



NETGEAR®

ReadyNAS Duo v2 and NV+ v2 Hardware Manual

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Getting Started

1

Congratulations on your purchase of a NETGEAR ReadyNAS® storage system. This *ReadyNAS Duo v2 and NV+ v2 Hardware Manual* describes the physical features of the Duo v2 and NV+ v2 storage systems.

This chapter contains the following sections:

- *Additional Documentation*
- *Setup Location*
- *System Requirements*
- *Diskless Units*

Additional Documentation

For detailed information about configuring, managing, and using your ReadyNAS Duo v2 or NV+ v2 storage system, see the *ReadyNAS RAIDiator 5.3 for Home Software Manual*, which is available at <http://www.readynas.com/documentation>.

NETGEAR maintains a community website that supports ReadyNAS products. Visit <http://readynas.com> for reviews, tutorials, a comparison chart, software updates, documentation, an active user forum, and much more.

Setup Location

Your ReadyNAS Duo v2 or NV+ v2 is suitable for use in a home or small office environment where it can be freestanding. The small, compact size makes it suitable for sitting on a desk or on a closet shelf.

Choose a location for your unit that meets these criteria:

- Cables can be connected easily.
- Water or moisture cannot enter the case.
- Airflow around the unit and through the vents in the side of the case is not restricted.
- The air is as free of dust as possible.
- Temperature operating limits are not likely to be exceeded.
- If you are using an uninterruptable power supply (UPS) for protection, the power cable can be securely and safely connected to the UPS.

System Requirements

Your ReadyNAS Duo v2 or NV+ v2 requires the following:

- Ethernet connection
- Microsoft Windows 7, Vista, XP, 2000, Mac OS, UNIX, or Linux operating system
- Microsoft Internet Explorer 7.0+, Apple Safari, 2.0+, Mozilla Firefox 2.0+, Opera 9.5+, or Google Chrome 10+ browser
- Hard disk drive or drives from the NETGEAR Hardware Compatibility List; see http://www.readynas.com/hard_disk_hcl.

Diskless Units

If you purchased a ReadyNAS storage system without a pre-installed hard disk drive or drives, you must follow this procedure before you use your unit. The following procedure is illustrated with a Duo v2, but the same steps apply for an NV+ v2.

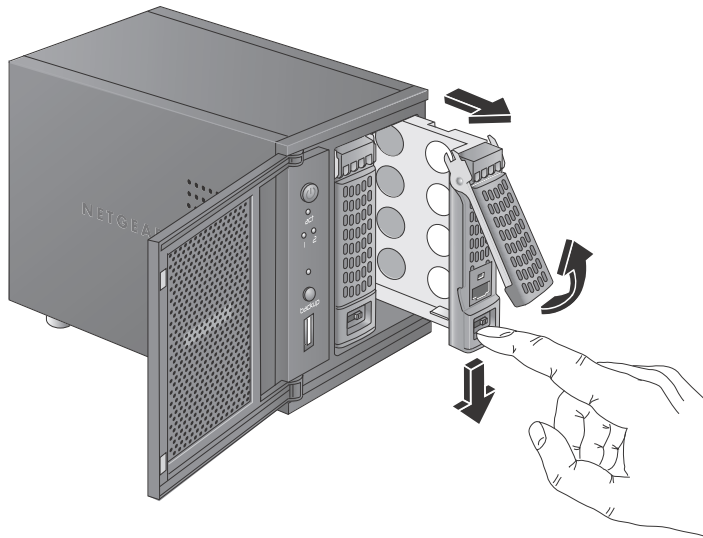
➤ **To prepare a diskless unit for first use:**

1. Obtain at least one hard disk drive that appears on the NETGEAR Hardware Compatibility List.

See http://www.readynas.com/hard_disk_hcl.

If you are using a previously formatted disk, see the precautions listed in *Previously Formatted Disks* on page 27.

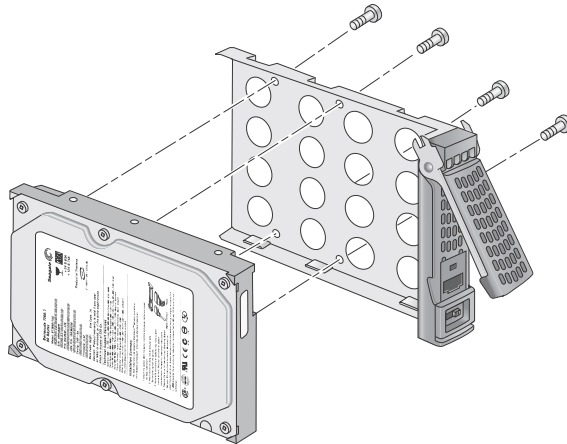
2. With the unit turned off, insert a disk into a drive bay, as follows:
 - a. Press the disk tray release latch.



The tray handle pops out.

- b. Pull out the disk tray, place the new disk on the tray, and assemble the disk and tray with the screws that came with your unit.

Make sure that the hard disk connectors face the interior of the disk bay.



- c. Slide the disk tray back into the unit and press the handle to secure the disk.
3. Turn the unit on.
 4. If you are using previously formatted disks, perform a factory reboot.

For more information, see *Boot Menu* on page 16 and *Previously Formatted Disks* on page 27.

Note: Note: This process erases all data and formats the disk as X-RAID2™. If you are using a previously formatted disk that contains data you want to preserve, you must move the data to an external drive before using the previously formatted disk in your ReadyNAS unit.

The factory reboot process can take up to 30 minutes while your unit tests and formats the disk, installs the operating system, and creates a volume. This process can take up to 30 minutes; you can follow the progress in RAIDar. For more information about RAIDar, see the *ReadyNAS RAIDiator 5.3 for Home Software Manual*, which is available at <http://www.readynas.com/documentation>.

If you are installing multiple disks at the same time, they must synchronize. This might take several hours, depending on the disk size. You can continue to use your ReadyNAS, although access is slower until the volume synchronization finishes.

2 ReadyNAS Duo v2

2

This chapter provides an overview of the physical features of the ReadyNAS Duo v2 and includes the following sections:

- *Front and Side Panels*
- *Drive Bays*
- *Rear Panel*
- *Status Information*
- *System Shutdown*
- *Boot Menu*

Front and Side Panels

The following figure shows the front and side panels of ReadyNAS Duo v2.

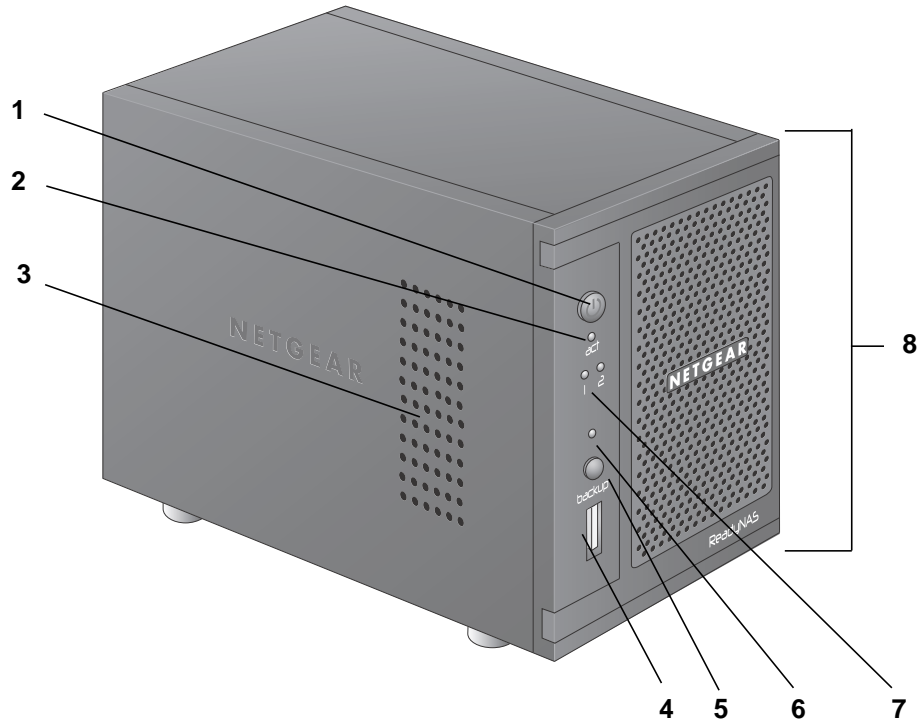


Figure 1. ReadyNAS Duo v2 front and side panels

1. Power button and LED
2. Disk activity LED
3. Exhaust vent
4. USB 2.0 port
5. Backup button
6. USB and backup status LED
7. Disk 1 and disk 2 LEDs
8. Drive bay door

Drive Bays

The following figure shows the drive bays of ReadyNAS Duo v2.

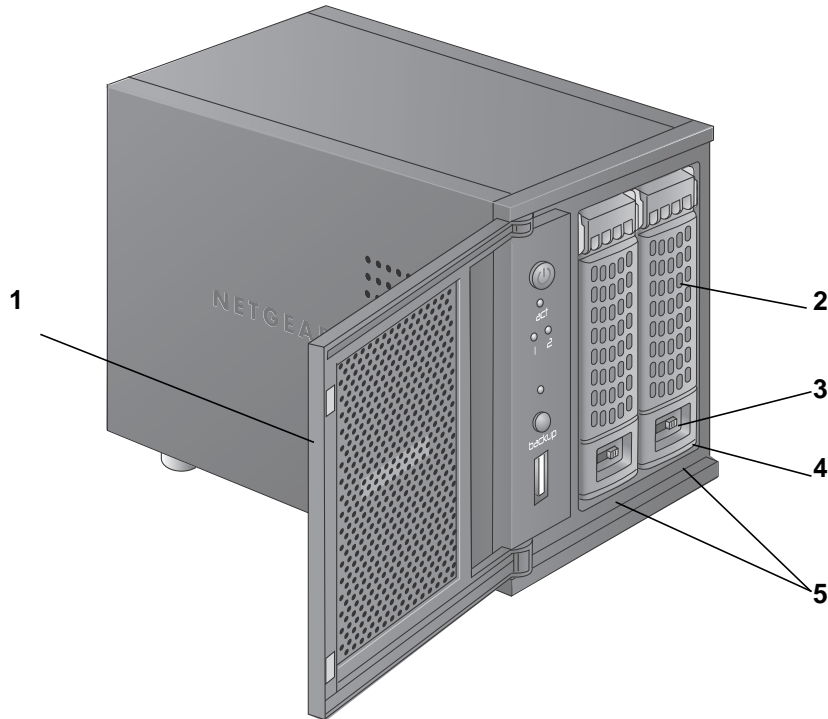


Figure 2. ReadyNAS Duo v2 drive bay

1. Drive bay door
2. Disk tray handle
3. Recessed drive tray locking mechanism
4. Drive tray release latch
5. Drive bays

The following figure shows a ReadyNAS Duo v2 disk tray.

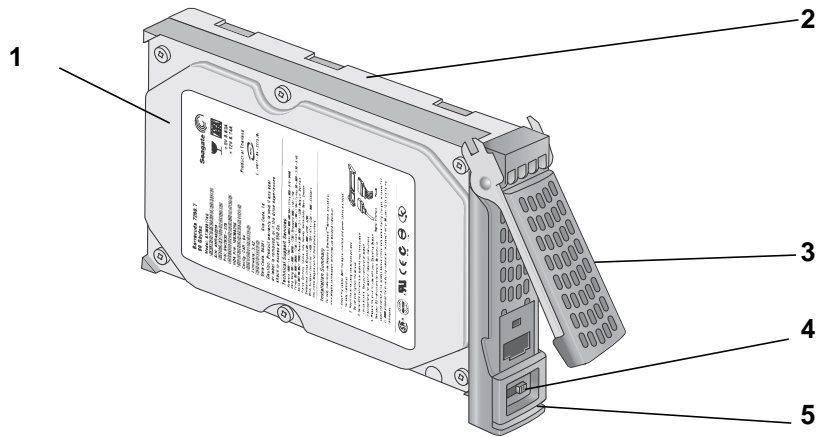


Figure 3. ReadyNAS Duo v2 disk tray

1. Hard drive
2. Disk tray
3. Disk tray handle
4. Recessed disk tray locking mechanism
5. Disk tray release latch

Rear Panel

The following figure shows the rear panel of ReadyNAS Duo v2.

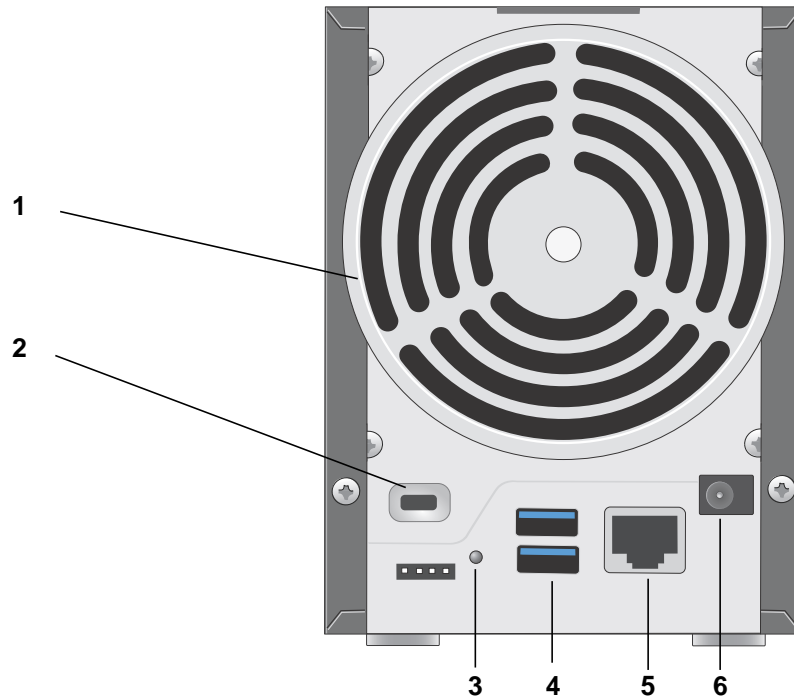


Figure 4. ReadyNAS Duo v2 rear panel

1. Exhaust fan
2. Kensington lock
3. Reset button
4. USB 3.0 ports
5. 1-gigabit Ethernet port with LED status indicators
6. Power adapter socket

Status Information

You can obtain information about the status of your unit by reviewing the indicators listed in the following table.

Indicator	Description
Power button and LED	Press this button to turn on the ReadyNAS. The LED has these states: <ul style="list-style-type: none"> • Blinking. Booting or shutting down • On. Powered on • Off. Powered off
Disk LEDs (1, 2)	Each disk bay has an LED associated with it on the front panel of the unit. The disk LEDs have these states: <ul style="list-style-type: none"> • On. Power is on and the disk is operating normally. • Blinking. The disk was removed, failed, or is resynchronizing. • Off. The disk bay is empty.
Disk activity LED	The disk activity LED has these states: <ul style="list-style-type: none"> • Blinking. A disk is active. • Off. No disks are active.
Rear panel Ethernet port LEDs	Two LED status indicators are built into this port, one green and one amber. They indicate port speed and activity as follows: <ul style="list-style-type: none"> • Green on, amber off. 1000 Mbps connection speed, no activity • Green blinking, amber off. 1000 Mbps connection speed, activity • Green off, amber on. 10 Mbps or 100 Mbps connection speed, no activity • Green off, amber blinking. 10 Mbps or 100 Mbps connection speed, no activity • Green off, amber off. No connection

System Shutdown

You can shut down your unit in these ways:

- **Using the Power button:**
 - **Preferred shutdown.** Press the **Power** button twice to initiate a graceful shutdown.
 - **Forced shutdown.** If the unit is not responding, unplug it.
- **Using the ReadyNAS Dashboard.** For information about using the ReadyNAS Dashboard to shut down your Duo v2, see the *ReadyNAS RAIDiator 5.3 for Home Software Manual*, which is available at <http://www.readynas.com/documentation>.

Boot Menu

Use the boot menu to restart or troubleshoot your ReadyNAS unit. Your unit has the following boot modes:

- **Normal.** Initiates a normal boot process, just like booting using the Power button.
- **Factory default.** Initiates a short disk test that takes approximately 5 minutes, then begins a 10-minute time-out period waiting for RAIDar. During the 10-minute time-out period, the system can be powered off safely without causing any data loss. After 10 minutes, or if you select the factory default option with RAIDar during the time-out period, the factory default process begins.



WARNING!

The factory default reboot process resets the unit to factory settings, erases all data, resets all defaults, and reformats the disk to X-RAID2.

- **OS reinstall.** Reinstalls the firmware from the internal flash to the disks. Use the OS reinstall boot mode when the system crashes and corrupts some configuration files. OS reinstall boot mode also resets some settings on your unit, such as Internet protocol settings and the administrator password, to defaults.
- **Tech support.** Boots into a low-level diagnostic mode. Use the tech support boot mode only when instructed to do so by a NETGEAR Technical Support representative.
- **Skip volume check.** After a system crash, the system tries to scan and fix the volume using a file system check. If several problems are found on a disk, this process can stall, causing the system not to boot. Use this option to skip the scan and let the system boot.



WARNING!

Use the skip volume check boot mode only when instructed to do so by a NETGEAR Technical Support representative, otherwise data loss might occur.

- **Memory test.** Performs a memory test. The pass or fail result is reported using the unit's LEDs. Contact a NETGEAR technical support representative to interpret memory test results.
- **Disk test.** Performs an offline full disk test. This can take 4 hours or more, depending on the size of your disks. Any problems are reported in the RAIDar discovery tool.

➤ **To access the boot menu:**

1. Power off your unit.
2. Using a straightened paper clip, press and hold the **Reset** button.
3. Press the **Power** button to power on the unit.
4. Continue to press the **Reset** button until the Power button LED, USB and backup status LED, disk 1 LED, and disk 2 LED illuminate.
5. Press the **Backup** button to scroll through boot mode options.

The unit shows the boot mode options using the LEDs, as described in the following table:

Boot Mode	Status Indicator				
	Description	Power LED	Disk 1 LED	Disk 2 LED	USB & Backup LED
Normal	Power LED illuminates.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Factory default	Disk 1 LED illuminates.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OS reinstall	Disk 2 LED illuminates.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tech support	USB and backup status LED illuminates.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Skip volume check	Power LED and disk 1 LED illuminate.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Memory test	Power LED and disk 2 LED illuminate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Disk test	Power LED and USB and backup status LED illuminate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Legend:

- On:
- Off:

6. Press and release **Reset** button to confirm your boot menu selection.

The system boots in the selected boot mode.

3 ReadyNAS NV+ v2

3

This chapter provides an overview of the physical features of the ReadyNAS NV+ v2 and includes the following sections:

- *Front and Side Panels*
- *Drive Bays*
- *Rear Panel*
- *Status Information*
- *System Shutdown*
- *Boot Menu*

Front and Side Panels

The following figure shows the front and side panels of ReadyNAS NV+ v2.

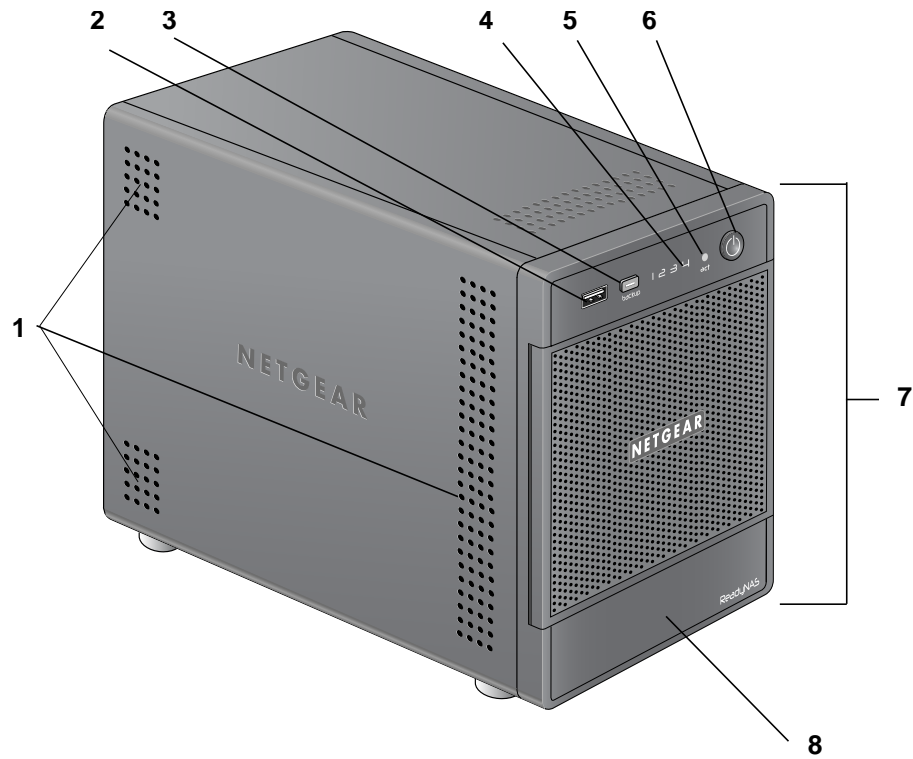


Figure 5. ReadyNAS NV+ v2 front and side panels

1. Exhaust vents
2. USB 2.0 port
3. Backup button and backup LED
4. Disk LEDs
5. Disk activity LED
6. Power button and LED
7. Drive bay door
8. Status display screen

Drive Bays

The following figure shows the drive bays of ReadyNAS NV+ v2.

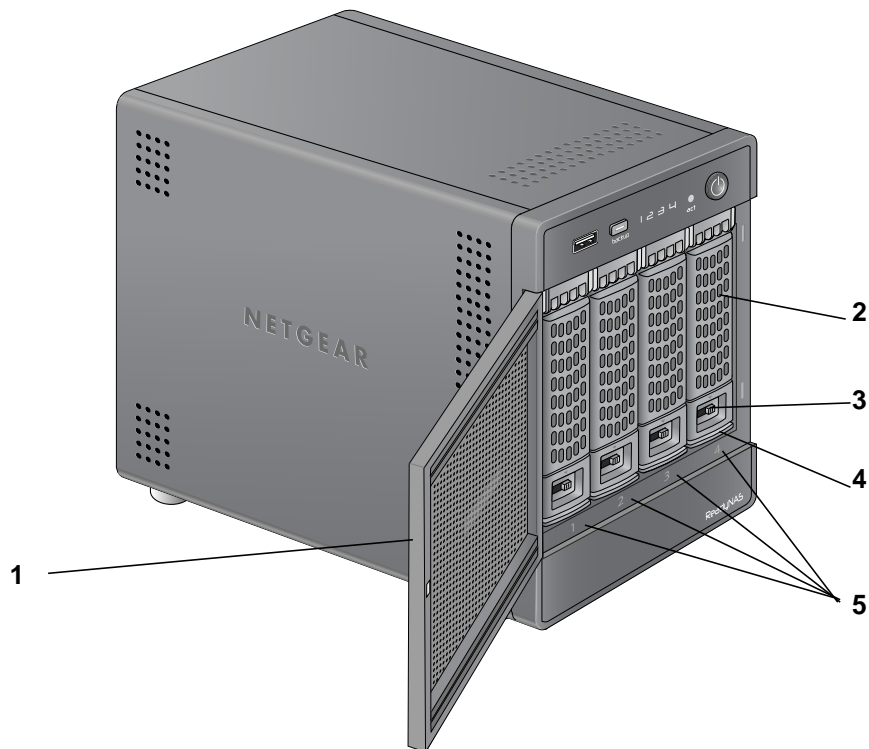


Figure 6. ReadyNAS NV+ v2 drive bay

1. Drive bay door
2. Disk tray handle
3. Recessed drive tray locking mechanism
4. Drive tray release latch
5. Drive bays

The following figure shows a ReadyNAS NV+ v2 disk tray.

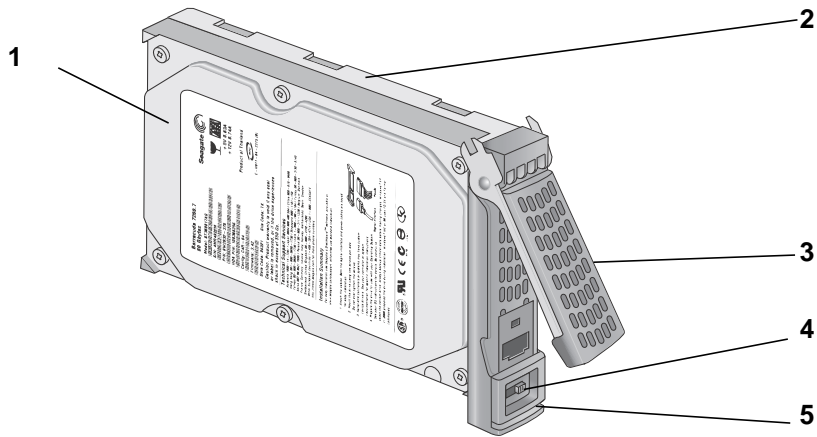


Figure 7. ReadyNAS NV+ v2 disk tray

1. Hard drive
2. Disk tray
3. Disk tray handle
4. Recessed disk tray locking mechanism
5. Disk tray release latch

Rear Panel

The following figure shows the rear panel of ReadyNAS NV+ v2.

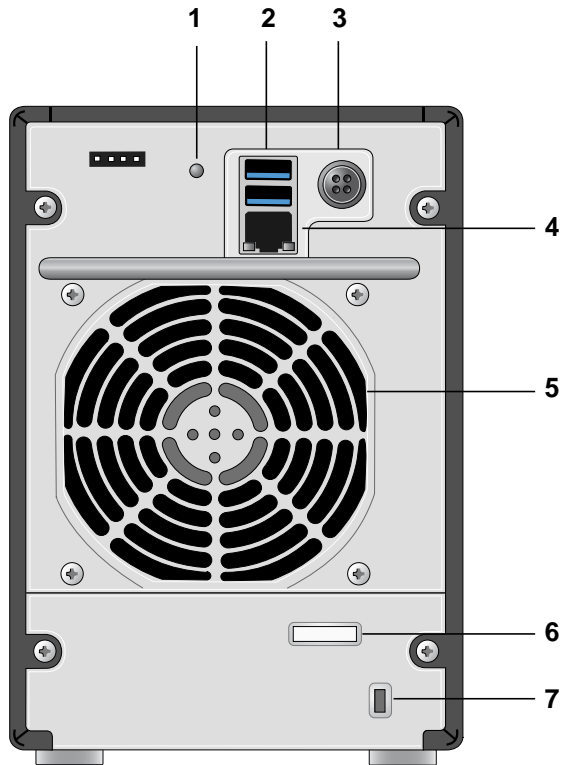


Figure 8. ReadyNAS NV+ v2 rear panel

1. Reset button
2. USB 3.0 ports
3. Power cable socket
4. 1-gigabit Ethernet port with LED status indicators
5. Exhaust fan
6. Cable clip
7. Kensington lock

Status Information

You can obtain information about the status of your unit by reviewing the indicators listed in the following table.

Indicator	Description
Power button and LED	Press this button to turn on the ReadyNAS. The LED has these states: <ul style="list-style-type: none"> • Blinking. Booting or shutting down • On. Powered on • Off. Powered off
Disk LEDs (1, 2, 3, 4)	Each disk bay has an LED associated with it on the front panel of the unit. The disk LEDs have these states: <ul style="list-style-type: none"> • On. Power is on and the disk is operating normally. • Blinking. The disk was removed, failed, or is resynchronizing. • Off. The disk bay is empty.
Disk activity LED	The disk activity LED has these states: <ul style="list-style-type: none"> • Blinking. A disk is active. • Off. No disks are active.
Rear panel Ethernet port LEDs	Two LED status indicators are built into this port, one green and one amber. They indicate port speed and activity as follows: <ul style="list-style-type: none"> • Green on, amber off. 1000 Mbps connection speed, no activity • Green blinking, amber off. 1000 Mbps connection speed, activity • Green off, amber on. 10 Mbps or 100 Mbps connection speed, no activity • Green off, amber blinking. 10 Mbps or 100 Mbps connection speed, no activity • Green off, amber off. No connection

System Shutdown

You can shut down your unit in these ways:

- **Using the Power button:**
 - **Preferred shutdown.** Press the **Power** button twice to initiate a graceful shutdown.
 - **Forced shutdown.** If the unit is not responding, unplug it.
- **Using the ReadyNAS Dashboard.** For information about using the ReadyNAS Dashboard to shut down your NV+ v2, see the *ReadyNAS RAIDiator 5.3 for Home Software Manual*, which is available at <http://www.readynas.com/documentation>.

Boot Menu

Use the boot menu to restart or troubleshoot your ReadyNAS unit. Your unit has the following boot modes:

- **Normal.** Initiates a normal boot process, just like booting using the Power button.
- **Factory default.** Initiates a short disk test that takes approximately 5 minutes, then begins a 10-minute time-out period waiting for RAIDar. During the 10-minute time-out period, the system can be powered off safely without causing any data loss. After 10 minutes, or if you select the factory default option with RAIDar during the time-out period, the factory default process begins.



WARNING!

The factory default reboot process resets the unit to factory settings, erases all data, resets all defaults, and reformats the disk to X-RAID2.

- **OS reinstall.** Reinstalls the firmware from the internal flash to the disks. Use the OS reinstall boot mode when the system crashes and corrupts some configuration files. OS reinstall boot mode also resets some settings on your unit, such as Internet protocol settings and the administrator password, to defaults.
- **Tech support.** Boots into a low-level diagnostic mode. Use the tech support boot mode only when instructed to do so by a NETGEAR Technical Support representative.
- **Skip volume check.** After a system crash, the system tries to scan and fix the volume using a file system check. If several problems are found on a disk, this process can stall, causing the system not to boot. Use this option to skip the scan and let the system boot.



WARNING!

Use the skip volume check boot mode only when instructed to do so by a NETGEAR Technical Support representative, otherwise data loss might occur.

- **Memory test.** Performs a memory test. The pass or fail result is reported using the unit's LEDs. Contact a NETGEAR technical support representative to interpret memory test results.
- **Disk test.** Performs an offline full disk test. This can take 4 hours or more, depending on the size of your disks. Any problems are reported in the RAIDar discovery tool.

➤ **To access the boot menu:**

1. Power off your unit.
2. Using a straightened paper clip, press and hold the **Reset** button.
3. Press the **Power** button to power on the unit.
4. Continue to press the **Reset** button until the status display screen shows a boot menu message.
5. Press the **Backup** button to scroll through boot mode options.

The status display screen shows the current boot mode option.

6. When the status display screen shows the boot mode you need, press and release **Reset** button to confirm your boot menu selection.

The system boots in the selected boot mode.

4 Disks

4

Use only supported disks in your ReadyNAS storage system. If you use non-supported disks, NETGEAR Technical Support will not provide assistance. For a list of supported disks, see the NETGEAR Hardware Compatibility List at http://www.readynas.com/hard_disk_hcl.

For information about configuring disks on your ReadyNAS storage system, see the *ReadyNAS RAIDiator 5.3 for Home Software Manual*, which is available at <http://www.readynas.com/documentation>.

This chapter includes the following topics:

- *Previously Formatted Disks*
- *Adding a Disk*
- *Failed Disk Notification*
- *Replacing a Disk*

Previously Formatted Disks

You must take care when using previously formatted disks in your ReadyNAS unit, as described in the following table.

Table 1. Previously Formatted Disk Precautions

Unit Status	Precaution
ReadyNAS unit has no disks (diskless)	<p>Turn the unit off and insert the disk as described in <i>Diskless Units</i> on page 8. Then, perform a factory default reboot as described in <i>Boot Menu</i> on page 16.</p> <p>Note: This process erases all data and reformats the previously formatted disk to X-RAID2. If you want to preserve the data on the disk, you must move the data to an external drive before using the previously formatted disk in your ReadyNAS unit.</p> <p>You cannot use previously formatted disk in your unit without following this process. For example, if you try to use a disk that was formatted for a Duo v1, an NV+ v1, or a Windows operating system, RAIDar displays a "Corrupt Root" error message.</p>
ReadyNAS unit is operating with one or more disks	<p>With the unit running, insert the disk in an empty disk bay as described in <i>Adding a Disk</i> on page 28. The unit automatically formats the disk in the same format as your existing disks.</p> <p>Note: This process erases all data on the previously formatted disk. If you want to preserve the data on the disk, you must move the data to an external drive before using the previously formatted disk in your ReadyNAS unit.</p>

Previously formatted disks must appear on the NETGEAR Hardware Compatibility List, which is available at http://www.readynas.com/hard_disk_hcl.

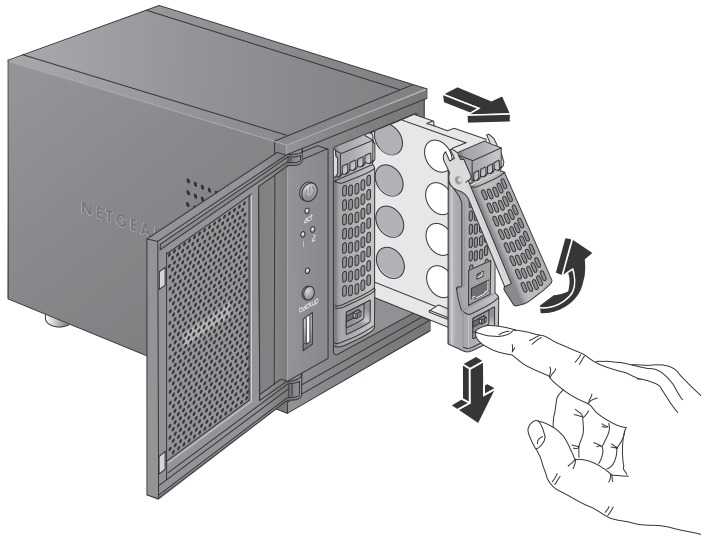
Adding a Disk

You can add a hard disk to an empty disk bay. You do not need to shut down your unit before adding a disk.

If you are adding a previously formatted disk to your Duo v2, NV+ v2, see the precautions in [Previously Formatted Disks](#) on page 27.

➤ **To add a disk:**

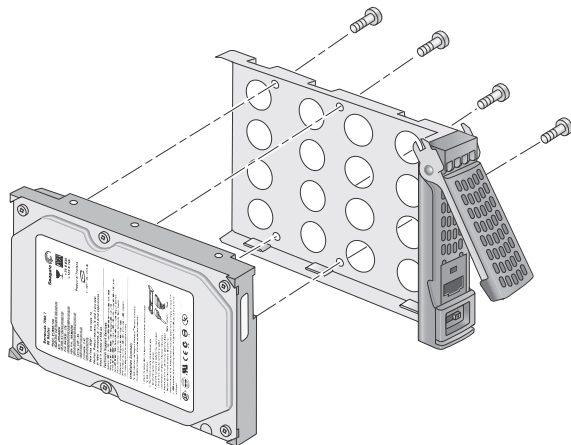
1. Press the disk tray release latch.



The tray handle pops out.

2. Pull out the disk tray, place the new disk on the tray, and assemble the disk and tray with the screws that came with your unit.

Make sure that the hard disk connectors face the interior of the disk bay.



3. Slide the disk tray back into the unit and press the handle to secure the disk.

The volume automatically synchronizes with the new disk in the background. This might take several hours, depending on the disk size. You can continue to use your ReadyNAS, although access is slower until the volume synchronization finishes. You are notified by email when the process is complete.

If you are adding disks to a diskless unit, see the *ReadyNAS RAIDiator 5.3 for Home Software Manual*, which is available at <http://www.readynas.com/documentation>, for information about using RAIDar to discover your unit on your local area network for the first time.

Failed Disk Notification

If a disk fails, you are notified by email. Email alerts must be set up for notifications to be sent. In addition, the ReadyNAS Dashboard provides information about the failed disk.

NETGEAR recommends replacing a failed disk with the same disk model. Use the ReadyNAS Dashboard to determine the disk vendor and model used in your unit.

For information about setting up email alerts and using the ReadyNAS Dashboard, see the *ReadyNAS RAIDiator 5.3 for Home Software Manual*, which is available at <http://www.readynas.com/documentation>.



WARNING!

No matter how many hard drives are installed in your unit, ensure that all drive trays remain in the drive bays to maintain adequate airflow.

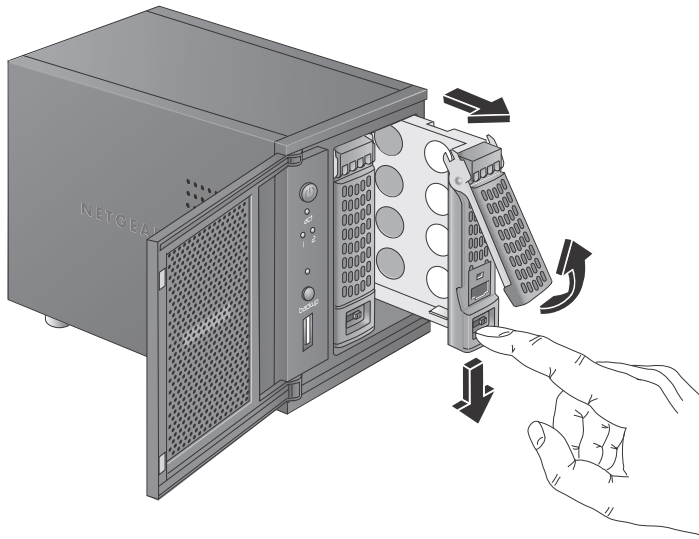
Replacing a Disk

In the case of a failed disk, the unit provides email alerts and status messages about the need to replace a disk. ReadyNAS supports hot-swap bays, so you do not need to power down your unit when replacing a disk.

If you are replacing a disk with a previously formatted disk, see the precautions in *Previously Formatted Disks* on page 27.

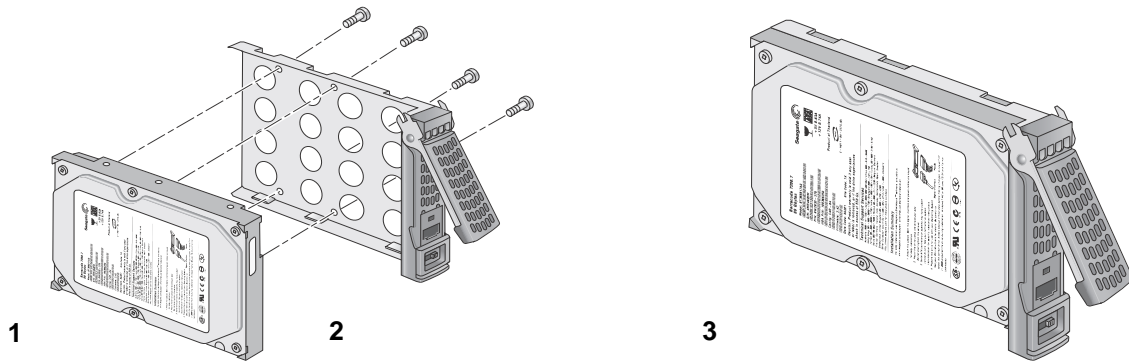
➤ **To replace a disk:**

1. Press the disk tray pull release latch.



The disk tray handle pops out.

2. Pull out the disk tray and replace the disk.



1. Hard drive
2. Empty disk tray
3. Assembled disk tray

Make sure that the hard disk connectors face the interior of the disk bay.

3. Slide the disk tray back into the unit and press the handle to secure the disk.

The volume automatically synchronizes with the new disk in the background. This might take several hours, depending on the disk size. You can continue to use your ReadyNAS, although access is slower until the volume synchronization finishes. You are notified by email when the process is complete.

A Defaults and Technical Specifications



This appendix includes the following sections:

- *Factory Default Settings*
- *Duo v2 Technical Specifications*
- *NV+ v2 Technical Specifications*

Factory Default Settings

The following table lists factory default settings for ReadyNAS Duo v2 and NV+ v2.

Feature	Default
Login	
User login URL when the ReadyNAS is not connected to a DHCP server	https://192.168.168.168/admin
Admin user name (case-sensitive)	admin
Admin login password (case-sensitive)	password
Management	
System configuration	ReadyNAS Dashboard web-based configuration and status monitoring
Discovery, multi-unit status monitoring, and RAID formatting utility	RAIDar for Windows, Mac, and Linux
LAN Connections	
MAC address	See sticker on unit
MTU size	1500
Ethernet port	Auto Sense 10/100/1000BASE-T, RJ-45
LAN IP address	DHCP acquired

Duo v2 Technical Specifications

The ReadyNAS Duo v2 storage system meets the following technical specifications:

General:

- 2-bay storage
- Marvell single-core processor
- 256MB DDR3
- One 1-gigabit Ethernet port
- One USB 2.0 port (front)
- Two USB 3.0 ports (back)
- X-RAID2

Physical dimensions (h x w x d):

- 142 x 101 x 220 mm
- 5.60 x 3.98 x 8.70 in

Physical weight:

- 2.07 kg / 4.56 lb without disks

Power consumption:

- 24.2 W typical (with 2 x 1 TB spinning)
- 21.3 W idle

Electrical:

- Input: DC 12.0V, 5A

Thermal:

- Software controlled 92 mm chassis cooling fan
- High temperature email alert with auto shutdown

Environmental compliance:

- 32° to 104° F
- 20% to 80% Humidity (non-condensing)
- FCC, UL, CE, RoHS, C-tick, VCCI, CCC, KCC compliance

NV+ v2 Technical Specifications

The ReadyNAS NV+ v2 storage system meets the following technical specifications:

General:

- 4-bay storage
- Marvell single-core processor
- 256MB DDR3
- One 1-gigabit Ethernet port
- One USB 2.0 port (front)
- Two USB 3.0 ports (back)
- X-RAID2

Physical dimensions (h x w x d):

- 170 x 250 x 285 mm
- 6.70 x 10.00 x 11.20 in

Physical weight:

- 6.70 kg / 14.90 lb without disks

Power consumption:

- 48.4 W typical (with 4 x 1TB spinning)
- 41.1 W idle

Electrical:

- Input: DC 12.0V, 5A

Thermal:

- Software controlled 92 mm chassis cooling fan
- High temperature email alert with auto shutdown

Environmental compliance:

- 32° to 104° F
- 20% to 80% Humidity (non-condensing)
- FCC, UL, CE, RoHS, C-tick, VCCI, CCC, KCC compliance

Safety Warnings

1. Install the socket outlet near the equipment in an easily accessible location.
2. Observe the on-board battery precautions.



DANGER:

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THEIR INSTRUCTIONS.

3. Connect the units and their associated LAN connections only to equipment within the same building.

Electrical Safety Precautions

Follow basic electrical safety precautions to protect yourself from harm and the ReadyNAS from damage:

- Be aware of the locations of the power on/off switch on the chassis as well as the room's emergency power-off switch, disconnection switch, or electrical outlet. If an electrical accident occurs, you can then quickly remove power from the system.
- Always disconnect power from the system when removing or installing main system components, such as the main board or memory modules. When disconnecting power, first power down the system with the operating system and then unplug the power cords of all the power supply units in the system.
- Use only one hand when working with powered-on electrical equipment. This is to avoid making a complete circuit, which will cause electrical shock. Use extreme caution when using metal tools, which can easily damage any electrical components or circuit boards they come into contact with.
- Do not use mats designed to decrease static electrical discharge as protection from electrical shock. Instead, use rubber mats that have been specifically designed as electrical insulators.
- Use only power supply cords that include a grounding plug and plug them into grounded electrical outlets.

General Safety Precautions

Follow these rules to ensure general safety:

- Keep the area around the ReadyNAS clean and free of clutter.
- See the technical specifications in this manual for details about your specific ReadyNAS unit.

- Replace the on-board battery only with the same battery or an equivalent type of battery recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.



DANGER:

Installing the battery upside down reverses its polarities and creates a danger of explosion.

- Main board replaceable soldered-in fuses: Only trained service technicians can replace the self-resetting PTC (positive temperature coefficient) fuses on the main board, using only new fuses that are the same as or equivalent to the ones being replaced. Contact Technical Support for details and support.

Electrostatic Discharge (ESD) Precautions

Electrostatic discharge (ESD) is generated by two objects with different electrical charges coming into contact with each other. An electrical discharge is created to neutralize this difference, which can damage electronic components and printed circuit boards. The following measures are generally sufficient to neutralize this difference before contact is made to protect your equipment from ESD:



- Use a grounded wrist strap designed to prevent static discharge.
- Keep all components and printed circuit boards (PCBs) in their antistatic bags until ready for use.
- Touch a grounded metal object before removing the board from the antistatic bag.
- Do not let components or PCBs come into contact with your clothing, which might retain a charge even if you are wearing a wrist strap.
- Handle a board by its edges only; do not touch its components, peripheral chips, memory modules, or contacts.
- When handling chips or modules, avoid touching their pins.
- Put the main board and peripherals back into their antistatic bags when not in use.
- For grounding purposes, make sure your computer chassis provides excellent conductivity between the power supply, the case, the mounting fasteners and the main board.

B Compliance Notification



Regulatory Compliance Information

This section includes user requirements for operating this product in accordance with National laws for usage of radio spectrum and operation of radio devices. Failure of the end-user to comply with the applicable requirements may result in unlawful operation and adverse action against the end-user by the applicable National regulatory authority.

This product's firmware limits operation to only the channels allowed in a particular Region or Country. Therefore, all options described in this user's guide may not be available in your version of the product.

FCC Requirements for Operation in the United States

FCC Information to User

This product does not contain any user serviceable components and is to be used with approved antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Guidelines for Human Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Declaration Of Conformity

We, NETGEAR, Inc., 350 East Plumeria Drive, San Jose, CA 95134, declare under our sole responsibility that the NETGEAR ReadyNAS Duo v2 and NV+ v2 comply with Part 15 of FCC Rules.

Operation is subject to the following two conditions:

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

FCC Radio Frequency Interference Warnings & Instructions

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 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 methods:

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

Modifications made to the product, unless expressly approved by NETGEAR, Inc., could void the user's right to operate the equipment.

Canadian Department of Communications Radio Interference Regulations

This digital apparatus, NETGEAR ReadyNAS Duo v2 and NV+ v2, do not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

European Union

The NETGEAR ReadyNAS Duo v2 and NV+ v2 comply with essential requirements of EU EMC Directive 2004/108/EC and Low Voltage Directive 2006/95/EC as supported by applying the following test methods and standards:

- EN55022: 2006 / A1: 2007
- EN55024: 1998 / A1: 2001 / A2: 2003
- EN60950-1: 2005 2nd Edition
- EN 61000-3-2: 2006
- EN 61000-3-3: 1995 w/A1: 2001+A2: 2005

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