

# USER MANUAL

DGE-530T

VERSION 2.5



**D-Link**<sup>®</sup>

**WIRED**

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# Package Contents

- D-Link DGE-530T Gigabit Network Adapter
- Drivers, Manual, and Warranty on CD



# System Requirements

Before installing the DGE-530T, check your system for the following minimum configuration requirements.

- An open PCI bus master slot, 32-bit, operating at 33MHz.
- 32 MB of System Memory
- 150 MHz processor, or faster
- The latest BIOS for your computer
- One of the following types of twisted-pair network cabling:
  - 4 – pair Category 5 or better for 1000Mbps
  - Category 5 or better for 100Mbps
  - Category 3, 5 or better for 10Mbps

# Introduction

The D-Link DGE-530T is a 10/100/1000Mbps copper Gigabit PCI card for servers and workstations. Current systems running at 10Mbps and 100Mbps can be upgraded to Gigabit Ethernet, eliminating network bottlenecks, and increasing productivity. Integrate Gigabit now and you can save time, money, and downtime because the DGE-530T will automatically detect and run at higher speeds when it becomes available.

## **Cost-Effective, Scalable Migration**

As an inexpensive alternative solution to fiber-optic, the card allows you to instantly upgrade to Gigabit without requiring you to install new, expensive fiber cables. Gigabit Ethernet uses your existing CAT-5 cabling while providing you with 10/100/1000Mbps network speed auto-sensing and full/half duplex auto-negotiation.

## **Advanced Features and Security**

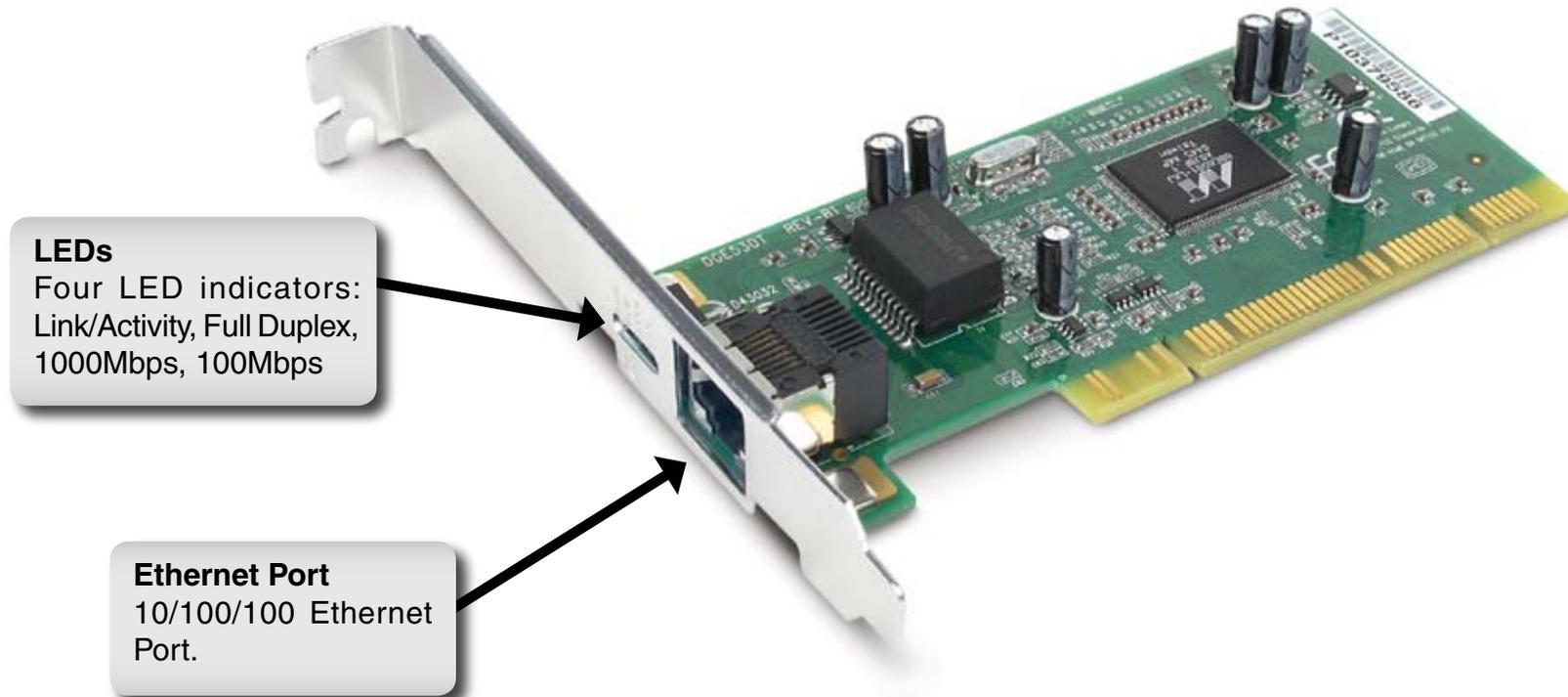
The DGE-530T supports SNMP for remote troubleshooting and management, ACPI for lower power consumption, and WoL for remote wake. This helps to lower total cost of ownership (TCO). The card also features on-board screening of VLAN Tagged Ethernet frames, allowing you to assign multiple subnets to each server and isolate devices within each VLAN from the rest of the network for better traffic control and security. It also supports 802.1p Priority Tagging to allow you to prioritize traffic. The card also features embedded flow control and independent FIFO, providing a means to protect against possible data loss during transmission on the network. With the Cable Diagnostic feature, the card will automatically detect whether you have a bad cable, making your troubleshooting task easier.

# Features

Designed for versatility and performance, the DGE-530T Network Adapter provides the following:

- Operability in 32-bit, 33 MHz slot servers and workstations
- Universal Bus support 3.3V
- Compliance with IEEE 802.3ab 1000BASE-T Gigabit Ethernet standards, IEEE 802.3u Fast Ethernet standards.
- Plug-and-Play installation
- Supports Wake-on-LAN
- Full-duplex Gigabit Ethernet interface that delivers 2Gbps aggregate bandwidth
- Supports half and full duplex at 10Mbps, half and full-duplex at 100Mbps, and full-duplex operation at 1000Mbps
- Supports for full-duplex double network throughput
- Supports TCP/IP checksum generation and verification
- Supports SNMP V1
- Supports 802.3x flow control
- Supports 802.1Q VLAN
- Supports 802.1p Priority Tags
- Supports Cable Diagnostic Feature
- Supports ACPI 2.0
- One built-in RJ-45 connector
- Auto-negotiation to the highest available speed
- Four LED indicators: Link/Activity, Full Duplex, 1000Mbps, 100Mbps.
- Low profile bracket included
- Supports Jumbo Frame up to 9K in size

# Hardware Overview



# Installation

## Unpack and Inspect

**CAUTION:** Under ordinary circumstances, a DGE-530T card will not be affected by a static charge that may be received through your body during handling of the unit. In special circumstances, the user may carry an extraordinarily high static charge and it is good practice to reduce the charge by touching a ground before handling the adapter card.

Open the shipping carton and carefully remove all items. Ensure that the following items are included:

- One DGE-530T Gigabit Ethernet Adapter Card
- DGE-530T Drivers and Manual on CD-ROM

If any of these items are missing or damaged, please contact your local reseller for replacement.

## Driver Installation

Turn on your computer and Insert the D-Link DGE-530T Driver CD in the CD-ROM drive. The step-by-step instructions that follow are shown in Windows® XP. The steps and screens are similar for the other Windows operating systems.

If the CD Autorun function does not automatically start on your computer, go to **Start > Run**. In the run command box type “**D:\autorun.exe**” (where **D:** represents the drive letter of your CD-ROM drive).

Drivers for non-Windows operating systems are located on the D-Link CD.

When the autorun screen appears, click **Install Drivers**.



The driver will install. Once the installation is complete, click **OK** to finish.



## Hardware Installation

Shut down the computer, unplug its power cord, and remove the chassis cover.

**Important:** *Opening the case of your computer may compromise the warranty of your computer. Consult the computer manufacturer before opening the case to ensure that you adhere to warranty guidelines. In some cases, you may need to have the DGE-530T installed by your computer manufacturer.*

**Note:** *Write down the serial number and hardware revision (e.g. B1) before installing the adapter. If you contact technical support, you will need this information.*

Insert the contact edge of the DGE-530T card into the connector of any available PCI Bus Master expansion slot. Press the card firmly into the connector such that the card's contacts are fully seated in the connector. Install the bracket screw that secures the card to the computer chassis. Replace the case and plug in the power cable.

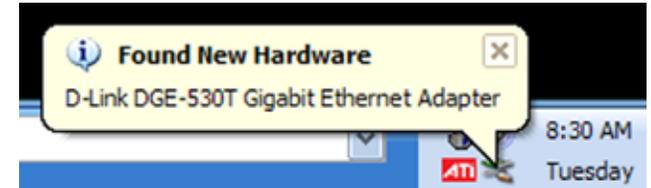
**NOTE:** *Due to a fault in some Plug-and-Play BIOS programs, occasionally a newly installed adapter is assigned an Interrupt Number which has already been assigned to another device. In such a case, the conflict of the Interrupt Number will cause faults in the behavior of both devices. Therefore, the user must run the CMOS Setup utility, and manually assign a non-conflicting Interrupt Number.*

## Connecting the Network Cable

1000BASE-T Gigabit Ethernet enables operation over the extensive installed base of legacy CAT5 cabling systems and, by default, the CAT5 cabling systems currently being installed. It provides optimal full-duplex 1000Mb/s Ethernet service over Category 5e links as defined by ANSI/TIA/EIA-568-A-5. Topology rules for 1000BASE-T are the same as those used for 100BASE-T. Category 5 and 5e link lengths are limited to 100 meters.

Once you boot your computer, Windows® will automatically install the drivers.

**Windows® XP users:** You will receive a bubble stating that Windows found the DGE-530T adapter.



**Windows Vista™ users:** You will receive a bubble stating that when Windows finished install the DGE-530T adapter.



# Verify Installation

To verify that the drivers are installed, you may view Device Manager. To view the device manager, please follow the steps below:

## Step 1:

Windows 2000: Click on **Start > Settings > Control Panel**

Windows® XP: Click on **Start > Control Panel**

Windows Vista™: Click on **Start > Control Panel**

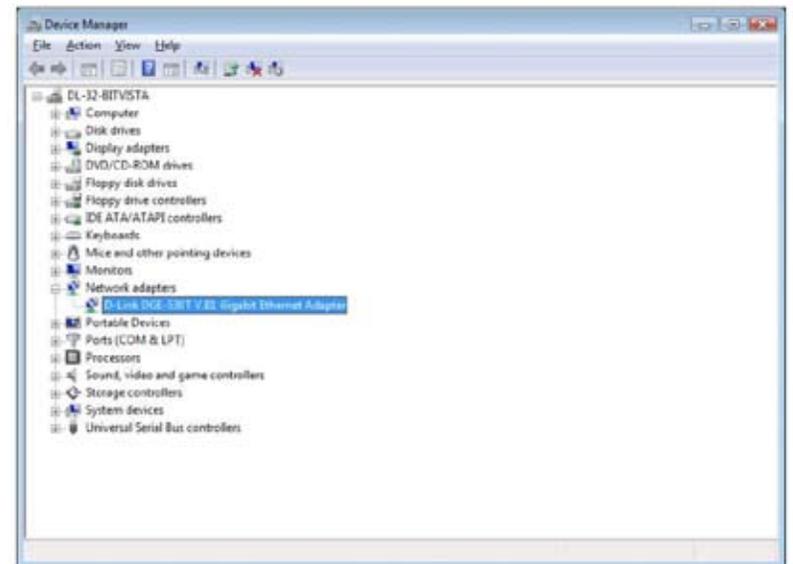
## Step 2:

Windows 2000/XP: Click on the **System** icon. Click the **Hardware tab** and then click **Device Manager**.

Windows Vista: Click on the **System and Maintenance** icon and then click on **Device Manager**.

## Step 3:

Scroll down and click the plus (+) sign next to **Network Adapters**. The **D-Link DGE-530T V.B1 Gigabit Ethernet Adapter** will be listed.



# Verify Connectivity

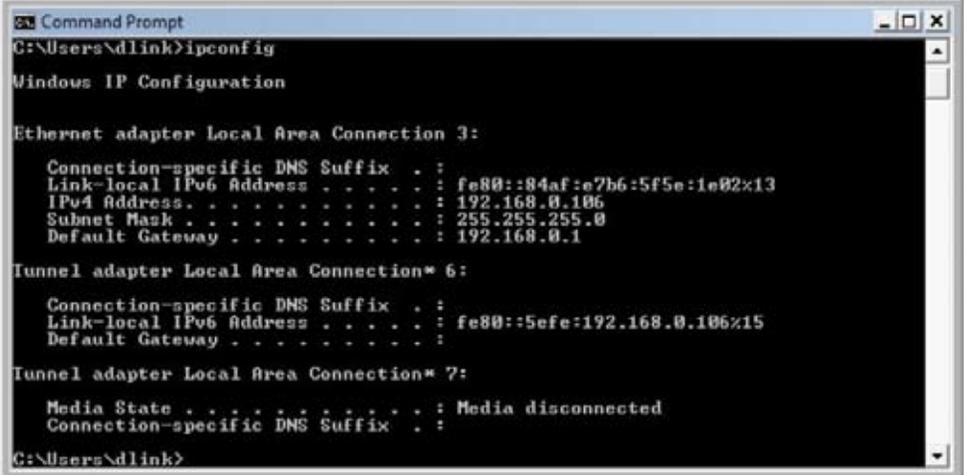
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e router) automatically. To verify your IP address, please see the following steps below.

Windows® 2000/2003/XP: Click on **Start > Run**. In the run box type **cmd** and click **OK**.

Windows Vista™: Click on **Start > All Programs > Accessories > Command Prompt**.

At the prompt, type **ipconfig** and press **Enter**.

This will display the IP address, subnet mask, and the default gateway of your adapter.



```
Command Prompt
C:\Users\dlink>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection 3:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::84af:e7b6:5f5e:1e02%13
    IPv4 Address. . . . . : 192.168.0.106
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1

Tunnel adapter Local Area Connection* 6:

    Connection-specific DNS Suffix  . : 
    Link-local IPv6 Address . . . . . : fe80::5efe:192.168.0.106%15
    Default Gateway . . . . . : 

Tunnel adapter Local Area Connection* 7:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : 

C:\Users\dlink>
```

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.

# Advanced Features

## Wake On LAN

This Wake-on-LAN function can wake up the system from the sleeping mode to the fully powered mode over the network immediately and automatically. Once the system is awake, it can be directed to run management utilities. This function increases end-user productivity by avoiding disruptions during working hours.

## QoS

The QoS function allows the DGE-530T to transmit and receive tagged frames, such as 802.1p priority tagged frames and 802.1Q VLAN tagged frames. In order for QoS to function on the DGE-530T, it must be connected to a switch that supports and is configured for QoS. These priority tagged frames will let real-time programs optimally utilize the network bandwidth. High priority packets will be processed before low priority packets.

**NOTE:** To implement QoS on the DGE-530T, it must be connected to a switch or other device that supports and is configured for 802.1p QoS.

# Jumbo Frames

Jumbo Frames are Ethernet frames that are larger than 1518 bytes. Jumbo frames may be used to reduce server CPU utilization and improve wire efficiency.

By implementing extra data in fewer packets, jumbo frames can increase throughput and decrease CPU utilization. However, additional latency may be introduced.

End-to-end network hardware must support this capability or these packets will be dropped.

Consult your network administrator or switch manual for more information concerning configuring and understanding Jumbo Frames.

- Supported protocols are limited to IP (TCP, UDP).
- Jumbo frames require compatible switch connections that forward jumbo frames. Contact your switch vendor or manual for additional information.
- There is no benefit to configure jumbo frames if standard size Ethernet frames (64 to 1518 bytes) are used.
- Jumbo frames may be simultaneously used with VLANs.

**NOTE:** Jumbo frames settings on a switch must be set to 8 bytes or larger than the adapter settings for Windows® operating systems, and at least 22 bytes larger for all other operating systems.

# SNMP

SNMP is an acronym for Simple Network Management Protocol. This network protocol is used to manage TCP/IP networks by using “Traps” sent from devices compliant with SNMP and collected by one or more servers. Devices that comply with SNMP correspond with management applications by sending alerts and updates, as well as allowing configuration changes.

The DGE-530T’s SNMP agent will take event notices from the adapter, translate and then forward them to specified SNMP management stations.

Before installing the SNMP agent, you must install SNMP on your computer. Consult the operating system documentation of your computer for additional information.

To install SNMP on the DGE–530T, simply click Install SNMP Agent on the Introduction Page and complete the steps of the Installation Wizard. This utility should only be used by experienced network administrators. Additional software or services may need to be previously installed or configured prior to installation of the SNMP protocol.

## D-Link Network Control

Installed automatically with the driver is the D-Link Network Control program, which may be opened from an icon appearing in the lower right hand taskbar of your browser, and on the Control Panel of your computer.

Double-click the  icon to open the program. The configuration and settings information for this program may be found by clicking the Help button of the current screen. This should provide you with any information you should need.

**Note:** *D-Link Network Control is not supported for Windows® XP 64 Bit Edition and Windows Vista™ x86 and x64 Bit Edition.*

# The Cable Diagnostic Feature

Within the D-Link Network Control program is a feature for examining the quality and the characteristics of a network cable that has been connected to the DGE-530T. This feature, named the Virtual Cable Tester (VCT), will make it possible for the user to detect and report potential cabling issues such as cable opens, cable shorts and impedance mismatches. The distance of the fault can be reported to within one meter.

To view the VCT window, simply double click the icon for the D-Link Network Control and select the VCT folder heading at the top of the window as seen below.

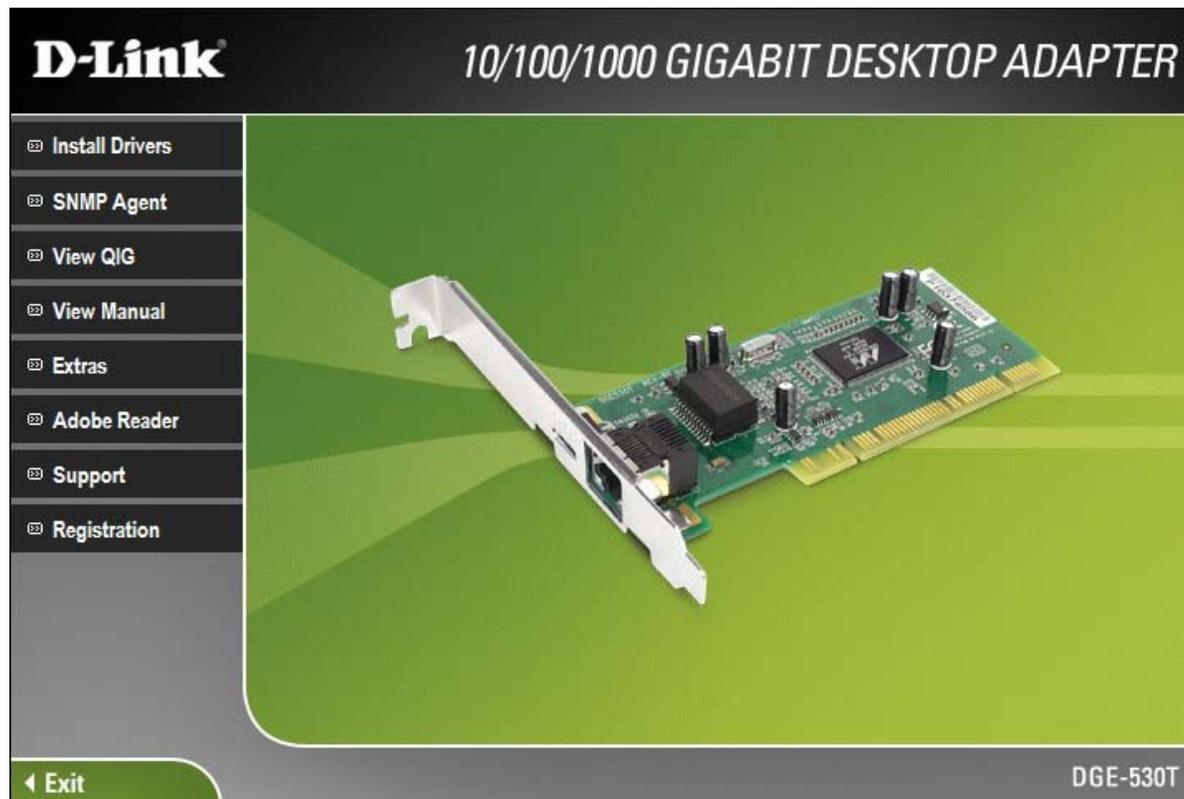
To test the diagnostic, first disconnect the cable from the remote end node so there is just an open cable connected to the DGE-530T. Click the appropriate adapter from the tree view above and then click the Start VCT button. The results which will appear in the table below will display the cable pairs, the status of the corresponding cable, the distance to the fault, and the status of the test. If the selected adapter is connected and has an uplink, the Digital Signal Processor (DSP) will be activated and will report the speed of the connection (10, 100, 1000Mbps) and the length of the cable.



# The D-Link SNMP Agent

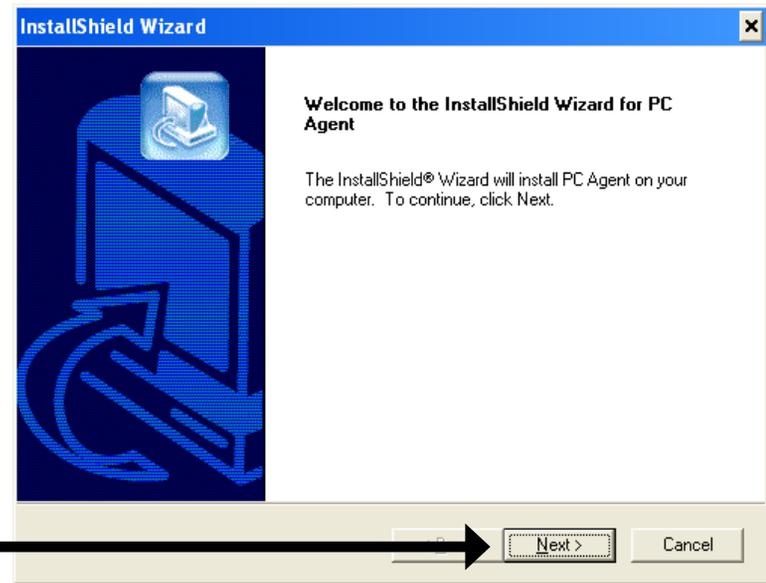
Included on the installation CD is a program for viewing and configuring the DGE-530T, known as the D-Link SNMP Agent. This agent will allow the user to view error packets, set passwords and choose NIC card options on your computer. This tool is only for computers running Windows® 2000 and Windows® XP operating systems. To install the D-Link SNMP Agent, simply click **SNMP Agent** on the Introduction Page, as shown below, and follow the steps of the Installation Wizard.

## Installation



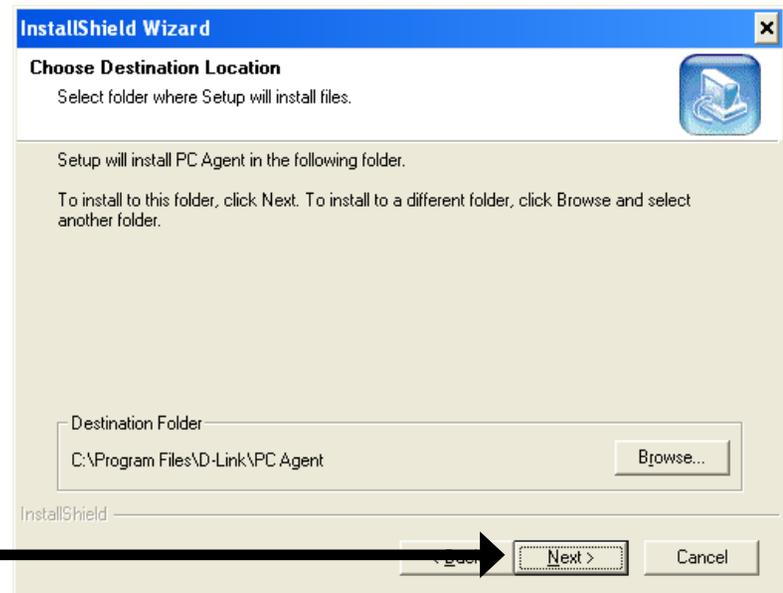
The Install Wizard screen will appear.

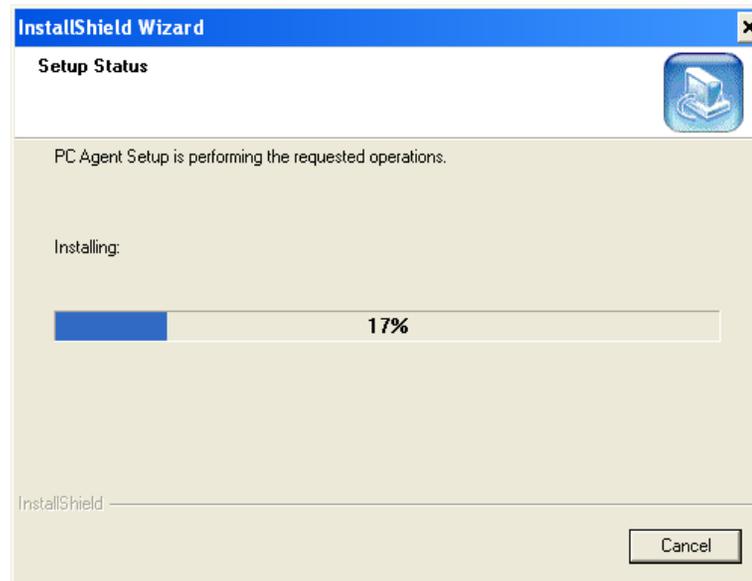
Click **Next**



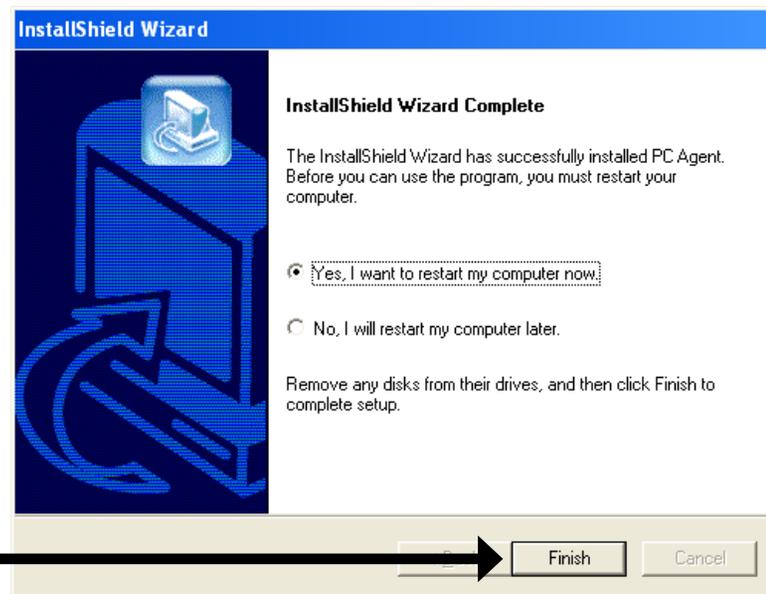
The Choose Destination Location page will appear. Click **Browse** to select another folder to install PC Agent. Otherwise click **Next** to select the default folder C:\Program Files\DLink\PC Agent.

Click **Next**





Click **Yes, I want to restart my computer now** and then click **Finish**.

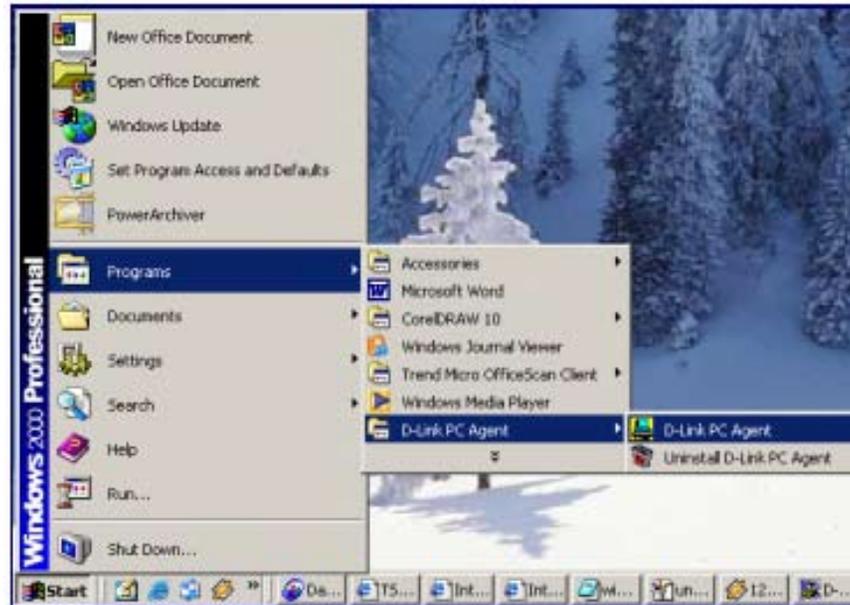


Click **Finish**



# Configuration

After successfully installing the D-Link Ethernet Adapter Agent and restarting your computer, the function is enabled by clicking **Start > Programs > D-Link PC Agent > D-Link PC Agent**.



Windows will then prompt the user to choose an Ethernet card from a pull down list.



After choosing the D-Link DGE-530T Gigabit Ethernet Adapter and clicking OK, the user will be prompted with another window to input some personal information. You may input this information now or to set this information later, simply click OK. A brief explanation of this window may also be configured under the Option tab, which will be discussed later in this chapter. After clicking OK, the D-Link Ethernet Adapter icon, shown below, should appear in the bottom right hand tool bar of your computer screen.

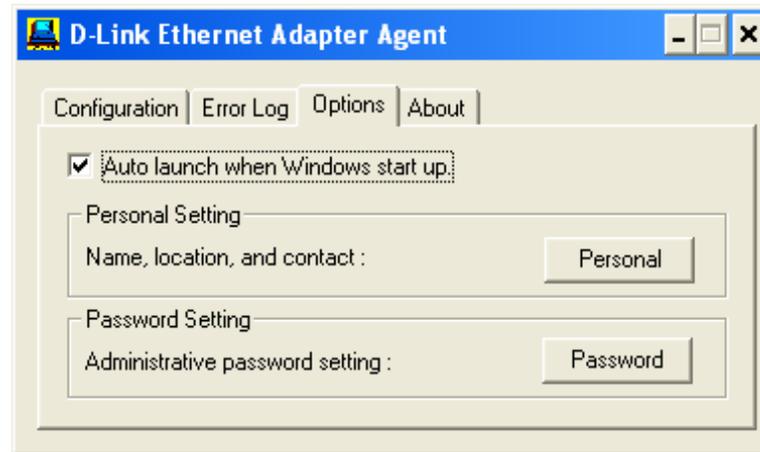


Double-clicking the icon will open the Agent window, as shown below.

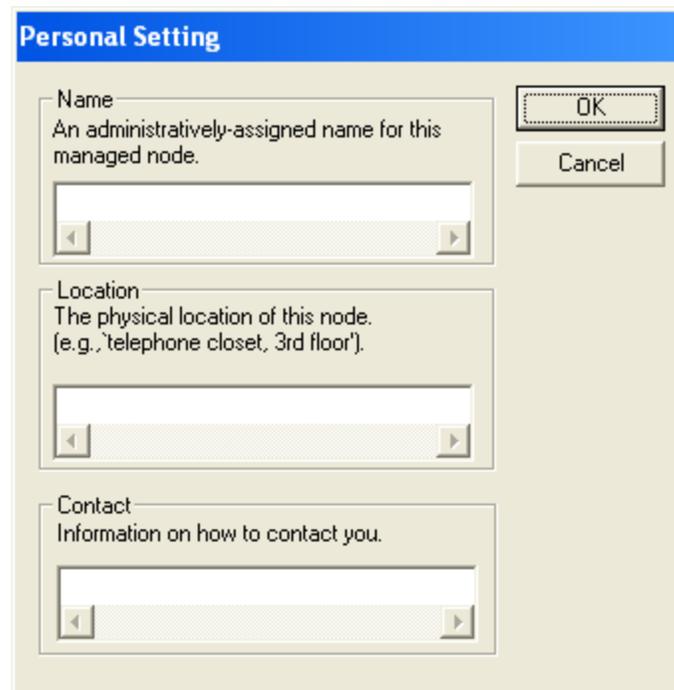


The Configuration Tab has two fields. The first field, "The agent is for:", allows the user to choose an Ethernet card to configure, from a pull down menu. The "Current Status" is a read only field which displays the most recent action made by the Ethernet card. Clicking the Error Log tab will open the following screen. The Error log will display packets received by the DGE-530T, which were discarded due to an error. The user may choose to save these messages or clear them, using the appropriate buttons.

Clicking the Options tab will display the following screen. Here the user may check the “Auto launch when Windows starts up.” box to ensure the D-Link Ethernet Adapter Agent will automatically start when the Windows operating system commences.



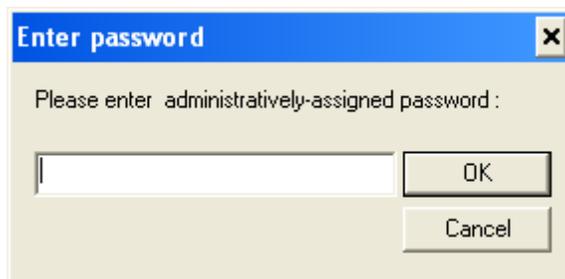
To adjust your personal settings, click the Personal button, which will open the following screen.



The user may set the following fields.

- Name: A name chosen to identify the user when configuring the DGE-530T.
- Location: The user may identify the physical location of the computer where the Ethernet card is installed.
- Contact: Information on how to contact the user, such as a telephone number or an e-mail address.

The user may also set a password to protect the configuration settings previously set. Click the Password button under the options tab to open the following screen.



Enter a password into the space provided and click OK to set your new password. If no password is set by the user, the default password of "private" is used and may need to be entered to configure the D-Link Ethernet Adapter Agent.

**NOTE:** The default password for this utility is "private".

Clicking the About tab will show the current version of the adapter and the copyright information.



# SNMP Functions

Now you can use any MIB browser, for example the D-Link MIB compiler, to view information on the workstation with the DGE-530T card SNMP Agent feature.

The D-Link Network Adapter SNMP Agent supports the following functions of the *dlk\_pc.mib*:

Function	Description
hrSystemUptime	The amount of time since this host was last initialized.
hrSystemDate	The host's notion of the local date and time of day.
hrSystemTimeZone	The current local time zone, expressed in hours west of Greenwich. If unknown, the value - 1 shall be returned.
hrSystemInitialLoad Device	This index of the hrDeviceEntry pertaining to the device that this host is configured to load its initial operating system configuration from.
hrSystemInitialLoadParameter	This object contains the parameter (e.g. a pathname) supplied to the load device when requesting the initial operating system configuration from that device.
hrSystemNumUsers	The number of distinct users currently using CPU or memory resources on this host.
hrSystemProcesses	The number of process contexts currently loaded or running on this system.
hrSystemMaxProcesses	The maximum number of process contexts this system can support. If there is no fixed maximum, the value should be zero.
hrSystemAddress	The IP address of the interface.
hrSystemNetMask	The IP net mask for this interface.
hrSystemDefaultRouter	The default gateway for this IP interface.
hrSystemMacAddr	The MAC address of this IP interface. For interfaces that do not have such an address (e.g., a serial line), this object should contain an octet string of zero length.

Function	Description
hrMemorySize	The amount of physical main memory contained by the host.
hrStorageTable	The (conceptual) table of logical storage areas on the host.
hrStorageIndex	A unique value for each logical storage area contained by the host.
hrStorageDescr	A description of the type and instance of the storage described by this entry.
hrStorageSize	The size of the storage represented by this entry, in units of Mega bytes.
hrStorageUsed	The amount of the storage represented by this entry that is allocated, in units of Mega bytes.
hrStorageAllocationFailures	The number of requests for storage represented by this entry that could not be honored due to not enough storage.
hrDeviceIndex	A unique value for each devices contained by the host. The value for each device must remain constant at least from one reinitialization of the agent to the next reinitialization.
hrDeviceDescr	A textual description of this device, including the device's manufacturer.
hrDeviceStatus	The current operational state of the device described by this row of the table. A value (1) indicates that the current state of the device is unknown. (2) indicates that the device is up and running and that no unusual error conditions are known. A warning state (3), indicates that agent has been informed of an unusual error condition by the operational software (e.g., a disk device driver) but that the device is still 'operational'. An example would be high number of soft errors on a disk. A value of testing (4), indicates that the device is not available for use because it is in the testing state. The down (5) state is used only when the agent has been informed that the device is not available for any use.
hrDeviceErrors	The number of errors detected on this device.

In addition, the D-Link Network Adapter SNMP Agent supports an RFC 1213-Mib (DLK).mib and a Transmission.mib.

# Troubleshooting

If you experience any problems with the adapter, check to see:

- that the appropriate driver is loaded;
- that the proper grade of cable is employed for the network connection;
- that the supporting hub is properly qualified for the application.

The DGE-530T Adapter features four LED indicators:

- Link/Activity – Steady green indicates good linkage between the DGE-530T and its supporting server or switch. Flashing green indicates activity (transmitting or receiving) within the adapter.
- FDX – Steady green indicates the adapter is operating in full-duplex mode.
- 1000M – The LED indicator lights green when a 1000 Mbps device is connected to the adapter.
- 100M – The LED indicator lights green when a 100 Mbps device is connected to the adapter.

# Networking Basics

## Check your IP address

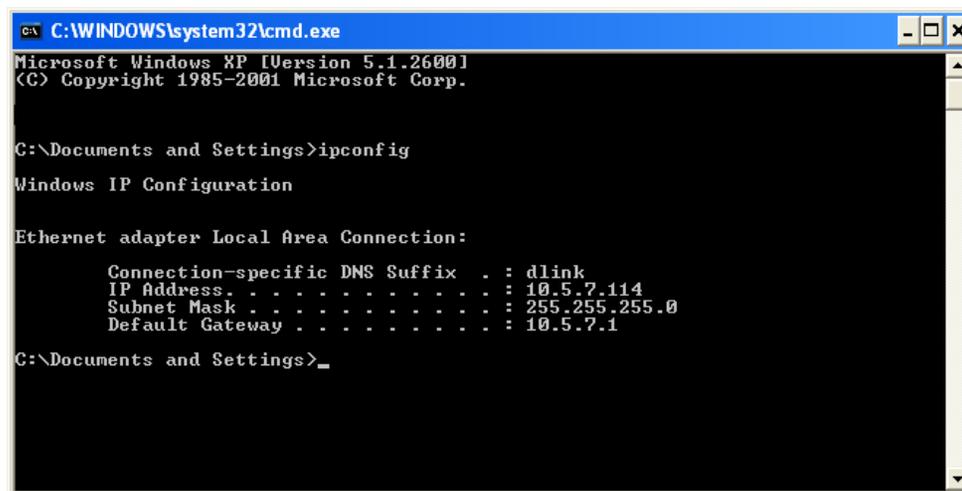
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e router) automatically. To verify your IP address, please see the following steps below.

Windows Vista™: Click on **Start > All Programs > Accessories > Command Prompt**.

Windows® 2000/2003/XP: Click on **Start > Run**. In the run box type **cmd** and click **OK**.

At the prompt, type **ipconfig** and press **Enter**.

This will display the IP address, subnet mask, and the default gateway of your adapter.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : dlink
    IP Address . . . . . : 10.5.7.114
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.

If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.

## Statically Assign an IP address

If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below.

### Step 1:

Windows® 2000: Click on **Start > Settings > Control Panel > Network Connections**

Windows XP: Click on **Start > Control Panel > Network Connections**

Windows Vista™: Click on **Start > Control Panel > Network and Internet > Network and Sharing Center > Manage network connections**

### Step 2:

Right-click on the **Local Area Connection**, which represents your D-Link network adapter, and select **Properties**.

### Step 3:

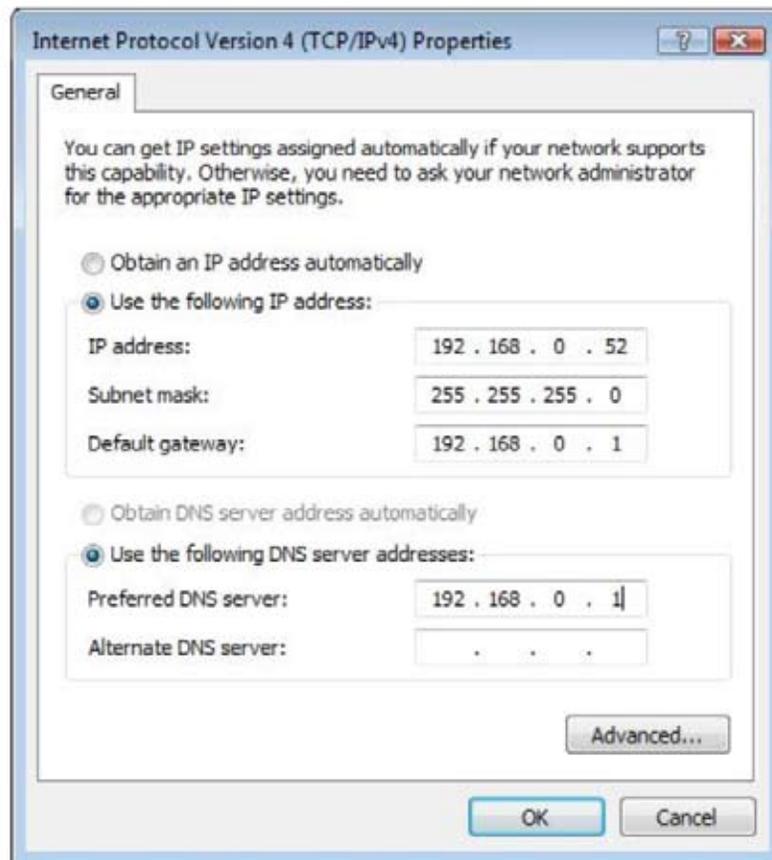
Highlight **Internet Protocol (TCP/IP)** and click **Properties**.

### Step 4:

Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

Example: If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.0.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.



**Step 5:**

Click **OK** twice to save your settings.

# Technical Specifications

## EMC And Safety Certifications

- FCC Class B
- CE Class B
- BSMI Class B
- C-Tick

## Host interface:

32-bit PCI Bus (Bus Master)

I/O base address assigned by Plug and Play system

Interrupt Number Assigned by Plug and Play system

## Physical Dimensions:

4.88 inches(L) x 2.17 inches (W) 124mm(L) x 51mm(W)

## Environment:

- Storage:  $-25^{\circ}$  to  $55^{\circ}$  C ( $-13^{\circ}$  to  $131^{\circ}$  F)
- Operating:  $0^{\circ}$  to  $40^{\circ}$  C ( $32^{\circ}$  to  $104^{\circ}$  F)
- Humidity: 5% to 90% non-condensing
- Power Consumption: 5W

# Contacting Technical Support

D-Link provides free technical support for customers within Canada for the duration of the warranty period on this product. Canadian customers can contact D-Link technical support through our web site or by phone.

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DGE-530T)
- Hardware Revision (located on the label on the adapter (e.g. rev A1))
- Serial Number (s/n number located on the label on the adapter).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

## For customers within Canada:

### Phone Support:

(800) 361-5265

English: 24 Hours - 7 Days

French: Lundi - Vendredi 12h - 21h

### Internet Support:

<http://support.dlink.ca>

# Warranty

Subject to the terms and conditions set forth herein, D-Link Networks, Inc. (“D-Link”) provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products that are purchased from D-Link or its authorized reseller or distributor and delivered within Canada.

## **Limited Warranty:**

D-Link warrants that the hardware portion of the D-Link product described below (“Hardware”) will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below (“Warranty Period”), except as otherwise stated herein.

- Hardware: Two (2) years
- Free Technical Support - Basic Installation: Ninety (90) days

The customer’s sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link’s option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any 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, at its option, 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 or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual 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 (“Software 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 Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer’s sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link’s option, 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 the portion of the actual purchase price paid that is attributable

to the Software. Except as otherwise agreed by DLink 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. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. 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.

### **Non-Applicability of Warranty:**

The Limited Warranty provided hereunder for Hardware and Software portions 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:

- Customers need to provide their receipt (proof of purchase) even if the product is registered. Without a receipt, no warranty service will be done. The registration is not considered a proof of purchase.
- 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, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-800-361-5265, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number from customer service.
- 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 be rejected by D-Link. Products shall be fully insured by the customer and shipped to D-Link Networks, Inc.,

2180 Winston Park Drive, Oakville, Ontario, Canada L6H 5W1. 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. Return shipping charges shall be prepaid by D-Link if you use an address in Canada, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. 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.

- RMA phone number: 1-877-354-6561 Hours of Operation: Monday-Friday, 10:30AM – 7:00PM EST

### **What Is Not Covered:**

The Limited Warranty provided herein by D-Link does not cover:

Products that, 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; and 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.

While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited 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 NONINFRINGEMENT.

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 THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. 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 NONCONFORMING 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 Province of Ontario and the federal laws of Canada applicable herein. Some provinces 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 you may also have other rights which vary from province to province.

**Trademarks:**

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**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.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

# Registration



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

Version 2.5  
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