## **D-Link**<sup>®</sup>



# **User Manual**

## **Xtreme N® Dual Band Gigabit Router**

DIR-825

# Preface

D-Link reserves the right to revise this publication and to make changes in the content hereof without obligation to notify any person or organization of such revisions or changes.

#### **Manual Revisions**

Revision	Date	Description
3.0	November 30, 2011	Initial release for Revision C1

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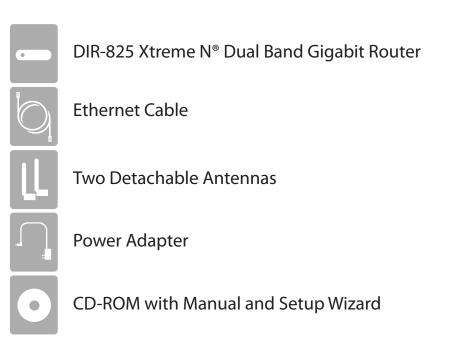
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## **Package Contents**



If any of the above items are missing, please contact your reseller.

**Note:** Using a power supply with a different voltage rating than the one included with the DIR-825 will cause damage and void the warranty for this product.

## System Requirements

Network Requirements	<ul> <li>An Ethernet-based Cable or DSL modem</li> <li>IEEE 802.11n or 802.11g wireless clients</li> <li>IEEE 802.11a wireless clients</li> <li>10/100/1000 Ethernet</li> </ul>
Web-based Configuration Utility Requirements	<ul> <li>Computer with the following: <ul> <li>Windows®, Macintosh, or Linux-based operating system</li> <li>An installed Ethernet adapter</li> </ul> </li> <li>Browser Requirements: <ul> <li>Internet Explorer 6 or higher</li> <li>Firefox 3.0 or higher</li> <li>Safari 3.0 or higher</li> <li>Chrome 2.0 or higher</li> </ul> </li> <li>Windows® Users: Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.</li> </ul>
CD Installation Wizard Requirements	Computer with the following: • Windows <sup>®</sup> 7, Vista <sup>®</sup> , or XP (Service Pack 2 or higher) • An installed Ethernet adapter • CD-ROM drive

## Introduction

#### **TOTAL PERFORMANCE**

Combines award winning router features and IEEE 802.11a/g/n wireless technology to provide the best wireless performance.

#### **TOTAL SECURITY**

The most complete set of security features including Active Firewall and WPA/WPA2 to protect your network against outside intruders.

#### **TOTAL COVERAGE**

Provides greater wireless signal rates even at farther distances for best-in-class Whole Home Coverage.

#### **ULTIMATE PERFORMANCE**

The D-Link Xtreme N<sup>®</sup> Dual Band Gigabit Router (DIR-825) is a 802.11n/802.11a compliant device that delivers real world performance of up to 14x faster than an 802.11g wireless connection (also faster than a 100Mbps wired Ethernet connection). Create a secure wireless network to share photos, files, music, video, printers, and network storage throughout your home. Connect the DIR-825 router to a cable or DSL modem and share your high-speed Internet access with everyone on the network. In addition, this Router includes a Quality of Service (QoS) engine that keeps digital phone calls (VoIP) and online gaming smooth and responsive, providing a better Internet experience.

#### **EXTENDED WHOLE HOME COVERAGE**

Powered by Wireless N technology, this high performance router provides superior Whole Home Coverage while reducing dead spots. The router is designed for use in bigger homes and for users who demand higher performance networking. Add a Wireless N notebook or desktop adapter and stay connected to your network from virtually anywhere in your home.

#### TOTAL NETWORK SECURITY

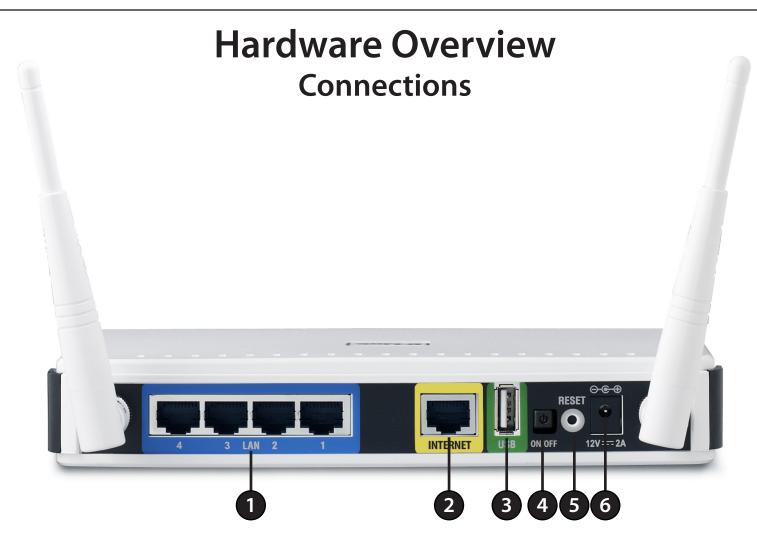
The Wireless N router supports all of the latest wireless security features to prevent unauthorized access, be it from over the wireless network or from the Internet. Support for WPA/WPA2 standards ensure that you'll be able to use the best possible encryption method, regardless of your client devices. In addition, this router utilizes dual active firewalls (SPI and NAT) to prevent potential attacks from across the Internet.

\* Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.

## Features

- Faster Wireless Networking The DIR-825 provides up to 300Mbps\* wireless connection with other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio. The performance of this 802.11n wireless router gives you the freedom of wireless networking at speeds 14x faster than 802.11g.
- **Compatible with 802.11a/g Devices** The DIR-825 is still fully compatible with the IEEE 802.11g and 802.11a standards, so it can connect with existing 802.11g and 802.11a PCI, USB, and Cardbus adapters.
- Advanced Firewall Features The Web-based user interface displays a number of advanced network management features including:
  - **Content Filtering** Easily applied content filtering based on MAC Address, URL, and/or Domain Name.
  - Filter Scheduling These filters can be scheduled to be active on certain days or for a duration of hours or minutes.
  - Secure Multiple/Concurrent Sessions The DIR-825 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-825 can securely access corporate networks.
- User-friendly Setup Wizard Through its easy-to-use Web-based user interface, the DIR-825 lets you control what information is accessible to those on the wireless network, whether from the Internet or from your company's server. Configure your router to your specific settings within minutes.

<sup>\*</sup> Maximum wireless signal rate derived from IEEE Standard 802.11g, 802.11a, and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.



1	LAN Ports (1-4)	Connect 10/100/1000 Ethernet devices such as computers, switches, and NAS.
2	Internet Port	The auto MDI/MDIX Internet port is the connection for the Ethernet cable to the cable or DSL modem.
3	USB Port	Connect a USB 1.1 or 2.0 flash drive to configure the wireless settings using WCN and SharePort. SharePort allows you to share a printer or storage device with your local network.
4	Power Button	Press the power button to power on and off.
5	Reset Button	Pressing the Reset button restores the router to its original factory default settings.
6	Power Receptor	Receptor for the supplied power adapter.



1	Power LED	A solid light indicates a proper connection to the power supply.
2	Internet LED	A solid light indicates connection on the Internet port. This LED blinks during data transmission.
3	WLAN LED (2.4GHz)	A solid light indicates that the 2.4GHz wireless segment is ready. This LED blinks during wireless data transmission.
4	WLAN LED (5GHz)	A solid light indicates that the 5GHz wireless segment is ready. This LED blinks during wireless data transmission.
5	LAN LEDs (1-4)	A solid light indicates a connection to an Ethernet-enabled computer on ports 1-4. This LED blinks during data transmission.
6	WCN/USB LED	Insert a USB flash drive with WCN information. The LED will blink 3 times when it successfully transfers the wireless settings. This LED is also for SharePort.

# Installation

This section will walk you through the installation process. Placement of the router is very important. Do not place the router in an enclosed area such as a closet, cabinet, or in the attic or garage.

## **Before you Begin**

- Please configure the router with the computer that was last connected directly to your modem.
- You can only use the Ethernet port on your modem. If you were using the USB connection before using the router, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the router, and then turn the modem back on. In some cases, you may need to call your ISP to change connection types (USB to Ethernet).
- If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE software such as WinPoet, Broadjump, or Enternet 300 from your computer or you will not be able to connect to the Internet.
- When running the Setup Wizard from the D-Link CD, make sure the computer you are running the CD from is connected to the Internet and online or the wizard will not work. If you have disconnected any hardware, re-connect your computer back to the modem and make sure you are online.

## **Wireless Installation Considerations**

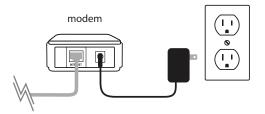
The D-Link wireless router lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through, may limit the range. Typical ranges vary depending on the types of materials and background RF (radio frequency) noise in your home or business. The key to maximizing wireless range is to follow these basic guidelines:

- 1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
- 2. Be aware of the direct line between network devices. A wall that is 1.5 feet thick (.5 meters), at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
- 3. Building Materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
- 4. Keep your product away (at least 3-6 feet or 1-2 meters) from electrical devices or appliances that generate RF noise.
- 5. If you are using 2.4GHz cordless phones or X-10 (wireless products such as ceiling fans, lights, and home security systems), your wireless connection may degrade dramatically or drop completely. Make sure your 2.4GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone in not in use.

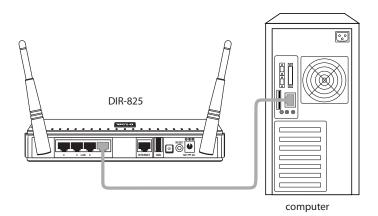
## **Manual Setup**

**Important:** for best results, insert the Installation CD and follow the on-screen instructions. If you are unable to use the CD or are using Mac or Linux, please use the following installation steps:

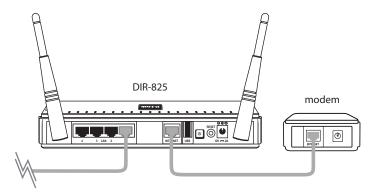
1. Turn off and unplug your cable or DSL broadband modem. This is required.



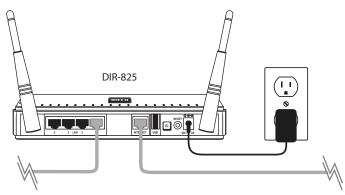
- 2. Position your router close to your modem and a computer. Place the router in an open area of your intended work area for better wireless coverage.
- 3. Unplug the Ethernet cable from your modem (or existing router if upgrading) that is connected to your computer. Plug it into the blue port labeled 1 on the back of your router. The router is now connected to your computer.



4. Plug one end of the included blue Ethernet cable that came with your router into the yellow port labeled INTERNET on the back of the router. Plug the other end of this cable into the Ethernet port on your modem.



- 5. Reconnect the power adapter to your cable or DSL broadband modem and wait for two minutes.
- 6. Connect the supplied power adapter into the power port on the back of the router and then plug it into a power outlet or surge protector. Press the power button and verify that the power LED is lit. Allow 1 minute for the router to boot up.



7. If you are connecting to a Broadband service that uses a dynamic connection (not PPPoE), you may be online already. Try opening a web browser and enter a web site. If you connect, you are finished with your Internet setup. Please skip to page 13 to configure your router and use the manual setup procedure to configure your network and wireless settings. If you did not connect to the Internet, use the D-Link Setup Wizard (refer to page 15).

## **Connect to an Existing Router**

**Note:** It is strongly recommended to replace your existing router with the DIR-825 instead of using both. If your modem is a combo router, you may want to contact your ISP or manufacturer's user guide to put the router into Bridge mode, which will 'turn off' the router (NAT) functions.

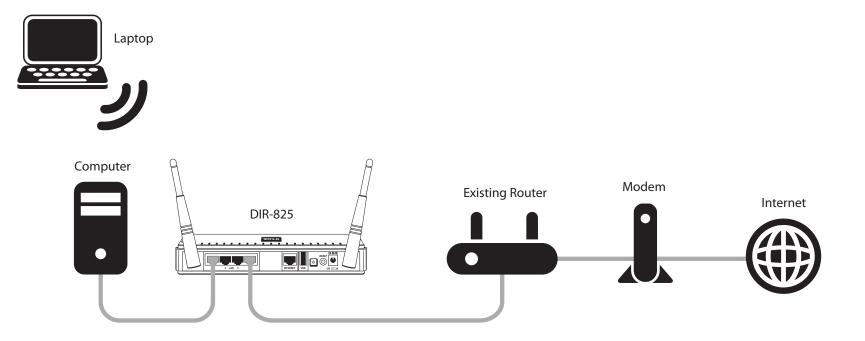
If you are connecting the DIR-825 router to an existing router to use as a wireless access point and/or switch, you will have to do the following to the DIR-825 before connecting it to your network:

- Disable UPnP<sup>™</sup>
- Disable DHCP
- Change the LAN IP address to an available address on your network. The LAN ports on the router cannot accept a DHCP address from your other router.

To connect to another router, please follow the steps below:

- 1. Plug the power into the router. Connect one of your computers to the router (LAN port) using an Ethernet cable. Make sure your IP address on the computer is 192.168.0.xxx (where xxx is between 2 and 254). Please see the **Networking Basics** section for more information. If you need to change the settings, write down your existing settings before making any changes. In most cases, your computer should be set to receive an IP address automatically in which case you will not have to do anything to your computer.
- 2. Open a web browser, enter http://192.168.0.1 and press Enter. When the login window appears, set the user name to Admin and leave the password box empty. Click Log In to continue.
- 3. Click on Advanced and then click Advanced Network. Uncheck the Enable UPnP checkbox. Click Save Settings to continue.
- 4. Click Setup and then click Network Settings. Uncheck the Enable DHCP Server checkbox. Click Save Settings to continue.

- 5. Under Router Settings, enter an available IP address and the subnet mask of your network. Click **Save Settings** to save your settings. Use this new IP address to access the configuration utility of the router in the future. Close the browser and change your computer's IP settings back to the original values as in Step 1.
- 6. Disconnect the Ethernet cable from the router and reconnect your computer to your network.
- 7. Connect an Ethernet cable in one of the **LAN** ports of the router and connect it to your other router. Do not plug anything into the Internet (WAN) port of the D-Link router.
- 8. You may now use the other 3 LAN ports to connect other Ethernet devices and computers. To configure your wireless network, open a web browser and enter the IP address you assigned to the router. Refer to the **Configuration** and **Wireless Security** sections for more information on setting up your wireless network.



# Configuration

There are several different ways you can configure your router to connect to the Internet and connect to your clients:

- Quick Router Setup Wizard Insert the supplied CD and launch the setup wizard (see below).
- D-Link Setup Wizard This wizard will launch if you do not run the CD wizard and log into the router for the first time. Refer to page 15.
- Manual Setup Log into the router and manually configure your router (advanced users only). Refer to page 21.

### Quick Router Setup Wizard (CD)

To run the **Quick Router Setup Wizard**, insert the CD in the CD-ROM drive. When the autorun screen appears, click **English** (or **French**), and then click the **Install** button.

**Note:** If the CD Autorun function does not automatically start on your computer, go to **Start** > **Run**. In the run box type **D:\autorun.exe** (where D: represents the drive letter of your CD-ROM drive).



When the Wizard appears, select your language from the drop-down menu and then click **Next** to continue. Follow the on-screen instructions to configure your router.

D-Link Quick Router Setup	
D-Link <sup>®</sup>	Quick Router Setup
Welcome	DIR-825
Check Connection	Setup
Install Router	
Configure Router	
Configure Network	
	Choose your English
Version: 5.05	Next> Cancel

Once you are finished, you may skip to page 21 and will be able to log into the web-based configuration utility and configure more advanced features.

## **Quick Setup Wizard**

If this is your first time installing the router, open your web browser. You will automatically be directed to the **Wizard Setup Screen**.

If you have already configured your settings and you would like to access the configuration utility, please refer to page 21.

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← → C 1	ł	٩

If you did not run the setup wizard from the CD and this is the first time logging into the router, this wizard will start automatically.

This wizard is designed to guide you through a step-by-step process to configure your new D-Link router and connect to the Internet.

 WELCOME TO THE D-LINK SETUP WIZARD

 This wizard will guide you through a step-by-step process to configure your new D-Link router and connect to the Internet.

 • Step 1: Configure your Internet Connection

 • Step 2: Configure your Wi-Fi security

 • Step 3: Set your Password

 • Step 5: Save Settings

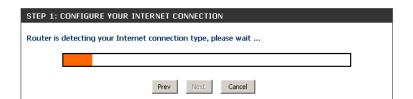
 Next

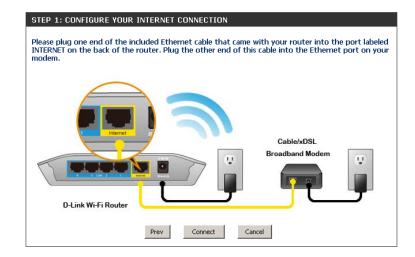
Click Next to continue.

Please wait while your router detects your internet connection type. If the router detects your Internet connection, you may need to enter your ISP information such as username and password.

If the router does not detect a valid Ethernet connection from the Internet port, this screen will appear. Connect your broadband modem to the Internet port and then click **Try Again**.

If the router detects an Ethernet connection but does not detect the type of Internet connection you have, this screen will appear. Click **Guide me through the Internet Connection Settings** to display a list of connection types to choose from.







#### Select your Internet connection type and click **Next** to continue.

# STEP 1: CONFIGURE YOUR INTERNET CONNECTION Please select your Internet connection type below: • DHCP Connection (Dynamic IP Address) Choose this if your Internet connection automatically provides you with an IP Address. Most Cable Moderns use this type of connection. • Username / Password Connection (PPPOE) Choose this option if your Internet connection requires a username and password to get online. Most DSL moderns use this connection type of connection. • Username / Password Connection (PPTP) PPTP client. • Username / Password Connection (L2TP) L2TP client.



If the router detected or you selected **PPPoE**, enter your PPPoE username and password and click **Next** to continue.

**Note:** Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

If the router detected or you selected **PPTP**, enter your PPTP username, password, and other information supplied by your ISP. Click **Next** to continue.

SET USERNAME AND PASSWORD CONNECTION (PPPOE)
To set up this connection you will need to have a Username and Password from your Internet Service Provider. If you do not have this information, please contact your ISP.
User Name : Password :
Prev Next Cancel

SET USERNAME AND PASSWORD CONNECTION (PPTP)				
SET USERNAME AND PASSWURD CONNECTION (PPTP)				
To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need PPTP IP adress. If you do not have this information, please contact your ISP.				
Address Mode : 💿 Dynamic IP 🔿 Static IP				
PPTP IP Address: 0.0.0.0				
PPTP Subnet Mask : 0.0.0.0				
PPTP Gateway IP Address : 0.0.0.0				
PPTP Server IP Address (may be same as gateway) :				
User Name:				
Password :				
Verify Password :				
DNS SETTINGS				
Primary DNS Address :				
Secondary DNS Address :				
Prev Next Cancel				

If the router detected or you selected **L2TP**, enter your L2TP username, password, and other information supplied by your ISP. Click **Next** to continue.

rvice Provider. You also need		Jsername and Password from your Internet You do not have this information, please cont
our ISP.		
	Oynamic IP	Static IP
L2TP IP Address :	0.0.0.0	
L2TP Subnet Mask :	0.0.0.0	
L2TP Gateway IP Address :	0.0.0.0	
L2TP Server IP Address (may be same as gateway) :		]
User Name :		
Password :		
Verify Password :		
NS SETTINGS		
Primary DNS Address :		]
Secondary DNS Address :		

If the router detected or you selected **Static**, enter the IP and DNS settings supplied by your ISP. Click **Next** to continue.

SET STATIC IP ADDRESS CONNECTION		
To set up this connection you will need to have a complete list of IP information provided by your Internet Service Provider. If you have a Static IP connection and do not have this information, please contact your ISP.		
IP Address : 0.0.0.0		
Subnet Mask: 0.0.0.0		
Gateway Address : 0.0.0.0		
DNS SETTINGS		
Primary DNS Address :		
Secondary DNS Address :		
Prev Next Cancel		

#### Section 3 - Configuration

For both the 2.4GHz and 5GHz segments, create a wireless network a name (SSID) using up to 32 characters.

Create a wireless security passphrase or key (between 8-63 characters). Your wireless clients will need to have this passphrase or key entered to be able to connect to your wireless network.

Click Next to continue.

In order to secure your router, please enter a new password. Check the Enable Graphical Authentication box to enable CAPTCHA authentication for added security. Click **Next** to continue.

Select your time zone from the drop-down menu and click **Next** to continue.

dlink	(Using up to 32 characters)	
Wi-Fi Password :		
	(Between 8 and 63 characters)	
Give your Wi-Fi network a name and a password. (5GHz Band) Wi-Fi Network Name (SSID) :		
dlink_media	(Using up to 32 characters)	
Wi-Fi Password :		

TEP 3: SET YOUR PASSWORD			
By default, your new D-Link Router does not have a password configured for administrator access to the Web-based configuration pages. To secure your new networking device, please set and verify a password below, and enabling CAPTCHA Graphical Authentication provides added security protection to prevent unauthorized online users and hacker software from accessing your network settings.			
Password :			
Verify Password :			
Enable Graphical  Authentication :			
Prev Next Cancel			

STEP 4: SELECT YOUR TIME ZONE		
Select the appropriate time zone for your location. This information is required to configure the time-based options for the router.		
(GMT-08:00) Pacific Time (U5/Canada), Tijuana		
Prev Next Cancel		

The Setup Complete window will display your wireless settings. Click **Save and Connect** to continue.

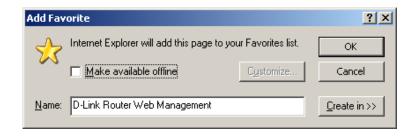
If you want to create a bookmark to the router, click **OK**. Click **Cancel** if you do not want to create a bookmark.

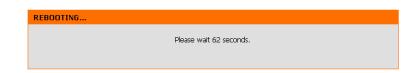
If you clicked **Yes**, a window may appear (depending on what web browser you are using) to create a bookmark.

The router will now reboot. Please allow a minute or two. Click the **Continue** button once it is active.

information or	elow is a detailed summary of your Wi-Fi security settings. Please print this page out, or write the formation on a piece of paper, so you can configure the correct settings on your Wi-Fi devices.			
	Wi-Fi Network Name (SSID) 2.4GHz Band : dlink			
	Wi-Fi Password : mypassphrase			
	Wi-Fi Network Name (SSID) 5GHz Band : dlink_media			
	Wi-Fi Password: mypassphrase			
The Setun Wiz	rd has completed. Click the Save Button to save your setting and reboot the router			



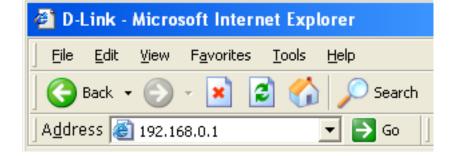




## **Web-based Configuration Utility**

To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (http://192.168.0.1).

Windows and Mac users may also connect by typing **http://dlinkrouter** or **http://dlinkrouter.local** in the address bar.



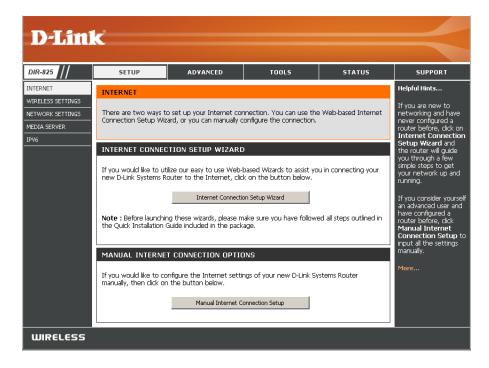
Select **Admin** from the drop-down menu and then enter your password. Leave the password blank by default.

LOGIN
Log in to the router
User Name : Admin 💌
Password : Login

#### **Internet Connection Setup**

Click **Manual Internet Connection Setup** to configure your connection manually and continue to the next page.

If you want to configure your router to connect to the Internet using the wizard, click **Internet Connection Setup Wizard**. You will be directed to the Quick Setup Wizard. Please skip to page 15.



#### Manual Internet Setup Static (assigned by ISP)

Select Static IP Address if all the Internet port's IP information is provided to you by your ISP. You will need to enter in the IP address, subnet mask, gateway address, and DNS address(es) provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four octets separated by a dot (x.x.x.x). The Router will not accept the IP address if it is not in this format.

My Internet Connection:	Select <b>Static IP</b> to manually enter the IP settings supplied by	INTERNET CONNECTION TYPE	
	your ISP.	Choose the mode to be used by the router to connect to the Internet.	
Enable Advanced DNS	Advanced Domain Name System (DNS) services enhances your Internet performance by getting you the information and web	My Internet Connection is : Static IP	
		ADVANCED DNS SERVICE	
	pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you	Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto- correction of common URL typos.	
	intended to go and saving you valuable time.	Enable Advanced DNS Service :	
		TRUE GIGABIT ROUTING CONNECTIVITY SETTING	
	<b>Disclaimer:</b> D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.	Enable True Gibabit Routing Connectivity :	
	······, ······, ······················	STATIC IP ADDRESS INTERNET CONNECTION TYPE	
-	Check to enable true Gigabit routing. This will increase the through-put of the WAN-LAN connectivity of the router.	Enter the static address information provided by your Internet Service Provider (ISP).	
		IP Address : 0.0.0.0	
IP Address:	Enter the IP address assigned by your ISP.	Subnet Mask : 0.0.0.0	
		Default Gateway: 0.0.0.0	
Subnet Mask:	Enter the Subnet Mask assigned by your ISP.	Primary DNS Server: 0.0.0.0 Secondary DNS Server: 0.0.0.0	
		MTU: 1500 (bytes) MTU default = 1500	
Default Gateway:	Enter the Gateway assigned by your ISP.	MAC Address : 00:18:E7:95:68:9F Copy Your PC's MAC Address	
DNS Servers:	The DNS server information will be supplied by your ISP (Internet		

MTU: Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.

Service Provider.)

MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Copy Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

#### Dynamic (Cable)

My Internet Select Dynamic IP (DHCP) to obtain IP Address information Connection: automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for cable modem services.

Enable Advanced Advanced Domain Name System (DNS) services enhances your Internet DNS Service: performance by getting you the information and web pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True Gigabit** Check to enable true Gigabit routing. This will increase the through-put **Routing Connectivity:** of the WAN-LAN connectivity of the router.

- Host Name: The Host Name is optional but may be required by some ISPs. Leave blank if you are not sure.
- **Use Unicasting:** Check the box if you are having problems obtaining an IP address from your ISP.

INTERNET CONNECTION TYPE		
Choose the mode to be used by the router to connect to the Internet.		
My Internet Connection is : Dynamic IP (DHCP)		
ADVANCED DNS SERVICE		
Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto- correction of common URL typos.		
Enable Advanced DNS Service :		
TRUE GIGABIT ROUTING CONNECTIVITY SETTING		
Enable True Gibabit Routing Connectivity :		
DYNAMIC IP (DHCP) INTERN	IET CONNECTION TYPE	
Use this Internet connection ty	IET CONNECTION TYPE pe if your Internet Service Provider (ISP) didn't formation and/or a username and password.	
Use this Internet connection ty	pe if your Internet Service Provider (ISP) didn't	
Use this Internet connection ty provide you with IP Address ini	pe if your Internet Service Provider (ISP) didn't formation and/or a username and password.	
Use this Internet connection ty provide you with IP Address int Host Name :	ppe if your Internet Service Provider (ISP) didn't formation and/or a username and password. DIR-825	
provide you with IP Address in Host Name : Use Unicasting :	pe if your Internet Service Provider (ISP) didn't formation and/or a username and password. DIR-825 V (compatibility for some DHCP Servers)	

- Primary/Secondary Enter the Primary and secondary DNS server IP addresses assigned by your ISP. These addresses are usually obtained automatically DNS Server: from your ISP. Leave at 0.0.0.0 if you did not specifically receive these from your ISP.
  - MTU: Maximum Transmission Unit you may need to change the MTU for optimal performance with your specific ISP. 1500 is the default MTU.
  - MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Copy Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

#### Internet Setup PPPoE (DSL)

Choose PPPoE (Point to Point Protocol over Ethernet) if your ISP uses a PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services. Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router.

**My Internet** Select **PPPoE (Username/Password)** from the drop-down menu. **Connection:** 

Enable Advanced Domain Name System (DNS) services enhances your Internet
 Advanced DNS performance by getting you the information and web pages you are looking
 Service: for faster and more reliably. In addition, it improves your overall Internet
 experience by correcting many common typo mistakes automatically, taking
 you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True** Check to enable true Gigabit routing. This will increase the through-put of **Gigabit Routing** the WAN-LAN connectivity of the router. **Connectivity:** 

Address Mode: Select Static IP if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

IP Address: Enter the IP address (Static PPPoE only).

User Name: Enter your PPPoE user name.

**Password:** Enter your PPPoE password and then retype the password in the next box.

Service Name: Enter the ISP Service Name (optional).

**Reconnect** Select either **Always-on**, **On-Demand**, or **Manual**. **Mode:** 

INTERNET CONNECTION TYPE		
Choose the mode to be used by the router to connect to the Internet.		
My Internet Connection is : PPPoE (Username / Password)		
ADVANCED DNS SERVICE		
Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto- correction of common URL typos.		
Enable Advanced DNS Service :		
TRUE GIGABIT ROUTING COM	NNECTIVITY SETTING	
Enable True Gibabit Routing Connectivity :		
PPPOE INTERNET CONNECTIO		
Enter the information provided by your Internet Service Provider (ISP).		
Address Mode : 📀 Dynamic IP (DHCP) 🔿 Static IP		
IP Address :	0.0.0.0	
Username :		
Password :	****	
Verify Password :	****	
Service Name :	(optional)	
Reconnect Mode :	C Always on 💿 On demand C Manual	
Maximum Idle Time :	5 (minutes, 0=infinite)	
Primary DNS Address :	0.0.0.0 (Optional)	
Secondary DNS Address :	0.0.0.0 (Optional)	
MTU :	1492 (bytes)MTU default =1492	
MAC Address :	00:18:E7:95:68:9F	
	Clone Your PC's MAC Address	

**Maximum** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable **Idle Time:** Auto-reconnect.

**DNS** Enter the Primary and Secondary DNS Server Addresses (Static PPPoE only). Addresses:

- MTU: Maximum Transmission Unit you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.
- MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Copy Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

#### Internet Setup PPTP

Choose PPTP (Point-to-Point-Tunneling Protocol) if your ISP uses a PPTP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

**My Internet** Select **PPTP (Username/Password)** from the drop-down menu. **Connection:** 

EnableAdvanced Domain Name System (DNS) services enhances your InternetAdvanced DNSperformance by getting you the information and web pages youService:are looking for faster and more reliably. In addition, it improves your<br/>overall Internet experience by correcting many common typo mistakes<br/>automatically, taking you where you intended to go and saving you<br/>valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True** Check to enable true Gigabit routing. This will increase the through-**Gigabit Routing** put of the WAN-LAN connectivity of the router. **Connectivity:** 

Address Mode: Select Static if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

PPTP IP Address: Enter the IP address (Static PPTP only).

**PPTP Subnet** Enter the Primary and Secondary DNS Server Addresses (Static PPTP **Mask:** only).

PPTP Gateway: Enter the Gateway IP Address provided by your ISP.

**PPTP Server IP:** Enter the Server IP provided by your ISP (optional).

INTERNET CONNECTION TYPE		
Choose the mode to be used by the router to connect to the Internet.		
My Internet Connection is : PPTP (Username / Password)		
ADVANCED DNS SERVICE		
Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto- correction of common URL typos.		
Enable Advanced DNS Service :		
РРТР		
Enter the information provided by your Internet Service Provider (ISP).		
Address Mode :	⊙ Dynamic IP (DHCP) ○ Static IP	
PPTP IP Address :	0.0.0.0	
PPTP Subnet Mask :	0.0.0.0	
PPTP Gateway IP Address :	0.0.0.0	
PPTP Server IP Address :		
Username :		
Password :	****	
Verify Password :	****	
Reconnect Mode :	C Always on 💿 On demand C Manual	
Maximum Idle Time :	5 (minutes, O=infinite)	
Primary DNS Address :	0.0.0.0	
Secondary DNS Address :	0.0.0.0	
MTU :	1400 (bytes)MTU default =1400	
MAC Address :	00:18:E7:95:68:9F	
	Clone Your PC's MAC Address	

**Username:** Enter your PPTP username.

**Password:** Enter your PPTP password and then retype the password in the next box.

- **Reconnect** Select either **Always-on**, **On-Demand**, or **Manual**. **Mode:**
- Maximum Idle Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Time: Auto-reconnect.
- DNS Servers: The DNS server information will be supplied by your ISP (Internet Service Provider.)
  - MTU: Maximum Transmission Unit you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.
- MAC Address: The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

# Internet Setup

Choose L2TP (Layer 2 Tunneling Protocol) if your ISP uses a L2TP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

**My Internet** Select **L2TP (Username/Password)** from the drop-down menu. **Connection:** 

Enable Advanced Domain Name System (DNS) services enhances your
 Advanced DNS Internet performance by getting you the information and web
 Service: pages you are looking for faster and more reliably. In addition, it improves your overall Internet experience by correcting many common typo mistakes automatically, taking you where you intended to go and saving you valuable time.

**Disclaimer:** D-Link makes no warranty as to the availability, reliability, functionality and operation of the Advanced DNS service or its features.

**Enable True** Check to enable true Gigabit routing. This will increase the **Gigabit Routing** through-put of the WAN-LAN connectivity of the router. **Connectivity:** 

Address Mode: Select Static if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select Dynamic.

L2TP IP Address: Enter the L2TP IP address supplied by your ISP (Static only).

- L2TP Subnet Enter the Subnet Mask supplied by your ISP (Static only). Mask:
- L2TP Gateway: Enter the Gateway IP Address provided by your ISP.

**L2TP Server IP:** Enter the Server IP provided by your ISP (optional).

INTERNET CONNECTION TYPE	
Choose the mode to be used by the router to connect to the Internet.	
My Internet Connection is : L2TP (Username / Password)	
ADVANCED DNS SERVICE	
Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto- correction of common URL typos.	
Enable Advanced DNS Service :	
L2TP	
Enter the information provided by your Internet Service Provider (ISP).	
Address Mode :	⊙ Dynamic IP (DHCP) ○ Static IP
L2TP :	0.0.0.0
L2TP Subnet Mask :	0.0.0.0
L2TP Gateway IP Address :	0.0.0.0
L2TP Server IP Address :	
Username:	
Password :	*****
Verify Password :	****
Reconnect Mode :	O Always on 💿 On demand O Manual
Maximum Idle Time :	5 (minutes, O=infinite)
Primary DNS Address :	0.0.0.0
Secondary DNS Address :	0.0.0.0
MTU :	1400 (bytes)MTU default = 1400
MAC Address :	00:18:E7:95:68:9F
	Clone Your PC's MAC Address

**Username:** Enter your L2TP username.

**Password:** Enter your L2TP password and then retype the password in the next box.

**Reconnect** Select either **Always-on**, **On-Demand**, or **Manual**. **Mode:** 

Maximum Idle Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Time: Auto-reconnect.

DNS Servers: Enter the Primary and Secondary DNS Server Addresses (Static L2TP only).

- MTU: Maximum Transmission Unit you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.
- **Clone MAC** The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended **Address:** that you change the default MAC address unless required by your ISP. You can use the **Clone Your PC's MAC Address** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

## Internet Setup DS-Lite

Another Internet Connection type is DS-Lite.

DS-Lite is an IPv6 connection type. After selecting DS-Lite, the following parameters will be available for configuration:

**DS-Lite** Select the DS-Lite DHCPv6 option to let the router allocate the **Configuration:** AFTR IPv6 address automatically. Select the Manual Configuration to enter the AFTR IPv6 address in manually.

**AFTR IPv6** After selecting the Manual Configuration option above, enter the **Address:** AFTR IPv6 address used here.

B4 IPv4 Address: Enter the B4 IPv4 address value used here.

**WAN IPv6** Once connected, the WAN IPv6 address will be displayed here. **Address:** 

**IPv6 WAN** Once connected, the IPv6 WAN Default Gateway address will be **Default Gateway** displayed here.

INTERNET CONNECTION TYPE	E		
Choose the mode to be used by the router to connect to the Internet.			
My Internet Connection is : DS-Lite			
AFTR ADDRESS INTERNET CONNECTION TYPE			
Enter the AFTR address information provided by your Internet Service Provider(ISP).			
DS-Lite Configuration	O DS-Lite DHCPv6 Option C Manual Configuration		
AFTR IPv6 Address :			
B4 IPv4 Address :	192.0.0. (Optional)		
WAN IPv6 Address : IPv6 WAN Default Gateway :			

# **Wireless Settings**

If you want to configure the wireless settings on your router using the wizard, click **Wireless Security Setup Wizard** and refer to page 38.

Click **Add Wireless Device with WPS** if you want to add a wireless device using Wi-Fi Protected Setup (WPS) and refer to page 41.

If you want to manually configure the wireless settings on your router click **Manual Wireless Network Setup** and refer to the next page.

<b>D-Lini</b>	K				
DIR-825	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
INTERNET WIRELESS SETTINGS NETWORK SETTINGS	WIRELESS SETTIN		n assist vou in vour wirele	ss network set in and	Helpful Hints If you are new to wireless networking
MEDIA SERVER	wireless device connection. Before launching these wizards, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package. Setup Setup				and have never configured a wireless router before, click on Wireless Network Setup Wizard and the router will guide you through a few
	This wizard is designed		less network setup. It will wireless network and how Setup Wizard		you through a few simple steps to get your wireless network up and running. If you consider yourself an advanced user and have configured a
	on your wireless client	adapters so they can still	zard may require you to c connect to the D-Link Rou	uter.	wireless router before, click Manual Wireless Network Setup to input all the settings manually.
	This wizard is designed	to assist you in connectir p-by-step instructions on to begin.	I-FI PROTECTED SETU ag your wireless device to how to get your wireless (	your router. It will	More
		Add Wireless De	/i-Fi Protected Setup, mar	und confirmation of	
	the wireless network v	vill destroy the existing wi f your new D-Link System	reless network. If you wo s Router manually, then cl	uld like to configure	
WIRELESS					

## Manual Wireless Settings 802.11n/g (2.4GHz)

- **Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions.
  - Schedule: Select the time frame that you would like your wireless network enabled. The schedule may be set to Always. Any schedule you create will be available in the drop-down menu. Click New Schedule to create a schedule.

#### WIRELESS NETWORK SETTINGS

Wireless Band :	2.4GHz Band
Enable Wireless :	Always Vew Schedule
Wireless Network Name :	dlink (Also called the SSID)
802.11 Mode :	Mixed 802.11n, 802.11g and 802.11b 💌
Enable Auto Channel Scan :	
Wireless Channel :	2.412 GHz - CH 1 🔽
Channel Width :	Auto 20/40 MHz 💌
Visibility Status :	⊙ Visible ⊂ Invisible

Wireless Network Service Set Identifier (SSID) is the name of your wireless

Name: network. Create a name for your wireless network using up to 32 characters. The SSID is case-sensitive.

**802.11 Mode:** Select one of the following:

802.11b Only - Select only if all of your wireless clients are 802.11b.
802.11g Only - Select only if all of your wireless clients are 802.11g.
802.11n Only - Select only if all of your wireless clients are 802.11n.
Mixed 802.11g and 802.11b - Select if you are using both 802.11g and 802.11b wireless clients.
Mixed 802.11n and 802.11g - Select if you are using both 802.11n and 802.11g wireless clients.
Mixed 802.11n, 11g, and 11b - Select if you are using a mix of 802.11n, 802.11g, and 802.11b wireless clients.

**Enable Auto** The **Auto Channel Scan** setting can be selected to allow the DIR-825 to choose the channel with the least amount of interference. **Channel Scan**:

Wireless Channel: Indicates the channel setting for the DIR-825. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

Transmission Rate: Select the transmit rate. It is strongly suggested to select Best (Auto) for best performance.

Channel Width: Select the Channel Width:

**Auto 20/40** - This is the default setting. Select if you are using both 802.11n and non-802.11n wireless devices. **20MHz** - Select if you are not using any 802.11n wireless clients.

Visibility Status: Select Invisible if you do not want the SSID of your wireless network to be broadcasted by the DIR-825. If Invisible is selected, the SSID of the DIR-825 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-825 in order to connect to it.

Wireless Security: Refer to page 38 for more information regarding wireless security.

## 802.11n/a (5GHz)

- **Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions.
  - Schedule: Select the time frame that you would like your wireless network enabled. The schedule may be set to **Always**. Any schedule you create will be available in the dropdown menu. Click **New Schedule** to create a schedule.
- Wireless Network Service Set Identifier (SSID) is the name of your wirelessName: network. Create a name for your wireless network using up to 32 characters. The SSID is case-sensitive.
- WIRELESS NETWORK SETTINGS

   Wireless Band : 5GHz Band

   Enable Wireless : ✓ Always · New Schedule

   Wireless Network Name : dlink\_media (Also called the SSID)

   802.11 Mode : Mixed 802.11n and 802.11a ·

   Enable Auto Channel Scan :

   ✓

   Wireless Channel : 5.180 GHz CH 36 ✓

   Channel Width : Auto 20/40 MHz ·

   Visibility Status : ✓ Visible C Invisible

**802.11 Mode:** Select one of the following:

802.11a Only - Select if all of your wireless clients are 802.11a.
802.11n Only - Select only if all of your wireless clients are 802.11n.
Mixed 802.11n and 802.11a - Select if you are using both 802.11n and 802.11a wireless clients.

**Enable Auto** The **Auto Channel Scan** setting can be selected to allow the DIR-825 to choose the channel with the least amount of interference. **Channel Scan**:

Wireless Channel: Indicates the channel setting for the DIR-825. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

Transmission Rate: Select the transmit rate. It is strongly suggested to select Best (Auto) for best performance.

Channel Width: Select the Channel Width:

**Auto 20/40** - This is the default setting. Select if you are using both 802.11n and non-802.11n wireless devices. **20MHz** - Select if you are not using any 802.11n wireless clients.

Visibility Status: Select Invisible if you do not want the SSID of your wireless network to be broadcasted by the DIR-825. If Invisible is selected, the SSID of the DIR-825 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-825 in order to connect to it.

Wireless Security: Refer to page 38 for more information regarding wireless security.

# **Wireless Security**

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-825 offers the following types of security:

- WPA2 (Wi-Fi Protected Access 2)
- WPA (Wi-Fi Protected Access)

- WPA2-PSK (Pre-Shared Key)
- WPA-PSK (Pre-Shared Key)

## What is WPA?

WPA (Wi-Fi Protected Access), is a Wi-Fi standard that was designed to improve the security features of WEP (Wired Equivalent Privacy).

The 2 major improvements over WEP:

- Improved data encryption through the Temporal Key Integrity Protocol (TKIP). TKIP scrambles the keys using a hashing algorithm and, by adding an integrity-checking feature, ensures that the keys haven't been tampered with. WPA2 is based on 802.11i and uses Advanced Encryption Standard (AES) instead of TKIP.
- User authentication, which is generally missing in WEP, through the extensible authentication protocol (EAP). WEP regulates access to a wireless network based on a computer's hardware-specific MAC address, which is relatively simple to be sniffed out and stolen. EAP is built on a more secure public-key encryption system to ensure that only authorized network users can access the network.

WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?\*&\_) and spaces. This key must be the exact same key entered on your wireless router or access point.

WPA/WPA2 incorporates user authentication through the Extensible Authentication Protocol (EAP). EAP is built on a more secure public key encryption system to ensure that only authorized network users can access the network.

### Wireless Security Setup Wizard

To run the security wizard, click on Setup at the top and then click **Wireless Network Setup Wizard**.



Check the **Manually set 5GHz band Network Name...** box to manually set your desired wireless network name for the 5GHz band.

Type your desired wireless network name (SSID).

**Automatically:** Select this option to automatically generate the router's network key and click **Next**.

**Manually:** Select this option to manually enter your network key and click **Next**.

STEP 1 : WELCOME TO THE D-LINK WIRELESS SECURITY SETUP WIZARD
Give your network a name, using up to 32 characters.
Network Name (SSID) 2.4GHz Band : dlink
🗹 Manually set 5GHz band Network Name (SSID)
Network Name (SSID) 5GHz Band : dlink_media
<ul> <li>Automatically assign a network key for both 2.4GHz and 5GHz band (Recommended)</li> </ul>
To prevent outsiders from accessing your network, the router will automatically assign a security (also called WEP or WPA key) to your network.
C Manually assign a network key
Use this options if you prefer to create our own key.
Note: All D-Link wireless adapters currently support WPA.           Prev         Next         Cancel         Save

If you selected **Automatically**, the summary window will display your settings. Write down the security key and enter this on your wireless clients. Click **Save** to save your settings.

## SETUP COMPLETE! Below is a detailed summary of your wireless security settings. Please print this page out, or write the information on a piece of paper, so you can configure the correct settings on your wireless client adapters. 2.4GHz Band Wireless Networ k Name (SSID) : dlink Security Mode : Auto (WPA or WPA2) - Personal Cipher Type : TKIP and AES Pre-Shared Key : 9fa2e46b5e9e860843fe7d22398faf16fab24d64d60eb406b0829101495d4939 SGHz Band Wireless Network Name (SSID) : dlink\_media Security Mode : Auto (WPA or WPA2) - Personal Cipher Type : TKIP and AES Pre-Shared Key : 33191782c1704f60d0848d7562a2fa19f9924fea4e7733cd45f6c32f219a7291 Prev Next

If you selected **Manually**, the following screen will appear.

STEP 2 SET YOUR WIRELESS SECURITY PASSWORD			
You have selected your security level - you will need to set a wireless security password.			
The WPA (Wi-Fi Protected Access) key must meet one of following guildelines:			
- Between 8 and 63 characters (A longer WPA key is more secure than a short one)			
- Exactly 64 characters using 0-9 and A-F			
Use the same Wireless Security Password on both 2.4GHz and 5GHz band.           2.4GHz Band Wireless Security Password :         my24password			
5GHz Band Wireless Security Password : my5password			
Note: You will need to enter the same password as keyed in this step into your wireless clients in order to enable proper wireless communication.			
Prev Next Cancel			

## Add Wireless Device with WPS Wizard

From the Setup > Wireless Settings screen, click Add Wireless Device with WPS.

ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP) WIZARD
This wizard is designed to assist you in connecting your wireless device to your router. It will guide you through step-by-step instructions on how to get your wireless device connected. Click the button below to begin.
Add Wireless Device with WPS

Select **Auto** to add a wireless client using WPS (Wi-Fi Protected Setup) and then click **Next**. Skip to the next page.

9	STEP 1: SELECT CONFIGURATION METHOD FOR YOUR WIRELESS NETWORK
F	Please select one of following configuration methods and click next to continue.
	Auto 💿 Select this option if your wireless device supports WPS (Wi-Fi Protected Setup)
	Manual $^{ m C}$ Select this option will display the current wireless settings for you to configure the wireless device manually.
	Next Cancel

If you select **Manual**, a settings summary screen will appear. Write down the security key and enter this on your wireless clients. Click **OK** to finish.

2: CONNECT YOUR WIRELESS DEVICE		
w is a detailed summary of your wireless security settings. Please print this page out, or write nformation on a plece of paper, so you can configure the correct settings on your wireless client ters.		
2.4GHz Band SSID: dlink		
Security Mode: Auto (WPA or WPA2) - PSK		
Cipher Type: BOTH		
Pre-shared Key: my24password		
SSID: dlink_guest Security Mode: none		
5GHz Band SSID: dlink_media		
Security Mode: Auto (WPA or WPA2) - PSK		
Cipher Type: BOTH		
Pre-shared Key: my5password		
SSID: dlink_media_guest		
Security Mode: none		
OK		

**PIN:** Select this option to use PIN method. In order to use this method you must know the wireless client's 8 digit PIN and click **Connect**.

**PBC:** Select this option to use PBC (Push Button) method to add a wireless client. Click **Connect**.

ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP) WIZARD
There are two ways to add wireless device to your wireless network
-PIN (Personal Identification Number)
-PBC (Push Button Configuration)
● PIN: 323455 please enter the PIN from your wireless device and click the below "Connect" Button
$igcap_{ extsf{PBC}}$ please press the push button on your wireless device and click the below "Connect" Button within 120 seconds
Prev Connect

Once you click **Connect**, you will have a 120 second time limit to apply the settings to your wireless client(s) and successfully establish a connection.

ADD WIRELESS DEVICE WITH	WPS
Please press down the Push Button	) (physical or virtual) on the wireless device you are adding to your wireless network within 117 seconds

## WPA/WPA2-Personal (PSK)

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead.

- 1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on **Setup** and then click **Wireless Settings** on the left side.
- 2. Next to Security Mode, select WPA-Personal.
- 3. Next to *WPA Mode*, select **Auto**, **WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
- 4. Next to Cypher Type, select TKIP and AES, TKIP, or AES.
- 5. Next to *Group Key Update Interval*, enter the amount of time before the group key used for broadcast and multicast data is changed (3600 is default).
- 6. Next to *Pre-Shared Key*, enter a key (passphrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.
- 7. Click **Save Settings** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WPA-PSK on your adapter and enter the same passphrase as you did on the router.

wireless security modes, including WE wireless encryption standard. WPA pr	P, WPA-Person ovides a higher	ecurity features. This device supports three al, and WPA-Enterprise. WEP is the original level of security. WPA-Personal does not e option requires an external RADIUS server
Security Mode :	WPA-Personal	•
WPA		
	patibility, use V	er and legacy stations are not allowed acces VPA Only. This mode uses TKIP cipher. ode.
To achieve better wireless performan cipher).	ce use WPA2 (	<b>Dnly</b> security mode (or in other words AES
cipher).	Ce use WPA2 ( Auto (WPA or W	
cipher).	Auto (WPA or W	
cipher). WPA Mode :	Auto (WPA or W TKIP and AES	
cipher). WPA Mode : Cipher Type :	Auto (WPA or W TKIP and AES	/PA2) -
cipher). WPA Mode : Cipher Type : Group Key Update Interval : PRE-SHARED KEY	Auto (WPA or W TKIP and AES 3600	(PA2)  (seconds) e. For good security it should be of ample

## **Configure WPA/WPA2-Enterprise (RADIUS)**

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption. Your wireless signal may degrade when enabling encryption due to the added overhead.

- 1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on **Setup** and then click **Wireless Settings** on the left side.
- 2. Next to Security Mode, select WPA-Enterprise.
- 3. Next to *WPA Mode*, select **Auto**, **WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
- 4. Next to Cypher Type, select TKIP and AES, TKIP, or AES.
- 5. Next to *Group Key Update Interval*, enter the amount of time before the group key used for broadcast and multicast data is changed (3600 is default).
- 6. Next to *Authentication Timeout*, enter the amount of time before a client is required to re-authenticate (60 minutes is default).
- 7. Next to *RADIUS Server IP Address* enter the IP Address of your RADIUS server.

WIRELESS SECURITY MODE		
To protect your privacy you can configure wireless security features. This device supports three wireless security modes including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.		
Security Mode : WPA-Enterprise		
WPA		
Use <b>WPA or WPA2</b> mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use <b>WPA2 Only</b> mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use <b>WPA Only</b> . This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.		
cipher).		
WPA Mode :	WPA Only	
Cipher Type :	TKIP and AES	
Group Key Update Interval :	3600 (seconds)	
EAP (802.1X)		
via a remote RADIUS server. M		
Authentication Timeout :	60 (minutes)	
RADIUS server IP Address :	0.0.0.0	
RADIUS server Port :	1812	
RADIUS server Shared Secret :	***	
Second MAC Address Authentication :	V	
Advanced>>		

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- 8. Next to *RADIUS Server Port*, enter the port you are using with your RADIUS server. 1812 is the default port.
- 9. Next to RADIUS Server Shared Secret, enter the security key.
- 10. If the *MAC Address Authentication* box is selected then the user will need to connect from the same computer whenever logging into the wireless network.
- 11. Click **Advanced** to enter settings for a secondary RADIUS Server.
- 12. Click **Apply Settings** to save your settings.

EAP (802.1X)	
When WPA enterprise is enable via a remote RADIUS server. M	ed, the router uses EAP (802.1x) to authenticate clients AC Address Authentication
Authentication Timeout :	60 (minutes)
RADIUS server IP Address :	0.0.0.0
RADIUS server Port :	1812
RADIUS server Shared Secret :	***
Second MAC Address Authentication :	
< <advanced< th=""><th></th></advanced<>	
Optional backup RADIUS serve	er :
Second RADIUS server IP Address :	0.0.0.0
Second RADIUS server Port :	1812
Second RADIUS server Shared Secret :	***
Second MAC Address Authentication :	

45

# **Network Settings**

This section will allow you to change the local network settings of the router and to configure the DHCP settings.

## **Router Settings**

**Router IP Address:** Enter the IP address of the router. The default IP address is 192.168.0.1.

If you change the IP address, once you click **Save Settings**, you will need to enter the new IP address in your browser to get back into the configuration utility.

- Subnet Mask: Enter the Subnet Mask. The default subnet mask is 255.255.255.0.
- Device Name: Enter a name for the router.

Local Domain: Enter the Domain name (Optional).

Enable DNS Relay: Uncheck the box to transfer the DNS server information from your ISP to your computers. If checked, your computers will use the router for a DNS server.

ROUTER SETTINGS	
is configured here is the IP Address	nternal network settings of your router. The IP Address that s that you use to access the Web-based management dress here, you may need to adjust your PC's network ain.
Router IP Address :	192.168.0.1
Subnet Mask :	255.255.255.0
Device Name :	dlinkrouter
Local Domain Name :	
Enable DNS Relay :	

## **DHCP Server Settings**

DHCP stands for Dynamic Host Control Protocol. The DIR-825 has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the DIR-825. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

	Charle this have to smalle the DUCD someon an even mental	
	Check this box to enable the DHCP server on your router. Uncheck to disable this function.	DHCP SERVER SETTINGS
Servera		
	Enter the starting and ending IP addresses for the DHCP server's	Use this section to configure the built-in DHCP Server to assign IP addresses to the computer on your network.
Range	IP assignment.	Enable DHCP Server : 🔽
		DHCP IP Address Range: 192.168.0.100 to 192.168.0.199
	Note: If you statically (manually) assign IP addresses to your	DHCP Lease Time: 1440 (minutes)
	computers or devices, make sure the IP addresses are outside of	Always broadcast : 🔽 (compatibility for some DHCP Clients)
	this range or you may have an IP conflict.	NetBIOS announcement : 🔲
		Learn NetBIOS from WAN: 🔲
DHCP Lease Times	The length of time for the IP address lease. Enter the Lease time	NetBIOS Scope : (Optional)
	in minutes.	NetBIOS node type: @ Broadcast only (use when no WINS servers configured)
		Point-to-Point (no broadcast)
Always	Enable this feature to broadcast your networks DHCP server to	Mixed-mode (Broadcast then Point-to-Point)
•	LAN/WLAN clients.	Hybrid (Point-to-Point then Broadcast)
		Primary WINS IP Address :
NotRIOS	NetBIOS allows LAN hosts to discover all other computers within	Secondary WINS IP Address :
	the network, enable this feature to allow the DHCP Server to offer NetBIOS configuration settings.	

Learn NetBIOS Enable this feature to allow WINS information to be learned from the WAN side, disable to allow manual configuration. from WAN:

NetBIOS Scope: This feature allows the configuration of a NetBIOS 'domain' name under which network hosts operates. This setting has no effect if the 'Learn NetBIOS information from WAN' is activated.

to the computers

NetBIOS Node: Select the different type of NetBIOS node; Broadcast only, Point-to-Point, Mixed-mode, and Hybrid.

WINS IP Enter your WINS Server IP address(es). Address:

## **DHCP** Reservation

If you want a computer or device to always have the same IP address assigned, you can create a DHCP reservation. The router will assign the IP address only to that computer or device.

Note: This IP address must be within the DHCP IP Address Range.

**Enable:** Check this box to enable the reservation.

- **Computer Name:** Enter the computer name or select from the drop-down menu and click <<.
  - **IP Address:** Enter the IP address you want to assign to the computer or device. This IP Address must be within the DHCP IP Address Range.

**MAC Address:** Enter the MAC address of the computer or device.

**Copy Your PC's** If you want to assign an IP address to the computer you **MAC Address:** are currently on, click this button to populate the fields.

Save: Click Save to save your entry. You must click Save Settings at the top to activate your reservations.

#### **DHCP** Reservations List

DHCP Displays any reservation entries. Displays the host nameReservations List: (name of your computer or device), MAC Address, and IP address.

Enable: Check to enable the reservation.

Edit: Click the edit icon to make changes to the reservation entry.

**Delete:** Click to remove the reservation from the list.

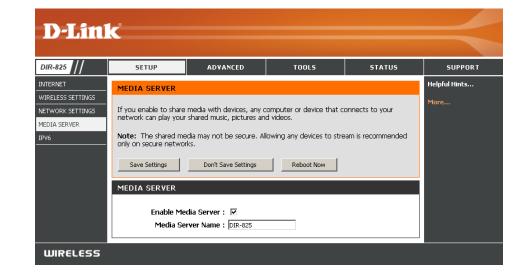
ADD DHCP RESERVATION	
Enable :	
Computer Name :	PM_test01 << PM_test01
IP Address :	192.168.0.112
MAC Address :	00:04:23:2c:51:a3
	Copy Your PC's MAC Address
	Save Clear
DHCP RESERVATIONS LIST	
Enable Host Name	MAC Address IP Address
NUMBER OF DYNAMIC DHCP	CLIENTS: 1
Hardware Address Assigned IP 00:04:23:2c:51:a3 192.168.0.1:	Hostname Expires 12 PM_test01 Thu Sep 1 19:49:06 2011 Revoke Reserve



## **Media Server**

This feature allows you to share music, pictures and videos with any devices connected to your network.

- Enable Media Check this box to enable the media server feature. Server:
  - **Computer** Enter the media server's name. **Name:**



## Storage

This page will allow you to access files from a USB external hard drive or thumb drive that is plugged into the router from your local network or from the Internet using either a web browser or an app for your smartphone or tablet. You can create users to be allowed to access these files.

**Enable HTTP** Check to enable HTTP access to your router's storage. You **Storage Remote** will have to type HTTP in the URL.

Access:

Remote Access Enter a port (8181 is default). You will have to enter this port Port: in the URL when connecting to the shared files. For example: (http://192.168.0.1:8181).

Enable HTTPS Check to enable HTTPS (secure) access to your router's Storage Remote storage. You will have to type HTTPS in the URL. Access:

Remote HTTPS Enter a port (4433 is default). You will have to enter this port Port: in the URL when connecting to the shared files. For example: (https://192.168.0.1:8181).

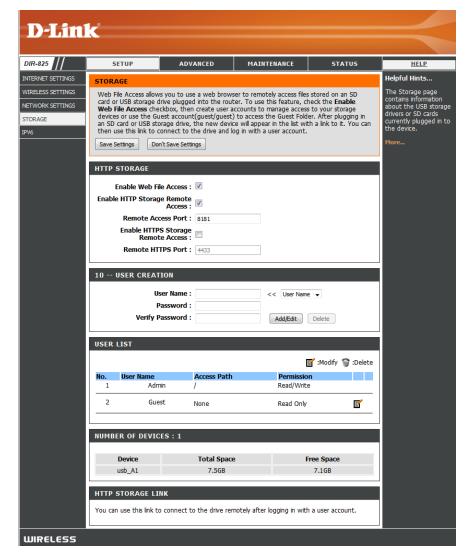
User Name: To create a new user, enter a user name.

**Password:** Enter a password for this account.

Verify Password: Re-enter the password. Click Add/Edit to create the user.

**User List:** Displays the accounts. The Admin and Guest accounts are built-in to the router.

Number of Displays the USB device plugged into the router. Devices:



**Enable Web File** Check to enable sharing files on your USB storage device **Access:** that is plugged in your router.

## IPv6

On this page, the user can configure the IPv6 Connection type. There are two ways to set up the IPv6 Internet connection. You can use the Web-based IPv6 Internet Connection Setup Wizard, or you can manually configure the connection.

For the beginner user that has not configured a router before, click on the **IPv6 Internet Connection Setup Wizard** button and the router will guide you through a few simple steps to get your network up and running.

For the advanced user that has configured a router before, click on the **Manual IPv6 Internet Connection Setup** button to input all the settings manually.

To configure the IPv6 local settings, click on the **IPv6 Local Connectivity Setup** button.





## IPv6 Internet Connection Setup Wizard

On this page, the user can configure the IPv6 Connection type using the IPv6 Internet Connection Setup Wizard.

Click the **IPv6 Internet Connection Setup Wizard** button and the router will guide you through a few simple steps to get your network up and running.

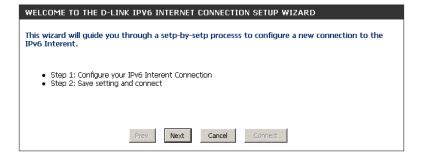
#### IPV6 INTERNET CONNECTION SETUP WIZARD

If you would like to utilize our easy to use Web-based Wizard to assist you in connecting your new D-Link Systems Router to the IPv6 Internet, click on the button below.

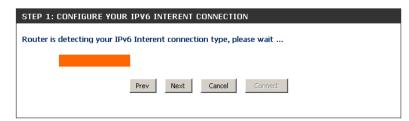
IPv6 Internet Connection Setup Wizard

**Note:** Before launching the wizards, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.

Click **Next** to continue to the next page. Click **Cancel** to discard the changes made and return to the main page.



The router will try to detect whether its possible to obtain the IPv6 Internet connection type automatically. If this succeeds then the user will be guided through the input of the appropriate parameters for the connection type found.



However, if the automatic detection fails, the user will be prompt to either **Try again** or to click on the **Guide me through the IPv6 settings** button to initiate the manual continual of the wizard.

connection method, please contact your IPv6 Internet Service Provider.

There are several connection types to choose from. If you are unsure of your

**Note:** If using the PPPoE option, you will need to ensure that any PPPoE client software on your computers has been removed or disabled. The 3 options available on this page are **IPv6 over PPPoE, Static IPv6 address and Route**, and **Tunneling Connection**.

Choose the required IPv6 Internet Connection type and click on the **Next** button to continue. Click on the **Prev** button to return to the previous page. Click on the **Cancel** button to discard all the changes made and return to the main page.

Choose this option if your IPv6 Interent connection requi DSL modems use this type of connection.	ires a username and password to get online. Most
O Static IPv6 address and Route	
Choose this option if your Interent Service Provider (ISP) has to be manually configured.	) provided you with IPv6 address information that
© Tunneling Connection (6rd)	
Choose this option if your Interent Service Provider (ISP) 6rd automatic tunneling mechanism.	) provided you a IPv6 Internet connection by usir

Click on the **Next** button to continue. Click on the **Prev** button to return to the previous page.

Click on the **Cancel** button to discard all the changes made and return to the main page.

#### **IPv6 over PPPoE**

After selecting the IPv6 over PPPoE option, the user will be able to configure the IPv6 Internet connection that requires a username and password to get online. Most DSL modems use this type of connection.

The following parameters will be available for configuration:

- **PPPoE Session:** Select the PPPoE Session value used here. This option will state that this connection shares it's information with the already configured IPv6 PPPoE connection, or the user can create a new PPPoE connection here.
  - **User Name:** Enter the PPPoE username used here. If you do not know your user name, please contact your ISP.
  - **Password:** Enter the PPPoE password used here. If you do not know your password, please contact your ISP.
- Verify Password: Re-enter the PPPoE password used here.
  - **Service Name:** Enter the service name for this connection here. This option is optional.

	ORD CONNECTION (PPPOE) vill need to have a Username and Password from your IPv6 Internet have this information, please contact your ISP.
PPPoE Session:	$\odot$ Share with IPv4 $\odot$ Create a new session
Username :	
Password :	
Verify Password :	
Service Name :	(Optional)
Note: You may also need to provid contact your ISP.	le a Service Name. If you do not have or know this information, please
[	Prev Next Cancel Connect

#### **Static IPv6 Address Connection**

This mode is used when your ISP provides you with a set IPv6 addresses that does not change. The IPv6 information is manually entered in your IPv6 configuration settings. You must enter the IPv6 address, Subnet Prefix Length, Default Gateway, Primary DNS Server, and Secondary DNS Server. Your ISP provides you with all this information.

- **Use Link-Local** The Link-local address is used by nodes and routers when communicating with neighboring nodes on the same link. This mode enables IPv6-capable devices to communicate with each other on the LAN side.
- IPv6 Address: Enter the WAN IPv6 address for the router here.
- **Subnet Prefix** Enter the WAN subnet prefix length value used here. **Length:**
- **Default Gateway:** Enter the WAN default gateway IPv6 address used here.
- **Primary IPv6 DNS** Enter the WAN primary DNS Server address used here. Address:
- **Secondary IPv6** Enter the WAN secondary DNS Server address used here. **DNS Address:**
- LAN IPv6 Address: These are the settings of the LAN (Local Area Network) IPv6 interface for the router. The router's LAN IPv6 Address configuration is based on the IPv6 Address and Subnet assigned by your ISP. (A subnet with prefix /64 is supported in LAN.)

SET STATIC IPV6 ADDRESS	CONNECTION
	vill need to have a complete list of IPv6 information provided by your If you have a Static IPv6 connection and do not have this ır ISP.
Use Link-Local Address :	V
IPv6 Address :	FE80::218:E7FF:FE95:689F
Subnet Prefix Length :	64
Default Gateway :	
Primary DNS Address :	
Secondary DNS Address :	
LAN IPv6 Address :	/64
[	Prev Next Cancel Connect

#### **Tunneling Connection (6rd)**

After selecting the Tunneling Connection (6rd) option, the user can configure the IPv6 6rd connection settings.

The following paramete	rs will be available for configuration:
6rd IPv6 Prefix:	Enter the 6rd IPv6 address and prefix value used here.
IPv4 Address:	Enter the IPv4 address used here.
Mask Length:	Enter the IPv4 mask length used here.
Assigned IPv6 Prefix:	Displays the IPv6 assigned prefix value here.
6rd Border Relay IPv4 Address:	Enter the 6rd border relay IPv4 address used here
IPv6 DNS Server:	Enter the primary DNS Server address used here.

SET UP 6RD TUNNELING CONNECTION
To set up this 6rd tunneling connection you will need to have the following information from your IPv6 Internet Service Provider. If you do not have this information, please contact your ISP.
6rd IPv6 Prefix : / 32
IPv4 Address: 192.168.1.2 Mask Length:
Assign IPv6 Prefix : None
Tunnel Link-Local Address : FE80::COA8:0102/64
6rd Border Relay IPv4 Address :
IPv6 DNS Server :
Prev Next Cancel Connect

The IPv6 Internet Connection Setup Wizard is complete.

Click on the **Connect** button to continue. Click on the **Prev** button to return to the previous page. Click on the **Cancel** button to discard all the changes made and return to the main page.

ETUP COMPLETE!
he IPv6 Internet Connection Setup Wizard has completed. Click the Connect button to save your ettings and reboot the router.
Prev Next Cancel Connect

## IPv6 Manual Setup

There are several connection types to choose from: Auto Detection, Static IPv6, Autoconfiguration (SLAAC/DHCPv6), PPPoE, IPv6 in IPv4 Tunnel, 6to4, 6rd, and Link-local. If you are unsure of your connection method, please contact your IPv6 Internet Service Provider.

**Note:** If using the PPPoE option, you will need to ensure that any PPPoE client software on your computers has been removed or disabled.

#### **Auto Detection**

Select **Auto Detection** to have the router detect and automatically configure your IPv6 setting from your ISP.

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	Auto Detection
IPv6 DNS SETTINGS	
Obtain a DNS server address au	itomatically or enter a specific DNS server address.
⊙ ○ Primary DNS Server : Secondary DNS Server :	Obtain a DNS server address automatically Use the following DNS address
LAN IPv6 ADDRESS SETTIN	69
	✓ /64
ADDRESS AUTOCONFIGURA	TION SETTINGS
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.You can also enable DHCP-PD to delegate prefixes for router in your LAN.	
Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in LAN :	ম ম
Autoconfiguration Type :	SLAAC + Stateless DHCPv6 -
Router Advertisement	1440 (minutes)

## Static IPv6

My IPv6 Connection: Select Static IPv6 from the drop-down menu.

WAN IPv6 Address Enter the address settings supplied by your Internet provider Settings: (ISP).

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.

LAN Link-Local Address: Displays the Router's LAN Link-Local Address.

**Enable** Check to enable the Autoconfiguration feature. **Autoconfiguration:** 

Autoconfiguration Type: Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless DHCPv6.

- **IPv6 Address Range** Enter the start IPv6 Address for the DHCPv6 range for your **Start:** local computers.
- **IPv6 Address Range** Enter the end IPv6 Address for the DHCPv6 range for your **End:** local computers.

IPv6 Address Lifetime: Enter the IPv6 Address Lifetime (in minutes).

IPv6 CONNECTION TYPE	
Choose the mode to be used by	y the router to the IPv6 Internet.
My IPv6 Connection is :	Static IPv6
WAN IPv6 ADDRESS SETTINGS	
Enter the IPv6 address information	tion provided by your Internet Service Provider (ISP).
Use Link-Local Address :	<b>N</b>
IPv6 Address :	FE80::218:E7FF:FE95:689F
Subnet Prefix Length :	64
Default Gateway :	
Primary DNS Server :	
Secondary DNS Server :	
LAN IPv6 ADDRESS SETTING	35
Use this section to configure	the internal network settings of your router. If you s here, you may need to adjust your PC network
Use this section to configure change the LAN IPv6 Address	the internal network settings of your router. If you s here, you may need to adjust your PC network again.
Use this section to configure change the LAN IPv6 Address settings to access the network	the internal network settings of your router. If you s here, you may need to adjust your PC network again. /64
Use this section to configure change the LAN IPv6 Address settings to access the network LAN IPv6 Address :	the internal network settings of your router. If you s here, you may need to adjust your PC network again. /64 FE80::218:E7FF:FE95:689E/64
Use this section to configure change the LAN IPv6 Address settings to access the network LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURAT	the internal network settings of your router. If you s here, you may need to adjust your PC network again. /64 FE80::218:E7FF:FE95:689E/64
Use this section to configure change the LAN IPv6 Address settings to access the network LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURAT Use this section to setup IPv	the internal network settings of your router. If you s here, you may need to adjust your PC network again. /64 FE80::218:E7FF:FE95:689E/64 ION SETTINGS
Use this section to configure change the LAN IPv6 Address settings to access the network LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURAT Use this section to setup IPv computers on your network. Enable automatic IPv6	the internal network settings of your router. If you s here, you may need to adjust your PC network again. /64 FE80::218:E7FF:FE95:689E/64 ION SETTINGS /6 Autoconfiguration to assign IP addresses to the

## Autoconfiguration

My IPv6 Connection: Select Autoconfiguration (Stateless/DHCPv6) from the drop-down menu.

IPv6 DNS Settings: Select either Obtain DNS server address automatically or Use the following DNS Address.

Primary/Secondary DNS Enter the primary and secondary DNS server addresses. Address:

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.

LAN Link-Local Address: Displays the Router's LAN Link-Local Address.

**Enable** Check to enable the Autoconfiguration feature. **Autoconfiguration:** 

Autoconfiguration Type: Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless DHCPv6.

IPv6 Address Range Enter the start IPv6 Address for the DHCPv6 range for your Start: local computers.

IPv6 Address Range Enter the end IPv6 Address for the DHCPv6 range for your End: local computers.

IPv6 Address Lifetime: Enter the IPv6 Address Lifetime (in minutes).

Choose the mode to be used b	y the router to the IPv6 Internet.
My IPv6 Connection is :	Autoconfiguration (SLAAC/DHCPv6)
IPv6 DNS SETTINGS	
Obtain a DNS server address au	utomatically or enter a specific DNS server address.
c	Obtain a DNS server address automatically
0	Use the following DNS address
Primary DNS Server :	
Secondary DNS Server :	
Use this section to configure change the LAN IPv6 Addre:	the internal network settings of your router. If y ss here, you may need to adjust your PC netw
Use this section to configure change the LAN IPv6 Addre:	the internal network settings of your router. If y ss here, you may need to adjust your PC netw cagain.
Use this section to configure change the LAN IPv6 Addre settings to access the network	the internal network settings of your router. If y ss here, you may need to adjust your PC netw < again.
Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address :	the internal network settings of your router. If y ss here, you may need to adjust your PC netw < again.
Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address :	the internal network settings of your router. If y ss here, you may need to adjust your PC netw < again. /64 FE80::218:E7FF:FE95:689E/64
Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURA Use this section to setup IF computers on your network.	the internal network settings of your router. If y ss here, you may need to adjust your PC netw < again. /64 FE80::218:E7FF:FE95:689E/64
Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURA Use this section to setup IF computers on your network. router in your LAN. Enable automatic IPv6	the internal network settings of your router. If y ss here, you may need to adjust your PC netw c again. /64 FE80::218:E7FF:FE95:689E/64 TION SETTINGS
change the LAN IPv6 Address settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURA Use this section to setup IF computers on your network. router in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in	the internal network settings of your router. If y ss here, you may need to adjust your PC netw c again. /64 FE80::218:E7FF:FE95:689E/64 TION SETTINGS Pv6 Autoconfiguration to assign IP addresses to so you can also enable DHCP-PD to delegate prefixes
Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURA Use this section to setup IF computers on your network. router in your LAN. Enable automatic IPv6	the internal network settings of your router. If y ss here, you may need to adjust your PC netw c again. /64 FE80::218:E7FF:FE95:689E/64 TION SETTINGS Pv6 Autoconfiguration to assign IP addresses to to You can also enable DHCP-PD to delegate prefixes

## PPPoE

My IPv6 Connection: Select PPPoE from the drop-down menu.

- **PPPoE:** Enter the PPPoE account settings supplied by your Internet provider (ISP).
- Address Mode: Select Static if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses. In most cases, select **Dynamic**.

IP Address: Enter the IP address (Static PPPoE only).

User Name: Enter your PPPoE user name.

**Password:** Enter your PPPoE password and then retype the password in the next box.

Service Name: Enter the ISP Service Name (optional).

Reconnection Mode: Select either Always-on, On-Demand, or Manual.

- **Maximum Idle Time:** Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable Auto-reconnect.
  - MTU: Maximum Transmission Unit you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.
  - IPv6 DNS Settings: Select either Obtain DNS server address automatically or Use the following DNS Address.
- Primary/Secondary DNS Enter the primary and secondary DNS server addresses. Address:

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.

LAN Link-Local Address: Displays the Router's LAN Link-Local Address.

**Enable Autoconfiguration:** Check to enable the Autoconfiguration feature.

IPv6 CONNECTION TYPE					
Choose the mode to be used by	y the router to the IPv6 Internet.				
My IPv6 Connection is :	PPPoE 💌				
РРРОЕ					
Enter the information provided	by your Internet Service Provider (ISP).				
PPPoE Session: <ul> <li>Share with IPv4</li> <li>Create a new session</li> </ul>					
Address Mode :	⊙ Dynamic IP ○ Static IP				
IP Address :					
Username :					
Password :					
Verify Password :					
Service Name :	(Optional)				
Reconnect Mode :	Always on  On demand  Manual				
Maximum Idle Time :	5 (minutes, 0=infinite)				
MTU :	1492 (bytes)MTU default = 1492				
۲	tomatically or enter a specific DNS server address. Obtain a DNS server address automatically				
Obtain a DNS server address au	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au © C Primary DNS Server :	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au © Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure	Obtain a DNS server address automatically Use the following DNS address GS The internal network settings of your router. If you s here, you may need to adjust your PC network				
Obtain a DNS server address au Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Addres	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Address settings to access the network Enable DHCP-PD : LAN IPv6 Address :	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD :	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au © Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Address settings to access the network Enable DHCP-PD : LAN IPv6 Address :	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au © Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Address settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURAT Use this section to setup IPv6 of	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au © Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Address settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURAT Use this section to setup IPv6 A computers on your network.Yo router in your LAN. Enable automatic IPv6	Obtain a DNS server address automatically Use the following DNS address				
Obtain a DNS server address au © Primary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Address settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURAT Use this section to setup IPv6 a computers on your network.You router in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in	Obtain a DNS server address automatically Use the following DNS address Use the following DNS address				
Obtain a DNS server address au © Primary DNS Server : Secondary DNS Server : Secondary DNS Server : LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Address settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURAT Use this section to setup IPv6 . computers on your network.Yoo router in your LAN. Enable automatic IPv6 address assignment :	Obtain a DNS server address automatically Use the following DNS address Use the following DNS address				

Autoconfiguration Type: Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless DHCPv6.

**IPv6 Address Range Start:** Enter the start IPv6 Address for the DHCPv6 range for your local computers.

IPv6 Address Range End: Enter the end IPv6 Address for the DHCPv6 range for your local computers.

IPv6 Address Lifetime: Enter the IPv6 Address Lifetime (in minutes).

## IPv6 in IPv4 Tunneling

**My IPv6** Select **IPv6 in IPv4 Tunnel** from the drop-down menu. **Connection:** 

- IPv6 in IPv4 Tunnel Enter the settings supplied by your Internet provider (ISP). Settings:
- LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.
  - LAN Link-Local Displays the Router's LAN Link-Local Address. Address:

**Enable** Check to enable the Autoconfiguration feature. **Autoconfiguration:** 

Autoconfiguration Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless Type: DHCPv6.

**IPv6 Address** Enter the start IPv6 Address for the DHCPv6 range for your local **Range Start:** computers.

**IPv6 Address** Enter the end IPv6 Address for the DHCPv6 range for your local **Range End:** computers.

**Pv6 Address** Enter the Router Advertisement Lifetime (in minutes). Lifetime:

IPv6 CONNECTION TYPE	
TPV0 CONNECTION TYPE	
Choose the mode to be used by the	e router to the IPv6 Internet.
My IPv6 Connection is : IPv	6 in IPv4 Tunnel
IPv6 in IPv4 TUNNEL SETTINGS	
Enter the IBu6 in IBu4 Tunnel infor	mation provided by your Tunnel Broker.
Enter the 1940 in 1944 further inton	mation provided by your furnier broker.
Remote IPv4 Address :	
Remote IPv6 Address :	
Local IPv4 Address : 192	2.168.1.2
Local IPv6 Address :	
·	
IPv6 DNS SETTINGS	
Obtain a DNS server address autom	atically or enter a specific DNS server address.
	ain a DNS server address automatically
	the following DNS address
Primary DNS Server :	
Secondary DNS Server :	
LAN IPv6 ADDRESS SETTINGS	
	internal network settings of your router. If you
Use this section to configure the change the LAN IPv6 Address hi	internal network settings of your router. If you ere, you may need to adjust your PC network
Use this section to configure the	ere, you may need to adjust your PC network
Use this section to configure the change the LAN IPv6 Address hu settings to access the network aga	ere, you may need to adjust your PC network
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD :	ere, you may need to adjust your PC network in.
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address :	ere, you may need to adjust your PC network in. /64
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD :	ere, you may need to adjust your PC network in. /64
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address :	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : FE8	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : FE8 ADDRESS AUTOCONFIGURATION Use this section to setup IPv6 A	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64 I SETTINGS Autoconfiguration to assign IP addresses to the
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : FE8 ADDRESS AUTOCONFIGURATION Use this section to setup IPv6 A	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : FE8 ADDRESS AUTOCONFIGURATION Use this section to setup IPv6 A computers on your network.You corouter in your LAN.	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64 I SETTINGS Autoconfiguration to assign IP addresses to the
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : FE8 ADDRESS AUTOCONFIGURATION Use this section to setup IPv6 A computers on your network.You c router in your LAN. Enable automatic IPv6	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64 I SETTINGS Autoconfiguration to assign IP addresses to the
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : ✓ LAN IPv6 Address : □ LAN IPv6 Link-Local Address : FE8 ADDRESS AUTOCONFIGURATION Use this section to setup IPv6 A computers on your network.You c router in your LAN. Enable automatic IPv6 address assignment : ✓ Enable Automatic DVCDAD in	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64 I SETTINGS Autoconfiguration to assign IP addresses to the
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : FE8 ADDRESS AUTOCONFIGURATION Use this section to setup IPv6 A computers on your network.You corouter in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in LAN :	ere, you may need to adjust your PC network in. /64 0::218:E7FF:FE95:689E/64 I SETTINGS Autoconfiguration to assign IP addresses to the can also enable DHCP-PD to delegate prefixes for
Use this section to configure the change the LAN IPv6 Address he settings to access the network aga Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : FE8 ADDRESS AUTOCONFIGURATION Use this section to setup IPv6 A computers on your network.You conduct in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in LAN :	AAC + Stateless DHCPv6

## 6 to 4 Tunneling

My IPv6 Connection: Select 6 to 4 from the drop-down menu.

6 to 4 Settings: Enter the IPv6 settings supplied by your Internet provider (ISP).

- Primary/Secondary Enter the primary and secondary DNS server addresses. DNS Address:
- LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.
  - LAN Link-Local Displays the Router's LAN Link-Local Address. Address:

**Enable** Check to enable the Autoconfiguration feature. **Autoconfiguration:** 

- Autoconfiguration Select Stateful (DHCPv6), SLAAC + RDNSS or SLAAC + Stateless Type: DHCPv6.
- IPv6 Address Range Enter the start IPv6 Address for the DHCPv6 range for your local Start: computers.

IPv6 Address Range Enter the end IPv6 Address for the DHCPv6 range for your local End: computers.

IPv6 Address Enter the IPv6 Address Lifetime (in minutes). Lifetime:

IPv6 CONNECTION TYPE
Choose the mode to be used by the router to the IPv6 Internet.
My IPv6 Connection is : 6to4
6to4 SETTINGS
Enter the IPv6 address information provided by your Internet Service Provider (ISP).
6to4 Address : 2002:C0A8:0102::C0A8:0102
6to4 Relay : 192.88.99.1
Primary DNS Server :
Secondary DNS Server :
LAN IPv6 ADDRESS SETTINGS
Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.
LAN IPv6 Address : 2002:C0A8:0102:0001 ::1/64
LAN IPv6 Link-Local Address : FE80::218:E7FF:FE95:689E/64
ADDRESS AUTOCONFIGURATION SETTINGS
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.
Enable automatic IPv6 address assignment :
Autoconfiguration Type : SLAAC + Stateless DHCPv6
Router Advertisement Lifetime: 60 (minutes)

### 6rd

My IPv6 Connection: Select 6rd from the drop-down menu.

**6RD Settings:** Enter the address settings supplied by your Internet provider (ISP).

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router.

LAN Link-Local Address: Displays the Router's LAN Link-Local Address.

**Enable** Check to enable the Autoconfiguration feature. **Autoconfiguration:** 

Autoconfiguration Type:	Select Stateful (DHCPv6), SLAAC+RDNSS or SLAAC + Stateless
	DHCPv6.

Router Advertisement Enter the Router Advertisement Lifetime (in minutes). Lifetime:

IPv6 CONNECTION TYPE	
IF TO CONNECTION THE	
Choose the mode to be used b	y the router to the IPv6 Internet.
My IPv6 Connection is :	6rd 🔹
6RD SETTINGS	
Enter the IDu6 address informa	tion provided by your Internet Service Provider (ISP).
	ition provided by your internet service Provider (13P).
6rd Configuration :	⊙ 6rd DHCPv4 Option ○ Manual Configuration
6rd IPv6 Prefix :	/ 32
	192.168.1.2 Mask Length :0
Assian IPv6 Prefix :	<b>,</b>
Tunnel Link-Local Address :	
6rd Border Relay IPv4	
Address :	
Primary DNS Server :	
Secondary DNS Server :	
LAN IPv6 ADDRESS SETTING	68
the this continue to confirm	also intermed materials antitions of mean matters. If mean
	the internal network settings of your router. If you is here, you may need to adjust your PC network
settings to access the network	
LAN IPv6 Address : LAN IPv6 Link-Local Address :	
LAN IFTO LINK-LOCAL AUDIESS .	FEOU210.2711.FE9J.009E/ 04
ADDRESS AUTOCONFIGURAT	ION SETTINGS
	v6 Autoconfiguration to assign IP addresses to the
computers on your network.	
Enable automatic IPv6	E
address assignment :	
Autoconfiguration Type :	SLAAC + Stateless DHCPv6
Router Advertisement Lifetime:	60 (minutes)

## Link-Local Connectivity

My IPv6 Connection: Select Link-Local Only from the drop-down menu.

LAN IPv6 Address Displays the IPv6 address of the router. Settings:

IPv6 CONNECTION TYPE
Choose the mode to be used by the router to the IPv6 Internet.
My IPv6 Connection is: Local Connectivity Only
LAN IPv6 ADDRESS SETTINGS
LAN IPv6 address for local IPv6 communications.
LAN IPv6 Link-Local Address: FE80::218:E7FF:FE95:689E/64

## Advanced Virtual Server

This will allow you to open a single port. If you would like to open a range of ports, refer to the next page.

- Name: Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.
- **IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the "Computer Name" drop-down menu. Select your computer and click <<.
- Private Port/ Enter the port that you want to open next to Private Public Port: Port and Public Port. The private and public ports are usually the same. The public port is the port seen from the Internet side, and the private port is the port being used by the application on the computer within your local network.

Protocol Type: Select TCP, UDP, or Both from the drop-down menu.

- Schedule: The schedule of time when the Virtual Server Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools** > Schedules section.
- Inbound Filter: Select Allow All (most common) or a created Inbound filter. You may create your own inbound filters in the Advanced > Inbound Filter page.

D-Lini	Č						
DIR-825		SETUP	ADVANCED	TOOLS		STATUS	SUPPORT
VIRTUAL SERVER	VIR	TUAL SERVER					Helpful Hints
PORT FORWARDING APPLICATION RULES QOS ENGINE NETWORK FILTER	to ar onlin	n internal LAN IP A	on allows you to define a s (ddress and Private LAN po FTP or Web Servers. Don't Save Settings				Check the Application Name drop down menu for a list of predefined server types. If you select one of the
ACCESS CONTROL	24 -	VIRTUAL SE	RVERS LIST				predefined server types, click the arrow
WEBSITE FILTER					Traffic		button next to the drop down menu to fill
INBOUND FILTER				Port	Type		out the corresponding
FIREWALL SETTINGS		Name	<	Public Port	Protoco TCP		You can select a
ADVANCED WIRELESS		IP Address 0.0.0.0	Computer Name 💌	Private Port	6	Inbound Filter	computer from the list of DHCP clients in the <b>Computer Name</b> drop
SETUP ADVANCED NETWORK		Name	< Application Name 🔻	Public Port	Protoco TCP		down menu, or you can manually enter the IP address of the
GUEST ZONE		IP Address		Private Port		Inbound Filter	computer at which you would like to open
IPV6 FIREWALL		0.0.0.0	< Computer Name 💌	1 1-	6	Allow All	the specified port.
IPV6 ROUTING		IP Address	Application Name	Private Port	Protocc		Select a schedule for when the virtual server will be enabled. If you do not see the schedule you need in

#### **Port Forwarding**

This will allow you to open a single port or a range of ports.

- **Name:** Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.
- **IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the "Computer Name" drop-down menu. Select your computer and click <<.
- **TCP/UDP:** Enter the TCP and/or UDP port or ports that you want to open. You can enter a single port or a range of ports. Separate ports with a common.

Example: 24,1009,3000-4000

- Schedule: The schedule of time when the Virtual Server Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools** > Schedules section.
- Inbound Filter: Select Allow All (most common) or a created Inbound filter. You may create your own inbound filters in the Advanced > Inbound Filter page.

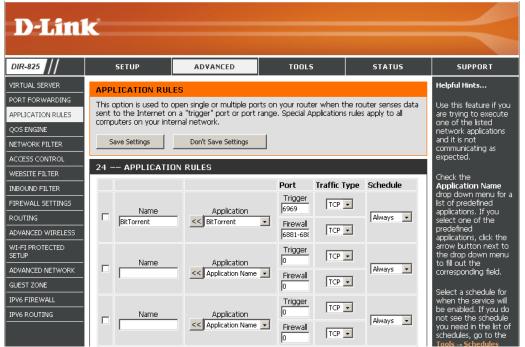
DIR-825	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	PORT FORWARDI	NG RULES :			Helpful Hints
PORT FORWARDING		open multiple ports or a ra			Check the
APPLICATION RULES	through those ports t various formats includ	Application Name drop down menu fo			
QOS ENGINE	(1020-5000, 689).	ng, ronanges (100°130,	, manada Ports (00, 00,	oooy, or mixed	list of predefined
NETWORK FILTER	Save Settings	Don't Save Settings	1		applications. If you select one of the
ACCESS CONTROL		Dunt bave betungs			predefined
WEBSITE FILTER	24 PORT FORM	WARDING RULES			applications, click th arrow button next
INBOUND FILTER			Ports to Ope	a	the drop down mer to fill out the
FIREWALL SETTINGS	Name		тср	Schedule	corresponding field.
ROUTING		Application Name	• 0	Always -	You can select a
ADVANCED WIRELESS	IP Address		UDP	Inbound Filter	computer from the of DHCP clients in t
WI-FI PROTECTED	0.0.0.0	< Computer Name	• 0	Allow All 💌	Computer Name d
SETUP	Name		TCP	Schedule	down menu, or you can manually enter
ADVANCED NETWORK		Application Name	• 0	Always 💌	IP address of the LA
GUEST ZONE	IP Address		UDP	Inbound Filter	computer to which you would like to or
IPV6 FIREWALL	0.0.0.0	< Computer Name	• 0	Allow All 💌	the specified port.
IPV6 ROUTING	Name		TCP	Schedule	

### **Application Rules**

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DIR-825. If you need to run applications that require multiple connections, specify the port normally associated with an application in the "Trigger Port" field, select the protocol type as TCP or UDP, then enter the firewall (public) ports associated with the trigger port to open them for inbound traffic.

The DIR-825 provides some predefined applications in the table on the bottom of the web page. Select the application you want to use and enable it.

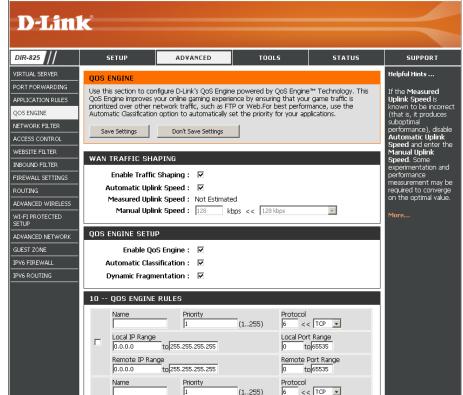
- Name: Enter a name for the rule. You may select a pre-defined application from the drop-down menu and click <<.
- **Trigger:** This is the port used to trigger the application. It can be either a single port or a range of ports.
- **Traffic Type:** Select the protocol of the trigger port (TCP, UDP, or Both).
  - Firewall: This is the port number on the Internet side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.
- **Traffic Type:** Select the protocol of the firewall port (TCP, UDP, or Both).
  - Schedule: The schedule of time when the Application Rule will be enabled. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the Tools > Schedules section.



### QoS Engine

The QoS Engine option helps improve your network gaming performance by prioritizing applications. By default the QoS Engine settings are disabled and application priority is not classified automatically.

- **Enable Traffic** This option is disabled by default. Enable this option for **Shaping:** better performance and experience with online games and other interactive applications, such as VoIP.
- Automatic Uplink This option is enabled by default when the QoS Engine Speed: option is enabled. This option will allow your router to automatically determine the uplink speed of your Internet connection.
- Measured Uplink This displays the detected uplink speed. Speed:
  - Manual Uplink The speed at which data can be transferred from the Speed: router to your ISP. This is determined by your ISP. ISP's often speed as a download/upload pair. For example, 1.5Mbits/284Kbits. Using this example, you would enter 284. Alternatively you can test your uplink speed with a service such as speedtest.net.
    - Enable QoS This option is enabled by default. This will allow your routerEngine: to automatically determine the network priority of running programs.



Automatic This option should be enabled when you have a slow Internet uplink. It helps to reduce the impact that large low priority network Classification: packets can have on more urgent ones.

**Dynamic** This option should be enabled when you have a slow Internet uplink. It helps to reduce the impact that large low priority network **Fragmentation:** packets can have on more urgent ones.

#### **Network Filters**

Use MAC (Media Access Control) Filters to allow or deny LAN (Local Area Network) computers by their MAC addresses from accessing the network. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the Broadband Router.

#### Configure MAC Select Turn MAC Filtering Off, Allow MAC Filtering: addresses listed below, or Deny MAC addresses listed below from the drop-down menu.

MAC Address: Enter the MAC address you would like to filter.

To find the MAC address on a computer, please refer to the *Networking Basics* section in this manual.

**DHCP Client:** Select a DHCP client from the drop-down menu and click << to copy that MAC Address.

Clear: Click to remove the MAC address.

<b>D-Lin</b>						
DIR-825	SETUP	ADVAN	EED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER PORT FORWARDING APPLICATION RULES QOS ENGINE	MAC ADDRESS FIN The MAC (Media Acce based on the MAC Adi the manufacturer of the network/Internet acce	ss Controller) A dress of the ne he network ada	twork adapter. A M	AC address is a un	ique ID assigned b	
NETWORK FILTER ACCESS CONTROL WEBSITE FILTER	Save Settings 24 MAC FILTER	Computers that have obtained an IP addre from the router's DHCP server will be in				
INBOUND FILTER FIREWALL SETTINGS	Configure MAC Filterin Turn MAC Filtering ON a	-	iters listed to access t	ne network 💌		the DHCP Client List. Select a device from the drop down menu
	MAC Address		DHCP Client List			then click the arrow add that device's MA
ADVANCED WIRELESS	00:04:23:2c:51:a3	<<	PM_test01 (00:04:2	23:2c:51:a3 ) 💌	Clear	ar address to the list.
WI-FI PROTECTED SETUP	00:00:00:00:00:00	<<	Computer Name	•	Clear	Click the <b>Clear</b> butto
ADVANCED NETWORK	00:00:00:00:00:00	<<	Computer Name	•	Clear	to receive the MARC
GUEST ZONE	00:00:00:00:00:00	<<	Computer Name	•	Clear	Citerate - list
IPV6 FIREWALL	00:00:00:00:00:00	<	Computer Name	•	Clear	ar More
IPV6 ROUTING	00:00:00:00:00:00		Computer Name		Clear	

#### **Access Control**

The Access Control section allows you to control access in and out of your network. Use this feature as Parental Controls to only grant access to approved sites, limit web access based on time or dates, and/or block access from applications like P2P utilities or games.

Add Policy: Click the Add Policy button to start the Access Control Wizard.



### **Access Control Wizard**

Click **Next** to continue with the wizard.

#### ADD NEW POLICY

This wizard will guide you through the following steps to add a new policy for Access Control.
Step 1 - Choose a unique name for your policy Step 2 - Select a schedule Step 3 - Select the machine to which this policy applies Step 4 - Select filtering method Step 5 - Select filters
Step 6 - Configure Web Access Logging
Prev Next Save Cancel

Select the filtering method and then click **Next** to continue.

Enter the following information and then click **Next** to continue.

Select a schedule (I.E. Always) from the drop-down menu and

- Address Type Select IP address, MAC address, or Other Machines.
- **IP Address** Enter the IP address of the computer you want to apply the rule to.
- Machine Address Enter the PC MAC address (i.e. 00:00.00.00.00).

#### Section 3 - Configuration

then click **Next** to continue.

Enter a name for the policy and then click **Next** to continue.

Choose a unic	que name for your j	policy.		
	Policy Name : 🛛	example		

oose a schedul	e to apply to	this policy.		
		Always		
	Details :	Always		

elect the machine to wh	ch this policy appli	es.		
Specify a machine with its IP	or MAC address, or s	elect "Other Machines" fo	r machines that do r	not have a policy.
Address Ty	De: ⊙IP O MAC	C Other Machines		
IP Addre	ss: 192.168.0.112	<< PM test01 (19	2.168.0.112 )	
Machine Addre	ss :	<< Computer Nam	8	
	Copy Your	PC's MAC Address		
	OK Clear			
Machine				
192.168.0.112			E	9

Select the method for filtering.	
select the method for filtering.	
Method :	C Log Web Access Only ⊂ Block All Access ⓒ Block Some Access
Apply Web Filter :	
Apply Advanced Port Filters :	

#### Section 3 - Configuration

#### Enter the rule:

Enable - Check to enable the rule.
Name - Enter a name for your rule.
Dest IP Start - Enter the starting IP address.
Dest IP End - Enter the ending IP address.
Protocol - Select the protocol.
Dest Port Start - Enter the starting port number.
Dest Port End - Enter the ending port number.

Add Po	rt Filters Rules					
specify	rules to prohibit	access to specific IP addre	sses and ports.			
Enable	Name	Dest IP Start	Dest IP End	Protocol	Dest Port Start	Dest Port End
		0.0.0.0	255.255.255.255	Any 🔹	0	65535
		0.0.0.0	255.255.255.255	Any 💌	0	65535
		0.0.0.0	255.255.255.255	Any 💌	0	65535
		0.0.0.0	255.255.255.255	Any 💌	0	65535
		0.0.0.0	255.255.255.255	Any 🔹	0	65535
		0.0.0.0	255.255.255.255	Any 💌	0	65535
		0.0.0.0	255.255.255.255	Any 💌	0	65535
		0.0.0.0	255.255.255.255	Any 💌	0	65535

STEP 6: CONFIGURE WEB ACCESS LOGGIN Web Access Logging : O Disabled

Enable

To enable web logging, click **Enable**.

Click **Save** to save the access control rule.

Your newly created policy will now show up under **Policy Table**.

ACCES	S CONTRO	L							
feature	The Access Control option allows you to control access in and out of your network. Use this feature as Access Controls to only grant access to approved sites, limit web access based on time or dates, and/or block internet access for applications like P2P utilities or games.								
Save Settings Don't Save Settings Reboot Now									
ENABL	E								
E	Enable Acces	ss Control : 🔽							
		Add Po	olicy						
POLIC	7 TABLE								
Enable	Policy	Machine	Filtering	Logged	Schedule				
~	dlink	192.168.0.106	Block Some Access	No	Always	F	Ŷ		

Prev Next Save Cancel

#### **Website Filters**

Website Filters are used to allow you to set up a list of Web sites that can be viewed by multiple users through the network. To use this feature select to **Allow** or **Deny**, enter the domain or website and click **Save Settings**. You must also select **Apply Web Filter** under the *Access Control* section (page 42).

Add Website Select either DENY computers access to ONLY Filtering Rule: these sites or ALLOW computers access to ONLY these sites.

Website URL/ Enter the keywords or URLs that you want to allow Domain: or block. Click **Save Settings**.

**D-Link** DIR-825 SETUP ADVANCED TOOLS STATUS SUPPORT VIRTUAL SERVER Helpful Hints... WEBSITE FILTER PORT FORWARDING Create a list of Web APPLICATION RULES The Website Filter option allows you to set up a list of Web sites you would like to allow or Sites to which you deny through your network. To use this feature, you must also select the "Apply Web Filter" would like to deny QOS ENGINE checkbox in the Access Control section. or allow through the network. NETWORK FILTER Don't Save Settings Save Settings ACCESS CONTROL Use with Access WEBSITE FILTER 40 - WEBSITE FILTERING RULES INBOUND FILTER Inre.. Configure Website Filter below: FIREWALL SETTINGS ALLOW computers access to ONLY these sites 💌 ROUTING ADVANCED WIRELESS Clear the list below... WI-FI PROTECTED SETUP Website URL/Domain ADVANCED NETWORK GUEST ZONE IPV6 FIREWALL IPV6 ROUTING

#### **Inbound Filters**

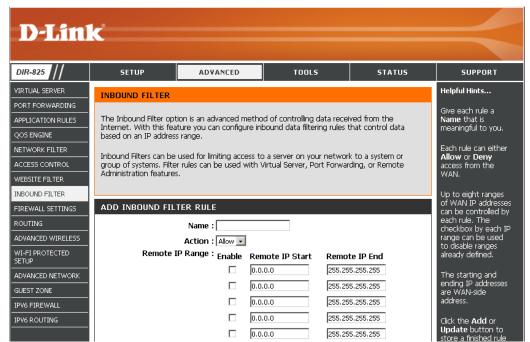
The Inbound Filter option is an advanced method of controlling data received from the Internet. With this feature you can configure inbound data filtering rules that control data based on an IP address range. Inbound Filters can be used with Virtual Server, Port Forwarding, or Remote Administration features.

Name: Enter a name for the inbound filter rule.

Action: Select Allow or Deny.

Enable: Check to enable rule.

- **Remote IP Start:** Enter the starting IP address. Enter 0.0.0.0 if you do not want to specify an IP range.
- **Remote IP End:** Enter the ending IP address. Enter 255.255.255.255 if you do not want to specify and IP range.
  - Add: Click the Add button to apply your settings. You must click Save Settings at the top to save the settings.
- Inbound Filter This section will list any rules that are created. You Rules List: may click the **Edit** icon to change the settings or enable/disable the rule, or click the **Delete** icon to remove the rule.



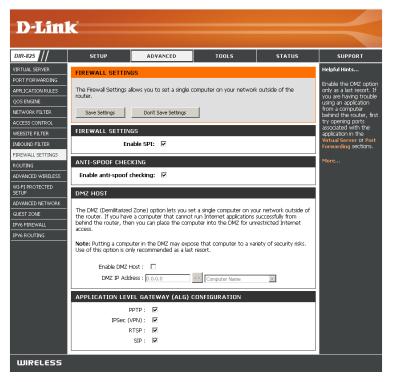
#### **Firewall Settings**

A firewall protects your network from the outside world. The DIR-825 offers a firewall type functionality. The SPI feature helps prevent cyber attacks. Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable DMZ. DMZ is short for Demilitarized Zone. This option will expose the chosen computer completely to the outside world.

- **Enable SPI:** SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It validates that the traffic passing through the session conforms to the protocol.
- Anti-Spoof Check: Enable this feature to protect your network from certain kinds of "spoofing" attacks.
  - **Enable DMZ:** If an application has trouble working from behind the router, you can expose one computer to the Internet and run the application on that computer.

**Note:** Placing a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.

**DMZ IP Address:** Specify the IP address of the computer on the LAN that you want to have unrestricted Internet communication. If this computer obtains it's IP address automatically using DHCP, be sure to make a static reservation on the **Setup** > **Network Settings** page so that the IP address of the DMZ machine does not change.



**PPTP:** Allows multiple machines on the LAN to connect to their corporate network using PPTP protocol.

**IPSEC (VPN):** Allows multiple VPN clients to connect to their corporate network using IPSec. Some VPN clients support traversal of IPSec through NAT. This ALG may interfere with the operation of such VPN clients. If you are having trouble connecting with your corporate network, try turning this ALG off. Please check with the system administrator of your corporate network whether your VPN client supports NAT traversal.

- **RTSP:** Allows application that uses Real Time Streaming Protocol to receive streaming media from the Internet. QuickTime and Real Player are some of the common applications using this protocol.
  - **SIP:** Allows devices and applications using VoIP (Voice over IP) to communicate across NAT. Some VoIP applications and devices have the ability to discover NAT devices and work around them. This ALG may interfere with the operation of such devices. If you are having trouble making VoIP calls, try turning this ALG off.

#### Routing

The Routing option is an advanced method of customizing specific routes of data through your network.

- **Destination IP:** Enter the IP address of packets that will take this route.
  - **Netmask:** Enter the netmask of the route, please note that the octets must match your destination IP address.
  - **Gateway:** Enter your next hop gateway to be taken if this route is used.
    - Metric: The route metric is a value from 1 to 16 that indicates the cost of using this route. A value 1 is the lowest cost and 15 is the highest cost.
  - **Interface:** Select the interface that the IP packet must use to transit out of the router when this route is used.

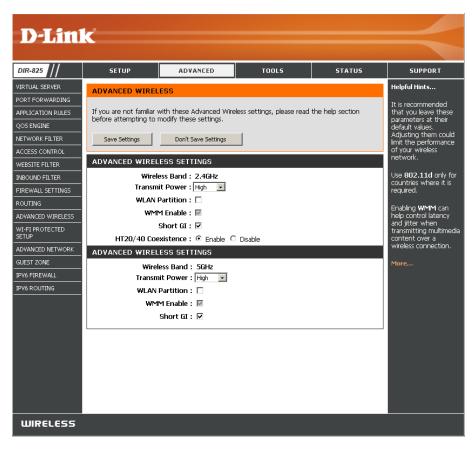
D T Seal					
<b>D-Lin</b>					
DIR-825	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	ROUTING				Helpful Hints
PORT FORWARDING	Rooting				Each route has a
APPLICATION RULES	This Routing page allo around your network.	ws you to specify custom r	outes that determine ho	w data is moved	check box next to it,
QOS ENGINE	arounu your network.	check this box if you want the route to be			
NETWORK FILTER			1		enabled.
ACCESS CONTROL	Save Settings	Don't Save Settings			The name field allows
WEBSITE FILTER	32ROUTE LIST				you to specify a name for identification of this
INBOUND FILTER			Metric	Interface	route, e.g. "Network 2"
FIREWALL SETTINGS	Name	Destination IP	Metric	Intenace	-
ROUTING		0.0.0.0			The destination IP address is the address
ADVANCED WIRELESS	Netmask	Gateway	1	WAN 💌	of the host or network you wish to reach.
WI-FI PROTECTED SETUP	0.0.0.0	0.0.0			ŕ
ADVANCED NETWORK	Name	Destination IP 0.0.0.0			The netmask field identifies the portion
GUEST ZONE	Netmask	Gateway	1	WAN 💽	of the destination IP in use.
IPV6 FIREWALL	0.0.0.0	0.0.0.0			
IPV6 ROUTING	_ Name	Destination IP 0.0.0.0			The gateway IP address is the IP address of the router,
	Netmask	Gateway 0.0.00	1	WAN	if any, used to reach the specified destination.

#### **Advanced Wireless**

Transmit Power: Set the transmit power of the antennas.

- WLAN Partition: This enables 802.11d operation. 802.11d is a wireless specification developed to allow implementation of wireless networks in countries that cannot use the 802.11 standard. This feature should only be enabled if you are in a country that requires it.
  - **WMM Enable:** WMM is QoS for your wireless network. This will improve the quality of video and voice applications for your wireless clients.
    - **Short GI:** Check this box to reduce the guard interval time therefore increasing the data capacity. However, it's less reliable and may create higher data loss.

HT20/40 Coexistence Select to Enable or Disable this feature. (2.4GHz only):



#### Wi-Fi Protected Setup (WPS)

Wi-Fi Protected Setup (WPS) System is a simplified method for securing your wireless network during the "Initial setup" as well as the "Add New Device" processes. The Wi-Fi Alliance (WFA) has certified it across different products as well as manufactures. The process is just as easy as pressing a button for the Push-Button Method or correctly entering the 8-digit code for the Pin Code Method. The time reduction in setup and ease of use are quite beneficial, while the highest wireless Security setting of WPA2 is automatically used.

Enable: Enable the Wi-Fi Protected Setup feature.

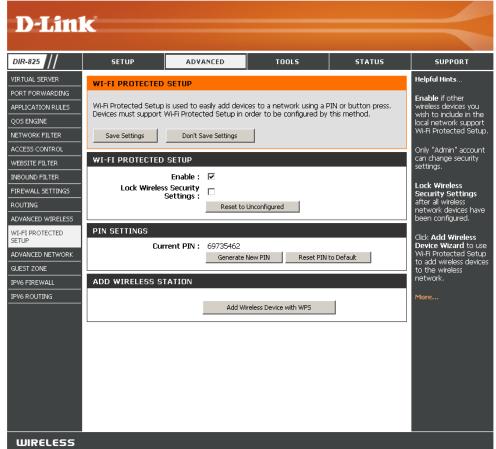
**Note:** if this option is unchecked, the WPS button on the side of the router will be disabled.

- Lock Wireless Locking the wireless security settings prevents the Security settings from being changed by the Wi-Fi Protected Settings: Setup feature of the router. Devices can still be added to the network using Wi-Fi Protected Setup. However, the settings of the network will not change once this option is checked.
- **PIN Settings:** A PIN is a unique number that can be used to add the router to an existing network or to create a new network. Only the Administrator ("admin" account) can change or reset the PIN.

Current PIN: Shows the current PIN.

Reset PIN to Restore the default PIN of the router. Default:

Generate New Create a random number that is a valid PIN. This PIN: becomes the router's PIN. You can then copy this PIN to the user interface of the wireless client.



Add Wireless This Wizard helps you add wireless devices to the wireless network. Station:

The wizard will either display the wireless network settings to guide you through manual configuration, prompt you to enter the PIN for the device, or ask you to press the configuration button on the device. If the device supports Wi-Fi Protected Setup and has a configuration button, you can add it to the network by pressing the configuration button on the device and then the on the router within 60 seconds. The status LED on the router will flash three times if the device has been successfully added to the network.

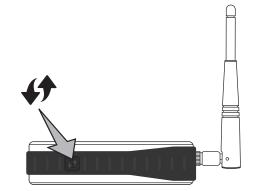
There are several ways to add a wireless device to your network. A "registrar" controls access to the wireless network. A registrar only allows devices onto the wireless network if you have entered the PIN, or pressed a special Wi-Fi Protected Setup button on the device. The router acts as a registrar for the network, although other devices may act as a registrar as well.

Add Wireless Click to start the wizard and skip to page 41. Device Wizard:

#### **WPS Button**

You can also simply press the WPS button on the side of the router, and then press the WPS button on your wireless client to automatically connect without logging into the router.

Refer to page 106 for more information.

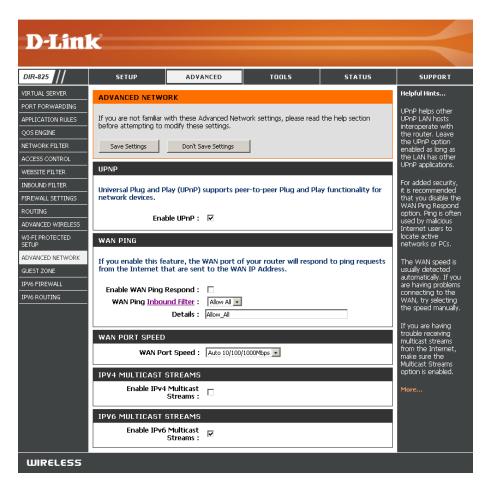


#### **Advanced Network Settings**

- **Enable UPnP:** To use the Universal Plug and Play (UPnP<sup>™</sup>) feature click on **Enabled**. UPnP provides compatibility with networking equipment, software and peripherals.
  - **WAN Ping:** Checking the box will allow the DIR-825 to respond to pings. Unchecking the box may provide some extra security from hackers.
- WAN Ping Inbound Select from the drop-down menu if you would like to apply Filter: the Inbound Filter to the WAN ping. Refer to the Inbound Filters section for more information.
  - WAN Port Speed: You may set the port speed of the Internet port to 10Mbps, 100Mbps, or Auto (recommended).

**Enable IPV4** Check the box to allow multicast traffic to pass through **Multicast Streams:** the router from the Internet (IPv4).

**Enable IPV6** Check the box to allow multicast traffic to pass through **Multicast Streams:** the router from the Internet (IPv6).



#### **Guest Zone**

The Guest Zone feature will allow you to create temporary zones that can be used by guests to access the Internet. These zones will be separate from your main wireless network. You may configure different zones for the 2.4GHz and 5GHz wireless bands.

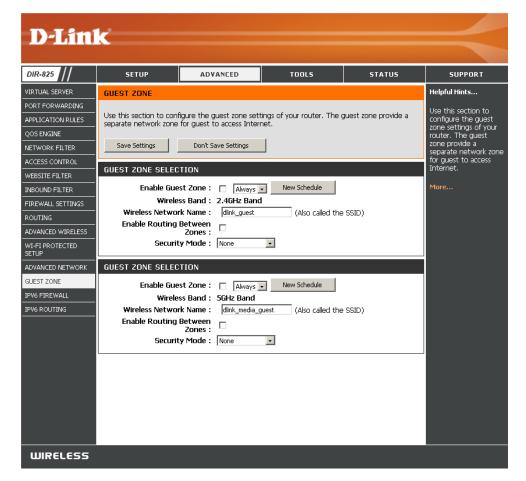
#### Enable Guest Check to enable the Guest Zone feature. Zone:

Schedule: The schedule of time when the Guest Zone will be active. The schedule may be set to Always, which will allow the particular service to always be enabled. You can create your own times in the **Tools** > Schedules section.

**Wireless** Enter a wireless network name (SSID) that is different **Network Name:** from your main wireless network.

**Enable Routing** Check to allow network connectivity between the **Between Zones:** different zones created.

Security Mode: Select the type of security or encryption you would like to enable for the guest zone.



#### IPv6 Firewall

The DIR-825's IPv6 Firewall feature allows you to configure which kind of IPv6 traffic is allowed to pass through the device. The DIR-825's IPv6 Firewall functions in a similar way to the IP Filters feature.

**Enable Checkbox:** Check the box to enable the IPv6 firewall simple security.

**Configure IPv6** Select an action from the drop-down menu. **Firewall:** 

Name: Enter a name to identify the IPv6 firewall rule.

- Schedule: Use the drop-down menu to select the time schedule that the IPv6 Firewall Rule will be enabled on. The schedule may be set to **Always**, which will allow the particular service to always be enabled. You can create your own times in the **Tools** > Schedules section.
  - **Source:** Use the **Source** drop-down menu to specify the interface that connects to the source IPv6 addresses of the firewall rule.
- IP Address Range: Enter the source IPv6 address range in the adjacent IP Address Range field.

**Dest:** Use the **Dest** drop-down menu to specify the interface that connects to the destination IP addresses of the firewall rule.

Protocol: Select the protocol of the firewall port (All, TCP, UDP, or ICMP).

Port Range: Enter the first port of the range that will be used for the firewall rule in the first box and enter the last port in the field in the second box.

D I Stal	_				
<b>D</b> -Linl					
DIR-825	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
VIRTUAL SERVER	IPV6 FIREWALL				Helpful Hints
PORT FORWARDING	The Firewall settings s	ection is an advance featu	ire used to allow or deny	traffic from passing	For each rule you can
APPLICATION RULES	through the device. If create more detailed r	create a name and control the direction of			
QOS ENGINE		traffic. You can also			
NETWORK FILTER	Save Settings	allow or deny a range of IP Addresses, the			
ACCESS CONTROL	IPV6 SIMPLE SEC	protocol and a port range.			
WEBSITE FILTER					
INBOUND FILTER	Enable IPv6 Simple Se	In order to apply a schedule to a firewall			
FIREWALL SETTINGS	IPV6 FIREWALL	rule, your must first define a schedule on			
ROUTING		the Tools → Schedules			
ADVANCED WIRELESS	Configure IPv6 Firewa	l below:			page
WI-FI PROTECTED SETUP		firewall rules that can be o	onfigured:		More
ADVANCED NETWORK	Name	Schedule			
GUEST ZONE		Always			
IPV6 FIREWALL	1. Interfac	e IP Address Range	Proto		
IPV6 ROUTING	Interfac	e IP Address Range	Port F	Range	
	Dest *	-	1	~ 65535	
	Name	Schedule Always			
	2. Interfac	e IP Address Range	Proto		
	Dest *	e IP Address Range	Port F	Range ~65535	

#### **IPv6 Routing**

This page allows you to specify custom routes that determine how data is moved around your network.

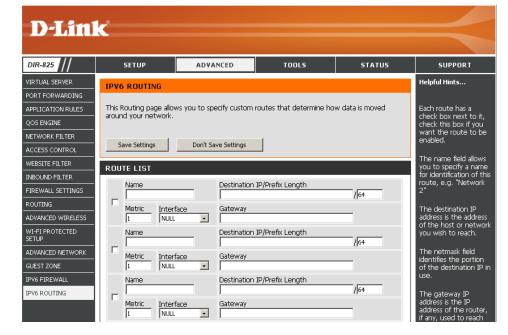
Route List: Check the box next to the route you wish to enable.

Name: Enter a specific name to identify this route.

**Destination IP**/ This is the IP address of the router used to reach the **Prefix Length:** specified destination or enter the IPv6 address prefix length of the packets that will take this route.

Metric: Enter the metric value for this rule here.

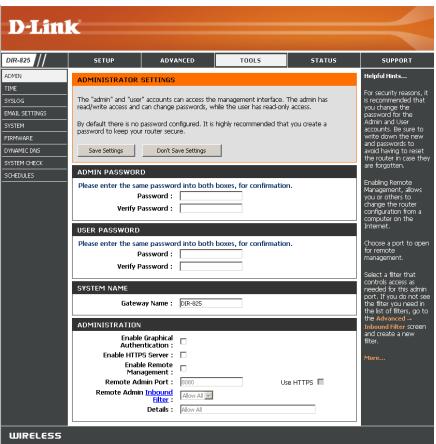
- **Interface:** Use the drop-down menu to specify if the IP packet must use the WAN or LAN interface to transit out of the Router.
- Gateway: Enter the next hop that will be taken if this route is used.



# Tools Admin

This page will allow you to change the Administrator and User passwords. You can also enable Remote Management. There are two accounts that can access the management interface through the web browser. The accounts are admin and user. Admin has read/write access while user has read-only access. User can only view the settings but cannot make any changes. Only the admin account has the ability to change both admin and user account passwords.

change the settings (you can only view them).System Name:Enter a name for your router.Enable Graphical Authentication:Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.Enable HTTPS Server:Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter https://192.168.0.1 (for example) instead of http://192.168.0.1.Enable Remote Management:Remote management allows the DIR-825 to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.Remote Admin Port:The port number used to access the DIR-825 is used in the URL Example: http://x.x.x.x8080 whereas x.x.x is the Internet IP address of the DIR-825 and 8080 is the port used for the Web Management interface.If you have enabled HTTPS Server, you must enter https:// as part of the URL to access the router remotely.Remote Admin Inbound Filter:This section will list any rules that are created. You may click the Edit icon to change the settings or enable/disable the rule, or click the Delete icon to			
<ul> <li>change the settings (you can only view them).</li> <li>System Name: Enter a name for your router.</li> <li>Enable Graphical Authentication: Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.</li> <li>Enable HTTPS Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter https://192.168.0.1 (for example) instead of http://192.168.0.1.</li> <li>Enable Remote Management: Remote management allows the DIR-825 to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.</li> <li>Remote Admin Port: The port number used to access the DIR-825 is used in the URL Example: http://x.x.x.:8080 whereas x.x.x.x is the Internet IP address of the DIR-825 and 8080 is the port used for the Web Management interface.</li> <li>If you have enabled HTTPS Server, you must enter https:// as part of the URL to access the router remotely.</li> <li>Remote Admin Inbound Filter: This section will list any rules that are created. You may click the Edit icon to change the settings or enable/disable the rule, or click the Delete icon to</li> </ul>	Admin Password:		D
System Name:       Enter a name for your router.         Enable Graphical Authentication:       Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.         Enable HTTPS       Check to enable HTTPS to connect to the router securely. This means to connect server:         Enable Remote Management:       Remote management allows the DIR-825 to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.         Remote Admin Port:       The port number used to access the DIR-825 is used in the URL. Example: http://x.x.x:8080 whereas x.x.x.x is the Internet IP address of the DIR-825 and 8080 is the port used for the Web Management interface.         If you have enabled HTTPS Server, you must enter https:// as part of the URL to access the router remotely.         Remote Admin Inbound Filter:       This section will list any rules that are created. You may click the Edit icon to change the settings or enable/disable the rule, or click the Delete icon to	User Password:		DIR-8
Enable Graphical Authentication:Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.Enable HTTPS Server:Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter https://192.168.0.1 (for example) instead of http://192.168.0.1.Enable Remote Management:Remote management allows the DIR-825 to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.Remote Admin Port: If you have enabled HTTPS Server, you must enter https://as part of the URL to access the router remotely.Internet interface.Remote Admin Inbound Filter:This section will list any rules that are created. You may click the Edit icon to change the settings or enable/disable the rule, or click the Delete icon to	System Name:	Enter a name for your router.	SYSLOG
Enable HTTPS Server:Check to enable HTTPS to connect to the router securely. This means to connect to the router, you must enter https://192.168.0.1 (for example) instead of http://192.168.0.1.Enable Remote Management:Remote management allows the DIR-825 to be configured from the Internet by a web browser. A username/password is still required to access the Web Management interface.Remote Admin Port:The port number used to access the DIR-825 is used in the URL. Example: http://x.x.x.8080 whereas x.x.x.x is the Internet IP address of the DIR-825 and 8080 is the port used for the Web Management interface.If you have enabled HTTPS Server, you must enter https:// as part of the URL to access the router remotely.Remote Admin Inbound Filter:This section will list any rules that are created. You may click the Edit icon to change the settings or enable/disable the rule, or click the Delete icon to		from a distorted image displayed on the screen to prevent online hackers and	SYSTEM FIRMW DYNAM
Management:       by a web browser. A username/password is still required to access the Web Management interface.         Remote Admin Port:       The port number used to access the DIR-825 is used in the URL. Example: http://x.x.x.x8080 whereas x.x.x.x is the Internet IP address of the DIR-825 and 8080 is the port used for the Web Management interface.         If you have enabled HTTPS Server, you must enter https:// as part of the URL to access the router remotely.       This section will list any rules that are created. You may click the Edit icon to change the settings or enable/disable the rule, or click the Delete icon to		to the router, you must enter https://192.168.0.1 (for example) instead of	SCHEDU
http://x.x.x.x:8080 whereas x.x.x.x is the Internet IP address of the DIR-825 and 8080 is the port used for the Web Management interface.         If you have enabled HTTPS Server, you must enter https:// as part of the URL to access the router remotely.         Remote Admin Inbound Filter:         This section will list any rules that are created. You may click the Edit icon to change the settings or enable/disable the rule, or click the Delete icon to		by a web browser. A username/password is still required to access the Web	
to access the router remotely.           Remote Admin         This section will list any rules that are created. You may click the Edit icon to           Inbound Filter:         change the settings or enable/disable the rule, or click the Delete icon to	Remote Admin Port:	http://x.x.x.x8080 whereas x.x.x.x is the Internet IP address of the DIR-825	
Inbound Filter: change the settings or enable/disable the rule, or click the Delete icon to			
		change the settings or enable/disable the rule, or click the <b>Delete</b> icon to	UI



#### Time

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the Time Server. Daylight Saving can also be configured to automatically adjust the time when needed.

Time: Displays the current date and time of the router.

- Time Zone: Select your Time Zone from the drop-down menu.
- **Enable Daylight** To select Daylight Saving time manually, select **Saving:** enabled or disabled, and enter a start date and an end date for daylight saving time.
- **Enable NTP Server:** NTP is short for Network Time Protocol. A NTP server will synch the time and date with your router. This will only connect to a server on the Internet, not a local server. Check the box to enable this feature.
  - **NTP Server Used:** Enter the IP address of a NTP server or select one from the drop-down menu.
    - Manual: To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Set Time**.

You can also click **Copy Your Computer's Time Settings** to synch the date and time with the computer you are currently on.

D-Lini	2				
DIR-825	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	TIME				Helpful Hints
TIME SYSLOG EMAIL SETTINGS SYSTEM FIRMWARE DYNAMIC DNS SYSTEM CHECK SCHEDULES	The Time Configuratio on the internal system set the NTP (Network automatically adjust th Save Settings TIME CONFIGURAT Time Enable Daylight Daylight Saving	Good timekeeping is important for accurate logs and scheduled firewall rules. More			
		DST End Nov CONFIGURATION P Server :  ver Used :	< Select NTP	1:00 AM	
			Month Aug • Day Minute 31 • Secor our Computer's Time Settings	31 ¥ nd 01 ¥ PM ¥	
WIRELESS					

## SysLog

The Broadband Router keeps a running log of events and activities occurring on the Router. You may send these logs to a SysLog server on your network.

- Enable Logging to Check this box to send the router logs to a SysLog SysLog Server: Server.
  - SysLog Server IPThe address of the SysLog server that will beAddress:used to send the logs. You may also select your<br/>computer from the drop-down menu (only if<br/>receiving an IP address from the router via DHCP).

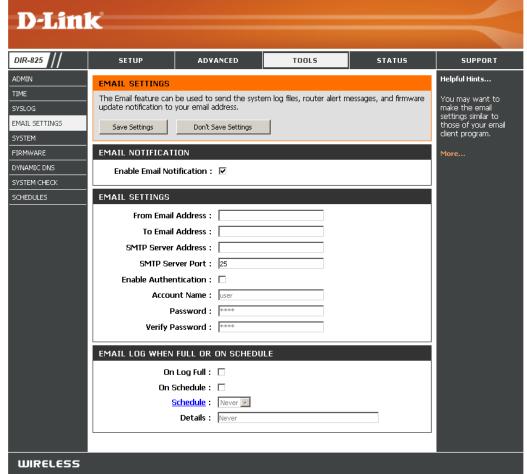


#### **Email Settings**

The Email feature can be used to send the system log files, router alert messages, and firmware update notification to your email address.

**Enable Email** When this option is enabled, router activity logs **Notification:** are emailed to a designated email address.

- **From Email** This email address will appear as the sender **Address:** when you receive a log file or firmware upgrade notification via email.
- **To Email Address:** Enter the email address where you want the email sent.
  - **SMTP Server** Enter the SMTP server address for sending email. **Address:**
- SMTP Server Port: Enter the SMTP port used on the server.
  - **Enable** Check this box if your SMTP server requires **Authentication**: authentication.
  - Account Name: Enter your account for sending email.
    - **Password:** Enter the password associated with the account. Re-type the password associated with the account.
    - **On Log Full:** When this option is selected, logs will be sent via email to your account when the log is full.



**On Schedule:** Selecting this option will send the logs via email according to schedule.

Schedule: This option is enabled when **On Schedule** is selected. You can select a schedule from the list of defined schedules. To create a schedule, go to **Tools** > Schedules.

#### System

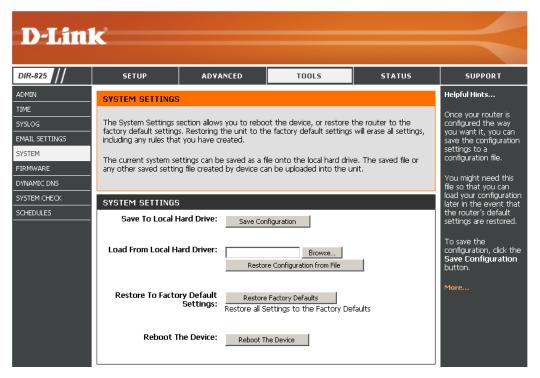
This section allows you to manage the router's configuration settings, reboot the router, and restore the router to the factory default settings. Restoring the unit to the factory default settings will erase all settings, including any rules that you've created.

Save Settings to Use this option to save the current router Local Hard Drive: configuration settings to a file on the hard disk of the computer you are using. First, click the Save button. A file dialog will appear, allowing you to select a location and file name for the settings.

Load Settings Use this option to load previously saved router from Local Hard configuration settings. First, use the Browse option Drive: to find a previously saved file of configuration settings. Then, click the Load button to transfer those settings to the router.

Restore to This option will restore all configuration settings Factory Default back to the settings that were in effect at the Settings: time the router was shipped from the factory. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save the current router configuration settings, use the Save button above.

Reboot Device: Click to reboot the router.



#### Firmware

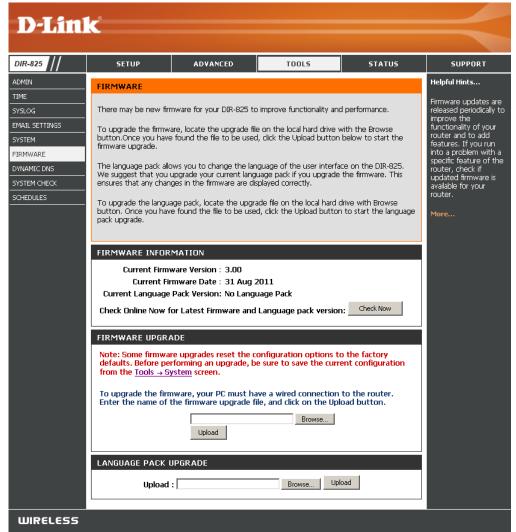
You can upgrade the firmware of the access point here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support website for firmware updates at http://support.dlink.com. You can download firmware upgrades to your hard drive from this site.

- Browse: After you have downloaded the new firmware, click Browse to locate the firmware update on your hard drive. Click **Upload** to complete the firmware upgrade.
- **Upload:** Once you have a firmware update on your computer, use this option to browse for the file and then upload the information into the access point.

### Language Pack

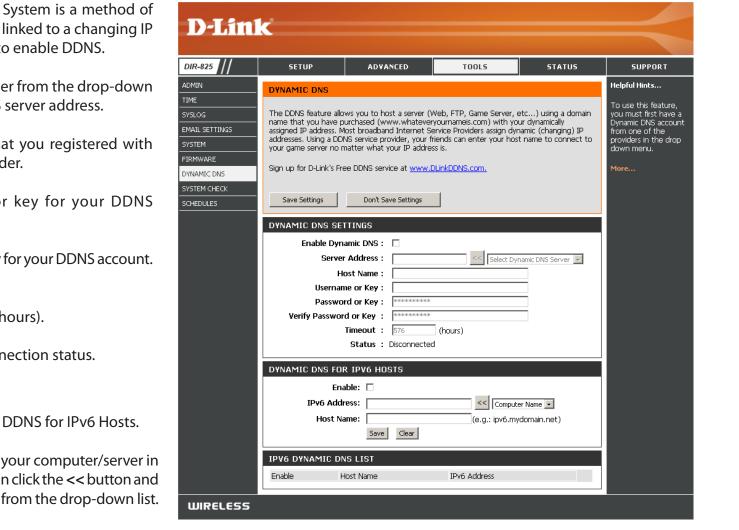
You can change the language of the web UI by uploading available language packs.

**Browse:** After you have downloaded the new language pack, click **Browse** to locate the language pack file on your hard drive. Click **Upload** to complete the language pack upgrade.



### **Dynamic DNS**

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter in your domain name to connect to your server no matter what your IP address is.



**Enable** Dynamic Domain Name System is a method of **Dynamic DNS:** keeping a domain name linked to a changing IP Address. Check the box to enable DDNS.

**Server** Select your DDNS provider from the drop-down **Address:** menu or enter the DDNS server address.

- Host Name: Enter the Host Name that you registered with your DDNS service provider.
- Username or Enter the Username or key for your DDNS Key: account.
- Password or Enter the Password or key for your DDNS account. Key:

**Timeout:** Enter a timeout time (in hours).

Status: Displays the current connection status.

#### **DDNS for IPv6 Hosts**

Enable: Check the box to enable DDNS for IPv6 Hosts.

IPv6Enter the IPv6 address of your computer/server in<br/>your local network. You can click the << button and<br/>select a computer/server from the drop-down list.

Host Name: Enter the IPv6 Host Name that you registered with your DDNS service provider.

IPv6 DDNS Once you save your entry, the IPv6 DDNS host information will be displayed here. List:

**Enable:** Check to enable the entry.

Host Name: Displays the name of your IPv6 DDNS host.

IPv6 Address: Displays the IPv6 address of your computer/server associated with the IPv6 DDNS host.

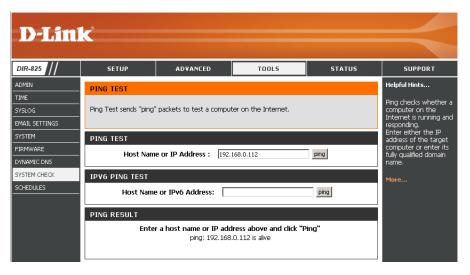
Edit/Delete: Click the edit icon to make changes to the entry or click the delete icon to remove the entry.

#### System Check

**Ping Test:** The Ping Test is used to send Ping packets to test if a computer is on the Internet. Enter the IP address that you wish to Ping and click **Ping**.

**IPv6 Ping Test:** Enter the IPv6 address that you wish to Ping and click **Ping**.

**Ping Results:** The results of your ping attempts will be displayed here.



#### Schedules

Schedules can be created for use with enforcing rules. For example, if you want to restrict web access to Mon-Fri from 3pm to 8pm, you could create a schedule selecting Mon, Tue, Wed, Thu, and Fri and enter a Start Time of 3pm and End Time of 8pm.

Name: Enter a name for your new schedule.

- **Days:** Select a day, a range of days, or All Week to include every day.
- Time: Check All Day 24hrs or enter a start and end time for your schedule.
- Save: You must click Save Settings at the top for your schedules to go into effect.
- Schedule Rules The list of schedules will be listed here. Click the List: Edit icon to make changes or click the Delete icon to remove the schedule.

<b>D-Lin</b>	k				
DIR-825	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
ADMIN	SCHEDULES				Helpful Hints
TIME SYSLOG EMAIL SETTINGS	The Schedule configur parental control featur	ration option is used to ma res.	anage schedule rules for	various firewall and	Schedules are used with a number of other features to define when those
SYSTEM	Save Settings	Don't Save Settings	1		features are in effect.
IRMWARE					Give each schedule a name that is
	10 - ADD SCHEDU	JLE RULE			meaningful to you. For example, a schedule
SYSTEM CHECK		me: (s): ⊙ All Week O s □ Sun □ Mon I	ielect Day(s)	u 🗖 Fri 🗖 Sat	for Monday through Friday from 3:00pm to 9:00pm, might be called "After School".
	All Day - 24 h Time Form Start Tir	at: 24-hour	M 토 (hour:minute)		Click <b>Save</b> to add a completed schedule to the list below.
	End Tir		M 🗾 (hour:minute)		Click the <b>Edit</b> icon to change an existing schedule.
	SCHEDULE RULES				Click the <b>Delete</b> icon
	Name :	Day(:	s): Schedu	ule Rules List :	to permanently delete a schedule.

## Status Device Info

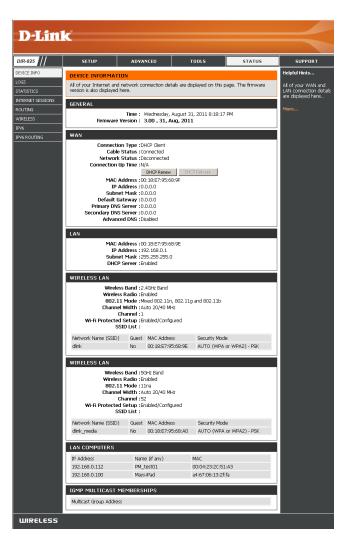
This page displays the current information for the DIR-825. It will display the LAN, WAN (Internet), and Wireless information. If your Internet connection is set up for a Dynamic IP address then a **Release** button and a **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP.

If your Internet connection is set up for PPPoE, a **Connect** button and a **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection.

General: Displays the router's time and firmware version.

WAN: Displays the MAC address and the public IP settings

- LAN: Displays the MAC address and the private (local) IP settings for the router.
- **Wireless LAN:** Displays the wireless MAC address and your wireless settings such as SSID and Channel. The first Wireless LAN section is for the 2.4GHz segment and the second section is for the 5GHz segment.
- LAN Computers: Displays computers and devices that are connected to the router via Ethernet and that are receiving an IP address assigned by the router (DHCP).



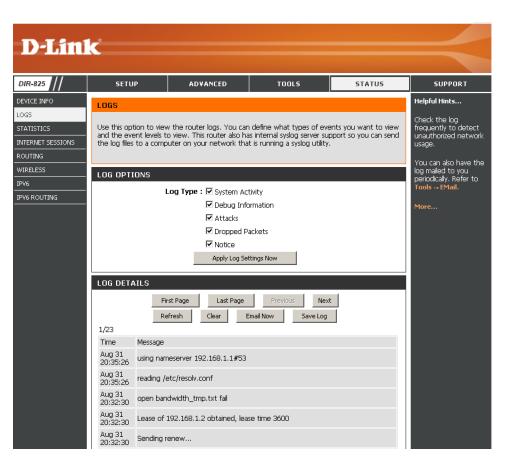
#### Logs

The router automatically logs (records) events of possible interest in it's internal memory. If there isn't enough internal memory for all events, logs of older events are deleted but logs of the latest events are retained. The Logs option allows you to view the router logs. You can define what types of events you want to view and the level of the events to view. This router also has external Syslog Server support so you can send the log files to a computer on your network that is running a Syslog utility.

- Log Types: You can select the types of messages that you want to display from the log. System Activity, Debug Information, Attacks, Dropped Packets, and Notice messages can be selected. Click **Apply Log Settings** Now to activate your settings.
  - **Refresh:** Updates the log details on the screen so it displays any recent activity.

Clear: Clears all of the log contents.

- **Email Now:** This option will send a copy of the router log to your email address configured in the **Tools** > **Email Settings** screen.
  - Save Log: This option will save the router log to a file on your computer.



#### Statistics

The screen below displays the **Traffic Statistics**. Here you can view the amount of packets that pass through the DIR-825 on both the WAN, LAN ports and both the 802.11n/g (2.4GHz) and 802.11n/a (5GHz) wireless bands. The traffic counter will reset if the device is rebooted.

<b>D-Lin</b>	ĸ				$\prec$
DIR-825	SETUP	SUPPORT			
DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPV6 IPV6 ROUTING	TRAFFIC STATISTI Traffic Statistics display Refresh Statistics LAN STATISTICS Sent : 45 TX Packets Dropped : 0	Helpful Hints This is a summary of the number of packets that have passed between the WAN and the LAN since the router was last initialized. More			
	WAN STATISTICS Sent : 2 TX Packets Dropped : 0	41	Received : 1239 RX Packets Dropped : Errors : 0		
	WIRELESS STATIS Sent : 2 TX Packets Dropped : 0	29	Received:0 RX Packets Dropped: Errors:0		
	WIRELESS STATIS Sent : 1 TX Packets Dropped : 0	173	Received : 0 RX Packets Dropped : 0 Errors : 0		
WIRELESS					

#### **Internet Sessions**

The Internet Sessions page displays full details of active Internet sessions through your router. An Internet session is a conversation between a program or application on a LAN-side computer and a program or application on a WAN-side computer.

D-Link											
DIR-825	SETUP	AI	VANCED		TOOLS		S	TATUS	SUPPORT		
DEVICE INFO	INTERNET SESSION	INTERNET SESSIONS									
LOGS									This is a list of all active		
STATISTICS	This page displays the i	This page displays the full details of active sessions to your router.									
INTERNET SESSIONS									between WAN computers and LAN		
ROUTING	INTERNET SESSION	1S							computers.		
WIRELESS	Local	NAT	Internet		Protocol	State	Dir	Timeout	More		
IPV6	192.168.0.112:138	2	192.168.0.255:	:138	UDP		OUT				
IPV6 ROUTING											

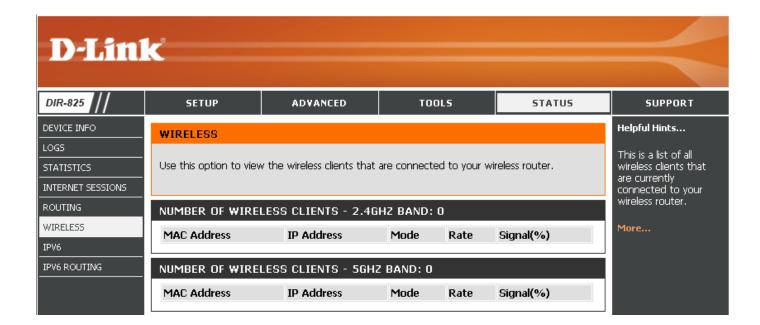
### Routing

This page will display your current routing table.

<b>D-Lin</b>	C							
DIR-825	SETUP	AD¥4	ANCED	1	0015	ST	ATUS	SUPPORT
DEVICE INFO	ROUTING							
ogs								
TATISTICS	Routing Table							
NTERNET SESSIONS	This page displays	the routing deta	ils confiaured t	ör vour r	outer.			
ROUTING	····· p - g p p p p p p p p p p	···- · - · · · · · · · · · · · · · · ·	········g-·· - ···	,				
WIRELESS								
iPV6	Routing Table							
PV6 ROUTING	Destination IP	Netmask	Gateway	Metric	Interface	Туре	Creator	
	192.168.1.0	255.255.255.0	0.0.0.0	0	WAN	Internal	System	
	192.168.0.0	255.255.255.0	0.0.0.0	0	LAN	Internal	System	
	239.0.0.0	255.0.0.0	0.0.0.0	0	LAN	Internal	System	
	127.0.0.0	255.0.0.0	0.0.0.0	0	Local Loopback	Internal	System	
	0.0.0.0	0.0.0.0	192.168.1.1	0	WAN	Internal	System	

#### Wireless

The wireless client table displays a list of current connected wireless clients. This table also displays the connection time and MAC address of the connected wireless clients.



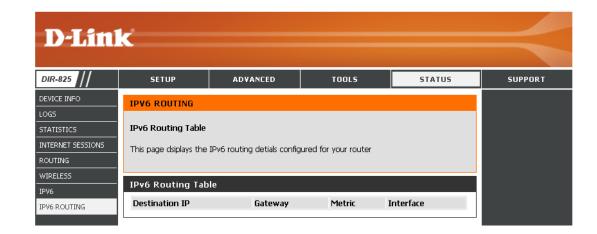
#### IPv6

The IPv6 page displays a summary of the Router's IPv6 settings and lists the IPv6 address and host name of any IPv6 clients.

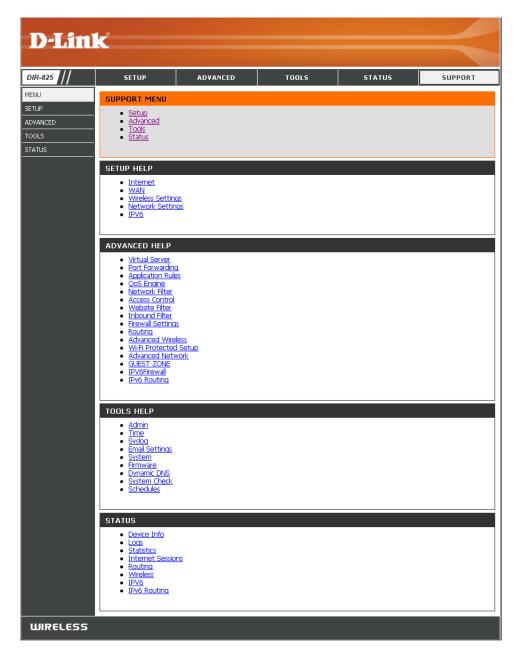
<b>D-Lin</b>	k				$\prec$				
DIR-825	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT				
DEVICE INFO	IPv6 Network Inf	ormation	·		Helpful Hints				
LOGS	All of your IPv6 Interne	et and network connection	on details are displayed on	this page.	All of your WAN and				
STATISTICS	, í				LAN connection details are displayed here.				
INTERNET SESSIONS	IPv6 Connection	Information			are uispiayeu nere.				
ROUTING	IPv6 Connect	IPv6 Connection Type : Local Connectivity Only							
WIRELESS	LAN IPv6 Link-Local	LAN IPv6 Link-Local Address : fe80::218:e7ff:fe95:689e/64							
IPV6									
IPV6 ROUTING	LAN IP¥6 Comput	ers							
	IPv6 Address		Name (if any)						

### **IPV6** Routing

This page displays the IPV6 routing details configured for your router.



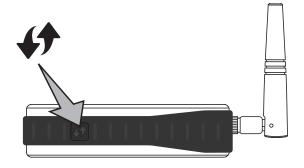
### Support



# Connect a Wireless Client to your Router WPS Button

The easiest and most secure way to connect your wireless devices to the router is WPS (Wi-Fi Protected Setup). Most wireless devices such as wireless adapters, media players, Blu-ray DVD players, wireless printers and cameras will have a WPS button (or a software utility with WPS) that you can press to connect to the DIR-825 router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

**Step 1** - Press the WPS button on the DIR-825 for about 1 second. The WPS button will start to blink.



- **Step 2** Within 2 minutes, press the WPS button on your wireless client (or launch the software utility and start the WPS process).
- **Step 3** Allow up to 1 minute to configure. Once the WPS light stops blinking, you will be connected and your wireless connection will be secure with WPA2.

## Windows<sup>®</sup> 7 WPA/WPA2

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

1. Click on the wireless icon in your system tray (lower-right corner).



2. The utility will display any available wireless networks in your area.



Section 4 - Security

3. Highlight the wireless network (SSID) you would like to connect to and click the **Connect** button.

If you get a good signal but cannot access the Internet, check your TCP/IP settings for your wireless adapter. Refer to the Networking Basics section in this manual for more information.



4. The following window appears while your computer tries to connect to the router.

×
Cancel

Section 4 - Security

5. Enter the same security key or passphrase that is on your router and click **Connect**. You can also connect by pushing the WPS button on the router.

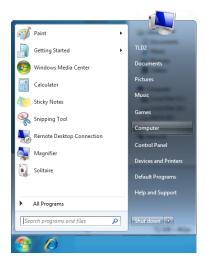
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.

Connect to a Network	×
Type the network security key	
Security key:	
Hide characters	
You can also connect by pushing the button on the router.	
ОК	Cancel

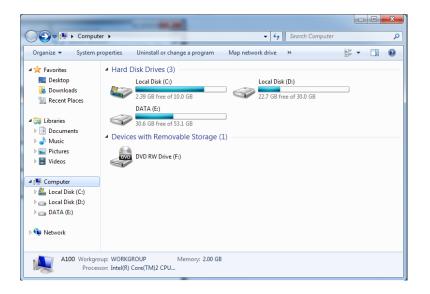
## WPS

The WPS feature of the DIR-825 can be configured using Windows<sup>®</sup> 7. Carry out the following steps to use Windows<sup>®</sup> 7 to configure the WPS feature:

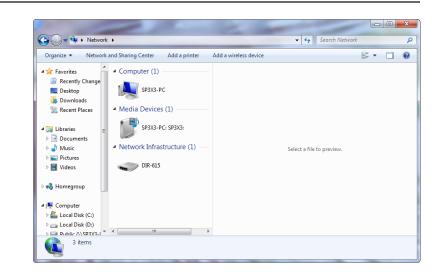
1. Click the **Start** button and select **Computer** from the Start menu.







3. Double-click the DIR-825.



4. Input the WPS PIN number (displayed in the WPS window on the Router's LCD screen or in the **Setup** > **Wireless Setup** menu in the Router's Web UI) and click **Next**.

0	📃 📼 💌
	To set up a network, type the 8-digit PIN from the router label
	You can find the numeric PIN on a label attached to the router or in the printed information that came from the manufacturer. PIN:
-	
	Next Cancel

5. Type a name to identify the network.

🕒 👰 Set Up a Network Give your network a name Your network needs a unique name so that it can be easily identified. It is best to keep the name short (25 characters or less) and recognizable. Type your network name: Security-enabled network Your network is being set up using WPA2-Personal. D-Link\_Net Change passphrase, security level and encryption type (advanced):  $\checkmark$ Opprade or replace the router using the network settings stored on this computer <u>N</u>ext Cancel

6. To configure advanced settings, click the  $\bigcirc$  icon.

Click Next to continue.

G	💱 Set Up a Network		
	Give your network a name		
	Your network needs a unique name so characters or less) and recognizable.	that it can	be easily identified. It is best to keep the name short (25
	Type your network name:		Security-enabled network
	D-Link_Net	7	Your network is being set up using WPA2-Personal.
	Change passphrase, security level and a Security key:	encryptior	type (advanced): 💽
	f6mm-gizb-9vmv		WPA2-Personal (Recommended)
	Connect automatically		Encryption type: AES (Recommended)
	logical environment of the second sec	the netw	ork settings stored on this computer
			Next Cancel

X

7. The following window appears while the Router is being configured.

Wait for the configuration to complete.



8. The following window informs you that WPS on the router has been setup successfully.

Make a note of the security key as you may need to provide this security key if adding an older wireless device to the network in the future.

9. Click **Close** to complete WPS setup.

9	😰 Set Up a Network	x
	D-Link_Net has been successfully set up To add an older wireless device to this network, you might need to provide this security key	
	894g-eyd5-g5wb	
	You can <u>print these network settings</u> for future reference. For gaming consoles or computers running Windows XP, <u>copy the network profile to a USB drive</u> for	
	easier set up.	
	Close	

## Windows Vista®

Windows Vista<sup>®</sup> users may use the built-in wireless utility. If you are using another company's utility or Windows<sup>®</sup> 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows Vista<sup>®</sup> utility as seen below.

If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **Connect to a network**.

The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

If you get a good signal but cannot access the Internet, check you TCP/ IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.





## WPA/WPA2

It is recommended to enable wireless security (WPA/WPA2) on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the security key or passphrase being used.

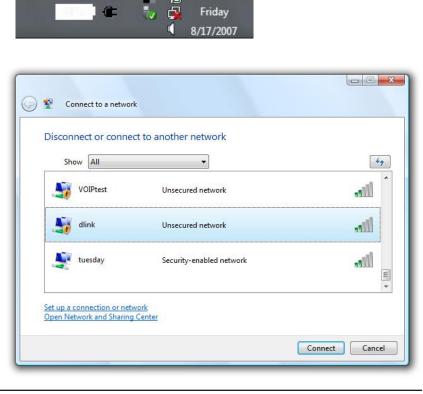
Not Connected

Wireless networks are available.

Connect to a network Network and Sharing Center

1. Open the Windows Vista<sup>®</sup> Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower right corner of screen). Select **Connect to a network**.

2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



L2:01 PM

3. Enter the same security key or passphrase that is on your router and click **Connect**.

It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.

Туре	the network security key or passphrase for Candy
The p	erson who setup the network can give you the key or passphrase.
Securi	ity k <mark>e</mark> y or passphrase:
Dis	splay characters
-	If you have a <u>USB flash drive</u> with network settings for Candy, insert it now.

## WPS/WCN 2.0

The router supports Wi-Fi protection, referred to as WCN 2.0 in Windows Vista<sup>®</sup>. The following instructions for setting this up depends on whether you are using Windows Vista<sup>®</sup> to configure the router or third party software.

When you first set up the router, Wi-Fi protection is disabled and unconfigured. To enjoy the benefits of Wi-Fi protection, the router must be both enabled and configured. There are three basic methods to accomplish this: use Windows Vista's built-in support for WCN 2.0, use software provided by a third party, or manually configure.

If you are running Windows Vista<sup>®</sup>, log into the router and click the **Enable** checkbox in the **Basic** > **Wireless** section. Use the Current PIN that is displayed on the **Advanced** > **Wi-Fi Protected Setup** section or choose to click the **Generate New PIN** button or **Reset PIN to Default** button.

PIN SETTINGS	
Current	PIN: 53468734
	Reset PIN to Default Generate New PIN

If you are using third party software to set up Wi-Fi Protection, carefully follow the directions. When you are finished, proceed to the next section to set up the newly-configured router.

## Windows® XP

Windows<sup>®</sup> XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows<sup>®</sup> XP utility as seen below.

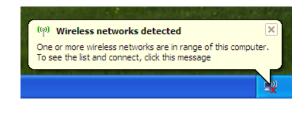
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

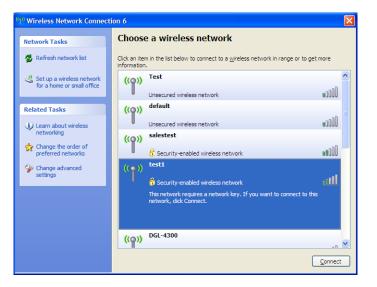
Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **View Available Wireless Networks**.

The utility will display any available wireless networks in your area. Click on a network (displayed using the SSID) and click the **Connect** button.

If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.







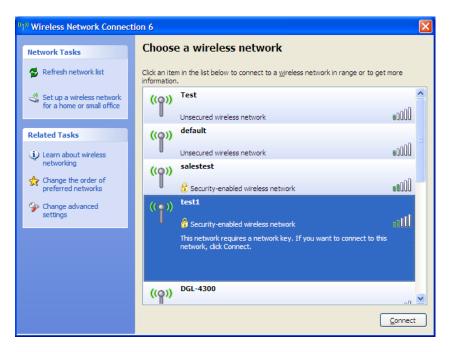
## WPA/WPA2

It is recommended to enable WPA on your wireless router or access point before configuring your wireless adapter. If you are joining an existing network, you will need to know the WPA key being used.

1. Open the Windows<sup>®</sup> XP Wireless Utility by right-clicking on the wireless computer icon in your system tray (lower-right corner of screen). Select **View Available Wireless Networks**.

2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.





Section 5 - Connecting to a Wireless Network

3. The **Wireless Network Connection** box will appear. Enter the WPA-PSK passphrase and click **Connect**.

It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the WPA-PSK settings are correct. The WPA-PSK passphrase must be exactly the same as on the wireless router.

Wireless Network Conn	ection
	a network key (also called a WEP key or WPA key). A network intruders from connecting to this network.
Type the key, and then click	: Connect.
Network <u>k</u> ey:	I
Confirm network key:	
	<u>C</u> onnect Cancel

# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-825. Read the following descriptions if you are having problems. The examples below are illustrated in Windows<sup>®</sup> XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.

#### 1. Why can't I access the web-based configuration utility?

When entering the IP address of the D-Link router (192.168.0.1 for example), you are not connecting to a website nor do you 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.

- Make sure you have an updated Java-enabled web browser. We recommend the following:
  - Microsoft Internet Explorer<sup>®</sup> 6.0 and higher
  - Mozilla Firefox 3.0 and higher
  - Google<sup>™</sup> Chrome 2.0 and higher
  - Apple Safari 3.0 and higher
- 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.
- Disable any Internet security software running on the computer. Software firewalls such as Zone Alarm, Black Ice, Sygate, Norton Personal Firewall, and Windows<sup>®</sup> XP firewall may block access to the configuration pages. Check the help files included with your firewall software for more information on disabling or configuring it.

- Configure your Internet settings:
  - Go to Start > Settings > Control Panel. Double-click the Internet Options Icon. From the Security tab, click the button to restore the settings to their defaults.
  - Click the **Connection** tab and set the dial-up option to Never Dial a Connection. Click the LAN Settings button.
    Make sure nothing is checked. Click **OK**.
  - Go to the **Advanced** tab and click the button to restore these settings to their defaults. Click **OK** three times.
  - Close your web browser (if open) and open it.
- Access the web management. Open your web browser and enter the IP address of your D-Link router in the address bar. This should open the login page for your web management.
- If you still cannot access the configuration, unplug the power to the router for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration. If you have multiple computers, try connecting using a different computer.

#### 2. What can I do if I forgot my password?

If you forgot your password, you must reset your router. Unfortunately this process will change all your settings back to the factory defaults.

To reset the router, locate the reset button (hole) on the rear panel of the unit. With the router powered on, use a paperclip to hold the button down for 10 seconds. Release the button and the router will go through its reboot process. Wait about 30 seconds to access the router. The default IP address is 192.168.0.1. When logging in, the username is **admin** and leave the password box empty.

#### 3. Why can't I connect to certain sites or send and receive emails when connecting through my router?

If you are having a problem sending or receiving email, or connecting to secure sites such as eBay, banking sites, and Hotmail, we suggest lowering the MTU in increments of ten (Ex. 1492, 1482, 1472, etc).

To find the proper MTU Size, you'll have to do a special ping of the destination you're trying to go to. A destination could be another computer, or a URL.

- Click on **Start** and then click **Run**.
- Windows<sup>®</sup> 95, 98, and Me users type in **command** (Windows<sup>®</sup> NT, 2000, XP, Vista<sup>®</sup>, and 7 users type in **cmd**) and press **Enter** (or click **OK**).
- Once the window opens, you'll need to do a special ping. Use the following syntax:

ping [	url][-f]	[-I] [MTU	J value]
--------	----------	-----------	----------

Example: ping yahoo.com -f -l 1472

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss)
Approximate round trip times in milli-seconds:
      Minimum = Oms, Maximum = Oms, Average = Oms
C:\>ping yahoo.com -f -l 1472
Pinging yahoo.com [66.94.234.13] with 1472 bytes of data:
Reply from 66.94.234.13: bytes=1472 time=93ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=109ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=125ms TTL=52
Reply from 66.94.234.13: bytes=1472 time=203ms TTL=52
Ping statistics for 66.94.234.13:
     Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
                                                                     132ms
     Minimum = 93ms, Maximum = 203ms, Average
C:∖>
```

You should start at 1472 and work your way down by 10 each time. Once you get a reply, go up by 2 until you get a fragmented packet. Take that value and add 28 to the value to account for the various TCP/IP headers. For example, lets say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with (1452+28=1480).

Once you find your MTU, you can now configure your router with the proper MTU size.

To change the MTU rate on your router follow the steps below:

- Open your browser, enter the IP address of your router (192.168.0.1) and click **OK**.
- Enter your username (admin) and password (blank by default). Click **OK** to enter the web configuration page for the device.
- Click on **Setup** and then click **Manual Configure**.
- To change the MTU enter the number in the MTU field and click **Save Settings** to save your settings.
- Test your email. If changing the MTU does not resolve the problem, continue changing the MTU in increments of ten.

# **Wireless Basics**

D-Link wireless products are based on industry standards to provide easy-to-use and compatible high-speed wireless connectivity within your home, business or public access wireless networks. Strictly adhering to the IEEE standard, the D-Link wireless family of products will allow you to securely access the data you want, when and where you want it. You will be able to enjoy the freedom that wireless networking delivers.

A wireless local area network (WLAN) is a cellular computer network that transmits and receives data with radio signals instead of wires. Wireless LANs are used increasingly in both home and office environments, and public areas such as airports, coffee shops and universities. Innovative ways to utilize WLAN technology are helping people to work and communicate more efficiently. Increased mobility and the absence of cabling and other fixed infrastructure have proven to be beneficial for many users.

Wireless users can use the same applications they use on a wired network. Wireless adapter cards used on laptop and desktop systems support the same protocols as Ethernet adapter cards.

Under many circumstances, it may be desirable for mobile network devices to link to a conventional Ethernet LAN in order to use servers, printers or an Internet connection supplied through the wired LAN. A Wireless Router is a device used to provide this link.

#### What is Wireless?

Wireless or Wi-Fi technology is another way of connecting your computer to the network without using wires. Wi-Fi uses radio frequency to connect wirelessly, so you have the freedom to connect computers anywhere in your home or office network.

#### Why D-Link Wireless?

D-Link is the worldwide leader and award winning designer, developer, and manufacturer of networking products. D-Link delivers the performance you need at a price you can afford. D-Link has all the products you need to build your network.

#### How does wireless work?

Wireless works similar to how cordless phone work, through radio signals to transmit data from one point A to point B. But wireless technology has restrictions as to how you can access the network. You must be within the wireless network range area to be able to connect your computer. There are two different types of wireless networks Wireless Local Area Network (WLAN), and Wireless Personal Area Network (WPAN).

#### Wireless Local Area Network (WLAN)

In a wireless local area network, a device called an Access Point (AP) connects computers to the network. The access point has a small antenna attached to it, which allows it to transmit data back and forth over radio signals. With an indoor access point as seen in the picture, the signal can travel up to 300 feet. With an outdoor access point the signal can reach out up to 30 miles to serve places like manufacturing plants, industrial locations, college and high school campuses, airports, golf courses, and many other outdoor venues.

#### Wireless Personal Area Network (WPAN)

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away.

Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

#### Who uses wireless?

Wireless technology as become so popular in recent years that almost everyone is using it, whether it's for home, office, business, D-Link has a wireless solution for it.

#### Home

- Gives everyone at home broadband access
- Surf the web, check email, instant message, etc.
- Gets rid of the cables around the house
- Simple and easy to use

#### **Small Office and Home Office**

- Stay on top of everything at home as you would at office
- Remotely access your office network from home
- Share Internet connection and printer with multiple computers
- No need to dedicate office space

#### Where is wireless used?

Wireless technology is expanding everywhere not just at home or office. People like the freedom of mobility and it's becoming so popular that more and more public facilities now provide wireless access to attract people. The wireless connection in public places is usually called "hotspots".

Using a D-Link Cardbus Adapter with your laptop, you can access the hotspot to connect to Internet from remote locations like: Airports, Hotels, Coffee Shops, Libraries, Restaurants, and Convention Centers.

Wireless network is easy to setup, but if you're installing it for the first time it could be quite a task not knowing where to start. That's why we've put together a few setup steps and tips to help you through the process of setting up a wireless network.

#### Tips

Here are a few things to keep in mind, when you install a wireless network.

#### **Centralize your router or Access Point**

Make sure you place the router/access point in a centralized location within your network for the best performance. Try to place the router/access point as high as possible in the room, so the signal gets dispersed throughout your home. If you have a two-story home, you may need a repeater to boost the signal to extend the range.

#### **Eliminate Interference**

Place home appliances such as cordless telephones, microwaves, and televisions as far away as possible from the router/ access point. This would significantly reduce any interference that the appliances might cause since they operate on same frequency.

#### Security

Don't let you next-door neighbors or intruders connect to your wireless network. Secure your wireless network by turning on the WPA or WEP security feature on the router. Refer to product manual for detail information on how to set it up.

## **Wireless Modes**

There are basically two modes of networking:

- Infrastructure All wireless clients will connect to an access point or wireless router.
- Ad-Hoc Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DIR-825 wireless network Cardbus adapters.

An Infrastructure network contains an Access Point or wireless router. All the wireless devices, or clients, will connect to the wireless router or access point.

An Ad-Hoc network contains only clients, such as laptops with wireless cardbus adapters. All the adapters must be in Ad-Hoc mode to communicate.

# **Networking Basics**

### **Check your IP address**

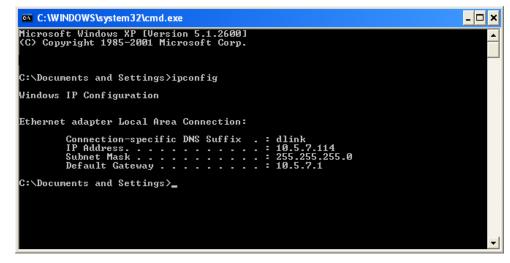
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start** > **Run**. In the run box type *cmd* and click **OK**. (Windows<sup>®</sup> 7/Vista<sup>®</sup> users type *cmd* in the **Start Search** box.)

At the prompt, type *ipconfig* and press Enter.

This will display the IP address, subnet mask, and the default gateway of your adapter.

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.



### Statically Assign an IP address

If you are not using a DHCP capable gateway/router, or you need to assign a static IP address, please follow the steps below:

#### Step 1

Windows<sup>®</sup> 7 - Click on Start > Control Panel > Network and Internet > Network and Sharing Center.

Windows Vista<sup>®</sup> - Click on Start > Control Panel > Network and Internet > Network and Sharing Center > Manage Network Connections.

- Windows<sup>®</sup> XP Click on **Start** > **Control Panel** > **Network Connections**.
- Windows<sup>®</sup> 2000 From the desktop, right-click **My Network Places** > **Properties**.

#### Step 2

Right-click on the Local Area Connection which represents your network adapter and select Properties.

#### Step 3

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

#### Step 4

Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or 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 a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set the Default Gateway the same as the LAN IP address of your router (I.E. 192.168.0.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

#### Step 5

Click **OK** twice to save your settings.

	itomatically if your network supports to ask your network administrator fo
🔘 Obtain an IP address automati	cally
Use the following IP address:	
IP address:	192.168.0.52
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.0.1
Obtain DNS server address au	Itomaticallu
Use the following DNS server -	
Preferred DNS server:	192.168.0.1
Alternate DNS server:	

# **Technical Specifications**

#### Standards

- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11a
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3ab

#### Security

• WPA<sup>™</sup> - Personal/Enterprise

• WPA2<sup>™</sup> - Personal/Enterprise

#### Wireless Signal Rates<sup>1</sup>

#### IEEE 802.11n 2.4GHz(HT20/40):

• 144.4Mbps (300)• 130Mbps (270)• 115.6Mbps (240)• 86.7Mbps (180)• 72.2Mbps (150)• 65Mbps (135)• 57.8Mbps (120)• 43.3Mbps (90)• 28.9Mbps (60)• 21.7Mbps (45)• 14.4Mbps (30)• 7.2Mbps (15)

#### IEEE 802.11n 5GHz(HT20/40):

- 144.4Mbps (300) 130Mbps (270)
- 115.6Mbps (240) 86.7Mbps (180)
- 72.2Mbps (150) 65Mbps (135)
- 57.8Mbps (120) 43.3Mbps (90)
- 28.9Mbps (60) · 21.7Mbps (45)
- •14.4Mbps (30) •7.2Mbps (15)

#### IEEE 802.11g:

•54Mbps •48Mbps •36Mbps

- 24Mbps 18Mbps 12Mbps
- •11Mbps •9Mbps •6Mbps
- 5.5Mbps 2Mbps 1Mbps

#### Frequency Range<sup>2</sup> (North America)

- 2.412GHz to 2.462GHz (802.11g/n)
- 5.15GHz to 5.825GHz (802.11a/n)<sup>3</sup>

#### **External Antenna Type**

• Two (2) detachable Antennas

#### **Operating Temperature**

• 32°F to 104°F (0°C to 40°C)

#### Humidity

• 95% maximum (non-condensing)

#### **Safety & Emissions**

• FCC

#### Dimensions

L = 7.6 inches
 W = 4.6 inches
 H = 1.2 inches

#### Warranty

1 Year

1 Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g, and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range.

2 Frequency Range varies depending on country's regulation

3 The DIR-825 does not include 5.25-5.35GHz & 5.47-5.725GHz in some regions.

Appendix D - Contacting Technical Support

# **Contacting Technical Support**

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

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DIR-825)
- Hardware Revision (located on the label on the bottom of the router (e.g. rev C1))
- Serial Number (s/n number located on the label on the bottom of the router).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

#### For customers within the United States:

For customers within Canada:

**Phone Support:** (877) 453-5465

Internet Support: http://support.dlink.com **Phone Support:** (800) 361-5265

Internet Support: http://support.dlink.ca

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Please direct all inquiries to: Email: GPLCODE@DLink.com Snail Mail: Attn: GPLSOURCE REQUEST D-Link Systems, Inc. 17595 Mt. Herrmann Street Fountain Valley, CA 92708

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# Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for 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, or addresses with an APO or FPO.

# **Limited Warranty:**

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

- Hardware (excluding power supplies and fans): One (1) year
- Power supplies and fans: One (1) year
- Spare parts and spare kits: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any 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, at its option, 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 or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware, the actual 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 ("Software 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 Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, 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 the portion of the actual purchase price paid that is attributable to the Software. 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. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. 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 (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 portions 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 (USA):

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 DLink to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at https:// rma.dlink.com/.

- 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. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. 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.

### Submitting A Claim (Canada):

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:

- Customers need to provide their receipt (proof of purchase) even if the product is registered. Without a receipt, no warranty service will be done. The registration is not considered a proof of purchase.
- 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, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-800-361-5265, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at https://rma.dlink.ca/.
- 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 be rejected by D-Link. Products shall be fully insured by the customer and shipped to D-Link Networks, Inc., 2525 Meadowvale Boulevard Mississauga, Ontario, L5N 5S2 Canada. 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 Purolator Canada or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in Canada, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. 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.
- RMA phone number: 1-800-361-5265 Hours of Operation: Monday-Friday, 9:00AM 9:00PM EST

# What Is Not Covered:

The Limited Warranty provided herein by D-Link does not cover:

Products that, 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; and 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.

While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited 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 NONINFRINGEMENT.

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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 communications. 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 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.

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.

## 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.

Operations in the 5.15-5.25GHz / 5.470 ~ 5.725GHz band are restricted to indoor usage only.

## **IMPORTANT NOTICE:** FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. To maintain compliance with FCC RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting.

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

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1) This device may not cause interference and
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**ICC Notice:** 

Appendix F - Warranty

2) This device must accept any interference, including interference that may cause undesired operation of the device.

#### IMPORTANT NOTE: IC Radiation Exposure Statement:

Operation is subject to the following two conditions:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

- (i) The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems;
- (ii) The maximum antenna gain (2dBi) permitted (for devices in the band 5725-5825 MHz) to comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate, as stated in section A9.2(3).

In addition, users should also be cautioned to take note that high-power radars are allocated as primary users (meaning they have priority) of the bands 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

#### **Règlement d'Industry Canada**

Les conditions de fonctionnement sont sujettes à deux conditions:

- (1) Ce périphérique ne doit pas causer d'interférence et.
- (2) Ce périphérique doit accepter toute interférence, y compris les interférences pouvant perturber le bon fonctionnement de ce périphérique.

# Registration

# Register your product online at registration.dlink.com



Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.