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)

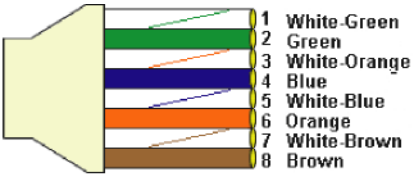
Rule of Thumb:
”If there is a link light, the cable is right.”

Why can´t I access the Web-based configuration? (continued)

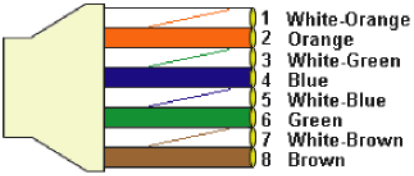
What type of cable should I be using? (continued)

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.



568A CABLE END



568B CABLE END

**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.

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:

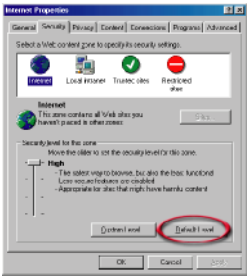
Computer to Computer – Crossover
Computer to an normal port on a Hub/Switch – Straight-through
Computer to an uplink port on a Hub/Switch – Crossover
Hub/Switch uplink port to another Hub/Switch uplink port – Crossover
Hub/Switch uplink port to another Hub/Switch normal port – Straight-through

Why can´t I access the Web-based configuration? (continued)

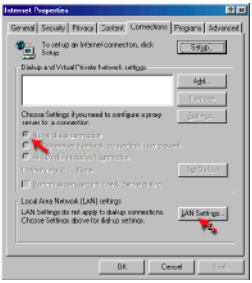
Step 2 Disable any Internet security software running on the computer. Software firewalls like Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, etc. might block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring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

Step 3 Configure your Internet settings.

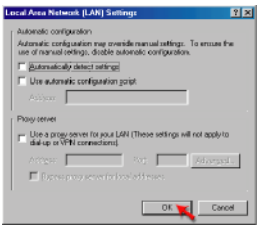
Go to **Start > Settings > Control Panel**. Double click the **Internet Options** Icon. From the **Security** tab, click the **Default Level** button to restore the settings to their defaults.



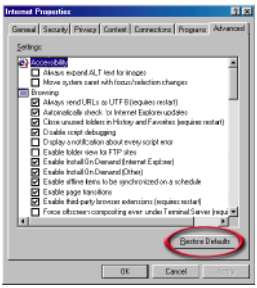
Click to the **Connection** tab and set the dial-up option to **Never Dial a Connection**. Click the **LAN Settings** button.



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.

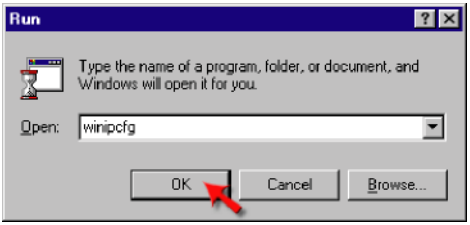
Why can´t I access the Web-based configuration? (continued)

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?

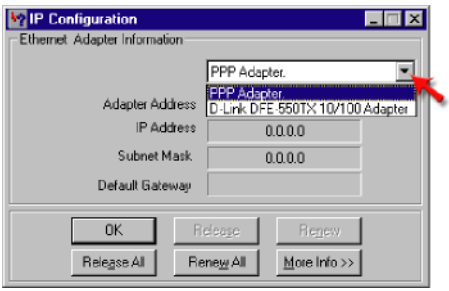
Step 1 Click on **Start**, then click on **Run**.

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

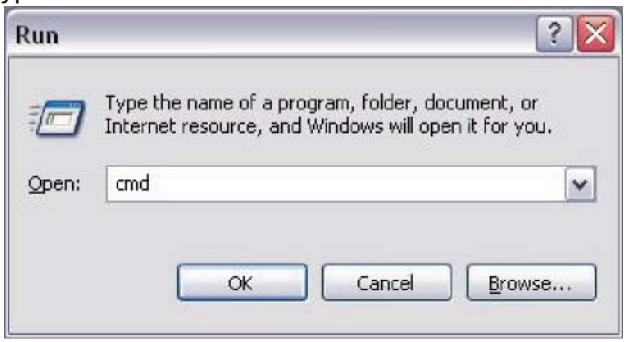
Why can´t I access the Web-based configuration? (continued)

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.

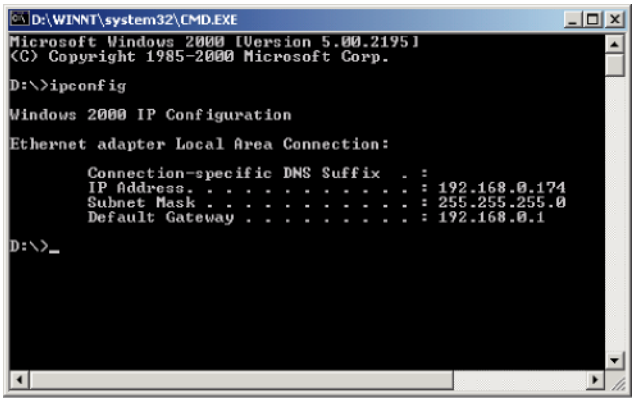
How can I find my IP Address in Windows 2000/XP?

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



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

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?

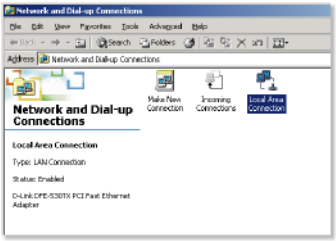
Step 1
Click on **Start > Control Panel > Network and Internet Connections > Network connections**.

Step 2 See Step 2 for Windows 2000 and continue from there.

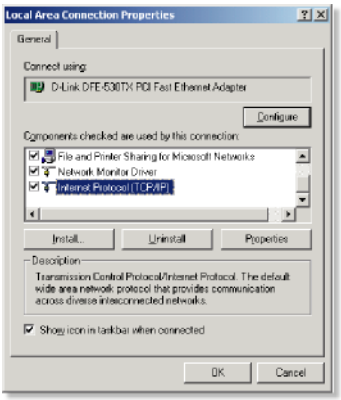
How can I assign a Static IP Address in Windows 2000?

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**.



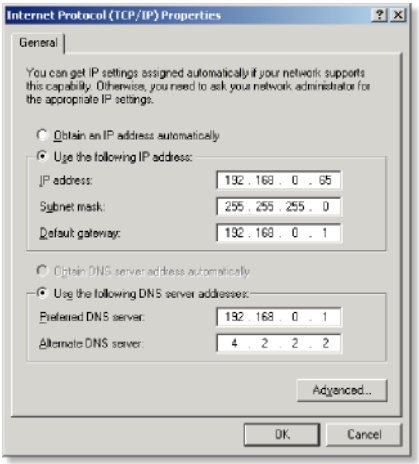
Highlight **Internet Protocol (TCP/IP)** and click **Properties.**



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.



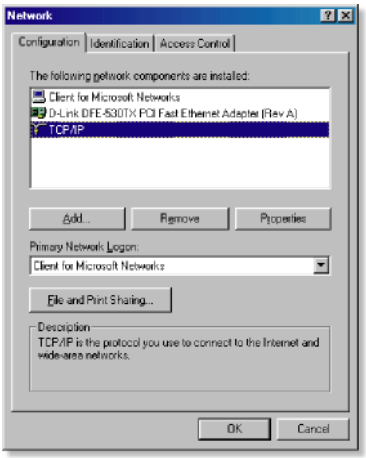
Set the **Default Gateway** to be the same as the LAN IP address of your router (192.168.0.1).

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**

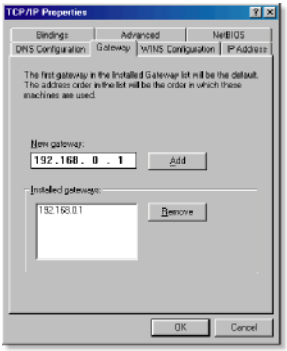
Highlight **TCP/IP** and click the **Properties** button. If you have more than one adapter, then there will be a TCP/IP "Binding" for each adapter. Highlight **TCP/IP > (your network adapter)** and then click **Properties**.

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**.

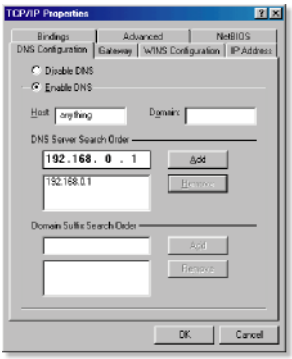
Enter in an IP Address that is on the same subnet as the LAN IP Address on your router. Example: If the router´s LAN IP Address is 192.168.0.1, make your IP Address 192.168.0.X where X is between 2-99. Make sure that the number you choose is not in use on the network.



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.

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

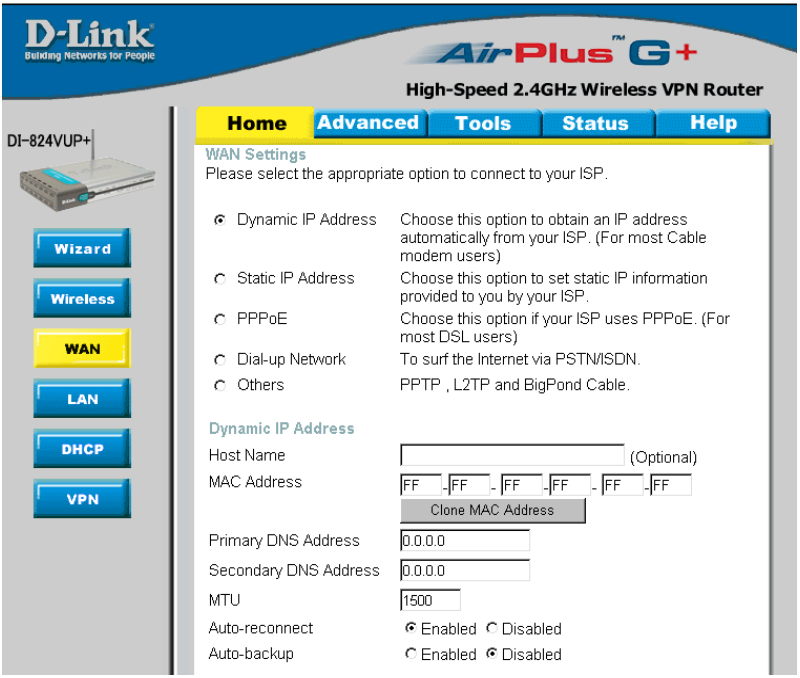
Dynamic Cable connection

(*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.



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.

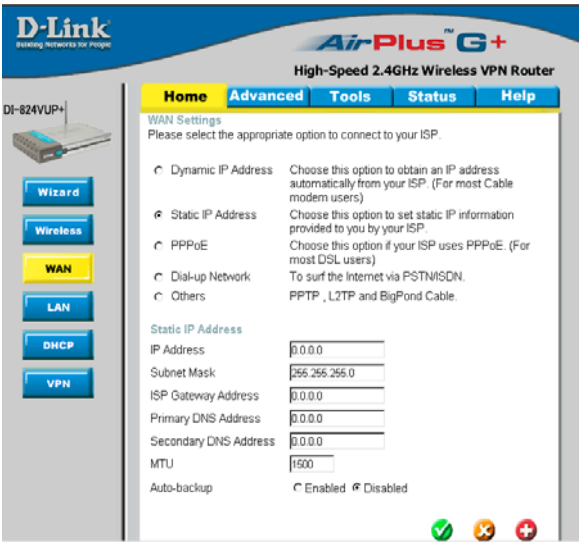
Step 4 Follow step 1 again and log back into the web configuration. Click the **Status** tab and click the **Device Info** button. If you do not already have a public IP Address under the **WAN** heading, click on the **DHCP Renew** and **Continue** buttons.

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.

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.

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.

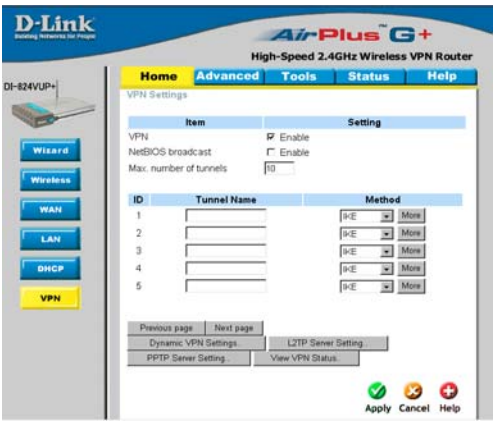
If you connect to the Internet with a different Internet Service Provider and want to use the AOL software, you can do that without configuring the router's firewall settings. You need to configure the AOL software to connect using TCP/IP.

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

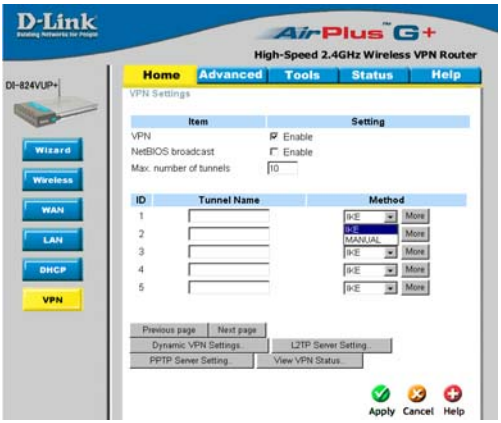
I have two DI-824VUP Routers, how can I set them up to work with each other?

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.

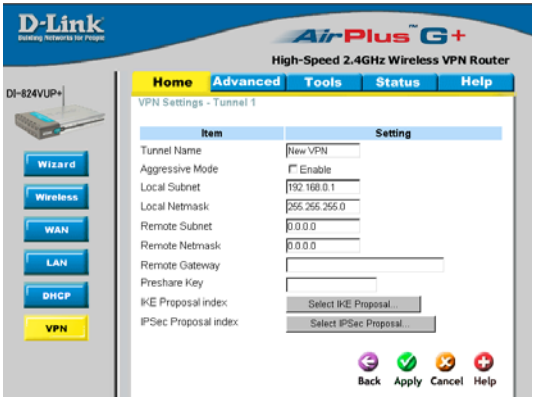


Step 3 In the space provided, enter the Tunnel Name for ID number 1, select IKE, and then click More.

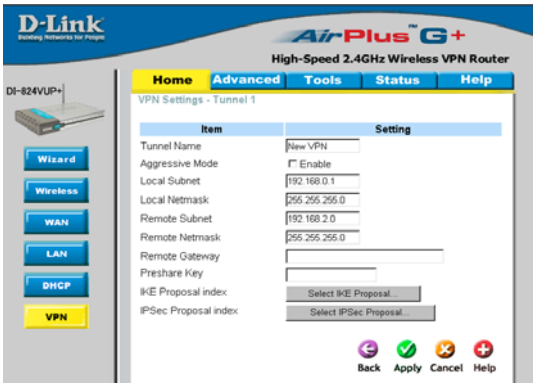


I have two DI-824VUP Routers, how can I set them up to work with each other?(continued)

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.

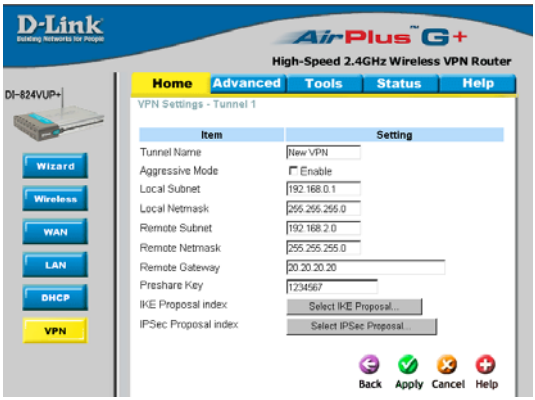


Step 5 In the **Remote Subnet** and **Remote Netmask** fields enter the network identifier for the remote DI-824VUP´s LAN and the corresponding subnet mask.



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.

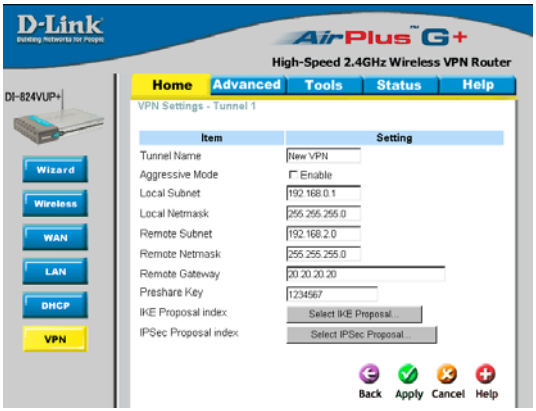
Step 7 Click Apply.



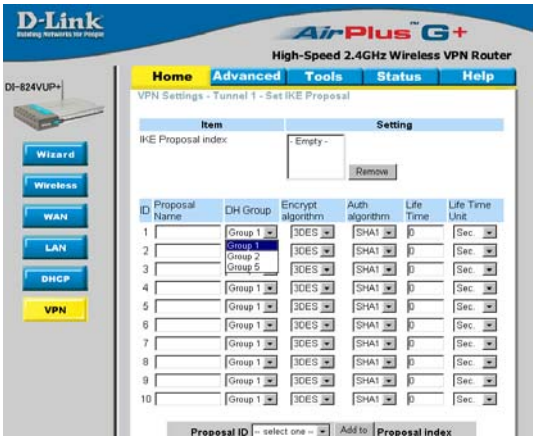
I have two DI-824VUP Routers, how can I set them up to work with each other? (continued)

Step 8 The device will restart. Click on the Continue button.

Step 9 Click on Select IKE Proposal.

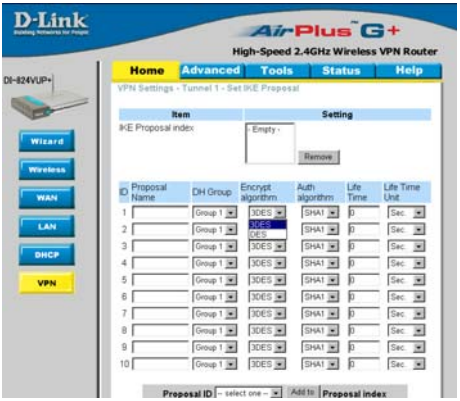


Step 10 Enter a name for proposal ID number 1 and select Group 1, 2, or 5 from the DH Group dropdown menu.

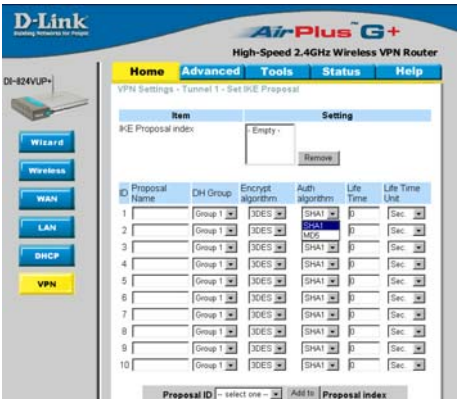


I have two DI-824VUP Routers, how can I set them up to work with each other? (continued)

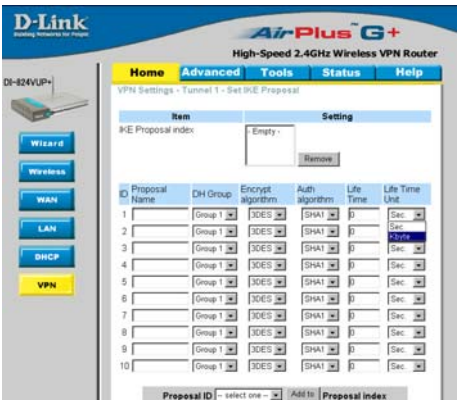
Step 11 Select DES or 3DES as the Encryption Algorithm.



Step 12 Select SHA-1 or MD5 as the Authentication Algorithm.

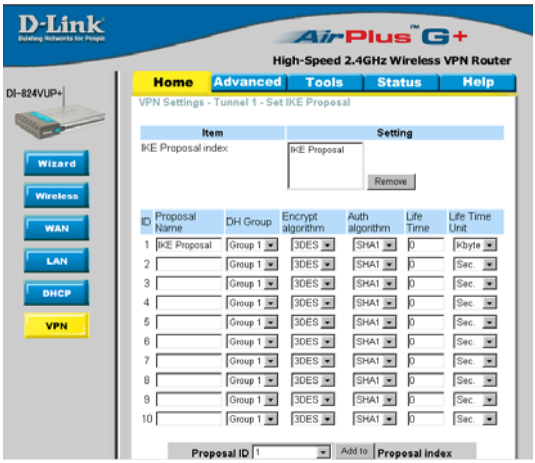


Step 13 Enter a Lifetime value of 2800 and then either select Sec. or KByte as the unit for the lifetime value.

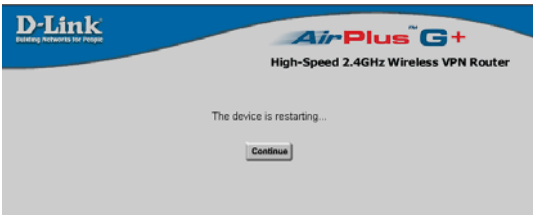


I have two DI-808HV Routers,how can I set them up to work with each other? (continued)

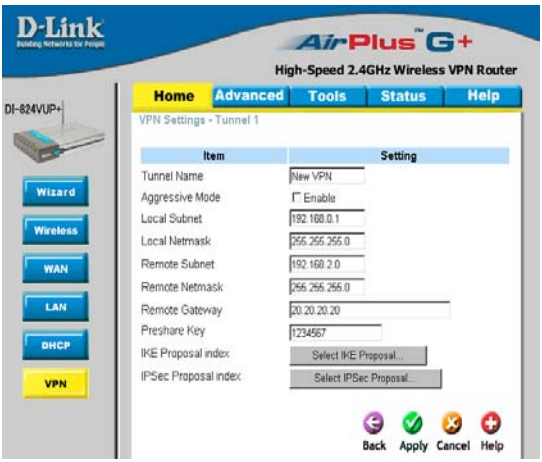
Step 14 Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IKE Proposal Index. Click Apply.



Step 15 The device will restart. Click on the Continue button.Then click Back.

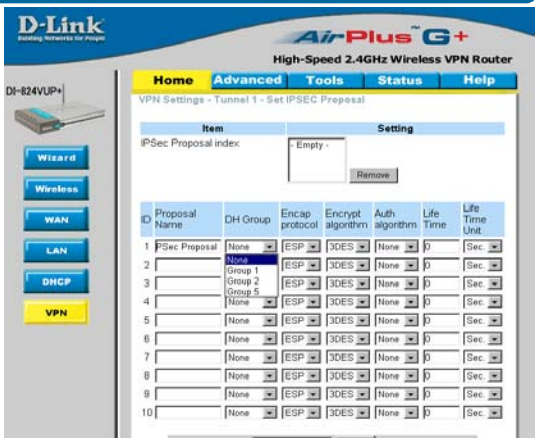


Step 16 Click on Select IPSec Proposal.

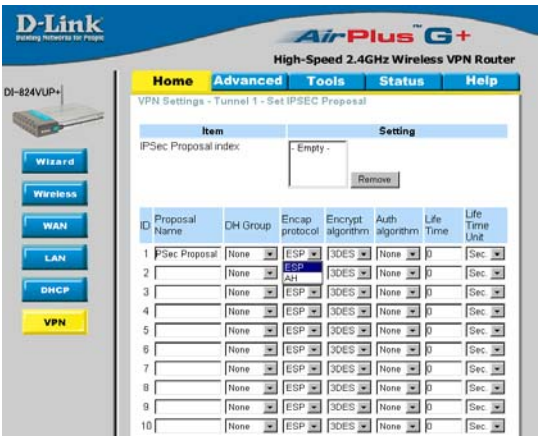


I have two DI-824VUP Routers, how can I set them up to work with each other?(continued)

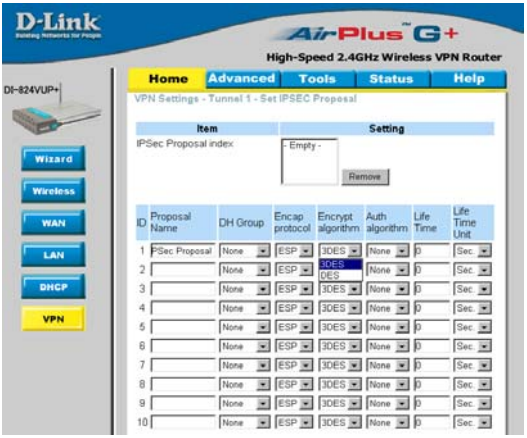
Step 17 Enter a name for proposal ID number 1 and select Group 1, 2, 5, or None from the DH Group dropdown menu.



Step 18 Select ESP or AH as the Encapsulation Protocol.

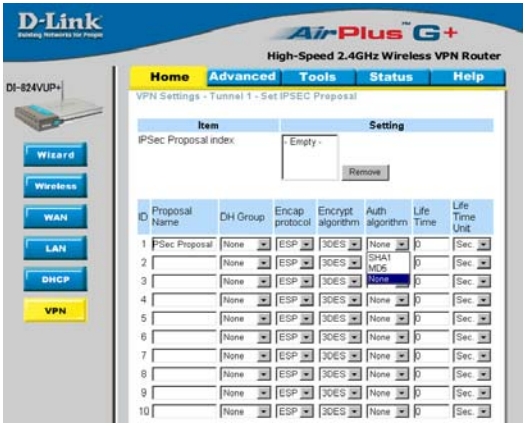


Step 19 Select DES or 3DES as the Encryption Algorithm.

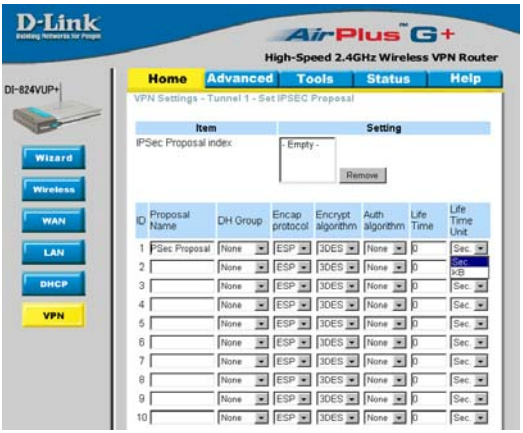


I have two DI-824VUP Routers, how can I set them up to work with each other? (continued)

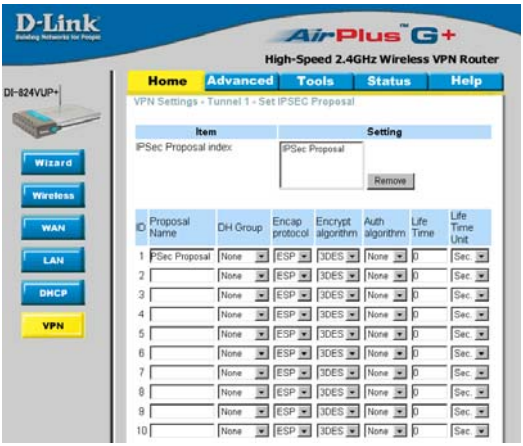
Step 20 Select SHA-1, MD5, or None as the Authentication Algorithm.



Step 21 Enter a Lifetime value and then either select Sec. or KB as the unit for the lifetime value.



Step 22 Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IPSec Proposal Index. Click Apply and the device will restart.



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

Step 23 Follow these instructions to configure your other DI-824VUP using the exact same settings for the IKE Proposal and the IPSec Proposal. Also make sure that Step 4 is configured to reflect the LAN settings for what is now the Local DI-824VUP and that Steps 5 & 6 are configured to reflect the Subnet and WAN IP of what is now the remote DI-824VUP.

Step 24 To establish the connection, open a command prompt and ping an IP address of a computer on the remote LAN. Once you receive replies the tunnel has been established.

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router?

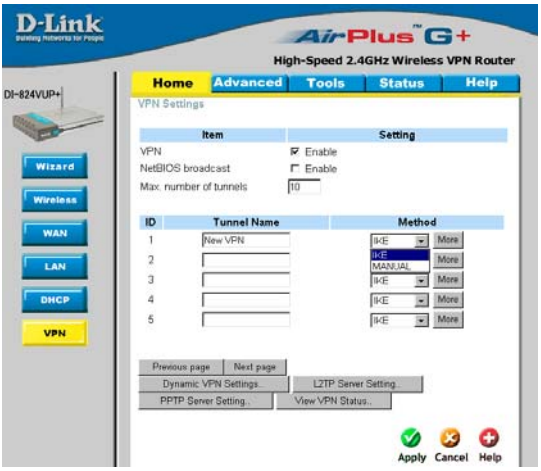
You need to first configure your DI-824VUP router.

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.

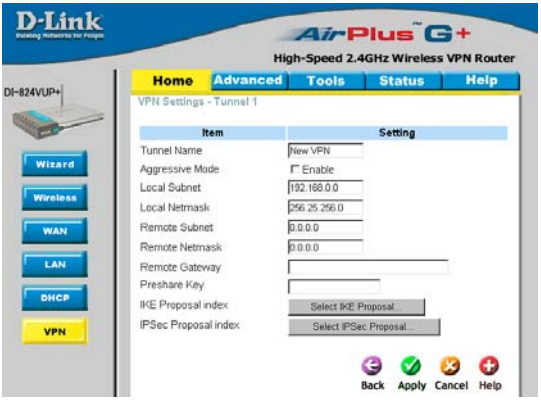
Step 2 Click the VPN button on the left column, select the checkbox to Enable the VPN, and then in the box next to Max. number of tunnels, enter the maximum numbers of VPN tunnels that you would like to have connected.

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 3 In the space provided, enter the Tunnel Name for ID number 1, select IKE, and then click More.



Step 4 In the **Local Subnet** and **Local Netmask** fields enter the network identifier for 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 DI-804V or DI-804HV's LAN and the corresponding subnet mask. Click Apply.

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 6 The device will restart. Click on the Continue button.

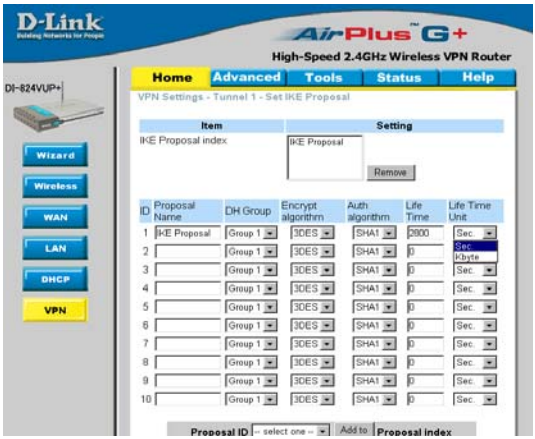
Step 7 In the **Remote Gateway** field enter the WAN IP address of the remote DI-804V or DI-804HV and in the **Preshare Key** field, enter a key which must be exactly the same as the Preshare Key that is configured on the DI-804V or DI-804HV.

Step 8 Click Apply and then click on Select IKE Proposal.

Step 9 Enter a name for proposal ID number 1 and select Group 2 from the DH Group drop down menu.

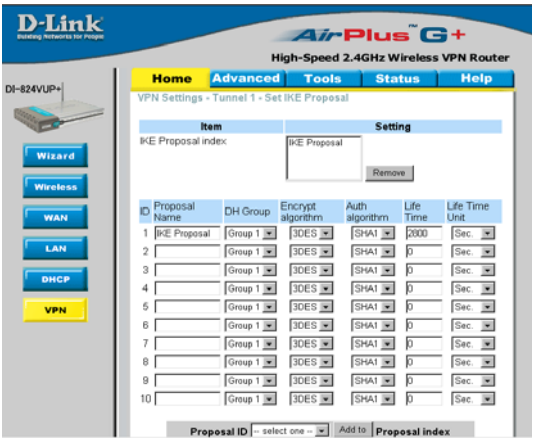
Step 10 Select 3DES as the Encryption Algorithm and SHA-1 as the Authentication Algorithm.

Step 11 Enter a Lifetime value of 28800 and then select Sec. as the unit for the lifetime value.



How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 12 Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IKE Proposal Index. Click Apply.

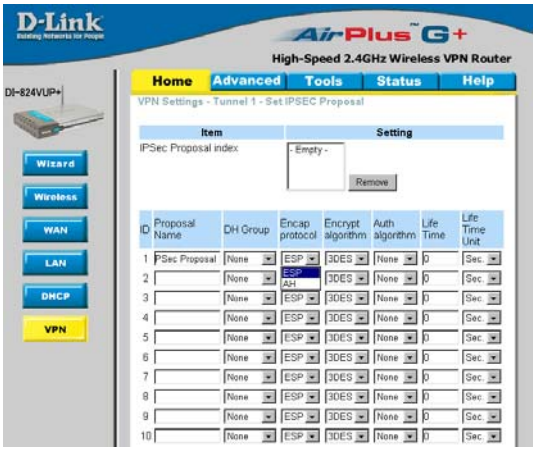


Step 13 The device will restart. Click on the Continue button.

Step 14 Click Back and click on Select IPSec Proposal.

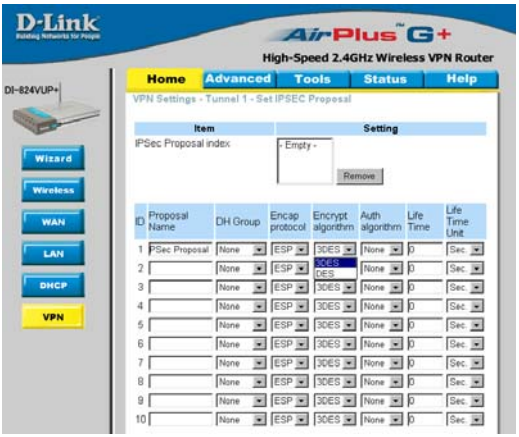
Step 15 Enter a name for proposal ID number 1 and select None from the DH Group drop-down menu.

Step 16 Select ESP as the Encapsulation Protocol.

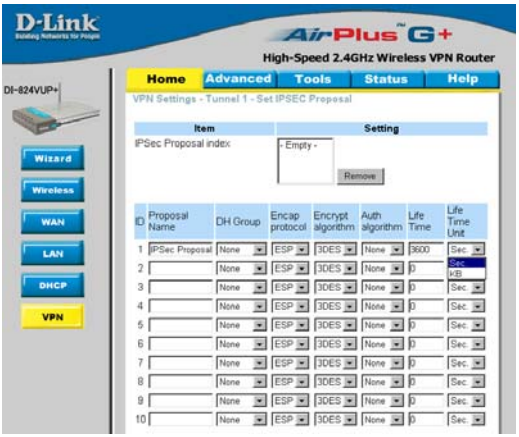


How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

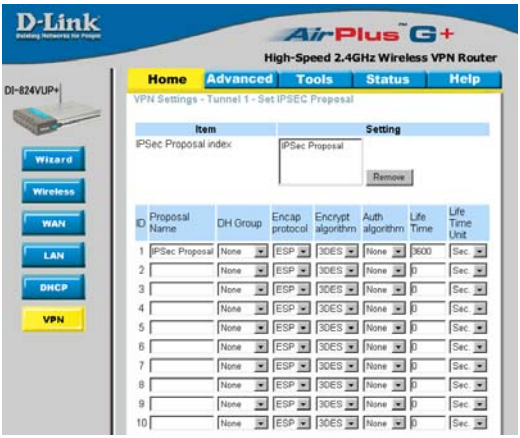
Step 17 Select 3DES as the Encryption Algorithm and MD5 as the Authentication Algorithm. Click Apply.



Step 18 Enter a Lifetime value of 3600 and then select Sec. as the unit for the lifetime value.



Step 19 Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IPSec Proposal Index. Click Apply. The device will restart. Click on the Continue button.



How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Next you need to configure the DI-804V or DI-804HV Router.

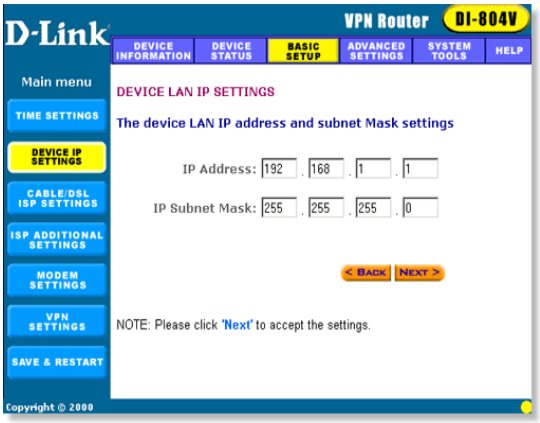
Step 1 Access the router's web configuration by entering the router's IP address in your web browser. The default IP address is 192.168.0.1. Login using your password. The default username is "admin" and the password is blank.

Step 2 Click on Basic Setup and then select Device IP Settings on the left.

Step 3 Change the LAN IP address so that it is on a different subnet than the LAN of the DI-824VUP.

Step 4 Click Next until you reach the Save & Restart screen. Click Save & restart and then click Basic Setup once until the unit has rebooted.

Step 5 Click on VPN Settings.



Step 6 Name your VPN connection and click ADD.

Step 7 In Remote IP Network and Remote IP Netmask fields enter the network identifier and corresponding subnet mask of the DI-824VUP´s LAN.

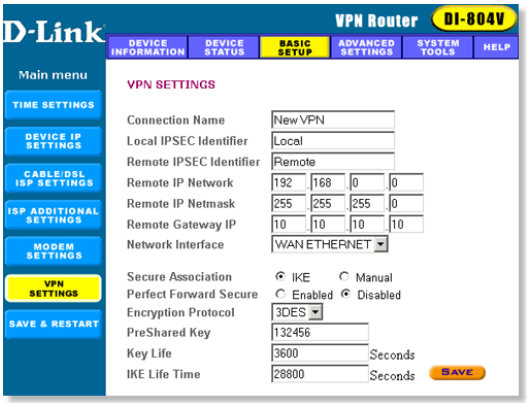
Step 8 In the Remote Gateway IP field enter the WAN IP address of the DI-824VUP and make sure that the Network Interface is set to WAN Ethernet.

Step 9 Verify that Secure Association is set to IKE and that Perfect Forward Secure is Disabled.

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV Router? (continued)

Step 10 Verify the Encryption Protocol is set to 3DES and enter in your Preshared Key.

Note: The Preshared Key needs to be identical to the one configured on the DI-824VUP.



Step 11 Leave the Key Life and IKE Life Time values at their default levels and click SAVE.

Step 12 Click Next and then click on Save & Restart.

After you have configured both routers, you need to establish a connection.

Step 1 Open a command prompt and from a computer on the internal LAN of the DI-824VUP and ping the IP address of a computer that is on the internal LAN of the DI-804V or DI-804HV, or vice versa.

```
D:\>ipconfig

Windows 2000 IP Configuration

Ethernet adapter Local Area Connection 10:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . . : 192.168.1.2
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 192.168.1.1

D:\>ping 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:

Reply from 192.168.0.100: bytes=32 time=10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum =  10ms, Average =  2ms
```

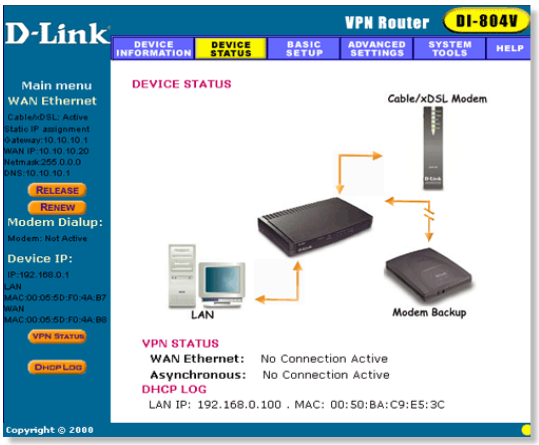
Step 2 Once you begin to receive replies, the VPN connection has been established.

How can I set up my DI-824VUP to work with a DI-804V or DI-804HV router? (continued)

Step 3 To view the Status of the VPN on the DI-804V or DI-804HV, click on Device Status.

Step 4 From the Device Status screen click on VPN Status.

Step 5 When the VPN has been established the Status will be Active.



How can I set up my DI-824VUP to work with a DFL-300 Firewall?

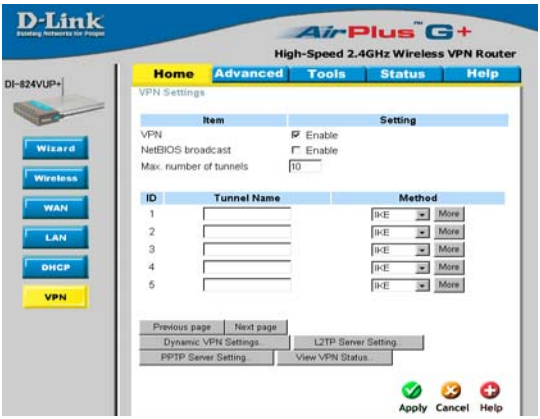
You need to first configure your DI-824VUP router.

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.

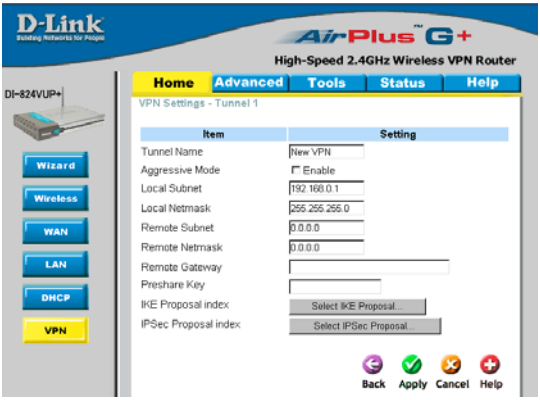
Step 2 Click the VPN button on the left column, select the checkbox to Enable the VPN, and then in the box next to Max. number of tunnels, enter the maximum numbers of VPN tunnels that you would like to have connected.

How can I set up my DI-824VUP to work with a DFL-300 Firewall? (continued)

Step 3 In the space provided, enter the Tunnel Name for ID number 1, select IKE, and then click More.



Step 4 In the **Local Subnet** and **Local Netmask** fields enter the network identifier for 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 DFL-300´s Internal interface and the corresponding subnet mask.

How can I set up my DI-824VUP to work with a DFL-300 Firewall? (continued)

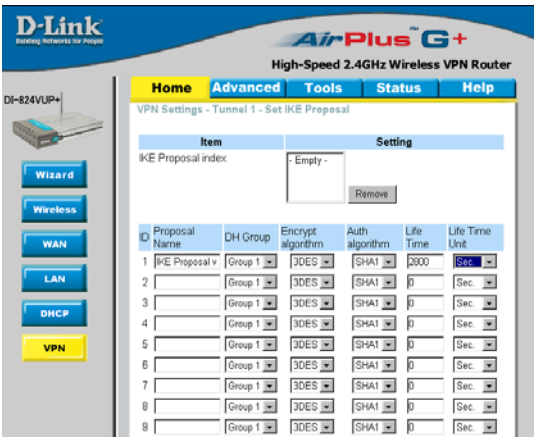
Step 6 In the Remote Gateway field enter the WAN IP address of the remote DFL-300 and in the Preshared Key field, enter a key which must be exactly the same as the Preshared Key that is configured on the DFL-300.

Step 7 Click Apply. The device will restart. Click on the Continue button and then click on Select IKE Proposal.

Step 8 Enter a name for proposal ID number 1 and select Group 2 from the DH Group dropdown menu.

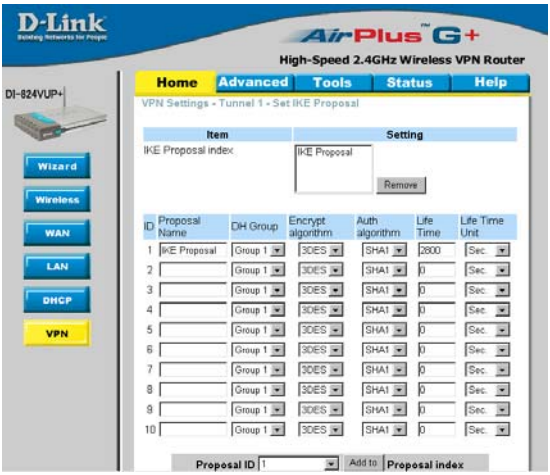
Step 9 Select 3DES as the Encryption Algorithm and SHA-1 as the Authentication Algorithm.

Step 10 Enter a Lifetime value of 28800 and then select Sec. as the unit for the lifetime value.



How can I set up my DI-824VUP to work with a DFL-300 Firewall? (continued)

Step 11 Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IKE Proposal Index. Click Apply. The device will restart. Click on the Continue button and then click Back.



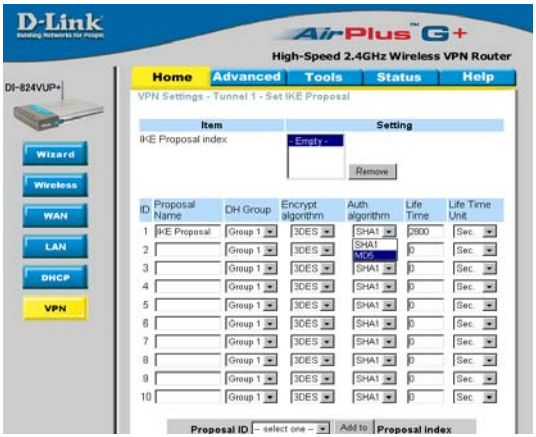
Step 12 Click on Select IPSec Proposal.

Step 13 Enter a name for proposal ID number 1 and select None from the DH Group dropdown menu.

Step 14 Select ESP as the Encapsulation Protocol.

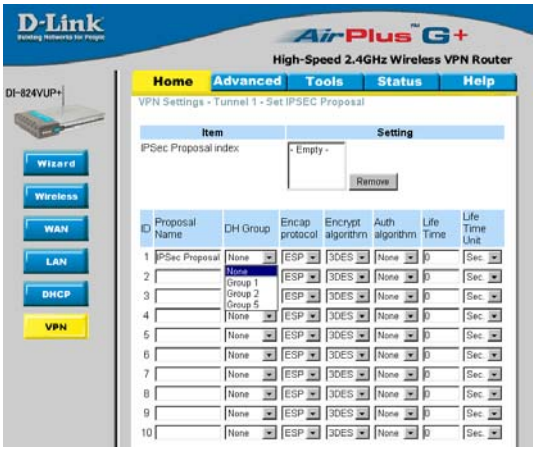
Step 15 Select 3DES as the Encryption Algorithm and MD5 as the Authentication Algorithm.

Step 16 Enter a Lifetime value of 28800 and then select Sec. as the unit for the lifetime value.



How can I set up my DI-824VUP to work with a DFL-300 Firewall? (continued)

Step 17 Select 1 out of the Proposal ID dropdown menu and click Add To, which will add the proposal that was just configured to the IPSec Proposal Index. Click Apply and then click Restart.



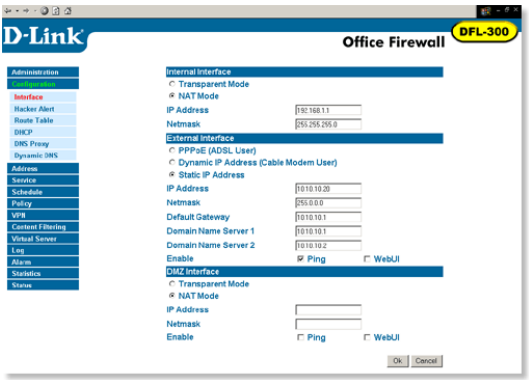
Step 18 The device will restart. Click on the Continue button.

Next you need to configure the DFL-300 firewall.

Step 1 Access the configuration screen of the DFL-300 by opening a web browser such as Internet Explorer and type the IP address of the DFL-300 in the address bar (192.168.1.1).

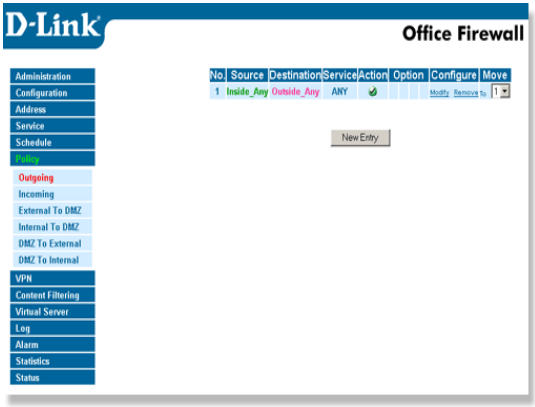
Step 2 Enter the username (admin) and the password (admin). Click OK.

Step 3 Click on Configuration and take note of the IP address that your ISP has assigned you.



How can I set up my DI-824VUP to work with a DFL-300 Firewall? (continued)

Step 4 Click on Policy and verify that you have an Outgoing policy configured. If not, click on New Entry, accept the default values, and click OK.



Step 5 Click on VPN and then click New Entry.

Step 6 Give the VPN connection a name with no spaces.

Step 7 Enter the network identifier and subnet mask of the Internal interface.

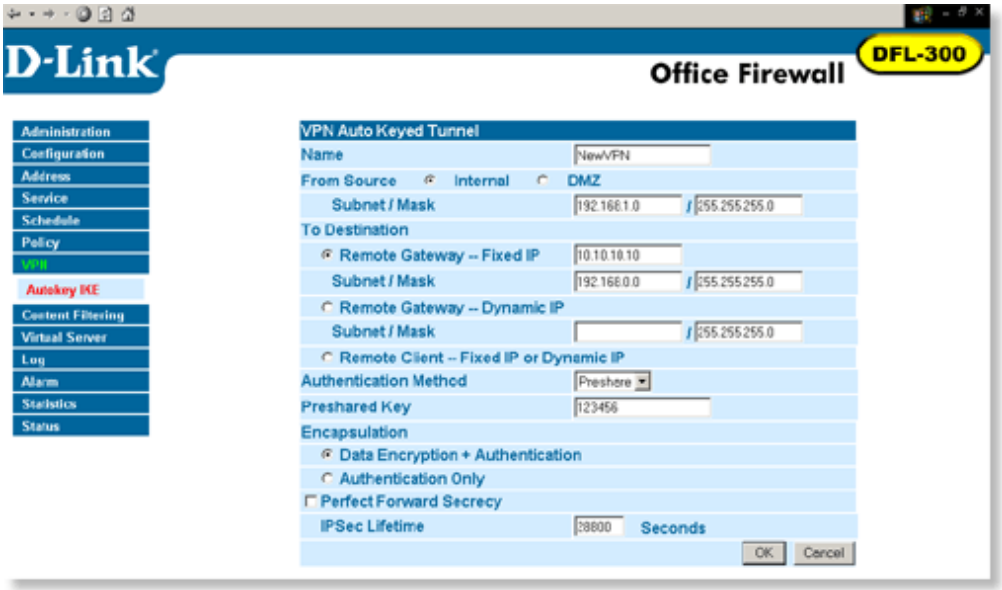
Step 8 In the To Destination section, select either Remote Gateway—Fixed IP or Remote Gateway—Dynamic IP. Enter the WAN IP address of the DI-824VUP if Remote Gateway—Fixed IP is selected.

Step 9 Enter the network identifier corresponding subnet mask of the DI-824VUP´s LAN.

Step 10 Enter a Preshared Key. The Preshared Key needs to be identical to the one configured on the DI-824VUP.

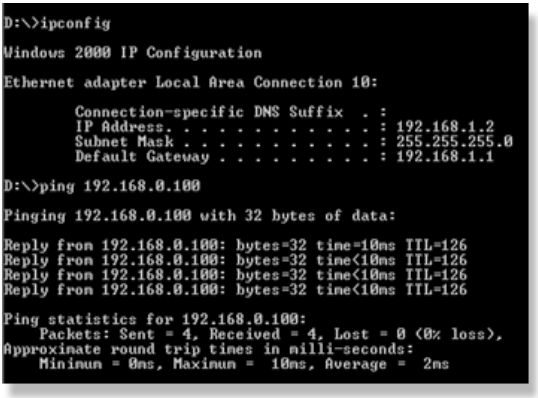
Step 11 Select Data Encryption and Authentication as the Encapsulation and click OK.

How can I set up my DI-824VUP to work with a DFL-300 Firewall? (continued)



After you have configured both the router and firewall, you need to establish a connection.

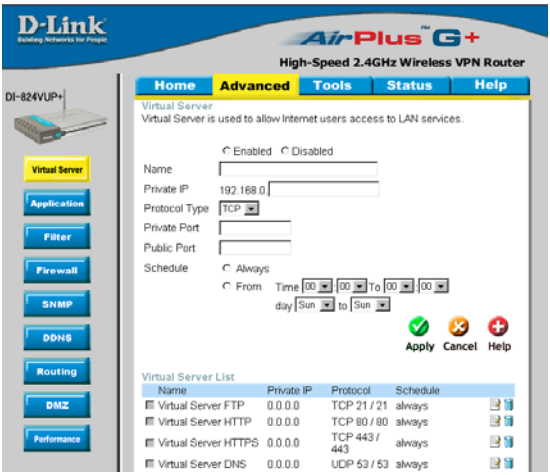
Step 1 Open a command prompt and from a computer connected to the Internal interface of the DFL-300 and ping the IP address of a computer that is on the internal LAN of the DI-824VUP, or vice versa.



```
D:\>ipconfig

Windows 2000 IP Configuration

Ethernet adapter Local Area Connection 10:

        Connection-specific DNS Suffix  . :
        IP Address. . . . . . . . . . . . : 192.168.1.2
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 192.168.1.1

D:\>ping 192.168.0.100

Pinging 192.168.0.100 with 32 bytes of data:

Reply from 192.168.0.100: bytes=32 time=10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126
Reply from 192.168.0.100: bytes=32 time<10ms TTL=126

Ping statistics for 192.168.0.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum =  10ms, Average =  2ms
```

Step 2 Once you begin to receive replies, the VPN connection has been established.

How do I open ports on my DI-824VUP?



To allow traffic from the internet to enter your local network, you will need to open up ports or the router will block the request.

Step 1 Open your Web browser and enter the IP Address of your D-Link router (192.168.0.1). Enter username (admin) and your password (blank by default).

Step 2 Click on **Advanced** on top and then click **Virtual Server** on the left side.

Step 3 Check **Enabled** to activate entry.

Step 4 Enter a name for your virtual server entry.

Step 5 Next to **Private IP**, enter the IP Address of the computer on your local network that you want to allow the incoming service to.

Step 6 Choose **Protocol Type** - either TCP, UDP, or both. If you are not sure, select both.

Step 7 Enter the port information next to **Private Port** and **Public Port**. The private and public ports are usually the same. The public port is the port seen from the WAN side, and the private port is the port being used by the application on the computer within your local network.

Step 8 Enter the **Schedule** information.

Step 9 Click **Apply** and then click **Continue**.

Note: Make sure DMZ host is disabled. If DMZ is enabled, it will disable all Virtual Server entries.

Because our routers use NAT (Network Address Translation), you can only open a specific port to one computer at a time. For example: If you have 2 web servers on your network, you cannot open port 80 to both computers. You will need to configure 1 of the web servers to use port 81. Now you can open port 80 to the first computer and then open port 81 to the other computer.

What is DMZ?

Demilitarized Zone:
In computer networks, a DMZ (demilitarized zone) is a computer host or small network inserted as a neutral zone between a company´s private network and the outside public network. It prevents outside users from getting direct access to a server that has company data. (The term comes from the geographic buffer zone that was set up between North Korea and South Korea following the UN police action in the early 1950s.) A DMZ is an optional and more secure approach to a firewall and effectively acts as a proxy server as well.

In a typical DMZ configuration for a small company, a separate computer (or host in network terms) receives requests from users within the private network for access to Web sites or other companies accessible on the public network. The DMZ host then initiates sessions for these requests on the public network. However, the DMZ host is not able to initiate a session back into the private network. It can only forward packets that have already been requested.

Users of the public network outside the company can access only the DMZ host. The DMZ may typically also have the company´s Web pages so these could be served to the outside world. However, the DMZ provides access to no other company data. In the event that an outside user penetrated the DMZ hosts security, the Web pages might be corrupted but no other company information would be exposed. D-Link, a leading maker of routers, is one company that sells products designed for setting up a DMZ

How do I configure the DMZ Host?

The DMZ feature allows you to forward all incoming ports to one computer on the local network. The DMZ, or Demilitarized Zone, will allow the specified computer to be exposed to the Internet. DMZ is useful when a certain application or game does not work through the firewall. The computer that is configured for DMZ will be completely vulnerable on the Internet, so it is suggested that you try opening ports from the Virtual Server or Firewall settings before using DMZ.

Step 1 Find the IP address of the computer you want to use as the DMZ host.

To find out how to locate the IP Address of the computer in Windows XP/2000/ME/9x or Macintosh operating systems please refer to Step 4 of the first question in this section (Frequently Asked Questions).

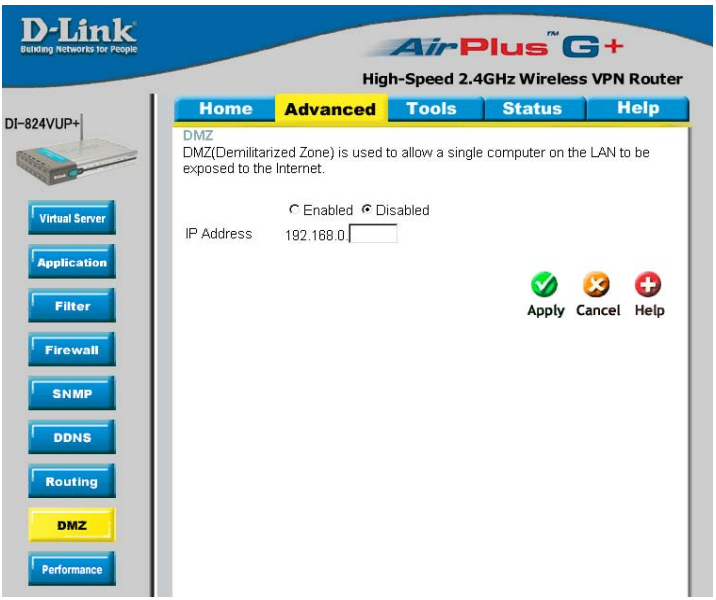
How do I configure the DMZ Host? (continued)

Step 2 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. The username is **admin** (all lowercase) and the password is blank (empty).

Step 3 Click the **Advanced** tab and then click on the **DMZ** button. Select **Enable** and type in the IP Address from step 1.

Step 4 Click **Apply** and then **Continue** to save the changes.

Note: When DMZ is enabled, Virtual Server settings will still be effective. Remember, you cannot forward the same port to multiple IP Addresses, so the Virtual Server settings will take priority over DMZ settings.



How do I open a range of ports on my DI-824VUP using Firewall rules?

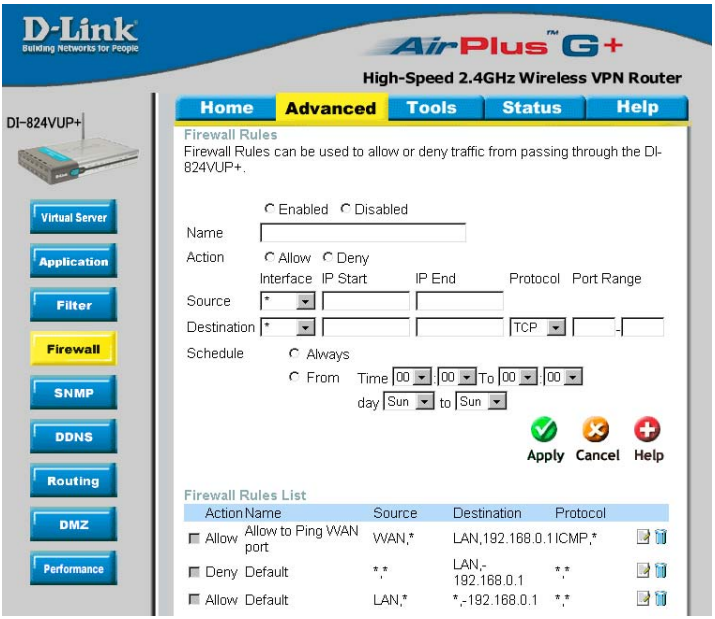
Step 1 Access the router's web configuration by entering the router's IP Address in your web browser. The default IP Address is **192.168.0.1**. Login using your password. The default username is **"admin"** and the password is blank.

If you are having difficulty accessing web management, please see the first question in this section.

Step 2 From the web management Home page, click the **Advanced** tab then click the **Firewall** button.

Step 3 Click on **Enabled** and type in a name for the new rule.

Step 4 Choose **WAN** as the **Source** and enter a range of IP Addresses out on the internet that you would like this rule applied to. If you would like this rule to allow all internet users to be able to access these ports, then put an **Asterisk** in the first box and leave the second box empty.



Step 5 Select **LAN** as the **Destination** and enter the IP Address of the computer on your local network that you want to allow the incoming service to. This will not work with a range of IP Addresses.

Step 6 Enter the port or range of ports that are required to be open for the incoming service.

Step 7 Click **Apply** and then click **Continue**.

Note: Make sure DMZ host is disabled.

Because our routers use NAT (Network Address Translation), you can only open a specific port to one computer at a time. For example: If you have 2 web servers on your network, you cannot open port 80 to both computers. You will need to configure 1 of the web servers to use port 81. Now you can open port 80 to the first computer and then open port 81 to the other computer.

What are virtual servers?

A Virtual Server is defined as a service port, and all requests to this port will be redirected to the computer specified by the server IP. For example, if you have an FTP Server (port 21) at 192.168.0.5, a Web server (port 80) at 192.168.0.6, and a VPN (port 1723) server at 192.168.0.7, then you need to specify the following virtual server mapping table:

Server Port	Server IP	Enable
21	192.168.0.5	X
80	192.168.0.6	X
1723	192.168.0.7	X

How do I use *PC Anywhere* with my DI-824VUP?

You will need to open 3 ports in the Virtual Server section of your D-Link router.

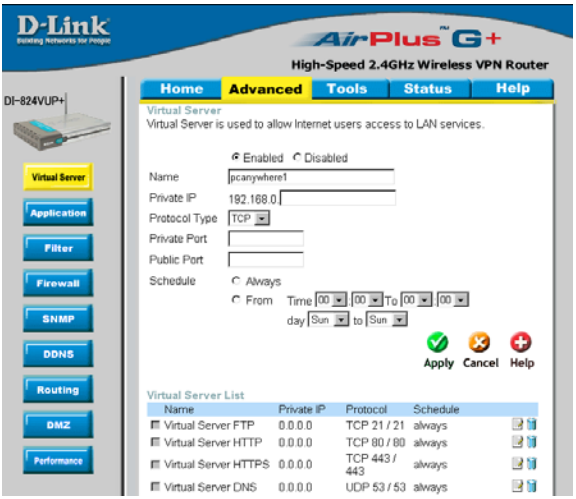
Step 1 Open your web browser and enter the IP Address of the router (192.168.0.1).

Step 2 Click on **Advanced** at the top and then click **Virtual Server** on the left side.

Step 3 Enter the information as seen below. The **Private IP** is the IP Address of the computer on your local network that you want to connect to.

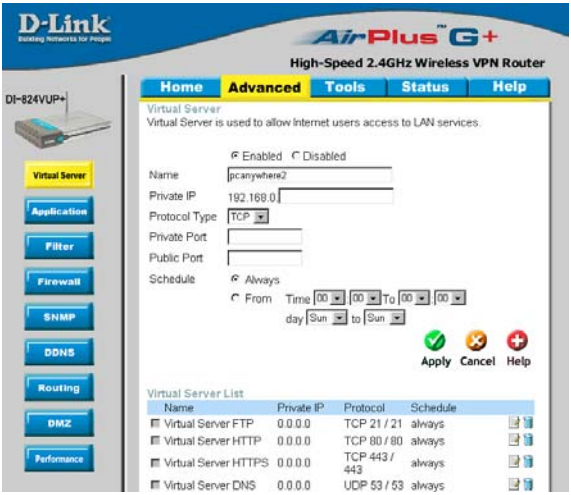
Step 4 The first entry will read as shown here:

Step 5 Click **Apply** and then click **Continue**.



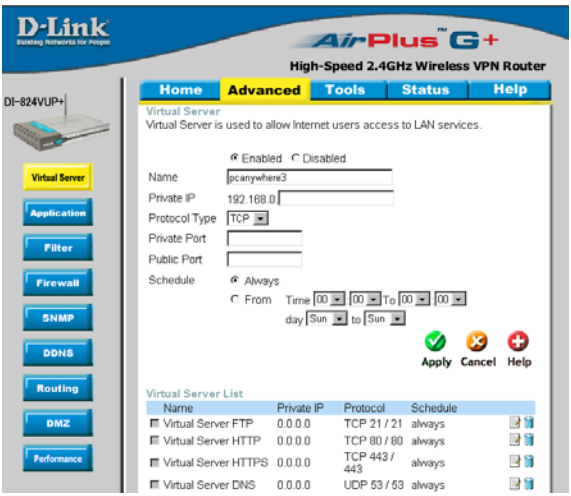
How do I use *PC Anywhere* with my DI-824VU? (continued)

Step 6 Create a second entry as shown here:



Step 7 Click **Apply** and then click **Continue**.

Step 8 Create a third and final entry as shown here:



Step 9 Click **Apply** and then click **Continue**.

Step 10 Run *PCAnywhere* from the remote site and use the WAN IP Address of the router, not your computer´s IP Address.

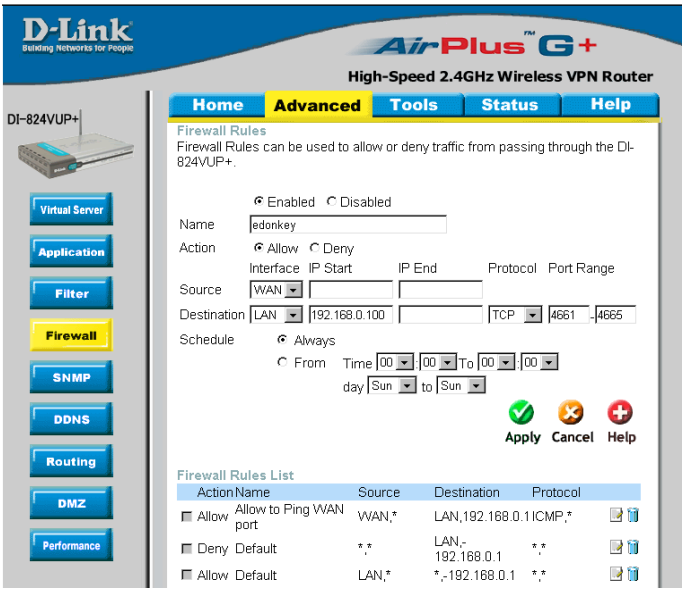
How can I use *eDonkey* behind my DI-824VUP?

You must open ports on your router to allow incoming traffic while using *eDonkey.*

eDonkey uses three ports (4 if using CLI):

4661 (TCP) To connect with a server
4662 (TCP) To connect with other clients
4665 (UDP) To communicate with servers other than the one you are connected to.
4663 (TCP) *Used with the command line (CLI) client when it is configured to allow remote connections. This is the case when using a Graphical Interface (such as the Java Interface) with the client.

Step 1 Open your web browser and enter the IP Address of your router (192.168.0.1). Enter username (admin) and your password (leave blank).



Step 2 Click on **Advanced** and then click **Firewall**.

Step 3 Create a new firewall rule:
Click **Enabled**.
Enter a name (edonkey).
Click **Allow**.
Next to Source, select **WAN** under interface. In the first box, enter an *****. Leave the second box empty.
Next to Destination, select **LAN** under interface. Enter the IP Address of the computer you are running eDonkey from. Leave the second box empty. Under Protocol, select *****. In the port range boxes, enter **4661** in the first box and then **4665** in the second box.
Click **Always** or set a schedule.

Step 4 Click **Apply** and then **Continue**.

How do I set up my DI-824VUP for SOCOM on my Playstation 2?

To allow you to play SOCOM and hear audio, you must download the latest firmware for the router (if needed), enable Game Mode, and open port 6869 to the IP Address of your Playstation.

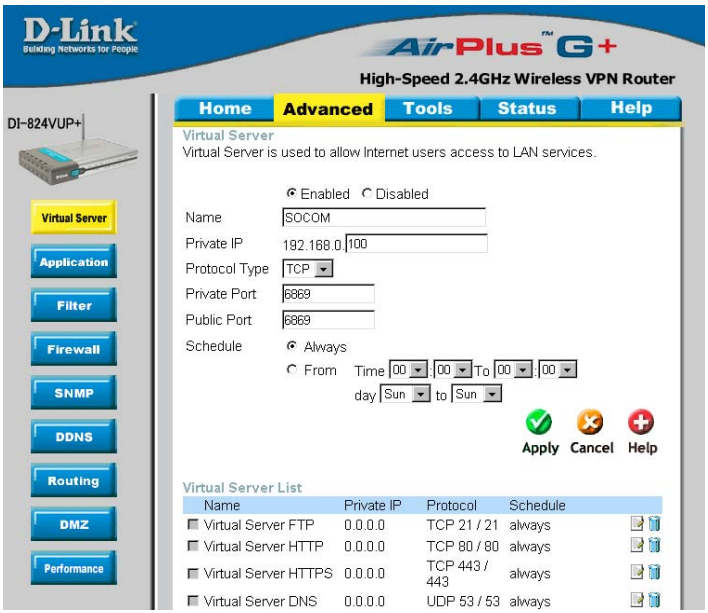
Step 1 Upgrade firmware (follow link above).

Step 2 Open your web browser and enter the IP Address of the router (192.168.0.1). Enter username (admin) and your password (blank by default).

Step 3 Click on the **Advanced** tab and then click on **Virtual Server** on the left side.

Step 4 You will now create a new Virtual Server entry. Click **Enabled** and enter a name (socom). Enter the IP Address of your Playstation for **Private IP**.

Step 5 For **Protocol Type** select Both. Enter **6869** for both the **Private Port** and **Public Port**. Click **Always**. Click **Apply** to save changes and then **Continue**



Step 6 Click on the **Tools** tab and then **Misc** on the left side.

Step 7 Make sure **Gaming Mode** is Enabled. If not, click **Enabled**. Click **Apply** and then **Continue**.

How can I use Gamespy behind my DI-824VUP?

Step 1 Open your web browser and enter the IP Address of the router (192.168.0.1). Enter admin for the username and your password (blank by default).

Step 2 Click on the Advanced tab and then click Virtual Server on the left side.

Step 3 You will create 2 entries.

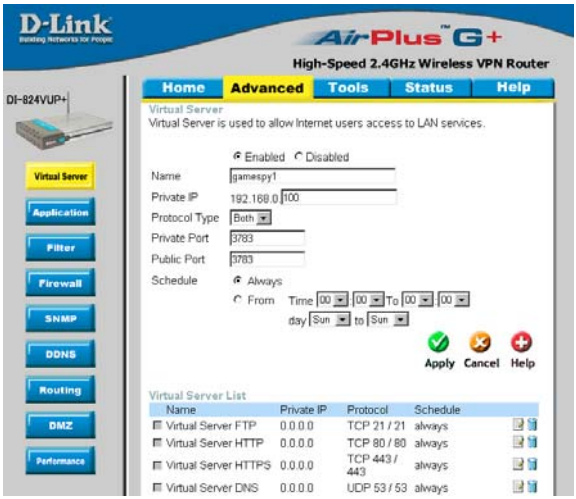
Step 4 Click Enabled and enter Settings:

NAME - Gamespy1

PRIVATE IP - The IP Address of your computer that you are running Gamespy from.

PROTOCOL TYPE - Both

PRIVATE PORT - 3783



Click **Apply** and then **continue**

Step 5 Enter 2nd entry:
Click Enabled

NAME - Gamespy2

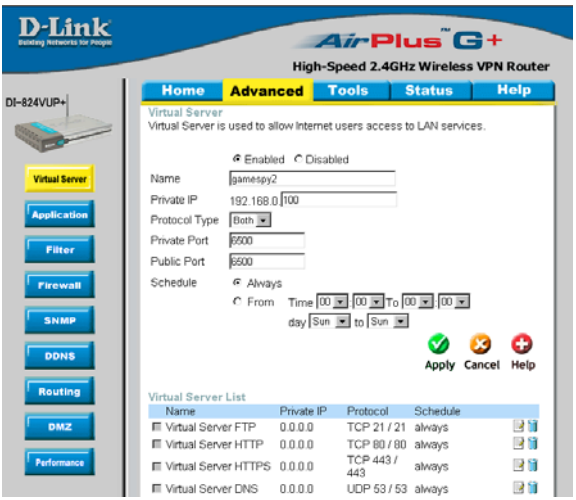
PRIVATE IP - The IP Address of your computer that you are running Gamespy from.

PROTOCOL TYPE - Both

PRIVATE PORT - 6500

PUBLIC PORT - 6500

SCHEDULE - Always.



Click **Apply** and then **continue**.

How do I configure my DI-824VUP for KaZaA and Grokster?

The following is for KaZaA, Grokster, and others using the FastTrack P2P file sharing system.

In most cases, you do not have to configure anything on the router or on the Kazaa software. If you are having problems, please follow steps below:

Step 1 Enter the IP Address of your router in a web browser (192.168.0.1).

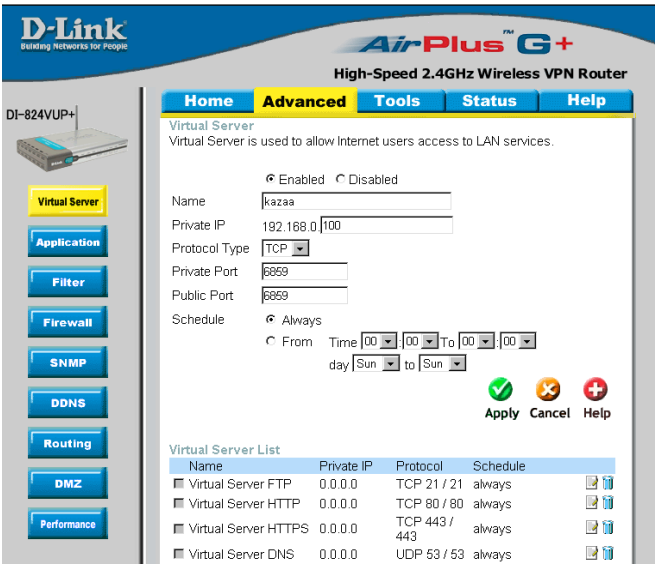
Step 2 Enter your username (admin) and your password (blank by default).

Step 3 Click on Advanced and then click Virtual Server.

Step 4 Click Enabled and then enter a Name (kazaa for example).

Step 5 Enter the IP Address of the computer you are running KaZaA from in the Private IP box. Select TCP for the Protocol Type.

Step 6 Enter 1214 in the Private and Public Port boxes. Click Always under schedule or set a time range. Click Apply.



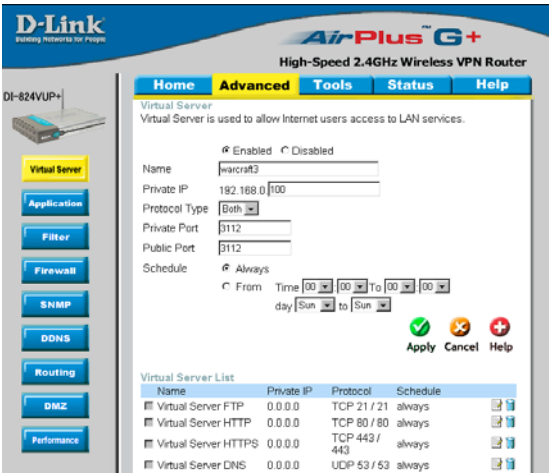
Make sure that you did not enable proxy/firewall in the KaZaA software.

How do I configure my DI-824VUP to play Warcraft 3?

To hose a Warcraft 3 game, you must open ports on your router to allow incoming traffic. To play a game, you do not have to configure your router.

Warcraft 3 (Battlenet) uses port 6112.

For the DI-824VUP:



Step 1 Open your web browser and enter the IP Address of your router (192.168.0.1). Enter username (admin) and your password (leave blank).

Step 2 Click on **Advanced** and then click **Virtual Server**.

Step 3 Create a new entry: Click **Enabled**. Enter a name (warcraft3). Private IP - Enter the IP Address of the computer you want to host the game. Select **Both** for Protocol Type Enter **6112** for both Private Port and Public Port Click **Always** or set a schedule.

Step 4 Click **Apply** and then **Continue**.

Note: If you want multiple computers from you LAN to play in the same game that you are hosting, then repeat the steps above and enter the IP Addresses of the other computers. You will need to change ports. Computer #2 can use port 6113, computer #3 can use 6114, and so on.

You will need to change the port information within the Warcraft 3 software for computers #2 and up.

Configure the Game Port information on each computer:
Start Warcraft 3 on each computer, click **Options** > **Gameplay**. Scroll down and you should see **Game Port**. Enter the port number as you entered in the above steps.

How do I use NetMeeting with my DI-824VUP?

Unlike most TCP/IP applications, NetMeeting uses **DYNAMIC PORTS** instead of STATIC PORTS. That means that each NetMeeting connection is somewhat different than the last. For instance, the HTTP web site application uses port 80. NetMeeting can use any of over 60,000 different ports.

All broadband routers using (only) standard NAT and all internet sharing programs like Microsoft ICS that use (only) standard NAT will NOT work with NetMeeting or other h.323 software packages.

The solution is to put the router in DMZ.

Note: A few hardware manufacturers have taken it on themselves to actually provide H.323 compatibility. This is not an easy task since the router must search each incoming packet for signs that it might be a netmeeting packet. This is a whole lot more work than a router normally does and may actually be a **weak point in the firewall**. D-Link is not one of the manufacturers.

To read more on this visit http://www.HomenetHelp.com

How do I set up my DI-824VUP to use iChat? -for Macintosh users-

You must open ports on your router to allow incoming traffic while using iChat.

iChat uses the following ports: 5060 (UDP), 5190 (TCP), and File Sharing 16384-16403 (UDP) to video conference with other clients.

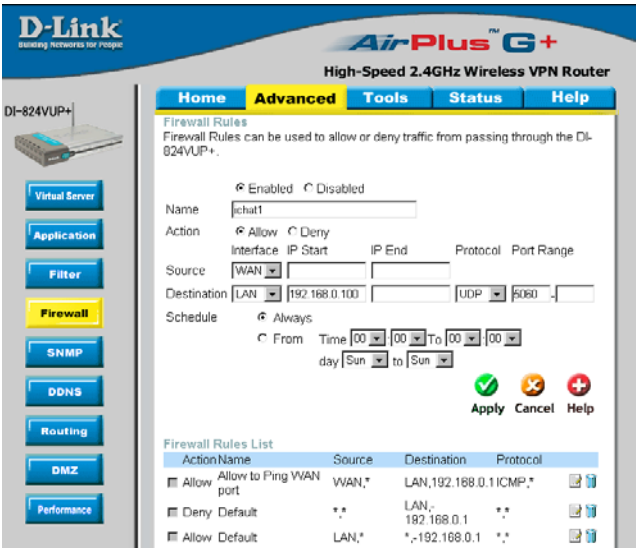
Step 1 Open your web browser and enter the IP Address of your router (192.168.0.1). Enter username (admin) and your password (leave blank).

Step 2 Click on **Advanced** and then click **Firewall**.

How do I set up my DI-824VUP to use iChat? -for Macintosh users- (continued)

Step 3 Create a new firewall rule:

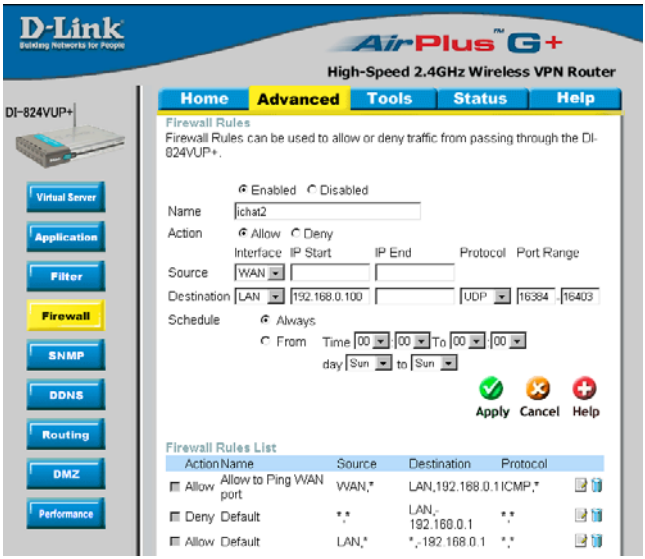
Click **Enabled**.
Enter a name (ichat1).
Click **Allow**.
Next to Source, select **WAN** under interface.
In the first box, enter an *****.
Leave the second box empty.
Next to Destination, select **LAN** under interface.
Enter the IP Address of the computer you are running iChat from.



Leave the second box empty. Under Protocol, select **UDP**. In the port range boxes, enter **5060** in the first box and leave the second box empty.
Click **Always** or set a schedule.

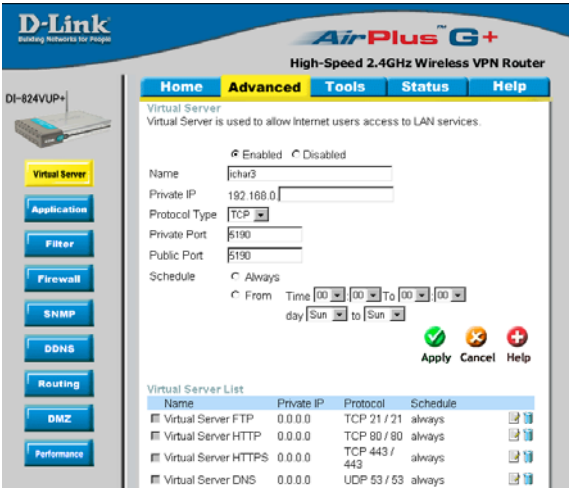
Step 4 Click **Apply** and then **Continue**.

Step 5
Repeat steps 3 and 4 enter **ichat2** and open ports **16384-16403** (UDP).



How do I set up my DI-824VUP to use iChat? -for Macintosh users- (continued)

For File Sharing:



Step 1 Click on **Advanced** and then **Virtual Server**.

Step 2 Check **Enabled** to activate entry.

Step 3 Enter a name for your virtual server entry (ichat3).

Step 4 Next to Private IP, enter the IP Address of the computer on your local network that you want to allow the incoming service to.

Step 5 Select **TCP** for Protocol Type.

Step 6 Enter **5190** next to Private Port and Public Port.

Stsp 7 Click **Always** or configure a schedule.

Step 8 Click **Apply** and then **Continue**.

If using Mac OS X Firewall, you may need to temporarily turn off the firewall in the Sharing preference pane on both computers.

To use the Mac OS X Firewall, you must open the same ports as in the router:

Step 1 Choose **Apple menu** > **System Preferences**.

Step 2 Choose **View** > **Sharing**.

Step 3 Click the **Firewall** tab.

Step 4 Click **New**.

Step 5 Choose **Other** from the Port Name pop-up menu.

Step 6 In the Port Number, Range or Series field, type in: **5060**, **16384-16403**.

Step 7 In the Description field type in: **iChat AV**

Step 8 Click **OK**.

How do I send or receive a file via iChat when the Mac OSX firewall is active? - for Macintosh users - Mac OS X 10.2 and later

The following information is from the online Macintosh AppleCare knowledge base:

“iChat cannot send or receive a file when the Mac OS X firewall is active in its default state. If you have opened the AIM port, you may be able to receive a file but not send them.

In its default state, the Mac OS X firewall blocks file transfers using iChat or America Online AIM software. If either the sender or receiver has turned on the Mac OS X firewall, the transfer may be blocked.

The simplest workaround is to temporarily turn off the firewall in the Sharing preference pane on both computers. This is required for the sender. However, the receiver may keep the firewall on if the AIM port is open. To open the AIM port:

Step 1 Choose Apple menu > System Preferences.

Step 2 Choose View > Sharing.

Step 3 Click the Firewall tab.

Step 4 Click New.

Step 5 Choose AOL IM from the Port Name pop-up menu. The number 5190 should already be filled in for you.

Step 6 Click OK.

If you do not want to turn off the firewall at the sending computer, a different file sharing service may be used instead of iChat. The types of file sharing available in Mac OS X are outlined in technical document 106461, "Mac OS X: File Sharing" in the *AppleCare Knowledge base* online.

Note: If you use a file sharing service when the firewall is turned on, be sure to click the Firewall tab and select the service you have chosen in the "Allow" list. If you do not do this, the firewall will also block the file sharing service. “

What is NAT?

NAT stands for **Network Address Translator**. It is proposed and described in RFC-1631 and is used for solving the IP Address depletion problem. Each NAT box has a table consisting of pairs of local IP Addresses and globally unique addresses, by which the box can “translate” the local IP Addresses to global address and vice versa. Simply put, it is a method of connecting multiple computers to the Internet (or any other IP network) using one IP Address.

D-Link´s broadband routers (ie: DI-824VUP) support NAT. With proper configuration, multiple users can access the Internet using a single account via the NAT device.

For more information on RFC-1631: The IP Network Address Translator (NAT), visit http://www.faqs.org/rfcs/rfc1631.html

Contacting Technical Support

You can find the most recent software and user documentation on the D-Link website.

D-Link provides free technical support for customers within the United States for the duration of the warranty period on this product.

U.S. customers can contact D-Link technical support through our web site, or by phone.

D-Link Technical Support over the Telephone:
(877) 453-5465
24 hours a day, seven days a week.

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

When contacting technical support, you will need the information below. (Please look on the back side of the unit.)

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

Warranty and Registration

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

3-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) Three (3) Years
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by D-Link upon return to D-Link of the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Software will be warranted for the remainder of the original Warranty Period from the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

Non-Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.

- The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.

- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to **D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708**. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY

Governing Law: This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

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CE Mark Warning: This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

FCC Statement: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures**:**

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
The Manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment; such modifications could void the user's authority to operate the equipment.

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 device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:
FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this equipment must be installed to provide a separation distance of at least eight inches (20 cm) from all persons.

This transmitter must not be operated in conjunction with any other antenna.

Register online your D-Link product at http://support.dlink.com/register/

02/10/03