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Synology DS220j

Synology DS220j User Manual

Model: DS220j

Brand: Synology

1. INTRODUCTION

This manual provides detailed instructions for setting up, operating, maintaining, and troubleshooting your Synology DS220j Network Attached Storage (NAS) device. The Synology DS220j is designed to be an easy-to-use private cloud solution for data storage, sharing, and management.



Figure 1.1: Synology DS220j NAS Device

The DS220j features a 1.4 GHz Quad-Core Realtek RTD1296 (64-bit) processor and 512MB RAM, offering efficient

performance for home and small office environments. It includes comprehensive built-in security tools to protect your data against evolving threats and allows integration of various network services and management applications.

2. SETUP GUIDE

Follow these steps to set up your Synology DS220j NAS.

2.1 Unboxing and Component Check

Upon unboxing, ensure all components are present:

- Synology DS220j NAS unit
- AC power adapter and power cord
- Quick Installation Guide
- RJ-45 LAN cables (x2)
- Hard drive tray keys (if applicable)
- 2.5-inch hard drive screws (for SSDs)



Figure 2.1: Synology DS220j with Synology logo on side

2.2 Hard Drive Installation

The DS220j supports two hard drives. It is recommended to use NAS-specific drives like Seagate IronWolf for optimal performance and longevity, as they are designed for continuous operation and run cooler.



Figure 2.2: Front view of the Synology DS220j

1. Unscrew the two screws at the back of the unit to remove the outer shell.
2. Slide the outer shell off the unit.
3. Install your 3.5-inch hard drives into the designated bays. For 2.5-inch drives (SSDs), use the provided screws to secure them to the trays.
4. Slide the outer shell back onto the unit and secure it with the screws.

2.3 Connecting the NAS

Connect the AC power adapter to the power port on the NAS and plug it into a power outlet. Use an RJ-45 LAN cable to connect the NAS to your network switch, router, or hub. Ensure your computer is on the same network domain as the NAS for initial setup.

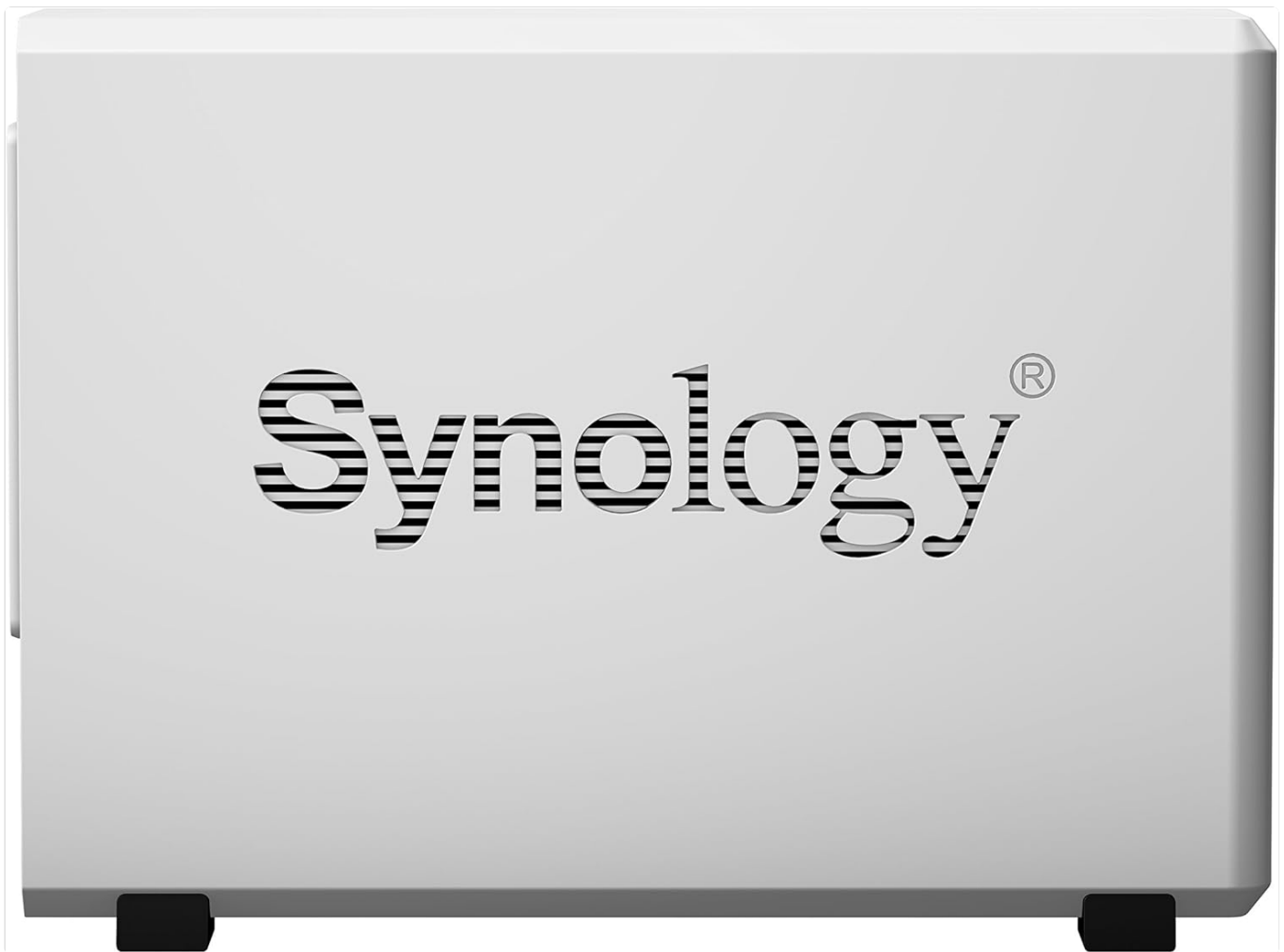


Figure 2.3: Rear view of Synology DS220j with LAN and USB ports

2.4 Initial Power On and Web Assistant Setup

Press the power button on the front of the NAS to power it on. To find your NAS via Web Assistant, open a web browser and navigate to <http://find.synology.com>. The Web Assistant will search for your DiskStation on the network. If the NAS is connected to the same domain, it will be found. If not, you may need to download Synology Assistant from the Synology download center.

2.5 Installing DiskStation Manager (DSM)

Once your NAS is found, click "Set up" to begin the DSM installation. Follow the on-screen prompts. Be aware that all data on the hard drives will be erased during this process. Do not turn off the power during installation. The NAS will restart automatically once DSM is installed.

2.6 Creating Administrator Account

After DSM installation, you will be prompted to create your administrator account. Enter a server name, username, and password. These credentials will be used to log into your Synology NAS and its services.

2.7 DSM Update & Maintenance Settings

Configure your DSM update frequency. It is recommended to automatically install the latest DSM version to ensure your NAS is always up-to-date with the latest features and security fixes. You can also enable S.M.A.R.T. tests to check the health of your hard drives periodically.

2.8 QuickConnect Setup

QuickConnect allows easy access to your DiskStation from anywhere without complex network configurations. You can create a new QuickConnect ID or log in with an existing Synology Account. This feature simplifies remote access to your

NAS.

2.9 Volume Creation

For first-time users, you need to create a volume to store all packages and files. Open Storage Manager, select "Volume" on the menu, and click "Create". You can choose "Quick" to maximize storage capacity with Synology Hybrid RAID (SHR) or "Custom" for manual RAID type selection. For four or more hard drives, SHR-2 provides two-drive fault tolerance. Select the hard drives you wish to include in the volume. All data on selected drives will be erased.

2.10 File System Selection

You will need to select a file system for your volume. Btrfs is recommended as it provides advanced features such as snapshots, shared folder quotas, and advanced data integrity protection.

Video 2.1: NAS Setup Guide by Synology America Corp. This video provides a comprehensive guide on setting up your Synology NAS, including hardware installation and initial software configuration.

3. OPERATING YOUR SYNOLOGY DS220J

The Synology DS220j offers a variety of functionalities for efficient data management.

3.1 File Sharing and Access

Your Synology NAS serves as a central repository for your files, allowing for easy sharing and access across your network. You can add and share files directly through the DSM interface or access them via Windows File Explorer or Mac Finder.

Video 3.1: How to Add and Share Files on Your Synology NAS by Synology America Corp. This video demonstrates the process of adding and sharing files on your Synology NAS.

Video 3.2: How to Access Files via Windows File Explorer or Mac Finder by Synology America Corp. This video explains how to access your NAS files using standard file browsers on Windows and Mac.

3.2 Anywhere Access with QuickConnect

With QuickConnect configured during setup, you can access your NAS files and services from any location with an internet connection, without needing complex port forwarding. Simply use your QuickConnect ID to log in via a web browser or the Synology mobile apps.

3.3 Cloud Synchronization and Backup

The DS220j can be used as a private cloud for syncing files across multiple devices and for creating backups. It supports various backup solutions, including compatibility with Apple Time Machine for macOS users.

3.4 Multimedia Management

The NAS can serve as a media server for your photos, videos, and music. You can install multimedia packages from the Package Center to organize and stream your media content to various devices.

3.5 Expanding Functionality with Package Center

The DSM Package Center offers a wide range of applications to extend the functionality of your NAS. These include tools for backup, collaboration, multimedia, surveillance, and more. You can also download corresponding mobile apps from Google Play and the App Store to manage your NAS on the go.

4. MAINTENANCE

Regular maintenance ensures the optimal performance and longevity of your Synology DS220j.

4.1 DSM Updates

Keep your DiskStation Manager (DSM) updated to the latest version. Automatic updates are recommended to receive new features, security patches, and performance improvements. You can configure update settings in the Control Panel under DSM Update & Maintenance.

4.2 Hard Drive Health Monitoring

Utilize the S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) tests to periodically check the health of your installed hard drives. This can help identify potential drive failures before they occur, allowing you to replace drives proactively and prevent data loss.

4.3 Data Protection

Implement robust data protection strategies. Synology NAS devices offer features like RAID configurations (e.g., SHR) for data redundancy, ensuring that your data remains accessible even if one drive fails. Regularly back up critical data to external storage or a cloud service.

4.4 Environmental Considerations

Ensure your NAS is placed in a well-ventilated area to prevent overheating. NAS-specific hard drives are designed to run cooler, which contributes to the overall stability and lifespan of the device.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your Synology DS220j.

5.1 Web Assistant Not Finding NAS

If <http://find.synology.com> does not locate your NAS, ensure your computer and NAS are connected to the same network domain. You may need to download and use the Synology Assistant desktop application to discover the device on your local network.

5.2 Slow Software Interface

Users have reported the software interface can be slow, especially during initial setup or when large amounts of data are being indexed. This is often due to high CPU usage during these processes. You can try pausing indexing if available, or allow the process to complete. Ensure your network connection is stable and fast.

5.3 Indexing Issues

When copying large amounts of photos/videos, indexing can consume significant CPU time, leading to slow login times. While a scheduled indexing option might not be directly available, the system prioritizes these tasks. Allow sufficient time for indexing to complete, especially after adding large data sets.

5.4 Antivirus Software Issues

If the Synology antivirus program is not updating or scanning correctly, you might need to manually install the first virus definition. Refer to Synology's official support resources for specific instructions on resolving antivirus update issues.

5.5 Time Machine Backup Hiccups

For macOS users experiencing Time Machine backup issues, it might be due to multiple sessions for the Time Machine user on the Synology device. Access your Synology DSM, navigate to the user settings, and terminate any redundant Time Machine user sessions. This often resolves the backup problem.

6. SPECIFICATIONS

Feature	Specification
Model	DS220j
Processor	1.4 GHz Quad-Core Realtek RTD1296 (64-bit)
RAM	512MB
Hard Drive Type	Mechanical Hard Disk (compatible with 3.5" and 2.5" drives)
Hard Drive Interface	Serial ATA-600
LAN	1x Gigabit LAN Port
USB Ports	USB 3.0 (quantity not specified, typically 2)
Dimensions (LxWxH)	8.86 x 3.94 x 6.5 inches
Item Weight	1.94 pounds
Color	Enclosure (White)
Manufacturer	Synology
First Available Date	February 25, 2020

7. WARRANTY AND SUPPORT

For detailed warranty information and technical support, please refer to the official Synology website or contact Synology customer service. Synology provides extensive online resources, including knowledge bases, forums, and download centers for software updates and utilities.

Visit the [Synology Official Website](#) for more information.
