NETGEAR XWNB5221-100PAS

NETGEAR Powerline 500 with Wi-Fi - Essentials Edition (XWNB5221-100PAS) Instruction Manual

Model: XWNB5221-100PAS

1. INTRODUCTION AND OVERVIEW

The NETGEAR Powerline 500 with Wi-Fi - Essentials Edition extends your existing network by utilizing your home's electrical wiring. This technology allows you to create a high-speed wired and wireless network connection in areas where Wi-Fi signals may be weak or unreliable. It is designed for seamless internet connectivity, supporting activities such as HD streaming and online gaming across various devices like tablets, smartphones, laptops, smart TVs, and game consoles. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your Powerline 500 with Wi-Fi adapter.

2. PACKAGE CONTENTS

- One (1) Powerline 500 WiFi Access Point (XWNB5221)
- One (1) Powerline 500 Adapter (XWN5001)
- Two (2) Ethernet cables
- Quick install guide

Figure 2.1: NETGEAR Powerline 500 with Wi-Fi Essentials Edition product packaging, showing the two adapters and cables.

3. Setup Instructions

Setting up your NETGEAR Powerline 500 with Wi-Fi is designed to be quick and straightforward, typically taking only a few minutes without the need for complex software configuration.

3.1 Basic Connection

1. **Connect the Powerline Adapter to your Router:** Plug one Powerline 500 adapter (XWN5001) directly into a wall power outlet near your internet router. Connect an Ethernet cable from the adapter to an available Ethernet port on your router.

2. **Connect the Powerline WiFi Access Point:** Plug the Powerline 500 WiFi Access Point (XWNB5221) directly into a wall power outlet in the room where you need extended wired or Wi-Fi coverage.

3. **Wait for Connection:** The Powerline LED on both adapters should turn solid green, indicating a successful Powerline connection.

Figure 3.1: The Powerline 500 WiFi Access Point plugged into a standard wall outlet, showing its indicator lights.

3.2 Securing Your Network (WPS)

To ensure a quick and secure Wi-Fi connection, you can use the Wi-Fi Protected Setup (WPS) feature:

1. Press the WPS button on your existing Wi-Fi router.

2. Within two minutes, press the WPS button on the Powerline 500 WiFi Access Point. The Wi-Fi LED on the access point will blink and then turn solid, indicating a secure connection.

3.3 Understanding Powerline Technology

Powerline adapters use your home's existing electrical wiring to transmit network data. This creates a stable and high-speed connection without the need for new Ethernet cables to be run through walls or floors. The technology effectively turns any electrical outlet into a network access point.

Your browser does not support the video tag.

Video 3.1: This video explains how Powerline Adapter Technology works to extend both wired and WiFi connections throughout your home.

4. OPERATING INSTRUCTIONS

Once your Powerline adapters are set up, you can connect devices to your extended network.

4.1 Connecting Wired Devices

The Powerline 500 WiFi Access Point features an Ethernet port. You can connect any wired device, such as a desktop computer, game console, smart TV, or Blu-ray player, directly to this port using an Ethernet cable for a high-speed, stable connection.

Figure 4.1: The bottom of the Powerline 500 WiFi Access Point, highlighting the Ethernet port for wired connections.

4.2 Connecting Wireless Devices

The Powerline 500 WiFi Access Point broadcasts a Wi-Fi signal, extending your wireless network. You can connect your Wi-Fi enabled devices (laptops, smartphones, tablets) to this extended network just as you would to your main router's Wi-Fi. Use the network name (SSID) and password configured during setup or via WPS.
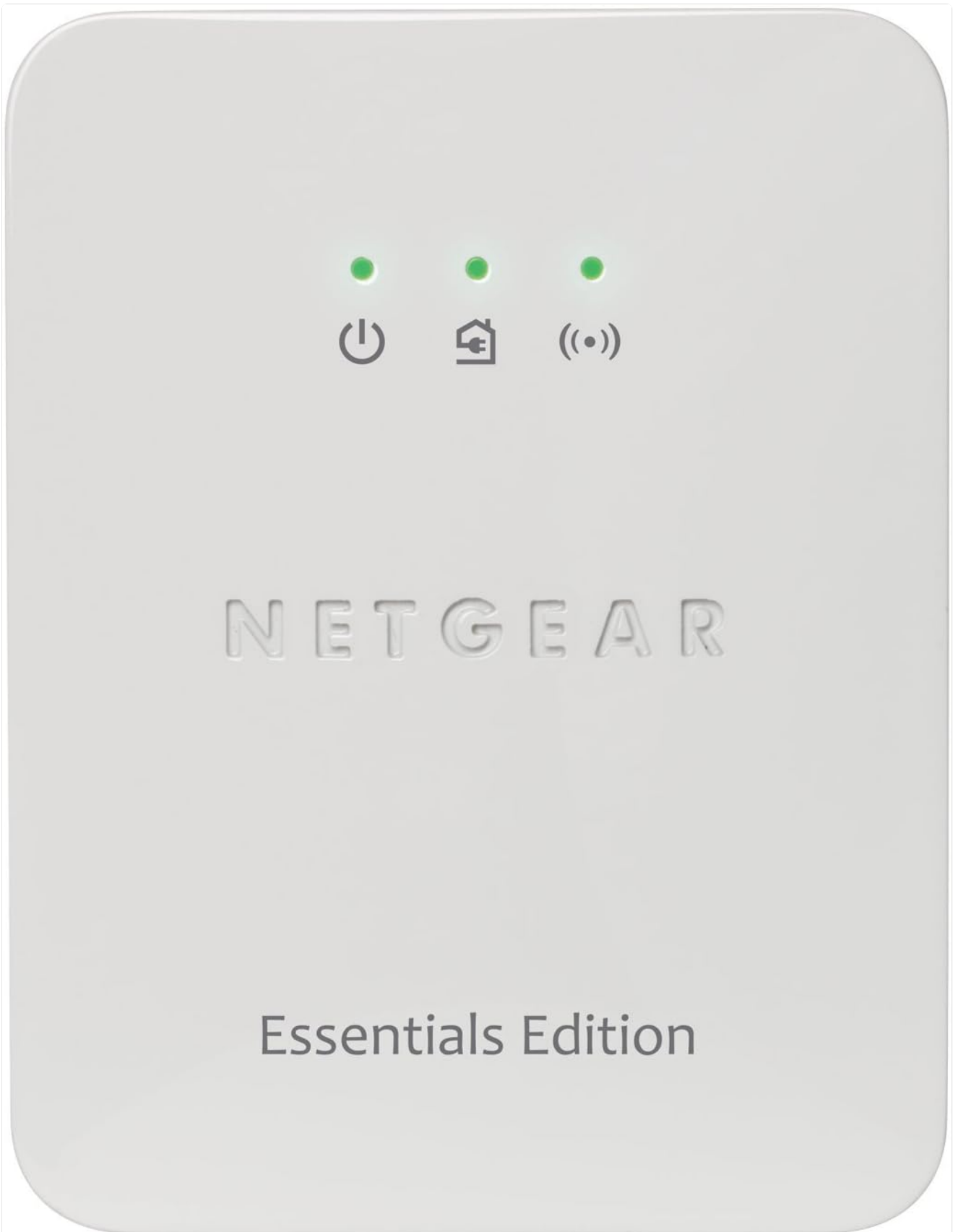
Figure 4.2: The front of the Powerline 500 WiFi Access Point, showing the status indicator lights for power, Powerline connection, and Wi-Fi.

5. MAINTENANCE

To ensure optimal performance and longevity of your NETGEAR Powerline 500 with Wi-Fi adapters, consider the following maintenance tips:

- **Direct Wall Outlet Connection:** Always plug the Powerline adapters directly into a wall power outlet. Avoid using power strips, surge protectors, or extension cords, as these can interfere with the Powerline signal and reduce performance.
- **Firmware Updates:** Periodically check the NETGEAR support website for any available firmware updates for your model. Keeping the firmware updated can improve performance, stability, and security.
- **Cleanliness:** Keep the adapters clean and free from dust. Ensure ventilation openings are not blocked to prevent overheating.
- **Placement:** While Powerline technology uses electrical wiring, extreme electrical noise from certain appliances (e.g., microwaves, heavy machinery) on the same circuit can potentially affect performance. If you experience issues, try moving the adapter to a different outlet or circuit.

6. TROUBLESHOOTING

If you encounter issues with your Powerline 500 with Wi-Fi adapters, refer to the following troubleshooting steps:

6.1 No Powerline Connection (Powerline LED Off or Red)

- Ensure both Powerline adapters are plugged directly into wall outlets and powered on.
- Verify that both adapters are on the same electrical circuit. Powerline performance can be affected across different circuits.
- Try plugging the adapters into different wall outlets to rule out a faulty outlet.
- Avoid plugging adapters into power strips, surge protectors, or extension cords.

6.2 Weak or Intermittent Wi-Fi Signal

- Relocate the Powerline 500 WiFi Access Point to a more central location within the desired coverage area.
- Ensure there are no large electrical appliances (like microwaves) directly between the Powerline adapters on the same circuit, as these can cause interference.
- Check the Powerline LED on the WiFi Access Point. If it's amber or red, the connection quality is poor. Try a different wall outlet.
- Confirm that your wireless devices are connecting to the Powerline WiFi Access Point's SSID and not a weaker signal from your main router.

6.3 Difficulty with Wi-Fi Setup (WPS)

- Ensure you press the WPS button on both your router and the Powerline WiFi Access Point within the two-minute window.
- If WPS fails, you may need to manually configure the Wi-Fi settings using the NETGEAR Genie application or by accessing the adapter's web interface (refer to the full user manual for detailed steps).
- A factory reset of the Powerline WiFi Access Point might resolve configuration issues. Use a paperclip to press and hold the Factory Reset button for 7-10 seconds.

6.4 Using NETGEAR Genie

The NETGEAR Genie application can assist with setup, monitoring, and configuration of your Powerline devices. Download it from the official NETGEAR website. It can help find devices, configure settings, and troubleshoot connections.

Your browser does not support the video tag.

Video 6.1: This video provides an overview of NETGEAR Powerline Adapters, demonstrating how they extend internet access in your home.

7. SPECIFICATIONS

Brand	NETGEAR
Model Number	XWNB5221-100PAS
Hardware Interface	802.11 ac/b/g/n, Ethernet
Data Link Protocol	Ethernet
Data Transfer Rate	500 Megabits Per Second
Compatible Devices	Laptop, Smart TV, Smartphone, Tablet
Operating System Compatibility	Mac OS, Vista, Windows 8
Item Weight	1.1 pounds
Product Dimensions (LxWxH)	7.25 x 5.12 x 3.15 inches
UPC	606449109634

8. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the official NETGEAR website or the warranty card included with your product. Warranty terms and conditions may vary by region and purchase date.

For technical support, product registration, and access to the latest drivers and user manuals, visit the official NETGEAR support website at www.netgear.com/support. You can also find FAQs and community forums there to assist with common issues.