

# Installation

## Powerline 500

Model XAVB5421



**NETGEAR®**

# Package Contents

In some regions, a resource CD is included with your product.

**Note:** Adapters vary by region. Your adapter might look different.



# Getting Started

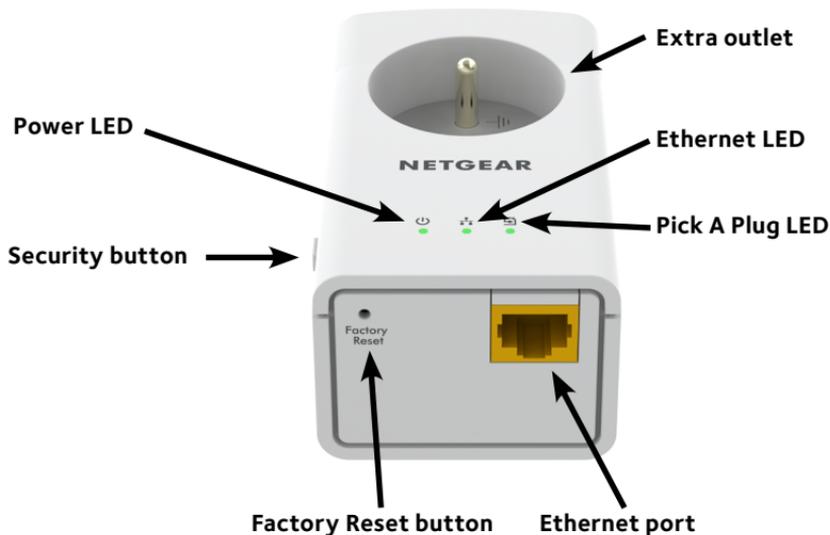
Powerline networking solutions give you an alternative to Ethernet-only or wireless networks by extending your signal using the electrical wiring. Plug 2 or more compatible Powerline 500 devices into electrical outlets to create or extend your wired home network. In addition to Powerline 500 devices, you can add Homeplug AV certified adapters, for a total of up to 16 devices. For a complete list of Homeplug AV certified devices, go to [http://www.homeplug.org/certified\\_products](http://www.homeplug.org/certified_products).

You can use the Pick A Plug feature to choose the best combination of outlets.

You can use the Security button on each Powerline device to secure the links between the Powerline devices.

## Meet Your Adapter

Before you install your adapter, familiarize yourself with its LEDs, buttons, and port.



Extra Outlet

For information on outlet ratings and safety information, see [Safety Information](#) on page 12.

Power LED



**Solid green.** The electrical power is on.

**Blinking amber.** The adapter is in power saving mode.

**Blinking green.** The adapter is in the process of setting up security.

**Off.** The adapter is not receiving electrical power.

Ethernet LED



**Solid.** The Ethernet port is linked.

**Off.** No Ethernet connection is detected.

Pick A Plug LED



The Pick A Plug feature lets you pick the electrical outlet with the strongest link rate, indicated by the color displayed by the LED:

**Solid.** The adapter is connected to a Powerline network.

- **Green.** Link rate > 80 Mbps (best)
- **Amber.** Link rate > 50 and < 80 Mbps (better)
- **Red.** Link rate < 50 Mbps (good)

**Off.** The adapter has not found any other compatible Powerline devices using the same encryption key.

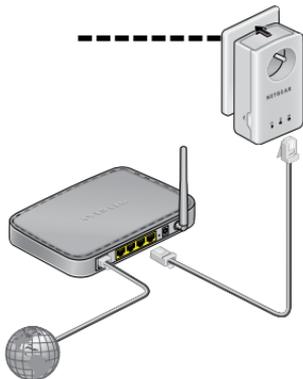
- |                      |                                                                                                                                        |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Factory Reset button | Press the <b>Factory Reset</b> button for one second, then release it to return the Powerline adapter to its factory default settings. |
| Ethernet port        | Connect your computers, networking equipment, and other equipment that uses an Ethernet cable, to your Powerline network.              |
| Security button      | Use the Security button to create a secure Powerline network.                                                                          |

**Warning:** *Do not press the Security button on the Powerline adapter until installation is complete and the adapters are communicating with each other (indicated by the blinking Pick A Plug LED). Pressing this button too soon can temporarily disable Powerline communication. If this occurs, use the Factory Reset button to return the Powerline adapter to its factory default settings.*

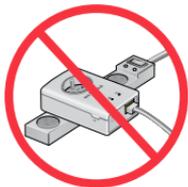
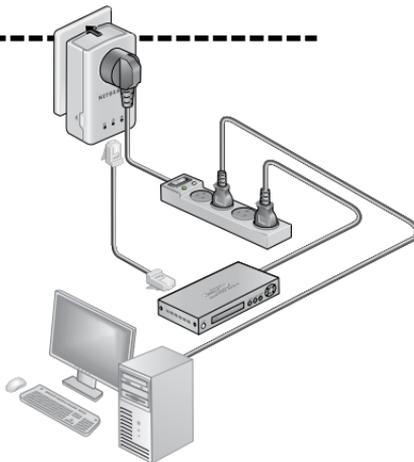
**Note:** If, after creating a secure Powerline network, you want to add another adapter, perform a factory reset on all of the adapters and then perform this procedure.

# Install Your Adapters

Room 1



Room 2



**Note:** Do not plug the powerline adapter into an extension cord.

## Secure Your Network

### ➤ To create a secure network:

1. Plug in your new adapters.
2. Wait until the Pick A Plug LEDs are blinking.
3. Press the **Security** button for two seconds, then press the **Security** button on one of the other adapters in your existing network for two seconds. Both buttons must be pressed within two minutes.

**Warning:** *Do not press the **Security** button on the Powerline adapter until installation is complete and the adapters are communicating with each other (indicated by the blinking Pick A Plug LED). Pressing this button too soon can temporarily disable Powerline communication. If this occurs, use the **Factory Reset** button to return the Powerline adapter to its factory default settings.*

**Note:** If, after creating a secure Powerline network, you want to add another adapter, perform a factory reset on all of the adapters and then perform this procedure.

**Note:** The Security button does not work in power saving mode (see [Troubleshooting Tips](#) on page 10).

## Add Adapters

To add adapters before you have configured the security feature, just plug them in and connect the adapters to your equipment.

### ➤ To add adapters to a Powerline network with security set:

1. Plug in and connect the new adapters.
2. On all of the previously installed adapters, press and hold the **Factory Reset** button for one second.  
This returns them to the factory settings.
3. Secure the Powerline network:
  - a. On any of the adapters, press and hold the **Security** button for two seconds.
  - b. On any one of the other adapters, press and hold the **Security** button for two seconds.Both buttons must be pressed within two minutes.

# Troubleshooting Tips

- |                                  |                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power LED is off.                | Make sure that power is supplied to the electrical outlet, and that the Powerline devices are not plugged into an extension cord, power strip, or surge protector.                                                                                                                                                                                                                                 |
| Power LED is blinking amber.     | <p>Power saving mode occurs when the Ethernet LED is off. This can occur in the following circumstances:</p> <ul style="list-style-type: none"><li>• The Ethernet cable is unplugged.</li><li>• The device connected through the Ethernet cable is turned off.</li><li>• The adapter is idle for 10 minutes. It returns to normal mode within two seconds after the Ethernet link is up.</li></ul> |
| Pick A Plug LED is off.          | <ul style="list-style-type: none"><li>• If you have set network security, make sure that all Power line devices are using the same encryption key; see the online user manual for details.</li><li>• Press the <b>Factory Reset</b> button on each device for one second to return the Powerline adapter to its factory default settings.</li></ul>                                                |
| Pick A Plug LED is amber or red. | Move the Powerline device closer to the other Powerline devices.                                                                                                                                                                                                                                                                                                                                   |

Ethernet LED is off.

- Make sure that the Ethernet cables are working and securely plugged into the devices.
- Press the **Factory Reset** button on each device for one second to return the Powerline adapter to its factory default settings.

# Safety Information

- For national approvals (approval schemes other than CB), relevant national standards for plug, socket-outlet, and direct plug-in units (for example, US) shall also be consulted while testing and approving such products according to national standards.
- AC input rating (NA): 100–125V, 0.2A (max.); 50–60 Hz excluding socket-outlet rating.
- AC input rating (AU, UK, FR, EU): 200–250V, 0.2A (max.), 50–60 Hz excluding socket-outlet rating.
- XAV5421 ratings (maximum load):
  - EU: 16A, 250V
  - UK: 13A, 250V; FR: 16A, 250V; NA: 15A, 125V
  - AU: 10A, 250V
- Operating temperature: 0–40°C.
- Check the electrical current for any device plugged into the filtered AC socket. Do not exceed home and product outlet ratings and electrical requirements.
- The socket-outlet shall be installed near the equipment and be easily accessible.
- Only power cords are allowed to be inserted into the filtered AC

outlet; no other equipment with a direct plug-in is allowed. Power cord must be a maximum of 1 m long and a minimum of 0.75 mm square of cross-sectional area.

- Do not plug devices that exceed the product ratings into the XAV5421 filtered AC outlet. The output voltage of the filtered AC outlet is the same as the power outlet that the XAV5421 is plugged into. To help avoid damaging your system, be sure that the attached devices are electrically rated to operate with the power available in your location.
- If the input AC voltage is less than 100 VAC, the device plugged into the filtered AC socket of the XAV5421 might not perform as well as expected.
- DO NOT PLUG MAJOR HOME APPLIANCES into the filtered AC socket or into an attached power strip. The device is not intended to be used with home appliances such as air conditioners, power tools, space heaters, fans, hair dryers, ovens, or refrigerators.





## Technical Support

Thank you for purchasing this NETGEAR product. After installing your device, locate the serial number on the label of your product and use it to register your product at <https://my.netgear.com>. You must register your product before you can use NETGEAR telephone support. NETGEAR recommends registering your product through the NETGEAR website.

For product updates and web support, visit <http://support.netgear.com>.

NETGEAR recommends that you use only the official NETGEAR support resources. You can get the user manual online at <http://downloadcenter.netgear.com> or through a link in the product's user interface.

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## Compliance

For the current EU Declaration of Conformity, visit [http://support.netgear.com/app/answers/detail/a\\_id/11621/](http://support.netgear.com/app/answers/detail/a_id/11621/).

For regulatory compliance information, visit: <http://www.netgear.com/about/regulatory/>.

See the regulatory compliance document before connecting the power supply.



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