NETGEAR RAX43-100NAS

NETGEAR Nighthawk 5-Stream AX5 WiFi 6 Router (RAX43) Instruction Manual

Model: RAX43-100NAS

1. Product Overview

The NETGEAR Nighthawk 5-Stream AX5 WiFi 6 Router (RAX43) is designed to provide high-speed wireless connectivity for homes. Featuring Wi-Fi 6 technology, it offers enhanced capacity and throughput for multiple devices, supporting smooth streaming, gaming, and general internet use. This router is equipped with a powerful processor and multiple Gigabit Ethernet ports to ensure reliable performance across your network.



Figure 1.1: Front view of the NETGEAR Nighthawk RAX43 WiFi 6 Router.

2. Key Features

- **Super-Fast Wireless Speed:** Experience speeds up to 574 Mbps on the 2.4 GHz band and 3603 Mbps on the 5 GHz band, totaling AX4200, for smooth gaming, UHD video streaming, and faster file transfers.
- **Wi-Fi 6 Technology:** Offers 4x more capacity, a 40 percent increase in data throughput, and 100 percent backwards compatibility with older Wi-Fi standards, optimizing performance for numerous connected devices.
- **Nighthawk App:** Facilitates easy setup and management of your entire Wi-Fi network directly from your mobile device.
- **Powerful Processor:** Equipped with a 1.5 GHz triple-core processor designed for smooth 4K UHD streaming to Smart TVs, mobile devices, and gaming consoles.
- **NETGEAR Armor:** Provides an automatic shield of protection for your network and connected devices against hackers, password thieves, ransomware, and brute force attacks.
- **Extensive Coverage:** Four external antennas deliver reliable WiFi coverage up to 2,000 sq. ft.
- **Wired Connectivity:** Includes four Gigabit Ethernet LAN ports for high-speed wired connections and one USB 3.0 port for network storage.



Figure 2.1: Overview of Nighthawk RAX43 WiFi 6 Router capabilities, highlighting 5 simultaneous WiFi streams, 4x more device capacity, and 4.2 Gbps WiFi speed.

3. Setup Guide

3.1. Package Contents

Before you begin, ensure your package contains the following items:

- NETGEAR Nighthawk RAX43 WiFi 6 Router
- Ethernet Cable
- Power Adapter
- Quick Start Guide (or similar documentation)

3.2. Physical Connection

1. **Position the Router:** Place the router in a central location in your home, away from obstructions and other electronic

devices that might cause interference. Ensure good airflow around the device.

2. **Connect to Modem:** Power off your modem. Connect one end of the Ethernet cable to the yellow Internet (WAN) port on the back of the RAX43 router and the other end to your modem's Ethernet port.
3. **Power On:** Connect the power adapter to the router's power port and plug it into a wall outlet. Power on your modem first, wait for it to fully boot up (usually indicated by stable lights), then power on the router. Wait for the router's power LED to turn solid white.
4. **Connect Devices:** You can connect devices wirelessly or via Ethernet. For wired connections, use an Ethernet cable to connect your computer or other devices to any of the four yellow Gigabit Ethernet LAN ports on the router.



Figure 3.1: Rear view of the router, illustrating the 4 Gigabit Ethernet LAN ports, 1 USB 3.0 port, and the Internet (WAN) port.

3.3. Initial Configuration using Nighthawk App

The easiest way to set up and manage your router is by using the NETGEAR Nighthawk App.

1. **Download the App:** Search for "NETGEAR Nighthawk" in your mobile device's app store (Apple App Store or Google Play Store) and download the app.

2. **Connect to Router's Wi-Fi:** On your mobile device, connect to the router's default Wi-Fi network. The default Wi-Fi network name (SSID) and password are usually printed on a label on the router.
3. **Launch the App:** Open the Nighthawk App and follow the on-screen instructions to set up your internet connection, customize your Wi-Fi network name and password, and configure other settings.
4. **Create NETGEAR Account:** You may be prompted to create a NETGEAR account, which is required for remote management and access to features like NETGEAR Armor.

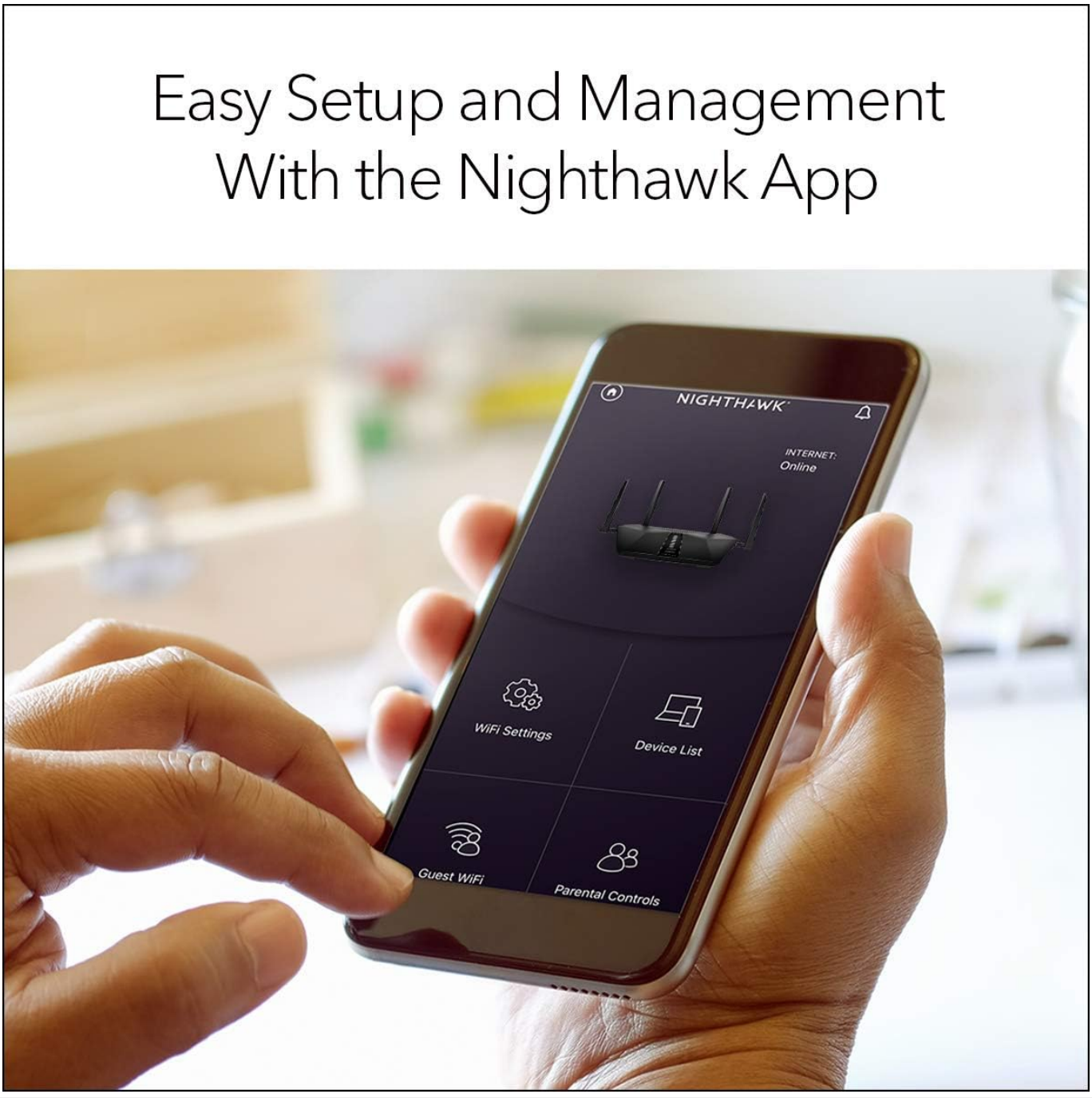


Figure 3.2: The Nighthawk App provides an intuitive interface for easy setup and management of your router.

4. Operating the Router

4.1. Wi-Fi Connectivity

The RAX43 operates on dual bands (2.4 GHz and 5 GHz) to provide optimal performance for various devices. The 2.4 GHz band offers wider coverage and better penetration through walls, suitable for general browsing and smart home devices. The 5 GHz band provides higher speeds and lower latency, ideal for streaming 4K video, online gaming, and large file transfers.



Figure 4.1: The router supports multiple WiFi streams to cover a house full of smart home devices.

The router's four external antennas are designed to deliver reliable Wi-Fi coverage up to 2,000 sq. ft., ensuring a strong signal throughout your home.



Figure 4.2: Four antennas provide extended and reliable WiFi coverage.

For optimal performance, ensure your devices are connected to the appropriate band. Many modern devices can automatically switch between bands for the best connection.

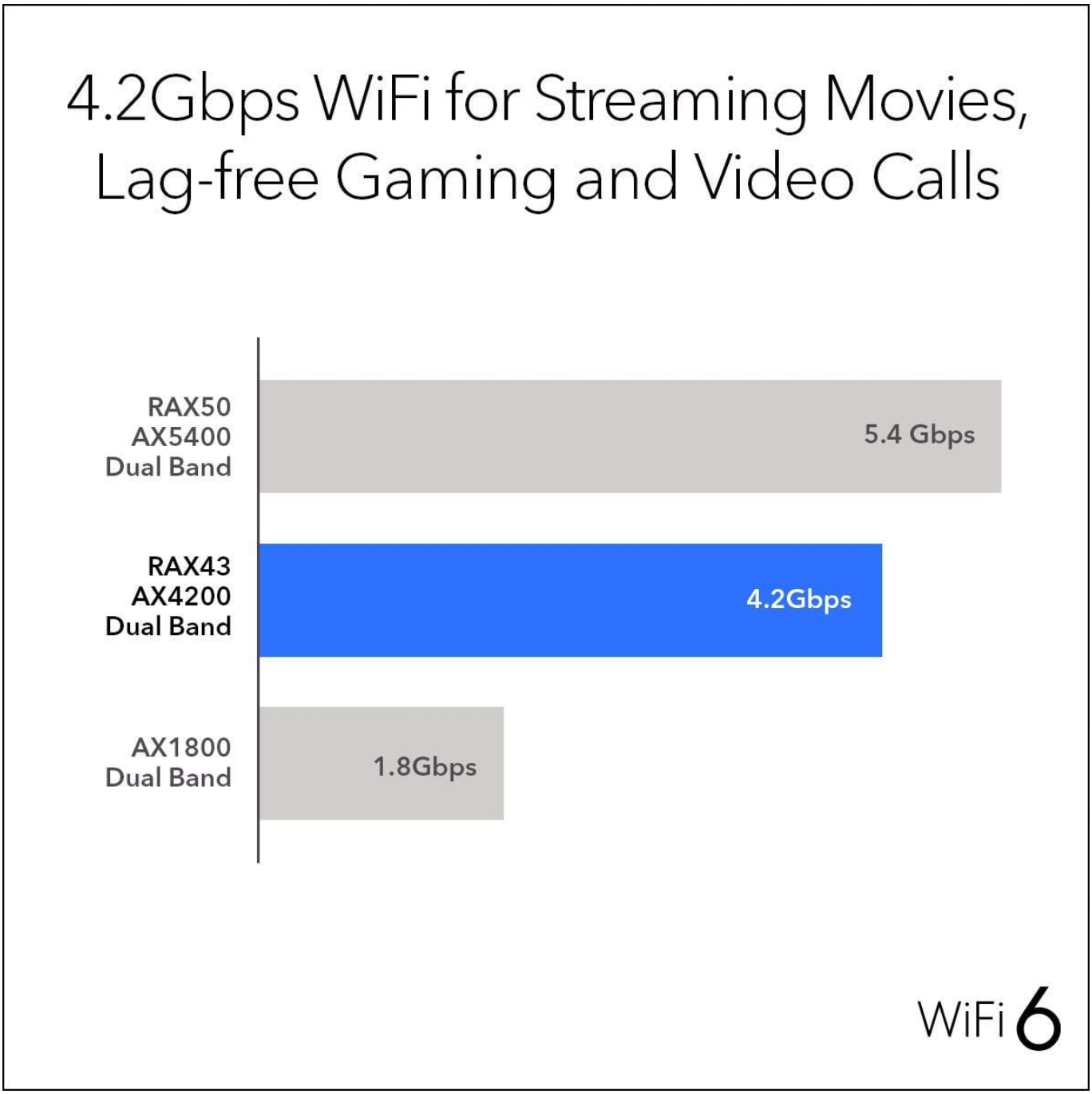


Figure 4.3: Comparison of WiFi speeds, showing the RAX43 AX4200's 4.2 Gbps capability for streaming, gaming, and video calls.

4.2. Wired Connections

The router includes four Gigabit Ethernet LAN ports. These ports are ideal for connecting devices that require a stable, high-speed connection, such as desktop computers, gaming consoles, smart TVs, and network-attached storage (NAS) devices. This ensures maximum performance for bandwidth-intensive applications.

4.3. USB Storage

The USB 3.0 port on the router allows you to connect a USB storage device (e.g., a USB hard drive or flash drive) to create network-attached storage (NAS). This enables you to share files across your network or access them remotely.

4.4. NETGEAR Armor Security

NETGEAR Armor, powered by Bitdefender, provides comprehensive cybersecurity for all devices connected to your network. It protects against online threats such as malware, phishing, and ransomware. Manage your security settings and view threat reports through the Nighthawk App.



Figure 4.4: NETGEAR Armor offers complete cybersecurity for all your home devices, managed via the Nighthawk App.

5. Maintenance

5.1. Firmware Updates

Regularly updating your router's firmware is crucial for security, performance, and new features. You can typically update the firmware through the Nighthawk App or by accessing the router's web interface (usually at routerlogin.net or 192.168.1.1). If automatic updates fail, you may need to manually download the latest firmware from the NETGEAR support website and install it via the web interface.

5.2. Rebooting the Router

Periodically rebooting your router can resolve minor connectivity issues and improve performance. To reboot, simply unplug the power adapter from the router, wait for about 10-15 seconds, and then plug it back in. Allow a few minutes for the router to fully restart and re-establish connections.

5.3. Network Security

Beyond NETGEAR Armor, ensure you use strong, unique passwords for your Wi-Fi network and router administration. Change default passwords immediately after setup. Consider enabling guest Wi-Fi for visitors to keep your main network secure.

6. Troubleshooting

This section addresses common issues you might encounter with your NETGEAR Nighthawk RAX43 router.

6.1. No Internet Connection

- **Check Cables:** Ensure all Ethernet cables are securely connected to the router and modem.
- **Reboot Devices:** Power cycle your modem first, wait 1-2 minutes, then power cycle your router. Wait for all indicator lights to stabilize.
- **Modem Status:** Check the indicator lights on your modem. If they are not normal (e.g., blinking or red), there might be an issue with your Internet Service Provider (ISP). Contact your ISP for assistance.
- **Router Lights:** Verify the Internet LED on the router is solid white. If it's off or amber, there's no connection from the modem.

6.2. Slow Wi-Fi Speed or Intermittent Connection

- **Router Placement:** Ensure the router is centrally located and not obstructed by large objects or walls.
- **Interference:** Other electronic devices (cordless phones, microwaves, Bluetooth devices) can cause interference. Try moving the router or interfering devices.
- **Channel Interference:** In congested areas, Wi-Fi channels can overlap. Use the Nighthawk App or router's web interface to perform a Wi-Fi analysis and select a less congested channel for both 2.4 GHz and 5 GHz bands.
- **5 GHz Instability:** Some users have reported intermittent issues with the 5 GHz connection. Ensure your router's firmware is up to date. If issues persist, try adjusting 5 GHz channel settings (e.g., use lower channels like 36-48 or higher channels like 149-165) or channel width.
- **Too Many Devices:** While Wi-Fi 6 supports more devices, excessive simultaneous high-bandwidth activities can still impact performance.

6.3. Nighthawk App Issues

- **App Not Loading/Timing Out:** If the app fails to load or times out, try rebooting the router. Ensure your mobile device is connected to the router's Wi-Fi network.
- **Firmware Update Issues:** If the app fails to update firmware, try performing a manual firmware update via the router's web interface.

6.4. Router Not Powering On

- **Power Adapter:** Ensure the power adapter is securely connected to both the router and a working power outlet.
- **Test Outlet:** Try plugging another device into the same power outlet to confirm it's functional.
- **Contact Support:** If the router still does not power on, it may indicate a hardware failure. Refer to the Warranty and Support section.

7. Specifications

Feature	Detail
Model Number	RAX43-100NAS
Wireless Standard	802.11ax (Wi-Fi 6)

Feature	Detail
Wi-Fi Speed	AX4200 (Up to 4.2 Gbps)
Frequency Band Class	Dual-Band (2.4 GHz and 5 GHz)
Processor	1.5 GHz Triple-Core
Ethernet Ports	4 x Gigabit Ethernet LAN ports, 1 x Gigabit Ethernet WAN port
USB Port	1 x USB 3.0 port
Antenna Type	Retractable (4 external antennas)
Coverage Area	Up to 2,000 sq. ft.
Product Dimensions	17.4 x 8.1 x 13.5 inches
Item Weight	1.25 pounds
Color	Black
Special Features	NETGEAR Armor, WPS, Nighthawk App

8. Warranty and Support

8.1. Product Warranty

This product is sold as a "Renewed" item. Renewed products typically come with a limited warranty provided by the seller or refurbisher, not necessarily the original manufacturer. For this specific renewed product, a 90-day return/replacement policy is generally offered. Please refer to your purchase documentation or contact the seller (Woot) for precise warranty terms and conditions.

8.2. Technical Support

For technical assistance, firmware downloads, and additional resources, please visit the official NETGEAR support website. You can also find FAQs and community forums there. Have your model number (RAX43-100NAS) and serial number ready when contacting support.

- **NETGEAR Support Website:** www.netgear.com/support/
- **Nighthawk App:** The app also provides access to support resources and troubleshooting tools.

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question