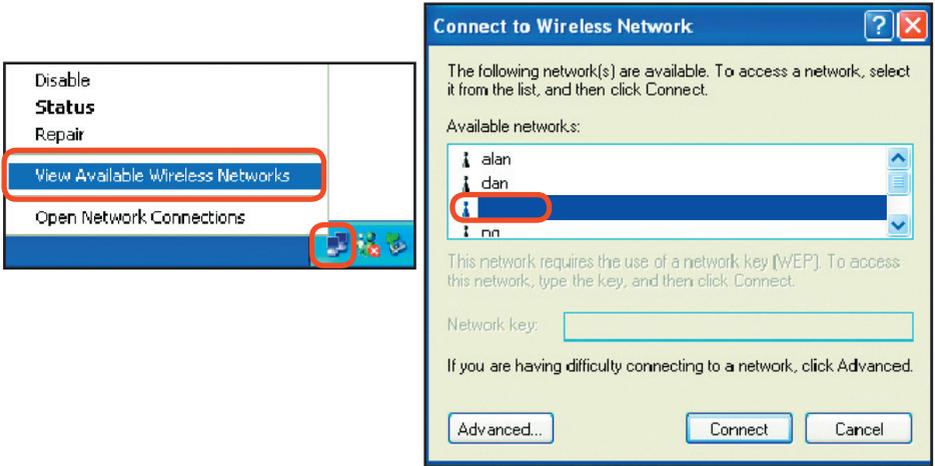


Troubleshooting

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

Make sure the wireless client is associated and joined with the correct 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.



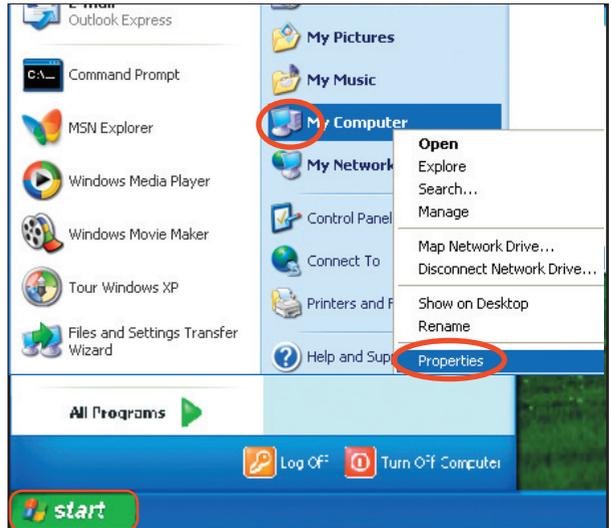
- Check that the **IP Address** assigned to the wireless adapter is within the same **IP Address range** as the access point and gateway. (Since the *DI-524* has an IP Address of *192.168.0.1*, wireless adapters must have an IP Address in the same range, e.g., *192.168.0.x*. Each device must have a unique 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

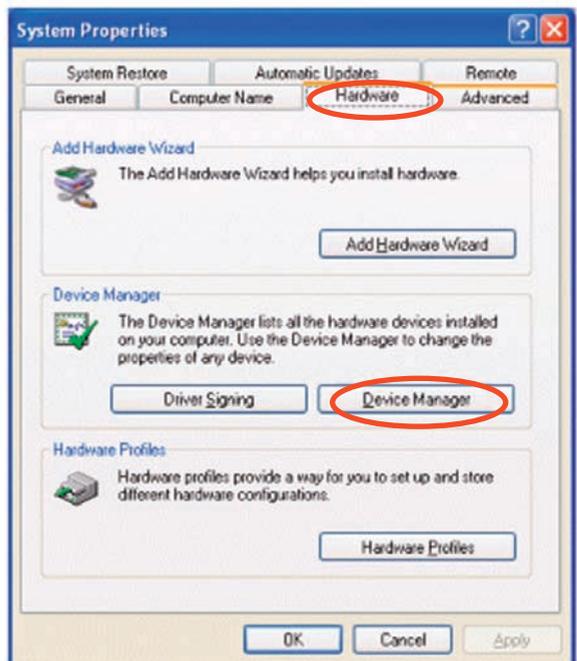
3. Check that the drivers for the network adapters are installed properly.

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 > My Computer > Properties**



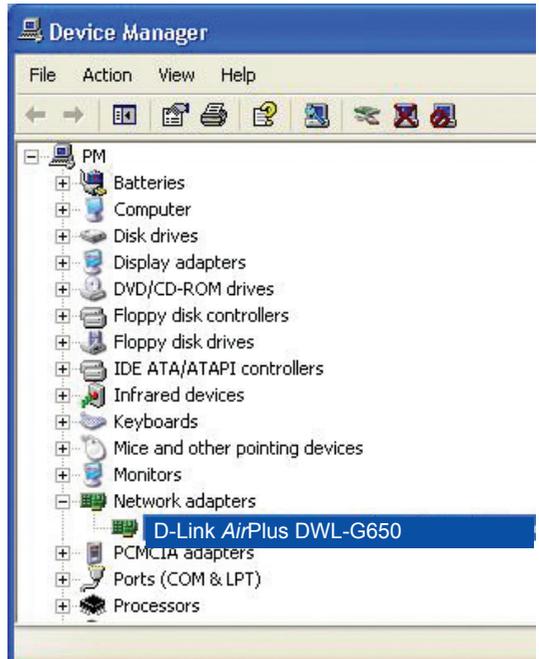
- Select the **Hardware Tab**



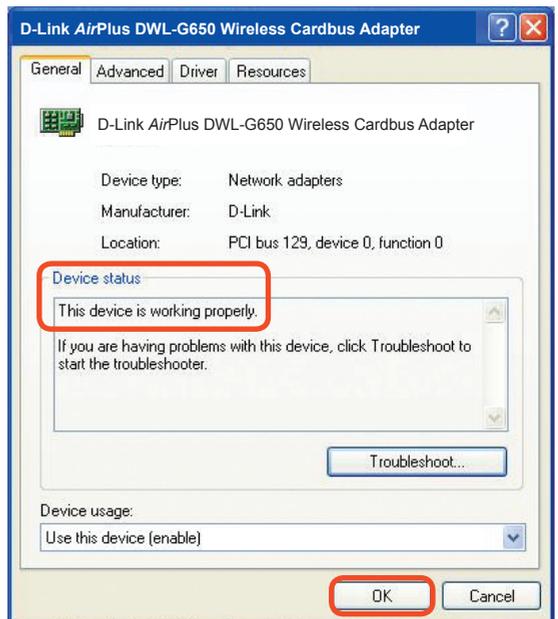
- Click **Device Manager**

Troubleshooting

- Double-click on **Network Adapters**
- Right-click on **D-Link AirPlus DWL-G650 Wireless Cardbus Adapter** (In this example we use the DWL-G650; you may be using other network adapters, but the procedure will remain the same.)



- 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 DI-524. 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 DI-524, you must also enable encryption on all wireless clients in order to establish a wireless connection.

- For 802.11b, the Encryption settings are: 64, 128, or 256 bit. Make sure that the encryption bit level is the same on the Router and the Wireless Client.
- Make sure that the SSID on the Router and the Wireless Client are exactly the same. If they are not, wireless connection will not be established.
- Move the DI-524 and the wireless client into the same room and then test the wireless connection.
- Disable all security settings. (WEP, MAC Address Control)

Troubleshooting

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

- Turn off your DI-524 and the client. Turn the DI-524 back on again, and then turn on the client.
- Make sure that all devices are set to **Infrastructure** mode.
- Check that the LED indicators are indicating normal activity. If not, check that the AC power and Ethernet cables are firmly connected.
- Check that the IP Address, subnet mask, gateway and DNS settings are correctly entered for the network.
- 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 DI-524, and on all the devices in your network 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.

7. I forgot my encryption key.

- Reset the DI-524 to its factory default settings and restore the other devices on your network to their default settings. You may do this by pressing the Reset button on the back of the unit. You will lose the current configuration settings.

Troubleshooting

8. Resetting the DI-524 to Factory Default Settings

After you have tried other methods for troubleshooting your network, you may choose to **Reset** the DI-524 to the factory default settings. Remember that D-Link *AirPro* products network together, out of the box, at the factory default settings.



To hard-reset the DI-524 to Factory Default Settings, please do the following:

- Locate the **Reset** button on the back of the DI-524
- Use a paper clip to press the **Reset** button
- Hold for about 10 seconds and then release
- After the DI-524 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 802.3
- IEEE 802.3u

VPN Pass Through/ Multi-Sessions

- PPTP
- L2TP
- IPSec

Device Management

- Web-Based- Internet Explorer v6 or later; Netscape Navigator v7 or later; or other Java-enabled browsers
- DHCP Server and Client

Advanced Firewall Features

- NAT with VPN Passthrough (Network Address Translation)
- MAC Filtering
- IP Filtering
- URL Filtering
- Domain Blocking
- Scheduling

Wireless Operating Range

- Indoors – up to 328 feet (100 meters)
- Outdoors – up to 984 feet (300 meters)

Operating Temperature

- 32°F to 131°F (0°C to 55°C)

Humidity:

- 95% maximum (non-condensing)

Safety and Emissions:

- FCC, CE

Wireless Frequency Range:

- 2.4GHz to 2.462GHz

Technical Specifications

LEDs:

- Power
- WAN
- LAN (10/100)
- WLAN (Wireless Connection)

Physical Dimensions:

- L = 5.6 inches (142mm)
- W = 4.3 inches (109mm)
- H = 1.2 inches (31mm)

Wireless Transmit Power:

- 17dBm± 2dB

Security:

- 802.1x
- WEP
- WPA
- WPA-PSK

External Antenna Type:

- Single detachable reverse SMA

Modulation Technology:

- Orthogonal Frequency Division Multiplexing (OFDM)

Power Input:

- Ext. Power Supply DC 5V, 2.5A

Weight:

- 0.44 lbs. (200g)

Warranty:

- 1 year

Technical Specifications

Wireless Data Rates with Automatic Fallback:

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

Receiver Sensitivity:

- 54Mbps OFDM, 10% PER, -68dBm
- 48Mbps OFDM, 10% PER, -68dBm
- 36Mbps OFDM, 10% PER, -75dBm
- 24Mbps OFDM, 10% PER, -79dBm
- 18Mbps OFDM, 10% PER, -82dBm
- 12Mbps OFDM, 10% PER, -84dBm
- 11Mbps CCK, 8% PER, -82dBm
- 9Mbps OFDM, 10% PER, -87dBm
- 6Mbps OFDM, 10% PER, -88dBm
- 5.5Mbps CCK, 8% PER, -85dBm
- 2Mbps QPSK, 8% PER, -86dBm
- 1Mbps BPSK, 8% PER, -89dBm

Frequently Asked Questions

Why can't I access the web based configuration?

When entering the IP Address of the DI-524 (192.168.0.1), you are not connecting to the Internet or have to be connected to the Internet. The device has the utility built-in to a ROM chip in the device itself. Your computer must be on the same IP subnet to connect to the web-based utility.

To resolve difficulties accessing a web utility, please follow the steps below.

Step 1 Verify physical connectivity by checking for solid link lights on the device. If you do not get a solid link light, try using a different cable or connect to a different port on the device if possible. If the computer is turned off, the link light may not be on.

What type of cable should I be using?

The following connections require a Crossover Cable:

- Computer to Computer
- Computer to Uplink Port
- Computer to Access Point
- Computer to Print Server
- Computer/XBOX/PS2 to DWL-810
- Computer/XBOX/PS2 to DWL-900AP+
- Uplink Port to Uplink Port (hub/switch)
- Normal Port to Normal Port (hub/switch)

The following connections require a Straight-through Cable:

- Computer to Residential Gateway/Router
- Computer to Normal Port (hub/switch)
- Access Point to Normal Port (hub/switch)
- Print Server to Normal Port (hub/switch)
- Uplink Port to Normal Port (hub/switch)

Rule of Thumb:

"If there is a link light, the cable is right."

Frequently Asked Questions (continued)

Why can't I access the web based configuration? (continued)

What type of cable should I be using? (continued)

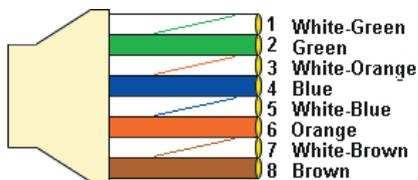
What's the difference between a crossover cable and a straight-through cable?

The wiring in crossover and straight-through cables are different. The two types of cable have different purposes for different LAN configurations. EIA/TIA 568A/568B define the wiring standards and allow for two different wiring color codes as illustrated in the following diagram.

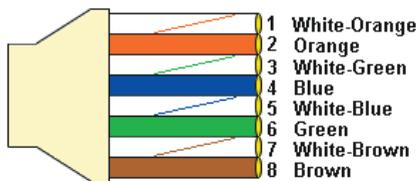
**The wires with colored backgrounds may have white stripes and may be denoted that way in diagrams found elsewhere.*

How to tell straight-through cable from a crossover cable:

The main way to tell the difference between the two cable types is to compare the wiring order on the ends of the cable. If the wiring is the same on both sides, it is straight-through cable. If one side has opposite wiring, it is a crossover cable.



568A CABLE END



568B CABLE END

All you need to remember to properly configure the cables is the pinout order of the two cable ends and the following rules:

A straight-through cable has identical ends

A crossover cable has different ends

It makes no functional difference which standard you follow for straight-through cable ends, as long as both ends are the same. You can start a crossover cable with either standard as long as the other end is the other standard. It makes no functional difference which end is which. The order in which you pin the cable is important. Using a pattern other than what is specified in the above diagram could cause connection problems.

When to use a crossover cable and when to use a straight-through cable:

Computer to Computer – Crossover

Computer to an normal port on a Hub/Switch – Straight-through

Computer to an uplink port on a Hub/Switch - Crossover

Hub/Switch uplink port to another Hub/Switch uplink port – Crossover

Hub/Switch uplink port to another Hub/Switch normal port - Straight-through

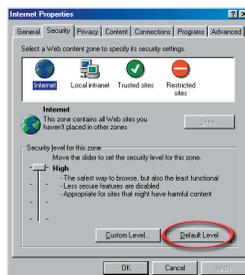
Frequently Asked Questions (continued)

Why can't I access the web based configuration? (continued)

Step 2 Disable any Internet security software running on the computer. Software firewalls like Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, etc. might block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

Step 3 Configure your Internet settings.

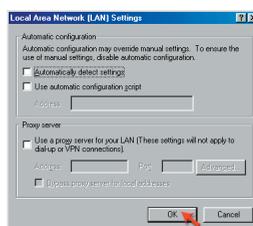
Go to **Start>Settings>Control Panel**. Double click the **Internet Options** Icon. From the **Security** tab, click the button to restore the settings to their defaults.



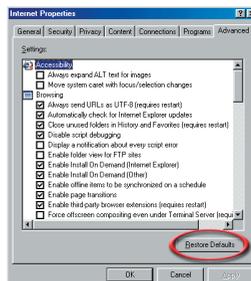
Click to the **Connection** tab and set the dial-up option to **Never Dial a Connection**. Click the **LAN Settings** button



Nothing should be checked. Click **OK**



Go to the **Advanced** tab and click the button to restore these settings to their defaults



Click **OK**. Go to the desktop and close any open windows

Frequently Asked Questions (continued)

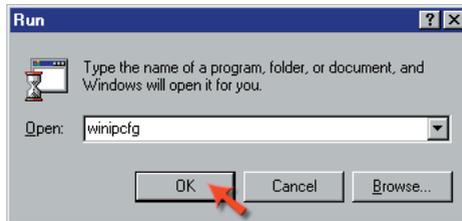
Why can't I access the web based configuration? (continued)

Step 4 Check your IP Address. Your computer must have an IP Address in the same range of the device you are attempting to configure. Most D-Link devices use the 192.168.0.X range.

How can I find my IP Address in Windows 95, 98, or ME?

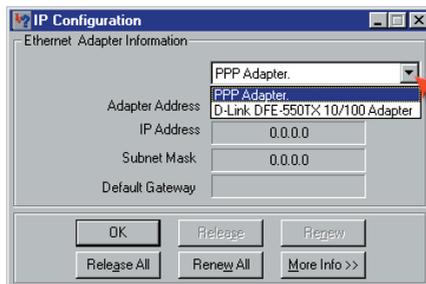
Step 1 Click on **Start**, then click on **Run**.

Step 2 The Run Dialogue Box will appear. Type **wiipcfg** in the window as shown then click **OK**.



Step 3 The **IP Configuration** window will appear, displaying your **Ethernet Adapter Information**.

- Select your adapter from the drop down menu.
- If you do not see your adapter in the drop down menu, your adapter is not properly installed.



Step 4 After selecting your adapter, it will display your IP Address, subnet mask, and default gateway.

Step 5 Click **OK** to close the IP Configuration window

Frequently Asked Questions (continued)

Why can't I access the web based configuration? (continued)

Step 4 (continued) Check your IP Address. Your computer must have an IP Address in the same range of the device you are attempting to configure. Most D-Link devices use the 192.168.0.X range.

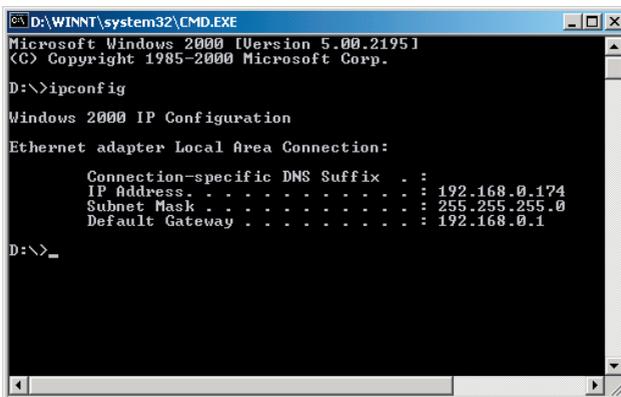
How can I find my IP Address in Windows 2000/XP?

Step 1 Click on **Start** and select **Run**.

Step 2 Type **cmd** then click **OK**.



Step 3 From the Command Prompt, enter **ipconfig**. It will return your IP Address, subnet mask, and default gateway

A screenshot of a Windows Command Prompt window. The title bar reads 'D:\WINNT\system32\CMD.EXE'. The window content shows the following text:

```
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

D:\>ipconfig

Windows 2000 IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : 
    IP Address . . . . . : 192.168.0.174
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.0.1

D:\>_
```

Step 4 Type **exit** to close the command prompt.

Frequently Asked Questions (continued)

Why can't I access the web based configuration? (continued)

Step 4 (continued) Check your IP Address. Your computer must have an IP Address in the same range of the device you are attempting to configure. Most D-Link devices use the 192.168.0.X range.

Make sure you take note of your computer's Default Gateway IP Address. The Default Gateway is the IP Address of the D-Link router. By default, it should be 192.168.0.1.

How can I assign a Static IP Address in Windows XP?

Step 1

Click on **Start > Control Panel > Network and Internet Connections > Network connections.**

Step 2 See [Step 2](#) for Windows 2000 and continue from there.

How can I assign a Static IP Address in Windows 2000?

Step 1 Right-click on **My Network Places** and select **Properties.**

Step 2 Right-click on the **Local Area Connection** which represents your network card and select **Properties.**

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

