# Wireless USB Adapter 11g



Instructions for use



**VERSION 1.0** 





AQ95-56F-529-PF (report No.)

#### DECLARATION OF CONFORMITY

We, Philips Consumer Electronics, BLC P&A CC Building SBP6 (manufacturer's name)

P.O.Box 80002, 5600 JB Eindhoven, The Netherlands (manufacturer's address)

declare under our responsibility that the radio product:

Philips CPWUA054/00, (name) (type or model)

Wireless USB Adapter 802.11g (product description)

to which this declaration relates is in conformity with the following standards:

EN 300 328-1 v1.3.1 (2001-12) EN 300 328-2 v1.2.1 (2001-12) EN 301 489-1 v1.3.1 (2001-09) EN 301 489-17 v1.2.1(2002-09) EN 60950 (2000-01)

(title and/or number and date of issue of the standards)

following the provisions of 1999/5/EC (R&TTE Directive).

Eindhoven, 25 February 2004, (place, date)

P.Frantzen.

General Approbations Manager
(signature, name and function

#### English

Hereby, Philips Consumer Electronics, BLC P&A CC, declares that this CPWUA054 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

#### Finnish

Philips Consumer Electronics, BLC P&A CC vakuuttaa täten että CPWUA054 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

#### Dutch

Hierbij verklaart, Philips Consumer Electronics, BLC P&A CC dat het toestel CPWUA054 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

#### French

Par la présente, Philips Consumer Electronics, BLC P&A CC, déclare que l'appareil CPWUA054 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CF

#### Swedish

Härmed intygar, Philips Consumer Electronics, BLC P&A CC, att denna CPWUA054 står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

#### Danish

Undertegnede Philips Consumer Electronics, BLC P&A CC erklærer herved, at følgende udstyr CPWUA054 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF

#### German

Hiermit erklärt Philips Consumer Electronics, BLC P&A CC die Übereinstimmung des Gerätes CPWUA054 mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/FG.

#### Greek

ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Πθιμιπτ Γοξτφνεσ Εμεγυσοξιγτ, Β.Φ. Πεσιπθεσαμτ & Αγγεττοσιετ ΤΗΛ ΥΝΕΙ ΟΤΙ ΓΠΨΦΑ054 ΣΥΜΜΟΡΦ ΥΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙ ΥΤΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΤΙΑΤΑΞΕΙΣ ΤΗΣ ΟΤΗΓΙΑΣ Ι 999/5/

#### Italian

Con la presente Philips Consumer Electronics, BLC P&A CC dichiara che questo CPWUA054 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

### Spanish

Por medio de la presente, Philips Consumer Electronics, BLC P&A CC, declara que el CPWUA054 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE

#### Portuguese

Philips Consumer Electronics, BLC P&A CC declara que este CPWUA054 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

4

# 

België/Belgique/Belgien/

02 275 0701

Luxemburg/Luxembourg

26 84 3000

**Danmark** 

35 25 87 61

**Deutschland** 

0696 698 4712

España

09 17 45 62 46

**France** 

03 8717 0033

Έλληνας

00800 3122 1223

**Ireland** 

01 601 1161

Italia

02 48 27 11 53

**Cyprus** 

800 92256

**European Regulations** 

This product has been designed, tested and manufactured according to the European R&TTE Directive 1999/5/EC.

Following this Directive, this product can be brought into service in the following states:

TOTIONNING STATES.							
В	~	DK 🗸	Е	~	GR 🗶	F	~
IRL	~	1 1	L	~	NL 🗸	Α	~
Р	X	SU 🗸	S	<b>V</b>	UK 🗶	Ν	~
D	~	CH 🗸					

**Nederland** 

053 482 9800

Norge

22 70 82 50

Österreich

01 546 575 603

**Portugal** 

0800 831 363

Schweiz/ Suisse/ Svizzera

02 23 10 21 16

Suomi

09 2290 1908

Sverige

08 632 0016

**UK (United Kingdom)** 

0207 949 0069

# Table of Contents

Introduction of the Wireless USB Adapter 11g	6
What are wireless network connections?	6
Factors determining your network range and network speed	6
Securing your wireless network	
Packaging contents	
Your Wireless USB Adapter 11g	8
Important information	9
Safety Precautions	9
Environmental information	
Disclaimer	10
FCC compliance	11
Installing the Wireless USB Adapter 11g	12
3.1 -Decide in what way you want the Wireless	
USB Adapter 11g to connect to other wireless network devices	12
Infrastructure wireless network	
Ad Hoc wireless network	13
3.2 - Use the 'How to?" booklet to help you through	
the installation procedure	13
Checking and changing settings: CPWUA Monitor	14
4.1 - How to access the settings	14
4.2 - What do the settings mean	16
General network and security related information	22
The DOs and DON'Ts of securing your wireless network	22
Securing your network from Internet access	
Example of how to secure your wireless network	
Example of use: how to set-up a computer network?	28
Which Windows version do you have installed	
For Windows XP and Windows 2000	28
For Windows 98SE and Windows Me	
Network terminology	
Technical specifications	41
Troubleshooting	42

# Chapter 1 - Introduction of the Wireless USB Adapter 11g

#### CPWUA054

Thank you for purchasing the Philips Wireless USB Adapter 11g. This Wireless USB Adapter 11g is a WiFi (IEEE 802.11g) compatible USB device. It fully supports high data rates up to 54 Mbps with automatic fallback to lower speeds for secure operation at lower data rates in even the most difficult of wireless environments.

In this manual we will expand on how to install, configure, and use your Wireless USB Adapter 11g.

This chapter will give you background information on wireless networks and their security in general.

#### What are wireless network connections?

Your wireless network adapter uses a wireless protocol (called IEEE 802.11g or WiFi) to communicate with other network computers by means of radio transmissions.WiFi radio waves travel outwards from the antenna in all directions, and can transmit through walls and floors.Wireless transmissions can theoretically reach up to 450 meters in an open environment and reach speeds of up to 54 megabits per second (Mbps) at close range. However, the actual network range and data throughput rate will be less, depending on the wireless link quality.

# Factors determining your network range and network speed

- The environment: Radio signals can travel farther outside of buildings, and if the wireless components are in direct line of sight to one another. Putting wireless components in high places helps avoid physical obstacles and provides better coverage.
- Building construction such as metal framing and concrete or masonry
  walls and floors will reduce radio signal strength. Avoid putting wireless
  components next to walls and other large, solid objects; or next to large
  metal objects such as computers, monitors, and appliances.
- Wireless signal range, speed, and strength can be affected by interference from neighbouring wireless networks and devices. Electromagnetic devices such as televisions, radios, microwave ovens, and cordless phones, especially those with frequencies in the 2.4 GHz range, may also interfere with wireless transmission.
- Standing or sitting too close to wireless equipment can also affect radio signal quality.
- Adjusting the antenna: Do not place antennas next to large pieces of metal, because this might cause interference.

# Securing your wireless network

As wireless computer networks use radio signals, it is possible for other wireless network devices outside your immediate area to pick up the wireless signals and either connect to your network or to capture the network traffic. Therefore, you should always enable the Wired Equivalent Privacy (WEP) or WiFi Protected Access (WPA) network encryption key to help prevent unauthorised connections or the possibility of eavesdroppers listening in on your network traffic.

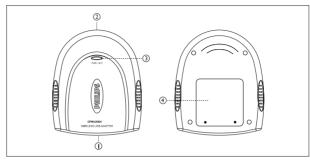
For an example of how to secure your network, please see the chapter on "An example of how to secure your wireless network."

# **Packaging contents**

Please check whether all of the following items are present in the box of the Wireless USB Adapter 11g. These are provided to help you set up and use your Wireless USB Adapter 11g. Contact your Philips retailer if any items are missing.

- Wireless USB Adapter 11g
- Installation CD
- "How to...?" booklet
- USB 2.0 Cable

# Your Wireless USB Adapter 11g



#### 1 Connector to PC

For connecting the Wireless USB Adapter 11g to the USB port of your PC. USB 2.0 port required for 54 Mbps.

#### 2 Integrated antenna

Built-in antenna for establishing wireless connections.

#### 3 Indicator LED

Displays the network status.

LED LED	Meaning r
Power Blue	<ul> <li>Off when not connected or with PC switched off.</li> <li>On when receiving power and ready for operation.</li> <li>Blinking when transmitting data (network activity).</li> </ul>

#### 4 Label with MAC address

### Chapter 2 - Important information

- Please install and connect the product in the order as described in the "How to..." booklet only. This assures best installation results with the least technical hassles.
- Please read this manual and the "How to...?" booklet carefully before using the Wireless USB Adapter 11g; and keep these documents for future reference.
- The most recent downloads and information on this product will be available through our web site www.philips.com/support
- During set-up and installation, it may be helpful to have the instructions for your PC and other network components at hand.

# **Safety Precautions**

 Radio equipment for wireless applications is not protected against disturbance from other radio services.



- Do not expose the system to excessive moisture, rain, sand or heat sources.
- The product should not be exposed to dripping or splashing. No object filled with liquids, such as vases, should be placed on the product.
- Keep the product away from domestic heating equipment and direct sunlight.
- Allow a sufficient amount of free space all around the product for adequate ventilation.
- Do not open this product. Contact your Philips retailer if you experience technical difficulties.

# **Environmental information**

All redundant packing material has been omitted. We have done our utmost to make the packaging easily separable into three mono materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet). Your set consists of materials that can be recycled if disassembled by a specialised company. Please observe the local regulations regarding the disposal of packing materials, exhausted batteries and old equipment.

#### Disclaimer

This product is provided by "Philips" "as is" and without any express or implied warranty of any kind of warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed.

In no event shall Philips be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of information, data, or profits; or business interruption) howsoever caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of inability to use this product, even if advised of the possibility of such damages.

Philips further does not warrant the accuracy or completeness of the information, text, graphics, links or other items transmitted by this product.

# **FCC** compliance

This device complies with Part 15 of the FCC Rules (U.S.A.). 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.

NOTE: 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 to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **IMPORTANT**

Any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer could void the user's authority to operate such equipment.

# Chapter 3 - Installing the Wireless USB Adapter 11g

This chapter will give you information on what you need to do when installing the Wireless USB Adapter 11g. You need to do two things:

- Decide in what way you want the Wireless USB Adapter 11g to connect to other wireless network devices. See below at 3.1. Note: You can always change your settings afterwards to make a different type of connection.
- Use the 'How to...?" booklet to help you through the installation procedure.
   See below at 3.2.

Note: If you need to know more about the (network) terminology used, please read the chapter on Network Terminology at the end of this manual.

# 3.1 - Decide in what way you want the Wireless USB Adapter 11g to connect to other wireless network devices. Your options are:

#### Option 1

Make an Infrastructure wireless connection to other wireless network devices. – **Infrastructure (Wireless Base Station)** - for Internet sharing and for wireless networks with a central Wireless Base Station or Wireless Access Point.



Infrastructure wireless network

A Philips Wireless Base Station is used to provide the computers in its wireless network with wireless access to the Internet or to each other.

### Option 2

Make an Ad-Hoc wireless connection to another wireless network device. – Ad Hoc (also called Peer-to-Peer) - used for small groups of computers that only communicate with each other.



An ad hoc wireless network consists of a group of computers, each equipped with one wireless adapter, connected via radio signals as an independent wireless network.

Choose AdHoc when connecting Philips Streamium products.

# 3.2 - Use the 'How to...?" booklet to help you through the installation procedure.

- 1. Take the "How to...?" booklet, and follow its step by step instructions for installing the Wireless USB Adapter 11g.
- 2. When asked if you want to set-up an Ad-Hoc or Infrastructure Network, select the type of network that you decided to install in 3.1 above.

#### NOTE:

- Hi-speed USB 2.0 port is required for 54 Mbps operation.
- Connecting the adapter to a USB 1.1 port limits the speed to max. 11 Mbps.

Should there appear any error messages or requests for additional information on the screen, then please read the "Troubleshooting" section. Please visit our web site www.philips.com/support if you need further assistance.

**IMPORTANT**: By installing the Wireless USB Adapter 11g and making a connection with another Wireless Network Adapter or a Wireless Base Station, you only will have created the physical (wireless) connection between these network devices. Much like connecting a network cable between two wired network adapters.

You still have to install applications for using the wireless network. As an example, see the chapter on creating a home computer network in this manual if you want to use the wireless network for that particular purpose.

### Chapter 4 - Checking and changing settings: CPWUA Monitor

After installing the Wireless USB Adapter 11g, you may want to check its settings or change them.

In the following sections we will explain:

- 4.1 How to access the settings
- 4.2 What do the settings mean.

Please refer to the "How to..?" booklet if you want to perform basic tasks like setting up a wireless connection.

# 4.1 - How to access the settings

You can access the settings by double-clicking the CPWUA Monitor program that loads during start-up of the PC, and that stays active in the system tray in the lower right corner of your computer screen.

Note: if the program icon is not present in the system tray, click on CPWUA Monitor in the Philips Wireless Network Manager program group.

### System tray icon



- 1 The icon represents signal strength and wireless link status. In addition, it gives you access to the Philips Wireless Network Manager and its configuration menus.
- 2 Right-clicking the system tray icon displays the following options:
- **Profiles** (e.g. DEFAULT and others in the top part of this menu)
  For choosing one of your profiles. The active profile is marked. You need to open (click Show) the Philips Wireless Network Manager if you want to add or delete a profile.
- Wireless On/Off:

Gives you control over enabling and disabling the wireless link

Show: Philips Wireless Network Manager (CPWUA Monitor)
 Opens the Philips utility program for viewing and changing your wireless network adapter settings.

#### • Hide

Hides the system tray icon from the system tray until you restart your computer, without disabling the wireless network adapter.



#### • Exit

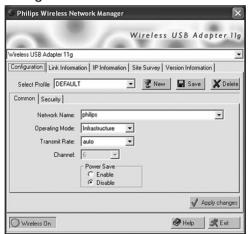
Disables the wireless network adapter and removes the system tray icon from the system tray until you restart your computer.

# 4.2 - What do the settings mean

The Wireless Network Manager program (CPWUA Monitor) has five main tabs with information and settings.

Note: The Wireless On/Off button appears on the bottom of every tab to give you control over enabling and disabling the wireless link.

#### Configuration



The **Configuration** tab lets you manage your profiles, and gives you access to your wireless network and encryption settings.

A profile is a set of all settings needed for a particular wireless connection. If you want to change between wireless networks, you can simply switch from one saved profile to the other.

Use the **New**, **Save** and **Delete** buttons for managing your profiles.

Note: refer to the "How to..?" booklet on how to set-up a wireless connection.

The Configuration tab contains three sub-tabs: Common, Security, and **Advanced**. See below for an explanation of the settings of these sub-tabs.

# Philips Wireless Network Manager Wireless USB Adapter 11g Wireless USB Adapter 11g Configuration | Link Information | IP Information | Site Survey | Version Information | Select Profile DEFAULT ▼ Wew 🖫 Save 🗶 Delete Common | Security | Network Name: philips Operating Mode: Infrastructure Transmit Rate: auto Channel: 6 Power Save Enable © Disable √ Apply changes Wireless On Help # Exit

# · Configuration - sub-tab Common

**Network Name** – Input a wireless network name for the wireless network to which you want to connect. Alternatively, use the Site Survey tab to choose from the list of available Network Names. (Default: philips.)

Operating Mode – Set the operation mode to Ad Hoc (Peer-to-Peer) for network configurations that do not have a Wireless Base Station, and to Infrastructure for configurations with a wireless base station. (Infrastructure is the default setting.)

**Transmit Rate** – *Auto* will automatically negotiate the highest possible wireless network speed. Or set a lower speed manually. Lower speeds will give better range.

**Channel** – If you are setting up an Ad Hoc wireless network, set the channel number to the same radio channel as that used by the other wireless devices in your group. However, if you are connecting to a network via a base station, then the channel is automatically set to the channel of the base station to which the adapter connects. The Channel can only be set when the Operating Mode is set to Ad Hoc (Peer-to-Peer).

**Power Save** – Click the box if you want to use power management to reduce your portable computer's consumption of battery power and still keep the computer available for immediate use.

**IMPORTANT:** All computers and wireless network devices in the same network should have the same Network Name (SSID) and the same encryption key for wireless security. In Ad Hoc mode, you must also specify the same radio channel for all wireless devices.

Note: refer to the "How to..?" booklet on how to set-up a wireless connection.



#### · Configuration - sub-tab Security

First, click the **Security ON/OFF** button to enable or disable wireless security.

Wired Equivalent Privacy (WEP) and WiFi Protected Access (WPA) are implemented in the adapter to prevent unauthorized access to your wireless network.

The WPA (WiFi Protected Access) implemented in this Wireless USB Adapter11g uses an alphanumeric password between 8 and 63 characters long. This password may include symbols and spaces. IMPORTANT: You must use the same encryption key throughout your network.

#### NOTE:

When connecting to a Wireless Base Station, the Base Station will determine what type of key and security are to be used. The settings below are only needed for Ad-Hoc use of the Wireless USB Adapter.

**Authentication Type** – Choose *Open* or *Shared* depending on the type of wireless security in the rest of your wireless network.

**Key length** – For more secure data transmissions, set encryption to the highest number of bits. E.g. a 128-bit setting gives you a higher level of security than 64-bit. *IMPORTANT*: The setting must be the same for all clients in your wireless network.

**Use Passphrase** – If Passphrase is selected, security keys for WEP encryption are generated from your passphrase string. If encryption is set to 128 bit, only Key 1 is generated. If encryption is set to 64 bit, Keys 1-4 are generated. You must use the same Passphrase and Default Key settings on all the other stations in your network. Note: A passphrase string can consist of up to 32 alphanumeric characters. After entering the passphrase, click Apply.

### **Key Type**

- If the Key Type is set to **Hex**, the security keys are four 10 digit keys for the 64-bit WEP setting and four 26-digit keys for the 128-bit WEP setting. (The hexadecimal digits can be 0~9 & A~F, e.g. D7 0A 9C 7F E5.)
- If the Key Type is set to **ASCII**, the security keys are four 5-digit keys for the 64-bit WEP setting and four 13-digit keys for the 128-bit WEP setting.

**Default Key** – Choose the Key ID that has the encryption string you prefer. If you are using a key generated from the passphrase, you must use the same passphrase and key on each wireless device.

For an example of how to change your encryption settings, please see the chapter on "An example of how to secure your wireless network."

# • Configuration - sub-tab Advanced

Keep the Advanced settings at their default values, unless you have a specific reason for changing them.

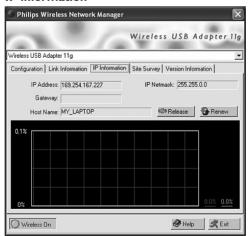
Click Help if you need more information on these settings.

#### · Link information



The **Link information tab** displays information on the wireless network name (Network Name) to which there is a wireless connection, the signal strength and link quality, the connection speed, the channel and the number of transmitted/received (Tx/Rx) fragments.

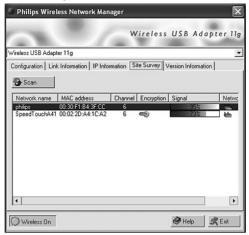
#### IP information



The **IP** information tab displays information on the Host Name, IP Address, Subnet Mask, and Gateway.

This window also contains buttons for *releasing* and *renewing* the IP address. This is done to bring a computer back onto the network after moving it to a different location, or after experiencing an unexpected outage. First release, then renew the IP address. Computers on DHCP networks often (but not always) re-establish network connectivity automatically.

#### Site Survey



Selecting the Site Survey tab displays a list of available wireless network access points.

Next, click Rescan to update the list.

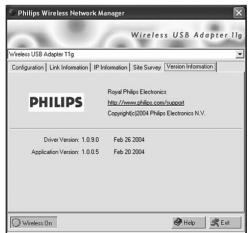
It shows you the following information:

- The name of the wireless connection (Network Name, or SSID)
- · Signal strength and wireless link quality
- · An icon reflecting if encryption is enabled

Double-click one of the network names to open the Profile Wizard for establishing a wireless connection with that network.

Note: refer to the "How to..?" booklet on how to set-up a wireless connection.

#### Version information



Selecting this tab displays vendor and version information.

# Chapter 5 - General network and security related information

#### The DOs and DON'Ts of securing your wireless network

Note: For an example of how to encrypt your wireless network, please see the chapter on "An example of how to secure your wireless network."

#### DO

Enable the highest encryption key level that your hardware provides for. Upgrade your hardware, if possible. If you do not protect your wireless network, all data from your PC might be accessible by, for example, your neighbours or passers-by.

Use a wireless base station or router with Network Address Translation (NAT) and firewall enabled for sharing your Internet connection.

Change the default passwords for your network devices. Leaving these at default makes it easy for an outsider to gain access.

Position wireless base stations away from windows and toward the centre of your home. This decreases the strength of the signal outside your home.

Some wireless base stations allow you to control access based on the unique Media Access Control (MAC) address of the network adapter trying to associate with it. If a MAC address has not been registered in the wireless base station, it will not associate with it. If your base station has this feature, enable it and add the MAC addresses of the network adapters.

Just use common sense: Install an anti-virus program on each computer on your network and use it regularly to check your computers for viruses. Remember to update the anti-virus program on a regular basis.

#### DON'T

Do not rely on radio transmission range limitations to secure your network. Enable wireless security (WEP/WPA) to protect your network from unwanted access.

Use encryption keys and passwords that are hard to guess. Do not change passwords to reflect your name, address, or anything that would be easy to guess.

Never open attachments to email messages that you are not expecting. In addition, scan all diskettes and home-made CDs for viruses before opening files from them, or before starting your computer from them.

Do not load a program from an unknown source onto one of your network computers.

Do not ignore the common signs of viruses: unusual messages that appear on your screen, decreased system performance, missing data, and inability to access your hard drive. If you notice any of these problems on your computer, run your anti-virus program immediately to minimise the chances of losing data.

Do not connect your home network to broadband Internet without taking security measures: If you do not have a wireless base station installed on your network and you are sharing Internet access through one of the computers, you may want to consider installing firewall software.

# Securing your network from Internet access

Check in the documentation of your wireless base station or router whether it provides you with a built-in firewall and network address translation (NAT), which provide security for an "always-on" broadband Internet connection that is shared among the computers and devices on your home network.

Computers on an Ad Hoc network may share an Internet connection that is set up on one of the computers (ICS). However, a firewall is usually not built-in and you should install one on the computer that is sharing the Internet connection.

# Chapter 6 - Example of how to secure your wireless network

This is an example of how to secure your wireless network using the Philips Wireless USB Adapter 11g Monitor program.



Double-click the CPWUA Monitor icon in the lower right corner of the screen.

Click the 'Configuration' tab. Then click the Security sub-tab. The encryption settings are in the lower part of this window.



The encryption (or WEP code) can be seen as a password for your wireless network. Only devices with the correct password may use the network.

Set 'Key Length' to exactly the same wireless security strength (64 bit or 128 bit) as your Wireless Base Station or other wireless network adapters. The higher the better. Therefore, select '128 bit'.

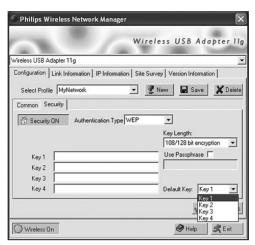


Select 'ASCII' as your Key Type. This enables you to enter an encryption key in normal text.

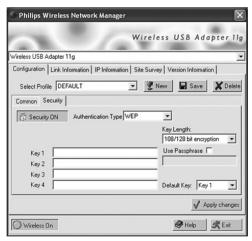
After 'Key 1', enter a code in text and numbers that will be hard to guess.

#### **IMPORTANT:**

- You need to make a difference between upper case and lower case characters. I.e.: "SecretCode" is not the same as "secretcode".
- Use 13 characters for 128-bit encryption (e.g. "topsecretcode") and 5 characters for 64-bit encryption (e.g. "my1st").



Set the Default Key to be used to '1'.



Click 'Apply changes'.



The 'Link information' tab appears in which you can check the status of the wireless network connection.

Next, click the 'Configuration' tab.



Click 'Save' to save the changes you made to the wireless network profile. Finally, click 'Exit' to close CPWUA Monitor program.

Note: The encryption key you entered will be replaced by asterisks for security reasons.

# Chapter 7 - Example of use: how to set-up a computer network?

After installing the Philips Wireless USB Adapter 11g and establishing a wireless network connection with another wireless network device, you are ready to start using the network for the application you want to use the network for:

A popular application is to set-up a Windows home network between two or more computers.

The next pages will show you an example of how to set-up a computer network using the Philips Wireless USB Adapter 11g.

# Warning:

The wireless network adapter itself, only enables your computer to connect to other similar wireless network devices. How you use this connection is up to you.

Setting-up a computer network is to be seen as an independent application that requires networking software from other manufacturers. For example, the networking software that has been incorporated in the Windows Operating System by Microsoft.

Therefore, the description below is to be seen as an example only.

# Which Windows version do you have installed

- 1 Start setting-up your network with the computer that has the latest operating system.
- > The order of preference being:Windows XP,Windows 2000,Windows Me, and finally Windows 98SE.
- 2 Use its Networking Setup Wizard and allow it to make a networking setup diskette.
- 3 With this diskette, set-up your remaining computers.

# For Windows XP and Windows 2000

See further on in this chapter for Windows Me and Windows 98SE.



Click the Windows Start button, and click "Control Panel" from the list.



Double-click the "Network and Internet connections" icon.



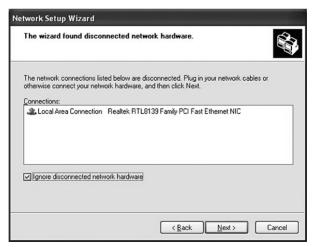
Click in the list to the left on "Setting-up a home network or small business network".



The Wizard Network Setup appears. Click 'Next' to continue.

#### **Wizard Network Settings**

- 1 Please, carefully read the instructions the Wizard gives you, and adapt your choices to the type of network you want to set-up. Use the Help feature within the Wizard if you need more information while using the Wizard.
- 2 In each window, click 'Next' to go to the next step.
- 3 Below, we will describe some of the crucial steps of this Wizard.



Place a check mark to ignore any broken network connections before clicking 'Next' to continue.



- Enter a description that helps you recognize the computer.
- Enter a name that is different for each computer.
- 3 Click 'Next' to continue.



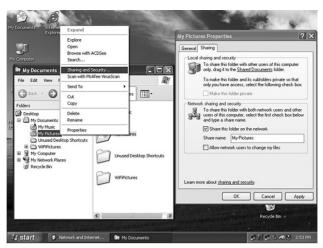
Enter the same workgroup name for all computers in the network, then click 'Next' to continue.



Choose to make a networking setup disk. Then click 'Next'.



Click 'Finish' to close the Wizard, and then use the disk you made to set-up your other computers.



To share folders with the network: Start Windows Explorer and right-click the folder you wish to share with the network. Click the 'Sharing' tab and adapt the settings.

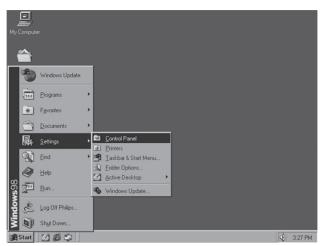


To explore the network: Double-click the Network Environment icon on the desktop.

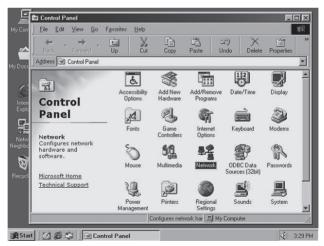
If you need more information, consult Windows Help.

# For Windows 98SE and Windows Me

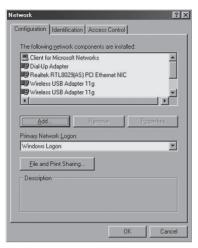
See earlier on in this chapter for Windows XP and Windows 2000.



Click the Windows Start button, click "Settings", and click "Control Panel" from the list.



Double-click the "Network" icon.



Click the 'Identification' tab.



- Enter a name that is different for each computer.
- Enter the same workgroup name for all computers in the network.
- Enter a description that helps you recognize the computer.
- 4 Click on the 'Configuration' tab to continue.



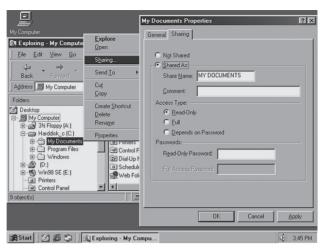
Click the 'Sharing files and printers' button.



Select the access options you want, and click 'OK' to continue.



Click 'OK' to accept the changes.



To share folders with the network: Start Windows Explorer and right-click the folder you wish to share with the network. Click the 'Sharing' tab and adapt the settings.



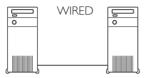
To explore the network: Double-click the Network Environment icon on the desktop.

If you need more information, consult Windows Help.

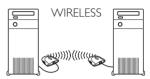
# Chapter 8 - Network terminology

Read this chapter if you want to know how to interpret the terminology used in this manual.

A network provides a means of communication between two or more computers (and other devices) that are connected to each other through wired or wireless means.



At each computer, you will need a network adapter or Network Interface Card (NIC) to be able to connect the computer to the network cable. Examples are:



At each computer, you will need to install a WiFi wireless adapter to be able to connect to another wireless enabled device. Examples are:

Ethernet cable



Ethernet notebook adapter



Already built-in



Wireless USB adapter



Wireless notebook adapter 11g



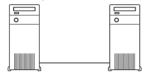
Already built-in



In a network, the computers need to be able to connect to each other physically. Therefore, another important network property is how the computers connect to each other, either directly or through a central device.

# ONE-ON-ONE WIRED NETWORK

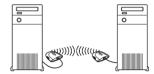
also known as: Direct connection (max. 2 PCs)



NOTE: Use a crossover Ethernet cable to connect two computers directly to each other.

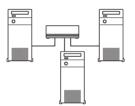
# ONE-ON-ONE WIRELESS NETWORK

also known as: Ad Hoc / Peer-to-Peer



# WIRED NETWORK WITH MORE THAN 2 PCs

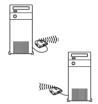
Use a hub or switch to connect more than 2 PCs to each other.



NOTE: Use straight-through Ethernet cables to connect the computers to the central device (hub/switch).

# WIRELESS NETWORK WITH MORE THAN 2 PCs

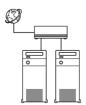
also known as: Ad Hoc / Peer-to-Peer



The wireless medium forms a hub in and of itself. No hardware hub is needed.

# HOW TO INTERCONNECT WIRED NETWORKS

Use a **gateway router** to connect one network to another (e.g. to the Internet, also known as WAN).



# CONNECTING WIRELESS TO WIRED NETWORKS

also known as: Infrastructure / Access Point

Use a wireless base station.



#### 40 ENGLISH

Central devices, like a hub, switch, router or wireless access point may be stand-alone devices or built into a computer.

- A **hub** has multiple ports and serves as a central connection point for communication lines from all computers on a wired network. It copies all data arriving at one port to the other ports. A **switch** is similar to a hub, but is able to handle different network speeds at each port.
- **Gateway routers** and **wireless access points** route network traffic from one network to another (e.g. from a wired network to the Internet, or from a wireless network to a wired network or to the Internet).

Radio IEEE 802.11g

**Radio Technology** Direct Sequence Spread Spectrum (DSSS)

**Antenna Type** Built-in antenna

1 / 2 / 5.5 / 6 / 9 / 11 /12 / 18 / 24 / 36 / 48 / 54 Mbps **Data Rate** 

Host interface USB specification version 2.0 (max. 54 Mbps) & 1.1 (max. 11 Mbps)

**Power consumption** 

send / receive Approx. 500 mA / 420 mA

**Dimensions** 

 $22 \times 79 \times 93 \text{ mm}$  $(h \times w \times d)$ 

Weight Approx. 55 g (adapter only)

**Operating** 

0 ~ 55°C **Temperature** 

**Storage** 

-20 ~ 75°C **Temperature** 

5 ~ 90% non-condensing **Humidity** 

	Chapter 10 - Troubleshooting			
	Please, check the following troubleshooting items and our web site www.philips.com/support before contacting our technical support.			
Problem	Possible cause	Solution		
ADAPTER INSTAL	LLATION PROBLEMS			
Your PC cannot find the Wireless USB Adapter or the net- work driver does	USB Adapter not connected.	Make sure the USB cable is securely connected to the USB connectors of both the adapter and of your PC.		
not install correctly.	USB Adapter damaged	Check for any hardware problems, such as physical damage to the adapter's connector:		
	USB Adapter or port defective.	Try to connect the adapter to another USB port. If this also fails, test your computer with another Wireless USB Adapter 11g that is known to operate correctly.		
	Conflicting network adapters.	If there are other network adapters in the computer, they may be causing conflicts. Remove all other adapters from the computer and test thewireless adapter separately.		
	If it still does not work, try re-installing the wireless USB adapter 11g from the original Installation CD. Restart your PC.			

Problem	Possible cause	Solution		
NETWORK CON	IETWORK CONNECTION PROBLEMS			
If the Link LED on the Wireless USB Adapter 11g does not light, or if you cannot access any network resources from the computer.	PC or other network devices switched off.	Make sure the computer and other network devices are receiving power.		
No access to a Windows or Net- Ware service on the network.	Service unavailable.	Check that you have enabled and configured the service correctly.  If you cannot connect to a particular server, be sure that you have access rights and a valid ID and password.  If you cannot access the Internet, be sure you have configured your system for TCP/IP.		
If your wireless adapter cannot communicate with a	Base Station / Access Point is switched off.	Make sure the access point that the station is associated with is powered on.		
computer in the network when configured for	Range too long (weak radio signal).	Reposition your Wireless Adapter.		
Infrastructure mode.	Wrong settings	Make sure the SSID and the network encryption key are the same as those used by the wireless access point.		
Network speed does not	USB 1.1 port used in stead of USB 2.0.	Connect the wireless adapter to a hi-speed USB 2.0 port for maximum speed.		
exceed 11 Mbps.	Other network components are unsuitable for higher network speeds.	Make sure all network components are suitable for high network speeds.		

Guarantuee certificate Garantiebewijs Certificado de garantia Garantibevis Certificat de garantie Certificado de garantia Εγγύηση Garantibevis Garantieschein Certificato di garanzia Garanticertifikat Takuutodistus



year warranty année garantie Jahr Garantie jaar garantie año garantia anno garanzia χρόνσς εγγύηση år garanti år garanti år garanti vuosi takuu año garantia

Туре:	CPWUA054		
Serial ni	·:		

Date of purchase - Date de la vente - Verkaufsdatum - Aankoopdatum - Fecha de compra - Date d'acquisito - Data da adquirição - Ημερομηνία αγοράς - Inköpsdatum - Anskaffelsesdato - Kjøpedato - Oatopäivä -

Dealer's name, address and signature Nom, adresse et signature du revendeur Name, Anschrift und Unterschrift des Händlers Naam, adres en handtekening v.d. handelaar Nombre, direccion y firma del distribudor Nome, indirizzo e firma del fornitore Ονοματεπώνμο, διεύθυνση και υπογραφή του εμπ. προμηθευτη Återförsäljarens namn, adress och signatur Forhandlerens navn, adresse og unterskrift Forhandlerens navn, adresse og unterskrift Jälleenmyyjän nimi, osoite ja allekirjoitus Nome, morada e assinature da loja

www.philips.com/support

Go to www.philips.com/support for your guarantee. Data subject to change without notice

9082 100 03013

C € 0682 ①



