

D-Link *AirPlus XTREME G*™ DWL-G132

802.11g (2.4GHz)

Wireless G USB 2.0 Adapter

Manual



Building Networks for People

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Package Contents



Contents of Package:

- **D-Link AirPlus Xtreme G™ DWL-G132**
2.4 GHz Wireless G USB 2.0 Adapter
- Manual on CD-ROM
- Quick Installation Guide
- Cradle

If any of the above items are missing, please contact your reseller.

System Requirements:

- A computer or laptop with an available USB 2.0 port
- Windows XP/2000
- At least 64MB of memory and a 500MHz processor
- Properly installed and working USB Controller

Introduction

The D-Link *AirPlus Xtreme G™* DWL-G132 Wireless G USB Adapter is an 802.11b/802.11g high-performance, convenient Plug & Play USB 2.0 solution that brings wireless networking to your laptop or desktop PC.

With a maximum wireless signal rate of up to 54Mbps (108Mbps* in Turbo mode) you can connect to a wireless network at home, at the office or at any wireless hotspot. Now you can stay connected wherever you are and wherever you go.

The DWL-G132 is Wi-Fi compliant, meaning that it can connect and interoperate with other 802.11b or 802.11g Wi-Fi-compliant wireless routers, access points and adapters. The DWL-G132 connects to any available USB port on a laptop or desktop Windows -based computer and also includes a USB cradle. With the optional USB cradle, the DWL-G132 can be positioned virtually anywhere at a workstation to achieve the best available wireless signal reception - whether that workstation is in your office, on your deck or patio, by the pool, at the local coffee shop, or in an airport terminal while waiting to board your next flight.

The adapter works with Microsoft Windows XP and Windows 2000 operating systems to ensure that you'll be up and running on a wireless network in just a matter of seconds.

Using its default settings, the DWL-G132 automatically connects to other D-Link *AirPlus Xtreme G™* wireless products as soon as it's active.

The DWL-G132 has the newest, strongest and most advanced security features available today. When used with other 802.11 WPA (Wi-Fi Protected Access) and 802.1x compatible products in a network with a RADIUS server, the security features include:

WPA: Wi-Fi Protected Access which authorizes and identifies users based on a secret key that changes automatically at regular intervals. **WPA** uses **TKIP (Temporal Key Integrity Protocol)** to change the temporal key every 10,000 packets (a packet is a kind of message transmitted over a network.) This ensures much greater security than the standard WEP security. (By contrast, the previous WEP encryption implementations required the keys to be changed manually.)

*Maximum wireless signal rate derived from IEEE Standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

Introduction (continued)

802.1x: Authentication which is a first line of defense against intrusion. In the authentication process, the Authentication Server verifies the identity of the client attempting to connect to the network. Unfamiliar clients would be denied access.

For home users that will not incorporate a RADIUS server in their network, the security for the DWL-G132, used in conjunction with other WPA-compatible 802.11 products, will still be much stronger than ever before. Utilizing the **Pre-Shared Key mode** of WPA, the DWL-G132 will obtain a new security key every time it connects to the 802.11 network. You only need to input your encryption information once in the configuration menu. No longer will you have to manually input a new WEP key frequently to ensure security. With the DWL-G132, you will automatically receive a new key every time you connect, vastly increasing the safety of your communication.

Features and Benefits

- **Provides maximum wireless signal rate of up to 54Mbps (108Mbps¹ in Turbo mode).**
- **Compact size** for placement anywhere.
- **Convenience** of Plug & Play installation.
- **Fully 802.11b/802.11g compatible.**
- **Powered by the USB port**; no external power source is required.
- **USB 2.0 standard².**
- **Better Security with 802.1x and WPA** - In addition to 64-,128-bit WEP encryption, you can also securely connect to a wireless network using 802.1x for wireless authentication, as well as WPA (Wi-Fi Protected Access) providing you a much higher level of security for your data and communication than has previously been available.
- **Optimal wireless reception** using its cradle (included). Position the DWL-G132 almost anywhere in your workspace to achieve the best reception possible.
- **Supports Infrastructure networks via an access point and Peer-to-Peer communication in Ad-Hoc mode.**
- **User-friendly configuration and diagnostic utilities.**
- **Connects at up to 328 feet indoors³.**
- **1 year warranty.**

¹Maximum wireless signal rate derived from IEEE Standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

²Using a USB 1.1 port will adversely affect throughput.

³Environmental factors may adversely affect range.

Wireless Basics

D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. D-Link wireless products will allow you access to the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking brings.

A wireless local area network (WLAN) is a computer network that transmits and receives data with radio signals instead of wires. WLANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial to many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

People use WLAN technology for many different purposes:

Mobility - Productivity increases when people have access to data in any location within the operating range of the WLAN. Management decisions based on real-time information can significantly improve worker efficiency.

Low Implementation Costs - WLANs are easy to set up, manage, change and relocate. Networks that frequently change can benefit from WLANs ease of implementation. WLANs can operate in locations where installation of wiring may be impractical.

Installation and Network Expansion - Installing a WLAN system can be fast and easy and can eliminate the need to pull cable through walls and ceilings. Wireless technology allows the network to go where wires cannot go - even outside the home or office.

Inexpensive Solution - Wireless network devices are as competitively priced as conventional Ethernet network devices.

Scalability - WLANs can be configured in a variety of ways to meet the needs of specific applications and installations. Configurations are easily changed and range from Peer-to-Peer networks suitable for a small number of users to larger Infrastructure networks to accommodate hundreds or thousands of users, depending on the number of wireless devices deployed.

Wireless Basics *(continued)*

Installation Considerations

The DWL-G132 lets you access your network using a wireless connection from virtually anywhere within its operating range. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

- 1** Keep the number of walls and ceilings between the DWL-G132 and other network devices to a minimum - each wall or ceiling can reduce your DWL-G132's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
- 2** Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
- 3** Building materials can impede the wireless signal - a solid metal door or aluminum studs may have a negative effect on range. Try to position wireless devices and computers with wireless adapters so that the signal passes through drywall or open doorways and not other materials.
- 4** Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.

Getting Started

With its default settings, the DWL-G132 will connect with other D-Link *AirPlus Xtreme G*[™] products, right out of the box.

There are basically two modes of networking:

Infrastructure – using an access point or router, such as the DI-624.

Ad-Hoc – directly connecting to another computer, for Peer-to-Peer communication, using wireless network adapters on each computer, such as two or more DWL-G132 Wireless Network USB adapters.

On the following pages we will show you an example of an **Infrastructure Network** and an **Ad-Hoc Network**.

An **Infrastructure** network contains an access point or router. The **Infrastructure network** example shown on the following page contains the following D-Link network devices (your existing network may be comprised of other devices):

A wireless router - **D-Link *AirPlus Xtreme G*[™] DI-624**

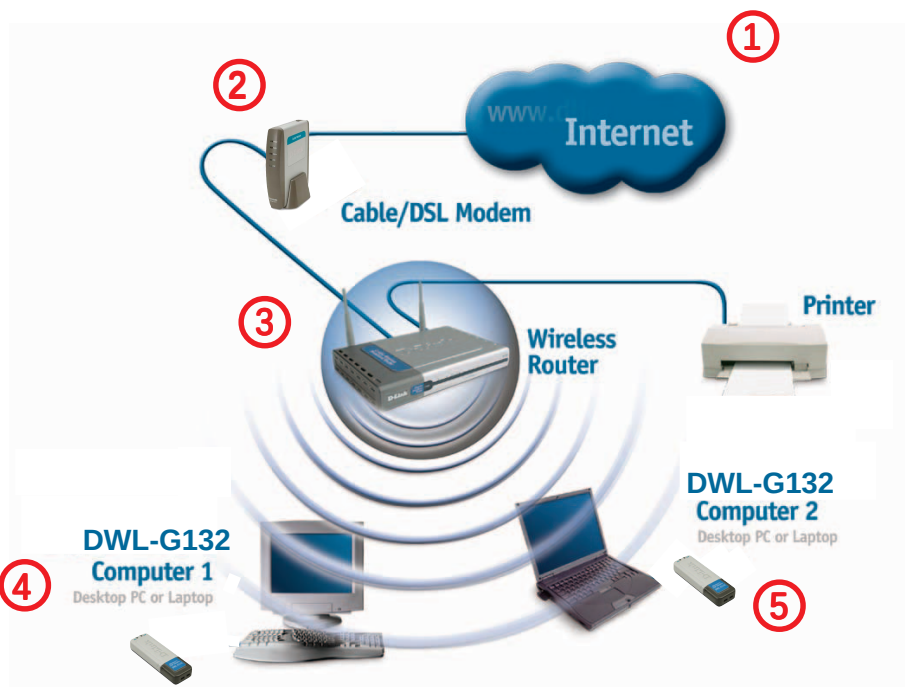
A laptop computer with a **D-Link *AirPlus Xtreme G*[™] DWL-G132**

A desktop computer with a **D-Link *AirPlus Xtreme G*[™] DWL-G132**

A cable modem - **D-Link DCM-201**

Getting Started (continued)

Setting up a Wireless Infrastructure Network



For a typical wireless setup at home (as shown above), please do the following:

- 1** You will need broadband Internet access (a cable or DSL-subscriber line into your home or office).
- 2** Consult with your cable or DSL provider for proper installation of the modem.
- 3** Connect the cable or DSL modem to your broadband router. (See the Quick Installation Guide included with your router.)
- 4** Install the D-Link AirPlus Xtreme G™ DWL-G132 Wireless USB 2.0 adapter into an available USB port on your desktop computer. (See the Quick Installation Guide included with the DWL-G132.)
- 5** Install the D-Link AirPlus Xtreme G™ DWL-G132 wireless USB 2.0 adapter into an available USB port on your laptop computer. (See the Quick Installation Guide included with the DWL-G132.)

Getting Started (continued)

Setting up a Wireless Ad-Hoc Network



- 1** Install the **D-Link AirPlus Xtreme G™ DWL-G132** Wireless USB 2.0 adapter into the desktop computer. (See the *Quick Installation Guide* included with the product.)
- 2** Install the **D-Link AirPlus Xtreme G™ DWL-G132** Wireless USB 2.0 adapter into the laptop computer. (See the *Quick Installation Guide* included with the product.)
- 3** Set the wireless configuration for the adapters to Ad-Hoc mode, set the adapters to the same channel, and assign an IP address to each computer on the Ad-Hoc network.

IP Address

When assigning IP addresses to the computers on the network, please remember that the **IP address for each computer must be in the same IP address range as all the computers in the network**, and the subnet mask must be exactly the same for all the computers in the network.

For example: If the first computer is assigned an IP address of 192.168.0.2 with a subnet mask of 255.255.255.0, then the second computer can be assigned an IP address of 192.168.0.3 with a subnet mask of 255.255.255.0, etc.

IMPORTANT: If computers or other devices are assigned the same IP address, one or more of the devices may not be visible on the network.

Using the Configuration Utility

D-Link AirPlus Xtreme G™ DWL-G132 uses the **Configuration Utility** as the management software. The utility provides the user an easy interface to change any settings related to the wireless adapter. After you have completed the installation of the DWL-G132 (refer to the *Quick Installation Guide* that came with your purchase) whenever you start the computer, the **Configuration Utility** starts automatically and the system tray icon is loaded in the toolbar (see illustration below.*) Clicking on the utility icon will start the **Configuration Utility**. Another way to start the **Configuration Utility** is to click on **Start>Programs>D-Link AirPlus Xtreme G >D-Link AirPlus Xtreme G Utility**.

If you are using Windows XP, you can use either the Zero Configuration Utility or the D-Link Configuration Utility.

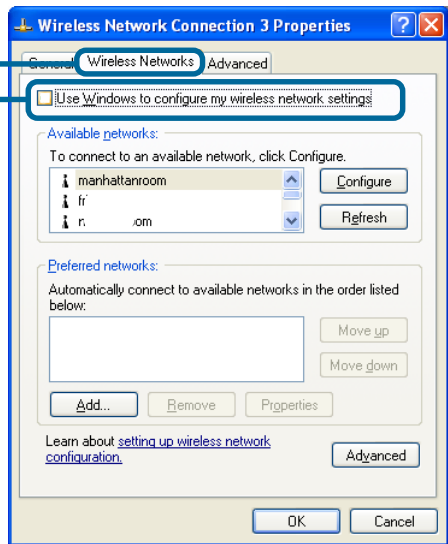
To use the D-Link Configuration Utility with XP, right-click on the wireless network icon in the taskbar in the lower right-hand corner of your computer screen.



In the window that appears, select **View Available Wireless Networks** and click the **Advanced** button. The screen at right will appear.

Select the **Wireless Networks** tab.

Uncheck the box in the properties window that enables windows configuration.



After you have done this, you can then use the D-Link Configuration Utility with XP by clicking on the D-Link Configuration Utility icon.

If the icon does not display in the taskbar, then click on this icon on your desktop to open.



*Configuration Utility icon in the system tray



Using the Configuration Utility (continued)

Link Info

The screenshot shows the 'Link Info' tab of the D-Link AirPlus XtremeG Wireless Utility. The left sidebar contains navigation links: Link Info (selected), Configuration, Advanced, Site Survey, and About. The main area displays various wireless status fields: Status (Associated BSSID=00:0D:88:F2:61:0F), SSID (default), Frequency (802.11g), Wireless Mode (Infrastructure), Encryption (Disabled), Connection Info (Connected), Tx Rate (1.0 Mbps), and Channel (6). A 'Rescan' button is located next to the Channel field. Below these fields are two graphical indicators: 'Signal Quality' and 'Signal Strength' (86%), represented by a red progress bar, and 'Packet Count' showing Transmit and Receive statistics (Transmit: >500, 250, 0; Receive: empty bar).

Field	Value
Status	Associated BSSID=00:0D:88:F2:61:0F
SSID	default
Frequency	802.11g
Wireless Mode	Infrastructure
Encryption	Disabled
Connection Info	Connected
Tx Rate	1.0 Mbps
Channel	6
Signal Strength	86%
Packet Count (Transmit)	>500, 250, 0
Packet Count (Receive)	

Status:

Displays the MAC address of the access point or router to which the DWL-G132 is associated.

SSID:

The Service Set Identifier is the name assigned to the wireless network. The factory SSID setting is **default**.

Frequency:

802.11b indicates that the DWL-G132 is communicating in the 2.4GHz band.

Wireless Mode:

Either **Infrastructure** or **Ad-Hoc** will be displayed here. (Please see the *Getting Started* section in this manual for an explanation of these two modes.)

Using the Configuration Utility *(continued)*

Encryption:

You can see if WEP (Wired Equivalent Privacy) is **Enabled** or **Disabled** here.

Connection Info:

When the DWL-G132 is connected to a wireless network, **Connected** will be displayed in this field.

Tx Rate:

The default setting is **Auto**; Tx Rate settings are automatically determined for a maximum wireless signal rate of up to 54Mbps (108Mbps* in Turbo mode).

Channel:

The default setting is **Auto**. The channel selection is automatically determined by the DWL-G132.

Signal Quality:

Displays the signal strength and the link quality of the DWL-G132's wireless connection to the access point or router.

Packet Count:

Displays the statistics of the data packets that are transmitted and received.

Rescan Button:

Rescans for the strongest signal with the current SSID and associates with that access point or router.

*Maximum wireless signal rate derived from 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

Using the Configuration Utility (continued)

Configuration

The screenshot shows the 'D-Link AirPlus XtremeG Wireless Utility' window. On the left is a navigation pane with 'Configuration' selected. The main area shows the following settings:

- SSID: default
- Wireless Mode: Infrastructure
- Data Encryption: Enabled
- Authentication: Open
- Key Length: Open (selected), Shared, WPA, WPA-PSK
- IEEE802.1X: Four radio buttons labeled 1, 2, 3, and 4, all of which are unselected.

At the bottom of the main area are three buttons: 'Authentication Config', 'IP Settings', and 'Apply'.

SSID:

Service Set Identifier is a name that identifies a wireless network. Access points and wireless devices attempting to connect to a specific WLAN (Wireless Local Area Network) must use the same SSID. The default setting is **default**.

Wireless Mode:

Click on the pull-down menu; select from the following options:

Infrastructure - connecting to the WLAN using an access point. (This is the **default** setting).

Ad-Hoc – wireless mode used when connecting directly to a computer equipped with a wireless adapter in a Peer-to-Peer environment.

Data Encryption:

Select **Enabled** or **Disabled**.

Using the Configuration Utility (continued)

Authentication:

Choose one of the following modes:

Open Authentication – the DWL-G132 is visible to all devices on the network.

Shared Authentication – allows communication only with other devices with identical WEP settings.

WPA – Wi-Fi protected access improves upon WEP security. In conjunction with a RADIUS server and EAP (extensible authentication protocol), WPA ensures that only authenticated users access the network.

WPA-PSK – provides user authentication without a RADIUS server in the network. PSK (Pre-Shared Key) provides authentication through use of a passphrase that is shared by the devices on the network. This is the most secure encryption available without a RADIUS server.

Key Length:

Select the key length and either ASCII (e.g., a word) or hexadecimal format.

IEEE 802.1X:

Select **Enabled** or **Disabled**. 802.1x requires that a RADIUS server be included in your network in order to authenticate users.

Keys 1-4:

When you select WEP encryption, you will enter up to four WEP keys in the fields provided, using either Hexadecimal or ASCII format. From the keys you have entered, select the default key by clicking on the button next to it.

Hexadecimal digits consist of the numbers 0-9 and the letters A-F.

ASCII (American Standard Code for Information Interchange) is a code for representing English letters as numbers from 0-127.

Authentication Config:

When you enable **IEEE 802.1X** click on **Authentication Config**.

The **Advanced Security Settings** screen will appear. See the following pages for more information.

IP Settings:

When you click **IP Settings** in the Configuration window, the pop-up screen above will appear. Configure the **IP Settings** in this window.

Click **Apply** to save changes.

IP Settings

The screenshot shows the 'IP Settings' dialog box. It has a title bar with the text 'IP Settings' and a close button. The dialog is divided into two main sections. The first section is for IP Address configuration, with a radio button selected for 'Obtain an IP Address Automatically'. The second section is for DNS Server configuration, with a radio button selected for 'Obtain DNS Server Address Automatically'. There are input fields for IP Address, Subnet Mask, Default Gateway, Preferred DNS Server, and Alternate DNS Server. At the bottom, there is a checkbox 'Apply with profile proxy' which is checked, and a 'Proxy' button. There are also 'OK' and 'Cancel' buttons.

Using the Configuration Utility (continued)

Using a Proxy Server

Check **Apply with a profile proxy** to use a proxy server in your network. A proxy server increases the speed of web page retrieval and can also act as a filter to limit access to specific Web sites.

IP Settings

IP Settings

☒ Obtain an IP Address Automatically

☐ Assign the following IP Address

IP Address

Subnet Mask

Default Gateway

☒ Obtain DNS Server Address Automatically

☐ Use the following DNS Server address

Preferred DNS Server

Alternate DNS Server

☒ Apply with profile proxy

Proxy

Automatically detect settings:

When this option is selected, the proxy server will automatically adjust to the settings of the network.

Use automatic configuration:

Select this option and input the IP address of the proxy server to ensure that the proxy server will be utilized.

Use a proxy server:

To use a proxy server, select this option.

Bypass proxy server for local address:

Select this to allow direct access to local internal addresses without including the extra step of routing the request through the proxy server.

Proxy Settings

Proxy Settings

Automatic configuration—

☒ Automatically detect settings

☐ Use automatic configuration

Address:

Proxy Settings—

☒ Use a proxy server

☐ Bypass proxy server for local address

☐ Use the same proxy server for all protocols

HTTP: :

Secure: :

FTP: :

Gopher: :

Socks: :

Exceptions

Using the Configuration Utility (continued)

Use the same proxy server for all protocols:

To use the same proxy server for all protocols, select this option and enter the IP address for the proxy server in the HTTP field. Other fields will be unavailable. Enter the port number for the proxy server.

HTTP, Secure, FTP, Gopher, Socks:

if you are not using the same proxy server for all protocols, enter the proxy server address, either in IP address or domain name format and its corresponding port, for each of these protocols.

HTTP:

Hyper Text Transfer Protocol is used to transfer files from a Web server onto a browser for viewing.

Secure: HTTPS protocol is based on SSL (Secure Sockets Layer) technology. It is a protocol for transmitting private documents over the Internet using a private key to encrypt data. URLs that begin with HTTPS often use the protocol to securely obtain confidential information such as credit card numbers.

FTP: File Transfer Protocol. FTP is most commonly used to upload and download files on the Internet.

Gopher: Gopher is an early Internet protocol that organizes files in a structured list for database searching.

Socks: Socks is a proxy server that provides a simple firewall. SocksV5 offers authentication.

Exceptions: To allow specific IP addresses to bypass proxy servers, enter the IP addresses here. You can also enter “wildcards” to allow a category of website to bypass the proxy servers. For instance, if you enter `www.*.com`, the browser will bypass the proxy servers for most Websites.

Proxy Settings (continued)

The screenshot shows the 'Proxy Settings' dialog box. It has a blue title bar with the text 'Proxy Settings' and a close button. The dialog is divided into three main sections: 'Automatic configuration', 'Proxy Settings', and 'Exceptions'. In the 'Automatic configuration' section, the 'Automatically detect settings' checkbox is checked, and the 'Use automatic configuration' checkbox is unchecked. Below this is an 'Address:' label followed by an empty text field. The 'Proxy Settings' section contains three checkboxes: 'Use a proxy server' (checked), 'Bypass proxy server for local address' (unchecked), and 'Use the same proxy server for all protocols' (checked). Below these are five rows of input fields for 'HTTP:', 'Secure:', 'FTP:', 'Gopher:', and 'Socks:'. Each row has a text field for the address and a small port field to its right. The 'Exceptions' section is a large empty text area. At the bottom are 'OK' and 'Cancel' buttons.

Using the Configuration Utility (continued)

Advanced

Frequency:

Select 802.11b/g for compatibility with both 802.11b or 802.11g networks, or select 802.11b only.

Super G:

Selecting Super G mode enables a maximum wireless signal rate of up to 108Mbps.*

XR Mode:

Enable or Disable range extension mode. Enabling this feature allows you to increase the range of your communication without adding additional hardware.

Starting Ad Hoc Network:

When using Ad Hoc mode, select the frequency here.

Ad Hoc Channel:

Select the Ad Hoc channel when in Ad Hoc mode. When communicating in Ad Hoc mode, all devices must share the same channel.

Profile IP Settings:

You can **Enable** or **Disable** the *IP Settings* portion of your profile here. If you select **Disable** you will need to configure the IP address information each time you connect to a network. If you select **Enable** you will maintain the same IP address information each time you connect to a network.

Power Mode:

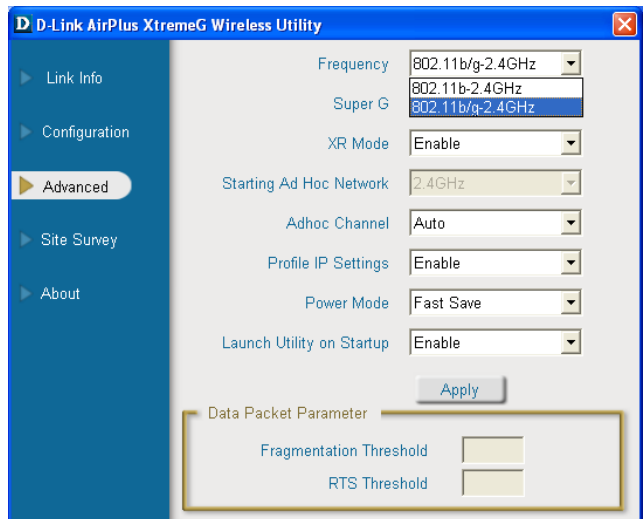
Disable -This default setting consumes the most power.

Enable - This setting consumes the least power.

Launch Utility on Startup:

Select **Enable** or **Disable**.

Click **Apply** if you have made any changes.



*Maximum wireless signal rate derived from IEEE Standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

Using the Configuration Utility (*continued*)

Advanced (*continued*)

Fragmentation Threshold:

This value should remain at its default setting of 2432. If you experience a high packet error rate, you may slightly increase your *Fragmentation Threshold* within the value range of 256 to 2432. Setting the *Fragmentation Threshold* too low may result in poor performance.

RTS Threshold:

This value should remain at its default setting of 2432. If inconsistent data flow is a problem, only a minor modification should be made.

Using the Configuration Utility (continued)

Available Network:

The top section of the window displays the **Available Networks**. Scroll up and down the list and highlight the network to which you wish to connect. Click on the **Connect** button.

Profile:

In the lower half of the screen, you can manage the profiles that you have created for the wireless network at home, at the office and in public places. Scroll up and down and highlight the profile that you wish to configure. You can **Add** or **Remove** a profile, or configure the **Properties** of the profile in order to connect with an available network.

Refresh:

Click on **Refresh** to get the most updated list of available networks.

Configure:

Highlight an existing network and click **Configure**; the configuration window on the next page will appear.

Advanced:

Highlight a network; click **Advanced** and the screen on the next page will appear.

Add:

Click **Add** and the screen on the next page will appear.

Remove:

Highlight a network profile; click **Remove** to remove a network from the profile list.

Properties:

Highlight a network profile; click **Properties** and the screen on the next page will appear.

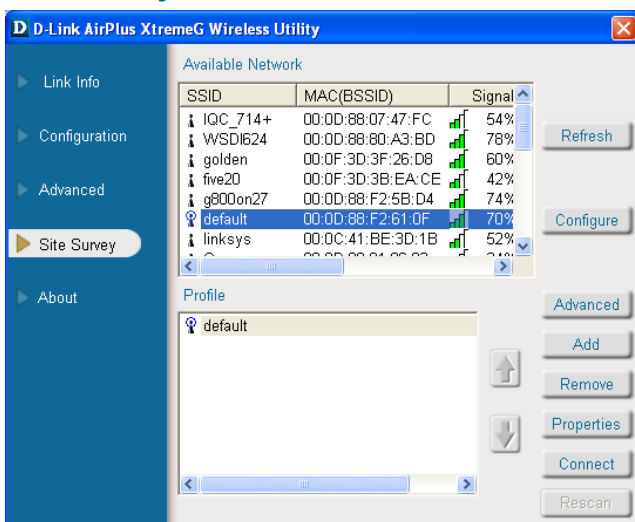
Connect:

Highlight a network profile; click **Connect** to connect to that network.

Rescan:

Click **Rescan** to rescan and connect to the strongest signal with the current SSID.

Site Survey



Using the Configuration Utility (continued)

Site Survey > Add

In this window you can select the type of network connection.

Click **OK** to save the changes.

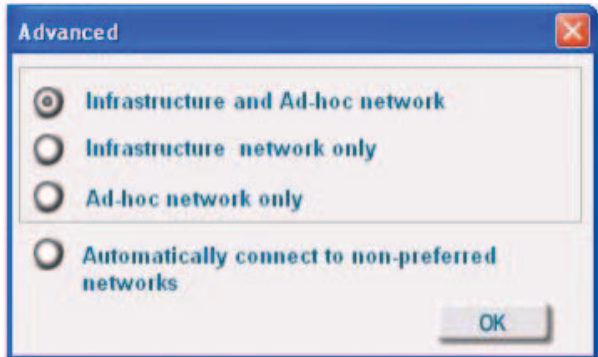
If you clicked on **Add**, you can configure, in this window, all the properties of a profile that you wish to add to the network.

If you clicked on **Configuration** or **Properties** you can configure, in this window, all the properties of a profile that already exists in the network.

If you select **WPA** in the *Authentication* field, please see detailed instructions for configuring WPA on the following pages.

Click **OK** to save the changes.

Advanced

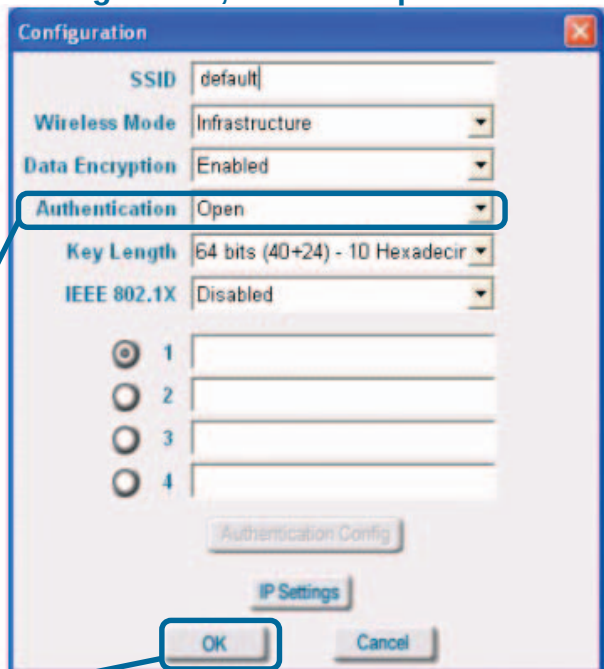


The 'Advanced' window shows four radio button options for network configuration. The first option, 'Infrastructure and Ad-hoc network', is selected. The other options are 'Infrastructure network only', 'Ad-hoc network only', and 'Automatically connect to non-preferred networks'. An 'OK' button is located at the bottom right.

☒	Infrastructure and Ad-hoc network
☐	Infrastructure network only
☐	Ad-hoc network only
☐	Automatically connect to non-preferred networks

OK

Configuration, Add or Properties



The 'Configuration' window displays various settings for a network profile. The 'SSID' is set to 'default'. 'Wireless Mode' is 'Infrastructure', 'Data Encryption' is 'Enabled', and 'Authentication' is 'Open' (highlighted with a blue box). 'Key Length' is '64 bits (40+24) - 10 Hexadecir' and 'IEEE 802.1X' is 'Disabled'. Below these are four radio button options numbered 1 to 4, each with an adjacent text input field. At the bottom are buttons for 'Authentication Config', 'IP Settings', 'OK', and 'Cancel'.

SSID	default
Wireless Mode	Infrastructure
Data Encryption	Enabled
Authentication	Open
Key Length	64 bits (40+24) - 10 Hexadecir
IEEE 802.1X	Disabled

1

2

3

4

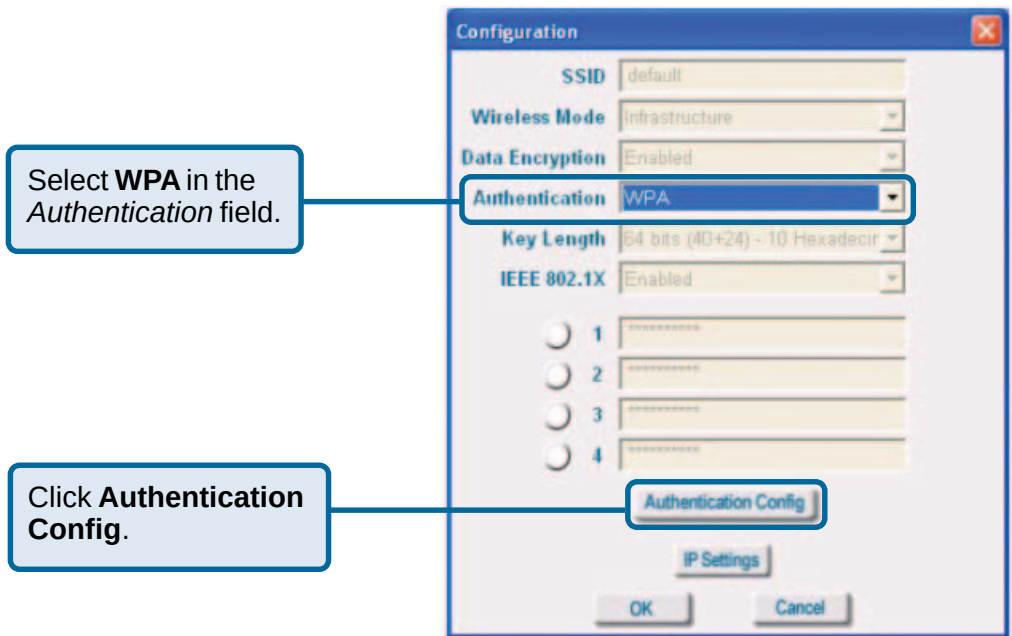
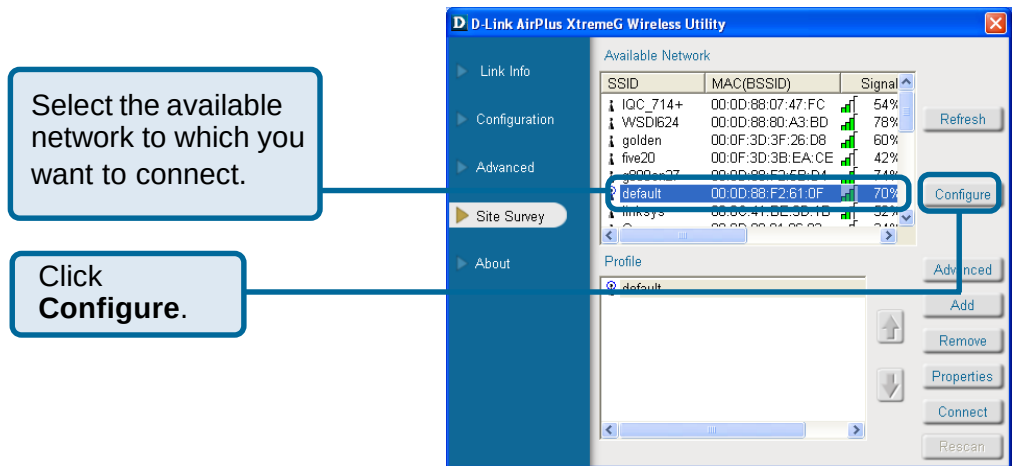
Authentication Config

IP Settings

OK Cancel

Using the Configuration Utility (continued)

Authentication > WPA



After you click **Authentication Config**, the *Advanced Security Settings* screen will appear. Please see the following page.

Using the Configuration Utility (*continued*)

Authentication > WPA > Advanced Security Settings

The screenshot shows the 'Advanced Security Settings' dialog box. It contains the following fields and controls:

- WPA Passphrase:** A text input field.
- EAP Type:** A dropdown menu with options: EAP-TLS, EAP-TLS, LEAP, EAP-TTLS, and PEAP. The first 'EAP-TLS' is highlighted.
- User Certificate:** A text input field.
- Validate Server:** A radio button.
- User Name:** A text input field.
- Domain Name:** A text input field.
- Password:** A text input field.
- Confirm Password:** A text input field.
- TTLS Identity:** A text input field.
- Add:** A button.
- Remove:** A button.
- OK:** A button.
- Cancel:** A button.

Callouts from the left side of the dialog box provide instructions:

- Select the **EAP** type here.
- Leave the **User Certificate** field blank.
- Click **Validate Server** if your authentication server requires it.
- Enter the **User Name**.
- Click **Add** and the window on the following page will appear.
- Click **OK** to save the changes.

EAP Type: Extensible Authentication Protocols (EAP-TLS, LEAP, EAP-TTLS, PEAP) allow devices on the network to request authentication from the RADIUS server in the network. All the devices on the network must use the same EAP type when using a RADIUS server for authentication.

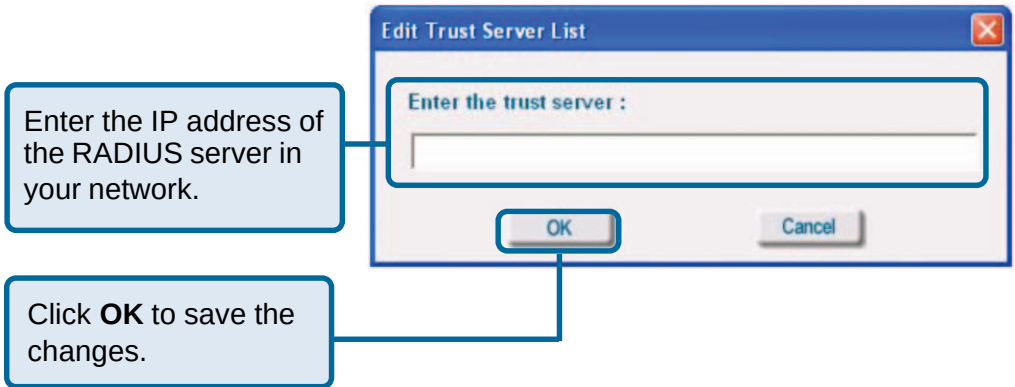
User Certificate: A certificate authority (CA) issues User Certificates to verify that a public key belongs to a specific individual or company. This field is not required here and is left blank.

Validate Server: Some RADIUS servers require that the Validate Server field be selected. Check this field if your RADIUS server requires validation.

User Name: Enter the user name (admin) here.

Using the Configuration Utility (*continued*)

Authentication > WPA > Advanced Security Settings > Add



After entering the information and clicking OK in the dialog box above, the window on the previous page will appear. Click **OK** to complete the WPA configuration.

Authentication > WPA -PSK

Suitable for the home user, WPA-PSK (WPA Pre-Shared Key) is a superior form of security that does not require a RADIUS server in the network.

To use WPA-PSK, enter a passphrase that is shared by all the devices on the network.

By using TKIP (Temporal Key Integrity Protocol), the security keys change at set intervals, creating a network that is more secure than one that utilizes WEP encryption alone.

Using the Configuration Utility (continued)

Authentication > WPA-PSK

Select the available network to which you want to connect.

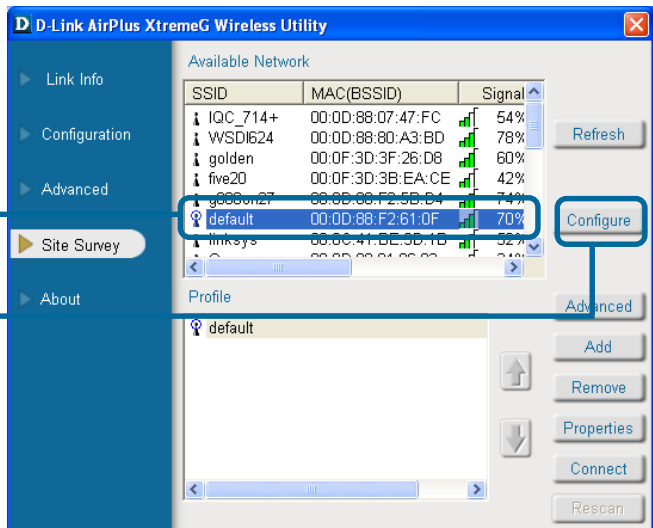
Click **Configure**.



WPA-PSK does not require a RADIUS Server in the network.

Select **WPA-PSK** in the *Authentication* field.

Click **Authentication Config**.

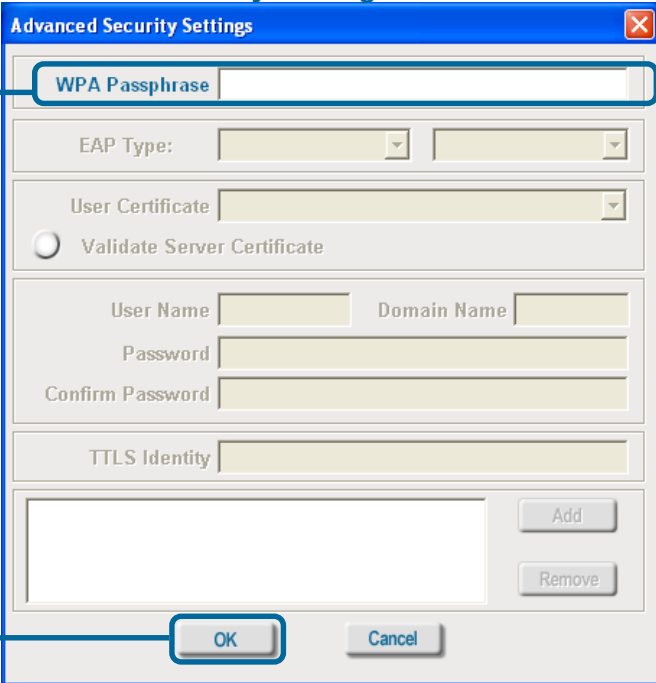


Using the Configuration Utility (continued)

Authentication > WPA-PSK (continued)

Enter the **WPA Passphrase**. All the devices on the network must share this same passphrase in order to communicate on the network.

Advanced Security Settings



The 'Advanced Security Settings' dialog box contains the following fields and controls:

- WPA Passphrase**: A text input field for the network passphrase.
- EAP Type**: Two dropdown menus for selecting EAP parameters.
- User Certificate**: A dropdown menu for selecting a certificate.
- Validate Server Certificate**: A radio button to enable or disable server certificate validation.
- User Name** and **Domain Name**: Text input fields for authentication details.
- Password** and **Confirm Password**: Text input fields for user authentication.
- TTLS Identity**: A text input field for TTLS authentication.
- Add** and **Remove** buttons: Located next to a list box for managing certificates.
- OK** and **Cancel** buttons: At the bottom of the dialog.

Click **OK**. The configuration is complete.

About

The **About** screen gives you the MAC address, Utility Version and the Driver Version of the DWL-G132.



The 'About' screen of the 'D-Link AirPlus XtremeG Wireless Utility' displays the following information:

- Link Info**, **Configuration**, **Advanced**, **Site Survey**, and **About** (selected) menu items on the left sidebar.
- D-Link AirPlus XtremeG High-Speed 802.11G Wireless Adapter** logo and branding.
- Copyright 2003 D-Link AirPlus Configuration Utility (secured by Odyssey).
- Adapter Information** section with the following details:

Adapter Information	
MAC Address	00:0F:3D:85:9E:0E
Utility Version	V1.00
Driver Version	1.0.0.85

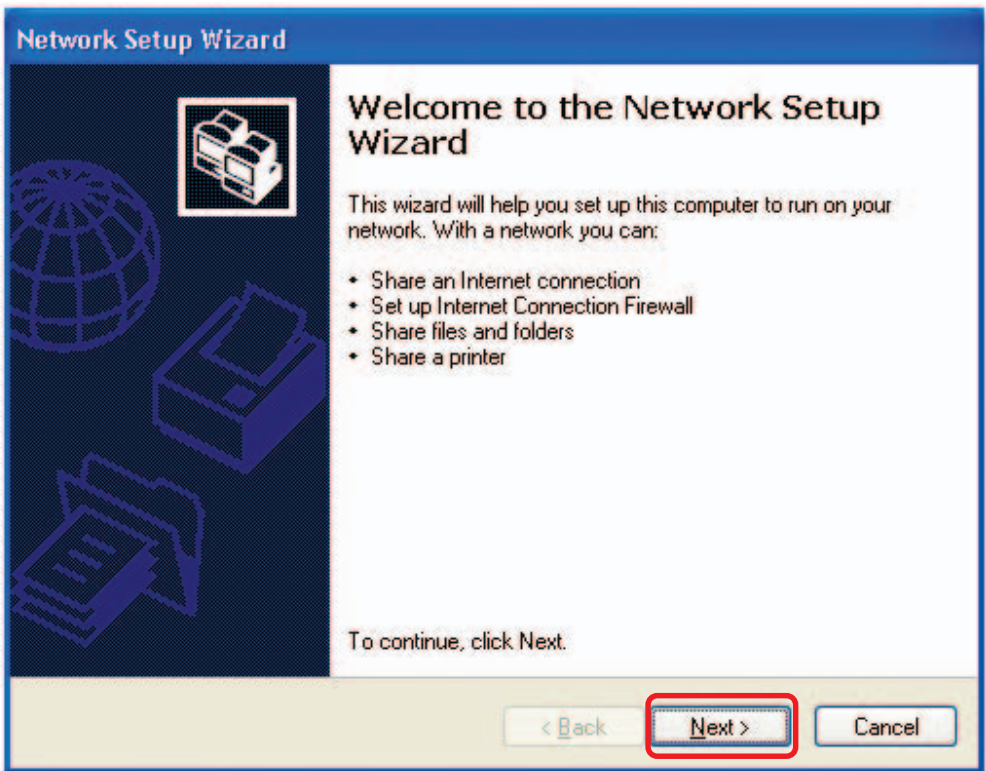
Networking Basics

Using the Network Setup Wizard in Windows XP

In this section you will learn how to establish a network at home or work, using **Microsoft Windows XP**.

Note: Please refer to websites such as <http://www.homenethelp.com> and <http://www.microsoft.com/windows2000> for information about networking computers using Windows 2000/Me/98SE.

Go to **Start>Control Panel>Network Connections**.
Select **Set up a home or small office network**.



When this screen appears, click **Next**.