D-Link **DWL-AG520**

2.4/5GHz Wireless PCI Adapter

Manual

Rev. 0200402

D-Link

Building Networks for People

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Package Contents

Contents of Package:

- D-Link DWL-AG520 2.4/5GHz Wireless PCI Adapter
- Manual and Drivers on CD
- Quick Installation Guide (printed)

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

System Requirements:

- A desktop computer with an available 32-bit PCI Card slot
- Windows XP, Windows 2000, Windows ME, or Windows 98 SE
- At least 32 MB of memory and a 300 MHz processor or higher

Introduction

The D-Link DWL-AG520 Wireless PCI Adapter is an advanced IEEE 802.11a/b/g compatible, high performance, wireless adapter that supports data transfer speeds of up to 108 Mbps in ***Turbo Mode.***

It is an ideal way to connect your laptop computer to a Wireless Local Area Network (WLAN.) After completing the steps outlined in the Quick Install Guide (included in your package) you will have the ability to share information and resources, such as files and printers, and take full advantage of a "connected" environment for work or play! Please take a look at our **Getting Started** section in this manual. You will see several options for setting up a network using the DWL-AG520.

The DWL-AG520 comes with software drivers for the most popular Microsoft Windows operating systems and can be integrated into a larger network, running Windows XP, Windows 2000, Windows ME, Windows 98SE, in either Ad Hoc mode (without an Access Point) or Infrastructure mode (with an Access Point.)

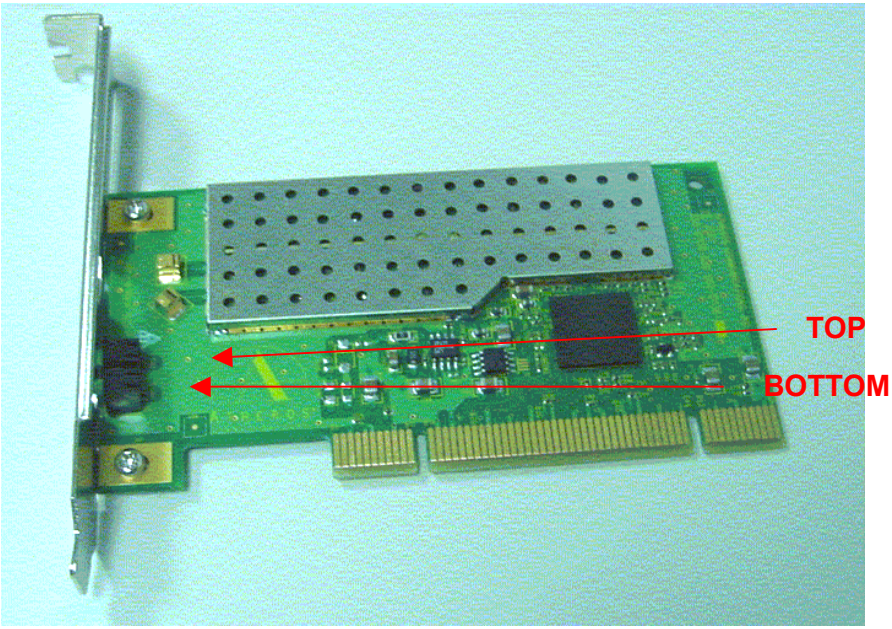
This manual provides a quick introduction to wireless technology and its application as it relates to networking. Take a moment to read through this manual and get acquainted with wireless technology.

Product Features

- Adheres to 802.11a/b/g standard in providing high data wireless transfer rates of up to 54 Mbps. Capable of providing data rates of up to 108 Mbps in **Turbo Mode**.
- Orthogonal Frequency Division Multiplexing (OFDM) – a new technique for transmitting high-speed data over a radio wave.
- Supports Wired Equivalent Privacy (WEP) data encryption at 64/128/152-bit encryption with dynamic key exchange for security.
- Supports infrastructure networks via Access Point and Ad-Hoc networks via peer-to-peer communication.
- Requires an available 32-bit PCI Card slot that is PCI 2.2 compliant.
- User-friendly configuration and diagnostic utilities.

LED

LED stands for **light-emitting diode.** The **DWL-AG520 Wireless PCI Adapter** has two LEDs, as shown below. When the computer is ON, the adapter is inserted properly, and there is activity on the network, both LEDs flash in unison. The BOTTOM LED (POWER) flashes to indicate that the adapter is inserted properly into a computer that is ON. The TOP LED (Network) flashes to indicate network activity.



Wireless Basics

D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home or business. Strictly adhering to IEEE 802.11a/b/g the D-Link wireless family of products will allow you to access the data you want, when and where you want it. No longer will you be limited to one location or forced to run new wiring through your home or office. You will be able to enjoy the freedom that wireless networking delivers.

A wireless LAN (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure has proven to be beneficial for many users.

Wireless users can use the same network applications they use on an Ethernet LAN. Wireless adapter cards used on laptop and desktop systems, support the same protocols as Ethernet adapter cards. For most users, there is no noticeable functional difference between a wired Ethernet desktop computer and a wireless computer equipped with a wireless adapter other than the added benefit of the ability to roam within the wireless-cell. Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Access Point (AP) is a device used to provide this link.

People use wireless LAN technology for many different purposes.

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

Low Implementation Costs - WLANs are easy to set up, manage, change and relocate. Networks that frequently change, both physically and logically, can benefit from WLANs ease of implementation. WLANs can operate in locations where installation of wiring may be impractical. Furthermore, IEEE standardization mandates interoperability of all WLAN devices that conform to the 802.11a/b/g set of standards.

Installation Flexibility - Wireless technology allows the network to go where wires cannot go.

Installation Considerations

Designed to go up to 1650 feet (~500 meters), D-Link DWL-AG520 lets you access your network with your computer from virtually anywhere you want. Keep in mind, however, that the number and thickness of walls, ceilings or other objects that the wireless signals must pass thru may limit range. Typical ranges vary depending on the types of materials and background RF noise in your home or business. The key to maximizing range is to follow these basic principles:

1. Keep the number of walls and ceilings between the Access Point and your receiving device to a minimum - Each wall or ceiling can reduce your D-Link Wireless product's range from 3-90 feet (1-30 meters.) For some businesses or for a large residential home deployment, it may be beneficial to have more than one access point with overlapping coverage.

2. Be aware of the direct line between Access Points and computers with wireless adapters - A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Try to make sure that the Access Points and Adapters are positioned so that the signal will travel straight through a wall or ceiling for better reception.

3. Building Materials make a difference - A solid metal door or aluminum studs may have a negative effect on range. Try to position Access Points, and computers with wireless adapters so that the signal passes through drywall or open doorways and not other materials.

4. Make sure that the antenna is positioned for best reception by using the software signal strength tools included with your product.

5. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate extreme RF noise.

Getting Started

To begin, select the type of wireless network you will be building.
We will discuss the following types of networks in this section:

1. ***A Home Internet Network with A Residential Gateway/Router***
2. ***A Home Internet Network with Multiple IP Addresses***
3. ***An Ad Hoc Network***
4. ***An Ad Hoc Network with Internet Sharing***

Please select, from the four types of networks described above, the type of network that is appropriate for your needs. Please follow the instructions in the corresponding section that follows.

1. A Home Internet Network with A Residential Gateway/Router

(Network administrators with Dynamic IPs can also follow these instructions.)
If you have two or more computers (laptops or desktops) and want to share files, printers, and Internet access using a DHCP-capable Residential Gateway/Router – or - if you want to connect to an Ethernet network that uses Dynamic (DHCP) IP addresses, then follow the instructions on the next page. When it is complete, your network may look similar to this:

1. A Home Internet Network with A Residential Gateway/Router

DHCP stands for Dynamic Host Configuration Protocol. It is a protocol for assigning dynamic IP addresses "automatically." With a DHCP-capable gateway, there is no need to manually assign an IP address.

This type of installation requires that you provide a dynamic IP address for each computer on your network. You will need a DHCP-capable Residential Gateway/Router for your network.

To complete the installation, please follow these steps:

1. Connect the **Router/Gateway** (for example, the **D-Link DI-704P**) to a Broadband connection, Connect the 802.11a/b/g Access Point to the router.
2. Install the **D-Link DWL-AG520 Wireless PCI Adapter** into a desktop computer on your wireless network. (You can also install the **Wireless Cardbus Adapter** into a laptop computer. Please refer to the **Quick Install Guide** included with each product.)
3. Check the **Device Manager** to confirm that the wireless adapter is installed correctly. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter.**
4. *By default, the wireless adapter is set to obtain a Dynamic IP Address.* If you are having difficulty connecting, check to make sure that the **IP Address** of the **wireless adapter** is within the IP address range of your network. Please refer to the **Networking Basics** section in this manual entitled: **Checking The IP Address**.
5. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers in Windows XP**.

2. A Home Internet Network with Multiple IP Addresses

(Network administrators with Static IPs can also follow these instructions.)
If you have two or more computers (laptops or desktops) and want to share files, printers, and Internet access using multiple IP addresses that you have purchased from your Internet Service Provider **-or-** you want to connect to an Ethernet network that uses Static IP Addresses, then follow the instructions on the next page. When you have completed your network, it should look similar to this:

Please note that this type of installation requires that your ISP (Internet Service Provider) provides you a static IP address for each computer and the Access Point on your network. Please refer to the manual that came with your Access Point to determine its configuration.

Please follow these steps to complete the installation:

1. Connect the **Wireless Access Point** is shown in the example) to a Broadband connection (i.e., a **Cable** modem such as the cable modem.)
2. Install the **DWL-AG520 Wireless PCI Adapter** into a desktop computer on your wireless network. (You can also install the **Wireless Cardbus Adapter** into a laptop computer. Please refer to the **Quick Install Guide** included with each product.)
3. Check the **Device Manager** to confirm that the **wireless adapter** is installed correctly. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter**.
4. Set the **Static IP Address** of the **wireless adapters.** Please refer to the **Networking Basics** section in this manual entitled: **Assigning an IP Address**.
5. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers**
6. **in Windows XP**.

3. An Ad Hoc Network

If you have two or more computers (desktops or laptops) and want to share files and printers, but no Internet connection, please complete the following instructions. When your Ad Hoc network is complete it may look similar to this:

(Requirements: Wireless network adapters -for example)

To complete this installation, please follow these steps:

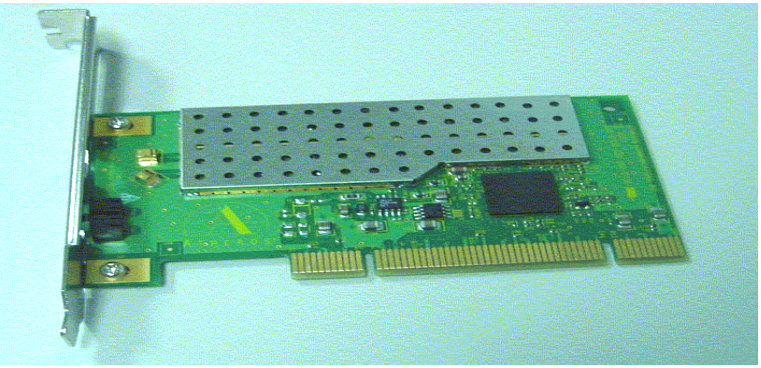
1. Install the **D-Link DWL-AG520 Wireless PCI Adapter** into a desktop computer on your wireless network. (You can also install the **Wireless Cardbus Adapter** into a laptop computer. Please refer to the **Quick Install Guide** included with each product.)
2. Set the **Static IP Address** of the **wireless adapters**. Please refer to the **Networking Basics** section in this manual entitled: **Assigning an IP Address**.

Note: The IP Address for all computers must be in the same IP Address range, and the Subnet Mask must be the same for all computers on your network. For example: If the first computer is assigned an IP Address of 192.168.0.2 with a Subnet Mask of 255.255.255.0, then the second computer can be assigned an IP Address of 192.168.0.3 with a Subnet Mask of 255.255.255.0, etc.

3. Check the **Device Manager** to confirm that the **wireless adapter** is installed correctly. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter**.
4. Check the **Wireless Configuration** for each **wireless adapter**. Please refer to the **Networking Basics** section in this manual entitled: **Checking the Wireless Configuration**.
5. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers in Windows XP**.

4. An Ad Hoc Network with Internet Sharing

If you have two or more computers (desktops or laptops) and want to share files, printers, and Internet access using one computer or laptop as an Internet Server, then follow the instructions below. When you have completed your network, it should look similar to this:



If the Internet Sharing Software will be installed on the same computer into which you are installing this wireless network adapter, then follow these steps:

1. Install the **D-Link DWL-AG520 Wireless PCI Adapter** (please refer to the **Quick Install Guide.**)
2. Check the **Device Manager** to confirm that your adapter is installed correctly. Please refer to the **Networking Basics** section in this

manual entitled: **Checking the Installation of the Drivers for the Wireless Adapter**.

3. Install your **Internet Sharing Software**
4. If required by the ICS software, set the static IP Address for the **wireless adapter**. Please refer to the **Networking Basics** section in this manual entitled: **Assigning an IP Address**.
5. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers**

If the **Internet Sharing Software** will be installed on a computer other than the one in which you are installing the **D-Link DWL-AG520 Wireless PCI Adapter**, then follow these steps:

1. Install the **D-Link DWL-AG520 Wireless PCI Adapter** into the computer (please refer to the **Quick Install Guide.**)
2. Check the **IP Address** for the **wireless adapter**. Please make certain that all the computers on your network are in the same IP Address range. Please refer to the **Networking Basics** section in this manual entitled: **Checking your IP Address**.

*Note: By default, the **wireless adapter** is set to obtain a **Dynamic IP Address,** automatically.*

3. Learn to share printers and files. Please refer to the **Networking Basics** section in this manual entitled: **Adding and Sharing Printers in Windows XP**.

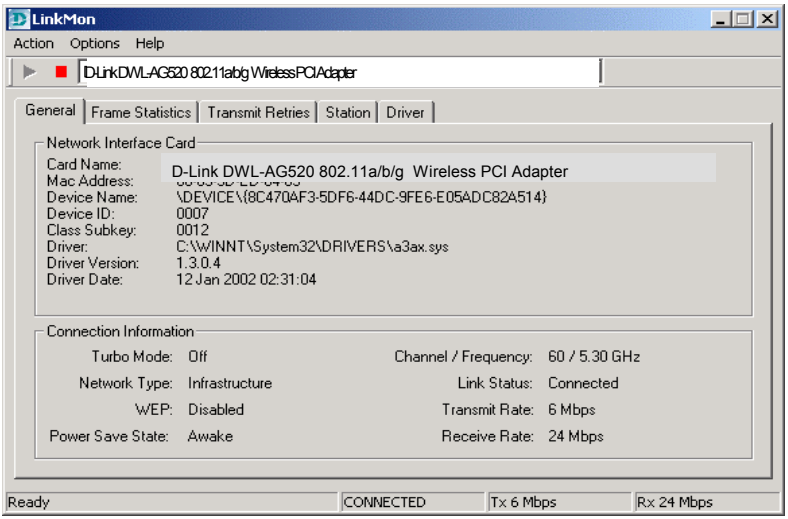
Using the Configuration Utility

The Configuration Utility program for the DWL-AG520 is called **LinkMon**. Please refer to the *Quick Install Guide* that came with the DWL-AG520 for instructions on how to install **LinkMon** on your computer. Once you have installed **LinkMon** (the configuration utility), you can read this section of the manual to find out how to monitor and configure your DWL-AG520 adapter using **LinkMon**. There are five tabs in the **LinkMon** Configuration Utility program. In this section we will describe the uses for each tab in the Configuration Utility window.

To access **LinkMon** once it has been installed, just double-click on the **LinkMon** icon in the taskbar.

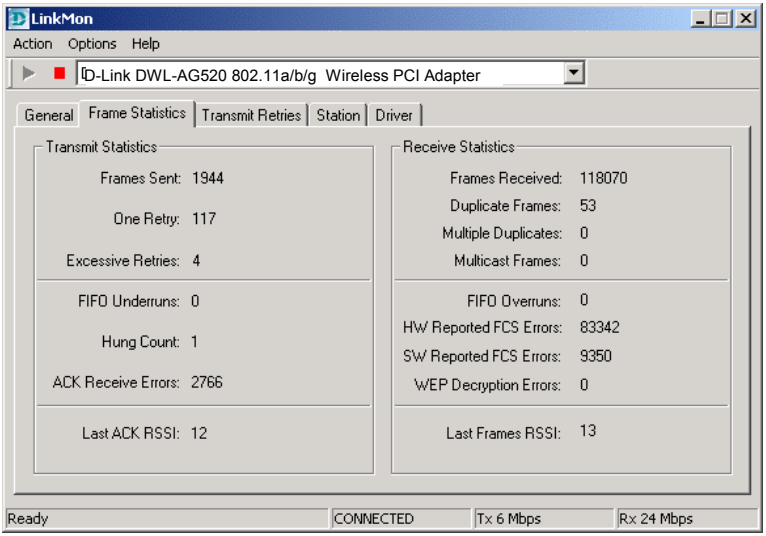
Under the **General Tab** you will find general information about the program and its operations.

General Tab



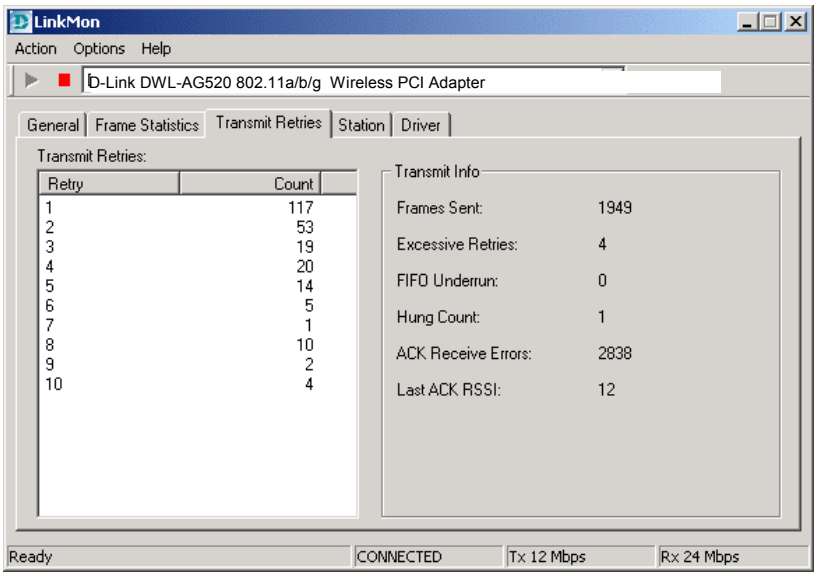
Under the **Frame Statistics Tab** you will find statistical information showing the number of frames being sent and received, retry count on frames sent, frame checksum error counts for received frames, and receive signal strength indicator (RSSI) information.

Frame Statistics Tab



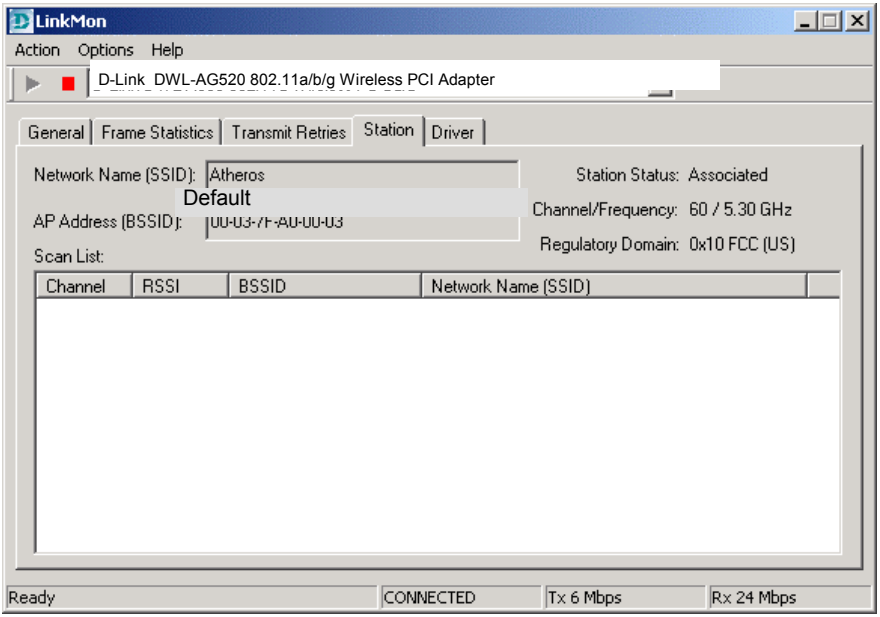
Under the **Transmit Retries Tab** you will find detailed transmit retry statistical information for transmitted frames.

Transmit Retries Tab



Under the **Station Tab** you will find detailed **BSS** information including **SSID**, **BSSID**, association status, operating channel frequency, and information about scanned APs.

Station Tab

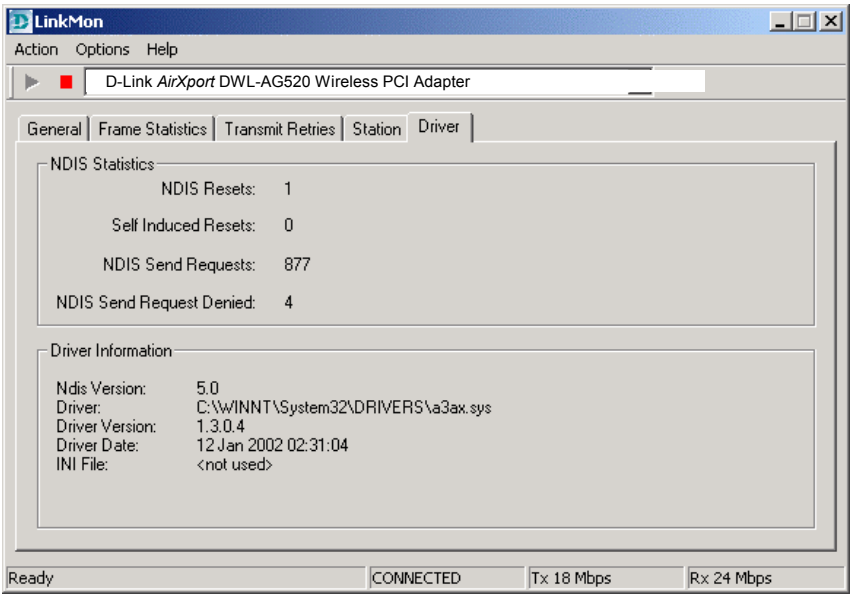


BSS – (Basic Service Set) when one AP is connected to a wired network and a set of wireless stations, it is a **BSS**.

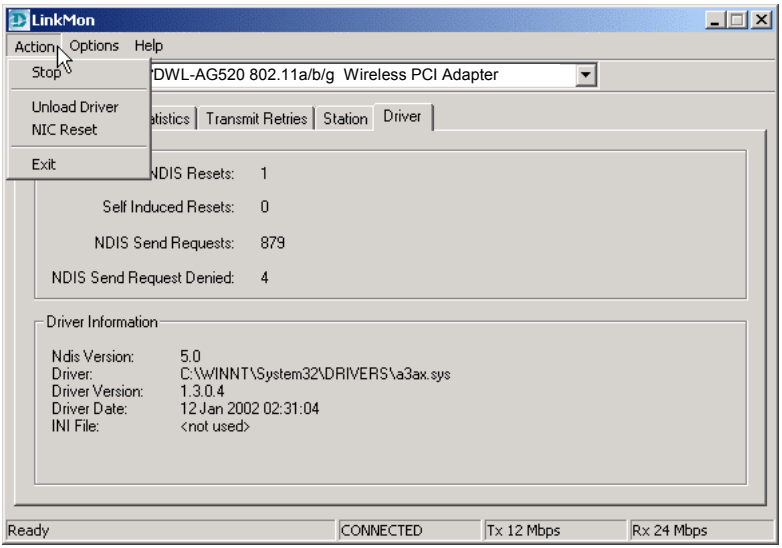
SSID – (Service Set Identifier) it is essentially a **network name**; a name that identifies a wireless network. All Access Points and all devices attempting to connect to a specific WLAN (Wireless Local Area Network) must use the same SSID.

Under the **Driver Tab** you will find statistical data pertaining to NDIS (Network Driver Interface Specification) driver operations.

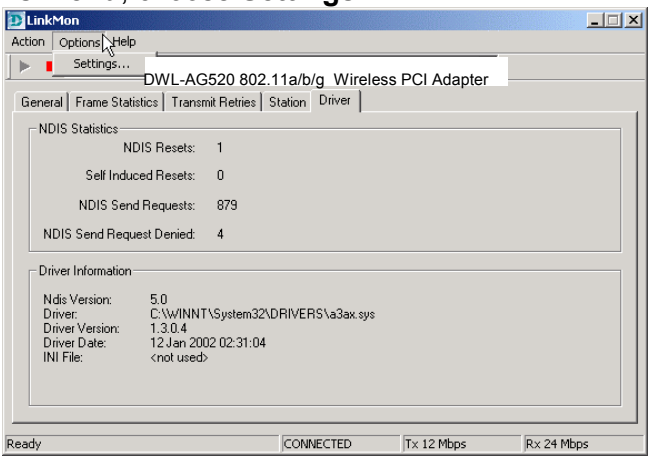
Driver Tab



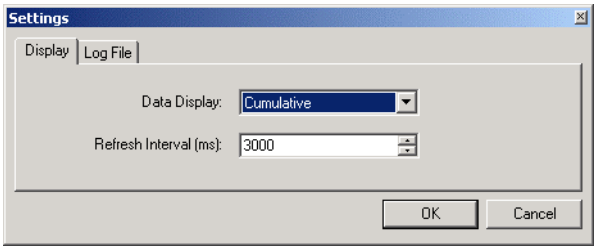
The **Action menu** allows the unloading of the NDIS driver, and the resetting of the network interface card (NIC.) Note that unloading the driver and resetting the NIC are options that are available only in Windows XP and Windows 2000.



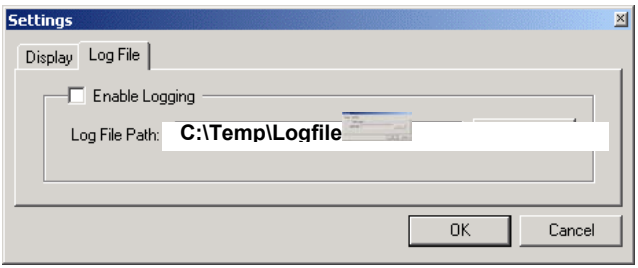
On the **Options menu**, choose **Settings**:



Under the **Display Tab**, you can select the data display modes of ***Cumulative***, or ***Relative***. ***Cumulative*** mode displays statistical data collected when **LinkMon** is started. ***Relative*** mode displays differences in the statistical data since the last update of collected data.



Under the **Log File Tab**, the logging function can be enabled to log to a file the statistical information collected by the **LinkMon** utility, for later reference or post processing by an application such as Microsoft Excel.



Click the ***Enable Logging*** click-box to enable **LinkMon** to write a log file. You must also specify the full DOS path to the log file, such as C:\Temp\Logfile.

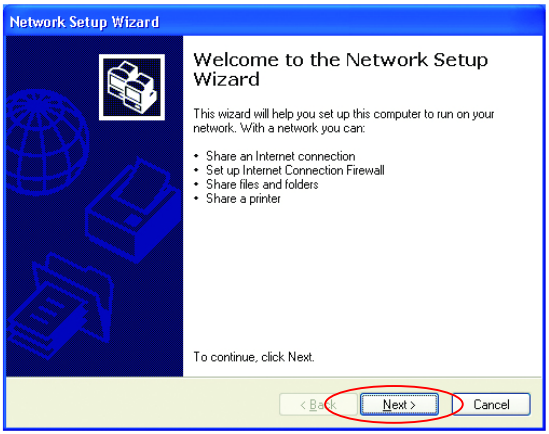
Networking Basics

Using the Network Setup Wizard in Windows XP

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

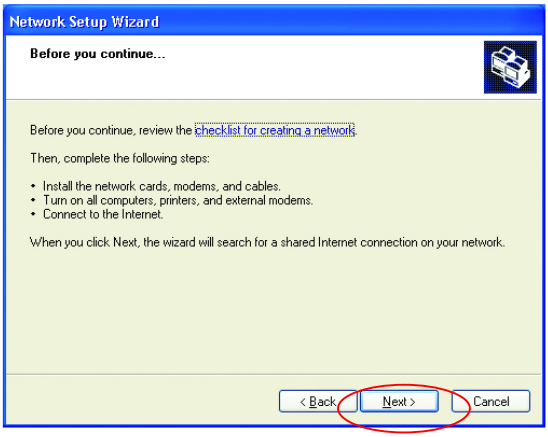
Note: Please refer to websites such as http://www.homenethelp.com and http://www.microsoft.com/windows2000 for information about networking computers using Windows 2000, ME or 98.

Go to **START>CONTROL PANEL>NETWORK CONNECTIONS**
Select **Set up a home or small office network**



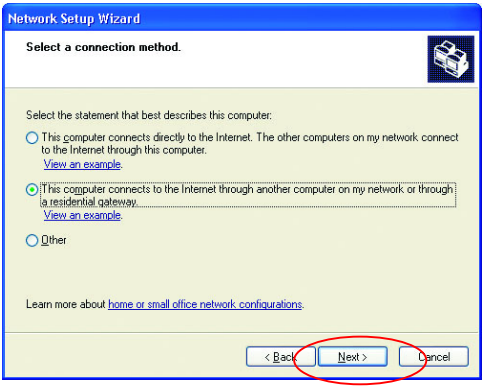
When this screen appears, click **Next.**

Please follow all the instructions in this window:



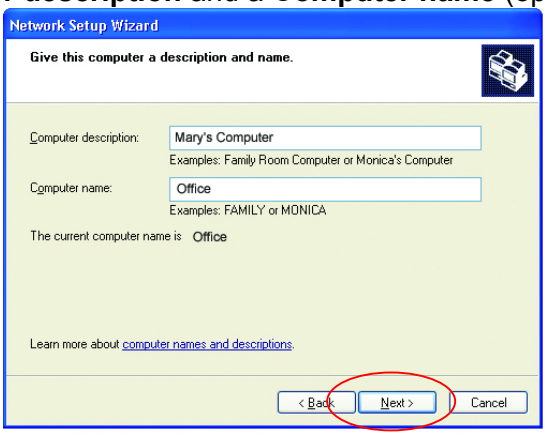
Click **Next**

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.



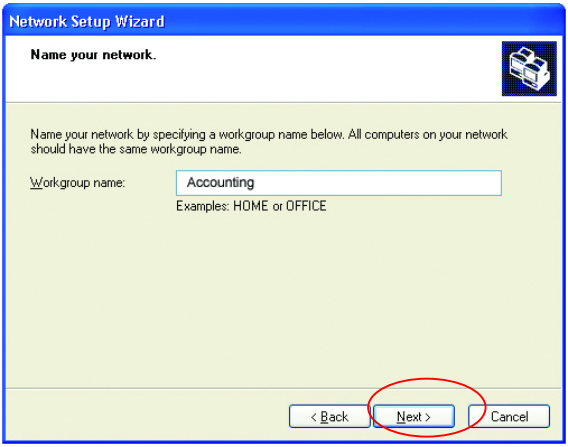
Click **Next**

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



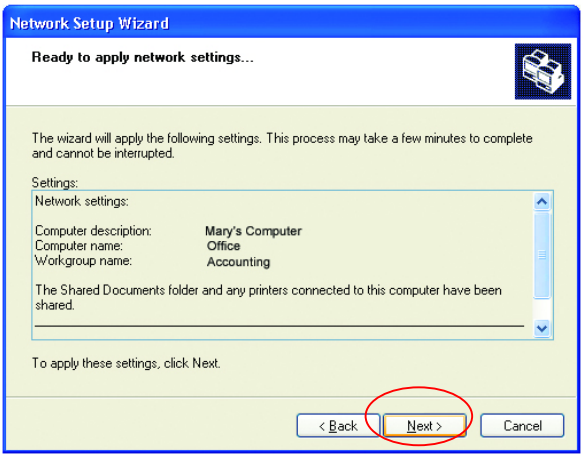
Click **Next**

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



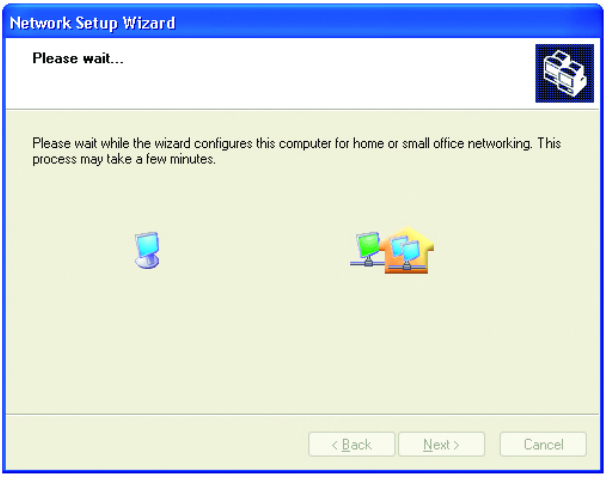
Click **Next**

Please wait while the wizard applies the changes.

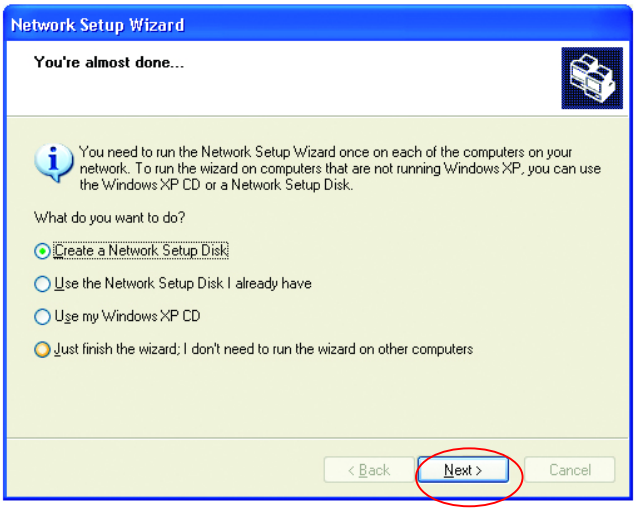


When the changes are complete, click **Next**.

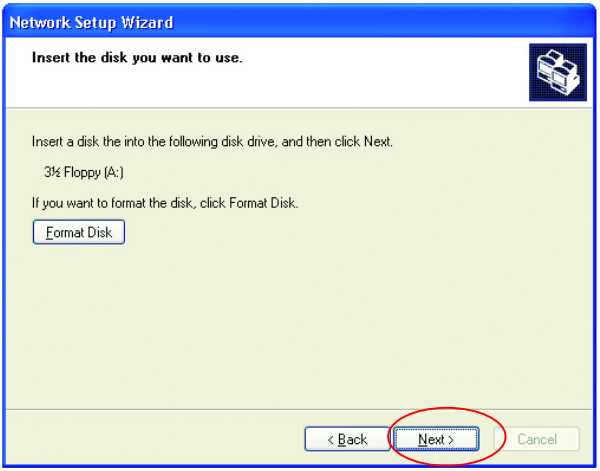
Please wait while the wizard configures the computer.
This may take a few minutes.



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**.



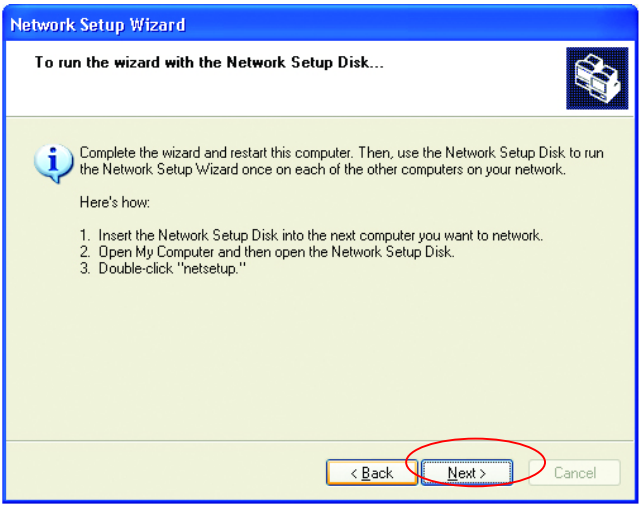
Insert a disk into the Floppy Disk Drive, in this case drive **A:**



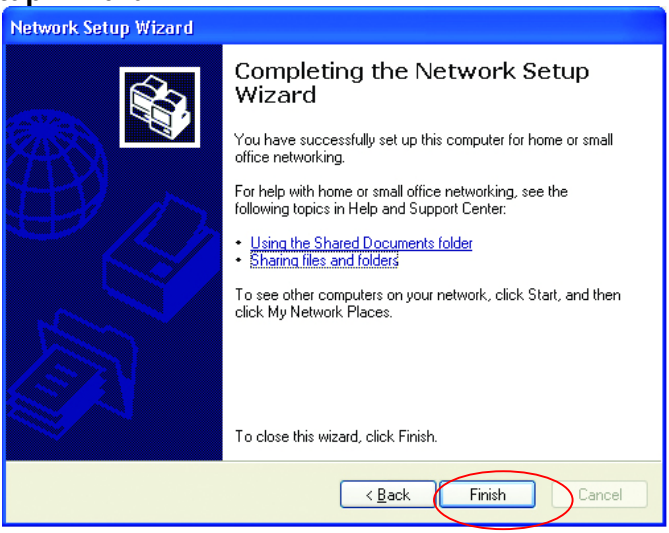
Format the disk if you wish, and click **Next.**

Please wait while the wizard copies the files.

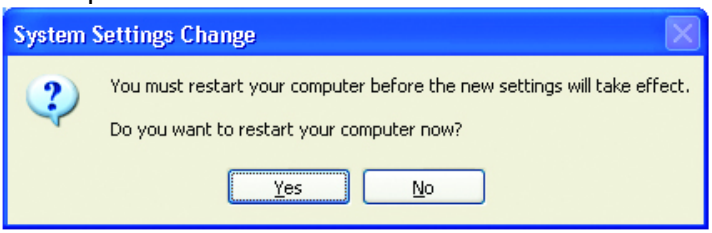
Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue, click **Next**.



Please read the information on this screen, then click **Finish** to complete the **Network Setup Wizard**.



The new settings will take effect when you restart the computer. Click **Yes** to restart the computer.



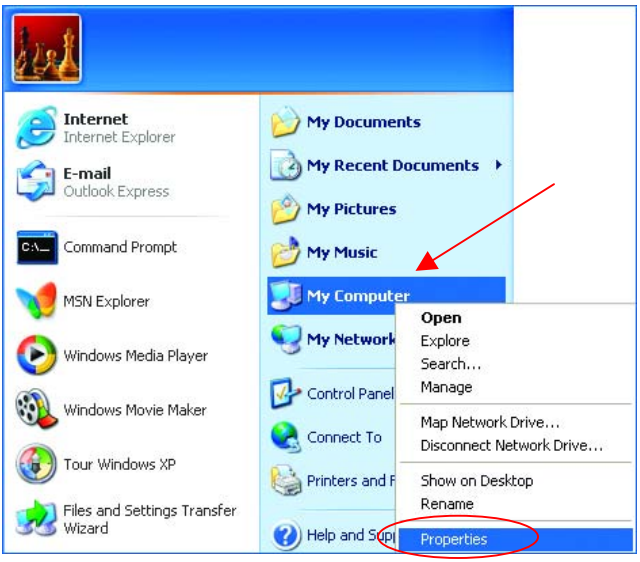
You have completed configuring this computer. Next, you will need to run the **Network Setup Disk** on all the other computers on your network. After running the **Network Setup Disk** on all your computers, your new wireless network will be ready to use.

Naming your Computer

Naming your computer is optional. If you would like to name your computer please follow these directions:

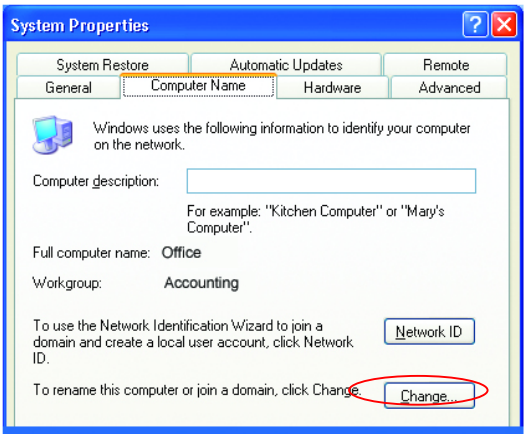
In **Windows XP**:

- 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.

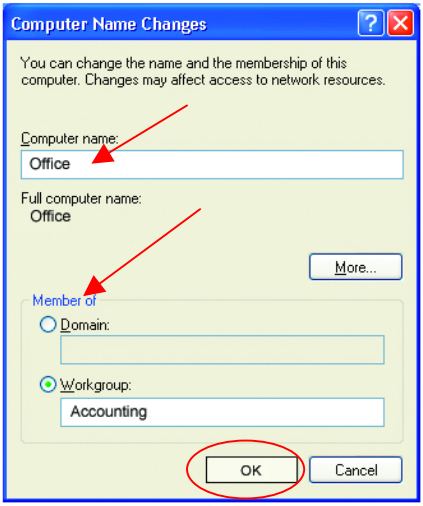
*You may enter a **Computer description** if you wish, this field is optional.*



To rename the computer and join a domain,

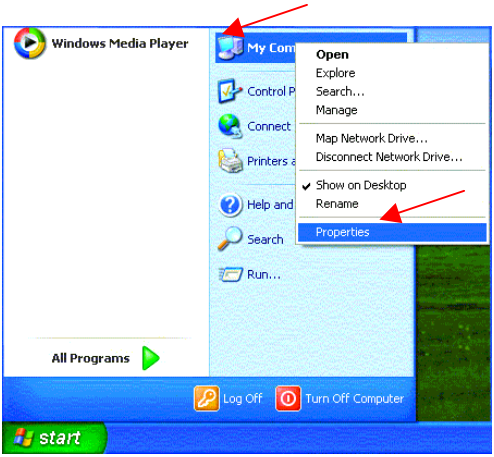
- Click **Change**

- 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**

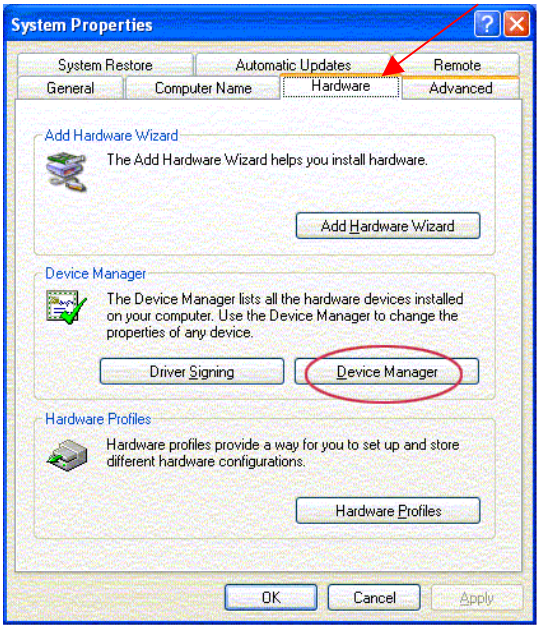


Checking the Installation of the Drivers for the Wireless Adapter

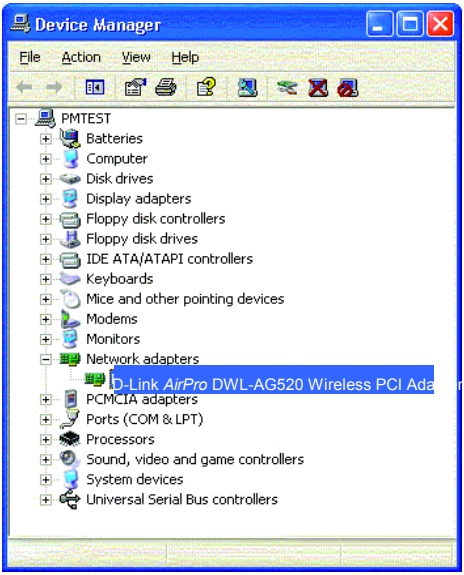
- Go to **Start**
- **Right-click** on **My Computer**
- Click **Properties**



- Select the **Hardware Tab**
- Click **Device Manager**

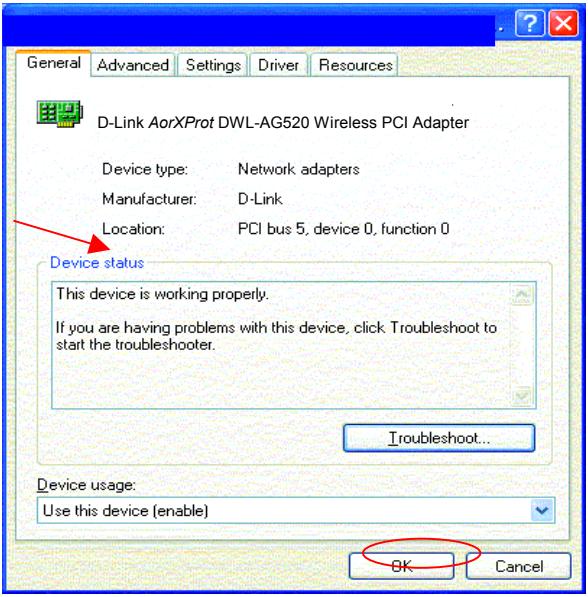


- Click on **Network Adapters**
- **Right-click** on **D-Link DWL-AG520 Wireless PCI Adapter**
- Select **Properties** to check that the drivers are installed properly.



Checking the Installation of the Drivers for the Wireless Adapter

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



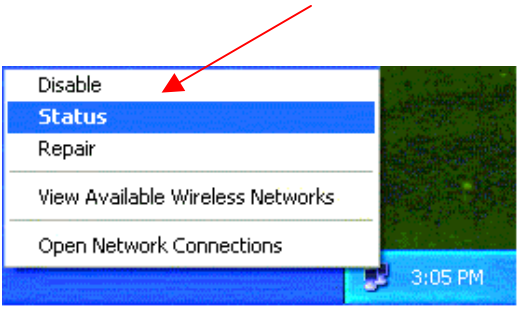
- Click **OK**

Checking the Wireless Configuration

- **Double-click** on the **Networking Icon** in the taskbar.

Checking the IP Address in Windows XP

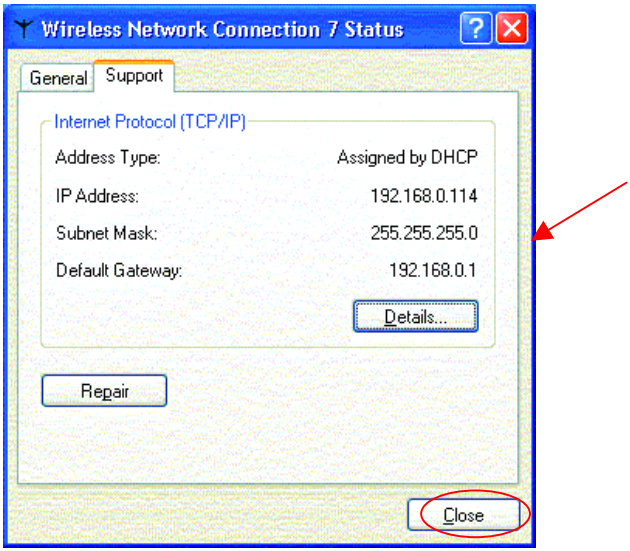
- **Right-click** on the **Networking Icon** in the task bar



- Click on **Status**

The following window will display

- Click the **Support tab**.



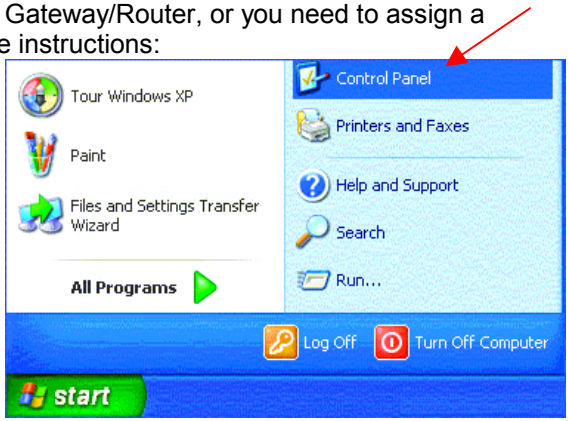
- Click **Close**

Assigning a Static IP Address

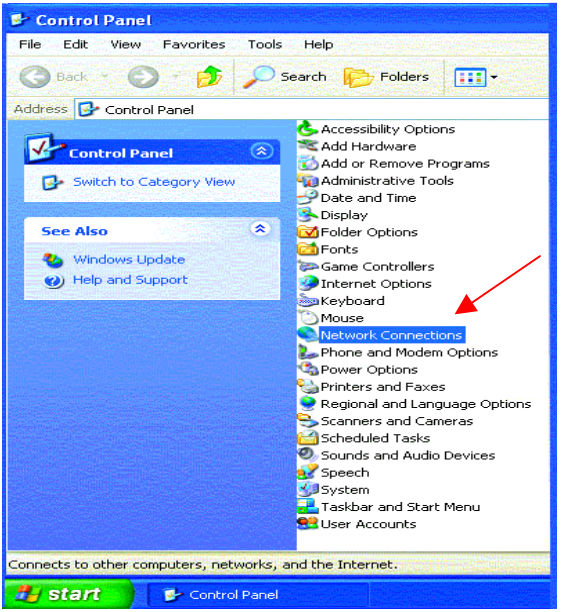
Note: Residential Gateways/Broadband Routers will automatically assign IP Addresses to the computers on the network, using DHCP (Dynamic Host Configuration Protocol) technology. If you are using a DHCP-capable Gateway/Router you will not need to assign Static IP Addresses.

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**



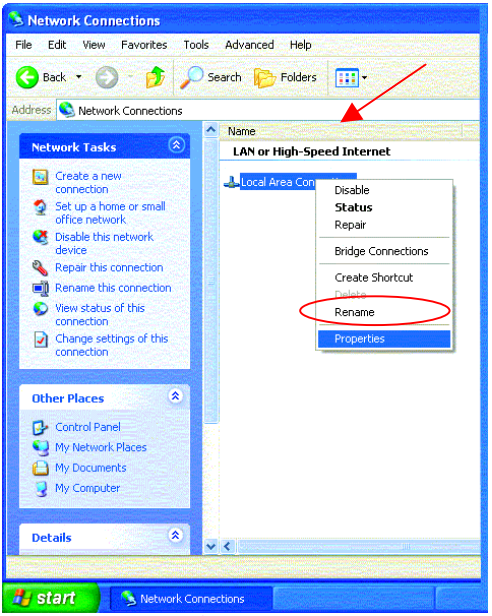
- **Double-click** on **Network Connections**



Assigning a Static IP Address

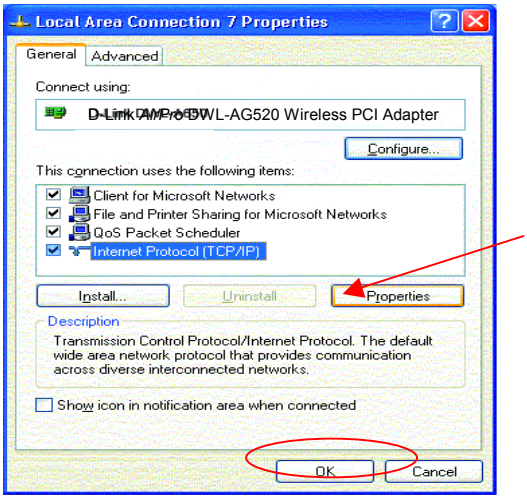
- **Right-click** on **Local Area Connections.**

- **Double-click Properties**



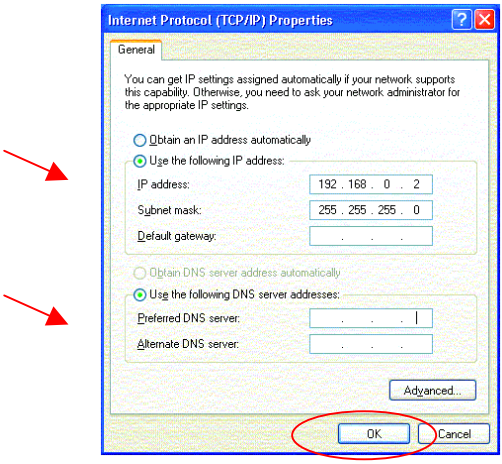
- Highlight **Internet Protocol (TCP/IP)**

- Click **Properties**



Assigning a Static IP Address

- 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.**



- 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 802.11a/b/g

Adapter Type

- PCI 2.2 compliant
- PCI 32-bit interface

Supported OS

- Windows XP
- Windows 2000
- Windows ME
- Windows 98SE

Data Security

- 64, 128, 154-bit WEP (Wired Equivalent Privacy) Encryption

Media Access Control

- CSMA/CA

Diagnostic LED

- Power
- Link

Current Consumption

- Sleep mode - <40mW
- Transmit mode - 1650mW
- Receive mode – 1250mW

Operating Voltage

- 3.3V± -10%

Network Architecture

- Ad-Hoc Mode (Peer-to-Peer without Access Point)
- Infrastructure Mode (Communications to wired networks via Access Points with Roaming)

Antenna Type

- Integrated dual diversity antennas with 5 dBi gain

MBTF (Mean Time Between Failure)

- 30,000 hours

Physical Dimensions

- L ~ 5.24 inches (133 mm)
- W ~ 4.76 inches (121 mm)
- H ~ 0.71 inches (18mm)

Temperature

- Operating: 0ºC to 60ºC (32ºF to 140ºF)
- Storing: -20ºC to 85ºC (-4ºF to 185ºF)

Humidity:

- 5%-95%, non-condensing

Emissions:

- FCC part 15b
- UL1950-3
-

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 Telephone:
(800) 758-5489
24 hours a day, seven days a week.

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

When contacting technical support, please provide the following information:

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

Limited Warranty and Registration

D-Link Systems, Inc. ("D-Link") provides this 3-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 with the fifty United States, the District of Columbia, US Possessions or Protectorates, US Military Installations, addresses with an APO or FPO.

3-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").

3-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 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 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 (http://www.dlink.com/). 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.
- 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 3-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 3-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.

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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.

Modifications to this device are not authorized, may violate FCC regulation Part 15.407, and will void the warranty for this product. This device is intended to operate in the frequency band of 5.15 to 5.25 GHz under all conditions of normal operation. According to FCC 15.407 (e), normal operation of this device is restricted to indoor use only to reduce any potential harmful interference to co-channel Mobile Satellite Systems, or radar systems that use 5.25 to 5.35 GHz and 5.65 to 5.85 GHz frequency bands. This interference could also damage this device.

Registration: Register your D-Link *AirXport* DWL-AG520 online at http://www.dlink.com/sales/reg

FCC RF Radiation Exposure Statement:

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

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