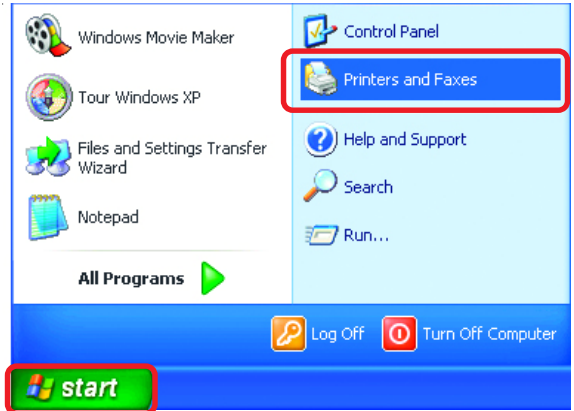# Networking Basics
## *Sharing a network printer*

- To check for proper installation:

- Go to **Start** > **Printers and Faxes**.



*The printer icon will appear at right, indicating proper installation.*

**You have completed adding the printer.**

*To share this printer on your network:*

- Remember the **printer name**.

- Run the **Add Printer Wizard** on all the computers on your network.

- Make sure you have already run the **Network Setup Wizard** on all the network computers.

After you run the **Add Printer Wizard** on all the computers in the network, you can share the printer.
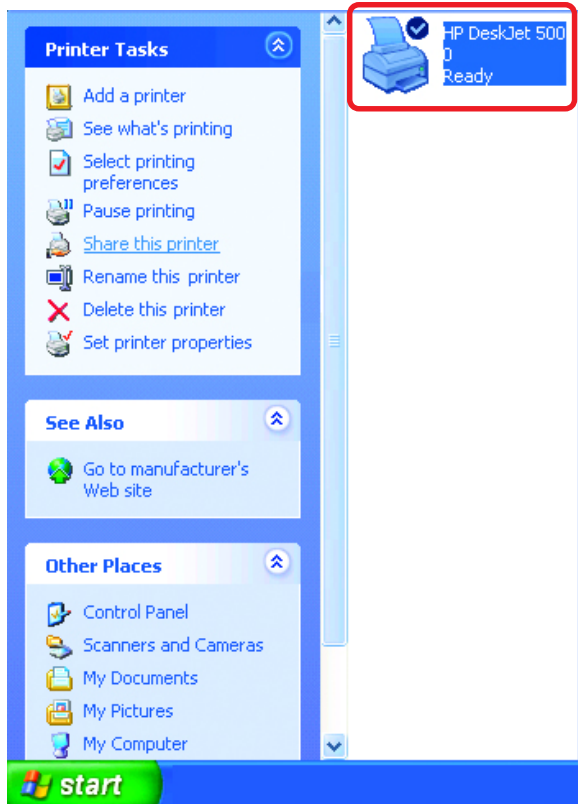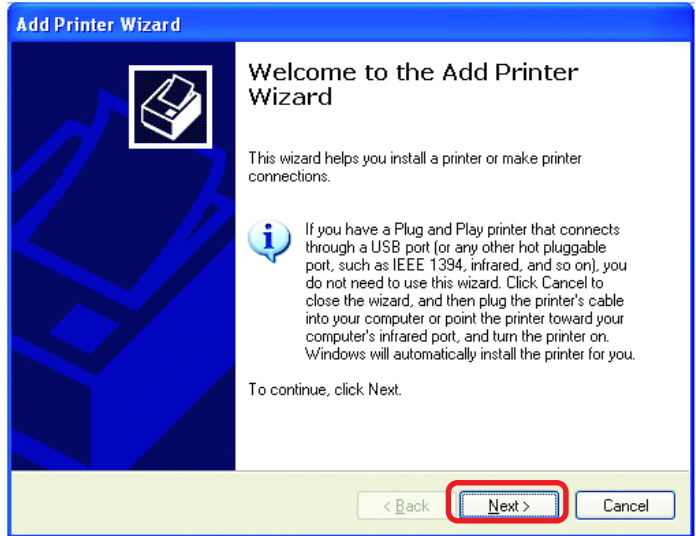
## Networking Basics
### *Sharing an LPR printer*

To share an **LPR printer** (using a print server,) you will need a Print Server such as the **DP-101P+**. Please make sure that you have run the **Network Setup Wizard** on all the computers on your network. To share an **LPR printer**, please follow these directions:
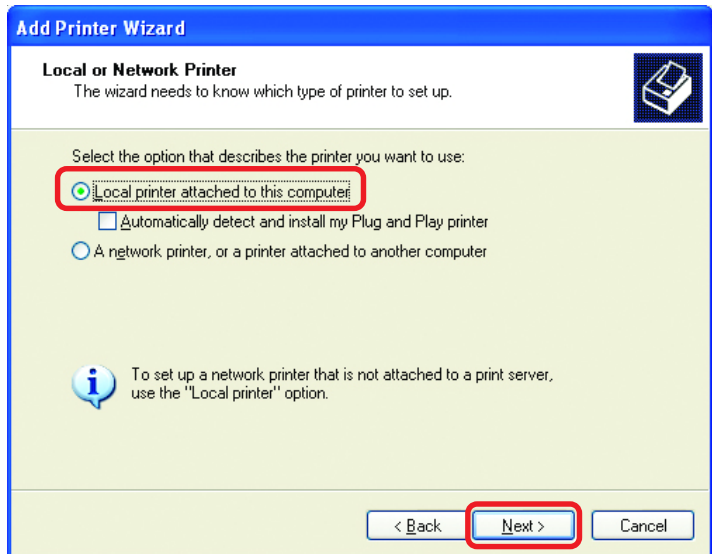
- Go to **Start** > **Printers and Faxes**.

- Click on **Add a Printer**.

The screen to the right will appear.

- Click **Next**.

**Add Printer Wizard**

Welcome to the Add Printer Wizard

This wizard helps you install a printer or make printer connections.

If you have a Plug and Play printer that connects through a USB port (or any other hot pluggable port, such as IEEE 1394, infrared, and so on), you do not need to use this wizard. Click Cancel to close the wizard, and then plug the printer's cable into your computer or point the printer toward your computer's infrared port, and turn the printer on. Windows will automatically install the printer for you.

To continue, click Next.

< Back    Next >    Cancel

- Select **Local Printer.**

**Add Printer Wizard**

**Local or Network Printer**
The wizard needs to know which type of printer to set up.

Select the option that describes the printer you want to use:

◉ Local printer attached to this computer
☐ Automatically detect and install my Plug and Play printer
○ A network printer, or a printer attached to another computer

To set up a network printer that is not attached to a print server, use the "Local printer" option.

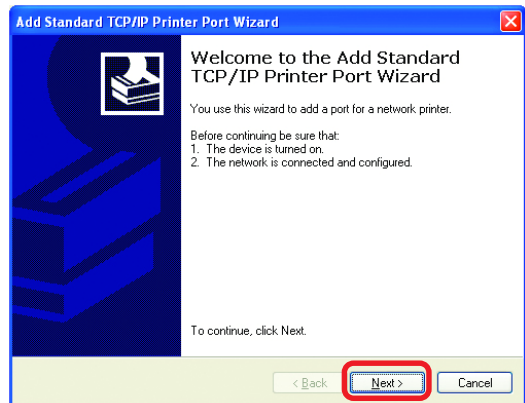- Click **Next**.

< Back    Next >    Cancel
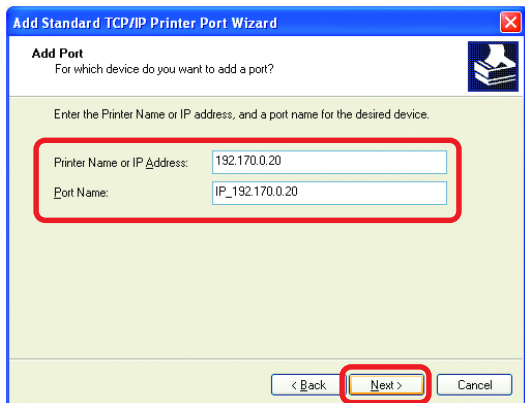
# Networking Basics
## *Sharing an LPR printer*

■ Select **Create a new port**.

■ From the pull-down menu, select **Standard TCP/IP Port**, as shown.



■ Click **Next**.
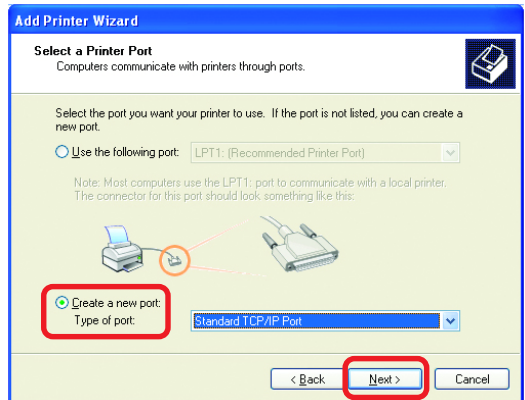
■ Please read the instructions on this screen.



■ Click **Next**.

■ Enter the **Printer IP Address** and the **Port Name**, as shown.



■ Click **Next**.

## Networking Basics
### *Sharing an LPR printer*

- In this screen, select **Custom**.

**Add Standard TCP/IP Printer Port Wizard**

**Additional Port Information Required**
The device could not be identified.

The detected device is of unknown type. Be sure that:
1. The device is properly configured.
2. The address on the previous page is correct.

Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct.

Device Type
- ○ Standard    Generic Network Card
- ⊙ Custom    [ Settings... ]

- Click **Settings**.

[ < Back ]  [ Next > ]  [ Cancel ]

**Configure Standard TCP/IP Port Monitor**

Port Settings

- Enter the **Port Name** and the **Printer Name** or **IP Address**.

Port Name:    IP_192.170.0.20
Printer Name or IP Address:    192.170.0.20

Protocol
- ○ Raw    ⊙ LPR

- Select **LPR**.

Raw Settings
Port Number:    9100

- Enter a **Queue Name** (if your Print-Server/ Gateway has more than one port, you will need a **Queue name**).

LPR Settings
Queue Name:    lp
☐ LPR Byte Counting Enabled

SNMP Status Enabled
☐ SNMP Status Enabled
Community Name:    public
SNMP Device Index:    1

- Click **OK**.

[ OK ]    [ Cancel ]
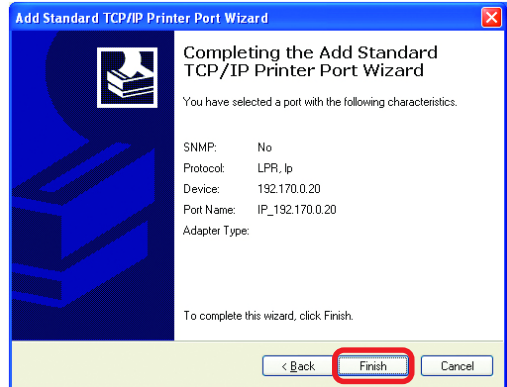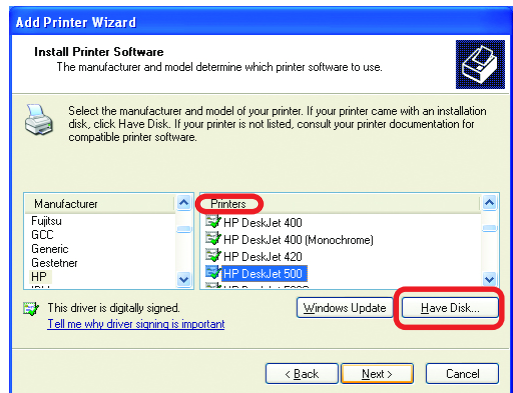
95

# Networking Basics
## *Sharing an LPR printer*

■ This screen will show you information about your printer.

■ Click **Finish**.

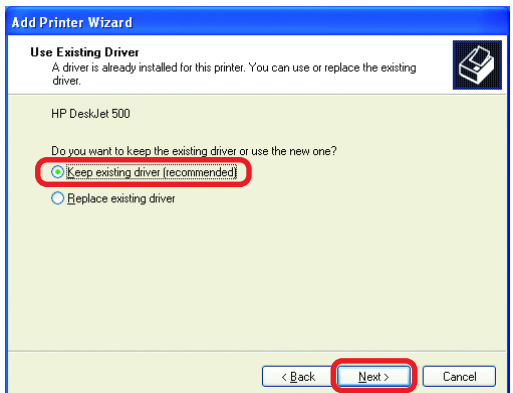■ Select the **printer** you are adding from the list of **Printers**.

■ Insert the printer driver disk that came with your printer.

■ Click **Have Disk**.

If the printer driver is already installed, do the following:
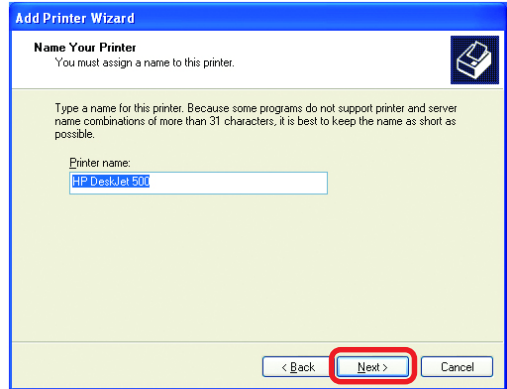
■ Select **Keep existing driver**.
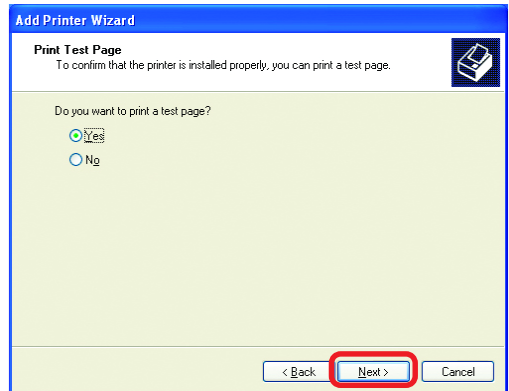
■ Click **Next**.

## Networking Basics
### *Sharing an LPR printer*

■ You can rename your printer if you choose. It is optional.

■ *Please remember the name of your printer. You will need this information when you use the* ***Add Printer Wizard*** *on the other computers on your network.*
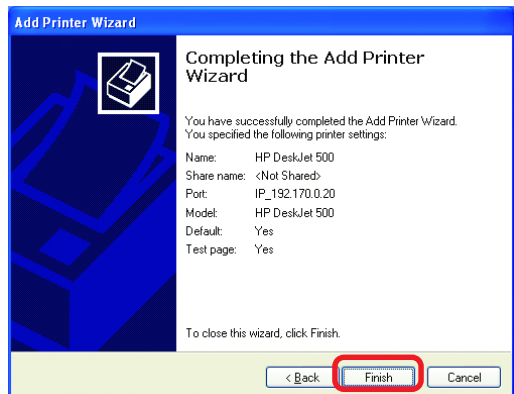
■ Click **Next**.

■ Select **Yes**, to print a test page.

■ Click **Next**.

*This screen will display information about your printer.*

■ Click **Finish** to complete the addition of the printer.

■ Please run the **Add Printer Wizard** on all the computers on your network in order to share the printer.

*Note:  You must run the **Network Setup Wizard** on all the computers on your network before you run the **Add Printer Wizard**.*

# Resetting the DI-824VUP to the Factory Default Settings

After you have tried other methods for troubleshooting your network, you may choose to **Reset** the DI-824VUP to the factory default settings.



To hard-reset the D-Link DI-824VUP to the Factory Default Settings, please do the following:

- Locate the **Reset** button on the back of the DI-824VUP.

- Use a paper clip to press the **Reset** button and power on.

- Hold for about 5 seconds (do not hold for too long) and then release. (Or, release when the status LEDflashes.)

- After you have completed the above steps, the DI-824VUP will be reset to the factory default settings.

# Technical Specifications

**Standards**

- IEEE 802.11b
- IEEE 802.3
- IEEE 802.3u 100BASE-TX Fast Ethernet
- IEEE 802.11g
- USB 1.1

**VPN Pass Through Function**

- PPTP
- L2TP
- IPSec

**LEDs**

- Power
- WAN
- LAN
- WLAN
- Status
- COM
- USB
- LPT

**Operating Temperature**

- 32°F to 131°F ( 0°C to 55°C)

**Humidity**

- 10-90%

**Power**

- 5V DC / 2.5A

**Dimensions**

- L = 9.25 inches (233mm)
- W = 6.5 inches (165mm)
- H = 1.375 inches (35mm)

**Weight**

- ~2.0oz. (907g)

**Ports**

- 4 x 10/100 LAN Ports (MDI/MDIX)
- 1 x 10/100 WAN Port (MDI/MDIX
- 1 COM Port (Dial-up Modem)
- 1 Parallel Port (DB25)
- 1 USB Port

# Frequently Asked Questions

## Why can´t I access the Web-based configuration?

When entering the IP Address of the DI-824VUP (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."

## 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.*

1 White-Green
2 Green
3 White-Orange
4 Blue
5 White-Blue
6 Orange
7 White-Brown
8 Brown

**568A CABLE END**

**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.

1 White-Orange
2 Orange
3 White-Green
4 Blue
5 White-Blue
6 Green
7 White-Brown
8 Brown
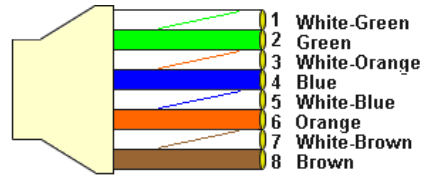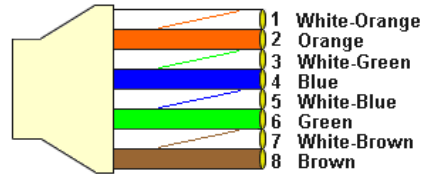
**568B CABLE END**

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
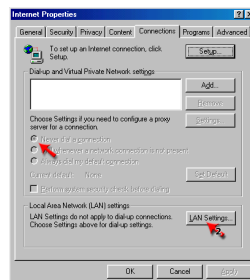
# Frequently Asked Questions (continued)

**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.
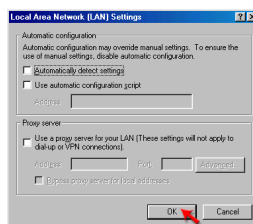
**Step 3** Configure your Internet settings.

Go to **Start > Settings > Control Panel**. Double click the **Internet Options** Icon. From the **Security** tab, click the **Default Level** button to restore the settings to their defaults.
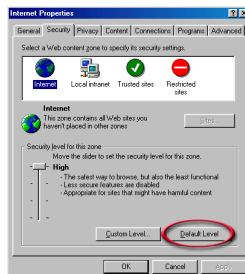
Click to the **Connection** tab and set the dial-up option to **Never Dial a Connection**. Click the **LAN Settings** button.

Nothing should be checked. Click **OK**.

Go to the **Advanced** tab and click the **Restore Defaults** button to restore these settings to their facotry defaults.
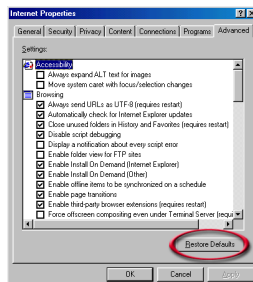
Click **OK**. Go to the desktop and close any open windows.
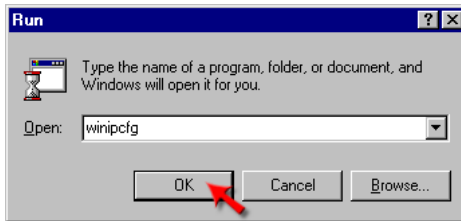
## Frequently Asked Questions (continued)

**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 **winipcfg** in the text field and 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.
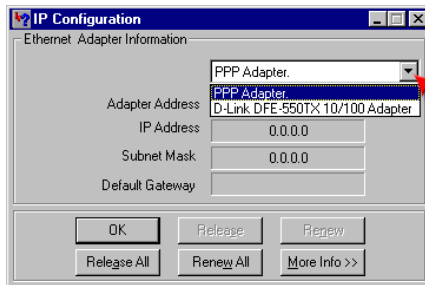


*Step 4* After selecting your adapter, it will display your IP Address, subnet mask, and default gateway.

*Step 5* Click **OK** to close the IP Configuration window
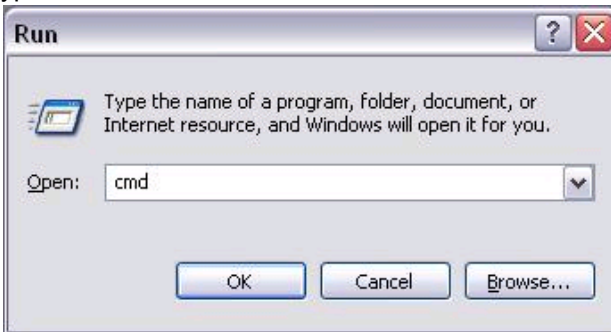
## Frequently Asked Questions (continued)

**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



*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**.



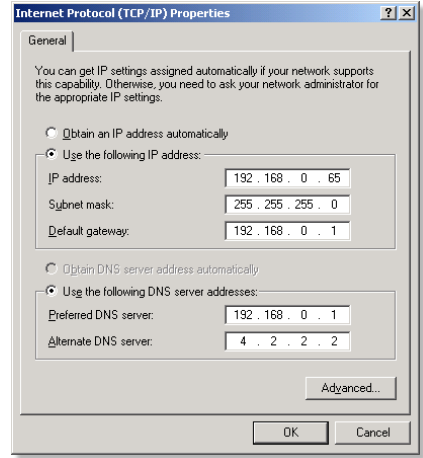Highlight **Internet Protocol (TCP/IP)** and click **Properties.**
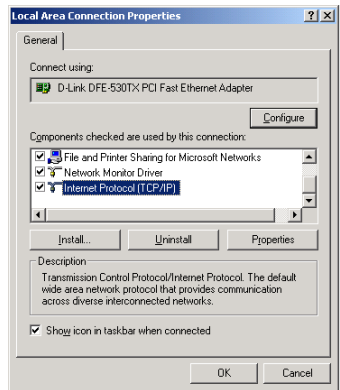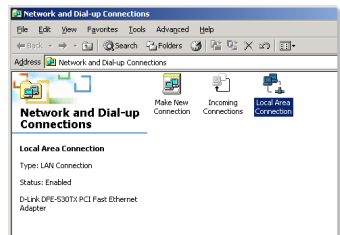
**Why can´t I access the Web-based configuration? (continued)**

## How can I assign a Static IP Address in Windows 2000? (continued)

Click **Use the following IP Address** and enter an IP Address that is on the same subnet as the LAN IP address on your router. Example: If the router´s LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X = 2-99. Make sure that the number you choose is not in use on the network.

Set the **Default Gateway** to be the same as the LAN IP address of your router (192.168.0.1).

Set **the Preferred DNS server** to be the same as the LAN IP address of your router (192.168.0.1).

The **Alternate DNS server** is not needed or enter a DNS server from your ISP.

Click **OK** twice. You may be asked if you want to reboot your computer. Click **Yes**.

## How can I assign a Static IP Address in Windows 98/Me?

*Step 1* From the desktop, right-click on the **Network Neigborhood** icon (Win ME - My Network Places) and select **Properties**

Highlight **TCP/IP** and click the **Properties** button. If you have more than one adapter, then there will be a TCP/IP "Binding" for each adapter. Highlight **TCP/IP > (your network adapter)** and then click **Properties**.
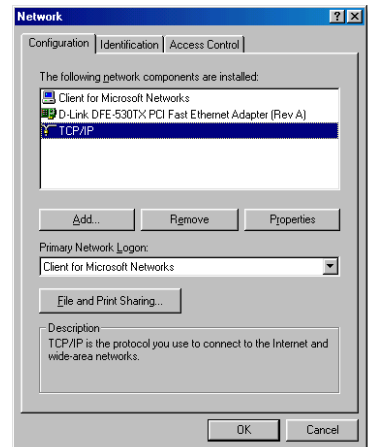
**Why can´t I access the Web-based configuration? (continued)**

## How can I assign a Static IP Address in Windows 98/Me? (continued)

*Step 2* Click **Specify an IP Address**.

Enter in an IP Address that is on the same subnet as the LAN IP Address on your router. Example: If the router´s LAN IP Address is 192.168.0.1, make your IP Address 192.168.0.X where X is between 2-99. Make sure that the number you choose is not in use on the network.

*Step 3* Click on the **Gateway** tab.

Enter the LAN IP Address of your router here (192.168.0.1).

Click **Add** when finished.

*Step 4* Click on the **DNS Configuration** tab.

Click **Enable DNS**. Type in a **Host** (can be any word). Under DNS server search order, enter the LAN IP Address of your router (192.168.0.1). Click **Add**.

*Step 5* Click **OK** twice.

When prompted to reboot your computer, click **Yes**.
After you reboot, the computer will now have a static, private IP Address.

**Step 5** Access the Web management. Open your Web browser and enter the IP Address of your D-Link device in the address bar. This should open the log-in page for the web management. Follow instructions to log in and complete the configuration.
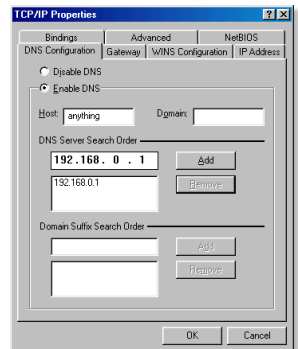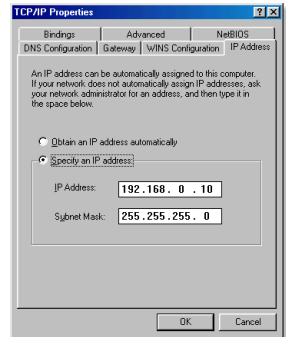
# Frequently Asked Questions (continued)

> ## How can I setup my DI-824VUP to work with a cable modem connection?

## Dynamic Cable connection

(*i.e.* Cox, Adelphia, Rogers, Roadrunner, Charter, and Comcast).

**Note:** Please configure the router with the computer that was last connected directly to the cable modem.

**Step 1** Log into the Web based configuration by typing in the IP Address of the router (default:192.168.0.1) in your web browser. The username is **admin** (all lowercase) and the password is **blank** (nothing).

**Step 2** Click the **Home** tab and click the **WAN** button. Dynamic IP address is the default value, however, if Dynamic IP address is not selected as the WAN type, select Dynamic IP address by clicking on the radio button. Click **Clone Mac address**. Click on **Apply** and then **Continue** to save the changes.
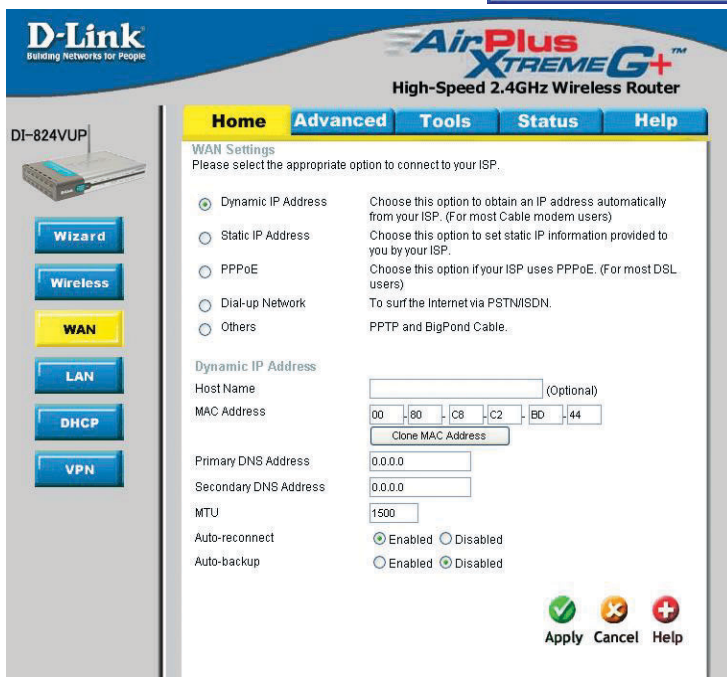
# Frequently Asked Questions (continued)

**How can I setup my DI-824VUP to work with a cable modem connection? (continued)**

**Step 3** Power cycle the cable modem and router:

First turn the cable modem off. Then turn the router off Leave them off for 2 minutes.** Next turn the cable modem on. Wait until you get a solid cable light on the cable modem, and then turn the router on. Wait 30 seconds.

** If you have a DCM-201modem, leave off for at least 5 minutes.

**Step 4** Follow step 1 again and log back into the web configuration. Click the **Status** tab and click the **Device Info** button. If you do not already have a public IP Address under the **WAN** heading, click on the **DHCP Renew** and **Continue** buttons.

## Static Cable Connection

**Step 1** Log into the Web-based configuration by typing in the IP address of the router (default:192.168.0.1) in your Web browser. The username is **admin** (all lowercase) and the password is blank (empty).

**Step 2** Click the **Home** tab and click the **WAN** button. Select **Static IP Address** and enter your static settings obtained from the ISP in the fields provided.

If you do not know your settings, you must contact your ISP.
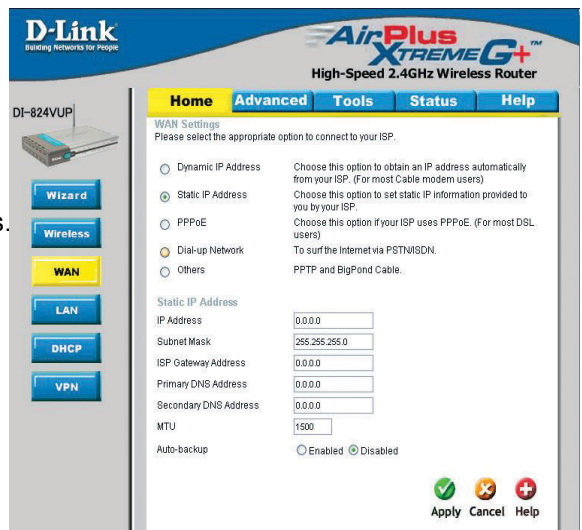
**Step 3** Click on **Apply** and then click **Continue** to save the changes.

**Step 4** Click the **Status** tab and click the **Device Info** button. Your IP Address information will be displayed under the **WAN** heading.

# Frequently Asked Questions (continued)

> ## How can I setup my DI-824VUP to work with Earthlink DSL or any PPPoE connection?

Make sure you disable or uninstall any PPPoE software such as WinPoet or Enternet 300 from your computer or you will not be able to connect to the Internet.

**Step 1** Upgrade Firmware if needed.

(Please visit the D-Link tech support website at: http://support.dlink.com for the latest firmware upgrade information.)

**Step 2** Take a paperclip and perform a hard reset. With the unit on, use a paperclip and hold down the reset button on the back of the unit for 10 seconds. Release it and the router will recycle, the lights will blink, and then stabilize.

**Step 3** After the Router stabilizes, open your browser and enter 192.168.0.1 into the address window and hit the **Enter** key. When the password dialog box appears, enter the username **admin** and leave the password blank. Click **OK**.

If the password dialog box does not come up repeat **Step 2**.

**Note:** Do not run Wizard.

**Step 4** Click on the **WAN** tab on left-hand side of the screen. Select **PPPoE**.

**Step 5** Select **Dynamic PPPoE** (unless your ISP supplied you with a static IP Address).

**Step 6** In the username field enter **ELN/username@earthlink.net** and your password, where username is your own username.

For SBC Global users, enter **username@sbcglobal.net**.
For Ameritech users, enter **username@ameritech.net**.
For BellSouth users, enter **username@bellsouth.net**.
For Mindspring users, enter **username@mindspring.com.**
For most other ISPs, enter **username**.

**Step 7** **Maximum Idle Time** should be set to zero. Set **MTU** to 1492, unless specified by your ISP, and set **Autoreconnect** to **Enabled**.

**Note:** If you experience problems accessing certain websites and/or email issues, please set the MTU to a lower number such as 1472, 1452, etc. Contact your ISP for more information and the proper MTU setting for your connection.

# Frequently Asked Questions (continued)

> **How can I setup my DI-824VUP to work with Earthlink DSL or any PPPoE connection? (continued)**

**Step 8** Click **Apply**. When prompted, click **Continue**. Once the screen refreshes, unplug the power to the D-Link Router.

**Step 9** Turn off your DSL modem for 2-3 minutes. Turn back on. Once the modem has established a link to your ISP, plug the power back into the D-Link Router. Wait about 30 seconds and log back into the router.

**Step 10** Click on the **Status** tab in the web configuration where you can view the device info. Under **WAN**, click **Connect**. Click **Continue** when prompted. You should now see that the device info will show an IP Address, verifying that the device has connected to a server and has been assigned an IP Address.

> **Can I use my DI-824VUP to share my Internet connection provided by AOL DSL Plus?**

In most cases yes. AOL DSL Plus may use PPPoE for authentication bypassing the client software. If this is the case, then our routers will work with this service. Please contact AOL if you are not sure.

**To set up your router:**

**Step 1** Log into the Web-based configuration (192.168.0.1) and configure the WAN side to use PPPoE.

**Step 2** Enter your screen name followed by @aol.com for the user name. Enter your AOL password in the password box.

**Step 3** You will have to set the MTU to 1400. AOL DSL does not allow for anything higher than 1400.

**Step 4** Apply settings.

**Step 5** Recycle the power to the modem for 1 minute and then recycle power to the router. Allow 1 to 2 minutes to connect.

If you connect to the Internet with a different Internet Service Provider and want to use the AOL software, you can do that without configuring the router's firewall settings. You need to configure the AOL software to connect using TCP/IP.

Go to http://www.aol.com for more specific configuration information of their software.

# Frequently Asked Questions (continued)

**I have two DI-824VUP Routers, how can I set them up to work with each other?**

**Step 1** Log into the web based configuration of the router by typing in the IP address of the router (default: 192.168.0.1) in your web browser. By default the username is **admin** and there is no password.



**Step 2** Click the **VPN** button on the left column, select the checkbox to Enable the VPN, and then in the box next to Max. number of tunnels, enter the maximum numbers of VPN tunnels that you would like to have connected.



**Step 3** In the space provided, enter the Tunnel Name for ID number 1, select IKE, and then click More.
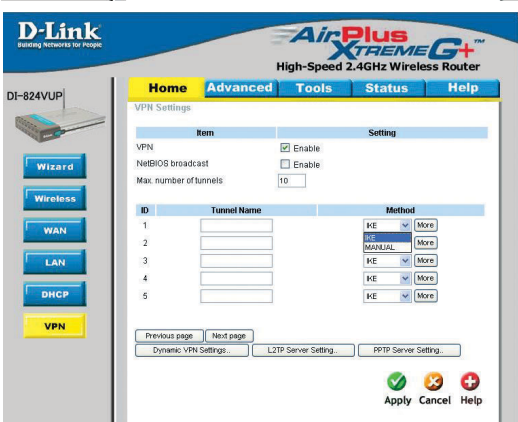
# Frequently Asked Questions (continued)

**I have two DI-824VUP Routers, how can I set them up to work with each other?(continued)**

**Step 4** In the **Local Subnet** and **Local Netmask** fields enter the network identifier for the local DI-824VUP´s LAN and the corresponding subnet mask.



**Step 5** In the **Remote Subnet** and **Remote Netmask** fields enter the network identifier for the remote DI-824VUP´s LAN and the corresponding subnet mask.



**Step 6** In the **Remote Gateway** field enter the WAN IP address of the remote DI-824VUP and in the **Preshare Key** field, enter a key which must be exactly the same as the Preshare Key that is configured on the remote DI-824VUP.

**Step 7** Click Apply.