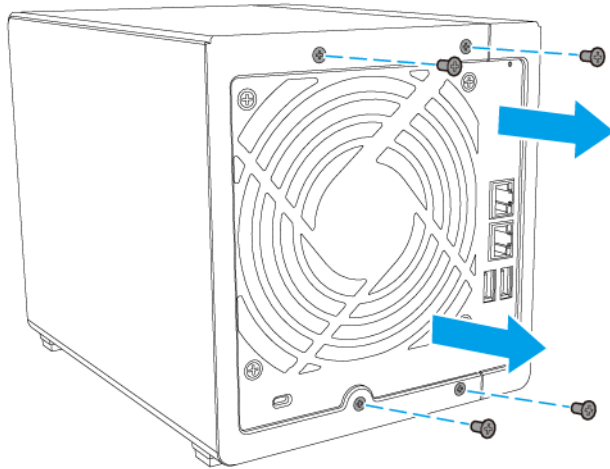
### Important

Remember the number of each drive. The drive trays will need to be returned to their original bays.



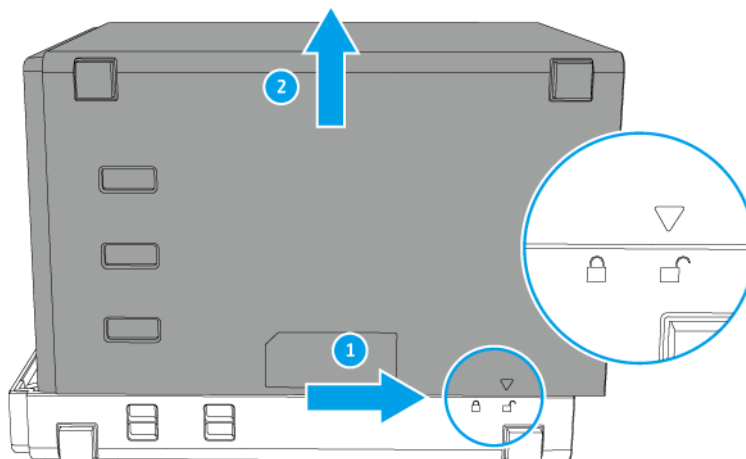
5. Remove the case cover.
  - a. Remove the screws that secure the case cover to the chassis.



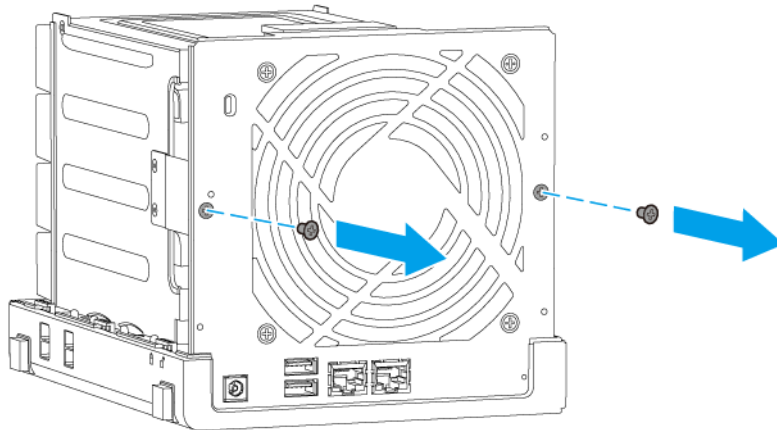
**Tip**

The screws for the case cover are longer than those for other parts of the NAS.

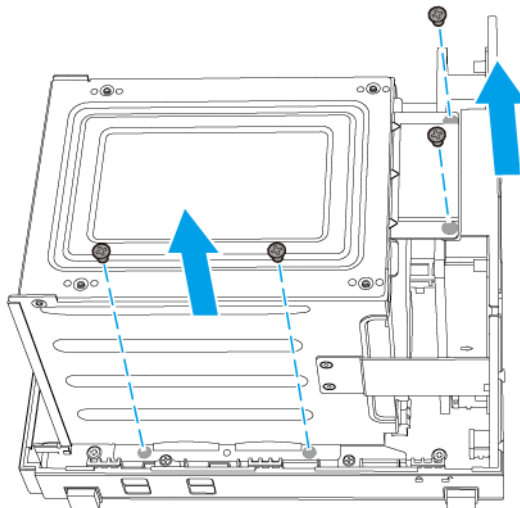
- b. Place the NAS on its left side.
- c. Slide the case cover to the right so that the triangle icon is aligned with the unlock icon.
- d. Pull the case cover up until it completely detaches from the chassis.

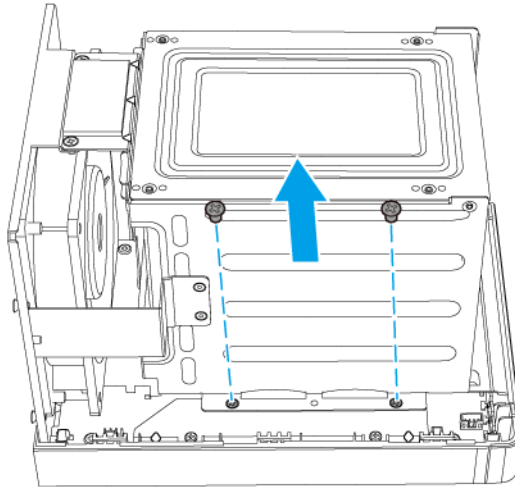


6. Remove the screws that secure the drive bay chassis to the back side of the NAS.

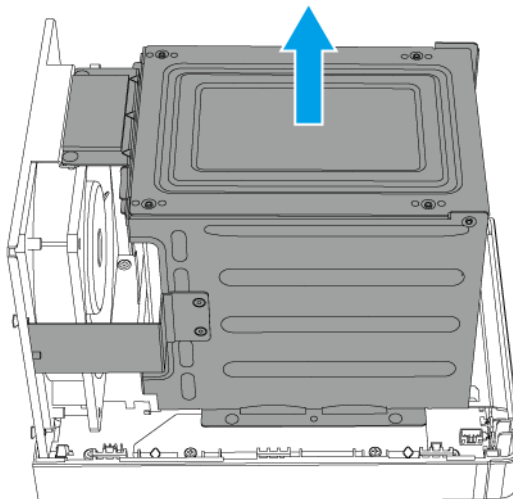


7. Remove the screws that secure the drive tray chassis to the NAS.

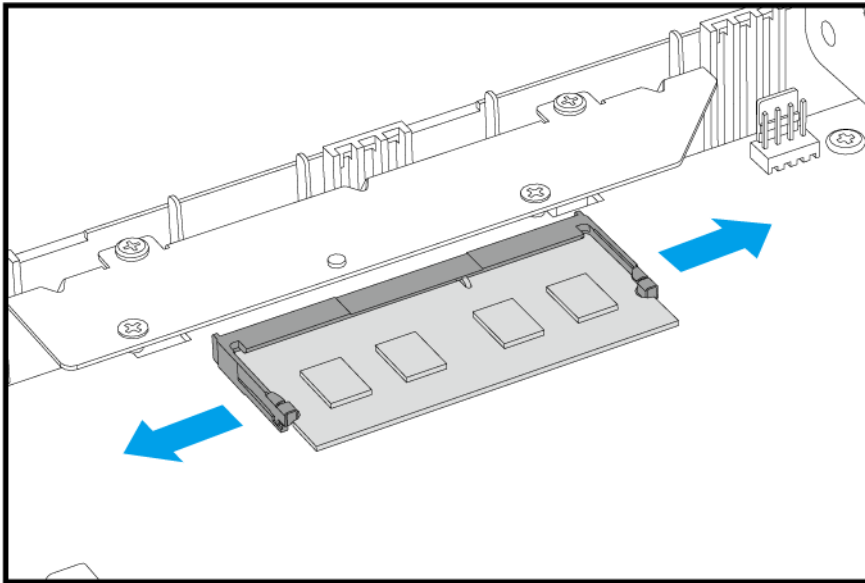




8. Carefully pull the drive tray chassis up until it completely detaches from the NAS.



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



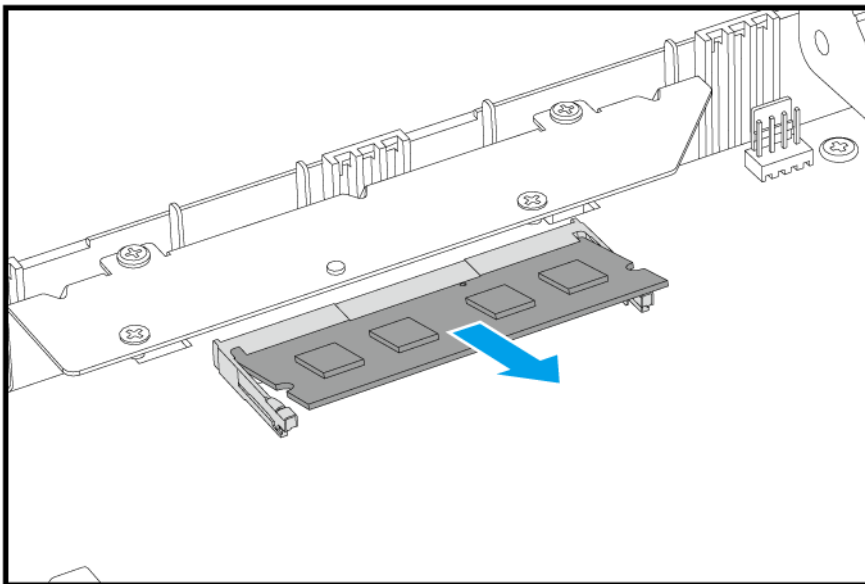
- b. Verify that the module has tilted upward and is completely released from the slot.



**Warning**

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

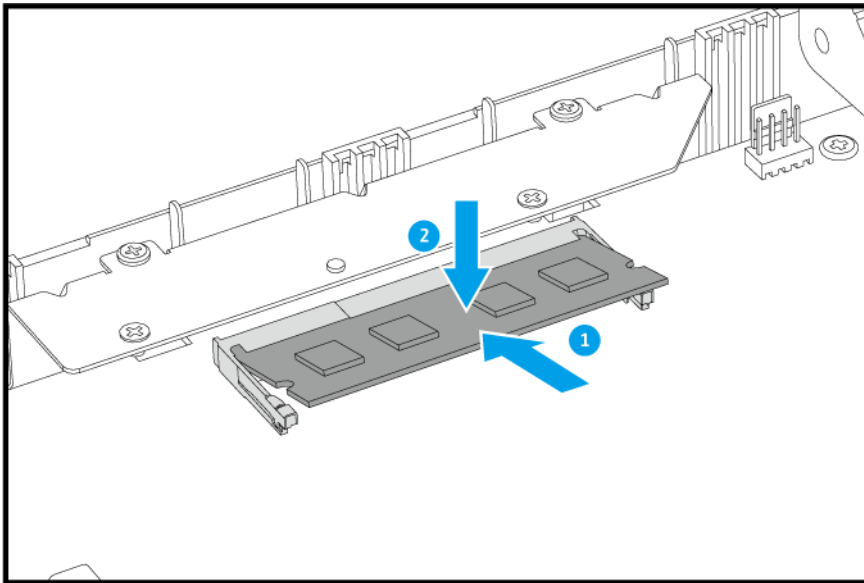
- c. Hold the module by the edges and then carefully slide it out of the slot.



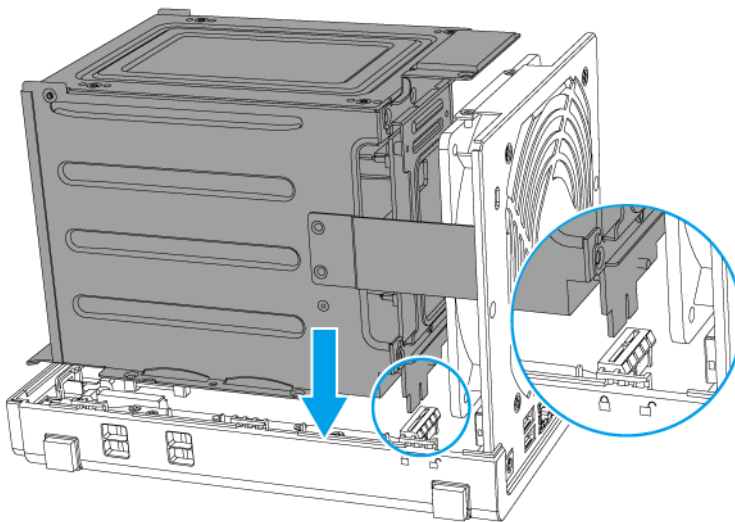
**10. Install a new module.**

- 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.

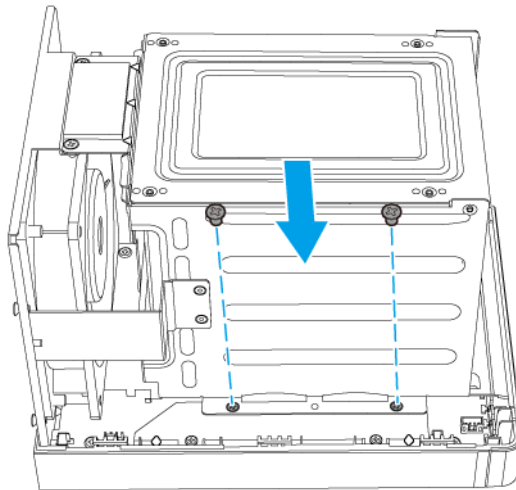
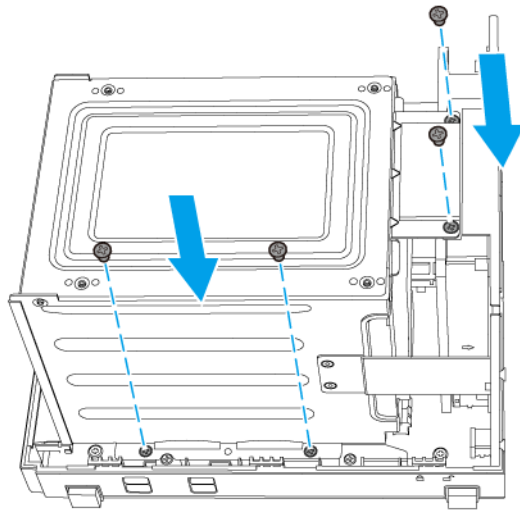
- d. Carefully press down on the module until the retention clips lock the module into place.



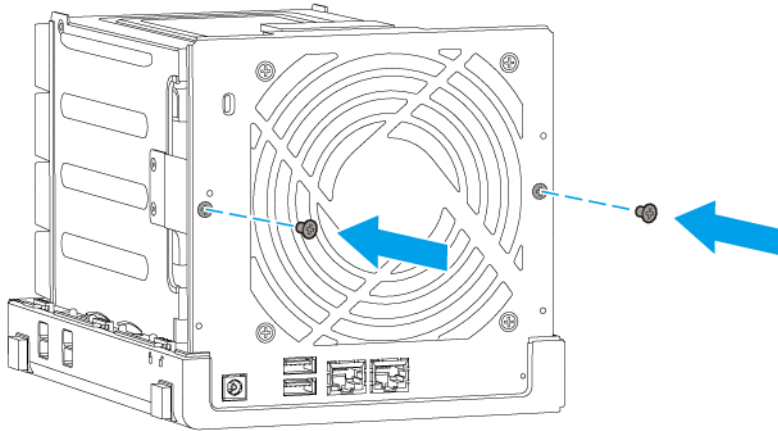
11. Place the drive tray chassis onto the NAS.
  - a. Align the SATA connector on the drive tray chassis with the SATA port on the system board.
  - b. Carefully insert the SATA connector into the SATA port.



12. Attach the screws that secure the drive tray chassis to the NAS.

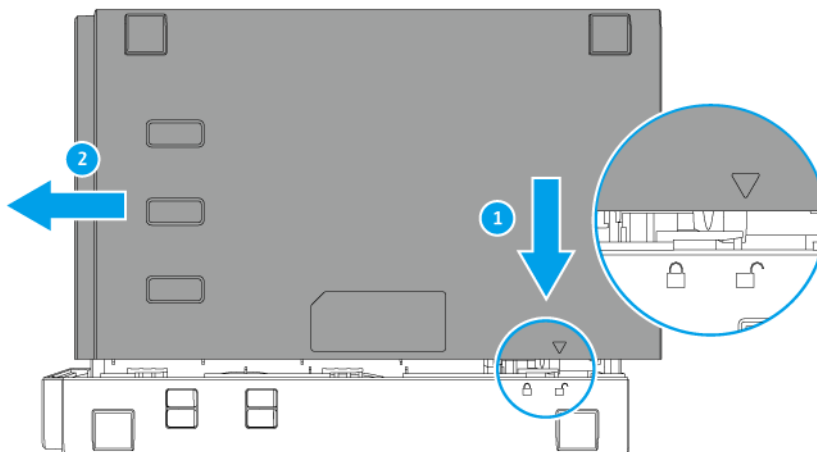


13. Attach the screws that secure the drive tray chassis to the back side of the NAS.

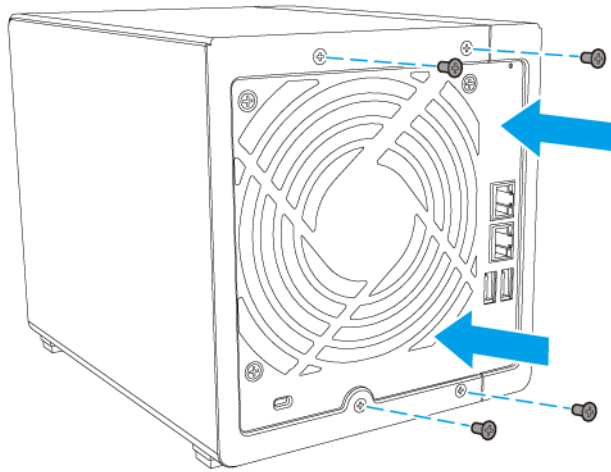


**14. Attach the case cover.**

- a. Align the triangle icon on the case cover with the unlock icon on the chassis.
- b. Slide the case cover onto the chassis.
- c. Slide the case cover to the left so that the triangle icon is aligned with the lock icon.

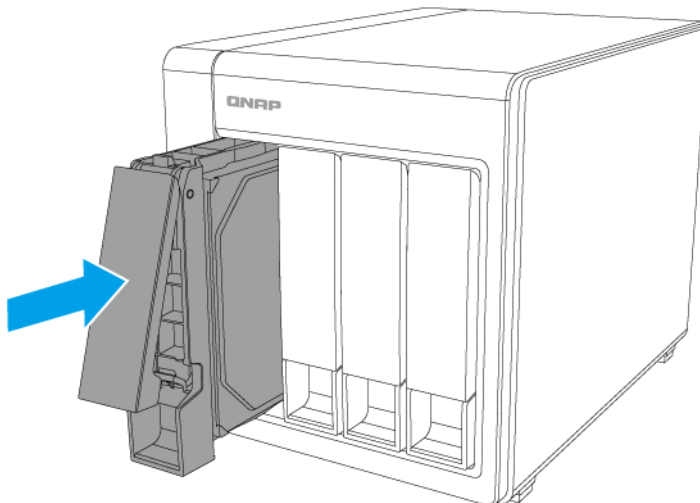


- d. Place the NAS on its bottom side.
- e. Attach the screws that secure the case cover to the chassis.



**15.** Return drive trays into their original drive bays.

- a. Insert the tray into the bay.
- b. Push the handle until it is locked into place.



**16.** Connect all cables and external attachments.

**17.** Power on the NAS.

**18.** Verify that the module is recognized by the NAS.

- a. Log on to QTS as administrator.
- b. Go to **Control Panel > System > System Status > Hardware Information** .



- c. Check the value for **Total memory**.

## QTS Installation

TS-x31P2 uses the QNAP QTS operating system. You can install QTS using any of the following methods.

Method	Description	Requirements
Qfinder Pro installation (Recommended)	<p>If the NAS is connected to your local area network, you can do the following:</p> <ul style="list-style-type: none"> <li>• Locate the NAS using Qfinder Pro.</li> <li>• Complete the steps in the Smart Installation Guide wizard.</li> </ul> <p>For details, see <a href="#">Installing QTS Using Qfinder Pro</a>.</p>	<ul style="list-style-type: none"> <li>• Computer</li> <li>• Network cable</li> <li>• Qfinder Pro installer</li> </ul>
Cloud installation	<p>If the NAS is connected to the internet, you can do the following:</p> <ul style="list-style-type: none"> <li>• Scan the QR code on the NAS.</li> <li>• Log into your myQNAPcloud account.</li> <li>• Use CloudLink to remotely access your NAS.</li> <li>• Complete the steps in the Smart Installation Guide wizard.</li> </ul> <p>For details, see <a href="#">Installing QTS Using the Cloud Key</a>.</p>	<ul style="list-style-type: none"> <li>• Computer or mobile device</li> <li>• Network cable</li> <li>• myQNAPcloud account</li> <li>• CloudKey</li> </ul>

## Installing QTS Using Qfinder Pro



### Warning

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

1. Power on the NAS.
2. Connect the NAS to your local area network.
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 NAS in 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 name supports letters (A to Z, a to z), numbers (0 to 9), and hyphens (-), but 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 NAS 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 NAS.
13. Click **Next**.
14. Configure the disk settings.
  - a. Select a volume type.
  - b. Select the disks that you want to use to create a RAID group.
  - c. Optional: Select a RAID type.



#### Note

The **Smart Installation Guide** automatically selects the optimal RAID type based on the number of the selected disks.

- d. Optional: Select **Encrypted Disk Volume** and **Bad Block Scan**.
15. Click **Next**.
  16. Review the settings.
  17. Click **Apply**.  
A confirmation message appears.



#### Warning

Clicking **Confirm** deletes all data on the drive before installing QTS.

18. Click **Confirm**.  
QTS is installed.

## Installing QTS Using the Cloud Key



#### Warning

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

1. Power on the NAS.
2. Connect the NAS to the internet.
3. Go to the QNAP Cloud Installation page using one of the following methods:

- On your computer, go to <http://install.qnap.com/>.
- Scan the QR code on the NAS using a mobile device.

The web page lists all the uninitialized QNAP NAS devices on the local network.

4. Find your NAS from the list and then click **Initialize**.



**Note**

If your NAS is not listed, follow the instructions on the web page to specify the Cloud Key on the NAS.

The installation wizard opens in the default web browser.

5. Create an account or sign in to myQNAPcloud.



**Note**

You must return to this page to complete the installation after creating an account.

6. Specify the myQNAPcloud device name for the NAS.



**Note**

The myQNAPcloud device name is used when remotely accessing the NAS.

7. Optional: Select **CloudLink**.



**Note**

- CloudLink allows you to remotely access the NAS without having to configure port forwarding on your router. You can remotely access the NAS by logging into QTS or by using mobile apps.
- You can also enable CloudLink by installing the CloudLink app on the NAS.

8. Click **Next**.  
The **Smart Installation Guide** opens in the default web browser.

9. Click **Start Smart Installation Guide**.

10. Specify the following information.

- **NAS name:** Specify a name with 1 to 14 characters. The name supports letters (A to Z, a to z), numbers (0 to 9), and hyphens (-), but cannot end with a hyphen.
- **Password:** Specify an administrator password with 1 to 64 characters. The password supports all ASCII characters.

11. Click **Next**.

12. Specify the time zone, date, and time.



**Tip**

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

13. Click **Next**.

14. Select **Obtain an IP address automatically (DHCP)**.

15. Click **Next**.
16. Select the types of devices that you will use to access shared folders on the NAS.
17. Click **Next**.
18. Configure the disk settings.
  - a. Select a volume type.
  - b. Select the disks that you want to use to create a RAID group.
  - c. Optional: Select a RAID type.

**Note**

The **Smart Installation Guide** automatically selects the optimal RAID type based on the number of the selected disks.

- d. Optional: Select **Encrypted Disk Volume** and **Bad Block Scan**.
19. Click **Next**.
20. Review the settings.
21. Click **Apply**.

A confirmation message appears.

**Warning**

Clicking **Confirm** deletes all data on the drive before installing QTS.


22. Click **Confirm**.

QTS is installed.

## 4. Basic Operations

This chapter describes basic NAS operations.

### Power Button

Operation	User Action	Result
Power on	Press the button once.	The NAS powers on.
Power off	Press and hold the button for 1.5 seconds.	The NAS powers off.
Force power off	Press and hold the button for 5 seconds.	The NAS shuts down.   <b>Important</b> Use this method only when the NAS is unresponsive.

### Reset Button

Operation	User Action	Result
Basic system reset	Press and hold the button for 3 seconds.	The following settings are reset to default: <ul style="list-style-type: none"> <li>• System administrator password: admin</li> <li>• TCP/IP configuration: <ul style="list-style-type: none"> <li>• Obtain IP address settings automatically via DHCP</li> <li>• Disable jumbo frames</li> <li>• If port trunking is enabled (multi-LAN models only), the port trunking mode is reset to "Active Backup (Failover)".</li> </ul> </li> <li>• System port: 8080 (system service port)</li> <li>• Security level: Low (Allow all connections)</li> <li>• LCD panel password: (blank)</li> <li>• VLAN: Disabled</li> </ul>
Advanced system reset	Press and hold the button for 15 seconds.	The default factory settings are restored. <ul style="list-style-type: none"> <li>• To retrieve old data after an advanced system reset, recreate the previous folder structure on the NAS.</li> </ul>

### USB One Touch Copy Button

The USB One Touch Copy button allows you to copy data backups from an external USB device to the NAS or from the NAS to an external USB device.

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

For details on configuring USB One Touch Copy, see the QTS User Guide.

## LEDs

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

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

LED	Status	Description
Status	Flashes green and red alternately 2 times per second	<ul style="list-style-type: none"> <li>• A drive on the NAS is being formatted.</li> <li>• The NAS is being initialized.</li> <li>• The operating system is being updated.</li> <li>• RAID rebuild is in process.</li> <li>• Online RAID Capacity Expansion is in process.</li> <li>• Online RAID Level Migration is in process.</li> </ul>
	Green	The NAS is ready.
	Flashes green 2 times per second	<ul style="list-style-type: none"> <li>• The NAS is not configured.</li> <li>• A drive on the NAS is not formatted.</li> </ul>
	Red	<ul style="list-style-type: none"> <li>• The drive is invalid.</li> <li>• A disk volume has reached its full capacity.</li> <li>• A disk volume is about to reach its full capacity.</li> <li>• The system fan is not functioning.</li> <li>• An error occurred when accessing (read/write) the data.</li> <li>• A bad sector is detected on a drive.</li> <li>• The NAS is in degraded read-only mode (two member drives failed in RAID 5 or RAID 6 but the data can still be read).</li> <li>• Hardware self-test error.</li> </ul>
	Flashes Red 2 times per second	The NAS is in degraded mode (one member drive failed in RAID 1, RAID 5, or RAID 6).
	Flashes Red once	The NAS has received a command from a remote control.
	Flashes Amber	The NAS is in sleep mode (S3).
	Off	All drives are in standby mode.
Gigabit LAN (Front)	Amber	The NAS is connected to a network.
	Flashes amber	The NAS is being accessed from the network.
	Off	The NAS is not connected to a network.

LED	Status	Description
Gigabit LAN (Rear)	Left Green	The Ethernet port is connected to a 1 gigabit network.
	Left Amber	The Ethernet port is connect to a 100 megabit network.
	Left Off	The NAS is not connected to a network.
	Right Green	The Ethernet port is connected to a network.
	Right flashes Green	The NAS is being accessed on this Ethernet port.
	Right Off	The Ethernet port is not connected to a network.
Drive	Green	The drive is ready.
	Flashes Green	The drive is being accessed.
	Red	The drive has encountered an error.
	Flashes Red 5 times per second	The drive is being located in the operating system.
	Off	No drive is detected.
USB - One Touch Copy	Blue	A USB external storage device has been mounted successfully on the USB One-Touch Copy port.
	Flashes Blue 2 times per second	<ul style="list-style-type: none"> <li>A USB external storage device connected to the USB One Touch Copy port is being mounted.</li> <li>A USB external storage device connected to the USB One Touch Copy port is being disconnected.</li> <li>A USB external storage device connected to the USB One Touch Copy port is being accessed.</li> </ul>
	Off	No USB external storage device is connected.
USB	Blue	A USB external storage device is connected to a USB port.
	Off	No USB external storage device is connected.

## Beep Alarm

Duration	Frequency	Description
Short beep (0.5 seconds)	1	<ul style="list-style-type: none"> <li>The NAS is starting up.</li> <li>The NAS is shutting down (software shutdown).</li> <li>The user pressed the Reset button.</li> <li>The operating system was updated.</li> </ul>
	3	The user tried to copy the NAS data to the external storage device from the front USB port, but the data cannot be copied.

Duration	Frequency	Description
Long beep (1.5 seconds)	3 (every 5 minutes)	The system fan is not functioning.
	2	<ul style="list-style-type: none"> <li>• The disk volume is about to reach its full capacity.</li> <li>• The disk volume has reached its full capacity.</li> <li>• The drives are in degraded mode.</li> <li>• The user started the drive rebuilding process.</li> <li>• A drive is plugged in or out.</li> </ul>
	1	<ul style="list-style-type: none"> <li>• The NAS was powered off by force shutdown (hardware shutdown).</li> <li>• The NAS was powered on successfully and is ready.</li> </ul>



## 5. Troubleshooting

This chapter describes basic troubleshooting information.

### Forcing Qfinder Pro or myQNAPcloud to Locate the NAS

If Qfinder Pro or myQNAPCloud is unable to locate the NAS during QTS installation, the drives or data may be faulty.

1. Power off the NAS.
2. Remove all drives.
3. Power on the NAS.
4. Locate the NAS using Qfinder Pro or myQNAPCloud.
5. Reinsert the drives.
6. Continue with QTS installation.

### Hot-swapping Failed Drives

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

- RAID 1: One member drive fails
  - RAID 5: One member drive fails
  - RAID 6: One or two member drives fail
1. Log on to QTS.
  2. Go to **Main Menu > Storage Manager > 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 NAS.
  6. Wait for 20 seconds or until the NAS 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 NAS beeps twice.
  10. Go to **Main Menu > Storage Manager > Storage Space** .
  11. Locate the volume that contains the new drive and then verify that the status is `Rebuilding`.

## Recovering Unintentionally Removed Healthy Drives

The NAS 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, or RAID 6 volume to degraded mode, or an inactive RAID 0 and JBOD configuration to normal.

Disk Volume	RAID Recovery Support	Maximum Number of Removed Drives
Single	No	N/A
JBOD	Yes	1
RAID 0	Yes	1
RAID 1	Yes	1
RAID 5	Yes	2
RAID 6	Yes	3
RAID 10	No	N/A

## Support and Other Resources

QNAP provides the following resources:

Resource	URL
Documentation	<a href="http://docs.qnap.com">http://docs.qnap.com</a>
Help Desk	<a href="http://helpdesk.qnap.com">http://helpdesk.qnap.com</a>
Downloads	<a href="http://download.qnap.com">http://download.qnap.com</a>
Community Forum	<a href="http://forum.qnap.com">http://forum.qnap.com</a>

## 6. Glossary

### **CloudKey**

Unique 8-digit code assigned to each NAS device

### **CloudLink**

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

### **myQNAPcloud**

Provides various remote access services such as DDNS and CloudLink

### **myQNAPcloud ID**

Email address that was used to register for a myQNAPcloud account

### **Qfinder Pro**

Enables you to locate and access the QNAP NAS devices in your local area network

### **QTS**

QNAP NAS operating system

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## END OF TERMS AND CONDITIONS

**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.

**CE Notice**

This QNAP NAS complies with CE Compliance Class B.

## SJ/T 11364-2006



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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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