



# NETGEAR®

Powerline USB Adapter  
MODEL XA601



## Installation Guide

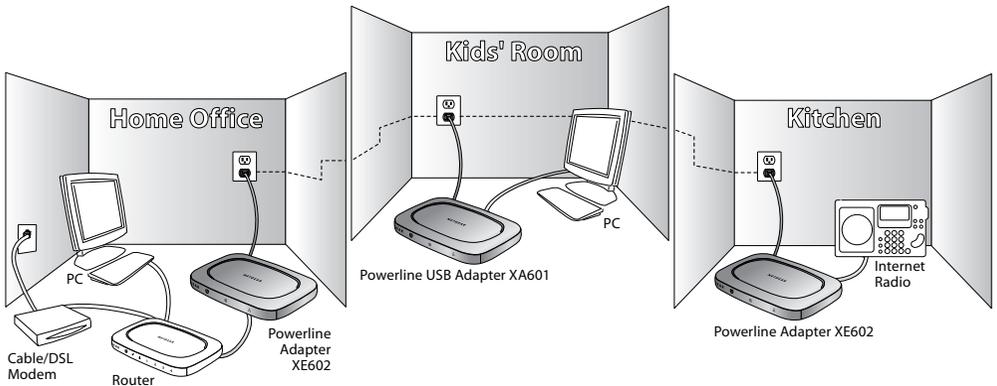
# Introduction

Thank you for purchasing the NETGEAR® Powerline USB Adapter (model XA601). This Powerline adapter lets you completely network your home by simply plugging into your existing electrical wiring, so your network connection is as close as your nearest 110-volt electrical outlet. Now your high-speed cable/DSL connection can be available in every room.

Robust and rate-adaptive, the Powerline adapter minimizes interference from other household appliances. Go ahead and use your hair dryer, vacuum cleaner or TV -- your network will automatically find the best data rate so that you can continue surfing, playing games or telecommuting, safely and reliably.

This installation guide shows you how to connect your Powerline adapter to your PC. Setup is easy – follow the instructions in this guide and your network will be up and running quickly.

If you have problems, there is a troubleshooting section on page 15 to help you. You can all also find the latest information online from [www.NETGEAR.com](http://www.NETGEAR.com). NETGEAR offers technical support 24 hours a day and 7 days a week on the Web ([www.NETGEAR.com](http://www.NETGEAR.com)), by e-mail ([support@NETGEAR.com](mailto:support@NETGEAR.com)) and by phone (see the provided support information card for phone numbers).



# Installation Overview

Estimated setup time is 10 to 20 minutes for each PC.

1. Unpack the box and verify the contents.
2. Insert the "Driver and Documentation CD" into the CD-ROM drive and install the software.
3. Connect the power cord.
4. Using the supplied USB cable, connect the Powerline Adapter to the PC.
5. Set the encryption password (optional)

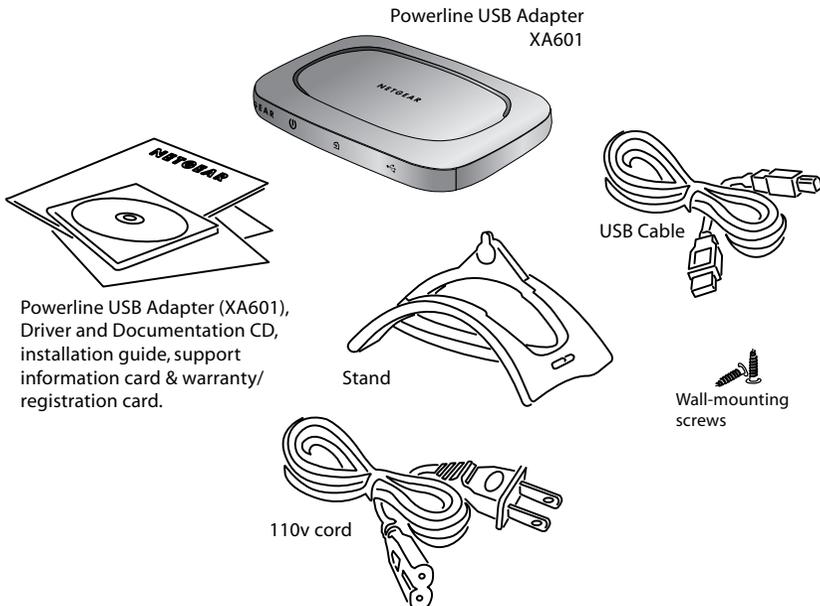
# 1 Unpack the Box

When you open the box, verify that you have received everything.

The package includes:

- XA601 Powerline USB Adapter
- Driver and Documentation CD
- 5-ft. USB Cable
- 6-ft power cord
- Vertical Stand with Cable strap
- Wall-mounting screws
- ***XA601 Installation Guide*** (this document)
- Warranty and registration card
- Support information card

If you don't have everything listed above, see the support information card for contact information. If the support information card is missing, you can get contact information at [www.NETGEAR.com](http://www.NETGEAR.com) in the Customer Service area.



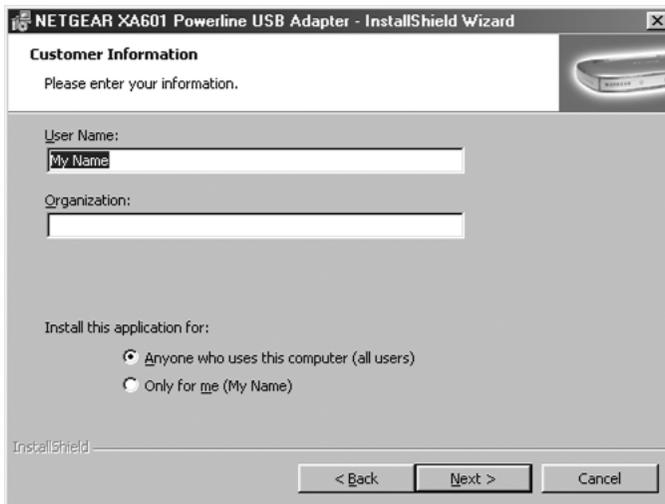
# 2 Install Drivers and Software

**Note:** Please install the drivers and software prior to connecting the Powerline USB adapter to the PC.

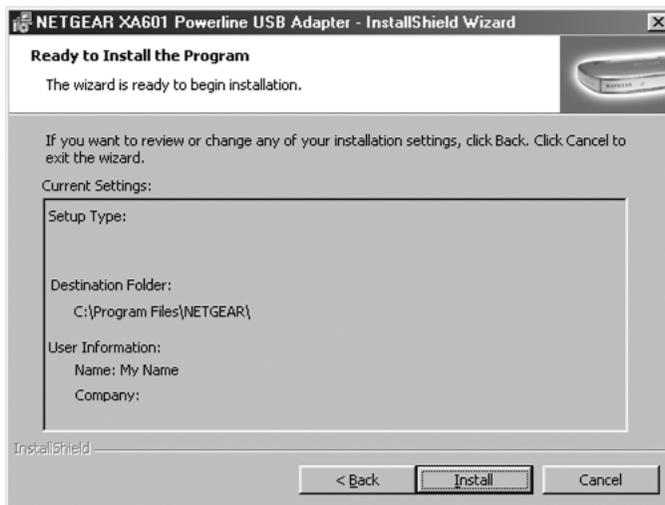
1. Insert "Driver and Documentation" CD into the CD-ROM of your PC.
2. The Installation Wizard will start automatically.
3. Once the following dialog box appears, click "Next".



4. Enter your name and click "Next".



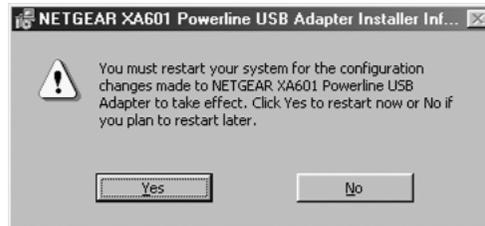
5. When the Following dialog box appears, click "Install" to begin the Installation.



- Once the Installation is complete, click “Finish” to exit the Wizard.



- You will need to restart the computer prior to connecting the Powerline USB adapter to your PC. Close all other applications and Click “Yes” when the following dialog box appears.

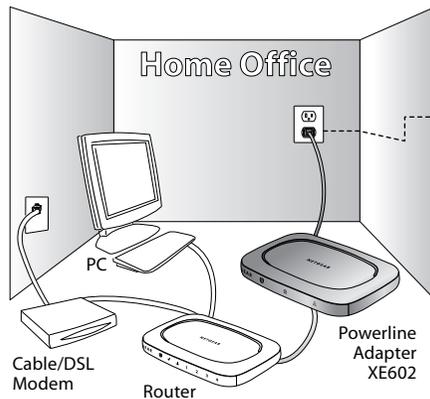


# 3 Prepare to Install the Powerline USB Adapter

The NETGEAR Powerline USB adapter enables you to set up a home network using your existing electrical outlets. Computers in different rooms can share the Internet connection as well as files and printers using the Electrical wiring that's already in your house. There is no need for unsightly Ethernet cabling or any rewiring.

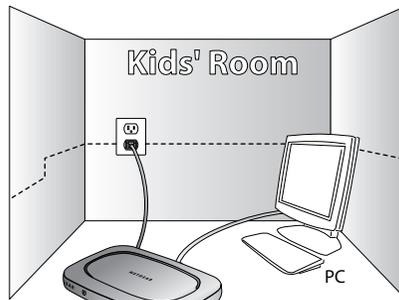
You will need one of NETGEAR's Powerline adapters in each room that you want part of the home network. The Powerline USB Adapter (model XA601) connects any PC with a USB port to the Powerline network. The Powerline Ethernet Adapter (model XE602) can easily connect to any device with a 10BaseT or a 10/100 Mbps Ethernet port such as a Cable/DSL router.

In order to share your Cable or DSL connection among PCs in different rooms, you will need the following:



- Cable or DSL Modem
- Cable/DSL Gateway Router (such as the NETGEAR RP614 or XR814)
- A Powerline Ethernet Adapter (model XE602) connected to the Router (unless you are using a fully integrated NETGEAR XR814 Powerline Cable/DSL router)

For each PC that you want to connect to the network, you will need:



Powerline USB Adapter XA601

- A Powerline USB Adapter (model XA601), if the PC lacks an Ethernet port but supports a USB port
- A Powerline Ethernet Adapter (model XE602), if the PC has an existing Ethernet port or you are about to install a 10/100 Mbps Ethernet Network Card.

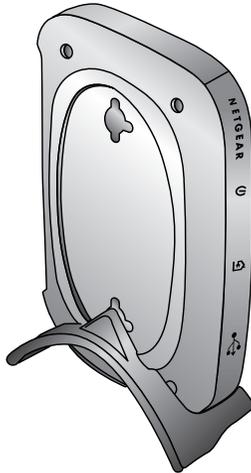
# 4 Install the Powerline USB Adapter

After installing the drivers, you are ready to install the Powerline USB adaptor.

**Note: If you have not installed the drivers, please follow the steps described in Section 2: “Install Drivers and Software”.**

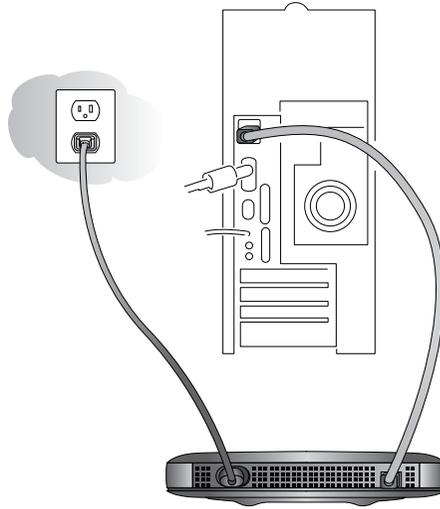
## Decide where you wish to place the Powerline USB adapter.

- It can be placed horizontally on a desk or tabletop.
- It can be mounted on the wall using the enclosed wall mounting kit
- It can be placed in the vertical stand, in order to save desk space



Powerline USB Adapter XA601  
on Vertical Stand

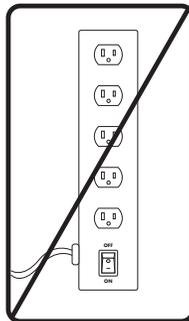
# Connecting the Powerline USB Adapter to a PC



Powerline USB Adapter XA601

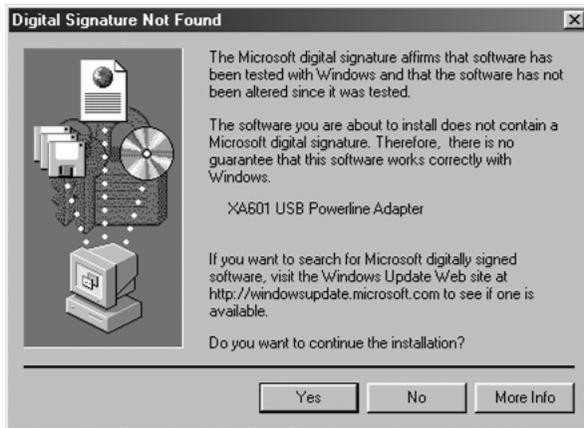
1. Make sure you have completed the steps described in Section 2: “Install Drivers and Software”.
2. Connect the enclosed power cable to the back of the Powerline USB adapter.
3. Connect the other end of the power cable (the plug) directly into the wall receptacle.

**Note:** Do not connect the plug into a power strip or surge protectors since these devices may contain circuit filters, which may degrade the Powerline signal.



**WARNING!**

4. Connect the enclosed USB cable to the USB port of the Powerline USB Adapter
5. Connect the other end of the cable to the USB port of the PC.
6. The PC will automatically detect the Powerline USB Adapter. Should the following dialog box be displayed, click "Yes" to continue.



## Check the Setup

The Power indicator light should be ON.

The Powerline Link indicator should be ON indicating that the system has been initialized.

The USB Link indicator should ON as long as the PC is ON.



Powerline USB Adapter XA601

Note: If a light isn't lit when it should be, go to the Troubleshooting section.

# 5 Setting Up Your Encryption Software (optional)

The NETGEAR Powerline products provide the option to set your own unique encryption key. The encryption key is used to protect unauthorized access to your network over the powerline network. This is accomplished by using the NETGEAR Encryption utility supplied on the "Driver and Documentation" CD. As long as you have completed the steps described in Section 2: "Driver and Software Installation", the encryption utility has already been installed on your system. The utility will generate a new key once you define a network password. Each powerline device must be set with exactly the same password; otherwise they will be unable to communicate with one another.

**Note:** Once you begin to change the password for each device, portions of your network may become disabled until all of the devices have been set with the new encryption password.

1. Double click on the "Encryption Utility" icon on the Windows desktop.



2. Once the following screen appears, click "Next".

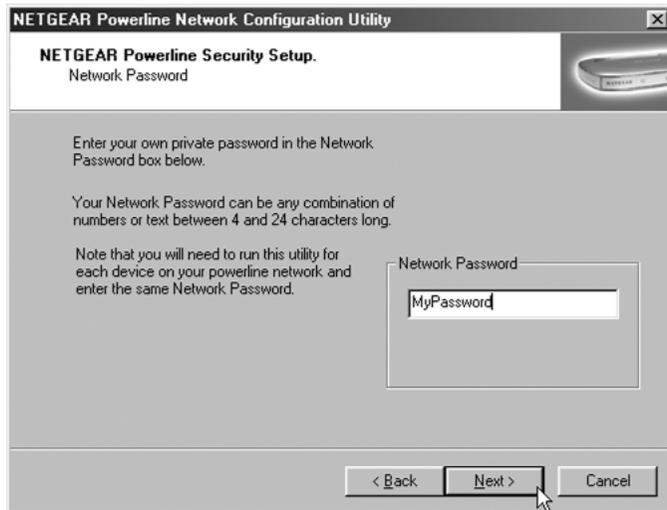


3. Enter the new password between 4-24 characters in length. Record the password on the following line, since you will need to program each Powerline device with it.

Note: The password is case sensitive and must be copied exactly.

New Password: \_\_\_\_\_

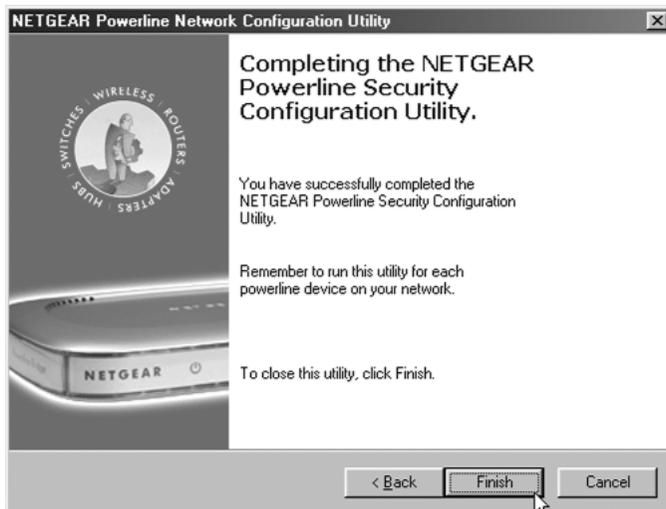
Once you have entered the new password, click on "Next".



- Once the following dialog box appears, click on Next to begin reprogramming the XA601Powerline USB Adaptor with the new encryption password.



- Click on Next again and the following dialog box will appear. Click Finish and then repeat these steps for all remaining NETGEAR Powerline devices.



# Troubleshooting

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
USB LED is OFF	Port connection is not functioning	<ul style="list-style-type: none"><li>• Make sure the power cord is properly connected at both ends.</li><li>• Make sure that the USB cable is properly inserted at both the PC and the Powerline USB Adapter.</li><li>• Make sure the PC is ON</li></ul>
Power Line LED is not ON	Port connection is not functioning	<ul style="list-style-type: none"><li>• Recheck your connections and the Power LED is ON.</li></ul>
Computer Does Not Recognize The USB Adapter	Drivers not installed properly	<ol style="list-style-type: none"><li>1. Make sure your PC is running Windows 98 Second Edition (SE), Me, 2000 or XP.</li><li>2. Disconnect the Powerline USB adapter from the PC.</li><li>3. Repeat the steps described in Section 2: Driver and Software Installation.</li></ol>

# Technical Specifications

Network Ports	One USB 1.1 port One 14 Mbps PowerLine port
<b>Network Interface</b>	Electrical Plug (PowerLine HomePlug Technology)
<b>PC Interface</b>	USB 1.1 Compliant Port
Power Line Networking Standards	Compliant with HomePlug 1.0 standard
Modulation Schemes	OFDM Symbol Modulation DQPSK, DBPSK, ROBO Carrier Modulation CSMA/CA
Frequency Band	4.3 MHz – 20.9 MHz
Additional Protocols	Forward Error Correction (FEC) Automatic Channel Adaption
Status LEDs:	
Unit	Power ON Indicator
USB	Link
Power Line	System Initialized
Power Supply	85-135 V @ 60 Hz, Internal
Dimensions	W-175 mm (6.9") D-115 mm (4.53") H-25 mm (1")
Weight	0.4 kg (0.87 lb)
Environmental Specifications	Operating temperature: 0° C to 40°C (32 to 104°F) Operating relative humidity: 10% to 90% noncondensing
Electromagnetic Emissions	FCC Part 15 Class B
Warranty	3 years

## **Voluntary Control Council for Interference (VCCI) Statement**

This equipment is in the second category (information equipment to be used in residential areas) and conforms to the standards set by the Voluntary Control Council for Interference by Data Processing Equipment and Electronic Office Machines that are aimed at preventing radio interference in residential areas.

## **EN 55 022 Declaration of Conformance**

This is to certify that the NETGEAR Model XA601 Powerline USB Adapter is shielded against the generation of radio interference in accordance with the application of Council Directive 89/336/EEC, Article 4a. Conformity is declared by the application of EN 55 022 Class B (CISPR 22).

## **Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **Canadian Department of Communications Radio Interference Regulations**

This digital apparatus (NETGEAR Model XA601 Powerline USB Adapter) does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

## **Règlement sur le brouillage radioélectrique du ministère des Communications**

Cet appareil numérique (NETGEAR Model XA601 Powerline USB Adapter) respecte les limites de bruits radioélectriques visant les appareils numériques de classe B prescrites dans le Règlement sur le brouillage radioélectrique du ministère des Communications du Canada.

## **Statement of Conditions**

In the interest of improving internal design, operational function, and/or reliability, NETGEAR reserves the right to make changes to the products described in this document without notice.

NETGEAR does not assume any liability that may occur due to the use or application of the product(s) or circuit layout(s) described herein.

## **Certificate of the Manufacturer/Importer**

It is hereby certified that the NETGEAR Model XA601 Powerline USB Adapter has been suppressed in accordance with the conditions set out in the BMPT-AmtsblVfg 243/1991 and Vfg 46/1992. The operation of some equipment (for example, test transmitters) in accordance with the regulations may, however, be subject to certain restrictions. Please refer to the notes in the operating instructions.

Federal Office for Telecommunications Approvals has been notified of the placing of this equipment on the market and has been granted the right to test the series for compliance with the regulations.

## **Bestätigung des Herstellers/Importeurs**

Es wird hiermit bestätigt, daß das Model XA601 Powerline USB Adapter gemäß der im BMPT-AmtsblVfg 243/1991 und Vfg 46/1992 aufgeführten Bestimmungen entstört ist. Das vorschriftsmäßige Betreiben einiger Geräte (z.B. Testsender) kann jedoch gewissen Beschränkungen unterliegen. Lesen Sie dazu bitte die Anmerkungen in der Betriebsanleitung.

Das Bundesamt für Zulassungen in der Telekommunikation wurde davon unterrichtet, daß dieses Gerät auf den Markt gebracht wurde und es ist berechtigt, die Serie auf die Erfüllung der Vorschriften hin zu überprüfen.

NETGEAR, INC.  
4500 Great America Parkway  
Santa Clara, CA 95054  
USA

## **Support Information**

Phone: 1-888-NETGEAR  
E-mail: [support@NETGEAR.com](mailto:support@NETGEAR.com)  
[www.NETGEAR.com](http://www.NETGEAR.com)

# **Technical Support**

YOU MUST REGISTER TO OBTAIN TECHNICAL SUPPORT. PLEASE RETAIN PROOF OF PURCHASE AND THE WARRANTY INFORMATION.

To register your product, get product support or obtain product information and product documentation, go to <http://www.NETGEAR.com/register>.

You'll find technical support information at <http://www.NETGEAR.com/> through the Customer Service area. If you want to contact technical support by telephone, see the support information card for the correct telephone number for your country.

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May 2002