

Before you begin...

Make sure that any existing Firewall Software/Devices are disabled and/or shutdown before beginning installation of your new D-Link DI-804V Broadband Router.

1

Contents of Package

- DI-804V Broadband Router
- Manual on CD
- Quick Install Guide
- Power Adapter – 5V DC, 2A*
- CAT5 UTP Cable

**Using a power supply with a different voltage rating will damage and void the warranty for this product. If any of the above items are missing, please contact your reseller.*

2

Connecting the DI-804V Broadband Router to your network

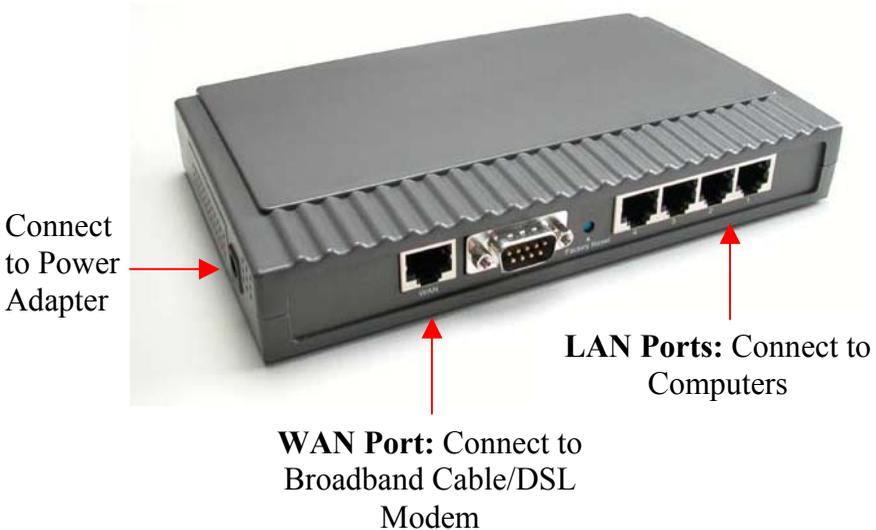
When you have completed the steps in this installation guide, your connected network may look similar to this:



Connecting the DI-804V Broadband Router to your network

- First, plug in the power supply. The Power LED will turn **ON** to indicate proper operation.
- Next, using a CAT5 UTP cable*, connect the Broadband (WAN) port to the Cable or DSL modem.

The Broadband LED will light up to indicate proper connection.



- Using CAT5 UTP cables*, connect computers that are equipped with Ethernet adapters to one of the four Ethernet LAN ports on the DI-804V.

**All ports on the DI-804V are Auto-MDIX, meaning it will work with either a straight through or cross-over cable.*

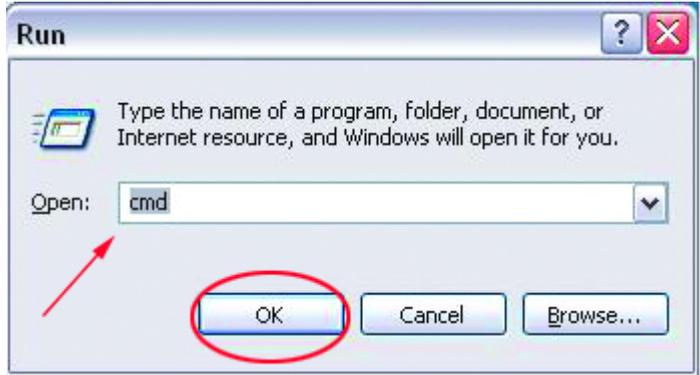
The LED for the specific Local Ethernet Port will light up to indicate proper connection. Check the front panel of the DI-804V to make sure that the appropriate LEDs come on when you plug any cable in.

3

Installing the DI-804V using the Setup Wizard

Checking the IP Address of the computer being used to configure the DI-804V Broadband Router

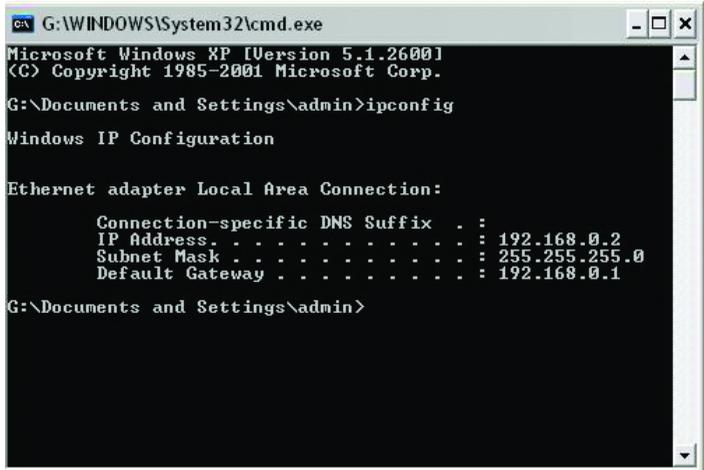
Go to **Start>Run**
Type “cmd”



Type “**ipconfig**” at the prompt in this window.

The current IP settings will be displayed.

The IP address of the computer must be between 192.168.0.2 and 192.168.0.254 in order to configure the router.



If your IP address is within this range, then continue to the next page.

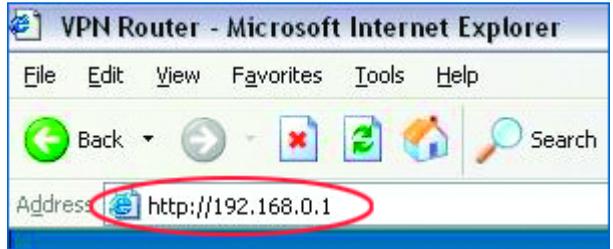
If the IP address is not within the range, type “**ipconfig /release**”, then type “**ipconfig /renew**”. Your network adapter will now receive an IP address within the desired range.

Note: If you are manually assigning a static IP, please refer to Appendix A.

Installing the DI-804V using the Setup Wizard (continued)

Open the web browser and type “**http://192.168.0.1**” into the URL address box.

Note: Please disable any proxy server setting for the web browser.



Click on **Start the Setup Wizard** at the bottom of the Main menu.



When the login screen appears, type “**admin**” in the **User name** box, and leave the **Password** field blank.

Click **OK**.



Installing the DI-804V using the Setup Wizard (continued)

At this window, select your local time zone.

Click Next, to continue.

The screenshot shows the 'TIME ZONE SELECTION' screen. The left sidebar has 'TIME SETTINGS' highlighted. The main area has a dropdown menu for time zones, with '(GMT-08:00) Pacific Time (US/Canada), Tijuana' selected. A red arrow points to the dropdown, and a red circle highlights the 'NEXT >' button. Below the dropdown are two notes: 'NOTE 1: Please click "Next" to accept the setting.' and 'NOTE 2: Please remember to click "Save & Restart" after you have finished the changes to the device settings.'

The default IP address of the LAN port is set to 192.168.0.1
Subnet mask is 255.255.255.0

Click Next to accept the default settings.

The screenshot shows the 'DEVICE LAN IP SETTINGS' screen. The left sidebar has 'DEVICE IP SETTINGS' highlighted. The main area shows IP Address: 192 . 168 . 0 . 1 and IP Subnet Mask: 255 . 255 . 255 . 0. A red circle highlights the 'NEXT >' button. A note below says: 'NOTE: Please click "Next" to accept the settings.'

By default, the DI-804V is set to obtain an IP address automatically. If you are assigned a static IP address by your ISP provider, remove the check mark in the window at the right and enter the static IP information provided to you by your ISP.
Click Next.

The screenshot shows the 'CABLE/xDSL ISP SETTINGS' screen. The left sidebar has 'CABLE/DSL ISP SETTINGS' highlighted. The main area has a checked checkbox for 'Your ISP Dynamically assigns you the WAN IP Address:'. Below it are input fields for IP assigned by your ISP (0 . 0 . 0 . 0), IP Subnet Mask (255 . 255 . 255 . 0), ISP Gateway Address (0 . 0 . 0 . 0), and Domain Name Server (DNS) IP Address (0 . 0 . 0 . 0). Red arrows point to the checkbox and the IP assigned field. A red circle highlights the 'NEXT >' button. A note below says: 'NOTE: Please click "Next" to accept the settings.'

Installing the DI-804V using the Setup Wizard(continued)

DSL users:

If you are using a PPPoE client to connect to your DSL provider, place a checkmark on the first box, and enter the **User Name** and **Password** in the appropriate box.

Cable modem users:

If your ISP requires you to enter a host name, then place a checkmark in the second box and enter the appropriate information.

A specific MAC address is required:

If your ISP requires you to use a specific WAN Ethernet MAC address, place a checkmark on the third box and enter the appropriate information.

Click Next

If you are using a backup dial-up modem with the Broadband router, place a checkmark in the box, as shown, and enter the settings for the dial-up connection.

Click Next

We will skip this section for now. Please refer to Appendix C for a VPN setup example.

Click Next

The screenshot shows the 'ISP ADDITIONAL SETTINGS' page. The 'BASIC SETUP' tab is selected. On the left sidebar, 'ISP ADDITIONAL SETTINGS' is highlighted. The main content area has three sections, each with a red arrow pointing to a checkbox:

- DSL Users:** Your ISP requires you to input the username/password (PPPoE Settings). Below are fields for User Name, Password, Retype Password, and Idle Time (set to 'no idle timeout').
- Cable modem users:** Your ISP requires you to input the Host Computer Name. Below is a field for Host Name containing 'VPN.GATEWAY'.
- MAC address:** Your ISP requires you to input the WAN Ethernet Mac. Below are fields for MAC address: 00 03 0A 00 09 CD.

At the bottom, there are '< BACK' and 'NEXT >' buttons, with 'NEXT >' circled in red. A note at the bottom says: 'NOTE: Please click "Next" to accept the settings.'

The screenshot shows the 'MODEM SETTINGS' page. The 'BASIC SETUP' tab is selected. On the left sidebar, 'MODEM SETTINGS' is highlighted. The main content area has one section with a red arrow pointing to a checkbox:

- Backup dial-up modem when the broadband connection is not working.

Below are fields for ISP Phone Number, User Name, Password, Retype Password, and Idle Time (set to '30 minutes'). At the bottom, there are '< BACK' and 'NEXT >' buttons, with 'NEXT >' circled in red. Two notes are present: 'NOTE 1: Please click "Next" to accept the settings.' and 'NOTE 2: Most dial-up modems are compatible with the standard modem strings. For modems that require special modem strings, please enter the information in Modem String Settings under Advanced Settings.'

The screenshot shows the 'VPN SETTINGS' page. The 'BASIC SETUP' tab is selected. On the left sidebar, 'VPN SETTINGS' is highlighted. The main content area has a 'Connection Name' field with an 'ADD' button next to it. Below is a table with columns: 'Disable', 'Connection Name', 'Local IPSEC ID', 'Remote IPSEC ID', and 'Summary'. At the bottom, there are '< BACK' and 'NEXT >' buttons, with 'NEXT >' circled in red. A note at the bottom says: 'NOTE: Please click "Next" to accept the settings.'

Installing the DI-804V using the Setup Wizard (continued)

To complete the Setup Wizard,

Click Save and Restart



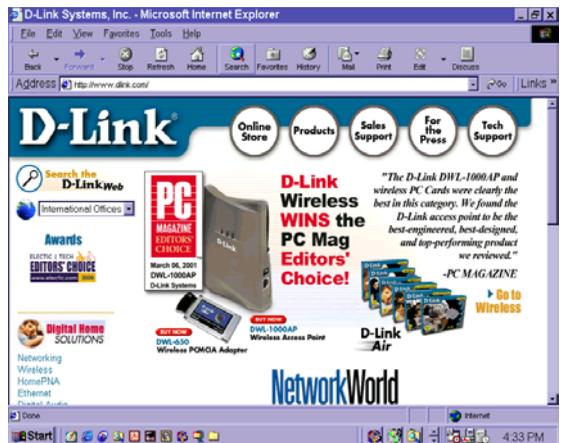
4

Checking the connection to the Internet

To check the connection, open the web browser and go to your favorite website.

If you are unable to browse, please do the following:

1. Refer to **Appendix B** to check your connection to the wireless router.
2. Use “**Help**” on the Main Menu.
3. Refer to the “**Troubleshooting**” section in the user’s manual.



Appendix A

Assigning a Static IP Address

If the network adapter is unable to obtain an IP address automatically from the Broadband Router, then go to: **START>SETTINGS>CONTROL PANEL>NETWORK CONNECTIONS**

Then right-click on the “Local Area Connection” icon corresponding to your network adapter, click on Properties.

Highlight “**Internet Protocol (TCP/IP)**”
Click on “**Properties.**”

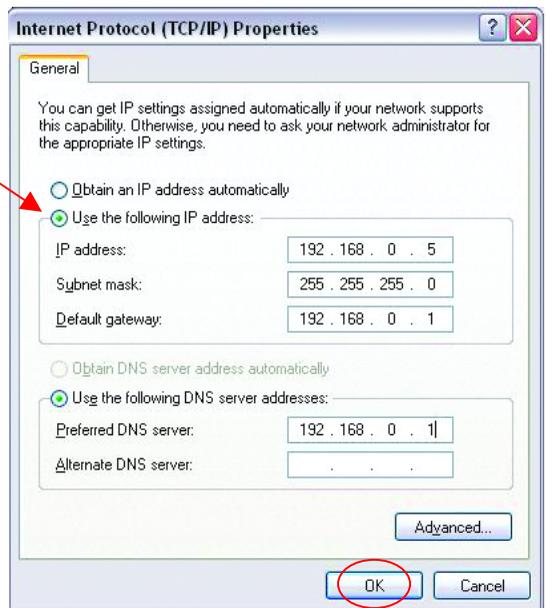
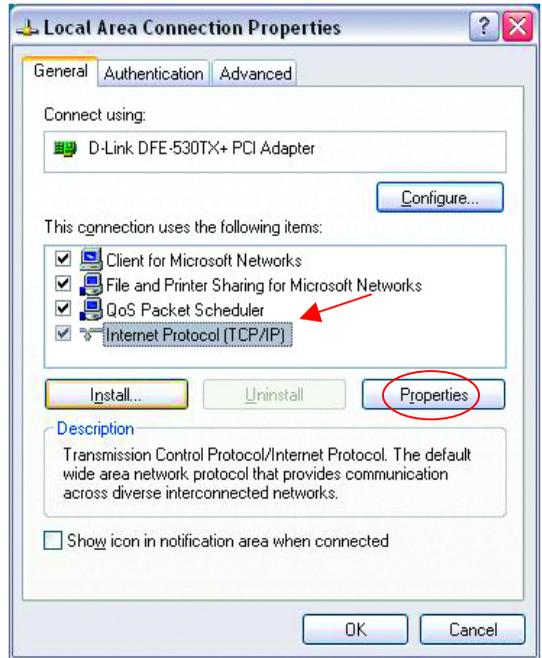
Choose “Use the following IP address” and input an IP address between 192.168.0.2 to 192.168.0.99 in the IP Address box.

Enter the “**Subnet mask**” of 255.255.255.0

Enter the “**Default Gateway**” of 192.168.0.1

Enter the “**Preferred DNS server**” of 192.168.0.1

Click OK on all screens to save the changes.



Appendix B

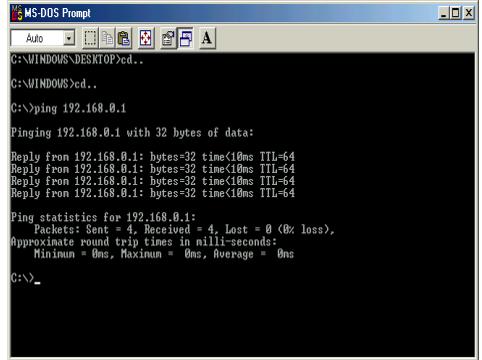
Checking Your Network Connections

Use “**Ping**” to check your network connections.

Go to **START>RUN**

Type “**cmd**” in the box.

Click “**OK**”



```
MS-DOS Prompt
Auto
G:\WINDOWS\DESKTOP>cd..
G:\WINDOWS>cd..
G:\>ping 192.168.0.1

Pinging 192.168.0.1 with 32 bytes of data:

Reply from 192.168.0.1: bytes=32 time<10ms TTL=64

Ping statistics for 192.168.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

G:\>
```

If cmd does not work, try command

Type “**ping 192.168.0.1**” which is the IP address of the LAN port of the Broadband Router. Hit the “**Enter**” key.

A successful connection will show four replies, as shown.

Appendix C

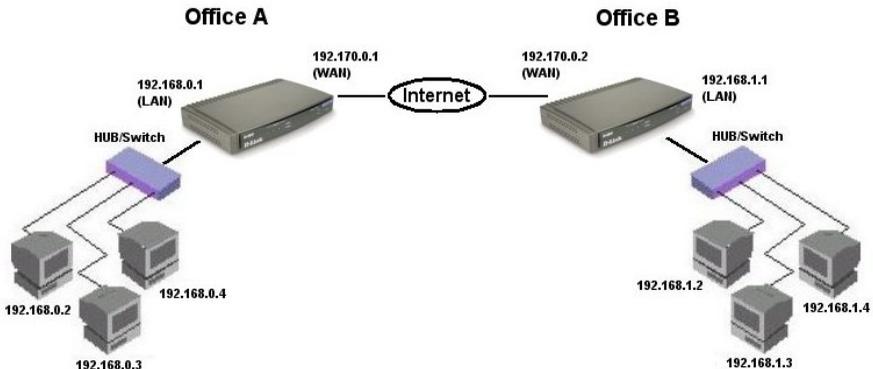
What is a Virtual Private Network (VPN)?

A VPN is the extension of a private network across public or shared networks such as the Internet. A VPN allows data to be sent between two computers across the Internet in a manner that emulates a point-to-point private link.

Sample VPN Tunnel Setup

This example will demonstrate how to create a Virtual private Network (VPN) between two remote locations through the Internet. The VPN policy will use 3DES IPsec to securely send/receive encrypted data over the Internet. When the VPN tunnel is enabled, the two offices will virtually appear to be on the same local network.

This example will consist of two DI-804V VPN Routers with a simple setup. The two remote offices in this example will be known as Office A and Office B. Both VPN Routers must already be set up and able to access each other. This is only an example, your setup will vary using the WAN IP address provided by your ISP.



Please note the differences in the IP addresses for each office.

We will begin by configuring the DI-804V at Office A. Start by going into VPN Settings under the Basic Setup menu. In the Connection Name field, type in **OfficeA**.

Click **ADD**.

D-Link VPN Router DI-804V

DEVICE INFORMATION | DEVICE STATUS | **BASIC SETUP** | ADVANCED SETTINGS | SYSTEM TOOLS | HELP

Main menu

TIME SETTINGS

DEVICE IP SETTINGS

CABLE/DSL ISP SETTINGS

ISP ADDITIONAL SETTINGS

MODEM SETTINGS

VPN SETTINGS

SAVE & RESTART

VPN SETTINGS

Connection Name: OfficeA **ADD**

Enable	Connection Name	Local IPSEC ID	Remote IPSEC ID	Command

< BACK | NEXT >

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A properties screen will appear for the new connection you have made. Fill in the appropriate information for Office A.

Connection Name: OfficeA
Local IPSEC Identifier: Local
Remote IPSEC Identifier: Remote
Remote IP Network: 192.168.1.0
Remote IP Netmask: 255.255.255.0
Remote Gateway IP: 192.170.0.2
Network Interface: WAN
ETHERNET
Secure Association: IKE
Perfect Forward Secure: Enabled
PreShared Key: 123456
Key Life: 28800
IKE Life Time: 3600

D-Link VPN Router DI-804V

DEVICE INFORMATION | DEVICE STATUS | **BASIC SETUP** | ADVANCED SETTINGS | SYSTEM TOOLS | HELP

Main menu

TIME SETTINGS

DEVICE IP SETTINGS

CABLE/DSL ISP SETTINGS

ISP ADDITIONAL SETTINGS

MODEM SETTINGS

VPN SETTINGS

SAVE & RESTART

VPN SETTINGS

Connection Name: OfficeA

Local IPSEC Identifier: Local

Remote IPSEC Identifier: Remote

Remote IP Network: 192 | 168 | 1 | 0

Remote IP Netmask: 255 | 255 | 255 | 0

Remote Gateway IP: 192 | 170 | 0 | 2

Network Interface: WAN ETHERNET

Secure Association: IKE Manual

Perfect Forward Secure: Enabled Disabled

PreShared Key: 123456

Key Life: 28800 Seconds

IKE Life Time: 3600 Seconds **SAVE**

Enable	Connection Name	Local IPSEC ID	Remote IPSEC ID	Command

< BACK | NEXT >

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Click **SAVE**

There should now be a VPN policy created for Office A. Now you will want to Save & Restart the DI-804V.

Note: 123456 is an example of a preshared key, please fill in any secret preshared key you desire. Keep in mind that both sites require the same preshared key.

Office A setup is now complete, we will now configure Office B with the other DI-804V, Follow the same steps previously with Office A to create a VPN policy. Please change the appropriate information.

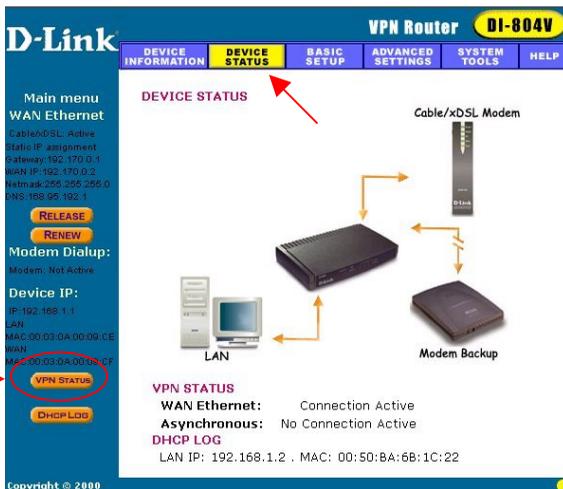
Connection Name: OfficeB
Local IPSEC Identifier: Local
Remote IPSEC Identifier: Remote
Remote IP Network: 192.168.0.0
Remote IP Netmask: 255.255.255.0
Remote Gateway IP: 192.170.0.1
Network Interface: WAN
 ETHERNET
Secure Association: IKE
Perfect Forward Secure: Enabled
PreShared Key: 123456
Key Life: 28800
IKE Life Time: 3600



Click SAVE

There should now be a VPN policy created for Office B. Now you will want to Save & Restart the DI-804V.

After the VPN policies have been created for the two Offices, the two remote locations should authenticate and connect. To view the status of the VPN connection, go to the Device Status menu. On the bottom-left hand side of the menu, click on the VPN Status icon.



A VPN Status pop-up screen will appear showing VPN connection status. If a VPN tunnel is active, the State should indicate Q-Estab.

Status	Connection Name	Remote IP	Virtual Network	Interface	Type	State	Drop
Active	OfficeB	192.170.0.1	192.168.0.0/24	WAN Ethernet	ESP (3DES-CBC MD5)	Q-Estab.	Drop

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:

(800) 758-5489

24 hours a day, seven days a week

D-Link Technical Support over the Internet:

<http://support.dlink.com>