D-Link *Air* DWL-122
2.4GHz Wireless USB Adapter

Manual

D-Link
Building Networks for People

Contents

Package Contents

Contents of Package:

- **D-Link *Air* DWL-122
  2.4 GHz Wireless USB Adapter**

- Manual on CD-ROM

- Quick Installation Guide

- USB Extenstion Cable

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

System Requirements:

- A computer or laptop with an available USB port

- Windows XP/2000/Me/98SE

- Mac OSX (v10.2x or later)

- At least 32 MB of memory and a 300 MHz processor

- Properly installed and working USB Controller

Introduction

The D-Link *Air* DWL-122 Wireless USB Adapter is a convenient Plug & Play USB 1.1 solution that brings wireless networking to your laptop or desktop PC.

With transfer rates up to 11Mbps 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-122 is Wi-Fi compliant, meaning that it can connect and interoperate with other 802.11b Wi-Fi-compliant wireless routers, access points and adapters. The DWL-122 connects to any available USB port on a laptop or desktop Windows and Macintosh-based computer and also includes a standard USB extension cable. With the optional USB extension cable, the DWL-122 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 Apple Mac OS X (10.2x or later) Jaguar, Microsoft Windows XP, Windows 2000 and other Windows operating systems to ensure that you'll be up and running on a wireless network in just a matter of seconds. The DWL-122 also features 64 or 128-bit WEP encryption providing a level of security for the data that you wirelessly transmit.

Using its default settings, the DWL-122 automatically connects to other D-Link Wireless products as soon as it's active.

Features and Benefits

- Compact size for placement anywhere

- Convenience of Plug & Play installation

- Fully 802.11b compatible

- Powered by the USB port; no external power source is needed

- USB 1.1 standard

- Network Security with with 64-bit and 128-bit WEP encryption

- Supports infrastructure networks via an Access Point or Router and Peer-to-Peer communication in Ad-Hoc mode

- User-friendly configuration and diagnostic utilities

- Connects at up to 328 feet indoors*

- One year warranty (USA only)

Environmental factors may adversely affect range

Features

Internal Antenna
Used to wirelessly connect to 802.11b networks

Link/Activity LED

Power - Indicates that the DWL-122 is properly installed in the computer.

Link - Blinks when data is being transmitted through the wireless connection.

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 WLAN is a cellular 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 for 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.

Wireless Basics *(continued)*

People use wireless LAN 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.

Scalability – WLANs can be configured in a variety of topologies 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.

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

Wireless Basics *(continued)*

Installation Considerations

The D-Link *Air* DWL-122 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-122 and other network devices to a minimum - each wall or ceiling can reduce your D-Link wireless product'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 extreme RF noise.

Getting Started

Inserting the DWL-122

Insert the DWL-122 into an available USB port.

Using the DWL-122 with the extension cord

Plug one end of the USB extension cord into the USB port on your computer and plug the other end into the DWL-122.

Removing the DWL-122 (Windows XP)

After installing the DWL-122, this icon will appear in the taskbar at the bottom of the screen (for WinXP service pack I and above).

Before you disengage the DWL-122 from the USB port, you must click on the icon (illustrated above) that resides in the taskbar. When the screen at right appears, highlight the DWL-122.

Click **Stop**

Windows will notify you when it is safe to remove the DWL-122 from the USB port.

> **With its default settings, the DWL-122 will connect with other D-Link *Air* products, right out of the box.**

There are basically two modes of networking:

Infrastructure – using an Access Point or Router, such as the DI-614+.

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-122 wireless 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 D-Link network devices listed here; (your existing network may be comprised of other devices).

A wireless broadband Router-
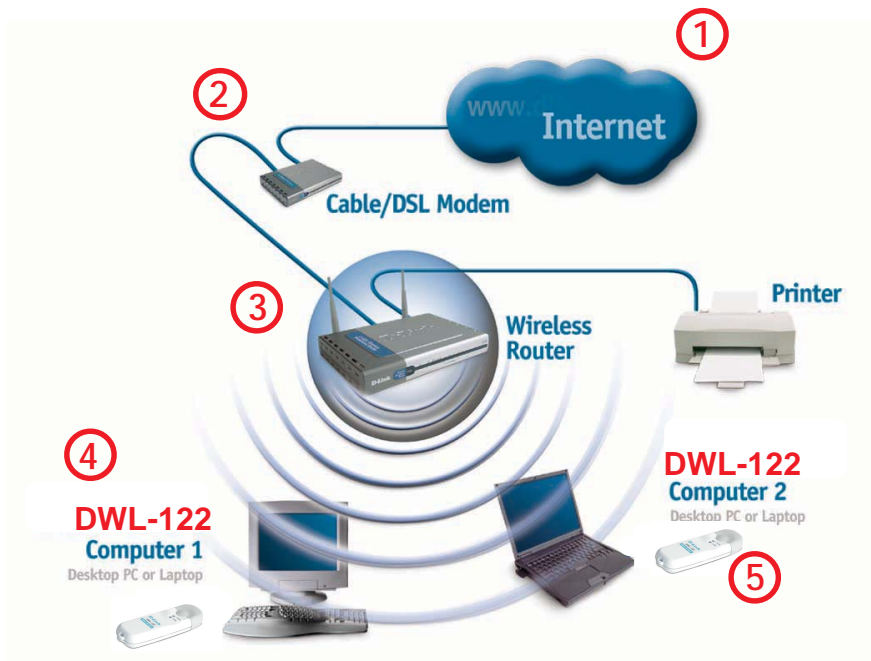**D-Link *Air*Plus DI-614+**

A laptop computer with a USB wireless network adapter -
D-Link *Air* DWL-122

A desktop computer with a USB wireless network adapter -
D-Link *Air* DWL-122

A Cable modem -
D-Link DCM-201

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 *Air* DWL-122 wireless USB adapter into an available USB port on your desktop computer. *(See the **Quick Installation Guide** included with the DWL-122.)*

5 If you are connecting a laptop computer to your network, you can install the DWL-122 into an available USB port on your laptop. (*See the **Quick Installation Guide** included with the DWL-122.*)

1 Install the **D-Link *Air* DWL-122** Wireless USB adapter into the desktop computer. *(See the **Quick Installation Guide** included with the product for installation instructions.)*

2 Install another DWL-122 into the laptop computer. *(See the **Quick Installation Guide** included with the product for installation instructions.)*

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. *(See Box below.)*

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.
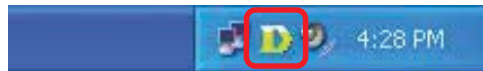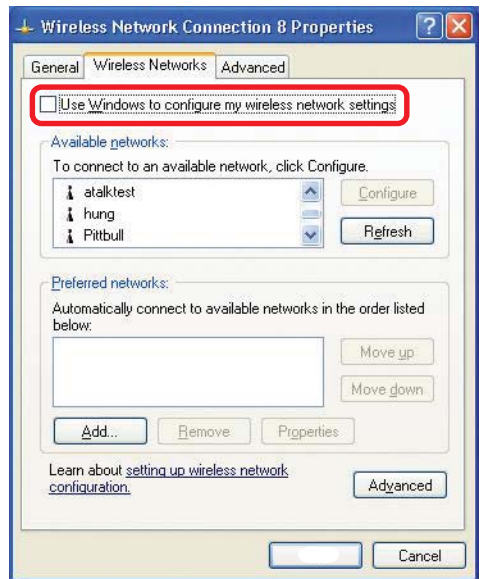
Using the Configuration Utility with Windows OS

D-Link *Air* **DWL-122** 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. When the computer is started, 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 DWL-122**.

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, click on the D-Link Configuration Utility icon in the taskbar in the lower corner of your computer screen.
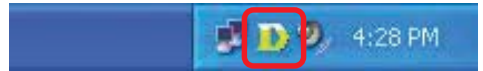
Select the **Wireless Networks** tab; uncheck the box in the properties window that enables windows configuration. After you have done this, you can then use the D-Link Configuration Utility with XP by clicking on the D-Link Configuration Utility icon again.

A new icon will appear in your Icon tray. **Double-click** on the **D** icon shown in the tray.

13

Using the Configuration Utility with Windows OS *(continued)*

Status:
Displays the MAC Address of the Access Point or Router to which the DWL-122 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-122 is communicating in the 2.4GHz band.

Link Info

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.)

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

Tx Rate:
The default setting is **Auto**; Tx Rate settings are automatically determined for an optimal speed up to a maximum of 11Mbps.

Channel:
The default setting is **Auto**. The channel selection is automatically determined by the DWL-122.

Signal Strength:
Displays the signal strength of the DWL-122's wireless connection to the Access Point or Router.
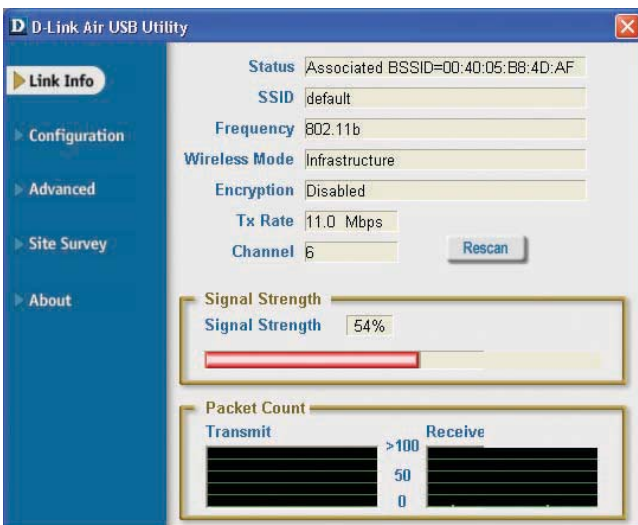
Packet Count:
Displays the statistics of the data packets that are transmitted and received.

Rescan Button:
Rescans for the strongest signal with the current SSID and associates with that Access Point or Router

14

Using the Configuration Utility with Windows OS *(continued)*

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.**

Authentication:

Choose one of the following modes:

> **Open Authentication** – the DWL-122 is visible to all devices on the network

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

> **Auto** – will automatically adjust to the Authentication mode of the wireless Access Point or Router

Key Length:

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

Keys 1-4:

Select the default key

> *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*

Configuration

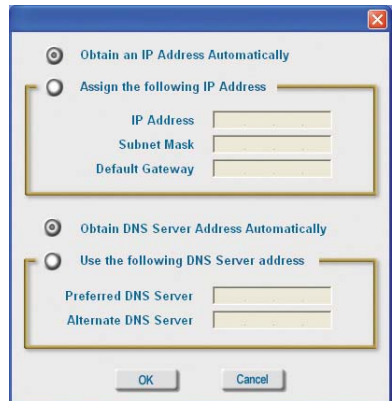## IP Settings

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.
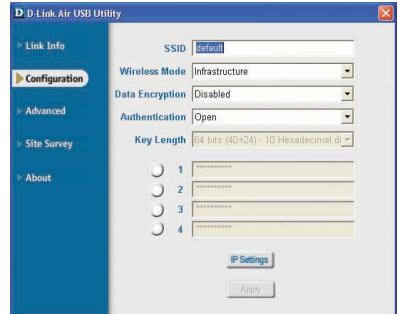
Using the Configuration Utility with Windows OS *(continued)*

Ad-Hoc Channel:
All devices in the Ad Hoc network must be set to 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.

Advanced

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**

Data Packet Parameter:
Select the parameters here

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.

Click **Apply** if you have made any changes
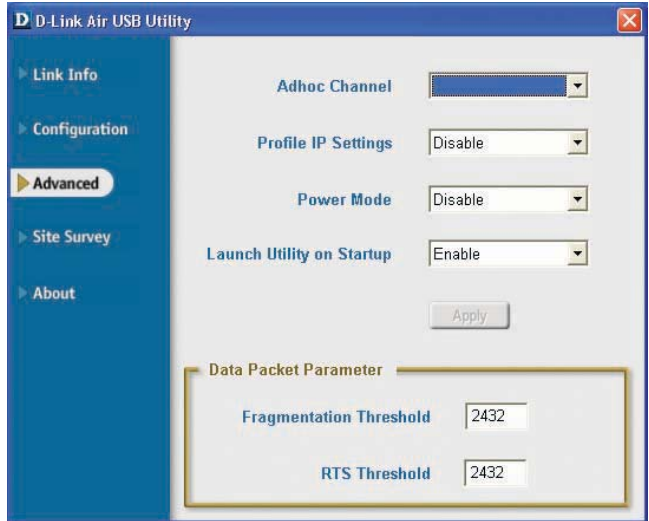
Using the Configuration Utility with Windows OS *(continued)*

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.

Site Survey

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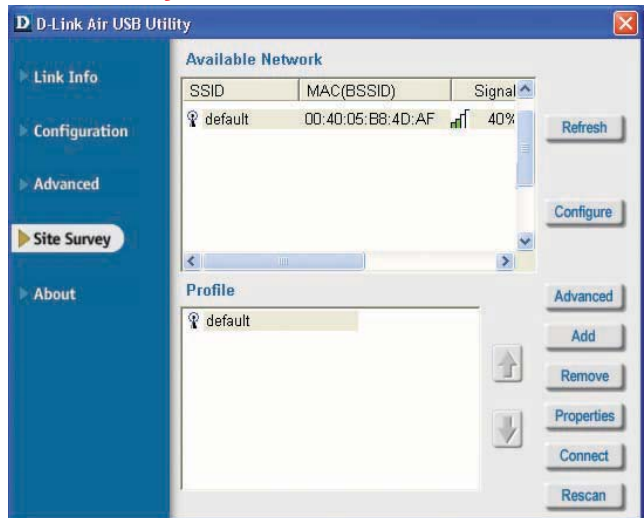
Connect:
Highlight a network profile; click **Connect** to connect to that network.

Rescan:
Click Rescan to rescan and connect to the strongest signal with the current SSID.
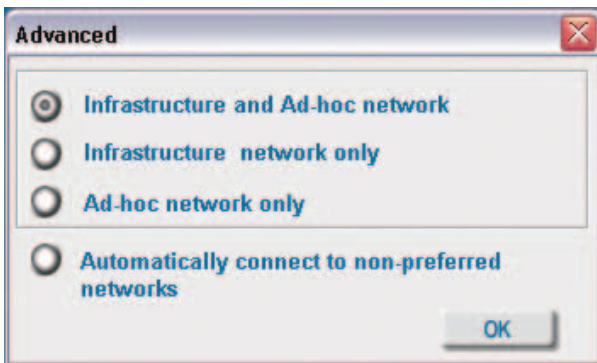
Using the Configuration Utility *(continued)*
Site Survey > Add

Advanced

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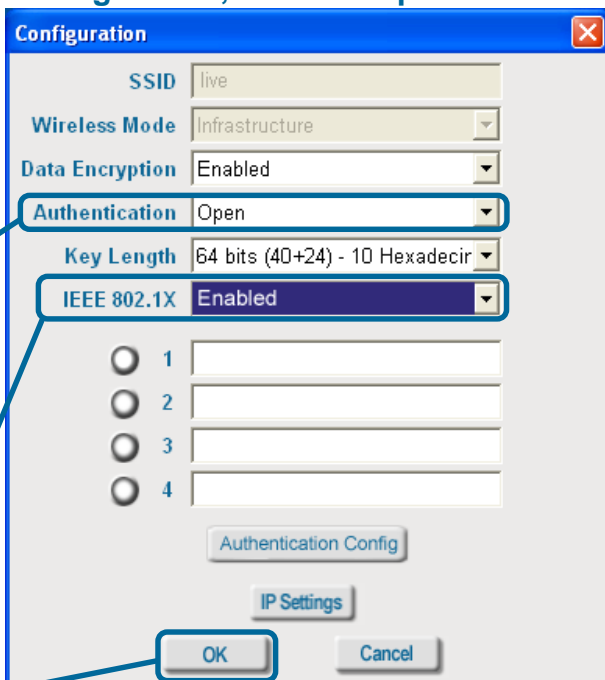the type of network connection.

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 config-
ure, in this window, all the prop-
erties 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.

If you choose to use the **IEEE
802.1X f**eature, please see the
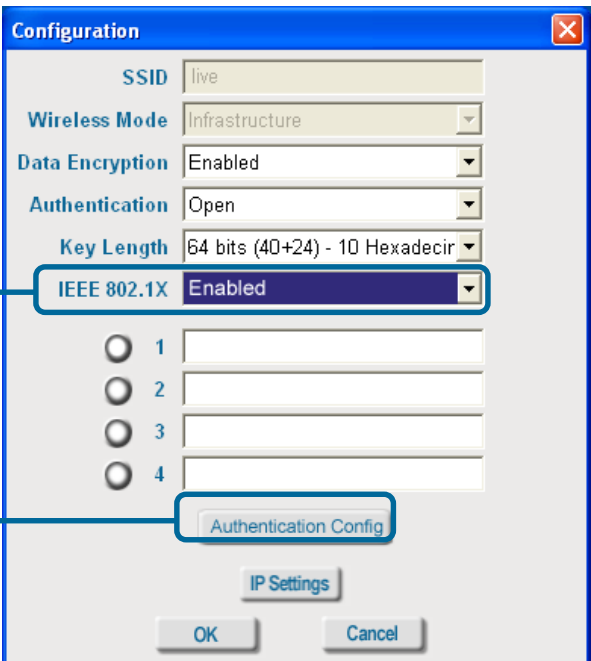detailed instructions on the fol-
lowing pages.

Click **OK** to save the
changes.

Configuration, Add or Properties

Using the Configuration Utility *(continued)*
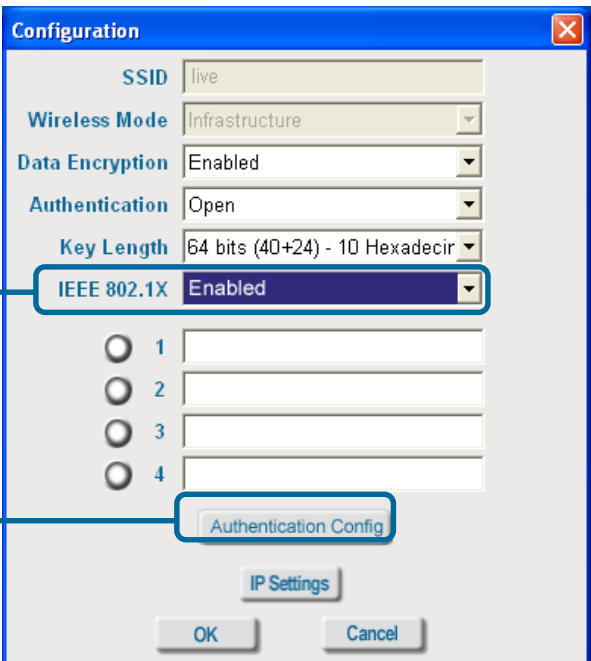## Site Survey > Configuration > 802.1X

To use 802.1x and to configure its settings, please do the following:
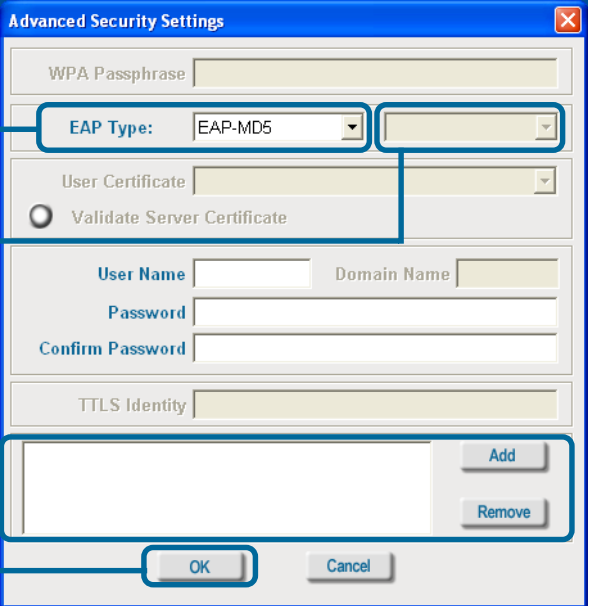
IEEE 802.1X - Select **Enabled**.

Configuration

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

○ 1
○ 2
○ 3
○ 4

Click **Authentication Config**

Authentication Config
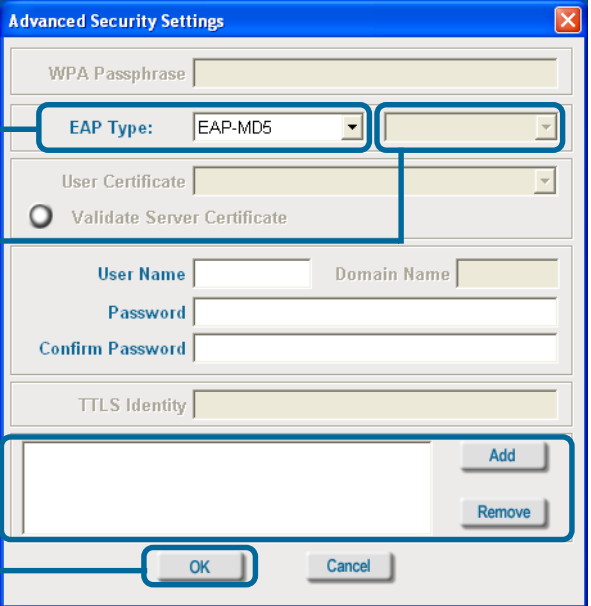
IP Settings

OK   Cancel

Advanced Security Settings

Select the **EAP Type** you want to use. Configure the information needed for authenticating.
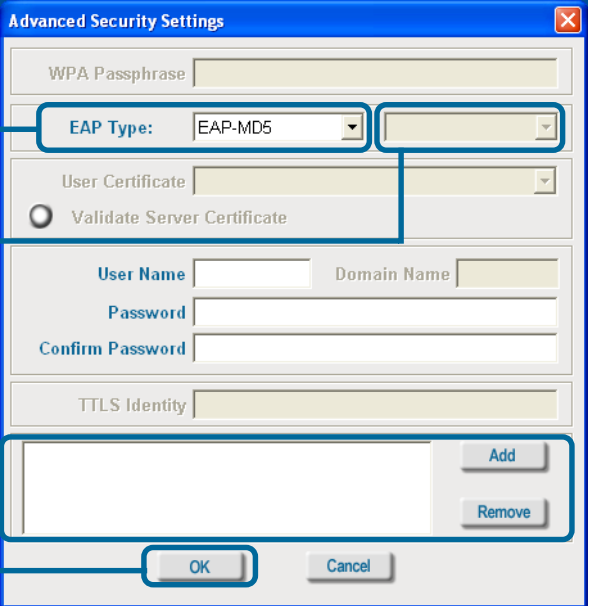
Inner Authentication Protocol.
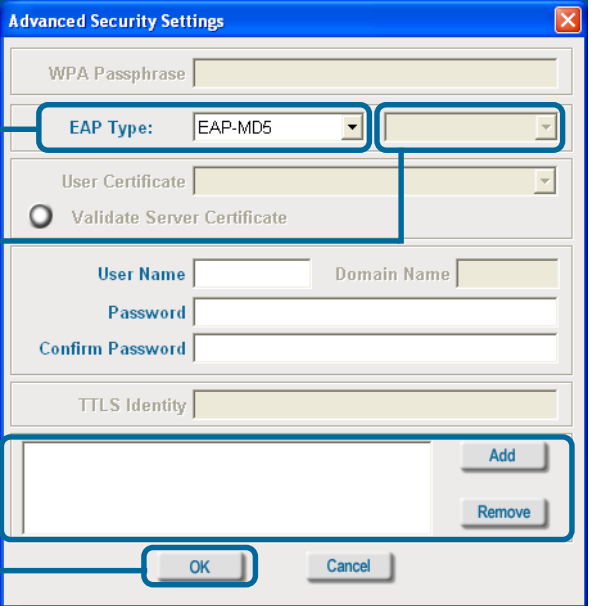
⚠️ *For an explanation of the terms shown in this window please see the following pages.*

Trusted CA List.

Click **OK**.

Advanced Security Settings

WPA Passphrase	
EAP Type:	EAP-MD5
User Certificate	

○ Validate Server Certificate

User Name	**Domain Name**
Password	
Confirm Password	
TTLS Identity	

Add
Remove

OK   Cancel

Using the Configuration Utility *(continued)*

802.1X > Advanced Security Settings > EAP Types

EAP Type	Inner Authentication Protocol	Information needed for Authenticating
EAP-TLS		Certificate User Name
EAP-MSCHAPv2		User Name Password Domain Name
LEAP		User Name Password
EAP-TTLS	PAP	TTLS Identity User Name Password
	CHAP	TTLS Identity User Name Password
	MSCHAP	TTLS Identity User Name Password Domain Name
	MSCHAPv2	TTLS Identity User Name Password Domain Name

Using the Configuration Utility *(continued)*

802.1X > Advanced Security Settings > EAP Types (continued)

EAP Type	Inner Authentication Protocol	Information needed for Authenticating
EAP-TTLS	EAP-MD5	TTLS Identity User Name Password
	EAP-Generic Token Card	TTLS Identity User Name Password
	EAP-MSCHAPv2	TTLS Identity User Name Password Domain Name
PEAP	EAP-MD5	User Name Password
	EAP-MSCHAPv2	User Name Password Domain Name
	EAP-Generic Token Card	User Name Password

802.1X > Advanced Security Settings > Definitions of Terms

Validate Server Certificate:

Check **Validate Server Certificate** to verify the identity of the authentication server based on its certificate when using EAP-TTLS, PEAP, and EAP-TLS. (This is checked by default.)

Certain protocols, such as EAP-TTLS, PEAP, and EAP-TLS, allow you to verify the identity of the authentication server as the server verifies your identity. This is called mutual authentication.

You can select trusted authentication server certificates using the **Add** button at the **Trusted CA List** (at the bottom of the **Advanced Security Settings** page).

Using the Configuration Utility *(continued)*

802.1X > Advanced Security Settings > Definitions of Terms (continued)

Domain Name:
Each server has a domain name that uniquely identifies it. That domain name is normally contained in the **Subject CN** field of the server certificate. A server domain name ends with the name of a larger administrative domain, to which the server belongs.

TTLS Identity:
EAP-TTLS has a unique feature that other protocols do not offer. Because it sets up an encrypted tunnel for your credentials, it is also able to pass your login name through that tunnel. That means that not only are your credentials secure from eavesdropping, but your identity is protected as well. Thus, with EAP-TTLS you have two identities: an inner one and an outer one. The inner identity is your actual user name. Your outer identity can be completely anonymous. Set your outer identity in the **TTLS Identity** field.

Trusted CA List:
The **Trusted CA List** allows you to configure which authentication servers you trust for the purpose of logging you into the network.
Click **Add** at the **Trusted CA List** at the bottom of the *Advanced Security Settings* page.
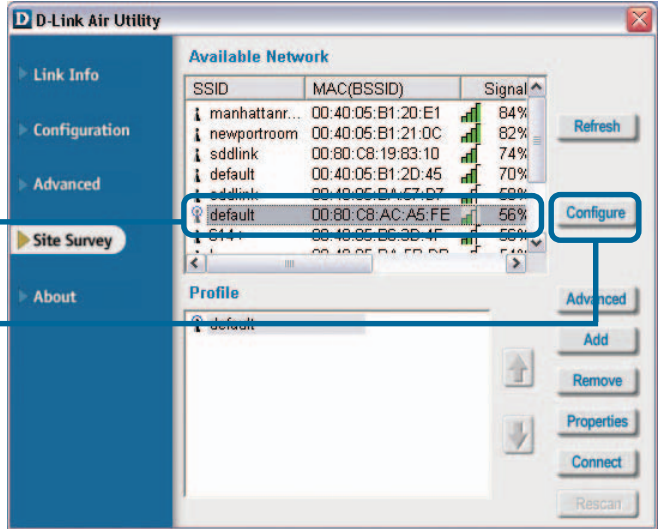Select the **Trusted CA** that you want to add and click **OK**.

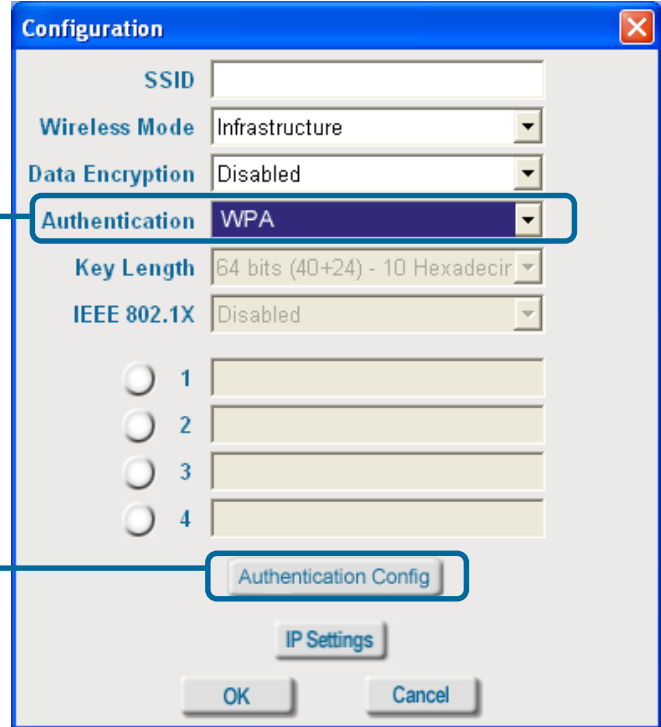# Using the Configuration Utility *(continued)*
Authentication > WPA

Select the available network to which you want to connect.

Click **Configure**.

D-Link Air Utility

Available Network

SSID	MAC(BSSID)	Signal
manhattanr...	00:40:05:B1:20:E1	84%
newportroom	00:40:05:B1:21:0C	82%
sddlink	00:80:C8:19:83:10	74%
default	00:40:05:B1:2D:45	70%
default	00:80:C8:AC:A5:FE	56%

- Link Info
- Configuration
- Advanced
- **Site Survey**
- About

Refresh
Configure
Advanced
Add
Remove
Properties
Connect
Rescan

Profile

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

Click **Authentication Config**

Configuration

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

1
2
3
4

Authentication Config

IP Settings

OK   Cancel

After you click **Authentication Config**, the *Advanced Security Settings* screen will appear. Complete the *Advanced Security Settings* configuration. Please see pages 17-20 of this manual to find out more about the *Advanced Security Settings*.

Using the Configuration Utility *(continued)*
Authentication > WPA-PSK

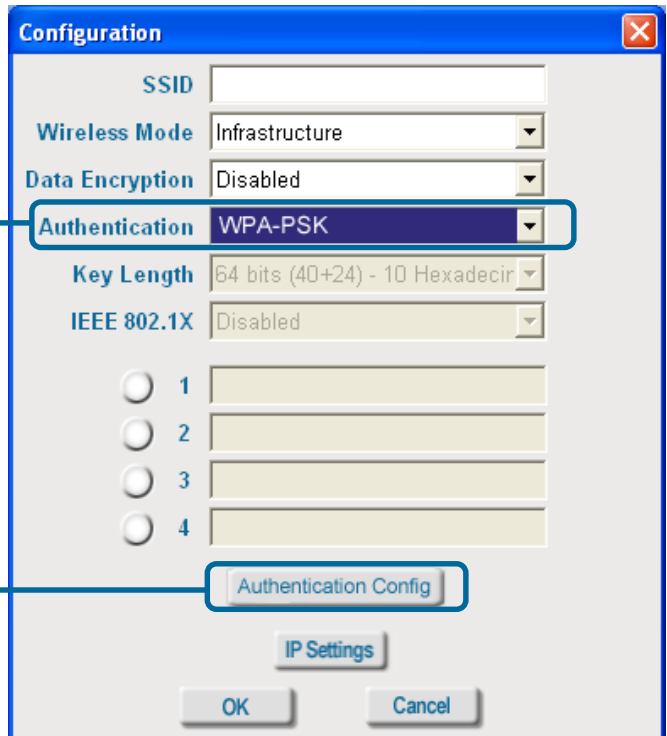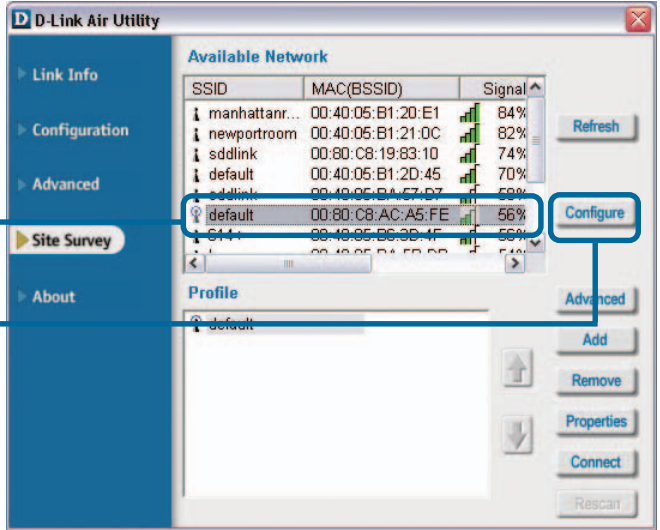Select the available network to which you want to connect.

Click **Configure**.

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

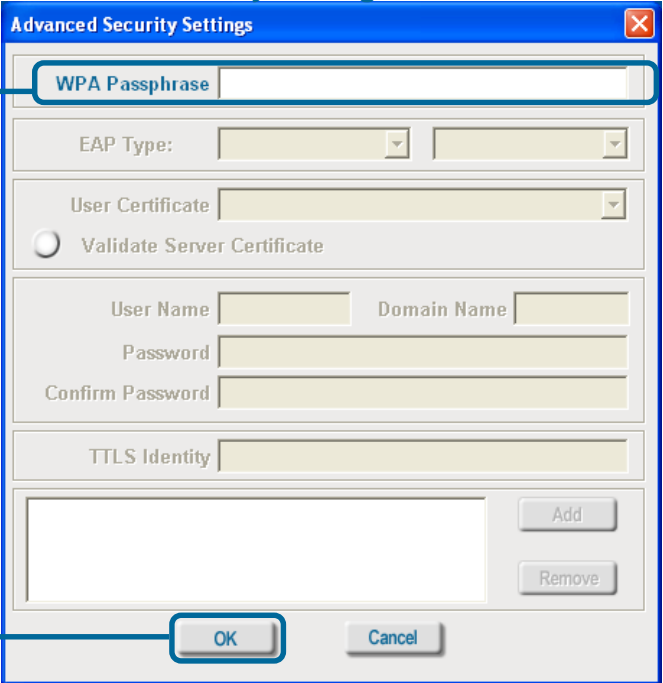Select **WPA-PSK** in the *Authentication* field.

Click **Authentication Config**

D-Link Air Utility

Available Network

SSID	MAC(BSSID)	Signal
manhattanr...	00:40:05:B1:20:E1	84%
newportroom	00:40:05:B1:21:0C	82%
sddlink	00:80:C8:19:83:10	74%
default	00:40:05:B1:2D:45	70%
sddlink	00:40:05:B4:57:D7	58%
default	00:80:C8:AC:A5:FE	56%
S11+	00:40:05:B3:3D:4F	56%

- Link Info
- Configuration
- Advanced
- Site Survey
- About

Profile
- default

Refresh
Configure
Advanced
Add
Remove
Properties
Connect
Rescan

Configuration

SSID	
Wireless Mode	Infrastructure
Data Encryption	Disabled
Authentication	WPA-PSK
Key Length	64 bits (40+24) - 10 Hexadeci
IEEE 802.1X	Disabled

○ 1
○ 2
○ 3
○ 4

Authentication Config

IP Settings

OK   Cancel

24

Using the Configuration Utility *(continued)*
Authentication > WPA-PSK (continued)

Advanced Security Settings

Enter the **WPA Passphrase**.

Advanced Security Settings	
WPA Passphrase	
EAP Type:	
User Certificate	
○ Validate Server Certificate	
User Name	Domain Name
Password	
Confirm Password	
TTLS Identity	

Add

Remove

Click **OK**.
The configuration is done.

OK   Cancel

About

The **About** screen gives you the MAC address, Utility Version and the Driver Version of the DWL-120.

D D-Link Air USB Utility

- Link Info
- Configuration
- Advanced
- Site Survey
- **About**

D-Link *Air*
2.4GHz Wireless
Adapter

Copyright 2003
D-Link Air USB Configuration
Utility

Adapter Information

MAC Address	00:05:5D:89:CE:4B
Utility Version	V3.1.5.30429
Driver Version	3.00.02

Using the Configuration Settings with Macintosh OS

After you have completed the installation of the DWL-122 into your Macintosh computer (please refer to the *Quick Installation Guide* included with the product), follow the steps below to access the configuration settings.

From the **Apple** pull-down menu select **System Preferences**.

Double-click on the **Wireless Adaptor** icon.

Using the Configuration Utility with Macintosh OS *(continued)*

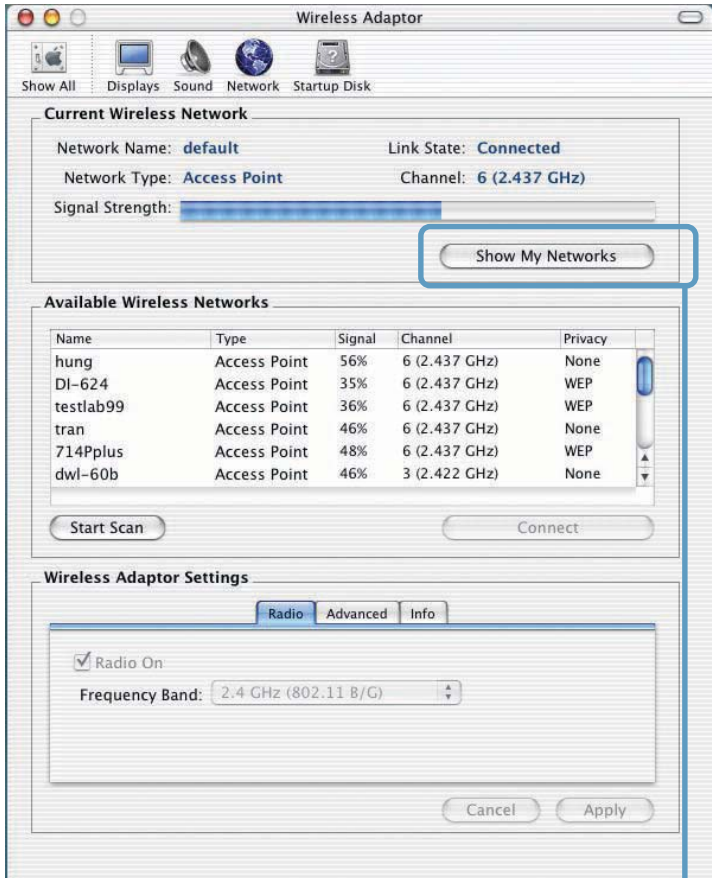This window will appear displaying the following:

Current Wireless Network settings: *Network Name; Network Type; Link Status; Channel; and Signal Strength*

Available Wireless Networks including: Name; Type; Signal; Channel; Privacy

Start Scan: click *Start Scan* to rescan for an available wireless network at your current location

Connect: highlight a network profile and click Connect to connect to that network profile

Wireless Adaptor Settings:
Radio On: select or deselect
Frequency Band: displays the frequency band; default is 2.4GHz (may not be changeable)

Wireless Adaptor

Show All | Displays | Sound | Network | Startup Disk

Current Wireless Network

Network Name: **default**   Link State: **Connected**

Network Type: **Access Point**   Channel: **6 (2.437 GHz)**

Signal Strength:

(Show My Networks)

Available Wireless Networks

Name	Type	Signal	Channel	Privacy
hung	Access Point	56%	6 (2.437 GHz)	None
DI–624	Access Point	35%	6 (2.437 GHz)	WEP
testlab99	Access Point	36%	6 (2.437 GHz)	WEP
tran	Access Point	46%	6 (2.437 GHz)	None
714Pplus	Access Point	48%	6 (2.437 GHz)	WEP
dwl–60b	Access Point	46%	3 (2.422 GHz)	None

(Start Scan)   (Connect)

Wireless Adaptor Settings

Radio | Advanced | Info

☑ Radio On

Frequency Band: 2.4 GHz (802.11 B/G)

(Cancel) (Apply)

Click **Show My Networks** to manage your network profiles

27

Using the Configuration Utility with Macintosh OS *(continued)*

My Networks
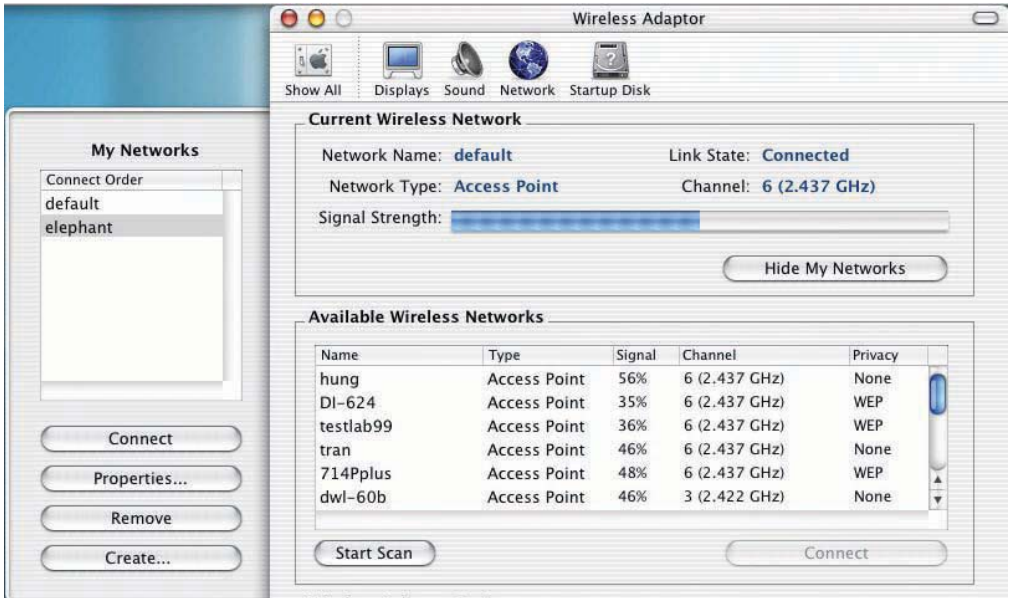
Connect: highlight a network profile and click **Connect** to connect to that network profile

Properties: highlight a network profile and click **Properties** to configure that network profile. (See screens on the next page.)
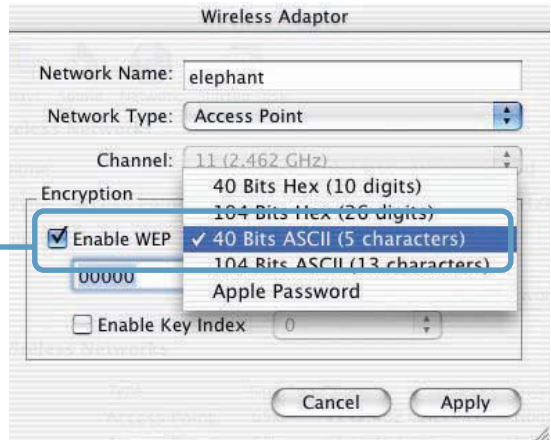
Remove: highlight a network profile and click **Remove** to remove that network from the profile list

Create: click **Create** to create a new network profile, manually. (See screens on the next page.)

Using the Configuration Utility with Macintosh OS *(continued)*
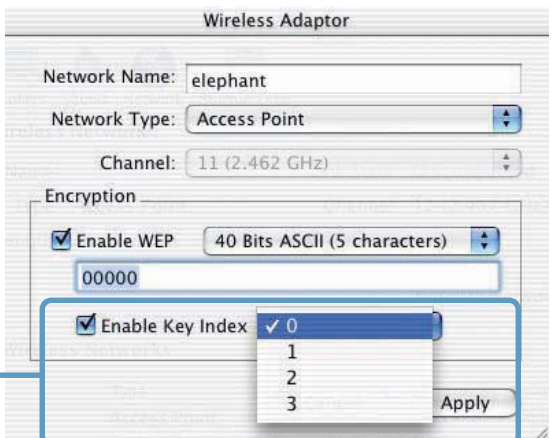
**My Networks >
Create and/or Properties**

Select the level of WEP encryption. In the example, 40 Bits ASCII was chosen.

Enter the WEP string, in this case 5 ASCII characters have been entered.
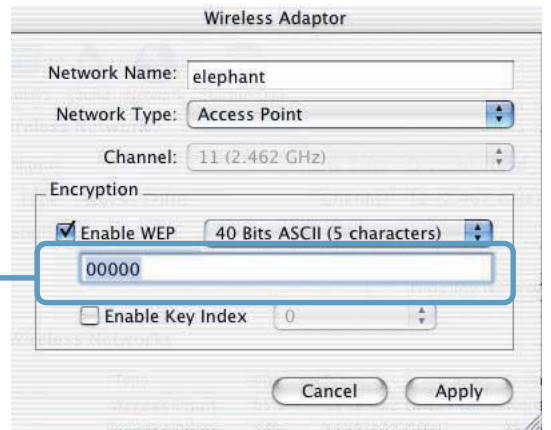
Select the key that you wish to use. You can input up to four keys.

29

Using the Configuration Utility with Macintosh OS *(continued)*

Power Save:
Always On - consumes the most power

Max Power Save - consumes the least power

Power Save - consumes a moderate amount of power

Advanced

Wireless Adaptor Settings

Radio | **Advanced** | Info

Power Save: Always On
Authentication: Open
World Mode: Active Scanning

Cancel   Apply

Authentication: Choose one of the following modes:

> **Open Authentication** - the DWL-122 is visible to all devices on the network

> **Shared Authentication** - allows communication only with devices with identical WEP settings

> **Auto** - will automatically adjust to the Authentication mode of the wireless Access Point or Router

World Mode: select Active Scanning to continuously rescan and associate with the Access Point or Router with the strongest signal in the SSID. (Not available for adapters sold in the USA.)

Info

This **Info** tab displays the MAC Address and the Firmware and Driver versions

Wireless Adaptor Settings

Radio | Advanced | **Info**

MAC Address: 00:05:5D:9A:66:A0
Primary Firmware: 1.01.03.21
Secondary Firmware: 1.07.01.00
Driver Version: 1.2.1d0

Cancel   Apply
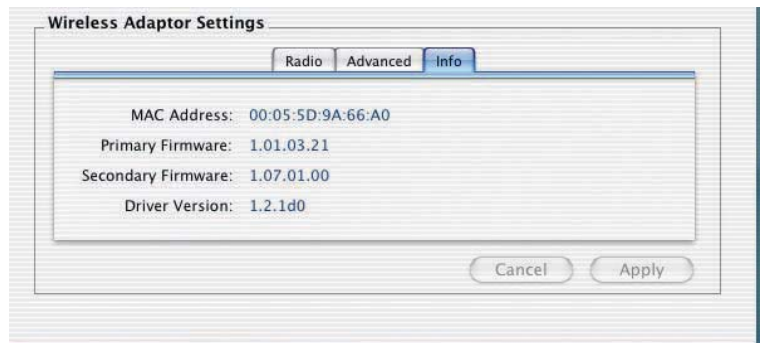
Networking Basics

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 or 98SE.

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

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

Networking Basics *(continued)*
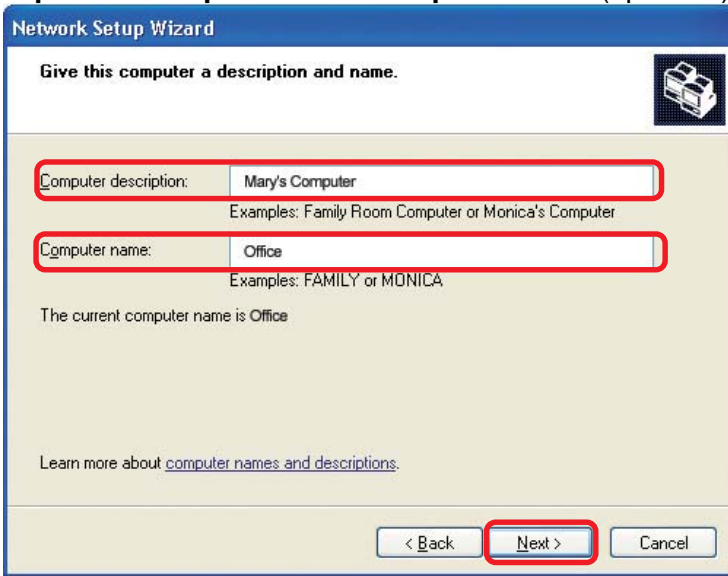
Please follow all the instructions in this window:

Network Setup Wizard

Before you continue...

Before you continue, review the checklist for creating a network.

Then, complete the following steps:

- Install the network cards, modems, and cables.
- Turn on all computers, printers, and external modems.
- Connect to the Internet.

When you click Next, the wizard will search for a shared Internet connection on your network.

[< Back] [Next >] [Cancel]

Click **Next**

In the following window, select the best description of your computer. If your computer connects to the internet through a gateway/router, select the second option as shown.

Network Setup Wizard

Select a connection method.
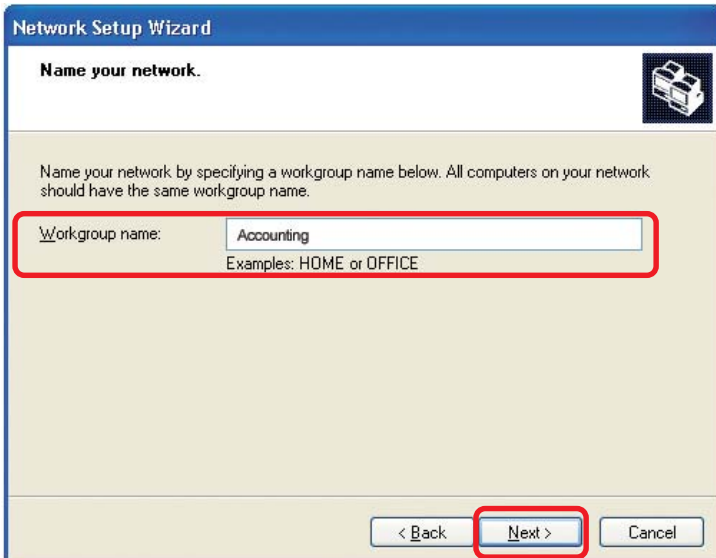
Select the statement that best describes this computer:

○ This computer connects directly to the Internet. The other computers on my network connect to the Internet through this computer.
View an example.

⦿ This computer connects to the Internet through another computer on my network or through a residential gateway.
View an example.

○ Other

Learn more about home or small office network configurations.

[< Back] [Next >] [Cancel]

Click **Next**

32

Enter a **Computer description** and a **Computer name** (optional.)

Click **Next**

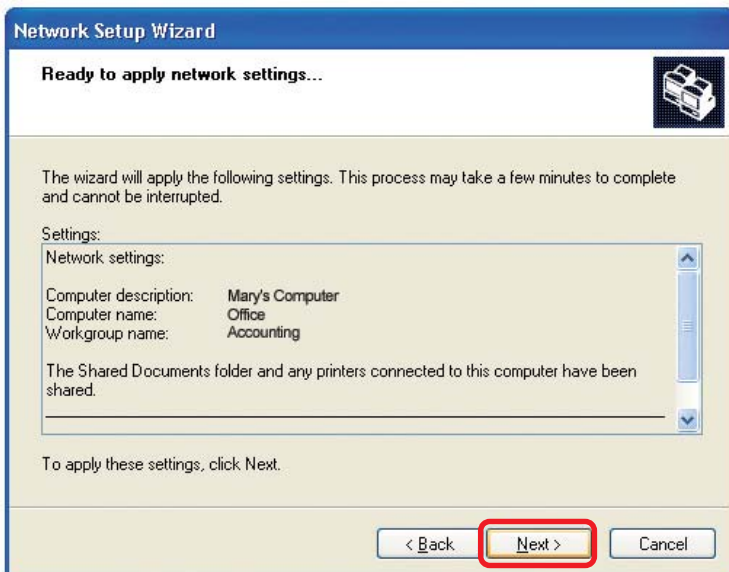Enter a **Workgroup** name. All computers on your network should have the same **Workgroup name.**

Click **Next**

Please wait while the **Network Setup Wizard** applies the changes.

Network Setup Wizard

Ready to apply network settings...

The wizard will apply the following settings. This process may take a few minutes to complete and cannot be interrupted.

Settings:

Network settings:

Computer description: Mary's Computer
Computer name: Office
Workgroup name: Accounting

The Shared Documents folder and any printers connected to this computer have been shared.

To apply these settings, click Next.

[< Back] [Next >] [Cancel]
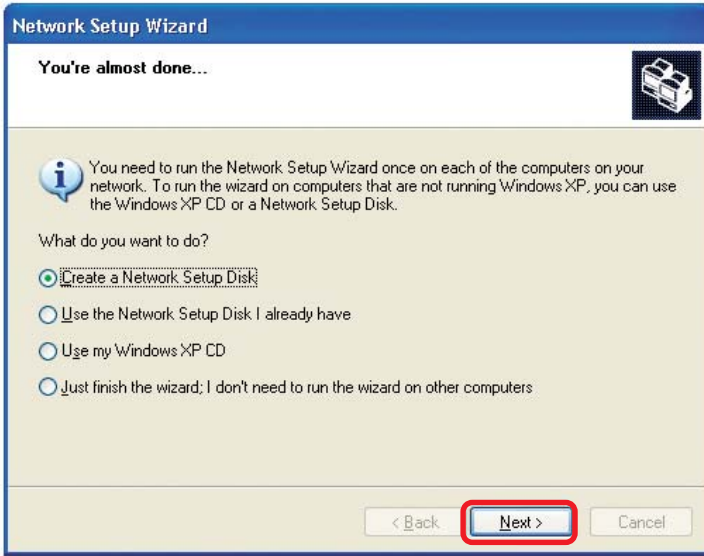
When the changes are complete, click **Next**.

Please wait while the **Network Setup Wizard** configures the computer. This may take a few minutes.

Network Setup Wizard

Ready to apply network settings...

The wizard will apply the following settings. This process may take a few minutes to complete and cannot be interrupted.

Settings:

Network settings:

Computer description: Mary's Computer
Computer name: Office
Workgroup name: Accounting

The Shared Documents folder and any printers connected to this computer have been shared.

To apply these settings, click Next.

[< Back] [Next >] [Cancel]
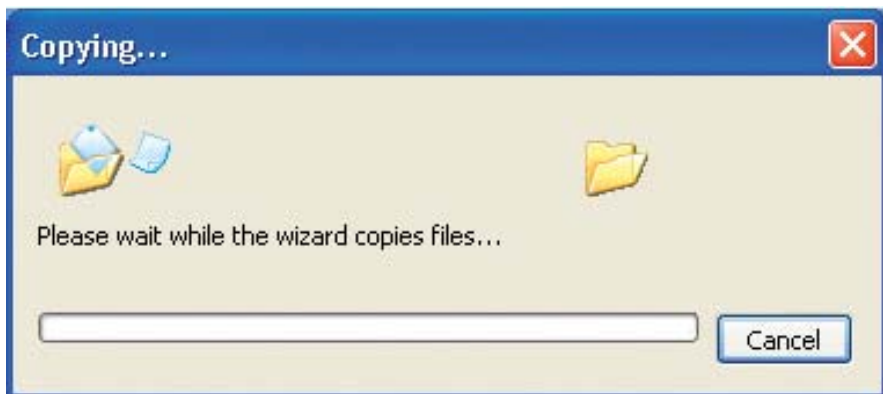
Networking Basics *(continued)*

In the window below, select the option that fits your needs. In this example, **Create a Network Setup Disk** has been selected. You will run this disk on each of the computers on your network. Click **Next**.
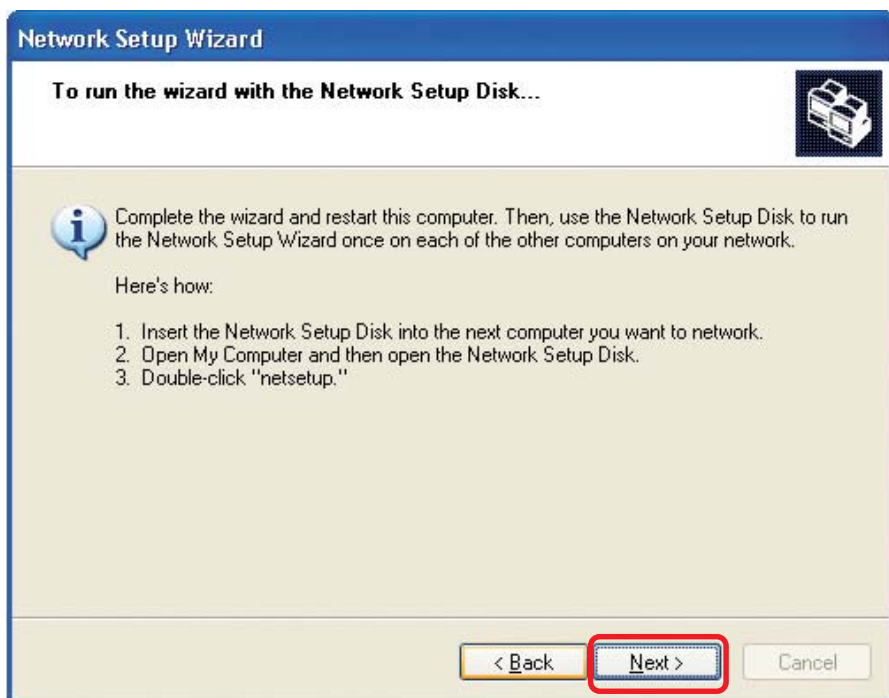
Network Setup Wizard

You're almost done...

ⓘ You need to run the Network Setup Wizard once on each of the computers on your network. To run the wizard on computers that are not running Windows XP, you can use the Windows XP CD or a Network Setup Disk.

What do you want to do?

⦿ Create a Network Setup Disk

◯ Use the Network Setup Disk I already have

◯ Use my Windows XP CD

◯ Just finish the wizard; I don't need to run the wizard on other computers

< Back   Next >   Cancel

Insert a disk into the Floppy Disk Drive, in this case drive **A.**

Network Setup Wizard

Insert the disk you want to use.

Insert a disk the into the following disk drive, and then click Next.

3½ Floppy (A:)

If you want to format the disk, click Format Disk.

Format Disk

< Back   Next >   Cancel

35

Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue click **Next.**
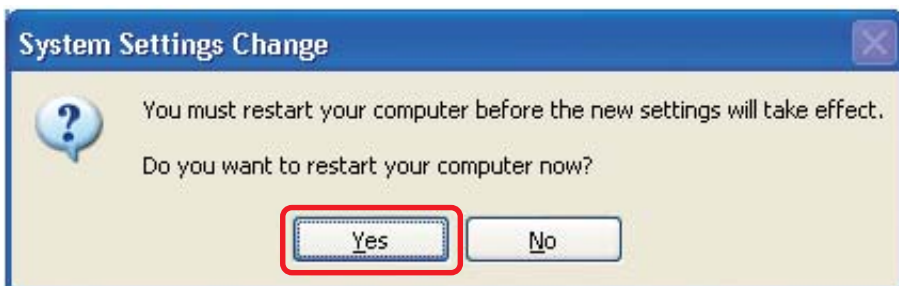
Networking Basics *(continued)*

Please read the information on this screen, then click **Finish** to complete the **Network Setup Wizard**.
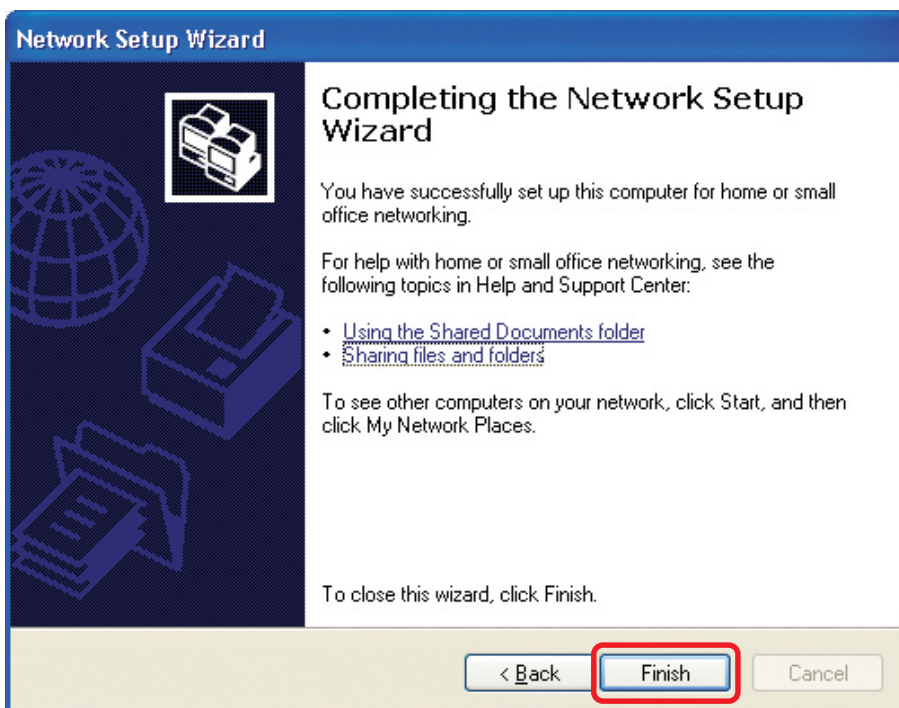
The new settings will take effect when you restart the computer. Click **Yes** to restart the computer.


You have completed configuring this computer. Next, you will need to run the **Network Setup Disk** on all the other computers on your network. After running the **Network Setup Disk** on all your computers, your new wireless network will be ready to use.

To name your computer, using **Windows XP,** please follow these directions:
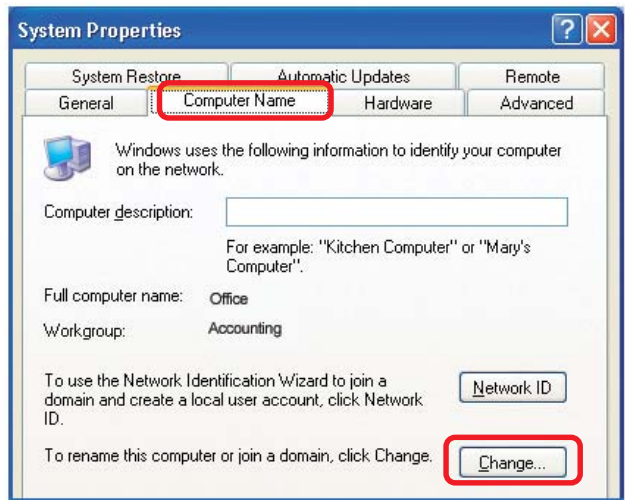
- Click **Start** (in the lower left corner of the screen)

- **Right-click** on **My Computer**

- Select **Properties** and click
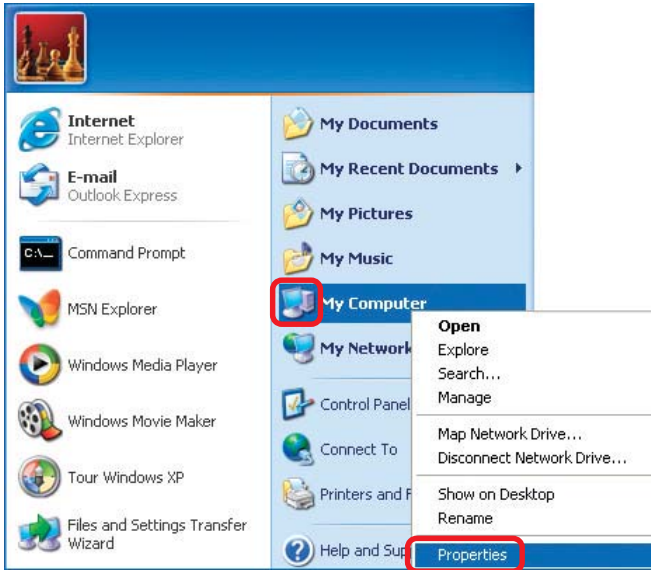
- Select the **Computer Name Tab** in the System Properties window.

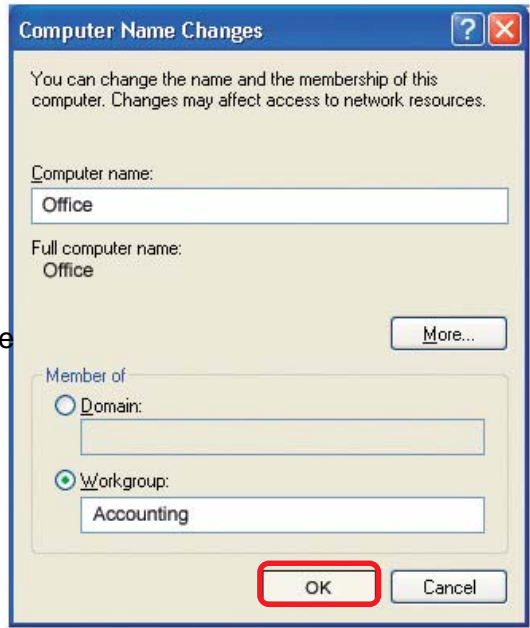- You may enter a **Computer Description** if you wish; this field is optional.

- To rename the computer and join a domain, Click **Change**.

38

- ■ In this window, enter the **Computer name**

- ■ Select **Workgroup** and enter the name of the

- ■ All computers on your network must have the same **Workgroup** name.

- ■ Click **OK**

Computer Name Changes [?][X]

You can change the name and the membership of this computer. Changes may affect access to network resources.

Computer name:
Office

Full computer name:
Office

[More...]

Member of

○ Domain:

⦿ Workgroup:
Accounting

[OK] [Cancel]

Checking the IP Address in Windows XP

The wireless adapter-equipped computers in your network must be in the same IP Address range (see *Getting Started* in this manual for a definition of IP Address Range.)

To check on the IP Address of the adapter, please do the following:

- ■ Right-click on the *Local Area Connection icon* in the task bar
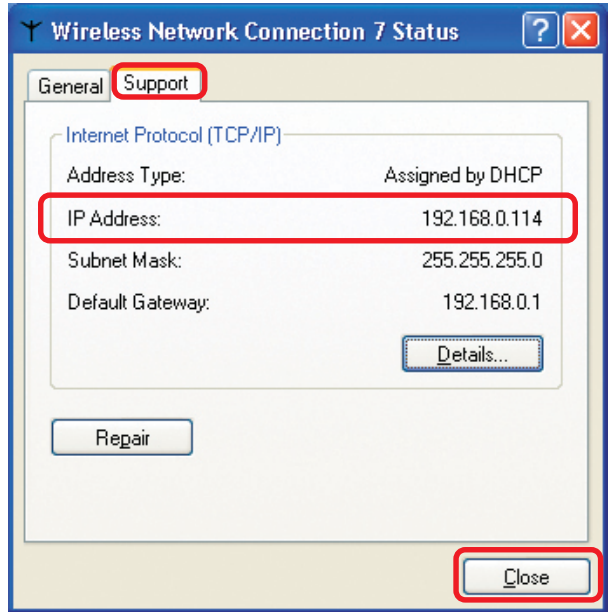
- ■ Click on **Status**

Disable
Status
Repair

View Available Wireless Networks

Open Network Connections

3:05 PM

This window will appear.

■ Click the
   Support tab

■ Click **Close**

Wireless Network Connection 7 Status

General | Support

Internet Protocol (TCP/IP)

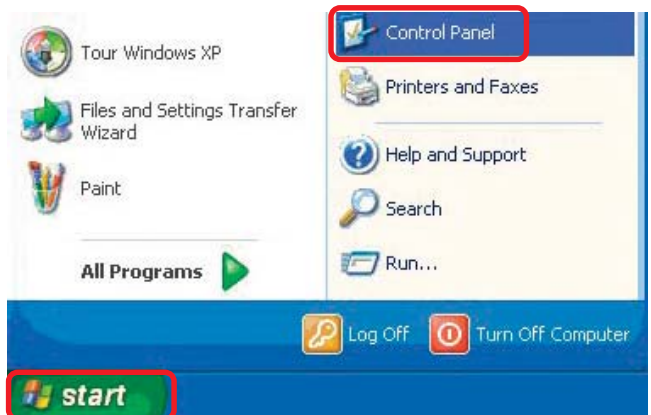|	
Address Type:	Assigned by DHCP
IP Address:	192.168.0.114
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.0.1

[Details...]

[Repair]

[Close]

Assigning a Static IP Address in Windows XP/2000

Note: Residential Gateways/Broadband Routers will automatically assign IP Addresses to the computers on the network, using DHCP (Dynamic Host Configuration Protocol) technology. If you are using a DHCP-capable Gateway/Router you will not need to assign Static IP Addresses.

If you are not using a DHCP capable Gateway/Router, or you need to assign a Static IP Address, please follow these instructions:
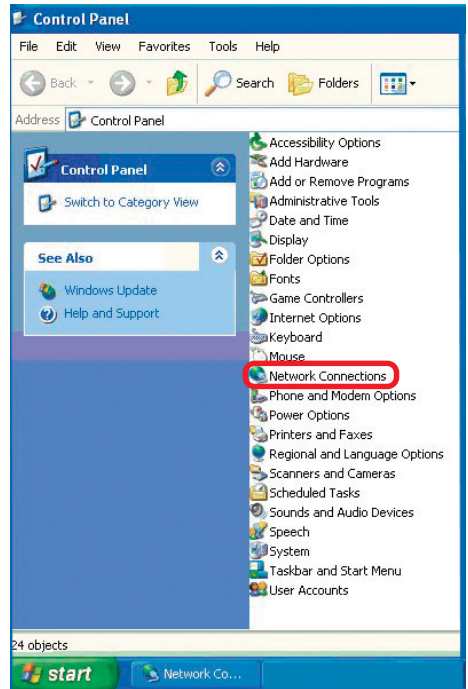
■ Go to **Start**

■ Double-click
   on **Control
   Panel**

Tour Windows XP

Files and Settings Transfer
Wizard

Paint

All Programs ▶

Control Panel

Printers and Faxes

Help and Support

Search

Run...

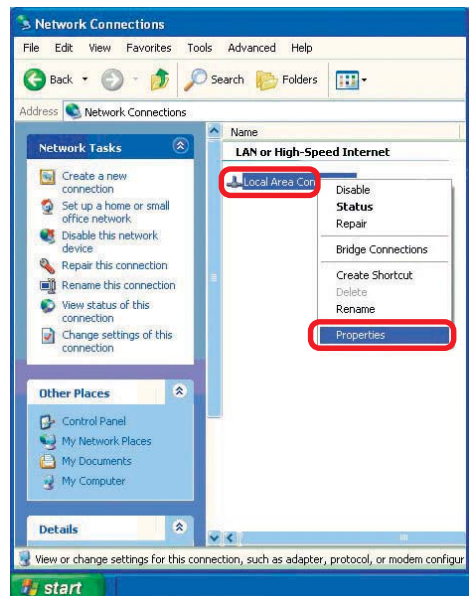Log Off   Turn Off Computer

🐾 start

Assigning a Static IP Address in <u>*Windows XP/2000*</u>

■ Double-click
on **Network
Connections**

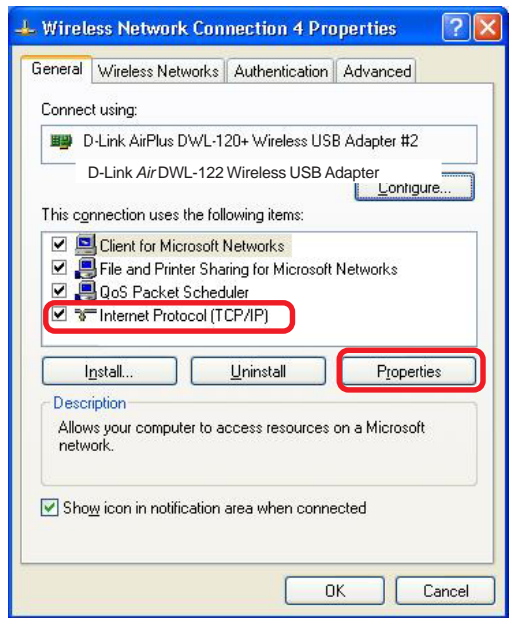■ Right-click on **Local Area
Connections**

■ Double-click on
Properties

Networking Basics *(continued)*

Assigning a Static IP Address in Windows XP/2000

- Click on **Internet Protocol (TCP/IP)**

- Click **Properties**

■ In the window below, select **Use the following IP address**. Input your **IP address and subnet mask.** (The IP Addresses on your network must be within the same range. For example, if one computer has an IP Address of 192.168.0.2, the other computers should have IP Addresses that are sequential, like 192.168.0.3 and 192.168.0.4. The subnet mask must be the same for all the computers on the network.)
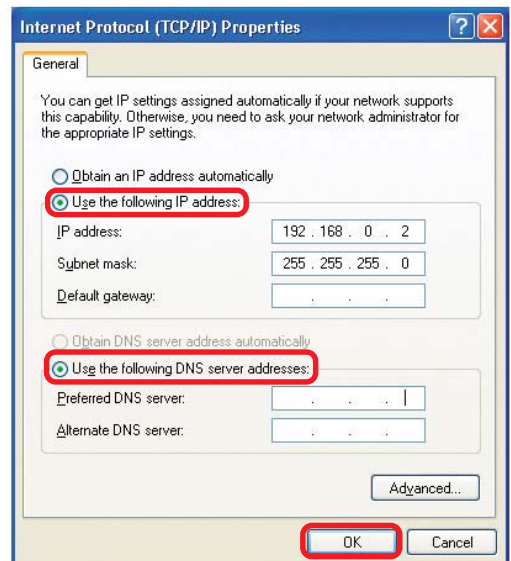
- **IP Address:**
  e.g., 192.168.0.2

- **Subnet Mask:**
  255.255.255.0

- **Default Gateway:**
  Enter the LAN IP address of the wireless router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)

- Select **Use the following DNS server addresses**. Enter the LAN IP address of the Wireless Router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)
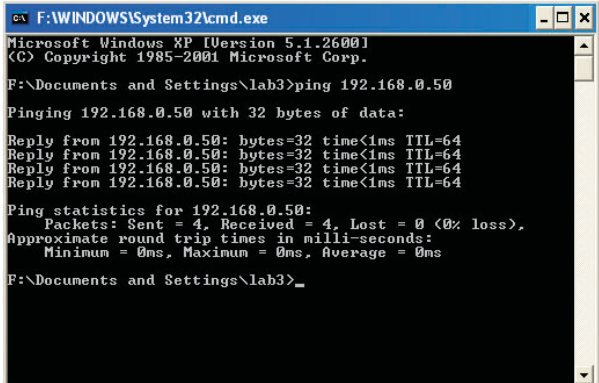
- Click **OK**

Networking Basics *(continued)*

Checking the Wireless Connection by Pinging in Windows XP and 2000*

■ Go to **Start** > **Run** > type **cmd**. A window similar to this one will appear. Type **ping xxx.xxx.xxx.xxx**, where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the Wireless Router or Acess Point, as shown.

```
F:\WINDOWS\System32\cmd.exe                                    _ □ ×
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

F:\Documents and Settings\lab3>ping 192.168.0.50

Pinging 192.168.0.50 with 32 bytes of data:

Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64
Reply from 192.168.0.50: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.0.50:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

F:\Documents and Settings\lab3>_
```
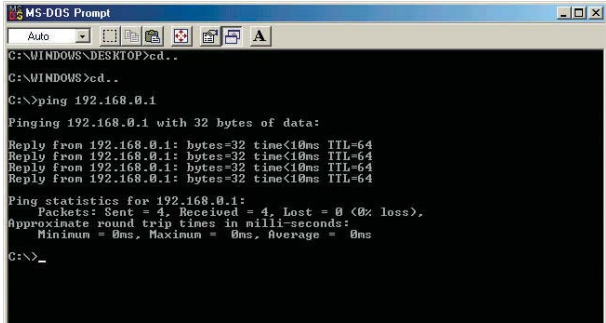
Checking the Wireless Connection by Pinging in Windows Me and 98*

■ Go to **Start** > **Run** > type **command**. A window similar to this will appear. Type **ping xxx.xxx.xxx.xxx** where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the wireless router or access point, as shown.

```
MS-DOS Prompt                                                  _ □ ×
 Auto
C:\WINDOWS\DESKTOP>cd..

C:\WINDOWS>cd..

C:\>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time<10ms TTL=64
Reply from 192.168.0.1: bytes=32 time<10ms TTL=64
Reply from 192.168.0.1: bytes=32 time<10ms TTL=64
Reply from 192.168.0.1: bytes=32 time<10ms TTL=64

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum =  0ms, Average =  0ms

C:\>_
```

The IP Addresses in these illustrations are examples only. The actual IP Addresses that you ping may be different than those displayed here.

43

Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DWL-122. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows XP. If you have another operating system, these solutions will still apply although the appearance on your computer screen may differ.)

1. Check that the drivers for the DWL-122 are installed properly.

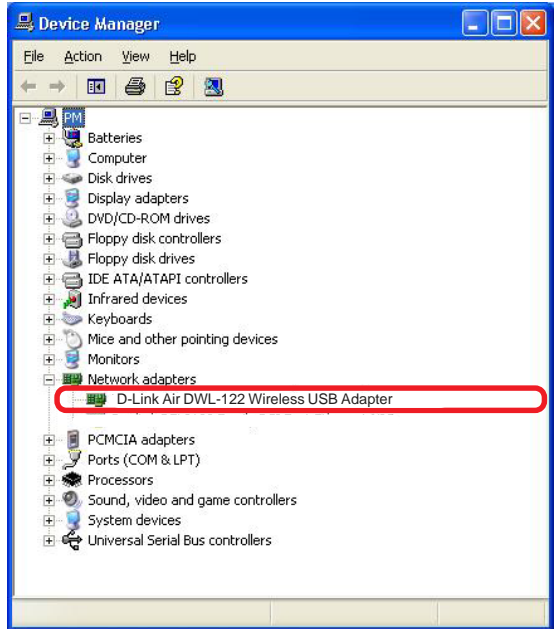■ **Go to Start > My Computer > Properties**
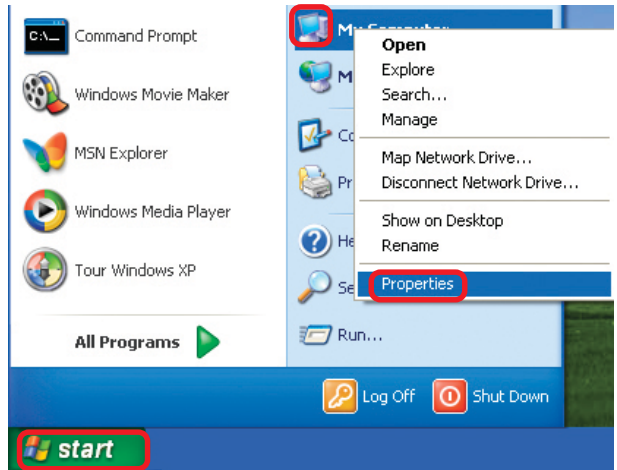
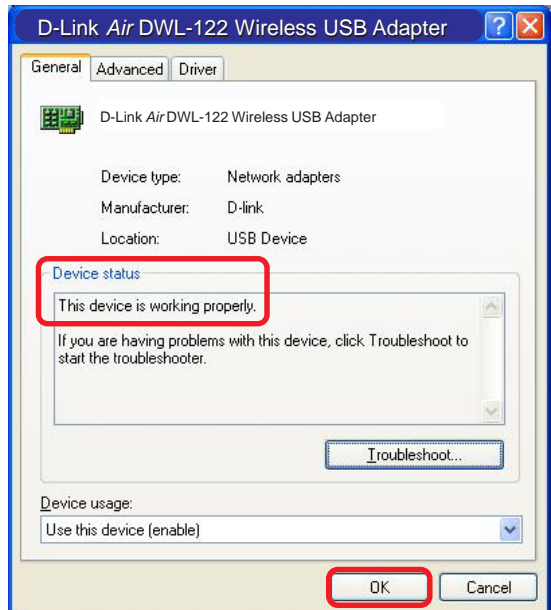
■ Select the **Hardware Tab**
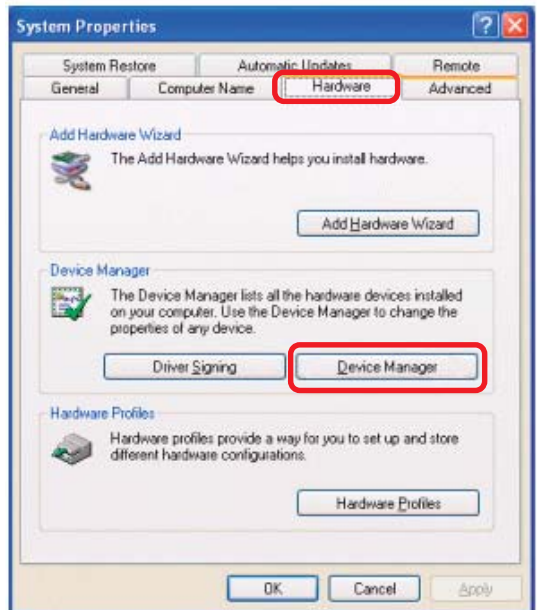
■ Click **Device Manager**

Troubleshooting *(continued)*

- Double-click on **Network Adapters**

- Right-click on **D-Link *Air* DWL-122 Wireless USB Adapter**

- Select **Properties** to check that the drivers are installed properly

- Look under **Device Status** to check that the device is working properly

- Click **OK**

Troubleshooting *(continued)*

2. What variables may cause my wireless products to lose reception?

D-Link products let you access your network from virtually anywhere you want. However, the positioning of the products within your environment will affect the wireless range. Please refer to **Installation Considerations** in the **Wireless Basics** section of this manual for further information about the most advantageous placement of your D-Link wireless products.

3. Why does my wireless connection keep dropping?

- If you are using 2.4GHz cordless phones, X-10 equipment or other home security systems, ceiling fans, and lights, your wireless connection will degrade dramatically or drop altogether. Try changing the Channel on your Router, Access Point and Wireless adapter to a different Channel to avoid interference.

- Keep your product away (at least 3-6 feet) from electrical devices that generate RF noise, like microwaves, Monitors, electric motors, etc.

4. Why can't I get a wireless connection?

If you have enabled Encryption on the DWL-122, you must also enable encryption on all wireless devices in the network in order to establish a wireless connection.

- The Encryption settings are: 64 or 128-bit. Make sure that the encryption bit level is the same on the Access Point or Router and the DWL-122.

- Make sure that the SSID on the Access Point or Router (if you have one in your network) and the DWL-122 are exactly the same. If they are not, a wireless connection will not be established. The default SSID is **default**.

Technical Specifications

Standard
- IEEE 802.11b

Diagnostic LED
- Power
- Link Status

Temperature
- Operating: 0ºC to 55ºC (32ºF to 131ºF)
- Storing: -20ºC to 75ºC (-4ºF to 167ºF)

Humidity:
- Operating: 5-95%, non-condensing
- Storing: 10-90%, non-condensing

Antenna Type:
- Integrated microstrip diversity antenna

Modulation Technique:
- DSSS

Physical Dimensions:
- L = 3.25 inches (82.5mm)
- W = 1.07 inches (27.2mm)
- H = 0.47 inches (12mm)

Data Rates:
- 1,2,5.5,11Mbps (with Automatic Fallback)

Interface:
- USB 1.1

Available Channels:
- Eleven channels for North America

Media Access Protocol:
- CSMA/CA with ACK

Technical Specifications (continued)

Operating Voltage:

- 5VDC ± 5%, powered through USB port

Encryption:

- RC4 Encryption algorithm
- 64 or 128-bit WEP Encryption

MTBF:

- >30,000 hours

Modulation Schemes:

- DQPSK, DBPSK and CCK

Transmitter Output Power:

- Typical 16dBm, 40mW

Receiver Sensitivity:

- Typical -81dBm for 11Mbps @ 8% PER (Packet Error Rate)
- Typical -86dBm for 2Mbps @ 8% PER (Packet Error Rate)

Warranty and Registration

Wichtige Sicherheitshinweise

1. Bitte lesen Sie sich diese Hinweise sorgfaltig durch.

2. Heben Sie diese Anleitung fur den spatern Gebrauch auf.

3. Vor jedem Reinigen ist das Gerat vom Stromnetz zu trennen. Vervenden Sie keine Flussig- oder Aerosolreiniger. Am besten dient ein angefeuchtetes Tuch zur Reinigung.

4. Um eine Beschadigung des Gerates zu vermeiden sollten Sie nur Zubehorteile verwenden, die vom Hersteller zugelassen sind.

5. Das Gerat is vor Feuchtigkeit zu schutzen.

6. Bei der Aufstellung des Gerates ist auf sichern Stand zu achten. Ein Kippen oder Fallen konnte Verletzungen hervorrufen. Verwenden Sie nur sichere Standorte und beachten Sie die Aufstellhinweise des Herstellers.

7. Die Beluftungsoffnungen dienen zur Luftzirkulation die das Gerat vor Uberhitzung schutzt. Sorgen Sie dafur, das diese Offnungen nicht abgedeckt werden.

8. Beachten Sie beim Anschlus an das Stromnetz die Anschlus werte.

9. Die Netzanschlus steckdose mus aus Grunden der elektrischen Sicherheit einen Schutzleiterkontakt haben.

10. Verlegen Sie die Netzanschlus leitung so, das niemand daruber fallen kann. Es sollete auch nichts auf der Leitung abgestellt werden.

11. Alle Hinweise und Warnungen die sich am Geraten befinden sind zu beachten.

12. Wird das Gerat uber einen langeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Uberspannung eine Beschadigung vermieden.

13. Durch die Luftungsoffnungen durfen niemals Gegenstande oder Flussigkeiten in das Gerat gelangen. Dies konnte einen Brand bzw. Elektrischen Schlag auslosen.

14. Offnen Sie niemals das Gerat. Das Gerat darf aus Grunden der elektrischen Sicherheit nur von authorisiertem Servicepersonal geoffnet werden.

15. Wenn folgende Situationen auftreten ist das Gerat vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu uberprufen:

    a Netzkabel oder Netzstecker sint beschadigt.

    b Flussigkeit ist in das Gerat eingedrungen.

    c Das Gerat war Feuchtigkeit ausgesetzt.

    d Wenn das Gerat nicht der Bedienungsanleitung ensprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.

    e Das Gerat ist gefallen und/oder das Gehause ist beschadigt.

    f Wenn das Gerat deutliche Anzeichen eines Defektes aufweist.

16. Bei Reparaturen durfen nur Orginalersatzteile bzw. den Orginalteilen entsprechende Teile verwendet werden. Der Einsatz von ungeeigneten Ersatzteilen kann eine weitere Beschadigung hervorrufen.

17. Wenden Sie sich mit allen Fragen die Service und Repartur betreffen an Ihren Servicepartner. Somit stellen Sie die Betriebssicherheit des Gerates sicher.

Limited Warranty

Hardware:

D-Link warrants its hardware products to be free from defects in workmanship and materials, under normal use and service, for the following periods measured from date of purchase from D-Link or its Authorized Reseller:

Product Type	Warranty Period
Complete products	One year
Spare parts and spare kits	90 days

The one-year period of warranty on complete products applies on condition that the product's Registration Card is filled out and returned to a D-Link office within ninety (90) days of purchase. A list of D-Link offices is provided at the back of this manual, together with a copy of the Registration Card. Failing such timely registration of purchase, the warranty period shall be limited to 90 days.

If the product proves defective within the applicable warranty period, D-Link will provide repair or replacement of the product. D-Link shall have the sole discretion whether to repair or replace, and replacement product may be new or reconditioned. Replacement product shall be of equivalent or better specifications, relative to the defective product, but need not be identical. Any product or part repaired by D-Link pursuant to this warranty shall have a warranty period of not less than 90 days, from date of such repair, irrespective of any earlier expiration of original warranty period. When D-Link provides replacement, then the defective product becomes the property of D-Link.

Warranty service may be obtained by contacting a D-Link office within the applicable warranty period, and requesting a Return Material Authorization (RMA) number. If a Registration Card for the product in question has not been returned to D-Link, then a proof of purchase (such as a copy of the dated purchase invoice) must be provided. If Purchaser's circumstances require special handling of warranty correction, then at the time of requesting RMA number, Purchaser may also propose special procedure as may be suitable to the case.

After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. The package must be mailed or otherwise shipped to D-Link with all costs of mailing/shipping/insurance prepaid; D-Link will ordinarily reimburse Purchaser for mailing/shipping/insurance expenses incurred for return of defective product in accordance with this warranty. D-Link shall never be responsible for any software, firmware, information, or memory data of Purchaser contained in, stored on, or integrated with any product returned to D-Link pursuant to this warranty.

Any package returned to D-Link without an RMA number will be rejected and shipped back to Purchaser at Purchaser's expense, and D-Link reserves the right in such a case to levy a reasonable handling charge in addition mailing or shipping costs.

Software:

Warranty service for software products may be obtained by contacting a D-Link office within the applicable warranty period. A list of D-Link offices is provided at the back of this manual, together with a copy of the Registration Card. If a Registration Card for the product in question has not been returned to a D-Link office, then a proof of purchase (such as a copy of the dated purchase invoice) must be provided when requesting warranty service. The term "purchase" in this software warranty refers to the purchase transaction and resulting licence to use such software.

D-Link warrants that its software products will perform in substantial conformance with the applicable product documentation provided by D-Link with such software product, for a period of ninety (90) days from the date of purchase from D-Link or its Authorized Reseller. D-Link warrants the magnetic media, on which D-Link provides its software product, against failure during the same warranty period. This warranty applies to purchased software, and to replacement software provided by D-Link pursuant to this warranty, but shall not apply to any update or replacement which may be provided for download via the Internet, or to any update which may otherwise be provided free of charge.

D-Link's sole obligation under this software warranty shall be to replace any defective software product with product which substantially conforms to D-Link's applicable product documentation. Purchaser assumes responsibility for the selection of appropriate application and system/platform software and associated reference materials. D-Link makes no warranty that its software products will work in combination with any hardware, or any application or system/platform software product provided by any third party, excepting only such products as are expressly represented, in D-Link's applicable product documentation as being compatible. D-Link's obligation under this warranty shall be a reasonable effort to provide compatibility, but D-Link shall have no obligation to provide compatibility when there is fault in the third-party hardware or software. D-Link makes no warranty that operation of its software products will be uninterrupted or absolutely error-free, and no warranty that all defects in the software product, within or without the scope of D-Link's applicable product documentation, will be corrected.

LIMITATION OF WARRANTIES

IF THE D-LINK PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT D-LINK'S OPTION, REPAIR OR REPLACEMENT. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. D-LINK NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION MAINTENANCE OR USE OF D-LINK'S PRODUCTS.

D-LINK SHALL NOT BE LIABLE UNDER THIS WARRANTY IF ITS TESTING AND EXAMINATION DISCLOSE THAT THE ALLEGED DEFECT IN THE PRODUCT DOES NOT EXIST OR WAS CAUSED BY THE CUSTOMER'S OR ANY THIRD PERSON'S MISUSE, NEGLECT, IMPROPER INSTALLATION OR TESTING, UNAUTHORIZED ATTEMPTS TO REPAIR, OR ANY OTHER CAUSE BEYOND THE RANGE OF THE INTENDED USE, OR BY ACCIDENT, FIRE, LIGHTNING OR OTHER HAZARD.

LIMITATION OF LIABILITY

IN NO EVENT WILL D-LINK BE LIABLE FOR ANY DAMAGES, INCLUDING LOSS OF DATA, LOSS OF PROFITS, COST OF COVER OR OTHER INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES ARISING OUT THE INSTALLATION, MAINTENANCE, USE,

D-Link Offices for Registration and Warranty Service

The product's Registration Card, provided at the back of this manual, must be sent to a D-Link office. To obtain an RMA number for warranty service as to a hardware product, or to obtain warranty service as to a software product, contact the D-Link office nearest you. An addresses/telephone/fax list of D-Link offices is provided in the back of this manual.

Trademarks

Copyright Statement

Federal Communication Commission Interference Statement

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 of the following measures:

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

This device complies with Part 15 of the FCC Rules. 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Mark Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Warnung!

Dies ist ein Produkt der Klasse A. Im Wohnbereich kann dieses Produkt Funkstoerungen verursachen. In diesem Fall kann vom Benutzer verlangt werden, angemessene Massnahmen zu ergreifen.

Precaucion!

Este es un producto de Clase A. En un entorno domestico, puede causar interferencias de radio, en cuyo case, puede requerirse al usuario para que adopte las medidas adecuadas.

Attention!

Ceci est un produit de classe A. Dans un environnement domestique, ce produit pourrait causer des interferences radio, auquel cas l'utilisateur devrait prendre les mesures adequates.

Attenzione!

Il presente prodotto appartiene alla classe A. Se utilizzato in ambiente domestico il prodotto puo causare interferenze radio, nel cui caso e possibile che l'utente debba assumere provvedimenti adeguati.

BSMI Warning

警 告 使 用 者
這是甲類的資訊產品,在居住的環境中使用時,可能會造成射
頻干擾,在這種情況下使用者會被要求採取某些適當的對策.

International Offices

U.S.A
17595 Mt. Herrmann Street
Fountain Valley, CA.   92708
TEL: 714-885-6000
Fax   866-743-4905
URL: www.dlink.com

Canada
2180 Winston Park Drive
Oakville, Ontario, L6H 5W1
Canada
TEL: 1-905-8295033
FAX: 1-905-8295223
URL: www.dlink.ca

Europe (U. K.)
4th Floor, Merit House
Edgware Road, Colindale
London NW9 5AB
U.K.
TEL: 44-20-8731-5555
FAX: 44-20-8731-5511
URL: www.dlink.co.uk

Germany
Schwalbacher Strasse 74
D-65760 Eschborn
Germany
TEL: 49-6196-77990
FAX: 49-6196-7799300
URL: www.dlink.de

France
Le Florilege #.2, Allee de la
Fresnerie
78330 Fontenay le Fleury
France
TEL: 33-1-30238688
FAX: 33-1-30238689
URL: www.dlink-france.fr

Netherlands
Weena 290
3012 NJ Rotterdam
Netherlands
Tel: +31-10-282-1445
Fax: +31-10-282-1331
URL: www.dlink-benelux.com

Belgium
Rue des Colonies 11
B-1000 Brussels
Belgium
Tel: +32(0)2 517 7111

Norway
Karihaugveien 89
1086 Oslo
Norway
TEL: 47-22-309075
FAX: 47-22-309085
URL: www.dlink.no

Finland
Pakkalankuja 7A
01510 Vantaa,
Finland
TEL : +358-9-2707 5080
FAX: + 358-9-2707 5081
URL: www.dlink.fi

Iberia
C/Sabino De Arana,
56 Bajos
08028 Barcelona
TEL: 34 93 4090770
FAX: 34 93 4910795
URL: www.dlinkiberia.es

Singapore
1 International Business Park
#03-12 The Synergy
Singapore 609917
TEL: 65-6774-6233
FAX: 65-6774-6322
URL: www.dlink-intl.com

Australia
1 Giffnock Avenue,
North Ryde, NSW 2113
Australia
TEL: 61-2-8899-1800
FAX: 61-2-8899-1868
URL: www.dlink.com.au

India
D-Link House, Kurla Bandra Complex
Road, Off CST Road, Santacruz (East),
Mumbai - 400098.
India
TEL: 91-022-26526696/56902210
FAX: 91-022-26528914
URL: www.dlink.co.in

Middle East (Dubai)
P.O.Box: 500376
Office No.:103, Building:3
Dubai Internet City
Dubai, United Arab Emirates

Israel
11 Hamanofim Street
Ackerstein Towers, Regus
Business Center
P.O.B   2148, Hertzelia-Pituach
46120.
Israel
TEL: +972-9-9715700
FAX: +972-9-9715601
URL: www.dlink.co.il

LatinAmerica
Isidora Goyeechea 2934 of 702,
Las Condes
Santiago   Chile S.A.
TEL: 56-2-232-3185
FAX: 56-2-232-0923
URL: www.dlink.cl

Brasil
Av das Na--es Unidas, 11857,
cj 132 - Brooklin Novo
S-o Paulo - SP - Brazil
04578-000
TEL: (55 11) 550 39320
Fax: (55 11) 550 39321

South   Africa
Einstein Park II
Block B
102-106 Witch-Hazel Avenue
Highveld Technopark
Centurion
Gauteng
Republic of South Africa
TEL: 27-12-665-2165
FAX: 27-12-665-2186
URL: www..d-link.co.za

Russia
Grafsky per., 14, floor 6
Moscow
129626 Russia
TEL: 7-095-744-0099
FAX: 7-095-744-0099 #350
URL: www.dlink.ru

China
Room 507/508, Tower W1,
The towers Oriental Plaza NO.1,
East Chang An Ave.,
Dong Cheng District Beijing ,
100738, China.
TEL +86-010-85182533

Fax: +32(0)2 517 6500
URL: www.dlink-benelux.com

Italy
Via Nino Bonnet n. 6/b
20154   Milano,
Italy
TEL: 39-02-2900-0676
FAX: 39-02-2900-1723
URL: www.dlink.it

Sweden
P.O. Box 15036, S-167 15
Bromma
Sweden
TEL: 46-(0)8564-61900
FAX: 46-(0)8564-61901
URL: www.dlink.se

Denmark
Naverland 2, DK-2600
Glostrup, Copenhagen,
Denmark
TEL: 45-43-969040
FAX: 45-43-424347
URL:www.dlink.dk

Tel:+971-4-3916480
Fax:+971-4-3908881
URL: www.dlink-me.com

Turkey
Regus Offices
Beybi Giz Plaza, Ayazaga Mah.
Meydan Sok. No:28 Maslak 34396,
Istanbul-Turkiye
TEL: +90 212 335 2553
FAX: +90 212 335 2500
URL: www.dlink.com.tr

Egypt
19 El-Shahed Helmy, El Masri
Al-Maza, Heliopolis
Cairo,Egypt.
TEL:+202 414 4295
FAX:+202 415 6704
URL: www.dlink-me.com

FAX: +86-010-85182250
URL: www.dlink.com.cn

Taiwan
2F, No. 119, Pao-Chung Rd.
Hsin-Tien, Taipei
Taiwan
TEL: 886-2-2910-2626
FAX: 886-2-2910-1515
URL: www.dlinktw.com.tw

Headquarters
2F, No. 233-2, Pao-Chiao Rd.
Hsin-Tien, Taipei
Taiwan
TEL: 886-2-2916-1600
FAX: 886-2-2914-6299
URL: www.dlink.com.tw