

# User Manual

## HD Media Router

---

# 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	February 18, 2011	• Initial release

## Trademarks

D-Link and the D-Link logo are trademarks or registered trademarks of D-Link Corporation or its subsidiaries in the United States or other countries. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies.

Copyright © 2011 by D-Link Systems, Inc.

All rights reserved. This publication may not be reproduced, in whole or in part, without prior expressed written permission from D-Link Systems, Inc.

---

# Table of Contents

<b>Preface</b> .....	<b>i</b>	Internet Setup .....	18
Manual Revisions.....	i	PPPoE (DSL) .....	18
Trademarks .....	i	PPTP .....	19
<b>Product Overview</b> .....	<b>1</b>	L2TP .....	20
Package Contents .....	1	Static (assigned by ISP).....	21
System Requirements.....	2	Wireless Settings .....	22
Introduction .....	3	Network Settings.....	23
Features .....	4	DHCP Server Settings.....	24
Hardware Overview.....	6	DHCP Reservation .....	25
Connections.....	6	Media Server .....	26
Hardware Overview.....	7	IPv6 Internet Connection .....	27
Front View .....	7	IPv6 Manual Setup.....	28
LEDs .....	8	Auto Detection.....	28
<b>Installation</b> .....	<b>9</b>	Static IPv6 (Stateful).....	29
Before you Begin .....	9	Static IPv6 (Stateless) .....	30
Wireless Installation Considerations .....	10	Autoconfiguration (Stateful) .....	31
Getting Started .....	11	Autoconfiguration (Stateless) .....	32
<b>Configuration</b> .....	<b>12</b>	PPPoE (Stateful).....	33
Web-based Configuration Utility.....	12	PPPoE (Stateless).....	35
Setup Wizard.....	13	IPv6 in IPv4 Tunneling (Stateful) .....	37
Internet Connection.....	13	IPv6 in IPv4 Tunneling (Stateless) .....	38
Wireless Settings.....	13	6 to 4 Tunneling (Stateful).....	39
Manual Configuration .....	17	6 to 4 Tunneling (Stateless).....	40
Dynamic (Cable).....	17	6rd (Stateless) .....	41
		6rd (Stateful).....	42
		Link-Local Connectivity.....	43

Parental Controls.....	44	Update Firmware.....	72
Virtual Server .....	45	DDNS .....	73
Port Forwarding.....	47	System Check .....	74
Application Rules .....	48	Schedules.....	75
QoS Engine .....	49	Device Information.....	76
Network Filters .....	51	Log.....	77
Access Control.....	52	Stats .....	78
Access Control Wizard.....	52	Active Sessions.....	78
Website Filters .....	55	Wireless.....	79
Inbound Filters.....	56	IPv6.....	80
Firewall Settings .....	57	Support.....	81
Application Level Gateway Configuration .....	58	<b>Wireless Security .....</b>	<b>82</b>
Routing .....	59	What is WPA?.....	82
Advanced Wireless Settings .....	60	Wi-PnP Wireless Setup.....	83
WISH Settings.....	61	Wireless Security Setup Wizard .....	85
Wi-Fi Protected Setup (WPS).....	62	Configure WPA-Personal (PSK) .....	87
Advanced Network Settings .....	63	Configure WPA-Enterprise (RADIUS) .....	88
UPnP.....	63	Using Windows® 7 and WPS for Wireless Configuration .....	90
Internet Ping Block.....	63	<b>Connect to a Wireless Network.....</b>	<b>94</b>
Internet Port Speed .....	63	Using Windows® 7.....	94
Multicast Streams.....	63	Using Windows Vista® .....	97
Guest Zone .....	64	Configure Wireless Security.....	98
IPv6 Firewall .....	65	Using Windows® XP .....	100
IPv6 Routing.....	66	Configure WPA-PSK .....	101
Administrator Settings.....	67	<b>Troubleshooting .....</b>	<b>103</b>
Time Settings.....	68	<b>Wireless Basics .....</b>	<b>107</b>
SysLog .....	69	Tips .....	109
Email Settings.....	70		
System Settings .....	71		



Wireless Modes ..... 110

**Networking Basics ..... 111**

    Check your IP address..... 111

**Technical Specifications ..... 113**

# Package Contents



DIR-657 HD Media Router



Ethernet Cable



Power Adapter



CD-ROM with Manual and Setup Wizard

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-657 will cause damage and void the warranty.

# 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 or 802.11g wireless clients</li><li>• 10/100/1000 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 6.0 or higher</li><li>• Chrome 2.0 or higher</li><li>• Firefox 3.0 or higher</li><li>• Safari 3.0 or higher (with Java 1.3.1 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>
<b>CD Installation Wizard Requirements</b>	<p><b>Computer with the following:</b></p> <ul style="list-style-type: none"><li>• Windows® 7, Vista®, or XP with Service Pack 2</li><li>• An installed Ethernet adapter</li><li>• CD-ROM drive</li></ul>

# Introduction

## **TOTAL PERFORMANCE**

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

## **TOTAL SECURITY**

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

## **TOTAL COVERAGE**

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

## **ULTIMATE PERFORMANCE**

The D-Link HD Media Router (DIR-657) is a 802.11n compliant device that delivers real world performance of up to 650% faster than an 802.11g wireless connection (also faster than a 100Mbps wired Ethernet connection). Create a secure wireless network to share photos, files, music, video, printers, and network storage throughout your home. Connect the HD Media Router to a cable or DSL modem and share your high-speed Internet access with everyone on the network. In addition, this Router includes a Quality of Service (QoS) engine that keeps digital phone calls (VoIP) and online gaming smooth and responsive, providing a better Internet experience.

## **EXTENDED WHOLE HOME COVERAGE**

This high performance router provides superior Whole Home Coverage while reducing dead spots. The HD Media Router is designed for use in bigger homes and for users who demand higher performance networking. Add a notebook or desktop adapter and stay connected to your network from virtually anywhere in your home.

## **TOTAL NETWORK SECURITY**

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

\* Maximum wireless signal rate derived from IEEE Standard 802.11g 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

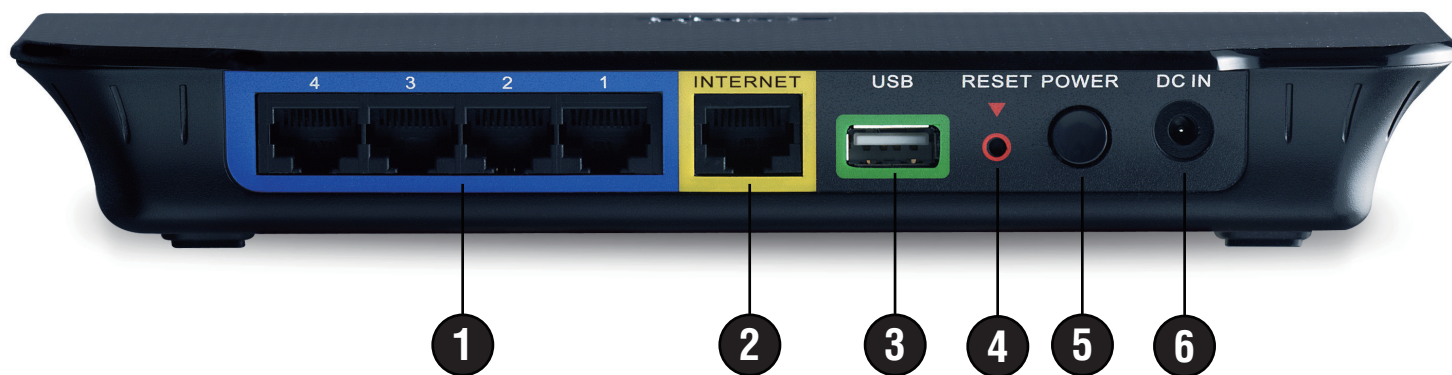
- **Faster Wireless Networking** - The DIR-657 provides up to 300Mbps\* wireless connection with other 802.11n wireless clients. This capability allows users to participate in real-time activities online, such as video streaming, online gaming, and real-time audio. The performance of this 802.11n wireless router gives you the freedom of wireless networking at speeds 650% faster than 802.11g.
- **Compatible with 802.11g Devices** - The DIR-657 is still fully compatible with the IEEE 802.11g standard, so it can connect with existing 802.11g PCI, USB and FireWire adapters.
- **Advanced Firewall Features** - The Web-based user interface displays a number of advanced network management features including:
  - **Content Filtering** - Easily applied content filtering based on MAC Address, URL, and/or Domain Name.
  - **Filter Scheduling** - These filters can be scheduled to be active on certain days or for a duration of hours or minutes.
  - **Secure Multiple/Concurrent Sessions** - The DIR-657 can pass through VPN sessions. It supports multiple and concurrent IPSec and PPTP sessions, so users behind the DIR-657 can securely access corporate networks.
- **User-friendly Setup Wizard** - Through its easy-to-use Web-based user interface, the DIR-657 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.

\* Maximum wireless signal rate derived from IEEE Standard 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.

- **Fast and Guarantee Wireless Streaming for Video Quality** - Whether set-top box or gaming console streaming media directly from the Internet, a NAS or PC, these devices share in common the need to connect with a router in order to communicate and establish the wireless media stream. The DIR-657 Wireless N Media Router offers stability, fast wireless, and guaranteed performance for media streaming using the newest streaming engine technology.
- **Storage for Photos and Streaming Music/Video** - A compact SD Card can be placed inside this router to act as network storage. Without any cumbersome cables or protruding antennas, you can wirelessly share this disk space among family members, stream stored music and video to media players attached to stereo systems or TV, and provide remote access to your personal documents from the Internet.
- **Share Multifunction Printers** - Through the SharePort™ Plus Utility, you can connect multifunction printers to the USB ports to share printing and scanning functions among family members.
- **Other Features Include -**
  - Wi-Fi Protected Setup (WPS) Push Button
  - UPnP Support
  - SD Card Slot to share music/video/images
  - HD Fuel™ for smooth video streaming and online gaming
  - D-Link Green™
  - Wi-PnP for easy wireless setup (required USB thumb drive)
  - Supports IPv6

# Hardware Overview

## Connections



<b>1</b>	LAN Ports (1-4)	Connect Ethernet devices such as computers, switches, and hubs.
<b>2</b>	Internet Port	The auto MDI/MDIX Internet port is the connection for the Ethernet cable to the cable or DSL modem.
<b>3</b>	USB	Connect a USB 1.1 or 2.0 flash drive to configure the wireless settings using WCN.
<b>4</b>	Reset	Press and hold the reset button to restore the router to its original factory settings.
<b>5</b>	Power Button	Press the power button to power on and off.
<b>6</b>	Power Receptor	Receptor for the supplied power adapter.

# Hardware Overview

## Front View



<b>1</b>	WPS Button	Press this button to add your device to an existing network or to create a new network. Power LED will blink on and off when WPS button is pressed.
<b>2</b>	SD Card Port	Insert your SD Card for sharing multimedia files such as video, music, and images. Refer to the SharePort Plus manual for more information. You may access the files on the SD card by opening a web browser and enter <b>\\dlinkrouter</b> . Power LED will be blinking blue when SD card is in use. Please do not eject the SD card until the Power LED is solid blue. Removing SD card while Power LED is blinking will cause adverse effect to your SD card.



## LEDs



<b>1</b>	Power LED	A solid light indicates a proper connection to the power supply.
<b>2</b>	Internet LED	A solid light indicates connection on the Internet port. This LED blinks during data transmission. A solid blue light indicates that there is an Internet connection, an orange light indicates that there is none.

# Installation

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

## Before you Begin

Please configure the router with the computer that was last connected directly to your modem. Also, you can only use the Ethernet port on your modem. If you were using the USB connection before using the router, then you must turn off your modem, disconnect the USB cable and connect an Ethernet cable to the Internet port on the router, and then turn the modem back on. In some cases, you may need to call your ISP to change connection types (USB to Ethernet).

If you have DSL and are connecting via PPPoE, make sure you disable or uninstall any PPPoE software such as WinPoet, Broadjump, or Enternet 300 from your computer or you will not be able to connect to the Internet.

# Wireless Installation Considerations

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

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

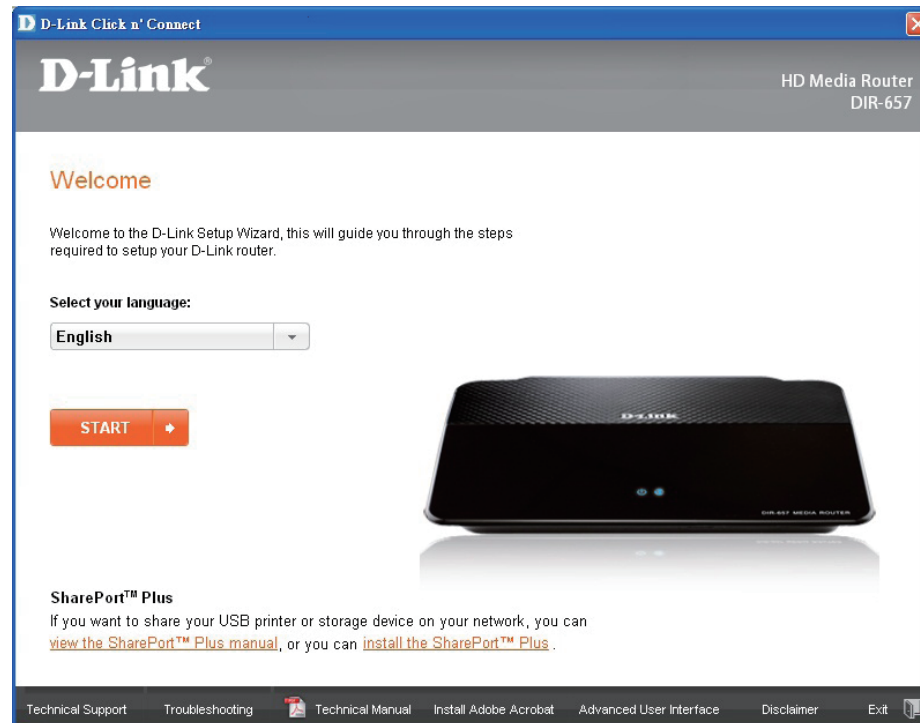
# Getting Started

The DIR-657 includes a Quick Router Setup Wizard CD. Follow the simple steps below to run the Setup Wizard to guide you quickly through the installation process.

Insert the **Wizard CD** in the CD-ROM drive. The step-by-step instructions that follow are shown in Windows® XP. The steps and screens are similar for the other Windows operating systems.

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

When the autorun screen appears, click **START**.



**Note:** It is recommended to write down the SSID and Security Key, followed by the login password on the provided CD holder.

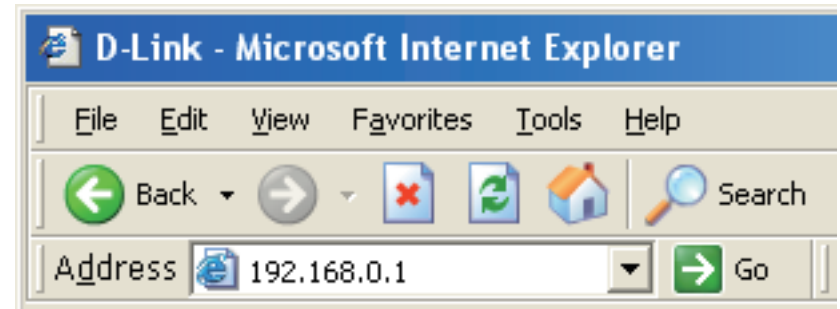
# Configuration

This section will show you how to configure your new D-Link wireless router using the web-based configuration utility.

## Web-based Configuration Utility

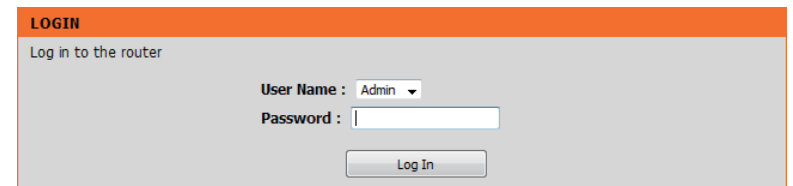
To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the router (192.168.0.1).

You may also connect using the NetBIOS name in the address bar (**http://dlinkrouter**).



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

If you get a **Page Cannot be Displayed** error, please refer to the **Troubleshooting** section for assistance.



# Setup Wizard

## Internet Connection

Click **Internet Connection Setup Wizard** to quickly configure your router. Skip to the next page.

If you want to enter your settings without running the wizard, click **Manual Configuration** and skip to page 17.

## Wireless Settings

Click **Wireless Connection Setup Wizard** to begin. Skip to page 81.

If you want to add your wireless clients to your router using WPS, click **Add Wireless Device with WPS** and skip to page 74.

If you want to configure your wireless settings manually, click **Manual Wireless Connection Setup** and skip to page 21.

The screenshot shows the D-Link DIR-657 router's web-based setup wizard. The interface has a top navigation bar with tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. A left sidebar lists menu items: INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS, USB STORAGE, and MEDIA SERVER. The main content area is titled 'INTERNET CONNECTION' and contains three sections: 'INTERNET CONNECTION WIZARD' with a button for 'Internet Connection Setup Wizard', a 'Note' about following the Quick Installation Guide, and 'MANUAL INTERNET CONNECTION OPTIONS' with a button for 'Manual Internet Connection Setup'. A 'Helpful Hints...' sidebar on the right provides instructions for new and advanced users.

This section is titled 'WIRELESS SETTINGS'. It explains that the following Web-based wizards are designed to assist with wireless network setup and device connection. It includes a note: 'Before launching these wizards, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package.'

This section is titled 'WIRELESS NETWORK SETUP WIZARD'. It states that the wizard is designed to assist with wireless network setup, guiding the user through step-by-step instructions on how to set up the network and make it secure. A button labeled 'Wireless Connection Setup Wizard' is visible. A note below states: 'Note: Some changes made using this Setup Wizard may require you to change some settings on your wireless client adapters so they can still connect to the D-Link Router.'

This section is titled 'ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP) WIZARD'. It explains that the wizard is designed to assist in connecting a wireless device to the router, guiding the user through step-by-step instructions. A button labeled 'Add Wireless Device with WPS' is visible.

This section is titled 'MANUAL WIRELESS NETWORK SETUP'. It states that if the wireless network is already set up with Wi-Fi Protected Setup, manual configuration will destroy the existing wireless network. It provides instructions for manual configuration and includes a button labeled 'Manual Wireless Connection Setup'.

Click **Next** to continue.

Create a new password and then click **Next** to continue.

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

Select the type of Internet connection you use and then click **Next** to continue.

**WELCOME TO THE D-LINK SETUP WIZARD**

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

- Step 1: Set your Password
- Step 2: Select your Time Zone
- Step 3: Configure your Internet Connection
- Step 4: Save Settings and Connect

Prev Next Cancel Connect

**STEP 1: SET YOUR PASSWORD**

By default, your new D-Link Router does not have a password configured for administrator access to the Web-based configuration pages. To secure your new networking device, please set and verify a password below:

Password :

Verify Password :

Prev Next Cancel Connect

**STEP 2: SELECT YOUR TIME ZONE**

Select the appropriate time zone for your location. This information is required to configure the time-based options for the router.

(GMT-08:00) Pacific Time (US/Canada), Tijuana

Prev Next Cancel Connect

**STEP 3: CONFIGURE YOUR INTERNET CONNECTION**

Your Internet Connection could not be detected, please select your Internet Service Provider (ISP) from the list below. If your ISP is not listed; select the "Not Listed or Don't Know" option to manually configure your connection.

Not Listed or Don't Know

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

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

Prev Next Cancel Connect

If you selected Dynamic, you may need to enter the MAC address of the computer that was last connected directly to your modem. If you are currently using that computer, click **Clone Your PC's MAC Address** and then click **Next** to continue.

The Host Name is optional but may be required by some ISPs. The default host name is the device name of the Router and may be changed.

If you selected PPPoE, enter your PPPoE username and password. Click **Next** to continue.

Select **Static** if your ISP assigned you the IP address, subnet mask, gateway, and DNS server addresses.

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

If you selected PPTP, enter your PPTP username and password. Click **Next** to continue.

**DHCP CONNECTION (DYNAMIC IP ADDRESS)**

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

MAC Address :  (Optional)

Host Name :

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

**DNS SETTINGS**

Primary DNS Address :   
 Secondary DNS Address :

**SET USERNAME AND PASSWORD CONNECTION (PPPOE)**

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

Address Mode :  Dynamic IP  Static IP

IP Address :

User Name :   
 Password :   
 Verify Password :

Service Name :  (Optional)

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

**DNS SETTINGS**

Primary DNS Address :   
 Secondary DNS Address :

**SET USERNAME AND PASSWORD CONNECTION (PPTP)**

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

Address Mode :  Dynamic IP  Static IP

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

**DNS SETTINGS**

Primary DNS Address :   
 Secondary DNS Address :



If you selected L2TP, enter your L2TP username and password. Click **Next** to continue.

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

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

Address Mode :  Dynamic IP  Static IP

L2TP IP Address :

L2TP Subnet Mask :

L2TP Gateway IP Address :

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

User Name :

Password :

Verify Password :

**DNS SETTINGS**

Primary DNS Address :

Secondary DNS Address :

Prev Next Cancel Connect

If you selected Static, enter your network settings supplied by your Internet provider. Click **Next** to continue.

**SET STATIC IP ADDRESS CONNECTION**

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

IP Address :

Subnet Mask :

Gateway Address :

**DNS SETTINGS**

Primary DNS Address :

Secondary DNS Address :

Prev Next Cancel Connect

Click **Connect** to save your settings. Once the router is finished rebooting, click **Continue**. Please allow 1-2 minutes to connect.

Close your browser window and reopen it to test your Internet connection. It may take a few tries to initially connect to the Internet.

**SETUP COMPLETE!**

The Setup Wizard has completed. Click the Connect button to save your settings and restart the router.

Prev Next Cancel Connect

# Manual Configuration

## Dynamic (Cable)

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

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

**Use Unicasting:** Check the box if you are having problems obtaining an IP address from your ISP.

**Primary/Secondary DNS Server:** Enter the Primary and secondary DNS server IP addresses assigned by your ISP. These addresses are usually obtained automatically from your ISP. Leave at 0.0.0.0 if you did not specifically receive these from your ISP.

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

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

**INTERNET CONNECTION TYPE**

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

**My Internet Connection is :**

---

**DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE :**

Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password.

**Host Name :**

**Use Unicasting :**  (compatibility for some DHCP Servers)

**Primary DNS Address :**

**Secondary DNS Address :**

**MTU :**  (bytes)MTU default = 1500

**MAC Address :**

# Internet Setup

## PPPoE (DSL)

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

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

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

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

**User Name:** Enter your PPPoE user name.

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

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

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

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

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

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

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

**INTERNET CONNECTION TYPE**

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

My Internet Connection is : PPPoE (Username / Password) ▾

**PPPOE :**

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

**Address Mode**    Dynamic IP    Static IP

**IP Address :**

**User Name :**

**Password :**

**Verify Password :**

**Service Name :**  (optional)

**Reconnect Mode :**    Always on    On demand    Manual

**Maximum Idle Time :**  (minutes, 0=infinite)

**Primary DNS Address :**  (optional)

**Secondary DNS Address :**  (optional)

**MTU :**  (bytes) MTU default = 1492

**MAC Address :**

## PPTP

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

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

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

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

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

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

**Username:** Enter your PPTP username.

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

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

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

**DNS Servers:** The DNS server information will be supplied by your ISP (Internet Service Provider.)

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.

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

**INTERNET CONNECTION TYPE**

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

**My Internet Connection is :** PPTP (Username / Password) ▾

---

**PPTP :**

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

**Address Mode**  Dynamic IP  Static IP

**PPTP IP Address :**

**PPTP Subnet Mask :**

**PPTP Gateway IP Address :**

**PPTP Server IP Address :**

**Username :**

**Password :**

**Verify Password :**

**Reconnect Mode :**  Always on  On demand  Manual

**Maximum Idle Time :**  (minutes, 0=infinite)

**Primary DNS Address :**

**Secondary DNS Address :**

**MTU :**  (bytes) MTU default = 1400

**MAC Address :**

## L2TP

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

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

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

**L2TP Subnet Mask:** Enter the Subnet Mask supplied by your ISP (Static only).

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

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

**Username:** Enter your L2TP username.

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

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

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

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

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1400 is the default MTU.

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

**INTERNET CONNECTION TYPE**

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

My Internet Connection is : L2TP (Username / Password) ▼

---

**L2TP :**

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

**Address Mode**  Dynamic IP  Static IP

**L2TP IP Address :**

**L2TP Subnet Mask :**

**L2TP Gateway IP Address :**

**L2TP Server IP Address :**

**Username :**

**Password :**

**Verify Password :**

**Reconnect Mode**  Always  On demand  Manual

**Maximum Idle Time :**  (minutes, 0=infinite)

**Primary DNS Address :**

**Secondary DNS Address :**

**MTU :**  (bytes) MTU default = 1400

**MAC Address :**

## Static (assigned by ISP)

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

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

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

**Default Gateway:** Enter the Gateway assigned by your ISP.

**DNS Servers:** The DNS server information will be supplied by your ISP (Internet Service Provider.)

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

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

### INTERNET CONNECTION TYPE

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

My Internet Connection is :

### STATIC IP ADDRESS INTERNET CONNECTION TYPE :

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

IP Address :

Subnet Mask :

Default Gateway :

Primary DNS Server :

Secondary DNS Server :

MTU :  (bytes) MTU default = 1500

MAC Address :

# Wireless Settings

**Enable Wireless:** Check the box to enable the wireless function. If you do not want to use wireless, uncheck the box to disable all the wireless functions.

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

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

**Enable Auto Channel Scan:** The **Auto Channel Scan** setting can be selected to allow the DIR-657 to choose the channel with the least amount of interference.

**Wireless Channel:** Indicates the channel setting for the DIR-657. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network. If you enable **Auto Channel Scan**, this option will be greyed out.

**802.11 Mode:** Select one of the following:  
**802.11g Only** - Select if all of your wireless clients are 802.11g.  
**802.11n Only** - Select only if all of your wireless clients are 802.11n.  
**Mixed 802.11n and 802.11g** - Select if you are using a mix of 802.11n and 11g wireless clients.

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

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

**Visibility Status:** Select **Invisible** if you do not want the SSID of your wireless network to be broadcasted by the DIR-657. If Invisible is selected, the SSID of the DIR-657 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your DIR-657

**WIRELESS SETTINGS**

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

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

---

**WIRELESS NETWORK SETUP WIZARD**

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

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

---

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

This wizard is designed to assist you in connecting your wireless device to your router. It will guide you through step-by-step instructions on how to get your wireless device connected. Click the button below to begin.

---

**MANUAL WIRELESS NETWORK SETUP**

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

# Network Settings

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

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

If you change the IP address, once you click **Apply**, 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.

**Local Domain:** Enter the Domain name (Optional).

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

### NETWORK SETTINGS

Use this section to configure the internal network settings of your router and also to configure the built-in DHCP Server to assign IP addresses to the computers on your network. The IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.

### ROUTER SETTINGS

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

**Router IP Address :**

**Subnet Mask :**

**Device Name :**

**Local Domain Name :**

**Enable DNS Relay :**



## DHCP Server Settings

DHCP stands for Dynamic Host Control Protocol. The DIR-657 has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the DIR-657. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

**Enable DHCP Server:** Check this box to enable the DHCP server on your router. Uncheck to disable this function.

**DHCP IP Address Range:** Enter the starting and ending IP addresses for the DHCP server's IP assignment.

**Note:** If you statically (manually) assign IP addresses to your computers or devices, make sure the IP addresses are outside of this range or you may have an IP conflict.

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

**Always Broadcast:** Enable this feature to broadcast your networks DHCP server to LAN/WLAN clients.

**NetBIOS Announcement:** NetBIOS allows LAN hosts to discover all other computers within the network, enable this feature to allow the DHCP Server to offer NetBIOS configuration settings.

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

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

**NetBIOS Mode Type:** Select the different type of NetBIOS node: **Broadcast only**, **Point-to-Point**, **Mixed-mode**, and **Hybrid**.

**Primary/Secondary WINS IP Address:** Enter your Primary (and Secondary) WINS IP address(es).

### DHCP SERVER SETTINGS

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

**Enable DHCP Server :**

**DHCP IP Address Range :**  to

**DHCP Lease Time :**  (minutes)

**Always broadcast :**  (compatibility for some DHCP Clients)

**NetBIOS announcement :**

**Learn NetBIOS from WAN :**

**NetBIOS Scope :**  (optional)

**NetBIOS node type :**

- Broadcast only (use when no WINS servers configured)
- Point-to-Point (no broadcast)
- Mixed-mode (Broadcast then Point-to-Point)
- Hybrid (Point-to-Point then Broadcast)

**Primary WINS IP Address :**

**Secondary WINS IP Address :**

## DHCP Reservation

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

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

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

**Computer Name:** Enter the computer name or select from the drop-down menu and click <<.

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

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

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

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

**Number of Dynamic DHCP Clients:** In this section you can see what LAN devices are currently leasing IP addresses.

**Revoke:** Click **Revoke** to cancel the lease for a specific LAN device and free an entry in the lease table. Do this only if the device no longer needs the leased IP address, because, for example, it has been removed from the network.

**Note:** The Revoke option will not disconnect a PC with a current network session from the network; you would need to use MAC Address Filter to do that. Revoke will only free up a DHCP Address for the very next requester. If the previous owner is still available, those two devices may both receive an IP Address Conflict error, or the second device may still not receive an IP Address; in that case, you may still need to extend the "DHCP IP Address Range" to address the issue, it is located in the DHCP Server section.

**Reserve:** The Reserve option converts this dynamic IP allocation into a DHCP Reservation and adds the corresponding entry to the DHCP Reservations List.

**ADD DHCP RESERVATION**

**Enable :**

**Computer Name :**  << Computer Name ▾

**IP Address :**

**MAC Address :**

---

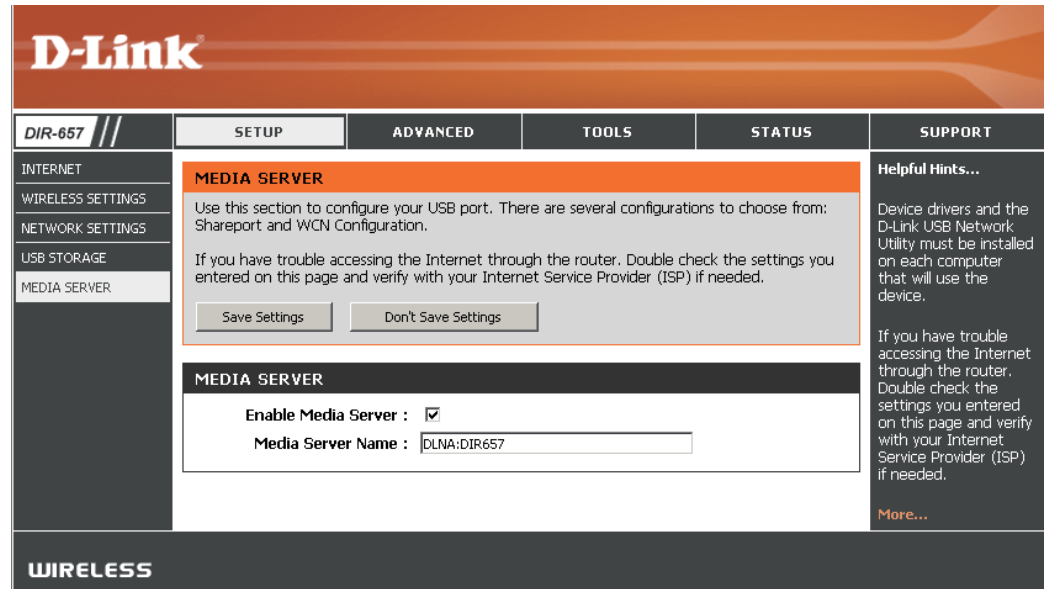
**DHCP RESERVATIONS LIST :**

Enable	Host Name	MAC Address	IP Address
<b>NUMBER OF DYNAMIC DHCP CLIENTS : 4</b>			
Hardware Address	Assigned IP	Hostname	Expires
00:1b:63:ce:3a:d8	192.168.0.100	UNKNOWN	Fri Dec 31 14:58:13 2010
00:26:b0:ce:46:9c	192.168.0.102	UNKNOWN	Fri Dec 31 15:11:29 2010
cc:55:ad:34:fc:91	192.168.0.103	BLACKBERRY-8720	Fri Dec 31 16:35:54 2010
38:e7:d8:67:86:f7	192.168.0.104	UNKNOWN	Fri Dec 31 17:00:53 2010

# Media Server

If you enable to share media with devices, any computer or device that connects to your network can play your shared music, pictures and videos.

Click **Enable Media Server** to enable this feature.



The screenshot displays the D-Link DIR-657 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists menu items: INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS, USB STORAGE, and MEDIA SERVER. The main content area is titled "MEDIA SERVER" and contains the following text:

Use this section to configure your USB port. There are several configurations to choose from: Shareport and WCN Configuration.

If you have trouble accessing the Internet through the router. Double check the settings you entered on this page and verify with your Internet Service Provider (ISP) if needed.

Buttons: Save Settings, Don't Save Settings

**MEDIA SERVER**

Enable Media Server :

Media Server Name :

Helpful Hints...  
Device drivers and the D-Link USB Network Utility must be installed on each computer that will use the device.  
If you have trouble accessing the Internet through the router. Double check the settings you entered on this page and verify with your Internet Service Provider (ISP) if needed.  
[More...](#)

WIRELESS

# IPv6 Internet Connection

Click **IPv6 Internet Connection Setup Wizard** to begin. Skip to page 29.

If you want to configure your IPv6 Internet Connection manually, click **Manual IPv6 Internet Connection Setup** and skip to the next page.

The screenshot shows the D-Link DIR-657 web interface. The top navigation bar includes the D-Link logo and tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists menu items: INTERNET, WIRELESS SETTINGS, NETWORK SETTINGS, USB STORAGE, MEDIA SERVER, and IPv6. The main content area is titled "IPv6 INTERNET CONNECTION" and contains two sections:

- IPv6 INTERNET CONNECTION SETUP WIZARD**: A section with a button labeled "IPv6 Internet Connection Setup Wizard".
- MANUAL IPV6 INTERNET CONNECTION SETUP**: A section with a button labeled "Manual IPv6 Internet Connection Setup".

On the right side, there is a "Helpful Hints..." section with text explaining the wizard and manual setup options, and a "More..." link.

# IPv6 Manual Setup

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

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

## Auto Detection

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

IPv6 CONNECTION TYPE
<p>Choose the mode to be used by the router to the IPv6 Internet.</p> <p>My IPv6 Connection is : <input type="text" value="Auto Detection"/></p>
IPv6 DNS SETTINGS
<p>Obtain a DNS server address automatically or enter a specific DNS server address.</p> <p> <input checked="" type="radio"/> Obtain a DNS server address automatically  <input type="radio"/> Use the following DNS address         </p> <p>Primary IPv6 DNS Server : <input type="text"/></p> <p>Secondary IPv6 DNS Server : <input type="text"/></p>
LAN IPv6 ADDRESS SETTINGS
<p>Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.</p> <p>Enable DHCP-PD : <input checked="" type="checkbox"/></p> <p>LAN IPv6 Address : <input type="text"/> /64</p> <p>LAN IPv6 Link-Local Address : FE80::218:E7FF:FE6A:3B54/64</p>
ADDRESS AUTOCONFIGURATION SETTINGS
<p>Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.</p> <p>Enable automatic IPv6 address assignment : <input checked="" type="checkbox"/></p> <p>Enable Automatic DHCP-PD in LAN : <input checked="" type="checkbox"/></p> <p>Autoconfiguration Type : <input type="text" value="SLAAC + Stateless DHCPv6"/></p> <p>Router Advertisement Lifetime: <input type="text" value="1440"/> (minutes)</p>

## Static IPv6 (Stateful)

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

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

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

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

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

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**.

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

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

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	Static IPv6
WAN IPv6 ADDRESS SETTINGS :	
Enter the IPv6 address information provided by your Internet Service Provider (ISP).	
Use Link-Local Address :	<input checked="" type="checkbox"/>
IPv6 Address :	FE80::218:E7FF:FE6A:3847
Subnet Prefix Length :	64
Default Gateway :	
Primary DNS Address :	
Secondary DNS Address :	
LAN IPv6 ADDRESS SETTINGS :	
Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.	
LAN IPv6 Address :	/64
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	Stateful DHCPv6
IPv6 Address Range (Start) :	:: /64
IPv6 Address Range (End) :	:: /64
IPv6 Address Lifetime :	1440 (minutes)

## Static IPv6 (Stateless)

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

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

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

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

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

**Autoconfiguration Type:** Select either **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	Static IPv6
WAN IPv6 ADDRESS SETTINGS :	
Enter the IPv6 address information provided by your Internet Service Provider (ISP).	
Use Link-Local Address :	<input checked="" type="checkbox"/>
IPv6 Address :	FE80::218:E7FF:FE6A:3847
Subnet Prefix Length :	64
Default Gateway :	
Primary DNS Address :	
Secondary DNS Address :	
LAN IPv6 ADDRESS SETTINGS :	
Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.	
LAN IPv6 Address :	/64
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	Stateless
Router Advertisement Lifetime :	1440 (minutes)

## Autoconfiguration (Stateful)

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

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

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

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

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

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

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**.

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

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

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	Autoconfiguration (Stateless/DHCPv6) ▾
IPv6 DNS SETTINGS :	
Obtain a DNS server address automatically or enter a specific DNS server address.	
	<input checked="" type="radio"/> Obtain a DNS server address automatically <input type="radio"/> Use the following DNS address
Primary DNS Address :	<input type="text"/>
Secondary DNS Address :	<input type="text"/>
LAN IPv6 ADDRESS SETTINGS :	
Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.	
Enable DHCP-PD :	<input checked="" type="checkbox"/>
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	Stateful DHCPv6 ▾
IPv6 Address Range (Start):	<input type="text"/> :: <input type="text"/>
IPv6 Address Range (End):	<input type="text"/> :: <input type="text"/>
IPv6 Address Lifetime:	1440 <input type="text"/> (minutes)



## Autoconfiguration (Stateless)

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

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

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

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

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

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

**Autoconfiguration Type:** Select either **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	<input type="text" value="Autoconfiguration (Stateless/DHCPv6)"/>
IPv6 DNS SETTINGS :	
Obtain a DNS server address automatically or enter a specific DNS server address.	
	<input checked="" type="radio"/> Obtain a DNS server address automatically <input type="radio"/> Use the following DNS address
Primary DNS Address :	<input type="text"/>
Secondary DNS Address :	<input type="text"/>
LAN IPv6 ADDRESS SETTINGS :	
Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.	
Enable DHCP-PD :	<input checked="" type="checkbox"/>
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	<input type="text" value="Stateless"/>
Router Advertisement Lifetime:	<input type="text" value="1440"/> (minutes)

## PPPoE (Stateful)

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

**PPPoE:** Enter the PPPoE account settings supplied by your Internet provider (ISP).

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

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

**User Name:** Enter your PPPoE user name.

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

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

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

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

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

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

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

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

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

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

**IPv6 CONNECTION TYPE**

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

My IPv6 Connection is : PPPoE

---

**PPPOE :**

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

**PPPoE Session:**  Share with IPv4  Create a new session

**Address Mode:**  Dynamic IP  Static IP

**IP Address :**

**User Name :**

**Password :**

**Verify Password :**

**Service Name :**  (optional)

**Reconnect Mode :**  Always on  On demand  Manual

**Maximum Idle Time :**  (minutes, 0=infinite)

**MTU :**  (bytes) MTU default = 1492

---

**IPv6 DNS SETTINGS :**

Enter a specific DNS server address.

Obtain a DNS server address automatically

Use the following DNS address

**Primary DNS Address :**

**Secondary DNS Address :**

---

**LAN IPv6 ADDRESS SETTINGS :**

Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.

**Enable DHCP-PD :**

**LAN IPv6 Address :**  /64

**LAN IPv6 Link-Local Address :** FE80::218:E7FF:FE6A:3846/64

---

**ADDRESS AUTOCONFIGURATION SETTINGS**

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

**Enable automatic IPv6 address assignment :**

**Autoconfiguration Type :** Stateless

**Router Advertisement Lifetime :**  (minutes)

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**.

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

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

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

## PPPoE (Stateless)

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

**PPPoE:** Enter the PPPoE account settings supplied by your Internet provider (ISP).

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

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

**User Name:** Enter your PPPoE user name.

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

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

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

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

**MTU:** Maximum Transmission Unit - you may need to change the MTU for optimal performance with your specific ISP. 1492 is the default MTU.

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

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

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

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

**IPv6 CONNECTION TYPE**

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

My IPv6 Connection is : PPPoE

---

**PPPOE :**

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

Address Mode :  Dynamic IP  Static IP

IP Address :

User Name :

Password :

Verify Password :

Service Name :  (optional)

Reconnect Mode :  Always on  On demand  Manual

Maximum Idle Time :  (minutes, 0=infinite)

MTU :  (bytes)

---

**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 :**

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 : FE80::240:F4FF:FE03:1A9C/64

---

**ADDRESS AUTOCONFIGURATION SETTINGS**

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

Enable Autoconfiguration :

Autoconfiguration Type : Stateless

Router Advertisement Lifetime:  (minutes)

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

**Autoconfiguration Type:** Select either **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

## IPv6 in IPv4 Tunneling (Stateful)

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

**IPv6 in IPv4 Tunnel Settings:** Enter the settings supplied by your Internet provider (ISP).

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

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

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

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**.

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

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

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

**IPv6 CONNECTION TYPE**

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

**My IPv6 Connection is :** IPv6 in IPv4 Tunnel ▼

---

**IPv6 in IPv4 TUNNEL SETTINGS :**

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

**Remote IPv4 Address :**

**Remote IPv6 Address :**

**Local IPv4 Address :**

**Local IPv6 Address :**

**Primary DNS Address :**

**Secondary DNS Address :**

---

**LAN IPv6 ADDRESS SETTINGS :**

Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC's network settings to access the network again.

**LAN IPv6 Address :**  /64

**LAN IPv6 Link-Local Address :** FE80::240:F4FF:FE03:1A9C/64

---

**ADDRESS AUTOCONFIGURATION SETTINGS**

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

**Enable Autoconfiguration :**

**Autoconfiguration Type :** Stateful (DHCPv6) ▼

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

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

**IPv6 Address Lifetime:** 30 (minutes)

## IPv6 in IPv4 Tunneling (Stateless)

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

**IPv6 in IPv4 Tunnel Settings:** Enter the settings supplied by your Internet provider (ISP).

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

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

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

**Autoconfiguration Type:** Select either **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

**IPv6 CONNECTION TYPE**

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

**My IPv6 Connection is :**

---

**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 :**

**Local IPv6 Address :**

**Primary DNS Address :**

**Secondary DNS Address :**

---

**LAN IPv6 ADDRESS SETTINGS :**

Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC's network settings to access the network.

**LAN IPv6 Address :**  /64

**LAN IPv6 Link-Local Address :** FE80::240:F4FF:FE03:1A9C/64

---

**ADDRESS AUTOCONFIGURATION SETTINGS**

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

**Enable Autoconfiguration :**

**Autoconfiguration Type :**

**Router Advertisement Lifetime:**  (minutes)

## 6 to 4 Tunneling (Stateful)

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

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

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

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

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

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

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**.

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

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

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	IPv6 in IPv4 Tunnel
IPv6 in IPv4 TUNNEL SETTINGS :	
Enter the IPv6 in IPv4 Tunnel information provided by your Tunnel Broker.	
Remote IPv4 Address :	
Remote IPv6 Address :	
Local IPv4 Address :	0.0.0.0
Local IPv6 Address :	
IPv6 DNS SETTINGS :	
Obtain a DNS server address automatically or enter a specific DNS server address.	
<input checked="" type="radio"/> Obtain a DNS server address automatically <input type="radio"/> Use the following DNS address	
Primary DNS Address :	
Secondary DNS Address :	
LAN IPv6 ADDRESS SETTINGS :	
Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.	
Enable DHCP-PD :	<input checked="" type="checkbox"/>
LAN IPv6 Address :	/64
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	Stateful DHCPv6
IPv6 Address Range (Start) :	::
Stateful DHCPv6 :	::
IPv6 Address Lifetime:	1440 (minutes)



## 6 to 4 Tunneling (Stateless)

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

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

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

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

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

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

**Autoconfiguration Type:** Select either **SLAAC + RDNSS** or **SLAAC + Stateless DHCPv6**.

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	IPv6 in IPv4 Tunnel
IPv6 in IPv4 TUNNEL SETTINGS :	
Enter the IPv6 in IPv4 Tunnel information provided by your Tunnel Broker.	
Remote IPv4 Address :	<input type="text"/>
Remote IPv6 Address :	<input type="text"/>
Local IPv4 Address :	0.0.0.0
Local IPv6 Address :	<input type="text"/>
IPv6 DNS SETTINGS :	
Obtain a DNS server address automatically or enter a specific DNS server address.	
<input checked="" type="radio"/> Obtain a DNS server address automatically <input type="radio"/> Use the following DNS address	
Primary DNS Address :	<input type="text"/>
Secondary DNS Address :	<input type="text"/>
LAN IPv6 ADDRESS SETTINGS :	
Use this section to configure the internal network settings of your router. If you change the LAN IPv6 Address here, you may need to adjust your PC network settings to access the network again.	
Enable DHCP-PD :	<input checked="" type="checkbox"/>
LAN IPv6 Address :	<input type="text"/> /64
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	Stateless
Router Advertisement Lifetime:	1440 (minutes)

## 6rd (Stateless)

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

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

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

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

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

**Autoconfiguration Type:** Select either **SLAAC+ RDNSS** or **SLAAC + Stateless DHCPv6**.

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	<input type="text" value="6rd"/>
6RD SETTINGS :	
Enter the IPv6 address information provided by your Internet Service Provider (ISP).	
6rd IPv6 Prefix :	<input type="text"/> / <input type="text" value="32"/>
IPv4 Address	<input type="text" value="0.0.0.0"/> Mask Length : <input type="text" value="0"/>
Assign IPv6 Prefix :	None
Tunnel Link-Local Address :	FE80::0000:0000/64
6rd Border Relay IPv4 Address :	<input type="text"/>
Primary DNS Address :	<input type="text"/>
Secondary DNS Address :	<input type="text"/>
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 :	None
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	<input type="text" value="Stateless"/>
Router Advertisement Lifetime:	<input type="text" value="1440"/> (minutes)

## 6rd (Stateful)

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

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

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

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

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

**Autoconfiguration Type:** Select **Stateful (DHCPv6)**.

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

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

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

IPv6 CONNECTION TYPE	
Choose the mode to be used by the router to the IPv6 Internet.	
My IPv6 Connection is :	<input type="text" value="6rd"/>
6RD SETTINGS :	
Enter the IPv6 address information provided by your Internet Service Provider (ISP).	
6rd IPv6 Prefix :	<input type="text"/> / <input type="text" value="32"/>
IPv4 Address	<input type="text" value="0.0.0.0"/> Mask Length : <input type="text" value="0"/>
Assign IPv6 Prefix :	None
Tunnel Link-Local Address :	FE80::0000:0000/64
6rd Border Relay IPv4 Address :	<input type="text"/>
Primary DNS Address :	<input type="text"/>
Secondary DNS Address :	<input type="text"/>
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 :	None
LAN IPv6 Link-Local Address :	FE80::218:E7FF:FE6A:3846/64
ADDRESS AUTOCONFIGURATION SETTINGS	
Use this section to setup IPv6 Autoconfiguration to assign IP addresses to the computers on your network.	
Enable automatic IPv6 address assignment :	<input checked="" type="checkbox"/>
Autoconfiguration Type :	<input type="text" value="Stateful (DHCPv6)"/>
IPv6 Address Range(Start):	<input type="text"/> :: <input type="text"/>
IPv6 Address Range(End):	<input type="text"/> :: <input type="text"/>
IPv6 Address Lifetime:	<input type="text" value="1440"/> (minutes)

## Link-Local Connectivity

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

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

The screenshot shows the D-Link DIR-657 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar lists various configuration options, with ADVANCED NETWORK selected. The main content area is titled 'IPv6' and contains the following sections:

- IPv6:** A header section with a description: "Use this section to configure your IPv6 Connection type. If you are unsure of your connection method, please contact your Internet Service Provider." Below this are two buttons: "Save Settings" and "Don't Save Settings".
- IPv6 CONNECTION TYPE:** A section with the instruction "Choose the mode to be used by the router to the IPv6 Internet." Below this is a label "My IPv6 Connection is :" followed by a dropdown menu currently set to "Link-local only".
- LAN IPv6 ADDRESS SETTINGS :** A section with the instruction "Use this section to configure the internal network settings of your router. The LAN IPv6 Link-Local Address is the IPv6 Address that you use to access the Web-based management interface." Below this is a label "LAN IPv6 Link-Local Address :" followed by the address "FE80::218:E7FF:FE6A:3846/64".

On the right side of the interface, there is a "Helpful Hints..." section with the following text:

When configuring the router to access the IPv6 Internet, be sure to choose the correct IPv6 Connection Type from the drop down menu. If you are unsure of which option to choose, contact your Internet Service Provider (ISP).

If you are having trouble accessing the IPv6 Internet through the router, double check any settings you have entered on this page and verify them with your ISP if needed.

# Parental Controls

Advanced DNS Service is a free security option that provides anti-phishing protection to your network and offers navigation improvements such as auto-correction of common URL typos.

**Advanced DNS:** Faster, more reliable Internet browsing.

**FamilyShield:** Includes Advanced DNS and automatic protection from malware, phishing, and adult websites. This option uses OpenDNS.

**Parental Controls:** Includes Advanced DNS, FamilyShield, and customizable blocking of malware and phishing sites. You may also customize filtering of web content by category. This option uses OpenDNS.

**None:** DNS servers will be provided via DHCP by your ISP or you may manually enter DNS servers.

The screenshot shows the D-Link DIR-657 web interface. The top navigation bar includes 'DIR-657', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists 'INTERNET', 'WIRELESS SETTINGS', 'NETWORK SETTINGS', 'USB SETTINGS', 'IPV6', and 'PARENTAL CONTROL'. The main content area is titled 'PARENTAL CONTROL' and contains the following text:

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL types.

Buttons: Save Settings, Don't Save Settings

**ADVANCED DNS SERVICE**

Advanced DNS is a free security option that provides Anti-Phishing to protect your Internet connection from fraud and navigation improvements such as auto-correction of common URL types.

- Advanced DNS**  
Faster, more reliable Internet browsing.
- FamilyShield**  
Automatic blocking of malware, phishing and adult web sites using OpenDNS® FamilyShield?. Includes Advanced DNS.
- Parental Controls**  
Customizable blocking of malware and phishing sites. Customizable filtering of web content by category. Includes Advanced DNS. Uses OpenDNS®.  
[Register your device](#)
- None: Static IP or Obtain Automatically From ISP**  
Users should be allowed to specify the DNS servers provided via DHCP by their ISP or their own preferred DNS servers

The right sidebar contains 'Helpful Hints...' with text about device drivers and a 'More...' link.

## Virtual Server

The DIR-657 can be configured as a virtual server so that remote users accessing Web or FTP services via the public IP address can be automatically redirected to local servers in the LAN (Local Area Network).

The DIR-657 firewall feature filters out unrecognized packets to protect your LAN network so all computers networked with the DIR-657 are invisible to the outside world. If you wish, you can make some of the LAN computers accessible from the Internet by enabling Virtual Server. Depending on the requested service, the DIR-657 redirects the external service request to the appropriate server within the LAN network.

The DIR-657 is also capable of port-redirection meaning incoming traffic to a particular port may be redirected to a different port on the server computer.

Each virtual service that is created will be listed at the bottom of the screen in the Virtual Servers List. There are pre-defined virtual services already in the table. You may use them by enabling them and assigning the server IP to use that particular virtual service.

For a list of ports for common applications, please visit [http://support.dlink.com/faq/view.asp?prod\\_id=1191](http://support.dlink.com/faq/view.asp?prod_id=1191).

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

**Name:** Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.

**IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the "Computer Name" drop-down menu. Select your computer and click <<.

**Private Port/ Public Port:** Enter the port that you want to open next to Private Port and Public Port. The private and public ports are usually the same. The public port is the port seen from the Internet side, and the private port is the port being used by the application on the computer within your local network.

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

**Inbound Filter:** Select **Allow All** (most common) or a created Inbound filter. You may create your own inbound filters in the **Advanced > Inbound Filter** page.

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

The screenshot shows the D-Link DIR-657 router configuration interface. The 'ADVANCED' tab is selected, and the 'VIRTUAL SERVER' section is active. Below the title bar, there are navigation tabs: SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The 'VIRTUAL SERVER' section contains a descriptive text: 'The Virtual Server option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'.

Below the buttons is a table titled '24 -- VIRTUAL SERVERS LIST'. The table has columns for Name, IP Address, Port (Public and Private), Protocol, and Schedule. There are three rows, each with a checkbox in the first column. The first row is partially filled with 'Application Nam' and 'Computer Name' in the dropdown menus. The second and third rows are empty.

On the right side of the page, there is a 'Helpful Hints...' section. It contains two paragraphs of text: 'Check the Application Name drop down menu for a list of predefined server types. If you select one of the predefined server types, click the arrow button next to the drop down menu to fill out the corresponding field.' and 'You can select a computer from the list of DHCP clients in the Computer Name drop down menu, or you can manually enter the IP address of the computer at which you would like to open the specified port.' Below this is another paragraph: 'Select a schedule for when the virtual server will be enabled. If you do not see the schedule you need in'.

# Port Forwarding

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

**Name:** Enter a name for the rule or select an application from the drop-down menu. Select an application and click << to populate the fields.

**IP Address:** Enter the IP address of the computer on your local network that you want to allow the incoming service to. If your computer is receiving an IP address automatically from the router (DHCP), you computer will be listed in the "Computer Name" drop-down menu. Select your computer and click <<.

**TCP/UDP:** Enter the TCP and/or UDP port or ports that you want to open. You can enter a single port or a range of ports. Separate ports with a common.

Example: 24,1009,3000-4000

**Inbound Filter:** Select **Allow All** (most common) or a created Inbound filter. You may create your own inbound filters in the **Advanced > Inbound Filter** page.

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

**PORT FORWARDING RULES :**  
This option is used to open multiple ports or a range of ports in your router and redirect data through those ports to a single PC on your network. This feature allows you to enter ports in various formats including, Port Ranges (100-150), Individual Ports (80, 68, 888), or Mixed (1020-5000, 689).

Save Settings    Don't Save Settings

**24 -- PORT FORWARDING RULES**

	Name	IP Address	Ports to Open	Schedule	Inbound Filter
<input type="checkbox"/>	<< Application Name	0.0.0.0	TCP 0	Always	Allow All
<input type="checkbox"/>	<< Application Name	0.0.0.0	UDP 0	Always	Allow All
<input type="checkbox"/>	<< Application Name	0.0.0.0	TCP 0	Always	Allow All
<input type="checkbox"/>	<< Application Name	0.0.0.0	UDP 0	Always	Allow All
<input type="checkbox"/>	<< Application Name	0.0.0.0	TCP 0	Always	Allow All

**Helpful Hints...**  
Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.  
  
You can select a computer from the list of DHCP clients in the **Computer Name** drop down menu, or you can manually enter the IP address of the LAN computer to which you would like to open the specified port.  
  
Select a schedule for when the rule will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools -> Schedules** screen and create a new schedule.  
  
You can enter ports in



# Application Rules

Some applications require multiple connections, such as Internet gaming, video conferencing, Internet telephony and others. These applications have difficulties working through NAT (Network Address Translation). Special Applications makes some of these applications work with the DIR-657. If you need to run applications that require multiple connections, specify the port normally associated with an application in the "Trigger Port" field, select the protocol type as TCP or UDP, then enter the firewall (public) ports associated with the trigger port to open them for inbound traffic.

The DIR-657 provides some predefined applications in the table on the bottom of the web page. Select the application you want to use and enable it.

**Name:** Enter a name for the rule. You may select a pre-defined application from the drop-down menu and click <<.

**Trigger:** This is the port used to trigger the application. It can be either a single port or a range of ports.

**Traffic Type:** Select the protocol of the trigger port (TCP, UDP, or Both).

**Firewall:** This is the port number on the Internet side that will be used to access the application. You may define a single port or a range of ports. You can use a comma to add multiple ports or port ranges.

**Traffic Type:** Select the protocol of the firewall port (TCP, UDP, or Both).

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

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**APPLICATION RULES**

This option is used to open single or multiple ports on your router when the router senses data sent to the Internet on a "trigger" port or port range. Special Applications rules apply to all computers on your internal network.

Save Settings Don't Save Settings

24 -- APPLICATION RULES

	Name	Application	Trigger	Firewall	Traffic Type	Schedule
<input type="checkbox"/>	<input type="text"/>	<< Application Name >>	<input type="text"/>	<input type="text"/>	TCP	Always
<input type="checkbox"/>	<input type="text"/>	<< Application Name >>	<input type="text"/>	<input type="text"/>	TCP	Always
<input type="checkbox"/>	<input type="text"/>	<< Application Name >>	<input type="text"/>	<input type="text"/>	TCP	Always

**Helpful Hints...**

Use this feature if you are trying to execute one of the listed network applications and it is not communicating as expected.

Check the **Application Name** drop down menu for a list of predefined applications. If you select one of the predefined applications, click the arrow button next to the drop down menu to fill out the corresponding field.

Select a schedule for when the service will be enabled. If you do not see the schedule you need in the list of schedules, go to the **Tools -> Schedules** section and create...

# QoS Engine

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

**Enable Traffic Shaping:** This option is disabled by default. Enable this option for better performance and experience with online games and other interactive applications, such as VoIP.

**Automatic Uplink Speed:** This option is enabled by default when the QoS Engine option is enabled. This option will allow your router to automatically determine the uplink speed of your Internet connection.

**Measured Uplink Speed:** This displays the detected uplink speed.

**Manual Uplink Speed:** The speed at which data can be transferred from the router to your ISP. This is determined by your ISP.

**Enabled QoS Engine:** This option is enabled by default. This will allow your router to automatically determine the network priority of running programs.

**Automatic Classification:** This option is enabled by default so that your router will automatically determine which programs should have network priority. For best performance, use the Automatic Classification option to automatically set the priority for your applications.

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

**QOS ENGINE**

Use this section to configure D-Link's QoS Engine powered by QoS Engine™ Technology. This QoS Engine improves your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web. For best performance, use the Automatic Classification option to automatically set the priority for your applications.

Save Settings    Don't Save Settings

**WAN TRAFFIC SHAPING**

Enable Traffic Shaping :

Automatic Uplink Speed :

Measured Uplink Speed : Not Estimated

Manual Uplink Speed : 128 kbps << Select Transmission Rate

Connection Type : Auto-detect

Detected Network type : Not detected

**QOS ENGINE SETUP**

Enable QoS Engine :

Automatic Classification :

Dynamic Fragmentation :

**10 -- QOS ENGINE RULES**

Name	Priority	Protocol
	1 (1..255)	6 << TCP
<input type="checkbox"/>		
Local IP Range		Local Port Range
0.0.0.0 to 255.255.255.255		0 to 65535
Remote IP Range		Remote Port Range
0.0.0.0 to 255.255.255.255		0 to 65535
Name	Priority	Protocol
	1 (1..255)	6 << TCP

**Helpful Hints ...**

If the **Measured Uplink Speed** is known to be incorrect (that is, it produces suboptimal performance), disable **Automatic Uplink Speed** and enter the **Manual Uplink Speed**. Some experimentation and performance measurement may be required to converge on the optimal value.

[More...](#)

**QoS Engine Rules:** A QoS Engine Rule identifies a specific message flow and assigns a priority to that flow. For most applications, automatic classification will be adequate, and specific QoS Engine Rules will not be required.

The QoS Engine supports overlaps between rules, where more than one rule can match for a specific message flow. If more than one rule is found to match the rule with the highest priority will be used.

**Name:** Create a name for the rule that is meaningful to you.

**Priority:** The priority of the message flow is entered here -- 1 receives the highest priority (most urgent) and 255 receives the lowest priority (least urgent).

**Protocol:** The protocol used by the messages.

**Local IP Range:** The rule applies to a flow of messages whose LAN-side IP address falls within the range set here.

**Local Port Range:** The rule applies to a flow of messages whose LAN-side port number is within the range set here.

**Remote IP Range:** The rule applies to a flow of messages whose WAN-side IP address falls within the range set here.

**Remote Port Range:** The rule applies to a flow of messages whose WAN-side port number is within the range set here.

The screenshot shows a configuration window titled "10 -- QOS ENGINE RULES". It contains several input fields and a dropdown menu. The "Name" field is empty. The "Priority" field contains the value "1" with a range indicator "(1..255)". The "Protocol" dropdown menu is set to "6" and "TCP". The "Local IP Range" field contains "0.0.0.0" to "255.255.255.255". The "Local Port Range" field contains "0" to "65535". The "Remote IP Range" field contains "0.0.0.0" to "255.255.255.255". The "Remote Port Range" field contains "0" to "65535". There is a small square checkbox to the left of the IP and Port Range fields.

# Network Filters

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

**Configure MAC Filtering:** Select **Turn MAC Filtering Off**, **Turn MAC Filtering ON and ALLOW** computers listed to access the network, or **Turn MAC Filtering ON and DENY** computers listed to access the network from the drop-down menu.

**MAC Address:** Enter the MAC address you would like to filter. To find the MAC address on a computer, please refer to the Networking Basics section in this manual.

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

**Clear:** Click to remove the MAC address.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**MAC ADDRESS FILTER**

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

Save Settings Don't Save Settings

**24 -- MAC FILTERING RULES**

Configure MAC Filtering below:  
Turn MAC Filtering ON and ALLOW computers listed to access the network

MAC Address		DHCP Client List	
cc:55:ad:34:fc:91	<<	BLACKBERRY-8720 (cc:55:ad:34:fc:91)	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear
	<<	Computer Name	Clear

**Helpful Hints...**

Create a list of MAC addresses that you would either like to allow or deny access to your network.

Computers that have obtained an IP address from the router's DHCP server will be in the DHCP Client List. Select a device from the drop down menu, then click the arrow to add that device's MAC address to the list.

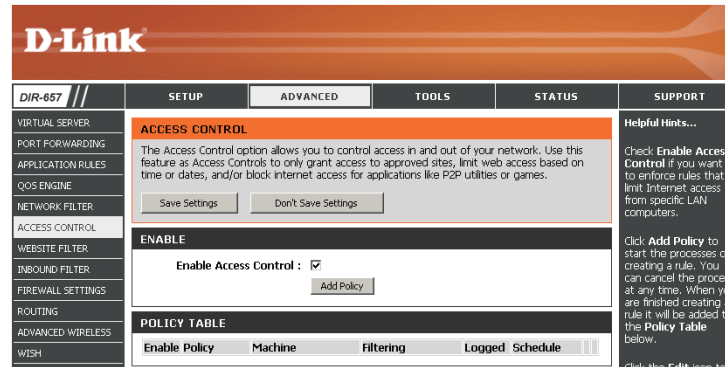
Click the **Clear** button to remove the MAC address from the MAC Filtering list.

[More...](#)

# Access Control

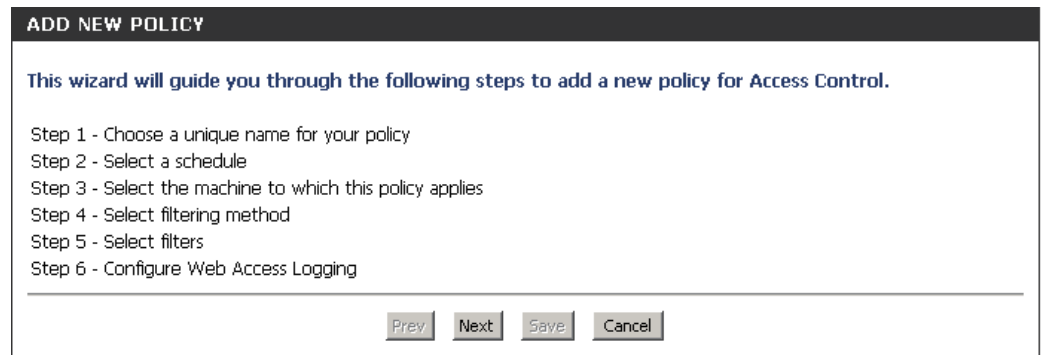
The Access Control section allows you to control access in and out of your network. Use this feature as Parental Controls to only grant access to approved sites, limit web access based on time or dates, and/or block access from applications like P2P utilities or games.

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



## Access Control Wizard

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



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

STEP 1: CHOOSE POLICY NAME

Choose a unique name for your policy.

Policy Name :

Prev Next Save Cancel

Select a schedule (I.E. Always) from the drop-down menu and then click **Next** to continue.

STEP 2: SELECT SCHEDULE

Choose a schedule to apply to this policy.

Always

Details : Always

Prev Next Save Cancel

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

- **Address Type** - Select IP address, MAC address, or Other Machines.
- **IP Address** - Enter the IP address of the computer you want to apply the rule to.

STEP 3: SELECT MACHINE

Select the machine to which this policy applies.

Specify a machine with its IP or MAC address, or select "Other Machines" for machines that do not have a policy.

Address Type :  IP  MAC  Other Machines

IP Address :  << Computer Name

Machine Address :  << Computer Name

Copy Your PC's MAC Address

OK Cancel

Machine

Prev Next Save Cancel

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

**STEP 4: SELECT FILTERING METHOD**

Select the method for filtering.

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

Apply Web Filter :

Apply Advanced Port Filters :

Prev Next Save Cancel

If you selected **Apply Advanced Port Filters**, then enter the rule:

**Enable** - Check to enable the rule.

**Name** - Enter a name for your rule.

**Dest IP Start** - Enter the starting IP address.

**Dest IP End** - Enter the ending IP address.

**Protocol** - Select the protocol.

**Dest Port Start** - Enter the starting port number.

**Dest Port End** - Enter the ending port number.

**STEP 5: PORT FILTER**

Add Port Filters Rules.

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

Enable	Name	Dest IP Start	Dest IP End	Protocol	Dest Port Start	Dest Port End
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535
<input type="checkbox"/>		0.0.0.0	255.255.255.255	Any	0	65535

Prev Next Save Cancel

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

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

**STEP 4: SELECT FILTERING METHOD**

Select the method for filtering.

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

Prev Next Save Cancel

# Website Filters

Website Filters are used to deny LAN computers from accessing specific web sites by the URL or domain. A URL is a specially formatted text string that defines a location on the Internet. If any part of the URL contains the blocked word, the site will not be accessible and the web page will not display. To use this feature, enter the text string to be blocked and click **Save Settings**. The text to be blocked will appear in the list. To delete the text, click **Clear the List Below**.

**Configure Website Filter Below:** Select **Allow** or **Deny**.

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

The screenshot shows the D-Link DIR-657 Advanced Setup interface. The top navigation bar includes 'DIR-657', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'ADVANCED' tab is selected, and the 'WEBSITE FILTER' option is highlighted in the left sidebar. The main content area is titled 'WEBSITE FILTER' and contains the following text: 'The Website Filter option allows you to set up a list of Web sites you would like to allow or deny through your network. To us this feature, you must also select the "Apply Web Filter" checkbox in the Access Control section.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. A section titled '40 - WEBSITE FILTERING RULES' contains the text 'Configure Website Filter below:' followed by a dropdown menu set to 'DENY computers access to ONLY these sites'. Below the dropdown is a 'Clear the list below...' button. At the bottom, there is a table with the header 'Website URL/Domain' and two columns of empty input fields. On the right side, there is a 'Helpful Hints...' section with the text: 'Create a list of Web Sites to which you would like to deny or allow through the network. Use with **Advanced** -> **Access Control**. More...'



# Inbound Filters

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

**Name:** Enter a name for the inbound filter rule.

**Action:** Select **Allow** or **Deny**.

**Enable:** Check to enable rule.

**Source IP Start:** Enter the starting IP address. Enter 0.0.0.0 if you do not want to specify an IP range.

**Source IP End:** Enter the ending IP address. Enter 255.255.255.255 if you do not want to specify and IP range.

**Add:** Click the **Add** button to add the rule. You must click **Save Settings** at the top to save the settings.

**Inbound Filter Rules List:** This section will list any rules that are created. You may click the **Edit** icon to change the settings or enable/disable the rule, or click the **Delete** icon to remove the rule.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**INBOUND FILTER**

The Inbound Filter option is an advanced method of controlling data received from the Internet. With this feature you can configure inbound data filtering rules that control data based on an IP address range.

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

**ADD INBOUND FILTER RULE**

Name :

Action :

Remote IP Range	Enable	Remote IP Start	Remote IP End
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>
	<input type="checkbox"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="255.255.255.255"/>

**INBOUND FILTER RULES LIST**

Name	Action	Remote IP Range

**Helpful Hints...**

Give each rule a **Name** that is meaningful to you.

Each rule can either **Allow** or **Deny** access from the WAN.

Up to eight ranges of WAN IP addresses can be controlled by each rule. The checkbox by each IP range can be used to disable ranges already defined.

The starting and ending IP addresses are WAN-side address.

Click the **Add** or **Update** button to store a finished rule in the Rules List below.

Click the **Edit** icon in the Rules List to change a rule.

Click the **Delete** icon in the Rules List to permanently remove a rule.

[More...](#)

**WIRELESS**

# Firewall Settings

A firewall protects your network from the outside world. The D-Link DIR-657 offers a firewall type functionality. The SPI feature helps prevent cyber attacks. Sometimes you may want a computer exposed to the outside world for certain types of applications. If you choose to expose a computer, you can enable DMZ. DMZ is short for Demilitarized Zone. This option will expose the chosen computer completely to the outside world.

**Enable SPI:** SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It validates that the traffic passing through the session conforms to the protocol.

**NAT Endpoint Filtering:** Select one of the following for TCP and UDP ports:  
**Endpoint Independent** - Any incoming traffic sent to an open port will be forwarded to the application that opened the port. The port will close if idle for 5 minutes.

**Address Restricted** - Incoming traffic must match the IP address of the outgoing connection.

**Address + Port Restriction** - Incoming traffic must match the IP address and port of the outgoing connection.

**Enable DMZ Host:** If an application has trouble working from behind the router, you can expose one computer to the Internet and run the application on that computer.

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

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

The screenshot displays the D-Link DIR-657 web interface. The top navigation bar includes 'D-Link', 'DIR-657', and tabs for 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'ADVANCED' tab is selected, and the 'FIREWALL SETTINGS' section is active. The left sidebar lists various configuration categories, with 'FIREWALL SETTINGS' highlighted. The main content area is divided into several sections:

- FIREWALL SETTINGS:** A summary box stating 'The Firewall Settings allow you to set a single computer on your network outside of the router.' with 'Save Settings' and 'Don't Save Settings' buttons.
- FIREWALL SETTINGS:** A section with 'Enable SPI:
- NAT ENDPOINT FILTERING:** A section with two sub-sections:
  - UDP Endpoint Filtering:** Radio buttons for 'Endpoint Independent', 'Address Restricted' (selected), and 'Port And Address Restricted'.
  - TCP Endpoint Filtering:** Radio buttons for 'Endpoint Independent', 'Address Restricted', and 'Port And Address Restricted' (selected).
- ANTI-SPOOF CHECKING:** A section with 'Enable anti-spoof checking:
- DMZ HOST:** A section with a description of the DMZ option, a note about security risks, and a form with 'Enable DMZ Host: - APPLICATION LEVEL GATEWAY (ALG) CONFIGURATION:** A section with checkboxes for 'PPTP: D-Link DIR-657 User Manual

## Application Level Gateway Configuration

Here you can enable or disable ALG's. Some protocols and applications require special handling of the IP payload to make them work with network address translation (NAT). Each ALG provides special handling for a specific protocol or application. A number of ALGs for common applications are enabled by default.

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

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

**RTSP:** Allows applications that use Real Time Streaming Protocol to receive streaming media from the internet. QuickTime and Real Player are some of the common applications using this protocol.

**SIP:** Allows devices and applications using VoIP (Voice over IP) to communicate across NAT. Some VoIP applications and devices have the ability to discover NAT devices and work around them. This ALG may interfere with the operation of such devices. If you are having trouble making VoIP calls, try turning this ALG off.

# Routing

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

**Destination IP:** Enter the IP address of packets that will take this route.

**Netmask:** Enter the netmask of the route, please note that the octets must match your destination IP address.

**Gateway:** Enter your next hop gateway to be taken if this route is used.

**Metric:** The route metric is a value from 1 to 16 that indicates the cost of using this route. A value 1 is the lowest cost and 15 is the highest cost.

**Interface:** Select the interface that the IP packet must use to transit out of the router when this route is used.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**ROUTING :**

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

Save Settings Don't Save Settings

**32 --ROUTE LIST**

	Name	Destination IP	Metric	Interface
<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="1"/>	<input type="text" value="WAN"/>
	Netmask	Gateway		
	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>		
<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="1"/>	<input type="text" value="WAN"/>
	Netmask	Gateway		
	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>		
<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="1"/>	<input type="text" value="WAN"/>
	Netmask	Gateway		
	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>		
<input type="checkbox"/>	<input type="text"/>	<input type="text" value="0.0.0.0"/>	<input type="text" value="1"/>	<input type="text" value="WAN"/>
	Netmask	Gateway		
	<input type="text" value="0.0.0.0"/>	<input type="text" value="0.0.0.0"/>		

**Helpful Hints...**

Each route has a check box next to it, check this box if you want the route to be enabled.

The name field allows you to specify a name for identification of this route, e.g. "Network 2"

The destination IP address is the address of the host or network you wish to reach.

The netmask field identifies the portion of the destination IP in use.

The gateway IP address is the IP address of the router, if any, used to reach the specified destination.

[More...](#)

# Advanced Wireless Settings

**Transmit Power:** Set the transmit power of the antennas.

**Beacon Period:** Beacons are packets sent by an Access Point to synchronize a wireless network. Specify a value. 100 is the default setting and is recommended.

**RTS Threshold:** This value should remain at its default setting of 2432. If inconsistent data flow is a problem, only a minor modification should be made.

**Fragmentation Threshold:** 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.

**DTIM Interval:** (Delivery Traffic Indication Message) 3 is the default setting. A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.

**WMM Function:** WMM is QoS for your wireless network. This will improve the quality of video and voice applications for your wireless clients.

**Short GI:** Check this box to reduce the guard interval time therefore increasing the data capacity. However, it's less reliable and may create higher data loss.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**ADVANCED WIRELESS**

If you are not familiar with these Advanced Wireless settings, please read the help section before attempting to modify these settings.

Save Settings Don't Save Settings

**ADVANCED WIRELESS SETTINGS**

Transmit Power : High

Beacon Period : 100 (20..1000)

RTS Threshold : 2346 (0..2347)

Fragmentation : 2346 (256..2346)

DTIM Interval : 1 (1..255)

WLAN Partition :

WMM Enable :

Short GI :

**Helpful Hints...**

It is recommended that you leave these parameters at their default values. Adjusting them could limit the performance of your wireless network.

Use 802.11d only for countries where it is required.

Enabling WMM can help control latency and jitter when transmitting multimedia content over a wireless connection.

[More...](#)

**WIRELESS**

# WISH Settings

WISH is short for Wireless Intelligent Stream Handling, a technology developed to enhance your experience of using a wireless network by prioritizing the traffic of different applications.

**Enable WISH:** Enable this option if you want to allow WISH to prioritize your traffic.

**HTTP:** Allows the router to recognize HTTP transfers for many common audio and video streams and prioritize them above other traffic. Such streams are frequently used by digital media players.

**Windows Media Center:** Enables the router to recognize certain audio and video streams generated by a Windows Media Center PC and to prioritize these above other traffic. Such streams are used by systems known as Windows Media Extenders, such as the Xbox 360.

**Automatic:** When enabled, this option causes the router to automatically attempt to prioritize traffic streams that it doesn't otherwise recognize, based on the behavior that the streams exhibit. This acts to deprioritize streams that exhibit bulk transfer characteristics, such as file transfers, while leaving interactive traffic, such as gaming or VoIP, running at a normal priority.

**WISH Rules:** A WISH Rule identifies a specific message flow and assigns a priority to that flow. For most applications, the priority classifiers ensure the right priorities and specific WISH Rules are not required.

WISH supports overlaps between rules. If more than one rule matches for a specific message flow, the rule with the highest priority will be used.

**D-Link**

DIR-657

SETUP | ADVANCED | TOOLS | STATUS | SUPPORT

**WISH**

WISH (Wireless Intelligent Stream Handling) prioritizes the traffic of various wireless applications.

Save Settings | Don't Save Settings

**WISH**

Enable WISH :

**PRIORITY CLASSIFIERS**

HTTP :

Windows Media Center :

**24 -- WISH RULES**

<input type="checkbox"/>	Name	Priority	Protocol
		Background (BK)	6 << TCP
	Host 1 IP Range		Host 1 Port Range
	0.0.0.0 to 255.255.255.255		0 to 65535
	Host 2 IP Range		Host 2 Port Range
	0.0.0.0 to 255.255.255.255		0 to 65535
<input type="checkbox"/>	Name	Priority	Protocol
		Background (BK)	6 << TCP
	Host 1 IP Range		Host 1 Port Range
	0.0.0.0 to 255.255.255.255		0 to 65535
	Host 2 IP Range		Host 2 Port Range
	0.0.0.0 to 255.255.255.255		0 to 65535

**Helpful Hints...**

Enable this option if you want to allow WISH to prioritize wireless traffic.

For most applications, the priority classifiers ensure the right priorities, and specific WISH Rules are not required.

[More...](#)

# Wi-Fi Protected Setup (WPS)

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

**Enable:** Enable the Wi-Fi Protected Setup feature.

**Lock Wireless Security Settings:** Locking the wireless security settings prevents the settings from being changed by the Wi-Fi Protected Setup feature of the router. Devices can still be added to the network using Wi-Fi Protected Setup. However, the settings of the network will not change once this option is checked.

**PIN Settings:** A PIN is a unique number that can be used to add the router to an existing network or to create a new network. The default PIN may be printed on the bottom of the router. For extra security, a new PIN can be generated. You can restore the default PIN at any time. Only the Administrator (“admin” account) can change or reset the PIN.

**Current PIN:** Shows the current value of the router’s PIN.

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

**Generate New PIN:** Create a random number that is a valid PIN. This becomes the router’s PIN. You can then copy this PIN to the user interface of the registrar. This Wizard helps you add wireless devices to the wireless network.

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

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

**Add Wireless Device Wizard:** Start the wizard.

The screenshot shows the D-Link DIR-657 router's web interface. The main navigation bar includes 'DIR-657', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration options: VIRTUAL SERVER, PORT FORWARDING, APPLICATION RULES, QOS ENGINE, NETWORK FILTER, ACCESS CONTROL, WEBSITE FILTER, INBOUND FILTER, FIREWALL SETTINGS, ROUTING, ADVANCED WIRELESS, WISH, WI-FI PROTECTED SETUP, ADVANCED NETWORK, GUEST ZONE, IPV6 FIREWALL, and IPV6 ROUTING. The main content area is titled 'WI-FI PROTECTED SETUP' and contains the following sections:

- WI-FI PROTECTED SETUP:** A text box explaining that WPS is used to easily add devices to a network using a PIN or button press. Below this are two buttons: 'Save Settings' and 'Don't Save Settings'.
- WI-FI PROTECTED SETUP:** A section with two checkboxes: 'Enable' (checked) and 'Lock Wireless Security Settings' (unchecked). Below these is a 'Reset to Unconfigured' button.
- PIN SETTINGS:** A section showing the 'Current PIN' as 41661444. Below this are two buttons: 'Generate New PIN' and 'Reset PIN to Default'.
- ADD WIRELESS STATION:** A section with a single button labeled 'Add Wireless Device with WPS'.

On the right side of the interface, there is a 'Helpful Hints...' section with the following text:

- Enable:** Enable if other wireless devices you wish to include in the local network support Wi-Fi Protected Setup.
- Only "Admin" account can change security settings.
- Lock Wireless Security Settings:** Lock Wireless Security Settings after all wireless network devices have been configured.
- Click **Add Wireless Device Wizard** to use Wi-Fi Protected Setup to add wireless devices to the wireless network.
- More...**

# Advanced Network Settings

**UPnP Settings:** To use the Universal Plug and Play (UPnP™) feature click on **Enabled**. UPnP provides compatibility with networking equipment, software and peripherals.

**PPPoE Pass Through:** Check **PPPoE Pass Through** to allow PPPoE authentication to the LAN Clients as an authenticating point.

**WAN Ping:** Unchecking the box will not allow the DIR-657 to respond to pings. Blocking the Ping may provide some extra security from hackers. Check the box to allow the Internet port to be “pinged”.

**WAN Port Speed:** You may set the port speed of the Internet port to **10Mbps, 100Mbps, 1000Mbps, or 10/100/1000Mbps Auto**. Some older cable or DSL modems may require you to set the port speed to 10Mbps.

**Multicast streams:** Check the box to allow multicast traffic to pass through the router from the Internet.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**ADVANCED NETWORK**

If you are not familiar with these Advanced Network settings, please read the help section before attempting to modify these settings.

Save Settings Don't Save Settings

**UPNP**

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

Enable UPnP :

**PPPOE PASS THROUGH**

Enable PPPoE Pass Through :

**WAN PING**

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

Enable WAN Ping Respond :

WAN Ping Inbound Filter :

Details :

**WAN PORT SPEED**

WAN Port Speed :

**MULTICAST STREAMS**

Enable Multicast Streams :

**Helpful Hints...**

UPnP helps other UPnP LAN hosts interoperate with the router. Leave the UPnP option enabled as long as the LAN has other UPnP applications.

For added security, it is recommended that you disable the WAN Ping Respond option. Ping is often used by malicious Internet users to locate active networks or PCs.

The WAN speed is usually detected automatically. If you are having problems connecting to the WAN, try selecting the speed manually.

If you are having trouble receiving multicast streams from the Internet, make sure the Multicast Streams option is enabled.

[More...](#)



# Guest Zone

The Guest Zone feature will allow you to create temporary zones that can be used by guests to access the Internet. These zones will be separate from your main wireless network.

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

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

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

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

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

The screenshot shows the D-Link DIR-657 router's web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'GUEST ZONE' section is highlighted in orange. Below the header, there is a 'GUEST ZONE SELECTION' box with the following settings:

- Enable Guest Zone:**  Always [New Schedule](#)
- Wireless Band:** 2.4GHz Band
- Wireless Network Name:** jdlink\_guest (Also called the SSID)
- Enable Routing Between Zones:**
- Security Mode:** None

Buttons for 'Save Settings' and 'Don't Save Settings' are visible above the selection box. A 'Helpful Hints...' section on the right provides additional instructions on configuring the guest zone.

# IPv6 Firewall

This section may be used to allow or deny traffic from passing through the device. It works the same way as IP Filters with additional settings. Users can create more detailed rules for the device.

**D-Link**

DIR-657 //

SETUP    **ADVANCED**    TOOLS    STATUS    SUPPORT

VIRTUAL SERVER  
PORT FORWARDING  
APPLICATION RULES  
QOS ENGINE  
NETWORK FILTER  
ACCESS CONTROL  
WEBSITE FILTER  
INBOUND FILTER  
FIREWALL SETTINGS  
ROUTING  
ADVANCED WIRELESS  
WISH  
WI-FI PROTECTED SETUP  
ADVANCED NETWORK  
GUEST ZONE  
IPv6  
IPv6 FIREWALL  
IPv6 ROUTING

**IPv6 FIREWALL RULES :**

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

Save Settings    Don't Save Settings

**20 -- IPv6 FIREWALL RULES**

Configure IPv6 Firewall below:  
Turn IPv6 Firewall OFF

Remaining number of firewall rules that can be configured:

Name	Schedule	Source	Destination	Protocol	Port Range
1.	Always	Interface *	IP Address Range	TCP	1 ~ 65535
2.	Always	Interface *	IP Address Range	TCP	1 ~ 65535
3.	Always	Interface *	IP Address Range	TCP	1 ~ 65535

**Helpful Hints...**  
For each rule you can create a name and control the direction of traffic. You can also allow or deny a range of IP Addresses, the protocol and a port range.

In order to apply a schedule to a firewall rule, your must first define a schedule on the [Tools -> Schedules](#) page

[More...](#)

# IPv6 Routing

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

**D-Link**

DIR-657 //

SETUP    **ADVANCED**    TOOLS    STATUS    SUPPORT

**ROUTING :**

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

Save Settings    Don't Save Settings

**10 --ROUTE LIST**

Name	Destination IP/Prefix Length	metric	Interface	Gateway
<input type="text"/>	<input type="text" value="/64"/>	<input type="text"/>	<input type="text" value="NULL"/>	<input type="text"/>
<input type="checkbox"/>				
<input type="text"/>	<input type="text" value="/64"/>	<input type="text"/>	<input type="text" value="NULL"/>	<input type="text"/>
<input type="checkbox"/>				
<input type="text"/>	<input type="text" value="/64"/>	<input type="text"/>	<input type="text" value="NULL"/>	<input type="text"/>
<input type="checkbox"/>				
<input type="text"/>	<input type="text" value="/64"/>	<input type="text"/>	<input type="text" value="NULL"/>	<input type="text"/>
<input type="checkbox"/>				

**Helpful Hints...**

Each route has a check box next to it, check this box if you want the route to be enabled.

The name field allows you to specify a name for identification of this route, e.g. "Network 2"

The destination IP address is the address of the host or network you wish to reach.

The netmask field identifies the portion of the destination IP in use.

The gateway IP address is the IP address of the router, if any, used to reach the specified destination.

[More...](#)

# Administrator Settings

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

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

**User Password:** Enter the new password for the User login. If you login as the User, you cannot change the settings (you can only view them). Enter a name for the DIR-657 router.

**Gateway Name:** Enter a name for the router.

**Enable Graphical Authentication:** Enables a challenge-response test to require users to type letters or numbers from a distorted image displayed on the screen to prevent online hackers and unauthorized users from gaining access to your router's network settings.

**Enable HTTPS Server:** Check to enable HTTPS to connect to the router securely.

**Enable Remote Management:** Remote management allows the DIR-657 to be configured from the Internet by a web browser. A username and password is still required to access the Web-Management interface. In general, only a member of your network can browse the built-in web pages to perform Administrator tasks. This feature enables you to perform Administrator tasks from the remote (Internet) host. The port number used to access the DIR-657.

Example: `http://x.x.x.x:8080` whereas x.x.x.x is the Internet IP address of the DIR-657 and 8080 is the port used for the Web Management interface.

**Remote Admin Inbound Filter:** If you have enabled **HTTPS Server** and checked **Use HTTPS**, you must enter **https://** as part of the URL to access the router remotely.

**Details:** This section will list any rules that are created. You may click the **Edit** icon to change the settings or enable/disable the rule, or click the **Delete** icon to remove the rule.

**D-Link**

DIR-657

SETUP   ADVANCED   **TOOLS**   STATUS   SUPPORT

**ADMINISTRATOR SETTINGS**

The "admin" and "user" accounts can access the management interface. The admin has read/write access and can change passwords, while the user has read-only access.

By default there is no password configured. It is highly recommended that you create a password to keep your router secure.

Save Settings   Don't Save Settings

**ADMIN PASSWORD**

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

Password :

Verify Password :

**USER PASSWORD**

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

Password :

Verify Password :

**SYSTEM NAME**

Gateway Name :

**ADMINISTRATION**

Enable Graphical Authentication :

Enable HTTPS Server :

Enable Remote Management :

Remote Admin Port :    Use HTTPS

Remote Admin Inbound Filter :

Details :

**Helpful Hints ...**

For security reasons, it is recommended that you change the password for the Admin and User accounts. Be sure to write down the new and passwords to avoid having to reset the router in case they are forgotten.

Enabling Remote Management, allows you or others to change the router configuration from a computer on the Internet.

Choose a port to open for remote management.

Select a filter that controls access as needed for this admin port. If you do not see the filter you need in the list of filters, go to the **Advanced** → **Inbound Filter** screen and create a new filter.

More ...

**WIRELESS**

# Time Settings

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

**Time Zone:** Select the Time Zone from the drop-down menu.

**Daylight Saving:** To select Daylight Saving time manually, select enabled or disabled, and enter a start date and an end date for daylight saving time.

**Enable NTP Server:** NTP is short for Network Time Protocol. NTP synchronizes computer clock times in a network of computers. Check this box to use a NTP server. This will only connect to a server on the Internet, not a local server.

**NTP Server Used:** Enter the NTP server or select one from the drop-down menu.

**Manual:** To manually input the time, enter the values in these fields for the Year, Month, Day, Hour, Minute, and Second and then click **Set Time**. You can also click **Copy Your Computer's Time Settings**.

**D-Link**

DIR-657 // SETUP ADVANCED **TOOLS** STATUS SUPPORT

ADMIN  
TIME  
SYSLOG  
EMAIL SETTINGS  
SYSTEM  
FIRMWARE  
DYNAMIC DNS  
SYSTEM CHECK  
SCHEDULES

**TIME**

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

Save Settings Don't Save Settings

**TIME CONFIGURATION**

Current Router Time : Saturday, December 18, 2010 1:37:31 PM  
Time Zone : (GMT-08:00) Pacific Time (US/Canada), Tijuana

Enable Daylight Saving :   
Daylight Saving Offset : +1:00

Daylight Saving Dates : DST Start Mar 3rd Sun 1:00 AM  
DST End Nov 2nd Sun 1:00 AM

**AUTOMATIC TIME CONFIGURATION**

Enable NTP Server :   
NTP Server Used : << Select NTP Server

**SET THE DATE A.D TIME MANUALLY**

Date And Time : Year 2010 Month Dec Day 18  
Hour 01 Minute 37 Second 25 PM  
Copy Your Computer's Time Settings

Helpful Hints ...  
Good timekeeping is important for accurate logs and scheduled firewall rules.  
More...

**WIRELESS**

# SysLog

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

**Enable Logging to SysLog Server:** Check this box to send the router logs to a SysLog Server.

**SysLog Server IP Address:** The address of the SysLog server that will be used to send the logs. You may also select your computer from the drop-down menu (only if receiving an IP address from the router via DHCP).

The screenshot shows the D-Link web interface for the DIR-657 router. The top navigation bar includes 'DIR-657', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various configuration categories: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'SYSLOG' and contains the following text: 'The SysLog options allow you to send log information to a SysLog Server.' Below this text are two buttons: 'Save Settings' and 'Don't Save Settings'. The 'SYLOG SETTINGS' section includes a checked checkbox for 'Enable Logging To Syslog Server' and a text input field for 'Syslog Server IP Address' containing '0.0.0.0', followed by a '<<' symbol and a dropdown menu labeled 'Computer Name'. On the right side, there is a 'Helpful Hints...' section with the text: 'A System Logger (syslog) is a server that collects in one place the logs from different sources. If the LAN includes a syslog server, you can use this option to send the router's logs to that server.' and a 'More...' link. The bottom of the page features a 'WIRELESS' banner.

# Email Settings

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

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

**From Email Address:** This email address will appear as the sender when you receive a log file or firmware upgrade notification via email.

**To Email Address:** Enter the email address where you want the email sent.

**SMTP Server Address:** Enter the SMTP server address for sending email. If your SMTP server requires authentication, select this option.

**Enable Authentication:** Check this box if your SMTP server requires authentication.

**Account Name:** Enter your account for sending email.

**Password:** Enter the password associated with the account. Re-type the password associated with the account.

**On Log Full:** When this option is selected, logs will be sent via email when the log is full.

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

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

The screenshot shows the D-Link DIR-657 web interface. The top navigation bar includes 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'EMAIL SETTINGS' page is displayed, featuring a sidebar with navigation options: ADMIN, TIME, SYSLOG, EMAIL SETTINGS (selected), SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is divided into three sections:

- EMAIL SETTINGS:** Contains a description of the email feature and two buttons: 'Save Settings' and 'Don't Save Settings'.
- EMAIL NOTIFICATION:** Includes a checkbox for 'Enable Email Notification'.
- EMAIL SETTINGS (Form):** Contains input fields for 'From Email Address', 'To Email Address', 'SMTP Server Address', 'SMTP Server Port' (set to 25), 'Enable Authentication' (checkbox), 'Account Name' (set to 'user'), 'Password', and 'Verify Password'.
- EMAIL LOG WHEN FULL OR ON SCHEDULE:** Includes checkboxes for 'On Log Full' and 'On Schedule', a 'Schedule' dropdown menu (set to 'Never'), and a 'Detail' dropdown menu (set to 'Never').

A 'Helpful Hints...' sidebar on the right provides additional guidance, and the 'WIRELESS' logo is visible at the bottom of the interface.

# System Settings

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

**Load Settings from Local Hard Drive:** Use this option to load previously saved router configuration settings. First, click the **Browse** button to locate a previously saved configuration file and then click the **Load** button to transfer those settings to the router.

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

**Reboot Device:** Click to reboot the router.

**D-Link**

DIR-657 // SETUP ADVANCED **TOOLS** STATUS SUPPORT

ADMIN  
TIME  
SYSLOG  
EMAIL SETTINGS  
**SYSTEM**  
FIRMWARE  
DYNAMIC DNS  
SYSTEM CHECK  
SCHEDULES

**SYSTEM SETTINGS**

The System Settings section allows you to reboot the device, or restore the router to the factory default settings. Restoring the unit to the factory default settings will erase all settings, including any rules that you have created.

The current system settings can be saved as a file onto the local hard drive. The saved file or any other saved setting file created by device can be uploaded into the unit.

**SYSTEM SETTINGS**

**Save To Local Hard Drive:**

**Load From Local Hard Drive:**

**Restore To Factory Default:**   
Restore all settings to the factory defaults.

**Reboot the Device:**

**Helpful Hints...**

Once your router is configured the way you want it, you can save the configuration settings to a configuration file.

You might need this file so that you can load your configuration later in the event that the router's default settings are restored.

To save the configuration, click the **Save Configuration** button.

[More...](#)

**WIRELESS**



# Update Firmware

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

**Firmware Upgrade:** Click on **Check Online Now for Latest Firmware Version** to find out if there is an updated firmware; if so, download the new firmware to your hard drive.

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

**Notifications Options:** Check **Automatically Check Online for Latest Firmware Version** to have the router check automatically to see if there is a new firmware upgrade.

Check **Email Notification of Newer Firmware Version** to have the router send an email when there is a new firmware available.

The screenshot shows the D-Link DIR-657 web interface. The top navigation bar includes 'DIR-657', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The left sidebar lists various settings: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE (selected), DYNAMIC DNS, SYSTEM CHECK, and SCHEDULES. The main content area is titled 'FIRMWARE' and contains the following text:

There may be new firmware for your DIR-657 to improve functionality and performance.

To upgrade the firmware, locate the upgrade file on the local hard drive with the Browse button. Once you have found the file to be used, click the Upload button below to start the firmware upgrade.

**FIRMWARE INFORMATION**

Current Firmware Version : 1.00NA  
 Current Firmware Date : 15, Dec, 2010

Check Online Now for Latest Firmware Version :

**FIRMWARE UPGRADE**

**Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the [Tools → System](#) screen.**

To upgrade the firmware, your PC must have a wired connection to the router. Enter the name of the firmware upgrade file, and click on the Upload button.

The right sidebar contains 'Helpful Hints...' with text about firmware updates and a 'More...' link.

# DDNS

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

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

**Server Address:** Choose your DDNS provider from the drop down menu.

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

**Username or Key:** Enter the Username for your DDNS account.

**Password or Key:** Enter the Password for your DDNS account.

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

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**DYNAMIC DNS**

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

Sign up for D-Link's Free DDNS service at [www.dlinkddns.com](http://www.dlinkddns.com).

Save Settings Don't Save Settings

**DYNAMIC DNS SETTINGS**

Enable Dynamic DNS :

Server Address : dlinkddns.com(Free) << Select Dynamic DNS Server

Host Name :

Username or Key :

Password or Key :

Verify Password or Key :

Timeout : 576 (hours)

Status : Disconnected

**Helpful Hints...**

To use this feature, you must first have a Dynamic DNS account from one of the providers in the drop down menu.

More...

**WIRELESS**

# System Check

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

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

The screenshot shows the D-Link DIR-657 web interface. At the top, there is a navigation menu with tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The TOOLS tab is selected. On the left side, there is a sidebar menu with options: ADMIN, TIME, SYSLOG, EMAIL SETTINGS, SYSTEM, FIRMWARE, DYNAMIC DNS, SYSTEM CHECK (highlighted), and SCHEDULES. The main content area is titled 'PING TEST' and contains the following sections:

- PING TEST**: A section with a description: "Ping Test sends 'ping' packets to test a computer on the Internet." Below this is a form with a text input field labeled "Host Name or IP Address :", a "Ping" button, and a "Stop" button.
- IPv6 Pings lost**: A section with a description: "IPv6 Pings lost". Below this is a form with a text input field labeled "Host Name or IPv6 Address :", a "Ping" button, and a "Stop" button.
- PING RESULT**: A section with a description: "Enter a host name or IP address above and click 'Ping'".

On the right side of the interface, there is a "Helpful Hints..." section with the following text: "Ping" checks whether a computer on the Internet is running and responding. Enter either the IP address of the target computer or enter its fully qualified domain name. Below this text is a "More..." link. At the bottom of the interface, there is a "WIRELESS" label.

# Schedules

**Name:** Enter a name for your new schedule.

**Days:** Select a day, a range of days, or All Week to include every day.

**Time:** Check **All Day - 24hrs** or enter a start and end time for your schedule.

**Save:** Click **Save** to save your schedule. You must click Save Settings at the top for your schedules to go into effect.

**Schedule Rules List:** The list of schedules will be listed here. Click the **Edit** icon to make changes or click the **Delete** icon to remove the schedule.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**SCHEDULES**

The Schedule configuration option is used to manage schedule rules for various firewall and parental control features.

**ADD SCHEDULE RULE**

Name :

Day(s) :  All Week  Select Day(s)

Sun  Mon  Tue  Wed  Thu  Fri  Sat

All Day - 24 hrs :

Time format :  (dropdown)

Start Time :  :  AM (hour minute)

End Time :  :  AM (hour minute)

**SCHEDULE RULES LIST :**

Name :	Day(s) :	Time Frame :

**Helpful Hints...**

Schedules are used with a number of other features to define when those features are in effect.

Give each schedule a name that is meaningful to you. For example, a schedule for Monday through Friday from 3:00pm to 9:00pm, might be called "After School".

Click **Save** to add a completed schedule to the list below.

Click **Edit** icon to change an existing schedule.

Click **Delete** icon to permanently delete a schedule.

[More...](#)

**WIRELESS**

# Device Information

This page displays the current information for the DIR-657. It will display the LAN, WAN (Internet), and Wireless information.

If your Internet connection is set up for a Dynamic IP address then a **Release** button and a **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP.

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

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

**WAN:** Displays the MAC address and the public IP settings for the router.

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

**Wireless LAN:** Displays the wireless MAC address and your wireless settings such as SSID and Channel.

**LAN Computers:** Displays computers and devices that are connected to the router via Ethernet and that are receiving an IP address assigned by the router (DHCP).

**IGMP Multicast Memberships:** Displays the Multicast Group IP Address.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**DEVICE INFORMATION**

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

**GENERAL**

Time : Saturday, December 18, 2010 2:03:07 PM  
Firmware Version : 1.00NA , 15, Dec, 2010

**WAN**

Connection Type : DHCP Client  
Cable Status : Disconnected  
Network Status : Disconnected  
StreamEngine : N/A  
Connection Up Time : N/A

MAC Address : 00:18:E7:6A:38:47  
IP Address : 0.0.0.0  
Subnet Mask : 0.0.0.0  
Default Gateway : 0.0.0.0  
Primary DNS Server : 0.0.0.0  
Secondary DNS Server : 0.0.0.0  
Advanced DNS : Disabled

**LAN**

MAC Address : 00:18:E7:6A:38:46  
IP Address : 192.168.0.1  
Subnet Mask : 255.255.255.0  
DHCP Server : Enabled

**WIRELESS LAN**

Wireless Radio : Enabled  
802.11 Mode : 11bgn  
Channel Width : 20 MHz  
Channel : 6  
WISH : Inactive  
Wi-Fi Protected Setup : Enabled/Not Configured

SSID List :

Network Name (SSID)	Guest	MAC Address	Security Mode
dlink	No	00:18:E7:6A:38:46	disable

**LAN COMPUTERS**

IP Address	Name (if any)	MAC
192.168.0.100	PM_TEST01	00:04:23:2C:51:A3
192.168.0.105	140-Kelle	00:26:c6:c6:ee:94
192.168.0.101	BLACKBERRY-8720	cc:55:ad:34:fc:91

**IGMP MULTICAST MEMBERSHIPS**

Multicast Group Address

**Helpful Hints...**

All of your WAN and LAN connection details are displayed here.

[More...](#)

# Log

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

**What to View:** You can select the types of messages that you want to display from the log. Firewall & Security, System, and Router Status messages can be selected.

**View Levels:** There are three levels of message importance: **Informational**, **Warning**, and **Critical**. Select the levels that you want displayed in the log.

**Apply Log Settings:** Will filter the log results so that only the selected options appear.

**Refresh:** Updates the log details on the screen so it displays any recent activity.

**Clear:** Clears all of the log contents.

**Email Now:** This option will send a copy of the router log to the email address configured in the Tools > Email screen.

**Save Log:** This option will save the router to a log file on your computer.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

**LOGS**

Use this option to view the router logs. You can define what types of events you want to view and the event levels to view. This router also has internal syslog server support so you can send the log files to a computer on your network that is running a syslog utility.

**LOG OPTIONS**

**Log Type :**  System Activity  
 Debug Information  
 Attacks  
 Dropped Packets  
 Notice

Apply Log Settings Now

**LOG DETAILS**

First Page Last Page Previous Next  
 Refresh Clear Email Now Save Log

1 / 2

Priority	Time	Message
info	Dec 18 16:49:36	UDHCPD Inform: add_lease 192.168.0.105
info	Dec 18 16:46:10	UDHCPD Inform: add_lease 192.168.0.105
info	Dec 18 16:41:30	UDHCPD Inform: add_lease 192.168.0.105
info	Dec 18 16:25:18	UDHCPD sending OFFER of 192.168.0.101
info	Dec 18 16:25:18	UDHCPD sendOffer : device_lan_ip=192.168.0.1 , device_lan_subnet_mask=255.255.255.0
info	Dec 18 15:55:36	UDHCPD sending OFFER of 192.168.0.101
info	Dec 18 15:55:36	UDHCPD sendOffer : device_lan_ip=192.168.0.1 , device_lan_subnet_mask=255.255.255.0
info	Dec 18 15:55:33	UDHCPD sending OFFER of 192.168.0.101
info	Dec 18 15:55:33	UDHCPD sendOffer : device_lan_ip=192.168.0.1 , device_lan_subnet_mask=255.255.255.0
info	Dec 18 15:51:29	UDHCPD Inform: add_lease 192.168.0.105

WIRELESS

**Helpful Hints...**

Check the log frequently to detect unauthorized network usage.

You can also have the log mailed to you periodically. Refer to [Tools -> Email](#).

[More...](#)

# Stats

The screen below displays the Traffic Statistics. Here you can view the amount of packets that pass through the DIR-657 on both the Internet and the LAN ports. The traffic counter will reset if the device is rebooted.

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICES INFO LOGS STATISTICS INTERNET SESSIONS WIRELESS IPV6

**TRAFFIC STATISTICS**  
Traffic Statistics display Receive and Transmit packets passing through your router.  
Refresh Statistics Clear Statistics

**LAN STATISTICS**

Sent : 154454	Received : 32504
TX Packets : 0	RX Packets : 0
Dropped : 0	Dropped : 0
Collisions : 0	Errors : 0

**WAN STATISTICS**

Sent : 8	Received : 0
TX Packets : 0	RX Packets : 0
Dropped : 0	Dropped : 0
Collisions : 0	Errors : 0

**WIRELESS STATISTICS**

Sent : 33687	Received : 145201
TX Packets : 0	RX Packets : 0
Dropped : 0	Dropped : 0
	Errors : 0

Helpful Hints...  
This is a summary of the number of packets that have passed between the WAN and the LAN since the router was last initialized.  
More...

WIRELESS

# Active Sessions

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS SUPPORT

DEVICES INFO LOGS STATISTICS INTERNET SESSIONS WIRELESS IPV6

**INTERNET SESSIONS**  
This page displays the full details of active internet sessions to your router.

**INTERNET SESSIONS**

Local	NAT	Internet	Protocol	State	Dir	Time Out
-------	-----	----------	----------	-------	-----	----------

Helpful Hints...  
This is a list of all active conversations between WAN computers and LAN computers.  
More...

WIRELESS

# Wireless

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

The screenshot shows the D-Link DIR-657 web interface. The top navigation bar includes 'DIR-657', 'SETUP', 'ADVANCED', 'TOOLS', 'STATUS', and 'SUPPORT'. The 'STATUS' tab is selected, and the 'WIRELESS' sub-tab is active. The main content area displays the following information:

**WIRELESS**  
View the wireless clients that are connected to the router. (A client might linger in the list for a few minutes after an unexpected disconnect.)

**NUMBER OF WIRELESS CLIENTS : 2**

MAC Address	IP Address	Mode	Rate	Signal(%)
00:26:c6:c6:ee:94	192.168.0.105	802.11n	78M	82
cc:55:ad:34:fc:91	192.168.0.101	802.11g	24M	89

On the right side, there is a 'Helpful Hints...' section with the text: 'This is a list of all wireless clients that are currently connected to your wireless router.' and a 'More...' link.

The bottom of the interface features a 'WIRELESS' header.



# IPv6

The IPv6 table displays a list of current IPv6 connections.

The screenshot displays the D-Link DIR-657 web interface. The top navigation bar includes tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The left sidebar contains menu items for DEVICE INFO, LOGS, STATISTICS, INTERNET SESSIONS, WIRELESS, and IPv6. The main content area is titled "IPv6 Network Information" and contains the following details:

- IPv6 Network Information**  
All of your IPv6 Internet and network connection details are displayed on this page.
- IPv6 Connection Information**
  - IPv6 Connection Type :** Link Local
  - Tunnel Link-Local Address :** None
  - IPv6 Default Gateway :** None
  - LAN IPv6 Link-Local Address :** fe80::218:e7ff:fe6a:3854/64
  - DHCP-PD :** Disabled
- LAN IPv6 Computers**

IPv6 Address	Name (if any)
--------------	---------------

On the right side, there is a "Helpful Hints ..." section with the text: "All of your WAN and LAN connection details are displayed here." and a "More..." link.

# Support

The screenshot displays the D-Link DIR-657 web interface. At the top, the D-Link logo is visible. Below it, a navigation bar contains tabs for SETUP, ADVANCED, TOOLS, STATUS, and SUPPORT. The SUPPORT tab is currently selected. On the left side, a vertical menu lists the main sections: MENU, SETUP, ADVANCED, TOOLS, and STATUS. The main content area is titled 'SUPPORT MENU' and contains several sub-sections:

- SUPPORT MENU**
  - [Setup](#)
  - [Advanced](#)
  - [Tools](#)
  - [Status](#)
- SETUP HELP**
  - [Internet](#)
  - [WAN](#)
  - [Wireless Settings](#)
  - [Network Settings](#)
- ADVANCED HELP**
  - [Virtual Server](#)
  - [Port Forwarding](#)
  - [Application Rules](#)
  - [QoS Engine](#)
  - [Network Filter](#)
  - [Access Control](#)
  - [Website Filter](#)
  - [Inbound Filter](#)
  - [Firewall Settings](#)
  - [Routing](#)
  - [Advanced Wireless](#)
  - [WISH](#)
  - [Wi-Fi Protected Setup](#)
  - [Advanced Network](#)
  - [GUEST ZONE](#)
  - [IPv6](#)
  - [IPv6 FIREWALL](#)
  - [IPv6 ROUTING](#)
- TOOLS HELP**
  - [Admin](#)
  - [Time](#)
  - [Syslog](#)
  - [Email Settings](#)
  - [System](#)
  - [Firmware](#)
  - [Dynamic DNS](#)
  - [System Check](#)
  - [Schedules](#)
- STATUS**
  - [Device Info](#)
  - [Logs](#)
  - [Statistics](#)
  - [Internet Sessions](#)
  - [Wireless](#)
  - [IPv6](#)

At the bottom of the interface, the word 'WIRELESS' is displayed in a dark bar.

# Wireless Security

This section will show you the different levels of security you can use to protect your data from intruders. The DIR-657 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, or 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.

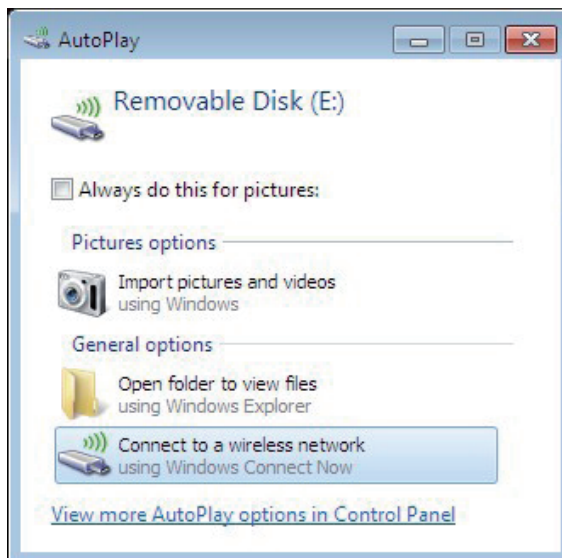
WPA-PSK/WPA2-PSK uses a passphrase or key to authenticate your wireless connection. The key is an alpha-numeric password between 8 and 63 characters long. The password can include symbols (!?\*&\_) and spaces. This key must be the exact same key entered on your wireless router or access point.

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.

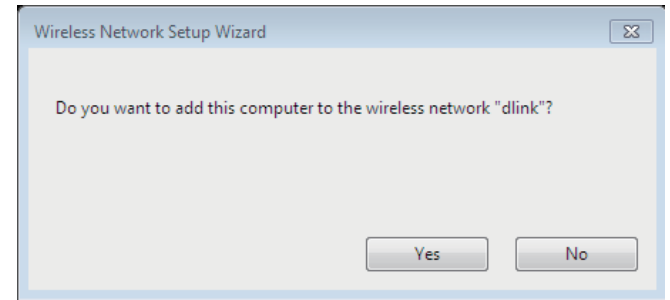
# Wi-PnP Wireless Setup

Wi-PnP allows you to copy your wireless settings from your router to a USB flash drive and use to automatically configure the wireless settings on your Windows® computers. Follow the steps below:

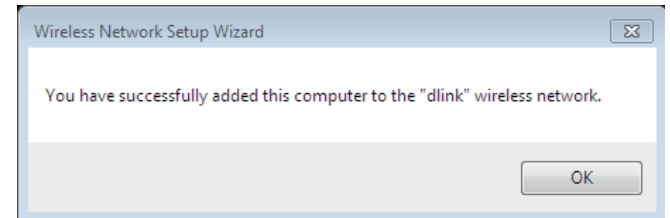
1. Plug in USB Flash Drive in USB port on the back of the router.
2. Press and hold the WPS button (located on the front of the router) for 5 seconds. The power LED will blink.
3. Wait 10 seconds and unplug the USB Flash Drive from the router.
4. Plug the USB Flash Drive in a Windows-Based computer.
5. The window below will automatically appear. Double-click **Connect to a wireless network**.



6. Click **Yes** to add the current computer to your wireless network.



7. Click **OK** to finish adding your computer to your wireless network.



Repeat step 4-7 to add additional computers to your wireless network.

# Wireless Security Setup Wizard

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

Click **Next** to continue.

## WIRELESS SETTINGS

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

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

## WIRELESS NETWORK SETUP WIZARD

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

Wireless Network Setup Wizard

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

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

This wizard is designed to assist you in connecting your wireless device to your wireless router. It will guide you through step-by-step instructions on how to get your wireless device connected. Click the button below to begin.

Add Wireless Device with WPS

## MANUAL WIRELESS NETWORK SETUP

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

Manual Wireless Network Setup

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

Give your network a name, using up to 32 characters.

Network Name (SSID) :

- Automatically assign a network key (Recommended)

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

- Manually assign a network key

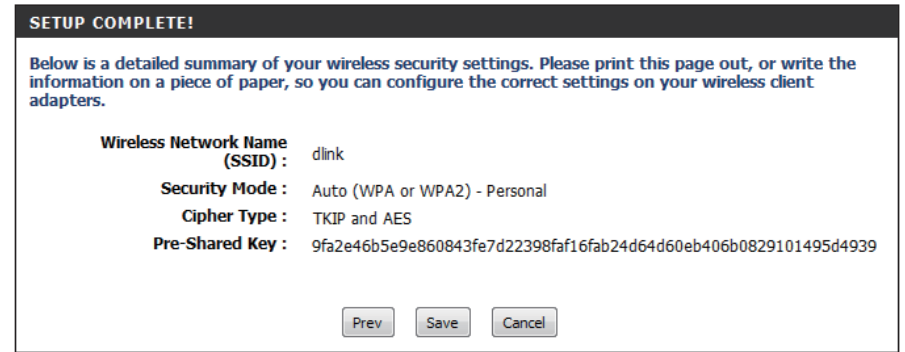
Use this options if you prefer to create our own key.

**Note:** All D-Link wireless adapters currently support WPA.

Prev Next Cancel Save

The following screen will show you your Pre-Shared Key to enter on your wireless clients.

Click **Save** to finish the Security Wizard.



If you selected WPA-Enterprise, the RADIUS information will be displayed. Click **Save** to finish the Security Wizard.

# Configure WPA-Personal (PSK)

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

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

**D-Link**

DIR-657 // SETUP ADVANCED TOOLS STATUS HELP

INTERNET  
WIRELESS SETTINGS  
NETWORK SETTINGS  
USB STORAGE  
MEDIA SERVER

**WIRELESS :**  
Use this section to configure the wireless settings for your D-Link Router. Please note that changes made on this section may also need to be duplicated on your Wireless Client.  
Save Settings Don't Save Settings

**WIRELESS NETWORK SETTINGS**

Enable Wireless :  Always  New Schedule  
Wireless Network Name : dlink (Also called the SSID)  
802.11 Mode : Mixed 802.11n, 802.11g and 802.11b  
Enable Auto Channel Scan :   
Wireless Channel : 2.437 GHz - CH 6  
Transmission Rate : Best (automatic)  
Channel Width : 20 Mhz  
Visibility Status :  Visible  Invisible

**WIRELESS SECURITY MODE**

To protect your privacy you can configure wireless security features. This device supports three wireless security modes, including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.

Security Mode : WPA-Personal

**WPA**

Use **WPA or WPA2** mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

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

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

**PRE-SHARED KEY**

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

Pre-Shared Key : .....

**WIRELESS**

**Helpful Hints...**  
Changing your Wireless Network Name is the first step in securing your wireless network. Change it to a familiar name that does not contain any personal information.  
Enable Auto Channel Scan so that the router can select the best possible channel for your wireless network to operate on.  
Enabling Hidden Mode is another way to secure your network. With this option enabled, no wireless clients will be able to see your wireless network when they scan to see what's available. For your wireless devices to connect to your router, you will need to manually enter the Wireless Network Name on each device.  
If you have enabled Wireless Security, make sure you write down the Key or Passphrase that you have configured. You will need to enter this information on any wireless device that you connect to your wireless network.  
More...



# Configure WPA-Enterprise (RADIUS)

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

1. Log into the web-based configuration by opening a web browser and entering the IP address of the router (192.168.0.1). Click on **Setup** and then click **Wireless Settings** on the left side.
2. Next to *Security Mode*, select **WPA-Enterprise**.
3. Next to *WPA Mode*, select **Auto, WPA2 Only**, or **WPA Only**. Use **Auto** if you have wireless clients using both WPA and WPA2.
4. Next to *Group Key Update Interval*, enter the amount of time before the group key used for broadcast and multicast data is changed (3600 is default).
5. Next to *Authentication Timeout*, enter the amount of time before a client is required to re-authenticate (60 minutes is default).
6. Next to *RADIUS Server IP Address* enter the IP Address of your RADIUS server.
7. Next to *RADIUS Server Port*, enter the port you are using with your RADIUS server. 1812 is the default port.
8. Next to *RADIUS Server Shared Secret*, enter the security key.
9. If the *MAC Address Authentication* box is selected then the user will need to connect from the same computer whenever logging into the wireless network.

**WPA**

Use **WPA or WPA2** mode to achieve a balance of strong security and best compatibility. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. Also the strongest cipher that the client supports will be used. For best security, use **WPA2 Only** mode. This mode uses AES(CCMP) cipher and legacy stations are not allowed access with WPA security. For maximum compatibility, use **WPA Only**. This mode uses TKIP cipher. Some gaming and legacy devices work only in this mode.

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

**WPA Mode :**

**Cipher Type :**

**Group Key Update Interval :**  (seconds)

---

**EAP (802.1X)**

When WPA enterprise is enabled, the router uses EAP (802.1x) to authenticate clients via a remote RADIUS server.

**Authentication Timeout :**  (minutes)

**RADIUS server IP Address :**

**RADIUS server Port :**

**RADIUS server Shared Secret :**

**MAC Address Authentication :**

10. Click **Advanced** to enter settings for a secondary RADIUS Server.
11. Click **Apply Settings** to save your settings.

### EAP (802.1X)

When WPA enterprise is enabled, the router uses EAP (802.1x) to authenticate clients via a remote RADIUS server.

Authentication Timeout :  (minutes)

RADIUS server IP Address :

RADIUS server Port :

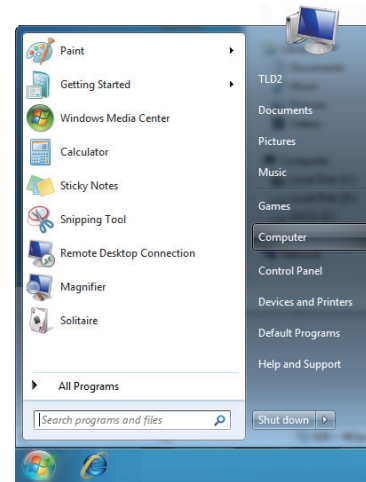
RADIUS server Shared Secret :

MAC Address Authentication :

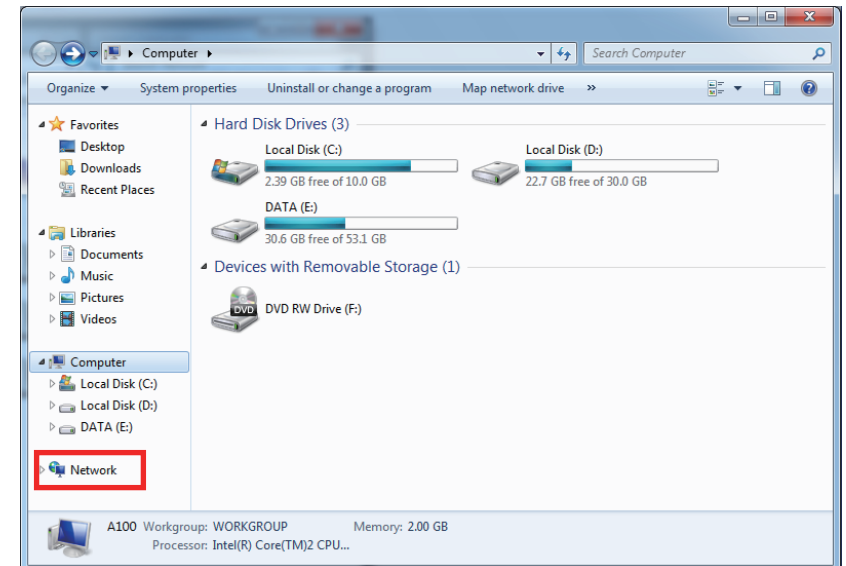
# Using Windows® 7 and WPS for Wireless Configuration

The following steps allow you to configure your DIR-657 wireless network settings using Windows® 7 through WPS.

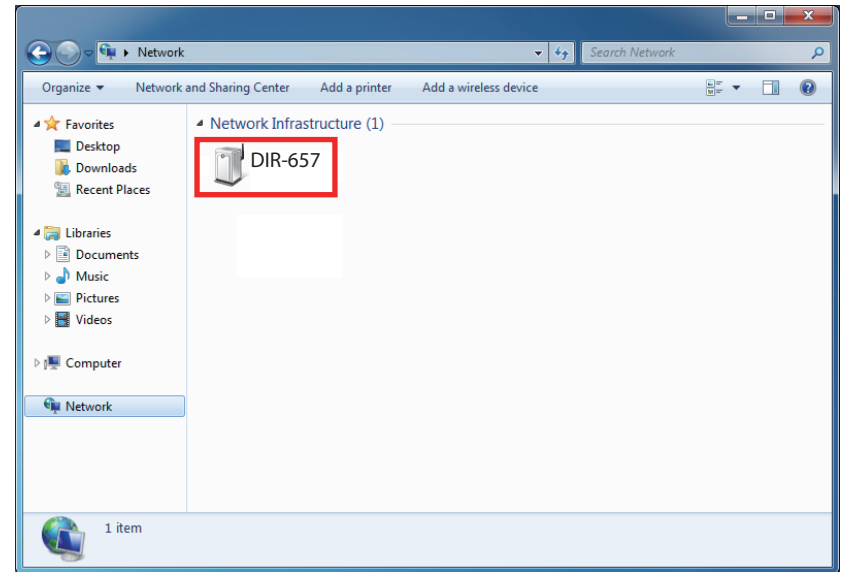
1. Click the **Start** button and select **Computer** from the Start menu.



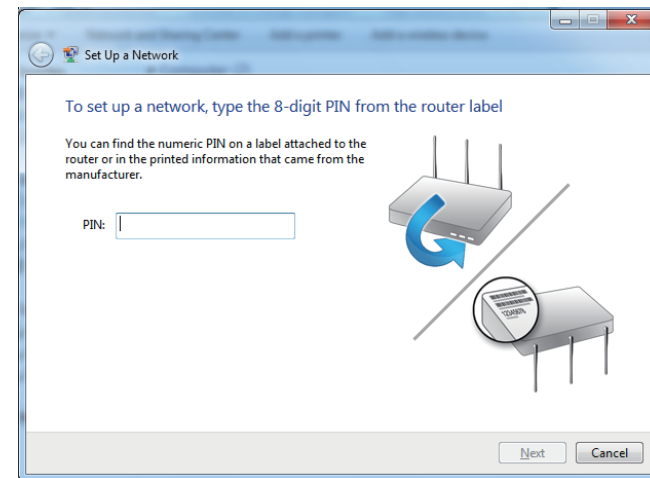
2. Click the **Network** option.



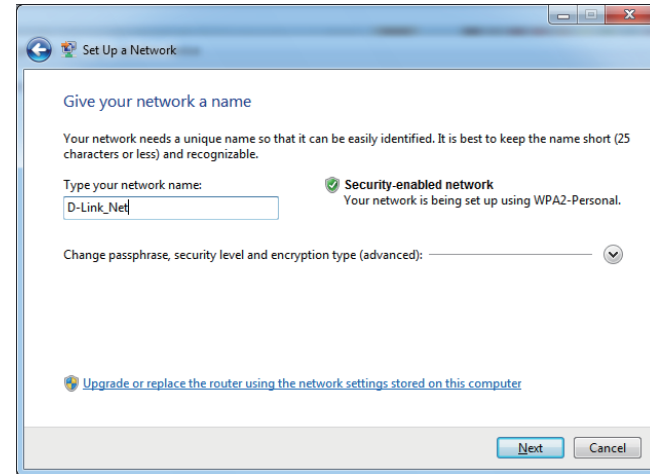
3. Double-click the DIR-657 router.




4. Input the WPS PIN number (displayed in the **Advanced > Wi-Fi Protected Setup** section in the Router's Web UI) and click **Next**.

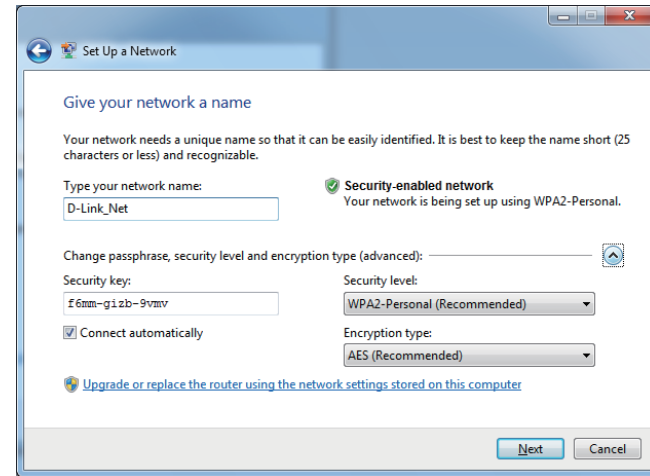


5. Type a name for your wireless network.



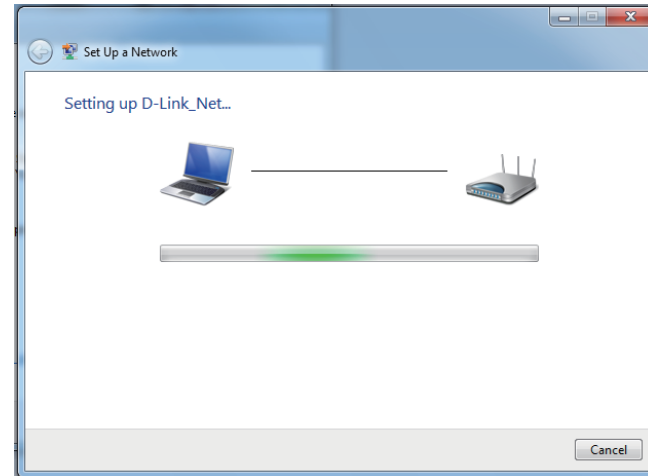
6. To configure advanced settings, click the  icon.

Click **Next** to continue.



7. The following window will appear while the Router is being configured.

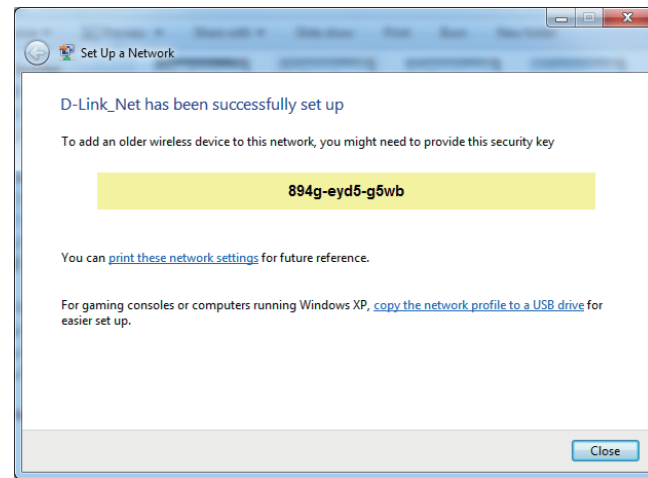
Wait for the configuration to complete.



8. After configuration is complete, a window will appear that your wireless network has been set up successfully.

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

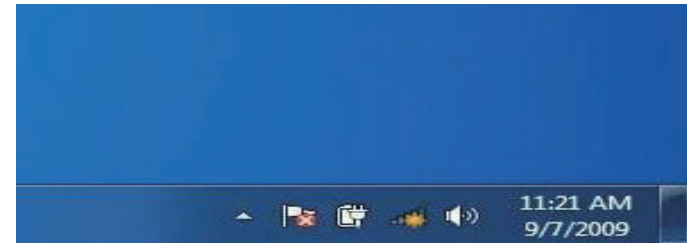
Click **Close** to complete WPS setup.



# Connect to a Wireless Network Using Windows® 7

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

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



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

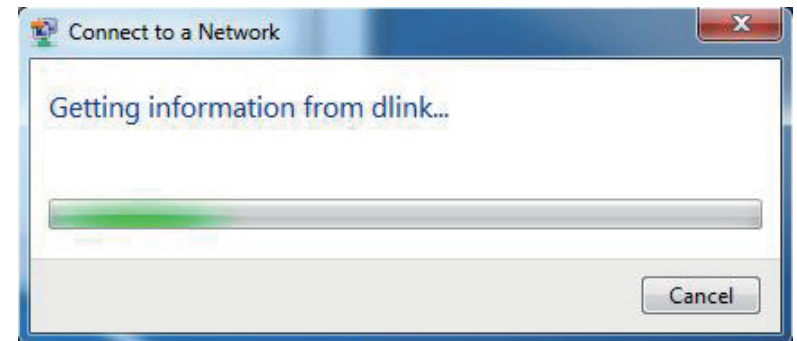


3. Highlight the wireless network (SSID) you would like to connect to and click the Connect button.

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



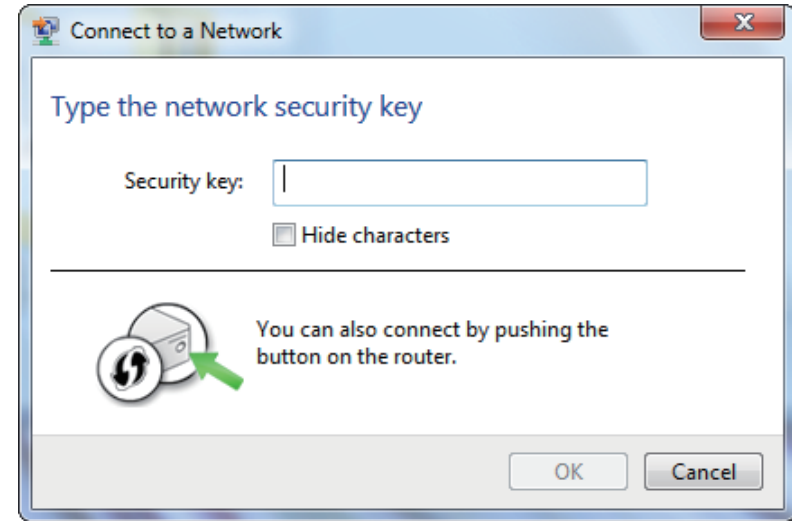
4. The following window appears while your computer tries to connect to the router.





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

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



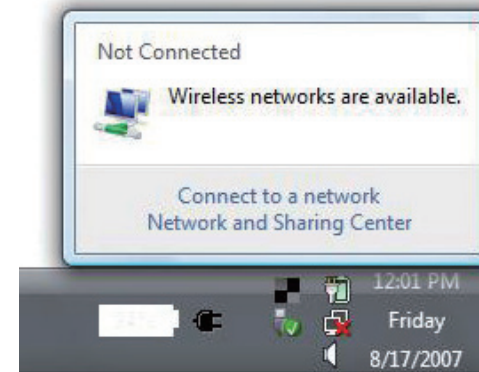
# Using Windows Vista®

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

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

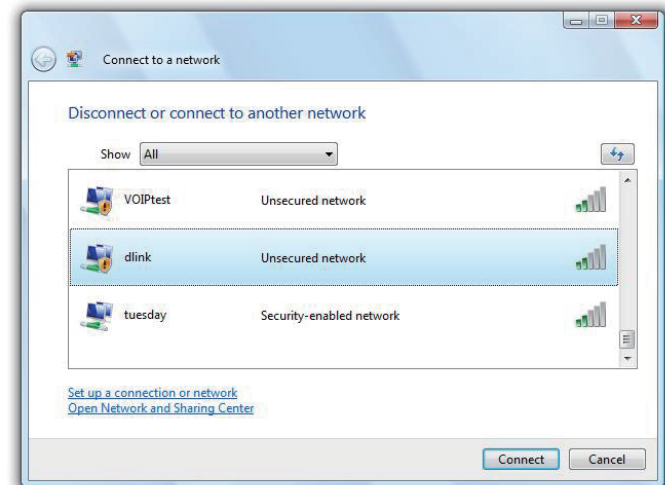
or

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.

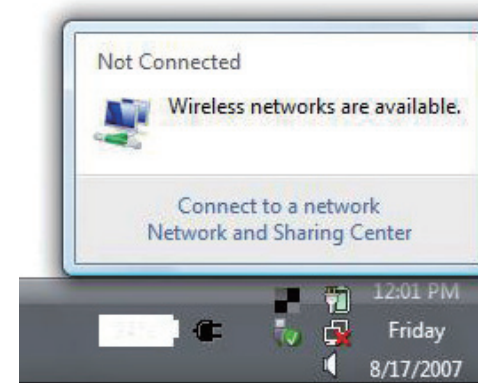
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



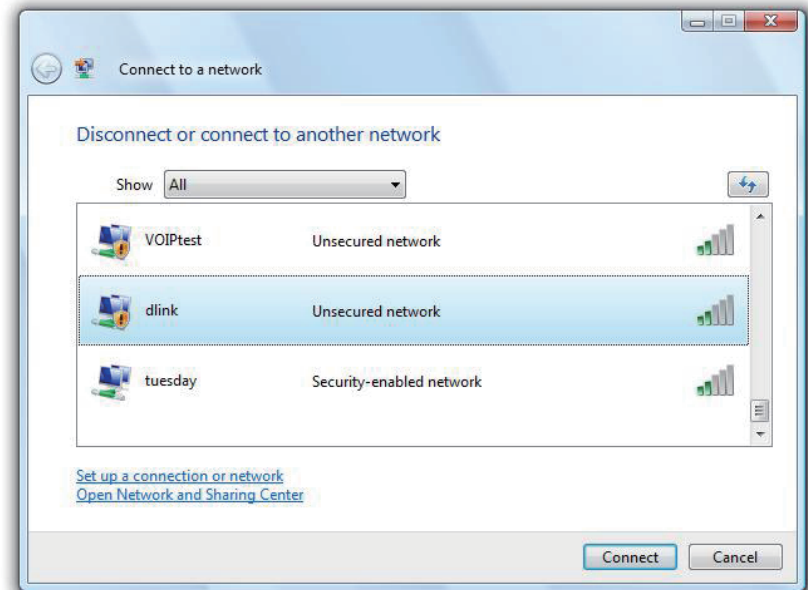
## Configure Wireless Security

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

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

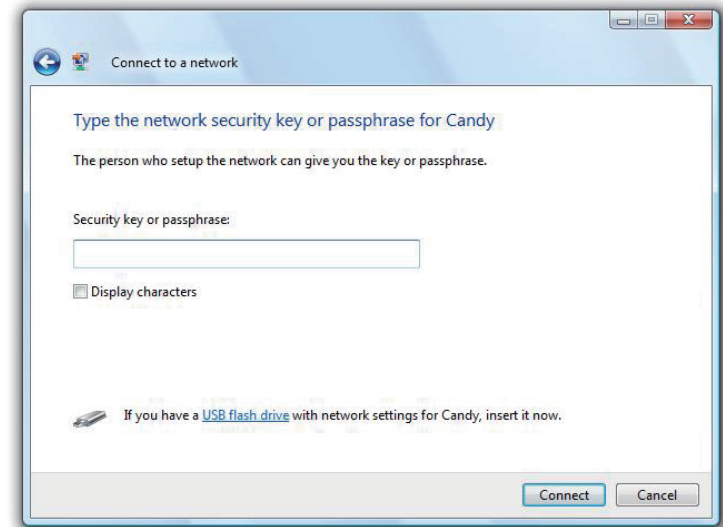


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



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

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



# Using Windows® XP

Windows XP users may use the built-in wireless utility (Zero Configuration Utility). The following instructions are for Service Pack 2 users. If you are using another company's utility or Windows 2000, please refer to the user manual of your wireless adapter for help with connecting to a wireless network. Most utilities will have a "site survey" option similar to the Windows XP utility as seen below.

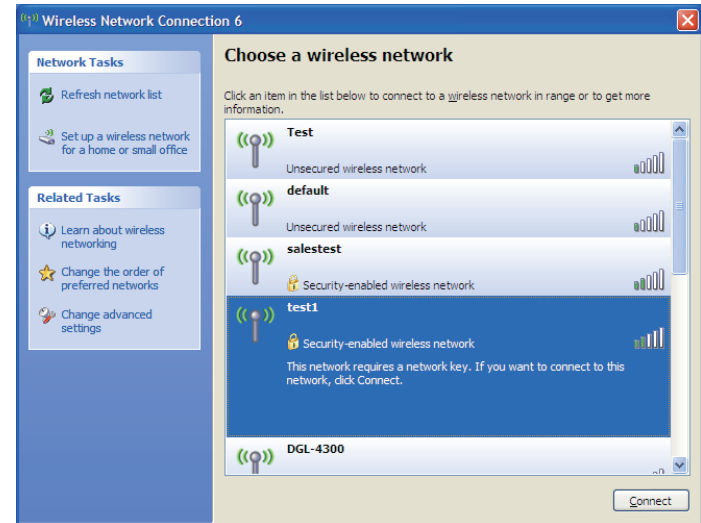
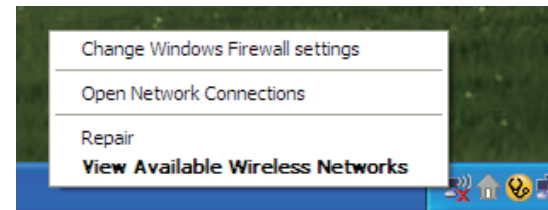
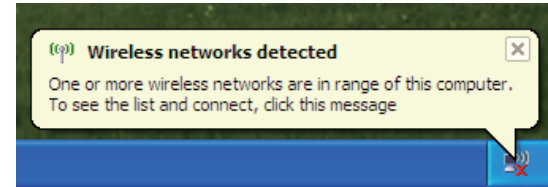
If you receive the **Wireless Networks Detected** bubble, click on the center of the bubble to access the utility.

or

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

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

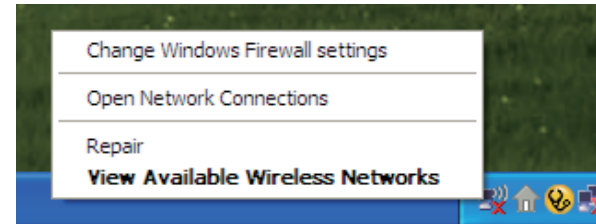
If you get a good signal but cannot access the Internet, check you TCP/IP settings for your wireless adapter. Refer to the **Networking Basics** section in this manual for more information.



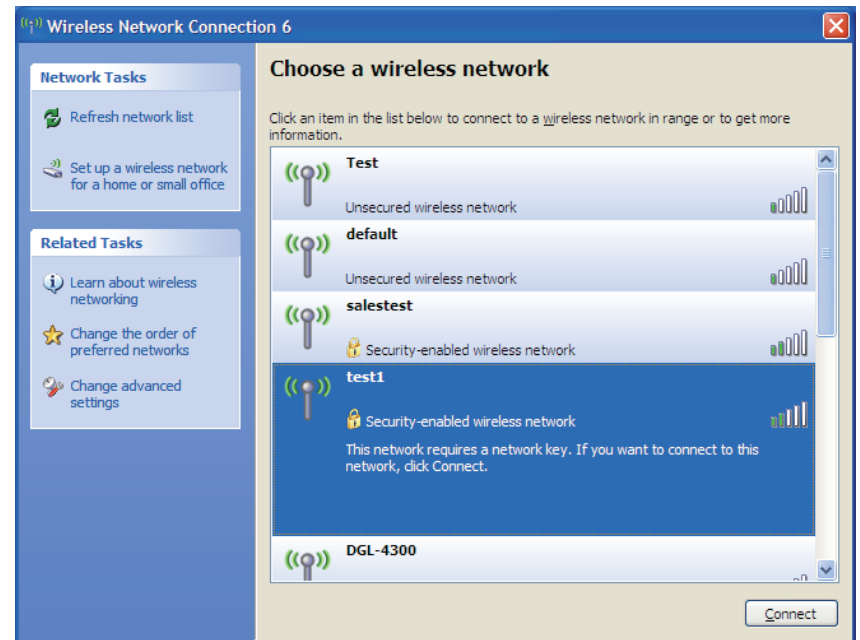
## Configure WPA-PSK

It is recommended to enable encryption 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 passphrase being used.

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

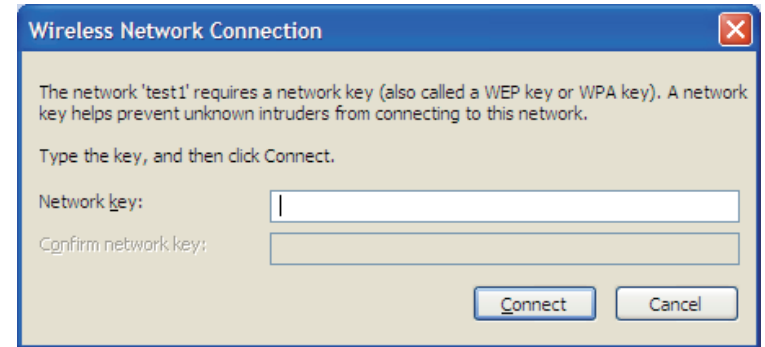


2. Highlight the wireless network (SSID) you would like to connect to and click **Connect**.



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

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



# Troubleshooting

This chapter provides solutions to problems that can occur during the installation and operation of the DIR-657. 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 the following examples.)

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

When entering the IP address of the D-Link router (192.168.0.1 for example), you are not connecting to a website on the Internet or 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 6.0 or higher
  - Chrome 2.0 or higher
  - Safari 3.0 or higher
  - Firefox 3.0 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 Zone Alarm, Black Ice, 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 the web management.
  - If you still cannot access the configuration, unplug the power to the router for 10 seconds and plug back in. Wait about 30 seconds and try accessing the configuration. If you have multiple computers, try connecting using a different computer.

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

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

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

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

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

**Note: AOL DSL+ users must use MTU of 1400.**

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, lets say that 1452 was the proper value, the actual MTU size would be 1480, which is the optimum for the network we're working with ( $1452+28=1480$ ).

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

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

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

# Wireless Basics

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

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

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

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

## What is Wireless?

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

## Why D-Link Wireless?

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

## How does wireless work?

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

### Wireless Local Area Network (WLAN)

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

### Wireless Personal Area Network (WPAN)

Bluetooth is the industry standard wireless technology used for WPAN. Bluetooth devices in WPAN operate in a range up to 30 feet away. Compared to WLAN the speed and wireless operation range are both less than WLAN, but in return it doesn't use nearly as much power which makes it ideal for personal devices, such as mobile phones, PDAs, headphones, laptops, speakers, and other devices that operate on batteries.

## Who uses wireless?

Wireless technology 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

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

### Small Office and Home Office

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

## **Where is wireless used?**

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

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

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

## **Tips**

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

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

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

### **Eliminate Interference**

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

### **Security**

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

# Wireless Modes

There are basically two modes of networking:

- **Infrastructure** – All wireless clients will connect to an access point or wireless router.
- **Ad-Hoc** – Directly connecting to another computer, for peer-to-peer communication, using wireless network adapters on each computer, such as two or more DIR-657 wireless network Cardbus adapters.

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

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

# Networking Basics

## Check your IP address

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

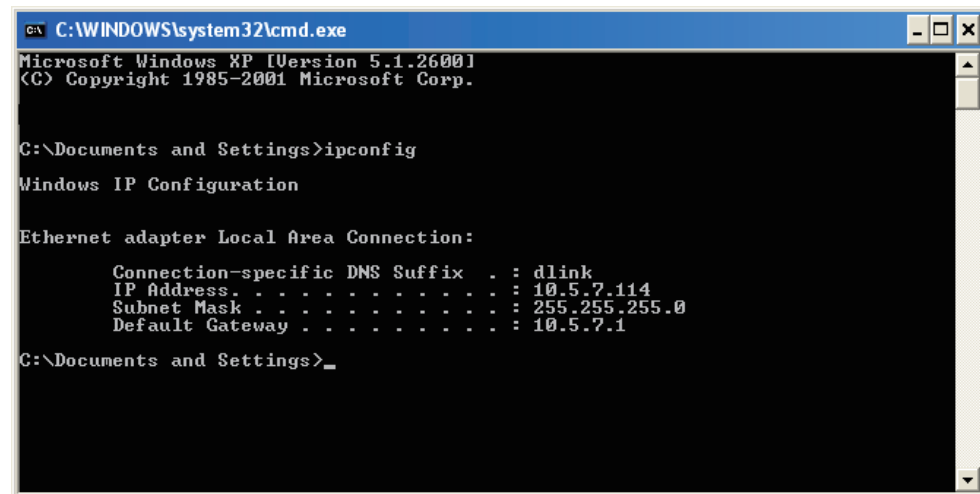
Click on **Start > Run**. In the run box type **cmd** and click **OK**. (Windows Vista® users type *cmd* in the **Start Search** box.)

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.

If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.



```
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 D-Link network adapter and select **Properties**.

### Step 3

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

### Step 4

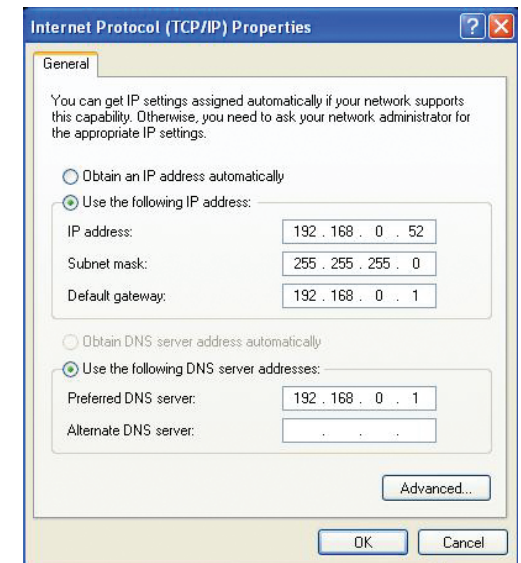
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your router.

**Example:** If the router's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your router (192.168.0.1).

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

### Step 5

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



# Technical Specifications

## Standards

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

## Security

- WPA-Personal
- WPA2-Personal
- WPA-Enterprise
- WPA2-Enterprise

## Wireless Signal Rates\*

- 300Mbps
- 12Mbps
- 108Mbps
- 11Mbps
- 54Mbps
- 9Mbps
- 48Mbps
- 6Mbps
- 36Mbps
- 5.5Mbps
- 24Mbps
- 2Mbps
- 18Mbps
- 1Mbps

## MSC (0-15)

- 130Mbps (270)
- 117Mbps (243)
- 104Mbps (216)
- 78Mbps (162)
- 66Mbps (135)
- 58.5Mbps (121.5)
- 52Mbps (108)
- 39Mbps (81)
- 26Mbps (54)
- 19.5Mbps (40.5)
- 12Mbps (27)
- 6.5Mbps (13.5)

## Frequency Range

- 2.4GHz to 2.483GHz

## Transmitter Output Power

- 26.5dBm (peak)
- 18dBm (average)

## LEDs

- Power
- Internet

## Operating Temperature

- 32°F to 104°F ( 0°C to 40°C)

## Humidity

- 95% maximum (non-condensing)

## Safety & Emissions

- FCC
- CE

## Dimensions

- L = 8.4 inches
- W = 6.3 inches
- H = 1.2 inches

## Warranty

- 2 Year

\* Maximum wireless signal rate derived from IEEE Standard 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.

**Trademarks:**

D-Link is a registered trademark of D-Link Corporation/D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective owners.

**Copyright Statement:**

No part of this publication or documentation accompanying this product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976 and any amendments thereto. Contents are subject to change without prior notice.

Copyright ©2011 by D-Link Corporation/D-Link Systems, Inc. All rights reserved.

**CE Mark Warning:**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

**FCC Statement:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. 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 or more 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.

**IMPORTANT NOTICE:**

**FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

**Industry Canada Statement:**

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

**IMPORTANT NOTE:**

**Radiation Exposure Statement:**

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

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

**NOTE IMPORTANTE:**

Déclaration d'exposition aux radiations:

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

## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>