# **D-Link** DI-604

## Express Ethernetwork™ Broadband Router

Manual

Rev. 070902

**D-Link**<sup>®</sup> Building Networks for People

## Contents

Package Contents	
Introduction	4
Using the Configuration Wizard	9
Using the Configuration Menu	
Troubleshooting	
Networking Basics	
Technical Specifications	
Contacting Technical Support	
Warranty and Registration	

## **Package Contents**



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

- D-Link DI-604 Express Ethernetwork<sup>™</sup> Broadband Router
- AC Power Adapter, 5V/2A
- Ethernet (CAT5-UTP/Straight-Through) Cable
- Manual on CD
- Quick Installation Guide

Note: Using a power supply with a different voltage rating than the one included with the DI-604 will cause damage and void the warranty for this product.

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

#### **System Requirements:**

- Computer with a Windows, Macintosh, or Unix based operating system with an installed Ethernet adapter
- Internet Explorer or Netscape Navigator, version 4.0 or above, with JavaScript enabled

## Introduction

Congratulations on your purchase of this outstanding Broadband Router. The DI-604 is specifically designed for Small Office and Home Office needs. It provides a complete solution for Internet surfing and office resources sharing, and it is easy to configure and operate for even non-technical users. Instructions for installing and configuring the DI-604 can be found in the enclosed *Quick Install Guide*. Before you install and use the DI-604, please read this manual carefully for more detailed information and to fully utilize its functions.

## **Features and Benefits**

- Broadband modem and IP sharing Connects multiple computers to a broadband (cable or DSL) modem to surf the Internet.
- Auto-sensing Ethernet Switch Equipped with a 4-port auto-sensing Ethernet switch.
- VPN Pass-Through supported Supports pass-through PPTP sessions and allows you to setup VPN server and VPN clients.
- **Firewall** All unwanted packets from outside intruders are blocked to protect your network.
- DHCP server supported All of the networked computers can retrieve TCP/IP settings automatically from the DI-604.
- Web-based configuration Configurable through any networked computer's web browser using Netscape or Internet Explorer.
- Access Control supported Allows you to assign different access rights for different users.

#### • Packet filter supported

**Packet Filter** allows you to control access to a network by analyzing the incoming and outgoing packets and letting them pass or halting them based on the IP address of the source and destination.

### Virtual Server supported

Enables you to expose WWW, FTP and other services on your LAN to be accessible to Internet users.

# User-Definable Application Sensing Tunnel User can define the attributes to support special applications

requiring multiple connections, like Internet gaming, video conferencing, Internet telephony and so on. The DI-604 can sense the application type and open a multi-port tunnel for it.

#### • DMZ Host supported

Allows a networked computer to be fully exposed to the Internet; this function is used when the special "application-sensing tunnel feature" is insufficient to allow an application to function correctly.

## Introduction to Broadband Router Technology

A router is a device that forwards data packets from a source to a destination. Routers forward data packets using IP addresses and not a MAC address. A router will forward data from the Internet to a particular computer on your LAN.

The information that makes up the Internet gets moved around using routers. When you click on a link on a web page, you send a request to a server to show you the next page. The information that is sent and received from your computer is moved from your computer to the server using routers. A router also determines the best route that your information should follow to ensure that the information is delivered properly.

A router controls the amount of data that is sent through your network by eliminating information that should not be there. This provides security for the computers connected to your router, because computers from the outside cannot access or send information directly to any computer on your network. The router determines which computer the information should be forwarded to and sends it. If the information is not intended for any computer on your network, the data is discarded. This keeps any unwanted or harmful information from accessing or damaging your network.

## **Introduction to Firewalls**

A firewall is a device that sits between your computer and the Internet that prevents unauthorized access to or from your network. A firewall can be a computer using firewall software or a special piece of hardware built specifically to act as a firewall. In most circumstances, a firewall is used to prevent unauthorized Internet users from accessing private networks or corporate LAN's and Intranets.

A firewall watches all of the information moving to and from your network and analyzes each piece of data. Each piece of data is checked against a set of criteria that the administrator configures. If any data does not meet the criteria, that data is blocked and discarded. If the data meets the criteria, the data is passed through. This method is called packet filtering.

A firewall can also run specific security functions based on the type of application or type of port that is being used. For example, a firewall can be configured to work with an FTP or Telnet server. Or a firewall can be configured to work with specific UDP or TCP ports to allow certain applications or games to work properly over the Internet.

### Introduction to Local Area Networking

Local Area Networking (LAN) is the term used when connecting several computers together over a small area such as a building or group of buildings. LAN's can be connected over large areas. A collection of LAN's connected over a large area is called a Wide Area Network (WAN).

A LAN consists of multiple computers connected to each other. There are many types of media that can connect computers together. The most common media is CAT5 cable (UTP or STP twisted pair wire.) On the other hand, wireless networks do not use wires; instead they communicate over radio waves. Each computer must have a Network Interface Card (NIC), which communicates the data between computers. A NIC is usually a 10Mbps network card, or 10/100Mbps network card, or a wireless network card.

Most networks use hardware devices such as hubs or switches that each cable can be connected to in order to continue the connection between computers. A hub simply takes any data arriving through each port and forwards the data to all other ports. A switch is more sophisticated, in that a switch can determine the destination port for a specific piece of data. A switch minimizes network traffic overhead and speeds up the communication over a network.

Networks take some time in order to plan and implement correctly. There are many ways to configure your network. You may want to take some time to determine the best network set-up for your needs.

## Introduction to Virtual Private Networking

Virtual Private Networking (VPN) uses a publicly wired network (the Internet) to securely connect two different networks as if they were the same network. For example, an employee can access the corporate network from home using VPN, allowing the employee to access files and printers. Here are several different implementations of VPN that can be used.

## **Point-to-Point Tunneling Protocol (PPTP)**

PPTP uses proprietary means of connecting two private networks over the Internet. PPTP is a way of securing the information that is communicated between networks. PPTP secures information by encrypting the data inside of a packet.

## **IP Security (IPSec)**

IPSec provides a more secure network-to-network connection across the Internet or a Wide Area Network (WAN). IPSec encrypts all communication between the client and server whereas PPTP only encrypts the data packets.

Both of these VPN implementations are used because there is not a standard for VPN server software. Because of this, each ISP or business can implement its own VPN network making interoperability a challenge.

## LEDS

**WAN & LAN** Ethernet port indicators, Green. The LED flickers when the LAN or WAN port is sending or receiving data.

**Link/Act.** Link status indicators, Green. The LED flickers when the corresponding port is sending or receiving data

## CONNECTIONS



## **Getting Started**

The **Infrastructure Network** example shown contains the following D-Link network devices:

Express Ethernetwork<sup>TM</sup> Broadband Router - D-Link DI-604

A laptop computer with an Ethernet adapter - D-Link DFE-670TXD

A desktop computer with an Ethernet adapter - D-Link DFE-530TX+

A Cable modem - D-Link DCM-200



## **Using the Configuration Wizard**

The DI-604 provides Web based configuration. You can configure your DI-604 through your Netscape Communicator or Internet Explorer browser in MS Windows, Macintosh or UNIX based platforms.

Activate your browser. Then type the IP address of the DI-604 into the *Location* (for Netscape) or *Address* (for IE) field and press "**Enter**." For example: http://192.168.0.1.

- Open the web browser
- Type in the IP Address of the DI-604

 Elle
 Edit
 Yiew
 Favorites
 Iools
 Help

 Back
 Back
 Image: Second Sec

(The IP Address shown in the example above is the default setting. If you have changed the IP Address of the DI-604 to conform to a network, then input that IP Address in the web browser, instead of the default IP Address shown.)

- Type admin in the User Name field (lower case)
- Leave the Password blank
- Click OK



#### This screen will appear. Click **Run Wizard**.

The **Setup Wizard** screen will appear. Follow the Wizard step by step to quickly configure the DI-604.

	DI-604 Ethernet Broadband Router				
and a	Home Setup Wizard	Advanced	Tools	Status	Help
Wizard WAN LAN	networking. The (Internet Service	In Ethernet Broadband setup wizard will guide Provider). The DI-60c Please follow the set p	you have foure the	ne DI-604 to connec allow you to have inte	t to your ISP met access
Log out					

Step 1. Set your new password

Step 2. Set Internet connection

Step 3. Restart

It is recommended that you change the admin password for security purposes. Enter in your new password. Enter it in a second time for verification.



#### **Click Next**

In the window below, select the method you use to connect to the Internet. This is called the WAN connection or WAN Type.

#### Static IP Address:

Select this option to manually input the IP address that your ISP assigned to you. (Please see Assigning a Static IP Address in the Troubleshooting section of this manual.)

#### **Dynamic IP Address:**

(e.g., Cable users)

Select this option to obtain an IP address automatically from your ISP. Please see Dynamic IP Address section.

**Dynamic IP Address with Road Runner Session Management:** (e.g., Telstra BigPond users) Choose this option if it is required by your ISP

**PPP over Ethernet (PPPoE)**: (e.g., DSL users) Select this option if your ISP requires the use of PPPoE to connect to their services. Please see PPPoE section.

PPTP: Select this option if your ISP requires it

Once you have made the appropriate selection, click Next.

	ink letworks for People	
		Setup Wizard
		Select Internet Connection Type (WAN)
Sele	ct the connection type to con	nect to your ISP. Click Next to continue.
C	Static IP Address	ISP assigns you a static IP address.
e	Dynamic IP Address	Obtain an IP address from ISP automatically.
c	Dynamic IP Address for BigPond Cable	Obtain an IP address from ISP with Heartbeat Management (e.g. Telstra BigPond Cable)
C	PPP over Ethernet	Some ISPs require the use of PPPoE to connect to their services.
c	РРТР	Some ISPs require the use of PPTP to connect to their services.
		G S S Bac Next ancel Exit

## **Static IP Address**

If you selected **Static IP Address**, you will see the following page.

Enter in the IP address information provided to you by your ISP. You will need to enter in WAN IP Address, WAN Subnet Mask, WAN Gateway, and Primary DNS. Click **Next** 

<b>D-Link</b> Building Networks for People			_
		Setup Wizard	
	Set Static IP	Address	
WAN IP Address	0.0.0.0		
WAN Subnet Mask	255.255.255.0		
WAN Gateway	0.0.0.0		
Primary DNS	0.0.0.0		
Secondary DNS	0.0.0.0		
		<b>()</b>	1
		Bac Next Cancel E	xit

### Dynamic IP Address

If you selected **Dynamic IP Address**, you will see the following page.

If your ISP requires you to enter a specific host name or specific MAC address, please enter it in. The CLONE MAC Address button is used to copy the



MAC address of your Ethernet adapter to the DI-604 WAN interface. Click **Next** 

#### Dynamic IP Address for BigPond Cable If you selected Dynamic IP Address with RoadRunner Session Management, you will see the following page.

If your ISP requires you to enter a specific host name or specific MAC



address, please enter it in. The CLONE MAC Address button is used to copy the MAC address of your Ethernet adapter to the DI-604 WAN interface. Click **Next** 

## PPPoE

If you select PPP over Ethernet (PPPoE), you will see the following page.

	Setup Wizard
Se	et PPP over Ethernet
PPPoE Account	
PPPoE Password	
PPPoE Service Name	(optional)

Enter in the username and password provided to you by your ISP. Enter in the Service Name if your ISP uses a Service Name for the PPPoE connection.

Click Next

### PPTP

Building Networks for People	Cotur Winord	
	Setup Wizard	
	Set PPTP	
My IP Address	0.0.0	
My Subnet Mask	255 255 255 0	
Server IP Address	0.0.0	
PPTP Account		
PPTP Password		
	Back Next Ca	3

Click Next

At this point, the **Setup Wizard** has completed. Click **Restart** to save the settings and reboot the DI-604.

The DI-604 will save the changes and reboot.



#### You have completed the Setup Wizard. You can now access the Internet.

Whenever you choose to make changes or additions to the configuration of the DI-604, you can access the Configuration menu by typing the IP Address of the DI-604 into the address line of your web browser and pressing "enter." Read more about the Configuration menu in the following chapter.

## **Using the Configuration Menu**

### **Setup Wizard**

orks for People		DI-604 Ethernet Broadband Router			
Ho	me 🚺	dvanced	Tools	Status	Help
	t Service Provid				

The Setup Wizard page is the first page that appears when logging into the web-based management interface. The Setup Wizard is a utility used to quickly configure the DI-604. It will guide you through three quick and basic steps to help you connect to your ISP. You will be connected to your ISP (Internet Service Provider) and have Internet access within minutes.

## WAN

WAN is short for Wide Area Network. The WAN settings can be referred to as the Public settings. All IP information in the WAN settings are public IP addresses which are accessible on the Internet.

The WAN settings consist of these options: *Dynamic IP Address*, *Dynamic IP (w/RoadRunner,) Static IP Address*, *PPPoE, and PPTP*. Select the appropriate option and fill in the information needed to connect to your ISP.

D-Link Building Networks for People			DI-6 Ethernet Broa	504 dband Router	
a contra	Home	Advanced	Tools	Status	Help
Contraction of the second seco	WAN Settings				
		ltem		Setting	
Wizard	WAN Type		Dynamic IP Address	Change	
	Host Name		(0	ptional)	
WAN	Renew IP Foreve	er	Enable (Auto-reco	onnect)	
LAN				Apply	Cancel Help

### HOME > WAN > DYNAMIC IP ADDRESS

Choose Dynamic IP Address to obtain IP address information automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for Cable modem services.

*Host Name:* The Host Name field is optional but may be required by some ISPs. The host name is the device name of the Broadband Router.

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

### HOME > WAN > STATIC IP ADDRESS

			l-604 padband Router
Home	Advanced	Tools	Status Hel
WAN Settings	ē		
	Item		Setting
WAN Type		Static IP Address	Change
WAN IP Addr	ess	0.0.0.0	
WAN Subnet	Mask	255.255.255.0	
WAN Gatewa	у	0.0.0.0	
Primary DNS		0.0.0.0	
Secondary D	NS	0.0.0.0	

Choose Static IP Address if all WAN IP information is provided to you by your ISP. You will need to enter in the IP address, subnet mask, gateway address, and DNS address(es) provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four IP octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.

WAN IP Address: Public IP address provided by your ISP.

WAN Subnet Mask: Subnet mask provided by your ISP.

WAN Gateway Address: Public IP address of your ISP that you are connecting to.

**Primary DNS Address:** Primary DNS (Domain Name Server) IP provided by your ISP

Secondary DNS Address: optional

Click Apply if you have made changes.

### HOME > WAN > PPPOE

			I-604 roadband Router	
Home	Advanced	Tools	Status	Hei
WAN Settings				
1	Item		Setting	
WAN Type		PPP over Ethernet	Change	
PPPoE Accoun	t			
PPPoE Passw	ord			
Primary DNS		0.0.0.0	]	
Secondary DNS	3	0.0.0.0	1	
Maximum Idle 1	Time	600 second:	s 🗹 Auto-reconnect	
PPPoE Service	Name		(optional)	
Assigned IP Ad	dress	0.0.0.0	(optional)	

Choose PPPoE (Point to Point Protocol over Ethernet) if your ISP uses PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

PPPoE Account: Your PPPoE account is provided by your ISP

**PPPoE Password:** Your PPPoE password is provided by your ISP

Primary DNS Address: Primary DNS IP Address is provided by your ISP

Secondary DNS Address: optional

**Maximum Idle Time:** The amount of time of inactivity before disconnecting your PPPoE session. Enter a Maximum Idle Time (in minutes) to define a maximum period of time for which the Internet connection is maintained during inactivity. If the connection is inactive for longer than the defined Maximum Idle Time, then the connection will be dropped. Either set this to zero or enable Auto-reconnect to disable this feature.

**PPPoE Service Name:** Enter the Service Name provided by your ISP. (optional)

**Assigned IP Address:** This option is only available for Static PPPoE. Enter in the Static IP Address for the PPPoE connection.

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

#### HOME > LAN

Home     Advanced     Tools     Status     Help       LAN Settings     192.168.0.1       LAN IP Address     192.168.0.1       DHCP Server     Image: Disable Image: Dimage: Disable Image: Dimage: Disable Im	Networks for People				604 oadband Router	
Item     Setting       LAN IP Address     192.168.0.1       DHCP Server     © Disable © Enable       IP Pool Starting Address     100       IP Pool Ending Address     199	and the	Home	Advanced	Tools	Status	Help
LAN IP Address 192.168.0.1 DHCP Server © Disable © Enable IP Pool Starting Address 100 IP Pool Ending Address 199			Item		Setting	
IP Pool Starting Address 100 IP Pool Ending Address 199		LAN IP Address		192.168.0.1		
IP Pool Ending Address 199		DHCP Server		O Disable O Ena	able	
		IP Pool Starting	Address	100		
Domain Name		IP Pool Ending A	ddress	199		
		Domain Name		[		
		Clients List				

LAN is short for Local Area Network. This is considered your internal network. These are the IP settings of the LAN interface for the DI-604. These settings may be referred to as Private settings. You may change the LAN IP address if needed. The LAN IP address is private to your internal network and cannot be seen on the Internet.

*LAN IP Address:* The IP address of the LAN interface. The default IP address is 192.168.0.1.

#### DHCP Server: Choose Enable or Disable

**The range of the IP Address Pool:** Whenever there is a request, the DHCP server will automatically allocate an unused IP Address from the *IP Address Pool* to the requesting computer. You must specify the starting and ending address of the IP Address pool.

**Domain Name:** This field is optional. Enter in the your local domain name. Click **Apply** if you have made any changes.

DHCP stands for Dynamic Host Control Protocol. The DI-604 has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the DI-604. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

### ADVANCED > VIRTUAL SERVER

			DI-604 Ethernet Broadband Rout	er
a series and	Home	Advanced	Tools Status	Help
	Virtual Server	Oracia Barta	010	
	1D 1	Service Ports	Server IP	Enable
al Server			192.168.0.	
_	2		192.168.0.	
ications	3		192.168. 0.	
	4		192.168. 0.	
ter	5		192.168. 0.	
vall	6		192.168.0.	
Wall	7		192.168. 0.	
MP	8		192.168. 0.	
	9		192.168. 0.	
S	10		192.168. 0.	
	11		192.168. 0.	
19	12		192.168. 0.	
	13		192.168. 0.	
	14		192.168. 0.	
	15		192.168. 0.	
		Well known services	- select one Copy to ID -	
			Q	000

The firewall filters out unrecognized packets to protect your LAN (local area network); so all computers networked with the DI-604 are invisible to the outside world. If you wish, you can make some of them accessible by enabling the *Virtual Server Mapping*.

A virtual server is defined as a **Service Port**, and all requests to this port will be redirected to the computer specified by the **Server IP**.

For example, if you have an FTP server (port 21) at 192.168.0.1, a Web server (port 80) at 192.168.0.2, and a VPN server at 192.168.0.6, then you need to specify the following virtual server-mapping table:

Service Port	Server IP	Enable
21	192.168.0.1	V
80	192.168.0.2	V
1723	192.168.0.6	V

### ADVANCED > APPLICATIONS



Some applications require multiple connections, like Internet games, Video conferencing, Internet telephony and so on. Due to the firewall function, these applications cannot work without some intervention. **Special Applications** makes some of these applications work with the DI-604. If **Special Applications** is still insufficient to allow an application to function correctly, try the **DMZ Host** in the **Miscellaneous Items** options.

*Trigger*: the outbound port number the application issued first.

*Incoming Ports*: when the trigger packet is detected, the inbound packets to the specified port numbers are allowed to pass the firewall.

The DI-604 provides some predefined settings in the gray pad on the bottom of the web page. Select your application in the **Popular applications** pull-down menu and click **Copy to** in order to copy the predefined setting.

#### Note! At any time, only one PC can use each Special Application tunnel.

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

### ADVANCED>FILTER

lding Networks for People				l-604 roadband Router	
a land "	Home	Advanced	Tools	Status	Help
	Filter	ltem		Setting	
	MAC Address C	ontrol	🗖 Enable		
rtual Server	Connection	n control		cked can connect to th fied MAC addresses	
	ID	MAC Address		IP Address	С
Filter	1		19	2.168.0.	
	2		19	2.168.0.	
irewall	3		19	2.168.0.	
SNMP	4		19	2.168.0.	
SINIMIP		DHCP clients	elect one – 💌	Copy to ID	
DDNS	Previous page	Next page			
	-				
Routing				$\checkmark$	- C3 - C3
				Apply	Cancel Hel

**MAC Address Control** allows you to assign different access rights for different users and to assign a specific IP address to a certain MAC address.

**MAC Address Control:** Check **Enable** to enable the **MAC Address Control.** All of the settings in this page will take effect only when **Enable** is checked.

**Connection control:** Check **Connection control** to control what wired and wireless clients can connect to this device. If a client is denied connection to this device, it means the client can't access the Internet either. Choose "allow" or "deny" to allow or deny the clients, whose MAC addresses are not in the "Control table" (please see below), to connect to this device.

MAC Address	MAC address indicates a specific client.
IP Address	Expected IP address of the corresponding client. You may choose to leave this field empty.
С	When " <b>Connection control</b> " is checked, check " <b>C</b> " to allow the corresponding client to connect to this device.

Near the bottom of the **MAC Address Control** window, the following pull-down menu and button will help you to input the MAC address.

DHCP clients - select one - - Copy to ID - -

Select a specific client in the "DHCP clients" pull-down menu.

Click on the "**Copy to**" button to copy the MAC address of the DHCP client you select to the ID selected in the "**ID**" pull-down menu.

**Previous page and Next Page:** At the bottom of the **MAC Address Control** window you will find these two buttons. Use them to navigate between the several pages of the **MAC Address Control** function.

Previous page	Next page

### ADVANCED > FIREWALL

			DI-6 Ethernet Broa	04 Idband Router	
and in	Home	Advanced	Tools	Status	Help
	Inbound Firewall				
		ltem	Settir	ng	
al Server	Inbound Filter	_	Enable		
ar Server		all traffic to pass except the		-	
lications	O Deny	all traffic to pass except the	ose that match th	e following rules.	
ilter	ID S	ource IP : Ports	Destinat	ion IP : Ports	Enable
	1	:		:	
wall	2				
MP	3	:			
	4	:			
IS	5	:			
	6	:			
ing	7				
	8				
	·		1		-
out	Outbound Fire	vall			
out	Outbound Fire				
g out					

The **Firewall** enables you to control what packets are allowed to pass the router. **Outbound filter** applies on all outbound packets. However, **Inbound filter** applies on packets that are destined for Virtual Servers or DMZ host only. You can select one of the two filtering policies:

- 1. Allow all to pass except those that match the specified rules
- 2. Deny all to pass except those that match the specified rules

You can specify 8 rules for inbound or outbound. For each rule, you can define the following:

- Source IP address
- Source port address
- Destination IP address

• Destination port address

For source or destination IP address, you can define a single IP address (e.g., 4.3.2.1) or a range of IP addresses (e.g., 4.3.2.1-4.3.2.254). An empty fields implies all IP addresses.

For source or destination port, you can define a single port (e.g., 80) or a range of ports (e.g., 1000-1999).

Each rule can be enabled or disabled individually.

#### Inbound Filter:

To enable the **Inbound Packet Filter**, click the check box next to **Enable** in the **Inbound Packet Filter** field.

**Outbound Firewall:** (to access the Outbound Filter, click **Outbound Firewall** at the bottom of the window.)

To enable the **Outbound Packet Filter** click the check box next to **Enable** in the **Outbound Packet Filter** field.

Follow the same procedure as for the Inbound Firewall. The IP addresses that you input will be blocked from the port activity that you input (e.g., browsing the internet, receiving mail etc.)

After **Outbound Packet Filter** setting is configured, click the **Apply** button.

### ADVANCED > SNMP

Link letworks for People	~			01-604 Iroadband Router	
and the	Home	Advanced	Tools	Status	Help
	SNMP			Setting	
	Enable SNMP	🗹 Local	🗖 Remote	Setting	
ver	Get Community	public			
	Set Community	private			
				()	Spply Can

In brief, SNMP, the Simple Network Management Protocol, is a protocol designed to give a user the capability to remotely manage a computer network by polling and setting terminal values and monitoring network events.

To enable **SNMP** click the check box next to **Local or Remote** in the **Enable SNMP** field.

Local: allow manager to access this device through LAN port

Remote: allow manager to access this device through WAN port

You can define:

**Get Community:** The **Get community** field is the name of your network. Your SNMP manager must have the same name in their **Get community** setting to get SNMP values from this device.

**Set Community:** The **Set community** field is the name of your network. Your SNMP manager must have the same name in their **Set community** setting to set this device' s SNMP values.

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

### ADVANCED > DDNS

D-Link Building Networks for People		DI-604 Ethernet Broadband Re	puter
Virtual Server Applications Filter Firewall SNMP DDNS Routing Log out	Home Advanced Dynamic DNS Provider Host Name Username / E-mail Password / Key	Tools     Setting       © Disable     © Enable       DynDNS.org     •	e Help

#### **Dynamic DNS**

To host your server on a changing IP address, you have to use dynamic domain name service (DDNS).

Anyone wishing to reach your host only needs to know the name of it. Dynamic DNS will map the name of your host to your current IP address, which changes each time you connect to your Internet service provider.

Before you enable **Dynamic DNS**, you need to register an account on one of these Dynamic DNS servers that we list in the **provider** field.

To enable **Dynamic DNS** click the check box next to **Enable** in the **DDNS** field.

Next you can enter the appropriate information about your Dynamic DNS Server.

You have to define:

Provider

Host Name

Username/E-mail

Password/Key

You will get this information when you register an account on a Dynamic DNS server. Click **Apply** if you have made any changes.

D-Link Building Networks for People	~	_		I-604 oadband Router	
and the	Home	Advanced	Tools	Status	Help
	Routing Table	tion Subnet M	lask Gate	eway Hop	Enable
	1			indy http://	
Virtual Server	2				
Applications	3				
	4				
Filter	5				
Firewall	6				
	7				
SNMP	8				
DDNS					9 3
Routing				A	pply Cancel
Log out					

**Routing** allows you to determine which physical interface address to use for outgoing IP data grams. If you have more than one router and subnet, you will need to enable the routing table to allow packets to find the proper routing path and allow different subnets to communicate with each other.

To enable the Routing Table, click the check box next to Enable in the related field.

You have to define: Destination Subnet Mask Gateway Hop: router' s position compared to this Device; if it is under this device, then input 2.

For example, if the host wanted to send an IP data gram to 192.168.3.88 (destination), it would use the above table to determine that it had to go via 192.168.1.33 (a gateway),

Each rule can be enabled or disabled individually.

After the **routing table** setting is configured, click **Apply**.

## Troubleshooting

If you **do not** wish to set the static IP address on your PC, you will need to configure your PC to request an IP address from the gateway.

Click the Start button, select Settings, and select Control Panel. Double-click the Network icon.

In the configuration tab, select the TCP/IP protocol line that has been associated with your network card/adapter. If there is no TCP/IP line listed, you will need to install TCP/IP now.

Network ? X					
Configuration Identification Access Control					
The following network components are installed:					
Microsoft Network Monitor Driver -> Dial-Up Adapter					
General Microsoft Network Monitor Driver -> PCI 10/100 Fast Ethe					
TCP/IP -> PCI 10/100 Fast Ethernet Adapter					
📮 File and printer sharing for Microsoft Networks 📃 📃					
Add Remove Properties					
Primary Network Logon:					
Client for Microsoft Networks					
File and Dint Charing					
<u>File and Print Sharing</u>					
TCP/IP is the protocol you use to connect to the Internet and wide-area networks.					
OK Cancel					

Click the **Properties** button.

Choose the IP ADDRESS tab. Select Obtain an IP automatically.

Bindings       Advanced       NetBIDS         DNS Configuration       Gateway       WINS Configuration       IP Address         An IP address can be automatically assigned to this computer.       If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.       Image: The term of	DNS Configuration       Gateway       WINS Configuration       IP Address         An IP address can be automatically assigned to this computer.       If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.         Image: Computer in the address automatically         Image: Computer in the address:         Image: Image: Provide the address:         Image: Image: Image: Provide the address:         Image: Image	TCP/IP Properties		? ×
If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.  ©   ©   ©   ©   ©   ©   ©   ©   ©   ©	If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.   © Obtain an IP address automatically  © Specify an IP address:  IP Address:			
C Specify an IP address:	Specify an IP address:      IP Address:	If your network doe your network admin	s not automatically assign	n IP addresses, ask
IP Address:	JP Address:			
		- O Speciry an IP	address:	
Sybnet Mask:	Subnet Mask:	[P Address:	• •	
		Sybnet Mask	« <b>.</b> .	
			ОК	Cancel

After clicking **OK**, windows might ask you to restart the PC. Click **Yes**.

#### **CONFIRM YOUR PC'S IP CONFIGURATION**

There are two tools which are great for finding out a computer's IP configuration: MAC address and default gateway.

### WINIPCFG (for Windows 95/98)

Inside the windows 95/98 Start button, select Run and type winipcfg. In the example below this computer has an IP address of 192.168.0.100 and the default gateway is 192.168.0.1. The default gateway should be the network device IP address. The MAC address in windows 95/98 is called the Adapter Address.

NOTE: You can also type winipcfg in the DOS command prompt.

P Configuration Ethernet Adapter Information	n			
		PCI 10/10	0 Fast Ethernet Ad	apti -
Adapter Addr	ess	00-90-	CC-A2-F6-04	
IP Addr	ess	192	168.0.100	
Subnet Ma	isk	255.	255.255.0	
Default Gatew	ay	19	2.168.0.1	
ОК	Release		Renew	
Release All	Re	ne <u>w</u> All	More Info >>	

## IPCONFIG (for Windows 2000/NT/XP)

At the command prompt type **IPCONFIG** and press **Enter**. Your PC IP information will be displayed as shown below.

🖾 nv cdffdffrge	
G:\>ipconfig	-
Windows 2000 IP Configuration	
Ethernet adapter Local Area Connection:	
Connection-specific DNS Suffix .: IP Address	168-0-180
Subnet Mask 255.2 Default Gateway	255.255.0 168.0.1
G:\>	
	-
•	• //

#### Assigning a Static IP Address

**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:



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

**Click Properties** 

Highlight Internet Protocol (TCP/IP)

Click **Properties** 



Local Area Connection 7 Properties	_ <u>[ [ [</u> ]
General Advanced	
Connect using:	
B-Link DFE-530TX+	
	re
This connection uses the following items:	
Solient for Microsoft Networks     Solient for Microsoft Networks     Solient for Microsoft Networks     Solient Scheduler     Solient Protocol (TCP/IP)	
I <u>n</u> stall	es
Description Transmission Control Protocol/Internet Protocol. The defa wide area network protocol that provides communication across diverse interconnected networks.	ult
Show icon in notification area when connected	
OK	Cancel

Select **Use the following IP address** in the Internet Protocol (TCP/IP) Properties window.

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

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

nternet Protocol (TCP/IP) Pr	roperties ?
General	
this capability. Otherwise, you nee the appropriate IP settings.	automatically if your network supports ed to ask your network administrator for
O Deltain an IP address automodel O Use the following IP address	
IP address:	
S <u>u</u> bnet mask:	255 . 255 . 255 . 0
Default gateway:	
O Obtain DNS server address	automatically
• OUse the following DNS serve	er addresses:
Preferred DNS server:	
Alternate DNS server:	
	Ad <u>v</u> anced
	OK Cancel

#### Click OK

You have completed the assignment of a Static IP Address. (You do not need to assign a Static IP Address if you have a DHCP-capable Gateway/Router.)

### 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 or 98.

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 gateway/router, select the second option as shown.



Click Next

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

Network Setup Wizar	d		
Give this computer a	Give this computer a description and name.		
Computer description:	Mary's Computer		
	Examples: Family Room Computer or Monica's Computer		
Computer name:	Office		
	Examples: FAMILY or MONICA		
The current computer na Learn more about <u>comp</u>	uter names and descriptions.		
	< Back Next> Cancel		

Click Next

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

Name your network	
Name your network by should have the same v	specifying a workgroup name below. All computers on your netwo workgroup name.
Workgroup name:	Accounting
	Examples: HOME or OFFICE

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.
< <u>B</u> ack 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 best option. 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**.



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



Format the disk if you wish, and click Next.

Please wait while the Network Setup Wizard copies the files.

Copying	
Please wait while the wizard copies files	D
	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. To continue 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."
< <u>Back</u> 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?
	Yes No

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.

#### Networking Basics Naming your Computer

To name your computer, please follow these directions:

#### In Windows XP:

- 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

ystem Properties			? 🛽
System Restore	Automatic	: Updates	Remote
General Com	puter Name	Hardware	Advanced
Windows use: on the network Computer <u>d</u> escription:	For example: "Kit	mation to identify chen Computer'' (	
Full computer name: Of	Computer". ffice		
Workgroup: Ar	ccounting		
To use the Network Ider domain and create a loc ID.			Network ID
To rename this compute	r or join a domain, c	click Change. 🧲	Change

#### Networking Basics Naming your Computer

- In this window, enter the Computer name.
- Select Workgroup and enter the name of the Workgroup.
- All computers on your network must have the same Workgroup name.
- Click OK

Computer Name Changes
You can change the name and the membership of this computer. Changes may affect access to network resources.
Office
Full computer name: Office <u>More</u> <u>Member of</u> <u>Domain:</u> <u>Workgroup:</u>
Accounting
ОК Cancel

## Checking the IP Address in Windows XP/2000





Checking the IP Address in Windows XP/2000

Type Command



Click OK

## Checking the IP Address in Windows XP/2000

Type **ipconfig /all** at the prompt. Click **Enter**. All the configuration settings are displayed as shown below.

:\Docu	ments and Settings\lab4>ipconfig /all	
indows	IP Configuration	-
	Host Name : iqc4	
	Primary Dns Suffix :	
	Node Type : Unknown IP Routing Enabled : No	
	IP Routing Enabled No	
	WINS Proxy Enabled No	
therne	WINS Proxy Enabled No t adapter Wireless Network Connection:	
therne		
	t adapter Wireless Network Connection:	
	t adapter Wireless Network Connection: Connection-specific DNS Suffix . : Description : D-Link DFE-530TX+	
	t adapter Wireless Network Connection: Connection-specific DNS Suffix .: Description D-Link DFE-530TX+ Physical Address : 00-06-25-53-85-31	
	t adapter Wireless Network Connection: Connection-specific DNS Suffix .: Description : D-Link DFE-530TX+ Physical Address : 00-06-25-53-85-31 Dhcp Enabled : No	
therne dapter	t adapter Wireless Network Connection: Connection-specific DNS Suffix .: Description D-Link DFE-530TX+ Physical Address 00-06-25-53-85-31 Dhcp Enabled No IP Address 192.168.0.23	
	t adapter Wireless Network Connection: Connection-specific DNS Suffix .: Description D-Link DFE-530TX+ Physical Address 00-06-25-53-85-31 Dhcp Enabled	
	t adapter Wireless Network Connection: Connection-specific DNS Suffix .: Description D-Link DFE-530TX+ Physical Address 00-06-25-53-85-31 Dhcp Enabled No IP Address 192.168.0.23	

#### Networking Basics Checking the IP Address in Windows XP/2000

Type **ipconfig** /**renew** at the prompt to get a new IP Address. Click **Enter**. The new IP Address is shown below.



(Windows 98/ME users: go to Start > Run. Type Command. Type winipcfg at the prompt. Click Release and Renew to obtain a new IP Address.)

## Assigning a Static IP Address

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         Paint         Files and Settings Transfer         Wizard	Control Panel  Printers and Faxes  Help and Support  Search
All Programs >	🖅 Run
2	2 Log Off 🚺 Turn Off Computer
🛃 start	

### Networking Basics Assigning a Static IP Address

Double-click on
 Network Connections

- Right-click on Local Area Connections.
- Double-click
   Properties

File       Edit       View       Favorites       Tools       Help         Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel         Image: Second Panel       Image: Second Panel       Image: Second Panel       Image: Second Panel	🐓 Control Panel				
Address Control Panel Control Panel	File Edit View Favorites	Tools	Help		
Control Panel (a) Control Panel (b) Switch to Category View See Also (b) Windows Update (c) Help and Support Help and Support Help and Modern Options Phone and Modern Options Scamers and Cameras Scheduled Tasks Scamers and Cameras Scheduled Tasks Scamers and Audio Devices Speech System	🕞 Back 👻 🌍 👻 🦻	,0	5earch	6 Folders	•
Control Panel (S) Switch to Category View See Also Windows Update Help and Support Help and Support Mouse Network Connections Poter and Time Display See Also Ministrative Tools Date and Time Display See Also Ministrative Tools Date and Time Display See Also Mouse Network Connections Phone and Modem Options Phone and Modem Options Phone and Modem Options Phone and Modem Options Scanners and Faxes Regional and Language Options Scanners and Cameras Scanners and Cameras Scanners and Cameras Scanners and Audio Devices Speech Speech	Address 🔂 Control Panel				
ਦ Scheduled Tasks ❷ Sounds and Audio Devices 왕 Speech આ System	Control Panel Control Panel Switch to Category View See Also Windows Update		Acc Acc Acc Acc Acc Acc Acc Acc Acc Acc	dd Hardware dd or Remove Pr dministrative Too ministrative Too splay Ilder Options ints ame Controllers ternet Options lyboard ouse <b>extwork Connecti</b> ione and Modern wer Options inters and Faxee agional and Lang	ograms ols ons o Options s uage Options
Connects to other computers, networks, and the Internet.	Connects to other computers, net	works,	So So So So Sp Sp Sy Sy Sy Sy Sy Sy Sy Sy Sy Sy Sy Sy Sy	heduled Tasks ounds and Audio oeech /stem askbar and Start ser Accounts	Devices



## Networking Basics Assigning a Static IP Address

- Highlight
   Internet
   Protocol
   (TCP/IP)
- Click Properties
- Select Use the following IP address in the Internet Protocol (TCP/IP) Properties window,
- 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 provided by your ISP (Internet Service Provider.)

Local	Area Connection 7 Properties
General	Advanced
Connec	st using:
<b>H</b>	D-Link DFE-530TX+
	Configure
This c <u>c</u>	nnection uses the following items:
	Client for Microsoft Networks
	File and Printer Sharing for Microsoft Networks QoS Packet Scheduler
	Internet Protocol (TCP/IP)
	nstall Uninstall Properties
Desc	ription
wide	smission Control Protocol/Internet Protocol. The default area network protocol that provides communication ss diverse interconnected networks.
🔲 Sho	w icon in notification area when connected
	OK Cance
nternet	Protocol (TCP/IP) Properties
General	

Sybnet mask:       255.255.0         Default gateway:          Obtain DNS server address automatically         O Use the following DNS server addresses:         Preferred DNS server:	<u>I</u> P address:	192.168.0.2
O D⊵tain DNS server address automatically ● Usg the following DNS server addresses: Preferred DNS server:	S <u>u</u> bnet mask:	255.255.255.0
Use the following DNS server addresses:      Preferred DNS server:	Default gateway:	1
	Preferred DNS server:	
Alternate DNS server:	Lielened Divo servei.	

#### Click OK

You have completed the assignment of a Static IP Address. (You do not need to assign a Static IP Address if you have a DHCP-capable Gateway/Router.)

## **Technical Specifications**

#### Standards:

- IEEE 802.3 10BASET-T Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.3x Flow Control
- IEEE 802.1p Priority Queue
- ANSI/IEEE 802.3 NWay auto-negotiation

#### Management:

Web-Based

#### VPN Pass Through Function\*:

- PPTP
- L2TP
- IPSec

#### Ports:

- 4 x NWay 10BASE-T/100BASE-TX Fast Ethernet LAN (Media Au Sensing)
- 1 x 10BASE-T/100BASE-TX WAN

#### LEDs:

- WAN Activity
- LAN Link Activity

#### Power:

• DC 5V 2A

#### **Operating Temperature:**

• 5 C ~ 55 C

#### Humidity:

• 10% ~ 90%

## **Contacting Technical Support**

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

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

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

#### D-Link Technical Support over the Internet: http://support.dlink.com

# D-Link Technical Support over the Telephone: Phone: 877-453-5465

24 hours a day, seven days a week.

When contacting Technical Support, please provide the following information:

- Serial number of unit
- Model number or product name
- Software type and version number

## **Warranty and Registration**

D-Link Systems, Inc. ("D-Link") provides this 1-Year warranty for its product only to the person or entity who originally purchased the product from:

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

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

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

- Hardware (excluding power supplies and fans)
- Spare parts and spare kits Ninety (90) days.

D-Link's sole obligation shall be to repair or replace the defective Hardware at no charge to the original owner. 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 of an identical make, model or part; D-Link may in its 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. The Warranty Period shall extend for an additional ninety (90) days after any repaired or replaced Hardware is delivered. 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, 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 delivery of the Software for a period of ninety (90) days ("Warranty Period"), if 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. 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. The Warranty Period shall extend for an additional ninety (90) days after any replacement Software is delivered. 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 non-conforming 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.

#### What You Must Do For Warranty Service:

Registration is conducted via a link on our Web Site (<u>http://www.dlink.com/</u>). Each product purchased must be individually registered for warranty service within ninety (90) days after it is purchased and/or licensed.

FAILURE TO PROPERLY TO REGISTER MAY AFFECT THE WARRANTY FOR THIS PRODUCT.

**Submitting A Claim.** Any claim under this limited warranty must be submitted in writing before the end of the Warranty Period to an Authorized D-Link Service Office.

- The customer must submit 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.
- RMA number must be prominently marked on the outside of the package.
   The customer is responsible for all shipping charges to and from D-Link (No CODs allowed).
   Products sent COD will become the property of D-Link Systems, Inc. Products should be fully insured by the customer and shipped to D-Link Systems Inc., 53 Discovery Drive, Irvine CA 92618.

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 that 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; and Any hardware, software, firmware or other products or services provided by anyone other than D-Link.

**Disclaimer of Other Warranties:** EXCEPT FOR THE 1-YEAR LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND 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, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, 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.

**GOVERNING LAW**: This 1-Year 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

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#### **Copyright Statement**

No part of this publication 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.

#### 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.

#### 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 a minimum of 20 cm (approximately 8 inches) between the radiator and your body.

Registration: Register your D-Link DI-704P online at http://support.dlink.com/register/