



NHP5010BD1 500Mbps Powerline AV
Wireless N AP Router Starter Kit



Important:

This Quick Installation Guide only gives you a brief idea to connect the devices. The details on using software are also available in the CD.

ADD-NHP5010BD1 Quick Installation Guide

Package Contents:

- One 500Mbps Powerline AV Wireless N AP Router
- One 500Mbps Powerline AV Adapters
- One Software CD
- Two RJ45 Ethernet Cables
- One Quick Installation Guide

Package Includes:

- 1 x Addon **HP5100S** Powerline Ethernet Adapter
- 1 x Addon **NHP5010** Powerline Wireless/Ethernet Adapter
- 2 x Ethernet Cable RJ45
- 1 x Quick Install Guide
- 1 x Resource CD



Powerline Adapter (also called **Homeplug**) is a device that carries the internet signal through the existing home electrical wiring in the same electrical ring in the same building. They work as a pair, which means that you need at least two powerline, but you can add additional ones to work together.

To start and create your Powerline Network, please follow:

a) Create your Powerline Network step by step (Page 2)

For advanced features, please follow:

- b) Setup Wireless Security Key by using WPS button (Page 5)**
- c) Login to the Management Page (Page 6)**
- d) Setup Wireless Security Key from the Management Page (Page 10)**
- e) Change the Wireless Network Name SSID (Page 12)**
- f) Use the NHP5010 as an Access Point (Page 14)**
- g) Use the NHP5010 as a Router (Page 15)**
- h) Software Installation (Page 18)**
- i) Use of the Security Pushbutton (Page 24)**
- j) Reset the NHP5010 (Page 26)**
- k) Add a NHP5010 Powerline Wireless Adapter (Page 27)**
- l) Change Wireless channel of the NHP5010 (Page 29)**

a) Create your Powerline Network step by step



Figure 1 Hardware Connection

Any ADDON Powerline Adapter is **Plug & Play** and **very easy to install**:

Step 1: Connect the ADDON HP5100S to the router by Ethernet cable

- Plug Ethernet cable into the Ethernet port of HP5100S.
- Plug the other end of the cable into the Ethernet port of your router.
- Plug HP5100S into your home wall outlet.


Step 2: Plug the ADDON NHP5010 in another electrical outlet of your house/office

Step 3: Connect your computer/device to the ADDON NHP5010 by Ethernet cable or wirelessly (see page 3) and you will immediately get internet signal.

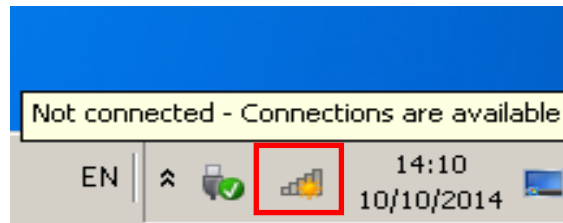
Connect your computer/device to the NHP5010 by Ethernet Cable:

- Plug Ethernet cable into the Ethernet port of NHP5010.
- Plug the other end of the cable into the Ethernet port of the computer.
- Plug NHP5010 into your home wall outlet.

Connect the NHP5010 by Wireless:

1. Scan the available wireless networks around you by using the Wireless LAN Utility of your wireless LAN adapter or click on the WLAN icon () on the bottom-right corner.

Windows 7:

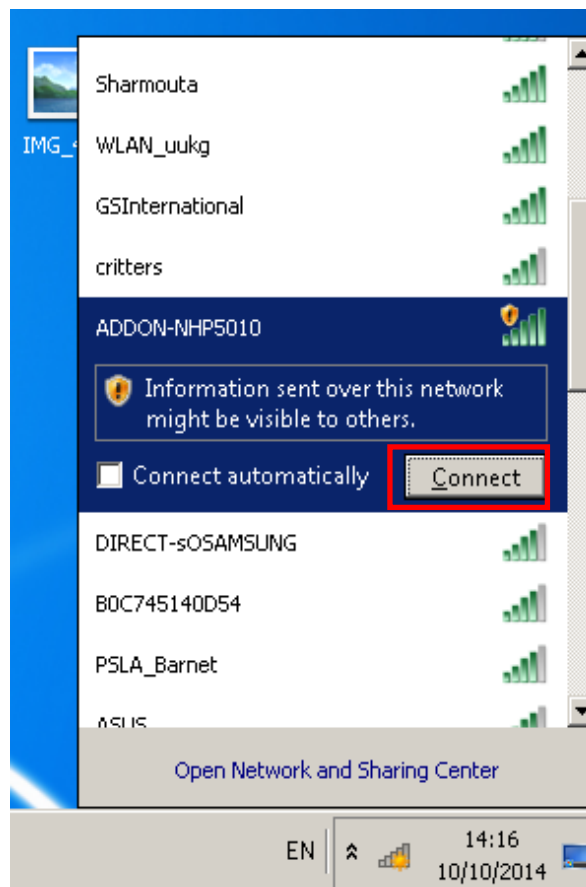


Windows 8:

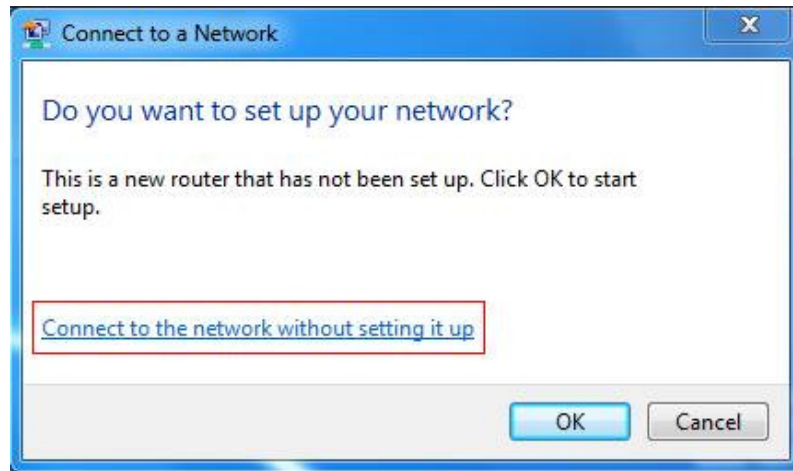


2. You will see one of the networks SSID called ADDON NHP5010. Highlight it and click on Connect.

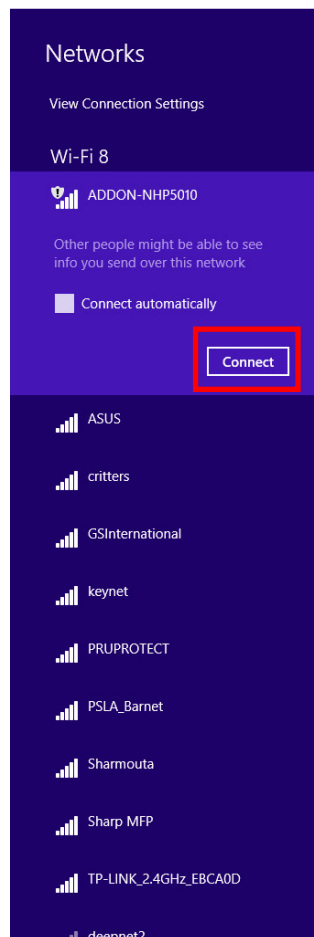
Windows 7



Note: If you see the following message “Do you want to set up your network?” please click on “Connect to the network without setting it up”



Windows 8



3. Get Internet access immediately

*Note: You **do not need to follow the next steps**, unless you want to **set up the Wireless Security Key** for the NHP5010 or **login to the management**.*

b) Setup Wireless Security Key by using WPS button

WPS refers to Wi-Fi Protected Setup. You can use the WPS Pushbutton to add a wireless client to a network, without setting some specific parameters, such as SSID, security mode, and password.

To use this function, a wireless client (for example your PC, Laptop, Smartphone, Tablet, etc.) must support WPS. If the wireless client does not support WPS, you must manually configure the wireless settings of wireless client (page 6 to 10)

Just follow these two steps:

- 1) Press the WPS button on the NHP5010 for less than 3 seconds**
- 2) Press the WPS button on the network card or click the PBC button in the configuration utility page of network card/adapter within two minutes to start WPS connection.**

You can connect many devices to the same NHP5010 by using WPS button (just repeat the 2 steps above)

As soon as you press the WPS button on the NHP5010, the WLAN/WPS light will turn to orange and will start to flash for about 2 minutes.

If your wireless connection ADDON NHP5010 is unprotected by password, when you press the WPS button on the NHP5010, the name of your wireless connection (SSID) will change from *ADDON-NHP5010* to *Network-abcdef123456* (where abcdef123456 is a 12 digit variable combinations of letters and numbers that correspond to the MAC address of your device) and a password will be generated randomly.

If you want to customize SSID and password, you need to login to the management page (page 6 to 10).

If your device supports WPS and run Windows 7 or 8, you can follow this guide at this link: www.addon-tech.com/WPSNHP5010.pdf

Note: If you press the WPS button on the NHP5010 for more than 5 seconds, you can enable or disable the WLAN.

c) Login to the management page:

By default, the DHCP server is disabled. You need to set the IP address manually before you can login to NHP5010 management page.

Note: The configuration steps and figures on Windows 7 / Windows 8 / 8.1 are shown as an example. The configuration process may be different, depending on operating system of your PC.

To set the IP address manually, please follow the instruction below:

1. Connect your computer to the NHP5010 by Ethernet cable or by Wireless (follow the steps at page 3 and page 4)
2. Open *Control Panel*

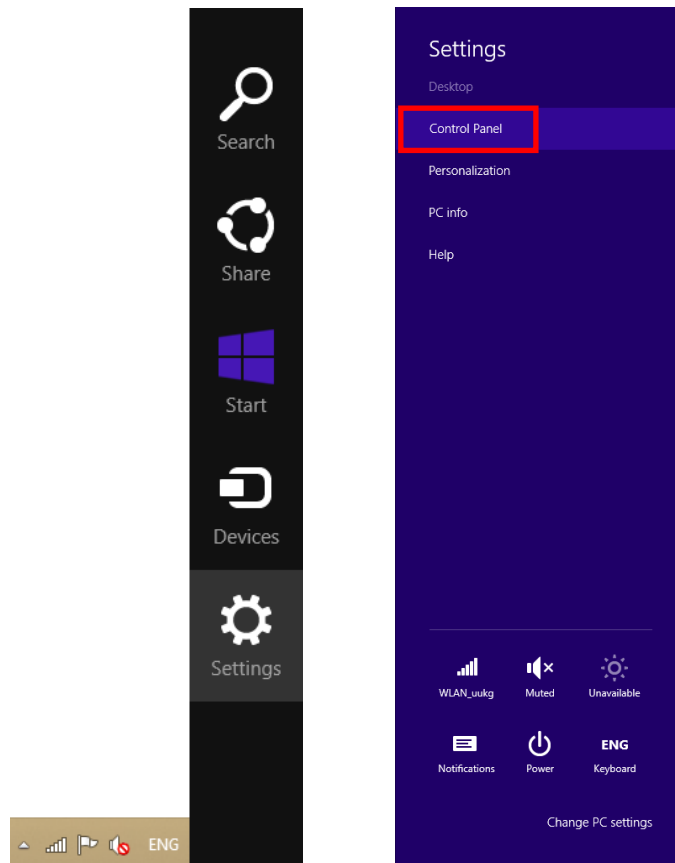
Windows 7:

Click *Start -> Control Panel*

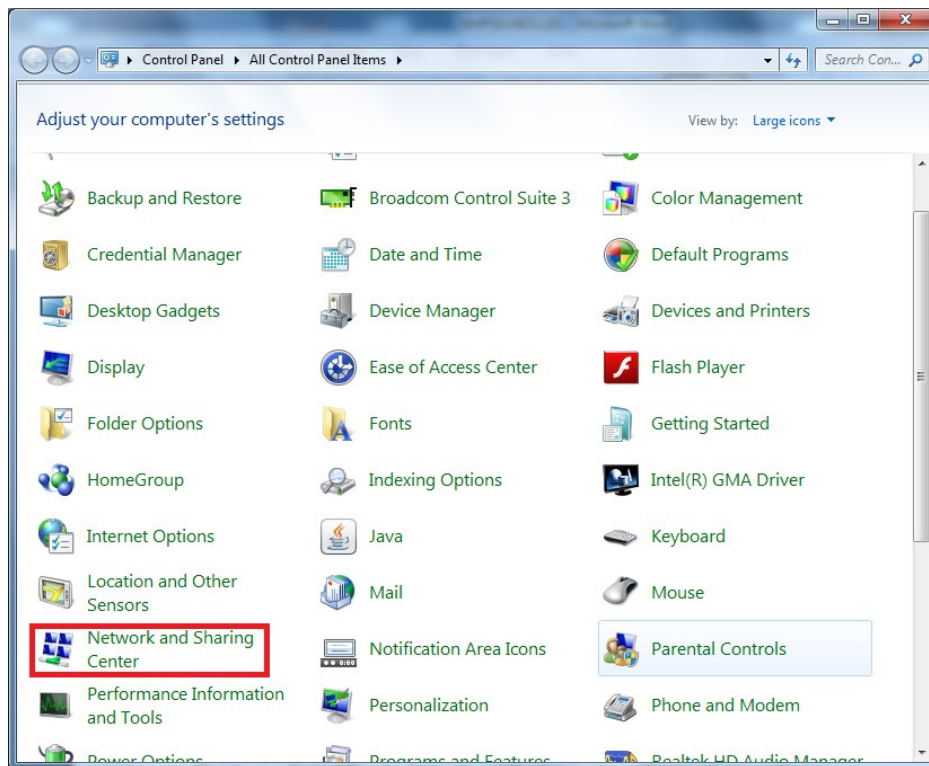
Windows 8:

Swipe in from the right edge of the screen, then tap *Settings->Control Panel*

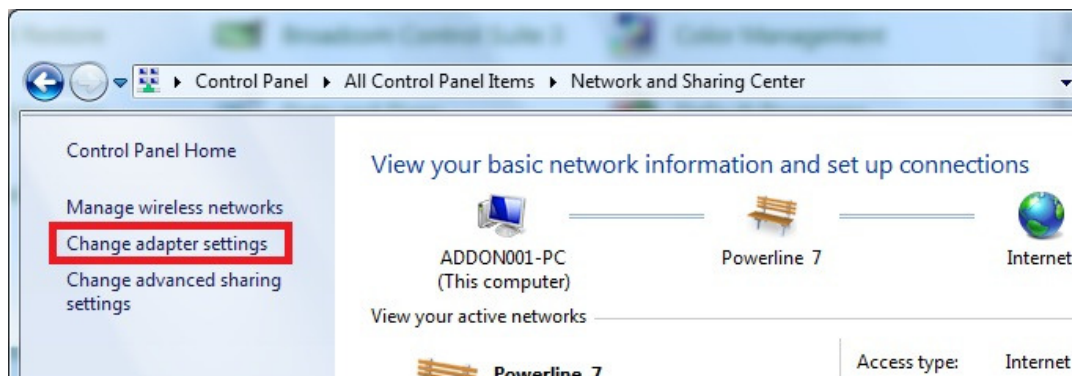
(If you're using a mouse, point to the bottom-right corner of the screen, move the mouse pointer up, then click Settings.)



3. Click *Network and Sharing Center*



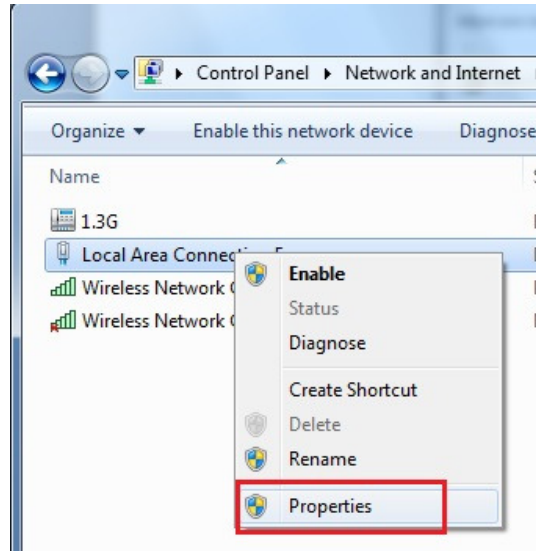
4. Click *Change adapter settings*



5. Open *Connection Properties*

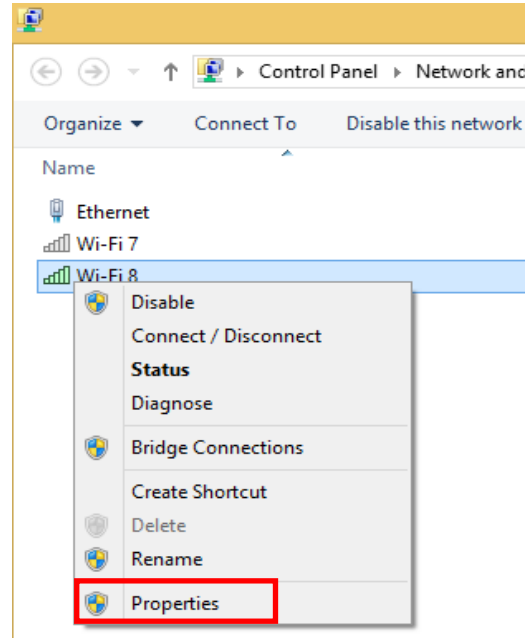
If you are connected to the NHP5010 by *Ethernet cable*

Right click on Local Area Connection (or Ethernet in Windows 8) -> *Properties*

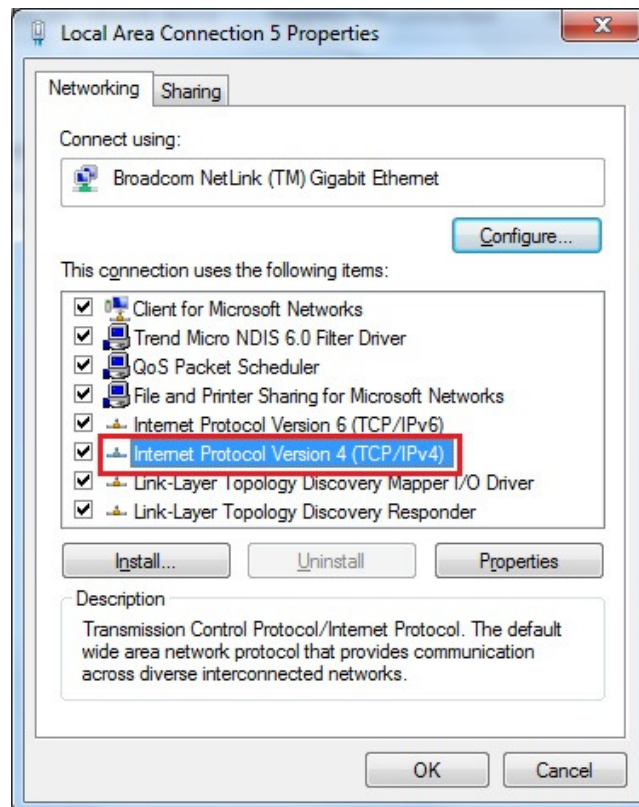


OR If you are connected to the NHP5010 by *Wireless*

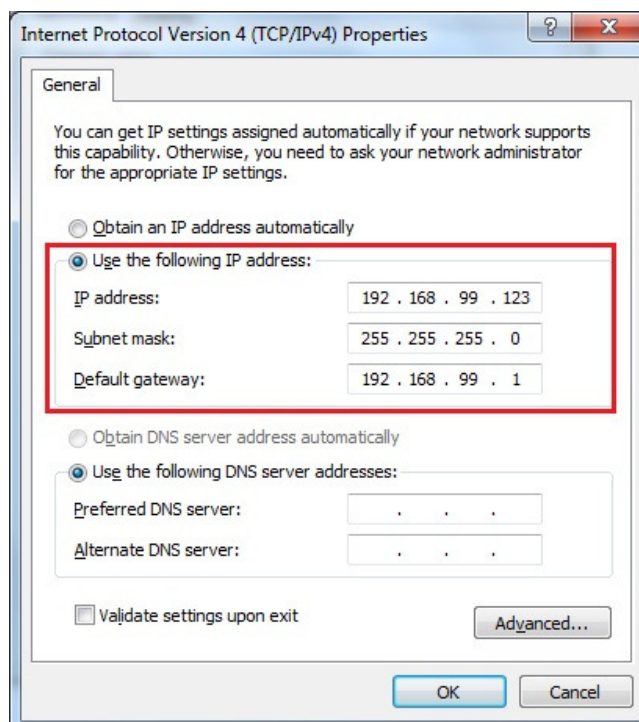
Right click on the Wireless Network Connection->select *Properties*



6. Double click on Internet Protocol Version 4 (TCP/IPv4)



7. Select Use the following IP address and enter the IP address of your PC. Set the IP address to 192.168.99.123, set the subnet mask to 255.255.255.0 and set the default gateway to 192.168.99.1. Then Click OK.



8. Open the web browser; enter 192.168.99.1 in the address bar and press ENTER,
9. Login by using the default username: **admin** and the password: **admin**.

10. Click Login and the following page appears

You are now into the NHP5010 Management page.

If you want to setup the Wireless Security Key, please go to page 11.

If you want to change the Wireless Network Name (SSID), please go to page 13.

If you want to add a second or third NHP5010, please go to page 27.

d) Setup Wireless Security Key for the NHP5010:

1. If you want to setup a Wireless Security Key for the NHP5010, you need to login to the NHP5010 management page. Please refer to the section “**Login to the management page of NHP5010**” (Page 6 to 10).
2. Click Wireless Setup-> Wireless Security

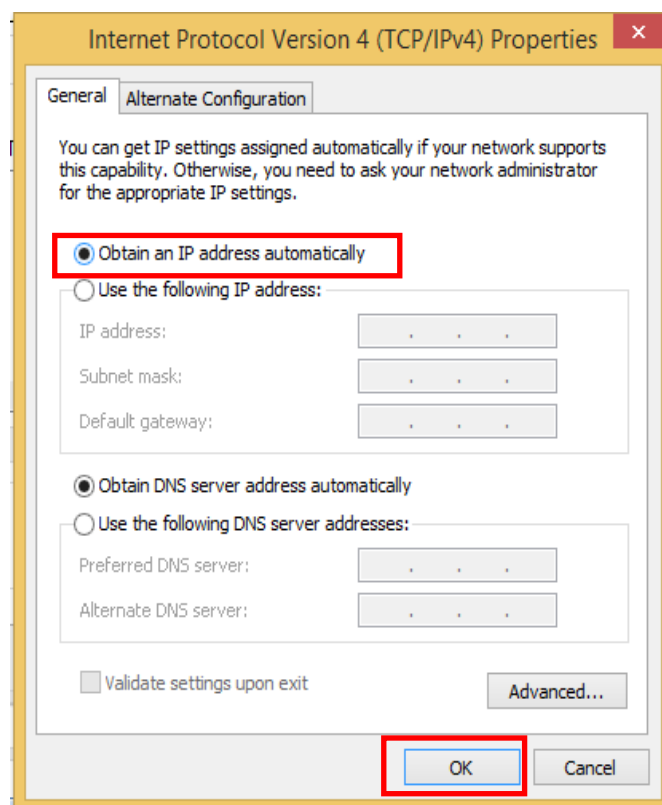
The screenshot displays the NHP5010 management page. On the left is a blue sidebar with navigation links: Internet Setup, Wireless Setup (highlighted with a red box), LAN Setup, Time and Date, and Logout. A dropdown menu is open from 'Wireless Setup', showing 'Wireless Basic', 'Wireless Security' (highlighted with a red box), and 'WPS'. The main content area has a light blue header with the text: 'To protect your privacy you can configure wireless security features. This device supports security modes including: WEP, WPA, WPA2, WPA and WPA2 Mixed. WEP is an encryption standard. WPA provides a higher level of security.' Below this is a section titled 'WIRELESS SECURITY MODE' containing a 'Wireless Security Mode' dropdown menu set to 'WPA2-PSK'. The next section is 'WPA2', which contains explanatory text about WPA and WPA2 modes and their security features. Below the text are three settings: 'WPA Mode' set to 'WPA2-Personal', 'Encryption Mode' with radio buttons for TKIP, AES (selected), and Both, and 'Group Key Update Interval' set to '100' (with a range of 60 - 65535). The final section is 'PRE-SHARED KEY', featuring a 'Pre-Shared Key' text field containing '1122334455' and a note: 'The pre-shared key should be 8 to 63 ASCII, or 64 hexadecimal numbers.'

You can choose different security type from dropdown list. For example, you can choose Security Mode WPA2-Personal, select AES for WPA Algorithms and enter your network key into “Pre-Shared Key” field.

You can type the same password of your wireless router or choose a different one.

This password would be the password that you will use to connect to the NHP5010.

3. Click **Apply** to save the changes (your wireless connection will be disconnected automatically if you are using the wireless connection when you setup the wireless security).
4. Your wireless connection will be disconnected automatically if you are using the wireless connection when you setup the wireless security. Please wait for a few seconds and reconnect to it by entering your network key. Make sure HP5100 is connected to the router before reconnecting the PC or laptop to NHP5010 by wireless.
5. **IMPORTANT:** If you want to change the Wireless Network Name (SSID), please go to page 13. If you have finished and you want to logout from the management page, please go back to **Internet Protocol Version 4 (TCP/IPv4) Properties** (check **b) Login to the management page** from point 1. To point 6.) and select **Obtain an IP address automatically** and **Use DNS server address automatically** and then click OK.



6. If you cannot access the Internet after reconnecting to wireless Homeplug, then turn off NHP5010 and turn it on again.
7. Connect your PC or laptop to NHP5010 again. You should be able to access the Internet.

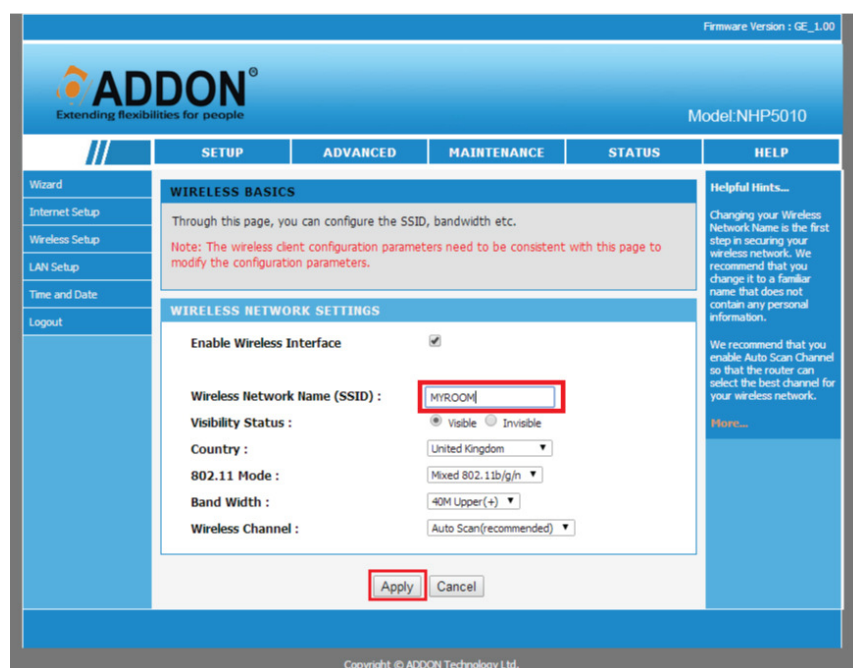
e) Change the Wireless Network Name (SSID):

If you want to change the name of the SSID of the wireless network from “ADDON-NHP5010” to a customized one, you need to login to the NHP5010 management page. Please refer to the section “**Login to the management page of NHP5010**” (Page 6 to Page 10).

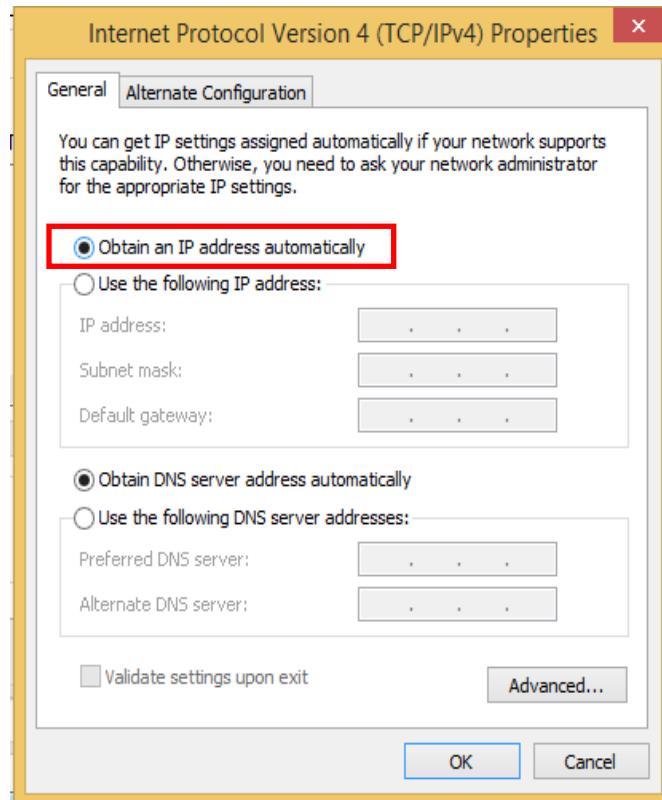
1. Click Wireless Setup-> Wireless Basic



2. Change the *Wireless Network Name (SSID)* from ADDON-NHP5010 to the one that you want (for example MYROOM) -> click *Apply*



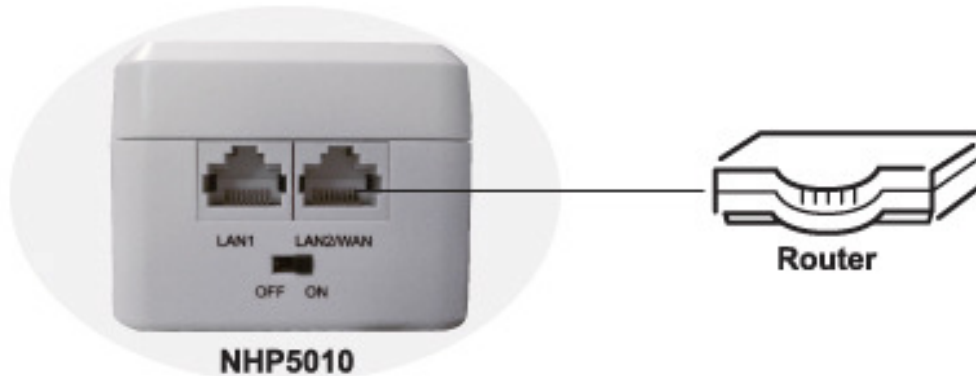
3. **IMPORTANT:** Go back to **Internet Protocol Version 4 (TCP/IPv4) Properties** (check **b) Login to the management page** from point 1. To point 6.) and select **Obtain an IP address automatically** and **Use DNS server address automatically** and then click OK.



4. Your wireless connection will be disconnected automatically if you are using the wireless connection when you setup the wireless security. Please wait for a few seconds and reconnect to it by entering your network key. Make sure HP5100 is connected to the router before reconnecting the PC or laptop to NHP5010 by wireless.
5. If you cannot access the Internet after reconnecting to wireless Homeplug, then turn off NHP5010 and turn it on again.
6. Connect your PC or laptop to NHP5010 again. You should be able to access the Internet.

f) Use the NHP5010 as an Access Point

To use NHP5010 as an Access Point, connect the router to LAN2/WAN port of NHP5010 by Ethernet cable. No settings need to be changed.



g) Use the NHP5010 as a Router

To use NHP5010 as a router, you need to login to its management page. Please refer to the section “**How to login to the management page of NHP5010**” (Page 6 to 10).

1. Login to the management page of NHP5010->Click Internet Setup->Click Edit

Wizard

Internet Setup

Wireless Setup

LAN Setup

Time and Date

Logout

WAN SETTINGS

Through the connection list, you can see the establishment of the WAN connection.

CONNECTION LIST

Status	Name	Protocol	Service Type	Edit	Delete
Enabled	1_INTERNET_B	Bridge	INTERNET		

Add

2. Change the **Connection Type** to DHCP and click Apply

WAN

When you configure the router to access the Internet, you must select the appropriate connection type so that the data from the LAN port can be transmitted through the bound WAN connection.

WAN SETTING

Enable WAN ☒

Connection Type :
 Bridge
 DHCP
 Static IP
 PPPoE
 Bridge

Service Type :

3. Click LAN Setup->Check the box to Enable DHCP Server and click Apply

LAN Setup

Time and Date

Logout

Note: Generally, you do not need to modify the default configuration of this page.

ROUTER SETTING

Router IP Address : 192.168.99.1

Subnet Mask : 255.255.255.0

Enable Gateway Isolate : ☐

DHCP SERVER

Enable DHCP Server ☒

IP Pool Starting Address : 192 . 168 . 99 . 2

IP Pool Ending Address : 192 . 168 . 99 . 100

IP Pool Subnet mask : 255.255.255.0

4. **IMPORTANT:** Go back to **Internet Protocol Version 4 (TCP/IPv4) Properties** (check **b) Login to the management page** from point 1. To point 6.) and select **Obtain an IP address automatically** and **Use DNS server address automatically** and then click OK.

Internet Protocol Version 4 (TCP/IPv4) Properties

General Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Obtain an IP address automatically

Use the following IP address:

IP address: . . .

Subnet mask: . . .

Default gateway: . . .

Obtain DNS server address automatically

Use the following DNS server addresses:

Preferred DNS server: . . .

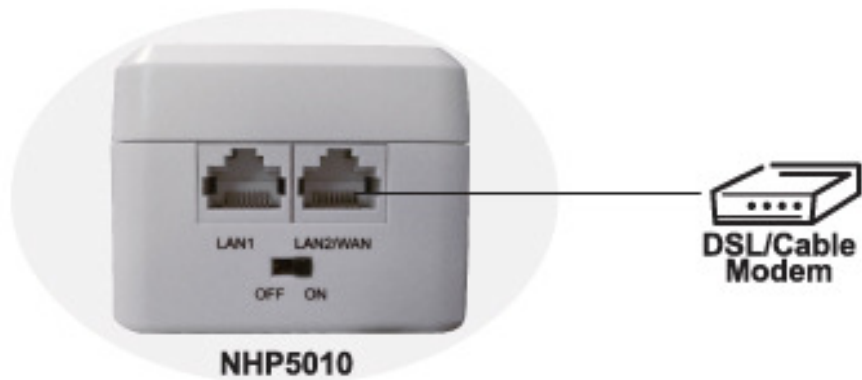
Alternate DNS server: . . .

☐ Validate settings upon exit

Advanced...

OK Cancel

5. Connect DSL/Cable modem to LAN2/WAN port of NHP5010 by Ethernet cable.



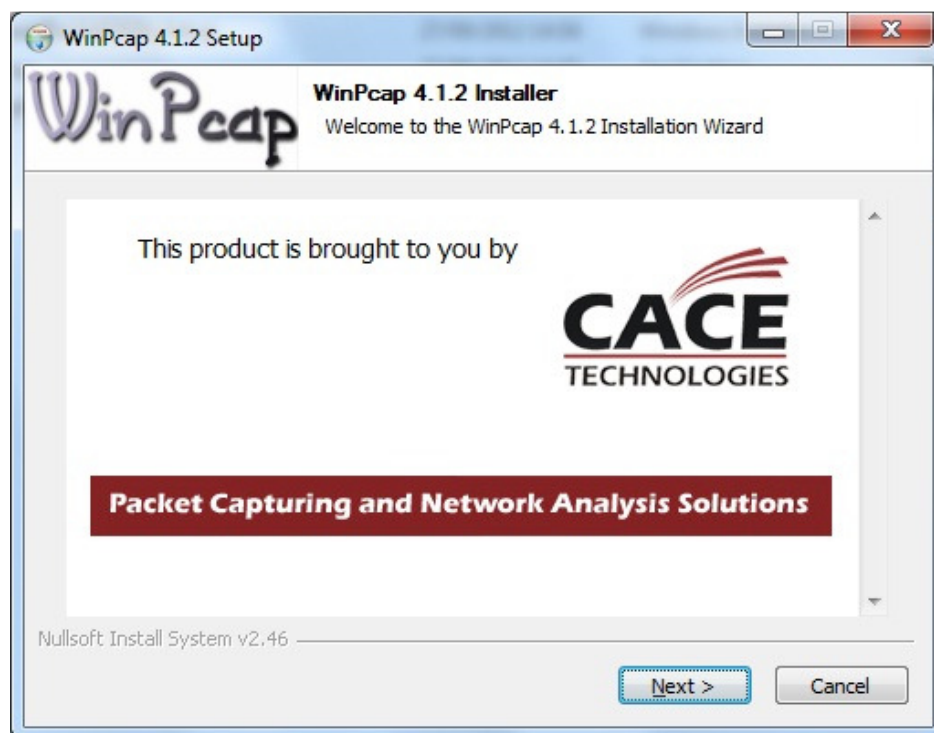
h) Software Installation

Note: *Powerline AV adapters are ‘plug and play’ devices and can be worked without installing software in the resource CD. But to identify Powerline AV devices on the powerline network, measures the data rate performance, ensure privacy and perform diagnostics and customize the Private Network Name, you should install PowerPacket Utility via the installation resource CD.*

The Utility works in Windows Operating Systems only.

To install Utility, you must install WinPcap first in the CD.

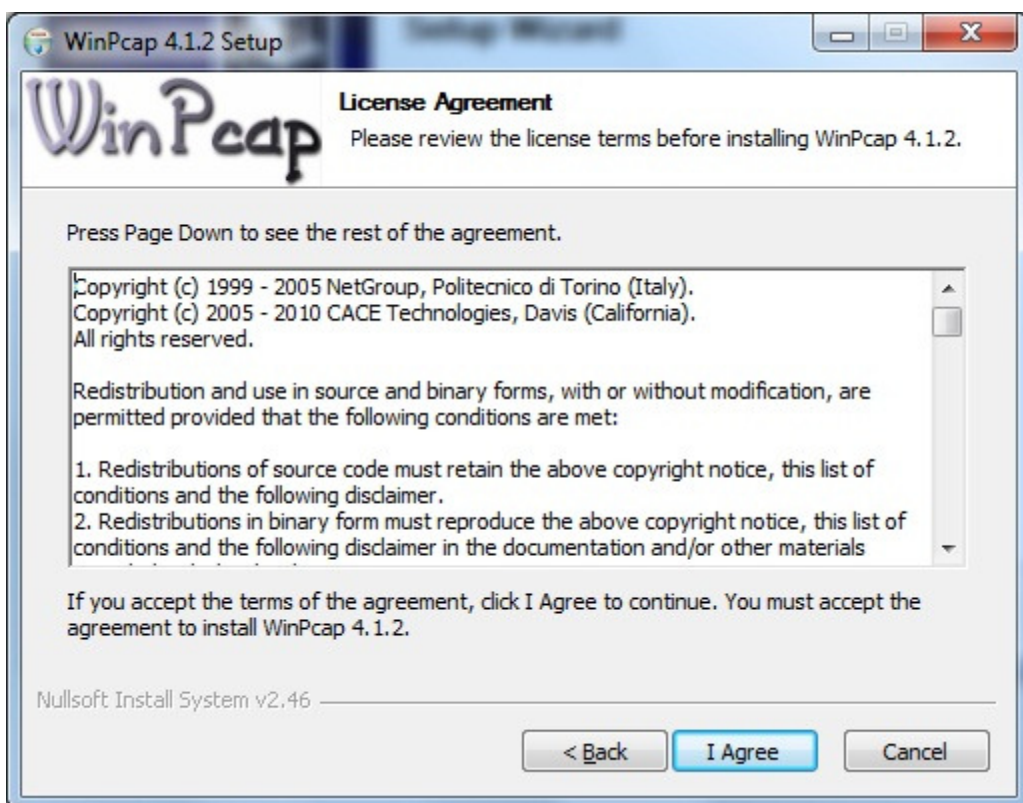
1. Insert software CD into CD-ROM drive and open it. Click on “**WinPcap_4_1_2.exe**”. And click on “**Next**” to continue.



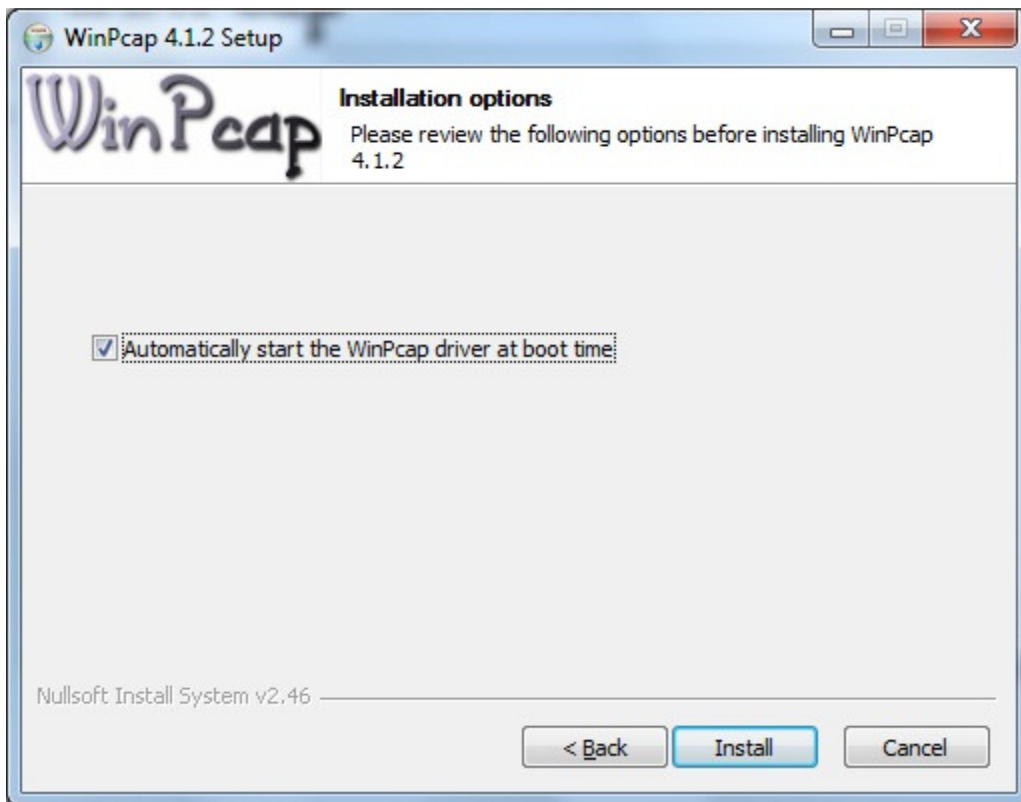
2. Click on **“Next”** to continue.



3. Click on **“I agree”** to continue



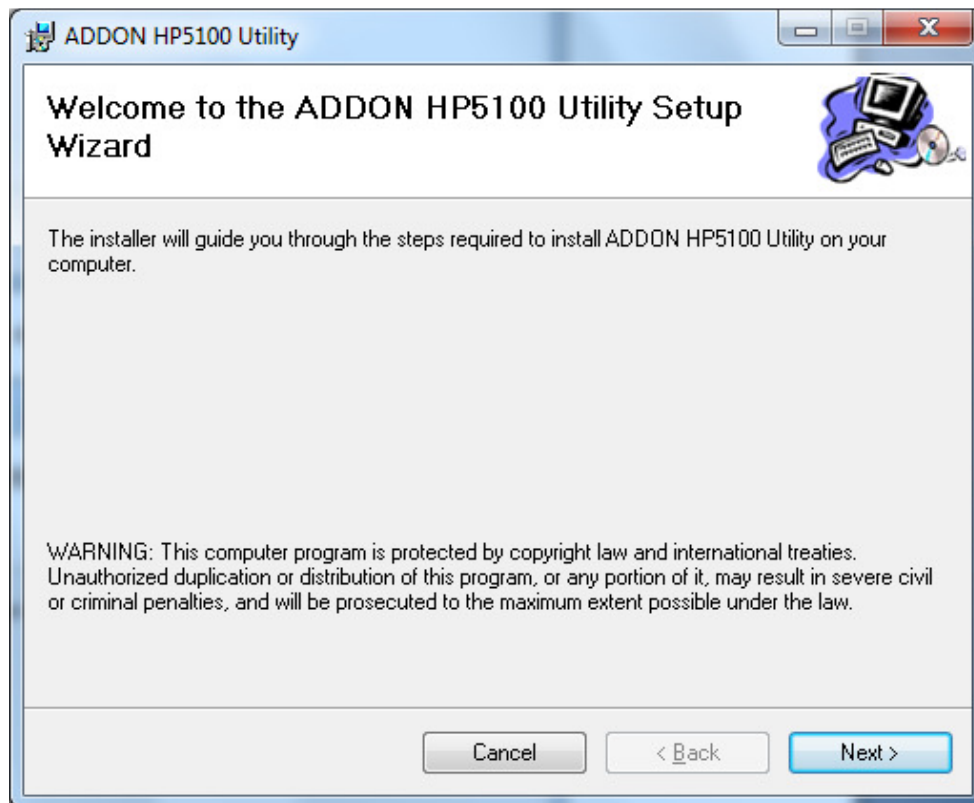
4. Click on **"Install"** to start the installation.



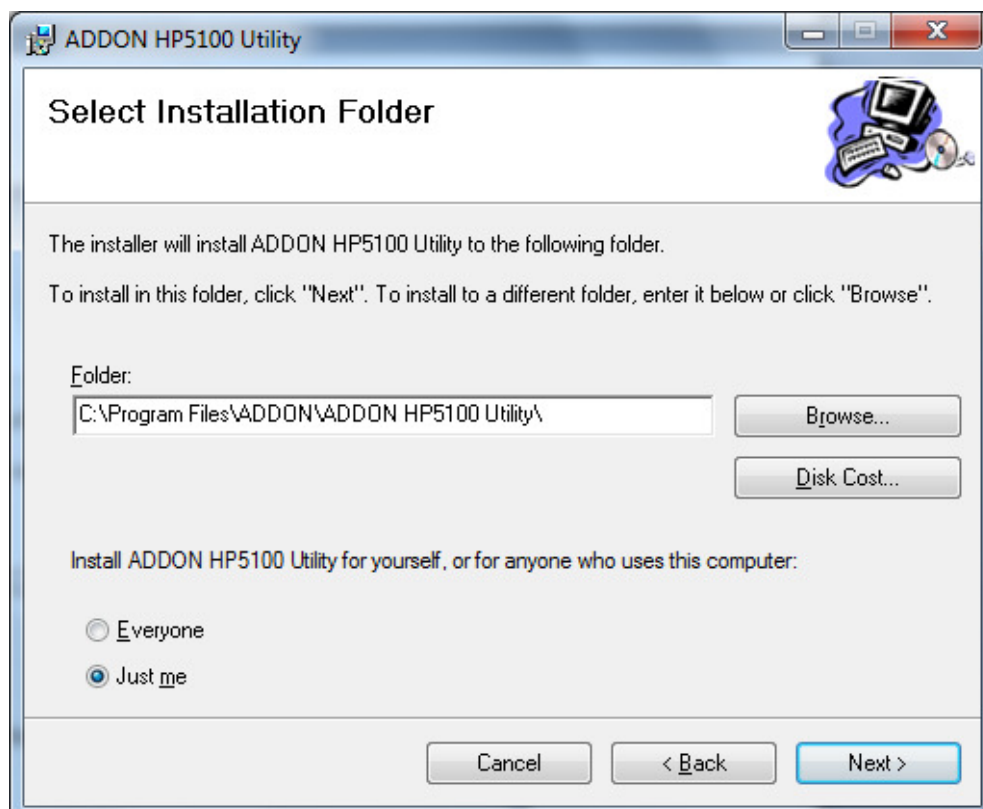
5. Click on **"Finish"** to finish WinPcap installation.



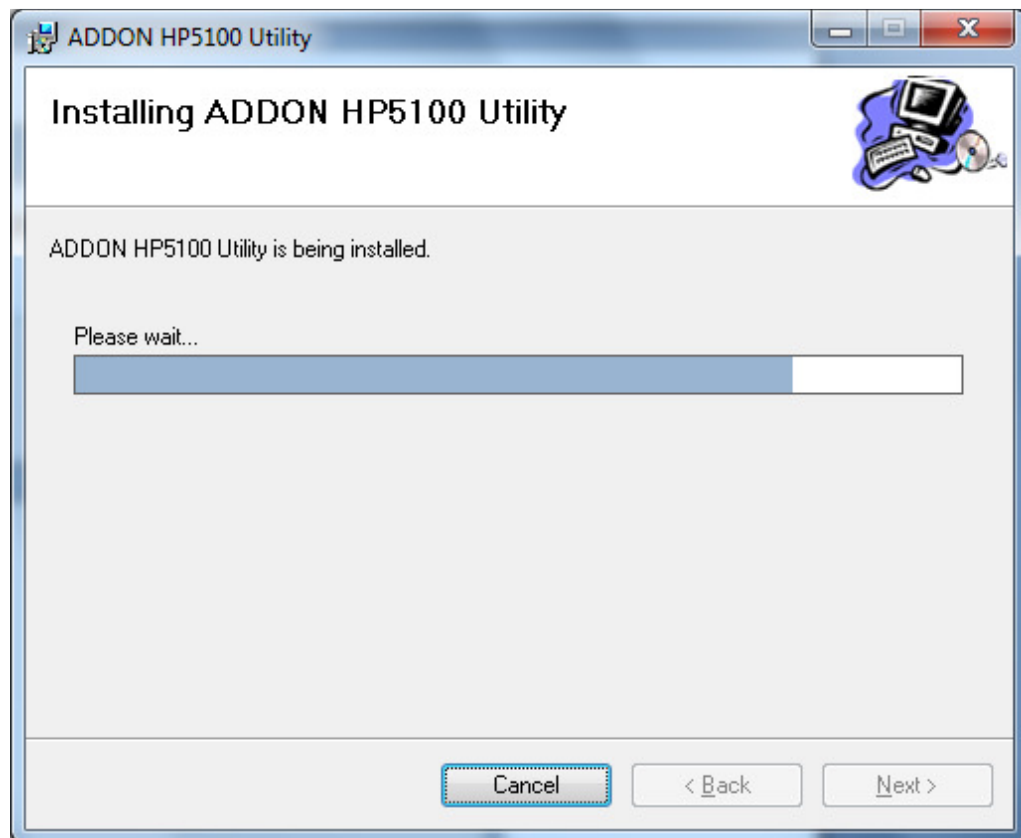
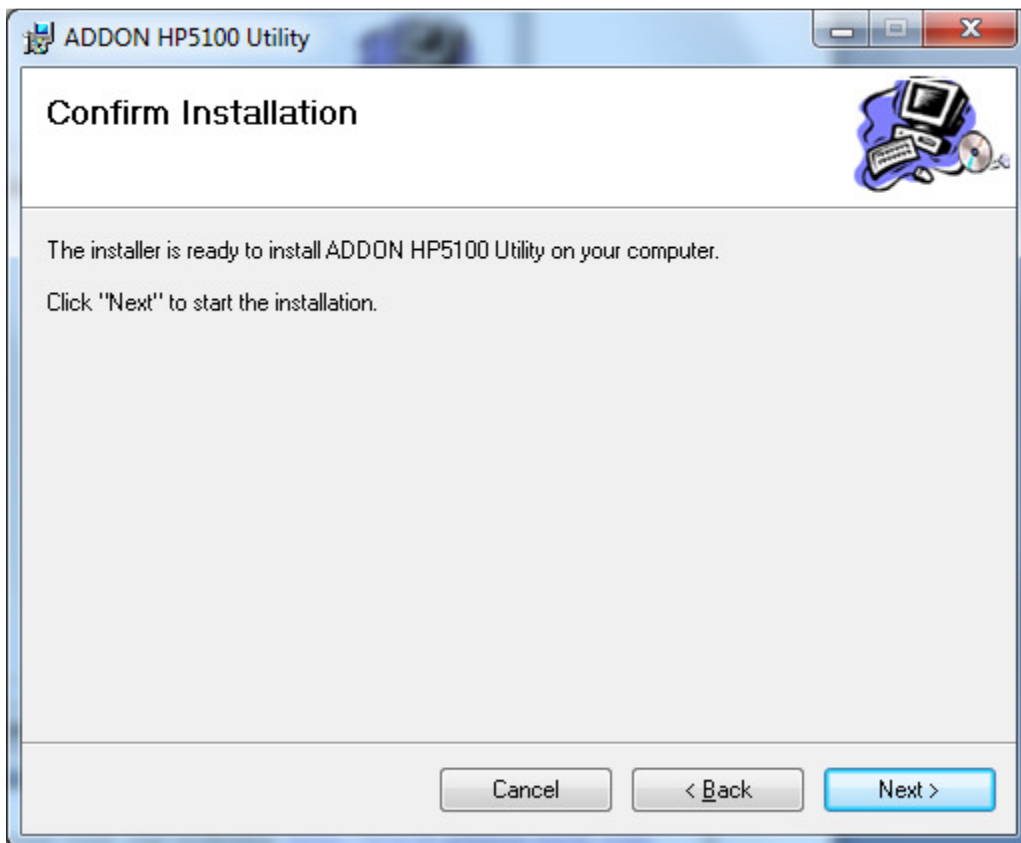
6. Go to CD-ROM drive, click on "**Setup.exe**" to start the Utility installation. And then click on "**Next**" to continue.



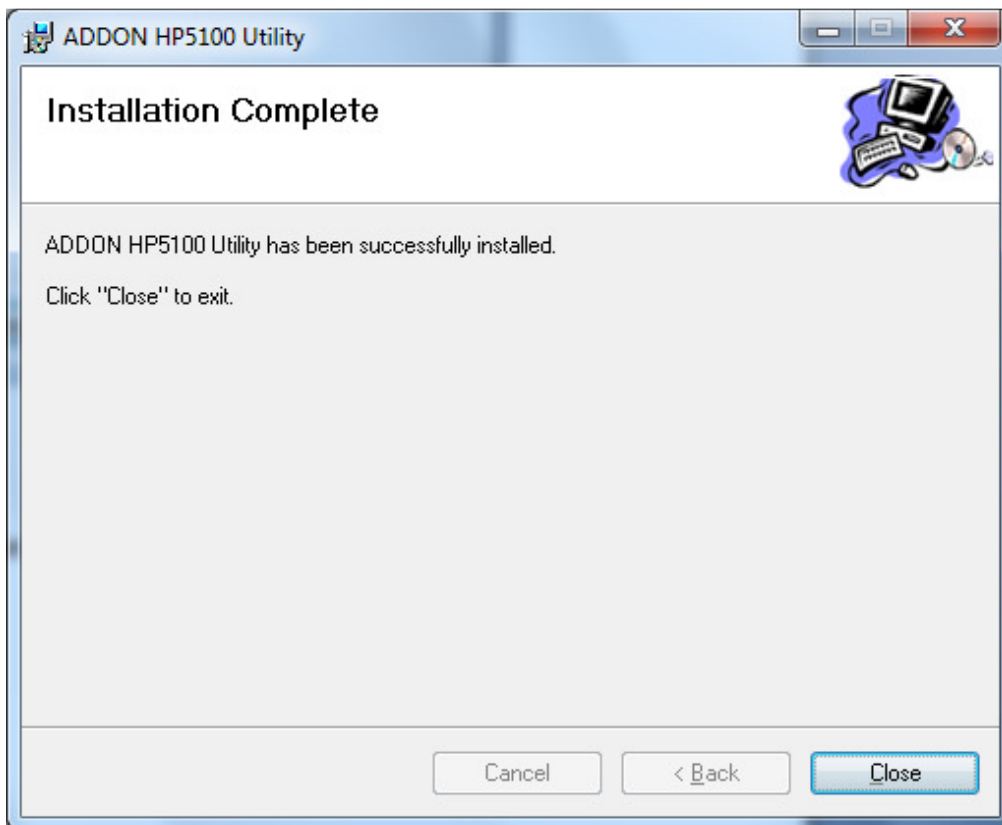
7. Click on "**Next**" to continue.



8. Click on **"Next"** to continue.



9. Click on "Close" to finish Utility installation.



For any further information or advanced settings on ADDON NHP5010 500Mbps Powerline AV Wireless N AP Router, please refer to user's manual in the CD.

i) Use of the Security Pushbutton

When you have a customized Private Network Name (PPN) for your existing Powerline Network, you can easily add or remove a Powerline adapter by using the Security Pushbutton.

A Private Network Name is a string of 8 to 64 characters enables Powerline AV devices to communicate with each other.

If you intend to create multiple networks, you can assign different Private Network Names among your devices. You have to, however, make sure that at least two Powerline AVs have a similar Private Network Name. A Powerline AV that uses a unique or random Private Network Name will not be able to communicate with other devices.

If you want to **add a new Powerline adapter ('joiner')** to your existing powerline network:

- 1) Press the Security pushbutton on the 'joiner' for less than 3 seconds.
- 2) Press the Security pushbutton on any network device for less than 3 seconds, making it the 'adder'. Please press this pushbutton within 1 minute.
- 3) Wait for the connection to complete.
(The Power LED indicators on both devices will flash at 1-second interval until the process succeeds or fails. If the connection is successful, the Power and Data LED indicators on both devices illuminate steadily. If the connection is failed, the Power LED indicators on both devices still illuminate steadily, but the Data LED indicators on both devices go out. In that case please repeat from Step1.)

If you want to **remove a new Powerline adapter ('leaver')** to your existing powerline network:

- 1) Press the Security pushbutton on the 'leaver' for more than 10 seconds. The device will reset and restart with a random NMK.
- 2) Wait for reset to complete.
(The Power LED indicator on the 'leaver' will momentarily extinguish during reset and flash during restart, then illuminate steadily. The 'leaver' is removed from the existing network successfully.)

Once the process completes, you may disconnect the device from the medium or join it to another logical network on the same medium.

j) Reset the NHP5010

If you want to restore the system for the NHP5010 to the factory default setting:

- 1) Press and hold the Reset button-hole for more than 3 seconds and then release it
(The device must be plugged into electrical socket - The WLAN/WPS LED indicator will flash red and orange)
- 2) After 30 seconds, the WLAN/WPS LED indicator will flash green.
- 3) Unplug the NHP5010 from the power socket
- 4) Plug it again.

The NHP5010 has now been restored to the factory default settings.

k) Add a NHP5010 Powerline Wireless Adapter

If you want to add a second, a third or a fourth NHP5010 Wireless Powerline to your existing network, you can do it by following these steps:

- 1) Remove all the NHP5010 from your network
- 2) Plug the first NHP5010 into the power socket and connect your PC / Laptop to it (**Page 2 to Page 4**)
- 3) Login to the management page (**Page 5 to Page 9**)
- 4) Change the Wireless Network Name SSID from the default (ADDON-NHP5010) and choose a different SSID for any NHP5010 in your network. For example, you can set the SSID “**Kitchen**” for the NHP5010 plugged in the kitchen, “**Livingroom**” for the NHP5010 plugged in the living room, and so on.
- 5) After you change the SSID, you will probably be disconnected. Just reconnect to the wireless connection with the new SSID and open again the management page.
- 6) Click to **ADVANCED** -> **PLC Setting** -> **PLC Powerline** -> **Apply**

The screenshot displays the management interface of the NHP5010 device. The top navigation bar includes tabs for SETUP, **ADVANCED**, MAINTENANCE, STATUS, and HELP. The left sidebar contains links for DoS Protection, Access Control, Advanced Wireless, Advanced Network, **PLC Setting**, and Logout. The main content area is titled 'POWERLINE SETTINGS' and includes a section for 'LOCAL DEVICE CONFIGURATION' with fields for Network Password, Local Device MAC, Model, Firmware Version, and Low Power Mode. Below this is the 'WAN PORT SWITCH' section, where the 'PLC Power line' option is selected. A note states: 'Note: After you switch the WAN port, the device will be restarted to make the function effective.' The 'REMOTE DEVICE CONFIGURATION' section shows 'Powerline Devices Detected' with a table for Alias, MAC, TX(Mbps), and RX(Mbps), and a 'Scan' button. At the bottom, there is an 'ADVANCE CONFIGURATION' section with a '>> Show Advance Configuration' button and 'Apply' and 'Cancel' buttons.

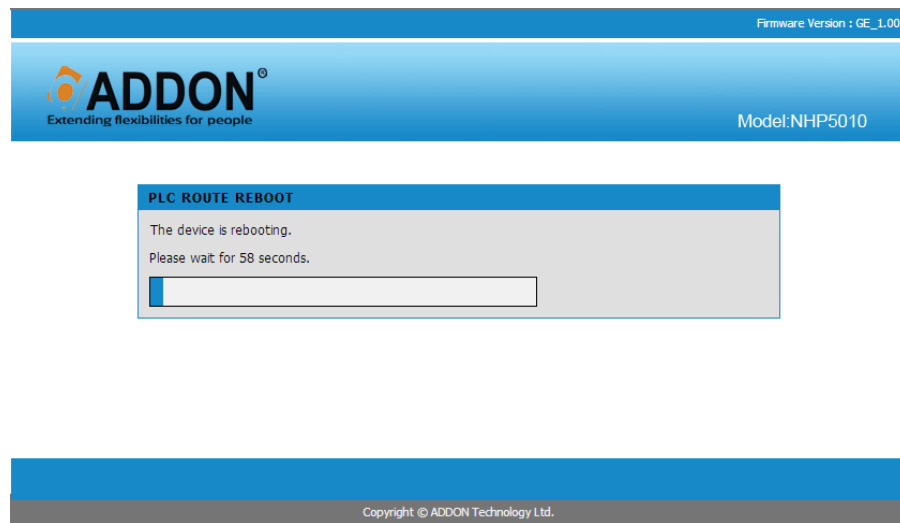
Alias	MAC	TX(Mbps)	RX(Mbps)
No Device Found			

Change Remote NetworkPwd: Disable

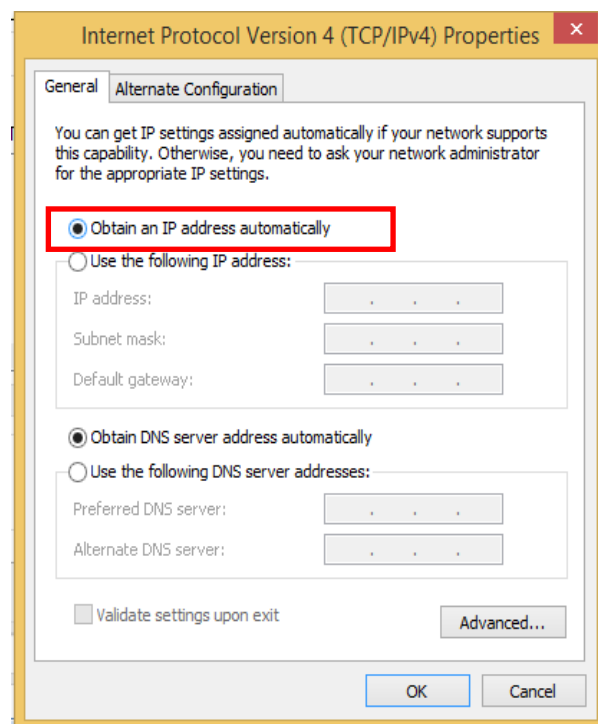
>> Show Advance Configuration

Apply Cancel

7) The device will reboot and you will probably be disconnected.



- 8) After 60 seconds you can actually plug the second NHP5010 and connect to it.
- 9) Open the management page for the second NHP5010, change the SSID and select **PLC Powerline** and click **Apply** (go back to point 4,5 and 6)
- 10) Repeat these steps for any NHP5010 Wireless Powerline Adapter that you have at home.
- 11) **IMPORTANT:** Go back to **Internet Protocol Version 4 (TCP/IPv4) Properties** (check **b) Login to the management page** from point 1. To point 6.) and select **Obtain an IP address automatically** and **Use DNS server address automatically** and then click OK.



I) Change Wireless Channel of the NHP5010

You can change Wireless Channel of the NHP5010 easily.

You just need to login to the management page of the powerline NHP5010 (page 6 to 10), click on **Wireless Setup** -> **Wireless Basic** -> change the channel on **Wireless Channel** -> click on **Apply**

After you have finished, please follow the instructions at page 13 and change to **obtain an IP address automatically**.

This picture will show you how to change the channel.

The screenshot displays the ADDON NHP5010 management interface. At the top, the firmware version is GE_1.00 and the model is NHP5010. The main navigation bar includes SETUP, ADVANCED, MAINTENANCE, STATUS, and HELP. The left sidebar lists various setup options, with 'Wireless Setup' and 'Wireless Basic' highlighted. The 'Wireless Basics' section is active, showing configuration options for the wireless network. The 'Wireless Channel' dropdown is set to 'Auto Scan(recommended)'. The 'Apply' button is located at the bottom of the settings area.

SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
Wizard	WIRELESS BASICS			
Internet Setup	Through this page, you can configure the SSID, bandwidth etc.			
Wireless Setup	Wireless Basic			
LAN Setup	Wireless Security			
Time and Date	WPS			
Logout	WIRELESS NETWORK SETTINGS			
<p>Enable Wireless Interface <input checked="" type="checkbox"/></p> <p>Wireless Network Name (SSID) : ADDON-NHP5010</p> <p>Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> Invisible</p> <p>Country : United Kingdom</p> <p>802.11 Mode : Mixed 802.11b/g/n</p> <p>Band Width : 40M Upper(+)</p> <p>Wireless Channel : Auto Scan(recommended)</p> <p>Apply Cancel</p>				