Linksys WRT54G2

Linksys WRT54G2 Wireless-G Broadband Router User Manual

Model: WRT54G2 | Brand: Linksys

1. INTRODUCTION

The Linksys WRT54G2 Wireless-G Broadband Router is a versatile networking device combining a Wireless Access Point, a 4-port 10/100 Switch, and a Router function into a single unit. This device allows you to connect both Wireless-G (802.11g at 54Mbps) and Wireless-B (802.11b at 11Mbps) devices to your network, as well as wired Ethernet devices. It enables your entire network to share a high-speed cable or DSL Internet connection, facilitating resource and file sharing among connected computers.
Key features include:

- All-in-one Internet-sharing router, 4-port switch, and Wireless-G (802.11g) access point.
- Shares a single Internet connection and other resources with Ethernet wired and Wireless-G and -B devices.
- Push button setup feature (WPS) for secure and simple wireless configuration.
- High security: Wi-Fi Protected Access 2 (WPA2), wireless MAC address filtering, and a powerful SPI firewall.

2. PACKAGE CONTENTS

Ensure all items are present in your product package:

- Linksys WRT54G2 Wireless-G Broadband Router
- Power Adapter (12V, 0.5A)
- Ethernet Cable
- Quick Installation Guide
- Resource CD (may include Network Magic software)

Figure 2.1: Linksys WRT54G2 Wireless-G Broadband Router, top view.

The image above shows the compact design of the Linksys WRT54G2 router, highlighting its sleek black casing and integrated antennas. This is the main unit you will be setting up.

3. SETUP AND INSTALLATION

3.1 Hardware Connection

1. **Unplug your modem:** Disconnect the power from your cable or DSL modem.
2. **Connect the router:**

   - Connect one end of the provided Ethernet cable to the Internet (WAN) port on the router.
   - Connect the other end of this Ethernet cable to your modem's Ethernet port.
   - Connect a second Ethernet cable (not included, or use the provided one if connecting only one wired device) from one of the LAN ports (1-4) on the router to your computer's Ethernet port.

3. **Power on devices:** Plug in your modem's power adapter and wait for it to fully initialize (usually indicated by stable lights). Then, plug in the router's power adapter.

Figure 3.1: Linksys WRT54G2 Router connected to its power adapter. Ensure the power adapter is securely connected to the router's power input port.

3.2 Software Setup

The router can be configured via a web browser interface. Refer to your Quick Installation Guide for initial access details, typically involving an IP address like http://192.168.1.1.

Figure 3.2: Front panel of the Linksys WRT54G2 router showing indicator LEDs. These lights provide status information for power, internet connection, wireless activity, and wired LAN connections.

3.3 Network Magic Software

The router may include a Resource CD with Network Magic software. This software can assist with network setup, monitoring, and management. Follow the on-screen instructions for installation and use.

Video 3.3.1: Network Magic: 2. How to Load the Software. This video demonstrates the process of installing the Network Magic software for your Linksys router.

4. OPERATING INSTRUCTIONS

4.1 Wireless Connectivity

The WRT54G2 supports Wireless-G (802.11g) and Wireless-B (802.11b) standards. To connect wireless devices, ensure they are compatible with these standards. Use the Wi-Fi Protected Setup (WPS) button on the router for easy and secure connection with WPS-enabled devices. Alternatively, manually configure your wireless devices using the network name (SSID) and password found on the router's label or configured via the web interface.

4.2 Wired Connectivity

The built-in 4-port full-duplex 10/100 Switch allows you to connect up to four wired Ethernet devices directly. Connect additional hubs or switches to expand your wired network as needed.

Figure 4.1: Rear view of the Linksys WRT54G2 router showing the WAN (Internet) port, four LAN ports, power input, and WPS/Reset button. This is where you connect your modem and wired devices.

4.3 Security Features

The router offers robust security features including Wi-Fi Protected Access 2 (WPA2) for strong encryption, wireless MAC address filtering to control device access, and a powerful Stateful Packet Inspection (SPI) firewall to protect against Internet attacks. VPN pass-through is also supported for secure remote access.

Video 4.3.1: Network Magic: 6. Setting Up Security. This video guides you through configuring security settings for your network using Network Magic.

4.4 Advanced Configuration

The web-browser based interface allows for advanced configuration, including setting up guest networks, parental controls to filter Internet access for internal users, and Quality of Service (QoS) settings to prioritize network traffic.

Video 4.4.1: Network Magic: 3. How to See Your Network. This video explains how to visualize and understand your network's layout and connected devices.

Video 4.4.2: Network Magic: 4. Adding a Device. This video demonstrates how to add new devices to your network using Network Magic.

5. MAINTENANCE

To ensure optimal performance and security of your Linksys WRT54G2 router, regular maintenance is recommended:

- **Firmware Updates:** Periodically check the Linksys support website for new firmware versions. Updating firmware can improve performance, add new features, and patch security vulnerabilities.
- **Regular Reboots:** Rebooting your router every few weeks can help clear its memory and resolve minor network issues, improving stability.
- **Physical Placement:** Ensure the router is placed in a central location, away from obstructions and interference sources (like microwaves or cordless phones), to maximize wireless coverage.

6. TROUBLESHOOTING

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

- **Check Connections:** Verify that all Ethernet cables are securely connected to the correct ports on the router, modem, and computers.
- **Power Cycle:** Unplug the power from your modem and router, wait 30 seconds, then plug the modem back in. Once the modem is fully online, plug the router back in.
- **Reset Router:** If issues persist, you may need to reset the router to factory default settings. This is typically done by pressing and holding the WPS/Reset button on the back of the router for about 10 seconds. *Note: This will erase all your custom settings.*
- **Consult Documentation:** Refer to the Quick Installation Guide or the full user manual (if available online) for more specific troubleshooting steps.

Video 6.1: Network Magic: 8. Getting Back Online. This video provides guidance on restoring your internet connection after network issues.

7. SPECIFICATIONS

Feature	Specification
Product Dimensions	11 x 9.75 x 2.75 inches
Item Weight	9.8 ounces
Item Model Number	WRT54G2
Brand	Linksys
Model Name	WRT54G2
Special Feature	Access Point Mode, WPS
Frequency Band Class	Dual-Band
Wireless Communication Standard	802.11b/g
Compatible Devices	Personal Computer, Printer
Recommended Uses For Product	Security
Connectivity Technology	Ethernet
Color	Black
Antenna Type	Fixed

Figure 7.1: Bottom label of the Linksys WRT54G2 router, showing model number, serial number, MAC address, and regulatory information. This label is crucial for device identification and support.

8. WARRANTY AND SUPPORT

The Linksys WRT54G2 Wireless-G Broadband Router comes with a manufacturer's warranty. For specific warranty details, please refer to the documentation included with your product or visit the official Linksys support website. Technical support is available for assistance with setup, configuration, and troubleshooting.
Legal Disclaimer: No warranty written or implied aside from the manufacturer's warranty.
For further assistance, please visit the Linksys Support Website.