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NETGEAR R6300-100PAS

NETGEAR R6300 AC1750 Smart WiFi Router User Manual

Model: R6300-100PAS | Brand: NETGEAR

1. INTRODUCTION

This manual provides detailed instructions for setting up, operating, and maintaining your NETGEAR R6300 AC1750 Smart WiFi Router. The R6300 is a dual-band Gigabit router designed to deliver high-performance wireless connectivity for your home network.

Key features include:

- Industry's first 802.11ac wireless router with speeds up to 1750 Mbps.
- Simultaneous Dual Band operation (2.4GHz and 5GHz) to reduce WiFi interference and improve connections.
- NETGEAR Genie App for easy network monitoring, control, and repair.
- Powerful dual-core 800 MHz processor for high-performance connectivity.
- USB 3.0 Port for up to 10x faster USB hard drive access.
- Beamforming+ technology for stronger, more reliable WiFi connections.
- IPv6 support for future-proofing your network.

2. PACKAGE CONTENTS

Verify that your package contains the following items:

- NETGEAR R6300 AC1750 Smart WiFi Router
- Ethernet Cable
- Power Adapter
- Quick Installation Guide (not included in this digital manual)

3. PHYSICAL FEATURES

3.1 Front Panel LEDs and Buttons

The front panel of the R6300 router features several LED indicators and buttons to show the device status and allow quick actions.



Figure 1: Front view of the NETGEAR R6300 AC1750 Smart WiFi Router.

- **Power LED:** Indicates power status.
- **Internet LED:** Indicates internet connection status.
- **2.4 GHz WiFi LED:** Indicates activity on the 2.4 GHz wireless band.
- **5 GHz WiFi LED:** Indicates activity on the 5 GHz wireless band.
- **USB LED:** Indicates activity on the USB port.

- **Ethernet LEDs (1-4):** Indicate activity on the corresponding Gigabit Ethernet ports.
- **WiFi On/Off Button:** Toggles WiFi radio on or off.
- **WPS Button:** Initiates Wi-Fi Protected Setup for easy device connection.

3.2 Rear Panel Ports and Buttons

The rear panel provides all the necessary ports for connecting your router to the internet and other devices.



Figure 2: Rear view of the NETGEAR R6300 AC1750 Smart WiFi Router.

- **USB 3.0 Port:** Connect USB storage devices for ReadySHARE functionality.
- **Ethernet Ports (1-4):** Connect wired devices such as computers, gaming consoles, or smart TVs.
- **Internet Port (Yellow):** Connects to your modem for internet access.
- **Reset Button:** Resets the router to factory default settings (use a paperclip to press and hold for 7-10 seconds).
- **Power On/Off Button:** Turns the router power on or off.
- **DC Power Input:** Connects to the provided power adapter.

4. SETUP AND INSTALLATION

Follow these steps to set up your NETGEAR R6300 Smart WiFi Router:

1. **Power Off Your Modem:** Disconnect the power from your modem. If it has a battery backup, remove the battery.
2. **Connect the Router:**
 - Connect one end of the provided Ethernet cable to the yellow Internet port on your R6300 router.
 - Connect the other end of the Ethernet cable to the Ethernet port on your modem.
3. **Power On Your Modem:** Reconnect the power to your modem. Wait for the modem's online LED to stop blinking and become solid.
4. **Power On the Router:** Connect the power adapter to the router's DC Power Input and plug it into a power outlet. Press the Power On/Off button if necessary. Wait for the router's Power LED to turn solid green.
5. **Connect Your Device:**
 - **Wireless Connection:** On your computer or mobile device, find and connect to the WiFi network name (SSID) printed on the router's label. Enter the network key (password) when prompted.
 - **Wired Connection:** Connect an Ethernet cable from your computer to one of the Gigabit Ethernet ports (1-4) on the router.
6. **Access the NETGEAR Genie:** Open a web browser (e.g., Chrome, Firefox, Edge) and type routerlogin.net or 192.168.1.1 into the address bar. Follow the on-screen instructions to complete the setup. You will be prompted to create a new administrator password and set up your WiFi network name and password.

For advanced setup or troubleshooting, refer to the NETGEAR support website.

5. OPERATING YOUR ROUTER

5.1 Dual Band WiFi

The R6300 router operates on two frequency bands: 2.4 GHz and 5 GHz. This allows for greater flexibility and performance.

- **2.4 GHz Band:** Provides wider coverage and better penetration through walls, suitable for general internet browsing and devices further away from the router.
- **5 GHz Band:** Offers faster speeds and less interference, ideal for bandwidth-intensive activities like HD video streaming and online gaming, especially for devices closer to the router.

5.2 Beamforming+ Technology

Beamforming+ is a smart, signal-focusing technology that improves the speed, reliability, and range of your WiFi connections. Instead of broadcasting WiFi signals in all directions, Beamforming+ intelligently focuses the signals directly towards your connected devices.

Your browser does not support the video tag.

Video 1: An overview of the NETGEAR R6300 WiFi Router, highlighting its features including Beamforming+ technology for improved signal strength and reliability.

This results in a stronger, faster, and more reliable connection, even as you move your devices around your home.

5.3 NETGEAR Genie App

The NETGEAR Genie app provides an easy-to-use dashboard to monitor, control, and repair your home network. It is available for PC, Mac, iPhone, iPad, and Android devices.

- **Network Map:** View all connected devices on your network.
- **Parental Controls:** Manage internet access for connected devices.
- **Guest Network:** Set up a separate and secure WiFi network for visitors.
- **ReadySHARE:** Access and stream media from USB storage devices.
- **Traffic Meter:** Monitor your internet data usage.

5.4 ReadySHARE USB Access

The R6300 router features a USB 3.0 port. You can connect a USB hard drive or flash drive to this port to share files and media across your network. This allows you to:

- Access files and folders from any computer on the network.
- Stream media (music, videos, photos) to any DLNA-compatible media player.

5.5 ReadySHARE Printer

Connect a USB printer to the router's USB port to share it wirelessly across your network. The ReadySHARE Printer app allows you to print from your iPad and iPhone to your existing printer, making it AirPrint compatible.

5.6 Parental Controls

Utilize the parental control features to ensure that internet access is age-appropriate and safe for all users on your network. These controls can be managed through the NETGEAR Genie app.

5.7 Guest Network

Create a separate guest network to provide internet access to visitors without giving them access to your main network resources. This enhances security and privacy for your home network.

5.8 Broadband Usage Meter

The broadband usage meter helps you track your daily, weekly, and monthly data usage. This feature can notify you if you are approaching or exceeding set data limits, helping you manage your internet consumption.

6. TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	NETGEAR
Model Name	R6300v2
Model Number	R6300-100PAS
Wireless Standard	802.11ac
Frequency Band Class	Dual-Band (2.4 GHz, 5 GHz)
Data Transfer Rate	Up to 1750 Mbps (450 Mbps on 2.4GHz, 1300 Mbps on 5GHz)
LAN Port Bandwidth	10/100/1000 (Gigabit)

Number of LAN Ports	4
USB Ports	1 x USB 3.0
Processor	Dual-Core 800 MHz
Memory	128 MB Flash, 256 MB RAM
Security Protocol	DoS, WPA, WPA2
Special Features	QoS, WPS, Beamforming+, IPv6 Support, NETGEAR Genie App
Compatible Devices	Phones, Tablets, WiFi-Enabled Devices, Media Streaming Devices, Computers, Gaming Consoles
Operating System Compatibility	Windows 7, 8, Vista, XP, 2000, Mac OS, UNIX, or Linux
Item Weight	2.2 Pounds

7. MAINTENANCE

To ensure optimal performance and longevity of your NETGEAR R6300 router, consider the following maintenance tips:

- **Placement:** Place the router in a central location in your home, away from obstructions and other electronic devices that might cause interference.
- **Firmware Updates:** Regularly check for and install firmware updates. These updates often include performance improvements, security patches, and new features. You can usually find these through the NETGEAR Genie app or the router's web interface.
- **Rebooting:** Periodically reboot your router (unplug from power for 10 seconds, then plug back in) to clear its memory and refresh its connection. This can resolve minor connectivity issues.
- **Cleaning:** Keep the router clean and free from dust. Use a soft, dry cloth to wipe the exterior. Ensure ventilation openings are not blocked.
- **Security:** Regularly change your WiFi password and router administrator password to maintain network security.

8. TROUBLESHOOTING

If you encounter issues with your NETGEAR R6300 router, try the following troubleshooting steps:

- **No Internet Connection:**
 - Check the Internet LED on the front panel. If it's off or amber, ensure the Ethernet cable from the modem is securely connected to the router's yellow Internet port.
 - Reboot your modem and then your router.
 - Verify your internet service is active with your Internet Service Provider (ISP).
- **Cannot Connect to WiFi:**
 - Ensure the WiFi On/Off button on the router's front panel is enabled (LEDs for 2.4GHz and 5GHz should be lit).
 - Double-check your WiFi network name (SSID) and password.

- Move closer to the router to rule out range issues.
- **Slow WiFi Speed:**
 - Ensure your devices are connected to the appropriate band (5GHz for faster speeds, 2.4GHz for wider range).
 - Minimize interference by moving the router away from other electronics.
 - Check for active downloads or streaming on other devices that might be consuming bandwidth.
 - Update your device's wireless drivers.
- **Router Not Accessible via routerlogin.net:**
 - Ensure your device is connected to the router's network (either wired or wirelessly).
 - Try using the IP address [192.168.1.1](#).
 - Clear your browser's cache and cookies, or try a different browser.
- **Factory Reset:** If all else fails, perform a factory reset by pressing and holding the Reset button on the rear panel for 7-10 seconds while the router is powered on. This will erase all custom settings, and you will need to reconfigure the router.

9. WARRANTY AND SUPPORT

Your NETGEAR R6300 AC1750 Smart WiFi Router comes with a **Lifetime Limited Warranty**. For specific terms and conditions, please refer to the warranty documentation included with your product or visit the official NETGEAR support website.

For technical support, product registration, and access to the latest firmware updates and user manuals, please visit the official NETGEAR support website or use the NETGEAR Genie app.

Online Support: www.netgear.com/support