

## Synology RS4021xs+

# Synology RackStation RS4021xs+ NAS Server User Manual

Model: RS4021xs+

## 1. INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your Synology RackStation RS4021xs+ NAS Server. The RS4021xs+ is a powerful 16-bay rackmount Network Attached Storage solution designed for demanding business environments, offering high performance and robust data management capabilities. Please read this manual thoroughly before using the device to ensure proper setup and optimal performance.

## 2. SAFETY INFORMATION

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- Ensure the device is installed in a well-ventilated area to prevent overheating.
- Use only the power supply provided or a compatible replacement specified by Synology.
- Do not expose the device to water or excessive humidity.
- Always disconnect power before performing any maintenance or hardware installation.
- Handle hard drives and SSDs with care to avoid damage from static electricity.

## 3. PACKAGE CONTENTS

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Verify that all items are present in the package:

- Synology RackStation RS4021xs+ NAS Server Unit
- Sliding Rail Kit for Rack Installation
- AC Power Cord(s)
- Accessory Pack (screws for drives, Ethernet cables)
- Quick Installation Guide

**Note:** Hard drives and memory upgrades are included separately and require installation. They are not pre-installed in the chassis.

## 4. PRODUCT OVERVIEW

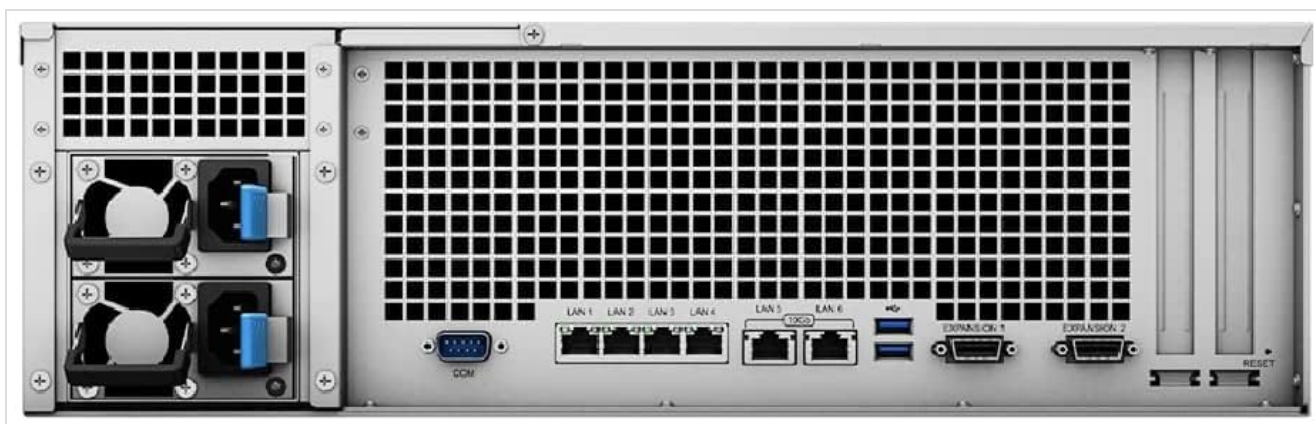
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## 4.1 Front View



The front panel features 16 hot-swappable drive bays, each with an LED indicator for drive status. The power button, status indicator LEDs, and a USB 3.2 port are also located on the front for easy access.

## 4.2 Rear View



The rear panel includes dual redundant power supply units, four RJ-45 1GbE LAN ports, two RJ-45 10GbE LAN ports, two USB 3.2 ports, and two expansion ports for connecting Synology expansion units. A console port (COM) and a reset button are also present.

## 4.3 Rail Kit



The included sliding rail kit facilitates easy installation and maintenance of the NAS server within a standard 19-inch server rack. It allows the unit to be pulled out for access without full removal.

# 5. SETUP

## 5.1 Rail Kit Installation

1. Attach the inner rails to the sides of the RS4021xs+ chassis using the provided screws.

2. Mount the outer rails to your server rack posts, ensuring they are level and securely fastened.
3. Slide the RS4021xs+ unit into the mounted outer rails until it clicks into place.

## 5.2 Drive Installation

1. Gently pull the drive tray handle to release and remove a drive tray from the NAS.
2. Place your 2.5-inch SATA SSD into the drive tray and secure it with the provided screws.
3. Slide the loaded drive tray back into the empty drive bay until it clicks into place.
4. Repeat for all desired drives. Ensure drives are fully seated.

## 5.3 Initial Connection and Power On

1. Connect one or more Ethernet cables from the NAS LAN ports to your network switch or router.
2. Connect the power cord(s) to the NAS and then to a power outlet.
3. Press the power button on the front panel. The system status LED will blink during startup and turn solid green when ready.
4. Access the Synology DiskStation Manager (DSM) web interface by opening a web browser and navigating to <http://find.synology.com> or by entering the NAS's IP address.
5. Follow the on-screen instructions to install DSM and configure your storage pools and volumes.

# 6. OPERATING THE NAS

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## 6.1 DiskStation Manager (DSM) Overview

DSM is the intuitive web-based operating system for your Synology NAS. It provides a desktop-like interface for managing all aspects of your server, including file sharing, data backup, multimedia streaming, and system settings. Explore the various applications and services available in the Package Center.

## 6.2 Basic File Management

Use File Station within DSM to browse, upload, download, and manage files and folders on your NAS. You can create shared folders, set user permissions, and access files from various devices.

## 6.3 Network Configuration

Configure network settings, including IP addresses, DNS servers, and port forwarding, through the Control Panel in DSM. The RS4021xs+ supports Link Aggregation/Failover for its 1GbE and 10GbE LAN ports, enhancing network throughput and redundancy.

## 6.4 Data Protection and iSCSI

Leverage the Btrfs file system for advanced data protection features like snapshots and data integrity checks. Configure iSCSI LUNs for block-level storage access, ideal for virtualized environments and high-performance applications.

# 7. MAINTENANCE

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## 7.1 Firmware Updates

Regularly update DSM to the latest version to ensure optimal performance, security, and access to new features. Updates can be managed via the Control Panel > Update & Restore section in DSM.

## 7.2 System Health Monitoring

Monitor the health of your NAS, including CPU usage, memory, network activity, and drive status, using the Resource Monitor and Storage Manager in DSM. Configure notifications for critical events.

### 7.3 Drive Replacement

In the event of a drive failure, the hot-swappable design allows for easy replacement without powering down the unit. Consult the Storage Manager for instructions on replacing a failed drive and rebuilding the storage pool.

## 8. TROUBLESHOOTING

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- **NAS not powering on:** Check power cord connections and power outlet. Ensure power supply units are properly seated.
- **Cannot access DSM:** Verify network cable connections. Ensure the NAS has an IP address. Try accessing via <http://find.synology.com>.
- **Drive status LED is amber/red:** This indicates a drive issue. Check Storage Manager in DSM for details and follow recommended actions for drive replacement or repair.
- **Slow performance:** Check Resource Monitor for high CPU/memory usage or network bottlenecks. Ensure drives are healthy and storage pools are optimized.
- **Forgot administrator password:** Refer to Synology's official documentation for password reset procedures, which typically involve using the reset button on the rear panel.

## 9. SPECIFICATIONS

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Feature	Specification
Model	RS4021xs+
Processor	Xeon D-1541 8-Core 2.1GHz CPU
Memory	64GB DDR4 ECC UDIMM
Storage Capacity (Included)	32TB (16 x 2TB) SATA 2.5" SSDs
Drive Bays	16 (Hot-swappable 2.5"/3.5" SATA)
LAN Ports	4 x RJ-45 1GbE, 2 x RJ-45 10GbE (with Link Aggregation/Failover support)
USB Ports	2 x USB 3.2
Expansion Ports	2
File System	Internal: EXT4, Btrfs
Form Factor	Rackmount (16U)
Dimensions (LxWxH)	24 x 22 x 20 inches
Weight	40 pounds
Operating System	Synology DSM Software

## 10. WARRANTY AND SUPPORT

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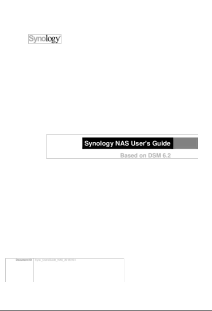


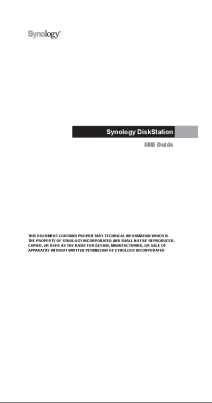
Your Synology RackStation RS4021xs+ is covered by Synology's standard product warranty. For detailed warranty terms and conditions, please refer to the official Synology website or the warranty card included with your product.


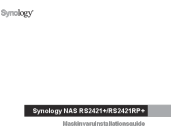
For technical support, software updates, and additional resources, please visit the official Synology Support Center:

- **Synology Support Website:** <https://www.synology.com/support>
- **Knowledge Base:** Access articles and FAQs for common issues and configurations.
- **Download Center:** Obtain the latest DSM updates, utilities, and documentation.

When contacting support, please have your product model (RS4021xs+) and serial number ready.

**Related Documents - RS4021xs+**

	<p><a href="#">Synology NAS User's Guide: Master DSM 6.2 Features</a></p> <p>Comprehensive user guide for Synology NAS devices running DiskStation Manager (DSM) 6.2. Learn to set up, manage, share files, back up data, and utilize advanced features for optimal performance and security.</p>
	<p><a href="#">Synology Adapter Card E10M20-T1 Hardware Installation Guide</a></p> <p>Hardware installation guide for the Synology Adapter Card E10M20-T1, detailing package contents, specifications, safety instructions, and step-by-step installation procedures for M.2 SSDs.</p>
	<p><a href="#">Synology RS1221+ Hardware Installation Guide</a></p> <p>Comprehensive hardware installation guide for the Synology RS1221+ NAS, covering package contents, hardware setup, component installation (drives, memory, PCIe cards), rack mounting, startup procedures, and system maintenance.</p>
	<p><a href="#">Synology DiskStation MIB Guide</a></p> <p>A guide detailing Synology DiskStation Management Information Base (MIB) files, their structure, supported OIDs, and how to use them with Network Management Systems (NMS) for monitoring Synology NAS devices.</p>

	<p><a href="#">Synology RackStation RS2211+/RS2211RP+ Quick Installation Guide</a></p> <p>A quick installation guide for the Synology RackStation RS2211+ and RS2211RP+ network attached storage devices, covering hardware setup, DSM installation, specifications, and LED indicators.</p>
	<p><a href="#">Synology RS2421+/RS2421RP+ Maskinvaruinstallationsguide</a></p> <p>En komplett guide för installation av Synology RS2421+ och RS2421RP+ nätverksanslutna lagringsenheter (NAS), inklusive maskinvarukonfiguration, komponentinstallation, systemunderhåll och installationsprocessen för DiskStation Manager (DSM).</p>