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**User manual NETGEAR XAV101**  
**User guide NETGEAR XAV101**  
**Operating instructions NETGEAR XAV101**  
**Instructions for use NETGEAR XAV101**  
**Instruction manual NETGEAR XAV101**

## **XAV101 Powerline AV Ethernet Adapter User Guide**



**NETGEAR**

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4500 Great America Parkway  
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202-10339-01  
April 2008



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**Manual abstract:**

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Maximum Wireless Signal Rate Derived from IEEE Standard 802.11 Specifications Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Safety Instructions Use the following safety guidelines to ensure your own personal safety and to help protect your system from potential damage. To reduce the risk of bodily injury, electrical shock, fire, and damage to the equipment, observe the following precautions.

· Observe and follow service markings. - Do not service any product except as explained in your system documentation. - Opening or removing covers that are marked with the triangular symbol with a lightning bolt may expose you to electrical shock. Only a trained service technician should service components inside these compartments. If any of the following conditions occur, unplug the product from the electrical outlet and replace the part or contact your trained service provider: - The power cable, extension cable, or plug is damaged.

- An object has fallen into the product. - The product has been exposed to water. - The product has been dropped or damaged. - The product does not operate correctly when you follow the operating instructions. Keep your system away from radiators and heat sources. Also, do not block cooling vents. · ii v1.0, April 2008 · · · · · Do not spill food or liquids on your system components, and never operate the product in a wet environment. If the system gets wet, see the appropriate section in your troubleshooting guide or contact your trained service provider. Do not push any objects into the openings of your system.

Doing so can cause fire or electric shock by shorting out interior components. Use the product only with approved equipment. Allow the product to cool before removing covers or touching internal components. Operate the product only from the type of external power source indicated on the electrical ratings label. If you are not sure of the type of power source required, consult your service provider or local power company. To help avoid damaging your system, be sure that the voltage selection switch (if provided) on the power supply is set to match the power available at your location: - 115 volts (V), 60 hertz (Hz) in most of North and South America and some Far Eastern countries such as South Korea and Taiwan - 100 V, 50 Hz in eastern Japan and 100 V, 60 Hz in western Japan - 230 V, 50 Hz in most of Europe, the Middle East, and the Far East Also, be sure that attached devices are electrically rated to operate with the power available in your location. Use only approved power cables. If you have not been provided with a power cable for your system or for any AC powered option intended for your system, purchase a power cable that is approved for use in your country. The power cable must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cable should be greater than the ratings marked on the product.

To help prevent electric shock, plug the system and peripheral power cables into properly grounded electrical outlets. The peripheral power cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable. If you must use an extension cable, use a three-wire cable with properly grounded plugs. Observe extension cable and power strip ratings.

Make sure that the total ampere rating of all products plugged into the extension cable or power strip does not exceed 80 percent of the ampere ratings limit for the extension cable or power strip. To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS). Position system cables and power cables carefully; route cables so that they cannot be stepped on or tripped over. Be sure that nothing rests on any cables. Do not modify power cables or plugs.

Consult a licensed electrician or your power company for site modifications. Always follow your local and national wiring rules. Move products with care; ensure that all casters and stabilizers are firmly connected to the system. Avoid sudden stops and uneven surfaces. iii v1.0, April 2008 Safety and Regulatory Notices FCC Statement The XAV101 has been tested and complies with the specifications for a Class B digital device, pursuant to Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. 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 according to 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 is found 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 or devices Connect the equipment to an outlet other than the receiver's Consult a dealer or an experienced radio/TV technician for assistance Canadian Department of Communications Industry Canada (IC) Notice This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. Europe EU Declaration of Conformity A printed copy of the EU Declaration of Conformity certificate for this product is provided in the XAV101 product package.



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*Product and Publication Details Model Number: Publication Date: Product Family: Product Name: Home or Business Product: Language: Publication Part Number: XAV101 April 2008 Powerline AV Ethernet Adapter Powerline AV Ethernet Adapter XAV101 Home English 202-10339-01 iv v1.0, April 2008 Contents XAV101 Powerline AV Ethernet Adapter User Guide About This Manual Conventions, Formats, and Scope .....*

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....3-3 Appendix A Technical Specifications vi v1.0, April 2008 About This Manual The NETGEAR® XAV101 Powerline AV Ethernet Adapter User Guide describes how to install, configure and troubleshoot the Powerline AV Ethernet Adapter XAV101. The information in this manual is intended for readers with intermediate computer and Internet skills. Conventions, Formats, and Scope The conventions, formats, and scope of this manual are described in the

following paragraphs: · *Typographical Conventions.* This manual uses the following typographical conventions: *Italic Bold italic Emphasis, books, CDs User input, IP addresses, GUI screen text URL links · Formats.* This manual uses the following formats to highlight special messages: *Note:* This format is used to highlight information of importance or special interest.

*Tip:* This format is used to highlight a procedure that will save time or resources. *Warning:* Ignoring this type of note may result in a malfunction or damage to the equipment. *i v1.0, April 2008 XAV101 Powerline AV Ethernet Adapter User Guide · Scope.* This manual is written for the Powerline AV Ethernet Adapter according to these specifications: *Product Version Manual Publication Date Powerline AV Ethernet Adapter XAV101 April 2008 Note:* Product updates are available on the NETGEAR, Inc.

website at <http://www.netgear.com/support>. *How to Use This Manual* The HTML version of this manual includes the following: &mus lights, and port. Table 1-1.

*Item Power Light Powerline AV Ethernet Adapter Description Description · Solid green.* The electrical power is on. · *Blinking green.* The adapter is setting itself up after the reset or Security button was pressed. · *Off.* There is no electrical power. · *Solid.* The adapter is connected to a Powerline network. · *Blinking.* The adapter is sending or receiving data.

· *Off.* The adapter has not found any other compatible Powerline devices using the same Powerline network encryption key. The color indicates the speed of the Powerline link: · *Green.* The link is faster than 80 Mbps. · *Orange.* The link is 50 Mbps to 80 Mbps. · *Red.* The link is less than 50 Mbps. · *Solid green.* The Ethernet port is linked, but there is no activity.

· *Blinking green.* There is traffic between an Ethernet port and the Powerline network. · *Off.* There is no Ethernet connection. *Powerline Light Ethernet Light Installation and Basic Configuration v1.*

0, April 2008 1-3 XAV101 Powerline AV Ethernet Adapter User Guide Table 1-1. *Item Security button Reset button Powerline AV Ethernet Adapter Description (continued) Description (continued) Configure security (see "Using the Security Button to Change the Encryption Key in Your Network" on page 1-7).* To reset, use a sharp object such as a pen or a paper clip to briefly press this button (for 2 seconds). The adapter automatically returns to factory default settings, and then restarts. *Note:* Pressing the reset button longer than recommended might interfere with resetting the adapter.

10/100 Ethernet port Use this port to connect the adapter to a router, computer, or other peripheral device. The Label on the Rear Panel of the XAV101 The label on the rear panel of the XAV101 contains the items listed below. · · · Model number MAC address Serial number Device password (PWD) *Preparing to Install Your Powerline AV Ethernet Adapter To prepare for installation: 1. Before you begin, verify the following: · · · Your Ethernet network is set up, and an Ethernet port is available on your router. Your Internet connection is working. Each computer that will use the Powerline AV Ethernet Adapter has an Ethernet port available and is configured to work on your network. Usually, the default configuration settings (TCP/IP and DHCP) are fine. 2. Familiarize yourself with the Powerline AV Ethernet Adapter. The front panel has three lights: Power, Powerline, and Ethernet.*

The side panel has a Security button, a Reset button, and an Ethernet port. 3. Plan the location of your Powerline devices: 1-4 v1.0, April 2008 *Installation and Basic Configuration XAV101 Powerline AV Ethernet Adapter User Guide · Do not connect the Powerline AV Ethernet Adapter to a power strip, extension cord, or surge protector as this might prevent it from working correctly, or degrade the network performance. Use an electrical outlet that is not controlled by a wall switch to avoid someone unknowingly turning off the power to the outlet. Using the Powerline AV Ethernet Adapter plugged into an electrical outlet that is located near an appliance that uses a lot of power, such as a washer or dryer, might prevent the adapter from working correctly, or degrade the network performance. · · Connecting a Powerline AV Ethernet Adapter to the Router Follow these steps: 1. Plug a Powerline AV Ethernet Adapter into a power outlet near your router. Use the blue Ethernet cable from the XAV101 package to connect it to a LAN port on the router so that the Powerline network can gain access to the Internet. It is not necessary to disconnect your router from your computer.*

*Powerline AV Ethernet Adapter Supplied Ethernet cable Figure 1-3 The Power and Ethernet lights on the Powerline AV Ethernet Adapter should turn on.*



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2. Plug your other Powerline AV Ethernet Adapters into power outlets near the computers and peripherals to be included in your Powerline network. 3. Use the blue Ethernet cable from the XAV101 package to connect each Powerline AV Ethernet Adapter to an Ethernet port on a computer or peripheral. Installation and Basic Configuration v1.0, April 2008 1-5 XAV101 Powerline AV Ethernet Adapter User Guide 4. Wait up to 80 seconds for each Powerline AV Ethernet Adapter to be recognized by the Powerline network. The Power, Ethernet, and Powerline lights should turn on. For details about how the lights work, see Table 1-1 on page 1-3.

5. Make sure that each computer connected to a Powerline AV Ethernet Adapter can use the Powerline network. For example, access the Internet from a remote computer. If there is a problem, see "Basic Functioning" on page 3-1. NETGEAR recommends that you secure your Powerline network from unauthorized access. This is especially relevant in settings like apartment buildings. See the following section, "Understanding Powerline Network Security. Understanding Powerline Network Security Powerline devices on the same network must use an identical encryption key. The Powerline AV Ethernet Adapter default encrypted password is HomePlugAV. If you do not set up security, anyone nearby with a Powerline network can use this to gain access to your network.

Use the Security button on the Powerline AV Ethernet Adapter to change the Powerline encryption key. Note: If you need to return the Powerline AV Ethernet Adapter to its factory default settings, use the Reset button or the NETGEAR XAV101 Configuration Utility on your Resource CD. Encryption of the information you send over the Powerline AV Ethernet Adapter helps keep it secure. This is especially relevant in settings like apartment buildings. A Powerline network consists of Powerline adapters with the same network encryption key. The security used by Powerline AV Ethernet Adapters is similar to the SSID and encryption keys used in wireless networks, but you do not need software to configure your Powerline AV Ethernet Adapters. There are two ways to secure your Powerline network. · Use the Powerline AV Ethernet Adapter Security buttons to automatically generate an encryption keys. See the following section, "Using the Security Button to Change the Encryption Key in Your Network." 1-6 v1.

0, April 2008 Installation and Basic Configuration XAV101 Powerline AV Ethernet Adapter User Guide · Use the XAV101 Configuration Utility, on your Resource CD, to configure your Powerline network with a network encryption key that you specify. If you are already using HomePlug devices then you might need to use this utility. See Chapter 2, "Using the XAV101 Configuration Utility. Using the Security Button to Change the Encryption Key in Your Network Follow these steps: 1. @@2.

Generate the new key: a. @@@@At this point, the adapters cannot communicate with each other. b. @@Both buttons must be pushed within 2 minutes. @@The adapters retain security settings even if they are unplugged.

3. To add more adapters into your network: a. @@Both buttons must be pushed within 2 minutes. b. @@@@To install the XAV101 Configuration Utility: 1. @@@@All devices on a Powerline network can be managed from one computer. @@@@Click Next, and follow the wizard prompts. @@Click Finish. The XAV101 Configuration Utility icon appears on your desktop. @@@@The type of network for the local Powerline device.

The default setting is Public. The device name is initially set by the utility. The MAC address for the Powerline device. @@This column shows whether the device is local or remote. @@@@· HD Video. The device can handle high-definition video traffic smoothly. @@· DVD Video. The transmit and receive link speed is greater than 50 Mbps. · Data. The device cannot handle video data smoothly.

@@The link rate for each Powerline device. The LEDs are enabled by default. The firmware version for each Powerline device. Change a device name. Reset a device to its factory defaults.

See "Resetting to Factory Defaults" on page 2-5. Link Rate (Mbps) LED Status Firmware Version Rename button Factory Reset button Firmware Upgrade button Manually apply a firmware upgrade. See "Firmware Upgrade." LED On/Off button Scan button Enable or disable the LEDs for a Powerline device.

Scan the network for Powerline devices.

Firmware Upgrade If new firmware is available, you can download new firmware and install it as follows: 1. Go to the Powerline AV Ethernet Adapter XAV101 support page at <http://www.netgear.com/support>. If you see a recent firmware image to download, follow the download instructions on the support site, and note where you save the downloaded file on your computer. If the file you downloaded is a .zip file, extract the encapsulated firmware file and note its name and location on your computer. 2-4 v1.0, April 2008 Using the XAV101 Configuration Utility XAV101 Powerline AV Ethernet Adapter User Guide 2. On the XAV101 Configuration Utility Main tab, click the device name for a remote Powerline device to highlight it, then click Firmware Upgrade.

The following screen is displayed: Figure 2-5 3. Click the Browse button, and locate the firmware file that you saved on your computer. The file has an extension of .bin. 4. Select the downloaded firmware file, and then click Upgrade. Warning: Do not try to go online, shut down the computer, or either disconnect or unplug Powerline AV Ethernet Adapters, until the firmware upgrade finishes! 5. Repeat the previous steps to remotely upgrade firmware for all Powerline AV Ethernet Adapters in your network. Resetting to Factory Defaults This option returns the network encryption key to its default value of HomePlugAV. Only one device at a time can be reset.

Note: If you customized your network encryption key, the local Powerline device will be disconnected from the network when you reset it to the factory default. To avoid this problem, reset all remote devices before you reset the local device. Using the XAV101 Configuration Utility v1.0, April 2008 2-5 XAV101 Powerline AV Ethernet Adapter User Guide To reset all the devices in your network to the factory defaults: 1. On the Main tab, click the device name for a remote Powerline device to highlight it.

Figure 2-6 2. Click Factory Reset, and a confirmation message displays. 3. Click OK to reset the device. A message indicates whether or not the operation succeeded.

4. After you have reset each device, check that the Main tab lists all devices in the network. 2-6 v1.0, April 2008 Using the XAV101 Configuration Utility XAV101 Powerline AV Ethernet Adapter User Guide Changing the Network Encryption Key You can specify the network encryption key from the Security tab: Figure 2-7 1. To change the encryption key for a remote device, you must enter the password for the device. The password is printed on the product label.



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2. Click the device name for a remote Powerline device to highlight it in blue. 3. Click Enter Password, and the following message displays: Figure 2-8 The device password is on the product label.

4. Enter the device password, and then click OK. Using the XAV101 Configuration Utility v1.0, April 2008 2-7 XAV101 Powerline AV Ethernet Adapter User Guide 5. Select the check box next to the Device Name column. 6. Type the network encryption key into the Apply the Encryption Key setting field, and click Set Selected Devices. 7. Select the Main tab, and click Scan. Check that the devices in the Powerline network appear in the device list.

It may take a minute or two for all devices in the network to be detected. Adding a Device to a Powerline Network If you are adding a device to a Powerline network, and the network encryption key has been left at its default setting, all you need to do is plug the new device into a power outlet. If the network encryption key has been customized: · You can use the Security button to add the new device to your network (see "Using the Security Button to Change the Encryption Key in Your Network" on page 1-7). You can use the XAV101 Configuration Utility to add the new device to the network, as described in the following sections. The procedure for setting the network encryption key depends on whether the computer running the XAV101 Configuration Utility is connected directly to the new Powerline AV Ethernet Adapter (local) or is connected to a different device in the Powerline network (remote).

Adding a Device from a Locally Connected Computer Follow these steps: 1. Plug the new Powerline AV Ethernet Adapter into an available AC power outlet. Connect the Ethernet cable that came with the adapter to the adapter's Ethernet port and an Ethernet port on the computer. 2. Start the XAV101 Configuration Utility, which displays its Main tab.

Wait for the utility to detect the new device. 2-8 v1.0, April 2008 Using the XAV101 Configuration Utility XAV101 Powerline AV Ethernet Adapter User Guide 3. Click the Security tab. Figure 2-9 4. Select the check box next to the Device Name column, for the device marked as Local in the Location column. 5. Type the network encryption key into the Apply the Encryption Key setting field, and click Set Selected Devices. 6. Select the Main tab, and click Scan.

Check that the devices in the Powerline network appear in the device list. It may take a minute or two for all devices in the network to be detected. Adding a Device from a Remotely Connected Computer If you are using a custom network encryption key, first, set all the devices to the default network encryption key of HomePlugAV so that they can communicate with each other. Then set all the devices to the network encryption key that you want to use. Returning to the Default Network Encryption Key Follow these steps: 1. Plug the new device into an AC power outlet. Using the XAV101 Configuration Utility v1.0, April 2008 2-9 XAV101 Powerline AV Ethernet Adapter User Guide 2. Start the XAV101 Configuration Utility and wait for the utility to detect the devices in your Powerline network. Check that all the devices in the established network are displayed on the Main tab.

Note: Before you can reset a remote device, you must enter its password. The password is printed on the product label. 3. On the Security tab, select each check box next to the Device Name column to select every device. 4.

Click Use Default (Public Network). The Apply the Encryption Key setting field changes to the default, HomePlugAV. 5. Click Set Selected Devices. Setting Up Your Custom Network Encryption Key When all the devices are set to the default network encryption key and are plugged in, they are listed on the Main tab.

Follow these steps to set up a custom network encryption key for all the Powerline devices: 1. On the Main tab, click Scan. Wait for the new device to be listed. The new device can be identified by its MAC address. Note: Before you can change the encryption key for a remote device, you must enter its password. The password is printed on the product label. 2. On the Security tab, select each check box next to the Device Name column to select every device. 3. Type your network encryption key in the Apply the Encryption Key setting field.

4. Click Set Selected Devices. The utility displays a message indicating that the operation was successful. 5. Select the Main tab, and then click Scan. Check that all devices are detected with your network encryption key. 2-10 v1.0, April 2008 Using the XAV101 Configuration Utility XAV101 Powerline AV Ethernet Adapter User Guide Prioritizing Traffic on the Powerline Network By default, all types of traffic on the Powerline network are assigned the same priority. For most applications, this works fine. However, there are situations where performance improves if you assign a higher priority to certain types of traffic, such as multimedia files.

Prioritizing by General Application Type If your network traffic is a mix of multimedia and document/database traffic you might want to give priority to a particular traffic type. If it is important that your multimedia playback is smooth, even while document files are being transferred over the network, then give priority to multimedia traffic. Conversely, if it is more important for your network to be responsive to database applications, give priority to this type of application over multimedia applications. The Powerline AV Ethernet Adapter supports the following: · MAC address · IP port · VLAN tags · ToS (Type of Service routing) To set the priority of data transfers by the type of protocol: 1. Start the XAV101 Configuration Utility and wait for the utility to detect the Powerline AV Ethernet Adapters connected to the network.

Using the XAV101 Configuration Utility v1.0, April 2008 2-11 XAV101 Powerline AV Ethernet Adapter User Guide 2. Select the QoS (Quality of Service) tab. Figure 2-10 Note: QoS settings are applied to only the device that is selected on the QoS tab. 3.

Specify the priority in the Configure Advanced QoS Settings section of the screen: 4. To set the traffic prioritization rule into the selected Powerline AV Ethernet Adapter device, click Apply. These options only apply to QoS-configured business networks. IEEE 802.1p uses prioritization bits in Layer-2 frames. Type of Service routing (ToS) uses prioritization bits in Layer-3 IP packets. The deprecated ToS values range from 0 to 7. 2-12 v1.0, April 2008 Using the XAV101 Configuration Utility XAV101 Powerline AV Ethernet Adapter User Guide Diagnostics Tab The Diagnostics tab shows system information and a device history table: Figure 2-11 You can delete a device from the device history, save a report, or print a report. Using the XAV101 Configuration Utility v1.

0, April 2008 2-13 XAV101 Powerline AV Ethernet Adapter User Guide Uninstalling the XAV101 Configuration Utility To uninstall the XAV101 Configuration Utility: 1.



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Insert the Resource CD into a CD drive on the computer where you installed the utility. The CD automatically starts and display the following screen: Figure 2-12 2. Click Install Software. The Resource CD software detects the configuration utility. 3. When prompted, select Yes to remove the utility from your computer. The following screen displays: Figure 2-13 4. @@@@ When power is first applied, verify that the Power light is on. 2.

After approximately 10 seconds, verify that: a. The power light is solid green. b. The Powerline LED is lit. c.

The Ethernet light on the Powerline AV Ethernet Adapter lights or blinks. If any of these conditions does not occur, refer to the appropriate following section. 3-1 v1.0, April 2008 XAV101 Powerline AV Ethernet Adapter User Guide Troubleshooting Tips The following table lists problems and recommendations.

Problem Power light is off.

Powerline light is off. Recommendation Make sure that power is supplied to the electrical outlet, and the Powerline device is not plugged into an extension cord, power strip, or surge protector. The devices cannot find each other. Make sure that the Powerline devices are plugged into outlets with power, and that they use the same network encryption key. · If you did not change the network encryption key, move the Powerline device to a closer location. · If the problem occurred after you changed the network encryption key using the XAV101 Configuration Utility on the CD, press the Reset button to return the Powerline AV Ethernet Adapters to their default settings. If this fixes the problem, see the User Manual for instructions about setting the network encryption key. There is no data traffic. Make sure that: · Your router and modem are switched on and that the Ethernet cable that came in the box is connected to the Powerline adapter port and a router LAN port. · The PC connected directly to the router can access the Internet.

The reset and Security buttons are located on the side panel of the Powerline AV Ethernet Adapter. · Pressing the reset button longer than 2 seconds will not reset the device. · Pressing the Security button longer than 2 seconds will not activate security. Ethernet light is not blinking. Problem using the reset or Security button. Problems After Changing Network Encryption Key If your Powerline devices stopped communicating after you used the NETGEAR XAV101 Configuration Utility to change the network encryption key, proceed as follows: 3-2 v1.0, April 2008 Troubleshooting XAV101 Powerline AV Ethernet Adapter User Guide 1. Open the XAV101 Configuration Utility and select the Security tab. Figure 3-1 2. Select the local device.

3. For each remote device, enter its password (printed on the product label), and then select it. 4. Click the Use Default (Public Network) button, and then click the Set Selected Devices button. 5.

Select the Main tab, and check that the utility detects all the Powerline AV Ethernet Adapters in your Powerline network. If the utility detects all your Powerline devices, you can specify a new network encryption key as described in "Changing the Network Encryption Key" in Chapter 2. If the utility does not detect them all, see the following section, "Changing the Network Encryption Key for 1 Unit at a Time. Changing the Network Encryption Key for 1 Unit at a Time If the utility does not detect all the devices, you must connect your computer to each Powerline device and set up the network encryption key one at a time, as follows: 1. Select the Security tab in the XAV101 Configuration Utility.

2. Type the network encryption key that you want to assign in the Apply the Encryption Key setting field, and then click Set Selected Devices. 3. Select the Main tab, and then click Scan. Check that the utility detects all the devices that have been individually set to the same network encryption key.

Troubleshooting v1.0, April 2008 3-3 XAV101 Powerline AV Ethernet Adapter User Guide 3-4 v1.0, April 2008 Troubleshooting Appendix A Technical Specifications This appendix provides technical specifications for the Powerline AV Ethernet Adapter XAV101. Network Protocol and Standards Compatibility Data and Routing Protocols: Power Power Consumption: Physical Specifications Dimensions: Height: 98 mm Width: 72 mm Depth: 40 mm 0.4 lbs (0.

18 kg) 4W IEEE 802.3 (10BASE-T), IEEE 802.3u (100BASE-Tx) Weight: Environmental Specifications Operating temperature: Operating humidity: Storage humidity Security Encryption type: Bridge Performance MAC addresses: Bandwidth Powerline Performance Compatibility: Data Transfer Rate: Frequency band: Modulation type: Electromagnetic Emissions 0° to 40° C (32° to 104° F) 10-90% maximum relative humidity, noncondensing 5-95% maximum relative humidity, noncondensing 128-bit AES 64 200 Mbps Not HomePlug v1.0 or HomePlug v1.0 Turbo compatible Up to 200 Mbps with real throughput greater than 80 Mbps 2-30 Mbps OFDM symbol modulation Technical Specifications v1.0, April 2008 A-1 XAV101 Powerline AV Ethernet Adapter User Guide Meets requirements of: Safety Agency Approvals Meets requirements of: UL Listed (UL 1950) /cUL IEC950; CE LVD; TUV CB FCC Part 15 Class B; CE-EMC Class B; 3-home FCC Certificate A-2 v1.0, April 2008 Technical Specifications .



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