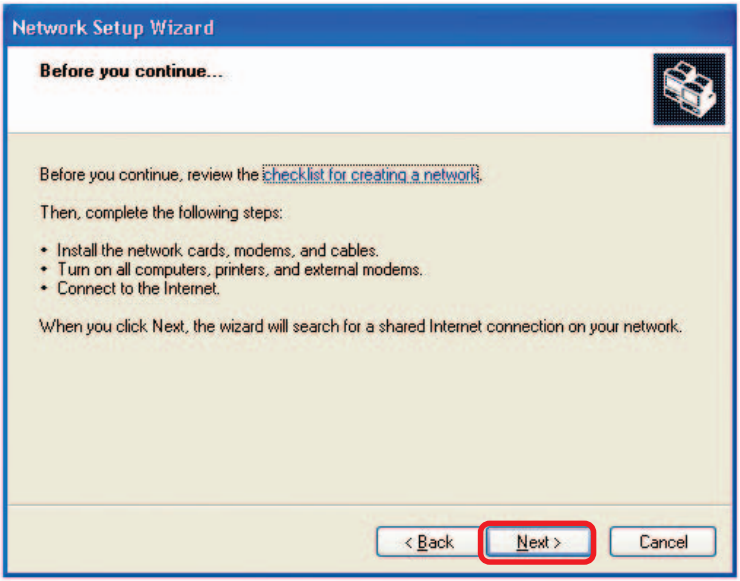
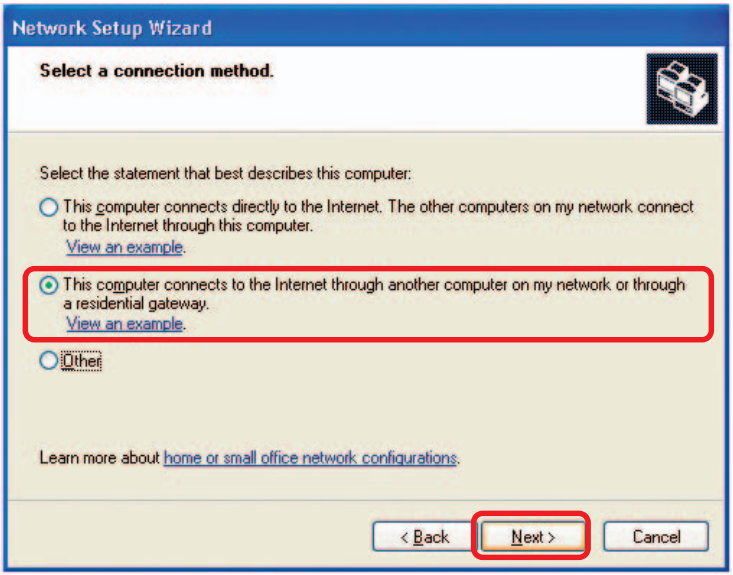
Networking Basics (continued)

Please follow all the instructions in this window:



Click **Next**.

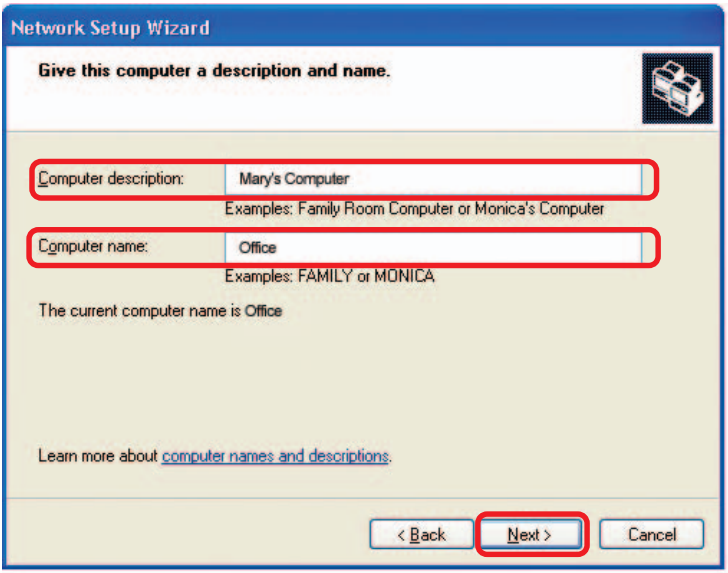
In the following window, select the best description of your computer. If your computer connects to the internet through a gateway/router, select the second option as shown.



Click **Next**.

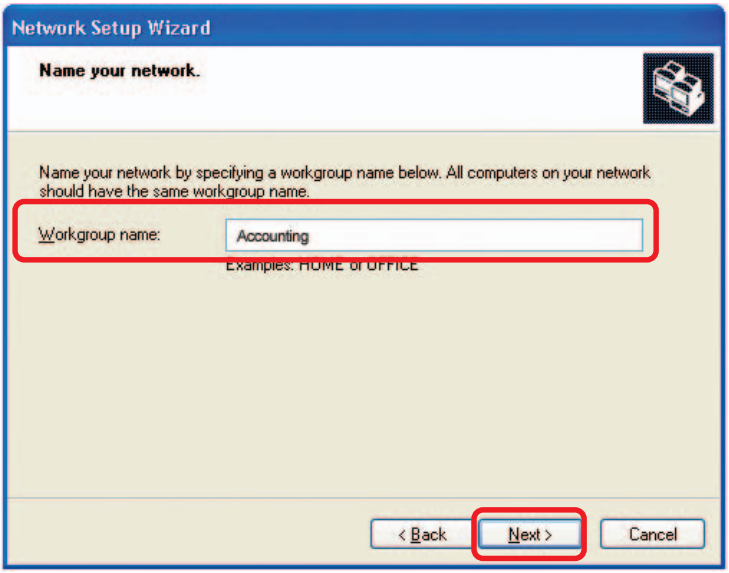
Networking Basics (continued)

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



Click **Next**.

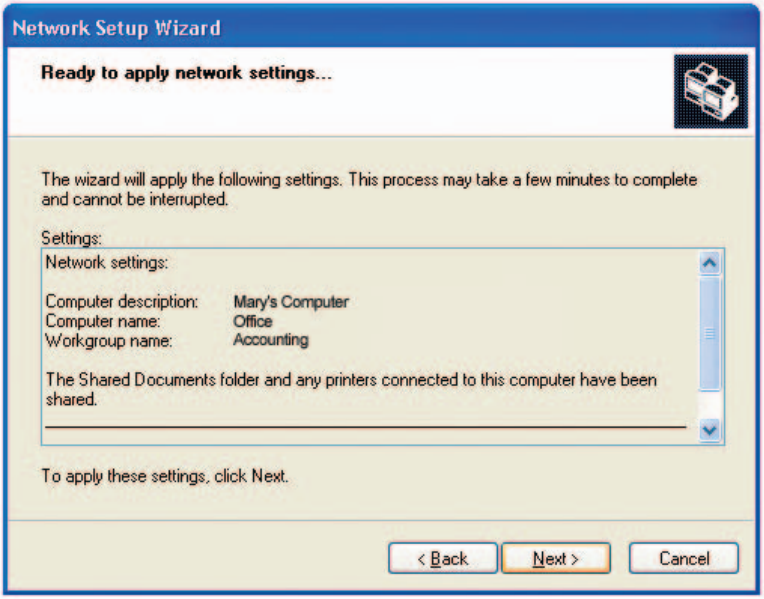
Enter a **Workgroup** name. All computers on your network should have the same **Workgroup name.**



Click **Next**.

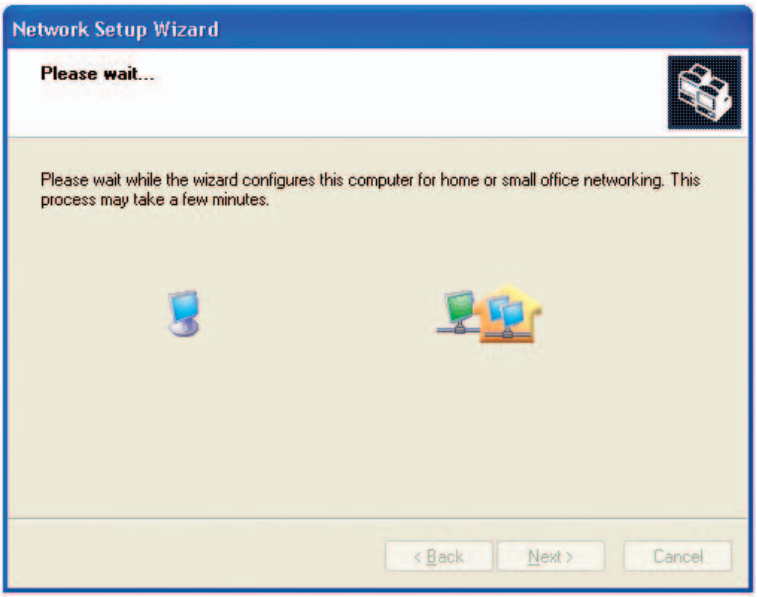
Networking Basics (continued)

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



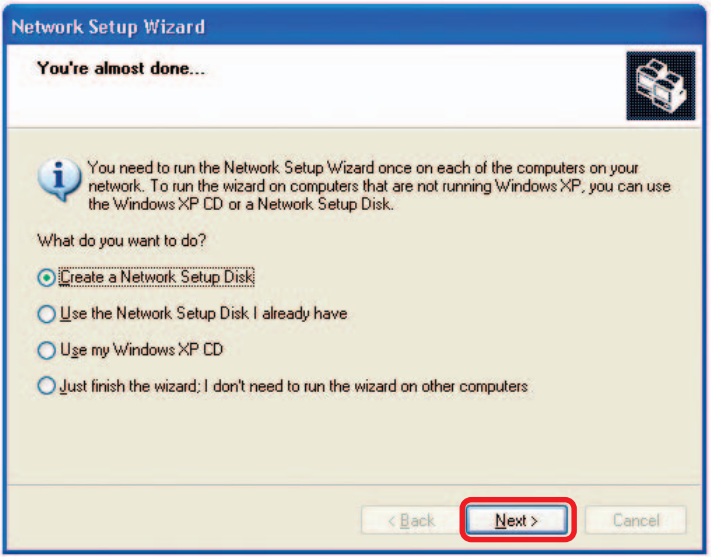
When the changes are complete, click **Next**.

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

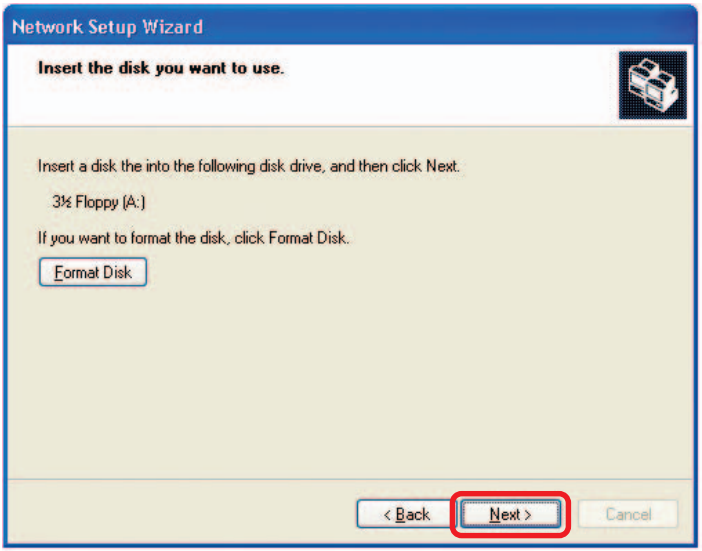


Networking Basics (continued)

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**.

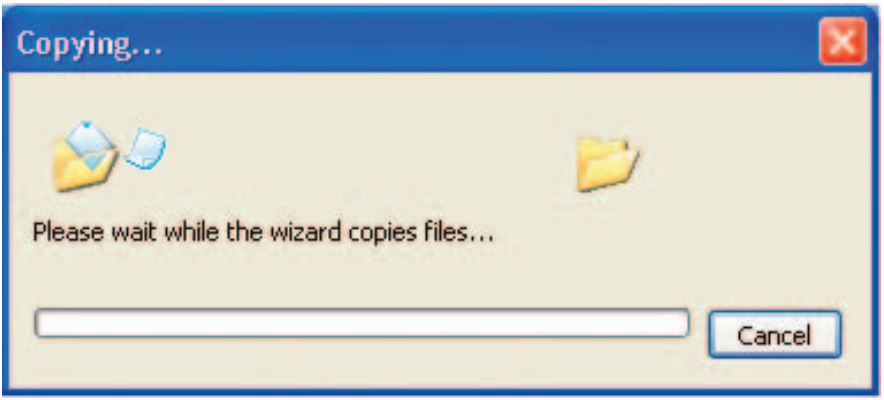


Insert a disk into the Floppy Disk Drive, in this case drive **A.**

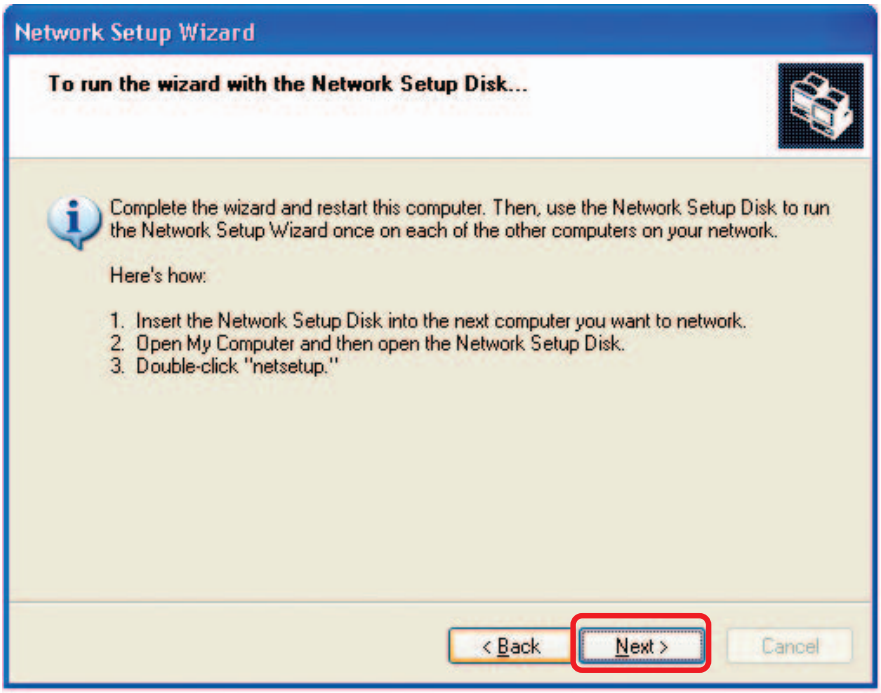


Format the disk if you wish, and click **Next.**

Networking Basics (continued)

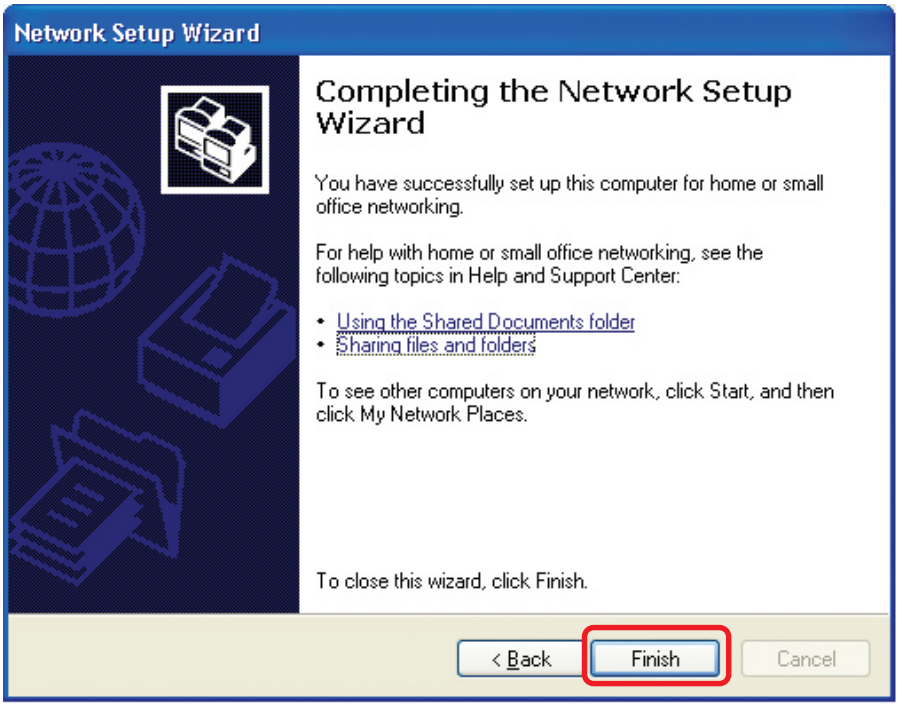


Please read the information under **Here's how** in the screen below. After you complete the **Network Setup Wizard** you will use the **Network Setup Disk** to run the **Network Setup Wizard** once on each of the computers on your network. To continue click **Next.**

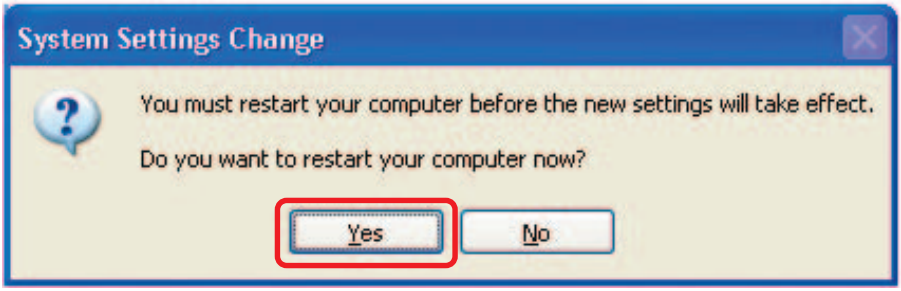


Networking Basics (continued)

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.

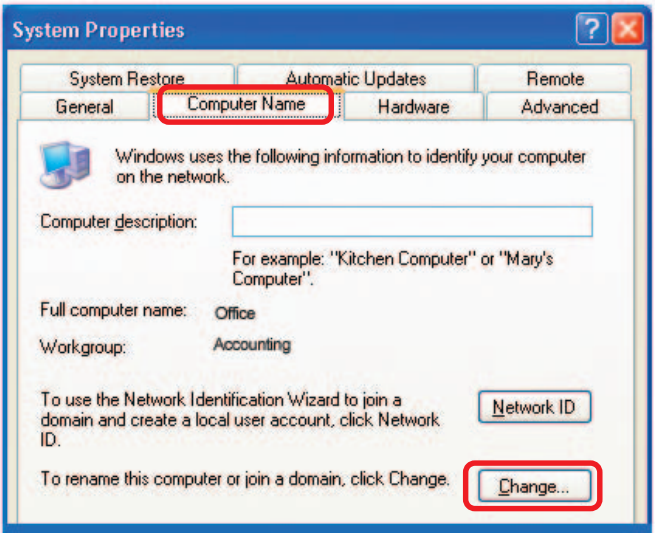
Networking Basics (continued)

Naming your Computer

To name your computer in **Windows XP**, please follow these directions:

- Click **Start** (in the lower left corner of the screen).
- **Right-click** on **My Computer**.
- Select **Properties**.

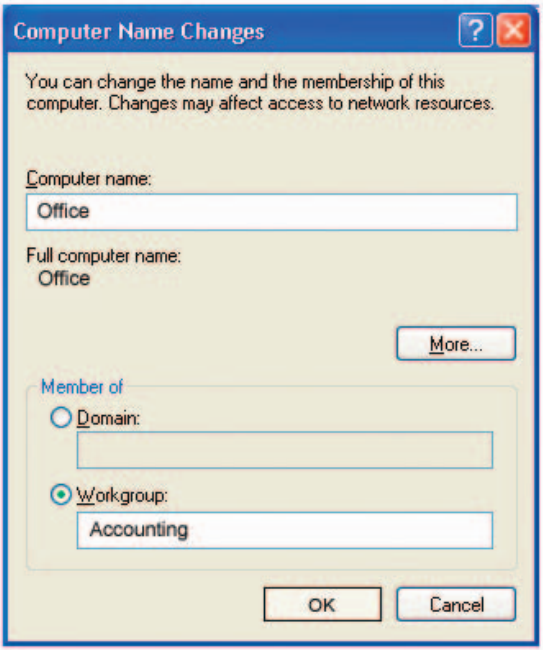
- Select the **Computer Name Tab** in the System Properties window.
- You may enter a **Computer Description** if you wish; this field is optional.
- To rename the computer and join a domain, click **Change**.



Networking Basics (continued)

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

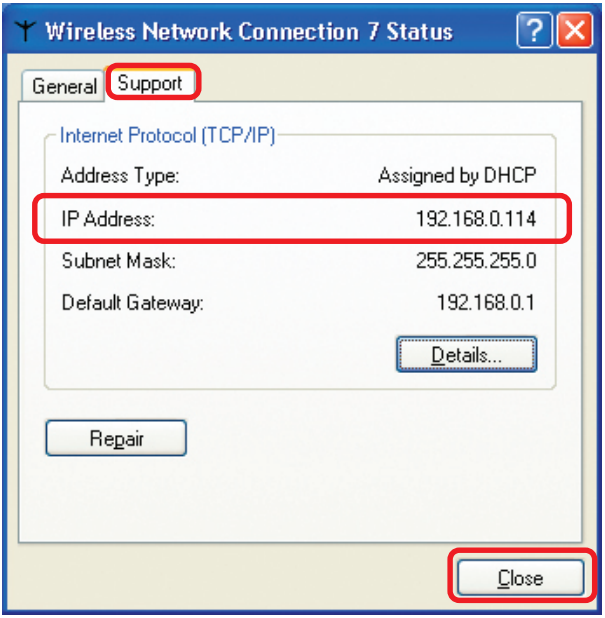
The wireless adapter-equipped computers in your network must be in the same IP address range (see ***Getting Started*** in this manual for a definition of IP address range). To check on the IP address of the adapter, please do the following:

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

Networking Basics (continued)

Checking the IP Address in Windows XP

This window will appear.



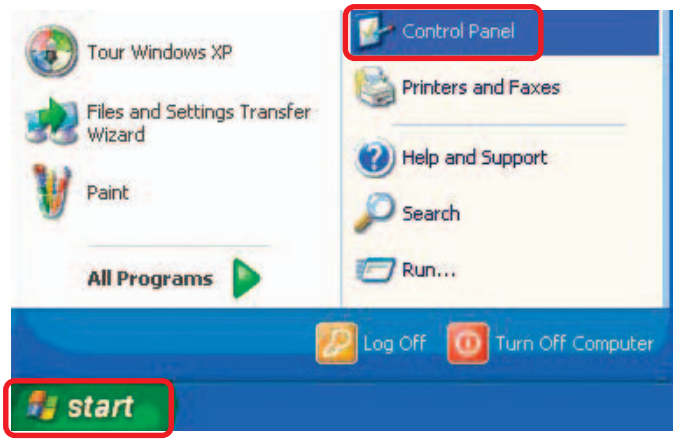
- Click the **Support tab**.
- Click **Close**.

Assigning a Static IP Address in Windows XP/2000

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

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

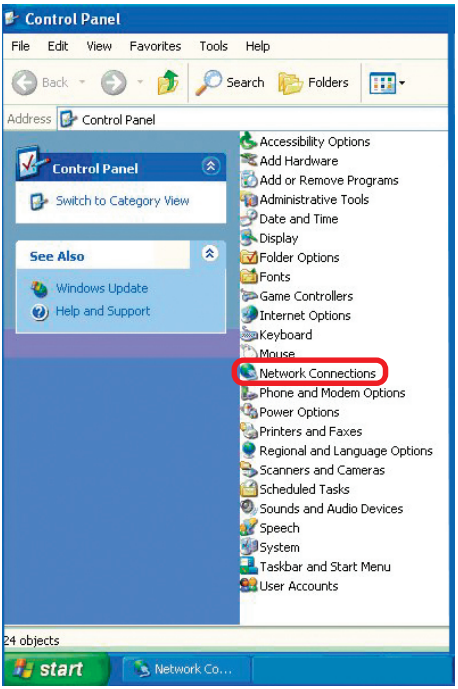
- Go to **Start**.
- Double-click on **Control Panel**.



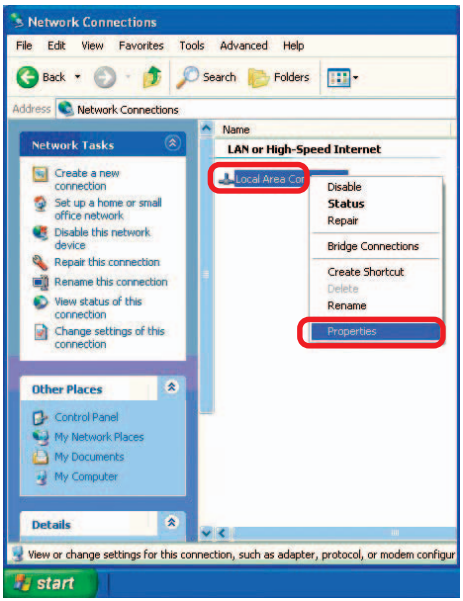
Networking Basics (continued)

Assigning a Static IP Address in Windows XP/2000

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

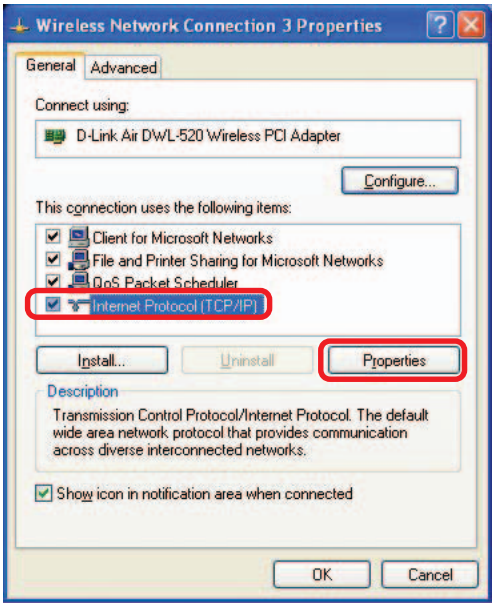


- Right-click on **Local Area Connections**.
- Double-click on **Properties**.



Networking Basics (continued)

Assigning a Static IP Address in Windows XP/2000

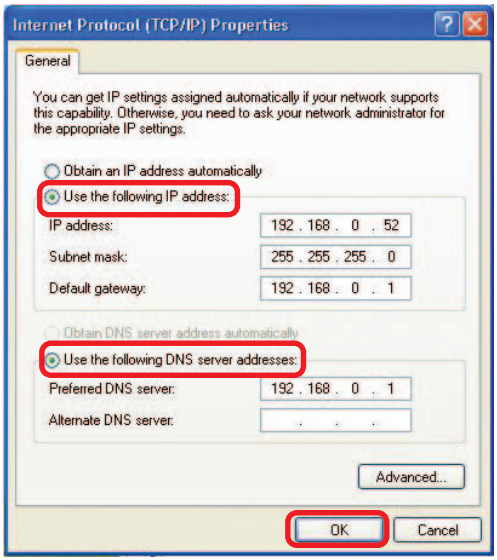


- Click on **Internet Protocol (TCP/IP)**
- Click **Properties**
- In the window below, select **Use the following IP address**. Input your **IP address and subnet mask.** (The IP addresses on your network must be within the same range. For example, if one computer has an IP address of 192.168.0.2, the 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)



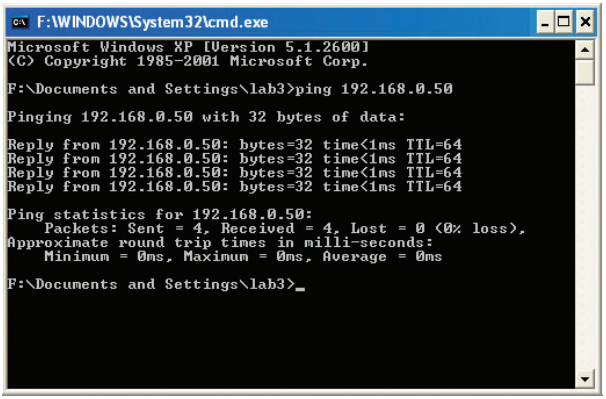
- Select **Use the following DNS server addresses**. Enter the LAN IP address of the wireless router. (D-Link wireless routers have a LAN IP address of 192.168.0.1)
- Click **OK**

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 router).

Networking Basics (continued)

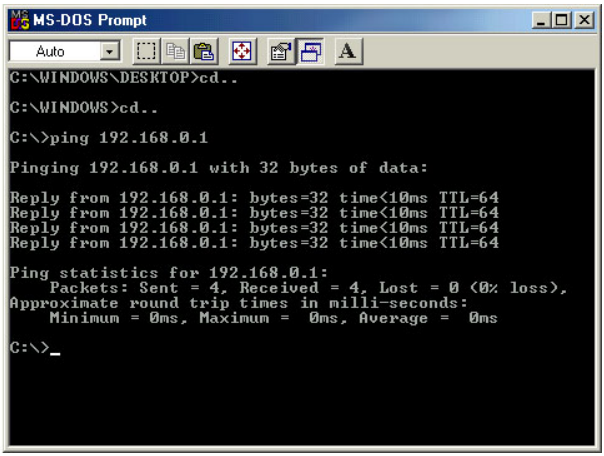
Checking the Wireless Connection by Pinging in Windows XP and 2000

- Go to **Start** > **Run** > type **cmd**. A window similar to this one will appear. Type **ping xxx.xxx.xxx.xxx**, where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the Wireless Router or Access Point, as shown.



Checking the Wireless Connection by Pinging in Windows Me and 98

- Go to **Start** > **Run** > type **command**. A window similar to this will appear. Type **ping xxx.xxx.xxx.xxx** where **xxx** is the **IP Address** of the Wireless Router or Access Point. A good wireless connection will show four replies from the wireless router or access point, as shown.



Troubleshooting

This Chapter provides solutions to problems that can occur during the installation and operation of the DWL-7200AP Wireless Access Point. We cover various aspects of the network setup, including the network adapters. Please read the following if you are having problems.

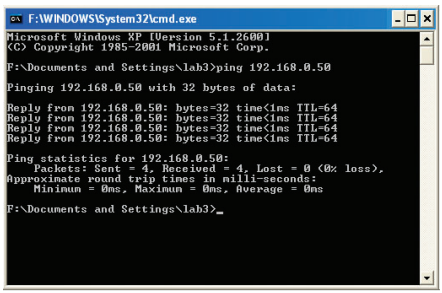
Note: It is recommended that you use an Ethernet connection to configure the DWL-7200AP.

1. The computer used to configure the DWL-7200AP cannot access the Configuration menu.

- Check that the **Ethernet LED** on the DWL-7200AP 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 in this section: **Check that the drivers for the network adapters are installed properly**.
- Check that the **IP address** is in the same range and subnet as the DWL-7200AP. Please see **Checking the IP Address in Windows XP** in the **Networking Basics** section of this manual.

Note: The IP address of the DWL-7200AP is 192.168.0.50. 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-7200AP is responding. Go to **Start**>**Run**>Type **Command**>Type **ping 192.168.0.50.** A successful ping will show four replies.

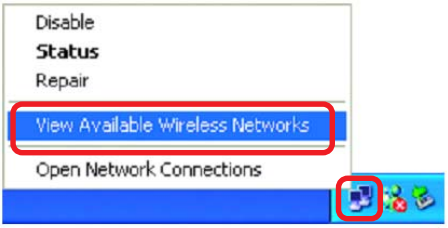


Note: If you have changed the default IP address, make sure to ping the correct IP address assigned to the DWL-7200AP.

Troubleshooting (continued)

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

Make sure the wireless client is associated and joined with the correct access point. 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 access point and gateway. *(Since the DWL-7200AP has an IP address of 192.168.0.50, wireless adapters must have an IP address in the same range, e.g., 192.168.0.x. Each device must have a unique IP address; no two devices may have the same IP address. The subnet mask must be the same for all the computers on the network.)* To check the **IP address** assigned to the wireless adapter, **double-click** on the **local area connection icon** in the taskbar > select the **support tab** and the **IP address** will be displayed. *(Please refer to **Checking the IP Address** in the **Networking Basics** section of this manual.)*

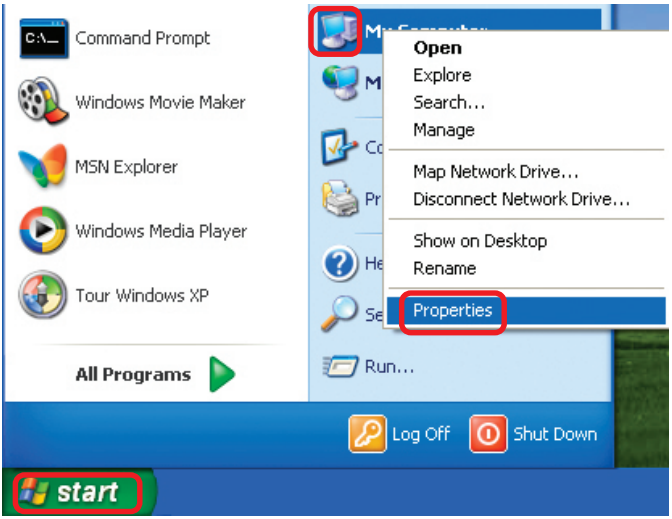
- If it is necessary to assign a **static IP address** to the wireless adapter, please refer to the appropriate section in **Networking Basics**. If you are entering a **DNS server address** you must also enter the **default gateway address.** *(Remember that if you have a DHCP-capable router, you will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

Troubleshooting (continued)

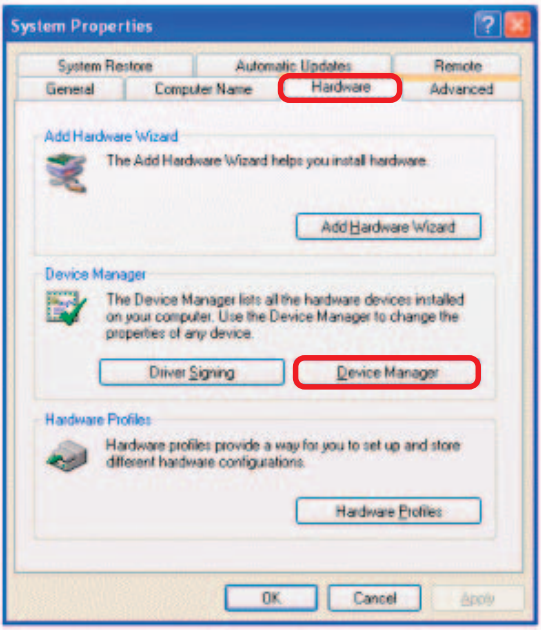
3. Check that the drivers for the network adapters are installed properly.

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**

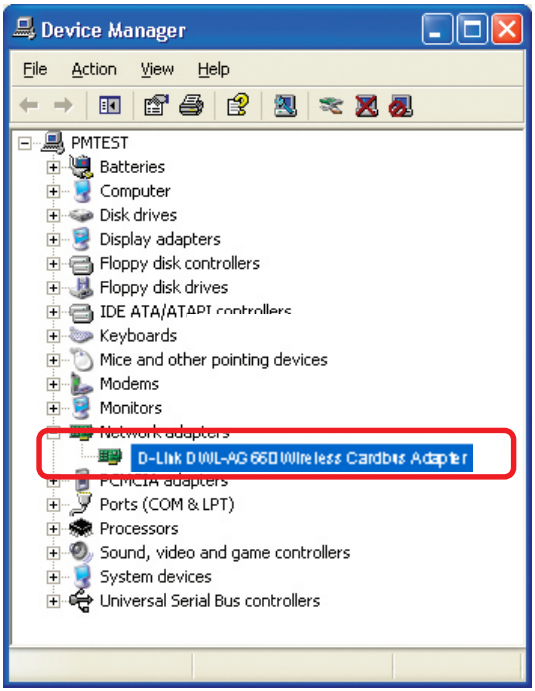


Troubleshooting (continued)

- Double-click on **Network adapters**

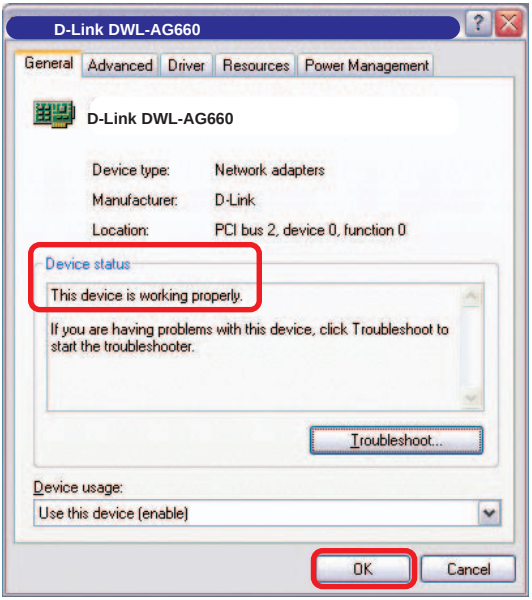
- Right-click on **D-Link DWL-AG660 Wireless Cardbus Adapter**

- 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 (continued)

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-7200AP. 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 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?

To establish a wireless connection, while enabling Encryption on the DWL-7200AP, you must also enable encryption on the wireless client.

- For 802.11a, the Encryption settings are: 64-, 128- or 152-bit. Make sure that the encryption bit level is the same on the access point and the wireless client.

- For 802.11b, the Encryption settings are: 64-, 128-, or 256-bit. Make sure that the encryption bit level is the same on the access point and the wireless client.

Make sure that the SSID on the access point and the wireless client are exactly the same. If they are not, wireless connection will not be established. Please note that there are two separate SSIDs for 802.11a and 802.11b. The default SSID for both 802.11a and 802.11b is **default**.

Troubleshooting (continued)

7. Resetting the DWL-7200AP to Factory Default Settings

After you have tried other methods for troubleshooting your network, you may choose to **Reset** the DWL-7200AP to the factory default settings.

To hard-reset the D-Link DWL-7200AP to factory default settings, please do the following:

- Locate the **Reset** button on the back of the DWL-7200AP
- Use a paper clip to press the **Reset** button
- Hold for about 10 seconds and then release
- After the DWL-7200AP reboots (this may take a few minutes) it will be reset to the factory default settings

Technical Specifications

Standards

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

Device Management

- Web-based - Internet Explorer v6 or later; Netscape Navigator v6 or later; or other Java-enabled browsers
- DHCP Client

Network Architecture

- Supports Infrastructure Mode

LEDs

- Power
- WAN
- LAN (10/100)
- WLAN - 802.11a, 802.11g

Wireless Operating Range*

- Indoors – up to 328 feet (100 meters)
- Outdoors – up to 1,312 feet (400 meters)

Temperature

- Operating: 32ºF to 149ºF (0ºC to 55ºC)
- Storing: 4ºF to 167ºF (-20ºC to 75ºC)

Humidity:

- 95%maximum, non-condensing

** Environmental Conditions may adversely affect wireless signal range*

Technical Specifications (continued)

Safety and Emissions:

- FCC
- CE
- CSA

Physical Dimensions:

- L = 7.6 inches (193mm)
- W = 5.5 inches (140mm)
- H = 1.2 inches (31mm)

Wireless Data Rates with Automatic Fallback:

- 108Mbps 54Mbps 48Mbps 36Mbps
- 24Mbps 18Mbps 12Mbps 11Mbps
- 9Mbps 6Mbps 5.5Mbps 2Mbps
- 1Mbps

Security:

- 64-, 128-, 152-bit WEP (Wired Equivalent Privacy)
- WPA - Wi-Fi Protected Access (64,128-bit WEP with TKIP,
- MIC, IV Expansion, Shared Key Authentication)
- Supports Advanced Encryption Standard (AES)

External Antenna Type:

- Dual Non-Detachable Dipole Antenna

Wireless Frequency Range:

- 2.4 – 2.462GHz
- 5.15 – 5.35GHz, 5.725-5.85GHz

Modulation Technology:

- Orthogonal Frequency Division Multiplexing (OFDM)
- PBCC
- Complementary Code Keying (CCK)

Technical Specifications (continued)

Media Access Control:

- CSMA/CA with ACK

Wireless Transmit Power:

- 15dBm(32mW)±2dB

Power Adapter:

- Ext. Power Supply DC 5V, 2.0A
- 100-120V ~ 50-60Hz

Weight:

- 0.62 lbs (280g)

Receiver Sensitivity:

- 108Mbps OFDM, 10% PER, -73dBm
- 54Mbps OFDM, 10% PER,-73dBm
- 48Mbps OFDM, 10% PER,-76dBm
- 36Mbps OFDM, 10% PER,-82dBm
- 24Mbps OFDM, 10% PER,-85dBm
- 18Mbps OFDM, 10% PER,-88dBm
- 12Mbps OFDM, 10% PER,-89dBm
- 11Mbps CCK, 8% PER,-91dBm
- 9Mbps OFDM, 10% PER,-90dBm
- 6Mbps OFDM, 10% PER,-91dBm
- 5.5Mbps CCK, 8% PER,-92dBm
- 2Mbps QPSK, 8% PER,-93dBm
- 1Mbps BPSK, 8% PER,-94dBm

Federal Communication Commission (FCC)

Interference Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) this devicemust accept any interference received, including interference that may cause undesired operation.

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 radiocommunications. However, there is no guarantee that interference will not occur in a particularinstallation. 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 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.

Important Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Caution:

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IEEE802.11b or g operation of this product is limited to channel 1-11 by specified firmware controlled in USA.