## D-Link AirPlus<sup>™</sup> G DWL-G710 802.11g Wireless Range Extender

Manual



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#### **Contents of Package:**

- D-Link AirPlus<sup>™</sup> G DWL-G710 802.11g Wireless Range Extender
- Power Adapter-DC 5V, 2.0A
- Manual on CD
- Quick Installation Guide
- Ethernet Cable

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

Note: Using a power supply with a different voltage rating than the one included with the DWL-G710 will cause damage and void the warranty for this product.

#### System Requirements for Configuration:

- Computers with Windows, Macintosh, or Linux-based operating systems with an installed Ethernet adapter
- Internet Explorer version 6.0 or Netscape Navigator version 7.0 and above

# Introduction

With a maximum wireless signal rate of up to five times the rate of previous wireless devices (up to 54Mbps\*), you can work faster and more efficiently, increasing productivity. With the DWL-G710, bandwidth-intensive applications like graphics or multimedia will benefit significantly because large files are able to move across the network quickly.

The D-Link *Air*Plus<sup>™</sup>G DWL-G710 Wireless Range Extender can repeat the wireless signal of D-Link *Air*Plus<sup>™</sup>G access points and wireless routers to extend the range of your wireless network.

The DWL-G710 is capable of a maximum wireless signal rate of up to 54Mbps when used with other D-Link *Air*Plus<sup>™</sup> G products such as the DWL-G510 Wireless PCI Adapter, DWL-G630 Wireless Cardbus Adapter, and the DI-524 Wireless Router.

The DWL-G710 is compatible with most popular operating systems, including Macintosh, Linux and Windows, and can be integrated into a large network.

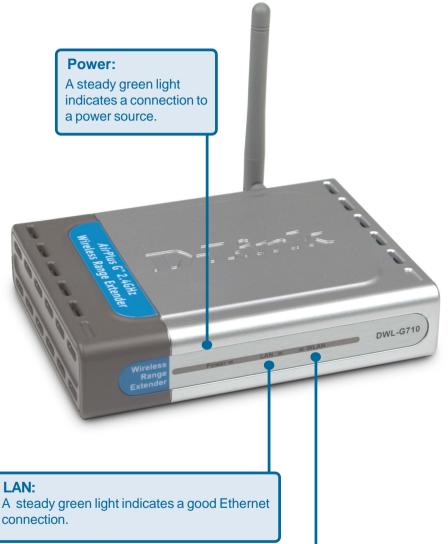
\*Maximum wireless signal rate based on IEEE Standard 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors lower actual data throughput rate.

# Connections

Pressing the Reset Button restores the DWL-G710 to its original factory default settings. The **LAN Port** is Auto-MDI/MDIX. You can insert either a straight-through or a crossover Ethernet cable in this port in order to connect the DWL-G710 to the local network. Receptor for the **Power** Adapter



LED stands for Light-Emitting Diode. The DWL-G710 Wireless Range Extender has 3 LEDs as shown below:



#### WLAN:

A steady green light indicates a good wireless connection. A blinking light indicates that the DWL-G710 is receiving/transmitting from/to the wireless network.

## **Features and Benefits**

- Extends the range of your wireless network.
- With a maximum wireless signal rate of up to 54Mbps\* with AirPlus G Products, the DWL-G710 delivers media rich content such as digital images, videos, and MP3 files much faster than standard 802.11b networks.
- Fully 802.11b compatible Fully compatible with the IEEE 802.11b standard and interoperable with all existing 802.11b compliant devices.
- Easy setup with the setup wizard.
- Web-based interface for managing and configuring Easy-to-use interface independent of the operating system.
- Simple configuration with the Site Survey tool. Just click on a network to extend the range of an access point or router in that network. No MAC addresses needed.
- Auto-MDI/MDIX Ethernet port.

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

# **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 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.

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)

The DWL-G710 is compatible, in default mode, with the following wireless products:

- D-Link *Air*Plus™G DWL-G510 Wireless PCI Adapter used with desktop computers
- D-Link AirPlus™ G DWL-G630 Wireless Cardbus Adapter used with laptop computers
- D-Link AirPlus™ G DI-524 Wireless Router
- The DWL-G710 is also interoperable with other 802.11g and 802.11b standards-compliant devices.

#### **Standards-Based Technology**

The DWL-G710 Wireless Range Extender utilizes the 802.11b and the 802.11g standards.

The IEEE **802.11g** standard is an extension of the **802.11b** standard. It increases the maximum wireless signal rate up to 54Mbps\* within the 2.4GHz band, utilizing **OFDM** technology.

This means that in most environments, within the specified range of this device, you will be able to transfer large files quickly or even watch a movie in MPEG format over your network without noticeable delays. This technology works by transmitting high-speed digital data over a radio wave utilizing OFDM (Orthogonal Frequency Division Multiplexing) technology. OFDM works by splitting the radio signal into multiple smaller sub-signals that are then transmitted simultaneously at different frequencies to the receiver. OFDM reduces the amount of crosstalk (interference) in signal transmissions. The D-Link DWL-G710 will automatically sense the best possible connection speed to ensure the greatest speed and range possible.

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

### Wireless Basics (continued)

#### **Installation Considerations**

The D-Link *Air*Plus<sup>™</sup> G DWL-G710 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:

- Keep the number of walls and ceilings between the DWL-G710 and other network devices to a minimum - each wall or ceiling can reduce your DWL-G710'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**

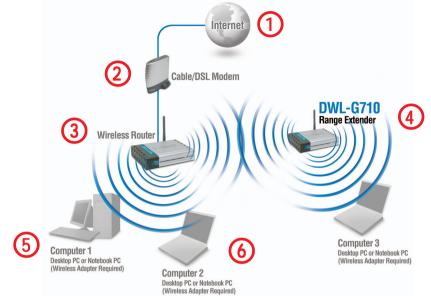
On the following pages we will show you an example of an **Infrastructure Network** incorporating the DWL-G710.

An **Infrastructure** network contains an access point or a wireless 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 range extender -D-Link AirPlus<sup>™</sup> G DWL-G710
 A wireless router - D-Link AirPlus<sup>™</sup> G DI-524
 A laptop computer with a wireless adapter -D-Link AirPlus<sup>™</sup> G DWL-G630
 A desktop computer with a wireless adapter -D-Link AirPlus<sup>™</sup> G DWL-G510
 A cable modem - D-Link DCM-201

## Getting Started (continued)

An example of a wireless Infrastructure network



Please remember that **D-Link AirPlus<sup>™</sup>G** wireless devices are pre-configured to connect together, right out of the box, with their default settings.

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



You will need broadband Internet access (a cable or DSL-subscriber line into your home or office).



Consult with your cable or DSL provider for proper installation of the modem.



Connect the cable or DSL modem to the DI-524 router. (See the printed Quick Installation Guide included with your router.)



Configure the DWL-G710 to communicate with the DI-524 router. (See the printed Quick Installation Guide included with the DWL-G710.)



If you are connecting a desktop computer to your network, install the D-Link *Air*Plus G DWL<sup>™</sup>G510 wireless PCI adapter into an available PCI slot on your desktop computer.\*

(See the printed Quick Installation Guide included with the network adapter.)



Install the D-Link DWL-G630 wireless cardbus adapter into a laptop computer. (See the printed Quick Installation Guide included with the DWL-G630.)\*

\*Both DWL-G630 and DWL-G510 should be configured to communicate with the DWL-G710, not the router.

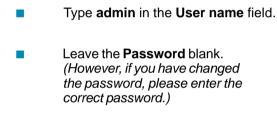
# **Using the Configuration Menu**

After you have completed the Setup Wizard (please see the Quick Installation Guide that came with the product) you can access the Configuration menu at any time by opening the Web browser and typing in the IP address of the DWL-G710. The DWL-G710 default IP address is shown below:

- Open the Web browser.
  - Type in the **IP address** of the DWL-G710.

Eile	Edit	⊻iew	F <u>a</u> v	orites	Tool	s <u>H</u> e	Яþ
0	Back	• 🕤	) -	×	2		
A <u>d</u> dre	ess 🧧	http:/	//19	2.168	3.0.3	0	

Note: if you have changed the default IP address assigned to the DWL-G710, make sure to enter the correct IP address.



Connect to 192.	168.0.30	? 🛛
<b>R</b>		G ST
DWL-G710 User name: Password:	🙍 admin	•
Cosmold.	Remember my pa	ssword

Click OK.

#### Home > Wizard

The **Home>Wizard** screen will appear. Please refer to the *Quick Installation Guide* for more information regarding the Setup Wizard.

	DWL-G710	2.4GHz Wi	reless Range Ex	tender
Home	Network	Wireless	Admin	Help
ccess within minutes. lease follow the setup Run Wizard	iide you to configure the DWI wizard step by step to configu		asy setup will allow you to	o have wireless
)evice Information	Firmware Version 1.0, Se	ep 3 2004 14:56:42		
Ithernet				
MAC Address	00:98:98:98:98:44			
IP Address	192.168.0.30			
Subnet Mask	255.255.255.0			
Gateway	0.0.0.0			
Nireless				
SSID	default			
Encryption Function	Disabled			
Channel	6			

-Link Networks for People	DWL-G710		Plus C	
Home	Network	Wireless	Admin	Help
P Address Set	ttings			
= LAN IP	<ul> <li>Dynamic IP Addres</li> <li>Static IP Address</li> </ul>	s		
■ IP Address	192 . 168 . 0	30		
Subnet Mask	255 . 255 . 255	. 0		
Gateway	0.0.0	. 0		
				Cancel He

- LAN IP- Dynamic IP Address- Select this option to receive a dynamic IP address from the DHCP server on your network.
  - Static IP Address-Assign a static IP address to the DWL-G710. This selection is recommended for ease of network configuration.
- **IP Address-** When **Static IP Address** is selected, you will input the static IP address of the DWL-G710 into this field. The IP address must be within the range of the IP addresses in your network.

Subnet

Mask- Enter the subnet mask.

- Gateway- Enter the IP address of the router in the network.
- Apply- Click Apply to save the changes.

#### AP Name -

You may choose to rename your DWL-G710, especially if you have more than one DWL-G710 on your network.

#### SSID (Service Set Identifier) -

Enter the SSID of the network you wish to repeat.

Site Survey - Click Site

**Survey** to receive a list of networks that are available for connection. Please see the

-Link ng Networks for People	DWL-G710		Plus reless Range Ex	
Home	Network	Wireless	Admin	Help
Wireless Settings				
AP Name :	DWL-G710			
SSID :	default	Site Sur	vey	
= Channel :	6 🛩			
=WEP:	Oisabled	C Enabled		
WEP Encryption :	64Bit 💌	Classed		
=WEP Encryption : =WEP Mode :	64Bit 💌 HEX 💌			
	Sector 1			
	HEX 💌			
	HEX 💌 Key1 : 🕘			
	HEX V Key1 : Key2 : Key3 :			
#WEP Mode :	HEX V Key1 : @ Key2 : O Key3 : O Key4 : O			
	HEX V Key1 : Key2 : Key3 :			
WEP Mode :	HEX V Key1 : @ Key2 : O Key3 : O Key4 : O			y 3 C

screen on the following page for more information on this feature.

**Channel -** Select the channel from the pulldown menu. All devices on the network must share the same channel in order to communicate.

**WEP** - For a level of security, select **Enable Encryption** to use **WEP** (Wired Equivalent **P**rivacy) on the network. All devices on the network, and the access point, must share the same WEP selection - either **Enable** or **Disable**.

WEP Encryption - Select either 64- or 128-bit length.

**WEP Mode** - Select **ASCII** or **Hexadecimal** mode and then input the appropriate digits or letters into each Key field. You can create up to 4 keys. Select the key you wish to use.

**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

**TX Rates** - Select the transmission rate for the network.

Apply - Click Apply to save the changes.

Click **Site Survey** in the **Wireless** configuration screen displayed on the previous page.



The DWL-G710 will scan the network. Please wait a few seconds for this process to complete.

#### Scanning



The Site Survey displays the features of each available network as follows:

**SSID-** Displays the network name.

**Security-** Displays the type of security being used, or indicates that security is disabled.

**Channel-** Indicates the channel the network is using.

**Signal%-** Displays the signal strength of the network.

**Network Type-** Indicates the network type: Infrastructure or Ad-Hoc.

The information shown here allows you to select a network to join, or gives you the information you need to configure your DWL-G710 for connection to a specific network.

#### Site Survey Completed

SSID	Security	Channel	Signal %	Network Type
🔿 624A	WEP Enable	1	37	Infrastructure
🔿 624nowep	WEP Enable	2	38	Infrastructure
🕥 624 Repeat	WEP Enable	1	38	Infrastructure
⊖ ccc	WEP Enable	1	72	Infrastructure
○ IQC_714+	WEP Enable	1	38	Infrastructure
🔿 zxcv	WEP Enable	1	48	Infrastructure
🔿 2WIRE817	WEP Enable	6	1	Infrastructure
🔿 golden	WPA Enable	1	27	Infrastructure
🔿 duhfolt	Disabled	6	52	Infrastructure
🔿 budlious	WEP Enable	6	15	Infrastructure
○ 624-WPA-PSK	Disabled	6	22	Infrastructure
0	WEP Enable	6	34	Infrastructure
🔾 default	Disabled	6	47	Infrastructure
⊖ G	Disabled	6	0	Infrastructure
🔿 dsm320testssid	Disabled	6	24	Infrastructure
🔿 default	Disabled	6	22	Infrastructure
🔿 ртб24	Disabled	6	11	Infrastructure
🔿 bg@desk	Disabled	6	1	Infrastructure
🔿 default	Disabled	6	8	Infrastructure
🔿 В	Disabled	7	0	Infrastructure

#### Admin

-Link g Networks for People	DWL-G710		Plus reless Range	
Home Administrator Settings	Network	Wireless	Admin	Help
New Password Confirm Password Apply Cancel System Settings Restore to Factory Defa	ult Settings Restore	•••••		
Firmware Upgrade = Current Firmware Vers = Firmware Date: Sep 3 2				
				Apply Cancel Help

Administrator Settings - Change your password in this window. Re-enter the new password to confirm. It can be up to 14 characters in length. Please keep a copy of your password in a safe place.

Click Apply, if you have made any changes. Click Cancel to clear the changes.

Restore to Factory Default Settings - Click Restore to return to Factory Default

Settings. (You will lose the current settings.)

When you click **Restore**, the dialog box at right will appear. Click **OK** to restore to factory default settings or click **Cancel** to cancel the procedure.



**Firmware Upgrade -** Upgrade the firmware for the DWL-G710. Find upgrades to the firmware on the D-Link website at <u>http://support.dlink.com</u>. After you have downloaded a firmware upgrade to your local drive, click **Browse.** Select the firmware and click **Apply** to complete the upgrade. *Do not upgrade firmware from a computer with a wireless connection. Doing so may damage the device.* 

Apply - Click Apply if you have made any changes.

#### Help

	DWL-G710	2.4012 11	reless Range Ext	lender
Home	Network	Wireless	Admin	Help
Setup Wizard     Device Informat	ion			
Dynamic IP Add     Static IP Addres				
AP Name     SSID     Channel     Authentication     WEP(Wired Equ	uivelant Brivery			
<u>WEP Mode</u> <u>WEP Mode</u> <u>WEP Keys</u> <u>Transmission (</u>				
dmin • <u>Administrator Si</u> • Restore Default				

Help Menu - Click on any item in the Help menu for more information.

# **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.** 

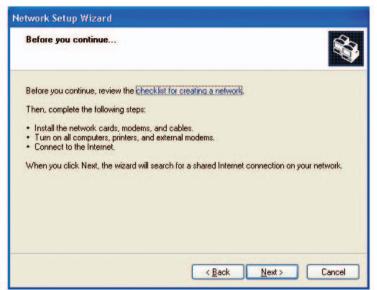
Note: Please refer to websites such as <u>http://www.homenethelp.com</u> and <u>http://www.microsoft.com/windows2000</u> for information about networking computers using Windows 2000/Me/98SE.

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



When this screen appears, click Next.

Please follow all the instructions in this window:



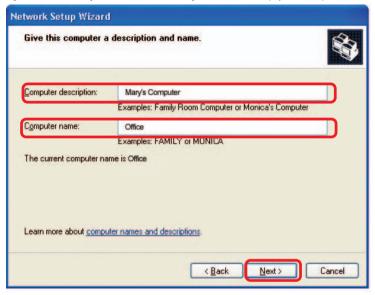
#### Click Next.

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

Network Setup Wizard	
Select a connection method.	
Select the statement that best describes this computer:	
O This computer connects directly to the Internet. The other computers on my network con to the Internet through this computer. <u>View an example.</u>	inect
<ul> <li>This computer connects to the Internet through another computer on my network or through a residential gateway. View an example.</li> </ul>	ugh
Olether	
Learn more about home or small office network configurations.	
< <u>Back</u> Next > Can	cel

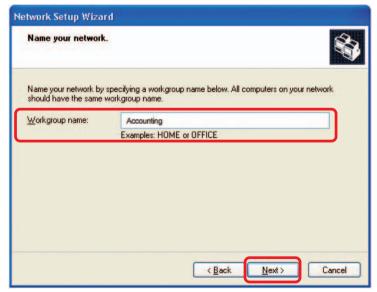
Click Next.

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.



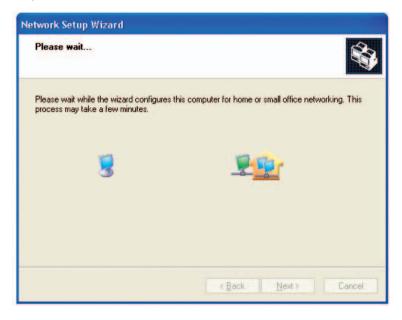
Click Next.

Please wait while the Network Setup Wizard applies the changes.

etwork Setup Wizar	1
Ready to apply netw	ork settings
The wizard will apply the and cannot be interrupte Settings:	following settings. This process may take a few minutes to complete d.
Network settings:	A
Computer description: Computer name: Workgroup name:	Mary's Computer Office Accounting
The Shared Documents shared.	folder and any printers connected to this computer have been
	<u> </u>
To apply these settings,	click Next.
	(Back Next) Cancel
	< <u>Back</u> <u>Next</u> Cancel

When the changes are complete, click Next.

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



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
◯ <u>U</u> se the Network Setup Disk I already have
O Use my Windows XP CD
O 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. Eormat Disk
<back next=""> Cancel</back>

Click Next.

Copying	<b>X</b>
Please wait while the wizard copies files	
	Cancel

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. Click **Next.** 

Network Setup Wizard
To run the wizard with the Network Setup Disk
Complete the wizard and restart this computer. Then, use the Network Setup Disk to run the Network Setup Wizard once on each of the other computers on your network. Here's how: 1. Insert the Network Setup Disk into the next computer you want to network. 2. Open My Computer and then open the Network Setup Disk. 3. Double-click "netsetup."
< Back Next > Cancel

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.

System	Settings Change
?	You must restart your computer before the new settings will take effect. Do you want to restart your computer now?

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.

#### Naming your Computer

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.



- 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.

System Re		atic Updates	Remote
General	Computer Name	Hardware	Advanced
	-	formation to identify	
ull computer r	and the second		
Workgroup:	Accounting		
	twork Identification Wizard eate a local user account,		Network ID
		i, click Change. 🦷	

#### Naming your Computer (continued)

In this window, enter the Computer name.	Computer Name Changes
Select Workgroup and enter the name of the Workgroup.	computer. Changes may affect access to network resources.
	Office
<ul> <li>All computers on your network must have the same Workgroup name.</li> </ul>	Full computer name: Office More
Click OK.	Member of <ul> <li>Domain:</li> <li>Workgroup:</li> </ul>
	Accounting

OK

Cancel

#### Checking the IP Address in Windows XP

The 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	Disable
Local Area Connection icon	Status
in the task bar.	Repair
	View Available Wireless Networks
	Open Network Connections
Click on <b>Status</b> .	3:05 PM

#### Checking the IP Address in Windows XP

This window will appear.

			ss Network Connectio	on 7 Status 🛛 🛛	2 🔼
	Click the	General	Support		
	Support tab.	Internet	t Protocol (TCP/IP)		
		Addres	з Туре:	Assigned by DHC	P
		IP Addr	ress:	192.168.0.11	4
		Subnet	: Mask:	255.255.255.	0
		Default	Gateway:	192.168.0.	1
				Details	
•	Click <b>Close</b> .	Reg	gair		
					se

#### Assigning a Static IP Address in Windows XP/2000

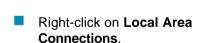
Note: DHCP-capable routers will automatically assign IP addresses to the computers on the network, using DHCP (Dynamic Host Configuration Protocol) technology. If you are using a DHCP-capable router you will not need to assign static IP addresses.

If you are not using a DHCP capable router, or you need to assign a static IP address, please follow these instructions:

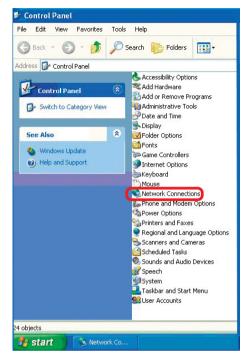


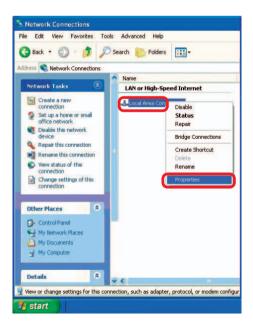
#### Assigning a Static IP Address in Windows XP/2000

Double-click on Network Connections.



Double-click on Properties.





#### Assigning a Static IP Address in Windows XP/2000

- Click on Internet Protocol (TCP/IP).
- Click Properties.
- 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.)
- Input your DNS server addresses. (Note: If you are entering a DNS server, you must enter the IP address of the default gateway.)

The DNS server information will be supplied by your ISP (Internet Service Provider.)

Conr [	Wireless Ne  D-Link DWL-G	650				bus A
This co	nnection uses	the follo	wing items:	(	Config	gure
	Client for Mi File and Prin QoS Packet Internet Pro	iter Sharii t Schedul	ng for Micro Ier	soft Net	works	
-	Install		Jninstall		Prope	rties
Tran wide	ismission Cont area network ss diverse inte	protocol	that provide	es comn		
		ication ar	ea when co	onnecte	d	
🖌 Sho	w icon in notif	ication ai				

	l automatically if your network supports ed to ask your network administrator for
Obtain an IP address autor	
Use the following IP addres IP address:	192.168.0.52
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.0.1
Obtain DNS server address	automatically
Use the following DNS serv	ver addresses:
Preferred DNS server:	192.168.0.1
Alternate DNS server	

Click OK.

#### Networking Basics (continued) Assigning a Static IP Address with <u>Macintosh OSX</u>

000

1.

Show All Personal 💻 💩 🎯

Displays Sou

Go to the Apple Menu and select System Preferences.

Click on Network.



Select Manually in the Configure pull-down menu.

- Input the Static IP Address, the Subnet Mask and the Router IP Address in the appropriate fields.
  - Click Apply Now.

rdware			International	Login Items	My Account	Screen Effec
	ColorSync	Displays	Energy	() Keyboard	Mouse	Sound
	Network		Saver			
		0				
ternet	Network	QuickTime	Sharing			
stem		-	100		-	100
counts	Classic	Date & Time	Software Update	Speech	Startup Disk	Universal Access
her	or					
00		-	Network			
W All	Displays Sour	-	Startup Disk			
			Automatic		•	
now: E	Built-in Eth		•			
	(	Manually	5	(0)	ties	
	Carl	Manuany	USING DHCP			
	Configure	<ul> <li>Using DH0 Using Boo</li> </ul>				
	IR Address:			Domain Man	ne Servers (Op	rtional)
		192.168.10 (Provided by D				
S	ubnet Mask:	255.255.25	5.0	-		
	Router:	192.168.10	.1	Search Dom	ains (Op	tional)
			-			
DH	CP Client ID:					
		(Optional)		Example: appl	e.com, earthlink	net
			0:00:05	Example: appl	e.com, earthlink	.net
Etherr	net Address:	(Optional)				.net pply Now
Etherr	net Address:	(Optional) 00:50:ba:b0				
Etherr	net Address:	(Optional) 00:50:ba:b0	1900A			
Etherr	net Address: k the lock to p	(Optional) 00:50:ba:b0 prevent fu	Network	147 SB	(A	
Etherr	net Address: k the lock to p Displays Soun	(Optional) 00:50:ba:b0 prevent fu d Network S Location: (	Network	147 SB		
Etherr	net Address: k the lock to p Displays Soun CI Ethernet S	(Optional) 00:50:ba:bC prevent fu d d Network S Location: ( lot C1	Network	147 88	•	
Etherr	net Address: k the lock to p Displays Soun CI Ethernet S	(Optional) 00:50:ba:b0 prevent fu d Network S Location: ( lot C1 TCP/IP PF	Network	Talk Prox	•	
Etherr	net Address: k the lock to p Displays Soun CI Ethernet S	(Optional) 00:50:ba:b0 prevent fu d Network S Location: ( lot C1 TCP/IP PF	Network	stalk Prox	; ies	pply Now
Etherr	k the lock to p Displays Soun CI Ethernet S Configure:	(Optional) 00:50:ba:b0 prevent fu d Network S Location: ( lot C1 TCP/IP PF	Network	stalk Prox	•	pply Now
Ethern	het Address: k the lock to p Displays Soun CI Ethernet S Configure: IP Address:	(Optional) 00:50:ba:bC prevent fu d Network s Location: ( lot C1 TCP/IP PF Manually	Network	stalk Prox	; ies	pply Now
Ethern	k the lock to p Displays Soun CI Ethernet S Configure: IP Address: ubnet Mask:	(Optional) 00:50:ba:bC rrevent fu d Network S Location: ( lot C1 TCP/IP PF Manually 192.168.0.	Network Lartup Disk Automatic POE Apple	stalk Prox	tes es Servers (Opp	pply Now
Ethern Click	k the lock to p Displays Soun CI Ethernet S Configure: IP Address: ubnet Mask:	(Optional) 00:50:ba:bC prevent fu d Network S Location: ( Iot C1 TCP/IP PP Manually 192.168.0. 255.255.25	Network Lartup Disk Automatic POE Apple	eTalk Prox	tes es Servers (Opp	tional

System Preferences

2

#### **Networking Basics (continued)** Selecting a Dynamic IP Address with Macintosh OSX

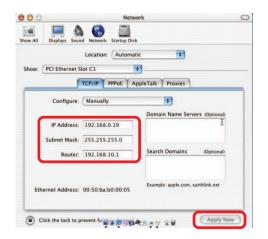
- Go to the Apple Menu and select System Preferences.
- Click on Network.



- Select Built-in Ethernet in the Show pull-down menu.
- Select Using DHCP in the Configure pull-down menu.

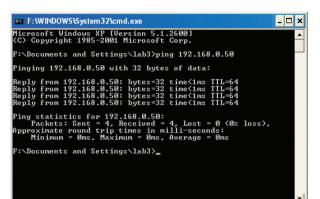
00	Networ	k
w All Displays Sour	Network Startup Disk	
	Location: Automatic	*
now: Built-in Eth	nernet 🕴	
	Manually Manually using DHC	oxies Router
Configure	Using DHCP Using BootP	Jonann Name Servers (Optional)
IP Address:	192.168.10.7 (Provided by DHCP Server)	
Subnet Mask:	255.255.255.0	
Router:	192.168.10.1	Search Domains (Optional)
DHCP Client ID:	(Optional)	
ener enerrier	(optional)	

- Click **Apply Now**.
- The IP Address, Subnet mask, and the Router's IP Address will appear in a few seconds.



#### Checking the Wireless Connection by Pinging in Windows XP/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 access point, as shown.



#### Checking the Wireless Connection by Pinging in Windows Me/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	-OX
Auto 💽 🗔 📾 🐼 🗗 🗛	
C:\WINDOWS\DESKTOP>cd	
C:\WINDOWS>cd	
C:>>ping 192.168.0.1	
Pinging 192.168.0.1 with 32 bytes of data:	
Roply from 192.168.0.1: bytes=2: time(10mm TTL=64 Roply from 192.168.0.1: bytes=2: time(10mm TTL=64 Roply from 192.168.0.1: bytes=3: time(10mm TTL=64 Roply from 192.168.0.1: bytes=3: time(10mm TTL=64	
Ping statistics for 192.168 0.1: Packets: Sant 4, Raccived = 4, Last = 0 (8% loss), Approximate round trip times in milliseconds: Minimum e Mes, Maximum = Mes, Average = Mes	
c:∖>_	

# **Troubleshooting**

This chapter provides solutions to problems that can occur during the installation and operation of the DWL-G710 Wireless Range Extender. We cover various aspects of the network setup, including the network adapters. Please read the following if you are having problems.

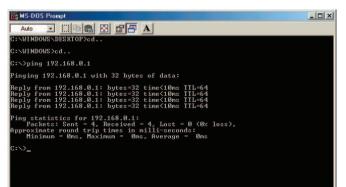
Note: It is recommended that you use an Ethernet connection to configure the DWL-G710 Wireless Range Extender.

## 1.The computer used to configure the DWL-G710 cannot access the configuration menu.

- Check that the Ethernet LED on the DWL-G710 is ON. If the LED is not ON, check that the cable for the Ethernet connection is securely inserted.
- Check that the Ethernet adapter is working properly. Please see item 3 (Check that the drivers for the network adapters are installed properly) in this Troubleshooting section to check that the drivers are loaded properly.
- Check that the IP address is in the same range and subnet as the DWL-G710. Please see Checking the IP Address in Windows XP in the Networking Basics section of this manual.

Note: The IP address of the DWL-G710 is 192.168.0.30. All the computers on the network must have a unique IP address in the same range, e.g., 192.168.0.x. Any computers that have identical IP addresses will not be visible on the network. They must all have the same subnet mask, e.g., 255.255.255.0

Do a Ping test to make sure that the DWL-G710 is responding. Go to Start>Run>Type Command>Type ping 192.168.0.30. A successful ping will show four replies.



Note: If you have changed the default IP address, make sure to ping the correct IP address assigned to the DWL-G710.

### **Troubleshooting (continued)**

## 2. The wireless client cannot access the Internet in Infrastructure mode.

Make sure the wireless client is associated and joined with the correct device. To check this connection: **Right-click** on the **local area connection icon** in the taskbar> select **View Available Wireless Networks**. The **Connect to Wireless Network** screen will appear. Please make sure you have selected the correct available network, as shown in the illustration below.

	Connect to Wireless Network
Disable <b>Status</b> Repair	The following network(s) are available. To access a network, select it from the list, and then click Connect. Available networks:
View Available Wireless Networks Open Network Connections	default I nn This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.
	Network key:         If you are having difficulty connecting to a network, click Advanced.         Advanced       Connect         Cancel

Check that the IP address assigned to the wireless adapter is within the same IP address range as the existing network. (Since the DWL-G710 has an IP address of 192.168.0.30, wireless adapters must have an IP address in the same range, e.g., 192.168.0.x. Each device must have a unique IP address; no two devices may have the same IP address. The subnet mask must be the same for all the computers on the network.) To check the IP address assigned to the wireless adapter, double-click on the local area connection icon in the taskbar > select the Support tab and the IP address will be displayed. (Please refer to Checking the IP Address in the Networking Basics section of this manual.)

If it is necessary to assign a static IP address to the wireless adapter, please refer to the appropriate section in Networking Basics. If you are entering a DNS server address you must also enter the default gateway address. (Remember that if you have a DHCP-capable router, you will not need to assign a static IP address. See Networking Basics: Assigning a Static IP Address.)

### **Troubleshooting (continued)**

## 2. The wireless client cannot access the Internet in the Infrastructure mode *(continued).*

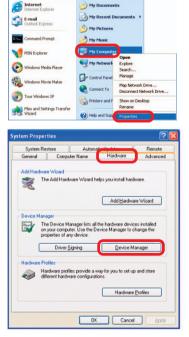
- Please note that the DWL-G710 is compatible with the following D-Link devices:
  - 1 D-Link AirPlus™ G DI-524 Wireless Router
  - 2 D-Link AirPlus<sup>™</sup> G DWL-G700AP Wireless Access Point
  - 3 D-Link AirPlus™ G DWL-G710 Wireless Range Extender
- If you wish to repeat a device that is not a D-Link product, please check the FAQs for supported products on the D-Link support website (http://support.dlink.com) to make certain that the device can be repeated by the DWL-G710.

#### 3. Check that the drivers for the network adapters are installed properly.

You may be using different network adapters than those illustrated here, but this procedure will remain the same, regardless of the type of network adapters you are using.







Click Device Manager.

- Double-click on **Network** Adapters.
- Right-click on D-Link AirPlus™ G DWL-G630 Wireless Cardbus Adapter (In this example we use the DWL-G630; you may be using other network adapters, but the procedure will remain the same.)
- Select Properties to check that the drivers are installed properly.

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



eneral	Advanced Drive	er Resources
	D-Link AirPlus G	DWL-G630 Wireless Cardbus Adapter
	Device type:	Network adapters
	Manufacturer:	D-Link
	Location:	PCI bus 129, device 0, function 0
	u are having proble the troubleshooter.	ms with this device, click Troubleshoot to
		Troubleshoot
Device	usage:	Troubleshoot
	usage: is device (enable)	Troubleshoot

Click OK.

### 4. 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.

### 5. Why does my wireless connection keep dropping?

- Antenna Orientation Try different antenna orientations for the DWL-G710. Try to keep the antenna at least 6 inches away from the wall or other objects.
- 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.

### 6. Why can't I get a wireless connection?

If you have enabled encryption on the DWL-G710, you must also enable encryption on all wireless clients in order to establish a wireless connection.

- Make sure that the encryption bit level is the same on the DWL-G710 and the wireless client.
- Make sure that the SSID on the DWL-G710 and the wireless client are exactly the same. If they are not, wireless connection will not be established.
- Check that the DWL-G710 is configured properly.
- Check that the wireless clients are working properly.

### 6. Why can't I get a wireless connection? (continued)

- Make sure that all devices are set to **Infrastructure** mode.
- Check that the LEDs are indicating normal activity. If not, check that the AC power and Ethernet cables are firmly connected.
- Check that the IP address, subnet mask, and gateway settings are correctly entered for the network.
- 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 DWL-G710, and on all the devices in your network 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.

### 7. I forgot my encryption key.

Reset the DWL-G710 to its factory default settings and restore the other devices on your network to their default settings. You may do this by pressing the Reset button on the back of the unit. You will lose the current configuration settings.

### 8. Resetting the DWL-G710 to factory default settings

After you have tried other methods for troubleshooting your network, you may choose to **Reset** the DWL-G710 to the factory default settings.



### **Reset button**

To hard-reset the D-Link DWL-G710 to the factory default settings, please do the following:

- Locate the **Reset** button on the back of the DWL-G710.
- Use a paper clip to press the **Reset** button.
- Hold for about 5 seconds and then release.
- After the DWL-G710 reboots (this may take a few minutes) it will be reset to the factory **Default** settings.

# **Technical Specifications**

Standards

- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.3
- IEEE 802.3u

**Device Management** 

• Web-Based – Internet Explorer v6 or later; Netscape Navigator v7 or later

Data Rate For 802.11g: • 54, 48, 36, 24, 18, 12, 9 and 6Mbps For 802.11b:

• 11, 5.5, 2, and1Mbps

Security

• 64-, 128-bit WEP

Wireless Frequency Range

- 2.412GHz to 2.462GHz
- Channels 1-11 utilize the 2.4GHz band

Wireless Operating Range\* 802.11g (Full Power with 2dBi gain diversity dipole antenna) Outdoors:

- 164ft (50m) @ 54Mbps
- 492ft (150m) @ 36Mbps
- 656ft (200m) @ 11Mbps

Power

• External Power Supply: DC 5V/2A

 $^{st}$  Environmental Factors may Adversely Affect Wireless Range

## **Technical Specifications (continued)**

Radio and Modulation Type For 802.11g: OFDM:

- BPSK @ 6 and 9Mbps
- QPSK @ 12 and 18Mbps
- 16QAM @ 24 and 36Mbps
- 64QAM @ 48 and 54Mbps DSSS:
- DBPSK @ 1Mbps
- DQPSK @ 2Mbps
- CCK @ 5.5 and 11 Mbps

For 802.11b:

DSSS:

- DBPSK @ 1Mbps
- DQPSK @ 2Mbps
- CCK @ 5.5 and 11Mbps

Wireless Transmit Power Typical RF Output Power at each Data Rate For 802.11g:

- 31mW (15dBm) @ 54Mbps
- 40mW (16dBm) @ 48Mbps
- 40mW (16dBm) @ 36, 24, 18, 12, 9, and 6Mbps For 802.11b:
- 50mW (17dBm) @ 11, 5.5, 2, and 1Mbps

Receiver Sensitivity

For 802.11g:

- 6Mbps: -82dBm
- 9Mbps: -81dBm
- 12Mbps: -79dBm
- 18Mbps: -77dBm
- 24Mbps: -74dBm
- 36Mbps: -70dBm
- 48Mbps: -66dBm
- 54Mbps: -65dBm
- For 802.11b:
- 1Mbps: -87dBm
- 2Mbps: -87dBm
- 5.5Mbps: -85dBm • 11Mbps: -82dBm

## **Technical Specifications (continued)**

LEDs

- Power
- LAN
- WLAN

Temperature

- Operating: 32°F to 131°F (0°C to 55°C)
- Storing: -4°F to 149°F (-20°C to 65°C)

Humidity

• 5%~95% (non-condensing)

Certifications

- FCC
- UL

Dimensions

- L = 5.59 inches (142mm)
- W = 4.29 inches (109mm)
- H = 1.22 inches (31mm)

Weight

• 0.44lbs (200g)

Warranty

• 1 Year

## **Technical Support**

You can find software updates and user documentation on the D-Link website.

D-Link provides free technical support for customers within the United States and within Canada for the duration of the warranty period on this product.

U.S. and Canadian customers can contact D-Link technical support through our web site, or by phone.

### Tech Support for customers within the United States:

*D-Link Technical Support over the Telephone:* (877) 453-5465 24 hours a day, seven days a week.

*D-Link Technical Support over the Internet:* http://support.dlink.com email:support@dlink.com

### Tech Support for customers within Canada:

**D-Link Technical Support over the Telephone:** (800) 361-5265 Monday to Friday 7:30am to 9:00pm EST

### D-Link Technical Support over the Internet:

http://support.dlink.ca email:support@dlink.ca



Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

*Limited Warranty:* D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

1-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) One (1) Year
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the nonconforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

**Non-Applicability of Warranty:** The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

**Submitting A Claim**: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

• The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.

- The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.
- 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. Do not include any manuals or accessories
  in the shipping package. D-Link will only replace the defective portion of the Product and will not
  ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.
- Return Merchandise Ship-To Address USA: 17595 Mt. Herrmann, Fountain Valley, CA 92708 Canada: 2180 Winston Park Drive, Oakville, ON, L6H 5W1 (Visit <u>http://www.dlink.ca</u> for detailed warranty information within Canada)

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

**Disclaimer of Other Warranties:** EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

**Governing Law:** This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

**Trademarks:** D-Link is a registered trademark of D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective manufacturers or owners.

**Copyright Statement:** No part of this publication or documentation accompanying this Product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976. Contents are subject to change without prior notice. Copyright<sup>®</sup> 2002 by D-Link Corporation/D-Link Systems, Inc. All rights reserved.

**CE Mark Warning:** This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**FCC 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 communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

# Registration



Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.

(12/15/04)