

# ADSL2+ 4-PORT ETHERNET USB WIRELESS-G ROUTER

Easy Start  
Version 1.1



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## Declaration Of Conformity



Marking by the above symbol indicates compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC). This equipment meets the following conformance standards:

EN300 328, EN301 489-17, EN60950

### Countries of Operation and Conditions of Use in the European Community

This device intends to be operated in all countries of the European Community. Requirement is for indoors vs. outdoors operation, license requirements and allowed channels of operation apply in some countries as described in this document.



**NOTE:** The user must use the configuration utility provided with this product to check the current channel of operation and confirm that the devices operating in conformance with the spectrum usage rules for the European Community countries as described below.

If operation is occurring outside of the allowable channels as indicated in this guide, then the user must cease operating the product and consult with the local technical support staff responsible for the wireless network.

This device may be operated **indoors or outdoors** in all countries of the European Community using the 2.4GHz band: **Channels 1 – 13**, except where noted below:

- In **Italy** the end-user must apply for a license from the national spectrum authority to operate this device outdoors.
- In **France** outdoor operation is only permitted using the 2.4 – 2.454 GHz band: Channels 1 – 7.

## **Radio Frequency Interference Warnings & Instructions**

### **(FCC ID: I38-DSL600EWR)**

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 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 methods:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an electrical outlet on a circuit different from that which the radio receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Modifications made to the product, unless expressly approved by the party responsible, could void the user's right to operate the equipment.

### **RF Exposure**

This device has been tested and complies with FCC RF Exposure (SAR) limits in typical laptop computer configurations and this device can be used in desktop or laptop computers with side mounted PCMCIA slots, which can provide 1 cm separation distance from the antenna to the body of the user or a nearby person. Thin laptop computers may need special attention to maintain antenna spacing while operating. This device cannot be used with handheld PDAs (personal digital assistants). Use in other configurations may not ensure compliance with FCC RF exposure guidelines. This device and its antenna must not be co-located or operate in conjunction with another antenna or transmitter.

## Safety Summary Messages



### **WARNING HIGH VOLTAGE**

**is used in the equipment. Make sure equipment is properly grounded BEFORE opening. Failure to observe safety precautions may result in electric shock to user.**



### **CAUTION**

**Check voltages before connecting equipment to power supplies. Wrong voltages applied may result in damage to equipment.**

# Chapter 1 – Introduction

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Thank you for purchase our 4-Port Ethernet USB Wireless-G ADSL2+ Router. The Wireless 4-Port Router allows you to share high-speed broadband connection with multiple PC using a single device wired or wireless.

The 4-Port Ethernet USB Wireless-G ADSL2+ Router can be connected to any computer/notebook with a 10/100 Base-T Ethernet card or USB port for wired connection or an IEEE 802.11b/g Wireless adapter. The Ethernet ports have Auto MDI/MDIX feature which can allows both cross or straight UTP cable to be utilized. The Wireless 4-port Ethernet Router has an in-built IEEE802.11g Wireless LAN Access Point for wireless connectivity.

This documentation assumes that you have already installed an Ethernet card or a wireless adapter on your computer/notebook

## 1.1 Minimum Requirements

- Pentium® MMX 233MHz
- A CD-ROM Drive
- Ethernet card installed with TCP/IP Protocol (required only if you are connecting to the ETHERNET port of your ADSL Router)
- USB port (Required if you are connecting to the USB Port of your ADSL Router)
- IEEE 802.11b/g Wireless adapter (Required if you are connecting to the Wireless Access Point of the router)
- Host Operating Systems support for USB:
  - Windows® 98 Second Edition
  - Windows® Me
  - Windows® 2000
  - Windows® XP
  - Windows® XP x64 Edition
  - Macintosh OS 10.2 & above
- OS independent for Ethernet
- Web Browser support:
  - Microsoft Internet Explorer 4.0 (or later versions)
  - Netscape® Navigator 3.02 (or later versions)

## 1.2 ADSL Router Package

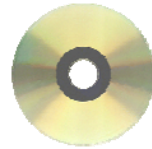
**Fig 1-1** below shows the ADSL Router Package. For any missing items, please contact your dealer immediately.



**Wireless Router**



**Easy Start Manual**



**Utility CD**



**Cat 5 Ethernet Straight Cable**



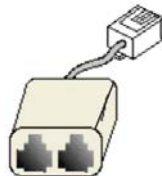
**USB Cable**



**Telephone Cable RJ-11**



**9V Power Adapter**



**POTS-Splitter (Optional)**

**Figure 1-1 : ADSL Router Package**

Depending on your country of purchase, your package may or may not come with a POTS Splitter. The POTS Splitter is required if you are connecting a Telephone Set to the Ethernet Modem. Please refer to [Chapter 2 Section 2.2 - Connecting to the ADSL Line](#) for details. POTS-Splitter can also be purchased from your dealer.



## 1.3 ADSL Router Overview

### 1.3.1 Front Indicators

Fig 1-2 shows the front indicators of the ADSL Router.

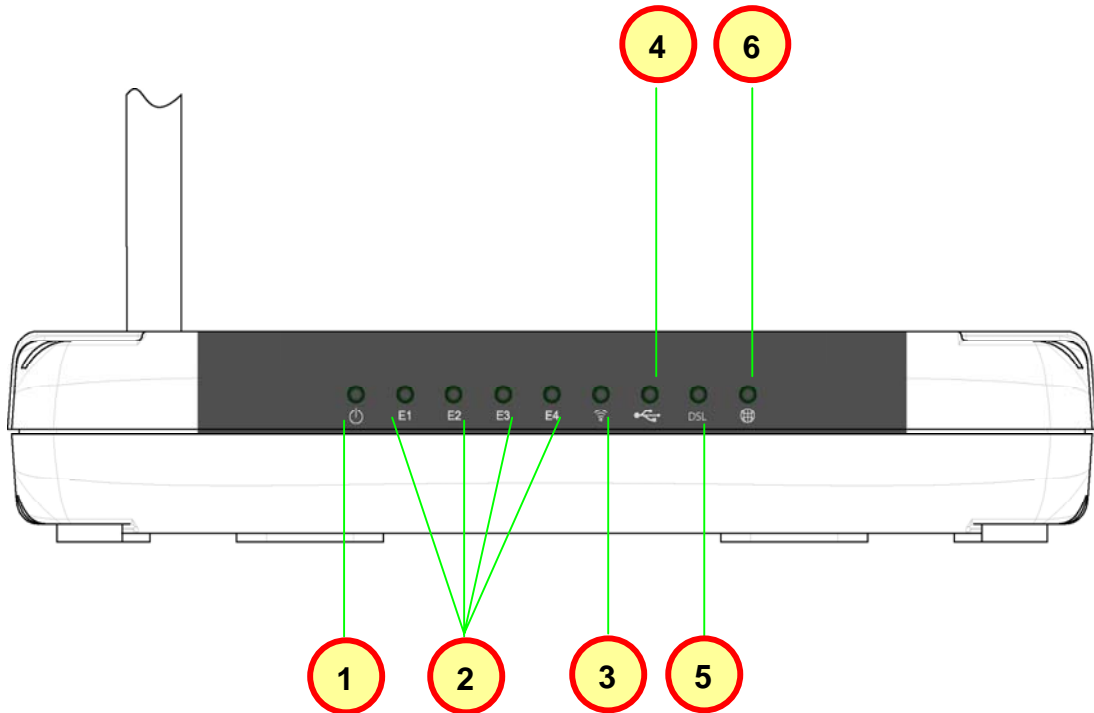
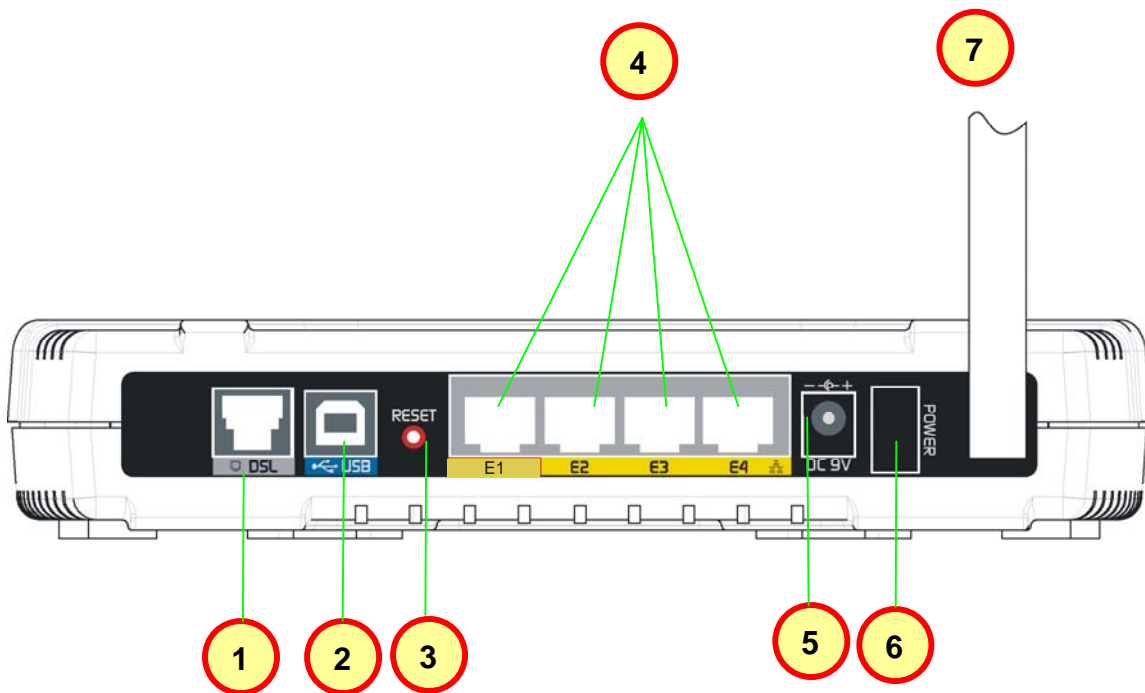


Figure 1-2 : Front Indicators

LED Name	Status & Meaning
1. Power	<b>Lights up</b> when power is supplied to the ADSL Router.
2. Ethernet(E1 - E4)	<b>Lights up</b> when the Ethernet cable is properly connected from your ADSL Router to the Ethernet Card. <b>Flickers</b> when the ADSL is transmitting/receiving data.
3. Wireless	<b>Flickers</b> when the Wireless LAN is operational.
4. USB	<b>Lights up</b> when the USB cable is properly connected from your ADSL Router to the USB slot. <b>Lights Off</b> when the USB cable is not connected or it is properly disconnected.
5. DSL	<b>Lights off</b> when no Telephone jack (RJ-11) is connected. <b>Flickers</b> when the ADSL Router is trying to establish a connection with the ADSL Service Provider (Training). Steady Green LED. <b>Lights up</b> when the ADSL connection is established.
6. Internet	Green LED <b>lights up</b> when the PPP connection is established. <b>Lights off</b> when no PPP connection.

### 1.3.2 Back Panel

Fig 1-3 shows the back panel indicators of the ADSL Router.

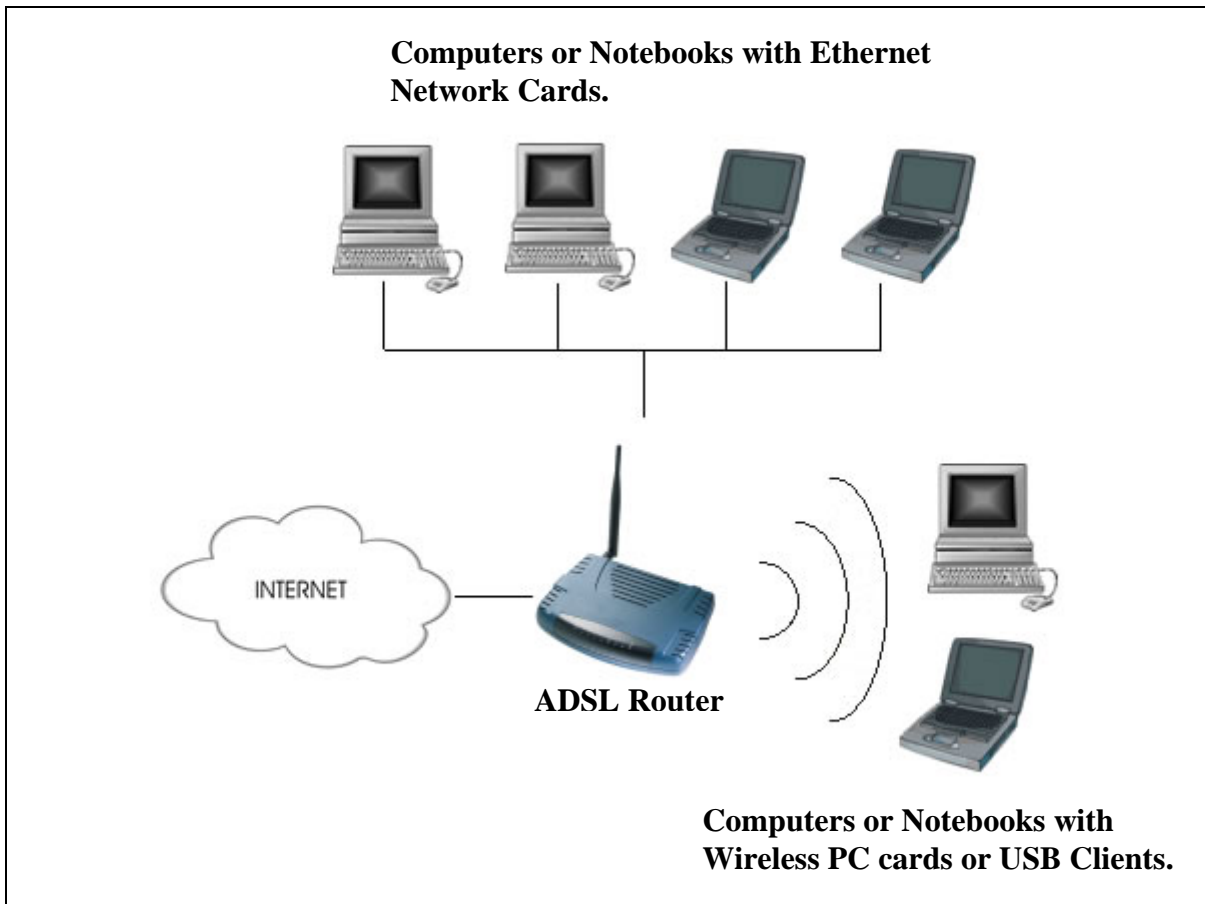


**Figure 1-3 : Back Panel Indicators**

Label	Description
1. <b>DSL</b>	Connect the telephone jack (RJ-11) to your Telephone Wall Socket (DSL line).
2. <b>USB</b>	Connect the USB jack to your PC's USB slot.
3. <b>RESET</b>	To reset the ADSL Router, simply press the reset button for about 10 seconds (all customised settings that you have saved will be lost!).
4. <b>ETHERNET(E1-E4)</b>	10/100 Base-T Auto-MDI/MDIX Ethernet jack (RJ-45) to connect to your PC's Ethernet Network card or Ethernet Hub / Switch.
5. <b>DC 9V</b>	To connect to the Power Adapter that comes with your package.
6. <b>POWER SWITCH</b>	Push downwards to switch ON and lift upwards to switch OFF.
7. <b>RF Antenna</b>	180° 2.4Ghz Wireless Antenna.

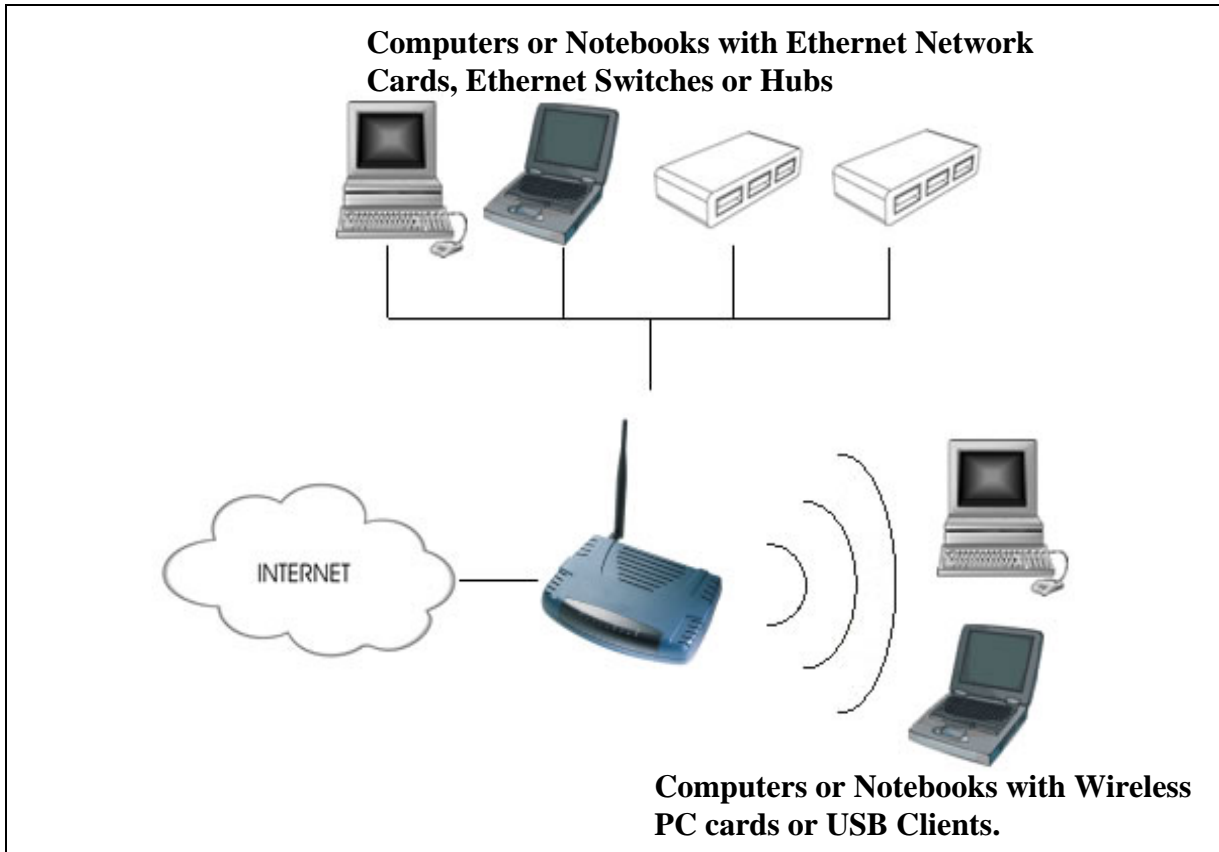
## 1.4 Typical Wireless-G Router Connection

Fig 1-4 below shows up to 4 PCs connections.



**Figure 1- 4 : 4 PCs Connection Diagram**

To connect to more than 4 computers/notebooks, you may further expand one of the Ethernet Ports via an Ethernet Hub/Switch. See **Fig 1-5**. For details on how to connect to the Ethernet Switch/Hub, please refer to the documentation that comes with the unit.



*Figure 1-5 : More than 4 PCs Connection*



**NOTE:** With the Auto MDI/MDIX feature, both cross and straight UTP cable can be utilized.

## Chapter 2 - Connecting the ADSL Router to Your PC / Notebook

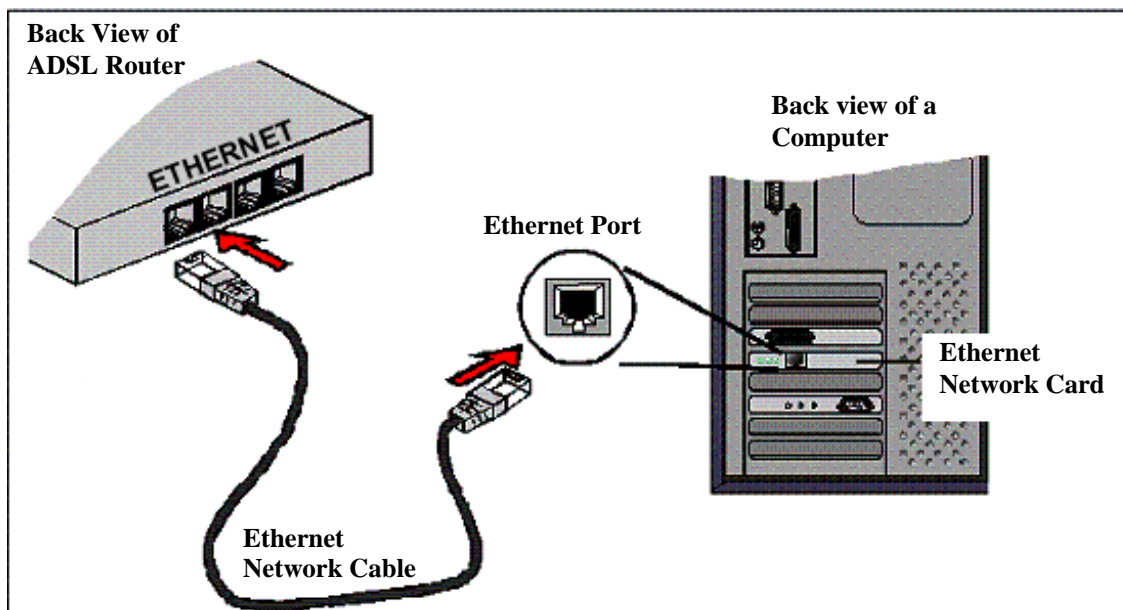


### WARNING !

Power off your Computer/Notebook or/and any connected devices before connecting to the ADSL Router!

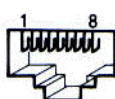
### 2.1 Connecting to the Ethernet

Connect your computer(s)/notebook(s) to the Wireless-G ADSL Router as illustrated. The following illustration shows the connection of a single computer. See **Fig 1-6**.

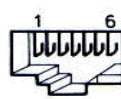


*Figure 1-6 : Connecting to Ethernet*

Do not be mistaken by an Ethernet Port and a Line Port. **Picture A** below illustrates an Ethernet port, whilst **Picture B** shows a Line port.



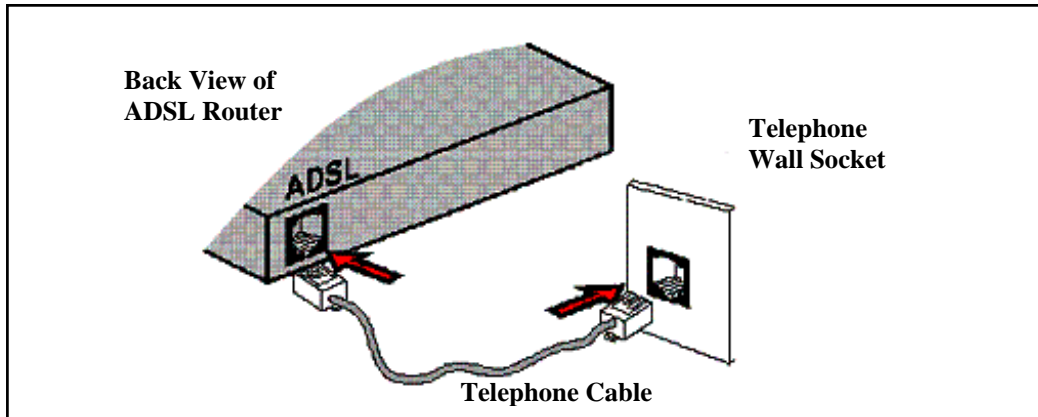
A : ETHERNET



B : LINE

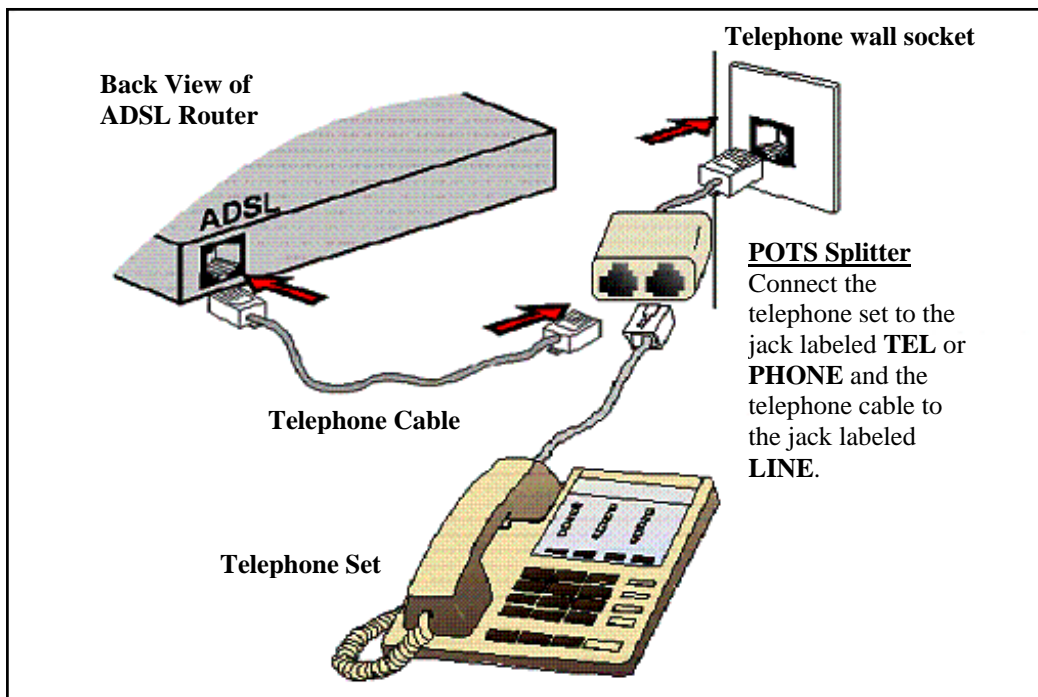
## 2.2 Connecting to the ADSL Line

Fig 1-7 shows the connection of the ADSL Router to the ADSL Line.



*Figure 1-7 : Connecting to the ADSL Line*

Fig 1-8 shows the connection of the ADSL Router Line and Telephone set.



*Figure 1-8 : Connection of ADSL Line & Telephone set*

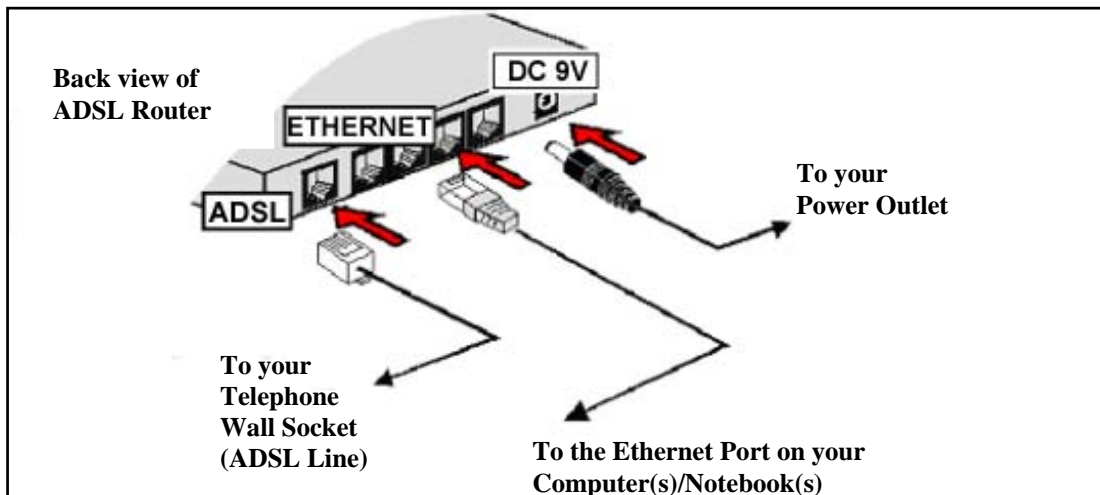
The POTS Splitter (with built-in Microfilter) is a device that allows you to connect both your Telephone cable and Telephone Set to the same Telephone Wall Socket. The device at the same time helps to eliminate background noise on the telephone line, ensuring the best possible phone performance.

## 2.3 Checking Your Connections



**NOTE:** Please check your connections before proceeding.

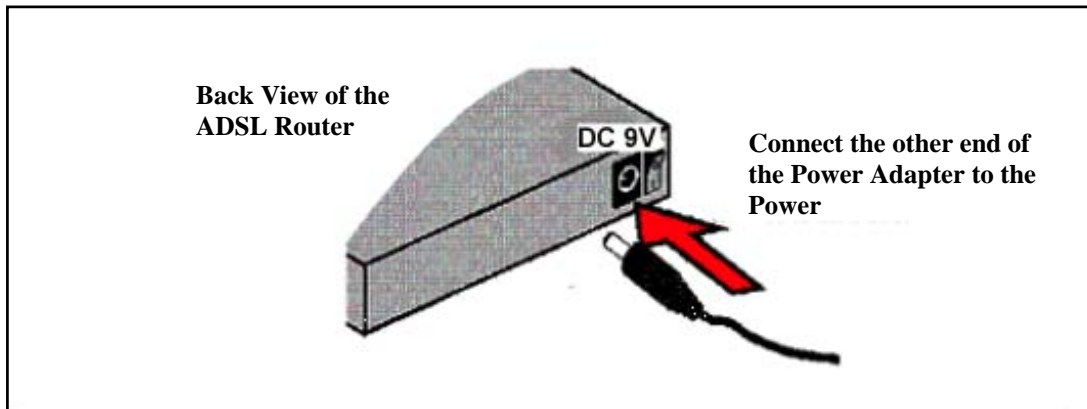
Ensure all connections are carefully plugged in as shown in **Fig 1-9**.



*Figure 1-9 : Checking Connections*

## 2.4 Connecting to the Power Outlet

See **Fig 1-10** for connection to the power outlet.



*Figure 1-10 : Connecting Power Outlet*

## 2.5 Powering ON

- Power ON the Power Outlet that is connected to your ADSL Router.
- Power ON your Computer(s)/Notebook(s).

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## Chapter 3 – Configuring Your Ethernet Network Card

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If your computer/notebook is connected to the Ethernet Port of the ADSL Router, proceed with the following instructions. If your computer/notebook is connected to the USB Port of the ADSL Router, proceed with [Chapter 4](#).

The illustrated screen shots serve only as examples. For any dissimilarity, please follow the instructions closely as prompted on your Computer.

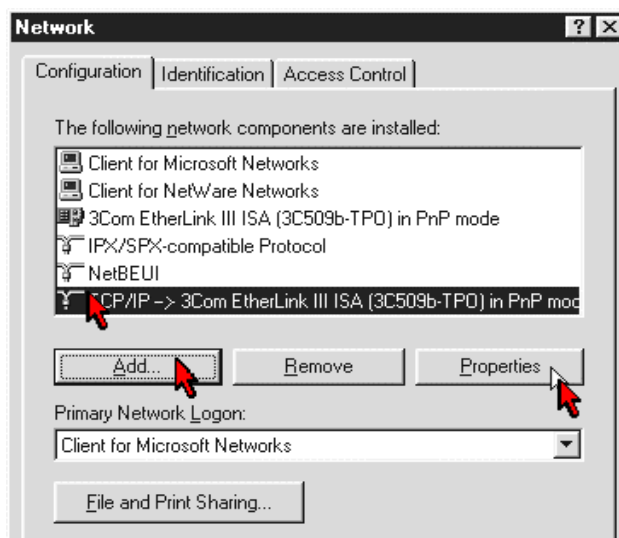


**NOTE:** Proceed with the following **ONLY** if your computer/notebook is connected to the Ethernet Port of your ADSL Router.

### 3.1 For Windows® 98 Second Edition / Windows® Me

Proceed with the steps below:

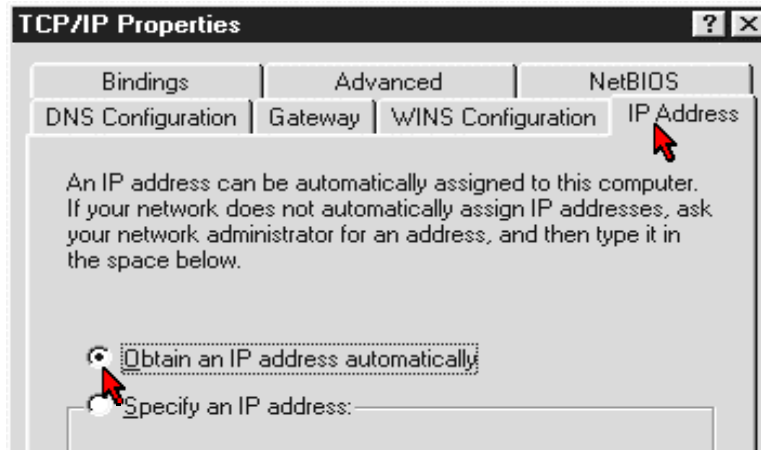
1. From your Windows desktop, right-click on the Network Neighborhood icon. Select Properties.
2. From the **Configuration tab**, select **TCP/IP->** xxx where xxx refers to the model of your Ethernet Card that is connected to your ADSL Router.
3. Click **Properties** as shown below in **Fig 1-11**.



**Figure 1-11 : Network settings**



4. Click the **IP Address** tab.
5. Select the option **Obtain an IP address automatically** and click **OK** to save the settings. See **Fig 1-12**



*Figure 1-12 : TCP/IP Properties*

6. Ensure that your ADSL Router is powered ON.
7. Restart your system.
8. Proceed to [Chapter 5](#).

### 3.2 For Windows<sup>®</sup> 2000 / Windows<sup>®</sup> XP

Windows<sup>®</sup> 2000:

- a. From your Windows desktop, right-click on the icon **My Network Places** and select **Properties**.
- b. At the Network and Dial-up Connections window, right-click on the **Local Area Connection** icon and select **Properties**.

Windows<sup>®</sup> XP: (Instructions are based on default Start menu option)

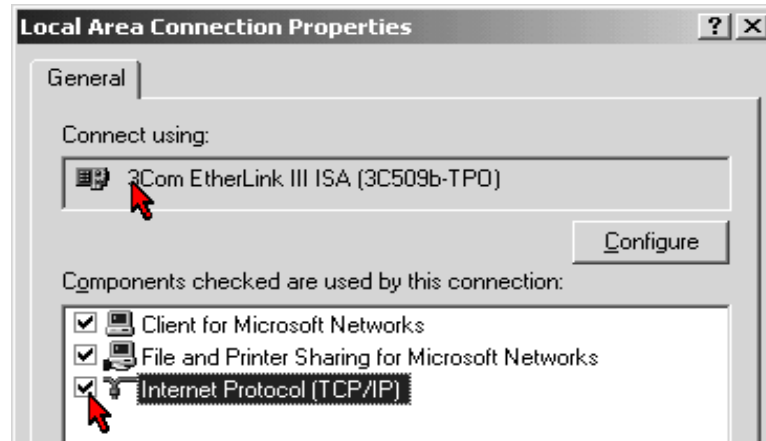
- a. From your Windows desktop, click **Start > Programs > Accessories > Communications > Network Connections**.
- b. Right-click on the Local Area Connection icon that reflects the model of your Ethernet Card that is connected to your ADSL Router and click Properties.

Ensure that the field **Connect Using** indicates the model of your Ethernet Card that is connected to your ADSL Router. See **Fig 1-13**.



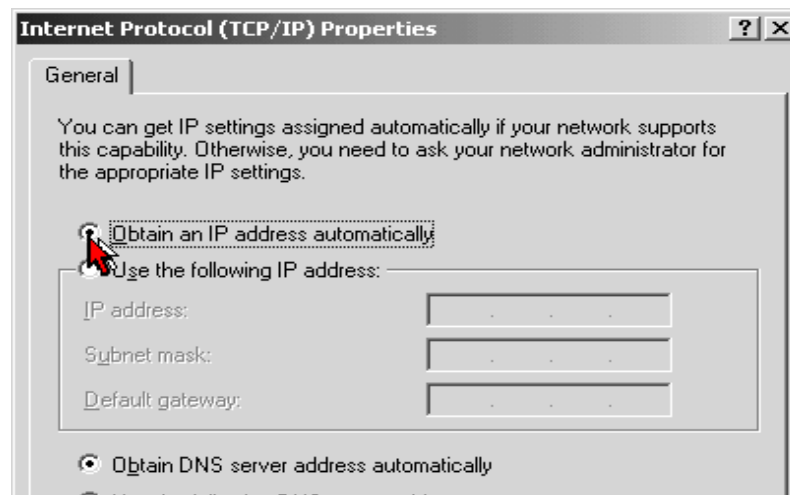
**NOTE:** This is important especially if you have more than one Local Area Connection icons displayed at the Network and Dial-up Connections / Network Connections window. Ensure that you have selected the correct one.

1. Select **Internet Protocol (TCP/IP)** and click **Properties**. See **Fig 1-13**.



**Figure 1-13 : Local Area Connection properties**

2. Select the option **Obtain an IP address automatically** and click **OK**. See **Fig 1-14**.



**Figure 1-14 : TCP/IP Properties**

3. Click **OK** again to close.
4. Ensure that your ADSL Router is powered ON.
5. Restart your system.
6. Proceed to [Chapter 5](#).

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## Chapter 4 - Installing your USB Driver

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Setup utility will install the USB driver automatically. If it fails to install, follow the steps below for USB installation. Proceed with this section **ONLY** if your computer/notebook is connected to the USB Port of your ADSL Router. The following screen shots illustrated serve only as examples. For any dissimilarity, please follow closely the instructions prompted on your Computer/Notebook.

For Windows® 98 Second Edition users, you may be prompted for your Windows CD-ROM. Have it ready by your side.

### 4.1 For Windows® 98 Second Edition

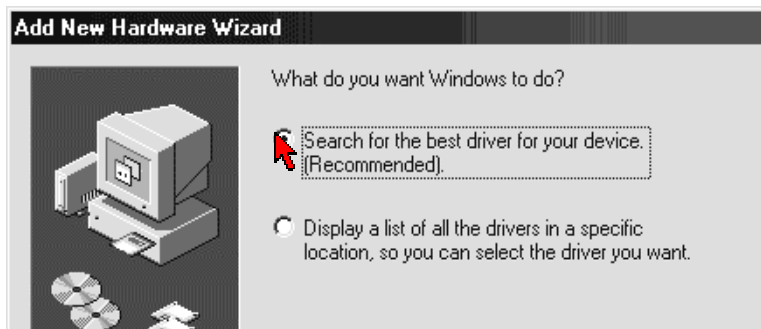
Proceed with the steps below:

1. Power ON your computer to start the Windows Operating System.
2. Insert the **Installation CD** into your CD-ROM Drive.
3. At the prompt click **Next**. See Fig 1-15.



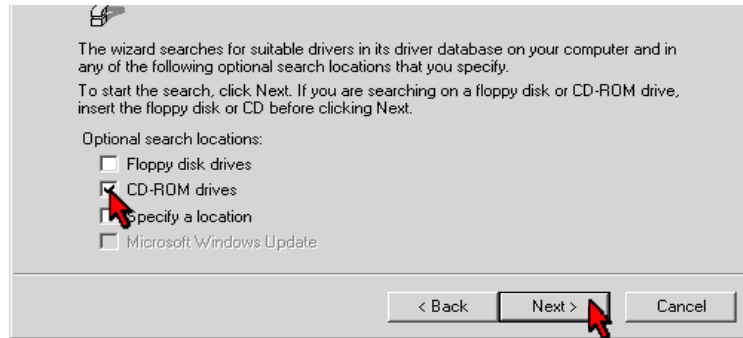
**Figure 1-15 : Add New Hardware Wizard Prompt**

4. Select **Search for the best driver for your device (Recommended)** option and click **Next**. See Fig 1-16.




**Figure 1-16 : Driver Search**

5. Select on CD-ROM drives option and click **Next**. See **Fig 1-17**.



**Figure 1-17: CD-ROM Selection**

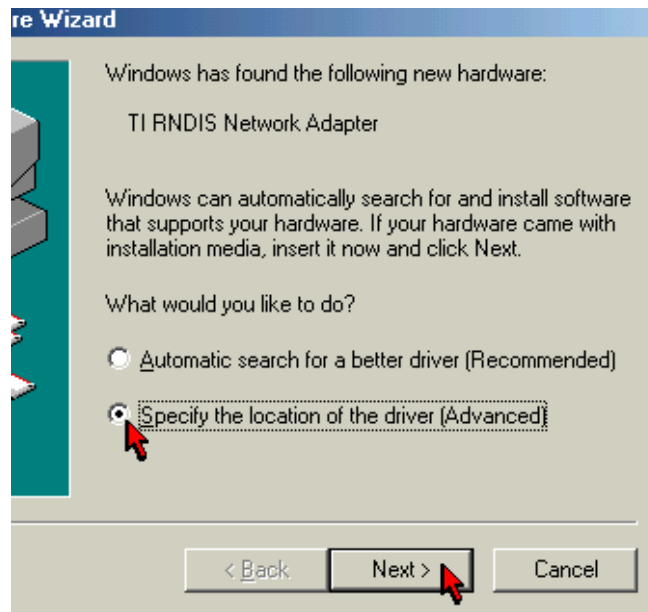
 **NOTE:** Depending on your system's configuration, you may be prompted for your Windows CD-ROM during installation. At the prompt, replace the Installation CD in your CD-ROM Drive with your Windows CD-ROM and click OK. At the Copying Files dialog box, enter the path of your Windows CD-ROM and click OK.

6. Click **Finish** to complete the USB driver installation.
7. Restart your system when prompted.
8. Proceed to [Chapter 5](#).

## 4.2 For Windows® Me

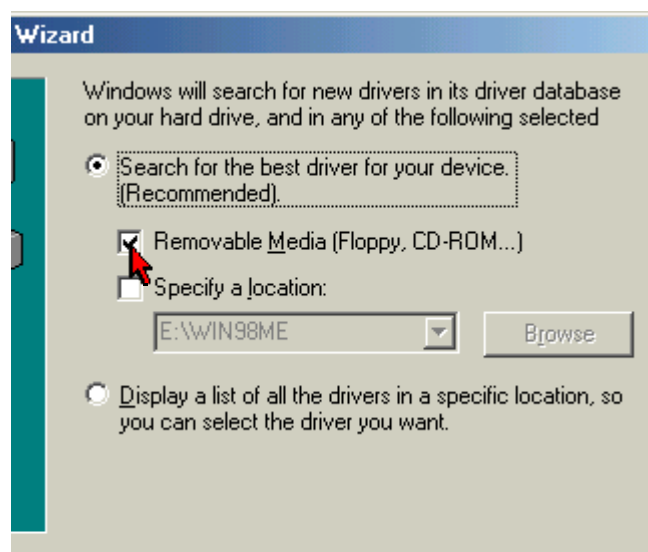
Proceed with the steps below:

1. Power ON your computer to start the Windows Operating System.
2. Place the **Installation CD** into your CD-ROM Drive.
3. At the following prompt, select **Specify the location of the driver (Advanced)** option and click **Next**. See **Fig 1-18**.



**Figure 1-18 : Specifying Driver Location**

4. Click **Removable Media** option and click **Next**. See **Fig 1-19**.



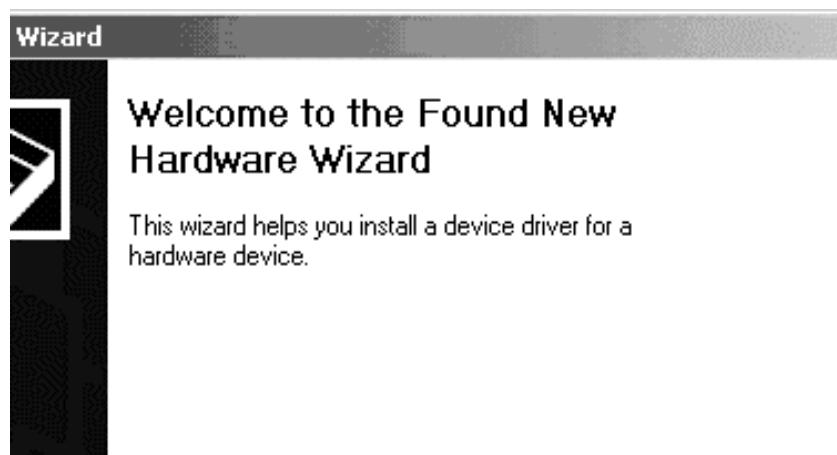
**Figure 1-19 : Driver Location**

5. Click **Next** again to proceed installation with the indicated driver.
6. Click **Finish** to complete the USB driver installation.
7. Restart your system when prompted.
8. Proceed to [Chapter 5](#).

### 4.3 For Windows® 2000

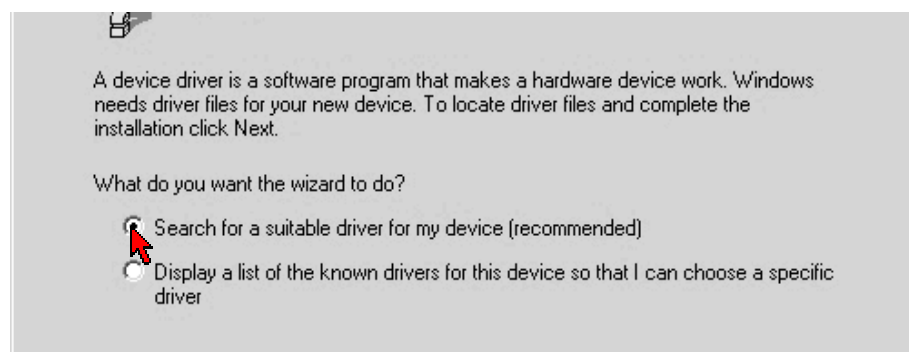
Proceed with the steps below:

1. Power ON your computer to start the Windows Operating System.
2. Place the Installation CD into your CD-ROM Drive.
3. At the prompt click **Next**. See **Fig 1-20**.



*Figure 1-20 : Hardware wizard*

4. Select **Search for a suitable driver for my device (recommended)** option and click **Next**. See **Fig 1-21**.



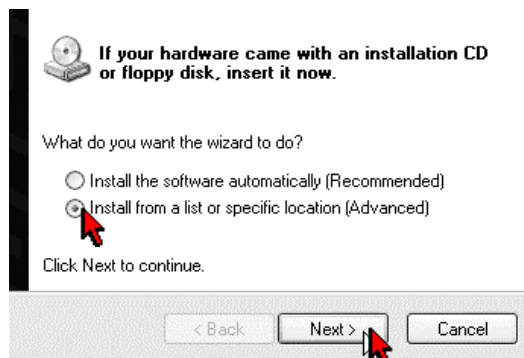
*Figure 1-21 : Search Driver*

5. Click **CD-ROM drive** option and click **Next**.
6. At the next prompt, click **Next** to proceed installation with the indicated driver.
7. You may be prompted with **Digital Signature Not Found** dialog box during installation. (This happens when Windows detects your driver has a new version).
8. Click **Yes** to proceed with the installation.
9. Click **Finish** when prompted.
10. Proceed to [Chapter 5](#).

## 4.4 For Windows® XP

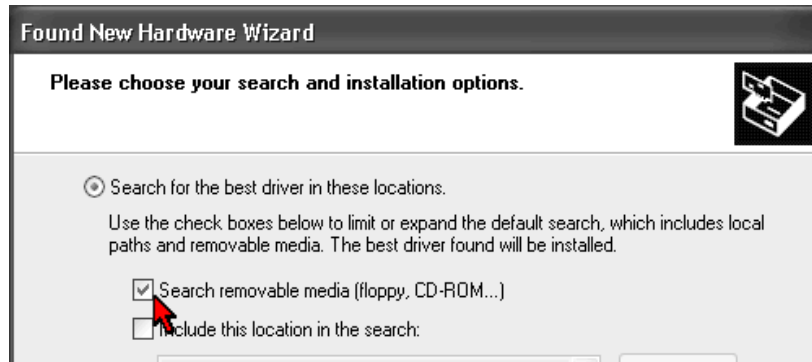
Proceed with the steps below:

1. Power on your computer to start Windows.
2. Place the **Installation CD** into your CD-ROM Drive.
3. At the prompt shown below in **Fig 1-22**, select **Install from a list or specific location (Advanced)** option and Click **Next**.



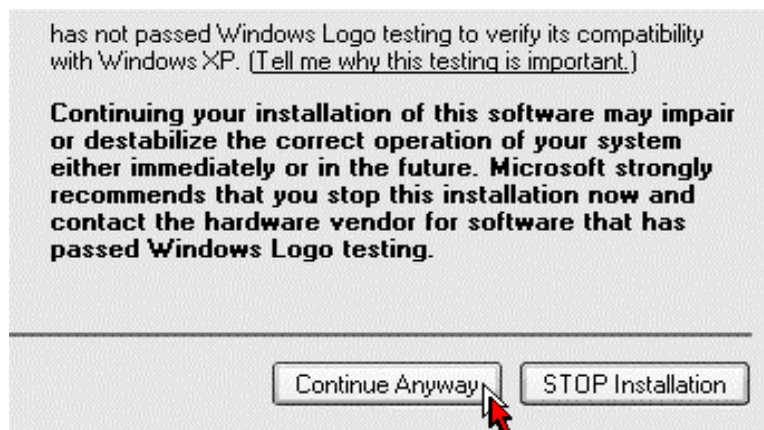
**Figure 1-22 : Installation from Location**

4. Select **Search removable media** option and click on **Next**. See **Fig 1-23**.



**Figure 1-23 : Search removable media**

5. You may be prompted with Hardware Installation dialog box. (This happens when Windows detects your driver as a new version).
6. Click **Continue Anyway** to proceed with the installation. See **Fig 1-24**.



**Figure 1-24 : Driver New Version prompt**

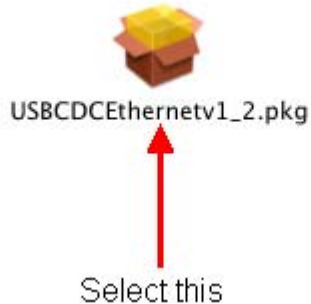
7. Click **Finish** when prompted.
8. Proceed to [Chapter 5](#).



## 4.5 For Mac® OS 10.2 & above

Proceed with the steps below:

1. Power on your computer to start Mac OS X (V10.2 & above).
2. Place the **Installation CD** into your CD-ROM Drive.
3. Access to the CD-ROM drive and double-click on **Mac** folder. Select **USBCDCEthernetv1\_2.pkg** file and open, as shown in **Fig 1-25**.



**Figure 1-25 : Installation from Location**

4. A Macintosh® Administrator authentication window will be prompted. Enter your administrator login Name and Password or phrase. Click on OK to proceed. See **Fig 1-26**.



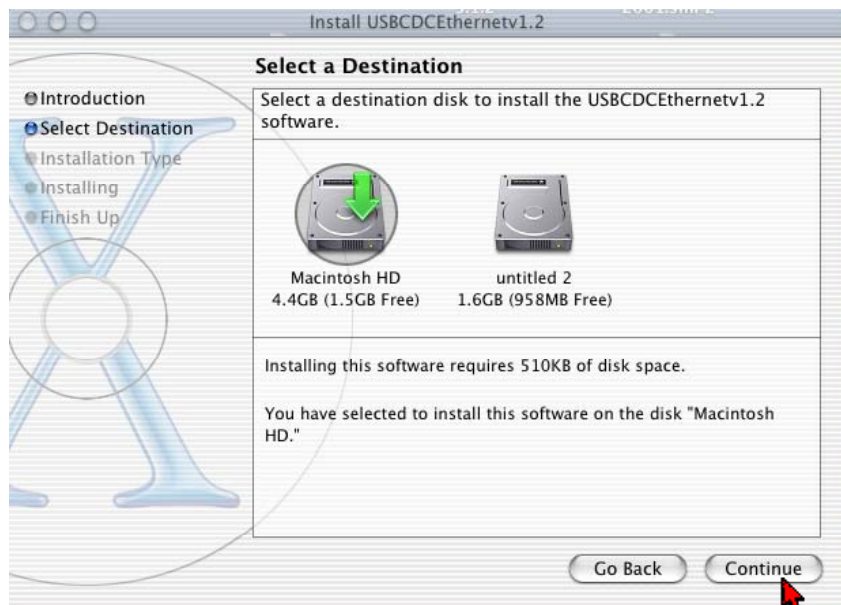
**Figure 1-26 : Authentication**

5. Installation program will start. Click Continue to proceed with the installation. See **Fig 1-27**.



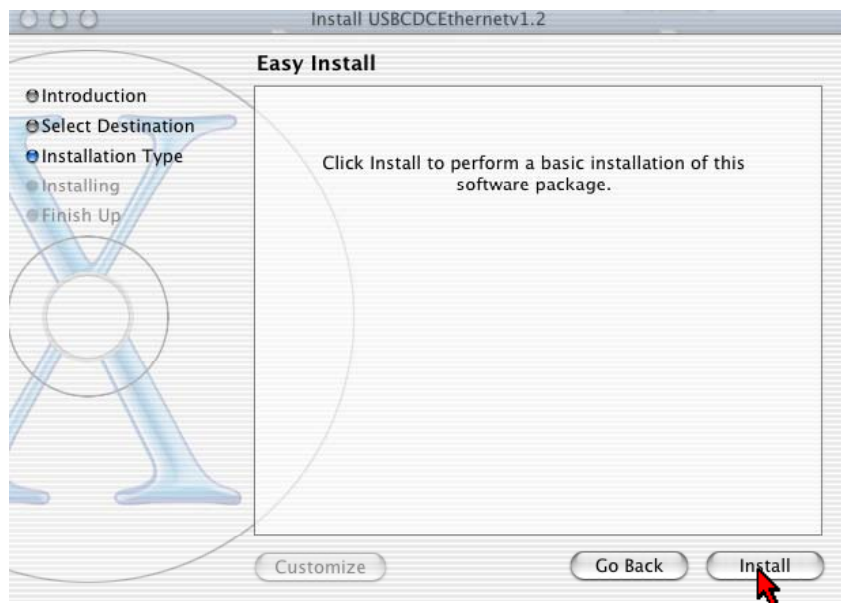
**Figure 1-27 : Installation program**

6. Select a destination disk to install the software. Click **Continue** to proceed with the installation. See **Fig 1-28**.



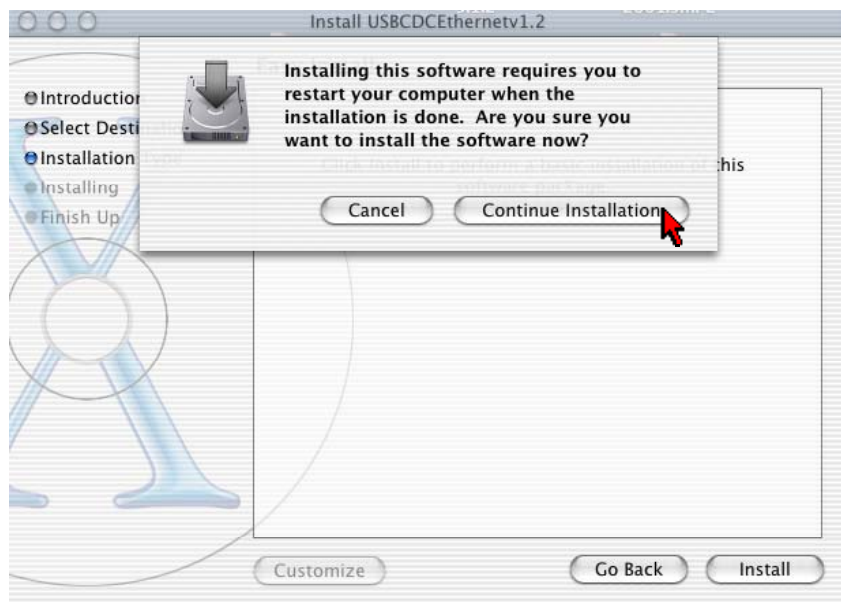
**Figure 1-28 : Select destination disk**

7. Click **Install** to perform the installation. See **Fig 1-29**.



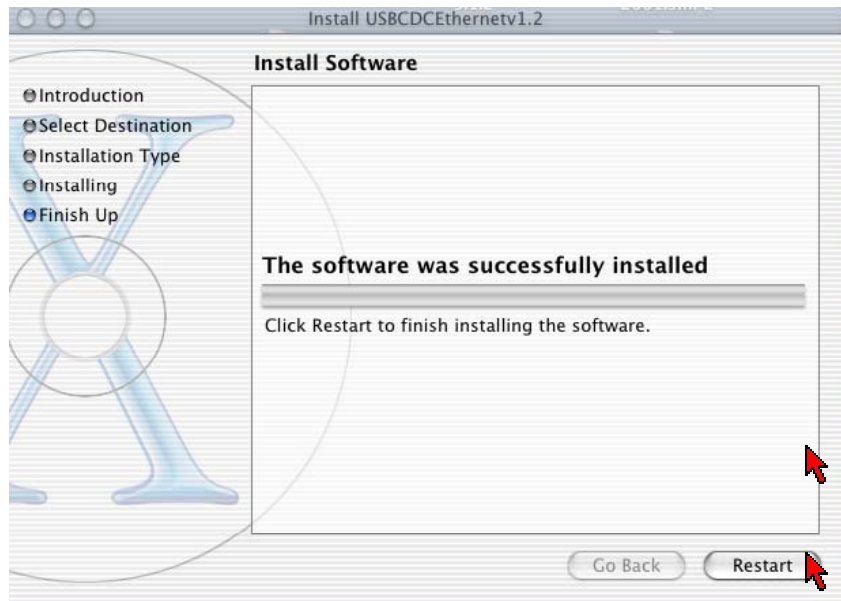
**Figure 1-29 : Easy Install**

8. The system will prompt you to restart your computer when installation is completed. Click **Continue Installation** to proceed. See **Fig 1-30**.



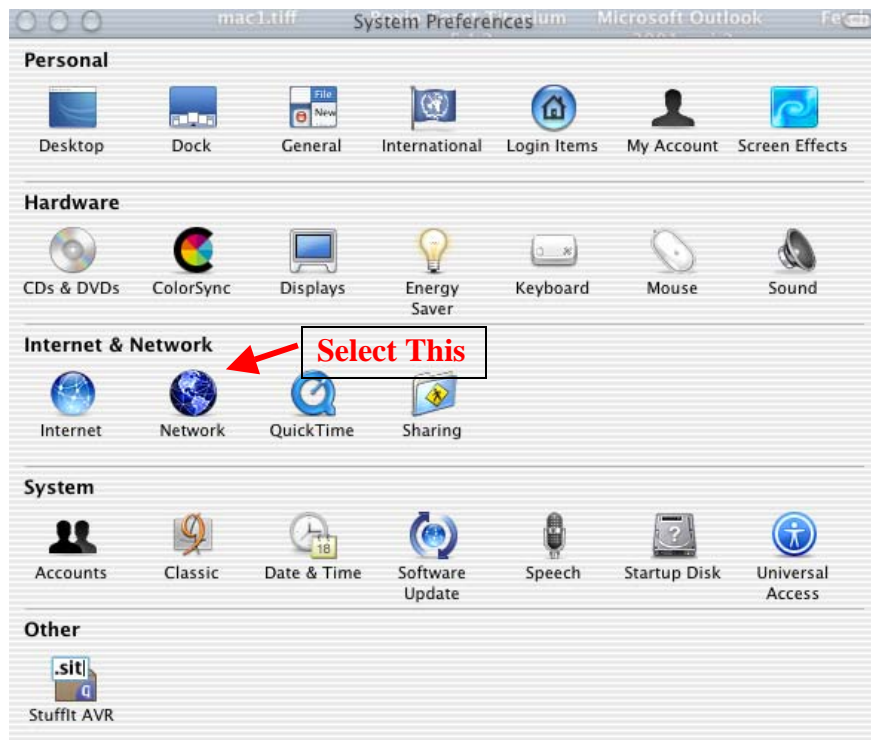
**Figure 1-30 : Continue Installation prompt**

9. Click **Restart** to finish installing the software. See **Fig 1-31**.



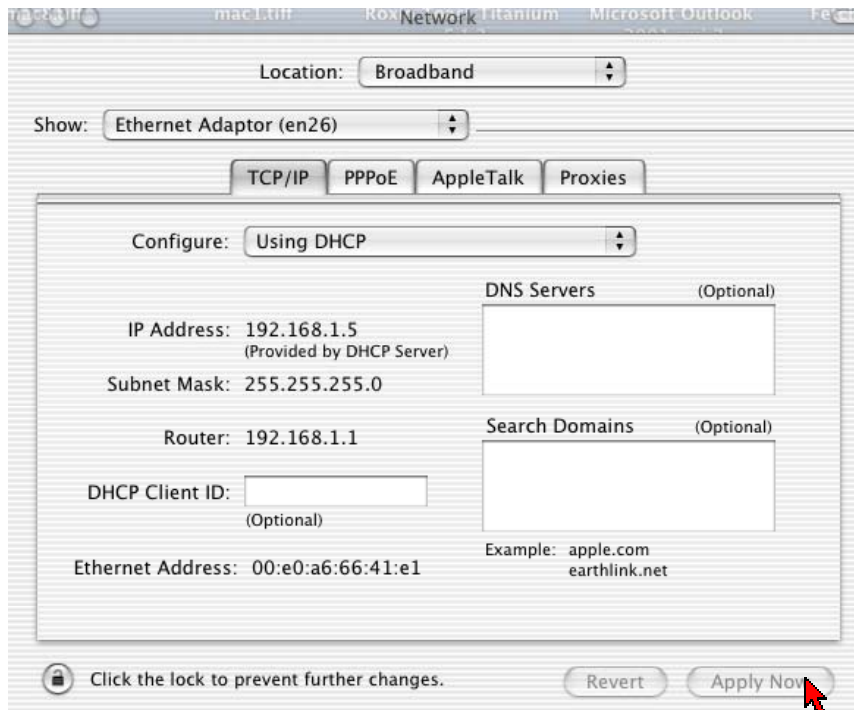
**Figure 1-31 : Software installed successfully**

10. The system will bootup upon restart. Select **System Preferences** from the dock. Select **Network** to choose the network adaptor connected to the router. See **Fig 1-32**.



**Figure 1-32 : System Preferences**

11. Select **Ethernet Adaptor (enXX)** as your adaptor under **Show** option. Your IP Address, subnet mask, router IP should appear. See **Fig 1-33**.



**Figure 1-33 : Network settings**

12. Proceed to [Chapter 7](#).

## Chapter 5 – Configuring Your Internet Browser

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### 5.1 Microsoft® Internet Explorer™ (based on IE 5.5)

1. From your Windows desktop, double-click on your **Internet Explorer** icon to launch your Browser.



2. From the Menu, click **Tools** and select **Internet Options...** .
3. Select the **Connection** tab. Click the field, '**Never dial a connection**'. (This option will be grayed off if you have not installed an analog modem on your computer/notebook before.
4. Click the **LAN Settings...** button. Ensure that your **Proxy Server** is not enabled.
5. Click **OK** to close the dialog box.
6. You may now proceed to [Chapter 6](#).

### 5.2 Netscape Navigator


1. From your Windows desktop, double-click on your **Navigator** icon to launch your Browser.



2. Click **Options > Network Preferences**.
3. Select **Proxies**. Ensure that the **No Proxies** option is selected. *OR*
4. Click **Edit > Preferences**.
5. Select **Advanced** and click **Proxies**. Ensure that the option **Direct Connection to the Internet is enabled**.
6. Click **OK** for changes to take effect.
7. You may now proceed to [Chapter 6](#).

## Chapter 6 – Router Setup Utility

(For Windows 98 SE/ ME/ 2000/ XP Users Only)


 **NOTE:** This chapter is for Windows User only. Please use the Setup Utility Installation CD provided to setup the USB driver, Internet connection and wireless Access Point. For Windows 98 SE user, you may be prompted for your Windows CD-ROM during installation. At the prompt, replace the Installation CD in your CD-ROM Drive with your Windows CD-ROM and click OK.

### 6.1 Running Setup Utility

Insert the Setup Utility CD into the CD-ROM drive. The utility will auto-run and the screen as shown below will appear. (Note: If it does not auto-run, access to the CD-ROM drive and execute **Setup.exe**). Pictures of different router models will appear when you position the mouse cursor over the available options. Select **ADSL2+ WirelessG 802.11g Router** to begin setup. See **Fig 1-34**.



*Figure 1-34 : Setup Utility – Select Router Model*

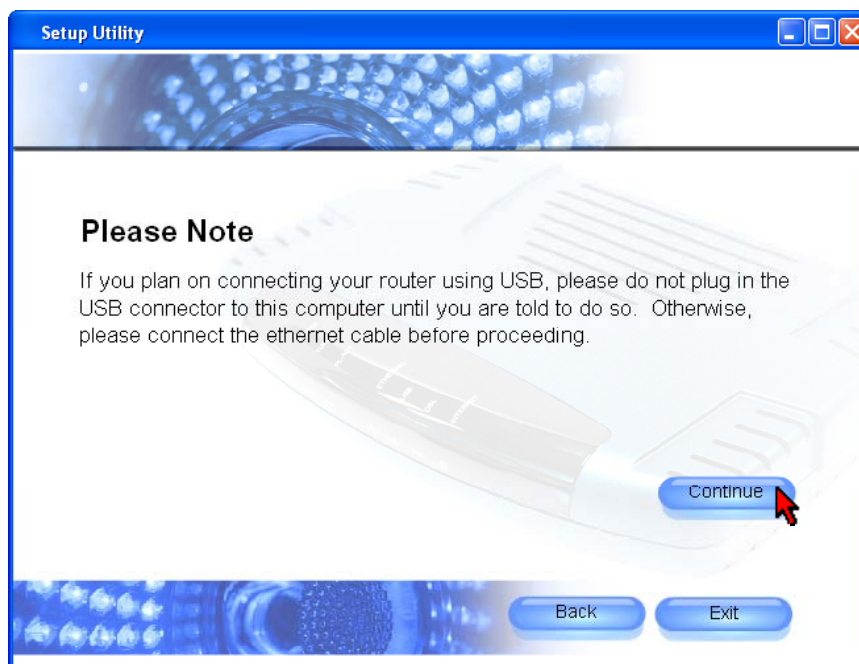
 **NOTE:** Do not plug in your USB cable before running the setup utility. Plug in only when prompt to do so. Otherwise connect the Ethernet cable before proceeding.

Upon clicking “**ADSL2+ WirelessG 802.11g Router**”, the **Welcome** wizard screen will appear. If you are setting up your Wireless-G Router for the first time, please click “**Setup Wizard**” to setup your DSL router. See **Fig 1-35**.



**Figure 1-35 : Welcome Screen**

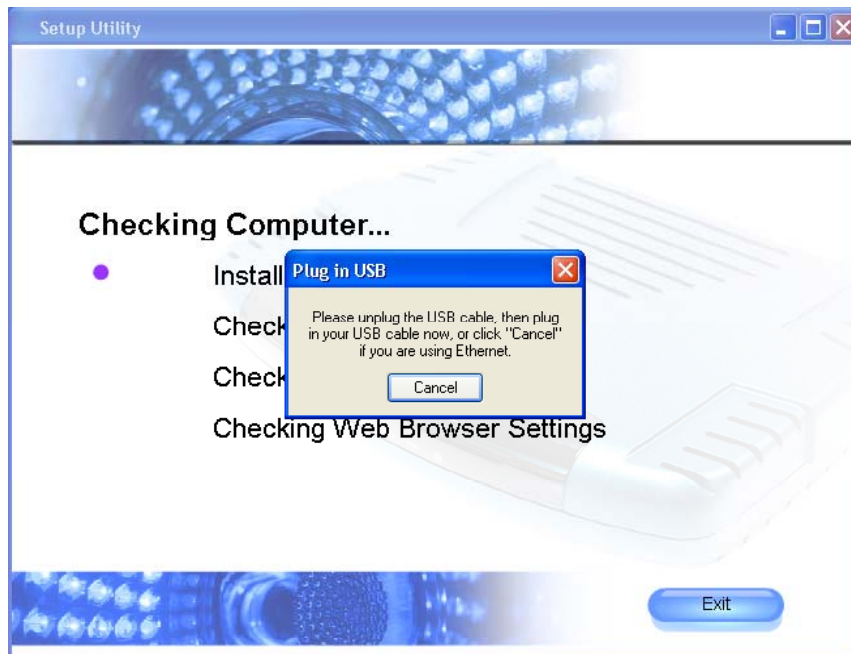
If you are connecting your router using USB, **do not plug in the USB connector** until the system prompts you to do so. Otherwise, connect the Ethernet cable before proceeding. Click “**Continue**” to start the installation process. See **Fig 1-36**.



**Figure 1-36 : Important Note**

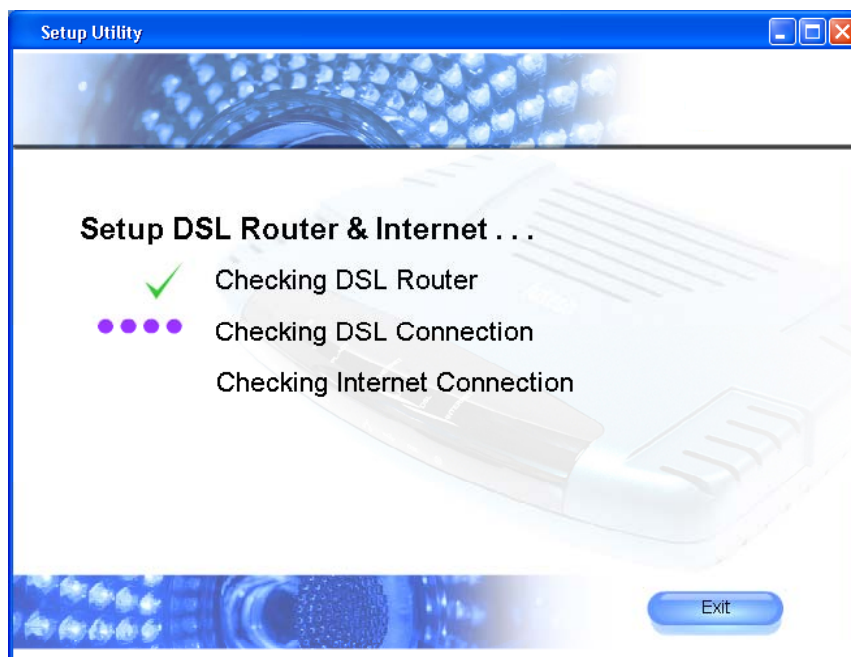


Setup Wizard will proceed to install the USB driver. **Plug in USB cable when prompted** (For Windows XP Professional x64 Edition, refer to [Chapter 6.2](#)). If you are using Ethernet cable, click “**Cancel**”. At this point, **plug in your telephone cable**. See [Fig 1-37](#). Remember to switch on the power of your router!



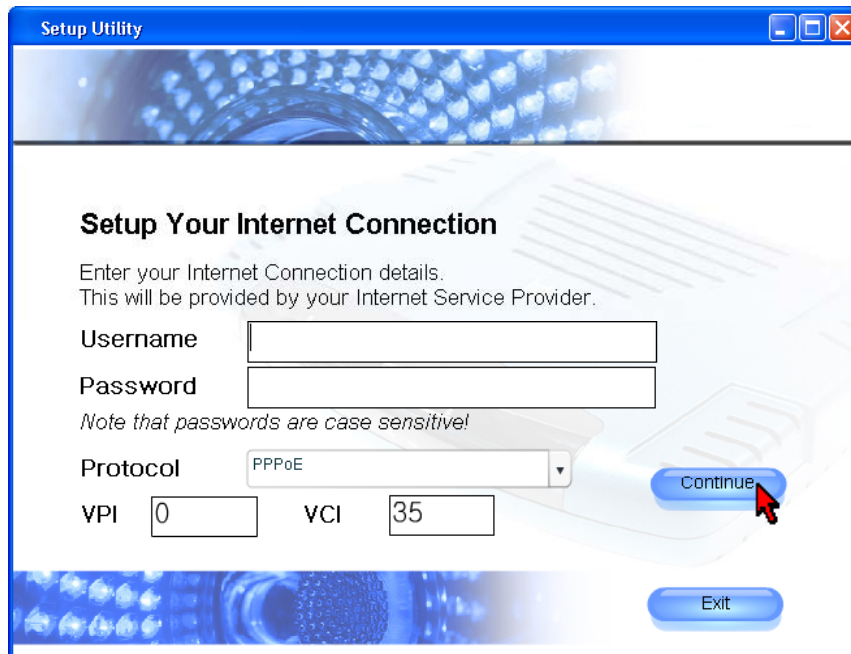
*Figure 1-37 : Driver Installation*

Setup Wizard will begin to check your router and DSL connection. See [Fig 1-38](#).



*Figure 1-38 : Setup in progress*

You need to enter the **Username**, **Password**, **VPI** and **VCI** provided by your ISP to connect to the Internet (please contact your ISP if you are not aware of the details for VPI, VCI Username and password). You need to select the protocol. Click “**Continue**” to proceed. See **Fig 1-39**.



**Setup Your Internet Connection**

Enter your Internet Connection details.  
This will be provided by your Internet Service Provider.

Username

Password

*Note that passwords are case sensitive!*

Protocol

VPI  VCI

**Figure 1-39 : Internet Connection Setup**

You can choose to enable or disable wireless access point, and hide SSID. Enter a unique **SSID** for your access point. When security is enabled you will be able to manually enter a **10 digits** or **26 digits HEX** (0-9 and a-f) WEP key. Alternatively, you can select **5 characters** or **13 characters ASCII** WEP key. Select your wireless channel and country type to configure your wireless settings. Click “**Continue**” to proceed. See **Fig 1-40**.



**Setup Your Wireless Access Point**

Enable Access Point  Hide SSID

SSID

Security

Key

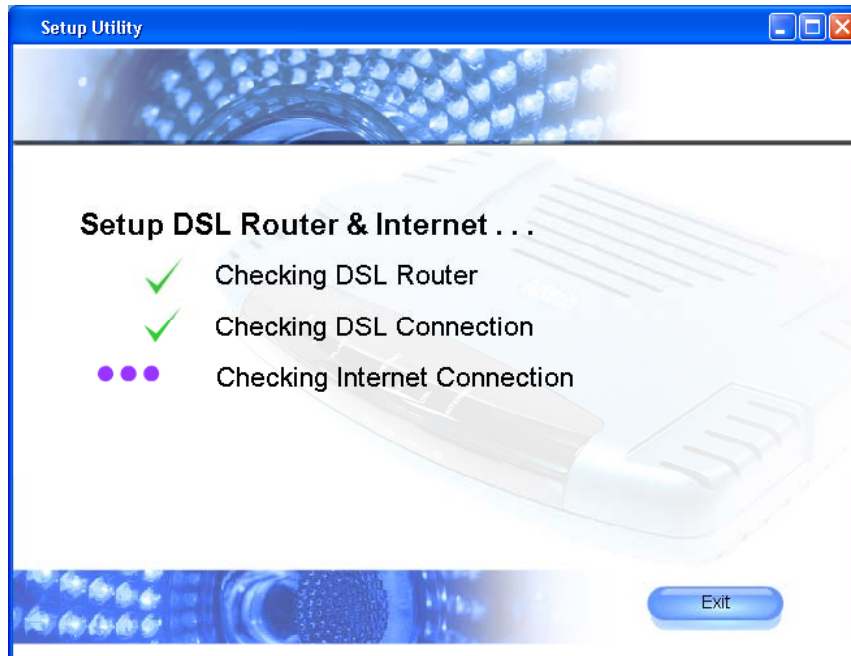
Channel  Country

**Figure 1-40 : Wireless Access Point Setup**



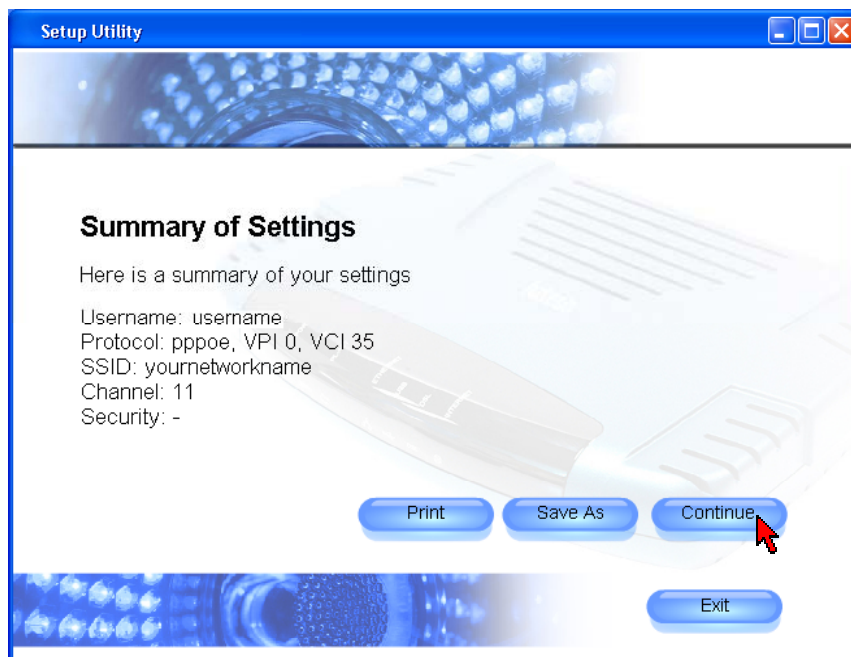
**NOTE:** For better security, you may choose to hide the SSID of your wireless-G router from broadcasting to available clients. However you must manually set your wireless client with the same SSID.

Setup wizard will try to connect to the Internet. See **Fig 1-41**.



**Figure 1-41 : Setup in Progress**

Upon successful connection, a summary of your settings will be displayed. You can choose to print or save the settings. To print, you need to have a printer installed. Click “**Continue**” to proceed. See **Fig 1-42**.



**Figure 1-42 : Summary of Settings**

The setup is complete and you are now able to browse the Internet. Click on the cube to browse the Internet. Click **Exit** to close the setup utility. See **Fig 1-43**.



**NOTE:** Keep the Setup Utility CD safely for future use.



**Figure 1-43 : Successful Connection**

If you have trouble connecting your router to the Internet, click **Diagnostics** to troubleshoot. For more information, click **View Manual** on the [Welcome screen Fig 1-35](#).

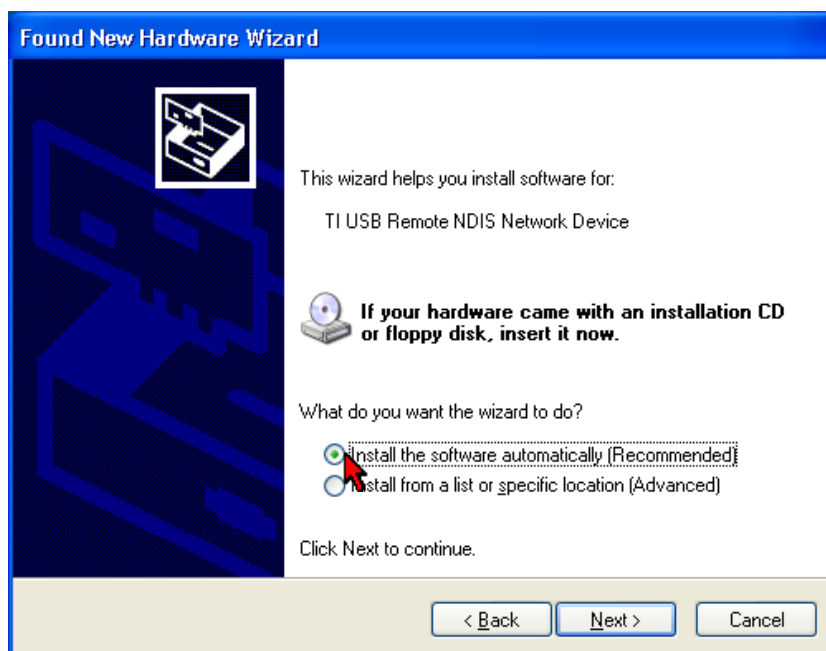
## 6.2 Microsoft® Windows XP Professional x64 Edition

Upon plugging in your USB cable at the system's prompt, a **Found New Hardware Wizard** dialog box will appear. Select **No, not this time** and click **Next**. See **Fig 1-44**.



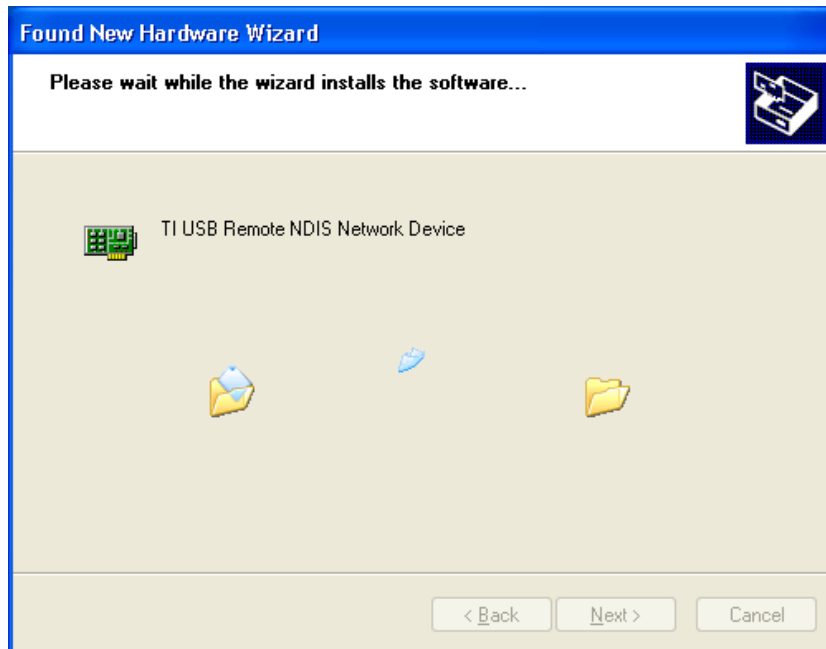
*Figure 1-44 : Found New Hardware Wizard*

Select **Install the software automatically (Recommended)** and click **Next**. See **Fig 1-45**.



*Figure 1-45 : Install Software Automatically*

Please wait until the wizard installs the USB driver. See **Fig 1-46**.



**Figure 1-46 : Installation in progress**

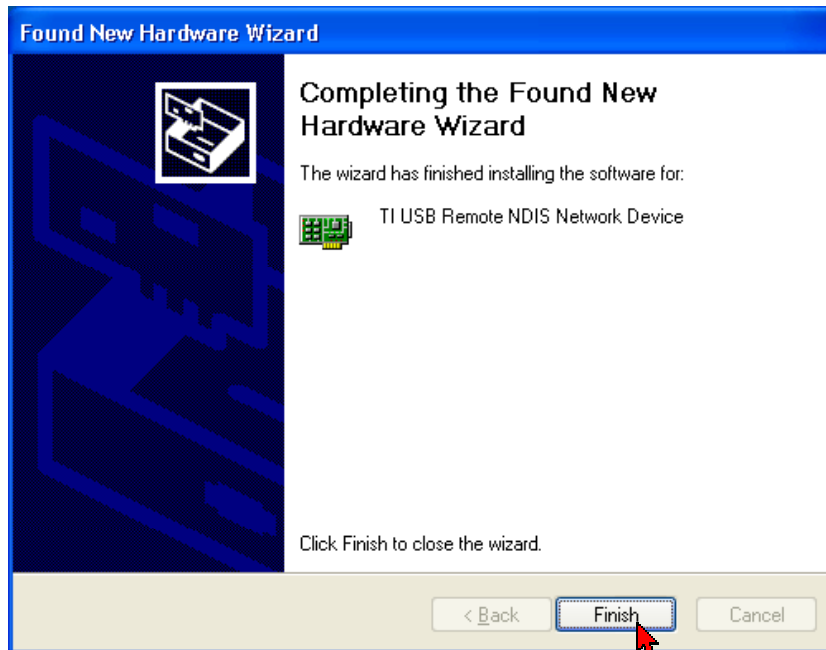
You may be prompted with Hardware Installation dialog box. (This happens when Windows detects your driver as a new version).

Click **Continue Anyway** to proceed with the installation. See **Fig 1-47**.



**Figure 1-47 : Driver New Version prompt**

After installation of USB driver has completed, click **Finish**. See **Fig 1-48**.

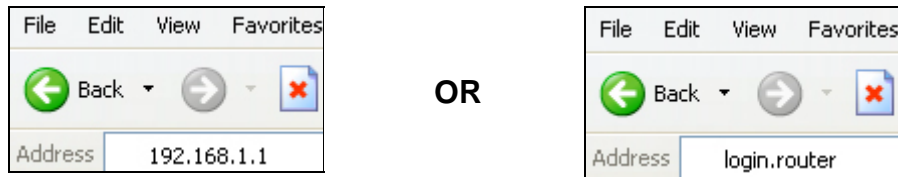


**Figure 1-48 : Installation Complete**

Setup utility will resume to check your router and DSL connection, and try to connect to the Internet. Refer back to [setup in progress in Chapter 6.1](#).

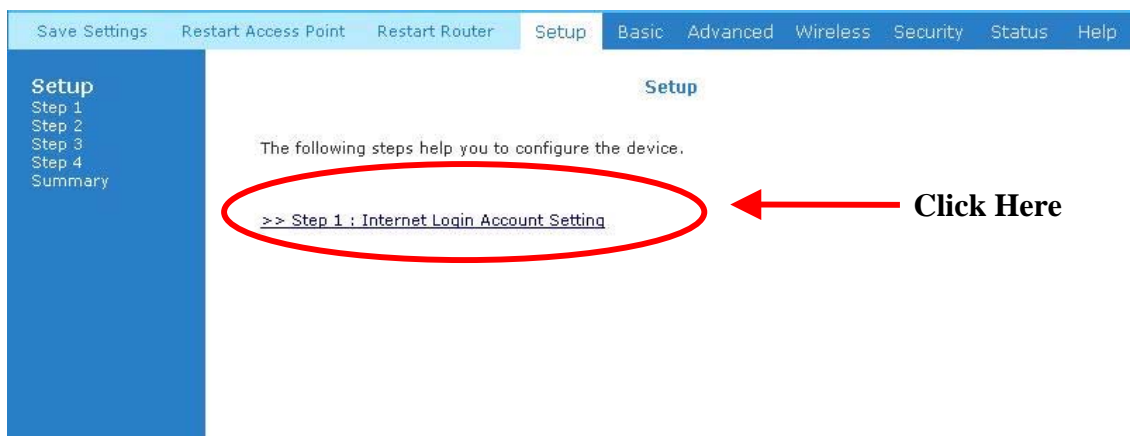
## Chapter 7 – Setup Wireless-G Router via Websetup Wizard

- a) From your Internet Browser, key in **192.168.1.1** or **login.router** at the address bar and hit **<Enter>** . See **Fig 1-49**.



*Figure 1-49 : Logging-In*

Upon Login successfully, the Setup Wizard page will be displayed. Click on **>> Step 1**. See **Fig 1-50**.



*Figure 1-50 : Setup Page*



You need to enter the **Username**, **Password**, **VPI** and **VCI** provided by the ISP. Click on **Next**. See **Fig 1-51**.

The screenshot shows the 'Internet Login Account Setting' page. The navigation bar includes 'Save Settings', 'Restart Access Point', 'Restart Router', 'Setup', 'Basic', 'Advanced', 'Wireless', 'Security', 'Status', and 'Help'. The left sidebar shows 'Setup' with sub-items 'Step 1', 'Step 2', 'Step 3', 'Step 4', and 'Summary'. The main content area has the title 'Internet Login Account Setting' and a note: 'This information should be provided by your Internet Service Provider.' The form includes:
 

- User ID:  (Example: user@ispname)
- Password:  (Provided by your ISP.)
- Protocol:
- VPI:
- VCI:

 At the bottom, there are navigation buttons: '<< Previous', 'To continue, please click Next.', and 'Next >>'. A red box highlights the User ID, Password, and VPI/VCI fields. A red arrow points to the 'Next >>' button, which is also circled in red. The text 'Enter These Fields' is written next to the red box, and 'Click Here' is written below the 'Next >>' button.

**Figure 1-51 : Account Set-Up**

You can enter the **SSID** or let the setup wizard auto-generate a SSID by clicking on '**Generate SSID**'. You are allowed to select your country standard for wireless LAN in '**Country Standard**', select a wireless channel and can choose whether to hide the SSID. Click on **Next**. See **Fig 1-52**.

The screenshot shows the 'Wireless LAN Configuration' page. The navigation bar includes 'Save Settings', 'Restart Access Point', 'Restart Router', 'Setup', 'Basic', 'Advanced', 'Wireless', 'Security', 'Status', and 'Help'. The left sidebar shows 'Setup' with sub-items 'Step 1', 'Step 2', 'Step 3', 'Step 4', and 'Summary'. The main content area has the title 'Wireless LAN Configuration' and a note: 'This is to specify the network name of your wireless local area network.' The form includes:
 

- Wireless Network Name / SSID:  (Enter a name (SSID) for your wireless network.)
- OR
- Request Setup Wizard to generate a unique SSID for you.
- Country Standard:
- Wireless Channel:
- Hide your Wireless Network Name / SSID:

 A 'Note' section contains three instructions:
 

- Your system's wireless network adapter must have the same SSID as the wireless router to access the network wirelessly.
- You can also make your Wireless Network Name/ SSID invisible to other wireless users by hiding your SSID.
- Specify the wireless channel for your network. All wireless clients must use the same channel to access to the router.

 At the bottom, there are navigation buttons: '<< Previous', 'To Continue, Click Next.....', and 'Next >>'. A red arrow points to the 'Next >>' button, which is also circled in red. The text 'Click Here' is written below the 'Next >>' button.

**Figure 1-52 : Wireless LAN Configuration**

**Click Here**

You can enable wireless security, auto-generate a 64 bit or 128 bit encryption key. Click on **Next**. See **Fig 1-53**.

Save Settings Restart Access Point Restart Router Setup Basic Advanced Wireless Security Status Help

Setup  
Step 1  
Step 2  
Step 3  
Step 4  
Summary

### Wireless LAN Security

This is to ensure privacy by preventing unauthorized users from accessing your wireless network.

**Enable Wireless Security**

Click **Generate** for the wizard to create a unique 64 bit/128 bit Encryption Key. Alternatively, you can manually enter a 10 or 26 digits Hexadecimal keys.

**Cipher**      **Encryption Key**

64 bits     

*For a 64 bit Network Key.  
(10 digits among(0-9) or (a-f)/(A-F). e.g. 52ab4d92ba*

*For a 128 bit Network Key.  
(26 digits among(0-9) or (a-f)/(A-F). e.g. 86cfdbfc2a070e663cc9896d2b*

<< Previous      To Continue, Click Next.....

Click Here  
↓  
Next >>

**Figure 1-53 : Wireless LAN Security**

You are able to select the 'Enable Authentication', key in a new password and set an 'Idle Timeout' value. Click **Next**. See **Fig 1-54**.

Save Settings Restart Access Point Restart Router Setup Basic Advanced Wireless Security Status Help

Setup  
Step 1  
Step 2  
Step 3  
Step 4  
Summary

### System Password

System Password is used to change your User Name or Password.

**Enable Authentication**

**User Name:**      admin

**Password:**     

**Confirmed Password:**     

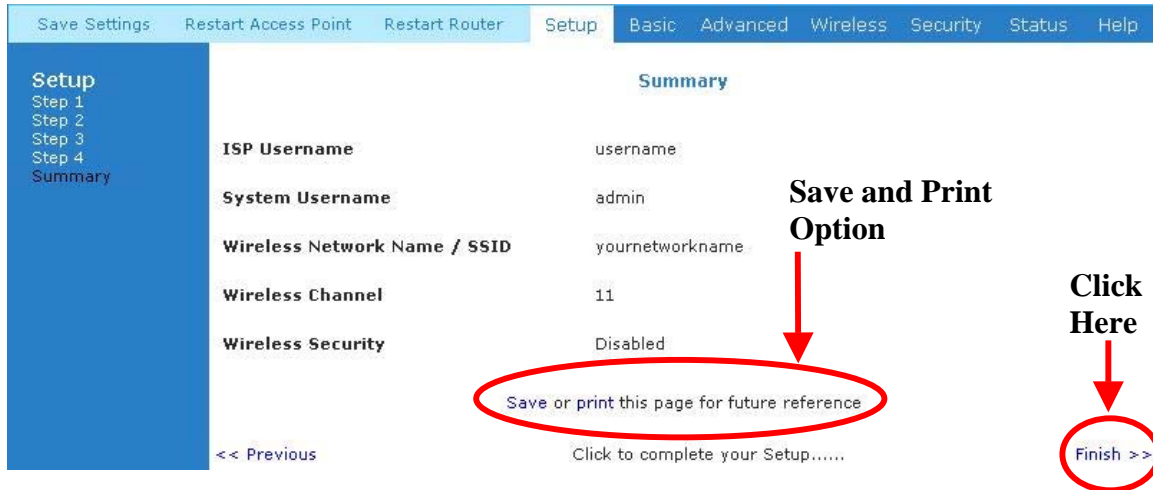
**Idle Timeout:**      30 minutes

<< Previous      To Continue, Click Next.....

Click Here  
↓  
Next >>

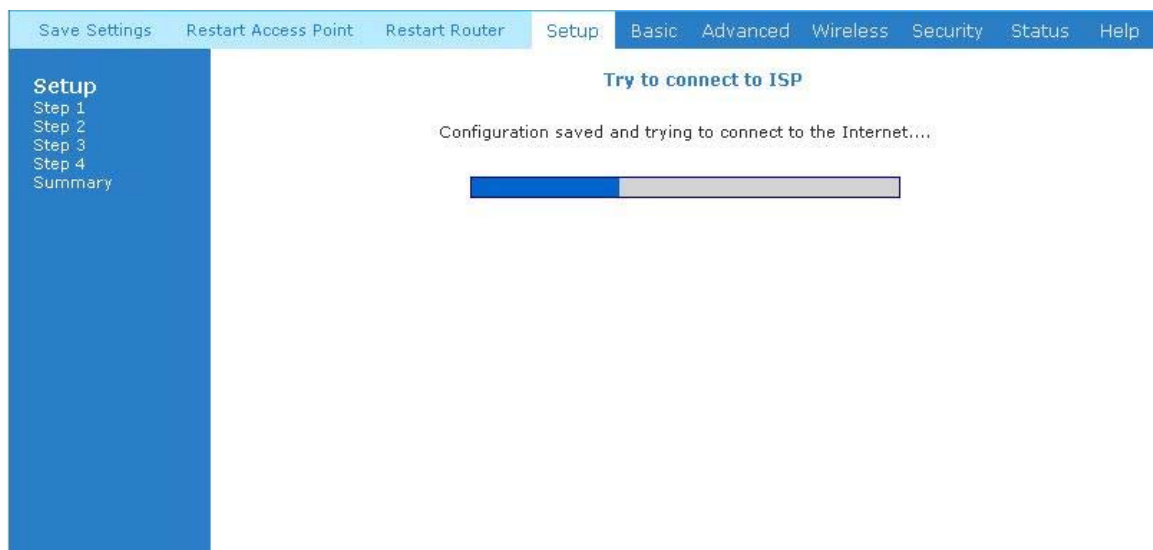
**Figure 1-54 : System Password**

You are able to view the summary and check through all the information you have entered. It is advisable to either Save or print out the Summary information entered into your wireless client. Click **Finish** to complete the setup. See **Fig 1-55**.



**Figure 1-55 : Summary**

A progress bar will be displayed to indicate connecting process to the Internet. See **Fig 1-56**.



**Figure 1-56 : Connecting To ISP**

Upon successful connection to the Internet, this page will be displayed. See **Fig 1-57**.

Save Settings Restart Access Point Restart Router Setup Basic Advanced Wireless Security Status Help

Basic Home Quick Start LAN Configuration Diagnostics

Basic Home

Connection Information		Router Information	
<b>DSL</b>	UP	<b>System Uptime</b>	0 hours 12 minutes
<b>Downstream / Upstream (Kbps)</b>	3488/576	<b>Model</b>	ADSL2+ Wireless G Router
<b>Internet</b>	Connected	<b>Serial Number</b>	none
<b>Connected Time</b>	0hr 11min 2sec	<b>Firmware Version</b>	66.2.1
<b>Connection Type</b>	PPPoE	<b>Ethernet MAC address</b>	00:30:0A:15:7F:1C
<b>Username</b>	username@isp	<b>DSL MAC address</b>	00:30:0A:15:7F:1E
<b>IP Address</b>	220.255.153.135	<b>USB MAC address</b>	00:E0:A6:66:41:EB
<b>Default Gateway</b>	219.74.144.1	<b>AP MAC</b>	00:e0:98:bc:21:33
<b>Primary DNS</b>	165.21.83.88	<b>NAT</b>	Enabled
<b>Secondary DNS</b>	165.21.100.88	<b>Firewall</b>	Enabled
<a href="#">Disconnect</a>			
Local Network		Wireless Network	
<b>LAN IP Address</b>	192.168.1.1	<b>Network Name / SSID</b>	ap
<b>DHCP</b>	Enabled	<b>Security Type</b>	None
<b>DHCP Range</b>	192.168.1.2 - 192.168.1.254	<b>WEP Encryption Key</b>	Disabled
<b>Ethernet</b>	Connected		
<b>USB</b>	Disconnected		

**Figure 1-57 : Successful Connection**

## Chapter 8 – Maintenance

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This section explains the maintenance concepts and provides instructions on preventive maintenance necessary to ensure that the system and equipment are maintained at its optimum operating condition.

### 8.1 Maintenance Concepts

This Maintenance concept is categorized into one (1) main category:

1. Preventive Maintenance (PM)

### 8.2 Preventive Maintenance

*Preventive Maintenance* (PM) or Scheduled Maintenance is the systematic care, servicing and inspection of equipment to prevent failures, reduce downtime and maintain it in a optimum operational condition.

### 8.3 Preventive or Scheduled Maintenance (PM) Tasks

In general, the following PM tasks are recommended to be performed:

#### a. Pre-Operational Checks

These are tasks to be performed before operation or mission to ensure that the system is operationally ready:

1. Check for completeness of the system, ensure all equipment and accessories are in place and in good condition;
2. Check that all switches are at OFF position;
3. Check that maintenance records indicate the equipment are in a fully safe state for operation;
4. Perform system power up, ensure that the indicators are lit accordingly;
5. Perform self test, view diagnostic messages and device status and ensure no fault or error messages are displayed or reported;

#### b. Post-operation Checks

These tasks are performed as a procedural post operation check to ensure system is properly shut down.

Perform system power down procedure; ensure that all power supply connections and switches are turned OFF.

## 8.4 PM or Scheduled Maintenance Tasks

PM tasks are to be performed at intervals recommended as in **Table 1-1**.

When performing PM cleaning tasks:

- a) Use a lint-free, non-abrasive cloth to perform cleaning – DO NOT use any solvent, abrasive cleaning agents or tissue paper. If equipment is dirty (e.g. with thick dust), use a soft damp cloth and wipe the surface of the equipment gently.
- b) Wipe off immediately any water or liquid from rack, equipment or accessories.
- c) Place equipment/accessories in a dry and clean area. DO NOT expose equipment to direct sunlight and moisture.
- d) Report any signs of faulty cables to the higher maintenance authority for follow-up.

**Table 1-1 : PM Tasks and Schedule**

S/N	FREQUENCY	PROCEDURE
1.	Monthly	<ol style="list-style-type: none"> <li>a. Inspect the equipment for any physical damage or sign of corrosion.</li> <li>b. Perform visual inspection and cleaning on the modem.</li> <li>c. Perform LED test on the modem to ensure that the unit is operationally ready.</li> <li>d. Perform visual inspection and cleaning on the modem.</li> <li>e. To ensure outdoor unit has no faulty cables and the unit is operationally ready.</li> <li>f. To check for loose connections.</li> </ol>
2.	24-monthly	<ol style="list-style-type: none"> <li>a. To re-furbish un-sheltered modems.</li> <li>b. Perform led test on modems and link test through its firmware to ensure it is operationally ready.</li> </ol>

## 8.5 PM Tools & Test Equipment

For PM tasks, no special tools and test equipment are required.