

 **LINDY**®

COMPUTER CONNECTION TECHNOLOGY

**85Mbps HomePlug Powerline
Ethernet Bridge**

User Manual

English



LINDY No. 25130

www.lindy.com



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Introduction

Thank you for purchasing the LINDY 85Mbps HomePlug Powerline Ethernet Bridge. HomePlug technology makes setting up a home or small office network quick and easy!

HomePlug allows you to create a network using the standard electrical mains power lines in your home or workplace. The LINDY HomePlug Ethernet Bridge plugs into your computer's Ethernet port and then into a mains socket. The computer data is converted into a signal that can be carried over the mains wiring without interfering with the ordinary current travelling through the wire.

The HomePlug Ethernet Bridge can be plugged into any device with a 10/100 RJ-45 Ethernet port, including PCs, Macs, X-Boxes, hubs, routers, switches etc., without the need to install any special software. However, the device to which the HomePlug Ethernet Bridge is connected must be configured to access your network.

Basic requirements for setting up a HomePlug network

- At least *two* HomePlug devices
- Available mains sockets at each location
- Computer(s) with a 10/100Base-T Ethernet adaptor
- Standard home power line wiring
- CD-ROM drive
- Windows 98SE, ME, 2000 or XP, to install the configuration software (*Password changes require connection to a PC running the HomePlug Configuration Utility software*)

Features

- Up to 85Mbps bandwidth over standard mains power lines
- Up to 300m distance through mains power lines
- Password protected 56 Bit DES (Data Encryption Standard) ensures network security
- Easy Plug & Play installation
- HomePlug 1.0 compliant

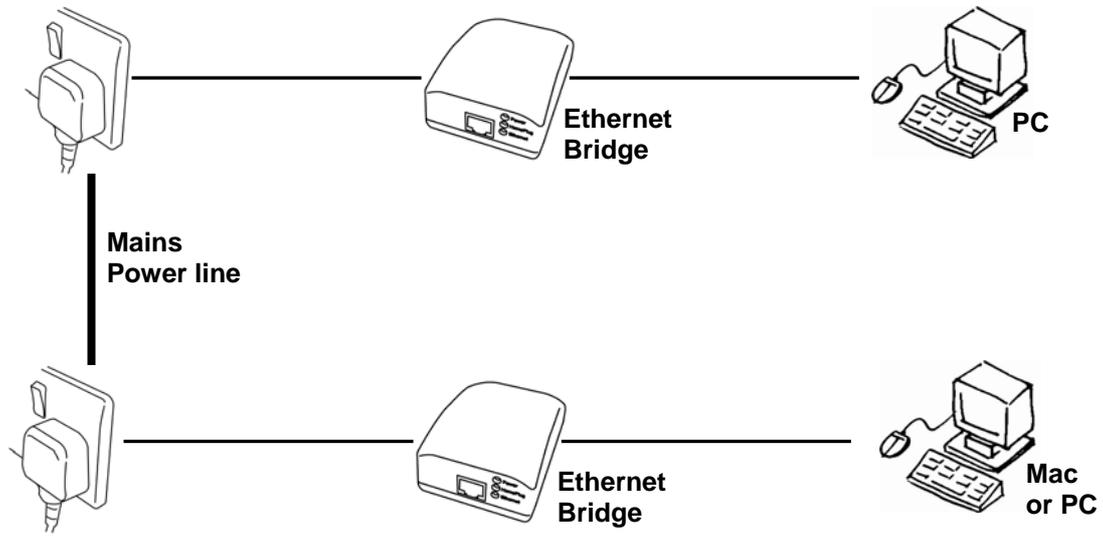
Package Contents

- LINDY HomePlug Ethernet Bridge module
- Mains power cable
- RJ-45 network cable
- Configuration software CD
- This manual

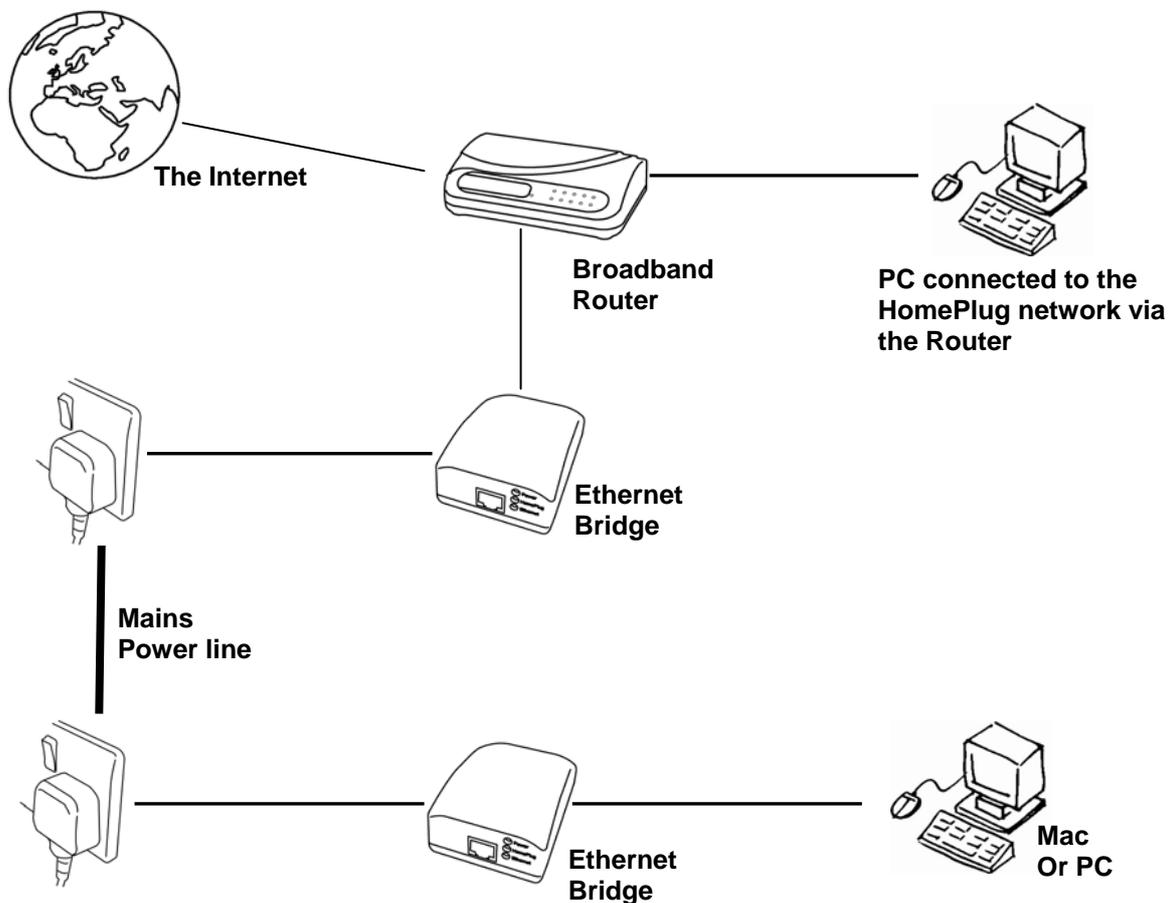
IMPORTANT: This manual provides you with the information you need to install and use the HomePlug Ethernet Bridge and its utility software. It is assumed that the user has knowledge and experience of basic computer networking.

Typical Applications

A basic HomePlug Powerline network:



Sharing a broadband internet connection using HomePlug:



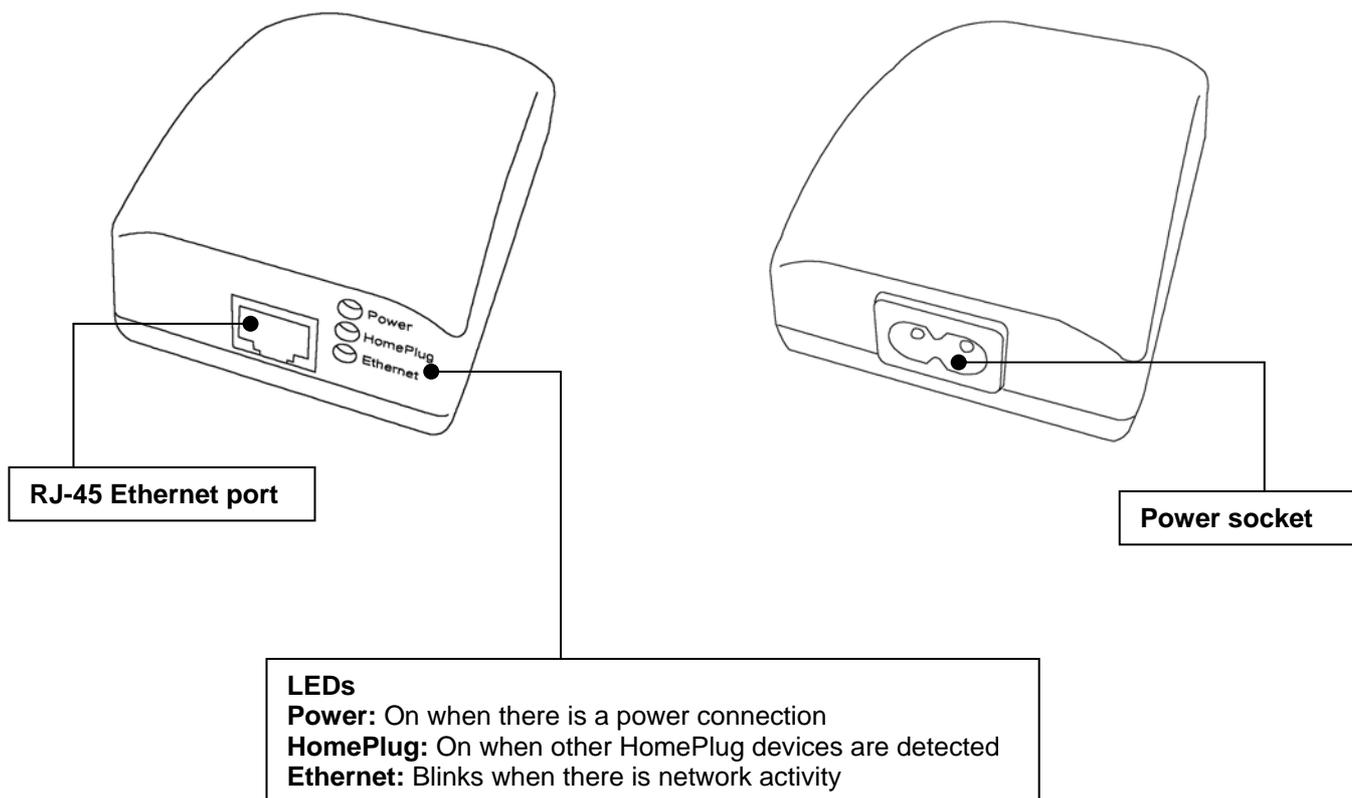
Understanding HomePlug Encryption and Security

HomePlug uses encryption to prevent unwanted access from within or outside of your network. The encryption works by using a string of letters and/or numbers to encode your data.

The encrypted password (or network name) is set using the Configuration Utility software. By default, the network name is HomePlug. However, it is recommended that you change this. All your Home Plug devices must use the same network name in order for the computers to be networked. Make sure that all devices use the same network name!

Each LINDY HomePlug device has a **Default Encryption Key (DEK)** which is printed on the bottom of the module. The DEK is required when setting up a new network name.

Product Information



Software Installation (PC only)

1. Do not connect the Ethernet Bridge to your computer yet! Insert the CD into your CD-ROM drive. If the CD doesn't automatically load, run -

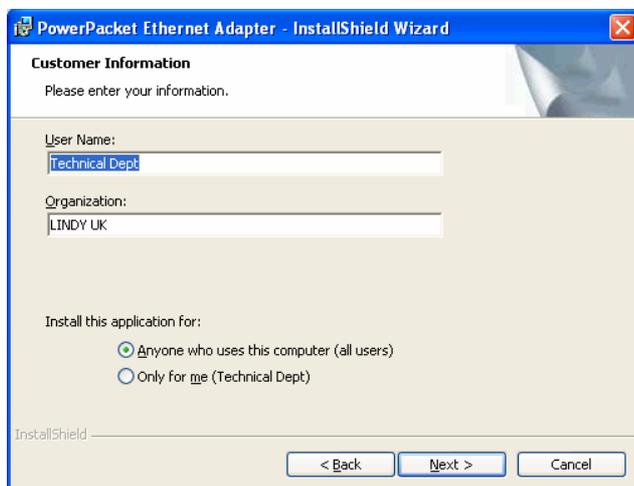
<CD Drive Letter>:\eth\setup.exe

Click on 'Next' to start the installation



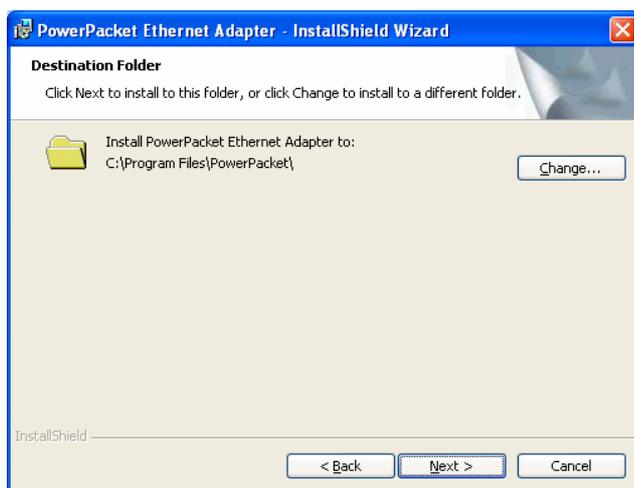
2. Enter a User Name and Organisation, and select either 'Anyone who uses this computer' or 'Only for me', according to your preference.

Click 'Next' to continue.

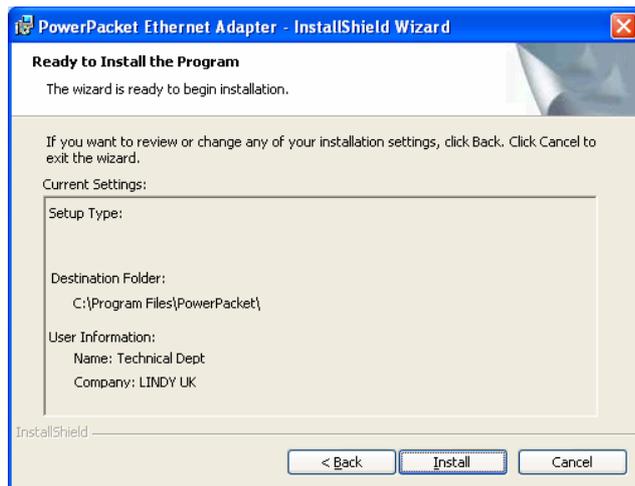


3. You can select the default installation folder or click 'Change' to select your own.

Click 'Next' to continue.



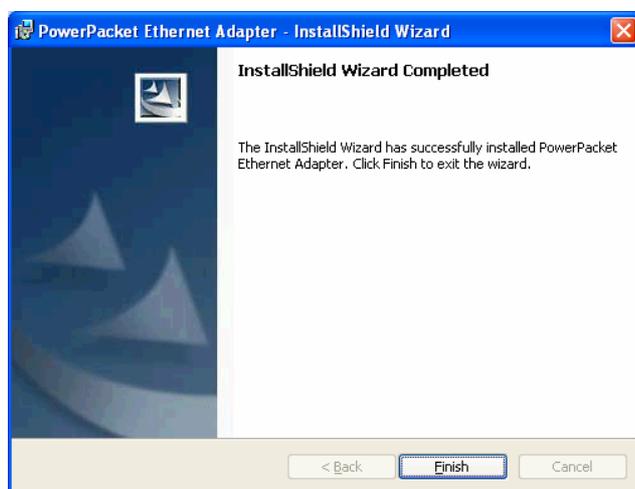
- 4. Review your selected installation settings here. If you want to change any of the settings click on the '<Back' button otherwise, click 'Install'.



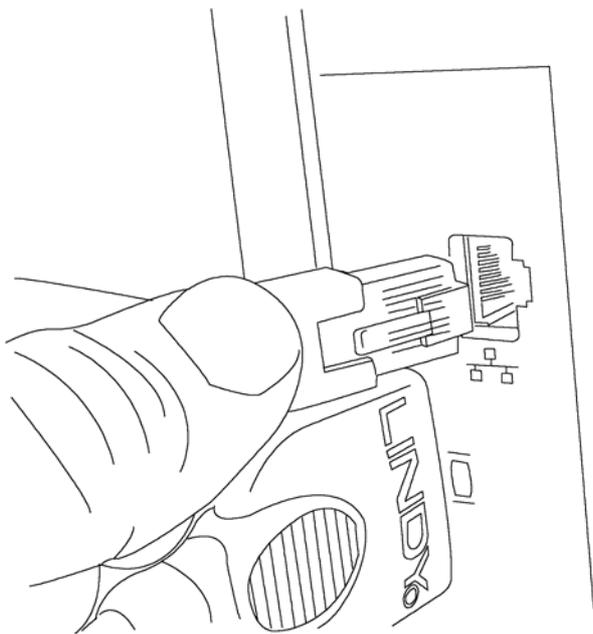
- 5. Once the software has installed, click 'Finish' to exit the installation wizard. The **PowerPacket Utility** icon will be installed on your desktop.



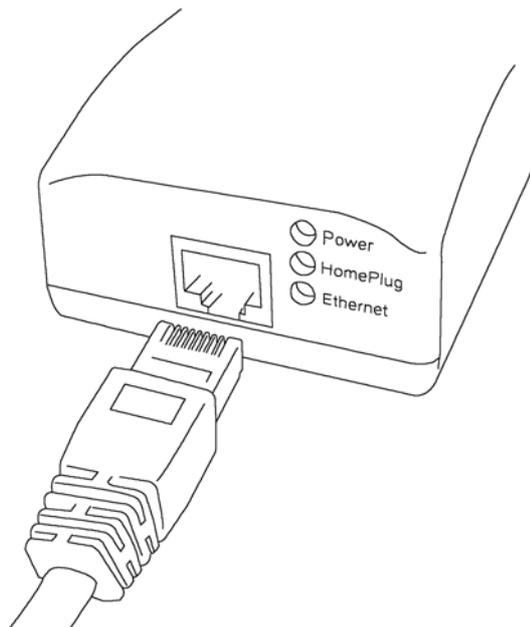
Now it's time to connect the HomePlug Ethernet Bridge. Please refer to the instructions on the next page.



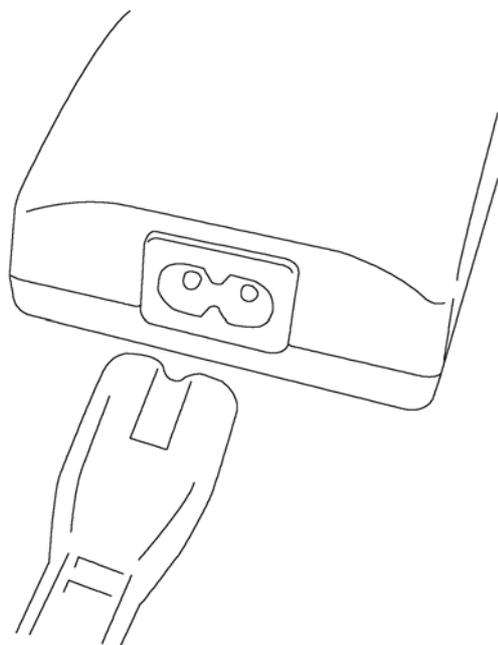
Hardware Connections



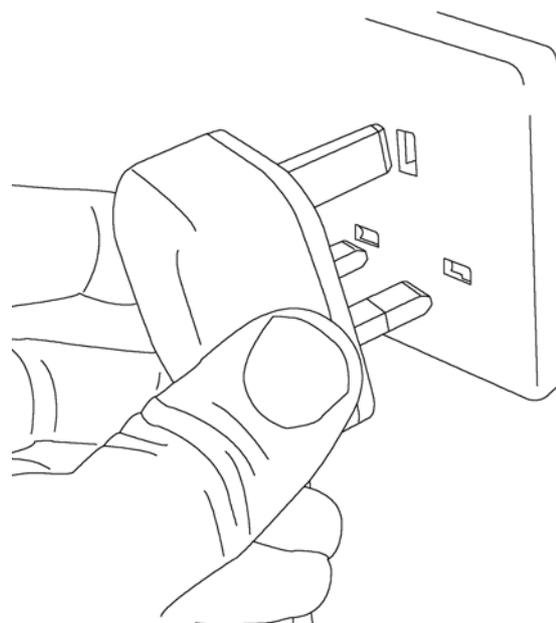
1. Plug the supplied Ethernet cable into the computer's RJ-45 network port.



2. Connect the other end of the network cable into the RJ-45 port on the Ethernet Bridge.



3. Plug the power cable into the power socket on the Ethernet Bridge.



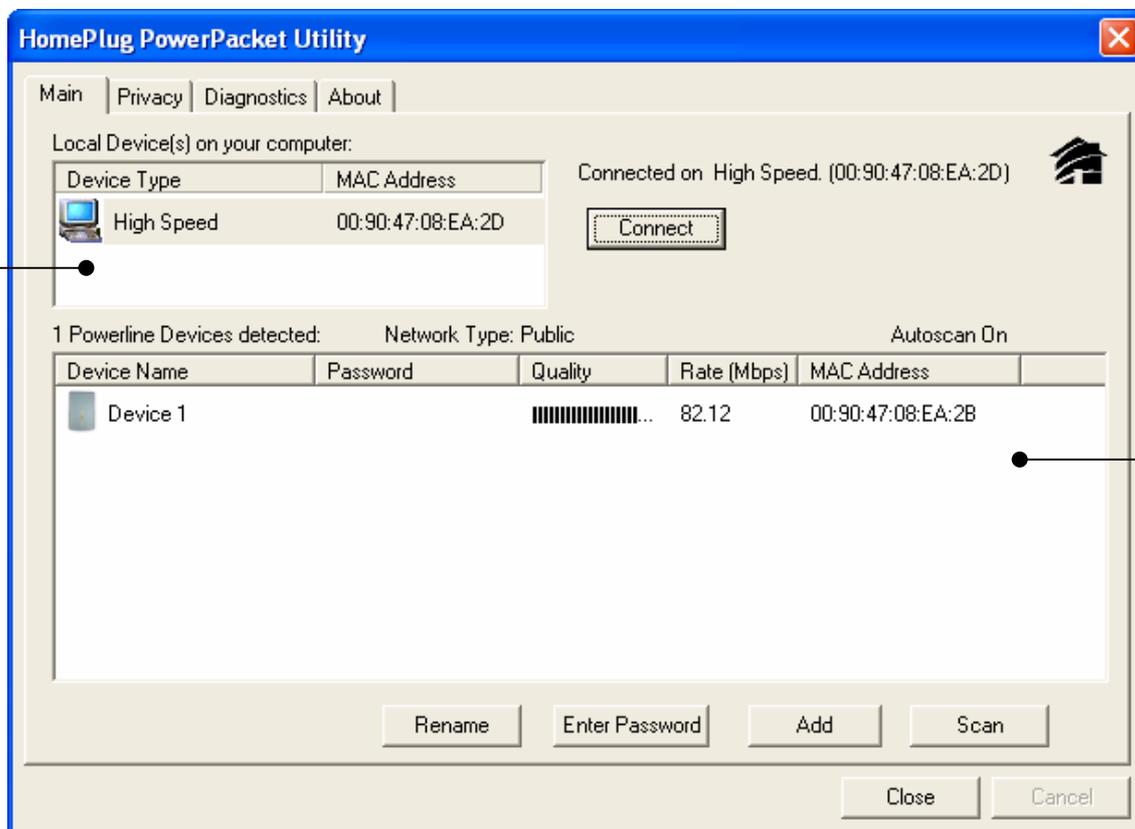
4. Finally, plug the mains cable directly into a wall outlet and switch on the socket if applicable (UK mains plug shown).

HomePlug PowerPacket Configuration Utility

Double-click the PowerPacket Utility icon to launch the configuration program:



Select the **Main** tab to open the Main window

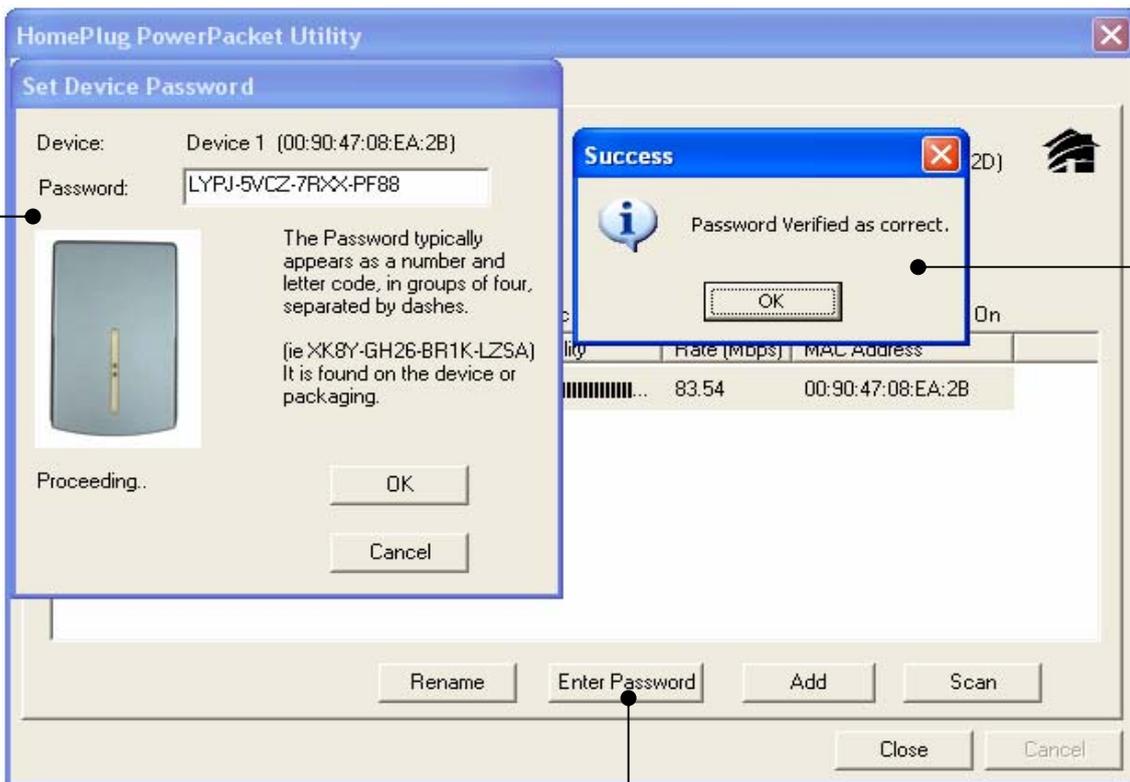


Shows the Powerline unit(s) currently connected to your PC. If you have more than one device, you can highlight it and click the **Connect** button to connect to it.

This box shows all the other detected Powerline devices on the network, their MAC addresses, connection speed and link quality. Use the buttons below to rename the Powerline device, enter the password (DEK), add and scan for new devices.

Setting the network name

This HomePlug Powerline device uses 56-bit DES encryption to block outside access. The security settings can be changed according to your preference using the Windows based configuration utility. By default, protection is enabled. However, it is recommended that you change the default network name (**HomePlug**). All Powerline devices must use the same network name in order for the computers to be networked. To change the network name for all of the devices, first you need to input the device password or **DEK (Default Encryption Key)** for each device on the network...

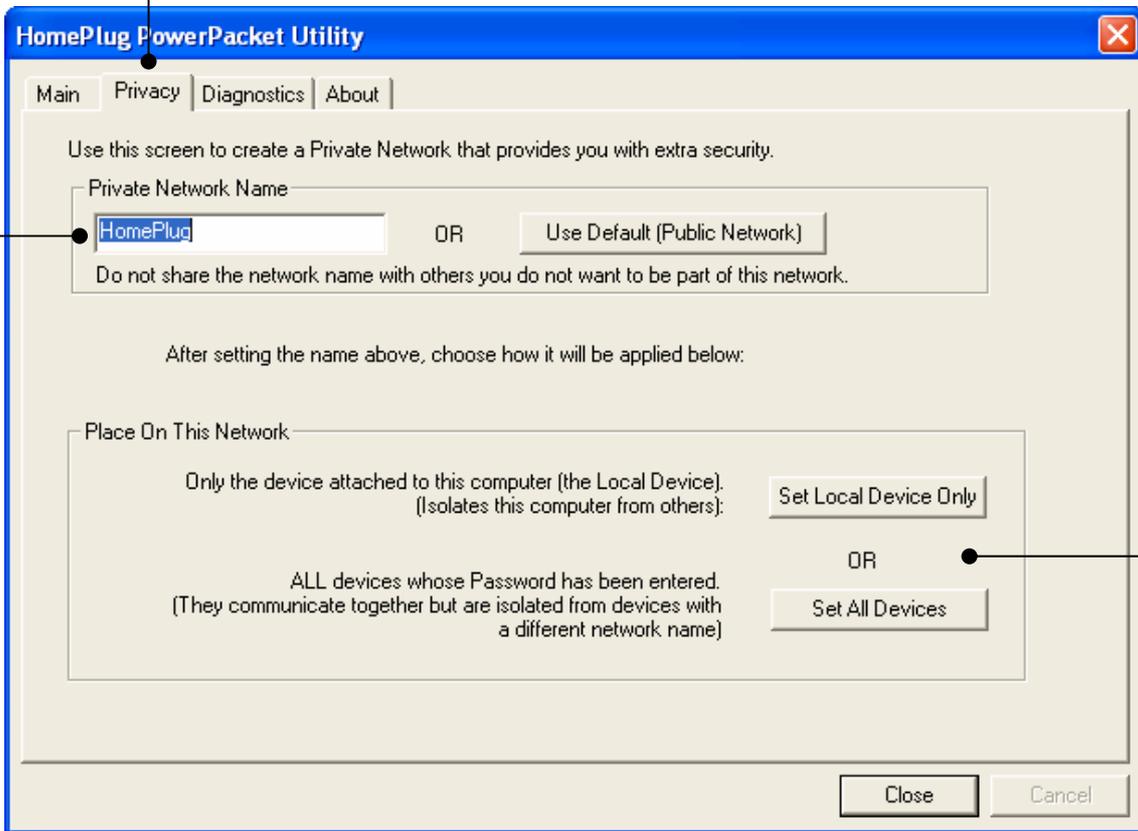


1. Highlight the detected Powerline device in the larger box and click the **Enter Password** button.

2. Enter the **DEK** of the device here. You can find the DEK on the bottom of the unit. Click **OK** once you have entered the password.

3. Once the password has been verified, click **OK**. If the password is not recognised, please check again that you are entering the DEK exactly as printed on the bottom of the unit.

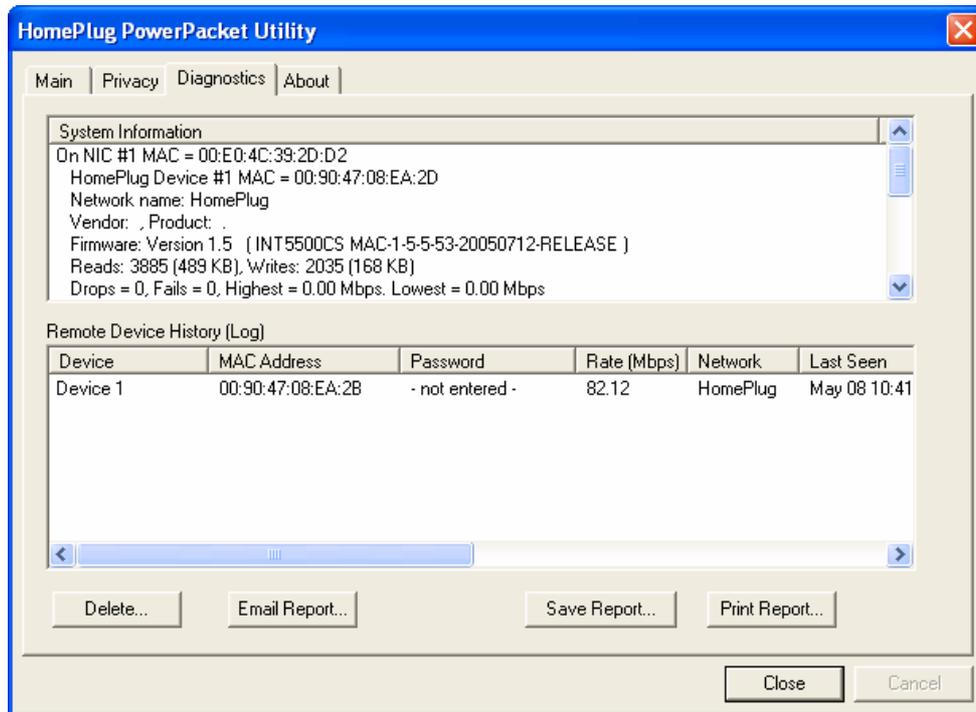
4. Select the **Privacy** tab to open the Privacy window.



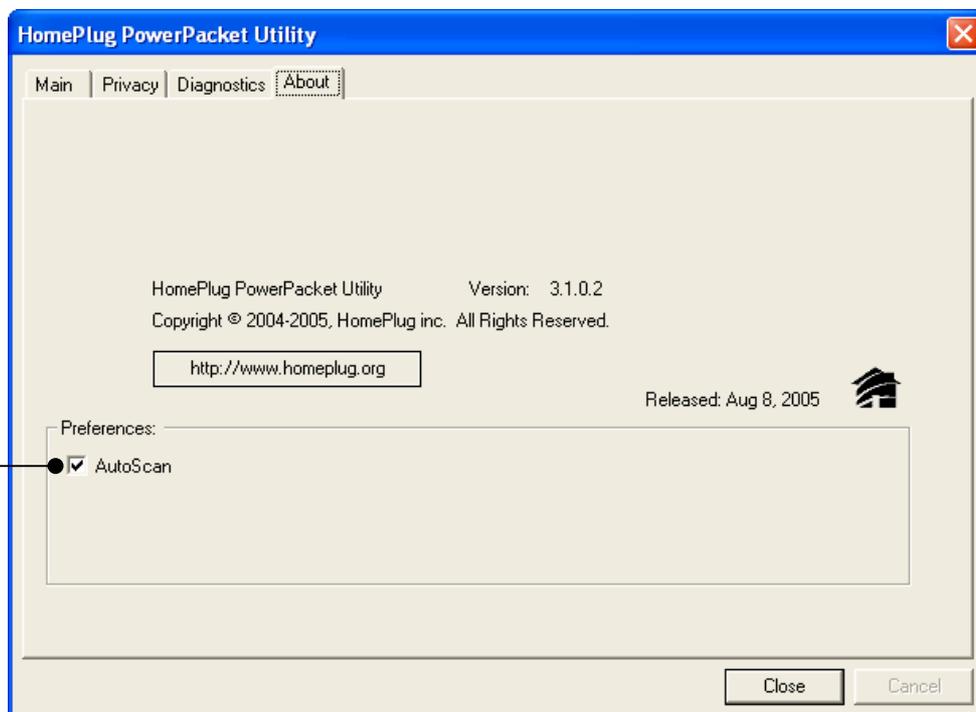
5. Input your chosen network name here.

6. Click **Set All Devices** to apply the new network name to all the devices whose DEK passwords have previously been entered in the **Main** window.

The **Diagnostics** section allows you to view, e-mail, save and print a system information report. This is useful if you need to contact LINDY Technical Support for help and advice.



On the **About** page you can see the version of the installed PowerPacket Utility.



Check the **AutoScan** box to enable automatic scanning for new devices on the Powerline network.

Troubleshooting & FAQ

What's the speed of a Powerline network over standard mains wiring?

HomePlug Powerline networks can operate at speeds of up to 85Mbps

How many HomePlug devices can I use on my network?

You can install up to 16 devices on your HomePlug Powerline network

What's the maximum range of a Powerline network?

Approximately 300m through mains wiring

Can my neighbours receive my Powerline signals?

It is possible for your neighbours to receive your Powerline signals between two adjacent homes. To prevent them accessing your network, please enable the 56-bit DES encryption on your HomePlug device. To do this, you must run the Configuration Utility and set a new network name to be used by each HomePlug device.

Are there any issues with power strips, UPS (Uninterruptible Power Supplies) and circuit breakers?

Extensive testing has shown minimal problems affecting data transfer when these devices are in use, but for the most reliable performance we recommend that each HomePlug unit is plugged directly into a mains wall outlet.

Do I have to install the Powerline Configuration Utility on every computer on my network?

No, the Powerline Configuration Utility does not need to be installed on any computer on your network. However, to set up the security encryption and diagnose and configure the devices we recommend you install it on at least one PC on your network.

Is HomePlug compatible with Macs?

Yes – the Ethernet Bridge can be used with any Mac with a 10/100 RJ-45 Ethernet connection, without any special software installation! The only limitation is that setting or changing a HomePlug device password requires connection to a PC running the Powerline configuration software. If both Mac's and PC's are present on the network, then the passwords of all the HomePlug devices can be changed remotely, from the PC!

Can I use HomePlug with my current Wireless or Ethernet network?

HomePlug was designed from the outset to provide maximum compatibility with existing wireless and Ethernet networks. The PowerPacket technology adheres to standard Ethernet protocols - using destination and source MAC addressing.

CE Statement

This device complies with the European Regulations for Electromagnetic Compatibility (EMC) of the European Union and it is equipped with the CE mark. This unit has to be used with high quality shielded connection cables. Only if these high quality shielded cables are used it can be sure that the EMC compatibility is not adversely influenced.

FCC Statement

Shielded cables must be used with this equipment to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances.

FCC Warning

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 technician for help

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products



United Kingdom

In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.

Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products.

More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland

Die Europäische Union hat mit der WEEE Richtlinie umfassende Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden von der Bundesregierung im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt.

Dieses Gesetz verbietet vom 24. März 2006 an das Entsorgen von entsprechenden, auch alten, Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France

En 2006, l'union Européenne a introduit la nouvelle réglementation (WEEE) pour le recyclage de tout équipement électrique et électronique.

Chaque Etat membre de l' Union Européenne a mis en application la nouvelle réglementation WEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italy

Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate.

Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.

Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.

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