NETGEAR XAVB5001

NETGEAR XAVB5001 Powerline AV 500 Network Adapter Kit User Manual

Model: XAVB5001 | Brand: NETGEAR

1. Introduction

The NETGEAR Powerline AV 500 Adapter Kit (XAVB5001) provides a solution for extending internet access throughout your home using existing electrical wiring. This kit enables easy, plug-and-play setup to connect devices such as HDTVs, Blu-ray players, DVRs, PCs, and game consoles to your home network and the internet, offering data transfer rates up to 500 Mbps.

2. Package Contents

The NETGEAR XAVB5001 Powerline AV 500 Network Adapter Kit typically includes:

- Two (2) NETGEAR Powerline AV 500 Adapters
- Two (2) Ethernet cables
- Installation guide (this manual serves as a comprehensive guide)

3. Product Overview

Each Powerline AV 500 Adapter features indicators and ports for easy monitoring and connectivity.



Figure 1: Front View of Powerline Adapter. This image displays the front of the NETGEAR Powerline AV 500 Adapter, showing the NETGEAR logo, "Powerline AV500 gigabit" branding, and three LED indicators at the top: Power, Powerline, and Ethernet.

LED Indicators

- **Power LED ( ):**
  - **Solid Green:** Device is powered on.
  - **Blinking Green:** Device is in power-saving mode.
  - **Off:** Device is powered off.
- **Powerline LED (⌂):** Indicates the quality of the Powerline connection.
  - **Solid Green:** Best connection speed (above 80 Mbps).
  - **Solid Amber:** Better connection speed (50-80 Mbps).
  - **Solid Red:** Good connection speed (below 50 Mbps).
  - **Blinking Red:** No Powerline connection detected.
- **Ethernet LED (↔):**
  - **Solid Green:** Ethernet link is established.
  - **Blinking Green:** Data is being transmitted or received.
  - **Off:** No Ethernet link.

Ports and Buttons



Figure 2: Side View of Powerline Adapter. This image shows the side of the NETGEAR Powerline AV 500 Adapter, highlighting the Ethernet port at the bottom and the "Factory Reset" button located above it.

- **Ethernet Port:** Connects to your router or network-enabled device using an Ethernet cable.
- **Factory Reset Button:** Press and hold for 7 seconds to restore the adapter to its factory default settings.
- **Security Button:** Located on the side, used for establishing a secure Powerline network connection.

4. Setup Instructions

Setting up your NETGEAR Powerline AV 500 Kit is a simple plug-and-play process.

4.1 Initial Connection

1. **Connect the First Adapter:** Plug one Powerline adapter into an electrical outlet near your internet router. Connect an

Ethernet cable from your router to the Ethernet port on this Powerline adapter.

2. **Connect the Second Adapter:** Plug the second Powerline adapter into an electrical outlet in the room where you want to extend your network.
3. **Connect Your Device:** Connect an Ethernet cable from your network-enabled device (e.g., PC, game console, smart TV) to the Ethernet port on the second Powerline adapter.
4. **Verify LEDs:** Wait for the Power LED and Powerline LED on both adapters to turn solid green. The Ethernet LED should also be solid green or blinking if data is active.

Important: For optimal performance, plug Powerline adapters directly into a wall outlet. Avoid plugging them into power strips, surge protectors, or extension cords, as these can interfere with Powerline communication.

4.2 Securing Your Network (Push-and-Secure)

To secure your Powerline network and prevent unauthorized access, use the Push-and-Secure feature:

1. After both adapters are connected and the Powerline LED is solid, press the Security button on one adapter for 2 seconds. The Power LED will start blinking.
2. Within 2 minutes, press the Security button on the second adapter for 2 seconds. Its Power LED will also start blinking.
3. Both Power LEDs will stop blinking and turn solid green, indicating a secure connection has been established.

4.3 Optimizing Performance (Pick-a-Plug)

The Pick-a-Plug feature helps you identify the best electrical outlet for your Powerline adapter to ensure the highest possible performance. Observe the Powerline LED:

- **Green:** Excellent connection.
- **Amber:** Good connection.
- **Red:** Fair connection.

If the Powerline LED is red, try a different electrical outlet until you achieve a green or amber light for better performance.

5. Operating Instructions

Once set up, your Powerline network operates automatically. Data is transmitted over your home's electrical wiring, providing a stable wired connection to your devices.

- **Network Extension:** The adapters extend your existing network, allowing devices connected to the remote adapter to access the internet and other network resources.
- **Power Saving:** The adapters are designed to enter a power-saving mode when no Ethernet activity is detected for a period, indicated by a blinking Power LED.
- **Adding More Adapters:** You can expand your Powerline network by adding more NETGEAR Powerline adapters. Simply plug them in and use the Push-and-Secure button to join the existing secure network.

6. Maintenance

The NETGEAR Powerline adapters require minimal maintenance.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the adapters. Do not use liquid or aerosol cleaners.
- **Ventilation:** Ensure the adapters are plugged into outlets with adequate airflow to prevent overheating. Do not cover the ventilation slots.
- **Firmware Updates:** Periodically check the NETGEAR support website for any available firmware updates for your model to ensure optimal performance and security.

7. Troubleshooting

If you encounter issues with your Powerline network, consider the following troubleshooting steps:

- **No Power LED:** Ensure the adapter is securely plugged into a live electrical outlet. Try a different outlet.
- **Powerline LED is Red or Off:**
  - Ensure both adapters are plugged directly into wall outlets, not power strips or surge protectors.
  - Try moving the adapter to a different wall outlet to improve signal quality (refer to Pick-a-Plug).
  - Ensure the distance between adapters is not excessive, and they are on the same electrical circuit if possible.
  - Interference from other electrical devices (e.g., dimmer switches, motors) can affect performance. Try unplugging nearby devices temporarily to identify the source of interference.
  - If the Powerline LED is off, the adapters may not be securely paired. Re-run the Push-and-Secure process.
- **No Ethernet LED:**
  - Check the Ethernet cable connection between the adapter and your device/router. Ensure it is securely plugged in at both ends.
  - Try a different Ethernet cable.
  - Ensure the connected device is powered on and its Ethernet port is active.
- **Slow Connection Speed:**
  - Check the color of the Powerline LED. Green indicates the best speed, Amber is good, Red is fair. Try different outlets to achieve a better connection.
  - Avoid plugging adapters into power strips or surge protectors.
  - Large electrical appliances on the same circuit can cause interference.
- **Factory Reset:** If all else fails, perform a factory reset by pressing and holding the Factory Reset button for 7 seconds. You will then need to re-establish the secure connection.

8. Specifications

Feature	Detail
Brand	NETGEAR
Model Number	XAVB5001
Data Transfer Rate	Up to 500 Mbps
Hardware Interface	Ethernet
Data Link Protocol	Fast Ethernet
Compatible Devices	Desktop PCs, Gaming Consoles, Smart TVs, Blu-ray Players, DVRs
Color	Black
Product Dimensions	1.57 x 2.64 x 3.39 inches
Item Weight	4.6 ounces (0.29 Pounds)
UPC	999994562451, 606449074208

9. Warranty and Support

For warranty information and technical support, please refer to the official NETGEAR website or the documentation included with your product at the time of purchase. NETGEAR provides various support resources, including FAQs, troubleshooting guides, and customer service contact options.
You can typically find support at: www.netgear.com/support

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.

Name

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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