



# User Manual

## Wireless N 150 Home Router

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# 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	25 July, 2016	DIR-608 Revision A1

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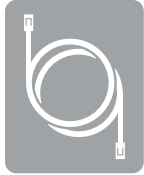
# Package Contents



DIR-608 Wireless N 150 Home Router



Power Adapter



Ethernet Cable



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-608 will cause damage and void the warranty for this product.*

# System Requirements

<b>Network Requirements</b>	<ul style="list-style-type: none"><li>• An Ethernet-based Cable or DSL modem</li><li>• IEEE 802.11n, 802.11g or 802.11b wireless clients</li><li>• 10/100 Ethernet</li></ul>
<b>Web-based Configuration Utility Requirements</b>	<p><b>Computer with the following:</b></p> <ul style="list-style-type: none"><li>• Windows®, Macintosh, or Linux-based operating system</li><li>• An installed Ethernet adapter</li></ul> <p><b>Browser Requirements:</b></p> <ul style="list-style-type: none"><li>• Internet Explorer 10 or higher</li><li>• Firefox 28 or higher</li><li>• Safari 6.0 or higher</li><li>• Chrome 28 or higher</li></ul> <p><b>Windows® Users:</b> Make sure you have the latest version of Java installed. Visit <a href="http://www.java.com">www.java.com</a> to download the latest version.</p>

# Introduction

The DIR-608 Wireless N 150 Home Router is an attractive, high-performance router that makes it easy to share your broadband Internet connection with all your devices. Simply connect it to your broadband modem, then use the web-based setup wizard to guide you step-by-step through the configuration process. Whether you're surfing the web on your desktop or relaxing on the couch with your laptop, the DIR-608 keeps you connected wherever you are in your home.

The DIR-608 creates a high-speed home network with wireless speeds of up to 150 Mbps<sup>1</sup> for fast file transfers, seamless web surfing, and smooth online gaming. The external antenna increases your wireless coverage so you can avoid dead spots and get a reliable connection in more places throughout your home. The DIR-608 also has a repeater mode, which allows you to extend the range of your existing wireless network, letting you reach the farthest corners of your home or small office.

The DIR-608 has a host of security features, meaning you can access the Internet without fear of your network being compromised. Wi-Fi Protected Access (WPA) / Wi-Fi Protected Access II (WPA2) encryption secures wireless traffic across your network, preventing unauthorized access and eavesdropping. Meanwhile, the NAT firewall protects your network from attacks and intrusions via the Internet. No matter whether you are shopping online, doing your banking, or accessing your personal information, the DIR-608 keeps your data and your network safe.

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

# Features

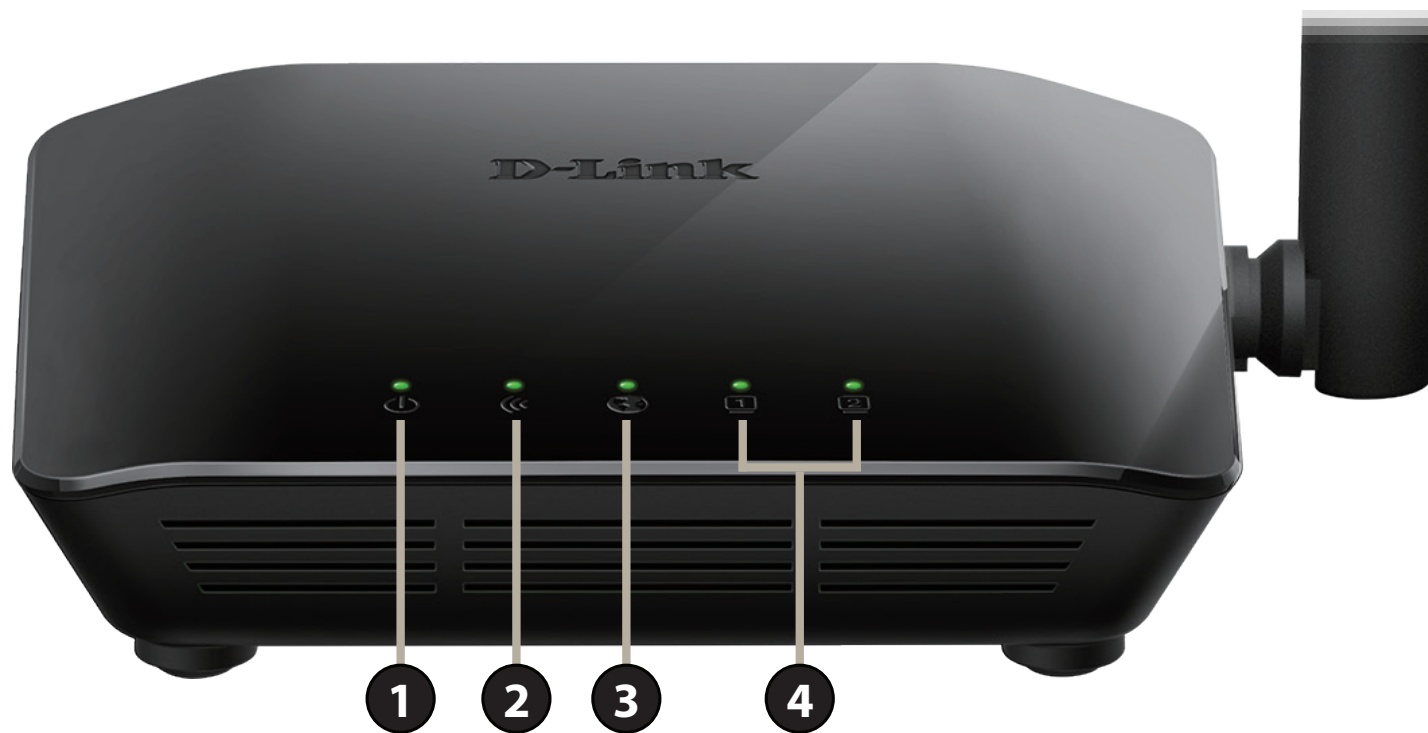
- **Faster Wireless Networking** - The DIR-608 provides wireless connection of up to 150 Mbps\* for other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video and audio streaming or online gaming.
- **Compatible with 802.11b and 802.11g Devices** - The DIR-608 is fully compatible with the IEEE 802.11b and IEEE 802.11g standards, so it can connect with existing 802.11b and IEEE 802.11g adapters.
- **Advanced Firewall Features** - The web-based user interface displays a number of advanced network management features including:
  - **Content Filtering** - Easily applied content filtering based on URL.
  - **Secure Multiple/Concurrent Sessions** - The DIR-608 can pass through VPN sessions. It supports multiple and concurrent Point to Point Tunneling Protocol (PPTP) sessions, so users behind the DIR-608 can securely access corporate networks.
- **User-friendly Setup Wizard** - Through its easy-to-use web-based user interface, the DIR-608 lets you control what information is accessible to those on the wireless network, whether from the Internet or from your company's server. Configure your router to your specific settings within minutes.
- **IPv6 Ready** - Fully compliant with IPv6. The DIR-608 supports a variety of IPv6 connection standards preparing you for the day when your ISP implements IPv6.





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



# Hardware Overview

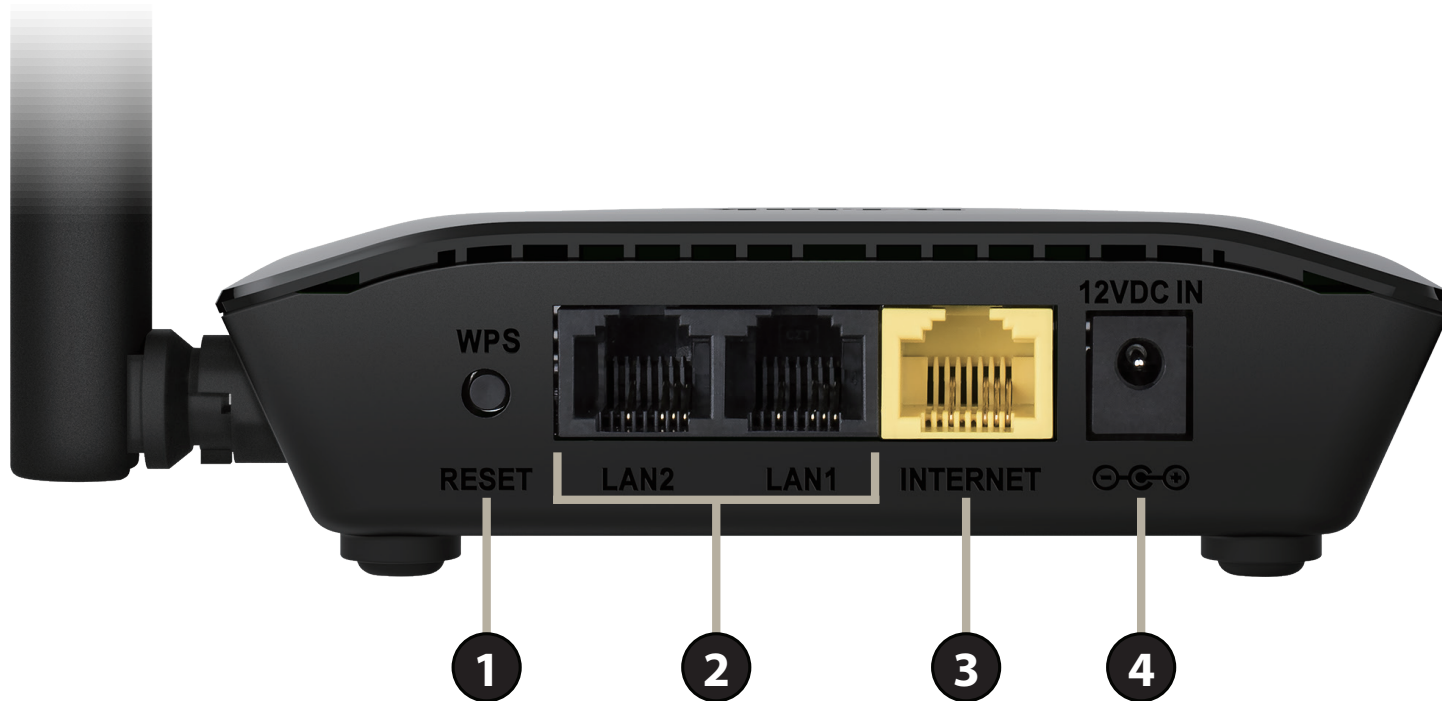
## LEDs



1		<b>Power LED</b>	The Power LED indicates that the device is powered on with a proper connection to the power supply.
2		<b>Wireless LED</b>	The Wireless LED indicates that the wireless is operating. It blinks during wireless data transmission.
			The Wireless LED blinks during the WPS pairing process.
3		<b>Internet LED</b>	The Internet LED indicates that an Internet link is established. It blinks during data transmission.
4		<b>LAN Port LEDs (1-2)</b>	The LAN Port LEDs indicate an Ethernet device is connected. They blink during data transmission.

# Hardware Overview

## Back Panel



1	<b>Reset &amp; WPS Button</b>	<b>WPS</b>	Press and hold for about one second to start the WPS process to automatically connect a WPS client.
		<b>Reset</b>	To reset the device to its factory default settings, press and hold the reset button for five seconds.
2	<b>LAN Ports (1-2)</b>		Connects to Ethernet devices such as computers, switches, storage (NAS) devices, and game consoles.
3	<b>Internet Port</b>		Using an Ethernet cable, connect your broadband modem to this port.
4	<b>Power Connector</b>		Connector for the supplied power adapter.

# Choosing an Operation Mode

The DIR-608 features two modes of operation, giving you more flexibility in how to configure your network. You may select either **Router Mode** or **Repeater Mode**.

- **Router Mode** shares your Internet connection. This is the factory default setting suitable for most users.
- **Repeater Mode** extends your existing wireless network.

The following pages contain information about the DIR-608's operation modes to help you determine how you wish to use it before you begin the installation process. This information includes usage scenarios, cable diagrams, and network configuration information.

# Router Mode

In **Router Mode**, the DIR-608 Wireless N 150 Home Router operates as the central device of your network. This is the most common type of installation and is the factory default setting suitable for most users. The DIR-608 connects to your cable modem, DSL modem, or other Internet source and shares your Internet connection with your wired and wireless devices.

## Create a Home Network (Router Mode)



Use this mode for:

- Setting up a network for the first time.
- Replacing an existing router or network equipment.
- Adding a router to share a broadband connection which was previously connected to a single computer.

Place your DIR-608 near your broadband Internet connection device (e.g. DSL/Cable Modem) and connect to it via Ethernet cable.

To use your DIR-608 as a **Router**, refer to **Hardware Setup - Router** on page **13**.

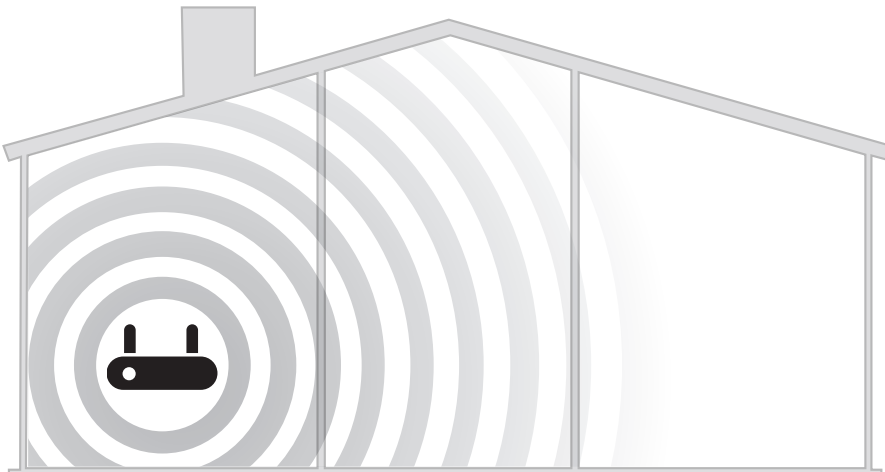
# Wireless Repeater Mode

## What is a Wireless Repeater?

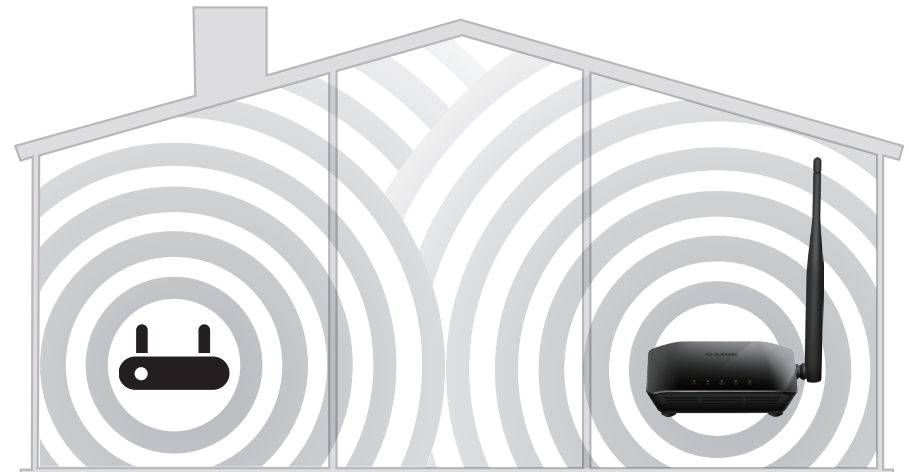
In **Repeater Mode**, the DIR-608 works with your existing networking equipment to provide Wi-Fi for parts of your home or office that may have poor or no reception. It works as a wireless repeater by connecting to your existing wireless network and rebroadcasting its signals for your devices to connect to. Using the DIR-608 as a wireless repeater will reduce the total amount of wireless bandwidth available.

Place the DIR-608 in an area where you wish to get Wi-Fi, but is reachable by your existing wireless signal.

Existing Wi-Fi Range

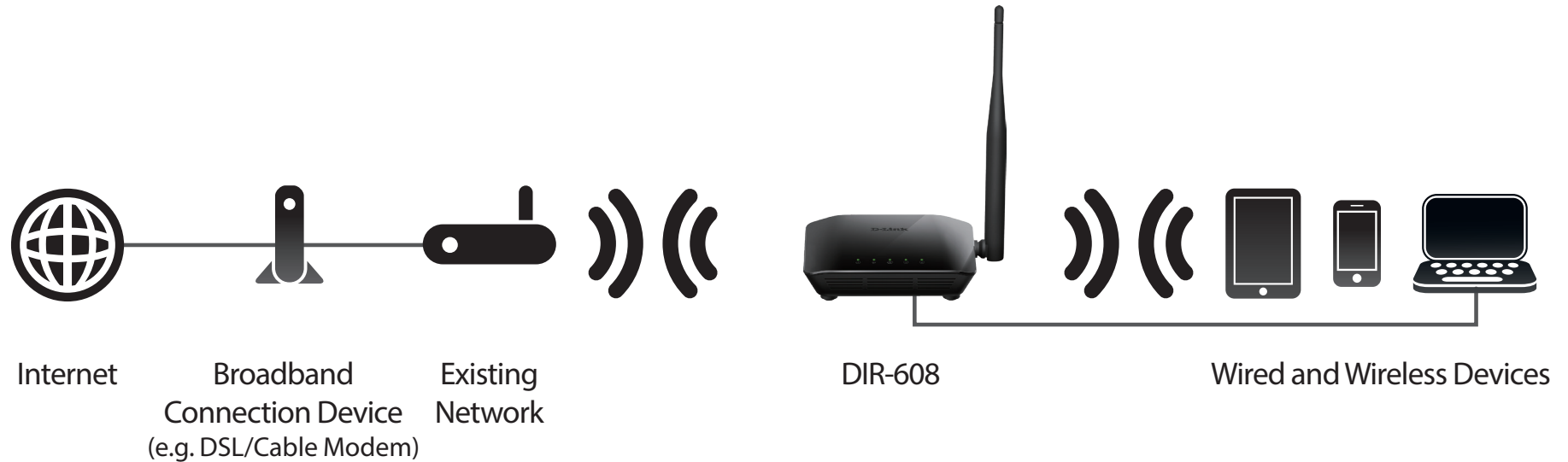


Wi-Fi Range with DIR-608



# Wireless Repeater

The DIR-608 operates as a **Wireless Repeater** when it is connected wirelessly to an uplink network.



Use this mode for:

- Extending your current network.
- Bringing Wi-Fi to an area it doesn't currently reach.
- Providing better signal for parts of your home or office that may have poor reception.
- Connecting wired Ethernet devices which do not have a built-in wireless, such as smart TVs, game consoles, or DVRs.
- Networking areas where cables are impractical.

**Note:** Extending by Wi-Fi reduces the total available amount of wireless bandwidth available.

Use the DIR-608's Wireless Extender Mode's built-in web UI Setup Wizard to connect to an uplink network.

To use your DIR-608 as a **Wireless Repeater**, refer to **Hardware Setup - Wireless Repeater** on page **15**.

# Installation

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

## Before You Begin

- 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 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 Internet Service Provider (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 ISP 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.
- If you are using this device as a wireless repeater, you may need to use trial and error to determine an acceptable placement location.

# Wireless Installation Considerations

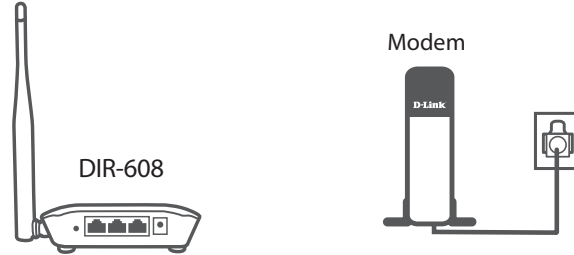
The D-Link wireless router lets you access your network using a wireless connection from virtually anywhere within the operating range of your wireless network. Keep in mind, however, that the number, thickness and location of walls, ceilings, or other objects that the wireless signals must pass through,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

1. Keep the number of walls and ceilings between the D-Link router and other network devices to a minimum - each wall or ceiling can reduce your adapter's range from 3 to 90 feet (1 to 30 meters). Position your devices so that the number of walls or ceilings is minimized.
2. Be aware of the direct line between network devices. A wall that is 1.5 feet (0.5 meters) thick, at a 45-degree angle appears to be almost 3 feet (1 meter) thick. At a 2-degree angle it looks over 42 feet (14 meters) thick! Position devices so that the signal will travel straight through a wall or ceiling (instead of at an angle) for better reception.
3. Building materials make a difference. A solid metal door or aluminum studs may have a negative effect on range. Try to position access points, wireless routers, and computers so that the signal passes through drywall or open doorways. Materials and objects such as glass, steel, metal, walls with insulation, water (fish tanks), mirrors, file cabinets, brick, and concrete will degrade your wireless signal.
4. Keep your product away (at least 3 to 6 feet or 1 to 2 meters) 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.
6. Using the device as a wireless repeater will reduce the total amount of wireless bandwidth available.



# Hardware Setup - Router

1. Position your DIR-608 near your Internet-connected modem and PC. Keep the router in an open area for better wireless coverage.



2. 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.



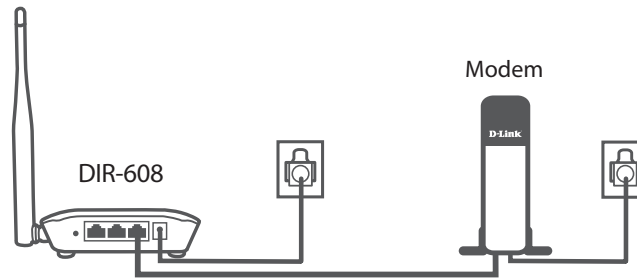
3. Use the included Ethernet cable to connect your modem to the yellow port labeled **INTERNET** on the router.



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

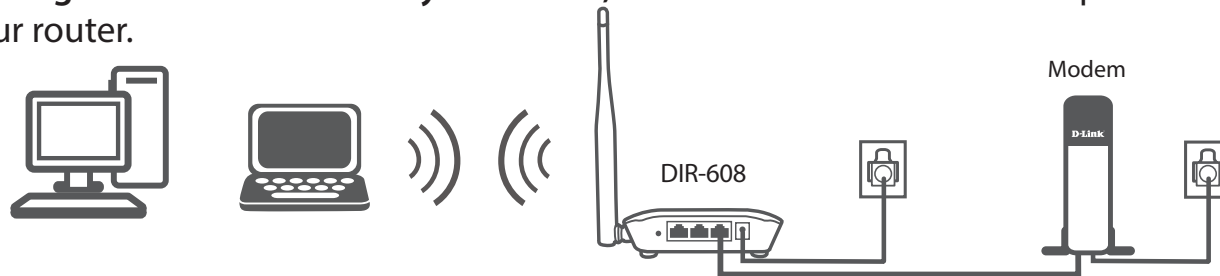


5. Connect the supplied power adapter to the router and a power outlet, verify the power LED is on and wait approximately one minute before proceeding.



6. If you are configuring the DIR-608 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.

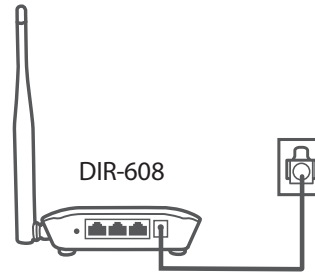
If you are configuring the DIR-608 wirelessly from a PC, connect to the Wi-Fi network printed on the label attached to the bottom your router.



7. If you are connecting to a broadband service that uses a dynamic connection (not PPPoE), you may be online already. Try opening a web browser and connecting to a website. If the website does not load, proceed to **Getting Started** on page **16**.

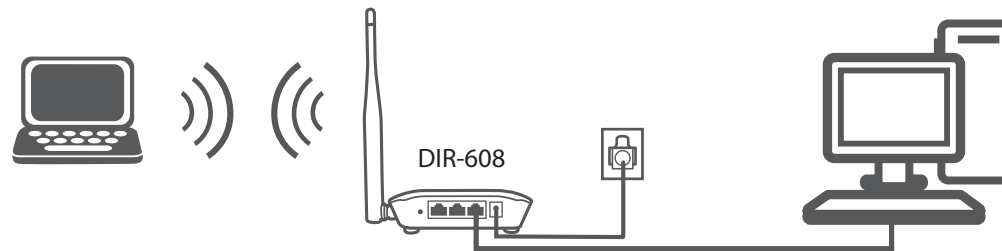
# Hardware Setup - Wireless Repeater

1. Position your DIR-608 near where you wish to extend Wi-Fi to. Place it in an open area for better wireless coverage, but is still within range of your existing wireless network. We recommend using a smartphone or tablet to help gauge wireless strength. Connect the supplied power adapter to the DIR-608 and a power outlet.



2. **If you are configuring the DIR-608 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.

**If you are configuring the DIR-608 wirelessly from a PC**, connect to the Wi-Fi network printed on the label attached to the bottom your router.



3. Proceed to **Getting Started** on page 16 and then follow the instructions **Wireless Repeater Setup** on page 58 to complete the installation of your DIR-608 as a wireless repeater.

# Getting Started

To access the configuration utility, open a web browser such as Internet Explorer and enter **http://192.168.11.1** in the address field. The first time you log in, you will be shown this page.

Configure your **WAN** and **Wireless** network. Click the **Save and Connect** button when you are finished.

The screenshot shows a web browser window with the address bar set to `http://192.168.11.1`. The page title is "Product Page: DIR-608". The D-Link logo is visible in the top left, and a "Select Language" dropdown menu is set to "English".

The main content area is titled "Network Map" and displays a diagram of the network topology:

- Client:** Represented by a laptop icon. Below it, the text "LAN IP 192.168.11.1" is shown. A green checkmark is positioned above a horizontal line connecting the Client to the Router.
- Router:** Represented by a router icon. Below it, the text "Internet IP 0.0.0.0" is shown. A red 'X' is positioned above a horizontal line connecting the Router to the Internet.
- Internet:** Represented by a globe icon. Below it, the text "DHCP" is shown.

Below the Network Map, there are two configuration sections:

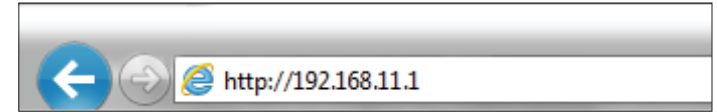
- WAN Setup:** A dropdown menu for "Connect type:" is set to "DHCP".
- Wireless Setup:** The "SSID:" field contains "D-Link\_DIR-608". The "Key:" field is empty, with a note "(8-63 characters or 64 hex digits)" to its right.

At the bottom of the page, there is a "Save and Connect" button and a link for "Advanced Network Settings".

**Note:** It is recommended to write down the SSID and security key.

# Configuration

This section will show you how to configure or change the default settings your D-Link DIR-608 using the web-based configuration utility.



To access the configuration utility, open a web browser such as Internet Explorer and enter **http://192.168.11.1** in the address field. Enter **Admin** as the username and leave the password blank. Click **Login**.

**Login**

Username:

Password:

After logging in you should see the following **Device Info** section of the web-based interface. Proceed to the next page.


Product Page: DIR-608

Select Language English ▼

DIR-608	Setup	Wireless	Advanced	Maintenance	Status	Help					
Device Info	<b>Wireless Router Status</b>										
Active Client Table	This page shows the current status and some basic settings of the device.										
IPV6	<b>System</b>										
IPV6 Routing Table	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;"><b>Product Name</b></td> <td><b>DIR-608</b></td> </tr> <tr> <td style="text-align: right;"><b>Uptime</b></td> <td><b>1 06:35:16</b></td> </tr> <tr> <td style="text-align: right;"><b>Date/Time</b></td> <td><b>Tue Jul 5 16:09 2016</b></td> </tr> </table>						<b>Product Name</b>	<b>DIR-608</b>	<b>Uptime</b>	<b>1 06:35:16</b>	<b>Date/Time</b>
<b>Product Name</b>	<b>DIR-608</b>										
<b>Uptime</b>	<b>1 06:35:16</b>										
<b>Date/Time</b>	<b>Tue Jul 5 16:09 2016</b>										
	<b>LAN Configuration</b>										
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: right;"><b>IP Address</b></td> <td><b>192.168.11.1</b></td> </tr> </table>					<b>IP Address</b>	<b>192.168.11.1</b>				
<b>IP Address</b>	<b>192.168.11.1</b>										

# Web UI Table of Contents

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

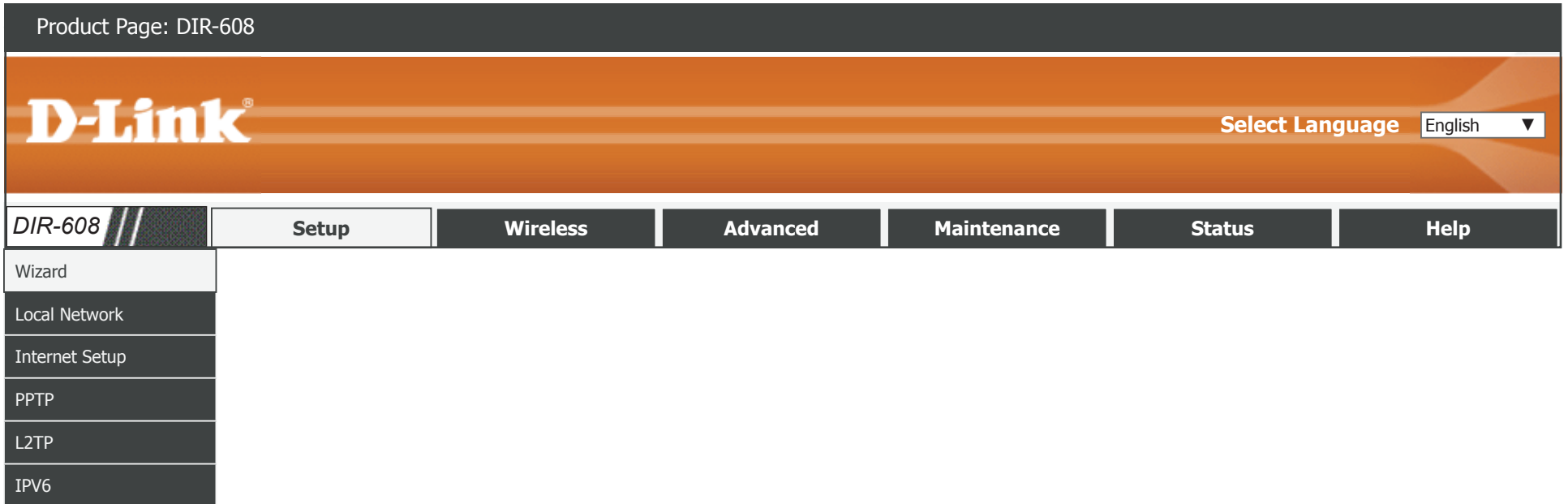
Product Page: DIR-608						
 <span style="float: right;">Select Language <span>English ▼</span></span>						
DIR-608	Setup	Wireless	Advanced	Maintenance	Status	Help
	Wizard	Wireless Basics	Access Control List	Reboot	Device Info	Menu
	Local Network	WPS	Port Triggering	Firmware Upgrade	Active Client Table	Wireless
	Internet Setup	Advanced Wireless	DMZ	Backup/Restore	IPV6	Advanced
	PPTP	Wireless Repeater	URL Block	Admin	IPV6 Routing Table	Maintenance
	L2TP		Dynamic DNS	Time and Date		Status
	IPV6		Traffic Control			
			UPnP			
			Telnet			
			Virtual Server			
			IPv6 Filter			
			IPv6 Routing			

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-608.



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



# Wizard

Click **Wizard** on the navigation menu to set up or repair your Internet connection.

Click **Next** to begin the Easy Setup Wizard.

## Easy Setup

This section allows you to configure the IP address of the router.

**Next:** Starts the Easy Setup Wizard.

**Internet Setup:** Redirects you to the **Internet Setup** page. Refer to **Internet Setup** on page **27** for more information.

## Easy Setup - WAN Connection Type

Select the connection type your ISP uses: **PPPoE**, **Dynamic IP**, or **Static IP**.

**Next:** Proceed to the next step.

**Back:** Go back to the last step.



## Easy Setup

The easy setup will tell you how to configure the basic network parameters. To continue, please click the "Next" button.

Manual

Next

## Easy Setup - WAN Connection Type

The Easy Setup supports three popular types of connection. To make sure the connection type your ISP provides, please refer to the ISP.

- PPPoE - Usually for ADSL Modem and you will need a PPPoE username and password from your ISP.
- Dynamic IP - Usually for Cable Modem and the router will automatically obtain an IP address from the DHCP server.
- Static IP - This type of connection uses a permanent, fixed (static) IP address that your ISP assigned.

Back

Next



## Wizard (continued)

If you choose **PPPoE**, please configure the following fields and click **Next**.

### Easy Setup - PPPoE

Enter the account username and password provided by your ISP.

**User Name:** Enter your username.

**Password:** Enter your password.

**Confirm Password:** Enter your password again.

**Account Validate:** Test that your PPPoE username and password are correct.

**Next:** Proceed to the next step.

**Back:** Go back to the last step.

### Easy Setup - PPPoE

Enter the account username and password provided by your ISP.

User Name:

Password:

Confirm Password:

Account Validate

Back

Next

If you choose **Static IP**, please configure the following fields and click **Next**.

### Easy Setup - Static IP

Enter the account username and password provided by your ISP.

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

**Subnet Mask:** Enter the subnet mask.

**Default Gateway:** Enter the default gateway.

**Primary DNS:** Enter the primary DNS address.

**Secondary DNS:** Enter the secondary DNS address.

### Easy Setup - Static IP

Enter the IP parameters provided by your ISP.

IP Address:

Subnet Mask:

Default Gateway:

Primary DNS:

Secondary DNS:

(Optional)

Back

Next

## Wizard (continued)

Configure the Wireless settings and click **Next**.

### Wireless Network

**Disable the wireless radio.** Enable SSID broadcast if you want the router to transmit its SSID publicly so other wireless devices can discover it. **Note:** Disabling SSID broadcast is not a form of security alone.

**Name (SSID):** Enter the SSID name of the router.

**Channel:** Use the dropdown menu to select the wireless channel. **Auto** is the default recommended setting.

**Mode:** Use the dropdown menu to specify the wireless mode.

**Channel Width:** Use the dropdown menu to select the channel bandwidth. If you selected the 802.11n, 802.11 b/g, or 802.11 b/g/n wireless modes, the available options are 20 MHz and 20/40 MHz. For the other modes, 20 MHz is the only option.

**Disable Security:** 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.

**WPA-PSK/WPA-PSK AES:** Using WPA-PSK encryption is highly recommended to protect your wireless network traffic.

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

**Next:** Proceed to the next step.

**Back:** Go back to the last step.

### Easy Setup - Wireless

You can configure the wireless parameters and security settings of router on this step.

Disable the wireless radio.

SSID:

Channel:

Mode:

Channel Width:

Wireless Security

**It is recommended strongly that you choose one of following options to enable security, and select WPA-PSK/WPA2-PSK AES encryption.**

Disable Security

WPA-PSK/WPA-PSK AES

Key:  (8-63 characters or 64 hex digits)

## Wizard (continued)

### Easy Setup

Click the **Finish** button to finish the Easy Setup Wizard. When the router has finished saving, the Status > Device Info window will open.

### Easy Setup

Click the 'Finish' button to finish the Easy Setup.

Tips: Please click "Setup" on the Menu, and then click "Internet Setup" for detail settings if the router still can not access the Internet.

Back

Finish

# Local Network

Click **Local Network** on the navigation menu to change the local network settings of the router, configure the DHCP settings, add a new DHCP reservations, and view the currently assigned DHCP reservations. When you have finished configuring the **Local Network**, click the **Apply Changes** button.

## LAN Interface Setup

This section allows you to configure the IP address of the router.

**IP Address:** Enter the IP address of the router. The default IP address is 192.168.11.1. If you change the IP address, once you click **Apply Changes**, you will need to enter the new IP address in your browser to get back into the configuration utility.

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



## LAN Interface Setup

**IP Address:**

**Subnet Mask:**

## Local Network (continued)

### DHCP Server Settings

This section allows you to configure the local network and DHCP settings of your device. The DHCP service supplies IP settings to clients configured to automatically obtain IP settings that are connected to the device through the Ethernet port.

**DHCP Mode:** Choose the DHCP Server option in the pulldown menu to enable the DHCP server on your router. Choose **None** to disable this function.

**IP Pool 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.*

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

**Domain Name:** Enter the domain name.

**DNS Server 1:** Enter the IP address of the first DNS Server.

**DNS Server 2:** Enter the IP address of the second DNS Server, if there is one.

**DNS Server 3:** Enter the IP address of the second DNS Server, if there is one.

### DHCP Server Settings

**DHCP Mode:** DHCP Server ▼

**IP Pool Range:** 192.168.11.2 - 192.168.11.254

**Max Lease Time:** 120 minutes

**Domain Name:** domain.name

**DNS Server 1:** 192.168.11.1

**DNS Server 2:**

**DNS Server 3:**

Apply Changes

Undo

## Local Network (continued)

### DHCP Static IP Configuration

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

**IP Address:** Enter the IP address you want to assign to the computer or device. This IP Address must be outside the DHCP IP Address Range.

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

When you have finished configuring the new DHCP Reservation, click the **Add** button to activate your reservation. It will then be displayed in the DHCP Static IP Table below.

### DHCP Static IP Table

The DHCP Static IP Table displays the IP reservations that have been created. To make any changes, select a reservation in the table by clicking the circle next to it and click **Update**. To delete a reservation, select a reservation and click **Delete Selected**.

### DHCP Static IP Configuration

**IP Address:**

**Mac address:**

Delete Selected

Add

Update

Reset

### DHCP Static IP Configuration

Select	IP Address	MAC Address
<input checked="" type="radio"/>	192.168.11.14	00:00:40:30:05:70

When you have finished configuring the **Local Network**, click the **Apply Changes** button.

# Internet Setup

Click **Internet Setup** on the navigation 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.

## WAN Interface

**WAN Access Type:** Select the Internet Connection protocol from the dropdown menu your ISP uses. The options are **DHCP**, **Static IP**, **PPPoE**, and **DS-Lite**.

If you choose **DHCP Client**, please configure the following fields:

**Host Name:** Enter the host name of the router.

**MTU Size:** Enter the MTU size.

**Attain DNS Automatically:** Select this option to obtain a DNS server information automatically.

**Set DNS Manually:** Select this option and manually input your DNS server information.

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

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

**Subnet Mask:** Enter the subnet mask.

**Default Gateway:** Enter the default gateway.

**MTU Size:** Enter the MTU size.

**DNS Server 1, 2:** Enter the DNS Server IP addresses.



**WAN Interface**

**WAN Access Type:** DHCP Client ▼

**Host Name:** hostname

**MTU Size:** 1500

**Attain DNS Automatically:**

**Set DNS Manually:**

**DNS Server 1:** 0.0.0.0

**DNS Server 2:** 0.0.0.0

**WAN Interface**

**WAN Access Type:** Static IP ▼

**IP Address:** 0.0.0.0

**Subnet Mask:** 0.0.0.0

**Default Gateway:** 0.0.0.0

**MTU Size:** 1500

**DNS Server 1:** 0.0.0.0

**DNS Server 2:** 0.0.0.0 (Optional)

## Internet Setup (continued)

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

**User Name:** Enter the username provided by your ISP.

**Password:** Enter the password provided by your ISP.

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

**Idle Time:** Set the connection time out length. (Connect on Demand only)

**MTU Size:** Enter the maximum transmission unit (MTU) size.

**Static IP Address:** Enter the IP address of the router provided by your ISP.

**Connection Type:** Select either **Continuous**, **Connect on Demand**, or **Manual**.

**Attain DNS Automatically:** Select this option to obtain DNS server information automatically.

**Set DNS Manually:** Select this option to manually input your DNS server information.

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

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

If you choose **Manual**, please configure the **AFTR Name or Address** field.

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

**WAN Interface**

**WAN Access Type:**

**User Name:**

**Password:**

**Service:**

**MTU:**

**Static IP Address:**

**Connection Type:**

**Attain DNS Automatically:**

**Set DNS Manually:**

**DNS Server 1:**

**DNS Server 2:**

**WAN Interface**

**WAN Access Type:**

**DS-Lite Mode:**  DS-Lite DHCPv6  Manual

**AFTR Name or Address:**



## Internet Setup (continued)

### WAN Port Rate

Select the connection speed of the Internet WAN Ethernet port. It is recommended to leave this on the 10/100 Mbps setting to ensure the fastest connection speeds.

### WAN Port Rate

WAN port rate 10/100 Mbps ▼

### MAC Clone

Select the router's default MAC address, the PC's, or enter it manually.

### MAC Clone

Default MAC

MAC from PC

MAC manual

00:00:00:00:00:00

Apply Changes

Reset

When you have finished configuring your Internet connection, click the **Apply Changes** button.

# PPTP

Click **PPTP** on the navigation menu to configure PPTP (Point-to-Point-Tunneling Protocol) connection. Your ISP will provide you with a server address, username, and password.

## PPTP Settings

**Enable:** Check this box to enable PPTP.

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

**Auth:** Select **PAP**, **CHAP**, **CHAPMSV2**, or **auto**. The default is **auto**.

**Username:** Enter the username provided by your ISP.

**Password:** Enter the password provided by your ISP.

**Default GW:** Check this box to use the Default Gateway provided by your ISP.

When you have finished configuring your PPTP Connection, click the **Apply** button.

## PPTP Table

The PPTP Table displays the currently configured PPTP connections. The Interface, State, Address, and Gateway are displayed.



## PPTP Settings

**Enable:**

**Server:**

**Auth:** auto ▼

**Username:**

**Password:**

**Default GW:**

Apply

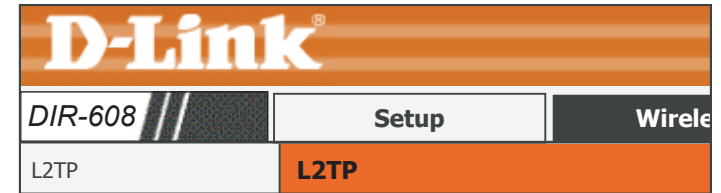
Reset

## PPTP Table

Interface	State	Address	Gateway
-----------	-------	---------	---------

## L2TP

Click **L2TP** on the navigation menu to configure L2TP (Layer 2 Tunneling Protocol) connection. Your ISP will provide you with a server address, username, and password.



### L2TP Settings

**Session:** Check the radio button to enable L2TP.

**Name:** Enter a name for your L2TP connection.

**LNS IP:** Enter the L2TP Server address.

**LNS Port:** Enter the L2TP Server port number.

**Auth:** Select **PAP**, **CHAP**, **CHAPMSV2**, or **auto**. The default is **auto**.

**User Name:** Enter the username provided by your ISP.

**Password:** Enter the password provided by your ISP.

**Connection Type:** Select either **Continuous**, **Connect on Demand**, or **Manual**.

**Idle Time(min):** If **Connect on Demand** is selected, enter a maximum idle time during which the Internet connection is maintained during inactivity.

**NAPT:** Check the radio button to enable NAPT.

**Default Route:** Check the radio button to enable Default Route.

**MTU:** Enter the MTU size.

### L2TP Settings

**Session:**  Disable  Enable

**Name:**

**LNS IP:**

**LNS PORT:**

**Authentication:**  ▼

**User Name:**

**Password:**

**Connection Type:**  ▼

**Idle Time(min):**

**NAPT:**  Disable  Enable

**Default Route:**  Disable  Enable

**MTU:**

Apply Changes

Reset

When you have finished configuring your L2TP Connection, click the **Apply Changes** button.

## L2TP (continued)

### L2TP Table

The L2TP Table displays the currently configured PPTP connections. The Name, Interface, IP Address, Gateway, and Status are displayed.

### L2TP Table

<b>Name</b>	<b>Interface</b>	<b>IP Address</b>	<b>Gateway</b>	<b>State</b>
-------------	------------------	-------------------	----------------	--------------

# IPv6

Click **IPv6** on the navigation menu to configure your IPv6 settings.



## IPv6 Connection Type

**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 **34**.

For **SLAAC/DHCPv6** refer to page **36**.

For **PPPoE** refer to page **38**.

For **IPv6 in IPv4 Tunnel** refer to page **40**.

For **6 to 4** refer to page **42**.

For **6rd** refer to page **44**.

For **Link-local only** refer to page **46**.

When you have finished configuring your IPv6 connection, click the **Apply Changes** button.

**IPv6 Connection Type:**

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

**My IPv6 Connection is:**

Apply Changes

Reset

## Static IP

### IPv6 Connection Type

**My IPv6 Connection is:** Select **Static IP** if your IPv6 information is provided by your ISP.

### IPv6 Connection Type:

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

**My IPv6 Connection is:**  ▼

### WAN IPv6 Address Settings

**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.

### WAN IPv6 Address Settings

Enter the IPv6 address information provided by your Internet Service Provider (ISP).

**IPv6 Address:**

**Subnet Prefix Length:**

**Default Gateway:**

### IPv6 DNS Settings

**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.

**Primary DNS Address:**

**Secondary DNS 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.

### 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's network settings to access the network again.

**LAN IPv6 Address:**  /64

**LAN IPv6 Link-Local Address:** **xx00:yy11:zz22:123/64**

## Static IP (continued)

### Address Autoconfiguration Settings

**Enable Autoconfiguration:** Enable or disable the Automatic IPv6 Address Assignment feature.

**LAN IPv6 Address:** Select **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 field:

**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).

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** SLAAC+Stateless DHCP ▼

**Router Advertisement Lifetime:** 30 (minutes)

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** Stateful(DHCPv6) ▼

**IPv6 Address Range(Start):** xxxx ::00 3

**IPv6 Address Range(End):** xxxx ::00 16

**Router Advertisement Lifetime:** (second)

## SLAAC/DHCPv6

### IPv6 Connection Type

**My IPv6 Connection is:** Select **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 Connection Type:

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

My IPv6 Connection is:

### 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 DNS server address automatically

Use the following DNS address

Primary DNS Address:

Secondary DNS Address:

### LAN IPv6 Address Settings

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

**LAN IPv6 Address:** If you disabled DHCP-PD, enter the LAN (local) IPv6 address for the router.

**LAN IPv6 Link-Local Address:** Displays the router's LAN link-local 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's network settings to access the network again.

Enable DHCP-PD:

LAN IPv6 Address:  /64

LAN IPv6 Link-Local Address: **xx00:yy11:zz22:123/64**



## SLAAC/DHCPv6 (continued)

### Address Autoconfiguration Settings

**Enable Autoconfiguration:** Enable or disable the Automatic IPv6 Address Assignment feature.

**LAN IPv6 Address:** Select **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 field:

**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).

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** SLAAC+Stateless DHCP ▼

**Router Advertisement Lifetime:** 30 (minutes)

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** Stateful(DHCPv6) ▼

**IPv6 Address Range(Start):** xxxx ::00 3

**IPv6 Address Range(End):** xxxx ::00 16

**Router Advertisement Lifetime:** (second)

## 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:

**User Name:** Enter the username provided by your ISP.

**Password:** Enter the password provided by your ISP.

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

**Idle Time:** Set the connection time out length. (Connect on Demand only)

**MTU Size:** Enter the MTU size.

**Connection Type:** Select either **Continuous**, **Connect on Demand**, or **Manual**.

### 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 Connection Type:

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

**My IPv6 Connection is:**

### PPPoE

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

**User Name:**

**Password:**

**Service Name:**

**Idle Time:**  (1-1000 minutes)

**MTU Size:**

**Connection Type:**

### IPv6 DNS Settings

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

**Obtain DNS server address automatically**

**Use the following DNS address**

**Primary DNS Address:**

**Secondary DNS Address:**

## PPPoE (continued)

### LAN IPv6 Address Settings

- Enable DHCP-PD:** Check this box to enable DHCP-PD.
- LAN IPv6 Address:** If you disabled DHCP-PD, enter the LAN (local) IPv6 address for the router.
- LAN IPv6 Link-Local Address:** Displays the router's LAN link-local address.

### Address Autoconfiguration Settings

- Enable Autoconfiguration:** Enable or disable the Automatic IPv6 Address Assignment feature.
- LAN IPv6 Address:** Select **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 field:

- 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).

### 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's network settings to access the network again.

**Enable DHCP-PD:**

**LAN IPv6 Address:**  /64

**LAN IPv6 Link-Local Address:** xx00:yy11:zz22:123/64

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** SLAAC+Stateless DHCP ▾

**Router Advertisement Lifetime:** 30 (minutes)

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** Stateful(DHCPv6) ▾

**IPv6 Address Range(Start):** xxxx ::00 3

**IPv6 Address Range(End):** xxxx ::00 16

**Router Advertisement Lifetime:** (second)

## IPv6 In 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 Connection Type:

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

My IPv6 Connection is:  ▼

### IPv6 in IPv4 Tunnel Settings

**Remote IPv4 Address:** Enter the IPv4 remote address you will use.

**Remote IPv6 Address:** Enter the IPv6 remote address you will use.

**Local IPv4 Address:** Displays the current local IPv4 address.

**Local IPv6 Address and Subnet Prefix Length:** Enter the IPv6 local address and subnet prefix length.

### IPv6 in IPv4 Tunnel Settings

Enter the IPv6 in IPv4 Tunnel information provided by your Tunnel Broker.

Remote IPv4 Address:

Remote IPv6 Address:

Local IPv4 Address: 192.168.x.x

Local IPv6 Address:  /

### 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.

Primary DNS Address:

Secondary DNS Address:

## IPv6 In IPv4 Tunnel (continue)

### 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.

### Address Autoconfiguration Settings

**Enable Autoconfiguration:** Enable or disable the Automatic IPv6 Address Assignment feature.

**LAN IPv6 Address:** Select **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 field:

**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).

### 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's network settings to access the network again.

**LAN IPv6 Address:**  /64

**LAN IPv6 Link-Local Address:** **xx00:yy11:zz22:123/64**

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** SLAAC+Stateless DHCP ▾

**Router Advertisement Lifetime:**  (minutes)

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** Stateful(DHCPv6) ▾

**IPv6 Address Range(Start):**  ::00

**IPv6 Address Range(End):**  ::00

**Router Advertisement Lifetime:**  (second)

## 6 to 4

### 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.

### 6to4 Settings

**6to4 Address:** Displays the 6 to 4 address.

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

### LAN IPv6 Address Settings

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

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

### 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 Connection Type:

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

**My IPv6 Connection is:**  ▼

### 6to4 Settings

Enter the IPv6 address information provided by your Internet Service Provider (ISP).

**6to4 Address:**

**6to4 Relay:**

### 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's network settings to access the network again.

**LAN IPv6 Address:**  ::1/64

**LAN IPv6 Link-Local Address:**  /64

### IPv6 DNS Settings

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

**Primary DNS Address:**

**Secondary DNS Address:**

## 6 to 4 (continued)

### Address Autoconfiguration Settings

**Enable Autoconfiguration:** Enable or disable the Automatic IPv6 Address Assignment feature.

**LAN IPv6 Address:** Select **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).

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** SLAAC+Stateless DHCP ▼

**Router Advertisement Lifetime:** 30 (minutes)

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** Stateful(DHCPv6) ▼

**IPv6 Address Range(Start):** xxxx ::00 3

**IPv6 Address Range(End):** xxxx ::00 16

**Router Advertisement Lifetime:** (second)

## 6rd

### IPv6 Connection Type

**My IPv6 Connection is:** Select **6rd** if you wish to to configure your router to connect to your ISP using 6rd.

### 6rd Settings

**6rd Mode:** Select either **6rd DHCPv4** or **Manual**.

If you selected **Manual**:

**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.

**6rd Relay:** Enter the 6rd border relay IPv4 address settings supplied by your ISP.

### 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 Connection Type:

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

My IPv6 Connection is:

### 6rd Settings

Enter the IPv6 address information provided by your Internet Service Provider (ISP).

**6rd Mode:**  6rd DHCPv4  Manual

**6rd IPv6 Prefix:**  /

**IPv4 Address:** 192.168.x.x **Mask Length:**

**6rd Relay:**

### IPv6 DNS Settings

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

**Primary DNS Address:**

**Secondary DNS Address:**



## 6rd (continued)

### LAN IPv6 Address Settings

**LAN IPv6 Address:** Displays the router's LAN IPv6 address.

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

### Address Autoconfiguration Settings

**Enable Autoconfiguration:** Enable or disable the Automatic IPv6 Address Assignment feature.

**LAN IPv6 Address:** Select **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 field:

**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).

### 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's network settings to access the network again.

**LAN IPv6 Address:**

**LAN IPv6 Link-Local Address:** **xx00:yy11:zz22:123/64**

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** SLAAC+Stateless DHCP ▾

**Router Advertisement Lifetime:** 30 (minutes)

### Address Autoconfiguration Settings

Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.

**Enable Autoconfiguration:**

**LAN IPv6 Address:** Stateful(DHCPv6) ▾

**IPv6 Address Range(Start):** xxxx ::00 3

**IPv6 Address Range(End):** xxxx ::00 16

**Router Advertisement Lifetime:** (second)

## Link-local only

### IPv6 Connection Type

**My IPv6 Connection is:** Select **Local Connectivity Only** if you want to configure your LAN to use IPv6 but not connect to the Internet.

### IPv6 Connection Type:

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

**My IPv6 Connection is:**  ▼

### LAN IPv6 Address Settings

**LAN IPv6 Link-Local Address:** Displays the router's IPv6 address and mask length.

### 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's network settings to access the network again.

**LAN IPv6 Link-Local Address:** **xx00:yy11:zz22:123/64**

# Wireless

The Wireless tab provides access to configure the wireless networking feature of your DIR-608.

The screenshot shows the top navigation bar of the D-Link DIR-608 Web UI. At the top left, it says "Product Page: DIR-608". Below this is a large orange banner with the "D-Link" logo on the left and a "Select Language" dropdown menu on the right, currently set to "English". Below the banner is a horizontal menu with tabs for "DIR-608", "Setup", "Wireless", "Advanced", "Maintenance", "Status", and "Help". The "Wireless" tab is selected and highlighted. Below the "Wireless" tab, there is a vertical list of sub-menus: "Wireless Basics", "WPS", "Advanced Wireless", and "Wireless Repeater".

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

This is a close-up screenshot of the top navigation area. It shows the "D-Link" logo on an orange background. Below the logo is a horizontal menu with tabs for "DIR-608", "Setup", and "Wireless". The "Wireless" tab is selected. Below the "Setup" and "Wireless" tabs, there is a "Wizard" link.

## Wireless Basics

Click **Wireless Basics** on the navigation menu to configure your wireless LAN settings. You can also configure the wireless security and wireless network parameters.

### Wireless Network

**Enable SSID Broadcast:** Enable SSID broadcast if you want the router to transmit its SSID publicly so other wireless devices can discover it.

**Note:** *Disabling SSID broadcast is not a form of security alone.*

**Enable Wireless Isolation:** Enable wireless isolation to prevent connected wireless devices from connecting to other wireless devices that are also connected to the router.

**Name (SSID):** Enter the SSID name of the router.

**Mode:** Use the dropdown menu to specify the wireless mode.

**Channel:** Use the dropdown menu to select the wireless channel.

**Band Width:** Use the dropdown menu to select the channel bandwidth. If you selected the 802.11n, 802.11 b/g, or 802.11 b/g/n wireless modes, the available options are 20 MHz and 20/40 MHz. For the others, 20 MHz is the only option.

### Security Options

Select a wireless security encryption option. The options are **None**, **WEP**, **WPA-PSK(TKIP)**, **WPA2-PSK(AES)**, and **WPA-PSK/WPA2(AES)**. The following pages describe each type of security option. Using **WPA2-PSK(AES)** security is recommended.



### Wireless Network

**Enable SSID Broadcast:**

**Enable Wireless Isolation:**

**Name(SSID) :**

**Mode :**

**Channel:**  **Current Channel:** 2

**Band Width:**

### Security Options

**Security Options :**

## WPA2-PSK(AES)

### Security Options

**Security Options:** **WPA2-PSK(AES)**. WPA-PSK is the recommended security encryption when your clients do not support WPA2(AES), otherwise it is recommended that you select WPA(AES).

### Security Options(WPA2-PSK)

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

When you have finished configuring your wireless network, click the **Apply** button.

### Security Options

**Security Options :**

### Security Options(WPA2-PSK)

**Pre-Shared Key:**

(8-63 characters or 64 hex digits)

Apply

Cancel

## WPA-PSK/WPA2(AES)

### Security Options

**Security Options:** **WPA-PSK/WPA2(AES)**. WPA/WPA2 Mixed(AES) is a reasonably strong wireless security encryption type. This is for wireless clients which do not support WPA2 encryption, otherwise use of WPA2(AES) is recommended.

### Security Options

**Security Options :** WPA-PSK/WPA2(AES) ▼

### Security Options(WPA-PSK+WPA2-PSK)

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

### Security Options(WPA-PSK+WPA2-PSK)

**Pre-Shared Key:**

(8-63 characters or 64 hex digits)

When you have finished configuring your wireless network, click the **Apply** button.

Apply

Cancel

## WPA-PSK(TKIP)

### Security Options

**Security Options:** **WPA-PSK(TKIP)**. WPA-PSK is a recommended wireless security encryption type. Unless your clients do not support WPA2 encryption, it is recommended that you select WPA2(AES).

### Security Options(WPA-PSK)

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

When you have finished configuring your wireless network, click the **Apply** button.

### Security Options

**Security Options :** WPA-PSK(TKIP) ▼

### Security Options(WPA-PSK)

**Pre-Shared Key:**

(8-63 characters or 64 hex digits)

Apply

Cancel

# WEP

## Security Options

**Security Options:** **WEP.** Using WEP encryption is not recommended, as it only offers a trivial amount of protection for your wireless data. Unless your clients do not support WPA encryption, it is recommended that you select WPA2(AES) or WPA/WPA2 Mixed instead of WEP as they are more secure.

## Security Encryption(WEP)

**Authentication Type:** Select either **Automatic** or **Shared Keys**.

**Encryption Strength:** Select the Encryption cipher key bit strength. The available options are **64 bits** or **128 bits**.

## Security Encryption(WEP)

**Key 1-4:** Enter a wireless key to use on your wireless network.

## Security Options

**Security Options :** WEP ▼

## Security Encryption(WEP)

**Authentication Type:** Automatic ▼

**Encryption Strength:** 128 bits ▼

## Security Encryption(WEP)

**Key 1:**

**Key 2:**

**Key 3:**

**Key 4:**

Apply

Cancel

When you have finished configuring your wireless network, click the **Apply** button.



# None

## Security Options

**Security Options:** **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.

When you have finished configuring your wireless network, click the **Apply** button.

## Security Options

**Security Options :**  ▼

Apply

Cancel

# WPS

The easiest way to connect your wireless devices to the router is with WPS (Wi-Fi Protected Setup). WPS was introduced with two methods of connecting: Push Button Control (PBC) and Personal Identification Number (PIN). Using WPS-PIN is no longer recommended due to security vulnerabilities and is disabled by default. For more information refer to **WPS Button** on page **88** for steps on using the WPS button to connect wireless clients.

## WPS Setup

Click **Next** to begin the WPS Setup process.

**Note:** In order to use this page of the web configuration utility, you must enable WPS-PIN. Refer to **Advanced Wireless** on page **55** for more information.

## Select

Enter a WPS-PIN and click **Start PIN** to begin the WPS Setup pairing process. If successful, you will then be taken to another screen and a message will tell you to run WPS on the client device within 2 minutes.



## WPS Setup

**WPS (WiFi Protected Setup), easily connect devices to a wireless router.**

To use the wizard to add a wireless client to WPS-enabled wireless router, the client must support WPS.

Check the user manual or the box of the wireless client to confirm whether it supports the WPS.

WE P If the wireless client does not support WPS, you must configure it manually.

Next

## Select

PIN Mode

If your card supports WPS, please click "Generate PIN code", and input PIN Code here.

Entry PIN of wireless NIC:

23474567

Start PIN

**Applied client's PIN successfully!**

**You have to run Wi-Fi Protected Setup in client within 2 minutes.**

Back

## Advanced Wireless

Click **Advanced Wireless** on the navigation menu to configure advanced operation characteristics of your wireless LAN. These settings are provided for advanced users.



### Advanced Wireless Settings

Select a wireless security encryption option. You can also choose to not use one by selecting None, but this is not recommended.

**Enable Wireless:** Enable wireless on your network.

**Fragment Threshold (256-2346):** The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2346 is the default setting.

**RTS Threshold (1-2347):** This value should remain at its default setting of 2346. If inconsistent data flow is a problem, only a minor modification should be made.

**Preamble Type:** Use the dropdown menu to specify whether the Router should use the Short Preamble or Long Preamble type. The preamble type defines the length of the CRC (Cyclic Redundancy Check) block for communication between the router and roaming wireless adapters.

**Radio Power:** Set the transmit power of the antennas in percentage.

**HT20/40 Coexistence:** Enable or disable HT20/40 Coexistence.

### Advanced Wireless Settings

**Enable Wireless :**

**Fragment Threshold (256-2346) :**

**RTS Threshold (1-2347) :**

**Preamble Type :**  ▼

**Radio Power (Percent) :**  ▼

**HT20/40 Coexistence :**  Enable  Disable

## Advanced Wireless (continued)

### WPS Setup

**PIN of the router:** The WPS PIN will be displayed here.

**Enable WPS:** Check the box to enable WPS.

**Disable PIN:** Check to disable WPS PIN.

**Keep current configuration:** Check to keep the current configuration.

When you have finished configuring your wireless network, click the **Apply Changes** button.

### Access Control List

Click the **ACL Setup** button to edit the ACL (Access Control List). This takes you to the screen below.

**Enable Wireless Access Control Mode:** Check the box to enable Wireless Access Control Mode. In this mode, only listed wireless devices will be allowed to connect to the wireless network.

Click the **Apply** button when you are done.

If you enabled Wireless Access Control, you may begin adding MAC addresses to the ACL list.

**MAC Address:** Enter the MAC address of a device you wish to allow access for to the WLAN and click the **Add** button. This will add the device's MAC Address to the ACL table above. To remove a device from the ACL table, select the MAC address from the above table and click the **Delete** button

### WPS Setup

**PIN of the router :**

**Enable WPS :**

**Disable PIN :**

**Keep current configuration :**

Apply Changes

### Access Control List

ACL Setup

### Wireless Access Control Mode

Enable Wireless Access Control Mode

**MAC Address**

**Select**

00e086710502

Apply

Delete Selected

Delete All

**MAC Address:**

(ex: 00e086710502)

Add

Cancel

# Wireless Repeater

This page allows you to configure wireless repeater settings for the DIR-608.



## Wireless Repeater Setup

**Repeater Enabled:** Check the box and click the **Apply** button in order to enable the Wireless Repeater function. Repeater function is disabled by default.

**SSID of AP:** If repeater mode is enabled, the name of the host network that is being repeated is displayed here.

Click the **Site Survey** button to enable the router to search for nearby wireless networks. This will take about 5 seconds.

## Wireless Repeater Setup

**Repeater Enabled (DHCP mode will be set to 'none' if the repeater is enabled)**

SSID of AP

Site Survey

Apply

Refer to **Wireless Repeater Setup** on page **58** for instructions on how to enable the Wireless Repeater Functionality.

## Wireless Repeater Setup

These instructions will guide you through setting up your DIR-608 as a wireless repeater in a few easy steps. Please refer to Wireless Repeater Mode on page 9 for more information.

Step 1: Navigate to the **Wireless Repeater** section of the web ui, click on the **Wireless** tab on the top of the web ui and click **Wireless Repeater** from the menu on the left hand side of the screen.

### Wireless Repeater Setup

**Repeater Enabled:** Check the box and click the **Apply** button in order to enable the Wireless Repeater function.

**SSID of AP:** Click the **Site Survey** button to enable the router to search for nearby wireless networks. This will take about 5 seconds.

A list of wireless networks that have been found will then appear. Select the wireless network you wish to extend and click the **Next** button.



The screenshot shows the 'Wireless Repeater Setup' configuration page. At the top, there is a checkbox labeled 'Repeater Enabled (DHCP mode will be set to 'none' if the repeater is enabled)' which is checked. Below this is a text input field for 'SSID of AP' and a 'Site Survey' button. A table lists detected wireless networks:

#	SSID	MAC Address	Channel	Signal	Security	Select
1	D-Link	ff:ff:ff:ff	1	100%	WPA2-PSK(TKIP)	<input type="radio"/>

Below the table, there is a red text prompt: 'Click 'Next' to Continue repeater settings'. At the bottom of the page, there is a 'Next' button.

Apply

## Wireless Repeater Setup (continued)

Step 2: The page will refresh prompting you to input the wireless security key of the host network. If the host network does not have wireless security enabled, this step is omitted.



### Security Options

**Security Options:** The host network's wireless security encryption type is listed here. It is not changeable.

### Wireless Security Settings

**Encryption:** WPA2-PSK(TKIP) ▼

### Security Options(WPA2-PSK)

**Pre-Shared Key:** Enter the host network's wireless security key.

### Security Options(WPA-PSK)

**Pre-Shared Key:**

(8-63 characters or 64 hex digits)

Previous

Next

When you have entered the wireless network's key, click the **Next** button.

Step 3: Enter a new LAN IP address for the DIR-608 if necessary.

Click **Finish** to complete the setup. You will need to reconnect to the wireless network the DIR-608 is now repeating.

### WPS Setup

Step 3: click 'Finish' to save the configuration.

We strongly recommend that you modify IP address of the local gateway to avoid IP address conflicts with the center of the AP. (ex. if IP address of AP is 192.168.1.1, you can modify IP address of the local gateway to 192.168.1.2)

**IP Address:**

**Subnet Mask:**

Finish

# Advanced

The Advanced tab provides access to configure the advanced features of your DIR-608.

Product Page: DIR-608
Hardware version:A1    Firmware version: 1.00

Select Language English ▼

<b>DIR-608</b> //	<b>Setup</b>	<b>Wireless</b>	<b>Advanced</b>	<b>Maintenance</b>	<b>Status</b>	<b>Help</b>
Access Control List						
Port Triggering						
DMZ						
URL Block						
Dynamic DNS						
Traffic Control						
UPnP						
Telnet						
Virtual Server						
IPv6 Filter						
IPv6 Routing						

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

<b>DIR-608</b> //	<b>Setup</b>	<b>Wireless</b>
Wizard		



# Access Control List

This page allows you to set up an Access Control List to restrict the types of data packets that can enter the network from the Internet.

## ACL Settings

**WAN Setting:** Use the dropdown menu to select either WAN or IP Address.

**IP Address:** This option will only be seen if you have selected IP Address above. Enter the IP address range.

**Services Allowed:** Select the type of Internet service from which packets can be allowed into the network.

Click the **Add** button to save and add these settings to the Current ACL table.

## Current ACL Table

The section displays the current ACL Table.

The screenshot shows the top navigation bar with the D-Link logo, the model number DIR-608, and tabs for Advanced and Maintenance. The 'Advanced' tab is selected, and the 'WAN ACL Configuration' sub-tab is active.

## ACL Settings

**WAN Setting:** WAN

**Services Allowed:**  web

ping

## ACL Settings

**WAN Setting:** IP Address

**IP Address:** [ ] - [ ]

(0.0.0.0 represents any IP)

**Services Allowed:**  web

ping

Add

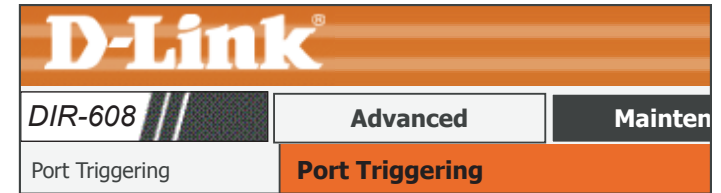
Reset

## Current ACL Table

Select	IP Address /Interface	Service	Port	Action
1	WAN	web	80	Delete

# Port Triggering

This page allows you to enable port triggering to specify inbound traffic to be sent to specific ports while other ports are in use for outbound traffic.



## Port Triggering Status

This page allows you to set up an Port Trigger Table to restrict the types of data packets that can enter the network from the Internet.

**NAT Port Trigger:** Enable or disable the Nat Port Trigger.

Click the **Apply Changes** button to save any changes made.

## Port Triggering Status

**Nat Port Trigger:**  Enable  Disable

Apply Changes

## Application Type

**Usual Application Name:** Select an application from the dropdown menu.

**User-defined Application Name:** Enter the name of an application.

**Start Match Port:** Enter a start match port.

**End Match Port:** Enter an end match port.

**Trigger Protocol:** Select a protocol from the pulldown menu.

**Start Relate Port:** Enter a start relate port.

**End Relate Port:** Enter an end relate port.

**Open Protocol:** Select a protocol from the dropdown menu.

## Application Type

**Usual Application Name:**

**User-defined Application Name:**

Start Match Port	End Match Port	Trigger Protocol	Start Relate Port	End Relate Port	Open Protocol	Nat Type
<input type="text"/>	<input type="text"/>	UDP ▼	<input type="text"/>	<input type="text"/>	UDP ▼	outgoing ▼
<input type="text"/>	<input type="text"/>	UDP ▼	<input type="text"/>	<input type="text"/>	UDP ▼	outgoing ▼
<input type="text"/>	<input type="text"/>	UDP ▼	<input type="text"/>	<input type="text"/>	UDP ▼	outgoing ▼

Apply Changes

## Port Triggering (continued)

**Nat Type:** Select whether it will be outgoing or incoming.

Click the **Apply Changes** button to add a port triggering rule.

**Application Type**

**Usual Application Name:** Select One ▼

**User-defined Application Name:**

Start Match Port	End Match Port	Trigger Protocol	Start Relate Port	End Relate Port	Open Protocol	Nat Type
<input type="text"/>	<input type="text"/>	UDP ▼	<input type="text"/>	<input type="text"/>	UDP ▼	outgoing ▼
<input type="text"/>	<input type="text"/>	UDP ▼	<input type="text"/>	<input type="text"/>	UDP ▼	outgoing ▼
<input type="text"/>	<input type="text"/>	UDP ▼	<input type="text"/>	<input type="text"/>	UDP ▼	outgoing ▼

Apply Changes

### Current Port Triggering Table

The section displays the current Port Forwarding Table.

Applications will then be added to the Current Port Triggering Table. Click the **Delete** button in the **Action** field to delete a Port Triggering rule.

### Current Port Triggering Table

Server Name	Trigger Protocol	Direction	Match Port	Open Protocol	Relate Port	Action
MyApp	both	outgoing	5432-6210	both	4800-4900	<span style="border: 1px solid #ccc; padding: 2px 5px;">Delete</span>

# DMZ

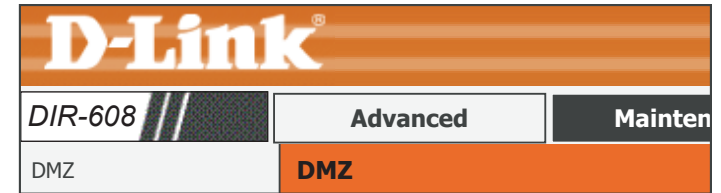
Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable the Demilitarized Zone (DMZ). This option may expose the selected computer to cyber attacks and is not recommended for novice users.

## DMZ Configuration

**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.

Click the **Apply Changes** button to save any changes made.



The screenshot shows the 'DMZ Configuration' page. At the top, there is a checkbox labeled 'Enable DMZ'. Below it, there is a text input field labeled 'DMZ Host IP Address:'. At the bottom of the page, there are two buttons: 'Apply Changes' and 'Reset'.

# URL Block

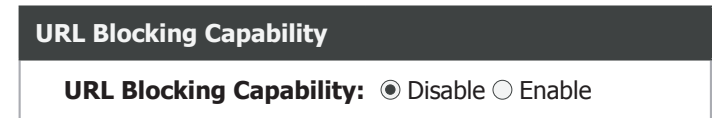
This page allows you to block specific websites or keywords in order to prevent network clients from accessing them.



## URL Blocking Capability

**URL Blocking Capability:** Enable or disable URL Blocking.

Click the **Apply Changes** button to save any changes made.



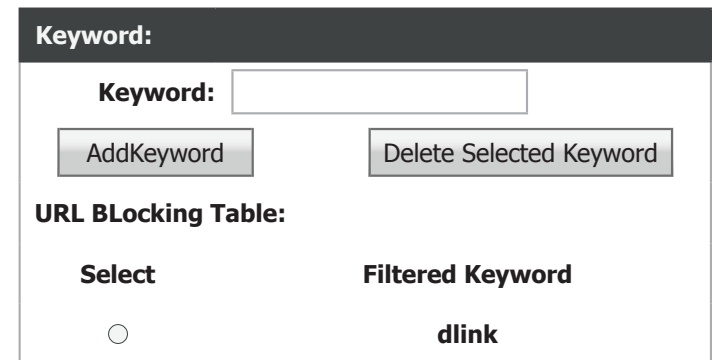
Apply Changes

## Keywords

**Keyword:** Type a keyword or a URL site that you want to prevent network users from accessing.

Click the **Add Keyword** button to add a keyword to the URL block table.

To delete a keyword, select the keyword in the table and click the **Delete Selected Keyword** button.



# Dynamic DNS

Most Internet Service Providers (ISPs) assign dynamic (changing) IP addresses. Using a dynamic DNS service provider, people can enter your domain name in their web browser to connect to your server, no matter what your IP address is.

## DDNS Configuration

**Enable:** Check the box to enable DDNS.

**DDNS Provider:** Choose your DDNS provider from the dropdown menu.

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

**Username:** Enter the username for your DDNS account.

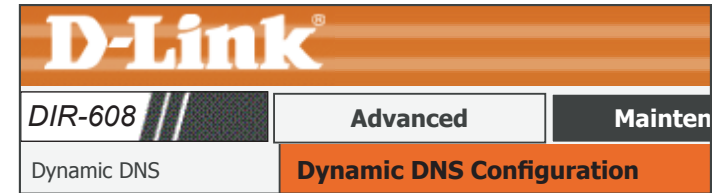
**Password:** Enter the password for your DDNS account.

Click the **Add** button to save any changes made. The DDNS Configuration will then be added to the Dynamic DDNS Table below.

## Dynamic DDNS Table

The section displays the current Dynamic DDNS settings and status.

To delete an existing DDNS Configuration, select a configuration in the table and click the **Remove** button.



Dynamic DNS Configuration	
<b>Enable:</b>	<input checked="" type="checkbox"/>
<b>DDNS provider:</b>	dlinkddns.com(free) ▼
<b>Hotname:</b>	<input type="text"/>
<b>Account Settings:</b>	
<b>Username:</b>	<input type="text"/>
<b>Password:</b>	<input type="text"/>

Add

Remove

Dynamic DDNS Table				
Select	State	Service	Hostname	Username
<input type="radio"/>	disable	dlinkddns.com (free)	mytest	Username

# Traffic Control

This page allows you to configure traffic bandwidth and rules for network traffic.

## Traffic Control

**Total Bandwidth (0, Unlimited):** Enter the total bandwidth provided by your ISP's service contract in kbps for uploading and downloading.

**Auto Traffic Shaping:** Click to enable auto traffic shaping.

Click the **Apply Changes** button to save any changes made.

## QoS Rules

The section displays the currently defined Quality of Service (QoS) rules.

To delete an existing QoS rule, select a configuration in the table and click the **Delete** button. To add a rule, click the **Add** button. The following rule creation options will appear:

**Protocol:** Select the data protocol which you want to set a QoS rule for.

**Source IP:** Enter the source IP.

**Dest IP:** Enter the destination IP.

**Source Port:** Enter the source port number if applicable.

**Up Floor:** Enter the minimum upload speed.

**Down Floor:** Enter the minimum download speed.



**Traffic Control**

**Total Bandwidth (0, Unlimited):** UP Stream  kbps Down Stream  kbps

**Auto Traffic Shaping**

**Apply**

Protocol	Source Port	Dest Port	Source IP	Dest IP	Guaranteed Bandwidth		Max Bandwidth (Kbps)		Delete
					Up Floor	Down Floor	Up Ceiling	Down Ceiling	
									<input type="checkbox"/>

**Add**

**Delete**

Protocol:

Source IP:  Source Netmask:

Dest IP:  Dest Netmask:

Source Port:  Dest Port:

Up Floor:  kb/s Up Ceiling:  kb/s

Down Floor:  kb/s Down Ceiling:  kb/s

## Traffic Control (continued)

**Source Netmask:** Enter the source netmask.

**Dest Netmask:** Enter the destination netmask.

**Dest Port:** Enter the destination port.

**Up Ceiling:** Enter the maximum upload speed.

**Down Ceiling:** Enter maximum download speed.

Protocol:	<input type="text" value="None"/>		
Source IP:	<input type="text"/>	Source Netmask:	<input type="text"/>
Dest IP:	<input type="text"/>	Dest Netmask:	<input type="text"/>
Source Port:	<input type="text"/>	Dest Port:	<input type="text"/>
Up Floor:	<input type="text"/> kb/s	Up Ceiling:	<input type="text"/> kb/s
Down Floor:	<input type="text"/> kb/s	Down Ceiling:	<input type="text"/> kb/s

When you have finished inputting your new rule, click the **Add** button.

Add



# UPnP

This page allows you to enable the Universal Plug and Play (UPnP) feature.



## UPnP Configuration

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

## UPnP Configuration

**UPnP:**  Disable  Enable

## Current UPnP Table

The section displays the currently defined UPnP rules. These rules are automatically managed by the DIR-608.

## Current UPnP Table

Active	Protocol	Internal Port	External Port	IP Address	De- scription
--------	----------	---------------	---------------	------------	------------------

Click the **Apply Changes** button to save any changes made.

Apply Changes

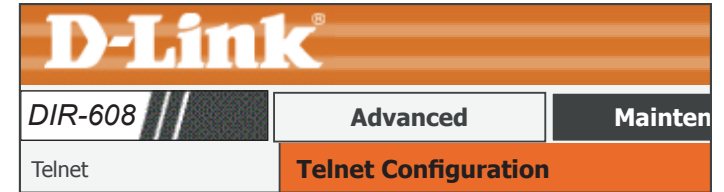
# Telnet

This page allows you to enable telnet administration of the device. Use of this feature is not recommended for novice users.

## Telnet Configuration

**Telnet:** Click Enable to turn on the Telnet administration feature.

Click the **Apply Changes** button to save any changes made.



## Telnet Configuration

**Telnet:**  Disable  Enable

Apply Changes

# Virtual Server

This page allows you to configure the DIR-608's virtual server so that remote users accessing Web services via the public IP address can be automatically redirected to local servers on the LAN (Local Area Network). The DIR-608 is also capable of port-redirection, meaning that incoming traffic to a particular port may be redirected to a different port on the server computer.

## Service Type

**Usual Service Name:** Select an application from the drop-down menu or type a name in the next field.

**User-defined Service Name:** Enter a service name.

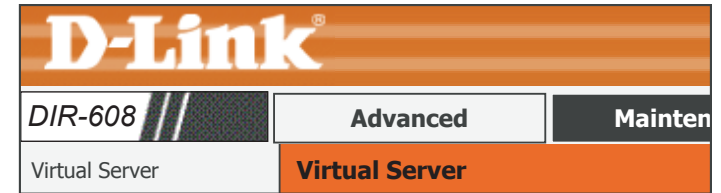
**Protocol:** Select TCP or UDP from the Protocol drop-down menu.

**WAN Port:** Enter the WAN port number.

**LAN Open Port:** Enter the LAN Open port number.

**LAN IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to.

Click the **Apply Changes** button to save any changes made. The virtual server will then be added to the Current Virtual Server Forwarding Table below. To delete or disable a virtual server, click the **Delete** or **Disable** buttons in the Action field of the virtual server in the table.



**Service Type**

**Usual Service Name** AUTH ▼

**User-defined Service Name**

**Protocol** TCP ▼

**WAN Port** 113 (ex.5001:5010)

**LAN Open Port** 113

**LAN IP Address**

Apply Changes

## Current Virtual Server Forwarding Table

Server Name	Protocol	Local IP Address	Local Port	WAN Port	State	Action
FTP	tcp	192.168.11.2	21-21	21-21	Enable	Delete Disable

# IPv6 Filter

This page allows you to configure IPv6 filter rules that determine what kind of traffic is allowed to pass through the network.

## Default Action Status

**Outgoing Default Action:** Choose the default action for outgoing IPv6 traffic, either **Permit** or **Deny**. The default is **Permit**.

**Incoming Default Action:** Choose the default action for incoming IPv6 traffic, either **Permit** or **Deny**. The default is **Permit**.

## Rule Configuration

**Rule Action:** Select whether to **Permit** or **Deny** IPv6 traffic for this rule.

**Protocol:** Select the protocol to apply the rule to: **IPv6**, **ICMP6**, **TCP**, or **UDP**.

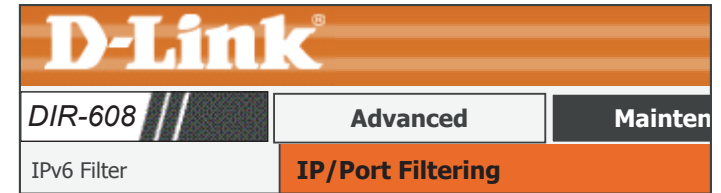
**ICMP6 Type:** If ICMP6 is selected **PING6** is the ICMP6 Type.

**Direction:** Select whether to apply to rule to **Upstream** or **Downstream** traffic.

**Source IPv6 Address & Prefix Length:** Enter the source IPv6 address and prefix length to apply the rule to.

**Dest IPv6 Address & Prefix Length:** Enter the destination IPv6 address and prefix length to apply the rule to.

**SPort:** Enter the source port range, if applicable.



## Default Action Status

**Outgoing Default Action:**  Permit  Deny

**Incoming Default Action:**  Permit  Deny

## Rule Configuration

**Rule Action:**  Permit  Deny

**Protocol:** IPv6 ▼

**Icmp6 Type:** PING6 ▼

**Direction:** Upstream ▼

**Source IPv6 Address:**

**Prefix Length:**

**Dest IPv6 Address:**

**Prefix Length:**

**SPort:**  -

**DPort:**  -

**Enable:**

Apply Changes

Reset

Help

## IPv6 Filter (continued)

**DPort:** Enter the destination port range, if applicable.

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

Click the **Apply Changes** to add your IPv6 filter.

### Rule Configuration

**Rule Action:**  Permit  Deny

**Protocol:** IPv6 **Icmp6 Type:** PING6

**Direction:** Upstream

**Source IPv6 Address:**  **Prefix Length:**

**Dest IPv6 Address:**  **Prefix Length:**

**SPort:**  -  **DPort:**  -

**Enable:**

Apply Changes

Reset

Help

### Current Filter Table

The section displays the current IPv6 Filter Rules.

To enable or disable an IPv6 route filter, click its **disable** or **enable** button from the **Action** column.

To delete an IPv6 route filter, select it from the table and click the **Delete** button.

Current Filter Table									
Rule	Protocol	Source IPv6/Prefix	SPort	Dest IPv6/Prefix	DPort	Icmp6 Type:	State	Direction	Action
deny	ip6	eeee:		any	50		disable	Downstream	<input type="button" value="enable"/> <input type="button" value="Delete"/>
deny	ip6	ffff::		any			enable	Upstream	<input type="button" value="disable"/> <input type="button" value="Delete"/>

# IPv6 Routing

This page allows you to you to define custom IPv6 routes to control how data traffic is moved around your network.

## Configuration

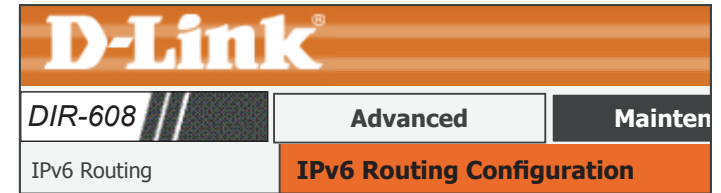
- Destination:** This is the IPv6 address of the router used to reach the specified destination.
- Prefix Lenth:** Enter the IPv6 address prefix length of the packets that will take this route.
- Next Hop:** Enter your next hop gateway to be taken if this route is used.
- Interface:** Select the interface that the IP packet must use to transit out of the router when this route is used.

Click the **Add Route** to add your custom IPv6 route. It will be added to the **IPv6 Static Route Table**.

## IPv6 Static Route Table

The section displays the current IPv6 Static Route Table.

To delete an IPv6 route, select it from the IPv6 Static Route table and click the **Delete Selected** button.



## Configuration

<b>Destination</b>	<input type="text"/>
<b>Prefix Length</b>	<input type="text"/>
<b>Next Hop</b>	<input type="text"/>
<b>Interface</b>	<input type="text" value="▼"/>

Add Route


Delete Selected

## IPv6 Static Route Table

Select	Destination	NextHop	Interface
--------	-------------	---------	-----------

# Maintenance

The Maintenance tab provides access to administration related settings of your DIR-608.

Product Page: DIR-608		Hardware version:A1		Firmware version: 1.00		
			Select Language <input type="text" value="English"/>			
DIR-608	Setup	Wireless	Advanced	Maintenance	Status	Help
<ul style="list-style-type: none"> <li>Reboot</li> <li>Firmware Upgrade</li> <li>Backup/Restore</li> <li>Admin</li> <li>Time and Date</li> </ul>						

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

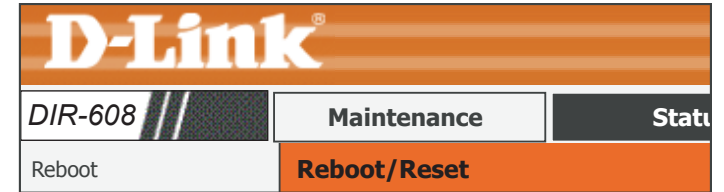
		
DIR-608	Setup	Wireless
Wizard		

# Reboot

This page allows you to reboot your device with the current setting or reset it to the factory default setting.

## Reboot/Reset System

Click the **Reboot** button to reboot the system. To reset the system to the factory default setting, click the **Reset** button.



## Reboot/Reset System

Reboot

Reset



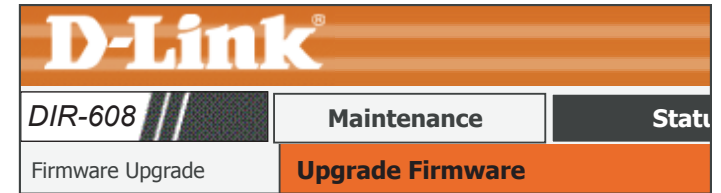
## Firmware Upgrade

This page allows you to upgrade the firmware of the router. If you plan to install new firmware, make sure the firmware you want to use is on the local hard drive of the computer. Please check the D-Link support site for firmware updates at <http://support.dlink.com>. You can download firmware upgrades to your hard drive from the D-Link support site.

### Select File

**Select File:** After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive.

Click the **Upload** button to upload the selected file to the router, or click the **Reset** button to cancel the selection.



### Select File

Automatically reset default after firmware upgraded

## Backup/Restore

This page allows you to save the router's current configuration file onto your computer's hard drive or load a saved file from your hard drive.

### Save Settings to File

Click the **Save** button to download the current configuration settings as a file onto your hard drive.

### Load Settings From

To load a previously saved settings file, click the **Browse** button to locate the file on your hard drive, then click the **Upload** button.



### Save Settings to File

Save...

### Load Settings From

Browse

Upload

# Admin

This page allows you to add a user account to the router's Web server. You can also delete or modify existing accounts.

## Configuration

**User Name:** Enter a username.

**Privilege:** The user has Root privilege. No other options are available.

**Old Password:** Enter the current password of the account.

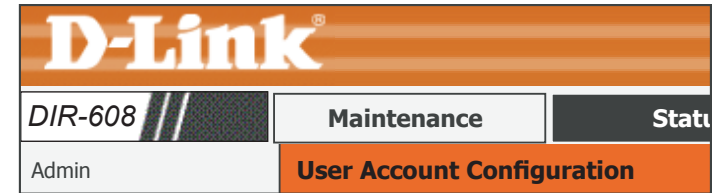
**New Password:** Enter the new password for the account.

**Confirm Password:** Retype the new password.

Click the **Add** button to save any changes made. The user account will also be added to the User Account Table below.

To modify an existing user account, click the Select tab next to the user account in the table, edit the user settings you wish to change, and then click the **Modify** button.

To delete an existing account, click the Select tab next to the user account in the table and then click the **Delete** button.



## Configuration

**User Name:**

**Privilege:** Root ▼

**Old Password:**

**New Password:**

**Confirm Password:**

Add

Modify

Delete

Reset

## User Account Table

Select	User Name	Privilege
<input type="radio"/>	Admin	root

## Time and Date

This page allows you to edit the system time and Network Time Protocol (NTP). You can configure, update, and maintain the correct time on the system clock, and configure Daylight Saving.

### System Time

**System Time:** Enter the correct year, month, day, and time.

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

Click the **Apply Changes** button to save any changes made.

### NTP Configuration:

**State:** Choose to enable or disable the NTP client.

**Server:** Enter the address of the NTP server to connect to.

**Server2:** Enter the address of a second NTP server to connect to.

**Interval:** Enter the time period that you want the NTP server to synchronize time with the devices on the network. The default value is one hour.

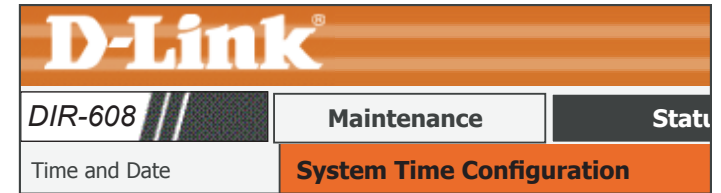
**Time Zone:** Select the time zone you are in from the dropdown menu.

**GMT Time:** This shows the current GMT (Greenwich Mean Time) time.

Click the **Apply Changes** button to save any changes made.

### Start NTP:

**NTP Start:** To update the current time using NTP, click the **Get GMT Time** button.



### System Time

**System Time:** 2016 Year Jul Month 5 Day

16 Hour 09 min 16 sec

**Daylight Saving Offset:** 0:00

Apply Changes

Reset

### NTP Configuration:

**State:**  Disable  Enable

**Server:** ntp1.dlink.com

**Server2:**

**Interval:** Every 1 hours

**Time Zone:** (GMT+08:00) China, Hong Kong, Taipei

**GMT time:** Tue July 5 16:09:10 2016

Apply Changes

Reset

### Start NTP:

**NTP Start:** Get GMT Time

# Status

The Status tab provides information about the DIR-608's current status.

Product Page: DIR-608 Hardware version:A1 Firmware version: 1.00

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D-Link<sup>®</sup>
Select Language English ▼

<i>DIR-608</i> //	Setup	Wireless	Advanced	Maintenance	<b>Status</b>	Help
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Device Info  
 Active Client Table  
 IPV6  
 IPV6 Routing Table

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

D-Link<sup>®</sup>

<i>DIR-608</i> //	Setup	Wireless
Wizard		

# Device Info

This page displays the current status and basic settings of the router.

## System

Displays the device's produce name, uptime, and the current date and time.

## LAN Configuration

Displays the MAC address and the private (local) IP settings for the router.


## WLAN Configuration

Displays the wireless settings such as SSID and Channel.

## WAN Configuration

Displays the MAC address and the public IP settings for the router.

Click the **Refresh** button to view the most current information.



<b>DIR-608</b>	<b>Status</b>	<b>Help</b>
Device Info	<b>Wireless Router Status</b>	

### System

<b>Product Name</b>	<b>DIR-608</b>
<b>Uptime</b>	<b>1 06:35:16</b>
<b>Date/Time</b>	<b>Tue Jul 5 16:09 2016</b>

### LAN Configuration

<b>IP Address</b>	<b>192.168.11.1</b>
<b>Subnet Mask</b>	<b>255.255.255.0</b>
<b>DHCP Server</b>	<b>Enable</b>
<b>MAC Address</b>	<b>FF:FF:FF:FF</b>

### WLAN Configuration

<b>Wireless</b>	<b>Enabled</b>
<b>Mode</b>	<b>AP</b>
<b>SSID</b>	<b>D-Link_DIR-608</b>
<b>Encryption</b>	<b>WPA/WPA2 Mixed</b>
<b>Channel</b>	<b>1</b>
<b>Broadcast SSID</b>	<b>Enabled</b>
<b>WPS</b>	<b>Enabled</b>
<b>Repeater Status</b>	<b>Disconnected</b>

### WAN Configuration

Interface	Protocol	IP Address	Gateway	DNS	Mac Address	Status
WAN	DHCP	0.0.0.0	0.0.0.0	0.0.0.0	FF:FF:FF	Down

Refresh

## Active Client Table

This page displays all of the currently connected wired and wireless clients. The IP address and MAC address of each client is displayed in the tables.

### Active Wired Client Table

This table displays all active wired clients.

### Active Wireless Client Table

This table displays all active wireless clients.

Click the **Refresh** button to refresh the router's active client table.

<b>D-Link</b>		
DIR-608	Status	Help
Active Client Table	Active Client Table	

### Active Wired Client Table

Name	IP Address	MAC Address
Computer	192.168.11.2	ff:ff:ff:ff:ff:ff

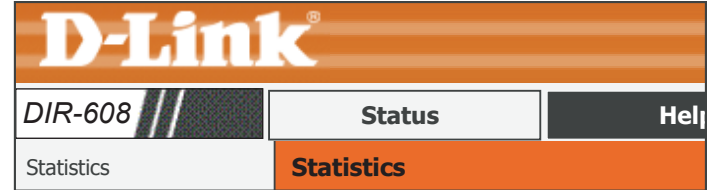
### Active Wireless Client Table

Name	IP Address	MAC Address
Wi-Fi Computer	192.168.11.3	ff:ff:ff:ff:ff:ff

Refresh

# Statistics

This page displays the statistics for packets that have been transmitted and received on the network on the router's WAN and LAN ports, and wireless bands.



The navigation menu features the D-Link logo at the top. Below it, there are three main sections: 'DIR-608' (with a striped background), 'Status', and 'Help'. Under 'DIR-608', there are two sub-items: 'Statistics' and 'Statistics' (the latter is highlighted in orange).

## Statistics

This table displays the current statistics broken down by interface.

Statistics						
Interface	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
LAN1	56842	0	0	354862	0	0
LAN2						
LAN3	54678	0	0	1482163	0	0
LAN4						
WAN	1403745	0	0	15308	0	0
WLAN	44030	0	0	493	0	0


Click the **Refresh** button to refresh the router's traffic statistics.

Refresh



# IPv6

This page displays the current IPv6 connection information as well as all currently connected IPv6 clients by their IPv6 address and MAC address.



DIR-608	Status	Help
IPv6	IPv6 Network Information	

## IPv6 Connection Information

This table displays the current IPv6 connection type and IPv6 address.

IPv6 Connection Information	
IPv6 Connection Type	IP Address
LAN IPv6 Link-Local Address	fe80::ffff:1dff:fe03

## Active LAN IPv6 Client

This table displays all active IPv6 clients and their associated MAC addresses.

Active LAN IPv6 Client	
IPv6 Address	Mac Address

Click the **Refresh** button to refresh the router's IPv6 information.

Refresh

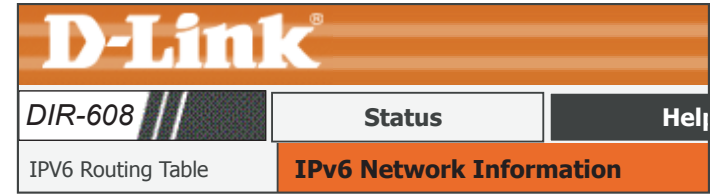
# IPv6 Routing Table

This page displays the current IPv6 routing table.

## Current IPv6 Routing Table

This table displays the current IPv6 routing table.

Click the **Refresh** button to refresh the router's IPv6 information.



The navigation menu features the D-Link logo at the top. Below it, there are three main sections: 'DIR-608' with a double-slash icon, 'Status', and 'Help'. Under 'DIR-608', there are two sub-items: 'IPv6 Routing Table' and 'IPv6 Network Information', with the latter highlighted in orange.

Current IPv6 Routing Table			
Destination	NextHop	Metric	Interface


Refresh

# Help

The Help section provides documentation for each section of the web-based configuration utility.

Product Page: DIR-608 Hardware version:A1    Firmware version: 1.00

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Select Language English ▼

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DIR-608 // Setup | Wireless | Advanced | Maintenance | Status | Help

Menu

Setup

Wireless

Advanced

Maintenance

Status

**Help Menu**

- [Setup](#)
- [Wireless](#)
- [Advanced](#)
- [Maintenance](#)
- [Status](#)

**Setup Help**

- [Wizard](#)
- [Local Network](#)
- [Internet Setup](#)
- [IPV6](#)
- [PPTP](#)
- [L2TP](#)

**Wireless Help**

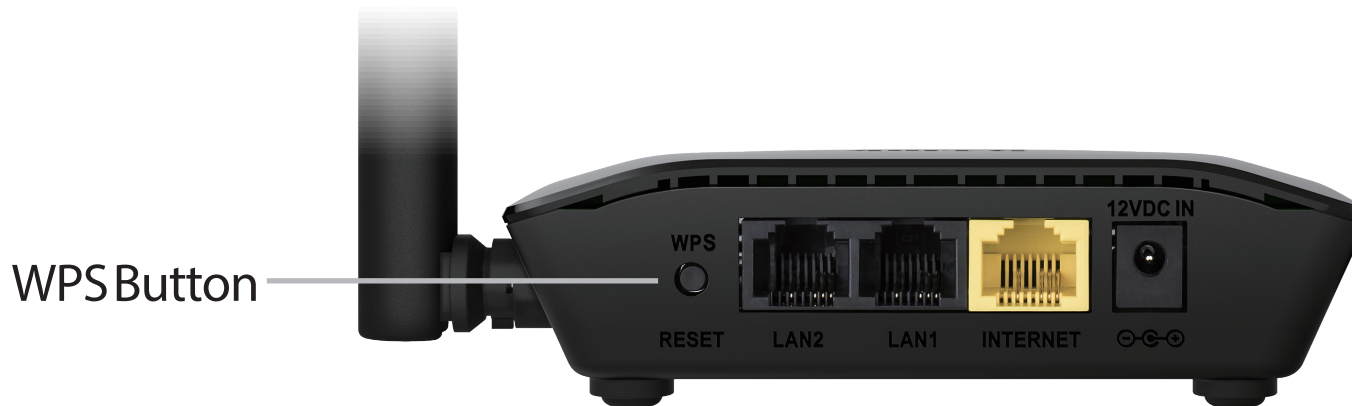
- [Wireless Basics](#)
- [WPS](#)
- [Advanced Wireless](#)
- [Wireless Repeater](#)

# 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-608 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-608 for about 1 second. The wireless LED on the front will start to blink.



**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

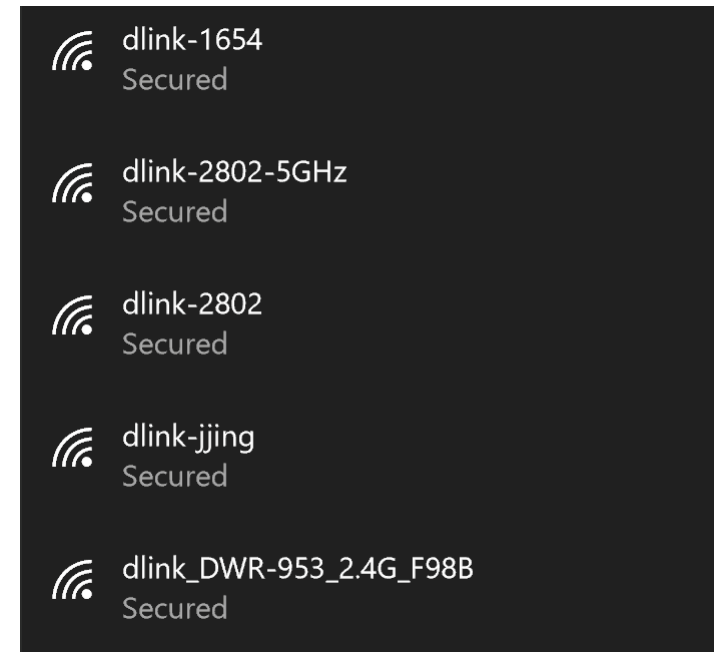
When connecting to the DIR-608 wirelessly for the first time, you will need to input the wireless network name (SSID) and Wi-Fi password (security key) of the device you are connecting to. If your product has a Wi-Fi configuration card, you can find the default network name and Wi-Fi password here. Otherwise 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.

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.

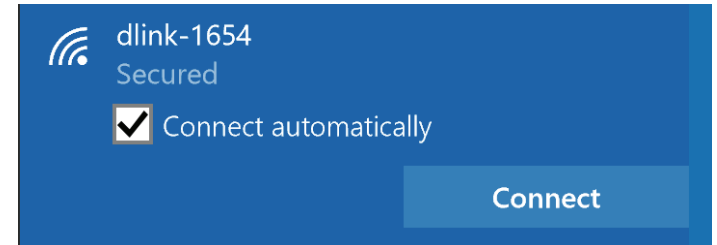


Wireless Icon



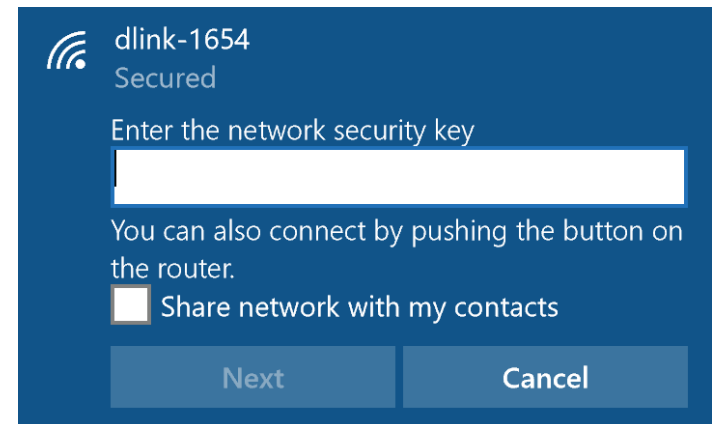
To connect to the SSID, click **Connect**.

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

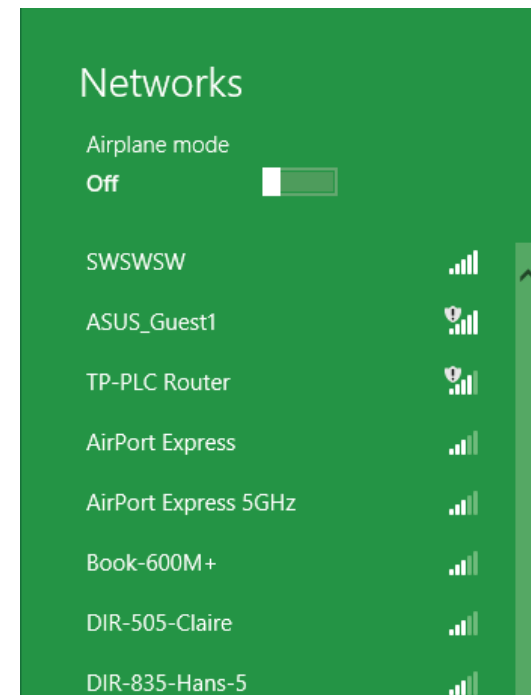
## WPA/WPA2

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.

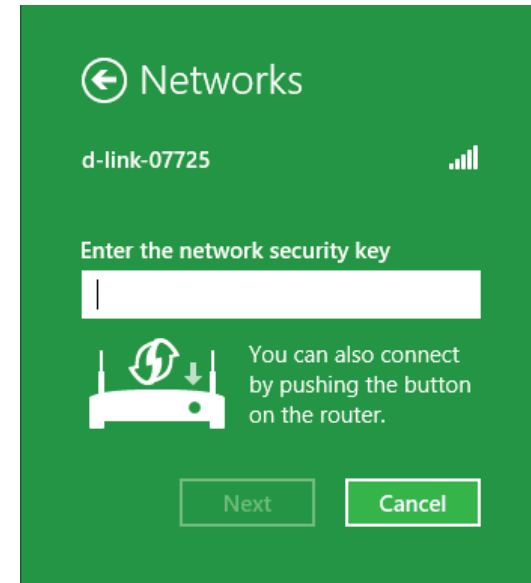


Clicking on this icon will display a list of wireless networks that are within connecting proximity of your computer. Select the desired network by clicking on the network name.

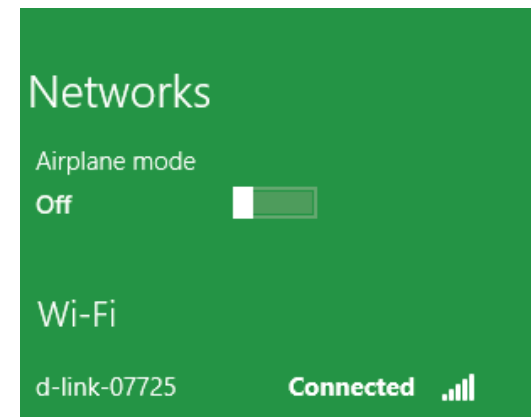


You will then be prompted to enter the network security key (Wi-Fi password) for the wireless network. Enter the password into the box and click **Next**.

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.



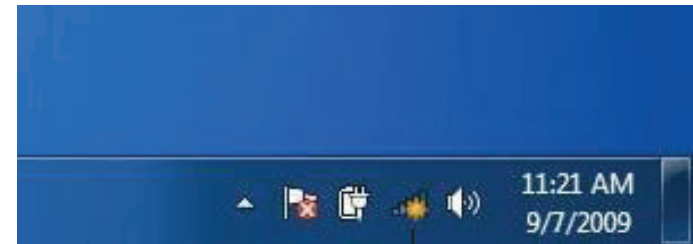


# Windows® 7

## 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.

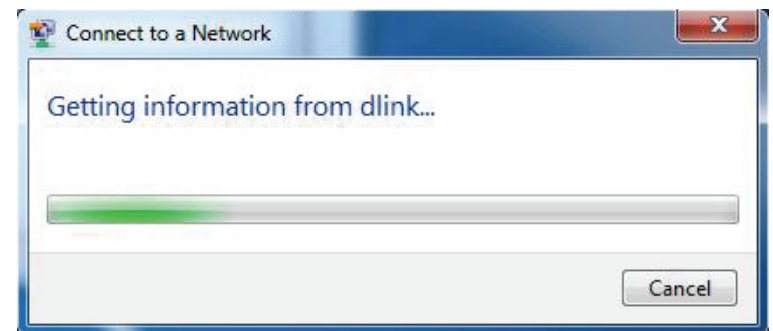


3. Highlight the wireless connection with Wi-Fi name (SSID) you would like to connect to and click the **Connect** button.

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.



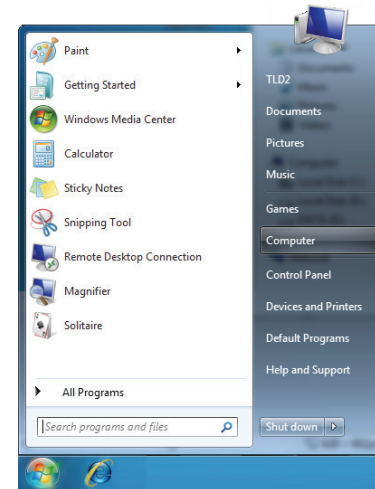
4. The following window appears while your computer tries to connect to the router.



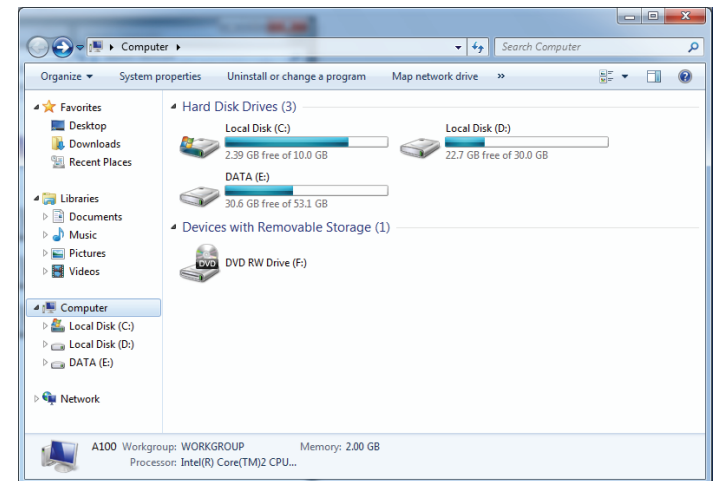
# WPS

The WPS feature of the DIR-608 can be configured using Windows® 7. Carry out the following steps to use Windows® 7 to configure the WPS feature:

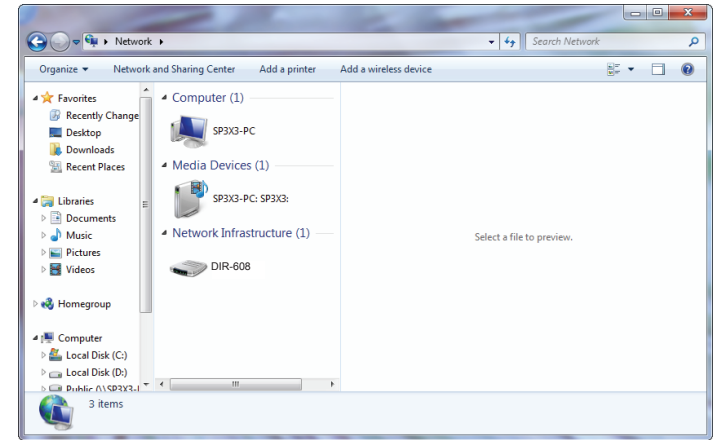
1. Click the **Start** button and select **Computer** from the Start menu.



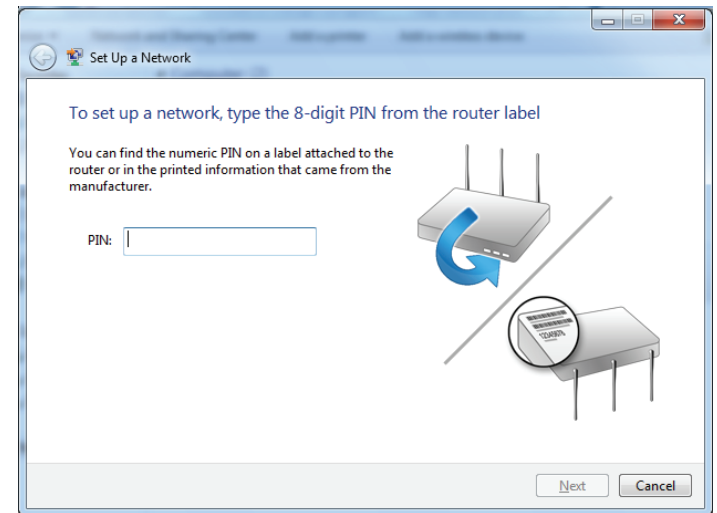
2. Click **Network** on the left side.



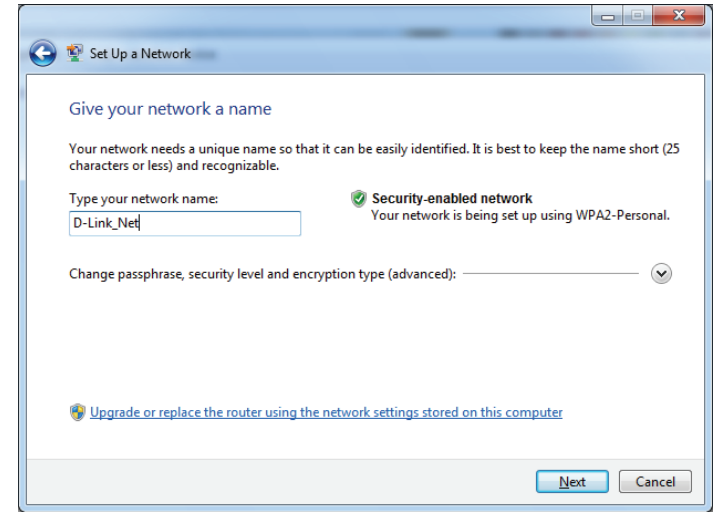
3. Double-click the DIR-608.




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**.

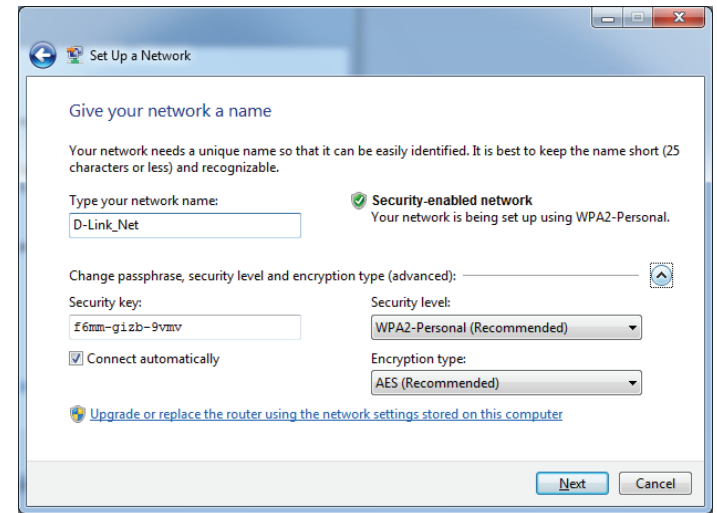


5. Type a name to identify the network.



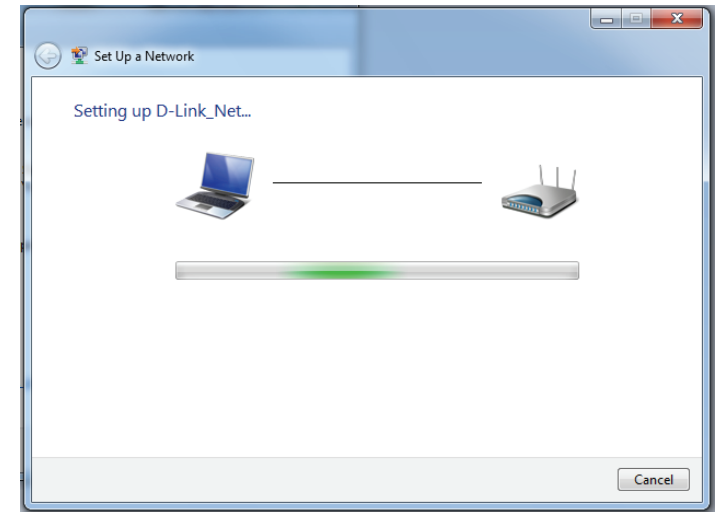
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



7. The following window appears while the DIR-608 is being configured.

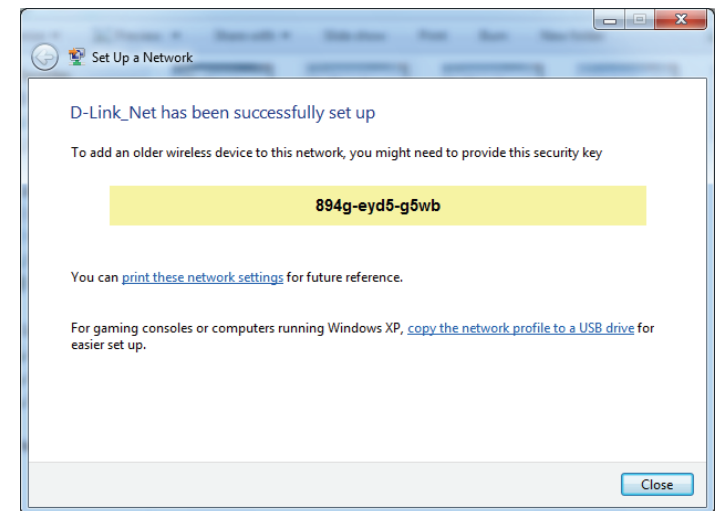
Wait for the configuration to complete.



8. The following window informs you that WPS on the DIR-608 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.



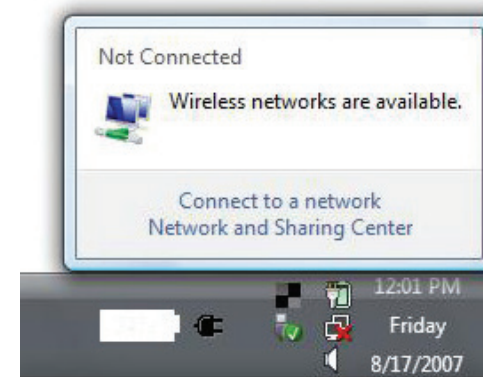
# Windows Vista®

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.

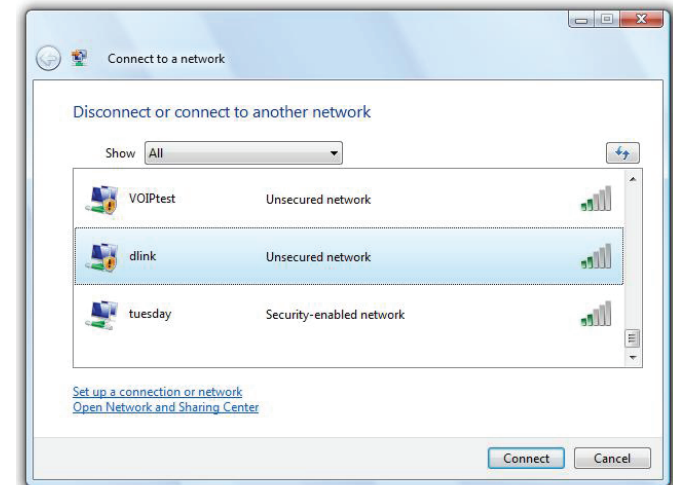
or

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



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

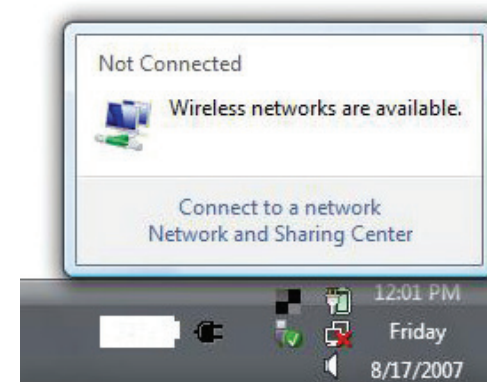
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



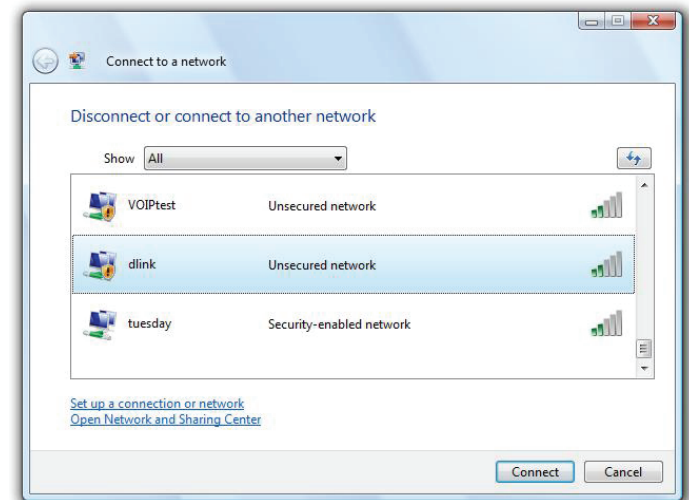
## WPA/WPA2

It is recommended 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-608. 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]**

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

```
C:\>ping yahoo.com -f -l 1482
Pinging yahoo.com [66.94.234.13] with 1482 bytes of data:
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Packet needs to be fragmented but DF set.
Ping statistics for 66.94.234.13:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 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:\>
```

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, let's 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 has 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

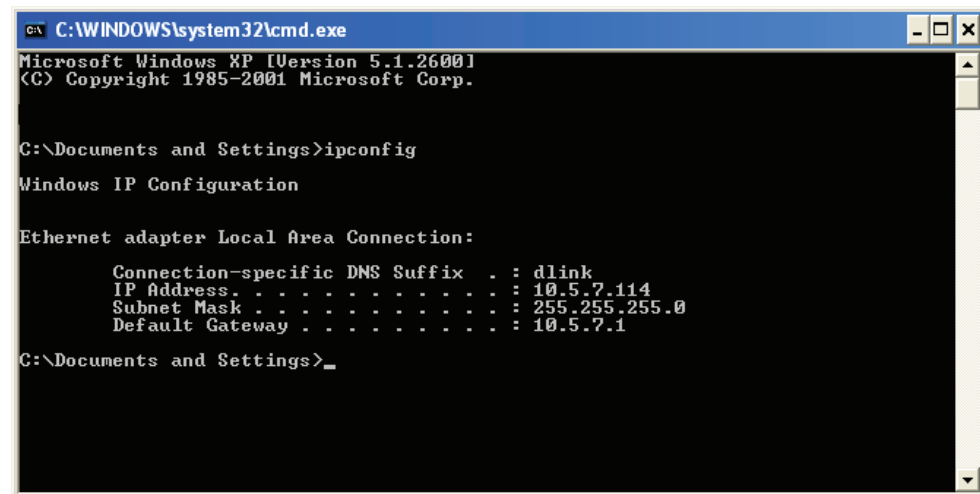
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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

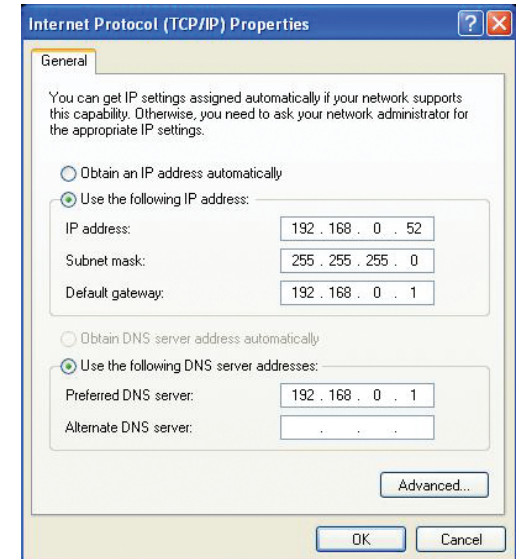
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

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-608 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

## Hardware Specifications

- LAN Interface: Two 10/100 Mbps LAN ports
- WAN Interface: One 10/100 Mbps Internet port
- Wireless Interface (2.4 GHz): IEEE 802.11n/g/b

## Operating Voltage

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

## Temperature

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

## Humidity

- Operating: 10% - 90% non-condensing
- Storage: 5% - 95% non-condensing

## Wireless Frequency Range

- IEEE 802.11b: 2400 MHz ~ 2483 MHz
- IEEE 802.11g: 2400 MHz ~ 2484 MHz
- IEEE 802.11n: 2400 MHz ~ 2484 MHz

## Wireless Bandwidth Rate<sup>1</sup>

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

## Antenna Type

- One external antenna

## Wireless Security

- 64/128bit WEP, WPA/WPA2-Personal, WPS-PBC

## Safety and Emission Certification

- FCC

## Dimensions & Weight

- 180.56 x 91.07 x 25.37 mm (7.11 x 3.59 x 1.00 inches)
- 114 g ( 4.02 oz)

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

<sup>2</sup> Frequency range varies depending on country's regulation.

# Safety Statements

**Caution:** Do not remove the plug and connect it to a power outlet by itself; always attach the plug to the power adaptor first before connecting it to a power outlet.

## **FCC Statement:**

### **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.

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

This 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.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

**IMPORTANT NOTE:**

**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 25 cm between the radiator and your body.