

D-Link *AirPlus* DWL-800AP+

Enhanced 2.4 GHz Wireless Range Extender

Manual

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1. Package Contents



Contents of Package:

- **D-Link AirPlus DWL-800AP+** Enhanced 2.4GHz Wireless Range Extender
- Power Supply (5V, 2.5A)
- Manual and Warranty on CD
- Quick Installation Guide

Note: Using a power supply with a different voltage rating than the one included with the DWL-800AP+ will cause damage and void the warranty for this product.

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

System Requirements For Configuration:

- Computer with Windows, Macintosh, or Linux-based operating system with an installed Ethernet adapter
- Internet Explorer 6.0 or later, or Netscape Navigator version 6.0 or above, with JavaScript enabled

2. Introduction

The D-Link *AirPlus* DWL-800AP+ Wireless Range Extender is an enhanced 802.11b high-performance, wireless device. It is an ideal way to extend the reach and number of computers connected to your wireless network.

The DWL-800AP+ can act as an access point or a wireless repeater. In repeating mode, the DWL-800AP+ repeats the wireless signal of D-Link *AirPlus* access points and wireless routers to extend the range of your wireless network.

Unlike most 802.11b devices, the DWL-800AP+ is capable of data transfer rates up to 22 Mbps (compared to the standard 11 Mbps) when used with other D-Link *AirPlus* products such as the DWL-520+ Wireless PCI Adapter, DWL-650+ Wireless Cardbus Adapter, and the DI-614+ Wireless Router.

After completing the steps outlined in the *Quick Installation Guide* (included in your package) you will have the ability to share information and resources, such as files and printers, and enjoy the freedom that wireless networking brings.

The DWL-800AP+ is compatible with most popular operating systems, including Macintosh, Linux and Windows, and can be integrated into a large network. This Manual is designed to help you connect the DWL-800AP+ and the D-Link *AirPlus* 2.4GHz Wireless Adapters into a network in Infrastructure mode. *Please take a look at the **Getting Started** section in this manual to see an example of an Infrastructure network using the DWL-800AP+.*

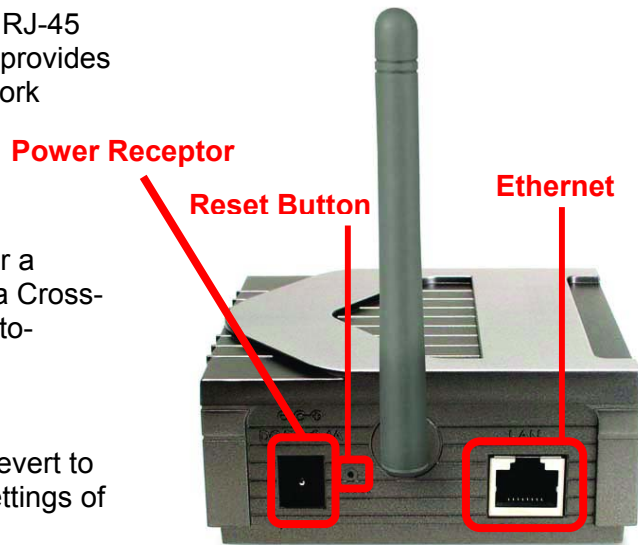
This manual provides a quick introduction to wireless technology and its application as it relates to networking. Please take a moment to read through this manual if you need to get acquainted with wireless technology.

Connections

Ethernet Port – this RJ-45 Auto MDI/MDIX port provides connection to a network device using a Cat 5 Ethernet cable. (The Auto MDI/MDIX port accommodates either a Straight-Through or a Cross-Over cable and is auto-sensing.)

Reset Button – press this button to revert to the factory default settings of the DWL-800AP+

Power Receptor – connect one end of the 5V DC Power Adapter (included) to the power receptor on the DWL-800AP+ and connect the other end of the Power Adapter to a power outlet.



*Category 5 is the most reliable grade of twisted-pair cable. It is available as either **Straight-Through** cable or **Cross-Over** cable. Always check your installation instructions to make sure that you have selected the correct type of Category 5 cable for your **other** networking devices. The DWL-800AP+ will accept either type of cable and will automatically sense the cable that you are using.*

Factory Default Settings for the DWL-800AP+*

Wireless Mode	Repeater
SSID	default
Channel	6
Transmission rates	Auto
Encryption	No
Administrator password	Blank (no password needed)
IP Address mode	Static
IP Address	192.168.0.30
IP Subnet	255.255.255.0
username	admin (all lower case)

By default, the DWL-810+ is set to **Repeater mode. Just input the 12- digit Ethernet **MAC address** (e.g., 0080C02C5551) of the remote router or access point that you wish to repeat. If you wish to use the DWL-800AP+ as an access point, you can select this option instead. Go to the Wireless tab in the Web Configuration Utility to make these selections.*

Features & Benefits

- Extends the range of your wireless network
- Up to 2X Faster with *AirPlus* Products - high-speed wireless data transfer rates up to 22Mbps. With twice the data rate and capacity, the DWL-800AP+ delivers media rich content such as digital images, videos, and MP3 files much faster than standard 802.11b networks
- Fully 802.11b Compatible – Fully compatible with the IEEE 802.11b standard and interoperable with all existing 802.11b compliant devices
- Stronger Network Security with 256-bit WEP Encryption – Supports 64/128/256-bit WEP encryption for higher level of security for your data and wireless communication than encryption found in existing 802.11b products
- *Setup Wizard* – for easy configuration.
- Web-based interface for Managing and Configuring – Easy-to-use interface independent of the operating system
- 2 Different Operation Modes – Capable of operating in **Access Point** or **Repeater** mode. In **Repeater** mode the DWL-800AP+ will extend your existing wireless network up to 328 feet when used with the D-Link *AirPlus* DI-614+ Enhanced Wireless Router; the *AirPlus* DI-714P+ Enhanced Wireless Router with Print Server; the *AirPro* DI-764 Multimode Wireless Router, the *AirPro* DI-754 Multimode Wireless Router with the DWL-650+, or the *AirPremier* DWL-1000AP+ Enterprise Wireless Access Point
- Auto-MDI/MDIX Ethernet port

LEDS

LED stands for **L**ight-**E**mitting **D**iode. The **DWL-800AP+ Wireless Range Extender** has 2 LEDs as shown below:



Power – a steady **Green** light indicates a proper connection to a power source.

Wireless Link/Act – a steady **Yellow** light indicates a good wireless connection. A blinking light indicates that the DWL-800AP+ is receiving/transmitting from/to the wireless network.

3. Wireless Basics

D-Link *AirPlus* wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. The D-Link *AirPlus* wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. WLANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems, support the same protocols as Ethernet adapter cards.

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 WLAN technology for many different purposes:

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

Low Implementation Costs – WLANs are easy to set up, manage, change and relocate. Networks that frequently change, both physically and logically, can benefit from a WLAN's ease of implementation. WLANs can operate in locations where installation of wiring may be impractical.

Installation and Network Expansion - Installing a WLAN system can be fast and easy and can eliminate the need to pull cable through walls and ceilings. Wireless technology allows the network to go where wires cannot go-even outside the home or office.

Scalability – WLANs can be configured in a variety of ways to meet the needs of specific applications and installations. Configurations are easily changed and range from peer-to-peer networks suitable for a small number of users to full infrastructure networks of thousands of users that allow roaming over a broad area.

*The DWL-800AP+ is compatible with the following **D-Link AirPlus** family of products:*

- ◆ DWL-650+ Enhanced 2.4GHz Wireless Cardbus Adapter for laptop PCs
- ◆ DWL-520+ Enhanced 2.4GHz Wireless PCI card for desktop PCs
- ◆ DWL-900AP+ Enhanced 2.4GHz Wireless Access Points
- ◆ DI-614+ Enhanced 2.4GHz Wireless Broadband Router

*The DWL-800AP+ is also compatible with the **D-Link Air Wireless** family of products and other 802.11b products including:*

- ◆ DWL-650 2.4GHz Wireless Cardbus Adapter for laptop PCs
- ◆ DWL-520 2.4GHz Wireless PCI card for desktop PCs
- ◆ DI-713P Print Server
- ◆ DWL-1000AP and DWL-900AP Wireless Access Points

Standards - Based Technology

The IEEE standard-based technology assures that this product is interoperable with existing compatible 2.4GHz wireless technology. This means you will be able to transfer large files quickly or even watch a movie in MPEG format over your network without noticeable delays. The technology works by using multiple frequencies in the 2.4GHz range at speeds up to 22 Mbps. This D-Link *AirPlus* product will automatically sense the best possible connection speed to ensure the greatest speed and range possible with the technology.

Installation Considerations

Designed to go up to 1,312 feet (400 meters) outdoors and up to 328 feet (100 meters) indoors, D-Link *AirPlus* DWL-800AP+ lets you access your network using a wireless connection from virtually anywhere within its operating range. Keep in mind, however, that the number, thickness and location of walls, ceilings or other objects that the wireless signals must pass through may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or

business. The key to maximizing wireless range is to follow these basic guidelines:

1. Keep the number of walls and ceilings between the wireless range extender and your receiving device (e.g., the DWL-650+) to a minimum - Each wall or ceiling can reduce your D-Link *AirPlus* Wireless product's range from 3-90 feet (1-30 meters.) Position your Range Extender, Access Points, Residential Gateways, and computers so that the number of walls or ceilings is minimized.
2. Be aware of the direct line between the wireless range extender, Access Points, Residential Gateways (routers) and computers. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position the range extender, Access Points and adapters so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
3. Building Materials can impede the wireless signal - A solid metal door or aluminum studs may have a negative effect on range. Try to position the range extender, Access Points, and computers with wireless adapters so that the signal passes through drywall or open doorways and not other materials.
5. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that may generate extreme RF noise.

4. Getting Started

The default setting for the DWL-800AP+ is *Repeater* mode.

An Infrastructure network contains an *Access Point*. The diagram on the next page shows an example of a network with 2 DWL-800AP+'s. One is used as an *Access Point* and the other is used as a *Repeater*. The network illustration contains the following D-Link network devices:

A Wireless Range Extender - **D-Link AirPlus DWL-800AP+**

An Ethernet Broadband Router - **D-Link DI-604**

A laptop computer with a wireless adapter - **D-Link AirPlus DWL-650+**

A desktop computer with a wireless adapter - **D-Link AirPlus DWL-520+**

A Cable modem - **D-Link DCM-200**

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

IP ADDRESS

Please note: If you have a DHCP-capable router, such as the DI-604, there is no need to assign an IP Address.

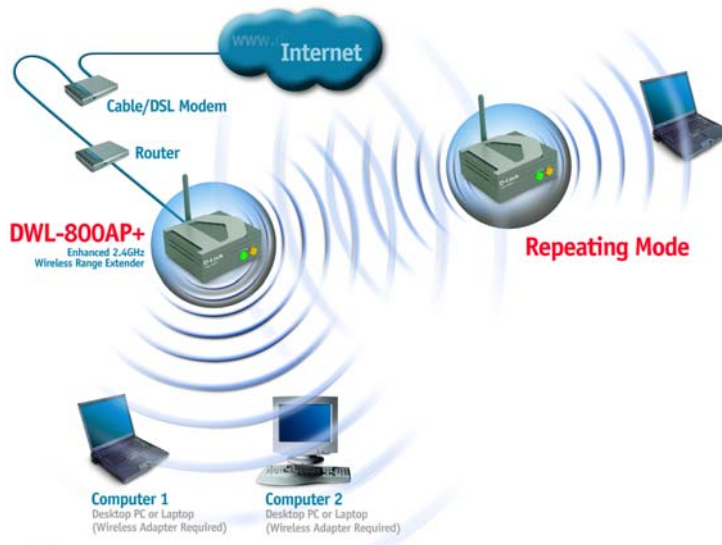
If you need to assign IP Addresses to the computers on the network, please remember that the **IP Address for each computer must be in the same IP Address range as all the computers in the network**, and the Subnet mask must be exactly the same for all the computers in the network.

For example: If the first computer is assigned an IP Address of 192.168.0.2 with a Subnet Mask of 255.255.255.0, then the second computer can be assigned an IP Address of 192.168.0.3 with a Subnet Mask of 255.255.255.0, etc.

IMPORTANT: If computers or other devices are assigned the same IP Address, one or more of the devices may not be visible on the network.

Getting Started

Setting Up an Infrastructure Network

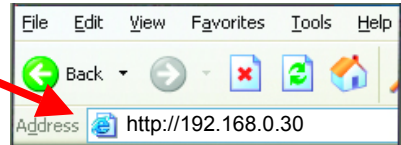


- 1 You will need a broadband Internet access (Cable/DSL) subscription.
- 2 Consult with your Cable/DSL provider for proper installation of the modem.
- 3 Connect the modem to an Ethernet Broadband Router (such as the **D-Link DI-604**) See the **Quick Installation Guide** included with the router.
- 4 Connect the router to the **D-Link AirPlus DWL-800AP+**. Refer to the **Quick Installation Guide** for setting up the Access Point.
- 5 If you are connecting a desktop computer in your network, you can install the **D-Link AirPlus DWL-520+** wireless PCI adapter into an available PCI slot. See the **Quick Installation Guide** included with the DWL-520+.
- 6 Install the drivers for the wireless cardbus adapter (**D-Link AirPlus DWL-650+**) into the laptop computer. See the **Quick Installation Guide** included with the DWL-650+ for installation instructions.

5. Using the Configuration Menu

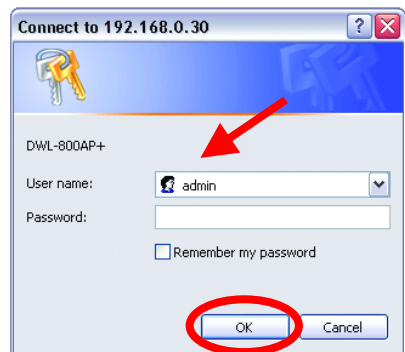
Whenever you want to configure your network or the DWL-800AP+, you can access the **Configuration Utility** by opening the web-browser and typing in the IP Address of the DWL-800AP+. The DWL-800AP+ default IP Address is shown below:

- Open the web browser
- Type in the **IP Address** of the Access Point



(The IP Address shown in the example above is the default setting. Use this IP address when connecting to a network consisting of other D-Link devices set to their default settings. If you have changed the IP Address of the DWL-800AP+ to conform to a network other than one with D-Link devices, at their default setting, then input that IP Address in the web browser, instead of the default IP Address shown.)

- Type **admin** in the **User Name** field
- Leave the **Password** blank
- Click **OK**



The **Home** window will appear. Please refer to the *Quick Installation Guide*, included with your purchase, for more information regarding the *Setup Wizard*, accessible here. Once you have completed the configuration of the DWL-800AP+, the current settings will be displayed in this window.

Home

D-Link Building Networks for People **DWL-800AP+** **AirPlus** Enhanced 2.4GHz Wireless Range Extender

Home Network Wireless Admin Help

Setup Wizard
The setup wizard will guide you to configure the DWL-800AP+. The DWL-800AP+'s easy setup will allow you to have wireless access within minutes.
Please follow the setup wizard step by step to configure the DWL-800AP+.

Device Information
Firmware Version 1.4, Tues, 24 Dec 2002

Ethernet			
* MAC Address	00032fff1d76	* Send	Good Packets 14
* IP Address	192.168.0.30		Dropped Packets 0
* Subnet Mask	255.255.255.0	* Receive	Good Packets 70
* Gateway	0.0.0.0		Dropped Packets 0
Wireless			
* MAC Address	0040051e236c	* Send	Good Packets 65
* SSID	default		Dropped Packets 0
* Encryption Function	Disabled	* Receive	Good Packets 0
* Channel	6		Dropped Packets 0
* AP mode	AP		

Configuration Menu

This window displays the default settings of the DWL-800AP+. The default IP Address is 192.168.30. If you select **Dynamic IP Address**, you will obtain a dynamic IP Address from a DHCP server on your network. The **Subnet Mask** is 255.255.255.0. Input the IP Address of the **Gateway** (the router on your network.) Click **Apply** if you have made any changes.

Network

The screenshot shows the 'Network' configuration page for the DWL-800AP+ device. The page title is 'AirPlus Enhanced 2.4GHz Wireless Range Extender'. The navigation tabs are 'Home', 'Network', 'Wireless', 'Admin', and 'Help'. The 'Network' tab is selected. The page is titled 'IP Address Settings'. It contains the following settings:

- LAN IP: Dynamic IP Address, Static IP Address
- IP Address:
- Subnet Mask:
- Gateway:

At the bottom right, there are 'Apply' and 'Cancel' buttons with green and red icons respectively.

Operating Mode:
The default setting is **Repeater**.

Select **AP Mode** or **Repeater**. The DWL-800AP+ can act as an access point or a wireless repeater. In repeating mode, the DWL-800AP+ repeats the wireless signal of D-Link AirPlus access points and routers to extend the range of your wireless network.

Wireless

The screenshot shows the 'Wireless' configuration page for the DWL-800AP+ device. The page title is 'AirPlus Enhanced 2.4GHz Wireless Range Extender'. The navigation tabs are 'Home', 'Network', 'Wireless', 'Admin', and 'Help'. The 'Wireless' tab is selected. The page is titled 'Wireless Settings'. It contains the following settings:

- Operating Mode: AP Mode, Repeater
- AP Name:
- SSID:
- Channel:
- WEP: Enabled, Disabled
- WEP Encryption:
- WEP Mode:
- Key1:
- Key2:
- Key3:
- Key4:
- TX Rate: 1-2(Mbps), 1-2-5.5-11(Mbps), 1-2-5.5-11-22 (Mbps)
- Authentication: Open System, Shared Key, Auto

At the bottom right, there are 'Apply' and 'Cancel' buttons with green and red icons respectively.

AP Name: You may choose to rename your DWL-800AP+, especially if you have more than one Access Point on your network.

Configuration Menu

SSID: (Service Set Identifier) “default” is the default setting. The SSID is a unique name that identifies a network. All devices on a network must share the same SSID name in order to communicate on the network. If you choose to change the SSID from the default setting, input your new SSID name in this field. The SSID can be up to 32 characters in length.

Channel: Channel 6 is the default channel. Input a new number if you want to change the default setting. All devices on the network must be set to the same channel to communicate on the network.

WEP Encryption: Select **Enable Encryption** to use **WEP (Wired Equivalent Privacy)** on the network. All devices on the network, and the Access Point, must share the same WEP selection – either **Enable** or **Disable**, and they must share the same WEP key. The WEP key is generated from **ASCII** or **Hexadecimal** entries that are either 64, 128, or 256 bit in length. When enabling encryption, select the **Key Type** (ASCII or Hexadecimal) and then input the appropriate digits or letters. You can create up to 4 keys. Select the key you wish to use.

Hexadecimal digits consist of the numbers 0-9 and the letters A-F

ASCII (American Standard Code for Information Interchange) is a code for representing English letters as numbers from 0-127

Transmission Rate: Select the transmission rate for the network. The default setting is 1-2-5.5-11-22 (Mbps)

Authentication:

Open System – communicates the key across the network

Shared Key – devices must have identical WEP settings to communicate

Auto – automatically adjusts to the Authentication mode of the wireless client

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

Configuration Menu

Admin

The screenshot shows the configuration interface for a D-Link DWL-800AP+ AirPlus Enhanced 2.4GHz Wireless Range Extender. The interface has a blue header with the D-Link logo and product name. Below the header is a navigation bar with tabs for Home, Network, Wireless, Admin (selected), and Help. The main content area is titled 'Administrator Settings' and contains three sections: 'Administrator Settings' with password fields and 'Apply'/'Cancel' buttons; 'System Settings' with 'Save', 'Load', and 'Restore' buttons; and 'Firmware Upgrade' with a 'Browse...' button. At the bottom right, there are three icons: a green checkmark for 'Apply', a red X for 'Cancel', and a red plus sign for 'Help'.

Administrator Settings: Change your password in this window. Re-enter the new password to confirm. It can be up to 14 characters in length. Please keep a copy of your password in a safe place. Click **Apply**, if you have made any changes.

System Settings: The current system settings can be saved as a file onto the local hard drive by clicking **Save**. The saved file can be loaded back on the DWL-800AP+ by clicking **Browse**. When you have selected the settings file, click **Load**. Click **Restore** to return to **Factory Default Settings**.

Firmware Upgrade: Upgrade the firmware for the DWL-800AP+. Find upgrades to the firmware on the D-Link website at <http://support.dlink.com>. After you have downloaded a firmware upgrade to your local drive, click **Browse**. Select the firmware and click **Apply** to complete the upgrade.

Configuration Menu

Help



The screenshot displays the configuration interface for the D-Link DWL-800AP+ AirPlus Enhanced 2.4GHz Wireless Range Extender. The interface features a blue header with the D-Link logo and product name. Below the header is a navigation bar with five tabs: Home, Network, Wireless, Admin, and Help. The Help tab is currently selected and highlighted in yellow. The main content area is divided into three sections: Home, Network, and Wireless, each with a list of links to various configuration options. The Admin section is partially visible at the bottom.

D-Link
Building Networks for People

DWL-800AP+

AirPlus
Enhanced 2.4GHz Wireless Range Extender

Home **Network** **Wireless** **Admin** **Help**

Home

- [Setup Wizard](#)
- [Device Information](#)

Network

- [Dynamic IP Address](#)
- [Static IP Address](#)
- [Subnet Mask](#)
- [Gateway](#)

Wireless

- [Operating Mode](#)
- [AP Name](#)
- [SSID](#)
- [Channel](#)
- [WEP](#)
- [WEP Mode](#)
- [KEYS](#)
- [Transmission \(TX\) Rates](#)
- [Authentication](#)

Admin

The **Help** window displays information about each window in the Configuration menu. When you change the settings in the Configuration menu, you will need to restart the DWL-800AP+ for the changes to take effect.

6. Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DWL-800AP+ Wireless Range Extender. We cover various aspects of the network setup, including the network adapters. Please read the following if you are having problems.

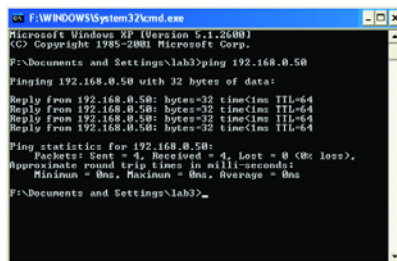
Note: It is recommended that you use an Ethernet connection to configure the DWL-800AP+ Wireless Range Extender.

1. The computer used to configure the DWL-800AP+ cannot access the Configuration menu.

- Check that the **Ethernet LED** on the DWL-800AP+ is **ON**. If the **LED** is not **ON**, check that the cable for the Ethernet connection is securely inserted.
- Check that the Ethernet Adapter is working properly. Please see item 3 (**Check that the drivers for the network adapters are installed properly**) in this **Troubleshooting** section to check that the drivers are loaded properly.
- Check that the **IP Address** is in the same range and subnet as the DWL-800AP+. Please see **Checking the IP Address in Windows XP** in the **Networking Basics** section of this manual.

Note: The IP Address of the DWL-800AP+ is 192.168.0.30. All the computers on the network must have a unique IP Address in the same range, e.g., 192.168.0.x. Any computers that have identical IP Addresses will not be visible on the network. They must all have the same subnet mask, e.g., 255.255.255.0

- Do a **Ping test** to make sure that the DWL-800AP+ is responding. Go to **Start>Run>Type Command>Type ping 192.168.0.30** A successful ping will show four replies.



```
f:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2004 Microsoft Corp.

F:\Documents and Settings\lab>ping 192.168.0.30

Pinging 192.168.0.30 with 32 bytes of data:

Reply from 192.168.0.30: bytes=32 time=1ms TTL=64
Reply from 192.168.0.30: bytes=32 time=1ms TTL=64
Reply from 192.168.0.30: bytes=32 time=1ms TTL=64
Reply from 192.168.0.30: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.0.30:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milliseconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

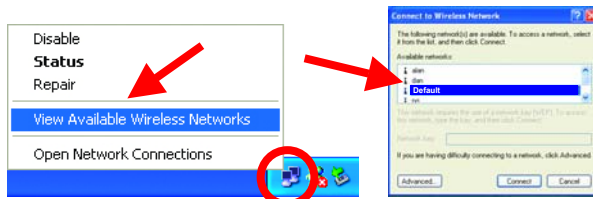
F:\Documents and Settings\lab>
```

Note: If you have changed the default IP Address, make sure to ping the correct IP Address assigned to the DWL-800AP+.

Troubleshooting

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

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



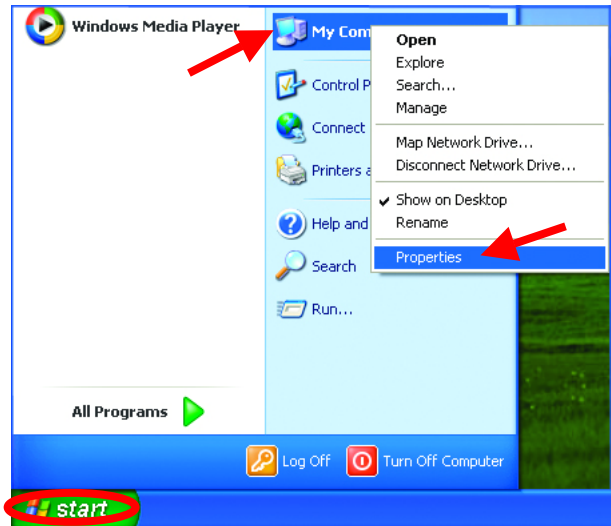
- Check that the **IP Address** assigned to the wireless adapter is within the same **IP Address range** as the existing network. *Since the DWL-800AP+ has an IP Address of 192.168.0.30, wireless adapters must have an IP Address in the same range, e.g., 192.168.0.x. Each device must have a unique IP Address; no two devices may have the same IP Address. The subnet mask must be the same for all the computers on the network.)* To check the **IP Address** assigned to the wireless adapter, **double-click** on the **Local Area Connection icon** in the taskbar > select the **Support** tab and the **IP Address** will be displayed. (Please refer to **Checking the IP Address** in the **Networking Basics** section of this manual.)
- If it is necessary to assign a **Static IP Address** to the wireless adapter, please refer to the appropriate section in **Networking Basics**. If you are entering a **DNS Server address** you must also enter the **Default Gateway Address**. *(Remember that if you have a DHCP-capable router, you will not need to assign a Static IP Address. See **Networking Basics: Assigning a Static IP Address**.)*
- If you are using the DWL-800AP+ to repeat the wireless signal, check that the Ethernet MAC address of the wireless router or Access Point is entered properly in the settings. Please note that the Repeater function is compatible with most D-Link wireless routers and Access Points. If you wish to repeat a device that is not a D-Link product, please check the FAQs for supported products on the D-Link support website (<http://support.dlink.com>) to make certain that the device can be repeated by the DWL-810+.

Troubleshooting

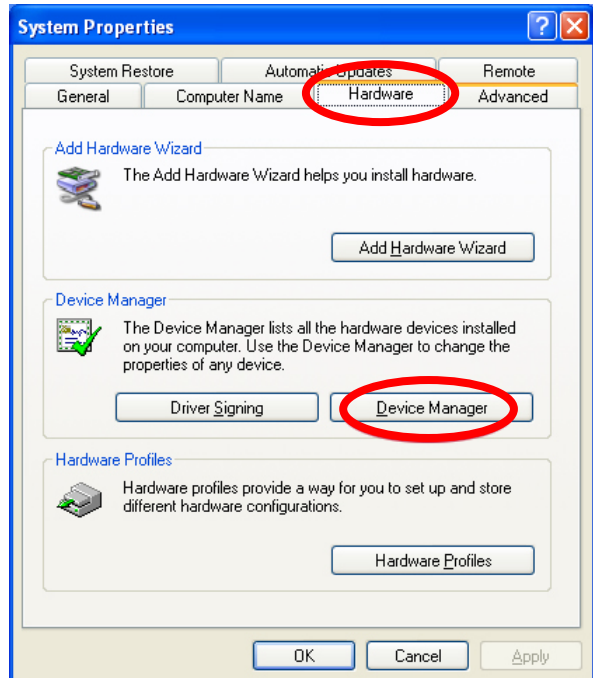
3. Check that the drivers for the network adapters are installed properly.

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

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

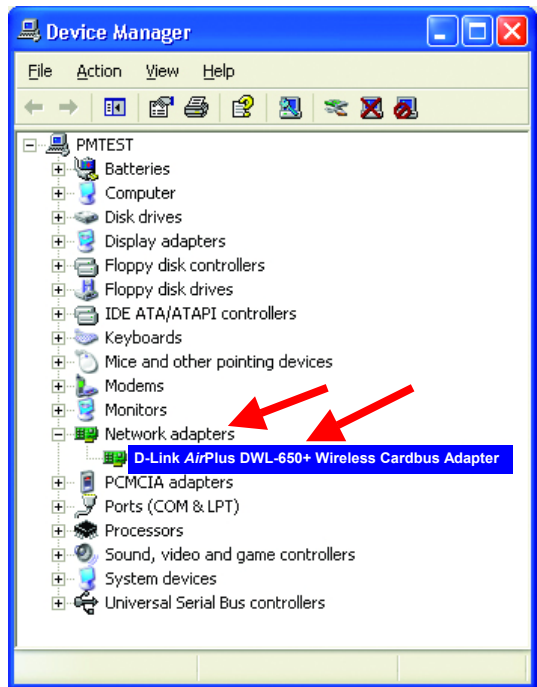


- **Select the Hardware Tab**
- Click **Device Manager**

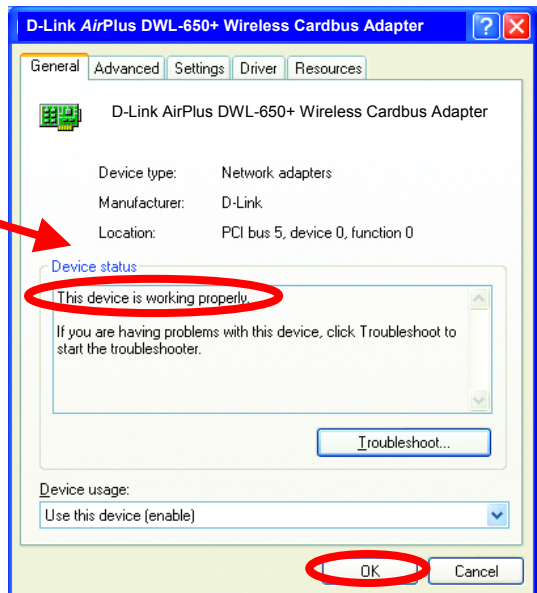


Troubleshooting

- Double-click on **Network Adapters**
- **Right-click on D-Link AirPlus DWL-650+ Wireless Cardbus Adapter.** *(Please note that we use the DWL-650+ as an example of a wireless network adapter. You may be using a different wireless network adapter, but your troubleshooting procedure will be similar to this example.)*
- Select **Properties** to check that the drivers are installed properly



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



- Click **OK**

Troubleshooting

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

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

5. Why does my wireless connection keep dropping?

- Antenna Orientation- Try different antenna orientations for the DWL-800AP+. Try to keep the antenna at least 6 inches away from the wall or other objects.
- If you are using 2.4GHz cordless phones, X-10 equipment or other home security systems, ceiling fans, and lights, your wireless connection will degrade dramatically or drop altogether. Try changing the Channel on your Router, Access Point and Wireless adapter to a different channel to avoid interference.
- Keep your product away (at least 3-6 feet) from electrical devices that generate RF noise, like microwaves, Monitors, electric motors, etc.

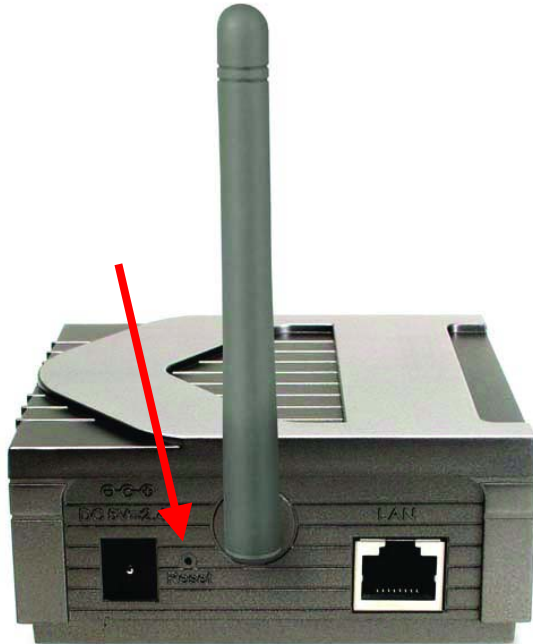
6. Why can't I get a wireless connection?

If you have enabled Encryption on the DWL-800AP+, you must also enable encryption on all wireless clients in order to establish a wireless connection.

- Make sure that the encryption bit level is the same on the DWL-800AP+ and the Wireless Client.
- Make sure that the SSID on the DWL-800AP+ and the Wireless Client are exactly the same. If they are not, wireless connection will not be established.
- Check that the DWL-800AP+ is configured properly, whether as a repeater or an access point.
- Check that the wireless clients are working properly.

7. Resetting the DWL-800AP+ to Factory Default Settings

After you have tried other methods for troubleshooting your network, you may choose to **Reset** the DWL-800AP+ to the factory default settings. Remember that D-Link *AirPlus* products network together, out of the box, at the factory default settings.



To hard-reset the D-Link *AirPlus* DWL-800AP+ to Factory Default Settings, please do the following:

- Locate the **Reset** button on the back of the DWL-800AP+
- Use a paper clip to press the **Reset** button.
- Hold for about 5 seconds and then release
- After the DWL-800AP+ reboots (this may take a few minutes) it will be reset to the factory **Default** settings.

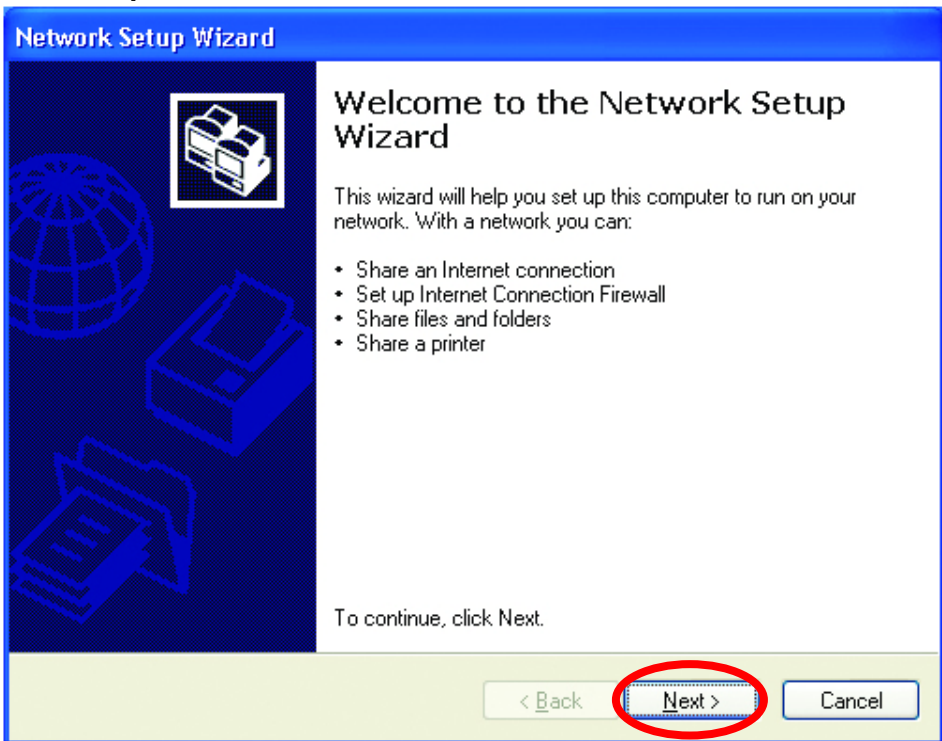
7. Networking Basics

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.

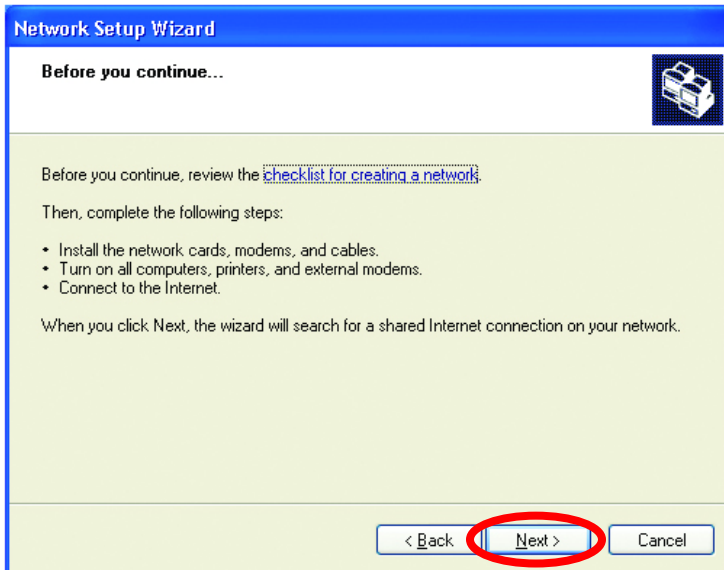
Go to **Start>Control Panel>Network Connections**
Select **Set up a home or small office network**



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

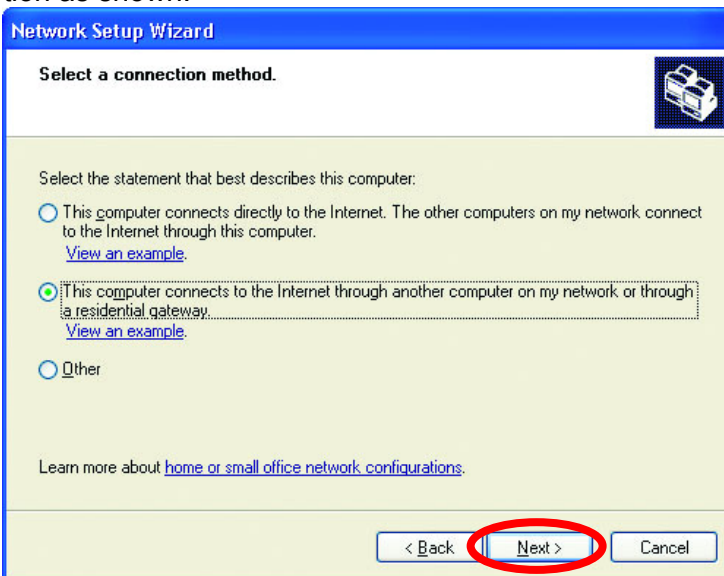
Networking Basics

Please follow all the instructions in this window:



Click **Next**

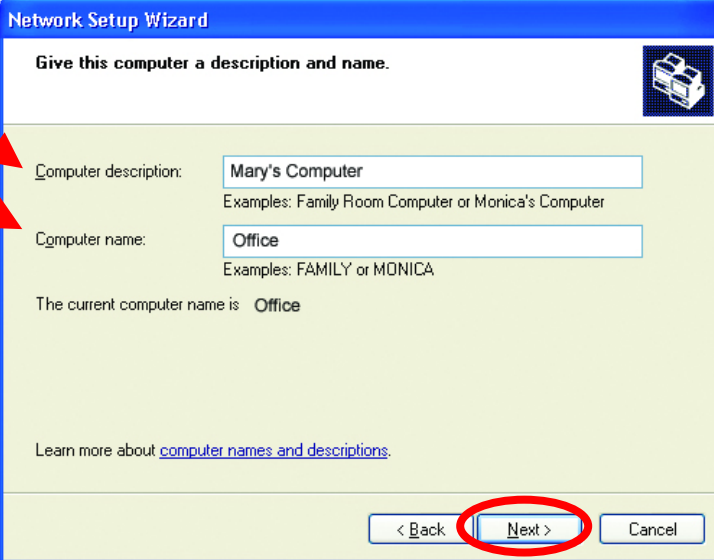
In the following window, select the best description of your computer. If your computer connects to the internet through a gateway/router, select the second option as shown.



Click **Next**

Networking Basics

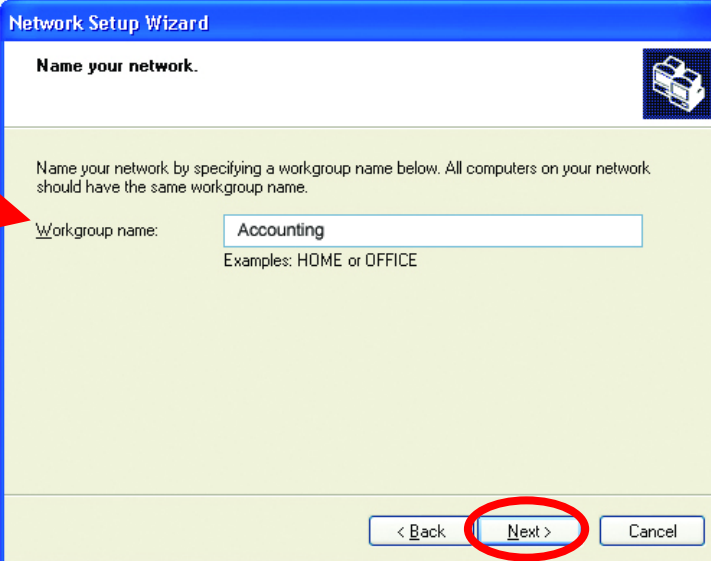
Enter a **Computer description** and a **Computer name** (optional.)



The screenshot shows the 'Network Setup Wizard' window with the title 'Give this computer a description and name.' The window contains two text input fields. The first is labeled 'Computer description:' and contains the text 'Mary's Computer'. Below it, there is a line of text: 'Examples: Family Room Computer or Monica's Computer'. The second input field is labeled 'Computer name:' and contains the text 'Office'. Below it, there is a line of text: 'Examples: FAMILY or MONICA'. Below the input fields, there is a line of text: 'The current computer name is Office'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is circled in red. Two red arrows point to the 'Computer description:' and 'Computer name:' labels.

Click **Next**

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

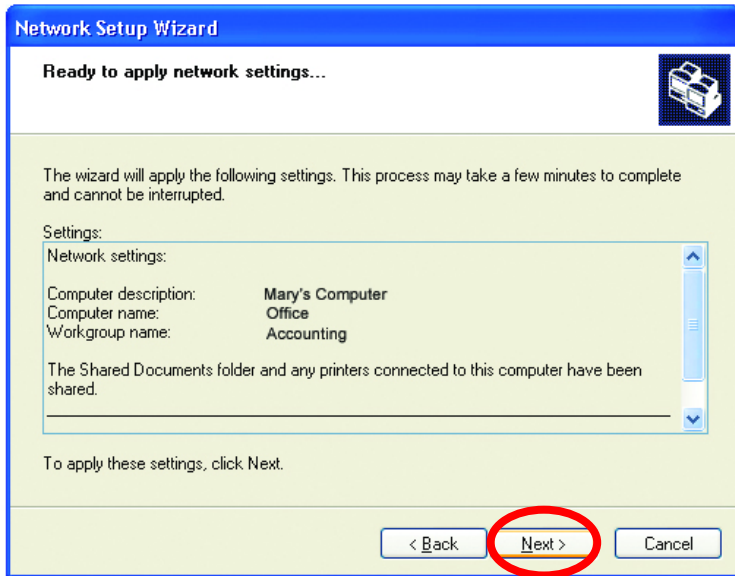


The screenshot shows the 'Network Setup Wizard' window with the title 'Name your network.' The window contains a text input field labeled 'Workgroup name:' which contains the text 'Accounting'. Below the input field, there is a line of text: 'Examples: HOME or OFFICE'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is circled in red. A red arrow points to the 'Workgroup name:' label.

Click **Next**

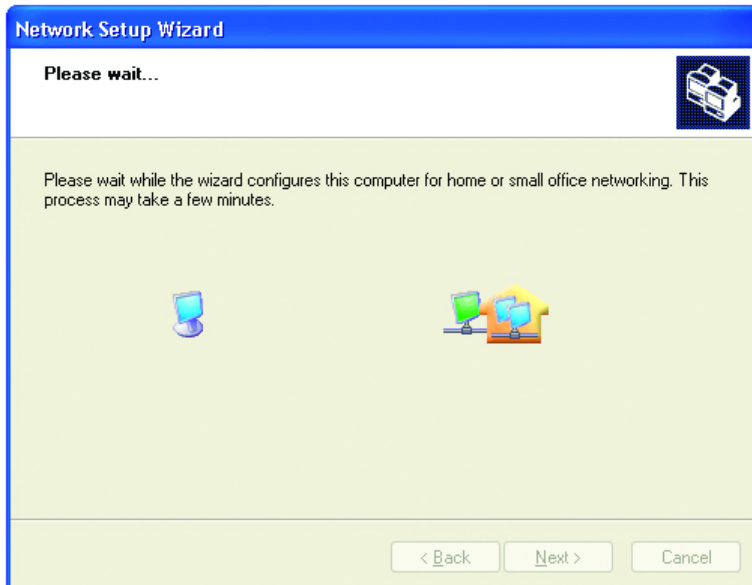
Networking Basics

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



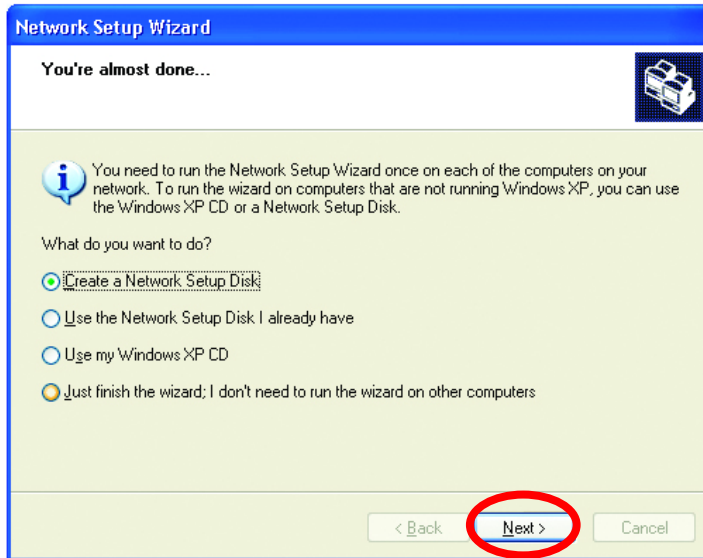
When the changes are complete, click **Next**.

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

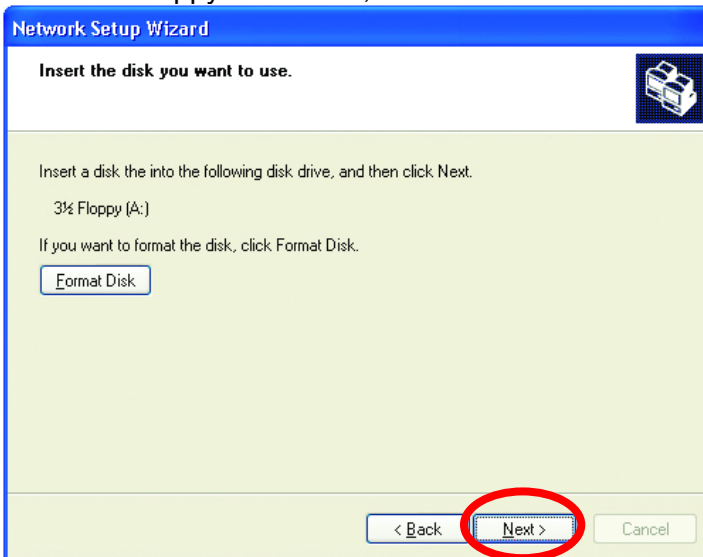


Networking Basics

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



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



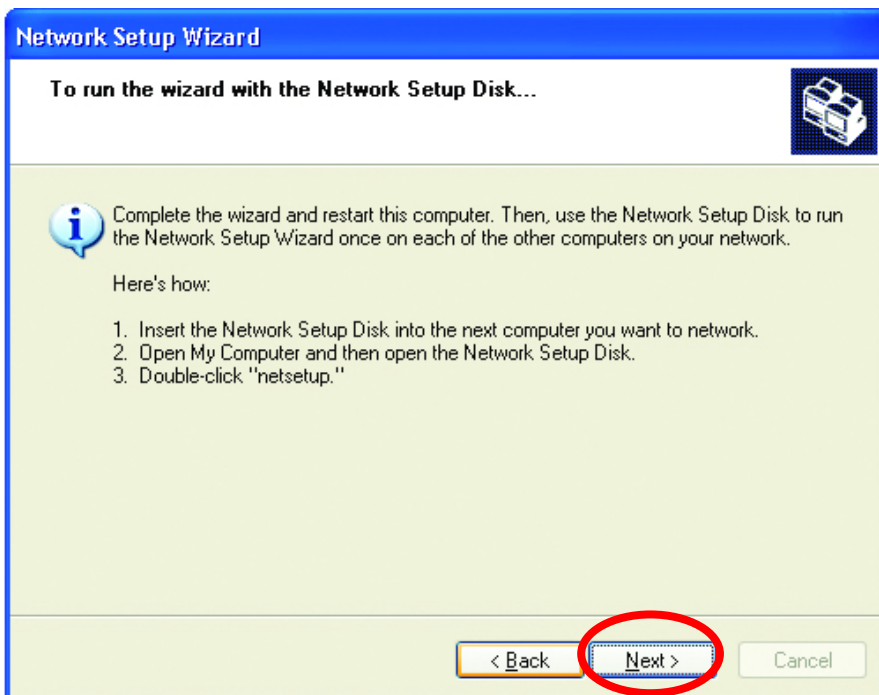
Format the disk if you wish, and click **Next**.

Networking Basics

Please wait while the **Network Setup Wizard** copies the files.

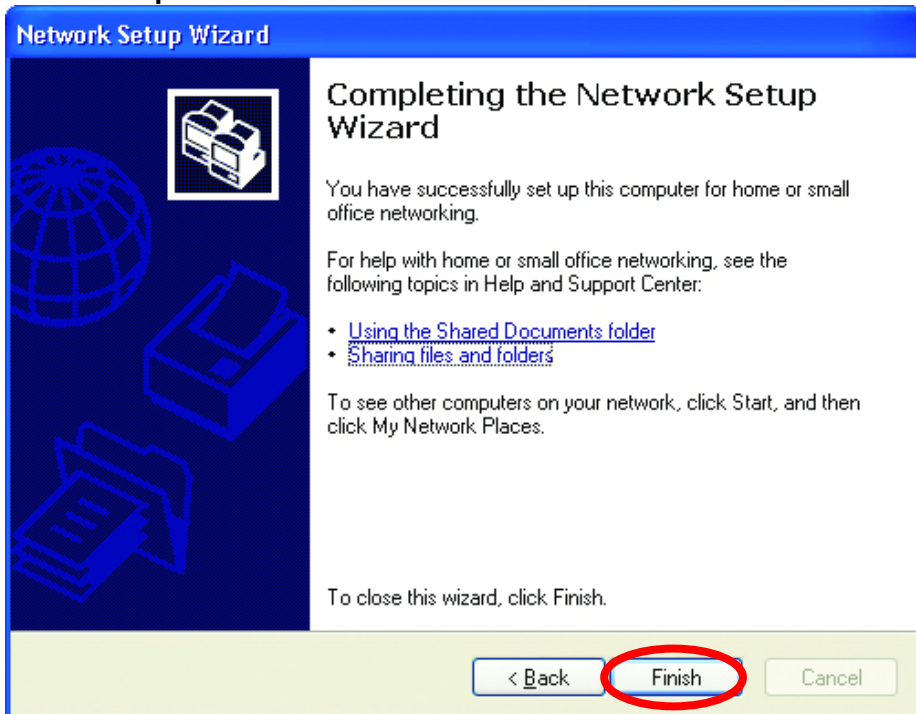


Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue click **Next**.

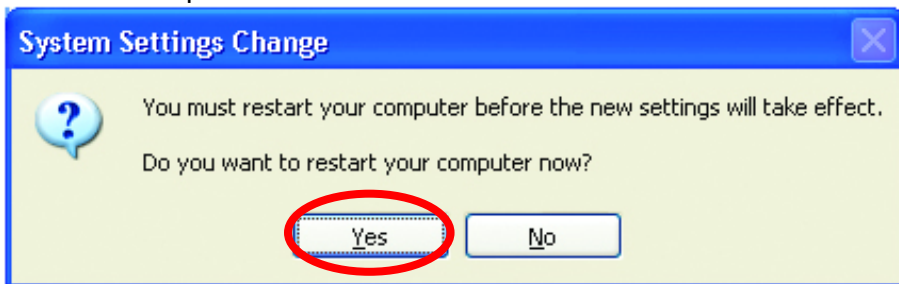


Networking Basics

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.

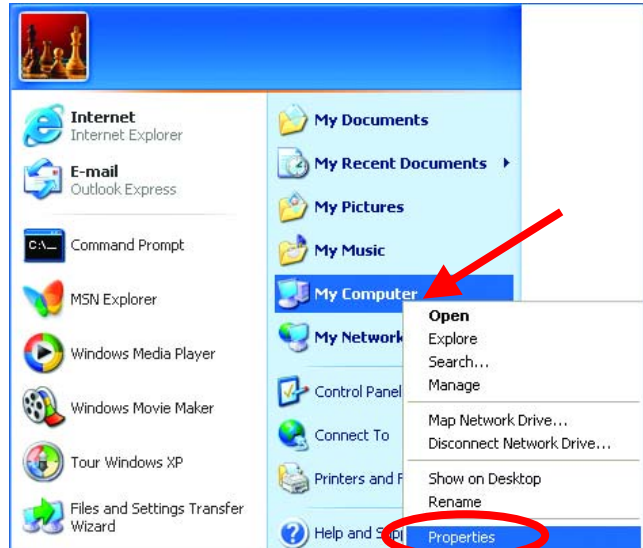
Networking Basics

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

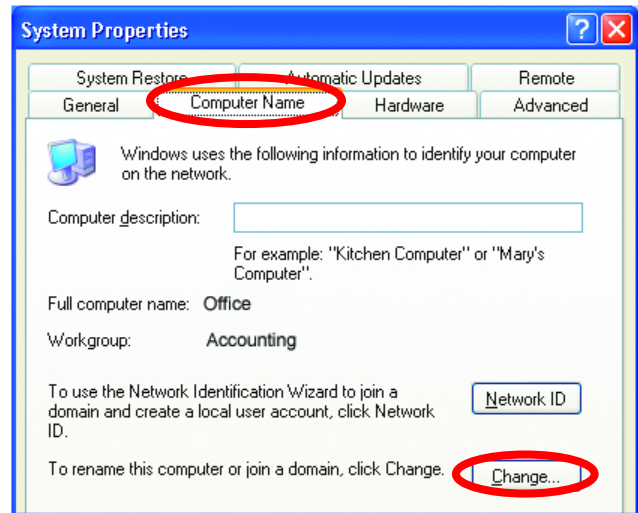


- Select the **Computer Name** Tab in the **System Properties** window.

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

To rename the computer and join a domain,

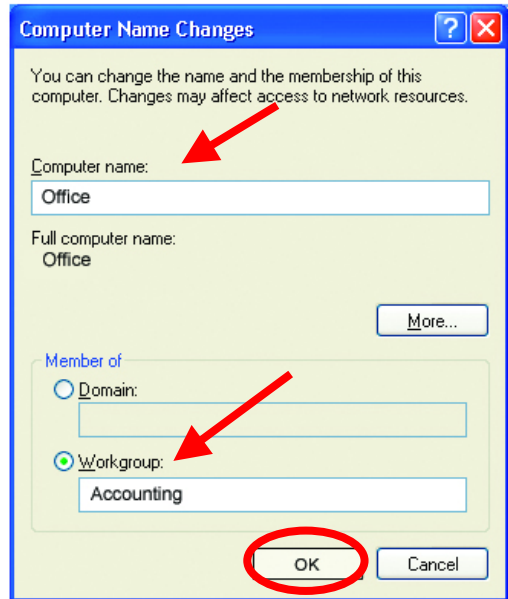
- Click **Change**



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**



Checking the IP Address in Windows XP

The wireless adapter-equipped computers in your network must be in the same IP Address range (see *Getting Started* in this manual for a definition of IP Address.) To check on the IP Address of the adapter, please do the following:

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

Click on **Status**



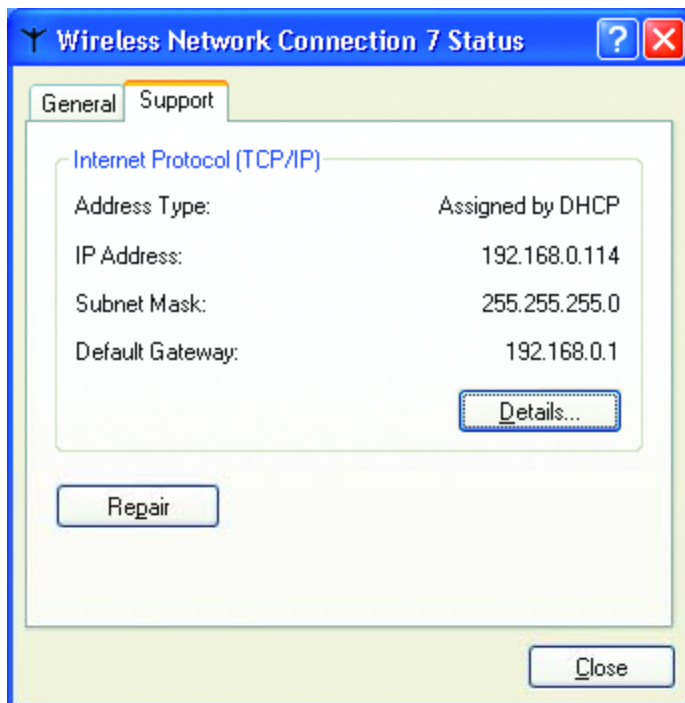
Networking Basics

Checking the IP Address in Windows XP

This window will appear.

Click the **Support Tab**

Click **Close**.

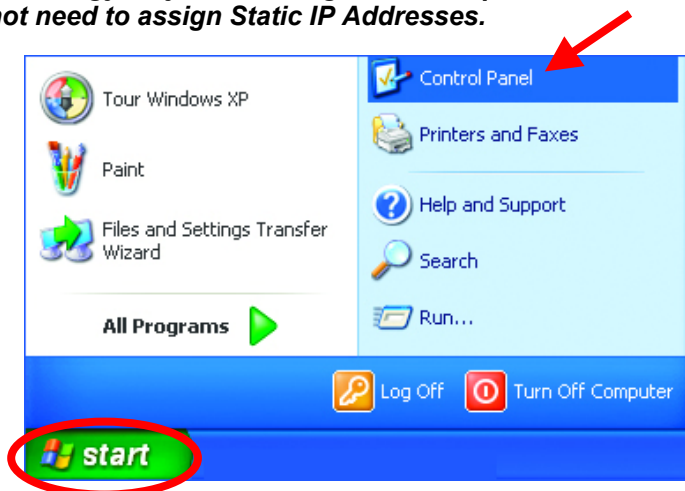


Assigning a Static IP Address in Windows XP/2000

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

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

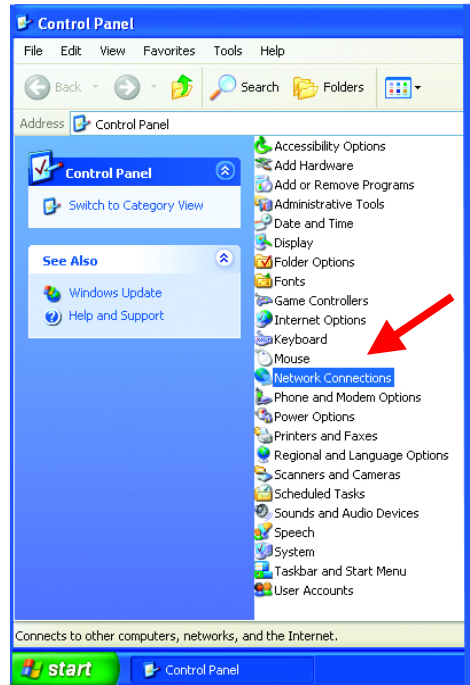
- Go to **Start**
- **Double-click** on **Control Panel**



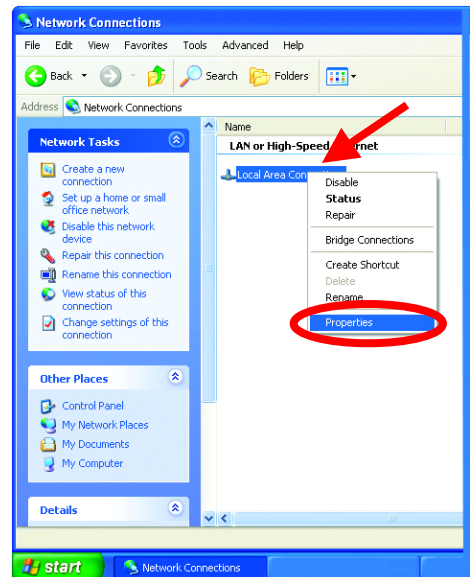
Networking Basics

Assigning a Static IP Address

- **Double-click on Network Connections**



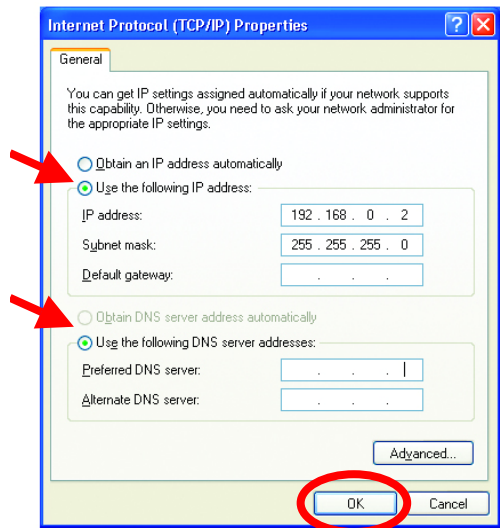
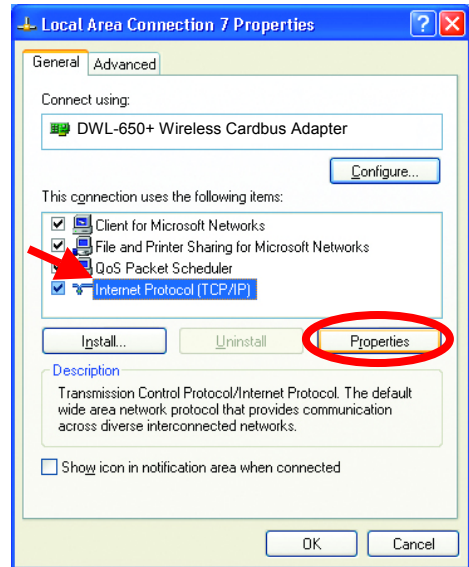
- **Right-click on Local Area Connections.**
- **Double-click Properties**



Networking Basics

Assigning a Static IP Address

- Click on **Internet Protocol (TCP/IP)**
- Click **Properties**
- In the window below, select **Use the following IP address**.
- Input your **IP address and subnet mask**. (The IP Addresses on your network must be within the same range. For example, if one computer has an IP Address of 192.168.0.2, the other computers should have IP Addresses that are sequential, like 192.168.0.3 and 192.168.0.4. The subnet mask must be the same for all the computers on the network.)
IP Address:
e.g., 192.168.0.2
Subnet Mask:
255.255.255.0
Default Gateway:
Enter the LAN IP address of the wireless router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)
- Select **Use the following DNS server address**. Enter the LAN IP address of the Wireless Router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)
- Click **OK**



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.)