Netgear WNR854T-100NAS

NETGEAR WNR854T RangeMax Next Wireless-N Router Gigabit Edition User Manual

Model: WNR854T-100NAS

1. Introduction

This user manual provides comprehensive instructions for the setup, operation, maintenance, and troubleshooting of your NETGEAR WNR854T RangeMax Next Wireless-N Router Gigabit Edition. This device is designed to provide a high-speed wireless network experience, compliant with draft 802.11n, utilizing advanced MIMO technology for extended range and speed up to 300 Mbps.

The WNR854T is compatible with all legacy 802.11b and 802.11g wireless products, ensuring broad connectivity. It features a built-in 4-port Gigabit switch for fast wired connections and enhanced security protocols.

2. Product Overview



Figure 2.1: Front view of the NETGEAR WNR854T RangeMax Next Wireless-N Router. The router is white with light blue accents, standing vertically on a base. The front panel displays the NETGEAR logo and indicator lights for power, wireless activity, and four numbered Ethernet ports.

Key Features:

- **Wireless-N Connectivity:** Delivers up to 300 Mbps wireless throughput, compliant with draft 802.11n standard.
- **Gigabit Ethernet Ports:** Features a built-in 4-port Gigabit switch for high-speed wired connections.
- **Advanced MIMO Technology:** Utilizes Multi-In, Multi-Out technology for incredible speed and extended range.
- **Enhanced Security:** Includes a double firewall, WPA, WPA2-PSK, and 128-bit WEP encryption for secure networking.
- **Broad Compatibility:** Fully compatible with older 802.11b and 802.11g wireless devices.
- **Easy Setup:** Simplified setup process with NETGEAR's Smart Wizard.

3. Setup Guide

Follow these steps to set up your NETGEAR WNR854T router. It is recommended to perform these steps in the order provided.

3.1. Package Contents

Before you begin, ensure all items are present:

- NETGEAR WNR854T Wireless-N Router
- Power Adapter
- Ethernet Cable
- Resource CD (may contain Smart Wizard setup utility and documentation)

3.2. Hardware Connection

1. **Position the Router:** Place the router in a central location to maximize wireless coverage. Avoid placing it near large metal objects, concrete walls, or other electronic devices that may cause interference.
2. **Connect the Modem:**
    - Power off your modem.
    - Connect one end of the Ethernet cable to the Internet (WAN) port on the back of the WNR854T router.
    - Connect the other end of the Ethernet cable to your modem's Ethernet port.
    - Power on your modem and wait for it to fully initialize (usually indicated by stable status lights).
3. **Connect Power:** Connect the power adapter to the router's power input and then plug it into an electrical outlet. The power LED on the front of the router should illuminate.
4. **Connect Computers (Optional Wired):** For initial setup or wired connections, connect an Ethernet cable from one of the numbered LAN ports (1-4) on the router to the Ethernet port on your computer.

3.3. Software Configuration (Smart Wizard)

NETGEAR's Smart Wizard simplifies the setup process:

1. **Launch Browser:** Open a web browser (e.g., Chrome, Firefox, Edge) on a computer connected to the router.
2. **Access Router:** The Smart Wizard should automatically launch. If not, type http://www.routerlogin.net or http://192.168.1.1 into the browser's address bar and press Enter.
3. **Login:** When prompted, enter the default username **admin** and password **password**.
4. **Follow Wizard:** Follow the on-screen instructions provided by the Smart Wizard to configure your Internet connection and wireless settings (SSID, security key).
5. **Apply Settings:** Save your settings and allow the router to reboot if prompted.

3.4. Wireless Connection

Once the router is configured, you can connect wireless devices:

1. On your wireless device (laptop, smartphone, tablet), search for available Wi-Fi networks.
2. Select the network name (SSID) you configured during the Smart Wizard setup.
3. Enter the wireless security key (password) when prompted.
4. Your device should now be connected to the wireless network.

4. Operating the Router

This section covers basic operation and common settings for your WNR854T router.

4.1. Accessing Router Settings

To modify advanced settings, access the router's web interface:

1. Open a web browser.
2. Go to http://www.routerlogin.net or http://192.168.1.1.
3. Enter your username and password (default: admin/password, or your custom credentials).

4.2. Wireless Settings

- **SSID (Network Name):** You can change your wireless network name for easier identification.
- **Security Mode:** It is highly recommended to use WPA2-PSK for the strongest encryption. WPA-PSK and WEP are

also supported for compatibility with older devices.

- **Wireless Channel:** If you experience interference, try changing the wireless channel (e.g., 1, 6, or 11) to find the clearest one.
- **Wireless Mode:** The router supports 802.11b, 802.11g, and 802.11n. For optimal performance with Wireless-N devices, ensure the mode is set to "Up to 300 Mbps" or "Mixed" if you have older devices.

4.3. Wired Connections

The WNR854T features four Gigabit Ethernet LAN ports. Connect devices like desktop computers, gaming consoles, or network-attached storage (NAS) for maximum speed and stability.

4.4. Security Features

- **Firewall:** The router includes a double firewall (SPI and NAT) to protect your network from external threats.
- **Access Control:** Configure rules to restrict Internet access for specific devices or during certain times.
- **Guest Network:** Create a separate wireless network for guests, providing Internet access without allowing them to access your main network resources.

5. Maintenance

Regular maintenance ensures optimal performance and security of your router.

5.1. Firmware Updates

NETGEAR periodically releases firmware updates to improve performance, add features, and address security vulnerabilities. It is highly recommended to keep your router's firmware up to date.

1. Access the router's web interface.
2. Navigate to the "Router Upgrade" or "Firmware Update" section (usually under "Maintenance" or "Advanced").
3. Follow the on-screen instructions to check for and install updates. You may need to download the firmware file from the NETGEAR support website first.

5.2. Regular Reboot

Periodically rebooting your router (e.g., once a month) can help clear its memory and resolve minor performance issues. Simply unplug the power adapter for 10-15 seconds, then plug it back in.

5.3. Physical Care

- Keep the router in a well-ventilated area to prevent overheating.
- Clean the exterior with a soft, dry cloth. Do not use liquid cleaners.

6. Troubleshooting

This section provides solutions to common issues you might encounter.

6.1. No Internet Connection

- **Check Cables:** Ensure all Ethernet cables are securely connected to the correct ports (modem to Internet port, computers to LAN ports).
- **Power Cycle:** Power off your modem, then your router. Wait 30 seconds, then power on the modem first. Once the modem is fully online, power on the router.

- **Modem Status:** Check your modem's indicator lights to ensure it has an active connection to your Internet Service Provider (ISP).
- **Router LEDs:** Verify that the Internet LED on the router is lit. If not, there might be an issue with the connection to your modem or ISP.
- **ISP Settings:** Confirm that your router's Internet settings (e.g., PPPoE, DHCP, Static IP) match those required by your ISP.

6.2. Slow Wireless Speed or Dropped Connections

- **Router Placement:** Move the router to a more central location, away from obstructions and interference sources (cordless phones, microwaves, Bluetooth devices).
- **Wireless Channel:** Access the router's web interface and try changing the wireless channel. Channels 1, 6, and 11 are often recommended as they do not overlap.
- **Interference:** Other Wi-Fi networks in your vicinity can cause interference. Use a Wi-Fi analyzer tool (available for smartphones) to identify less congested channels.
- **Firmware:** Ensure your router has the latest firmware installed.
- **Device Drivers:** Ensure your wireless adapter drivers on your computer are up to date.

6.3. Cannot Access Router Login Page

- **IP Address:** Ensure your computer is set to obtain an IP address automatically (DHCP).
- **Correct Address:** Double-check that you are typing http://www.routerlogin.net or http://192.168.1.1 correctly.
- **Clear Browser Cache:** Clear your browser's cache and cookies, or try a different browser.
- **Firewall/Antivirus:** Temporarily disable any software firewalls or antivirus programs on your computer that might be blocking access.
- **Reset Router:** As a last resort, perform a factory reset.**Warning:** This will erase all your custom settings. To reset, press and hold the reset button on the back of the router for 7-10 seconds with a paperclip while the router is powered on.

7. Specifications

Feature	Detail
Model Number	WNR854T-100NAS
Wireless Standard	802.11n (Draft), 802.11g, 802.11b
Wireless Speed	Up to 300 Mbps
Frequency Band	2.4 GHz
Ethernet Ports	4 x Gigabit LAN, 1 x Gigabit WAN
Security Protocols	WEP, WPA-PSK, WPA2-PSK
Dimensions (WxHxD)	8.9 x 1.5 x 6.8 inches (22.6 x 3.8 x 17.3 cm)
Item Weight	1.23 pounds (0.56 kg)
Manufacturer	Netgear

Feature	Detail
First Available Date	April 2, 2004

8. Warranty and Support

8.1. Warranty Information

This product comes with a limited hardware warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official NETGEAR support website. Keep your proof of purchase for warranty claims.

8.2. Technical Support

For technical assistance, product registration, or to download the latest drivers and firmware, please visit the NETGEAR support website:
https://www.netgear.com/support/
NETGEAR also offers 24/7 technical support. Contact information can be found on their support website.

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