# Powerline Ethernet Adapter

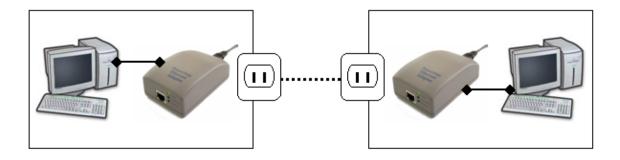
**Installation Guide** 

# **BEFORE INSTALLATION**

Plan ahead the installation of your powerline network.
 Note: You will need at least two powerline adapters to create a powerline network.

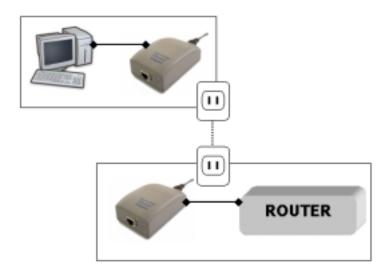
# 1. To connect two computers together in an isolated home network, you will need the following:

 A Powerline-to-Ethernet adapter for each PC with an available Ethernet port.



# 2. To share a cable or DSL connection between PCs, you will need the following:

- Cable/DSL modem
- Broadband router
- Powerline-to-Ethernet adapter connected to the broadband router
- Powerline-to-USB/Ethernet adapter for each PC (or device) you want to share the broadband connection with.



#### INSTALLATION OVERVIEW

- 1. Verify the package content.
- 2. Hardware Installation.

**NOTE: Do NOT** connect the plug into a surge protector or power strip as these devices may contain circuit filters that attenuate the powerline signal.

- Insert the "Driver and Documentation CD" into the CD-ROM drive and install the **Powerline Network Configuration Utility** (Optional). NO DRIVER INSTALLATION is required.
- 4. Set the encryption password (Optional).

# **IMPORTANT**

To ensure data security and privacy, Powerline signals will not travel out onto the public power grid nor pass through power meters. Data stays within the home, keeping it local and secured.

Under circumstances where you and your neighbor happened to be sharing the same power meter, you can protect your files by setting up a password on all computers within your home.

As long as your password is secured, your data will be secured.

# 1. VERIFY PACKAGE CONTENTS

Please make sure that the following items are in the box:

- One Powerline Ethernet adapter
- Driver and Documentation CD
- One Ethernet Cable
- One Power cord
- Quick installation card

If any of the above items is missing or damaged, please contact your dealer for replacement.

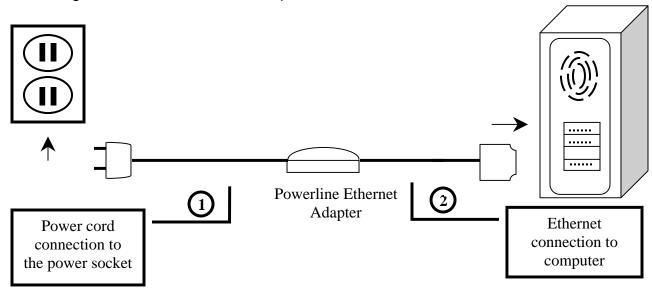
Drivers and Installation guides are available at the vendor's website.

# Requirements

- Available Ethernet Port
- CD-ROM Drive
- Windows 98, Millennium, 2000 or XP
- Another HomePlug 1.0 compliant powerline adapter

# 2. HARDWARE INSTALLATION

Connecting the Powerline Ethernet Adapter to a PC

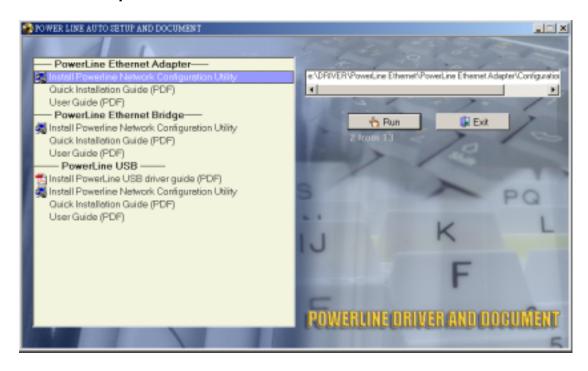


- Plug one end of the provided power cord into an AC outlet (Note: Do not plug the device into a power strip or surge protectors as these devices may contain circuit filter and thus cause attenuation of signals.) and plug the other end to the Powerline Ethernet Adapter.
- Plug the provided Ethernet cable into the Powerline Ethernet Adapter and plug the other end of the cord into an available Ethernet port on your PC.

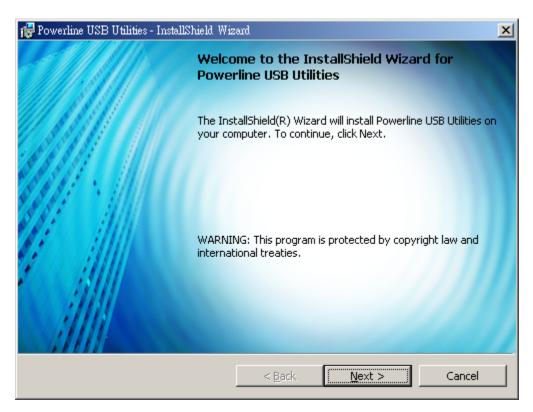
# 3. POWERLINE NETWORK CONFIGURATION UTILITY INSTALLATION

Insert the "**Driver and Documentation**" CD in your CD-ROM drive. This CD will auto-run and the following window will appear.

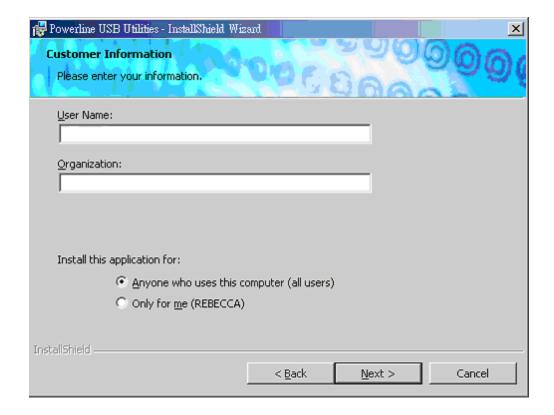
Click on Install Powerline Network Configuration Utility under the Powerline Ethernet Adapter menu and click on Run to continue.



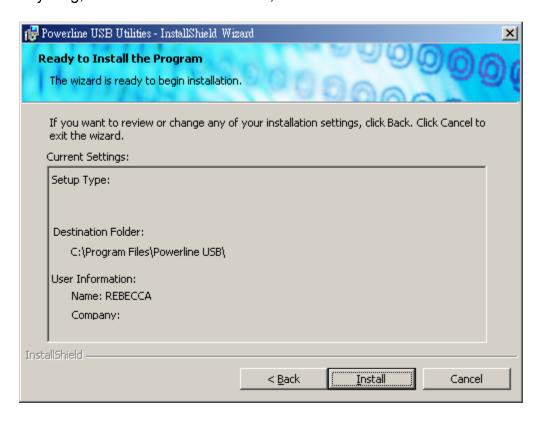
The following window will appear. This utility is co-used by the Ethernet adapter and the USB adapter. Click **Next** to start the installation.



Fill in the information, or leave it blank as wished. If you want to allow all users using this computer to use the adapter, select "Anyone who uses this computer (all users)". If you want to allow a specific user (in this case, REBECCA), select "Only for me" and only the user who logs in as REBECCA will be able to use this utility. Click on Next to continue.

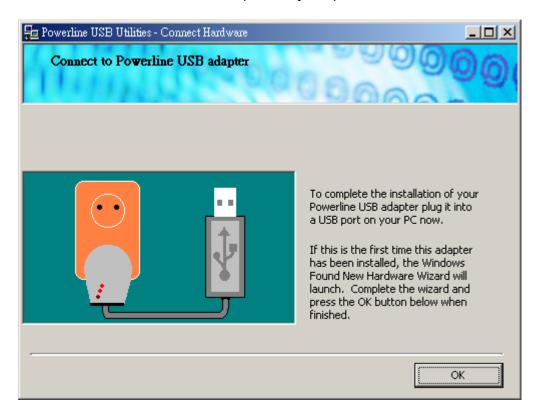


This window displays all information about the installation; if you wish to change anything, click on **Back**. Otherwise, click on **Install** to continue.



Click on **OK** to complete installation of the utility.

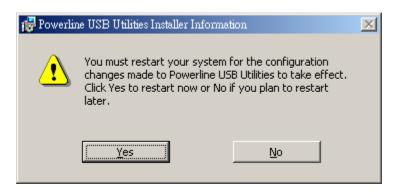
To complete the installation of your Powerline Ethernet adapter, please plug its Ethernet cable into an Ethernet port on your pc.



Click on Finish to exit the installation.

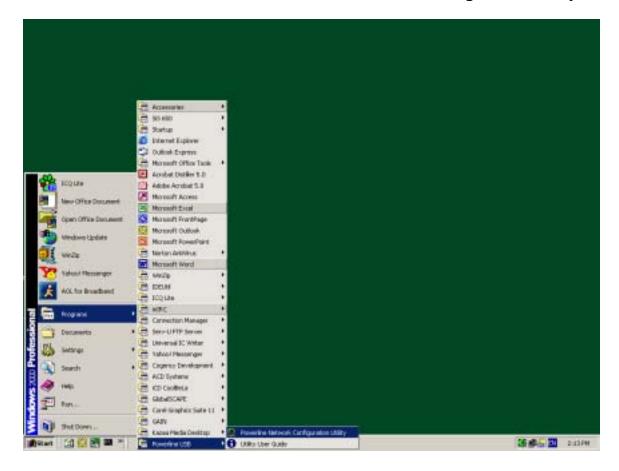


Restart your system after completing the installation. Click on Yes.

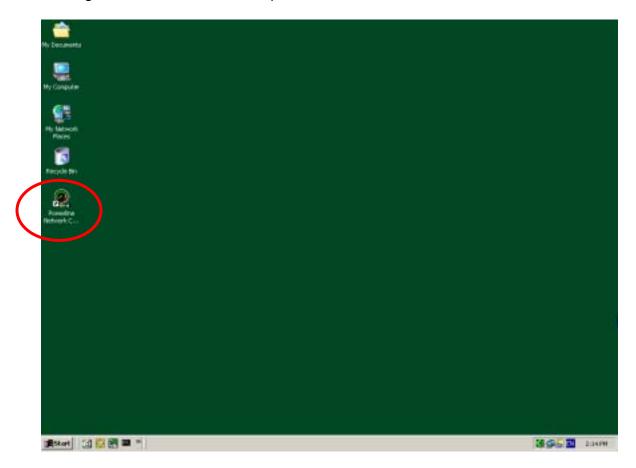


# 4. USING THE POWERLINE NETWORK CONFIGURATION UTILITY

To run the Powerline Network Configuration Utility, press the **Start** button, select **Powerline USB** and click on **Powerline Network Configuration Utility**.



You may also start the **Powerline Network Configuration Utility** by double-clicking on its icon on the desktop.



Powerline Network Configuration Utility Features' Description

#### Introduction

Using the Powerline Network Configuration Utility, you will be able to:

- See details of powerline devices on your powerline network
- Measure data rate performance
- Set a private network password to ensure privacy in the network. A
  network password can be set-up for the device connected to the
  computer where the utility is running.

Please make sure that all powerline devices are properly installed before running this utility on the computer.

# Running the utility

To start using the utility, double click on the Powerline Network Configuration Utility icon on your desktop.

The utility has 5 different tabs to access the different screens options available: Device, Network, Security, Advanced and About.

The following sections will explain each tab's purpose and functionality.

#### **Device Tab**

In the device tag, you will see a list of all powerline devices connected to the computer where the utility is running. It also shows the average data rate performance of your powerline network.

The utility starts with the Device Tab. Powerline Network Configuration Utility Device Network Security Advanced About State: | Connected to 00:05:b4:20:88:88 The powerline devices connected to your PC are shown below. You can select a desired local device from the list, and click the 'Connect' button to access your network. Device chipset MAC address Intellon INT51X1 (Ethernet) 00:05:b4:20:88:88 Refresh Connect Analyzing your powerline network, please wait.... ........ OΚ Cancel

Fig. 1 Initial window when utility is started

An analysis is done, and a window similar to Figure 2 will appear. In the list box, you will find a list of all powerline devices connected to the computer where the utility is running; usually only one device is found. If you have more than one powerline connected to this computer, click on the one you wish to use (enable), and click on **Connect**.

If the selected device has been successfully connected, you will be able to see its MAC address in the **State** box. To make sure you are connected to the

selected device, refer to the MAC address list, and make sure it has the same MAC address.

Once your device is properly connected, you will be able to manage the powerline network connected to this device, set a network password to ensure its privacy and measure its data rate performance, as well as the average data rate performance of the entire powerline network.

To refresh the search of the powerline devices connected to your computer, please click on **Refresh.** The status bar will show the quality of the connection, and indicate the network average data rate.

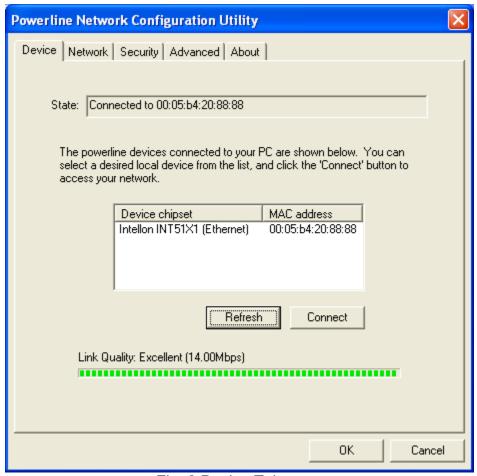


Fig. 2 Device Tab

#### **Network Tab**

The Network Tab provides detailed information about your powerline network and for each individual device on the network. The list box shows all powerline devices found on the powerline network and identifies them by their MAC addresses. The Data Rate column indicates the data rate measurements for each device, in Mbps.

To refresh the list, click on Scan Powerline Network

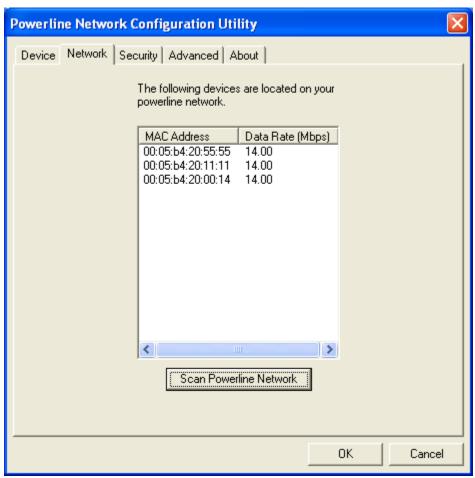


Fig. 3 Network Tab

#### Remark:

If a connected powerline device is not shown in the list, make sure that its network password is not different than your current private password. To reset the powerline password to a universal one, you can do it through the configuration utility running in the computer to which the device is attached. It is recommended that you choose "HomePlug" as universal network password for your powerline network.

# **Security Tab**

By default, all powerline devices use "HomePlug" as a network password. In the Security tab, you can change this network password to a private password of your choice and apply it to the powerline device connected to the computer where the utility is running.

To restore the default password "HomePlug" to the device, please click on Restore Default

To make the restored default password local, please click on **Set Local** 

All powerline devices are shipped using "**HomePlug**" as a network password. The Security dialog screen allows you to change this network password and set your own private password and apply it to the powerline device connected to the computer where the utility running.

Hit Restore default button to restore the original network password "HomePlug" and apply it locally.

Hit Set Local button to change the network password locally.

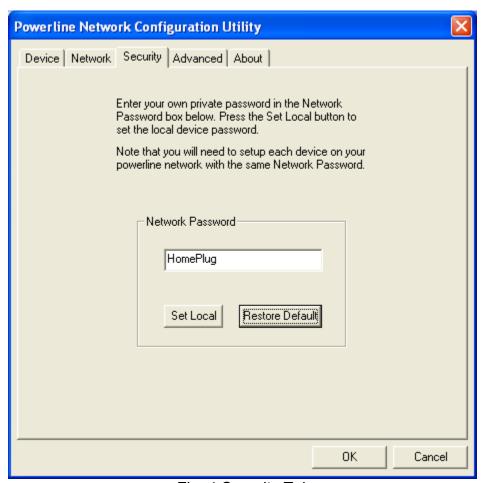


Fig. 4 Security Tab

# Remark:

The private network password you choose must have between 4 and 24 characters, and can be composed with any letters of the alphabet, number or punctuation marks. This password is case sensitive. Please remember this password, as it will be needed when adding other powerline devices to the network in the future.

#### **Advanced Tab**

In the Advanced tab, you will be able to set up a network password remotely on other powerline devices through the powerline.

First, type the private network password you have chosen for your powerline network in the Network Password text box.

Second, you must find the device password of each device that you are adding to your powerline network. Each device has a different and unique device password. This password can be found on the CE label, in the back of each device, and on the serial number label on the side of the box.

Third, type each device password one by one into the Device Password text box, and click on Add. Each device entered will be added to your network and its network password will be set to the one you have chosen. You will be able to see a list of added devices in the Network Password text list box.

#### Remark:

The device being added must be present on the powerline network in order to be found and added to the Remote Passwords list. Please make sure that the device being added is properly installed and connected to the network.

The Status column indicates whether each device's Network Password has been successfully changed to the password you have chosen. An "OK" indicates that the network password of the device has been successfully changed, and a "Fail" indicates that the device's network password has not been changed.

Click on **Set All** to apply your chosen network password to all devices listed in the Remote Passwords text list box as well as to the local device connected to the computer where the utility is running.

To remove a device from your network, please select to highlight it and click on **Remove.** 

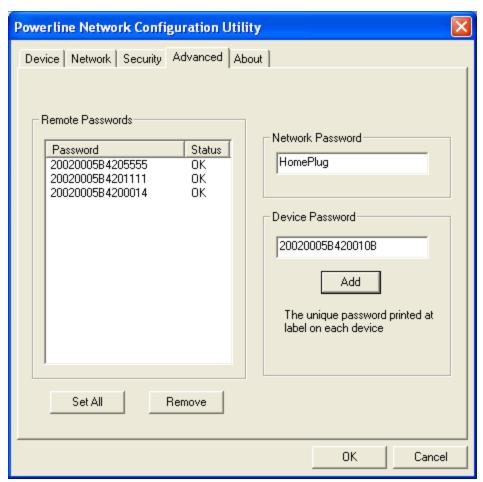


Fig. 5 Advanced Tab

# **About Tab**

This tab provides the version of the utility running on the computer.

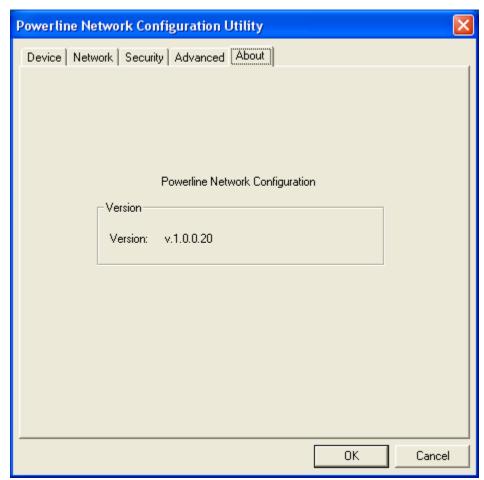


Fig.6 About Tab

# **APPENDIX A**

# **LED INDICATOR**

LED	LED STATUS	INDICATION	
HomePlug	On/Green	Detection of other HomePlug devices in the network.	
	Blink/Green	HomePlug data is transmitting/receiving.	
	OFF	No Network Traffic.	
Ethernet	On/Green	Ethernet link detected.	
	Blink/Green	Ethernet traffic detected.	
	OFF	No Ethernet link detected.	
Power	On	Power On.	
	OFF	No Power.	

# **TROUBLESHOOTING**

PROBLEM	CAUSE	SOLUTION	
Activity (ACT) LED is OFF	Port connection is not functioning	<ul> <li>Make sure both ends of the power cord are properly connected.</li> <li>Make sure the RJ45 cable is properly inserted at both the PC and the Powerline Ethernet Adapter.</li> <li>Make sure the PC is powered on.</li> <li>Recheck your connections.</li> </ul>	

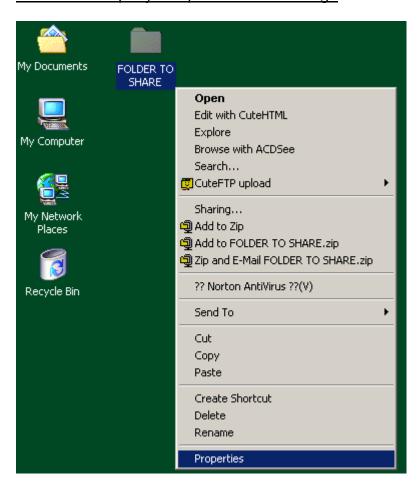
# **APPENDIX B**

#### SETTING UP YOUR COMPUTER FOR FILE SHARING

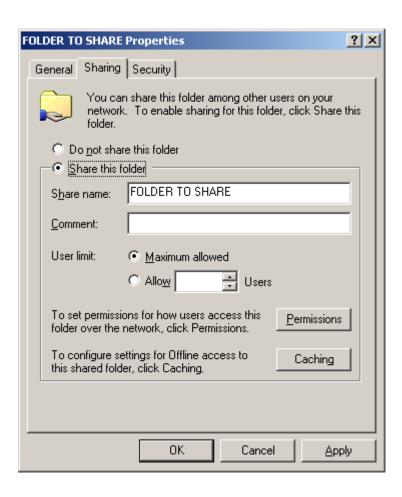
# In order to be able to share files among computers:

- First decide if you want to share a drive i.e D:/ OR an EXISTING folder OR
  create a unique folder and copy to that folder the documents which other
  computer users on the LAN can see and share see example below.
- 2. Make sure all other computers are connected to that computer

# How do I set up my computer for file sharing?



- Select the folder to be shared, right-click on it and select Properties
- You may put any files you wish to share with other users in this folder.
- This shared folder can be named as you wish to. In this case, we will name it "FOLDER TO SHARE"
- To change the name of the computer, Select the folder to be shared, right-click on it and select Rename



- The following window will appear.
- Select Share this folder
- Click on Apply

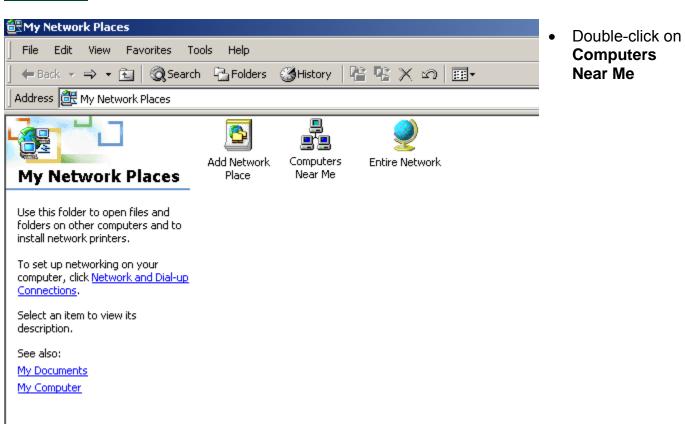


 Once the setting is effective, a hand will appear below the icon of the folder to be shared.

# How do I access other computers' shared files?

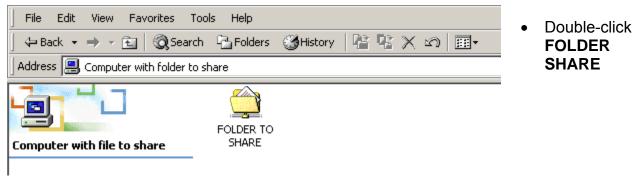


• Double-click on My Network Places



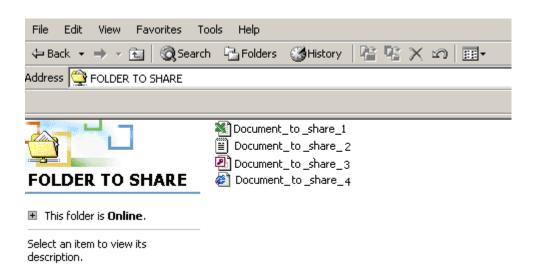


Double-click on Computer with folder to share. This is the name of the computer that is set up for file In this sharing. case the computer has been named "Computer with folder to share"



**FOLDER** TO SHARE

on



Click on the file you wish to access

# SETTING UP INTERNET ACCESS SHARING

# In order to share Internet Access in your network, you need the following:

- Cable/DSL modem connected to the Internet or any other high speed Internet access via RJ45 or USB port.
- Ethernet router connected to the modem
- Powerline Ethernet Adapter connected to a port on the router
- A Powerline adapter for each computer that you wish to connect to your network

# Please follow these instructions:

- Install an ADSL / Cable modem as directed to connect to the wall port directed by the ISP.
- 2. Connect the modem to the port nominated by the manufacturer of the router, as per the installation guide.
- 3. Connect the Powerline Ethernet Bridge directly to a free Ethernet port on the router, using a CAT5e patch cord
- 4. Install other Powerline adapters on other computers
- 5. Users can then start Internet Explorer; the browser will automatically detect the network setup. Please wait until its completion.