D-Link®

User Manual

Wireless AC750 Dual Band Router

DIR-819

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	28 October, 2016	Initial release for revision A1

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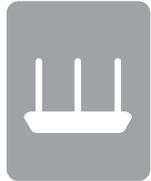
The purpose of this product is to create a constant network connection for your devices. As such, it does not have a standby mode or use a power management mode. If you wish to power down this product, please simply unplug it from the power outlet.
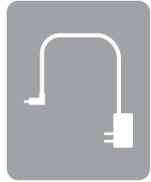
Table of Contents

Package Contents

DIR-819 Wireless AC750 Dual Band Router

Power Adapter

Ethernet Cable

Wi-Fi Configuration Card
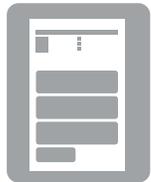
Quick Install Guide

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-819 will cause damage and void the warranty for this product.*

System Requirements

Network Requirements	• An Ethernet-based cable or DSL modem • IEEE 802.11ac, 802.11n, 802.11a, 802.11g, or 802.11b wireless clients • 10/100 Ethernet
Web-based Configuration Utility Requirements	**Computer with the following:** • Windows®, Macintosh, or Linux-based operating system • An installed Ethernet adapter **Browser Requirements:** • Internet Explorer 9 or higher • Firefox 20 or higher • Safari 5.1 or higher • Chrome 25 or higher **Windows® Users:** Make sure you have the latest version of Java installed. Visit www.java.com to download the latest version.

Introduction

The D-Link DIR-819 Wireless AC750 Dual Band Router shares your Internet connection over a blazing-fast wireless connection of up to 750 Mbps (up to 433 Mbps over 5 GHz Wireless AC and up to 300 Mbps over 2.4 GHz Wireless N)[1], using advanced AC beamforming technology to significantly outperform 802.11n and other 802.11ac devices. Equipped with one Fast Ethernet WAN/Internet port and four Fast Ethernet LAN ports, the DIR-819 creates an excellent networking experience.

Featuring four antennas, the Wireless AC750 Dual Band Router offers better data rates, fewer dead-spots, more coverage, and higher reliability. Operating exclusively in the 5 GHz band, the DIR-819's 802.11ac wireless connections avoid the crowded 2.4 GHz band, giving you faster speeds while still maintaining backwards compatibility with older 802.11n/g/b devices. A stronger Wi-Fi signal means you can install more wireless surveillance cameras, baby monitors, sensors, and alarms in the places where you need them.

The DIR-819 supports the latest security features to help prevent unauthorized access. Support for WPA™ and WPA2™ standards ensure that you will be able to use the best possible encryption regardless of your client devices. This router is also equipped with a dual-active firewall (SPI and NAT) to prevent potential attacks over the Internet.

The DIR-819 is full of features to improve your home network. The rich parental controls allow you to easily control when the Internet should be available in your home and what content is allowed. With all this and more, the DIR-819 Wireless AC750 Dual Band Router will serve your network well for years to come.

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1 Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g, 802.11n and 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.
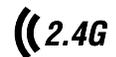
Features

- **Excellent Wireless Networking** - The DIR-819 provides wireless speeds of up to a combined 750 Mbps (433 Mbps 802.11ac 5 GHz, plus 300 Mbps 802.11n 2.4 GHz)[1]. This capability rivals wired connections, allowing users to participate in real-time activities online, such as HD video communication, online gaming, and use mobile devices from anywhere in your home while still offering full 802.11n/g/b backward compatibility.

- **Fast Wired LAN and WAN Networking** - With four 10/100 Fast Ethernet LAN ports, and a 10/100 Fast Ethernet WAN port, the DIR-819 has an enormous amount of bandwidth to take full advantage of the highest speed broadband connections available.

- **IPv6 Support** - The DIR-819 fully supports IPv6 and includes support for a variety of IPv6 connection types including: SLAAC/DHCPv6, 6to4, 6rd, Static IPv6, IPv6 PPPoE, IPv6 in IPv4 tunneling, and local connectivity.

- **Advanced Firewall Features** - The web-based user interface displays a number of advanced network management features. Easily apply content filtering based on MAC address, URL, and/or domain name. Schedule these filters to be active on certain days or for a duration of hours or minutes.

- **Secure Multiple/Concurrent Sessions** - The DIR-819 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-819 can securely access corporate networks.

- **User-friendly Setup Wizard** - Through its easy-to-use web-based user interface, the DIR-819 lets you quickly configure and secure your router to your specific settings in minutes.

1   Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g, 802.11n and 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
LEDs

1	⏻	**Power**	The Power LED indicates that the device is powered on with a proper connection to the power supply.
2	*2.4G*	**2.4 GHz Wireless**	The Wireless LED indicates that this wireless band is working. It blinks during wireless data transmission.
3	*5G*	**5 GHz Wireless**	The Wireless LED indicates that this wireless band is working. It blinks during wireless data transmission.
4	🌐	**Internet**	The Internet LED indicates that an Internet link is established. It blinks during data transmission.
5	↻	**WPS**	The WPS LED blinks during the WPS pairing process.

Hardware Overview
Connections
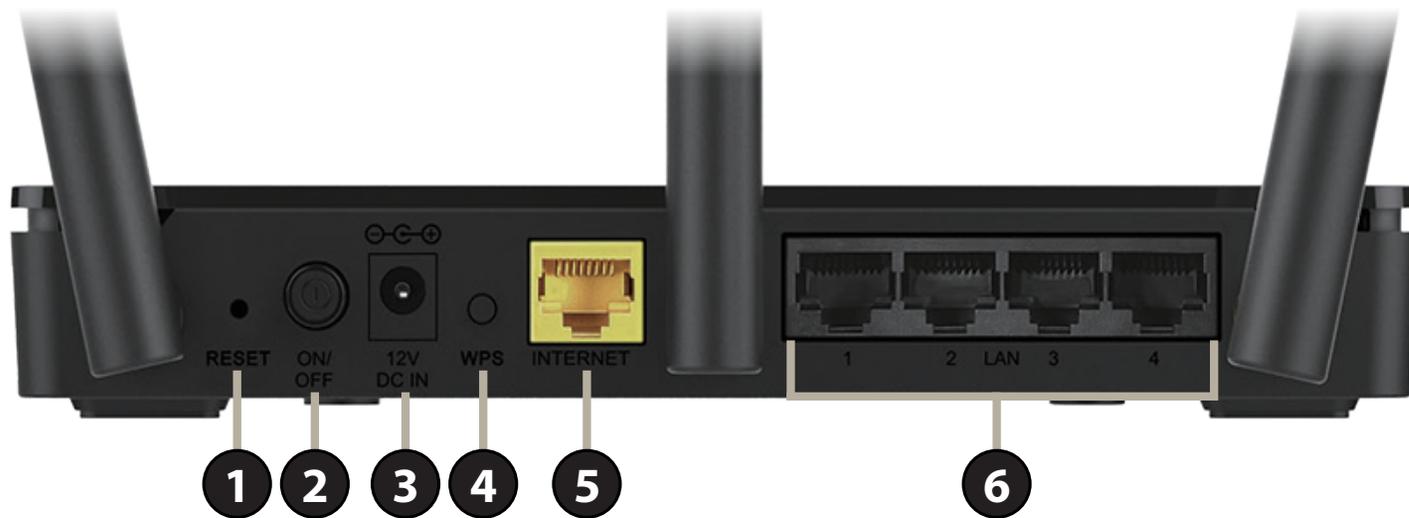
1	**Reset Button**	Insert a paperclip in the hole, wait for 10 seconds, and release to reset the router to default settings.
2	**Power Button**	Press the power button to power the device on and off.
3	**Power Connector**	Connector for the supplied power adapter.
4	**WPS Button**	Press to start the WPS process and automatically create a secure connection to a WPS client.
5	**Internet Port**	Using an Ethernet cable, connect your broadband modem to this port.
6	**LAN Ports (1-4)**	Connect Ethernet devices such as computers, switches, storage (NAS) devices and game consoles.

Installation
Before You Begin

- Placement of the router is very important. Do not place the router in an enclosed area such as a closet, cabinet, attic, or garage.

- Configure the router with the computer that was last connected directly to your Internet connection. Verify that it is connected to the Internet before connecting additional devices.

- If your ISP provided you with a modem/router combo, you will need to set it to "bridge" mode so the router can work properly. Please contact your Internet Service Provider (ISP) or refer to the user manual for your modem/router device.

- 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 connecting to a DSL modem, make sure to have your DSL service information provided by your Internet Service Provider handy. This information is likely to include your DSL account's username and password. Your ISP may also supply you with additional WAN configuration settings which might be necessary to establish a connection.

- If you are connecting a considerable amount of networking equipment, it may be a good idea to take the time to label each cable or take a picture of your existing setup before making any changes.

- 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

This D-Link wireless device lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind 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 1 to 30 meters (3 to 90 feet). 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 0.5 meters (1.5 feet) thick, at a 45-degree angle appears to be almost 1 meter (3 feet) thick. At a 2-degree angle it looks over 14 meters (42 feet) 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 1 to 2 meters (3 to 6 feet) from electrical devices or appliances that generate RF noise.

5. If you are using 2.4 GHz 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 2.4 GHz phone base is as far away from your wireless devices as possible. The base transmits a signal even if the phone is not in use.

Hardware Setup

1. The DIR-819 is designed to give you the fastest, most stable network connection possible. In order to maximize performance, fully extend the antennas to provide optimal wireless coverage. Keep the router in an open area for better wireless coverage.

DIR-819

2. Position your DIR-819 near your Internet-connected modem. Place it in an open area for better wireless coverage.
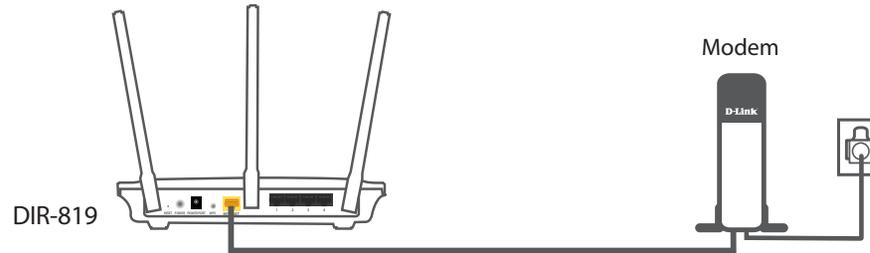
DIR-819   Modem
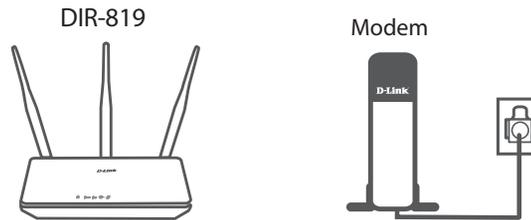
3. Turn off and unplug the power and Ethernet cable to your cable or DSL broadband modem. This is required. In some cases, you may need to turn it off for up to five minutes.

DIR-819   Modem

Hardware Setup (continued)

4. Use the included Ethernet cable to connect your modem to the yellow port labeled **INTERNET** on the router.

Modem

DIR-819

5. Turn on or plug your modem back in and wait approximately one minute before proceeding onward.

Modem

DIR-819

6. Connect the supplied power adapter to the router and a power outlet, press the power button, and verify that the power LED is lit. Allow 1 minute for the router to boot up.

Modem
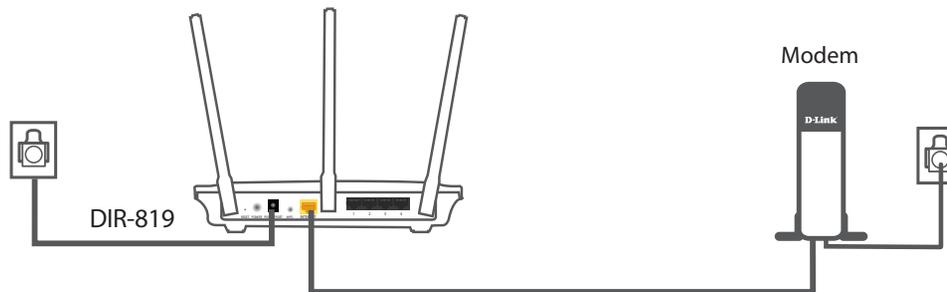
DIR-819

Hardware Setup (continued)

7. **If you are configuring the DIR-819 wirelessly from a PC**, connect to a Wi-Fi network printed on the included Wi-Fi configuration card. You can also find the Wi-Fi network names and passwords printed on the label attached to the bottom of your router.
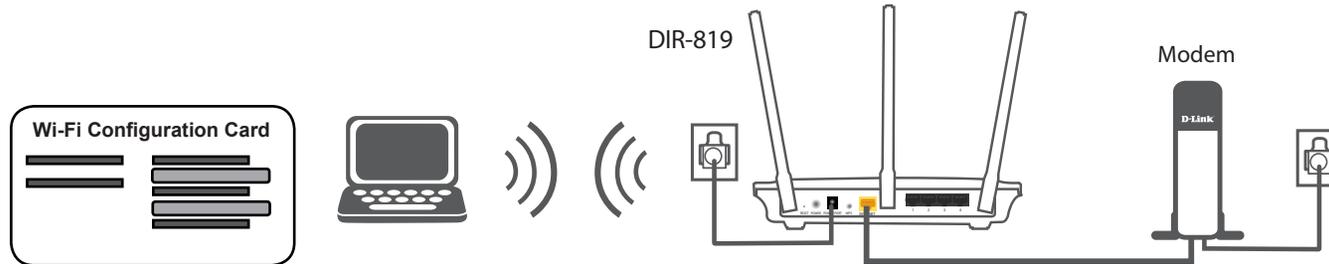
If you are configuring the DIR-819 from a PC with a wired Ethernet connection, plug one end of an Ethernet cable into the port labeled 1 on the back of the router, and the other end into the Ethernet port on your computer.
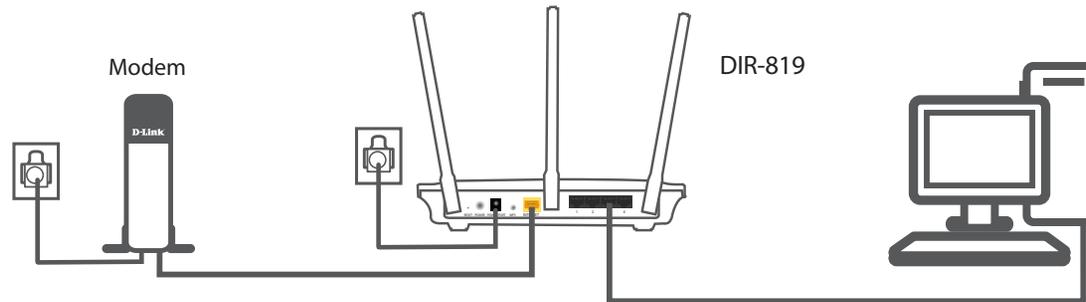
8. If you are connecting to a broadband service that uses a dynamic connection (not PPPoE), you may be online already. Try opening a web browser and connecting to a website. If the website does not load, proceed to **Completing Setup** on page **12**.

Completing Setup

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 **Setup Wizard** on page **13.**

- **Manual Setup** - Log into the router and manually configure your router, refer to **Configuration** on page **21**.
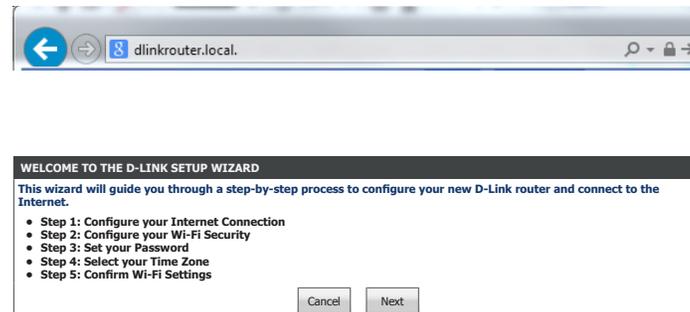
Setup Wizard

If this is your first time installing the router, open your web browser and enter **http://dlinkrouter.local./** in the address bar. Alternatively, enter the IP address of the router (default: **http://192.168.0.1**). The first time you log in, the setup wizard will run.

WELCOME TO THE D-LINK SETUP WIZARD

The 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.

WELCOME TO THE D-LINK SETUP WIZARD

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

- Step 1: Configure your Internet Connection
- Step 2: Configure your Wi-Fi Security
- Step 3: Set your Password
- Step 4: Select your Time Zone
- Step 5: Confirm Wi-Fi Settings

Cancel   Next

Step 1 - Configure Your Internet Connection

<table>
<tr><td colspan="2">STEP 1: CONFIGURE YOUR INTERNET CONNECTION</td></tr>
</table>

Please wait while your router attempts to detect your Internet connection type. You may need to enter information such as your ISP account username and password.

Next to continue.

STEP 1: CONFIGURE YOUR INTERNET CONNECTION
The router is detecting your Internet connection type, please wait...

Cancel | Prev | Next

<table>
<tr><td>STEP 1: CONFIGURE YOUR INTERNET CONNECTION</td></tr>
</table>

Select the connection type your ISP uses.

If you select **DHCP Connection (Dynamic IP Address)**, proceed to **Step 2 - Configure Your Wi-Fi Security** on page **19**.
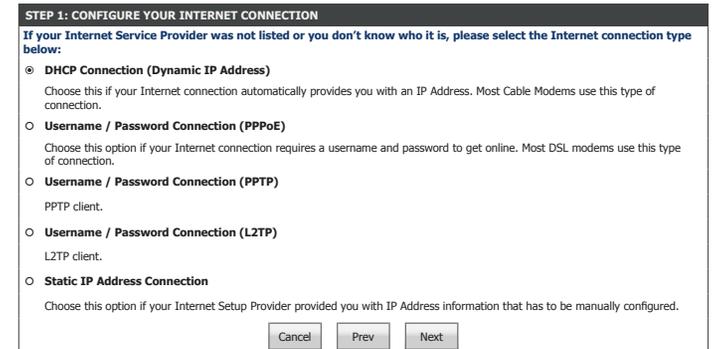
For **Username / Password Connection (PPPoE)** setup help refer to page **15.**

For **Username / Password Connection (PPTP)** setup help refer to page **15**.

For **Username / Password Connection (L2TP)** setup help refer to page **16**.

For **Static IP Address Connection** setup help refer to page **18**.

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

STEP 1: CONFIGURE YOUR INTERNET CONNECTION

If your Internet Service Provider was not listed or you don't know who it is, please select the Internet connection type below:

◉ **DHCP 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)**

PPTP client.

○ **Username / Password Connection (L2TP)**

L2TP client.

○ **Static IP Address Connection**

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

Cancel | Prev | Next

Username / Password Connection (PPPoE)

If you chose **Username / Password Connection (PPPoE)** as your **Internet Connection**, configure the following settings:

SET USERNAME AND PASSWORD CONNECTION (PPPOE)	
Username:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.

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 :

Cancel   Prev   Next

Click **Next** and proceed to **Step 2 - Configure Your Wi-Fi Security** on page **19**.

Username / Password Connection (PPTP)

If you choose **Username / Password Connection (PPTP)** as your **Internet Connection**, enter your IP address, configure the following settings:

SET USERNAME AND PASSWORD CONNECTION (PPTP)	
Address Mode:	Select either **Dynamic IP** or **Static IP**

If you choose **Static IP** as the **Address Mode**, enter your IP address:

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

If you choose **Dynamic IP** or **Static IP** as the **Address Mode**, enter your PPTP Server IP address:

PPTP Server IP Address:	Enter the PPTP Server IP address provided by your ISP.

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 : ⊙ Dynamic IP ○ Static IP
PPTP IP Address :
PPTP Subnet Mask :
PPTP Gateway IP Address :
PPTP Server IP Address (may be same as gateway):
User Name :
Password :
Verify Password :

DNS SETTINGS
Primary DNS Address :
Secondary DNS Address :

Cancel   Prev   Next

Username / Password Connection (PPTP) (continued)

User Name:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.
Verify Password:	Enter the password provided by your ISP one more time.

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 : ⦿ Dynamic IP ○ Static IP
PPTP IP Address :
PPTP Subnet Mask :
PPTP Gateway IP Address :
PPTP Server IP Address (may be same as gateway):
User Name :
Password :
Verify Password :

DNS SETTINGS
Primary DNS Address :
Secondary DNS Address :

[Cancel] [Prev] [Next]

DNS SETTINGS

Primary DNS Server:	Enter the primary DNS server IP addresses.
Secondary DNS Server:	Enter the secondary DNS server IP addresses.

Click **Next** and proceed to

Username / Password Connection (L2TP)

If you choose **Username / Password Connection (L2TP)** as your **Internet Connection**, enter your IP address, configure the following settings:

SET USERNAME AND PASSWORD CONNECTION (L2TP)

Address Mode:	Select either **Dynamic IP** or **Static IP**

If you choose **Static IP** as the **Address Mode**, enter your IP address:

L2TP IP Address:	Enter the L2TP IP Address provided by your ISP.
L2TP Subnet Mask:	Enter the L2TP Subnet Mask provided by your ISP.
L2TP Gateway IP Address:	Enter the L2TP Gateway IP Address provided by your ISP.

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 :
L2TP Gateway IP Address :
L2TP Server IP Address : (may be same as gateway)
User Name :
Password :
Verify Password :

DNS SETTINGS
Primary DNS Address :
Secondary DNS Address : (optional)

[Cancel] [Prev] [Next]

Username / Password Connection (L2TP) (continued)

If you choose **Dynamic IP** or **Static IP** as the **Address Mode**, enter your PPTP Server IP address:

L2TP Server IP Address: Enter the L2TP Server IP address provided by your ISP.

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Verify Password: Enter the password provided by your ISP one more time.

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 :	
L2TP Gateway IP Address :	
L2TP Server IP Address :	(may be same as gateway)
User Name :	
Password :	
Verify Password :	

DNS SETTINGS

Primary DNS Address :	
Secondary DNS Address :	(optional)

Cancel | Prev | Next

DNS SETTINGS

Primary DNS Server: Enter the primary DNS server IP addresses.

Secondary DNS Server: Enter the secondary DNS server IP addresses.

Static IP Address Connection

If you choose **Static IP Address Connection** as your **Internet Connection**, enter your IP address, configure the following settings:

SET STATIC IP ADDRESS CONNECTION	
IP Address:	Enter the IP address provided by your ISP.
Subnet Mask:	Enter the subnet mask.
Default Gateway:	Enter the default gateway.
DNS SETTINGS	
Primary DNS Server:	Enter the primary DNS server IP addresses.
Secondary DNS Server:	Enter the secondary DNS server IP addresses.

Click **Next** and proceed to **Step 2 - Configure Your Wi-Fi Security** on page **19**.

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 :

Subnet Mask :

Default Gateway :

DNS SETTINGS

Primary DNS Address :

Secondary DNS Address :   (optional)

Cancel   Prev   Next

Step 2 - Configure Your Wi-Fi Security

STEP 2: CONFIGURE YOUR WI-FI SECURITY

Wi-Fi Network Name(SSID): Enter a name for the 2.4 GHz wireless network.

Wi-Fi Password: Enter a wireless password according to the onscreen guidelines.

Wi-Fi Network Name(SSID): Enter a name for the 5 GHz wireless network.

Wi-Fi Password: Enter a wireless password according to the onscreen guidelines.

Click **Next** to continue.

STEP 2: CONFIGURE YOUR WI-FI SECURITY

Give your Wi-Fi network a name and a password. (2.4GHz Band)

Wi-Fi Network Name(SSID) :

`Your_2.4GHz_Network`   (Using up to 32 characters)

Wi-Fi Password :

`A_Str0ng_P@ssWord!`   (Between 8 and 63 characters)

Give your Wi-Fi network a name and a password. (5GHz Band)

Wi-Fi Network Name(SSID) :

`Your_5GHz_Network`   (Using up to 32 characters)

Wi-Fi Password :

`A_Str0ng_P@ssWord!`   (Between 8 and 63 characters)

[Cancel] [Prev] [Next]

Step 3: Set Your Password

STEP 3: SET YOUR PASSWORD

Enter a new administration password. This is the password you will use to log in to the router.

Click **Next** to continue.

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:

Password :

Verify Password :

[Cancel] [Prev] [Next]

Step 4: Select Your Time Zone

STEP 4: SELECT YOUR TIME ZONE

Select your time zone. Click **Next** to continue.

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.

Time Zone : (GMT+08:00) Taipei ▾

[Cancel] [Prev] [Next]

Step 5: Confirm Wi-Fi Settings

STEP 5: CONFIRM WI-FI SETTINGS

Step 5 is a summary of your wireless settings. Click **Next** to finish the wizard.

STEP 5: CONFIRM WI-FI SETTINGS

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 Wi-Fi devices.

Wi-Fi Network Name(SSID) 2.4GHz :	Your_2.4GHz_Network
Wi-Fi Password	A_Str0ng_P@ssWord!
Wi-Fi Network Name(SSID) 5GHz :	Your_5GHz_Network
Wi-Fi Password	A_Str0ng_P@ssWord!

Cancel   Prev   Next

Congratulations, your device has been successfully configured. The router will reboot and display the login page.

LOGIN

Login to the router :

User Name : Admin

Password : [   ]   Login

Configuration

This section will show you how to configure or change the default settings your D-Link DIR-819 using the web-based configuration utility.

To access the configuration utility, open a web browser such as Internet Explorer and enter **http://dlinkrouter.local./** or you may also connect by typing the IP address of the router (by default this is **http://192.168.0.1**) in the address bar.

Enter your password. If you previously followed the setup wizard, please use the admin password you entered during the wizard. Otherwise, leave the password blank. Click **Login** to proceed.

Note: *If you cannot remember your password and cannot log in, press the reset button on the back of the device for longer than 10 seconds to restore the router to its default settings.*

If you are having trouble logging in or experiencing trouble with the configuration utility, try clearing your browser cache or try using your web browser's private browsing mode.

DIR-819	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT

INTERNET

WIRELESS SETTINGS

NETWORK SETTINGS

IPV6

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 utilize 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.

Web UI Table of Contents

The web-based interface is divided into 5 horizontal tabs, each with a vertical menu bar running along the left side. You may click on these section titles to quickly navigate to a section of this document.

DIR-819	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT
	INTERNET	VIRTUAL SERVER	ADMIN	DEVICE INFO	MENU
	WIRELESS SETTINGS	PORT FORWARDING	TIME	LOGS	SETUP
	NETWORK SETTINGS	APPLICATION RULES	SYSLOG	STATISTICS	ADVANCED
	IPV6	QOS ENGINE	SYSTEM	INTERNET SESSIONS	TOOLS
		NETWORK FILTER	FIRMWARE	WIRELESS	STATUS
		INBOUND FILTER	DYNAMIC DNS	ROUTING	
		ACCESS CONTROL	SYSTEM CHECK	IPV6	
		WEBSITE FILTER	SCHEDULES	IPV6 ROUTING	
		FIREWALL SETTINGS			
		ROUTING			
		ADVANCED WIRELESS			
		WI-FI PROTECTED SETUP			
		ADVANCED NETWORK			
		GUEST ZONE			
		IPV6 FIREWALL			
		IPV6 ROUTING			

DIR-819	SETUP
INTERNET	INTERNET CONNECTION

To return to this Web UI Table of Contents page, simply click the D-Link logo on the top right of each page.

Setup

The **Setup** tab provides access to configure the basic configuration settings of your DIR-819.

DIR-819	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT

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 utilize 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.

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

INTERNET
WIRELESS SETTINGS
NETWORK SETTINGS
IPV6

To return to the Web UI Table of Contents page, simply click the D-Link logo on the top right of each page.

Internet

Click **Internet** on the navigation menu to configure your Internet connection. Using the **Internet Connection Setup Wizard** is recommended. To manually configure your Internet connection, select **Manual Internet Connection Setup**.

INTERNET CONNECTION SETUP WIZARD

Click **Internet Connection Setup Wizard** to configure your Internet Connection. Refer to **Internet Connection Setup Wizard** on page **25**.

MANUAL INTERNET CONNECTION OPTION

Click **Manual Internet Connection Setup** to manually add or configure your Internet connection. Refer to **Manual Wireless Connection Setup** on page **50**.

DIR-819	SETUP
INTERNET	**INTERNET CONNECTION**

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 utilize 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.

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

Internet Connection Setup Wizard

This Internet Connection Setup 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 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

Enter a new administration password. This is the password you will use to log in to the router. Click **Next** to continue.

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 your time zone. Click **Next** to continue.

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.

Time Zone : (GMT+08:00) Taipei

| Prev | Next | Cancel | Connect |

STEP 3: CONFIGURE YOUR INTERNET CONNECTION

Select the connection type your ISP uses and click **Next** to continue.

For **DHCP** setup help refer to page **26**.

For **PPPoE** setup help refer to page **27**.

For **PPTP** setup help refer to page **28**.

For **L2TP** setup help refer to page **30.**

For **Static IP Address Connection** setup help refer to page **32.**

STEP 3: CONFIGURE YOUR INTERNET CONNECTION

Please select the Internet connection type below:

⊙ **DHCP 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 |

Internet Connection Setup Wizard (continued)

DHCP

If you choose **DHCP Connection (Dynamic IP Address)** as your **Internet Connection**, enter your IP address, configure the following settings:

DHCP CONNECTION (DYNAMIC IP ADDRESS)	
MAC Address:	If your Internet connection is tied to a specific PC or hardware, enter it manually or click **Clone Your PC's MAC Address**.
Host Name:	Enter the host name of the router.

DNS SETTINGS	
Primary DNS Server:	Enter the primary DNS server IP addresses.
Secondary DNS Server :	Enter the secondary DNS server IP addresses.

Click **Next** to continue.

DHCP CONNECTION (DYNAMIC IP ADDRESS)
To set up this connection, please make sure that you are connected to the D-Link Router with the PC that was originally connected to your broadband connection. If you are, then click the Clone MAC button to copy your computer's MAC Address to the D-Link Router.

MAC Address :   (optional)

Clone Your PC's MAC Address

Host Name : dlinkrouter

Note: You may also need to provide a Host Name.If you do not have or know this information, please contact your ISP.

DNS SETTINGS

Primary DNS Address :

Secondary DNS Address :   (optional)

Prev   Next   Cancel   Connect

SETUP COMPLETE!

Click **Connect** to finish the setup.

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

Prev   Next   Cancel   Connect

Internet Connection Setup Wizard (continued)

PPPoE

If you choose **Username / Password Connection (PPPoE)** as your **Internet Connection**, enter your IP address, configure the following settings:

SET USERNAME AND PASSWORD CONNECTION (PPPOE)	
Username:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.

Click **Next** to continue.

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

SETUP COMPLETE!	

Click **Connect** to finish the setup.

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

Internet Connection Setup Wizard (continued)

PPTP

If you choose **Username / Password Connection (PPTP)** as your **Internet Connection**, enter your IP address, configure the following settings:

SET USERNAME AND PASSWORD CONNECTION (PPTP)	
Address Mode:	Select either **Dynamic IP** or **Static IP**

If you choose **Static IP** as the **Address Mode**, enter your IP address:

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

If you choose **Dynamic IP** or **Static IP** as the **Address Mode**, enter your PPTP Server IP address:

PPTP Server IP Address:	Enter the PPTP Server IP address provided by your ISP.

Username:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.
Verify Password:	Enter the password provided by your ISP one more time.

DNS SETTINGS	
Primary DNS Server:	Enter the primary DNS server IP addresses.

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 : ⦿ Dynamic IP ○ Static IP
PPTP IP Address :
PPTP Subnet Mask :
PPTP Gateway IP Address :
PPTP Server IP Address :   (may be same as gateway)
User Name :
Password :
Verify Password :

DNS SETTINGS

Primary DNS Address :
Secondary DNS Address :   (optional)

[Prev] [Next] [Cancel] [Connect]

Internet Connection Setup Wizard (continued)

PPTP (continued)

Secondary DNS Server : Enter the secondary DNS server IP addresses.

Click **Next** to continue.

SETUP COMPLETE!

Click **Connect** to finish the setup.

Internet Connection Setup Wizard (continued)

L2TP

If you choose **Username / Password Connection (L2TP)** as your **Internet Connection**, enter your IP address, configure the following settings:

SET USERNAME AND PASSWORD CONNECTION (L2TP)	
Address Mode:	Select either **Dynamic IP** or **Static IP**

If you choose **Static IP** as the **Address Mode**, enter your IP address:

L2TP IP Address:	Enter the PPTP IP Address provided by your ISP.
L2TP Subnet Mask:	Enter the PPTP Subnet mask provided by your ISP.
L2TP Gateway IP ddress:	Enter the PPTP Gateway IP Address provided by your ISP.

If you choose **Dynamic IP** or **Static IP** as the **Address Mode**, enter your PPTP Server IP address:

L2TP Server IP Address:	Enter the PPTP Server IP address provided by your ISP.

Username:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.
Verify Password:	Enter the password provided by your ISP one more time.

DNS SETTINGS	
Primary DNS Server:	Enter the primary DNS server IP addresses.

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 :

L2TP Gateway IP Address :

L2TP Server IP Address :   (may be same as gateway)

User Name :

Password :

Verify Password :

DNS SETTINGS

Primary DNS Address :

Secondary DNS Address :   (optional)

[Prev] [Next] [Cancel] [Connect]

Internet Connection Setup Wizard (continued)
L2TP (continued)

Secondary DNS Server : Enter the secondary DNS server IP addresses.

Click **Next** to continue.

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

SETUP COMPLETE!

Click **Connect** to finish the setup.

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

Internet Connection Setup Wizard (continued)

Static IP Address Connection

If you choose **Static IP Address Connection** as your **Internet Connection**, enter your IP address, configure the following settings:

SET STATIC IP ADDRESS CONNECTION	
IP Address:	Enter the IP address provided by your ISP.
Subnet Mask:	Enter the subnet mask.
Default Gateway:	Enter the default gateway.
DNS SETTINGS	
Primary DNS Server:	Enter the primary DNS server IP addresses.
Secondary DNS Server :	Enter the secondary DNS server IP addresses.

Click **Next** to continue.

SETUP COMPLETE!

Click **Connect** to finish the setup.

Manual Internet Connection Setup

Click **Manual Internet Setup** on from the **Internet** menu to configure your Internet connection manually. This section is only recommended for advanced users. It is recommended to use the Setup Wizard to set up your Internet connection.

INTERNET CONNECTION TYPE

My Internet Connection is: Select the Internet Connection protocol from the dropdown menu your ISP uses. The options are **Static IP**, **DHCP**, **PPPoE**, **PPTP**, **L2TP**, and **DS-Lite**.

For **Static IP** setup help refer to page **34**. Select the connection type your ISP uses.

For **Dynamic IP (DHCP)** setup help refer to page **35**.

For **PPPoE (Username / Password)** setup help refer to page **36**.

For **PPTP (Username / Password)** setup help refer to page **38**.

For **L2TP (Username / Password)** setup help refer to page **40**.

For **DS-Lite** setup help refer to page **42**.

DIR-819	SETUP
INTERNET	WAN

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 :
Static IP ▼
Dynamic IP (DHCP)
PPPoE (Username / Password)
PPTP (Username / Password)
L2TP (Username / Password)
DS-Lite

Static IP

If you choose **Static IP**, please configure the following fields:

STATIC IP ADDRESS INTERNET CONNECTION TYPE :

IP Address:	Enter the IP address provided by your ISP.
Subnet Mask:	Enter the subnet mask.
Default Gateway:	Enter the default gateway.
Primary DNS Server:	Enter the primary DNS server IP addresses.
Secondary DNS Server :	Enter the secondary DNS server IP addresses.
MTU Size:	Enter the MTU size.
MAC Address:	If your Internet connection is tied to a specific PC or hardware, enter it manually or click **Clone Your PC's MAC Address**.

When you have finished configuring your Internet connection, click the **Save Settings** button.

Dynamic IP (DHCP)

If you choose **Dynamic IP (DHCP)**, please configure the following fields:

STATIC IP ADDRESS INTERNET CONNECTION TYPE :

Host Name:	Enter the host name of the router.
Use Unicasting:	Check this box if you are having difficulty obtaining a DHCP address from your ISP.
Primary DNS Server:	Enter the primary DNS server IP addresses.
Secondary DNS Server :	Enter the secondary DNS server IP addresses.
MTU Size:	Enter the MTU size.
MAC Address:	If your Internet connection is tied to a specific PC or hardware, enter it manually or click **Clone Your PC's MAC Address**.

When you have finished configuring your Internet connection, click the **Save Settings** button.

PPPoE (Username / Password)

If you choose **PPPoE**, please configure the following fields:

PPPOE INTERNET CONNECTION TYPE :

Address Mode:	Select either **Dynamic IP** or **Static IP**

If you choose **Static IP** as the **Address Mode**, enter your IP address:

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

Username:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.
Verify Password:	Enter the password provided by your ISP one more time.
Service Name:	Enter the ISP service name (optional).
Reconnect Mode:	Select either **AlwaysOn**, **On Demand**, or **Manual**. You may create a schedule by clicking **New Schedule**. Refer to **Schedules** on page **110** for more information.

If you choose **Manual** as the **Reconnect Mode**, enter the **Maximum Idle Time**:

Maximum Idle Time:	Set the length of time to wait before disconnecting if there is no Internet activity. (Manual Only)

DNS Mode:	Select either **Receive DNS from ISP** or **Enter DNS Manually**.

If you choose **Enter DNS Manually** as the **DNS Mode**, enter your DNS information:

Primary DNS Server:	Enter the primary DNS server IP addresses.

PPPoE (Username / Password) (Continued)

Secondary DNS Server : Enter the secondary DNS server IP addresses.

MTU Size: Enter the MTU size.

MAC Address: If your Internet connection is tied to a specific PC or hardware, enter it manually or click **Clone Your PC's MAC Address**.

When you have finished configuring your Internet connection, click the **Save Settings** button.

PPTP (Username / Password)

If you choose **PPTP**, please configure the following fields:

PPTP INTERNET CONNECTION TYPE :

Address Mode: Select either **Dynamic IP** or **Static IP**

If you choose **Static IP** as the **Address Mode**, enter your IP address:

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

PPTP Subnet Mask: Enter the PPTP Subnet mask provided by your ISP.

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

If you choose **Dynamic IP** or **Static IP** as the **Address Mode**, enter your PPTP Server IP address:

PPTP Server IP Address: Enter the PPTP Server IP address provided by your ISP.

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Verify Password: Enter the password provided by your ISP one more time.

Reconnect Mode: Select either **AlwaysOn**, **On Demand**, or **Manual**. You may create a schedule by clicking **New Schedule**. Refer to **Schedules** on page **110** for more information.

If you choose **Manual** as the **Reconnect Mode**, enter the **Maximum Idle Time**:

PPTP (Username / Password) (Continued)

Maximum Idle Time: Set the length of time to wait before disconnecting if there is no Internet activity. (Manual Only)

Primary DNS Server: Enter the primary DNS server IP addresses.

Secondary DNS Server : Enter the secondary DNS server IP addresses.

MTU Size: Enter the MTU size.

MAC Address: If your Internet connection is tied to a specific PC or hardware, enter it manually or click **Clone Your PC's MAC Address**.

When you have finished configuring your Internet connection, click the **Save Settings** button.

L2TP (Username / Password)

If you choose **L2TP**, please configure the following fields:

L2TP INTERNET CONNECTION TYPE :	
Address Mode:	Select either **Dynamic IP** or **Static IP**

If you choose **Static IP** as the **Address Mode**, enter your IP address:

L2TP IP Address:	Enter the PPTP IP Address provided by your ISP.
L2TP Subnet Mask:	Enter the PPTP Subnet mask provided by your ISP.
L2TP Gateway IP ddress:	Enter the PPTP Gateway IP Address provided by your ISP.

If you choose **Dynamic IP** or **Static IP** as the **Address Mode**, enter your PPTP Server IP address:

L2TP Server IP Address:	Enter the PPTP Server IP address provided by your ISP.
Username:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.
Verify Password:	Enter the password provided by your ISP one more time.
Reconnect Mode:	Select either **AlwaysOn**, **On Demand**, or **Manual**. You may create a schedule by clicking **New Schedule**. Refer to **Schedules** on page **110** for more information.

If you choose **Manual** as the **Reconnect Mode**, enter the **Maximum Idle Time**:

L2TP (Username / Password) (continued)

Maximum Idle Time: Set the length of time to wait before disconnecting if there is no Internet activity. (Manual Only)

Primary DNS Server: Enter the primary DNS server IP addresses.

Secondary DNS Server : Enter the secondary DNS server IP addresses.

MTU Size: Enter the MTU size.

MAC Address: If your Internet connection is tied to a specific PC or hardware, enter it manually or click **Clone Your PC's MAC Address**.

When you have finished configuring your Internet connection, click the **Save Settings** button.

DS-Lite

If you choose **DS-Lite**, please configure the following fields:

DS-Lite Mode:	Select either **DS-Lite DHCPv6 Option** or **Manual Configuration**.

If you choose **Manual Configuration**, configure the **AFTR IPv6 Address** field:

AFTR Name or Address:	Enter the AFTR Name or Address.

If you choose **DS-Lite DHCPv6 Option** or **Manual Configuration**, configure the **B4 IPv6 Address** field:

B4 IPv6 Address:	Enter the B4 IPv6 Address. (optional)
WAN IPv6 Address:	Your WAN IPv6 address is listed here.
IPv6 WAN Default Gateway:	Your WAN IPv6 default gateway address is listed here.

When you have finished configuring your Internet connection, click the **Save Settings** button.

Wireless Settings

Click **Wireless Settings** on the navigation menu to configure your Wireless Settings. You may run the **Wireless Connection Setup Wizard**, **Add a Device with WPS**, or run the **Manual Wireless Connection Setup**.

WIRELESS NETWORK SETUP WIZARD

Click the **Wireless Connection Setup Wizard** button to easily configure your wireless settings. Refer to page **Wireless Connection Setup Wizard** on page **44** for more information.

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

Click the **Add Wireless Device with WPS button (**Wi-Fi Protected Setup) to add a device using WPS Wizard.

MANUAL WIRELESS CONNECTION SETUP

Click the **Manual Wireless Connection Setup** button to manually configure your wireless LAN settings.

Wireless Connection Setup Wizard

This section describes the Wireless Connection Setup Wizard.

STEP 1: WELCOME TO THE D-LINK WIRELESS SECURITY SETUP WIZARD

Network Name (SSID) 2.4GHz: Enter a name for the 2.4 GHz wireless network.

Network Name (SSID) 5Ghz: Enter a name for the 5 GHz wireless network.

Automatically assign a network: Choose this option to have the router automatically create a secure wireless security key.

Manually assign a network key: Choose this option to create your own wireless security key.

Click **Next** to continue.

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 : Your_2.4GHz_Network

Network Name (SSID) 5Ghz : Your_5GHz_Network

○ **Automatically assign a network key (Recommended)**

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

SETUP COMPLETE!

If you choose **Automatically assign a network**, there is no further configuration. A summary of your wireless configuration settings is displayed.

Click **Save** to finish.

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) : Your_2.4GHz_Network

Security Mode : Auto (WPA or WPA2) - Personal

Cipher Type: TKIP and AES

Pre-Shared Key : d80a73f50c

Wireless Band : 5GHz Band

Wireless Network Name (SSID) : Your_5GHz_Network

Security Mode : Auto (WPA or WPA2) - Personal

Cipher Type: TKIP and AES

Pre-Shared Key : d80a73f50c

Prev | Next | Cancel | Save

Wireless Connection Setup Wizard (continued)

If you choose **Manually assign a network key**, there is no further configuration. A summary of your wireless configuration settings is displayed.

STEP 2: SET YOUR WIRELESS SECURITY PASSWORD

If you checked **Use the same Wireless Security Password on both 2.4GHz and 5GHz band**, enter the **Wireless Security Password**.

Wireless Security Password: Enter a wireless password according to the onscreen guidelines.

If you unchecked **Use the same Wireless Security Password on both 2.4GHz and 5GHz band**, enter a **2.4GhzWireless Security Password** and **5GhzWireless Security Password**:

2.4GhzWireless Security Password: Enter a wireless password according to the onscreen guidelines.

5GhzWireless Security Password: Enter a wireless password according to the onscreen guidelines.

Click **Next** to continue.

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

☑ Use the same Wireless Security Password on both 2.4GHz and 5GHz band

Wireless Security Password : A_Str0ng_P@ssWord!

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]

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

☐ Use the same Wireless Security Password on both 2.4GHz and 5GHz band

2.4GhzWireless Security Password : A_Str0ng_P@ssWord!

5GhzWireless Security Password : A_Str0ng_P@ssWord!

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]

Wireless Connection Setup Wizard (continued)

SETUP COMPLETE!

A summary of your wireless configuration settings is displayed. Click **Save** to finish.

Click **Save** to finish.

Add Wireless Device with WPS

This section describes the **Add Wireless Device with WPS** wizard.

STEP 1: SELECT CONFIGURATION METHOD NETWORK

Auto: Choose this option to automatically add a device to your network using this 'virtual' WPS button.

Manual: Choose this option to see the currently configured wireless networking settings to enter on your wireless client.

Choose your configuration type and refer to the following pages.

Add Wireless Device with WPS - Auto

If you choose **Auto** and click **Next**, choose the WPS configuration type:

STEP 2: CONNECT YOUR WIRELESS DEVICE

Select the WPS method to use to connect your wireless device, either **PIN** or **PBC**. Using WPS-PIN is not recommended due to security vulnerabilities.

PIN: Choose this option and enter the currently configured WPS PIN, refer to **Wi-Fi Protected Setup** on page **96** for information on setting the WPS Pin.

PBC: Choose this option to begin the WPS PBC (Push Button Control) pairing process.

Click **Continue** to continue.

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) ⦿ PIN : 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: CONNECT YOUR WIRELESS DEVICE

Press the WPS button or enter the WPS PIN on the client device which you wish to add to your DIR-819's network. The WPS process is only active for 120 seconds.

STEP 2: CONNECT YOUR WIRELESS DEVICE
Please press down the Push Button (physical or virtual) on the wireless device you are adding to your wireless network. Remain time in second: 120 Adding wireless device: Started Prev   Next   Cancel   Save

If your device is successfully added, this screen is displayed. Click **Wireless Status** to be directed to the Wireless Status page. Refer to **Wireless** on page **117** for more information.

STEP 2: CONNECT YOUR WIRELESS DEVICE
Adding wireless device: Succeeded. To add another device click on the Cancel button below or click on the Wireless Status button to check wireless status. Prev   Next   Cancel   Wireless Status

If your device could not be found, this screen is displayed. You may click **Cancel** and retry running the wizard again.

STEP 2: CONNECT YOUR WIRELESS DEVICE
Adding wireless device: Session Time-Out. Prev   Next   Cancel   Save

Add Wireless Device with WPS - Manual

If you choose **Manual** and click **Next** the currently configured wireless networking settings to enter on your wireless client are displayed.

Click **Wireless Status** to be directed to the Wireless Status page. Refer to **Wireless** on page **117** for more information.

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]

SETUP COMPLETE!

Below is a detailed summary of your wireless security settings. Please print this page out, or write the information on a piece of paper, so you can configure the correct settings on your wireless client adapters.

2.4 Ghz Frequency

SSID: Your_2.4GHz_Network

Security Mode: WPA2-PSK

Cipher Type: AES

-PIN (Personal Identification Number)
Pre-shared Key:
adc058dce7893caf98ca91

5 Ghz Frequency

SSID: Your_5GHz_Network

Security Mode: None

[Prev]   [Next]   [Cancel]   [Wireless Status]

Manual Wireless Connection Setup

Click **Manual Wireless Connection Setup** from the **Wireless Settings** menu to configure your wireless LAN settings. From this page you can configure the wireless security and network parameters for both the 2.4 GHz and 5 GHz network. When you have finished configuring your wireless network, click **Save Settings**.

WIRELESS NETWORK SETTINGS

Wireless Band:	2.4 GHz or 5 GHz
Enable Wireless:	Enable or disable this wireless network. From the drop down menu you may apply a schedule to enable or disable this wireless network. Click **New Schedule** to create a new schedule. Refer to **Schedules** on page **110** for more information.
Wireless Network Name:	Create a name for your wireless network.
802.11 Mode (2.4 GHz):	Select the desired wireless networking standards to use. The available options for the 2.4 GHz wireless network are **802.11b only**, **802.11g only**, **802.11n only**, **Mixed 802.11g and 802.11b**, or the default **Mixed 802.11n, 802.11g and 802.11b**.
802.11 Mode (5 GHz):	Select the desired wireless networking standards to use. The available options for the 2.4 GHz wireless network are **802.11a only**, **802.11n only**, **Mixed 802.11a and 802.11n**, **Mixed 802.11ac and 802.11n**, or the default **Mixed 802.11ac, 802.11n and 802.11a**.
Enable Auto Channel Scan:	Check this box to have the router automatically determine the best wireless channel to use.
Wireless Channel:	If Auto Scan is disabled, use the dropdown menu to select the wireless channel to use.
Transmission Rate:	Select the desired wireless transmission rate.

Manual Wireless Connection Setup (continued)

Channel Width (2.4 GHz): Select **Auto 20/40** if you are using both 802.11n and non-802.11n devices, or select **20 MHz** if you are not using any 802.11n devices.

Channel Width (5 GHz): Select **Auto 20/40/80** if you are using 802.11ac, 802.11n, and 802.11a devices. **Auto 20/40** select if you are using 802.11n and 802.11a devices. **20 MHz** if you are only using 802.11a devices. Higher channel width allows for higher speeds.

Visibility Status: The default setting is **Visible**. Select **Invisible** if you do not want to broadcast the SSID of your wireless network.
Note: Making a network invisible is not a form of security alone.

WIRELESS NETWORK SETTINGS

Wireless Band :	5GHz Band
Enable Wireless :	☑ Always ▼ New Schedule
Wireless Network Name :	Your_5GHz_Network
802.11 Mode:	802.11a only ▼
	802.11n only
	Mixed 802.11a and 802.11n
	Mixed 802.11ac and 802.11n
	Mixed 802.11ac, 802.11n and 802.11a
Enable Auto Channel Scan :	☑
Wireless Channel :	153 ▼
Transmission Rate :	Best (automatic) ▼ (Mbit/s)
Channel Width :	20 MHz ▼
	20/40 MHz(Auto)
	20/40/80 MHz(Auto)
Visibility Status :	◉ Visible ○ Invisible

WIRELESS SECURITY MODE

Refer to **Wireless Security Mode** on page **52** for more information on configuring your wireless network's security.

WIRELESS SECURITY MODE

Security Mode :	None ▼
	WEP
	WPA-Personal
	WPA-Enterprise

Wireless Security Mode

The following pages describe each type of security option. When you have finished configuring your wireless network, click **Save Settings**.

WIRELESS SECURITY MODE

Security Option: Select a wireless security encryption option. The options are **None**, **WEP**, **WPA-Personal**, and **WPA-Enterprise**. Using **WPA** is recommended.

WIRELESS SECURITY MODE

Security Mode : None ▼
WEP
WPA-Personal
WPA-Enterprise

None

WIRELESS SECURITY MODE

Security Option: **None**. Disabling encryption and leaving your wireless network open is not recommended. Any wireless client will be able to access your network, be able to use your Internet connection, and leaves you open to security threats.

WIRELESS SECURITY MODE

Security Mode : None ▼

WEP

WIRELESS SECURITY MODE

Security Option: **WEP**. Using WEP encryption is not recommended, as it only offers a trivial amount of protection for your wireless data. WEP encryption is only available for use with 802.11b, 802.11g, and 802.11a.

WIRELESS SECURITY MODE

Security Mode : WEP ▼

WEP

WEP Key Length: Select the Encryption cipher key bit strength. The available options are **64 bit (10 hex digits)** or **128 bit (26 hex digits)**.

Authentication: Select either **Both** or **Shared Key**.

WEP Key 1: Enter a wireless key to use on your wireless network.

WEP

WEP Key Length : 64 bit (10 hex digits) ▼   (length applies to all keys)
Authentication : Both ▼
WEP Key 1 :

WPA-Personal / WPA-Enterprise

WIRELESS SECURITY MODE

WIRELESS SECURITY MODE

Security Mode : | WPA-Personal ▾
WPA-Enterprise

Security Option: Select either **WPA-Personal** or **WPA-Enterprise**. If you are running a dedicated RADIUS authentication server, choose **WPA-Enterprise.**

WPA

WPA

WPA Mode : | WPA2 Only ▾
Cipher Type : | AES ▾
Group Key Update Interval : | 3600 | (seconds)

WPA Mode: Select either **Auto(WPA or WPA2)** or **WPA2 Only**. **WPA2 Only** is the recommended wireless security type. Select **Auto (WPA or WPA2)** only if your wireless clients do not support **WPA2**.

Cipher Type: Select either **TKIP and AES**, **TKIP**, or **AES**. Using **AES** is the recommended since TKIP is no longer considered secure.

Group Key Update Interval: Enter the group key update interval.

If you selected **WPA-Personal**, enter the Pre-Shared Key:

PRE-SHARED KEY

PRE-SHARED KEY

Pre-Shared Key :

Pre-Shared Key: Enter a wireless key to use on your wireless network.

If you selected **WPA-Enterprise**, enter your EAP 802.1X Radius server information:

EAP (802.1X)

EAP (802.1X)

RADIUS server IP Address :
RADIUS server Port:
RADIUS server Shared Secret:

RADIUS server IP Address: Enter a wireless key to use on your wireless network.

RADIUS server Port: Enter your RADIUS server's port number.

RADIUS server Shared Secret: Enter your RADIUS server's shared secret.

Network Settings

Click **Network Settings** on the navigation menu to configure your local network settings. When you are satisfied with your configuration, click **Save 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.

Default Subnet Mask: Enter the subnet mask of the router. The default subnet mask is **255.255.255.0.**

Host Name: The default address to access the router's configuration is **http://dlinkrouter.local./** Here, you can replace **dlinkrouter** with a name of your choice.

Local Domain Name: Enter the domain name (optional).

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

DHCP SERVER SETTINGS

Enable DHCP Server: Enable or disable the DHCP server.

DHCP IP Address Range: Enter the starting and ending IP addresses for the DHCP server's IP assignment.
Note: If you statically (manually) assign IP addresses to your computers or devices, make sure the IP addresses are outside of this range or you may have an IP conflict.

D-Link

DIR-819	SETUP
NETWORK SETTINGS	**NETWORK SETTINGS**

NETWORK SETTINGS

Use this section to configure the internal network settings of your router and also to configure the built-in DHCP server to assign IP addresses to computers on your network. The IP address that is configured here is the IP address that you use to access the Web-based management interface. If you change the IP address in this section, you may need to adjust your PC's network settings to access the network again.
Please note that this section is optional and you do not need to change any of the settings here to get your network up and running.

[Save Settings] [Don't Save Settings]

ROUTER SETTINGS

Use this section to configure the internal network settings of your router. The IP address that is configured here is the IP address that you use to access the Web-based management interface. If you change the IP address here, you may need to adjust your PC's network settings to access the network again.

Router IP Address :	192.168.0.1
Default Subnet Mask :	255.255.255.0
Host Name :	dlinkrouter
Local Domain Name :	(optional)
Enable DNS Relay :	☑

DHCP SERVER SETTINGS

Use this section to configure the built-in DHCP server to assign IP address to the computers on your network.

Enable DHCP Server :	☑
DHCP IP Address Range :	100 to 200 (addresses within the LAN subnet)
DHCP Lease Time :	10080 (minutes)
Always broadcast :	☐ (compatibility for some DHCP Clients)

ADD DHCP RESERVATION

Enable :	☐
Computer Name :	[<<] [Computer Name ▼]
IP Address :	
MAC Address :	

[Clone Your PC's MAC Address]

[Add / Update] [Clear]

DHCP RESERVATIONS LIST

Enable	Host Name	IP Address		

NUMBER OF DYNAMIC DHCP CLIENTS

Host Name	IP Address	MAC Address	Expired Time

[Save Settings] [Don't Save Settings]

Network Settings (continued)

DHCP Lease Time: The maximum length of time for the IP address lease. Enter the Lease time in minutes.

Always broadcast: Check this box if your clients are having difficulty obtaining an IP address.

DHCP SERVER SETTINGS

Use this section to configure the built-in DHCP server to assign IP address to the computers on your network.

Enable DHCP Server :	☑
DHCP IP Address Range :	100 to 200 (addresses within the LAN subnet)
DHCP Lease Time :	10080 (minutes)
Always broadcast :	☐ (compatibility for some DHCP Clients)

ADD DHCP RESERVATION

DHCP Reservation allows you to reserve IP addresses for specific machines based on their unique hardware MAC addresses. During DHCP IP address assignment, these devices will receive the same IP address. This is particularly useful if you run servers on your network.

Enable: Enable or disable DHCP reservation.

Computer Name: Enter a name for your DHCP reservation rule. To easily add an IP reservation for an existing device select it from the drop down menu and click the **<<** button. The fields will automatically populate.

IP Address: Enter the IP address you wish to have assigned to this device.

MAC Address: Enter the MAC address of the device you wish to apply the DHCP reservation rule to. Click **Clone Your PC's MAC Address** to fill this field.

Click **Add / Update** when you are done.

ADD DHCP RESERVATION

Enable :	☐
Computer Name :	_____ << Computer Name ▼
IP Address :	_____
MAC Address :	_____
	Clone Your PC's MAC Address
	Add / Update Clear

DHCP RESERVATIONS LIST

The currently defined DHCP Reservations are listed here.

Enable: Enable or disable this DHCP Reservation rule.

Host Name: The host name for this rule.

IP Address: The DHCP IP address reservation.

DHCP RESERVATIONS LIST

Enable	Host Name	IP Address		

Network Settings (continued)

MAC Address: The MAC address of the device.

Edit Button: Click this button to edit this rules settings.

Delete Button: Click this button to delete this DHCP IP Reservation.

DHCP RESERVATIONS LIST				
Enable	Host Name	IP Address		

NUMBER OF DYNAMIC DHCP CLIENTS

This section displays all of the currently connected DHCP cclients. The Host Name, IP address, MAC Address, and expiration time of each client is displayed in the table.

Click **Save Settings** when you are finished.

NUMBER OF DYNAMIC DHCP CLIENTS			
Host Name	IP Address	MAC Address	Expired Time

Save Settings   Don't Save Settings

IPv6

Click **IPv6** on the navigation menu to configure IPv6 connectivity.

The **IPv6 Internet Connection Setup Wizard** allows you to quickly set up an IPv6 Internet connection which uses **PPPoE**, **Static IP**, or **6rd**. See **IPv6 Internet Connection Setup Wizard** on page **58** for more information.

To configure your router to use IPv6 locally on your LAN only see **IPv6 Local Connectivity Settings** on page **62**.

You may also manually configure your IPv6 connection. See **Manual IPv6 Internet Connection Setup** on page **63**.
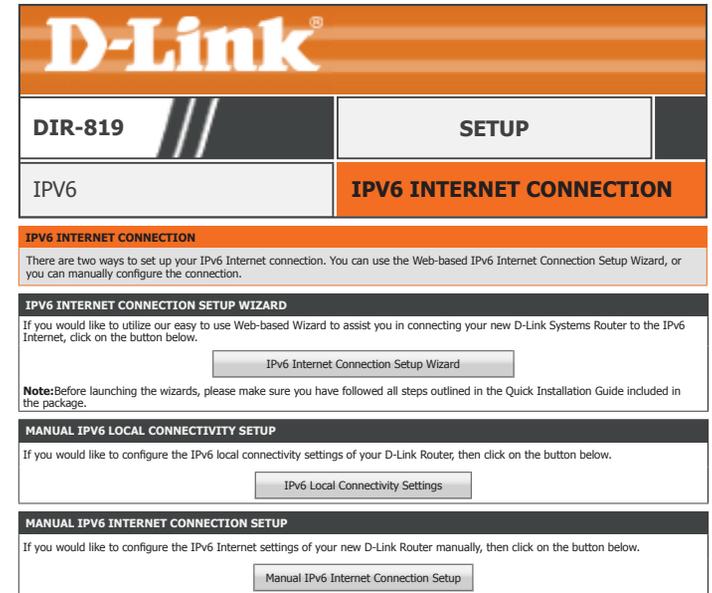
IPv6 Internet Connection Setup Wizard

The **IPv6 Internet Connection Setup Wizard** allows you to quickly set up an IPv6 Internet connection which uses **PPPoE**, **Static IP**, or **6rd**. Click **Next** to begin.

STEP 1: CONFIGURE YOUR IPV6 INTERNET CONNECTION

Choose your IPv6 connection type and click **Next**.

For **IPv6 over PPPoE** setup help refer to page **59**.

For **Static IPv6 address and Route** setup help refer to page **60**.

For **Tunneling Connection (6rd)** setup help refer to page **61**.
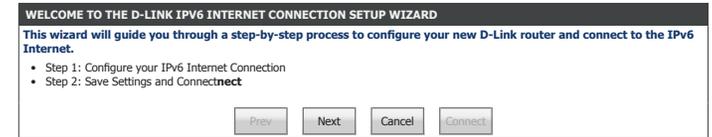
IPv6 Internet Connection Setup Wizard

IPv6 over PPPoE

If you choose **IPv6 over PPPoE** as your **Internet Connection**, enter your IP address, configure the following settings:

SET USERNAME AND PASSWORD CONNECTION (PPPOE)

PPPoE Session :   Select whethe to **Share with IPv4** or **Create a new session**.

If you choose **Create a new session** as the **PPPoE Session**, fill in the following fields:

Username: Enter the username provided by your ISP.

Password: Enter the password provided by your ISP.

Verify Password: Enter the password provided by your ISP one more time.

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

Click **Next** to continue.

SET USERNAME AND PASSWORD CONNECTION (PPPOE)
To set up this connection you will need to have a Username and Password from your IPv6 Internet Service Provider. If you do not have this information, please contact your ISP.

PPPoE Session : ⦿ Share with IPv4 ○ Create a new session

User Name :

Password :

Verify Password :

Service Name :   (optional)

Note: You may also need to provide a Service Name. If you do not have or know this information, please contact your ISP.

Prev   Next   Cancel   Connect

SETUP COMPLETE!

Click **Connect** to finish the setup.

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 Internet Connection Setup Wizard

Static IPv6 address and Route

If you choose **Static IPv6 address and Route** as your **Internet Connection**, enter your IP address, configure the following settings:

SET STATIC IPV6 ADDRESS CONNECTION	
Use Link-Local Address:	Enable or disable using the Link-Local Address. The IPv6 Address and Subnet Prefix Length is automatically populated with this function.
IPv6 Address:	Enter the address supplied by your ISP.
Subnet Prefix Length:	Enter the subnet prefix length supplied by your ISP.
Default Gateway:	Enter the default gateway for your IPv6 connection.
Primary IPv6 DNS Address:	Enter the primary DNS server address.
Secondary IPv6 DNS Address:	Enter the secondary DNS server address.
LAN IPv6 Address:	Enter your the LAN IPv6 Address you want to use.

SET STATIC IPV6 ADDRESS CONNECTION

To set up this connection you will need to have a complete list of IPv6 information provided by your IPv6 Internet Service Provider. If you have a Static IPv6 connection and do not have this information, please contact your ISP.

Use Link-Local Address :	☑
IPv6 Address :	
Subnet Prefix Length :	
Default Gateway :	
Primary IPv6 DNS Address :	
Secondary IPv6 DNS Address :	
LAN IPv6 Address :	

[Prev] [Next] [Cancel] [Connect]

Click **Next** to continue.

SETUP COMPLETE!

Click **Connect** to finish the setup.

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 Internet Connection Setup Wizard

Tunneling Connection (6rd)

If you choose **Tunneling Connection (6rd)** as your **Internet Connection**, enter your IP address, configure the following settings:

SET UP 6RD TUNNELING CONNECTION	
6rd IPv6 Prefix:	Enter the 6rd IPv6 prefix and mask length supplied by your ISP.
IPv4 Address:	Displays the router's IPv4 address and mask length.
Assigned IPv6 Prefix:	Displays the router's assigned IPv6 prefix.
6rd Border Relay IPv4 Address:	Enter the 6rd border relay IPv4 address settings supplied by your ISP.
IPv6 DNS Server:	Enter the IPv6 DNS server address.

Click **Next** to continue.

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 : _____ / ____
IPv4 Address : _____   Mask Length : ____
Assigned IPv6 Prefix :
6rd Border Relay IPv4 Address : _____
Primary IPv6 DNS Address : _____

[Prev] [Next] [Cancel] [Connect]

SETUP COMPLETE!	

Click **Connect** to finish the setup.

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 Local Connectivity Settings

Click the **IPv6 Local Connectivity Settings** button to configure IPv6 on your local network. When you are satisfied with your configuration, click **Save Settings**.

IPV6 ULA SETTINGS

Enable ULA:	Enable or disable ULA.
Use default ULA prefix:	Enable or disable the use of the default ULA prefix.

If you enabled **ULA**, enter your ULA prefix:

ULA Prefix:	Enter your ULA prefix.

IPV6 ULA SETTINGS

Current ULA Prefix:	The current ULA Prefix is displayed here.
LAN IPv6 ULA:	The current LAN IPv6 ULA is displayed here.

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

Manual IPv6 Internet Connection Setup

Click the **Manual IPv6 Internet Connection Setup** button to manually configure your IPv6 connection to your ISP. When you are satisfied with your configuration, click **Save Settings**.

IPV6 INTERNET CONNECTION SETUP WIZARD	
My IPv6 Connection is:	Choose your IPv6 connection type from the drop-down menu. You will be presented with the appropriate options for your connection type.

For **Static IPv6** refer to page **64**.

For **Autoconfiguration(SLAAC/DHCPv6)** refer to page **66**.

For **PPPoE** refer to page **68**.

For **IPv6 in an IPv4 Tunnel** refer to page **71**.

For **6to4** refer to page **74**.

For **6rd** refer to page **76**.

For **Local Connectivity Only** refer to page **78**.

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

D-Link

DIR-819	SETUP
IPV6	**IPV6**

IPV6

Use this section to configure your IPv6 Connection Type. If you are unsure of your connection method, please contact your Internet Service Provider.

Save Settings   Don't Save Settings

IPV6 CONNECTION TYPE

Choose the mode to be used by the router to connect to the IPv6 Internet.

My IPv6 Connection is:

Static IPv6 ▼
Autoconfiguration(SLAAC/DHCPv6)
PPPoE
IPv6 in IPv4 Tunnel
6to4
6rd
Local Connectivity Only

Static IPv6

IPV6 CONNECTION TYPE	
My IPv6 Connection is:	Select **Static IPv6** if your IPv6 information is provided by your ISP.

WAN IPV6 ADDRESS SETTINGS	
Use Link-Local Address:	Enable or disable using the Link-Local Address. The IPv6 Address and Subnet Prefix Length is automatically populated with this function.
IPv6 Address:	Enter the address supplied by your ISP.
Subnet Prefix Length:	Enter the subnet prefix length supplied by your ISP.
Default Gateway:	Enter the default gateway for your IPv6 connection.
Primary DNS Address:	Enter the primary DNS server address.
Secondary DNS Address:	Enter the secondary DNS server address.

LAN IPv6 Address Settings	
LAN IPv6 Address:	Enter the LAN (local) IPv6 address for the router.
LAN IPv6 Link-Local Address:	Displays the router's LAN link-local address.

D-Link

DIR-819	SETUP
IPV6	**IPV6**

IPV6

Use this section to configure your IPv6 Connection Type.If you are unsure of your connection method, please contact your Internet Service Provider.

Save Settings   Don't Save Settings

IPV6 CONNECTION TYPE

Choose the mode to be used by the router to connect 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 : ☑
IPv6 Address :
Subnet Prefix Length :
Default Gateway :
Primary DNS Address :
Secondary DNS Address :

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 :   /64

LAN IPv6 Link-Local Address :   ffff::fff:ffff:ffff:1234 /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+RDNSS
                          SLAAC+Stateless DHCP
                          Stateful DHCPv6

Router Advertisement Lifetime :   (minutes)

Save Settings   Don't Save Settings

Static IPv6 (continued)

Address Autoconfiguration Settings

Enable Automatic IPv6 address assignment: Enable or disable the Automatic IPv6 Address Assignment feature. If you disable this option, no further configuration is available.

Autoconfiguration Type: Select **SLAAC+RDNSS**, **SLAAC+Stateless DHCP**, or **Stateful DHCPv6**.

If you choose **SLAAC+Stateless DHCP**, please configure the following field:

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

If you choose **Stateful DHCPv6**, please configure the following fields:

IPv6 Address Range(Start): Enter the starting IPv6 address for the DHCP server's IPv6 assignment.

IPv6 Address Range(End): Enter the ending IPv6 address for the DHCP server's IPv6 assignment.

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in seconds).

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

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+RDNSS / SLAAC+Stateless DHCP / Stateful DHCPv6

Router Advertisement LIfetime : _____ (minutes)

Save Settings   Don't Save Settings

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 : Stateful DHCPv6

IPv6 Address Range (Start) : _____ :00 1

IPv6 Address Range (End) : _____ :00 ff

Router Advertisement LIfetime : _____ (minutes)

Save Settings   Don't Save Settings

Autoconfiguration(SLAAC/DHCPv6)

IPV6 CONNECTION TYPE

My IPv6 Connection is: Select **Autoconfiguration(SLAAC/DHCPv6)** if your ISP assigns your IPv6 address when your router requests one from the ISP's server. Some ISPs require you to adjust settings on your side before your router can connect to the IPv6 Internet.

IPV6 DNS SETTINGS

Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

If you choose **Use the following DNS address**, please configure the following field:

Primary DNS Address: Enter the primary DNS server address.

Secondary DNS Address: Enter the secondary DNS server address.

LAN IPv6 Address Settings

Enable DHCP-PD: Check this box to enable DHCP-PD.

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

D-Link

DIR-819	SETUP
IPV6	**IPV6**

IPV6
Use this section to configure your IPv6 Connection Type.If you are unsure of your connection method, please contact your Internet Service Provider.

Save Settings   Don't Save Settings

IPV6 CONNECTION TYPE
Choose the mode to be used by the router to connect to the IPv6 Internet.

My IPv6 Connection is: Autoconfiguration(SLAAC/DHCPv6) ▼

IPV6 DNS SETTINGS
Obtain DNS server address automatically or enter a specific DNS server address.

◉ **Obtain IPv6 DNS Servers automatically**
○ **Use the following IPv6 DNS Servers**

Primary DNS Address :
Secondary DNS Address :

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.

Enable DHCP-PD : ☑
LAN IPv6 Address : /64
LAN IPv6 Link-Local Address : ffff::fff:ffff:ffff:1234 /64

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑
Enable Automatic DHCP-PD in LAN : ☑

Autoconfiguration Type : SLAAC+RDNSS ▼
SLAAC+Stateless DHCP
Stateful DHCPv6

Router Advertisement Lifetime : (minutes)

Save Settings   Don't Save Settings

Autoconfiguration(SLAAC/DHCPv6) (continued)

Address Autoconfiguration Settings	
Enable Automatic IPv6 address assignment:	Enable or disable the Automatic IPv6 Address Assignment feature. If you disable this option, no further configuration is available.
Enable Automatic DHCP-PD in LAN:	Enable or disable the Automatic IPv6 Address Assignment feature for the LAN.
Autoconfiguration Type:	Select **SLAAC+RDNSS**, **SLAAC+Stateless DHCP**, or **Stateful DHCPv6**.

If you choose **SLAAC+Stateless DHCP**, the following field appears:

Router Advertisement Lifetime:	The currently defined router advertisement lifetime is displayed.

If you choose **Stateful DHCPv6**, please configure the following fields:

IPv6 Address Range(Start):	Enter the starting IPv6 address for the DHCP server's IPv6 assignment.
IPv6 Address Range(End):	Enter the ending IPv6 address for the DHCP server's IPv6 assignment.
Router Advertisement Lifetime:	The currently defined router advertisement lifetime is displayed.

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑
Enable Automatic DHCP-PD in LAN : ☑
Autoconfiguration Type : SLAAC+RDNSS ▼
SLAAC+Stateless DHCP
Stateful DHCPv6
Router Advertisement Lifetime : _____ (minutes)

Save Settings   Don't Save Settings

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑
Enable Automatic DHCP-PD in LAN : ☑
Autoconfiguration Type : Stateful DHCPv6 ▼
IPv6 Address Range (Start) : _____ :00 1
IPv6 Address Range (End) : _____ :00 ff
Router Advertisement Lifetime : _____ (minutes)

Save Settings   Don't Save Settings

PPPoE

IPV6 CONNECTION TYPE	
My IPv6 Connection is:	Select **PPPoE** if your ISP provides and requires you to enter a PPPoE username and password in order to connect to the Internet.

PPPOE INTERNET CONNECTION TYPE :	
PPPoE Session :	Select whethe to **Share with IPv4** or **Create a new session**.
Address Mode:	Select either **Dynamic IP** or **Static IP**.

If you chose **Share with IPv4** as the **PPPoE Session** with **Static IP** as the **Address Mode**, enter your IP address:

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

If you choose **Create a new session** as the **PPPoE Session**, fill in the following fields:

Username:	Enter the username provided by your ISP.
Password:	Enter the password provided by your ISP.
Verify Password:	Enter the password provided by your ISP one more time.
Service Name:	Enter the ISP service name (optional).
Reconnect Mode:	Select either **AlwaysOn** or **Manual**.
Maximum Idle Time:	Set the length of time to wait before disconnecting if there is no Internet activity. (Manual Only)
MTU Size:	Enter the MTU size.

PPPoE (continued)

IPV6 DNS SETTINGS

Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

If you choose **Use the following DNS address**, please configure the following field:

Primary DNS Address:	Enter the primary DNS server address.
Secondary DNS Address:	Enter the secondary DNS server address.

IPV6 DNS SETTINGS

Obtain DNS server address automatically or enter a specific DNS server address.

- ◉ Obtain IPv6 DNS Servers automatically
- ○ Use the following IPv6 DNS Servers

Primary DNS Address :
Secondary DNS Address :

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.

Enable DHCP-PD : ☑
LAN IPv6 Address : /64
LAN IPv6 Link-Local Address : ffff::fff:ffff:ffff:1234 /64

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑
Enable Automatic DHCP-PD in LAN : ☑
Autoconfiguration Type : SLAAC+RDNSS ▼
SLAAC+Stateless DHCP
Stateful DHCPv6
Router Advertisement Lifetime : (minutes)

Save Settings   Don't Save Settings

LAN IPv6 Address Settings

If you chose **Dynamic IP** as the **Address Mode**, you have the option to enable DHCP-PD appears:

Enable DHCP-PD:	Check this box to enable DHCP-PD.

If you chose **Static IP** as the **Address Mode**, or disabled DHCP-PD, enter your LAN IPv6 Address:

LAN IPv6 Address:	Enter the LAN (local) IPv6 address for the router.
LAN IPv6 Link-Local Address:	Displays the router's LAN link-local address.

PPPoE (continued)

Address Autoconfiguration Settings

Enable Automatic IPv6 address assignment: Enable or disable the Automatic IPv6 Address Assignment feature. If you disable this option, no further configuration is available.

If you chose **Dynamic IP** as the **Address Mode** and enabled **DHCP-PD** in LAN IPv6 Address Settings, you may enable **DHCP-PD for the LAN**:

Enable Automatic DHCP-PD in LAN: Enable or disable the Automatic IPv6 Address Assignment feature for the LAN.

Autoconfiguration Type: Select **SLAAC+RDNSS**, **SLAAC+Stateless DHCP**, or **Stateful DHCPv6**.

If you choose **SLAAC+Stateless DHCP**, the following field appears:

Router Advertisement Lifetime: The currently defined router advertisement lifetime is displayed.

If you choose **Stateful DHCPv6**, please configure the following fields:

IPv6 Address Range(Start): Enter the starting IPv6 address for the DHCP server's IPv6 assignment.

IPv6 Address Range(End): Enter the ending IPv6 address for the DHCP server's IPv6 assignment.

Router Advertisement Lifetime: The currently defined router advertisement lifetime is displayed.

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

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+RDNSS / SLAAC+Stateless DHCP / Stateful DHCPv6

Router Advertisement LIfetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑
Enable Automatic DHCP-PD in LAN : ☑

Autoconfiguration Type : SLAAC+RDNSS / SLAAC+Stateless DHCP / Stateful DHCPv6

Router Advertisement Lifetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑
Enable Automatic DHCP-PD in LAN : ☑

Autoconfiguration Type : Stateful DHCPv6

IPv6 Address Range (Start) : ____ :00 1

IPv6 Address Range (End) : ____ :00 ff

Router Advertisement Lifetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

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 : Stateful DHCPv6

IPv6 Address Range (Start) : ____ :00 1

IPv6 Address Range (End) : ____ :00 ff

Router Advertisement LIfetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

IPv6 in an IPv4 Tunnel

IPV6 CONNECTION TYPE

My IPv6 Connection is: Select IPv6 In IPv4 Tunnel if you wish to configure the IPv6 connection to run in IPv4 Tunnel mode. IPv6 over IPv4 tunnelling encapsulates IPv6 packets in IPv4 packets so that IPv6 packets can be sent over an IPv4 infrastructure.

IPv6 in IPv4 Tunnel Settings

Remote IPv4 Address: Enter the IPv4 remote address.

Remote IPv6 Address: Enter the IPv6 remote address.

Local IPv4 Address: Displays the current local IPv4 address.

Local IPv6 Address: Enter the IPv6 local address.

Subnet Prefix Length: Enter the IPv6 subnet prefix length.

D-Link

DIR-819	SETUP
IPV6	**IPV6**

IPV6
Use this section to configure your IPv6 Connection Type.If you are unsure of your connection method, please contact your Internet Service Provider.

[Save Settings] [Don't Save Settings]

IPV6 CONNECTION TYPE

Choose the mode to be used by the router to connect to the IPv6 Internet.

My IPv6 Connection is: [IPv6 in IPv4 Tunnel ▼]

IPV6 IN IPV4 TUNNEL SETTINGS

Enter the information provided by your Internet Service Provider (ISP).

Remote IPv4 Address :

Remote IPv6 Address :

Local IPv4 Address :

Local IPv6 Address :

Subnet Prefix Length :

IPV6 DNS SETTINGS

Obtain DNS server address automatically or enter a specific DNS server address.

◉ **Obtain IPv6 DNS Servers automatically**

○ **Use the following IPv6 DNS Servers**

Primary DNS Address :

Secondary DNS Address :

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.

Enable DHCP-PD : ☑

LAN IPv6 Address : /64

LAN IPv6 Link-Local Address : ffff::fff:ffff:ffff:1234 /64

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑

Enable Automatic DHCP-PD in LAN : ☑

Autoconfiguration Type : [SLAAC+RDNSS ▼]
SLAAC+Stateless DHCP
Stateful DHCPv6

Router Advertisement Lifetime : (minutes)

IPv6 in and IPv4 Tunnel (continued)

IPV6 DNS SETTINGS

Select either **Obtain DNS server address automatically** or **Use the following DNS address**.

If you choose **Use the following DNS address**, please configure the following field:

Primary DNS Address: Enter the primary DNS server address.

Secondary DNS Address: Enter the secondary DNS server address.

LAN IPv6 Address Settings

Enable DHCP-PD: Check this box to enable DHCP-PD.

LAN IPv6 Address: Enter the LAN (local) IPv6 address for the router. Not available if DHCP-PD is enabled.

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

IPV6 DNS SETTINGS

Obtain DNS server address automatically or enter a specific DNS server address.

- ◉ Obtain IPv6 DNS Servers automatically
- ○ Use the following IPv6 DNS Servers

Primary DNS Address :

Secondary DNS Address :

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.

Enable DHCP-PD : ☑

LAN IPv6 Address : /64

LAN IPv6 Link-Local Address : ffff::fff:ffff:ffff:1234 /64

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑

Enable Automatic DHCP-PD in LAN : ☑

Autoconfiguration Type : SLAAC+RDNSS ▼
SLAAC+Stateless DHCP
Stateful DHCPv6

Router Advertisement Lifetime : (minutes)

Save Settings   Don't Save Settings

IPv6 in an IPv4 Tunnel (continued)

Address Autoconfiguration Settings

Enable Automatic IPv6 address assignment: Enable or disable the Automatic IPv6 Address Assignment feature. If you disable this option, no further configuration is available.

If you enabled **DHCP-PD** in LAN IPv6 Address Settings, you may enable **DHCP-PD for the LAN**:

Enable Automatic DHCP-PD in LAN: Enable or disable the Automatic IPv6 Address Assignment feature for the LAN.

Autoconfiguration Type: Select **SLAAC+RDNSS**, **SLAAC+Stateless DHCP**, or **Stateful DHCPv6**.

If you choose **SLAAC+Stateless DHCP**, the following field appears:

Router Advertisement Lifetime: The currently defined router advertisement lifetime is displayed.

If you choose **Stateful DHCPv6**, please configure the following fields:

IPv6 Address Range(Start): Enter the starting IPv6 address for the DHCP server's IPv6 assignment.

IPv6 Address Range(End): Enter the ending IPv6 address for the DHCP server's IPv6 assignment.

Router Advertisement Lifetime: The currently defined router advertisement lifetime is displayed.

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

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+RDNSS / SLAAC+Stateless DHCP / Stateful DHCPv6

Router Advertisement LIfetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑

Enable Automatic DHCP-PD in LAN : ☑

Autoconfiguration Type : SLAAC+RDNSS / SLAAC+Stateless DHCP / Stateful DHCPv6

Router Advertisement Lifetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

ADDRESS AUTOCONFIGURATION 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 routers in your LAN.

Enable Automatic IPv6 address assignment : ☑

Enable Automatic DHCP-PD in LAN : ☑

Autoconfiguration Type : Stateful DHCPv6

IPv6 Address Range (Start) : _____ :00 1

IPv6 Address Range (End) : _____ :00 ff

Router Advertisement Lifetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

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 : Stateful DHCPv6

IPv6 Address Range (Start) : _____ :00 1

IPv6 Address Range (End) : _____ :00 ff

Router Advertisement LIfetime : ____ (minutes)

[Save Settings] [Don't Save Settings]

6to4

IPV6 CONNECTION TYPE

My IPv6 Connection is: Select IPv6 In IPv4 Tunnel if you wish to configure your router to connect to your ISP using 6 to 4. 6 to 4 is an IPv6 address assignment and automatic tunneling technology that is used to provide unicast IPv6 connectivity between IPv6 sites and hosts across the IPv4 Internet.

WAN IPV6 ADDRESS SETTINGS

6to4 Address: The current 6to4 address is displayed here.

6to4 Relay: Enter the 6 to 4 relay address supplied by your ISP.

Primary DNS Address: Enter the primary DNS server address.

Secondary DNS Address: Enter the secondary DNS server address.

LAN IPv6 Address Settings

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

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

6to4 (continued)

Address Autoconfiguration Settings

Enable Automatic IPv6 address assignment: Enable or disable the Automatic IPv6 Address Assignment feature. If you disable this option, no further configuration is available.

Autoconfiguration Type: Select **SLAAC+RDNSS**, **SLAAC+Stateless DHCP**, or **Stateful DHCPv6**.

If you choose **SLAAC+Stateless DHCP**, please configure the following field:

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

If you choose **Stateful DHCPv6**, please configure the following fields:

IPv6 Address Range(Start): Enter the starting IPv6 address for the DHCP server's IPv6 assignment.

IPv6 Address Range(End): Enter the ending IPv6 address for the DHCP server's IPv6 assignment.

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in seconds).

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

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+RDNSS ▾
SLAAC+Stateless DHCP
Stateful DHCPv6

Router Advertisement LIfetime : [   ] (minutes)

Save Settings   Don't Save Settings

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 : Stateful DHCPv6 ▾

IPv6 Address Range (Start) : [   ] :00 [1]

IPv6 Address Range (End) : [   ] :00 [ff]

Router Advertisement LIfetime : [   ] (minutes)

Save Settings   Don't Save Settings

6rd

IPV6 CONNECTION TYPE	
My IPv6 Connection is:	Select **6rd** if your ISP uses the 6rd IPv6 connection protocol.

WAN IPV6 ADDRESS SETTINGS	
6rd Configuration:	Select either **6rd DHCPv4** or **Manual Configuration**.

If you selected **Manual Configuration**, fill in the following fields:

6rd IPv6 Prefix:	Enter the 6rd IPv6 prefix and mask length supplied by your ISP.
IPv4 Address:	Displays the router's IPv4 address and mask length.
Assigned IPv6 Prefix:	Displays the router's assigned IPv6 prefix.
Tunnel Link-Local Address:	Displays the tunnel link-local address.
6rd Border Relay IPv4 Address:	Enter the 6rd border relay IPv4 address settings supplied by your ISP.
Primary DNS Address:	Enter the primary DNS server address.
Secondary DNS Address:	Enter the secondary DNS server address.

LAN IPV6 ADDRESS SETTINGS	
LAN IPv6 Address:	Enter the LAN (local) IPv6 address for the router.

6rd (continued)

LAN IPv6 Link-Local Address: Displays the router's LAN link-local address.

Address Autoconfiguration Settings

Enable Automatic IPv6 address assignment: Enable or disable the Automatic IPv6 Address Assignment feature. If you disable this option, no further configuration is available.

Autoconfiguration Type: Select **SLAAC+RDNSS**, **SLAAC+Stateless DHCP**, or **Stateful DHCPv6**.

If you choose **SLAAC+Stateless DHCP**, please configure the following field:

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in minutes).

If you choose **Stateful DHCPv6**, please configure the following fields:

IPv6 Address Range(Start): Enter the starting IPv6 address for the DHCP server's IPv6 assignment.

IPv6 Address Range(End): Enter the ending IPv6 address for the DHCP server's IPv6 assignment.

Router Advertisement Lifetime: Enter the IPv6 address lifetime (in seconds).

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

Local Connectivity Only

IPV6 CONNECTION TYPE	
My IPv6 Connection is:	Select **Local Connectivity Only** allows you to set up a local IPv6 connection that does not connect to the Internet.

IPV6 CONNECTION TYPE	
LAN IPv6 Link-Local Address :	Displays the router's LAN IPv6 Link-Local address and mask length.
LAN IPv6 Unique Local Address :	Displays the router's LAN IPv6 unique local address and mask length.

When you have finished configuring your IPv6 connection, click the **Save Settings** button.

Advanced

The Advanced tab provides access to configure the advanced features of your DIR-819.

To return to the Web UI Table of Contents page, simply click the D-Link logo on the top right of each page.

Virtual Server

Click **Virtual Server** on the navigation menu to configure the virtual server. The virtual server performs port-redirection, which allows remote users to access multiple services on your local network via your public IP address. For example, you may want to connect two FTP servers on two different machines on your local network to the Internet. Using Port Forwarding only allows a single machine use port 21, but with port forwarding you can remap two different external ports to each machine. When you are satisfied with your configuration, click **Save Settings**.

24 - VIRTUAL SERVERS LIST

Enable: Check the box to enable this rule.

Name: Enter a name for the application you wish to apply the virtual server to. Use the **Application Name** dropdown menu and the **<<** button to quickly select commonly used applications. The name, private port, public port, and protocol type are automatically populated.

Public Port: Enter or adjust the WAN port number in order to remap traffic.

Protocol: Select **TCP** or **UDP** from the Protocol drop-down menu.

Schedule: Select the schedule from the drop-down menu. The default is **Always**. Refer to **Schedules** on page **110** for more information on creating new schedules.

IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to or use the **Computer Name** dropdown menu and the **<<** button to quickly insert a device's IP address.

Private Port: Enter the LAN port number.

Inbound Filter: You may set the traffic filter to **Allow All** or **Block All** traffic.

Click the **Save Settings** button when you are finished.

Port Forwarding

Click **Port Forwarding** on the navigation menu to configure Port Forwarding. Port Forwarding allows you to expose devices, applications, and servers on your local network to the Internet. When you are satisfied with your configuration, click **Save Settings**.

24 -- PORT FORWARDING RULES

Enable: Check the box to enable this rule.

Name: Enter a name for the application you wish to apply the virtual server to. Use the **Application Name** dropdown menu and the **<<** button to quickly select an application. The name, TCP port, and UDP port are automatically populated.

TCP: Enter the TCP port number to forward.

Schedule: Select the schedule from the drop-down menu. The default is **Always**. Refer to **Schedules** on page **110** for more information on creating new schedules.

IP Address: Enter the IP address of the computer on your local network that you want to allow the incoming service to or use the **Computer Name** dropdown menu and the **<<** button to quickly insert a device's IP address.

UDP: Enter the UDP port number to forward.

Inbound Filter: You may set the traffic filter to **Allow All** or **Block All** traffic.

Click the **Save Settings** button when you are finished.

Application Rules

Click **Port Triggering** on the navigation menu to configure Port Triggering. Port triggering allows external ports to be opened for remote access when triggered by activity by a local computer on specified ports. When you are satisfied with your configuration, click **Save Settings**.

24 -- APPLICATION RULES

Enable: Check the box to enable this rule.

Name: Enter a name for the application you wish to apply the virtual server to. Use the **Application Name** dropdown menu and the **<<** button to quickly select an application. The name, port numbers, and traffic type are automatically populated.

Trigger Port: Enter the trigger port.

Traffic Type: Select **TCP**, **UDP**, or **All**.

Firewall Port: Enter the firewall port to open once triggered.

Traffic Type: Select **TCP**, **UDP**, or **All**.

Schedule: Select the schedule from the drop-down menu. The default is **Always**. Refer to **Schedules** on page **110** for more information on creating new schedules.

Click the **Save Settings** button when you are finished.

QOS Engine

Click **QoS Engine** on the navigation menu to configure Quality of Service (QoS). QoS allows you to prioritize Internet traffic to ensure a better web browsing experience in situations where bandwidth is limited or large numbers of devices are in use. QoS can improve your online experience by ensuring that specific traffic is prioritized over other network traffic, such as VoIP, FTP, or Web. When you are satisfied with your configuration, click **Save Settings**.

QOS SETUP

Enable QoS: Enable or disable QoS.

Uplink Speed: Enter your Internet connection's Uplink Speed in kbps or use the **Select Transmission Rate** dropdown menu and the **<<** button to quickly select and populate a speed.

Downlink Speed: Enter your Internet connection's Downlink Speed in kbps or use the **Select Transmission Rate** dropdown menu and the **<<** button to quickly select and populate a speed.

Queue Type: Choose either **Strict Priority Queue** or **Weighted Fair Queue**. If you select **Weighted Fair Queue**, you may adjust the percentage weights for each queue.

Click the **Save Settings** button before proceeding to **32 -- ADD CLASSIFICATION RULE**.

QOS Engine (continued)

32 -- ADD CLASSIFICATION RULE

Enable: Check the box to enable this rule.

Name: Enter a name for this QoS rule.

Queue ID: Select the queue to apply this rule to.

Protocol: Select the protocol to apply the rule to: **TCP**, **UDP**, or **All**.

Classify: Select to apply the rule to **Upstream** or **Downstream** traffic.

Local IP Range: If you selected **Upstream** as the **Classify** type, enter the local IP Range, excluding the router IP and broadcast IP, to apply this rule to. For example 192.168.0.2 to 192.168.0.254.

Application Port: Enter the port range you wish to apply this rule to. Use the **Application Name** dropdown menu and the **<<** button to quickly select an application. The protocol, and port range are automatically populated.

Remote IP Range: If you selected **Downstream** as the **Classify** type, enter the Remote IP Range, excluding the router IP and broadcast IP, to apply this rule to. For example 192.168.0.2 to 192.168.0.254.

CLASSIFICATION RULES

The currently defined QoS rules are listed here.

Click the **Save Settings** button when you are finished.

Network Filter

Click **Network Filter** on the navigation menu to configure the Network Filter. The Network Filter allows you to allow or block a device's access to the network or Internet based on its MAC address. When you are satisfied with your configuration, click **Save Settings**.

24 -- MAC FILTERING RULES

Configure MAC Filtering below: Select the function of the MAC Filter, the options are **Turn MAC Filtering OFF**, **Turn MAC Filtering ON and ALLOW rules listed**, or **Turn MAC Filtering ON and DENY rules listed**.

Enable: Check the box to enable this rule.

MAC Address: Enter the MAC Address of the device you wish to apply the Network Filter to. Use the **Computer Name** dropdown menu and the **<<** button to quickly select a device. The MAC Address is automatically populated.

Schedule: Select the schedule from the drop-down menu. The default is **Always**. Refer to **Schedules** on page **110** for more information on creating new schedules.

Click the **Save Settings** button when you are finished.

D-Link

DIR-819	ADVANCED

NETWORK FILTER	MAC ADDRESS FILTER

MAC ADDRESS FILTER

The MAC (Media Access Controller) Address filter option is used to control network access based on the MAC Address of the network adapter.A MAC address is a unique ID assigned by the manufacturer of the network adapter.This feature can be configured to ALLOW or DENY network/Internet access.

[Save Settings]   [Don't Save Settings]

24 -- MAC FILTERING RULES

Configure MAC Filtering below:

Turn MAC Filtering OFF ▼
Turn MAC Filtering ON and ALLOW rules listed
Turn MAC Filtering ON and DENY rules listed

Remaining number of rules that can be created: 24

	MAC Address	DHCP Client List	Schedule
☐	[____] [<<]	Computer Name ▼	Always ▼ New Schedule

[Save Settings]   [Don't Save Settings]

Inbound Filter

Click **Inbound Filter** on the navigation menu to configure the Inbound Filter. The Inbound Filter allows you to place filtering rules on a per IP basis. Using this tool you may restrict access to or block traffic to a specific remote IP address or range. When you are satisfied with your configuration, click **Save Settings**.

ADD INBOUND FILTER RULE

Name: Enter a name for this Inbound Filter.

Action: **Allow** or **Deny** traffic.

Remote IP Range

Enable: Check the box to enable this rule.

Remote IP Start: Enter the starting IP address to apply the rule to.

Remote IP End: Enter the ending IP address to apply the rule to.

INBOUND FILTER RULES LIST

The currently defined Inbound Filter rules are listed here.

Click the **Save Settings** button when you are finished.

Access Control

Click **Access Control** on the navigation menu to configure Access Control. The Access Control function allows you to control access to the Internet. You may also monitor which web sites were accessed. The Add Policy Wizard allows you to easily add access control policies. When you are satisfied with your configuration, click **Save Settings**.

<table>
<tr><td colspan="2">ACCESS CONTROL</td></tr>
<tr><td>Enable Access Control:</td><td>Enable or disable Access Control. You must click **Save Settings** after enabling Access Control before you can add policies.</td></tr>
<tr><td>Add Policy:</td><td>Click this button to add a policy. Refer to **Add Policy** on page **88** for more information on running the Add Policy Wizard.</td></tr>
</table>

POLICY TABLE

The currently defined access control policies are listed in this table.

Click the **Save Settings** button when you are finished.

Add Policy

ADD NEW POLICY

Click **Next** to begin the add policy 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]

STEP 1: CHOOSE POLICY NAME

Policy Name : Enter a name for your policy.

Click **Next** to continue.

STEP 1: CHOOSE POLICY NAME
Choose a unique name for your policy.

Policy Name : [_____]

[Prev] [Next] [Save] [Cancel]

STEP 2: SELECT SCHEDULE

Details: Select a schedule from the drop-down menu. The default is **Always**. Refer to **Schedules** on page **110** for more information on creating new schedules.

Click **Next** to continue.

STEP 2: SELECT SCHEDULE
Choose a schedule to apply to this policy.

Always ▼

Details : Always

[Prev] [Next] [Save] [Cancel]

STEP 3: SELECT MACHINE

Address Type: Choose whether this policy is applied by **IP** or **MAC** address.

IP Address: If you select **IP** as the address type, enter the IP address of the device you wish to apply the policy to or use the **Computer Name** dropdown menu to quickly select a computer. The IP address is automatically populated.

STEP 3: SELECT MACHINE
Select the machine to which this policy applies.

Specify a machine with its IP or MAC address.

Address Type : ◉ IP ○ MAC
IP Address : [_____] << Computer Name ▼
Machine Addres : [_____] << Computer Name ▼

[Clone Your PC's MAC Address]

[Add] [Cancel]

Machine

[Prev] [Next] [Save] [Cancel]

Add Policy (continued)

Machine Address: If you select **MAC** as the address type, enter the IP address of the device you wish to apply the policy to or use the **Computer Name** dropdown menu to quickly select a computer. The MAC address is automatically populated. You may also use the **Clone Your PC's MAC Address** button to use the MAC address of the device you are running the wizard from.

Add: Click this button to add the machine to the table.

Cancel: Click this button to clear the currently configured information

Machine

IP or MAC Address: To edit a machine added to the table, click its corresponding pencil icon. To remove a machine click its corresponding trashcan icon.

Click **Next** to continue.

STEP 3: SELECT MACHINE
Select the machine to which this policy applies.
Specify a machine with its IP or MAC address.

Address Type : ⦿ IP ○ MAC

IP Address : [   ] << [Computer Name ▼]

Machine Addres : [   ] << [Computer Name ▼]

[Clone Your PC's MAC Address]

[Add]   [Cancel]

Machine

[Prev] [Next] [Save] [Cancel]

STEP 4: SELECT FILTERING METHOD

Method: Select the method for filtering. The available options are **Log Web Access Only**, **Block All Access**, or **Block Some Access**.

If you select **Log Web Access Only** or **Block Some Access**, click **Save** to finish the wizard.

If you select **Block Some Access**, select the following options:

Apply Web Filter: Check this box to enable Web Access Logging.

Apply Advanced Port Filters: Check this box to enable port filtering.

Click **Next** to continue.

STEP 4: SELECT FILTERING METHOD
Select the method for filtering.

Method : ⦿ Log Web Access Only ○ Block All Access ○ Block Some Access

[Prev] [Next] [Save] [Cancel]

STEP 4: SELECT FILTERING METHOD
Select the method for filtering.

Method : ○ Log Web Access Only ○ Block All Access ⦿ Block Some Access

Apply Web Filter : ☑

Apply Advanced Port Filters : ☑

[Prev] [Next] [Save] [Cancel]

Add Policy (continued)

If you selected **Block Some Access**, configure the following options:

<table>
<tr><td colspan="2">STEP 5: PORT FILTER</td></tr>
<tr><td align="right">**Enable:**</td><td>Check the box to enable this rule.</td></tr>
<tr><td align="right">**Name:**</td><td>Enter a name for port filtering rule.</td></tr>
<tr><td align="right">**Dest IP Start:**</td><td>Enter the start of the IP address range to filter.</td></tr>
<tr><td align="right">**Dest IP End:**</td><td>Enter the end of the IP address range to filter.</td></tr>
<tr><td align="right">**Protocol:**</td><td>Select the protocol to apply the port filter to. The options are **Any**, **ICMP**, **TCP**, and **UDP**.</td></tr>
</table>

If you select **TCP** or **UDP**, enter the port range:

Des Port Start: Enter the start of the port range to filter.

Des Port End: Enter the end of the port range to filter.

Click **Next** to continue.

STEP 5: PORT FILTER
Add Port Filters Rules.

Specify rules to prohibit access to specific IP addresses and ports.

Enable	Name	Dest IP Start	Dest IP End	Protocol	Dest Port Start	Dest Port End
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535
☑		0.0.0.0	255.255.255.255	Any ▼	1	65535

[Prev] [Next] [Save] [Cancel]

<table>
<tr><td colspan="2">STEP 6: CONFIGURE WEB ACCESS LOGGING</td></tr>
<tr><td align="right">**Web Access Logging:**</td><td>Enable or disable Web Access logging. You may view the web access log from the **Status > Logs** section of the web configuration utility.</td></tr>
</table>

Click **Save** to finish.

STEP 6: CONFIGURE WEB ACCESS LOGGING
Select the method for filtering.

Web Access Logging : ◉ Disabled
                     ○ Enabled

[Prev] [Next] [Save] [Cancel]

Website Filter

Click **Website Filter** on the navigation menu to configure the Website Filter. The Website Filter function allows you to control access to specific websites. When you are satisfied with your configuration, click **Save Settings**.

40 -- WEBSITE FILTERING RULES

Configure Website Filter below: Select the function of the Website Filter, the options are **ALLOW computers access to ONLY these sites** or **DENY computers access to ONLY these sites**.

Clear the list below... Click this button to clear the website filter.

Website URL/ Domain: Enter website URL/Domains in each box.

Click the **Save Settings** button when you are finished.

Firewall Settings

Click **Firewall Settings** on the navigation menu to configure the Firewall Settings. When you are satisfied with your configuration, click **Save Settings**.

FIREWALL SETTINGS

Enable SPI: Enable or disable the Stateful Packet Inspection (SPI) firewall. Disabling the firewall is not recommended.

ANTI-SPOOF CHECKING

Enable anti-spoof checking: Enable or disable anti-spoof checking.

DMZ HOST

This option allows you to manually configure the router's demilitarized zone (DMZ). The DMZ should only be used as a last resort when you are having difficulty using other port forwarding tools since the device using this IP address is not protected by the firewall. If you use DMZ, take measures such as client-based virus protection to protect the remaining client PCs on your LAN from possible attacks through DMZ'd device.

Enable DMZ: Check the box to enable the DMZ function.

DMZ Host IP Address: Enter the IP address of the machine that you wish to place in the DMZ. If the machine receives an IP address from the DHCP server, you should create a static DHCP reservation to ensure that the machine always receives the same address from the DHCP server. Use the **Computer Name** dropdown menu and the **<<** button to quickly select a device. The IP address is automatically populated.

Firewall Settings (continued)

APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION

PPTP: Allows multiple machines on the LAN to connect to their corporate network using the Point-to-Point Tunneling protocol (PPTP) based VPNs.

IPSec (VPN): Allows VPN clients to connect to their corporate IPSec-based network. Some VPN clients support traversal of IPSec through NAT. This Application Level Gateway (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: A llows applications that use Real Time Streaming Protocol (RTSP)to receive streaming media from the Internet.

SIP: Enabling Session Initiation Protocol (SIP) allows devices and applications using VoIP (Voice over IP). 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.

Click the **Save Settings** button when you are finished.

D-Link

DIR-819	ADVANCED

FIREWALL SETTINGS	**FIREWALL & DMZ SETTINGS**

FIREWALL & DMZ SETTINGS

DMZ means "Demilitarized Zone". DMZ allows computers behind the router firewall to be accessible to Internet traffic.Typically, your DMZ would contain Web servers, FTP servers and others.b

Save Settings   Don't Save Settings

FIREWALL SETTINGS

Enable SPI : ☑

ANTI-SPOOF CHECKING

Enable anti-spoof checking : ☐

DMZ HOST

The DMZ (Demilitarized Zone) option lets you set a single computer on your network outside of the router.If you have a computer that cannot run Internet applications successfully from behind the router, then you can place the computer into the DMZ for unrestricted Internet access.

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

Enable DMZ : ☐

DMZ IP Address : [＿＿＿＿]   <<

Computer Name ▼

APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION

PPTP : ☑
IPSec (VPN) : ☑
RTSP : ☑
SIP : ☑

Save Settings   Don't Save Settings

Routing

Click **Routing** on the navigation menu to configure Routing. The routing page allows you to define custom static routes to control the route which your data takes. When you are satisfied with your configuration, click **Save Settings**.

32 -- ROUTE LIST

Enable: Check the box to enable this rule.

Name: Enter a name for this static route.

Destination IP: Enter the destination IP address.

Gateway: Enter the gateway IP address.

Metric: Enter the metric value between 1-255.

Interface: Select the Interface from the drop-down menu.

Click the **Save Settings** button when you are finished.

Advanced Wireless

Click **Advanced Wireless** on the navigation menu to configure the advanced wireless options. When you are satisfied with your configuration, click **Save Settings**.

ADVANCED WIRELESS SETTINGS	
Wireless Band:	2.4 GHz Band
Transmit Power:	Select the desired wireless transmission power.
WLAN Partition:	Check this box to enable user isolation. User isolation forces wireless clients to communicate with each other through the access point.
WMM Enable:	Enable or Disable Wi-Fi MultiMedia QoS.
HT 20/40 Coexistence:	Enable or disable HT20/40 Coexistence.

ADVANCED WIRELESS SETTINGS	
Wireless Band:	5 GHz Band
Transmit Power:	Select the desired wireless transmission power.
WLAN Partition:	Check this box to enable user isolation. User isolation forces wireless clients to communicate with each other through the access point.
WMM Enable:	Enable or Disable Wi-Fi MultiMedia QoS.

Click the **Save Settings** button when you are finished.

Wi-Fi Protected Setup

Click **Wi-Fi Protected Setup** on the navigation menu to configure the Wi-Fi Protected Setup (WPS) feature. Refer to **WPS Button** on page **122** for more information about WPS. When you are satisfied with your configuration, click **Save Settings**.

WI-FI PROTECTED SETUP

Enable:	Check the box to enable WPS.
WiFi Protected Setup:	The current status of the WPS feature is displayed here.
Lock WPS-PIN Setup:	Enable or disable WPS-PIN functionality.

PIN SETTINGS

PIN:	The currently defined WPS-PIN is displyaed here.
Reset PIN to Default	Click this button to reset the WPS-PIN to the factory default.
Generate New PIN	Click this button to generate a new WPS PIN.

ADD WIRELESS STATION

Connect your Wireless Device:	Click this button to launch the WPS Add Device Wizard. Refer to **Add Wireless Device with WPS** on page **47** for more information.

Click the **Save Settings** button when you are finished.

Advanced Network

Click **Advanced Network** on the navigation menu to configure the Advanced Wireless settings. This page allows for the configuration of miscillaneous settings. When you are satisfied with your configuration, click **Save Settings**.

UPNP

Enable UPnP IGD: Click Enable to use the UPnP feature. UPnP provides compatibility with networking equipment, software, and peripherals.

WAN PING

Enable WAN Ping Response: Enable or disable the router to reply to pings.

WAN PORT SPEED

WAN Port Speed: You may set the port speed of the Internet port to **10 Mbps**, **100 Mbps**, or **Auto 10/100Mbps**. Using **Auto 10/100Mbps** is recommended.

MULTICAST STREAMS

Enable Multicast Streams: Enable to allow IPv4 multicast traffic to pass through the router from the Internet.

IPV6 MULTICAST STREAMS

Enable IPv6 Multicast Streams: Enable to allow IPv6 multicast traffic to pass through the router from the Internet.

Click the **Save Settings** button when you are finished.

Guest Zone

Click **Guest Zone** on the navigation menu to configure Guest Zones. The guest zone feature allows you to create wireless networks for visitors. This allows you to keep your devices secure. When you are satisfied with your configuration, click **Save Settings**.

GUEST ZONE	
Enable Routing Between Zones:	If a guest zone or zones are enabled and this option is disabled, guest device network connectivity is restricted to the Internet. If this option is enabled, guest devices are allowed access to other local network devices.

SESSION 2.4GHZ / SESSION 5GHZ	
Enable Guest Zone:	Enable or disable this guest wireless network. From the drop down menu you may apply a schedule to enable or disable this wireless network. Click **New Schedule** to create a new schedule. Refer to **Schedules** on page **110** for more information.
Wireless Band:	The current wireless band is displayed here, either **2.4GHz** or **5GHz**.
Wireless Network Name:	Create a name for your wireless network.
Security Mode:	Select a wireless security encryption option. The options are **None**, **WEP**, **WPA-Personal**, and **WPA-Enterprise**. Using **WPA** is recommended. Refer to **Wireless Security Mode** on page **52** for more information.

Click the **Save Settings** button when you are finished.

IPv6 Firewall

Click **IPv6 Firewall** on the navigation menu to configure the IPv6 Firewall Settings. When you are satisfied with your configuration, click **Save Settings**.

IPV6 SIMPLE SECURITY

Enable IPv6 Simple Security:	Enable or disable the IPv6 firewall.

20 -- IPV6 FIREWALL RULES

Configure IPv6 Filtering below:	Select the function of the IPv6 Filter, the options are **Turn IPv6 Filtering OFF**, **Turn IPv6 Filtering ON and ALLOW rules listed**, **Turn IPv6 Filtering ON and DENY rules listed**.
Enable:	Check the box to enable this rule.
Name:	Enter a name for the rule.
Schedule:	Select the schedule from the drop-down menu. The default is **Always**. Refer to **Schedules** on page **110** for more information on creating new schedules.
Source Interface:	Select the source interface, **WAN** or **LAN**, from the drop down menu.
Source IP Address / PrefixLength:	Enter the source IP address and specify the prefix length for the rule.
Protocol:	Select the protocol to apply the rule to, either **ALL**, **TCP**, **UDP**, or **ICMP**.
Destination Interface:	Select the destination interface, **WAN** or **LAN**, from the drop down menu.

D-Link

DIR-819		ADVANCED
IPV6 FIREWALL		IPV6 FIREWALL

IPV6 FIREWALL
The firewall settings section is an advance feature used to allow or deny traffic from passing through the device. It works in the same way as IP Filters with additional settings. You can create more detailed rules for the device.

Save Settings   Don't Save Settings

IPV6 SIMPLE SECURITY
Enable IPv6 Simple Security : ☐

20 -- IPV6 FIREWALL RULES
Remaining number of rules that can be created: 24
Configure IPv6 Filtering below:

Turn IPv6 Filtering OFF ▼
Turn IPv6 Filtering ON and ALLOW rules listed
Turn IPv6 Filtering ON and DENY rules listed

Name		Schedule	
		Always ▼	
☐	Source	Interface	IP Address /PrefixLength	Protocol
		LAN ▼		ALL ▼
	Dest	Interface	IP Address /PrefixLength	Port Range
		LAN ▼		~

Save Settings   Don't Save Settings

IPv6 Firewall (continued)

Destination IP Address / PrefixLength: Enter the destination IP address and specify the prefix length for the rule.

Port Range: Enter the port range to apply the rule to. If the protocol is set as **ALL** or **ICMP** this feature is disabled.

Click the **Save Settings** button when you are finished.

IPv6 Routing

Click **IPv6 Routing** on the navigation menu to configure IPv6 Routing. The routing page allows you to define custom static routes to control the route which your data takes. When you are satisfied with your configuration, click **Save Settings**.

10 -- ROUTE LIST

Enable: Check the box to enable this rule.

Name: Enter a name for this IPv6 static route.

Destination IPv6 / Prefix Length: Enter the destination IPv6 address and Prefix Length.

Metric: Enter the metric value between 1-255.

Interface: Select the Interface from the drop-down menu.

Gateway: Enter the gateway IPv6 address.

Click the **Save Settings** button when you are finished.

Tools

The Tools tab provides access to administration related settings of your DIR-819.

DIR-819	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT

ADMIN

TIME

SYSLOG

SYSTEM

FIRMWARE

DYNAMIC DNS

SYSTEM CHECK

SCHEDULES

ADMINISTRATOR SETTINGS

The 'admin' account can access the management interface. The admin has read/write access and can change password.
By default there is no password configured. It is highly recommended that you create a password to keep your router secure.

[Save Settings]   [Don't Save Settings]

ADMIN PASSWORD

Please enter the same password into both boxes, for confirmation.

Password :

Verify Password :

ADMINISTRATION

Enable HTTPS Server : ☐

Enable Remote Management : ☐

Remote Admin Port : 8080   Use HTTPS: ☐

Remote Admin **Inbound Filter** : Allow All ▼

Details : Allow All

[Save Settings]   [Don't Save Settings]

DIR-819	SETUP
INTERNET	INTERNET CONNECTION

To return to this Web UI Table of Contents page, simply click the D-Link logo on the top right of each page.

Admin

Click **Admin** on the navigation menu to configure the administration settings. This page allows you to configure access to the web configuration utility. When you are satisfied with your configuration, click **Save Settings**.

ADMIN PASSWORD

Password: Enter the new password for the admin account.

Verify Password: Enter the new password for the admin account one more time.

ADMINISTRATION

Enable HTTPS Server:: Check to enable HTTPS to connect to the router securely. You may access the web configuration utility using **https://dlinkrouter.local./**.

Enable Remote Management: Remote management allows the DIR-819 to be configured from the Internet by a web browser. A password is still required to access the web management interface.

Remote Admin Port: Enter the port number you wish to use to access the DIR-819's web configuration utility. Example: **http://x.x.x.x:8080** where x.x.x.x is the Internet IP address of the DIR-819 and 8080 is the port used for the web management interface.
*Note: If you enabled **HTTPS** Server and wish to access the router remotely and securely, you may enter **https://** at the beginning of the address.*

Remote Admin Inbound Filter: You may select an inbound filter from the drop down menu to restrict remote administration. Refer to **Inbound Filter** on page **86** for more information.

Details: The current status of the Remote Administration Inbound filter is displayed here.

Click the **Save Settings** button when you are finished.

Time

Click **Time** on the navigation menu to configure the time. When you are satisfied with your configuration, click **Save Settings**.

TIME AND DATE CONFIGURATION

Time: The currently set time on the router is displayed.

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

Enable Daylight Saving: Enable or disable daylight saving time.

Daylight Saving Offset: Select the daylight saving offset if Daylight Saving time will be used.

Daylight Saving Dates: Select the date range for when to start and stop daylight savings time.

AUTOMATIC TIME AND DATE CONFIGURATION

Automatically synchronize with D-Link's Internet time server: Enable this option to get the current time from an NTP server on the Internet. To configure the router's time and date manually, disable this option and use the drop-down menus that appear to input the time and date.

NTP Server Used: If you enable this option, select an NTP server from the drop-down menu.

SET THE TIME AND DATE MANUALLY

You may manually set the time from this option or set the time by clicking **Sync. your computer's time settings**.

Click the **Save Settings** button when you are finished.

Syslog

Click **Syslog** on the navigation menu to configure the system log settings. This device maintains a running log of events which can be sent to a syslog server. Refer to **Logs** on page **114** for an example system log. When you are satisfied with your configuration, click **Save Settings**.

SYSLOG SETTINGS

Enable Logging to SysLog Server: Enable or disable the sending of router logs to a syslog server.

If you enable **Logging to SysLog Server**, enter the Syslog Server IP Address:

SysLog Server IP Address: Enter the IP address of the syslog server. Use the **Computer Name** dropdown menu and the **<<** button to quickly select a device. The IP address is automatically populated.

Click the **Save Settings** button when you are finished.

System

Click **System** on the navigation menu to configure the system settings. 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 AND RESTORE SETTINGS

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

Load Settings From Local Hard Drive: Use this option to load previously saved router configuration settings. Use the **Choose File** option to find a previously saved file of configuration settings and then click the **Restore Configuration From File** to transfer those settings to the router.

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

Reboot The Device: Click this button to reboot the device.

Clear Language Pack: If the device is of other language than English, clicking this button to convert the router's language back to English.

DIR-819	TOOLS
SYSTEM	**SAVE AND RESTORE SETTINGS**

SAVE AND RESTORE SETTINGS

Once the router is configured you can save the configuration settings to a configuration file on your hard drive. You also have the option to load configuration settings, or restore the factory default settings.

SAVE AND RESTORE SETTINGS

Save Settings To Local Hard Drive :	Save Configuration
Load Settings From Local Hard Drive :	Choose File No file chosen
	Restore Configuration From File
Restore To Factory Default Settings :	Restore Factory Defaults
Reboot The Device :	Reboot the Device
Clear Language Pack :	Clear

Firmware

Click **Firmware** on the navigation menu to configure the firmware. Please check the D-Link support website for firmware updates and new language packs at **http://support.dlink.com**. Be sure to keep your router firmware updated to help protect against the latest cyber threats.

FIRMWARE INFORMATION

Current Firmware Version: The current firmware version is displayed here.

Current Firmware Time: The release date and time of the current firmware is displayed here.

Check Online Now for Latest Firmware Version: Click this button to prompt the router to check for a new firmware version.

FIRMWARE UPGRADE

Upload: Select a file to upgrade your device with by clicking the **Choose File** button. Click the **Upload** button to begin the firmware upgrade.

Clear Config: Check this box to clear the current settings of your DIR-819 once the firmware update is applied.

LANGUAGE PACK UPGRADE

Upload: You can change the language of the web UI by uploading language packs. Select a file to upgrade your device with by clicking the **Choose File** button. Click the **Upload** button to begin the firmware upgrade.

Click the **Save Settings** button when you are finished.

Dynamic DNS

Click **Dynamic DNS** on the navigation menu to configure the Dynamic Domain Name Server (DDNS) client. DDNS makes accessing your network from the Internet easier by providing you with an easy to use web address. Owners of D-Link routers can use the dlinkdns service.

DYNAMIC DNS SETTINGS

Enable Dynamic DNS: Enable or disable the Dynamic DNS feature.

If you enabled **Dynamic DNS**, configure the following settings:

Server Address: Enter the IP address of your DDNS provider. Use the **Select Dynamic DNS Server** dropdown menu and the **<<** button to quickly select a device. The IP address is automatically populated.

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

Username: Enter your DDNS username.

Password: Enter your DDNS password.

Verify Password: Enter your DDNS password one more time.

Timeout: Enter a timeout time (in hours) before the DDNS information is automatically updated.

Status: The current status of your DDNS service is displayed here.

Click the **Save Settings** button when you are finished.

DIR-819		TOOLS	
DYNAMIC DNS		**DYNAMIC DNS**	

DYNAMIC DNS

The Dynamic DNS 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 your host name to connect to your game server no matter what your IP address is.

[Save Settings] [Don't Save Settings]

DYNAMIC DNS SETTINGS

Enable Dynamic DNS :	☑
Server Address :	[ ] [<<] Select Dynamic DNS Server ▼
Host Name :	[ ]
Username :	[ ]
Password :	···
Verify Password :	···
Timeout :	576 (Times)
Status :	Disconnected

[Save Settings] [Don't Save Settings]

System Check

Click **System Check** on the navigation menu to test your connection to the Internet.

PING TEST

Host Name or IP Address: Enter either an IP address or web address that you wish to Ping and click **Ping**.

IPV6 PING TEST

Host Name or IPv6 Address: Enter either an IPv6 address or web address that you wish to Ping and click **Ping**.

PING RESULT

The results of the test are displayed in this dialog box.

Schedules

Click **Schedules** on the navigation menu to configure the system schedules. Several router functions be operated according to a pre-configured schedule which may be created from this page.

10 -- ADD SCHEDULE RULE

If you wish to create a new schedule, fill in the following fields:

Name: Enter a name for your new schedule.

Day(s): Choose to have the schedule apply to **All Week** or **Select Days** and check the boxes of the days to apply the rules to.

All Day - 24 hrs: Check this box to have the rule apply all day or leave this box unchecked at fill in the **Start Time** and **End Time** fields.

Start Time: Enter the start time for this rule to start.

End Time: Enter the end time for this rule to stop.

Click the **Add** button when you are satisfied with your new schedule.

SCHEDULE RULES LIST

The currently added rules are displayed in this table. You may edit or delete a rule by clicking on its corresponding **Edit** or **Delete** buttons.

Status

The Status tab provides information about the DIR-819's current status.

DIR-819	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT

DEVICE INFO

LOGS

STATISTICS

INTERNET SESSIONS

WIRELESS

ROUTING

IPV6

IPV6 ROUTING

DEVICE INFORMATION

All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.

GENERAL

Time:	2016-09-19 13:00
Current Firmware Version :	V1.01

WAN

Connection Type :	DHCP Client
Cable Status :	Connected
Network Status :	Connected
	Renew Release
Connection Up Time :	0 Day 0 Hour 0 Min 0 Sec
MAC Address :	ff:ff:ff:ff:ff:ff
IP Address :	192.168.0.1

To return to this Web UI Table of Contents page, simply click the D-Link logo on the top right of each page.

DIR-819	SETUP
INTERNET	**INTERNET CONNECTION**

Device Info

Click **Device Info** to see current information about the DIR-819. This pages displays LAN, WAN (Internet), and Wireless information.

GENERAL

The DIR-819's currently set time and firmware are displayed here.

WAN

The DIR-819's currently configured Internet connection settings are displayed here.

LAN

The DIR-819's currently configured local network settings are displayed here.

WIRELESS LAN

The DIR-819's currently configured 2.4 GHz wireless network settings are displayed here.

DIR-819	STATUS
DEVICE INFO	DEVICE INFORMATION

DEVICE INFORMATION

All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.

GENERAL

Time:	2016-09-19 13:00
Current Firmware Version :	V1.01

WAN

Connection Type :	DHCP Client
Cable Status :	Connected
Network Status :	Connected
	Renew Release
Connection Up Time :	0 Day 0 Hour 0 Min 0 Sec
MAC Address :	ff:ff:ff:ff:ff:ff
IP Address :	192.168.0.1
Subnet Mask :	255.255.255.0
Default Gateway :	192.168.0.1
Primary DNS Server :	192.168.0.1
Secondary DNS Server :	192.168.0.1

LAN

MAC Address :	ff:ff:ff:ff:ff:ff
IP Address :	192.168.0.1
Subnet Mask	255.255.255.0
DHCP Server :	Enabled

WIRELESS LAN

Wireless Radio :	Enabled
MAC Address :	ff:ff:ff:ff:ff:ff
802.11 Mode :	Mixed 802.11n, 802.11g and 802.11b
Channel Width :	20/40MHz
Channel :	1
Network Name (SSID) :	Your_2.4GHz_Network
Wi-Fi Protected Setup :	Enabled/Not configured
Security :	NONE
Guest Zone Wireless Radio :	Disabled
Guest Zone Network Name (SSID) :	
Guest Zone Security :	NONE

Device Info (continued)

WIRELESS LAN2

The DIR-819's currently configured 5 GHz wireless network settings are displayed here.

LAN COMPUTERS

The devices currently connected to the DIR-819's are displayed here.

IGMP MULTICAST MEMBERSHIPS

The DIR-819's current IGMP multicast information is displayed here.

WIRELESS LAN2	
Wireless Radio :	Enabled
MAC Address :	ff:ff:ff:ff:ff:ff
802.11 Mode :	Mixed 802.11ac, 802.11n and 802.11a
Channel Width :	20/40/80MHz
Channel :	161
Network Name (SSID) :	Your_5GHz_Network
Wi-Fi Protected Setup :	Enabled/Not configured
Security :	NONE
Guest Zone Wireless Radio :	Disabled
Guest Zone Network Name (SSID) :	
Guest Zone Security :	NONE

LAN COMPUTERS		
MAC Address	IP Address	Name(if any)
ff:ff:ff:ff:ff:ff		

IGMP MULTICAST MEMBERSHIPS
IPv4 Multicast Group Address
IPv6 Multicast Group Address

Logs

Click **Logs** on the navigation menu to view the system log. This device maintains a running log of events which can be sent to a syslog server. Refer to **Syslog** on page **105** for more information on configuring the system log.

SAVE LOG FILE

Click the **Save** button to save the log file to your local hard drive.

WAN

Log Type: To change the type of information to view and then click the **Save Settings** button.

Log Level: To change the levl of information to view and then click the **Save Settings** button.

LOG FILES

Click the navigation buttons to view the log file.

Statistics

Click **Statistics** on the navigation menu to view statistics on the amount of traffic which has passed through the DIR-819's interfaces. Click the **Refresh Statistics** button to view the latest numbers.

Internet Sessions

Click **Internet Sessions** on the navigation menu to view information about currently active Internet connections. This page helps to diagnose connectivity issues. Click the **Refresh** button to view the latest information.

Wireless

Click **Wireless** on the navigation menu to view information about currently connected wireless clients. You may view each client's MAC address, IP address, 802.11 mode, speed, and signal strength.

Routing

Click **Routing** to view the currently configured IPv4 routing table.

IPV6

Click **IPv6** to view the currently IPv6 information.

IPV6 CONNECTION INFORMATION

IPv6 Connection Type: The currently configured IPv6 connection type is listed here.

IPv6 Default Gateway: The current IPv6 default gateway is listed here.

LAN IPv6 Link-Local Address: The current IPv6 Link-Local address is listed here.

LAN IPV6 COMPUTERS

The currently connected IPv6 computers are listed in this table.

IPv6 Routing

Click **IPv6 Routing** to view the currently configured IPv6 routing table.

Support

D-Link

DIR-819 //	SETUP	ADVANCED	TOOLS	STATUS	SUPPORT

MENU
SETUP
ADVANCED
TOOLS
STATUS

IPV6 ROUTING

- Setup
- Advanced
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- Status

SETUP HELP

- Internet
- Wireless Settings
- Network Settings
- IPv6

ADVANCED HELP

- Virtual Server
- Port Forwarding
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- Inbound Filter
- Access Control
- Website filter
- Firewall Settings
- Routing
- Advanced Wireless
- Wi-Fi Protected Setup
- Advanced Network
- Guest Zone
- IPv6 Firewall
- IPv6 Routing

Connect a Wireless Client to Your Router

WPS Button

The easiest and most secure way to connect your wireless devices to the router is with 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-819 router. Please refer to your user manual for the wireless device you want to connect to make sure you understand how to enable WPS. Once you know, follow the steps below:

Step 1 - Press the WPS button on the DIR-819 for about 1 second. The wireless LED on the front will start to blink.
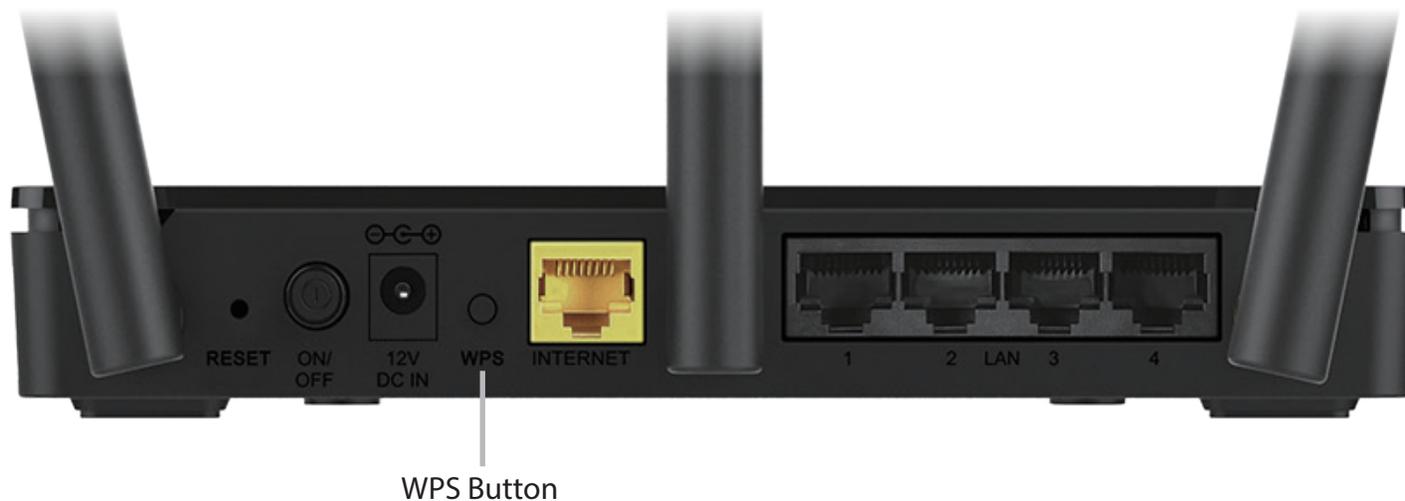
WPS Button

Step 2 - Within 2 minutes, press the WPS button on your wireless device (or launch the software utility and start the WPS process).

Step 3 - Allow up to 1 minute for your connection to be configured. Once the WPS LED stops blinking, you will be connected and your wireless connection will be secure with WPA2.

Windows® 10

When connecting to the DIR-819 wirelessly for the first time, you will need to input the wireless network name (SSID) and Wi-Fi password (security key) of the device you are connecting to. If your product has a Wi-Fi configuration card, you can find the default network name and Wi-Fi password here. Otherwise refer to the product label for the default Wi-Fi network SSID and password, or enter the Wi-Fi credentials set during the product configuration.

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

Wireless Icon

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

dlink-1654
Secured

dlink-2802-5GHz
Secured

dlink-2802
Secured

dlink-jjing
Secured

dlink_DWR-953_2.4G_F98B
Secured
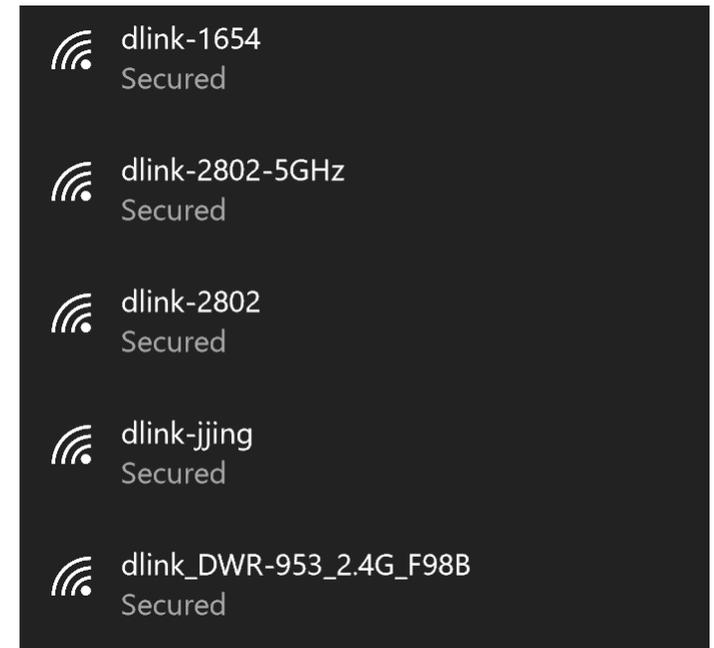
To connect to the SSID, click **Connect.**

To automatically connect with the router when your device next detects the SSID, click the **Connect Automatically** check box**.**
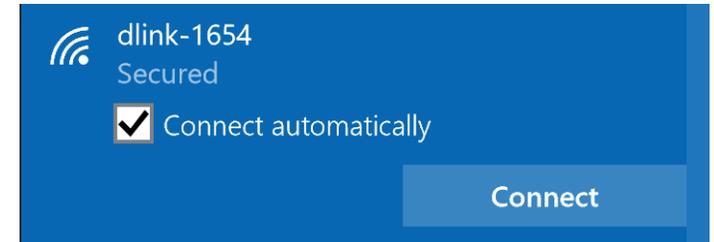
You will then be prompted to enter the Wi-Fi password (network security key) for the wireless network. Enter the password into the box and click **Next** to connect to the network. Your computer will now automatically connect to this wireless network when it is detected.

You can also use Wi-Fi Protected Setup (WPS) to connect to the router. Press the WPS button on your D-Link device and you will be automatically connected.
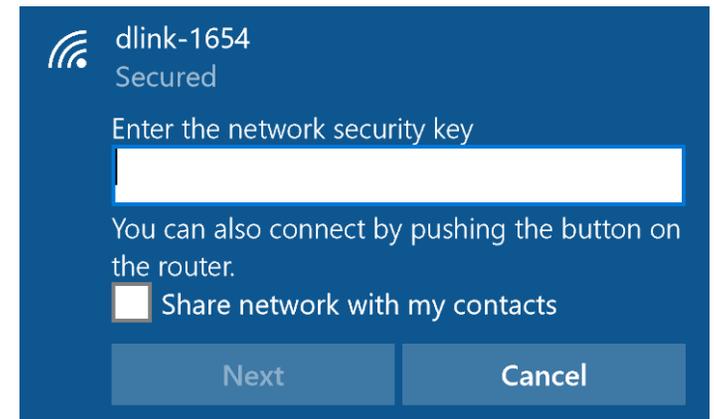
Windows® 8
WPA/WPA2

It is recommended that you 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.

Wireless Icon

Clicking on this icon will display a list of wireless networks that are within connecting proximity of your computer. Select the desired network by clicking on the network name.
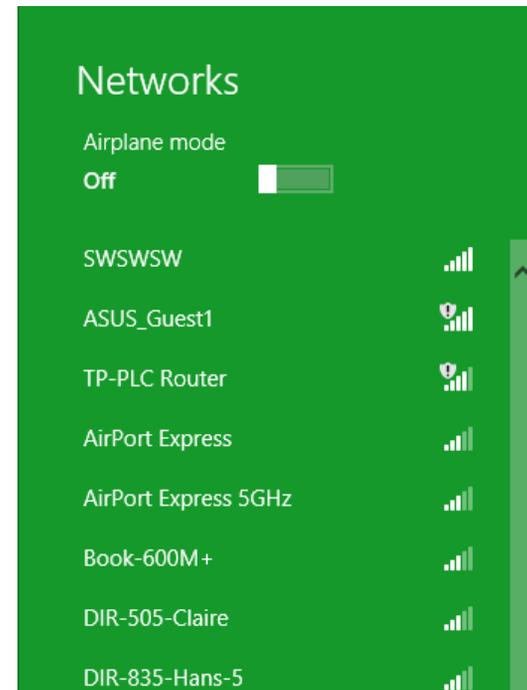
You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

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 during this step to enable the WPS function.
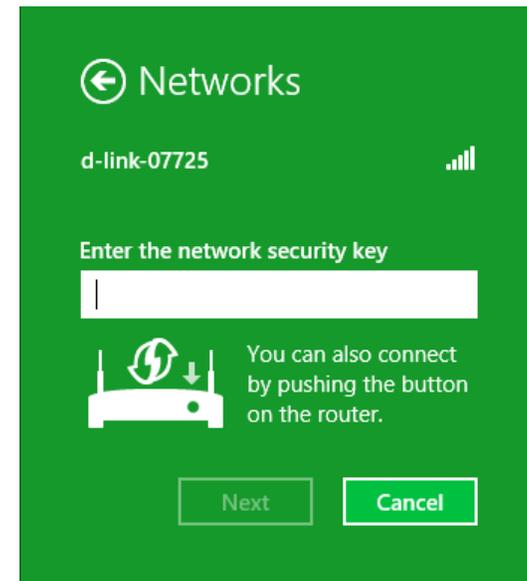
When you have established a successful connection to a wireless network, the word **Connected** will appear next to the name of the network to which you are connected to.
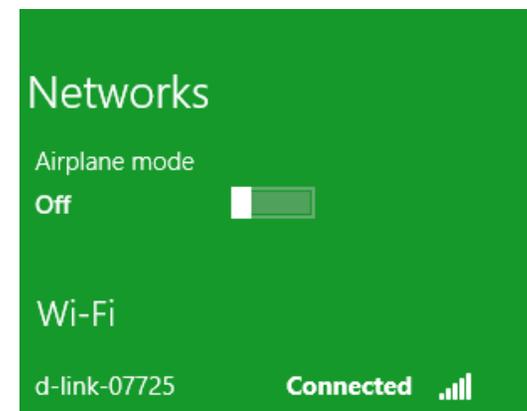
Windows® 7
WPA/WPA2

It is recommended that you 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).

Wireless Icon

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

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.
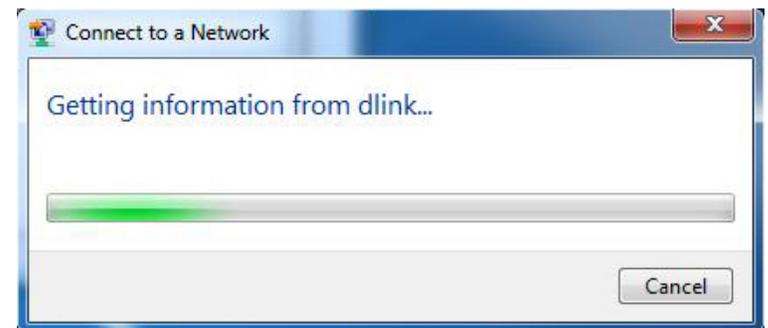
WPS

The WPS feature of the DIR-819 can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

1. Click the **Start** button and select **Computer** from the Start menu.
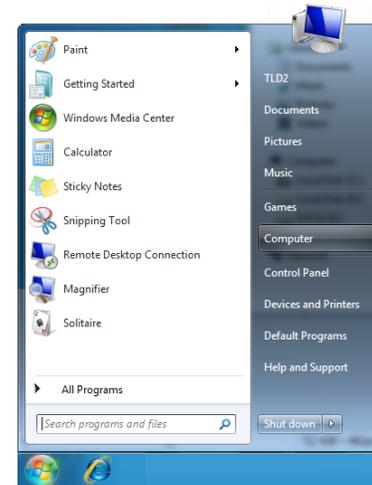
2. Click **Network** on the left side.
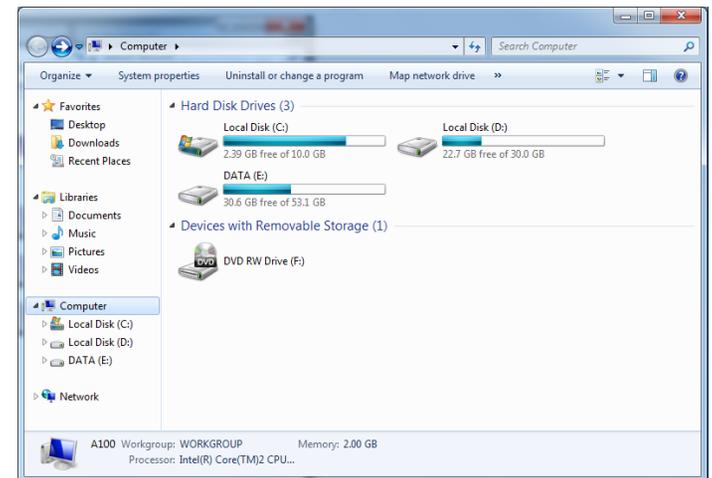
3. Double-click the DIR-819.
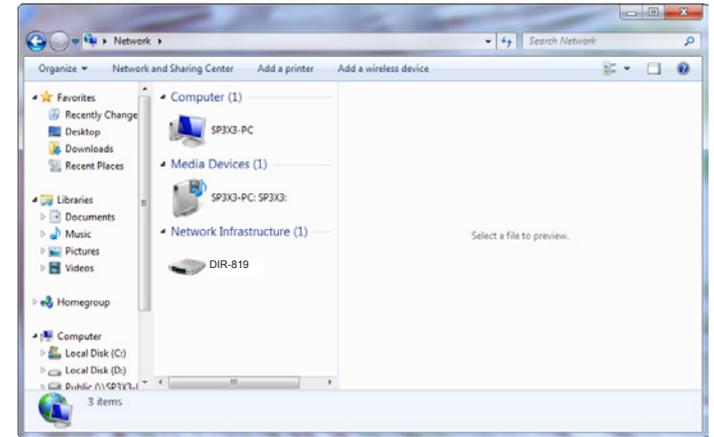
4. Input the WPS PIN number (on the router label) in the **Setup** > **Wireless Setup** menu in the Router's Web UI) and click **Next**.
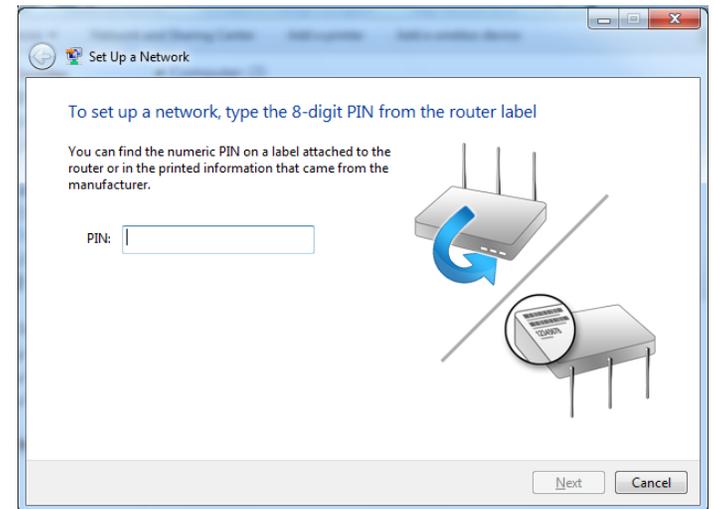
5. Type a name to identify the network.
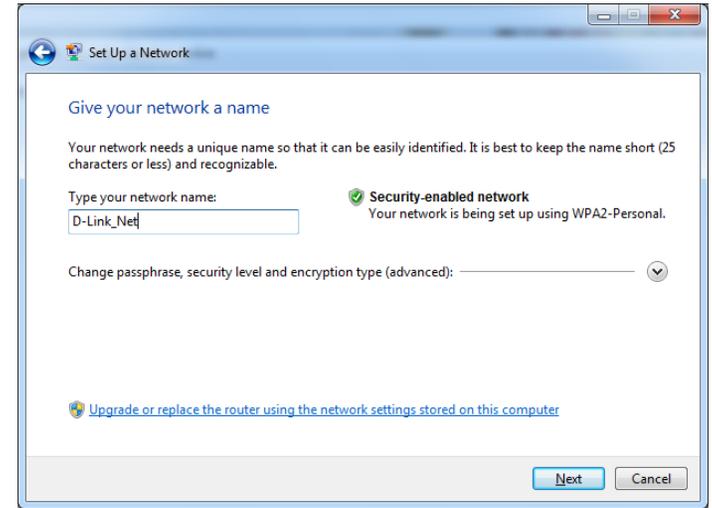
6. To configure advanced settings, click the ⊙ icon.

Click **Next** to continue.
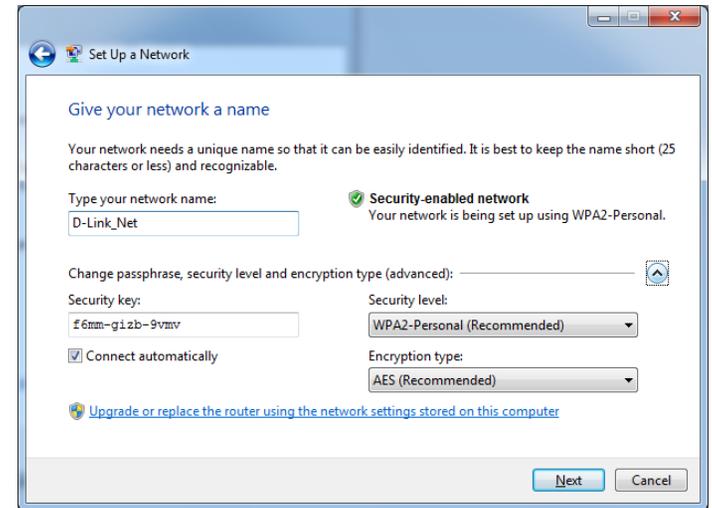
7. The following window appears while the DIR-819 is being configured.

Wait for the configuration to complete.
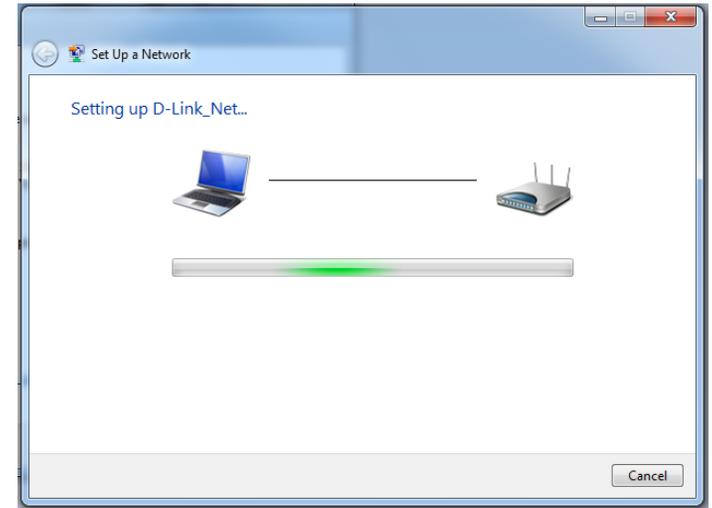
8. The following window informs you that WPS on the DIR-819 has been set up successfully.

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.
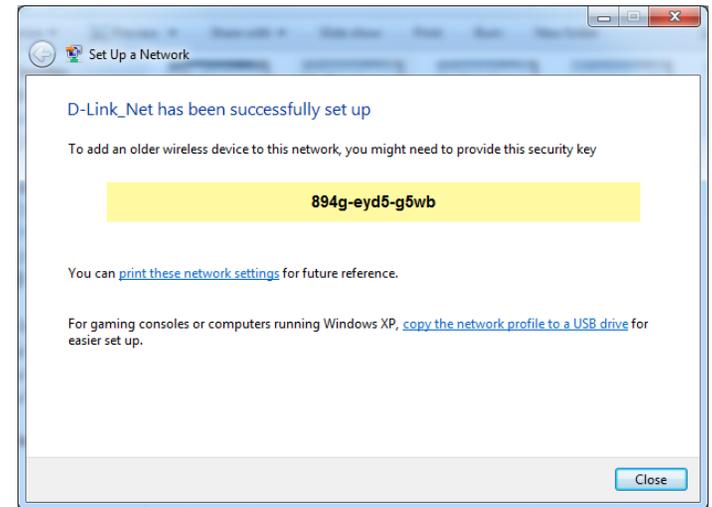
Windows Vista®

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

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

<div align="center">or</div>

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 your TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.
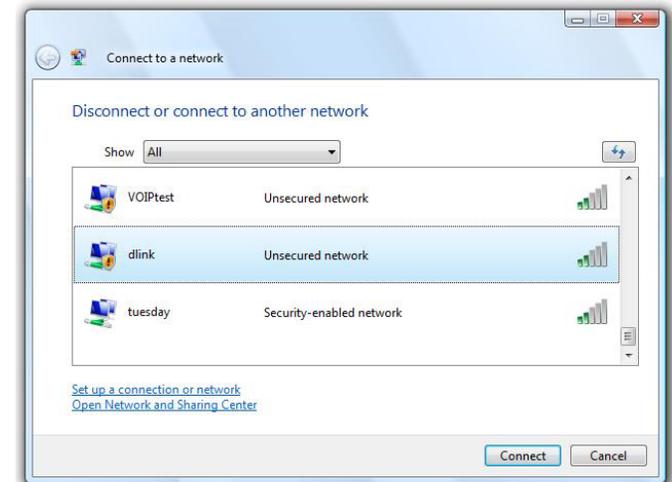
WPA/WPA2

It is recommended that you 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® 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**.
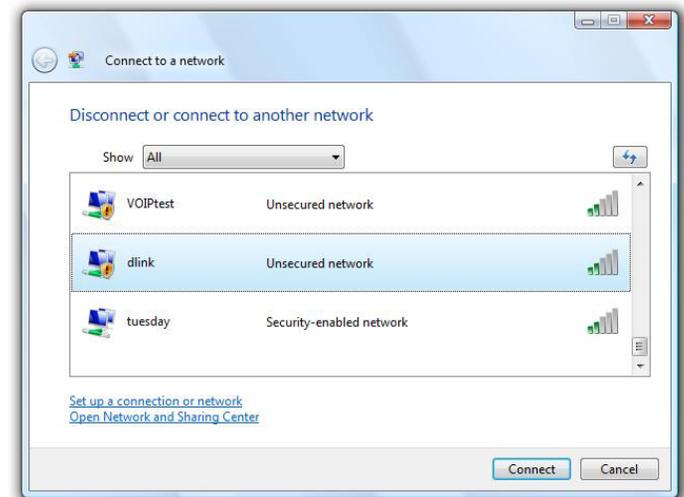
3. Enter the same security key or passphrase (Wi-Fi password) that is on your router and click **Connect**.

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 the one on the wireless router.
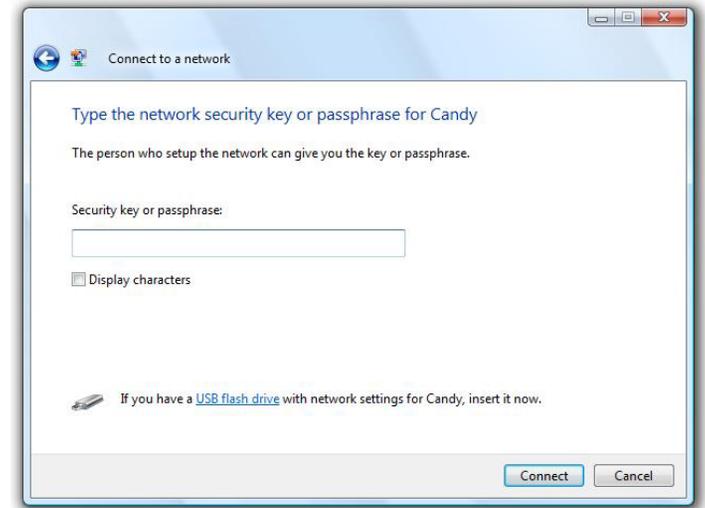
Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-819. Read the following descriptions if you are having problems. The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to these examples.

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

When entering the IP address of the D-Link router (**192.168.11.1** 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:

  • Internet Explorer 10 or higher
  • EDGE Browser 20 or higher
  • Firefox 28 or higher
  • Safari 6.0 or higher
  • Chrome 28 or 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 ZoneAlarm, BlackICE, Sygate, Norton Personal Firewall, and Windows® 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. 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 **192.168.11.1**. When logging in, 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® 95, 98, and Me users type in **command** (Windows® NT, 2000, XP, Vista®, and 7 users type in **cmd**) and press **Enter** (or click **OK**).

- Once the window opens, you'll need to do a special ping. Use the following syntax:

ping [url] [-f] [-l] [MTU value]

```
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 = 0ms, Maximum =  0ms, Average =  0ms

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:
    Minimum = 93ms, Maximum =  203ms, Average =  132ms

C:\>
```

Example: **ping yahoo.com -f -l 1472**

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 (192.168.11.1) 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 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 similarly to how cordless phones work, through radio signals that 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 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, university 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. This 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 Uses/Benefits
- 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 Uses/Benefits
- 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 USB adapter with your laptop, you can access the hotspot to connect to the 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 your 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 the 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 wireless network USB 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 USB 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® 7/Vista® 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.
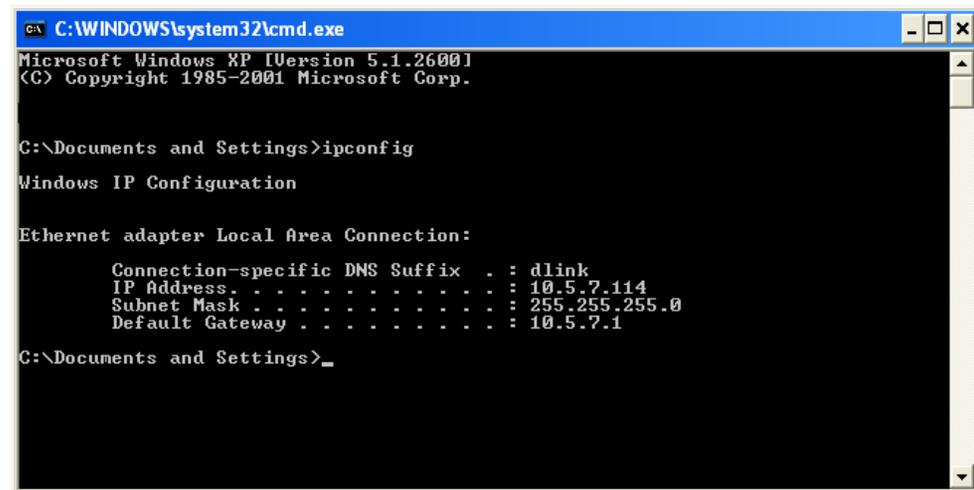
```
C:\WINDOWS\system32\cmd.exe

Microsoft Windows XP [Version 5.1.2600]
<C> Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix  . : dlink
        IP Address. . . . . . . . . . . . : 10.5.7.114
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

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® 7 - Click on **Start** > **Control Panel** > **Network and Internet** > **Network and Sharing Center**.

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

Windows® XP - Click on **Start** > **Control Panel** > **Network Connections**.

Windows® 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 192.168.11.1, 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. 192.168.11.1).

Set Primary DNS the same as the LAN IP address of your router (192.168.11.1). 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.
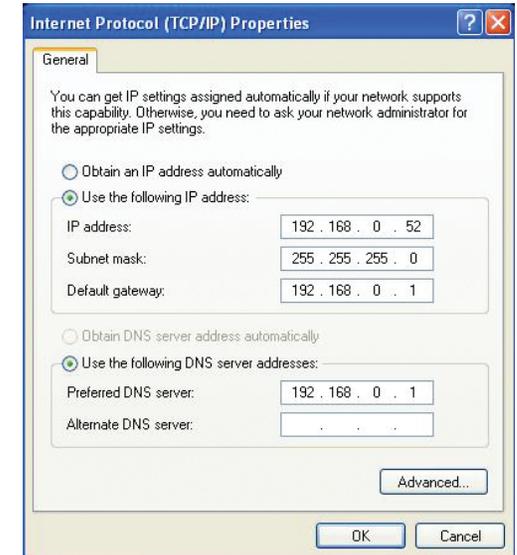
Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-819 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.

Technical Specifications

Device Interfaces
- 802.11 ac/n/g/a/b wireless LAN
- Four 10/100 Fast Ethernet LAN ports
- One 10/100 Fast Ethernet WAN port

Antenna Types
- Three external antennas

Standards
- IEEE 802.11ac[1,2,3]
- IEEE 802.11n
- IEEE 802.11g
- IEEE 802.11b
- IEEE 802.11a
- IEEE 802.3
- IEEE 802.3u

Security
- WPA™ - Personal/Enterprise
- WPA2™ - Personal/Enterprise
- Wi-Fi Protected Setup (WPS) PIN/PBC

Power
- Input: 100 to 240 V AC, 50/60 Hz
- Output: 12 V DC, 0.5 A

Operating Temperature
- 0 to 40 °C (32 to 104 °F)

Storage Temperature
- -20 to 65 °C (-4 to 149 °F)

Operating Humidity
- 10% to 95% maximum (non-condensing)

Storage Humidity
- 5% to 95% maximum (non-condensing)

Certifications
- FCC
- ISED
- UL
- Wi-Fi Certified
- Wi-Fi Protected Setup (WPS)

Dimensions & Weight
- L = 192 mm (7.56 inches)
- W = 108 mm (4.25 inches)
- H = 30 mm (1.8 inches)
- 240 g (8.5 ounces)

1 Maximum wireless signal rate derived from IEEE Standard 802.11a, 802.11g, 802.11n, and 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 factors will adversely affect wireless signal range.

2 Frequency Range varies depending on country's regulation.

3 The DIR-819 does not include 5.47-5.725 GHz in some regions.

Regulatory Information

Federal Communication Commission Interference Statement

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

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

Non-modifications Statement:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Caution:

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 device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Note

The country code selection is for non-USA models only and is not available to all USA models. Per FCC regulations, all WiFi product marketed in the USA must be fixed to USA operational channels only.

RF Frequency Requirements

This device is for indoor use only when using all channels in the 5.125 to 5.250 GHz frequency range. High power radars are allocated as primary users of the 5.725 to 5.850 GHz bands. These radar stations can cause interference with and/or damage this device.

It is restricted to indoor environments only.

IMPORTANT NOTICE:

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

Innovation, Science and Economic Development Canada (ISED) Statement:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Innovation, Science and Economic Development Canada (ISED) Statement:

This device complies with ISED licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

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

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

(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;

(i) les dispositifs fonctionnant dans la bande 5150-5250 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;

(iii) for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate;

(iii) pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5725 à 5850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;

Radiation Exposure Statement

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED 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.