## **D-Link**<sup>®</sup>



# **User Manual**

# Wireless AC760 Dual Band Router

DIR-803

# 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
1.0	August 22, 2013	Initial release for Revision A1

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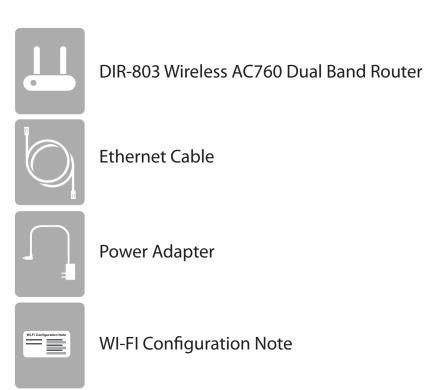
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# **Package Contents**



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-803 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 802.11ac, 802.11a, 802.11n or 802.11g wireless clients</li> <li>10/100 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>Microsoft Internet Explorer® v7, Mozilla® Firefox® v9.0, Google® Chrome 16.0, or Safari® v4 or higher version</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>

# Introduction

The D-Link DIR-803 is a IEEE 802.11ac compliant device that delivers up to 3 times faster speeds than 802.11n while staying backward compatible with 802.11a/g/b devices. Connect the DIR-803 to a Cable or DSL modem and provide high-speed Internet access to multiple computers, game consoles, and media players. Create a secure wireless network to share photos, files, music, videos, printers, and network storage. Powered by the 802.11ac technology this router provides wireless coverage for homes and offices, or for users running bandwidth-intensive applications.

With some routers, all wired and wireless traffic, including VoIP, Video Streaming, Online Gaming, and Web browsing are mixed together into a single data stream. By handling data this way, applications like video streaming could pause or delay. With the D-Link Intelligent QoS Technology, wired and wireless traffic are analyzed and separated into multiple data streams.

The DIR-803 supports the latest wireless security features to help prevent unauthorized access, be it from over a wireless network or the Internet. Support for WPA<sup>™</sup> and WPA2<sup>™</sup> standards ensure that you will be able to use the best possible encryption regardless of your client devices. In addition, this router utilizes Dual Active Firewalls (SPI and NAT) to prevent potential attacks from across the Internet for the ideal centerpiece for your wireless network in the home or office.

# Features

- Ultimate Fast Wireless Networking The DIR-803 provides up to 150Mbps wireless connection in 2.4GHz band, 433Mbps wireless connection in 5GHz with other 802.11ac and draft 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 802.11ac wireless router gives you the freedom of wireless networking at speeds 3x faster than 802.11n.
- **Compatible with 802.11a/g/n Devices** The DIR-803 is still fully compatible with the IEEE 802.11a, 802.11g and 802.11n, so it can connect with existing 802.11a, 802.11g and 802.11n 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-803 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-803 can securely access corporate networks.
- User-friendly Setup Wizard Through its easy-to-use Web-based user interface, the DIR-803 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 802.11a, 802.11g, 802.11n and draft 802.11ac 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.

## Hardware Overview Connections



1	LAN Ports (1-4)	Connect 10/100 Ethernet devices such as computers, switches, storage (NAS) devices and game consoles.
2	Internet Port	Using an Ethernet cable, connect your broadband modem to this port.
3	Power Receptor	Receptor for the supplied power adapter.
4	<b>Reset Button</b>	Insert a paperclip in the hole and wait for several seconds to reset the router to default settings.



1	Power LED	A solid green light indicates a proper connection to the power supply. The light will blink orange during boot up.
2	Internet LED	A solid light indicates connection on the Internet port. If the LED is orange, the connection is good but the router cannot connect to the Internet.
3	WPS LED	This LED blinks during WPS handshake phase.
4	Wireless LED	A solid light indicates that the wireless segment is ready. This LED blinks during wireless data transmission.
5	Local Network LEDs	A solid light indicates a connection to an Ethernet-enabled computer on ports 1-4. This LED blinks during data transmission

# 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.

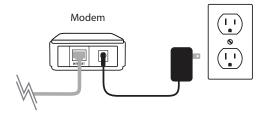
# **Wireless Installation Considerations**

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:

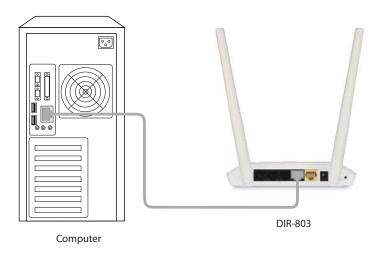
- 1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum each wall or ceiling can reduce your adapter's range from 3-90 feet (1-30 meters.) Position your devices so that the number of walls or ceilings is minimized.
- 2. Be aware of the direct line between 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**

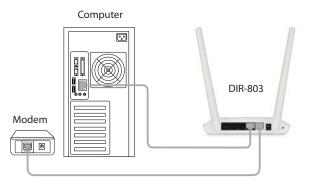
1. Turn off and unplug your cable or DSL broadband modem. This is required.



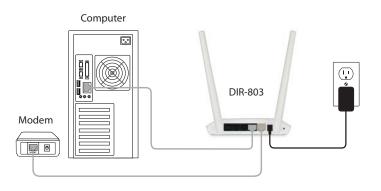
- 2. Position your router close to your modem and a computer. Place the router in an open area of your intended work area for better wireless coverage.
- 3. Unplug the Ethernet cable from your modem (or existing router if upgrading) that is connected to your computer. Plug it into the LAN port labeled **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. 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 a solid light indicates connection on the Internet port and the router can connect to the Internet. If the LED is orange, the connection is good but the router cannot connect to the Internet.

# Configuration

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

- **D-Link Setup Wizard** This wizard will launch when you log into the router for the first time. Refer to page 12.
- **QRS Mobile App** Use your iPhone, iPad, or iPod Touch to configure your router. Refer to page 19
- Manual Setup Log into the router and manually configure your router (advanced users only). Refer to page 25.

# **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 not, enter "http://dlinkrouter.local." Then, press Enter.

If you have already configured your settings and you would like to access the configuration utility, please refer to page 27.

If this is your 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.

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.



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.	
	WELCOME TO THE D-LINK SETUP WIZARD
<ul> <li>Step 1: Configure your Internet Connection</li> <li>Step 2: Configure your WI-FI Security</li> <li>Step 3: Set your Password</li> <li>Step 4: Select your Time Zone</li> <li>Step 5: Confirm WI-FI settings</li> <li>Step 6: mydlink registration</li> </ul>	<ul> <li>Step 2: Configure ýour WI-FI Security</li> <li>Step 3: Set your Password</li> <li>Step 4: Select your Time Zone</li> <li>Step 5: Confirm WI-FI settings</li> </ul>
Next Cancel	Next

STEP 1: CONFIGURE YOUR INTERNET CONNECTION	
Router is detecting your Internet connection type, please wait	
Prev Next Cancel	

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.

Guide me through the Internet connection settings

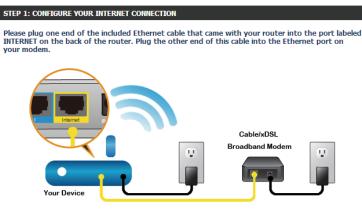
STEP 1: CONFIGURE YOUR INTERNET CONNECTION

Try again

Cancel

Routers is unable to detect your Internet connection type.

STEP 1: CONFIGURE YOUR INTERNET CONNECTION
Please select your Internet connection type below:
O 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.
C Username / Password Connection (PPPoE) Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this connection type of connection.
C Username / Password Connection (PPTP) PPTP client.
C Username / Password Connection (L2TP) L2TP client.
<ul> <li>Static IP Address Connection</li> <li>Choose this option if your Internet Setup Provider provided you with IP Address information that has to be manually configured.</li> </ul>
Prev Next Cancel



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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.

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

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

SET USERNAME AND PASSWORD 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

SET USERNAME AND PASSWORD CONNECTION	(L2TP)
To set up this connection you will need to have a U Service Provider. You also need L2TP IP adress. If y your ISP.	
Address Mode :      O Dynamic 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 :	
DNS SETTINGS	
Primary DNS Address :	
Secondary DNS Address :	
Prev Next	Cancel

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

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

Create a Wi-Fi password (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.

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.
<b>IP Address :</b> 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

STEP 2: CONFIGURE YOUR WI-FI SEC	IIRTTY
Give your Wi-Fi networl password. (2.4GHz Bar	
Wi-Fi Network Name (S	SID) :
dlink	(Using up to 32 characters)
Wi-Fi Password :	
mywifipassword	(Between 8 and 63 characters)
Give your Wi-Fi network password. (5GHz Band	
Wi-Fi Network Name (S	SID) :
dlink_media	(Using up to 32 characters)
Wi-Fi Password :	
mywifipassword	(Between 8 and 63 characters)
Prev	v Next Cancel

STEP 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 🛛 🗖
Prev Next Cancel

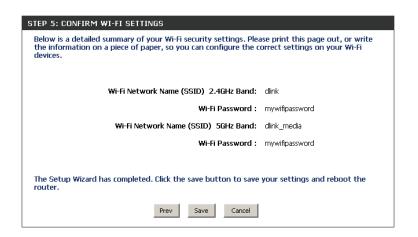
Select your time zone from the drop-down menu and click **Next** to continue.

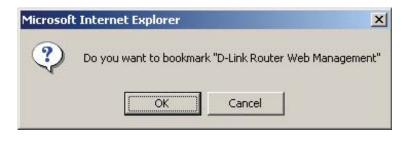
#### The Setup Complete window will display your Wi-Fi settings. Click **Save and Connect** to continue.

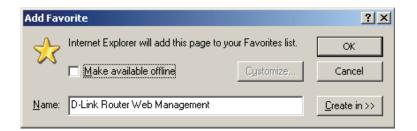
If you want to create a bookmark to the router, click **OK**. Click **Cancel** if you do not want to create a bookmark.

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

# 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 (US/Canada), Tijuana Prev Next Cancel







# **QRS Mobile App**

D-Link offers an app for your iPad, iPod Touch, or iPhone (iOS 4.3 or higher) to install and configure your router.

#### Step 1

From your iPad, Touch, or iPhone, go to the iTunes Store and search for 'D-Link'. Select **QRS Mobile** and then download it.

You may also scan this code to download.



#### Step 2

Once your app is installed, you may now configure your router. Connect to the router wirelessly by going to your wireless utility on your device. Scan for the Wi-Fi name (SSID) as listed on the supplied info card. Select and then enter your Wi-Fi password.



Web browser link:	Web browser link:
nttp://dlinkrouter.or http://192.168.0.1	http://dlinkrouter.or http://192.168.0.1
Default configuration	Your configuration
Jsername: "Admin" Password: "" (Jeave the field blank)	Username: Admin Password:
M- Fi Name (SSID) ; flink-a8fa M-Fi Password ; akbdi 19368	Wi- Fi Name (SSID) : Wi-Fi Password :

#### Step 3

Once you connect to the router, launch the QRS mobile app and it will guide you through the installation of your router.



# Web-based Configuration Utility

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

Non-Windows and Non-Mac users may also connect by typing http://192.168.0.1 in the address bar.

🐔 D-Link -	Microsoft Internet Explorer
<u> </u>	<u>V</u> iew F <u>a</u> vorites <u>T</u> ools <u>H</u> elp
🛛 🌏 Back 👻	🕑 🗸 🔀 😰 🏠 🔎 Search
Address 🦉	192.168.0.1 🗾 🔁 Go

Leave the password blank by default.

LOGIN	
Login 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.

INTERNET         INTERNET CONNECTION         Helpful Hints           WIRELESS SETTINGS NETWORK SETTINGS         If you are configuring the device for the first time, we recommend that you clck on the Internet Connection Setup Wizard, and follow the instructions on the screen. If you wish to metworking and networking an						
INTERNET CONNECTION       Internet ConnectionS         WIRLESS SETTINGS       If you are configuring the device for the first time, we recommend that you click on the intermet Connection Setup.       If you are configure the device settings manually, click the Manual Internet Connection Setup.         INTERNET CONNECTION SETUP WIZARD       Internet Connection Setup Wizard       If you would like to utility our easy to use Web-based Wizard to assist you in connecting your network uraning.         If you would like to utility our easy to use Web-based Wizard       Internet Connection Setup Wizard.         Note: Before launching the wizard, please make sure you have followed all steps outlined in the quick in the package.       If you would like to configure the Internet settings of your new D-Link Router manually, then click on the button below.         If you would like to configure the Internet settings of your new D-Link Router manually, then click on the button below.       If you would like to configure the Internet settings of your new D-Link Router manually, then click on the button below.	DIR-802	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
If you are configuring the device for the first time, we recommend that you click on the internet Connection Setup.       Internet Connection Setup Wizard, and follow the instructions on the screen. If you wish to modify or configure the device settings manually, click the Manual Internet Connection Setup.       Internet Connection Setup Wizard and follow the instructions on the screen. If you wish to modify or configure the device settings manually, click the Manual Internet Connection Setup.       Intervorting the device follow the instructions on the screen. If you wish to modify or configure the device settings manually, click the Manual Internet Connection Setup.       Intervorting the device follow the instructions on the screen. If you wish to Connection Setup.         INTERNET CONNECTION SETUP WIZARD       If you would like to utility our easy to use Web-based Wizard to assist you in connecting your new D-Link Systems Router to the Internet, click on the button below.       Internet Connection Setup Wizard       If you conside you figure and the set manually.         Note: Before launching the wizard, please make sure you have followed all steps outlined in the part of the package.       If you would like to configure the Internet settings of your new D-Link Router manually, then click on the button below.       Internet Connection Setup Wizard	NTERNET	INTERNET CONNECTION	ON			Helpful Hints
INTERNET CONNECTION SETUP WIZARD         Wizard and the will guide you the few single steps out in connecting your new D-Link Systems Router to the Internet, click on the button below.         Wizard and the will guide you the few single steps out in connecting your network uruning.           Internet Connection Setup Wizard         Internet Connection Setup Wizard         • If you conside your network uruning.           Note: Before launching the wizard, please make sure you have followed all steps outlined in the guide you do a router before duick Installation Guide included in the package.         • If you conside your network uruning.           MANUAL INTERNET CONNECTION OPTION         If you would like to configure the Internet settings of your new D-Link Router manually, then click on the button below.         • More	ETWORK SETTINGS	Internet Connection S	• If you are new to networking and have never configured a ro before, dick on <b>Inter</b>			
		If you would like to uti new D-Link Systems Ro Note: Before launching Quick Installation Guide MANUAL INTERNET O If you would like to co	ity our easy to use Web- outer to the Internet, cic Internet Connect g the wizard, please make included in the package. CONNECTION OPTION nfigure the Internet setti low.	k on the button below. tion Setup Wizard sure you have followed al mgs of your new D-Link Ro	l steps outlined in the	Wizard and the rout will guide you through few simple steps to ge your network up and running. • If you consider yourself an advanced user and have config a router before, dick Manual Internet Connection Setup input al the settings manually.

## **Internet Connection Setup Wizard**

When configuring the router for the first time, we recommend that you click use the **Internet Connection Setup Wizard**, and follow the instructions on the screen. This wizard is designed to assist user with a quick and easy method to configure the Internet Connectivity of this router.

Anytime during the Internet Connection Setup Wizard, the user can click on the **Cancel** button to discard any changes made and return to the main Internet page. Also the user can click on the **Prev** button, to return to the previous window for reconfiguration.

#### Welcome:

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

#### Step 1: Set Your Password

By default, the 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 enter and verify a password in the spaces provided. The two passwords must match.

Click Next to continue.

#### INTERNET CONNECTION

If you are configuring the device for the first time, we recommend that you click on the Internet Connection Setup Wizard, and follow the instructions on the screen. If you wish to modify or configure the device settings manually, click the Manual Internet Connection Setup.

#### INTERNET CONNECTION SETUP WIZARD

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

#### Internet Connection Setup Wizard

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

#### WELCOME TO THE D-LINK INTERNET CONNECTION 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: Set your Password
- Step 2: Select your Time Zone
- Step 3: Configure your Internet Connection
- Step 4: Save Settings and Connect

Prev	Next	Cancel	Connect	

STEP 1: 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:
Password :
Verify Password :
Prev Next Cancel Connect

#### Step 2: 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.

Click Next to continue.

STEP 2: SELECT YOUR TIME ZONE	
Select the appropriate time zone for your location. This information is required to co time-based options for the router.	onfigure the
Time Zone : (GMT-05:00) Eastern Time (US & Canada)	•
Prev Next Cancel Connect	

#### **Step 3: Internet Connection**

Here the user will be able to configure the Internet Connectivity used by this device. You can proceed to select any of the other manual Internet Connection methods listed below.

The following parameters will be available for configuration:

- Dynamic IP Address: Choose this if your Internet connection automatically provides you with an IP Address. Most Cable Modems use this type of connection.
  - **PPPoE:** Choose this option if your Internet connection requires a PPPoE username and password to get online. Most DSL modems use this type of connection.
  - **PPTP:** Choose this option if your Internet connection requires a PPTP username and password to get online.
  - **L2TP:** Choose this option if your Internet connection requires an L2TP username and password to get online.
  - Static IP Address: Choose this option if your Internet Setup Provider provided you with IP Address information that has to be manually configured.

#### **STEP 3: CONFIGURE YOUR INTERNET CONNECTION**

Please select the Internet connection type below:

OHCP Connection (Dynamic IP Address)

Choose this if your Internet connection automatically provides you with an IP Address. Most Cable Modems 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 modems use this type of connection.
- Username / Password Connection (PPTP)

Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this type of connection.

Username / Password Connection (L2TP)

Choose this option if your Internet connection requires a username and password to get online. Most DSL modems use this type of connection.

Static IP Address Connection

Choose this option if your Internet Setup Provider provided you with IP Address information that has to be manually configured.

Prev Next Cancel Connect

#### Step 3: Internet Connection (Dynamic IP Address)

After selecting the Dynamic IP Address Internet connection method, the following page will appear.

The following parameters will be available for configuration:

- MAC Address: Enter the MAC address of the Internet gateway (plugged into the Internet port of this device) here.
- **Clone Button:** If the configuration PC also acts as the Internet gateway, then click on the Clone Your PC's MAC Address button to copy the PC's MAC address into the space provided. If you're not sure, leave the MAC Address field blank.
  - Host Name: Enter the host name used here. You may also need to provide a Host Name. If you do not have or know this information, please contact your ISP.

Primary DNS Address: Enter the Primary DNS IP address used here. Secondary DNS Address: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.

Click Next to continue.

#### **Step 3: Internet Connection (PPPoE)**

After selecting the PPPoE Internet connection method, the following page will appear:

The following parameters will be available for configuration: User Name: Enter the PPPoE account user name used here. This information is given by the ISP. Password: Enter the PPPoE account password used here. This information is given by the ISP.

	s originally connected to your broadband connection. If you are, then click the Clon n to copy your computer's MAC Address to the D-Link Router.
	MAC Address : (optional)
	Clone Your PC's MAC Address
	Host Name : dinkrouter
	ay also need to provide a Host Name.If you do not have or know this information, please con
your ISP.	
your ISP.	
Note: You your ISP. DNS SETTI	GS

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	Connect

Click Next to continue.

#### Step 3: Internet Connection (PPTP)

After selecting the PPTP Internet connection method, the following page will appear:

The following parameters will be available for configuration: Address Mode: Here the user can specify whether this Internet connection requires the use of a Dynamic or Static IP address. PPTP usual requires a Dynamic IP configuration. PPTP IP Address: Enter the PPTP IP address used here. This option is only available if Static IP is selected. **PPTP Subnet Mask:** Enter the PPTP Subnet Mask used here. PPTP Gateway IP Address: Enter the PPTP Gateway IP address used here. PPTP Server IP Address: Enter the PPTP Server IP address used here. This is normally the same a the PPTP Gateway IP address. User Name: Enter the PPTP username used here. **Password:** Enter the PPTP password used here. Verify Password: Re-enter the PPTP password used here.

#### SET USERNAME AND PASSWORD 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 address. If you do not have this information, please contact your ISP.

Address Mode	: 0	Dynamic IP	◎ St	tatic IP
PPTP IP Address	: 0.0	0.0.0		
PPTP Subnet Mask	: 0.0	0.0.0		
PPTP Gateway IP Address	: 0.0	0.0.0		
PPTP Server IP Address	: 0.0	0.0.0		(may be same as gateway)
User Name	:			
Password	:			
Verify Password	:			
DNS SETTINGS				
Primary DNS Address	: 0.0	).0.0		
Secondary DNS Address	: 0.0	).0.0		(optional)
Prev		Next	ncel	Connect

Primary DNS Address: Enter the Primary DNS IP address used here.

Secondary DNS Address: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.

Click Next to continue.

#### Step 3: Internet Connection (L2TP)

After selecting the L2TP Internet connection method, the following page will appear:

The following parameters will be available for configuration: Address Mode: Here the user can specify whether this Internet connection requires the use of a Dynamic or Static IP address. L2TP usual requires a Dynamic IP configuration. L2TP IP Address: Enter the L2TP IP address used here. This option is only available if Static IP is selected. L2TP Subnet Mask: Enter the L2TP Subnet Mask used here. L2TP Gateway IP Address: Enter the L2TP Gateway IP address used here. L2TP Server IP Address: Enter the L2TP Server IP address used here. This is normally the same a the L2TP Gateway IP address. User Name: Enter the L2TP username used here. Password: Enter the L2TP password used here. Verify Password: Re-enter the L2TP password used here. Primary DNS Address: Enter the Primary DNS IP address used here. Secondary DNS Address: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.

Click **Next** to continue.

#### SET USERNAME AND PASSWORD CONNECTION (L2TP)

To set up this connection you will need to have a Username and Password from your Internet Service Provider. You also need L2TP IP address. If you do not have this information, please contact your ISP.

Address Mode	: 💿 Dynamic	: IP 🔘 Static IP	
L2TP IP Address			
L2TP Subnet Mask	0.0.0.0		
L2TP Gateway IP Address	0.0.0.0		
L2TP Server IP Address	: 0.0.0.0	(may be same as gateway)	
User Name	:		
Password	:		
Verify Password	:		
ONS SETTINGS			
Primary DNS Address	: 0.0.0.0		
Secondary DNS Address	: 0.0.0.0	(optional)	
Secondary DNS Address	: 0.0.0.0	(optional)	
Secondary DNS Address		(optional) Cancel Connect	

#### Step 3: Internet Connection (Static IP Address)

After selecting the Static IP Address Internet connection method, the following page will appear:

The following parameters will be available for configuration: IP Address: Enter the Static IP address provided by the ISP here. Subnet Mask: Enter the Subnet Mask provided by the ISP here. Gateway Address: Enter the Gateway IP address provided by the ISP here. Primary DNS Address: Enter the Primary DNS IP address used here. Secondary DNS Address: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.

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		
Default Gateway :	0.0.0.0		
DNS SETTINGS			
Primary DNS Address :	0.0.0.0		
Secondary DNS Address :	0.0.0.0	(optional)	
Prev	Next Cancel	Connect	

Click **Next** to continue.

#### **Setup Complete!**

This is the last page of the Internet Connection Setup Wizard.

Click the **Connect** button to save your settings.

SETUP COMPLETE!
The Internet Connection Setup Wizard has completed. Click the Connect button to save your settings.
Prev Next Cancel Connect

## Internet (Manual)

On this page the user can configure the Internet Connection settings manually. To access the Manual Internet Connection Setup page, click on the **Manual Internet Connection Setup** button. On this page there a multiple parameters that can be configured regarding the Internet Connection setup. We'll discuss them from top to bottom.

MANUAL INTERNET CONNECTION OPTION

If you would like to configure the Internet settings of your new D-Link Router manually, then click on the button below.

Manual Internet Connection Setup

At any given point the user can save the configuration done, on this page, by clicking on the **Save Settings** button. If you choose to discard the changes made, click on the **Don't Save Settings** button.

#### WAN

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPOE, PPTP, L2TP, and DS-Lite. If you are unsure of your connection method, please contact your Internet Service Provider.

Note : If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers.

Save Settings Don't Save Settings

#### **Internet Connection Type**

In this section, the user can select from a list of Internet Connection types that can be configured and used on this router. Options to choose from are **Static IP**, **Dynamic IP**, **PPPOE**, **PPTP**, **L2TP**, and **DS-Lite**.

After selecting a specific Internet Connection type, this page will automatically refresh and provide unique fields to configure related to the specified Internet Connection type.

#### My Internet Connection is: Dynamic IP (DHCP)

The default WAN configuration for this router is Dynamic IP (DHCP). This option allows the router to obtain an IP address automatically from the device that is connected to the Internet port.

**Note:** If you're not sure about the type of Internet Connection you have, please contact your Internet Service Provider (ISP) for assistance.

After selecting Dynamic IP, the following parameters will be available for configuration:

Host Name: The Host Name is optional but may be required by some ISPs. Leave blank if you are not sure.

- Use Unicasting: Tick this option if you ISP uses the unicast method to provide IP addresses.
  - Primary DNS: Enter the Primary DNS IP address used here.
- Secondary DNS: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.

INTERNET CONNECTION TYPE				
Choose the mode to be used by the router to connect to the Internet.				
My Internet Connection is : Dynamic IP (DHCP)				
DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE :				
Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password.				
Host Name : dlinkrouter				
Use Unicasting : 🔲 (compatibility for some DHCP Servers)				
Primary DNS Server :				
Secondary DNS Server : (optional)				
MTU: 1500				
MAC Address :				
Clone Your PC's MAC Address				

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 Clone Your PC's MAC Address button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

## 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 Static IP to manually enter the IP settings supplied by your ISP.

IP Address: Enter the IP address assigned by your ISP.

Subnet Mask: Enter the Subnet Mask assigned by your ISP.

Default Gateway: Enter the Gateway assigned by your ISP.

- **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. 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 CONNECTION TYPE		
Choose the mode to be used by the router to connect to the Internet.		
My Internet Connection is :	Static IP	
STATIC IP ADDRESS INTERNET CONNECTION TYPE		
Enter the static address information provided by your Internet Service Provider (ISP).		
IP Address :	0.0.0.0	
Subnet Mask :	0.0.0.0	
Default Gateway :	0.0.0.0	
Primary DNS Server :	0.0.0.0	
Secondary DNS Server :	0.0.0.0	
MTU :	1500 (bytes) MTU default = 1500	
MAC Address :	00:18:E7:95:68:9F	
	Copy Your PC's MAC Address	

## 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 Connection: Select PPPoE (Username/Password) from the drop-down	INTERNET CONNECTION TYPE
menu. Address Mode: Here the user can specify whether this Internet connection requires the use of a <b>Dynamic</b> or <b>Static IP</b> address. PPPoE usually	Choose the mode to be used by the router to connect to the Internet. My Internet Connection is : PPPoE (Username / Password)
requires a Dynamic IP configuration. IP Address: Enter the PPPoE IP address used here. This option is only avail-	PPPOE INTERNET CONNECTION TYPE :
able if Static IP is selected.	Enter the information provided by your Internet Service Provider (ISP). Address Mode :
Username: Enter the PPPoE account user name used here. This information is given by the ISP.	IP Address :
<b>Password:</b> Enter the PPPoE account password used here. This information is given by the ISP.	Username : Password :
Verify Password: Re-enter the PPPoE account password used here.	Verify Password :
Service Name: This optional field enables the user to enter a service name to identify this Internet connection here.	Service Name : (optional) Reconnect Mode : Always V New Schedule
<b>Reconnect Mode:</b> Use the radio buttons to specify the reconnect mode. The user can specify a custom schedule or specify the <b>On Demand</b> , or	On demand      Manual
<b>Manual</b> option. To specify a custom schedule, use the drop- down menu to select one of the schedules that has been defined in the Schedules page.	Maximum Idle Time: 5 (minutes, 0=infinite) DNS Mode:  Receive DNS from ISP  Text DNS Manually
	Primary DNS Server :
	Secondary DNS Server : (optional) MTU : 1492
	MAC Address :

To create a new schedule, click the **New Schedule** button to open the Schedules page. Schedules will be discussed later.

Clone Your PC's MAC Address

Maximum Idle Time: Enter a maximum idle time during which the Internet connection is maintained during inactivity.

DNS Mode: This option allow the router to obtain the DNS IP addresses from the ISP, when **Receive DNS from ISP** is selected, or allows the user to enter DNS IP address manually, when **Enter DNS Manually** is selected.

Primary DNS Server: Enter the Primary DNS IP address used here.

Secondary DNS Server: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.

**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 **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 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 Connection: Select PPTP (Username/Password) from the drop-	INTERNET CONNECTION TYPE
down menu.	Choose the mode to be used by the router to connect to the Internet.
Address Mode: Here the user can specify whether this Internet	My Internet Connection is : PPTP (Username / Password)
connection requires the use of a <b>Dynamic</b> or <b>Static</b>	
IP address. PPTP usually requires a Dynamic IP	PPTP INTERNET CONNECTION TYPE :
configuration.	Enter the information provided by your Internet Service Provider (ISP).
PPTP IP Address: Enter the PPTP IP address used here. This option is	Address Mode:      O Dynamic IP      Static IP
only available if Static IP is selected.	PPTP IP Address :
PPTP Subnet Mask: Enter the PPTP Subnet Mask used here.	PPTP Subnet Mask :
PPTP Gateway IP Address: Enter the PPTP Gateway IP address used here.	PPTP Gateway IP Address :
PPTP Server IP Address: Enter the PPTP Server IP address used here. This is	PPTP Server IP Address :
normally the same a the PPTP Gateway IP address.	Username :
Username: Enter the PPTP username used here.	
Password: Enter the PPTP password used here.	Password :
Verify Password: Re-enter the PPTP password used here.	Verify Password :
<b>Reconnect Mode:</b> Use the radio buttons to specify the reconnect mode.	Reconnect Mode : O Always V New Schedule
The user can specify a custom schedule or specify the <b>On</b>	On demand     Manual
Demand, or Manual option. To specify a custom schedule,	Maximum Idle Time : 5 (minutes, 0=infinite)
use the drop-down menu to select one of the schedules	Primary DNS Server :
that has been defined in the Schedules page. To create a	Secondary DNS Server : (optional)
new schedule, click the New Schedule button to open the Schedules page. Schedules will be discussed later.	MTU : 1400
schedules page. Schedules will be discussed later.	MAC Address :
	Clone Your PC's MAC Address

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

Primary DNS Server: Enter the Primary DNS IP address used here.

- Secondary DNS Server: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.
  - **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-	INTERNET CONNECTION TYPE
Connection: down menu. Address Mode: Here the user can specify whether this Internet connection requires the use of a Dynamic or Static	Choose the mode to be used by the router to connect to the Internet. My Internet Connection is : L2TP (Username / Password)
IP address. L2TP usual requires a Dynamic IP con- figuration.	L2TP INTERNET CONNECTION TYPE :
L2TP IP Address: Enter the L2TP IP address used here. This option is	Enter the information provided by your Internet Service Provider (ISP).
only available if Static IP is selected.	Address Mode :      Opynamic IP      Static IP
L2TP Subnet Mask: Enter the L2TP Subnet Mask used here.	L2TP IP Address :
<b>L2TP Gateway IP</b> Enter the L2TP Gateway IP address used here.	L2TP Subnet Mask :
Address:	L2TP Gateway IP Address :
L2TP Server IP Enter the L2TP Server IP address used here. This is	L2TP Server IP Address :
Address: normally the same a the L2TP Gateway IP address. Username: Enter the L2TP username used here.	Username :
<b>Password:</b> Enter the L2TP password used here.	Password :
Verify Password: Re-enter the L2TP password used here.	Verify Password :
<b>Reconnect Mode:</b> Use the radio buttons to specify the reconnect mode. The user can specify a custom schedule	Reconnect Mode : O Always Vew Schedule
or specify the <b>On Demand</b> , or <b>Manual</b> option. To	On demand
specify a custom schedule, use the drop-down	Maximum Idle Time : 5 (minutes, 0=infinite)
menu to select one of the schedules that has been	Primary DNS Server :
	Secondary DNS Server : (optional)
defined in the Schedules page. To create a new	MTU : 1400
schedule, click the New Schedule button to open	MAC Address :
the Schedules page. Schedules will be discussed later.	Clone Your PC's MAC Address

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

Primary DNS Server: Enter the Primary DNS IP address used here.

Secondary DNS Server: Enter the Secondary DNS IP address used here. This field is normally optional. Only one DNS address is required for a functional Internet connection, but using a second DNS address provides more stability.

- 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 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 Configuration: Select the DS-Lite DHCPv6 Option to let the router allocate the AFTR IPv6 address automatically. Select the Manual Configuration to enter the AFTR IPv6 address in manually.
 AFTR IPv6 Address: After selecting the Manual Configuration option above, the user can enter the AFTR IPv6 address used here.
 B4 IPv4 Address: Enter the B4 IPv4 address value used here.
 WAN IPv6 Address: Once connected, the WAN IPv6 address will be displayed here.
 IPv6 WAN Default Gateway Once connected, the IPv6 WAN Default Gateway address will be displayed here.

Click on the **Save Settings** button to accept the changes made. Click on the **Don't Save Settings** button to discard the changes made.

#### WAN

Use this section to configure your Internet Connection type. There are several connection types to choose from: Static IP, DHCP, PPPOE, PPTP, L2TP, and DS-Lite. If you are unsure of your connection method, please contact your Internet Service Provider. Note : If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers. Save Settings Don't Save Settings INTERNET CONNECTION TYPE 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 
 Manual Configuration AFTR IPv6 Address : B4 IPv4 Address : 192.0.0. (optional) WAN IPv6 Address : IPv6 WAN Default Gateway :

## Wireless connection setup wizard

On this page the user can configure the Wireless settings for this device. There are 3 ways to configure Wireless using this router. Firstly, the user can choose to make use for the quick and easy **Wireless Connection Setup Wizard**. Secondly, the user can choose to make use Wi-Fi Protected Setup. Lastly, the user can configure the Wireless settings manually.

#### Wireless Settings: Wireless Connection Setup Wizard

The Wireless Connection Setup Wizard is specially designed to assist basic network users with a simple, step-by-step set of instructions to configure the wireless settings of this router. It is highly recommended to customized the wireless network settings to fit into your environment and to add higher security.

To initiate the **Wireless Connection Setup Wizard** click on the Wireless Connection Setup Wizard button.

**Step 1:** In this step, the user must enter a custom Wireless Network Name or SSID. Enter the new **Network Name (SSID)** in the appropriate space provided.

There are seperate spaces provided for a **2.4GHz** Network Name and a **5GHz** Network Name.

Secondly the user can choose between two wireless security wizard configurations. The user can select '**Automatically assign a network key**', by which the router will automatically generate a WPA/WPA2 pre-shared key using the TKIP and AES encryption methods; or the user can select '**Manually assign a network key**', by which the user will be prompt to manually enter a WPA/WPA2 pre-shared key using the TKIP and AES encryption methods.

Click on the **Prev** button to return to the previous page. Click on the **Next** button to continue to the next page. Click on the **Cancel** button to discard the changes made and return to the main wireless page.

#### WIRELESS SETTINGS

The following Web-based wizards are designed to assist you in your wireless network setup and 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.

#### WIRELESS NETWORK SETUP WIZARD

This wizard is designed to assist you in your wireless network setup. It will guide you through step-by-step instructions on how to set up your wireless network and how to make it secure.

Wireless Connection Setup Wizard

Note: Some changes made using this Setup Wizard may require you to change some settings on your wireless client adapters so they can still connect to the D-Link Router.

#### 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 : dlink.F9D8

- Network Name (SSID) 5Ghz : dlink-F9D8-5GHz
- Automatically assign a network key (Recommended)

To prevent outsiders from accessing your network, the router will automatically assign a security (also called WEP or WPA key) to your network.

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

**Step 2:** This step will only be available if the user selected 'Manually assign a network key' in the previous step. Here the user can manually enter the WPA/WPA2 pre-shared key in the **Wireless Security Password** space provided. The key entered must be between 8 and 63 characters long. Remember, this key will be used when wireless clients wants to connect to this device. So please remember this key to prevent future troubleshooting.

If you want to use the same Wireless Security Password for both 2.4GHz and 5GHz bands, **tick** the option provided. If not selected, you need to input two seperate Wireless Security Passwords for each individual Wireless band.

Click on the **Prev** button to return to the previous page. Click on the **Next** button to continue to the next page. Click on the **Cancel** button to discard the changes made and return to the main wireless page.

**Setup Complete:** On this page the user can view the configuration made and verify whether they are correct.

Click on the **Prev** button to return to the previous page. Click on the **Cancel** button to discard the changes made and return to the main wireless page. Click on the **Save** button to accept the changes made.

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 guidelines:	
- 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	
${\ensuremath{\overline{\mathbb V}}}$ Use the same Wireless Security Password on both 2.4GHz and 5GHz band	
Wireless Security Password :	
Note: You will need to enter the same password as keys in this step into your wireless clients in order to enable proper wireless communication.	
Prev Next Cancel Save	

#### 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.

Wireless Band : 2.4GHz Band

Wireless Network Name (SSID) : dlink-F9D8

Security Mode : Auto (WPA or WPA2) - Personal

Cipher Type : TKIP and AES

Pre-Shared Key : 12345678

Wireless Band : 5GHz Band

Wireless Network Name (SSID) : dlink-F9D8-5GHz

Security Mode : Auto (WPA or WPA2) - Personal

Cipher Type : TKIP and AES

Pre-Shared Key : 12345678

Prev

After click the **Save** button the device will save the settings made and return to the main wireless page.

#### End of Wizard.

SAVING	
	The settings are being saved and are taking effect.
	Please wait
	Please Walt

## Wi-Fi Protected Setup Wizard

#### Wireless Settings: Wi-Fi Protected Setup Wizard

If your Wireless Clients support the WPS connection method, this Wi-Fi Protected Setup Wizard can be used to initiate a wireless connection between this device and Wireless clients with a simple click of the WPS button. The Wi-Fi Protected Setup Wizard is specially designed to assist basic network users with a simple, step-by-step set of instructions to connect wireless clients to this router using the WPS method.

To initiate the Wi-Fi Protected Setup Wizard click on the **Add Wireless Device with WPS** button.

**Step 1:** In this step the user have two options to choose from. You can choose **Auto** if the wireless client supports WPS, or **Manual** if the wireless client does not support WPS.

Click on the **Prev** button to return to the previous page. Click on the **Next** button to continue to the next page. Click on the **Cancel** button to discard the changes made and return to the main wireless page.

**Step 2:** After selecting **Auto**, the following page will appear. There are two ways to add a wireless device, that supports WPS. Firstly, there is the Personal Identification Number (**PIN**) method. Using this method will prompt the user to enter a PIN code. This PIN code should be identical on the wireless client. Secondly, there is the Push Button Configuration (**PBC**) method. Using this method will allow the wireless client to connect to this device by similarly pressing the PBC button on it.

Click on the **Prev** button to return to the previous page. Click on the **Next** button to continue to the next page. Click on the **Cancel** button to discard the changes made and return to the main wireless page.

#### ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP) WIZARD

This wizard is designed to assist you in connecting your wireless device to your wireless 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

STEP 1: SELECT CONFIGURATION METHOD FOR YOUR WIRELESS NETWORK		
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 ○ Select this option will display the current wireless settings for you to configure the wireless device manually	
	Prev Next Cancel Connect	

STEP 2: CONNECT YOUR WIRELESS DEVICE	
There are two ways to add wireless device to your wireless network: -PIN (Personal Identification Number) -PBC (Push Button Configuration)	
<pre> ø pin : </pre>	
please enter the PIN from your wireless device and click the below "Connect" Button within 120 seconds	
© PBC	
please press the push button on your wireless device and click the below "Connect" Button within 120 seconds	
Prev Next Cancel Connect	

**Step 2:** After selecting Manual, the following page will appear. On this page to user can view the wireless configuration of this router. The wireless clients should configure their wireless settings to be identical to the settings displayed on this page for a successful connection. This option is for wireless clients that can't use the WPS method to connect to this device.

Click on the **Prev** button to return to the previous page. Click on the **Next** button to continue to the next page. Click on the **Cancel** button to discard the changes made and return to the main wireless page. Click on the **Wireless Status** button to navigate to the Status > Wireless page to view what wireless client are connected to this device.

#### End of Wizard.

#### STEP 2: CONNECT YOUR WIRELESS DEVICE

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.

#### 2.4 Ghz Frequency

SSID: dlink-F9D8 Security Mode: Auto (WPA or WPA2) - Personal

Cipher Type: TKIP and AES Pre-shared Kev:

12345678

#### 5 Ghz Frequency

SSID: dlink-F9D8-5GHz Security Mode: Auto (WPA or WPA2) - Personal Cipher Type: TKIP and AES

Pre-shared Key:

12345678

lext Cancel Wireless Status

## Manual wireless network setup

#### Wireless Settings: Manual Wireless Network Setup

The manual wireless network setup option allows users to configure the wireless settings of this device manually. This option is for the more advanced user and includes all parameters that can be configured for wireless connectivity.

To initiate the Manual Wireless Setup page, click on the **Manual Wireless Connection Setup** button.

On this page the user can configure all the parameters related to the wireless connectivity of this router.

#### MANUAL WIRELESS NETWORK SETUP

If your wireless network is already set up with Wi-Fi Protected Setup, manual configuration of the wireless network will destroy the existing wireless network. If you would like to configure the wireless settings of your new D-Link Systems Router manually, then click on the Manual Wireless Network Setup button below.

Manual Wireless Connection Setup

#### WIRELESS NETWORK

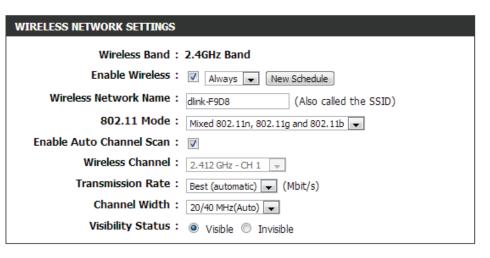
Use this section to configure the wireless settings for your D-Link router. Please note that changes made in this section may also need to be duplicated on your wireless client.

To protect your privacy you can configure wireless security features. Securing your wireless network is important as it is used to protect the integrity of the information being transmitted. The router is capable of 4 types of wireless security; WEP, WPA only, WPA2 only, and WPA/WPA2 (auto-detect).

Save Settings Don't Save Settings

The following parameters will be available for configuration:

- Wireless Band: Displays the wireless band being configured. In this option we find that the following parameters will be regarding the 2.4GHz band.
- 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. 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 new schedule.



Wireless Network Name: The Service Set Identifier (SSID) is the name of your wireless network. Create a name using up to 32 characters. The SSID is case-sensitive. Enable Auto Channel

802.11 Mode: Here the user can manually select the preferred frequency band to use for this wireless network.

Enable Auto Channel Scan: The auto channel selection setting can be selected to allow this device to choose the channel with the least amount of interference.

Wireless Channel: By default the channel is set to 1. 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 Selection, this option will be greyed out. Transmission Rate: Select the transmit rate. It is strongly suggested to select Best (Automatic) for best performance.

Channel Width: When using the 802.11n frequency band, the user have an option to choose between a 20MHz or 20/40MHz bandwidth.

Visibility Status: The Invisible option allows you to hide your wireless network. When this option is set to Visible, your wireless network name is broadcasted to anyone within the range of your signal. If you are not using encryption then they could connect to your network. When Invisible mode is enabled, you must enter the Wireless Network Name (SSID) on the client manually to connect to the network.

By default the wireless security of this router will be disabled. In this next option the user can enabled or disable wireless security for the frequency band 2.4GHz. There are two types of encryption that can be used. WEP or WPA/WPA2.

#### Wireless Security Mode: WEP

Wired Equivalent Privacy (WEP) is the most basic form of encryption that can be used for wireless networks. Even though it is known as a 'weak' security method, it is better than no security at all. Older wireless adapter sometimes only supports WEP encryption and thus we still find this encryption method used today.

The following parameters will be available for configuration: WEP Key Length: Here the user can specify to either use a 64Bit or a 128Bit encrypted key. Authentication: Authentication is a process by which the router verifies the identity of a network device that is attempting to join the wireless network. There are two types authentication for this device when using WEP. **Open System** allows all wireless devices to communicate with the router before they are required to provide the encryption key needed to gain access to the network. Shared Key requires any wireless device attempting to communicate with the router to provide the encryption key needed to access the network before they are allowed to communicate with the router.

WIRELESS SECURITY MODE	
Security Mode : None	

#### WIRELESS SECURITY MODE

Security Mode : WEP

WEP	
WEP is the wireless encryption standard. To use it you must enter the same key(s) into the router and the wireless stations. For 64-bit keys you must enter 10 hex digits into each key box. For 128-bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. For the most secure use of WEP set the authentication type to "Shared Key" when WEP is enabled.	
You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64-bit keys, and a maximum of 13 characters for 128-bit keys.	
If you choose the WEP security option this device will <b>ONLY</b> operate in <b>Legacy Wireless mode (802.11B/G)</b> . This means you will <b>NOT</b> get 11N performance due to the fact that WEP is not supported by the Draft 11N specification.	
WEP Key Length: 64 bit (10 hex digits) 💌 (length applies to all keys)	
Authentication : Both	
WEP Key 1 :	

.

WEP Key 1: Enter the WEP key used here. For 64-bit keys you must enter 10 hex digits into each key box. For 128-bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64-bit keys, and a maximum of 13 characters for 128-bit keys.

#### Wireless Security Mode: WPA-Personal

Wi-Fi Protected Access (WPA) is the most advanced and up to date wireless encryption method used today. This is the recommended wireless security option. WPA supports two authentication frameworks. Personal (PSK) and Enterprise (EAP). Personal requires only the use of a passphrase (Shared Secret) for security.

#### The following parameters will be available for configuration:

WPA Mode: WPA is the older standard; select this option if the clients that will be used with the router only support the older standard. WPA2 is the newer implementation of the stronger IEEE 802.11i security standard. With the "WPA2" option, the router tries WPA2 first, but falls back to WPA if the client only supports WPA. With the "WPA2 Only" option, the router associates only with clients that also support WPA2 security.

**Cipher Type:** Select the appropriate cipher type to use here. Options to choose from are Temporal Key Integrity Protocol (**TKIP**), Advanced Encryption Standard (**AES**), and Both (**TKIP and AES**).

Group Key Update Interval: Enter the amount of time before the group key used for broadcast and multicast data is changed.

> Pre-Shared Key: Enter the shared secret used here. This secret phrase needs to be the same on all of the wireless clients for them to be able to connect to the wireless network successfully.

#### WIRELESS SECURITY MODE

Security Mode : WPA-Personal 💌

#### WPA

Use **WPA or WPA2** 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 **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

To achieve better wireless performance use **WPA2 Only** security mode (or in other words AES cipher).

WPA Mode :	Auto(WPA or WPA2) 💌	
Cipher Type :	TKIP and AES 💌	
Group Key Update Interval :	3600	(seconds)

#### PRE-SHARED KEY

Enter an 8- to 63-character alphanumeric pass-phrase. For good security it should be of ample length and should not be a commonly known phrase.

Pre-Shared Key : 12345678

#### Wireless Security Mode: WPA-Personal

Wi-Fi Protected Access (WPA) is the most advanced and up to date wireless encryption method used today. This is the recommended wireless security option. WPA supports two authentication frameworks. Personal (PSK) and Enterprise (EAP). Personal requires only the use of a pass-phrase (Shared Secret) for security.

The following parameters will be available for configuration:

WPA Mode: WPA is the older standard; select this option if the clients that will be used with the router only support the lder standard. WPA2 is the newer implementation of the stronger IEEE 802.11i security standard. With the "WPA2" option, the router tries WPA2 first, but falls back to WPA if the client only supports WPA. With the "WPA2 Only" option, the router associates only with clients that also support WPA2 security.

Cipher Type: Select the appropriate cipher type to use here. Options to choose from are Temporal Key Integrity Protocol (TKIP), Advanced Encryption Standard (AES), and Both (TKIP and AES).

Group Key Update Interval: Enter the amount of time before the group key used for broadcast and multicast data is changed.

RADIUS Server IP Address: When the user chooses to use the EAP authentication framework, the RADIUS server's IP address can be entered here.

#### WIRELESS SECURITY MODE

Security Mode : WPA-Enterprise

#### WPA

Use **WPA or WPA2** 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 **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

To achieve better wireless performance use **WPA2 Only** security mode (or in other words AES cipher).

WPA Mode :	Auto(WPA or WPA2	()
Cipher Type :	TKIP and AES 💌	
Group Key Update Interval :	3600	(seconds)
EAP (802.1X)		
When WPA enterprise is enabled via a remote RADIUS server.	l, the router uses	EAP (802.1x) to authenticate client
RADIUS server IP Address :		

RADIUS server IP Address :	
RADIUS server Port :	1812
RADIUS server Shared Secret :	
Advanced >>	

RADIUS Server Port: When the user chooses to use the EAP authentication framework, the RADIUS server's port number can be entered here.

RADIUS Server Shared Enter the shared secret used here. This secret phrase needs to be the same on all of the wireless clients for them to Secret: be able to connect to the wireless network successfully.

The following parameters will be available for configuration:

- Wireless Band: Displays the wireless band being configured. In this option we find that the following parameters will be regarding the 5GHz band.
- 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. 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 new schedule.

WIRELESS NETWORK SETTINGS	
Wireless Band :	5GHz Band
Enable Wireless :	Always 🗸 New Schedule
Wireless Network Name :	dlink-F9D8-5GHz (Also called the SSID)
802.11 Mode :	Mixed 802.11ac, 802.11n and 802.11a
Enable Auto Channel Scan :	
Wireless Channel :	5.180 GHz - CH 36 🔍
Transmission Rate :	Best (automatic) 💽 (Mbit/s)
Channel Width :	20/40/80 MHz(Auto)
Visibility Status :	💿 Visible 🔘 Invisible
WIRELESS SECURITY MODE	
Security Mode : WPA-Personal	

Wireless Network Name: The Service Set Identifier (SSID) is the name of your wireless network. Create a name using up to 32 characters. The SSID is case-sensitive. Enable Auto Channel

802.11 Mode: Here the user can manually select the preferred frequency band to use for this wireless network.

Enable Auto Channel Scan: The auto channel selection setting can be selected to allow this device to choose the channel with the least amount of interference.

- Wireless Channel: By default the channel is set to 36. 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 Selection, this option will be greyed out. Transmission Rate: Select the transmit rate. It is strongly suggested to select Best (Automatic) for best performance.
- Channel Width: When using the 802.11n frequency band, the user have an option to choose between a 20 MHz, 20/40 MHz, or 20/40/80 MHz bandwidth.
- Visibility Status: The Invisible option allows you to hide your wireless network. When this option is set to Visible, your wireless network name is broadcasted to anyone within the range of your signal. If you are not using encryption then they could connect to your network. When Invisible mode is enabled, you must enter the Wireless Network Name (SSID) on the client manually to connect to the network.

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By default the wireless security of this router will be disabled. In this next option the user can enabled or disable wireless security for the frequency band 2.4GHz. There are two types of encryption that can be used. WEP or WPA/WPA2.

#### Wireless Security Mode: WEP

Wired Equivalent Privacy (WEP) is the most basic form of encryption that can be used for wireless networks. Even though it is known as a 'weak' security method, it is better than no security at all. Older wireless adapter sometimes only supports WEP encryption and thus we still find this encryption method used today.

The following parameters will be available for configuration:

WEP Key Length: Here the user can specify to either use a 64Bit or a 128Bit encrypted key. Authentication: Authentication is a process by which the router verifies the identity of a network device that is attempting to join the wireless network. There are two types authentication for this device when using WEP. **Open System** allows all wireless devices to communicate with the router before they are required to provide the encryption key needed to gain access to the network. Shared Key requires any wireless device attempting to communicate with the router to provide the encryption key needed to access the network before they are allowed to communicate with the router.

WIRELESS SECURITY MODE
Security Mode : WEP
WEP
WEP is the wireless encryption standard. To use it you must enter the same key(s) into the router and the wireless stations. For 64-bit keys you must enter 10 hex digits into each key box. For 128-bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. For the most secure use of WEP set the authentication type to "Shared Key" when WEP is enabled.
You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64-bit keys, and a maximum of 13 characters for 128-bit keys.
If you choose the WEP security option this device will <b>ONLY</b> operate in <b>Legacy Wireless mode (802.11B/G)</b> . This means you will <b>NOT</b> get 11N performance due to the fact that WEP is not supported by the Draft 11N specification.
WEP Key Length: 64 bit (10 hex digits) (length applies to all keys)
Authentication : Both
WEP Key 1 :

-

WEP Key 1: Enter the WEP key used here. For 64-bit keys you must enter 10 hex digits into each key box. For 128-bit keys you must enter 26 hex digits into each key box. A hex digit is either a number from 0 to 9 or a letter from A to F. You may also enter any text string into a WEP key box, in which case it will be converted into a hexadecimal key using the ASCII values of the characters. A maximum of 5 text characters can be entered for 64-bit keys, and a maximum of 13 characters for 128-bit keys.

WIRELESS SECURITY MODE

Security Mode : None

#### Wireless Security Mode: WPA-Personal

Wi-Fi Protected Access (WPA) is the most advanced and up to date wireless encryption method used today. This is the recommended wireless security option. WPA supports two authentication frameworks. Personal (PSK) and Enterprise (EAP).

#### The following parameters will be available for configuration:

WPA Mode: WPA is the older standard; select this option if the clients that will be used with the router only support the older standard. WPA2 is the newer implementation of the stronger IEEE 802.11i security standard. With the "WPA2" option, the router tries WPA2 first, but falls back to WPA if the client only supports WPA. With the "WPA2 Only" option, the router associates only with clients that also support WPA2 security.

Cipher Type: Select the appropriate cipher type to use here. Options to choose from are Temporal Key Integrity Protocol (TKIP), Advanced Encryption Standard (AES), and Both (TKIP and AES).

Group Key Update Interval: Enter the amount of time before the group key used for broadcast and multicast data is changed.

#### WIRELESS SECURITY MODE

Security Mode : WPA-Personal

#### WPA

Use **WPA or WPA2** 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 **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

To achieve better wireless performance use **WPA2 Only** security mode (or in other words AES cipher).

Group Key Update Interval : 3600	(seconds)
Cipher Type : TKIP ar	id AES 💌
WPA Mode : Auto(W	/PA or WPA2)

Enter an 8- to 63-character alphanumeric pass-phrase. For good security it should be of ample length and should not be a commonly known phrase.

Pre-Shared Key : 12345678

Pre-Shared Key: Enter the shared secret used here. This secret phrase needs to be the same on all of the wireless clients for them to be able to connect to the wireless network successfully.

#### Wireless Security Mode: WPA-Enterprise

Wi-Fi Protected Access (WPA) is the most advanced and up to date wireless encryption method used today. This is the recommended wireless security option. WPA supports two authentication frameworks. Personal (PSK) and Enterprise (EAP).

The following parameters will be available for configuration:

WPA Mode: WPA is the older standard; select this option if the clients that will be used with the router only support the older standard. WPA2 is the newer implementation of the stronger IEEE 802.11i security standard. With the "WPA2" option, the router tries WPA2 first, but falls back to WPA if the client only supports WPA. With the "WPA2 Only" option, the router associates only with clients that also support WPA2 security.

Cipher Type: Select the appropriate cipher type to use here. Options to choose from are Temporal Key Integrity Protocol (TKIP), Advanced Encryption Standard (AES), and Both (TKIP and AES).

Group Key Update Interval: Enter the amount of time before the group key used for broadcast and multicast data is changed.

RADIUS Server IP Address: When the user chooses to use the EAP authentication framework, the RADIUS server's IP address can be entered here.

#### WIRELESS SECURITY MODE

Security Mode : WPA-Enterprise

#### WPA

Use **WPA or WPA2** 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 **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

To achieve better wireless performance use **WPA2 Only** security mode (or in other words AES cipher).

WPA Mode: Cipher Type: Group Key Update Interval:	TKIP and AES	(seconds)	
EAP (802.1X)			
When WPA enterprise is enabled via a remote RADIUS server.	l, the router uses EA	P (802.1x) to authentica	te clients
RADIUS server IP Address :			
RADIUS server Port :	1812		
RADIUS server Shared Secret :			

Advanced >>

RADIUS Server Port: When the user chooses to use the EAP authentication framework, the RADIUS server's port number can be entered here.

RADIUS Server Shared Enter the shared secret used here. This secret phrase needs to be the same on all of the wireless clients for them to Secret: be able to connect to the wireless network successfully.

## **Wireless Security**

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-803 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.

## **Network Settings**

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

## **Router Settings**

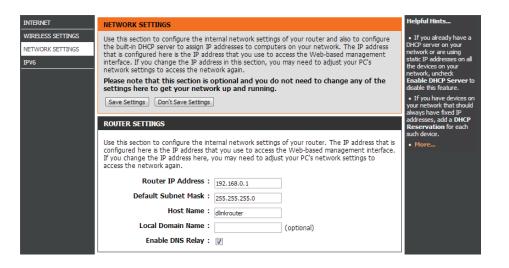
**Router IP Address:** Enter the IP address of the router. The default IP address is 192.168.0.1.

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.



## **DHCP Server Settings**

DHCP stands for Dynamic Host Control Protocol. The DIR-803 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-803. 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.

	Check this box to enable the DHCP server on your router.	DHCP SERVER SETTINGS	
	Uncheck to disable this function.	Use this section to configure the bu your network.	uilt-in DHCP server to assign IP address to the computers on
	Enter the starting and ending IP addresses for the DHCP server's IP assignment.	Enable DHCP Server :	
	5	DHCP IP Address Range :	100 to 199 (addresses within the LAN subnet)
	<i>Note:</i> If you statically (manually) assign IP addresses to your	DHCP Lease Time :	10080 (minutes)
	computers or devices, make sure the IP addresses are outside	Always broadcast :	(compatibility for some DHCP Clients)
	of this range or you may have an IP conflict.	NetBIOS announcement :	
	The length of time for the IP address lease. Enter the Lease time in minutes.	Learn NetBIOS from WAN :	
DHCP Lease Time:		NetBIOS Scope :	(optional)
	une in minutes.	NetBIOS node type :	<ul> <li>Broadcast only (use when no WINS servers configured)</li> </ul>
Always	If all the computers on the LAN successfully obtain their		Point-to-Point (no broadcast)
Broadcast:	IP addresses from the router's DHCP server as expected,		Mixed-mode (Broadcast then Point-to-Point)
	this option can remain disabled. However, if one of the		<ul> <li>Hybrid (Point-to-Point then Broadcast)</li> </ul>
	computers on the LAN fails to obtain an IP address from the	Primary WINS IP Address :	
	router's DHCP server, it may have an old DHCP client that	Secondary WINS IP Address :	
	incorrectly turns off the broadcast flag of DHCP packets. <sup>L</sup>		

Enabling this option will cause the router to always broadcast its responses to all clients, thereby working around the problem, at the cost of increased broadcast traffic on the LAN.

**NetBIOS** Check this box to allow the DHCP Server to offer NetBIOS configuration settings to the LAN hosts. NetBIOS allow LAN hosts to **Announcement:** discover all other computers within the network, e.g. within Network Neighborhood.

**Learn NetBIOS** If NetBIOS announcement is switched on, it will cause WINS information to be learned from the WAN side, if available. Turn this **from WAN:** setting off to configure manually.

- **NetBIOS Scope:** This is an advanced setting and is normally left blank. This allows the configuration of a NetBIOS 'domain' name under which network hosts operate. This setting has no effect if the 'Learn NetBIOS information from WAN' is activated.
- **NetBIOS Node:** This field indicates how network hosts are to perform NetBIOS name registration and discovery. H-Node, this indicates a Hybrid-State of operation. First WINS servers are tried, if any, followed by local network broadcast. This is generally the preferred mode if you have configured WINS servers. M-Node (default), this indicates a Mixed-Mode of operation. First Broadcast operation is performed to register hosts and discover other hosts, if broadcast operation fails, WINS servers are tried, if any. This mode favours broadcast operation which may be preferred if WINS servers are reachable by a slow network link and the majority of network services such as servers and printers are local to the LAN. P-Node, this indicates to use WINS servers ONLY. This setting is useful to force all NetBIOS operation to the configured WINS servers. You must have configured at least the primary WINS server IP to point to a working WINS server. B-Node, this indicates to use local network broadcast ONLY. This setting is useful where there are no WINS servers available, however, it is preferred you try M-Node operation first. This setting has no effect if the 'Learn NetBIOS information from WAN' is activated.

**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 DH	CP RESERVATION			
	Ena Computer Na IP Add MAC Add	ress : 192.168.0.105	Computer Name	
		Clone Your PC's M	AC Address	
		Add / Update	Clear	
DHCP R	ESERVATIONS LIST	r		
Enable	Host Name	IP Address	MAC Address	
	Home PC	192.168.0.105	00:11:22:33:44:55	
NUMBER	NUMBER OF DYNAMIC DHCP CLIENTS			
Host Na	me	IP Address	MAC Address Expired Time	

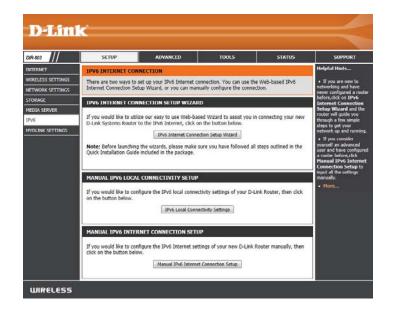
## IPv6

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 LOCAL CONNECTIVITY SETTINGS		
Use this section to configure Unique Local IPv6 Unicast Addresses(ULA) settings for your router. ULA is intended for local communications and not expected to be routable on the global Internet.		
Save Settings Don't Save Settings		
IPV6 ULA SETTINGS		
Enable ULA : 🔲		
Use Default ULA Prefix : 🛛		
ULA Prefix : [rd4d:8122:19e1:0000:: /64		
CURRENT IPV6 ULA SETTINGS		
Current ULA Prefix : LAN IPv6 ULA :		

### 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.

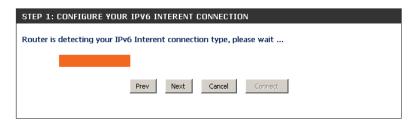
IPv6 Internet Connection Setup Wizard

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.



D-Link DIR-803 User Manual

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.

There are several connection types to choose from. If you are unsure of your step 1: CONFIGUR 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. 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.

Prev

Next	Cancel	Connect	

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.

121 21 00	NFIGURE YOUR IP	YO INTERENT	CONNECTION		
Router is unable detect your IPv6 Internet connection type					
	Cancel Tr	y again	Guide me through the IPve	setting	
	- cancor	, again	daldo nio chrodyn cho zi re	Soccarig	

#### 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.

SET USERNAME AND PASSWORD CONNECTION (PPPOE)		
To set up this connection you will need to have a Username and Password from your IPv6 Internet Service Provider. If you do not have this information, please contact your ISP.		
PPPoE Session:	Share with IPv4 C 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 Ir 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 parameters 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 Enter the 6rd border relay IPv4 address used here. Address: 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: 0	
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.

SETUP COMPLETE!
The IPv6 Internet Connection Setup Wizard has completed. Click the Connect button to save your settings 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	IPv6 DNS SETTINGS		
Obtain a DNS server address au	itomatically or enter a specific DNS server address.		
o	Obtain a DNS server address automatically		
0	Use the following DNS address		
Primary DNS Server :			
Secondary DNS Server :			
-			
LAN IPv6 ADDRESS SETTIN	GS		
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.  Enable DHCP-PD :  LAN IPv6 Address :  LAN IPv6 Address :  [64] LAN IPv6 Link-Local Address : FE80::218:E7FF:FE95:689E/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 :	V		
Enable Automatic DHCP-PD in			
Autoconfiguration Type :	SLAAC + Stateless DHCPv6 -		
Router Advertisement	1440 (minutes)		
Lifetime:			

## 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 the router to the IPv6 Internet.		
My IPv6 Connection is :	Static IPv6	
WAN IPv6 ADDRESS SETTINGS		
Enter the IPv6 address information provided by your Internet Service Provider (ISP).		
Use Link-Local Address :	V	
IPv6 Address :	FE80::218:E7FF:FE95:689F	
Subnet Prefix Length :	64	
Default Gateway :		
Primary DNS Server :		
Secondary DNS Server :		
change the LAN IPv6 Address	the internal network settings of your router. If you s here, you may need to adjust your PC network	
Use this section to configure t	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 to 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 to 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 to 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.	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 to 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 address assignment :	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	ev the router to the IPv6 Internet.
My IPv6 Connection is :	Autoconfiguration (SLAAC/DHCPv6)
IP¥6 DNS SETTINGS	
Obtain a DNS server address au	utomatically or enter a specific DNS server address.
o	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 Addres	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 Addres	the internal network settings of your router. If y ss here, you may need to adjust your PC netwo again.
Use this section to configure change the LAN IPv6 Addres settings to access the network	the internal network settings of your router. If y ss here, you may need to adjust your PC netwo < 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 netwo < 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 network 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 IP computers on your network.	the internal network settings of your router. If y ss 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 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address : LAN IPv6 Link-Local Address : ADDRESS AUTOCONFIGURA Use this section to setup IP 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 network again. /64 FE80::218:E7FF:FE95:689E/64 TION SETTINGS Pv6 Autoconfiguration to assign IP addresses to the
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 IP 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 netwo ( again. /64 FE80::218:E7FF:FE95:689E/64 TION SETTINGS Pv6 Autoconfiguration to assign IP addresses to for 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 IP computers on your network.Y router in your LAN. Enable automatic IPv6 address assignment :	the internal network settings of your router. If y ss here, you may need to adjust your PC network again. /64 FE80::218:E7FF:FE95:689E/64 TION SETTINGS Pv6 Autoconfiguration to assign IP addresses to the rou 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.

My IPv6 Connection is :	PPPoE
РРРОЕ	PPPoE 💌
PPPOE Enter the information provided	
Enter the information provided	
	by your Internet Service Provider (ISP).
PPPoE Session:	$ullet$ Share with IPv4 ${}^{\circ}$ Create a new session
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
LAN IP¥6 ADDRESS SETTING	S
Use this section to configure t change the LAN IPv6 Address settings to access the network	the internal network settings of your router. If yo s here, you may need to adjust your PC networ again.
Enable DHCP-PD :	
LAN IPv6 Address :	
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE95:689E/64
ADDRESS AUTOCONFIGURAT	ION SETTINGS
	Autoconfiguration to assign IP addresses to the u can also enable DHCP-PD to delegate prefixes for
router in your LAN. Enable automatic IPv6	
router in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in	<u>र</u>
router in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DUCCAD in	

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		
Choose the mode to be used by the router to the IPv6 Internet.		
My IPv6 Connection is :	IPv6 in IPv4 Tunnel	
IPv6 in IPv4 TUNNEL SETTINGS		
Enter the IDu6 in IDu4 Tunnel information provided by your Tunnel Decker		
Enter the IPv6 in IPv4 Tunnel information provided by your Tunnel Broker.		
Remote IPv4 Address :		
Remote IPv6 Address :		
Local IPv4 Address :		
Local IPv6 Address :		
IPv6 DNS SETTINGS		
Obtain a DNS server address au	tomatically or enter a specific DNS server address.	
	Obtain a DNS server address automatically	
	Use the following DNS address	
Primary DNS Server :		
Secondary DNS Server :		
	•	
Secondary DNS Server :	•	
LAN IPv6 ADDRESS SETTING	GS	
LAN IPv6 ADDRESS SETTING	GS the internal network settings of your router. If you	
LAN IPv6 ADDRESS SETTING	GS the internal network settings of your router. If you s here, you may need to adjust your PC network	
LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Addres settings to access the network	GS the internal network settings of your router. If you s here, you may need to adjust your PC network again.	
LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD :	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.	
LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address :	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again. /64	
LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD :	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again. /64	
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 :	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.  M HERD::218:E7FF:FE95:689E/64	
LAN IPv6 ADDRESS SETTING Use this section to configure change the LAN IPv6 Addres settings to access the network Enable DHCP-PD : LAN IPv6 Address :	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.  M HERD::218:E7FF:FE95:689E/64	
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 IPv	GS the internal network settings of your router. If you s here, you may need to adjust your PC network again.	
LAN IPv6 ADDRESS SETTING 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 AUTOCONFIGURAT Use this section to setup IP computers on your network.Y	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.	
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 IPv	GS the internal network settings of your router. If you s here, you may need to adjust your PC network again.	
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 IP computers on your network. router in your LAN. Enable automatic IPv6	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.	
LAN IPv6 ADDRESS SETTING 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 AUTOCONFIGURAT Use this section to setup IP computers on your network. Fouter in your LAN. Enable automatic IPv6 address assignment :	GS the internal network settings of your router. If you s here, you may need to adjust your PC network again.	
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 IP computers on your network. router in your LAN. Enable automatic IPv6	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.	
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 IP- computers on your network. Fouter in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.	
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 IP computers on your network. router in your LAN. Enable automatic IPv6 address assignment : Enable Automatic DHCP-PD in LAN :	GS the internal network settings of your router. If you is here, you may need to adjust your PC network again.	

## 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		
Choose the mode to be used by the router to the IPv6 Internet.		
My IPv6 Connection is :	6rd 💌	
6RD SETTINGS		
Enter the IPv6 address information provided by your Internet Service Provider (ISP).		
6rd Configuration :	☉ 6rd DHCPv4 Option ☉ Manual Configuration	
6rd IPv6 Prefix :	/ 32	
IPv4 Address :	192.168.1.2 Mask Length :0	
Assign IPv6 Prefix :	None	
Tunnel Link-Local Address : 1 6rd Border Relay IPv4	FE80::C0A8:0102/64	
Address :		
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 :	None	
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	60 (minutes)	
Lifetime:	eo (nimutes)	

## 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.

#### VIRTUAL SERVER

The Virtual Server option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.

Save Settings Don't Save Settings

#### 24 - VIRTUAL SERVERS LIST

Remaining number of rules that can be created: 24

			Port	Traffic Type	
Name	<	•	Public Port	Protocol Both 💌	Schedule Always 👻
IP Address	Computer Name	•	Private Port		Inbound Filter
Name	<	•	Public Port	Protocol Both 💌	Schedule Always 🗨
IP Address	Computer Name	•	Private Port		Inbound Filter

### **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.

#### 24 -- PORT FORWARDING RULES

Remaining number of rules that can be created: 24

		Ports to Open	
Name	<< Application Name	ТСР	Schedule Always 👻
IP Address	<	UDP	Inbound Filter
Name	<< Application Name	ТСР	Schedule Always 💌
IP Address	<	UDP	Inbound Filter

### **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-803. 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-803 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.

24 APPLICATION	N RULES			
Remaining number o	f rules that can be created: 24			
		Port	Traffic Type	Schedule
Name	Application	Trigger	All	Always 👻
	<< Application Name ▼	Firewall	All	Always 👻
Name	Application	Trigger	All	Always 👻
	<< Application Name ▼	Firewall	All 💌	Aiways
Name	Application	Trigger	All	Always 👻
	<	Firewall	All	Aiways 💌

### **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. The QoS section contains a queuing mechanism, traffic shaping and classification. It supports two kinds of

queuing mechanisms. Strict Priority Queue (SPQ) and Weighted Fair Queue (WFQ). SPQ will process traffic based on traffic priority. Queue1 has the highest priority and Queue4 has the lowest priority. WFQ will process traffic based on the queue weight. Users can configure each queue's weight. The sum of all the queue's weight must be 100. When surfing the Internet, the system will do traffic shaping based on the uplink and downlink speed. The classification rules can be used to classify traffic to different queues, then SPQ or WFQ will do QoS based on the queue's priority or weight.

The following parameters will be available for configuration:

- **Enable QoS:** This option is disabled by default. Enable this option for better performance and experience with online games and other interactive applications, such as VoIP.
- Uplink Speed: The speed at which data can be transferred from the router to your ISP. This is determined by your ISP. ISP's often define 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 www.dslreports.com.
- Downlink Speed: The speed at which data can be transferred from the ISP to the router. This is determined by your ISP. ISP's often define speed as a download/upload pair. For example, 1.5Mbits/284Kbits.

Using this example, you would enter 1500. Alternatively you can test your downlink speed with a service such as www.dslreports.com.

	Enable QoS Uplink Speed		kbps <<	Select Trans	mission Rate	v
	Downlink Speed Queue Type	0102			mission Rate	
Queue ID			Queue V	Veight		
	1			4	0 %	
	2			3	0 %	
	3			2	0 %	
	4			1	0 %	
32 CLASS	SIFICATION RULES					

	Name Youtube	Queue ID 1 - Highest 💌	Protocol TCP << ALL 💌
<b>V</b>	Local IP Range	to	Application Port
	Remote IP Range	to	ALL 👻

Queue Type: Here the user can specify the queue type used. When choosing the option Strict Priority Queue, the router will apply QoS based on the internal specification for the queue ID's listed. When choosing the option Weight Fair Queue, the router will apply QoS based on the user defined percentage in the Queue Weight column.

Queue ID: In this column the Queue ID used will be displayed.

Queue Priority: In this column the Queue Priority used will be displayed.

Queue Weight: After choosing to use the Weight Fair Queue option, under Queue Type, the user will be able to manual enter the Queue Weight for each individual Queue ID.

After specifying the QoS framework used, in the QoS setup section, the user can now create individual rules for scenarios that require the use of traffic control and data priority manipulation.

The following parameters will be available for configuration:

- **Checkbox:** Tick this option to enable the rule specified. **Name:** Enter a custom name for the rule being created here. This name is used for identification.
  - Queue ID: Select the appropriate priority requirement from the drop-down menu that will be applied to this rule. Option to choose from are Highest, Higher, Normal, and Best Effort.
  - **Protocol:** Select the protocol used for the application for in the drop-down menu and it will automatically place it in the Protocol field.
- Local IP Range: Enter the local IP range used here. This is the IP range of you Local Area Network. The Router's IP cannot be included in this range.

Remote IP Enter the remote IP range used here. This is the IP Range: range of the public network from the Internet Port side. To apply this rule to any IP addresses from the public side, enter the range 0.0.0.1 to 255.255.255.254.

Application Enter the application port number used here. Port:

Click on the **Save Settings** button to accept the changes made. Click on the **Don't Save Settings** button to discard the changes made.

32	CLASSIFICATION RULES		
Rem	naining number of rules that c	an be created: 18	
	Name Youtube	Queue ID 1 - Highest 🚽	Protocol TCP << ALL -
<b>V</b>	Local IP Range	to	Application Port YOUTUBE <<
	Remote IP Range	to	ALL
	Name Google_talk	Queue ID 1 - Highest	Protocol TCP << ALL -
<b>V</b>	Local IP Range	to	Application Port
	Remote IP Range	to	ALL

### **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 MACSelect Turn MAC Filtering Off, Allow MAC addressesFiltering:listed below, or Deny MAC addresses listed belowfrom 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.

24 MAC FILTERING RULI	ES		
Configure MAC Filtering belov Turn MAC Filtering ON and ALLC Remaining number of rules th	OW com		twork 💌
MAC Address		DHCP Client List	Schedule
	<<	Computer Name	Always 💌 New Schedule
	<<	Computer Name	Always 💌 New Schedule
	<<	Computer Name	Always 💌 New Schedule
	<<	Computer Name	Always 💌 New Schedule
	<<	Computer Name	Always 💌 New Schedule
	<<	Computer Name	Always 💌 New Schedule
	<<	Computer Name	Always 💌 New Schedule
	<<	Computer Name	Always 💌 New Schedule

### **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

#### 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).

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

Section 3 - Configuration
---------------------------

then click **Next** to continue.

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

Choose a u	nique name for you	ar policy.					
	Policy Name :	example					
		Prev	Next	Save C	ancel		

hoose a schedu	ule to apply to	this policy.			
		Always			
			•	 	
	Details :	Always			

Select the machine to whic	h this policy applie	·s.		
Specify a machine with its IP (	or MAC address, or se	elect "Other Machines" fo	r machines that do n	ot have a policy.
Address Typ	е: ⊙ір С мас	O Other Machines		
IP Addres	s: 192.168.0.112	<< PM test01 (19	2.168.0.112 ) 💌	
Machine Addres	s:	<< Computer Nan	ne 💌	
	Copy Your	PC's MAC Address		
	OK Clear			
Machine				
192.168.0.112			E	9

STEP 4: SELECT FILTERING METHOD			
Select the method for filtering.			
Method : C Log Web Access Only C 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
Г		0.0.0.0	255.255.255.255	Any •	0	65535
Г		0.0.0.0	255.255.255.255	Any .	0	65535
г		0.0.0.0	255.255.255.255	Any -	0	65525
Г		0.0.0.0	255.255.255.255	Any .	0	65535
Г		0.0.0.0	255.255.255.255	Any .	0	65535
Г	-	0.0.0.0	255.255.255.255	Any •	0	09535
Г		0.0.0.0	255.255.255.255	Any .	0	65535
Г		0.0.0.0	255.255.255.255	Any +	0	65535

Prev field Save Cancel

STEP 6: CONFIGURE WEB ACCESS LOGGING Web Access Logging : C Disabled

Enable

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

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

Your newly created	policy will	now show uj	p under <b>Polic</b> y	y Table.

ACCES	S CONTR	OL				
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						
ENABLE						
Enable Access Control : 🔽 Add Policy						
	TABLE			T	1	_
POLICY Enable		Machine	Filtering	Logged	Schedule	

### **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.

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**.

40 WEBSITE FILTERING RULES				
Configure Website Filter below: DENY computers access to ONLY these sites Clear the list below				
Website	JRL/Domain			
www.google.com	yahoo			
AOL				

### **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.

#### INBOUND FILTER

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 for limiting access to a server on your network to a system or group of systems. Filter rules can be used with Virtual Server, Port Forwarding, or Remote Administration features.

ADD INBOUND FILTER RULE				
Name : Action :	Allow			
Remote IP Range :	Enable	Remote IP Start	Remote IP End	
		0.0.0.0	255.255.255.255	
		0.0.0.0	255.255.255.255	
		0.0.0.0	255.255.255.255	
		0.0.0.0	255.255.255.255	
		0.0.0.0	255.255.255.255	
		0.0.0.0	255.255.255.255	
		0.0.0.0	255.255.255.255	
		0.0.0.0	255.255.255.255	
	A	dd Cancel		
INBOUND FILTER RULES LIST				
Name Action Remote IP	Range			

### **Firewall Settings**

A firewall protects your network from the outside world. The DIR-803 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.

FIREWALL & I	DMZ SETTINGS		
	emilitarized Zone". DMZ allows computers behind the router firewall to be iternet traffic. Typically, your DMZ would contain Web servers, FTP servers and		
Save Settings Don't Save Settings			
FIREWALL SE	TTINGS		
Enable SPI:			
ANTI-SPOOF (	CHECKING		
Enable ant	i-spoof checking : 📃		
DMZ HOST			
the router. If y behind the rou access. Note: Putting a	nilitarized Zone) option lets you set a single computer on your network outside of you have a computer that cannot run Internet applications successfully from ter, then you can place the computer into the DMZ for unrestricted Internet a computer in the DMZ may expose that computer to a variety of security risks. ion is only recommended as a last resort.		
ose of this opti	Enable DMZ :		
	DMZ IP Address :		
	Computer Name 🚽		
APPLICATION	LEVEL GATEWAY (ALG) CONFIGURATION		
	РРТР : 🔍		
	IPSec (VPN):		
	RTSP:		
	SIP:		

- 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.

IREWALL & DMZ SETTINGS				
MZ means "Demilitarized Zone". DMZ allows computers behind the router firewall to be ccessible to Internet traffic. Typically, your DMZ would contain Web servers, FTP servers and thers.				
Save Settings Don't Save Settings				
IREWALL SETTINGS				
Enable SPI :				
NTT-SPOOF CHECKING				
Enable anti-spoof checking :				
DMZ HOST				
The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of he router. If you have a computer that cannot run Internet applications successfully from ehind the router, then you can place the computer into the DMZ for unrestricted Internet ccess.				
lote: Putting a computer in the DMZ may expose that computer to a variety of security risks. Ise of this option is only recommended as a last resort.				
Enable DMZ :				
DMZ IP Address :				
Computer Name				
APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION				
РРТР: 🕡				
IPSec (VPN):				
RTSP: 🔽				
SIP: 🔽				

### Routing

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

Name: Enter a name for your route.

- **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.

32	32 ROUTE LIST				
Ren	naining number of rules tha	at can be created: 32			
			Metric	Interface	
	Name	Destination IP			
	Netmask	Gateway	1		
	Name	Destination IP	1		
	Netmask	Gateway	1		
	Name	Destination IP	1		
	Netmask	Gateway	1	•	

### **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.
- **HT20/40 Coexistence:** Enable this option to reduce interference from other wireless networks in your area. If the channel width is operating at 40MHz and there is another wireless network's channel over-lapping and causing interference, the router will automatically change to 20MHz.

ADVANCED WIRELESS SETTINGS			
Wireless Band :	2.4GHz Band		
Transmit Power :	High		
WLAN Partition :			
WMM Enable :	$\blacksquare$		
HT 20/40 Coexistence :	enable Disable		
ADVANCED WIRELESS SETTINGS			
ADVANCED WIRELESS SETTINGS	3		
ADVANCED WIRELESS SETTINGS Wireless Band :			
	5GHz Band		
Wireless Band :	5GHz Band		
Wireless Band: Transmit Power:	5GHz Band		

### 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** Tick this option to lock the configured wireless security **Security Settings:** settings.

**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.

WI-FI PROTECTED SETUP			
Enable : WiFi Protected Setup : Lock WPS-PIN Setup :	Enable/Configured		
PIN SETTINGS			
PIN :	58017791     Reset PIN to Default   Generate New PIN		
ADD WIRELESS STATION			
	Connect your Wireless Device		

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 120 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 46. **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 130 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-803 to respond to pings. Unchecking the box may provide some extra security from hackers.
- 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).

#### UPNP

Universal Plug and Play(UPnP) supports peer-to-peer Plug and Play functionality for network devices.

Enable UPnP IGD : 👿

#### WAN PING

If you enable this feature, the WAN port of your router will respond to ping requests from the Internet that are sent to the WAN IP Address.

Enable WAN Ping Response : 📃

#### WAN PORT SPEED

WAN Port Speed : Auto 10/100Mbps

MULTICAST STREAMS

Enable Multicast Streams : 📄

IPV6 MULTICAST STREAMS

Enable IPv6 Multicast Streams :

### **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 or click **Add New**.

**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.

GUEST ZONE				
Enable Routing Between Zones :				
SESSION 2.4GHZ				
Enable Guest Zone :	Always 👻 New Schedule			
Wireless Band :	2.4GHz Band			
Wireless Network Name :	dlink-guest (Also called the SSID)			
Security Mode :	None			
SESSION 5GHZ				
Enable Guest Zone :	Always V New Schedule			
Wireless Band :				
Wireless Network Name :	dlink-media-guest (Also called the SSID)			
Security Mode :	None			

# 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.

Admin Password: Enter a new password for the Administrator Login Name. The administrator can make changes to the settings.

User Password: Enter the new password for the User login. If you login as the User, you cannot change the settings (you can only view them).

Gateway name: Enter a name for your router.

- **Enable Graphical** Enables a challenge-response test to require users to type letters or **Authentication:** 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 Server: connect to the router, you must enter https://192.168.0.1 (for example) instead of http://192.168.0.1.
  - **Enable Remote** Remote management allows the DIR-803 to be configured from the **Management:** Internet by a web browser. A username/password is still required to access the Web Management interface.
  - Remote Admin The port number used to access the DIR-803 is used in the URL. Example: Port: http://x.x.x.8080 whereas x.x.x.x is the Internet IP address of the DIR-803 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 This section will list any rules that are created. You may click the **Edit** icon Inbound Filter: to change the settings or enable/disable the rule, or click the **Delete** icon to remove the rule. **Details** will display the current status.



### 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**.

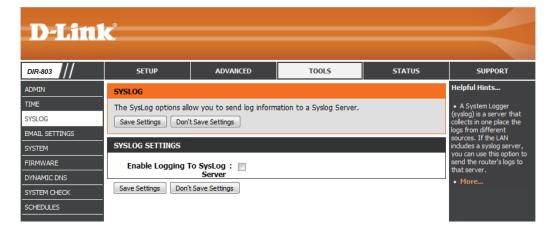
You can also click **Copy Your Computer's Time Settings** to synch the date and time with the computer you are currently on.

	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT		
	TIME AND DATE				Helpful Hints		
TTINGS IE	The Time and Date 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 you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to adjust the time when needed. Seve Settings Don't Seve Settings						
DNS	TIME AND DATE C	ONFIGURATION			server on the Interne • More		
HECK		Time : 01/01/2000 (	01:03:11				
5	Enable Daylig	ime Zone : (GMT+08:00) T	alpel				
		ng Offset : +01:00					
	Daylight Savi	DST Start	Month Week Day of Jan 1st Sun Jan 1st Sun	Week         Time           12:00 AM         12:00 AM           12:00 AM         12:00 AM			
		AND DATE CONFIGU					
		ver Used : ntp1.dlink.com					

### 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.

D-Link DIR-803 SETUP ADVANCED TOOLS STATUS SUPPORT ADMIN elpful Hints.. EMAIL SETTINGS The Email feature can be used to send the system log files, router alert messages, and firmware You may want to update notification to your email address. SYSLOG ske the email setting ilar to those of you Save Settings | Don't Save Settings EMAIL SETTINGS EMAIL NOTIFICATION FIRMWARE Enable Email Notification : DYNAMIC DNS SYSTEM CHECK EMAIL SETTINGS SCHEDULES From Email Address To Email Address : **Email Subject :** SMTP Server Address : SMTP Server Port : 2 Enable Authentication : Account Name : Password : Verify Password : Sent Mail Now EMAIL LOG WHEN FULL OR ON SCHEDULE On Log Full : On Schedule : Schedule : Never Detail : Save Settings Don't Save Settings

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

- From Email Address: This email address will appear as the sender 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 Authentication:** Check this box if your SMTP server requires 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 toThis option will restore all configuration settingsFactory Defaultback to the settings that were in effect at theSettings:time the router was shipped from the factory.Any settings that have not been saved will belost, including any rules that you have created. Ifyou want to save the current router configurationsettings, use the Save button above.

Reboot Device: Click to reboot the router.

	8				
<b>D-Lini</b>	K				
DIR-803	SETUP	ADVANCED	T00L5	STATUS	SUPPORT
ADMIN	SAVE AND RESTORE	SETTINGS			Helpful Hints
TIME SYSLOG EMAIL SETTINGS		figured you can save the o lso have the option to load			<ul> <li>Once your router is configured the way you want it, you can save these settings to a</li> </ul>
SYSTEM	SAVE AND RESTORE	SETTINGS			configuration file that can later be loaded in the event that the router's
FIRMWARE DYNAMIC DNS	Save Settings	To Local Hard Drive:	Save Configuration		default settings are restored. To do this, dick the <b>Save</b> button next to
SYSTEM CHECK SCHEDULES	Load Settings Fro	m Local Hard Drive:	Restore Configuration From F	·瀏覽…	where it says Save Settings to Local Hard Drive. • More
	Restore To Facto	ry Default Settings:	Restore Factory Defaults		
		Reboot The Device:	Reboot the Device		
	c	ear Language Pack:	Clear		

### Firmware

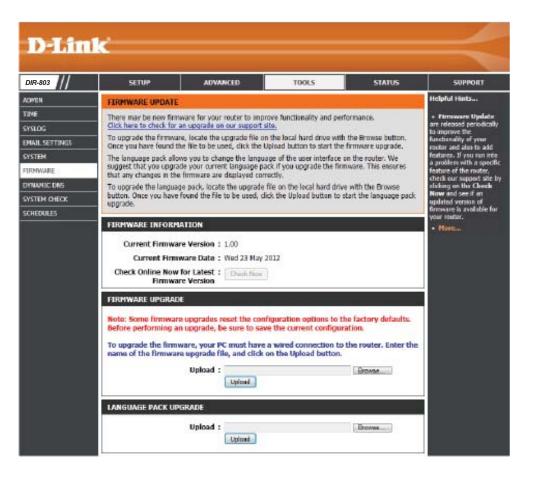
You can upgrade the firmware of the access point here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on **Browse** to locate the firmware file to be used for the update. Please check the D-Link support website for firmware updates at **http://support.dlink.com**.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

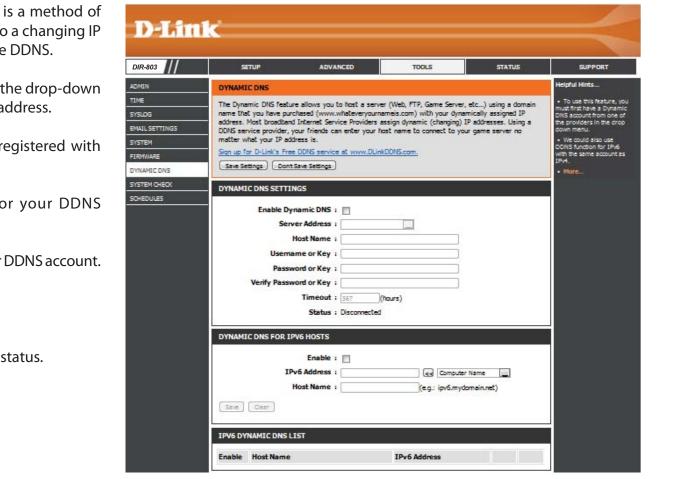
You can change the language of the web UI by uploading available language packs.

**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.

### 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.

DI

EM

SCH

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.

	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT					
	SCHEDULES				Helpful Hints					
		iration option is used to man Forwarding", "Applications"		VAN", "Wireless",	<ul> <li>Schedules are used with a number of othe features to define who those features are in</li> </ul>					
INGS	10 ADD SCHEDU	10 ADD SCHEDULE RULE								
INS ECK		Name : Day(s) : O All Week	Select Day(s) Tue Wed 1	Thu 🔲 Fri 🔲 Sat	<ul> <li>Give each schedule name that is meaningf to you. For example, schedule for Monday through Friday from 3:00pm to 9:00pm, mi be called "After School</li> </ul>					
	т	ay - 24 hrs :	(hour:minute)		Click Add to add a completed schedule to the list below.     Click Edit icon to change an existing schedule.     Click Delete icon to permanently delete a schedule.					
	SCHEDULE RULES L	IST			More					

## Status Device Info

This page displays the current information for the DIR-803. 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.

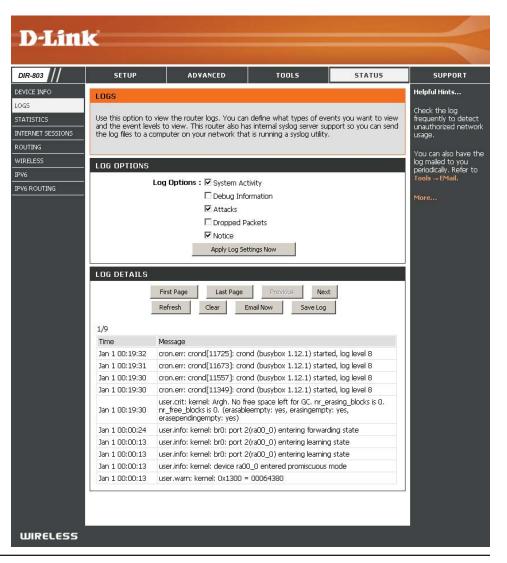
- WAN: Displays the MAC address and the public IP settings
- LAN: Displays the MAC address and the private (local) IP settings for the router.
- **Wireless LAN1:** Displays the 2.4GHz wireless MAC address and your wireless settings such as SSID and Channel.
- Wireless LAN2: Displays the 5GHz wireless MAC address and your wireless settings such as SSID and Channel.
- 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).

SETUP	ADVANCE	ю то	DLS	STATUS
EVICE INFORMATION	0			
W of your Internet and ne		ction details are displa	wed on this page.	The firmware
version is also displayed her				
GENERAL				
		ay, January 02, 2011 J. Tue, 16, Mar. 201		
VAN				
Sector Line and and	Ivras • Dana	amic IP (DHCP)		
	atus : Disci			
		onnected Renew	kelesse.	
Connection Up		IRE7:95:70:A1		
IP Add	tress : 0.0.1	0.0		
	Mask : 0.0.0			
Default Gate Primary DNS Se				
Secondary DNS Se	erver : 0.0.1	0.0		
Advanced	DNS: Disal	bled		
LAN	l			
		18:E7:95:70:A0		
	tress: 192. Mask: 255.			
	www. Enab			
WIRELESS LAN				
	Band: 2.40	94:		
	tadio : Enai			
	1ode: 802 /idth: 20/4			
Cha	nnel: 2			
Wi-Fi Protected S SSID List :	etup : Enat	bled/Not Configured		
Network Name (SSID)	Guest	MAC Address	Security Mode	
dink	No	00:18:E7:95:70:A0		
WIRELESS LANZ				
Wireless				
Wireless Wireless 802.11 N	Radio: Enal Node: 802	ble .11na		
Wireless Wireless I 802.11 M Channel V	Radio: Enal tode: 802 Width: 20/4	ble .11na		
Wireless Wireless I 802.11 N Channel V Ch Wi-Fi Protected S	Radio: Enal Node: 802 Width: 20/4 annel: 36 Setup: Enal	ble .11na		
Wireless Wireless 802.11 M Channel W Wi-Fi Protected S SSII	Radio: Enal 10de: 802 Width: 20/4 annel: 36 Setup: Enal D List:	ble 1.11na 40MHz	Security Mode	
Wireless Wireless I 802.11 N Channel V Ch Wi-Fi Protected S	Radio: Enal 10de: 802 Width: 20/4 annel: 36 Setup: Enal D List:	ble .11na 40MHz bled/Not Configured		
Wireless Wireless I 802.11 P Channel V Ch Wi-Fi Protected 2 SSII Network Name (SSID) dirik_media	Radio: Enal 10de: 802 Width: 20/4 annel: 36 Setup: Enal D List: Guest	ble .11na 40MHz bled/Not Configured MAC Address		
Wireless Wireless B022.11 Channel V Channel V Wi-Fi Protected 2 SSII Network Name (SSID) dirk_media LAN COMPUTERS	Radio: Enal Hode : 802 Width: 20/4 annel: 36 Setup: Enal D List: Guest No	ble 11na 40MHz bled/Not Configured MAC Address 00:18:E7:95:70:A2	Off	
Wireless Wireless B022.11 Charnel V Wi-Fi Protected 3 SII Network Name (SSID) dink_media LAN COMIPUTERS IP Address	Radio: Enab tode : 902 Width: 20/4 annel: 36 Setup: Enab D List: Guest No Name (if	ble 1.11na 40MHz bled/Not Configured MAC Address 00:18:E7:95:70:A2 5 any) MA	Off	
Wireless Wireless B022.11 Channel V Wi-Fi Protected 5 SSI Network Name (SSID) dirk_media AN COMPUTERS	Radio: Enal Hode : 802 Width: 20/4 annel: 36 Setup: Enal D List: Guest No	ble 1.11na 40MHz bled/Not Configured MAC Address 00:18:E7:95:70:A2 5 any) MA	Off	
Wireless Wireless B802-11 Charnel W Ch Wi-Fi Protected 3 SII Network Name (SSID) dirk_media AN COMPUTERS IP Address	Radio: Enab fode : 802 Width: 20/4 annel: 36 Setup: Enab D List: Guest No Name (if PM_test)	ble 13na 13na 1044z bled/Not Configured MAC Address 00:18:67-95:70:A2 3 any) MA 01 00	Off	

### 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 Options: 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.
  - First Page: Click to go to the first page.
  - Last Page: Click to go to the last page.
  - Previous: Click to go back one page.
    - **Next:** Click to go to the next page.
    - 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-803 on both the WAN, LAN ports and the wireless segments. The traffic counter will reset if the device is rebooted.

D-Lini	k				$\prec$
DIR-803	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
DEVICE INFO LOGS STATISTICS INTERNET SESSIONS ROUTING WIRELESS IPV6	TRAFFIC STATISTIC Traffic Statistics display Refresh Statistics LAN STATISTICS Sent : 13 TX Packets Dropped :	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.			
IPV6 ROLITING	WAN STATISTICS Sent : 6 TX Packets Dropped : Collisions : 0 WIRELESS STATIS Sent : 17 TX Packets Dropped :	rics	Dropped : <sup>0</sup> Errors : 0 Received : 0 RX Packets Dropped : 0 Errors : 0 RX Packets Dropped : 0 Errors : 0	54	
	WIRELESS STATIS Sent : 11 TX Packets Dropped : 0		Received : 7405 RX Packets Dropped : <sup>0</sup> 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-Lini	¢								
DIR-803	SETUP ADVANCED TOOLS STATUS							SUPPORT	
DEVICE INFO	INTERNET SESSIO	Helpful Hints							
LOGS		This is a list of all active							
STATISTICS	This page displays the		conversations						
INTERNET SESSIONS			between WAN computers and LAN						
ROUTING	INTERNET SESSION							computers.	
WIRELESS			i.			1	1	More	
 IPV6	Local	NAT	Internet	Protocol	State		Time Out		
IPV6 ROUTING	192.168.0.1:137	137	192.168.0.100:137	udp	-	OUT	170		
	192.168.0.100:3600	3600	192.168.0.1:53	udp	-		111		
	192.168.0.100:3704	3704	192.168.0.1:80	tcp	EST	100000	432000		
	192.168.0.100:3702	3702	192.168.0.1:80	tcp	ΤW	1000	119		
	192,168.0,100:3701	3701	192.168.0.1:80	tcp	CL	OUT			
	192.168.0.100:3700	3700	192.168.0.1:80	tcp	CL	OUT			
	192.168.0.100:3699	3699	192.168.0.1:80	tcp	CL	OUT			
	192.168.0.100:3698	3698	192.168.0.1:80	tcp	CL	OUT	9		
	192.168.0.100:3697	3697	192.168.0.1:80	tcp	CL	OUT	9		
	192.168.0.100:3696	3696	192.168.0.1:80	tcp	CL	OUT	9		
	192.168.0.100:3695	3695	192.168.0.1:80	tcp	CL	OUT	9		
	192.168.0.100:3694	3694	192.168.0.1:80	tcp	CL	OUT	9		
	192.168.0.100:3693	3693	192.168.0.1:80	tcp	TW	OUT	119		
	192.168.0.100:3689	3689	192.168.0.1:80	tcp	TW	OUT	105		
	192.168.0.100:3688	3688	192.168.0.1:80	tcp	TW	OUT	105		
	192.168.0.100:3679	3679	192.168.0.1:80	tcp	TW	OUT	105		
	192.168.0.100:3675	3675	192.168.0.1:80	tcp	ΤW	OUT	101		
	192.168.0.100:3674	3674	192.168.0.1:80	tcp	TW	OUT	101		
	192.168.0.100:3673	3673	192.168.0.1:80	tcp	τw	OUT	101		
	192.168.0.100:3672	3672	192.168.0.1:80	tcp	τw	OUT	101		
	192.168.0.100:3663	3663	192.168.0.1:80	tcp	τw	OUT	101		
	192,168.0,100:3662	3662	192.168.0.1:80	tcp	τw	OUT	101		
	192.168.0.100:3661	3661	192.168.0.1:80	tcp	TW	OUT	97		
	192.168.0.100:3660	3660	192.168.0.1:80	tcp	TW	OUT	93		

### Routing

This page will display your current routing table.

<b>D</b> -Linl	<b>_</b>						
DIR-803	SETUP	AD	VANCED	TOOLS		STATUS	SUPPORT
DEVICE INFO	ROUTING			Helpful Hints			
LOGS STATISTICS	Routing Table This page displays t	he routing det	tails configured for	your router.			This is a list of all routing rules on router.     More
INTERNET SESSIONS WIRELESS	ROUTING TABLE						
ROUTING	Destination	Gateway	Genmask	Metric	Iface	Creator	
IPv6	192.168.7.0	0.0.0.0	255.255.255.0	0	LAN	SYSTEM	
IPV6 ROUTING	192.168.0.0	0.0.00	255.255.255.0	0	LAN	SYSTEM	
	239.0.0.0	0.0.0	255.0.0.0	0	LAN	SYSTEM	
WIRELESS							

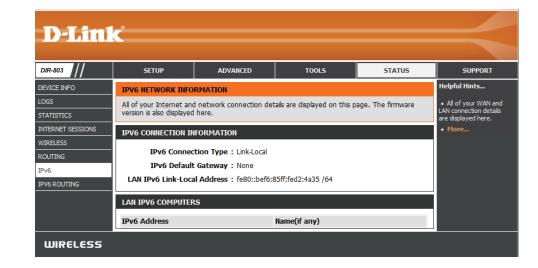
### Wireless

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.

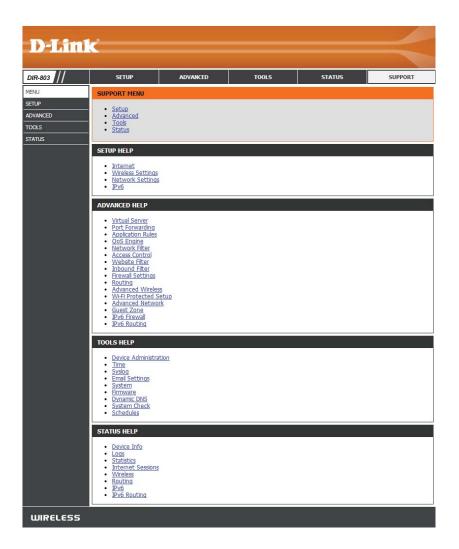
SETUP	ADVANCED	TOOLS		-				
		TOOLS	STATUS	SUPPORT				
CONNECTED WIRELES	CONNECTED WIRELESS CLIENT LIST							
/iew the wireless client	linger in the list for a	• This is a list of all						
ew minutes after an u	-	wireless clients that are currently connected to						
IUMBER OF WIRELES	S CLIENTS - 2.4GHZ BA	ND : 0		your wireless router. • More				
	mada a	Data (Mhaa) Gianal	(0)	• 1012				
1AC Address	IP Address Mode	Rate (MDps) Signal	(%)					
IUMBER OF WIRELES	S CLIENTS - 5GHZ BAN	D:0		1				
1AC Address	IP Address Mode	Rate (Mbps) Signal	(%)					
	ew minutes after an u IUMBER OF WIRELES IAC Address	ew minutes after an unexpected disconnect.) IUMBER OF WIRELESS CLIENTS - 2.4GHZ BA 1AC Address IP Address Mode IUMBER OF WIRELESS CLIENTS - 5GHZ BAN	ew minutes after an unexpected disconnect.) IUMBER OF WIRELESS CLIENTS - 2.4GHZ BAND : 0 1AC Address IP Address Mode Rate (Mbps) Signal IUMBER OF WIRELESS CLIENTS - 5GHZ BAND : 0	IUMBER OF WIRELESS CLIENTS - 2.4GHZ BAND : 0 4AC Address IP Address Mode Rate (Mbps) Signal (%) IUMBER OF WIRELESS CLIENTS - 5GHZ BAND : 0				

### 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.



# 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-803 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 side of DIR-803 for about 1 second. The Internet LED on the front 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 Internet light stops blinking, you will be connected and your wireless connection will be secure with WPA2.

## Windows<sup>®</sup> 8 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 (Wi-Fi password) being used.

To join an existing network, locate the wireless network icon in the taskbar, next to the time display.

Clicking on this icon will display a list of wireless networks which are within connecting proximity of your computer. Select the desired network by clicking on the network name.



to 😼 🐗 🕩

Wireless Icon

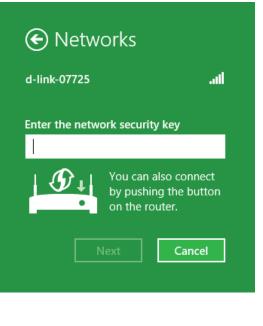
11:35 AM

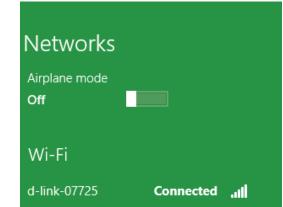
1/21/2013

You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

If you wish to use Wi-Fi Protected Setup (WPS) to connect to the router, you can also press the WPS button on your router at the point to enable the WPS function.

When you have established a successful connection a wireless network, the word **Connected** will appear next to the name of the network to which you are connected.





## 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.



D-Link DIR-803 User Manual

Section 4 - Security

3. Highlight the wireless connection with Wi-Fi name (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.

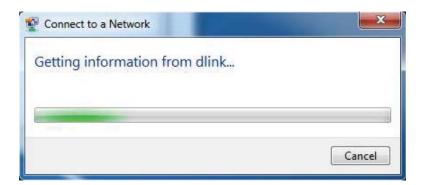
4. The following window appears while your computer tries to connect to the router.

dlink	lite	
Connect automatically	Connect	
kay2690_24	liter	
james2690g	liter	
ALPHA	100	
dlink 888	lite.	
SD6_WLAN	1000	
DAP-2690q	in.	Ŧ

Connections are available

Not connected

d lb



Section 4 - Security

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

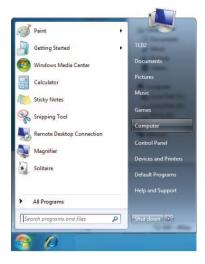
It may take 20-30 seconds to connect to the wireless network. If the connection fails, please verify that the security settings are correct. The key or passphrase must be exactly the same as on the wireless router.

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

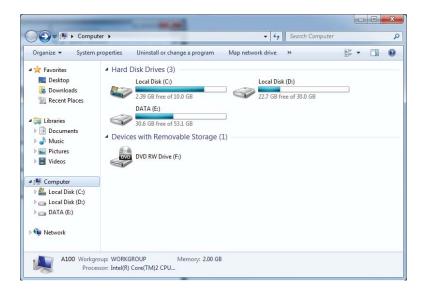
## WPS

The WPS feature of the DIR-803 can be configured using Windows<sup>®</sup> 7. Carry out the following steps to use Windows<sup>®</sup> 7 to configure the WPS feature:

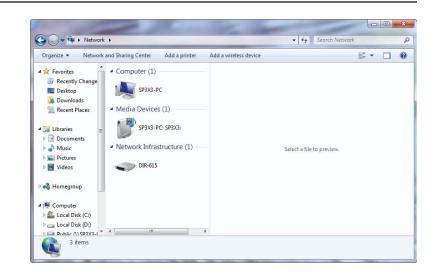
1. Click the **Start** button and select **Computer** from the Start menu.







### 3. Double-click the DIR-803.



4. Input the WPS PIN number (on the router label) in the **Setup** > **Wireless Setup** menu in the Router's Web UI) and click **Next**.

🕑 😰 Set U	t Up a Network	
To set	et up a network, type the 8-digit PIN from the router label	
	N	ext 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): V Upgrade or replace the router using the network settings stored on this computer Next Cancel

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

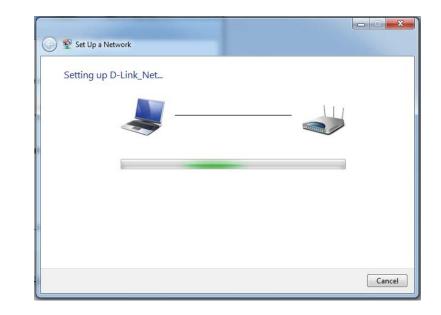
Click **Next** to continue.

~		
G	Set Up a Network	
	Give your network a name	
	Your network needs a unique name so that it can characters or less) and recognizable.	be easily identified. It is best to keep the name short (25
	Type your network name:	Security-enabled network
	D-Link_Net	Your network is being set up using WPA2-Personal.
	Change passphrase, security level and encryption Security key:	type (advanced): Security level:
	f6mm-gizb-9vmv	WPA2-Personal (Recommended)
	Connect automatically	Encryption type: AES (Recommended)
	Upgrade or replace the router using the network	ork settings stored on this computer
		<u>N</u> ext 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.

🕞 😰 Set Up a Network	3
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, 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.

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 Wi-Fi name (SSID) you would like to connect to and click **Connect**.



Not Connected

Wireless networks are available.

Connect to a network

Cancel

Connect

3. Enter the same security key or passphrase (Wi-Fi password) 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	e the network security key or passphrase for Candy
The p	serson who setup the network can give you the key or passphrase.
Secur	ity key or passphrase:
E Di	splay characters
đ	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		
Currer	t 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.

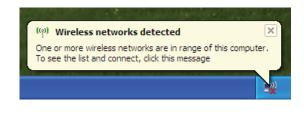
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

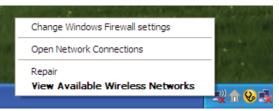
or

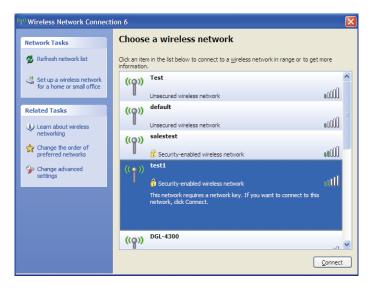
Right-click on the wireless computer icon in your system tray (lower-right corner next to the time). Select **View Available Wireless Networks**.

The utility will display any available wireless networks in your area. Click on a Wi-Fi 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.







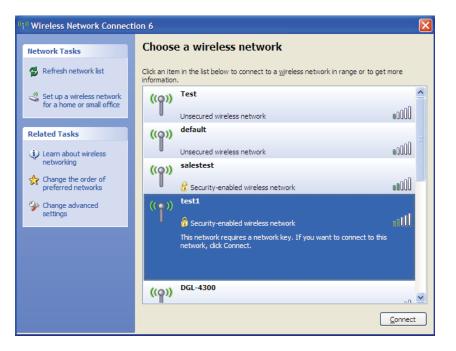
## WPA/WPA2

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 Wi-Fi 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 Wi-Fi password 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 Wi-Fi password must be exactly the same as on the wireless router.

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

# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-803. 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> 7 and higher
  - Mozilla Firefox 3.5 and higher
  - Google<sup>™</sup> Chrome 8 and higher
  - Apple Safari 4 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 [u	ırl] [-f]	[-I] [M	TU 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.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
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-803 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**

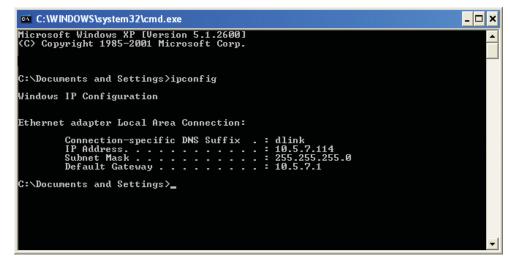
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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.

General		
	igned automatically if your network supports ou need to ask your network administrator fo	
Obtain an IP address	automatically	
💿 Use the following IP a	ddress:	
IP address:	192.168.0.52	
Subnet mask: Default gateway:	255 . 255 . 255 . 0	
	192.168.0.1	
<ul> <li>Obtain DNS server ad</li> </ul>	dress automatically	
👝 Use the following DNS	server addresses:	
Preferred DNS server:	192.168.0.1	
Alternate DNS server:	1 1 1 1	
	Advanced	

# **Technical Specifications**

#### **Hardware Specifications**

- LAN Interface: Four 10/100Mbps LAN ports
- WAN Interface: One 10/100Mbps Internet port
- Wireless Interface (2.4Ghz): IEEE 802.11b/g/n
- Wireless Interface (5Ghz): IEEE 802.11a/n/ac

### **Operating Voltage**

- Input: 100~240V (±20%), 50~60Hz
- Output: DC5V, 1A

### Temperature

- Operating: 32 ~ 104°F (0 ~ 40°C)
- Non-Operating: -4 ~ 149°F (-20 ~ 65°C)

### Humidity

- Operating: 10% 90% non-condensing
- Non-Operating: 5% 95% non-condesing

### Wireless Frequency Range

- IEEE 802.11a: 5180 MHz~5240 MHz, 5745 MHz~5825 MHz
- IEEE 802.11b: 2400 MHz~2483 MHz
- IEEE 802.11g: 2400 MHz~2484 MHz
- IEEE 802.11n: 2400 MHz~2484 MHz, 5180 MHz~5240 MHz, 5745 MHz~5825 MHz
- IEEE 802.11ac: 5180 MHz~5240 MHz, 5745 MHz~5825 MHz

#### Wireless Bandwidth Rate

- IEEE 802.11a: 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- IEEE 802.11b: 11, 5.5, 2, and 1 Mbps
- IEEE 802.11g: 54, 48, 36, 24, 18, 12, 9, and 6 Mbps
- IEEE 802.11n: 6.5 to 150 Mbps
- IEEE 802.11ac(Draft): 6.5 to 433 Mbps

### Antenna Type

Two External Antennas

### **Wireless Security**

• WPA/WPA2-Personal, WPA/WPA2-Enterprise, WPS (PIN & PBC)

### Certifications

• CCC

### **Dimensions & Weight**

- 151.6x112x30.5mm
- 190 grams

### Federal Communication Commission Interference Statement

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.

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.

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.

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

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

### **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.

### Industry Canada statement

This device complies with RSS-210 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

### Caution :

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

### **Avertissement:**

(i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

### **Radiation Exposure Statement:**

This equipment complies with IC 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.

### Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.